## **CodeArts Req**

## **User Guide**

Issue 01

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## Project Templates

## 1.1 Creating a Project from a Template

A sample is a default template that includes work items and processes preset by CodeArts Req. You can select a template to generate a project, or create a project template.

The preset work items and code in a template can be directly used for creating projects.

Table 1-1 lists the supported templates.

Table 1-1 Samples

Project Type	Name	Scenario
Scrum project	DevOps Full- Process Sample	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.

#### **Prerequisites**

You have permissions to create projects.

■ NOTE

If the **Create Project** button is not displayed in the upper right of the CodeArts homepage, contact the administrator to grant you the **project creator** permission.

## **DevOps Full-Process Sample**

To use a Scrum project, create it with the **DevOps Full-Process Sample**.

- **Step 1** On the CodeArts homepage, click **Create Project**.
- Step 2 In the Sample area, select DevOps Full-Process Sample Project.
- **Step 3** Set project information.
- Step 4 Click OK.
- **Step 5** View the **Work > Work Items** page that is automatically displayed.
- **Step 6** Modify the project as required, or use the preset scenarios, work items, and processes.

----End

## 1.2 Customizing a Template

You can customize templates when creating **work items**, and save the templates for creating projects.

This section describes the operations on the **All Account Settings** > **CodeArts Req** > **Project Templates** page, where you can create, edit, replicate, and delete templates, and create projects from templates.

- Accessing a Custom Template
- Editing a Project Template
- Creating a Project Template
- Replicating a Project Template
- Deleting a Project Template

#### **Prerequisites**

- Only Scrum projects support custom templates.
- You have a tenant account or an Identity and Access Management (IAM) user account with ProjectMan ConfigOperations permissions.

## **Accessing a Custom Template**

View the existing custom project templates on the All Account Settings page.

- **Step 1** Hover over the account name in the upper right corner and click **All Account Settings**.
- **Step 2** Choose **CodeArts Req > Project Templates**.

----End

## **Editing a Project Template**

On the **Settings** > **Project Settings** page, after you click **Save as Template**, all settings on this page will be displayed in the project template list. You can modify the templates when necessary.

**Step 1** Choose **All Account Settings** > **CodeArts Req** > **Project Templates**.

#### **Step 2** Expand the default Scrum project template.

The existing templates are shown.



- **Step 3** Click on the target row to enter the **Fields and Templates** page.
- **Step 4** Click **Edit Template** to edit the template and save it.

----End

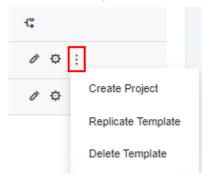
#### **Creating a Project Template**

You can customize project templates as required.

- Step 1 Choose All Account Settings > CodeArts Req > Project Templates, and click in the row that contains the default template.
- Step 2 Set the Template Name and Description in the Inherit Template window.
- Step 3 Click OK.
  - **Ⅲ** NOTE

You can create a project based on the edited or created template.

1. Click in the target row that contains the template.



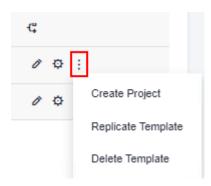
- 2. Click Create Project.
- 3. On the displayed page, choose a template to create a Scrum project.
- 4. Configure project parameters and click **OK**.

----End

## Replicating a Project Template

You can quickly create a template by replicating an existing template.

- Step 1 Choose All Account Settings > CodeArts Req > Project Templates, and click in the row that contains the target template.
- Step 2 Choose Replicate Template.



----End

## **Deleting a Project Template**

You can delete unnecessary templates.

- Step 1 Choose All Account Settings > CodeArts Req > Project Templates, and click in the row that contains the target template.
- Step 2 Choose Delete Template.

#### □ NOTE

- Deleted project templates cannot be recovered. Exercise caution when performing this
  operation.
- You can delete multiple templates by repeating this operation.

#### ----End

# 2 Scrum Projects

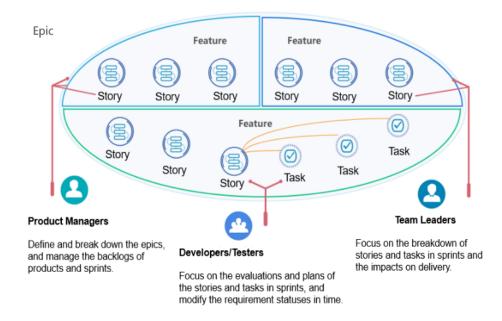
## 2.1 Developing a Scrum Project

The following topics describe the development process of Scrum projects:

- Requirement Breakdown and Multi-Role Collaboration
- Continuous Iterative Delivery for Closed-Loop Feedback
- Development Example

## Requirement Breakdown and Multi-Role Collaboration

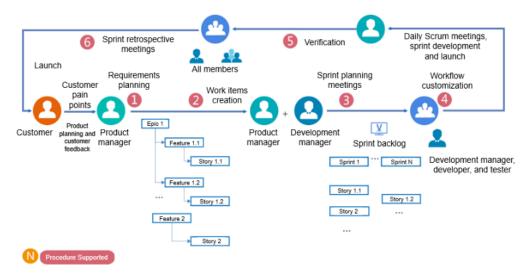
In Scrum projects, requirements can be broken down in the four-layer hierarchy: **Epic** > **Feature** > **Story** > **Task**.



### **Continuous Iterative Delivery for Closed-Loop Feedback**

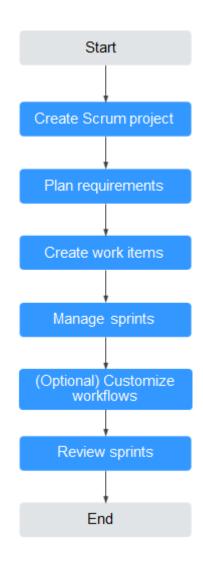
Scrum is an incremental, iterative, and agile software development method. It enables continuous delivery through repetitive sprints, which are cycles of closed-loop software development from user requirements planning to user feedback collection.

Sprint planning meetings, daily Scrum meetings, sprint retrospective meetings, and sprint review meetings are key to simple but efficient project management.



## **Development Example**

The following figure shows the basic process of a Scrum project. This process can be repeated for continuous planning and delivery in each sprint.



**Table 2-1** Process description

Step	Description	
Create Scrum project	For details, see Creating a Scrum Project.  NOTE  You can invite other users to join a Scrum project after it is created. For details, see Managing Members.	
Plan requireme nts	Plan requirements using mind maps or Gantt charts based on the project breakdown needs. For details, see Mind Maps and Gantt Chart.	
Create work items	Create work items after the requirements are planned. For details, see Creating a Work Item (Epic/Feature/Story/Task or Bug).	
Manage sprints	Plan and manage sprints. For details, see <b>Managing Sprints</b> .	

Step	Description
(Optional ) Customiz e workflow s	Customize the workflows as required. For details, see Customizing Workflows.
Review sprints	Review the sprints for improvements. For details, see <b>Organizing Sprint Retrospective Meetings</b> .

## 2.2 Creating a Scrum Project

### Background

Scrum is a typical agile development method. Under the Scrum framework, the entire development process is divided into several short sprints, each of which usually lasts for 1 to 4 weeks.

- Product backlog is used to manage requirements, which are written as stories and sorted by business value.
- Requirements top on the backlog are scheduled in a sprint by a Scrum team.
   The Scrum team discusses, analyzes, and assesses requirements and develops a corresponding task list called sprint backlog in a sprint planning meeting.
- At the end of each sprint, the Scrum team outputs deliverable product increments.
- Scrum work items are organized in the descending hierarchy: epics > features> stories > tasks or bugs.

This section describes how to create a Scrum project.

### **Prerequisites**

You have permission to create projects.

□ NOTE

If the **Create Project** button is not displayed in the upper right of the CodeArts homepage, contact the administrator to grant you the **project creator** permission.

#### Procedure

**Step 1** On the CodeArts homepage, click **Create Project**.

Then select **Scrum** as the project type.

**Step 2** Set the project parameters and click **OK**.

**Table 2-2** describes the parameters for creating a Scrum project.

Table 2-2	Parameter	description
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Parameter	Description
Project Template	Template type of a project. Use the default template or choose a custom one. For customizing templates, see  Customizing a Template.
Name	Set this parameter as required.
Description	Enter a brief description of the project.

#### ----End

#### **Operations**

After creating a project, add desired members to it by referring to **Managing Members**.

## 2.3 Managing a Scrum Project

The following topics describe how to manage a Scrum project:

- Accessing Scrum Projects
- Planning Requirements Using Mind Maps
- Viewing a Project
- Editing Basic Information
- Transferring a Project
- Archiving or Unarchiving a Project
- Deleting a Project

#### **Accessing Scrum Projects**

Projects are displayed on the CodeArts homepage. Click **Followed Projects**, **All Projects**, or **Archived**. You can also search for projects on which you have permissions on the **All Projects** page.

If no project is available, click **Create Project** to create one. For details, see **Creating a Scrum Project**.

#### **Planning Requirements Using Mind Maps**

A mind map is a powerful tool used to organize different levels of work items in the descending hierarchy: **epics** > **features** > **stories** > **tasks**. For details about each work item, see **Work Items**.

You can rearrange work items between levels or at the same level by drag-and-drop for quick adjustment. To view the planning result, see **Adjusting a Mind Map**.

#### Viewing a Project

- Click the name of the project. The project details page is displayed, where you can find menu items including Work, Code, CICD, Artifact, Testing, Documentation, and Settings.
- Click desired items on the menu bar to view details about the corresponding service in the project.

#### **Editing Basic Information**

Search for the target project on the CodeArts homepage. Hover over the project and click . Modify the project information, including its name, code, description, and creator.

**MOTE** 

Only requirement administrators can modify projects. For details about how to set permissions, see **Setting Permissions**.

#### Transferring a Project

Search for the target project on the CodeArts homepage. Hover over the project and click **Save**.

**□** NOTE

Only project creator and administrator can edit the **Creator** to transfer a project. After the transfer, the original project creator becomes a project manager.

## **Archiving or Unarchiving a Project**

CodeArts provides the project archiving function. Archived projects are read-only to all members and cannot be added, deleted, or modified.

Only project creators, project managers, test managers, and those assigned archiving permissions can archive or unarchive projects.

Project administrators can archive a project as required.

