CodeArts Req

User Guide

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1 CodeArts Req Usage Process

Background

CodeArts Req is a project management and collaboration service for agile software development teams, including multi-project management, agile sprint management, Kanban collaboration, requirement management, defect tracking, document management, online wiki collaboration, and chart customization on dashboards.

Usage Process

The following figure shows the CodeArts Req usage process.

Figure 1-1 Usage process

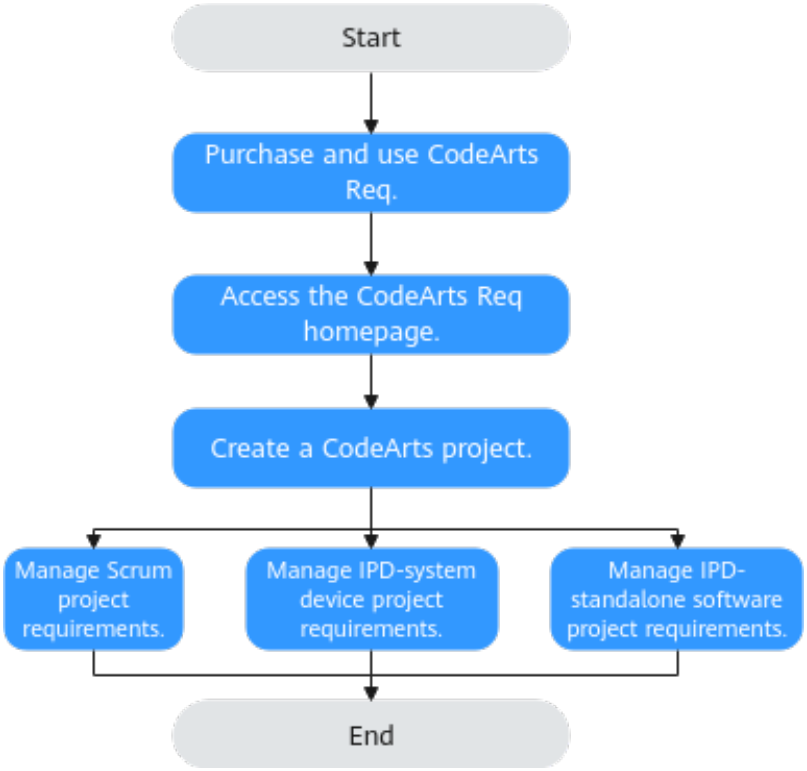

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Table 1-1 Usage process

Process	Description
Purchase and use CodeArts Req.	Describes how to purchase a CodeArts Req package or subscribe to any CodeArts package.
Access the CodeArts Req homepage.	Describes how to access the CodeArts Req homepage.
Create a CodeArts project.	Describes how to create a CodeArts project. The system provides multiple preset project templates for different requirement management processes.
Manage Scrum project requirements.	Describes how to manage Scrum project requirements.
Manage IPD-system device project requirements.	Describes how to manage IPD-system device project requirements.
Manage IPD-standalone software project requirements.	Describes how to manage IPD-standalone software project requirements.

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2 Purchasing and Using CodeArts Req

CodeArts Req requires a subscription plan for normal use. Before using the service, you can purchase a dedicated CodeArts Req plan or subscribe to any CodeArts package as needed.

Prerequisites

You have signed up for a **Huawei Cloud account**.

Enabling CodeArts Req

You need to first subscribe to a CodeArts package. Then you can use CodeArts Req and other individual services.

Step 1 Go to the **CodeArts Req console**.

Step 2 Click **Buy** to purchase a CodeArts package.

Step 3 Purchase a package as needed. For details, see **Purchasing CodeArts**.

----End

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3 Accessing the CodeArts Req Homepage

Prerequisites

You have purchased CodeArts Req.

Accessing the CodeArts Req Page

Step 1 **Log in to the Huawei Cloud console**.

Step 2 Click  in the upper left corner and choose **Developer Services** > **CodeArts Req** from under **All Services**.

Step 3 Click **Go to CodeArts Req**. The CodeArts homepage is displayed, showing the list of projects that you have joined. Click a project card to go to the CodeArts Req page. Click in the upper left corner of the page and select a region.

----End

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4 Managing a Program

4.1 Introduction

A program is a group of interrelated projects/sub-programs that are placed together for a common goal. The projects/sub-programs collaborate with each other and are centrally managed to achieve more benefits. Multiple projects/sub-programs can be added to a program. A project either exists independently or belongs to only one program.

The following figure shows the relationship between program, sub-program, and project.

Figure 4-1 Relationship between a program and projects



4.2 Creating and Managing a Program

Programs and projects have same features. A program itself is a project entity. You can add lower-level sub-programs or projects to a program. This section describes how to create and manage a program.

- **Creating a Program**

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- **Managing a Program**

Constraints

- Currently, programs can be created only using the **IPD-System Device** and **IPD-Standalone Software** templates. You need to upgrade the package to the professional or higher edition. For details about the billing impact after the package change, see **Impact on Billing After Specification Change**.
- You need to obtain the permissions to create and maintain programs. For details, see the section on setting program permissions.
- A single program can have a maximum of 5 subnode levels.
- A single program can have a maximum of 500 subnodes.

Creating a Program

Step 1 On the service homepage, choose **Create** > **Create Program** to access the **Select Template** page. Currently, you can only choose **IPD-System Device** and **IPD-Standalone Software** project templates.

Step 2 Hover your pointer over **IPD-System Device** and click **Select** to access the **Create Program** page. Then set the parameters.

Table 4-1 Program parameters

Parameter	Description
Name	Program name. Set it as required. The name of programs and projects under the same tenant must be unique. The value contains 1 to 128 characters.
Working Configuration Data	You can reuse the work configuration data of the project of the same type as the current program. Work configuration data contains all data under project work configuration, excluding import and export records and work configuration data of basic configuration.
Code	This parameter is set for third-party services, facilitating service management. The value contains 0 to 200 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
Description	Enter a brief description of the program. Enter a maximum of 1,024 characters.

Step 3 Click **OK**. A message is displayed, indicating that the program is created.

----End

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Managing a Program

- Basic operations on a program

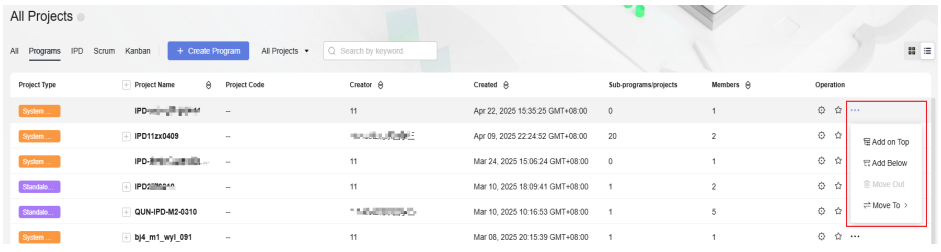
  You can perform the following operations on a new program.

  Table 4-2 Basic operations on a program

Operation	Description
Edit basic program information	Choose **Settings** > **General**. Click **Basic Information**, modify **Name**, **Code**, **Description**, and **Creator**, and click **Save**.
Delete a program	Choose **Settings** > **General**. Click **Basic Information** and click **Delete Program**. In the warning dialog box that is displayed, enter the name of the desired program and click **Delete**.
Manage the program service menu	Choose **Settings** > **General**. Click **Services** and display or hide the services under the program.
Manage program members	Choose **Settings > Members**. In the **Member View**, click **Add Members** to add members to the program.
Manage program permissions	Choose **Settings > Permissions**. All roles in the project are displayed on the left, and the service resource permissions of a role in CodeArts Req are displayed on the right. Click **Edit** to edit the service resource permissions of the role, and then click **Save**.

- Adding/Removing sub-programs or projects to/from a program

  Figure 4-2 Program list



  a. Adding sub-programs or projects

     i. Click **Add Below** in the **Operation** column of the program in the list mode. The **Add Lower-Level Program** dialog box is displayed. All programs and projects of the same project template type as the program are displayed in the list.

     ii. Select the programs and projects to be added and click **OK** to set them as the subnodes of the target program.

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b. Removing sub-programs or projects

On the service homepage, click **Move Out** in the **Operation** column of a sub-program or subject in the list mode and click **OK**. When a sub-program is removed, its lower-level programs/projects will also be removed.

4.3 Managing Program Requirements

As project entities, programs are the same as common projects in requirement functions. The main difference is that you can aggregate sub-projects in a program and view statistics of any sub-program/project of a program.

4.3.1 Program Requirement Aggregation View

In the program requirement aggregation view, the program/project requirement data corresponding to all subnodes of a program can be displayed in the top-level program. Members of the top-level program can view all requirement data, facilitating requirement management.

Constraints and Restrictions

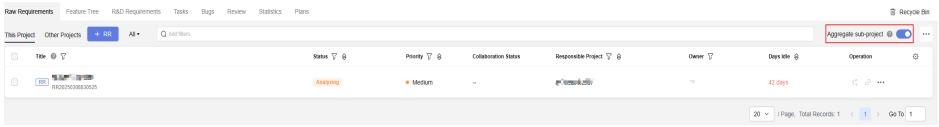
- After the **Aggregate sub-project** switch is enabled, inline editing is not supported on the list page.
- Currently, **Aggregate sub-project** is available only on the **Raw Requirements**, **Feature Tree**, **R&D Requirements**, **Tasks**, and **Defects** tab pages.

Managing the Program Aggregation View

Step 1 Access the **Raw Requirements**, **Feature Tree**, **R&D Requirements**, **Tasks**, and **Defects** tab pages of a program.

Step 2 Toggle on the **Aggregate sub-project** switch in the upper right corner to display the data of all subnodes in the current view. If you toggle off this switch, only the work items of the current program are displayed in the view, and inline editing is supported on the list page.

Figure 4-3 Program requirement list



----End

4.3.2 Tracking the Program Progress

Members of a top-level program can view its statistics or the statistics of any program/project node under the program.

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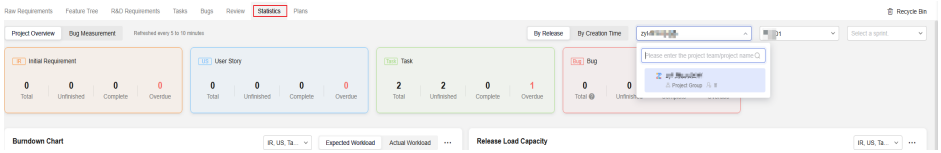
Tracking the Program Progress

Step 1 Access the **Statistics** tab page of the program.

Step 2 Select the desired target program or project to obtain its statistics. For details about program statistics reports, see **IPD Project Statistics**.

Figure 4-4 Program statistics



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5 Creating a CodeArts Project

5.1 Using a Project Template

In CodeArts, **projects** are the basis for using services. Operations such as requirement planning, code management, build, and deployment must be performed in CodeArts projects. CodeArts provides multiple preset project templates for different requirement management processes.

Prerequisites

Before creating a CodeArts project, you must have permission to create a project. If the **Create Project** button is not displayed on the homepage, you do not have permission to create projects. In this case, contact the administrator to obtain the permission. For details about how to grant the project creator permission to users, see **Configuring a CodeArts Project Creator**.

Creating a CodeArts Project Using a Project Template

CodeArts provides multiple out-of-the-box project templates, including Scrum, IPD. You can select a project template based on your service scenario.

Step 1 Click **Create Project** on the service homepage.

Step 2 On the **Select Template** page, select a project template as required. For details about the characteristics and application scenarios of each project template, see **Table 5-1**.

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Table 5-1 Project template features and application scenarios

Project Template	Template Feature	Application Scenario
Scrum	An incremental, iterative software development method. Sprint planning, daily Scrum, sprint review, and sprint retrospectives are key to efficient project management.	Iterative, incremental software development.
IPD-System Device	Software and hardware adaptation involved, fixed product requirements, industry standards available, long development period (6–9 months), high requirements on product quality and stability, many decisions to make, and mainly waterfall development.	Complex products with embedded software that evolves with hardware. Examples: communications devices, automobiles, home appliances, and consumer electronics.
IPD-Standalone Software	Independent software deployment and sales, frequent requirement changes, quick planning, agile development, agile release, and short delivery period (2–3 months or faster).	IT application and platform software with standardized hardware or independent of dedicated hardware. Examples: ERP software, CRM, databases, and network management software.

Step 3 Select a project template and click **Select**. On the **Create Project** page, set related parameters.

Table 5-2 Creating a project

Parameter	Description
Work item template	The work item template contains all the configuration items for a Scrum project, except for the work item fields, status transition, automatic transition, and handlers of work items in specific statuses. Select a template as needed. After the selection, the work item configuration data of the project can be quickly reused. In addition to the default Scrum template, you can also customize a template as follows: Open a project, choose **Settings > Work**. On the displayed page, click **Fields and Templates** to access the work item template page. Click **Edit Template** and click **Save as Template** after configuration. **Work Item Template is available only for Scrum projects.**

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Parameter	Description
Work Configuration Data	You can reuse the work configuration data of the project of the same type as the current project. Work configuration data contains all data under project work configuration, excluding import and export records and work configuration data of basic configuration. **This parameter is supported only by the IPD project.**
Name	Set this parameter as required. • The name of projects under the same tenant must be unique. • The value can contain 1 to 128 characters. Only letters, digits, and symbols are supported.
Code	This parameter is set for third-party services. A project code is set to facilitate service management. Enter a maximum of 200 characters. Only digits, letters, hyphens (-), and underscores (_) are supported.
Description	Enter a brief description of the project. The value can contain a maximum of 1,024 characters.

Step 4 Click **OK**. The project is created successfully and the project page is displayed.

----End

Related Operations

For a new project, members with the edit permission can choose **Settings > General** and perform the following operations.

Table 5-3 Basic operations on a project

Operation	Procedure	Remarks
Edit basic project information	1. Choose **Basic Information**. 2. Modify the project name, code, and description as required, and click **Save**. The modified information is displayed.	-

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Operation	Procedure	Remarks
Transfer the project creator	1. Choose **Basic Information**. 2. Select the member to transfer the project to from the **Creator** drop-down list, and click **Save**. The new creator is displayed.	If the project creator is deleted from IAM, the project ownership is automatically transferred to the project manager. If the project creator is also the project manager, the project ownership is transferred to the administrator account.
Archive a project	1. Choose **Basic Information**. 2. Click **Archive**. Then the button changes to **Unarchive**.	• Archived projects are read-only to all members. The members cannot add, delete, or modify work items. • Archived projects are still counted. • **Only Scrum projects can be archived.**
Delete a project	1. Choose **Basic Information**. 2. Click **Delete Project**. In the displayed dialog box, enter the project name and click **Delete**. The deleted project is no longer displayed on the homepage.	• Deleting a project will also delete its code repositories, check tasks, build tasks, and test cases. • Deleted data cannot be recovered. Exercise caution when performing this operation.
Manage the project service menu	1. Choose **Services**. 2. Select the menus to display. 3. Refresh the page. The updated menus are displayed in the navigation pane.	-

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Operation	Procedure	Remarks
Manage project members / permissions	1. Click **Permissions**. 2. Refer to "Managing CodeArts Project Permissions".	-

5.2 Using a Sample Project

Sample projects use **default templates** that include work items and processes preset in CodeArts Req. After you select a sample project, the corresponding sample template project is automatically generated for your reference. The work items and code preset in the sample project can be directly used.

Prerequisites

Before creating a CodeArts project, you must have permission to create a project. If the **Create Project** button is not displayed on the homepage, you do not have permission to create projects. In this case, contact the administrator to obtain the permission. For details about how to grant the project creator permission to users, see **Configuring a CodeArts Project Creator**.

Creating a CodeArts Project Using a Sample Project

Step 1 Click **Create Project** on the service homepage.

Step 2 On the **Select Template** page, select a sample project. **Table 5-4** lists the supported sample projects.

Table 5-4 Sample projects

Project Type	Project Name	Application Scenario
Scrum	DevOps Full-Process Sample Project	Agile development and DevOps continuous delivery through an automated E2E process. The templates have preset mind maps and instantiated Scrum work items (promotion, member, and order management), code repositories, code check tasks, build tasks, and pipeline tasks.
Scrum	One-Stop HarmonyOS Application Development	The sample project provides a one-stop distributed application development platform for all scenarios. It supports distributed multi-device development, debugging, and simulation, providing all-round quality and security assurance.

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Project Type	Project Name	Application Scenario
IPD	IPD-System Device	Complex products with embedded software that evolves with hardware. Examples: communications devices, automobiles, home appliances, and consumer electronics. **NOTE** This type of projects can be created only in the **AP-Singapore** region.
	IPD-Standalone Software	IT application and platform software with standardized hardware or independent of dedicated hardware. Examples: ERP software, CRM, databases, and network management software. **NOTE** This type of projects can be created only in the **AP-Singapore** region.
	IPD-Self-Operated Software/Cloud Service	Cloud service development, microservice architecture, and self-operated software scenarios, such as public cloud and Internet application software. **NOTE** This type of projects can be created only in the **AP-Singapore** region.

Step 3 On the **Create Project** page, set related parameters.

Table 5-5 Creating a project

Parameter	Description
Name	Set this parameter as required. • The name of projects under the same tenant must be unique. • The value can contain 1 to 128 characters. Only letters, digits, and symbols are supported.
Code	This parameter is set for third-party services. A project code is set to facilitate service management. Enter a maximum of 200 characters. Only digits, letters, hyphens (-), and underscores (_) are supported.
Description	Enter a brief description of the project. The value can contain a maximum of 1,024 characters.

Step 4 Click **OK**. The project is created successfully and the project page is displayed.

----End

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Related Operations

For a new project, members with the edit permission can choose **Settings > General** and perform the following operations.

Table 5-6 Basic operations on a project

Operation	Procedure	Remarks
Edit basic project information	1. Choose **Basic Information**. 2. Modify the project name, code, and description as required, and click **Save**. The modified information is displayed.	-
Transfer the project creator	1. Choose **Basic Information**. 2. Select the member to transfer the project to from the **Creator** drop-down list, and click **Save**. The new creator is displayed.	If the project creator is deleted from IAM, the project ownership is automatically transferred to the project manager. If the project creator is also the project manager, the project ownership is transferred to the administrator account.
Archive a project	1. Choose **Basic Information**. 2. Click **Archive**. Then the button changes to **Unarchive**.	• Archived projects are read-only to all members. The members cannot add, delete, or modify work items. • Archived projects are still counted. • **Only Scrum projects can be archived.**

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Operation	Procedure	Remarks
Delete a project	1. Choose **Basic Information**. 2. Click **Delete Project**. In the displayed dialog box, enter the project name and click **Delete**. The deleted project is no longer displayed on the homepage.	• Deleting a project will also delete its code repositories, check tasks, build tasks, and test cases. • Deleted data cannot be recovered. Exercise caution when performing this operation.
Manage the project service menu	1. Choose **Services**. 2. Select the menus to display. 3. Refresh the page. The updated menus are displayed in the navigation pane.	-
Manage project members / permissions	1. Click **Permissions**. 2. Refer to "Managing CodeArts Project Permissions".	-

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6 Managing Scrum Project Requirements

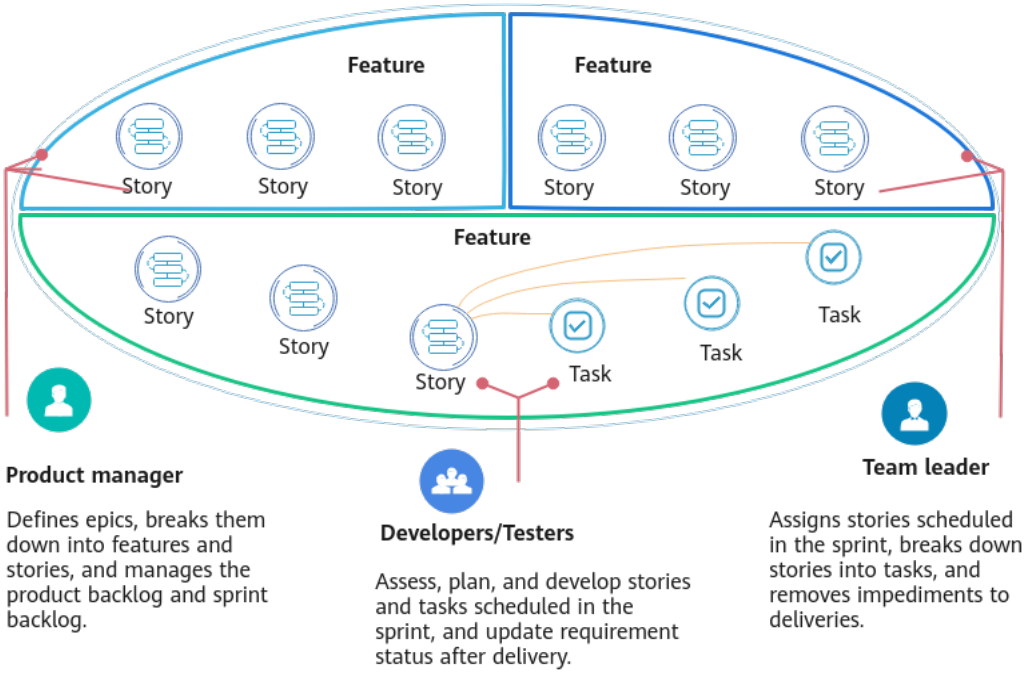
6.1 Requirement Management Process

Overview

Raw requirements are usually abstract and vague. They need to be analyzed and broken down into minimum-level units that can be delivered in sprints.

In Scrum projects, requirements can be managed in the four-layer hierarchy: **Epic** > **Feature** > **Story** > **Task**, as shown in the following figure.

Figure 6-1 Scrum project requirement breakdown model



An abstract and vague epic is divided into multiple features which are further broken down into stories. A story, also called user story, is a minimum deliverable

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unit that is written from the customers' perspective and complies with the INVEST principle. This means that a story should be independent, negotiable, valuable, estimable, small, and testable. After the breakdown, stories are scheduled into one or more sprints based on the manpower of the development team and the estimated finished time of the epic.

This method ensures continuous delivery by producing runnable software in every sprint and offering it to users for testing. The development team can then collect user feedback, apply changes accordingly in the next sprint, and finally deliver a product that meets the requirements of users and achieves business success.

Table 6-1 describes the work item types used by Scrum projects.

Table 6-1 Scrum project work items

Work Item Type	Description	Example
Epic	• An epic is a key strategy of an enterprise, such as the major business direction or technical evolution. By discovering, defining, investing in, managing, and implementing epics, enterprises can realize their strategies and gain market shares and returns. • Since an epic is a high-level description of requirements, it needs to be broken down into features, which are further divided into stories for development and delivery. • It usually takes several months, or multiple sprints to deliver an epic. Epics should be visible to all developers so that they can understand the strategic meaning and values of the to-be-delivered stories in a bigger picture.	An epic is defined based on an enterprise's operations, competitiveness, and market environment. Examples are as follows: • Market differentiation: Deliver better user experience than competitors. • Better solution: Develop a solution for the industrial Internet. • Revenue growth: Increase paid users by 1 million in the next fiscal quarter. • Major technical direction: Deploy all products on containers.

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Work Item Type	Description	Example
Feature	• A feature is a product function that delivers benefits to customers. • Features come from epics and are broken down into stories. Features are more specific and intuitive than epics, and are often included in the release notes distributed to customers during product release. • It usually takes several weeks, or several sprints to deliver a feature.	The description of a feature should specify its values for customers, product form, and delivery mode. Recommended template: As a <user role> I want <results> So that <purposes> • User A wants to import and export data, so that they can efficiently organize data in batches. • User B wants to receive notifications of due tasks, so that they can handle the tasks in time. • User C wants to have a better drag-and-drop experience, so that they can perform operations more quickly. • User D wants to create an alias, so that they can be more easily identified and remembered.

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Work Item Type	Description	Example
Story	• "Story" is short for user story. Stories are created from features to describe more detailed product requirements from the perspective of users. Stories are listed by priority in a dynamic backlog where the order is continuously adjusted to suit actual requirements. The higher the stories are located in the backlog, the sooner they will be developed and delivered to customers. A story must comply with the INVEST principle: – Independent: Each story should be independent and can be delivered to customers independently. – Negotiable: A story does not need to describe specific functions. The details should be negotiated and determined by developers and customers during development. – Valuable: A story must deliver benefits to customers. – Estimable: The workload of a story can be estimated. – Small: A story should be small enough so that it can be completed in a sprint. – Testable: A story should be testable. • A story should be delivered in days within a sprint. • You can estimate the workload of stories by person-hours, person-days, or story points. – Story point estimation is used for agile development. This method estimates the costs for story delivery,	Examples of stories in compliance with INVEST: Recommended template: As a <user role> I want <results> So that <purposes> • As a project manager, I want to filter requirements by handler, so that I can quickly locate a specific requirement. • As a developer, I want to collapse some nonessential information to reduce visual clutter. • As a tester, I want to associate test cases with requirements, so that I can track the verification progress of requirements.

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Work Item Type	Description	Example
	including the efforts, complexities, and risks. – The Fibonacci series (1, 1, 2, 3, 5, 8...) is commonly used to size a story in a relative manner. For example, the workload of a story with 3 story points is three times as large as that of a story with 1 story point. – Story points are measured by the Fibonacci series by default.	
Task	In a sprint planning meeting, stories scheduled in a sprint are assigned to members and broken down into one or more tasks with **estimated workloads**.	Tasks focus on a series of actions that lead to a goal. Examples are as follows: ● Developer A needs to prepare a production-like environment today. ● Developer B needs to complete the permission settings for the project team this week. ● Developer C needs to review the code.

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Work Item Type	Description	Example
Bug	• Bugs are created to track problems of software functions found during testing and verification. Bugs can be prioritized. • Bugs can be created and tracked separately. You can also create bugs when verifying a story. The bugs are child work items of the story, helping you identify the number of issues. • The bug description should be as detailed as possible, including but not limited to: – Symptoms: You are advised to describe symptoms from the perspective of users. – Error code: The error code can be used to locate and analyze code problems. – Environment: Including the development, test, or live network environments. – Software stack: including the operating system and database and their versions. – Whether the bug can be reproduced and how this can be done.	An example template for bug description: [Symptom] [Error Code (Obtained by Pressing F12)] [Environment] [Fault Reproduction Procedure] [Onsite Fault Locating R&D Engineer] [Preliminary Fault Locating] [Packets Captured Using Google Chrome]

Introduction

Scrum is an incremental, iterative, and agile software development method. It enables continuous delivery through sprints, which are cycles of closed-loop software development from user requirements management to user feedback implementation.

Sprint Planning, Daily Scrum, Sprint Review, and Sprint Retrospective are the major activities for simple but efficient project management. The management process is as follows.

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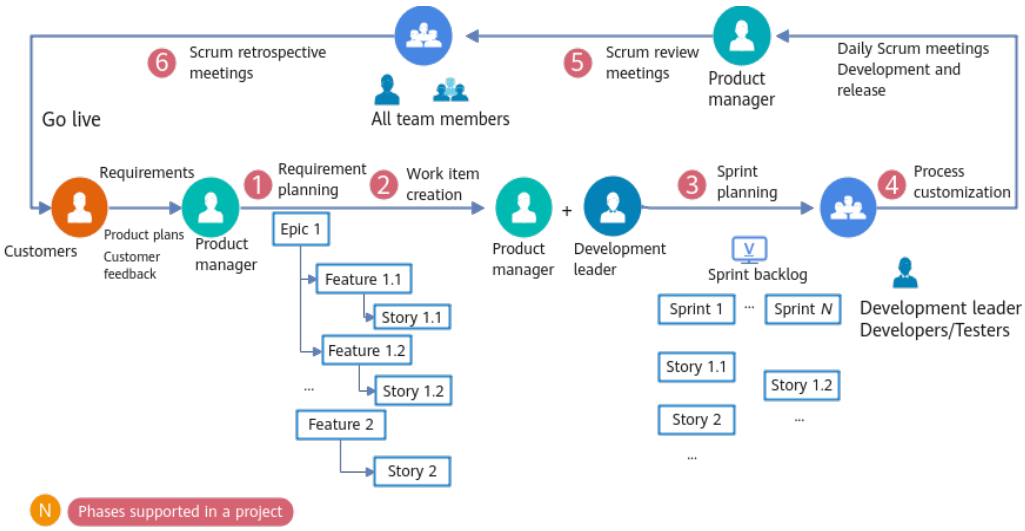
Figure 6-2 Scrum project management process



Typical Sprint Process in a Scrum Project

The procedure can be reused for continuous planning and delivery in each sprint management. The following figure shows the Scrum development and project management process.

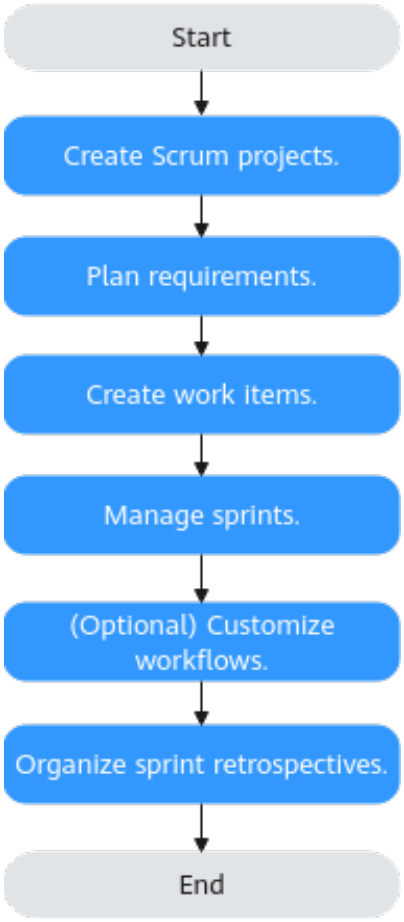


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Table 6-2 Process description

Operation	Description
Create Scrum projects.	For details, see **Creating a CodeArts Project**. After a project is created, you can **configure common settings**. You can invite other users to join a created Kanban project as required. For details about how to add members, see **Adding Project Members**.
Plan requirements.	Plan requirements using mind maps or Gantt charts based on the project breakdown needs. For details, see **Creating a Mind Map** and **Creating a Gantt Chart**.
Create work items.	Create work items after the requirements are planned. For details, see **Creating Work Items**, **Creating a Work Item in a Mind Map**, and **Creating a Work Item in a Gantt Chart**.
Manage sprints.	Plan and manage sprints. For details, see **Configuring a Sprint Plan**.
(Optional) Customize workflows.	Customize the workflows as required. For details, see **Configuring Common Settings**.
Organize sprint retrospectives.	Review the sprints for improvements. For details, see **Tracking the Project Progress**.

6.2 Configuring Common Settings

6.2.1 Configuring Common Work Item Fields

Customize common fields that can be used by any type of work items in your project.

Constraints

A maximum of 25 common fields can be customized.

Prerequisites

- You have created a Scrum project. For details, see **Creating a CodeArts Project**.
- An IAM user has been added to the project. For details about how to add members, see **Adding Project Members**.

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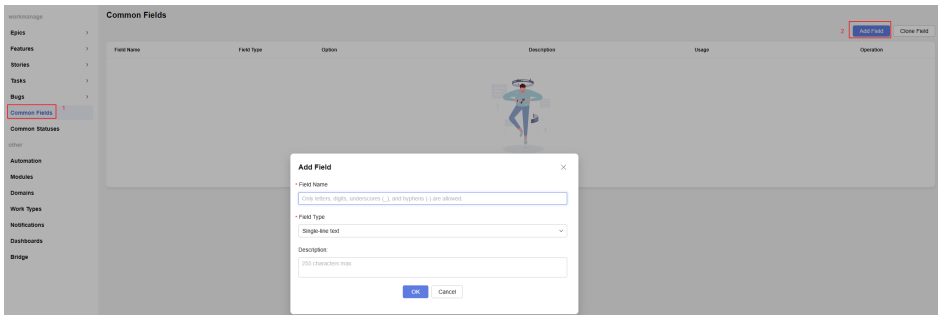
- You have permissions to **custom work items**. For details about how to set permissions, see **Managing CodeArts Project Permissions**.

Procedure

Step 1 **Access the CodeArts Req homepage**.

Step 2 Go to a Scrum project and choose **Settings** > **Work Item**.

Figure 6-3 Setting common fields



Step 3 In the navigation pane, choose **Common Fields**.

Click **Add Field** to add a work item field (for example, **CommonField1**). Set the field information as instructed in **Table 6-3**.

Table 6-3 Add Field parameters

Parameter	Description
Field Name	Name of the field to be added. Only uppercase letters, lowercase letters, digits, underscores (_), and hyphens (-) are allowed.
Field Type	Type of the field to be added. Select a field type, for example, **Single-line text**, from the drop-down list.
Description	(Optional) Description of the field to be added. A maximum of 255 characters are allowed.

- The added field is displayed in the field list, including the name, type, option, description, and usage.
- Click **Clone Field** to clone existing common fields of other projects to the current project.
- Common fields can be modified or deleted.

Step 4 Add an existing common field (for example, **CommonField1**) to the work item template. Common fields can be configured in the epic, feature, story, task, and bug work item templates. You can add common fields to other work item templates in the same way, and only need to do this once for each of them.

The following uses the story work item template as an example:

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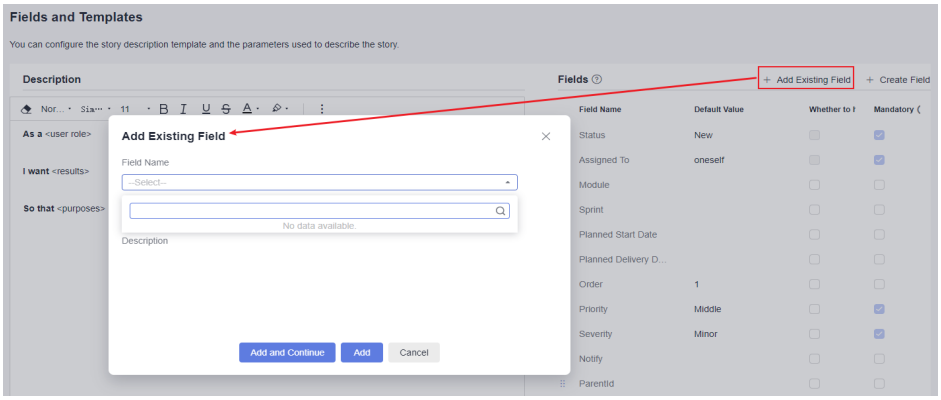
1. In the left navigation pane, choose **Stories** > **Fields and Templates**.
2. Click **Edit Template** in the upper right corner to enter the editing state of the story work item template.

   Click **Add Existing Field**, select **CommonField1** from the **Field Name** drop-down list, click **Add**, and save the template.

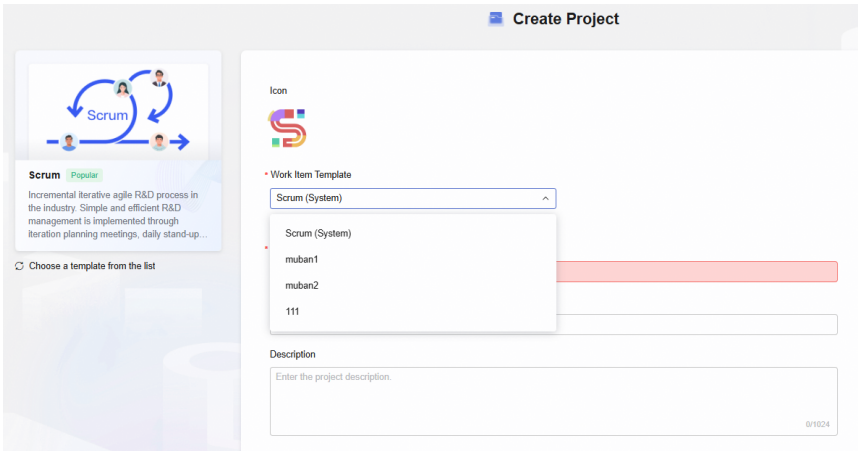
   Figure 6-4 Adding an existing field to the work item template



3. Check this **CommonField01** field when creating a story on the **Work Item** > **Req** > **Work Items** page.

   (Optional) After the configuration is complete, click **Save as Template** in the upper right corner of the page. In the **Save as Template** dialog box, enter a template name and description, and click **OK**. This template can be used to create Scrum projects. See the following figure.

   Figure 6-5 Applying a work item template



----End

6.2.2 Configuring Common Work Item Statuses

Customize common statuses that can be used by any type of work items in your project.

Constraints

- The **New** and **Closed** statuses cannot be deleted.

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- A maximum of **50** common statuses can be customized.

Prerequisites

- You have created a Scrum project. For details, see **Creating a CodeArts Project**.
- An IAM user has been added to the project. For details about how to add members, see **Adding CodeArts Project Members**.
- You have permissions to **custom work items**. For details about how to set permissions, see **Managing CodeArts Project Permissions**.

Procedure

Step 1 **Access the CodeArts Req homepage**.

Step 2 Go to a Scrum project and choose **Settings** > **Work Item**.

Step 3 In the navigation pane, choose **Common Statuses**. Click **Add Status** and add work item statuses (for example, **CommonStatus 1**) by referring to **Table 6-4**.

Table 6-4 Status parameters

Parameter	Description
Status	Status name. The value can contain 2 to 15 characters, including letters, digits, underscores (_), and hyphens (-).
Status Category	Select a value from the drop-down list, including **To do**, **Doing**, and **Done**.
Description	The status description contains a maximum of **100** characters.

- The added status is displayed in the status list, including the name, description, category, and usage.
- Common statuses can be deleted.

Step 4 Add an existing common status (for example, **CommonStatus1**) for a work item. **Custom common statuses can be configured and used for all types of work items of the current project**.

The following uses a story status as an example:

1. In the left navigation pane, choose **Stories** > **Statuses and Transitions**.

   On the **Statuses** tab page, click **Add Existing Status**. In the **Status** drop-down list, select **CommonStatus1** and click **OK**.

2. In the **Work Item** > **Req** > **Work Items** list, click  next to the **Status** column header. You can see that **CommonStatus 1** can be used in the story work item.

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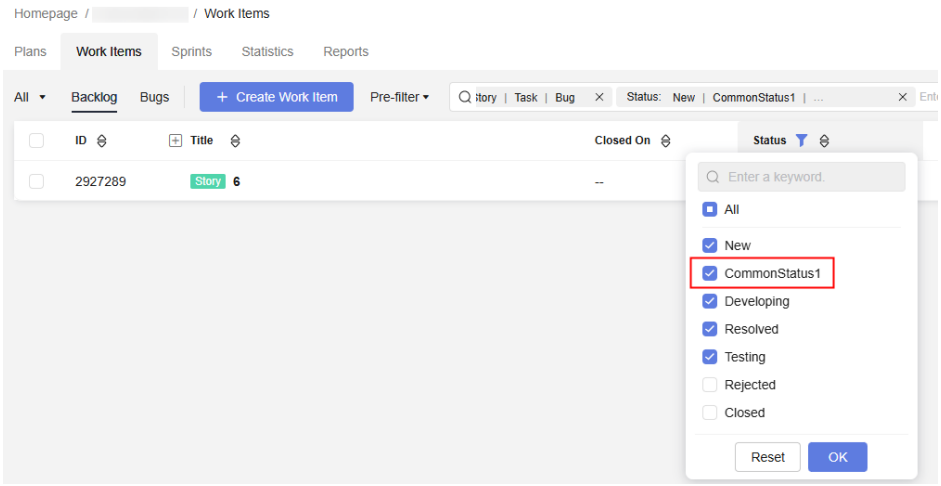
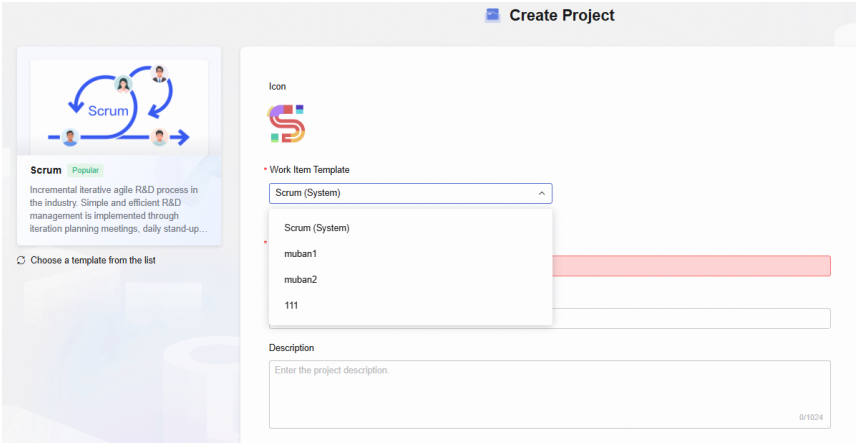


Step 5 (Optional) After the configuration is complete, click **Save as Template** in the upper right corner of the page. In the **Save as Template** dialog box, enter a template name and description, and click **OK**. This template can be used to create Scrum projects. See the following figure.

Figure 6-6 Applying a work item template



----End

6.2.3 Configuring Work Item Fields and Templates

Customize different types of work item templates, and specify whether to display each field on work item creation pages, whether these fields are mandatory, and what they default to. These templates are used by default when you create work items.

Prerequisites

- You have created a Scrum project. For details, see **Creating a CodeArts Project**.
- An IAM user has been added to the project. For details about how to add members, see **Adding Project Members**.
- You have permissions to **custom work items**. For details about how to set permissions, see **Managing CodeArts Project Permissions**.

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Configuring Work Item Fields and Templates

You can customize fields and templates for epics, features, stories, tasks, and bugs. The following uses stories as an example.

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a Scrum project and choose **Settings** > **Work Item**.

Step 3 In the navigation pane, choose **Stories > Fields and Templates**. The story template page is displayed.

Step 4 Click **Edit Template**. If the message **The name already exists.** is displayed when you create a field, rectify the fault by referring to **What Do I Do If the Field Name Already Exists?**

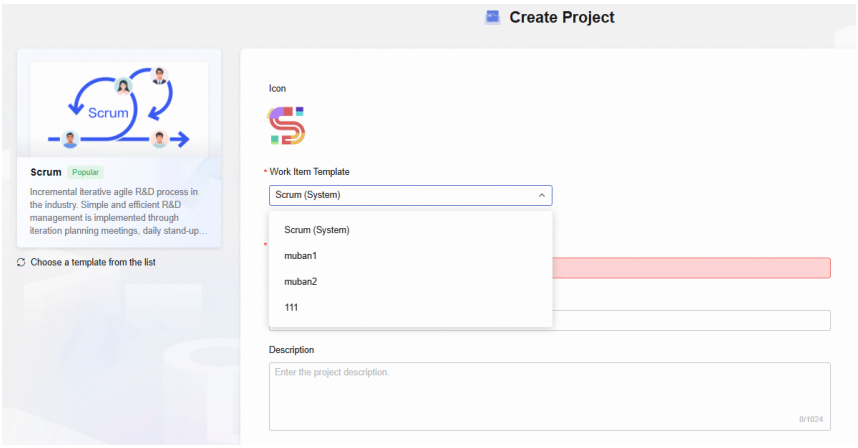
- Set **Description** based on project requirements.
- Set **Default Value** for system or custom fields.
- Set **Whether to hide** for preset or custom fields.
- Set **Mandatory** for preset or custom fields.
- Click **Add Existing Field** or **Create Field** to add a field.

Step 5 Click on the left of each field name to adjust their sequence.

Step 6 After the work item template is edited, click **Save** to apply it to stories.

Step 7 (Optional) After the configuration is complete, click **Save as Template** in the upper right corner of the page. In the **Save as Template** dialog box, enter a template name and description, and click **OK**. This template can be used to create Scrum projects. See the following figure.

Figure 6-7 Applying a work item template



----End

6.2.4 Managing Work Item Statuses and Transitions

Customize the statuses of different work item types, adjust their sequence, configure transitions, and set automated transition rules.

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Prerequisites

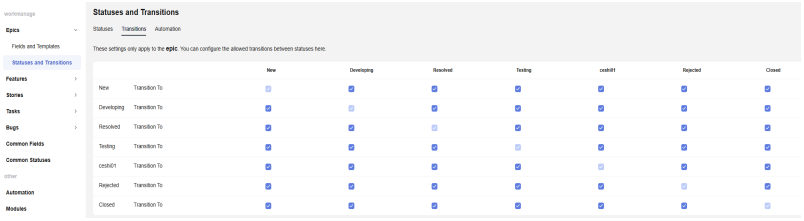
- You have created a Scrum project. For details, see **Creating a CodeArts Project**.
- An IAM user has been added to the project. For details about how to add members, see **Adding Project Members**.
- You have permissions to **custom work items**. For details about how to set permissions, see **Managing CodeArts Project Permissions**.

Managing Work Item Statuses and Transitions

You can customize fields and templates for epics, features, stories, tasks, and bugs. The following uses epics as an example.

- **Configuring work item statuses**
  a. **Access the CodeArts Req homepage**.
  b. Go to a Scrum project and choose **Settings** > **Work Item**.
  c. In the navigation pane, choose **Epics > Statuses and Transitions**. The **Statuses** tab page is displayed by default.
  d. Add, create, or delete statuses.
     - Click **Add Existing Status**, select a status from the drop-down list, and click **OK**.
     - Click **Create Status**. In the dialog box that is displayed, set the status name (for example, **CustomStatus1**), category (for example, **Doing**), and description, and click **OK**.
       The new status is displayed on the **Statuses** and **Transitions** tabs.
       On the **Statuses** tab, you can delete a status as required.
  e. Press and hold on the left of a status name to rearrange the work item status by drag-and-drop.
- **Configuring work item transitions**
  You can customize the status that a work item can be transitioned to. Then click the status of a work item on the work item list page to check the transition.
  a. **Access the CodeArts Req homepage**.
  b. Go to a Scrum project and choose **Settings** > **Work Item**.
  c. In the left navigation pane, choose **Epics** > **Statuses and Transitions**. Then click the **Transitions** tab.

  Figure 6-8 Epic status transitions



  d. Select the allowed statuses and click **Save**.

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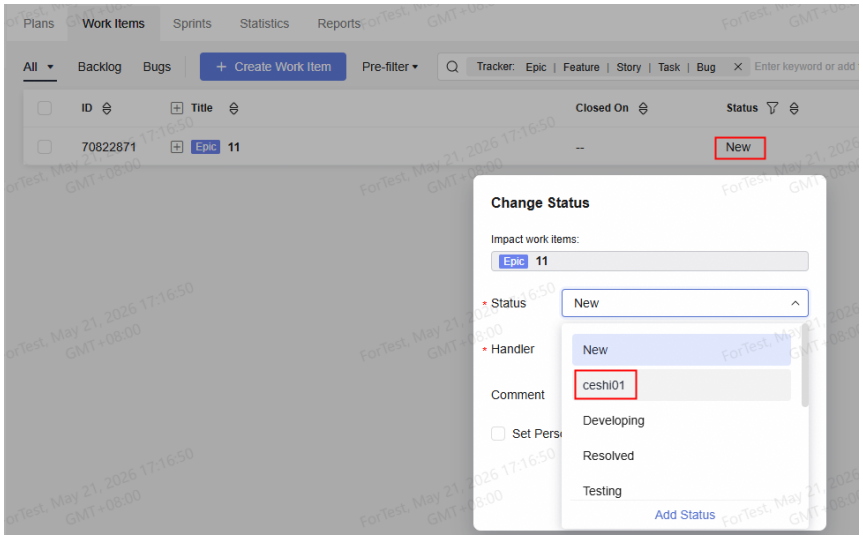
e. (Optional) After the configuration is complete, choose **Work Item** > **Req** > **Work Items**. Verify that a work item can be transitioned to the configured state, for example, **ceshi01**.

Figure 6-9 Epic status transition



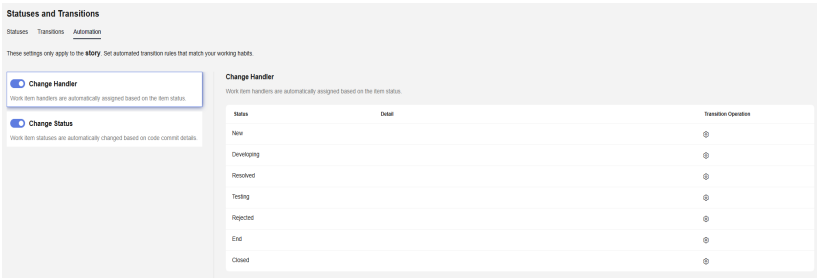
- **Configuring automated status transition rules**

  Configure the **handler options, default handler option, default comments, and whether comments are mandatory for work items transitioning to a specific status**. In addition, specify the target status work items will transition to when a specific code message is committed. This configuration can improve your project efficiency.

  a. **Specify a handler for work items in a specified status.**

  - Access the CodeArts Req homepage.
  - Go to a Scrum project and choose **Settings** > **Work Item**.
  - In the navigation pane, choose **Epics > Statuses and Transitions**. Click the **Automation** tab. By default, **Change Handler** is selected.

    Figure 6-10 Specifying handlers for epic statuses

  - Click  in the row of a target status (for example, **ceshi01**). Then configure the handler options, default handler option, default comments, and whether comments are mandatory for work items that transition to the **ceshi01** status.

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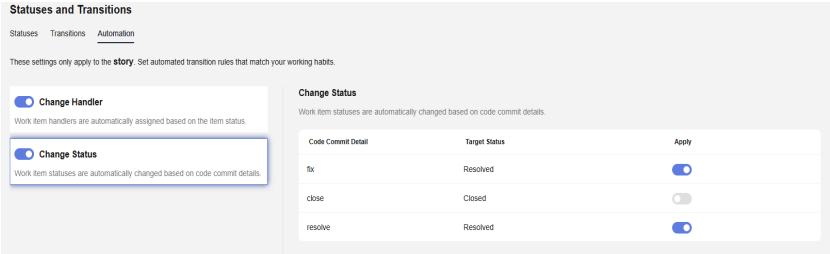
- Click **OK**. The rule applies when work items transition to this status.

b. **Specify a transition status for a code commit message.**

After code is committed, the work item automatically transitions to a specified status based on the code information.

- **Access the CodeArts Req homepage**.
- Go to a Scrum project and choose **Settings** > **Work Item**.
- In the navigation pane, choose **Epics > Statuses and Transitions**. Click the **Automation** tab, and select **Change Status**.

Figure 6-11 Specifying transition statuses for different code commit messages



- Toggle on or off the switch in the **Apply** column. Once the switch is toggled on, work items whose associated code commits contain the corresponding keyword in the commit message will automatically transition to the target status.

6.2.5 Configuring Work Item Status Rollup Rules

Configure automation rules for your project to specify how a parent work item **transitions to a specific status** based on its child work item status. Once an automation rule is enabled, all work items that meet its preset conditions in the project are automatically executed. Automation rules improve efficiency, reduce errors, and enhance collaboration for agile development.

Prerequisites

- You have created a Scrum project. For details, see **Creating a CodeArts Project**.
- An IAM user has been added to the project. For details about how to add members, see **Adding CodeArts Project Members**.
- You have permissions to **set automation**. For details about how to set permissions, see **Managing CodeArts Project Permissions**.

Procedure

Step 1 **Access the CodeArts Req homepage.**

Step 2 For details about how to add a status, see **Configuring Common Work Item Statuses**.

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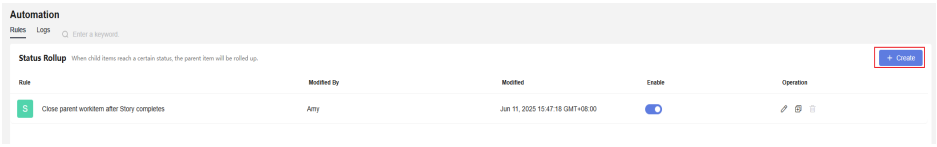
Step 3 Go to a Scrum project and choose **Settings** > **Work Item**.

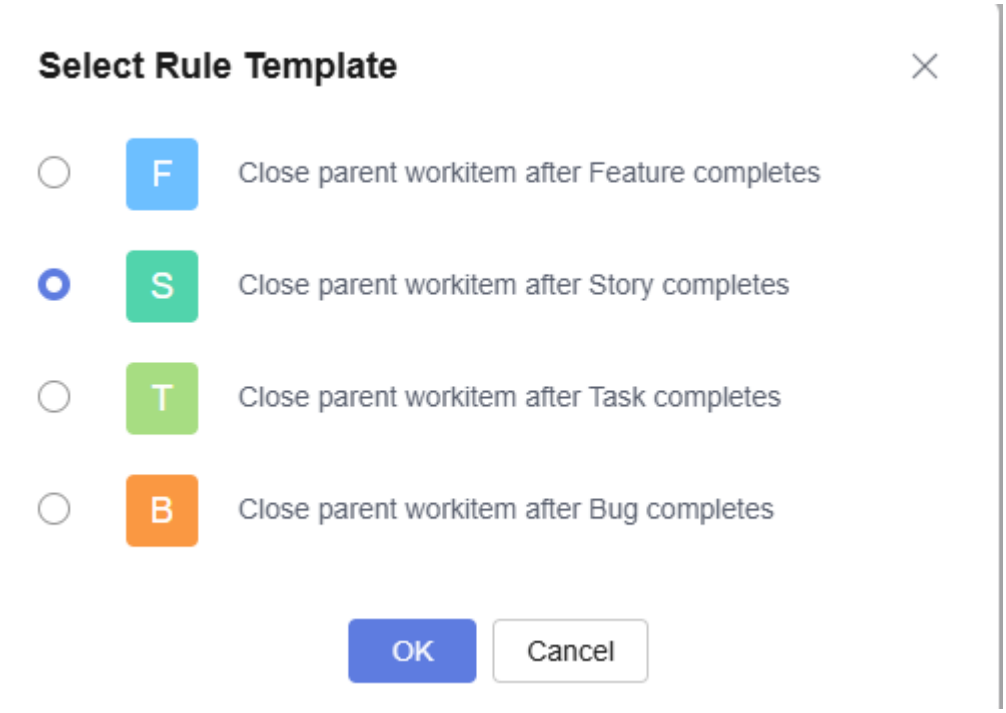
Step 4 In the navigation pane, choose **Automation**. Then click **Create** to create an automation rule.

Figure 6-12 Automation



Step 5 The rule configuration processes for features, stories, tasks, and bugs are the same. The following uses the rule **Close parent workitem after Story completes** as an example.

Figure 6-13 Status rollup rule templates



Step 6 In the **Select Rule Template** dialog box, select **Close parent workitem after Story completes** and click **Yes**.

Step 7 Configure the trigger, condition, and action as exampled in the following figure. Click **OK**.

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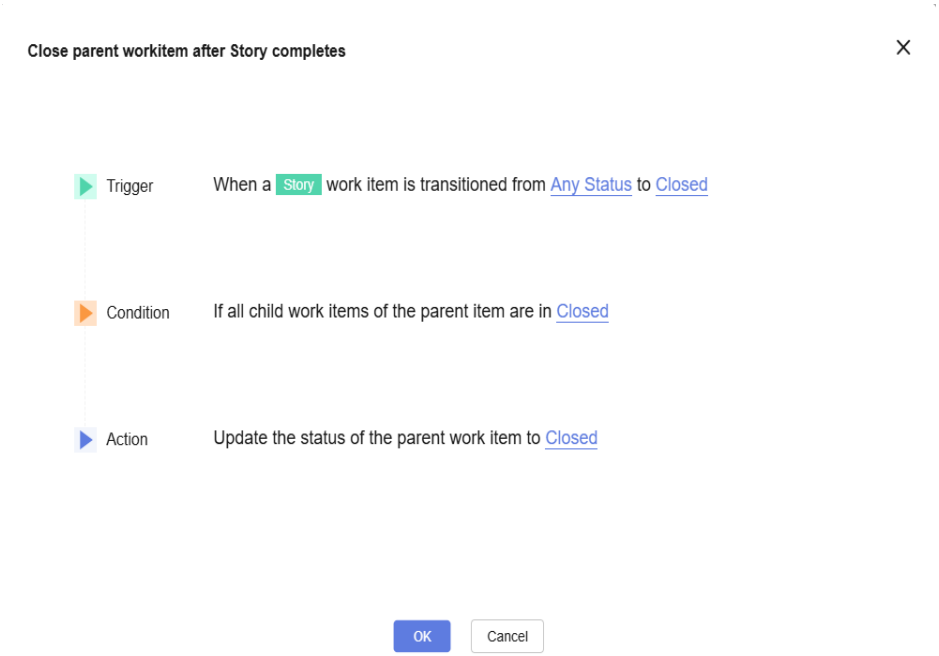
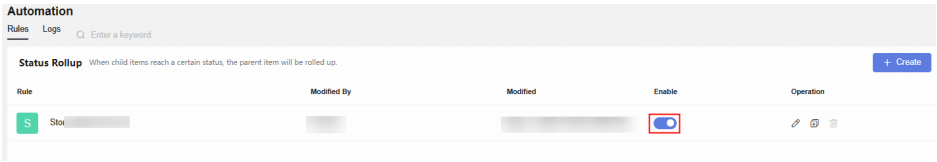
Figure 6-14 Rule configuration example



Step 8 After the rule is configured, return to the rule configuration page. The **Enable** switch is turned on ( ) by default, which indicates that the configured rule is enabled.



Step 9 Go to the **Work Item** > **Req** > **Work Items** page, select an unclosed feature and its child work items, and change the status of all child work items to **Closed**. The following are the work item status rollup rules:

- If all child work items of the parent item meet the configuration in the rule condition and the target status of the parent item is the status that supports transition, the rule is executed.
- If the parent item has any child work items that do not meet the rule condition, when the rule is triggered, a record indicating no operation performed is generated and the parent item status is not transitioned.
- If there is no parent item, when the rule is triggered, a record indicating that no operation is performed is generated and the parent item status is not transitioned.
- If the parent item transition status configured in the rule does not support transition, when the rule is triggered, a record indicating an execution error is generated and the parent item status is not transitioned.

Step 10 Go to the work item list. The feature status is automatically updated to **Closed**, and an automation rule operation record is added to the **Operation History** page on the work item details page.

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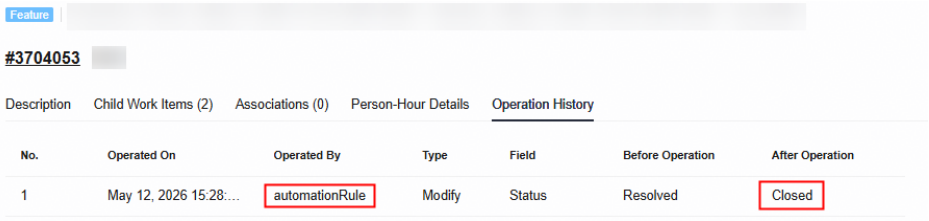
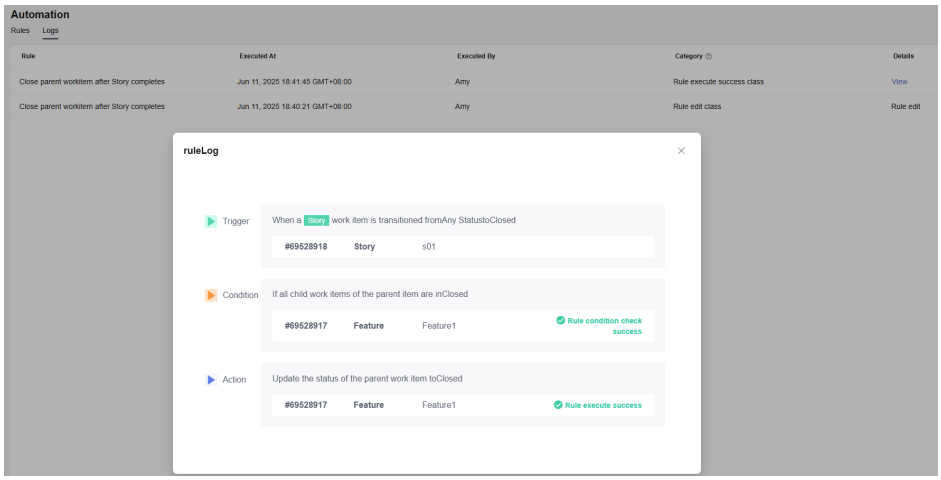


Step 11 Choose **Settings** > **Work Item** > **Automation**, and click the **Logs** tab. Then click **View** on the right of the target log to view it, as shown in the following figure.

Figure 6-15 Rule execution logs



Step 12 On the rule configuration page, click  on the right of **Close parent workitem after Story completes** to disable the configured rule.

Step 13 Perform operations in **Step 9** to go to the work item list again and check the work item status.

- The status of features is not automatically updated.
- No operation records related to the automation rule appear on the operation history tab of the work item details page.

----End

6.2.6 Adding Work Item Modules

- You can add, modify, and delete work item modules in a project.
- You can add submodules to a module.
- When creating or editing a work item, you can specify the module to which the work item belongs.

Prerequisites

- You have created a Scrum project. For details, see **Creating a CodeArts Project**.
- An IAM user has been added to the project. For details about how to add members, see **Adding CodeArts Project Members**.

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- You have permissions to **set modules**. For details about how to set permissions, see **Managing CodeArts Project Permissions**.

Procedure

Step 1 **Access the CodeArts Req homepage**.

Step 2 Go to a Scrum project and choose **Settings** > **Work Item**.

Step 3 In the navigation pane, choose **Modules**.

Step 4 Click **Add Module** to add a work item module by referring to the following table. A maximum of **1,024** modules can be added.

Table 6-5 Adding a module

Parameter	Description
Name	Module name. Enter a maximum of 30 characters.
Description	Module description. Enter a maximum of 255 characters.
Owner	Module owner. Select from all members of the current project.

After completing the configuration, click **OK** on the right to add the module. The new module appears in the list on the **Modules** page.

Step 5 Click **Clone Module** to replace the module settings of the target project with those of the current project.

Step 6 Edit or delete a module, or add a submodule.

Table 6-6 Module operations

Operation	Description
Edit	Click to modify a module.
Add submodule	Click to add a submodule. A maximum of three levels are supported.
Delete	Click to delete a module. **Modules that are currently in use by work items cannot be deleted.**

Step 7 On the page for creating or editing a work item, select a module in the **Module** field.

If there is no module, click to add one.

Step 8 (Optional) After the configuration is complete, click **Save as Template** in the upper right corner of the page. In the **Save as Template** dialog box, enter a

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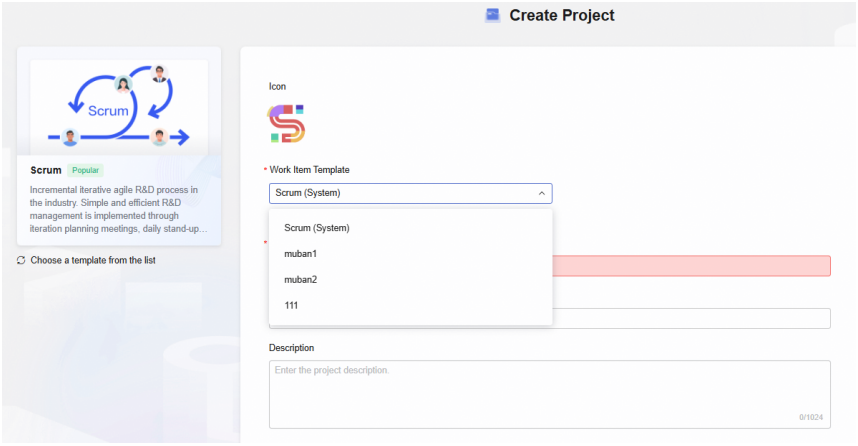
template name and description, and click **OK**. This template can be used to create Scrum projects. See the following figure.

Figure 6-16 Applying a work item template



----End

6.2.7 Adding Work Item Domains

- You can add, edit, and delete work item domains in a project.
- When creating or editing a work item, you can specify the domain to which the work item belongs.

  The default domains include performance, function, reliability, network security, maintainability, other DFX, and usability. You can add more domains as required.

Prerequisites

- You have created a Scrum project. For details, see **Creating a CodeArts Project**.
- An IAM user has been added to the project. For details about how to add members, see **Adding CodeArts Project Members**.
- You have permissions to **set domains**. For details about how to set permissions, see **Managing CodeArts Project Permissions**.

Procedure

Step 1 **Access the CodeArts Req homepage**.

Step 2 Go to a Scrum project and choose **Settings** > **Work Item**.

Step 3 In the navigation pane, choose **Domains**.

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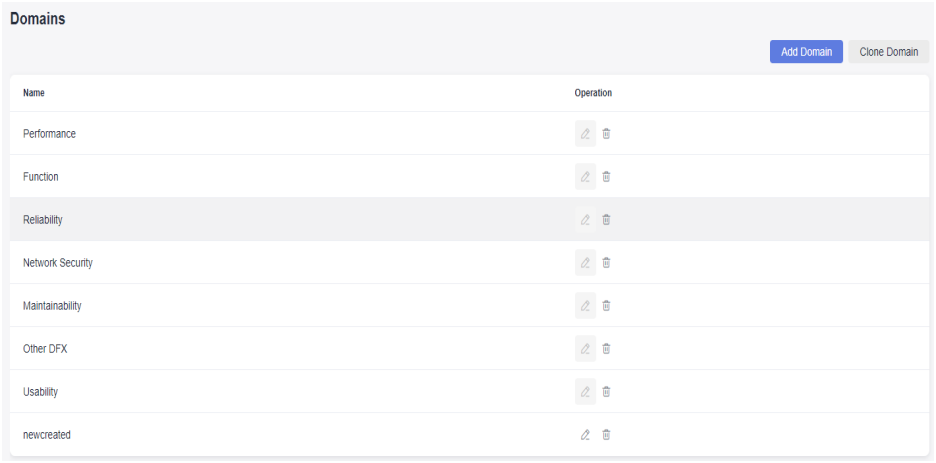
Figure 6-17 Domains page



Step 4 Click **Add Domain** to add a work item domain by referring to the following table. A maximum of 25 domains can be added.

Table 6-7 Adding a domain

Parameter	Description
Name	Domain name. Enter a maximum of 30 characters.

After setting the domain name, click **Add** on the right. The new domain appears in the list on the **Domain** page.

Step 5 Click **Clone Domain** to replace the domain settings of the target project with those of the current project.

Step 6 Edit or delete a domain if needed.

Table 6-8 Domain operations

Operation	Description
Edit	Click to modify a domain. The default domains cannot be edited.
Delete	Click to delete a domain. The domains that are currently in use or the default domains cannot be deleted.

Step 7 On the page for creating or editing a work item, select an added domain in the **Domain** field.

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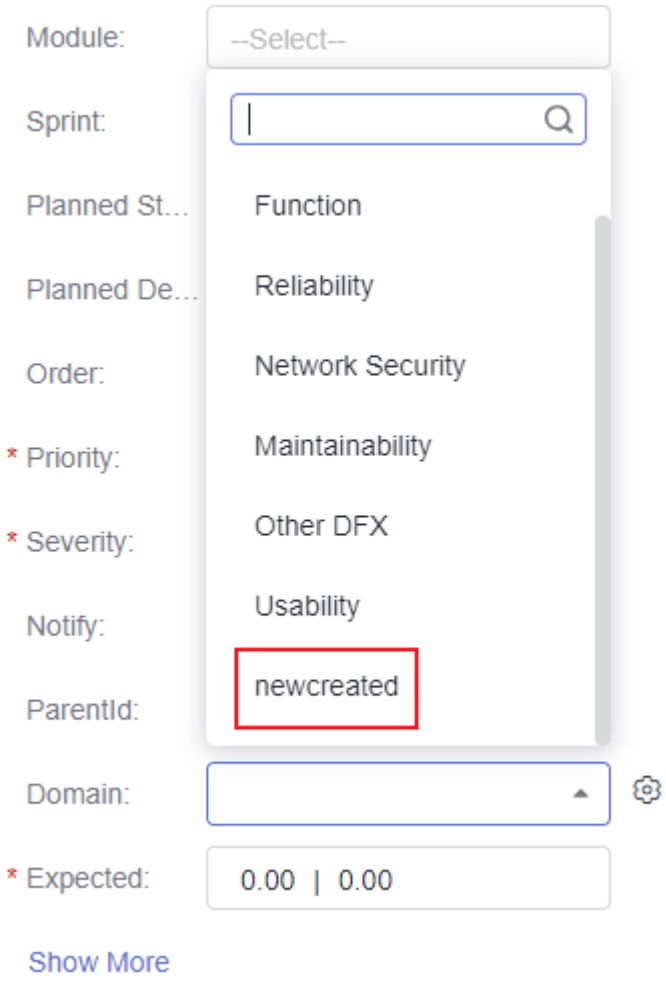
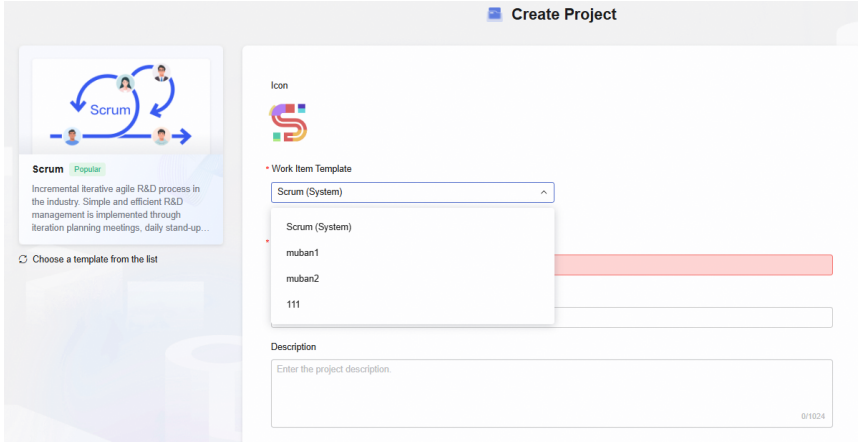
Figure 6-18 Work item details page



Step 8 (Optional) After the configuration is complete, click **Save as Template** in the upper right corner of the page. In the **Save as Template** dialog box, enter a template name and description, and click **OK**. This template can be used to create Scrum projects. See the following figure.

Figure 6-19 Applying a work item template



----End

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6.2.8 Adding Work Types

- You can add, edit, and delete work types in a project.
- On the **Person-Hour Details** tab of the work item details page, you can set the person-hours required for a specific work type.

  The default work types are as follows: R&D design, backend development, frontend development (web), frontend development (applet), frontend development (app), test and verification, defect rectification, UI design, meeting, public affairs, training, study, reassignment and leave, and other. You can add more work types as required.

Prerequisites

- You have created a Scrum project. For details, see **Creating a CodeArts Project**.
- An IAM user has been added to the project. For details about how to add members, see **Adding CodeArts Project Members**.
- You have permissions to **set work types**.

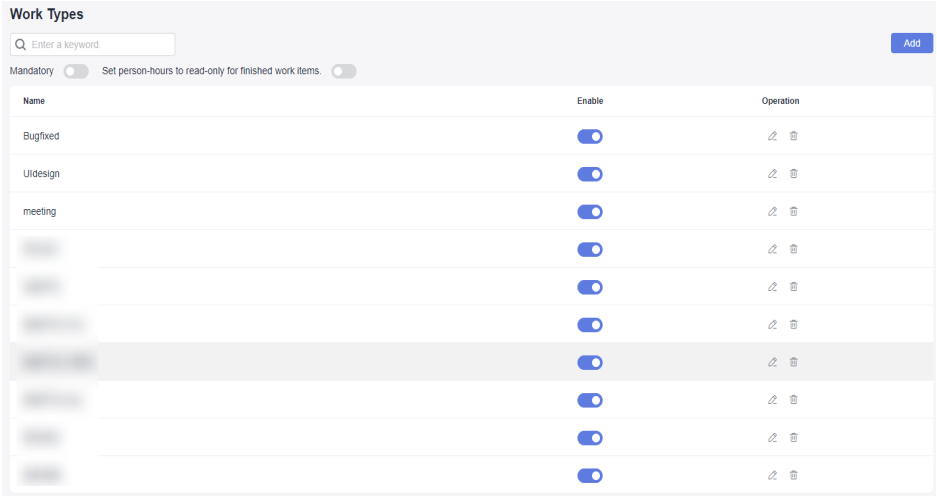
Procedure

Step 1 **Access the CodeArts Req homepage**.

Step 2 Go to a Scrum project and choose **Settings** > **Work ItemSettings** > **Work**.

Step 3 In the navigation pane, choose **Work Types**.

Figure 6-20 Work Types page



Step 4 Click **Add** to add a work type by referring to the following table. A maximum of 500 work types can be added.

Table 6-9 Adding a work type

Parameter	Description
Name	Work type name. Enter a maximum of 30 characters.

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After setting the work type name, click **OK** on the right. The new work type appears in the list on the **Work Types** page.

Step 5 Edit or delete a work type if needed.

Table 6-10 Work type operations

Operation	Description
Edit	Click to modify a work type.
Delete	Click to delete a work type. Work types that are currently in use cannot be deleted.

Step 6 Configure the following work type settings as required.

Table 6-11 Configuring work type settings

Operation	Description
Set **Require work type**	Click next to **Require work type** to make work type required for person-hour settings. By default, the work type is not required.
Set **Read-only for Done Work Items**	Click next to **Read-only for Done Work Items** to make person-hour settings read-only for work items in a **Done** state. By default, person-hour settings are available for such work items.

Step 7 On the page for editing a work item, set the person-hours required for a specific work type.

Step 8 (Optional) After the configuration is complete, click **Save as Template** in the upper right corner of the page. In the **Save as Template** dialog box, enter a template name and description, and click **OK**. This template can be used to create Scrum projects. See the following figure.

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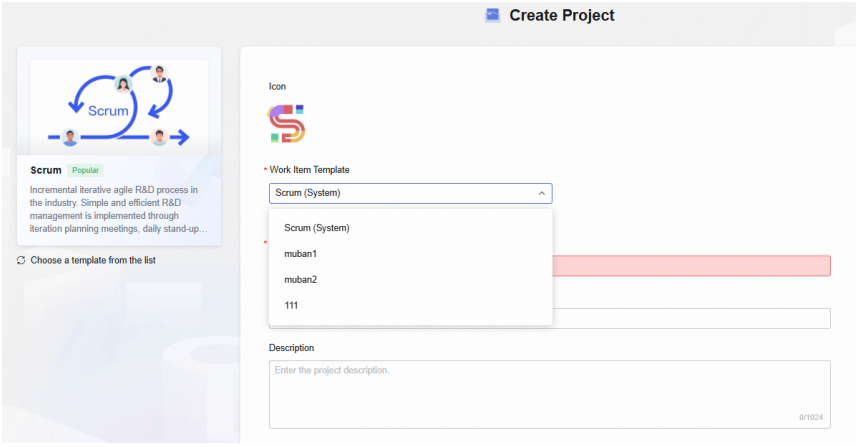
Figure 6-21 Applying a work item template



----End

6.2.9 Configuring Notification Rules

- Configure notification rules for your project, so that project members can receive notifications when any work items are changed.
- Project notifications can be sent via system messages or emails.

Prerequisites

- You have created a Scrum project. For details, see **Creating a CodeArts Project**.
- An IAM user has been added to the project. For details about how to add members, see **Adding CodeArts Project Members**.
- You have permissions to **set notifications**. For details about how to set permissions, see **Managing CodeArts Project Permissions**.

Procedure

Step 1 **Access the CodeArts Req homepage**.

Step 2 Go to a Scrum project and choose **Settings** > **Work Item**.

Step 3 In the navigation pane, choose **Notifications**.

Step 4 Select or deselect member check boxes in the row of each work item change type. The selected members will be informed of any such work item changes.

Select work item change types that will trigger notifications. Notifications can be sent to members when work items are created, modified, deleted, or commented on. Members can also be notified when they are added or removed from projects, or their roles are changed.

The notification methods of work item changes include system message and email.

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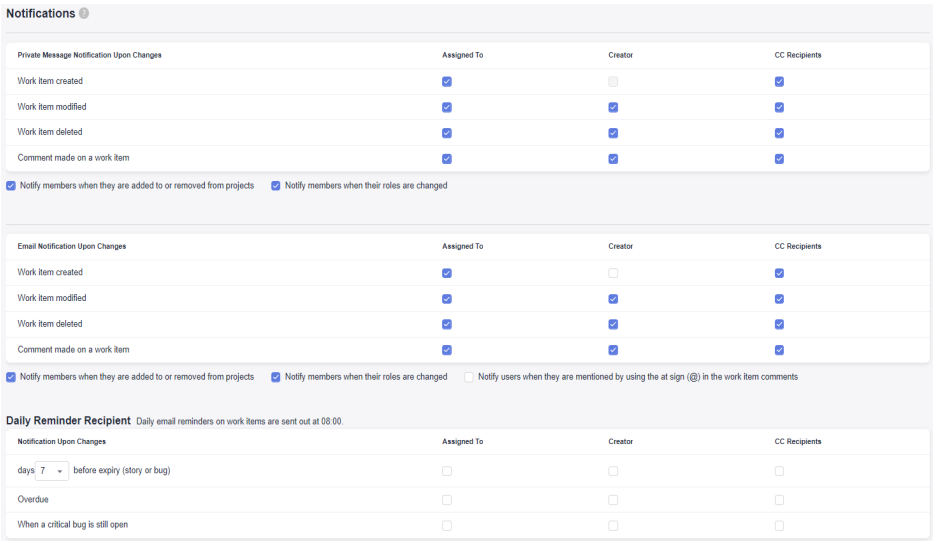
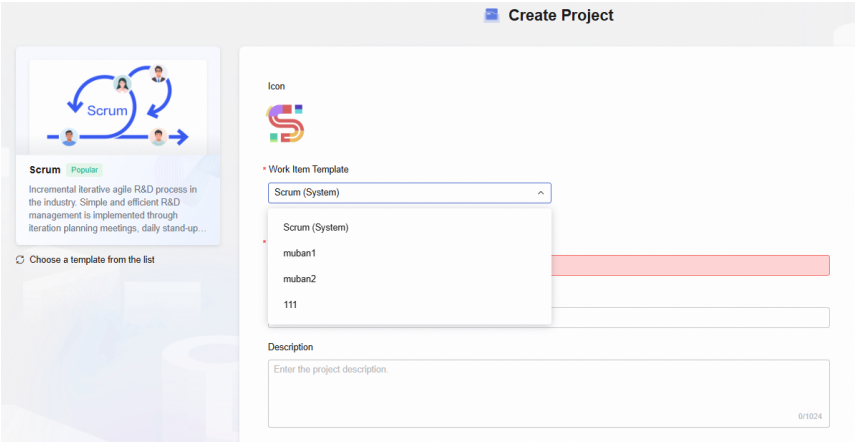
Figure 6-22 Configuring notifications



Step 5 When such work item change is made, the specified project members can check notifications by clicking 48 in the upper right corner. A project member will also be notified if the member enables email notifications. Administrators can set email addresses for members using **IAM**.

Step 6 (Optional) After the configuration is complete, click **Save as Template** in the upper right corner of the page. In the **Save as Template** dialog box, enter a template name and description, and click **OK**. This template can be used to create Scrum projects. See the following figure.

Figure 6-23 Applying a work item template



----End

6.3 Creating and Managing Work Items

6.3.1 Creating Work Items

After a project is created, you need to create a work item. In a Scrum project, work items are organized in the descending hierarchy: **Epic** > **Feature** > **Story** > **Task** or **Bug**.

Prerequisites

- You have created a Scrum project. For details, see **Creating a CodeArts Project**.
- An IAM user has been added to the project. For details about how to add members, see **Adding CodeArts Project Members**.
- You have permissions to **create (clone)** work items. For details about how to set permissions, see **Managing CodeArts Project Permissions**.

Creating a Work Item in a Scrum Project

Step 1 **Access the CodeArts Req homepage**.

Step 2 Go to the project homepage and choose **Work Item** > **Req** > **Work Items**.

Step 3 Click **Create Work Item** and select a work item type. For example, **Story**.

Step 4 Set fields for the work item.

Work item fields can be customized. For details, see **Configuring Work Item Fields and Templates**. **Table 6-12** describes default basic fields.

Table 6-12 Creating a work item

Parameter	Description
Title	Work item name. The value can contain a maximum of 512 characters, including letters, digits, periods (.), and underscores (_).
Tag	Tag of a work item, for example, **document update**. Tags can be used only in a project that the work item belongs to.
Description	Enter a description based on the template. Enter a maximum of 50,000 characters.
Assigned To	Handler of a work item. The value range is all members of the project. If a handler has a nickname, their nickname is displayed by default. For details about how to assign a work item to multiple handlers, see **How Can I Assign One Scrum Project Work Item to Multiple Members?**
Module	Module that a work item belongs to. Modules can be customized. For details, see **Adding Work Item Modules**.

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Parameter	Description
Sprint	Sprint of a work item. Set this parameter to an existing sprint. You can choose whether to use the start and end dates of the selected sprint for this work item. If no sprint is available, click on the right to configure one. You can also configure a sprint by referring to **Configuring a Sprint Plan**.
Planned Start Date	Planned start time of a work item. Select a date from the time control.
Planned Delivery Date	Planned end time of a work item. Select a date from the time control.
Order	Order of a work item. Value range: 1–100
Priority	Priority of a work item. The options are as **Low**, **Middle**, and **High**.
Severity	Severity of a work item. The options are **Critical**, **Major**, **Minor**, and **Trivial**.
Notify	People who will receive messages about this work item.
Parentld	Parent work item to which a work item belongs. Only one parent work item can be selected. • The parent work item of a bug or task is a story. • The parent work item of a story is a feature. • The parent work item of a feature is an epic. • No parent work item can be set for an epic.
Domain	Domain that a work item belongs to. Domains can be customized. For details, see **Adding Work Item Domains**.
Release Version	Version of a release. Enter a value manually. This parameter is not displayed by default. You can click **More** to display it.
Developer	Person responsible for developing the work item. Each work item should be assigned to a fixed developer. The handler of a work item changes as the work item develops. These two fields can be used together. This parameter is not displayed by default. You can click **More** to display it.
Expected	Estimated workloads required to complete a work item. Unit: **person-hours** or **person-days**. This parameter is not displayed by default. You can click **More** to display it.

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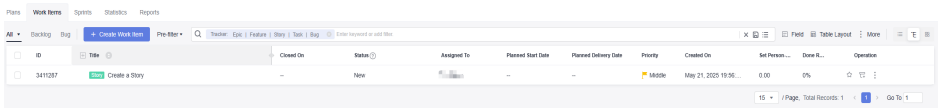
Parameter	Description
Done Ratio	Progress of the work item. The value ranges from **0%** to **100%**. **Done Ratio** of a parent work item is updated automatically based on the completion rate of its child work items. This parameter is not displayed by default. You can click **More** to display it.
Story Point	Story point ID. A story point is an agile method for estimating workloads. It can be regarded as the development cost, which takes into account the required efforts for story delivery, development complexity, and risks. Estimated workload of the story. This parameter is not displayed by default. You can click **More** to display it.
Attachment	Upload required files for the work item. The maximum size of attachments for a single work item is 50 MB. Click + Select or Drag & Drop File. to associate files from **Documentation** of the project cloud, or upload local files.

Step 5 After setting the parameters, click **OK**.

The created work item is displayed in the work item list.

Figure 6-24 Work item list



----End

Related Operations

You can perform the following operations on a new work item.

Table 6-13 Basic operations on work items

Operation	Description
Check work item details	In the work item list, click the title or ID of a work item to view its details.
Edit work item title	In the work item list, click in the row that contains the target work item to edit its title.

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Operation	Description
Fast create child work item	• You can create child work items under epics, features, and stories, **but cannot create child work items under tasks or bugs**. • In the work item list, click  and enter a title to quickly create a child work item.
Favorite work item	In the work item list, click  in the **Operation** column of the target work item. After the work item is favorited, the icon changes to . You can click the icon again to unfavorite it.
Clone work item	• Click on the right of the target work item and select **Clone** to clone the work item to the target project. • Only basic information, custom fields, and attachments of work items can be cloned within a project. Only basic information of work items can be cloned across projects.
Archive work item	Click **Archive** under on the right of the target work item to archive it. Only **Done** work items can be archived.
Edit work item	• In the work item list, click the field value in the row of the target work item to edit the corresponding field. • On the work item details page, click the parameter value of the work item to be edited and save the changes.
Delete work item	**If you delete work items in a Scrum project, they are permanently deleted and cannot be restored.** • In the work item list, click in the **Operation** column of the target work item, and select **Delete** to delete the work item and its subtasks. • On the work item details page, click and then **Delete** in the upper right corner to delete the target work item and its child work items.
Create story from bug	**This operation is available only for bugs. There is no limit on the number of times that this operation can be performed.** In the work item list, click and select **Transfer to Story** on the right of the target work item. On the displayed page, edit the related information as required and click **OK**. A story is created successfully. View the two work items in **Associations** > **Work Items** on the work item details page.

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Operation	Description
Perform batch operations	Select multiple work items to clone, edit, archive, delete, and export them in batches. There are some restrictions on batch cloning, archiving, and deletion: • Batch cloning: **Only basic information, custom fields, and attachments of work items can be cloned within a project. Only basic information of work items can be cloned across projects.** • Batch archiving: Only **Done** work items can be archived. • Batch deletion: **If you delete work items of a Scrum project, they are permanently deleted and cannot be restored.**

Helpful Links

- For details about how to create work items in a Scrum project, see **Creating a Scrum Project and a Work Item**.
- For details about how to create work items using APIs, see **Creating a Work Item**.

6.3.2 Creating Work Items Using Mind Maps

In a Scrum project, you can use a mind map to cohesively plan Scrum requirements. This approach allows for a more intuitive display of the hierarchical structure of work items. Additionally, work items created within the mind map will automatically synchronize with the work item list.

Requirements are planned along the descending hierarchy of **epics** > **features** > **stories** > **tasks**. You can create an epic, add features to the epic, add stories to each feature, and add tasks to each story.

Constraints

A maximum of 500 mind maps and Gantt charts can be created for a Scrum project.

Prerequisites

- You have created a Scrum project. For details, see **Creating a CodeArts Project**.
- An IAM user has been added to the project. For details about how to add members, see **Adding CodeArts Project Members**.
- You have permissions to **create** plans. For details about how to set permissions, see **Managing CodeArts Project Permissions**.

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Creating a Mind Map

Step 1 Access the CodeArts Req homepage.

Step 2 Go to the project homepage and choose **Work Item** > **Req** > **Plans**.

Step 3 Switch to the **Mind Maps** page. Click **Create** > **Mind Maps** and enter the **plan name** in the displayed dialog box.

Work item name. It can contain up to 30 characters, including letters, digits, periods (.), and underscores (_).

Step 4 Click **OK**. The mind map is created successfully and is now displayed.

Table 6-14 describes the operations on the mind map page.

Table 6-14 Operations on the mind map page

Operation	Description
Edit mind map name	Click the mind map name to edit it. Press **Enter** or click in the blank area of the page to save the changes.
Add epic	Add all epic work items that are not in the current mind map of the project. **(Archived epics are not displayed.)**
Export work items	Export all work items in a mind map to an Excel or PNG file. Click ··· and then **Export as Excel** to export all work items in the mind map to a local Excel file. Click ··· and then **Export as Image** to export all work items in the mind map to a local PNG file.
Check work item details	Click the title of a work item to view or modify its details.
Delete work item	Right-click a work item and choose **Delete Work Item** from the shortcut menu. The work item and all its child work items are deleted.
Remove epic	Right-click a work item and choose **Remove Epic** from the shortcut menu. The epic and all its child work items are removed. **Only epics can be removed** from the mind map.
Add work item	Right-click a work item and choose **Add Parallel Work Item** from the shortcut menu. A work item of the same type and title as the current work item is created. To edit its information, click the work item title to go to the details page. By default, the newly added work items are **Assigned To** the **Creator**. You can reassign them on the work item details page.

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Operation	Description
Add child work item	Right-click a work item and choose **Add Child Work Item** from the shortcut menu. A child work item is added to the work item. To edit its information, click the child work item title to go to the details page. By default, the newly added work items are **Assigned To** the **Creator**. You can reassign them on the work item details page.
Expand all	Click on the top of the canvas to expand all work items in the current mind map.
Collapse all	Click on the top of the canvas to collapse all work items in the current mind map. Only the root node and the number of work items are displayed.

Step 5 Return to the plan list and view the created plans in list or card mode. You can click in the upper right corner to switch to the list mode. The involved items are described as follows.

Table 6-15 Plan list

Parameter	Description
Plan Title	Plan name.
Creator	Plan creator.
Created	Time when a plan is created. Move your cursor to the **Created** column and click to sort plans by creation time.
Last Modifier	Name of the user who last modified the plan.
Last Modified	Time when the plan is last modified. Move the cursor to the **Last Modified** column and click to sort plans by last modification time.
Operation	**If you delete plans in a Scrum project, they are permanently deleted and cannot be restored.** Click to edit the plan name. Press **Enter** or click in the blank area of the page to save the changes. Click to delete the plan.
Batch operations	**If you delete plans in a Scrum project, they are permanently deleted and cannot be restored.** Select the check boxes on the left of the plans and click in the **Operation** column to delete the selected plans in batches.

Step 6 Click in the upper right corner to switch to the card mode. The supported operations are described as follows.

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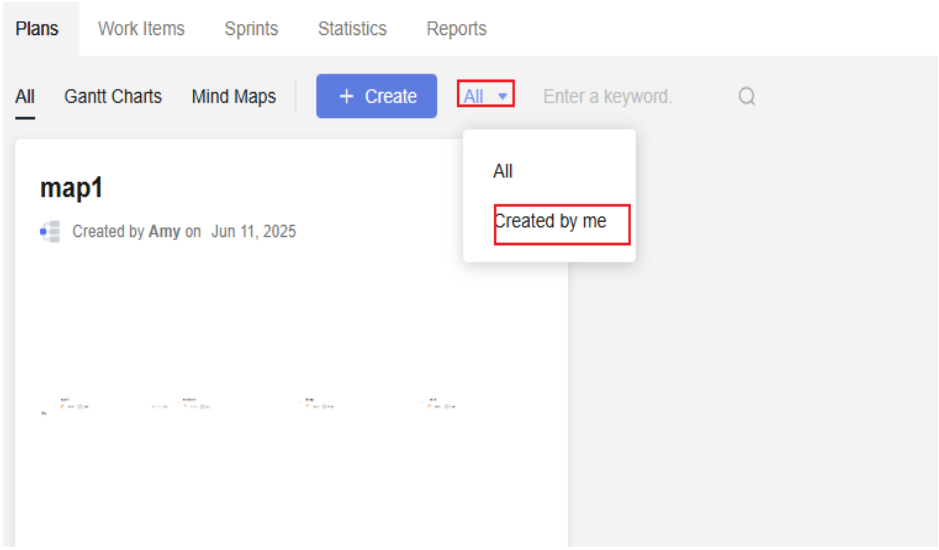
Table 6-16 Operations in the card mode

Operation	Description
Change plan title	Hover your cursor over the plan title and click to edit the name. Press **Enter** or click in the blank area of the page to save the changes.
Delete plan	**If you delete plans in a Scrum project, they are permanently deleted and cannot be restored.** Click in the upper right corner of a plan card and select **Delete**.
Sort plans	Move your cursor over Sort in the upper right corner and choose **Plan Title** or **Last Modified**.

- The default filters include **All** or **Created by me**. You can select a filter to quickly display the desired plans.

  Figure 6-25 Plan list

- You can enter a plan name in the search box to search for it.

----End

Creating a Work Item in a Mind Map

A maximum of 1,000 work items can be created in a mind map.

Step 1 Access the CodeArts Req homepage.

Step 2 Go to the project homepage and choose **Work Item** > **Req** > **Plans**.

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Step 3 On the **Mind Maps** tab, click the name of the mind map for which you want to create a work item. The details page is displayed. **Table 6-14** describes the operations on the details page.

Step 4 Add one or more epic work items, set the names (for example, **Epic1**), and press **Enter**.

Add epic work items in any of the following ways:

- To add the first epic, select the initial node **Mind Map > Requirements** and press **Tab**.
- Click **Adding to Existing Epic** to add existing epics in the project to the mind map.
- Select an epic work item (for example, **Epic1**) and press **Enter**.
- Right-click the initial node **Requirement Planning**, click to add a child work item.

Step 5 Add one or more child work items (features) to an epic in one of the following ways:

- Select an epic (for example, **Epic1**) and press **Tab**.
- Select a feature work item (for example, **Feature1**) and press **Enter**.
- Hover the cursor over a feature work item (for example, **Feature1**) and click to add a work item.
- Hover the cursor over an epic work item (for example **Epic1**) and click to add a child work item.

Step 6 Add one or more story work items to a feature. You can add stories in one of the following ways:

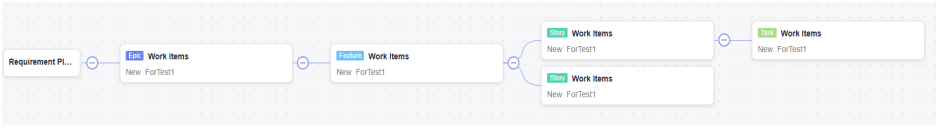
- Select a feature (for example, **Feature1**) and press **Tab**.
- Select a story work item (for example, **Story1**) and press **Enter**.
- Hover the cursor over a story work item (for example, **Story1**) and click to add a work item.
- Hover the cursor over a feature work item (for example, **Feature1**) and click to add a child work item.

Step 7 Add one or more tasks to the story. You can add tasks in one of the following ways:

- Select a story (for example, **Story1**) and press **Tab**.
- Select a task work item (for example, **Task1**) and press **Enter**.
- Hover the cursor over a task work item (for example **Task1**) and click to add a work item.

Step 8 Check the operation result.

Figure 6-26 Mind map



----End

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6.3.3 Creating Work Items Using Gantt Charts

You can create a Gantt chart to display the **sequence** and **duration** of a specific project through the **activity list** and **time scale**.

Gantt chart visualizes the project schedule and progress for a better evaluation of the remaining tasks and project progress. In the Gantt chart, the **X axis** represents the time (milestones), the **Y axis** is the activities (work items) to be scheduled, and the **line** shows the project progress.

In a Scrum project, you can create multiple Gantt charts. In each chart, you can create milestones and work items, or add existing work items.

Constraints

A maximum of 500 mind maps and Gantt charts can be created for a Scrum project.

Prerequisites

- You have created a Scrum project. For details, see **Creating a CodeArts Project**.
- An IAM user has been added to the project. For details about how to add members, see **Adding CodeArts Project Members**.
- You have permissions to **create** plans. For details about how to set permissions, see **Managing CodeArts Project Permissions**.

Creating a Gantt Chart

Step 1 **Access the CodeArts Req homepage**.

Step 2 Go to the project homepage and choose **Work Item** > **Req** > **Plans**.

Step 3 Switch to the **Gantt Charts** page. Click **Create**, select **Gantt Charts**, and enter the **plan name** in the displayed dialog box.

The Gantt chart name can contain up to 30 characters, including letters, digits, periods (.), and underscores (_).

Step 4 Click **OK**. The Gantt chart is created successfully and is now displayed. **Table 6-17** describes the operations on the Gantt chart page.

Figure 6-27 Gantt chart details page

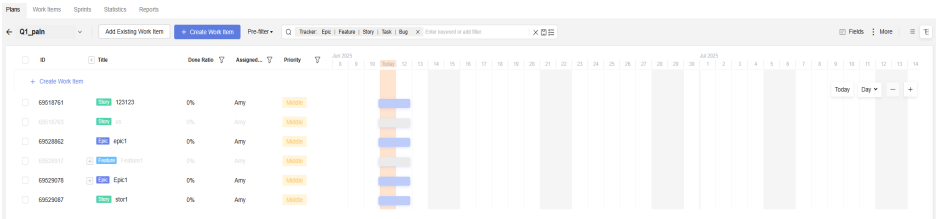

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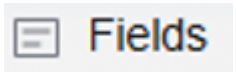
Table 6-17 Operations on the Gantt chart page

Operation	Description
Edit Gantt chart name	Click the Gantt chart name to edit it. Press **Enter** or click in the blank area of the page to save the changes.
Add existing work items	Click **Add Existing Work Item** to add existing work items of the project.
Create	Click **Create Work Item** to create a work item (epic, feature, story, task, or bug) or a milestone.
Configure fields to display	Click  to set the fields to be displayed in a Gantt chart and their sequence. A maximum of **five** fields can be displayed.
See work item display mode	Click  to display work items as trees in a Gantt chart. Click  to display work items as lists in a Gantt chart.
Configure displayed time scale	Click  in a Gantt chart to switch the time axis scale. The date can be displayed by day, week, or month.
Zoom in and out Gantt chart	Click  in a Gantt chart to zoom in on the time axis. Click in a Gantt chart to zoom out on the time axis.

Step 5 Return to the plan list and view the created plans in list or card mode. You can click  in the upper right corner to switch to the list mode. The involved items are described as follows.

Table 6-18 Plan list

Parameter	Description
Plan Title	Plan name.
Creator	Plan creator.
Created	Time when a plan is created. Move your cursor to the **Created** column and click  to sort plans by creation time.
Last Modifier	Name of the user who last modified the plan.
Last Modified	Time when the plan is last modified. Move the cursor to the **Last Modified** column and click  to sort plans by last modification time.

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Parameter	Description
Operation	**If you delete plans in a Scrum project, they are permanently deleted and cannot be restored.** Click to edit the plan name. Press **Enter** or click in the blank area of the page to save the changes. Click to delete the plan.
Batch operations	**If you delete plans in a Scrum project, they are permanently deleted and cannot be restored.** Select the check boxes on the left of the plans and click in the **Operation** column to delete the selected plans in batches.

Step 6 Click in the upper right corner to switch to the card mode. The supported operations are described as follows.

Table 6-19 Operations in the card mode

Operation	Description
Change plan title	Hover your cursor over the plan title and click to edit the name. Press **Enter** or click in the blank area of the page to save the changes.
Delete plan	**If you delete plans in a Scrum project, they are permanently deleted and cannot be restored.** Click in the upper right corner of a plan card and select **Delete**.
Sort plans	Move your cursor over Sort in the upper right corner and choose **Plan Title** or **Last Modified**.

- The default filters include **All** or **Created by me**. You can select a filter to quickly display the desired plans.

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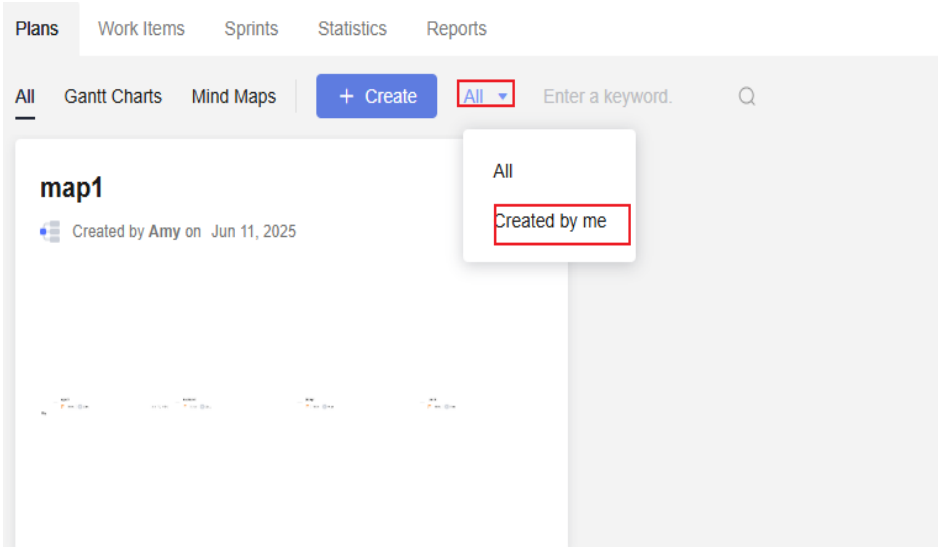
Figure 6-28 Plan list



- You can enter a plan name in the search box to search for it.

----End

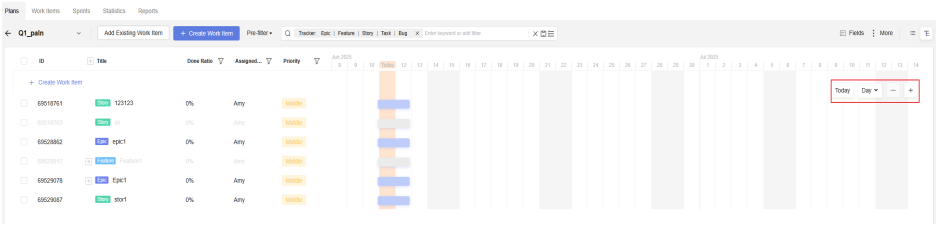
Creating a Work Item in a Gantt Chart

Step 1 **Access the CodeArts Req homepage**.

Step 2 Go to the project homepage and choose **Work Item** > **Req** > **Plans**.

Step 3 On the **Gantt Charts** tab, click the name of the Gantt chart for which you want to create a work item to access the Gantt chart details page. **Table 6-17** describes the operations on the details page.

Figure 6-29 Gantt chart details page



Step 4 Add work items to a Gantt chart and set the planned time for the work items.

Add work items in any of the following ways:

- Add existing work items
  a. Click **Add to Existing Work Item**.
     Pre-filter is displayed by default.
  b. Click **Pre-filter** and add required work items, for example, **My work items**.

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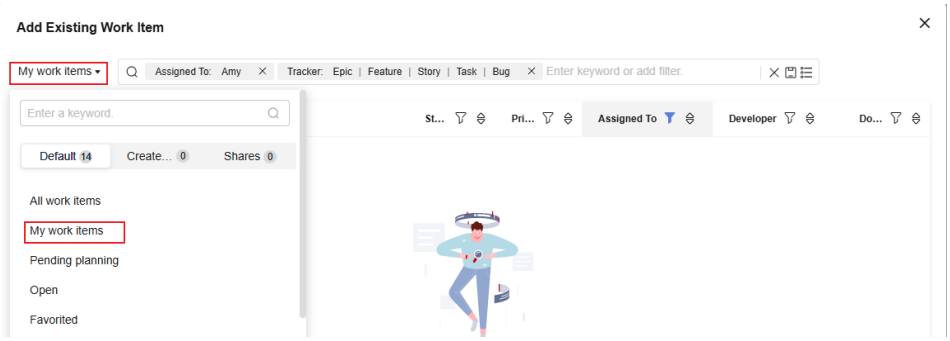
Figure 6-30 Add existing work items



c. Select the target work items and click **OK**.

Now the added work items are displayed in the Gantt chart.

- Creating a work item

  Click the create button, select a work item type, configure basic information, and click **OK**. To create multiple work items, repeat this operation.

- Quickly creating a work item

  Click the fast create button, select a work item type, configure basic information, and click **OK**. To create multiple work items, repeat this operation.

  NOTE

  Work items created in the Gantt chart are displayed on the **Work Item** > **Req** > **Work Items** page.

The following table describes the basic operations on work items in a Gantt chart.

Table 6-20 Basic operations on work items

Operation	Description
Check work item details	Click the ID or title of the target work item to go to its details page.
Edit work item title	Hover over the title of the target work item, click on the right to modify it, and press **Enter** or click the blank area on the page to save the modification.
Fast create child work item	**You can create child work items under epics, features, and stories, but cannot create child work items under tasks or bugs.** Hover over the title of the target work item, click on the right to create a child work item, and specify the work item name. Click **OK**.

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Operation	Description
Clone work item	**Only basic information, custom fields, and attachments of work items can be cloned within a project. Only basic information of work items can be cloned across projects.** Hover over the title of the target work item and click **Clone** under on the right to clone it to a Scrum or Kanban project. When copied from a Scrum project to a Kanban project, epics, features, and stories are changed to requirements, while tasks and bugs remain unchanged.
Delete work item	Click **Delete** under on the right of the target work item to delete it and its child work items. Deleted work items cannot be restored.
Adjust planned time of work item	In the time axis area on the right of a Gantt chart, move your cursor to the timeline of the target work item and drag the timeline to adjust the start and end time of the work item. You can also drag the timeline itself to make these adjustments.
Adjust work item completion rate	**You can adjust the work item progress of the bottom-layer leaf nodes. If a work item has child work items, its progress cannot be adjusted.** In the time axis area on the right of a Gantt chart, move the cursor to the timeline of the target work item and drag  on the time axis to adjust the completion rate of the work item.
Perform batch operations on work items	Select work items and perform the following operations as required: – Clone: Clone the selected work items. **Only basic information, custom fields, and attachments of work items can be cloned within a project. Only basic information of work items can be cloned across projects.** – Edit: Edit the selected work items. – Remove: Remove the selected work items from the Gantt chart. The work items on the **Work Item** > **Req** > **Work Items** page remains unchanged. – Archive: Archive the selected work items. Only closed work items can be archived. – Delete: Delete the selected work items. The work items will also be deleted on the **Work Item** > **Req** > **Work Items** page. – Export: Export work items.

Step 5 Create a milestone and set the milestone date.

1. Click **Create Work Item** and select **Milestone**. In the **Create Milestone** window, set related parameters.

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Figure 6-31 Creating a milestone

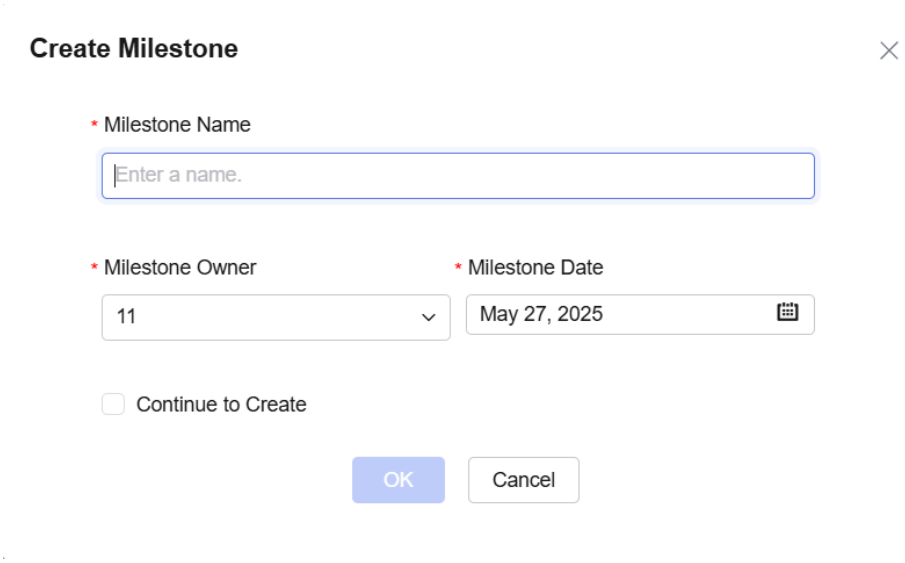

Table 6-21 Creating a milestone

Parameter	Description
Milestone Name	Milestone name can contain up to 128 characters, including letters, digits, periods (.), and underscores (_).
Milestone Owner	Milestone owner. You can select any member of the project.
Milestone Date	Milestone completion date.
Continue to Create	By default, **Continue to Create** is not selected. Click **Continue to Create** to create more milestones if required.

2. Click **OK**. The created milestone is displayed on the details page of the current Gantt plan.

   The following table lists the basic operations on a milestone in the Gantt chart.

Table 6-22 Basic operations on a milestone

Operation	Description
Edit milestone title	Hover over the title of the target milestone, click  on the right to modify it, and press **Enter** or click the blank area on the page to save the modification.

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Operation	Description
Edit milestone	Hover over the title of the target milestone, click **Edit** under on the right to edit its name, owner, and date, and click **OK**.
Delete milestone	Hover over the title of the target milestone, and click **Delete** under on the right to delete it. The deletion cannot be undone.

----End

6.3.4 Managing Work Items

After creating work items (see **Creating Work Items**), you can query, import, and export them in the project. You can add tags and associate work items on their details pages.

Prerequisites

- You have created a Scrum project. For details, see **Creating a CodeArts Project**.
- An IAM user has been added to the project. For details about how to add members, see **Adding CodeArts Project Members**.
- You have the required work item permissions in the project.

On the Work Item List Page

Access a Scrum project, choose **Work Item** > **Req** > **Work Items**, and perform the following operations.

Table 6-23 Managing work items in the work item list

Operation	Procedure
Filter and query work items	1. Click  to view all existing views and select one as required. 2. Click the search box to add multiple required work item fields as filter criteria. 3. View the matched work items. For work items filtered by **Assigned To**, if the parent work item and its child work items are not assigned to the same person, only the matched parent work item or child work items can be displayed. Click a work item name to view its parent-child relationship. 4. (Optional) Click  on the right of the search box to save the current filter criteria.

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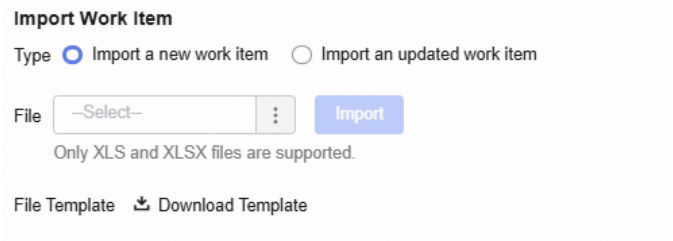
Operation	Procedure
Configure fields to display	Click ⚙ on the right of the table header and select parameters to be displayed.
Set table display mode	Click Table Layout in the upper right corner and select **Compact**, **Standard**, or **Loose** as required.
Check archived work item	1. Click **Archived Work Items** under More in the upper right corner to check archived work items. 2. Archived work items can be unarchived and deleted in a batch.
Import work items	**A maximum of 100 work items can be imported at a time.** 1. Click **Import** under More in the upper right corner. The **Import Work Item** dialog box is displayed.  2. Specify the type of the work item to be imported and import the work item as follows: • When you choose **Import a new work item**: a. Click **Download Template**. b. Fill in the template based on the instructions. c. Click **Select** on the right of **File**, select the file, and click **Import**. • When you choose **Import an updated work item**: a. Update the work item information in the XLS or XLSX file. **NOTE** 1. The IDs of the new work items must be the same as those of the original work items. 2. Only administrators, work item creators and handlers can update work items. 3. Only administrators and work item creators can edit work item titles. 4. The parent work item ID cannot be updated. a. Click **Select** on the right of **File**, select the updated work item file, and click **Import**.

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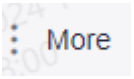
Operation	Procedure
Export work items	**A maximum of 2,000 work items can be exported.** 1. Click **Export** under  in the upper right corner. The **Set Fields to Export** dialog box is displayed. 2. Select fields to be exported and click **OK** to export the work items to the local PC in an Excel file.
Check work item	In the work item list, work items can be checked in list mode ( ), tree mode ( ), or card mode ( ). 1. List view This view lists all work items that meet the conditions regardless of their parent-child relationships. 2. Tree view This view shows the parent-child relationships between work items that meet the conditions. By default, only parent work items are displayed. You can view the hidden child work items by expanding the parent work items. **Note: When work items are filtered by type, only the data of the corresponding work item type is displayed in the tree view, and the data of child work items is not displayed in the tree view.** 3. Card view All work items are represented by cards and grouped by status. You can change the status of a work item by drag-and-drop.

On the Work Item Details Page

On the work item details page, you can modify the handler and status, view associated work items, code commit records, work item operation history, and add attachments to the work items.

Access a Scrum project, choose **Work Item** > **Req** > **Work Items**, and click the work item title. On the details page, perform the following operations.

Table 6-24 Managing work items on the details page

Operation	Procedure
Edit work item	1. Click the field value to be modified and enter a target value in the text box or select it from the drop-down list. 2. Click **Save** in the upper right corner to save the change.

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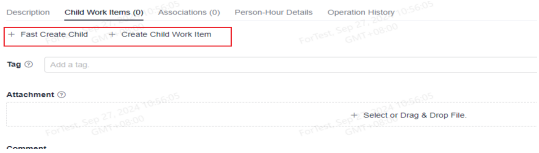
Operation	Procedure
Copy work item link	Click  in the upper right corner of the work item details page and click **Copy URL**, **Copy Work Item Title and Link**, **Copy Work Item ID and Title**, or **Copy Code Commit ID** as required to copy the needed information to the clipboard.
Add child work item	1. Click the **Child Work Item** tab. **Figure 6-32** Work item details/child work items  2. (Quick creation) Click **Fast Create Child**, specify the title, and click **OK** to quickly create a child work item as required. 3. (Common creation) Click **Create Child Work Item**. On the displayed page, set more parameters.

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Operation	Procedure
Add and check related item	1. Click the **Associations** tab. **Figure 6-33** Work item details/association  2. Complete association. • **Associate with Work Item** Expand the **Associate with Work Item** area and click **Associate with Work Item**. Then select the work items you want to associate. The associated work items are displayed under **Work Items**. • **Test Cases** Expand the **Test Cases** area and click **Associate**. Then select the test cases you want to associate. The associated test cases are displayed below **Test Cases**. • **Code Commits** Expand the **Code Commits** area, and associate the desired commit records. To associate a work item with code commit records, do as follows: 1. In CodeArts Repo, set additional information about assigned work items that are not closed. 2. After inserting work items, enter a description and click **OK**. 3. After the association, the associated code commit record is displayed under **Code Commits**. • **Code Branches** Expand the **Code Branch** area to display the associated code branches. To associate a work item with code branches, do as follows: 1. Create a branch in CodeArts Repo and associate it with work items. 2. After the branch is created, the associated code branch is displayed under **Code Branch**.

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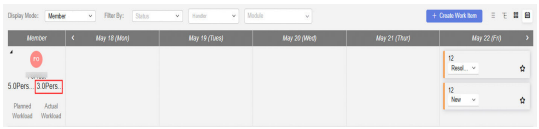
Operation	Procedure
Add detailed workloads	1. Click the **Person-Hour Details** tab. 2. Click **Add Person-Hour**, set person-hours as required, and click **OK**. 3. View the person-hours of each member. 4. (Optional) Choose **Work** > **Req** > **SprintsWork** > **Req** > **SprintsWork** > **Sprints**, and click  in the upper right corner. The member mode is displayed. Then view the total actual workload in the member column. **NOTE** The total actual workload is the sum of all person-hours from different members. By default, this workload belongs to the current handler. **Figure 6-34** Sprint member mode 
Check operation history	1. Go to the work item details page. 2. Click the **Operation History** tab.
Tag work item	1. Click the **Tag** text box to add a tag to the work item. The added tag is displayed in the **Tag** area. 2. View the existing tags on the work item details page.
Add attachment	Perform the following operations to add attachments to a work item. You can upload/drag-and-drop a local file or choose a file in CodeArts Wiki. **Constraints** The maximum size of attachments for a single work item is 50 MB. **Procedure** 1. Go to the work item details page. 2. Under **Attachment**, click + Select or Drag & Drop File and select **Upload** to upload a local file as an attachment of the work item. You can also drag a local file to the text box. Move the cursor to the file that is successfully uploaded. The operations that can be performed are displayed. • Click  to download the file. • Click X to delete the uploaded file.
Comment on work item	In the **Comment** area, you can comment on work items. To notify others of the comment, you can **@** *a user account*, and a notification will be sent using private **Message**. For details, see **Configuring Notification Rules**.

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Operation	Procedure
Create story from bug	**This operation is available only for bugs. There is no limit on the number of times that this operation can be performed.** In the work item list, click and select **Transfer to Story** on the right of the target work item. On the displayed page, edit the related information as required and click **OK**. A story is created successfully. View the two work items in **Associations** > **Work Items** on the work item details page.

Helpful Links

You can also use APIs to perform operations on work items in a Scrum project. For details, see **Operations on Work Items in a Scrum Project**.

6.4 Configuring a Sprint Plan

In a Scrum project, sprints can be used to manage and track versions.

Prerequisites

There is a Scrum project, in which you have permission to **create** sprints. For details about how to set permissions, see **Managing CodeArts Project Permissions**.

Creating a Sprint

Step 1 **Access the CodeArts Req homepage**.

Step 2 Go to the project homepage and choose **Work Item** > **Req** > **Sprints**.

Step 3 Click  above the sprint list. In the **Create Sprint** dialog box, set related parameters.

Table 6-25 Creating a Sprint

Parameter	Description
Sprint Name	Sprint name, which can contain a maximum of 60 characters, including letters, digits, periods (.), and underscores (_).
Planned Duration	Start time and end time of a sprint plan.
Description	Description of a sprint plan. The value can contain a maximum of 500 characters, including letters, digits, periods (.), and underscores (_).

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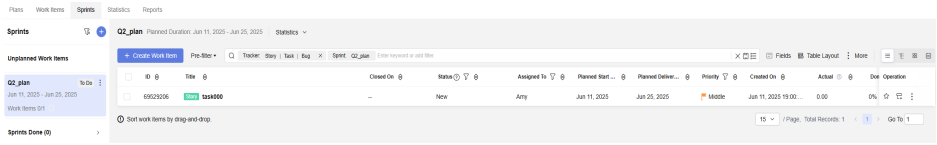
Step 4 Click **OK**. The sprint is created successfully, and the sprint page is displayed.

Figure 6-35 Sprints



By default, the created sprints are displayed on the left in descending order of the creation time. You can click a sprint card on the left to switch to another sprint.

The sprint page displays the sprint name, planned sprint time, sprint description, sprint statistics, and work items in the sprint.

----End

Follow-up Operations

After operations in **Creating a Sprint** are complete, you can perform the following operations.

Figure 6-36 Work item list on the sprint page

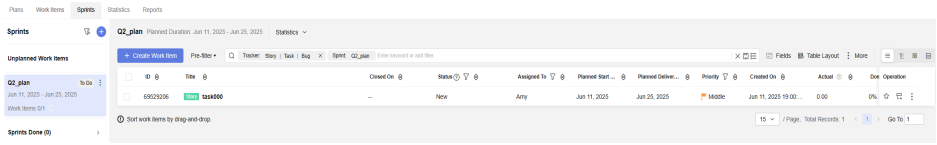


Table 6-26 Managing sprints

Operation	Description	Constraint
Edit sprint	Click ⋮ and select **Edit** in the upper right corner of the sprint card to edit the sprint name, planned time, and description.	You must have permission to **edit** sprints.
Check sprint history	Click ⋮ in the upper right corner of the sprint card and select **History**. The **History** page displays information such as the operation time, operator, operation type, and a comparison of the content before and after each operation. The following operations are displayed on the **History** page: • Sprint operations, such as not starting the sprint, starting the sprint, editing the sprint, ending the sprint, and deleting the sprint. • Operations on work items in the sprint, such as moving work items into or out of the sprint and editing work items.	All project members can view sprint history.

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Operation	Description	Constraint
Change sprint status	• Click ⋮ in the upper right corner of a sprint card and click **Start** to change the sprint status from **To Do** to **Doing**. • For sprints in the **Doing** state: – Click ⋮ in the upper right corner of the sprint card and click **Set as To Do**. The sprint state is changed from **Doing** to **To Do**. – Click ⋮ in the upper right corner of the sprint card and click **Close**. The sprint state is changed from **Doing** to **Done**. If there are uncompleted work items in the current sprint, a reminder dialog appears. You can select **Move them to unplanned work items**, **Move them to other sprints** (not available if no sprint is ongoing), or **Close them** (changing work item status to **Closed**). • For sprints in the **Done** state, click ⋮ in the upper right corner of the sprint card and click **Restart**. The sprint state is changed from **Done** to **Doing**.	You must have permission to **set statuses** for sprints.
Delete sprint	Click ⋮ in the upper right corner of the sprint card and click **Delete**. • Deleted sprints cannot be restored. • After a sprint is deleted, all work items in the sprint are automatically moved to **Unplanned Work Items**.	You must have permission to **delete** sprints.
Plan sprint	You can select unplanned work items or work items under other sprints and drag them to the target sprint (**To Do** or **Doing**).	You must have permission to **edit** sprints.

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Operation	Description	Constraint
Check and manage sprint	Click  in the upper right corner of a sprint to switch the display mode of sprint work items. • Click  to switch to the **List** mode. • Click  to switch to the **Tree** mode. • Click  to switch to the **Card** mode. • Click  to switch to the **Member** mode. Click  on the top to view more details, including work item statistics, burndown charts, and project member data. Click **Create Work Item** to create a **Story**, **Task**, or **Bug**. You can edit the displayed fields on the list page.	All project members can view sprints. To create a work item in a sprint, you must have permission to **create and duplicate** work items. To modify a work item in the sprint list, you must have permission to **edit** work items.
Edit work item in sprint	For details, see **Related Operations**, **On the Work Item List Page**, and **On the Work Item Details Page**.	You must have the required work item permissions in the project.

Helpful Links

For details about how to create sprints using APIs, see **Creating a Sprint (V2)**.

6.5 Tracking the Project Progress

6.5.1 Tracking the Progress with Statistical Charts

You can use statistical charts to track the progress of work items in a project. Charts include the statistics of archived work items.

There are two types of charts available: custom and preset. The preset templates include the overview, workloads, work item distribution, sprints, and bug types. Select a template as required.

Constraints

The chart title is generated using the current system language and does not change with the language.

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Prerequisites

- You have created a Scrum project. For details, see **Creating a CodeArts Project**.
- An IAM user has been added to the project. For details about how to add members, see **Adding CodeArts Project Members**.
- You have permissions to **create charts, and create, rename, and delete chart types**. For details about how to set permissions, see **Managing CodeArts Project Permissions**.

Creating a Custom Chart

You can use custom charts to analyze the measures from several dimensions, including the **Story point**, **Expected person-hours**, **Actual person-hours**, and **Work item**.

Step 1 **Access the CodeArts Req homepage**.

Step 2 Access a Scrum project. Choose **Work Item** > **Req** > **Statistics**. Click **Create Report**. In the displayed dialog box, choose **Custom Chart**.

Step 3 On the page for creating a custom chart, configure the following information.

Figure 6-37 Creating a custom chart

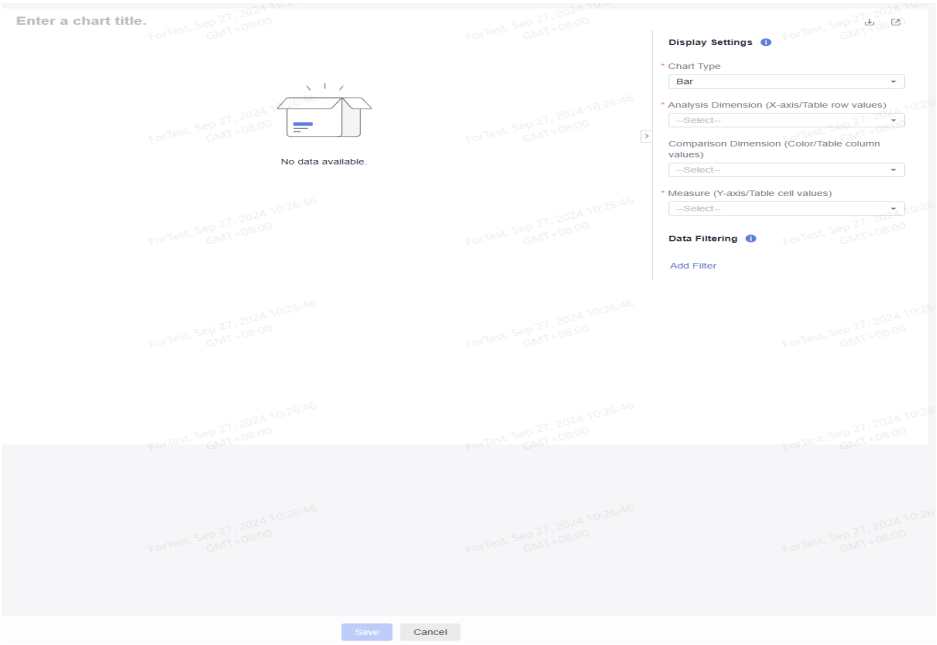

Table 6-27 Parameters for creating a custom chart

Parameter	Description
Title	Chart title. The value can contain 3 to 128 characters, including letters, digits, underscores (_), and hyphens (-).

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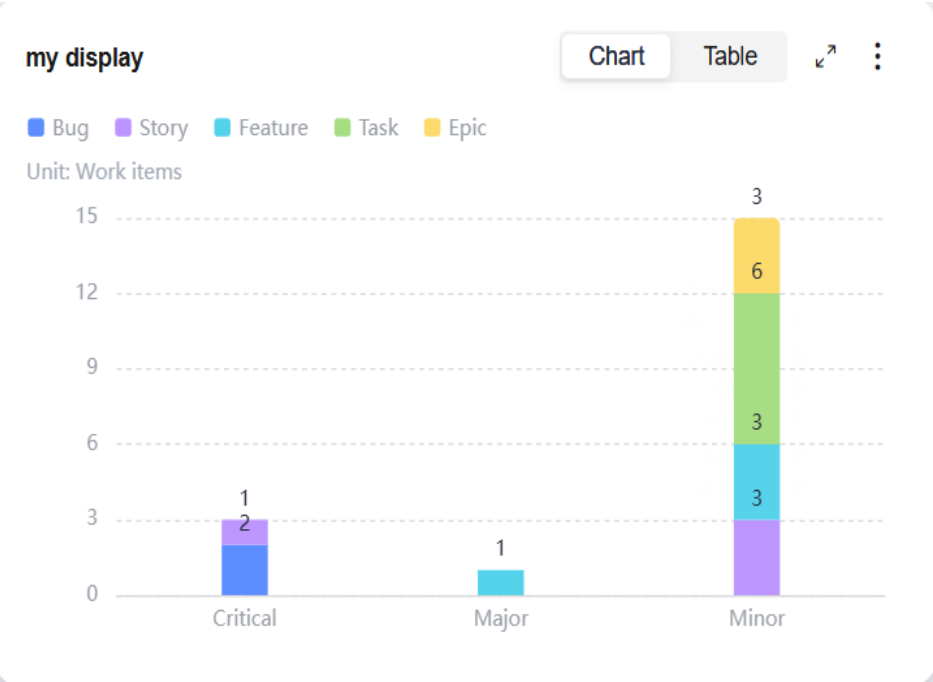
Parameter	Description
Chart Type	Chart display type. The options include **Bar** or **Pie**.
Analysis Dimension	Data analysis dimension of a chart, that is, data dimension represented by the X axis.
Comparison Dimension	Data comparison dimension of a chart, that is, data dimension represented by the color block on the Y axis.
Measure	Data summary item of a chart, that is, data dimension represented by the Y axis. Statistics on the number of story points and work items, and estimated and actual workloads are supported.
Data Filtering	After clicking **Add Filter**, select a system field or create one to filter chart statistic data.

Step 4 Click **Save**. Saved charts are displayed on the **Statistics** homepage for you to easily view and modify.

Figure 6-38 Custom chart



----End

Using a Preset Chart Template

Select a proper preset chart template based on the service scenario.

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- You can use the **Work Item Trend**, **Work Item Due Date Statuses**, and **Work Item Completion** system charts to analyze work items.
- You can use the **Person-Hours of Project Members** system chart to analyze the person-hours of the project members.
- You can use the **Work Items by Handler**, **Work Items by Priority**, and **Work Items by Historical Status** system charts to analyze the work item distribution.
- You can use the **Sprint Burndown Chart** system chart to analyze the sprints.
- You can use the **Bugs by Handler**, **Bugs by Creator**, **Bugs by Priority**, **Bugs by Work Item Status**, and **Bugs by Handler and Work Item Status** system charts to analyze the work item bugs.

The following describes how to use the preset chart template **Work Item Trend** to create a chart.

Step 1 Access the CodeArts Req homepage.

Step 2 Access a Scrum project. Choose **Work Item > Req > Statistics**. Click **Create Report**. In the displayed dialog box, choose **Work Item Trend**.

Step 3 Go to the chart editing page and configure the following information.

Figure 6-39 Editing the work item trend overview

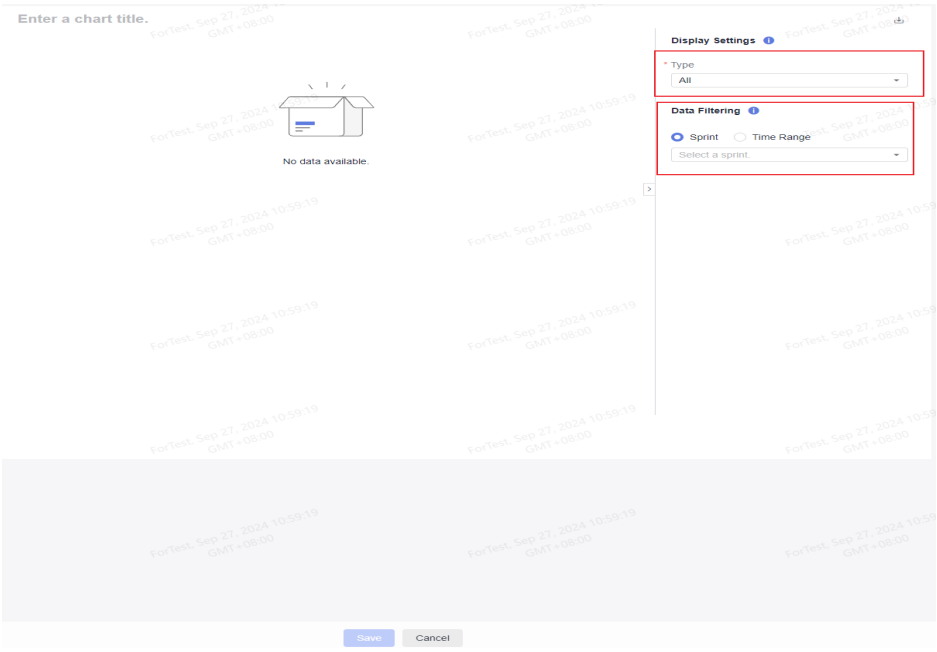

Table 6-28 Creating a chart on work item trend overview

Parameter	Description
Title	Chart title. The value can contain 3 to 128 characters, including letters, digits, underscores (_), and hyphens (-).

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Parameter	Description
Type	Collect statistics of tasks, bugs, epics, features, or stories. **All** means collecting statistics of all work item types in the project.
Data Filtering	You can select **Sprint** or **Time Range** to filter the data range to be displayed in a chart. **If Time Range is selected, the maximum time duration is one year**.

Step 4 Click **Save**. Saved charts are displayed on the **Statistics** homepage for you to easily view and modify.

----End

Follow-up Operations

After operations in **Creating a Custom Chart** or **Using a Preset Chart Template** are complete, users who have permissions to **Edit**, **Delete**, **Move**, and **Export** charts can perform the operations listed in the table below.

You can perform the following operations on created charts.

Table 6-29 Basic chart operations

Operation	Description
Switch chart display mode	Click  in the upper right corner of a chart card to switch the chart display mode.
View chart in full screen	Click  in the upper right corner of a chart card to view the chart in full screen.
Save chart	Click in the upper right corner of a chart card and click **Save as Image** to save the current chart in the PNG format.
Export chart	Click in the upper right corner of a chart card and click **Export Chart** to export the current chart data to an Excel file.
Edit chart	Click in the upper right corner of a chart card and click **Edit Chart** to edit the chart.
Move chart	Click in the upper right corner of a chart card and click **Move Chart** to move the current chart to another chart category.

