

CodeArts Req

User Guide

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1 CodeArts Req Usage Process

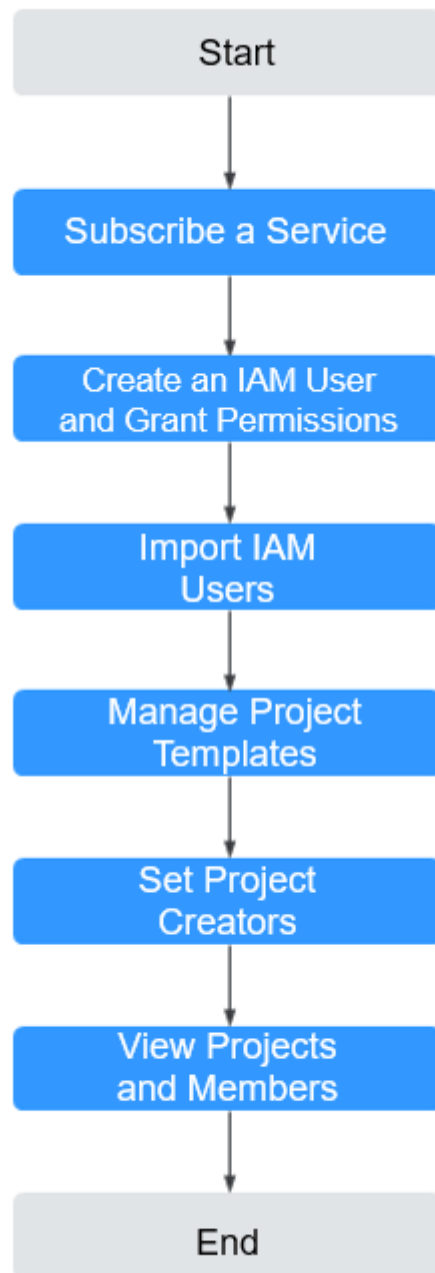
Background

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.

Procedure

Before applying a project, the tenant administrator needs to perform the following management settings.

Figure 1-1 Project preparations



2 Purchasing and Authorizing CodeArts Req

Prerequisites

You have [registered a HUAWEI ID and enabled Huawei Cloud services](#).

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

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 the service list.

Step 3 Click **Access Service**. 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.

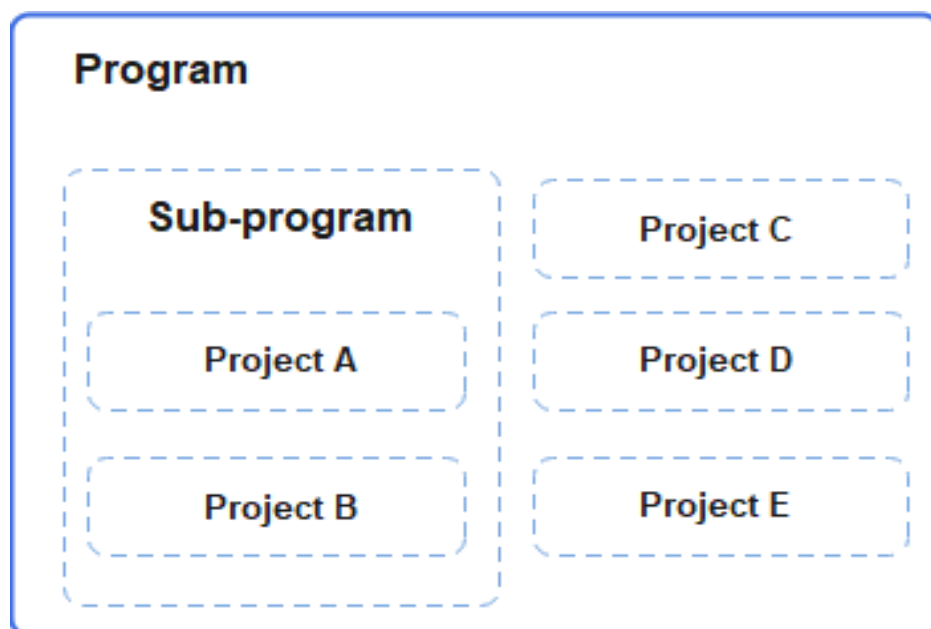
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4 Managing a Program

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.



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](#)
- [Managing a Program](#)

Constraints and Restrictions

- Currently, programs can only be created using IPD-system device and IPD-standalone software project templates. Upgrade to the Pro or higher edition first. For details about the specifications, see [CodeArts Packages](#).
- 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 project work configuration data of the same type as the current project/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

Managing a Program

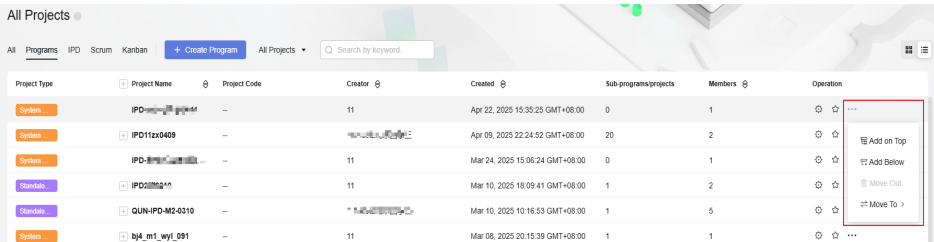
- Basic operations on a program
You can perform the following operations on a new program.

Table 4-2 Basic operations on a program

Operation	Description
Edit basic project information	Choose Settings > General . Click Basic Information , modify Name, Code, Description , and Creator , and click Save .
Delete a project	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 4-1 Program list



- a. Adding sub-programs or projects
- 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.
 - Select the programs and projects to be added and click **OK** to set them as the subnodes of the target program.

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.

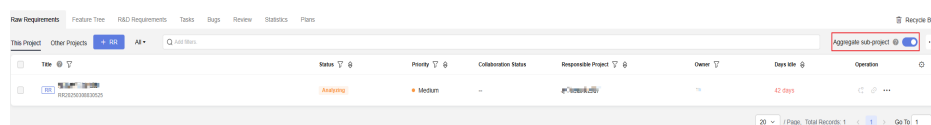
Constraints and Restrictions

- 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 4-2 Program requirement list



----End

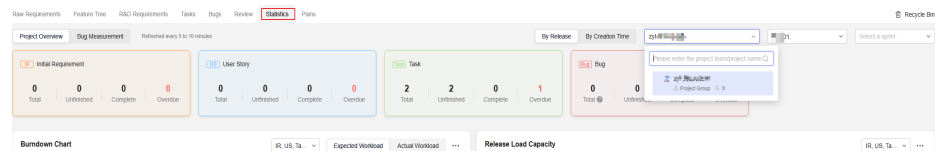
4.3.2 Tracking the Program Progress

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

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 4-3 Program statistics



-----End

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, and Kanban. 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](#).

Table 5-1 Project template features and application scenarios

Project 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	A work item template contains all configuration items of a Scrum project, except those in Work Item > Statuses and Transitions > Automation > Change Handler. You can select a template as required to quickly reuse the work item configuration data of the project. In addition to the default Scrum template, you can also customize a template as follows: Open a project, choose Settings > Work Item. On the displayed page, click Fields and Templates to access the work item template page, and edit the template on this page. Work Item Template is available only for Scrum projects.

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

Operation	Procedure	Remarks
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.	-
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	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.
IPD	IPD-System Device	Complex products with embedded software that evolves with hardware. Examples: communications devices, automobiles, home appliances, and consumer electronics.
	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.
	IPD-Self-Operated Software/Cloud Service	Cloud service development, microservice architecture, and self-operated software scenarios, such as public cloud and Internet application software.

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. Enter only letters, digits, and underscores (_) with a maximum of 128 characters.
Code	This parameter is set for third-party services. A project code is set to facilitate service management. The value can contain a maximum of 200 characters, including letters, digits, underscores (_), and hyphens (-).
Description	Enter a brief description of the project. Enter only letters, digits, and underscores (_) with 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 5-6 Basic operations on a project

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

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.	-

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

6 Managing Scrum Project Requirements

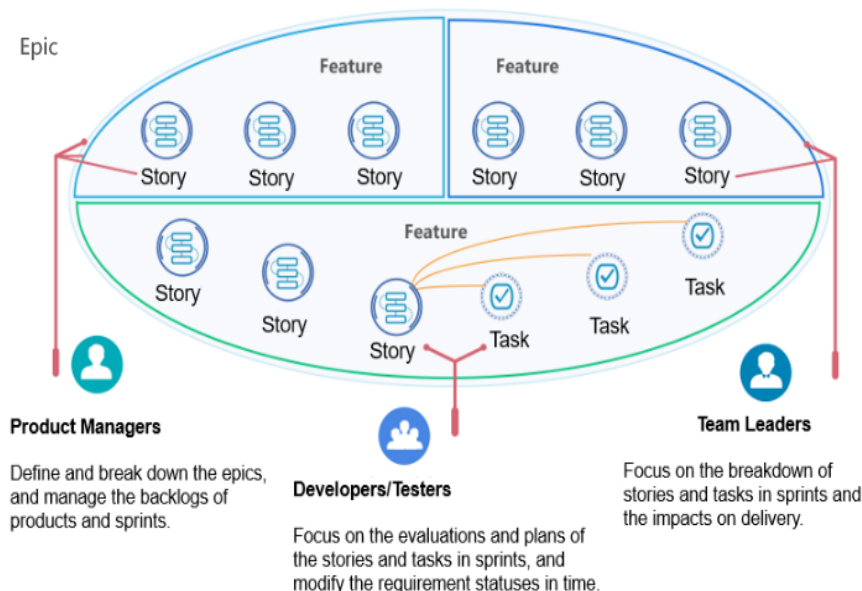
6.1 Requirement Management Process

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 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.

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.

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 values 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 unnecessary information, so that visual distraction can be reduced. • As a tester, I want to associate test cases with requirements, so that I can track the verification progress of requirements.

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 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.

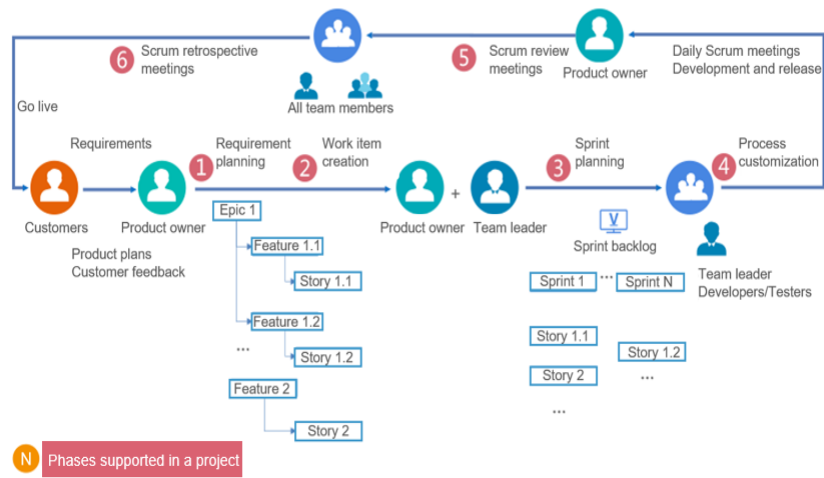
Work Item Type	Description	Example
Bug	• Bugs are created to track problems of software functions found during testing and verification. Bugs can be prioritized. • Bugs can be created and tracked separately. You can also create bugs when verifying a story. The bugs are child work items of the story, 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.

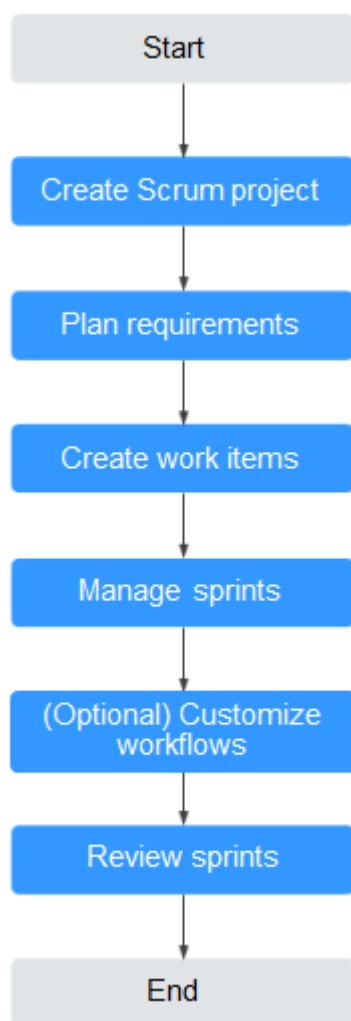
Sprint Planning, Daily Scrum, Sprint Review, and Sprint Retrospective are the major activities for simple but efficient project management. The management process is as follows.

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.

**Table 6-2** Process description

Operation	Description
Create Scrum project	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 Members to a CodeArts Project .
Plan requirement	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 item	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 sprint	Plan and manage sprints. For details, see Configuring a Sprint Plan .

Operation	Description
(Optional) Customize workflow	Customize the workflows as required. For details, see Configuring Common Settings .
Organize sprint retrospective	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 and Restrictions

A maximum of 25 common fields can be customized.

Prerequisites

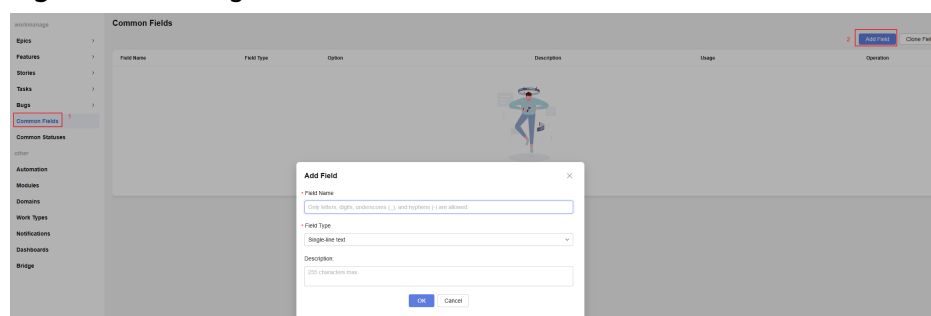
- You have created a Scrum project. For details, see [Creating a CodeArts Project](#).
- An IAM user has been added to the project. For details about how to add members, see [Adding Members to a CodeArts Project](#).
- You have permissions to **custom work items**. For details about how to set permissions,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

Procedure

Step 1 [Access the CodeArts Req homepage](#).

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

Figure 6-3 Setting common fields



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

Click **Add Field**, and set the field information, including the name (for example, **CommonField1**), type, and description.

- 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.

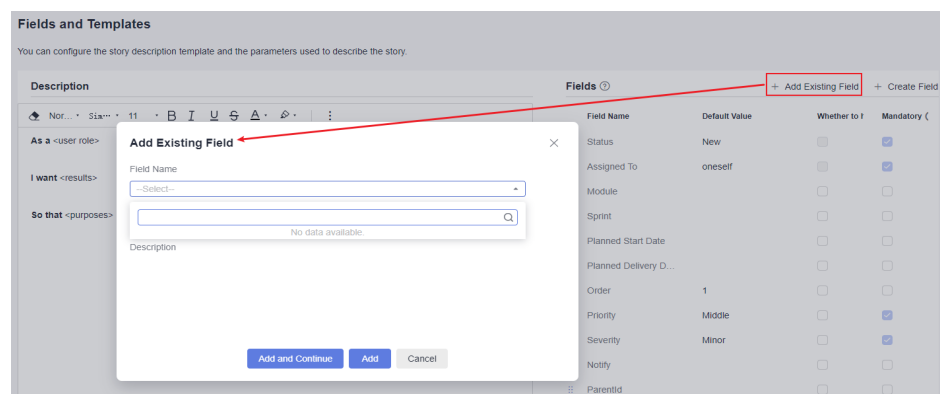
Step 4 Add an existing common field (for example, **CommonField1**) to the work item template. Common fields can be configured in the epic, feature, story, task, and bug work item templates. You can add common fields to other work item templates in the same way, and only need to do this once for each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

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

1. In the navigation pane of the project settings page, 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.

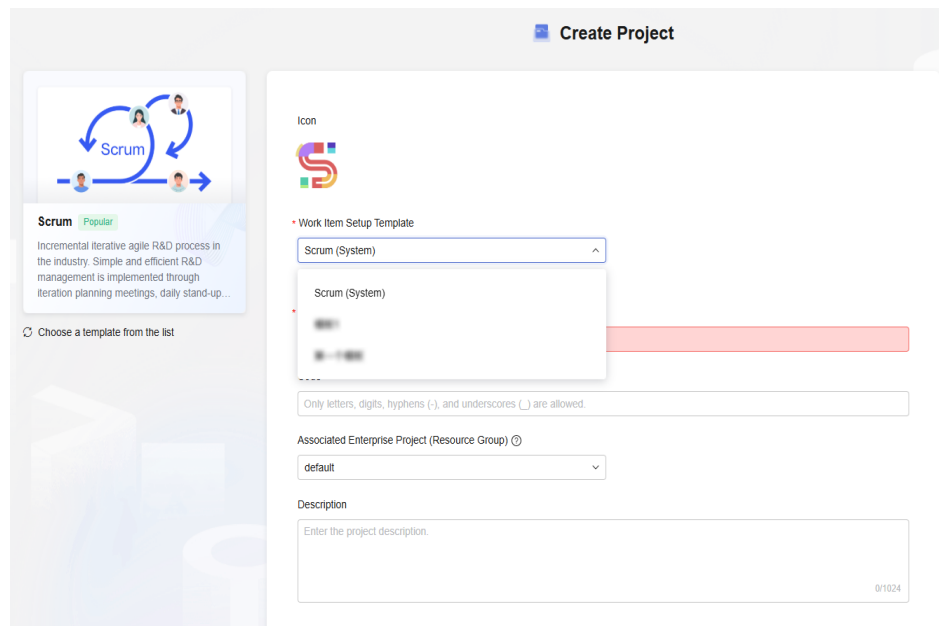
Click **Add Existing Field**, select **CommonField1** from the **Field Name** drop-down list, click **Add**, and save the template.

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



3. Check this **CommonField01** field when creating a story on the **Work > 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. For details, 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 and Restrictions

- The **New** and **Closed** statuses cannot be deleted.
- 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 Members to a CodeArts Project](#).
- You have permissions to **custom work items**. For details about how to set permissions, see [Managing Project Permissions](#).

Procedure

- Step 1** [Access the CodeArts Req homepage](#).
- Step 2** Go to a Scrum project and choose **Settings > Work**.
- 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 6-3](#).

Table 6-3 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.

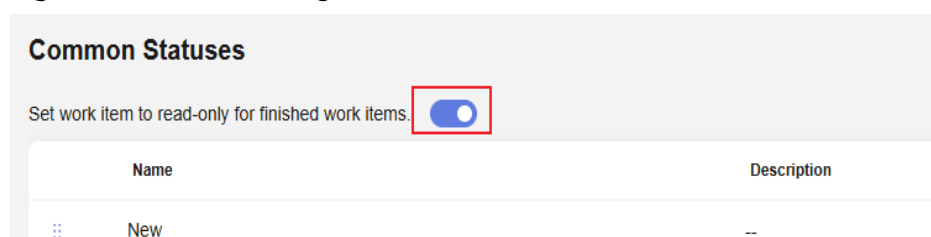
- The added status is displayed in the status list, including the name, description, category, and usage.
- Common statuses can be deleted.

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.**

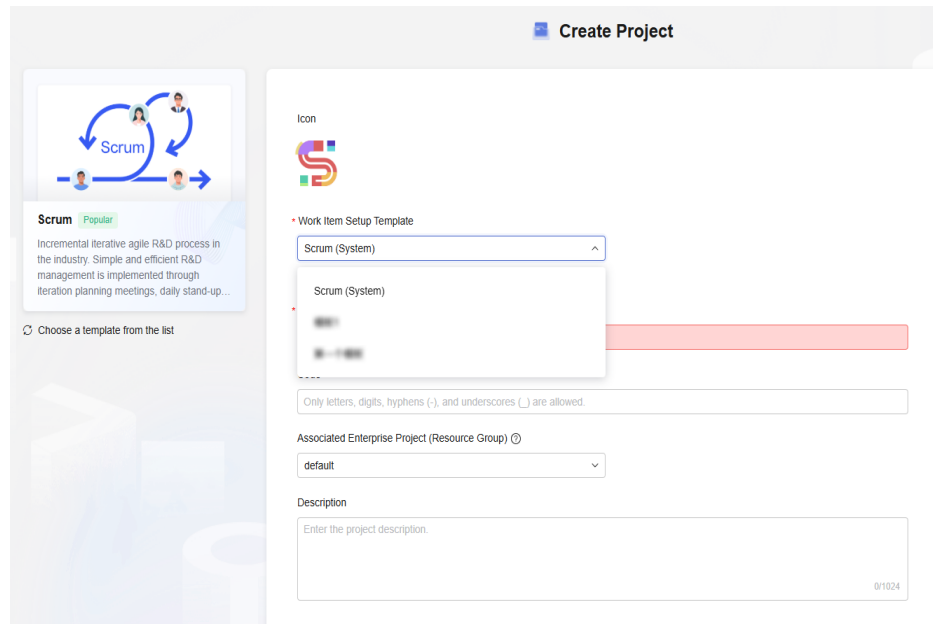
The following uses a story status as an example:

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

Step 5 (Optional) To prevent a closed work item from being edited, toggle on **Set work item to read-only for finished work items**, shown in the following figure.

Figure 6-6 Status management

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. For details, see the following figure.

Figure 6-7 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 Members to a CodeArts Project](#).
- You have permissions to **custom work items**. For details about how to set permissions, see [Managing Project Permissions](#).

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**.
- 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 to adjust their sequence.

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

----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.

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 Members to a CodeArts Project](#).
- You have permissions to **custom work items**. For details about how to set permissions, see [Managing 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**.
 - 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 **Add**.

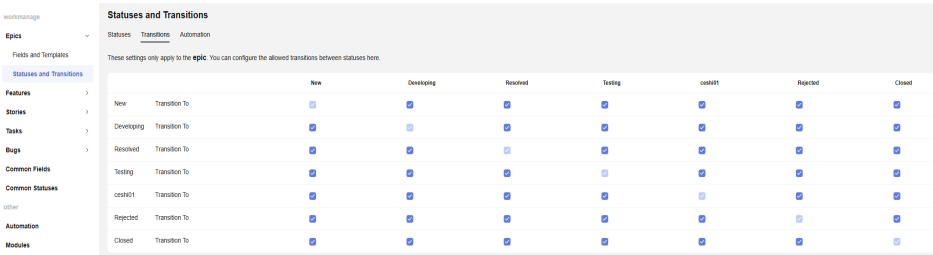
The new status is displayed in the current work item status list and on the **Transitions** tab page.

You can delete the added 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 statuses that work items can be transitioned to. Then click the status of a work item on the work item list page to check the transition.

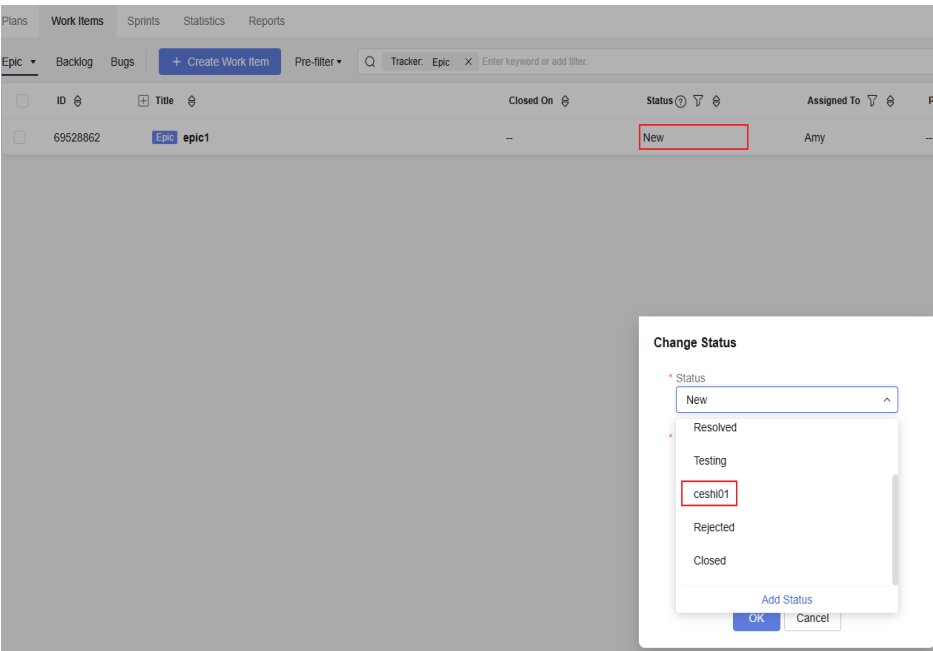
- a. [Access the CodeArts Req homepage.](#)
- b. Go to a Scrum project and choose **Settings > Work**.
- c. In the navigation pane, choose **Epics > Statuses and Transitions**. Then click the **Transitions** tab.

Figure 6-8 Epic status transitions



- d. Select the allowed statuses and click **Save**.
- e. (Optional) After the configuration is complete, check the status of **ceshi01** in the work item list.

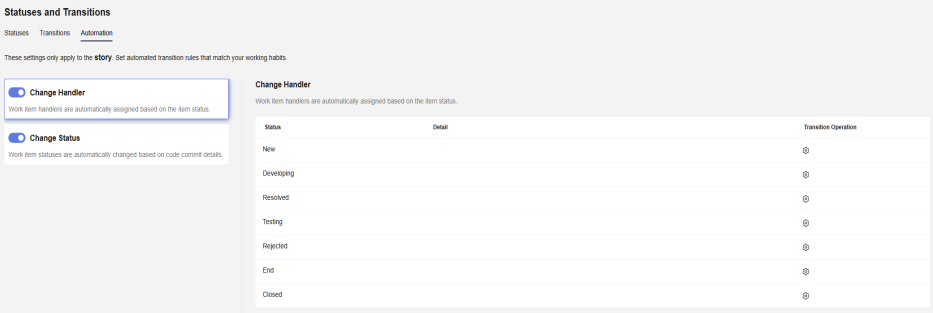
Figure 6-9 Epic status transition



- **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**.
- In the navigation pane, choose **Epics > Statuses and Transitions**. Click the **Automation** tab. By default, **Change Handler** is selected.

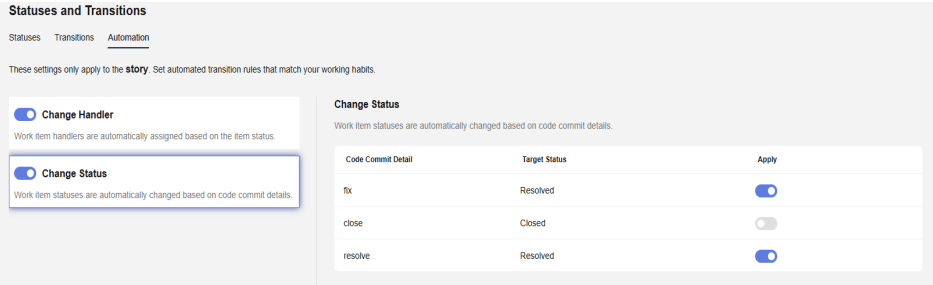
Figure 6-10 Specifying handlers for epic statuses



- 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.
 - 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**.
- 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.

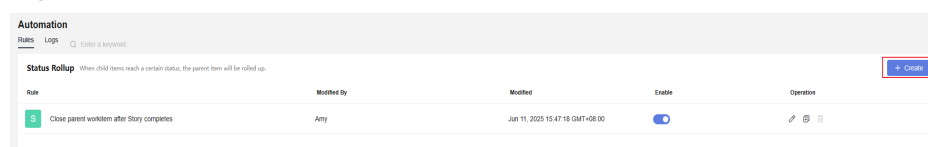
Prerequisites

- 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 Members to a CodeArts Project](#).
- You have permissions to **set automation**. For details about how to set permissions, see [Managing Project Permissions](#).

Procedure

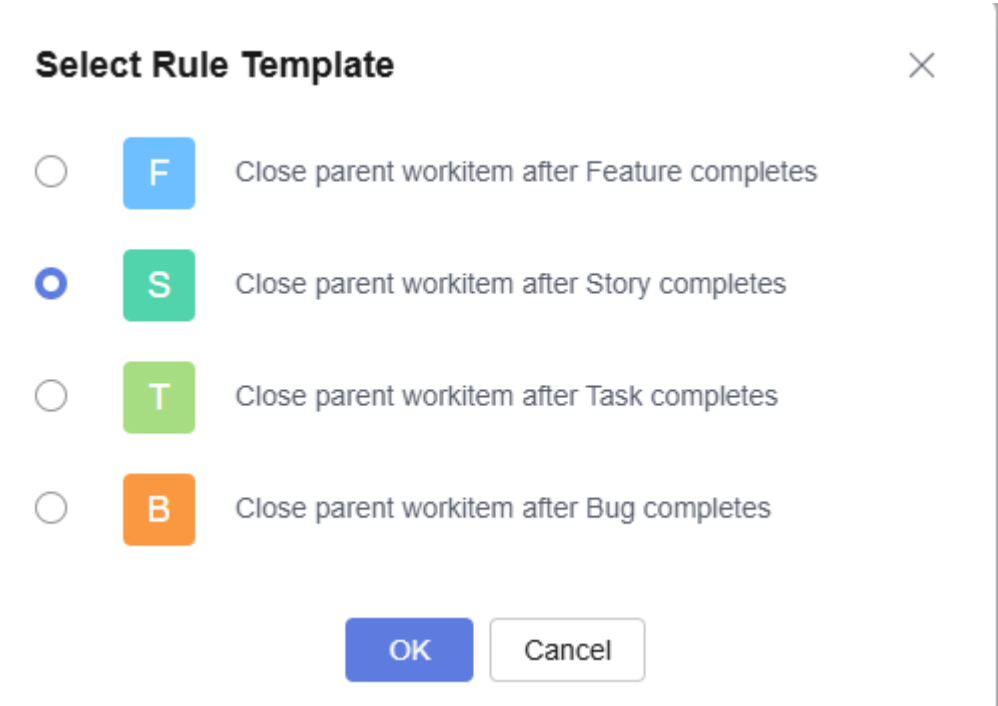
- Step 1** [Access the CodeArts Req homepage](#).
- Step 2** For details about how to add a status, see [Configuring Common Work Item Statuses](#).
- Step 3** In the navigation pane, choose **Automation**. Then click **Create** to create an automation rule.

Figure 6-12 Automation



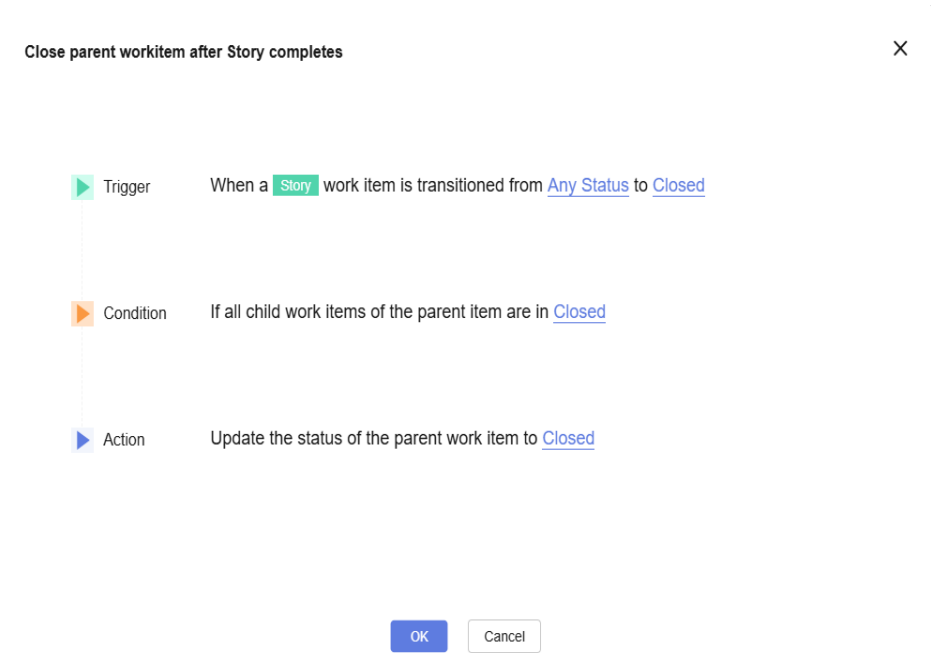
- Step 4** The rule configuration processes for features, stories, tasks, and bugs are the same. The following uses the rule **Close parent workitem after Story completes** as an example.

Figure 6-13 Status rollup rule templates



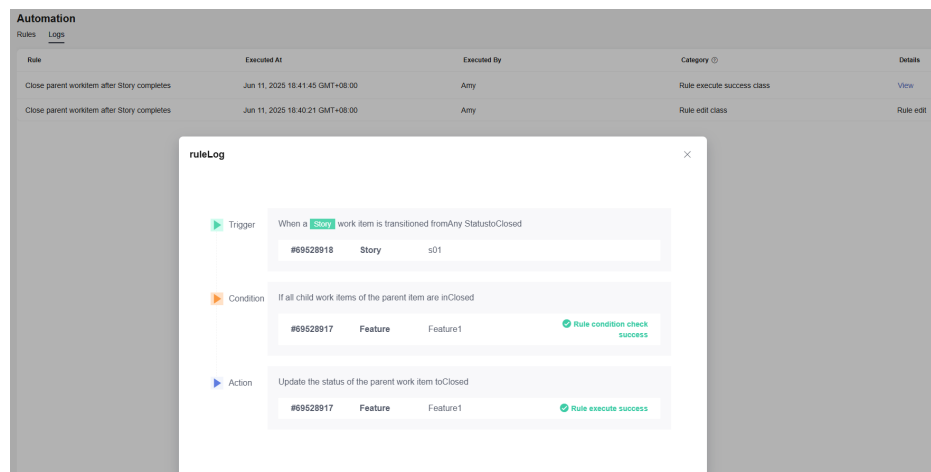
- Step 5** In the **Select Rule Template** dialog box, select **Close parent workitem after Story completes** and click **Yes**.
- Step 6** Configure the trigger, condition, and action by referring to the following figure, and click **OK**.

Figure 6-14 Rule configuration dialog box 02



- Step 7** 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 8** Go to the **Work > 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 9** 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.
- Step 10** Click **View** to view the execution logs of the rule, as shown in the following figure.

Figure 6-15 Rule execution logs



- Step 11** On the rule configuration page, click  on the right of **Close parent workitem after Story completes** to disable the configured rule.
- Step 12** Perform operations in [Step 8](#) 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 Members to a CodeArts Project](#).
- You have permissions to **set modules**. For details about how to set permissions, see [Managing Project Permissions](#).

Procedure

- Step 1** [Access the CodeArts Req homepage](#).
- Step 2** Go to a Scrum project and choose **Settings > Work**.
- 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 6-4 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.

- 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 6-5 Module operations

Operation	Description
Edit	Click  to modify a module.
Add submodule	Click  to add a submodule. A maximum of three levels are supported.

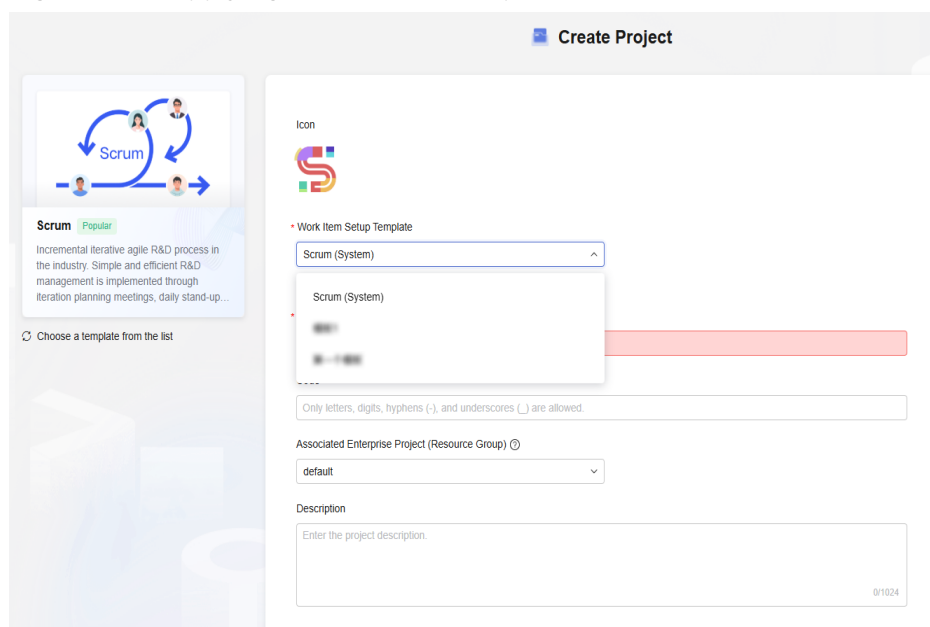
Operation	Description
Delete	Click  to delete a module. Modules that are currently in use by work items cannot be deleted.

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 template name and description, and click **OK**. This template can be used to create Scrum projects. For details, 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 Members to a CodeArts Project](#).
- You have permissions to **set domains**. For details about how to set permissions, see [Managing Project Permissions](#).

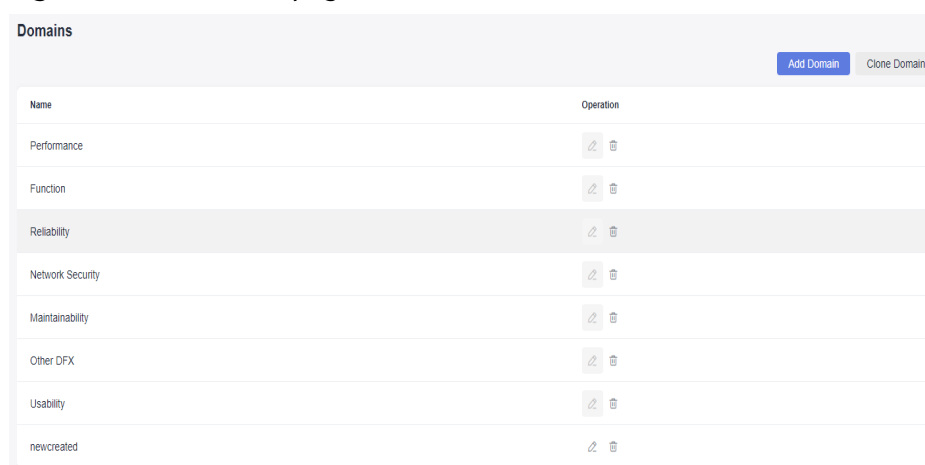
Procedure

Step 1 [Access the CodeArts Req homepage](#).