- **Step 1** Go to the project details page.
- **Step 2** Choose **Settings** > **General Settings** > **Basic Information**.
- Step 3 Click Archive.
  - After the project is archived, the **Archive** button changes to **Unarchive**.
  - You can unarchive a project by clicking **Unarchive**.

----End

## **Deleting a Project**

On the project details page, choose **Settings** > **General Settings** > **Basic Information**. Click **Delete Project**, enter the project name, and click **Delete**.

#### **NOTICE**

- Only members with the tenant permissions or project creators can delete projects.
- Exercise caution when deleting a project. Deleting a project will delete all resources in the project, including code repositories and build tasks. Deleted data cannot be recovered.

## 2.4 Planning Requirements

## 2.4.1 Mind Maps

This section describes the work items and common operations for mind map planning.

- Work Items
- Mind Map
- Example
- Adjusting a Mind Map
- Modifying a Mind Map
- Deleting a Mind Map

#### 

Multiple mind maps can be created for a Scrum project and can be deleted.

#### **Work Items**

A mind map is used to plan and break down the Scrum project requirements. It visually displays the hierarchical structure of work items. When new work items are created during the planning, they will be automatically displayed on the **Work Items** page.

- Created work items are synchronized to the relevant epic on the Work Items page.
- 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.

#### ■ NOTE

For fast core functions roll-out and feedback collection, set the priority to **High** for the stories that deliver the most user values under each feature.

Ensure that the basic functions of a product can be launched and avoid over-engineering.

Table 2-3 Work item description

Туре	Description	Example
Epics	<ul> <li>The key strategies 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.</li> <li>Since an epic is a high-level description of a requirement, it needs to be broken down into features, which are further divided into user stories in the development practice.</li> <li>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 delivered stories in a bigger picture.</li> </ul>	<ul> <li>An epic is defined based on an enterprise's operations, competitiveness, and market environment. Examples are as follows:</li> <li>Example 1     Market differentiation: deliver better user experience than competitors.</li> <li>Example 2     Better solution: develop a solution for the industrial Internet.</li> <li>Example 3     Revenue growth: increase paid users by 1 million in the next fiscal quarter.</li> <li>Example 4     Major technical direction: deploy all products on containers.</li> </ul>

Туре	Description	Example
Type Feature s	<ul> <li>A feature is a product function that can deliver benefits to customers.</li> <li>Features are broken down from epics and 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.     </li> </ul>	The description of a feature should specify its values for customers, product form, and delivery mode.  It is recommended that you define a feature in this template: As a < user_role> I want < result> So that < purposes>.  Examples are as follows:  • Example 1 User A wants to import and export data, so that they can efficiently organize data in batches.
		<ul> <li>Example 2         User B wants to receive notifications of due tasks, so that they can handle the tasks in time.</li> <li>Example 3         User C wants to have a better drag-and-drop experience, so that they can perform operations more quickly.</li> <li>Example 4         User D wants to create a nickname for myself, so that they can be more easily identified and remembered.</li> </ul>

Туре	Description	Example
User Stories	<ul> <li>Stories further break down a feature and describe requirements in detail from the perspective of users.</li> <li>Stories are listed by priority in a dynamic backlog where the order is continuously adjusted to actual requirements. The higher the stories are located in the backlog, the sooner they will be developed and delivered to customers.</li> <li>A story must comply with the INVEST principle:         <ul> <li>Independent: Each user story should be independent and can be delivered to customers independently.</li> <li>Negotiable: A specific description of functions is not required. The details should be negotiated and determined by developers and customers during development.</li> <li>Valuable: A story must deliver values to customers.</li> <li>Estimable: Workload can be estimated.</li> <li>Small: A story should be small enough to be completed in a sprint.</li> <li>Testable: Acceptance criteria should be established to test if a story can fulfill the requirements of customers.</li> </ul> </li> <li>A story should be delivered in days within a sprint.</li> <li>You can estimate the workload of stories by person-hours, person-days, or story points.</li> <li>Story point estimation is used by many agile development teams. This method estimates the costs for story delivery,</li> </ul>	Examples of stories in compliance with INVEST: Recommended template: As a <user role=""> I want &lt; results &gt; So that &lt; purposes &gt;.  Example 1 As a project manager, I want to filter requirements by handler, so that I can quickly locate a specific requirement.  Example 2 As a developer, I want to collapse some information, so that visual distraction can be reduced.  Example 3 As a tester, I want to associate test cases with requirements, so that I can track the verification of requirements.</user>

Туре	Description	Example
	including the efforts, complexities, and risks.  - The Fibonacci series (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.	
Tasks	In a sprint planning meeting, stories scheduled in a sprint are assigned to members and are broken down into one or more tasks. The expected person-hours of tasks are specified.	Tasks focus on series of actions that lead to a goal. Examples are as follows:  • Example 1 Developer A needs to prepare a production-like environment today.  • Example 2 Developer B needs to complete the permission settings for the project team this week.  • Example 3 Developer C needs to review the code.

Туре	Description	Example
Bugs	<ul> <li>Bugs are created to track problems of software functions found during testing and verification. Bugs can be prioritized.</li> <li>Bugs can be created and tracked separately. You can also create bugs when verifying a story. In this case, bugs are set as child work items of the story for you to view bugs by story.</li> <li>The bug description should be as detailed as possible, including but not limited to:         <ul> <li>Symptoms. You are advised to describe symptoms from the perspective of users.</li> <li>Error code. Error code can be used to locate and analyze code problems.</li> <li>Environment information, such as the development environment, test environment, or live network environment.</li> <li>Software stack information, including the corresponding operating system and its version, and database and its version.</li> <li>Whether the bug can be reproduced and how.</li> </ul> </li> <li>NOTE         <ul> <li>Bugs are not displayed in mind maps. They are displayed only in associated stories.</li> <li>Required information for a bug description can be customized by choosing Settings &gt; Project Settings &gt; Bugs.</li> <li>You can configure a bug template or customize fields to ensure team members type necessary information when creating bugs description.</li> </ul> </li> </ul>	An example template for bug description: [Symptom] [Error Code (F12)] [Environment] [Fault Reproduction Procedure] [Onsite Fault Locating R&D Engineer] [Preliminary Fault Locating] [Packets Captured Using Google Chrome]

### **Mind Map**

After the requirements are broken down, use a mind map for planning.

- **Step 1** Go to the project details page.
- **Step 2** Choose **Work > Plans > Mind Maps**, and click **+ Create**.

Set the mind map name and click **OK** to go to the mind map page.

Table 2-4 Parameter description

Parameter	Description
Add to Epic	Selectively add Epic work items that are not in the current mind map of the project.
Priority	High, middle, and low priorities are represented by three colors.
Import	You can import Excel files from another Scrum project or use a work item template. The template can be downloaded right in the import dialog box.
Export	Export all work items to an Excel file.
+/-	Click to expand or collapse all the child work items of a work item.
View details	Click the title of a work item to view or modify its details.
ū	Delete a work item and all its child work items.
C#	Insert a sibling node.
⊗	Remove a work item. This button is available only for epic work items.
다	Insert a child node. Click and enter a name to create a child work item. If you want to add more details, click its name and modify on the work item details page displayed.  NOTE  By default, the newly added work items are Assigned To the Creator. You can reassign them on the work item details page.
$\odot$	Click to import work items to the mind map using a template, or export work items to an Excel file or image.

**Step 3** Add one or more epics, set the names, and press **Enter**.

Perform in one of the following ways to add an epic by choosing **Work** > **Plans** > **Mind Maps**:

- Click # for the first addition.
- Select an existing epic and press **Enter**.

- Move the cursor to Requirements and click \(\frac{\frac{1}{2}}{2}\).
- **Step 4** Add one or more features to an epic, set the feature names, and press **Enter**.

Perform in one of the following ways to add a feature to an epic:

- Select an epic and press Insert.
- Select an existing feature and press **Enter**.
- Move the cursor to a feature and click \(\sigma\).
- Move the cursor to an epic and click  $\overline{\Box}$ .
- **Step 5** Add one or more stories to a feature, set the story names, and press **Enter**.

Perform in one of the following ways to add a story to a feature:

- Select a feature and press Insert.
- Select an existing story and press **Enter**.
- Move the cursor to a story and click \(\frac{\mathbb{C}}{\pi}\).
- Move the cursor to a feature and click \(\frac{\pi}{4}\).

**Step 6** Add one or more tasks to a story, set the task names, and press **Enter**.

- Select an existing story and press Insert.
- Select an existing task and press **Enter**.
- Hover over an existing task and press \(\frac{\mathbb{C}}{\pi}\).

----End

## Example

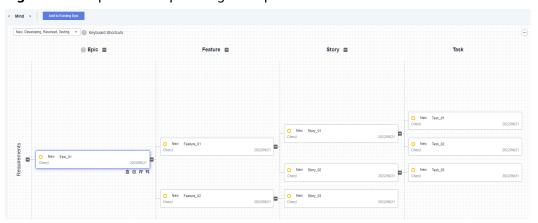
Table 2-5 shows an example of the requirements planning for a mall.

**Table 2-5** Requirements planning example

Epic	Feature	Story	Task
Mall man age ment	Membership management	Administrators can manage the bonus points.	<ul> <li>Service logic development of the bonus point function</li> </ul>
			<ul> <li>Database design and implementation of the bonus point function</li> </ul>
			Bonus points     earning rule design
		Administrators can set the membership level.	-
		Administrators can perform user analysis.	User database structure design

Epic	Feature	Story	Task
		Administrators can manage users.	<ul> <li>User permission database structure design</li> <li>Management console development</li> </ul>

Figure 2-1 Requirements planning example



## **Adjusting a Mind Map**

You can use mind maps to sort work items and adjust their hierarchical relationship.

#### **Step 1** Sort work items at the same level:

Select a work item in the mind map. Hold down the left click button and drag it up or down to change its order.

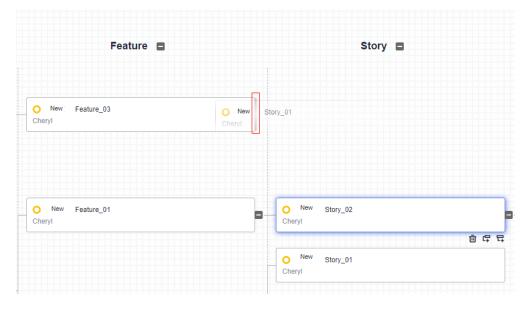
For example, drag **Story\_04** to the top of **Story\_02**. When a gray board is displayed above **Story\_02** with a plus sign (+), release the mouse.



