CodeArts Check

FAQs

Issue 04

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Contents

1 General Issues

1.1 What Are the Role Permissions in CodeArts Check?

Role Permission Table

The following table describes the default roles and permissions of users in CodeArts Check for resources (such as tasks and rule sets) in a project.

Table 1-1 Default role permissions in CodeArts Check

Resource Permission/Role		Project Administrator	Project Manager	Developer	Test Manager	Tester	Participant	Viewer	Operation Manager	Product Manager	System Engineer	Committer
Code check task	Create	√	√	√	×	×	×	×	×	×	√	√
	Execute	√	√	√	×	×	×	×	×	√	√	√
	View	√	√	√	×	×	×	×	×	√	√	√
	Modify	√	√	√	×	×	×	×	×	√	√	√
	Delete	√	√	×	×	×	×	×	×	√	√	√
Rule set	Configure default rule set	√	√	×	×	×	×	×	×	√	√	√
Issue report	View	√	√	√	×	×	×	×	×	√	√	√
	Modify	√	√	√	×	×	×	×	×	√	√	√
	Export	√	√	√	×	×	×	×	×	√	√	√

1.2 How Do I Use CodeArts Check?

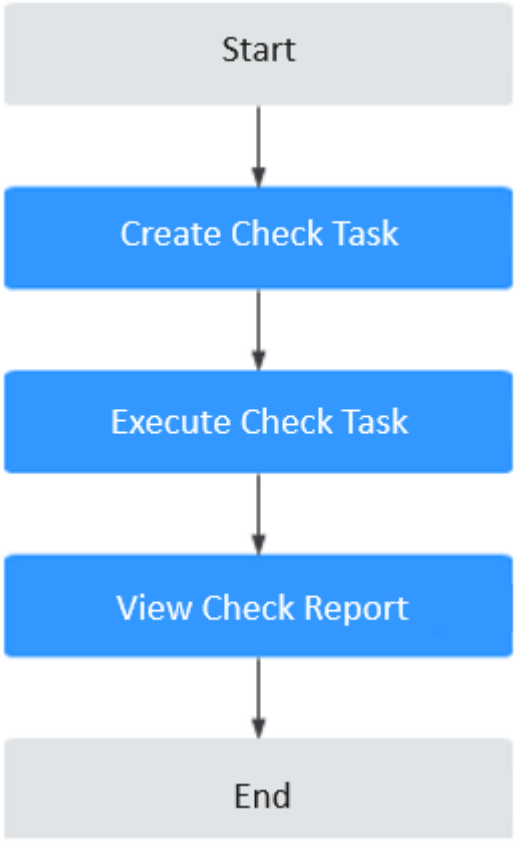
Background

CodeArts Check is a cloud code check service. With years of experience in automatic static check and enterprise application, CodeArts Check provides rich check services on code style, common quality, cyber security risk, and other elements. It also includes comprehensive check reports, convenient bug handling, and many other efficient, easy-to-use functions for enterprises to effectively improve code quality.

Operation Process

This section describes the basic process of using CodeArts Check.

Figure 1-1 Basic operation process



Process Description

Process	Description
Create code check task	On the **CodeArts** homepage, choose **Services** > **Check**, and click **Create Task** to create a code check task.
Execute code check task	After a check task is created, click **Start Check** on the task details or the task list page.
View code check report	After the check is complete, you can click **Overview**, **Issues**, **Metrics, Logs,** and **Settings** to view details.

1.3 What Regions Does CodeArts Check Support?

Currently, CodeArts Check is available in the following regions:

- LA-Mexico City2
- LA-Sao Paulo1
- AP-Singapore

1.4 Which Languages Can Be Checked by CodeArts Check?

Currently, Java, C++, JavaScript, TypeScript, C#, Python, PHP, Go, HTML, CSS, Lua, Rust, and Shell are supported.

1.5 Which of the Following Dimensions Can Be Checked by CodeArts Check?

CodeArts Check checks and analyzes the source code from the aspects of coding style, issue, security, and architecture design. It reports code issues, analyzes the cyclomatic complexity and duplication rate of the source code, evaluates the code risk index, and provides fix suggestions based on the check result.

1.6 Can I Check Local Code Using CodeArts Check?

No.