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

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

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 6-6 Adding a domain

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

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 6-7 Domain operations

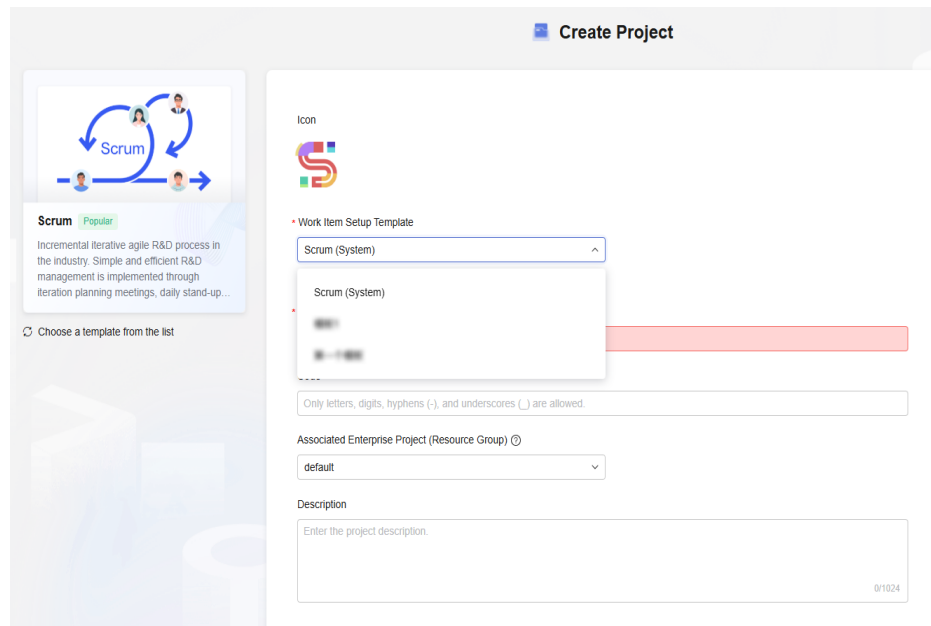
Operation	Description
Edit	Click to modify a domain. The default domains cannot be edited.
Delete	Click to delete a domain. The domains that are currently in use or the default domains cannot be deleted.

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

Figure 6-18 Work item details page

The screenshot displays the 'Work item details' form. A dropdown menu is open for the 'Domain' field, showing a list of domains: Function, Reliability, Network Security, Maintainability, Other DFX, Usability, and newcreated. The 'newcreated' option is highlighted with a red rectangular border. The form includes fields for Module, Sprint, Planned Start, Planned Duration, Order, Priority, Severity, Notify, ParentId, Domain, and Expected. The 'Expected' field shows '0.00 | 0.00'. A 'Show More' link is located below the form.

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. For details, see the following figure.

Figure 6-19 Applying a work item template

----End

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.

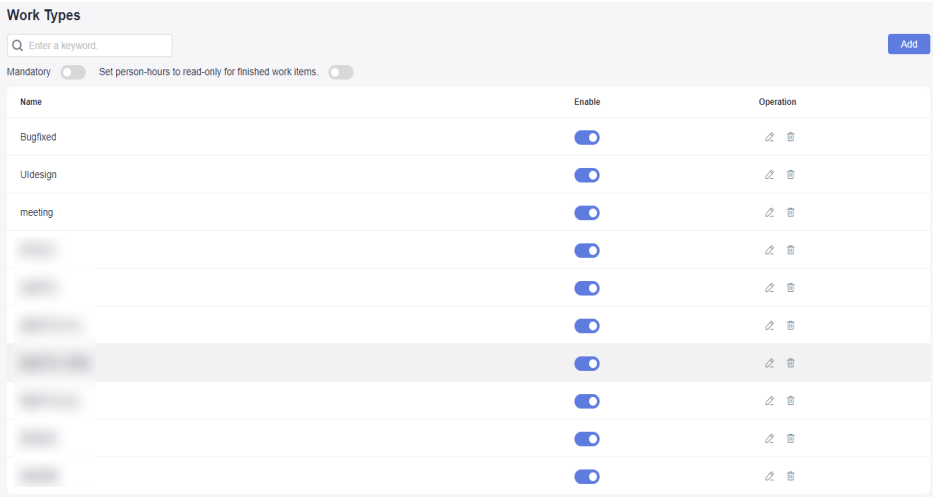
Prerequisites

- 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 Members to a CodeArts Project](#).
- 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**.
- 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 6-8 Adding a work type

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

Step 5 Edit or delete a work type if needed.

Table 6-9 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.

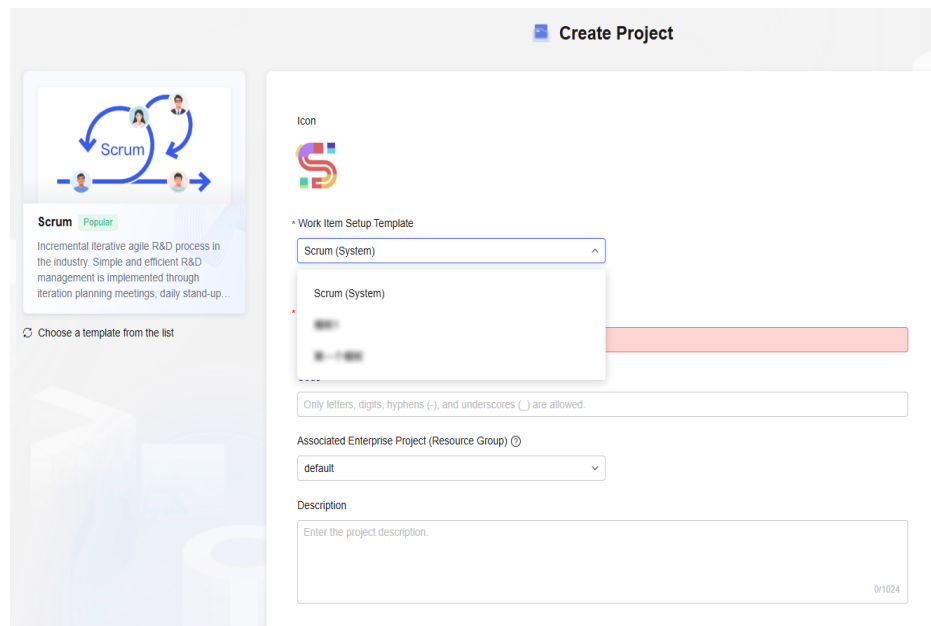
Step 6 Configure the following work type settings as required.

Table 6-10 Configuring work type settings

Operation	Description
Mandatory	Click  next to Mandatory to make work type required for person-hour settings. By default, the work type is not required.
Set person-hours to read-only for finished work items.	Click  next to Set person-hours to read-only for finished work items. to make person-hour settings read-only for work items in a Done state. By default, person-hour settings are also 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. For details, see the following figure.

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 Members to a CodeArts Project](#).
- You have permissions to **set notifications**. For details about how to set permissions, see [Managing Project Permissions](#).

Procedure

- Step 1** [Access the CodeArts Req homepage](#).
- Step 2** Go to a Scrum project and choose **Settings > Work**.

- 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.

Figure 6-22 Configuring notifications

Notifications

Private Message Notification Upon Changes	Assigned To	Creator	CC Recipients
Work item created	☒	☐	☒
Work item modified	☒	☒	☒
Work item deleted	☒	☒	☒
Comment made on a work item	☒	☒	☒

☒ Notify members when they are added to or removed from projects☒ Notify members when their roles are changed

Email Notification Upon Changes	Assigned To	Creator	CC Recipients
Work item created	☒	☐	☒
Work item modified	☒	☒	☒
Work item deleted	☒	☒	☒
Comment made on a work item	☒	☒	☒

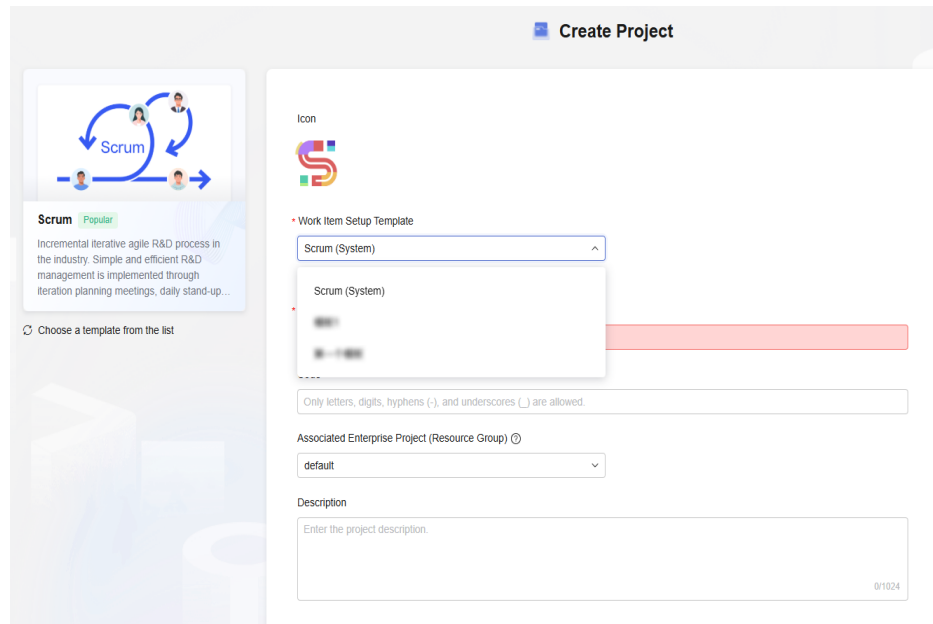
☒ Notify members when they are added to or removed from projects☒ Notify members when their roles are changed☐ Notify users when they are mentioned by using the at sign (@) in the work item comments

Daily Reminder Recipient

Daily email reminders on work items are sent out at 08:00.

Notification Upon Changes	Assigned To	Creator	CC Recipients
days: 7 before expiry (story or bug)	☐	☐	☐
Overdue	☐	☐	☐
When a critical bug is still open	☐	☐	☐

- Step 5** When such work item change is made, the specified project members can check notifications by clicking  in the upper right corner. Project members who have set email addresses will also receive an email notification. As an administrator, you can set an email address for a member in **Identity and Access Management**.
- 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. For details, 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 Members to a CodeArts Project](#).
- You have permissions to **create (clone)** work items. For details about how to set permissions, see [Managing 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** > **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 6-11](#) describes default basic fields.

Table 6-11 Creating a work item

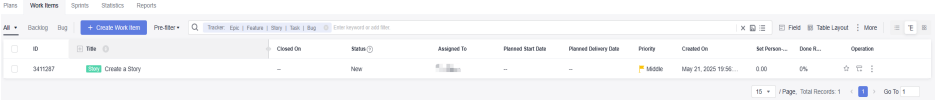
Parameter	Description
Title	Work item name. The value can contain a maximum of 512 characters, including letters, digits, periods (.), and underscores (_).
Tag	Tag of a work item, for example, document update . Tags can be used only in a project that the work item belongs to.
Description	Enter a description 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 .
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.
ParentId	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 .

Parameter	Description
Release Version	Version of a release. Enter a value manually.
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.
Expected	Estimated workloads required to complete a work item. Unit: person-hours or person-days .
Actual	Actual workloads required to complete a work item.
Find Release Version	Find Release Version is available only for work items of the bug type. Product version where a bug is found.
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.
Story Point	Estimated workload of the story.
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 6-12 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.
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 child work item 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 of 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. - Click Delete under  in the upper right corner to delete a work item and its subtasks.

Operation	Description
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.
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 and Restrictions

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 Members to a CodeArts Project](#).
- You have permissions to **create** plans. For details about how to set permissions, see [Managing Project Permissions](#).

Creating a Mind Map

Step 1 [Access the CodeArts Req homepage](#).

Step 2 Go to the project homepage and choose **Work > 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 6-13](#) describes the operations on the mind map page.

Table 6-13 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 all work items in a mind map to an Excel or 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. NOTE By default, the newly added work items are Assigned To the Creator . You can reassign them on the work item details page.

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. NOTE 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.

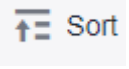
Step 5 Return to the plan list to view the created plan. The items in the list are described as follows.

Table 6-14 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 operation	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.

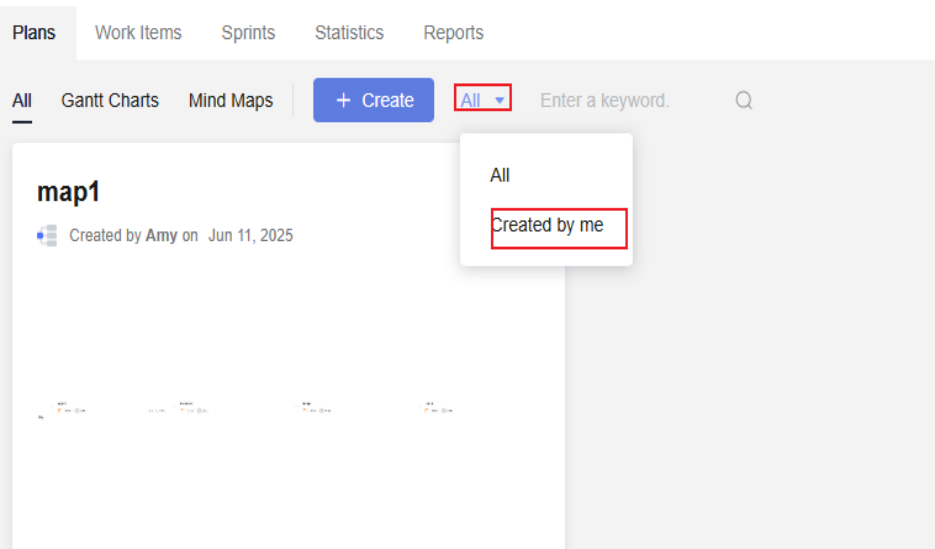
Step 6 Click   in the upper right corner to switch to the card mode.

Table 6-15 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  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 > Plans**.
- Step 3** Click a mind map name. The mind map details page is displayed. [Table 6-13](#) 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**.
- Hover the cursor over **Mind Map > Requirements** and click .

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 .
- Hover the cursor over an epic work item (for example **Epic1**) and click .

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

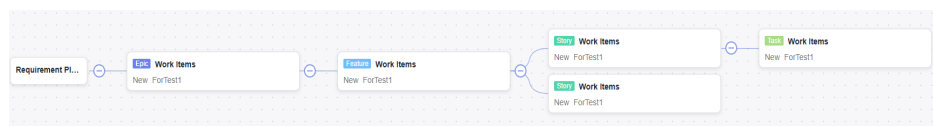
- Select a feature (for example, **Feature1**) and press **Tab**.
- Select a story work item (for example, **Story1**) and press **Enter**.
- Hover the cursor over a story work item (for example, **Story1**) and click .
- Hover the cursor over a feature work item (for example, **Feature1**) and click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

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 .

Step 8 Check the operation result.

Figure 6-26 Mind map



----End

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 and Restrictions

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 Members to a CodeArts Project](#).
- You have permissions to **create** plans. For details about how to set permissions, see [Managing Project Permissions](#).

Creating a Gantt Chart

Step 1 [Access the CodeArts Req homepage](#).

Step 2 Go to the project homepage and choose **Work > 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 6-16](#) describes the operations on the Gantt chart page.

Figure 6-27 Gantt chart details page

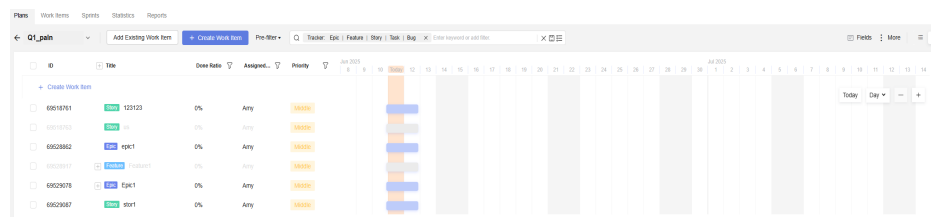
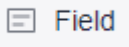
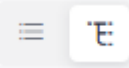


Table 6-16 Operations on the Gantt chart page

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.

Operation	Description
Create	Click Create Work Item to create a work item or milestone.
	Click this button to set the fields to be displayed in a Gantt chart and their sequence. A maximum of five fields can be displayed.
	Click this button to switch the view mode of work items in a Gantt chart. List and tree view modes are supported.
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  or  to zoom in or out a Gantt chart.

Step 5 Return to the plan list to view the created plan. The items in the list are described as follows.

Table 6-17 Plan list

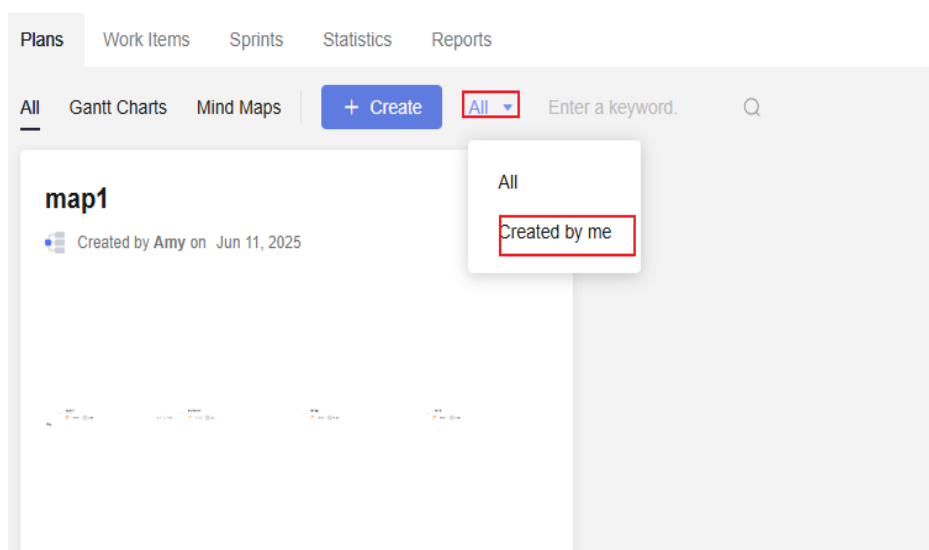
Parameter	Description
Plan Title	Plan name.
Creator	Plan creator.
Created	Time when a plan is created. Move your cursor to the Created column and click  to sort plans by creation time.
Last Modifier	Name of the user who last modified the plan.
Last Modified	Time when the plan is last modified. Move the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

Table 6-18 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 6-28 Plan list

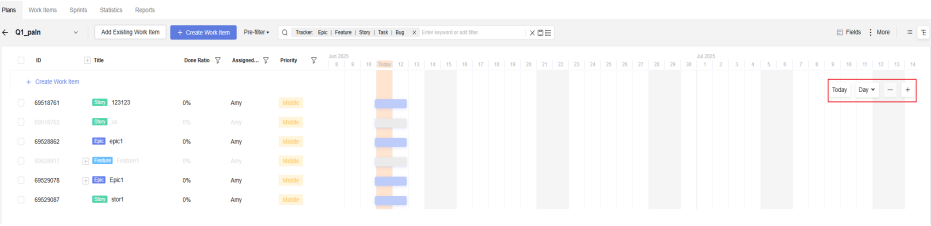
- You can enter a plan name in the search box to search for it.

----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 > Plans**.
- Step 3** Click a Gantt chart name. The Gantt chart details page is displayed. [Table 6-16](#) describes the operations on the details page.

Figure 6-29 Gantt chart details page

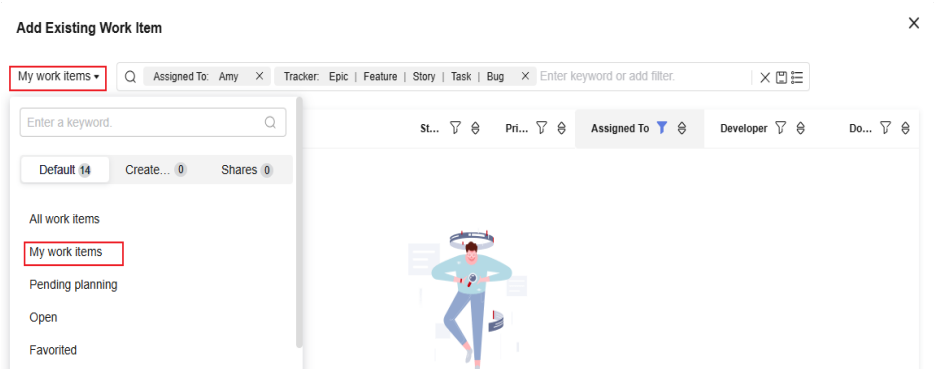


Step 4 Add work items to a Gantt chart and set the planned time for the work items.

Add work items in any of the following ways:

- Add existing work items
 - a. Click **Add to Existing Work Item**.
By default, all work items are displayed.
 - b. Click **All work items** to display the work items to be added, for example, **My work items**.

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 > Work Items** page. The following table describes the basic operations on work items in a Gantt chart.

Table 6-19 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	Click  on the right of the target work item, edit the title, and press Enter or click in the blank area of the page to save the changes.
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. Click  on the right of the target work item to create a child work item under it. Enter a work item name and click OK .
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. Click Clone under  on the right of the target work item 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.
Remove work item	Click Remove under  on the right of the target work item to remove it and its child work items from the Gantt chart.
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.

Operation	Description
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, but not from the Work Item > Req > Work Items page. - Archive: Archive the selected work items. Only work items in the Closed state can be archived. - Delete: Delete the selected work items from both the Gantt chart and the Work Item > Req > Work Items page.

Step 5 Create a milestone and set the milestone date.

- Click **Create Work Item** and select **Milestone**. On the **Create Milestone** page, set related parameters.

Figure 6-31 Creating a milestone

Create Milestone

Milestone Name

Enter a name.

Milestone Owner

11

Milestone Date

May 27, 2025

☐ Continue to Create

OK

Cancel

Table 6-20 Creating a milestone

Parameter	Description
Milestone Name	Milestone name can contain up to 128 characters, including letters, digits, periods (.), and underscores (_).

Parameter	Description
Milestone Owner	Milestone owner. You can select any member of the project.
Milestone Date	Milestone completion date.

2. Click **OK**.

Click **Continue to Create** to create more milestones.

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

Table 6-21 Basic operations on a milestone

Operation	Description
Edit milestone title	Click  on the right of the target milestone, edit the title, and press Enter or click in the blank area of the page to save the changes.
Edit milestone	Click Edit under  on the right of the target milestone to edit its name, owner, and date, and click OK .
Delete milestone	Click Delete under  on the right of the target milestone to delete it. The deletion cannot be undone.

----End

6.3.4 Managing Work Items

After creating a work item (see [Creating Work Items](#)), you can perform the operations described in this section on it.

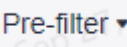
Prerequisites

- 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 Members to a CodeArts Project](#).
- You have the required work item permissions in the project.

On the Work Item List Page

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

Table 6-22 Managing work items in the work item list

Operation	Procedure
Filter and query work items	- Click  to view all existing views and select one as required. - Click the search box to add multiple work item fields as filter criteria. - 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. (Optional) Click  on the right of the search box to save the current filter criteria.
Configure fields to display	Click  Field in the upper right corner 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	- Click Archived Work Items under  More in the upper right corner to check archived work items. - Archived work items can be unarchived and deleted in batches.
Import work items	A maximum of 100 work items can be imported at a time. - Click Import under  More in the upper right corner. The Import Work Item dialog box is displayed. - Click Download Template. - Fill in the template based on the instructions. - In the Import Work Item dialog box, upload a file and click Import.
Export work items	A maximum of 2,000 work items can be exported. - Click Export under  More in the upper right corner. The Set Fields to Export dialog box is displayed. - Select fields to be exported and click OK to export the work items to the local PC in an Excel file.

Operation	Procedure
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.

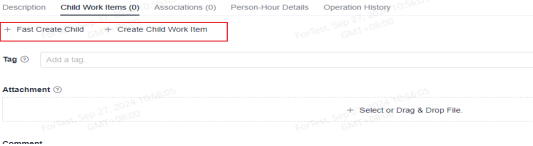
On the Work Item Details Page

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 > Work Items**, and click the work item title. On the details page, perform the following operations.

Table 6-23 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.
Copy work item link	Click  in the upper right corner to copy the work item ID, title, and link to the clipboard.

Operation	Procedure
Add child work item	1. Click the Child Work Item tab. Figure 6-32 Work item details/child work items  2. Click Fast Create Child to quickly create a child work item. This mode applies to quick scenario creation. 3. To create a child with complete parameters, click Create Child Work Item.

Operation	Procedure
Add and check related item	- Click the Associations tab. Figure 6-33 Work item details/association  - 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 below the Work Items button. 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 the Test Cases button. 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: - In CodeArts Repo, set additional information about assigned work items that are not closed. - After inserting work items, enter a description and click OK. - After the association, the associated code commit record is displayed under Code Commits. Code Branches Expand the Code Branches area to display the associated code branches. To associate a work item with code branches, do as follows: - Create a branch in CodeArts Repo and associate it with work items. - After the branch is created, the associated code branch is displayed under Code Branches.

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 Item > Req > Sprints and click  in the upper right corner to display the list in member mode. 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.
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. 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 50 MB.
Comment on work item	In the Comment area, you can comment on work items. To notify others of the comment, you can <i>@ a user account</i>, and a notification will be sent using private Message. For details, see Configuring Notification Rules.
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 Project Permissions](#).

Creating a Sprint

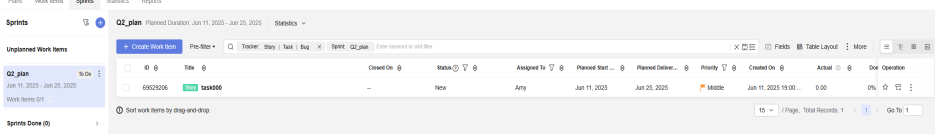
- Step 1 [Access the CodeArts Req homepage.](#)
- Step 2 Go to the project homepage and choose **Work > Sprints**.
- Step 3 Click  above the sprint list. In the **Create Sprint** dialog box, set related parameters.

Table 6-24 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 (_).

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

Figure 6-34 Sprints



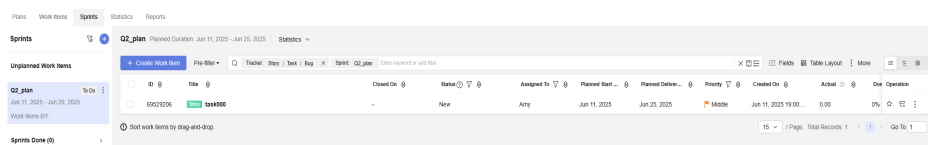
By default, the created sprints are displayed on the left in descending order of the creation time. You can click a sprint card on the left to switch to another sprint.

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

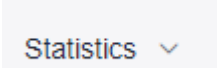
----End

Follow-up Operations

After operations in [Creating a Sprint](#) are complete, you can perform the following operations.

Figure 6-35 Work item list on the sprint page**Table 6-25** Managing a sprint

Operation	Description	Constraint and Restriction
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.
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 unclosed work items in the sprint, a warning dialog box is displayed. You can move these work items to unplanned work items or other sprints, and close these work items (their status changes 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.

Operation	Description	Constraint and Restriction
Check and manage sprint	 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.  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.

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.

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 Members to a CodeArts Project](#).
- You have permissions to **create charts, and create, rename, and delete chart types**. For details about how to set permissions, see [Managing 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 > 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 6-36 Creating a custom chart

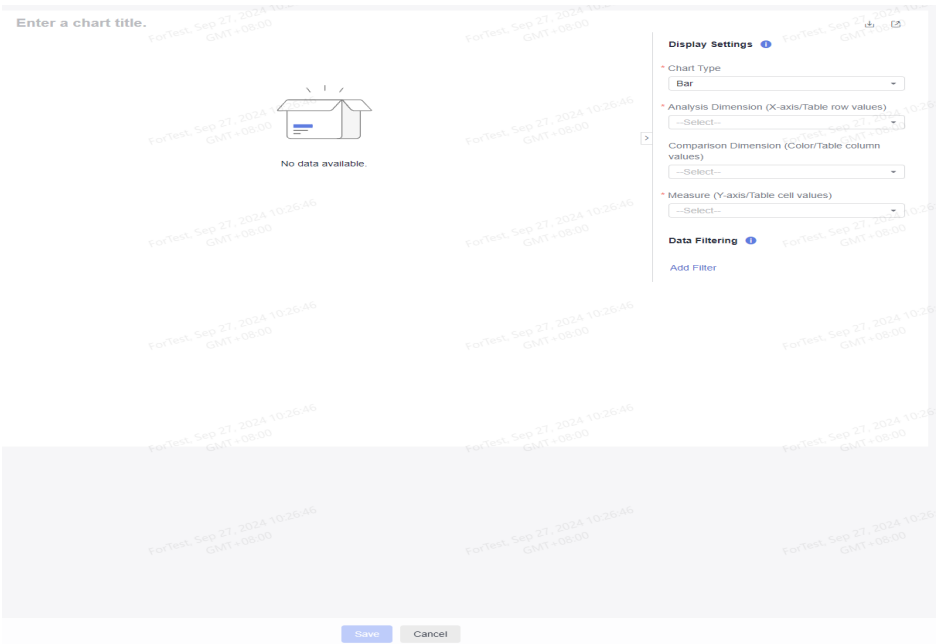


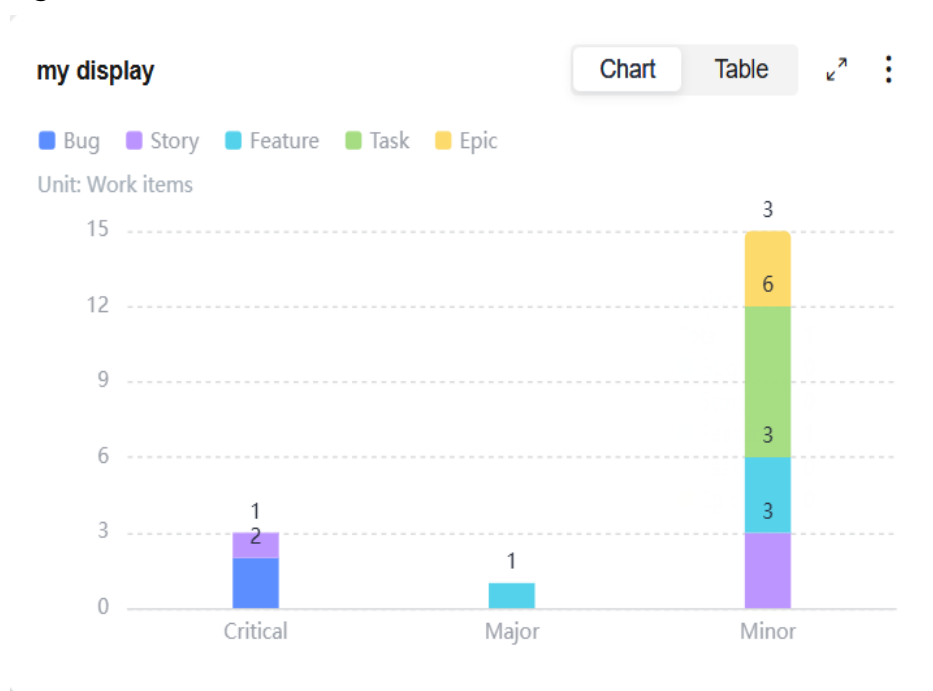
Table 6-26 Parameters for creating a custom chart

Parameter	Description
Title	Chart title. The value can contain 3 to 128 characters, including letters, digits, underscores (_), and hyphens (-).
Chart Type	Chart display type. The options include Bar or Pie .

Parameter	Description
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 6-37 Custom chart



----End

Using a Preset Chart Template

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

- 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 Chart*. In the displayed dialog box, choose *Work Item Trend*.**
- Step 3 **Go to the chart editing page and configure the following information.**

Figure 6-38 Editing the work item trend overview

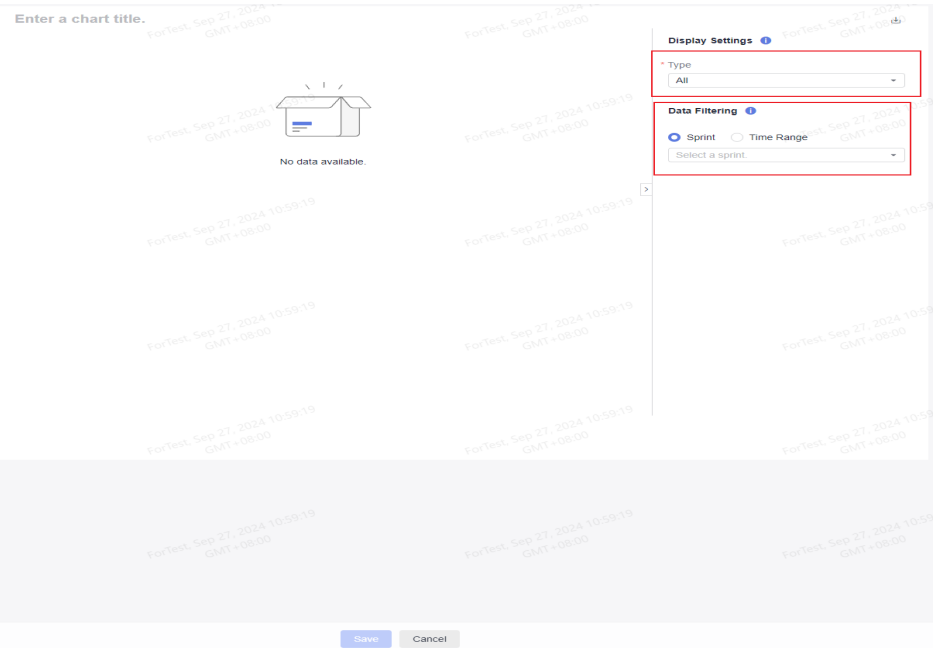


Table 6-27 Creating a chart on work item trend overview

Parameter	Description
Title	Chart title. The value can contain 3 to 128 characters, including letters, digits, underscores (_), and hyphens (-).
Type	Collect statistics of tasks, bugs, epics, features, or stories. All means collecting statistics of all work item types in the project.

Parameter	Description
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 6-28 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 the save chart icon to save the current chart as a PNG image.
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.
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 > Statistics**, and click

 **Create Category**

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.

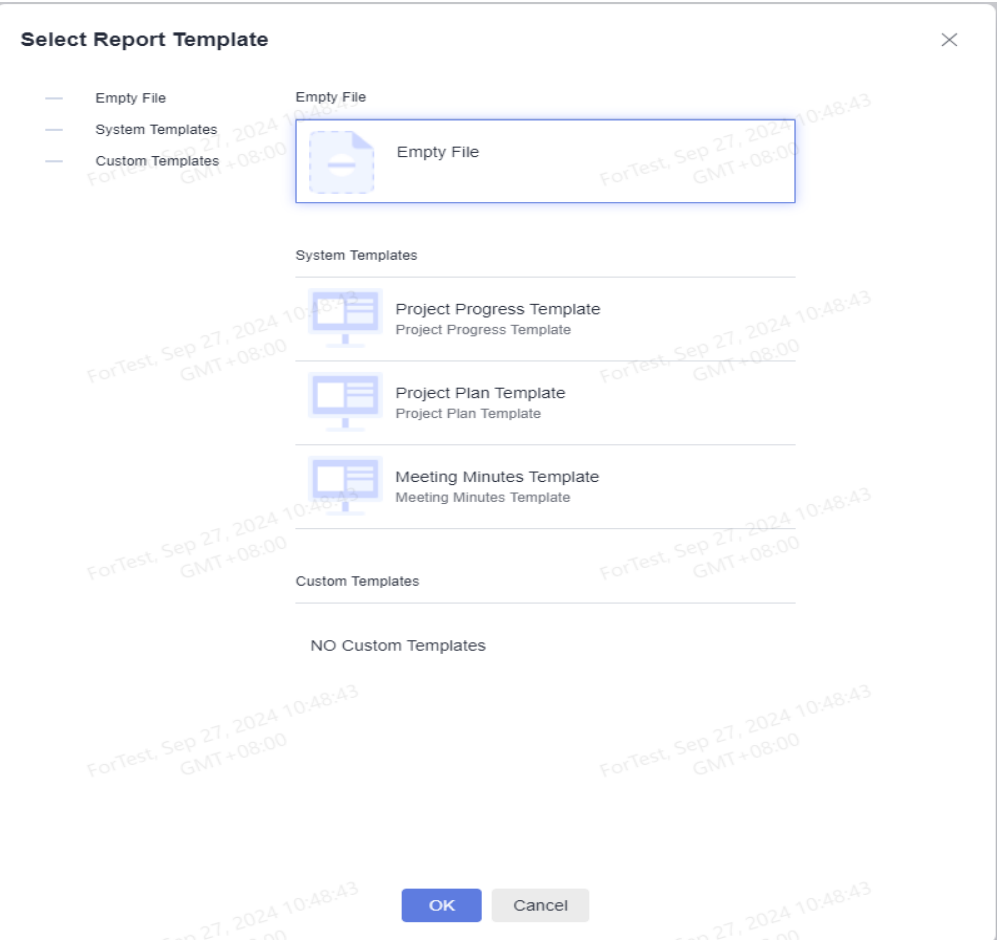
Creating a Project Progress Report

Step 1 [Access the CodeArts Req homepage](#).

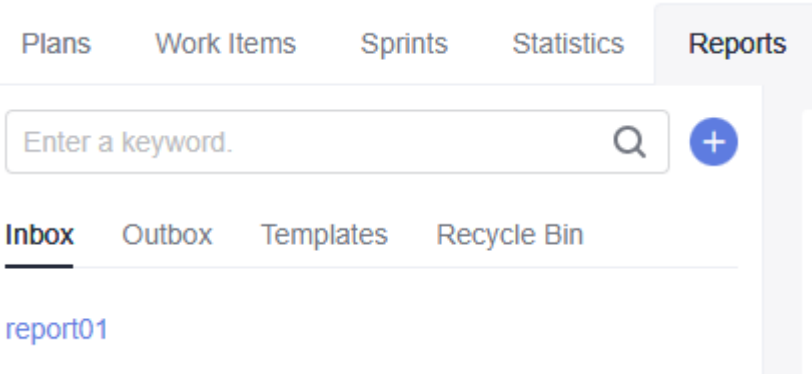
Step 2 Go to a Scrum project and choose **Work > Reports**.

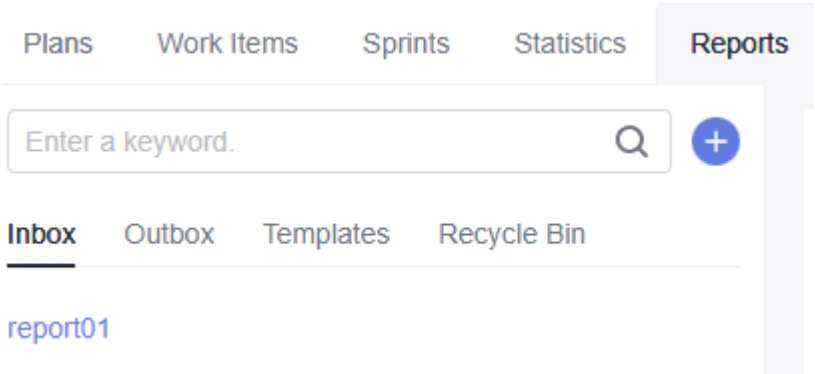
Step 3 Click . On the **Select Report Template** page, select **Empty File**, **System Templates**, or **Custom Templates**. The **Empty File** is used as an example.

Figure 6-39 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**.
- Step 6** Check received reports in the inbox and sent reports in the outbox on the **Reports** page.





----End

7 Managing IPD-System Device Project Requirements

7.1 Requirement Management Process

IPD-system device projects are oriented 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. Tasks and bugs are respectively activities generated and problems found during requirement implementation.