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Operation	Description
Delete chart	Click in the upper right corner of a chart card and click **Delete Chart** to delete the current chart. Deleted charts cannot be restored.

You can manage created charts by category. Multiple chart cards are displayed in one view. By default, **Non-Categorized** charts are displayed. You can create chart categories as required. Each chart category can contain a maximum of 20 chart cards.

Managing Charts by Category

Step 1 Access a Scrum project. Choose **Work Item** > **Req** > **Statistics** and click



in the **Non-Categorized** drop-down list. Enter a name in the **Create Chart Category** dialog box.

Step 2 Click **OK**.

- Chart cards can be placed under chart categories.
- To rename a chart category, click on the right of the chart category name and choose **Rename**.
- To delete a chart category, click  on the right of the chart category name and choose **Delete**. After a chart category is deleted, charts under the category are automatically moved to **Non-Categorized**.
- Within a chart category, you can drag the target chart to adjust its display sequence.

----End

6.5.2 Sending a Project Progress Report

You can send project progress reports to the specified recipients.

Creating a Project Progress Report

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a Scrum project and choose **Work Item** > **Req** > **Reports**.

Step 3 Click . On the **Select Report Template** page, select **Empty File**, **System Templates**, or **Custom Templates**. The **Empty File** is used as an example.

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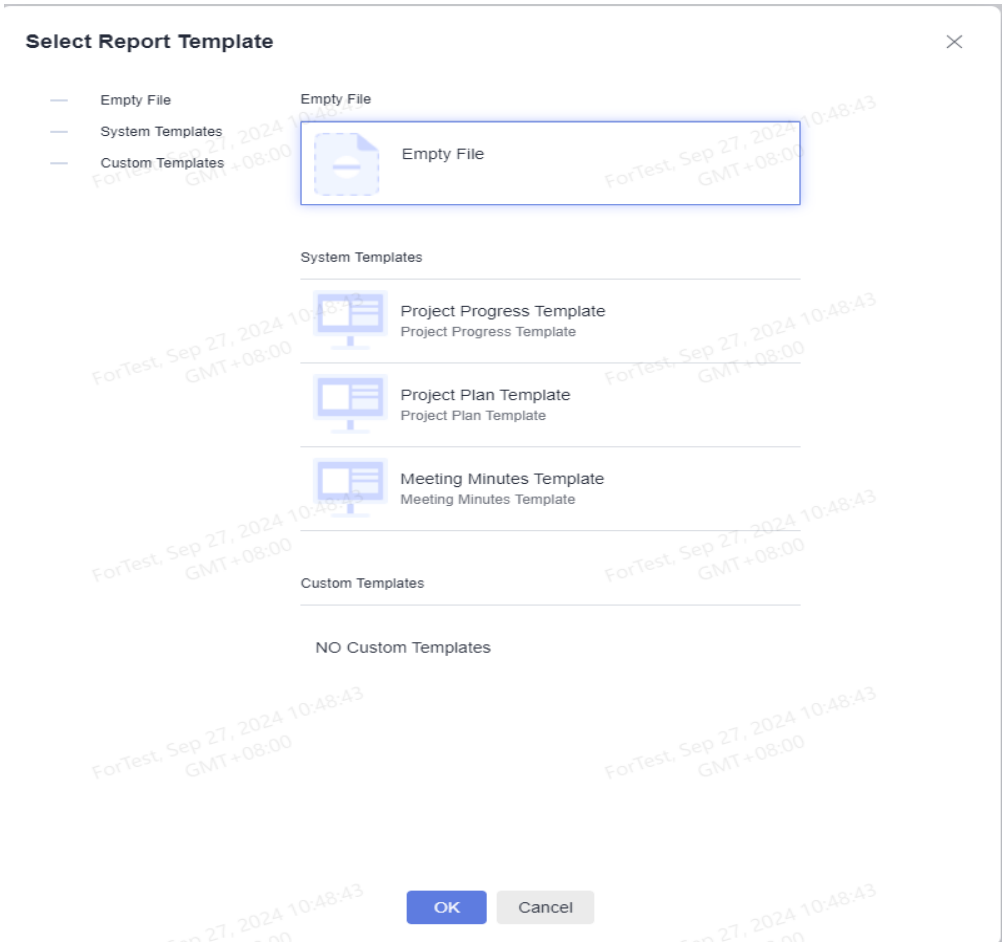
Figure 6-40 Selecting a report template



Step 4 Click **OK**.

Step 5 Set the report title, **Recipients**, **CC Recipients**, and report content as required, then click **Send**.

NOTE

After setting the report information, you can also:

- Click **Preview** to preview the report details.
- Click **Save as Template**. In the displayed dialog box, click **Save** to save the report as a template. You can find it on the **Templates** tab.
- Click **Save as Draft** to save the report as a draft. You can find it on the **Outbox** tab.

Step 6 Check received reports in the inbox and sent reports in the outbox on the **Reports** page.

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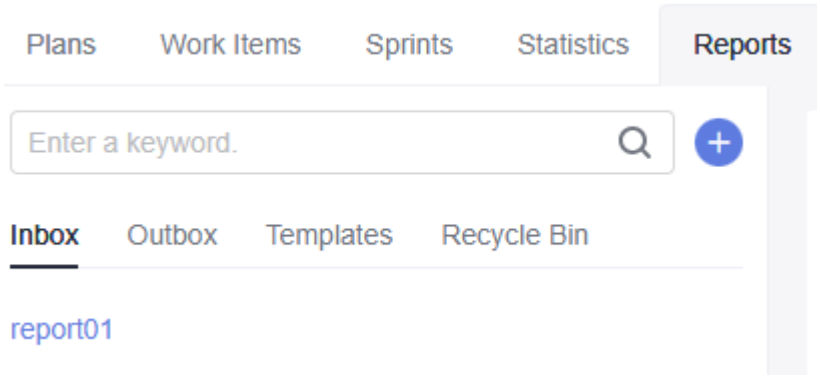

----End

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7 Managing IPD-System Device Project Requirements

7.1 Requirement Management Process

IPD-system device projects are designed for large-scale product development scenarios based on structured processes and powerful cross-project collaboration. They help you manage development with efficiency and quality, covering raw requirements (RRs), system features (SFs), R&D requirements, tasks, and bugs. During requirement implementation, tasks are the activities generated, and bugs are the problems found.

Figure 7-1 IPD-system device projects

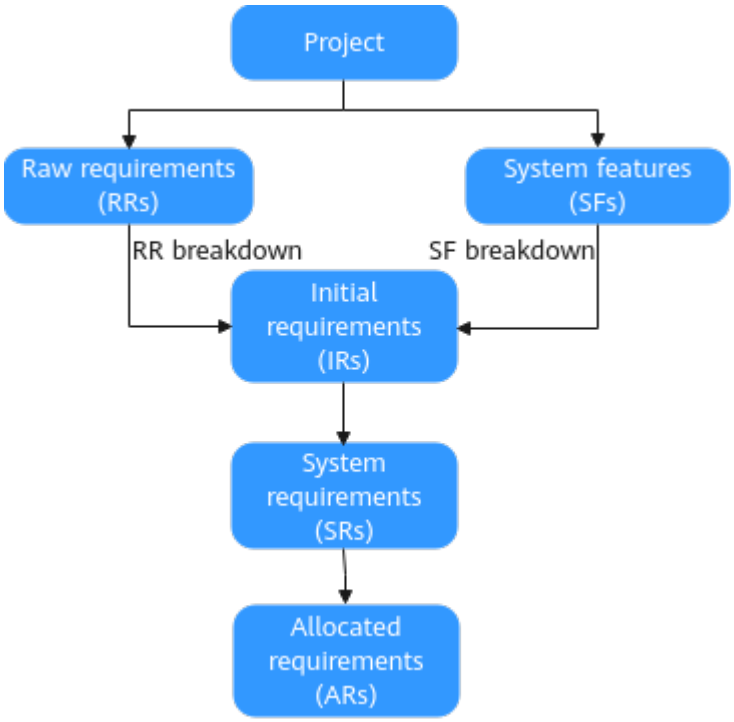

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Table 7-1 describes the work item types used in IPD-system device projects.

Table 7-1 IPD-system device project work types

Work Item Type	Description	Billing
Raw requirement (RR)	RRs are raw problems or requirements described from the perspective of customers. Customer requirements are a type of RRs. For details about how to create and manage RRs, see **Creating and Managing RRs**.	You need to upgrade the package to the professional or higher edition. For details about the billing change, see **Impact on Billing After Specification Change**.
Feature tree (FT)	FTs contain feature sets and SFs. • Feature set: aggregates and manages SFs. Multi-level relationships can be established for the feature set, and the feature tree version snapshot and snapshot comparison functions are provided. • SF: feature that brings benefits. SFs can have different types of child work items in this hierarchy: SF > IR > SR > AR.	
System feature (SF)	SFs are major capabilities of offering requirements or services to support problems (PBs). • Offering requirements: a group of complete, consistent, and series of formal requirements planned by product managers/planning representatives. In principle, SFs are a set of key selling points (highlights) of an offering. Each SF is an E2E solution that meets customers' specific business value requirements. Some SFs can be sold separately via license control. • PBs: challenges and opportunities faced by customers (customer strategies and pain points), that is, key problems solved by a product or service for customers. Resolving key problems can bring core value to customers. For details about how to create system features, see **Creating System Features**.	

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Work Item Type	Description	Billing
R&D requirement (IR/SR/AR)	There are three work item types under R&D requirements: • Initial requirement (IR) IRs are re-described accurately, with complete background, in standard format, and from the perspective of customers/markets. • System requirement (SR) SRs are system functional and non-functional requirements that are presented externally, can be tested, and are described from the perspective of R&D. – Functional requirements are specific scenario-based requirements on functions provided by the system. – Non-functional requirements are specific to costs, global quality attributes (mainly on DFX), and technical restrictions. • Allocated requirement (AR) ARs are functional and non-functional requirements broken down from SRs and allocated to sub-systems/modules from the perspective of deliverability based on the division of responsibilities of entry-level organizations. For details about how to create and manage R&D requirements, see **Creating and Managing R&D Requirements**.	
Task	Tasks are activities with a certain goal. For details about how to create and manage tasks, see **Creating and Managing Tasks**.	
Bug	Bugs are problems found in a project. For details about how to create and manage bugs, see **Creating and Managing Bugs**.	

7.2 Configuring Common Settings

7.2.1 Configuring Common Work Item Fields

Customize common fields that can be used by any type of work items in your project.

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Prerequisites

- An IPD-system device project is available, and you have permission to **configure work item templates** for the project.
- You have the **Tenant Administrator** permission.
- A maximum of 150 common fields can be customized in a project.

Configuring Common Fields in a Project

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **Work**.

Step 3 In the navigation pane, choose **Work Items** > **Common Field**.

Step 4 Click **Create Field**. In the dialog box that is displayed, set the required parameters.

Table 7-2 Creating a field

Parameter	Description
Field Name	Enter a maximum of 15 characters, including letters, digits, and hyphens (-).
Field Type	Type of the field. The options include: single-choice list, multi-choice list, single-line text, multi-line text, date, date and time, integer, decimal, single-choice user, multi-choice user, level field, and review check item. If **Field Type** is set to **Multi-choice list**, set options as needed. You can enable **Quickly split sub-work items** as needed. When this switch is enabled, the corresponding number of child work items will be automatically generated during work item breakdown, based on the number of options selected.
Options	This parameter is displayed only when **Field Type** is set to **Single-choice list**, **Multi-choice list**, or **Level field**. • When **Field Type** is set to **Single-choice list** or **Multi-choice list**, you can click **Add Option** to add one option at a time. To add multiple options at a time, click **Add Multiple**. Separate options by pressing **Enter**. When there are multiple options, you can drag to adjust their positions. • When **Field Type** is set to **Single-choice list** or **Multi-choice list**, you can click to delete options. There is a default option, which cannot be deleted. • When **Field Type** is set to **Level field**, click **Edit Option**. In the **Edit Option** dialog box, click on the right of the text box to add field levels. A maximum of **6** levels can be added. Click **Add Option** to add fields of the same level. Click **Add Multiple** to add multiple options at a time. 

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Parameter	Description
Related Review Check Item Template	This parameter is displayed only when **Field Type** is set to **Review Check Item**. Select a created review check item template from the **Related Review Check Item Template** drop-down list.
Description	Remarks about the field. Enter a maximum of 50 characters, including letters, digits, and hyphens (-).

Step 5 Click **OK**.

The new field is displayed at the end of the list. The parameters in this list are described in the following table.

Table 7-3 Field list

Parameter	Description
Field Name	System or custom field name. Hover over the header and click to sort by field name.
Created/ Added By	The user who creates or adds a field. Hover over the header and click to sort by creator or adding user.
Created/ Added At	Time when a field is created or added. Hover over the header and click to sort by creation or addition time.
Field Type	System or custom field type. The options include: single-choice list, multi-choice list, single-line text, multi-line text, date, date and time, integer, decimal, single-choice user, multi-choice user, and level field. Hover over the header and click to sort by field type. Hover over the header and click to filter fields.
Option	Field option values. Displayed only when **Field Type** is set to **Single-choice list** or **Multi-choice list**.
Description	System or custom field description.
Status	Work item types that are currently using a system or custom field.

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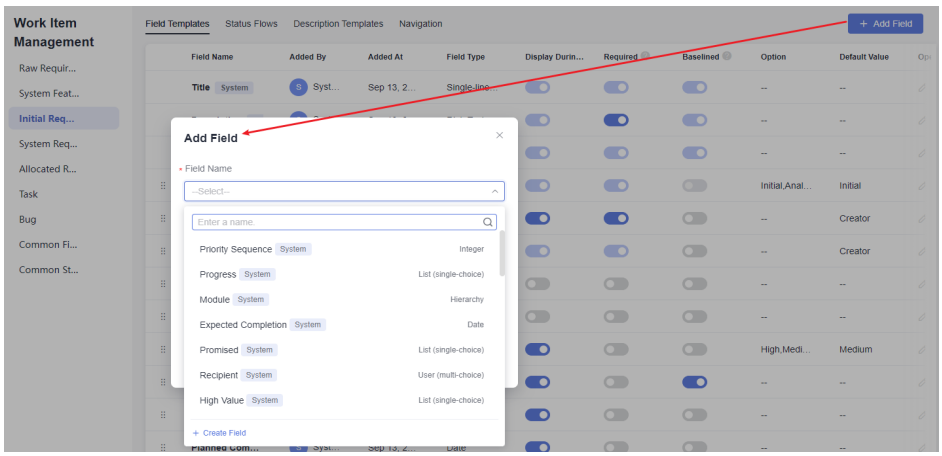
Parameter	Description
Operation	You can edit and delete a field. To edit a field, click in this column. • System fields cannot be edited. • Custom fields of your tenant cannot be edited here. To delete a field, click in this column. • System fields cannot be deleted. • Deleting a tenant-defined field only removes it from work item templates where it was previously used. It remains in the tenant's field list. • Deleted fields cannot be recovered.

Step 6 (Optional) Add a common field (for example, **CommonField01**) to a work item template.

The following uses the IR work item template as an example:

1. Choose **Work** > **Work Items** > **Initial Requirement (IR)** > **Field Templates**.
2. Click **Add Field**, select **CommonField01** from the **Field Name** drop-down list, and click **OK** to save the template.

Figure 7-2 Add Field dialog box



3. Check this **CommonField01** field when creating or editing an IR on the **Work** > **Req** > **R&D Requirements** page.

NOTE

- Customized common fields can be configured and used for all types of work items of the current project.
- The IR work item template is used as an example. You can add common fields to other work item templates in the same way, and only need to do this once for each of them.

----End

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Related Operations

You can also configure tenant-level fields in the tenant settings. Then these fields can be used by any work item type under the project. For details, see **Configuring Work Item Fields**.

7.2.2 Adding a Field to a Work Item Type in a Project

If the system fields cannot meet your requirements, you can add fields for a work item type as required. Work item types include RRs, SFs, IRs, SRs, ARs, tasks, and bugs.

Prerequisites

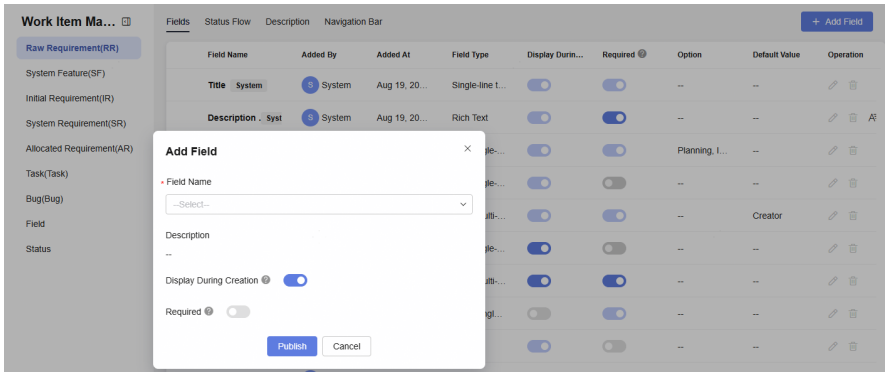
An IPD-system device project is available, and you have permission to **configure work item templates** for the project.

Procedure

Step 1 **Access the CodeArts Req homepage**.

Step 2 Go to a project and choose **Settings** > **Work**.

Step 3 In the navigation pane, select a work item type for which you want to add fields, for example, RR. On the **Fields** tab, click **Add Field**.



Step 4 Click the **Field Name** drop-down list. The field name value information is displayed.

Step 5 Select an existing field or create a field for the work item type.

- Adding an existing field
  a. Select an existing field.
     The fields configured in **Configuring Common Fields in a Project** are displayed in the value list of the displayed dialog box. You can search for a field in the **Enter a name** box, or scroll your mouse to select one. If no field in the list meets your requirements, go to **Step 5.a** to create a custom field.
  b. Specify what the selected field defaults to, whether to display it on creation pages, and whether it is mandatory.
  c. Click **Publish**. The added field is displayed in the field template list.

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- Creating a field
  a. In the displayed dialog box, click **Create Field**.
  b. Set the field information by referring to **Table 7-4**.

Table 7-4 Parameters for creating a field

Parameter	Description
Field Name	Enter a maximum of 15 characters, including letters, digits, and hyphens (-).
Field Type	Type of the field. The options are **Single-choice list**, **Multi-choice list**, **Single-line text**, **Multi-line text**, **Date**, **Date and time**, **Integer**, **Decimal**, **Single-choice user**, **Multi-choice user**, **Level field**, and **Review check items**.
Options	This parameter is displayed only when **Field Type** is set to **Single-choice list**, **Multi-choice list**, or **Level field**. ▪ When **Field Type** is set to **Single-choice list** or **Multi-choice list**, you can click **Add Option** to add one option at a time. To add multiple options at a time, click **Add Multiple**. Separate options by pressing **Enter**. When there are multiple options, you can drag ⠿ to adjust their positions. ▪ When **Field Type** is set to **Single-choice list** or **Multi-choice list**, you can click 🗑 to delete options. There is a default option, which cannot be deleted. ▪ When **Field Type** is set to **Level field**, click **Edit Option**. In the **Edit Option** dialog box, click + on the right of the text box to add field levels. A maximum of **6** levels can be added. Click **Add Option** to add fields of the same level. Click **Add Multiple** to add multiple options at a time. 
Related Review Check Item Template	This parameter is displayed only when **Field Type** is set to **Review Check Item**. Select a created review check item template from the **Related Review Check Item Template** drop-down list.

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Parameter	Description
Default Value	This parameter is displayed only when **Field Type** is set to **Single-line text**, **Multi-line text**, **Date**, **Date and time**, **Integer**, **Decimal**, **Level field**, **Single-choice list**, or **Multi-choice list**. Set this parameter based on site requirements.
Display During Creation	This parameter is toggled on by default. If this parameter is toggled off, this field will not be displayed when a work item is created.
Required	This parameter is toggled off by default. If this parameter is toggled on, the new field is mandatory.
Baselined	This parameter is displayed only for SFs, IRs, SRs, and ARs. This parameter is toggled off by default. If this parameter is toggled on, new fields will be locked and cannot be modified after work items (such as SFs) are baselined. If modification is required, a change process must be initiated.

c. Click **Publish**. The new field is displayed in the field template list.

Step 6 (Optional) Manage fields. You can perform the following operations on fields in the field template list.

Table 7-5 Managing a field

Operation	Description
Editing a field	Click to specify whether to display the field on creation pages and whether it is mandatory. **System fields cannot be edited.**
Deleting a field	Click . In the displayed dialog box, click **Delete** to delete the field. **System fields cannot be deleted.**
Editing a field template	Editing the field template is supported only for fields of the rich text type. Click and edit the template of the rich text field in the displayed dialog box.

----End

7.2.3 Configuring Common Work Item Statuses

Customize common statuses that can be used by any type of work items in your project.

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Prerequisites

- An IPD-system device project is available, and you have permission to **configure work item templates** for the project.
- The total number of system and common statuses in a project cannot exceed 50.

Configuring Common Statuses in a Project

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **Work**.

Step 3 In the navigation pane, choose **Work Items** > **Common Status**.

Step 4 Click **Create Status** under **Add Status**. In the displayed dialog box, set the required parameters.

Table 7-6 Creating a status

Parameter	Description
Name	Enter a maximum of 30 characters, including letters, digits, and hyphens (-).
Category	Category of the status. The options include **To Do**, **Doing**, and **Done**.
Description	Remarks about the status. Enter a maximum of 50 characters, including letters, digits, and hyphens (-).

Step 5 Click **OK**.

The new status is displayed at the end of the list. The parameters in this list are described in the following table.

Table 7-7 Status list

Parameter	Description
Name	System or custom status name. Hover over the header and click to sort by status name.
Created By	The user who creates a status. Hover over the header and click to sort by creator.
Created	Time when a status is created. Hover over the header and click to sort by creation time.

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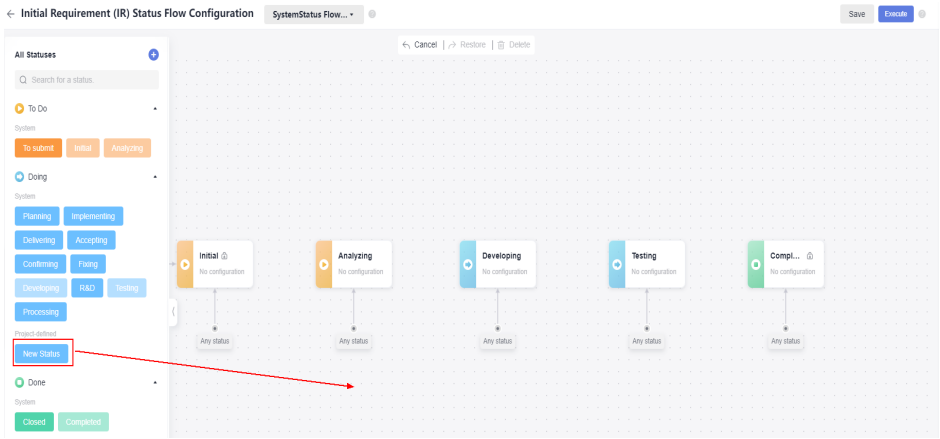
Parameter	Description
Category	System or custom status category. The options include **To Do**, **Doing**, and **Done**. Hover over the header and click to sort by status category. Hover over the header and click to filter statuses.
Status	Work item types that are currently using a system or custom status.
Description	System or custom status description.
Operation	You can edit and delete a status. To edit a status, click in this column. • System statuses cannot be edited. • Custom statuses of the tenant cannot be edited here. To delete a status, click in this column. • System statuses cannot be deleted. • Custom statuses that are currently in use by work items cannot be deleted. • Deleted statuses cannot be recovered.

Step 6 (Optional) Add a common status (for example, **CommonStatus01**) to the work item status flow.

The following uses the IR work item status flow as an example:

1. Under **Work Configuration**, choose **Work Items > Initial Requirement (IR) > Status Flows**, and click **Edit**.
2. Click on the left, select **CommonStatus01** on the **All Statuses** panel, and drag it to the status flow canvas. Draw incoming and outgoing transition lines for the status, and click **Update Status Flow**.

Figure 7-3 Expanding all statuses



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3. Check this **CommonStatus01** status in IRs' status flows on the **Work** > **Req** > **R&D Requirements** page.

   NOTE

   - Custom common statuses can be configured and used for all types of work items of the current project.
   - The IR work item status flow is used as an example. You can add common statuses to other work item templates in the same way, and only need to do this once for each of them.

----End

Related Operations

You can also configure tenant-level statuses in the tenant settings. Then these statuses can be used in the workflow of any work item type. For details, see **Configuring Work Item Statuses**.

7.2.4 Configuring Work Item Templates

Customize different types of work item templates, and specify whether to display each field on work item creation pages, whether these fields are mandatory, and what they default to. These templates are used by default when you create work items.

Prerequisites

- An IPD-system device project is available, and you have permission to **configure work item templates** for the project.
- You have the **Tenant Administrator** permission.

Configuring Field and Description Templates for RRs

Step 1 **Access the CodeArts Req homepage**.

Step 2 Go to a project and choose **Settings** > **Work**.

Step 3 In the navigation pane, choose **Work Items** > **Raw Requirement (RR)** > **Field Templates**.

Step 4 Edit the field template as required.

- Click **Add Field** to add a system or custom field. If needed, click **Create Field** to create one.
- In the **Display During Creation** column, specify whether to show each system or custom field on the work item creation page.
- In the **Required** column, specify whether each system or custom field must be set.
- In the **Default Value** column, set a default value for each system or custom field.

Step 5 Click ⠿ on the left of each field to adjust their sequence.

Step 6 Choose **Work Items** > **Raw Requirement (RR)** > **Description Templates**. Then click **Edit**.

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Customize the RR description template and click **Save**.

----End

Configuring Field and Description Templates for SFs

Step 1 Go to a project and choose **Settings** > **Work**.

Step 2 In the navigation pane, choose **Work Items** > **System Feature (SF)** > **Field Templates**.

Step 3 Edit the field template as required.

- Click **Add Field** to add a system or custom field. If needed, click **Create Field** to create one.
- In the **Display During Creation** column, specify whether to show each system or custom field on the work item creation page.
- In the **Default Value** column, set a default value for each system or custom field.
- Set **Default Value** for system or custom fields.
- In the **Baselined** column, specify whether to lock each system or custom field in the baseline.

Step 4 Click ⠿ on the left of each field to adjust their sequence.

Step 5 Choose **Work Items** > **System Feature (SF)** > **Description Templates**. Then click **Edit**.

Customize the SF description template and click **Save**.

----End

Configuring Field and Description Templates for IRs

Step 1 Go to a project and choose **Settings** > **Work**.

Step 2 In the navigation pane, choose **Work Items** > **Initial Requirement (IR)** > **Field Templates**.

Step 3 Edit the field template as required.

- Click **Add Field** to add a system or custom field. If needed, click **Create Field** to create one.
- In the **Display During Creation** column, specify whether to show each system or custom field on the work item creation page.
- In the **Default Value** column, set a default value for each system or custom field.
- Set **Default Value** for system or custom fields.
- In the **Baselined** column, specify whether to lock each system or custom field in the baseline.

Step 4 Click ⠿ on the left of each field to adjust their sequence.

Step 5 Choose **Work Items** > **Initial Requirement (IR)** > **Description Templates**. Then click **Edit**.

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Customize the IR description template and click **Save**.

----End

Configuring Field and Description Templates for SRs

Step 1 Go to a project and choose **Settings** > **Work**.

Step 2 In the navigation pane, choose **Work Items** > **System Requirement (SR)** > **Field Templates**.

Step 3 Edit the field template as required.

- Click **Add Field** to add a system or custom field. If needed, click **Create Field** to create one.
- In the **Display During Creation** column, specify whether to show each system or custom field on the work item creation page.
- In the **Default Value** column, set a default value for each system or custom field.
- Set **Default Value** for system or custom fields.
- In the **Baselined** column, specify whether to lock each system or custom field in the baseline.

Step 4 Click ⠿ on the left of each field to adjust their sequence.

Step 5 Choose **Work Items** > **System Requirement (SR)** > **Description Templates**. Then click **Edit**.

Customize the SR description template and click **Save**.

----End

Configuring Field and Description Templates for ARs

Step 1 Go to a project and choose **Settings** > **Work**.

Step 2 In the navigation pane, choose **Work Items** > **Allocated Requirement (AR)** > **Field Templates**.

Step 3 Edit the field template as required.

- Click **Add Field** to add a system or custom field. If needed, click **Create Field** to create one.
- In the **Display During Creation** column, specify whether to show each system or custom field on the work item creation page.
- In the **Default Value** column, set a default value for each system or custom field.
- Set **Default Value** for system or custom fields.
- In the **Baselined** column, specify whether to lock each system or custom field in the baseline.

Step 4 Click ⠿ on the left of each field to adjust their sequence.

Step 5 Choose **Work Items** > **Allocated Requirement (AR)** > **Description Templates**. Then click **Edit**.

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Customize the AR description template and click **Save**.

----End

Configuring Field and Description Templates for Tasks

Step 1 Go to a project and choose **Settings** > **Work**.

Step 2 In the navigation pane, choose **Work Items** > **Task** > **Field Templates**.

Step 3 Edit the field template as required.

- Click **Add Field** to add a system or custom field. If needed, click **Create Field** to create one.
- In the **Display During Creation** column, specify whether to show each system or custom field on the work item creation page.
- In the **Required** column, specify whether each system or custom field must be set.
- In the **Default Value** column, set a default value for each system or custom field.

Step 4 Click ⠿ on the left of each field to adjust their sequence.

Step 5 Choose **Work Items** > **Task** > **Description Templates**. Then click **Edit**.

Customize the task description template and click **Save**.

----End

Configuring Field and Description Templates for Bugs

Step 1 Go to a project and choose **Settings** > **Work**.

Step 2 In the navigation pane, choose **Work Items** > **Bug** > **Field Templates**.

Step 3 Edit the field template as required.

- Click **Add Field** to add a system or custom field. If needed, click **Create Field** to create one.
- In the **Display During Creation** column, specify whether to show each system or custom field on the work item creation page.
- In the **Required** column, specify whether each system or custom field must be set.
- In the **Default Value** column, set a default value for each system or custom field.

Step 4 Click ⠿ on the left of each field to adjust their sequence.

Step 5 Choose **Work Items** > **Bug** > **Description Templates**. Then click **Edit**.

Customize the bug description template and click **Save**.

----End

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7.2.5 Configuring Work Item Status Flows

You can customize the status sequence, and switch to and execute a status flow based on your service requirements.

Prerequisites

Adding a Node Status

Customizing an RR Status Flow

Customizing an SF Status Flow

Customizing an R&D Requirement (IR/SR/AR) Status Flow

Customizing a Task Status Flow

Customizing a Bug Status Flow

Prerequisites

An IPD-system device project is available, and you have permission to **configure workflows** for the project.

Adding a Node Status

There are three types of statuses in a custom status flow: **To Do**, **Doing**, and **Done**. These nodes are either system-default or project-specific. You can manage the node status on the **Work Item** > **Work Item Management** > **Common Status** page.

Step 1 Expand the status drawer.

Step 2 Click  to add a status. If no new status is available, add it first.

Step 3 View the new status in the **Project-defined** area on the status page. The status is also displayed on the canvas.

Alternatively, view the new status in the status management area on the **Settings** > **Work Item** > **Work Item Management** > **Status** page.

----End

Customizing an RR Status Flow

Step 1 **Access the CodeArts Req homepage**.

Step 2 Go to a project and choose **Settings** > **Work Item**.

Step 3 Choose **Work Item Management** > **RR** > **Status Flow**. The RR status flow page is displayed.

Step 4 Click **Edit**. The **Raw Requirement Status Flow Configuration** page is displayed and the system status flow list is displayed by default. The first record is the latest, and the current status flow is marked in the list.

Step 5 Copy a status flow.

- Add a custom status flow by editing a system status flow.

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Edit the system status flow and click **Update Status Flow**. The system displays a message indicating that the edited system status flow will be copied to generate a custom status flow. Click **OK**/**Save**. A custom status flow is added.

- Add a custom status flow by clicking on the right of a system status flow.

Step 6 Add a node by referring to **Adding a Node Status**. A maximum of **30** nodes can be added to a workflow.

Step 7 Edit a status node of the status flow. To add a status node to the canvas, select the status on the status menu bar and drag it to the corresponding position.

1. Select the status node to be edited. The status information page is displayed.
2. Edit the status information. You can set **Suspend/Cancel** and whether to allow operations by the proposing project. Whether to allow operations by the proposing project: This controls whether members of the **Proposing project** can edit, suspend, unsuspend, and change work item status.

   Take the **Analyzing** status as an example. If you enable the **Suspend/Cancel** switch, when an RR enters the **Analyzing** status, you can click **Suspend** in the upper right corner of the details page and enter the suspension reason. Then, the requirement enters the **Suspended** status and is marked as suspended in the requirement list.

   You can unsuspend requirements. Once you unsuspend a requirement, the suspension flag on the requirement name disappears. Click **Cancel Suspension** in the upper right corner of the details page to continue the process.
3. Edit the status configuration.
   - **Field Configuration** is enabled by default. If it is disabled, fields cannot be edited.
   - Each type of status node has default fields. To add fields, click **Add Field**. The **Add Field** page is displayed. Select a field from the drop-down list. The description of the field is displayed. Enter the default value.

Table 7-8 Adding a field

Parameter	Description
Field Name	Mandatory. Select a field from the drop-down list. If no field is available, click **Add Field** and then add one.
Description	After a field is selected, its description is automatically displayed.
Default Value	Optional. It indicates the default value of the selected field.
Display During Creation	Optional. Set whether to display the field on the new page. The field is enabled by default.
Required	Optional. Whether the field is mandatory during work item transfer. By default, the field is optional.

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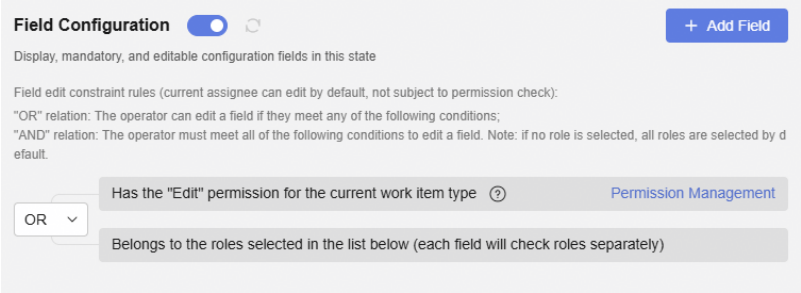
- Configure field editing restriction rules. The current owner is allowed to edit fields by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used.

  OR logic: The operator can edit certain fields if they meet any one of the following conditions.

  And: The operator must meet all of the following conditions to edit certain fields. Initially, all roles are selected by default.

  i. Condition 1: **Has the Edit permission for the current work item type**.
     - If the operation is performed in the **Responsible Project**, the system checks whether the operator has the edit permission in the responsible project.
     - If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has the edit permission in the **Proposing Project**.

  ii. Condition 2: **Belongs to the roles selected in the list below (each field will check roles separately)**.



- Configure a field.

Table 7-9 Fields

Field	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.
Editable	Set whether the field is editable in a work item of the current status.
Required	Set whether the field is mandatory in a work item of the current status. If the field is mandatory, it will be marked with an asterisk (*).

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Field	Description
Role	Select roles from the drop-down list. Available options include temporary roles and project roles. The selected roles are used to verify field editing permissions. **NOTE** If **Display** or **Editable** is set to **No**, role configuration does not take effect, and the selected roles are grayed out. ■ Options: Only the temporary roles and project roles of the project to which the current status flow belongs are available. ■ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification.
Controlled or Not	1. Set whether a field is controlled in the current status node. 2. Controlled fields of the work item under review cannot be edited until the review is finished.

Step 8 Edit a transition line.

1. Click a status flow transition line. The **Transition Line Information** page is displayed.
2. Set the transition line information.

   The transition line information area displays the **Start Status**, **Target Status**, **Transition Line Name** (which is an operation button on the details page and can be edited), and **Set as primary transfer** parameters. **Set as primary transfer** is disabled by default. If the transition is set as the main transition, it is displayed as a main blue button on the work item details page to prompt users to perform the best operation during the transition. Other transitions are displayed as gray buttons. The following figure shows the transition line name displayed on the work item details page.

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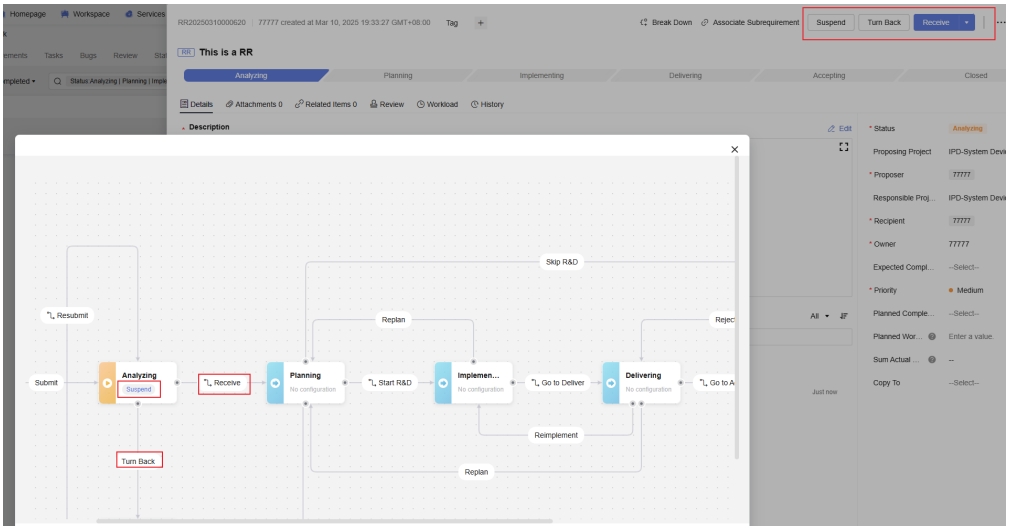
Figure 7-4 Status flow in work item details



3. Configure pre-transition verification. The transition can be performed only when the verification items meet the requirements. The verification items are described in the following table.

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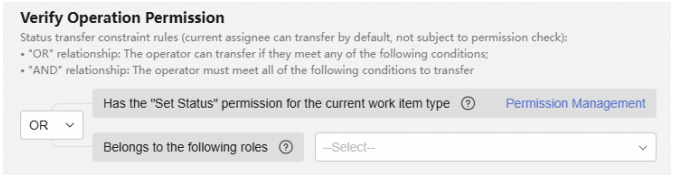
Table 7-10 Pre-transition verification

Verification Item	Description
Verify Operation Permission	Configure status transition restriction rules. The current owner is allowed to perform status transitions by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used. **OR** logic: The operator can perform the status transition if they meet any one of the following conditions. **And**: The operator must meet all of the following conditions to perform the status transition. 1. Condition 1: **Has permission to set the status for the current work item type**. Permission verification is performed based on the project where the status transition is initiated: ▪ If the operation is performed in the **Responsible Project**, the system checks whether the operator has permission to set work item status in the responsible project. ▪ If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has permission to set work item status in **Proposing Project**. 2. Condition 2: **Belongs to one of the following roles**. Select roles from the drop-down list. Available options include temporary roles and project roles. ▪ Available roles: Only temporary roles and project roles of the project to which the current status flow belongs are available. ▪ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification. 
Validate Field Information	Optional. This verification is required by default. You can also disable it. If you enable the option, click **Add Fields**. On the **Add Fields** page, select the field to be added, set **Field Value**, and click **OK**.

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Verification Item	Description
Verifying Associate Item Information	Optional. This verification is required by default. You can also disable it. If you enable this option, click **Add Associated Items**. On the **Add Associated Items** page, select the desired associated items, select **Condition** (**None** by default), and click **OK**.

4. Configure the in-transition page.

   Configure additional information that must be entered during status transition to proceed. The **In-transition GUI Config** switch is enabled by default and can be disabled. If the switch is enabled, click **Add Field**. The **Add Field** dialog box is displayed. Select the field to be added from the drop-down list and click **OK**. The field is displayed in the field list.

   NOTE

   If **Required** is selected when a field is added, the field name in the field list is marked with an asterisk (*).

5. Configure the post-transition action.

   After the transition is successfully executed, the configured post-transition actions are automatically executed. Configure the post-transition actions as follows.

   Table 7-11 Configuration items for post-transition actions

Configuration Item	Description
Update fields	Update the value of a specified field after the successful transition. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Update fields** and click **OK**. 3. In the **Add Field** window, select the field to be added in the **Select Field** text box. 4. Set the judgment condition and default value for the selected field. 5. Click **OK**. The field will be displayed in the post-transition action list.

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Configuration Item	Description
Baseline-related operations	Update the baseline status of the target object after the transition is successful. If the current baseline status of the target object is the same as the updated baseline status after the transition is successful, this post-transition action will not be executed. For example, if **Baseline current work item** is selected for a baselined work item, this action will not be executed. **CAUTION** – For RRs and bugs in IPD-system device projects and IPD-standalone software projects, you cannot baseline or unbaseline the current work item. If the selected associated work item type contains such work items, the related post-transition action will not succeed. – For IPD-self-operated software/cloud service projects, you cannot add **Baseline-related operations** as post-transition actions. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Baseline related operations** and click **OK**. The **Baseline related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ **Baseline correlation**: This action is performed only when both of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review. ▪ **Cancel baseline association**: This action is performed only when all of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review. c. When an associated work item belongs to a sprint, the sprint is not baselined. d. When an associated work item does not belong to any sprint but belongs to a release, the release is not baselined. 4. Set **Description**. 5. Click **OK**. The baseline operation will be displayed in the post-transition action list.

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Configuration Item	Description
Snapshot-related operations	After the transition is successful, take a snapshot of the current work item or associated item. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Snapshot related operations** and click **OK**. The **Snapshot related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ **Take a snapshot of the current work item** ▪ **Take a snapshot of associated work items** 4. If you select **Take a snapshot of associated work items**, select the type of the work item to be associated from the **Associated work item types for snapshotting** drop-down list. 5. Set **Description**. 6. Click **OK**. The snapshot operation will be displayed in the post-transition action list.

Step 9 (Optional) If you add a node to the canvas, draw connection lines using the mouse and enter the transition line name. Repeat steps 7 to 8 to edit the status flow node and transition lines.

Step 10 Configure the main navigation bar.

Click **Update Status Flow** in the upper right corner to display the navigation for optimal work item transition. Drag nodes on the navigation bar to adjust their sequence.

The default **To Do** and **Done** nodes cannot be dragged. If there is no transition line between two statuses, the nodes cannot be dragged together, and the message **This status cannot be transitioned. Orchestrate statuses again.** is displayed.

Step 11 Click **OK**. A message is displayed, indicating that the update is successful. Go to the work item details page to view the status flow configuration.

----End

Customizing an SF Status Flow

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **Work Item**.

Step 3 Choose **Work Item Management** > **SF** > **Status Flow**. The SF status flow page is displayed.

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Step 4 Click **Edit**. The **SF Status Flow Configuration** page is displayed and the SF system status flow list is displayed by default. The first record is the latest status flow, and the current status flow is marked in the list.

Step 5 Copy a status flow.

- Add a custom status flow by editing a system status flow.

  Edit the system status flow and click **Update Status Flow**. The system displays a message indicating that the edited system status flow will be copied to generate a custom status flow. Click **OK**/**Save**. A custom status flow is added.

- Add a custom status flow by clicking on the right of a system status flow.

Step 6 Add a node by referring to **Adding a Node Status**. A maximum of **30** nodes can be added to a workflow.

Step 7 Edit a status node of the status flow. To add a status node to the canvas, select the status on the status menu bar and drag it to the corresponding position.

1. Select the status node to be edited. The status information page is displayed.
2. Edit the status information. **Suspend/Cancel** is disabled by default.

   Take the **Planning** status as an example. If you enable the **Suspend/Cancel** switch, when a feature enters the **Planning** status, you can click **Suspend** in the upper right corner of the details page and enter the suspension reason. Then, the feature enters the **Suspended** status and is marked as suspended in the feature list.

   You can unsuspend features. Once you unsuspend a feature, the suspension flag on the feature name disappears. Click **Cancel Suspension** in the upper right corner of the details page to continue the process.
3. Edit the status configuration.
   - You can configure **Transition from Any Status to This Status**. If the switch is enabled, any status can transit to this status.
   - **Field Configuration** is enabled by default. If it is disabled, fields cannot be edited.
   - Each type of status node has default fields. To add more fields, click **Add Field**. The **Add Field** page is displayed. Select a field from the drop-down list. The description of the field is displayed. Enter the default value.

Table 7-12 Adding a field

Parameter	Description
Field Name	Mandatory. Select a field from the drop-down list. If no field is available, click **Add Field** and then add one.
Description	After a field is selected, its description is automatically displayed.
Default Value	Optional. It indicates the default value of the selected field.

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Parameter	Description
Display During Creation	Optional. Set whether to display the field on the work item creation page. The field is enabled by default.
Required	Optional. Whether the field is mandatory during work item transfer. By default, the field is optional.
Baselined	1. Set whether the field is a baselined field in the workflow. Baselined fields are marked with and cannot be modified. 2. Baselined fields in the baselined work item can be modified only after the change review is passed.

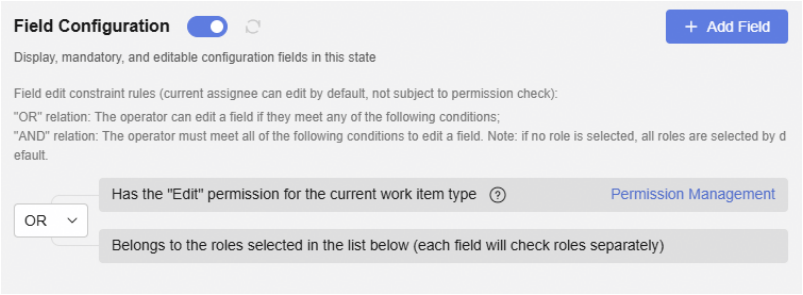
- Configure field editing restriction rules. The current owner is allowed to edit fields by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used.

  OR logic: The operator can edit certain fields if they meet any one of the following conditions.

  And: The operator must meet all of the following conditions to edit certain fields. Initially, all roles are selected by default.

  i. Condition 1: **Has the Edit permission for the current work item type**.
     - If the operation is performed in the **Responsible Project**, the system checks whether the operator has the edit permission in the responsible project.
     - If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has the edit permission in the **Proposing Project**.

  ii. Condition 2: **Belongs to the roles selected in the list below (each field will check roles separately)**.



- Configure a field.

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Table 7-13 Fields

Field	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.
Editable	Set whether the field is editable in a work item of the current status.
Required	Set whether the field is mandatory in a work item of the current status. If the field is mandatory, it will be marked with an asterisk (*).
Role	Select roles from the drop-down list. Available options include temporary roles and project roles. The selected roles are used to verify field editing permissions. **NOTE** If **Display** or **Editable** is set to **No**, role configuration does not take effect, and the selected roles are grayed out. ■ Options: Only the temporary roles and project roles of the project to which the current status flow belongs are available. ■ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification.

Step 8 Edit a transition line.

1. Click a status flow transition line. The **Transition Line Information** page is displayed.
2. Set the transition line information.

   The transition line information area displays the **Start Status**, **Target Status**, **Transition Line Name** (which is an operation button on the details page and can be edited), and **Set as primary transfer** parameters. **Set as primary transfer** is disabled by default. If the transition is set as the main transition, it is displayed as a main blue button on the work item details page to prompt users to perform the best operation during the transition. Other transitions are displayed as gray buttons. The following figure shows the transition line name displayed on the work item details page.

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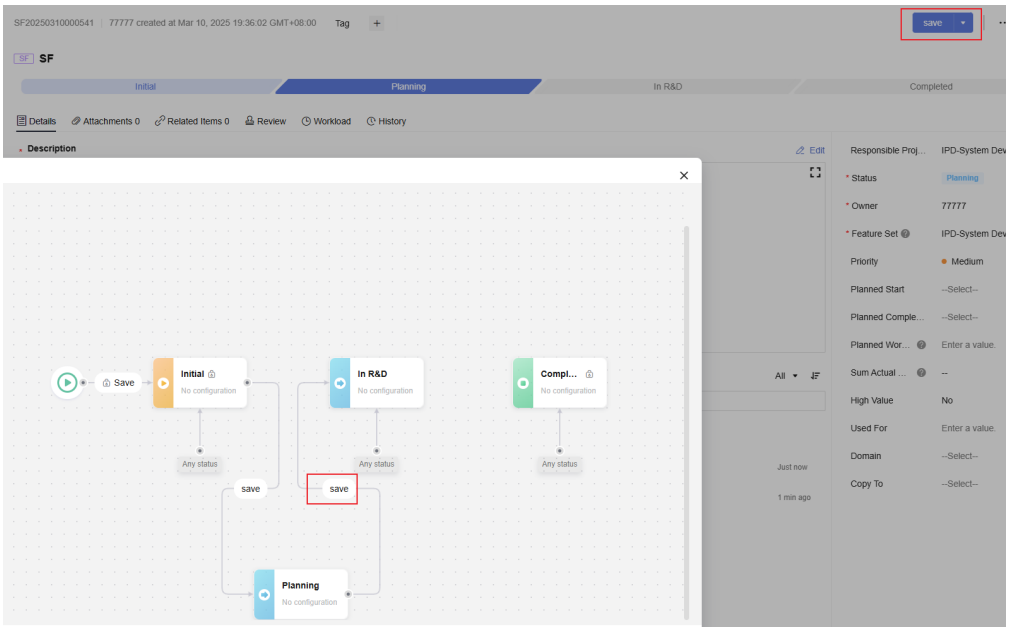

3. Configure pre-transition verification. The transition can be performed only when the verification items meet the requirements. The verification items are as follows.

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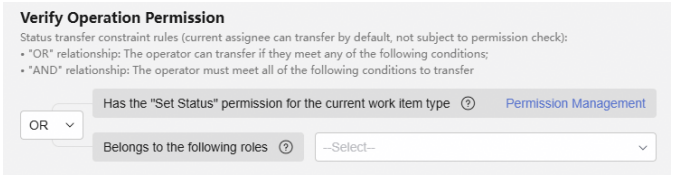
Table 7-14 Pre-transition verification

Verification Item	Description
Verify Operation Permission	Configure status transition restriction rules. The current owner is allowed to perform status transitions by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used. **OR** logic: The operator can perform the status transition if they meet any one of the following conditions. **And**: The operator must meet all of the following conditions to perform the status transition. 1. Condition 1: **Has permission to set the status for the current work item type**. Permission verification is performed based on the project where the status transition is initiated: ▪ If the operation is performed in the **Responsible Project**, the system checks whether the operator has permission to set work item status in the responsible project. ▪ If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has permission to set work item status in **Proposing Project**. 2. Condition 2: **Belongs to one of the following roles**. Select roles from the drop-down list. Available options include temporary roles and project roles. ▪ Available roles: Only temporary roles and project roles of the project to which the current status flow belongs are available. ▪ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification. 
Validate Field Information	Optional. This verification is required by default. You can also disable it. If you enable the option, click **Add Fields**. On the **Add Fields** page, select the field to be added, set **Field Value**, and click **OK**.

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Verification Item	Description
Verifying Associate Item Information	Optional. This verification is required by default. You can also disable it. If you enable this option, click **Add Associated Items**. On the **Add Associated Items** page, select the desired associated items, select **Condition** (**None** by default), and click **OK**.

4. Configure the in-transition page.

   Configure additional information that must be entered during status transition to proceed. The **In-transition GUI Config** switch is enabled by default and can be disabled. If the switch is enabled, click **Add Field**. The **Add Field** dialog box is displayed. Select the field to be added from the drop-down list and click **OK**. The field is displayed in the field list.

   NOTE

   If **Required** is selected when a field is added, the field name in the field list is marked with an asterisk (*).

5. Configure the post-transition action.

   After the transition is successfully executed, the configured post-transition actions are automatically executed. Configure the post-transition actions as follows.

   Table 7-15 Configuration items for post-transition actions

Configuration Item	Description
Update fields	Update the value of a specified field after the successful transition. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Update fields** and click **OK**. 3. In the **Add Field** window, select the field to be added in the **Select Field** text box. 4. Set the judgment condition and default value for the selected field. 5. Click **OK**. The field will be displayed in the post-transition action list.

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Configuration Item	Description
Baseline-related operations	Update the baseline status of the target object after the transition is successful. If the current baseline status of the target object is the same as the updated baseline status after the transition is successful, this post-action will not be executed. For example, if **Baseline current work item** is selected for a baselined work item, this action will not be executed. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Baseline related operations** and click **OK**. The **Baseline related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ **Baseline current work item**: This action is performed only when both of the following conditions are met: a. The work item is not under a baseline review. b. The work item is not under a change review. ▪ **Cancel baseline current work item**: This action is performed only when all of the following conditions are met: a. The work item is not under a baseline review. b. The work item is not under a change review. c. When a work item belongs to a sprint, the sprint is not baselined. d. When a work item does not belong to any sprint but belongs to a release, the release is not baselined. ▪ **Baseline correlation**: This action is performed only when both of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review. ▪ **Cancel baseline association**: This action is performed only when all of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review.

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Configuration Item	Description
	c. When an associated work item belongs to a sprint, the sprint is not baselined. d. When an associated work item does not belong to any sprint but belongs to a release, the release is not baselined. 4. Set **Description**. 5. Click **OK**. The baseline operation will be displayed in the post-transition action list.
Snapshot-related operations	After the transition is successful, take a snapshot of the current work item or associated item. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Snapshot related operations** and click **OK**. The **Snapshot related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ Take a snapshot of the current work item ▪ Take a snapshot of associated work items 4. If you select **Take a snapshot of associated work items**, select the type of the work item to be associated from the **Associated work item types for snapshotting** drop-down list. 5. Set **Description**. 6. Click **OK**. The snapshot operation will be displayed in the post-transition action list.

Step 9 (Optional) If you add a node to the canvas, draw connection lines using the mouse and enter the transition line name. Repeat steps 7 to 8 to edit the status flow node and transition lines.

Step 10 Configure the main navigation bar.

Click **Update Status Flow** in the upper right corner to display the navigation for optimal work item transition. Drag nodes on the navigation bar to adjust their sequence.

The default **To Do** and **Done** nodes cannot be dragged. If **Transition from Any Status to This Status** is enabled for a status flow node, you can drag the node on the main navigation bar. If **Transition from Any Status to This Status** is disabled and there is no transition line between the two statuses, the nodes cannot be dragged together, and the message **This status cannot be transitioned. Orchestrate statuses again.** is displayed.

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Step 11 Click **OK**. A message is displayed, indicating that the update is successful. Go to the work item details page to view the status flow configuration.

----End

Customizing an R&D Requirement (IR/SR/AR) Status Flow

The following uses the IR status flow as an example. The SR/AR status flow configuration is the same.

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **Work Item**.

Step 3 Choose **Work Item Management** > **IR** > **Status Flow**. The IR status flow page is displayed.

Step 4 Click **Edit**. The **IR Status Flow Configuration** page is displayed and the IR system status flow list is displayed by default. The first record is the latest status flow, and the current status flow is marked in the list.

Step 5 Copy a status flow.

- Add a custom status flow by editing a system status flow.

  Edit the system status flow and click **Update Status Flow**. The system displays a message indicating that the edited system status flow will be copied to generate a custom status flow. Click **OK**/**Save**. A custom status flow is added.

- Add a custom status flow by clicking on the right of a system status flow.

Step 6 Add a node by referring to **Adding a Node Status**. A maximum of **30** nodes can be added to a workflow.

Step 7 Edit a status node of the status flow. To add a status node to the canvas, select the status on the status menu bar and drag it to the corresponding position.

1. Select the status node to be edited. The status information page is displayed.
2. Edit the status information. **Suspend/Cancel** is disabled by default.

   Take the **Analyzing** status as an example. If you enable the **Suspend/Cancel** switch, when an IR enters the **Analyzing** status, you can click **Suspend** in the upper right corner of the details page and enter the suspension reason. Then, the requirement enters the **Suspended** status and is marked as suspended in the requirement list.

   You can unsuspend requirements. Once you unsuspend a requirement, the suspension flag on the requirement name disappears. Click **Cancel Suspension** in the upper right corner of the details page to continue the process.
3. Edit the status configuration.
   - You can configure **Transition from Any Status to This Status**. If the switch is enabled, any status can transit to this status.
   - **Field Configuration** is enabled by default. If it is disabled, fields cannot be edited.

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- Each type of status node has default fields. To add more fields, click **Add Field**. The **Add Field** page is displayed. Select a field from the drop-down list. The description of the field is displayed. Enter the default value.

  Table 7-16 Adding a field

Parameter	Description
Field Name	Mandatory. Select a field from the drop-down list. If no field is available, click **Add Field** and then add one.
Description	After a field is selected, its description is automatically displayed.
Default Value	Optional. It indicates the default value of the selected field.
Display During Creation	Optional. Set whether to display the field on the work item creation page. The field is enabled by default.
Required	Optional. Whether the field is mandatory during work item transfer. By default, the field is optional.
Baselined	1. Set whether the field is a baselined field in the workflow. Baselined fields are marked with  and cannot be modified. 2. Baselined fields in the baselined work item can be modified only after the change review is passed.

- Configure field editing restriction rules. The current owner is allowed to edit fields by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used.

  OR logic: The operator can edit certain fields if they meet any one of the following conditions.

  And: The operator must meet all of the following conditions to edit certain fields. Initially, all roles are selected by default.

  i. Condition 1: **Has the Edit permission for the current work item type**.
     - If the operation is performed in the **Responsible Project**, the system checks whether the operator has the edit permission in the responsible project.
     - If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has the edit permission in the **Proposing Project**.

  ii. Condition 2: **Belongs to the roles selected in the list below (each field will check roles separately)**.

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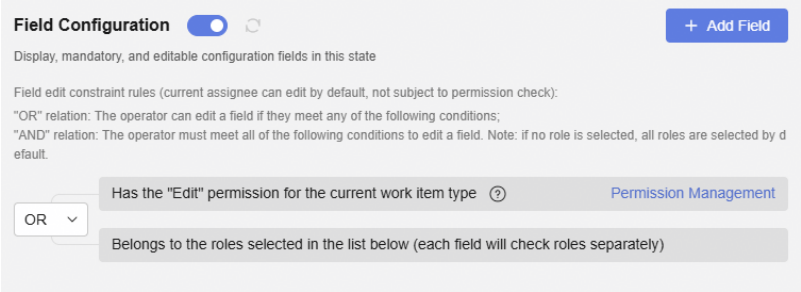

- Configure a field.

Table 7-17 Fields

Field	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.
Editable	Set whether the field is editable in a work item of the current status.
Required	Set whether the field is mandatory in a work item of the current status. If the field is mandatory, it will be marked with an asterisk (*).
Role	Select roles from the drop-down list. Available options include temporary roles and project roles. The selected roles are used to verify field editing permissions. **NOTE** If **Display** or **Editable** is set to **No**, role configuration does not take effect, and the selected roles are grayed out. ■ Options: Only the temporary roles and project roles of the project to which the current status flow belongs are available. ■ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification.

Step 8 Edit a transition line.

1. Click a status flow transition line. The **Transition Line Information** page is displayed.
2. Set the transition line information.

   The transition line information area displays the **Start Status**, **Target Status**, **Transition Line Name** (which is an operation button on the details page and can be edited), and **Set as primary transfer** parameters. **Set as primary transfer** is disabled by default. If the transition is set as the main transition, it

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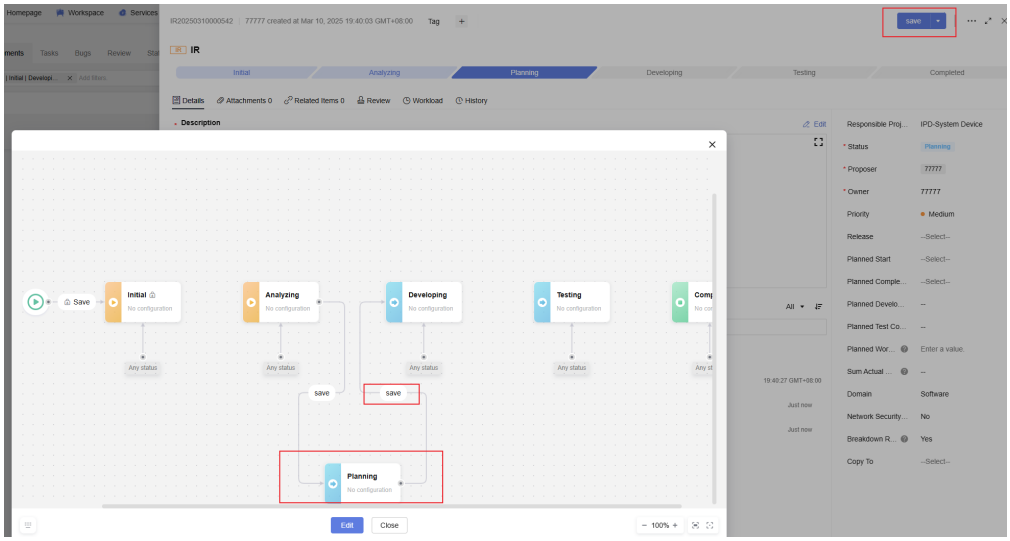
is displayed as a main blue button on the work item details page to prompt users to perform the best operation during the transition. Other transitions are displayed as gray buttons. The following figure shows the transition line name displayed on the work item details page.



3. Configure pre-transition verification. The transition can be performed only when the verification items meet the requirements. The verification items are as follows.

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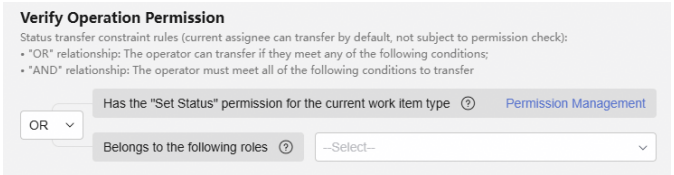
Table 7-18 Pre-transition verification

Verification Item	Description
Verify Operation Permission	Configure status transition restriction rules. The current owner is allowed to perform status transitions by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used. **OR** logic: The operator can perform the status transition if they meet any one of the following conditions. **And**: The operator must meet all of the following conditions to perform the status transition. 1. Condition 1: **Has permission to set the status for the current work item type**. Permission verification is performed based on the project where the status transition is initiated: ▪ If the operation is performed in the **Responsible Project**, the system checks whether the operator has permission to set work item status in the responsible project. ▪ If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has permission to set work item status in **Proposing Project**. 2. Condition 2: **Belongs to one of the following roles**. Select roles from the drop-down list. Available options include temporary roles and project roles. ▪ Available roles: Only temporary roles and project roles of the project to which the current status flow belongs are available. ▪ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification. 
Validate Field Information	Optional. This verification is required by default. You can also disable it. If you enable the option, click **Add Fields**. On the **Add Fields** page, select the field to be added, set **Field Value**, and click **OK**.

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Verification Item	Description
Verifying Associate Item Information	Optional. This verification is required by default. You can also disable it. If you enable this option, click **Add Associated Items**. On the **Add Associated Items** page, select the desired associated items, select **Condition** (**None** by default), and click **OK**.

4. Configure the in-transition page.

   Configure additional information that must be entered during status transition to proceed. The **In-transition GUI Config** switch is enabled by default and can be disabled. If the switch is enabled, click **Add Field**. The **Add Field** dialog box is displayed. Select the field to be added from the drop-down list and click **OK**. The field is displayed in the field list.

   NOTE

   If **Mandatory** is selected when a field is added, the field name in the field list is marked with an asterisk (*).

5. Configure the post-transition action.

   After the transition is successfully executed, the configured post-transition actions are automatically executed. Configure the post-transition actions as follows.

Table 7-19 Configuration items for post-transition actions

Configuration Item	Description
Update fields	Update the value of a specified field after the successful transition. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Update fields** and click **OK**. 3. In the **Add Field** window, select the field to be added in the **Select Field** text box. 4. Set the judgment condition and default value for the selected field. 5. Click **OK**. The field will be displayed in the post-transition action list.

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Configuration Item	Description
Baseline-related operations	Update the baseline status of the target object after the transition is successful. If the current baseline status of the target object is the same as the updated baseline status after the transition is successful, this post-action will not be executed. For example, if **Baseline current work item** is selected for a baselined work item, this action will not be executed. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Baseline related operations** and click **OK**. The **Baseline related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ **Baseline current work item**: This action is performed only when both of the following conditions are met: a. The work item is not under a baseline review. b. The work item is not under a change review. ▪ **Cancel baseline current work item**: This action is performed only when all of the following conditions are met: a. The work item is not under a baseline review. b. The work item is not under a change review. c. When a work item belongs to a sprint, the sprint is not baselined. d. When a work item does not belong to any sprint but belongs to a release, the release is not baselined. ▪ **Baseline correlation**: This action is performed only when both of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review. ▪ **Cancel baseline association**: This action is performed only when all of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review.

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Configuration Item	Description
	c. When an associated work item belongs to a sprint, the sprint is not baselined. d. When an associated work item does not belong to any sprint but belongs to a release, the release is not baselined. 4. Set **Description**. 5. Click **OK**. The baseline operation will be displayed in the post-transition action list.
Snapshot-related operations	After the transition is successful, take a snapshot of the current work item or associated item. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Snapshot related operations** and click **OK**. The **Snapshot related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ Take a snapshot of the current work item ▪ Take a snapshot of associated work items 4. If you select **Take a snapshot of associated work items**, select the type of the work item to be associated from the **Associated work item types for snapshotting** drop-down list. 5. Set **Description**. 6. Click **OK**. The snapshot operation will be displayed in the post-transition action list.

Step 9 (Optional) If you add a node to the canvas, draw connection lines using the mouse and enter the transition line name. Repeat steps **Step 7** to **Step 8** to edit the status flow node and transition lines.

Step 10 Configure the main navigation bar.

Click **Update Status Flow** in the upper right corner to display the navigation for optimal work item transition. Drag nodes on the navigation bar to adjust their sequence.

The default **To Do** and **Done** nodes cannot be dragged. If **Transition from Any Status to This Status** is enabled for a status flow node, you can drag the node on the main navigation bar. If **Transition from Any Status to This Status** is disabled and there is no transition line between the two statuses, the nodes cannot be dragged together, and the message **This status cannot be transitioned. Orchestrate statuses again.** is displayed.

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Step 11 Click **OK**. A message is displayed, indicating that the update is successful. Go to the work item details page to view the status flow configuration.

----End

Customizing a Task Status Flow

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **Work Item**.

Step 3 Choose **Work Item Management** > **Task** > **Status Flow**. The task status flow page is displayed.

Step 4 Click **Edit**. The **Task Status Flow Configuration** page is displayed and the task system status flow list is displayed by default. The first record is the latest status flow, and the current status flow is marked in the list.

Step 5 Copy a status flow.

- Add a custom status flow by editing a system status flow.

  Edit the system status flow and click **Update Status Flow**. The system displays a message indicating that the edited system status flow will be copied to generate a custom status flow. Click **OK**/**Save**. A custom status flow is added.

- Add a custom status flow by clicking on the right of a system status flow.

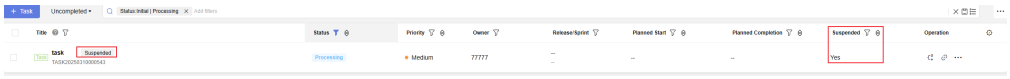
Step 6 Add a node by referring to **Adding a Node Status**. A maximum of **30** nodes can be added to a workflow.

Step 7 Edit a status node of the status flow. To add a status node to the canvas, select the status on the status menu bar and drag it to the corresponding position.

1. Select the status node to be edited. The status information page is displayed.
2. Edit the status information. **Suspend/Cancel** is disabled by default.

   Take the **Processing** status as an example. If you enable the **Suspend/Cancel** switch, when a task enters the **Processing** status, you can click **Suspend** in the upper right corner of the details page and enter the suspension reason. Then, the feature enters the **Suspended** status and is marked as suspended in the task list.

   Figure 7-5 Suspended task

   You can unsuspend tasks. Once a task is unsuspended, the suspension flag on the task name disappears. Click **Cancel Suspension** in the upper right corner of the details page to continue the process.
3. Edit the status configuration.
   - You can configure **Transition from Any Status to This Status**. If the switch is enabled, any status can transit to this status.
   - **Field Configuration** is enabled by default. If it is disabled, fields cannot be edited.

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- Each type of status node has default fields. To add more fields, click **Add Field**. The **Add Field** page is displayed. Select a field from the drop-down list. The description of the field is displayed. Enter the default value.

  Table 7-20 Adding a field

Parameter	Description
Field Name	Mandatory. Select a field from the drop-down list. If no field is available, click **Add Field** and then add one.
Description	After a field is selected, its description is automatically displayed.
Default Value	Optional. It indicates the default value of the selected field.
Display During Creation	Optional. Set whether to display the field on the work item creation page. The field is enabled by default.
Required	Optional. Whether the field is mandatory during work item transfer. By default, the field is optional.
Baselined	1. Set whether the field is a baselined field in the workflow. Baselined fields are marked with  and cannot be modified. 2. Baselined fields in the baselined work item can be modified only after the change review is passed.

- Configure field editing restriction rules. The current owner is allowed to edit fields by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used.

  OR logic: The operator can edit certain fields if they meet any one of the following conditions.

  And: The operator must meet all of the following conditions to edit certain fields. Initially, all roles are selected by default.

  i. Condition 1: **Has the Edit permission for the current work item type**.
     - If the operation is performed in the **Responsible Project**, the system checks whether the operator has the edit permission in the responsible project.
     - If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has the edit permission in the **Proposing Project**.

  ii. Condition 2: **Belongs to the roles selected in the list below (each field will check roles separately)**.

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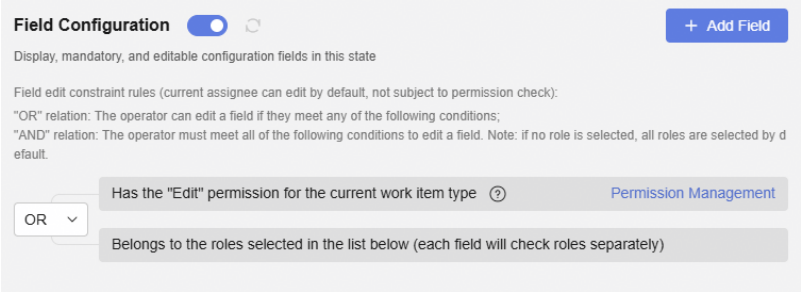

- Configure a field.

  Table 7-21 Fields

Field	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.
Editable	Set whether the field is editable in a work item of the current status.
Required	Set whether the field is mandatory in a work item of the current status. If the field is mandatory, it will be marked with an asterisk (*).
Role	Select roles from the drop-down list. Available options include temporary roles and project roles. The selected roles are used to verify field editing permissions. **NOTE** If **Display** or **Editable** is set to **No**, role configuration does not take effect, and the selected roles are grayed out. ■ Options: Only the temporary roles and project roles of the project to which the current status flow belongs are available. ■ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification.

Step 8 Edit a transition line.

1. Click a status flow transition line. The **Transition Line Information** page is displayed.
2. Set the transition line information.

   The transition line information area displays the **Start Status**, **Target Status**, **Transition Line Name** (which is an operation button on the details page and can be edited), and **Set as primary transfer** parameters. **Set as primary transfer** is disabled by default. If the transition is set as the main transition, it

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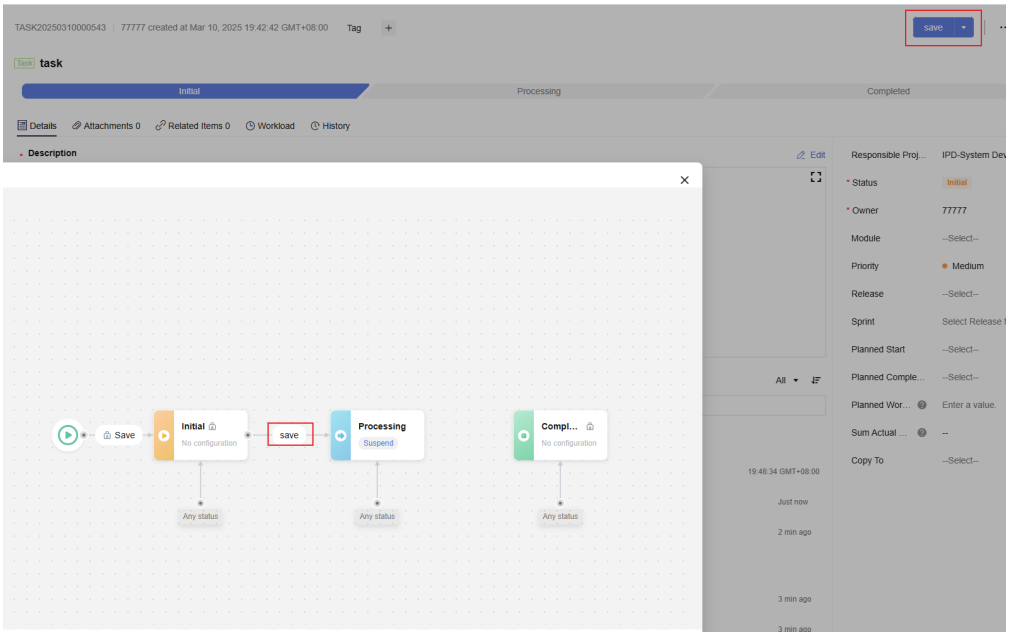
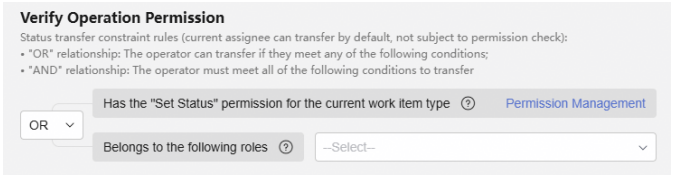
is displayed as a main blue button on the work item details page to prompt users to perform the best operation during the transition. Other transitions are displayed as gray buttons. The following figure shows the transition line name displayed on the work item details page.



3. Configure pre-transition verification. The transition can be performed only when the verification items meet the requirements. The verification items are as follows.

Table 7-22 Pre-transition verification

Verification Item	Description
Verify Operation Permission	Configure status transition restriction rules. The current owner is allowed to perform status transitions by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used. **OR** logic: The operator can perform the status transition if they meet any one of the following conditions. **And**: The operator must meet all of the following conditions to perform the status transition. 1. Condition 1: **Has permission to set the status for the current work item type**. Permission verification is performed based on the project where the status transition is initiated: ▪ If the operation is performed in the **Responsible Project**, the system checks whether the operator has permission to set work item status in the responsible project. ▪ If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has permission to set work item status in **Proposing Project**. 2. Condition 2: **Belongs to one of the following roles**. Select roles from the drop-down list. Available options include temporary roles and project roles. ▪ Available roles: Only temporary roles and project roles of the project to which the current status flow belongs are available. ▪ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification. 
Validate Field Information	Optional. This verification is required by default. You can also disable it. If you enable the option, click **Add Fields**. On the **Add Fields** page, select the field to be added, set **Field Value**, and click **OK**.

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Verification Item	Description
Verifying Associate Item Information	Optional. This verification is required by default. You can also disable it. If you enable this option, click **Add Associated Items**. On the **Add Associated Items** page, select the desired associated items, select **Condition** (**None** by default), and click **OK**.

4. Configure the in-transition page.

   Configure additional information that must be entered during status transition to proceed. The **In-transition GUI Config** switch is enabled by default and can be disabled. If the switch is enabled, click **Add Field**. The **Add Field** dialog box is displayed. Select the field to be added from the drop-down list and click **OK**. The field is displayed in the field list.

   NOTE

   If **Mandatory** is selected when a field is added, the field name in the field list is marked with an asterisk (*).

5. Configure the post-transition action.

   After the transition is successfully executed, the configured post-transition actions are automatically executed. Configure the post-transition actions as follows.

Table 7-23 Configuration items for post-transition actions

Configuration Item	Description
Update fields	Update the value of a specified field after the successful transition. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Update fields** and click **OK**. 3. In the **Add Field** window, select the field to be added in the **Select Field** text box. 4. Set the judgment condition and default value for the selected field. 5. Click **OK**. The field will be displayed in the post-transition action list.

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Configuration Item	Description
Baseline-related operations	Update the baseline status of the target object after the transition is successful. If the current baseline status of the target object is the same as the updated baseline status after the transition is successful, this post-action will not be executed. For example, if **Baseline current work item** is selected for a baselined work item, this action will not be executed. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Baseline related operations** and click **OK**. The **Baseline related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ **Baseline current work item**: This action is performed only when both of the following conditions are met: a. The work item is not under a baseline review. b. The work item is not under a change review. ▪ **Cancel baseline current work item**: This action is performed only when all of the following conditions are met: a. The work item is not under a baseline review. b. The work item is not under a change review. c. When a work item belongs to a sprint, the sprint is not baselined. d. When a work item does not belong to any sprint but belongs to a release, the release is not baselined. ▪ **Baseline correlation**: This action is performed only when both of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review. ▪ **Cancel baseline association**: This action is performed only when all of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review.

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Configuration Item	Description
	c. When an associated work item belongs to a sprint, the sprint is not baselined. d. When an associated work item does not belong to any sprint but belongs to a release, the release is not baselined. 4. Set **Description**. 5. Click **OK**. The baseline operation will be displayed in the post-transition action list.
Snapshot-related operations	After the transition is successful, take a snapshot of the current work item or associated item. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Snapshot related operations** and click **OK**. The **Snapshot related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ Take a snapshot of the current work item ▪ Take a snapshot of associated work items 4. If you select **Take a snapshot of associated work items**, select the type of the work item to be associated from the **Associated work item types for snapshotting** drop-down list. 5. Set **Description**. 6. Click **OK**. The snapshot operation will be displayed in the post-transition action list.

Step 9 (Optional) If you add a node to the canvas, draw connection lines using the mouse and enter the transition line name. Repeat steps 7 to 8 to edit the status flow node and transition lines.

Step 10 Configure the main navigation bar.

Click **Update Status Flow** in the upper right corner to display the navigation for optimal work item transition. Drag nodes on the navigation bar to adjust their sequence.

The default **To Do** and **Done** nodes cannot be dragged. If **Transition from Any Status to This Status** is enabled for a status flow node, you can drag the node on the main navigation bar. If **Transition from Any Status to This Status** is disabled and there is no transition line between the two statuses, the nodes cannot be dragged together, and the message **This status cannot be transitioned. Orchestrate statuses again.** is displayed.

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Step 11 Click **OK**. A message is displayed, indicating that the update is successful. Go to the work item details page to view the status flow configuration.

----End

Customizing a Bug Status Flow

Work items submitted to other projects use the status flow configuration of the responsible project.

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **Work Item**.

Step 3 Choose **Work Item Management** > **Bug** > **Status Flow**. The bug status flow page is displayed.

Step 4 Click **Edit**. The **Bug Status Flow Configuration** page is displayed and the bug system status flow list is displayed by default. The first record is the latest status flow, and the current status flow is marked in the list.

Step 5 Copy a status flow.

- Add a custom status flow by editing a system status flow.

  Edit the system status flow and click **Update Status Flow**. The system displays a message indicating that the edited system status flow will be copied to generate a custom status flow. Click **OK**/**Save**. A custom status flow is added.
- Add a custom status flow by clicking on the right of a system status flow.

Step 6 Add a node by referring to **Adding a Node Status**. A maximum of **30** nodes can be added to a workflow.

Step 7 Edit a status node of the status flow. To add a status node to the canvas, select the status on the status menu bar and drag it to the corresponding position.

1. Select the status node to be edited. The status information page is displayed.
2. Edit the status information. You can set **Suspend/Cancel** and whether to allow operations by the proposing project. Whether to allow operations by the proposing project: This controls whether members of the **Proposing project** can edit, suspend, unsuspend, and change work item status.

   Take the **Analyzing** status as an example. If you enable the **Suspend/Cancel** switch, when a bug enters the **Analyzing** status, you can click **Suspend** in the upper right corner of the details page and enter the suspension reason. Then, the bug enters the **Suspended** status and is marked as suspended in the bug list.

   You can unsuspend bugs. Once you unsuspend a bug, the suspension flag on the bug name disappears. Click **Cancel Suspension** in the upper right corner of the details page to continue the process.
3. Edit the status configuration.
   - **Field Configuration** is enabled by default. If it is disabled, fields cannot be edited.
   - Each type of status node has default fields. To add fields, click **Add Field**. The **Add Field** page is displayed. Select a field from the drop-down list. The description of the field is displayed. Enter the default value.

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Table 7-24 Adding a field

Parameter	Description
Field Name	Mandatory. Select a field from the drop-down list. If no field is available, click **Add Field** and then add one.
Description	After a field is selected, its description is automatically displayed.
Default Value	Optional. It indicates the default value of the selected field.
Display During Creation	Optional. Set whether to display the field on the new page. The field is enabled by default.
Required	Optional. Whether the field is mandatory during work item transfer. By default, the field is optional.

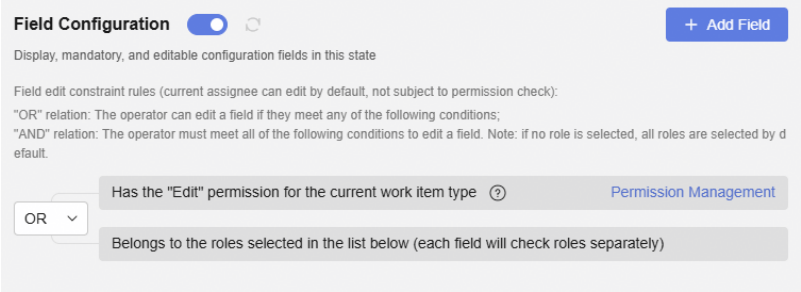
- Configure field editing restriction rules. The current owner is allowed to edit fields by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used.

  OR logic: The operator can edit certain fields if they meet any one of the following conditions.

  And: The operator must meet all of the following conditions to edit certain fields. Initially, all roles are selected by default.

  i. Condition 1: **Has the Edit permission for the current work item type**.
     - If the operation is performed in the **Responsible Project**, the system checks whether the operator has the edit permission in the responsible project.
     - If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has the edit permission in the **Proposing Project**.

  ii. Condition 2: **Belongs to the roles selected in the list below (each field will check roles separately)**.



- Configure a field.

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Table 7-25 Fields

Field	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.
Editable	Set whether the field is editable in a work item of the current status.
Required	Set whether the field is mandatory in a work item of the current status. If the field is mandatory, it will be marked with an asterisk (*).
Role	Select roles from the drop-down list. Available options include temporary roles and project roles. The selected roles are used to verify field editing permissions. **NOTE** If **Display** or **Editable** is set to **No**, role configuration does not take effect, and the selected roles are grayed out. ■ Options: Only the temporary roles and project roles of the project to which the current status flow belongs are available. ■ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification.
Controlled or Not	1. Set whether a field is controlled in the current status node. 2. Controlled fields of the work item under review cannot be edited until the review is finished.

Step 8 Edit a transition line.

1. Click a status flow transition line. The **Transition Line Information** page is displayed.
2. Set the transition line information.

   The transition line information area displays the **Start Status**, **Target Status**, **Transition Line Name** (which is an operation button on the details page and can be edited), and **Set as primary transfer** parameters. **Set as primary transfer** is disabled by default. If the transition is set as the main transition, it is displayed as a main blue button on the work item details page to prompt users to perform the best operation during the transition. Other transitions are displayed as gray buttons. The following figure shows the transition line name displayed on the work item details page.

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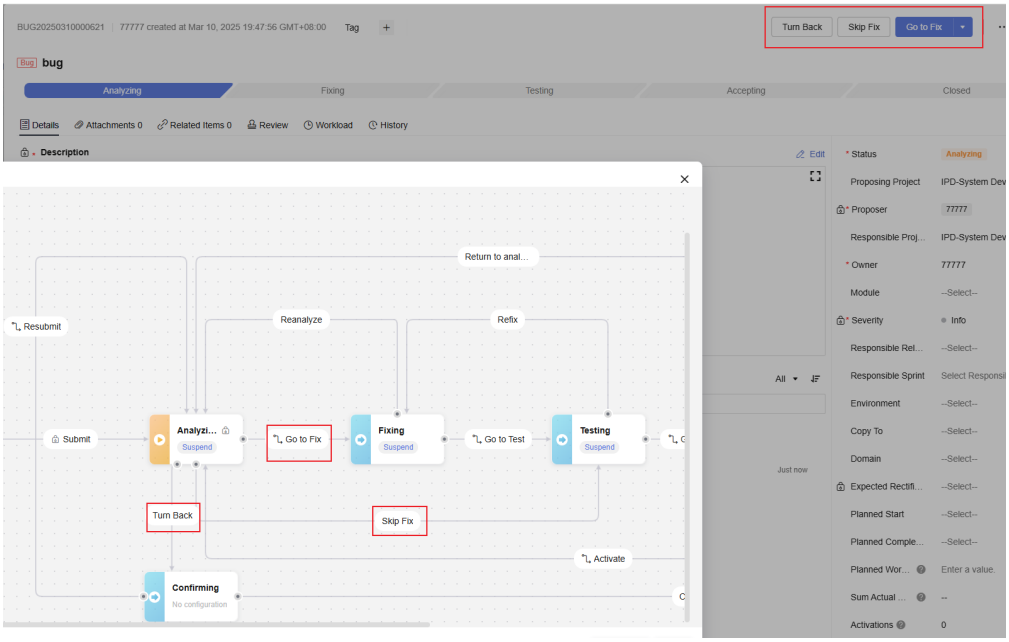

3. Configure pre-transition verification. The transition can be performed only when the verification items meet the requirements. The verification items are as follows.

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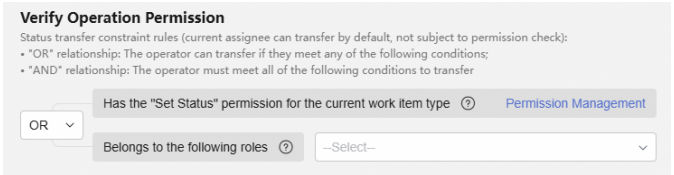
Table 7-26 Pre-transition verification

Verification Item	Description
Verify Operation Permission	Configure status transition restriction rules. The current owner is allowed to perform status transitions by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used. **OR** logic: The operator can perform the status transition if they meet any one of the following conditions. **And**: The operator must meet all of the following conditions to perform the status transition. 1. Condition 1: **Has permission to set the status for the current work item type**. Permission verification is performed based on the project where the status transition is initiated: ▪ If the operation is performed in the **Responsible Project**, the system checks whether the operator has permission to set work item status in the responsible project. ▪ If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has permission to set work item status in **Proposing Project**. 2. Condition 2: **Belongs to one of the following roles**. Select roles from the drop-down list. Available options include temporary roles and project roles. ▪ Available roles: Only temporary roles and project roles of the project to which the current status flow belongs are available. ▪ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification. 
Validate Field Information	Optional. This verification is required by default. You can also disable it. If you enable the option, click **Add Fields**. On the **Add Fields** page, select the field to be added, set **Field Value**, and click **OK**.

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Verification Item	Description
Verifying Associate Item Information	Optional. This verification is required by default. You can also disable it. If you enable this option, click **Add Associated Items**. On the **Add Associated Items** page, select the desired associated items, select **Condition** (**None** by default), and click **OK**.

4. Configure the in-transition page.

   Configure additional information that must be entered during status transition to proceed. The **In-transition GUI Config** switch is enabled by default and can be disabled. If the switch is enabled, click **Add Field**. The **Add Field** dialog box is displayed. Select the field to be added from the drop-down list and click **OK**. The field is displayed in the field list.

   Click **Submit to Fix**. The required fields are displayed, as shown in the following figure.

   NOTE

   If **Mandatory** is selected when a field is added, the field name in the field list is marked with an asterisk (*).

5. Configure the post-transition action.

   After the transition is successfully executed, the configured post-transition actions are automatically executed. Configure the post-transition actions as follows.

   Table 7-27 Configuration items for post-transition actions

Configuration Item	Description
Update fields	Update the value of a specified field after the successful transition. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Update fields** and click **OK**. 3. In the **Add Field** window, select the field to be added in the **Select Field** text box. 4. Set the judgment condition and default value for the selected field. 5. Click **OK**. The field will be displayed in the post-transition action list.

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Configuration Item	Description
Baseline-related operations	Update the baseline status of the target object after the transition is successful. If the current baseline status of the target object is the same as the updated baseline status after the transition is successful, this post-transition action will not be executed. For example, if **Baseline current work item** is selected for a baselined work item, this action will not be executed. **CAUTION** – For RRs and bugs in IPD-system device projects and IPD-standalone software projects, you cannot baseline or unbaseline the current work item. If the selected associated work item type contains such work items, the related post-transition action will not succeed. – For IPD-self-operated software/cloud service projects, you cannot add **Baseline-related operations** as post-transition actions. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Baseline related operations** and click **OK**. The **Baseline related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ **Baseline correlation**: This action is performed only when both of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review. ▪ **Cancel baseline association**: This action is performed only when all of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review. c. When an associated work item belongs to a sprint, the sprint is not baselined. d. When an associated work item does not belong to any sprint but belongs to a release, the release is not baselined. 4. Set **Description**. 5. Click **OK**. The baseline operation will be displayed in the post-transition action list.

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Configuration Item	Description
Snapshot-related operations	After the transition is successful, take a snapshot of the current work item or associated item. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Snapshot related operations** and click **OK**. The **Snapshot related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ **Take a snapshot of the current work item** ▪ **Take a snapshot of associated work items** 4. If you select **Take a snapshot of associated work items**, select the type of the work item to be associated from the **Associated work item types for snapshotting** drop-down list. 5. Set **Description**. 6. Click **OK**. The snapshot operation will be displayed in the post-transition action list.

Step 9 (Optional) If you add a node to the canvas, draw connection lines using the mouse and enter the transition line name. Repeat steps 7 to 8 to edit the status flow node and transition lines.

Step 10 Configure the main navigation bar.

Click **Update Status Flow** in the upper right corner to display the navigation for optimal work item transition. Drag nodes on the navigation bar to adjust their sequence.

The default **To Do** and **Done** nodes cannot be dragged. If there is no transition line between two statuses, the nodes cannot be dragged together, and the message **This status cannot be transitioned. Orchestrate statuses again.** is displayed.

Step 11 Click **OK**. A message is displayed, indicating that the update is successful. Go to the work item details page to view the status flow configuration.

----End

7.2.6 Configuring Work Item Tags

Tags can be created, edited, and deleted for different types of requirements, work items, and plans in a project.

Prerequisites

An IPD-system device project is available, and you have permission to **manage tags** for the project.

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Creating a Work Item Tag

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **Work Item** > **Tags**.

All work item tags are displayed on this page.

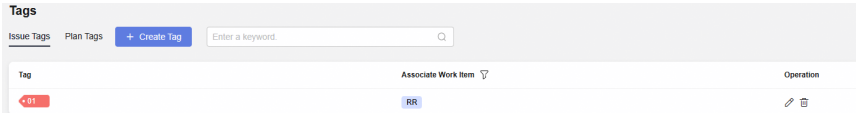
Step 3 Click **Create Tag**.

Step 4 Select a work item type and tag color, and enter the tag name.

Step 5 Click **OK**.

The newly created tag is displayed in the list.

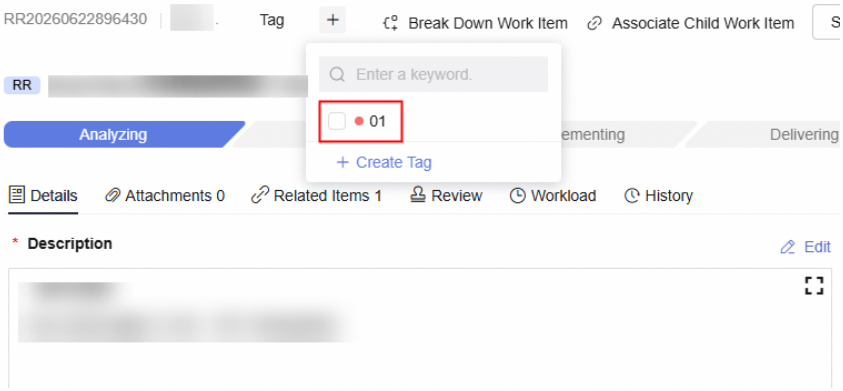
Figure 7-6 Work item tags



- Click to change the work item type, tag name, and color. The change is synchronized where the tag is referenced.
- Click to delete a tag. The tag is deleted from where it is referenced.

The tag also displays on the details page of the associated work items (such as RR).

Figure 7-7 Work item details



----End

Creating a Plan Tag

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **Work Item** > **Tags**.

Step 3 Click **Plan Tags**. The **Plan Tags** page is displayed.

All tags created on the **Plans** page are displayed here.

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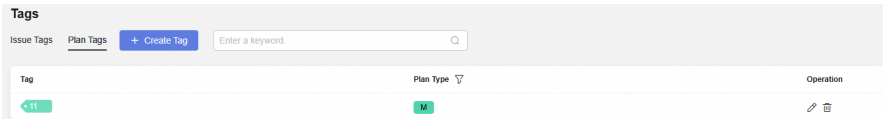
Step 4 Click **Create Tag**.

Step 5 Select a plan type and tag color, and enter the tag name.

Step 6 Click **OK**.

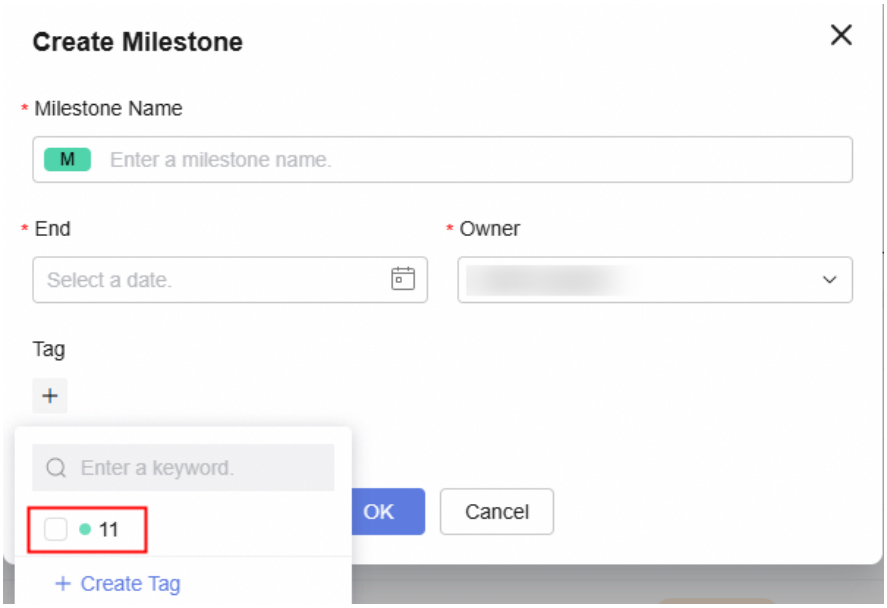
The new tag is displayed in the plan tag list.

Figure 7-8 Plan tags



- Click to change the plan type, tag name, and tag color. The change is synchronized where the tag is referenced.
- Click to delete a tag. The tag is deleted from where it is referenced.

The tag is also displayed on the page for creating a plan (such as a milestone) under **Plans**.



----End

7.2.7 Creating Work Item Modules

- You can add, modify, and delete work item modules in a project.
- You can add submodules to a module.
- When creating or editing a work item, you can specify the module to which the work item belongs.
- Click before the module name and drag the module to adjust the module sequence.

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Prerequisites

An IPD-system device project is available, and you have permission to **set modules** for the project.

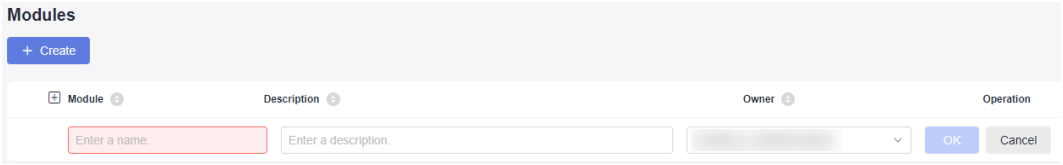
Creating a Module

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **Work** > **Modules**.

Step 3 Click **Create**.

Figure 7-9 Creating a module



Step 4 Set **Module**, **Description**, and **Owner**.

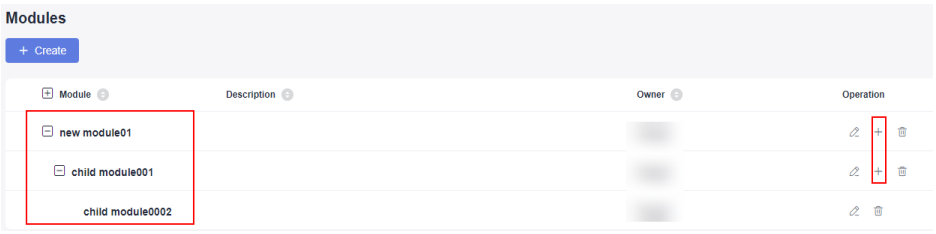
The module name must be unique in the system.

Step 5 Click **OK**.

Step 6 (Optional) Edit or delete a module, or add a submodule.

- Click to edit the module.
- Click to delete the module.
- Click to add a submodule. Each module can have a maximum of three levels, for example, **Module1** > **Submodule01** > **Submodule001**.

Figure 7-10 Adding a submodule



----End

7.2.8 Creating Work Types

Work types include R&D design, backend development, frontend development, and more. You can customize your own work types and specify whether they are mandatory for work items.

Prerequisites

An IPD-system device project is available, and you have permission to **set work types** for the project.

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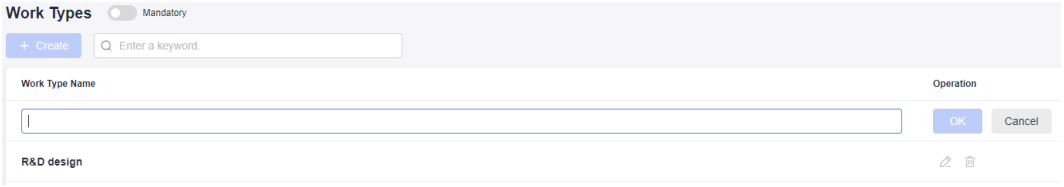
Creating a Work Type

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings > Work > Work Types**.

Step 3 Click **Create**.

Figure 7-11 Creating a work type



Step 4 Enter a work type name.

The name must be unique in the system.

Step 5 Click **OK**.

You can select this work type when configuring workloads for work items.

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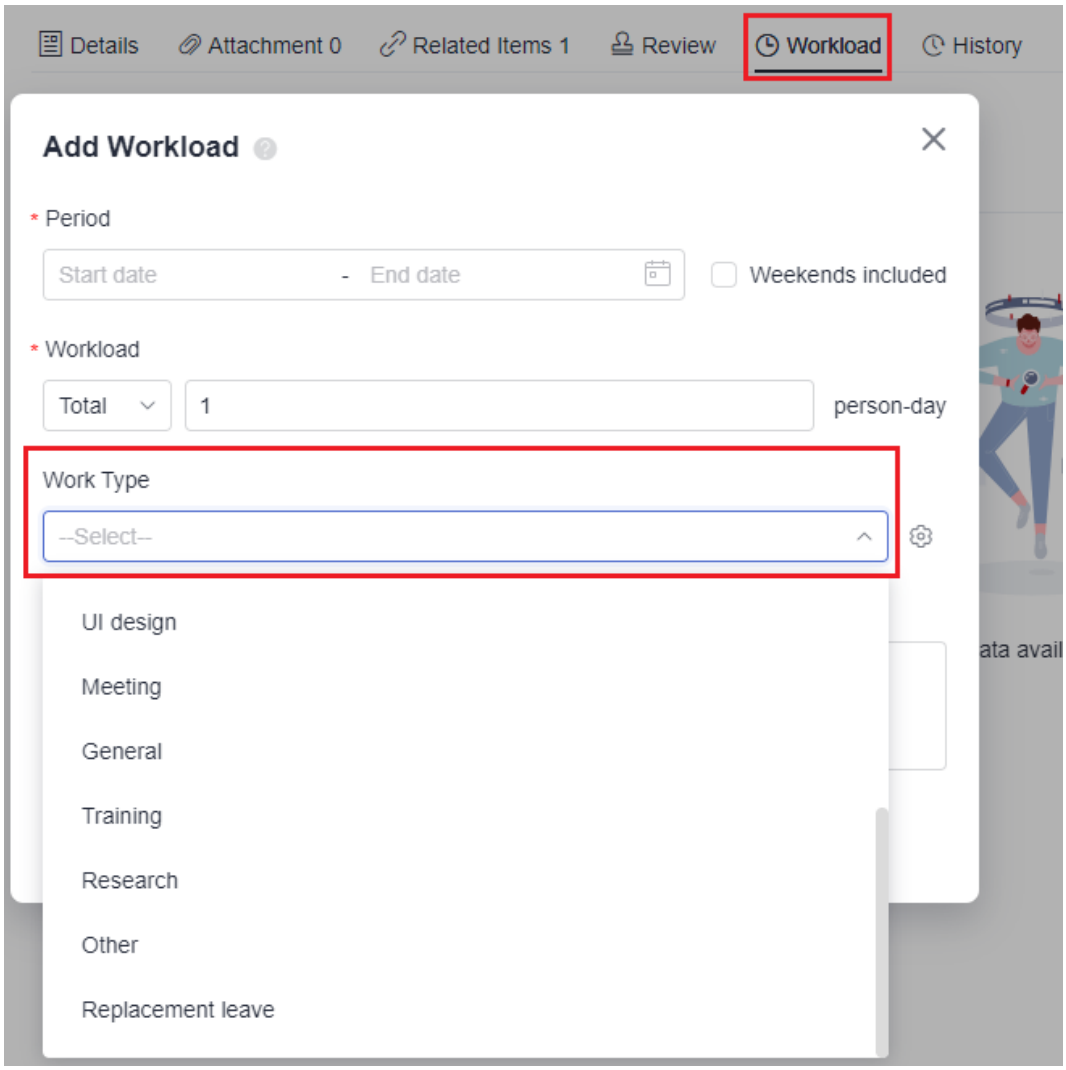
Figure 7-12 Adding a workload



----End

Configuring Whether Work Types Are Mandatory

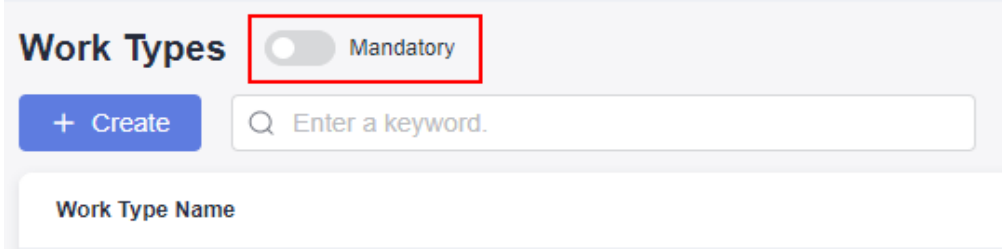
Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **Work** > **Work Types**.

Step 3 Toggle on **Mandatory**.

By default, this option is toggled off.

Figure 7-13 Configuring work types



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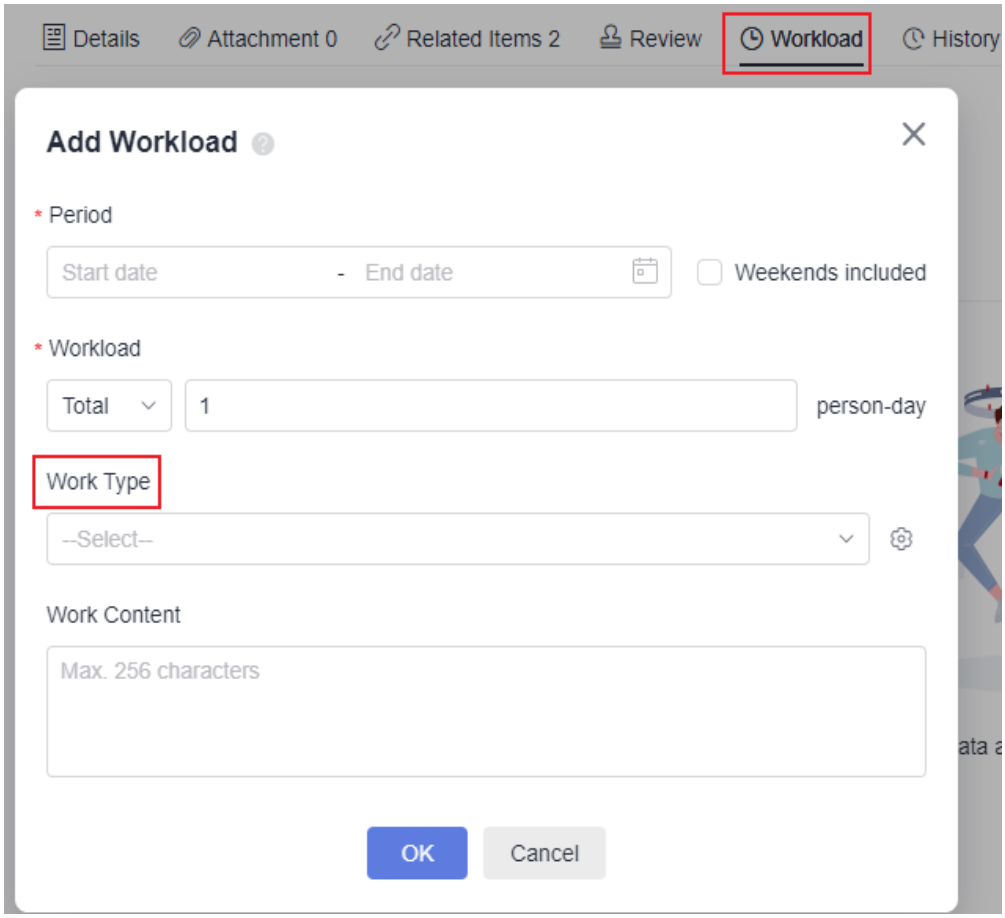
A red asterisk (*) will be displayed next to **Work Type** on the **Add Workload** page, indicating that the work type is mandatory.

Figure 7-14 Adding a workload



----End

7.2.9 Configuring Automation Rules

Project creators or roles granted the automation configuration permission can enable or disable automation rules as required to implement automatic parent-child status rollup or status transfer, workload statistics, and story point statistics. Once a rule is enabled, all work items and users in the project can trigger the rule.

Table 7-28 Rollup automation rules

Rule Name	Description
Status Convolution	Synchronizes parent and child work items. For example, if all child work items are completed, the parent work item is automatically completed. For details, see **Adding an Automation Rule for Status Rollup**.

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Rule Name	Description
Labor hours Convolution	The procedure applies to workload rollup in parent-child/upstream-downstream scenarios. For details, see **Adding an Automation Rule for Workload Rollup**.
Story Points Convolution	The procedure applies to story point rollup in parent-child/upstream-downstream scenarios. For details, see **Adding an Automation Rule for Story Point Rollup**.

Prerequisites

You have the automation permission on the ipd_work configuration page in the project.

Constraints and Restrictions

- If all child work items of the parent item meet the rule condition and the target status of the parent item supports transition, the rule is applied.
- If the parent item has any child work items that do not meet the rule condition, when the rule is triggered, a record indicating no operation performed is generated and the parent item status is not transitioned.
- If there is no parent item, when the rule is triggered, a record indicating that no operation is performed is generated.
- If the parent item transition status configured in the rule does not support transition, when the rule is triggered, a record indicating an execution error is generated and the parent item status is not transitioned.

Adding an Automation Rule for Status Rollup

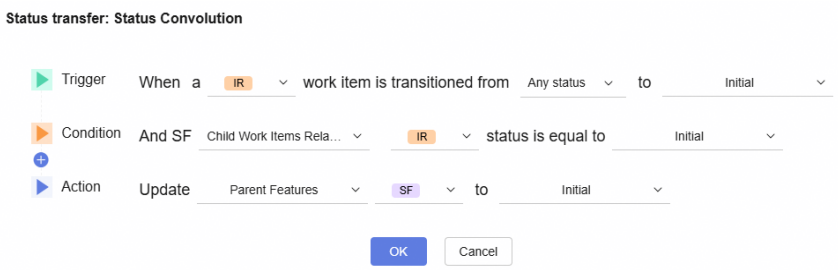
Step 1 **Access the CodeArts Req homepage**.

Step 2 Access a project and choose **Settings** > **Work** > **Automation**. The **Automation** page is displayed.

Step 3 Select the **Automation Rules** tab and click **Create Rule**.

Step 4 In the **Work Item Status Transition Rule Template** dialog box, select the required rule template. The following uses the **Status Convolution** template as an example.

Step 5 Click **OK**. The **Status transfer: Status Convolution** dialog box is displayed.



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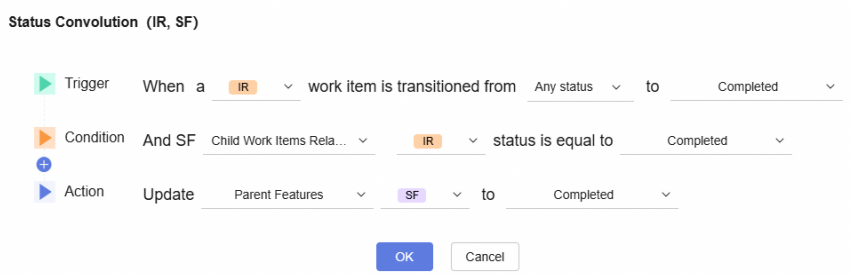
Step 6 Set an automation rule.

1. Hover over **Status transfer: Status Convolution** and click to set the name of the automation rule.
2. Select **Trigger**, **Condition**, and **Action** from the drop-down lists. The following figure is an example.



3. Click **OK**. Check the new automation rule in the **Automation Rules** list. By default, the rule is enabled.
4. Set **In Use** to enable or disable the configured rule. Verify the automation rule by accessing the work item list again. For example, if you change the status of all child work items under an SF to **Completed**, the status of the SF is automatically updated to **Completed**. In addition, an automation rule operation history record is added to the **History** tab of the SF work item details page.

Step 7 When auto rollup is triggered, the corresponding rule is recorded on the **Logs** page. Click in the **Operation** column to expand the log details.

----End

Adding an Automation Rule for Workload Rollup

The procedure applies to workload rollup in parent-child/upstream-downstream scenarios.

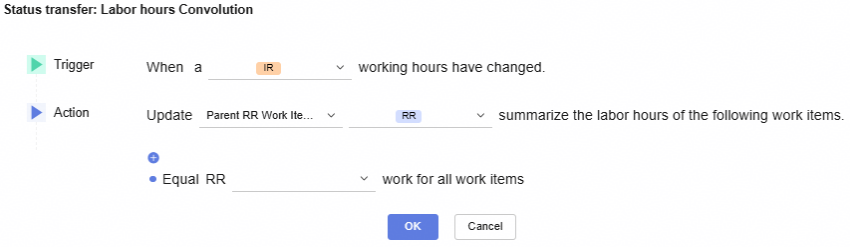
Step 1 Access the CodeArts Req homepage.

Step 2 Access a project and choose **Settings > Work** > **Automation**. The **Automation** page is displayed.

Step 3 Select the **Automation Rules** tab and click **Create Rule**.

Step 4 In the displayed dialog box, select **Labor hours Convolution**.

Step 5 Click **OK**. The **Status transition: Labor hours Convolution** dialog box is displayed.



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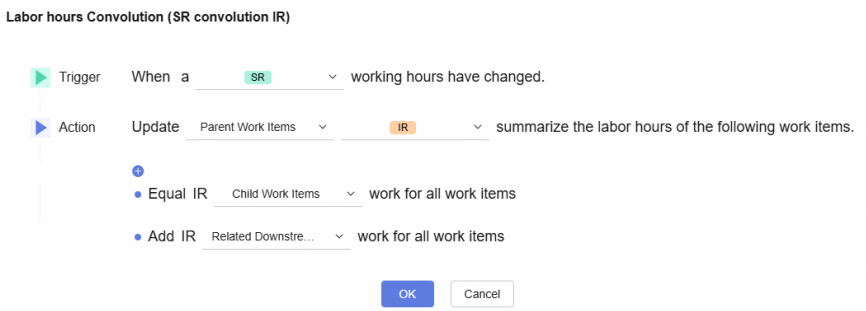
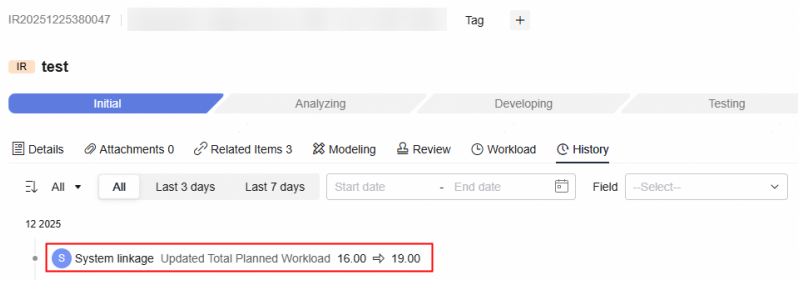
Step 6 Set an automation rule.

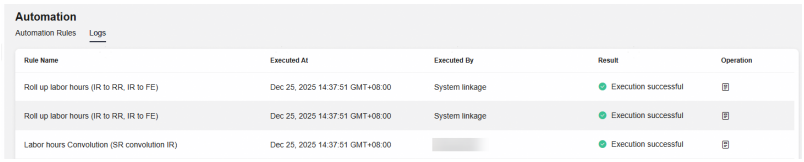
1. Hover over **Status transfer: Labor hours Convolution** and click to set the name of the automatic workload rollup rule.
2. Select **Trigger**, **Action**, **Equal**, and **Add** from the drop-down lists. The following figure is an example.



3. Click **OK**. Check the new automation rule in the **Automation Rules** list. By default, the rule is enabled.
4. Set **In Use** to enable or disable the configured rule. Verify the automation rule by accessing the work item list again. For example, if you modify the planned workloads of any SR under the IR, the IR's planned workloads will be automatically updated to the sum of the planned workloads of all work items and collaborative downstream work items under that IR. And an automation rule operation record is added to the **History** tab page of the IR.



Step 7 When auto rollup is triggered, the corresponding rule is recorded on the **Logs** page. Click in the **Operation** column to expand the log details.



----End

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Adding an Automation Rule for Story Point Rollup

> **CAUTION**
>
> To add the **Story Point** field, choose **Settings > Work Item > Work Item Management**, and add the field on the **Fields** page for the corresponding work item type. Only after the fields are added can they be used in the corresponding work item.

Applies to story point rollup in parent-child/upstream-downstream scenarios, excluding custom association scenarios.

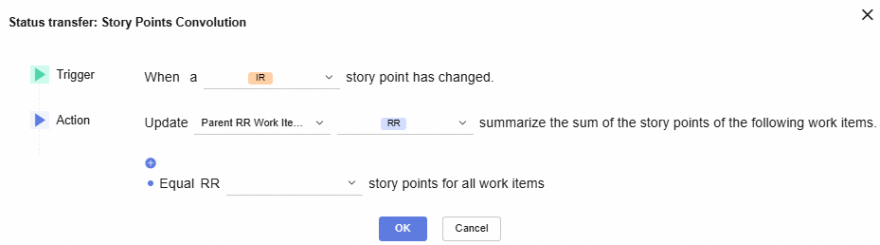
Step 1 Access the CodeArts Req homepage.

Step 2 Access a project and choose **Settings > Work** > **Automation**. The **Automation** page is displayed.

Step 3 Select the **Automation Rules** tab and click **Create Rule**.

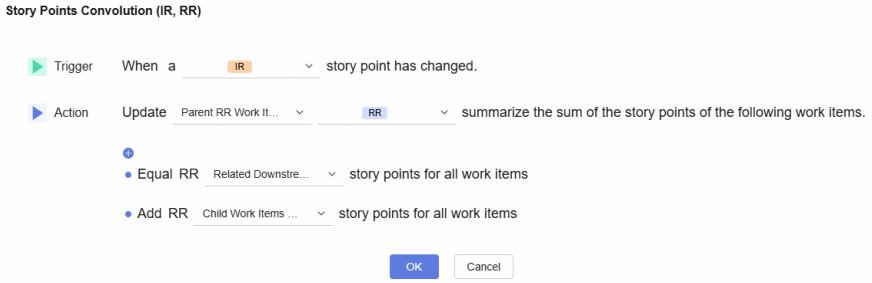
Step 4 In the **Work Item Status Transition Rule Template** dialog box, select **Story Points Convolution**.

Step 5 Click **OK**. The **Status transition: Story Points Convolution** dialog box is displayed.



Step 6 Set an automation rule.

1. Hover over **Status transfer: Story Points Convolution** and click to set the name of the automatic story point rollup rule.
2. Select **Trigger**, **Action**, **Equal**, and **Add** from the drop-down lists. The following is an example of the configured automation rule for story point rollup.



3. Click **OK**. Check the new automation rule in the **Automation Rules** list. By default, the rule is enabled.
4. Set **In Use** to enable or disable the configured rule. Verify the automation rule by accessing the work item list again. For example, if you modify the story

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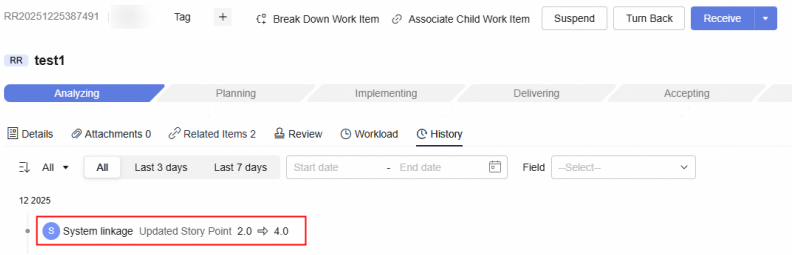
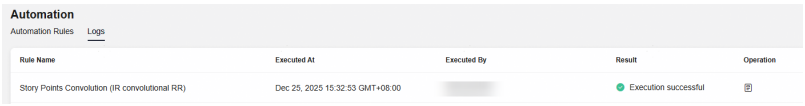
points of an IR, the story points of the parent RR associated with this IR will be automatically updated to the sum of the story points of all collaborative downstream work items and child work items associated with the RR. And an automation rule operation record is added to the **History** tab page of the RR.



Step 7 When auto rollup is triggered, the corresponding rule is recorded on the **Logs** page. Click in the **Operation** column to expand the log details.



----End

7.2.10 Configuring Notification Rules

Overview

Notification rules can be configured to use several methods: internal messages, emails, WeCom, DingTalk, Feishu, and generic webhooks. Internal messages and emails alert project members of relevant operations, while notifications via WeCom, DingTalk, Feishu, and generic webhooks are directed to their respective chat groups.

- Internal message/Email notification

  On the notification settings page, select the desired recipients and event types. Once set up, the chosen recipients will be alerted when specific events (for example, RR modification) take place.

- WeCom notifications

  On the notification settings page, configure the webhook address and event types. Once set up, WeCom will post notifications to the designated chat group when specific events (for example, RR modification) take place.

- DingTalk/Feishu

  On the DingTalk/Feishu notification settings page, configure the webhook URL and event types for the group chatbot. Once set up, DingTalk or Feishu will post notifications to the designated chat group when specific events (for example, RR modification) take place.

- Generic webhook

  On the webhook page, configure the third-party system's URL and subscribe to the desired event types. Once set up, a request will be sent to the configured URL via webhook when the subscribed events occur.

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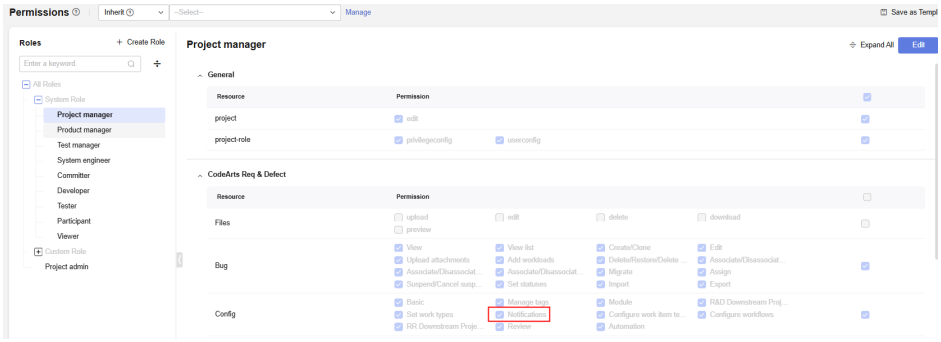
Prerequisites

- To configure internal message, email, and WeCom notifications, you must have the **Config** > **Notifications** permissions for IPD-system device projects. For details, see **How Do I Check and Obtain Required Project Permissions?**



- To configure DingTalk, Feishu, and generic webhook notifications, you must be a **project administrator** or **project manager** in an IPD-system device project. For details, see **How Do I Check and Obtain Required Project Permissions?**

Configuring Internal Message and Email Notifications

Step 1 **Access the CodeArts Req homepage.**

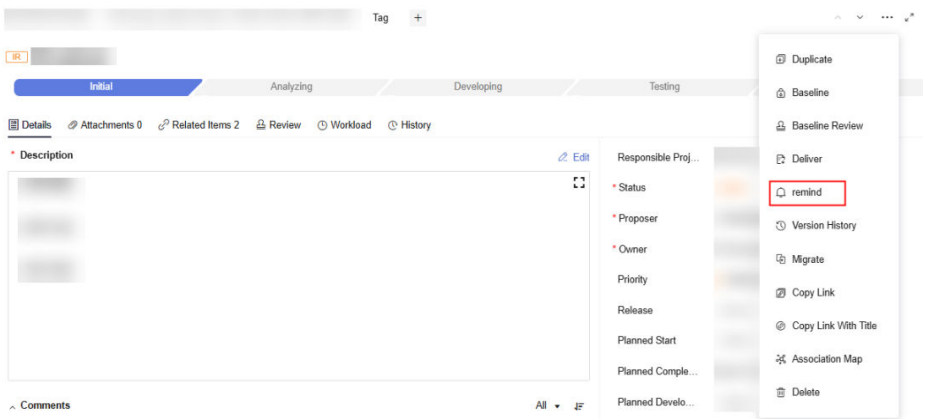
Step 2 Go to a project and choose **Settings > Work > Notifications**.

Step 3 Select desired work items for notifications. Select or deselect notification recipients and events.

After the setting is complete, the selected recipients will be notified when a corresponding event (for example, RR modification) occurs.

NOTE

After the setting is complete, to send a **reminder**, click ••• on the right of the work item details page and select **remind**. The current owner of the work item will receive the reminder notification. An example of reminding an IR is as follows.



- **Direct Message**: When a member logs in to the CodeArts Req homepage, they will see the number of internal messages displayed next to in the upper right corner. They can click the icon to view notification details.

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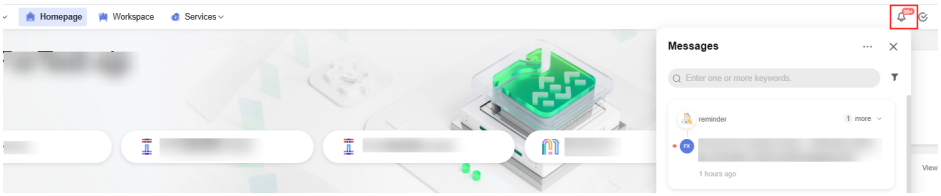

- **Email**: Project members who have an email address configured for their user and have enabled **Notifications** on the **This Account Settings** page will receive notification emails from the service.



----End

Configuring WeCom Notifications

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **Work** > **Notifications**.

Step 3 Enter a **Webhook Address**.

To obtain the webhook address, perform the following steps:

1. Open the WeCom group where you want to receive notifications, and click the ··· button in the upper right corner.
2. Click **Group Robot**.
3. Click the created group robot to copy the generated webhook URL.

Step 4 Select event types.

Event types include operations on raw requirements, system features, R&D requirements, tasks, bugs, reviews, and plans. Select operations as required.

Step 5 Click **OK**.

After the configuration is complete, WeCom will send notifications to the WeCom chat group when specified events occur.

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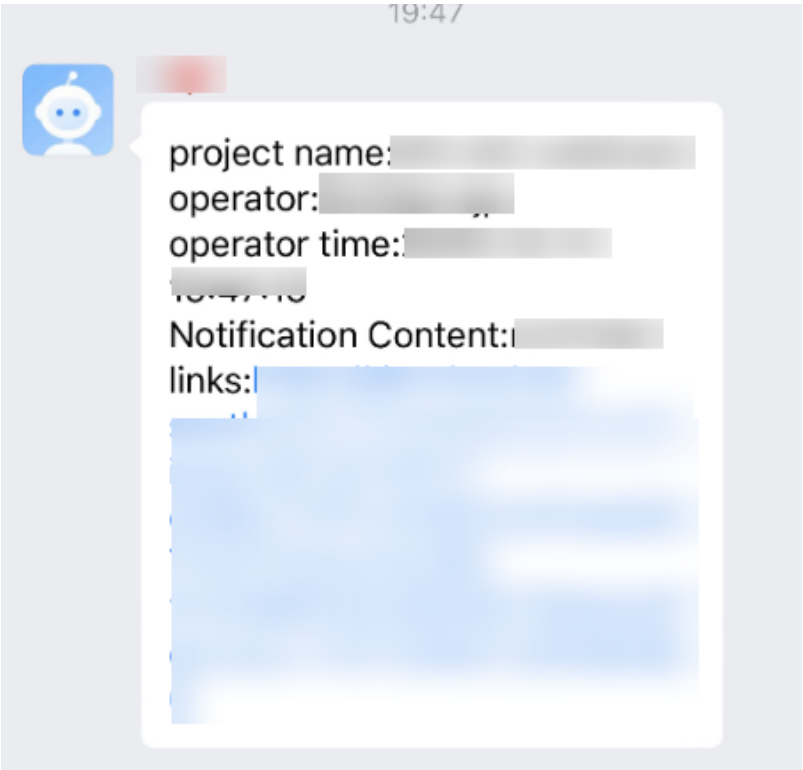

----End

Configuring DingTalk and Feishu Notifications

Notifications can be pushed via DingTalk and Feishu. Set parameters and configure the notification content as required.

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **General** > **Notifications**.

Step 3 On the **Notifications** page, choose **DingTalk** or **Feishu** > **CodeArtsReq**. The DingTalk or Feishu setting page of IPD-system device projects is displayed.

Step 4 Set parameters according to **Table 7-29**.

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Table 7-29 DingTalk/Feishu notification parameters

Parameter	Description	Example
URL	URL of a notification from the DingTalk or Feishu group chatbot.	DingTalk chatbot: https://oapi.dingtalk.com/robot/send?access_token=373fa3c1ff75e8e9ce71742f544081bd562a99c996eb7911a051c1b43538beca
Event type	Type of the event to be notified of. Event types include operations on raw requirements, system features, R&D requirements, tasks, bugs, reviews, and plans. Select operations as required.	**RR** > **Comment RR**
@User IDs	(Optional) User IDs of DingTalk or Feishu members who receive the notifications. @User IDs: Mentions specified members in the group. @all: Mentions all members in the group. Separate multiple user IDs with semicolons (;). Format: A user ID can only contain letters, digits, semicolons (;), and the following special characters: .-_@. Length: 1 to 64 characters.	testA;testB
@Mobile Numbers	Phone numbers to receive messages. **This parameter is available for DingTalk but not for Feishu.** Format: Use semicolons (;) to separate multiple mobile numbers. The maximum length is **1,000** characters.	None
Additional Signature	(Optional) Only available when DingTalk or Feishu notifications are configured. If signature-based encryption is enabled in the security settings of the DingTalk or Feishu robot, enter the signing secret.	None

Step 5 Click **Save and Enable Notification** to save the settings and enable the notification.

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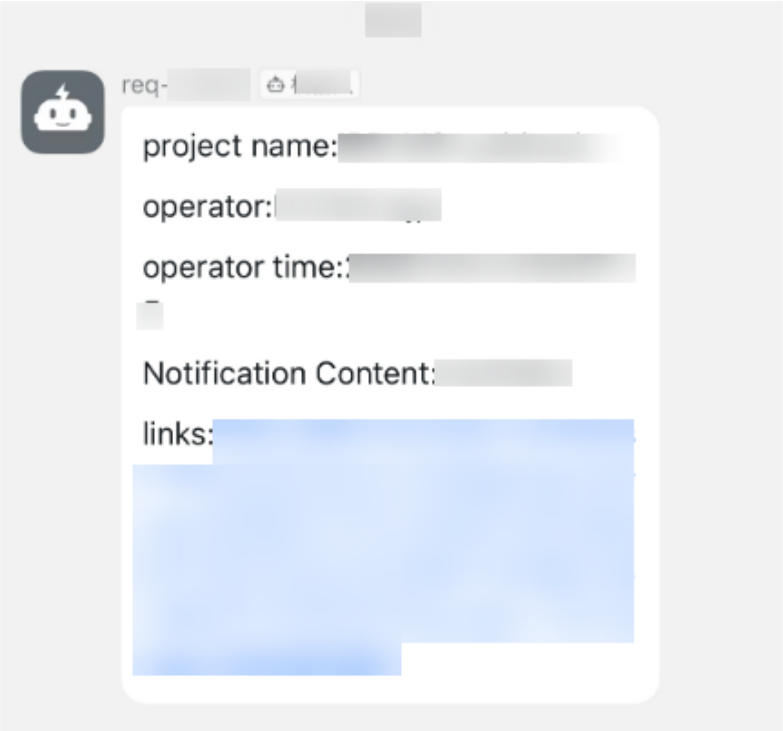
NOTE

- You can also click **Save** to save the settings and then click on CodeArts Req to enable the notification.
- If you do not need to send notifications, click on CodeArts Req to disable the notification.

After the configuration is complete, when a notification event occurs, DingTalk sends the notification to the corresponding chat group, as shown in the following figure.



----End

Configuring Generic Webhook Notifications

Notifications can be pushed via generic webhook.

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **General** > **Notifications**.

Step 3 On the **Notifications** page, choose **Generic webhook > CodeArtsReq**. The webhook setting page of IPD-system device projects is displayed.

Step 4 Click **New Webhook Subscription**.

Step 5 Set parameters according to **Table 7-30**.