**Step 2** Adjust the hierarchical relationship:

Select a work item in the mind map. Hold down the left click button and drag it leftwards or rightwards to adjust its hierarchical level.

For example, drag **Story\_01** to the back of **Feature\_03**. When a gray boarder appears to the right of **Feature\_03** with a plus sign (+), release the mouse.



----End

## **Modifying a Mind Map**

**Step 1** On the **Work** > **Plans** page, hover over the target mind map, and click the chart name.

**Step 2** Click a mind map to go to the details page.

#### **Step 3** Add an Epic.

1. Click Add to Existing Epic . The Add to Existing Epic dialog box is displayed.

View epics that are not in the current mind map of the project.

2. Select desired epics and click **OK**.

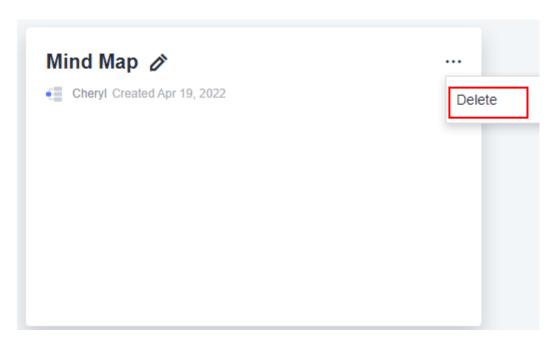
Complete the adding. The added epics and their child work items are displayed in the mind map.



----End

## **Deleting a Mind Map**

**Step 1** On the **Work** > **Plans** page, hover over the target mind map, and click ••• .



**Step 2** Click **Delete** to delete the mind map.

#### 

- Deleted mind maps cannot be recovered. Exercise caution when performing this
  operation.
- Adjusting the work item level will automatically change the type of the involved work items.
- Work items with child work items cannot be adjusted to the Task level.
- A work item (including its child work items) can be adjusted upwards or downwards in the hierarchy. If the adjusted work item level exceeds the task level, the work item cannot be adjusted.
- The planned work items will be displayed on the Work > Work Items page.
   You can filter work items by epic, feature, and story.

#### ----End

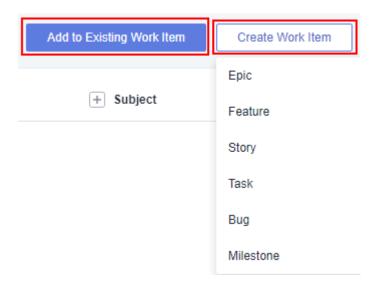
## 2.4.2 Gantt Chart

Gantt chart, also known as progress bar chart, is a common tool that uses the project list and time scale to show the project sequence and duration.

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.

You can create multiple Gantt charts. In each Gantt chart, you can create **Milestone** and work items, or add existing work items.

Add existing work items (displayed on the **Work > Work Items** page) or create new ones (epics, features, stories, tasks, or bugs).



Common Gantt chart operations include:

- Creating a Gantt Chart
- Editing a Gantt Chart
- Deleting a Gantt Chart

#### **Prerequisites**

Ensure that you have the **Plan** permission. If you do not have the permission, contact the project administrator to grant you permissions by choosing **Settings** > **Project** > **Permissions**.

#### **Creating a Gantt Chart**

- **Step 1** Go to the project details page.
- **Step 2** Choose **Work > Plans**, click **Create**, and select **Gantt Chart**.
- **Step 3** In the **Create Gantt Chart** dialog box, enter a chart name (for example, **Gantt Chart**), and click **OK**.

The Gantt chart details page is displayed, without any work items.

**Step 4** Add and set work items, such as the project schedule.

Add work items in any of the following ways:

- Add existing work items
  - a. Click **Add to Work Item**.
    - By default, all work items are displayed.
  - Click All work items to display the work items to be added, for example, My work items.
  - Select the target work items and click **OK**.
     Now the added work items are displayed in the Gantt chart.
- Create work items

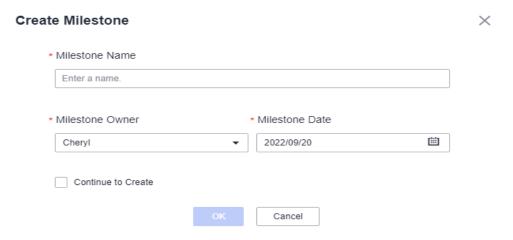
Click **Create Work Item**, select a work item type, configure basic information, and click **Save**. To create multiple work items, repeat this operation.

The work items will be displayed both in the Gantt chart and on the **Work** > **Work Items** page.

**Step 5** Create a milestone and set the milestone date.

- Choose Create Work Item > Milestone. The Create Milestone dialog box is displayed.
- 2. Set the **Milestone Name**, **Milestone Owner**, and **Milestone Date**, then click **OK**

Click **Continue to Create** to create more milestones. By default, this option is deselected.

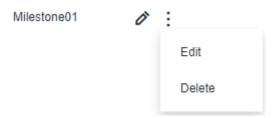


The **Milestone Date** should align with the **Start Date** and **Due Date** of work items to ensure the milestones are shown in the Gantt chart.

3. (Optional) Edit or delete a milestone as required.

In the Gantt chart list, hover over the target milestone.

- Click of to modify the milestone name.
- Click and select Edit to modify the information of name, owner, and date of the milestone.
- Click and select **Delete** to delete the milestone.



- **Step 6** (Optional) Filter work items as required. For example, locate the **Done Ratio** parameter, and click to filter the work items by completion rate.
- **Step 7** View the milestone information and progress in the Gantt chart.
- **Step 8** (Optional) Click and + to zoom out or in the Gantt chart.
- **Step 9** View the project details. Hover over the progress bar of the target project to view the details.

#### □ NOTE

You can click to clone, remove, and delete work items and create child work items. For details, see Managing Work Items.

----End

#### **Editing a Gantt Chart**

- **Step 1** On the **Work** > **Plans** page, hover over the target Gantt chart, click to edit the chart name.
- **Step 2** Click a Gantt chart to go to the details page.
- **Step 3** Select a work item and perform the following operations on it as required:
  - Clone: Clone the selected work item.
  - Edit: Edit the selected work item.
  - Remove: Remove the selected work item from the Gantt chart, but not from the Work > Work Items page.
  - Archive: Archive work items. Only **Closed** work items can be archived.
  - Delete: Delete the selected work item from both the Gantt chart and the **Work > Work Items** page.

----End

## **Deleting a Gantt Chart**

- 1. On the **Work** > **Plans** page, hover over the target Gantt chart, click ••• .
- 2. Click **Delete** to delete the Gantt chart.

Deleted Gantt charts cannot be recovered. Exercise caution when performing this operation.

## 2.5 Creating a Work Item (Epic/Feature/Story/Task or Bug)

After a project is planned, you need to create work items, including requirements, tasks, bugs, and so on. The work item type varies according to the project type.

In a Scrum project, work items are organized in the descending hierarchy: **epics** > **features** > **stories** > **tasks/bugs**. Create work items in either of the following ways:

- Choose **Work** > **Plans** > **Mind Maps**, click into a mind map, and create required work items along the descending hierarchy.
- On the Work > Work Items page, click Create Work Item to create them.

This section describes how to create a work item on the **Work > Work Items** page.

#### **Procedure**

- **Step 1** Go to the project details page and click **Work > Work Items**.
- **Step 2** Click **Create Work Item** and select a work item type. For example, **Story**.
- **Step 3** Set the fields of the work item.

Work item fields can be customized. For details, see **Customizing Work Items**. **Table 2-6** describes some default fields.

Table 2-6 Work item field description

Field	Description
Туре	Select a work item type based on project requirements.
Title	Name of a work item.
Description	Enter a description based on the template.
Status	Status of a work item. Status options can be customized. The default statuses are as follows:  • New
	Developing
	Resolved
	Testing
	Rejected
	Closed
Assigned To	Handler of a work item. Set this parameter to the project creator or a member. If a handler has a name remark, the name remark is displayed.
Module	Module that a work item belongs to.
	NOTE Only project administrators can configure modules. For details, see Setting Modules.
Sprint	Sprint of a work item. Set this parameter to an existing sprint.
	NOTE You can choose whether to use the start and end dates of the selected sprint for this work item.
Start Date	Estimated start date of a work item. Select a date from the time control.
Due Date	Estimated due date of a work item. Select a date from the time control.
Priority	Priority of a work item. The options are as follows:
	• Low
	Middle
	High

Field	Description
Severity	Severity of a work item. The options are as follows:  Critical  Major  Minor  Trivial
Notify	Specify people who will receive messages about this work item.
Parentld	Work item that the new work item is subordinated to.  NOTE  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.  NOTE  Only project administrators can configure domains. For details, see  Setting Domains.
Release Version	Version of a release.
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 person-hours or person-days required to complete a work item.
Actual	Actual person-hours or person-days required to complete a work item.  NOTE  Actual person-hours are displayed only on the work item details page.
Find Release Version	Product version where a bug is found.  NOTE  This parameter is available only for work items of the bug type.
Done Ratio	Progress of the work item. The value ranges from <b>0%</b> to <b>100%</b> . <b>NOTE</b> The <b>Done Ratio</b> 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.

Field	Description
Attachment	Upload required files for the work item.
	Click + Click to select a file, or drag and drop a file. to associate with the files from the project cloud documents or upload local files.  NOTE The maximum size of attachments for a single work item is 50 MB.

#### **Step 4** After setting the fields, click **Save**.

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

----End

## 2.6 Managing Work Items

You can view, clone, edit, delete, import, and export work items and create child work items.

- Accessing Work Items
- Creating a Child Work Item
- Cloning a Work Item
- Editing a Work Item
- Deleting a Work Item
- Viewing a Work Item
- Archiving or Unarchiving a Work Item
- Performing Batch Operations on Work Items
- Setting Handler for Multiple Work Items
- Exporting Work Items in Batches
- Importing Work Items in Batches
- Filtering Work Items
- Setting Displayed Parameter Columns
- Following Work Items

## **Accessing Work Items**

Perform the following operations to access work items from the project.