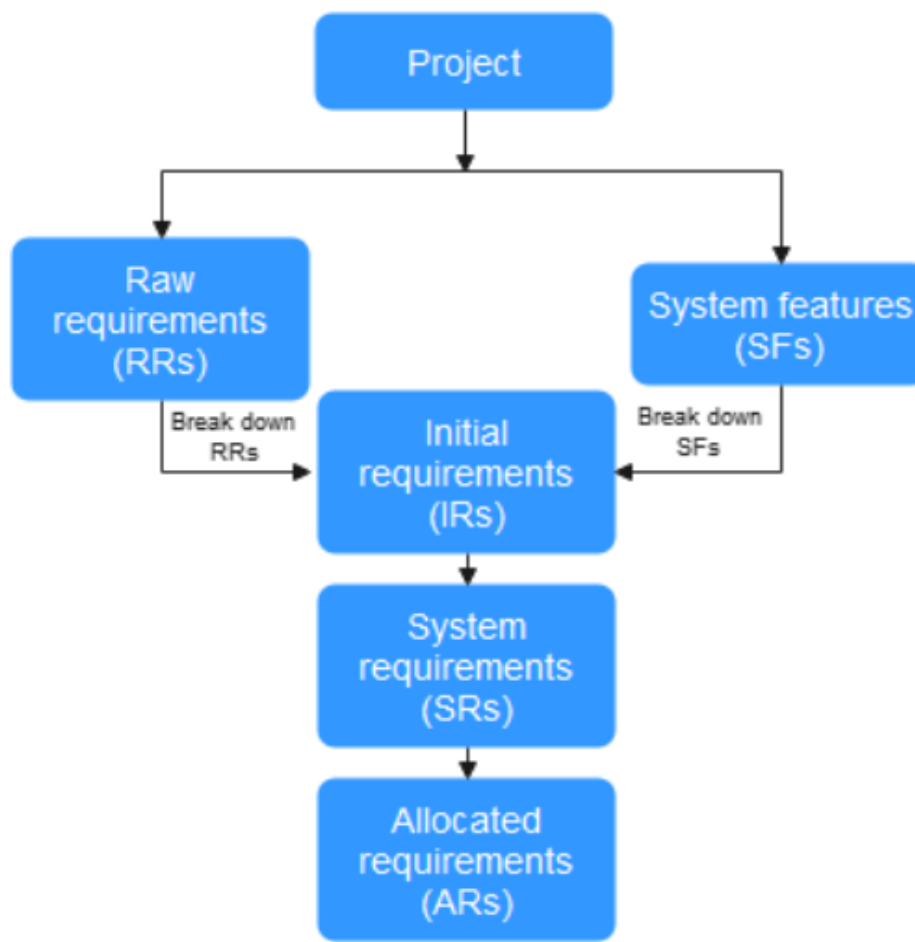
Figure 7-1 IPD-system device projects

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.	You need to upgrade to the Pro or higher edition. For details, see CodeArts Packages .
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 requirements in this hierarchy: SF > IR > SR > AR.	

Work Item Type	Description	Billing
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.	
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.	
Task	Tasks are activities with a certain goal.	
Bug	Bugs are problems found in a project.	

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.

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, and level field. 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.
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

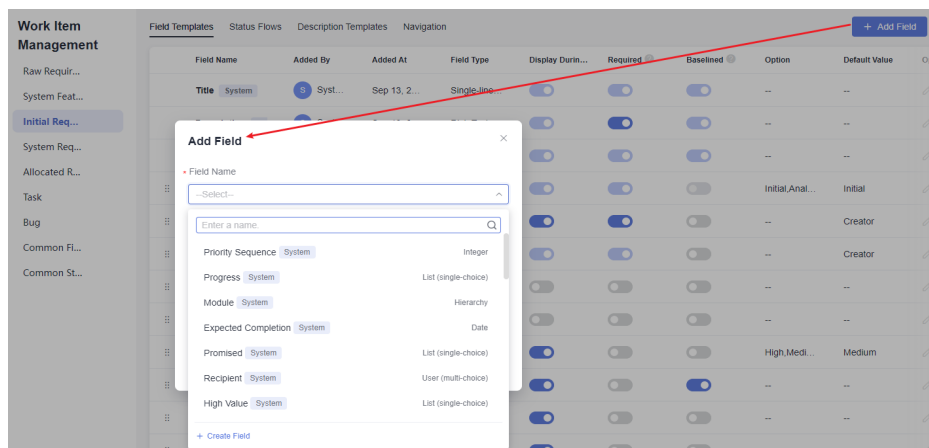
Parameter	Description
Field Name	System or custom field name. Hover over the header and click  to sort by field name.
Created/Added By	The user who creates or adds a field. Hover over the header and click  to sort by creator or adding user.
Created/Added At	Time when a field is created or added. Hover 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	Displayed only for single- and multi-choice list fields.
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.

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

Configuring Common Fields in Tenant Settings

You have the **Tenant Administrator** permission.

You can configure tenant-level common fields for work items across all your IPD projects.

- Step 1** Log in to the CodeArts homepage, click , and choose **All Account Settings**.
- Step 2** Choose **Work > Field**. The existing common fields are displayed.
- Step 3** Click **Create Field**. In the dialog box that is displayed, enter a field name, select a field type, and click **OK**. The new field is displayed in the list.

----End

You can perform the following operations on a new field:

- Click  to modify the field name, type, and description.
- Click . In the dialog box that is displayed, click **Delete** to delete the field.

 NOTE

Fields created on the **Work > Field** page apply to all IPD projects in your tenant and can be configured for the work items in these projects.

1. Go to an IPD project and choose **Settings > Work**.
2. Click **Work Items** and select a work item type.
3. On the **Field Templates** tab page, click **Add Field**. In the displayed dialog box, select a new field, configure other options, and click **OK**.

7.2.2 Configuring Common Work Item Statuses

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

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 7-4 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.

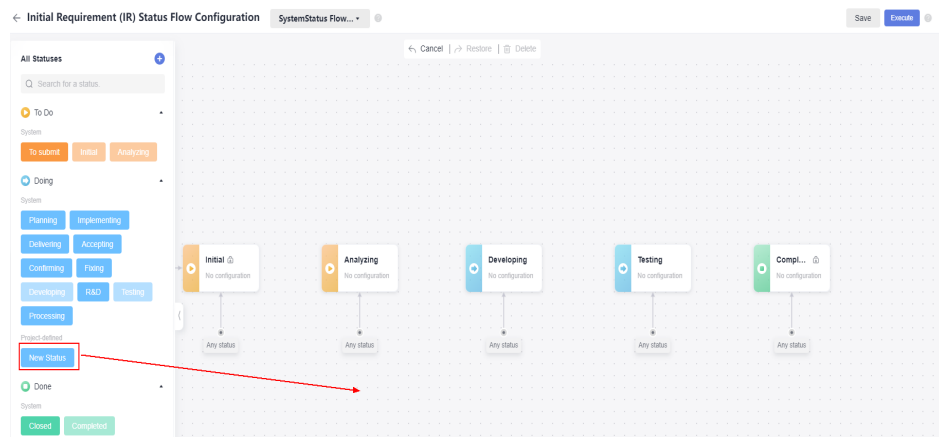
Table 7-5 Status list

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.

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

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

NOTE

- Customized 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

Configuring Common Statuses in Tenant Settings

You have the **Tenant Administrator** permission.

You can configure tenant-level common statuses for work items across all your IPD projects.

- Step 1** Log in to the CodeArts homepage and click .
- Step 2** Choose **All Account Settings**.
- Step 3** Choose **Work > Status**. The existing common statuses are displayed.
- Step 4** Click **Create Status**. In the dialog box that is displayed, enter a status name, select a status category, and click **OK**. The new status is displayed in the list.

----End

You can perform the following operations on a new status:

- Click  to modify the status name, category, and description.
- Click . In the dialog box that is displayed, click **OK** to delete the status.

Statuses created on the **Work > Status** page apply to all IPD projects in your tenant and can be configured for the work items in these projects.

1. Go to an IPD project and choose **Settings > Work**.
2. Click **Work Items** and select a work item type.

3. On the **Status Flows** tab, click **Edit**. Click  next to the system status flow currently in use to copy it to a custom status flow. On the custom status flow page, select the new status, click **Edit**, configure fields for the status, and click **Save**.

7.2.3 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**.

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**.

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**.

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

7.2.4 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 **RR Status Flow Configuration** page is displayed and the RR 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 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 7-6 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 a field.

Table 7-7 Fields

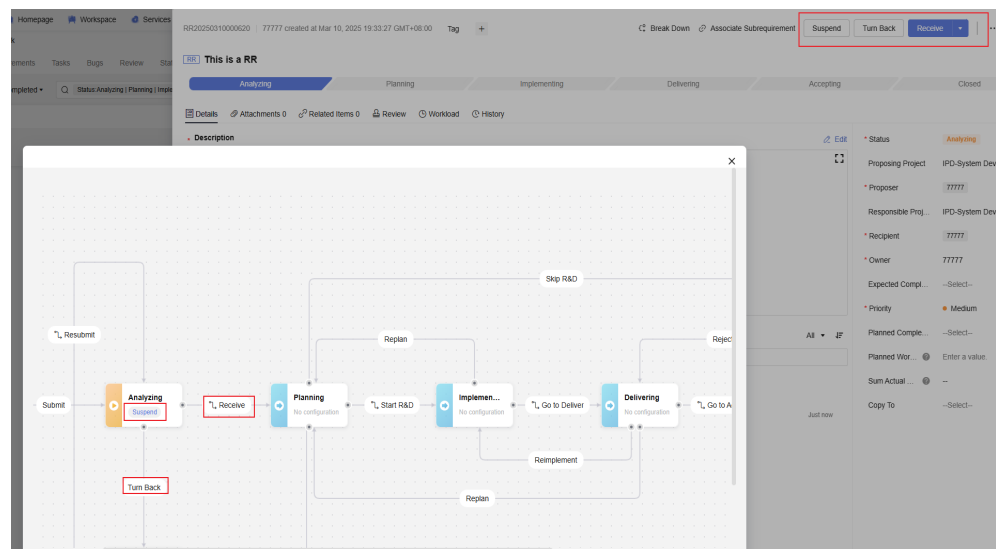
Field	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.
Editable	Set whether the field is editable in a work item of the current status.
Required	Set whether the field is mandatory in a work item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

Field	Description
Role	Select a role from the drop-down list. The options are Default and Custom .
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.

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.

Table 7-8 Pre-transition verification

Verificati on Item	Description
Verify Operation Permission	Optional. Check whether the operation role is specified before the transition. You can select one or more roles from the drop-down list. If this item is not configured, users who have permission to set the status of the work item or the owner of the current work item can perform status transition. If a temporary role is configured for the work item, this role also has permissions to perform status transition.
Validate Field Informatio n	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 .
Verifying Associate Item Informatio n	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 work items to be added, 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.

Configure work items whose values will be automatically updated after status transition. **Update Work Item Fields** 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. If **Mandatory** is selected when a field is added, the field name in the field list is marked with an asterisk (*).

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.

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 7-9 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 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 a field.

Table 7-10 Fields

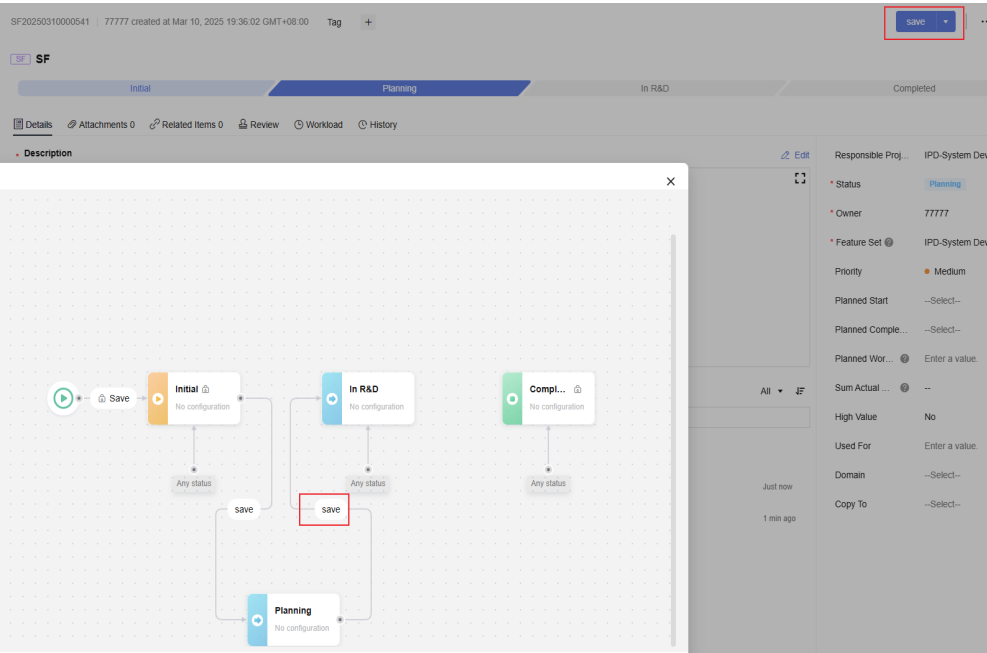
Field	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.
Editable	Set whether the field is editable in a work item of the current status.
Required	Set whether the field is mandatory in a work item of the current status. If the field is mandatory, it will be marked with an asterisk (*).
Role	Select a role from the drop-down list. The options are Default and Custom .

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.



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 7-11 Pre-transition verification

Verificati on Item	Description
Verify Operation Permission	Optional. Check whether the operation role is specified before the transition. You can select one or more roles from the drop-down list. If this item is not configured, users who have permission to set the status of the work item or the owner of the current work item can perform status transition. If a temporary role is configured for the work item, this role also has permissions to perform status transition.
Validate Field Informatio n	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 .

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 work items to be added, 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.

Configure work items whose values will be automatically updated after status transition. **Update Work Item Fields** 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. If **Mandatory** is selected when a field is added, the field name in the field list is marked with an asterisk (*).

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.

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.
 - 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.

Parameter	Description
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 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 a field.

Table 7-13 Fields

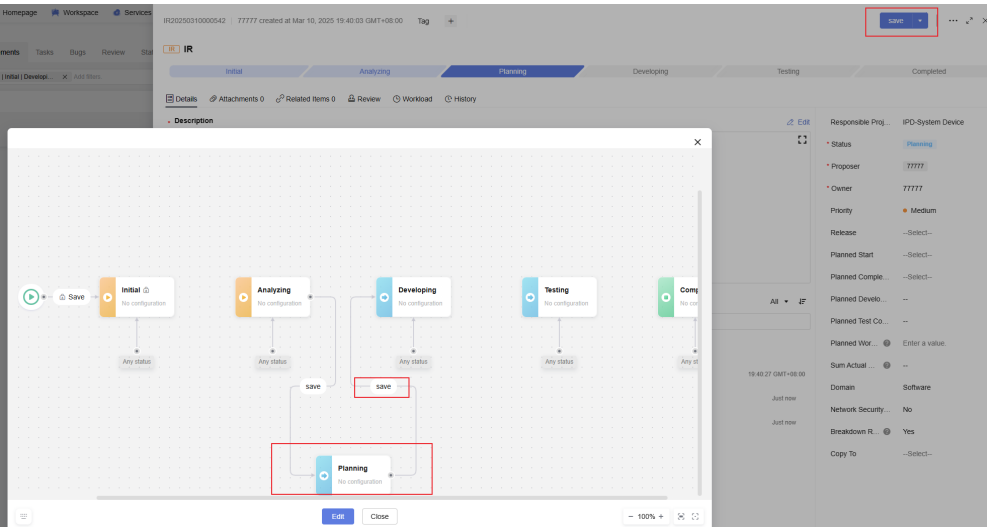
Field	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.
Editable	Set whether the field is editable in a work item of the current status.
Required	Set whether the field is mandatory in a work item of the current status. If the field is mandatory, it will be marked with an asterisk (*).
Role	Select a role from the drop-down list. The options are Default and Custom .

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.



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 7-14 Pre-transition verification

Verificati on Item	Description
Verify Operation Permission	Optional. Check whether the operation role is specified before the transition. You can select one or more roles from the drop-down list. If this item is not configured, users who have permission to set the status of the work item or the owner of the current work item can perform status transition. If a temporary role is configured for the work item, this role also has permissions to perform status transition.
Validate Field Informatio n	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 .
Verifying Associate Item Informatio n	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 work items to be added, 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.

Configure work items whose values will be automatically updated after status transition. **Update Work Item Fields** 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. If **Mandatory** is selected when a field is added, the field name in the field list is marked with an asterisk (*).

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.

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.

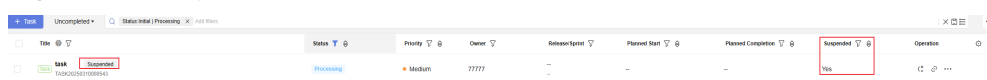
Step 6 Add a node by referring to [Adding a Node Status](#). A maximum of **30** nodes can be added to a workflow.

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.
 - 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 7-15 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.

Parameter	Description
Baselined	1. Set whether the field is a baselined 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 a field.

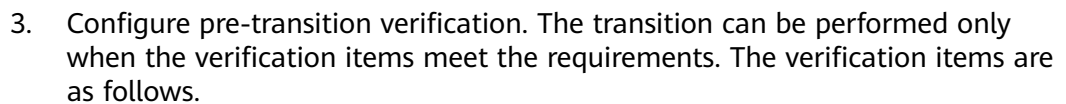
Table 7-16 Fields

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 a role from the drop-down list. The options are Default and Custom .

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.



Verification Item	Description
Verify Operation Permission	Optional. Check whether the operation role is specified before the transition. You can select one or more roles from the drop-down list. If this item is not configured, users who have permission to set the status of the work item or the owner of the current work item can perform status transition. If a temporary role is configured for the work item, this role also has permissions to perform status transition.
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 .
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 work items to be added, select Condition (None) by default), and click OK .

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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.

 NOTE

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

- 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.

- 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 **Operable project**. **Operable project** controls whether members of the **Proposing project** or **Responsible project** edit, suspend, unsuspend, and change the status of a work item.

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.

Table 7-18 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 a field.

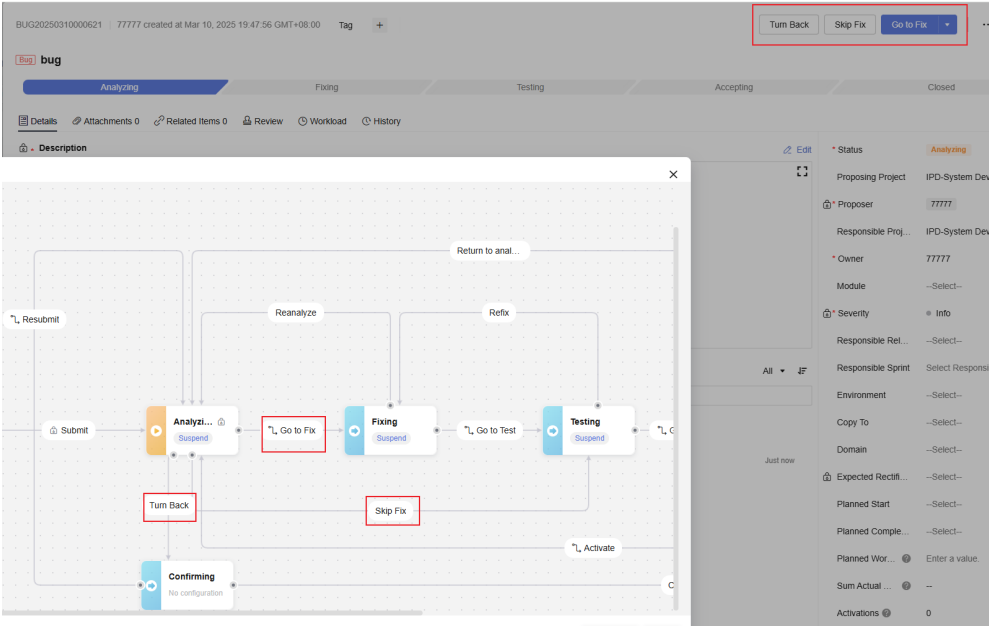
Table 7-19 Fields

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 a role from the drop-down list. The options are Default and Custom .
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.



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 7-20 Pre-transition verification

Verificati on Item	Description
Verify Operation Permission	Optional. Check whether the operation role is specified before the transition. You can select one or more roles from the drop-down list. If this item is not configured, users who have permission to set the status of the work item or the owner of the current work item can perform status transition. If a temporary role is configured for the work item, this role also has permissions to perform status transition.
Validate Field Informatio n	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 .
Verifying Associate Item Informatio n	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 work items to be added, 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.

Configure work items whose values will be automatically updated after status transition. **Update Work Item Fields** 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. If **Mandatory** is selected when a field is added, the field name in the field list is marked with an asterisk (*).

- 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

7.2.5 Configuring Work Item Tags

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

Prerequisites

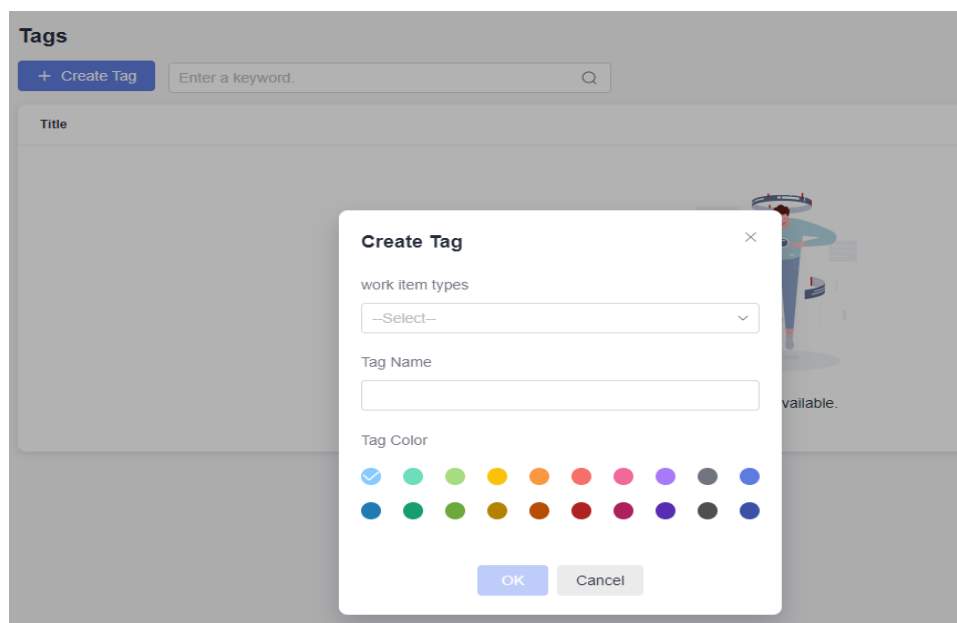
An IPD-system device project is available, and you have permission to **manage tags** for the project.

Adding a Tag

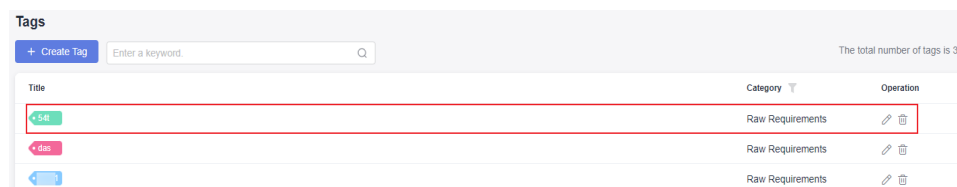
- Step 1** [Access the CodeArts Req homepage.](#)

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

All work item tags are displayed here.

Step 3 Click **Create Tag**.**Figure 7-6** Creating a tag**Step 4** Select a work item type and tag color, and enter a tag name.**Step 5** Click **OK**.

The new tag is displayed in the list.

Figure 7-7 Tags page

- Click  to change the 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 each work item type (such as RR).

----End

7.2.6 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.

Prerequisites

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

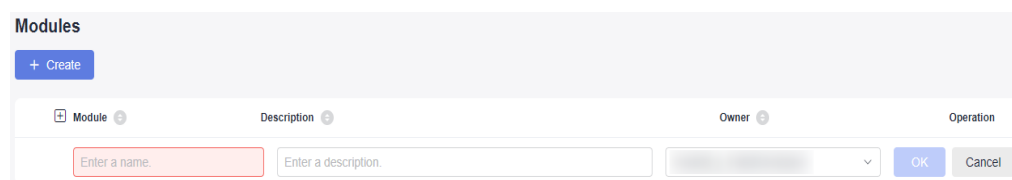
Creating a Module

Step 1 [Access the CodeArts Req homepage.](#)

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

Step 3 Click **Create**.

Figure 7-8 Creating a module



The screenshot shows the 'Modules' section with a '+ Create' button. Below it is a form with four fields: 'Module' (with a dropdown icon), 'Description' (with a dropdown icon), 'Owner' (with a dropdown icon), and 'Operation'. The 'Module' field contains the placeholder text 'Enter a name.' and the 'Description' field contains 'Enter a description.'. There are 'OK' and 'Cancel' buttons at the bottom right.

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

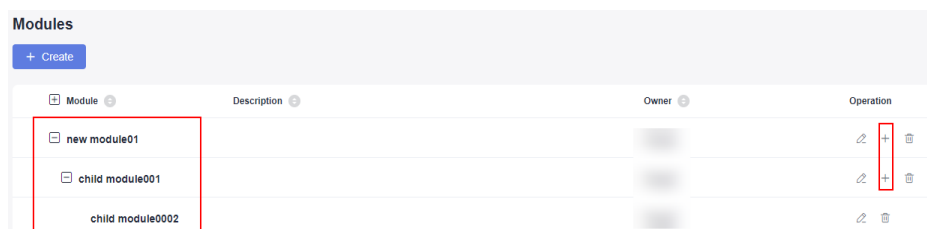
The module name must be unique in the system.

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 7-9 Adding a submodule



The screenshot shows the 'Modules' section with a '+ Create' button. Below it is a table with four columns: 'Module', 'Description', 'Owner', and 'Operation'. The table contains three rows: 'new module01', 'child module001', and 'child module0002'. A red box highlights the 'new module01' row, and another red box highlights the 'child module001' row. The 'Operation' column for each row contains an edit icon, a delete icon, and a '+' icon for adding a submodule.

-----End

7.2.7 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.

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 7-10 Creating a work type

Work Type Name	Operation
R&D design	

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.

Figure 7-11 Adding a workload

Add Workload

* Period

Start date - End date ☐ Weekends included

* Workload

Total 1 person-day

Work Type

--Select--

- UI design
- Meeting
- General
- Training
- Research
- Other
- Replacement leave

----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 7-12 Configuring work types

Work Types ☐ Mandatory

+ Create

Q Enter a keyword.

Work Type Name

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

Figure 7-13 Adding a workload

The screenshot shows the 'Add Workload' dialog box. The 'Workload' tab is selected in the top navigation bar. The dialog contains the following fields and controls:

- Period:** A date range selector with 'Start date' and 'End date' fields, and a 'Weekends included' checkbox.
- Workload:** A 'Total' dropdown menu set to '1' and a text input field containing '1', followed by the unit 'person-day'.
- Work Type:** A dropdown menu with '--Select--' as the current selection. The label 'Work Type' is highlighted with a red box.
- Work Content:** A text area with a placeholder 'Max. 256 characters'.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom.

----End

7.2.8 Configuring Work Item Status Rollup Rules

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

Prerequisites

An IPD-system device project is available, in which you have the **Automation** permission.

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 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.

Procedure

Step 1 [Access the CodeArts Req homepage.](#)

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

Step 3 Click **Automation Rules**.

Step 4 Set **Enable** to enable or disable the configured rule.

For example, if the status rollup of SF work items is enabled, when you change the status of all child work items of an unfinished SF work item in the **Work Item > Req > Feature Tree** list to **Completed**, the status of the SF work item is automatically rolled up to **Completed**.

Step 5 Go to the work item list. The SF status is automatically updated to **Completed**, and an automation rule operation record is added to the **History** tab page.

----End

7.2.9 Configuring Notification Rules

Overview

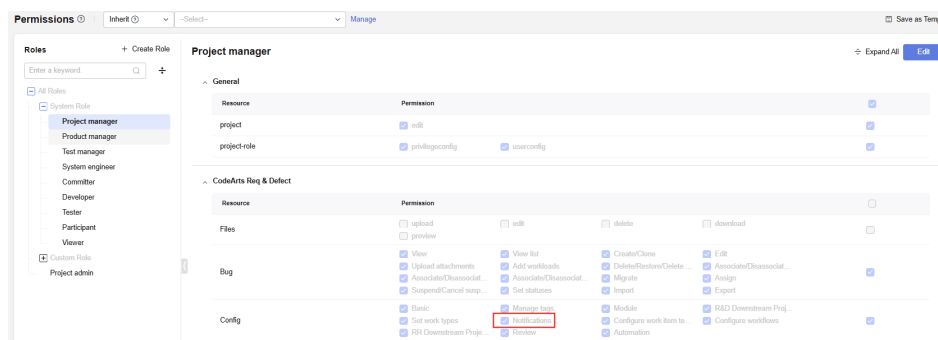
Notification rules can be configured to use several methods: internal messages, emails, WeCom, DingTalk, Feishu, and generic webhooks. Internal messages and emails alert project members of relevant operations, while notifications via WeCom, DingTalk, Feishu, and generic webhooks are directed to their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

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.

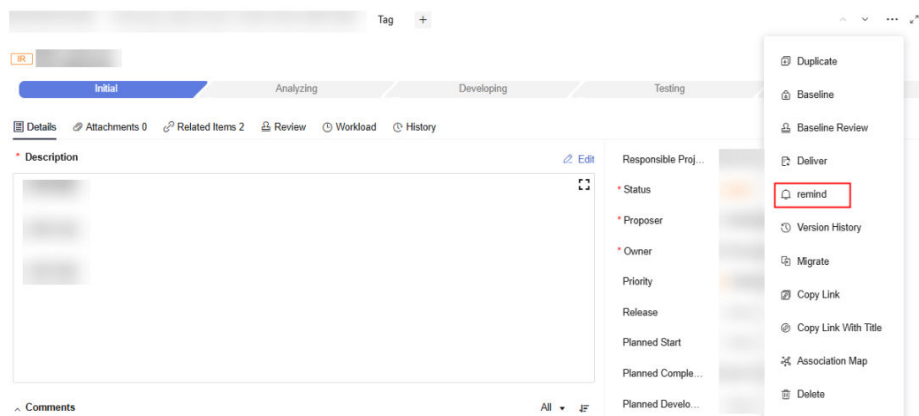
Figure 7-14 Notifications page

Notifications							
Raw Requirements System Features R&D Requirements Tasks Bugs Review Others WeCom							
Event	Recipient					Direct Message	Email
Create/Submit RR	☐ Creator	☒ Owner	☒ Proposer	☒ Receiver	☒ CC recipients	☒	☒
Modify RR	☐ Creator	☒ Owner	☒ Proposer	☒ Receiver	☒ CC recipients	☒	☒
Delete RR	☒ Creator	☒ Owner	☒ Proposer	☒ Receiver	☒ CC recipients	☒	☒
Change RR	☒ Creator	☒ Owner	☒ Proposer	☒ Receiver	☒ CC recipients	☒	☒
Update RR status	☒ Creator	☒ Owner	☒ Proposer	☒ Receiver	☒ CC recipients	☒	☒
Comment on an RR	☐ Creator	☒ Owner	☐ Proposer	☐ Receiver	☐ CC recipients	☒	☒
reminder	☒ Owner					☒	☒

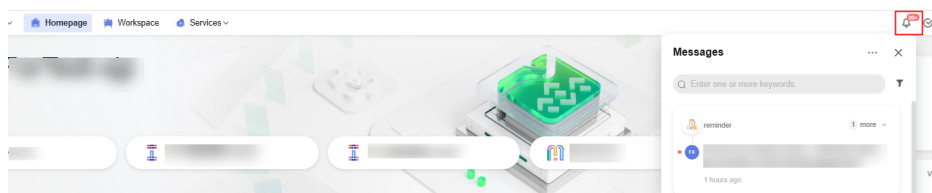
After the setting is complete, the selected recipients will be notified when a corresponding event (for example, RR modification) occurs.

 NOTE

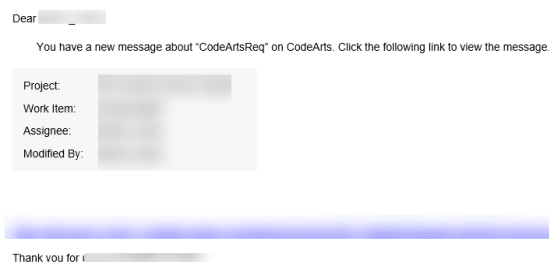
After the setting is complete, to send a **reminder**, click  on the right of the work item details page and select **remind**. The current owner of the work item will receive the reminder notification. An example of reminding an IR is as follows.



- **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.



- **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:

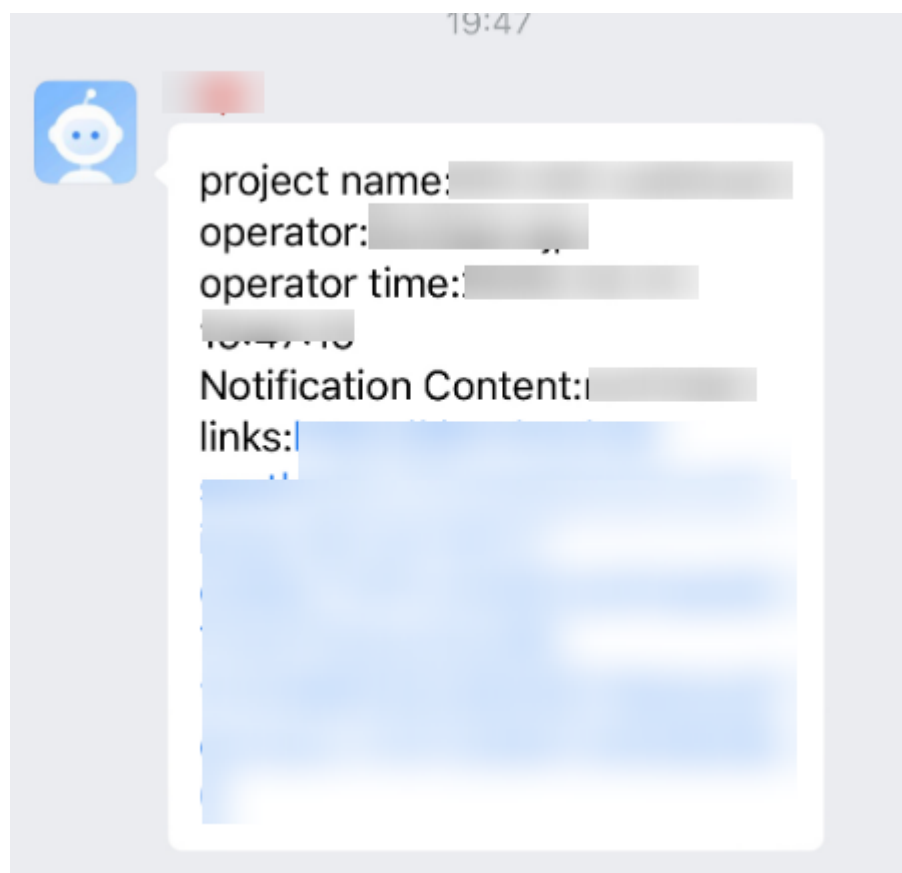
- Open the WeCom group where you want to receive notifications, and click the ... button in the upper right corner.
- Click **Group Robot**.
- Click the created group robot to copy the generated webhook URL.

Step 4 Select event types.

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



----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**.

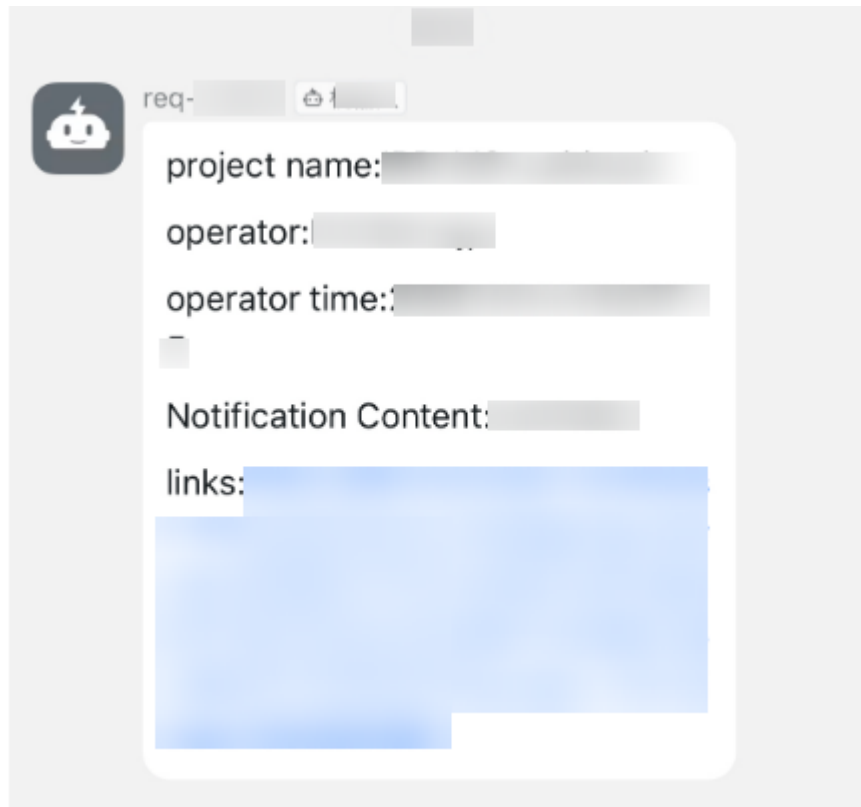
Step 3 On the **Notifications** page, choose **DingTalk** or **Feishu** > **CodeArtsReq**. The DingTalk or Feishu setting page of IPD-system device projects is displayed.

Step 4 Set parameters according to [Table 7-21](#).**Table 7-21** 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, and reviews. 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
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 IPD-system device projects is displayed.

Step 4 Click **New Webhook Subscription**.

Step 5 Set parameters according to [Table 7-22](#).

Table 7-22 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, and reviews. 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 <i>key:value</i> .	Content-Type:application/json

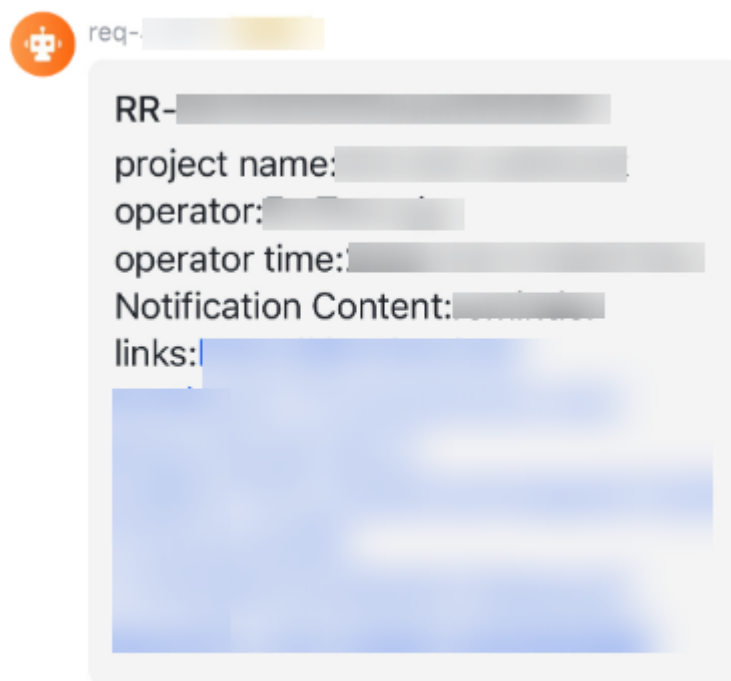
Parameter	Description	Example
Custom Templates	Custom templates of generic webhook notifications. Obtain the corresponding values of configurable variables through the <code>\${}</code> method. For details about the configurable variables, see Table 7-23 . The maximum length of the character string is 1,000.	• DingTalk parameters: <pre>{ "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}" }}</pre> • Feishu parameters: <pre>{ "msg_type": "text", "content": { "text": "CodeArts Req - Generic webhook test\nProject ID: \${project.id}\nProject URL: \${project.url}\nWork item ID: \${issue.id}\nWork item name: \${issue.title}\nWork item URL: \${issue.url}\nOperator: \${operator.username}\nOperator ID: \${operator.id}\nReview ID: \${review.id}\nReview: \${review.title}\nReview URL: \${review.url}\nEvent name: \${operation}" }}</pre>

Table 7-23 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.

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.