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Table 7-30 Webhook notification parameters

Parameter	Description	Example
Subscription Event Name	(Mandatory) Name of the subscription event. The name is user-defined and can contain a maximum of 200 characters.	req-Webhook_test
URL	URL of a webhook notification. The value must start with **https://** or **http://**.	Feishu chatbot: https://open.feishu.cn/open-apis/bot/v2/hook/ffd39b45-d8c6-4771-9bb2-0a3b28c86fd7
Event type	Type of the event to be notified of. Event types include operations on raw requirements, system features, R&D requirements, tasks, bugs, reviews, and plans. Select operations as required.	• **Comment RR** • **Commit Review** • **Update IR**
HTTP Request Headers	(Optional) Request headers required for sending messages. HTTP request header, which is a JSON array. The maximum length of a single request header is **100** characters, and a maximum of **20** request headers can be entered. The format of a request header is *key:value*.	Content-Type:application/json

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Parameter	Description	Example
Custom Templates	Custom templates of generic webhook notifications. Obtain the corresponding values of configurable variables through the **${}** method. For details about the configurable variables, see **Table 7-31**. **The maximum length of the character string is 1,000.**	• DingTalk parameters: {"msgtype":"text","text":{"content":"{\"Product name\":\"Requirement name\",\"reviewId\":\"${review.id}\",\"reviewStatus\":\"${review.status}\",\"reviewStatusName\":\"${review.status.name}\",\"operation\":\"${operation}\",\" ID \":\"${issue.number}\",\"Submitter ID\":\"${issue.submitted_by.id}\",\"Creator ID\":\"${issue.created_by.id}\",\"Owner\":\"${issue.assignee.name}\",\"project_id\":\"${project.id}\",\"issue_title\":\"${issue.title}\",\"Operator\":\"${operator.username}\",\"Operator ID\":\"${operator.id}\",\"Review\":\"${review.title}\",\"Review URL\":\"${review.url}\",\"Work item ID\":\"${issue.id}\",\"Work item type \":\"${issue.type}\",\"priority_change\":\"${issue.modified_fields.priority}\",\"issue_create\":${issue.create_fields._all},\"assignee_change\":${issue.modified_fields.assignee},\"Modify custom fields\":${issue.modified_fields.c7442403074245795840},\"all_fields_change\":${issue.modified_fields._all}}"}} • Feishu parameters: {"msg_type":"text","content":{"text":"*CodeArts Req - Generic webhook test*\n*Project ID*: ${project.id}\n*Project URL*: ${project.url}\n*Work item ID*: ${issue.id}\n*Work item name*: ${issue.title}\n*Work item URL*: ${issue.url}\n*Operator*: ${operator.username}\n*Operator ID*: ${operator.id}\n*Review ID*: ${review.id}\n*Review*: ${review.title}\n*Review URL*: ${review.url}\n*Event name*: ${operation}"}}

Table 7-31 Configurable variables in generic webhook custom templates

Variable	Description
project.id	Project ID.
project.url	Project URL.

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Variable	Description
issue.id	Work item ID.
issue.url	Work item URL.
issue.type	Work item type.
issue.title	Work item title.
operator.username	Operator username.
operator.id	Operator ID.
review.id	Review ID.
review.title	Review title.
review.url	Review URL.
review.status	Review status.
review.status.name	Review status display name.
operation	Event name.
issue.number	Work item ID.
issue.created_by.id	Creator user ID.
issue.created_by.name	Creator display name.
issue.submitted_by.id	Submitter user ID.
issue.submitted_by.name	Submitter display name.
issue.assignee.id	User ID of the owner.
issue.assignee.name	Owner display name.
issue.modified_fields._all	A list of all modified fields. The value is in the form of a JSON array.
issue.modified_fields.{field_code}	Fields to be included in notifications when editing a work item. {field_code} indicates the specific field. For example, **issue.modified_fields.priority** indicates that the priority field is included in the notification when a work item is edited. The value is in the form of JSON objects.
issue.create_fields._all	Content of the notification sent when a work item is created, including the title, ID, status, project, feature set (only for SFs), current owner, priority, and severity (only for bugs).
issue.comment.id	Comment ID.

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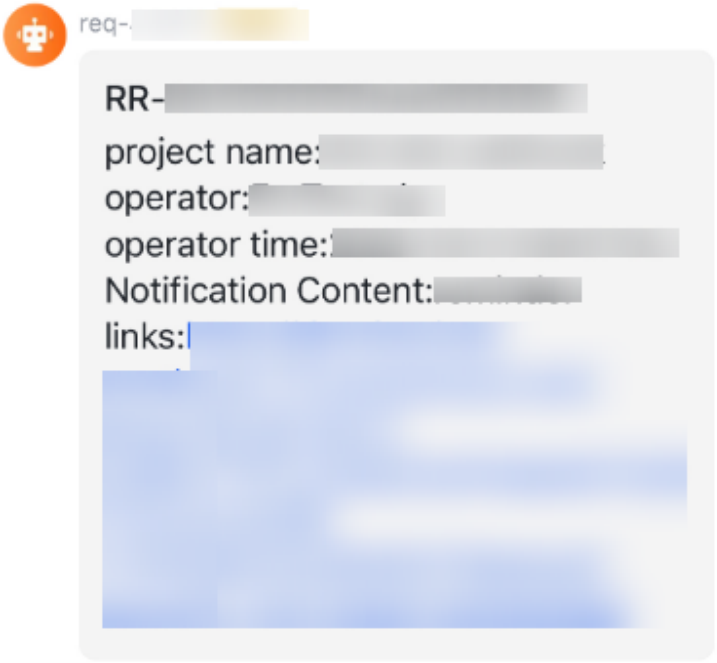
Variable	Description
issue.comment.parent_id	ID of the replied comment.
issue.comment.root_id	Root ID of the current comment.

Step 6 Click **OK** to save the settings.

After the configuration is complete, when a subscription event occurs, the system sends a request to the URL of the third-party system (Feishu) via webhook, as shown in the following figure.

NOTE

If you do not need to send notifications, click  in the row that contains the corresponding event name in the subscription event list of CodeArts Req to disable notifications.



----End

7.2.11 Configuring Reviews

Only the project administrator can set decision-maker roles.

Procedure

Step 1 Go to the project and choose **Settings > Work Item > Review > Basic Review Settings**.

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Step 2 Set the review content.

- **Review Methods**

  Select a review method as required.

  - By single reviewer: A CR (review object), BR, or GR is complete once any review expert approves or rejects them.
  - By all reviewers: A CR (review object), BR, or GR is complete only when all review experts approve them or any one rejects them.
  - By pass rate: A CR (review object), BR, or GR is complete only when "Review experts who approve the review/Total review experts x 100% ≥ Pass rate" or "Review experts who reject the review/Total review experts x 100% > 1 – Pass rate".

- **Decision-Makers**

  Decision-makers of the configuration review (except the RRs/bugs in the change review). By default, all roles in the project are available.

- **Review Experts**

  Reviewers of the configuration review (except the RRs/bugs in the change review). By default, all roles in the project are available for selection.

- Set the **Require Decision-Making** switch.

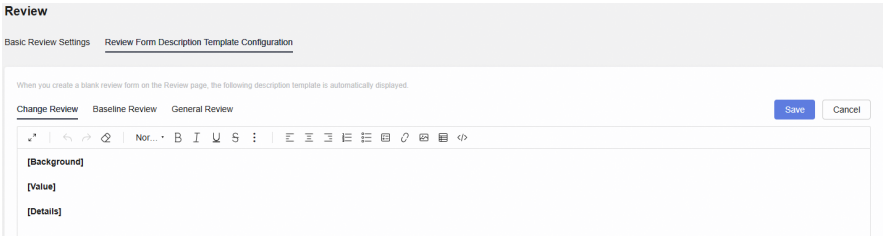
  You can enable or disable the **Require Decision-Making** switch as required.

  - When **Require Decision-Making** is enabled, if no review experts are selected, the review process will skip the **To Be Reviewed** phase.
  - If **Require Decision-Making** is disabled, **Review Expert** is mandatory. If **Decision-Maker** is not set in the review ticket, the review process will skip the **Pending Decision-Making** phase.

- Configure review check items, and configure whether to enable review check items for the review and select the review checklist template to be used. For details, see **Enabling Review Check Items in Review Settings**.

Step 3 Choose **Settings > Work Item > Review > Review From Description Template Configuration**. On the displayed page, click **Edit**.

Figure 7-15 Review description template



You can customize the description template for the CR, BR, and GR as required. After editing the template, click **Save**. The saved description template will be automatically populated when you create a blank review on the **Review** page.

----End

7.2.12 Viewing Work Item Import/Export Records

You can download the imported and exported work item files.

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Prerequisites

- Some work items have been imported or exported in a project.
- Only the export records of the last seven days are retained.
- Only the import records of the last month are retained.
- The project administrator can view the import and export records of all members in the current project.

Viewing Export Records

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings > Work > Import/Export**.

Step 3 Click the **Export** tab to view the export records.

Step 4 Download the desired work items. All project members' export records of any types of work items will be displayed on this page.

----End

Viewing Import Records

Step 1 Access the CodeArts Req homepage.

Step 2 Go to an IPD-system device project and choose **Settings > Work > Import/Export**.

Step 3 Click the **Import** tab to view the import records.

Step 4 Download the desired work items. All project members' import records of any types of work items will be displayed on this page.

----End

7.2.13 Configuring Downstream Projects for an RR

Configure downstream projects for an RR, including configuring assignment projects and breakdown projects.

Constraints

You can select a maximum of 100 downstream projects for an RR.

Assignment Projects

Configure target projects for assigning your raw requirements. If not configured, all projects in your tenant are available.

Step 1 Go to the project and choose **Settings > Work Item > RR Collaboration**.

Step 2 On the **Assignment Projects** tab, click **Collaborate With Downstream Projects**. The **Add Collaboration Downstream Project** dialog box is displayed.

Step 3 Search for and select the projects to be added.

Step 4 Click **Add** to add downstream projects.

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The downstream projects that have been successfully added are displayed on the **Assignment Projects** tab.

----End

Breakdown Projects

Configure target projects for breaking down your raw requirements.

Step 1 Go to the project and choose **Settings > Work Item > RR Collaboration**.

Step 2 Click **Breakdown Projects** > **Add Downstream Project**. The **Add Downstream Project** dialog box is displayed.

Step 3 Search for and select the projects to be added.

Step 4 Click **Add** to add downstream projects.

The downstream projects that have been successfully added are displayed on the **Breakdown Projects** tab.

NOTE

After a downstream project is added, it can be configured as the **Responsible Project** of an R&D requirement broken down from a raw requirement.

----End

7.2.14 Configuring Project Assignment

This section describes how to configure project assignment and reception.

Constraints

- A maximum of 100 downstream projects can be selected for an R&D requirement and collaborative delivery.
- You can add up to 10 receivers to a project.

Assignment Projects

CAUTION

Configure the project scope for assigning work items (with the exception of RRs, SFs, and bugs) and release plans.

Step 1 Go to a project and choose **Settings** > **Work Item** > **Collaborative Delivery**.

Step 2 On the **Delivering Project Configurations** tab, click **Add Downstream Project**. The **Add Downstream Project** dialog box is displayed.

Step 3 Search for and select the projects to be added.

Step 4 Click **Add** to add downstream projects.

The downstream projects that have been successfully added are displayed on the current tab.

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NOTE

After projects are added, you can select a configured project for collaborative assignment in **R&D Requirements**. For details, see **Assigning Work Items**.

----End

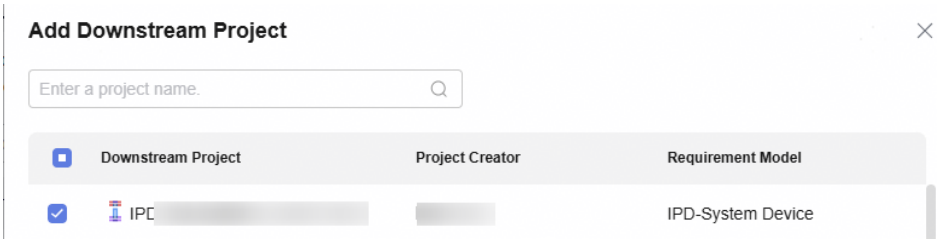
Recipient Configuration

Configure recipients for upstream work items assigned to the current project.

Step 1 Go to a project and choose **Settings** > **Work Item** > **Collaborative Delivery**.

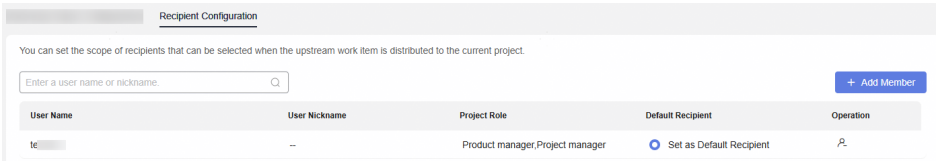
Step 2 Choose **Recipient Configuration > Add Member**. In the displayed **Add Member** dialog box, select the members to be added. Alternatively, search for members in the project in the search box above and select them.

Figure 7-16 Adding receivers



Step 3 Click **OK**.

Figure 7-17 Receivers



- The first receiver in the list is the default receiver. You can click to change the default receiver.
- On the **Recipient Configuration** page, you can click in the **Operation** column to remove the receiver.
  a. After removal, the work items assigned from the upstream project to the current project are not affected, and the receiver can still receive the work items. When the receiver's permission is canceled, a message is displayed, indicating that **the receiver does not have the permission to receive the work items**.
  b. When the receiver is completely removed from the project, they can no longer receive assigned requirements from the upstream project.
  c. When the default receiver is completely removed from the project, the first receiver is automatically selected as the default receiver.

----End

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7.3 Creating and Managing RRs

7.3.1 RR Status Transition Process

By default, the life cycle of an RR consists of the **--**, **Analyzing**, **Confirm**, **Planning**, **Implementing**, **Delivering**, **Accepting**, and **Closed** states. **Figure 7-18** shows the complete status transition process.

Figure 7-18 RR status transition flowchart

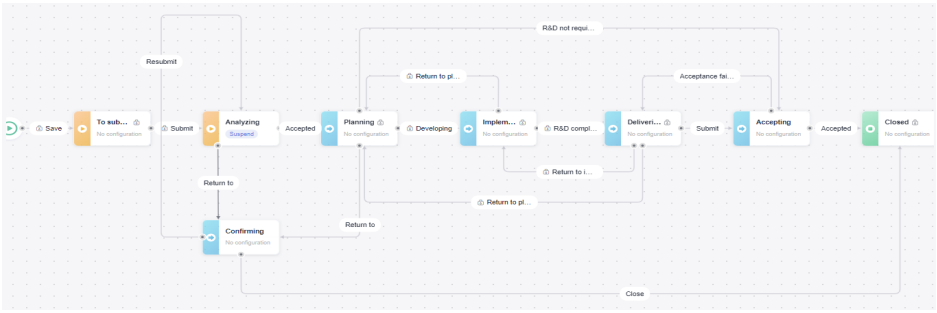

Table 7-32 lists the default operations in each RR state.

Table 7-32 Operation description

State	Description
--	When you create an RR, the status is **--** by default after you save it as a draft. The requirement proposer is by default the person who creates the requirement.
Analyzing	After the RR is submitted, the state changes to **Analyzing**. The requirement recipient can analyze whether to accept the requirement based on the requirement content. If not, the requirement can be returned or suspended. After the requirement is returned, the state changes to **Confirming**. The requirement proposer can directly cancel the requirement or submit the requirement again.
Planning	After the RR is accepted, the state changes to **Planning**. The requirement recipient makes development plan on the requirement. If the requirement does not involve R&D, select **R&D not required**, and the state of the requirement changes to **Accepting**.

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State	Description
Implementing	After the R&D of the RR starts, the state changes to **Implementing**. If there is any problem with the implementation solution, the requirement recipient can return the requirement to the planning phase.
Delivering	After the R&D of the RR is completed, the state changes to **Delivering**. If the delivery cannot meet the expectation, the requirement recipient can return the requirement to the planning or implementing phase.
Accepting	After the RR is submitted for acceptance, the state changes to **Accepting**. The requirement proposer checks whether the content of the requirement meets acceptance conditions. If not, select **Acceptance failed** and the state of the requirement goes back to **Delivering**.
Closed	After the RR is accepted, the state changes to **Closed**.

7.3.2 Creating RRs

RRs are raw problems or requirements described from the perspective of customers. When creating an RR, you need to specify the background, value, details, and priority of the requirement.

Prerequisites

There is an IPD-system device project, in which you have permission to **create and duplicate** RRs.

Creating RRs

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, click **Raw Requirements**.

Step 3 Click **RR**. On the **RR** page, set related parameters.

Table 7-33 Creating an RR

Parameter	Description
Title	Name of an RR.
Description	Enter the background, value, and details of the RR based on actual conditions. Use text, images, or links.

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Parameter	Description
Attachment	The maximum number of attachments for a single RR is 100, and their total size cannot exceed 500 MB.
Proposed Project	By default, it is the project to which the RR belongs and cannot be changed.
Raised By	By default, it is the creator of the RR. Multiple creators can be selected.
Responsible Project	Project to which the RR belongs. • If the current project is selected, this requirement is internal. • If another project of the tenant is selected, the requirement is submitted to external parties. The current project is selected by default.
Recipient	Owner who undertakes the RR. If multiple recipients are selected, data will be synchronized based on the recipients' processing speed.
Expected Completion	Expected completion time of the RR.
Priority	Priority of an RR, including **Low**, **Medium**, and **High**. The default value is **Medium**.
Copy To	Other members of the project team.

Step 4 Click **Submit**. The **Raw Requirements** page is displayed and "Request submitted successfully" is displayed in the upper right corner.

- If you click **Save as Draft**, the RR list is displayed. The requirement status is **--**.

  Only the creator can edit, export, submit, comment on, upload attachments to, and delete RRs in the draft state.
- If you click **Cancel**, the creation of the RR is cancelled.

The new requirement is displayed in the RR list, and the requirement state is **Analyzing**. If another project of the tenant is selected for **Responsible Project**, choose **Other Projects** to view the new RR.

NOTE

After an RR is created, the users selected for **Raised By**, **Recipient**, and **Copy To** will receive email and system message notifications. If not, set notifications or modify notification settings. For details, see **Configuring Notification Rules**.

----End

Related Operations

You can perform the following operations on a new RR.

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Table 7-34 Basic operations on an RR

Operation	Description
Modify RR title	Click next to an RR title to modify it.
Modify RR field	Click the target field value in the row of an RR to modify the value.
Break down work item	Click in the **Operation** column of an RR to break it down into child requirements. • Click **Add Child Work Item** in the **Break Down Child Work Item** dialog box to break down child work items in batches. A maximum of 10 child work items can be broken down at a time. • The project to which a child work item belongs can be the current project or another project of the tenant. To configure the project scope, choose **Settings** > **Work Item** > **RR Downstream Projects**. • You can break down work items quickly. See **Configuring Common Fields in a Project** for related field configuration. If **Quickly split sub-work items** is enabled, the corresponding number of child work items are created based on the number of selected options. A maximum of 10 child work items can be created. If the work item already has child work items, the quick breakdown function does not take effect. If a work item is configured with multiple fields for quick breakdown, the child work items are obtained only based on the first field in the field template.
Associate child work item	Click in the **Operation** column of an RR to associate it with child requirements.
Duplicate RR	Choose > **Duplicate** in the **Operation** column of an RR. The procedure for duplicating an RR is the same as that for creating an RR.
View RR association map	Choose > **Association Map** in the **Operation** column of an RR to view all data of its related items.
Copy RR link	You can copy the title, ID, current owner, status, and link information of a requirement to the clipboard. RRs of this project: Click **Copy Link** in the **Operation** column to copy the link. RRs of other projects/IRs/SRs/ARs: Click (**Copy Link**) in the **Operation** column to copy the link.

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Operation	Description
Migrate RR	Choose ••• > **Migrate** in the **Operation** column of an RR to migrate it to other projects. • Draft RRs cannot be migrated. • After the requirement is migrated to another project, the system automatically removes the tag of the RR and disassociates the RR from the associated work item. • After the migration, the RR will be re-executed. The system will automatically clear the actual workloads, retain only the fields of the same type as the original work item, and remove redundant fields.
Delete RR	Choose ••• > **Delete** in the **Operation** column of an RR to delete it. • Only data that meets the following conditions can be deleted: – Draft data. – Data in the **To Do** state, whose proposing project is the current project. – Data in the **Done** state, whose responsible project is the current project. • If an RR of a proposing project is deleted, it is permanently deleted. If an RR of a responsible project is deleted, it is moved to the project's recycle bin. • RRs in the recycle bin can be restored or permanently deleted according to the work item type. After an RR is restored from the recycle bin, it restores to the original status.

7.3.3 Managing RRs

After creating raw requirements (see **Creating RRs**), you can query, import, export, and batch edit them in the project. You can add tags and associate work items on their details pages.

Prerequisites

You have created an RR in an IPD-system device project, and have RR permissions for the project.

On the RR List Page

Go to the project homepage, choose **Work > Req > Raw Requirements**, and perform the following operations.

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Figure 7-19 RR list

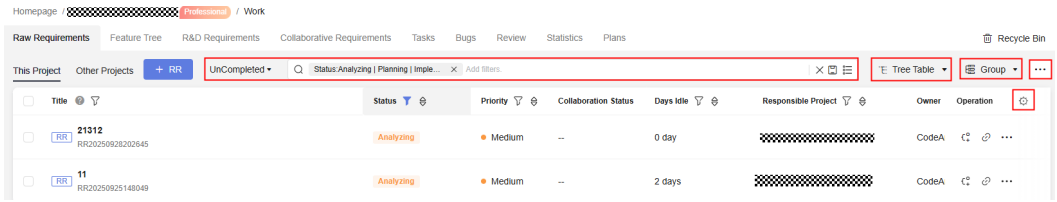

Table 7-35 Management operations in the RR list

Operation	Procedure
Query RR	**Prerequisites** You must have the **View list** permission for RRs. **Procedure** • By adding filters 1. Click the search box in the RR list and select one or more filters to search for RRs. 2. To clear all filters and display all data, click on the right of the search bar. 3. Query results can be displayed in tree, list, or Gantt chart view. • By using a saved view 1. Click the search box in the RR list and select one or more filters. 2. Click on the rightmost of the search bar, and enter a view name. 3. Click **OK**. The created view is displayed next to **RR**. 4. Select the name of the created view to query the RRs that meet the search criteria. Views can be shared with others, modified, and deleted.

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Operation	Procedure
Import work items	Use the provided template to import requirements in batches. **Prerequisites** You must have the **Import** permission for RRs. **Procedure** 1. In the RR list, click ··· on the right of the search bar and select **Import**. 2. In the displayed dialog box, click **Download Template**. The template file should be named in the following format: *Project name* + "-" + *Module name* (for example, **RR**) + **Template**. You can edit the name of the downloaded template. 3. Fill in the fields on the **RR Import** sheet. For details about how to set parameters, see the **Notes** and header instructions in the template file. 4. Drag and drop the desired file to the import area or click the import area and select the file. 5. Click **Next**. The verification progress dialog box is displayed. After the verification progress reaches 100%, close the dialog box and view the verification result. If the mandatory fields fail the verification, the import is not allowed, while the verification result of optional fields does not affect the import. ● If the verification is successful, click **Confirm Import**. ● If the verification fails, modify the file based on the verification result. Click **Last step** to import the modified file. 6. After the verification is successful, click **Confirm Import**. The import progress dialog box is displayed. You can click **Check progress** in the dialog box to go to the **Import/Export Records** page to view the import records. 7. After the import is successful, you can view the imported information in the RR list. ● If the import fails, a message is displayed on the page. Click **View Failure Details** in the message to view the failure details. You can modify the requirement information based on the details and import the template file again.

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Operation	Procedure
Export work items	Export requirements in batches to an Excel file. **Prerequisites** You must have the **Export** permission for RRs. **Procedure** 1. Export some or all RRs. • Export all: On the **Raw Requirements** page, click ··· on the right of the search bar and choose **Export**. The **Select Fields to Export** dialog box is displayed. • Export some: In the RR list, select one or more RRs to be exported and click **Export Selected** at the bottom of the page. The **Select Fields to Export** dialog box is displayed. 2. Select the fields to be exported and determine whether to export child work items. 3. Click **Export**. A dialog box is displayed, indicating the export progress. • After the RRs are exported, click **Download**. The RR file will be downloaded to the local PC. The file format is **.xlsx**.
Configure fields to display	Click ⚙ next to the **Operation** field. • On the left of the pop-up box, select the fields to be displayed. • On the right of the pop-up box, drag the fields in the **Selected** area to adjust the display sequence. • On the right of the pop-up box, select a field spacing style under **Appearance**. The options include **Compact**, **Standard**, and **Loose**.

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Operation	Procedure
Clone RR across projects	**Prerequisites** You must have the **Create/Submit/Copy** permission for the target project. **Constraints** ● Only RRs of the current project can be cloned to other projects. The workload, associated work item, tag, and release sprint fields will be cleared. ● RRs can be cloned only to projects of the same type. ● You can clone up to 50 RRs at a time. ● Draft RRs and RRs of other projects cannot be cloned. **Procedure** 1. Select the RRs to clone in the RR list and click **Cross-Project Copy** in the lower part of the page. The **Cross-Project Copy** window is displayed. 2. Select a target project from the drop-down list. You can select only a project to which you have joined and must have permission to create and clone tasks for the target project. 3. Click **Next**. The window for setting mandatory fields is displayed. Select the target owner from the drop-down list (the current operator is selected by default). Mandatory fields are those on the RR creation page of the target project. 4. Click **OK**. The RRs are cloned to the target project. 5. Go to the target project to view the cloned RRs.
Transition statuses in batches	**Prerequisites** You must have the **Set statuses** permission for RRs. **Constraints** ● The types of the selected work items must be the same. ● Only RRs of this project support batch status transition. ● The selected RRs must be in the same status. ● The mandatory fields of the selected RRs are filled. **Procedure** 1. Select the target RRs in the RR list and click **Batch Transfer** in the lower part of the page. The **Batch Transfer** window is displayed. 2. Select the target status from the drop-down list. 3. Click **Next**. 4. Set mandatory fields. The mandatory fields are set on the **In-transition GUI Config** tab of the project's RR status flow configuration page. 5. Click **OK**.

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Operation	Procedure
Migrate work items	**Prerequisites** You must have the **Migrate** permission for RRs. **Constraints** ● The types of the selected work items must be the same. ● Only RRs of this project can be migrated. ● After the migration to a new responsible project, the system automatically removes the tag and disassociates the work item from the original project. ● During a batch migration, you need to provide values for all mandatory fields in the target project. The system will apply your field settings to single-choice and multi-choice user fields, as well as the fields that are empty before the migration. It will not overwrite the fields that already contain data. **Procedure** 1. Select the work items to be migrated in the RR list and click **Migrate** in the lower part of the page. The **Migrate** window is displayed. 2. Select a target project from the drop-down list. 3. Select a priority from the drop-down list. 4. Select one or more owners from the drop-down list. 5. Click **OK**. The migration is successful. Go to the target project to view the migrated work items.
Suspend work items	**Prerequisites** You must have the **Suspend/Cancel suspend** permission for RRs. **Constraints** ● The types of the selected work items must be the same. ● The selected RRs must be in the same status. ● Only RRs of this project can be suspended. ● The status node of a work item can be suspended. That is, the **Suspend/Cancel** switch has been turned on in the status node settings of the status flow. **Procedure** 1. Select the work items to be suspended in the RR list and click **Suspend** in the lower part of the page. The **Suspend** window is displayed. 2. Specify a reason. 3. Click **OK**. The suspension is successful. On the RR list page, the work item is displayed as suspended.

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Operation	Procedure
Unsuspend work items	**Prerequisites** You must have the **Suspend/Cancel suspend** permission for RRs. **Constraints** ● The types of the selected work items must be the same. ● The selected RRs must be in the same status. ● Only RRs of this project can be unsuspended. ● All selected work items are in the suspended state. **Procedure** 1. In the RR list, select the work items to be unsuspended. 2. Click **Cancel Suspension** in the lower part of the page. After the suspension is canceled, a message is displayed in the upper right corner of the page.
Perform batch operations	You can select multiple RRs to perform operations in batches: edit, migrate, suspend/unsuspend, export, delete, cross-project clone, and transition.
Group RRs	You can group work items by any supported field type. **Constraints** ● A maximum of 1,000 work items can be displayed during grouping. ● The supported field types include single-choice list, multi-choice list, single-choice user, multi-choice user, hierarchy, and date. ● For RRs of other projects and projects in a program (after sub-project aggregation is enabled), grouping by release, sprint, module, feature set, or tag is unavailable. **Procedure** 1. On the **Raw Requirements** page, click **Group**. 2. On the displayed page, select the fields used to group work items. ● You can sort work items in ascending or descending order. ● You can enter a keyword to search for fields. ● When work items are grouped by multi-select list or multi-select user, the same work item may appear in multiple groups. ● You can click **No grouping** to ungroup work items.

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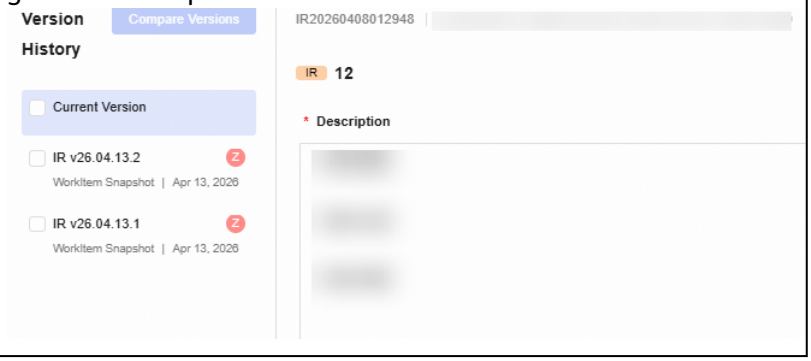
Operation	Procedure
Version snapshots	Snapshots include plan management snapshots, feature tree snapshots, and work item snapshots. A version snapshot is a work item snapshot. Its name is automatically generated by the system. **Constraints** A work item can have a maximum of 1,000 snapshots. **Procedure** 1. In the RR list, select the work items for which you want to create a snapshot. 2. Click Version Snapshot in the lower part of the page to take a snapshot of the selected work items. A message is displayed in the upper right corner of the page, indicating that the operation is successful. The snapshot is a work item snapshot. Its name is automatically generated by the system. The format of the work item snapshot name is: *Work item type* + "v" + *Year* + "." + *Month* + "." + *Day* + "." + *Number of versions generated on the current day*. For example, if an RR is snapshotted for the first time on March 25, 2026, its snapshot name generated by the system is **RR v26.03.25.1**. **NOTE** You can also go to the work item details page, click ••• in the upper right corner, and select **Version Snapshot** to create a snapshot for the work item. 3. (Optional) Click the work item name to go to its details page, click ••• , and select **Version History** to view the generated snapshots. 

On the RR Details Page

On the details page of an RR, you can modify the description, priority, and owner, add tags and attachments, associate work items, check review records, add workloads, and view the operation history.

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Figure 7-20 RR details page

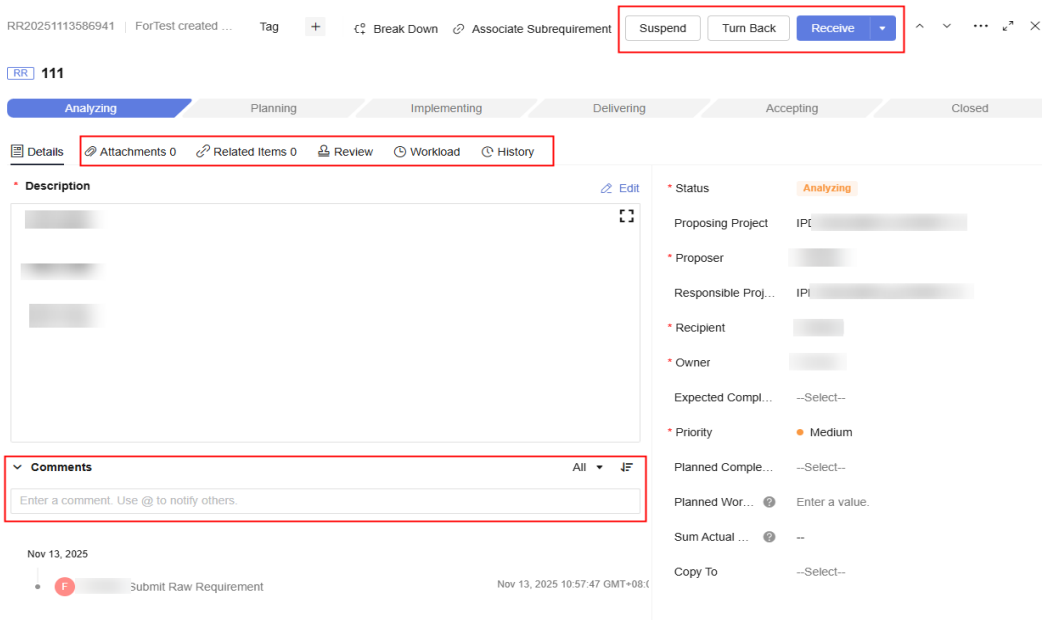

Table 7-36 Management operations on the details page

Operation	Procedure	Remarks
Edit work item	On the RR details page, click the value box of the field to be modified, and enter a target value in the text box or select one from the drop-down list. The modification is saved automatically.	You must have permission to **edit** RRs.
Change work item status	Go to the work item details page and click the transition button in the upper right corner to transition the work item to the target status. For details about status transition, see **Table 7-32**.	You must have permission to **set statuses** for RRs.

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Operation	Procedure	Remarks
Upload attachment	Attachments can be pictures, workbooks, manuscripts, and text files. A maximum of 100 attachments can be added to each work item, and their total size cannot exceed 500 MB. 1. Go to the work item details page, and click the **Attachment** tab. 2. Click the box to select a local file or drag the file here to upload it as an attachment for the work item. Local files can be directly dragged to the text box. When the upload progress reaches 100%, the system displays a message indicating that the attachment is uploaded successfully. Move the cursor to the file that is successfully uploaded. The operations that can be performed are displayed. ● Click to download the file. ● Click to delete the uploaded file.	You must have permission to **edit** or **upload attachments** for RRs.

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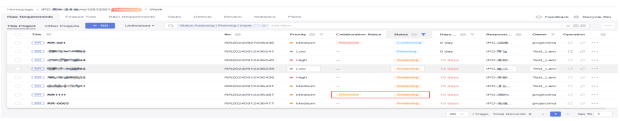
Operation	Procedure	Remarks
Add and check related item	A work item can be associated with any other type of work item in a project. 1. Go to the work item details page and click the **Related Items** tab. 2. Complete association. • **Related Upstream Requirements**: requirements coordinated from upstream projects. The upstream requirement information is displayed in the current project only when this project is selected as the responsible project for the created **Related Downstream Requirements** in the RR of another project. Assume that the name of the current project is "IPD Project" and that of another project is "IPD Project 2". The method of synchronizing upstream requirement information is as follows: 1. Create a project named **IPD Project 2**. 2. Create an RR named **RR-IPD2** in **IPD Project 2**. 3. After the RR is created, enter its details page. 4. Choose **Related Items** > **Related Downstream Requirements** and click **Deliver**. 5. Set **Responsible Project** to **IPD-Project** and the raw requirement name to **RR-Collaboration**. 6. After the assignment, click the requirement title "RR-Synergy" to access "IPD Project" where this requirement is located. On the RR-Synergy details page, choose **Related Items** > **Related Upstream Requirements** to view the corresponding requirement information. In the RR list, **Collaboration Status** of the RR-Synergy requirement is **Received** in orange, and **Status** is **Analyzing**. **Figure 7-21** RR list 	You must have permission to **deliver assignment**, **break down/ associate/ dissociate child requirements**, **create/ associate/ dissociate work items**, **associate/ dissociate files**, and **associate/ dissociate wikis** for RRs.

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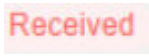
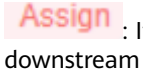
Operation	Procedure	Remarks
	NOTE Different colors of **Received** indicate different meanings. : Before a requirement is accepted, the color of **Received** is orange. : After a requirement is accepted, the color of **Received** turns green. : After a requirement is rejected, the color of **Received** turns red. • **Related Downstream Requirements**: requirements assigned to downstream projects. A maximum of 10 requirements can be assigned at a time. One requirement is displayed by default and cannot be deleted. 1. Click **Deliver**. 2. Configure related information. The current project cannot be selected for **Responsible Project**. If only the current project exists in the system and no value is available for this parameter, requirement assignment cannot be performed. 3. After configuring the requirement assignment information, click **OK**. Click the requirement title "RR-test" to access "IPD Project 2" where this requirement is located. In the RR list, **Collaboration Status** of the requirement is **Delivered** in orange. **NOTE** Different colors of **Assign** indicate different meanings. : If the current requirement has unprocessed downstream collaboration requirements, the color of **Assign** is orange. : After all downstream collaboration requirements under the current requirement are accepted, the color of **Assign** turns green. : If the current requirement has returned downstream collaboration requirements, the color of **Assign** turns red. • **Child Work Items Related to RR**: child work items broken down from the current work item. The operations vary according to the state. Perform operations based on the functions	

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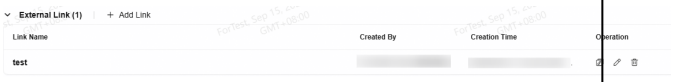
Operation	Procedure	Remarks
	displayed on the page and the actual project situation. Click **Break Down** to add child work items. Each requirement can be broken down into a maximum of 10 child work items at a time. One child requirement is displayed by default and cannot be deleted. Click to expand and configure more information. After the child work items are created, you can check and edit them on the **R&D Requirements** tab. ● **Associate Work Item**: Associate work items of any type in the project. The operations vary according to the state. Perform operations based on the functions displayed on the page and the actual project situation. Work items of the RR, SF, IR, SR, AR, task, and bug types can be associated. ● **External Link**: external links associated with the current work item. – Create a link: Click **Add Link**. In the displayed dialog box, set **Link Name** and **Link**. The value of **Link** must start with **https://** and cannot contain invalid characters, such as spaces and Chinese characters. Click **OK**. After a link is created, you can click **External Link** to view, edit, copy, or delete the link.  – Copy a link: Click on the right of the link to be copied. – Edit a link: Click on the right of the row where the link to edit is located. In the displayed dialog box, you can change the link name and link. – Delete a link: Click on the right of the link to be deleted. In the displayed dialog box, click **Delete**.	

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Operation	Procedure	Remarks
Check review record	You can check the review records related to requirements only in the following situations: • When you modify the controlled content of an RR, a change process is automatically triggered. Only then will you be able to view the review record in **Review** of the corresponding requirement details page. When you click an RR in the **Confirm**, **Planning**, or **Implementing** state and modify controlled fields with on the details page, a dialog box is displayed, indicating that the change approval process is required. • You can view the review records in **Review** of the corresponding requirement details page only when the requirement has a general review record.	You must have the **View** permission for RRs.
Add workload	1. Go to the details page of a work item and click **Workload**. 2. Click **Add Workload**. The **Add Workload** dialog box is displayed. 3. Enter the workload information. • The end date cannot be earlier than the start date. • Decide whether to select **Weekends included**. If not, weekend workload records will not be generated. • You can select **Total** or **Daily** for **Workload**. • **Work Type** options include backend development, frontend development, UI design, replacement leave, debugging, and general. You can also customize the value by referring to **Creating Work Types**. 4. Click **OK**. The system automatically generates corresponding records based on the entered dates and days. The workload can be edited and deleted.	You must have permission to **add person-hours** for RRs. Workloads can be edited and deleted by the creator. By default, the project administrator can edit and delete all workloads.

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Operation	Procedure	Remarks
View operation history	**History** displays all operation logs of users, including creation, status transition, review initiation, work item association, and workload addition. 1. Go to the work item details page. 2. Click the **History** tab. • Click ↓ or ↑ to check historical records in the ascending or descending order of operation time. • You can set search criteria to query historical records that meet the search criteria.	You must have the **View** permission for RRs.
Tag work item	1. Go to the work item details page. Click + next to **Tag** at the top of the page, and select **Create Tag**. The added tag is displayed in the **Tag** area. 2. In the **Create Tag** dialog box, set **Tag Name** and select **Tag Color**. 3. Click **OK**. The new tag is displayed next to the requirement ID in the RR list. 4. (Optional) Hide a tag. • Click + next to **Tag**. In the displayed dialog box, deselect √ to hide the tag. • Move the cursor to the tag name and click ⊠ to hide the tag. **Figure 7-22** Hiding a tag - 02  **NOTE** To add or remove tags for multiple RRs, select the desired RRs in the RR list, click **Batch Edit** in the lower part of the page, and select **Tag**.	You must have permission to **edit** RRs.

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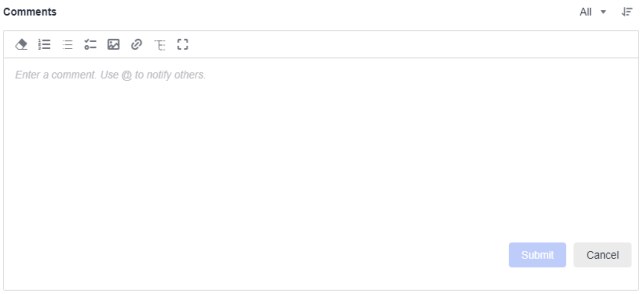
Operation	Procedure	Remarks
Add comment	1. Go to the work item details page. 2. On the **Details** tab page, click the **Comments** text box. **Figure 7-23** Adding a comment  3. Enter a comment. You can upload images, enter links, associate work items, and use @ to notify project members in comments. 4. Click **Submit**. Submitted comments can be replied, edited, pinned to the top, and deleted.	You must have the **View** permission for RRs.
History versions	For work items with snapshots, you can view their historical versions and compare the differences between them. 1. Go to the work item details page, click ••• in the upper right corner, and select **Version History**. 2. In the **Version History** dialog box, select two versions and click **Compare Versions**. On the **Work Item Version Comparison** page, view the differences between the original version and the compared version. You can click  in the upper right corner and enable **Hide Identical Items** to view only the differences between the two versions. 3. On the **Work Item Version Comparison** page, click  to return to the **Version History** page. Hover over a snapshot version.  is displayed. Click  to delete the snapshot. **NOTE** If a work item has a third-party snapshot or its child work items have third-party snapshots and the child work items cannot be separated from the current work item, the snapshot cannot be deleted.	You must have permission to **check** RRs. To delete a snapshot, you must have permission to delete RRs.

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7.4 Creating and Managing a Feature Tree and System Features

7.4.1 Creating a Feature Tree

The system provides multiple methods for creating a feature tree, including inheriting the feature tree from another project, directly creating a feature tree, and importing an Excel file.

You can create a feature tree by inheriting or importing one only when there are no system features or feature sets in the current project.

Prerequisites

An IPD-system device project is available, and you have permission to **create, inherit, and import feature sets** for the project.

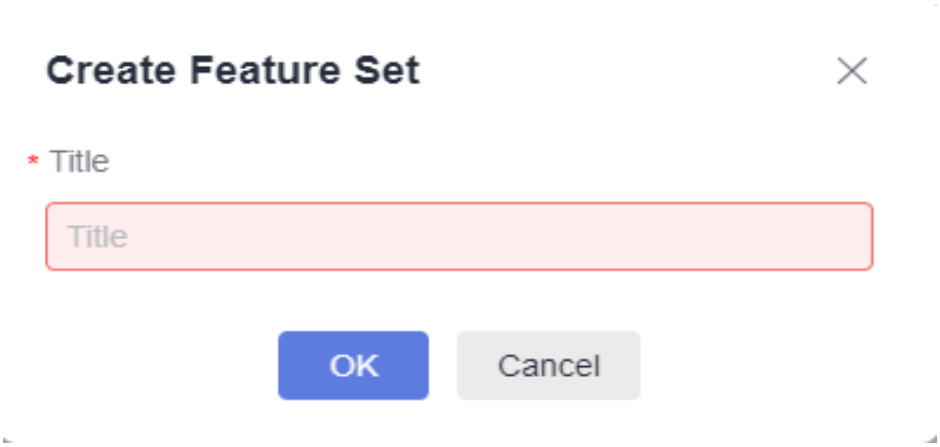
Creating a Feature Set

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Feature Tree**.

Step 3 Click + . The **Create Feature Set** dialog box is displayed.

Figure 7-24 Creating a feature set



Step 4 Enter a title. The value contains 1 to 257 characters.

Step 5 Click **OK**.

You can view the new feature set in the feature tree list.

----End

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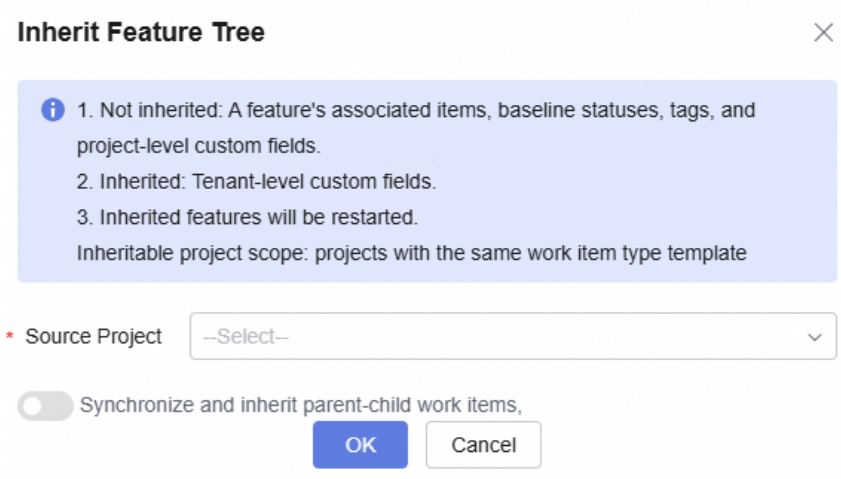
Inheriting a Feature Tree

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Feature Tree**.

Step 3 Click **Inherit Feature Tree**. The **Inherit Feature Tree** dialog box is displayed.



Step 4 Select the project from which the feature tree is inherited from the **Source Project** drop-down list. All feature sets and system features from the selected project can be inherited by the current project.

Step 5 **Synchronize and inherit parent-child work items** is disabled by default. If you want to inherit all child work items under the system feature from the selected project, enable this option.

Step 6 Click **OK**.

In the feature tree list, you can view the feature tree inherited from another project.

----End

Importing a Feature Tree

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Feature Tree**.

Step 3 Click **Import Feature Tree**. The **Import** dialog box is displayed.

Step 4 Click **Download Template**. The import template file is displayed in the upper right corner of the page. Save the file to the local PC and fill in data. The template file should be named in the following format: *Project name* + "-" + *Module name* (for example, **Feature**) + **Template**.

Step 5 Set the fields in the **Feature Tree Import** sheet of the template. For details about how to set parameters, see the **Notes** and header instructions in the template file.

Step 6 Drag and drop the desired file to the import area or click the import area and select the file.

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Step 7 Click **Next**. The verification progress dialog box is displayed.

After the verification progress reaches 100%, close the dialog box and view the verification result. If the mandatory fields fail the verification, the import is not allowed, while the verification result of optional fields does not affect the import.

- If the verification is successful, click **Confirm Import**.
- If the verification fails, modify the file based on the verification result. Click **Last step** to import the modified file.

Step 8 After the verification is successful, click **Confirm Import**. The import progress dialog box is displayed. You can click **Check progress** in the dialog box to go to the **Import/Export Records** page to view the import records.

Step 9 Imported information can be viewed in feature tree list. If the import fails, a message is displayed on the page. Click **View Failure Details** in the message to view the failure details. You can modify the requirement information based on the details and import the template file again.

----End

Related Operations

You can perform the following operations on a new feature set.

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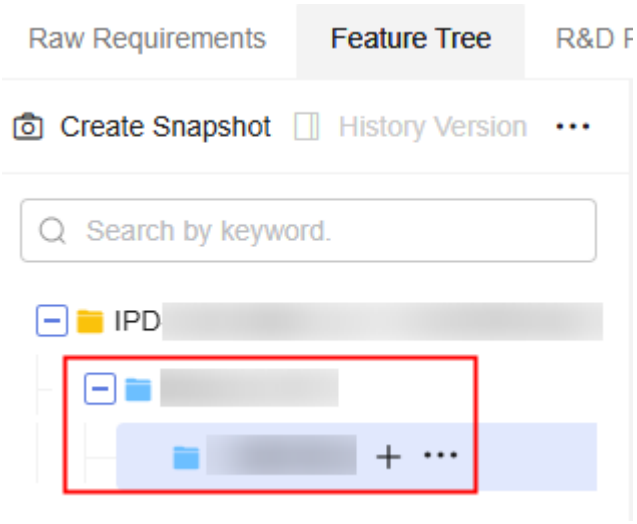
Table 7-37 Basic operations on a feature set

Operation	Description
Create child feature set	1. Click + next to the target feature set. The **Create Feature Set** dialog box is displayed. 2. Set **Title**. 3. Click **OK**. You can view the new second-level feature set in the corresponding feature set.  You can create third-level feature sets for a second-level one. A maximum of 14 levels of feature sets are supported. The child feature sets can be edited and deleted.
Edit feature set	Click ··· on the right of the target feature set, and click **Edit** to edit the title.

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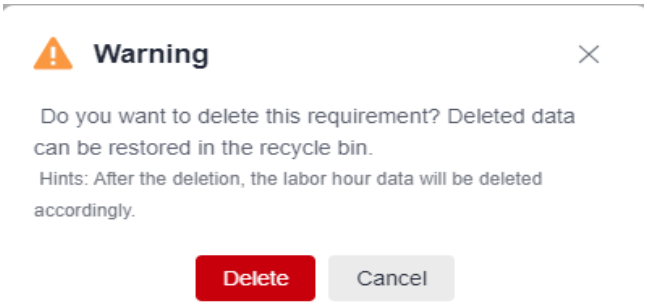
Operation	Description
Delete feature set	1. Click ••• on the right of the target feature set, and click **Delete**. **Figure 7-25** Deleting a feature set  2. Click **Delete**. The deleted feature set and its child feature sets will not be displayed on the page. Deleted feature sets can be restored or permanently deleted from the recycle bin, depending on the work item type.

7.4.2 Managing a Feature Tree

After creating a feature tree (see **Creating a Feature Tree**), you can import, export, and compare its version snapshots in the project.

Prerequisites

You have created a feature set in an IPD-system device project, and have feature set permissions for the project.

Procedure

On the project homepage, choose **Work** > **Req** > **Feature Tree**, and perform the following operations.

Figure 7-26 Feature tree list

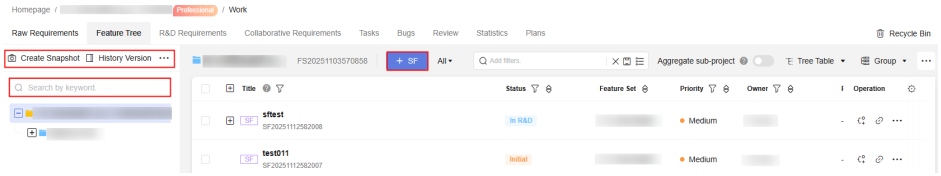


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Table 7-38 Managing a feature tree

Operation	Procedure
Search for feature set	1. On the project homepage, choose **Feature Tree**. 2. Enter a keyword in the search box to search for the target feature set.
Associate system feature with feature set	You can create system features or associate existing ones with a feature tree. System features of the same type can be put in the same feature set for easy management. • Creating a system feature 1. Click the name of the feature set to associate a system feature. 2. Click **SF**. 3. Enter system feature information. For details, see **Procedure**. 4. Click **OK**. The new system feature is displayed under the corresponding feature set.

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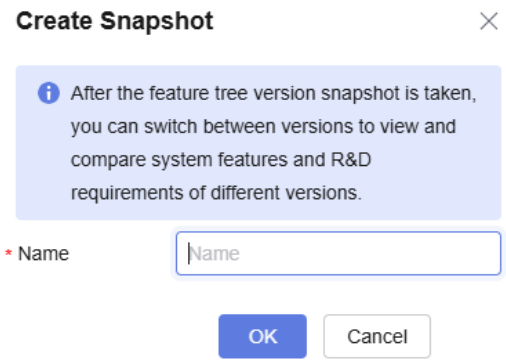
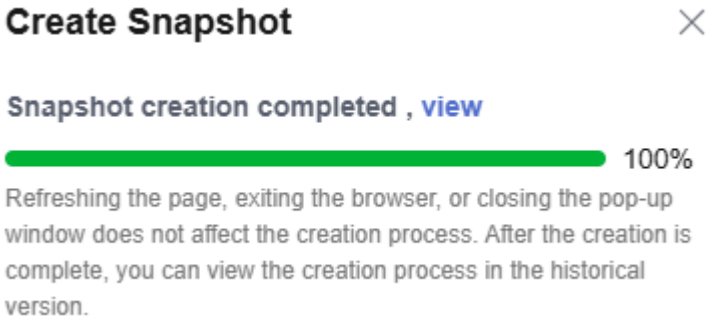
Operation	Procedure
Create feature tree baseline snapshot	You can create a baseline based on the current feature tree version. 1. On the project homepage, choose **Feature Tree**. 2. Click . The **Feature Tree Version Snapshot** dialog box is displayed. **Figure 7-27** Creating a feature tree snapshot  3. Enter a snapshot name. 4. Click **OK**.  The creation process will not be interrupted by refreshing the page, closing the browser, or closing the dialog box. To view the created version, click **History Version**.

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Operation	Procedure
Compare feature tree version snapshots	You can compare feature tree snapshots of different versions. 1. On the project homepage, choose **Feature Tree**. 2. Click ••• and select **Compare Snapshots**. The snapshot comparison page is displayed. 3. Select the baseline snapshot version to be compared. 4. Click the name of the system feature to be compared. The work item version comparison page is displayed. If a system feature is snapshotted for multiple times on the feature tree page, multiple versions will be generated. You can select and compare different versions. To compare system feature versions, check historical versions on the **Feature Tree** page. 1. On the project homepage, choose **Feature Tree**. 2. Click the SF name to be compared. On the details page, click ••• on the right and select **History Version**. On the displayed page, select the snapshot version to be compared and click the version comparison icon. The work item version comparison page is displayed.

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Operation	Procedure
Import feature tree	Use the provided template to import a feature tree. 1. On the project homepage, choose **Feature Tree**. 2. Click **Import** under ··· on the right of the page. 3. In the displayed dialog box, click **Download Template**. You can edit the name of the downloaded template. 4. Set the fields in the **Feature Tree Import** sheet of the template. For details about how to set parameters, see the **Notes** and header instructions in the template file. 5. Drag and drop the desired file to the import area or click the import area and select the file. 6. Click **Next**. The verification progress dialog box is displayed. After the verification progress reaches 100%, close the dialog box and view the verification result. If the mandatory fields fail the verification, the import is not allowed, while the verification result of optional fields does not affect the import. ● If the verification is successful, click **Confirm Import**. ● If the verification fails, modify the file based on the verification result. Click **Last step** to import the modified file. 7. After the verification is successful, click **Confirm Import**. The import progress dialog box is displayed. You can click **Check progress** in the dialog box to go to the **Import/Export Records** page to view the import records. 8. Imported information can be viewed in the SF list. If the import fails, a message is displayed on the page. Click **View Failure Details** in the message to view the failure details. You can modify the requirement information based on the details and import the template file again.
Export feature tree	Export a feature tree with desired fields to an Excel file. 1. On the project homepage, choose **Feature Tree**. 2. Click ··· on the right of **History Version**, and select **Export**. 3. In the displayed dialog box, select fields to be exported. 4. Click **Export**. An export progress dialog box is displayed. ● You can click **Check progress** in the dialog box to go to the **Import/Export Records** page to view the export records. ● In the export progress dialog box, click **Download** to download the file to your local PC. The file format is **.xlsx**.

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7.4.3 System Feature Status Transition Process

The entire lifecycle of a system feature consists of the **Initial**, **R&D**, and **Completed** states. Figure 7-28 shows the complete status transition process.

Figure 7-28 System feature status transition process

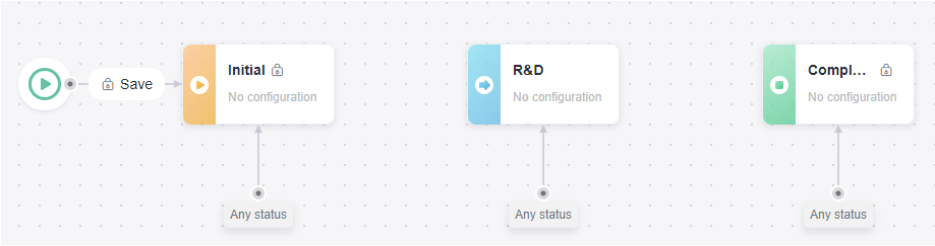

Table 7-39 describes the operations in each status.

Table 7-39 Operation description

Status	Description
Initial	When a system feature is created, the state is **Initial** by default.
R&D	After the system feature in the **Initial** state is handled, the state changes to **R&D**.
Completed	After the system feature is developed, the state changes to **Completed**.

7.4.4 Creating System Features

Major capabilities of offering requirements or services to support a problem (PB) can be managed in system features. When creating a system feature, you can set its background, value, details, and priority.

Prerequisites

An IPD-system device project is available, and you have permission to **create and duplicate features** for the project.

Procedure

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Feature Tree**.

Step 3 Click **SF**. On the **SF** page, set related parameters.

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Table 7-40 System feature parameters

Parameter	Description
Tag	When creating or editing a work item, you can add a custom tag. Tag names can be marked in different colors.
Title	Name of a system feature.
Description	Enter the background, value, and details of the feature based on project requirements. Use text, images, or links.
Attachment	A maximum of 100 attachments can be added to a system feature, and their total size cannot exceed 500 MB.
Responsible Project	Project that the system feature belongs to. The value cannot be changed.
Owner	Owner of the system feature. Only one owner can be selected. The default owner is the creator.
Feature Set	The feature set to which the system feature belongs is a home structure of the feature tree.
Priority	Priority of the system feature, including **Low**, **Medium**, and **High**. The default value is **Medium**.
Planned Start	Planned start time.
Planned Completion	The planned completion time cannot be earlier than the planned start time.
Planned Workload	Planned workloads.
High Value	Whether the system feature is a key feature. The value can be **Yes** or **No**.
Used For	Scenario with a maximum of 512 characters.
Domain	Domain to which the system feature belongs. The options include software and hardware, hardware, performance, operations, and user experience. Select one based on the system feature.
Copy To	Person to whom the system feature is copied.

Step 4 Click **OK**. The feature tree page is displayed. A message indicating system feature creation is displayed in the upper right corner.

The new system feature is displayed in the feature tree, and the system feature state is **Initial**.

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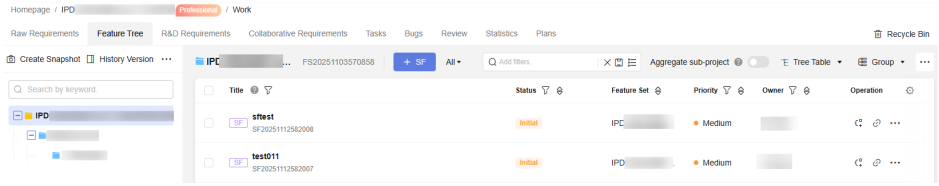
Figure 7-29 Feature tree



NOTE

After a system feature is created, the people selected for **Owner** and **Copy To** will receive email and system message notifications. If not, configure or modify notification settings. For details, see **Configuring Notification Rules**.

----End

Related Operations

You can perform the following operations on a new system feature.

Table 7-41 Basic operations on a system feature

Operation	Description
Modify system feature title	Click next to a system feature title to modify it.
Modify system feature field	Click the target field value in the row of a system feature to modify the value.
Break down work item	Click in the **Operation** column of a system feature to break it down into child work items. • Click **Add Child Work Item** in the **Break Down Child Work Item** dialog box to break down child work items in batches. A maximum of 10 child work items can be broken down at a time. • You can break down work items quickly. See **Configuring Common Fields in a Project** for related field configuration. If **Quickly split sub-work items** is enabled, the corresponding number of child work items are created based on the number of options selected. A maximum of **10** child work items can be created. If the work item already has child work items, the quick breakdown function does not take effect. If a work item is configured with multiple fields for quick breakdown, the child work items are obtained only based on the first field in the field template.
Duplicate system feature	Choose > **Duplicate** in the **Operation** column. This process is the same as that of creating a feature.

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Operation	Description
Associate child work item	Click in the **Operation** column to associate a child work item of the same project.
View system feature association map	Choose > **Association Map** in the **Operation** column of a system feature to view all data of its related items.
Copy system feature link	In the system feature list, you can copy the title, ID, current owner, status, and link information of a system feature to the clipboard. SFs: Click **Copy Link** under in the **Operation** column. IRs/SRs/ARs: Click in the **Operation** column of an SF.
Delete system feature	Choose > **Delete** in the **Operation** column of a system feature to delete it. • System features in change or baseline review cannot be deleted. • Once deleted, a system feature is moved to the recycle bin. System features in the recycle bin can be restored or permanently deleted according to the work item type. After a system feature is restored from the recycle bin, it restores to the original status.

7.4.5 Managing System Features

After creating system features (see **Procedure**), you can query, import, export, and batch edit them in the project. You can add tags and associate work items on their details pages.

Prerequisites

You have created a system feature in an IPD-system device project, and have system feature permissions for the project.

Managing System Features on the System Feature List Page

Go to the project homepage, choose **Work** > **Req** > **Feature Tree**, and perform the following operations.

Figure 7-30 System feature list page

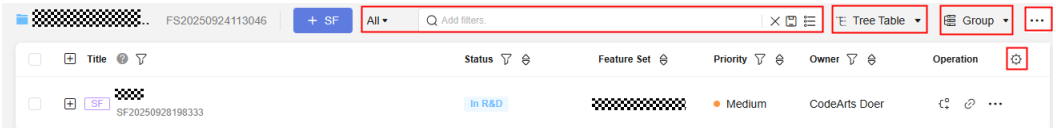

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Table 7-42 Management operations in the system feature list

Operation	Procedure
Search for system feature	• By adding filters 1. Click the search box in the feature list and select one or more filters to search for system features. 2. To clear all filters and display all data, click ✕ on the right of the search bar. 3. Query results can be displayed in tree, list, or Gantt chart view. • By using a saved view 1. Click the search box in the system feature list and select one or more filters. 2. Click 💾 on the rightmost of the search bar, and enter a view name. 3. Click **OK**. The created view is displayed next to the **SF** button. 4. Select the created view to query the system features that meet the search criteria. Views can be shared with others, modified, and deleted.

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Operation	Procedure
Import work items	Use the provided template to import system features. 1. In the system feature list, click ··· on the right of the search bar, and select **Import**. 2. In the displayed dialog box, click **Download Template**. The template file should be named in the following format: *Project name* + "-" + *Module name* (for example, **Feature**) + **Template**. You can edit the name of the downloaded template. 3. Set the fields in the **Feature Tree Import** sheet of the template. For details about how to set parameters, see the **Notes** and header instructions in the template file. 4. Drag and drop the desired file to the import area or click the import area and select the file. 5. Click **Next**. The verification progress dialog box is displayed. After the verification progress reaches 100%, close the dialog box and view the verification result. If the mandatory fields fail the verification, the import is not allowed, while the verification result of optional fields does not affect the import. • If the verification is successful, click **Confirm Import**. • If the verification fails, modify the file based on the verification result. Click **Last step** to import the modified file. 6. After the verification is successful, click **Confirm Import**. The import progress dialog box is displayed. You can click **Check progress** in the dialog box to go to the **Import/Export Records** page to view the import records. 7. Imported information can be viewed in the SF list. If the import fails, a message is displayed on the page. Click **View Failure Details** in the message to view the failure details. You can modify the requirement information based on the details and import the template file again.
Export work items	Export system features in batches to an Excel file. 1. Export some or all system features. • Export all: On the **Feature Tree** page, click ··· on the right of the search bar and choose **Export**. The **Select Fields to Export** dialog box is displayed. • Export some: In the feature list, select one or more system features to be exported and click **Export Selected** at the bottom of the page. The **Select Fields to Export** dialog box is displayed. 2. Select the fields to be exported. 3. Click **Export**. A dialog box is displayed, indicating the export progress. • After the system features are exported, click **Download**. The feature file will be downloaded to the local PC. The file format is **.xlsx**.

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Operation	Procedure
Configure fields to display	Click ⚙ next to the **Operation** field. ● On the left of the pop-up box, select the fields to be displayed. ● On the right of the pop-up box, drag the fields in the **Selected** area to adjust the display sequence. ● On the right of the pop-up box, select a field spacing style under **Appearance**. The options include **Compact**, **Standard**, and **Loose**.
Clone SFs across projects	**Constraints** ● Only SFs can be cloned. The workload, associated work item, tag, and release sprint fields will be cleared. ● You must have permission to create and clone SFs for the target project. ● SFs can be cloned only to projects of the same type. ● You can clone up to 50 SFs at a time. **Procedure** 1. Select the SFs to clone in the feature list and click **Cross-Project Copy** in the lower part of the page. The **Cross-Project Copy** window is displayed. 2. Select a target project from the drop-down list. You can select only a project to which you have joined and must have permission to **create and clone** tasks for the target project. 3. Click **Next**. The window for setting mandatory fields is displayed. Select the target owner from the drop-down list (the current operator is selected by default). Mandatory fields are those on the SF creation page of the target project. 4. Click **OK**. The SFs are cloned to the target project. 5. Go to the target project to view the cloned SFs.

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Operation	Procedure
Transition statuses in batches	**Constraints** ● The types of the selected work items must be the same. ● The selected SFs must be in the same status. ● You must have permission to **set statuses** for SFs. ● Mandatory fields of the selected SFs have been set. **Procedure** 1. Select the target SFs in the SF list and click **Batch Transfer** in the lower part of the page. The **Batch Transfer** window is displayed. 2. Select the target status from the drop-down list. 3. Click **Next**. 4. Set mandatory fields. The mandatory fields are set on the **In-transition GUI Config** tab page of the project's SF status flow configuration page. 5. Click **OK**.
Perform batch operations	You can select multiple SFs to perform batch operations: baseline/unbaseline, change, baseline review, edit, suspend/unsuspend, export, delete, cross-project clone, and transition.
Group system features	You can group work items by any supported field type. **Constraints** ● A maximum of 1,000 work items can be displayed during grouping. ● The supported field types include single-choice list, multi-choice list, single-choice user, multi-choice user, hierarchy, and date. ● For projects in a program (after sub-project aggregation is enabled), grouping by release, sprint, module, feature set, or tag is unavailable. **Procedure** 1. In the system feature list, click **Group**. 2. On the displayed page, select the fields used to group work items. ● You can sort work items in ascending or descending order. ● You can enter a keyword to search for fields. ● When work items are grouped by multi-select list or multi-select user, the same work item may appear in multiple groups. ● You can click **No grouping** to ungroup work items.

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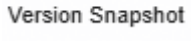
Operation	Procedure
Version snapshots	Snapshots include plan management snapshots, feature tree snapshots, and work item snapshots. A version snapshot is a work item snapshot. Its name is automatically generated by the system. **Constraints** A work item can have a maximum of 1,000 snapshots. **Procedure** 1. In the system feature list, select the work items for which you want to create a snapshot.  2. Click  in the lower part of the page to take a snapshot of the selected work items. A message is displayed in the upper right corner of the page, indicating that the operation is successful. The snapshot is a work item snapshot. Its name is automatically generated by the system. The format of the work item snapshot name is: *Work item type* + "v" + *Year* + "." + *Month* + "." + *Day* + "." + *Number of versions generated on the current day*. For example, if an SF is snapshotted for the first time on March 25, 2026, its snapshot name generated by the system is **SF v26.03.25.1**. **NOTE** You can also go to the work item details page, click  in the upper right corner, and select **Version Snapshot** to create a snapshot for the work item. 3. (Optional) Click the work item name to go to its details page, click , and select **Version History** to view the generated snapshots.

Managing System Features on Their Details Pages

On the details page of a system feature, you can modify the description, priority, and owner, add tags and attachments, associate work items, check review records, add workloads, and view the operation history.

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Figure 7-31 System feature details page

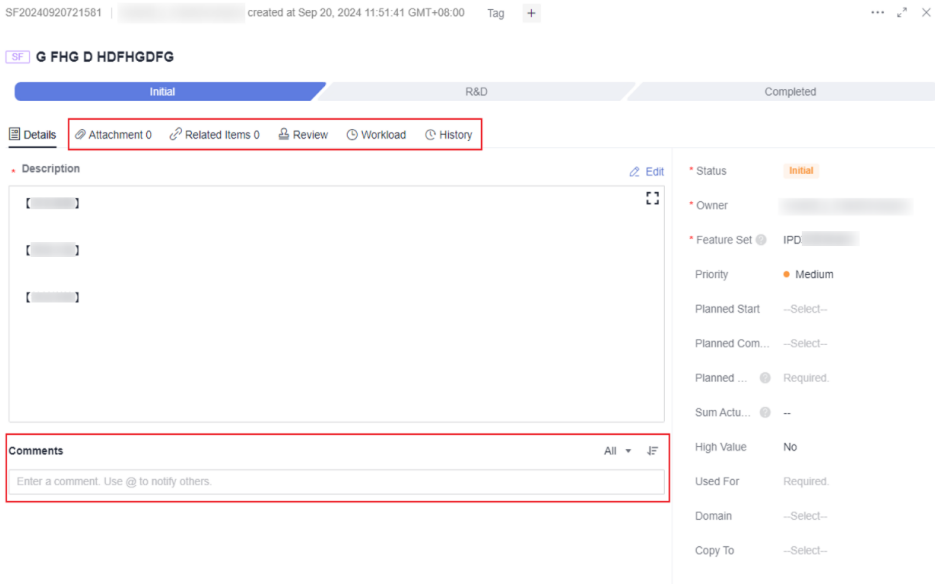

Table 7-43 Management operations on the details page

Operation	Procedure	Remarks
Edit work item	On the system feature details page, click the value box of the field to be modified, and enter a target value in the text box or select one from the drop-down list. The modification is saved automatically.	You must have permission to **edit** features.
Change work item status	Go to the work item details page, click the **Status** field, and transition the work item to the target status. For details about status transition, see **Table 7-39**.	You must have permission to **set statuses** for features.
Baseline feature	1. Go to the work item details page, and choose ••• > **Baseline**. The **Baseline** dialog box is displayed. 2. Click **OK**. The baseline icon SF is displayed on the left of the system feature title. You can unbaseline system features that have been baselined.	You must have permission to **baseline** features.

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Operation	Procedure	Remarks
Initiate baseline review (BR)	1. Go to the work item details page, and choose ••• > **Baseline Review**. The **BR** page is displayed. 2. Enter BR information. By default, the **Baseline Object** is the system feature for which the baseline review is initiated. 3. Click **Submit**. The **Review** page is displayed. Choose **Review** > **Baseline Review** to check the new baseline review. 4. Switch to the **Feature Tree** page. The icon of the system feature that is under baseline review is displayed as . Track the progress of the baseline review. The system feature can be baselined only when the baseline review status changes to **Approved**.	You must have permission to **view** features.
Initiate change review (CR)	The change process can be initiated only for baselined system features. 1. Go to the details page of a baselined work item, and choose ••• > **Change Review**. The **CR** page is displayed. 2. Enter CR information. • **Review Object**: By default, it is the system feature to be changed. • **Collaborative Parent Item Change**: Only existing CRs can be added. 3. Click **Submit**. The **Review** page is displayed. Choose **Review** > **Change Review** to check the new CR in the change process. The CR state is **Pending review** by default. Track the progress of the CR. Only when the state is **Approved**, which means that the CR has been processed, will the changed content be displayed in the corresponding system feature.	You must have permission to **view** features.

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Operation	Procedure	Remarks
Upload attachment	Attachments can be pictures, workbooks, manuscripts, and text files. A maximum of 100 attachments can be added to each work item, and their total size cannot exceed 500 MB. 1. Go to the work item details page, and click the **Attachment** tab. 2. Click the box to select a local file or drag the file here to upload it as an attachment for the work item. Local files can be directly dragged to the text box. When the upload progress reaches 100%, the system displays a message indicating that the attachment is uploaded successfully. Move the cursor to the file that is successfully uploaded. The operations that can be performed are displayed. ● Click to download the file. ● Click to delete the uploaded file.	You must have permission to **edit** or **upload attachments** for features.

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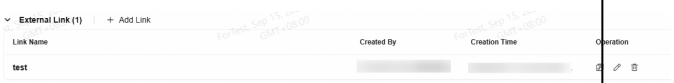
Operation	Procedure	Remarks
Add and check related item	A work item can be associated with any other type of work items in a project. 1. Go to the work item details page and click the **Related Items** tab. 2. Complete association. • **Child Work Items Related to SF**: child work items in the current feature. Add child work items: Click **Break Down** to add child work items. A maximum of 10 child requirements can be created at a time. One child requirement is displayed by default and cannot be deleted. Click to expand and configure more information. After the child work items are created, you can check and edit them on the **R&D Requirements** tab. Associate child work items: Click **Associate** to associate child work items. You can add multiple work items at a time. • **Associate Work Item**: Associate work items of any type in the project. Work items of the RR, SF, IR, SR, AR, task, and bug types can be associated. • **Test Case**: test cases corresponding to the system feature. You can select system features associated with test cases in CodeArts TestPlan. • **External Link**: external links associated with the current work item. – Create a link: Click **Add Link**. In the displayed dialog box, set **Link Name** and **Link**. The value of **Link** must start with **https://** and cannot contain invalid characters, such as spaces and Chinese characters. Click **OK**. After a link is created, you can click **External Link** to view, edit, copy, or delete the link.  – Copy a link: Click on the right of the link to be copied. – Edit a link: Click on the right of the row where the link to edit is located. In the	You must have permission to **create/ associate/ dissociate child features**, **create/ associate/ dissociate child requirements**, **create/ associate/ dissociate work items**, **associate/ dissociate files**, and **associate/ dissociate wikis** for features.

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Operation	Procedure	Remarks
	displayed dialog box, you can change the link name and link. – Delete a link: Click  on the right of the link to be deleted. In the displayed dialog box, click **Delete**.	
Check review record	You can check the review records related to system features only in the following situations: ● When a system feature is added to a baseline review, the baseline review process is triggered. Only then will you be able to view the review record on the **Review** tab of the system feature details page. ● When a locked field of a baselined system feature is modified, the change process is automatically triggered. Only then will you be able to view the review record on the **Review** tab of the system feature details page. ● When a system feature has a general review record, you can check the record on the **Review** tab of the system feature details page.	You must have permission to **view** features.
Add workload	1. Go to the work item details page and click the **Workload** tab. 2. Click **Add Workload**. The **Add Workload** dialog box is displayed. 3. Enter the workload information. ● The end date cannot be earlier than the start date. ● Decide whether to select **Weekends included**. If not, weekend workload records will not be generated. ● You can select **Total** or **Daily** for **Workload**. ● **Work Type** options include backend development, frontend development, UI design, replacement leave, debugging, and general. You can also customize the value by referring to **Creating Work Types**. 4. Click **OK**. The system automatically generates corresponding records based on the entered dates and days. The workload can be edited and deleted.	You must have permission to **add person-hours** for features. Workloads can be edited and deleted by the creator. By default, the project administrator can edit and delete all workloads.

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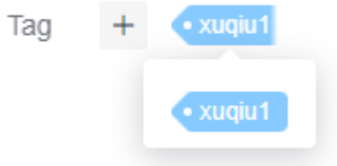
Operation	Procedure	Remarks
View operation history	**History** displays all operation logs of users, including creation, status transition, review initiation, work item association, and workload addition. 1. Go to the work item details page. 2. Click the **History** tab. • Click ↓ or ↑ to check historical records in the ascending or descending order of operation time. • You can set search criteria to query historical records that meet the search criteria.	You must have permission to **view** features.
Tag work item	1. Go to the work item details page. Click + next to **Tag** at the top of the page, and select **Create Tag**. The added tag is displayed in the **Tag** area. 2. In the **Create Tag** dialog box, set **Tag Name** and select **Tag Color**. 3. Click **OK**. The new tag is displayed next to the requirement ID in the feature list. 4. (Optional) Hide a tag. • Click + next to **Tag**. In the displayed dialog box, deselect √ to hide the tag. • Move the cursor to the tag name and click ⊠ to hide the tag.  **NOTE** To add or remove tags for multiple system features, select the desired system features, click **Batch Edit** in the lower part of the page, and select **Tag**.	You must have permission to **edit** features.

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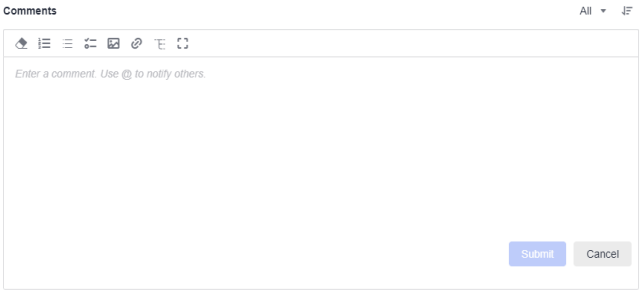
Operation	Procedure	Remarks
Add comment	1. Go to the work item details page. 2. On the **Details** tab page, click the **Comments** text box.  3. Enter a comment. You can upload images, enter links, associate work items, and use @ to notify project members in comments. 4. Click **Submit**. Submitted comments can be replied, edited, pinned to the top, and deleted.	You must have permission to **view** features.
History versions	For work items with snapshots, you can view their historical versions and compare the differences between them. 1. Go to the work item details page, click ••• in the upper right corner, and select **Version History**. 2. In the **Version History** dialog box, select two versions and click **Compare Versions**. On the **Work Item Version Comparison** page, view the differences between the original version and the compared version. You can click  in the upper right corner and enable **Hide Identical Items** to view only the differences between the two versions. 3. On the **Work Item Version Comparison** page, click  to return to the **Version History** page. Hover over a snapshot version.  is displayed. Click  to delete the snapshot. **NOTE** If a work item has a third-party snapshot or its child work items have third-party snapshots and the child work items cannot be separated from the current work item, the snapshot cannot be deleted.	You must have permission to **view** features. To delete a snapshot, you must have permission to delete features.

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7.5 Configuring Project Plans

CAUTION

- If the work item type is SF or RR, you need to add the **Release** and **Sprint** fields on the field template page of project work item management. Only after the fields are added can they be used in the corresponding work item.
- If the work item type is IR, you need to add the **Sprint** field on the field template page of project work item management. Only after the field is added can it be used in the corresponding work item.

Generally, multiple milestones and release versions are set in project management based on the delivery plan. Each release version can be completed through multiple sprints to deliver project achievements better. All work items of a project can be planned in release and sprint plans to ensure orderly and timely delivery, which keeps the project progress under control and manages the allocation of project members.

NOTE

- Type M (M): Milestone.
- Type R (R): Release plan.
- Type S (S): Sprint plan.

Prerequisites

An IPD-system device project is available, and you have permission to **create plans** for the project.

Creating Milestones

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, select **Plans**.

Step 3 Click **Plan** and select **Milestone**. In the **Create Milestone** dialog box, set related parameters.

Table 7-44 Creating a milestone

Parameter	Description
Name	Name of a milestone. The value can contain a maximum of 60 characters. Names of milestones under the same project must be unique.
Completes	Planned completion time of a milestone, which can be selected based on the actual project situation.

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Parameter	Description
Owner	Current owner of a milestone.
Tag	Milestone tag to be created. This parameter is optional. Click +. In the displayed dialog box, existing tags are displayed. You can select the tags you want to use. If no tags meet your requirements, click **Create Tag** in the dialog box to create new ones.

Step 4 Click **OK**.

The new milestone is displayed in the plan management list.

----End

Creating a Release Plan and Collaboration Plan

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, select **Plans**.

Step 3 Click **Plan**, select **Release Plan**, and set the parameters.

Table 7-45 Creating a release plan

Parameter	Description
Release Name	Name of a release plan. The value can contain a maximum of 60 characters. Names of release plans under the same project must be unique.
Owner	Owner of a release plan. After becoming the owner, the user has permission to start, complete, and delete the release plan.
Start/End Time	Start time and end time of a release plan. The end time cannot be earlier than the planned start time.
Planned Capacity (person-day)	Estimated plan workload within the release plan time range. The value can be accurate to one decimal place.
Tag	Release plan tag to be created. This parameter is optional. Click +. In the displayed dialog box, existing tags are displayed. You can select the tags you want to use. If no tags meet your requirements, click **Create Tag** in the dialog box to create new ones.
Description	Enter release information based on actual conditions. A maximum of 1,000 characters can be entered.

Step 4 Click **OK**.

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If plan collaboration is required, click ••• in the **Operation** column and select **Plan Collaboration**. The **Plan Collaboration > Lower-Level Plan** page is displayed. Select the release plan to be synchronized.

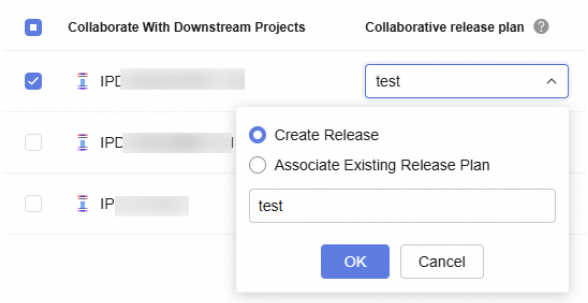
Step 5 Click **Next**, the **Plan Collaboration** page is displayed.

The **Plan Collaboration** page displays all downstream projects of the current project. By default, all downstream projects are selected. You can select the downstream projects whose release plans need to be synchronized, and set the release plans of the downstream projects. For details about the parameters, see **Table 7-46**.

NOTE

Plan collaboration is unavailable if there are no downstream projects. In this case, click **Go configure** in the information display area on the **Plan Collaboration** page to go to the Collaborative Delivery Configuration page. For details, see **Configuring Project Assignment**.

Table 7-46 Collaborative release plan

Parameter	Description
Collaborate With Downstream Projects	Collaborative downstream project name.
Collaborative release plan	Collaborative release plan name. You can select **Create Release** or **Associate Existing Release Plan** from the drop-down list. • **Create Release** (default): The value is the name of the release plan created in the previous step. • **Associate Existing Release Plan**: You can select this option only when the following two conditions are met: 1. The release plan is not complete. 2. The release plan does not have other upper-level release plans.  **NOTE** If the release name is the same as an existing release name of the project, the name of the collaborative release plan is highlighted, a message is displayed, and **OK** cannot be clicked.

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Parameter	Description
Owner	Current owner of the collaborative downstream project. By default, the owner is the product manager of each project. If there is no product manager, the owner is the project administrator.
Start/End Time	Planned start and end time of a downstream project. The default value is the start and end time of the release plan created in the previous step.
Operation	Click in the **Operation** column to copy the collaborative release name, start time, and end time of the row to all rows. This operation cannot be performed if you select an existing release.

Step 6 After you click **OK**, the message indicating that the release is successful is displayed. If the collaboration fails, the failure cause page is displayed, showing the collaboration plan result list and failure cause.

Step 7 After the release is created, you can view the new release and the number of collaboration plans in the plan management list. The default release status is **Planned**. You can manually update the status of the release plan. The details are as follows:

- For a **Planned** release plan, click ··· in the **Operation** column and click **Start Release** to change the status to **In progress**.
- For a release plan that is **In progress**, click ··· in the **Operation** column and click **Set to Not yet started** to change the status to **Planned**, or click **Complete** to change the status to **Ended**.
- For an **Ended** release plan, click ··· in the **Operation** column and click **Restart** to change the status to **In progress**.

  NOTE

  New sprint plans cannot be added for completed release plans.

----End

Creating and Synchronizing a Sprint Plan

Step 1 Click + in the row where the release for which you want to add a sprint plan is located. The **Create Sprint** window is displayed.

Step 2 Set the sprint plan information.

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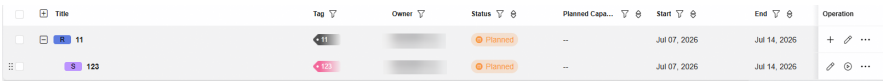
Table 7-47 Creating a sprint plan

Parameter	Description
Sprint Name	Name of a sprint plan. The value can contain a maximum of 60 characters. The name of a sprint plan under the same release must be unique, and a new sprint cannot be the same as an existing one under a downstream release.
Release	Release plan to which the sprint plan belongs. You can select an existing release plan from the drop-down list.
Owner	Owner of a release plan.
Start/End Time	Start time and end time of a sprint plan. The end time cannot be earlier than the planned start time. The **Start/End Time** of a sprint plan can be selected only from the **Start/End Time** of the release to which the sprint plan belongs.
Planned Capacity (person-day)	Estimated plan workload within the release plan time range. The value can be accurate to one decimal place.
Tag	Sprint plan tag to be created. This parameter is optional. Click . In the displayed dialog box, existing tags are displayed. You can select the tags you want to use. If no tags meet your requirements, click **Create Tag** in the dialog box to create new ones.
Description	Enter release information based on actual conditions. A maximum of 1,000 characters can be entered.

Step 3 Click **OK**. The sprint plan is created successfully. You can view the new sprint plan under the release plan.



To synchronize a sprint, click ••• in the **Operation** column and select **Synchronous Iteration**. The dialog box for synchronizing sprints is displayed. Select the sprint plan to be synchronized.

Step 4 Click **Next**. The page for synchronizing sprints is displayed, showing the project nodes that collaborate with the current release. By default, the project nodes are displayed in a tree structure. The lower-level nodes are selected by default, and the release plans that collaborate with the current release are carried. Click **OK** to create a sprint with the same name, start time, end time, and planned capacity. By default, the owner is the product manager of each project. If there is no product manager, the owner is the project administrator. You can also deselect lower-level nodes and click **OK** to create a sprint with no collaboration.

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Step 5 Click **OK**. A message is displayed, indicating that the sprint is created successfully. If a sprint fails to be synchronized, the page of failure causes is displayed, showing the failure result list and failure causes.

Step 6 By default, a new sprint plan is in the **Planned** state. You can manually update the sprint plan status:

- For a **Planned** sprint plan, click  in the **Operation** column to change the status to **In progress**.
- For a sprint plan that is **In progress**, click  in the **Operation** column to change the status to **Planned**, or click  to change the status to **Ended**.
- For an **Ended** sprint plan, click  in the **Operation** column to change the status to **In progress**.

----End

Related Operations

You can perform the following operations on new milestones, release plans, and sprint plans.

Table 7-48 Operations related to plan management

Operation	Description
Edit release/ sprint plan	**Baselined release/sprint plans cannot be edited.** Click  in the **Operation** column of a release/sprint plan to edit its name and owner. You can choose whether to synchronize the edited content to lower-level projects. **Synchronize to lower-level projects** is disabled by default.
Check collaboration plan	Click the number in the **Collaboration Plan Qty** column of the plan list. The **Plan Collaboration** window is displayed. Click **Lower-Level Plan** to display the collaboration plan list of the plan, and click **Upper-level plan** to display the existing released plans of the parent program.
Cancel collaboration plan	Click the number in the **Collaboration Plan Qty** column of the plan list. On the **Plan Collaboration** page, deselect the collaborated program or project, and click **OK**.

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Operation	Description
Baseline release/ sprint plan	Choose *** > **Baseline** in the **Operation** column of the release or sprint plan. ● After the release plan is baselined, the work items except RRs and bugs under the release are also baselined. ● After a sprint is baselined, the work items except RRs under the sprint are also baselined. ● After a release or sprint plan is baselined, a version snapshot is automatically generated. ● If a work items except RRs has both the **Release** and **Sprint** fields and the **Sprint** field is not empty, the baseline status of the work item is the same as that of the sprint.
Unbaseline release/ sprint plan	**You can only unbaseline release plans or sprints that have been baselined.** Choose *** > **Unbaseline** in the **Operation** column of a baselined release or sprint plan. ● After a release plan is unbaselined, the work items except RRs under the release are also unbaselined. ● After a sprint plan is unbaselined, the work items except RRs under the sprint are also unbaselined. ● If a work items except RRs has both the **Release** and **Sprint** fields and the **Sprint** field is not empty, the baseline status of the work item is the same as that of the sprint.
View history of release or sprint plan	Choose *** > **History** in the **Operation** column of a release/ sprint plan. Then view the historical records of the release plan/ sprint plan on the displayed page.
Check release scope of a release/ sprint plan	● Click the release plan title to go to the **Release Scope** page. By default, the **Aggregate sub-project** switch in the upper right corner is disabled. You can view the release scope in four modes: tree list mode ( ), list mode ( ), kanban mode ( ), and Gantt chart mode ( ). When **Aggregate sub-project** is enabled, the kanban mode is not supported. ● Click the title of a sprint plan to go to the **Sprint Scope** page. You can view the sprint scope in four modes: tree list mode ( ), list mode ( ), kanban mode ( ), and Gantt chart mode ( ).
Delete release/ sprint plan	Click **Delete** under *** in the **Operation** column of the release or sprint plan. In the displayed dialog box, click **OK**. ● Baselined release/sprint plans cannot be deleted. ● Deleted release/sprint plans cannot be restored.

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Operation	Description
Copy link	On the level-2 release or sprint page of plan management, you can copy the title, ID, current owner, status, and link of a requirement to the clipboard. Level-1 tasks: Click **Copy Link** in the **Operation** column on the level-2 release or sprint page. IRs/SRs/ARs/Bugs/Level-2 tasks: Click in the **Operation** column on the level-2 release or sprint page.
Edit milestone	Click in the **Operation** column of a milestone.
Delete milestone	Click in the **Operation** column of a milestone. Deleted milestones cannot be restored.
Perform batch operations	Select the check boxes on the left of the plans to manage the plan data in batches. Baseline: You can baseline release or sprint plans in batches. Unbaseline: You can unbaseline multiple release or sprint plans that have been baselined in batches. Export selected: You can export selected data in batches. Delete: You can delete selected data in batches. Deleted plans cannot be restored.
Snapshot version	Create a version snapshot. • Method 1: Click **Snapshots** under *** in the **Operation** column of a release or sprint plan. On the **Release Version Snapshot** page, enter **Name** and click **OK**. The version snapshot is created. You can view historical versions and their differences on the work item details page. • Method 2: Go to the release or sprint plan details page, click **Snapshots** under *** in the upper right corner of the page, enter **Name**, and click **OK**. To view work items in snapshots of different versions, go to the work item details page and click **Version History** under *** . View the **Version History** dialog box of the corresponding work item. Select a version as required. To view the differences between historical versions, select any two versions and click **Compare Versions**. The dialog box for work item version comparison is displayed.

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Operation	Description
Group work items in a release plan or sprint	You can group work items by any supported field type. **Constraints** • A maximum of 1,000 work items can be displayed during grouping. • The supported field types include single-choice list, multi-choice list, single-choice user, multi-choice user, hierarchy, and date. • Work items in a release cannot be grouped by release, and work items in a sprint cannot be grouped by release or sprint. • Release plans of programs: If there are lower-level plans and sub-project aggregation is enabled, work items cannot be grouped by release, sprint, module, feature set, or tag. • Only the tree table, list, and Gantt modes support grouping. **Procedure** 1. On the release or sprint page of **Plans**, click the drop-down list next to the search box to switch between the tree table, list, kanban, and Gantt mode, and click **Group**. 2. On the displayed page, select the fields used to group work items. • You can sort work items in ascending or descending order. • You can enter a keyword to search for fields. • When work items are grouped by multi-select list or multi-select user, the same work item may appear in multiple groups. • You can click **No grouping** to ungroup work items.

Arranging Release and Sprint Plans

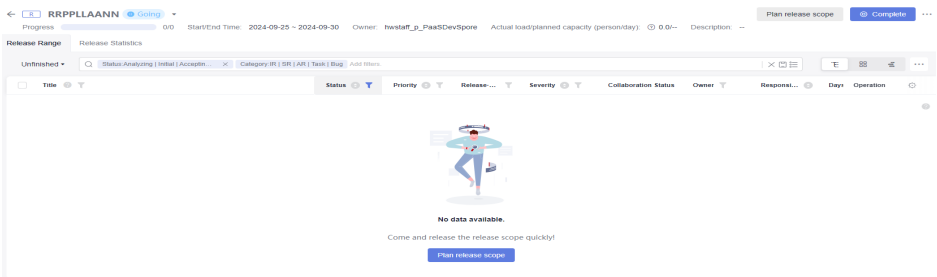
Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, select **Plans**.

Step 3 Click the title of a release or sprint plan to go to the details page.

The plan's basic information, work item scope, and statistics are displayed. You can arrange the plan and change its status.

Figure 7-32 Plan details page



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Step 4 Click **Plan release scope**.

- This operation is unavailable for baselined release plans.
- This operation is unavailable for completed release plans.

Step 5 Configure fields to display.

On the **Specify Scope** page, click **Table Header Settings**.

- In the left pane of the pop-up dialog box, select the fields you want to display from the available fields (basic fields, personnel-related fields, time-related fields, and custom fields).
- On the right of the pop-up box, drag the fields in the **Selected** area to adjust the display sequence.

After the settings are complete, click **Apply**. The selected fields will be displayed in both the planned work item list and the released work item list.

Step 6 In the planned work item list, select work items to be added into a release plan, and click **Move to Release**. In the displayed dialog box, select a release plan from the drop-down list on the right, and click **OK**. The selected work items are then added to the selected release plan.

NOTE

- You can also drag work items to the release plan.
- This procedure uses a release plan as an example. Sprint plans can be configured in the same way.

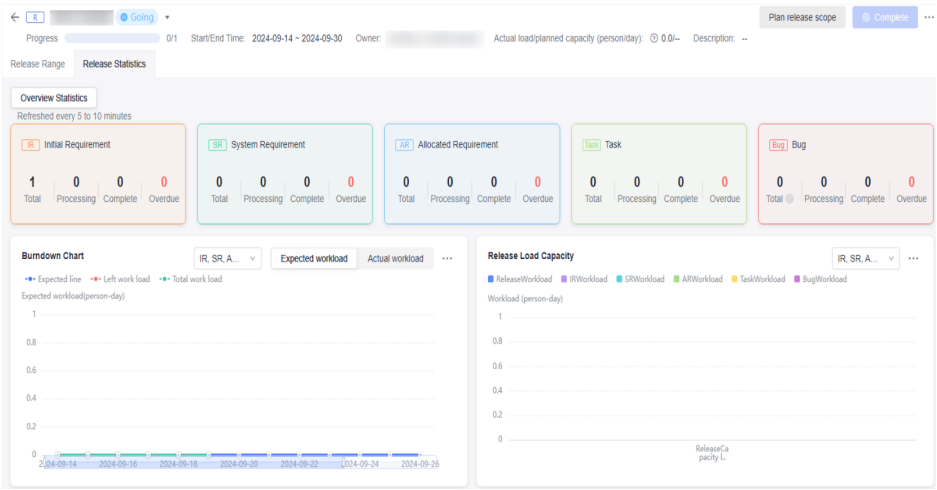
----End

Checking Statistics of Release and Sprint Plans

Step 1 On the project homepage, select **Plans**.

Step 2 Click the title of a release or sprint plan to go to the details page, and click **Statistics**.

Figure 7-33 Plan details page - Statistics



The following types of charts are supported.

Table 7-49 Release charts

Statistical Chart	Data Description
Work item overview	Counts the total, uncompleted, completed, and overdue work items of each type in the current release.
Burndown chart	Uses a line chart to display the daily trend of changes in the number and planned workloads of all work items in the current release. • Total workload: The system runs a scheduled task daily to calculate the total workloads (planned workloads and work items) of all work items in the current release. • Left workload: The system runs a scheduled task daily to calculate the workloads (planned workloads and work items) of all uncompleted work items in the current release. • Expected line: The line connecting the total workload from the first day to the last day. The total workload of the last day is 0 person-days. This chart helps you identify risks in the release progress.
Release capacity load	Uses a grouped column chart to compare the planned and release workloads of each work item type in the current release. This chart helps you check whether the actual workloads exceed the planned ones.
Bug trend	Uses a line chart to display the numbers of daily discovered and resolved bugs as well as the remaining defect index (DI). This chart helps you understand the bug trend in the current release.
Work items by priority	Uses a grouped column chart to display the numbers of different work item types under each member by priority. This chart helps you understand the priorities of work items under each member.
Work item completion	Uses a line chart to display the numbers of completed and total work items of each type in the current release. This chart helps you learn about the release's daily completion status.
Work items by status	Uses a ring chart to display the number and proportion of work items of each type in different statuses under the current release. This chart helps you learn about the release's work items in different statuses.
Work item breakdown	Uses a column chart to display the numbers of broken-down and total work items of each type in the current release. This chart helps you learn about the work item breakdown progress of the current release.

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Statistical Chart	Data Description
Work item completion rate	Uses a column chart to display the numbers of completed and total work items of each type in the current release. This chart helps you learn about the release's completion status by work item or planned workload.
Work item stay days	Uses a column chart to display the average number of days that work items of each type stay in each status (except for a **Done** status) in the current release. This chart helps you identify the delivery bottlenecks in your team.
Work item statistics for project members (by status)	Uses a grouped column chart to display the numbers of different work item types in different statuses under each member. This chart helps you learn about the work item progress of each member.
Unfinished work items by member	Uses a grouped column chart to display the number of uncompleted work items of each member under the current release. This chart helps you check whether the work item assignment of each member is appropriate.
Requirement TTM	Uses a column chart to display the average time that each requirement type takes to complete since it is created or submitted. This chart helps you understand the delivery rate of each work item type.

NOTE

The description uses a release plan as an example. Sprint plans have the same statistical charts.

----End

7.6 Creating and Managing R&D Requirements

7.6.1 R&D Requirement Status Transition Process

The lifecycle of an R&D requirement consists of the **Initial**, **Analyzing**, **Developing**, **Testing**, and **Completed** states. Figure 7-34 shows the complete status transition process.

Figure 7-34 R&D requirement status transition flowchart

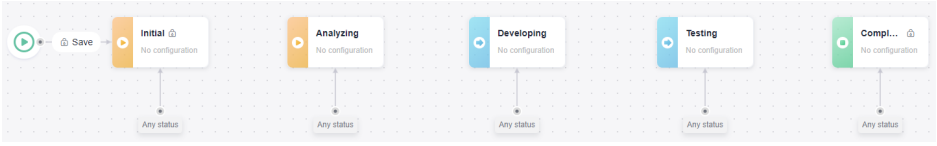

Table 7-50 describes the operations in each status.

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Table 7-50 Operation description

Status	Description
Initial	When an R&D requirement is created, the state is **Initial** by default.
Analyzing	After the R&D requirement in the **Initial** state is handled, the state changes to **Analyzing**.
Developing	After the R&D requirement is analyzed, the state changes to **Developing**.
Testing	After the R&D requirement is developed, the state changes to **Testing**.
Completed	After the R&D requirement passes the test, the state changes to **Completed**.

7.6.2 Creating R&D Requirements

R&D requirements are delivered in project release plans and sprints. These requirements can be associated with raw requirements and system features.

Prerequisites

An IPD-system device project is available, and you have permission to **create and duplicate R&D requirements** for the project.

Procedure

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **R&D Requirements**.

Step 3 Click **IR**. On the **IR** page, set related parameters.

Table 7-51 Creating an IR

Parameter	Description
Tag	When creating or editing a work item, you can add a custom tag. Tag names can be marked in different colors.
Title	Title of a work item.
Description	Enter the background, value, and details of the R&D requirement based on actual conditions. Use text, images, or links.
Attachment	The maximum number of attachments for an R&D requirement is 100, and their total size cannot exceed 500 MB.

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Parameter	Description
Responsible Project	Project that the R&D requirement belongs to. The value cannot be changed.
Raised By	Members who propose the requirement. Multiple proposers can be specified.
Owner	Member who is responsible for this requirement. Only one person can be specified.
Priority	Priority of an R&D requirement, including **Low**, **Medium**, and **High**. The default value is **Medium**.
Release	Release plan version of the R&D requirement. This parameter has a value only after the operations in **Creating a Release Plan and Collaboration Plan** are completed. This parameter can be left empty. You can create a release plan and then associate it with the R&D requirement.
Sprint	Next level of the release plan. This parameter has a value only after the operations in **Creating a Release Plan and Collaboration Plan** are completed. The parameter value can be empty. You can create a sprint and then associate it with the R&D requirement.
Planned Start	Planned start time of a requirement. The date format is **yyyy-mm-dd**.
Planned Completion	Planned completion time of a requirement. The date format is **yyyy-mm-dd**. The planned completion time cannot be earlier than the planned start time.
Planned Workload	Estimated workload from the planned start time to the planned completion time for this requirement.
Domain	Domain. The value includes software, hardware, software and hardware, functions, and performance.
Breakdown Required	Whether it is necessary to break down this requirement into smaller units.
Reason for Non-Breakdown	This parameter is displayed only when **Breakdown Required** is set to **No**. State the true conditions of the project.
Copy To	Project members to whom the IR is copied. After the copy is complete, the people selected for **Copy To** will receive a message.

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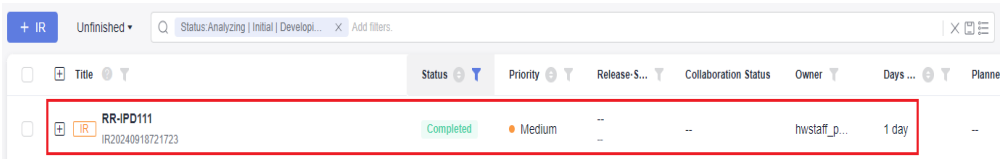
Step 4 Click **OK**. The R&D requirement page is displayed, and "IR created." is displayed in the upper right corner.

The new requirement is displayed in the R&D requirement list, and the requirement state is **Initial**.

Figure 7-35 R&D requirement list



NOTE

After an R&D requirement is created, the people selected for **Owner**, **Raised By**, and **Copy To** will receive email and system message notifications. If not, set notifications or modify notification settings. For details, see **Configuring Notification Rules**.

----End

Related Operations

You can perform the following operations on a new R&D requirement.

Table 7-52 Basic operations on an R&D requirement

Operation	Description
Modify R&D requirement title	Click next to an R&D requirement title to modify it.
Modify R&D requirement field	Click the target field value in the row of an R&D requirement to modify the value.

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Operation	Description
Break down work item	Click in the **Operation** column of an R&D requirement to break it down into child work items. • Click **Add Child Work Item** in the **Break Down Child Work Item** dialog box to break down child work items in batches. A maximum of 10 child work items can be broken down at a time. • You can break down work items quickly. See **Configuring Common Fields in a Project** for related field configuration. If **Quickly split sub-work items** is enabled, the corresponding number of child work items are created based on the number of options selected. A maximum of **10** child work items can be created. If the work item already has child work items, the quick breakdown function does not take effect. If a work item is configured with multiple fields for quick breakdown, the child work items are obtained only based on the first field in the field template.
View R&D requirement association map	Click under in the **Operation** column of an R&D requirement to view all data of its associated items.
Duplicate R&D requirement	Click under in the **Operation** column of an R&D requirement. This process is the same as that of creating an R&D requirement.
Delete R&D requirement	Click under in the **Operation** column of an R&D requirement. • R&D requirements in change or baseline review cannot be deleted. • Once deleted, an R&D requirement is moved to the recycle bin. R&D requirements in the recycle bin can be restored or permanently deleted according to the work item type. After a requirement is restored from the recycle bin, it restores to the original status. • Restoring a child requirement also restores its parent on the requirement path but does not restore its siblings under the parent.
Copy R&D requirement link	Click in the **Operation** column of an R&D requirement to copy its title, ID, current owner, status, and link information to the clipboard.

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Operation	Description
Migrate R&D requirement	Click **Migrate** under *** on the R&D requirement details page to migrate the requirement to other projects. • R&D requirements that have been baselined, completed, or are currently under baseline review or change review cannot be migrated. • Batch migration is based on the selected top-level requirement type. IRs are migrated across projects and non-IRs within a project. • Requirements are migrated together with their child requirements. • After an R&D requirement is migrated to another project, the system automatically removes its tags, actual workloads, related items (except for collaborative requirements), and release plans, and only keeps the fields of the same type as the existing work items. The associated work items are automatically canceled.

7.6.3 Managing R&D Requirements

After creating R&D requirements (see **Procedure**), you can query, import, export, and batch edit them in the project. You can add tags and associate work items on their details pages.

On the R&D Requirements List Page

Go to the project homepage, choose **Work > Req > R&D Requirements**, and perform the following operations.

Figure 7-36 R&D requirement list

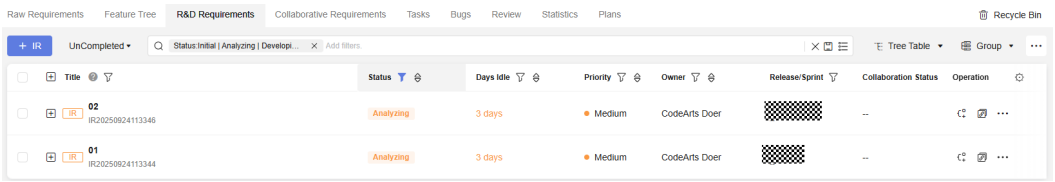

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Table 7-53 Management operations in the R&D requirement list

Operation	Procedure
Search for R&D requirement	• By adding filters 1. Click the search box in the R&D requirement list and select one or more filters to search for R&D requirements. 2. To clear all filters and display all data, click ✕ on the right of the search bar. 3. Query results can be displayed in tree, list, or Gantt chart view. • By using a saved view 1. Click the search box in the R&D requirement list and select one or more filters. 2. Click 💾 on the rightmost of the search bar, and enter a view name. 3. Click **OK**. The created view is displayed next to **IR**. 4. Select the name of the created view to query the R&D requirements that meet the search criteria. Views can be shared with others, modified, and deleted.
Assign R&D requirement	You can assign R&D requirements to other projects for collaborative management. For details, see **Assigning Work Items** and **Operations Related to Work Item Assignment**.
Receive assigned R&D requirement	Perform this operation when another project assigns an R&D requirement to your project. For details, see **Receiving Work Items** and **Operations Related to Receiving Work Items**.

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Operation	Procedure
Import work items	Use the provided template to import requirements in batches. 1. In the R&D requirement list, click ··· on the right of the search bar and select **Import**. 2. In the displayed dialog box, click **Download Template**. The template file should be named in the following format: *Project name* + "-" + *Module name* (for example, **R&D Requirement**) + **Template**. You can edit the name of the downloaded template. 3. Fill in the fields on the **R&D Requirement Import** sheet. For details about how to set parameters, see the **Notes** and header instructions in the template file. 4. Drag and drop the desired file to the import area or click the import area and select the file. 5. Click **Next**. The verification progress dialog box is displayed. After the verification progress reaches 100%, close the dialog box and view the verification result. If the mandatory fields fail the verification, the import is not allowed, while the verification result of optional fields does not affect the import. ● If the verification is successful, click **Confirm Import**. ● If the verification fails, modify the file based on the verification result. Click **Last step** to import the modified file. 6. After the verification is successful, click **Confirm Import**. The import progress dialog box is displayed. You can click **Check progress** in the dialog box to go to the **Import/Export Records** page to view the import records. 7. After the import is successful, view the imported information in the R&D requirement list. ● If the import fails, a message is displayed on the page. Click **View Failure Details** in the message to view the failure details. You can modify the requirement information based on the details and import the template file again.

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Operation	Procedure
Export work items	Export requirements in batches to an Excel file. 1. Export some or all R&D requirements. • Export all: On the **R&D Requirements** page, click ··· on the right of the search bar and choose **Export**. The **Select Fields to Export** dialog box is displayed. • Export some: In the R&D requirement list, select one or more R&D requirements to be exported and click **Export Selected** at the bottom of the page. The **Select Fields to Export** dialog box is displayed. 2. Select the fields to be exported and determine whether to export child work items. 3. Click **Export**. A dialog box is displayed, indicating the export progress. • After the R&D requirements are exported, click **Download**. The R&D requirement file will be downloaded to the local PC. The file format is **.xlsx**.
Configure fields to display	Click ⚙ next to the **Operation** field. • On the left of the pop-up box, select the fields to be displayed. • On the right of the pop-up box, drag the fields in the **Selected** area to adjust the display sequence. • On the right of the pop-up box, select a field spacing style under **Appearance**. The options include **Compact**, **Standard**, and **Loose**.

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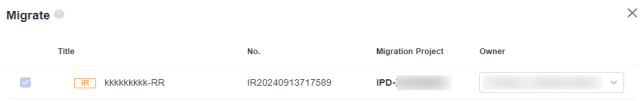
Operation	Procedure
Migrate R&D requirements in batches	You can migrate R&D requirements to another project. After the migration, the requirements do not need to be processed in the current project. Requirements that have been baselined or are undergoing baseline review or change review cannot be migrated. 1. In the R&D requirement list, select one or more R&D requirements to be migrated and click **Migrate** in the lower part of the page. 2. In the displayed dialog box, select the project to migrate the requirements to. 3. Click **Next**. The migration confirmation dialog box is displayed. **Figure 7-37** Migrating R&D requirements  4. Select **Owner**. 5. Click **OK**. The migration is successful. The migrated requirements no longer appear in the R&D requirements list. The state of these requirements in the target project is **Initial**.

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Operation	Procedure
Clone R&D requirements across projects	**Constraints** • You must clone the entire requirement tree (IR-SR-AR). Child work items cannot be cloned separately. • Only work items can be cloned. The workload, associated work item (except parent-child requirements), tag, and release sprint fields will be cleared. • You must have permission to **create and clone** R&D requirements for the target project. • You can only clone R&D requirements to projects of the same type. For example, clone work items of an IPD-system device project to another IPD-system device project. • You can clone up to 50 tasks at a time. **Procedure** 1. Select the IRs/SRs/ARs to clone in the R&D requirement list and click **Cross-Project Copy** in the lower part of the page. The **Cross-Project Copy** window is displayed. 2. Select a target project from the drop-down list. You can select only a project to which you have joined and must have permission to create and clone tasks for the target project. 3. Click **Next**. The window for setting mandatory fields is displayed. Select the target owner from the drop-down list (the current operator is selected by default). Mandatory fields are those on the R&D requirement (IR/SR/AR) creation page of the target project. 4. Click **OK**. The R&D requirements are cloned to the target project. 5. Go to the target project to view the cloned R&D requirements.
Transition statuses in batches	**Constraints** • The types of the selected R&D requirements must be the same. • The selected R&D requirements must be in the same status. • You must have permission to **set statuses** for R&D requirements. • All mandatory fields of the selected R&D requirements have been set. **Procedure** 1. Select the target IRs/SRs/ARs in the R&D requirement list and click **Batch Transfer** in the lower part of the page. The **Batch Transfer** window is displayed. 2. Select the target status from the drop-down list. 3. Click **Next**. 4. Set mandatory fields. The mandatory fields are set on the **In-transition GUI Config** tab page of the project's IR/SR/AR status flow configuration page. 5. Click **OK**.

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Operation	Procedure
Perform batch operations	You can select multiple R&D requirements to perform batch operations: baseline/unbaseline, change, baseline review, assign, migrate, edit, suspend/unsuspend, export, delete, cross-project clone, and transition.
Group R&D requirements	You can group work items by any supported field type. **Constraints** ● A maximum of 1,000 work items can be displayed during grouping. ● The supported field types include single-choice list, multi-choice list, single-choice user, multi-choice user, hierarchy, and date. ● For projects in a program (after sub-project aggregation is enabled), grouping by release, sprint, module, feature set, or tag is unavailable. **Procedure** 1. On the **R&D Requirements** page, click **Group**. 2. On the displayed page, select the fields used to group work items. ● You can sort work items in ascending or descending order. ● You can enter a keyword to search for fields. ● When work items are grouped by multi-select list or multi-select user, the same work item may appear in multiple groups. ● You can click **No grouping** to ungroup work items.

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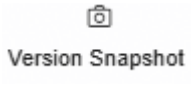
Operation	Procedure
Version snapshots	Snapshots include plan management snapshots, feature tree snapshots, and work item snapshots. A version snapshot is a work item snapshot. Its name is automatically generated by the system. **Constraints** A work item can have a maximum of 1,000 snapshots. **Procedure** 1. In the R&D requirement list, select the work items for which you want to create a snapshot. 2. Click  in the lower part of the page to take a snapshot of the selected work items. A message is displayed in the upper right corner of the page, indicating that the operation is successful. The snapshot is a work item snapshot. Its name is automatically generated by the system. The format of the work item snapshot name is: *Work item type* + "v" + *Year* + "." + *Month* + "." + *Day* + "." + *Number of versions generated on the current day*. For example, if an IR is snapshotted for the first time on March 25, 2026, its snapshot name generated by the system is **IR v26.03.25.1**. **NOTE** You can also go to the work item details page, click ••• in the upper right corner, and select **Version Snapshot** to create a snapshot for the work item. 3. (Optional) Click the work item name to go to its details page, click ••• , and select **Version History** to view the generated snapshots.

On the R&D Requirement Details Page

On the details page of an R&D requirement, you can modify the description, priority, and owner, add tags and attachments, associate work items, design models, check review records, add workloads, and view the operation history.

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Table 7-54 Management operations on the details page

Operation	Procedure	Remarks
Edit work item	On the R&D requirement details page, click the value box of the field to be modified, and enter a target value in the text box or select one from the drop-down list. The modification is saved automatically.	You must have permission to **edit** R&D requirements.
Change work item status	Go to the work item details page, click the **Status** field, and transition the work item to the target status. For details about status transition, see **Table 7-50**.	You must have permission to **set statuses** for R&D requirements.
Baseline R&D requirement	1. Go to the work item details page, and choose ··· > **Baseline**. The **Baseline** dialog box is displayed. 2. Click **OK**. The baseline icon  is displayed on the left of the R&D requirement title. You can unbaseline R&D requirements that have been baselined.	You must have permission to **baseline** R&D requirements.
Initiate baseline review	1. Go to the work item details page, and choose ··· > **Baseline Review**. The **BR** page is displayed. 2. Enter BR information. By default, the **Baseline Object** is the R&D requirement for which the baseline review is initiated. 3. Click **Submit**. The **Review** page is displayed. Choose **Review** > **Baseline Review** to check the new baseline review. 4. Switch to the **R&D Requirements** page. The icon of the R&D requirement that is under baseline review is displayed as . Track the progress of the baseline review. The R&D requirement can be baselined only when the baseline review status changes to **Approved**.	You must have permission to **view** R&D requirements.

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Operation	Procedure	Remarks
Initiate change review	The change process can be initiated only for baselined and uncompleted R&D requirements. 1. Go to the details page of a baselined work item. Select **Change Review** under ***. The **Create CR** page is displayed. 2. Enter CR information. ● **Review Object**: By default, it is the R&D requirement to be changed. ● **Collaborative Parent Item Change**: Only existing CRs can be added. 3. Click **Submit**. The **Review** page is displayed. Choose **Review** > **Change Review** to check the new CR in the change process. The CR state is **Pending review** by default. Track the progress of the CR. Only when the state is **Approved**, which means that the CR has been processed, will the changed content be displayed in the corresponding R&D requirement.	You must have permission to **view** R&D requirements.
Upload attachment	Attachments can be pictures, workbooks, manuscripts, and text files. A maximum of 100 attachments can be added to each work item, and their total size cannot exceed 500 MB. 1. Go to the work item details page, and click the **Attachment** tab. 2. Click the box to select a local file or drag the file here to upload it as an attachment for the work item. Local files can be directly dragged to the text box. When the upload progress reaches 100%, the system displays a message indicating that the attachment is uploaded successfully. Move the cursor to the file that is successfully uploaded. The operations that can be performed are displayed. ● Click to download the file. ● Click to delete the uploaded file.	You must have permission to **edit** or **upload attachments** for R&D requirements.

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Operation	Procedure	Remarks
Add and check related item	A work item can be associated with any other type of work items in a project. 1. Go to the work item details page and click the **Related Items** tab. 2. Complete association. a. **Parent Work Items Related to IR**: parent requirement to which an R&D requirement belongs. The information about an RR is displayed in the **Parent Requirements** area only when the IR is associated with the RR. b. **Parent Features**: parent feature to which an R&D requirement belongs. Only when an IR is associated with a feature will the information about the feature be displayed in the **Parent Features** area. c. **Child Work Items**: Child work items (SRs) of the current R&D requirement. A maximum of 10 child requirements can be created at a time. One child requirement is displayed by default and cannot be deleted. 1. Click **Break Down**. The **Break Down Child Work Item** dialog box is displayed. 2. Configure child work items. Click to expand and configure more information. 3. Click **OK**. The child work item is automatically displayed under the parent requirement in the R&D requirement list. d. **Related Upstream Requirements**: requirements assigned by other projects to your project. e. **Related Downstream Requirements**: requirements assigned to downstream projects. For details, see **Assigning Work Items** and **Operations Related to Work Item Assignment**. f. **Associate Work Item**: Associate work items of any type in the project. Work items of the RR, SF, IR, SR, AR, task, and bug types can be associated. g. **Associated open issue review form**: reviews that include the review and approval comments related to the work item. h. **Test Case**: test cases corresponding to the R&D requirement. You can select R&D requirements associated with test cases in CodeArts TestPlan.	You must have permission to **deliver/cancel assignment**, **create/delete child requirements**, **associate/dissociate work items**, **associate/dissociate files**, and **associate/dissociate wikis** for R&D requirements.

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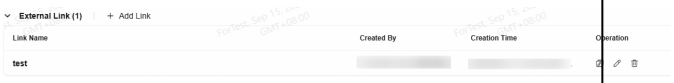
Operation	Procedure	Remarks
	i. **Code Commit Record**: indicates the code commit records corresponding to the R&D requirement. Related information is displayed only when the current requirement is associated during code commit. j. **Code Branch**: code branches corresponding to the R&D requirement. Related information is displayed only when a code branch is associated with the current requirement. k. **Code Merge & Change Request**: code merge and change requests corresponding to an R&D requirement. Related information is displayed only when a submitted merge or change request is associated with the current requirement. l. **External Link**: external links associated with the current work item. ● Create a link: Click **Add Link**. In the displayed dialog box, set **Link Name** and **Link**. The value of **Link** must start with **https://** and cannot contain invalid characters, such as spaces and Chinese characters. Click **OK**. After a link is created, you can click **External Link** to view, edit, copy, or delete the link.  ● Copy a link: Click on the right of the link to be copied. ● Edit a link: Click on the right of the row where the link to edit is located. In the displayed dialog box, you can change the link name and link. ● Delete a link: Click on the right of the link to be deleted. In the displayed dialog box, click **Delete**.	

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Operation	Procedure	Remarks
Check review record	You can check the review records related to requirements only in the following situations: • When an R&D requirement is added to a baseline review, the baseline review process is triggered. Only then will you be able to view the review record on the **Review** tab of the corresponding R&D requirement details page. • When a locked field of a baselined R&D requirement is modified, the change process is automatically triggered. Only then will you be able to view the review record on the **Review** tab of the corresponding R&D requirement details page. • When an R&D requirement has a general review record, you can check the record on the **Review** tab of the R&D requirement details page.	You must have permission to **view** R&D requirements.
Add workload	1. Go to the work item details page and click the **Workload** tab. 2. Click **Add Workload**. The **Add Workload** dialog box is displayed. 3. Enter the workload information. • The end date cannot be earlier than the start date. • Decide whether to select **Weekends included**. If not, weekend workload records will not be generated. • You can select **Total** or **Daily** for **Workload**. • **Work Type** options include backend development, frontend development, UI design, replacement leave, debugging, and general. You can also customize the value by referring to **Creating Work Types**. 4. Click **OK**. The system automatically generates corresponding records based on the entered dates and days. The workload can be edited and deleted.	You must have permission to **add person-hours** for R&D requirements. Workloads can be edited and deleted by the creator. By default, the project administrator can edit and delete all workloads.

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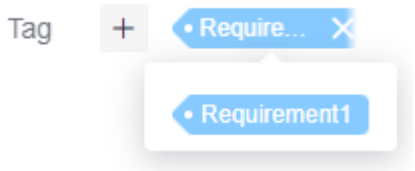
Operation	Procedure	Remarks
View operation history	**History** displays all operation logs of users, including creation, status transition, review initiation, work item association, and workload addition. 1. Go to the work item details page. 2. Click the **History** tab. • Click or to check historical records in the ascending or descending order of operation time. • You can set search criteria to query historical records that meet the search criteria.	You must have permission to **view** R&D requirements.
Tag work item	1. Go to the work item details page. Click + next to **Tag** at the top of the page, and select **Create Tag**. The added tag is displayed in the **Tag** area. 2. In the **Create Tag** dialog box, set **Tag Name** and select **Tag Color**. 3. Click **OK**. The new tag is displayed next to the requirement ID in the R&D requirement list. 4. (Optional) Hide a tag. • Click + next to **Tag**. In the displayed dialog box, deselect √ to hide the tag. • Move the cursor to the tag name and click to hide the tag. **Figure 7-38** Hiding a tag - 02  **NOTE** To add or remove tags for multiple R&D requirements, select the desired R&D requirements, click **Batch Edit** in the lower part of the page, and select **Tag**.	You must have permission to **edit** R&D requirements.

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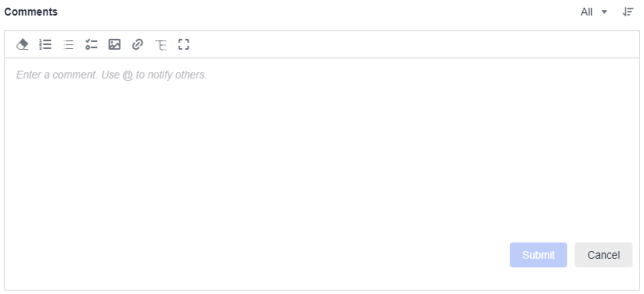
Operation	Procedure	Remarks
Add comment	1. Go to the work item details page. 2. On the **Details** tab page, click the **Comments** text box. **Figure 7-39** Add comment  3. Enter a comment. You can upload images, enter links, associate work items, and use @ to notify project members in comments. 4. Click **Submit**. Submitted comments can be replied, edited, pinned to the top, and deleted.	You must have permission to **view** R&D requirements.
History versions	For work items with snapshots, you can view their historical versions and compare the differences between them. 1. Go to the work item details page, click ••• in the upper right corner, and select **Version History**. 2. In the **Version History** dialog box, select two versions and click **Compare Versions**. On the **Work Item Version Comparison** page, view the differences between the original version and the compared version. You can click  in the upper right corner and enable **Hide Identical Items** to view only the differences between the two versions. 3. On the **Work Item Version Comparison** page, click  to return to the **Version History** page. Hover over a snapshot version.  is displayed. Click  to delete the snapshot. **NOTE** If a work item has a third-party snapshot or its child work items have third-party snapshots and the child work items cannot be separated from the current work item, the snapshot cannot be deleted.	You must have permission to **view** R&D requirements. To delete a snapshot, you must have permission to delete R&D requirements.

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7.6.4 Managing Collaborative Work Items

The system supports collaborative management of requirements in each project. After assignment is configured, the assigned and received work items are displayed on the **Collaborative Requirements** page.

Prerequisites

- You have created a project. For details, see **Creating a CodeArts Project**.
- An R&D requirement has been created.
- Other projects exist in the system.
- In collaborative assignment scenarios:

  For R&D requirements, project members must have permission to **assign/cancel assignment of IPD R&D requirements** or **work items**.

  For tasks, project members must have permission to **assign/cancel assignment of IPD tasks** or **work items**.
- In collaborative reception scenarios:

  For R&D requirements, project members must have permission to **receive/reject/turn back/transfer IPD R&D requirements** or **work items**.

  For tasks, project members must have permission to **receive/reject/turn back/transfer IPD tasks** or **work items**.

  For details about how to set permissions, see **Managing Project Permissions**.

Assigning Work Items

Only completed work items cannot be assigned.

Step 1 In the R&D requirement list, select the work items to be assigned.

- Select the check boxes of the work items to be assigned and click **Deliver** in the lower part of the page.

  You can select one or more requirements.

- Go to the details page of the work item to be assigned, click ••• in the upper right corner, and select **Deliver**.

Step 2 Select a downstream project in the displayed dialog box.

If there is no value in the drop-down list, perform the following operations to add a value:

1. In the **Downstream Project** drop-down list, click **Assignment Projects** to go to the **Collaborative Delivery Configuration** page.
2. Click **Add Downstream Project**.
3. Select a desired project.
4. Click **Add**.

   Repeat **Step 1** to **Step 2** to select the added downstream project.

   – If you access the requirement details page, set **downstream project**, **To**, and **Expected Received**. Click **Assign** to assign the task to a maximum of 10 projects.

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- To collaborate requirements by selecting check boxes, select a downstream project from the drop-down list in the **Deliver** dialog box, and set **downstream project**, **To** and **Expected Received**.

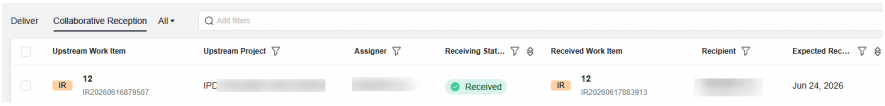
  One selected requirement can be assigned to a maximum of 10 projects. Multiple selected requirements can be assigned to only one project.

Step 3 Click **OK**.

In the R&D requirement list, the **Collaboration Status** of the assigned work item is **Assign**.



Click **Receiving Work Items** in the downstream project. The assignment is complete only after the requirement is successfully received.



If the assignment fails, view the failure details.

----End

Operations Related to Work Item Assignment

After work items are assigned, you can view, reassign, cancel the assignment of, and export these work items.

Table 7-55 Related operations

Operation	Procedure
Querying Assigned Work Items	On the **Collaborative Requirements** > **Deliver** page, query the required assigned work item data based on the set criteria. You can also select the fields to be displayed in the table header. • By adding filters Select specific query criteria. The assigned work items that meet the query criteria are displayed in the list. You can select one or more criteria to query work items. Click ✕ on the right of the search bar to clear all filtering criteria. The default fields are displayed. • By using a saved view 1. Click on the right of the search bar. 2. Set **View Name**. 3. Click **OK**. The created view is displayed next to **Collaborative Reception**. 4. You can select the name of the created view to query the assigned work items that meet the search criteria. Views can be shared with others, renamed, and deleted.

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Operation	Procedure
Reassigning Work Items	1. In the assigned work item list, click  in the row where the work item to be reassigned is located. The **Deliver** dialog box is displayed. 2. Set **downstream project**, **To**, and **Expected Received**, and click **OK**. You can view the newly assigned work items in the list.
Canceling Work Item Assignment	Cancellation cannot be performed on a requirement whose **Receiving Status** is **Received** or **Rejected**. Select the work items to be canceled in the assigned work item list. ● Canceling one work item: Click  in the row where the desired work item is located. The cancellation dialog box is displayed. ● Canceling one or more work items: Select the check boxes of the desired work items. The cancellation dialog box is displayed. Click **OK**.
Exporting Assigned Work Items	Select one or more work items to be exported and click **Export Selected** in the lower part of the page. The export progress dialog box is displayed. When the export progress reaches 100%, click **Download**. The assigned work item file is downloaded to the local PC. The file format is **.xlsx**.

Receiving Work Items

Step 1 Select the collaborative work items to receive.

- Receiving a single work item: Click  in the row where the desired work item is located. The **Receive Collaboration Requirement** dialog box is displayed.
- Receiving one or more work items: Select the work items to be received and click **Receive** in the lower part of the page. The **Receive Collaboration Requirement** dialog box is displayed.

Step 2 Specify the receiving mode and requirement type, and enter a work item title.

- When **Mode** is set to **Associate**, you only need to select **Associated Work Item**. The value of **Associated Work Item** comes from all R&D requirements created in the project.

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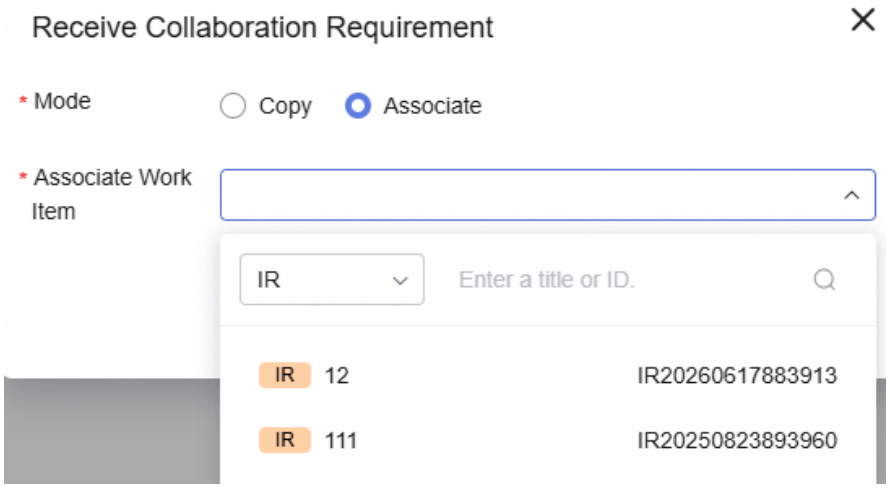
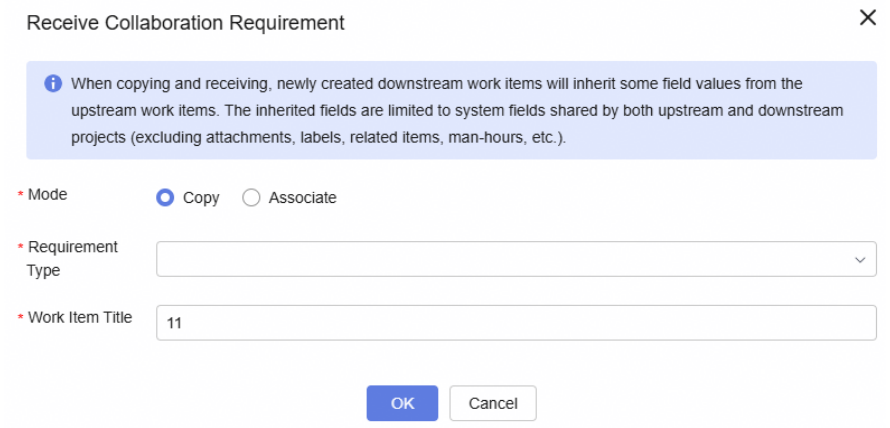


- When **Mode** is set to **Copy**, the received work item information is displayed in the R&D requirement list, and the cloned work item information can be viewed in **Related Items** > **Related Upstream Work Items** of the work item details.



Step 3 Click **OK**. The received work items turn to **Received**. The received work items are displayed in the collaborative work item list.

----End

Operations Related to Receiving Work Items

On the **Collaborative Work Items** > **Receive** page, you can query, receive, reject, and transfer work items. When upstream work items change, dependent downstream work items will automatically trigger change notifications. You can view comparison and synchronize updates with one click.

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Table 7-56 Operations related to receiving requirements

Operation	Procedure
Querying Received Work Items	On the **Collaborative Requirements > Collaborative Reception** page, query received work items based on the set criteria. You can also select the fields to be displayed in the table header. • By adding filters Select specific query criteria. The received work items that meet the query criteria are displayed in the list. You can select one or more criteria to query work items. Click ✕ on the right of the search bar to clear all filtering criteria. The default fields are displayed. • By using a saved view 1. Click on the right of the search bar. 2. Set **View Name**. 3. Click **OK**. The created view is displayed next to **Collaborative Reception**. 4. You can select the name of the created view to query the received work items that meet the search criteria. Views can be shared with others, renamed, and deleted.
Rejecting Receiving Work Items	Rejection cannot be performed on a requirement whose **Acceptance Status** is **Rejected** or **Received**. Select the collaborative work items to reject. • Rejecting a single work item: Click in the row where the target work item is located. The **Reject Reason** dialog box is displayed. • Rejecting one or more work items: Select the work items to be rejected. The **Reject Reason** dialog box is displayed. Set **Rejection Reason** and click **OK**.
Transferring Received Work Items to Others	Select the work items to be transferred to others in the list of received work items. • Transferring a single work item to others: Click in the row where the desired work item is located. The **Transfer Collaboration Requirement** dialog box is displayed. • Transferring one or more received work items to others: Select the desired work items. The **Transfer Collaboration Requirement** dialog box is displayed. Set **Transfer** and click **OK**.
Exporting Received Work Items	Select one or more work items to be exported and click **Export Selected** in the lower part of the page. The export progress dialog box is displayed. When the export progress reaches 100%, click **Download**. The received work item file is downloaded to the local PC. The file format is **.xlsx**.