CodeArts Check cannot be used independently and needs to work with cloud-based code repositories.

CodeArts Check applies only to cloud code repositories. You need to submit local code to these repositories to check and analyze code on the cloud.

1.7 Does CodeArts Check Only Check Bugs in Code Execution?

No.

CodeArts Check performs static analysis on specified source code in the code repositories. That is, it scans program code using techniques such as lexical and syntactic analysis without running the code, to check whether the code meets metrics such as standardization, security, reliability, and maintainability. In addition, it provides examples and fix suggestions for detected code issues.

1.8 Can I Locate the Code Committer for a Bug?

Currently, you can only locate a line of code and the corresponding code file in the code check results. However, you can view the commit records in the code

repository to check which member has modified the file and then locate the code committer.

NOTE

Before committing a code merge request, you should check and modify the code.

1.9 Can I Select Multiple Rule Sets for a Code Check Task?

Yes.

The rule set of a task depends on the language type of code in the repository. Therefore, in a task, multiple rule sets can be selected for multiple languages, but only one rule set can be selected for one language.

1.10 How Do I Export Code Issues?

Step 1 Go to the **View Task Details** page, and click **Issues** tab.

Step 2 Filter code issues to be exported on the left of the page, for example by **Issue Level** or **Issue Status**.

Step 3 Select the target issues and click **Export** in the lower part of the page.

----End

2 Using CodeArts Check

2.1 Executing Task. Try Again Later

Symptom

A task fails to be executed, and the following error message is displayed: "Executing task. Try again later."

Cause Analysis

The task is running. As a result, the pipeline fails to be executed.

Solution

Step 1 Enter the current code check task from the pipeline.

Step 2 Check whether the current task is executing. If yes, wait until the executing is complete and then run the pipeline.

If the issue persists, contact technical support.

----End

2.2 Insufficient Permission. Please Check and Try Again

Symptom

The task fails to be executed, and the following error message is displayed: "Insufficient permission. Please check and try again."

Cause Analysis

The current user does not have the permission to perform this task. Check the permission and contact the project administrator (project creator or project manager) to change the permission of the current account.

Solution

Step 1 Choose **Settings** > **General** > **Service Permissions** > **Member** to view your project role, and click **Permissions** to view corresponding role permissions.

Step 2 Contact the project administrator to modify the required **project role** based on the **Roles and Permissions**.

----End

2.3 Cppcheck Cannot Tokenize the Code Correctly

Symptom

Cppcheck cannot tokenize the code correctly is displayed during code check.

Cause Analysis

It is a rule of Cppcheck. The code contains syntax errors, which are caused by C code written using Java syntax.

Solution

The code must be written according to coding specifications of the C language and cannot contain the coding rules of other languages.

2.4 No Data Is Displayed After a Task Check Is Complete

Symptom

No data is displayed after a task check is complete.

Cause Analysis

- The language of the source code repository is not obtained.
- The language check switch is not enabled.

Solution

Step 1 Click a task name. On the displayed page, click **Settings** > **Rule Sets**.

Step 2 Click  in the row where **Languages Included** is located to re-obtain the language of the code repository.

Step 3 Enable the language check.

Step 4 Execute the check again.

----End

2.5 Permission Is Insufficient for Using Public APIs

Symptom

The permission is insufficient for using public APIs.

Cause Analysis

- The login user does not have the permission.
- The region information is incorrect.

Solution

Step 1 Check whether the login user has the permission. For details, see **Roles and Permissions**.

Step 2 Check whether the region information is correct.

If the issue persists, contact technical support.

----End

2.6 A Message Is Displayed Indicating that the Project Does Not Exist When a Public API Is Used

Symptom

When a public API is used, a message is displayed, indicating that the project does not exist.

Cause Analysis

The task ID is incorrect.

Solution

Use a correct task ID. If the issue persists, contact technical support.

2.7 Setting Build Parameters

Java Tasks

To use a comprehensive rule set or security rule set, you need to set check parameters for checking build result files.

Step 1 Click a task name. On the displayed page, click **Settings** > **Rule Sets**.

Step 2 Click  in the row where **Languages Included** is located to re-obtain the language of the code repository.

Step 3 Click **Check Parameter**.

