

CodeArts Testplan

Service Overview

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1 What Is CodeArts TestPlan

Overview

CodeArts TestPlan is a one-stop test management platform, covering the entire process of test plan, test design, test cases, test execution, and test evaluation. The platform aims to help enterprises with collaborative, efficient, and trustworthy test activities before product release.

- **Test design**

Heuristic test design is performed based on mind maps to visualize a four-layer test design method. Test scenarios are split based on requirements, test points are split based on scenarios, draft test cases are generated based on test points and archived as test cases, and finally an overall test scheme is output.

- **Test management**

Test management incorporates concepts such as full-lifecycle tracing, multi-role collaboration, agile tests, and requirement-driven tests. It enables one-stop management of test requirement management, task assignment and execution, progress management, coverage management, result management, defect management, test reports and dashboard. Test management can be tailored for different teams and processes, supporting product quality evaluation from multiple perspectives, efficient test activity management, and quality product delivery.

- **Auto API test**

The auto API test function allows you to quickly orchestrate API automation test cases based on the API script template generated with API URLs or Swagger files. It integrates pipelines and supports microservice tests. No code compiling is required for test cases. The technical barrier is low. Different roles such as API developers, API consumers, test personnel, and service personnel can run tests with ease. You can import a swagger API definition in a few clicks to automatically generate a script template, based on which you can orchestrate and manage automated test cases of APIs. API test supports HTTP and HTTPS, a visualized case editing interface, various preset check points and built-in variables, customized variables, parameter transfer, and continuous automated testing.

Key Features

- Case management**
 Manual test cases and API automation test cases are designed in a unified manner. Test case classification, prerequisites, procedure, and expected results are provided to guide test case design.
- Test suite management**
 Suite management assembles manual test suites or API automation test suites based on test cases. A test suite is used to manage a group of test cases. Generally, a test suite can be used to perform multiple rounds or iterative regression tests. You can create a manual test case suite or API automation test suite based on the test case type.
- API automation test cases**
 API automation test cases simulate an HTTP client to establish a session with the server and send a request to the target API or web page to complete the API function test. An API test case contains a series of test requests, test check points, and test logic.

 **NOTE**

By default, only APIs that can be accessed from the public network can be tested. For details about the enterprise intranet API test solution, contact the customer service.

- Manual test case execution and results setting**
 You can set results step by step or in batches, apply the last execution result in one-click mode, and add screenshots to the result. Reproduction procedure can be automatically filled in during defect creation.

Execute: Check Save ⋮ 🗑 ✕

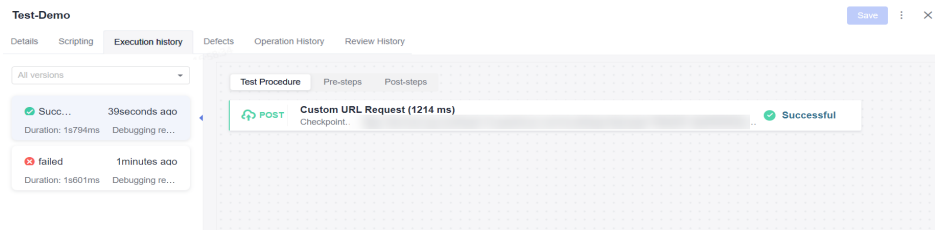
Prerequisites
No prerequisites.

Setting Result
 * Expected Result
 Failed Failed Set the case status to Completed.

No.	Step	Expected Result	Actual Result
1			<div style="border: 1px solid #ccc; padding: 2px;"> Successful Click to enter the actual result. </div>
2			<div style="border: 1px solid #ccc; padding: 2px;"> Failed Click to enter the actual result. </div>

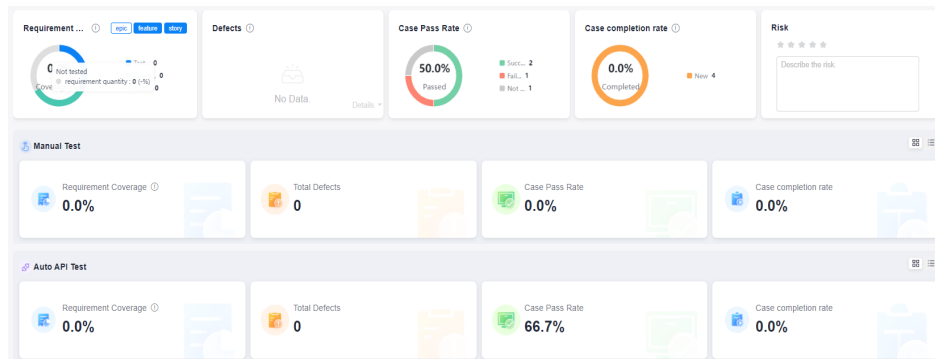
Remarks
Click to enter the content.