- **Step 1** Go to the project details page.
- Step 2 Choose Work > Work Items.
- Step 3 Click Backlog, Bug, or Create Work Item.

The **Backlog** page lists stories, tasks, and bugs, which are ready to be scheduled into a sprint.

----End

#### Creating a Child Work Item

Child work items are displayed on the Child Work Items tab.

#### **◯** NOTE

As tasks and bugs reside at the bottom of the requirement hierarchy, they have no child work items.

Add a child work item in either of the following ways:

- Method 1 (on the work item details page)
  - a. Click the Child Work Item tab.



- b. To quickly create a child work item, click the corresponding button.
- c. To create a child with complete parameters, click **Create sub-work item**.
- Method 2 (in the work item list)

You can choose to use quick creation or common creation:

- Quick creation: Click in the row that contains the target work item and set key information.
- Common creation: Click in the row that contains the target work item, click Create Child (Bug) or Create Child (Task).

#### Cloning a Work Item

Work items can be cloned in the work item list (see the following operations) or on the details page. You can clone a work item to the current project or projects on which you have permissions.

- Step 1 Access the work item list.
- **Step 2** Click: in the row that contains the target work item, and click **Clone**.

----End

#### **Editing a Work Item**

On the work item details page, you can modify information such as the handler, status, priority, and workload. You can also follow and comment on work items.

**Step 1** On the CodeArts homepage, click into a project.

The Work > Work Items page is displayed.

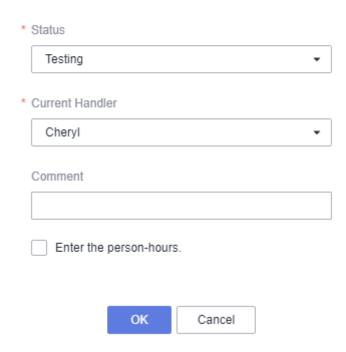
**Step 2** Click the name of a work item to access the details page.

- **Step 3** In the work item details area on the right, view the name, description, and creation time.
- **Step 4** Locate and modify the target parameters, and save the changes. To quickly change the handler and status, perform the following operations:

#### □ NOTE

- Refer to **Setting Displayed Parameter Columns** to set the handler or status.
- By default, the newly added work items are **Assigned to** the **Creator**. You can reassign them on the work item details page.
- 1. Click **Assigned to** in the row that contains the target work item to change it.
- 2. Click **Status** in the row that contains the target work item. For example, **Testing**.

#### **Change Status**



3. In the **Change Status** dialog box displayed, select another status, and click **OK**.

**◯** NOTE

You can also customize the transition status of work items. For details, see **Customizing Statuses**.

----End

## **Deleting a Work Item**

You can delete unnecessary work items. To delete work items in batches, see **Performing Batch Operations on Work Items**.

**Step 1** Access the work item details page.

**Step 2** Click in the upper right corner and select **Delete**. Exercise caution when clicking **OK** to confirm deletion.

#### □ NOTE

- The delete button is placed in the drop-down menu of ito avoid mis-deletion
- After a work item is deleted, its child work items are also deleted.

#### ----End

#### Viewing a Work Item

You can view the work item details after creating or editing them.

**Step 1** On the CodeArts homepage, click into a project.

Go to the **Work > Work Items** page.

Step 2 (Optional) Work items can be displayed in three modes, which are

The tree view is selected by default. You can switch to a different view at any time.

List view

This view lists all work items that meet the conditions regardless of their parent-child relationships.

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.

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.

#### ----End

## Archiving or Unarchiving a Work Item

Project members can archive projects as required. Archived work items can be read by all members, but cannot be added, deleted, or modified.

- **Step 1** Go to the project details page.
- Step 2 Choose Work > Work Items.
- **Step 3** Click **Archive** of a work item.

#### □ NOTE

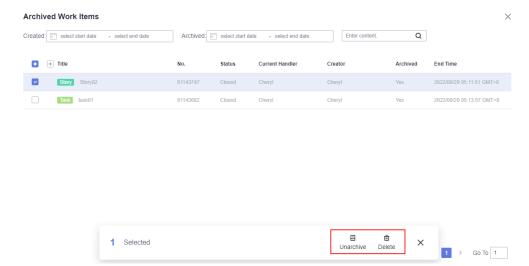
Only Closed or Rejected work item can be archived.

**Step 4** (Optional) View and manage the archived work items.

Click and select **Archived Work Items**.

1. Filter archived work items by creation or archiving time, or search them by ID or name.

2. Unarchive or delete work items.



3. You can **follow**, **clone**, **unarchive**, or **delete** the work items on the details page of archived work items.



#### ----End

#### 

- Archived work items are no longer displayed on the **Work Items**, **Sprints**, and **Plans** pages unless they are unarchived.
- Archived work items are also not displayed in the list of available work items to associate.

#### **Performing Batch Operations on Work Items**

You can edit, clone, or delete work items in batches. (Corresponding permissions are required.)

In the list or tree view, select multiple work items and an operation, and then complete the operations by following the on-screen prompts. The following batch operations are supported:

- Batch cloning
- Batch editing
- Batch deletion

Batch export

## **Setting Handler for Multiple Work Items**

Perform the following operations to set a same handler for multiple work items.

- **Step 1** Choose **Work > Work Items**, select multiple work items, and click **Edit**.
- Step 2 Click Add Field.
- **Step 3** Select **Current Handler** from the drop-down list in the **Field Name** column.
- **Step 4** Choose the corresponding handler from the **Field value** drop-down list, and click **Save**.

----End

## **Exporting Work Items in Batches**

Perform the following operations to export a work item list to the local computer as an Excel file.

- **Step 1** Go to the **Work > Work Items** page.
- **Step 2** Click in the upper right corner of the page.
- **Step 3** Click **Export** and set the required fields to export a work item list as an Excel file.

∩ NOTE

A maximum of 2000 work items can be exported.

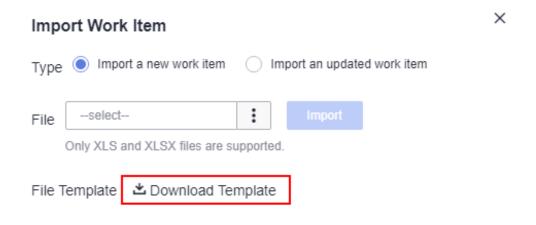
----End

## **Importing Work Items in Batches**

Use the specified Excel template to import your local work items to a project.

**Ⅲ** NOTE

- To obtain the Excel template, choose **Import** > **Download Template**.
- Open the downloaded Excel template and set the parameters based on the instructions.
- **Step 1** Go to the **Work > Work Items** page.
- **Step 2** Click in the upper right corner of the page.
- **Step 3** Click **Import** and import a work item list in the displayed **Import Work Item** dialog box.
  - 1. Download the template.



- 2. Fill the template based on the instructions.
- 3. Upload the template to import the work items.

----End

## **Filtering Work Items**

Perform the following operations to filter work items with different conditions. Enter a keyword in the search text box. If the target work item is a child work item, its parent work item is displayed. Expand the parent work item to view the child work item.

- **Step 1** Go to the **Work > Work Items** page.
- **Step 2** Click **All work items** above the work item list.
- **Step 3** Choose a filter to view the required work items.

----End

## **Setting Displayed Parameter Columns**

Perform the following operations to set parameter columns to be displayed.

- **Step 1** Go to the **Work > Work Items** page.
- **Step 2** Click **Field** in the upper right corner.

□ NOTE

By default, the **Creator** column is not displayed.

**Step 3** Select the fields to be displayed and click **OK**.

----End

## **Following Work Items**

In the list or tree view, click  $\stackrel{\frown}{\square}$  in the **Operation** column to follow a work item.

# 2.7 Viewing Work Item Details

On the work item details page, you can associate the work items, modify the handler and status, view the operation history of the work items, and add attachments to the work items.

- Commenting on Work Items
- Tagging Work Items
- Associating Work Items/Commit Records/Code Branches
- Viewing Code Commit Records of a Work Item
- Filling Person-Hours
- Viewing Operation History of a Work Item
- Adding an Attachment to a Work Item

## **Commenting on Work Items**

On Comments, you can comment on work items.

## **Tagging Work Items**

All project members can add tags to work items. Multiple tags can be added to a work item. The same tag can be added to different work items.

**Step 1** When creating or editing a work item, enter a tag name in the **Tag** field and press **Enter**.

The added tag is displayed in **Tag**.

**Step 2** View the existing tags on the work item details page.

----End

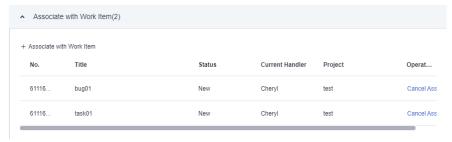
## **Associating Work Items/Commit Records/Code Branches**

Associate a work item with other work items, code commit records, and code branches.

- **Step 1** Go to the details page of a work item and click **Associated**.
- **Step 2** Complete association.
  - Associate with Work Item

Click **Associate with Work Item**. Then select the work items you want to associate.

The associated work items are displayed below the **Associate with Work Item** button.

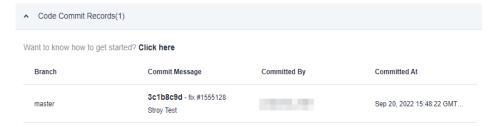


Associate code commit records

Expand the **Code Commit Records** area, and associate the desired commit records.

To associate a work item with code commit records, do as follows:

- a. In CodeArts Repo, set additional information about assigned work items that have not been completed or ended.
- b. After inserting work items, enter a description and click **OK**.
- c. View the associated commit records in the work item details.



Associate code branches

Expand the **Associated Code Branches** area to display the associated code branches.

To associate a work item with code branches, do as follows:

- a. Create a branch in CodeArts Repo and associate it with work items.
- b. View the associated code branches on the relevant work item details page.

----End

## Viewing Code Commit Records of a Work Item

The ID of a work item has been added in the commit message during code commit in CodeArts Repo. Perform the following operations to view the code commit records on the work item details page.

- **Step 1** Access the work item details page.
- Step 2 Click the Associated tab and view the Code Commit Records.