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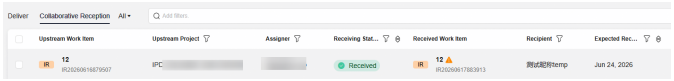
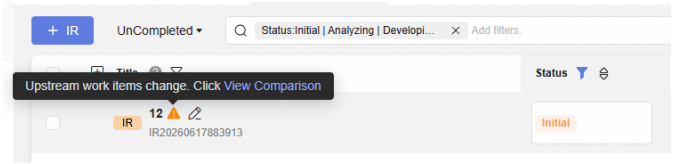
Operation	Procedure
Setting and viewing change notifications	If the title or description of an upstream work item is changed, a notification will display in the downstream project. • By default, the downstream project will receive a direct message or email notification. To disable this function, choose **Work Item > Notifications > R&D Requirements**. • On the **Collaborative Reception** page of the downstream project, a yellow reminder icon is displayed next to the title of the received work item. When you move the pointer over the work item, a pop-up message is displayed. **Figure 7-40** Change notification for upstream work items  • Downstream R&D requirement: A change notification will display in the received work item. Click **View Comparison** to view the changes. 

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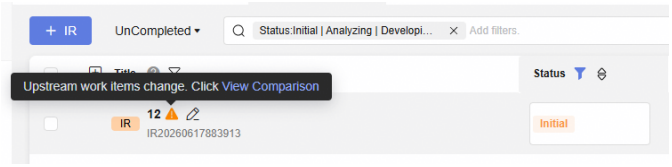
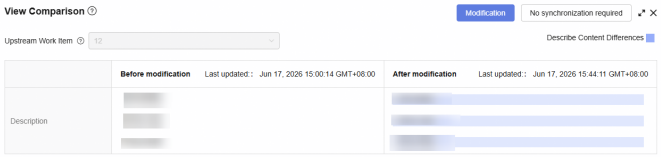
Operation	Procedure
Viewing comparison	After the title and description of the upstream work item are modified, you can view the comparison of the work item received by the downstream project before and after the modification. • When you hover the pointer over the yellow reminder icon, a pop-up message is displayed. Click **View Comparison**. The **View Comparison** dialog box is displayed, showing the changes in the upstream work item.  • Click the **View Comparison** icon on the operation bar. The **View Comparison** dialog box is displayed. You can view the changes in the upstream requirement. The **View Comparison** page displays the content of the upstream work items before and after the modification. The differences are marked in blue. **Figure 7-41** Changes in upstream work items 

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Operation	Procedure
One-click synchronization	**CAUTION** • Forbidden scenarios: You do not have the permission to edit the work item or are not the owner of the requirement. The changes have been synchronized and cannot be synchronized again. • If the field to be synchronized in one-click mode is baselined in the downstream project, the system prompts you to go through the change review process when you modify this field. After you click **OK** in the prompt box, the CR creation page is displayed. (After a change is initiated, the upstream modification reminder disappears.) Fill in the change review. After the review is approved, the synchronization is successful. After the upstream project is changed, you can synchronize the changes to the received work item. Perform the following operations: Click **View Comparison** to go to the **View Comparison** page. Click **Modification**. A confirmation dialog box is displayed. Click **Cancel** to cancel the synchronization. If you click **No synchronization required**, a confirmation dialog box is displayed. Click **OK**. The synchronization is successful and a synchronization message is displayed. After one-click synchronization is performed or ignored, the yellow reminder icon disappears.

7.7 Creating and Managing Tasks

7.7.1 Task Status Transition Process

The entire lifecycle of a task consists of the **Initial**, **Processing**, and **Completed** statuses. **Figure 7-42** shows the complete status transition process.

Figure 7-42 Task status transition flowchart

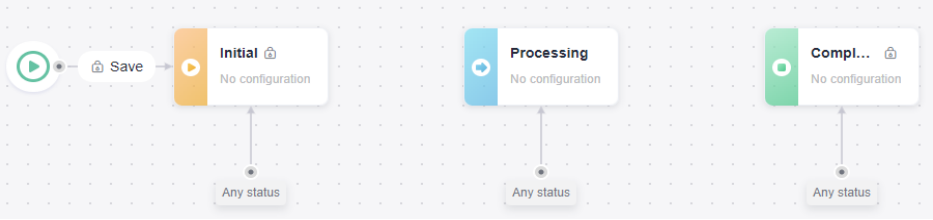

Table 7-57 describes the operations in each status.

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Table 7-57 Operation description

Status	Description
Initial	When a task is created, the state is **Initial** by default.
Processing	After the task in the **Initial** state is processed, the state changes to **Processing**.
Completed	After the task is processed, the state changes to **Completed**.

7.7.2 Creating Tasks

Tasks are activities with a certain goal. They can be associated with raw requirements, features, and R&D requirements.

Prerequisites

An IPD-system device project is available, and you have permission to **create and duplicate tasks** for the project.

Creating Tasks

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Tasks**.

Step 3 Click **Create Task**. The **Task** page is displayed.

Step 4 Fill in the basic task information.

Table 7-58 Creating a task

Parameter	Description
Tag	When creating or editing a work item, you can add a custom tag. Tag names can be marked in different colors.
Title	Title of a work item.
Description	Enter the background, value, and details of the task based on project requirements. Use text, images, or links.
Attachment	A maximum of 100 attachments can be added to a task, and their total size cannot exceed 500 MB.
Responsible Project	Project that the task belongs to. The value cannot be changed.
Owner	Member who is responsible for this task. Only one person can be specified.

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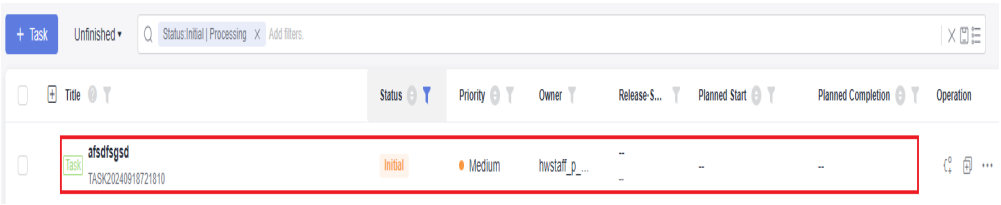
Parameter	Description
Module	Module to which a task belongs.
Priority	Priority of a task, including **Low**, **Medium**, and **High**. The default value is **Medium**.
Release	Release to which a task belongs. This parameter can be left empty. You can create a release plan and then associate it with the task.
Sprint	Next level of the release plan. The parameter value can be empty. You can create a sprint and then associate it with the task.
Planned Start	Planned start time of a task. The date format is **yyyy-mm-dd**.
Planned Completion	Planned completion time of a task. The date format is **yyyy-mm-dd**. The planned completion time cannot be earlier than the planned start time.
Planned Workload	Estimated workload from the planned start time to the planned completion time for this task.
Copy To	Project members to whom the task is copied. After the copy is complete, the people selected for **Copy To** will receive a message.

Step 5 Click **OK**. The **Tasks** tab page is displayed, and a message is displayed in the upper right corner, indicating that the task is created successfully.

The new task is displayed in the task list, and the task state is **Initial**.

Figure 7-43 Task list



NOTE

After a task is created, the people selected for **Owner** and **Copy To** will receive email and system message notifications. If not, set notifications or modify notification settings. For details, see **Configuring Notification Rules**.

----End

Related Operations

You can perform the following operations on a new task.

Table 7-59 Basic operations on a task

Operation	Description
Modify task title	Click next to a task title to modify it.
Modify task field	Click the target field value in the row of a task to modify the value.
Create child task	Click in the **Operation** column of a task to break it down into child tasks. • In the **Break Down Child Tasks** dialog box, click **Add child tasks** to create a child task. A maximum of 10 child tasks can be created at a time. • You can break down work items quickly. See **Configuring Common Fields in a Project** for related field configuration. If **Quickly split sub-work items** is enabled, the corresponding number of child work items are created based on the number of options selected. A maximum of **10** child work items can be created. If the work item already has child work items, the quick breakdown function does not take effect. If a work item is configured with multiple fields for quick breakdown, the child work items are obtained only based on the first field in the field template.
View task association map	Choose > **Association Map** in the **Operation** column of a task to view all data of its related items.
Clone task	Click **Duplicate** under in the **Operation** column. This process is the same as that of creating a task.
Copy task link	In the task list, you can copy the title, ID, current owner, status, and link information of a task to the clipboard. Level-1 tasks: Click **Copy Link** under in the **Operation** column to copy the task link. Level-2 tasks: Click in the **Operation** column to copy the task link.
Delete task	Choose > **Delete** in the **Operation** column of a task to delete it. **NOTE** Once deleted, a task is moved to the recycle bin. Tasks in the recycle bin can be restored or permanently deleted according to the work item type. After a task is restored from the recycle bin, it restores to the original status.

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7.7.3 Managing Tasks

After creating tasks (see **Creating Tasks**), you can query, import, export, and batch edit them in the project. You can add tags and associate work items on their details pages.

On the Task List Page

On the project homepage, choose **Work > Req > Tasks**, and perform the following operations.

Figure 7-44 Task list

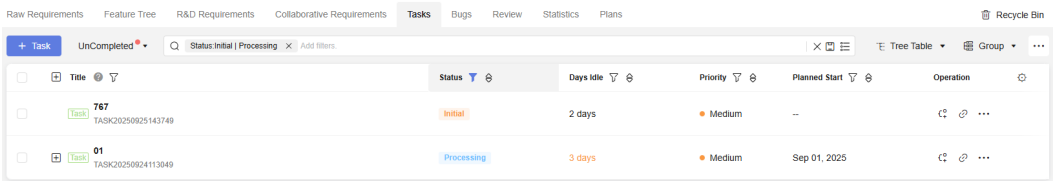

Table 7-60 Operations in the task list

Operation	Procedure
Search for task	• By adding filters 1. Click the search box in the task list and select one or more filters to search for tasks. 2. To clear all filters and display all data, click ✕ on the right of the search bar. 3. Query results can be displayed in tree, list, or Gantt chart view. • By using a saved view 1. Click the search box in the task list and select one or more filters. 2. Click 💾 on the rightmost of the search bar, and enter a view name. 3. Click **OK**. The created view is displayed next to the **Task** button. 4. Select the created view to query the tasks that meet the search criteria. Views can be shared with others, modified, and deleted.
Assign task	You can assign tasks to other projects for collaborative management. The operations for collaborative task assignment are similar to those for R&D requirements. Perform these operations on the **Tasks** tab of the project by following relevant instructions and procedures in **Assigning Work Items** and **Operations Related to Work Item Assignment**.

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Operation	Procedure
Receive assigned task	Perform this operation when another project assigns a task to your project. The operations for assigned task reception are similar to those for R&D requirements. Perform these operations on the **Tasks** tab of the project by following relevant instructions and procedures in **Receiving Work Items** and **Operations Related to Receiving Work Items**.
Import work items	Use the provided template to import tasks in batches. 1. In the task list, click ··· on the right of the search bar and select **Import**. 2. In the displayed dialog box, click **Download Template**. The template file should be named in the following format: *Project name* + "-" + *Module name* (for example, **Task**) + **Template**. You can edit the name of the downloaded template. 3. Fill in the fields on the **Task Import** sheet. For details about how to set parameters, see the **Notes** and header instructions in the template file. 4. Drag and drop the desired file to the import area or click the import area and select the file. 5. Click **Next**. The verification progress dialog box is displayed. After the verification progress reaches 100%, close the dialog box and view the verification result. If the mandatory fields fail the verification, the import is not allowed, while the verification result of optional fields does not affect the import. • If the verification is successful, click **Confirm Import**. • If the verification fails, modify the file based on the verification result. Click **Last step** to import the modified file. 6. After the verification is successful, click **Confirm Import**. The import progress dialog box is displayed. You can click **Check progress** in the dialog box to go to the **Import/Export Records** page to view the import records. 7. After the import is successful, view the imported information in the task list. • If the import fails, a message is displayed on the page. Click **View Failure Details** in the message to view the failure details. You can modify the requirement information based on the details and import the template file again.

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Operation	Procedure
Export work items	Export requirements in batches to an Excel file. 1. Export some or all tasks. • Export all: On the **Tasks** page, click ··· on the right of the search bar and choose **Export**. The **Select Fields to Export** dialog box is displayed. • Export some: In the task list, select one or more tasks to be exported and click **Export Selected** at the bottom of the page. The **Select Fields to Export** dialog box is displayed. 2. Select the fields to be exported and determine whether to export child tasks. 3. Click **Export**. A dialog box is displayed, indicating the export progress. • After the tasks are exported, click **Download**. The task file will be downloaded to the local PC. The file format is **.xlsx**.
Configure fields to display	Click ⚙ next to the **Operation** field. • On the left of the pop-up box, select the fields to be displayed. • On the right of the pop-up box, drag the fields in the **Selected** area to adjust the display sequence. • On the right of the pop-up box, select a field spacing style under **Appearance**. The options include **Compact**, **Standard**, and **Loose**.
Migrate tasks in batches	You can migrate tasks to another project. After the migration, these tasks do not need to be processed in the current project. Tasks that have been baselined or are undergoing baseline review or change review cannot be migrated. 1. In the task list, select one or more work items to be migrated and click **Migrate** in the lower part of the page. 2. In the displayed dialog box, select the project to migrate the tasks to. 3. Click **Next**. The migration confirmation dialog box is displayed. 4. Select **Owner**. 5. Click **OK**. The migration is successful. The migrated work items are no longer in the task list. The status of the work items migrated to another project is **Initial**.

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Operation	Procedure
Clone items across projects	**Constraints** ● Only tasks can be cloned. The workload, associated work item, tag, and release sprint fields will be cleared. ● You must have permission to **create and clone** tasks for the target project. ● Tasks can be cloned only to projects of the same type. ● You can clone up to 50 tasks at a time. **Procedure** 1. Select the tasks to clone in the task list and click **Cross-Project Copy** in the lower part of the page. The **Cross-Project Copy** window is displayed. 2. Select a target project from the drop-down list. You can select only a project to which you have joined and must have permission to **create and clone** tasks for the target project. 3. Click **Next**. The window for setting mandatory fields is displayed. Select the target owner from the drop-down list (the current operator is selected by default). Mandatory fields are those on the task creation page of the target project. 4. Click **OK**. The tasks are cloned to the target project. 5. Go to the target project to view the cloned tasks.
Transition statuses in batches	**Constraints** ● The selected tasks must be in the same status. ● You must have permission to **set statuses** for tasks. ● Mandatory fields of the selected tasks are all filled. **Procedure** 1. Select the target tasks in the task list and click **Batch Transfer** in the lower part of the page. The **Batch Transfer** window is displayed. 2. Select the target status from the drop-down list. 3. Click **Next**. 4. Set mandatory fields. The mandatory fields are set on the **In-transition GUI Config** tab page of the project's task status flow configuration page. 5. Click **OK**.
Perform batch operations	You can select multiple tasks to perform operations in batches: edit, suspend/unsuspend, export, delete, cross-project clone, and transition.

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Operation	Procedure
Group tasks	You can group work items by any supported field type. **Constraints** ● A maximum of 1,000 work items can be displayed during grouping. ● The supported field types include single-choice list, multi-choice list, single-choice user, multi-choice user, hierarchy, and date. ● For projects in a program (after sub-project aggregation is enabled), grouping by release, sprint, module, feature set, or tag is unavailable. **Procedure** 1. On the **Tasks** page, click **Group**. 2. On the displayed page, select the fields used to group work items. ● You can sort work items in ascending or descending order. ● You can enter a keyword to search for fields. ● When work items are grouped by multi-select list or multi-select user, the same work item may appear in multiple groups. ● You can click **No grouping** to ungroup work items.

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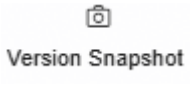
Operation	Procedure
Version snapshots	Snapshots include plan management snapshots, feature tree snapshots, and work item snapshots. A version snapshot is a work item snapshot. Its name is automatically generated by the system. **Constraints** A work item can have a maximum of 1,000 snapshots. **Procedure** 1. In the task list, select the work items for which you want to create a snapshot. 2. Click  in the lower part of the page to take a snapshot of the selected work items. A message is displayed in the upper right corner of the page, indicating that the operation is successful. The snapshot is a work item snapshot. Its name is automatically generated by the system. The format of the work item snapshot name is: *Work item type* + "v" + *Year* + "." + *Month* + "." + *Day* + "." + *Number of versions generated on the current day*. For example, if a task is snapshotted for the first time on March 25, 2026, its snapshot name generated by the system is **Task v26.03.25.1**. **NOTE** You can also go to the work item details page, click ··· in the upper right corner, and select **Version Snapshot** to create a snapshot for the work item. 3. (Optional) Click the work item name to go to its details page, click ···, and select **Version History** to view the generated snapshots.

On the Task Details Page

On the details page of a task, you can modify the description, priority, and owner, add tags and attachments, associate work items, design models, check review records, add workloads, and view the operation history.

Table 7-61 Management operations on the details page

Operation	Procedure	Remarks
Edit work item	On the task details page, click the value box of the field to be modified, and enter a target value in the text box or select one from the drop-down list. The modification is saved automatically.	You must have permission to **edit** tasks.

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Operation	Procedure	Remarks
Change work item status	Go to the work item details page, click the **Status** field, and transition the work item to the target status. For details about status transition, see **Table 7-57**.	You must have permission to **set statuses** for tasks.
Upload attachment	Attachments can be pictures, workbooks, manuscripts, and text files. A maximum of 100 attachments can be added to each work item, and their total size cannot exceed 500 MB. 1. Go to the work item details page, and click the **Attachment** tab. 2. Click the box to select a local file or drag the file here to upload it as an attachment for the work item. Local files can be directly dragged to the text box. When the upload progress reaches 100%, the system displays a message indicating that the attachment is uploaded successfully. Move the cursor to the file that is successfully uploaded. The operations that can be performed are displayed. • Click to download the file. • Click to delete the uploaded file.	You must have permission to **edit** or **upload attachments** for tasks.

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Operation	Procedure	Remarks
Add and check related item	A work item can be associated with other types of work items in a project. 1. Go to the work item details page and click the **Related Items** tab. 2. Complete association. • **Parent Task**: parent task to which a task belongs. You can choose **Associated Items > Parent Task** of a child task to view the task only when the task contains child tasks. • **Child Work Items**: child tasks included in the current task. A maximum of 10 child requirements can be created at a time. One child requirement is displayed by default and cannot be deleted. 1. Click **Break Down**. The **Break Down Child Tasks** window is displayed. 2. Configure the information about the child task. Click to expand and configure more information. 3. Click **OK**. The child task is created successfully. The child task is automatically displayed under the parent task in the task list. • **Associate Work Item**: Associate work items of any type in the project. Work items of the RR, SF, IR, SR, AR, task, and bug types can be associated. • **Associated open issue review form**: reviews that include the review and approval comments related to the work item. • **Code Commit Record**: code commit records related to the task. Related information is displayed only when the current task is associated during code commit. • **Code Branch**: code branch corresponding to a task. Related information is displayed only when a code branch is associated with the current task. • **Code Merge & Change Request**: code merge and change requests corresponding to a task. Related information is displayed only when a submitted merge or change request is associated with the current task. • **External Link**: external links associated with the current work item.	You must have permission to **associate/dissociate parent task**, **create subtasks**, **associate/dissociate work items**, **associate/dissociate files**, and **associate/dissociate wikis** for tasks.

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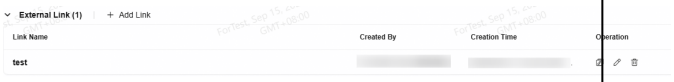
Operation	Procedure	Remarks
	– Create a link: Click **Add Link**. In the displayed dialog box, set **Link Name** and **Link**. The value of **Link** must start with **https://** and cannot contain invalid characters, such as spaces and Chinese characters. Click **OK**. After a link is created, you can click **External Link** to view, edit, copy, or delete the link.  – Copy a link: Click on the right of the link to be copied. – Edit a link: Click on the right of the row where the link to edit is located. In the displayed dialog box, you can change the link name and link. – Delete a link: Click on the right of the link to be deleted. In the displayed dialog box, click **Delete**.	
Add workload	1. Go to the work item details page and click the **Workload** tab. 2. Click **Add Workload**. The **Add Workload** dialog box is displayed. 3. Enter the workload information. • The end date cannot be earlier than the start date. • Decide whether to select **Weekends included**. If not, weekend workload records will not be generated. • You can select **Total** or **Daily** for **Workload**. • **Work Type** options include backend development, frontend development, UI design, replacement leave, debugging, and general. You can also customize the value by referring to **Creating Work Types**. 4. Click **OK**. The system automatically generates corresponding records based on the entered dates and days. The workload can be edited and deleted.	You must have permission to **add person-hours** for tasks. Workloads can be edited and deleted by the creator. By default, the project administrator can edit and delete all workloads.

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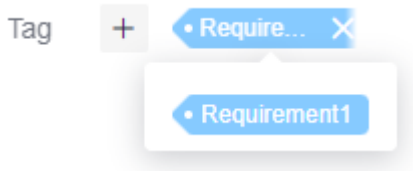
Operation	Procedure	Remarks
View operation history	**History** displays all operation logs of users, including creation, status transition, review initiation, work item association, and workload addition. 1. Go to the work item details page. 2. Click the **History** tab. • Click ↓ or ↑ to check historical records in the ascending or descending order of operation time. • You can set search criteria to query historical records that meet the search criteria.	You must have permission to **view** tasks.
Tag work item	1. Go to the work item details page. Click + next to **Tag** at the top of the page, and select **Create Tag**. The added tag is displayed in the **Tag** area. 2. In the **Create Tag** dialog box, set **Tag Name** and select **Tag Color**. 3. Click **OK**. The new tag is displayed next to the task ID in the task list. 4. (Optional) Hide a tag. • Click + next to **Tag**. In the displayed dialog box, deselect √ to hide the tag. • Move the cursor to the tag name and click ⊠ to hide the tag. **Figure 7-45** Hiding a tag - 02  **NOTE** To add or remove tags for multiple work items, select the desired work items, click **Batch Edit** in the lower part of the page, and select **Tag**.	You must have permission to **edit** tasks.
Add attachment	Perform the following operations to add attachments to a work item. You can upload/drag-and-drop a local file or choose a file in CodeArts Wiki. 1. Access the page for creating or editing a work item. 2. Click + to add attachments to the work item. The maximum size of attachments for a single work item is 500 MB.	You must have permission to **upload attachments** for tasks.

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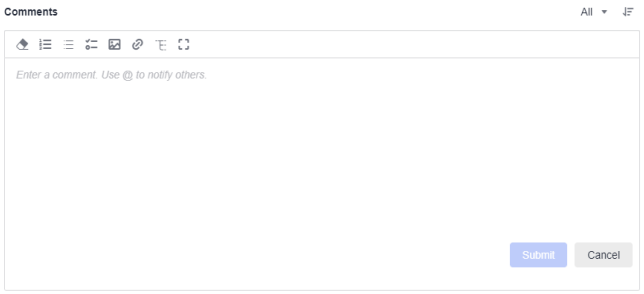
Operation	Procedure	Remarks
Add comment	1. Go to the work item details page. 2. On the **Details** tab page, click the **Comments** text box. **Figure 7-46** Add comment  3. Enter a comment. You can upload images, enter links, associate work items, and use @ to notify project members in comments. 4. Click **Submit**. Submitted comments can be replied, edited, pinned to the top, and deleted.	You must have permission to **view** tasks.
History versions	For work items with snapshots, you can view their historical versions and compare the differences between them. 1. Go to the work item details page, click ••• in the upper right corner, and select **Version History**. 2. In the **Version History** dialog box, select two versions and click **Compare Versions**. On the **Work Item Version Comparison** page, view the differences between the original version and the compared version. You can click  in the upper right corner and enable **Hide Identical Items** to view only the differences between the two versions. 3. On the **Work Item Version Comparison** page, click  to return to the **Version History** page. Hover over a snapshot version.  is displayed. Click  to delete the snapshot. **NOTE** If a work item has a third-party snapshot or its child work items have third-party snapshots and the child work items cannot be separated from the current work item, the snapshot cannot be deleted.	You must have permission to **view** tasks. To delete a snapshot, you must have permission to delete tasks.

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7.8 Creating and Managing Bugs

7.8.1 Bug Status Transition Process

The entire lifecycle of a bug has five states: **Analyzing**, **Fixing**, **Testing**, **Accepting**, and **Closed**. Figure 7-47 shows the complete status transition process.

Figure 7-47 Bug status transition flowchart

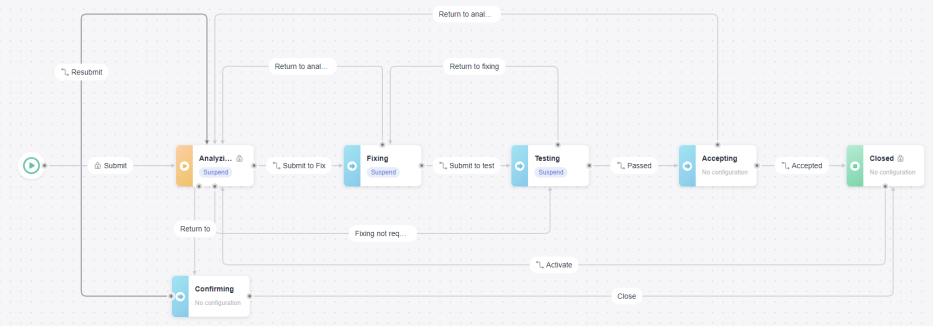

Table 7-62 describes the operations in each status.

Table 7-62 Operation description

Status	Description
--	Creating bugs By default, the bug proposer is the person who finds the bug.
Analyzing	After the bug is submitted, the state changes to **Analyzing**. The current owner analyzes the bug as follows: • If the analysis result shows that the bug is not a problem, click **Fixing not required** to transfer the bug to the proposer. • If the description is incorrect, click **Return To** to transfer the bug to the current owner for modification. After the analysis is complete, click **Submit to Fix**.
Fixing	After the bug is analyzed, the state changes to **Fixing**. The current owner fixes the bug based on the problem.
Testing	After the bug is fixed, the state changes to **Testing**. The current test owner verifies whether the problem is fixed based on the rectification result. If the result does not meet the expectation, the test owner can return it for fixing or analysis.

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Status	Description
Accepting	After the bug is tested, the state changes to **Accepting**. The current acceptance owner tracks the result of the acceptance test.
Closed	After the acceptance is passed, the state changes to **Closed**. A closed bug can be activated. After a bug being activated, its state will change to **Analyzing**.

7.8.2 Creating Bugs

You can create a bug to trace the problems found in the test and verification phase of software features and functions.

Prerequisites

An IPD-system device project is available, and you have permission to **create and duplicate bugs** for the project.

Creating a Bug

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Defects**.

Step 3 Click **Bug**. On the **Bug** page, set related parameters.

Table 7-63 Creating a bug

Parameter	Description
Title	Title of a work item.
Description	Enter the fault symptom description, environment information, onsite fault locating developers, and the preliminary cause determined by developers based on site requirements. Use text, images, or links.
Attachment	A maximum of 100 attachments can be added to a bug, and their total size cannot exceed 500 MB.
Proposed Project	Project to which the bug creator belongs, which cannot be changed.
Responsible Project	Project to which a bug belongs.
Raised By	Test personnel who find the bug.
Owner	Owner of the bug. Select one or more members of the responsible project.

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Parameter	Description
Module	Module to which a bug belongs. The module value can be customized as follows: 1. Click . The **Modules** dialog box is displayed. 2. Click **Create**. 3. Set **Module**, **Description**, and **Owner**. The value of **Module** must be unique. 4. Click **OK**. The module is created. After a module is created, you can edit and delete the module, and add child modules.
Severity	Severity of a bug. The options are **Info**, **Minor**, **Major**, and **Critical**.
Responsible Release	Release plan where a bug is found. This parameter has a value only after the operations in **Creating a Release Plan and Collaboration Plan** are completed. The parameter value can be empty. You can create a release and then associate it with the bug.
Responsible Sprint	Next level of the release plan. This parameter has a value only after the operations in **Creating a Release Plan and Collaboration Plan** are completed. The parameter value can be empty. You can create a sprint and then associate it with the bug.
Environment	Environment where a bug is found. The options are development, test, and production environments.
Copy To	Other members in the project. The selected members will receive a system notification.
Expected Rectification	Expected time for fixing a bug.

Step 4 Click **Submit**. The **Bugs** tab page is displayed, and a message is displayed in the upper right corner, indicating that the bug is created successfully.

- If you click **Save as Draft**, the bug list is displayed. The bug state is **--**.

  Only the creator can edit, export, submit, comment on, upload attachments to, and delete bugs in the draft state.
- If you click **Cancel**, the creation of the bug is cancelled.

The new bug is displayed in the bug list, and the state is **Analyzing**.

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NOTE

After a bug is created, the people selected for **Owner**, **Raised By**, and **Copy To** will receive email and system message notifications. If not, set notifications or modify notification settings. For details, see **Configuring Notification Rules**.

----End

Related Operations

You can perform the following operations on a new bug.

Table 7-64 Basic operations on a bug

Operation	Description
Modify bug title	Click next to a bug title to modify it.
Modify bug field	Click the target field value in the row of a bug to modify the value.
Duplicate bug	Click in the **Operation** column. This process is the same as that of creating a bug.
Copy bug link	Click in the **Operation** column to copy the title, ID, current owner, status, and link information of a bug to the clipboard.
Migrate bug	Click in the **Operation** column of a bug to migrate it to other projects. • Bugs in a **Done** state cannot be migrated. • After migration: – The bug will be handled again. – The actual workload, related items, tags, discovering release plan, and fixing release plan of the bug will be cleared. – Only the custom bug fields of the target project will be displayed.
Collaborate on bug	Click in the **Operation** column of a bug to assign it to other projects under your tenant.

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Operation	Description
Delete bug	Choose ••• > **Delete** in the **Operation** column of a bug to delete it. • Bugs that are being reviewed or in a **Doing** state cannot be deleted. • If you delete draft bugs, they are permanently deleted. • Bugs in the **To Do** state can be deleted only in the proposing project. Bugs in the **Done** state can be deleted in both the proposing project and the responsible project. • If you delete bugs of the proposing project, they are permanently deleted. If you delete bugs in the responsible project, they are moved to the project's recycle bin. • Bugs in the recycle bin can be restored or permanently deleted, depending on the work item type. After being restored, bugs restore to their original status.

7.8.3 Managing Bugs

After creating bugs (see **Creating a Bug**), you can query, import, export, and batch edit them in the project. You can add tags and associate work items on their details pages.

On the Bug List Page

On the project homepage, choose **Work > Req > Defects**, and perform the following operations.

Figure 7-48 Bug list

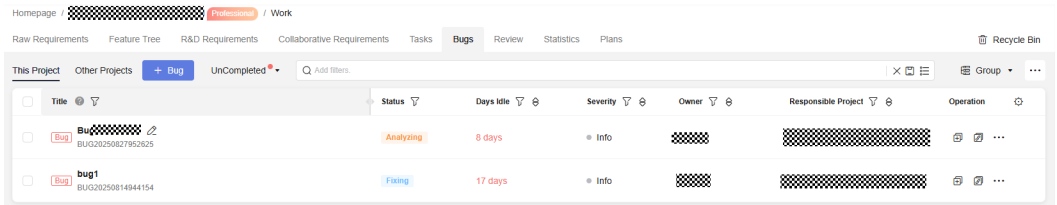

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Table 7-65 Operations in the bug list

Operation	Procedure
Search for bug	• By adding filters 1. Click the search box in the bug list and select one or more filters to search for bugs. 2. To clear all filters and display all data, click ✕ on the right of the search bar. • By using a saved view 1. Click the search box in the bug list and select one or more filters. 2. Click 💾 on the rightmost of the search bar, and enter a view name. 3. Click **OK**. The created view is displayed next to the **Bug** button. 4. Select the created view to query the bugs that meet the search criteria. Views can be shared with others, modified, and deleted.

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Operation	Procedure
Import work items	Use a template to import bugs in batches. 1. In the bug list, click ··· on the right of the search bar and select **Import**. 2. In the displayed dialog box, click **Download Template**. The template file should be named in the following format: *Project name* + "-" + *Module name* (for example, **Bug**) + **Template**. You can edit the name of the downloaded template. 3. Set the fields in the **Bug Import** sheet of the template. For details about how to set parameters, see the **Notes** and header instructions in the template file. 4. Drag and drop the desired file to the import area or click the import area and select the file. 5. Click **Next**. The verification progress dialog box is displayed. After the verification progress reaches 100%, close the dialog box and view the verification result. If the mandatory fields fail the verification, the import is not allowed, while the verification result of optional fields does not affect the import. ● If the verification is successful, click **Confirm Import**. ● If the verification fails, modify the file based on the verification result. Click **Last step** to import the modified file. 6. After the verification is successful, click **Confirm Import**. The import progress dialog box is displayed. You can click **Check progress** in the dialog box to go to the **Import/Export Records** page to view the import records. 7. After the import is successful, view the imported information in the bug list. ● If the import fails, a message is displayed on the page. Click **View Failure Details** in the message to view the failure details. You can modify the requirement information based on the details and import the template file again.
Export work items	Export bugs in batches to an Excel file. 1. Export some or all bugs. ● Export all: On the **Defects** page, click ··· on the right of the search bar and choose **Export**. The **Select Fields to Export** dialog box is displayed. ● Export some: In the bug list, select one or more bugs to be exported and click **Export Selected** at the bottom of the page. The **Select Fields to Export** dialog box is displayed. 2. Select the fields to be exported. 3. Click **Export**. A dialog box is displayed, indicating the export progress. ● After the bugs are exported, click **Download**. The bug file will be downloaded to the local PC. The file format is **.xlsx**.

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Operation	Procedure
Configure fields to display	Click next to the **Operation** field. • On the left of the pop-up box, select the fields to be displayed. • On the right of the pop-up box, drag the fields in the **Selected** area to adjust the display sequence. • On the right of the pop-up box, select a field spacing style under **Appearance**. The options include **Compact**, **Standard**, and **Loose**.
Clone bugs across projects	**Constraints** • Only bugs of the current project can be cloned to other projects. The workload, associated work item, tag, and release sprint fields will be cleared. • You must have permission to **create and clone** bugs for the target project. • Bugs can be cloned only to projects of the same type. • You can clone up to 50 tasks at a time. • Draft bugs and bugs of other projects cannot be cloned. **Procedure** 1. Select the bug to clone in the bug list and click **Cross-Project Copy** in the lower part of the page. The **Cross-Project Copy** window is displayed. 2. Select a target project from the drop-down list. You can select only a project to which you have joined and must have permission to **create and clone** tasks for the target project. 3. Click **Next**. The window for setting mandatory fields is displayed. Select the target owner from the drop-down list (the current operator is selected by default). Mandatory fields are those on the bug creation page of the target project. 4. Click **OK**. The bugs are cloned to the target project. 5. Go to the target project to view the cloned bugs.

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Operation	Procedure
Transition statuses in batches	**Constraints** ● Only bugs of this project support batch status transition. ● The selected bugs must be in the same status. ● You must have permission to **set statuses** for bugs. ● All mandatory fields of the selected bugs have been set. **Procedure** 1. Select the target bugs in the bug list and click **Batch Transfer** in the lower part of the page. The **Batch Transfer** window is displayed. 2. Select the target status from the drop-down list. 3. Click **Next**. 4. Set mandatory fields. The mandatory fields are set on the **In-transition GUI Config** tab page of the project's bug status flow configuration page. 5. Click **OK**.
Perform batch operations	You can select multiple bugs to perform operations in batches: edit, suspend/unsuspend, export, delete, cross-project clone, and transition.
Group bugs	You can group work items by any supported field type. **Constraints** ● A maximum of 1,000 work items can be displayed during grouping. ● The supported field types include single-choice list, multi-choice list, single-choice user, multi-choice user, hierarchy, and date. ● For bugs of other projects and projects in a program (after sub-project aggregation is enabled), grouping by release, sprint, module, feature set, or tag is unavailable. **Procedure** 1. On the **Bugs** page, click **Group**. 2. On the displayed page, select the fields used to group work items. ● You can sort work items in ascending or descending order. ● You can enter a keyword to search for fields. ● When work items are grouped by multi-select list or multi-select user, the same work item may appear in multiple groups. ● You can click **No grouping** to ungroup work items.

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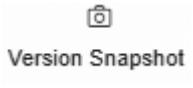
Operation	Procedure
Version snapshots	Snapshots include plan management snapshots, feature tree snapshots, and work item snapshots. A version snapshot is a work item snapshot. Its name is automatically generated by the system. **Constraints** A work item can have a maximum of 1,000 snapshots. **Procedure** 1. In the bug list, select the work items for which you want to create a snapshot. 2. Click  in the lower part of the page to take a snapshot of the selected work items. A message is displayed in the upper right corner of the page, indicating that the operation is successful. The snapshot is a work item snapshot. Its name is automatically generated by the system. The format of the work item snapshot name is: *Work item type* + "v" + *Year* + "." + *Month* + "." + *Day* + "." + *Number of versions generated on the current day*. For example, if a bug is snapshotted for the first time on March 25, 2026, its snapshot name generated by the system is **Bug v26.03.25.1**. **NOTE** You can also go to the work item details page, click ••• in the upper right corner, and select **Version Snapshot** to create a snapshot for the work item. 3. (Optional) Click the work item name to go to its details page, click ••• , and select **Version History** to view the generated snapshots.

On the Bug Details Page

On the details page of a bug, you can modify the description, priority, and owner, add tags and attachments, associate work items, design models, check review records, add workloads, and view the operation history.

Table 7-66 Management operations on the details page

Operation	Procedure	Remarks
Edit work item	On the bug details page, click the value box of the field to be modified, and enter a target value in the text box or select one from the drop-down list. The modification is saved automatically.	You must have permission to **edit** bugs.

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Operation	Procedure	Remarks
Change work item status	Go to the work item details page, click the **Status** field, and transition the work item to the target status. For details about status transition, see **Table 7-62**.	You must have permission to **update statuses** for bugs.
Upload attachment	Attachments can be pictures, workbooks, manuscripts, and text files. A maximum of 100 attachments can be added to each work item, and their total size cannot exceed 500 MB. 1. Go to the work item details page, and click the **Attachment** tab. 2. Click the box to select a local file or drag the file here to upload it as an attachment for the work item. Local files can be directly dragged to the text box. When the upload progress reaches 100%, the system displays a message indicating that the attachment is uploaded successfully. Move the cursor to the file that is successfully uploaded. The operations that can be performed are displayed. • Click to download the file. • Click to delete the uploaded file.	You must have permission to **edit** or **upload attachments** for bugs.

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Operation	Procedure	Remarks
Add and check related item	A work item can be associated with other types of work items in a project. 1. Go to the work item details page and click the **Related Items** tab. 2. Complete association. ● **Associate Work Item**: Associate work items of any type in the project. To associate existing RRs, create an RR first. To associate existing IRs, SRs, and ARs, create and break down an R&D requirement first. To associate existing tasks, create a task first. To cancel the association, click . To associate existing bugs, create a bug first. To cancel the association, click . ● **Associated upstream bugs**: bugs coordinated from upstream projects. The upstream bug information is displayed only when their responsible project is set to the current project on their downstream bug association page. ● **Associated downstream bugs**: bugs assigned to other projects for collaboration. A maximum of 10 child bugs can be created at a time. One child bug is displayed by default and cannot be deleted. 1. Click **Assign Owner**. 2. Configure the information about bug assignment. Click to expand and configure more information. 3. Click **OK**. The bug is assigned. The bug can only be viewed and handled in the responsible project. After a bug is assigned for collaboration, its attachments will not be synchronized to the downstream bugs. The current owners of these downstream bugs can contact the bug creator to obtain attachments. ● **Associated open issue review form**: reviews that include the review and approval comments related to the work item. ● **Test Plan**: test plans related to the current bug. You can associate test plans with the current bug.	You must have permission to **associate/dissociate work items**, **assign bugs**, **associate/dissociate files**, and **associate/dissociate wikis** for bugs.

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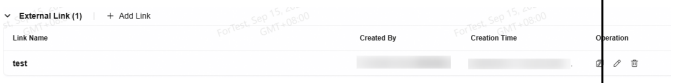
Operation	Procedure	Remarks
	• **Test Case**: test cases related to the current bug. You can associate bugs with test cases in CodeArts TestPlan. The associated cases will be displayed here. • **Code Commit Record**: code submission records related to the current bug. Related information is displayed only when the current bug is associated during code commit. • **Code Merge & Change Request**: code merge and change requests corresponding to a bug. Related information is displayed only when a submitted merge or change request is associated with the current bug. • **Code Branch**: code branches related to the current bug. Related information is displayed only when a code branch is associated with the current bug. • **External Link**: external links associated with the current work item. – Create a link: Click **Add Link**. In the displayed dialog box, set **Link Name** and **Link**. The value of **Link** must start with **https://** and cannot contain invalid characters, such as spaces and Chinese characters. Click **OK**. After a link is created, you can click **External Link** to view, edit, copy, or delete the link.  – Copy a link: Click on the right of the link to be copied. – Edit a link: Click on the right of the row where the link to edit is located. In the displayed dialog box, you can change the link name and link. – Delete a link: Click on the right of the link to be deleted. In the displayed dialog box, click **Delete**.	

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Operation	Procedure	Remarks
Add workload	1. Go to the work item details page and click the **Workload** tab. 2. Click **Add Workload**. The **Add Workload** dialog box is displayed. 3. Enter the workload information. • The end date cannot be earlier than the start date. • Decide whether to select **Weekends included**. If not, weekend workload records will not be generated. • You can select **Total** or **Daily** for **Workload**. • **Work Type** options include backend development, frontend development, UI design, replacement leave, debugging, and general. You can also customize the value by referring to **Creating Work Types**. 4. Click **OK**. The system automatically generates corresponding records based on the entered dates and days. The workload can be edited and deleted.	You must have permission to **add person-hours** for bugs. Workloads can be edited and deleted by the creator. By default, the project administrator can edit and delete all workloads.
View operation history	**History** displays all operation logs of users, including creation, status transition, review initiation, work item association, and workload addition. 1. Go to the work item details page. 2. Click the **History** tab. • Click ↓ or ↑ to check historical records in the ascending or descending order of operation time. • You can set search criteria to query historical records that meet the search criteria.	You must have permission to **view** bugs.

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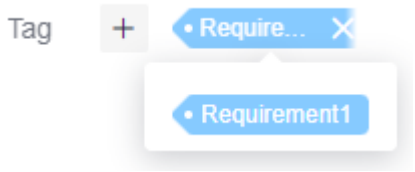
Operation	Procedure	Remarks
Tag work item	1. Go to the work item details page. Click + next to **Tag** at the top of the page, and select **Create Tag**. The added tag is displayed in the **Tag** area. 2. In the **Create Tag** dialog box, set **Tag Name** and select **Tag Color**. 3. Click **OK**. The new tag is displayed next to the bug ID in the bug list. 4. (Optional) Hide a tag. • Click + next to **Tag**. In the displayed dialog box, deselect √ to hide the tag. • Move the cursor to the tag name and click ⊠ to hide the tag. **Figure 7-49** Hiding a tag - 02  **NOTE** To add or remove tags for multiple work items, select the desired work items, click **Batch Edit** in the lower part of the page, and select **Tag**.	You must have permission to **edit** bugs.

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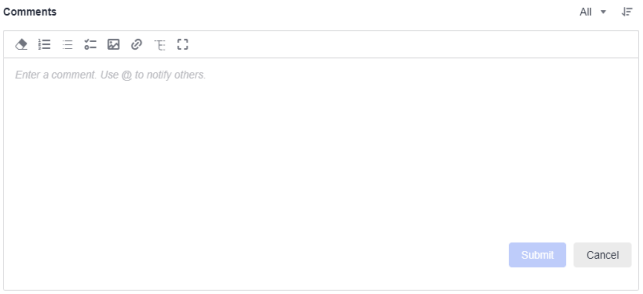
Operation	Procedure	Remarks
Add comment	1. Go to the work item details page. 2. On the **Details** tab page, click the **Comments** text box. **Figure 7-50** Add comment  3. Enter a comment. You can upload images, enter links, associate work items, and use @ to notify project members in comments. 4. Click **Submit**. Submitted comments can be replied, edited, pinned to the top, and deleted.	You must have permission to **view** bugs.
History versions	For work items with snapshots, you can view their historical versions and compare the differences between them. 1. Go to the work item details page, click ••• in the upper right corner, and select **Version History**. 2. In the **Version History** dialog box, select two versions and click **Compare Versions**. On the **Work Item Version Comparison** page, view the differences between the original version and the compared version. You can click  in the upper right corner and enable **Hide Identical Items** to view only the differences between the two versions. 3. On the **Work Item Version Comparison** page, click  to return to the **Version History** page. Hover over a snapshot version.  is displayed. Click  to delete the snapshot. **NOTE** If a work item has a third-party snapshot or its child work items have third-party snapshots and the child work items cannot be separated from the current work item, the snapshot cannot be deleted.	You must have permission to **view** bugs. To delete a snapshot, you must have permission to delete bugs.

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7.9 Reviewing Work Items

7.9.1 IPD-System Device Project Reviews

IPD-system device projects have three review types: change review (CR), baseline review (BR), and general review (GR). They are described in **Table 7-67**.

The review ticket lists (CR, BR, and GR) display information such as the current handler, review result, and decision-making result.

- For review tickets awaiting submission or in revoked state, the handler is the creator.
- For review tickets pending review or decision, the handler is the reviewer or decision-maker.
- The displayed review and decision-making results are for all review objects.
- The table header and search box above the review ticket list do not support filtering by current handler, review result, or decision-making result.

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Table 7-67 Review types

Review Type	Description	Review Object
Change review (CR)	When a work item changes, you need to create a CR ticket to track the change. The changed content is synced to the source work item only after the content is reviewed. • RRs and bugs: You can only add RRs and bugs that are defined by the responsible project workflow and belong to the status node with editable controlled fields. Then, modify the controlled fields (marked with the icon) of the requirement change, and select the **Decision-Maker** and **Reviewer**. • For work item types other than RRs and bugs: After adding the objects, modify the controlled fields (marked with the icon) of the requirement change, or move the work items into or out of a baselined release or iteration, and select the **Decision-Maker** and **Reviewer**. Change types include **Move in/out of a baseline release or iteration**, **Modify**, and **Delete**. • **Move in/out of a baseline release or iteration**: The release or iteration after the change becomes a baseline release or iteration, or the release or iteration before the change is a baseline release or iteration. • **Modify**: Modify the baseline lock field of a baseline work item. • **Delete**: Delete a baseline work item. RRs and bugs: Only **Move in/out of a baseline release or iteration** and **Modify** are supported. Work item types other than RRs and bugs: All change types are supported, including **Move in/out of a baseline release or iteration**, **Modify**, and **Delete**.	• For IPD-system device projects: RR, SF, IR, SR, AR, task, and bug • For IPD-standalone software projects: RR, SF, IR, US, task, and bug

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Review Type	Description	Review Object
Baseline review (BR)	To baseline a work item, you need to initiate a baseline review. The work item will be baselined only after the review is approved.	• For IPD-system device projects: SF, IR, SR, AR, and task • For IPD-standalone software projects: SF, IR, US, and task
General review (GR)	To review a work item, you can initiate a general review. The work item takes effect only after the review is approved.	• For IPD-system device projects: RR, SF, IR, SR, AR, task, and bug • For IPD-standalone software projects: RR, SF, IR, US, task, and bug

7.9.2 Creating and Completing Work Item Reviews

7.9.2.1 Creating and Approving CRs

When a work item changes, you need to create a CR ticket to track the change. The changed content is synced to the source work item only after the content is reviewed.

Constraints

- A maximum of **20** reviewers can be added.
- A maximum of **50** objects can be added to or associated with a single review ticket.

Creating a CR

Step 1 **Access the CodeArts Req homepage**.

Step 2 Create a CR in either of the following ways:

- On the project homepage, go to the raw requirement, feature tree, R&D requirement, or bug list page, select a controlled raw requirement or bug, or a baselined system feature or R&D requirement, and modify a parameter marked with the icon. In the displayed dialog box, click **OK**.

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- On the project homepage, choose **Review** > **Change Review**. Then click **CR**.

Step 3 On the **CR** page, set the required parameters.

Table 7-68 Creating a CR

Parameter	Description
CR Title	Title of the review. ● Use letters, hyphens (-), underscores (_), commas (,), semicolons (;), colons (:), periods (.), slashes (/), parentheses, and spaces. ● Include 1 to 256 characters.
Description	Enter the background, value, and details of the review. ● Use text, images, or links. ● Include 1 to 50,000 characters.
Start Time	The time when you want the review to start.
Completion Time	The time when you want the review to complete.
Copy To	Select the project members you want to inform about this review.

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Parameter	Description
Review Objects	Add the objects to be reviewed. • RRs and bugs: You can only add RRs and bugs that are defined by the responsible project workflow and belong to the status node with editable controlled fields. Then, modify the controlled fields (marked with the icon) of the requirement change, and select the **Decision-Maker** and **Reviewer**. • For work item types other than RRs and bugs: After adding the objects, modify the controlled fields (marked with the icon) of the requirement change, or move the work items into or out of a baselined release or sprint, and select the **Decision-Maker** and **Reviewer**. Change types include **Move in/out of a baseline release or iteration**, **Modify**, and **Delete**. • **Move in/out of a baseline release or iteration**: The release or sprint becomes a baseline after the change, or the release or sprint is a baseline before the change. • **Modify**: Modify the baseline lock field of a baseline work item. • **Delete**: Delete a baseline work item. RRs and bugs: Only **Move in/out of a baseline release or iteration** and **Modify** are supported. Work item types other than RRs and bugs: All change types are supported, including **Move in/out of a baseline release or iteration**, **Modify**, and **Delete**. For work item types other than RRs and bugs: • When **Require Decision-Making** is enabled, **Decision-Maker** is mandatory. If **Review Expert** is not set, the review phase will be skipped. You can configure **Decision-Maker** by referring to **Configuring Reviews**. By default, the options are **Project Admin** and **Project Manager**. You can select only one option. • If **Require Decision-Making** is disabled, **Review Expert** is mandatory. If **Decision-Maker** is not set in the review ticket, the review process will skip the **Pending Decision-Making** phase. You can configure **Review Expert** by referring to **Configuring Reviews**. Multiple options can be selected. **NOTE** You can configure **Require Decision-Making** by referring to **Configuring Reviews**. For RRs: • If the proposing project initiates a change review, the options for **Decision-Maker** include the project administrator, project manager, and requirement owner of the responsible project. You can select only one option. • If the responsible project initiates a change review, the options for **Decision-Maker** include the project

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Parameter	Description
	administrator, project manager, and requirement submitter of the proposing project. You can select only one option. For bugs: • If the proposing project initiates a change review, the options for **Decision-Maker** include the project administrator, project manager, test manager, and bug owner of the responsible project. You can select only one option. • If the responsible project initiates a change review, the options of **Decision-Maker** include the project administrator, project manager, test manager, and bug creator of the proposing project. You can select only one option.
Associated Files	Attachments, wikis, and documents related to the review. If the review objects include RRs and bugs, files can be associated only when the proposing and responsible projects are the same.
Collaborative Parent Item Change	Existing change reviews you wish to collaboratively complete with the current review.

Step 4 Click **Submit**.

You can view the new CR in the change review list. For a new CR:

- Click  in the **Operation** column to copy the title, ID, current owner, status, and link information of the CR to the clipboard.
- Click  in the **Operation** column to copy the title link of the CR to the clipboard.

----End

Related Operations

You can perform the following operations on a CR pending for submission.

Table 7-69 Basic operations on a CR pending for submission

Operation	Description
Modifying the title of a CR pending for submission	Click  next to the CR title to modify it.

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Operation	Description
Modifying the fields of a CR pending for submission	Click the target field value on the CR details page to modify it. After the modification, click **Submit**.
Copying the link of a CR pending for submission	Click in the **Operation** column to copy the title, ID, current owner, status, and link information of the CR to the clipboard. Click in the **Operation** column to copy the title link of the CR to the clipboard.
Deleting a CR pending for submission	Click in the **Operation** column of a CR to delete it.

Completing a CR

This operation is performed by the specified review experts and decision-maker of a CR.

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Review** > **Change Review**.

Step 3 Click the title of a CR in the **To Be Reviewed** state. The CR details page is displayed on the right.

Step 4 Click the icon in the row that contains the target review object, and set the required parameters.

Figure 7-51 Review by review experts

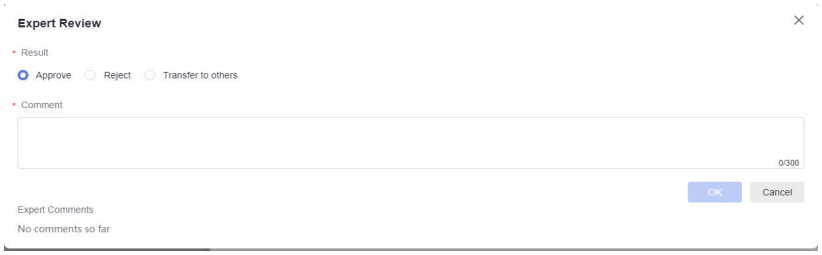

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Table 7-70 Review by review experts

Parameter	Description
Result	Select your review result. • **Approve**: You agree with the change. • **Reject**: You do not agree with the change. • **Transfer to others**: Transfer the review to another review expert.
Comment	Your comments on the change. This parameter is required when **Result** is **Approve** or **Reject**. • Use letters, hyphens (-), underscores (_), commas (,), semicolons (;), colons (:), periods (.), slashes (/), parentheses, and spaces. • Include 1 to 300 characters.
Expert Comments	Comments of other review experts.

Step 5 Select a review result (**Approve** or **Reject**) and click **OK**.

After the expert review is completed, the final review result can be determined using the selected method on the **Settings > Work > Review** page.

- **By single reviewer**: A CR is complete when one review expert approves or rejects it.
- **By all reviewers**: A CR is complete when all review experts approve it or one review expert rejects it.
- **By pass rate**: A CR is complete when "Number of review experts who approve the review/Total number of review experts × 100% ≥ Pass rate", or "Number of review experts who reject the review/Total number of review experts × 100% > 1 – Pass rate".

If a CR's result in the review phase is **Rejected**, the CR skips the decision-making phase and its final result is **Rejected**.

After the review phase is complete for all review objects in the CR, the CR status changes to **Decisioning**.

Step 6 Click the title of a CR in the **To Be Approved** state. The CR details page is displayed on the right.

Step 7 Click the icon in the row that contains the target review object, and set the required parameters.

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Figure 7-52 Decision-making by decision-maker

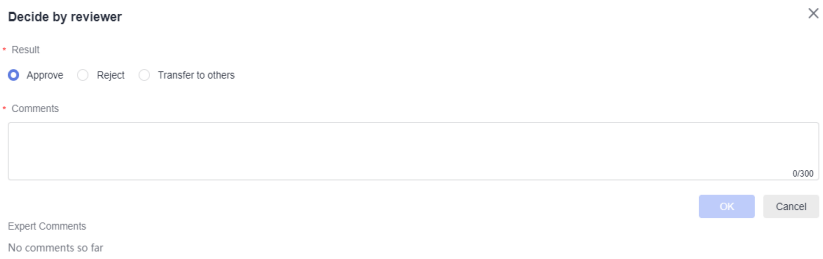

Table 7-71 Decision-making by decision-maker

Parameter	Description
Result	Select your decision. • **Approve**: You agree with the change. • **Reject**: You do not agree with the change. • **Transfer to others**: Transfer the ticket to a new decision-maker.
Comments	Your comments on the ticket. This parameter is required when **Result** is **Approve** or **Reject**. • Use letters, hyphens (-), underscores (_), commas (,), semicolons (;), colons (:), periods (.), slashes (/), parentheses, and spaces. • Include 1 to 300 characters.
Decision Maker	The new decision maker for this ticket. This parameter is displayed and required only when **Transfer to others** is selected.
Expert Comments	Review result and reviewer comments for the decision-maker's reference.

Step 8 Select **Approve** or **Reject** for **Result**, and click **OK**. The CR object's approval result is displayed after its decision-making process is complete.

The CR status changes to **End** only after the decision-making process is complete for all review objects.

Step 9 Perform the necessary operations on a **Rejected** review object in the completed CR.

- On the CR details page, click **Activate** in the upper right corner. Then click **OK** in the displayed dialog box. All rejected objects in the CR have transitioned from the **End** state to the **Resubmit** state. The CR needs to be processed again.
- In the second review process, you can check historical comments in the **Resubmitting**, **Reviewing**, **Decisioning**, and **End** phases.

  In the **Review Objects** area on the details page, click in the row where the target review object is located. In the displayed **History Opinion** dialog

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box, select a historical review comment from the **Decision-Making Time** drop-down list.

- In the **Review Objects** area, click  in the **Operation** column to remove objects that do not need to be re-submitted.

  When the last review object is removed, the re-review process is automatically canceled and rolled back from the **Resubmit** phase to the **End** phase of the previous round.
- After modifying a review object, click **Submit**. In the **Review Objects** area on the details page, click  in the row that contains the target review object to initiate re-review.

  a. In the re-review phase, you can click in the upper right corner and then choose to cancel the re-review. In the displayed dialog box, click **OK**. The review ticket is rolled back to the **End** phase of the previous round.

  b. In the decision-making phase, you can click in the upper right corner and then choose to cancel the re-review. Once a decision is made, the re-review cannot be canceled.
- Perform **Step 4** to **Step 8** to complete the CR approval.

----End

7.9.2.2 Creating and Completing BRs

When your system features and R&D requirements need to be baselined, perform the following steps to initiate a baseline review.

Constraints

- A maximum of **20** reviewers can be added.
- A maximum of **50** objects can be added to or associated with a single review ticket.

Creating a BR

Step 1 **Access the CodeArts Req homepage**.

Step 2 Create a BR in either of the following ways:

- On the project homepage, go to the feature tree or R&D requirement list page, select unbaselined system features or R&D requirements, and click **Baseline Review** in the pop-up box.
- On the project homepage, choose **Review** > **Baseline Review**. Then click **BR**.

Step 3 On the **BR** page, set the required parameters.

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Table 7-72 Creating a BR

Parameter	Description
BR Title	Title of the review. • Use letters, hyphens (-), underscores (_), commas (,), semicolons (;), colons (:), periods (.), slashes (/), parentheses, and spaces. • Include 1 to 256 characters.
Description	Enter the background, value, and details of the review. • Use text, images, or links. • Include 1 to 50,000 characters.
Start Time	The time when you want the review to start.
Completion Time	The time when you want the review to complete.
Decision-Maker	The decision-maker for a review at the decision phase. • When **Require Decision-Making** is disabled, this parameter is not displayed. That is, if **Decision-Maker** is not set in the review ticket, the review process will skip the **Pending Decision-Making** phase. • When **Require Decision-Making** is enabled, **Decision-Maker** is mandatory. You can configure **Decision-Maker** by referring to **Configuring Reviews**. By default, the options are **Project Admin** and **Project Manager**. You can select only one option. **NOTE** You can configure **Require Decision-Making** by referring to **Configuring Reviews**.
Review Expert	The expert reviewer for a review at the review stage. • When **Require Decision-Making** is enabled, **Review Expert** is optional. If **Review Expert** is not set, the review phase will be skipped. • If **Require Decision-Making** is disabled, **Review Expert** is mandatory. If **Decision-Maker** is not set in the review ticket, the review process will skip the **Pending Decision-Making** phase. You can configure **Review Expert** by referring to **Configuring Reviews**. Multiple options can be selected. **NOTE** You can configure **Require Decision-Making** by referring to **Configuring Reviews**.
Copy To	Select the project members you want to inform about this review.

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Parameter	Description
Baseline Object	Add the objects that need to be baselined. Only unbaselined objects are supported. For IPD-system device projects, the review objects include SF, IR, SR, AR, and task. For IPD-standalone software projects, the review objects include SF, IR, US, and task.
Associated Files	Attachments, wikis, and documents related to the review.

Step 4 Click **Submit**.

You can view the new BR in the baseline review list. For the newly created BR:

- Click  in the **Operation** column to copy the title, ID, current owner, status, and link information of the BR to the clipboard.
- Click  in the **Operation** column to copy the title link of the BR to the clipboard.

----End

Related Operations

You can perform the following operations on a BR pending submission.

Table 7-73 Basic operations on a draft BR

Operation	Description
Modifying the title of a BR pending for submission	Click  next to a BR title to modify it.
Modifying the fields of a BR pending for submission	Click the target field value on the BR details page to modify it. After the modification, click **Submit**.

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Operation	Description
Copying the link of a BR pending for submission	Click in the **Operation** column to copy the title, ID, current owner, status, and link information of the BR to the clipboard. Click in the **Operation** column to copy the title link of the BR to the clipboard.
Deleting a BR pending for submission	Click in the **Operation** column of a BR to delete it.

Completing a BR

This operation is performed by the specified review experts and decision-maker for the BR.

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Review** > **Change Review**.

Step 3 Click the title of a BR in the **To Be Reviewed** state. The BR details page is displayed on the right.

Step 4 On the details page, click **Expert Review** in the upper right corner. In the displayed dialog box, set the required parameters.

Figure 7-53 Review by review experts

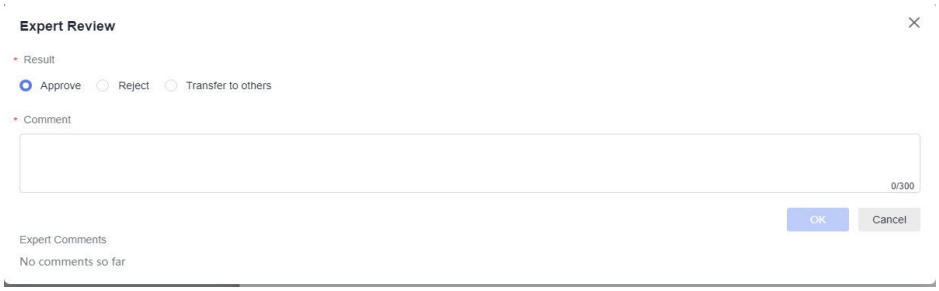

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Table 7-74 Review by review experts

Parameter	Description
Result	Select your review result. • **Approve**: You agree with the change. • **Reject**: You do not agree with the change. • **Transfer to others**: Transfer the review to another review expert.
Comment	Your comments on the change. This parameter is required when **Result** is **Approve** or **Reject**. • Use letters, hyphens (-), underscores (_), commas (,), semicolons (;), colons (:), periods (.), slashes (/), parentheses, and spaces. • Include 1 to 300 characters.
Expert Comments	Comments of other review experts.

Step 5 Select a review result (**Approve** or **Reject**) and click **OK**.

After the expert review is completed, the final review result can be determined using the selected method on the **Settings > Work > Review** page.

- **By single reviewer**: A BR is complete when one review expert approves or rejects it.
- **By all reviewers**: A BR is complete when all review experts approve it or one review expert rejects it.
- **By pass rate**: A BR is complete when "Number of review experts who approve the review/Total number of review experts × 100% ≥ Pass rate", or "Number of review experts who reject the review/Total number of review experts × 100% > 1 – Pass rate".

If a BR's result in the review phase is **Rejected**, the BR skips the decision-making phase and its final result is **Rejected**.

Step 6 Click the title of a BR in the **To Be Approved** state. The BR details page is displayed on the right.

Step 7 On the details page, click **Expert Review** in the upper right corner. In the displayed dialog box, set the required parameters.

Figure 7-54 Expert Review

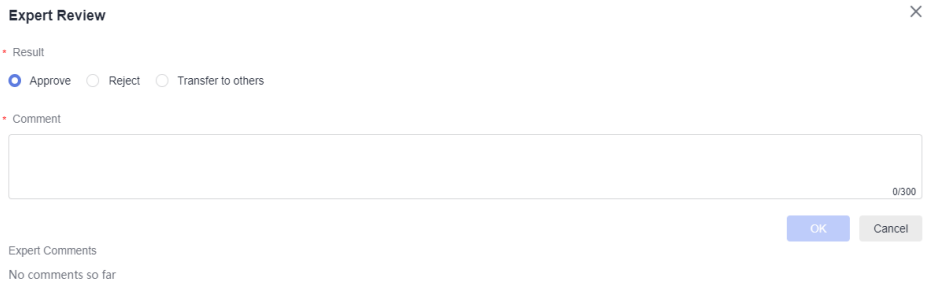

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Table 7-75 Decision-making by decision-maker

Parameter	Description
Result	Select your decision. • **Approve**: You agree with the change. • **Reject**: You do not agree with the change. • **Transfer to others**: Transfer the ticket to a new decision-maker.
Comments	Your comments on the change. This parameter is required when **Result** is **Approve** or **Reject**. • Use letters, hyphens (-), underscores (_), commas (,), semicolons (;), colons (:), periods (.), slashes (/), parentheses, and spaces. • Include 1 to 300 characters.
Review Result	The result of the review phase for the decision maker's reference.
Expert Comments	Review result and reviewer comments for the decision-maker's reference.

Step 8 Select **Approve** or **Reject** for **Result**, and click **OK**. The BR status changes to **End**.

----End

7.9.2.3 Creating and Completing GRs

When your work items need to be reviewed, perform the following steps to initiate a general review.

Constraints

- A maximum of **20** reviewers can be added.
- A maximum of **50** objects can be added to or associated with a single review ticket.

Creating a GR

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Review** > **General Review**. Then click **GR**.

Step 3 On the **GR** page, set the required parameters.

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Table 7-76 Creating a GR

Parameter	Description
GR Title	Title of the review. • Use letters, hyphens (-), underscores (_), commas (,), semicolons (;), colons (:), periods (.), slashes (/), parentheses, and spaces. • Include 1 to 256 characters.
Description	Enter the background, value, and details of the review. • Use text, images, or links. • Include 1 to 50,000 characters.
Start Time	The time when you want the review to start.
Completes	The time when you want the review to complete.
Decision-Maker	The decision-maker for a review at the decision phase. • When **Require Decision-Making** is disabled, this parameter is not displayed. That is, if **Decision-Maker** is not set in the review ticket, the review process will skip the **Pending Decision-Making** phase. • When **Require Decision-Making** is enabled, **Decision-Maker** is mandatory. You can configure **Decision-Maker** by referring to **Configuring Reviews**. By default, the options are **Project Admin** and **Project Manager**. You can select only one option. **NOTE** You can configure **Require Decision-Making** by referring to **Configuring Reviews**.
Review Expert	The expert reviewer for a review at the review stage. • When **Require Decision-Making** is enabled, **Review Expert** is optional. If **Review Expert** is not set, the review phase will be skipped. • If **Require Decision-Making** is disabled, **Review Expert** is mandatory. If **Decision-Maker** is not set in the review ticket, the review process will skip the **Pending Decision-Making** phase. You can configure **Review Expert** by referring to **Configuring Reviews**. Multiple options can be selected. **NOTE** You can configure **Require Decision-Making** by referring to **Configuring Reviews**.
Copy To	Select the project members you want to inform about this review.

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Parameter	Description
Associated Object	Add the objects to be associated with the GR. For IPD-system device projects, the review objects include RR, SF, IR, SR, AR, task, and bug. For IPD-standalone software projects, the review objects include RR, SF, IR, US, task, and bug.
Associated Files	Attachments, wikis, and documents related to the review.

Step 4 Click **Submit**.

You can view the new GR in the general review list. For the newly created GR:

- Click in the **Operation** column to copy the title, ID, current owner, status, and link information of the GR to the clipboard.
- Click in the **Operation** column to copy the title link of the GR to the clipboard.

----End

Related Operations

You can perform the following operations on a GR pending submission.

Table 7-77 Basic operations on a draft GR

Operation	Description
Modifying the title of a GR pending for submission	Click next to a GR title to modify it.
Modifying the fields of a GR pending submission	Click the target field value on the GR details page to modify it. After the modification, click **Submit**.
Copying the link of a GR pending for submission	Click in the **Operation** column to copy the title, ID, current owner, status, and link information of the GR to the clipboard. Click in the **Operation** column to copy the title link of the GR to the clipboard.

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Operation	Description
Deleting a GR pending for submission	Click in the **Operation** column of a GR to delete it.

Completing a GR

This operation is performed by the specified review experts and decision-maker for the GR.

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Review** > **Change Review**.

Step 3 Click the title of a GR in the **To Be Reviewed** state. The GR details page is displayed on the right.

Step 4 On the details page, click **Expert Review** in the upper right corner. In the displayed dialog box, set the required parameters.

Figure 7-55 Review by review experts

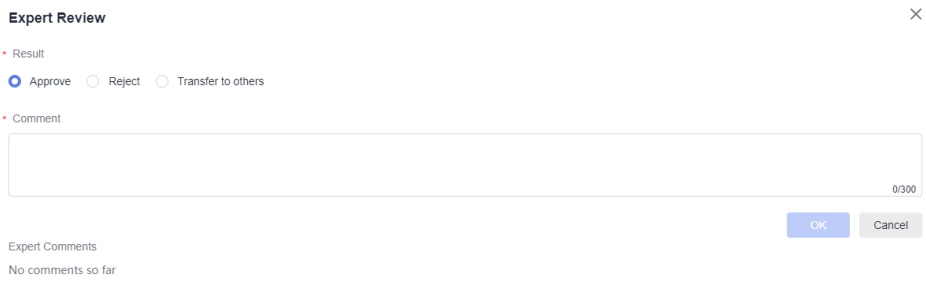

Table 7-78 Review by review experts

Parameter	Description
Result	Select your review result. • **Approve**: You agree with the change. • **Reject**: You do not agree with the change. • **Transfer to others**: Transfer the review to another review expert.
Comment	Your comments on the change. This parameter is required when **Result** is **Approve** or **Reject**. • Use letters, hyphens (-), underscores (_), commas (,), semicolons (;), colons (:), periods (.), slashes (/), parentheses, and spaces. • Include 1 to 300 characters.

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Parameter	Description
Expert Comments	Comments of other review experts.

Step 5 Select a review result (**Approve** or **Reject**) and click **OK**.

After the expert review is completed, the final review result can be determined using the selected method on the **Settings > Work > Review** page.

- **By single reviewer**: A GR is complete when one review expert approves or rejects it.
- **By all reviewers**: A GR is complete when all review experts approve it or one review expert rejects it.
- **By pass rate**: A GR is complete when "Number of review experts who approve the review/Total number of review experts × 100% ≥ Pass rate", or "Number of review experts who reject the review/Total number of review experts × 100% > 1 – Pass rate".

If a GR's result in the review phase is **Rejected**, the GR skips the decision-making phase and its final result is **Rejected**.

Step 6 Click the title of a GR in the **To Be Approved** state. The GR details page is displayed on the right.

Step 7 On the details page, click **Expert Review** in the upper right corner. In the displayed dialog box, set the required parameters.

Figure 7-56 Decide by reviewer

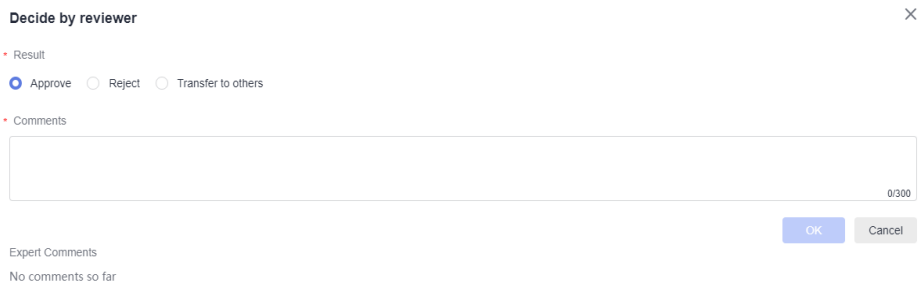

Table 7-79 Decide by reviewer

Parameter	Description
Result	Select your decision. • **Approve**: You agree with the change. • **Reject**: You do not agree with the change. • **Transfer to others**: Transfer the ticket to a new decision-maker.

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Parameter	Description
Comments	Your comments on the change. This parameter is required when **Result** is **Approve** or **Reject**. ● Use letters, hyphens (-), underscores (_), commas (,), semicolons (;), colons (:), periods (.), slashes (/), parentheses, and spaces. ● Include 1 to 300 characters.
Review Result	The result of the review phase for the decision maker's reference.
Expert Comments	Review result and reviewer comments for the decision-maker's reference.

Step 8 Select **Approve** or **Reject** for **Result**, and click **OK**. The GR status changes to **End**.

----End

7.9.2.4 Tracking and Closing Review Comments

Only BRs and GRs in IPD-system device projects and IPD-standalone software projects support converting review content (including review comments and decision-making comments) into work items for tracking and closure.

Prerequisites

- A project has been created.
- A BR or GR has been created.
- Review comments have been generated in the BR or GR.

Converting Review Comments into Work Items

The following procedure uses a BR as an example. The procedure for a GR is similar.

Step 1 On the project homepage, choose **Review** > **Baseline Review**.

Step 2 Click the title of a BR whose status is **Pending review**, **Waiting for Decision-making**, **Approved**, or **Rejected**. The BR details page is displayed on the right.

Step 3 Convert review comments or decision-making comments on the details page to work items.

- For the BR whose status is **Pending review**, perform the following operations:
  a. In the **Expert Comments** area of the details page, select the comment to be converted to a work item.
  b. Click  in the **Operation** column. The dialog box for creating work items is displayed.
- For the BR whose status is **To Be Approved**, perform the following operations:
  a. In the **Review Result** area of the details page, select the comment to be converted to a work item.

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One or more comments can be selected.

b. Click in the **Operation** column. The dialog box for creating work items is displayed.

- For the BR whose status is **Passed** or **Rejected**, perform the following operations:

  a. In the review result or BR decision-making result area of the details page, select the expert or decision-making comment to be converted to a work item.

  One or more comments can be selected.

  b. Click in the **Operation** column. The dialog box for creating work items is displayed.

Step 4 Set work item information, including the work item type and description.

The work item type can be IR, Task, or Bug. The work item title and description are automatically populated with review comments and can be modified.

Specify work item fields as required.

Step 5 Click **OK**.

On the **Related Items** tab of the current BR details page, all work items converted from review comments or decision-making comments are displayed in the **Tracking of remaining items from review orders** area.

On the **Related Items** tab of the work item converted from review comments or decision-making comments, the review comments or decision-making comments associated with the work item are displayed in the **Associated open issue review form** area.

----End

7.9.3 Review Check Items

7.9.3.1 Process of Configuring Review Check Items

This section describes how to configure review check items and use them in a project. **Figure 7-57** shows the process of configuring review check items. **Table 7-80** describes the configurations.

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Figure 7-57 Process of configuring review check items

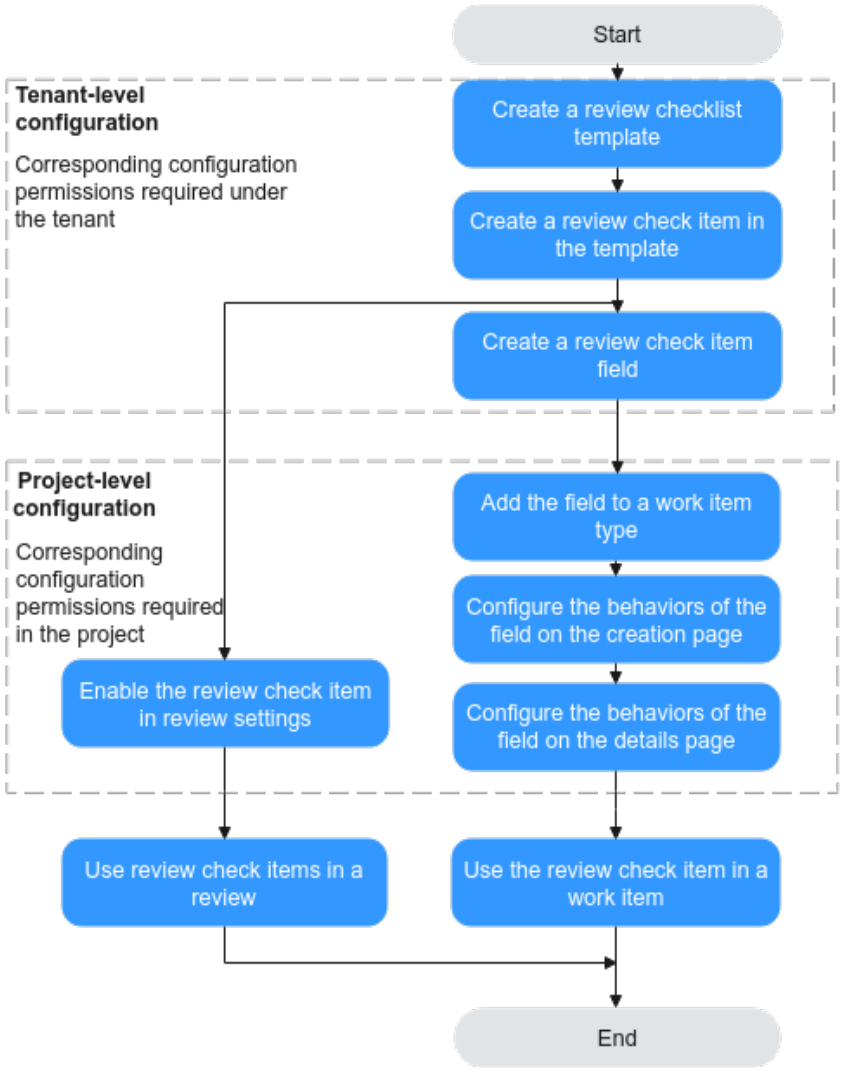

Table 7-80 Operations in configuring review check items

Operation	Description
Create a review checklist template	Review check items are aggregated using a review checklist template. Review check items used in work items or reviews are also based on the review checklist template. Therefore, you need to create a review checklist template. For details, see **Creating a Review Checklist Template**.
Create review check items in the template	A review checklist template can contain multiple review check items. After creating a review checklist template, you need to create review check items in the template. For details, see **Creating a Review Check Item in the Template**.

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Operation	Description
Create a field of the review check item type	Review check items are applied to specific work items as fields of the review check item type. Therefore, you need to create a field of this type and specify the associated review checklist template for the field. For details, see **Creating a Field of the Review Check Item Type**.
Add the field to the work item type	After creating a field of the review check item type, you need to add it to the field list of the corresponding work item type. For details, see **Adding a Review Check Item Field to a Work Item Type**.
Configure the field behaviors on the creation page	After adding a field of the review check item type to a work item type, if you have special requirements for the field behavior on the creation page (for example, you want the field to be mandatory on the work item creation page), you need to configure the field behaviors on the creation page. For details, see **Configuring the Behaviors of A Review Check Field on the Creation Page**.
Configure the field behaviors on the details page	After adding a field of the review check item type to a work item type, if you have special requirements for the field behavior on the details page (for example, you want the field to be mandatory in some statuses on the work item details page), you need to configure the field behaviors on the details page. For details, see **Configuring the Behaviors of A Review Check Field on the Details Page**.
Enable review check items in review settings	If review check items need to be used in reviews, you need to enable them in the review settings. For details, see **Enabling Review Check Items in Review Settings**.
Use review check items in work items	After configuring review check item fields and their behaviors, you can view the fields added in **Adding a Review Check Item Field to a Work Item Type** when creating a work item in a project or accessing the work item details page. You can then fill in the review results and remarks. For details about how to use review check items in work items, see **Using Review Check Items in Work Items**.
Use review check items in reviews	After enabling review check items in review settings and setting the review check item template associated with the review, you can view the review check items associated with the review when initiating a review or performing a review/decision-making in a project. You can then fill in the review results and remarks. For details about how to use review check items in a review, see **Using Review Check Items in Reviews**.

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7.9.3.2 Configuring a Review Checklist Template and Check Items

Review check items can be used for self-check by work item creators and check by review experts or decision makers in a project. Review check items are aggregated using a review checklist template. Review check items used in work items or reviews are also based on the review checklist template. Therefore, you need to create a review checklist template. A review checklist template can contain multiple review check items. After creating a review checklist template, you need to create review check items in the template.

Constraints

- A maximum of 100 review checklist templates can be created.
- A review checklist template can contain a maximum of 50 check items.
- A review checklist template that has been associated with a work item type or review cannot be deleted.

Prerequisites

You must have the permissions of the **Tenant Administrator** role. For details about how to assign the **Tenant Administrator** role to a user, see **Creating a User Group and Assigning Permissions**.

Creating a Review Checklist Template

Step 1 Access the **CodeArts Req** homepage and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Template Settings** > **Checklist Templates**.

Step 4 Click **Create New Template**.

Step 5 Set the parameters for creating a review checklist template by referring to **Table 7-81**.

Table 7-81 Parameters for creating a review checklist template

Parameter	Description
Template name	Name of the review checklist template to be created. • The name contains a maximum of 50 characters. • A tenant can have a maximum of 100 templates. • The name must be unique.
Description	Description of the review checklist template to be created. This parameter is optional. It can contain up to 500 characters.

Step 6 Click **OK**. The created review checklist template is displayed in the list.

You can perform the following operations on the created review checklist template.

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Table 7-82 Managing a review checklist template

Operation	Description
Edit review checklist template	Click . On the displayed page, you can modify the template name and description and create a check item. For details about how to create a check item, see **Creating a Review Check Item in the Template**.
Edit review checklist template	Click to copy the review checklist template.
Delete review checklist template	Click , read the information, and click **Delete**. **NOTE** • If the current work item type has been associated with a work item type template, cancel the association on the **Work Item Type Templates** page and then delete template. • If the current review checklist template has been used by a review in the project, cancel the association in the review settings of the project and then delete the template.

----End

Creating a Review Check Item in the Template

Step 1 Access the **CodeArts Req** homepage and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Template Settings** > **Checklist Templates**. The existing checklist templates are displayed.

Step 4 Locate the checklist template for which you want to create a review checklist item and click to go to the template editing page.

Step 5 Click **New check item**. The check item creation window is displayed.

Step 6 Set the parameters for creating a review check item by referring to **Table 7-83**.

Table 7-83 Parameters for creating a review check item

Parameter	Description
Check item name	Name of the review item to be created. The name contains a maximum of 200 characters.
Description	Description of the review item to be created. This parameter is optional. The description is displayed as a prompt in the checklist on the work item creation page. It can contain up to 500 characters.

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Step 7 Click **OK**. The created review check item is displayed in the list.

NOTE

- Click **Save** to save the check item. It takes effect only after being released.
- After a released template is modified and saved, you can click **Reset template** to restore the template to the latest released version.
- Click **Cancel** to exit the page for editing the review check item template and cancel the modification.

You can perform the following operations on the created check item.

Table 7-84 Managing a review check item

Operation	Description
Edit review check item	Click to modify the check item name and description.
Delete review check item	Click to delete the check item.

----End

7.9.3.3 Configuring a Field of the Review Check Item Type

Review check items are applied to specific work items as fields of the review check item type. Therefore, you need to create a field of this type and specify the associated review checklist template for the field.

Constraints

A field of the review check item type can be associated with a maximum of 20 review checklist templates.

Prerequisites

You must have the permissions of the **Tenant Administrator** role. For details about how to assign the **Tenant Administrator** role to a user, see **Creating a User Group and Assigning Permissions**.

Creating a Field of the Review Check Item Type

Step 1 Access the **CodeArts Req** homepage and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Basic Settings** > **Work Item Fields**.

Step 4 Click **Create Field**. In the displayed window, set the field information by referring to **Table 7-85**.

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Table 7-85 Parameters for creating a field of the review check item type

Parameter	Description
Field Name	Name of the field to be created.
Field Type	Type of the field to be created. It must be set to **Review check items**.
Related Review Check Item Template	When **Field Type** is set to **Review check items**, a review checklist template must be associated. Select a created review check item template from the **Related Review Check Item Template** drop-down list.
Description	Description of the field to be created. This parameter is optional.

Step 5 Click **Publish**. The created review check item field is displayed in the list.

You can perform the following operations on a new field.

Table 7-86 Managing a field

Operation	Description
Edit field	Click to modify the field name, associated review checklist template, and description.
Delete field	Click , read the information, and click **Delete**. **NOTE** If the current field has been associated with a work item type, cancel the association before deleting the field.

----End

7.9.3.4 Configuring the Field and Its Behaviors in Work Item Management

If review check items need to be used in work items, you need to add a review check item field for the corresponding work item type in the project and configure the behaviors of the field on the creation and details pages. Work item types include RRs, SFs, IRs, SRs, ARs, tasks, and bugs.

Prerequisites

- A project has been created.
- You have the permission to set work item templates on the work configuration page.

Adding a Review Check Item Field to a Work Item Type

Step 1 Go to the project details page.

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Step 2 Choose **Settings** > **Work Item** > **Work Item Management**.

Step 3 Add a review check item field to a work item type.

1. On the **Fields** page, select the work item type, for example, **Raw Requirement(RR)**, to which you want to add a review check item field.
2. Click **Add Field**. The **Add Field** window is displayed.
3. Click the **Field Name** drop-down list. The review check item fields added in **Configuring a Field of the Review Check Item Type** are displayed in the list.
4. Select a review check item field from the **Field Name** drop-down list. Retain the default values for other parameters.
5. Confirm the settings. The field is added.

   New field information will be displayed at the bottom of the field template list and in **Common Field**.

----End

Configuring the Behaviors of A Review Check Field on the Creation Page

If you have special requirements for the behaviors of this field on the creation page (for example, you want this field to be mandatory on the work item creation page), you need to configure the behaviors of this field on the details page in the field template.

Step 1 Go to the project details page.

Step 2 Choose **Settings** > **Work Item** > **Work Item Management**.

Step 3 Configure the behaviors of a review check item type field on the creation page for a work item type.

1. On the **Fields** page, select the desired work item type, for example, **Raw Requirement(RR)**.
2. In the **Fields** list, set the parameters of the review check item fields by referring to **Table 7-87**.

Table 7-87 Field template parameters

Parameter	Description
Display During Creation	Specify whether to display the field on the creation page. – If the switch is toggled on ( ), the field is displayed on the creation page. – If the switch is toggled off ( ), the field is not displayed on the creation page.

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Parameter	Description
Required	Specify whether the field is mandatory on the creation page. – If the switch is toggled on (), the field is mandatory on the creation page. – If the switch is toggled off ( ), the field is optional on the creation page.
Default Value	Unavailable for review check item fields. Therefore, you do not need to set it.

----End

Configuring the Behaviors of A Review Check Field on the Details Page

If you have special requirements for the behaviors of this field on the details page (for example, you want this field to be mandatory on the work item details page), you need to configure the behaviors of this field on the details page in the status flow.

Step 1 Go to the project details page.

Step 2 Choose **Settings** > **Work Item** > **Work Item Management**.

Step 3 Configure the behaviors of a review check item type field on the details page for a work item type.

1. On the **Status Flow** page, select the desired work item type, for example, **Raw Requirement(RR)**.
2. Click **Edit**. The status flow configuration canvas for the work item type is displayed.
3. Click the status node to be edited. On the displayed page, configure the status.
4. **Field Configuration** is enabled by default. If it is disabled, fields cannot be edited. You need to enable it first.
5. If there is no review check item field, click **Add Field**. In the displayed **Add Field** dialog box, add a field.
6. Configure the behaviors of a review check field on the details page.

   Find the review check item field in the field configuration list. Set attributes, including **Visible**, **Editable**, **Required**, and **Role to Edit**, for the field in the current status.

Table 7-88 Field configuration items

Attribute	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.

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Attribute	Description
Editable	Set whether the field is editable in a work item of the current status.
Required	Set whether the field is mandatory in a work item of the current status. If the field is mandatory, it will be marked with an asterisk (*).
Controlled or Not	Review check item fields cannot be controlled. You do not need to set this attribute.
Role to Edit	Select a role from the drop-down list. The options are **Default** and **Custom**.

Step 4 After the field attributes are configured, click **Update Status Flow**.

If the updated custom status flow is the currently used one, you can use it in projects that use the work item type.

----End

7.9.3.5 Enabling Review Check Items in Review Settings

Prerequisites

- A project already exists.
- A review checklist template has been configured.
- You have the permission to set reviews on the work configuration page.

Enabling Review Check Items in Review Settings

Step 1 Go to the project and choose **Settings** > **Work Item** > **Review** > **Basic Review Settings**.

Step 2 Configure review check items.

Configure whether to enable review check items for the review and select the review checklist template to be used.

1. Configure whether to enable review check items.
   - If the switch is toggled on ( ), review check items are enabled. If review check items need to be used in reviews, toggle on the switch.
   - If the switch is toggled off ( ), review check items are disabled.
2. Configure the associate review checklist template.

   Click in the row of the review. In the displayed dialog box, select **Related Review Check Item Template** from the drop-down list and click **OK**.

----End

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7.9.3.6 Using Review Check Items in Work Items

After configuring review check item fields and their behaviors, you can view the review check items associated with a work item when creating a work item in a project or accessing the work item details page. You can then fill in the review results and remarks.

Prerequisites

- A project already exists.
- The review check item type fields and their behaviors have been configured for the work item type to be created.

Configuring Review Check Items on the Work Item Creation Page

For a work item type for which the review check item type fields and their behaviors have been configured, you can configure review check items on the page for creating a work item of this type.

Step 1 On the project homepage, select the work item type for which the review check item fields have been configured. The following uses raw requirement as an example. The configuration for other work item types is similar.

Step 2 Select **Raw Requirements**.

Step 3 Click **+ RR**. The **RR** page is displayed.

Step 4 Enter the basic information about the raw requirement.

Step 5 Configure the review check item fields.

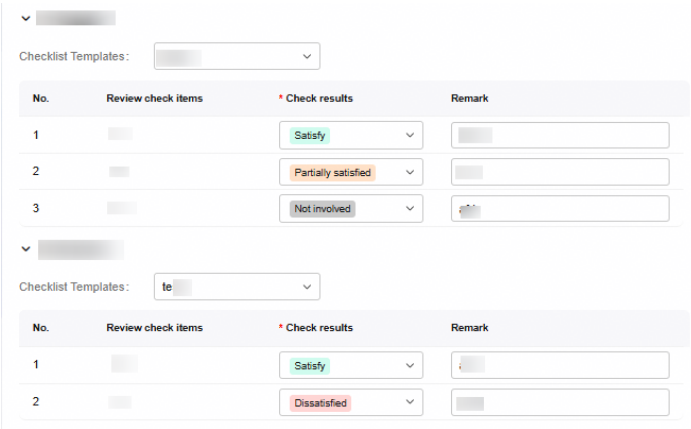
1. Select a review checklist template.

   Click the **Review Check Item Template** text box and select an associated review checklist template from the drop-down list.

2. Enter the review check result and remarks.

   Enter the check result and remarks for each review check item in the selected review checklist template. The check result can be **satisfy**, **dissatisfied**, **partially satisfied**, or **Not involved**. Select a value as required.

3. If multiple review check item type fields are configured for the work item type, repeat **Step 5.1** and **Step 5.2** to configure all the fields.



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Step 6 Click **Submit**. The **Raw Requirements** page is displayed and "Request submitted successfully" is displayed in the upper right corner. The new work item is displayed in the raw requirement list. The work item is in the initial status.

----End

Managing Review Check Items on the Work Item Details Page

For a work item type for which the review check item type fields and their behaviors have been configured, you can manage review check items on the details page of a work item of this type. If you have not selected the fields of the review check item type in the review checklist template on the work item creation page, configure them by referring to **Step 5**. If you have configured these fields on the work item creation page, manage review check items as follows:

1. Click the name of a work item type to access the work item details page.
2. Manage review check items on the details page by referring to the following table.

Table 7-89 Managing review check items on the details page

Operation	Procedure	Remarks
View the field information of the review check item type	The work item details page displays the field information of associated review check items, including their selected templates, specific check items, check results, and remarks.	You have configured the review check item fields of the work item type to be displayed in the corresponding status on the details page by referring to **Configuring the Behaviors of A Review Check Field on the Details Page**.

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Operation	Procedure	Remarks
Modify the associated review checklist template	On the work item details page, you can modify the review checklist template associated with the review check item field and set the review check result and remarks. 1. Click the selected review checklist template name in the **Review Check Item Template** text box and select another review checklist template associated with the field from the drop-down list. 2. Enter the check result and remarks for each review check item in the selected review checklist template. The check result can be **satisfy**, **dissatisfied**, **partially satisfied**, or **Not involved**. Select a value as required. 3. Confirm the modifications. A message is displayed in the upper right corner of the page, indicating that the review check item fields are updated. **NOTE** If you want to re-modify the review check item fields that have been confirmed, click the reset button to restore them to the latest version.	You have configured the review check item fields of the work item type to be editable in the corresponding status on the details page by referring to **Configuring the Behaviors of A Review Check Field on the Details Page**.

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Operation	Procedure	Remarks
Modify the check result	On the work item details page, you can modify the check result of each review check item. 1. Click the check result to be modified. In the displayed drop-down list, re-select the check result. 2. Confirm the modifications. A message is displayed in the upper right corner of the page, indicating that the review check item fields are updated.	You have configured the review check item fields of the work item type to be editable in the corresponding status on the details page by referring to **Configuring the Behaviors of A Review Check Field on the Details Page**.
Modify remarks	On the work item details page, you can modify the remarks of each review check item. 1. Click the remarks to be modified and enter new remarks. 2. Confirm the modifications. A message is displayed in the upper right corner of the page, indicating that the review check item fields are updated.	You have configured the review check item fields of the work item type to be editable in the corresponding status on the details page by referring to **Configuring the Behaviors of A Review Check Field on the Details Page**.

7.9.3.7 Using Review Check Items in Reviews

After enabling review check items in review settings and setting the review check item template associated with the review, you can view the review check items associated with the review when initiating a review or performing a review/decision-making in a project. You can then fill in the review results and remarks.

Configuring Review Check Items in a Change Review

Review check items for change reviews have been enabled in review settings, and the associated review checklist template has been set. You can configure review check items on the page for creating a CR and view the review check items on the CR details page.

Step 1 On the project homepage, choose **Review** > **Change Review**.

Step 2 Click **CR**.

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Step 3 Enter the CR information by referring to **Table 7-68**.

Step 4 Configure review check items.

1. Select a review checklist template.

   Click **Select** in the **Review Check Item Template** text box and select an associated review checklist template from the drop-down list.

2. Enter the review check result and remarks.

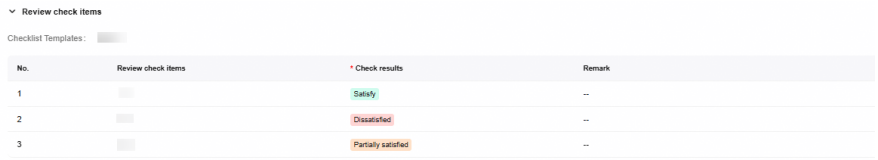
   Enter the check result and remarks for each review check item in the selected review checklist template. The check result can be **satisfy**, **dissatisfied**, **partially satisfied**, or **Not involved**. Select a value as required. Remarks are optional. You can determine whether to enter remarks as required.

Step 5 Click **Submit**.

You can view the new CR in the CR list.

Step 6 In the CR list, click the name of the new CR.

You can view the configured review check items on the details page.



----End

Configuring Review Check Items in a Baseline Review

Review check items for baseline reviews have been enabled in review settings, and the associated review checklist template has been set. You can configure review check items on the page for creating a BR and view the review check items on the BR details page.

Step 1 On the project homepage, choose **Review** > **Baseline Review**.

Step 2 Click **BR**. The **BR** page is displayed.

Step 3 Enter the BR information by referring to **Table 7-72**.

Step 4 Configure review check items.

1. Select a review checklist template.

   Click **Select** in the **Review Check Item Template** text box and select an associated review checklist template from the drop-down list.

2. Enter the review check result and remarks.

   Enter the check result and remarks for each review check item in the selected review checklist template. The check result can be **satisfy**, **dissatisfied**, **partially satisfied**, or **Not involved**. Select a value as required. Remarks are optional. You can determine whether to enter remarks as required.

Step 5 Click **Submit**.

You can view the new BR in the BR list.

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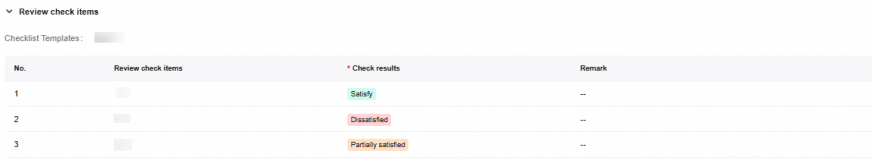
Step 6 In the BR list, click the name of the new BR.

You can view the configured review check items on the details page.



----End

Configuring Review Check Items in a General Review

Review check items for general reviews have been enabled in review settings, and the associated review checklist template has been set. You can configure review check items on the page for creating a GR and view the review check items on the GR details page.

Step 1 On the project homepage, choose **Review** > **General Review**.

Step 2 Click **GR**. The **GR** page is displayed.

Step 3 Enter the GR information by referring to **Table 7-76**.

Step 4 Configure review check items.

1. Select a review checklist template.

   Click **Select** in the **Review Check Item Template** text box and select an associated review checklist template from the drop-down list.

2. Enter the review check result and remarks.

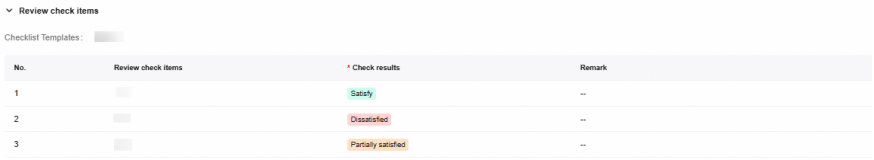
   Enter the check result and remarks for each review check item in the selected review checklist template. The check result can be **satisfy**, **dissatisfied**, **partially satisfied**, or **Not involved**. Select a value as required.

Step 5 Click **Submit**.

You can view the new GR in the GR list.

Step 6 In the GR list, click the name of the new GR.

You can view the configured review check items on the details page.



----End

7.10 Tracking the Project Progress

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7.10.1 Using Project Overview

During a project, you can track the work item progress in the project overview.

Viewing the Project Overview

In the project overview, statistical charts display all project data in two dimensions.

- By release: Select the release and sprint for display. For details about statistical items, see **Table 7-90**.

Table 7-90 Statistical charts

Statistics Type	Data Description
Project statistics overview	Displays the numbers of total, uncompleted, completed, and overdue work items of the selected release.
Release burndown	Click next to the chart title to view the description of statistical items. Displays the remaining workload, total workload, and ideal line. You can select specific work items (IRs, SRs, ARs, tasks, and bugs) to view and download them. This chart helps you identity risks in the release progress.
Release capacity load	Click next to the chart title to view the description of statistical items. Displays workloads of release plans, sprints, and each work item in bar charts. This chart helps you check whether the actual workloads exceed the planned ones.
Bug trend	Click next to the chart title to view the description of statistical items. Uses a line chart to display the numbers of daily discovered and resolved bugs as well as the remaining defect index (DI). This chart helps you understand the bug trend in the current release.
Work item statistics for project members (by priority)	Click next to the chart title to view the description of statistical items. Uses a bar chart or table to display the numbers of different work item types under each member in the current release by priority. This chart helps you understand the priorities of work items under each member.

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Statistics Type	Data Description
Work item completion	Click  next to the chart title to view the description of statistical items. Uses a line chart to display the numbers of completed and total work items of each type in the current release. This chart helps you learn about the release's daily completion status.
Work item statistics for project members (by status)	Click  next to the chart title to view the description of statistical items. Uses a bar chart or table to display the numbers of different work item types in different statuses under each member in the current release. This chart helps you learn about the work item progress of each member.
Requirement breakdown rate	Click  next to the chart title to view the description of statistical items. Uses a bar chart to display the proportion of broken-down to total work items of each type in the current release. This chart helps you learn about the work item breakdown progress of the current release.
Work item completion rate	Click  next to the chart title to view the description of statistical items. Uses a column chart to display the numbers of completed and total work items of each type in the current release. This chart helps you learn about the release's completion status by work item or planned workload.
Requirement TTM	Click  next to the chart title to view the description of statistical items. Uses a bar chart to display the average time that each requirement type of the selected release takes to complete since it is created or submitted.
Work items by status	Click  next to the chart title to view the description of statistical items. Uses a pie chart or table to display the number and proportion of work items of each type in different statuses under the current release. This chart helps you learn about the release's work items in different statuses.
Work item stay days	Click  next to the chart title to view the description of statistical items. Uses a column chart to display the average number of days that work items of each type stay in each status (except for a **Done** status) in the current release. This chart helps you identify the delivery bottlenecks in your team.

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Statistics Type	Data Description
Unfinished work items by member	Click next to the chart title to view the description of statistical items. Uses a bar chart or table to display the number of uncompleted work items of each member under the current release. This chart helps you check whether the work item assignment of each member is appropriate.
Member workloads	Click next to the chart title to view the description of statistical items. Uses a bar chart to display the number of total workloads created by project members on the detailed workload tab page of each type of work item.

- By creation time: Select a time range for display. Time options include **All**, **Last 7 days**, **Last 14 days**, **Last 30 days**, **Last 90 days**, and **Custom**. For details about statistical items, see **Table 7-91**.

Table 7-91 Statistical charts

Statistics Type	Data Description
Project statistics overview	Displays the numbers of total, unfinished, completed, and overdue work items and reviews in the selected time period.
Proposed raw requirements (by project)	Click next to the chart title to view the description of statistical items. Uses a bar chart or table to display the number of RRs submitted by the current project to other projects in the selected time range.
Received raw requirements (by project)	Click next to the chart title to view the description of statistical items. Uses a bar chart or table to display the number of RRs submitted by other projects to the current project in the selected time range.
Work item statistics for project members (by priority)	Click next to the chart title to view the description of statistical items. Uses a bar chart or table to display the number of each work item type created by project members within the selected time range by priority.

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Statistics Type	Data Description
SF and R&D requirement association	Click next to the chart title to view the description of statistical items. Uses a bar chart to display the number of SFs associated with R&D requirements/the total number of SFs created within the selected time range.
Work item statistics for project members (by status)	Click next to the chart title to view the description of statistical items. Uses a bar chart or table to display the number of each work item type created by project members within the selected time range by priority.
Requirement breakdown rate	Click next to the chart title to view the description of statistical items. Uses a bar chart to display the proportion of broken-down to total requirements (RRs/IRs/SRs) created within the selected time range.
Work item completion rate	Click next to the chart title to view the description of statistical items. Uses a bar chart to display the completion rate of each work item type created within the selected time range by quantity and planned workload. • By quantity: Displays the proportion of completed to total work items created within the selected time range. • By planned workload: Displays the planned workloads of completed work items divided by the planned workloads of all work items created within the selected time range.
Requirement TTM	Click next to the chart title to view the description of statistical items. Uses a bar chart to display the average time that each requirement type created within the selected time range takes to complete since it is created or submitted.
Work items by status	Click next to the chart title to view the description of statistical items. Uses a bar chart or table to display the number of each requirement type created by each project member within the selected time range by status.
Work item stay days	Click next to the chart title to view the description of statistical items. Uses a bar chart to display the average number of days that work items created within the selected time range stay in each uncompleted state.

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Statistics Type	Data Description
Unfinished work items by member	Click next to the chart title to view the description of statistical items. Uses a bar chart or table to display the number of each unfinished work item type of project members whose creation time is within the selected time range.
Member workloads	Click next to the chart title to view the description of statistical items. Uses a bar chart to display the total actual workloads of each work item type created by project members within the selected time range.

7.10.2 Using Bug Measurement

You can use bug measurement to track the defect progress.

Viewing the Bug Measurement

By default, the bug measurement view displays the following statistical charts: bug overview, legacy DI trend, accumulated bugs, bug daily throughput, bug distribution by severity, bug distribution by status, and top 8 owners with legacy bugs.

- Numerical statistical charts: The indicator value represents data for all work items in real time. For example, the total number of bugs in **Bug Overview** is equal to the total number of bugs during statistics collection.
- Trend charts: The indicator value represents the daily data. For example, the total number of legacy bugs on June 7 in **legacy DI Trend** is equal to the total number of legacy bugs on June 7.

The following table lists the statistical charts in bug measurement.

Table 7-92 Statistical charts

Statistical Chart	Data Description
Bug overview statistics	Collects the numbers of total, uncompleted, completed, overdue, and major or critical bugs at the current time. Click a number to view the corresponding list.

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Statistical Chart	Data Description
Legacy DI trend	Collects statistics on the DI trend of legacy bugs in the selected time range. • DI: indicates the value calculated based on the weight of bugs at each severity level. • Legacy DI = Number of legacy critical bugs x 10 + Number of legacy major bugs x 3 + Number of legacy minor bugs x 1 + Number of legacy suggestion bugs x 0.1
Accumulated bugs	Shows the trends of accumulated bugs found, resolved bugs, and legacy bugs. Cumulative number of legacy bugs = Cumulative number of found bugs – Cumulative number of resolved bugs.
Bug daily throughput	Collects the number of bugs found and fixed in the selected time period.
Bug distribution by severity	Collects statistics on the number of bugs by severity at the current time.
Bug distribution by status	Collects statistics on the number of bugs by status at the current time.
Top 8 owners with legacy bugs	Collects top 8 owners of legacy bugs at the current time and displays the bug number.

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8 Managing IPD-Standalone Software Project Requirements

8.1 Requirement Management Process

IPD-standalone software projects are designed for large-scale software development scenarios based on structured processes and powerful cross-project collaboration. They help you manage development with efficiency and quality, covering raw requirements (RRs), system features (SFs), R&D requirements, tasks, and bugs. During requirement implementation, tasks are the activities generated, and bugs are the problems found.

Figure 8-1 IPD-standalone software projects

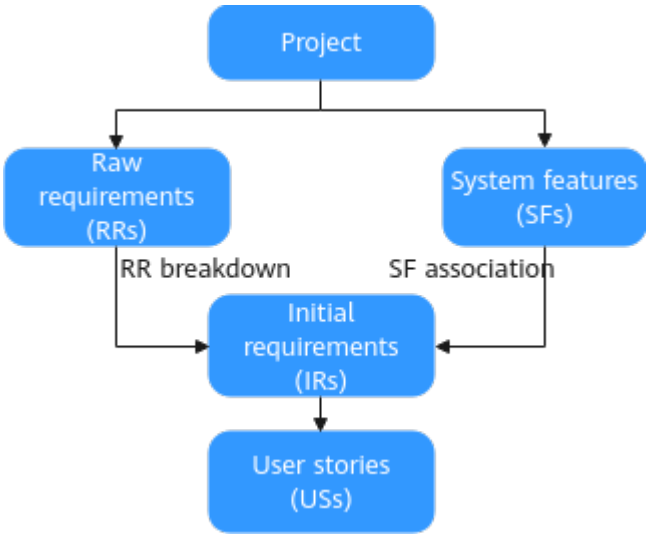

Table 8-1 lists the important operations for IPD-standalone software projects.

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Table 8-1 Operation description for IPD-standalone software projects

Function	Description	Billing
Raw requirement (RR)	RRs are raw problems or requirements described from the perspective of customers. Customer requirements are a type of RRs, which need to be analyzed and reviewed by the RMT/RAT. For details about how to create and manage RRs, see **Creating and Managing RRs**.	You need to upgrade the package to the professional or higher edition. For details about the billing change, see **Impact on Billing After Specification Change**.
Feature tree (FT)	FTs contain feature sets and SFs. • Feature set: aggregates and manages SFs. Multi-level relationships can be established for the feature set, and the feature tree version snapshot and snapshot comparison functions are provided. • SF: feature that brings benefits. SFs can have different types of child work items in this hierarchy: SF > IR > US.	
System feature (SF)	SFs are major capabilities of offering requirements or services to support problems (PBs). • Offering requirements: a group of complete, consistent, and series of formal requirements planned by product managers/planning representatives. In principle, SFs are a set of key selling points (highlights) of an offering. Each SF is an E2E solution that meets customers' specific business value requirements. Some SFs can be sold separately via license control. • PBs: challenges and opportunities faced by customers (customer strategies and pain points), that is, key problems solved by a product or service for customers. Resolving key problems can bring core value to customers. For details about how to create system features, see **Creating System Features**.	

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Function	Description	Billing
R&D requirement (IR/US)	There are two work item types under R&D requirements: • Initial requirement (IR) IRs are re-described accurately, with complete background, in standard format, and from the perspective of customers/markets. • User story (US) User stories are brief descriptions of functions that are valuable to users or customers, which comply with the Independent, Negotiable, Valuable, Estimable, Small, and Testable (INVEST) principles. USs are decoupled and can be delivered independently, which is the basis of agile sprint delivery. For details about how to create and manage R&D requirements, see **Creating and Managing R&D Requirements**.	
Task	Tasks are activities with a certain goal. For details about how to create and manage tasks, see **Creating and Managing Tasks**.	
Bug	Bugs are problems found in a project. For details about how to create and manage bugs, see **Creating and Managing Bugs**.	

8.2 Common Configuration Management

8.2.1 Configuring Common Work Item Fields

Customize common fields that can be used by any type of work items in your project.

Prerequisites

- An IPD-standalone software project is available, in which you have permission to **configure work item templates**.
- You have the **Tenant Administrator** permission.
- A maximum of 150 common fields can be customized in a project.

Configuring Common Fields in a Project

Step 1 **Access the CodeArts Req homepage**.

Step 2 Go to the project and choose **Settings** > **Work**.

Step 3 In the navigation pane, choose **Work Items** > **Common Field**.

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Step 4 Click **Create Field**. In the dialog box that is displayed, set the required parameters.

Table 8-2 Creating a field

Parameter	Description
Field Name	Enter a maximum of 15 characters, including letters, digits, and hyphens (-).
Field Type	Type of the field. The options include: single-choice list, multi-choice list, single-line text, multi-line text, date, date and time, integer, decimal, single-choice user, multi-choice user, level field, and review check item. If **Field Type** is set to **Multi-choice list**, set options as needed. You can enable **Quickly split sub-work items** as needed. When this switch is enabled, the corresponding number of child work items will be automatically generated during work item breakdown, based on the number of options selected.
Options	This parameter is displayed only when **Field Type** is set to **Single-choice list**, **Multi-choice list**, or **Level field**. • When **Field Type** is set to **Single-choice list** or **Multi-choice list**, you can click **Add Option** to add one option at a time. To add multiple options at a time, click **Add Multiple**. Separate options by pressing **Enter**. When there are multiple options, you can drag to adjust their positions. • When **Field Type** is set to **Single-choice list** or **Multi-choice list**, you can click to delete options. There is a default option, which cannot be deleted. • When **Field Type** is set to **Level field**, click **Edit Option**. In the **Edit Option** dialog box, click on the right of the text box to add field levels. A maximum of **6** levels can be added. Click **Add Option** to add fields of the same level. Click **Add Multiple** to add multiple options at a time. 
Related Review Check Item Template	This parameter is displayed only when **Field Type** is set to **Review Check Item**. Select a created review check item template from the **Related Review Check Item Template** drop-down list.
Description	Remarks about the field. Enter a maximum of 50 characters, including letters, digits, and hyphens (-).

Step 5 Click **OK**.

The new field is displayed at the end of the list. The parameters in this list are described in the following table.

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Table 8-3 Field list

Parameter	Description
Field Name	System or custom field name. Hover over the header and click to sort by field name.
Created/ Added By	The user who creates or adds a field. Hover over the header and click to sort by creator or adding user.
Created/ Added At	Time when a field is created or added. Hover over the header and click to sort by creation or addition time.
Field Type	System or custom field type. The options include: single-choice list, multi-choice list, single-line text, multi-line text, date, date and time, integer, decimal, single-choice user, multi-choice user, and level field. Hover over the header and click to sort by field type. Hover over the header and click to filter fields.
Option	Field option values. Displayed only when **Field Type** is set to **Single-choice list** or **Multi-choice list**.
Description	System or custom field description.
Status	Work item types that are currently using a system or custom field.
Operation	You can edit and delete a field. To edit a field, click in this column. • System fields cannot be edited. • Custom fields of your tenant cannot be edited here. To delete a field, click in this column. • System fields cannot be deleted. • Deleting a tenant-defined field only removes it from work item templates where it was previously used. It remains in the tenant's field list. • Deleted fields cannot be recovered.

Step 6 (Optional) Add a common field (for example, **CommonField01**) to a work item template.

The following uses the IR work item template as an example:

1. Choose **Work** > **Work Items > Initial Requirement (IR) > Field Templates**.
2. Click **Add Field**, select **CommonField01** from the **Field Name** drop-down list, and click **OK** to save the template.

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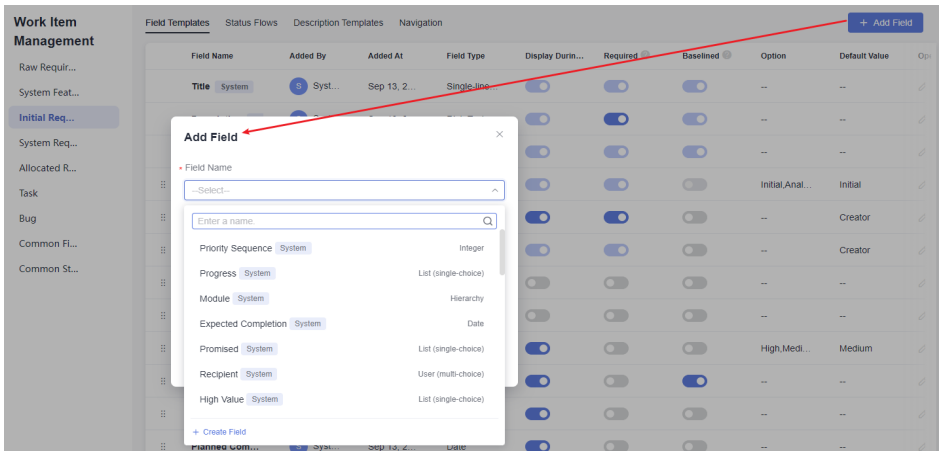
Figure 8-2 Add Field dialog box



3. Check this **CommonField01** field when creating or editing an IR on the **Work** > **Req** > **R&D Requirements** page.

   NOTE

   - Customized common fields can be configured and used for all types of work items of the current project.
   - The IR work item template is used as an example. You can add common fields to other work item templates in the same way, and only need to do this once for each of them.

----End

Related Operations

You can also configure tenant-level fields in the tenant settings. Then these fields can be used by any work item type under the project. For details, see **Configuring Work Item Fields**.

8.2.2 Adding a Field to a Work Item Type in a Project

If the system fields cannot meet your requirements, you can add fields for a work item type as required. Work item types include RRs, SFs, IRs, USs, tasks, and bugs.

Prerequisites

An IPD-standalone software project is available, in which you have permission to **configure work item templates**.

Procedure

Step 1 **Access the CodeArts Req homepage**.

Step 2 Go to a project and choose **Settings** > **Work**.

Step 3 In the navigation pane, select a work item type for which you want to add fields, for example, RR. On the **Fields** tab, click **Add Field**.

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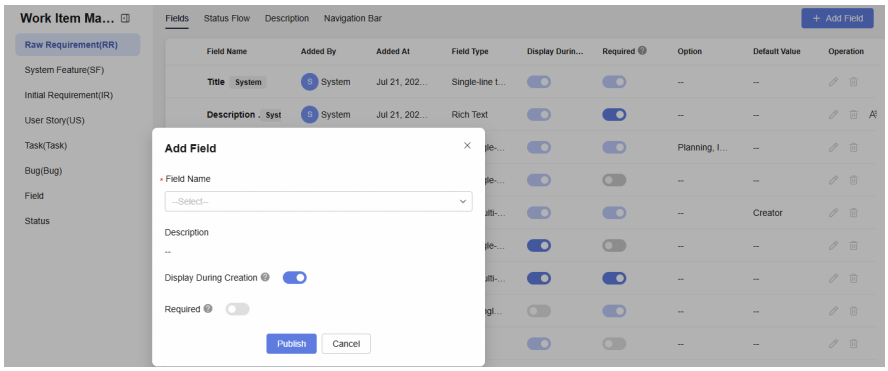

Step 4 Click the **Field Name** drop-down list. The field name value information is displayed.

Step 5 Select an existing field or create a field for the work item type.

- Adding an existing field
  a. Select an existing field.

     The fields configured in **Configuring Common Fields in a Project** and **Configuring Work Item Fields** are displayed in the value list of the displayed dialog box. You can search for a field in the **Enter a name** box, or scroll your mouse to select one. If no field in the list meets your requirements, go to **Step 5.a** to create a custom field.
  b. Specify what the selected field defaults to, whether to display it on creation pages, and whether it is mandatory.
  c. Click **Publish**. The added field is displayed in the field template list.
- Creating a field
  a. In the displayed dialog box, click **Create Field**.
  b. Set the field information by referring to **Table 8-4**.

Table 8-4 Parameters for creating a field

Parameter	Description
Field Name	Enter a maximum of 15 characters, including letters, digits, and hyphens (-).
Field Type	Type of the field. The options are **Single-choice list**, **Multi-choice list**, **Single-line text**, **Multi-line text**, **Date**, **Date and time**, **Integer**, **Decimal**, **Single-choice user**, **Multi-choice user**, **Level field**, and **Review check items**.

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Parameter	Description
Options	This parameter is displayed only when **Field Type** is set to **Single-choice list**, **Multi-choice list**, or **Level field**. ■ When **Field Type** is set to **Single-choice list** or **Multi-choice list**, you can click **Add Option** to add one option at a time. To add multiple options at a time, click **Add Multiple**. Separate options by pressing **Enter**. When there are multiple options, you can drag to adjust their positions. ■ When **Field Type** is set to **Single-choice list** or **Multi-choice list**, you can click to delete options. There is a default option, which cannot be deleted. ■ When **Field Type** is set to **Level field**, click **Edit Option**. In the **Edit Option** dialog box, click on the right of the text box to add field levels. A maximum of **6** levels can be added. Click **Add Option** to add fields of the same level. Click **Add Multiple** to add multiple options at a time. 
Related Review Check Item Template	This parameter is displayed only when **Field Type** is set to **Review Check Item**. Select a created review check item template from the **Related Review Check Item Template** drop-down list.
Default Value	This parameter is displayed only when **Field Type** is set to **Single-line text**, **Multi-line text**, **Date**, **Date and time**, **Integer**, **Decimal**, **Level field**, **Single-choice list**, or **Multi-choice list**. Set this parameter based on site requirements.
Display During Creation	This parameter is toggled on by default. If this parameter is toggled off, this field will not be displayed when a work item is created.
Required	This parameter is toggled off by default. If this parameter is toggled on, the new field is mandatory.
Baselined	This parameter is displayed only for SFs, IRs, and USs. This parameter is toggled off by default. If this parameter is toggled on, new fields will be locked and cannot be modified after work items (such as SFs) are baselined. If modification is required, a change process must be initiated.

c. Click **Publish**. The new field is displayed in the field template list.

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Step 6 (Optional) Manage fields. You can perform the following operations on fields in the field template list.

Table 8-5 Managing a field

Operation	Description
Editing a field	Click to specify whether to display the field on creation pages and whether it is mandatory. **System fields cannot be edited.**
Deleting a field	Click . In the displayed dialog box, click **Delete** to delete the field. **System fields cannot be deleted.**
Editing a field template	Editing the field template is supported only for fields of the rich text type. Click and edit the template of the rich text field in the displayed dialog box.

----End

8.2.3 Configuring Common Work Item Statuses

Customize common statuses that can be used by any type of work items in your project.

Prerequisites

- An IPD-standalone software project is available, in which you have permission to **configure work item templates**.
- You have the **Tenant Administrator** permission.
- A maximum of 150 common fields can be customized in a project.

Configuring Common Statuses in a Project

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **Work**.

Step 3 In the navigation pane, choose **Work Items** > **Common Status**.

Step 4 Click **Create Status** under **Add Status**. In the displayed dialog box, set the required parameters.

Table 8-6 Creating a status

Parameter	Description
Name	Enter a maximum of 30 characters, including letters, digits, and hyphens (-).

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Parameter	Description
Category	Category of the status. The options include **To Do**, **Doing**, and **Done**.
Description	Remarks about the status. Enter a maximum of 50 characters, including letters, digits, and hyphens (-).

Step 5 Click **OK**.

The new status is displayed at the end of the list. The parameters in this list are described in the following table.

Table 8-7 Status list

Parameter	Description
Name	System or custom status name. Hover over the header and click to sort by status name.
Created By	The user who creates a status. Hover over the header and click to sort by creator.
Created	Time when a status is created. Hover over the header and click to sort by creation time.
Category	System or custom status category. The options include **To Do**, **Doing**, and **Done**. Hover over the header and click to sort by status category. Hover over the header and click to filter statuses.
Status	Work item types that are currently using a system or custom status.
Description	System or custom status description.
Operation	You can edit and delete a status. To edit a status, click in this column. • System statuses cannot be edited. • Custom statuses of the tenant cannot be edited here. To delete a status, click in this column. • System statuses cannot be deleted. • Custom statuses that are currently in use by work items cannot be deleted. • Deleted statuses cannot be recovered.

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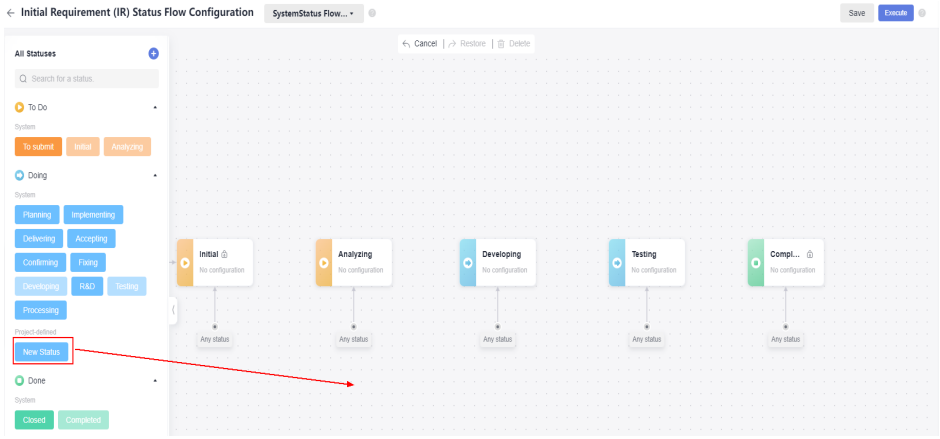
Step 6 (Optional) Add a common status (for example, **CommonStatus01**) to the work item status flow.

The following uses the IR work item status flow as an example:

1. Under **Work Configuration**, choose **Work Items > Initial Requirement (IR) > Status Flows**, and click **Edit**.
2. Click on the left, select **CommonStatus01** on the **All Statuses** panel, and drag it to the status flow canvas. Draw incoming and outgoing transition lines for the status, and click **Update Status Flow**.

Figure 8-3 Expanding all statuses



3. Check this **CommonStatus01** status in IRs' status flows on the **Work** > **Req** > **R&D Requirements** page.

NOTE

- Custom common statuses can be configured and used for all types of work items of the current project.
- The IR work item status flow is used as an example. You can add common statuses to other work item templates in the same way, and only need to do this once for each of them.

----End

Related Operations

You can also configure tenant-level statuses in the tenant settings. Then these statuses can be used in the workflow of any work item type. For details, see **Configuring Work Item Statuses**.

8.2.4 Configuring Work Item Templates

Customize different types of work item templates, and specify whether to display each field on work item creation pages, whether these fields are mandatory, and what they default to. These templates are used by default when you create work items.

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Prerequisites

- An IPD-standalone software project is available, in which you have permission to **configure work item templates**.
- You have the **Tenant Administrator** permission.
- A maximum of 150 common fields can be customized in a project.

Configuring Field and Description Templates for RRs

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **Work**.

Step 3 In the navigation pane, choose **Work Items** > **Raw Requirement (RR)** > **Field Templates**.

Step 4 Edit the field template as required.

- Click **Add Field** to add a system or custom field. If needed, click **Create Field** to create one.
- In the **Display During Creation** column, specify whether to show each system or custom field on the work item creation page.
- In the **Required** column, specify whether each system or custom field must be set.
- In the **Default Value** column, set a default value for each system or custom field.

Step 5 Click ⠿ on the left of each field to adjust their sequence.

Step 6 Choose **Work Items** > **Raw Requirement (RR)** > **Description Templates**. Then click **Edit**.

Customize the RR description template and click **Save**.

----End

Configuring Field and Description Templates for SFs

Step 1 Go to a project and choose **Settings** > **Work**.

Step 2 In the navigation pane, choose **Work Items** > **System Feature (SF)** > **Field Templates**.

Step 3 Edit the field template as required.

- Click **Add Field** to add a system or custom field. If needed, click **Create Field** to create one.
- In the **Display During Creation** column, specify whether to show each system or custom field on the work item creation page.
- In the **Default Value** column, set a default value for each system or custom field.
- Set **Default Value** for system or custom fields.
- In the **Baselined** column, specify whether to lock each system or custom field in the baseline.

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Step 4 Click ⠿ on the left of each field to adjust their sequence.

Step 5 Choose **Work Items** > **System Feature (SF)** > **Description Templates**. Then click **Edit**.

Customize the SF description template and click **Save**.

----End

Configuring Field and Description Templates for IRs

Step 1 Go to a project and choose **Settings** > **Work**.

Step 2 In the navigation pane, choose **Work Items** > **Initial Requirement (IR)** > **Field Templates**.

Step 3 Edit the field template as required.

- Click **Add Field** to add a system or custom field. If needed, click **Create Field** to create one.
- In the **Display During Creation** column, specify whether to show each system or custom field on the work item creation page.
- In the **Default Value** column, set a default value for each system or custom field.
- Set **Default Value** for system or custom fields.
- In the **Baselined** column, specify whether to lock each system or custom field in the baseline.

Step 4 Click ⠿ on the left of each field to adjust their sequence.

Step 5 Choose **Work Items** > **Initial Requirement (IR)** > **Description Templates**. Then click **Edit**.

Customize the IR description template and click **Save**.

----End

Configuring Field and Description Templates for User Stories

Step 1 Go to a project and choose **Settings** > **Work**.

Step 2 In the navigation pane, choose **Work Items** > **User Story (US)** > **Field Templates**.

Step 3 Edit the field template as required.

- Click **Add Field** to add a system or custom field. If needed, click **Create Field** to create one.
- In the **Display During Creation** column, specify whether to show each system or custom field on the work item creation page.
- In the **Default Value** column, set a default value for each system or custom field.
- Set **Default Value** for system or custom fields.
- In the **Baselined** column, specify whether to lock each system or custom field in the baseline.

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Step 4 Click ⠿ on the left of each field to adjust their sequence.

Step 5 Choose **Work Items > User Story (US) > Description Templates**. Then click **Edit**.

Customize the US description template and click **Save**.

----End

Configuring Field and Description Templates for Tasks

Step 1 Go to a project and choose **Settings > Work**.

Step 2 In the navigation pane, choose **Work Items > Task > Field Templates**.

Step 3 Edit the field template as required.

- Click **Add Field** to add a system or custom field. If needed, click **Create Field** to create one.
- In the **Display During Creation** column, specify whether to show each system or custom field on the work item creation page.
- In the **Required** column, specify whether each system or custom field must be set.
- In the **Default Value** column, set a default value for each system or custom field.

Step 4 Click ⠿ on the left of each field to adjust their sequence.

Step 5 Choose **Work Items > Task > Description Templates**. Then click **Edit**.

Customize the task description template and click **Save**.

----End

Configuring Field and Description Templates for Bugs

Step 1 Go to a project and choose **Settings > Work**.

Step 2 In the navigation pane, choose **Work Items > Bug > Field Templates**.

Step 3 Edit the field template as required.

- Click **Add Field** to add a system or custom field. If needed, click **Create Field** to create one.
- In the **Display During Creation** column, specify whether to show each system or custom field on the work item creation page.
- In the **Required** column, specify whether each system or custom field must be set.
- In the **Default Value** column, set a default value for each system or custom field.

Step 4 Click ⠿ on the left of each field to adjust their sequence.

Step 5 Choose **Work Items > Bug > Description Templates**. Then click **Edit**.

Customize the bug description template and click **Save**.

----End

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8.2.5 Configuring Work Item Status Flows

Prerequisites

Adding a Node Status

Customizing an RR Status Flow

Customizing an SF Status Flow

Customizing an R&D Requirement (IR/US) Status Flow

Customizing a Task Status Flow

Customizing a Bug Status Flow

Prerequisites

An IPD-standalone software project is available, and you have permission to **configure workflows** for the project.

Adding a Node Status

There are three types of statuses in a custom status flow: **To Do**, **Doing**, and **Done**. These nodes are either system-default or project-specific. You can manage the node status on the **Work Item** > **Work Item Management > Common Status** page.

Step 1 Expand the status drawer.

Step 2 Click to add a status. If no new status is available, add it first.

Step 3 View the new status in the **Project-defined** area on the status page. The status is also displayed on the canvas.

Alternatively, view the new status in the status management area on the **Settings > Work Item > Work Item Management > Status** page.

----End

Customizing an RR Status Flow

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings > Work Item**.

Step 3 Choose **Work Item Management > RR > Status Flow**. The RR status flow page is displayed.

Step 4 Click **Edit**. The **Raw Requirement Status Flow Configuration** page is displayed and the system status flow list is displayed by default. The first record is the latest, and the current status flow is marked in the list.

Step 5 Copy a status flow.

- Add a custom status flow by editing a system status flow.

  Edit the system status flow and click **Update Status Flow**. The system displays a message indicating that the edited system status flow will be

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copied to generate a custom status flow. Click **OK**/**Save**. A custom status flow is added.

- Add a custom status flow by clicking on the right of a system status flow.

Step 6 Add a node by referring to **Adding a Node Status**. A maximum of **30** nodes can be added to a workflow.

Step 7 Edit a status node of the status flow. To add a status node to the canvas, select the status on the status menu bar and drag it to the corresponding position.

1. Select the status node to be edited. The status information page is displayed.
2. Edit the status information. You can set **Suspend/Cancel** and whether to allow operations by the proposing project. Whether to allow operations by the proposing project: This controls whether members of the **Proposing project** can edit, suspend, unsuspend, and change work item status.

   Take the **Analyzing** status as an example. If you enable the **Suspend/Cancel** switch, when an RR enters the **Analyzing** status, you can click **Suspend** in the upper right corner of the details page and enter the suspension reason. Then, the requirement enters the **Suspended** status and is marked as suspended in the requirement list.

