CodeArts Req

Service Overview

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1 What Is CodeArts Req?

Product Overview

CodeArts Req is a requirement management and team collaboration service. Built on Huawei's years of practical R&D, it has multiple out-of-the-box requirement models and object types (requirements, bugs, and tasks) for any scenario. It supports multiple R&D modes such as IPD and DevOps. Functions include cross-project collaboration, baseline and change management, and custom reports.

- Req seamlessly integrates with other CodeArts services to provide full lifecycle software management and team collaboration.
- CodeArts Req presets multiple templates for Scrum, IPD-system device, and IPD-standalone software projects.
  - Scrum projects are a fit for agile software development teams who uphold Scrum methodologies and practices.
  - IPD-system device projects manage large-scale development of system devices with high-quality and efficiency based on structured processes and powerful cross-project collaboration.
  - IPD-standalone software projects manage large-scale development of standalone software with high quality and efficiency based on structured processes and powerful cross-project collaboration.
- CodeArts Req provides custom requirement models for you to define work item types, fields, states, workflows, and levels. These scalable functions enable you to tailor requirement templates based on enterprise and industry needs.
- Efficient, transparent, and visualized end-to-end project management is made possible due to the multiple basic features provided. These features include requirement management, bug management, sprint planning and management, feature tree management, custom workflows, progress tracking, statistical reports, and project document hosting.

  NOTE

  IPD project templates are available only in the AP-Singapore region.

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Features

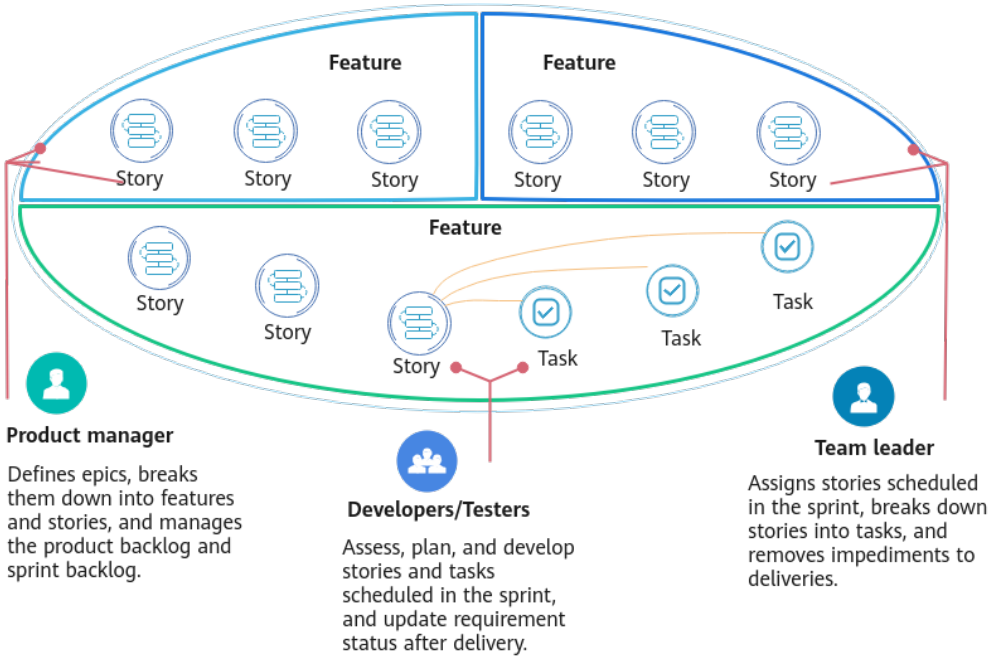
- **Requirement Planning and Breakdown**

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

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

  An abstract and vague epic is divided into multiple features which are further broken down into stories. A story, also called user story, is a minimum deliverable unit that is written from the customers' perspective and complies with the INVEST principle, which means that a story should be independent, negotiable, valuable, estimable, small, and testable. After the breakdown, stories are scheduled into one or more sprints based on the manpower of the development team and the estimated finished time of the epic requirement.

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

  Requirements can be planned and broken down using a mind map in CodeArts Req.

- **Sprint**

  A sprint-based agile software development process is composed of several repetitive cycles. It features continuous delivery and feedback collection, against the linear process of waterfall software development, where a product is delivered only at the end of the process.

  A product is released after each sprint. The feedback collected in a sprint will be used as references in the next sprint for the development team to continuously improve the software. Adopting the sprint model reduces risks and change costs and improves development efficiency.

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You can plan and manage sprints in CodeArts Req.

NOTE

Although both "iteration" and "sprint" refer to a repetitive process, there are some slight differences between them. "Iteration" is a common term used in different agile methodologies, whereas "sprint" is a Scrum term.

- **Custom Statistics Report**

  Data statistics and analysis are the basis for transparent and visualized software project management. However, time-consuming manual data collection and analysis are a real pain to many project managers.

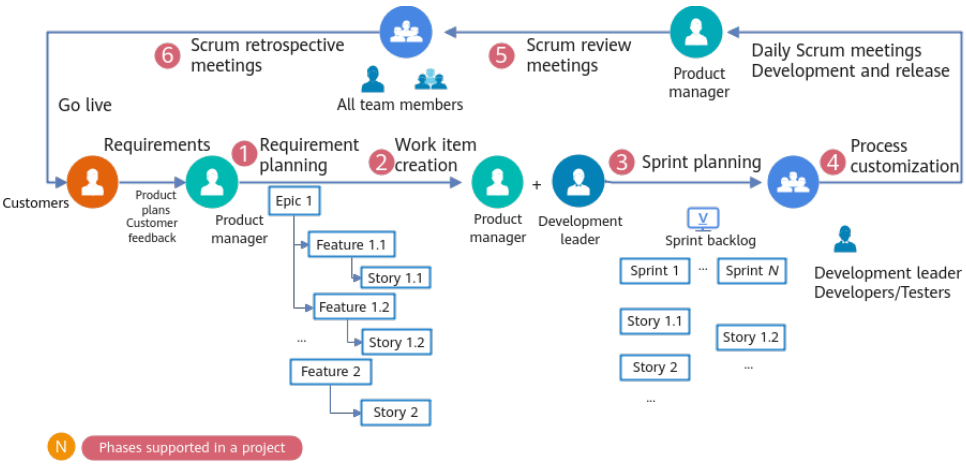
  CodeArts Req supports online data collection and analysis. You can use preset reports or create custom reports as required.

- **Document Hosting**

  Document hosting supports uploading documents in different formats. You can upload project summaries, architecture documents, and product requirement documents to the cloud, so that project members can access and obtain documents via a unified access address at any time. This facilitates information sharing throughout the team and the building of project experience.

Scrum Development Process

- Scrum is a popular agile development method. It enables continuous delivery through repetitive sprints, which are cycles of closed-loop software development from user requirement 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.



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2 Advantages

Professional Methodologies Built on Practice

- Agile and Lean project management methodologies are used as framework.
- The Scrum project template is offered to accommodate standard software development scenarios.
- Requirement planning and breaking down under the Scrum model are supported.
- Sprint plans and timelines present a clear view of project progress.

Built-in R&D Modes

NOTE

IPD projects are available only in the AP-Singapore region.

CodeArts Req absorbs IPD requirement management concepts and practices. It provides various out-of-the-box scenario-based requirement templates to support R&D modes such as IPD, DevOps agile delivery, and Lean Kanban.

- IPD system device
- IPD standalone software
- Scrum

Large-Scale and Efficient Collaboration Across Projects

NOTE

IPD projects are available only in the AP-Singapore region.

CodeArts Req provides powerful cross-project requirement breakdown and collaboration capabilities for large R&D teams to accelerate information transfer and improve efficiency.

- Raw requirements can be assigned across projects.
- Bugs can be assigned across projects.
- R&D requirements can be assigned across projects.
- Tasks can be assigned across projects.

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Various Customization Options

- Custom requirement and bug templates.
- Custom settings for requirement and bug workflows, transition direction, and owners for automated transition.
- Custom requirement and bug fields.
- Custom modules and domains.
- Custom roles and permissions.
- Custom notifications and overdue reminders.
- Custom work items, such as risk management and ticket management.
- Custom associations between work items.
- Custom work item hierarchies.
- Custom requirement function pages.
- Custom requirement models.

All-Round Requirement Tracing

Breaks down data silos and connects code, cases, and bugs generated in requirement development to form an all-round traceable relationship network.

- Requirement work items
- Bugs
- Test cases
- Code committing records
- Code branches

Mind Maps

You can plan requirements of agile Scrum projects in a unified manner and break down the plan layer by layer (**Epic > Feature > Story > Task**) in mind maps to ensure implementation of an organization's strategic plans.