----End

## **Filling Person-Hours**

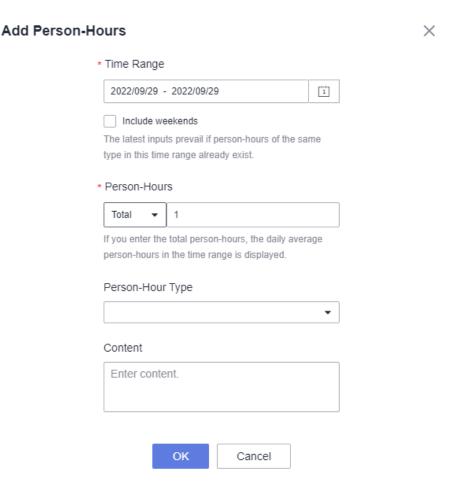
On the work item details page, creators, project managers, and test managers can fill in person-hours.

**Step 1** Go to the details page of a work item and click **Person-Hour Details**.



#### Step 2 Click Add Person-Hours.

**Step 3** Enter actual person-hours and click **OK**.



**Step 4** View the person-hours of each member.

Time Range	Actual Person	Submitted By
Sep 29, 2022	12.0	122
Sep 29, 2022	24.0	

**Step 5** (Optional) Choose **Work Items** > **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.

#### 

The total actual workload is the sum of all person-hours from different members. By default, this workload belongs to the current handler.



----End

## Viewing Operation History of a Work Item

Perform the following operations to view the operation history of a work item on the work item details page.

- **Step 1** Access the work item details page.
- Step 2 Click the Operation History tab.

----End

## Adding an Attachment to a Work Item

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 the associated project cloud.

- **Step 1** Access the page for creating or editing a work item.
- **Step 2** Click + in the **Attachment** box. The maximum size of attachments for a single work item is **50** MB.

----End

# 2.8 Managing Sprints

Sprints can be used to manage and track versions.

- On the **Sprints** page, you can create, edit, or delete a sprint, and create work items for a sprint.
- By default, the **Sprints** page displays all the work items in the current sprint.

The following topics describe common sprint operations:

- Accessing a Sprint
- Creating a Sprint
- Editing a Sprint
- Starting a Sprint
- Viewing a Sprint
- Planning a Sprint
- Deleting a Sprint

## **Prerequisites**

A project has been created. Ensure that you have the permissions to create, edit, and delete sprints.

## **Accessing a Sprint**

On the CodeArts home page, search for the target project and click the project name. The project details page is displayed. Choose **Work** > **Sprints**.

## **Creating a Sprint**

- **Step 1** Click + above the sprint list on the left.
- **Step 2** Set the **Sprint Name**, **Planned Duration**, and **Description**.
- **Step 3** After setting the parameters, click **OK**.

The sprints are displayed in descending order of time.

----End

## **Editing a Sprint**

- **Step 1** Click a sprint in the sprint list to view details.
- **Step 2** Click the operation icon in the upper right corner to set the displayed fields and display mode.
- **Step 3** Click of a sprint and choose **Edit**.

----End

## **Starting a Sprint**

Click in the sprint list and click **Start**.

∩ NOTE

Sprints containing no work items cannot be started.

## Viewing a Sprint

**Step 1** Choose **Work > Sprints**.

The display mode of work items can be set to **List**, **Tree**, and **Member**, or **Card** mode. The **List** mode is used by default.

- Step 2 Click iii iii in the upper right corner to change the display mode.
  - Click **to** switch to the **List** mode.
  - Click to switch to the **Tree** mode.
  - Click to switch to the **Card** mode.

- Click ito switch to the **Member** mode.
- Step 3 Click Statistics on the top to view more details, including work item statistics, burndown charts, and project member data.
- **Step 4** Click **Create Work Item** and set the work item type to **Story**, **Task**, or **Bug**. The child work items of stories can be **Task** or **Bug**.
- **Step 5** Click **Assigned to** or **Status** in the row that contains the target work item for a quick modification.

----End

## **Planning a Sprint**

You can perform the following operations to plan and manage sprints.

#### **Step 1** Choose **Work > Sprints**.

- View work items to be delivered in different sprints.
- Schedule work items to a sprint by drag-and-drop.
- **Step 2** Schedule an appropriate amount of work by dragging work items to a sprint or selecting a sprint in the **Sprint** column of the target work items.

----End

## **Deleting a Sprint**

Click in the sprint list and then choose **Delete**.

□ NOTE

The work items in a deleted sprint will be moved to the **Unplanned Work Items**.

# 2.9 Customizing Workflows

You can customize work item statuses and transition between statuses. And the project administrators can customize details of work items on the **Fields and Templates**, **Statuses and Transition**, **Common Fields**, and **Common Statuses** pages. For details, see **Customizing Work Items**.

# 2.10 Organizing Sprint Retrospective Meetings

## 2.10.1 Overview

A sprint retrospective meeting is held at the end of a sprint to make improvements. The meeting summarizes accomplishments and good practices and discusses solutions to known issues.

The following functions can be used for sprint retrospectives:

- Reports offer insights into sprint quality, progress, and workload to enable data-driven improvement.
- File hosting helps you store and share summary documents of a meeting for project members to read and download.

# 2.10.2 Viewing Statistic Reports

Scrum provides custom and system reports.

- Custom reports: You can define the measures, including **Story point**, **Expected person-hours**, **Actual person-hours**, and **Work item**.
- Preset recommendation reports are provided, that is, default template types in the system. You need to collect statistics based on project requirements. The preset recommendation report statistics types are as follows:
  - Overview
  - Person-Hour
  - Work Item Distribution
  - Sprint
  - Bug

#### **◯** NOTE

The burndown chart shows the operation records of only the started and ended work items. The records will update when ended work items turn to be in progress.

This section describes how to use reports.

- Navigation Path
- Using Custom Reports
- Using System Reports
  - Customizing Overview Reports
  - Customizing Person-Hour Reports
  - Customizing Work Item Distribution Reports
  - Customizing Sprint Report
  - Customizing Bug Report
- Adjusting Reports Layout

## **Navigation Path**

Go to the project details page, choose **Work > Statistic > Create Report**. You can use the reports displayed on the **Select Report Type** page to analyze the measures from several dimensions, including overview, person-hours, work item distribution, sprint, and bug.

## **Using Custom Reports**

You can customize the reports for analyzing the measures from several dimensions, including the **Story point**, **Expected person-hours**, **Actual person-hours**, and **Work item**.

- **Step 1** Choose **Work > Statistics**, click **Create Report**, and select **Custom Report** in the dialog box that is displayed.
- **Step 2** Click and edit the report title.
- **Step 3** Complete data settings or data filtering.
  - Perform the following data settings:
    - Analysis Dimension: Select the dimension to be analyzed.
    - Comparison Dimension: Select the dimension to be compared. The comparison dimension can be left blank. In this case, no comparison is made.
    - Measure: Select the dimension to be summed up.
  - Data filtering
    - a. Click **Add Filtering Criterion**, and select filter criteria.
    - b. Select values from each drop-down list.

#### 

 In brief, statistic reports calculate the Measure of each Analysis Dimension in each Comparison Dimension.

For example, set **Analysis Dimension** to **Handler**, **Comparison Dimension** to **Sprint**, and **Measure** to **Expected person-hour**. The expected person-hours of each handler in each sprint will be calculated.

- In data filtering, you can add different filter criteria to further filter statistic data. For example, if **Sprint** is selected, only work items in the specified sprint are filtered.
- **Step 4** After modifying the report parameters, click **Refresh**.
- **Step 5** Click **Save** to save the report.

Saved reports are displayed on the **Statistic** homepage for you to easily view and modify. You can perform the following operations on created reports.

• Choose to display reports as charts or lists, and zoom in to the full screen.



• More operations:

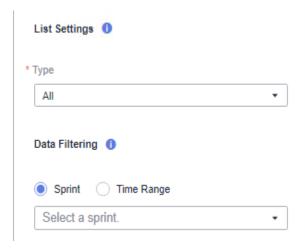
Export charts or lists and edit or delete reports.

#### ----End

## **Customizing Overview Reports**

You can use the **Work Item Trend** and **Work Item Completion** system reports to analyze work items.

- **Step 1** On the **Statistic** page, click **Create Report** and select the preset reports under the **Overview** tab as required.
- **Step 2** Click a report. For example, **Work Item Trend**.



**Step 3** Set the report parameters, including the **List Settings**, **Data Filtering**, and report title, then click **Save**.

Saved reports are displayed on the **Statistic** homepage.

----End

## **Customizing Person-Hour Reports**

You can use the **Person-Hours of Project Members** system report to analyze the person-hours of the project members.

**Step 1** On the **Statistic** page, click **Create Report** and select the preset reports under the **Person-Hour** tab as required.



- **Step 2** Click a report. For example, **Person-Hours of Project Members**. For details about how to set person-hours, see **Filling Person-Hours**.
- **Step 3** Set the report parameters, including the **List Settings**, **Data Filtering**, and report title, then click **Save**.

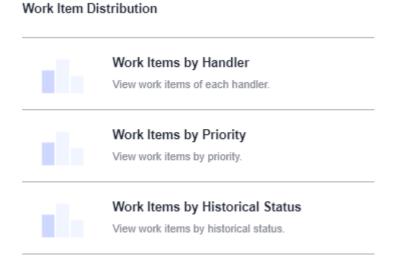
Saved reports are displayed on the **Statistic** homepage.

----End

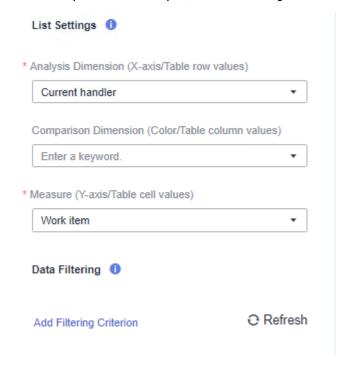
## **Customizing Work Item Distribution Reports**

You can use the **Work Items by Handler**, **Work Items by Priority**, and **Work Items by Historical Status** system reports to analyze the work item distribution.

**Step 1** On the **Statistic** page, click **Create Report** and select the preset reports under the **Work Item Distribution** tab as required.



**Step 2** Click a report. For example, **Work Item by Handler**.



**Step 3** Set the report parameters, including the **List Settings**, **Data Filtering**, and report title, then click **Save**.