   You can unsuspend requirements. Once you unsuspend a requirement, the suspension flag on the requirement name disappears. Click **Cancel Suspension** in the upper right corner of the details page to continue the process.
3. Edit the status configuration.
   - **Field Configuration** is enabled by default. If it is disabled, fields cannot be edited.
   - Each type of status node has default fields. To add fields, click **Add Field**. The **Add Field** page is displayed. Select a field from the drop-down list. The description of the field is displayed. Enter the default value.

Table 8-8 Adding a field

Parameter	Description
Field Name	Mandatory. Select a field from the drop-down list. If no field is available, click **Add Field** and then add one.
Description	After a field is selected, its description is automatically displayed.
Default Value	Optional. It indicates the default value of the selected field.
Display During Creation	Optional. Set whether to display the field on the new page. The field is enabled by default.
Required	Optional. Whether the field is mandatory during work item transfer. By default, the field is optional.

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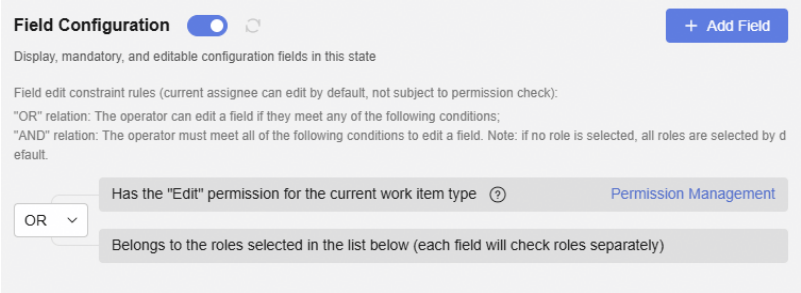
- Configure field editing restriction rules. The current owner is allowed to edit fields by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used.

  OR logic: The operator can edit certain fields if they meet any one of the following conditions.

  And: The operator must meet all of the following conditions to edit certain fields. Initially, all roles are selected by default.

  i. Condition 1: **Has the Edit permission for the current work item type**.
     - If the operation is performed in the **Responsible Project**, the system checks whether the operator has the edit permission in the responsible project.
     - If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has the edit permission in the **Proposing Project**.

  ii. Condition 2: **Belongs to the roles selected in the list below (each field will check roles separately)**.



- Configure a field.

Table 8-9 Fields

Field	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.
Editable	Set whether the field is editable in a work item of the current status.
Required	Set whether the field is mandatory in a work item of the current status. If the field is mandatory, it will be marked with an asterisk (*).

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Field	Description
Role	Select roles from the drop-down list. Available options include temporary roles and project roles. The selected roles are used to verify field editing permissions. **NOTE** If **Display** or **Editable** is set to **No**, role configuration does not take effect, and the selected roles are grayed out. ■ Options: Only the temporary roles and project roles of the project to which the current status flow belongs are available. ■ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification.
Controlled or Not	1. Set whether a field is controlled in the current status node. 2. Controlled fields of the work item under review cannot be edited until the review is finished.

Step 8 Edit a transition line.

1. Click a status flow transition line. The **Transition Line Information** page is displayed.
2. Set the transition line information.

   The transition line information area displays the **Start Status**, **Target Status**, **Transition Line Name** (which is an operation button on the details page and can be edited), and **Set as primary transfer** parameters. **Set as primary transfer** is disabled by default. If the transition is set as the main transition, it is displayed as a main blue button on the work item details page to prompt users to perform the best operation during the transition. Other transitions are displayed as gray buttons. The following figure shows the transition line name displayed on the work item details page.

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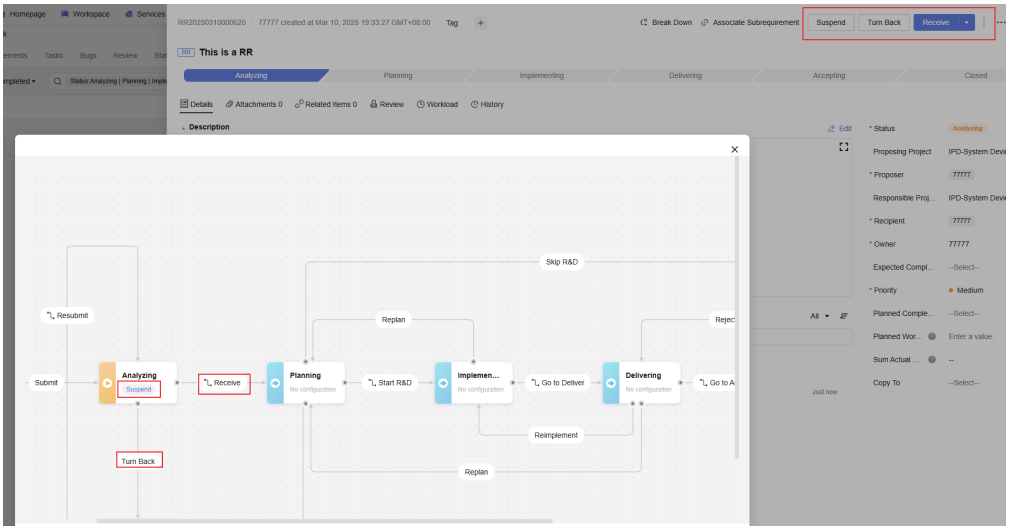
Figure 8-4 Status flow in work item details



3. Configure pre-transition verification. The transition can be performed only when the verification items meet the requirements. The verification items are described in the following table.

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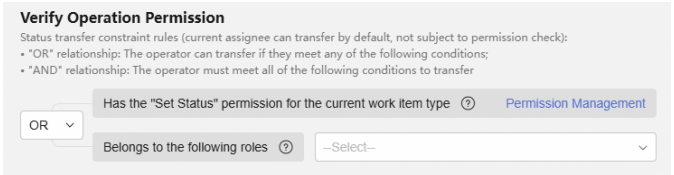
Table 8-10 Pre-transition verification

Verification Item	Description
Verify Operation Permission	Configure status transition restriction rules. The current owner is allowed to perform status transitions by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used. **OR** logic: The operator can perform the status transition if they meet any one of the following conditions. **And**: The operator must meet all of the following conditions to perform the status transition. 1. Condition 1: **Has permission to set the status for the current work item type**. Permission verification is performed based on the project where the status transition is initiated: ■ If the operation is performed in the **Responsible Project**, the system checks whether the operator has permission to set work item status in the responsible project. ■ If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has permission to set work item status in **Proposing Project**. 2. Condition 2: **Belongs to one of the following roles**. Select roles from the drop-down list. Available options include temporary roles and project roles. ■ Available roles: Only temporary roles and project roles of the project to which the current status flow belongs are available. ■ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification. 
Validate Field Information	Optional. This verification is required by default. You can also disable it. If you enable the option, click **Add Fields**. On the **Add Fields** page, select the field to be added, set **Field Value**, and click **OK**.

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Verification Item	Description
Verifying Associate Item Information	Optional. This verification is required by default. You can also disable it. If you enable this option, click **Add Associated Items**. On the **Add Associated Items** page, select the desired associated items, select **Condition** (**None** by default), and click **OK**.

4. Configure the in-transition page.

   Configure additional information that must be entered during status transition to proceed. The **In-transition GUI Config** switch is enabled by default and can be disabled. If the switch is enabled, click **Add Field**. The **Add Field** dialog box is displayed. Select the field to be added from the drop-down list and click **OK**. The field is displayed in the field list.

   NOTE

   If **Required** is selected when a field is added, the field name in the field list is marked with an asterisk (*).

5. Configure the post-transition action.

   After the transition is successfully executed, the configured post-transition actions are automatically executed. Configure the post-transition actions as follows.

   Table 8-11 Configuration items for post-transition actions

Configuration Item	Description
Update fields	Update the value of a specified field after the successful transition. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Update fields** and click **OK**. 3. In the **Add Field** window, select the field to be added in the **Select Field** text box. 4. Set the judgment condition and default value for the selected field. 5. Click **OK**. The field will be displayed in the post-transition action list.

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Configuration Item	Description
Baseline-related operations	Update the baseline status of the target object after the transition is successful. If the current baseline status of the target object is the same as the updated baseline status after the transition is successful, this post-transition action will not be executed. For example, if **Baseline current work item** is selected for a baselined work item, this action will not be executed. **CAUTION** – For RRs and bugs in IPD-system device projects and IPD-standalone software projects, you cannot baseline or unbaseline the current work item. If the selected associated work item type contains such work items, the related post-transition action will not succeed. – For IPD-self-operated software/cloud service projects, you cannot add **Baseline-related operations** as post-transition actions. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Baseline related operations** and click **OK**. The **Baseline related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ **Baseline correlation**: This action is performed only when both of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review. ▪ **Cancel baseline association**: This action is performed only when all of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review. c. When an associated work item belongs to a sprint, the sprint is not baselined. d. When an associated work item does not belong to any sprint but belongs to a release, the release is not baselined. 4. Set **Description**. 5. Click **OK**. The baseline operation will be displayed in the post-transition action list.

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Configuration Item	Description
Snapshot-related operations	After the transition is successful, take a snapshot of the current work item or associated item. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Snapshot related operations** and click **OK**. The **Snapshot related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ **Take a snapshot of the current work item** ▪ **Take a snapshot of associated work items** 4. If you select **Take a snapshot of associated work items**, select the type of the work item to be associated from the **Associated work item types for snapshotting** drop-down list. 5. Set **Description**. 6. Click **OK**. The snapshot operation will be displayed in the post-transition action list.

Step 9 (Optional) If you add a node to the canvas, draw connection lines using the mouse and enter the transition line name. Repeat steps 7 to 8 to edit the status flow node and transition lines.

Step 10 Configure the main navigation bar.

Click **Update Status Flow** in the upper right corner to display the navigation for optimal work item transition. Drag nodes on the navigation bar to adjust their sequence.

The default **To Do** and **Done** nodes cannot be dragged. If there is no transition line between two statuses, the nodes cannot be dragged together, and the message **This status cannot be transitioned. Orchestrate statuses again.** is displayed.

Step 11 Click **OK**. A message is displayed, indicating that the update is successful. Go to the work item details page to view the status flow configuration.

----End

Customizing an SF Status Flow

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **Work Item**.

Step 3 Choose **Work Item Management** > **SF** > **Status Flow**. The SF status flow page is displayed.

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Step 4 Click **Edit**. The **SF Status Flow Configuration** page is displayed and the SF system status flow list is displayed by default. The first record is the latest status flow, and the current status flow is marked in the list.

Step 5 Copy a status flow.

- Add a custom status flow by editing a system status flow.

  Edit the system status flow and click **Update Status Flow**. The system displays a message indicating that the edited system status flow will be copied to generate a custom status flow. Click **OK**/**Save**. A custom status flow is added.

- Add a custom status flow by clicking on the right of a system status flow.

Step 6 Add a node by referring to **Adding a Node Status**. A maximum of **30** nodes can be added to a workflow.

Step 7 Edit a status node of the status flow. To add a status node to the canvas, select the status on the status menu bar and drag it to the corresponding position.

1. Select the status node to be edited. The status information page is displayed.
2. Edit the status information. **Suspend/Cancel** is disabled by default.

   Take the **Planning** status as an example. If you enable the **Suspend/Cancel** switch, when a feature enters the **Planning** status, you can click **Suspend** in the upper right corner of the details page and enter the suspension reason. Then, the feature enters the **Suspended** status and is marked as suspended in the feature list.

   You can unsuspend features. Once you unsuspend a feature, the suspension flag on the feature name disappears. Click **Cancel Suspension** in the upper right corner of the details page to continue the process.
3. Edit the status configuration.
   - You can configure **Transition from Any Status to This Status**. If the switch is enabled, any status can transit to this status.
   - **Field Configuration** is enabled by default. If it is disabled, fields cannot be edited.
   - Each type of status node has default fields. To add more fields, click **Add Field**. The **Add Field** page is displayed. Select a field from the drop-down list. The description of the field is displayed. Enter the default value.

Table 8-12 Adding a field

Parameter	Description
Field Name	Mandatory. Select a field from the drop-down list. If no field is available, click **Add Field** and then add one.
Description	After a field is selected, its description is automatically displayed.
Default Value	Optional. It indicates the default value of the selected field.

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Parameter	Description
Display During Creation	Optional. Set whether to display the field on the work item creation page. The field is enabled by default.
Required	Optional. Whether the field is mandatory during work item transfer. By default, the field is optional.
Baselined	1. Set whether the field is a baselined field in the workflow. Baselined fields are marked with and cannot be modified. 2. Baselined fields in the baselined work item can be modified only after the change review is passed.

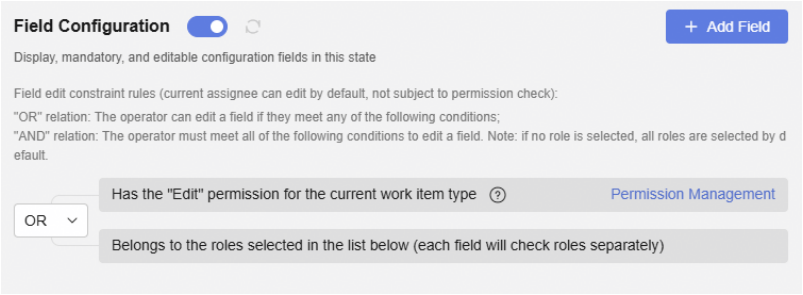
- Configure field editing restriction rules. The current owner is allowed to edit fields by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used.

  OR logic: The operator can edit certain fields if they meet any one of the following conditions.

  And: The operator must meet all of the following conditions to edit certain fields. Initially, all roles are selected by default.

  i. Condition 1: **Has the Edit permission for the current work item type**.
     - If the operation is performed in the **Responsible Project**, the system checks whether the operator has the edit permission in the responsible project.
     - If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has the edit permission in the **Proposing Project**.

  ii. Condition 2: **Belongs to the roles selected in the list below (each field will check roles separately)**.



- Configure a field.

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Table 8-13 Fields

Field	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.
Editable	Set whether the field is editable in a work item of the current status.
Required	Set whether the field is mandatory in a work item of the current status. If the field is mandatory, it will be marked with an asterisk (*).
Role	Select roles from the drop-down list. Available options include temporary roles and project roles. The selected roles are used to verify field editing permissions. **NOTE** If **Display** or **Editable** is set to **No**, role configuration does not take effect, and the selected roles are grayed out. ■ Options: Only the temporary roles and project roles of the project to which the current status flow belongs are available. ■ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification.

Step 8 Edit a transition line.

1. Click a status flow transition line. The **Transition Line Information** page is displayed.
2. Set the transition line information.

   The transition line information area displays the **Start Status**, **Target Status**, **Transition Line Name** (which is an operation button on the details page and can be edited), and **Set as primary transfer** parameters. **Set as primary transfer** is disabled by default. If the transition is set as the main transition, it is displayed as a main blue button on the work item details page to prompt users to perform the best operation during the transition. Other transitions are displayed as gray buttons. The following figure shows the transition line name displayed on the work item details page.

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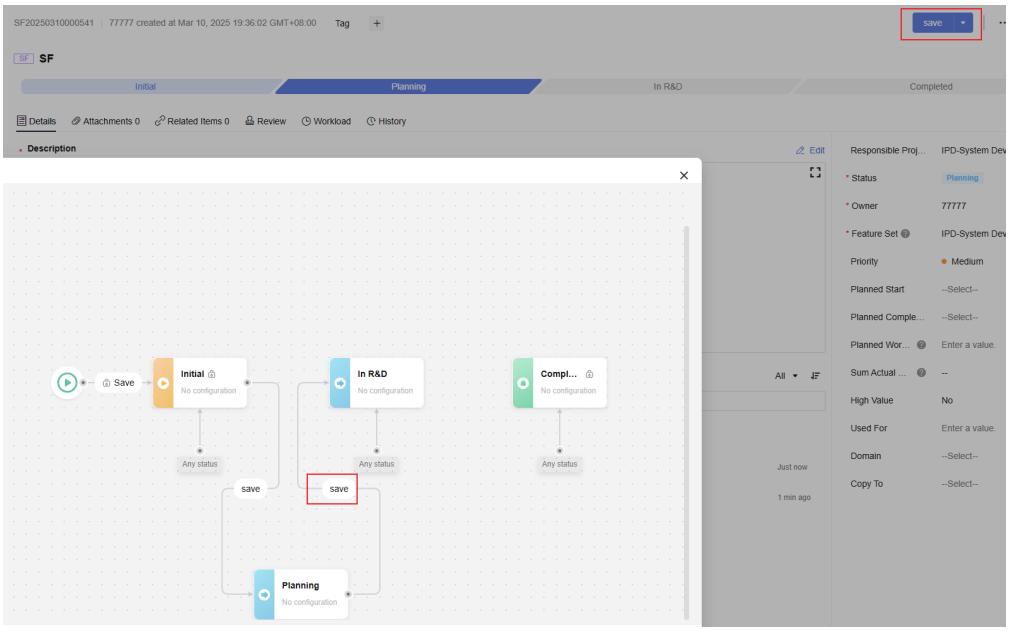

3. Configure pre-transition verification. The transition can be performed only when the verification items meet the requirements. The verification items are as follows.

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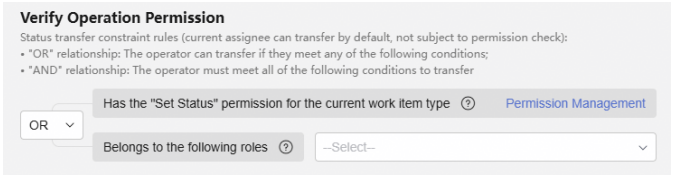
Table 8-14 Pre-transition verification

Verification Item	Description
Verify Operation Permission	Configure status transition restriction rules. The current owner is allowed to perform status transitions by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used. **OR** logic: The operator can perform the status transition if they meet any one of the following conditions. **And**: The operator must meet all of the following conditions to perform the status transition. 1. Condition 1: **Has permission to set the status for the current work item type**. Permission verification is performed based on the project where the status transition is initiated: ▪ If the operation is performed in the **Responsible Project**, the system checks whether the operator has permission to set work item status in the responsible project. ▪ If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has permission to set work item status in **Proposing Project**. 2. Condition 2: **Belongs to one of the following roles**. Select roles from the drop-down list. Available options include temporary roles and project roles. ▪ Available roles: Only temporary roles and project roles of the project to which the current status flow belongs are available. ▪ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification. 
Validate Field Information	Optional. This verification is required by default. You can also disable it. If you enable the option, click **Add Fields**. On the **Add Fields** page, select the field to be added, set **Field Value**, and click **OK**.

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Verification Item	Description
Verifying Associate Item Information	Optional. This verification is required by default. You can also disable it. If you enable this option, click **Add Associated Items**. On the **Add Associated Items** page, select the desired associated items, select **Condition** (**None** by default), and click **OK**.

4. Configure the in-transition page.

   Configure additional information that must be entered during status transition to proceed. The **In-transition GUI Config** switch is enabled by default and can be disabled. If the switch is enabled, click **Add Field**. The **Add Field** dialog box is displayed. Select the field to be added from the drop-down list and click **OK**. The field is displayed in the field list.

   NOTE

   If **Required** is selected when a field is added, the field name in the field list is marked with an asterisk (*).

5. Configure the post-transition action.

   After the transition is successfully executed, the configured post-transition actions are automatically executed. Configure the post-transition actions as follows.

Table 8-15 Configuration items for post-transition actions

Configuration Item	Description
Update fields	Update the value of a specified field after the successful transition. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Update fields** and click **OK**. 3. In the **Add Field** window, select the field to be added in the **Select Field** text box. 4. Set the judgment condition and default value for the selected field. 5. Click **OK**. The field will be displayed in the post-transition action list.

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Configuration Item	Description
Baseline-related operations	Update the baseline status of the target object after the transition is successful. If the current baseline status of the target object is the same as the updated baseline status after the transition is successful, this post-action will not be executed. For example, if **Baseline current work item** is selected for a baselined work item, this action will not be executed. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Baseline related operations** and click **OK**. The **Baseline related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ **Baseline current work item**: This action is performed only when both of the following conditions are met: a. The work item is not under a baseline review. b. The work item is not under a change review. ▪ **Cancel baseline current work item**: This action is performed only when all of the following conditions are met: a. The work item is not under a baseline review. b. The work item is not under a change review. c. When a work item belongs to a sprint, the sprint is not baselined. d. When a work item does not belong to any sprint but belongs to a release, the release is not baselined. ▪ **Baseline correlation**: This action is performed only when both of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review. ▪ **Cancel baseline association**: This action is performed only when all of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review.

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Configuration Item	Description
	c. When an associated work item belongs to a sprint, the sprint is not baselined. d. When an associated work item does not belong to any sprint but belongs to a release, the release is not baselined. 4. Set **Description**. 5. Click **OK**. The baseline operation will be displayed in the post-transition action list.
Snapshot-related operations	After the transition is successful, take a snapshot of the current work item or associated item. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Snapshot related operations** and click **OK**. The **Snapshot related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ Take a snapshot of the current work item ▪ Take a snapshot of associated work items 4. If you select **Take a snapshot of associated work items**, select the type of the work item to be associated from the **Associated work item types for snapshotting** drop-down list. 5. Set **Description**. 6. Click **OK**. The snapshot operation will be displayed in the post-transition action list.

Step 9 (Optional) If you add a node to the canvas, draw connection lines using the mouse and enter the transition line name. Repeat steps 7 to 8 to edit the status flow node and transition lines.

Step 10 Configure the main navigation bar.

Click **Update Status Flow** in the upper right corner to display the navigation for optimal work item transition. Drag nodes on the navigation bar to adjust their sequence.

The default **To Do** and **Done** nodes cannot be dragged. If **Transition from Any Status to This Status** is enabled for a status flow node, you can drag the node on the main navigation bar. If **Transition from Any Status to This Status** is disabled and there is no transition line between the two statuses, the nodes cannot be dragged together, and the message **This status cannot be transitioned. Orchestrate statuses again.** is displayed.

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Step 11 Click **OK**. A message is displayed, indicating that the update is successful. Go to the work item details page to view the status flow configuration.

----End

Customizing an R&D Requirement (IR/US) Status Flow

The following uses the IR status flow as an example. The US status flow configuration is the same.

Step 1 **Access the CodeArts Req homepage**.

Step 2 Go to a project and choose **Settings** > **Work Item**.

Step 3 Choose **Work Item Management** > **IR** > **Status Flow**. The IR status flow page is displayed.

Step 4 Click **Edit**. The **IR Status Flow Configuration** page is displayed and the IR system status flow list is displayed by default. The first record is the latest status flow, and the current status flow is marked in the list.

Step 5 Copy a status flow.

- Add a custom status flow by editing a system status flow.

  Edit the system status flow and click **Update Status Flow**. The system displays a message indicating that the edited system status flow will be copied to generate a custom status flow. Click **OK**/**Save**. A custom status flow is added.

- Add a custom status flow by clicking  on the right of a system status flow.

Step 6 Add a node by referring to **Adding a Node Status**. A maximum of **30** nodes can be added to a workflow.

Step 7 Edit a status node of the status flow. To add a status node to the canvas, select the status on the status menu bar and drag it to the corresponding position.

1. Select the status node to be edited. The status information page is displayed.
2. Edit the status information. **Suspend/Cancel** is disabled by default.

   Take the **Analyzing** status as an example. If you enable the **Suspend/Cancel** switch, when an IR enters the **Analyzing** status, you can click **Suspend** in the upper right corner of the details page and enter the suspension reason. Then, the requirement enters the **Suspended** status and is marked as suspended in the requirement list.

   You can unsuspend requirements. Once you unsuspend a requirement, the suspension flag on the requirement name disappears. Click **Cancel Suspension** in the upper right corner of the details page to continue the process.
3. Edit the status configuration.
   - You can configure **Transition from Any Status to This Status**. If the switch is enabled, any status can transit to this status.
   - **Field Configuration** is enabled by default. If it is disabled, fields cannot be edited.

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- Each type of status node has default fields. To add more fields, click **Add Field**. The **Add Field** page is displayed. Select a field from the drop-down list. The description of the field is displayed. Enter the default value.

  Table 8-16 Adding a field

Parameter	Description
Field Name	Mandatory. Select a field from the drop-down list. If no field is available, click **Add Field** and then add one.
Description	After a field is selected, its description is automatically displayed.
Default Value	Optional. It indicates the default value of the selected field.
Display During Creation	Optional. Set whether to display the field on the work item creation page. The field is enabled by default.
Required	Optional. Whether the field is mandatory during work item transfer. By default, the field is optional.
Baselined	1. Set whether the field is a baselined field in the workflow. Baselined fields are marked with  and cannot be modified. 2. Baselined fields in the baselined work item can be modified only after the change review is passed.

- Configure field editing restriction rules. The current owner is allowed to edit fields by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used.

  OR logic: The operator can edit certain fields if they meet any one of the following conditions.

  And: The operator must meet all of the following conditions to edit certain fields. Initially, all roles are selected by default.

  i. Condition 1: **Has the Edit permission for the current work item type**.
     - If the operation is performed in the **Responsible Project**, the system checks whether the operator has the edit permission in the responsible project.
     - If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has the edit permission in the **Proposing Project**.

  ii. Condition 2: **Belongs to the roles selected in the list below (each field will check roles separately)**.

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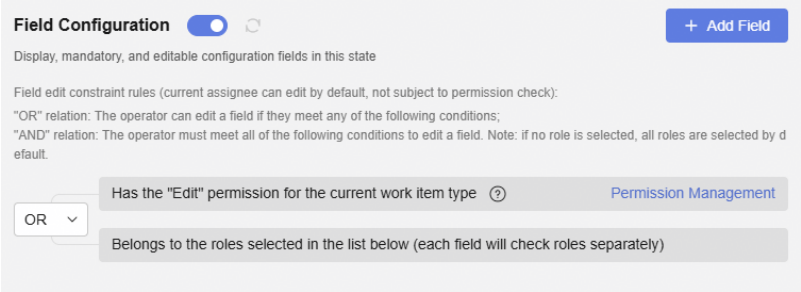

- Configure a field.

  Table 8-17 Fields

Field	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.
Editable	Set whether the field is editable in a work item of the current status.
Required	Set whether the field is mandatory in a work item of the current status. If the field is mandatory, it will be marked with an asterisk (*).
Role	Select roles from the drop-down list. Available options include temporary roles and project roles. The selected roles are used to verify field editing permissions. **NOTE** If **Display** or **Editable** is set to **No**, role configuration does not take effect, and the selected roles are grayed out. ■ Options: Only the temporary roles and project roles of the project to which the current status flow belongs are available. ■ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification.

Step 8 Edit a transition line.

1. Click a status flow transition line. The **Transition Line Information** page is displayed.
2. Set the transition line information.

   The transition line information area displays the **Start Status**, **Target Status**, **Transition Line Name** (which is an operation button on the details page and can be edited), and **Set as primary transfer** parameters. **Set as primary transfer** is disabled by default. If the transition is set as the main transition, it

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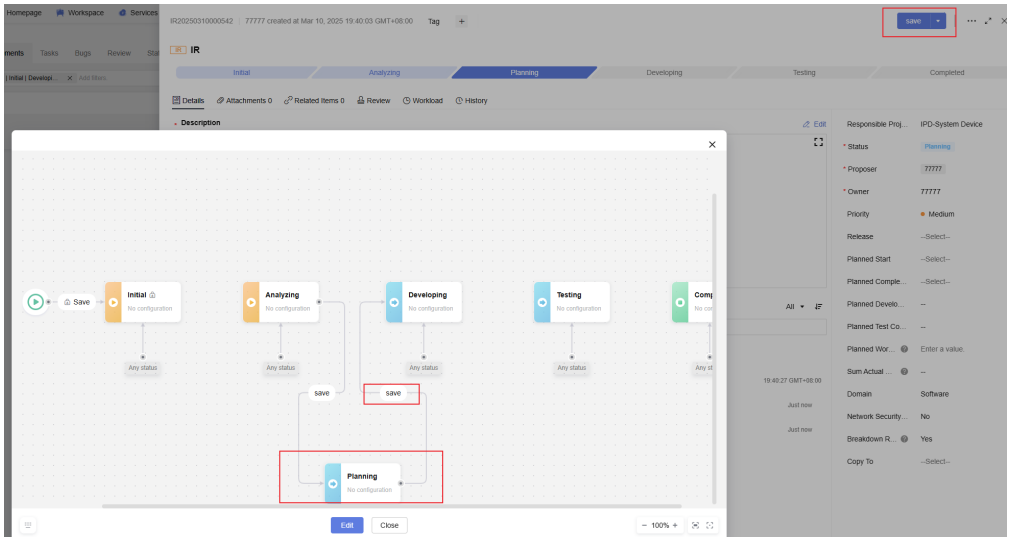
is displayed as a main blue button on the work item details page to prompt users to perform the best operation during the transition. Other transitions are displayed as gray buttons. The following figure shows the transition line name displayed on the work item details page.



3. Configure pre-transition verification. The transition can be performed only when the verification items meet the requirements. The verification items are as follows.

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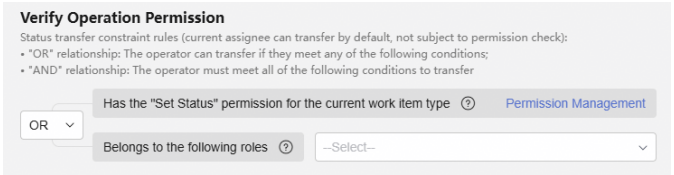
Table 8-18 Pre-transition verification

Verification Item	Description
Verify Operation Permission	Configure status transition restriction rules. The current owner is allowed to perform status transitions by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used. **OR** logic: The operator can perform the status transition if they meet any one of the following conditions. **And**: The operator must meet all of the following conditions to perform the status transition. 1. Condition 1: **Has permission to set the status for the current work item type**. Permission verification is performed based on the project where the status transition is initiated: ■ If the operation is performed in the **Responsible Project**, the system checks whether the operator has permission to set work item status in the responsible project. ■ If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has permission to set work item status in **Proposing Project**. 2. Condition 2: **Belongs to one of the following roles**. Select roles from the drop-down list. Available options include temporary roles and project roles. ■ Available roles: Only temporary roles and project roles of the project to which the current status flow belongs are available. ■ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification. 
Validate Field Information	Optional. This verification is required by default. You can also disable it. If you enable the option, click **Add Fields**. On the **Add Fields** page, select the field to be added, set **Field Value**, and click **OK**.

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Verification Item	Description
Verifying Associate Item Information	Optional. This verification is required by default. You can also disable it. If you enable this option, click **Add Associated Items**. On the **Add Associated Items** page, select the desired associated items, select **Condition** (**None** by default), and click **OK**.

4. Configure the in-transition page.

   Configure additional information that must be entered during status transition to proceed. The **In-transition GUI Config** switch is enabled by default and can be disabled. If the switch is enabled, click **Add Field**. The **Add Field** dialog box is displayed. Select the field to be added from the drop-down list and click **OK**. The field is displayed in the field list.

   NOTE

   If **Mandatory** is selected when a field is added, the field name in the field list is marked with an asterisk (*).

5. Configure the post-transition action.

   After the transition is successfully executed, the configured post-transition actions are automatically executed. Configure the post-transition actions as follows.

Table 8-19 Configuration items for post-transition actions

Configuration Item	Description
Update fields	Update the value of a specified field after the successful transition. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Update fields** and click **OK**. 3. In the **Add Field** window, select the field to be added in the **Select Field** text box. 4. Set the judgment condition and default value for the selected field. 5. Click **OK**. The field will be displayed in the post-transition action list.

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Configuration Item	Description
Baseline-related operations	Update the baseline status of the target object after the transition is successful. If the current baseline status of the target object is the same as the updated baseline status after the transition is successful, this post-action will not be executed. For example, if **Baseline current work item** is selected for a baselined work item, this action will not be executed. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Baseline related operations** and click **OK**. The **Baseline related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ **Baseline current work item**: This action is performed only when both of the following conditions are met: a. The work item is not under a baseline review. b. The work item is not under a change review. ▪ **Cancel baseline current work item**: This action is performed only when all of the following conditions are met: a. The work item is not under a baseline review. b. The work item is not under a change review. c. When a work item belongs to a sprint, the sprint is not baselined. d. When a work item does not belong to any sprint but belongs to a release, the release is not baselined. ▪ **Baseline correlation**: This action is performed only when both of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review. ▪ **Cancel baseline association**: This action is performed only when all of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review.

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Configuration Item	Description
	c. When an associated work item belongs to a sprint, the sprint is not baselined. d. When an associated work item does not belong to any sprint but belongs to a release, the release is not baselined. 4. Set **Description**. 5. Click **OK**. The baseline operation will be displayed in the post-transition action list.
Snapshot-related operations	After the transition is successful, take a snapshot of the current work item or associated item. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Snapshot related operations** and click **OK**. The **Snapshot related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ Take a snapshot of the current work item ▪ Take a snapshot of associated work items 4. If you select **Take a snapshot of associated work items**, select the type of the work item to be associated from the **Associated work item types for snapshotting** drop-down list. 5. Set **Description**. 6. Click **OK**. The snapshot operation will be displayed in the post-transition action list.

Step 9 (Optional) If you add a node to the canvas, draw connection lines using the mouse and enter the transition line name. Repeat steps **Step 7** to **Step 8** to edit the status flow node and transition lines.

Step 10 Configure the main navigation bar.

Click **Update Status Flow** in the upper right corner to display the navigation for optimal work item transition. Drag nodes on the navigation bar to adjust their sequence.

The default **To Do** and **Done** nodes cannot be dragged. If **Transition from Any Status to This Status** is enabled for a status flow node, you can drag the node on the main navigation bar. If **Transition from Any Status to This Status** is disabled and there is no transition line between the two statuses, the nodes cannot be dragged together, and the message **This status cannot be transitioned. Orchestrate statuses again.** is displayed.

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Step 11 Click **OK**. A message is displayed, indicating that the update is successful. Go to the work item details page to view the status flow configuration.

----End

Customizing a Task Status Flow

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **Work Item**.

Step 3 Choose **Work Item Management** > **Task** > **Status Flow**. The task status flow page is displayed.

Step 4 Click **Edit**. The **Task Status Flow Configuration** page is displayed and the task system status flow list is displayed by default. The first record is the latest status flow, and the current status flow is marked in the list.

Step 5 Copy a status flow.

- Add a custom status flow by editing a system status flow.

  Edit the system status flow and click **Update Status Flow**. The system displays a message indicating that the edited system status flow will be copied to generate a custom status flow. Click **OK**/**Save**. A custom status flow is added.

- Add a custom status flow by clicking on the right of a system status flow.

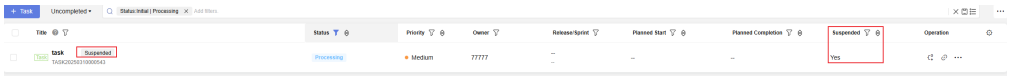
Step 6 Add a node by referring to **Adding a Node Status**. A maximum of **30** nodes can be added to a workflow.

Step 7 Edit a status node of the status flow. To add a status node to the canvas, select the status on the status menu bar and drag it to the corresponding position.

1. Select the status node to be edited. The status information page is displayed.
2. Edit the status information. **Suspend/Cancel** is disabled by default.

   Take the **Processing** status as an example. If you enable the **Suspend/Cancel** switch, when a task enters the **Processing** status, you can click **Suspend** in the upper right corner of the details page and enter the suspension reason. Then, the feature enters the **Suspended** status and is marked as suspended in the task list.

   Figure 8-5 Suspended task

   You can unsuspend tasks. Once a task is unsuspended, the suspension flag on the task name disappears. Click **Cancel Suspension** in the upper right corner of the details page to continue the process.
3. Edit the status configuration.
   - You can configure **Transition from Any Status to This Status**. If the switch is enabled, any status can transit to this status.
   - **Field Configuration** is enabled by default. If it is disabled, fields cannot be edited.

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- Each type of status node has default fields. To add more fields, click **Add Field**. The **Add Field** page is displayed. Select a field from the drop-down list. The description of the field is displayed. Enter the default value.

  Table 8-20 Adding a field

Parameter	Description
Field Name	Mandatory. Select a field from the drop-down list. If no field is available, click **Add Field** and then add one.
Description	After a field is selected, its description is automatically displayed.
Default Value	Optional. It indicates the default value of the selected field.
Display During Creation	Optional. Set whether to display the field on the work item creation page. The field is enabled by default.
Required	Optional. Whether the field is mandatory during work item transfer. By default, the field is optional.
Baselined	1. Set whether the field is a baselined field in the workflow. Baselined fields are marked with  and cannot be modified. 2. Baselined fields in the baselined work item can be modified only after the change review is passed.

- Configure field editing restriction rules. The current owner is allowed to edit fields by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used.

  OR logic: The operator can edit certain fields if they meet any one of the following conditions.

  And: The operator must meet all of the following conditions to edit certain fields. Initially, all roles are selected by default.

  i. Condition 1: **Has the Edit permission for the current work item type**.
     - If the operation is performed in the **Responsible Project**, the system checks whether the operator has the edit permission in the responsible project.
     - If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has the edit permission in the **Proposing Project**.

  ii. Condition 2: **Belongs to the roles selected in the list below (each field will check roles separately)**.

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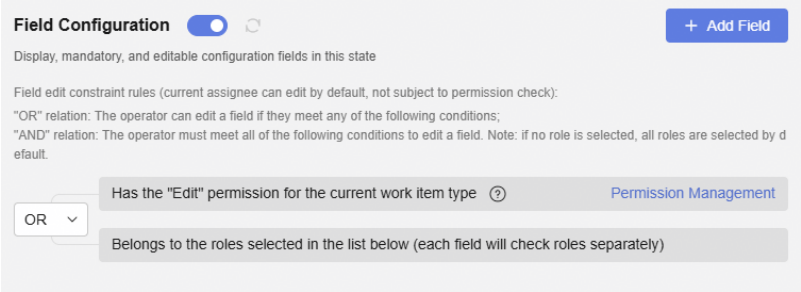

- Configure a field.

  Table 8-21 Fields

Field	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.
Editable	Set whether the field is editable in a work item of the current status.
Required	Set whether the field is mandatory in a work item of the current status. If the field is mandatory, it will be marked with an asterisk (*).
Role	Select roles from the drop-down list. Available options include temporary roles and project roles. The selected roles are used to verify field editing permissions. **NOTE** If **Display** or **Editable** is set to **No**, role configuration does not take effect, and the selected roles are grayed out. ■ Options: Only the temporary roles and project roles of the project to which the current status flow belongs are available. ■ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification.

Step 8 Edit a transition line.

1. Click a status flow transition line. The **Transition Line Information** page is displayed.
2. Set the transition line information.

   The transition line information area displays the **Start Status**, **Target Status**, **Transition Line Name** (which is an operation button on the details page and can be edited), and **Set as primary transfer** parameters. **Set as primary transfer** is disabled by default. If the transition is set as the main transition, it

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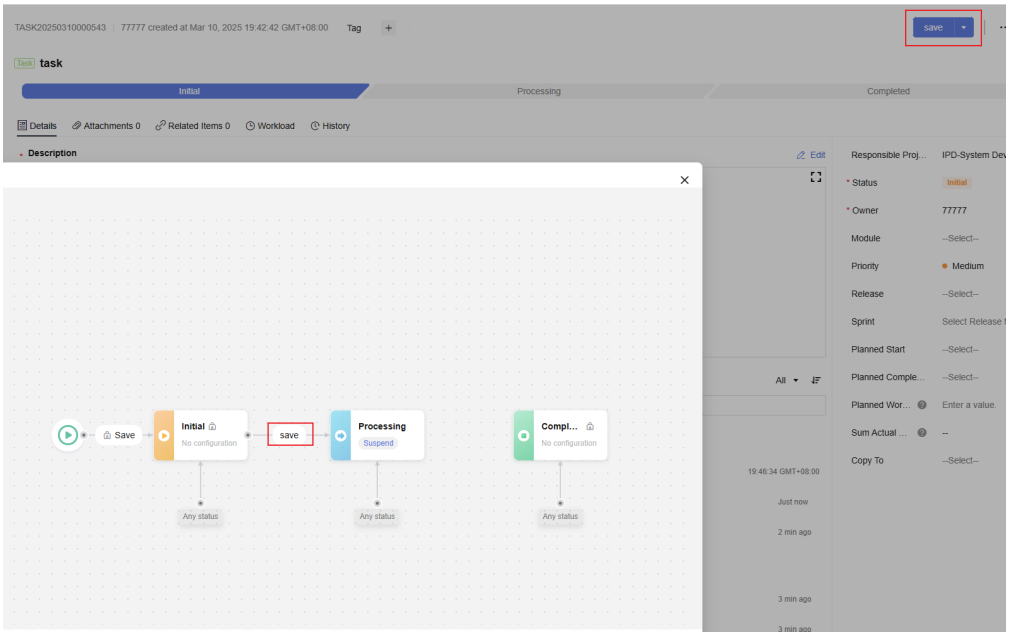
is displayed as a main blue button on the work item details page to prompt users to perform the best operation during the transition. Other transitions are displayed as gray buttons. The following figure shows the transition line name displayed on the work item details page.



3. Configure pre-transition verification. The transition can be performed only when the verification items meet the requirements. The verification items are as follows.

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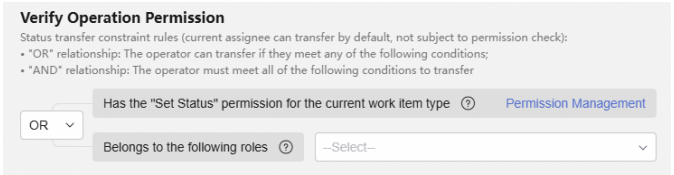
Table 8-22 Pre-transition verification

Verification Item	Description
Verify Operation Permission	Configure status transition restriction rules. The current owner is allowed to perform status transitions by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used. **OR** logic: The operator can perform the status transition if they meet any one of the following conditions. **And**: The operator must meet all of the following conditions to perform the status transition. 1. Condition 1: **Has permission to set the status for the current work item type**. Permission verification is performed based on the project where the status transition is initiated: ■ If the operation is performed in the **Responsible Project**, the system checks whether the operator has permission to set work item status in the responsible project. ■ If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has permission to set work item status in **Proposing Project**. 2. Condition 2: **Belongs to one of the following roles**. Select roles from the drop-down list. Available options include temporary roles and project roles. ■ Available roles: Only temporary roles and project roles of the project to which the current status flow belongs are available. ■ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification. 
Validate Field Information	Optional. This verification is required by default. You can also disable it. If you enable the option, click **Add Fields**. On the **Add Fields** page, select the field to be added, set **Field Value**, and click **OK**.

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Verification Item	Description
Verifying Associate Item Information	Optional. This verification is required by default. You can also disable it. If you enable this option, click **Add Associated Items**. On the **Add Associated Items** page, select the desired associated items, select **Condition** (**None** by default), and click **OK**.

4. Configure the in-transition page.

   Configure additional information that must be entered during status transition to proceed. The **In-transition GUI Config** switch is enabled by default and can be disabled. If the switch is enabled, click **Add Field**. The **Add Field** dialog box is displayed. Select the field to be added from the drop-down list and click **OK**. The field is displayed in the field list.

   NOTE

   If **Mandatory** is selected when a field is added, the field name in the field list is marked with an asterisk (*).

5. Configure the post-transition action.

   After the transition is successfully executed, the configured post-transition actions are automatically executed. Configure the post-transition actions as follows.

Table 8-23 Configuration items for post-transition actions

Configuration Item	Description
Update fields	Update the value of a specified field after the successful transition. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Update fields** and click **OK**. 3. In the **Add Field** window, select the field to be added in the **Select Field** text box. 4. Set the judgment condition and default value for the selected field. 5. Click **OK**. The field will be displayed in the post-transition action list.

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Configuration Item	Description
Baseline-related operations	Update the baseline status of the target object after the transition is successful. If the current baseline status of the target object is the same as the updated baseline status after the transition is successful, this post-action will not be executed. For example, if **Baseline current work item** is selected for a baselined work item, this action will not be executed. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Baseline related operations** and click **OK**. The **Baseline related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ **Baseline current work item**: This action is performed only when both of the following conditions are met: a. The work item is not under a baseline review. b. The work item is not under a change review. ▪ **Cancel baseline current work item**: This action is performed only when all of the following conditions are met: a. The work item is not under a baseline review. b. The work item is not under a change review. c. When a work item belongs to a sprint, the sprint is not baselined. d. When a work item does not belong to any sprint but belongs to a release, the release is not baselined. ▪ **Baseline correlation**: This action is performed only when both of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review. ▪ **Cancel baseline association**: This action is performed only when all of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review.

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Configuration Item	Description
	c. When an associated work item belongs to a sprint, the sprint is not baselined. d. When an associated work item does not belong to any sprint but belongs to a release, the release is not baselined. 4. Set **Description**. 5. Click **OK**. The baseline operation will be displayed in the post-transition action list.
Snapshot-related operations	After the transition is successful, take a snapshot of the current work item or associated item. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Snapshot related operations** and click **OK**. The **Snapshot related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ Take a snapshot of the current work item ▪ Take a snapshot of associated work items 4. If you select **Take a snapshot of associated work items**, select the type of the work item to be associated from the **Associated work item types for snapshotting** drop-down list. 5. Set **Description**. 6. Click **OK**. The snapshot operation will be displayed in the post-transition action list.

Step 9 (Optional) If you add a node to the canvas, draw connection lines using the mouse and enter the transition line name. Repeat steps 7 to 8 to edit the status flow node and transition lines.

Step 10 Configure the main navigation bar.

Click **Update Status Flow** in the upper right corner to display the navigation for optimal work item transition. Drag nodes on the navigation bar to adjust their sequence.

The default **To Do** and **Done** nodes cannot be dragged. If **Transition from Any Status to This Status** is enabled for a status flow node, you can drag the node on the main navigation bar. If **Transition from Any Status to This Status** is disabled and there is no transition line between the two statuses, the nodes cannot be dragged together, and the message **This status cannot be transitioned. Orchestrate statuses again.** is displayed.

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Step 11 Click **OK**. A message is displayed, indicating that the update is successful. Go to the work item details page to view the status flow configuration.

----End

Customizing a Bug Status Flow

Work items submitted to other projects use the status flow configuration of the responsible project.

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **Work Item**.

Step 3 Choose **Work Item Management** > **Bug** > **Status Flow**. The bug status flow page is displayed.

Step 4 Click **Edit**. The **Bug Status Flow Configuration** page is displayed and the bug system status flow list is displayed by default. The first record is the latest status flow, and the current status flow is marked in the list.

Step 5 Copy a status flow.

- Add a custom status flow by editing a system status flow.

  Edit the system status flow and click **Update Status Flow**. The system displays a message indicating that the edited system status flow will be copied to generate a custom status flow. Click **OK**/**Save**. A custom status flow is added.
- Add a custom status flow by clicking on the right of a system status flow.

Step 6 Add a node by referring to **Adding a Node Status**. A maximum of **30** nodes can be added to a workflow.

Step 7 Edit a status node of the status flow. To add a status node to the canvas, select the status on the status menu bar and drag it to the corresponding position.

1. Select the status node to be edited. The status information page is displayed.
2. Edit the status information. You can set **Suspend/Cancel** and whether to allow operations by the proposing project. Whether to allow operations by the proposing project: This controls whether members of the **Proposing project** can edit, suspend, unsuspend, and change work item status.

   Take the **Analyzing** status as an example. If you enable the **Suspend/Cancel** switch, when a bug enters the **Analyzing** status, you can click **Suspend** in the upper right corner of the details page and enter the suspension reason. Then, the bug enters the **Suspended** status and is marked as suspended in the bug list.

   You can unsuspend bugs. Once you unsuspend a bug, the suspension flag on the bug name disappears. Click **Cancel Suspension** in the upper right corner of the details page to continue the process.
3. Edit the status configuration.
   - **Field Configuration** is enabled by default. If it is disabled, fields cannot be edited.
   - Each type of status node has default fields. To add fields, click **Add Field**. The **Add Field** page is displayed. Select a field from the drop-down list. The description of the field is displayed. Enter the default value.

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Table 8-24 Adding a field

Parameter	Description
Field Name	Mandatory. Select a field from the drop-down list. If no field is available, click **Add Field** and then add one.
Description	After a field is selected, its description is automatically displayed.
Default Value	Optional. It indicates the default value of the selected field.
Display During Creation	Optional. Set whether to display the field on the new page. The field is enabled by default.
Required	Optional. Whether the field is mandatory during work item transfer. By default, the field is optional.

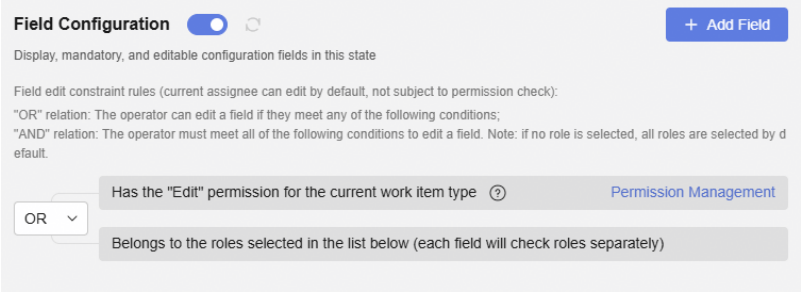
- Configure field editing restriction rules. The current owner is allowed to edit fields by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used.

  OR logic: The operator can edit certain fields if they meet any one of the following conditions.

  And: The operator must meet all of the following conditions to edit certain fields. Initially, all roles are selected by default.

  i. Condition 1: **Has the Edit permission for the current work item type**.
     - If the operation is performed in the **Responsible Project**, the system checks whether the operator has the edit permission in the responsible project.
     - If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has the edit permission in the **Proposing Project**.

  ii. Condition 2: **Belongs to the roles selected in the list below (each field will check roles separately)**.



- Configure a field.

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Table 8-25 Fields

Field	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.
Editable	Set whether the field is editable in a work item of the current status.
Required	Set whether the field is mandatory in a work item of the current status. If the field is mandatory, it will be marked with an asterisk (*).
Role	Select roles from the drop-down list. Available options include temporary roles and project roles. The selected roles are used to verify field editing permissions. **NOTE** If **Display** or **Editable** is set to **No**, role configuration does not take effect, and the selected roles are grayed out. ■ Options: Only the temporary roles and project roles of the project to which the current status flow belongs are available. ■ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification.
Controlled or Not	1. Set whether a field is controlled in the current status node. 2. Controlled fields of the work item under review cannot be edited until the review is finished.

Step 8 Edit a transition line.

1. Click a status flow transition line. The **Transition Line Information** page is displayed.
2. Set the transition line information.

   The transition line information area displays the **Start Status**, **Target Status**, **Transition Line Name** (which is an operation button on the details page and can be edited), and **Set as primary transfer** parameters. **Set as primary transfer** is disabled by default. If the transition is set as the main transition, it is displayed as a main blue button on the work item details page to prompt users to perform the best operation during the transition. Other transitions are displayed as gray buttons. The following figure shows the transition line name displayed on the work item details page.

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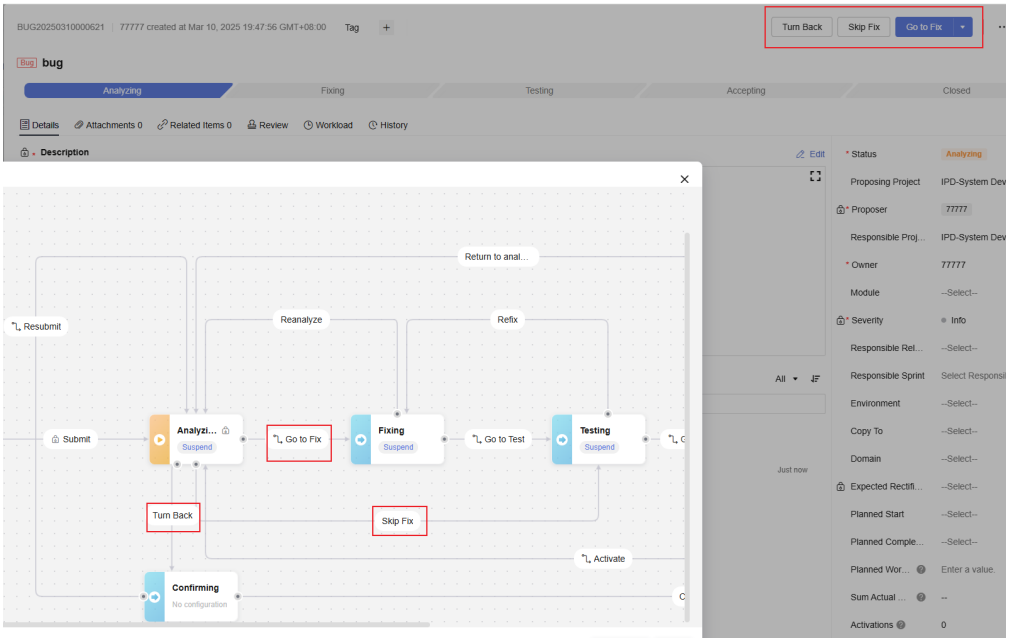

3. Configure pre-transition verification. The transition can be performed only when the verification items meet the requirements. The verification items are as follows.

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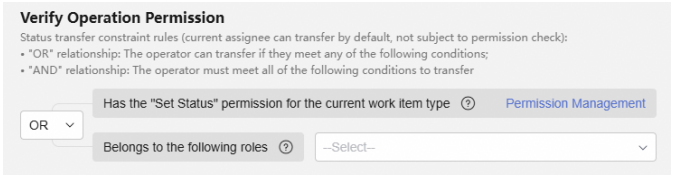
Table 8-26 Pre-transition verification

Verification Item	Description
Verify Operation Permission	Configure status transition restriction rules. The current owner is allowed to perform status transitions by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used. **OR** logic: The operator can perform the status transition if they meet any one of the following conditions. **And**: The operator must meet all of the following conditions to perform the status transition. 1. Condition 1: **Has permission to set the status for the current work item type**. Permission verification is performed based on the project where the status transition is initiated: ▪ If the operation is performed in the **Responsible Project**, the system checks whether the operator has permission to set work item status in the responsible project. ▪ If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has permission to set work item status in **Proposing Project**. 2. Condition 2: **Belongs to one of the following roles**. Select roles from the drop-down list. Available options include temporary roles and project roles. ▪ Available roles: Only temporary roles and project roles of the project to which the current status flow belongs are available. ▪ Verification rules: For operations in the **Responsible Project**: All selected roles take effect. For operations in the **Proposing Project**: Only temporary roles take effect. Project roles are not included in the verification. 
Validate Field Information	Optional. This verification is required by default. You can also disable it. If you enable the option, click **Add Fields**. On the **Add Fields** page, select the field to be added, set **Field Value**, and click **OK**.

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Verification Item	Description
Verifying Associate Item Information	Optional. This verification is required by default. You can also disable it. If you enable this option, click **Add Associated Items**. On the **Add Associated Items** page, select the desired associated items, select **Condition** (**None** by default), and click **OK**.

4. Configure the in-transition page.

   Configure additional information that must be entered during status transition to proceed. The **In-transition GUI Config** switch is enabled by default and can be disabled. If the switch is enabled, click **Add Field**. The **Add Field** dialog box is displayed. Select the field to be added from the drop-down list and click **OK**. The field is displayed in the field list.

   Click **Submit to Fix**. The required fields are displayed, as shown in the following figure.

   NOTE

   If **Mandatory** is selected when a field is added, the field name in the field list is marked with an asterisk (*).

5. Configure the post-transition action.

   After the transition is successfully executed, the configured post-transition actions are automatically executed. Configure the post-transition actions as follows.

   Table 8-27 Configuration items for post-transition actions

Configuration Item	Description
Update fields	Update the value of a specified field after the successful transition. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Update fields** and click **OK**. 3. In the **Add Field** window, select the field to be added in the **Select Field** text box. 4. Set the judgment condition and default value for the selected field. 5. Click **OK**. The field will be displayed in the post-transition action list.

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Configuration Item	Description
Baseline-related operations	Update the baseline status of the target object after the transition is successful. If the current baseline status of the target object is the same as the updated baseline status after the transition is successful, this post-transition action will not be executed. For example, if **Baseline current work item** is selected for a baselined work item, this action will not be executed. **CAUTION** – For RRs and bugs in IPD-system device projects and IPD-standalone software projects, you cannot baseline or unbaseline the current work item. If the selected associated work item type contains such work items, the related post-transition action will not succeed. – For IPD-self-operated software/cloud service projects, you cannot add **Baseline-related operations** as post-transition actions. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Baseline related operations** and click **OK**. The **Baseline related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ **Baseline correlation**: This action is performed only when both of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review. ▪ **Cancel baseline association**: This action is performed only when all of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review. c. When an associated work item belongs to a sprint, the sprint is not baselined. d. When an associated work item does not belong to any sprint but belongs to a release, the release is not baselined. 4. Set **Description**. 5. Click **OK**. The baseline operation will be displayed in the post-transition action list.

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Configuration Item	Description
Snapshot-related operations	After the transition is successful, take a snapshot of the current work item or associated item. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Snapshot related operations** and click **OK**. The **Snapshot related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ **Take a snapshot of the current work item** ▪ **Take a snapshot of associated work items** 4. If you select **Take a snapshot of associated work items**, select the type of the work item to be associated from the **Associated work item types for snapshotting** drop-down list. 5. Set **Description**. 6. Click **OK**. The snapshot operation will be displayed in the post-transition action list.

Step 9 (Optional) If you add a node to the canvas, draw connection lines using the mouse and enter the transition line name. Repeat steps 7 to 8 to edit the status flow node and transition lines.

Step 10 Configure the main navigation bar.

Click **Update Status Flow** in the upper right corner to display the navigation for optimal work item transition. Drag nodes on the navigation bar to adjust their sequence.

The default **To Do** and **Done** nodes cannot be dragged. If there is no transition line between two statuses, the nodes cannot be dragged together, and the message **This status cannot be transitioned. Orchestrate statuses again.** is displayed.

Step 11 Click **OK**. A message is displayed, indicating that the update is successful. Go to the work item details page to view the status flow configuration.

----End

8.2.6 Configuring Work Item Tags

Tags can be created, edited, and deleted for different types of requirements, work items, and plans in a project.

Prerequisites

An IPD-standalone software project is available, in which you have permission to **manage tags**.

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Creating a Work Item Tag

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **Work Item** > **Tags**.

All work item tags are displayed on this page.

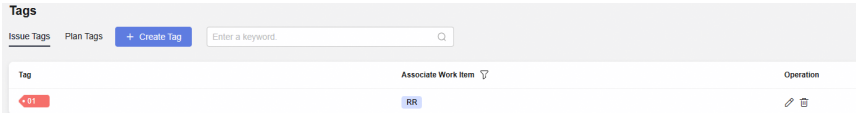
Step 3 Click **Create Tag**.

Step 4 Select a work item type and tag color, and enter the tag name.

Step 5 Click **OK**.

The newly created tag is displayed in the list.

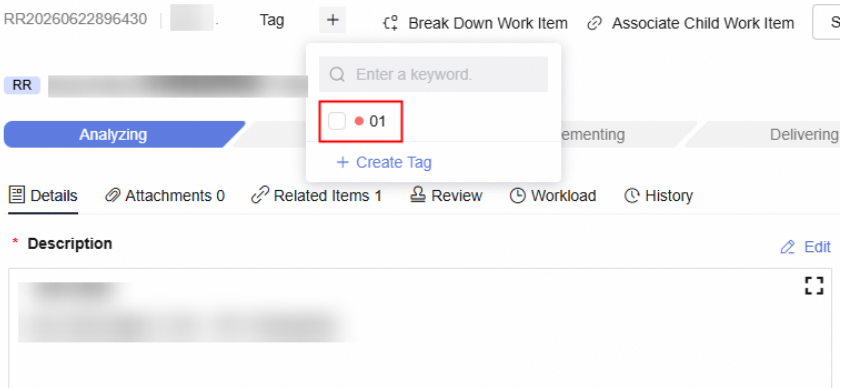
Figure 8-6 Work item tags



- Click to change the work item type, tag name, and color. The change is synchronized where the tag is referenced.
- Click to delete a tag. The tag is deleted from where it is referenced.

The tag also displays on the details page of the associated work items (such as RR).

Figure 8-7 Work item details



----End

Creating a Plan Tag

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **Work Item** > **Tags**.

Step 3 Click **Plan Tags**. The **Plan Tags** page is displayed.

All tags created on the **Plans** page are displayed here.

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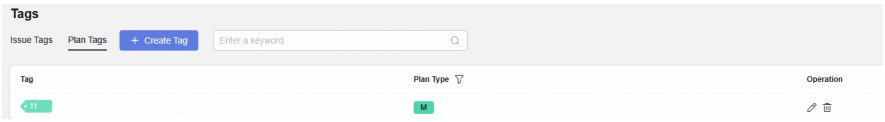
Step 4 Click **Create Tag**.

Step 5 Select a plan type and tag color, and enter the tag name.

Step 6 Click **OK**.

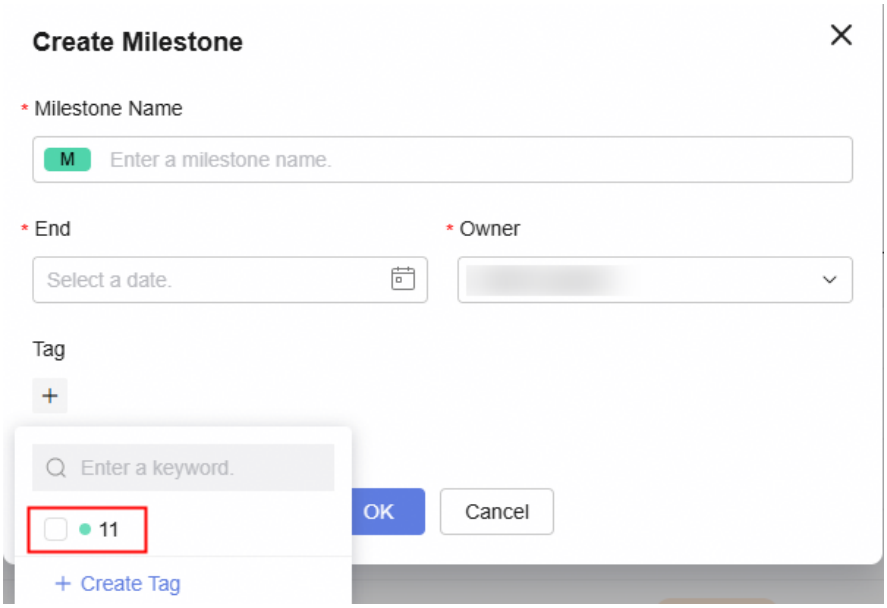
The new tag is displayed in the plan tag list.

Figure 8-8 Plan tags



- Click to change the plan type, tag name, and tag color. The change is synchronized where the tag is referenced.
- Click to delete a tag. The tag is deleted from where it is referenced.

The tag is also displayed on the page for creating a plan (such as a milestone) under **Plans**.



----End

8.2.7 Creating Work Item Modules

- You can add, modify, and delete work item modules in a project.
- You can add submodules to a module.
- When creating or editing a work item, you can specify the module to which the work item belongs.
- Click before the module name and drag the module to adjust the module sequence.

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Prerequisites

An IPD-standalone software project is available, in which you have permission to **configure modules**.

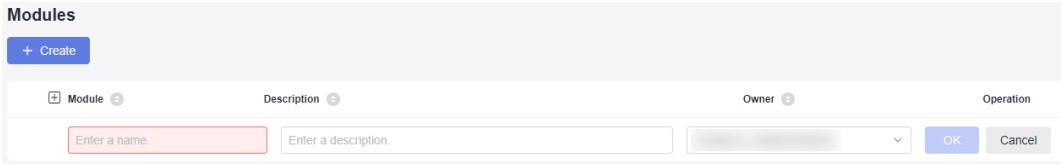
Creating a Module

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings > Work > Modules**.

Step 3 Click **Create**.

Figure 8-9 Creating a module



Step 4 Set **Module**, **Description**, and **Owner**.

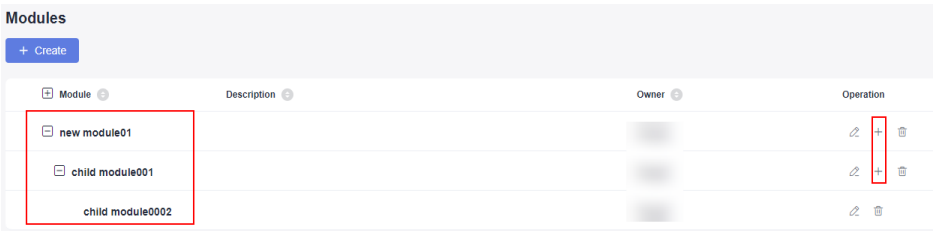
The module name must be unique in the system.

Step 5 Click **OK**.

Step 6 (Optional) Edit or delete a module, or add a submodule.

- Click to edit the module.
- Click to delete the module.
- Click to add a submodule. Each module can have a maximum of three levels, for example, **Module1** > **Submodule01** > **Submodule001**.

Figure 8-10 Adding a submodule



----End

8.2.8 Creating Work Types

Work types include R&D design, backend development, frontend development, and more. You can customize your own work types and specify whether they are mandatory for work items.

Prerequisites

An IPD-standalone software project is available, in which you have permission to **configure work types**.

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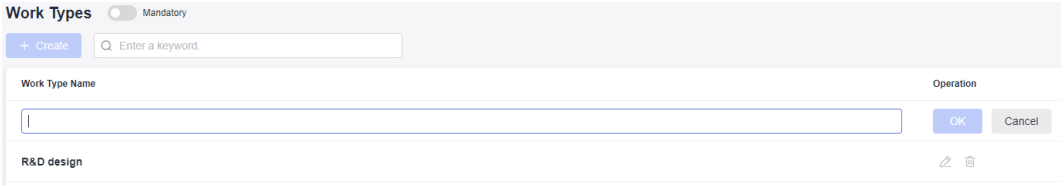
Creating a Work Type

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings > Work > Work Types**.

Step 3 Click **Create**.

Figure 8-11 Creating a work type



Step 4 Enter a work type name.

The name must be unique in the system.

Step 5 Click **OK**.

You can select this work type when configuring workloads for work items.

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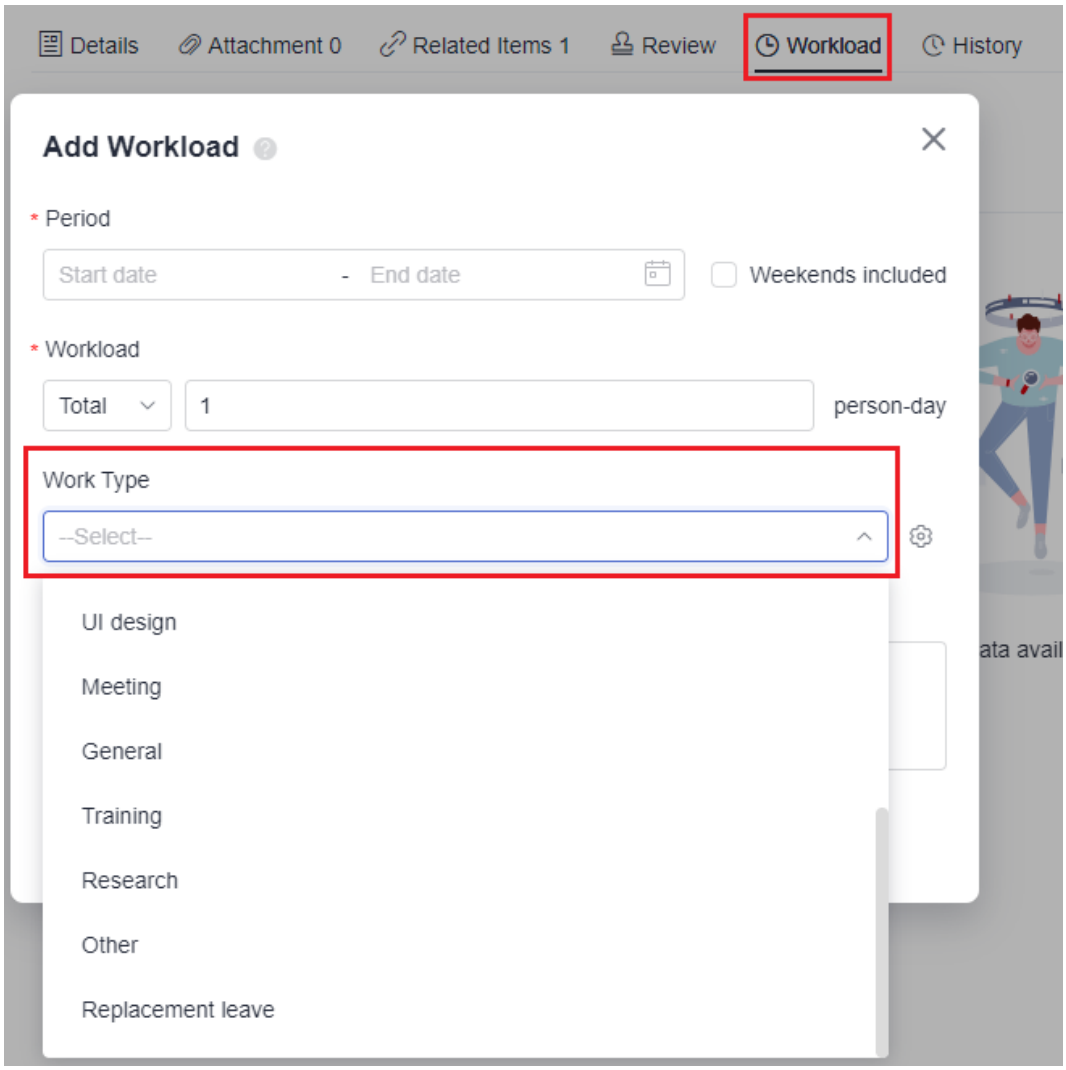
Figure 8-12 Adding a workload



----End

Configuring Whether Work Types Are Mandatory

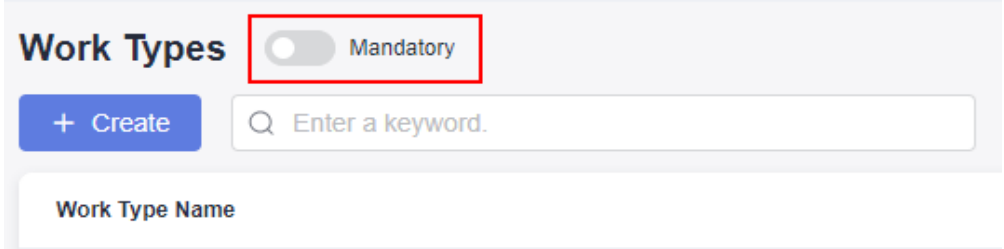
Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **Work** > **Work Types**.

Step 3 Toggle on **Mandatory**.

By default, this option is toggled off.

Figure 8-13 Configuring work types



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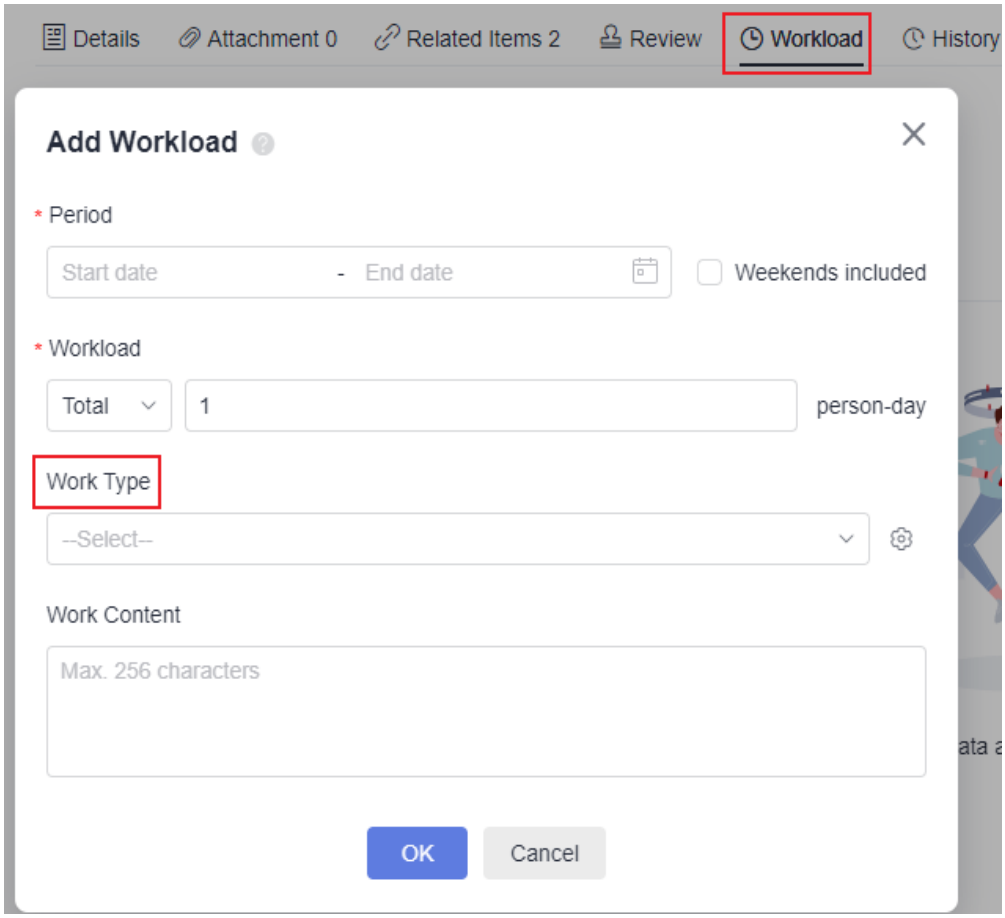
A red asterisk (*) will be displayed next to **Work Type** on the **Add Workload** page, indicating that the work type is mandatory.

Figure 8-14 Adding a workload



----End

8.2.9 Configuring Automation Rules

Project creators or roles granted the automation configuration permission can enable or disable automation rules as required to implement automatic parent-child status rollup or status transfer, workload statistics, and story point statistics. Once a rule is enabled, all work items and users in the project can trigger the rule.

Table 8-28 Rollup automation rules

Rule Name	Description
Status Convolution	Synchronizes parent and child work items. For example, if all child work items are completed, the parent work item is automatically completed. For details, see **Adding an Automation Rule for Status Rollup**.

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Rule Name	Description
Labor hours Convolution	The procedure applies to workload rollup in parent-child/upstream-downstream scenarios. For details, see **Adding an Automation Rule for Workload Rollup**.
Story Points Convolution	The procedure applies to story point rollup in parent-child/upstream-downstream scenarios. For details, see **Adding an Automation Rule for Story Point Rollup**.

Prerequisites

You have the automation permission on the ipd_work configuration page in the project.

Constraints and Restrictions

- If all child work items of the parent item meet the rule condition and the target status of the parent item supports transition, the rule is applied.
- If the parent item has any child work items that do not meet the rule condition, when the rule is triggered, a record indicating no operation performed is generated and the parent item status is not transitioned.
- If there is no parent item, when the rule is triggered, a record indicating that no operation is performed is generated.
- If the parent item transition status configured in the rule does not support transition, when the rule is triggered, a record indicating an execution error is generated and the parent item status is not transitioned.

Adding an Automation Rule for Status Rollup

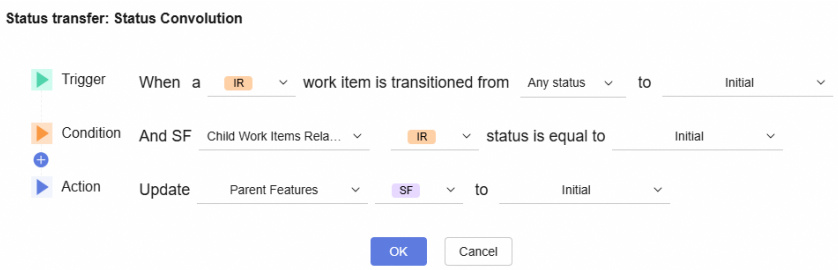
Step 1 **Access the CodeArts Req homepage**.

Step 2 Access a project and choose **Settings** > **Work** > **Automation**. The **Automation** page is displayed.

Step 3 Select the **Automation Rules** tab and click **Create Rule**.

Step 4 In the **Work Item Status Transition Rule Template** dialog box, select the required rule template. The following uses the **Status Convolution** template as an example.

Step 5 Click **OK**. The **Status transfer: Status Convolution** dialog box is displayed.



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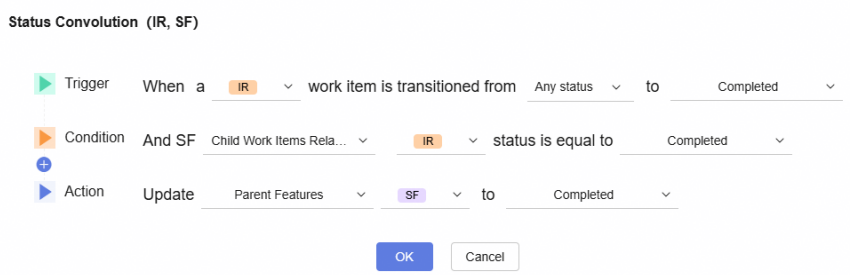
Step 6 Set an automation rule.

1. Hover over **Status transfer: Status Convolution** and click to set the name of the automation rule.
2. Select **Trigger**, **Condition**, and **Action** from the drop-down lists. The following figure is an example.



3. Click **OK**. Check the new automation rule in the **Automation Rules** list. By default, the rule is enabled.
4. Set **In Use** to enable or disable the configured rule. Verify the automation rule by accessing the work item list again. For example, if you change the status of all child work items under an SF to **Completed**, the status of the SF is automatically updated to **Completed**. In addition, an automation rule operation history record is added to the **History** tab of the SF work item details page.

Step 7 When auto rollup is triggered, the corresponding rule is recorded on the **Logs** page. Click in the **Operation** column to expand the log details.

----End

Adding an Automation Rule for Workload Rollup

The procedure applies to workload rollup in parent-child/upstream-downstream scenarios.

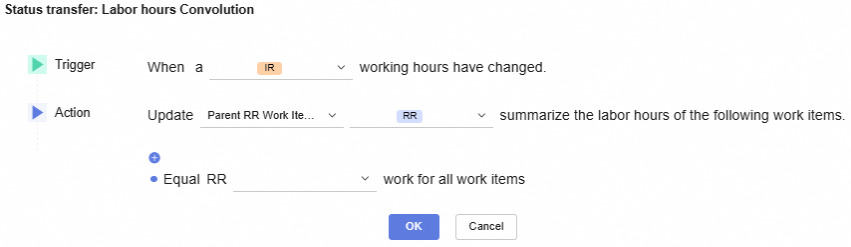
Step 1 Access the CodeArts Req homepage.

Step 2 Access a project and choose **Settings > Work** > **Automation**. The **Automation** page is displayed.

Step 3 Select the **Automation Rules** tab and click **Create Rule**.

Step 4 In the displayed dialog box, select **Labor hours Convolution**.

Step 5 Click **OK**. The **Status transition: Labor hours Convolution** dialog box is displayed.



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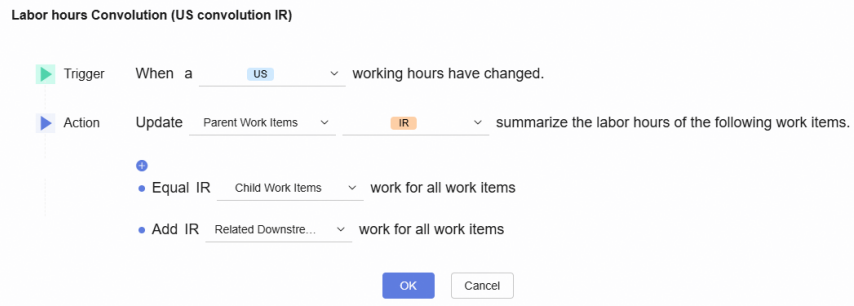
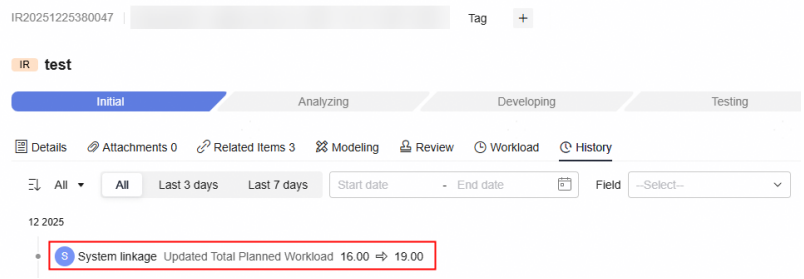
Step 6 Set an automation rule.

1. Hover over **Status transfer: Labor hours Convolution** and click to set the name of the automatic workload rollup rule.
2. Select **Trigger**, **Action**, **Equal**, and **Add** from the drop-down lists. The following figure is an example.



3. Click **OK**. Check the new automation rule in the **Automation Rules** list. By default, the rule is enabled.
4. Set **In Use** to enable or disable the configured rule. Verify the automation rule by accessing the work item list again. For example, if you modify the planned workloads of any US under the IR, the IR's planned workloads will be automatically updated to the sum of the planned workloads of all work items and collaborative downstream work items under that IR. And an automation rule operation record is added to the **History** tab page of the IR.



Step 7 When auto rollup is triggered, the corresponding rule is recorded on the **Logs** page. Click in the **Operation** column to expand the log details.

----End

Adding an Automation Rule for Story Point Rollup

CAUTION

To add the **Story Point** field, choose **Settings > Work Item > Work Item Management**, and add the field on the **Fields** page for the corresponding work item type. Only after the fields are added can they be used in the corresponding work item.

Applies to story point rollup in parent-child/upstream-downstream scenarios, excluding custom association scenarios.

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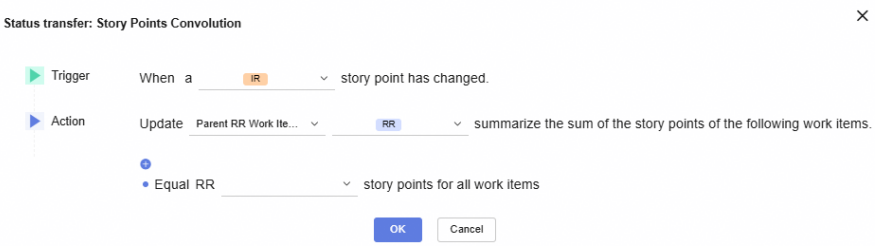
Step 1 Access the CodeArts Req homepage.

Step 2 Access a project and choose **Settings** > **Work** > **Automation**. The **Automation** page is displayed.

Step 3 Select the **Automation Rules** tab and click **Create Rule**.

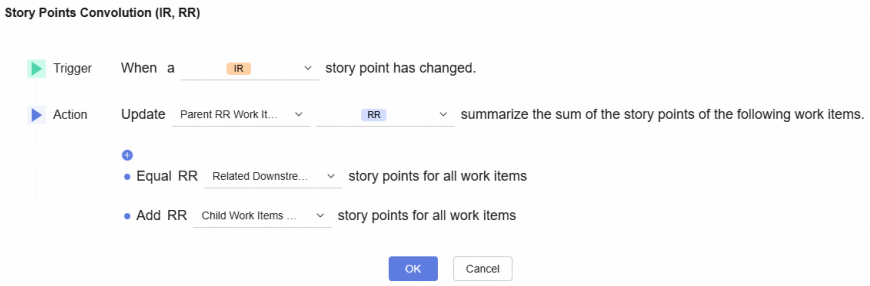
Step 4 In the **Work Item Status Transition Rule Template** dialog box, select **Story Points Convolution**.

Step 5 Click **OK**. The **Status transition: Story Points Convolution** dialog box is displayed.

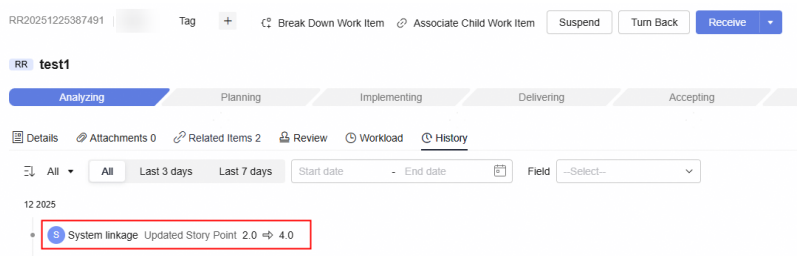


Step 6 Set an automation rule.

1. Hover over **Status transfer: Story Points Convolution** and click to set the name of the automatic story point rollup rule.
2. Select **Trigger**, **Action**, **Equal**, and **Add** from the drop-down lists. The following is an example of the configured automation rule for story point rollup.



3. Click **OK**. Check the new automation rule in the **Automation Rules** list. By default, the rule is enabled.
4. Set **In Use** to enable or disable the configured rule. Verify the automation rule by accessing the work item list again. For example, if you modify the story points of an IR, the story points of the parent RR associated with this IR will be automatically updated to the sum of the story points of all collaborative downstream work items and child work items associated with the RR. And an automation rule operation record is added to the **History** tab page of the RR.



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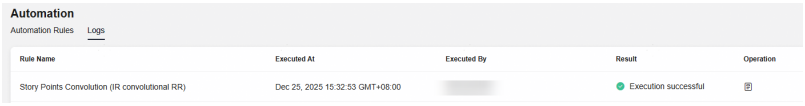
Step 7 When auto rollup is triggered, the corresponding rule is recorded on the **Logs** page. Click in the **Operation** column to expand the log details.



----End

8.2.10 Configuring Notifications

Overview

Notification rules can be configured to use several methods: internal messages, emails, WeCom, DingTalk, Feishu, and generic webhooks. Internal messages and emails alert project members of relevant operations, while notifications via WeCom, DingTalk, Feishu, and generic webhooks are directed to their respective chat groups.

- Internal message/Email notification

  On the notification settings page, select the desired recipients and event types. Once set up, the chosen recipients will be alerted when specific events (for example, RR modification) take place.

- WeCom notifications

  On the notification settings page, configure the webhook address and event types. Once set up, WeCom will post notifications to the designated chat group when specific events (for example, RR modification) take place.

- DingTalk/Feishu

  On the DingTalk/Feishu notification settings page, configure the webhook URL and event types for the group chatbot. Once set up, DingTalk or Feishu will post notifications to the designated chat group when specific events (for example, RR modification) take place.

- Generic webhook

  On the webhook page, configure the third-party system's URL and subscribe to the desired event types. Once set up, a request will be sent to the configured URL via webhook when the subscribed events occur.

Prerequisites

- To configure internal message, email, and WeCom notifications, you must have the **Config** > **Notifications** permissions for IPD-standalone software projects. For details, see **How Do I Check and Obtain Required Project Permissions?**

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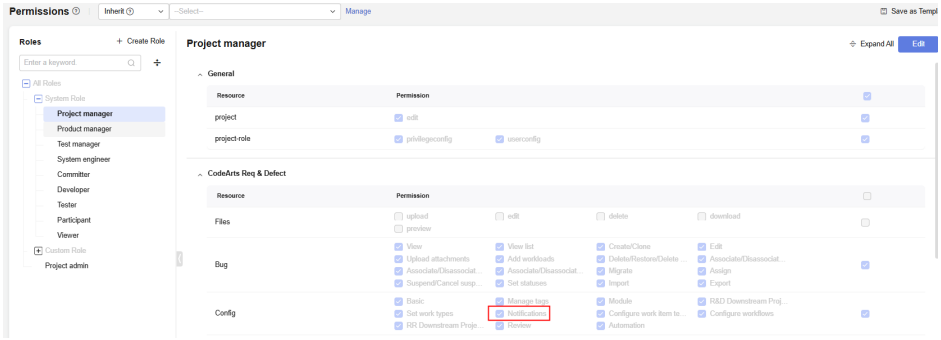


- To configure DingTalk, Feishu, and generic webhook notifications, you must be a **project administrator** or **project manager** in an IPD-standalone software project. For details, see **How Do I Check and Obtain Required Project Permissions?**

Configuring Internal Message and Email Notifications

Step 1 **Access the CodeArts Req homepage.**

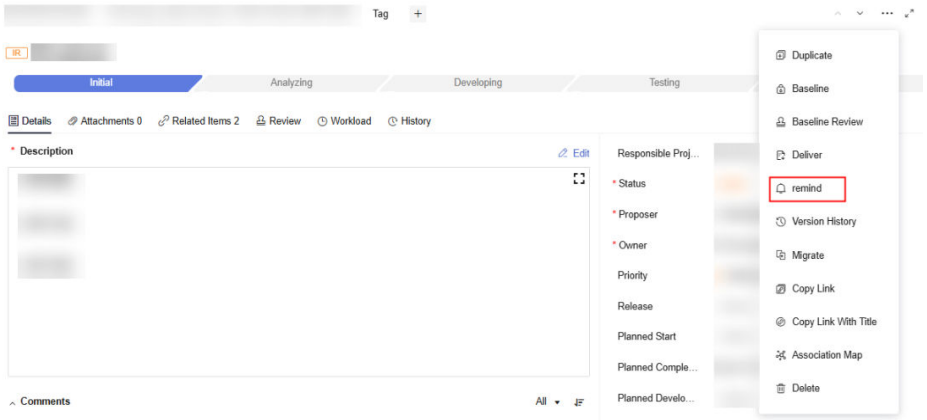
Step 2 Go to a project and choose **Settings > Work > Notifications**.

Step 3 Select desired work items for notifications. Select or deselect notification recipients and events.

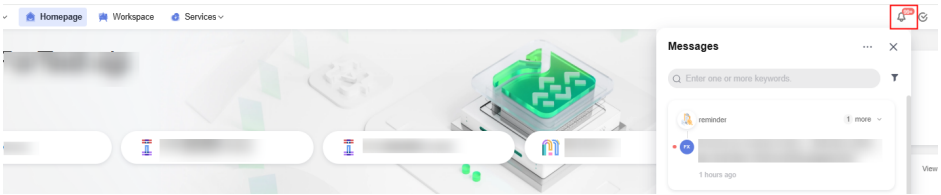
After the setting is complete, the selected recipients will be notified when a corresponding event (for example, RR modification) occurs.

NOTE

After the setting is complete, to send a **reminder**, click ••• on the right of the work item details page and select **remind**. The current owner of the work item will receive the reminder notification. An example of reminding an IR is as follows.



- **Direct Message**: When a member logs in to the CodeArts Req homepage, they will see the number of internal messages displayed next to in the upper right corner. They can click the icon to view notification details.



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- **Email**: Project members who have an email address configured for their user and have enabled **Notifications** on the **This Account Settings** page will receive notification emails from the service.



----End

Configuring WeCom Notifications

Step 1 **Access the CodeArts Req homepage.**

Step 2 Go to a project and choose **Settings > Work > Notifications**.

Step 3 Enter a **Webhook Address**.

To obtain the webhook address, perform the following steps:

1. Open the WeCom group where you want to receive notifications, and click the ··· button in the upper right corner.
2. Click **Group Robot**.
3. Click the created group robot to copy the generated webhook URL.

Step 4 Select event types.

Event types include operations on raw requirements, system features, R&D requirements, tasks, bugs, reviews, and plans. Select operations as required.

Step 5 Click **OK**.

After the configuration is complete, WeCom will send notifications to the WeCom chat group when specified events occur.

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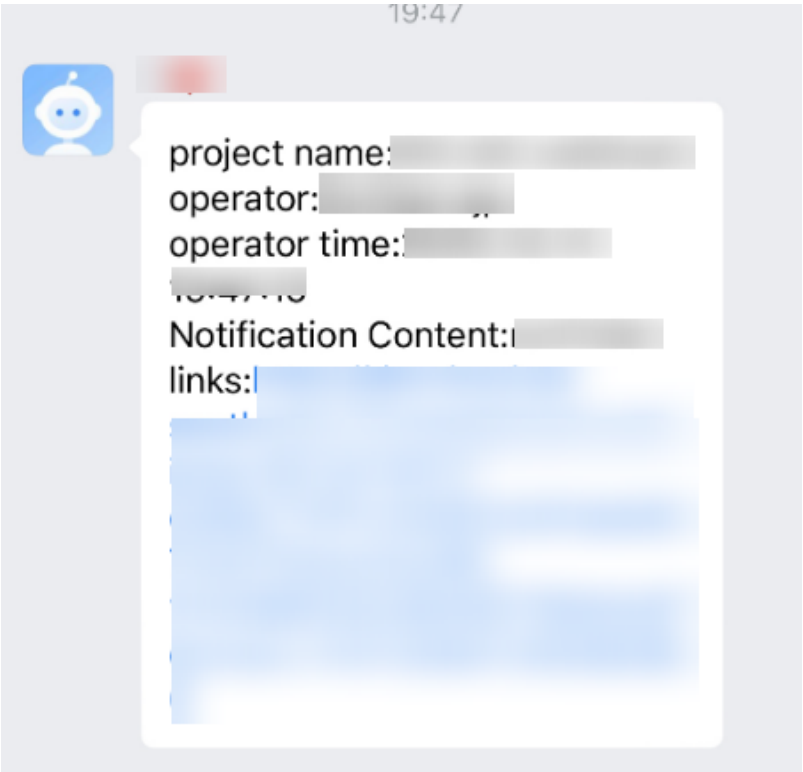

----End

Configuring DingTalk and Feishu Notifications

Notifications can be pushed via DingTalk and Feishu. Set parameters and configure the notification content as required.

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **General** > **Notifications**.

Step 3 On the **Notifications** page, choose **DingTalk** or **Feishu** > **CodeArtsReq**. The DingTalk or Feishu setting page of IPD-standalone software projects is displayed.

Step 4 Set parameters according to **Table 8-29**.

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Table 8-29 DingTalk/Feishu notification parameters

Parameter	Description	Example
URL	URL of a notification from the DingTalk or Feishu group chatbot.	DingTalk chatbot: https://oapi.dingtalk.com/robot/send?access_token=373fa3c1ff75e8e9ce71742f544081bd562a99c996eb7911a051c1b43538beca
Event type	Type of the event to be notified of. Event types include operations on raw requirements, system features, R&D requirements, tasks, bugs, reviews, and plans. Select operations as required.	**RR** > **Comment RR**
@User IDs	(Optional) User IDs of DingTalk or Feishu members who receive the notifications. @User IDs: Mentions specified members in the group. @all: Mentions all members in the group. Separate multiple user IDs with semicolons (;). Format: A user ID can only contain letters, digits, semicolons (;), and the following special characters: .-_@. Length: 1 to 64 characters.	testA;testB
@Mobile Numbers	Phone numbers to receive messages. **This parameter is available for DingTalk but not for Feishu.** Format: Use semicolons (;) to separate multiple mobile numbers. The maximum length is **1,000** characters.	None
Additional Signature	(Optional) Only available when DingTalk or Feishu notifications are configured. If signature-based encryption is enabled in the security settings of the DingTalk or Feishu robot, enter the signing secret.	None

Step 5 Click **Save and Enable Notification** to save the settings and enable the notification.

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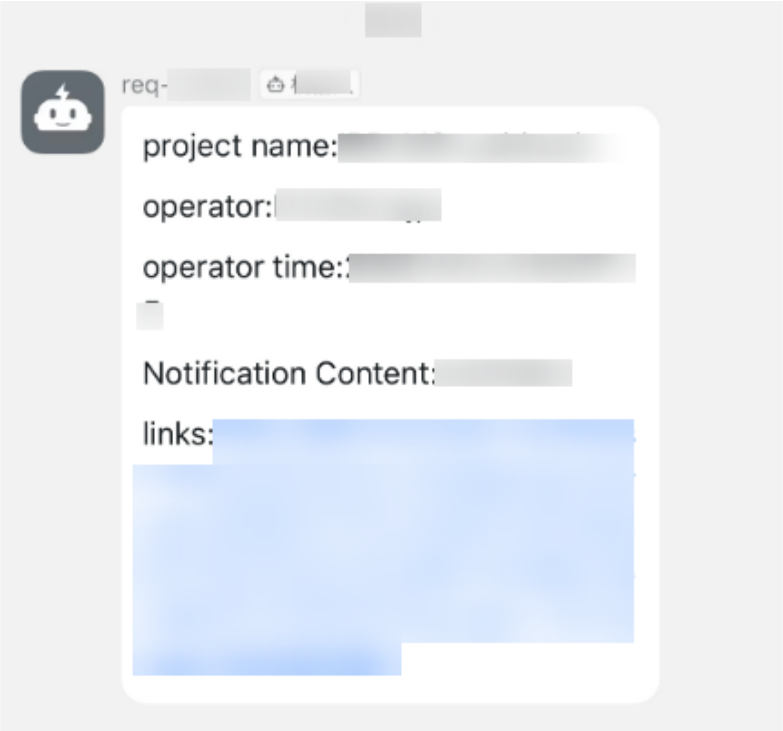
NOTE

- You can also click **Save** to save the settings and then click on CodeArts Req to enable the notification.
- If you do not need to send notifications, click on CodeArts Req to disable the notification.

After the configuration is complete, when a notification event occurs, DingTalk sends the notification to the corresponding chat group, as shown in the following figure.



----End

Configuring Generic Webhook Notifications

Notifications can be pushed via generic webhook.

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **General** > **Notifications**.

Step 3 On the **Notifications** page, choose **Generic webhook > CodeArtsReq**. The webhook setting page of IPD-standalone software projects is displayed.

Step 4 Click **New Webhook Subscription**.

Step 5 Set parameters according to **Table 8-30**.

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Table 8-30 Webhook notification parameters

Parameter	Description	Example
Subscription Event Name	(Mandatory) Name of the subscription event. The name is user-defined and can contain a maximum of 200 characters.	req-Webhook_test
URL	URL of a webhook notification. The value must start with **https://** or **http://**.	Feishu chatbot: https://open.feishu.cn/open-apis/bot/v2/hook/ffd39b45-d8c6-4771-9bb2-0a3b28c86fd7
Event type	Type of the event to be notified of. Event types include operations on raw requirements, system features, R&D requirements, tasks, bugs, reviews, and plans. Select operations as required.	• **Comment RR** • **Commit Review** • **Update IR**
HTTP Request Headers	(Optional) Request headers required for sending messages. HTTP request header, which is a JSON array. The maximum length of a single request header is **100** characters, and a maximum of **20** request headers can be entered. The format of a request header is *key:value*.	Content-Type:application/json

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Parameter	Description	Example
Custom Templates	Custom templates of generic webhook notifications. Obtain the corresponding values of configurable variables through the **$*{}*** method. For details about the configurable variables, see **Table 8-31**. **The maximum length of the character string is 1,000.**	• DingTalk parameters: {"msgtype":"text","text":{"content":"{\"Product name\":\"Requirement name\",\"reviewId\":\"${review.id}\",\"reviewStatus\":\"${review.status}\",\"reviewStatusName\":\"${review.status.name}\",\"operation\":\"${operation}\",\" ID \":\"${issue.number}\",\"Submitter ID\":\"${issue.submitted_by.id}\",\"Creator ID\":\"${issue.created_by.id}\",\"Owner\":\"${issue.assignee.name}\",\"project_id\":\"${project.id}\",\"issue_title\":\"${issue.title}\",\"Operator\":\"${operator.username}\",\"Operator ID\":\"${operator.id}\",\"Review\":\"${review.title}\",\"Review URL\":\"${review.url}\",\"Work item ID\":\"${issue.id}\",\"Work item type \":\"${issue.type}\",\"priority_change\":\"${issue.modified_fields.priority}\",\"issue_create\":${issue.create_fields._all},\"assignee_change\":${issue.modified_fields.assignee},\"Modify custom fields\":${issue.modified_fields.c7442403074245795840},\"all_fields_change\":${issue.modified_fields._all}}"}} • Feishu parameters: {"msg_type":"text","content":{"text":"*CodeArts Req - Generic webhook test*\n*Project ID*: ${project.id}\n*Project URL*: ${project.url}\n*Work item ID*: ${issue.id}\n*Work item name*: ${issue.title}\n*Work item URL*: ${issue.url}\n*Operator*: ${operator.username}\n*Operator ID*: ${operator.id}\n*Review ID*: ${review.id}\n*Review*: ${review.title}\n*Review URL*: ${review.url}\n*Event name*: ${operation}"}}

Table 8-31 Configurable variables in generic webhook custom templates

Variable	Description
project.id	Project ID.
project.url	Project URL.

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Variable	Description
issue.id	Work item ID.
issue.url	Work item URL.
issue.type	Work item type.
issue.title	Work item title.
operator.username	Operator username.
operator.id	Operator ID.
review.id	Review ID.
review.title	Review title.
review.url	Review URL.
review.status	Review status.
review.status.name	Review status display name.
operation	Event name.
issue.number	Work item ID.
issue.created_by.id	Creator user ID.
issue.created_by.name	Creator display name.
issue.submitted_by.id	Submitter user ID.
issue.submitted_by.name	Submitter display name.
issue.assignee.id	User ID of the owner.
issue.assignee.name	Owner display name.
issue.modified_fields._all	A list of all modified fields. The value is in the form of a JSON array.
issue.modified_fields.{field_code}	Fields to be included in notifications when editing a work item. {field_code} indicates the specific field. For example, **issue.modified_fields.priority** indicates that the priority field is included in the notification when a work item is edited. The value is in the form of JSON objects.
issue.create_fields._all	Content of the notification sent when a work item is created, including the title, ID, status, project, feature set (only for SFs), current owner, priority, and severity (only for bugs).
issue.comment.id	Comment ID.

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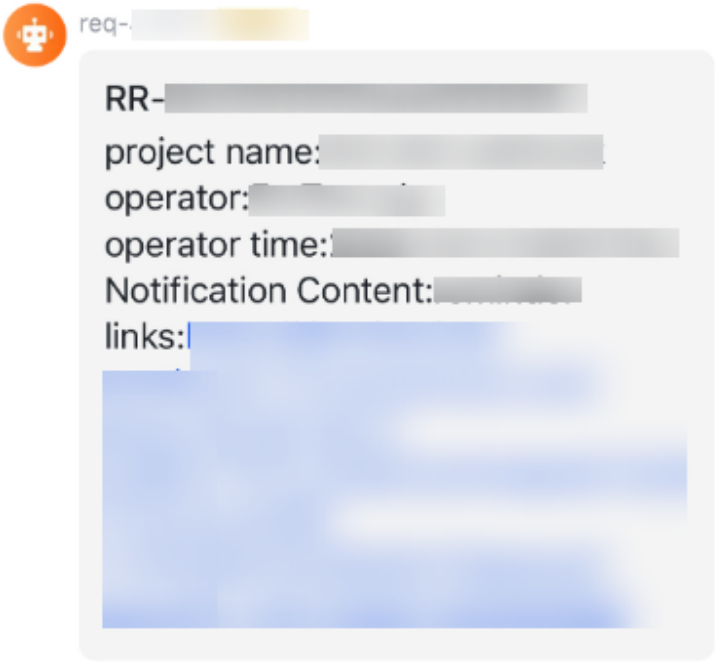
Variable	Description
issue.comment.parent_id	ID of the replied comment.
issue.comment.root_id	Root ID of the current comment.

Step 6 Click **OK** to save the settings.

After the configuration is complete, when a subscription event occurs, the system sends a request to the URL of the third-party system (Feishu) via webhook, as shown in the following figure.

NOTE

If you do not need to send notifications, click  in the row that contains the corresponding event name in the subscription event list of CodeArts Req to disable notifications.



----End

8.2.11 Configuring Reviews

Only the project administrator can set decision-maker roles.

Procedure

Step 1 Go to the project and choose **Settings > Work Item > Review > Basic Review Settings**.

Step 2 Set the review content.

- **Review Methods**

  Select a review method as required.

  - By single reviewer: A CR (review object), BR, or GR is complete once any review expert approves or rejects them.
  - By all reviewers: A CR (review object), BR, or GR is complete only when all review experts approve them or any one rejects them.
  - By pass rate: A CR (review object), BR, or GR is complete only when "Review experts who approve the review/Total review experts x 100% ≥ Pass rate" or "Review experts who reject the review/Total review experts x 100% > 1 – Pass rate".

- **Decision-Makers**

  Decision-makers of the configuration review (except the RRs/bugs in the change review). By default, all roles in the project are available.

- **Review Experts**

  Reviewers of the configuration review (except the RRs/bugs in the change review). By default, all roles in the project are available for selection.

- Set the **Require Decision-Making** switch.

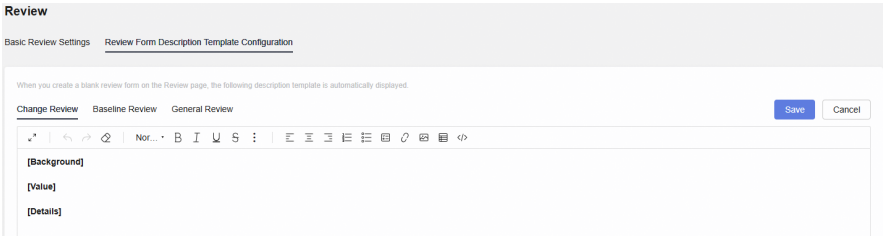
  You can enable or disable the **Require Decision-Making** switch as required.

  - When **Require Decision-Making** is enabled, if no review experts are selected, the review process will skip the **To Be Reviewed** phase.
  - If **Require Decision-Making** is disabled, **Review Expert** is mandatory. If **Decision-Maker** is not set in the review ticket, the review process will skip the **Pending Decision-Making** phase.

- Configure review check items, and configure whether to enable review check items for the review and select the review checklist template to be used. For details, see **Enabling Review Check Items in Review Settings**.

Step 3 Choose **Settings > Work Item > Review > Review From Description Template Configuration**. On the displayed page, click **Edit**.

Figure 8-15 Review description template



You can customize the description template for the CR, BR, and GR as required. After editing the template, click **Save**. The saved description template will be automatically populated when you create a blank review on the **Review** page.

----End

8.2.12 Viewing Work Item Import/Export Records

You can download the imported and exported work item files.

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Prerequisites

- Some work items have been imported or exported in a project.
- Only the export records of the last seven days are retained.
- Only the import records of the last month are retained.
- The project administrator can view the import and export records of all members in the current project.

Viewing Export Records

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings > Work > Import/Export**.

Step 3 Click the **Export** tab to view the export records.

Step 4 Download the desired work items. All project members' export records of any types of work items will be displayed on this page.

----End

Viewing Import Records

Step 1 Access the CodeArts Req homepage.

Step 2 Go to an IPD-system device project and choose **Settings > Work > Import/Export**.

Step 3 Click the **Import** tab to view the import records.

Step 4 Download the desired work items. All project members' import records of any types of work items will be displayed on this page.

----End

8.2.13 Configuring Downstream Projects for an RR

Configure downstream projects for an RR, including configuring assignment projects and breakdown projects.

Constraints

You can select a maximum of 100 downstream projects for an RR.

Assignment Projects

Configure target projects for assigning your raw requirements. If not configured, all projects in your tenant are available.

Step 1 Go to the project and choose **Settings > Work Item > RR Collaboration**.

Step 2 On the **Assignment Projects** tab, click **Collaborate With Downstream Projects**. The **Add Collaboration Downstream Project** dialog box is displayed.

Step 3 Search for and select the projects to be added.

Step 4 Click **Add** to add downstream projects.

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The downstream projects that have been successfully added are displayed on the **Assignment Projects** tab.

----End

Breakdown Projects

Configure target projects for breaking down your raw requirements.

Step 1 Go to the project and choose **Settings > Work Item > RR Collaboration**.

Step 2 Click **Breakdown Projects** > **Add Downstream Project**. The **Add Downstream Project** dialog box is displayed.

Step 3 Search for and select the projects to be added.

Step 4 Click **Add** to add downstream projects.

The downstream projects that have been successfully added are displayed on the **Breakdown Projects** tab.

NOTE

After a downstream project is added, it can be configured as the **Responsible Project** of an R&D requirement broken down from a raw requirement.

----End

8.2.14 Configuring Project Assignment

This section describes how to configure project assignment and reception.

Constraints

- A maximum of 100 downstream projects can be selected for an R&D requirement and collaborative delivery.
- You can add up to 10 receivers to a project.

Assignment Projects

CAUTION

Configure the project scope for assigning work items (with the exception of RRs, SFs, and bugs) and release plans.

Step 1 Go to a project and choose **Settings** > **Work Item** > **Collaborative Delivery**.

Step 2 On the **Delivering Project Configurations** tab, click **Add Downstream Project**. The **Add Downstream Project** dialog box is displayed.

Step 3 Search for and select the projects to be added.

Step 4 Click **Add** to add downstream projects.

The downstream projects that have been successfully added are displayed on the current tab.

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NOTE

After projects are added, you can select a configured project for collaborative assignment in **R&D Requirements**. For details, see **Assigning Work Items**.

----End

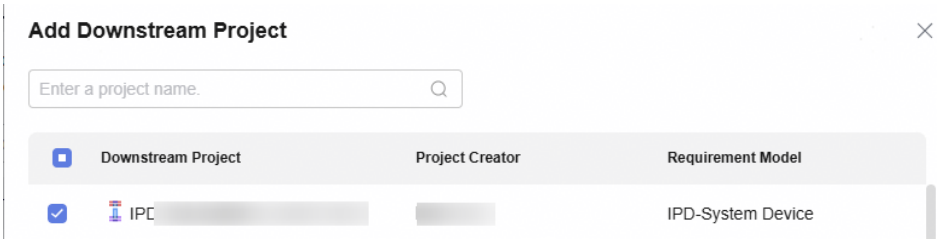
Recipient Configuration

Configure recipients for upstream work items assigned to the current project.

Step 1 Go to a project and choose **Settings** > **Work Item** > **Collaborative Delivery**.

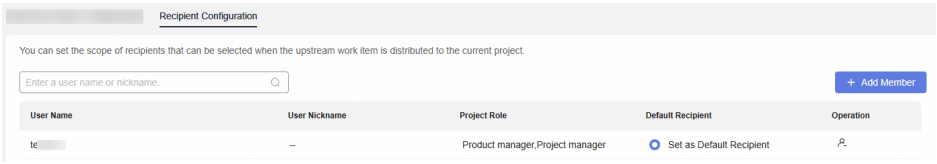
Step 2 Choose **Recipient Configuration > Add Member**. In the displayed **Add Member** dialog box, select the members to be added. Alternatively, search for members in the project in the search box above and select them.

Figure 8-16 Adding receivers



Step 3 Click **OK**.

Figure 8-17 Receivers



- The first receiver in the list is the default receiver. You can click to change the default receiver.
- On the **Recipient Configuration** page, you can click in the **Operation** column to remove the receiver.
  a. After removal, the work items assigned from the upstream project to the current project are not affected, and the receiver can still receive the work items. When the receiver's permission is canceled, a message is displayed, indicating that **the receiver does not have the permission to receive the work items**.
  b. When the receiver is completely removed from the project, they can no longer receive assigned requirements from the upstream project.
  c. When the default receiver is completely removed from the project, the first receiver is automatically selected as the default receiver.

----End

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8.3 Creating and Managing RRs

8.3.1 RR Process

By default, the life cycle of an RR consists of the **--**, **Analyzing**, **Confirm**, **Planning**, **Implementing**, **Delivering**, **Accepting**, and **Closed** states. **Figure 8-18** shows the complete status transition process.

Figure 8-18 RR status transition flowchart

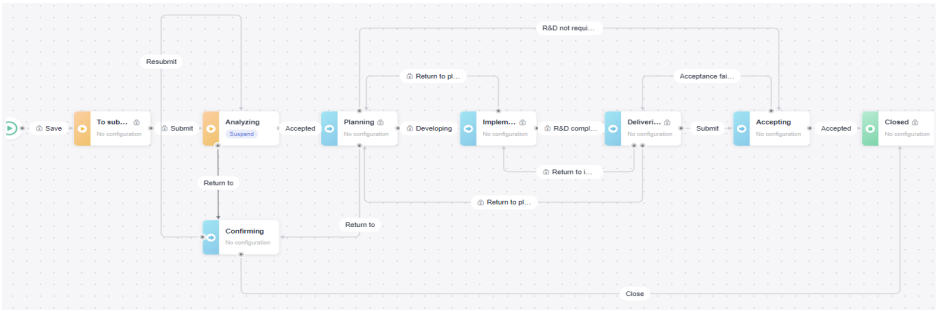

Table 8-32 lists the default operations in each RR state.

Table 8-32 Operation description

State	Description
--	When you create an RR, the status is **--** by default after you save it as a draft. The requirement proposer is by default the person who creates the requirement.
Analyzing	After the RR is submitted, the state changes to **Analyzing**. The requirement recipient can analyze whether to accept the requirement based on the requirement content. If not, the requirement can be returned or suspended. After the requirement is returned, the state changes to **Confirming**. The requirement proposer can directly cancel the requirement or submit the requirement again.
Planning	After the RR is accepted, the state changes to **Planning**. The requirement recipient makes development plan on the requirement. If the requirement does not involve R&D, select **R&D not required**, and the state of the requirement changes to **Accepting**.

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State	Description
Implementing	After the R&D of the RR starts, the state changes to **Implementing**. If there is any problem with the implementation solution, the requirement recipient can return the requirement to the planning phase.
Delivering	After the R&D of the RR is completed, the state changes to **Delivering**. If the delivery cannot meet the expectation, the requirement recipient can return the requirement to the planning or implementing phase.
Accepting	After the RR is submitted for acceptance, the state changes to **Accepting**. The requirement proposer checks whether the content of the requirement meets acceptance conditions. If not, select **Acceptance failed** and the state of the requirement goes back to **Delivering**.
Closed	After the RR is accepted, the state changes to **Closed**.

8.3.2 Creating RRs

RRs are raw problems or requirements described from the perspective of customers. When creating an RR, you need to specify the background, value, details, and priority of the requirement.

Prerequisites

An IPD-standalone software project is available, in which you have permission to **create and duplicate** RRs.

Creating RRs

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, click **Raw Requirements**.

Step 3 Click **RR**. On the **RR** page, set related parameters.

Table 8-33 Creating an RR

Parameter	Description
Title	Name of an RR.
Description	Enter the background, value, and details of the RR based on actual conditions. Use text, images, or links.

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Parameter	Description
Attachment	The maximum number of attachments for a single RR is 100, and their total size cannot exceed 500 MB.
Proposed Project	By default, it is the project to which the RR belongs and cannot be changed.
Raised By	By default, it is the creator of the RR. Multiple creators can be selected.
Responsible Project	Project to which the RR belongs. • If the current project is selected, this requirement is internal. • If another project of the tenant is selected, the requirement is submitted to external parties. The current project is selected by default.
Recipient	Owner who undertakes the RR. If multiple recipients are selected, data will be synchronized based on the recipients' processing speed.
Expected Completion	Expected completion time of the RR.
Priority	Priority of an RR, including **Low**, **Medium**, and **High**. The default value is **Medium**.
Copy To	Other members of the project team.

Step 4 Click **Submit**. The **Raw Requirements** page is displayed and "Request submitted successfully" is displayed in the upper right corner.

- If you click **Save as Draft**, the RR list is displayed. The requirement status is **--**.

  Only the creator can edit, export, submit, comment on, upload attachments to, and delete RRs in the draft state.
- If you click **Cancel**, the creation of the RR is cancelled.

The new requirement is displayed in the RR list, and the requirement state is **Analyzing**. If another project of the tenant is selected for **Responsible Project**, choose **Other Projects** to view the new RR.

NOTE

After an RR is created, the users selected for **Raised By**, **Recipient**, and **Copy To** will receive email and system message notifications. If not, set notifications or modify notification settings. For details, see **Configuring Notifications**.

----End

Related Operations

You can perform the following operations on a new RR.

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Table 8-34 Basic operations on an RR

Operation	Description
Modify title	Click next to an RR title to modify it.
Modify field	Click the target field value in the row of an RR to modify the value.
Break down work item	Click in the **Operation** column of an RR to break it down into child work items. • Click **Add Child Work Item** in the **Break Down Child Work Item** dialog box to break down child work items in batches. A maximum of 10 child work items can be broken down at a time. • The project to which a child work item belongs can be the current project or another project of the tenant. To configure the project scope, choose **Settings** > **Work Item** > **RR Downstream Projects**. • You can break down work items quickly. See **Configuring Common Fields in a Project** for related field configuration. If **Quickly split sub-work items** is enabled, the corresponding number of child work items are created based on the number of selected options. A maximum of 10 child work items can be created. If the work item already has child work items, the quick breakdown function does not take effect. If a work item is configured with multiple fields for quick breakdown, the child work items are obtained only based on the first field in the field template.
Associate child work item	Click in the **Operation** column of an RR to associate it with child work items.
Duplicate RR	Choose > **Duplicate** in the **Operation** column of an RR. The procedure for duplicating an RR is the same as that for creating an RR.
View RR association map	Choose > **Association Map** in the **Operation** column of an RR to view all data of its related items.
Copy RR link	You can copy the title, ID, current owner, status, and link information of a requirement to the clipboard. RRs of this project: Click **Copy Link** in the **Operation** column to copy the link. RRs of other projects/IRs/USs: Click in the **Operation** column of an RR to copy the link.

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Operation	Description
Migrate RR	Choose ••• > **Migrate** in the **Operation** column of an RR to migrate it to other projects. • Draft RRs cannot be migrated. • After the requirement is migrated to another project, the system automatically removes the tag of the RR and disassociates the RR from the associated work item. • After the migration, the RR will be re-executed. The system will automatically clear the actual workloads, retain only the fields of the same type as the original work item, and remove redundant fields.
Delete RR	Choose ••• > **Delete** in the **Operation** column of an RR to delete it. • Only data that meets the following conditions can be deleted: – Draft data. – Data in the **To Do** state, whose proposing project is the current project. – Data in the **Done** state, whose responsible project is the current project. • If an RR of a proposing project is deleted, it is permanently deleted. If an RR of a responsible project is deleted, it is moved to the project's recycle bin. • RRs in the recycle bin can be restored or permanently deleted according to the work item type. After an RR is restored from the recycle bin, it restores to the original status.

8.3.3 Managing RRs

After creating RRs (see **Creating RRs**), you can query, import, export, and batch edit them in the project. You can add tags and associate work items on their details pages.

Prerequisites

You have created an RR in an IPD-standalone software project and have permissions on the RR in the project.

On the RR List Page

Go to the project homepage, choose **Work > Req > Raw Requirements**, and perform the following operations.

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Figure 8-19 RR list

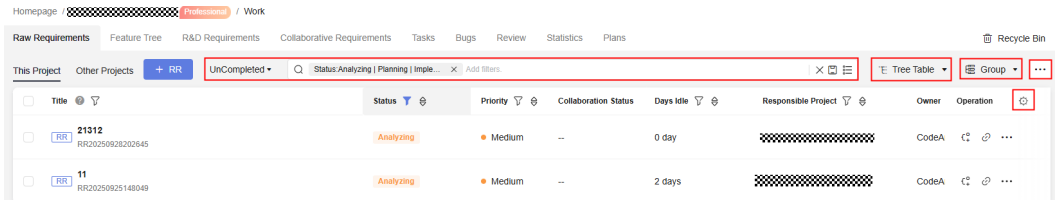

Table 8-35 Management operations in the RR list

Operation	Procedure
Query RR	**Prerequisites** You must have the **View list** permission for RRs. **Procedure** • By adding filters 1. Click the search box in the RR list and select one or more filters to search for RRs. 2. To clear all filters and display all data, click on the right of the search bar. 3. Query results can be displayed in tree, list, or Gantt chart view. • By using a saved view 1. Click the search box in the RR list and select one or more filters. 2. Click on the rightmost of the search bar, and enter a view name. 3. Click **OK**. The created view is displayed next to **RR**. 4. Select the name of the created view to query the RRs that meet the search criteria. Views can be shared with others, modified, and deleted.

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Operation	Procedure
Import work items	Use the provided template to import requirements in batches. **Prerequisites** You must have the **Import** permission for RRs. **Procedure** 1. In the RR list, click ··· on the right of the search bar and select **Import**. 2. In the displayed dialog box, click **Download Template**. The template file should be named in the following format: *Project name* + "-" + *Module name* (for example, **RR**) + **Template**. You can edit the name of the downloaded template. 3. Fill in the fields on the **RR Import** sheet. For details about how to set parameters, see the **Notes** and header instructions in the template file. 4. Drag and drop the desired file to the import area or click the import area and select the file. 5. Click **Next**. The verification progress dialog box is displayed. After the verification progress reaches 100%, close the dialog box and view the verification result. If the mandatory fields fail the verification, the import is not allowed, while the verification result of optional fields does not affect the import. ● If the verification is successful, click **Confirm Import**. ● If the verification fails, modify the file based on the verification result. Click **Last step** to import the modified file. 6. After the verification is successful, click **Confirm Import**. The import progress dialog box is displayed. You can click **Check progress** in the dialog box to go to the **Import/Export Records** page to view the import records. 7. After the import is successful, you can view the imported information in the RR list. ● If the import fails, a message is displayed on the page. Click **View Failure Details** in the message to view the failure details. You can modify the requirement information based on the details and import the template file again.

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Operation	Procedure
Export work items	Export requirements in batches to an Excel file. **Prerequisites** You must have the **Export** permission for RRs. **Procedure** 1. Export some or all RRs. • Export all: On the **Raw Requirements** page, click ··· on the right of the search bar and choose **Export**. The **Select Fields to Export** dialog box is displayed. • Export some: In the RR list, select one or more RRs to be exported and click **Export Selected** at the bottom of the page. The **Select Fields to Export** dialog box is displayed. 2. Select the fields to be exported and determine whether to export child work items. 3. Click **Export**. A dialog box is displayed, indicating the export progress. • After the RRs are exported, click **Download**. The RR file will be downloaded to the local PC. The file format is **.xlsx**.
Configure fields to display	Click ⚙ next to the **Operation** field. • On the left of the pop-up box, select the fields to be displayed. • On the right of the pop-up box, drag the fields in the **Selected** area to adjust the display sequence. • On the right of the pop-up box, select a field spacing style under **Appearance**. The options include **Compact**, **Standard**, and **Loose**.

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Operation	Procedure
Clone RR across projects	**Prerequisites** You must have the **Create/Submit/Copy** permission for the target project. **Constraints** ● Only RRs of the current project can be cloned to other projects. The workload, associated work item, tag, and release sprint fields will be cleared. ● RRs can be cloned only to projects of the same type. ● You can clone up to 50 RRs at a time. ● Draft RRs and RRs of other projects cannot be cloned. **Procedure** 1. Select the RRs to clone in the RR list and click **Cross-Project Copy** in the lower part of the page. The **Cross-Project Copy** window is displayed. 2. Select a target project from the drop-down list. You can select only a project to which you have joined and must have permission to create and clone tasks for the target project. 3. Click **Next**. The window for setting mandatory fields is displayed. Select the target owner from the drop-down list (the current operator is selected by default). Mandatory fields are those on the RR creation page of the target project. 4. Click **OK**. The RRs are cloned to the target project. 5. Go to the target project to view the cloned RRs.
Transition statuses in batches	**Prerequisites** You must have the **Set statuses** permission for RRs. **Constraints** ● The types of the selected work items must be the same. ● Only RRs of this project support batch status transition. ● The selected RRs must be in the same status. ● The mandatory fields of the selected RRs are filled. **Procedure** 1. Select the target RRs in the RR list and click **Batch Transfer** in the lower part of the page. The **Batch Transfer** window is displayed. 2. Select the target status from the drop-down list. 3. Click **Next**. 4. Set mandatory fields. The mandatory fields are set on the **In-transition GUI Config** tab of the project's RR status flow configuration page. 5. Click **OK**.

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Operation	Procedure
Migrate work items	**Prerequisites** You must have the **Migrate** permission for RRs. **Constraints** ● The types of the selected work items must be the same. ● Only RRs of this project can be migrated. ● After the migration to a new responsible project, the system automatically removes the tag and disassociates the work item from the original project. ● During a batch migration, you need to provide values for all mandatory fields in the target project. The system will apply your field settings to single-choice and multi-choice user fields, as well as the fields that are empty before the migration. It will not overwrite the fields that already contain data. **Procedure** 1. Select the work items to be migrated in the RR list and click **Migrate** in the lower part of the page. The **Migrate** window is displayed. 2. Select a target project from the drop-down list. 3. Select a priority from the drop-down list. 4. Select one or more owners from the drop-down list. 5. Click **OK**. The migration is successful. Go to the target project to view the migrated work items.
Suspend work items	**Prerequisites** You must have the **Suspend/Cancel suspend** permission for RRs. **Constraints** ● The types of the selected work items must be the same. ● The selected RRs must be in the same status. ● Only RRs of this project can be suspended. ● The status node of a work item can be suspended. That is, the **Suspend/Cancel** switch has been turned on in the status node settings of the status flow. **Procedure** 1. Select the work items to be suspended in the RR list and click **Suspend** in the lower part of the page. The **Suspend** window is displayed. 2. Specify a reason. 3. Click **OK**. The suspension is successful. On the RR list page, the work item is displayed as suspended.

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Operation	Procedure
Unsuspend work items	**Prerequisites** You must have the **Suspend/Cancel suspend** permission for RRs. **Constraints** ● The types of the selected work items must be the same. ● The selected RRs must be in the same status. ● Only RRs of this project can be unsuspended. ● All selected work items are in the suspended state. **Procedure** 1. In the RR list, select the work items to be unsuspended. 2. Click **Cancel Suspension** in the lower part of the page. After the suspension is canceled, a message is displayed in the upper right corner of the page.
Perform batch operations	You can select multiple RRs to perform operations in batches: edit, migrate, suspend/unsuspend, export, delete, cross-project clone, and transition.
Group RRs	You can group work items by any supported field type. **Constraints** ● A maximum of 1,000 work items can be displayed during grouping. ● The supported field types include single-choice list, multi-choice list, single-choice user, multi-choice user, hierarchy, and date. ● For RRs of other projects and projects in a program (after sub-project aggregation is enabled), grouping by release, sprint, module, feature set, or tag is unavailable. **Procedure** 1. On the **Raw Requirements** page, click **Group**. 2. On the displayed page, select the fields used to group work items. ● You can sort work items in ascending or descending order. ● You can enter a keyword to search for fields. ● When work items are grouped by multi-select list or multi-select user, the same work item may appear in multiple groups. ● You can click **No grouping** to ungroup work items.

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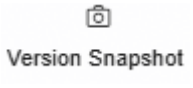
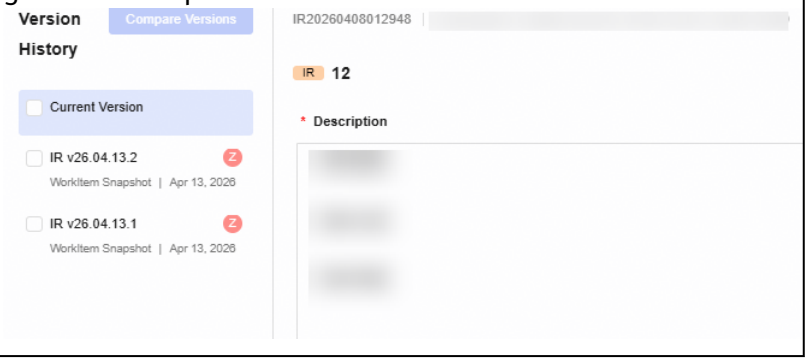
Operation	Procedure
Version snapshots	Snapshots include plan management snapshots, feature tree snapshots, and work item snapshots. A version snapshot is a work item snapshot. Its name is automatically generated by the system. **Constraints** A work item can have a maximum of 1,000 snapshots. **Procedure** 1. In the RR list, select the work items for which you want to create a snapshot. 2. Click  in the lower part of the page to take a snapshot of the selected work items. A message is displayed in the upper right corner of the page, indicating that the operation is successful. The snapshot is a work item snapshot. Its name is automatically generated by the system. The format of the work item snapshot name is: *Work item type* + "v" + *Year* + "." + *Month* + "." + *Day* + "." + *Number of versions generated on the current day*. For example, if an RR is snapshotted for the first time on March 25, 2026, its snapshot name generated by the system is **RR v26.03.25.1**. **NOTE** You can also go to the work item details page, click ••• in the upper right corner, and select **Version Snapshot** to create a snapshot for the work item. 3. (Optional) Click the work item name to go to its details page, click ••• , and select **Version History** to view the generated snapshots. 

On the RR Details Page

On the details page of an RR, you can modify the description, priority, and owner, add tags and attachments, associate work items, check review records, add workloads, and view the operation history.

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Figure 8-20 RR details page

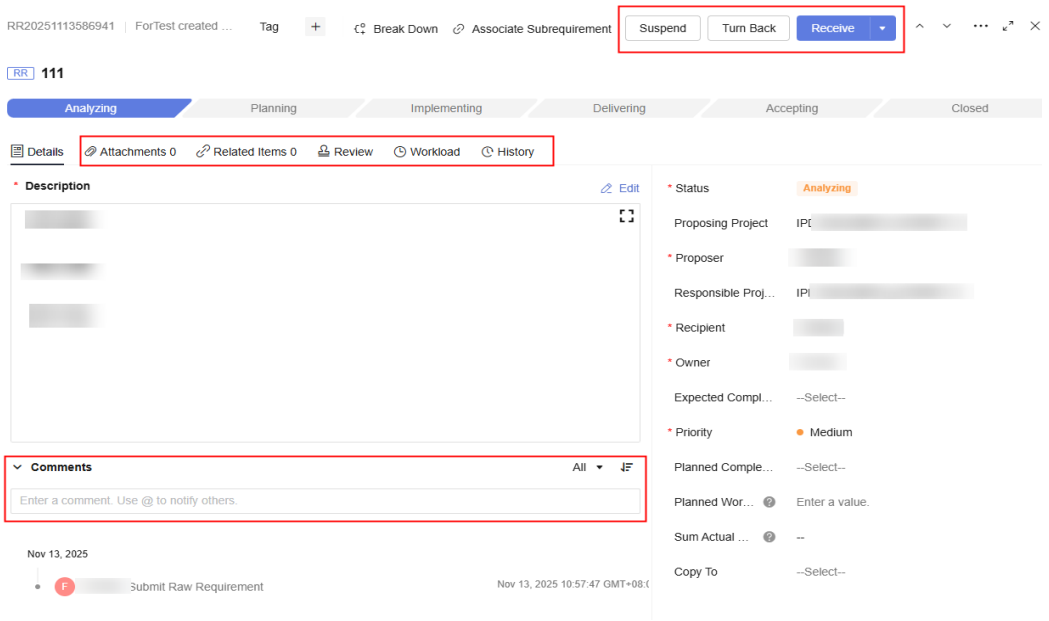

Table 8-36 Management operations on the details page

Operation	Procedure	Remarks
Edit work item	On the RR details page, click the value box of the field to be modified, and enter a target value in the text box or select one from the drop-down list. The modification is saved immediately.	You must have permission to **edit** RRs.
Change work item status	Go to the work item details page and click the transition button in the upper right corner to transition the work item to the target status. For details about status transition, see **Table 8-32**.	You must have permission to **set statuses** for RRs.