- You can create multiple mind maps.
- You can break down sub-requirements using mind maps.
- You can export images by one click.

Scenario- and Role-specific Data Analysis

- Custom reports for project managers to compare and analyze data in multiple dimensions.
- Chart and table downloads.

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3 Use Cases

Internet Enterprises

- Frequent market changes demand quick responses from Internet enterprises.
- CodeArts Req upholds the agile development methodologies and facilitates continuous delivery for Internet enterprises. They can implement iterative software development and quickly and continuously release services to meet changing user needs.
- Internet enterprises can either use CodeArts Req independently or adopt the entire DevOps platform. The latter allows them to manage the entire application development lifecycle from requirement planning to service release, improving end-to-end development efficiency.

IPD R&D

NOTE

IPD R&D is available only in the AP-Singapore region.

- Large-scale and complex product R&D, large-scale R&D teams, cross-project and cross-region collaboration, high requirements on product quality, strong process control, many decision-making points, and long delivery period ranging from 2 to 6 months. Examples: communications equipment, automobiles, Enterprise Resource Planning (ERP) software, and network management software.
- IPD-system device and IPD-standalone software requirement models support cross-project collaboration, baseline and change reviews, and end-to-end traceability. They can be used to manage projects to achieve efficient collaboration and business growth across the enterprise.

ISVs

- It is always a challenge for independent software vendors (ISVs) to ensure efficient team collaboration when developers are located in different offices and using different development tools and environments. ISVs also need to tackle rapidly changing customer requirements and frequent reworks with faster responses.
- CodeArts Req enables simple but efficient collaboration and offers cloud-based file hosting where documents can be centrally managed, so ISVs can enhance team collaboration, sharing, and consistency management.

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Traditional Software Enterprises

- For traditional software enterprises who are transforming toward an Internet Plus model, insufficient knowledge of the Internet industry and gaps between the new and existing management and delivery modes often result in a drop in software development throughput on the initial stage.
- CodeArts Req offers requirement and bug management and tracking, and agile sprint management. It assists traditional software enterprises in mastering the principles and practice of agile, iterative delivery.

  Powerful customization is also available in CodeArts Req. Traditional software enterprises can tailor workflows for the transition phase to ensure smooth transformation.

Software Outsourcing Enterprises

- Software outsourcing enterprises often cannot keep a real-time track of product roadmaps and project progress since they do not have a software development management platform that can provide insights into project data.

  Product quality can be verified only after delivery, and it is challenging for them to meet with ever-changing requirements and high quality standard of the contracting parties.
- Powerful data reporting and analysis of Req allow software outsourcing enterprises to monitor the project progress, risks, and quality in real time.

  They can also practice the agile, iterative software development model for continuous delivery and user feedback collection, so that risks can be detected as soon as possible instead of in the final delivery.

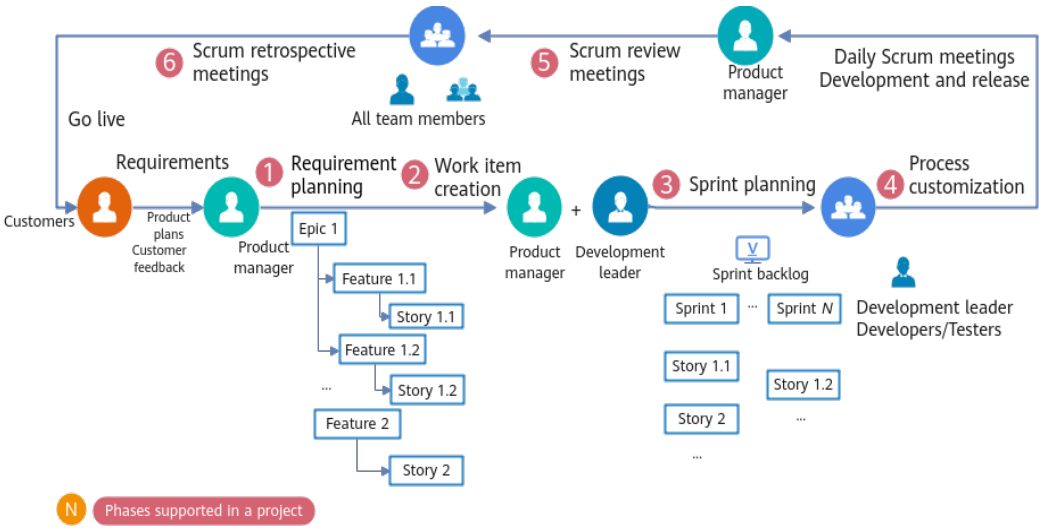
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4 Functions

This section outlines the main functions supported by CodeArts Req. For detailed information on regional availability of each function, you can refer to the console.

Requirement Management

CodeArts Req (formerly ProjectMan) is a project management and collaboration service for agile software development teams, including multi-project management, agile sprint management, requirement management, defect tracking, document management, and chart customization.



For more information, see **What Is CodeArts Req?**.

Permission Management

CodeArts Req uses Identity and Access Management (IAM) to centrally manage permissions for multiple projects of a tenant. In a single project, permissions are managed based on specific project settings. There are two types of permissions managed in CodeArts Req: cloud-service-level permissions and project-level permissions.

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- Cloud service–level permissions are configured using IAM. IAM is free of charge. You pay only for the resources in your account.
- Project-level permissions are configured using CodeArts Req.

For more information, see **Permission Management**.

Tenant Settings

You can import IAM users in batches, set project templates and creators, and manage projects and members. For more information, refer to **Tenant Settings**.

Various Customization Options

Track the process and measure projects with more than 10 preset statistics reports.

Customize the project process and send reports.

Manage project members, roles, and permissions.

Be notified of work item changes via internal messages or emails.

Customize module names and owners. The module owner is also the default handler of the work item under the module.

Select the domain the architecture is designed for.

Customize work item flows, statuses, and transitions.

Associate code commits with work items. When the code is committed, the associated work items are automatically closed.

Save project settings as a template for other projects to reuse.

General Settings

General settings cover basic information, members, and general permissions.

- You can modify the project information, including the name, description, and creator, and delete and archive projects.
- You can add members from your enterprise or other projects to an existing project or a project being created, and remove members from projects.
- 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.

For more information, see **General Settings Functions**.

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5 Features

5.1 Multiple Built-in IPD Requirement Models

NOTE

IPD requirement models are available only in the AP-Singapore region.

Based on Huawei Integrated Product Development (IPD) requirement management concepts and practices, CodeArts Req provides multiple out-of-the-box scenario-based requirement templates and supports multiple R&D modes such as IPD R&D and DevOps agile delivery. You can select a project template based on the enterprise scale, service requirements, and application scenarios.

Various project templates bridge the gap between projects and products.

1. IPD-system device projects manage large-scale development of system devices with high-quality and efficiency based on structured processes and powerful cross-project collaboration.
   - Application scenarios: Complex products with embedded software that evolves with hardware. Examples: communications devices, automobiles, home appliances, and consumer electronics.
   - Features: software and hardware adaptation involved, fixed product requirements, industry standards available, long development period (6–9 months), high requirements on product quality and stability, many decisions to make, and mainly waterfall development. IPD-system device projects manage large-scale development of system devices with high-quality and efficiency based on structured processes and powerful cross-project collaboration.
   - Requirement management is the core process of Huawei integrated product development (IPD). This template provides a structured R&D process for system device projects based on best practices of product requirement management. You can manage raw requirements and feature trees, break down and assign requirements, set baselines, make changes, and enjoy cross-project collaboration. The requirement model is as follows:

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2. IPD-standalone software projects manage large-scale development of standalone software with high quality and efficiency based on structured processes and powerful cross-project collaboration.
   - IT application and platform software with standard hardware or independent of dedicated hardware. Examples: ERP, CRM, databases, and network management software.
   - R&D features: Independent software deployment and sales, frequent requirement changes, quick planning, agile development, agile release, and short delivery period (2–3 months or faster). IPD-standalone software projects manage large-scale software development with high quality and efficiency through structured processes and powerful cross-project collaboration.
   - Requirement management is the core process of Huawei integrated product development (IPD). This template provides a structured R&D process for standalone software projects based on best practices of product requirement management. You can manage raw requirements and feature trees, break down and assign requirements, set baselines, make changes, and enjoy cross-project collaboration. The requirement model is as follows:

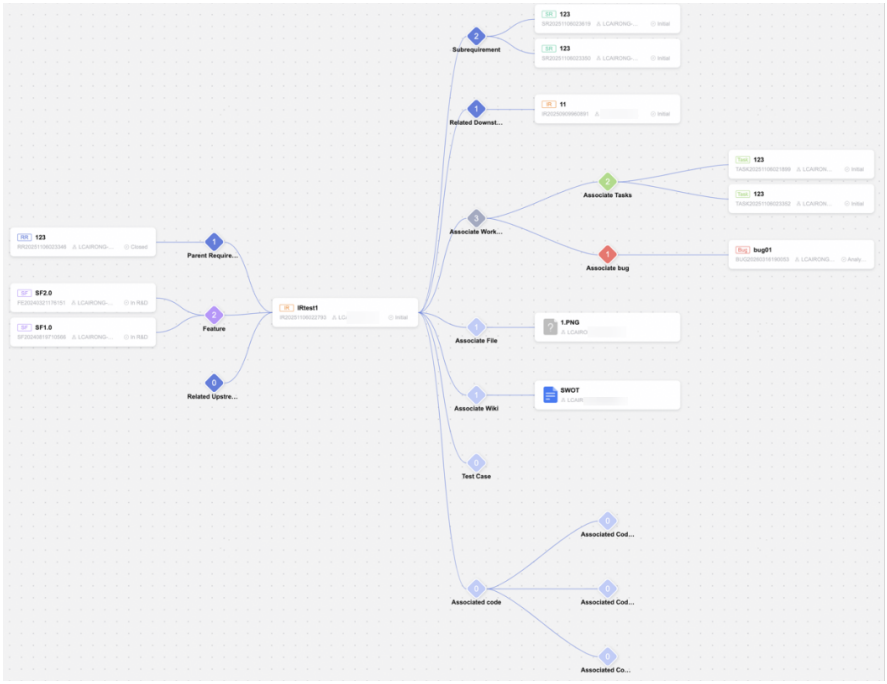
5.2 E2E Traceability

The later risks are identified, the higher the rectification costs and the greater the negative impact. By breaking down data silos in the requirement process and connecting associated work items, parent-child requirements, bugs, code, cases, and bugs, CodeArts Req creates a traceable relationship network. Risks are identified in advance and problems are visualized in real time for high-quality R&D.

- The following shows an example.

  Figure 5-1 E2E traceability

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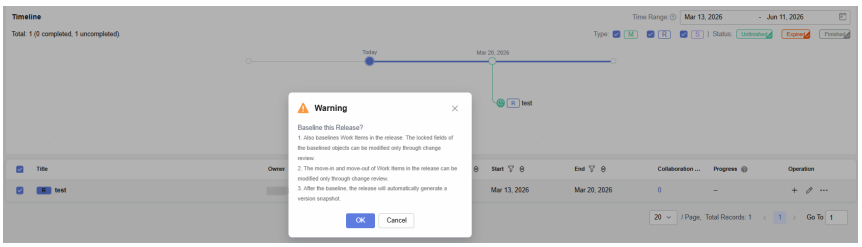
5.3 Baseline Management and Change Review

> **NOTE**
>
> IPD projects are available only in the AP-Singapore region. Baseline management and change review are available in IPD projects.

A product goes through a complex R&D process from planning to release. The IPD method of Req manages these processes by version baselines, change requests of controlled fields, change reviews, and change management. Baseline changes must reach specified gate thresholds before going to the next stage to keep teams on the right track.

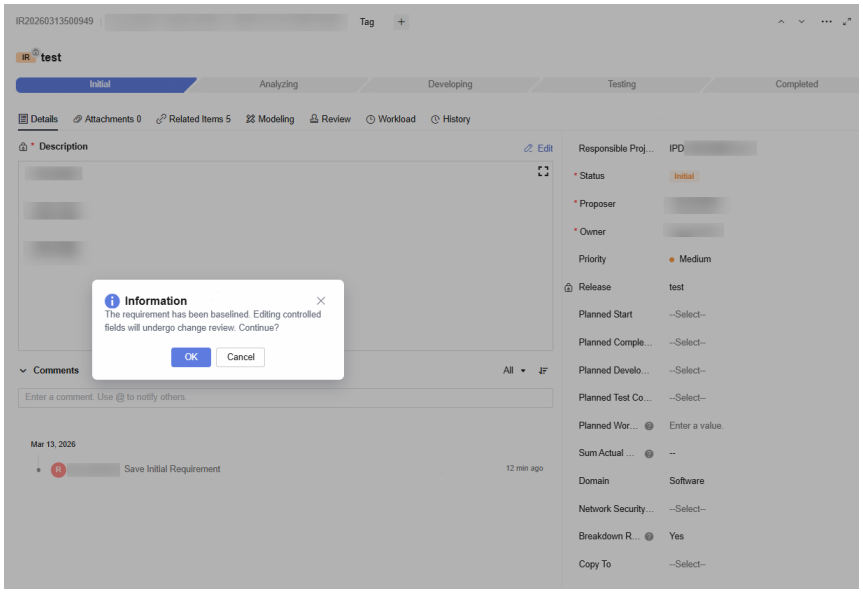
- Information of baselined releases and sprints cannot be modified, including the current release/sprint title, description, planned start time, planned end time, and planned workloads. The R&D requirements under the current release/sprint are baselined synchronously.
- To change baselined requirements, perform another round of change review for them.
- The following shows an example.

Figure 5-2 Baselining a release plan



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Figure 5-3 Editing baselined fields



5.4 Efficient Cross-Project Requirement Collaboration

NOTE

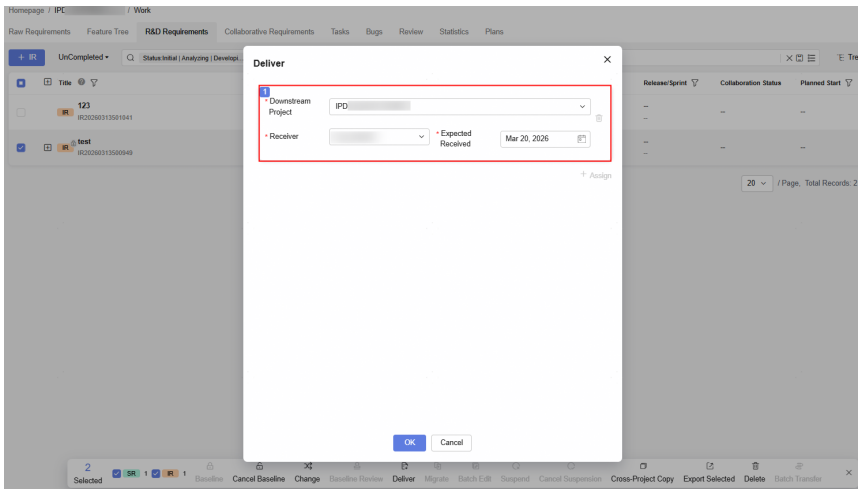
IPD projects are available only in the AP-Singapore region.

Large-scale product development involves exceptionally increasing costs of collaboration and project communication. Connecting projects, people, and work items like a mesh means that teams are no longer restrained by organization levels and function domains when communicating and exchanging information.

- Assign R&D requirements to downstream projects.
- Assign raw requirements to other projects.
- Assign bugs to other projects.

The following shows an example.

Figure 5-4 Cross-project requirement assignment



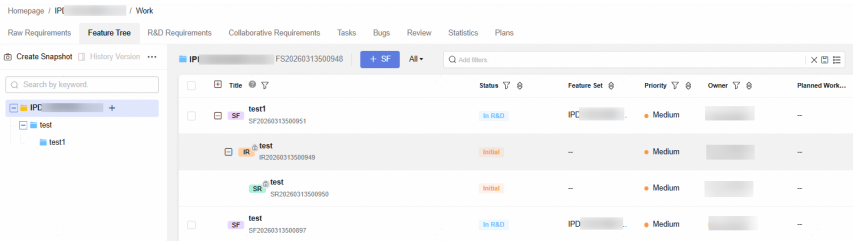
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5.5 System Feature Management

System features are the core assets of a product and are always iterating. Full management includes a feature tree to better manage system features, prevent asset loss, and enable fast cross-generation system feature inheritance and development.

- SFs are the key to solving problems (PBs). System features are a collection of major selling points or highlights of a product. Each system feature is an end-to-end solution that can meet specific business value requirements of customers. Some system features can be sold separately via license control.
- Req provides different system feature templates based on the work item types. For example, for a system feature, you can describe its background, value, and details.
- System feature management includes the system feature tree and system features.

Figure 5-5 Feature tree management



5.6 Customers' Raw Requirements Management

NOTE

IPD projects are available only in the AP-Singapore region. Customer raw requirement management is available in IPD projects.