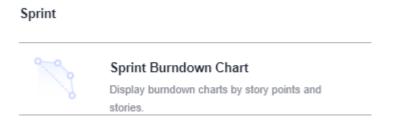
Saved reports are displayed on the **Statistic** homepage.

----End

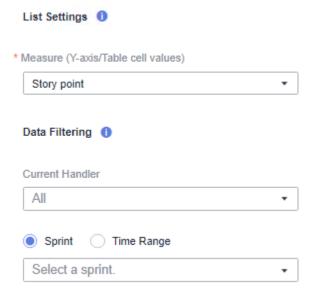
## **Customizing Sprint Report**

You can use the **Sprint Burndown Chart** system report to analyze the sprints.

**Step 1** On the **Statistic** page, click **Create Report** and select the preset reports under the **Sprint** tab as required.



**Step 2** Click a report. For example, **Sprint Burndown Chart**.



**Step 3** Set the report parameters, including the **List Settings**, **Data Filtering**, and report title, then click **Save**.

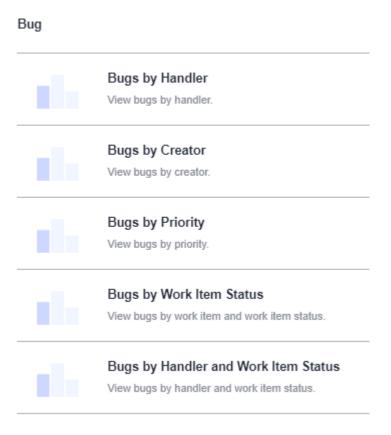
Saved reports are displayed on the **Statistic** homepage.

----End

# **Customizing Bug Report**

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 reports to analyze the work item bugs.

**Step 1** On the **Statistic** page, click **Create Report** and select the preset reports under the **Bug** tab as required.



- Step 2 Click a report. For example, Bug by Handler.
- **Step 3** Set the report parameters, including the **List Settings**, **Data Filtering**, and report title, then click **Save**.

Saved reports are displayed on the **Statistic** homepage.

----End

## **Adjusting Reports Layout**

On the **Statistic** homepage, you can select and drag a target report to adjust the layout.

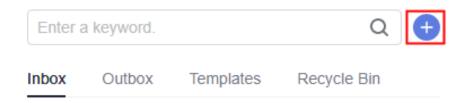
# 2.10.3 Sending a Report

The project reports need to be sent to the specified recipients.

## **Procedure**

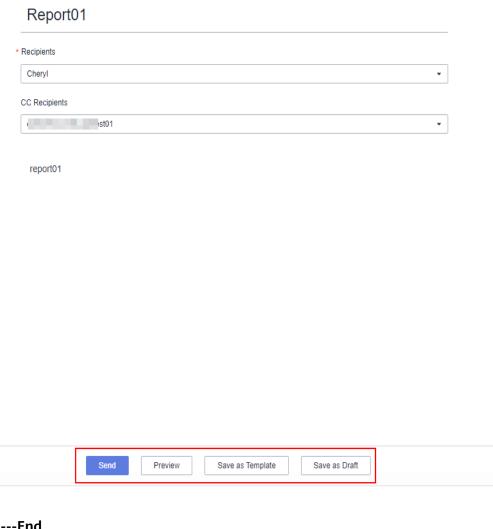
**Step 1** Go to the project details page and choose **Work** > **Reports**.

Step 2 Click .



- Step 3 Select a report template type, for example, Empty File, on the Select Report Template page.
- Step 4 Click OK.
- Step 5 Set the report title, Recipients, CC Recipients, and report content as required, then click Send.

You can also preview the template or save it as a template or draft.



----End

# 2.11 Configuring a Project

## 2.11.1 Overview

You can customize work items, project modules, domains, notifications, and permissions.

# 2.11.2 Customizing Work Items

Project administrators can customize details of work items on the **Fields and Templates**, **Statuses and Transition**, **Common Fields**, and **Common Statuses** pages.

This section describes the procedure taking the **Story** type in Scrum projects as an example.

- Accessing Custom Work Items
- Customizing Fields and Templates
- Customizing Statuses
- Customizing Transitions
- Specifying Handlers
- Setting Common Fields
- Setting Common Statuses

## **Accessing Custom Work Items**

Perform the following operations to access the project settings.

- **Step 1** Go to the project details page.
- **Step 2** Go to the **Settings** > **Project Settings** page. The story template page is displayed by default.

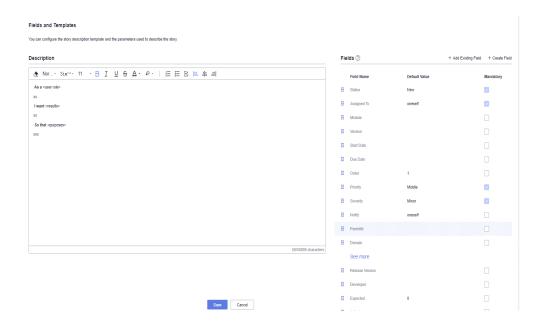
----End

## **Customizing Fields and Templates**

Add different types of fields for diverse scenarios.

You can customize work item templates and determine which fields are mandatory or optional. You can also save the customized template as the one that used by default when creating a project.

- **Step 1** Click into a project and choose **Settings** > **Project Settings**.
- **Step 2** The **Stories** > **Fields and Templates** page is displayed by default.
- **Step 3** Click **Edit Template**.
  - Set **Description** based on project requirements.
  - Set **Default Value** for system fields based on project requirements.
  - Set whether system fields are mandatory based on project requirements.
  - Click Add Existing Field or Create Field to add a field.



Step 4 Click Save.

#### □ NOTE

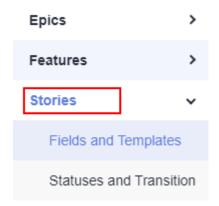
- You can also save the edited template as the one that used by default when creating a project by clicking **Save as Template** in the upper right corner.
  - Then the **Project Templates** page is displayed. For details about how to set project templates, see **Customizing a Template**.
- Click **View Template** in the upper right corner to view or **edit project templates**.

#### ----End

## **Customizing Statuses**

You can customize different types of work item statuses and adjust their order.

- **Step 1** Click into a project and choose **Settings** > **Project Settings**.
- **Step 2** The **Stories** page is displayed by default.



**Step 3** Click **Statuses and Transition**. By default, the **Statuses** page is displayed.

#### Statuses and Transitions **Transitions** Statuses Automation · You can add, delete, or drag to rearrange a status. • The above operations apply only to the story. Name Status Category® Description Operation New To do Doing Developing Ē 而 Resolved Doing Testing Doing 面 н 画 Rejected Done Closed Done + Add Existing Status + Create Status

**Step 4** You can add an existing status, create a new status, or delete a status.

- 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, and description, and click **Add**.
  - The created status is displayed on the **Statues** and **Transitions** tab pages.
  - Added statuses can be deleted.

#### 

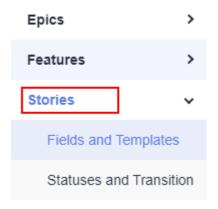
- The system statuses displayed on the Statuses and Transition page apply to all types of work items. Statuses added to a work item type can be used for other work item types.
- You can select different work items (such as Epics, Features or Stories) and add customized statuses for them.
- **Step 5** Press and hold it to rearrange the work item statuses by drag-and-drop.

----End

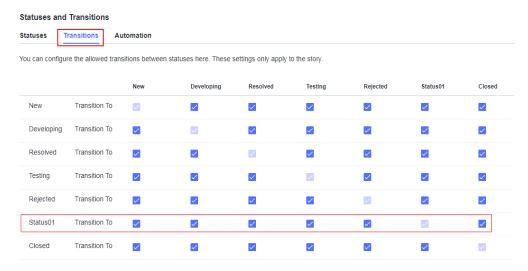
## **Customizing Transitions**

You can customize the statuses that a work item can be transitioned to. After it is configured, click **Status** column of the target work item on the **Work** > **Work Items** page to change the status.

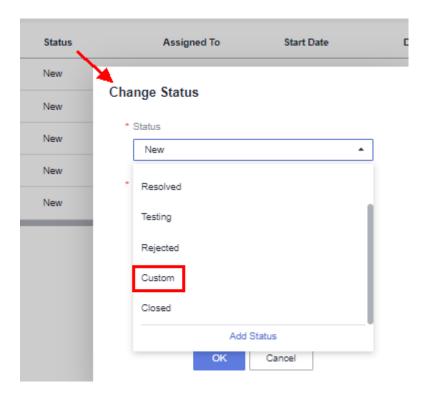
- **Step 1** Click into a project and choose **Settings** > **Project Settings**.
- **Step 2** The **Stories** page is displayed by default.



- **Step 3** Click **Statuses and Transition**. By default, the **Statuses** page is displayed.
- **Step 4** Click the **Transitions** tab.



- **Step 5** Select the allowed statuses and click **Save**.
- **Step 6** (Optional) Click **Status** column on the **Work > Work Items** page to view the statuses that a work item can be transitioned to.

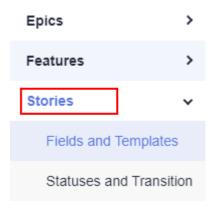


----End

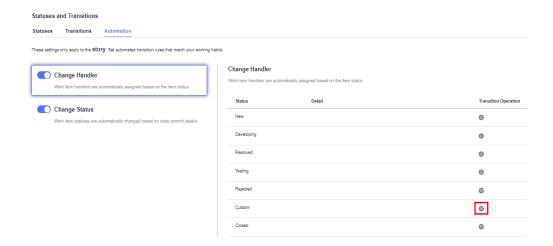
## **Specifying Handlers**

You can specify a handler for a work item in a specific status. When the status of a work item changes, the work item is automatically assigned to the corresponding handler.

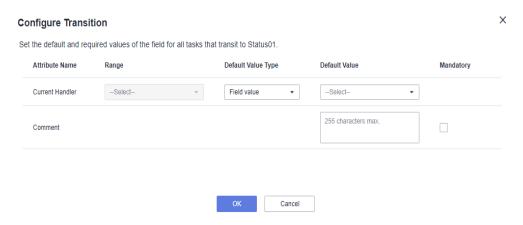
- **Step 1** Click into a project and choose **Settings** > **Project Settings**.
- **Step 2** The **Stories** page is displayed by default.