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Operation	Procedure	Remarks
Upload attachment	Attachments can be pictures, workbooks, manuscripts, and text files. A maximum of 100 attachments can be added to each work item, and their total size cannot exceed 500 MB. 1. Go to the work item details page, and click the **Attachment** tab. 2. Click the box to select a local file or drag the file here to upload it as an attachment for the work item. Local files can be directly dragged to the text box. When the upload progress reaches 100%, the system displays a message indicating that the attachment is uploaded successfully. Move the cursor to the file that is successfully uploaded. The operations that can be performed are displayed. ● Click to download the file. ● Click to delete the uploaded file.	You must have permission to **edit** or **upload attachments** for RRs.

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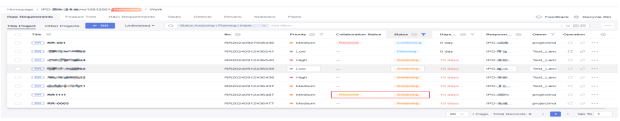
Operation	Procedure	Remarks
Add and check related item	A work item can be associated with other types of work items in a project. 1. Go to the work item details page and click the **Related Items** tab. 2. Complete association. • **Related Upstream Requirements**: requirements coordinated from upstream projects. The upstream requirement information is displayed in the current project only when this project is selected as the responsible project for the created **Related Downstream Requirements** in the RR of another project. Assume that the name of the current project is "IPD Project" and that of another project is "IPD Project 2". The method of synchronizing upstream requirement information is as follows: 1. Create a project named **IPD Project 2**. 2. Create an RR named **RR-IPD2** in **IPD Project 2**. 3. After the RR is created, enter its details page. 4. Choose **Related Items** > **Related Downstream Requirements** and click **Deliver**. 5. Set **Responsible Project** to **IPD-Project** and the raw requirement name to **RR-Collaboration**. 6. After the assignment, click the requirement title "RR-Synergy" to access "IPD Project" where this requirement is located. On the RR-Synergy details page, choose **Related Items** > **Related Upstream Requirements** to view the corresponding requirement information. In the RR list, **Collaboration Status** of the RR-Synergy requirement is **Received** in orange, and **Status** is **Analyzing**. **Figure 8-21** RR list 	You must have permission to **deliver assignment**, **break down/ associate/ dissociate child requirements**, **create/ associate/ dissociate work items**, **associate/ dissociate files**, and **associate/ dissociate wikis** for RRs.

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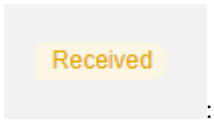
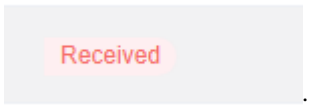
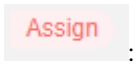
Operation	Procedure	Remarks
	NOTE Different colors of **Received** indicate different meanings.  : Before a requirement is accepted, the color of **Received** is orange.  : After a requirement is accepted, the color of **Received** turns green.  : After a requirement is rejected, the color of **Received** turns red. • **Related Downstream Requirements**: requirements assigned to downstream projects. A maximum of 10 requirements can be assigned at a time. One requirement is displayed by default and cannot be deleted. 1. Click **Deliver**. 2. Configure related information. The current project cannot be selected for **Responsible Project**. If only the current project exists in the system and no value is available for this parameter, requirement assignment cannot be performed. 3. After configuring the requirement assignment information, click **OK**. Click the requirement title "RR-test" to access "IPD Project 2" where this requirement is located. In the RR list, **Collaboration Status** of the requirement is **Assign** in orange. **NOTE** Different colors of **Assign** indicate different meanings.  : If the current requirement has unprocessed downstream collaboration requirements, the color of **Assign** is orange.  : After all downstream collaboration requirements under the current requirement are accepted, the color of **Assign** turns green.  : If the current requirement has returned downstream collaboration requirements, the color of **Assign** turns red.	

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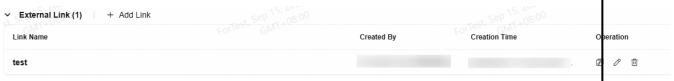
Operation	Procedure	Remarks
	• **Child Work Items Related to RR**: child work items broken down from the current work item. The operations vary according to the state. Perform operations based on the functions displayed on the page and the actual project situation. Click **Break Down** to add child work items. Each requirement can be broken down into a maximum of 10 child requirements at a time. One child requirement is displayed by default and cannot be deleted. Click to expand and configure more information. After the child work items are created, you can check and edit them on the **R&D Requirements** tab. • **Associate Work Item**: Associate work items of any type in the project. The operations vary according to the state. Perform operations based on the functions displayed on the page and the actual project situation. Work items of the RR, SF, IR, US, task, and bug types can be associated. • **External Link**: external links associated with the current work item. – Create a link: Click **Add Link**. In the displayed dialog box, set **Link Name** and **Link**. The value of **Link** must start with **https://** and cannot contain invalid characters, such as spaces and Chinese characters. Click **OK**. After a link is created, you can click **External Link** to view, edit, copy, or delete the link.  – Copy a link: Click on the right of the link to be copied. – Edit a link: Click on the right of the row where the link to edit is located. In the displayed dialog box, you can change the link name and link. – Delete a link: Click on the right of the link to be deleted. In the displayed dialog box, click **Delete**.	

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Operation	Procedure	Remarks
Check review record	You can check the review records related to requirements only in the following situations: • When you modify the controlled content of an RR, a change process is automatically triggered. Only then will you be able to view the review record in **Review** of the corresponding requirement details page. When you click an RR in the **Confirm**, **Planning**, or **Implementing** state and modify controlled fields with  on the details page, a dialog box is displayed, indicating that the change approval process is required. • You can view the review records in **Review** of the corresponding requirement details page only when the requirement has a general review record.	You must have the **View** permission for RRs.
Add workload	1. Go to the details page of a work item and click **Workload**. 2. Click **Add Workload**. The **Add Workload** dialog box is displayed. 3. Enter the workload information. • The end date cannot be earlier than the start date. • Decide whether to select **Weekends included**. If not, weekend workload records will not be generated. • You can select **Total** or **Daily** for **Workload**. • **Work Type** options include backend development, frontend development, UI design, replacement leave, debugging, and general. You can also customize the value by referring to **Creating Work Types**. 4. Click **OK**. The system automatically generates corresponding records based on the entered dates and days. The workload can be edited and deleted.	You must have permission to **add person-hours** for RRs. Workloads can be edited and deleted by the creator. By default, the project administrator can edit and delete all workloads.

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Operation	Procedure	Remarks
View operation history	**History** displays all operation logs of users, including creation, status transition, review initiation, work item association, and workload addition. 1. Go to the work item details page. 2. Click the **History** tab. • Click ↓ or ↑ to check historical records in the ascending or descending order of operation time. • You can set search criteria to query historical records that meet the search criteria.	You must have the **View** permission for RRs.
Tag work item	1. Go to the work item details page. Click + next to **Tag** at the top of the page, and select **Create Tag**. The added tag is displayed in the **Tag** area. 2. In the **Create Tag** dialog box, set **Tag Name** and select **Tag Color**. 3. Click **OK**. The new tag is displayed next to the requirement ID in the RR list. 4. (Optional) Hide a tag. • Click + next to **Tag**. In the displayed dialog box, deselect √ to hide the tag. • Move the cursor to the tag name and click ⊠ to hide the tag. **Figure 8-22** Hiding a tag - 02  **NOTE** To add or remove tags for multiple RRs, you can select the desired RRs in the RR list, click **Batch Edit** in the lower part of the page, and select **Tag**.	You must have permission to **edit** RRs.

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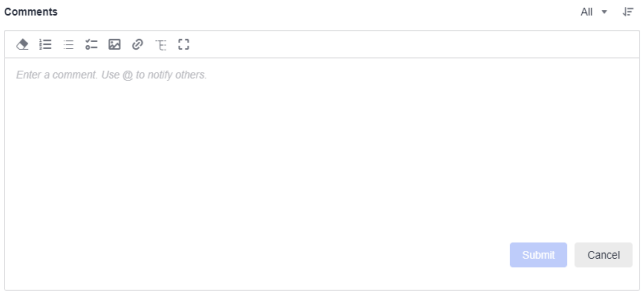
Operation	Procedure	Remarks
Add comment	1. Go to the work item details page. 2. On the **Details** tab page, click the **Comments** text box. **Figure 8-23** Adding a comment  3. Enter a comment. You can upload images, enter links, associate work items, and use @ to notify project members in comments. 4. Click **Submit**. Submitted comments can be replied, edited, pinned to the top, and deleted.	You must have the **View** permission for RRs.
History versions	For work items with snapshots, you can view their historical versions and compare the differences between them. 1. Go to the work item details page, click ••• in the upper right corner, and select **Version History**. 2. In the **Version History** dialog box, select two versions and click **Compare Versions**. On the **Work Item Version Comparison** page, view the differences between the original version and the compared version. You can click  in the upper right corner and enable **Hide Identical Items** to view only the differences between the two versions. 3. On the **Work Item Version Comparison** page, click  to return to the **Version History** page. Hover over a snapshot version.  is displayed. Click  to delete the snapshot. **NOTE** If a work item has a third-party snapshot or its child work items have third-party snapshots and the child work items cannot be separated from the current work item, the snapshot cannot be deleted.	You must have permission to **check** RRs. To delete a snapshot, you must have permission to delete RRs.

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8.4 Creating and Managing a Feature Tree and System Features

8.4.1 Creating a Feature Tree

The system provides multiple methods for creating a feature tree, including inheriting the feature tree from another project, directly creating a feature tree, and importing an Excel file.

You can create a feature tree by inheriting or importing one only when there are no system features or feature sets in the current project.

Prerequisites

- An IPD-standalone software project is available, in which you have permission to **create** feature sets.
- An IPD-standalone software project is available, in which you have permission to **inherit** feature sets.
- An IPD-standalone software project is available, in which you have permission to **import** feature sets.

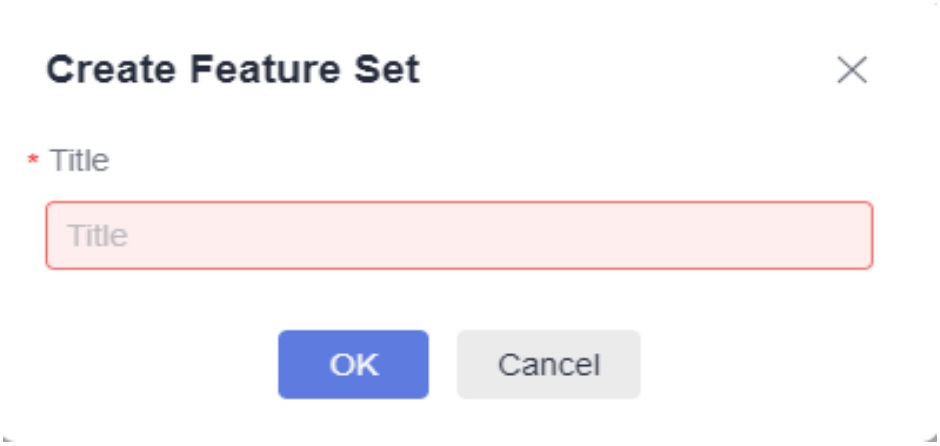
Creating a Feature Set

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Feature Tree**.

Step 3 Click +. The **Create Feature Set** dialog box is displayed.

Figure 8-24 Creating a feature set



Step 4 Enter a title. The value contains 1 to 257 characters.

Step 5 Click **OK**.

You can view the new feature set in the feature tree list.

----End

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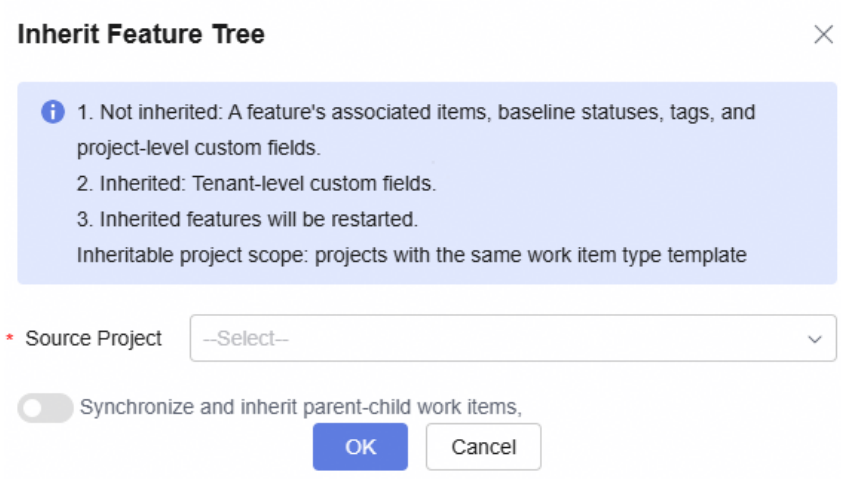
Inheriting a Feature Tree

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Feature Tree**.

Step 3 Click **Inherit Feature Tree**. The **Inherit Feature Tree** dialog box is displayed.



Step 4 Select the project from which the feature tree is inherited from the **Source Project** drop-down list. All feature sets and system features from the selected project can be inherited by the current project.

Step 5 **Synchronize and inherit parent-child work items** is disabled by default. If you want to inherit all child work items under the system feature from the selected project, enable this option.

Step 6 Click **OK**.

In the feature tree list, you can view the feature tree inherited from another project.

----End

Importing a Feature Tree

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Feature Tree**.

Step 3 Click **Import Feature Tree**. The **Import** dialog box is displayed.

Step 4 Click **Download Template**. The import template file is displayed in the upper right corner of the page. Save the file to the local PC and fill in data. The template file should be named in the following format: *Project name* + "-" + *Module name* (for example, **Feature**) + **Template**.

Step 5 Set the fields in the **Feature Tree Import** sheet of the template. For details about how to set parameters, see the **Notes** and header instructions in the template file.

Step 6 Drag and drop the desired file to the import area or click the import area and select the file.

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Step 7 Click **Next**. The verification progress dialog box is displayed.

After the verification progress reaches 100%, close the dialog box and view the verification result. If the mandatory fields fail the verification, the import is not allowed, while the verification result of optional fields does not affect the import.

- If the verification is successful, click **Confirm Import**.
- If the verification fails, modify the file based on the verification result. Click **Last step** to import the modified file.

Step 8 After the verification is successful, click **Confirm Import**. The import progress dialog box is displayed. You can click **Check progress** in the dialog box to go to the **Import/Export Records** page to view the import records.

Step 9 Imported information can be viewed in feature tree list. If the import fails, a message is displayed on the page. Click **View Failure Details** in the message to view the failure details. You can modify the requirement information based on the details and import the template file again.

----End

Related Operations

You can perform the following operations on a new feature set.

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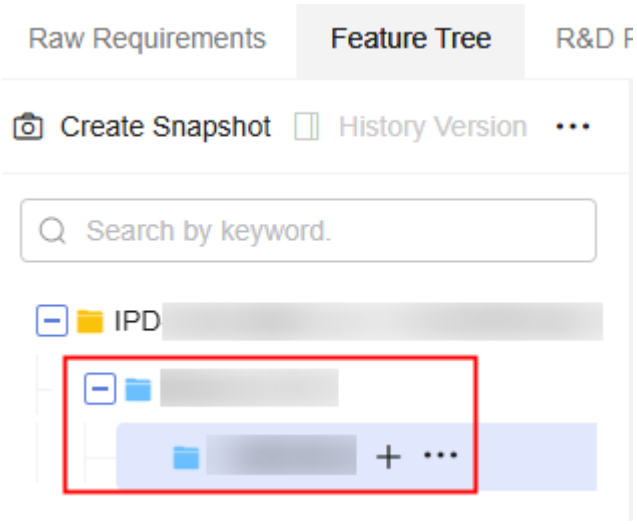
Table 8-37 Basic operations on a feature set

Operation	Description
Create child feature set	1. Click + next to the target feature set. The **Create Feature Set** dialog box is displayed. 2. Set **Title**. 3. Click **OK**. You can view the new second-level feature set in the corresponding feature set.  You can create third-level feature sets for a second-level one. A maximum of 14 levels of feature sets are supported. The child feature sets can be edited and deleted.
Edit feature set	Click ··· on the right of the target feature set, and click **Edit** to edit the title.

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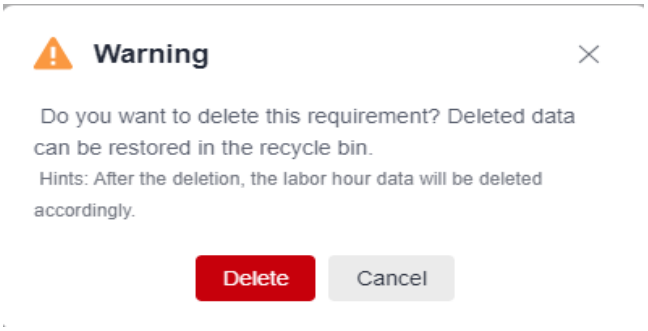
Operation	Description
Delete feature set	1. Click ••• on the right of the target feature set, and click **Delete**. **Figure 8-25** Deleting a feature set  2. Click **Delete**. The deleted feature set and its child feature sets will not be displayed on the page. Deleted feature sets can be restored or permanently deleted from the recycle bin, depending on the work item type.

8.4.2 Managing a Feature Tree

After creating a feature tree (see **Creating a Feature Tree**), you can import, export, and compare its version snapshots in the project.

Prerequisites

You have created a feature set in an IPD-standalone software project, and have feature set permissions for the project.

Procedure

On the project homepage, choose **Work > Req > Feature Tree**, and perform the following operations.

Table 8-38 Managing a feature tree

Operation	Procedure
Search for feature set	1. On the project homepage, choose **Feature Tree**. 2. Enter a keyword in the search box to search for the target feature set.

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Operation	Procedure
Associate system feature with feature set	You can create system features or associate existing ones with a feature tree. System features of the same type can be put in the same feature set for easy management. • Creating a system feature 1. Click the name of the feature set to associate a system feature. 2. Click **SF**. 3. Enter system feature information. For details, see **Procedure**. 4. Click **OK**. The new system feature is displayed under the corresponding feature set.

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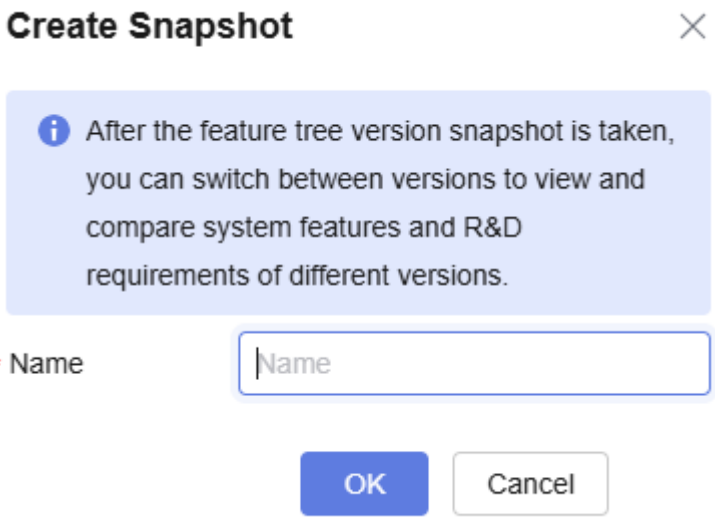
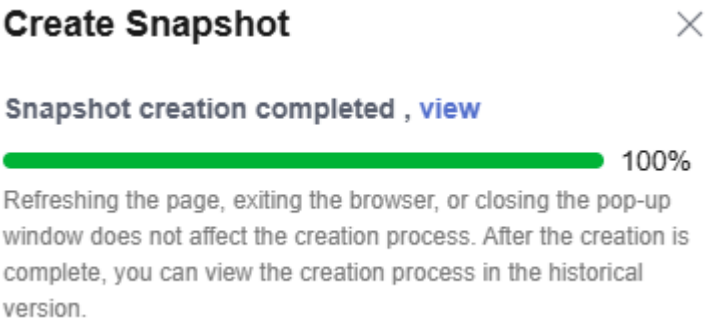
Operation	Procedure
Create feature tree baseline snapshot	You can create a baseline based on the current feature tree version. 1. On the project homepage, choose **Feature Tree**. 2. Click . The **Feature Tree Version Snapshot** dialog box is displayed. **Figure 8-26** Creating a feature tree snapshot  3. Enter a snapshot name. 4. Click **OK**.  The creation process will not be interrupted by refreshing the page, closing the browser, or closing the dialog box. To view the created version, click **History Version**.

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Operation	Procedure
Compare feature tree version snapshots	You can compare feature tree snapshots of different versions. 1. On the project homepage, choose **Feature Tree**. 2. Click ••• and select **Compare Snapshots**. The snapshot comparison page is displayed. 3. Select the baseline snapshot version to be compared. 4. Click the name of the system feature to be compared. The work item version comparison page is displayed. If a system feature is snapshotted for multiple times on the feature tree page, multiple versions will be generated. You can select and compare different versions. To compare system feature versions, check historical versions on the **Feature Tree** page. 1. On the project homepage, choose **Feature Tree**. 2. Click the SF name to be compared. On the details page, click ••• on the right and select **History Version**. On the displayed page, select the snapshot version to be compared and click the version comparison icon. The work item version comparison page is displayed.

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Operation	Procedure
Import feature tree	Use the provided template to import a feature tree. 1. On the project homepage, choose **Feature Tree**. 2. Click **Import** under ··· on the right of the page. 3. In the displayed dialog box, click **Download Template**. You can edit the name of the downloaded template. 4. Set the fields in the **Feature Tree Import** sheet of the template. For details about how to set parameters, see the **Notes** and header instructions in the template file. 5. Drag and drop the desired file to the import area or click the import area and select the file. 6. Click **Next**. The verification progress dialog box is displayed. After the verification progress reaches 100%, close the dialog box and view the verification result. If the mandatory fields fail the verification, the import is not allowed, while the verification result of optional fields does not affect the import. ● If the verification is successful, click **Confirm Import**. ● If the verification fails, modify the file based on the verification result. Click **Last step** to import the modified file. 7. After the verification is successful, click **Confirm Import**. The import progress dialog box is displayed. You can click **Check progress** in the dialog box to go to the **Import/Export Records** page to view the import records. 8. Imported information can be viewed in the SF list. If the import fails, a message is displayed on the page. Click **View Failure Details** in the message to view the failure details. You can modify the requirement information based on the details and import the template file again.
Export feature tree	Export a feature tree with desired fields to an Excel file. 1. On the project homepage, choose **Feature Tree**. 2. Click ··· on the right of **History Version**, and select **Export**. 3. In the displayed dialog box, select fields to be exported. 4. Click **Export**. An export progress dialog box is displayed. ● You can click **Check progress** in the dialog box to go to the **Import/Export Records** page to view the export records. ● In the export progress dialog box, click **Download** to download the file to your local PC. The file format is **.xlsx**.

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8.4.3 System Feature Status Transition Process

The entire lifecycle of a system feature consists of the **Initial**, **R&D**, and **Completed** states. **Figure 8-27** shows the complete status transition process.

Figure 8-27 System feature status transition process

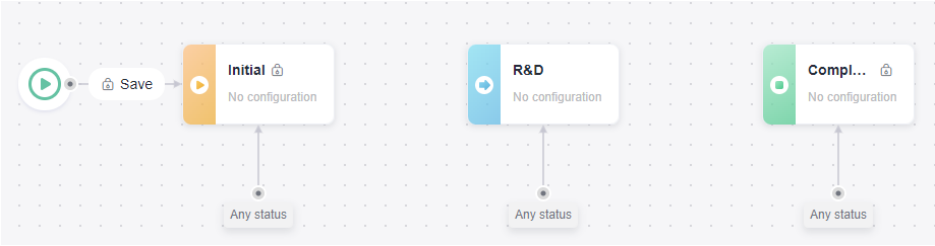

Table 1 describes operations in each state.

Table 8-39 Operation description

Status	Description
Initial	When a system feature is created, the state is **Initial** by default.
R&D	After the system feature in the **Initial** state is handled, the state changes to **R&D**.
Completed	After the system feature is developed, the state changes to **Completed**.

8.4.4 Creating System Features

Major capabilities of offering requirements or services to support a problem (PB) can be managed in system features. When creating a system feature, you can set its background, value, details, and priority.

Prerequisites

An IPD-standalone software project is available, in which you have permission to **create and duplicate** feature sets.

Procedure

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Feature Tree**.

Step 3 Click **SF**. On the **SF** page, set related parameters.

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Table 8-40 System feature parameters

Parameter	Description
Tag	When creating or editing a work item, you can add a custom tag. Tag names can be marked in different colors.
Title	Name of a system feature.
Description	Enter the background, value, and details of the feature based on project requirements. Use text, images, or links.
Attachment	A maximum of 100 attachments can be added to a system feature, and their total size cannot exceed 500 MB.
Responsible Project	Project that the system feature belongs to. The value cannot be changed.
Owner	Owner of the system feature. Only one owner can be selected. The default owner is the creator.
Feature Set	The feature set to which the system feature belongs is a home structure of the feature tree.
Priority	Priority of the system feature, including **Low**, **Medium**, and **High**. The default value is **Medium**.
Planned Start	Planned start time.
Planned Completion	Planned completion time. It cannot be earlier than the planned start time.
Planned Workload	Planned workloads.
High Value	Whether the system feature is a key feature. The value can be **Yes** or **No**.
Used For	Scenario with a maximum of 512 characters.
Domain	Domain to which the system feature belongs. The options include software and hardware, hardware, performance, operations, and user experience. Select one based on the system feature.
Copy To	Person to whom the system feature is copied.

Step 4 Click **OK**. The feature tree page is displayed. A message indicating system feature created is displayed in the upper right corner.

The new system feature is displayed in the feature tree, and the system feature state is **Initial**.

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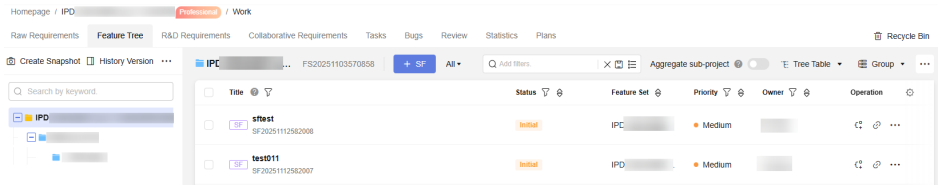
Figure 8-28 Feature tree



NOTE

After a feature is created, the people selected for **Owner** and **Copy To** will receive email and system message notifications. If not, set notifications or modify notification settings. For details, see **Configuring Notifications**.

----End

Related Operations

You can perform the following operations on a new system feature.

Table 8-41 Basic operations on a system feature

Operation	Description
Modify title	Click next to a system feature title to modify it.
Modify field	Click the target field value in the row of a system feature to modify the value.
Break down work item	Click in the **Operation** column of a system feature to break it down into child work items. • Click **Add Child Work Item** in the **Break Down Child Work Item** dialog box to break down child work items in batches. A maximum of 10 child work items can be broken down at a time. • You can break down work items quickly. See **Configuring Common Fields in a Project** for related field configuration. If **Quickly split sub-work items** is enabled, the corresponding number of child work items are created based on the number of options selected. A maximum of **10** child work items can be created. If the work item already has child work items, the quick breakdown function does not take effect. If a work item is configured with multiple fields for quick breakdown, the child work items are obtained only based on the first field in the field template.
Duplicate system feature	Choose > **Duplicate** in the **Operation** column. This process is the same as that of creating a feature.

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Operation	Description
View association map	Choose *** > **Association Map** in the **Operation** column of a system feature to view all data of its related items.
Copy system feature link	In the system feature list, you can copy the title, ID, current owner, status, and link information of a system feature to the clipboard. SFs: Click **Copy Link** under *** in the **Operation** column. IRs/USs: Click in the **Operation** column of a system feature.
Delete system feature	Choose *** > **Delete** in the **Operation** column of a system feature to delete it. • System features in change or baseline review cannot be deleted. • Once deleted, a system feature is moved to the recycle bin. System features in the recycle bin can be restored or permanently deleted according to the work item type. After a system feature is restored from the recycle bin, it restores to the original status.
Perform batch operations	Select multiple system features and perform the following operations: • Baseline • Unbaseline • Change • Review baseline • Edit • Suspend • Unsuspend • Export • Delete

8.4.5 Managing System Features

After creating system features (see **Procedure**), you can query, import, export, and batch edit them in the project. You can add tags and associate work items on their details pages.

Prerequisites

You have created a feature in an IPD-standalone software project, and have feature permissions for the project.

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Managing System Features on the System Feature List Page

Go to the project homepage, choose **Work > Req > Feature Tree**, and perform the following operations.

Table 8-42 Management operations in the system feature list

Operation	Procedure
Query feature	• By adding filters 1. Click the search box in the feature list and select one or more filters to search for system features. 2. To clear all filters and display all data, click on the right of the search bar. 3. Query results can be displayed in tree, list, or Gantt chart view. • By using a saved view 1. Click the search box in the system feature list and select one or more filters. 2. Click on the rightmost of the search bar, and enter a view name. 3. Click **OK**. The created view is displayed next to the **SF** button. 4. Select the created view to query the system features that meet the search criteria. Views can be shared with others, modified, and deleted.

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Operation	Procedure
Import work items	Use the provided template to import system features. 1. In the system feature list, click ··· on the right of the search bar, and select **Import**. 2. In the displayed dialog box, click **Download Template**. The template file should be named in the following format: *Project name* + "-" + *Module name* (for example, **Feature**) + **Template**. You can edit the name of the downloaded template. 3. Set the fields in the **Feature Tree Import** sheet of the template. For details about how to set parameters, see the **Notes** and header instructions in the template file. 4. Drag and drop the desired file to the import area or click the import area and select the file. 5. Click **Next**. The verification progress dialog box is displayed. After the verification progress reaches 100%, close the dialog box and view the verification result. If the mandatory fields fail the verification, the import is not allowed, while the verification result of optional fields does not affect the import. ● If the verification is successful, click **Confirm Import**. ● If the verification fails, modify the file based on the verification result. Click **Last step** to import the modified file. 6. After the verification is successful, click **Confirm Import**. The import progress dialog box is displayed. You can click **Check progress** in the dialog box to go to the **Import/Export Records** page to view the import records. 7. Imported information can be viewed in the SF list. If the import fails, a message is displayed on the page. Click **View Failure Details** in the message to view the failure details. You can modify the requirement information based on the details and import the template file again.

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Operation	Procedure
Export work items	Export system features in batches to an Excel file. 1. Export some or all system features. • Export all: On the **Feature Tree** page, click ··· on the right of the search bar and choose **Export**. The **Select Fields to Export** dialog box is displayed. • Export some: In the feature list, select one or more system features to be exported and click **Export Selected** at the bottom of the page. The **Select Fields to Export** dialog box is displayed. 2. Select the fields to be exported. 3. Click **Export**. A dialog box is displayed, indicating the export progress. • After the system features are exported, click **Download**. The feature file will be downloaded to the local PC. The file format is **.xlsx**.
Configure fields to display	Click ⚙ next to the **Operation** field. • On the left of the pop-up box, select the fields to be displayed. • On the right of the pop-up box, drag the fields in the **Selected** area to adjust the display sequence. • On the right of the pop-up box, select a field spacing style under **Appearance**. The options include **Compact**, **Standard**, and **Loose**.

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Operation	Procedure
Clone SFs across projects	**Constraints** • Only SFs can be cloned. The workload, associated work item, tag, and release sprint fields will be cleared. • You must have permission to create and clone SFs for the target project. • SFs can be cloned only to projects of the same type. • You can clone up to 50 SFs at a time. **Procedure** 1. Select the SFs to clone in the feature list and click **Cross-Project Copy** in the lower part of the page. The **Cross-Project Copy** window is displayed. 2. Select a target project from the drop-down list. You can select only a project to which you have joined and must have permission to **create and clone** tasks for the target project. 3. Click **Next**. The window for setting mandatory fields is displayed. Select the target owner from the drop-down list (the current operator is selected by default). Mandatory fields are those on the SF creation page of the target project. 4. Click **OK**. The SFs are cloned to the target project. 5. Go to the target project to view the cloned SFs.
Transition statuses in batches	**Constraints** • The types of the selected work items must be the same. • The selected SFs must be in the same status. • You must have permission to **set statuses** for SFs. • Mandatory fields of the selected SFs have been set. **Procedure** 1. Select the target SFs in the SF list and click **Batch Transfer** in the lower part of the page. The **Batch Transfer** window is displayed. 2. Select the target status from the drop-down list. 3. Click **Next**. 4. Set mandatory fields. The mandatory fields are set on the **In-transition GUI Config** tab page of the project's SF status flow configuration page. 5. Click **OK**.
Perform batch operations	You can select multiple SFs to perform batch operations: baseline/unbaseline, change, baseline review, edit, suspend/unsuspend, export, delete, cross-project clone, and transition.

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Operation	Procedure
Group system features	You can group work items by any supported field type. **Constraints** ● A maximum of 1,000 work items can be displayed during grouping. ● The supported field types include single-choice list, multi-choice list, single-choice user, multi-choice user, hierarchy, and date. ● For projects in a program (after sub-project aggregation is enabled), grouping by release, sprint, module, feature set, or tag is unavailable. **Procedure** 1. In the system feature list, click **Group**. 2. On the displayed page, select the fields used to group work items. ● You can sort work items in ascending or descending order. ● You can enter a keyword to search for fields. ● When work items are grouped by multi-select list or multi-select user, the same work item may appear in multiple groups. ● You can click **No grouping** to ungroup work items.

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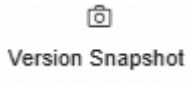
Operation	Procedure
Version snapshots	Snapshots include plan management snapshots, feature tree snapshots, and work item snapshots. A version snapshot is a work item snapshot. Its name is automatically generated by the system. **Constraints** A work item can have a maximum of 1,000 snapshots. **Procedure** 1. In the system feature list, select the work items for which you want to create a snapshot. 2. Click  in the lower part of the page to take a snapshot of the selected work items. A message is displayed in the upper right corner of the page, indicating that the operation is successful. The snapshot is a work item snapshot. Its name is automatically generated by the system. The format of the work item snapshot name is: *Work item type* + "v" + *Year* + "." + *Month* + "." + *Day* + "." + *Number of versions generated on the current day*. For example, if an SF is snapshotted for the first time on March 25, 2026, its snapshot name generated by the system is **SF v26.03.25.1**. **NOTE** You can also go to the work item details page, click ••• in the upper right corner, and select **Version Snapshot** to create a snapshot for the work item. 3. (Optional) Click the work item name to go to its details page, click ••• , and select **Version History** to view the generated snapshots.

Managing System Features on Their Details Pages

On the details page of a system feature, you can modify the description, priority, and owner, add tags and attachments, associate work items, check review records, add workloads, and view the operation history.

Table 8-43 Management operations on the details page

Operation	Procedure	Remarks
Edit work item	On the system feature details page, click the value box of the field to be modified, and enter a target value in the text box or select one from the drop-down list. The modification is saved automatically.	You must have permission to **edit** features.

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Operation	Procedure	Remarks
Change work item status	Go to the work item details page, click the **Status** field, and transition the work item to the target status. For details about status transition, see **Table 8-39**.	You must have permission to **set statuses** for features.
Baseline feature	1. Go to the work item details page, and choose ••• > **Baseline**. The **Baseline** dialog box is displayed. 2. Click **OK**. The baseline icon  is displayed on the left of the system feature title. **NOTE** You can unbaseline system features that have been baselined.	You must have permission to **baseline** features.
Initiate baseline review	1. Go to the work item details page, and choose ••• > **Baseline Review**. The **BR** page is displayed. 2. Enter BR information. By default, the **Baseline Object** is the system feature for which the baseline review is initiated. 3. Click **Submit**. The **Review** page is displayed. Choose **Review** > **Baseline Review** to check the new baseline review. 4. Switch to the **Feature Tree** page. The icon of the system feature that is under baseline review is displayed as . **NOTE** Track the progress of the baseline review. The system feature can be baselined only when the baseline review status changes to **Approved**.	You must have permission to **view** features.

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Operation	Procedure	Remarks
Initiate change review	The change process can be initiated only for baselined and uncompleted FEs. 1. Go to the details page of a baselined work item, and choose *** > **Change Review**. The **CR** page is displayed. 2. Enter CR information. • **Review Object**: By default, it is the system feature to be changed. • **Collaborative Parent Item Change**: Only existing CRs can be added. 3. Click **Submit**. The **Review** page is displayed. Choose **Review** > **Change Review** to check the new CR in the change process. The CR state is **Pending review** by default. **NOTE** Track the progress of the CR. Only when the state is **Approved**, which means that the CR has been processed, will the changed content be displayed in the corresponding system feature.	You must have permission to **view** features.
Upload attachment	Attachments can be pictures, workbooks, manuscripts, and text files. A maximum of 100 attachments can be added to each work item, and their total size cannot exceed 500 MB. 1. Go to the work item details page, and click the **Attachment** tab. 2. Click the box to select a local file or drag the file here to upload it as an attachment for the work item. Local files can be directly dragged to the text box. When the upload progress reaches 100%, the system displays a message indicating that the attachment is uploaded successfully. Move the cursor to the file that is successfully uploaded. The operations that can be performed are displayed. • Click to download the file. • Click to delete the uploaded file.	You must have permission to **edit** or **upload attachments** for features.

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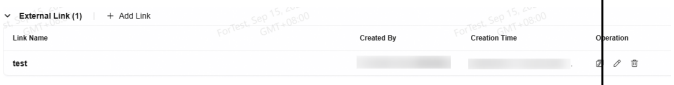
Operation	Procedure	Remarks
Add and check related item	A work item can be associated with any other type of work items in a project. 1. Go to the work item details page and click the **Related Items** tab. 2. Complete association. ● **Child Work Items**: child work items in the current feature. Add child work items: Click **Break Down** to add child work items. Each requirement can be broken down into a maximum of 10 child requirements at a time. One child requirement is displayed by default and cannot be deleted. Click to expand and configure more information. After the child work items are created, you can check and edit them on the **R&D Requirements** tab. ● **Associate Work Item**: Associate work items of any type in the project. Work items of the RR, SF, IR, US, task, and bug types can be associated. ● **Test Case**: test cases corresponding to the system feature. You can select system features associated with test cases in CodeArts TestPlan. ● **External Link**: external links associated with the current work item. – Create a link: Click **Add Link**. In the displayed dialog box, set **Link Name** and **Link**. The value of **Link** must start with **https://** and cannot contain invalid characters, such as spaces and Chinese characters. Click **OK**. After a link is created, you can click **External Link** to view, edit, copy, or delete the link.  – Copy a link: Click on the right of the link to be copied. – Edit a link: Click on the right of the row where the link to edit is located. In the displayed dialog box, you can change the link name and link.	You must have permission to **create/ associate/ dissociate child features**, **create/ associate/ dissociate child requirements**, **create/ associate/ dissociate work items**, **associate/ dissociate files**, and **associate/ dissociate wikis** for features.

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Operation	Procedure	Remarks
	– Delete a link: Click  on the right of the link to be deleted. In the displayed dialog box, click **Delete**.	
Add workload	1. Go to the work item details page and click the **Workload** tab. 2. Click **Add Workload**. The **Add Workload** dialog box is displayed. 3. Enter the workload information. • The end date cannot be earlier than the start date. • Decide whether to select **Weekends included**. If not, weekend workload records will not be generated. • You can select **Total** or **Daily** for **Workload**. • **Work Type** options include backend development, frontend development, UI design, replacement leave, debugging, and general. You can also customize the value by referring to **Creating Work Types**. 4. Click **OK**. The system automatically generates corresponding records based on the entered dates and days. The workload can be edited and deleted.	You must have permission to **add person-hours** for features. Workloads can be edited and deleted by the creator. By default, the project administrator can edit and delete all workloads.
View operation history	**History** displays all operation logs of users, including creation, status transition, review initiation, work item association, and workload addition. 1. Go to the work item details page. 2. Click the **History** tab. • Click  or  to check historical records in the ascending or descending order of operation time. • You can set search criteria to query historical records that meet the search criteria.	You must have permission to **view** features.

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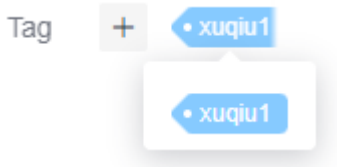
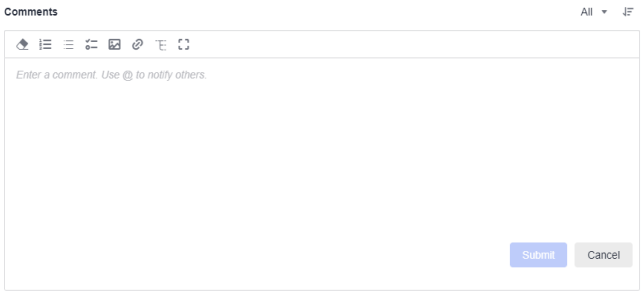
Operation	Procedure	Remarks
Tag work item	1. Go to the work item details page. Click + next to **Tag** at the top of the page, and select **Create Tag**. The added tag is displayed in the **Tag** area. 2. In the **Create Tag** dialog box, set **Tag Name** and select **Tag Color**. 3. Click **OK**. The new tag is displayed next to the requirement ID in the feature list. 4. (Optional) Hide a tag. • Click + next to **Tag**. In the displayed dialog box, deselect √ to hide the tag. • Move the cursor to the tag name and click ⊠ to hide the tag.  **NOTE** To add or remove tags for multiple system features, select the desired system features, click **Batch Edit** in the lower part of the page, and select **Tag**.	You must have permission to **edit** features.
Add comment	1. Go to the work item details page. 2. On the **Details** tab page, click the **Comments** text box.  3. Enter a comment. You can upload images, enter links, associate work items, and use @ to notify project members in comments. 4. Click **Submit**. Submitted comments can be replied, edited, pinned to the top, and deleted.	You must have permission to **view** features.

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Operation	Procedure	Remarks
History versions	For work items with snapshots, you can view their historical versions and compare the differences between them. 1. Go to the work item details page, click ••• in the upper right corner, and select **Version History**. 2. In the **Version History** dialog box, select two versions and click **Compare Versions**. On the **Work Item Version Comparison** page, view the differences between the original version and the compared version. You can click  in the upper right corner and enable **Hide Identical Items** to view only the differences between the two versions. 3. On the **Work Item Version Comparison** page, click  to return to the **Version History** page. Hover over a snapshot version.  is displayed. Click  to delete the snapshot. **NOTE** If a work item has a third-party snapshot or its child work items have third-party snapshots and the child work items cannot be separated from the current work item, the snapshot cannot be deleted.	You must have permission to **view** features. To delete a snapshot, you must have permission to delete features.

8.5 Configuring a Plan

CAUTION

- If the work item type is SF or RR, you need to add the **Release** and **Sprint** fields on the field template page of project work item management. Only after the fields are added can they be used in the corresponding work item.
- If the work item type is IR, you need to add the **Sprint** field on the field template page of project work item management. Only after the field is added can it be used in the corresponding work item.

Generally, multiple milestones and release versions are set in project management based on the delivery plan. Each release version can be completed through multiple sprints to deliver project achievements better. All work items of a project can be planned in release and sprint plans to ensure orderly and timely delivery, which keeps the project progress under control and manages the allocation of project members.

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NOTE

- Type M (M): Milestone.
- Type R (R): Release plan.
- Type S (S): Sprint plan.

Prerequisites

An IPD-standalone software project is available, in which you have permission to **create** plans.

Creating Milestones

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, select **Plans**.

Step 3 Click **Plan** and select **Milestone**. In the **Create Milestone** dialog box, set related parameters.

Table 8-44 Creating a milestone

Parameter	Description
Name	Name of a milestone. The value can contain a maximum of 60 characters. Names of milestones under the same project must be unique.
Completes	Planned completion time of a milestone, which can be selected based on the actual project situation.
Owner	Current owner of a milestone.
Tag	Milestone tag to be created. This parameter is optional. Click +. In the displayed dialog box, existing tags are displayed. You can select the tags you want to use. If no tags meet your requirements, click **Create Tag** in the dialog box to create new ones.

Step 4 Click **OK**.

The new milestone is displayed in the plan management list.

----End

Creating a Release Plan and Collaboration Plan

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, select **Plans**.

Step 3 Click **Plan**, select **Release Plan**, and set the parameters.

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Table 8-45 Creating a release plan

Parameter	Description
Release Name	Name of a release plan. The value can contain a maximum of 60 characters. Names of release plans under the same project must be unique.
Owner	Owner of a release plan. After becoming the owner, the user has permission to start, complete, and delete the release plan.
Start/End Time	Start time and end time of a release plan. The end time cannot be earlier than the planned start time.
Planned Capacity (person-day)	Estimated plan workload within the release plan time range. The value can be accurate to one decimal place.
Tag	Release plan tag to be created. This parameter is optional. Click +. In the displayed dialog box, existing tags are displayed. You can select the tags you want to use. If no tags meet your requirements, click **Create Tag** in the dialog box to create new ones.
Description	Enter release information based on actual conditions. A maximum of 1,000 characters can be entered.

Step 4 Click **OK**.

If plan collaboration is required, click ··· in the **Operation** column and select **Plan Collaboration**. The **Plan Collaboration > Lower-Level Plan** page is displayed. Select the release plan to be synchronized.

Step 5 Click **Next**, the **Plan Collaboration** page is displayed.

The **Plan Collaboration** page displays all downstream projects of the current project. By default, all downstream projects are selected. You can select the downstream projects whose release plans need to be synchronized, and set the release plans of the downstream projects. For details about the parameters, see **Table 8-46**.

NOTE

Plan collaboration is unavailable if there are no downstream projects. In this case, click **Go configure** in the information display area on the **Plan Collaboration** page to go to the Collaborative Delivery Configuration page. For details, see **Configuring Project Assignment**.

Table 8-46 Collaborative release plan

Parameter	Description
Collaborate With Downstream Projects	Collaborative downstream project name.

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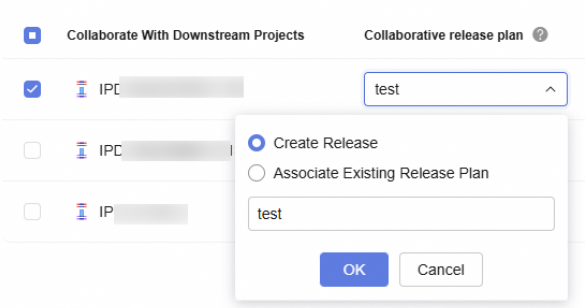
Parameter	Description
Collaborative release plan	Collaborative release plan name. You can select **Create Release** or **Associate Existing Release Plan** from the drop-down list. • **Create Release** (default): The value is the name of the release plan created in the previous step. • **Associate Existing Release Plan**: You can select this option only when the following two conditions are met: 1. The release plan is not complete. 2. The release plan does not have other upper-level release plans.  **NOTE** If the release name is the same as an existing release name of the project, the name of the collaborative release plan is highlighted, a message is displayed, and **OK** cannot be clicked.
Owner	Current owner of the collaborative downstream project. By default, the owner is the product manager of each project. If there is no product manager, the owner is the project administrator.
Start/End Time	Planned start and end time of a downstream project. The default value is the start and end time of the release plan created in the previous step.
Operation	Click in the **Operation** column to copy the collaborative release name, start time, and end time of the row to all rows. This operation cannot be performed if you select an existing release.

Step 6 After you click **OK**, the message indicating that the release is successful is displayed. If the collaboration fails, the failure cause page is displayed, showing the collaboration plan result list and failure cause.

Step 7 After the release is created, you can view the new release and the number of collaboration plans in the plan management list. The default release status is **Planned**. You can manually update the status of the release plan. The details are as follows:

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- For a **Planned** release plan, click ··· in the **Operation** column and click **Start Release** to change the status to **In progress**.
- For a release plan that is **In progress**, click ··· in the **Operation** column and click **Set to Not yet started** to change the status to **Planned**, or click **Complete** to change the status to **Ended**.
- For an **Ended** release plan, click ··· in the **Operation** column and click **Restart** to change the status to **In progress**.

  NOTE

  New sprint plans cannot be added for completed release plans.

----End

Creating and Synchronizing a Sprint Plan

Step 1 Click + in the row where the release for which you want to add a sprint plan is located. The **Create Sprint** window is displayed.

Step 2 Set the sprint plan information.

Table 8-47 Creating a sprint plan

Parameter	Description
Sprint Name	Name of a sprint plan. The value can contain a maximum of 60 characters. The name of a sprint plan under the same release must be unique, and a new sprint cannot be the same as an existing one under a downstream release.
Release	Release plan to which the sprint plan belongs. You can select an existing release plan from the drop-down list.
Owner	Owner of a release plan.
Start/End Time	Start time and end time of a sprint plan. The end time cannot be earlier than the planned start time. The **Start/End Time** of a sprint plan can be selected only from the **Start/End Time** of the release to which the sprint plan belongs.
Planned Capacity (person-day)	Estimated plan workload within the release plan time range. The value can be accurate to one decimal place.
Tag	Sprint plan tag to be created. This parameter is optional. Click +. In the displayed dialog box, existing tags are displayed. You can select the tags you want to use. If no tags meet your requirements, click **Create Tag** in the dialog box to create new ones.
Description	Enter release information based on actual conditions. A maximum of 1,000 characters can be entered.

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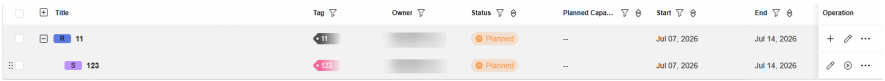
Step 3 Click **OK**. The sprint plan is created successfully. You can view the new sprint plan under the release plan.



To synchronize a sprint, click ••• in the **Operation** column and select **Synchronous Iteration**. The dialog box for synchronizing sprints is displayed. Select the sprint plan to be synchronized.

Step 4 Click **Next**. The page for synchronizing sprints is displayed, showing the project nodes that collaborate with the current release. By default, the project nodes are displayed in a tree structure. The lower-level nodes are selected by default, and the release plans that collaborate with the current release are carried. Click **OK** to create a sprint with the same name, start time, end time, and planned capacity. By default, the owner is the product manager of each project. If there is no product manager, the owner is the project administrator. You can also deselect lower-level nodes and click **OK** to create a sprint with no collaboration.

Step 5 Click **OK**. A message is displayed, indicating that the sprint is created successfully. If a sprint fails to be synchronized, the page of failure causes is displayed, showing the failure result list and failure causes.

Step 6 By default, a new sprint plan is in the **Planned** state. You can manually update the sprint plan status:

- For a **Planned** sprint plan, click in the **Operation** column to change the status to **In progress**.
- For a sprint plan that is **In progress**, click in the **Operation** column to change the status to **Planned**, or click to change the status to **Ended**.
- For an **Ended** sprint plan, click in the **Operation** column to change the status to **In progress**.

----End

Related Operations

You can perform the following operations on new milestones, release plans, and sprint plans.

Table 8-48 Operations related to plan management

Operation	Description
Edit release/ sprint plan	Click in the **Operation** column of a release/sprint plan to edit its name and owner. Baselined release/sprint plans cannot be edited.

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Operation	Description
Baseline release/ sprint plan	Choose *** > **Baseline** in the **Operation** column of the release or sprint plan. ● After a release plan is baselined, the R&D requirements (IRs), SFs, IRs, USs, and tasks under the release are also baselined. ● After a sprint plan is baselined, the SFs, IRs, USs, and tasks under the sprint are also baselined. ● After a release or sprint plan is baselined, a version snapshot is automatically generated.
Unbaseline release/ sprint plan	You can only unbaseline release plans or sprints that have been baselined. Choose *** > **Unbaseline** in the **Operation** column of a baselined release or sprint plan. ● After a release plan is unbaselined, the SFs, IRs, USs, and tasks under the release are also unbaselined. ● After a release plan is unbaselined, the SFs, IRs, USs, and tasks under the release are also unbaselined.
View history of release or sprint plan	Choose *** > **History** in the **Operation** column of a release/ sprint plan. Then view the historical records of the release plan/ sprint plan on the displayed page.
Delete release/ sprint plan	Click **Delete** under *** in the **Operation** column of the release or sprint plan. In the displayed dialog box, click **OK**. ● Baselined release/sprint plans cannot be deleted. ● Deleted release/sprint plans cannot be restored.
Copy link	On the level-2 release or sprint page of plan management, you can copy the title, ID, current owner, status, and link of a requirement to the clipboard. Level-1 tasks: Click **Copy Link** in the **Operation** column on the level-2 release or sprint page. IRs/USs/Bugs/Level-2 tasks: Click in the **Operation** column on the level-2 release or sprint page.
Edit milestone	Click in the **Operation** column of a milestone.
Delete milestone	Click in the **Operation** column of a milestone. Deleted milestones cannot be restored.

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Operation	Description
Perform batch operations	Select the check boxes on the left of the plans to manage the plan data in batches. Baseline: You can baseline multiple release or sprint plans in batches. Unbaseline: You can unbaseline multiple release or sprint plans that have been baselined in batches. Export: You can export selected data in batches. Delete: You can delete selected data in batches. Deleted plans cannot be restored.
Snapshot version	Create a version snapshot. ● Method 1: Click **Snapshots** under ··· in the **Operation** column of a release or sprint plan. On the **Release Version Snapshot** page, enter the **Name** and click **OK**. The version snapshot is created. You can view historical versions and their differences on the work item details page. ● Method 2: Go to the release or sprint plan details page, click **Snapshots** under ··· in the upper right corner of the page, enter the **Name**, and click **OK**. To view work items in snapshots of different versions, go to the work item details page and click **Version History** under ··· . View the **Version History** dialog box of the R&D requirement. You can select a version as required. To view the differences between historical versions, select any two versions and click **Compare Versions**. The dialog box for work item version comparison is displayed.

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Operation	Description
Group work items in a release plan or sprint	You can group work items by any supported field type. **Constraints** • A maximum of 1,000 work items can be displayed during grouping. • The supported field types include single-choice list, multi-choice list, single-choice user, multi-choice user, hierarchy, and date. • Work items in a release cannot be grouped by release, and work items in a sprint cannot be grouped by release or sprint. • Release plans of programs: If there are lower-level plans and sub-project aggregation is enabled, work items cannot be grouped by release, sprint, module, feature set, or tag. • Only the tree table, list, and Gantt modes support grouping. **Procedure** 1. On the release or sprint page of **Plans**, click the drop-down list next to the search box to switch between the tree table, list, kanban, and Gantt mode, and click **Group**. 2. On the displayed page, select the fields used to group work items. • You can sort work items in ascending or descending order. • You can enter a keyword to search for fields. • When work items are grouped by multi-select list or multi-select user, the same work item may appear in multiple groups. • You can click **No grouping** to ungroup work items.

Arranging Release and Sprint Plans

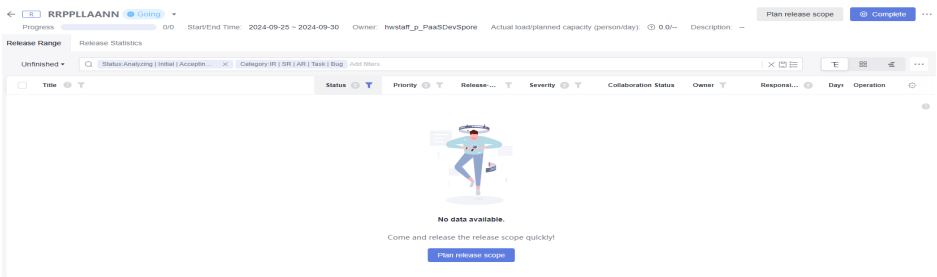
Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, select **Plans**.

Step 3 Click the title of a release or sprint plan to go to the details page.

The plan's basic information, work item scope, and statistics are displayed. You can arrange the plan and change its status.

Figure 8-29 Plan details page



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Step 4 Click **Plan release scope**.

- This operation is unavailable for baselined release plans.
- This operation is unavailable for completed release plans.

Step 5 Configure fields to display.

On the **Specify Scope** page, click **Table Header Settings**.

- In the left pane of the pop-up dialog box, select the fields you want to display from the available fields (basic fields, personnel-related fields, time-related fields, and custom fields).
- On the right of the pop-up box, drag the fields in the **Selected** area to adjust the display sequence.

After the settings are complete, click **Apply**. The selected fields will be displayed in both the planned work item list and the released work item list.

Step 6 In the planned work item list, select work items to be added into a release plan, and click **Move to Release**. In the displayed dialog box, select a release plan from the drop-down list on the right, and click **OK**. The selected work items are then added to the selected release plan.

NOTE

- You can also drag work items to the release plan.
- This procedure uses a release plan as an example. Sprint plans can be configured in the same way.

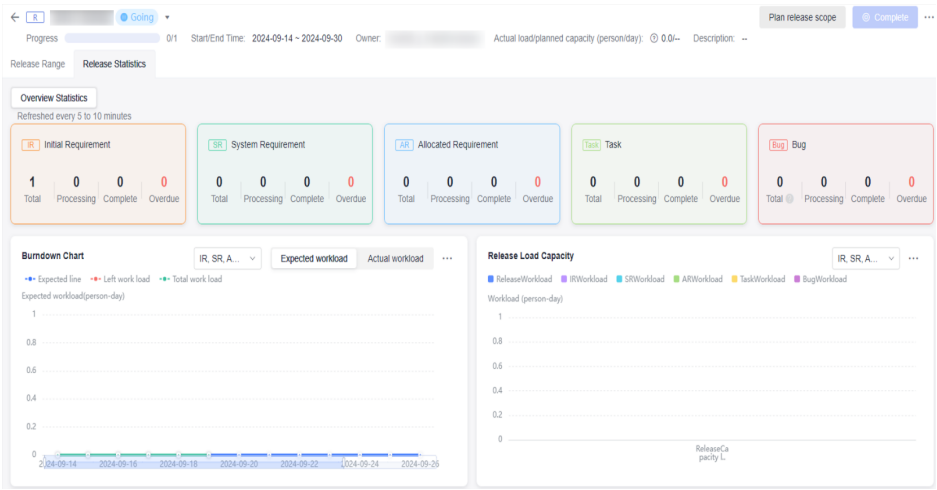
----End

Checking Statistics of Release and Sprint Plans

Step 1 On the project homepage, select **Plans**.

Step 2 Click the title of a release or sprint plan to go to the details page, and click **Statistics**.

Figure 8-30 Plan details page - Statistics



The following types of charts are supported.

Table 8-49 Release charts

Statistical Chart	Data Description
Work item overview	Counts the total, uncompleted, completed, and overdue work items of each type in the current release.
Burndown chart	Uses a line chart to display the daily trend of changes in the number and planned workloads of all work items in the current release. • Total workload: The system runs a scheduled task daily to calculate the total workloads (planned workloads and work items) of all work items in the current release. • Left workload: The system runs a scheduled task daily to calculate the workloads (planned workloads and work items) of all uncompleted work items in the current release. • Expected line: The line connecting the total workload from the first day to the last day. The total workload of the last day is 0 person-days. This chart helps you identify risks in the release progress.
Release capacity load	Uses a grouped column chart to compare the planned and release workloads of each work item type in the current release. This chart helps you check whether the actual workloads exceed the planned ones.
Bug trend	Uses a line chart to display the numbers of daily discovered and resolved bugs as well as the remaining defect index (DI). This chart helps you understand the bug trend in the current release.
Work items by priority	Uses a grouped column chart to display the numbers of different work item types under each member by priority. This chart helps you understand the priorities of work items under each member.
Work item completion	Uses a line chart to display the numbers of completed and total work items of each type in the current release. This chart helps you learn about the release's daily completion status.
Work items by status	Uses a ring chart to display the number and proportion of work items of each type in different statuses under the current release. This chart helps you learn about the release's work items in different statuses.
Work item breakdown	Uses a column chart to display the numbers of broken-down and total work items of each type in the current release. This chart helps you learn about the work item breakdown progress of the current release.

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Statistical Chart	Data Description
Work item completion rate	Uses a column chart to display the numbers of completed and total work items of each type in the current release. This chart helps you learn about the release's completion status by work item or planned workload.
Work item stay days	Uses a column chart to display the average number of days that work items of each type stay in each status (except for a **Done** status) in the current release. This chart helps you identify the delivery bottlenecks in your team.
Work item statistics for project members (by status)	Uses a grouped column chart to display the numbers of different work item types in different statuses under each member. This chart helps you learn about the work item progress of each member.
Unfinished work items by member	Uses a grouped column chart to display the number of uncompleted work items of each member under the current release. This chart helps you check whether the work item assignment of each member is appropriate.
Requirement TTM	Uses a column chart to display the average time that each requirement type takes to complete since it is created or submitted. This chart helps you understand the delivery rate of each work item type.

NOTE

The description uses a release plan as an example. Sprint plans have the same statistical charts.

----End

8.6 Creating and Managing R&D Requirements

8.6.1 R&D Requirement Status Transition Process

The lifecycle of an R&D requirement consists of the **Initial**, **Analyzing**, **Developing**, **Testing**, and **Completed** statuses. Figure 8-31 shows the complete status transition process.

Figure 8-31 R&D requirement status transition flowchart

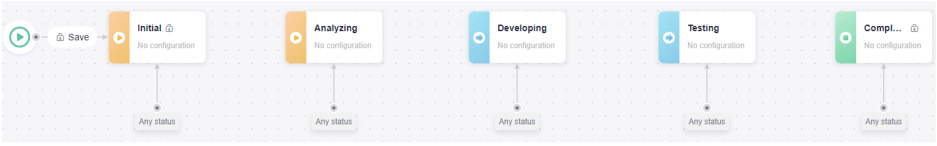

Table 8-50 describes the operations in each status.

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Table 8-50 Operation description

Status	Description
Initial	When an R&D requirement is created, the state is **Initial** by default.
Analyzing	After the R&D requirement in the **Initial** state is handled, the state changes to **Analyzing**.
Developing	After the R&D requirement is analyzed, the state changes to **Developing**.
Testing	After the development personnel complete the R&D requirement development, the state changes to **Testing**.
Completed	After the R&D requirement passes the test, the state changes to **Completed**.

8.6.2 Creating R&D Requirements

R&D requirements are delivered in project release plans and sprints. These requirements can be associated with raw requirements and system features.

Prerequisites

An IPD-standalone software project is available, in which you have permission to **create and duplicate** R&D requirements.

Procedure

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **R&D Requirements**.

Step 3 Click **IR**. On the **IR** page, set related parameters.

Table 8-51 Creating an IR

Parameter	Description
Tag	When creating or editing a work item, you can add a custom tag. Tag names can be marked in different colors.
Title	Title of a work item.
Description	Enter the background, value, and details of the R&D requirement based on actual conditions. Use text, images, or links.
Attachment	The maximum number of attachments for an R&D requirement is 100, and their total size cannot exceed 500 MB.

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Parameter	Description
Responsible Project	Project that the R&D requirement belongs to. The value cannot be changed.
Raised By	Members who propose the requirement. Multiple proposers can be specified.
Owner	Member who is responsible for this requirement. Only one person can be specified.
Priority	Priority of an R&D requirement, including **Low**, **Medium**, and **High**. The default value is **Medium**.
Release	Release plan version of the R&D requirement. This parameter has a value only after the operations in **Creating a Release Plan and Collaboration Plan** are completed. This parameter can be left empty. You can create a release plan and then associate it with the R&D requirement.
Sprint	Next level of the release plan. This parameter has a value only after the operations in **Creating a Release Plan and Collaboration Plan** are completed. The parameter value can be empty. You can create a sprint and then associate it with the R&D requirement.
Planned Start	Planned start time of a requirement. The date format is **yyyy-mm-dd**.
Planned Completion	Planned completion time of a requirement. The date format is **yyyy-mm-dd**. The planned completion time cannot be earlier than the planned start time.
Planned Workload	Estimated workload from the planned start time to the planned completion time for this requirement.
Domain	Domain. The value includes software, hardware, software and hardware, functions, and performance.
Breakdown Required	Whether it is necessary to break down this requirement into smaller units.
Reason for Non-Breakdown	This parameter is displayed only when **Breakdown Required** is set to **No**. State the true conditions of the project.
Copy To	Project members to whom the IR is copied. After the copy is complete, the people selected for **Copy To** will receive a message.

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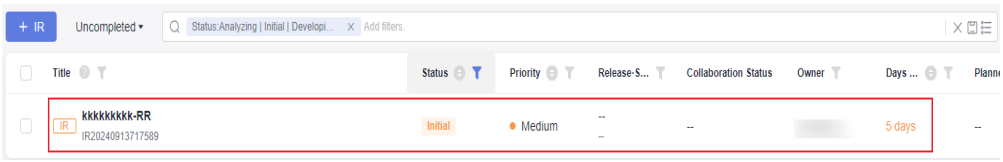
Step 4 Click **OK**. The R&D requirement page is displayed, and "IR created." is displayed in the upper right corner.

The new requirement is displayed in the R&D requirement list, and the requirement state is **Initial**.

Figure 8-32 R&D requirement list



NOTE

After an R&D requirement is created, the people selected for **Owner**, **Raised By**, and **Copy To** will receive email and system message notifications. If not, set notifications or modify notification settings. For details, see **Configuring Notifications**.

----End

Related Operations

You can perform the following operations on a new R&D requirement.

Table 8-52 Basic operations on an R&D requirement

Operation	Description
Modify title	Click next to an R&D requirement title to modify it.
Modify field	Click the target field value in the row of an R&D requirement to modify the value.
Break down work item	Click in the **Operation** column of an R&D requirement to break it down into child work items. • Click **Add Child Work Item** in the **Break Down Child Work Item** dialog box to break down child work items in batches. A maximum of 10 child work items can be broken down at a time. • You can break down work items quickly. See **Configuring Common Fields in a Project** for related field configuration. If **Quickly split sub-work items** is enabled, the corresponding number of child work items are created based on the number of options selected. A maximum of **10** child work items can be created. If the work item already has child work items, the quick breakdown function does not take effect. If a work item is configured with multiple fields for quick breakdown, the child work items are obtained only based on the first field in the field template.

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Operation	Description
View association map	Click  under in the **Operation** column of an R&D requirement to view all data of its associated items.
Duplicate R&D requirement	Click  under in the **Operation** column. This process is the same as that of creating an R&D requirement.
Delete R&D requirement	Click  under  in the **Operation** column of an R&D requirement. • R&D requirements in change or baseline review cannot be deleted. • Once deleted, an R&D requirement is moved to the recycle bin. R&D requirements in the recycle bin can be restored or permanently deleted according to the work item type. After a requirement is restored from the recycle bin, it restores to the original status. • Restoring a child requirement also restores its parent on the requirement path but does not restore its siblings under the parent.
Copy R&D requirement link	Click  in the **Operation** column of an R&D requirement to copy its title, ID, current owner, status, and link information to the clipboard.
Migrate R&D requirement	On the details page, choose  > **Migrate** in the **Operation** column of an R&D requirement to migrate it to other projects. • R&D requirements that have been baselined, completed, or are currently under baseline review or change review cannot be migrated. • Batch migration is based on the selected top-level requirement type. IRs are migrated across projects and non-IRs within a project. • Requirements are migrated together with their child requirements. • After an R&D requirement is migrated to another project, the system automatically removes its tags, actual workloads, related items (except for collaborative requirements), and release plans, and only keeps the fields of the same type as the existing work items. The associated work items are automatically canceled.

8.6.3 Managing R&D Requirements

After creating R&D requirements (see **Procedure**), you can query, import, export, and batch edit them in the project. You can add tags and associate work items on their details pages.

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On the R&D Requirements List Page

Go to the project homepage, choose **Work > Req > R&D Requirements**, and perform the following operations.

Figure 8-33 R&D requirement list

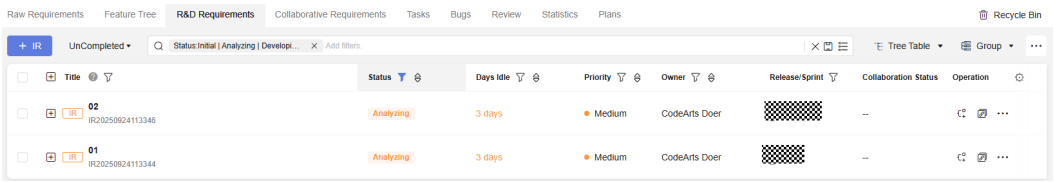

Table 8-53 Management operations in the R&D requirement list

Operation	Procedure
Search for R&D requirement	• By adding filters 1. Click the search box in the R&D requirement list and select one or more filters to search for R&D requirements. 2. To clear all filters and display all data, click ✕ on the right of the search bar. 3. Query results can be displayed in tree, list, or Gantt chart view. • By using a saved view 1. Click the search box in the R&D requirement list and select one or more filters. 2. Click 💾 on the rightmost of the search bar, and enter a view name. 3. Click **OK**. The created view is displayed next to **IR**. 4. Select the name of the created view to query the R&D requirements that meet the search criteria. Views can be shared with others, modified, and deleted.
Assign R&D requirement	You can assign R&D requirements to other projects for collaborative management. For details, see **Assigning Work Items** and **Operations Related to Work Item Assignment**.
Receive assigned R&D requirement	Perform this operation when another project assigns an R&D requirement to your project. For details, see **Receiving Work Items** and **Operations Related to Receiving Work Items**.

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Operation	Procedure
Import work items	Use the provided template to import requirements in batches. 1. In the R&D requirement list, click ··· on the right of the search bar and select **Import**. 2. In the displayed dialog box, click **Download Template**. The template file should be named in the following format: *Project name* + "-" + *Module name* (for example, **R&D Requirement**) + **Template**. You can edit the name of the downloaded template. 3. Fill in the fields on the **R&D Requirement Import** sheet. For details about how to set parameters, see the **Notes** and header instructions in the template file. 4. Drag and drop the desired file to the import area or click the import area and select the file. 5. Click **Next**. The verification progress dialog box is displayed. After the verification progress reaches 100%, close the dialog box and view the verification result. If the mandatory fields fail the verification, the import is not allowed, while the verification result of optional fields does not affect the import. ● If the verification is successful, click **Confirm Import**. ● If the verification fails, modify the file based on the verification result. Click **Last step** to import the modified file. 6. After the verification is successful, click **Confirm Import**. The import progress dialog box is displayed. You can click **Check progress** in the dialog box to go to the **Import/Export Records** page to view the import records. 7. After the import is successful, view the imported information in the R&D requirement list. ● If the import fails, a message is displayed on the page. Click **View Failure Details** in the message to view the failure details. You can modify the requirement information based on the details and import the template file again.

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Operation	Procedure
Export work items	Export requirements in batches to an Excel file. 1. Export some or all R&D requirements. • Export all: On the **R&D Requirements** page, click ··· on the right of the search bar and choose **Export**. The **Select Fields to Export** dialog box is displayed. • Export some: In the R&D requirement list, select one or more R&D requirements to be exported and click **Export Selected** at the bottom of the page. The **Select Fields to Export** dialog box is displayed. 2. Select the fields to be exported and determine whether to export child work items. 3. Click **Export**. A dialog box is displayed, indicating the export progress. • After the R&D requirements are exported, click **Download**. The R&D requirement file will be downloaded to the local PC. The file format is **.xlsx**.
Configure fields to display	Click ⚙ next to the **Operation** field. • On the left of the pop-up box, select the fields to be displayed. • On the right of the pop-up box, drag the fields in the **Selected** area to adjust the display sequence. • On the right of the pop-up box, select a field spacing style under **Appearance**. The options include **Compact**, **Standard**, and **Loose**.

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Operation	Procedure
Clone R&D requirements across projects	**Constraints** • You must clone the entire requirement tree (IR-SR-AR). Child work items cannot be cloned separately. • Only work items can be cloned. The workload, associated work item (except parent-child requirements), tag, and release sprint fields will be cleared. • You must have permission to **create and clone** R&D requirements for the target project. • You can only clone R&D requirements to projects of the same type. For example, clone work items of an IPD-system device project to another IPD-system device project. • You can clone up to 50 tasks at a time. **Procedure** 1. Select the IRs/SRs/ARs to clone in the R&D requirement list and click **Cross-Project Copy** in the lower part of the page. The **Cross-Project Copy** window is displayed. 2. Select a target project from the drop-down list. You can select only a project to which you have joined and must have permission to create and clone tasks for the target project. 3. Click **Next**. The window for setting mandatory fields is displayed. Select the target owner from the drop-down list (the current operator is selected by default). Mandatory fields are those on the R&D requirement (IR/SR/AR) creation page of the target project. 4. Click **OK**. The R&D requirements are cloned to the target project. 5. Go to the target project to view the cloned R&D requirements.
Transition statuses in batches	**Constraints** • The types of the selected R&D requirements must be the same. • The selected R&D requirements must be in the same status. • You must have permission to **set statuses** for R&D requirements. • All mandatory fields of the selected R&D requirements have been set. **Procedure** 1. Select the target IRs/SRs/ARs in the R&D requirement list and click **Batch Transfer** in the lower part of the page. The **Batch Transfer** window is displayed. 2. Select the target status from the drop-down list. 3. Click **Next**. 4. Set mandatory fields. The mandatory fields are set on the **In-transition GUI Config** tab page of the project's IR/SR/AR status flow configuration page. 5. Click **OK**.

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Operation	Procedure
Perform batch operations	You can select multiple R&D requirements to perform batch operations: baseline/unbaseline, change, baseline review, assign, migrate, edit, suspend/unsuspend, export, delete, cross-project clone, and transition.
Group R&D requirements	You can group work items by any supported field type. **Constraints** ● A maximum of 1,000 work items can be displayed during grouping. ● The supported field types include single-choice list, multi-choice list, single-choice user, multi-choice user, hierarchy, and date. ● For projects in a program (after sub-project aggregation is enabled), grouping by release, sprint, module, feature set, or tag is unavailable. **Procedure** 1. On the **R&D Requirements** page, click **Group**. 2. On the displayed page, select the fields used to group work items. ● You can sort work items in ascending or descending order. ● You can enter a keyword to search for fields. ● When work items are grouped by multi-select list or multi-select user, the same work item may appear in multiple groups. ● You can click **No grouping** to ungroup work items.

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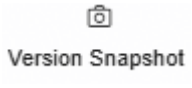
Operation	Procedure
Version snapshots	Snapshots include plan management snapshots, feature tree snapshots, and work item snapshots. A version snapshot is a work item snapshot. Its name is automatically generated by the system. **Constraints** A work item can have a maximum of 1,000 snapshots. **Procedure** 1. In the R&D requirement list, select the work items for which you want to create a snapshot. 2. Click  in the lower part of the page to take a snapshot of the selected work items. A message is displayed in the upper right corner of the page, indicating that the operation is successful. The snapshot is a work item snapshot. Its name is automatically generated by the system. The format of the work item snapshot name is: *Work item type* + "v" + *Year* + "." + *Month* + "." + *Day* + "." + *Number of versions generated on the current day*. For example, if an IR is snapshotted for the first time on March 25, 2026, its snapshot name generated by the system is **IR v26.03.25.1**. **NOTE** You can also go to the work item details page, click ··· in the upper right corner, and select **Version Snapshot** to create a snapshot for the work item. 3. (Optional) Click the work item name to go to its details page, click ···, and select **Version History** to view the generated snapshots.

On the R&D Requirement Details Page

On the details page of an R&D requirement, you can modify the description, priority, and owner, add tags and attachments, associate work items, design models, check review records, add workloads, and view the operation history.

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Table 8-54 Management operations on the details page

Operation	Procedure	Remarks
Edit work item	On the R&D requirement details page, click the value box of the field to be modified, and enter a target value in the text box or select one from the drop-down list. The modification is saved automatically.	You must have permission to **edit** R&D requirements.
Change work item status	Go to the work item details page, click the **Status** field, and transition the work item to the target status. For details about status transition, see **Table 8-50**.	You must have permission to **set statuses** for R&D requirements.
Baseline R&D requirement	1. Go to the work item details page, and choose ••• > **Baseline**. The **Baseline** dialog box is displayed. 2. Click **OK**. The baseline icon  is displayed on the left of the R&D requirement title. **NOTE** You can unbaseline R&D requirements that have been baselined.	You must have permission to **baseline** R&D requirements.
Initiate baseline review	1. Go to the work item details page, and choose ••• > **Baseline Review**. The **BR** page is displayed. 2. Enter BR information. By default, the **Baseline Object** is the R&D requirement for which the baseline review is initiated. 3. Click **Submit**. The **Review** page is displayed. Choose **Review** > **Baseline Review** to check the new baseline review. 4. Switch to the **Features** page. The icon of the R&D requirement that is under baseline review is displayed as . **NOTE** Track the progress of the baseline review. The R&D requirement can be baselined only when the baseline review status changes to **Approved**.	You must have permission to **view** R&D requirements.

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Operation	Procedure	Remarks
Initiate change review	The change process can be initiated only for baselined and uncompleted R&D requirements. 1. Go to the details page of a baselined work item, and choose *** > **Change Review**. The **CR** page is displayed. 2. Enter CR information. • **Review Object**: By default, it is the R&D requirement to be changed. • **Collaborative Parent Item Change**: Only existing CRs can be added. 3. Click **Submit**. The **Review** page is displayed. Choose **Review** > **Change Review** to check the new CR in the change process. The CR state is **Pending review** by default. **NOTE** Track the progress of the CR. Only when the state is **Approved**, which means that the CR has been processed, will the changed content be displayed in the corresponding R&D requirement.	You must have permission to **view** R&D requirements.
Upload attachment	Attachments can be pictures, workbooks, manuscripts, and text files. A maximum of 100 attachments can be added to each work item, and their total size cannot exceed 500 MB. 1. Go to the work item details page, and click the **Attachment** tab. 2. Click the box to select a local file or drag the file here to upload it as an attachment for the work item. Local files can be directly dragged to the text box. When the upload progress reaches 100%, the system displays a message indicating that the attachment is uploaded successfully. Move the cursor to the file that is successfully uploaded. The operations that can be performed are displayed. • Click to download the file. • Click to delete the uploaded file.	You must have permission to **edit** or **upload attachments** for R&D requirements.

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Operation	Procedure	Remarks
Add and check related item	A work item can be associated with any other type of work items in a project. 1. Go to the work item details page and click the **Related Items** tab. 2. Complete association. • Parent work item: parent work item to which an R&D requirement belongs. The information about an RR is displayed in the **Parent Requirements** area only when the IR is associated with the RR. • **Feature**: features to which an R&D requirement belongs. Only when an IR is associated with a feature will the information about the feature be displayed in the **Feature** area. • **Child Work Items**: Child work items (SRs) of the current R&D requirement. Each requirement can be broken down into a maximum of 10 child requirements at a time. One child requirement is displayed by default and cannot be deleted. 1. Click **Break Down**. The **Break Down Child Work Item** dialog box is displayed. 2. Configure child work items. Click to expand and configure more information. 3. Click **OK**. The child work item is automatically displayed under the parent requirement in the R&D requirement list. • **Related Upstream Requirements**: requirements assigned by other projects to your project. • **Related Downstream Requirements**: requirements assigned to downstream projects. For details, see **Assigning Work Items** and **Operations Related to Work Item Assignment**. • **Associate Work Item**: Associate work items of any type in the project. Work items of the RR, SF, IR, US, task, and bug types can be associated. • **Associated open issue review form**: reviews that include the review and approval comments related to the work item. • **Test Case**: test cases corresponding to the R&D requirement. You can select R&D requirements associated with test cases in CodeArts TestPlan.	You must have permission to **deliver/cancel assignment**, **create/delete child requirements**, **associate/dissociate work items**, **associate/dissociate files**, and **associate/dissociate wikis** for R&D requirements.

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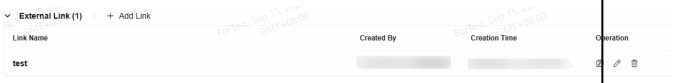
Operation	Procedure	Remarks
	• **Code Commit Record**: indicates the code commit records corresponding to the R&D requirement. Related information is displayed only when the current requirement is associated during code commit. • **Code Branch**: code branches corresponding to the R&D requirement. Related information is displayed only when a code branch is associated with the current requirement. • **Code Merge & Change Request**: code merge and change requests corresponding to an R&D requirement. Related information is displayed only when a submitted merge or change request is associated with the current requirement. • **External Link**: external links associated with the current work item. – Create a link: Click **Add Link**. In the displayed dialog box, set **Link Name** and **Link**. The value of **Link** must start with **https://** and cannot contain invalid characters, such as spaces and Chinese characters. Click **OK**. After a link is created, you can click **External Link** to view, edit, copy, or delete the link.  – Copy a link: Click on the right of the link to be copied. – Edit a link: Click on the right of the row where the link to edit is located. In the displayed dialog box, you can change the link name and link. – Delete a link: Click on the right of the link to be deleted. In the displayed dialog box, click **Delete**.	

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Operation	Procedure	Remarks
Check review record	You can check the review records related to requirements only in the following situations: • When an R&D requirement is added to a baseline review, the baseline review process is triggered. Only then will you be able to view the review record on the **Review** tab of the feature details page. • When a locked field of a baselined R&D requirement is modified, the change process is automatically triggered. Only then will you be able to view the review record on the **Review** tab of the feature details page. • When an R&D requirement has a general review record, you can check the record on the **Review** tab of the feature details page.	You must have permission to **view** R&D requirements.
Add workload	1. Go to the details page of a work item and click **Workload**. 2. Click **Add Workload**. The **Add Workload** dialog box is displayed. 3. Enter the workload information. • The end date cannot be earlier than the start date. • Decide whether to select **Weekends included**. If not, weekend workload records will not be generated. • You can select **Total** or **Daily** for **Workload**. • **Work Type** options include backend development, frontend development, UI design, replacement leave, debugging, and general. You can also customize the value by referring to **Creating Work Types**. 4. Click **OK**. The system automatically generates corresponding records based on the entered dates and days. The workload can be edited and deleted.	You must have permission to **add person-hours** for R&D requirements. Workloads can be edited and deleted by the creator. By default, the project administrator can edit and delete all workloads.

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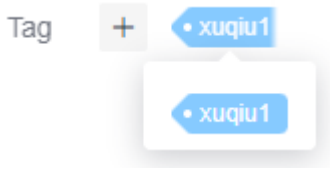
Operation	Procedure	Remarks
View operation history	**History** displays all operation logs of users, including creation, status transition, review initiation, work item association, and workload addition. 1. Go to the work item details page. 2. Click the **History** tab. • Click or to check historical records in the ascending or descending order of operation time. • You can set search criteria to query historical records that meet the search criteria.	You must have permission to **view** R&D requirements.
Tag work item	1. Go to the work item details page. Click + next to **Tag** at the top of the page, and select **Create Tag**. The added tag is displayed in the **Tag** area. 2. In the **Create Tag** dialog box, set **Tag Name** and select **Tag Color**. 3. Click **OK**. The new tag is displayed next to the requirement ID in the RR list. 4. (Optional) Hide a tag. • Click + next to **Tag**. In the displayed dialog box, deselect √ to hide the tag. • Move the cursor to the tag name and click to hide the tag. **Figure 8-34** Hiding a tag - 02  **NOTE** To add or remove tags for multiple work items, select the desired work items, click **Batch Edit** in the lower part of the page, and select **Tag**.	You must have permission to **edit** R&D requirements.

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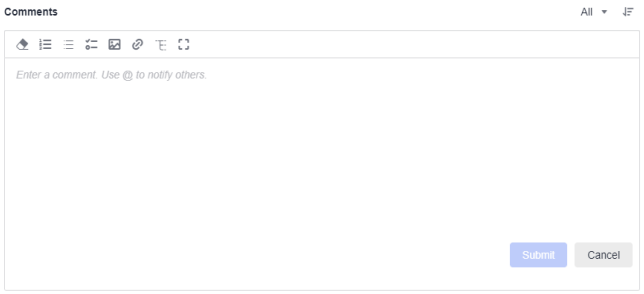
Operation	Procedure	Remarks
Add comment	1. Go to the work item details page. 2. On the **Details** tab page, click the **Comments** text box. **Figure 8-35** Add comment  3. Enter a comment. You can upload images, enter links, associate work items, and use @ to notify project members in comments. 4. Click **Submit**. Submitted comments can be replied, edited, pinned to the top, and deleted.	You must have permission to **view** R&D requirements.
History versions	For work items with snapshots, you can view their historical versions and compare the differences between them. 1. Go to the work item details page, click ••• in the upper right corner, and select **Version History**. 2. In the **Version History** dialog box, select two versions and click **Compare Versions**. On the **Work Item Version Comparison** page, view the differences between the original version and the compared version. You can click  in the upper right corner and enable **Hide Identical Items** to view only the differences between the two versions. 3. On the **Work Item Version Comparison** page, click  to return to the **Version History** page. Hover over a snapshot version.  is displayed. Click  to delete the snapshot. **NOTE** If a work item has a third-party snapshot or its child work items have third-party snapshots and the child work items cannot be separated from the current work item, the snapshot cannot be deleted.	You must have permission to **view** R&D requirements. To delete a snapshot, you must have permission to delete R&D requirements.

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8.6.4 Managing Collaborative Work Items

The system supports collaborative management of requirements in each project. After assignment is configured, the assigned and received work items are displayed on the **Collaborative Requirements** page.

Prerequisites

- You have created a project. For details, see **Creating a CodeArts Project**.
- An R&D requirement has been created.
- Other projects exist in the system.
- In collaborative assignment scenarios:

  For R&D requirements, project members must have permission to **assign/cancel assignment of IPD R&D requirements** or **work items**.

  For tasks, project members must have permission to **assign/cancel assignment of IPD tasks** or **work items**.
- In collaborative reception scenarios:

  For R&D requirements, project members must have permission to **receive/reject/turn back/transfer IPD R&D requirements** or **work items**.

  For tasks, project members must have permission to **receive/reject/turn back/transfer IPD tasks** or **work items**.

  For details about how to set permissions, see **Managing Project Permissions**.

Assigning Work Items

Only completed work items cannot be assigned.

Step 1 In the R&D requirement list, select the work items to be assigned.

- Select the check boxes of the work items to be assigned and click **Deliver** in the lower part of the page.

  You can select one or more requirements.

- Go to the details page of the work item to be assigned, click ••• in the upper right corner, and select **Deliver**.

Step 2 Select a downstream project in the displayed dialog box.

If there is no value in the drop-down list, perform the following operations to add a value:

1. In the **Downstream Project** drop-down list, click **Assignment Projects** to go to the **Collaborative Delivery Configuration** page.
2. Click **Add Downstream Project**.
3. Select a desired project.
4. Click **Add**.

   Repeat **Step 1** to **Step 2** to select the added downstream project.

   – If you access the requirement details page, set **downstream project**, **To**, and **Expected Received**. Click **Assign** to assign the task to a maximum of 10 projects.

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- To collaborate requirements by selecting check boxes, select a downstream project from the drop-down list in the **Deliver** dialog box, and set **downstream project**, **To** and **Expected Received**.

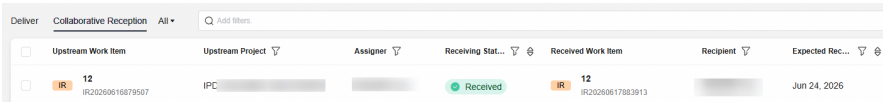
  One selected requirement can be assigned to a maximum of 10 projects. Multiple selected requirements can be assigned to only one project.

Step 3 Click **OK**.

In the R&D requirement list, the **Collaboration Status** of the assigned work item is **Assign**.



Click **Receiving Work Items** in the downstream project. The assignment is complete only after the requirement is successfully received.



If the assignment fails, view the failure details.

----End

Operations Related to Work Item Assignment

After work items are assigned, you can view, reassign, cancel the assignment of, and export these work items.

Table 8-55 Related operations

Operation	Procedure
Querying Assigned Work Items	On the **Collaborative Requirements** > **Deliver** page, query the required assigned work item data based on the set criteria. You can also select the fields to be displayed in the table header. • By adding filters Select specific query criteria. The assigned work items that meet the query criteria are displayed in the list. You can select one or more criteria to query work items. Click ✕ on the right of the search bar to clear all filtering criteria. The default fields are displayed. • By using a saved view 1. Click on the right of the search bar. 2. Set **View Name**. 3. Click **OK**. The created view is displayed next to **Collaborative Reception**. 4. You can select the name of the created view to query the assigned work items that meet the search criteria. Views can be shared with others, renamed, and deleted.

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Operation	Procedure
Reassigning Work Items	1. In the assigned work item list, click  in the row where the work item to be reassigned is located. The **Deliver** dialog box is displayed. 2. Set **downstream project**, **To**, and **Expected Received**, and click **OK**. You can view the newly assigned work items in the list.
Canceling Work Item Assignment	Cancellation cannot be performed on a requirement whose **Receiving Status** is **Received** or **Rejected**. Select the work items to be canceled in the assigned work item list. ● Canceling one work item: Click  in the row where the desired work item is located. The cancellation dialog box is displayed. ● Canceling one or more work items: Select the check boxes of the desired work items. The cancellation dialog box is displayed. Click **OK**.
Exporting Assigned Work Items	Select one or more work items to be exported and click **Export Selected** in the lower part of the page. The export progress dialog box is displayed. When the export progress reaches 100%, click **Download**. The assigned work item file is downloaded to the local PC. The file format is **.xlsx**.

Receiving Work Items

Step 1 Select the collaborative work items to receive.

- Receiving a single work item: Click  in the row where the desired work item is located. The **Receive Collaboration Requirement** dialog box is displayed.
- Receiving one or more work items: Select the work items to be received and click **Receive** in the lower part of the page. The **Receive Collaboration Requirement** dialog box is displayed.

Step 2 Specify the receiving mode and requirement type, and enter a work item title.

- When **Mode** is set to **Associate**, you only need to select **Associated Work Item**. The value of **Associated Work Item** comes from all R&D requirements created in the project.

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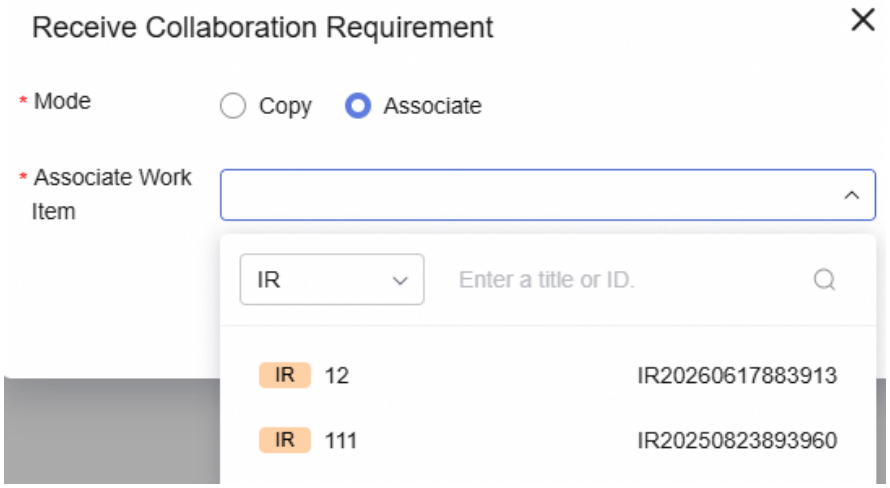
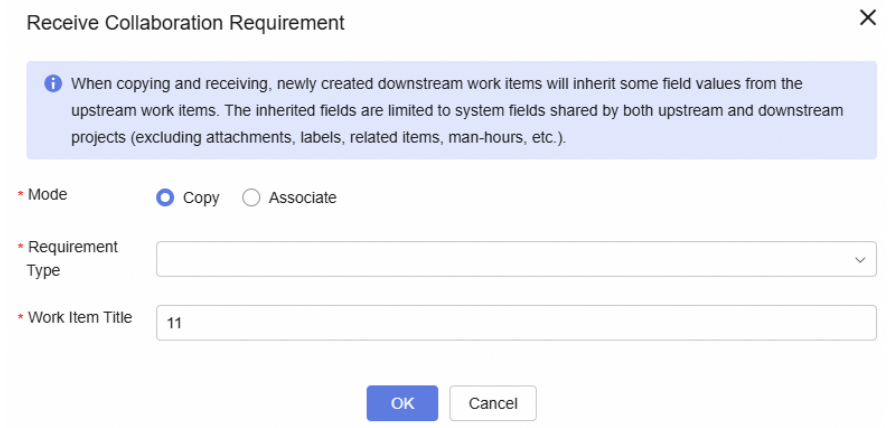


- When **Mode** is set to **Copy**, the received work item information is displayed in the R&D requirement list, and the cloned work item information can be viewed in **Related Items** > **Related Upstream Work Items** of the work item details.



Step 3 Click **OK**. The received work items turn to **Received**. The received work items are displayed in the collaborative work item list.

----End

Operations Related to Receiving Work Items

On the **Collaborative Work Items** > **Receive** page, you can query, receive, reject, and transfer work items. When upstream work items change, dependent downstream work items will automatically trigger change notifications. You can view comparison and synchronize updates with one click.

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Table 8-56 Operations related to receiving requirements

Operation	Procedure
Querying Received Work Items	On the **Collaborative Requirements > Collaborative Reception** page, query received work items based on the set criteria. You can also select the fields to be displayed in the table header. • By adding filters Select specific query criteria. The received work items that meet the query criteria are displayed in the list. You can select one or more criteria to query work items. Click ✕ on the right of the search bar to clear all filtering criteria. The default fields are displayed. • By using a saved view 1. Click on the right of the search bar. 2. Set **View Name**. 3. Click **OK**. The created view is displayed next to **Collaborative Reception**. 4. You can select the name of the created view to query the received work items that meet the search criteria. Views can be shared with others, renamed, and deleted.
Rejecting Receiving Work Items	Rejection cannot be performed on a requirement whose **Acceptance Status** is **Rejected** or **Received**. Select the collaborative work items to reject. • Rejecting a single work item: Click in the row where the target work item is located. The **Reject Reason** dialog box is displayed. • Rejecting one or more work items: Select the work items to be rejected. The **Reject Reason** dialog box is displayed. Set **Rejection Reason** and click **OK**.
Transferring Received Work Items to Others	Select the work items to be transferred to others in the list of received work items. • Transferring a single work item to others: Click in the row where the desired work item is located. The **Transfer Collaboration Requirement** dialog box is displayed. • Transferring one or more received work items to others: Select the desired work items. The **Transfer Collaboration Requirement** dialog box is displayed. Set **Transfer** and click **OK**.
Exporting Received Work Items	Select one or more work items to be exported and click **Export Selected** in the lower part of the page. The export progress dialog box is displayed. When the export progress reaches 100%, click **Download**. The received work item file is downloaded to the local PC. The file format is **.xlsx**.

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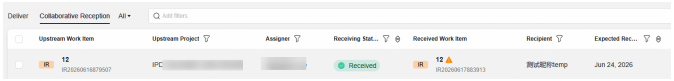
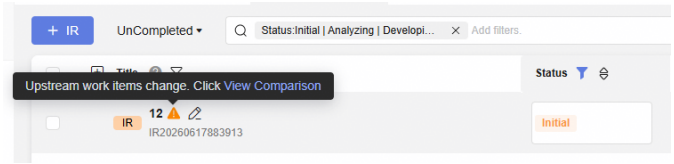
Operation	Procedure
Setting and viewing change notifications	If the title or description of an upstream work item is changed, a notification will display in the downstream project. • By default, the downstream project will receive a direct message or email notification. To disable this function, choose **Work Item > Notifications > R&D Requirements**. • On the **Collaborative Reception** page of the downstream project, a yellow reminder icon is displayed next to the title of the received work item. When you move the pointer over the work item, a pop-up message is displayed. **Figure 8-36** Change notification for upstream work items  • Downstream R&D requirement: A change notification will display in the received work item. Click **View Comparison** to view the changes. 

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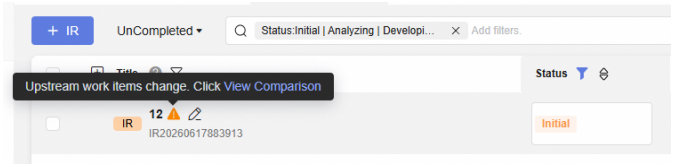
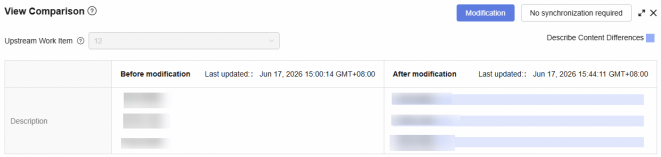
Operation	Procedure
Viewing comparison	After the title and description of the upstream work item are modified, you can view the comparison of the work item received by the downstream project before and after the modification. • When you hover the pointer over the yellow reminder icon, a pop-up message is displayed. Click **View Comparison**. The **View Comparison** dialog box is displayed, showing the changes in the upstream work item.  • Click the **View Comparison** icon on the operation bar. The **View Comparison** dialog box is displayed. You can view the changes in the upstream requirement. The **View Comparison** page displays the content of the upstream work items before and after the modification. The differences are marked in blue. **Figure 8-37** Changes in upstream work items 

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Operation	Procedure
One-click synchronization	**CAUTION** • Forbidden scenarios: You do not have the permission to edit the work item or are not the owner of the requirement. The changes have been synchronized and cannot be synchronized again. • If the field to be synchronized in one-click mode is baselined in the downstream project, the system prompts you to go through the change review process when you modify this field. After you click **OK** in the prompt box, the CR creation page is displayed. (After a change is initiated, the upstream modification reminder disappears.) Fill in the change review. After the review is approved, the synchronization is successful. After the upstream project is changed, you can synchronize the changes to the received work item. Perform the following operations: Click **View Comparison** to go to the **View Comparison** page. Click **Modification**. A confirmation dialog box is displayed. Click **Cancel** to cancel the synchronization. If you click **No synchronization required**, a confirmation dialog box is displayed. Click **OK**. The synchronization is successful and a synchronization message is displayed. After one-click synchronization is performed or ignored, the yellow reminder icon disappears.

8.7 Creating and Managing Tasks

8.7.1 Task Status Transition Process

The entire lifecycle of a task consists of the **Initial**, **Processing**, and **Completed** statuses. **Figure 8-38** shows the complete status transition process.

Figure 8-38 Task status transition flowchart

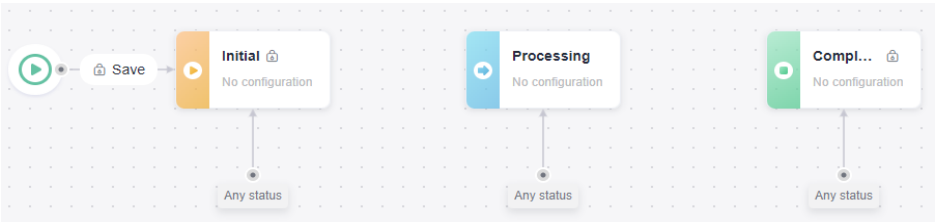

Table 8-57 describes the operations in each status.

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Table 8-57 Operation description

Status	Description
Initial	When a task is created, the state is **Initial** by default.
Processing	After the task in the **Initial** state is processed, the state changes to **Processing**.
Completed	After the task is processed, the state changes to **Completed**.

8.7.2 Creating Tasks

Tasks are activities with a certain goal. They can be associated with raw requirements, features, and R&D requirements.

Prerequisites

An IPD-standalone software project is available, in which you have permission to **create and duplicate** tasks.

Creating Tasks

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Tasks**.

Step 3 Click **Create Task**. The **Task** page is displayed.

Step 4 Fill in the basic task information.

Table 8-58 Creating a task

Parameter	Description
Tag	When creating or editing a work item, you can add a custom tag. Tag names can be marked in different colors.
Title	Title of a work item.
Description	Enter the background, value, and details of the task based on project requirements. Use text, images, or links.
Attachment	A maximum of 100 attachments can be added to a task, and their total size cannot exceed 500 MB.
Responsible Project	Project that the task belongs to. The value cannot be changed.
Owner	Member who is responsible for this task. Only one person can be specified.

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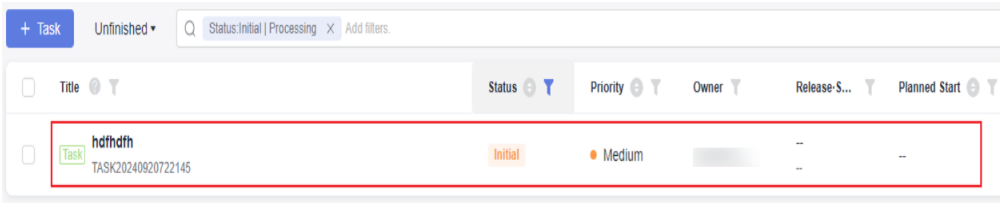
Parameter	Description
Module	Module to which a task belongs.
Priority	Priority of a task, including **Low**, **Medium**, and **High**. The default value is **Medium**.
Release	Release to which a task belongs. This parameter can be left empty. You can create a release plan and then associate it with the task.
Sprint	Next level of the release plan. The parameter value can be empty. You can create a sprint and then associate it with the task.
Planned Start	Planned start time of a task. The date format is **yyyy-mm-dd**.
Planned Completion	Planned completion time of a task. The date format is **yyyy-mm-dd**. The planned completion time cannot be earlier than the planned start time.
Planned Workload	Estimated workload from the planned start time to the planned completion time for this task.
Copy To	Project members to whom the task is copied. After the copy is complete, the people selected for **Copy To** will receive a message.

Step 5 Click **OK**. The task page is displayed, and a message is displayed in the upper right corner, indicating that the task is created successfully.

The new task is displayed in the task list, and the task state is **Initial**.

Figure 8-39 Task list



NOTE

After a task is created, the people selected for **Owner** and **Copy To** will receive email and system message notifications. If not, set notifications or modify notification settings. For details, see **Configuring Notifications**.

----End

Related Operations

You can perform the following operations on a new task.

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Table 8-59 Basic operations on a task

Operation	Description
Modify task title	Click next to a task title to modify it.
Modify task field	Click the target field value in the row of a task to modify the value.
Create child task	Click in the **Operation** column of a task to break it down into child tasks. • In the **Break Down Child Tasks** dialog box, click **Add child tasks** to create a child task. A maximum of 10 child tasks can be created at a time. • You can break down work items quickly. See **Configuring Common Fields in a Project** for related field configuration. If **Quickly split sub-work items** is enabled, the corresponding number of child work items are created based on the number of options selected. A maximum of **10** child work items can be created. If the work item already has child work items, the quick breakdown function does not take effect. If a work item is configured with multiple fields for quick breakdown, the child work items are obtained only based on the first field in the field template.
View task association map	Choose > **Association Map** in the **Operation** column of a task to view all data of its related items.
Clone task	Click **Duplicate** under in the **Operation** column. This process is the same as that of creating a task.
Copy task link	In the task list, you can copy the title, ID, current owner, status, and link information of a task to the clipboard. Level-1 tasks: Click **Copy Link** under in the **Operation** column to copy the task link. Level-2 tasks: Click in the **Operation** column to copy the task link.
Delete task	Choose > **Delete** in the **Operation** column of a task to delete it. **NOTE** Once deleted, a task is moved to the recycle bin. Tasks in the recycle bin can be restored or permanently deleted according to the work item type. After a task is restored from the recycle bin, it restores to the original status.

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8.7.3 Managing Tasks

After creating tasks (see **Creating Tasks**), you can query, import, export, and batch edit them in the project. You can add tags and associate work items on their details pages.

On the Task List Page

On the project homepage, choose **Work > Req > Tasks**, and perform the following operations.

Figure 8-40 Task list

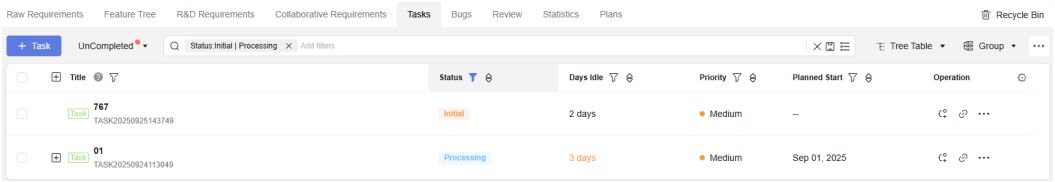

Table 8-60 Operations in the task list

Operation	Procedure
Search for task	• By adding filters 1. Click the search box in the task list and select one or more filters to search for tasks. 2. To clear all filters and display all data, click ✕ on the right of the search bar. 3. Query results can be displayed in tree, list, or Gantt chart view. • By using a saved view 1. Click the search box in the R&D requirement list and select one or more filters. 2. Click 💾 on the rightmost of the search bar, and enter a view name. 3. Click **OK**. The created view is displayed next to the **Task** button. 4. Select the created view to query the tasks that meet the search criteria. Views can be shared with others, modified, and deleted.
Assign task	You can assign tasks to other projects for collaborative management. The operations for collaborative task assignment are similar to those for R&D requirements. Perform these operations on the **Tasks** tab of the project by following relevant instructions and procedures in **Assigning Work Items** and **Operations Related to Work Item Assignment**.

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Operation	Procedure
Receive assigned task	Perform this operation when another project assigns a task to your project. The operations for assigned task reception are similar to those for R&D requirements. Perform these operations on the **Tasks** tab of the project by following relevant instructions and procedures in **Receiving Work Items** and **Operations Related to Receiving Work Items**.
Import work items	Use the provided template to import tasks in batches. 1. In the task list, click ··· on the right of the search bar and select **Import**. 2. In the displayed dialog box, click **Download Template**. The template file should be named in the following format: *Project name* + "-" + *Module name* (for example, **Task**) + **Template**. You can edit the name of the downloaded template. 3. Fill in the fields on the **Task Import** sheet. For details about how to set parameters, see the **Notes** and header instructions in the template file. 4. Drag and drop the desired file to the import area or click the import area and select the file. 5. Click **Next**. The verification progress dialog box is displayed. After the verification progress reaches 100%, close the dialog box and view the verification result. If the mandatory fields fail the verification, the import is not allowed, while the verification result of optional fields does not affect the import. • If the verification is successful, click **Confirm Import**. • If the verification fails, modify the file based on the verification result. Click **Last step** to import the modified file. 6. After the verification is successful, click **Confirm Import**. The import progress dialog box is displayed. You can click **Check progress** in the dialog box to go to the **Import/Export Records** page to view the import records. 7. After the import is successful, view the imported information in the task list. • If the import fails, a message is displayed on the page. Click **View Failure Details** in the message to view the failure details. You can modify the requirement information based on the details and import the template file again.

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Operation	Procedure
Export work items	Export requirements in batches to an Excel file. 1. Export some or all tasks. • Export all: On the **Tasks** page, click ··· on the right of the search bar and choose **Export**. The **Select Fields to Export** dialog box is displayed. • Export some: In the task list, select one or more tasks to be exported and click **Export Selected** at the bottom of the page. The **Select Fields to Export** dialog box is displayed. 2. Select the fields to be exported and determine whether to export child tasks. 3. Click **Export**. A dialog box is displayed, indicating the export progress. • After the tasks are exported, click **Download**. The task file will be downloaded to the local PC. The file format is **.xlsx**.
Configure fields to display	Click ⚙ next to the **Operation** field. • On the left of the pop-up box, select the fields to be displayed. • On the right of the pop-up box, drag the fields in the **Selected** area to adjust the display sequence. • On the right of the pop-up box, select a field spacing style under **Appearance**. The options include **Compact**, **Standard**, and **Loose**.
Migrate tasks in batches	You can migrate tasks to another project. After the migration, these tasks do not need to be processed in the current project. Tasks that have been baselined or are undergoing baseline review or change review cannot be migrated. 1. In the task list, select one or more work items to be migrated and click **Migrate** in the lower part of the page. 2. In the displayed dialog box, select the project to migrate the tasks to. 3. Click **Next**. The migration confirmation dialog box is displayed. 4. Select **Owner**. 5. Click **OK**. The migration is successful. The migrated work items are no longer in the task list. The status of the work items migrated to another project is **Initial**.

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Operation	Procedure
Clone tasks across projects	**Constraints** ● Only tasks can be cloned. The workload, associated work item, tag, and release sprint fields will be cleared. ● You must have permission to **create and clone** tasks for the target project. ● Tasks can be cloned only to projects of the same type. ● You can clone up to 50 tasks at a time. **Procedure** 1. Select the tasks to clone in the task list and click **Cross-Project Copy** in the lower part of the page. The **Cross-Project Copy** window is displayed. 2. Select a target project from the drop-down list. You can select only a project to which you have joined and must have permission to **create and clone** tasks for the target project. 3. Click **Next**. The window for setting mandatory fields is displayed. Select the target owner from the drop-down list (the current operator is selected by default). Mandatory fields are those on the task creation page of the target project. 4. Click **OK**. The tasks are cloned to the target project. 5. Go to the target project to view the cloned tasks.
Transition statuses in batches	**Constraints** ● The selected tasks must be in the same status. ● You must have permission to **set statuses** for tasks. ● Mandatory fields of the selected tasks are all filled. **Procedure** 1. Select the target tasks in the task list and click **Batch Transfer** in the lower part of the page. The **Batch Transfer** window is displayed. 2. Select the target status from the drop-down list. 3. Click **Next**. 4. Set mandatory fields. The mandatory fields are set on the **In-transition GUI Config** tab page of the project's task status flow configuration page. 5. Click **OK**.
Perform batch operations	You can select multiple tasks to perform operations in batches: edit, suspend/unsuspend, export, delete, cross-project clone, and transition.

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Operation	Procedure
Group tasks	You can group work items by any supported field type. **Constraints** ● A maximum of 1,000 work items can be displayed during grouping. ● The supported field types include single-choice list, multi-choice list, single-choice user, multi-choice user, hierarchy, and date. ● For projects in a program (after sub-project aggregation is enabled), grouping by release, sprint, module, feature set, or tag is unavailable. **Procedure** 1. On the **Tasks** page, click **Group**. 2. On the displayed page, select the fields used to group work items. ● You can sort work items in ascending or descending order. ● You can enter a keyword to search for fields. ● When work items are grouped by multi-select list or multi-select user, the same work item may appear in multiple groups. ● You can click **No grouping** to ungroup work items.

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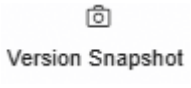
Operation	Procedure
Version snapshots	Snapshots include plan management snapshots, feature tree snapshots, and work item snapshots. A version snapshot is a work item snapshot. Its name is automatically generated by the system. **Constraints** A work item can have a maximum of 1,000 snapshots. **Procedure** 1. In the task list, select the work items for which you want to create a snapshot. 2. Click  in the lower part of the page to take a snapshot of the selected work items. A message is displayed in the upper right corner of the page, indicating that the operation is successful. The snapshot is a work item snapshot. Its name is automatically generated by the system. The format of the work item snapshot name is: *Work item type* + "v" + *Year* + "." + *Month* + "." + *Day* + "." + *Number of versions generated on the current day*. For example, if a task is snapshotted for the first time on March 25, 2026, its snapshot name generated by the system is **Task v26.03.25.1**. **NOTE** You can also go to the work item details page, click ··· in the upper right corner, and select **Version Snapshot** to create a snapshot for the work item. 3. (Optional) Click the work item name to go to its details page, click ···, and select **Version History** to view the generated snapshots.

On the Task Details Page

On the details page of a task, you can modify the description, priority, and owner, add tags and attachments, associate work items, design models, check review records, add workloads, and view the operation history.

Table 8-61 Management operations on the details page

Operation	Procedure	Remarks
Edit work item	On the task details page, click the value box of the field to be modified, and enter a target value in the text box or select one from the drop-down list. The modification is saved automatically.	You must have permission to **edit** tasks.

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Operation	Procedure	Remarks
Change work item status	Go to the work item details page, click the **Status** field, and transition the work item to the target status. For details about status transition, see **Table 8-57**.	You must have permission to **set statuses** for tasks.
Upload attachment	Attachments can be pictures, workbooks, manuscripts, and text files. A maximum of 100 attachments can be added to each work item, and their total size cannot exceed 500 MB. 1. Go to the work item details page, and click the **Attachment** tab. 2. Click the box to select a local file or drag the file here to upload it as an attachment for the work item. Local files can be directly dragged to the text box. When the upload progress reaches 100%, the system displays a message indicating that the attachment is uploaded successfully. Move the cursor to the file that is successfully uploaded. The operations that can be performed are displayed. • Click to download the file. • Click to delete the uploaded file.	You must have permission to **edit** or **upload attachments** for tasks.

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Operation	Procedure	Remarks
Add and check related item	A work item can be associated with other types of work items in a project. 1. Go to the work item details page and click the **Related Items** tab. 2. Complete association. • **Parent Task**: parent task to which a task belongs. You can choose **Associated Items > Parent Task** of a child task to view the task only when the task contains child tasks. • **Child Task**: tasks included in the current task. Each task can be broken down into a maximum of 10 child tasks at a time. One child task is displayed by default and cannot be deleted. 1. Click **Break Down**. The **Break Down Child Tasks** window is displayed. 2. Configure the information about the child task. Click to expand and configure more information. 3. Click **OK**. The child task is created successfully. The child task is automatically displayed under the parent task in the task list. • **Associate Work Item**: Associate work items of any type in the project. Work items of the RR, SF, IR, US, task, and bug types can be associated. • **Associated open issue review form**: reviews that include the review and approval comments related to the work item. • **Code Commit Record**: code commit records related to the task work item. Related information is displayed only when the current work item ID is associated with a code commit. • **Code Merge & Change Request**: code merge and change requests corresponding to the task work item. Related information is displayed only when a submitted merge or change request is associated with the current work item. • **Code Branch**: code branch corresponding to a task work item. Related information is displayed only when a code branch is associated with the current work item.	You must have permission to **associate/dissociate parent task**, **create subtasks**, **associate/dissociate work items**, **associate/dissociate files**, and **associate/dissociate wikis** for tasks.

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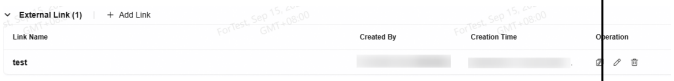
Operation	Procedure	Remarks
	• **External Link**: external links associated with the current work item. – Create a link: Click **Add Link**. In the displayed dialog box, set **Link Name** and **Link**. The value of **Link** must start with **https://** and cannot contain invalid characters, such as spaces and Chinese characters. Click **OK**. After a link is created, you can click **External Link** to view, edit, copy, or delete the link.  – Copy a link: Click on the right of the link to be copied. – Edit a link: Click on the right of the row where the link to edit is located. In the displayed dialog box, you can change the link name and link. – Delete a link: Click on the right of the link to be deleted. In the displayed dialog box, click **Delete**.	
Add workload	1. Go to the details page of a work item and click **Workload**. 2. Click **Add Workload**. The **Add Workload** dialog box is displayed. 3. Enter the workload information. • The end date cannot be earlier than the start date. • Decide whether to select **Weekends included**. If not, weekend workload records will not be generated. • You can select **Total** or **Daily** for **Workload**. • **Work Type** options include backend development, frontend development, UI design, replacement leave, debugging, and general. You can also customize the value by referring to **Creating Work Types**. 4. Click **OK**. The system automatically generates corresponding records based on the entered dates and days. The workload can be edited and deleted.	You must have permission to **add person-hours** for tasks. Workloads can be edited and deleted by the creator. By default, the project administrator can edit and delete all workloads.

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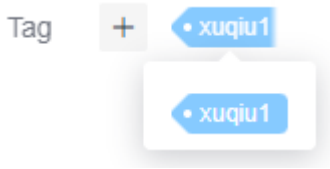
Operation	Procedure	Remarks
View operation history	**History** displays all operation logs of users, including creation, status transition, review initiation, work item association, and workload addition. 1. Go to the work item details page. 2. Click the **History** tab. • Click or to check historical records in the ascending or descending order of operation time. • You can set search criteria to query historical records that meet the search criteria.	You must have permission to **view** tasks.
Tag work item	1. Go to the work item details page. Click + next to **Tag** at the top of the page, and select **Create Tag**. The added tag is displayed in the **Tag** area. 2. In the **Create Tag** dialog box, set **Tag Name** and select **Tag Color**. 3. Click **OK**. The new tag is displayed next to the requirement ID in the RR list. 4. (Optional) Hide a tag. • Click + next to **Tag**. In the displayed dialog box, deselect √ to hide the tag. • Move the cursor to the tag name and click to hide the tag. **Figure 8-41** Hiding a tag - 02  **NOTE** To add or remove tags for multiple work items, select the desired work items, click **Batch Edit** in the lower part of the page, and select **Tag**.	You must have permission to **edit** tasks.

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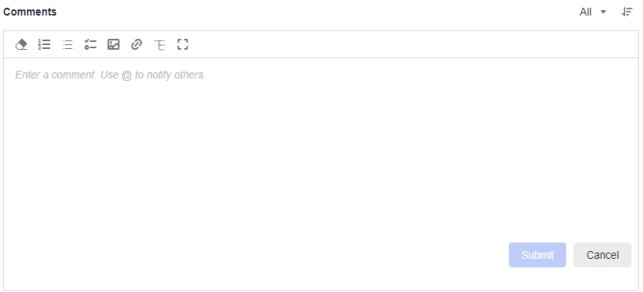
Operation	Procedure	Remarks
Add comment	1. Go to the work item details page. 2. On the **Details** tab page, click the **Comments** text box. **Figure 8-42** Adding a comment  3. Enter a comment. You can upload images, enter links, associate work items, and use @ to notify project members in comments. 4. Click **Submit**. Submitted comments can be replied, edited, pinned to the top, and deleted.	You must have permission to **view** tasks.
History versions	For work items with snapshots, you can view their historical versions and compare the differences between them. 1. Go to the work item details page, click ••• in the upper right corner, and select **Version History**. 2. In the **Version History** dialog box, select two versions and click **Compare Versions**. On the **Work Item Version Comparison** page, view the differences between the original version and the compared version. You can click  in the upper right corner and enable **Hide Identical Items** to view only the differences between the two versions. 3. On the **Work Item Version Comparison** page, click  to return to the **Version History** page. Hover over a snapshot version.  is displayed. Click  to delete the snapshot. **NOTE** If a work item has a third-party snapshot or its child work items have third-party snapshots and the child work items cannot be separated from the current work item, the snapshot cannot be deleted.	You must have permission to **view** tasks. To delete a snapshot, you must have permission to delete tasks.

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8.8 Creating and Managing Bugs

8.8.1 Bug Status Transition Process

The entire lifecycle of a defect has five statuses: **Analyzing**, **Fixing**, **Testing**, **Accepting**, and **Closed**. Figure 8-43 shows the complete status transition process.

Figure 8-43 Bug status transition flowchart

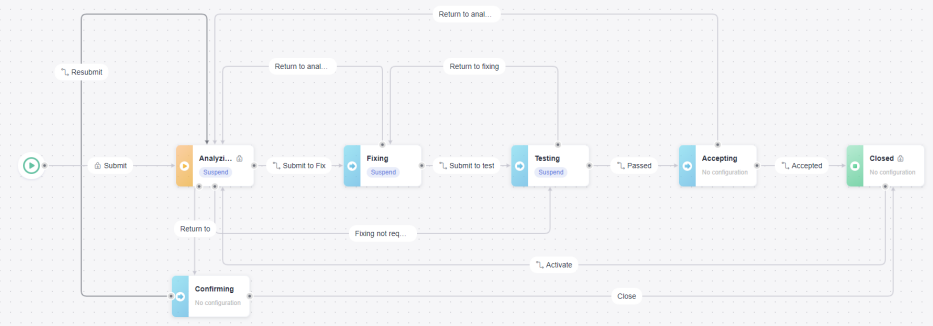

Table 8-62 describes the operations in each status.

Table 8-62 Operation description

Status	Description
--	Creating bugs By default, the bug proposer is the person who finds the bug.
Analyzing	After the bug is submitted, the state changes to **Analyzing**. The current owner analyzes the bug as follows: • If the analysis result shows that the bug is not a problem, click **Fixing not required** to transfer the bug to the proposer. • If the description is incorrect, click **Return To** to transfer the bug to the current owner for modification. After the analysis is complete, click **Submit to Fix**.
Fixing	After the bug is analyzed, the state changes to **Fixing**. The current owner fixes the bug based on the problem.
Testing	After the bug is fixed, the state changes to **Testing**. The current test owner verifies whether the problem is fixed based on the rectification result. If the result does not meet the expectation, the test owner can return it for fixing or analysis.

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Status	Description
Accepting	After the bug is tested, the state changes to **Accepting**. The current acceptance owner tracks the result of the acceptance test.
Closed	After the acceptance is passed, the state changes to **Closed**. A closed bug can be activated. After a bug being activated, its state will change to **Analyzing**.

8.8.2 Creating Bugs

You can create a bug to trace the problems found in the test and verification phase of software features and functions.

Prerequisites

An IPD-standalone software project is available, in which you have permission to **create and duplicate** bugs.

Creating a Bug

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Defects**.

Step 3 Click **Bug**. On the **Bug** page, set related parameters.

Table 8-63 Creating a bug

Parameter	Description
Title	Title of a work item.
Description	Enter the fault symptom description, environment information, onsite fault locating developers, and the preliminary cause determined by developers based on site requirements. Use text, images, or links.
Attachment	A maximum of 100 attachments can be added to a bug, and their total size cannot exceed 500 MB.
Proposed Project	Project to which the bug creator belongs, which cannot be changed.
Responsible Project	Project to which a bug belongs.
Raised By	Test personnel who find the bug.
Owner	Owner of the bug. Select one or more members of the responsible project.

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Parameter	Description
Module	Module to which a bug belongs. The module value can be customized as follows: 1. Click . The **Modules** dialog box is displayed. 2. Click **Create**. 3. Set **Module**, **Description**, and **Owner**. The value of **Module** must be unique. 4. Click **OK**. After a module is created, you can edit and delete the module, and add child modules.
Severity	Severity of a bug. The options are **Info**, **Minor**, **Major**, and **Critical**.
Responsible Release	Release plan where a bug is found. This parameter has a value only after the operations in **Creating a Release Plan and Collaboration Plan** are completed. The parameter value can be empty. You can create a release and then associate it with the release.
Environment	Environment where a bug is found. The options are development self-test environment, test environment, and production environment.
Copy To	Other members in the project. The selected members will receive a system notification.
Expected Rectification	Planned rectification time.

Step 4 Click **Submit**. The **Bugs** tab page is displayed, and a message is displayed in the upper right corner, indicating that the bug is created successfully.

- If you click **Save as Draft**, the bug list is displayed. The bug state is **--**.
  Only the creator can edit, export, submit, comment on, upload attachments to, and delete bugs in the draft state.
- If you click **Cancel**, the creation of the bug is cancelled.

The new bug is displayed in the bug list, and the state is **Analyzing**.

NOTE

After a bug is created, the people selected for **Owner**, **Raised By**, and **Copy To** will receive email and system message notifications. If not, set notifications or modify notification settings. For details, see **Configuring Notifications**.

----End

Related Operations

You can perform the following operations on a new bug.

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Table 8-64 Basic operations on a bug

Operation	Description
Modify bug title	Click next to a bug title to modify it.
Modify bug field	Click the target field value in the row of a bug to modify the value.
Duplicate bug	Click in the **Operation** column. This process is the same as that of creating a bug.
Copy bug link	Click in the **Operation** column to copy the title, ID, current owner, status, and link information of a bug to the clipboard.
Migrate bug	Click in the **Operation** column of a bug to migrate it to other projects. ● Bugs in a **Done** state cannot be migrated. ● After migration: – The bug will be handled again. – The actual workload, related items, tags, discovering release plan, and fixing release plan of the bug will be cleared. – Only the custom bug fields of the target project will be displayed.
Collaborate on bug	Click in the **Operation** column of a bug to assign it to other projects under your tenant.
Delete bug	Choose > **Delete** in the **Operation** column of a bug to delete it. ● Bugs that are being reviewed or in a **Doing** state cannot be deleted. ● If you delete draft bugs, they are permanently deleted. ● Bugs in the **To Do** state can be deleted only in the proposing project. Bugs in the **Done** state can be deleted in both the proposing project and the responsible project. ● If you delete bugs of the proposing project, they are permanently deleted. If you delete bugs in the responsible project, they are moved to the project's recycle bin. ● Bugs in the recycle bin can be restored or permanently deleted, depending on the work item type. After being restored, bugs restore to their original status.

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8.8.3 Managing Bugs

After creating bugs (see **Creating a Bug**), you can query, import, export, and batch edit them in the project. You can add tags and associate work items on their details pages.

On the Bug List Page

On the project homepage, choose **Work > Req > Defects**, and perform the following operations.

Figure 8-44 Bug list

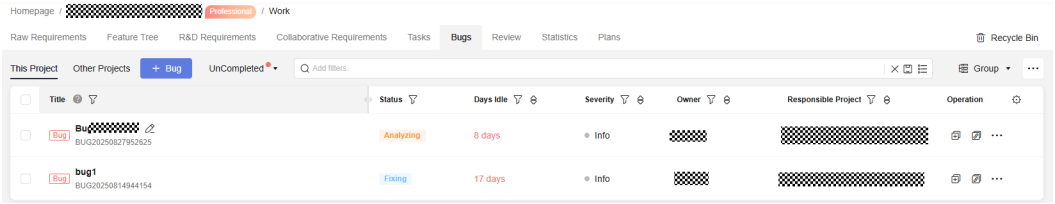

Table 8-65 Operations in the bug list

Operation	Procedure
Search for bug	• By adding filters 1. Click the search box in the bug list and select one or more filters to search for bugs. 2. To clear all filters and display all data, click ✕ on the right of the search bar. • By using a saved view 1. Click the search box in the bug list and select one or more filters. 2. Click 💾 on the rightmost of the search bar, and enter a view name. 3. Click **OK**. The created view is displayed next to the **Bug** button. 4. Select the created view to query the bugs that meet the search criteria. Views can be shared with others, modified, and deleted.

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Operation	Procedure
Import work items	Use a template to import bugs in batches. 1. In the bug list, click ··· on the right of the search bar and select **Import**. 2. In the displayed dialog box, click **Download Template**. The template file should be named in the following format: *Project name* + "-" + *Module name* (for example, **Bug**) + **Template**. You can edit the name of the downloaded template. 3. Set the fields in the **Bug Import** sheet of the template. For details about how to set parameters, see the **Notes** and header instructions in the template file. 4. Drag and drop the desired file to the import area or click the import area and select the file. 5. Click **Next**. The verification progress dialog box is displayed. After the verification progress reaches 100%, close the dialog box and view the verification result. If the mandatory fields fail the verification, the import is not allowed, while the verification result of optional fields does not affect the import. ● If the verification is successful, click **Confirm Import**. ● If the verification fails, modify the file based on the verification result. Click **Last step** to import the modified file. 6. After the verification is successful, click **Confirm Import**. The import progress dialog box is displayed. You can click **Check progress** in the dialog box to go to the **Import/Export Records** page to view the import records. 7. After the import is successful, view the imported information in the bug list. ● If the import fails, a message is displayed on the page. Click **View Failure Details** in the message to view the failure details. You can modify the requirement information based on the details and import the template file again.
Export work items	Export bugs in batches to an Excel file. 1. Export some or all bugs. ● Export all: On the **Defects** page, click ··· on the right of the search bar and choose **Export**. The **Select Fields to Export** dialog box is displayed. ● Export some: In the bug list, select one or more bugs to be exported and click **Export Selected** at the bottom of the page. The **Select Fields to Export** dialog box is displayed. 2. Select the fields to be exported. 3. Click **Export**. A dialog box is displayed, indicating the export progress. ● After the bugs are exported, click **Download**. The bug file will be downloaded to the local PC. The file format is **.xlsx**.

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Operation	Procedure
Configure fields to display	Click next to the **Operation** field. • On the left of the pop-up box, select the fields to be displayed. • On the right of the pop-up box, drag the fields in the **Selected** area to adjust the display sequence. • On the right of the pop-up box, select a field spacing style under **Appearance**. The options include **Compact**, **Standard**, and **Loose**.
Clone bugs across projects	**Constraints** • Only bugs of the current project can be cloned to other projects. The workload, associated work item, tag, and release sprint fields will be cleared. • You must have permission to **create and clone** bugs for the target project. • Bugs can be cloned only to projects of the same type. • You can clone up to 50 tasks at a time. • Draft bugs and bugs of other projects cannot be cloned. **Procedure** 1. Select the bug to clone in the bug list and click **Cross-Project Copy** in the lower part of the page. The **Cross-Project Copy** window is displayed. 2. Select a target project from the drop-down list. You can select only a project to which you have joined and must have permission to **create and clone** tasks for the target project. 3. Click **Next**. The window for setting mandatory fields is displayed. Select the target owner from the drop-down list (the current operator is selected by default). Mandatory fields are those on the bug creation page of the target project. 4. Click **OK**. The bugs are cloned to the target project. 5. Go to the target project to view the cloned bugs.

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Operation	Procedure
Transition statuses in batches	**Constraints** ● Only bugs of this project support batch status transition. ● The selected bugs must be in the same status. ● You must have permission to **set statuses** for bugs. ● All mandatory fields of the selected bugs have been set. **Procedure** 1. Select the target bugs in the bug list and click **Batch Transfer** in the lower part of the page. The **Batch Transfer** window is displayed. 2. Select the target status from the drop-down list. 3. Click **Next**. 4. Set mandatory fields. The mandatory fields are set on the **In-transition GUI Config** tab page of the project's bug status flow configuration page. 5. Click **OK**.
Perform batch operations	You can select multiple bugs to perform operations in batches: edit, suspend/unsuspend, export, delete, cross-project clone, and transition.
Group bugs	You can group work items by any supported field type. **Constraints** ● A maximum of 1,000 work items can be displayed during grouping. ● The supported field types include single-choice list, multi-choice list, single-choice user, multi-choice user, hierarchy, and date. ● For bugs of other projects and projects in a program (after sub-project aggregation is enabled), grouping by release, sprint, module, feature set, or tag is unavailable. **Procedure** 1. On the **Bugs** page, click **Group**. 2. On the displayed page, select the fields used to group work items. ● You can sort work items in ascending or descending order. ● You can enter a keyword to search for fields. ● When work items are grouped by multi-select list or multi-select user, the same work item may appear in multiple groups. ● You can click **No grouping** to ungroup work items.

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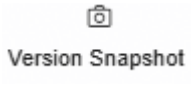
Operation	Procedure
Version snapshots	Snapshots include plan management snapshots, feature tree snapshots, and work item snapshots. A version snapshot is a work item snapshot. Its name is automatically generated by the system. **Constraints** A work item can have a maximum of 1,000 snapshots. **Procedure** 1. In the bug list, select the work items for which you want to create a snapshot. 2. Click  in the lower part of the page to take a snapshot of the selected work items. A message is displayed in the upper right corner of the page, indicating that the operation is successful. The snapshot is a work item snapshot. Its name is automatically generated by the system. The format of the work item snapshot name is: *Work item type* + "v" + *Year* + "." + *Month* + "." + *Day* + "." + *Number of versions generated on the current day*. For example, if a bug is snapshotted for the first time on March 25, 2026, its snapshot name generated by the system is **Bug v26.03.25.1**. **NOTE** You can also go to the work item details page, click ••• in the upper right corner, and select **Version Snapshot** to create a snapshot for the work item. 3. (Optional) Click the work item name to go to its details page, click ••• , and select **Version History** to view the generated snapshots.

On the Bug Details Page

On the details page of a bug, you can modify the description, priority, and owner, add tags and attachments, associate work items, design models, check review records, add workloads, and view the operation history.