- API automation test case execution and execution history**
 - Case execution: Test cases can be executed in parallel or serial mode or in the pipeline. Quality gate can be configured.
 - Execution history: Each execution result and logs are recorded in detail.



- **Quality report**

You can view the requirement coverage, defect distribution, case pass rate, and case completion rate. You can also customize reports.



2 Advantages

Large-Scale Efficient Collaborative Test

For high-quality product release, this one-stop test management platform integrates test management, automatic testing, hierarchical management of hundreds of millions of test cases, and efficient and collaborative test activities such as test case design, test execution, defect submission, and report statistics.

Bidirectional Traceability

Test requirements, cases, defects, and results are associated with each other, and changes are logged. In this way, you can visualize the evidence chain of the test process, monitor and identify risks in time, accelerate tracking and closure, and effectively reduce missing test findings from organization and project perspectives.

Automatic Test

CodeArts TestPlan quickly orchestrates APIs based on API URLs or swagger documents, integrates with CodeArts Pipeline, and supports microservice and layered automatic tests. Flexible and configurable scheduled execution policies improve test execution efficiency and shorten the product go-to-market period.

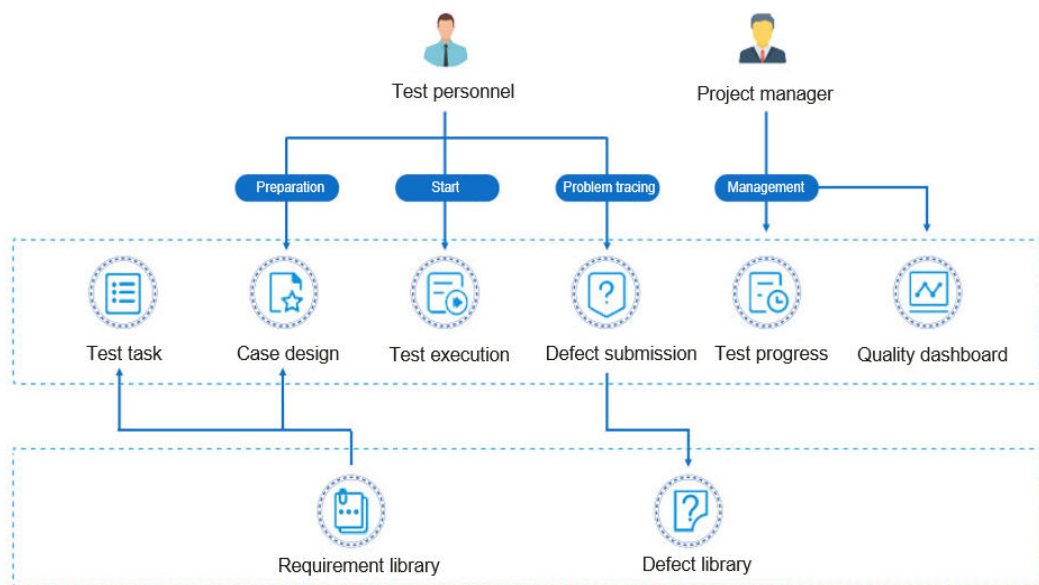
Visualized Design and Measurement

Heuristic test design provides visualized test breakdown design capabilities at four layers: requirement, scenario, test point, and test case. The dashboard collects statistics on the test progress, defects, and test requirement coverage in real time, comprehensively evaluates the test quality, and provides a decision-making basis for product launch.

3 Application Scenarios

Software Test Quality Management

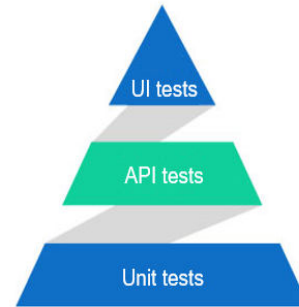
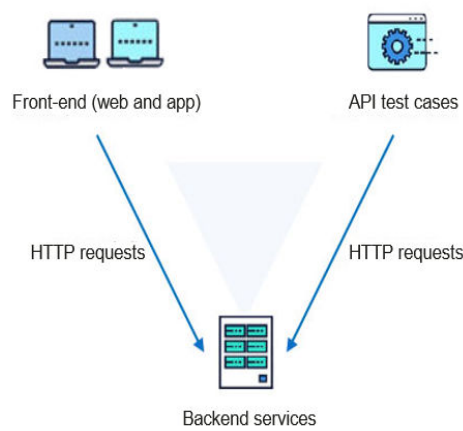
- Higher Test Efficiency and Coverage
Agile test processes are available for teams of different scales. The requirement-driven method prevents missing or false testing.
- Efficient Collaboration Between Development and Test
Bidirectional tracing is performed among requirements, cases, and defects. Different roles collaborate with each other in a timely and efficient manner.
- Multi-Dimensional Quality Dashboards
Multi-dimensional quality dashboards and quality evaluation ensure efficient product acceptance.



