

CodeArts Req

Service Overview

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1 What is CodeArts Req?

Product Overview

CodeArts Req is a cloud service that provides agile project management and collaboration for software development teams.

- Req seamlessly integrates with other CodeArts services to provide full lifecycle software management and team collaboration.
- CodeArts Req presets Scrum project template. Scrum projects are a fit for agile software development teams who uphold Scrum methodologies and practices.
- Efficient, transparent, and visualized end-to-end project management is made possible due to the multiple basic features provided. These features include requirement planning and management, bug management, sprint planning and management, custom workflows, statistical reports, and project document hosting.

Features

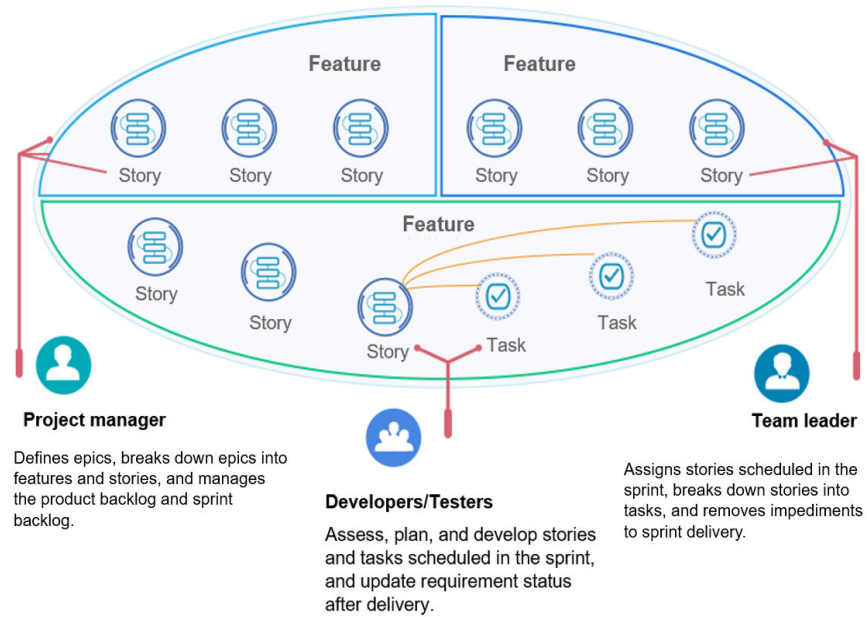
- **Requirement Planning and Breakdown**

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. Story, also called a user story, is a minimum deliverable unit that is written from the customers' perspective and under the principles of INVEST (independent, negotiable, valuable, estimable, sized-appropriately, 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 promise 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.

Sprints can be planned and managed 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.

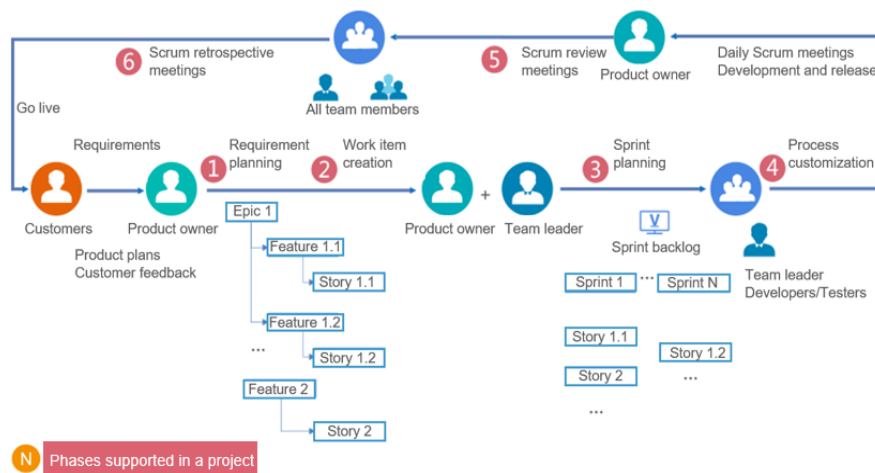
- **Document Hosting**

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 keys to simple but efficient project management.



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.

Scenario- and Role-specific Data Analysis

- Custom reports for project managers to compare and analyze data in multiple dimensions.
- Data can be downloaded as charts or tables.

Various Customization Options

- Custom requirement and bug templates.
- Custom settings for requirement and bug workflows, transition direction, and owners for automated transition.
- Custom requirements and bug fields.
- Custom modules and domains.
- Custom roles and permissions.

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 ProjectMan 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.

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.

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. 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.

- CodeArts Req's powerful data reporting and analysis 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.

4 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 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. CodeArts Req uses policy-based authorization to meet the requirements of enterprises for flexible and refined permissions management.

[Table 4-1](#) describes the system permissions supported by CodeArts Req.

Table 4-1 System permissions

Policy Name	Description	Policy Type	Policy Content
ProjectMan ConfigOperations	Operation permissions for a CodeArts Req project	System-defined policy	Table 4-2

Table 4-2 ProjectMan ConfigOperations policy content

Operation	Fine-grained Authorization Supported	Description
Create IAM users and import them in batches	Yes	Grant this permission to use the function in All Account Settings > General > IAM Users to import IAM users in batches.
Set project templates	Yes	Grant this permission to use the function in All Account Settings > Work > Project Templates to edit project templates.
Delete project templates	Yes	Grant this permission to use the function in All Account Settings > Work > Project Templates to delete project templates.
View permitted users who can create projects	Yes	Grant this permission to use the function in All Account Settings > General > Project Creators to view the permitted users.
Set IAM user permissions for creating projects	Yes	Grant this permission to use the function in All Account Settings > General > Project Creators to set users who have the permissions for creating projects.
View projects under a tenant	Yes	Grant this permission to use the function in All Account Settings > General > Projects and Members to view all projects.
Join a project under a tenant	Yes	Grant this permission to use the function in All Account Settings > General > Projects and Members to join any project. By default, the role of a newly added member is Project manager .