Successful products are made to meet customer needs. CodeArts Req breaks free from the traditional limitation of requirement management tools that only function during the development phase. It also covers customer and market demands, providing a complete workflow for collecting customer requirements, making value-based requirement decisions, and delivery and acceptance. This gives real-time visibility into requirement progress and customer activity, accelerating market requirement flow by 70%.

A raw requirement (RR) is an original problem or need submitted by internal or external customers, described from their perspective. Customer requirements are a type of RR. They need to be analyzed and reviewed by the RMT/RAT.

- IPD requirement management is the core process of IPD. Req provides requirement templates and presets the best practices for requirement management. It provides a structured requirement development process for system devices. The main process includes raw requirement submission, analysis, planning, implementation, delivery, acceptance, and closure.

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- You can create RRs with the IPD templates and describe the requirement background, requirement value, and requirement details.
- Raw requirements can be broken down into initial requirements.

5.7 Bug Full Lifecycle Management

A bug has its own lifecycle, just like the software. The more accurate the defect location, the less the repair cost and negative impact. CodeArts Req streamlines the monitoring chain which includes bug discovery and raising, developers' analysis, locating, and rectification, and testers' testing and acceptance, well managing a bug from generation to closure. The team can effectively and accurately track, associate, and manage bugs for a high-quality delivery based on the data generated in bug lifecycle and real-time risk warning.

The bug full lifecycle management process is as follows:

1. Testers find bugs and submit bug tickets.
2. The owner identifies the cause of the bug and rectifies it in time according to the version plan.
3. Testers perform regression tests on bug tickets based on the latest functions and perform acceptance tests.
4. The project manager views the bug measurement data.
5. The owner views the associated items of the bug ticket for tracing.

5.8 Efficient Cross-Organization Collaboration for Bug Tracking and Management

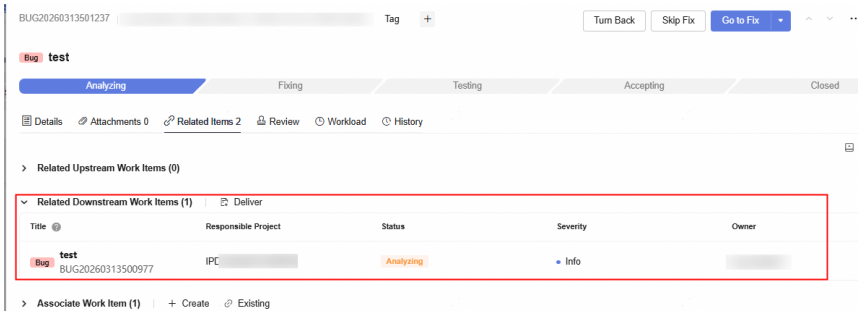
NOTE

IPD projects are available only in the AP-Singapore region. Cross-organization collaboration of bugs is available in IPD projects.

Based on Huawei's philosophies and experience of collaborative development by multiple departments, CodeArts Req lets tickets be submitted and handled across teams and projects for accurate collaborative bug tracking. This function benefits large-scale product development, especially in scenarios where teams or modules depend on each other and demand no bug throughout the process.

Bugs can be assigned to other projects. The following shows an example.

Figure 5-6 Viewing associated downstream bugs



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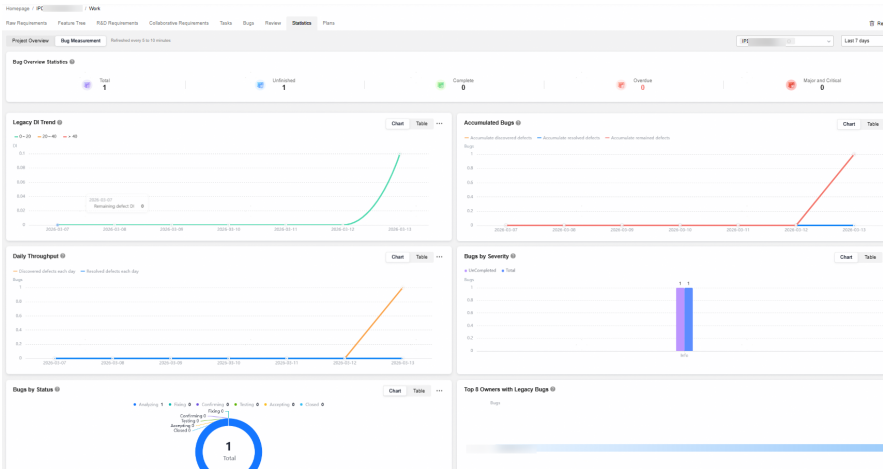
After a bug is assigned, you can view the bug handling status in **Responsible Project**.

5.9 Bug Trend Analysis and Quality Measurement

CodeArts Req possesses multiple built-in data analysis functions and unique bug monitoring metrics which include debugging efficiency, legacy DI trend, and accumulated bugs. The team can perform in-depth data analysis relating to bug trend, severity, and resolution time during product development and delivery. The bug handling process is clear and visible, enabling the team to quickly identify risks, master fixes, and detects weaknesses in each phase.

The bug measurement view displays the following information by default.

Figure 5-7 Bug measurement



- Bug overview statistics: Shows total numbers of bugs at the current time, whose statuses are **Processing**, **Complete**, **Overdue**, and **Severe+**.
- Legacy DI trend: known bug DI trend in a specified time range
- Accumulated bugs: trend curves of accumulated bugs found, fixed, and known
- Bug daily throughput: the numbers of bugs found and fixed per day in a specified time range
- Bug distribution by severity: the numbers of bugs by severity (info, minor, major, and critical)
- Bug distribution by status: the numbers of bugs in various statuses (**Analyzing**, **Fixing**, **Testing**, **Accepting**, and **Closed**)
- Top 8 owners with legacy bugs: ranks the top 8 owners with known bugs at the current time

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5.10 Traceable Fixing Process

NOTE

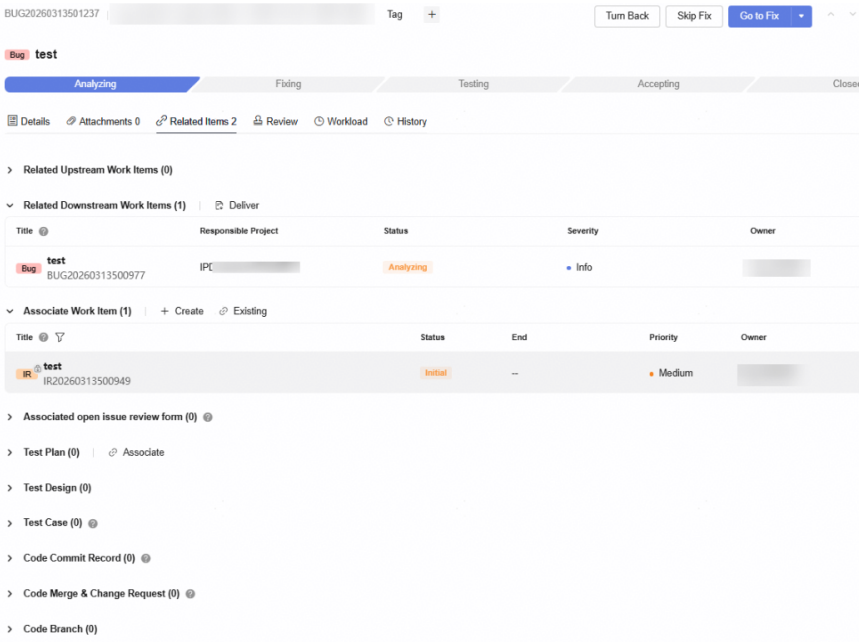
IPD projects are available only in the AP-Singapore region. Complete tracing of the bug rectification process is available in IPD projects.

Much testing and development are involved in bug finding and fixing. CodeArts Req covers all data in the bug workflow, with E2E traceability for bugs, cases, and code. In this way, a bug can be traced from generation to closure.

Bugs can be associated with work items, test plans, test cases, code submission records, and code branches. You can view the bug handling process based on the association information without missing any phases for traceable fixing processes.

The following shows an example.