Continuous Automated Testing

- Automated API testing
The test pyramid is used to perform automatic API-layer function tests.

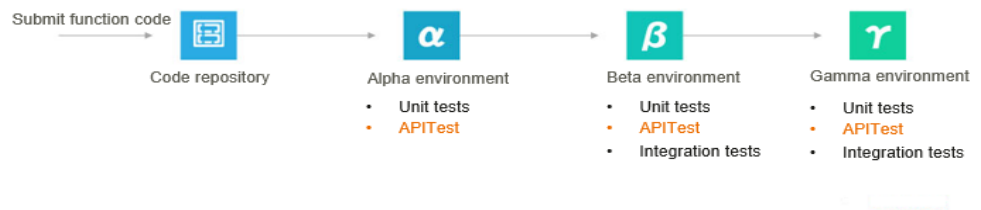
Compared with UI tests, API tests have low development cost, short running period, and high running stability, implementing quick and accurate test feedback.



- ▶ APITest simulates the HTTP request sent by the client to test the functions of the backend services.
- ▶ The stability of the API-level test is much higher than that of the test initiated from the front end.

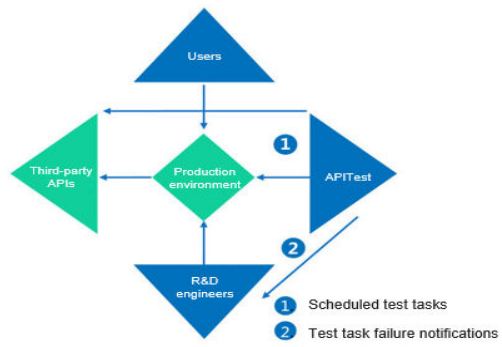
- **Continuous Integration of Automated Tests**

Continuous integration and pipeline are used to implement build, deployment, and tests. Problems can be detected in a timely manner during quick tests, preventing faulty artifacts from entering the next phase or environment.



- **Monitoring Production Environment and Third-Party Dependent APIs**

24/7 API-level test monitoring is established for monitoring products or third-party dependent APIs in the production environment to detect live network problems earlier than customers and rectify the problems in a timely manner.



24/7 monitoring of the health status of services in the production environment and third-party dependent APIs, earlier problem detection than users, and notifications to engineers to solve the problems in a timely manner

4 Constraints

This section describes the constraints on the use of CodeArts TestPlan, as shown in [Table 4-1](#).

Table 4-1 Constraints

Category	Item	Constraints
Browser	Type	The following browsers are supported: <ul style="list-style-type: none">• Chrome: The latest three stable versions are supported and tested.• Firefox: The latest three stable versions are supported and tested.• Edge: Windows 10 uses Edge by default. The latest three stable versions are supported and tested. Chrome and Firefox are recommended.
Resolution	Resolution	1280 × 1024 or higher is recommended.
Constraints on a project	Maximum number of test cases in a version	20,000
	Maximum number of versions (including the baseline) in a project	6
	Maximum size of an attachment (MB)	10
	Maximum number of tags bound with a test case	10
	Maximum number of directories in a project	5,000

Category	Item	Constraints
	Maximum number of test cases associated with a requirement	500
	Maximum number of requirements associated with a test plan	100
	Maximum number of test cases that can be added to a test plan	15,000
	Maximum number of custom states of a manual test case	10
	Maximum number of custom results of a manual test case	10
	Maximum number of custom states of a manual test suite	10
	Maximum number of custom results of a manual test suite	10
	Maximum number of times that a manual test case can be executed	10,000
	Maximum number of environments for API automation in a project	50
	Maximum number of variables in an environment for API automation	150
	Maximum execution duration of an API test task (minute)	10
	Maximum number of test cases associated with a manual test suite	1,000
	Maximum number of test cases associated with an automatic API test suite	150

Category	Item	Constraints
	Maximum number of test suites in a project	10,000