-----End

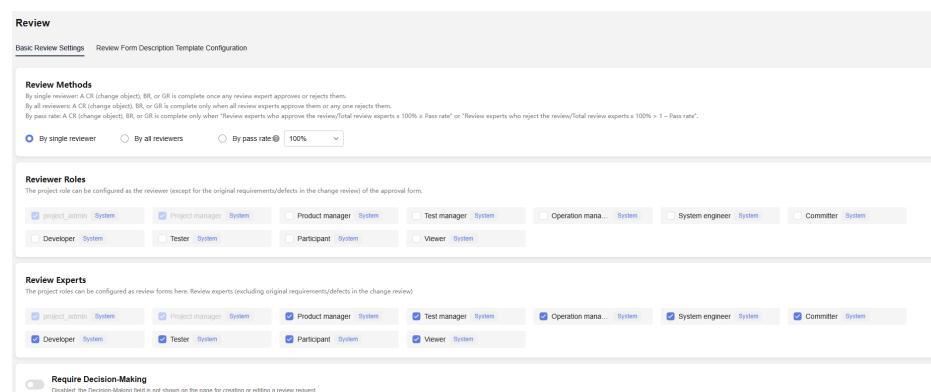
7.2.10 Configuring Reviews

Only the project administrator can set the approver role.

Procedure

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

Figure 7-15 Basic review settings



- Step 2** Set the review content.

- **Review Methods**

Select a review method as required.

- **Reviewer Roles**

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

- **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.

- **Require Decision-Making**

You can decide whether to enable this field based on the actual project situation.

When this switch is toggled on and the **Require Decision-Making** field displayed on the review details page is set to **Yes**, **Reviewer** is mandatory and **Review Expert** is optional. If this field is set to **No**, **Reviewer** is unavailable and **Review Expert** is mandatory.

If this switch is toggled off, the **Require Decision-Making** field is not displayed on the review details page. In this case, **Reviewer** is mandatory, and **Review Expert** is optional.

When this field is enabled, **Require Decision-Making** will display on the review creation or editing page.

Basic Information

[CR] CR title required.

Submitting Reviewing Decisioning End

Description

[Background]

[Value]

[Details]

Start End

Select Date Select Date

Require Decision-Making

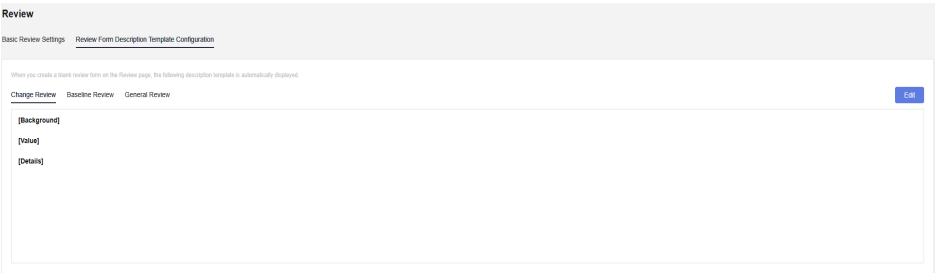
Yes No

Copy To

--Select--

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

Figure 7-16 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

7.2.11 Viewing Work Item Import/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** Go to a project and choose **Settings > Work > Import/Export**.

Figure 7-17 Import and export records

Import/Export Records Operation records of the last seven days are retained.						
Export Import						
☐	No.	File Name	Type	Operator	Exported	Progress Operation
☐	1	IPD-...xlsx	Raw Requirements		Sep 14, 2024 10:50:18 GMT+08:00	100% ↓
Total: 1 1/1 < >						

- Step 3** 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**.

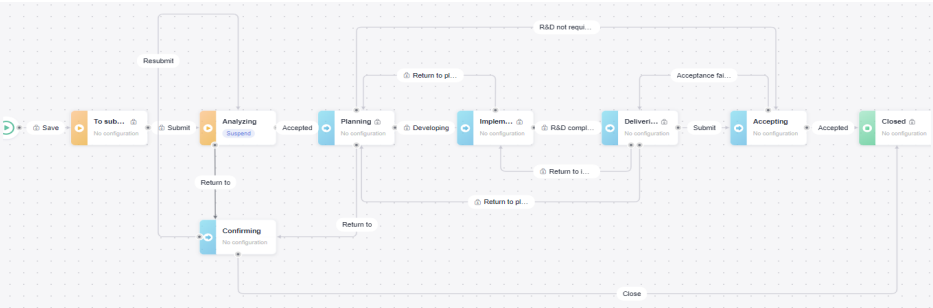
- Step 3 Download the desired work items. All project members' import records of any types of work items will be displayed on this page.
- End

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 7-24](#) lists the default operations in each RR state.

Table 7-24 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 .

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

Raw requirements 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 7-25 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.

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 --.
- 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 people 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.

Table 7-26 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.
Create child requirement	Click  in the Operation column of an RR to break it down into child requirements. • In the Break Down Subrequirements dialog box, click Add Subrequirement to create a child requirement. A maximum of 10 child requirements can be created at a time. • The project to which a child requirement belongs can be the current project or other projects of the tenant. To configure the project scope, choose Settings > Work > 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 options selected. A maximum of 10 child work items can be created. If the work item already has child work items, the function of quickly breaking down work items does not work. If a work item is configured with multiple fields for quickly breaking down work items, the child work items are broken down based on the first field in the field template.
Associate with child requirement	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 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.

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. After an RR is restored from the recycle bin, it restores to the original status.

7.3.3 Managing RRs

After creating an RR (see [Creating RRs](#)), you can perform the operations described in this section on it.

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.

Figure 7-19 RR list

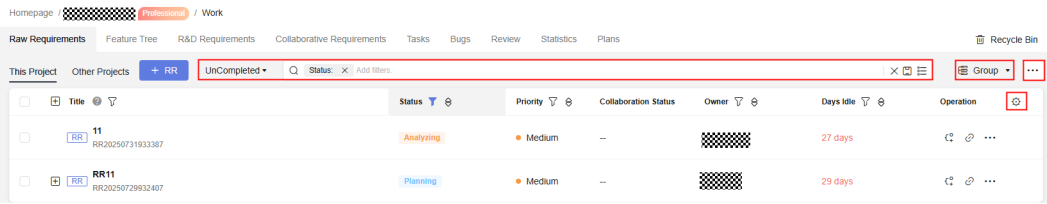


Table 7-27 Management operations in the RR list

Operation	Procedure
Query RR	- By adding filters - Click the search box in the RR list and select one or more filters to search for RRs. - To clear all filters and display all data, click  on the right of the search bar. - By using a saved view - Click the search box in the RR list and select one or more filters. - Click  on the rightmost of the search bar, and enter a view name. - Click OK. The created view is displayed next to RR. - 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.

Operation	Procedure
Import work items	Use the provided template to import requirements in batches. 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 import template file is displayed in the lower part of the page. Save the file to the local PC and fill in data. The template file should be named in the following format: <i>Project name</i> + "-" + <i>Module name</i> (for example, RR) + Template. 3. Fill in the fields on the RR - Requirements sheet. For details about how to set parameters, see the RR - Import Rules sheet in the template file. 4. Drag or click  to select a file to be imported. 5. Click Import. The import progress dialog box is displayed. • After the import is successful, you can view the imported requirement information in the RR list. • If the import fails, a message is displayed in the upper right corner of 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 again. NOTE For details about operations on import records, see Viewing Work Item Import/Export Records.
Export work items	Export requirements in batches to an Excel file. 1. Export some or all RRs. • Export all: On the Raw Requirements page, click *** on the right of the search bar and choose Export All. 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 requirements. 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. NOTE For details about operations on export records, see Viewing Work Item Import/Export Records.

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 Selected to adjust the display sequence.
Clone RR across projects	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. - You must have permission to create and clone RRs for the target project. - R Rs 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 - 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. - 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. - 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. - Click OK. The RRs are cloned to the target project. - Go to the target project to view the cloned RRs.

Operation	Procedure
Transition statuses in batches	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. • You must have permission to set statuses for RRs. • 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 page of the project's RR status flow configuration page. 5. Click OK.
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. NOTE • 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 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.

Figure 7-20 RR details page

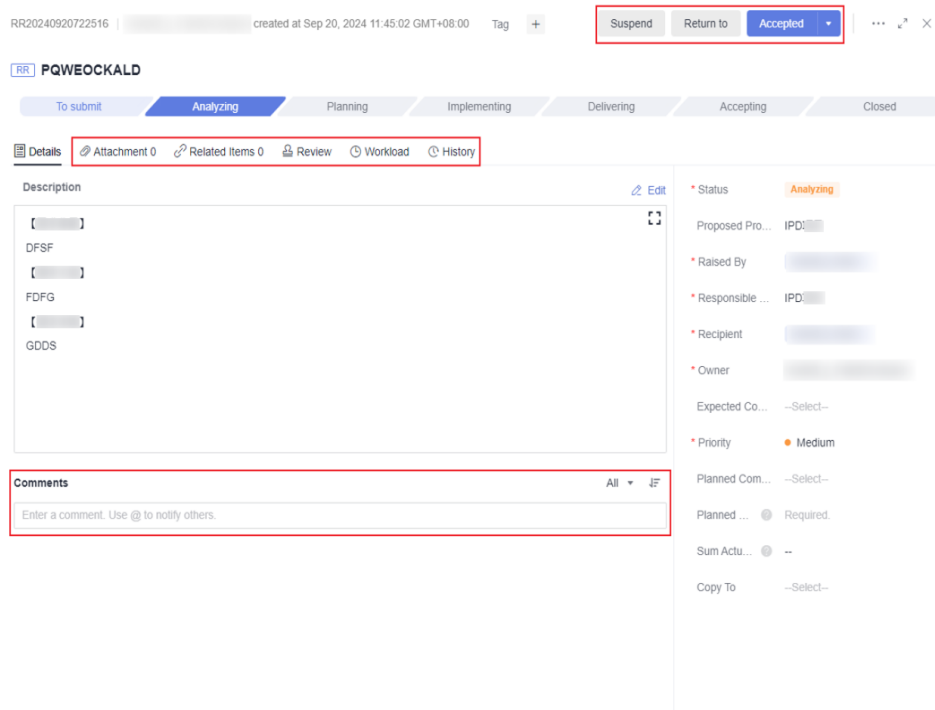
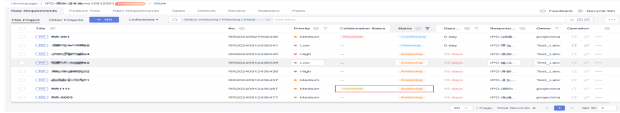


Table 7-28 Management operations on the details page

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 7-24 .	You must have permission to set statuses for RRs.

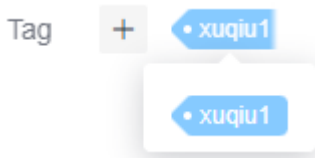
Operation	Procedure	Remarks
Upload attachment	Attachments can be pictures, workbooks, manuscripts, and text files. A maximum of 100 attachments can be added to each work item, and their total size cannot exceed 500 MB. 1. Go to the work item details page, and click the Attachment tab. 2. Click the box 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 upload attachments for RRs.

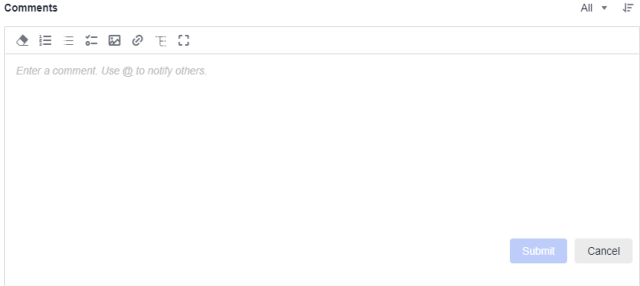
Operation	Procedure	Remarks
Add and check related item	A work item can be associated with other types of work items in a project. - Go to the work item details page and click the Related Items tab. - Complete association. Related Upstream Requirements: requirements coordinated from upstream projects. 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: - Create a project named IPD Project 2. - Create an RR named RR-IPD2 in IPD Project 2. - After the RR is created, enter its details page. - Choose Related Items > Related Downstream Requirements and click Deliver. - Set Responsible Project to IPD-Project and the raw requirement name to RR-Collaboration. - 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.

Operation	Procedure	Remarks
	NOTE Different colors of Received indicate different meanings.  Received : Before a requirement is accepted, the color of Received is orange.  Received : After a requirement is accepted, the color of Received turns green.  Received : 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.  Assign : If the current requirement has unprocessed downstream collaboration requirements, the color of Assign is orange.  Assign : After all downstream collaboration requirements under the current requirement are accepted, the color of Assign turns green.  Assign : If the current requirement has returned downstream collaboration requirements, the color of Assign turns red. • Subrequirement: child work items broken down from the current work item. The operations vary according to the state. Perform operations based on the functions	

Operation	Procedure	Remarks
	displayed on the page and the actual project situation. Click Break Down to add child requirements. 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 requirements are created, you can check and edit them on the R&D Requirements tab. ● Associate Work Item: associated work items of other types 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. SFs, tasks, and bugs can be associated.	
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 on the Review tab 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 permission to view RRs.

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 RRs. Workloads can be edited and deleted by the creator. By default, the project administrator or 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 RRs.

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 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.

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 permission to view RRs.

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 is no feature tree 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.

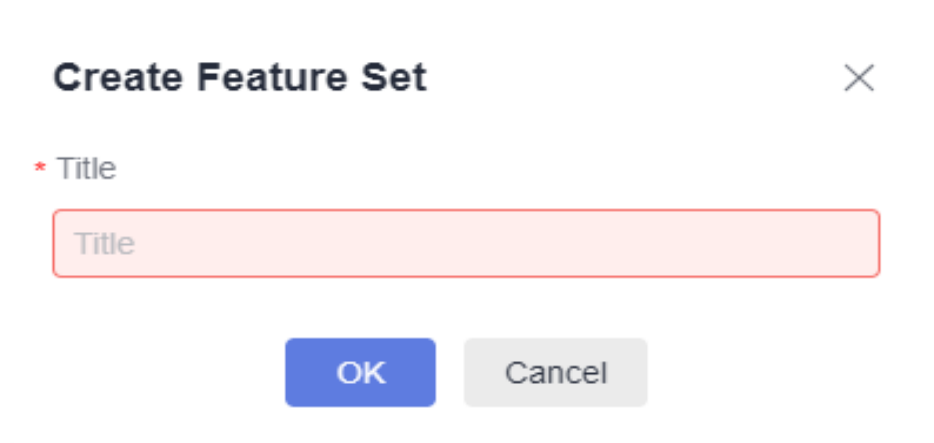
Creating a Feature Set

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 Set **Title**.

Step 5 Click **OK**.

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

----End

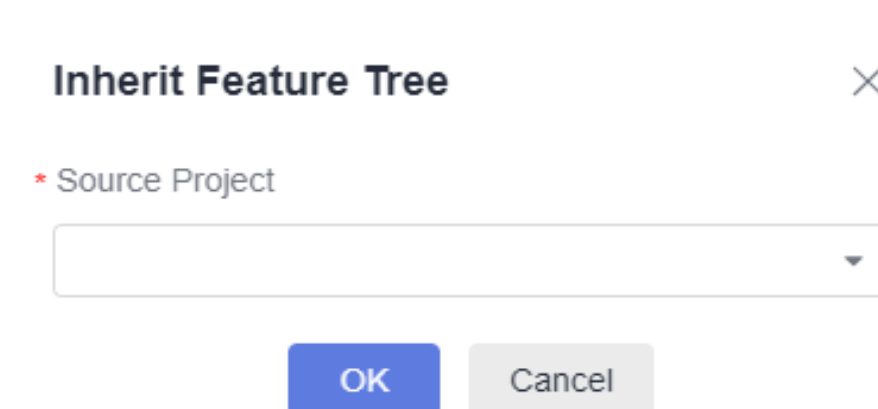
Inheriting a Feature Tree

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.

Figure 7-25 Inheriting a feature tree



Step 4 Select a project for which a feature tree has been configured. The feature tree and all included system features of the selected project can be inherited to the current project.

Step 5 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 **SF - List** sheet of the template. For details about how to set parameters, see the **SF - Import Rules** sheet in the template.

Step 6 Drag or click  to select a file to be imported.

Step 7 Click **Import**.

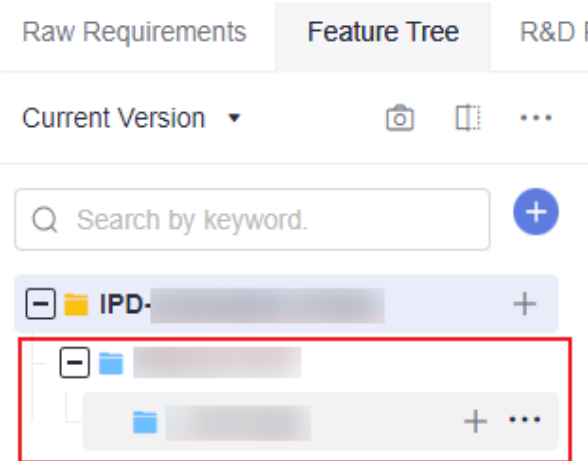
You can view the imported feature sets in the feature tree list.

----End

Related Operations

You can perform the following operations on a new feature set.

Table 7-29 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. Figure 7-26 Child feature sets  You can create third-level feature sets for a second-level one. A maximum of 10 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.

Operation	Description
Delete feature set	1. Click  on the right of the target feature set, and click Delete. Figure 7-27 Deleting a feature set  Warning Do you want to delete this requirement? Deleted data can be restored in the recycle bin. Hints: After the deletion, the labor hour data will be deleted accordingly. Delete Cancel 2. Click Delete. The deleted feature set and its child feature sets will not be display on the page. Deleted feature sets can be restored or permanently deleted from the recycle bin.

7.4.2 Managing a Feature Tree

After creating a feature tree (see [Creating a Feature Tree](#)), you can perform the operations described in this section on it.

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 7-28 Feature tree list

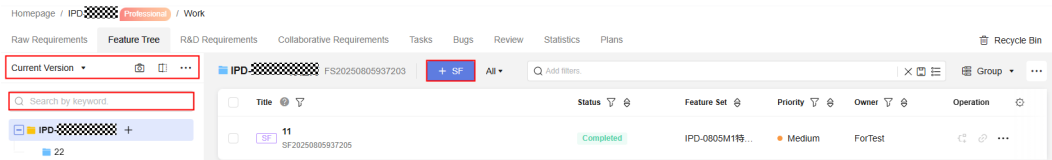


Table 7-30 Managing a feature tree

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.

Operation	Procedure
Create feature tree baseline snapshot	You can create a baseline based on the current feature tree version. - On the project homepage, choose Feature Tree. - Click . The Feature Tree Version Snapshot dialog box is displayed. Figure 7-29 Creating a feature tree snapshot Feature Tree Version Snapshot ✕  After the snapshot of the property tree version is complete, you can view the contents of the snapshot after switching to the historical version. * Name OK Cancel - Enter a snapshot name. - Click OK. Viewing the snapshot record of the feature tree version: By default, the current version is displayed. Click  on the right and select the version to be viewed. The snapshot of the corresponding version is displayed. Figure 7-30 Viewing feature tree version snapshots Current Version  

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 . 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 system feature comparison page is displayed. If a system feature is snapshotted for multiple times based on the feature tree, 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 name of the system feature to be compared. The 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.
Import feature tree	Use the provided template to import a feature tree. 1. On the project homepage, choose Feature Tree. 2. Click  on the right of Current Version, and select Import Feature Tree. 3. In the displayed dialog box, click Download Template. 4. Set the fields in the template. For details, see the import description in the template file. 5. Select the file to be imported. 6. Click Import and complete the import as prompted.
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 Current Version, and select Export Feature Tree. 3. In the displayed dialog box, select fields to be exported. 4. Click Export. After the feature tree is exported, the file will be automatically downloaded to the local PC. The file format is .xlsx.

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 7-31](#) shows the complete status transition process.

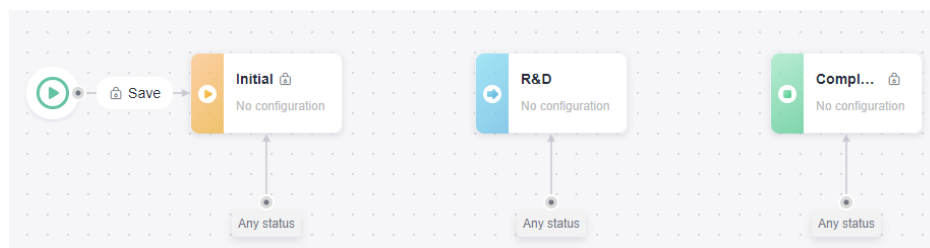
Figure 7-31 System feature status transition process

Table 7-31 describes the operations in each status.

Table 7-31 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 the required parameters.

Table 7-32 System feature parameters

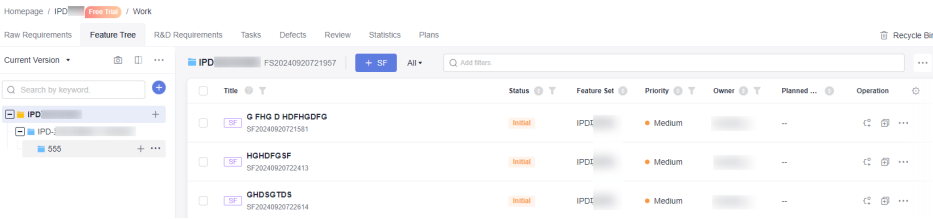
Parameter	Description
Tag	When creating or editing a work item, you can add a custom tag. Tag names can be marked in different colors.
Title	Name of a system feature.

Parameter	Description
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. This parameter has a value only after the operations in Creating a Feature Set are completed. The parameter value can be empty. You can associate the parameter with the corresponding system feature after creating a 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 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**.

Figure 7-32 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 7-33 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.
Create child requirement	Click in the Operation column of a system feature to break it down into child requirements. - In the Break Down Subrequirements dialog box, click Add Subrequirement to create a child requirement. A maximum of 10 child requirements 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 function of quickly breaking down work items does not work. If a work item is configured with multiple fields for quickly breaking down work items, the child work items are broken down 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.

Operation	Description
Associate with child requirement	Click  in the Operation column to associate a child requirement 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 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. After a system feature is restored from the recycle bin, it restores to the original status.

7.4.5 Managing System Features

After creating a system feature (see [Procedure](#)), you can perform the operations described in this section on it.

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 7-33 System feature list page

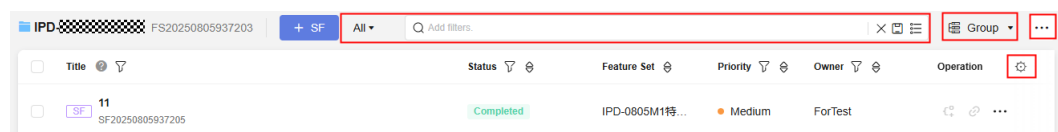


Table 7-34 Management operations in the system feature list

Operation	Procedure
Search for system feature	- By adding filters - Click the search box in the feature list and select one or more filters to search for system features. - To clear all filters and display all data, click  on the right of the search bar. - By using a saved view - Click the search box in the system feature list and select one or more filters. - Click  on the rightmost of the search bar, and enter a view name. - Click Confirm. The created view is displayed next to the SF button. - Select the created view to query the system features that meet the search criteria. Views can be shared with others, modified, and deleted.
Import work items	Use the provided template to import system features. - In the system feature list, click  on the right of the search bar, and select Import SF. - 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. The template file should be named in the following format: <i>Project name</i> + "-" + <i>Module name</i> (for example, Feature) + Template. - Set the fields in the SF - List sheet of the template. For details about how to set parameters, see the SF - Import Rules sheet in the template file. - Drag or click  to select a file to be imported. - Click Import. The import progress dialog box is displayed. - After the import is successful, you can view the imported requirement information in the system feature list. - If the import fails, a message is displayed in the upper right corner of 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 again. NOTE For details about operations on import records, see Viewing Work Item Import/Export Records.

Operation	Procedure
Export work items	Export system features in batches to an Excel file. - Export some or all system features. - Export all: On the Feature Tree page, click  on the right of the search bar and choose Export All. 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. - Select the fields to be exported. - 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. NOTE For details about operations on export records, see Viewing Work Item Import/Export Records.
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.
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 - 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. - 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. - 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. - Click OK. The SFs are cloned to the target project. - Go to the target project to view the cloned SFs.

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. NOTE • 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.

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.

Figure 7-34 System feature details page

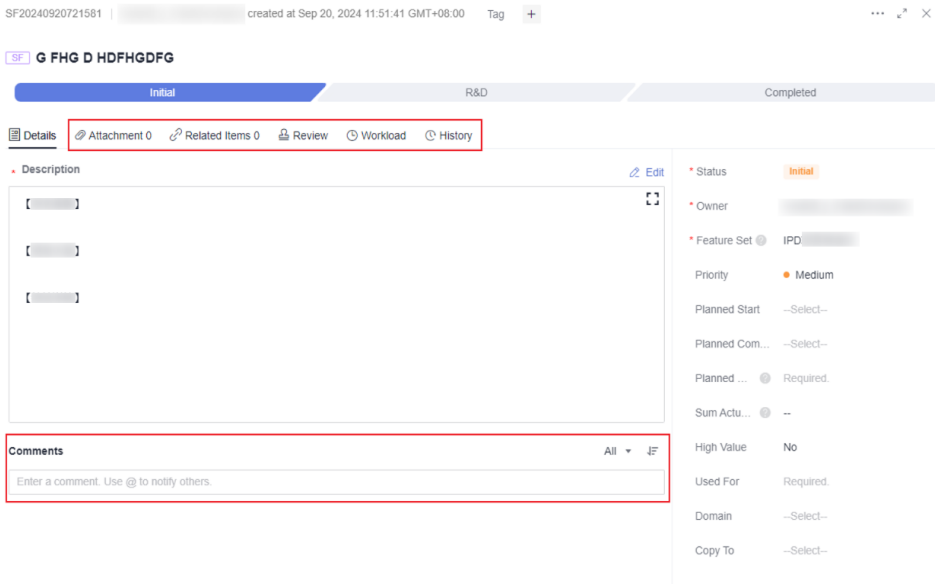


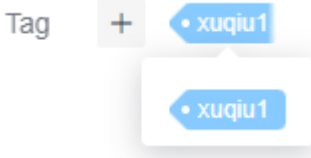
Table 7-35 Management operations on the details page

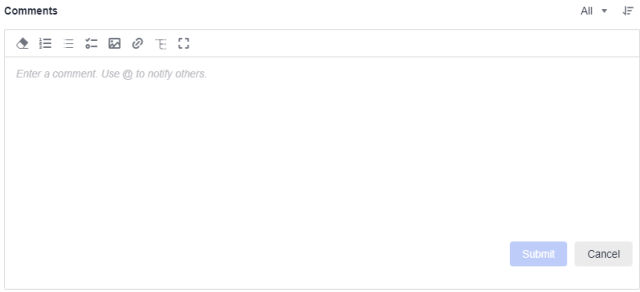
Operation	Procedure	Remarks
Edit work item	On the system feature details page, click the value box of the field to be modified, and enter a target value in the text box or select one from the drop-down list. The modification is saved automatically.	You must have permission to edit features.
Change work 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 7-31 .	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. You can unbaseline system features that have been baselined.	You must have permission to baseline features.

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. • Change 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 display in the corresponding system feature.	You must have permission to view features.

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 upload attachments for features.
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. • Subrequirement: Child requirements of the current feature. Click Break Down to add child requirements. 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 requirements are created, you can check and edit them on the R&D Requirements tab. Click Associate to add existing requirements as child requirements. You can add multiple ones at a time. • Associate Work Item: associated work items of other types in the project. Tasks can be associated. • Test Case: test cases corresponding to the system feature. You can select system features associated with test cases in CodeArts TestPlan.	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.

Operation	Procedure	Remarks
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 or can edit and delete all workloads.

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. - Go to the work item details page. - 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	- 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. - In the Create Tag dialog box, set Tag Name and select Tag Color. - Click OK. The new tag is displayed next to the requirement ID in the feature list. (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.

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.

7.5 Configuring Project Plans

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. R&D requirements, tasks, and bugs of a project can be planned in the release and sprint plans to deliver achievements in an orderly and timely manner, which keeps the project progress under control and manages the allocation of project members.

NOTE

- Type M (): Milestone.
- Type R (): Release plan.
- Type 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 7-36 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.

Step 4 Click **OK**.

The new milestone is displayed in the plan management list.

----End

Creating Release and Sprint Plans

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.

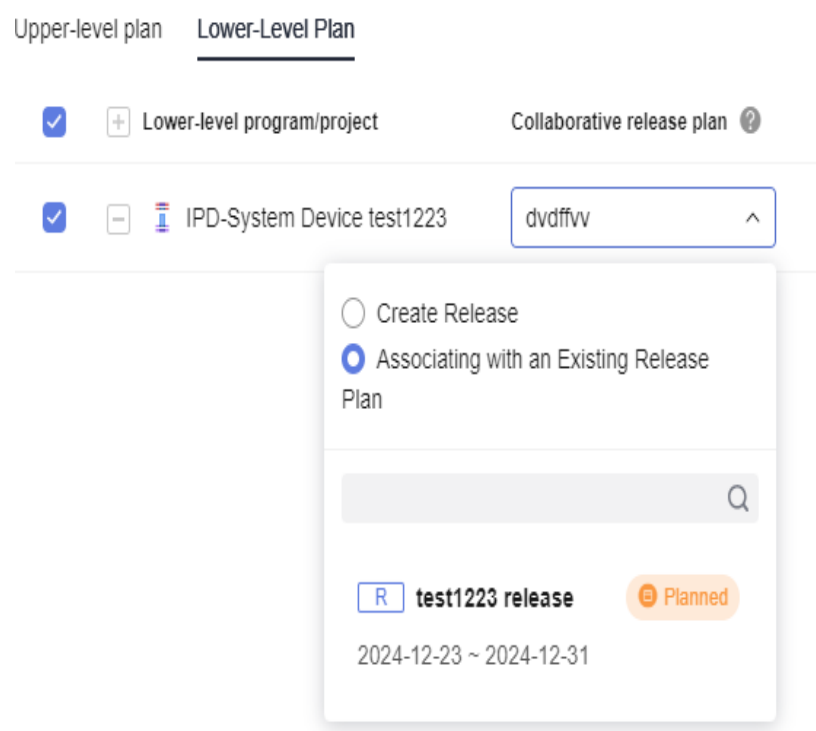
Table 7-37 Creating a release plan

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.
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.
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** If you click **Next**, the **Lower-Level Plan** tab for plan collaboration is displayed. The **Lower-Level Plan** page displays all lower-level nodes of the program to which the current release belongs. By default, the nodes are displayed in a tree structure. The lower-level nodes are selected by default. The release name and start/end time of the previous step are carried. The owner is the product manager of each project by default. If there is no product manager, the owner is the project administrator. You can also select members of the project node from the drop-down list. You can also deselect child items. Deselected child items cannot be executed. If you deselect all child items and click **OK**, a release without collaboration is created.
- **Collaborative release plan:** The release name, start time, and end time set in the previous step are used by default. You can also select **Create Release** or **Associating with an Existing Release Plan** from the drop-down list.



 NOTE

1. If the release name is the same as an existing release name of the program or project, the name of the collaborative release plan is highlighted, a message is displayed, and **OK** cannot be clicked.
 2. If the release is not completed and is not coordinated by other upper-level plans, the owner, start time, and end time of the selected release cannot be modified.
- **Copying configuration:** 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 **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 7-38 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.
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.

Figure 7-35 Plan list

☐	Title	Owner	Status	
☐	 dvdfv	admin01_user1	 Planned	
	 vvvvv	admin01_user1	 Planned	

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 **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 7-39 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  in the Operation column of a release plan to enter the Plan Collaboration > Lower-Level Plan page, deselect the collaborative program/project, and click OK .
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) under the release are also baselined. • After a sprint plan is baselined, the R&D requirements (IPD-system device: SRs and ARs; IPD-standalone software: USs) 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 R&D requirements (IRs) under the release are also unbaselined. • After a sprint plan is unbaselined, the R&D requirements (IPD-system device: SRs and ARs; IPD-standalone software: USs) under the sprint 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.

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 to copy the link. IRs/SRs/ARs/Bugs/Level-2 tasks: Click  in the Operation column on the level-2 release or sprint page to copy the link.
Edit milestone	Click  in the Operation column of a milestone to edit it.
Delete milestone	Click  in the Operation column of a milestone to delete it. 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 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 R&D requirements in snapshots of different versions, go to the R&D requirement 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.

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 list and Gantt modes support grouping. Procedure 1. On the level-2 release or sprint page of the Plans page, click  or  in the upper right corner to switch between the list and Gantt modes, and click Group. 2. On the displayed page, select the fields used to group work items. NOTE • 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

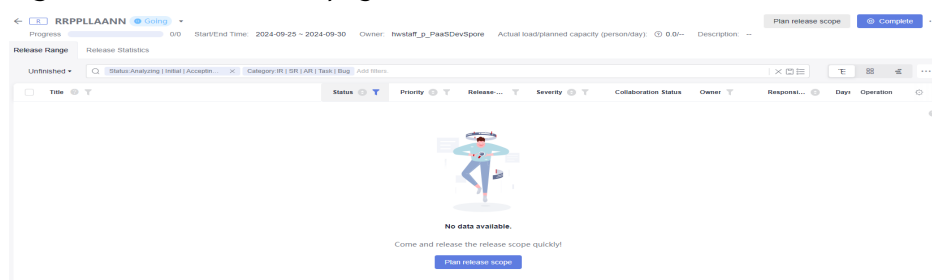
Step 1 [Access the CodeArts Req homepage.](#)

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 7-36 Plan details page



- Step 4 Click **Plan release scope**.
- This operation is unavailable for baselined release plans.
 - This operation is unavailable for completed release plans.
- Step 5 Select the work items to be added to the current release plan, and click **OK**.

 **NOTE**

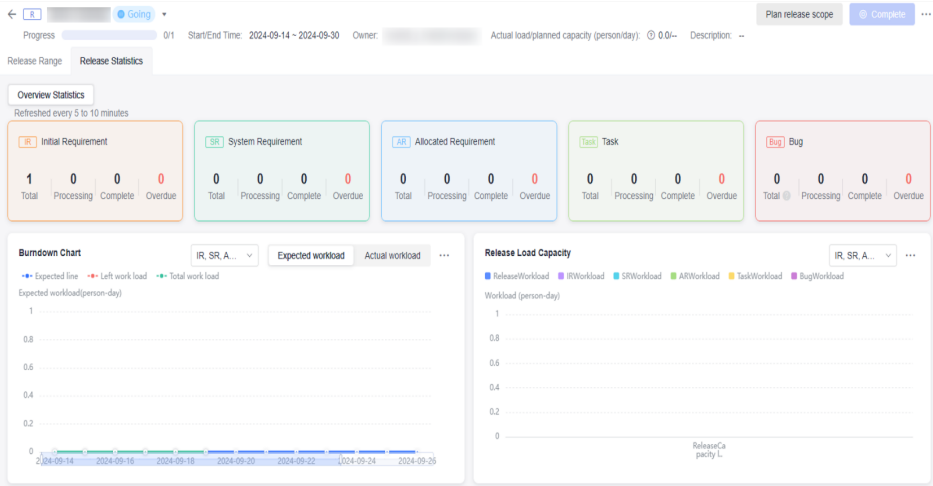
This procedure uses a release plan as an example. Sprint plans can be configured in the same way.

----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 7-37 Plan details page - Statistics



The following types of charts are supported.

Table 7-40 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.

Statistical Chart	Data Description
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 identity 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 under the current release. This chart helps you learn about the work item breakdown progress of the current release.
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.

Statistical Chart	Data Description
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.

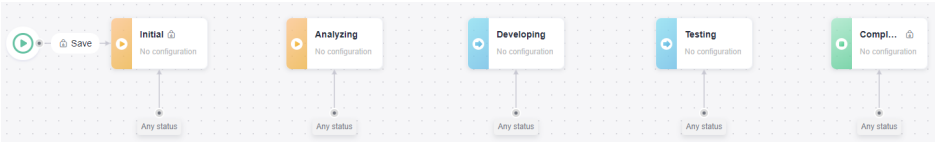
----End

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 7-38](#) shows the complete status transition process.

Figure 7-38 R&D requirement status transition flowchart



[Table 7-41](#) describes the operations in each status.

Table 7-41 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.

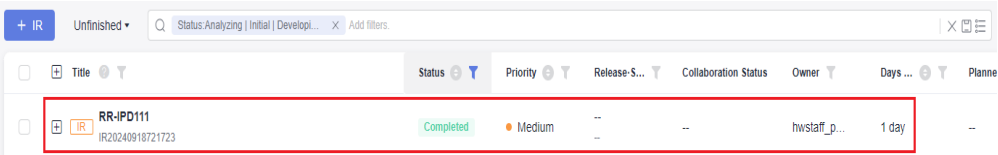
Table 7-42 Creating an IR

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.

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 Release and Sprint Plans are completed. This parameter can be left empty. You can create a release plan and then associate it with the release plan.
Sprint	Next level of the release plan. This parameter has a value only after the operations in Creating Release and Sprint Plans are completed. The parameter value can be empty. You can create a sprint and then associate it with the sprint.
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.

- 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 7-39 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 7-43 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.

Operation	Description
Create child requirement	Click  in the Operation column of an R&D requirement to break it down into child requirements. • In the Break Down Subrequirements dialog box, click Add Subrequirement to create a child requirement. A maximum of 10 child requirements 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 function of quickly breaking down work items does not work. If a work item is configured with multiple fields for quickly breaking down work items, the child work items are broken down 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. After an R&D 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 to the clipboard.

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 an R&D requirement (see [Procedure](#)), you can perform the operations described in this section on it.

On the R&D Requirements List Page

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

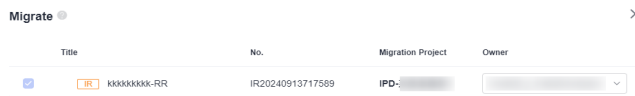
Figure 7-40 R&D requirement list

Raw Requirements							
Feature Tree							
R&D Requirements							
Collaborative Requirements							
Tasks							
Bugs							
Review							
Statistics							
Plans							
Recycle Bin							
+ IR UnCompleted							
Status: Initial Analyzing Develop...							
Title	Status	Priority	Release/Sprint	Collaboration Status	Owner	Days Idle	Operation
IR11 R20250730932418	Initial	Medium	--	--	ForTest	28 days	...
111 R20250729931495	Analyzing	Medium	--	Assign	ForTest	29 days	...
20 / Page, Total Records: 2							Go To 1

Table 7-44 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. • 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 Requirements and Operations Related to Requirement Assignment .
Receive assigned R&D requirement	Perform this operation when another project assigns an R&D requirement to your project. For details, see Receive and Operations Related to Receiving Requirements .

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 import template file is displayed in the lower part of the page. Save the file to the local PC and fill in data. The template file should be named in the following format: <i>Project name</i> + "-" + <i>Module name</i> (for example, R&D Requirement) + Template. 3. Fill in the fields on the IR - Requirements sheet. For details about how to set parameters, see the IR - Import Rules sheet in the template file. 4. Drag or click  to select a file to be imported. 5. Click Import. The import progress dialog box is displayed. • After the import is successful, you can view the imported requirement information in the R&D requirement list. • If the import fails, a message is displayed in the upper right corner of 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 again. NOTE For details about operations on import records, see Viewing Work Item Import/Export Records.
Export work items	Export requirements in batches to an Excel file. • 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 All. 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. • Select the fields to be exported and determine whether to export child requirements. • 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. NOTE For details about operations on export records, see Viewing Work Item Import/Export Records.

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.
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, are undergoing baseline review, or are being changed cannot be migrated. - 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. - In the displayed dialog box, select the project to migrate the requirements to. - Click Next. The migration confirmation dialog box is displayed. Figure 7-41 Migrating R&D requirements  - Select Owner. - 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.