Figure 5-8 Related items of a bug



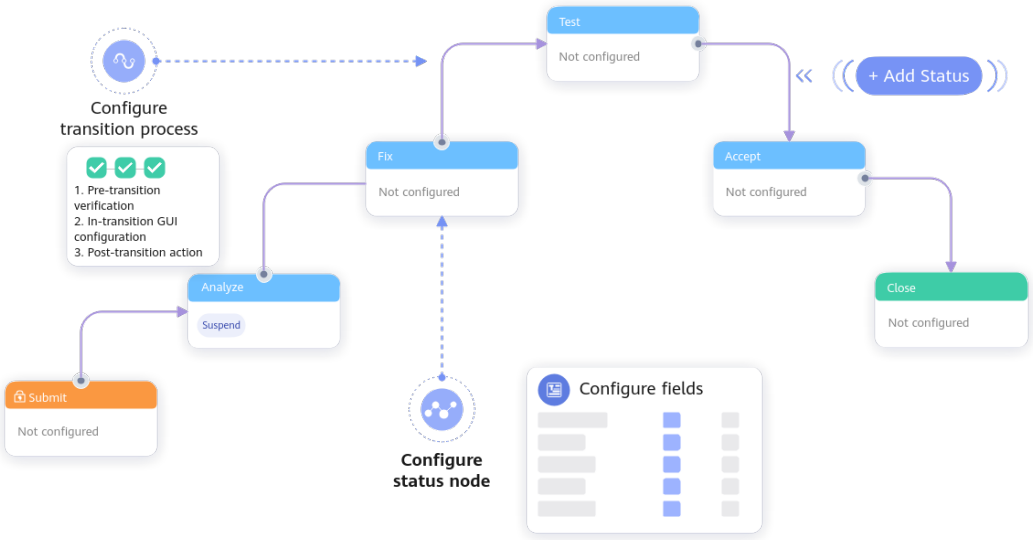
5.11 Customizable Fixing Process

NOTE

IPD projects are available only in the AP-Singapore region. Fixing process customization is available in IPD projects.

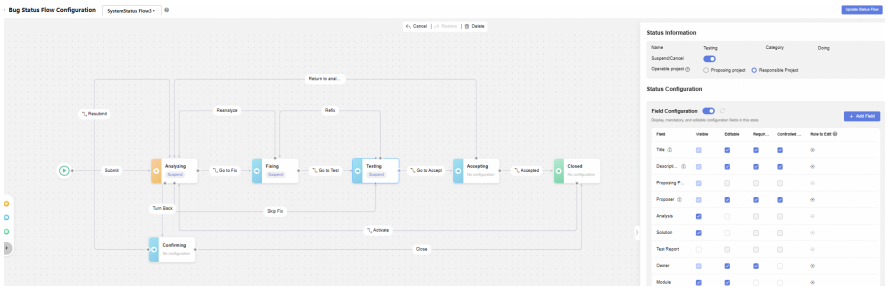
Teams have respective requirements on bug operations in different scenarios. To adapt to different business processes and management requirements, CodeArts Req offers a visual process canvas to customize bug fixing workflows. You can efficiently manage bugs across projects and teams for a better product quality and user experience.

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Currently, the system provides some status flows by default, such as analyzing, fixing, testing, and closed. You can also customize the bug status and transition line. And the customized statuses will be applied to the bug process. You can also perform the following operations:

Figure 5-9 Bug status flow



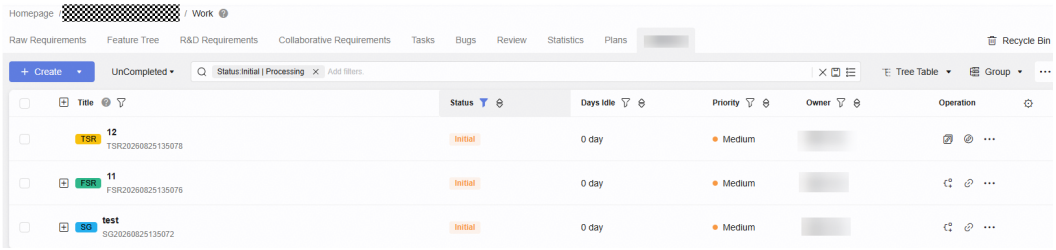
- Customize the status and transition line names.
- Add or delete statuses and transfer lines.
- View the status and transition line information.

5.12 Flexible Configuration of Requirement Models

CodeArts Req presets multiple requirement models, including those for IPD system devices, IPD standalone software, and IPD self-operated software/cloud services. Projects created using these models come with predefined requirement types and parent-child relationships tailored to IPD and agile processes. Beyond these, many industries and customers have specific management needs, such as milestone tracking, WBS task breakdown, risk management, and ticket management. To address these diverse requirements, CodeArts Req allows users to customize requirement models, enabling more flexible and efficient project management across various sectors.

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Users can flexibly create project management templates based on work item types, fields, workflow statuses, and associations. These templates are aligned with management needs, improving requirement management efficiency.



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6 Security

6.1 Authentication and Access Control

Authentication

You can access CodeArts Req using its user interface, APIs, and SDKs. Regardless of the access mode, your requests are sent through REST APIs provided by CodeArts Req.

CodeArts Req APIs can be accessed only after requests are authenticated.

CodeArts Req supports two authentication modes:

- Token: Requests are authenticated using tokens. By default, token authentication is required to access the CodeArts Req console.
- AK/SK: Requests are encrypted using an AK/SK. This method is recommended because it provides higher security than token-based authentication.

For more authentication details and how to obtain tokens and signatures, see **Authentication**.

Access Control

CodeArts Req controls operations by:

- Role permission control: Roles and permissions are required for adding, deleting, modifying, and querying objects such as work items, sprints, plans, reports, documents, and custom settings of CodeArts Req.
- Fine-grained permission control: Operations such as querying tenant projects, setting project creators, and managing tenant project member lists require fine-grained authorization from Identity and Access Management (IAM).

6.2 Data Protection Technologies

CodeArts Req takes different methods and features to keep data secure and reliable.

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Table 6-1 CodeArts Req data protection methods and features

Measure	Description	Reference
Transmission encryption (HTTPS)	To secure data transmission, CodeArts Req uses HTTPS.	**Making an API Request**
Personal data protection	CodeArts Req controls access to data and records logs for operations performed on the data.	**Permission Management**
Privacy protection	CodeArts Req does not consume or store sensitive user data.	-
Data destruction	When you delete service data or deregister your account: • Non-key data is physically deleted in real time. • Key data will be marked as soft deleted and then physically deleted seven days later.	-

6.3 Auditing and Logs

Auditing

Cloud Trace Service (CTS) records operations on the cloud resources in your account. You can use the logs generated by CTS to perform security analysis, track resource changes, audit compliance, and locate faults.

After you enable CTS and configure a tracker, CTS can record management and data traces of CodeArts Req for auditing.

For details about how to enable and configure CTS, see **Enabling CTS**.

Logs

Log Tank Service (LTS) provides one-stop log collection, log search in seconds, massive log storage, log structuring and transfer. Graphical application O&M, visual analysis of network logs, and operation analysis make organization tracking easier.

For analysis, CodeArts Req records system running logs to LTS in real time and stores the logs for three days. For details, see **Getting Started with LTS**.

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6.4 Service Resilience

CodeArts Req supports host-layer intrusion detection, application attack defense, and Anti-DDoS traffic scrubbing and protection.

Full backup is supported for data. Network and service isolation protects key assets through authentication.

The service offers overload control for incoming traffic and cross-AZ active-active DR for AZ-level service monitoring, fault identification, and switchover. It can rapidly recover from attacks, ensuring high resilience and availability.

6.5 Certificates

System Certification/Audit

Huawei Cloud has passed multiple security compliance certifications and audits (such as ISO, SOC, and PCI) from authoritative regional and international organizations. You can **apply for and download** the certificates or reports you want.

Resource Center

Huawei Cloud also provides a variety of resources to help you meet compliance requirements. For details, see **Resource Center**.

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7 Permission Management

CodeArts Req uses IAM to centrally manage permissions for multiple projects of a tenant. In a single project, permissions are managed based on specific project settings. There are two types of permissions managed in CodeArts Req: cloud service-level permissions and project-level permissions.

- Cloud-service-level permissions are configured using IAM. For more information about IAM, see **IAM Service Overview**.
- Project-level permissions are configured using CodeArts Req.

Cloud Service–Level Permissions

More than one project can be created for an IAM account. By default, only accounts can configure whether to allow IAM users to create projects and can view all projects and members. In some enterprise scenarios, an account can use fine-grained permissions management to grant configuration permissions to some IAM users.

IAM users do not have these permissions by default. To do so, you use the account to add an IAM user to a user group in IAM and assign permissions policies to the user group. This process is called authorization.

CodeArts Req is deployed by physical region and is a project-level service (related to project-based authorization in IAM). Therefore, when assigning permissions, select **Region-specific projects** for **Scope**, and then set permissions in the project corresponding to the specified region. The permissions take effect for the project after being set.