- **Step 3** Click **Statuses and Transition**. By default, the **Statuses** page is displayed.
- Step 4 Click the Automation tab.



**Step 5** Click in the row where a status is located.



**Step 6** In the **Configure Transition** dialog box displayed, specify the handler, and click **OK**.

----End

## **Setting Common Fields**

Customize common fields for work items.

- **Step 1** Click into a project and choose **Settings** > **Project Settings**.
- **Step 2** 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 copy existing common fields of other projects to the current project.
- Common fields can be modified or deleted.
- **Step 3** Add an existing common field (for example, **CommonField1**) to the work item template.

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

- In the project setting navigation pane, choose Stories > Fields and Templates.
- 2. Click **Edit Template** in the upper right corner to enter the editing state of the story work item template.
  - Click **Add Existing Field**, select **CommonField1** from the **Field Name** dropdown list, and click **Add** and save the template.
- 3. When you create a story work item on the **Work > Work Items** page of the project, the parameter **CommonField1** is automatically displayed.

#### **○** NOTE

- Customized common fields can be configured and used for all types of work items of the current project.
- The story work item template is used as an example. You can add work item templates of each type only once. The methods of adding common fields to work item templates of other types are the same.
- You can add a maximum of 25 common fields.

#### ----End

## **Setting Common Statuses**

Customize work item common statuses and use them in addition to the default ones.

- **Step 1** Click into a project and choose **Settings** > **Project Settings**.
- **Step 2** In the navigation pane, choose **Common Statuses**.

Click **Add Status**, and set the status information, including the name (for example, **CommonStatus1**), category, and description.

- The added status is displayed in the status list, including the name, description, category, and usage.
- Common statuses can be deleted.
- **Step 3** Add an existing common field (for example, **CommonStatus1**) to the work item status.

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

- In the navigation pane, choose Stories > Statuses and Transition.
   On the Statuses tab page, click Add Existing Status. In the Status dropdown list, select CommonStatus1 and click OK.
- 2. In the **Work > Work Items** list of the project, click the status name in the row where the Story work item is located to select **CommonStatus1**.

#### □ NOTE

- Customized common statuses can be configured and used for all types of work items of the current project.
- The New and Closed statuses cannot be deleted.
- You can add a maximum of 25 common statuses.

#### ----End

# 2.11.3 Setting Modules

- Modules can be added, edited, and deleted in a project.
- Submodules can be added.
- You can select a module for creating and editing a work item.

#### **Procedure**

- **Step 1** Go to the project details page.
- **Step 2** Choose **Settings** > **Project Settings** > **Modules**.

The **Modules** page is displayed.

Step 3 Click Add Module to create a module.

Enter the module name, description, and owner as required, then click OK.



- **Step 4** Click the buttons in the **Operation** column to **Edit**, **Add Child Module** to, or **Delete** a module.
  - Click to modify the module.
  - Click i to delete the module.
- **Step 5** On the page for creating or editing a work item, select a module in the **Module** field.
  - ----End

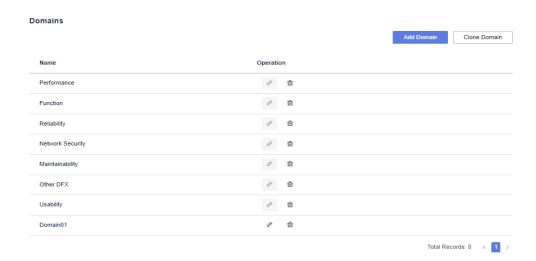
## 2.11.4 Setting Domains

- Domains can be added, edited, or deleted in a project.
- You can select a domain when creating and editing a work item.

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

## **Procedure**

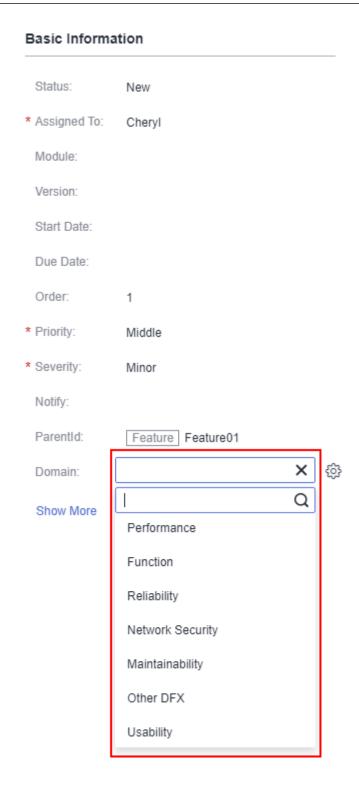
- **Step 1** Go to the project details page.
- **Step 2** Choose **Settings** > **Project Settings** > **Domains**.



- **Step 3** Click *∅* to modify the corresponding project domain.
  - □ NOTE

The system domain cannot be edited.

- **Step 4** Click is to delete the corresponding project domain.
- **Step 5** On the page for creating or editing a work item, select an added domain in the **Domain** field.



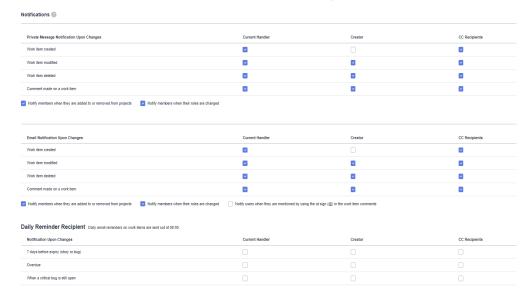
----End

# 2.11.5 Setting Notifications

- You can enable notifications to notify the project members when certain actions occur.
- Notifications can be sent via private messages or emails.

#### **Procedure**

- **Step 1** Go to the project details page and choose **Settings** > **Project Settings** > **Notifications**.
- Step 2 Enable notifications.
  - Select events 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.
  - You can set whether to enable the private message and/or email notifications.



**Step 3** Click in the upper right corner to view private messages.

#### 

A project member will also be notified if the member enables **Email Notifications**. You can configure your own email address after choosing **This Account Settings** > **Notifications**. Administrators can set email addresses for members using IAM.

----End

# 2.11.6 Setting Permissions

This section describes how to assign permissions for different roles in CodeArts Req. The default roles include the project creator, project manager, developer, test manager, tester, participant, and viewer. You can add new roles as required.

#### **Procedure**

- **Step 1** Go to the project details page and choose **Settings** > **Project** > **Permissions**.
- **Step 2** Click **Add Role** and set permissions for each work item to add a new role.

## □ NOTE

- Only the project creator, project manager, and test manager can add roles.
- You cannot modify the default permissions of project creators, project managers, test managers, and viewers.
- You can modify the permissions of developers, testers, O&M managers, participants, and newly added roles.

**Step 3** Modify the operation permissions of a role.

In the navigation tree on the left, click a role name. In the permission list on the right, select or deselect permission items of the role.

----End

# 3 Settings

# 3.1 Configuring Account Settings

This section describes the operations in **All Account Settings**, including setting project templates, setting project creators, and managing projects and members.

- Accessing Account Settings
- Project Template
- Setting a Project Creator
- Managing Projects and Members

## **Accessing Account Settings**

Hover over the account name in the upper right corner and click **All Account Settings**.

#### NOTICE

Carefully read the instructions displayed on the page before performing **All Account Settings**.

## **Project Template**

You can modify the customized templates for you to choose when creating a Scrum project. You can also replicate, delete, or create a project based on the templates. For details, see **Customizing a Template**.

## **Setting a Project Creator**

You can assign permissions for creating projects to any members.

**Step 1** On the **All Account Settings** page, choose **Project Creators**.

By default, Only some members can create projects. (Enterprise administrators can create projects regardless of this setting) is selected by default.

**Step 2** In the list of **Project Creators**, turn off the toggle in the **Status** column to remove the project creation permissions of a user.

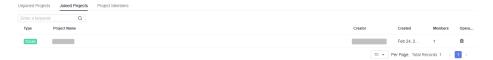
When **Status** is disabled for a user, the user cannot **create a project**.

----End

## **Managing Projects and Members**

You can view and modify the joined projects and projects that are not joined. You can also view and delete the project members.

- **Step 1** On the **All Account Settings** page, choose **Projects and Members**.
  - The **Unjoined Projects** tab is displayed by default when accessing the page of **Projects and Members**.
- **Step 2** Select the target projects and click **Join Project** in the **Projects and Members**. Newly added projects will be displayed on the **Joined Projects** tab page.
- **Step 3** On the **Joined Projects** tab page, click in the row that contains the target project to delete it.



**Step 4** Click the **Project Members** tab page to view members in all projects. Click in the row that contains the target members to delete them.

#### NOTICE

Deleted members cannot access the corresponding project.

----End

# 3.2 Basic Information

You can modify the basic information about a project, or delete or archive a project.

- Accessing the Basic Information Page
- Editing Basic Information
- Deleting a Project
- Archiving a Project

## Accessing the Basic Information Page

This section describes how to access the **Basic Information** page.

Go to a project details page, click **Settings** > **General** > **Basic Information**.

## **Editing Basic Information**

This section describes how to edit the basic information about a project.

- **Step 1** Go to the **Basic Information** page.
- **Step 2** Modify the **Project Name**, **Description**, and **Creator** as required.
- Step 3 Click Save.

□ NOTE

The project type and creation time cannot be modified.

----End

## **Deleting a Project**

This section describes how to delete a project.

On the **Basic Information** page, click **Delete Project**, enter the project name, and click **Delete**.

∩ NOTE

Exercise caution when deleting a project. Deleting a project will delete all resources in the project, including code repositories and build tasks. Deleted data cannot be recovered.

## **Archiving a Project**

On the **Basic Information** page, click **Archive**. If the project has been archived, you can click **Unarchive** to unarchive it. For details, see **Archiving or Unarchiving a Project**.

# 3.3 Managing Members

You can add members from your enterprise, other enterprise, and other projects to an existing project or a project being created, invite users to join the project, and remove members from projects.

- Accessing Member Management
- Adding Users from My Enterprise
- Inviting Users from Other Enterprises
- Adding Users from Other Projects
- Inviting a User to Join a Project
- Setting Project Roles
- Quitting a Project

## **Prerequisites**

- You have the permissions to manage projects.
- Only project administrators can add members to or remove members from projects.