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.

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. NOTE • 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 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.

Table 7-45 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.

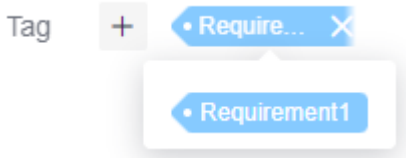
Operation	Procedure	Remarks
Change work item status	Go to the work item details page, click the Status field, and transition the work item to the target status. For details about status transition, see Table 7-41 .	You must have permission to set statuses for R&D requirements.
Baseline R&D requirement	- Go to the work item details page, and choose *** > Baseline. The Baseline dialog box is displayed. - 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	- Go to the work item details page, and choose *** > Baseline Review. The BR page is displayed. - Enter BR information. By default, the Baseline Object is the R&D requirement for which the baseline review is initiated. - Click Submit. The Review page is displayed. Choose Review > Baseline Review to check the new baseline review. - 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.

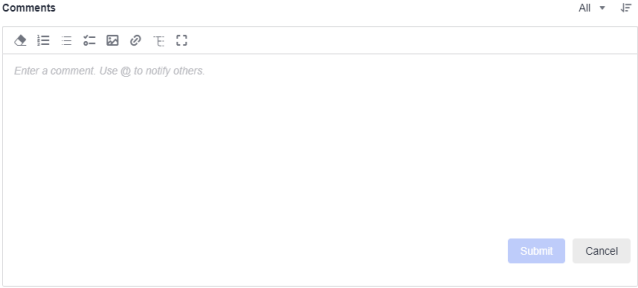
Operation	Procedure	Remarks
Initiate change review	The change process can be initiated only for baselined and uncompleted R&D requirements. - Go to the details page of a baselined work item, and choose *** > Change Review. The CR page is displayed. - Enter CR information. Change Object: By default, it is the R&D requirement to be changed. Collaborative Parent Item Change: Only existing CRs can be added. - 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 display 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. - Go to the work item details page, and click the Attachment tab. - 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 upload attachments for R&D requirements.

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. a. Parent Requirements: parent requirements 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. 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. c. Subrequirement: SRs of a child requirement in 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 Subrequirements window is displayed. 2. Configure a child requirement. Click  to expand and configure more information. 3. Click OK. The child requirement 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 Requirements and Operations Related to Requirement Assignment. f. Associate Work Item: associated work items of other types in the project. Tasks and bugs 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.

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.	
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.

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 R&D requirements. 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 R&D requirements.

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 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 7-42 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.

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 7-43 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.

7.6.4 Collaborating on R&D Requirements

The system supports collaborative management of requirements in each project. After assignment is configured, the assigned and received requirements are displayed on the **Collaboration 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 the collaborative assignment scenario, you have the permission to **assign/cancel assignment of IPD R&D requirements**.

In the collaborative receiving scenario, you have the permission to **receive/reject/turn back/transfer IPD R&D requirements**.

For details about how to set permissions, see [Managing Project Permissions](#).

Assigning Requirements

Only completed requirements cannot be assigned.

Step 1 In the R&D requirement list, select the requirements to be assigned.

- Select the check boxes of the requirements 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 requirement 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. Click **Configure downstream project** to go to the **R&D collaboration configuration** page.
2. Click **Add Downstream Project**.
3. Select a desired project.
4. Click **Add**.

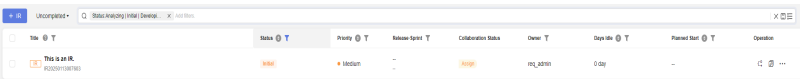
Repeat **Step 1** to **Step 2** to select the added downstream project.

- 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.
- To collaborate requirements by selecting check boxes, select a downstream project from the drop-down list in the **Deliver** dialog box, and set **To** and **Expected Received**.

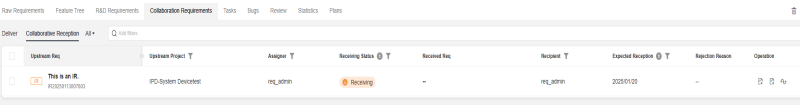
One selected requirement can be assigned to a maximum of 10 projects.
Multiple selected requirements can be assigned to only one project.

Step 3 Click **OK**.

In the R&D requirement list, the **Collaboration Status** of the assigned requirement is **Assign**.



Click **Receive** 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 Requirement Assignment

After requirements are assigned, you can view, reassign, cancel the assignment of, and export these requirements.

Table 7-46 Related operations

Operation	Procedure
Query	On the Collaboration Requirements > Deliver page, query the required assigned requirement 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 requirements that meet the query criteria are displayed in the list. You can select one or more criteria to query requirements as required. 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. This icon is displayed only when you select other filter criteria than All next to Collaborative Reception. 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 requirements that meet the search criteria. Views can be shared with others, renamed, and deleted.
Reassign	1. In the assigned requirement list, click  in the row where the requirement 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 requirements in the list.
Cancel assignment	Cancellation cannot be performed on a requirement whose Receiving Status is Received or Rejected. Select the requirements to be canceled in the assigned requirement list. • Canceling one requirement: Click  in the row where the desired requirement is located. The cancellation dialog box is displayed. • Canceling one or more requirements: Select the check boxes of the desired requirements. The cancellation dialog box is displayed. Click OK.
Export	Select one or more requirements 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 requirement file is downloaded to the local PC. The file format is .xlsx.

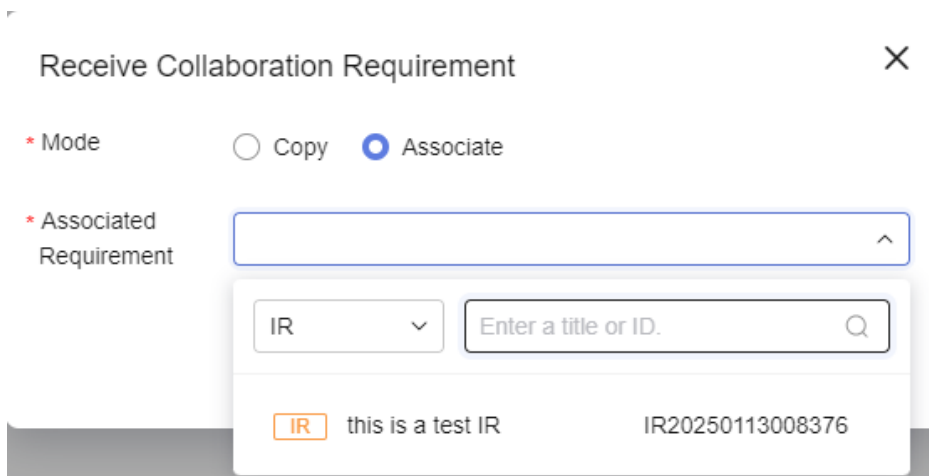
Receive

Step 1 Select the collaborative requirements to receive.

- Receiving a single requirement: Click  in the row where the desired requirement is located. The **Receive Collaboration Requirement** dialog box is displayed.
- Receiving one or more requirements: Select the requirements to be received and click **Receive** in the lower part of the page. The **Receive Collaboration Requirement** dialog box is displayed.

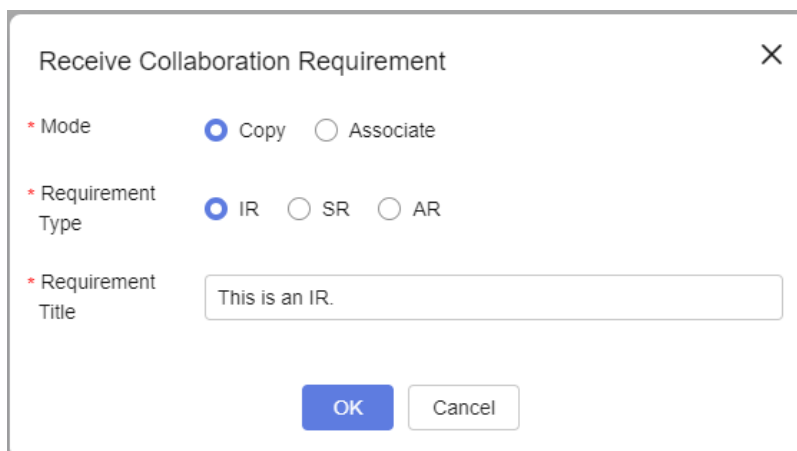
Step 2 Specify the receiving mode and requirement type, and enter a requirement title.

- When **Mode** is set to **Associate**, you only need to select **Associated Requirement**. The value of **Associated Requirement** comes from all R&D requirements created in the project.



The dialog box titled "Receive Collaboration Requirement" has a close button (X) in the top right. It contains two radio buttons for "Mode": "Copy" (unselected) and "Associate" (selected). Below the "Associate" mode, there is a label "* Associated Requirement" followed by a search input field. The search field has a dropdown menu showing "IR" and a search icon. Below the search field, a list of results is shown: "IR" with a tag, "this is a test IR", and the ID "IR20250113008376".

- When **Mode** is set to **Copy**, the received requirement information is displayed in the R&D requirement list, and the copied requirement information can be viewed in **Related Items > Related Upstream Requirements** of the requirement details.



The dialog box titled "Receive Collaboration Requirement" has a close button (X) in the top right. It contains two radio buttons for "Mode": "Copy" (selected) and "Associate" (unselected). Below the "Copy" mode, there is a label "* Requirement Type" followed by three radio buttons: "IR" (selected), "SR", and "AR". Below the "Requirement Type" section, there is a label "* Requirement Title" followed by a text input field containing "This is an IR.". At the bottom, there are two buttons: "OK" and "Cancel".

Step 3 Click **OK**. The received requirements turn to **Received**. The received requirements are displayed in the collaborative requirement list.

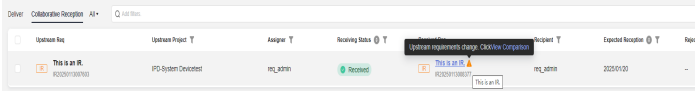
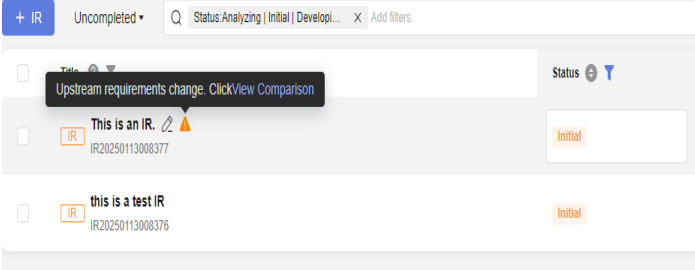
----End

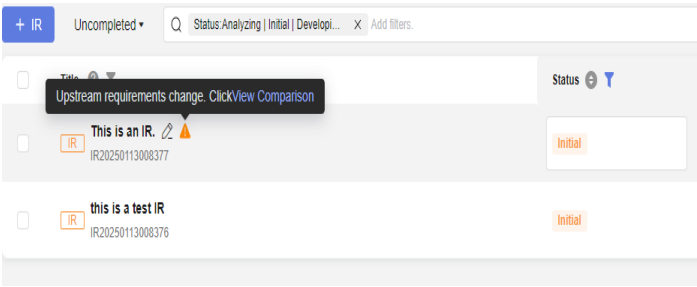
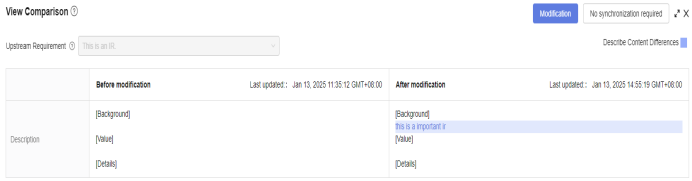
Operations Related to Receiving Requirements

On the **Collaborative Requirements > Deliver** page, you can query, receive, reject, and transfer requirements. When upstream requirements change, dependent downstream requirements will automatically trigger change notifications. You can view comparison and synchronize updates with one click.

Table 7-47 Operations related to receiving requirements

Operation	Procedure
Querying received requirements	On the Collaborative Requirements > Collaborative Reception page, query received requirement 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 received requirements that meet the query criteria are displayed in the list. You can select one or more criteria to query requirements as required. Click  on the right of the search bar to clear all filtering criteria. The default fields are displayed. - By using a saved view - Click  on the right of the search bar. This icon is displayed only when you select other filter criteria than All next to Collaborative Reception. - Set View Name. - Click OK. The created view is displayed next to Collaborative Reception. - You can select the name of the created view to query the received requirements that meet the search criteria. Views can be shared with others, renamed, and deleted.
Rejecting received requirements	Rejection cannot be performed on a requirement whose Acceptance Status is Rejected or Received. Select the collaborative requirements to reject. - Rejecting a single requirement: Click  in the row where the desired requirement is located. The Reject Reason dialog box is displayed. - Rejecting one or more requirements: Select the requirements to be rejected. The Reject Reason dialog box is displayed. Set Rejection Reason and click OK.

Operation	Procedure
Transferring received requirements to others	Select the requirements to be transferred to others in the list of received requirements. - Transferring a single requirement to others: Click  in the row where the desired requirement is located. The Transfer Collaboration Requirement dialog box is displayed. - Transferring one or more received requirements to others: Select the desired requirements. The Transfer Collaboration Requirement dialog box is displayed. Set Transfer and click OK.
Exporting received requirements	Select one or more requirements 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 requirement file is downloaded to the local PC. The file format is .xlsx.
Setting and viewing change notifications	If the title or description of an upstream requirement 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 requirement. When you move the pointer over the requirement, a pop-up message is displayed. Figure 7-44 Change notification of upstream requirements  The screenshot shows a table of requirements. One requirement, 'This is an IR', has a yellow reminder icon next to its title. A tooltip is displayed over the icon, stating 'Upstream requirements change. Click View Comparison'. - Downstream R&D requirement: A change notification will display in the received requirement. Click View Comparison to view the changes.  The screenshot shows a requirement detail view. A tooltip is displayed over a yellow reminder icon, stating 'Upstream requirements change. Click View Comparison'. The requirement title is 'This is an IR' and the ID is 'IR20250113008377'.

Operation	Procedure
Viewing comparison	After the title and description of the upstream requirement are modified, you can view the comparison of the requirements 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 requirement.  - 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 requirements before and after the modification. The differences are marked in blue. Figure 7-45 Changes in upstream requirements 

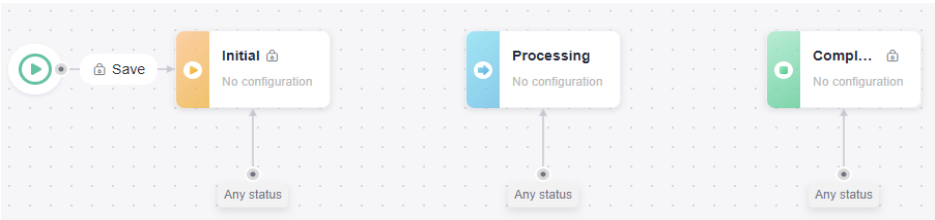
Operation	Procedure
One-click synchroniza tion	NOTICE - Forbidden scenarios: You do not have the permission to edit the work item or are not the owner of the requirement. The changes have been synchronized and cannot be synchronized again. - If the field to be synchronized in one-click mode is baselined 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 requirement. Perform the following operations: Click View Comparison to go to the View Comparison page. Click Modification. A confirmation dialog box is displayed. Click Cancel or the close icon 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 7-46](#) shows the complete status transition process.

Figure 7-46 Task status transition flowchart



[Table 7-48](#) describes the operations in each status.

Table 7-48 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 7-49 Creating a task

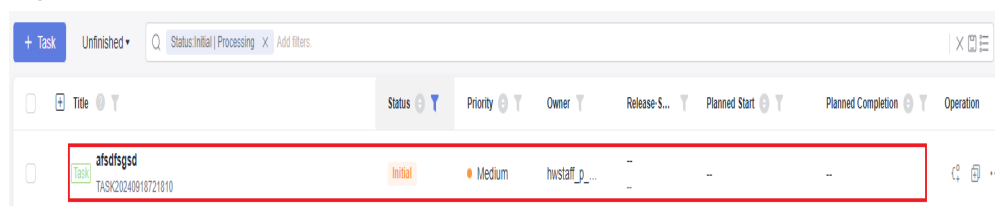
Parameter	Description
Tag	When creating or editing a work item, you can add a custom tag. Tag names can be marked in different colors.
Title	Title of a work item.
Description	Enter the background, value, and details of the task based on project requirements. Use text, images, or links.
Attachment	A maximum 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.

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 release plan.
Sprint	Next level of the release plan. The parameter value can be empty. You can create a sprint and then associate it with the sprint.
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 7-47 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 7-50 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 function of quickly breaking down work items does not work. If a work item is configured with multiple fields for quickly breaking down work items, the child work items are broken down 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 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. After a task is restored from the recycle bin, it restores to the original status.

7.7.3 Managing Tasks

After creating a task (see [Creating Tasks](#)), you can perform the operations described in this section on it.

On the Task List Page

On the project homepage, choose **Work > Req > Tasks**, and perform the following operations.

Figure 7-48 Task list

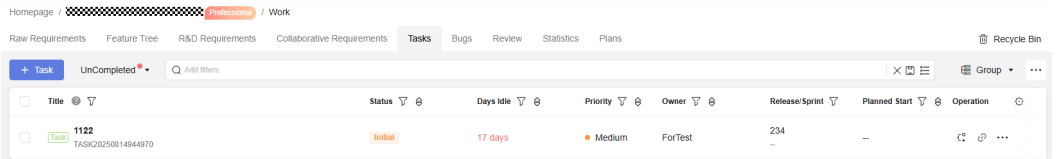


Table 7-51 Operations in the task list

Operation	Procedure
Search for task	- By adding filters - Click the search box in the task list and select one or more filters to search for tasks. - To clear all filters and display all data, click  on the right of the search bar. - By using a saved view - Click the search box in the task list and select one or more filters. - Click  on the rightmost of the search bar, and enter a view name. - Click OK. The created view is displayed next to the Task button. - Select the created view to query the tasks that meet the search criteria. Views can be shared with others, modified, and deleted.

Operation	Procedure
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 import template file is displayed in the lower part of the page. Save the file to the local PC and fill in data. The template file should be named in the following format: <i>Project name</i> + "-" + <i>Module name</i> (for example, Task) + Template. 3. Fill in the fields on the Task - List sheet. For details about how to set parameters, see the Task - Import Rules sheet in the template file. 4. Drag or click  to select a file to be imported. 5. Click Import. The import progress dialog box is displayed. • After the import is successful, you can view the imported task information in the task list. • If the import fails, a message is displayed in the upper right corner of 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 again. NOTE For details about operations on import records, see Viewing Work Item Import/Export Records.
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 All. 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. NOTE For details about operations on export records, see Viewing Work Item Import/Export Records.

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.
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 - 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. - 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. - 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. - Click OK. The tasks are cloned to the target project. - 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 - 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. - Select the target status from the drop-down list. - Click Next. - 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. - Click OK.

Operation	Procedure
Perform batch operations	You can select multiple tasks to perform operations in batches: edit, suspend/unsuspend, export, delete, cross-project clone, and transition.
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. NOTE • 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 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.

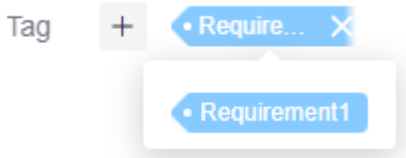
Table 7-52 Management operations on the details page

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.

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 7-48 .	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. - Go to the work item details page, and click the Attachment tab. - 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 upload attachments for tasks.

Operation	Procedure	Remarks
Add and check related item	A work item can be associated with other types of work items in a project. - Go to the work item details page and click the Related Items tab. - 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. A maximum of 10 child requirements can be created at a time. One child requirement is displayed by default and cannot be deleted. - Click Break Down. The Break Down Child Tasks window is displayed. - Configure the information about the child task. Click  to expand and configure more information. - 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: associated work items of other types in the project. Work items of the RR, SF, IR, SR, AR, 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.	You must have permission to associate/dissociate parent task, create subtasks, associate/dissociate work items, associate/dissociate files, and associate/dissociate wikis for tasks.

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 tasks. Workloads can be edited and deleted by the creator. By default, the project administrator or 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 tasks.

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 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 7-49 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 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.

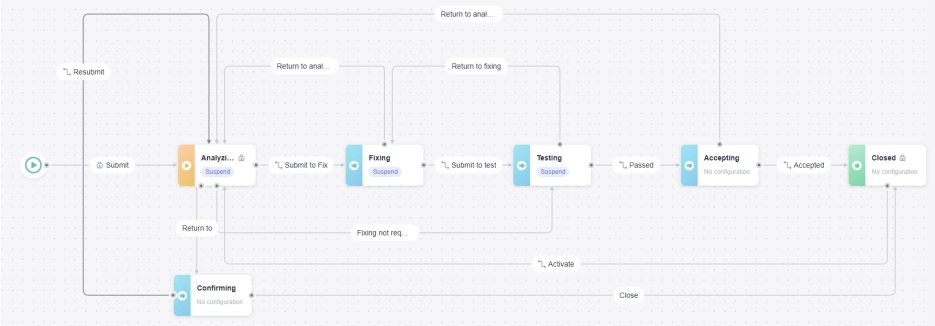
Operation	Procedure	Remarks
Add comment	1. Go to the work item details page. 2. On the Details tab page, click the Comments text box. Figure 7-50 Add comment Comments All ▾ ↕ Enter a comment. Use @ to notify others. Submit Cancel 3. Enter a comment. You can upload images, enter links, associate work 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.

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 7-51](#) shows the complete status transition process.

Figure 7-51 Bug status transition flowchart



[Table 7-53](#) describes the operations in each status.

Table 7-53 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.
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 Bugs

Step 1 [Access the CodeArts Req homepage.](#)

Step 2 On the project homepage, choose **Defects**.

Step 3 Click **Bug**. On the **Bug** page, set the required parameters.

Table 7-54 Creating a bug

Parameter	Description
Title	Title of a work item.
Description	Enter the fault symptom description, environment information, onsite fault locating R&D personnel, and the preliminary cause located by the R&D personnel based on the 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.
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 Release and Sprint Plans are completed. The parameter value can be empty. You can create a release and then associate it with the release.
Responsible Sprint	Next level of the release plan. This parameter has a value only after the operations in Creating Release and Sprint Plans are completed. The parameter value can be empty. You can create a sprint and then associate it with the sprint.
Environment	Environment where a bug is found. The options are development, test, and production environments.

Parameter	Description
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.

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 Notification Rules](#).

----End

Related Operations

You can perform the following operations on a new bug.

Table 7-55 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 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.

Operation	Description
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. After being restored, bugs restore to their original status.

7.8.3 Managing Bugs

After creating a bug (see [Creating Bugs](#)), you can perform the operations described in this section on it.

On the Bug List Page

On the project homepage, choose **Work > Req > Defects**, and perform the following operations.

Figure 7-52 Bug list

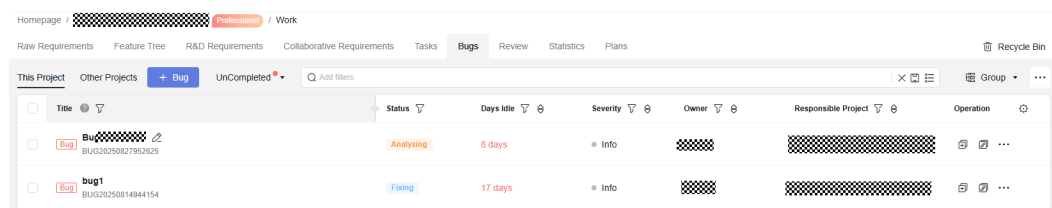


Table 7-56 Operations in the bug list

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.
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 import template file is displayed in the lower part of the page. Save the file to the local PC and fill in data. The template file should be named in the following format: <i>Project name</i> + "-" + <i>Module name</i> (for example, Bug) + Template. 3. Fill in the fields on the Bug - List sheet. For details about how to set parameters, see the Bug - Import Rules sheet in the template file. 4. Drag or click  to select a file to be imported. 5. Click Import. The import progress dialog box is displayed. • After the import is successful, you can view the imported bug information in the bug list. • If the import fails, a message is displayed in the upper right corner of 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 again. NOTE For details about operations on import records, see Viewing Work Item Import/Export Records.

Operation	Procedure
Export work items	Export bugs in batches to an Excel file. - 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. - Select the fields to be exported. - 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. NOTE For details about operations on export records, see Viewing Work Item Import/Export Records.
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.
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 - 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. - 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. - 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. - Click OK. The bugs are cloned to the target project. - Go to the target project to view the cloned bugs.

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. NOTE • 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 Bug Details Page

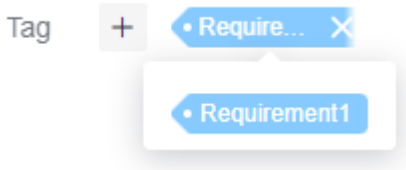
On the details page of a bug, you can modify the description, priority, and owner, add tags and attachments, associate work items, design models, check review records, add workloads, and view the operation history.

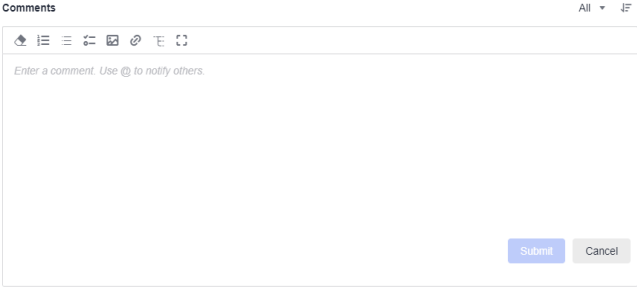
Table 7-57 Management operations on the details page

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.
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 7-53 .	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. - Go to the work item details page, and click the Attachment tab. - 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 upload attachments for bugs.

Operation	Procedure	Remarks
Add and check related item	A work item can be associated with other types of work items in a project. - Go to the work item details page and click the Related Items tab. - Complete association. Associate Work Item: associated work items of other types 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 . 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. - Click Assign Owner. - Configure the information about bug assignment. Click  to expand and configure more information. - 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.

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.	
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 or can edit and delete all workloads.

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. - Go to the work item details page. - 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.
Tag work item	- 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. - In the Create Tag dialog box, set Tag Name and select Tag Color. - Click OK. The new tag is displayed next to the bug ID in the bug list. (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 7-53 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.

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 7-54 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.

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 7-58](#).

Table 7-58 Review types

Review Type	Description	Review Object
Change review (CR)	- Changing the controlled fields of a raw requirement or bug will initiate a change review. The change will be synchronized to the requirement and bug only after the review is approved. The control status of a raw requirement and bug is determined by whether any controlled fields are configured for specific status. A field is deemed under control when a raw requirement or bug is in the specified status. - Changing the baselined fields of a system feature or R&D requirement will initiate a change review. The change will be synchronized to the feature and requirement only after the review is approved.	Raw requirements, system features, R&D requirements, and bugs
Baseline review (BR)	To baseline a system feature or R&D requirement, you need to initiate a baseline review. The feature and requirement will be baselined only after the review is approved.	Systems features and R&D requirements
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.	Raw requirements, system features, R&D requirements, and bugs

7.9.2 Creating and Completing Work Item Reviews

7.9.2.1 Creating and Completing CRs

When a raw requirement, system feature, R&D requirement, or bug is under control or baselined, you can perform the following steps to modify their controlled or baselined fields.

A maximum of **20** reviewers can be added.

A maximum of **50** objects can be added to or associated with a single review record.

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**.
- On the project homepage, choose **Review > Change Review**. Then click **CR**.

Step 3 On the **CR** page, set the required parameters.

Table 7-59 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.
Completes	The time when you want the review to complete.
Require Decision-Making	This parameter is available only when Require Decision-Making is enabled on the Settings > Work > Review page. If Require Decision-Making is set to No , no approver needs to be specified. The review will skip the decision-making phase.
Copy To	Select the project members you want to inform about this review.

Parameter	Description
Change Object	Add the objects to be changed, including raw requirements, system features, R&D requirements, and bugs. - Raw requirements can be selected only when they are in the Confirming, Planning, or Implementing state. After adding change objects, modify controlled fields (marked with ) and set Approver and Reviewer. - System features and R&D requirements can be selected only when they are baselined. After adding change objects, modify controlled fields (marked with ) and set Approver and Reviewer. - Bugs can be selected only when they are in a status in which a controlled field is editable. After adding change objects, modify controlled fields (marked with ) and set Reviewer and Review Expert. If Review Expert is not set, the review phase will be skipped. - The options of Review Expert are project members. You can select multiple ones. - For systems features and R&D requirements: - The options of Reviewer can be configured on the Settings > Work > Review page. The default options are project administrator and project manager. You can select only one option. For raw requirements: - If the proposing project initiates a change review, the options of Reviewer 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 of Reviewer include the project 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 of Reviewer 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 Reviewer 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 change objects include a raw requirement and bug, files can be associated only when the proposing and responsible projects are the same.

Parameter	Description
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.

----End

Related Operations

You can perform the following operations on a draft CR.

Table 7-60 Basic operations on a draft CR

Operation	Description
Modify title	Click  next to a CR title to modify it.
Modify field	Click the target field value in the row of a CR to modify the value. After the modification, click Submit .
Copy link	Click  in the Operation column to copy the title, ID, current owner, status, and link information of the requirement to the clipboard.
Delete CR	Click  in the Operation column of a CR to delete it.

For a new CR, click  in the **Operation** column to copy the title, ID, current owner, status, and link information of the requirement to the clipboard.

Completing a CR

This operation is performed by the specified review experts and reviewer 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 change object, and set the required parameters.

Figure 7-55 Review by review experts

Expert Review

* Result

☒ Approve ☐ Reject ☐ Transfer to others

* Comment

0/300

OK Cancel

Expert Comments

No comments so far

Table 7-61 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 of all change objects in the CR is complete, 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 change object, and set the required parameters.

Figure 7-56 Decision-making by reviewer

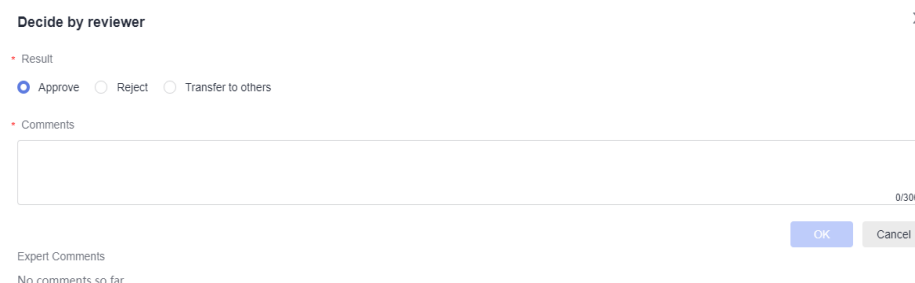


Table 7-62 Decision-making by reviewer

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 review to another reviewer.
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 your reference.
Expert Comments	Results and comments of review experts in the review phase for your 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 of all change objects is complete.

----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.

A maximum of **20** reviewers can be added.

A maximum of **50** objects can be added to or associated with a single review record.

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.

Table 7-63 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.
Completes	The time when you want the review to complete.
Require Decision-Making	This parameter is available only when Require Decision-Making is enabled on the Settings > Work > Review page. If Require Decision-Making is set to No , no approver needs to be specified. The review will skip the decision-making phase.
Reviewer	The options of Reviewer can be configured on the Settings > Work > Review page. The default options are project administrator and project manager. You can select only one option.
Review Expert	If Review Expert is not set, the review phase will be skipped. The options of Review Expert are project members. You can select multiple ones.
Copy To	Select the project members you want to inform about this review.
Baseline Object	Add the objects to be baselined, including system features and R&D requirements. Only system features and R&D requirements that are not baselined can be added.
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.

----End

Related Operations

You can perform the following operations on a draft BR.

Table 7-64 Basic operations on a draft BR

Operation	Description
Modify title	Click  next to a BR title to modify it.
Modify field	Click the target field value in the row of a BR to modify the value. After the modification, click Submit .
Copy link	Click  in the Operation column to copy the title, ID, current owner, status, and link information of the requirement to the clipboard.
Delete BR	Click  in the Operation column of a BR to delete it.

For a new BR, click  in the **Operation** column to copy the title, ID, current owner, status, and link information of the requirement to the clipboard.

Completing a BR

This operation is performed by the specified review experts and reviewer of a BR.

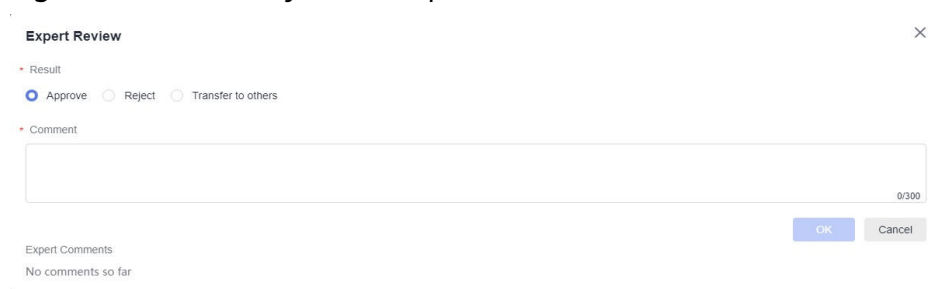
Step 1 [Access the CodeArts Req homepage.](#)

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 7-57 Review by review experts



The figure shows a dialog box titled "Expert Review" with a close button (X) in the top right corner. It contains two sections: "Result" and "Comment". The "Result" section has three radio buttons: "Approve" (selected), "Reject", and "Transfer to others". The "Comment" section has a text input field with a character count "0/300" on the right. At the bottom right, there are "OK" and "Cancel" buttons. Below the dialog box, there is a section titled "Expert Comments" with the text "No comments so far".

Table 7-65 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 **Decide by reviewer** in the upper right corner. In the displayed dialog box, set the required parameters.**Figure 7-58** Decision-making by reviewer

Expert Review

* Result

☒ Approve ☐ Reject ☐ Transfer to others

* Comment

0/300

Expert Comments

No comments so far

OK Cancel

Table 7-66 Decision-making 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 review to another reviewer.
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 your reference.
Expert Comments	Results and comments of review experts in the review phase for your 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.

A maximum of **20** reviewers can be added.

A maximum of **50** objects can be added to or associated with a single review record.

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.

Table 7-67 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.
Require Decision-Making	This parameter is available only when Require Decision-Making is enabled on the Settings > Work > Review page. If Require Decision-Making is set to No , no approver needs to be specified. The review will skip the decision-making phase.
Reviewer	The options of Reviewer can be configured on the Settings > Work > Review page. The default options are project administrator and project manager. You can select only one option.
Review Expert	If Review Expert is not set, the review phase will be skipped. The options of Review Expert are project members. You can select multiple ones.
Copy To	Select the project members you want to inform about this review.
Associated Object	Add the objects to be reviewed, including raw requirements, system features, R&D requirements, and bugs.
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.

----End

Related Operations

You can perform the following operations on a draft GR.

Table 7-68 Basic operations on a draft GR

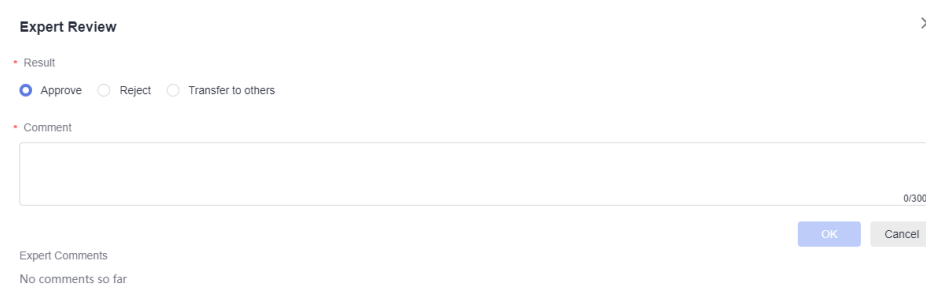
Operation	Description
Modify title	Click  next to a GR title to modify it.
Modify field	Click the target field value in the row of a GR to modify the value. After the modification, click Submit .
Copy link	Click  in the Operation column to copy the title, ID, current owner, status, and link information of the requirement to the clipboard.
Delete GR	Click  in the Operation column of a GR to delete it.

For a new GR, click  in the **Operation** column to copy the title, ID, current owner, status, and link information of the requirement to the clipboard.

Completing a GR

This operation is performed by the specified review experts and reviewer of a 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 7-59 Review by review experts

The figure shows a dialog box titled "Expert Review" with a close button (X) in the top right corner. It contains two sections: "Result" and "Comment". The "Result" section has three radio buttons: "Approve" (selected), "Reject", and "Transfer to others". The "Comment" section has a text input field with a character count "0/300" on the right. At the bottom right, there are "OK" and "Cancel" buttons. Below the dialog box, the text "Expert Comments" and "No comments so far" is visible.

Table 7-69 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 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 **Decide by reviewer** in the upper right corner. In the displayed dialog box, set the required parameters.**Figure 7-60** Decision-making by reviewer

Decide by reviewer

Result

☒ Approve ☐ Reject ☐ Transfer to others

Comments

0/300

OK Cancel

Expert Comments

No comments so far

Table 7-70 Decision-making 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 review to another reviewer.
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 your reference.
Expert Comments	Results and comments of review experts in the review phase for your reference.

Step 8 Select **Approve** or **Reject** for **Result**, and click **OK**. The GR status changes to **End**.

-----End

7.10 Tracking the Project Progress

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 7-71](#).

Table 7-71 Statistical charts

Statistics Type	Data Description
Project statistics overview	Displays the numbers of total, uncompleted, completed, and overdue work items of the selected release.

Statistics Type	Data Description
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 identify 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.
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.

Statistics Type	Data Description
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 bar chart to display the proportion of completed to 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 bar 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.
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 7-72](#).

Table 7-72 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.
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.

Statistics Type	Data Description
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.
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 7-73 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.
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.

8 Managing IPD-Standalone Software Project Requirements

8.1 Requirement Management Process

IPD-standalone software projects are IPD requirement management methods for independent software development. They manage large-scale software development with high quality and efficiency through structured processes and powerful cross-project collaboration capabilities, including raw requirements, system features, R&D requirements, tasks, and bugs, among which tasks and bugs are activities generated and problems found during requirement implementation, respectively.

Figure 8-1 IPD-standalone software projects

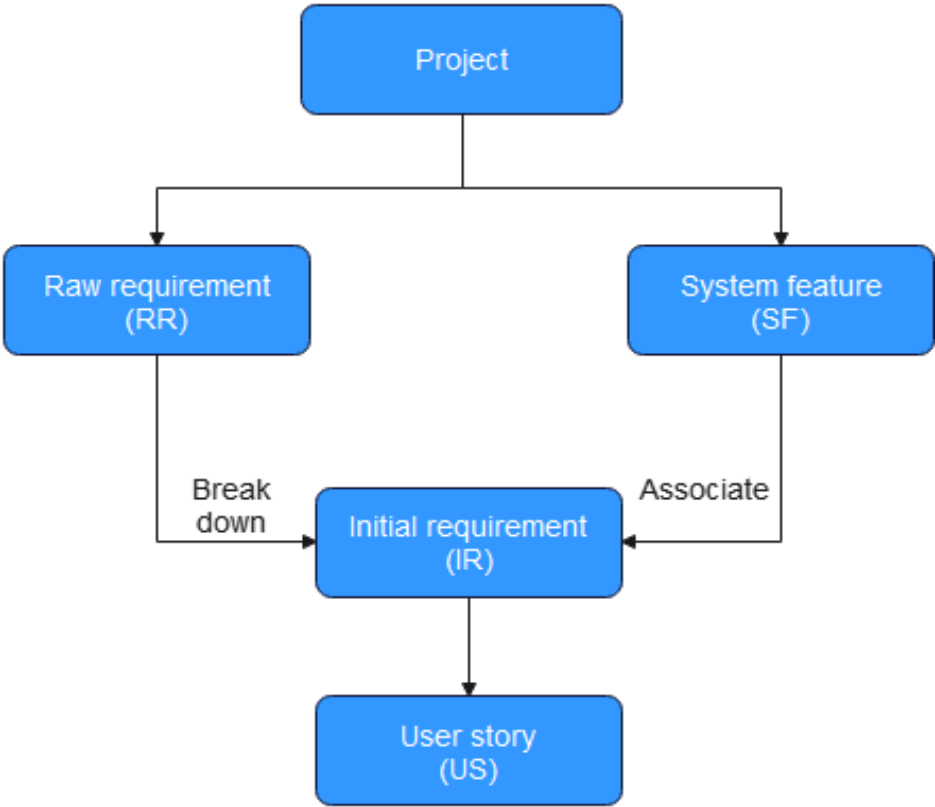


Table 8-1 lists the important operations for IPD-standalone software projects.