NOTE

If you set permissions for **All projects**, the permissions will take effect for all region-specific projects.

In IAM, you can grant users permissions by using roles and policies. (For details, see **IAM Service Overview**.) CodeArts Req uses policy-based authorization to meet the requirements of enterprises for flexible and refined permissions management.

Table 7-1 describes the system permissions supported by CodeArts Req.

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Table 7-1 System permissions

Policy Name	Description	Policy Type	Policy Content	Dependency
ProjectManConfigOperations	Operation permissions for a CodeArts Req project	System-defined policy	Table 7-2	None

Table 7-2 ProjectMan ConfigOperations policy content

Operation	Fine-grained Authorization Supported	Description
Modify work item templates	Yes	Users with this permission can go to **All Account Settings** > **Work Item** > **Work Item Templates** to modify the existing templates.
Delete work item templates	Yes	Users with this permission can go to **All Account Settings** > **Work Item** > **Work Item Templates** to delete the existing templates.
View permitted users who can create projects	Yes	Users with this permission can go to **All Account Settings** > **General** > **Project Creators** to view the users permitted to create projects.
Set IAM user permissions for creating projects	Yes	Users with this permission can go to **All Account Settings** > **General** > **Project Creators** to set users who have the permissions for creating projects.
View projects under a tenant	Yes	Users with this permission can go to **All Account Settings** > **General** > **Projects and Members** to view all projects.
Join a project under a tenant	Yes	Users with this permission can go to **All Account Settings** > **General** > **Projects and Members** to join any projects. By default, a newly added member is granted the **Project manager** role.
Delete projects	Yes	Users with this permission can go to **All Account Settings** > **General** > **Projects and Members** to delete projects that they have joined.

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Operation	Fine-grained Authorization Supported	Description
View the members of all projects	Yes	Users with this permission can go to **All Account Settings** > **General > Projects and Members** to view the members of all projects.
Delete any project member under a tenant	Yes	Users with this permission can go to **All Account Settings** > **General > Projects and Members** to delete one or more members from a specific project.
Set a new work item creator	Yes	Grant this permission to set other users as the work item creators.
Bind an enterprise project	Yes	Grant this permission to bind a CodeArts project to an enterprise project when creating or upgrading enterprise projects.

Project-Level Permissions

You can set permissions for each project you created in CodeArts Req. The permission settings of each project are independent of those of any other projects.

In project management, the following roles are involved: project managers (project administrators, project managers, test managers, product managers, and system engineers), developers (committers, developers, testers, and participants), and viewers and O&M managers.

- Project administrators: creators of a project
- Project managers: administrators of development
- Test managers: administrators of testing
- Product managers: requirement analysis managers of a project
- System engineers: architecture analysis managers of a project
- Committers: personnel who participate in project development
- Developers: personnel who participate in project development
- Testers: personnel who participate in project testing
- Participants: personnel who contribute to projects
- Viewers: members who follow or browse projects
- O&M managers: personnel responsible for O&M

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Table 7-3 Default roles and permissions of IPD-system device/standalone software/custom requirement model projects

Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
Raw requirement	View details	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	View list	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Create/Submit/Copy	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N
	Edit	Y	Y	Y	N	N	Y	N	N	N	N	N
	Upload attachment	Y	Y	Y	N	N	Y	N	N	N	N	N
	Add workload	Y	Y	Y	N	N	Y	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Delete/Restore/Permanently delete	Y	N	N	N	N	N	N	N	N	N	N
	Create/Associate/Disassociate child requirement	Y	Y	Y	N	N	Y	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Create/Associate/Disassociate work item	Y	Y	Y	N	N	Y	N	N	N	N	N
	Associate/Disassociate file	Y	Y	Y	N	N	Y	N	N	N	N	N
	Associate/Disassociate wiki	Y	Y	Y	N	N	Y	N	N	N	N	N
	Migrate	Y	Y	N	N	N	N	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Assign	Y	Y	Y	N	N	Y	N	N	N	N	N
	Suspend/Cancel suspension	Y	Y	Y	N	N	Y	N	N	N	N	N
	Set status	Y	Y	Y	N	N	Y	N	N	N	N	N
	Import	Y	Y	Y	N	N	Y	N	N	N	N	N
	Export	Y	Y	Y	N	N	Y	N	N	N	N	N
Feature set	Inherit	Y	Y	Y	N	N	N	N	N	N	N	N
	Create	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N
	Edit	Y	Y	Y	N	N	Y	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Delete/Restore/Permanently delete	Y	Y	Y	N	N	Y	N	N	N	N	N
	Manage feature tree version snapshots	Y	Y	Y	N	N	Y	N	N	N	Y	N
	View snapshot versions	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	View snapshot comparison	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
System feature	View details	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	View list	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Create/Copy	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N
	Edit	Y	Y	Y	N	N	Y	N	N	N	N	N
	Upload attachment	Y	Y	Y	N	N	Y	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Add workload	Y	Y	Y	N	N	Y	N	N	N	N	N
	Delete/Restore/Permanently delete	Y	Y	Y	N	N	Y	N	N	N	N	N
	Set status	Y	Y	Y	N	N	Y	N	N	N	N	N
	Create/Associate/Disassociate child feature	Y	Y	Y	N	N	Y	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Create/Associate/Disassociate child requirement	Y	Y	Y	N	N	Y	N	N	N	N	N
	Create/Associate/Disassociate work item	Y	Y	Y	N	N	Y	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Baseline/Unbaseline	Y	Y	Y	N	N	Y	N	N	N	N	N
	Import	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N
	Export	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N
	Associate/Disassociate file	Y	Y	Y	N	N	Y	N	N	N	N	N
	Associate/Disassociate wiki	Y	Y	Y	N	N	Y	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	View historical versions	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N
	Suspend/Cancel suspension	Y	Y	Y	N	N	Y	N	N	N	N	N
R&D requirement	View details	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	View list	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Create/Copy	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Edit	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Upload attachment	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Add workload	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Delete/Restore/Permanently delete	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Set status	Y	Y	Y	Y	N	Y	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Create child requirement	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Associate/Disassociate work item	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Baseline/Unbaseline	Y	Y	Y	Y	N	Y	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Assign/Cancel assignment	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Receive/Reject/Turnback/Transfer	Y	Y	Y	N	N	Y	N	N	N	N	N
	Associate/Disassociate wiki	Y	Y	Y	Y	N	Y	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Associate/Disassociate file	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Migrate	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Import	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Export	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Suspend/Cancel suspension	Y	Y	Y	N	N	Y	N	N	N	N	N
Task	View details	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	View list	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Create/Copy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Edit	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Upload attachment	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Add workload	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Delete/Restore/Permanently delete	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Set status	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Create child task	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Associate/Disassociate parent task	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Associate/Disassociate workitem	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Associate/Disassociate wiki	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Associate/Disassociate file	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Import	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Export	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Suspend/Cancel suspension	Y	Y	Y	N	N	Y	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
Bug	View details	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	View list	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Create/Copy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Edit	Y	Y	Y	Y	Y	Y	N	N	N	N	N
	Upload attachment	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Add workload	Y	Y	Y	Y	N	Y	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Delete/Restore/Permanently delete	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Associate/Disassociate work item	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Associate/Disassociate wiki	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Associate/Disassociate file	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Migrate	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Assign	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Suspend/Cancel suspension	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Set status	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Import	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Export	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
Customworkflow	View details	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	View list	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Create/Copy	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Edit	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Upload attachment	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Add workload	Y	Y	Y	Y	N	Y	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Delete/Restore/Permanently delete	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Set status	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Associate/Disassociate parent workitem	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Breakdown work item	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Associate/Disassociate work item	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Baseline/Unbaseline	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Associate/Disassociate wiki	Y	Y	Y	Y	N	Y	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Associate/Disassociate file	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Migrate	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Suspend/Cancel suspension	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Import	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Export	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Work item collaboration	View list	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Export	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Assign/Cancel assignment	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Receive/Reject/Turnback/Transfer	Y	Y	Y	Y	N	Y	N	N	N	N	N
Review	View details	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	View list	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Edit/Cancel	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Delete	Y	Y	N	N	N	N	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Export	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Plan management	Create	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Edit	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Delete	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Baseline/Unbaseline	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Set status	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Import	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Export	Y	Y	Y	Y	N	Y	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Manage version snapshot	Y	Y	Y	Y	N	Y	N	N	N	N	N
Work settings	Configure basic settings	Y	Y	N	N	N	N	N	N	N	N	N
	Manage tag	Y	Y	Y	Y	N	N	N	N	N	N	N
	Configure workitem template	Y	Y	Y	Y	N	N	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Configure workflow	Y	Y	N	N	N	N	N	N	N	N	N
	Configure module	Y	Y	Y	Y	N	N	N	N	N	N	N
	Configure downstream project for RR	Y	Y	Y	Y	N	N	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Configure downstream project for R&D requirement	Y	Y	N	N	N	N	N	N	N	N	N
	Configure work type	Y	Y	N	N	N	N	N	N	N	N	N
	Configure review	Y	Y	N	N	N	N	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Configure notifications	Y	Y	Y	N	N	N	N	N	N	N	N
	Configure automation	Y	Y	Y	Y	N	N	N	N	N	N	N
Recycle bin	Clear recycle bin	Y	N	N	N	N	N	N	N	N	N	N
Document	Upload document/ Create directory	Y	N	Y	Y	N	N	N	N	Y	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Edit document property/Rename directory/Move directory	Y	N	N	N	N	N	N	N	N	N	N
	Delete document/directory	Y	N	N	N	N	N	N	N	N	N	N

Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Downloaddocument	Y	N	Y	Y	N	N	N	N	N	N	N
	Previewdocument	Y	N	Y	Y	N	N	N	N	N	N	N

NOTE

IPD projects are available only in the AP-Singapore region.

By default, the creator and current owner of a work item can perform the following operations:

- The creator can delete their own draft RRs and bugs.
- The current owner of a work item can perform the following operations: view details, edit, upload attachment, add workload, set status, break down work item, associate/disassociate work item, assign, receive/reject/turn back/transfer, associate/disassociate wiki, associate/disassociate file, and suspend/cancel suspension.

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Table 7-4 Default roles and permissions in Scrum projects

Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
Basic project information	Archive	Y	Y	N	N	N	Y	N	N	N	N	N
Plan	Create	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Edit	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Delete	Y	Y	Y	Y	N	Y	N	N	N	N	N
Work item	Create/Clone	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Edit	Y	Y	Y	Y	N	Y	N	Y	N	N	N
	Delete	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Import	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Export	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Archive/Unarchive	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Upload file	Y	Y	Y	Y	N	Y	N	N	N	N	N
Sprint	Create	Y	Y	Y	N	N	Y	N	N	N	N	N
	Edit	Y	Y	Y	N	N	Y	N	N	N	N	N
	Delete	Y	Y	Y	N	N	Y	N	N	N	N	N
	Set status	Y	Y	N	N	N	Y	N	N	N	N	N
Chart	Create chart	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	N
	Edit chart	Y	Y	N	N	N	Y	N	N	N	N	N
	Delete chart	Y	Y	N	N	N	Y	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Move chart	Y	Y	N	N	N	Y	N	N	N	N	N
	Export chart	Y	Y	N	N	Y	Y	Y	N	Y	Y	N
	Create category	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	N
	Rename category	Y	Y	Y	Y	Y	Y	N	N	N	N	N
	Move category	Y	Y	N	N	N	Y	N	N	N	N	N
	Delete category	Y	Y	N	N	N	Y	N	N	N	N	N

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Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
Customization	Customworkitem	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Setdomain	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Configurenotifications	Y	Y	N	N	N	Y	N	N	N	N	N
	Configuremodule	Y	Y	Y	Y	N	Y	N	N	N	N	N
	Configureworktype	Y	Y	N	N	N	Y	N	N	N	N	N
	Setautomation	Y	Y	N	N	N	Y	N	N	N	N	N

Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
Document	Upload document/Create directory	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N
	Edit document property/Rename directory/Move directory	Y	Y	N	N	N	Y	N	N	N	N	N

Module	Permission	Project Administrator	Project Manager	Product Manager	System Engineer	Committer	Test Manager	Developer	Tester	O&M Manager	Participant	Viewer
	Delete document/directory	Y	Y	N	N	N	Y	N	N	N	N	N
	Download document	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
	Preview document	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y

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8 Constraints and Limitations

Specifications

Table 8-1 Specifications

Cloud Service	Item	Limit	Remarks
CodeArts Req	Projects per subaccount	≤ 10,000	Max. projects per subaccount
	Total projects	≤ 100,000	Max. projects of a tenant
	Project groups	≤ 200	Project groups. Max. 200.
	Custom roles	≤ 500	Max. 500 roles per project.
	Members per project	≤ 1,000	Max. 1,000.
	Milestones per Gantt chart	≤ 50	Max. 50
	Size (MB) of a single attachment	≤ 200	Max. 200.
	(Scrum project) Sprints per project	≤ 500	Max. 500.
	(Scrum project) Work items per project	≤ 30,000	Max. 30,000.
	(Scrum project) Work items that can be imported at a time	≤ 5,000	Max. 5,000

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Cloud Service	Item	Limit	Remarks
	(Scrum project) Modules per project	≤ 1,024	Max. 1,024.
	(Scrum project) Custom filters per project	≤ 50	Max. 50.
	(Scrum project) Domains per project	≤ 25	Max. 25.
	(Scrum project) Chart types per project	≤ 50	Max. 50.
	(Scrum project) Emails in the report inbox per project	≤ 2,000	Max. 2,000.
	(Scrum project) Emails in the report outbox per project	≤ 2,000	Max. 2,000.
	(Scrum project) Emails in the report recycle bin per project	≤ 2,000	Max. 2,000.
	(Scrum project) Report templates per project	≤ 200	Max. 200.
	(Kanban project) Work item levels per project	≤ 5	Max. 5.
	(Kanban project) Work item types per level	≤ 10	Max. 10.
	(Kanban project) Level-1 statuses per project	≤ 50	Max. 50.
	(Kanban project) Level-2 statuses per level-1 status	≤ 10	Max. 10.

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Cloud Service	Item	Limit	Remarks
	(Kanban project) Work items that can be created at a time	≤ 50	Max. 50 (no limit on the total work items).
	(IPD project) Downstream projects	≤ 100	Max. 100
	(IPD project) Total work items per project (system device and standalone software)	≤ 100,000	Max. 100,000
	(IPD raw requirement) RRs per project (including recycle bin data)	≤ 15,000	Max. 15,000
	(IPD raw requirement) R&D requirements broken down from an RR	≤ 100	Max. 100
	(IPD raw requirement) Total work items associated with an RR	≤ 500	Max. 500
	(IPD feature) Total features per project	≤ 30,000	Max. 30,000
	(IPD feature) Feature nesting layers	≤ 5	Max. 5
	(IPD feature) Total R&D requirements associated with a feature	≤ 500	Max. 500

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Cloud Service	Item	Limit	Remarks
	(IPD feature) Total tasks associated with a feature	≤ 500	Max. 500
	(IPD feature) Total feature sets per project	≤ 10,000	Max. 10,000
	(IPD feature) Feature set levels	≤ 15	Max. 15
	(IPD R&D requirement) Total R&D requirements per project (including recycle bin data)	≤ 15,000	Max. 15,000
	IPD R&D requirement - Total requirements per IR (including recycle bin data)	≤ 2,000	Max. 2,000
	(IPD R&D requirement) Total work items associated with an R&D requirement (including recycle bin data)	≤ 500	Max. 500
	(IPD task) Tasks per project (including recycle bin data)	≤ 25,000	Max. 25,000
	(IPD defect management) Bugs per project (including recycle bin data)	≤ 50,000	Max. 50,000

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Cloud Service	Item	Limit	Remarks
	(IPD plan management) Release plans per project (system device and standalone software projects, including recycle bin data)	≤ 200	Max. 200
	(IPD plan) Total sprints per project (including recycle bin data)	≤ 1,000	Max. 1,000
	IPD plan - Total personal dashboards in plan management per project	≤ 10	Max. 10
	(IPD plan management) Name length of a custom dashboard in the dashboard view	≤ 30	Max. 30
	IPD program - Subprograms/ Subprojects under a program	30	Max. 30
	IPD program - Nested layers of the top-level program (including the top-level program)	5	Max. 5
	IPD program - Subnodes in the top-level program	500	Max. 500
	(IPD settings) Tenant-level custom fields	≤ 300	Max. 300