Table 8-66 Management operations on the details page

Operation	Procedure	Remarks
Edit work item	On the bug details page, click the value box of the field to be modified, and enter a target value in the text box or select one from the drop-down list. The modification is saved automatically.	You must have permission to **edit** bugs.

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Operation	Procedure	Remarks
Change work item status	Go to the work item details page, click the **Status** field, and transition the work item to the target status. For details about status transition, see **Table 8-62**.	You must have permission to **update statuses** for bugs.
Upload attachment	Attachments can be pictures, workbooks, manuscripts, and text files. A maximum of 100 attachments can be added to each work item, and their total size cannot exceed 500 MB. 1. Go to the work item details page, and click the **Attachment** tab. 2. Click the box to select a local file or drag the file here to upload it as an attachment for the work item. Local files can be directly dragged to the text box. When the upload progress reaches 100%, the system displays a message indicating that the attachment is uploaded successfully. Move the cursor to the file that is successfully uploaded. The operations that can be performed are displayed. • Click to download the file. • Click to delete the uploaded file.	You must have permission to **edit** or **upload attachments** for bugs.

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Operation	Procedure	Remarks
Add and check related item	A work item can be associated with other types of work items in a project. 1. Go to the work item details page and click the **Related Items** tab. 2. Complete association. • **Associate Work Item**: Associate work items of any type in the project. To associate existing RRs, create an RR first. To associate existing SFs, IRs, and USs, create and break down an R&D requirement first. To associate existing tasks, create a task first. To cancel the association, click . To associate existing bugs, create a bug first. To cancel the association, click . • **Synergistic Bug**: bugs assigned to other projects for collaboration. Batch assignment is supported. A maximum of 10 bugs can be assigned at a time. One bug is assigned by default and cannot be deleted. 1. Click **Assign Owner**. 2. Configure the information about bug assignment. Click to expand and configure more information. 3. Click **OK**. The bug is assigned. The bug can only be viewed and handled in the responsible project. **NOTE** After you assign a bug, its attachment will not be synchronized to the downstream bugs. The owners of these downstream bugs can contact you for the attachment. • **Associated open issue review form**: reviews that include the review and approval comments related to the work item. • **Test Plan**: test plans related to the current bug. You can associate test plans with the current bug. • **Test Case**: test cases related to the current bug. You can select bugs associated with test cases in CodeArts TestPlan. • **Code Commit Record**: code submission records related to the current bug. Related information is displayed only when the current bug is associated during code commit.	You must have permission to **associate/dissociate work items**, **associate/dissociate files**, and **associate/dissociate wikis** for bugs.

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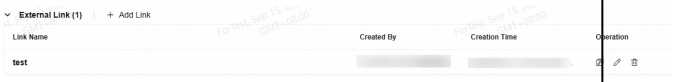
Operation	Procedure	Remarks
	• **Code Branch**: code branches related to the current bug. Related information is displayed only when a code branch is associated with the current bug. • **Code Merge & Change Request**: code merge and change requests corresponding to a bug. Related information is displayed only when a submitted merge or change request is associated with the current bug. • **External Link**: external links associated with the current work item. – Create a link: Click **Add Link**. In the displayed dialog box, set **Link Name** and **Link**. The value of **Link** must start with **https://** and cannot contain invalid characters, such as spaces and Chinese characters. Click **OK**. After a link is created, you can click **External Link** to view, edit, copy, or delete the link.  – Copy a link: Click on the right of the link to be copied. – Edit a link: Click on the right of the row where the link to edit is located. In the displayed dialog box, you can change the link name and link. – Delete a link: Click on the right of the link to be deleted. In the displayed dialog box, click **Delete**.	

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Operation	Procedure	Remarks
Add workload	1. Go to the details page of a work item and click **Workload**. 2. Click **Add Workload**. The **Add Workload** dialog box is displayed. 3. Enter the workload information. • The end date cannot be earlier than the start date. • Decide whether to select **Weekends included**. If not, weekend workload records will not be generated. • You can select **Total** or **Daily** for **Workload**. • **Work Type** options include backend development, frontend development, UI design, replacement leave, debugging, and general. You can also customize the value by referring to **Creating Work Types**. 4. Click **OK**. The system automatically generates corresponding records based on the entered dates and days. The workload can be edited and deleted.	You must have permission to **add person-hours** for bugs. Workloads can be edited and deleted by the creator. By default, the project administrator can edit and delete all workloads.
View operation history	**History** displays all operation logs of users, including creation, status transition, review initiation, work item association, and workload addition. 1. Go to the work item details page. 2. Click the **History** tab. • Click ↓ or ↑ to check historical records in the ascending or descending order of operation time. • You can set search criteria to query historical records that meet the search criteria.	You must have permission to **view** bugs.

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Operation	Procedure	Remarks
Tag work item	1. Go to the work item details page. Click + next to **Tag** at the top of the page, and select **Create Tag**. The added tag is displayed in the **Tag** area. 2. In the **Create Tag** dialog box, set **Tag Name** and select **Tag Color**. 3. Click **OK**. The new tag is displayed next to the requirement ID in the RR list. 4. (Optional) Hide a tag. • Click + next to **Tag**. In the displayed dialog box, deselect √ to hide the tag. • Move the cursor to the tag name and click ⊠ to hide the tag. **Figure 8-45** Hiding a tag - 02  **NOTE** To add or remove tags for multiple work items, select the desired work items, click **Batch Edit** in the lower part of the page, and select **Tag**.	You must have permission to **edit** bugs.

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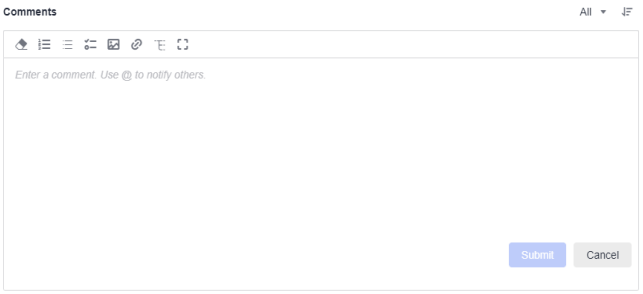
Operation	Procedure	Remarks
Add comment	1. Go to the work item details page. 2. On the **Details** tab page, click the **Comments** text box. **Figure 8-46** Adding a comment  3. Enter a comment. You can upload images, enter links, associate work items, and use @ to notify project members in comments. 4. Click **Submit**. Submitted comments can be replied, edited, pinned to the top, and deleted.	You must have permission to **view** bugs.
History versions	For work items with snapshots, you can view their historical versions and compare the differences between them. 1. Go to the work item details page, click ••• in the upper right corner, and select **Version History**. 2. In the **Version History** dialog box, select two versions and click **Compare Versions**. On the **Work Item Version Comparison** page, view the differences between the original version and the compared version. You can click  in the upper right corner and enable **Hide Identical Items** to view only the differences between the two versions. 3. On the **Work Item Version Comparison** page, click  to return to the **Version History** page. Hover over a snapshot version.  is displayed. Click  to delete the snapshot. **NOTE** If a work item has a third-party snapshot or its child work items have third-party snapshots and the child work items cannot be separated from the current work item, the snapshot cannot be deleted.	You must have permission to **view** bugs. To delete a snapshot, you must have permission to delete bugs.

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8.9 Reviewing Work Items

8.9.1 IPD-Standalone Software Project Reviews

IPD-standalone software projects have three review types: change review (CR), baseline review (BR), and general review (GR). They are described in **Table 8-67**.

The review ticket lists (CR, BR, and GR) display information such as the current handler, review result, and decision-making result.

- For review tickets awaiting submission or in revoked state, the handler is the creator.
- For review tickets pending review or decision, the handler is the reviewer or decision-maker.
- The displayed review and decision-making results are for all review objects.
- The table header and search box above the review ticket list do not support filtering by current handler, review result, or decision-making result.

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Table 8-67 Review types

Review Type	Description	Review Object
Change review (CR)	When a work item changes, you need to create a CR ticket to track the change. The changed content is synced to the source work item only after the content is reviewed. • RRs and bugs: You can only add RRs and bugs that are defined by the responsible project workflow and belong to the status node with editable controlled fields. Then, modify the controlled fields (marked with the icon) of the requirement change, and select the **Decision-Maker** and **Reviewer**. • For work item types other than RRs and bugs: After adding the objects, modify the controlled fields (marked with the icon) of the requirement change, or move the work items into or out of a baselined release or iteration, and select the **Decision-Maker** and **Reviewer**. Change types include **Move in/out of a baseline release or iteration**, **Modify**, and **Delete**. • **Move in/out of a baseline release or iteration**: The release or iteration after the change becomes a baseline release or iteration, or the release or iteration before the change is a baseline release or iteration. • **Modify**: Modify the baseline lock field of a baseline work item. • **Delete**: Delete a baseline work item. RRs and bugs: Only **Move in/out of a baseline release or iteration** and **Modify** are supported. Work item types other than RRs and bugs: All change types are supported, including **Move in/out of a baseline release or iteration**, **Modify**, and **Delete**.	• For IPD-system device projects: RR, SF, IR, SR, AR, task, and bug • For IPD-standalone software projects: RR, SF, IR, US, task, and bug

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Review Type	Description	Review Object
Baseline review (BR)	To baseline a work item, you need to initiate a baseline review. The work item will be baselined only after the review is approved.	• For IPD-system device projects: SF, IR, SR, AR, and task • For IPD-standalone software projects: SF, IR, US, and task
General review (GR)	To review a work item, you can initiate a general review. The work item takes effect only after the review is approved.	• For IPD-system device projects: RR, SF, IR, SR, AR, task, and bug • For IPD-standalone software projects: RR, SF, IR, US, task, and bug

8.9.2 Creating and Completing Work Item Reviews

8.9.2.1 Creating and Approving CRs

When a work item changes, you need to create a CR ticket to track the change. The changed content is synced to the source work item only after the content is reviewed.

Constraints

- A maximum of **20** reviewers can be added.
- A maximum of **50** objects can be added to or associated with a single review ticket.

Creating a CR

Step 1 **Access the CodeArts Req homepage**.

Step 2 Create a CR in either of the following ways:

- On the project homepage, go to the raw requirement, feature tree, R&D requirement, or bug list page, select a controlled raw requirement or bug, or a baselined system feature or R&D requirement, and modify a parameter marked with the icon. In the displayed dialog box, click **OK**.

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- On the project homepage, choose **Review** > **Change Review**. Then click **CR**.

Step 3 On the **CR** page, set the required parameters.

Table 8-68 Creating a CR

Parameter	Description
CR Title	Title of the review. ● Use letters, hyphens (-), underscores (_), commas (,), semicolons (;), colons (:), periods (.), slashes (/), parentheses, and spaces. ● Include 1 to 256 characters.
Description	Enter the background, value, and details of the review. ● Use text, images, or links. ● Include 1 to 50,000 characters.
Start Time	The time when you want the review to start.
Completion Time	The time when you want the review to complete.
Copy To	Select the project members you want to inform about this review.

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Parameter	Description
Review Objects	Add the objects to be reviewed. • RRs and bugs: You can only add RRs and bugs that are defined by the responsible project workflow and belong to the status node with editable controlled fields. Then, modify the controlled fields (marked with the icon) of the requirement change, and select the **Decision-Maker** and **Reviewer**. • For work item types other than RRs and bugs: After adding the objects, modify the controlled fields (marked with the icon) of the requirement change, or move the work items into or out of a baselined release or sprint, and select the **Decision-Maker** and **Reviewer**. Change types include **Move in/out of a baseline release or iteration**, **Modify**, and **Delete**. • **Move in/out of a baseline release or iteration**: The release or sprint becomes a baseline after the change, or the release or sprint is a baseline before the change. • **Modify**: Modify the baseline lock field of a baseline work item. • **Delete**: Delete a baseline work item. RRs and bugs: Only **Move in/out of a baseline release or iteration** and **Modify** are supported. Work item types other than RRs and bugs: All change types are supported, including **Move in/out of a baseline release or iteration**, **Modify**, and **Delete**. For work item types other than RRs and bugs: • When **Require Decision-Making** is enabled, **Decision-Maker** is mandatory. If **Review Expert** is not set, the review phase will be skipped. You can configure **Decision-Maker** by referring to **Configuring Reviews**. By default, the options are **Project Admin** and **Project Manager**. You can select only one option. • If **Require Decision-Making** is disabled, **Review Expert** is mandatory. If **Decision-Maker** is not set in the review ticket, the review process will skip the **Pending Decision-Making** phase. You can configure **Review Expert** by referring to **Configuring Reviews**. Multiple options can be selected. **NOTE** You can configure **Require Decision-Making** by referring to **Configuring Reviews**. For RRs: • If the proposing project initiates a change review, the options for **Decision-Maker** include the project administrator, project manager, and requirement owner of the responsible project. You can select only one option. • If the responsible project initiates a change review, the options for **Decision-Maker** include the project

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Parameter	Description
	administrator, project manager, and requirement submitter of the proposing project. You can select only one option. For bugs: • If the proposing project initiates a change review, the options for **Decision-Maker** include the project administrator, project manager, test manager, and bug owner of the responsible project. You can select only one option. • If the responsible project initiates a change review, the options of **Decision-Maker** include the project administrator, project manager, test manager, and bug creator of the proposing project. You can select only one option.
Associated Files	Attachments, wikis, and documents related to the review. If the review objects include RRs and bugs, files can be associated only when the proposing and responsible projects are the same.
Collaborative Parent Item Change	Existing change reviews you wish to collaboratively complete with the current review.

Step 4 Click **Submit**.

You can view the new CR in the change review list. For a new CR:

- Click  in the **Operation** column to copy the title, ID, current owner, status, and link information of the CR to the clipboard.
- Click  in the **Operation** column to copy the title link of the CR to the clipboard.

----End

Related Operations

You can perform the following operations on a CR pending for submission.

Table 8-69 Basic operations on a CR pending for submission

Operation	Description
Modifying the title of a CR pending for submission	Click  next to the CR title to modify it.

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Operation	Description
Modifying the fields of a CR pending for submission	Click the target field value on the CR details page to modify it. After the modification, click **Submit**.
Copying the link of a CR pending for submission	Click in the **Operation** column to copy the title, ID, current owner, status, and link information of the CR to the clipboard. Click in the **Operation** column to copy the title link of the CR to the clipboard.
Deleting a CR pending for submission	Click in the **Operation** column of a CR to delete it.

Completing a CR

This operation is performed by the specified review experts and decision-maker of a CR.

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Review** > **Change Review**.

Step 3 Click the title of a CR in the **To Be Reviewed** state. The CR details page is displayed on the right.

Step 4 Click the icon in the row that contains the target review object, and set the required parameters.

Figure 8-47 Review by review experts

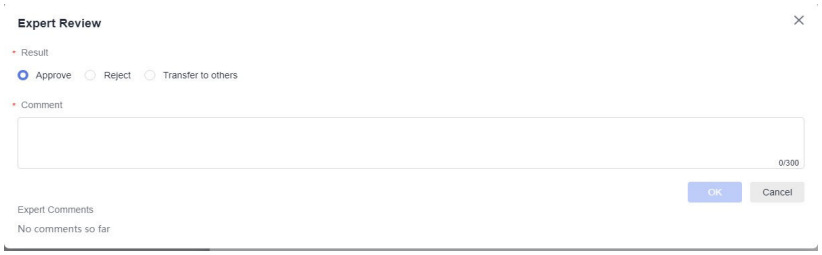

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Table 8-70 Review by review experts

Parameter	Description
Result	Select your review result. • **Approve**: You agree with the change. • **Reject**: You do not agree with the change. • **Transfer to others**: Transfer the review to another review expert.
Comment	Your comments on the change. This parameter is required when **Result** is **Approve** or **Reject**. • Use letters, hyphens (-), underscores (_), commas (,), semicolons (;), colons (:), periods (.), slashes (/), parentheses, and spaces. • Include 1 to 300 characters.
Expert Comments	Comments of other review experts.

Step 5 Select a review result (**Approve** or **Reject**) and click **OK**.

After the expert review is completed, the final review result can be determined using the selected method on the **Settings > Work > Review** page.

- **By single reviewer**: A CR is complete when one review expert approves or rejects it.
- **By all reviewers**: A CR is complete when all review experts approve it or one review expert rejects it.
- **By pass rate**: A CR is complete when "Number of review experts who approve the review/Total number of review experts × 100% ≥ Pass rate", or "Number of review experts who reject the review/Total number of review experts × 100% > 1 – Pass rate".

If a CR's result in the review phase is **Rejected**, the CR skips the decision-making phase and its final result is **Rejected**.

After the review phase is complete for all review objects in the CR, the CR status changes to **Decisioning**.

Step 6 Click the title of a CR in the **To Be Approved** state. The CR details page is displayed on the right.

Step 7 Click the icon in the row that contains the target review object, and set the required parameters.

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Figure 8-48 Decision-making by decision-maker

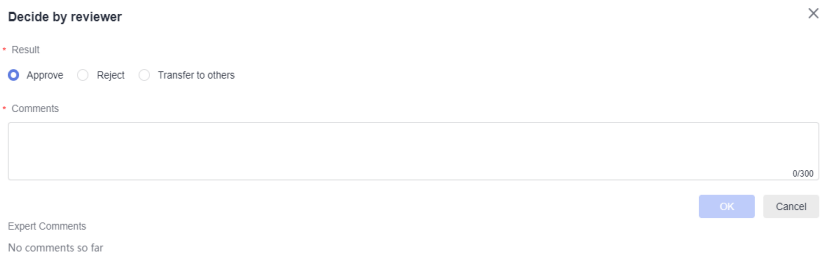

Table 8-71 Decision-making by decision-maker

Parameter	Description
Result	Select your decision. • **Approve**: You agree with the change. • **Reject**: You do not agree with the change. • **Transfer to others**: Transfer the ticket to a new decision-maker.
Comments	Your comments on the ticket. This parameter is required when **Result** is **Approve** or **Reject**. • Use letters, hyphens (-), underscores (_), commas (,), semicolons (;), colons (:), periods (.), slashes (/), parentheses, and spaces. • Include 1 to 300 characters.
Decision Maker	The new decision maker for this ticket. This parameter is displayed and required only when **Transfer to others** is selected.
Expert Comments	Review result and reviewer comments for the decision-maker's reference.

Step 8 Select **Approve** or **Reject** for **Result**, and click **OK**. The CR object's approval result is displayed after its decision-making process is complete.

The CR status changes to **End** only after the decision-making process is complete for all review objects.

Step 9 Perform the necessary operations on a **Rejected** review object in the completed CR.

- On the CR details page, click **Activate** in the upper right corner. Then click **OK** in the displayed dialog box. All rejected objects in the CR have transitioned from the **End** state to the **Resubmit** state. The CR needs to be processed again.
- In the second review process, you can check historical comments in the **Resubmitting**, **Reviewing**, **Decisioning**, and **End** phases.

  In the **Review Objects** area on the details page, click in the row where the target review object is located. In the displayed **History Opinion** dialog

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box, select a historical review comment from the **Decision-Making Time** drop-down list.

- In the **Review Objects** area, click  in the **Operation** column to remove objects that do not need to be re-submitted.

  When the last review object is removed, the re-review process is automatically canceled and rolled back from the **Resubmit** phase to the **End** phase of the previous round.
- After modifying a review object, click **Submit**. In the **Review Objects** area on the details page, click  in the row that contains the target review object to initiate re-review.

  a. In the re-review phase, you can click in the upper right corner and then choose to cancel the re-review. In the displayed dialog box, click **OK**. The review ticket is rolled back to the **End** phase of the previous round.

  b. In the decision-making phase, you can click in the upper right corner and then choose to cancel the re-review. Once a decision is made, the re-review cannot be canceled.
- Perform **Step 4** to **Step 8** to complete the CR approval.

----End

8.9.2.2 Creating and Completing BRs

When your system features and R&D requirements need to be baselined, perform the following steps to initiate a baseline review.

Constraints

- A maximum of **20** reviewers can be added.
- A maximum of **50** objects can be added to or associated with a single review ticket.

Creating a BR

Step 1 **Access the CodeArts Req homepage**.

Step 2 Create a BR in either of the following ways:

- On the project homepage, go to the feature tree or R&D requirement list page, select unbaselined system features or R&D requirements, and click **Baseline Review** in the pop-up box.
- On the project homepage, choose **Review** > **Baseline Review**. Then click **BR**.

Step 3 On the **BR** page, set the required parameters.

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Table 8-72 Creating a BR

Parameter	Description
BR Title	Title of the review. • Use letters, hyphens (-), underscores (_), commas (,), semicolons (;), colons (:), periods (.), slashes (/), parentheses, and spaces. • Include 1 to 256 characters.
Description	Enter the background, value, and details of the review. • Use text, images, or links. • Include 1 to 50,000 characters.
Start Time	The time when you want the review to start.
Completion Time	The time when you want the review to complete.
Decision-Maker	The decision-maker for a review at the decision phase. • When **Require Decision-Making** is disabled, this parameter is not displayed. That is, if **Decision-Maker** is not set in the review ticket, the review process will skip the **Pending Decision-Making** phase. • When **Require Decision-Making** is enabled, **Decision-Maker** is mandatory. You can configure **Decision-Maker** by referring to **Configuring Reviews**. By default, the options are **Project Admin** and **Project Manager**. You can select only one option. **NOTE** You can configure **Require Decision-Making** by referring to **Configuring Reviews**.
Review Expert	The expert reviewer for a review at the review stage. • When **Require Decision-Making** is enabled, **Review Expert** is optional. If **Review Expert** is not set, the review phase will be skipped. • If **Require Decision-Making** is disabled, **Review Expert** is mandatory. If **Decision-Maker** is not set in the review ticket, the review process will skip the **Pending Decision-Making** phase. You can configure **Review Expert** by referring to **Configuring Reviews**. Multiple options can be selected. **NOTE** You can configure **Require Decision-Making** by referring to **Configuring Reviews**.
Copy To	Select the project members you want to inform about this review.

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Parameter	Description
Baseline Object	Add the objects that need to be baselined. Only unbaselined objects are supported. For IPD-system device projects, the review objects include SF, IR, SR, AR, and task. For IPD-standalone software projects, the review objects include SF, IR, US, and task.
Associated Files	Attachments, wikis, and documents related to the review.

Step 4 Click **Submit**.

You can view the new BR in the baseline review list. For the newly created BR:

- Click  in the **Operation** column to copy the title, ID, current owner, status, and link information of the BR to the clipboard.
- Click  in the **Operation** column to copy the title link of the BR to the clipboard.

----End

Related Operations

You can perform the following operations on a BR pending submission.

Table 8-73 Basic operations on a draft BR

Operation	Description
Modifying the title of a BR pending for submission	Click  next to a BR title to modify it.
Modifying the fields of a BR pending for submission	Click the target field value on the BR details page to modify it. After the modification, click **Submit**.

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Operation	Description
Copying the link of a BR pending for submission	Click in the **Operation** column to copy the title, ID, current owner, status, and link information of the BR to the clipboard. Click in the **Operation** column to copy the title link of the BR to the clipboard.
Deleting a BR pending for submission	Click in the **Operation** column of a BR to delete it.

Completing a BR

This operation is performed by the specified review experts and decision-maker for the BR.

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Review** > **Change Review**.

Step 3 Click the title of a BR in the **To Be Reviewed** state. The BR details page is displayed on the right.

Step 4 On the details page, click **Expert Review** in the upper right corner. In the displayed dialog box, set the required parameters.

Figure 8-49 Review by review experts

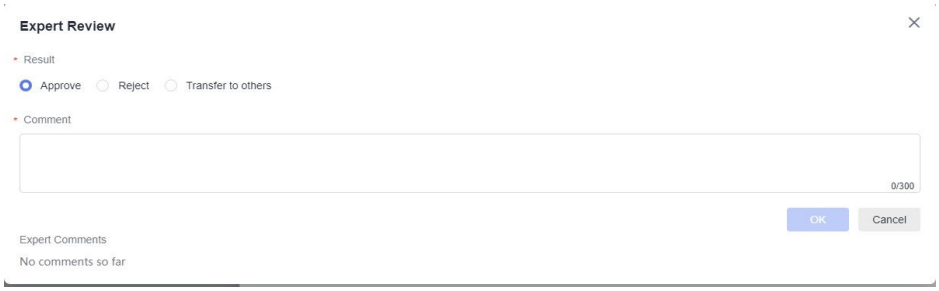

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Table 8-74 Review by review experts

Parameter	Description
Result	Select your review result. • **Approve**: You agree with the change. • **Reject**: You do not agree with the change. • **Transfer to others**: Transfer the review to another review expert.
Comment	Your comments on the change. This parameter is required when **Result** is **Approve** or **Reject**. • Use letters, hyphens (-), underscores (_), commas (,), semicolons (;), colons (:), periods (.), slashes (/), parentheses, and spaces. • Include 1 to 300 characters.
Expert Comments	Comments of other review experts.

Step 5 Select a review result (**Approve** or **Reject**) and click **OK**.

After the expert review is completed, the final review result can be determined using the selected method on the **Settings > Work > Review** page.

- **By single reviewer**: A BR is complete when one review expert approves or rejects it.
- **By all reviewers**: A BR is complete when all review experts approve it or one review expert rejects it.
- **By pass rate**: A BR is complete when "Number of review experts who approve the review/Total number of review experts × 100% ≥ Pass rate", or "Number of review experts who reject the review/Total number of review experts × 100% > 1 – Pass rate".

If a BR's result in the review phase is **Rejected**, the BR skips the decision-making phase and its final result is **Rejected**.

Step 6 Click the title of a BR in the **To Be Approved** state. The BR details page is displayed on the right.

Step 7 On the details page, click **Expert Review** in the upper right corner. In the displayed dialog box, set the required parameters.

Figure 8-50 Expert Review

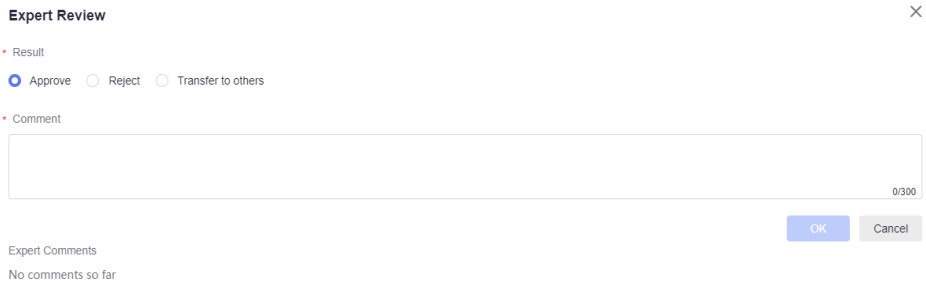

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Table 8-75 Decision-making by decision-maker

Parameter	Description
Result	Select your decision. • **Approve**: You agree with the change. • **Reject**: You do not agree with the change. • **Transfer to others**: Transfer the ticket to a new decision-maker.
Comments	Your comments on the change. This parameter is required when **Result** is **Approve** or **Reject**. • Use letters, hyphens (-), underscores (_), commas (,), semicolons (;), colons (:), periods (.), slashes (/), parentheses, and spaces. • Include 1 to 300 characters.
Review Result	The result of the review phase for the decision maker's reference.
Expert Comments	Review result and reviewer comments for the decision-maker's reference.

Step 8 Select **Approve** or **Reject** for **Result**, and click **OK**. The BR status changes to **End**.

----End

8.9.2.3 Creating and Completing GRs

When your work items need to be reviewed, perform the following steps to initiate a general review.

Constraints

- A maximum of **20** reviewers can be added.
- A maximum of **50** objects can be added to or associated with a single review ticket.

Creating a GR

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Review** > **General Review**. Then click **GR**.

Step 3 On the **GR** page, set the required parameters.

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Table 8-76 Creating a GR

Parameter	Description
GR Title	Title of the review. • Use letters, hyphens (-), underscores (_), commas (,), semicolons (;), colons (:), periods (.), slashes (/), parentheses, and spaces. • Include 1 to 256 characters.
Description	Enter the background, value, and details of the review. • Use text, images, or links. • Include 1 to 50,000 characters.
Start Time	The time when you want the review to start.
Completes	The time when you want the review to complete.
Decision-Maker	The decision-maker for a review at the decision phase. • When **Require Decision-Making** is disabled, this parameter is not displayed. That is, if **Decision-Maker** is not set in the review ticket, the review process will skip the **Pending Decision-Making** phase. • When **Require Decision-Making** is enabled, **Decision-Maker** is mandatory. You can configure **Decision-Maker** by referring to **Configuring Reviews**. By default, the options are **Project Admin** and **Project Manager**. You can select only one option. **NOTE** You can configure **Require Decision-Making** by referring to **Configuring Reviews**.
Review Expert	The expert reviewer for a review at the review stage. • When **Require Decision-Making** is enabled, **Review Expert** is optional. If **Review Expert** is not set, the review phase will be skipped. • If **Require Decision-Making** is disabled, **Review Expert** is mandatory. If **Decision-Maker** is not set in the review ticket, the review process will skip the **Pending Decision-Making** phase. You can configure **Review Expert** by referring to **Configuring Reviews**. Multiple options can be selected. **NOTE** You can configure **Require Decision-Making** by referring to **Configuring Reviews**.
Copy To	Select the project members you want to inform about this review.

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Parameter	Description
Associated Object	Add the objects to be associated with the GR. For IPD-system device projects, the review objects include RR, SF, IR, SR, AR, task, and bug. For IPD-standalone software projects, the review objects include RR, SF, IR, US, task, and bug.
Associated Files	Attachments, wikis, and documents related to the review.

Step 4 Click **Submit**.

You can view the new GR in the general review list. For the newly created GR:

- Click in the **Operation** column to copy the title, ID, current owner, status, and link information of the GR to the clipboard.
- Click in the **Operation** column to copy the title link of the GR to the clipboard.

----End

Related Operations

You can perform the following operations on a GR pending submission.

Table 8-77 Basic operations on a draft GR

Operation	Description
Modifying the title of a GR pending for submission	Click next to a GR title to modify it.
Modifying the fields of a GR pending submission	Click the target field value on the GR details page to modify it. After the modification, click **Submit**.
Copying the link of a GR pending for submission	Click in the **Operation** column to copy the title, ID, current owner, status, and link information of the GR to the clipboard. Click in the **Operation** column to copy the title link of the GR to the clipboard.

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Operation	Description
Deleting a GR pending for submission	Click in the **Operation** column of a GR to delete it.

Completing a GR

This operation is performed by the specified review experts and decision-maker for the GR.

Step 1 Access the CodeArts Req homepage.

Step 2 On the project homepage, choose **Review** > **Change Review**.

Step 3 Click the title of a GR in the **To Be Reviewed** state. The GR details page is displayed on the right.

Step 4 On the details page, click **Expert Review** in the upper right corner. In the displayed dialog box, set the required parameters.

Figure 8-51 Review by review experts

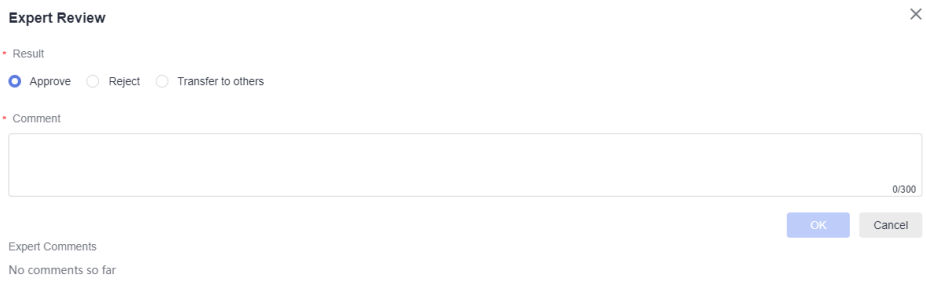

Table 8-78 Review by review experts

Parameter	Description
Result	Select your review result. • **Approve**: You agree with the change. • **Reject**: You do not agree with the change. • **Transfer to others**: Transfer the review to another review expert.
Comment	Your comments on the change. This parameter is required when **Result** is **Approve** or **Reject**. • Use letters, hyphens (-), underscores (_), commas (,), semicolons (;), colons (:), periods (.), slashes (/), parentheses, and spaces. • Include 1 to 300 characters.

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Parameter	Description
Expert Comments	Comments of other review experts.

Step 5 Select a review result (**Approve** or **Reject**) and click **OK**.

After the expert review is completed, the final review result can be determined using the selected method on the **Settings > Work > Review** page.

- **By single reviewer**: A GR is complete when one review expert approves or rejects it.
- **By all reviewers**: A GR is complete when all review experts approve it or one review expert rejects it.
- **By pass rate**: A GR is complete when "Number of review experts who approve the review/Total number of review experts × 100% ≥ Pass rate", or "Number of review experts who reject the review/Total number of review experts × 100% > 1 – Pass rate".

If a GR's result in the review phase is **Rejected**, the GR skips the decision-making phase and its final result is **Rejected**.

Step 6 Click the title of a GR in the **To Be Approved** state. The GR details page is displayed on the right.

Step 7 On the details page, click **Expert Review** in the upper right corner. In the displayed dialog box, set the required parameters.

Figure 8-52 Decide by reviewer

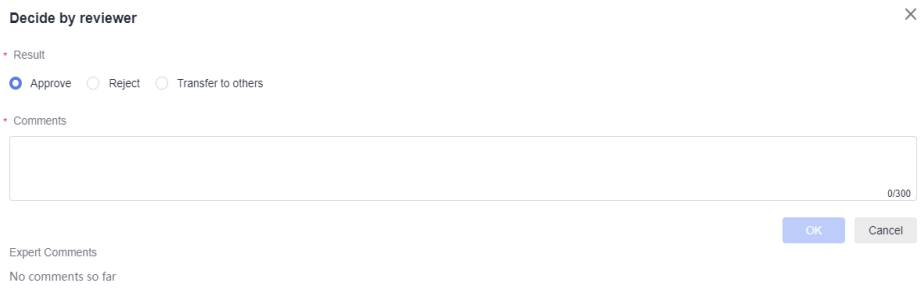

Table 8-79 Decide by reviewer

Parameter	Description
Result	Select your decision. • **Approve**: You agree with the change. • **Reject**: You do not agree with the change. • **Transfer to others**: Transfer the ticket to a new decision-maker.

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Parameter	Description
Comments	Your comments on the change. This parameter is required when **Result** is **Approve** or **Reject**. ● Use letters, hyphens (-), underscores (_), commas (,), semicolons (;), colons (:), periods (.), slashes (/), parentheses, and spaces. ● Include 1 to 300 characters.
Review Result	The result of the review phase for the decision maker's reference.
Expert Comments	Review result and reviewer comments for the decision-maker's reference.

Step 8 Select **Approve** or **Reject** for **Result**, and click **OK**. The GR status changes to **End**.

----End

8.9.2.4 Tracking and Closing Review Comments

Only BRs and GRs in IPD-system device projects and IPD-standalone software projects support converting review content (including review comments and decision-making comments) into work items for tracking and closure.

Prerequisites

- A project has been created.
- A BR or GR has been created.
- Review comments have been generated in the BR or GR.

Converting Review Comments into Work Items

The following procedure uses a BR as an example. The procedure for a GR is similar.

Step 1 On the project homepage, choose **Review** > **Baseline Review**.

Step 2 Click the title of a BR whose status is **Pending review**, **Waiting for Decision-making**, **Approved**, or **Rejected**. The BR details page is displayed on the right.

Step 3 Convert review comments or decision-making comments on the details page to work items.

- For the BR whose status is **Pending review**, perform the following operations:
  a. In the **Expert Comments** area of the details page, select the comment to be converted to a work item.
  b. Click  in the **Operation** column. The dialog box for creating work items is displayed.
- For the BR whose status is **To Be Approved**, perform the following operations:
  a. In the **Review Result** area of the details page, select the comment to be converted to a work item.

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One or more comments can be selected.

b. Click in the **Operation** column. The dialog box for creating work items is displayed.

- For the BR whose status is **Passed** or **Rejected**, perform the following operations:

  a. In the review result or BR decision-making result area of the details page, select the expert or decision-making comment to be converted to a work item.

  One or more comments can be selected.

  b. Click in the **Operation** column. The dialog box for creating work items is displayed.

Step 4 Set work item information, including the work item type and description.

The work item type can be IR, Task, or Bug. The work item title and description are automatically populated with review comments and can be modified.

Specify work item fields as required.

Step 5 Click **OK**.

On the **Related Items** tab of the current BR details page, all work items converted from review comments or decision-making comments are displayed in the **Tracking of remaining items from review orders** area.

On the **Related Items** tab of the work item converted from review comments or decision-making comments, the review comments or decision-making comments associated with the work item are displayed in the **Associated open issue review form** area.

----End

8.9.3 Review Check Items

8.9.3.1 Process of Configuring Review Check Items

This section describes how to configure review check items and use them in a project. **Figure 8-53** shows the process of configuring review check items. **Table 8-80** describes the configurations.

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Figure 8-53 Process of configuring review check items

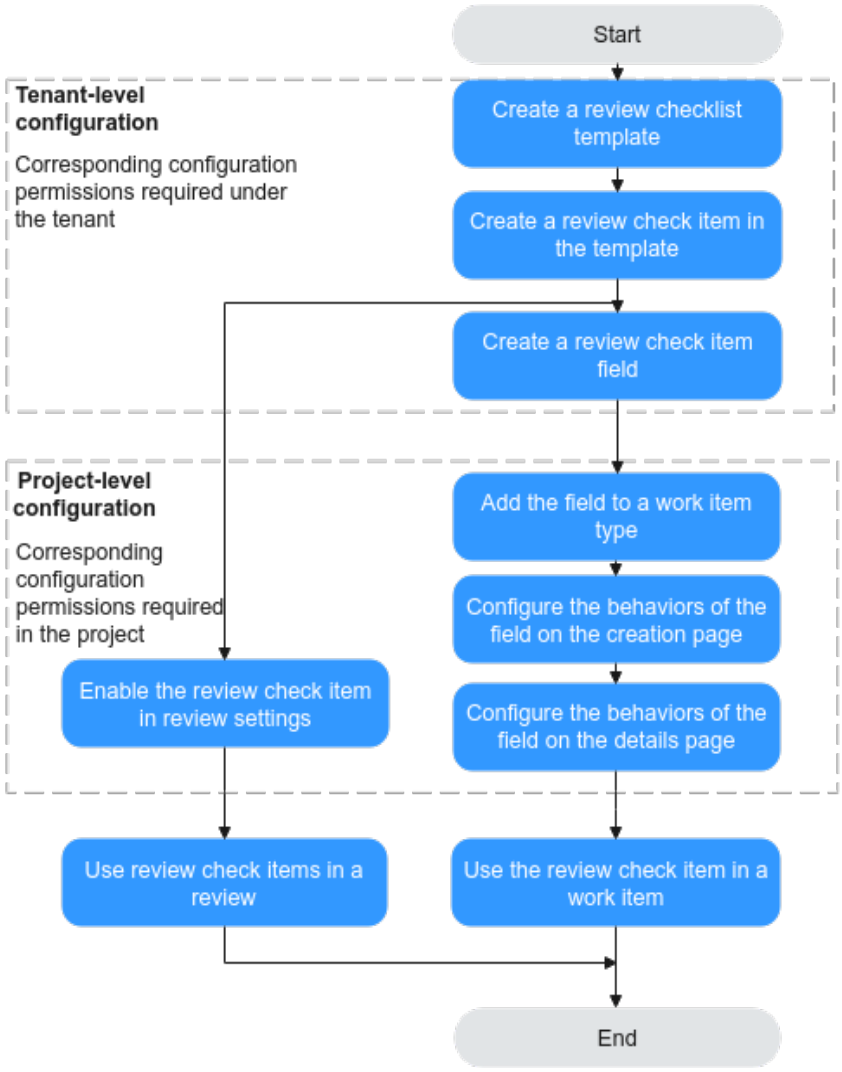

Table 8-80 Operations in configuring review check items

Operation	Description
Create a review checklist template	Review check items are aggregated using a review checklist template. Review check items used in work items or reviews are also based on the review checklist template. Therefore, you need to create a review checklist template. For details, see **Creating a Review Checklist Template**.
Create review check items in the template	A review checklist template can contain multiple review check items. After creating a review checklist template, you need to create review check items in the template. For details, see **Creating a Review Check Item in the Template**.

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Operation	Description
Create a field of the review check item type	Review check items are applied to specific work items as fields of the review check item type. Therefore, you need to create a field of this type and specify the associated review checklist template for the field. For details, see **Creating a Field of the Review Check Item Type**.
Add the field to the work item type	After creating a field of the review check item type, you need to add it to the field list of the corresponding work item type. For details, see **Adding a Review Check Item Field to a Work Item Type**.
Configure the field behaviors on the creation page	After adding a field of the review check item type to a work item type, if you have special requirements for the field behavior on the creation page (for example, you want the field to be mandatory on the work item creation page), you need to configure the field behaviors on the creation page. For details, see **Configuring the Behaviors of A Review Check Field on the Creation Page**.
Configure the field behaviors on the details page	After adding a field of the review check item type to a work item type, if you have special requirements for the field behavior on the details page (for example, you want the field to be mandatory in some statuses on the work item details page), you need to configure the field behaviors on the details page. For details, see **Configuring the Behaviors of A Review Check Field on the Details Page**.
Enable review check items in review settings	If review check items need to be used in reviews, you need to enable them in the review settings. For details, see **Enabling Review Check Items in Review Settings**.
Use review check items in work items	After configuring review check item fields and their behaviors, you can view the fields added in **Adding a Review Check Item Field to a Work Item Type** when creating a work item in a project or accessing the work item details page. You can then fill in the review results and remarks. For details about how to use review check items in work items, see **Using Review Check Items in Work Items**.
Use review check items in reviews	After enabling review check items in review settings and setting the review check item template associated with the review, you can view the review check items associated with the review when initiating a review or performing a review/decision-making in a project. You can then fill in the review results and remarks. For details about how to use review check items in a review, see **Using Review Check Items in Reviews**.

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8.9.3.2 Configuring a Review Checklist Template and Check Items

Review check items can be used for self-check by work item creators and check by review experts or decision makers in a project. Review check items are aggregated using a review checklist template. Review check items used in work items or reviews are also based on the review checklist template. Therefore, you need to create a review checklist template. A review checklist template can contain multiple review check items. After creating a review checklist template, you need to create review check items in the template.

Constraints

- A maximum of 100 review checklist templates can be created.
- A review checklist template can contain a maximum of 50 check items.
- A review checklist template that has been associated with a work item type or review cannot be deleted.

Prerequisites

You must have the permissions of the **Tenant Administrator** role. For details about how to assign the **Tenant Administrator** role to a user, see **Creating a User Group and Assigning Permissions**.

Creating a Review Checklist Template

Step 1 Access the **CodeArts Req** homepage and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Template Settings** > **Checklist Templates**.

Step 4 Click **Create New Template**.

Step 5 Set the parameters for creating a review checklist template by referring to **Table 8-81**.

Table 8-81 Parameters for creating a review checklist template

Parameter	Description
Template name	Name of the review checklist template to be created. • The name contains a maximum of 50 characters. • A tenant can have a maximum of 100 templates. • The name must be unique.
Description	Description of the review checklist template to be created. This parameter is optional. It can contain up to 500 characters.

Step 6 Click **OK**. The created review checklist template is displayed in the list.

You can perform the following operations on the created review checklist template.

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Table 8-82 Managing a review checklist template

Operation	Description
Edit review checklist template	Click . On the displayed page, you can modify the template name and description and create a check item. For details about how to create a check item, see **Creating a Review Check Item in the Template**.
Edit review checklist template	Click to copy the review checklist template.
Delete review checklist template	Click , read the information, and click **Delete**. **NOTE** • If the current work item type has been associated with a work item type template, cancel the association on the **Work Item Type Templates** page and then delete template. • If the current review checklist template has been used by a review in the project, cancel the association in the review settings of the project and then delete the template.

----End

Creating a Review Check Item in the Template

Step 1 Access the **CodeArts Req** homepage and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Template Settings** > **Checklist Templates**. The existing checklist templates are displayed.

Step 4 Locate the checklist template for which you want to create a review checklist item and click to go to the template editing page.

Step 5 Click **New check item**. The check item creation window is displayed.

Step 6 Set the parameters for creating a review check item by referring to **Table 8-83**.

Table 8-83 Parameters for creating a review check item

Parameter	Description
Check item name	Name of the review item to be created. The name contains a maximum of 200 characters.
Description	Description of the review item to be created. This parameter is optional. The description is displayed as a prompt in the checklist on the work item creation page. It can contain up to 500 characters.

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Step 7 Click **OK**. The created review check item is displayed in the list.

NOTE

- Click **Save** to save the check item. It takes effect only after being released.
- After a released template is modified and saved, you can click **Reset template** to restore the template to the latest released version.
- Click **Cancel** to exit the page for editing the review check item template and cancel the modification.

You can perform the following operations on the created check item.

Table 8-84 Managing a review check item

Operation	Description
Edit review check item	Click to modify the check item name and description.
Delete review check item	Click to delete the check item.

----End

8.9.3.3 Configuring a Field of the Review Check Item Type

Review check items are applied to specific work items as fields of the review check item type. Therefore, you need to create a field of this type and specify the associated review checklist template for the field.

Constraints

A field of the review check item type can be associated with a maximum of 20 review checklist templates.

Prerequisites

You must have the permissions of the **Tenant Administrator** role. For details about how to assign the **Tenant Administrator** role to a user, see **Creating a User Group and Assigning Permissions**.

Creating a Field of the Review Check Item Type

Step 1 Access the **CodeArts Req** homepage and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Basic Settings** > **Work Item Fields**.

Step 4 Click **Create Field**. In the displayed window, set the field information by referring to **Table 8-85**.

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Table 8-85 Parameters for creating a field of the review check item type

Parameter	Description
Field Name	Name of the field to be created.
Field Type	Type of the field to be created. It must be set to **Review check items**.
Related Review Check Item Template	When **Field Type** is set to **Review check items**, a review checklist template must be associated. Select a created review check item template from the **Related Review Check Item Template** drop-down list.
Description	Description of the field to be created. This parameter is optional.

Step 5 Click **Publish**. The created review check item field is displayed in the list.

You can perform the following operations on a new field.

Table 8-86 Managing a field

Operation	Description
Edit field	Click to modify the field name, associated review checklist template, and description.
Delete field	Click , read the information, and click **Delete**. **NOTE** If the current field has been associated with a work item type, cancel the association before deleting the field.

----End

8.9.3.4 Configuring the Field and Its Behaviors in Work Item Management

If review check items need to be used in work items, you need to add a review check item field for the corresponding work item type in the project and configure the behaviors of the field on the creation and details pages. Work item types include RRs, SFs, IRs, SRs, ARs, tasks, and bugs.

Prerequisites

- A project has been created.
- You have the permission to set work item templates on the work configuration page.

Adding a Review Check Item Field to a Work Item Type

Step 1 Go to the project details page.

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Step 2 Choose **Settings** > **Work Item** > **Work Item Management**.

Step 3 Add a review check item field to a work item type.

1. On the **Fields** page, select the work item type, for example, **Raw Requirement(RR)**, to which you want to add a review check item field.
2. Click **Add Field**. The **Add Field** window is displayed.
3. Click the **Field Name** drop-down list. The review check item fields added in **Configuring a Field of the Review Check Item Type** are displayed in the list.
4. Select a review check item field from the **Field Name** drop-down list. Retain the default values for other parameters.
5. Confirm the settings. The field is added.

   New field information will be displayed at the bottom of the field template list and in **Common Field**.

----End

Configuring the Behaviors of A Review Check Field on the Creation Page

If you have special requirements for the behaviors of this field on the creation page (for example, you want this field to be mandatory on the work item creation page), you need to configure the behaviors of this field on the details page in the field template.

Step 1 Go to the project details page.

Step 2 Choose **Settings** > **Work Item** > **Work Item Management**.

Step 3 Configure the behaviors of a review check item type field on the creation page for a work item type.

1. On the **Fields** page, select the desired work item type, for example, **Raw Requirement(RR)**.
2. In the **Fields** list, set the parameters of the review check item fields by referring to **Table 8-87**.

Table 8-87 Field template parameters

Parameter	Description
Display During Creation	Specify whether to display the field on the creation page. – If the switch is toggled on (), the field is displayed on the creation page. – If the switch is toggled off ( ), the field is not displayed on the creation page.

Parameter	Description
Required	Specify whether the field is mandatory on the creation page. – If the switch is toggled on ( ), the field is mandatory on the creation page. – If the switch is toggled off ( ), the field is optional on the creation page.
Default Value	Unavailable for review check item fields. Therefore, you do not need to set it.

----End

Configuring the Behaviors of A Review Check Field on the Details Page

If you have special requirements for the behaviors of this field on the details page (for example, you want this field to be mandatory on the work item details page), you need to configure the behaviors of this field on the details page in the status flow.

Step 1 Go to the project details page.

Step 2 Choose **Settings** > **Work Item** > **Work Item Management**.

Step 3 Configure the behaviors of a review check item type field on the details page for a work item type.

1. On the **Status Flow** page, select the desired work item type, for example, **Raw Requirement(RR)**.
2. Click **Edit**. The status flow configuration canvas for the work item type is displayed.
3. Click the status node to be edited. On the displayed page, configure the status.
4. **Field Configuration** is enabled by default. If it is disabled, fields cannot be edited. You need to enable it first.
5. If there is no review check item field, click **Add Field**. In the displayed **Add Field** dialog box, add a field.
6. Configure the behaviors of a review check field on the details page.

   Find the review check item field in the field configuration list. Set attributes, including **Visible**, **Editable**, **Required**, and **Role to Edit**, for the field in the current status.

Table 8-88 Field configuration items

Attribute	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.

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Attribute	Description
Editable	Set whether the field is editable in a work item of the current status.
Required	Set whether the field is mandatory in a work item of the current status. If the field is mandatory, it will be marked with an asterisk (*).
Controlled or Not	Review check item fields cannot be controlled. You do not need to set this attribute.
Role to Edit	Select a role from the drop-down list. The options are **Default** and **Custom**.

Step 4 After the field attributes are configured, click **Update Status Flow**.

If the updated custom status flow is the currently used one, you can use it in projects that use the work item type.

----End

8.9.3.5 Enabling Review Check Items in Review Settings

Prerequisites

- A project already exists.
- A review checklist template has been configured.
- You have the permission to set reviews on the work configuration page.

Enabling Review Check Items in Review Settings

Step 1 Go to the project and choose **Settings** > **Work Item** > **Review** > **Basic Review Settings**.

Step 2 Configure review check items.

Configure whether to enable review check items for the review and select the review checklist template to be used.

1. Configure whether to enable review check items.
   - If the switch is toggled on ( ), review check items are enabled. If review check items need to be used in reviews, toggle on the switch.
   - If the switch is toggled off ( ), review check items are disabled.
2. Configure the associate review checklist template.

   Click in the row of the review. In the displayed dialog box, select **Related Review Check Item Template** from the drop-down list and click **OK**.

----End

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8.9.3.6 Using Review Check Items in Work Items

After configuring review check item fields and their behaviors, you can view the review check items associated with a work item when creating a work item in a project or accessing the work item details page. You can then fill in the review results and remarks.

Prerequisites

- A project already exists.
- The review check item type fields and their behaviors have been configured for the work item type to be created.

Configuring Review Check Items on the Work Item Creation Page

For a work item type for which the review check item type fields and their behaviors have been configured, you can configure review check items on the page for creating a work item of this type.

Step 1 On the project homepage, select the work item type for which the review check item fields have been configured. The following uses raw requirement as an example. The configuration for other work item types is similar.

Step 2 Select **Raw Requirements**.

Step 3 Click **+ RR**. The **RR** page is displayed.

Step 4 Enter the basic information about the raw requirement.

Step 5 Configure the review check item fields.

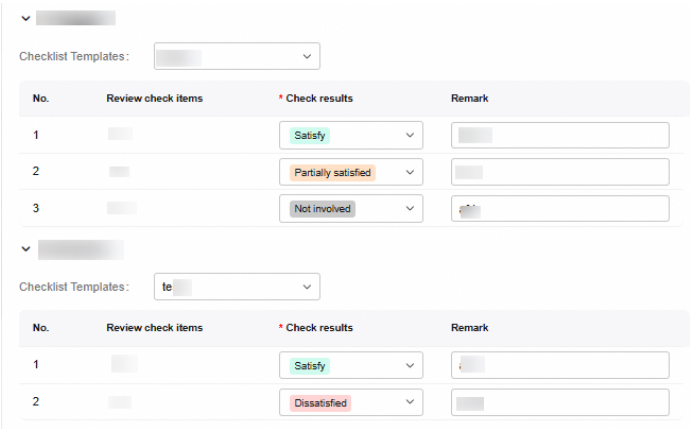
1. Select a review checklist template.

   Click the **Review Check Item Template** text box and select an associated review checklist template from the drop-down list.

2. Enter the review check result and remarks.

   Enter the check result and remarks for each review check item in the selected review checklist template. The check result can be **satisfy**, **dissatisfied**, **partially satisfied**, or **Not involved**. Select a value as required.

3. If multiple review check item type fields are configured for the work item type, repeat **Step 5.1** and **Step 5.2** to configure all the fields.



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Step 6 Click **Submit**. The **Raw Requirements** page is displayed and "Request submitted successfully" is displayed in the upper right corner. The new work item is displayed in the raw requirement list. The work item is in the initial status.

----End

Managing Review Check Items on the Work Item Details Page

For a work item type for which the review check item type fields and their behaviors have been configured, you can manage review check items on the details page of a work item of this type. If you have not selected the fields of the review check item type in the review checklist template on the work item creation page, configure them by referring to **Step 5**. If you have configured these fields on the work item creation page, manage review check items as follows:

1. Click the name of a work item type to access the work item details page.
2. Manage review check items on the details page by referring to the following table.

Table 8-89 Managing review check items on the details page

Operation	Procedure	Remarks
View the field information of the review check item type	The work item details page displays the field information of associated review check items, including their selected templates, specific check items, check results, and remarks.	You have configured the review check item fields of the work item type to be displayed in the corresponding status on the details page by referring to **Configuring the Behaviors of A Review Check Field on the Details Page**.

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Operation	Procedure	Remarks
Modify the associated review checklist template	On the work item details page, you can modify the review checklist template associated with the review check item field and set the review check result and remarks. 1. Click the selected review checklist template name in the **Review Check Item Template** text box and select another review checklist template associated with the field from the drop-down list. 2. Enter the check result and remarks for each review check item in the selected review checklist template. The check result can be **satisfy**, **dissatisfied**, **partially satisfied**, or **Not involved**. Select a value as required. 3. Confirm the modifications. A message is displayed in the upper right corner of the page, indicating that the review check item fields are updated. **NOTE** If you want to re-modify the review check item fields that have been confirmed, click the reset button to restore them to the latest version.	You have configured the review check item fields of the work item type to be editable in the corresponding status on the details page by referring to **Configuring the Behaviors of A Review Check Field on the Details Page**.

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Operation	Procedure	Remarks
Modify the check result	On the work item details page, you can modify the check result of each review check item. 1. Click the check result to be modified. In the displayed drop-down list, re-select the check result. 2. Confirm the modifications. A message is displayed in the upper right corner of the page, indicating that the review check item fields are updated.	You have configured the review check item fields of the work item type to be editable in the corresponding status on the details page by referring to **Configuring the Behaviors of A Review Check Field on the Details Page**.
Modify remarks	On the work item details page, you can modify the remarks of each review check item. 1. Click the remarks to be modified and enter new remarks. 2. Confirm the modifications. A message is displayed in the upper right corner of the page, indicating that the review check item fields are updated.	You have configured the review check item fields of the work item type to be editable in the corresponding status on the details page by referring to **Configuring the Behaviors of A Review Check Field on the Details Page**.

8.9.3.7 Using Review Check Items in Reviews

After enabling review check items in review settings and setting the review check item template associated with the review, you can view the review check items associated with the review when initiating a review or performing a review/decision-making in a project. You can then fill in the review results and remarks.

Configuring Review Check Items in a Change Review

Review check items for change reviews have been enabled in review settings, and the associated review checklist template has been set. You can configure review check items on the page for creating a CR and view the review check items on the CR details page.

Step 1 On the project homepage, choose **Review** > **Change Review**.

Step 2 Click **CR**.

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Step 3 Enter the CR information by referring to **Table 8-68**.

Step 4 Configure review check items.

1. Select a review checklist template.

   Click **Select** in the **Review Check Item Template** text box and select an associated review checklist template from the drop-down list.

2. Enter the review check result and remarks.

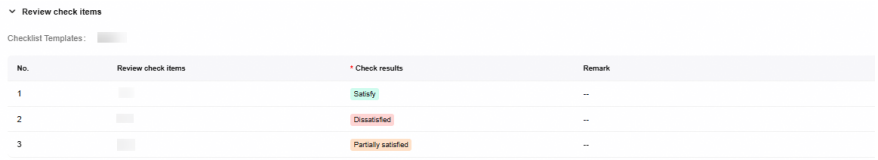
   Enter the check result and remarks for each review check item in the selected review checklist template. The check result can be **satisfy**, **dissatisfied**, **partially satisfied**, or **Not involved**. Select a value as required. Remarks are optional. You can determine whether to enter remarks as required.

Step 5 Click **Submit**.

You can view the new CR in the CR list.

Step 6 In the CR list, click the name of the new CR.

You can view the configured review check items on the details page.



----End

Configuring Review Check Items in a Baseline Review

Review check items for baseline reviews have been enabled in review settings, and the associated review checklist template has been set. You can configure review check items on the page for creating a BR and view the review check items on the BR details page.

Step 1 On the project homepage, choose **Review** > **Baseline Review**.

Step 2 Click **BR**. The **BR** page is displayed.

Step 3 Enter the BR information by referring to **Table 8-72**.

Step 4 Configure review check items.

1. Select a review checklist template.

   Click **Select** in the **Review Check Item Template** text box and select an associated review checklist template from the drop-down list.

2. Enter the review check result and remarks.

   Enter the check result and remarks for each review check item in the selected review checklist template. The check result can be **satisfy**, **dissatisfied**, **partially satisfied**, or **Not involved**. Select a value as required. Remarks are optional. You can determine whether to enter remarks as required.

Step 5 Click **Submit**.

You can view the new BR in the BR list.

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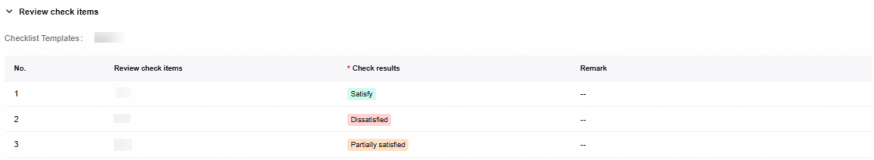
Step 6 In the BR list, click the name of the new BR.

You can view the configured review check items on the details page.



----End

Configuring Review Check Items in a General Review

Review check items for general reviews have been enabled in review settings, and the associated review checklist template has been set. You can configure review check items on the page for creating a GR and view the review check items on the GR details page.

Step 1 On the project homepage, choose **Review** > **General Review**.

Step 2 Click **GR**. The **GR** page is displayed.

Step 3 Enter the GR information by referring to **Table 8-76**.

Step 4 Configure review check items.

1. Select a review checklist template.

   Click **Select** in the **Review Check Item Template** text box and select an associated review checklist template from the drop-down list.

2. Enter the review check result and remarks.

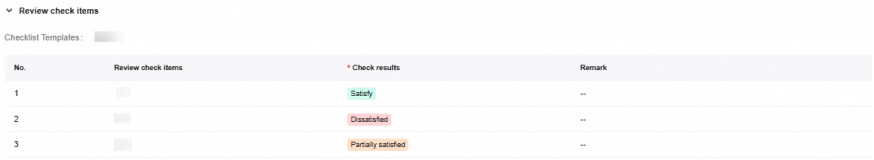
   Enter the check result and remarks for each review check item in the selected review checklist template. The check result can be **satisfy**, **dissatisfied**, **partially satisfied**, or **Not involved**. Select a value as required.

Step 5 Click **Submit**.

You can view the new GR in the GR list.

Step 6 In the GR list, click the name of the new GR.

You can view the configured review check items on the details page.



----End

8.10 Tracking the Project Progress

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8.10.1 Tracking the Work Item Progress in the Project Overview

During a project, you can track the work item progress in the project overview.

Viewing the Project Overview

In the project overview, statistical charts display all project data in two dimensions.

- By release: Select the release and sprint for display. For details about statistical items, see **Table 8-90**.

Table 8-90 Statistical charts

Statistics Type	Data Description
Project statistics overview	Displays the numbers of total, uncompleted, completed, and overdue work items of the selected release.
Release burndown	Click next to the chart title to view the description of statistical items. Displays the remaining workload, total workload, and ideal line. You can select specific work items (IRs, USs, tasks, and bugs) to view and download them. This chart helps you identity risks in the release progress.
Release capacity load	Click next to the chart title to view the description of statistical items. Displays workloads of release plans, sprints, and each work item in bar charts. This chart helps you check whether the actual workloads exceed the planned ones.
Bug trend	Click next to the chart title to view the description of statistical items. Uses a line chart to display the numbers of daily discovered and resolved bugs as well as the remaining defect index (DI). This chart helps you understand the bug trend in the current release.
Work item statistics for project members (by priority)	Click next to the chart title to view the description of statistical items. Uses a bar chart or table to display the numbers of different work item types under each member in the current release by priority. This chart helps you understand the priorities of work items under each member.

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Statistics Type	Data Description
Work item completion	Click next to the chart title to view the description of statistical items. Uses a line chart to display the numbers of completed and total work items of each type in the current release. This chart helps you learn about the release's daily completion status.
Work item statistics for project members (by status)	Click next to the chart title to view the description of statistical items. Uses a bar chart or table to display the numbers of different work item types in different statuses under each member in the current release. This chart helps you learn about the work item progress of each member.
Requirement breakdown rate	Click next to the chart title to view the description of statistical items. Uses a bar chart to display the proportion of broken-down to total work items of each type in the current release. This chart helps you learn about the work item breakdown progress of the current release.
Work item completion rate	Click next to the chart title to view the description of statistical items. Uses a column chart to display the numbers of completed and total work items of each type in the current release. This chart helps you learn about the release's completion status by work item or planned workload.
Requirement TTM	Click next to the chart title to view the description of statistical items. Uses a bar chart to display the average time that each requirement type of the selected release takes to complete since it is created or submitted.
Work items by status	Click next to the chart title to view the description of statistical items. Uses a pie chart or table to display the number and proportion of work items of each type in different statuses under the current release. This chart helps you learn about the release's work items in different statuses.
Work item stay days	Click next to the chart title to view the description of statistical items. Uses a column chart to display the average number of days that work items of each type stay in each status (except for a **Done** status) in the current release. This chart helps you identify the delivery bottlenecks in your team.

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Statistics Type	Data Description
Unfinished work items by member	Click next to the chart title to view the description of statistical items. Uses a bar chart or table to display the number of uncompleted work items of each member under the current release. This chart helps you check whether the work item assignment of each member is appropriate.
Member workloads	Click next to the chart title to view the description of statistical items. Uses a bar chart to display the number of total workloads created by project members on the detailed workload tab page of each type of work item.

- By creation time: Select a time range for display. Time options include **All**, **Last 7 days**, **Last 14 days**, **Last 30 days**, **Last 90 days**, and **Custom**. For details about statistical items, see **Table 7-91**.

Table 8-91 Statistical charts

Statistics Type	Data Description
Project statistics overview	Displays the numbers of total, unfinished, completed, and overdue work items and reviews in the selected time period.
Proposed raw requirements (by project)	Click next to the chart title to view the description of statistical items. Uses a bar chart or table to display the number of RRs submitted by the current project to other projects in the selected time range.
Received raw requirements (by project)	Click next to the chart title to view the description of statistical items. Uses a bar chart or table to display the number of RRs submitted by other projects to the current project in the selected time range.
Work item statistics for project members (by priority)	Click next to the chart title to view the description of statistical items. Uses a bar chart or table to display the number of each work item type created by project members within the selected time range by priority.

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Statistics Type	Data Description
SF and R&D requirement association	Click next to the chart title to view the description of statistical items. Uses a bar chart to display the number of SFs associated with R&D requirements/the total number of SFs created within the selected time range.
Work item statistics for project members (by status)	Click next to the chart title to view the description of statistical items. Uses a bar chart or table to display the number of each work item type created by project members within the selected time range by priority.
Requirement breakdown rate	Click next to the chart title to view the description of statistical items. Uses a bar chart to display the proportion of broken-down to total requirements (RRs/IRs/SRs) created within the selected time range.
Work item completion rate	Click next to the chart title to view the description of statistical items. Uses a bar chart to display the completion rate of each work item type created within the selected time range by quantity and planned workload. • By quantity: Displays the proportion of completed to total work items created within the selected time range. • By planned workload: Displays the planned workloads of completed work items divided by the planned workloads of all work items created within the selected time range.
Requirement TTM	Click next to the chart title to view the description of statistical items. Uses a bar chart to display the average time that each requirement type created within the selected time range takes to complete since it is created or submitted.
Work items by status	Click next to the chart title to view the description of statistical items. Uses a bar chart or table to display the number of each requirement type created by each project member within the selected time range by status.
Work item stay days	Click next to the chart title to view the description of statistical items. Uses a bar chart to display the average number of days that work items created within the selected time range stay in each uncompleted state.

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Statistics Type	Data Description
Unfinished work items by member	Click next to the chart title to view the description of statistical items. Uses a bar chart or table to display the number of each unfinished work item type of project members whose creation time is within the selected time range.
Member workloads	Click next to the chart title to view the description of statistical items. Uses a bar chart to display the total actual workloads of each work item type created by project members within the selected time range.

8.10.2 Using Bug Measurement

You can use bug measurement to track the defect progress.

Viewing the Bug Measurement

By default, the bug measurement view displays the following statistical charts: bug overview, legacy DI trend, accumulated bugs, bug daily throughput, bug distribution by severity, bug distribution by status, and top 8 owners with legacy bugs.

- Numerical statistical charts: The indicator value represents data for all work items in real time. For example, the total number of bugs in **Bug Overview** is equal to the total number of bugs during statistics collection.
- Trend charts: The indicator value represents the daily data. For example, the total number of legacy bugs on June 7 in **legacy DI Trend** is equal to the total number of legacy bugs on June 7.

The following table lists the statistical charts in bug measurement.

Table 8-92 Statistical charts

Statistical Chart	Data Description
Bug overview statistics	Collects the numbers of total, uncompleted, completed, overdue, and major or critical bugs at the current time. Click a number to view the corresponding list.

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Statistical Chart	Data Description
Legacy DI trend	Collects statistics on the DI trend of legacy bugs in the selected time range. • DI: indicates the value calculated based on the weight of bugs at each severity level. • Legacy DI = Number of legacy critical bugs x 10 + Number of legacy major bugs x 3 + Number of legacy minor bugs x 1 + Number of legacy suggestion bugs x 0.1
Accumulated bugs	Shows the trends of accumulated bugs found, resolved bugs, and legacy bugs. Cumulative number of legacy bugs = Cumulative number of found bugs – Cumulative number of resolved bugs.
Bug daily throughput	Collects the number of bugs found and fixed in the selected time period.
Bug distribution by severity	Collects statistics on the number of bugs by severity at the current time.
Bug distribution by status	Collects statistics on the number of bugs by status at the current time.
Top 8 owners with legacy bugs	Collects top 8 owners of legacy bugs at the current time and displays the bug number.

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9 Custom Requirement Models

9.1 Process of Customizing a Requirement Model

Overview

CodeArts Req presets multiple requirement models, including those for IPD system devices, IPD standalone software, and IPD self-operated software/cloud services. Projects created using these models come with predefined requirement types and parent-child relationships tailored to IPD and agile processes. Beyond these, many industries and customers have specific management needs, such as milestone tracking, WBS task breakdown, risk management, and ticket management. To address these diverse requirements, CodeArts Req allows users to customize requirement models, enabling more flexible and efficient project management across various sectors.

Constraints

In the current version, custom configurations are only supported for projects based on the **IPD-System Device** and **IPD-Standalone Software** models.

Process of Customizing a Requirement Model Project

This section describes how to configure a custom project template and create a project using the template. **Figure 9-1** shows the process of customizing a requirement model project. **Table 9-1** describes the configurations.

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Figure 9-1 Process of customizing a requirement model project

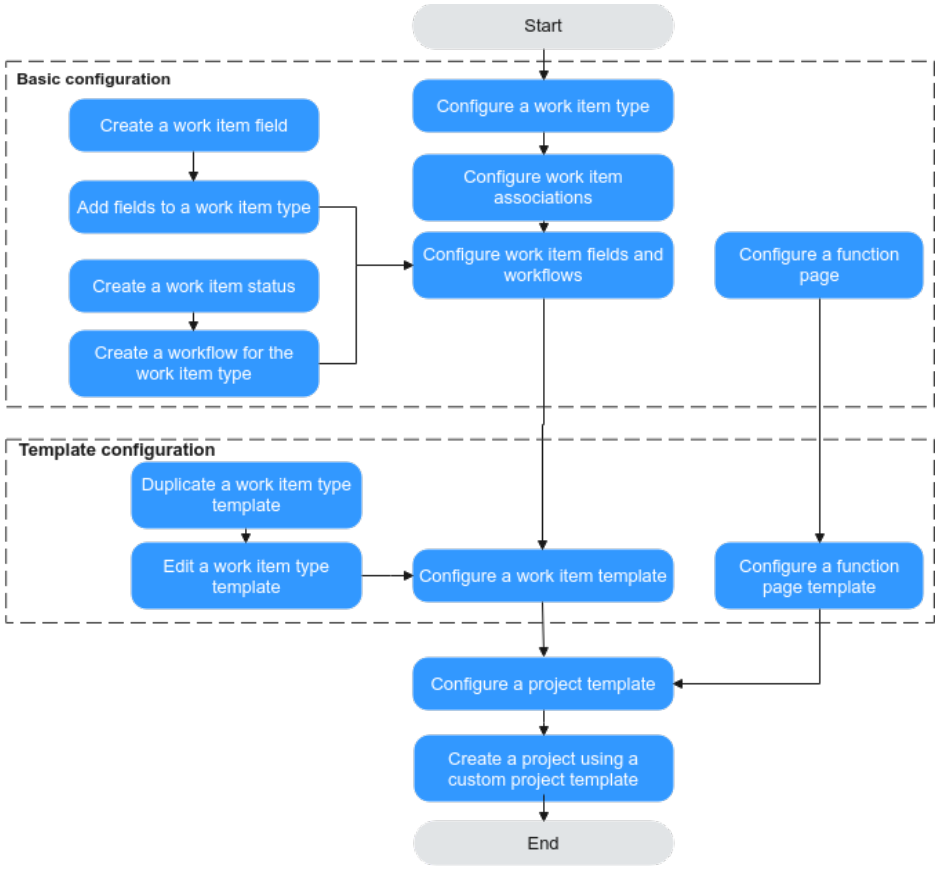

Table 9-1 Operations on a custom requirement model project and corresponding configurations

Operation	Description
Configuring Work Item Types	In addition to the preset system work item types, you can customize work item types as required. For details, see **Creating a Work Item Type**.
Configuring Work Item Associations	In addition to the preset default associations, you can customize associations of work items as required. For details, see **Creating a Work Item Association**.
Configuring Work Item Fields and Workflows	Configure the fields contained in work item types and the workflow corresponding to each work item type. • Before configuring the fields contained in the work item type, first **configure work item fields** and then **add fields to the work item type**. • Before configuring the workflow corresponding to the work item type, first **configure the work item status** and then **create a workflow for the work item type**.

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Operation	Description
Configuring Work Item Type Templates	Configure all work item types that can be managed in a project, their fields and workflows, as well as the parent-child relationship between them. Before configuring a work item type template, first **copy a work item type template** and then **edit it**.
Configuring Function Pages	Configure the content displayed on each menu page. In addition to the preset system function pages, you can customize function pages as required. For details, see **Creating a Function Page**.
Configuring Function Page Templates	Configure the menu items to be displayed in a project. In addition to the preset system function page templates, you can customize function page templates as required. You can add the new function page to function page templates. For details, see **Creating a Function Page Template**.
Configuring Project Templates	Associate function page templates with work item type templates. In addition to the preset system project templates, you can configure project templates as required. When configuring a project template, you can select the configured work type and function page templates to customize a project template. For details, see **Creating a Project Template**.
Creating a Project Using a Custom Project Template	You can use the configured project template to create a project. For details, see **Selecting Another Project Template to Create a Project**. For details about how to use a custom template project, see **Managing Common Work Item Configurations** and **Creating and Managing Custom Work Items**.

9.2 Tenant-Level Custom Requirement Model Configuration Management

9.2.1 Configuring Basic Settings

9.2.1.1 Configuring Work Item Types

In addition to the preset system work item types, you can customize work item types as required and use them in projects associated with the corresponding work item type templates.

Constraints

The preset system work item types cannot be edited or deleted.

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Prerequisites

You must have the permissions of the **Tenant Administrator** role. For details about how to assign the **Tenant Administrator** role to a user, see **Creating a User Group and Assigning Permissions**.

Creating a Work Item Type

Step 1 Access the **CodeArts Req homepage** and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management > Basic Settings > Work Item Types**. The preset work item types are displayed.

Step 4 Click **New Work Item Type**. In the displayed dialog box, set the work item type information. For details, see **Table 9-2**.

Table 9-2 Parameters for creating a work item type

Parameter	Description
Work Item Name	Name of the new work item. The value must be unique.
Work Item Prefix	ID of the new work item. Only letters are supported. A maximum of 10 characters can be entered.
Icon Color	Color that identifies the new work item. If the colors displayed cannot meet your requirements, click **More Color** to set a custom color.
Preview	Work item type preview. It is automatically generated once the work item ID and color are set.
Description	Description of the new work item. This parameter is optional. Configure it as needed.

Step 5 Click **Publish**. The new work item type is displayed in the list.

You can perform the following operations on a new work item.

Table 9-3 Managing work item types

Operation	Description
Edit work item type	Click to modify the work item name and description.
Delete work item type	Click . In the displayed dialog box, enter the name of the work item to be deleted and click **Delete**. **NOTE** If the current work item type has been associated with a work item type template, remove the current work item type from the **Work Item Type Templates** page and then delete it.

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----End

9.2.1.2 Configuring Work Item Fields

You can configure and maintain the fields used by each work item type under a tenant. In addition to the preset system work item fields, you can customize tenant-level fields as required. The configured fields take effect in all projects that use the fields.

Constraints

The preset system work item fields cannot be edited or deleted.

Prerequisites

You must have the permissions of the **Tenant Administrator** role. For details about how to assign the **Tenant Administrator** role to a user, see **Creating a User Group and Assigning Permissions**.

Creating a Work Item Field

Step 1 Access the **CodeArts Req homepage** and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management > Basic Settings > Work Item Fields**. The preset work item fields are displayed.

Step 4 Click **Create Field**. In the displayed window, set the field information. For details, see **Table 9-4**.

Table 9-4 Parameters for creating a work item field

Parameter	Description
Field Name	Name of the new field. The field name must be unique.
Field Type	Type of the new field. The options are **Single-choice list**, **Multi-choice list**, **Single-line text**, **Multi-line text**, **Date**, **Date and time**, **Integer**, **Decimal**, **Single-choice user**, **Multi-choice user**, **Level field**, and **Review check items**.

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Parameter	Description
Options	This parameter is displayed only when **Field Type** is set to **Single-choice list**, **Multi-choice list**, or **Level field**. • When **Field Type** is set to **Single-choice list** or **Multi-choice list**, you can click **Add Option** to add one option at a time. To add multiple options at a time, click **Add Multiple**. Separate options by pressing **Enter**. When there are multiple options, you can drag to adjust their positions. • When **Field Type** is set to **Single-choice list** or **Multi-choice list**, you can click to delete options. There is a default option, which cannot be deleted. • When **Field Type** is set to **Level field**, click **Edit Option**. In the **Edit Option** dialog box, click on the right of the text box to add field levels. A maximum of **six** levels can be added. Click **Add Option** to add fields of the same level. Click **Add Multiple** to add multiple options at a time.
Description	Description of the new field. This parameter is optional. Configure it as needed.

Step 5 Click **Publish**. The new field is displayed in the list.

You can perform the following operations on a new field.

Table 9-5 Managing fields

Operation	Description
Edit field	Click to modify the field name, type, and description.
Delete field	Click . In the displayed dialog box, click **Delete** to delete the field. **NOTE** If the current field has been associated with a work item type, cancel the association before deleting the field.

----End

9.2.1.3 Configuring Work Item Statuses

You can configure and maintain the work item statuses that can be used by each workflow of a tenant. You can customize work item statuses as required, which can be used in workflows of any work item type.

Constraints

The preset system work item statuses cannot be deleted.

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Prerequisites

You must have the permissions of the **Tenant Administrator** role. For details about how to assign the **Tenant Administrator** role to a user, see **Creating a User Group and Assigning Permissions**.

Creating a Work Item Status

Step 1 Access the **CodeArts Req homepage** and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Basic Settings** > **Work Item Statuses**. The preset work item statuses are displayed.

Step 4 Click **Create Status**. In the displayed window, set the new status information. For details, see **Table 9-6**.

Table 9-6 Parameters for creating a work item status

Parameter	Description
Name	Name of the new status. The status name must be unique.
Category	Category of the new status. The options include **To Do**, **Doing**, and **Done**.
Description	Description of the new status. This parameter is optional. Configure it as needed.

Step 5 Click **Publish**. The new status is displayed in the list.

You can perform the following operations on a new status.

Table 9-7 Managing statuses

Operation	Description
Edit status	Click to modify the **Name**, **Category**, and **Description**.
Delete status	Click . In the displayed dialog box, click **OK** to delete the status.

----End

9.2.1.4 Configuring Work Item Associations

In addition to the preset default association relationships, you can customize the associations of work items as required. The configured association relationships can be used in the association items corresponding to the work item type.

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Constraints

The preset default associations cannot be edited or deleted.

Prerequisites

You must have the permissions of the **Tenant Administrator** role. For details about how to assign the **Tenant Administrator** role to a user, see **Creating a User Group and Assigning Permissions**.

Creating a Work Item Association

Step 1 Access the **CodeArts Req homepage** and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Basic Settings** > **Work Item Associations**. The preset work item associations are displayed.

Step 4 Click **Creating an Association Relationship**.

Step 5 On the displayed page, click in the upper part of the page to set the name of the new association.

Step 6 Select the association type and configure the following information.

The association type can be **Directed** or **Undirected**.

- **Directed**

  Set the following information:

  a. Set the association name by entering **The associated items to the related item** and **The related item to the associated items**.

  b. Set the work item types for associated and associated-by items, as well as the number of work items for each direction.

  Select the work item types to be configured from the **Work Item Types** list and drag the work item type to the **Related Items** and **Associated Items** on the right.

  Set the number of work items in each direction. As shown in the following figure, the **Related Items** and **Associated Items** are in a one-to-many relationship, that is, one associated item can be associated with multiple associated-by items. Similarly, one associated-by item can be associated with multiple associated items.



  c. (Optional) If you need to set multiple relationships, click **Add Relationship Group**, and then set the work types of the associated items and associated-by items and the number of work items in each direction by referring to **Step 6.b**.

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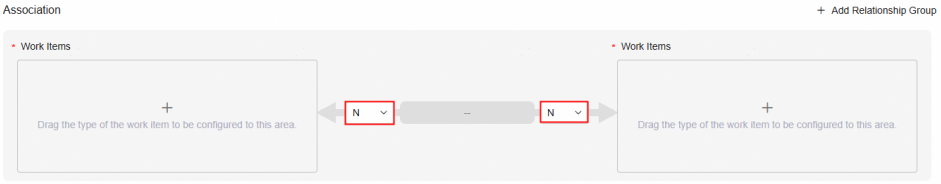
- **Undirected**

  Set the following information:

  a. Set the association name.

  b. Set the work types and the number of work items in each direction.

  Select the work item types to be configured from the **Work Item Types** list and drag them to the **Work Items** area on the right. Then, set the number of work items in each direction.



  c. (Optional) If you need to set multiple relationships, click **Add Relationship Group**, and then set the work types and the number of work items in each direction by referring to **Step 6.b**.

Step 7 Click **Release** to release the new work item association. Then, the release status of the association is **RELEASE**. You can use the work item association in the project where the work item is used.

NOTE

- Click **Save** to save the new work item association information. Then, the release status of the association is **DRAFT**. It can be used only after being released.
- Click the reset template button to restore the association to the latest released version.

You can perform the following operations on a new association.

Table 9-8 Managing work item associations

Operation	Description
Edit work item association	Click to modify the work item association title, work item types, number of work items in each direction, as well as their relationship name.
Delete work item association	Click . In the displayed dialog box, enter **DELETE** and click **Delete**.

----End

Viewing Third-Party Associations

Step 1 Access the **CodeArts Req homepage** and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Basic Settings** > **Work Item Associations**.

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Step 4 Click **Third-party relationships** to view the **Name**, **Work Item Interface Description**, **Associate Issuetypes**, and **Creation Time** of third-party associations.

----End

9.2.1.5 Configuring Work Item Fields and Workflows

You can configure work item types, fields, statuses, and workflows for a tenant. Configure the fields contained in work item types and the workflow corresponding to each work item type.

Constraints

- Some system fields, such as title, status, responsible project, current owner, and actual workloads, cannot be deleted.
- The default workflows cannot be edited or deleted.

Prerequisites

You must have the permissions of the **Tenant Administrator** role. For details about how to assign the **Tenant Administrator** role to a user, see **Creating a User Group and Assigning Permissions**.

Adding a Field to a Work Item Type

Step 1 Access the **CodeArts Req homepage** and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Basic Settings** > **Work Item Fields and Workflow**.

Step 4 In the **Work Item Types** list, select a work item type for which you want to add fields. The existing fields of the work item type are displayed.

Step 5 Click **Add Field**. In the displayed dialog box, click **--Select--**.

Step 6 Add an existing field or create a field.

- Adding an existing field
  a. Select an existing field. You can search for a field in the **Enter a name** box, or scroll your mouse to select one.
  b. Click **Publish**. The new field is displayed in the list.
- Creating a field
  a. In the displayed dialog box, click **Create Field**.
  b. Enter the field name, select the field type, and set the description.
  c. Click **Publish**. The new field is displayed in the list.

  Fields in the list are displayed on multiple pages. You can search for the new field by name.

You can delete a new or added field.

1. Click .

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2. In the displayed dialog box, click **OK** and enter **REMOVE** as prompted.
3. Click **Delete** to delete the field.

   NOTE

   After the deletion, the field and its value will be removed from all work items. This operation cannot be undone. Please exercise caution.

----End

Creating a Workflow for a Work Item Type

Step 1 Access the **CodeArts Req homepage** and click .

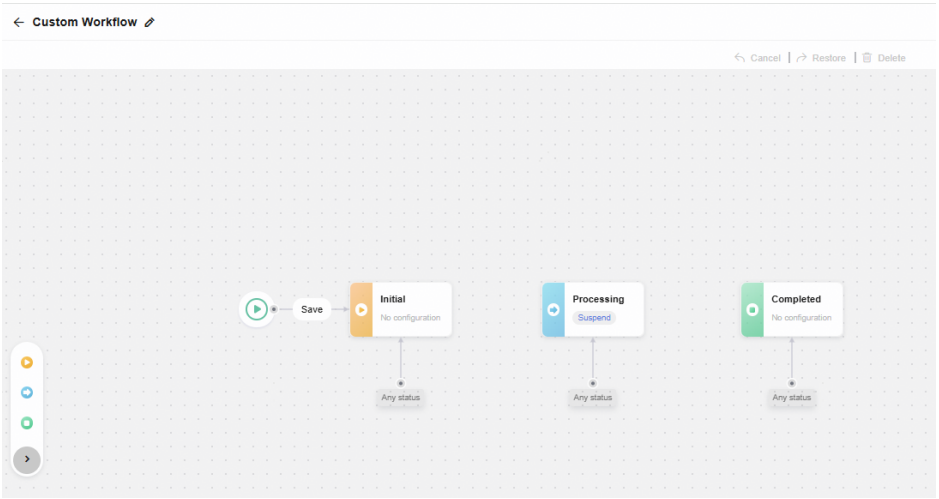
Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Basic Settings** > **Work Item Fields and Workflow**.

Step 4 Click **Workflow Scenarios** and select a work item type to be configured in **Work Item Types**.

Configure workflows for the work item type. You can configure multiple workflows and select one when creating a work item type template.

Step 5 Click **New Workflow Scheme**. The workflow configuration canvas is displayed.



Step 6 Set the workflow name and description.

Click . In the displayed dialog box, set the workflow name and description, and click **OK**.

Step 7 Select the node status.

There are three types of statuses in a custom workflow: **To Do**, **Doing**, and **Done**. These statuses are either system-default or tenant-defined. You can select an existing status or add a status.

- Selecting an existing status

  Select the status on the status menu bar and drag it to the corresponding position on the canvas.

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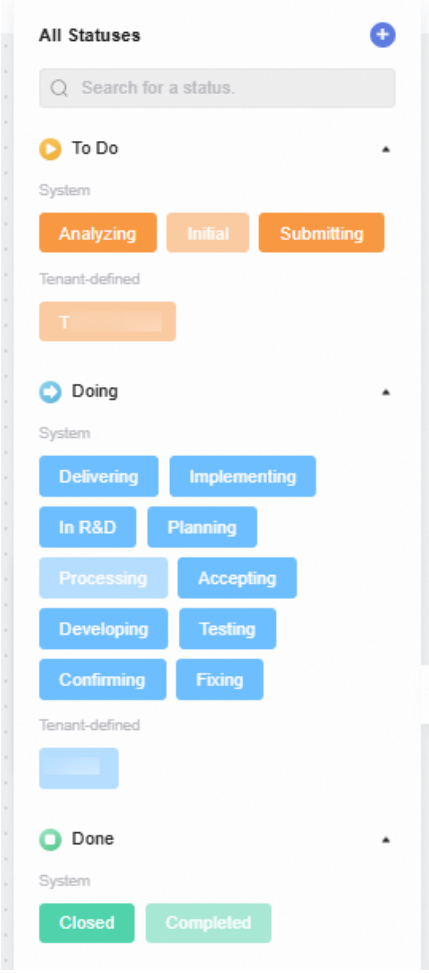
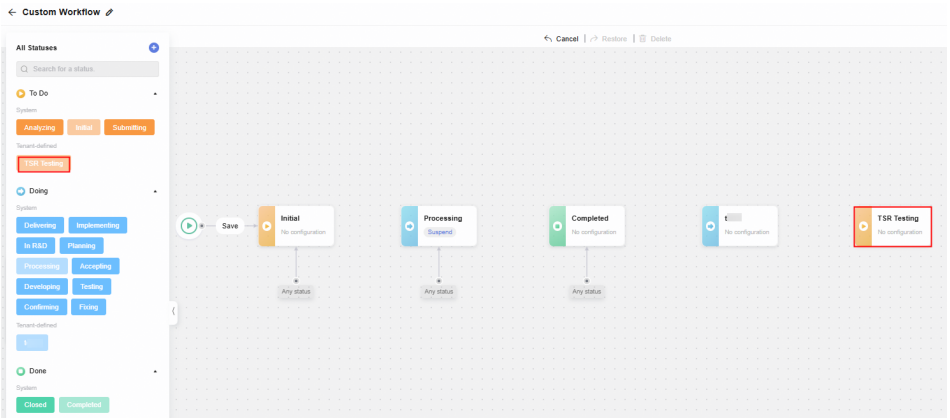
- Adding a status

  a. Click  on the left to expand the status drawer.



  b. Click  to add a status. If no new status is available, add it first.

  c. View the new status in the **Tenant-defined** area of the drawer and on the canvas.



Step 8 Edit a workflow status node.

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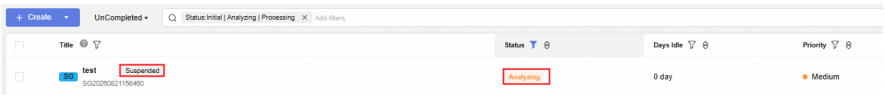
1. Click the status node to be edited. The **Status Information** page is displayed.
2. Edit the status information. **Suspend/Cancel** is disabled by default.

   Take the **Analyzing** status as an example. If you enable the **Suspend/Cancel** switch, when the corresponding work item (for example, **SG**) enters the **Analyzing** status, the handler can click **Suspend** in the upper right corner of the details page and enter the suspension reason. Then, **SG** enters the **Suspended** status and is marked as suspended in the work item list.

   Figure 9-2 Work item SG suspended

   Handlers can unsuspend work items. Once they unsuspend a work item, the suspension flag on the work item name disappears. Click **Cancel Suspension** in the upper right corner of the details page to continue the process.
3. Edit the status configuration.
   - By default, the **Transition from Any Status to This Status** switch is disabled. If the switch is enabled, any status can be transferred to this status.
   - **Field Configuration** is enabled by default. If it is disabled, fields cannot be edited.
   - Each type of status node has its default fields. To add fields, click **Add Field**. For details, see **Step 6**.
   - Configure field editing restriction rules. The current owner is allowed to edit fields by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used.

     OR logic: The operator can edit certain fields if they meet any one of the following conditions.

     And: The operator must meet all of the following conditions to edit certain fields. Initially, all roles are selected by default.

     i. Condition 1: **Has the "Edit" permission for the current work item type**.
        - If the operation is performed in the **Responsible Project**, the system checks whether the operator has the edit permission in the responsible project.
        - If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has the edit permission in the **Proposing Project**.

     ii. Condition 2: **Belongs to the roles selected in the list below (each field will check roles separately)**.

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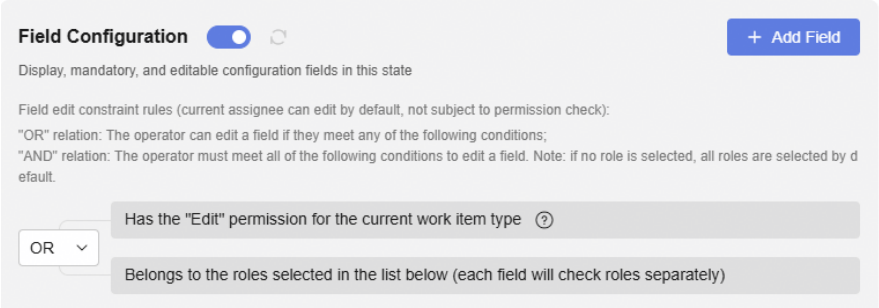

- Configure a field by setting **Visible**, **Editable**, **Required**, and **Role to Edit**.

  Table 9-9 Field configuration items

Configuration Item	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.
Editable	Set whether the field is editable in a work item of the current status.
Required	Set whether the field is mandatory in a work item of the current status. If the field is mandatory, it will be marked with an asterisk (*).
Role	Select a role from the drop-down list. The selected roles are used to verify field editing permissions. Options: Only the temporary roles of the project to which the current status flow belongs are available.

Step 9 Edit a transition line.

1. Click a status flow transition line. The **Transition Line Information** page is displayed.
2. Set the transition line information.

   The transition line information area displays the **Start Status**, **Target Status**, and **Transition Line Name**. You can click the view status flow button on the work item details page to view the transition line name.

   Figure 9-3 Status flow in work item details

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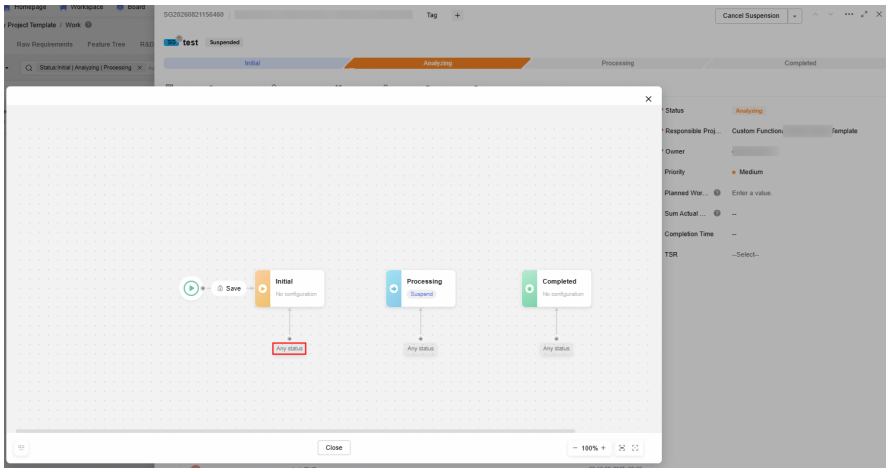

3. Configure pre-transition verification. The transition can be performed only when the verification items meet the requirements. The verification items are described in the following table.

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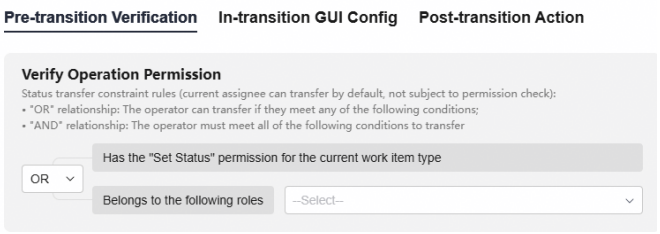
Table 9-10 Pre-transition verification

Verification Item	Description
Verify Operation Permission	Configure status transition restriction rules. The current owner is allowed to perform status transitions by default and is not subject to permission checks. Select **AND** or **OR** when setting the rules. By default, the **OR** logic is used. **OR** logic: The operator can perform the status transition if they meet any one of the following conditions. **And**: The operator must meet all of the following conditions to perform the status transition. 1. Condition 1: **Has the "Set Status" permission for the current work item type**. Permission verification is performed based on the project where the status transition is initiated: ▪ If the operation is performed in the **Responsible Project**, the system checks whether the operator has permission to set work item status in the responsible project. ▪ If the operation is performed in **Proposing Project** (operations by the proposing project must be allowed), the system checks whether the operator has permission to set work item status in **Proposing Project**. 2. Condition 2: **Belongs to the following roles**. Select a role from the drop-down list. Options: Only the temporary roles of the project to which the current status flow belongs are available. 
Validate Field Information	Optional. By default, the **Verify Field Information** switch is enabled. That is, verification is required by default. You can also disable it. If this switch is enabled, click **Add Field**. In the displayed dialog box, add a field. For details, see **Step 6**. If the field value is verified before status transition, the work item status can be changed through transition.
Verifying Associated Item Information	Optional. This verification is required by default. You can also disable it. If you enable this switch, click **Add Associated Item**. On the **Add Associated Item** page, select the desired associated item, select **Judgment Condition** (**Doesn't exist** by default), and click **OK**.

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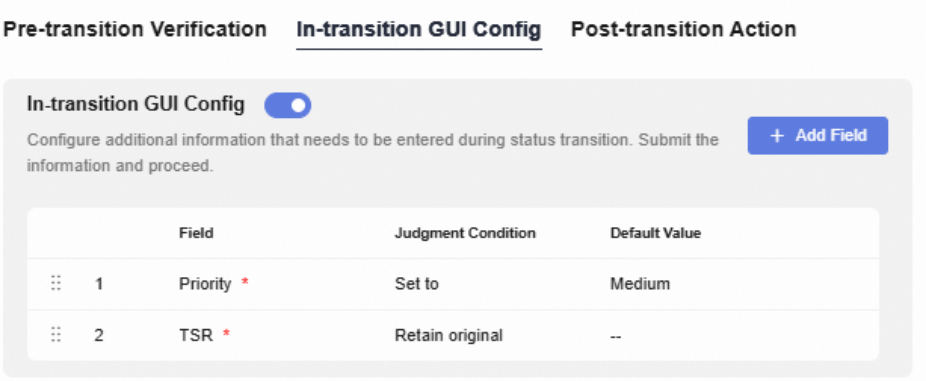
4. Configure the in-transition page.

   Configure additional information that must be entered during status transition to proceed. The **In-transition GUI Config** switch is enabled by default and can be disabled. If the switch is enabled, click **Add Field**. The **Add Field** dialog box is displayed. Select the field to be added from the drop-down list and click **OK**. The field is displayed in the field list.

   Figure 9-4 Configured fields



   NOTE

   If **Required** is selected when a field is added, the field name in the field list is marked with an asterisk (*).

5. Configure the post-transition action.

   After the transition is successfully executed, the configured post-transition actions are automatically executed. Configure the post-transition actions as follows.

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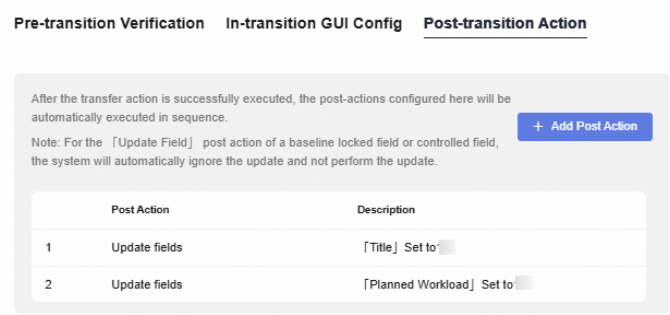
Table 9-11 Configuration items of post-transition actions

Configuration Item	Description
Update fields	Update the value of a specified field after the successful transition. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Update fields** and click **OK**. 3. In the **Add Field** window, select the field to be added in the **Select Field** text box. 4. Set the judgment condition and default value for the selected field. 5. Click **OK**. The field will be displayed in the post-transition action list. 

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Configuration Item	Description
Baseline-related operations	Update the baseline status of the target object after the transition is successful. If the current baseline status of the target object is the same as the updated baseline status after the transition is successful, this post-action will not be executed. For example, if **Baseline current work item** is selected for a baselined work item, this action will not be executed. **NOTE** For preset RRs and bugs, you cannot select **Baseline current work item** and **Cancel baseline current work item**. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Baseline related operations** and click **OK**. The **Baseline related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ **Baseline current work item**: This action is performed only when both of the following conditions are met: a. The work item is not under a baseline review. b. The work item is not under a change review. ▪ **Cancel baseline current work item**: This action is performed only when all of the following conditions are met: a. The work item is not under a baseline review. b. The work item is not under a change review. c. When a work item belongs to a sprint, the sprint is not baselined. d. When a work item does not belong to any sprint but belongs to a release, the release is not baselined. ▪ **Baseline correlation**: This action is performed only when both of the following conditions are met: a. The associated work item is not under a baseline review. b. The associated work item is not under a change review. ▪ **Cancel baseline association**: This action is performed only when all of the following conditions are met: a. The associated work item is not under a baseline review.

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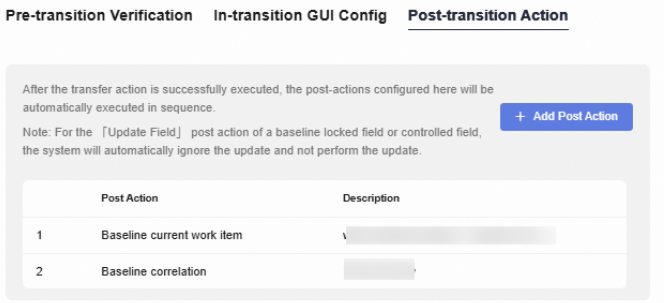
Configuration Item	Description
	b. The associated work item is not under a change review. c. When an associated work item belongs to a sprint, the sprint is not baselined. d. When an associated work item does not belong to any sprint but belongs to a release, the release is not baselined. 4. Set **Description**. 5. Click **OK**. The baseline operation will be displayed in the post-transition action list. 

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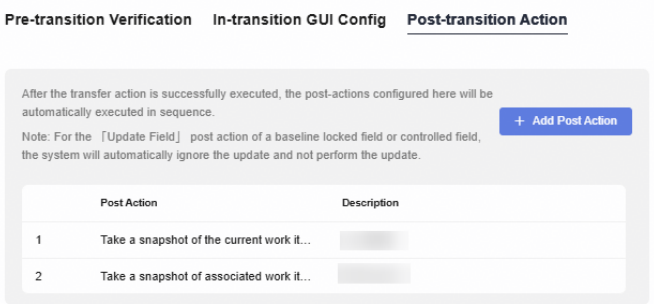
Configuration Item	Description
Snapshot-related operations	After the transition is successful, take a snapshot of the current work item or associated item. 1. Click **Add Post Action**. The **Add Post Action** window is displayed. 2. Select **Snapshot related operations** and click **OK**. The **Snapshot related operations** window is displayed. 3. Select the desired operation from the **Perform operations** drop-down list. ▪ **Take a snapshot of the current work item** ▪ **Take a snapshot of associated work items** 4. If you select **Take a snapshot of associated work items**, select the type of the work item to be associated from the **Associated work item types for snapshotting** drop-down list. 5. Set **Description**. 6. Click **OK**. The snapshot operation will be displayed in the post-transition action list. 

Step 10 Click **Publish**.

The released workflow is displayed on the **Workflow Scenarios** tab of the **Work Item Management** > **Basic Settings** > **Work Item Fields and Workflows** page. The **Release Status** of the workflow is **RELEASE**. You can use the solution in corresponding projects.

NOTE

- Click **Save** to save the draft. The solution takes effect only after being released.
- Click **Restore** to restore the default configuration of the current workflow or the configuration of the latest release.
- Click **Cancel** to cancel the modification of the workflow.

You can perform the following operations on a new workflow.

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Table 9-12 Managing a workflow

Operation	Description
Edit workflow	Click to modify the name and status configuration of the workflow.
Copy workflow	Click to copy a workflow.
Delete workflow	Click . In the displayed dialog box, enter **DELETE** and click **Delete**.

----End

9.2.1.6 Configuring Function Pages

You can configure the content to be displayed on each menu of a function page. In addition to the preset system function pages, you can customize function pages as required.

Constraints

The preset system function pages cannot be edited, deleted, or copied.

Prerequisites

You must have the permissions of the **Tenant Administrator** role. For details about how to assign the **Tenant Administrator** role to a user, see **Creating a User Group and Assigning Permissions**.

Creating a Function Page

Step 1 Access the **CodeArts Req homepage** and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Basic Settings** > **Function Pages**. The existing function pages are displayed.

Step 4 Click **Create New Function Page**.

Step 5 In the displayed window, set the parameters of the new function page. For details, see **Table 9-13**.

Table 9-13 Parameters for creating a function page

Parameter	Description
Function Page Name	Name of the function page to be created.

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Parameter	Description
Top-level work item types displayed on the page	Top-level work item type to be displayed on the new function page. Click **Please select** and select one or more top-level work item types from the drop-down list. You are advised to select the top-level work item types configured in **Step 6**. In the project where this function page is used, only the selected top-level work item types can be created.
Description	Description of the function page to be created. This parameter is optional. Configure it as needed.

Step 6 Click **Publish**. The new function page is displayed in the list.

You can perform the following operations on a new function page.

Table 9-14 Managing a function page

Operation	Description
Modify function page	Click to modify the **Function Page Name**, **Top-level work item types displayed on the page**, and **Description**. You are advised to select the top-level work item types configured in **Step 6** for **Top-level work item types displayed on the page**.
Copy function page	Click to copy the function page.
Delete function page	Click . In the displayed dialog box, click **Delete**. **NOTE** The function page that has been associated with a function page template cannot be deleted. To delete it, cancel its association in the function page template configuration first.

----End

9.2.2 Configuring Template Settings

9.2.2.1 Configuring Work Item Type Templates

Configure all work item types that can be managed in a project, their fields and workflows, as well as the parent-child relationship between them. Before configuring a work item type template, first **copy a work item type template** and then **edit it**.

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NOTICE

After the baseline function of a field is disabled, the unfinished change review will fail in the project that uses the field.

Constraints

- The preset IPD-self-operated software/cloud service template cannot be copied, edited, or deleted.
- The preset IPD-standalone software and IPD-system device templates cannot be edited or deleted.

Prerequisites

You must have the permissions of the **Tenant Administrator** role. For details about how to assign the **Tenant Administrator** role to a user, see **Creating a User Group and Assigning Permissions**.

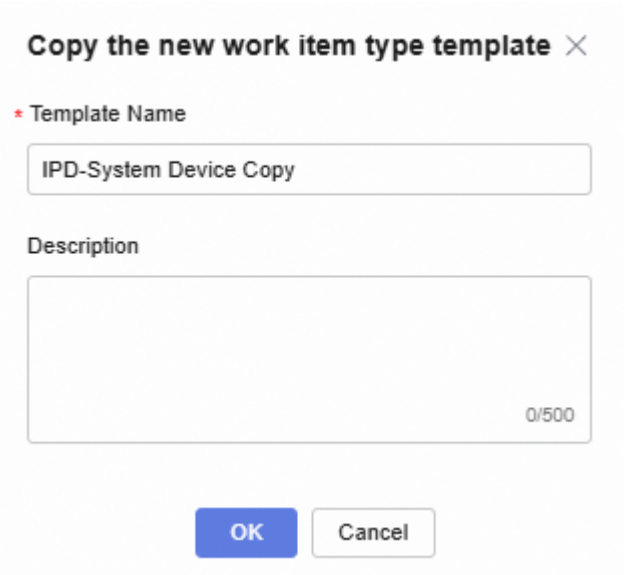
Copying a Work Item Type Template

Step 1 Access the **CodeArts Req homepage** and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Template Settings** > **Work Item Type Templates**. The existing work item type templates are displayed.

Step 4 Select the name of the template to be copied and click .



Step 5 Enter the **Template Name** and **Description**.

Step 6 Click **OK**. The new work item type template is displayed in the list.

Its **Release** is **DRAFT**. It can be used in associated projects only after being successfully released.

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You can perform the following operations on a new work item template:

Table 9-15 Managing a work item type template

Operation	Description
Edit work item type template	Click to modify the template name, **Work item level configuration**, **Field behavior configuration**, and **Workflow configuration**. For details, see **Editing a Work Item Type Template**.
Delete work item type template	Click. In the displayed dialog box, click **OK** to delete the work item type template. **NOTE** The work item template that has been associated with project templates cannot be deleted. To delete it, cancel the association in the project template configuration first.

----End

Editing a Work Item Type Template

Step 1 Access the **CodeArts Req homepage** and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Template Settings** > **Work Item Type Templates**. The existing work item type templates are displayed.

Step 4 Select the work item type template to be edited and click . Its **Work item level configuration** page is displayed.

Step 5 Modify the workflow template name by clicking in the upper left corner.

Step 6 Configure work item hierarchies, including all work item types required and work item hierarchy trees.

1. Drag the required work items from **Work Item Types** on the left to the canvas.
2. Configure the hierarchy of work items on the canvas. For details, see **Managing Work Item Hierarchies on the Canvas**. **Figure 9-5** shows the configured work item hierarchy trees. **Table 9-16** describes the concepts related to the work item hierarchy tree.

Figure 9-5 Work item hierarchy tree example

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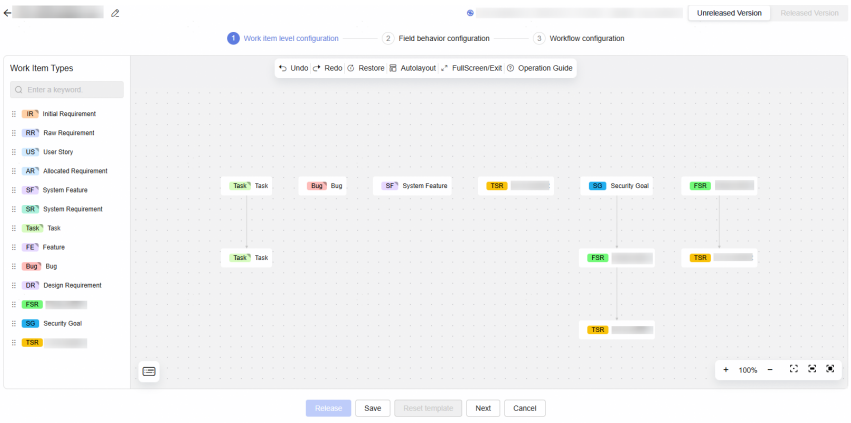

Table 9-16 Work item hierarchy tree concepts

Concept	Description
Top-level work item type	Top of the work item hierarchy tree. You can create a top-level work item directly. If the top-level work item type is selected in **Configuring Function Pages**, this work item type can be created in the project where this function page is used. The top-level work item types in **Figure 9-5** include security goal (SG), functional security requirement (FSR), technical security requirement (TSR), SF, bug, and task.
Child work item type	Middle or leaf nodes in the work item hierarchy tree. You can only create them from the parent work item. The child work item types in **Figure 9-5** include TSR, task, SF, bug, and FSR. Specifically, SGs can be broken down into FSRs, FSRs into TSRs, and tasks into sub-tasks.

Step 7 Click **Next**. The **Field behavior configuration** page is displayed.

Step 8 Configure the field behavior of each work item type in the work item template.

1. Select a work item type on the left.
2. Configure the field behaviors by referring to **Table 9-17**.

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Table 9-17 Parameters for configuring field behaviors

Parameter	Description
New Page Display	Specify whether to display the field on the creation page. – If the switch is toggled on ( ), the field is displayed on the creation page. – If the switch is toggled off ( ), the field is not displayed on the creation page.
New page required	Specify whether the field is mandatory on the creation page. – If the switch is toggled on ( ), the field is mandatory on the creation page. – If the switch is toggled off ( ), the field is optional on the creation page.
Baseline Locked	Specify whether the field is baselined. – If the switch is toggled on ( ), the field is baselined. – If the switch is toggled off ( ), the field is not baselined.
Used for Quickly Splitting Sub-Work Items	Specify whether the field can be used for quick breakdown. – Only fields of the multi-choice list type support quick breakdown. – This parameter is available only when the work item type has child work item types.
default value	Specify default value of the field.
operate	Operations supported by the field. – Viewing the field: Click in the **Operation** column of the field. In the displayed dialog box, view the name, type, and description of the field. – Editing the field template: For a rich text field, click in the **Operation** column of the field. In the displayed dialog box, set a template for the field.

Step 9 Click **Next**. The **Workflow configuration** page is displayed.

Step 10 Set a workflow for each work item type in the work item template. You can select only one workflow for each work item in the work item template.

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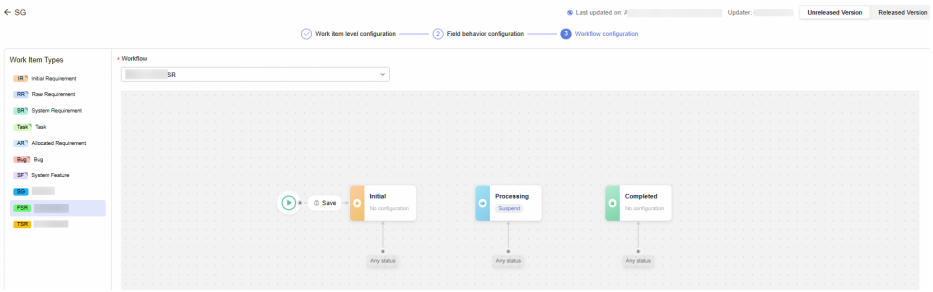

Step 11 Click **Release**.

NOTE

- Click **Save** to save the work item type template. The template takes effect only after being released.
- After a released template is modified and saved, you can click **Reset template** to restore the template to the latest released version.
- Click **Cancel** to cancel the modification of the work item type template.

After the release is complete, the work item type template is displayed in the **Work Item Management** > **Template Settings** >**Work Item Type Templates** list. The **Release** of the template is **RELEASE**. You can use the template in corresponding projects.

----End

Managing Work Item Hierarchies on the Canvas

You can manage work item hierarchies on the canvas, such as creating a work item hierarchy tree, and removing, enabling, and disabling a work item type. The procedure is as follows:

Step 1 Access the **CodeArts Req homepage** and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Template Settings** > **Work Item Type Templates**. The existing work item type templates are displayed.

Step 4 Select the work item type template to be edited and click . Its **Work item level configuration** page is displayed.

Step 5 Manage work item hierarchies on the canvas by referring to **Table 9-18**.

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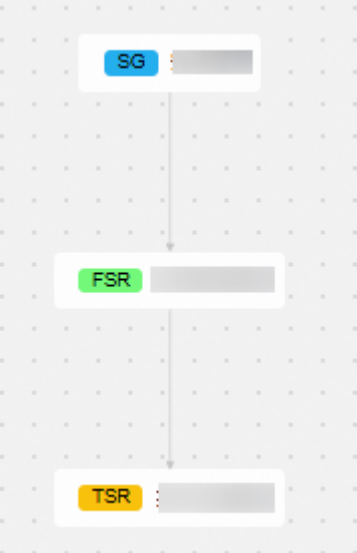
Table 9-18 Managing work item hierarchies on the canvas

Operation	Procedure
Create work item hierarchy tree	1. Drag the required work item types from **Work Item Type** to the canvas. 2. Connect the work item types to build a parent-child hierarchy: Hover over a preconfigured work item type. When the red circle shown below appears, hold down the left mouse button and drag the connecting line, then attach the arrow to another preconfigured work item type to set it as a child.  3. Repeat the steps above to build a work item hierarchy tree.  **NOTE** – Click **Autolayout** above the canvas to adjust the layout of the work item hierarchy tree. – Click **Save** to save all work item hierarchy trees on the canvas. The saved work item hierarchy trees take effect only after being released.

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Operation	Procedure
Remove work item type	• To remove work item types with child work item types, perform the following steps: 1. Hover over the work item type to be deleted on the canvas. 2. Click , and a prompt will appear, indicating that its child work item types will also be removed. 3. Click **OK** to remove the work item and its child types. • To remove work item types without child work item types, perform the following steps: 1. Hover over the work item type to be deleted on the canvas. 2. Click .
Disable work item type	• To disable work item types with child work item types, perform the following steps: 1. Hover over the work item type to be disabled on the canvas. 2. Click , and a prompt will appear. 3. Select **Linkage disabled child work item type** or **Disable only the current work item type** as required. ▪ Select **Linkage disabled child work item type** and click **OK** to disable the work item type and its child types. ▪ Select **Disable only the current work item type** and click **OK** to disable the work item type. • To disable work item types without child work item types, perform the following steps: 1. Hover over the work item type to be disabled on the canvas. 2. Click .

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Operation	Procedure
Enable work item type	**Prerequisites:** Only disabled work item types can be enabled. **Procedure:** 1. Hover over the work item type to be enabled on the canvas. 2. Click . When a work item type has child work item types, its enabling behavior automatically follows the same rule selected when it is disabled: If **Linkage disabled child work item type** is selected during disabling, enabling the parent will also enabling its children. If **Disable only the current work item type** is selected during disabling, enabling it means enabling only the current type.
Undo	Click **Undo** to undo the latest operation on the canvas.
Redo	Click **Redo** to restore the latest operation on the canvas.
Restore	**Prerequisites:** Only released work item type templates can be restored. **Procedure:** Click **Restore** to restore the canvas to the latest saved version.
Autolayout	Click **Auto Layout** to lay out all work item hierarchy trees on the canvas.
Shortcut keys	Click  in the lower left corner of the canvas to view the shortcut keys as follows: • Zoom in: Hold down the **Ctrl** key and press the **+** key. • Zoom out: Hold down the **Ctrl** key and press the **–** key. • Pan the canvas: Hold down the spacebar and the left mouse button while dragging.

----End

9.2.2.2 Configuring Function Page Templates

Configure the menu items to be displayed in a project. In addition to the preset system function page templates, you can customize function page templates as

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required. You can add the new function page to function page templates. For details, see **Creating a Function Page Template**.

Constraints

- The preset system function page templates cannot be edited or deleted.
- The function page templates of IPD-self-operated software/cloud service projects cannot be copied.

Prerequisites

You must have the permissions of the **Tenant Administrator** role. For details about how to assign the **Tenant Administrator** role to a user, see **Creating a User Group and Assigning Permissions**.

Creating a Function Page Template

Step 1 Access the **CodeArts Req homepage** and click .

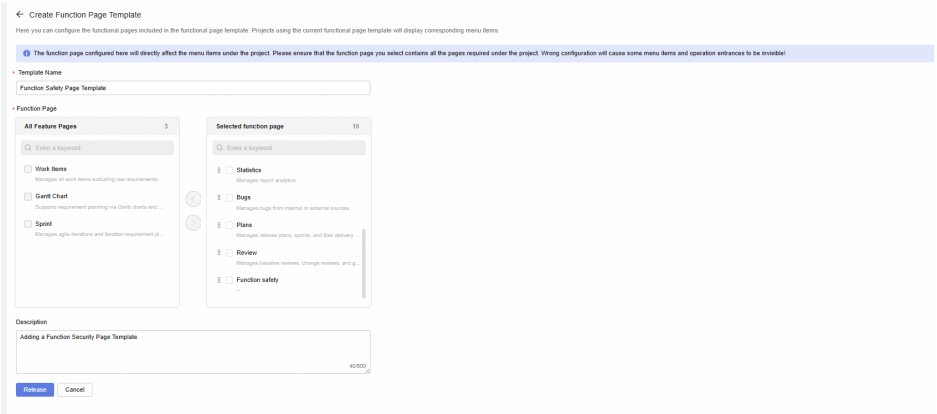
Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management > Template Settings > Function Page Templates**. The existing function page templates are displayed.

Step 4 Click **Create Function Page Template**.

Step 5 On the displayed page, set the function pages to be contained in the function page template to be created. The corresponding menu items will be displayed in the project that uses the current function page template.

1. Set **Template Name**.
2. Set the function pages to be displayed. In the **All Function Pages** area under **Function Page**, select the function pages to be displayed and click to move them to the **Selected function page** area.
3. Set **Description**. The following figure shows an example of the configuration result.



Step 6 Click **Release**. The new function page template is displayed in the list.

You can perform the following operations on a new template.

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Table 9-19 Managing a function page

Operation	Description
Modify function page template	Click to modify the **Template Name**, **Function Page**, and **Description**.
Copy function page template	Click to copy the function page template.
Delete function page template	Click, read the prompt information, and click **Delete**. **NOTE** If the current function page template has been associated with a project template, cancel association in the project template configuration before deleting it.

----End

9.2.2.3 Configuring Project Templates

Associate function page templates with work item type templates. In addition to the preset system project templates, you can configure project templates as required. When configuring a project template, you can select the configured work type and function page templates to customize a project template. For details, see **Creating a Project Template**.

Constraints

- The preset IPD-self-operated software/cloud service project template cannot be copied, edited, or deleted.
- The preset IPD-standalone software and IPD-system device project templates cannot be edited or deleted.

Prerequisites

You must have the permissions of the **Tenant Administrator** role. For details about how to assign the **Tenant Administrator** role to a user, see **Creating a User Group and Assigning Permissions**.

Creating a Project Template

Step 1 Access the **CodeArts Req homepage** and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Template Settings** > **Project Templates**. The existing project templates are displayed.

Step 4 Click **Create New Template**.

Step 5 On the displayed page, set the information about the new project template.

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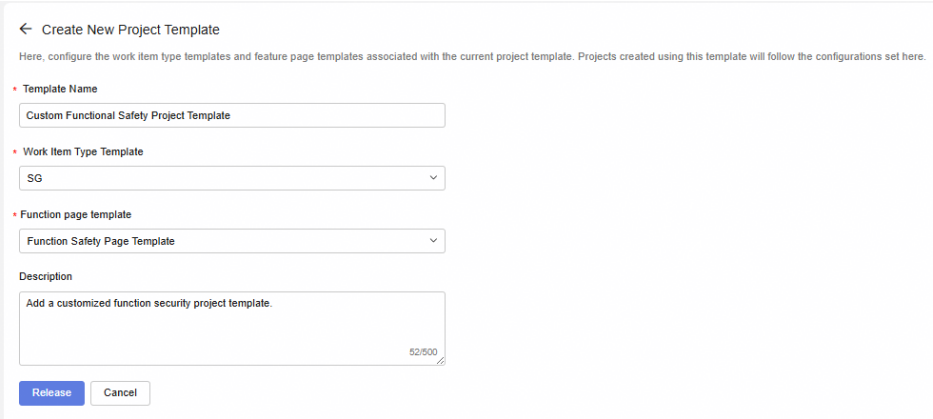
Enter the **Template Name**, set the **Work Item Type Template** and **Function page Template** from the drop-down lists, and enter the **Description**. The following figure is an example.



Step 6 Click **Release**. The new project template is displayed in the list.

You can perform the following operations on the new project template.

Table 9-20 Managing a project template

Operation	Description
Edit project template	Click to modify the **Template Name**, **Work Item Type Template**, **Function page Template**, and **Description**.
Copy project template	Click to copy the project template.
Delete project template	Click , and a prompt will appear. Click **Delete**.

----End

9.3 Creating a Project Using a Custom Project Template

You can select other project templates defined by the tenant when creating a project. After a custom project template is selected, a project corresponding to the custom template is automatically generated for reference and use.

Prerequisites

You have the permission to create projects. If **Create Project** is not displayed on the CodeArts homepage, you do not have the required permission. Contact the administrator to add the permission. For details about how to grant the CodeArts project creator permission to a user, see **Setting the CodeArts Project Creator**.

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Selecting Another Project Template to Create a Project

Step 1 Choose **Create > Create Project** on the CodeArts homepage.

Step 2 On the **Select Template** page, select **Other Project Templates** in the **Templates** area.

Step 3 Select a custom project template from the **Select Project Template** drop-down list. For example, select the custom functional safety project template created in **Configuring Project Templates**.

Step 4 Set project information. For example, set the project name to **Custom Functional Security Project**.

Step 5 Click **OK**. The **Work Item** > **Req** page is displayed by default.

Step 6 Modify the project as required, or use the preset scenarios, work items, and processes.

----End

9.4 Introduction to Custom Template Projects

9.4.1 Managing Common Work Item Configurations

9.4.1.1 Adding a Work Type

Work types include R&D design, backend development, frontend development, and more. You can customize your own work types and specify whether they are mandatory for work items.

Prerequisites

You have the permission to set work types on the work configuration page.

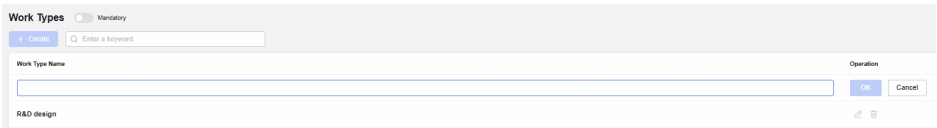
Creating a Work Type

Step 1 **Access the CodeArts Req homepage.**

Step 2 Go to the project, and choose **Settings** > **Work Item** > **Work Types**.

Step 3 Click **Create**, and a text box will appear.

Figure 9-6 Creating a work type



Step 4 Enter a work type name.

The name must be unique in the system.

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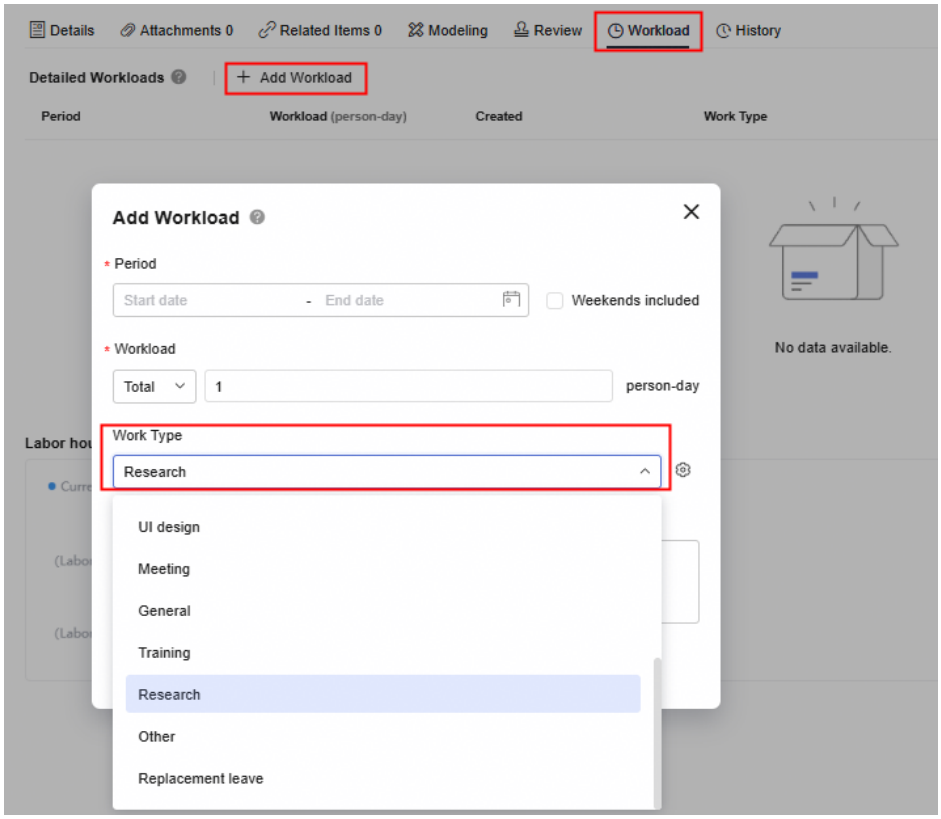
Step 5 Click **OK**.

You can select this work type when configuring workloads for work items.

Figure 9-7 Add Workload dialog box



----End

Setting Whether the Work Type is Mandatory

Step 1 Access the CodeArts Req homepage.

Step 2 Go to the project, and choose **Settings** > **Work Item** > **Work Types**.

Step 3 Toggle on **Mandatory**.

By default, this option is toggled off.

Figure 9-8 Configuring the work type



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A red asterisk (*) will be displayed next to **Work Type** on the **Add Workload** page, indicating that the work type is mandatory.

----End

9.4.1.2 Configuring Rollup Automation Rules

The project creator or a role with the automation configuration permission can enable and disable automation rules to implement automatic status transition, workload statistics, story point statistics, and status synchronization. Once a rule is enabled, all work items and users in the project can trigger the rule.

Table 9-21 Rollup automation rules

Rule Name	Description
Status Convolution	Synchronizes parent and child work items. For example, if all child work items are completed, the parent work item is automatically completed. For details, see **Adding an Automation Rule for Status Rollup**.
Labor hours Convolution-multiple issue types	Applies to workload rollup in all scenarios, including custom association scenarios. For details, see **Adding an Automation Rule for Workload Rollup (Multiple Work Item Types)**.
Story Points Convolution-multiple issue types	Applies to story point rollup in all scenarios, including custom association scenarios. For details, see **Adding an Automation Rule for Story Point Rollup (Multiple Work Item Types)**.
Labor hours Convolution	Applies to workload rollup in parent-child/upstream-downstream scenarios, excluding custom association scenarios. For details, see **Adding an Automation Rule for Workload Rollup**.
Story Points Convolution	Applies to story point rollup in parent-child/ upstream-downstream scenarios, excluding custom association scenarios. For details, see **Adding an Automation Rule for Story Point Rollup**.

Prerequisites

You have the automation permission on the work configuration page in the project.

Constraints

- If all child work items of the parent item meet the configuration in the rule condition and the target status of the parent item is the status that supports transition, the rule is executed.

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- If the parent item has any child work items that do not meet the rule condition, when the rule is triggered, a record indicating no operation performed is generated and the parent item status is not transitioned.
- If there is no parent item, when the rule is triggered, a record indicating that no operation is performed is generated.
- If the parent item transition status configured in the rule does not support transition, when the rule is triggered, a record indicating an execution error is generated and the parent item status is not transitioned.

Adding an Automation Rule for Status Rollup

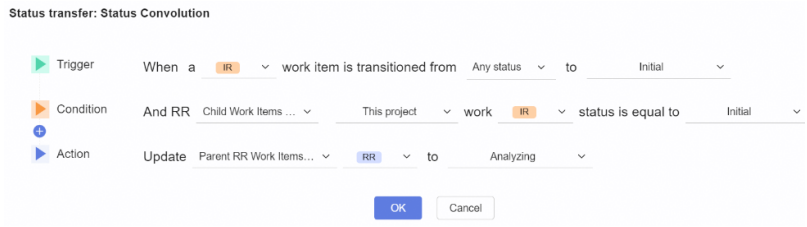
Step 1 Access the CodeArts Req homepage.

Step 2 Access a project and choose **Settings** > **Work Item** > **Automation**. The **Automation** page is displayed.

Step 3 Select the **Automation Rules** tab and click **Create Rule**.

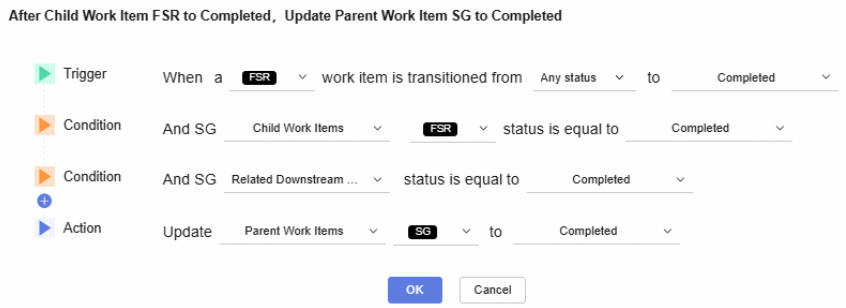
Step 4 In the displayed dialog box, select **Status Convolution**.

Step 5 Click **OK**. The **Status transfer: Status Convolution** dialog box is displayed.



Step 6 Set an automation rule.

1. Hover over **Status transfer: Status Convolution** and click to set the name of the automation rule.
2. Select **Trigger**, **Condition**, and **Action** from the drop-down lists. The following figure is an example.



3. Click **OK**. Check the new automation rule in the **Automation Rules** list. By default, the rule is enabled.

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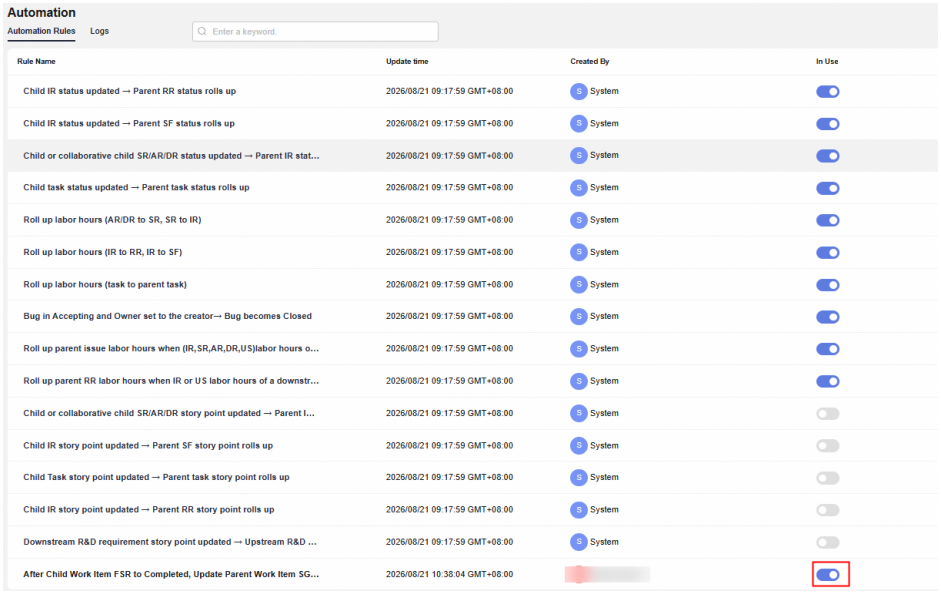
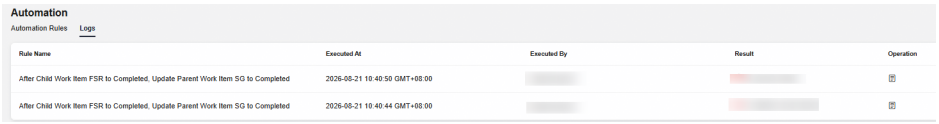


4. Verify the automation rule by accessing the work item list again. For example, if you change the status of all child work items and collaborative downstream work items under the SG to **Completed**, the status of the SG is automatically updated to **Completed**. In addition, an automation rule operation history record is added to the **History** tab of the SG work item details page.