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.	You need to upgrade to the Pro or higher edition. For details, see CodeArts Packages .
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 sub-requirements in this hierarchy: SF > IR > US.	

Function	Description	Billing
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.	
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 description of functions that are valuable to users or customers, which comply with the INVEST principles. USs are decoupled and can be delivered independently, which is the basis of agile sprint delivery.	
Task	Tasks are activities with a certain goal.	
Bug	Bugs are problems found in a project.	

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**.

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, and level field. 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.
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 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.

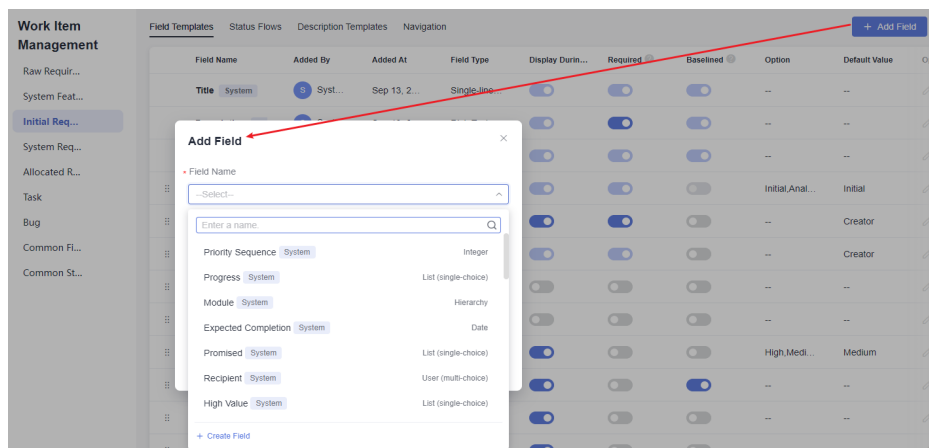
Parameter	Description
Field Type	System or custom field type. The options include: single-choice list, multi-choice list, single-line text, multi-line text, date, date and time, integer, decimal, single-choice user, multi-choice user, and level field. Hover over the header and click  to sort by field type. Hover over the header and click  to filter fields.
Option	Displayed only for single- and multi-choice list fields.
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.

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

Configuring Common Fields in Tenant Settings

You have the **Tenant Administrator** permission.

You can configure tenant-level common fields for work items across all your IPD projects.

- Step 1** Log in to the CodeArts homepage, click , and choose **All Account Settings**.
- Step 2** Choose **Work > Field**. The existing common fields are displayed.
- Step 3** Click **Create Field**. In the dialog box that is displayed, enter a field name, select a field type, and click **OK**. The new field is displayed in the list.

----End

You can perform the following operations on a new field:

- Click  to modify the field name, type, and description.
- Click . In the dialog box that is displayed, click **Delete** to delete the field.

 NOTE

Fields created on the **Work > Field** page apply to all IPD projects in your tenant and can be configured for the work items in these projects.

1. Go to an IPD project and choose **Settings > Work**.
2. Click **Work Items** and select a work item type.
3. On the **Field Templates** tab page, click **Add Field**. In the displayed dialog box, select a new field, configure other options, and click **OK**.

8.2.2 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 8-4 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.

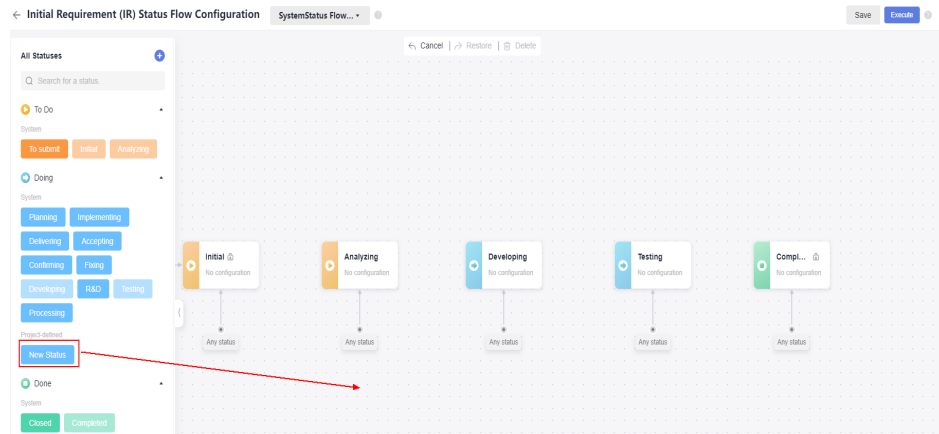
Table 8-5 Status list

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.

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

- Customized 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

Configuring Common Statuses in Tenant Settings

You have the **Tenant Administrator** permission.

You can configure tenant-level common statuses for work items across all your IPD projects.

Step 1 Log in to the CodeArts homepage and click .

Step 2 Choose **All Account Settings**.

Step 3 Choose **Work > Status**. The existing common statuses are displayed.

Step 4 Click **Create Status**. In the dialog box that is displayed, enter a status name, select a status category, and click **OK**. The new status is displayed in the list.

----End

You can perform the following operations on a new status:

- Click  to modify the status name, category, and description.
- Click . In the dialog box that is displayed, click **OK** to delete the status.

Statuses created on the **Work > Status** page apply to all IPD projects in your tenant and can be configured for the work items in these projects.

1. Go to an IPD project and choose **Settings > Work**.
2. Click **Work Items** and select a work item type.

3. On the **Status Flows** tab, click **Edit**. Click  next to the system status flow currently in use to copy it to a custom status flow. On the custom status flow page, select the new status, click **Edit**, configure fields for the status, and click **Save**.

8.2.3 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-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.

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.

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

8.2.4 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/SR/AR) Status Flow

Customizing a Task Status Flow

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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 **RR Status Flow Configuration** page is displayed and the RR 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 codeartsreq_01_6094.xml#codeartsreq_01_6094/en-us_topic_0000001961956637_section19757145121116. 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 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 8-6 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.

Parameter	Description
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 a field.

Table 8-7 Fields

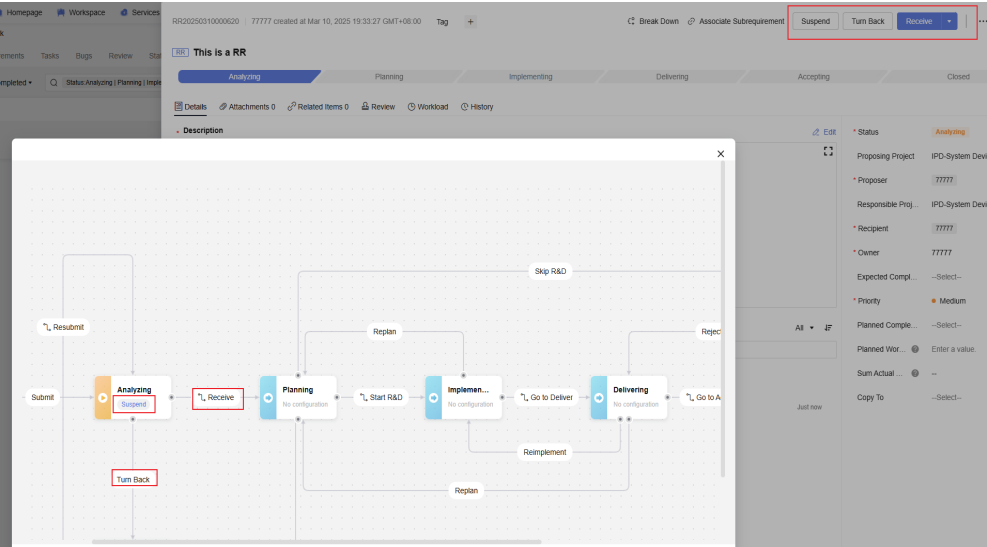
Field	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.
Editable	Set whether the field is editable in a work item of the current status.
Required	Set whether the field is mandatory in a work item of the current status. If the field is mandatory, it will be marked with an asterisk (*).
Role	Select a role from the drop-down list. The options are Default and Custom .
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.

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.

Table 8-8 Pre-transition verification

Verificati on Item	Description
Verify Operation Permission	Optional. Check whether the operation role is specified before the transition. You can select one or more roles from the drop-down list. If this item is not configured, users who have permission to set the status of the work item or the owner of the current work item can perform status transition. If a temporary role is configured for the work item, this role also has permissions to perform status transition.
Validate Field Informatio n	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 .
Verifying Associate Item Informatio n	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 work items to be added, 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.

Configure work items whose values will be automatically updated after status transition. **Update Work Item Fields** 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. If **Mandatory** is selected when a field is added, the field name in the field list is marked with an asterisk (*).

- 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.

- 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 `codeartsreq_01_6094.xml#codeartsreq_01_6094/en-us_topic_0000001961956637_section19757145121116`. 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 8-9 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 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 a field.

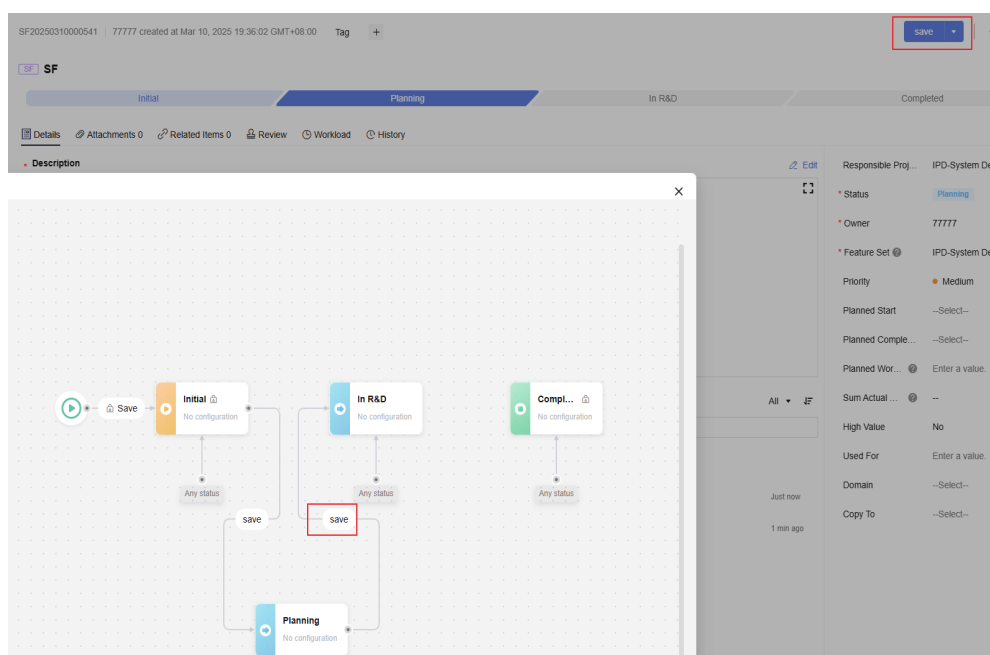
Table 8-10 Fields

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 a role from the drop-down list. The options are Default and Custom .

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.



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 8-11 Pre-transition verification

Verificati on Item	Description
Verify Operation Permission	Optional. Check whether the operation role is specified before the transition. You can select one or more roles from the drop-down list. If this item is not configured, users who have permission to set the status of the work item or the owner of the current work item can perform status transition. If a temporary role is configured for the work item, this role also has permissions to perform status transition.
Validate Field Informatio n	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 .
Verifying Associate Item Informatio n	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 work items to be added, 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.

Configure work items whose values will be automatically updated after status transition. **Update Work Item Fields** 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. If **Mandatory** is selected when a field is added, the field name in the field list is marked with an asterisk (*).

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.

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 `codeartsreq_01_6094.xml#codeartsreq_01_6094/en-us_topic_0000001961956637_section19757145121116`. 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.
 - 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.
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 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 a field.

Table 8-13 Fields

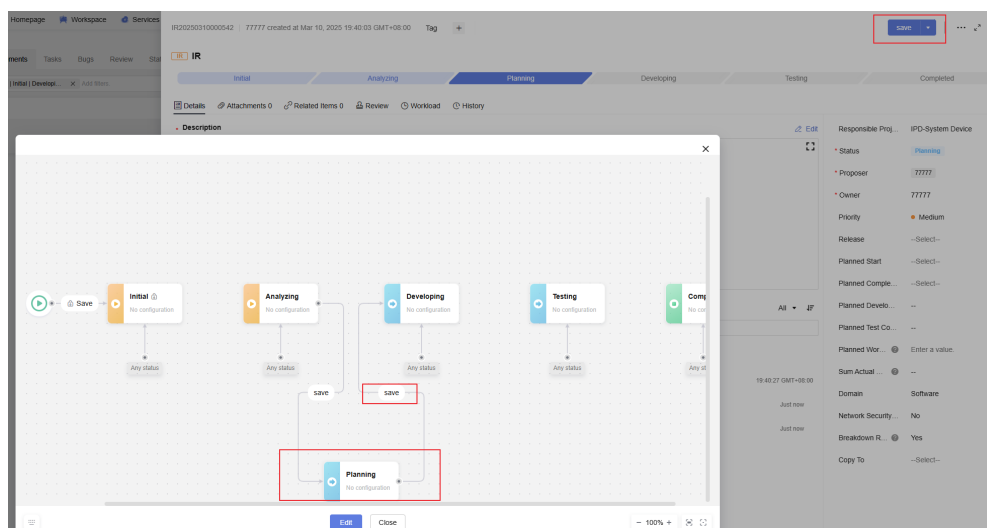
Field	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.
Editable	Set whether the field is editable in a work item of the current status.

Field	Description
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 options are Default and Custom .

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.



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 8-14 Pre-transition verification

Verificati on Item	Description
Verify Operation Permission	Optional. Check whether the operation role is specified before the transition. You can select one or more roles from the drop-down list. If this item is not configured, users who have permission to set the status of the work item or the owner of the current work item can perform status transition. If a temporary role is configured for the work item, this role also has permissions to perform status transition.
Validate Field Informatio n	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 .
Verifying Associate Item Informatio n	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 work items to be added, 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.

Configure work items whose values will be automatically updated after status transition. **Update Work Item Fields** 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. If **Mandatory** is selected when a field is added, the field name in the field list is marked with an asterisk (*).

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.

- 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 `codeartsreq_01_6094.xml#codeartsreq_01_6094/en-us_topic_0000001961956637_section19757145121116`. 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

+ Task								
[Status Initial / Processing] [Add filter]								
Title	Status	Priority	Owner	Release Sprint	Planned Start	Planned Completion	Suspended	Operation
task [Suspend] task0201000004	Processing	Medium	77777	-	-	-	YES	[More]

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.
 - 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 8-15 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 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 a field.

Table 8-16 Fields

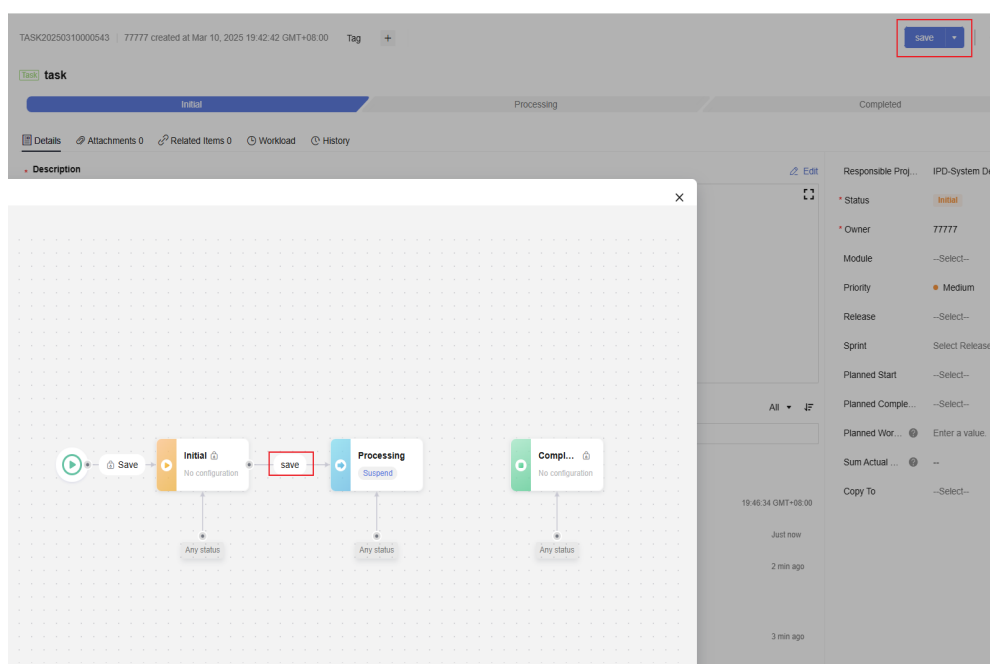
Field	Description
Visible	Set whether to display the field on the work item details page. Other configurations are available only after this option is selected.
Editable	Set whether the field is editable in a work item of the current status.
Required	Set whether the field is mandatory in a work item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

Field	Description
Role	Select a role from the drop-down list. The options are Default and Custom .

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.



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 8-17 Pre-transition verification

Verificati on Item	Description
Verify Operation Permission	Optional. Check whether the operation role is specified before the transition. You can select one or more roles from the drop-down list. If this item is not configured, users who have permission to set the status of the work item or the owner of the current work item can perform status transition. If a temporary role is configured for the work item, this role also has permissions to perform status transition.
Validate Field Informatio n	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 .
Verifying Associate Item Informatio n	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 work items to be added, 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.

 NOTE

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

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.

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 `codeartsreq_01_6094.xml#codeartsreq_01_6094/en-us_topic_0000001961956637_section19757145121116`. 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 **Operable project**. **Operable project** controls whether members of the **Proposing project** or **Responsible project** edit, suspend, unsuspend, and change the status of a work item.

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.

Table 8-18 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.

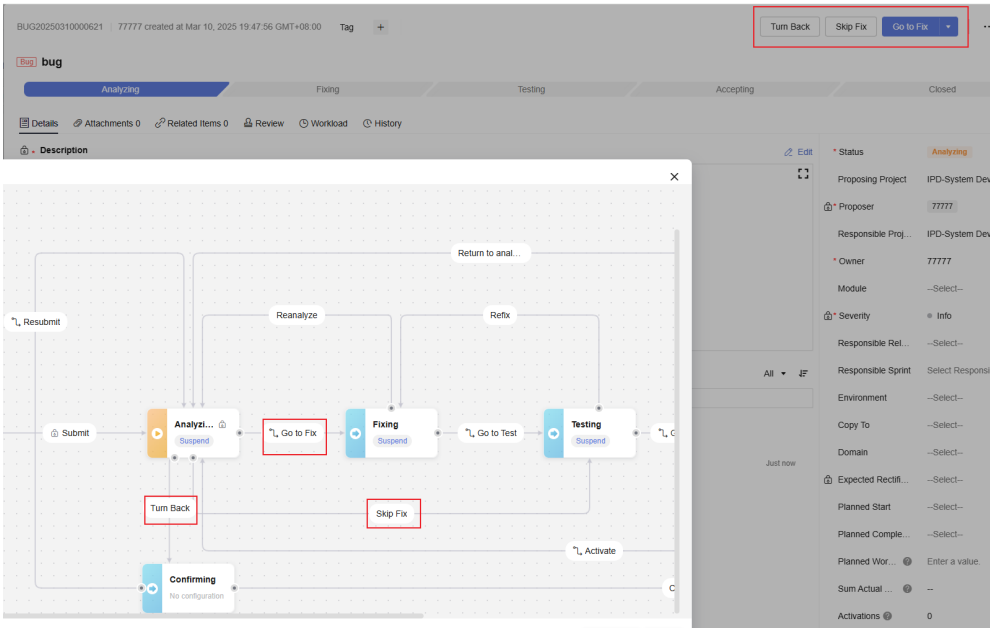
- Configure a field.

Table 8-19 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 a role from the drop-down list. The options are Default and Custom .
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.



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 8-20 Pre-transition verification

Verificati on Item	Description
Verify Operation Permission	Optional. Check whether the operation role is specified before the transition. You can select one or more roles from the drop-down list. If this item is not configured, users who have permission to set the status of the work item or the owner of the current work item can perform status transition. If a temporary role is configured for the work item, this role also has permissions to perform status transition.
Validate Field Informatio n	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 .

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 work items to be added, 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.

Configure work items whose values will be automatically updated after status transition. **Update Work Item Fields** 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. If **Mandatory** is selected when a field is added, the field name in the field list is marked with an asterisk (*).

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

8.2.5 Configuring Work Item Tags

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

Prerequisites

An IPD-standalone software project is available, in which you have permission to **manage tags**.

Adding a Tag

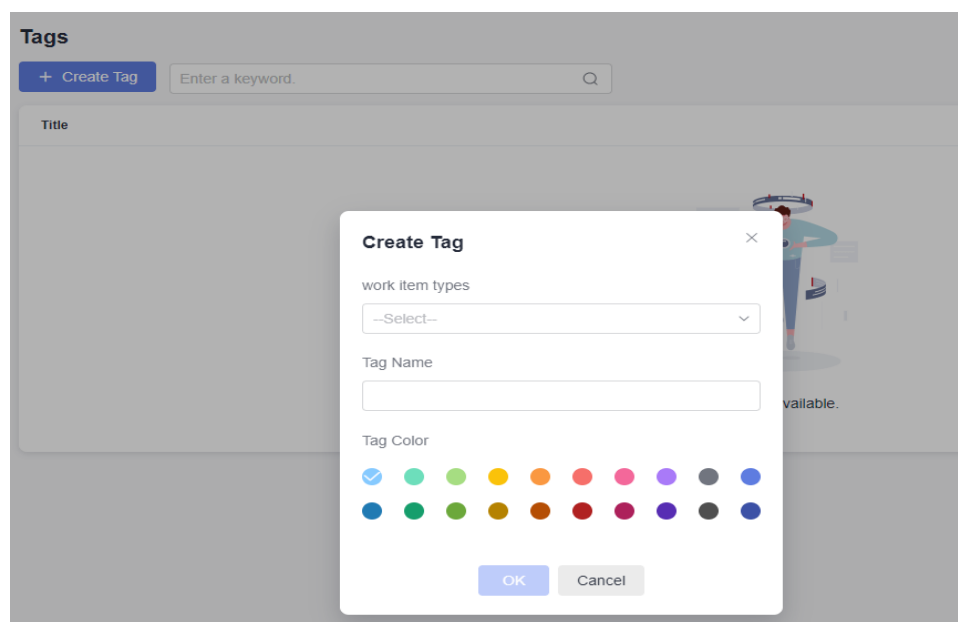
Step 1 [Access the CodeArts Req homepage.](#)

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

All work item tags are displayed here.

Step 3 Click **Create Tag**.

Figure 8-6 Creating a tag

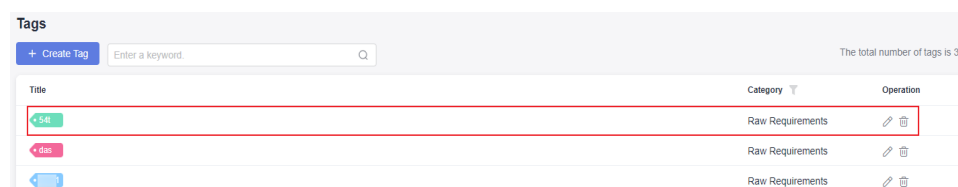


Step 4 Select a work item type and tag color, and enter a tag name.

Step 5 Click **OK**.

The new tag is displayed in the list.

Figure 8-7 Tags page



- Click  to change the 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 each work item type (such as RR).

----End

8.2.6 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.

Prerequisites

An IPD-standalone software project is available, in which you have permission to **configure modules**.

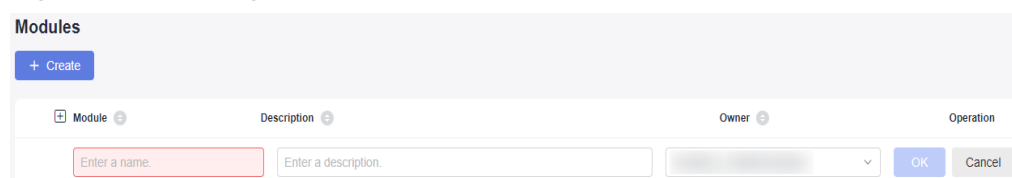
Creating a Module

Step 1 [Access the CodeArts Req homepage.](#)

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

Step 3 Click **Create**.

Figure 8-8 Creating a module



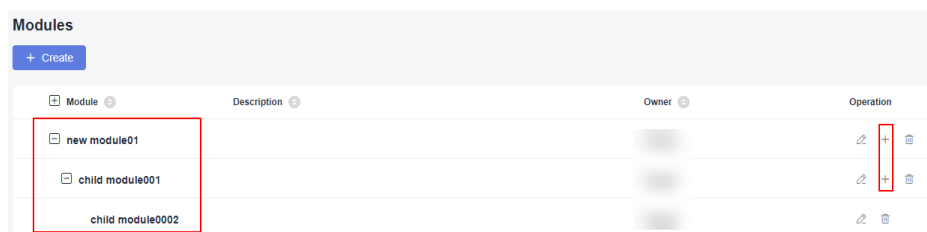
Step 4 Set **Module**, **Description**, and **Owner**.

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 8-9 Adding a submodule

----End

8.2.7 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

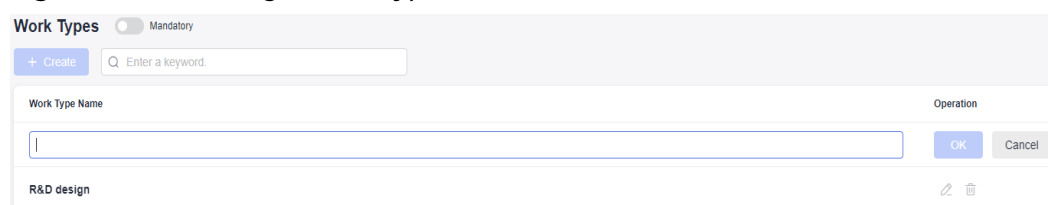
An IPD-standalone software project is available, in which you have permission to **configure work types**.

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 8-10 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.

Figure 8-11 Adding a workload

Add Workload

* Period

Start date - End date ☐ Weekends included

* Workload

Total 1 person-day

Work Type

--Select--

- UI design
- Meeting
- General
- Training
- Research
- Other
- Replacement leave

----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 8-12 Configuring work types

Work Types

☐ Mandatory

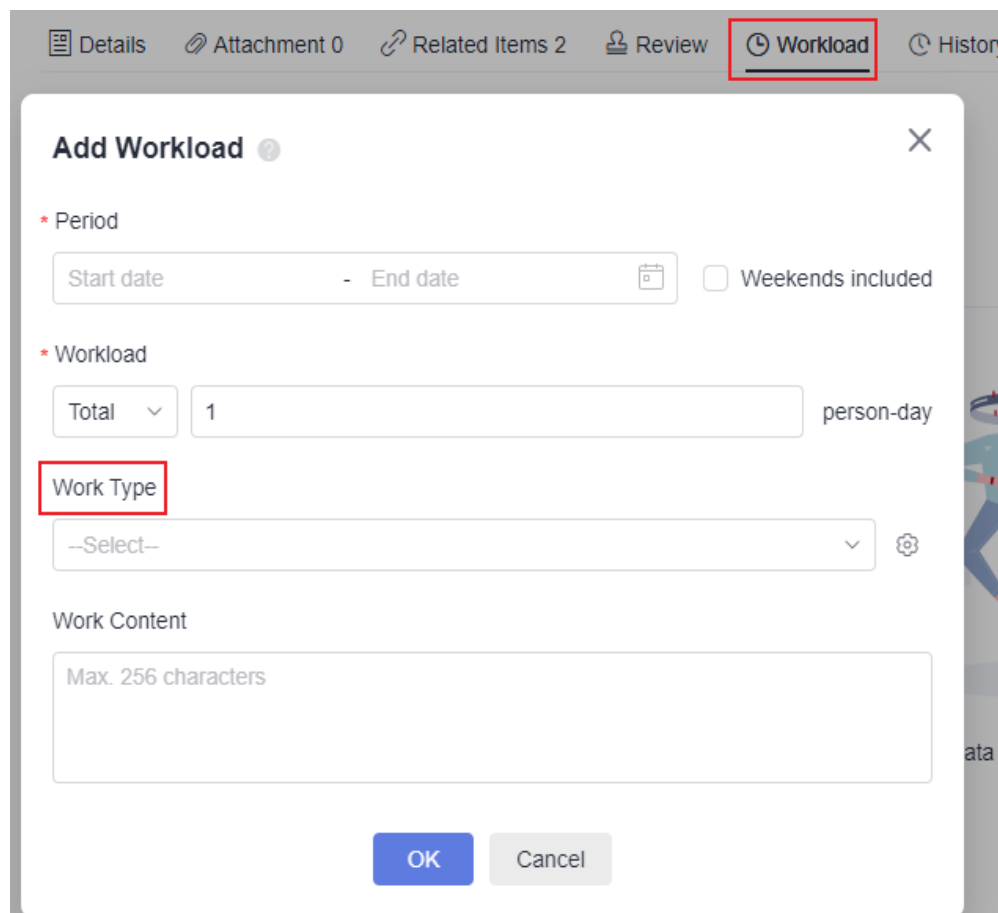
+ Create

Q Enter a keyword.

Work Type Name

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

Figure 8-13 Adding a workload



----End

8.2.8 Configuring Automatic Rollup Rules

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

Prerequisites

An IPD-standalone software project is available, in which you have the **Automation** permission.

Procedure

- Step 1** [Access the CodeArts Req homepage.](#)
- Step 2** Access the project details page and choose **Settings > Work Item > Automation**. The **Automation** page is displayed.

Step 3 Click **Automation Rules**.

Step 4 Set **Enable** to enable or disable the configured rule.

For example, if the status rollup of SF work items is enabled, when you change the status of all child work items of an unfinished SF work item in the **Work Item > Req > Feature Tree** list to **Completed**, the status of the SF work item is automatically rolled up to **Completed**.

Step 5 Go to the work item list. The SF status is automatically updated to **Completed**, and an automation rule operation record is added to the **History** tab page.

----End

8.2.9 Configuring Notifications

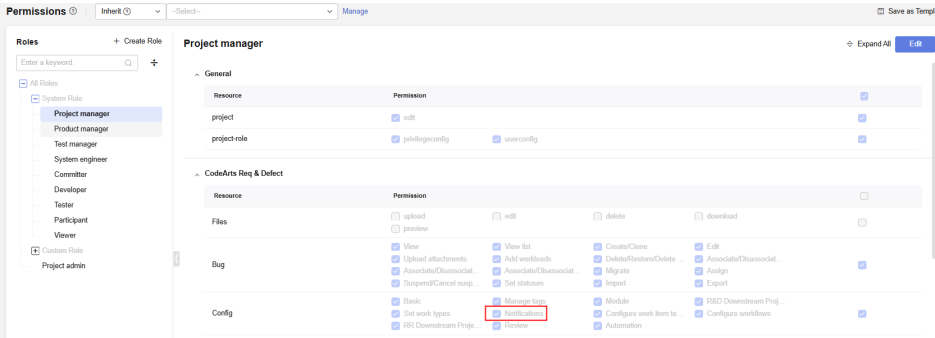
Overview

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?](#)



- 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.

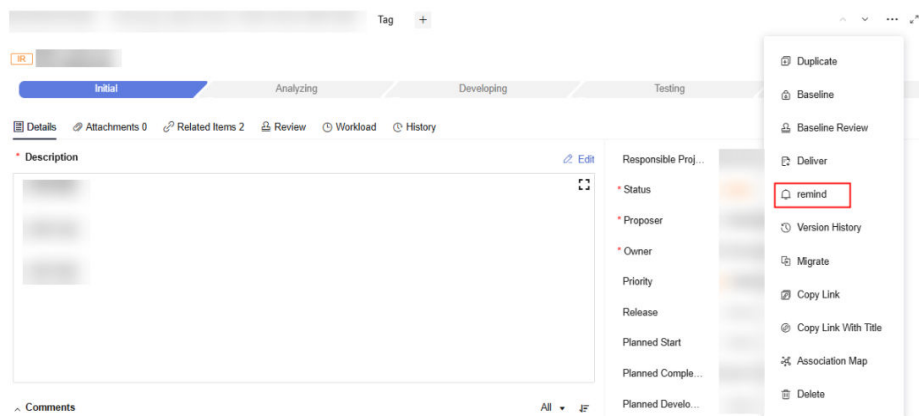
Figure 8-14 Notifications page

Notifications							
Raw Requirements System Features R&D Requirements Tasks Bugs Review Others WeCom							
Event	Recipient					Direct Message	Email
Create/Submit RR	☐ Creator	☒ Owner	☒ Proposer	☒ Receiver	☒ CC recipients	☒	☒
Modify RR	☐ Creator	☒ Owner	☒ Proposer	☒ Receiver	☒ CC recipients	☒	☒
Delete RR	☒ Creator	☒ Owner	☒ Proposer	☒ Receiver	☒ CC recipients	☒	☒
Change RR	☒ Creator	☒ Owner	☒ Proposer	☒ Receiver	☒ CC recipients	☒	☒
Update RR status	☒ Creator	☒ Owner	☒ Proposer	☒ Receiver	☒ CC recipients	☒	☒
Comment on an RR	☐ Creator	☒ Owner	☐ Proposer	☐ Receiver	☐ CC recipients	☒	☒
	☒ Mentioned users						
reminder	☒ Owner					☒	☒

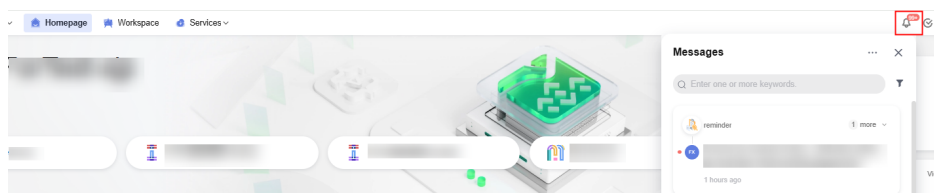
After the setting is complete, the selected recipients will be notified when a corresponding event (for example, RR modification) occurs.

 NOTE

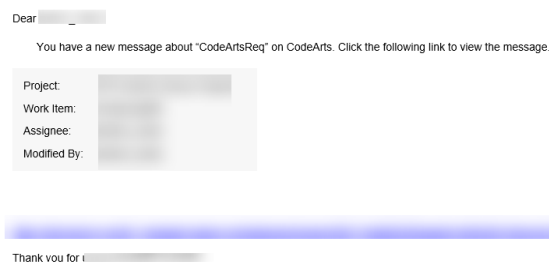
After the setting is complete, to send a **reminder**, click  on the right of the work item details page and select **remind**. The current owner of the work item will receive the reminder notification. An example of reminding an IR is as follows.



- **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.



- **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:

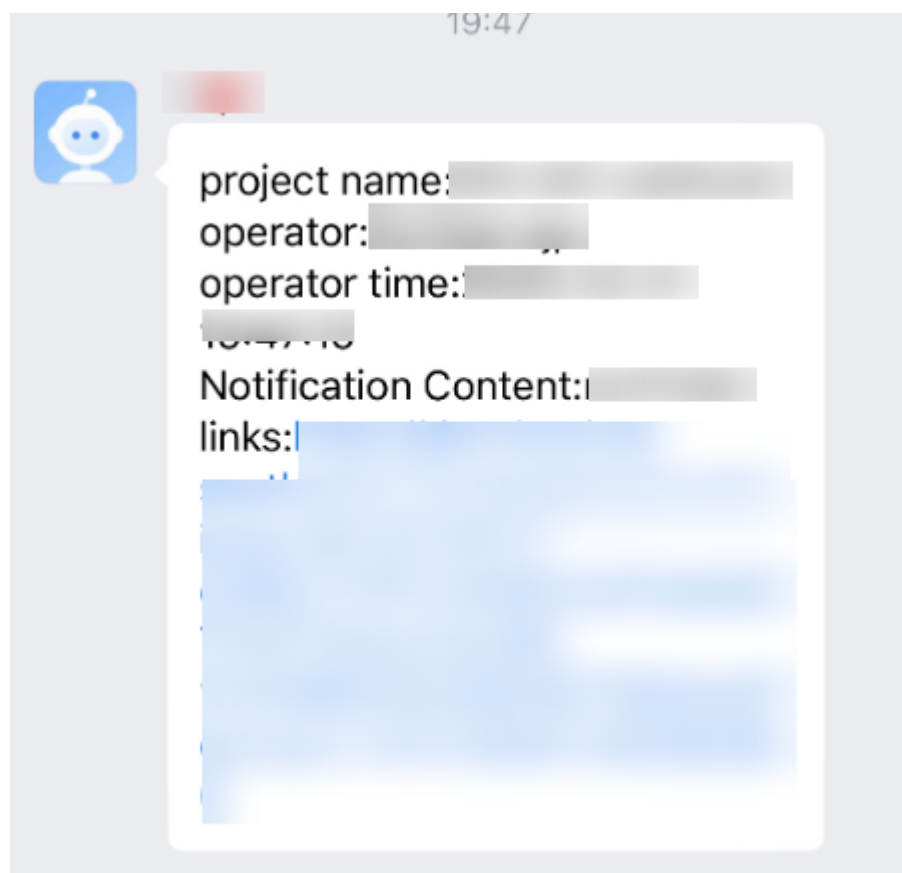
- Open the WeCom group where you want to receive notifications, and click the ... button in the upper right corner.
- Click **Group Robot**.
- Click the created group robot to copy the generated webhook URL.

Step 4 Select event types.

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



----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**.

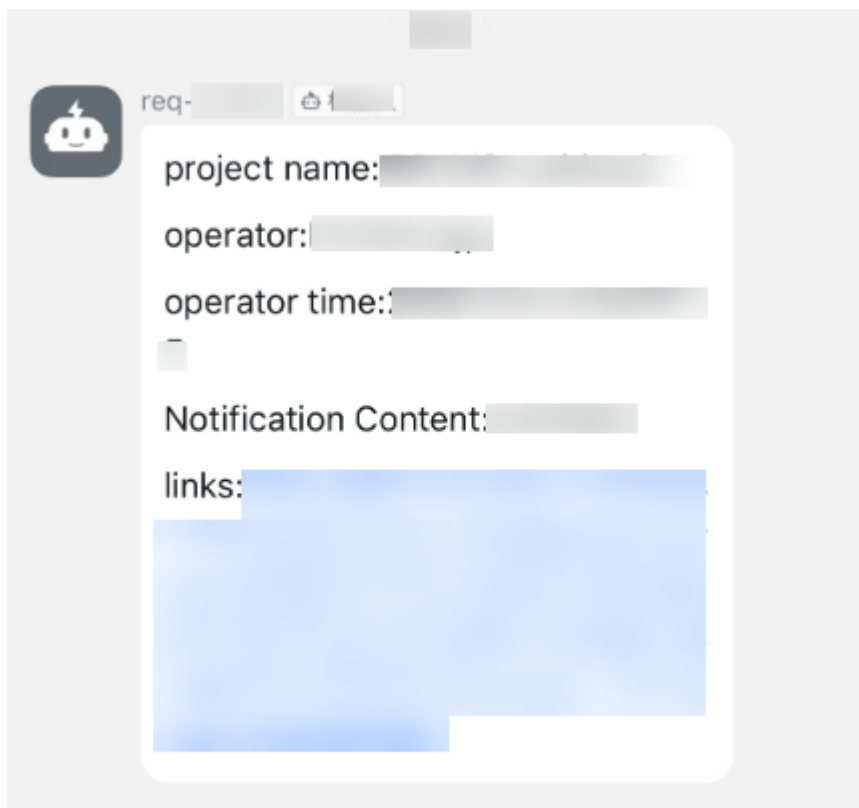
Step 3 On the **Notifications** page, choose **DingTalk** or **Feishu > CodeArtsReq**. The DingTalk or Feishu setting page of IPD-standalone software projects is displayed.