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Cloud Service	Item	Limit	Remarks
	(IPD settings) Project-level custom fields	≤ 150	Max. 150
	(IPD settings) Tags per project	≤ 300	Max. 300
	(IPD tenant) Custom statuses (system and custom) per tenant	≤ 100	Max. 100
	(IPD project) Custom statuses (system and custom) per project	≤ 100	Max. 100
	(IPD project) Available statuses in a workflow per project	≤ 50	Max. 50
	(IPD review) Baseline reviews	≤ 10,000	Max. 10,000
	(IPD review) Change reviews	≤ 10,000	Max. 10,000
	(IPD review) General reviews	≤ 10,000	Max. 10,000
	(IPD review) Total added and associated objects per review	≤ 50	Max. 50
	(IPD review) Associated parent reviews per review	≤ 50	Max. 50
	(IPD review) Reviewers per review	≤ 10	Max. 10
	IPD project - Imported work items	≤ 2,000	Max. 2,000

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Cloud Service	Item	Limit	Remarks
	IPD project - Selected members	≤ 30	Max. 30
	IPD project - Work items broken down/ assigned at a time	≤ 10	Max. 10
	IPD project - Work item title characters	≤ 256	Max. 256
	IPD project - Work item rich text characters	≤ 50,000	Max. 50,000
	(IPD field) Multi-choice list	Field name: ≤ 128 characters ; field options: ≤ 2,000; up to 80 options can be selected when using the field.	Field name: ≤ 128 characters; field options: ≤ 2,000; up to 80 options can be selected when using the field.
	(IPD field) Hierarchy	4 levels, ≤ 100 fields per level, ≤ 128 characters per field	4 levels, max. 100 fields per level, each up to 128 characters
	(IPD field) Max. users (multi-select)	≤ 30	Max. 30
	(IPD field) Characters (single-line text)	≤ 512	Max. 512
	(IPD field) Characters (multi-line text/ long text)	≤ 10,000	Max. 10,000

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Cloud Service	Item	Limit	Remarks
	(IPD field) Digits (integer)	≤ 9	Max. 9
	(IPD field) Digits (decimal)	≤ 6 integer digits, ≤ 2 decimal places	Max. 6 integer digits and max. 2 decimal places
	IPD project - Imported work items	≤ 2,000	Max. 2,000
	(IPD tenant) Custom fields per tenant	≤ 300	Max. 300
	(IPD tenant) Custom statuses (system and custom) per tenant	≤ 100	Max. 100
	(IPD tenant) Custom work item types per tenant	≤ 50	Max. 50
	(IPD tenant) Custom associations per tenant	≤ 100	Max. 100
	(IPD tenant) Associations of a work item type per tenant (excluding third-party relationships)	≤ 10	Max. 10
	(IPD tenant) Custom workflows of a work item type per tenant	≤ 10	Max. 10
	(IPD tenant) Available statuses of a workflow per tenant	≤ 50	Max. 50

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Cloud Service	Item	Limit	Remarks
	(IPD tenant) Custom work item type templates per tenant	≤ 50	Max. 50
	(IPD tenant) Configurable work item nodes in a work item type template per tenant	≤ 100	Max. 100
	(IPD tenant) Configurable levels in a work item type template per tenant	≤ 10	Max. 10
	(IPD tenant) Custom function pages per tenant	≤ 50	Max. 50
	(IPD tenant) Top-level work items available on the function page per tenant	≤ 10	Max. 10
	(IPD tenant) Custom function page templates per tenant	≤ 50	Max. 50
	(IPD tenant) Function pages that can be associated with a function page template per tenant	≤ 20	Max. 20
	(IPD tenant) Custom project templates per tenant	≤ 20	Max. 20

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Cloud Service	Item	Limit	Remarks
	(IPD custom work item) Work items per type (including recycle bin data)	≤ 20,000	Max. 20,000
	(IPD custom work item) Child work items per work item (including recycle bin data)	≤ 100	Max. 100
	(IPD custom work item) Work items per association (including recycle bin data)	≤ 500	Max. 500
	(IPD custom work item) Total work items per work item tree (including recycle bin data)	≤ 2,000	Max. 2,000

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9 Basic Concepts

Project

A project consists of a series of coordinated and controlled activities in a certain process. The objective of a project is to meet specific requirements and is restricted by time and resources. CodeArts Req manages the project process and results to achieve the objective. For details, see **Creating a Project**.

Scrum

Scrum is iterative and incremental, and often used for agile software development. Scrum is a process framework that includes a series of practices and predefined roles.

A Scrum project team includes three roles: **Product Owner**, **Development Team**, and **Scrum Master**. They are responsible for advancing the project progress and delivering the project. The product owner represents the interest owner, and the development team includes all developers.

Scrum helps manage software development projects and maintenance teams. It can also be used as the plan management technique: Scrum of Scrums.

For details, see **Scrum Projects**.

Backlog

Backlogs can be regarded as different to-be-developed work item pools in different software development scenarios. For example, a product backlog indicates a work item pool that contains products to be developed and a sprint backlog indicates a to-do work item pool that contains sprints to be developed.

- Product backlog: High-priority requirements based on user value.
- Sprint backlog: List of tasks to be completed in the sprint.

Release

In IPD-system device and IPD-standalone software projects, a release specifically refers to a **release plan**. It is a logical version concept that includes multiple work items to be delivered. Child requirements under a work item in a release can be released in batches through different iteration plans. For IPD-system device

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projects, see **Configuring Plans for IPD-System Device Projects**.For IPD-standalone software projects, see **Configuring Plans for IPD-Standalone Software Projects**.

Iteration

Iteration is an incremental and iterative development process. It steps up R&D productivity and product success rate by compensating deficiencies of traditional waterfall development. For details, see **Configuring Sprint Plans for Scrum Projects**.

Feature Tree

Feature tree is a summary of all features of a product. It focuses on product value and connects customer markets and R&D. The feature tree consists of feature sets (collections of system feature capabilities) and individual system features.

System Feature (SF)

SFs describe the main selling points and highlights of a product. It keeps iterating as the product evolves.

- IPD system device projects: SFs can have different types of sub-requirements in this hierarchy: SF > IR > SR > AR.
- IPD standalone software projects: SFs can have different types of sub-requirements in this hierarchy: SF > IR > US.

For IPD-system device projects, see **Creating System Features in IPD-System Device Projects**.For IPD-standalone software projects, see **Creating System Features in IPD Standalone Software Projects**.

Epic

During agile development, epic is a work item type, which is usually used to define a series of macro scenarios or plans. In addition, the development workload is heavy, and epic needs to be broken down into fine-grained work items to arrange iterative development and delivery.

Feature (FE)

FEs, available only in IPD-self-operated software/cloud service and Scrum projects, describe product functions that deliver value to customers. FEs are derived from epics and broken into stories. An FE typically spans several weeks and requires multiple iterations for delivery.

User Story (US)

A user story is a work item type, an explanation of functionalities written from a user's perspective. A good user story includes:

- Role: Who will use this function.
- Activity: What functions need to be implemented.

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- Value: Why the functions are required. What value the user hopes to obtain. A user story is usually recommended to be delivered within a single iteration. User stories are sometimes referred to as stories.

Raw Requirement (RR)

RRs are raw problems or requirements described from the perspective of internal and external customers. Customer requirements are a type of RRs. This type of requirement needs to be analyzed and reviewed by the RMT/RAT.

For IPD-system device projects, see **Creating and Managing RRs in IPD-System Device Projects**.For IPD-standalone software projects, see **Creating and Managing RRs in IPD-Standalone Software Projects**.

Initial Requirement (IR)

IRs are re-described accurately, with complete background, in standard format, and from the perspective of customers/markets. IRs can be generated in either of the following ways:

- RRs after analysis and decision-making by the RMT/RAT
- Product planning (including system feature breakdown)

During the incremental version development, system features have become stable, and therefore IRs are used to carry incremental requirements of the version.

System Requirement (SR)

SRs are functional and non-functional requirements that are presented externally, can be tested, and are described from the perspective of R&D. Functional requirements are scenario-specific requirements for functions provided by the system. Non-functional requirements include requirements for system costs, global quality attributes (mainly DFX), and technical restrictions.

Assigned Requirement (AR)

ARs are functional or non-functional requirements broken down to sub-systems/modules by SRs from the perspective of deliverability based on the division of responsibilities of entry-level organizations.

Bug

In project management, particularly in agile development and software project management, a **bug** is an error, fault, or issue in a product or system that causes it to malfunction or produce unexpected results. For IPD-system device projects, see **Creating and Managing Bugs in IPD-System Device Projects**.For IPD-standalone software projects, see **Creating and Managing Bugs in IPD-Standalone Software Projects**.

Task

A **task** is an activity undertaken to achieve a specific goal. It is typically process-oriented and represents **the minimum work unit** in R&D and production. For IPD-system device projects, see **Creating and Managing Tasks in IPD-System Device**

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Projects.For IPD-standalone software projects, see **Creating and Managing Tasks in IPD-Standalone Software Projects**.

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