- Project creators can delete project managers and test managers.
- Project managers can delete test managers.

## **Accessing Member Management**

**Step 1** On the CodeArts homepage, click into a project.

The project details page is displayed.

**Step 2** Choose **Settings** > **General** > **Members**.

On the **Member** page, you can set project members in either of the following ways:

- Adding members: The project administrator adds members to the project. For details, see Adding Users from My Enterprise, Inviting Users from Other Enterprises and Adding Users from Other Projects.
- Inviting members: After obtaining the project invitation information, users can join the project. For details, visit **Inviting a User to Join a Project**.

----End

## **Adding Users from My Enterprise**

**Users from My Enterprise** refers to the IAM users created on the IAM console, that is, users in your enterprise.

- **Step 1** Select the users to be added. All users in your enterprise are displayed by default.
- **Step 2** Click **Next**, specify project roles, and click **Save**.

----End

## **Inviting Users from Other Enterprises**

Users from other enterprises refer to IAM users under other tenants.

- 1. (Optional) If the inviter is another enterprise user, enable the function of inviting enterprise users so that other enterprise users can be added to the project.
  - Choose Enterprise Account Authorization > Granted Authorizations and click Authorize Enterprise Account.
- (Optional) To enable the current enterprise account to automatically accept invitations from other enterprise accounts, choose Enterprise Account Authorization > Received Authorizations on the CodeArts management console and activate the toggle button.
  - Enable: Manually accept the authorization.
  - Disable: The invitation is automatically accepted. By default, This function is disabled. If you want to manually accept authorization, enable the function as required.
- 3. On the **Project Members** tab page, click **Add Member** > **Users from Other Enterprises**.
- 4. Specify **Enterprise User** and **Username**.

#### 

If only other enterprise users themselves are added, set **Enterprise User** to be the same as **Username**.

5. Click **Invite**. After the users are invited successfully, users are displayed in the member list.

#### **Scenarios**

You can add users under other accounts to your project. Assume that company A is working with company B on a project, company B can add company A's employees to B's project without creating IAM users.

1. Click the username in the upper right corner of the page and choose CodeArts Console.

The console is displayed.

2. Choose **Enterprise Account Authorization**.

Click **Authorize Enterprise Account**, enter the name of the enterprise account to be authorized, and click **Authorize**.

- 3. On the **Project Members** tab page, click **Add Member**.
- 4. Select Users from Other Enterprises.

Enter the target enterprise account and name of an IAM user to be invited, and click **Invite**.

## **Adding Users from Other Projects**

You can quickly add project members by importing users from other projects.

- 1. On the **Project Members** tab page, click **Add Member** and select **Users from Other Projects**.
- 2. Select an existing project or enter a key word to search for a project.
- 3. Click **Import** to import members from other projects to the current project.

## Inviting a User to Join a Project

Only project members can view project information. Therefore, after creating an IAM user, you need to add the user to the project so that the user can work on the project. In addition to adding members (manually) to a project, you can invite users to join the project.

Currently, two methods are provided for joining a project: QR code and project URL. You can share the QR code or URL to the inviter. The inviter can scan the QR code or click the project URL to log in to Huawei Cloud and join the project.

**Step 1** (Optional) Set the review mode for inviting a user to join a project.

The inviter can join a project through a URL or QR code. The administrator can enable or disable the function of joining a project through invitation on the **Pending Review** tab page.

#### □ NOTE

- To ensure security, members invited by sharing the QR code or project link need to wait for the administrator's approval by default. The administrator can approve or reject the membership review.
- If there are users to be reviewed in the review list, the review cannot be closed. You need to review all users before closing the review.
- Enable: This function is enabled by default.
  - If the review function is enabled, after logging in to Huawei Cloud using the QR code or URL, you need to enter the application reason and submit the application. After the application is approved by the administrator on the pending approval tab page, you can join the project.
- Disable: If the review function is disabled, users can log in to Huawei Cloud using the QR code or URL and automatically join the project.
- **Step 2** Click **Invite via Links** to share the method provided in the **Invite Member** window to the invited member.

You can join a project on the **Invite Member** page in either of the following ways:

----End

## **Setting Project Roles**

Only project creators and project administrators (project managers and test managers) can set the following project roles for members:

- Project creators
- Project managers
- Developers
- Test managers
- Testers
- Participants
- Viewers

#### □ NOTE

You can also refer to **General Permissions Management** to add roles and assign permissions to them.

The procedure for setting project roles is as follows:

- **Step 1** On the project details page, choose **Settings** > **General** > **Members**.
- **Step 2** Click <sup>♠</sup> in the row where the member is located. The **Edit Member** dialog box is displayed.
- **Step 3** Set a role for the member and click **OK**.

Access permissions on services vary among project roles.

- **Step 4** (Optional) Edit roles of project members in batches.
  - 1. On the **Project Members** tab page, select target members from the project member list.

#### **◯** NOTE

You can set a user tag for each user to filter the users with the same tag in the  ${\bf User}$   ${\bf Tag}$  column.

2. Click Batch Edit.

Edit the roles in the dialog box displayed.

3. Click OK.

----End

## **Quitting a Project**

On the **Project Members** tab page, click in the row where you are located to quit a project.

#### ■ NOTE

- The button for quitting a project is visible only to the current user.
- A project member can quit the project if the member is no longer engaged in the project.
- After a member quit a project, the project creator is notified.

# 3.4 General Permissions Management

On the **Permissions** page, you can assign operation permissions to different roles and newly added roles. The permissions include the basic information editing and archiving, roles and permissions management, and members setting.

#### **Procedure**

- **Step 1** On the project details page, choose **Settings** > **General Settings** > **Permissions**.
- **Step 2** Choose a role on the left and assign permissions to it.
- **Step 3** Click **Add Role** to customize roles and permissions.

----End

# 4 Permissions Management

# 4.1 Creating a User and Granting Permissions

This section describes fine-grained permissions management for your CodeArts Req using IAM. With this, you can:

- Create IAM users for employees based on your enterprise's organizational structure. They will have their own security credentials for accessing CodeArts Req resources.
- Assign only the permissions required for users to perform a specific task.
- Entrust an account or cloud service to perform professional and efficient O&M on your CodeArts Req resources.

If your Huawei Cloud account does not need individual IAM users, then you may skip over this section.

Figure 4-1 describes the procedure for granting permissions.

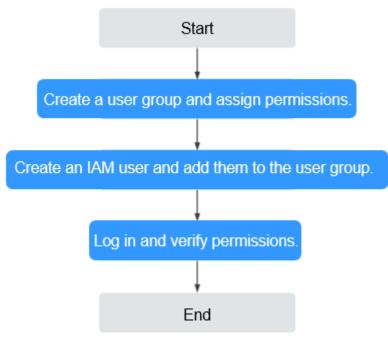
## **Prerequisite**

By default, IAM users do not have permission to set multiple projects. Only the main account default user can grant required permissions to IAM users using system policies.

Ensure that you understand the IAM system policies that you can use to add/delete permissions to/from the member accounts in CodeArts Req.

#### **Process Flow**

Figure 4-1 Process flow



#### Procedure

**Step 1** Create a user group and assign permissions to it.

On the IAM console, create a user group and assign system-defined policies to the user group, for example, **ProjectMan ConfigOperations**.

**Step 2** Create an IAM user and add them to the user group.

Create a user on the IAM console and add the user to the group created in **Step 1**.

**Step 3** Log in and verify permissions.

Log in to CodeArts as a newly created user. Hover over the account name in the upper right corner, click **All Account Settings** to verify the project setting permissions.

----End

# 4.2 Customizing Policies

CodeArts Req provides permissions enough for the account administrator to manage all CodeArts projects. You can also customize more fine-grained policies for granting permissions.

You can create custom policies in either of the following ways:

Visual editor: Select cloud services, actions, resources, and request conditions.
 This does not require knowledge of the policy syntax.

 JSON: Create a policy in JSON format or edit the JSON strings of an existing policy.

This section provides examples of common CodeArts Req custom policies.

## **Example Custom Policy**

#### • Example

To grant the permissions for querying projects, creators, and members. Select the fine-grained permissions shown in custom IAM policies.

Figure 4-2 JSON view

```
2
        "Version": "1.1",
 3 ₹
        "Statement": [
 4 +
                 "Effect": "Allow",
 5
                 "Action": [
 6+
 7
                     "projectmanconfig:project:query",
                     "projectmanconfig:memberManagement:list",
 8
                     "projectmanconfig:projectCreator:list"
 9
10
11
12
13
```

## **CodeArts Req Fine-grained Operation Permissions**

Table 4-1 lists all fine-grained operation permissions in CodeArts Req.

Table 4-1 Fine-grained operation permissions in CodeArts Req

Operation	Description	Detail
projectmanConfig: template:update	Set project templates	Grant this permission to modify project templates by choosing <b>Project Templates</b> .
projectmanConfig: template:delete	Delete project templates	Grant this permission to delete project templates by choosing <b>Project Templates</b> .
projectmanConfig: projectCreator:list	View permitted users who can create projects	Grant this permission to view the permitted users by choosing <b>Project Creators</b> .

Operation	Description	Detail
projectmanConfig: projectCreator:upd ate	Set member account permissions for creating projects	Grant this permission to set member accounts who have the permissions for creating projects by choosing <b>Project Creators</b> .
projectmanConfig: project:list	View projects under a tenant	Grant this permission to view all projects by choosing <b>Projects and Members</b> .
projectmanConfig: member:join	Join a project under a tenant	Grant this permission to join any projects by choosing <b>Projects and Members</b> . By default, a newly added member is assigned the <b>Project Manager</b> role.
projectmanConfig: project:delete	Delete projects	Grant this permission to delete projects by choosing <b>Projects and Members</b> .
projectmanConfig: memberManagem ent:list	View members of all projects	Grant this permission to view all members by choosing <b>Projects and Members</b> .
projectmanConfig: memberManagem ent:delete	Delete any project member under a tenant	Grant this permission to remove one or more project members by choosing <b>Projects and Members</b> .
projectmanConfig: systemSettingFiel d:set	Set a new work item creator	Grant this permission to set a user as the work item creator.
projectmanConfig: enterprise:bind	Bind an enterprise project	Grant this permission to bind a CodeArts project to an enterprise project when creating or upgrading enterprise projects.