Step 4 Set parameters according to [Table 8-21](#).**Table 8-21** 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, and reviews. 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
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 IPD-standalone software projects is displayed.

Step 4 Click **New Webhook Subscription**.

Step 5 Set parameters according to [Table 8-22](#).

Table 8-22 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, and reviews. 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 <i>key:value</i> .	Content-Type:application/json

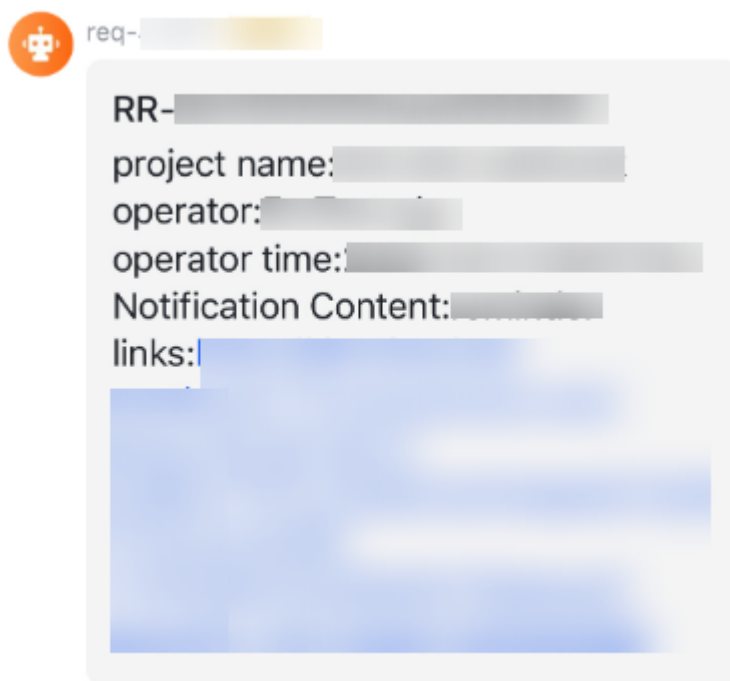
Parameter	Description	Example
Custom Templates	Custom templates of generic webhook notifications. Obtain the corresponding values of configurable variables through the <code>\${}</code> method. For details about the configurable variables, see Table 8-23 . The maximum length of the character string is 1,000.	• DingTalk parameters: <pre>{ "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}" }}</pre> • Feishu parameters: <pre>{ "msg_type": "text", "content": { "text": "CodeArts Req - Generic webhook test\nProject ID: \${project.id}\nProject URL: \${project.url}\nWork item ID: \${issue.id}\nWork item name: \${issue.title}\nWork item URL: \${issue.url}\nOperator: \${operator.username}\nOperator ID: \${operator.id}\nReview ID: \${review.id}\nReview: \${review.title}\nReview URL: \${review.url}\nEvent name: \${operation}" }}</pre>

Table 8-23 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.

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.



-----End

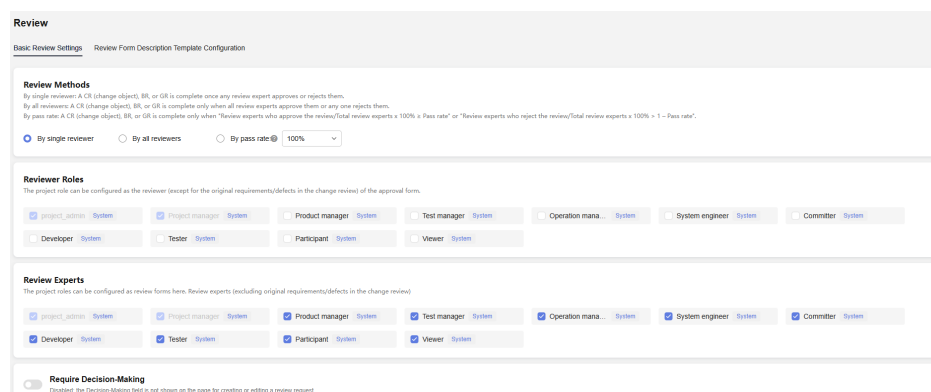
8.2.10 Configuring Reviews

Only the project administrator can set the approver role.

Procedure

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

Figure 8-15 Basic review settings



- Step 2** Set the review content.

- **Review Methods**

Select a review method as required.

- **Reviewer Roles**

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

- **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.

- **Require Decision-Making**

You can decide whether to enable this field based on the actual project situation.

When this switch is toggled on and the **Require Decision-Making** field displayed on the review details page is set to **Yes**, **Reviewer** is mandatory and **Review Expert** is optional. If this field is set to **No**, **Reviewer** is unavailable and **Review Expert** is mandatory.

If this switch is toggled off, the **Require Decision-Making** field is not displayed on the review details page. In this case, **Reviewer** is mandatory, and **Review Expert** is optional.

When this field is enabled, **Require Decision-Making** will display on the review creation or editing page.

Basic Information

[CR] CR title required.

Submitting Reviewing Decisioning End

Description

[Background]

[Value]

[Details]

Start Select Date

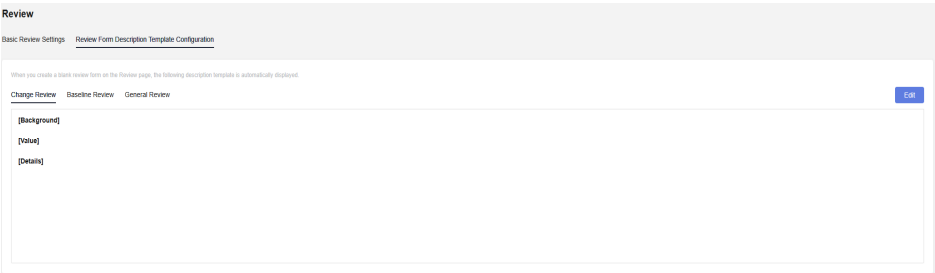
End Select Date

Require Decision-Making ☒ Yes ☐ No

Copy To --Select--

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

Figure 8-16 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

8.2.11 Viewing Work Item Import/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** Go to a project and choose **Settings > Work > Import/Export**.

Figure 8-17 Import and export records

Import/Export Records Operation records of the last seven days are retained.							
Export		Import					
☐	No.	File Name	Type	Operator	Exported	Progress	Operation
☐	1	IPD-...xlsx	Raw Requirements		Sep 14, 2024 10:50:18 GMT+08:00	100%	↓
						Total: 1	1/1

- Step 3** 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**.

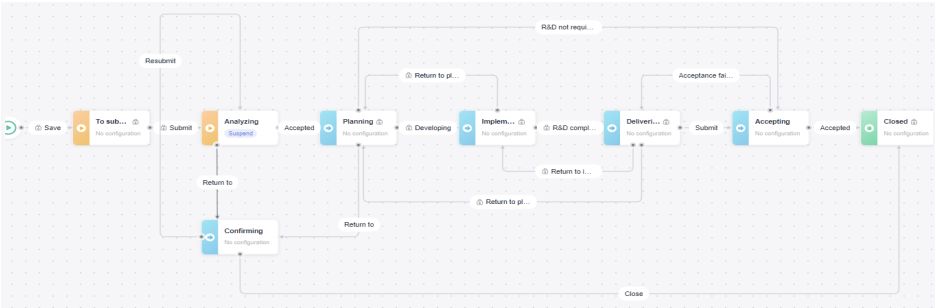
- Step 3 Download the desired work items. All project members' import records of any types of work items will be displayed on this page.
- End

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 8-24](#) lists the default operations in each RR state.

Table 8-24 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 .

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

Raw requirements 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 8-25 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.

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 --.
- 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 people 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.

Table 8-26 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.
Create child requirement	Click  in the Operation column of an RR to break it down into child requirements. • In the Break Down Subrequirements dialog box, click Add Subrequirement to create a child requirement. A maximum of 10 child requirements can be created at a time. • The project to which a child requirement belongs can be the current project or other projects of the tenant. To configure the project scope, choose Settings > Work > 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 options selected. A maximum of 10 child work items can be created. If the work item already has child work items, the function of quickly breaking down work items does not work. If a work item is configured with multiple fields for quickly breaking down work items, the child work items are broken down based on the first field in the field template.
Associate with child requirement	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 link	You can copy the title, ID, current owner, status, and link 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.

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. After an RR is restored from the recycle bin, it restores to the original status.

8.3.3 Managing RRs

After creating an RR (see [Creating RRs](#)), you can perform the operations described in this section on it.

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.

Figure 8-19 RR list

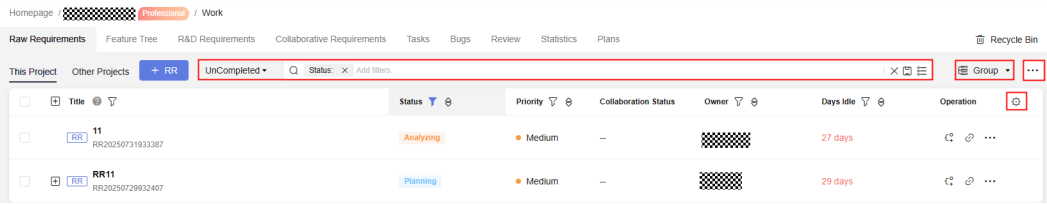


Table 8-27 Management operations in the RR list

Operation	Procedure
Query RR	- By adding filters - Click the search box in the RR list and select one or more filters to search for RRs. - To clear all filters and display all data, click  on the right of the search bar. - By using a saved view - Click the search box in the RR list and select one or more filters. - Click  on the rightmost of the search bar, and enter a view name. - Click OK. The created view is displayed next to RR. - 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.

Operation	Procedure
Import work items	Use the provided template to import requirements in batches. 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 import template file is displayed in the lower part of the page. Save the file to the local PC and fill in data. The template file should be named in the following format: <i>Project name</i> + "-" + <i>Module name</i> (for example, RR) + Template. 3. Fill in the fields on the RR - Requirements sheet. For details about how to set parameters, see the RR - Import Rules sheet in the template file. 4. Drag or click  to select a file to be imported. 5. Click Import. The import progress dialog box is displayed. • After the import is successful, you can view the imported requirement information in the RR list. • If the import fails, a message is displayed in the upper right corner of 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 again. NOTE For details about operations on import records, see Viewing Work Item Import/Export Records.
Export work items	Export requirements in batches to an Excel file. 1. Export some or all RRs. • Export all: On the Raw Requirements page, click *** on the right of the search bar and choose Export All. 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 requirements. 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. NOTE For details about operations on export records, see Viewing Work Item Import/Export Records.

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 Selected to adjust the display sequence.
Clone RR across projects	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. - You must have permission to create and clone RRs for the target project. - R Rs 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 - 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. - 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. - 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. - Click OK. The RRs are cloned to the target project. - Go to the target project to view the cloned RRs.

Operation	Procedure
Transition statuses in batches	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. • You must have permission to set statuses for RRs. • 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 page of the project's RR status flow configuration page. 5. Click OK.
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. NOTE • 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 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.

Figure 8-20 RR details page

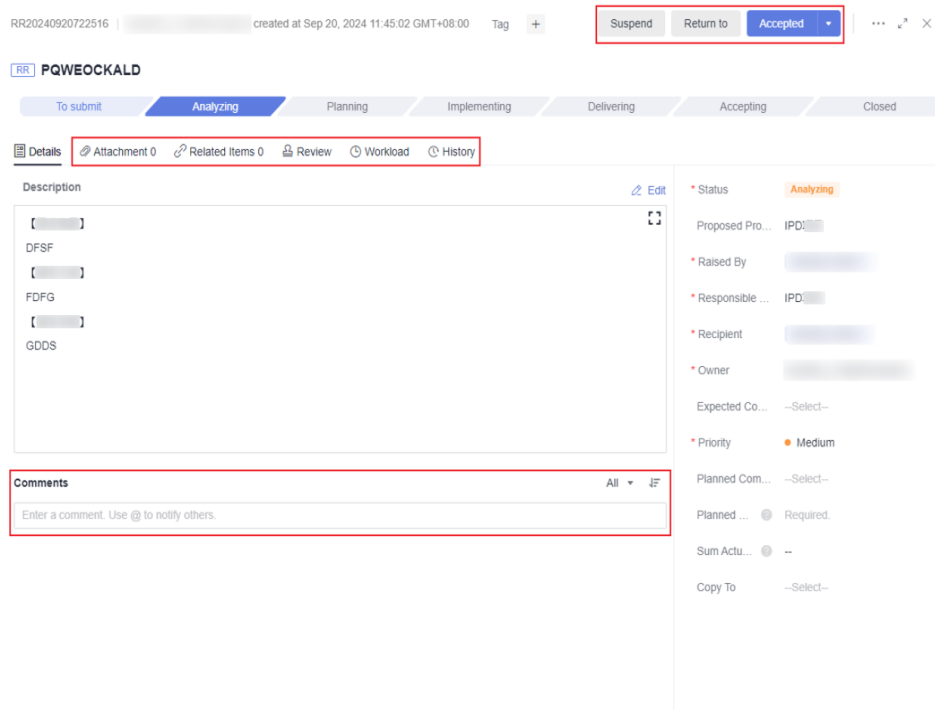
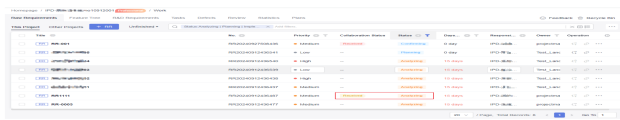
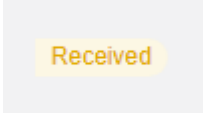
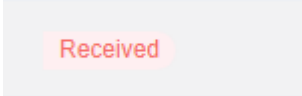
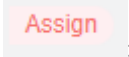


Table 8-28 Management operations on the details page

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 8-24 .	You must have permission to set statuses for RRs.

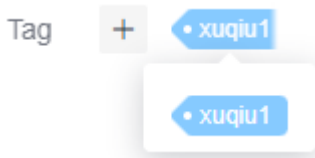
Operation	Procedure	Remarks
Upload attachment	Attachments can be pictures, workbooks, manuscripts, and text files. A maximum of 100 attachments can be added to each work item, and their total size cannot exceed 500 MB. 1. Go to the work item details page, and click the Attachment tab. 2. Click the box 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 upload attachments for RRs.

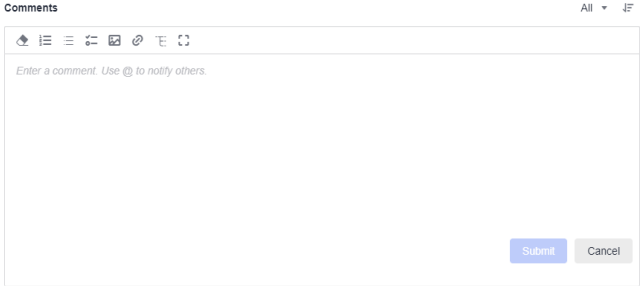
Operation	Procedure	Remarks
Add and check related item	A work item can be associated with other types of work items in a project. - Go to the work item details page and click the Related Items tab. - Complete association. Related Upstream Requirements: requirements coordinated from upstream projects. 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: - Create a project named IPD Project 2. - Create an RR named RR-IPD2 in IPD Project 2. - After the RR is created, enter its details page. - Choose Related Items > Related Downstream Requirements and click Deliver. - Set Responsible Project to IPD-Project and the raw requirement name to RR-Collaboration. - 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.

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.	

Operation	Procedure	Remarks
	● Subrequirement: 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 requirements. 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 requirements are created, you can check and edit them on the R&D Requirements tab. ● Associate Work Item: associated work items of other types 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. SFs, tasks, and bugs can be associated.	
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 permission to view RRs.

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 RRs. 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 RRs.

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 8-22 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.

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 permission to view RRs.

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 is no feature tree 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.

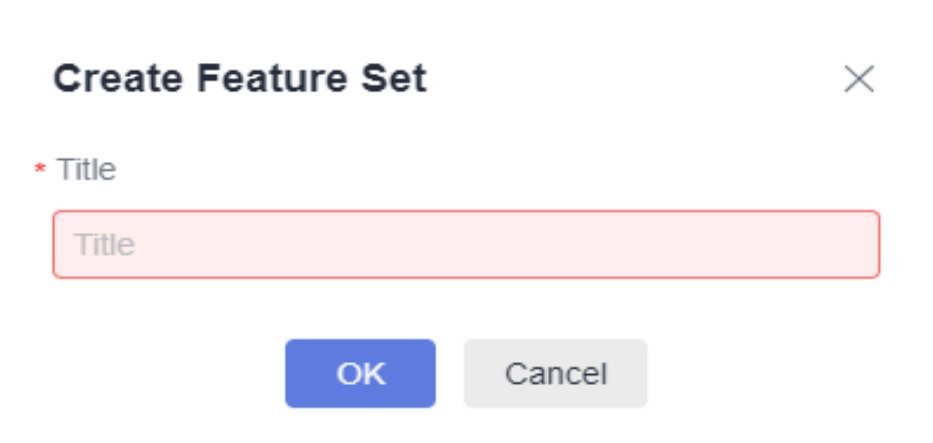
Creating a Feature Set

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 Set **Title**.

Step 5 Click **OK**.

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

-----End

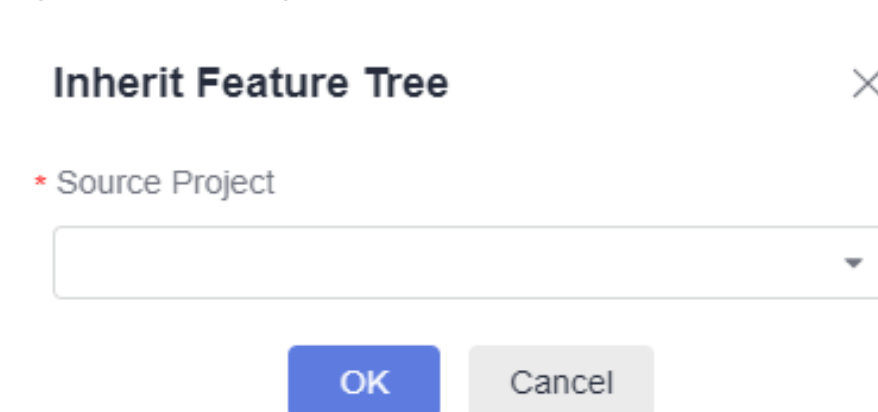
Inheriting a Feature Tree

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.

Figure 8-25 Inheriting a feature tree



Step 4 Select a project for which a feature tree has been configured. The feature tree and all included system features of the selected project can be inherited to the current project.

Step 5 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 **SF - List** sheet of the template. For details about how to set parameters, see the **SF - Import Rules** sheet in the template.

Step 6 Drag or click  to select a file to be imported.

Step 7 Click **Import**.

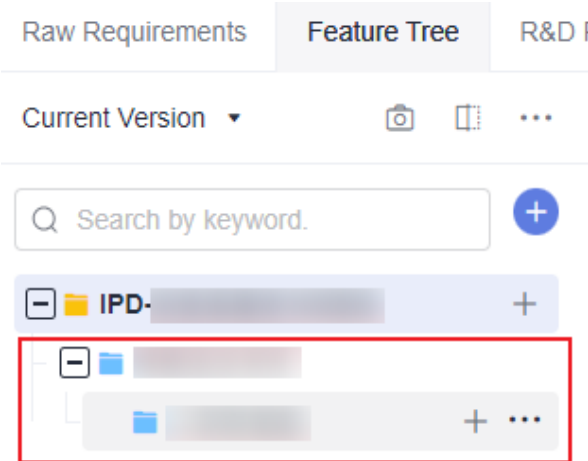
You can view the imported feature sets in the feature tree list.

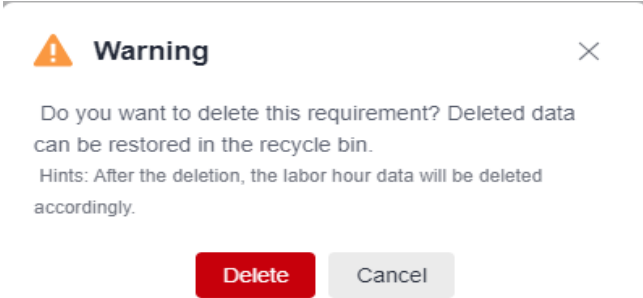
----End

Related Operations

You can perform the following operations on a new feature set.

Table 8-29 Basic operations on a feature set

Operation	Description
Create child feature set	- Click + next to the target feature set. The Create Feature Set dialog box is displayed. - Set Title. - Click OK. You can view the new second-level feature set in the corresponding feature set. Figure 8-26 Child feature sets  You can create third-level feature sets for a second-level one. A maximum of 10 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.

Operation	Description
Delete feature set	- Click  on the right of the target feature set, and click Delete. Figure 8-27 Deleting a feature set  - Click Delete. The deleted feature set and its child feature sets will not be display on the page. Deleted feature sets can be restored or permanently deleted from the recycle bin.

8.4.2 Managing a Feature Tree

After creating a feature tree (see [Creating a Feature Tree](#)), you can perform the operations described in this section on it.

Prerequisites

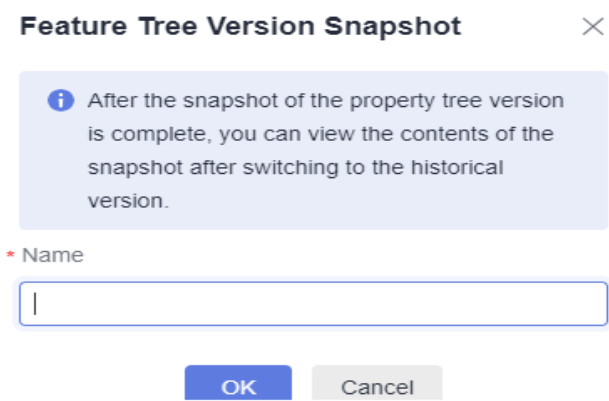
You have created a feature set in an IPD-standalone software project, and have feature set permissions for the project.

Procedure

On the project homepage, choose **Work > Req > Feature Tree**, and perform the following operations.

Table 8-30 Managing a feature tree

Operation	Procedure
Search for feature set	- On the project homepage, choose Feature Tree. - Enter a keyword in the search box to search for the target feature set.

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 - Click the name of the feature set to associate a system feature. - Click SF. - Enter system feature information. For details, see Procedure. - Click OK. The new system feature is displayed under the corresponding feature set.
Create feature tree baseline snapshot	You can create a baseline based on the current feature tree version. - On the project homepage, choose Feature Tree. - Click . The Feature Tree Version Snapshot dialog box is displayed. Figure 8-28 Creating a feature tree snapshot  - Enter a snapshot name. - Click OK. Viewing the snapshot record of the feature tree version: By default, the current version is displayed. Click  on the right and select the version to be viewed. The snapshot of the corresponding version is displayed. Figure 8-29 Viewing feature tree version snapshots 

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 . 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 system feature comparison page is displayed. If a system feature is snapshotted for multiple times based on the feature tree, 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 name of the system feature to be compared. The 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.
Import feature tree	Use the provided template to import a feature tree. 1. On the project homepage, choose Feature Tree. 2. Click  on the right of Current Version, and select Import Feature Tree. 3. In the displayed dialog box, click Download Template. 4. Set the fields in the template. For details, see the import description in the template file. 5. Select the file to be imported. 6. Click Import and complete the import as prompted.
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 Current Version, and select Export Feature Tree. 3. In the displayed dialog box, select fields to be exported. 4. Click Export. After the feature tree is exported, the file will be automatically downloaded to the local PC. The file format is .xlsx.

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 8-30](#) shows the complete status transition process.

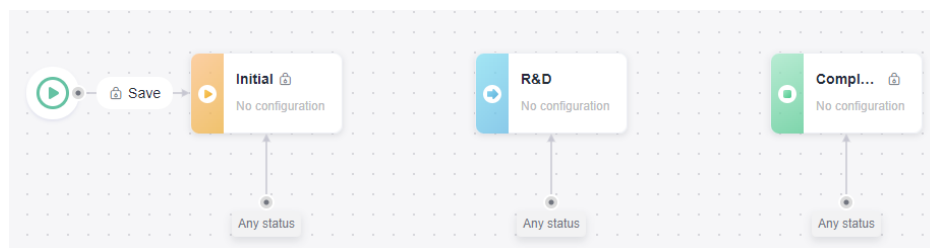
Figure 8-30 System feature status transition process

Table 1 describes operations in each state.

Table 8-31 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.

Table 8-32 System feature parameters

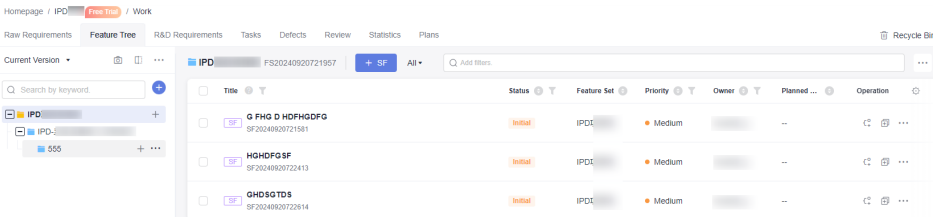
Parameter	Description
Tag	When creating or editing a work item, you can add a custom tag. Tag names can be marked in different colors.
Title	Name of a system feature.

Parameter	Description
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. This parameter has a value only after the operations in Creating a Feature Set are completed. The parameter value can be empty. You can associate the parameter with the corresponding system feature after creating a 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 SF 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**.

Figure 8-31 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 8-33 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.
Create child requirement	Click in the Operation column of a system feature to break it down into child requirements. - In the Break Down Subrequirements dialog box, click Add Subrequirement to create a child requirement. A maximum of 10 child requirements 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 function of quickly breaking down work items does not work. If a work item is configured with multiple fields for quickly breaking down work items, the child work items are broken down 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.

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 link	In the system feature list, you can copy the title, ID, current owner, status, and link 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. 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 a system feature (see [Procedure](#)), you can perform the operations described in this section on it.

Prerequisites

You have created a feature in an IPD-standalone software project, and have 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.

Table 8-34 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. • 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.
Import work items	Use the provided template to import system features in batches. 1. In the system feature list, click  on the right of the search bar, and select Import SF. 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. The template file should be named in the following format: <i>Project name</i> + "-" + <i>Module name</i> (for example, Feature) + Template. 3. Set the fields in the SF - List sheet of the template. For details about how to set parameters, see the SF - Import Rules sheet in the template file. 4. Drag or click  to select a file to be imported. 5. Click Import. The import progress dialog box is displayed. • After the import is successful, you can view the imported requirement information in the system feature list. • If the import fails, a message is displayed in the upper right corner of 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 again.

Operation	Procedure
Export work items	Export system features in batches to an Excel file. - Export some or all system features. - Export all: On the Feature Tree page, click  on the right of the search bar and choose Export All. 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. - Select the fields to be exported. - 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 Selected to adjust the display sequence.
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 - 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. - 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. - 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. - Click OK. The SFs are cloned to the target project. - Go to the target project to view the cloned SFs.

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. NOTE • 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.

Managing System Features on Their Details Pages

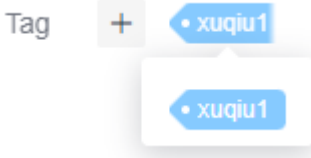
On the details page of a system feature, you can modify the description, priority, and owner, add tags and attachments, associate work items, check review records, add workloads, and view the operation history.

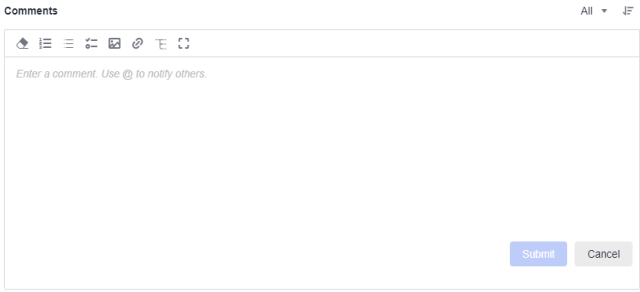
Table 8-35 Management operations on the details page

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 8-31 .	You must have permission to set statuses for features.
Baseline feature	- Go to the work item details page, and choose *** > Baseline. The Baseline dialog box is displayed. - 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	- Go to the work item details page, and choose *** > Baseline Review. The BR page is displayed. - Enter BR information. By default, the Baseline Object is the system feature for which the baseline review is initiated. - Click Submit. The Review page is displayed. Choose Review > Baseline Review to check the new baseline review. - 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.

Operation	Procedure	Remarks
Initiate change review	The change process can be initiated only for baselined and uncompleted FEs. - Go to the details page of a baselined work item, and choose *** > Change Review. The CR page is displayed. - Enter CR information. Change Object: By default, it is the system feature to be changed. Collaborative Parent Item Change: Only existing CRs can be added. - 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 display 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. - Go to the work item details page, and click the Attachment tab. - 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 upload attachments for features.

Operation	Procedure	Remarks
Add and check related item	A work item can be associated with other types of work items in a project. - Go to the work item details page and click the Related Items tab. - Complete association. Subrequirement: IR of a child requirement in the current feature. Creating a child requirement: Click Create IR to add a child 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. Click  to expand and configure more information. After the child requirements are created, you can check and edit them on the R&D Requirements tab. Associate Work Item: associated work items of other types in the project. Tasks can be associated. Test Case: test cases corresponding to the system feature. You can select system features associated with test cases in CodeArts TestPlan.	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.
Add workload	- Go to the work item details page and click the Workload tab. - Click Add Workload. The Add Workload dialog box is displayed. - 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. - 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 or can edit and delete all workloads.

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. - Go to the work item details page. - 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	- 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. - In the Create Tag dialog box, set Tag Name and select Tag Color. - Click OK. The new tag is displayed next to the requirement ID in the feature list. (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.

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.

8.5 Configuring a Plan

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. R&D requirements, tasks, and bugs of a project can be planned in the release and sprint plans to deliver achievements in an orderly and timely manner, which keeps the project progress under control and manages the allocation of project members.

NOTE

- Type M (): Milestone.
- Type R (): Release plan.
- Type 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 8-36 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.

Step 4 Click **OK**.

The new milestone is displayed in the plan management list.

----End

Creating Release and Sprint Plans

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.

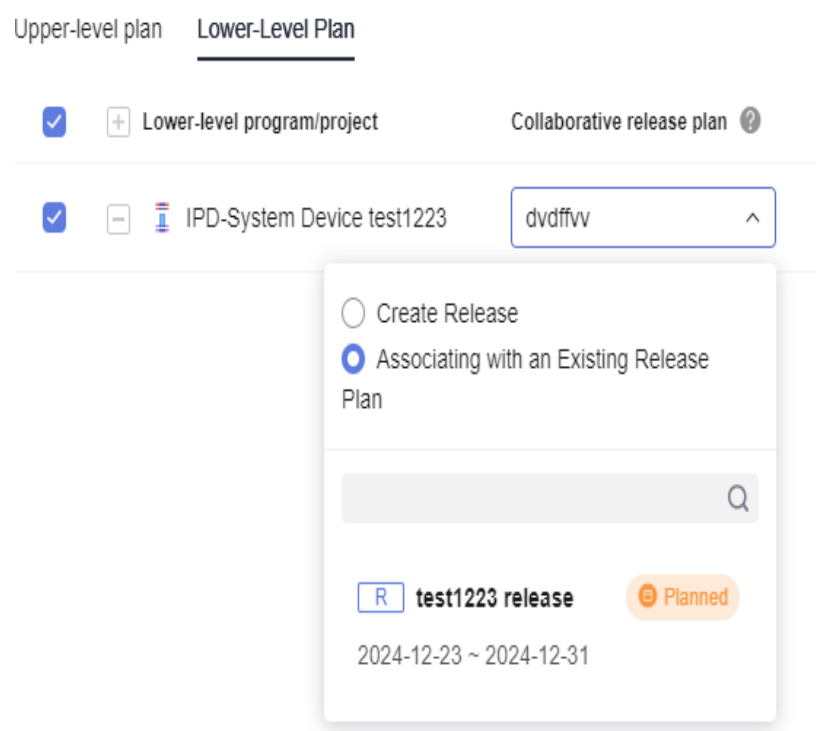
Table 8-37 Creating a release plan

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.
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.
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** If you click **Next**, the **Lower-Level Plan** tab for plan collaboration is displayed. The **Lower-Level Plan** page displays all lower-level nodes of the program to which the current release belongs. By default, the nodes are displayed in a tree structure. The lower-level nodes are selected by default. The release name and start/end time of the previous step are carried. The owner is the product manager of each project by default. If there is no product manager, the owner is the project administrator. You can also select members of the project node from the drop-down list. You can also deselect child items. Deselected child items cannot be executed. If you deselect all child items and click **OK**, a release without collaboration is created.
- **Collaborative release plan:** The release name, start time, and end time set in the previous step are used by default. You can also select **Create Release** or **Associating with an Existing Release Plan** from the drop-down list.



 NOTE

1. If the release name is the same as an existing release name of the program or project, the name of the collaborative release plan is highlighted, a message is displayed, and **OK** cannot be clicked.
 2. If the release is not completed and is not coordinated by other upper-level plans, the owner, start time, and end time of the selected release cannot be modified.
- **Copying configuration:** 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 **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 8-38 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.
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.

Figure 8-32 Plan list

☐	Title	Owner	Status	P
☐	 R dvdfvv	admin01_user1	 Planned	
	 S vvvvv	admin01_user1	 Planned	

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 **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 8-39 Operations related to plan management

Operation	Description
Edit release/sprint plan	Click  in the Operation column of the release or sprint plan to edit its name and owner. Baselined release/sprint plans cannot be edited.

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) under the release are also baselined. - After a sprint plan is baselined, the R&D requirements (IPD-system device: SRs and ARs; IPD-standalone software: USs) 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 R&D requirements (IRs) under the release are also unbaselined. - After a sprint plan is unbaselined, the R&D requirements (IPD-system device: SRs and ARs; IPD-standalone software: USs) under the sprint 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.

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 R&D requirements in snapshots of different versions, go to the R&D requirement 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.

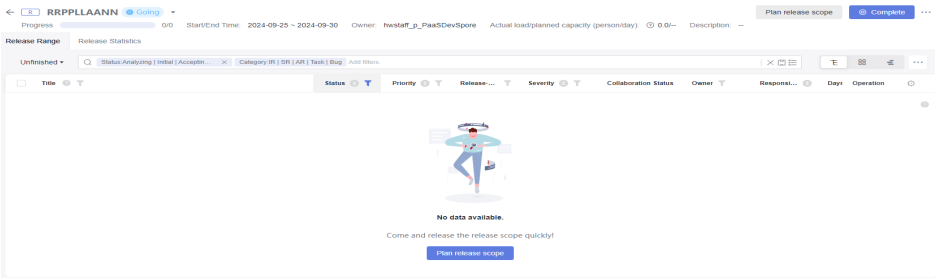
Operation	Description
Group work items in a release plan or sprint	You can group work items by any supported field type. Constraints • A maximum of 1,000 work items can be displayed during grouping. • The supported field types include single-choice list, multi-choice list, single-choice user, multi-choice 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 list and Gantt modes support grouping. Procedure 1. On the level-2 release or sprint page of the Plans page, click  or  in the upper right corner to switch between the list and Gantt modes, and click Group. 2. On the displayed page, select the fields used to group work items. NOTE • 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 8-33 Plan details page



- Step 4** Click **Plan release scope**.
- This operation is unavailable for baselined release plans.
 - This operation is unavailable for completed release plans.
- Step 5** Select the work items to be added to the current release plan, and click **OK**.

 **NOTE**

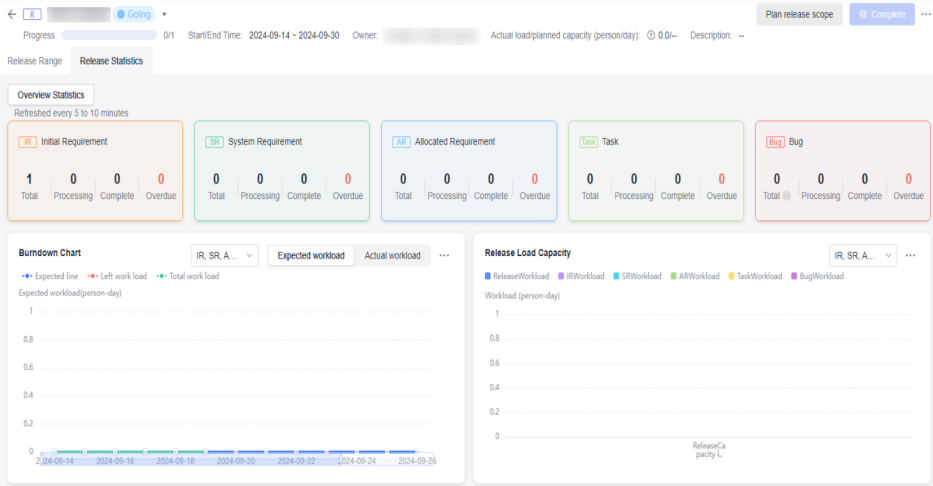
This procedure uses a release plan as an example. Sprint plans can be configured in the same way.

----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 8-34 Plan details page - Statistics



The following types of charts are supported.

Table 8-40 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.

Statistical Chart	Data Description
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 identity 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 under the current release. This chart helps you learn about the work item breakdown progress of the current release.
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.

Statistical Chart	Data Description
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.

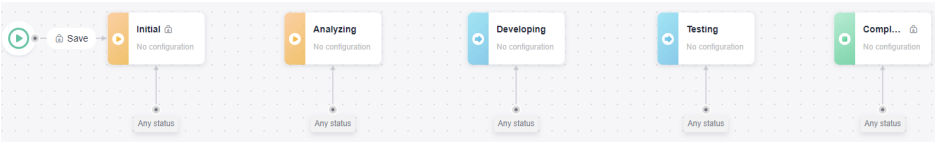
----End

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 8-35](#) shows the complete status transition process.

Figure 8-35 R&D requirement status transition flowchart



[Table 8-41](#) describes the operations in each status.

Table 8-41 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 8-42 Creating an IR

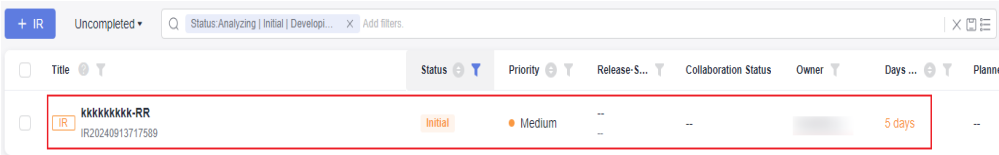
Parameter	Description
Tag	When creating or editing a work item, you can add a custom tag. Tag names can be marked in different colors.
Title	Title of a work item.
Description	Enter the background, value, and details of the R&D requirement based on actual conditions. Use text, images, or links.
Attachment	The maximum number of attachments for an R&D requirement is 100, and their total size cannot exceed 500 MB.