Step 7 When auto rollup is triggered, the corresponding rule is recorded on the **Logs** page. Click in the **Operation** column to expand the log details.



----End

Adding an Automation Rule for Workload Rollup (Multiple Work Item Types)

Applies to workload rollup in all scenarios, including custom association scenarios.

Step 1 **Access the CodeArts Req homepage.**

Step 2 Access a project and choose **Settings > Work Item** > **Automation**. The **Automation** page is displayed.

Step 3 Select the **Automation Rules** tab and click **Create Rule**.

Step 4 In the displayed dialog box, select **Labor hours Convolution-multiple issue types**.

Step 5 Click **OK**. The **Status transfer: Labor hours Convolution-multiple issue types** dialog box is displayed.

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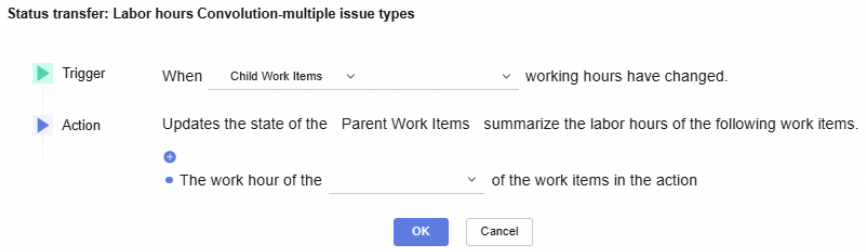
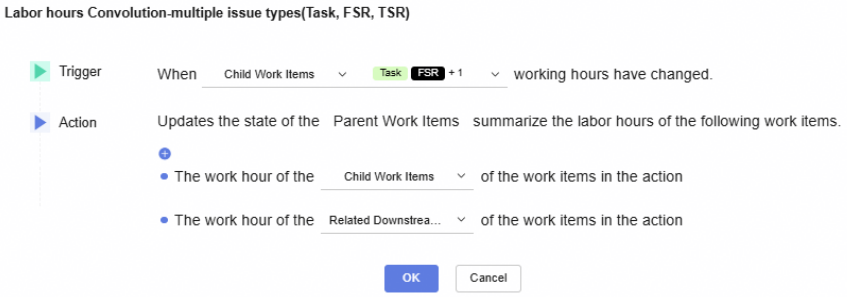


Step 6 Set an automation rule.

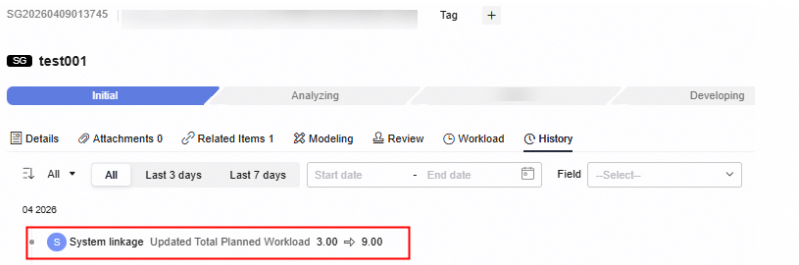
1. Hover over **Status transfer: Labor hours Convolution-multiple issue types** and click to set the name of the automatic workload rollup rule.
2. Select **Trigger** and **Action** from the drop-down lists. You can set automatic rollup rules for the workload changes of multiple child work items at the same time. The following is an example of the configured workload rollup rule.



3. Click **OK**. Check the new automation rule in the **Automation Rules** list. By default, the rule is enabled.



4. Verify the automation rule by accessing the work item list again. For example, if you modify the planned workloads of any child work item (FSR), the workloads of its parent work item (SG) will be automatically updated to the sum of the planned workloads of all child work items, collaborative downstream work items, and associated snapshots under that SR. And an automation rule operation record is added to the **History** tab page.



Step 7 When auto rollup is triggered, the corresponding rule is recorded on the **Logs** page. Click in the **Operation** column to expand the log details.

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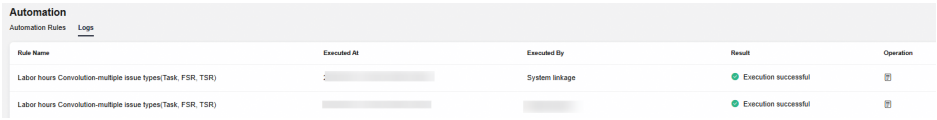


----End

Adding an Automation Rule for Story Point Rollup (Multiple Work Item Types)

Applies to story point rollup in all scenarios, including custom association scenarios.

You need to add the **Story Point** field for the work item types used in the project on the **Field** tab of the **Work Item Fields and Workflow** page. Only after the field is added can it be used in the corresponding work item. For details about how to add a field, see **Adding a Field to a Work Item Type**.

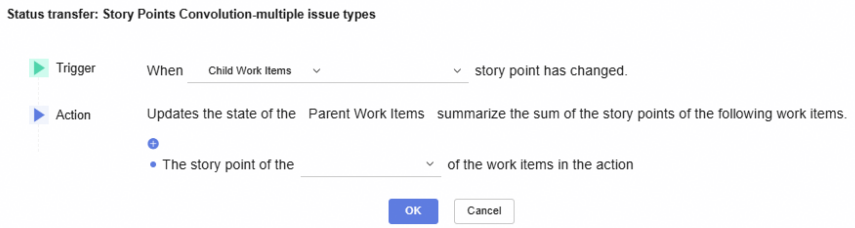
Step 1 **Access the CodeArts Req homepage.**

Step 2 Access a project and choose **Settings > Work Item** > **Automation**. The **Automation** page is displayed.

Step 3 Select the **Automation Rules** tab and click **Create Rule**.

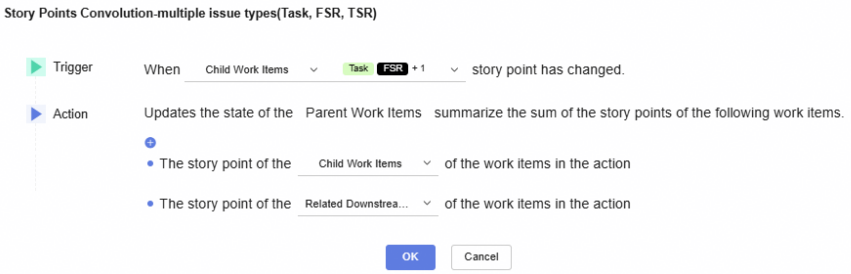
Step 4 In the displayed dialog box, select **Story Points Convolution-multiple issue types**.

Step 5 Click **OK**. The **Status transfer: Story Points Convolution-multiple issue types** dialog box is displayed.



Step 6 Set an automation rule.

1. Hover over **Status transfer: Story Points Convolution-multiple issue types** and click to set the name of the automatic story point rollup rule.
2. Select **Trigger** and **Action** from the drop-down lists. You can set automatic rollup rules for the story point changes of multiple child work items at the same time. The following is an example of the configured story point rollup rule.



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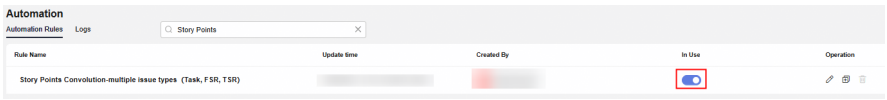
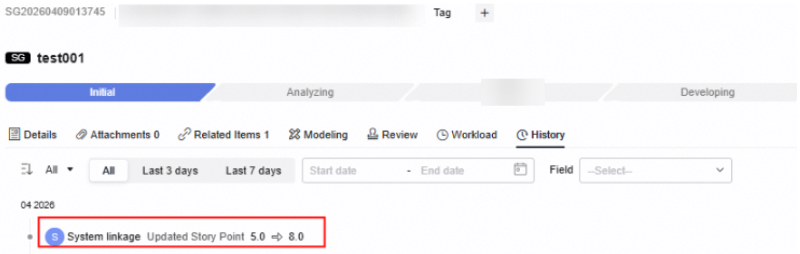
3. Click **OK**. Check the new automation rule in the **Automation Rules** list. By default, the rule is enabled.



4. Verify the automation rule by accessing the work item list again. For example, if you change the story points of any child work item (FSR), the story points of its parent work item (SG) are automatically updated to the sum of the story points of all child work items and collaborative downstream work items of that SG. And an automation rule operation record is added to the **History** tab page.

NOTE

For story points of work item types (such as SG and FSR), you need to add the field to these work item types on the **Work Item Fields and Workflow** page. For details, see **Adding a Field to a Work Item Type**.



Step 7 When auto rollup is triggered, the corresponding rule is recorded on the **Logs** page. Click in the **Operation** column to expand the log details.



----End

Adding an Automation Rule for Workload Rollup

Applies to workload rollup in parent-child/upstream-downstream scenarios, excluding custom association scenarios.

Step 1 **Access the CodeArts Req homepage.**

Step 2 Access a project and choose **Settings** > **Work Item** > **Automation**. The **Automation** page is displayed.

Step 3 Select the **Automation Rules** tab and click **Create Rule**.

Step 4 In the displayed dialog box, select **Labor hours Convolution**.

Step 5 Click **OK**. The **Status transfer: Labor hours Convolution** dialog box is displayed.

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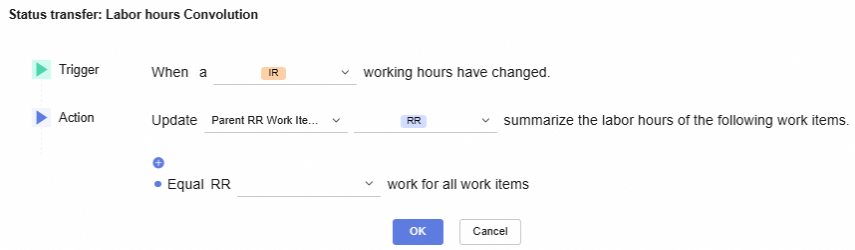
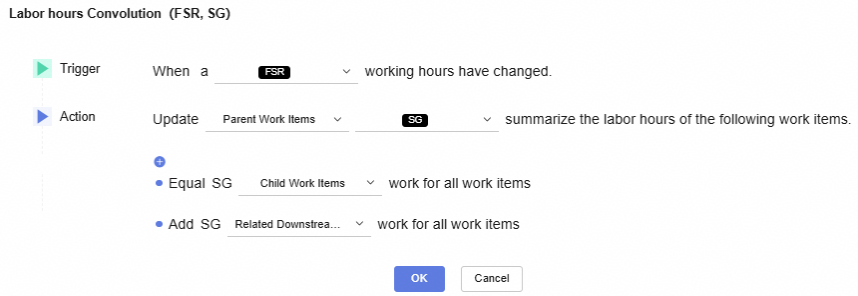
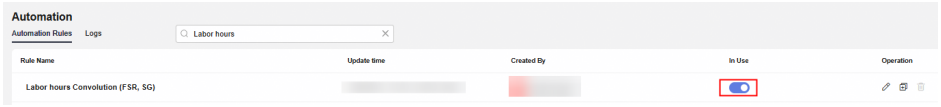


Step 6 Set an automation rule.

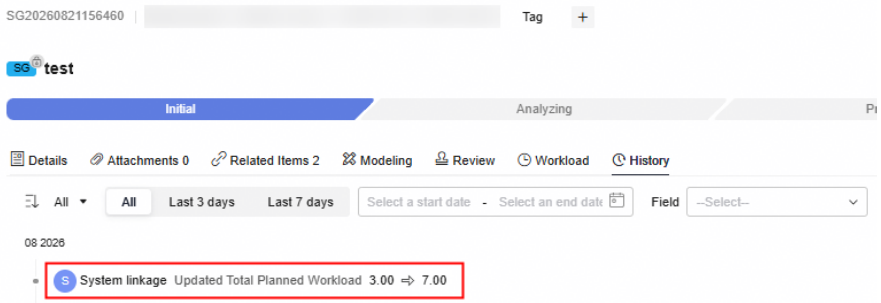
1. Hover over **Status transfer: Labor hours Convolution** and click to set the name of the automatic workload rollup rule.
2. Select **Trigger**, **Action**, **Equal**, and **Add** from the drop-down lists. The following figure is an example.



3. Click **OK**. Check the new automation rule in the **Automation Rules** list. By default, the rule is enabled.



4. Verify the automation rule by accessing the work item list again. For example, if you modify the planned workloads of any FSR under an SG, the planned workloads of the SG will be automatically updated to the sum of the workloads of all its child work items and collaborative downstream work items. And an automation rule operation record is added to the **History** tab page.



Step 7 When auto rollup is triggered, the corresponding rule is recorded on the **Logs** page. Click in the **Operation** column to expand the log details.

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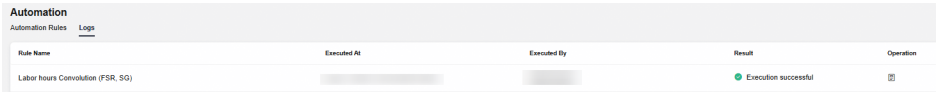


----End

Adding an Automation Rule for Story Point Rollup

Applies to story point rollup in parent-child/upstream-downstream scenarios, excluding custom association scenarios.

You need to add the **Story Point** field for the work item types used in the project on the **Field** tab of the **Work Item Fields and Workflow** page. Only after the field is added can it be used in the corresponding work item. For details about how to add a field, see **Adding a Field to a Work Item Type**.

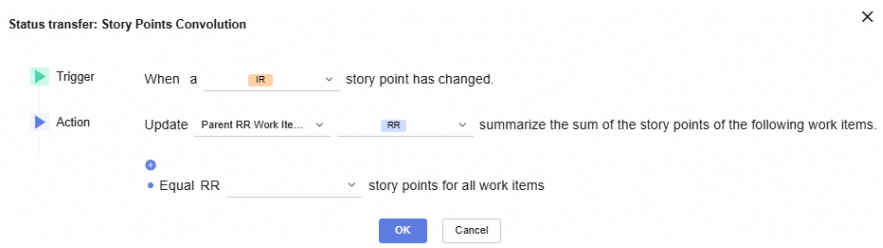
Step 1 **Access the CodeArts Req homepage.**

Step 2 Access a project and choose **Settings** > **Work Item** > **Automation**. The **Automation** page is displayed.

Step 3 Select the **Automation Rules** tab and click **Create Rule**.

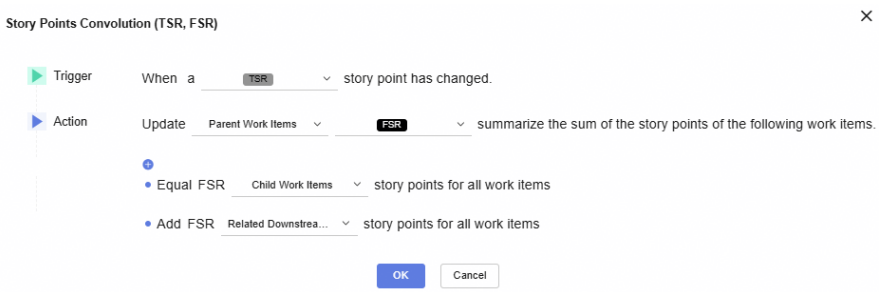
Step 4 In the **Work Item Status Transition Rule Template** dialog box, select **Story Points Convolution**.

Step 5 Click **OK**. The **Status transfer: Story Points Convolution** dialog box is displayed.



Step 6 Set an automation rule.

1. Hover over **Status transfer: Story Points Convolution** and click to set the name of the automatic story point rollup rule.
2. Select **Trigger**, **Action**, **Equal**, and **Add** from the drop-down lists. The following is an example of the configured automation rule for story point rollup.



3. Click **OK**. Check the new automation rule in the **Automation Rules** list. By default, the rule is enabled.

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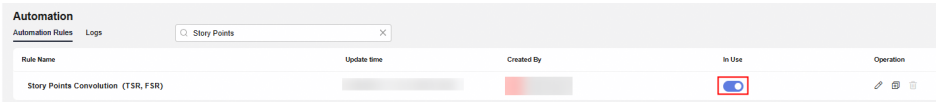
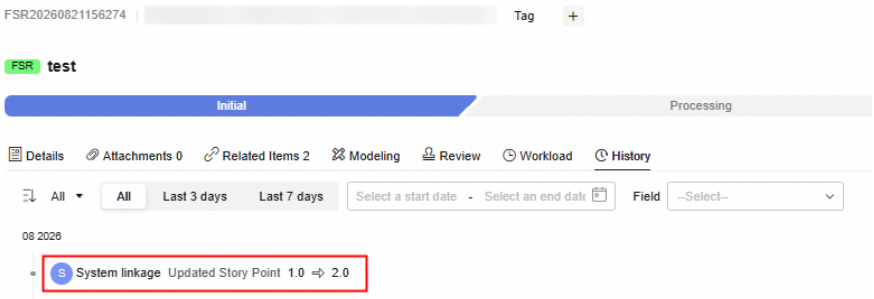
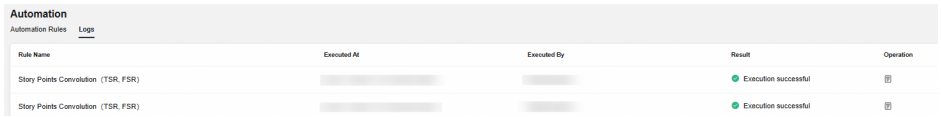


4. Verify the automation rule by accessing the work item list again. For example, if you change the story points of any TSR under the FSR, the story points of the FSR are automatically updated to the sum of the story points of all child work items and collaborative downstream work items of the SG. And an automation rule operation record is added to the **History** tab page.



Step 7 When auto rollup is triggered, the corresponding rule is recorded on the **Logs** page. Click  in the **Operation** column to expand the log details.



----End

Related Operations

Table 9-22 Other automation operations

Operation	Description
Add downstream collaboration status transition rule	Click the down arrow button next to **Create Rule**, and click **Collaborate downstream status transfer** in the drop-down list. The **Work Item Status Transition Rule Template** window is displayed. Repeat steps 3–7.
Edit rule name	Move the cursor over the rule name and click  to change the rule name. The rule name must be unique.
Edit rule	Click  in the **Operation** column to set the transition status of the rule.

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Operation	Description
Copy rule	Click in the **Operation** column to copy the rule.
Delete rule	Click in the **Operation** column to delete a rule. **Neither default nor enabled rules can be deleted.**

9.4.1.3 Configuring a Tag

Tags can be created, edited, and deleted for different types of requirements and work items in a project.

Prerequisites

You have the permission to manage tags on the work configuration page.

Creating a Work Item Tag

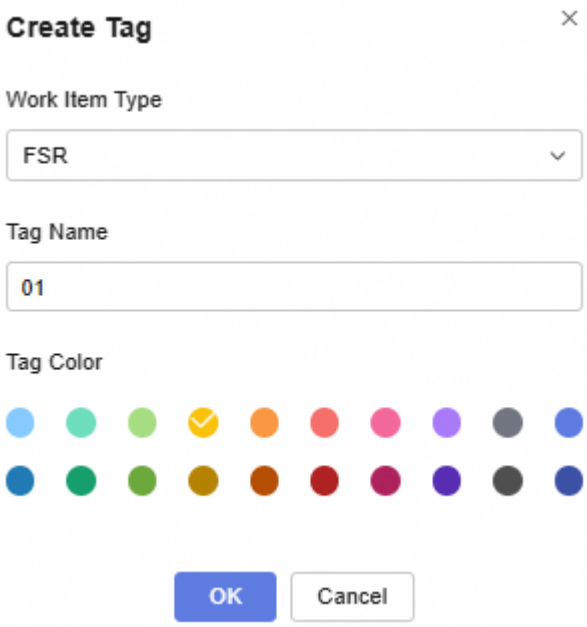
Step 1 Access the CodeArts Req homepage.

Step 2 Open the project, and choose **Settings** > **Work Item** > **Tag Management**. The **Issue Tags** tab is displayed.

All work item tags are displayed here.

Step 3 Click **Create Tag**.

Step 4 Select the **Work Item Type** and **Tag Color**, and enter **Tag Name**.



Step 5 Click **OK**.

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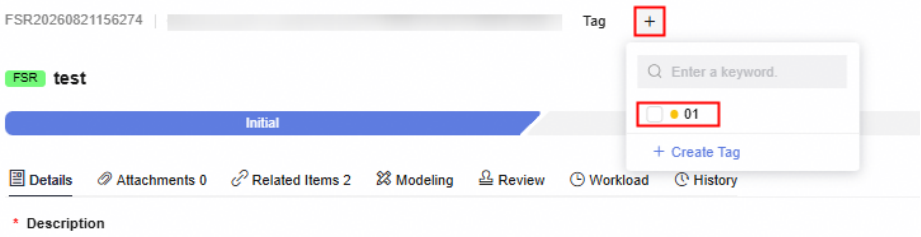
The new tag will display on the **Issue Tags** tab.

- Click to change the work item type, tag name, and color. The change is synchronized where the tag is referenced.
- Click to delete a tag as prompted. The tag is deleted from where it is referenced.

The tag also displays in the tag area on the details page of the corresponding work item (such as FSR).



----End

Creating a Plan Tag

Step 1 Open the project, and choose **Settings** > **Work Item** > **Tag Management**. The **Issue Tags** tab is displayed.

Step 2 Click **Plan Tags**. The **Plan Tags** tab is displayed.

All tags created on the **Plans** page are displayed here.

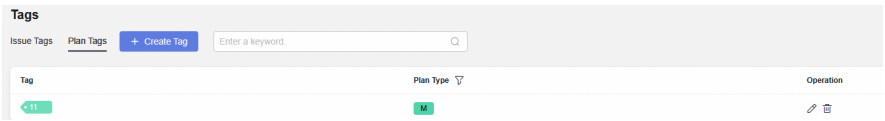
Step 3 Click **Create Tag**.

Step 4 Select a plan type and tag color, and enter the tag name.

Step 5 Click **OK**.

The new tag is displayed on the **Plan Tags** tab.

Figure 9-9 Plan tags



- Click to change the plan type, tag name, and tag color. The change is synchronized where the tag is referenced.
- Click to delete a tag as prompted. The tag is deleted from where it is referenced.

The tag is also displayed on the creation page (such as creating a milestone) under **Plans**.

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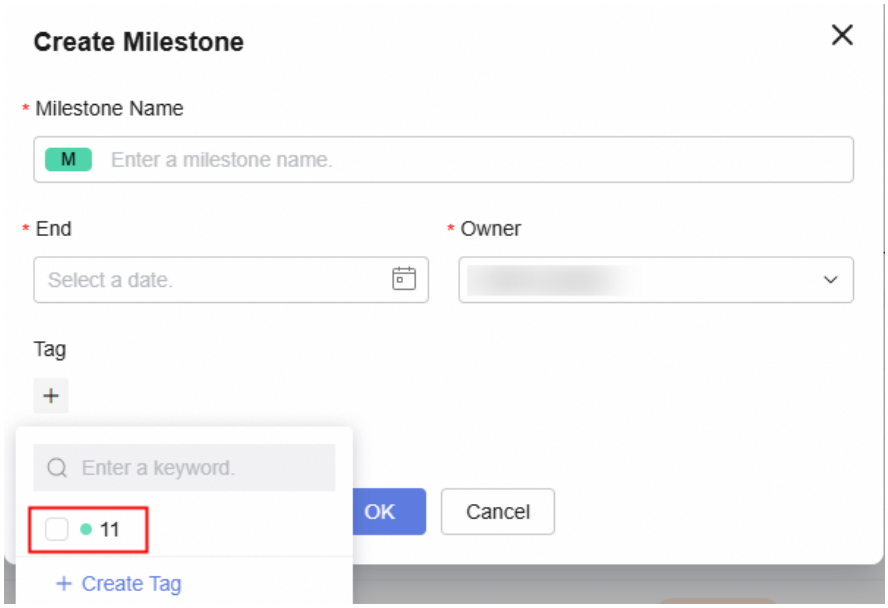

----End

9.4.1.4 Configuring Notification Rules

Overview

Notification rules can be configured to use several methods: internal messages, WeCom, DingTalk, Feishu, and generic webhooks. Internal messages alert project members of relevant operations, while notifications via WeCom, DingTalk, Feishu, and generic webhooks are directed to their respective chat groups.

- Internal message notifications

  On the notification settings page, select the desired recipients and event types. Once set up, the chosen recipients will be alerted when specific events (for example, RR modification) take place.
- WeCom notifications

  On the notification settings page, configure the webhook address and event types. Once set up, WeCom will post notifications to the designated chat group when specific events (for example, RR modification) take place.
- DingTalk/Feishu

  On the DingTalk/Feishu notification settings page, configure the webhook URL and event types for the group chatbot. Once set up, DingTalk or Feishu will post notifications to the designated chat group when specific events (for example, RR modification) take place.
- Generic webhook

  On the webhook page, configure the third-party system's URL and subscribe to the desired event types. Once set up, a request will be sent to the configured URL via webhook when the subscribed events occur.

Prerequisites

- To configure internal message and WeCom notifications, you must have the **Work Item** > **Notifications** permissions for projects.

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- To configure DingTalk, Feishu, and generic webhook notifications, you must be a **project administrator** or **project manager**.

Configuring Internal Message Notifications

Step 1 Access the CodeArts Req homepage.

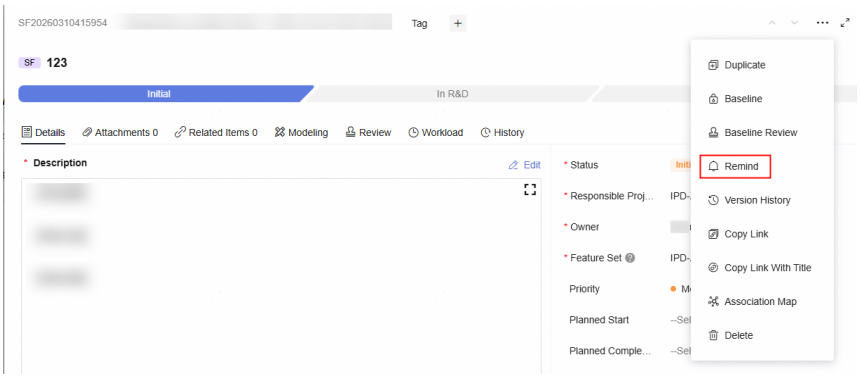
Step 2 Access a project and choose **Settings** > **Work Item** > **Notifications**.

Step 3 Select the work item type tab to be notified based on the project requirements. The notification settings for custom work item types are on the custom work item tab. For example, if the work item type is SF, select or deselect the notification object and type.

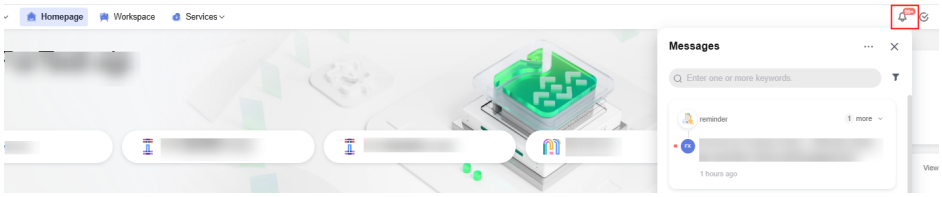
After the setting is complete, the selected object will receive a notification when a corresponding event (for example, SF editing) occurs.

NOTE

After the setting is complete, to send a **reminder**, click ••• on the right of the work item details page and select **remind**. The current owner of the work item will receive the reminder notification. An example of reminding an SF is as follows.



- **Direct Message**: When a member logs in to the CodeArts Req homepage, they will see the number of internal messages displayed next to in the upper right corner. They can click the icon to view notification details.



----End

Configuring WeCom Notifications

Step 1 Access the CodeArts Req homepage.

Step 2 Access a project and choose **Settings** > **Work Item** > **Notifications**.

Step 3 Click the **WeCom** tab.

Step 4 Set **Webhook Address**.

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To obtain the webhook address, perform the following steps:

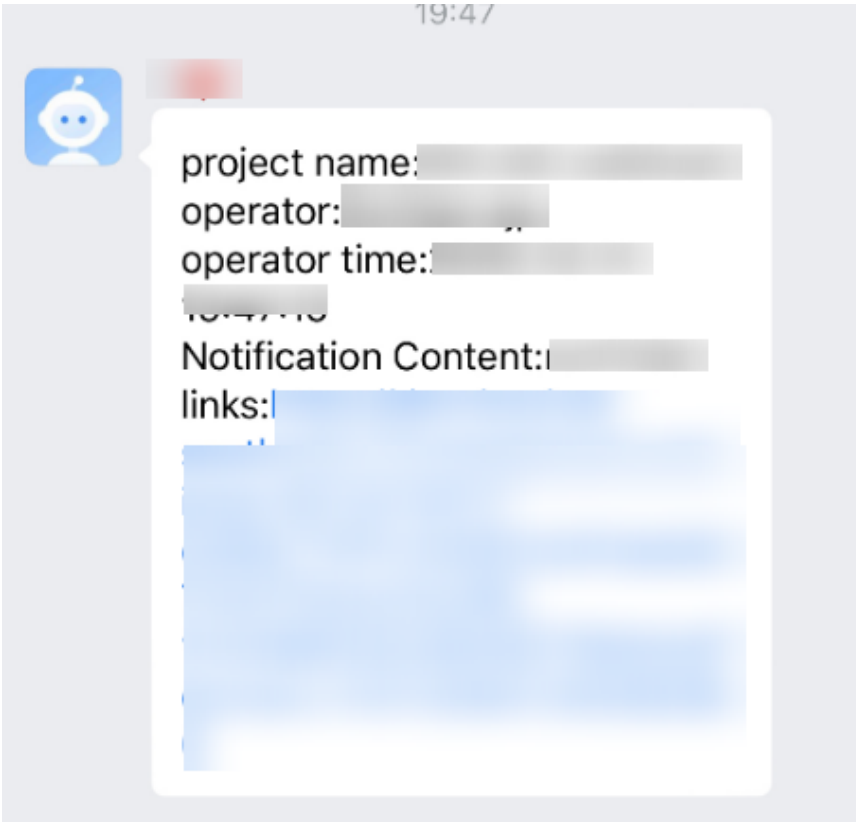
- Open the WeCom group where you want to receive notifications, and click the ··· button in the upper right corner.
- Click **Group Robot**.
- Click the created group robot to copy the generated webhook URL.

Step 5 Select event types.

Event types include operations on raw requirements, system features, R&D requirements, tasks, bugs, custom work items, reviews, and plans. Select operations as required.

Step 6 Click **OK**.

After the configuration is complete, WeCom will send notifications to the WeCom chat group when specified events occur.



----End

Configuring DingTalk and Feishu Notifications

Notifications can be pushed via DingTalk and Feishu. Set parameters and configure the notification content as required.

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **General** > **Notifications**.

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Step 3 On the **Notifications** page, choose **DingTalk** or **Feishu** > **CodeArtsReq**. The DingTalk or Feishu setting page of the project is displayed.

Step 4 Set parameters according to **Table 9-23**.

Table 9-23 DingTalk/Feishu notification parameters

Parameter	Description	Example
URL	URL of a notification from the DingTalk or Feishu group chatbot.	DingTalk chatbot: https://oapi.dingtalk.com/robot/send?access_token=373fa3c1ff75e8e9ce71742f544081bd562a99c996eb7911a051c1b43538beca
Event Types	Type of the event to be notified of. Event types include operations on raw requirements, system features, R&D requirements, tasks, bugs, custom work items, reviews, and plans. Select operations as required.	**RR** > **Comment RR**
@user_id	(Optional) User IDs of DingTalk or Feishu members who receive the notifications. Format: Enter 1 to 64 characters using only letters, digits, periods (.), hyphens (-), underscores (_), and at signs (@). Start with a letter or digit. Use commas (,) to separate multiple user IDs. A maximum of **50** user IDs can be entered, and the maximum length is **1,000** characters.	testA,testB
@Mobile Numbers	Phone numbers to receive messages. **This parameter is available for DingTalk but not for Feishu.** Format: Use semicolons (;) to separate multiple mobile numbers. The maximum length is **1,000** characters.	None

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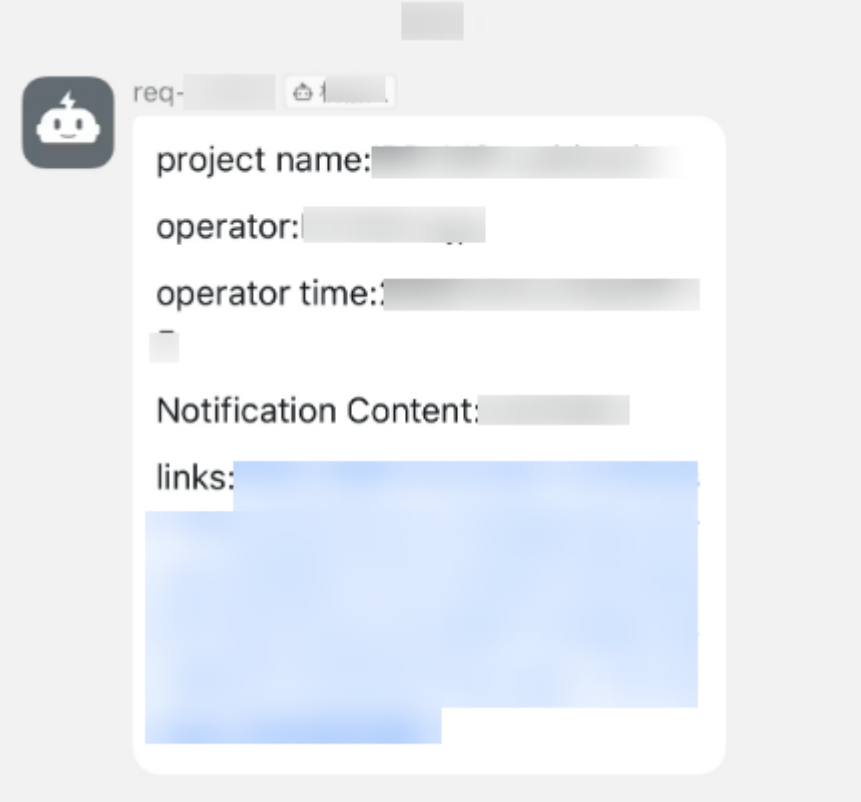
Parameter	Description	Example
Additional Signature	(Optional) Only available when DingTalk or Feishu notifications are configured. If signature-based encryption is enabled in the security settings of the DingTalk or Feishu robot, enter the signing secret.	None

Step 5 Click **OK** to save the settings.

After the configuration is complete, when a notification event occurs, DingTalk sends the notification to the corresponding chat group, as shown in the following figure.



----End

Configuring Generic Webhook Notifications

Notifications can be pushed via generic webhook.

Step 1 Access the CodeArts Req homepage.

Step 2 Go to a project and choose **Settings** > **General** > **Notifications**.

Step 3 On the **Notifications** page, choose **Generic webhook** > **CodeArtsReq**. The webhook setting page of the project is displayed.

Step 4 Click **New Webhook Subscription**.

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Step 5 Set parameters according to **Table 9-24**.

Table 9-24 Webhook notification parameters

Parameter	Description	Example
Subscription Event Name	(Mandatory) Name of the subscription event. The name is user-defined and can contain a maximum of 200 characters.	req-Webhook_test
URL	URL of a webhook notification. The value must start with **https://** or **http://**.	Feishu chatbot: https://open.feishu.cn/open-apis/bot/v2/hook/ffd39b45-d8c6-4771-9bb2-0a3b28c86fd7
Event Types	Type of the event to be notified of. Event types include operations on raw requirements, system features, R&D requirements, tasks, bugs, custom work items, reviews, and plans. Select operations as required.	• **Comment RR** • **Commit Review** • **Update IR**
HTTP Request Headers	(Optional) Request headers required for sending messages. HTTP request header, which is a JSON array. The maximum length of a single request header is **100** characters, and a maximum of **20** request headers can be entered. The format of a request header is *key:value*.	Content-Type:application/json

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Parameter	Description	Example
Custom Templates	Custom templates of generic webhook notifications. Obtain the corresponding values of configurable variables through the **$*{}*** method. For details about the configurable variables, see **Table 9-25**. **The maximum length of the character string is 1,000.**	• DingTalk parameters: {"msgtype": "text","text": {"content": "*CodeArts Req*: *Project ID*: ${project.id} *Work item name*: ${issue.title} *Operator*: ${operator.username} *Operator ID*: ${operator.id} Review: ${review.title} *Review URL*: ${review.url} *Event name*: ${operation} *Work item URL*: ${issue.url}"}} • Feishu parameters: {"msg_type":"text","content": {"text":"*CodeArts Req - Generic webhook test*\n*Project ID*: ${project.id}\n*Project URL*: ${project.url}\n*Work item ID*: ${issue.id}\n*Work item name*: ${issue.title}\n*Work item URL*: ${issue.url}\n*Operator*: ${operator.username}\n*Operator ID*: ${operator.id}\n*Review ID*: ${review.id}\n*Review*: ${review.title}\n*Review URL*: ${review.url}\n*Event name*: ${operation}"}}

Table 9-25 Configurable variables in generic webhook custom templates

Variable	Description
project.id	Project ID.
project.url	Project URL.
issue.id	Work item ID.
issue.url	Work item URL.
issue.type	Work item type.
issue.title	Work item title.
operator.username	Operator username.
operator.id	Operator ID.
review.id	Review ID.
review.title	Review title.
review.url	Review URL.
operation	Event name.
issue.number	Work item ID.
issue.created_by.id	Creator user ID.

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Variable	Description
issue.created_by.name	Creator display name.
issue.submitted_by.id	Submitter user ID.
issue.submitted_by.name	Creator display name.
issue.assignee.id	User ID of the owner.
issue.assignee.name	Owner display name.
issue.modified_fields._all	A list of all modified fields. The value is in the form of a JSON array.
issue.modified_fields.{field_code}	Fields to be included in notifications when editing a work item. {field_code} indicates the specific field. For example, **issue.modified_fields.priority** indicates that the priority field is included in the notification when a work item is edited. The value is in the form of JSON objects.
issue.create_fields._all	Content of the notification sent when a work item is created, including the title, ID, status, project, feature set (only for SFs), current owner, priority, and severity (only for bugs).
issue.comment.id	Comment ID.
issue.comment.parent_id	ID of the replied comment.
issue.comment.root_id	Root ID of the current comment.

Step 6 Click **OK** to save the settings.

After the configuration is complete, when a subscription event occurs, the system sends a request to the URL of the third-party system (Feishu) via webhook, as shown in the following figure.

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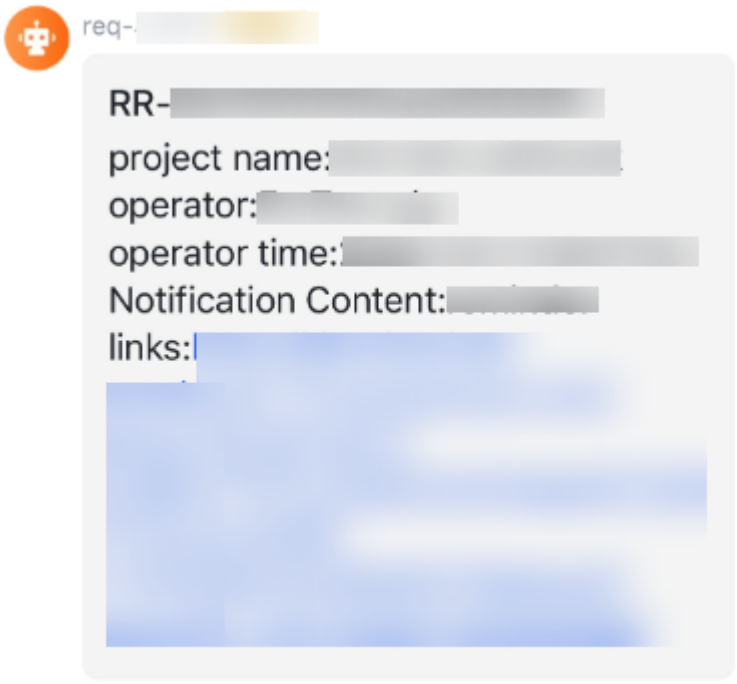

----End

9.4.1.5 Viewing Import and Export Records

You can download the imported and exported work item files.

Prerequisites

- Some work items have been imported or exported in a project.
- Only the export records of the last seven days are retained.
- Only the import records of the last month are retained.
- The project administrator can view the import and export records of all members in the current project.

Viewing Export Records

Step 1 Access the CodeArts Req homepage.

Step 2 Access a project and choose **Settings** > **Work Item** > **Import/Export**.

Step 3 Click the **Export** tab to view the export records.

Step 4 Download the desired work items. All project members' export records of any types of work items will be displayed on this page.

----End

Viewing Import Records

Step 1 Access the CodeArts Req homepage.

Step 2 Access a project and choose **Settings** > **Work Item** > **Import/Export**.

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Step 3 Click the **Import** tab to view the import records.

Step 4 Download the desired work items. All project members' import records of any types of work items will be displayed on this page.

----End

9.4.2 Creating and Managing Custom Work Items

9.4.2.1 Customizing the Work Item Type Process

Custom work item status transition is related to the workflow set in **Configuring Work Item Type Templates**. The status transition varies according to the workflow configuration. The following uses the FSR status transition as an example. The FSR has three statuses: **Initial**, **Processing**, and **Completed**. **Figure 9-10** shows the complete status transition process.

Figure 9-10 FSR status transition flowchart

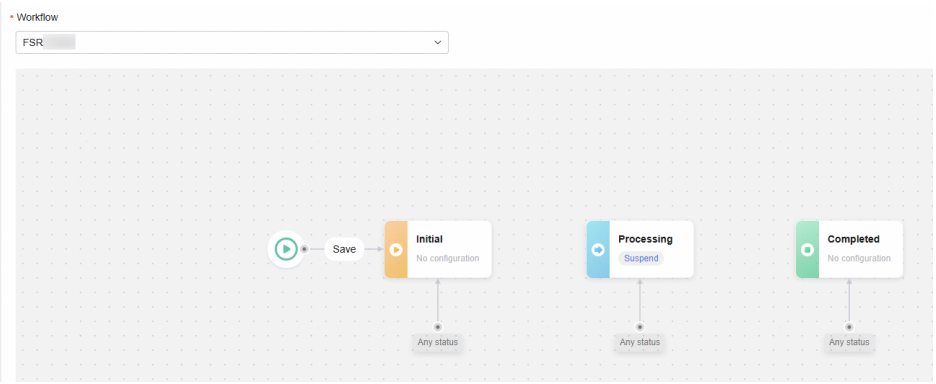

Table 9-26 describes operations in each status.

Table 9-26 FSR status transition description

Status	Description
Initial	When an FSR status transition is created, the status is **Initial** by default.
Processing	After the FSR in the **Initial** status is processed, the status changes to **Processing**.
Completed	After the FSR is processed, the status changes to **Completed**.

NOTE

For details about how to modify or create a workflow plan for a custom work item, see **Creating a Workflow for a Work Item Type**.

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9.4.2.2 Creating Custom Work Items

Custom function pages are related to the function pages selected in **Configuring Function Page Templates**. The following uses the function security page as an example.

Prerequisites

You have permissions to **create (clone)** custom work items.

Creating a Custom Work Item

Step 1 On the project homepage, select a custom function page. For example, if the custom function page is named **Function Security**, select the **Function Security** page.

Step 2 Click the icon to create a top-level work item. If the page contains multiple top-level work item types, you can select one type to create. For example, if the page contains SG, FSR, and TSR, click the create icon and select the create SG option from the drop-down list.

Step 3 Enter the basic information about the work item type.

Parameter	Description
Tag	When creating or editing a work item, you can add a custom tag. Tag names can be marked in different colors.
Title	Name of the work item (SG) to be created.
Description	Enter the background, value, and details of the work item based on project requirements. The description can include texts, images, or links.
Attachments	A maximum of 100 attachments can be added to each work item (SG), and their total size cannot exceed 500 MB.
Responsible Project	Project that the work item (SG) to be created belongs to. The value cannot be changed.
Owner	Member who is responsible for this work item. Only one person can be specified.
Priority	Priority of the work item to be created. The options are **Low**, **Medium**, and **High**. The default value is **Medium**.
Planned Workload	Estimated workload from the planned start time to the planned completion time for this work item.
Order	Order.
Story Point	Story point estimation is used for agile development.

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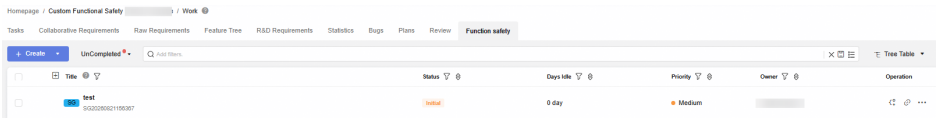
> **NOTE**
>
> The parameter names and quantities of the work item type are the same as those of the fields configured for the work item type in **Configuring Work Item Type Templates**. The parameter names and quantities vary according to the configuration.

Step 4 Click **OK**. The custom function page is displayed, and a message is displayed in the upper right corner, indicating that the work item type is created successfully. For example, if the work item type is SG, the message "SG created" is displayed.

The new work item type is displayed in the list of the custom function page. For example, the new work item SG is displayed in the **Function Security** list, and its status is **Initial**.



> **NOTE**
>
> After a work item is created, the person selected for **Owner** will receive internal message notifications. If not, set or modify notification settings by referring to **Configuring Notification Rules**.

----End

Related Operations

You can perform the following operations on a new custom work item.

Table 9-27 Basic operations on a new custom work item

Operation	Description
Modify title	Click next to the title of a new custom work item to modify the value.
Modify field	Click the target field value in the row of a new custom work item to modify the value.
Break down work item	Click in the **Operation** column of a new custom work item to break it down. Click **Add Child Work Item** in the **Break Down Child Work Item** dialog box to break down child work items in batches. A maximum of 10 child work items can be broken down at a time. The work item types available for breakdown are related to the parent-child relationship of work items configured in **Configuring Work Item Type Templates**.
View association map	Click under in the **Operation** column of a new custom work item to view all data of its associated items in the association map.

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Operation	Description
Duplicate custom work item	Click  under in the **Operation** column of a new custom work item to quickly duplicate it. The process of duplicating a new custom work item is the same as that of creating a custom work item.
Delete custom work item	Click  under in the **Operation** column of a new custom work item to delete it. • Custom work items in change or baseline review cannot be deleted. • Deleted custom work items are moved to the recycle bin. Custom work items in the recycle bin can be restored and permanently deleted. After a work item is restored from the recycle bin, it restores to the original status. • Restoring a child work item also restores its parent on the work item path but does not restore its siblings under the parent.
Copy custom work item link	Click  in the **Operation** column of a custom work item to copy its title, ID, current owner, status, and link to the clipboard.
Migrate custom work item	On the custom work item details page, click  and select **Migrate** from the drop-down list to migrate the work item to another project. • Work items that have been baselined, completed, or are currently under baseline review or change review cannot be migrated. • Batch migration is based on the selected top-level work item types. Top-level work items can be migrated across projects, and non-top-level work items can be migrated within a project. • Work items and their child work items will be migrated together. • After cross-project migration: – The work item will be re-executed. – The actual workload, associated item (except collaborative work item), label, and release sprint fields will be cleared. – If the upstream and downstream projects of the corresponding work item are not configured in the target project, the collaborative work item is cleared. – Custom fields of the work item in the source project are discarded, and custom fields of the work item in the target project are displayed.

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9.4.2.3 Managing Custom Work Items

After creating a work item (see **Creating Custom Work Items**), you can perform the operations described in this section on it.

In the List of a Custom Function Page

Go to the project homepage and select a custom function page. If the custom work item page is named **Function Security**, choose **Work Item > Req > Function Security** and perform the following operations.

Table 9-28 Managing the list of a custom function page

Operation	Procedure
Query work items	Query work items by adding filters: 1. Click the search box in the list of a custom function page and select one or more filters to search for work item types. 2. To clear all filters and display all data, click on the right of the search bar. 3. Query results can be displayed in tree, list, or Gantt chart view.
Import work items	Import work items using an Excel file. Use the provided template to import work items in batches. 1. In the list of a custom function page, click on the right of the search bar, and select **ImportExcel**. 2. In the displayed dialog box, click **Download Template**. The import template file is displayed in the lower part of the page. Save the file to the local PC and fill in data. 3. Fill in the fields on the custom function list tab. For details about how to set parameters, see the **Custom Requirement Import** sheet in the template file. 4. Drag or click to select a file to be imported. 5. Click **Next**. The verification progress dialog box is displayed. After the verification progress reaches 100%, close the dialog box and view the verification result. If the mandatory fields fail the verification, the import is not allowed, while the verification result of optional fields does not affect the import. • If the verification is successful, click **Confirm Import** and perform operations as prompted. Imported task information can be viewed in the list of a custom function page. • If the verification fails, modify the file based on the verification result. Click **Last step** to import the modified file. If the import fails, a message is displayed on the page. Click **View Failure Details** in the message to view the failure details. You can modify the requirement information based on the details and import the template file again.

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Operation	Procedure
Export work items	Export work items to an Excel file. 1. In the list of a custom function page, click ··· on the right of the search bar and select **Export**. 2. Select the fields to be exported and determine whether to export child work items. 3. Click **Export**. A dialog box is displayed, indicating the export progress. After the tasks are exported, click **Download**. The task file will be downloaded to the local PC. The file format is **.xlsx**.
Configure fields to display	Click ⚙ next to the **Operation** field. ● On the left of the pop-up box, select the fields to be displayed in **Available**. ● On the right of the pop-up box, drag the fields in **Selected** to adjust the display sequence. ● On the right of the pop-up box, select a field spacing style under **Appearance**. The options include **Compact**, **Standard**, and **Loose**.

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Operation	Procedure
Migrate work items in batches	You can migrate work items in the list of a custom function page to another project. After the migration, the work items do not need to be processed in the current project. **Constraints** ● Work items that have been baselined, completed, or are currently under baseline review or change review cannot be migrated. ● Batch migration is based on the selected top-level work item types. Top-level work items can be migrated across projects, and non-top-level work items can be migrated within a project. ● During cross-project migration, work items can be migrated only to projects with the same work item type template. ● Work items and their child work items will be migrated together. ● After cross-project migration: – The work item will be re-executed. – The actual workload, associated item (except collaborative work item), label, and release sprint fields will be cleared. – If the upstream and downstream projects of the corresponding work item are not configured in the target project, the collaborative work item is cleared. – Custom fields of the work item in the source project are discarded, and custom fields of the work item in the target project are displayed. **Procedure** 1. In the list of a custom function page, select one or more work items to be migrated and click **Migrate** in the lower part of the page. 2. In the displayed dialog box, select the project to be migrated. 3. Click **Next**. The migration confirmation dialog box is displayed. 4. Select the current owner. 5. Click **OK**. The custom function page is displayed, and a message is displayed in the upper right corner, indicating that the migration is successful. The migrated work items are not in the list of a custom function page. The status of the work items migrated to another project is **Initial**.

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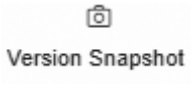
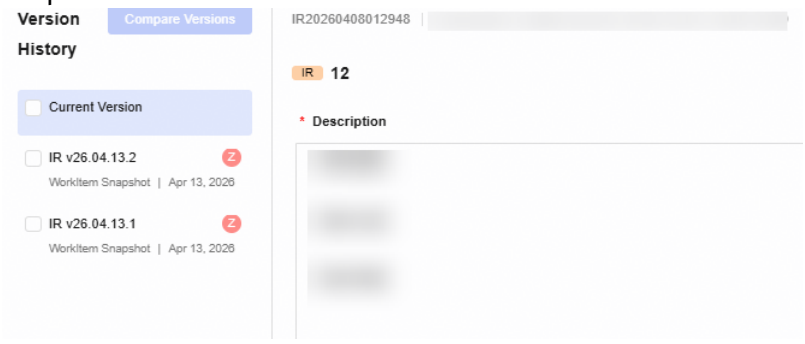
Operation	Procedure
Snapshot versions	Snapshots include plan management snapshots, feature tree snapshots, and work item snapshots. A version snapshot is a work item snapshot. Its name is automatically generated by the system. **Constraints** A work item can have a maximum of 1,000 snapshots. **Procedure** 1. On the custom function page, select the work items for which you want to take a version snapshot. 2. Click  in the lower part of the page to take a snapshot for the selected work items. A message is displayed in the upper right corner of the page, indicating that the operation is successful. The snapshot is a work item snapshot. Its name is automatically generated by the system. The format of the work item snapshot name is: *Work item type* + "v" + *Year* + "." + *Month* + "." + *Day* + "." + *Number of versions generated on the current day*. For example, if an RR is snapshotted for the first time on March 25, 2026, its snapshot name generated by the system is **RR v26.03.25.1**. **NOTE** You can also go to the work item details page, click ••• in the upper right corner, and select **Version Snapshot** to create a snapshot for the work item. 3. (Optional) Click the work item name to go to its details page, click ••• , and select **Version History** to view the generated snapshots. 

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Operation	Procedure
Clone work items across projects	**Constraints** ● You must clone the entire work item tree (for example, the custom work item tree SG-FSR-TSR). Child work items cannot be cloned separately. ● Only work items can be cloned. The workload, associated work item (except parent-child work item), tag, and release sprint fields will be cleared. ● You must have permission to **create and clone** work items for the target project. ● Work items can be cloned only to projects with the same work item type template. ● You can clone up to 50 work items at a time. **Procedure** 1. Select the work items to clone in the list of a custom function page and click **Cross-Project Copy**. The page for cloning requirements across projects is displayed. 2. Select a target project from the drop-down list. You can select only a project to which you have joined. 3. Click **Next**. The window for setting mandatory fields is displayed. Select the target owner from the drop-down list (the current operator is selected by default). Mandatory fields are those on the custom function creation page of the target project. 4. Click **OK**. The work items are cloned to the target project. 5. Go to the target project to view the cloned work items.
Transition statuses in batches	**Constraints** ● The types of the selected work items must be the same. ● The selected work items must be in the same status. ● You must have permission to **set statuses** for work items. ● All mandatory fields of the selected work items have been set. **Procedure** 1. Select the target work item types in the list of a custom function page and click **Batch Transfer** in the lower part of the page. The **Batch Transfer** window is displayed. 2. Click the **Transitions** tab. Select the target status from the drop-down list. 3. Click **Next**. 4. Set mandatory fields. The mandatory fields are set on the **In-transition GUI Config** tab page of the project's workflow solution. 5. Click **OK**.

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Operation	Procedure
Perform batch operations	You can select multiple work items to perform batch operations: baseline/unbaseline, change, baseline review, assign, migrate, edit, suspend/unsuspend, export, delete, cross-project clone, and transition.
Manage work items by group	You can group work items by any supported field type. **Constraints** ● A maximum of 1,000 work items can be displayed during grouping. ● The supported field types include single-choice list, multi-choice list, single-choice user, multi-choice user, hierarchy, and date. ● For projects in a program (after sub-project aggregation is enabled), grouping by release, sprint, module, feature set, or tag is unavailable. **Procedure** 1. On the custom function page, click **Group**. 2. On the displayed page, select the fields used to group work items. ● You can sort work items in ascending or descending order. ● You can enter a keyword to search for fields. ● When work items are grouped by multi-select list or multi-select user, the same work item may appear in multiple groups. ● You can click **No grouping** to ungroup work items.

On the Custom Work Item Details Page

Click the name of a work item type to access the work item details page. On the details page of a work item, you can modify its description and fields, add tags and attachments, associate work items, check review records, add workloads, and view the history.

Table 9-29 Management operations on the details page

Operation	Procedure	Remarks
Edit work item	On the work item details page, click the value box of the field to be modified, and enter a target value in the text box or select one from the drop-down list. The changes are saved automatically.	You must have permission to **edit** custom work items.

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Operation	Procedure	Remarks
Change work item status	Go to the work item details page, click the **Status** field, and transition the work item to the target status.	You must have permission to **set statuses** for custom work items.
Baseline work item	1. Go to the work item details page, and choose ••• > **Baseline**. The **Baseline** dialog box is displayed. 2. Click **OK**. You can see the baseline icon on the left of the work item title. For example, SG is displayed for a based SG. You can unbaseline work items that have been baselined.	You must have permission to **baseline** custom work items.
Change work item	The change process can be initiated only for baselined and uncompleted work items. 1. Go to the details page of a baselined work item, and choose ••• > **Change Review**. The **CR** page is displayed. 2. Enter CR information. • Enter basic information, including **Description**, **Start**, **End**, and **Copy To**. • Set change objects: Click **Add** in the **Change Objects** area. In the displayed dialog box, select the work item types to be changed from the drop-down list and click **Add**. • Set associated files: If there are associated files, upload them on the **Attachments** tab of the **Associated Files** area. • **Collaborative Parent Item Change**: CRs can be added only when they already exist in the system. 3. Click **Submit**. The **Review** page is displayed. Choose **Review** > **Change Review** to view the new CR in the change process. The CR state is **Pending review** by default. Track the approval progress of the CR. Only when the state is **END**, which means that the CR has been processed, will the changed content be displayed in the corresponding list of a custom function page.	You must have permission to **check** custom work items.

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Operation	Procedure	Remarks
Upload attachment	Attachments can be pictures, workbooks, manuscripts, and text files. A maximum of 100 attachments can be added to each work item, and their total size cannot exceed 500 MB. 1. Go to the work item details page, and click the **Attachment** tab. 2. Click **Click or drag the file here to upload it.**, select a local file, and upload the file to the work item as an attachment. Local files can be directly dragged to the text box. When the upload progress reaches 100%, the system displays a message indicating that the attachment is uploaded successfully. Move the cursor to the uploaded file. The available operations are displayed. ● Click to download the file. ● Click to delete the uploaded file.	You must have permission to **edit** or **upload attachments** for custom work items.

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Operation	Procedure	Remarks
Add and check associated item	A work item can be associated with other types of work items in a project. 1. Go to the work item details page and click the **Related Items** tab. 2. Complete association. a. Parent work item: Parent work item that the work item is subordinated to. The parent work item area displays information about the parent work item only when the work item has a parent work item. You can associate a work item with its parent work item only when the work item is the top-level work item on the current function page and is a child work item of another work item type. For details about the concepts of the work item hierarchy tree, see **Table 9-16**. b. Child work item: Child work items broken down from the current work item. Each work item can be broken down into a maximum of 10 child work items at a time. One child requirement is displayed by default and cannot be deleted. 1. Click **Break Down**. The **Break Down Child Work Item** dialog box is displayed. 2. Configure the child work item information. Click to expand and configure more information. 3. Click **OK**. The child work item is automatically displayed under the parent work item in the list of a custom function page. c. **Related Upstream Work Items**: work items assigned by other projects to your project. d. **Related Downstream Work Items**: work items assigned to downstream projects. e. **Associate Work Item**: associated work items of any other types in the project. All work item types configured in **Configuring Work Item Type Templates** can be associated. f. Custom work item associations. The name displayed is the same as the name of the work item association configured in **Configuring Work Item Associations**. The work item types that can be associated are	You must have the permissions to assign or cancel assignment of, break down, associate or dissociate, and associate or dissociate a parent work item for custom work items.

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Operation	Procedure	Remarks
	the intersection of those configured in **Configuring Work Item Associations** and those supported by the current project. g. **Files**: Files corresponding to the current work item. Select a file associated with the current work item. You can upload a local file. h. **Wiki**: wikis corresponding to the current work item. Select a wiki associated with the current work item. You can also create a wiki. i. **Test Case**: test cases related to the current work item. You can select a test case associated with the work item in CodeArts TestPlan. j. **Test Design**: test design related to the current work item. You can select the test design associated with the work item in CodeArts TestPlan. k. **Test Plan**: test plans related to the current work item. You can select a test plan associated with the work item in CodeArts TestPlan. l. **Code Commit Record**: code commit records related to the current work item. Related information is displayed only when the current work item ID is associated with a code commit. m. **Code Branch**: code branch corresponding to the current work item. Related information is displayed only when a code branch is associated with the current work item. n. **Code Merge & Change Request**: code merge and change requests corresponding to the current work item. Related information is displayed only when a submitted merge or change request is associated with the current work item. o. **External Link**: external links associated with the current work item. • Create link: Click **Add Link**. In the displayed dialog box, set **Link Name** and **Link**. The value of **Link** must start with **https://** and cannot contain invalid	

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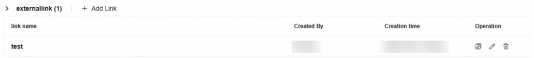
Operation	Procedure	Remarks
	characters, such as spaces and Chinese characters. Click **OK**. After a link is created, you can click **External Link** to view, edit, copy, or delete the link.  • Copy link: Click on the right of the link to be copied. • Edit link: Click on the right of the link to be edited. In the **Edit Link** dialog box, you can change the **Link Name** and **Link**. • Delete link: Click on the right of the link to be deleted. In the displayed dialog box, click **Delete**.	
View review records	You can check the review records of the work item only in the following situations: • When a work item is added to a baseline review, the baseline review process is triggered. Only then will you be able to view the review record on the **Review** tab of the corresponding work item details page. • When a locked field of a baselined work item is modified, the change process is automatically triggered. Only then will you be able to view the review record on the **Review** tab of the corresponding work item details page. • You can view the review records in **Review** of the corresponding work item details page only when the work item has a general review record.	You must have permission to **check** custom work items.

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Operation	Procedure	Remarks
Add workloads	1. Go to the work item details page and click the **Workload** tab. 2. Click **Add Workload**. The **Add Workload** dialog box is displayed. 3. Enter the workload information. • The end date cannot be earlier than the start date. • You can select **Total** or **Daily** for **Workload**. • **Work Type** options include backend development, frontend development, UI design, replacement leave, debugging, and general. You can also customize the value by referring to **Adding a Work Type**. 4. Click **OK**. The system automatically generates corresponding records based on the entered dates and days. The workload can be edited and deleted.	You must have permission to **add person-hours** for custom work items. Workloads can be edited and deleted by the creator. By default, the project administrator can edit and delete all workloads.
Viewing History	**History** displays all operation logs of users, including creation, status transition, review initiation, work item association, and workload addition. 1. Access the work item details page. 2. Click the **History** tab. • Click  or  to check historical records in the ascending or descending order of operation time. • You can set search criteria to query historical records that meet the search criteria.	You must have permission to **check** custom work items.

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Operation	Procedure	Remarks
Tag work item	Tags can be added to work items. Once added, the tags will appear next to +. 1. Go to the work item details page. Click + next to **Tag** at the top of the page, and select **Create Tag**. 2. In the **Create Tag** dialog box, enter **Tag Name** and select **Tag Color**. 3. Click **OK**. 4. (Optional) Display the tag. Click + next to **Tag**. In the displayed dialog box, select the tag to be displayed. The tag will be displayed next to +. 5. (Optional) Hide a tag. • Click + next to **Tag**. In the displayed dialog box, deselect √ to hide the tag. • Move the cursor to the tag name and click ⊠ to hide the tag. **NOTE** To add or remove tags for multiple work items, select the desired work items in the list of the custom function page, click **Batch Edit** in the lower part of the page, and select **Tag**.	You must have permission to **edit** custom work items.
Add comment	1. Access the work item details page. 2. On the **Details** tab page, click the **Comments** text box. 3. Enter a comment. You can upload images, enter links, associate work items, and use @ to notify project members in comments. 4. Click **Submit**. Submitted comments can be replied, edited, pinned to the top, and deleted.	You must have permission to **check** custom work items.

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Operation	Procedure	Remarks
Historical versions	For work items with snapshots, you can view their historical versions and compare the differences between them. **NOTE** For work item types preset in IPD projects, such as raw requirements, R&D requirements, tasks, and bugs, the method of view historical versions is similar to that of custom work items. Refer to the following method. 1. Go to the work item details page, click ••• in the upper right corner, and select **Version History**. 2. In the **Version History** dialog box, select two versions and click **Compare Versions**. On the **Workitem Version Comparison** page, view the differences between the original version and the compared version. You can click  in the upper right corner and select **Hide Identical Items** to view only the differences between the two versions. 3. Hover over a snapshot version.  is displayed. Click  to delete the snapshot. **NOTE** If a work item has a third-party snapshot or its child work items have third-party snapshots and the child work items cannot be separated from the current work item, the snapshot cannot be deleted.	You must have permission to **check** custom work items. To delete a snapshot, you must have permission to delete custom work items.

9.5 Review Check Items

9.5.1 Process of Configuring Review Check Items

This section describes how to configure review check items and use them in a project. **Figure 9-11** shows the process of configuring review check items. **Table 9-30** describes the configurations.

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Figure 9-11 Process of configuring review check items

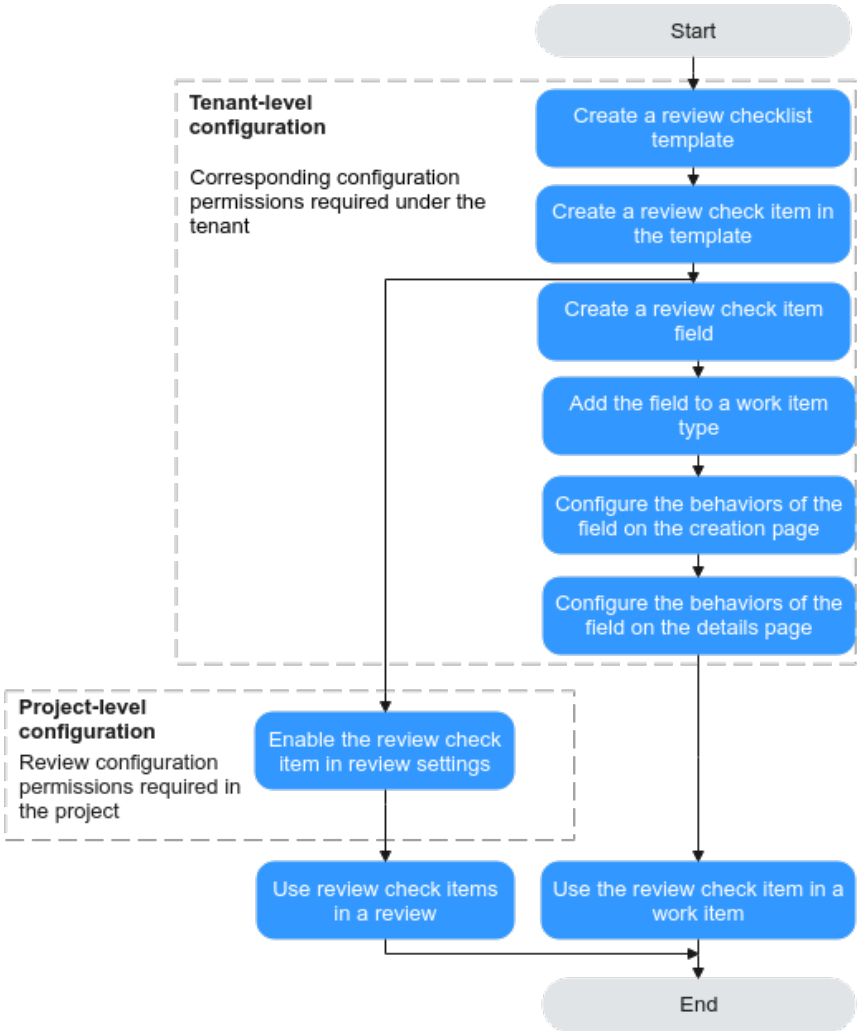

Table 9-30 Operations in configuring review check items

Operation	Description
Create a review checklist template	Review check items are aggregated using a review checklist template. Review check items used in work items or reviews are also based on the review checklist template. Therefore, you need to create a review checklist template. For details, see **Creating a Review Checklist Template**.
Create review check items in the template	A review checklist template can contain multiple review check items. After creating a review checklist template, you need to create review check items in the template. For details, see **Creating a Review Check Item in the Template**.

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Operation	Description
Create a field of the review check item type	Review check items are applied to specific work items as fields of the review check item type. Therefore, you need to create a field of this type and associate a review checklist template with the field. For details, see **Creating a Field of the Review Check Item Type**.
Add the field to the work item type	After creating a field of the review check item type, you need to add it to the field list of the corresponding work item type on the **Work Item Fields and Workflow** page. For details, see **Adding a Review Check Item Field to a Work Item Type**.
Configure the field behaviors on the creation page	After adding a field of the review check item type to a work item type, if you have special requirements for the field behavior on the creation page (for example, you want the field to be mandatory on the work item creation page), you need to configure the field behaviors on the creation page in the field behavior configuration of the work item type template. For details, see **Configuring the Field Behaviors on the Creation Page**.
Configure the field behaviors on the details page	After adding a field of the review check item type to a work item type, if you have special requirements for the field behavior on the details page (for example, you want the field to be mandatory in some statuses on the work item details page), you need to configure the field behaviors for the details page on the **Work Item Fields and Workflow** page. For details, see **Configuring the Behaviors of A Review Check Field on the Details Page**.
Enable review check items in review settings	If review check items need to be used in reviews, you need to enable them in the review settings of a project. For details, see **Enabling Review Check Items in Review Settings**.
Use review check items in work items	After configuring review check item fields and their behaviors, you can view the fields added in **Adding a Review Check Item Field to a Work Item Type** when creating a work item in a project or accessing the work item details page. You can then fill in the review results and remarks. For details about how to use review check items in work items, see **Using Review Check Items in Work Items**.

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Operation	Description
Use review check items in reviews	After enabling review check items in review settings and setting the review check item template associated with the review, you can view the review check items associated with the review when initiating a review or performing a review/decision-making in a project. You can then fill in the review results and remarks. For details about how to use review check items in a review, see **Using Review Check Items in Reviews**.

9.5.2 Configuring a Review Checklist Template and Check Items

Review check items can be used for self-check by work item creators and check by review experts or decision makers in a project. Review check items are aggregated using a review checklist template. Review check items used in work items or reviews are also based on the review checklist template. Therefore, you need to create a review checklist template. A review checklist template can contain multiple review check items. After creating a review checklist template, you need to create review check items in the template.

Constraints

- A maximum of 100 review checklist templates can be created.
- A review checklist template can contain a maximum of 50 check items.
- A review checklist template that has been associated with a work item type or review cannot be deleted.

Prerequisites

You must have the permissions of the **Tenant Administrator** role. For details about how to assign the **Tenant Administrator** role to a user, see **Creating a User Group and Assigning Permissions**.

Creating a Review Checklist Template

Step 1 Access the **CodeArts Req homepage** and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Template Settings** > **Checklist Templates**.

Step 4 Click **Create New Template**.

Step 5 Set the parameters for creating a review checklist template by referring to **Table 9-31**.

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Table 9-31 Parameters for creating a review checklist template

Parameter	Description
Template name	Name of the review checklist template to be created. • The name contains a maximum of 50 characters. • A tenant can have a maximum of 100 templates. • The name must be unique.
Description	Description of the review checklist template to be created. This parameter is optional. It can contain up to 500 characters.

Step 6 Click **OK**. The created review checklist template is displayed in the list.

You can perform the following operations on the created project template.

Table 9-32 Managing a review checklist template

Operation	Description
Edit review checklist template	Click . On the displayed page, you can modify the template name and description and create a check item. For details about how to create a check item, see **Creating a Review Check Item in the Template**.
Copy review checklist template	Click to copy the review checklist template.
Delete review checklist template	Click , read the information, and click **Delete**. **NOTE** • If the current work item type has been associated with a work item type template, cancel the association on the **Work Item Type Templates** page and then delete template. • If the current review checklist template has been used by a review in the project, cancel the association in the review settings of the project and then delete the template.

----End

Creating a Review Check Item in the Template

Step 1 Access the **CodeArts Req homepage** and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Template Settings** > **Checklist Templates**. The existing checklist templates are displayed.

Step 4 Locate the checklist template for which you want to create a review checklist item and click to go to the template editing page.

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Step 5 Click **New check item**. The check item creation window is displayed.

Step 6 Set the parameters for creating a review check item by referring to **Table 9-33**.

Table 9-33 Parameters for creating a review check item

Parameter	Description
Check item name	Name of the review item to be created. The name contains a maximum of 200 characters.
Description	Description of the review item to be created. This parameter is optional. The description is displayed as a prompt in the checklist on the work item creation page. It can contain up to 500 characters.

Step 7 Click **OK**. The created review check item is displayed in the list.

NOTE

- Click **Save** to save the check item. It takes effect only after being released.
- After a released template is modified and saved, you can click **Reset template** to restore the template to the latest released version.
- Click **Cancel** to exit the page for editing the review check item template and cancel the modification.

You can perform the following operations on the created check item.

Table 9-34 Managing a review check item

Operation	Description
Edit review check item	Click to modify the check item name and description.
Delete review check item	Click to delete the check item.

----End

9.5.3 Configuring a Field of the Review Check Item Type

Review check items are applied to specific work items as fields of the review check item type. Therefore, you need to create a field of this type and specify the associated review checklist template for the field.

Constraints

A field of the review check item type can be associated with a maximum of 20 review checklist templates.

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Prerequisites

You must have the permissions of the **Tenant Administrator** role. For details about how to assign the **Tenant Administrator** role to a user, see **Creating a User Group and Assigning Permissions**.

Creating a Field of the Review Check Item Type

Step 1 Access the **CodeArts Req homepage** and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Basic Settings** > **Work Item Fields**.

Step 4 Click **Create Field**. In the displayed window, set the field information by referring to **Table 9-35**.

Table 9-35 Parameters for creating a field of the review check item type

Parameter	Description
Field Name	Name of the field to be created.
Field Type	Type of the field to be created. It must be set to **Review check items**.
Related Review Check Item Template	When **Field Type** is set to **Review check items**, a review checklist template must be associated. Select a created review check item template from the **Related Review Check Item Template** drop-down list.
Description	Description of the field to be created. This parameter is optional.

Step 5 Click **Publish**. The created review check item field is displayed in the list.

You can perform the following operations on a new field.

Table 9-36 Managing a field

Operation	Description
Edit field	Click to modify the field name, associated review checklist template, and description.
Delete field	Click , read the information, and click **Delete**. **NOTE** If the current field has been associated with a work item type, cancel the association before deleting the field.

----End

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9.5.4 Configuring a Field in the Work Item Field and Workflow

After creating a field of the review check item type, you need to add it to the field list of the corresponding work item type on the **Work Item Fields and Workflow** page. If you have special requirements for the behaviors of this field on the details page (for example, you want this field to be mandatory on the work item details page), you need to configure the behaviors of this field for the details page on the **Work Item Fields and Workflow** page.

Prerequisites

A workflow corresponding to the work item type already exists. If no workflow exists, create one for the work item type to which the review check item field is to be added by referring to **Creating a Workflow for a Work Item Type**.

Adding a Review Check Item Field to a Work Item Type

Step 1 Access the **CodeArts Req homepage** and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Basic Settings** > **Work Item Fields and Workflow**.

Step 4 In the **Work Item Types** list, select a work item type for which you want to add a review check item field. The existing fields of the work item type are displayed.

Step 5 Click **Add Field**. The **Add Field** window is displayed.

Step 6 Click **Select** in the **Field Name** text box to add a field of the review check item type.

1. Select the desired field of the review check item type. You can search for a field in the **Enter a name** box, or scroll your mouse to select one.
2. Click **Publish**. The new field is displayed in the list.

----End

Configuring the Behaviors of A Review Check Field on the Details Page

Step 1 Access the **CodeArts Req homepage** and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Basic Settings** > **Work Item Fields and Workflow**.

Step 4 Click **Workflow Scenarios** and select a work item type for which you want to configure the review check field behaviors for the details page in **Work Item Types**.

Step 5 Click on the right of the custom workflow to be used by the work item type to modify the status configuration of the workflow.

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1. Click the status node to be edited. On the displayed page, configure the status.
2. **Field Configuration** is enabled by default. If it is disabled, fields cannot be edited. You need to enable it first.
3. If there is no review check item field, click **Add Field**. In the displayed **Add Field** dialog box, add a field.
4. Configure the behaviors of a review check field on the details page.

   Find the review check item field in the field configuration list. Set attributes, including **Visible**, **Editable**, **Required**, and **Role to Edit**, for the field in the current status.

   Table 9-37 Field configuration items

Attribute	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.
Editable	Set whether the field is editable in a work item of the current status.
Required	Set whether the field is mandatory in a work item of the current status. If the field is mandatory, it will be marked with an asterisk (*).
Role to Edit	Select a role from the drop-down list. The options are **Default** and **Custom**.

Step 6 Click **Publish**.

The **Release Status** of the workflow is **RELEASE**. You can use the solution in corresponding projects.

----End

9.5.5 Configuring the Field Behaviors on the Creation Page

After adding a field of the review check item type to a work item type, if you have special requirements for the field behavior on the creation page (for example, you want the field to be mandatory on the work item creation page), you need to configure the field behaviors on the creation page in the field behavior configuration of the work item type template.

Prerequisites

A work item type template corresponding to the work item type where the review check item field to be displayed is located already exists. If the template does not exist, configure it by referring to **Configuring Work Item Type Templates**.

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Configuring the Behaviors of A Review Check Field on the Creation Page

Step 1 Access the **CodeArts Req homepage** and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work Item Management** > **Template Settings** > **Work Item Type Templates**. The existing work item type templates are displayed.

Step 4 Select the work item type template to be edited and click . Its **Work item level configuration** page is displayed.

Step 5 Click **Next**. The **Field behavior configuration** page is displayed.

Step 6 Configure the field behavior of each work item type in the work item type template.

1. Select the work item type to be configured on the left.
2. Find the review check item field in the field behavior configuration list.
3. Configure the field behaviors by referring to **Table 9-38**.

Table 9-38 Parameters for configuring field behaviors

Parameter	Description
New Page Display	Specify whether to display the field on the creation page. – If the switch is toggled on ( ), the field is displayed on the creation page. – If the switch is toggled off ( ), the field is not displayed on the creation page.
New page required	Specify whether the field is mandatory on the creation page. – If the switch is toggled on ( ), the field is mandatory on the creation page. – If the switch is toggled on ( ), the field is optional on the creation page.
Baseline Locked	Fields of the review item type cannot be baselined. Therefore, you do not need to set this parameter.
Used for Quickly Splitting Sub-Work Items	Review check item fields cannot be quickly broken down into sub-work items. Therefore, you do not need to set this parameter.
default value	Unavailable for review check item fields. Therefore, you do not need to set it.

Step 7 After configuring the field behaviors for all review check item types, click **Release**.

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The **Release** of the template is **RELEASE**. You can use the template in corresponding projects.

----End

9.5.6 Enabling Review Check Items in Review Settings

Prerequisites

- A project already exists.
- A review checklist template has been configured.
- You have the permission to set reviews on the work configuration page.

Enabling Review Check Items in Review Settings

Step 1 Go to the project and choose **Settings > Work Item > Review > Basic Review Settings**.

Step 2 Configure review check items.

Configure whether to enable review check items for the review and select the review checklist template to be used.

1. Configure whether to enable review check items.
   - If the switch is toggled on (), review check items are enabled. If review check items need to be used in reviews, toggle on the switch.
   - If the switch is toggled off ( ), review check items are disabled.
2. Configure the associate review checklist template.

   Click  in the row of the review. In the displayed dialog box, select **Related Review Check Item Template** from the drop-down list and click **OK**.

----End

9.5.7 Using Review Check Items in Work Items

After configuring review check item fields and their behaviors, you can view the review check items associated with a work item when creating a work item in a project or accessing the work item details page. You can then fill in the review results and remarks.

Prerequisites

- A custom template project already exists.
- The review check item type fields and their behaviors have been configured for the work item type to be created.

Configuring Review Check Items on the Work Item Creation Page

For a work item type for which the review check item type fields and their behaviors have been configured, you can configure review check items on the page for creating a work item of this type.

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Step 1 On the project homepage, select a custom function page. For example, if the custom function page is named **Function Security**, select the **Function Security** page.

Step 2 Click the icon to create a top-level work item. If the page contains multiple top-level work item types, you can select one type to create. For example, if the page contains SG and FSR, click the create icon and select the create SG option from the drop-down list.

Step 3 Enter the basic information about the work item type by referring to **Step 3**.

Step 4 Configure the review check item fields.

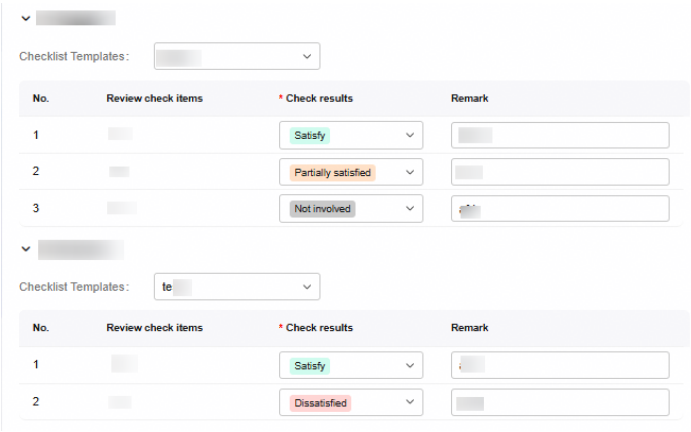
1. Select a review checklist template.

   Click the **Review Check Item Template** text box and select an associated review checklist template from the drop-down list.

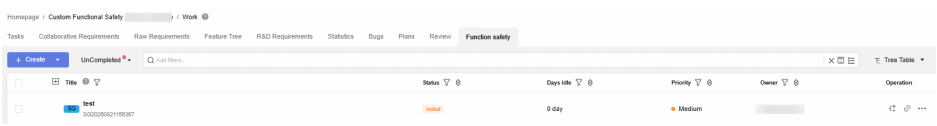
2. Enter the review check result and remarks.

   Enter the check result and remarks for each review check item in the selected review checklist template. The check result can be **satisfy**, **dissatisfied**, **partially satisfied**, or **Not involved**. Select a value as required.

3. If multiple review check item type fields are configured for the work item type, repeat **Step 4.1** and **Step 4.2** to configure all the fields.



Step 5 Click **OK**. The custom function page is displayed, and a message is displayed in the upper right corner, indicating that the work item type is created successfully. For example, if the work item type is SG, the message "SG created" is displayed. The new work item type is displayed in the list of the custom function page. For example, the new work item SG is displayed in the **Function Security** list, and its status is **Initial**.



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Managing Review Check Items on the Work Item Details Page

For a work item type for which the review check item type fields and their behaviors have been configured, you can manage review check items on the

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details page of a work item of this type. If you have not selected the fields of the review check item type in the review checklist template on the work item creation page, configure them by referring to **Step 4**. If you have configured these fields on the work item creation page, manage review check items as follows:

1. Click the name of a work item type to access the work item details page.
2. Manage review check items on the details page by referring to the following table.

Table 9-39 Managing review check items on the details page

Operation	Procedure	Remarks
View the field information of the review check item type	The work item details page displays the field information of associated review check items, including their selected templates, specific check items, check results, and remarks.	You have configured the review check item fields of the work item type to be displayed in the corresponding status on the details page by referring to **Configuring the Behaviors of A Review Check Field on the Details Page**.

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Operation	Procedure	Remarks
Modify the associated review checklist template	On the work item details page, you can modify the review checklist template associated with the review check item field and set the review check result and remarks. 1. Click the selected review checklist template name in the **Review Check Item Template** text box and select another review checklist template associated with the field from the drop-down list. 2. Enter the check result and remarks for each review check item in the selected review checklist template. The check result can be **satisfy**, **dissatisfied**, **partially satisfied**, or **Not involved**. Select a value as required. 3. Confirm the modifications. A message is displayed in the upper right corner of the page, indicating that the review check item fields are updated. **NOTE** If you want to re-modify the review check item fields that have been confirmed, click the reset button to restore them to the latest version.	You have configured the review check item fields of the work item type to be editable in the corresponding status on the details page by referring to **Configuring the Behaviors of A Review Check Field on the Details Page**.

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Operation	Procedure	Remarks
Modify the check result	On the work item details page, you can modify the check result of each review check item. 1. Click the check result to be modified. In the displayed drop-down list, re-select the check result. 2. Confirm the modifications. A message is displayed in the upper right corner of the page, indicating that the review check item fields are updated.	You have configured the review check item fields of the work item type to be editable in the corresponding status on the details page by referring to **Configuring the Behaviors of A Review Check Field on the Details Page**.
Modify remarks	On the work item details page, you can modify the remarks of each review check item. 1. Click the remarks to be modified and enter new remarks. 2. Confirm the modifications. A message is displayed in the upper right corner of the page, indicating that the review check item fields are updated.	You have configured the review check item fields of the work item type to be editable in the corresponding status on the details page by referring to **Configuring the Behaviors of A Review Check Field on the Details Page**.

9.5.8 Using Review Check Items in Reviews

After enabling review check items in review settings and setting the review check item template associated with the review, you can view the review check items associated with the review when initiating a review or performing a review/decision-making in a project. You can then fill in the review results and remarks.

Configuring Review Check Items in a Change Review

Review check items for change reviews have been enabled in review settings, and the associated review checklist template has been set. You can configure review check items on the page for creating a CR and view the review check items on the CR details page.

Step 1 On the project homepage, choose **Review** > **Change Review**.

Step 2 Click **CR**.

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Step 3 Enter the CR information by referring to **Table 7-68**.

Step 4 Configure review check items.

1. Select a review checklist template.

   Click **Select** in the **Review Check Item Template** text box and select an associated review checklist template from the drop-down list.

2. Enter the review check result and remarks.

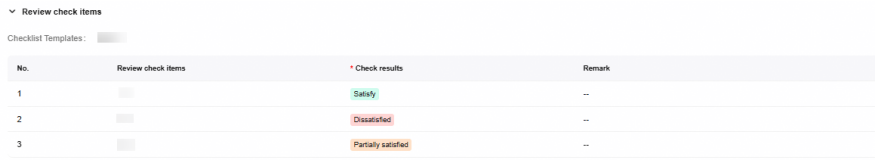
   Enter the check result and remarks for each review check item in the selected review checklist template. The check result can be **satisfy**, **dissatisfied**, **partially satisfied**, or **Not involved**. Select a value as required. Remarks are optional. You can determine whether to enter remarks as required.

Step 5 Click **Submit**.

You can view the new CR in the CR list.

Step 6 In the CR list, click the name of the new CR.

You can view the configured review check items on the details page.



----End

Configuring Review Check Items in a Baseline Review

Review check items for baseline reviews have been enabled in review settings, and the associated review checklist template has been set. You can configure review check items on the page for creating a BR and view the review check items on the BR details page.

Step 1 On the project homepage, choose **Review** > **Baseline Review**.

Step 2 Click **BR**. The **BR** page is displayed.

Step 3 Enter the BR information by referring to **Table 7-72**.

Step 4 Configure review check items.

1. Select a review checklist template.

   Click **Select** in the **Review Check Item Template** text box and select an associated review checklist template from the drop-down list.

2. Enter the review check result and remarks.

   Enter the check result and remarks for each review check item in the selected review checklist template. The check result can be **satisfy**, **dissatisfied**, **partially satisfied**, or **Not involved**. Select a value as required. Remarks are optional. You can determine whether to enter remarks as required.

Step 5 Click **Submit**.

You can view the new BR in the BR list.

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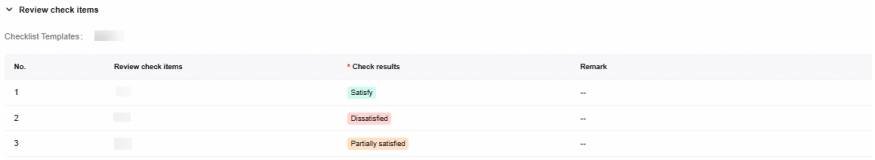
Step 6 In the BR list, click the name of the new BR.

You can view the configured review check items on the details page.



----End

Configuring Review Check Items in a General Review

Review check items for general reviews have been enabled in review settings, and the associated review checklist template has been set. You can configure review check items on the page for creating a GR and view the review check items on the GR details page.

Step 1 On the project homepage, choose **Review** > **General Review**.

Step 2 Click **GR**. The **GR** page is displayed.

Step 3 Enter the GR information by referring to **Table 7-76**.

Step 4 Configure review check items.

1. Select a review checklist template.

   Click **Select** in the **Review Check Item Template** text box and select an associated review checklist template from the drop-down list.

2. Enter the review check result and remarks.

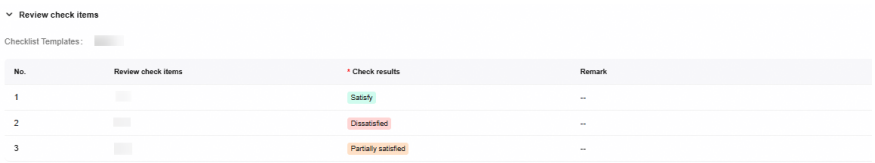
   Enter the check result and remarks for each review check item in the selected review checklist template. The check result can be **satisfy**, **dissatisfied**, **partially satisfied**, or **Not involved**. Select a value as required.

Step 5 Click **Submit**.

You can view the new GR in the GR list.

Step 6 In the GR list, click the name of the new GR.

You can view the configured review check items on the details page.



----End

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10 Intelligent CodeArts Req Automation with CodeArts Agent

CodeArts Req can be integrated with **CodeArts Agent** through a CodeArts toolchain plug-in. The CodeArts toolchain plug-in can be invoked by flexible prompts or skills to help the agent efficiently complete requirement management tasks.

There is no need to learn console operations. You just use natural language prompts in the CodeArts Agent chat window and let the agent manage requirements intelligently.

Core Benefits

- **No switching required**: You can complete requirement management tasks directly in the agent chat window. There is no need to log in to the console or switch back and forth between different pages.
- **Natural language interaction**: You can complete intelligent requirement management with just prompts.
- **Full scenario coverage**: The integration covers eight major scenarios: work item management, status transitions, breakdown, and association, comment management, attachment management, plan management, and configuration queries.
- **End-to-end development process**: The integration involves cooperation with services such as CodeArts Pipeline and CodeArts TestPlan, enabling a seamless, end-to-end workflow.

Principles

CodeArts Req makes its API capabilities available to CodeArts Agent through the CodeArts toolchain plug-in. After the agent interprets a user's natural language prompts, it calls the CodeArts Req API via Koo Command Line Interface (KooCLI), to perform the corresponding operations, and returns results to the chat window.

Figure 10-1 shows the interaction process.

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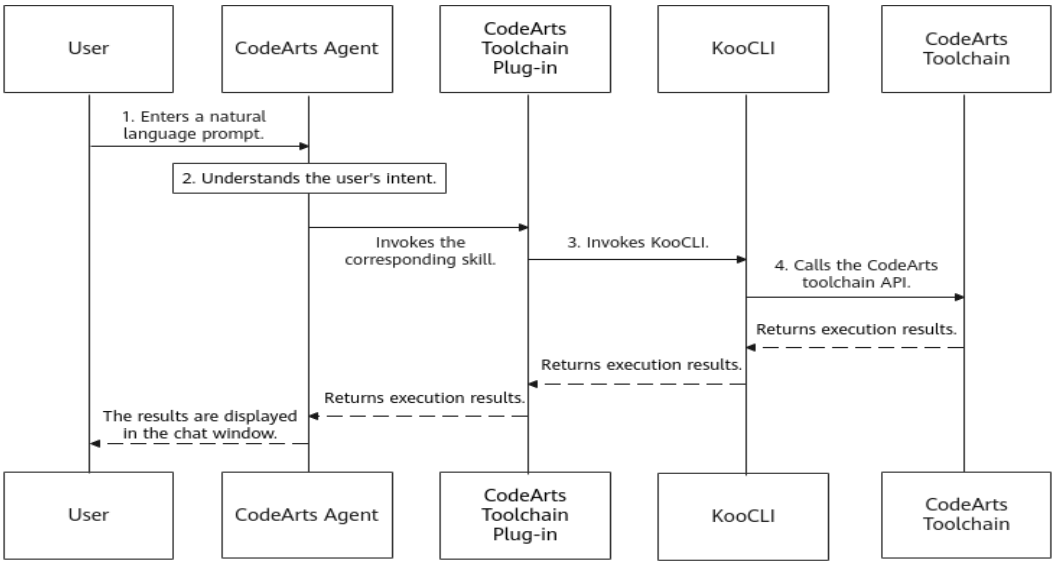
Figure 10-1 Interaction process



CodeArts Toolchain Plug-in

The CodeArts toolchain plug-in integrates CodeArts R&D services, such as CodeArts Req, CodeArts Repo, CodeArts Check, CodeArts TestPlan, CodeArts Pipeline, CodeArts Build, CodeArts Artifact, and CodeArts Deploy, into CodeArts Agent as skills and sub-agents. After the plug-in is installed, users can trigger service operations directly through natural language prompts in the agent chat window. There is no need to switch to the console. After the primary agent receives a user prompt, it obtains execution specifications and routing strategies via skills. Skills guide interactive operations step by step, while sub-agents handle complex orchestration tasks, executing them autonomously in isolated contexts and returning results. For details about the skills and sub-agents included in the CodeArts toolchain plug-in, visit **All CodeArts Sub-agents and Skills**.

CodeArts Req provides eight skills and a sub-agent in the CodeArts toolchain plug-in.

The skills are expert in interactive requirement management, including work item management, status transitions, breakdown, and association, comment management, attachment management, plan management, and configuration queries. They understand the user's intent and intelligently manage requirements. When an operation is highly complex, involves batch processing, or requires multi-step orchestration, the skills hand the task off to the sub-agent for execution. The sub-agent runs autonomously in an independent context, without consuming primary chat resources. It can automatically complete complex orchestration tasks such as creating work items, transitioning work item statuses, and breaking down work items, and return a structured result report upon completion. Together, the skills and the sub-agent form a two-layer execution architecture, giving the agent the flexibility to handle varying tasks from single queries to batch orchestration.

CodeArts Req supports the following skills:

- codearts-req-workitem
- codearts-req-comment

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- codearts-req-config-ipd
- codearts-req-config-scrum
- codearts-req-issue-attachment
- codearts-req-plan
- codearts-req-workitem-ipd
- codearts-req-workitem-scrum

Application Scenarios

The following CodeArts Req scenarios (adding, deleting, updating, or querying work items) are supported by CodeArts Agent.

Scenario	Scenario Description	Natural Language Prompt Example
Work item management	Create, query, update, and delete a work item.	• Creating a work item: Create a bug work item named "my-test-bug" in the Cloud Platform project. • Querying a work item: Show me bug work item data in the Cloud Platform project. • Updating a work item: Update the planned completion time of work item "my-test-bug" in the Cloud Platform project to tomorrow. • Deleting a work item: Delete work item "my-test-bug" in the Cloud Platform project.
Work item status transition	Transition the status of a work item according to the workflow configuration.	Transition the status of "IR20260908171790" in the Cloud Platform project to "Analyzing."
Work item breakdown	Break down a work item into finer-grained child work items according to the work item type template configuration.	Break down work item "IR20260908171790" in the Cloud Platform project into two SRs.
Work item association	Set associations between work items according to the work item association configuration.	Associate work item "IR20260916209748" with work item "BUG20260916209643" in the Cloud Platform project.
Work item comment management	Add comments to work items, and reply to, edit, pin, and delete comments after they are posted.	Add the comment "Fixed" to work item "BUG20260908171775" in the Cloud Platform project.

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Scenario	Scenario Description	Natural Language Prompt Example
Work item attachment management	Upload attachments to work items, and download or delete uploaded attachments.	Upload the attachment D:\test\testbug.pdf to work item "mytest" in the Risk Management project.
Plan management	Create release plans and iteration plans, baseline and unbaseline release/iteration plans, and update release/iteration statuses.	Create an iteration named "springtest" for the current month in the Risk Management project.
Configuration query	Query work item statuses, work item fields, project members, workflow configuration, and other information.	Show me project members of the Risk Management project.

Prerequisites

CAUTION

Tokens or credits in your CodeArts Agent account are consumed when this operation invokes tools or runs LLM inference.

No.	Item	Description
1	**CodeArts Agent** has been installed and you have logged in to it using your account.	CodeArts Req's intelligent capabilities are implemented through CodeArts Agent.
2	**CodeArts Req has been purchased.**	To use CodeArts Req functions through CodeArts Agent, you must have purchased CodeArts Req.
3	**You have been assigned project-level role permissions for CodeArts Req.**	To use CodeArts Req functions through CodeArts Agent, you must have relevant permissions assigned.

Procedure

Step 1 **Click to download the CodeArts toolchain plug-in.**

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Step 2 Click **install.bat** in the plug-in package to install the plug-in and KooCLI.

Step 3 Complete **KooCLI initialization** to store your permanent AK/SK and region information in the configuration file, so there is no need to repeatedly enter this information when performing operations.

Step 4 Open the CodeArts Agent chat panel and tell it what you want to do using natural language.

NOTE

- The first time you use CodeArts Agent to perform requirement management-related operations, the analysis process takes longer. As usage increases, the analysis speed gradually improves and response time shortens.
- The interface style varies across different CodeArts Agent clients; refer to the actual display in the tool you are using for the exact operations.

----End

Usage Example

You can use CodeArts Agent for eight major scenarios in CodeArts Req: work item management, work item status transitions, work item breakdown into sub-items, work item association, work item comment management, work item attachment management, plan management, and configuration queries.

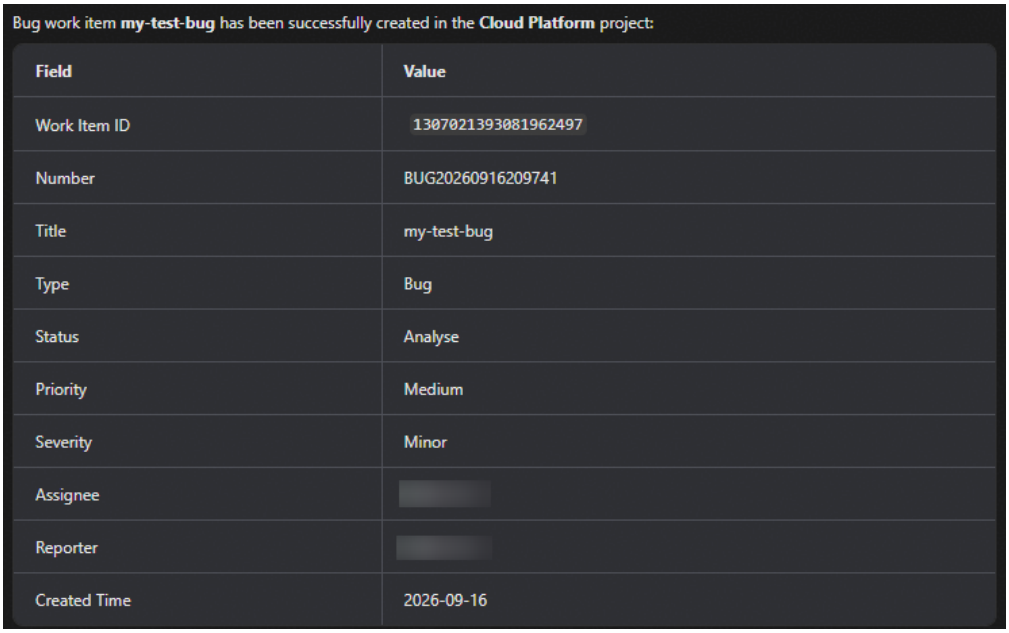
Scenario 1: Work Item Management

- Creating a work item

  The following is an example prompt you could use to create a work item:

  ```
  Create a bug work item named "my-test-bug" in the Cloud Platform project.
  ```

  The agent begins analyzing and executing the task, with the entire process displayed in real time within the chat. Once the task is complete, you can view the result information indicating that the work item is created successfully. Example result

  
  Bug work item **my-test-bug** has been successfully created in the **Cloud Platform** project:

Field	Value
Work Item ID	1307021393081962497
Number	BUG20260916209741
Title	my-test-bug
Type	Bug
Status	Analyse
Priority	Medium
Severity	Minor
Assignee	
Reporter	
Created Time	2026-09-16

  You can view the new bug work item in the bug list on the console.

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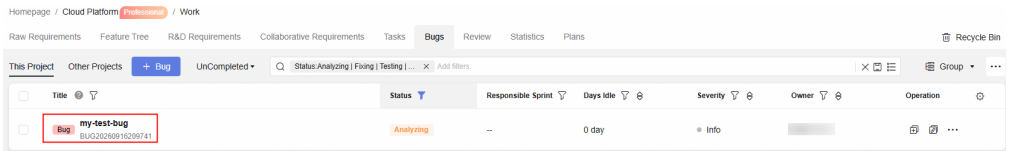


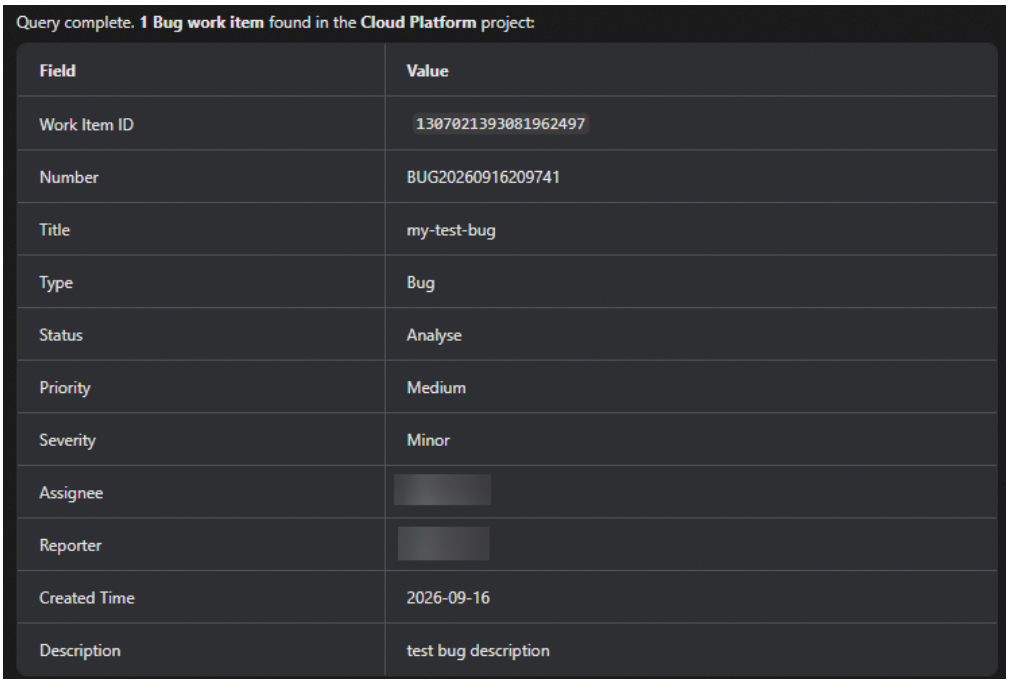
- Querying work item data

  The following is an example prompt you could use to query work item data:

  ```
  Show me bug work item data in the Cloud Platform project.
  ```

  The agent begins analyzing and executing the task, with the entire process displayed in real time within the chat. Once the task is complete, you can view details about the work item.

  Example result

  Query complete. **1 Bug work item** found in the **Cloud Platform** project:

Field	Value
Work Item ID	1307021393081962497
Number	BUG20260916209741
Title	my-test-bug
Type	Bug
Status	Analyse
Priority	Medium
Severity	Minor
Assignee	
Reporter	
Created Time	2026-09-16
Description	test bug description

- Updating a work item

  The following is an example prompt you could use to update the planned completion time of a work item:

  ```
  Update the planned completion time of work item "my-test-bug" in the Cloud Platform project to tomorrow.
  ```

  The agent begins analyzing and executing the task, with the entire process displayed in real time within the chat. Once the task is complete, you can see a message indicating that the planned completion time is updated.

  Example result

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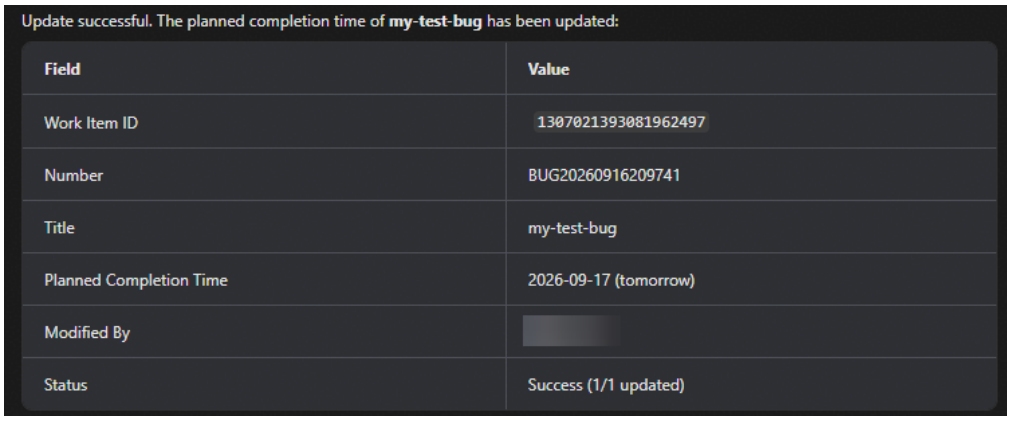
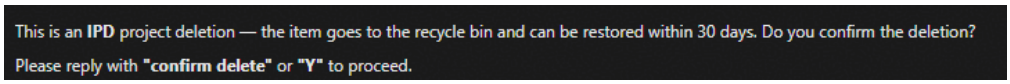


- Deleting a work item

  The following is an example prompt you could use to delete a work item:

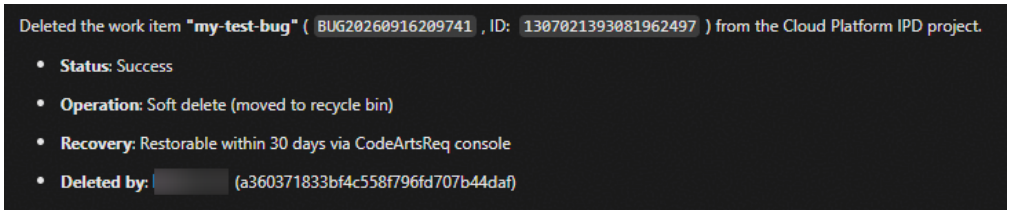
  ```
  Delete work item "my-test-bug" in the Cloud Platform project.
  ```

  The agent begins analyzing and executing the task, with the entire process displayed in real time within the chat. A confirmation dialog box will appear during the deletion, as shown in the following figure.

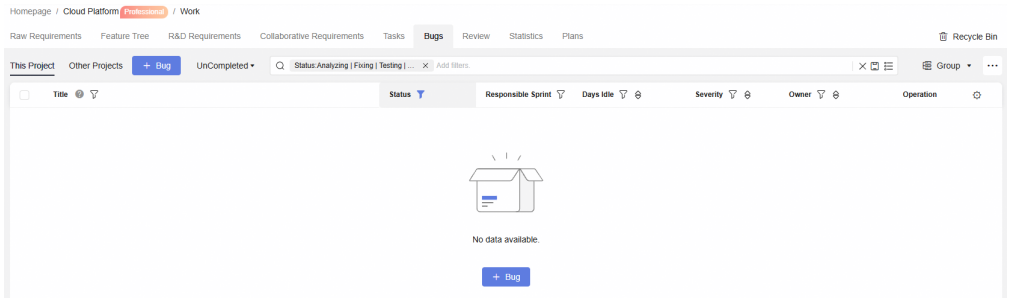


  After you confirm the deletion, CodeArts Agent continues the execution. Once the task is complete, you can see that the work item is deleted.

  Example result



  There is no information for this work item in the bug list on the console.



  You can view the deleted work item in the recycle bin and restore it as needed.

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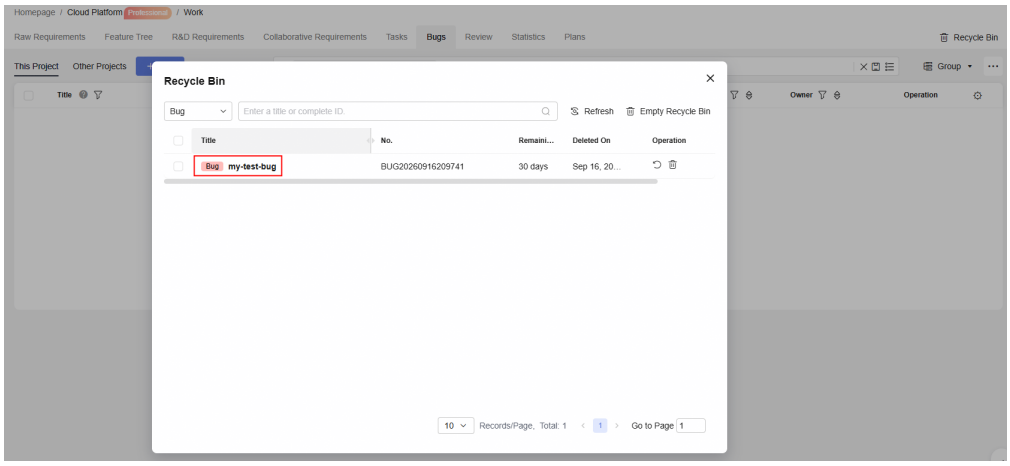


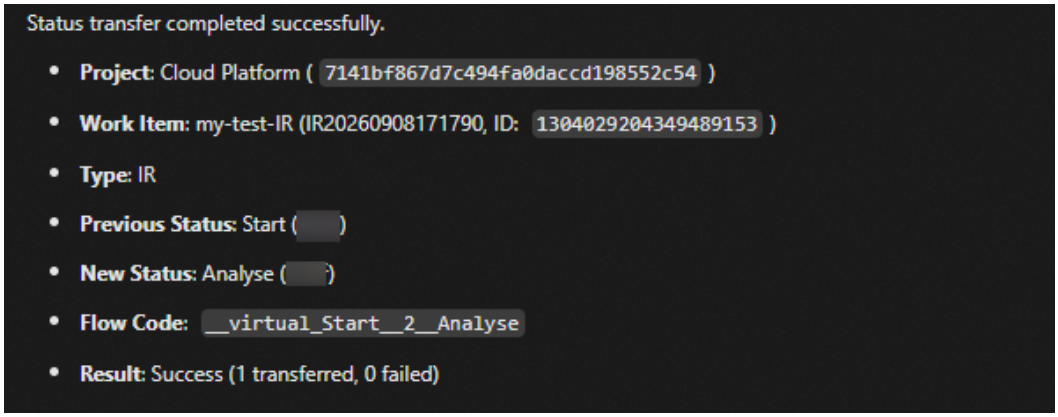
Scenario 2: Work Item Status Transition

The following is an example prompt you could use to transition a work item to the **Analyzing** state:

```
Transition the status of "IR20260908171790" in the Cloud Platform project to "Analyzing."
```

The agent begins analyzing and executing the task, with the entire process displayed in real time within the chat. Once the task is complete, you can see that the status transition succeeds.

Example result



Scenario 3: Work Item Breakdown

The following is an example prompt you could use to break down a work item:

```
Break down work item "IR20260908171790" in the Cloud Platform project into two SRs.
```

The agent begins analyzing and executing the task, with the entire process displayed in real time within the chat. Once the task is complete, you can see the information about the two SRs.

Example result

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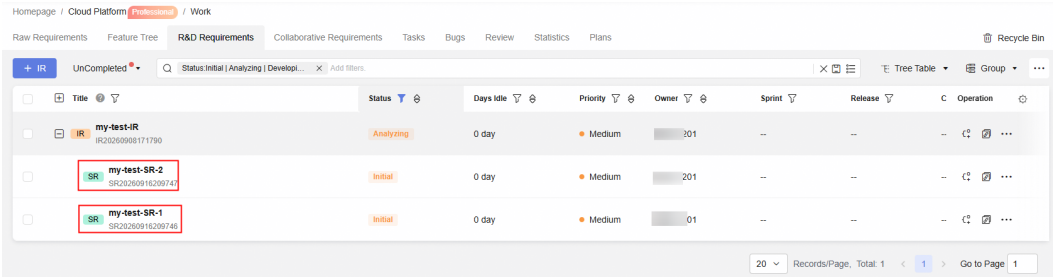
Successfully split IR20260908171790 into two SR child work items.

Field	SR #1	SR #2
Title	my-test-SR-1	my-test-SR-2
Number	SR20260916209746	SR20260916209747
ID	1307035927528116224	1307035927540699137
Parent	IR20260908171790 (1304029204349489153)	IR20260908171790 (1304029204349489153)
Category	SR	SR
Status	Start ( )	Start ( )
Priority	(Medium)	(Medium)
Assignee	201	7201
Break Status	Undecomposed	Undecomposed

In the R&D requirement list on the console, you can also see the information about the child work items.



Scenario 4: Work Item Association

The following is an example prompt you could use to associate two work items:

```
Associate work item "IR20260916209748" with work item "BUG20260916209643" in the Cloud Platform project.
```

The agent begins analyzing and executing the task, with the entire process displayed in real time within the chat. Once the task is complete, you can see that the IR and bug work items are associated.

Example result

Association created successfully.

- **Source:** IR20260916209748 (testIR, ID: `1307038879403773952`)
- **Target:** BUG20260916209643 (testBug, ID: `1307038804824858625`)
- **Link Type:** Association (`link_field_code: link`)
- **Operation:** Associate (`operation_flag: 0`)
- **Result:** Success — 1 associated, 0 failed

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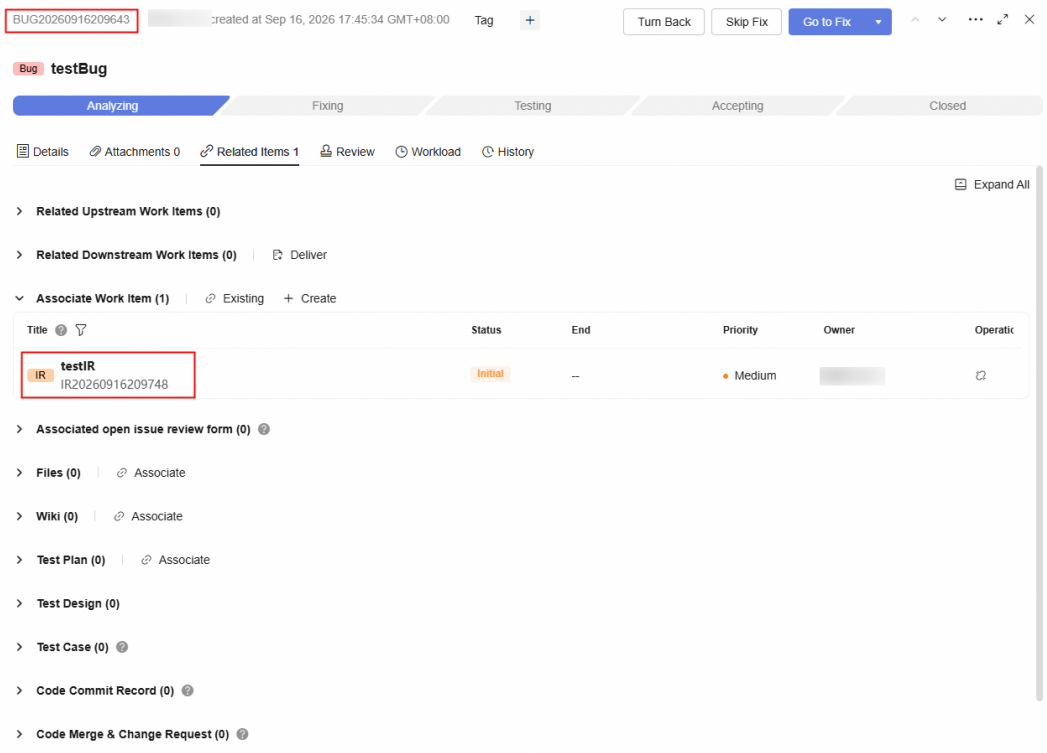
You can also view the associated work item information in the work item details.



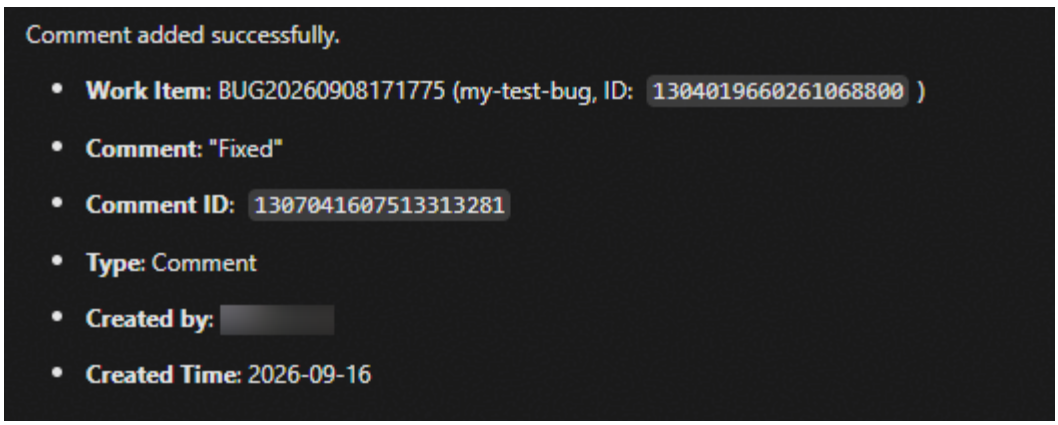
Scenario 5: Work Item Comment Management

The following is an example prompt you could use to add a comment to a work item:

```
Add the comment "Fixed" to work item "BUG20260908171775" in the Cloud Platform project.
```

The agent begins analyzing and executing the task, with the entire process displayed in real time within the chat. Once the task is complete, you can see that the comment is added to the work item.

Example result



You can also view the added comment in the work item details.

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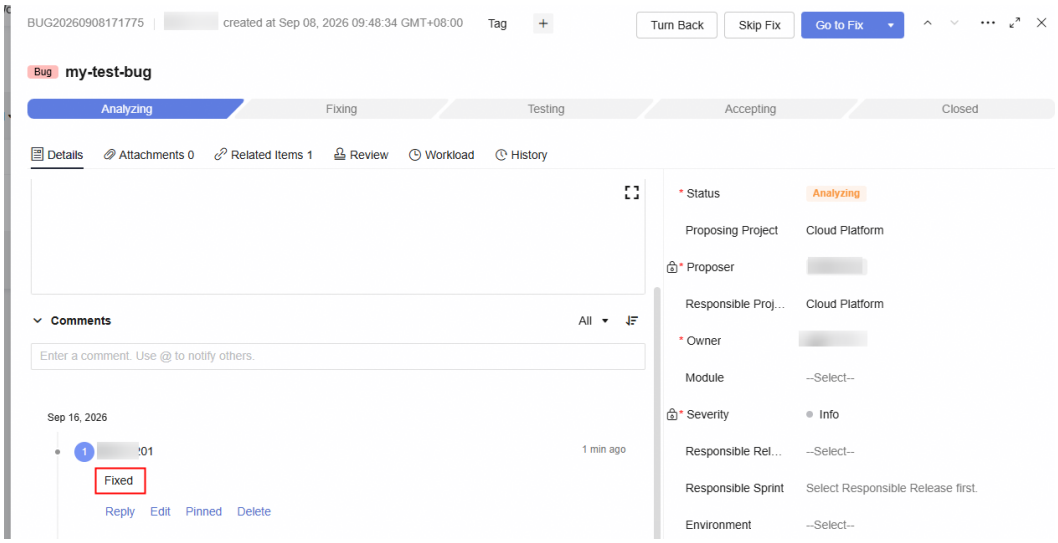


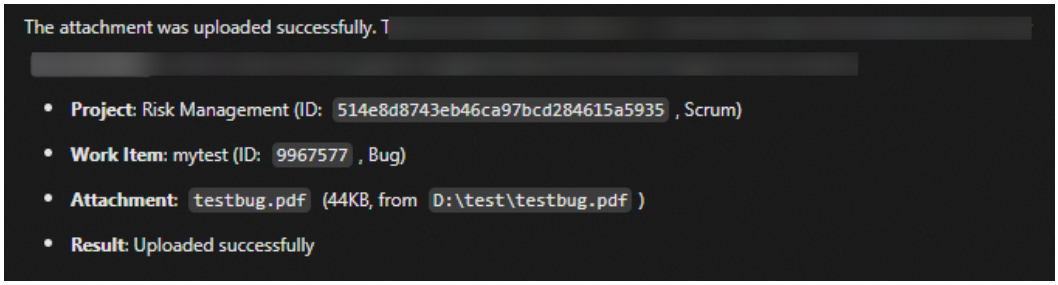
Scenario 6: Work Item Attachment Management

The following is an example prompt you could use to upload an attachment for a work item:

```
Upload the attachment D:\test\testbug.pdf to work item "mytest" in the Risk Management project.
```

The agent begins analyzing and executing the task, with the entire process displayed in real time within the chat. Once the task is complete, you can see that the attachment is uploaded for the work item.

Example result



You can also view the uploaded attachment in the work item details.

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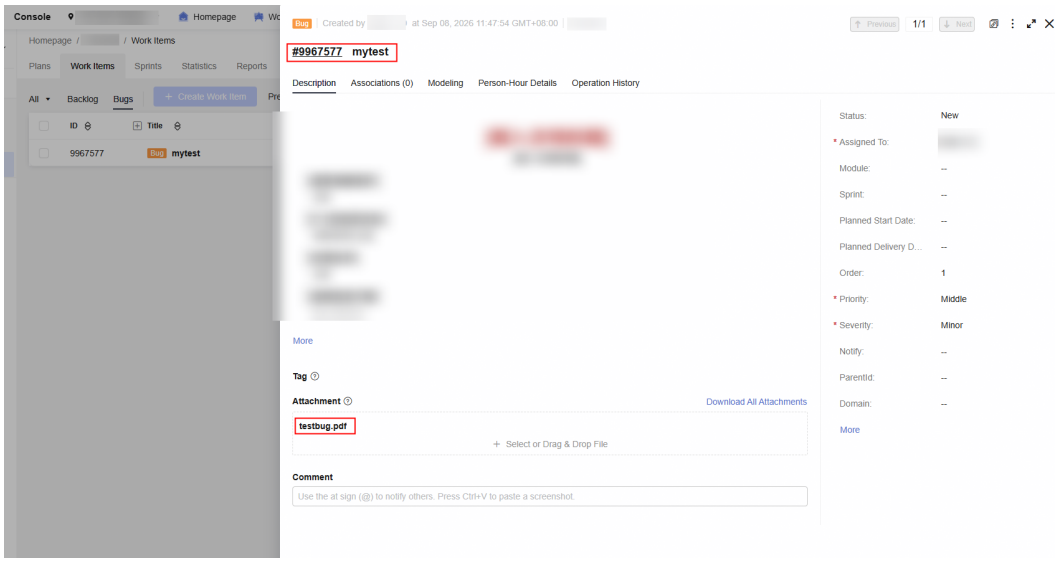


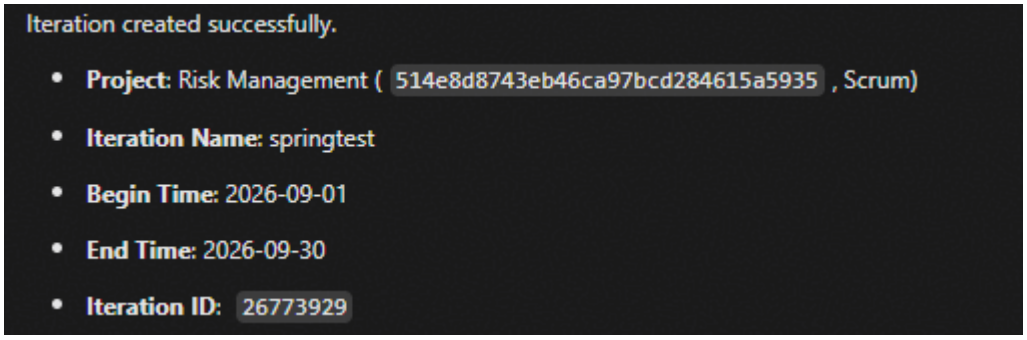
Scenario 7: Plan Management

The following is an example prompt you could use to create an iteration:

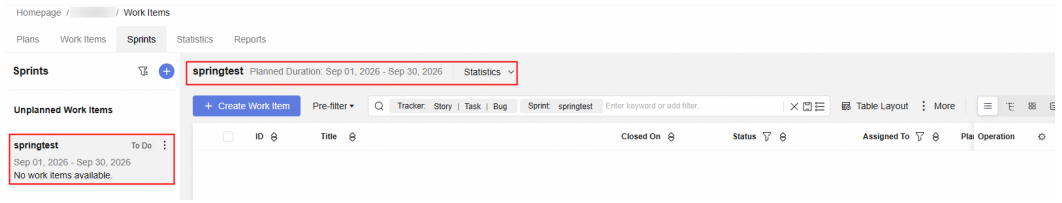
```
Create an iteration named "springtest" for the current month in the Risk Management project.
```

The agent begins analyzing and executing the task, with the entire process displayed in real time within the chat. Once the task is complete, you can see that the iteration is created.

Example result



You can also view the created iteration on the iteration page.



Scenario 8: Configuration Query

The following is an example prompt you could use to query project members:

```
Show me project members of the Risk Management project.
```

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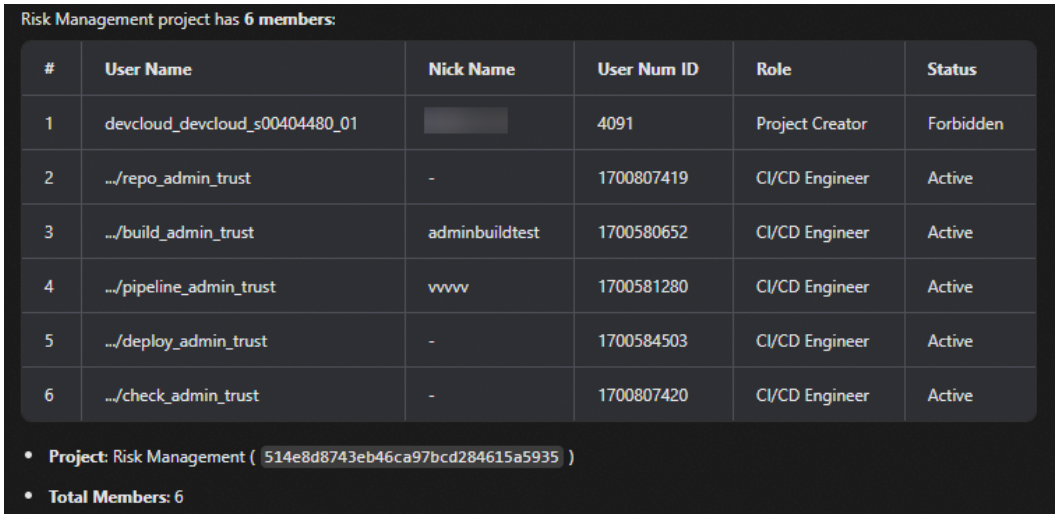
The agent begins analyzing and executing the task, with the entire process displayed in real time within the chat. Once the task is complete, you can see the project member information.

Example result



Risk Management project has **6 members**:

#	User Name	Nick Name	User Num ID	Role	Status
1	devcloud_devcloud_s00404480_01		4091	Project Creator	Forbidden
2	.../repo_admin_trust	-	1700807419	CI/CD Engineer	Active
3	.../build_admin_trust	adminbuildtest	1700580652	CI/CD Engineer	Active
4	.../pipeline_admin_trust	vvvvv	1700581280	CI/CD Engineer	Active
5	.../deploy_admin_trust	-	1700584503	CI/CD Engineer	Active
6	.../check_admin_trust	-	1700807420	CI/CD Engineer	Active

- **Project:** Risk Management (`514e8d8743eb46ca97bcd284615a5935`)
- **Total Members:** 6

Related Documents

For more use cases of the CodeArts toolchain plug-in, see **Developing a Travel Assistant Using the CodeArts Toolchain Plug-in**.

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11 (Optional) Checking Audit Logs

Cloud Trace Service (CTS) records operations on CodeArts Req for query, audit, and backtrack.

Operations Recorded by CTS

Table 11-1 CodeArts Req operations recorded by CTS

Operation	Resource Type	Event
Create a permission template	privilege_template	addPrivilegeTemplate
Delete a permission template	privilege_template	deletePrivilegeTemplate
Modify the name or description of a permission template	privilege_template	updatePrivilegeTemplateNameOrDescription
Modify the specific permissions in a permission template	privilege_template	updatePrivilegeTemplate
Apply a permission template to a project	privilege_template	applyPrivilegeTemplate
Add a user to a role	role_user	addUsersToRole
Delete a user from a role	role_user	deleteUsersFromRole
Modify role permissions	role_privilege	updatePrivilegeOfRole
Add users in batches to a project	project	batchAddRoleUserRelation
Modify users in batches in a project	project	batchUpdateRoleUserRelation

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Operation	Resource Type	Event
Delete users in batches from a project	project	batchDeleteRoleUserRelation
Create a project	project	createProject
Update the project name	project	updateProjectName
Update the project creator	project	updateProjectCreator
Update project description	project	updateProjectDescription
Delete a project	project	deleteProject
Archive a project	project	archiveProject
Cancel archiving a project	project	unArchiveProject
Set member reviewers	member	setAuditSwitchOfInvitateMember
Add a project member	member	addProjectMember
Remove a project member	member	deleteProjectMember
Update a project member role	member	updateProjectMemberRole
Create a custom role	role	createProjectRole
Update a custom role name	role	updateProjectRoleName
Delete a custom role	role	deleteProjectRole
Update permissions of a custom role	role	updateProjectRolePermission
Create a common field	issue	createProjectCommonField
Delete a common field	issue	deleteProjectCommonField
Update a common field	issue	updateProjectCommonField
Create a common status	issue	createProjectCommonState

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Operation	Resource Type	Event
Delete a common status	issue	deleteProjectCommon-State
Update a common status	issue	updateProjectCommon-State
Create a module	issue	createProjectModule
Create a submodule	issue	createProjectChildMod-ule
Delete a module	issue	deleteProjectModule
Update a module	issue	updateProjectModule
Create a domain	issue	createProjectDomain
Delete a domain	issue	deleteProjectDomain
Update a domain	issue	updateProjectDomain-Name
Add a custom field to a project	issue	addProjectFieldFor
Create a custom field for a project	issue	createProjectFieldFor
Add a custom status to a project	issue	addProjectStateFor
Delete a work item	issue	deleteProjectIssue

Checking Audit Logs

Query CodeArts Req traces on the CTS console. For details, see **viewing audit events**.

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