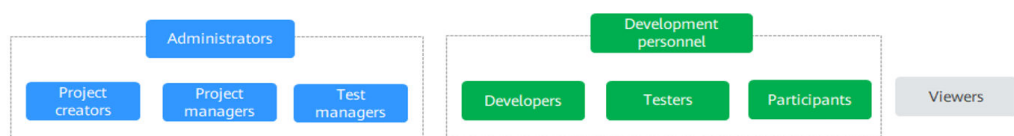
Operation	Fine-grained Authorization Supported	Description
Delete projects	Yes	Grant this permission to use the function in All Account Settings > General > Projects and Members to delete projects.
View the members of all projects	Yes	Grant this permission to use the function in All Account Settings > General > Projects and Members to view the members of all projects.
Delete any project member under a tenant	Yes	Grant this permission to use the function in All Account Settings > General > Projects and Members to delete one or more project members.
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 CodeArts Req, roles are classified into three types: administrators (project creators, project managers, and test managers), development personnel (developers, testers, and participants), and viewers.

Roles in CodeArts Req



- Project creators: creators of projects
- Project managers: administrators of development
- Test managers: administrators of testing
- Developers: personnel responsible of development
- Testers: personnel responsible of testing
- Participants: personnel who contribute to projects

- Viewers: members who follow or browse projects

Table 4-3 Default roles and their permissions

Role	Project	Sprint	Work Item	Settings (Member/ Notification/Module/ Domain/ Custom Item/ Review)	Report	Document management
Project creator	<ul style="list-style-type: none"> • Edit projects • Delete projects • Archive projects • Transfer projects 	<ul style="list-style-type: none"> • Create sprints • Edit sprints 	<ul style="list-style-type: none"> • Create work items • Copy work items • Edit work items 	<ul style="list-style-type: none"> • Add, edit, and remove members, edit member roles, and review member addition requests 	<ul style="list-style-type: none"> • Create reports • Edit reports • Delete reports • Move reports • Export reports • Create categories • Rename categories • Move categories • Delete categories 	<ul style="list-style-type: none"> • Create, edit, and delete directories • Upload, download, delete, and edit documents
Project manager	<ul style="list-style-type: none"> • Do not have the permission to delete projects. • Do not have the permission to hand over the project creator. • Archive projects • Edit projects 	<ul style="list-style-type: none"> • Delete sprints • Configure statuses 	<ul style="list-style-type: none"> • Delete work items • Import work items • Export work items 	<ul style="list-style-type: none"> • Create, edit and delete roles and edit role permissions • Edit work item templates, configure statuses and transitions, configure common fields, and add, delete, and edit common 		
Test manager						

Role	Project	Sprint	Work Item	Settings (Member/ Notificatio n/Module/ Domain/ Custom Item/ Review)	Report	Documen t manage ment
				n statuses <ul style="list-style-type: none"> • Add, edit, and delete modules • Add, edit, and delete domains • Edit notification items 		

Role	Project	Sprint	Work Item	Settings (Member/ Notification/ Module/ Domain/ Custom Item/ Review)	Report	Document management
Developer	<ul style="list-style-type: none"> View permissions 	<ul style="list-style-type: none"> View permissions 	<ul style="list-style-type: none"> Create work items Copy work items 	<ul style="list-style-type: none"> View only the Members page 	<ul style="list-style-type: none"> Create reports Create categories 	<ul style="list-style-type: none"> Have no permission to delete documents or directories
Tester	<ul style="list-style-type: none"> View permissions 	<ul style="list-style-type: none"> View permissions 	<ul style="list-style-type: none"> Import work items Export work items 		<ul style="list-style-type: none"> Export reports 	<ul style="list-style-type: none"> Have same permission as project creators
Participant	<ul style="list-style-type: none"> View permissions 	<ul style="list-style-type: none"> View permissions 	<ul style="list-style-type: none"> Edit only work items created or handled by themselves Delete only work items created by themselves 		<ul style="list-style-type: none"> Edit and delete only reports created by themselves 	
Viewer	<ul style="list-style-type: none"> View permissions 	<ul style="list-style-type: none"> View permissions 	<ul style="list-style-type: none"> View permissions 	<ul style="list-style-type: none"> View only the Members page 	<ul style="list-style-type: none"> Query and preview reports 	<ul style="list-style-type: none"> View, preview, and download documents

5 Constraints

CodeArts Req

[Table 5-1](#) describes the constraints when you use CodeArts Req.

Table 5-1 Constraints

Category	Item	Limit
Requirement management	Maximum number of projects for an individual	Max. 10,000.
	Maximum number of project groups for a user	Max. 50.
	Maximum number of custom roles in a project	Max. 500.
Single project	Maximum number of members	Max. 1000
	Maximum number of milestones	Max. 1000
	Maximum storage space (MB) for attachments for a single work item	Max. 50.
Scrum project	Maximum number of sprints in a project	Max. 500.
	Maximum number of work items in a project	Max. 30,000.

Category	Item	Limit
	Maximum number of work items that can be imported at a time	Max. 2000.
	Maximum number of modules in a project	Max. 250.
	Maximum number of filters in a project	Max. 50.
	Maximum number of domains in a project	Max. 25.
Documents	Maximum number of directory levels	Max. 5.
	Maximum number of files in a project directory	Max. 500.
	Maximum number of subdirectories in a project directory	Max. 100.
	Maximum size of a file (GB)	Max. 1.
	Maximum number of files that can be uploaded at a time	Max. 100.