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 Release and Sprint Plans are completed. This parameter can be left empty. You can create a release plan and then associate it with the release plan.
Sprint	Next level of the release plan. This parameter has a value only after the operations in Creating Release and Sprint Plans are completed. The parameter value can be empty. You can create a sprint and then associate it with the sprint.
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.

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 8-36 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 8-43 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.
Create child requirement	Click  in the Operation column of an R&D requirement to break it down into child requirements. - In the Break Down Subrequirements dialog box, click Add Subrequirement to create a child requirement. A maximum of 10 child requirements 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 function of quickly breaking down work items does not work. If a work item is configured with multiple fields for quickly breaking down work items, the child work items are broken down based on the first field in the field template.

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. After an R&D 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 link	Click  in the Operation column of an R&D requirement to copy its title, ID, current owner, status, and link 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 an R&D requirement (see [Procedure](#)), you can perform the operations described in this section on it.

On the R&D Requirements List Page

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

Figure 8-37 R&D requirement list

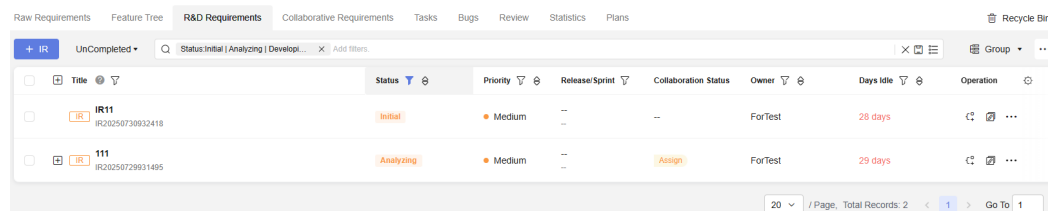


Table 8-44 Management operations in the R&D requirement list

Operation	Procedure
Search for R&D requirement	- By adding filters - Click the search box in the R&D requirement list and select one or more filters to search for R&D requirements. - To clear all filters and display all data, click X on the right of the search bar. - By using a saved view - Click the search box in the R&D requirement list and select one or more filters. - Click 📌 on the rightmost of the search bar, and enter a view name. - Click OK. The created view is displayed next to IR. - 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 Requirements and Operations Related to Requirement Assignment .
Receive assigned R&D requirement	Perform this operation when another project assigns an R&D requirement to your project. For details, see Receive and Operations Related to Receiving Requirements .

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 import template file is displayed in the lower part of the page. Save the file to the local PC and fill in data. The template file should be named in the following format: <i>Project name</i> + "-" + <i>Module name</i> (for example, R&D Requirement) + Template. 3. Fill in the fields on the IR - Requirements sheet. For details about how to set parameters, see the RR - Import Rules sheet in the template file. 4. Drag or click  to select a file to be imported. 5. Click Import. The import progress dialog box is displayed. • After the import is successful, you can view the imported requirement information in the R&D requirement list. • If the import fails, a message is displayed in the upper right corner of 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 again.
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 requirement page, click  on the right of the search bar and choose Export All. 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 requirements. 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 automatically 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 Selected to adjust the display sequence.

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.

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. NOTE • 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 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.

Table 8-45 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.

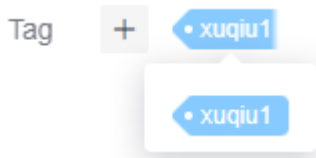
Operation	Procedure	Remarks
Change work item status	Go to the work item details page, click the Status field, and transition the work item to the target status. For details about status transition, see Table 8-41 .	You must have permission to set statuses for R&D requirements.
Baseline R&D requirement	- Go to the work item details page, and choose *** > Baseline. The Baseline dialog box is displayed. - 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	- Go to the work item details page, and choose *** > Baseline Review. The BR page is displayed. - Enter BR information. By default, the Baseline Object is the R&D requirement for which the baseline review is initiated. - Click Submit. The Review page is displayed. Choose Review > Baseline Review to check the new baseline review. - 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.

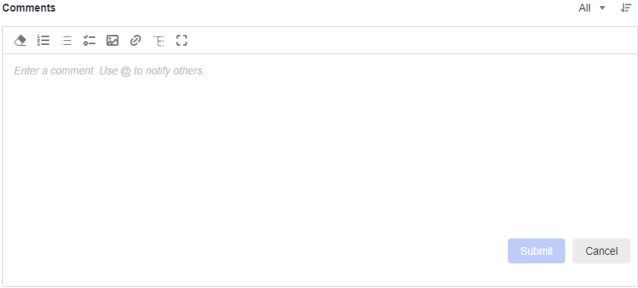
Operation	Procedure	Remarks
Initiate change review	The change process can be initiated only for baselined and uncompleted R&D requirements. - Go to the details page of a baselined work item, and choose *** > Change Review. The CR page is displayed. - Enter CR information. Change Object: By default, it is the R&D requirement to be changed. Collaborative Parent Item Change: Only existing CRs can be added. - 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 display 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. - Go to the work item details page, and click the Attachment tab. - 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 upload attachments for R&D requirements.

Operation	Procedure	Remarks
Add and check related item	A work item can be associated with other types of work items in a project. - Go to the work item details page and click the Related Items tab. - Complete association. Parent Requirements: parent requirements 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. Subrequirement: SRs of a child requirement in 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. - Click Break Down. The Break Down Subrequirements window is displayed. - Configure a child requirement. Click  to expand and configure more information. - Click OK. The child requirement 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 Requirements and Operations Related to Requirement Assignment. Associate Work Item: associated work items of other types in the project. Tasks and bugs 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.

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.	
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.

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 R&D requirements. 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 R&D requirements.

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 8-38 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.

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 8-39 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.

8.6.4 Collaborating on R&D Requirements

The system supports collaborative management of requirements in each project. After assignment is configured, the assigned and received requirements are displayed on the **Collaboration 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 the collaborative assignment scenario, you have the permission to **assign/cancel assignment of IPD R&D requirements**.

In the collaborative receiving scenario, you have the permission to **receive/reject/turn back/transfer IPD R&D requirements**.

For details about how to set permissions, see [Managing Project Permissions](#).

Assigning Requirements

Only completed requirements cannot be assigned.

Step 1 In the R&D requirement list, select the requirements to be assigned.

- Select the check boxes of the requirements 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 requirement 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. Click **Configure downstream project** to go to the **R&D collaboration configuration** page.
2. Click **Add Downstream Project**.
3. Select a desired project.
4. Click **Add**.

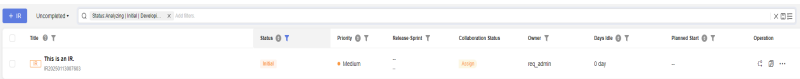
Repeat **Step 1** to **Step 2** to select the added downstream project.

- 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.
- To collaborate requirements by selecting check boxes, select a downstream project from the drop-down list in the **Deliver** dialog box, and set **To** and **Expected Received**.

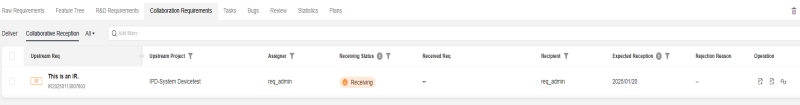
One selected requirement can be assigned to a maximum of 10 projects.
Multiple selected requirements can be assigned to only one project.

Step 3 Click **OK**.

In the R&D requirement list, the **Collaboration Status** of the assigned requirement is **Assign**.



Click **Receive** 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 Requirement Assignment

After requirements are assigned, you can view, reassign, cancel the assignment of, and export these requirements.

Table 8-46 Related operations

Operation	Procedure
Query	On the Collaboration Requirements > Deliver page, query the required assigned requirement 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 requirements that meet the query criteria are displayed in the list. You can select one or more criteria to query requirements as required. 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. This icon is displayed only when you select other filter criteria than All next to Collaborative Reception. 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 requirements that meet the search criteria. Views can be shared with others, renamed, and deleted.
Reassign	1. In the assigned requirement list, click  in the row where the requirement 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 requirements in the list.
Cancel assignment	Cancellation cannot be performed on a requirement whose Receiving Status is Received or Rejected. Select the requirements to be canceled in the assigned requirement list. • Canceling one requirement: Click  in the row where the desired requirement is located. The cancellation dialog box is displayed. • Canceling one or more requirements: Select the check boxes of the desired requirements. The cancellation dialog box is displayed. Click OK.
Export	Select one or more requirements 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 requirement file is downloaded to the local PC. The file format is .xlsx.

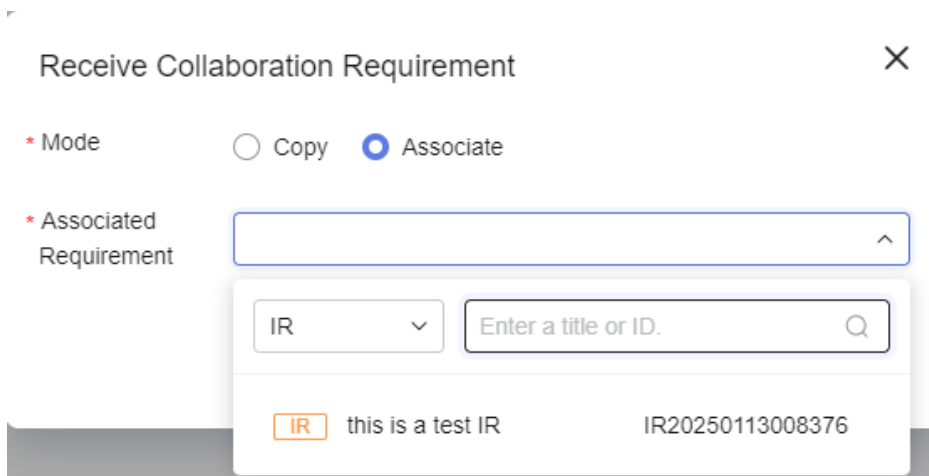
Receive

Step 1 Select the collaborative requirements to receive.

- Receiving a single requirement: Click  in the row where the desired requirement is located. The **Receive Collaboration Requirement** dialog box is displayed.
- Receiving one or more requirements: Select the requirements to be received and click **Receive** in the lower part of the page. The **Receive Collaboration Requirement** dialog box is displayed.

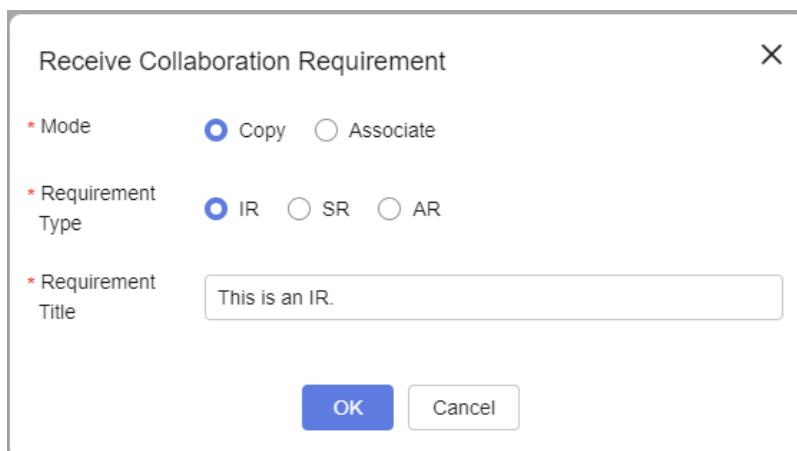
Step 2 Specify the receiving mode and requirement type, and enter a requirement title.

- When **Mode** is set to **Associate**, you only need to select **Associated Requirement**. The value of **Associated Requirement** comes from all R&D requirements created in the project.



The screenshot shows the 'Receive Collaboration Requirement' dialog box. The title bar is 'Receive Collaboration Requirement' with a close button (X). The 'Mode' section has two radio buttons: 'Copy' (unselected) and 'Associate' (selected). The 'Associated Requirement' section has a search input field. Below the input field is a dropdown menu showing 'IR' and a search bar with the placeholder 'Enter a title or ID.'. Below the search bar is a list of results: 'IR this is a test IR' with the ID 'IR20250113008376'.

- When **Mode** is set to **Copy**, the received requirement information is displayed in the R&D requirement list, and the copied requirement information can be viewed in **Related Items > Related Upstream Requirements** of the requirement details.



The screenshot shows the 'Receive Collaboration Requirement' dialog box. The title bar is 'Receive Collaboration Requirement' with a close button (X). The 'Mode' section has two radio buttons: 'Copy' (selected) and 'Associate' (unselected). The 'Requirement Type' section has three radio buttons: 'IR' (selected), 'SR' (unselected), and 'AR' (unselected). The 'Requirement Title' section has a text input field containing 'This is an IR.'. At the bottom are 'OK' and 'Cancel' buttons.

Step 3 Click **OK**. The received requirements turn to **Received**. The received requirements are displayed in the collaborative requirement list.

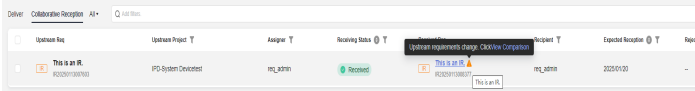
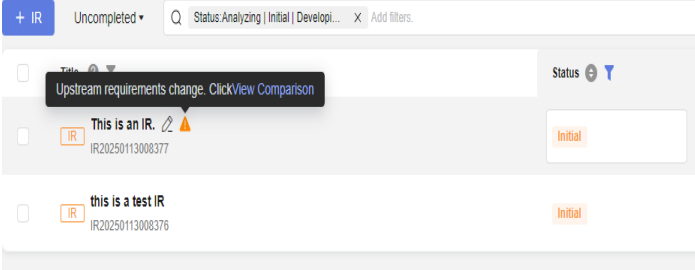
----End

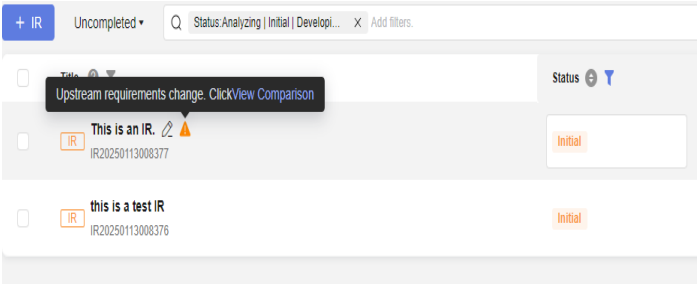
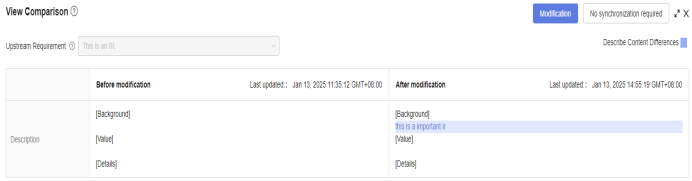
Operations Related to Receiving Requirements

On the **Collaborative Requirements > Deliver** page, you can query, receive, reject, and transfer requirements. When upstream requirements change, dependent downstream requirements will automatically trigger change notifications. You can view comparison and synchronize updates with one click.

Table 8-47 Operations related to receiving requirements

Operation	Procedure
Querying received requirements	On the Collaborative Requirements > Collaborative Reception page, query received requirement 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 received requirements that meet the query criteria are displayed in the list. You can select one or more criteria to query requirements as required. Click  on the right of the search bar to clear all filtering criteria. The default fields are displayed. - By using a saved view - Click  on the right of the search bar. This icon is displayed only when you select other filter criteria than All next to Collaborative Reception. - Set View Name. - Click OK. The created view is displayed next to Collaborative Reception. - You can select the name of the created view to query the received requirements that meet the search criteria. Views can be shared with others, renamed, and deleted.
Rejecting received requirements	Rejection cannot be performed on a requirement whose Acceptance Status is Rejected or Received. Select the collaborative requirements to reject. - Rejecting a single requirement: Click  in the row where the desired requirement is located. The Reject Reason dialog box is displayed. - Rejecting one or more requirements: Select the requirements to be rejected. The Reject Reason dialog box is displayed. Set Rejection Reason and click OK.

Operation	Procedure
Transferring received requirements to others	Select the requirements to be transferred to others in the list of received requirements. - Transferring a single requirement to others: Click  in the row where the desired requirement is located. The Transfer Collaboration Requirement dialog box is displayed. - Transferring one or more received requirements to others: Select the desired requirements. The Transfer Collaboration Requirement dialog box is displayed. Set Transfer and click OK.
Exporting received requirements	Select one or more requirements 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 requirement file is downloaded to the local PC. The file format is .xlsx.
Setting and viewing change notifications	If the title or description of an upstream requirement 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 requirement. When you move the pointer over the requirement, a pop-up message is displayed. Figure 8-40 Change notification of upstream requirements  The screenshot shows a table of requirements. One requirement, 'This is an IR', has a yellow reminder icon next to its title. A tooltip is displayed over the icon, stating 'Upstream requirements change. Click View Comparison'. - Downstream R&D requirement: A change notification will display in the received requirement. Click View Comparison to view the changes.  The screenshot shows a requirement card for 'This is an IR' with ID 'IR20250113008377'. A yellow reminder icon is next to the title. A tooltip is displayed over the icon, stating 'Upstream requirements change. Click View Comparison'.

Operation	Procedure
Viewing comparison	After the title and description of the upstream requirement are modified, you can view the comparison of the requirements 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 requirement.  - 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 requirements before and after the modification. The differences are marked in blue. Figure 8-41 Changes in upstream requirements 

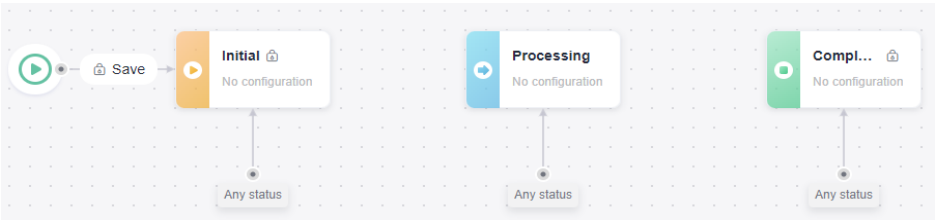
Operation	Procedure
One-click synchronization	NOTICE - Forbidden scenarios: You do not have the permission to edit the work item or are not the owner of the requirement. The changes have been synchronized and cannot be synchronized again. - If the field to be synchronized in one-click mode is baselined 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 requirement. Perform the following operations: Click View Comparison to go to the View Comparison page. Click Modification. A confirmation dialog box is displayed. Click Cancel or the close icon 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 8-42](#) shows the complete status transition process.

Figure 8-42 Task status transition flowchart



[Table 8-48](#) describes the operations in each status.

Table 8-48 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 8-49 Creating a task

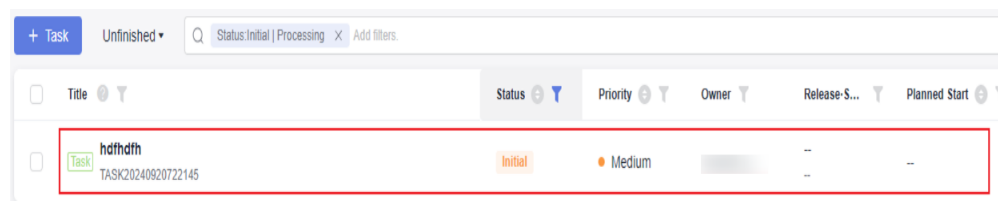
Parameter	Description
Tag	When creating or editing a work item, you can add a custom tag. Tag names can be marked in different colors.
Title	Title of a work item.
Description	Enter the background, value, and details of the task based on project requirements. Use text, images, or links.
Attachment	A maximum 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.

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 8-43 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 Notifications](#).

----End

Related Operations

You can perform the following operations on a new task.

Table 8-50 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 function of quickly breaking down work items does not work. If a work item is configured with multiple fields for quickly breaking down work items, the child work items are broken down 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 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. After a task is restored from the recycle bin, it restores to the original status.

8.7.3 Managing Tasks

After creating a task (see [Creating Tasks](#)), you can perform the operations described in this section on it.

On the Task List Page

On the project homepage, choose **Work > Req > Tasks**, and perform the following operations.

Figure 8-44 Task list

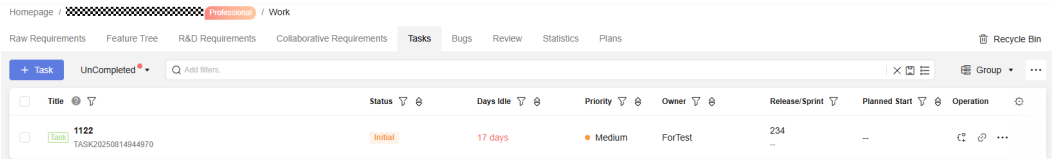


Table 8-51 Operations in the task list

Operation	Procedure
Search for task	- By adding filters - Click the search box in the task list and select one or more filters to search for tasks. - To clear all filters and display all data, click  on the right of the search bar. - By using a saved view - Click the search box in the R&D requirement list and select one or more filters. - Click  on the rightmost of the search bar, and enter a view name. - Click OK. The created view is displayed next to the Task button. - Select the created view to query the tasks that meet the search criteria. Views can be shared with others, modified, and deleted.

Operation	Procedure
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 import template file is displayed in the lower part of the page. Save the file to the local PC and fill in data. The template file should be named in the following format: <i>Project name</i> + "-" + <i>Module name</i> (for example, Task) + Template. 3. Fill in the fields on the Task - List sheet. For details about how to set parameters, see the Task - Import Rules sheet in the template file. 4. Drag or click  to select a file to be imported. 5. Click Import. The import progress dialog box is displayed. • After the import is successful, you can view the imported task information in the task list. • If the import fails, a message is displayed in the upper right corner of 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 again.
Export work items	Export requirements in batches to an Excel file. 1. Export some or all tasks. • Export all: On the task page, click  on the right of the search bar and choose Export All. 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 Selected to adjust the display sequence.

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.

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. NOTE • 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 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.

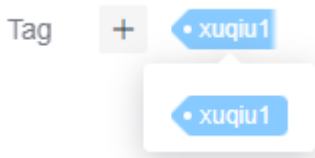
Table 8-52 Management operations on the details page

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.
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 8-48 .	You must have permission to set statuses for tasks.

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 upload attachments for tasks.

Operation	Procedure	Remarks
Add and check related item	A work item can be associated with other types of work items in a project. - Go to the work item details page and click the Related Items tab. - 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. - Click Break Down. The Break Down Child Tasks window is displayed. - Configure the information about the child task. Click  to expand and configure more information. - 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: associated work items of other types in the project. Work items of the RR, SF, IR, SR, AR, 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.

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 tasks. Workloads can be edited and deleted by the creator. By default, the project administrator or 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 tasks.

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 tasks.

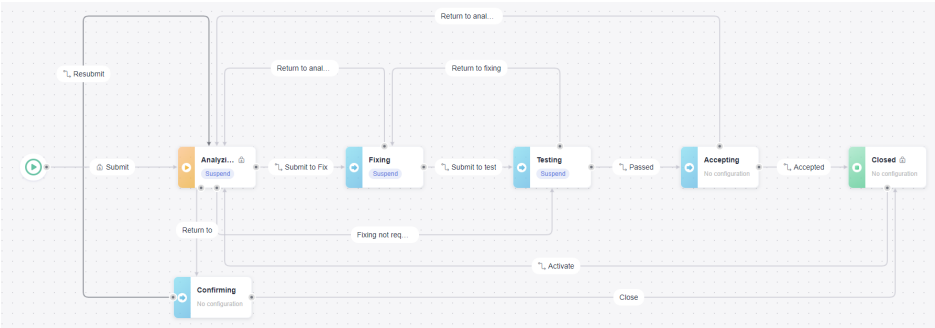
Operation	Procedure	Remarks
Add comment	1. Go to the work item details page. 2. On the Details tab page, click the Comments text box. Figure 8-46 Adding a comment Comments All ▾ ↕ Enter a comment. Use @ to notify others. Submit Cancel 3. Enter a comment. You can upload images, enter links, associate 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.

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 8-47](#) shows the complete status transition process.

Figure 8-47 Bug status transition flowchart



[Table 8-53](#) describes the operations in each status.

Table 8-53 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.
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 8-54 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.
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 Release and Sprint Plans 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.

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.

Table 8-55 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 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.

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. After being restored, bugs restore to their original status.

8.8.3 Managing Bugs

After creating a bug (see [Creating a Bug](#)), you can perform the operations described in this section on it.

On the Bug List Page

On the project homepage, choose **Work > Req > Defects**, and perform the following operations.

Figure 8-48 Bug list

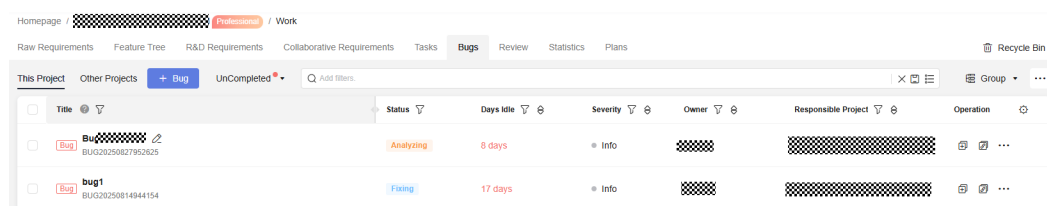


Table 8-56 Operations in the bug list

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.
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 import template file is displayed in the lower part of the page. Save the file to the local PC and fill in data. The template file should be named in the following format: <i>Project name</i> + "-" + <i>Module name</i> (for example, Bug) + Template. 3. Fill in the fields on the Bug - List sheet. For details about how to set parameters, see the Bug - Import Rules sheet in the template file. 4. Drag or click  to select a file to be imported. 5. Click Import. The import progress dialog box is displayed. • After the import is successful, you can view the imported bug information in the bug list. • If the import fails, a message is displayed in the upper right corner of 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 again. NOTE For details about operations on import records, see Viewing Work Item Import/Export Records.

Operation	Procedure
Export work items	Export bugs in batches to an Excel file. - 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. - Select the fields to be exported. - 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. NOTE For details about operations on export records, see Viewing Work Item Import/Export Records.
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.
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 - 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. - 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. - 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. - Click OK. The bugs are cloned to the target project. - Go to the target project to view the cloned bugs.

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. NOTE • 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 Bug Details Page

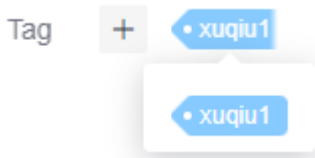
On the details page of a bug, you can modify the description, priority, and owner, add tags and attachments, associate work items, design models, check review records, add workloads, and view the operation history.

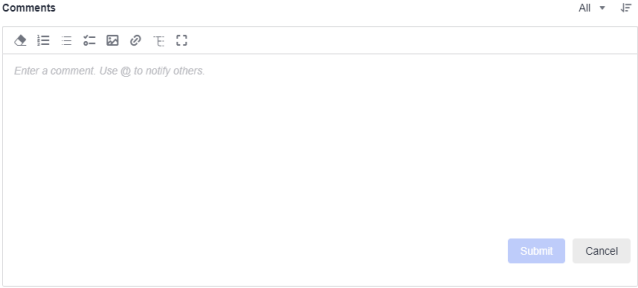
Table 8-57 Management operations on the details page

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 immediately.	You must have permission to edit bugs.
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 8-53 .	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. - Go to the work item details page, and click the Attachment tab. - 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 upload attachments for bugs.

Operation	Procedure	Remarks
Add and check related item	A work item can be associated with other types of work items in a project. - Go to the work item details page and click the Related Items tab. - Complete association. Associate Work Item: associated work items of other types 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 . 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. - Click Assign Owner. - Configure the information about bug assignment. Click  to expand and configure more information. - 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.

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.	
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 or 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.

Operation	Procedure	Remarks
Tag work item	1. Go to the work item details page. Click  next to Tag 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 8-49 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.

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 8-50 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.

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 8-58](#).

Table 8-58 Review types

Review Type	Description	Review Object
Change review (CR)	- Changing the controlled fields of a raw requirement or bug will initiate a change review. The change will be synchronized to the requirement and bug only after the review is approved. - The control status of a raw requirement and bug is determined by whether any controlled fields are configured for specific status. A field is deemed under control when a raw requirement or bug is in the specified status. - Changing the baselined fields of a system feature or R&D requirement will initiate a change review. The change will be synchronized to the feature and requirement only after the review is approved.	Raw requirements, system features, R&D requirements, and bugs
Baseline review (BR)	To baseline a system feature or R&D requirement, you need to initiate a baseline review. The feature and requirement will be baselined only after the review is approved.	Systems features and R&D requirements
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.	Raw requirements, system features, R&D requirements, and bugs

8.9.2 Creating and Completing Work Item Reviews

8.9.2.1 Creating and Completing CRs

When a raw requirement, system feature, R&D requirement, or bug is under control or baselined, you can perform the following steps to modify their controlled or baselined fields.

A maximum of **20** reviewers can be added.

A maximum of **50** objects can be added to or associated with a single review record.

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**.
- On the project homepage, choose **Review > Change Review**. Then click **CR**.

Step 3 On the **CR** page, set the required parameters.

Table 8-59 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.
Completes	The time when you want the review to complete.
Require Decision-Making	This parameter is available only when Require Decision-Making is enabled on the Settings > Work > Review page. If Require Decision-Making is set to No , no approver needs to be specified. The review will skip the decision-making phase.
Copy To	Select the project members you want to inform about this review.

Parameter	Description
Change Object	Add the objects to be changed, including raw requirements, system features, R&D requirements, and bugs. - Raw requirements can be selected only when they are in the Confirming, Planning, or Implementing state. After adding change objects, modify controlled fields (marked with ) and set Approver and Reviewer. - System features and R&D requirements can be selected only when they are baselined. After adding change objects, modify controlled fields (marked with ) and set Approver and Reviewer. - Bugs can be selected only when they are in a status in which a controlled field is editable. After adding change objects, modify controlled fields (marked with ) and set Reviewer and Review Expert. If Review Expert is not set, the review phase will be skipped. - The options of Review Expert are project members. You can select multiple ones. - For systems features and R&D requirements: - The options of Reviewer can be configured on the Settings > Work > Review page. The default options are project administrator and project manager. You can select only one option. For raw requirements: - If the proposing project initiates a change review, the options of Reviewer 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 of Reviewer include the project 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 of Reviewer 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 Reviewer 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 change objects include a raw requirement and bug, files can be associated only when the proposing and responsible projects are the same.

Parameter	Description
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.

----End

Related Operations

You can perform the following operations on a draft CR.

Table 8-60 Basic operations on a draft CR

Operation	Description
Modify title	Click  next to a CR title to modify it.
Modify field	Click the target field value in the row of a CR to modify the value. After the modification, click Submit .
Copy link	Click  in the Operation column to copy the title, ID, current owner, status, and link information of the requirement to the clipboard.
Delete CR	Click  in the Operation column of a CR to delete it.

For a new CR, click  in the **Operation** column to copy the title, ID, current owner, status, and link information of the requirement to the clipboard.

Completing a CR

This operation is performed by the specified review experts and reviewer 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 change object, and set the required parameters.

Figure 8-51 Review by review experts

Expert Review

* Result

☒ Approve ☐ Reject ☐ Transfer to others

* Comment

0/300

OK Cancel

Expert Comments

No comments so far

Table 8-61 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 of all change objects in the CR is complete, 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 change object, and set the required parameters.

Figure 8-52 Decision-making by reviewer

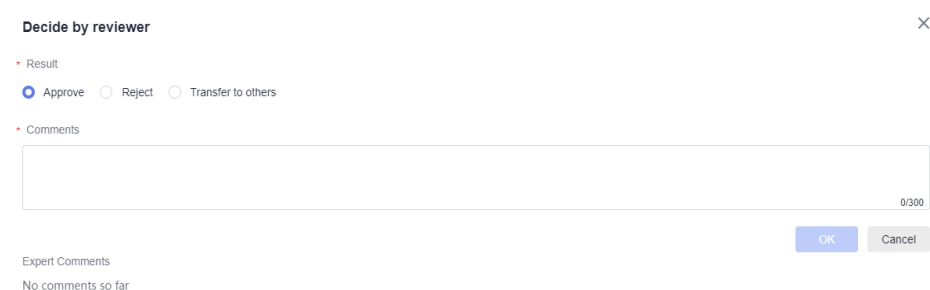


Table 8-62 Decision-making by reviewer

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 review to another reviewer.
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 your reference.
Expert Comments	Results and comments of review experts in the review phase for your 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 of all change objects is complete.

----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.

A maximum of **20** reviewers can be added.

A maximum of **50** objects can be added to or associated with a single review record.

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.

Table 8-63 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.
Completes	The time when you want the review to complete.
Require Decision-Making	This parameter is available only when Require Decision-Making is enabled on the Settings > Work > Review page. If Require Decision-Making is set to No , no approver needs to be specified. The review will skip the decision-making phase.
Reviewer	The options of Reviewer can be configured on the Settings > Work > Review page. The default options are project administrator and project manager. You can select only one option.
Review Expert	If Review Expert is not set, the review phase will be skipped. The options of Review Expert are project members. You can select multiple ones.
Copy To	Select the project members you want to inform about this review.
Baseline Object	Add the objects to be baselined, including system features and R&D requirements. Only system features and R&D requirements that are not baselined can be added.
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.

----End

Related Operations

You can perform the following operations on a draft BR.

Table 8-64 Basic operations on a draft BR

Operation	Description
Modify title	Click  next to a BR title to modify it.
Modify field	Click the target field value in the row of a BR to modify the value. After the modification, click Submit .
Copy link	Click  in the Operation column to copy the title, ID, current owner, status, and link information of the requirement to the clipboard.
Delete BR	Click  in the Operation column of a BR to delete it.

For a new BR, click  in the **Operation** column to copy the title, ID, current owner, status, and link information of the requirement to the clipboard.

Completing a BR

This operation is performed by the specified review experts and reviewer of a BR.

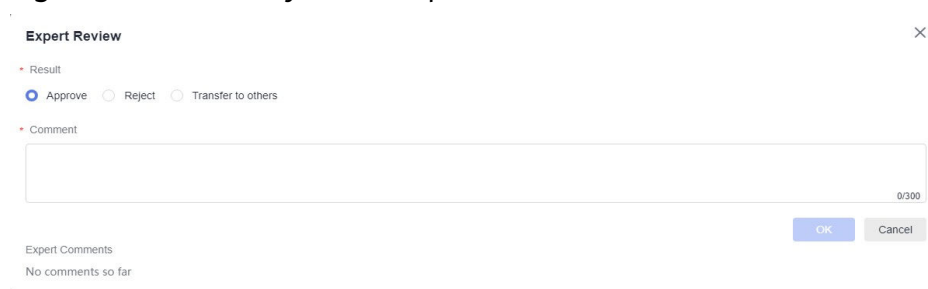
Step 1 [Access the CodeArts Req homepage.](#)

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 8-53 Review by review experts



The figure shows a dialog box titled "Expert Review" with a close button (X) in the top right corner. It contains two sections: "Result" and "Comment". The "Result" section has three radio buttons: "Approve" (selected), "Reject", and "Transfer to others". The "Comment" section has a text input field with a character count "0/300" on the right. At the bottom right, there are "OK" and "Cancel" buttons. Below the dialog box, there is a section titled "Expert Comments" with the text "No comments so far".

Table 8-65 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 **Decide by reviewer** in the upper right corner. In the displayed dialog box, set the required parameters.**Figure 8-54** Decision-making by reviewer

Expert Review

* Result

☒ Approve ☐ Reject ☐ Transfer to others

* Comment

0/300

Expert Comments

No comments so far

OK Cancel

Table 8-66 Decision-making 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 review to another reviewer.
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 your reference.
Expert Comments	Results and comments of review experts in the review phase for your 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.

A maximum of **20** reviewers can be added.

A maximum of **50** objects can be added to or associated with a single review record.

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.

Table 8-67 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.
Require Decision-Making	This parameter is available only when Require Decision-Making is enabled on the Settings > Work > Review page. If Require Decision-Making is set to No , no approver needs to be specified. The review will skip the decision-making phase.
Reviewer	The options of Reviewer can be configured on the Settings > Work > Review page. The default options are project administrator and project manager. You can select only one option.
Review Expert	If Review Expert is not set, the review phase will be skipped. The options of Review Expert are project members. You can select multiple ones.
Copy To	Select the project members you want to inform about this review.
Associated Object	Add the objects to be reviewed, including raw requirements, system features, R&D requirements, and bugs.
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.

----End

Related Operations

You can perform the following operations on a draft GR.

Table 8-68 Basic operations on a draft GR

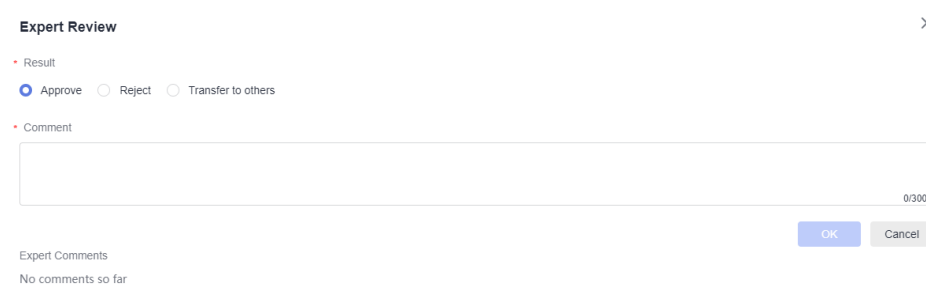
Operation	Description
Modify title	Click  next to a GR title to modify it.
Modify field	Click the target field value in the row of a GR to modify the value. After the modification, click Submit .
Copy link	Click  in the Operation column to copy the title, ID, current owner, status, and link information of the requirement to the clipboard.
Delete GR	Click  in the Operation column of a GR to delete it.

For a new GR, click  in the **Operation** column to copy the title, ID, current owner, status, and link information of the requirement to the clipboard.

Completing a GR

This operation is performed by the specified review experts and reviewer of a 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 8-55 Review by review experts

The figure shows a dialog box titled "Expert Review" with a close button (X) in the top right corner. It contains two sections: "Result" and "Comment". The "Result" section has three radio buttons: "Approve" (selected), "Reject", and "Transfer to others". The "Comment" section has a text input field with a character count "0/300" on the right. At the bottom right, there are "OK" and "Cancel" buttons. Below the dialog box, the text "Expert Comments" and "No comments so far" is visible.

Table 8-69 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 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 **Decide by reviewer** in the upper right corner. In the displayed dialog box, set the required parameters.**Figure 8-56** Decision-making by reviewer

Decide by reviewer

Result

☒ Approve ☐ Reject ☐ Transfer to others

Comments

0/300

OK Cancel

Expert Comments

No comments so far

Table 8-70 Decision-making 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 review to another reviewer.
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 your reference.
Expert Comments	Results and comments of review experts in the review phase for your reference.

Step 8 Select **Approve** or **Reject** for **Result**, and click **OK**. The GR status changes to **End**.

----End

8.10 Tracking the Project Progress

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**, all project data can be displayed in two dimensions.

- By release: Select the release and sprint for display. For details about statistical items, see [Table 8-71](#).

Table 8-71 Statistical charts

Statistics Type	Data Description
Project statistics overview	Displays the numbers of total, uncompleted, completed, and overdue work items of the selected release.

Statistics Type	Data Description
Release burndown	Click  next to the chart title to view the description of statistical items. Includes the left workload, total workload, and expected 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.
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.

Statistics Type	Data Description
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 bar chart to display the proportion of completed to 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 bar 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.
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 7-72](#).

Table 8-72 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.
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.

Statistics Type	Data Description
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.
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 8-73 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.
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.

9 (Optional) Checking Audit Logs

Cloud Trace Service (CTS) records operations on CodeArts Req for query, audit, and backtrack.

Operations Recorded by CTS

Table 9-1 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

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	setAuditSwitchOfInviteMember
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

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	createProjectChildModule
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](#).