Step 4 Select the Java build tool and tool version, and enter the build command.

Step 5 In the **Check Parameter** dialog box, turn on the switch and click **OK**.

----End

2.8 Failed to Check a TypeScript Task

Symptom

A TypeScript task fails to be checked, reporting a 404 error in the log.

Solution

Check whether the **package-lock.json** file has been uploaded.

- If yes, delete the **package-lock.json** file and push the code again for check.
- If no, contact technical support.

3 Security

3.1 How Does CodeArts Check Secure Customer Code?

Accounts are authenticated by IAM in a unified manner. Each project has a permission management mechanism. Only project administrators can manage project members. For details, see **Trust Center**.

3.2 Can I Use CodeArts Check to Check Security Issues Such as SQL Injection?

Yes.

CodeArts Check can check code from aspects of coding style, issues, security, and architecture design. In coding security, SQL injection, XML external entity injection attacks, potential LDAP injection attacks, and potential Xpath injection attacks can be checked.

4 Error Codes

4.1 CC.00070400.500 The Number of Alarms Imported to the Database Exceeds 300,000

Description

The number of alarms imported to the database exceeds 300,000

Possible Cause Analysis

The current rule set scanning shows many problems.

Solution

The report log displays the names and number of top 10 problem rules. You can delete the rules with a large number of problems based on the task requirements to reduce the total number of problems to less than 300,000 and scan again.

5 Particular Issues

5.1 What Are the Rules in the CodeArts Check Enhancement Package?

The package identifies code security risks and vulnerabilities more comprehensively, with more than 100 dedicated rules for Java, C++, Go, and Python.

In addition, it enhances security check and analysis for vulnerability detection items, such as cross-function check, cross-file check, taint analysis, semantic analysis, and syntax tree search.

Table 5-1 CodeArts Check enhanced package

Billing Mode	Yearly/Monthly
Scenario	CodeArts Check provides more than 100 code check rules. To use these rules, purchase the enhanced package.
Resource Specifications	1 parallel job
Purchase Limits	• Before purchasing the CodeArts Check enhanced package, purchase the CodeArts basic edition. • You can purchase a maximum of 100 CodeArts Check enhanced packages.

Billing Formula	Unit price x Quantity x Purchased duration
Billing Cycle	Determined by the purchased duration (GMT+08:00). The billing cycle starts from the time you activate or renew your CodeArts Check enhanced package (precise to seconds), and ends at 23:59:59 on the expiration day. For example, if you purchased a CodeArts Check enhanced package for one month on Mar 08, 2023, 15:50:04, the billing cycle is from Mar 08, 2023, 15:50:04 to Apr 08, 2023, 23:59:59.
Configuration Change	The CodeArts Check enhanced package cannot be changed. If your configuration is incorrect, unsubscribe from the package and purchase it again.
Impact of Expiration	The number of parallel jobs in your CodeArts Check enhanced package will become invalid if the package is not renewed before expiration.

5.2 How Do I Create a Custom Rule Set?

On the **Rule Sets** tab page, click **Create Rule Set**, enter a rule set name and description (optional), select a check language, and inherit or copy from an existing rule set (optional).

Click **OK**. The rule set details page is displayed. You can select rules as required or customize rule levels, and click **Save** in the upper right corner.

5.3 Can I Change the Name of Rule Sets?

The name of default rule sets cannot be changed, but that of custom rule sets can.

In the rule set list, click the name of the rule set to be modified. On the rule set details page, click **Modify Basic Info** in the upper right corner, enter a new rule set name, and click **OK**.

5.4 Can I Delete a New Task Without Executing It First?

Yes. A newly created check task can be directly deleted.

5.5 Can CodeArts Check Be Used Only with CodeArts Repo?

No. CodeArts Check can be used together with the cloud code repository. The following cloud code repositories are supported: CodeArts Repo, GitHub, Gitee, and Git.

5.6 Which Local IDE Editors Are Supported by CodeArts Check?

CodeArts Check supports VSCode IDE, JetBrains IDEA, and CodeArts IDE Online. The CodeArts Check IDE plug-in has been rolled out on four mainstream IDE platforms: VSCode IDE, Intellij IDEA, CodeArts IDE, and Cloud IDE.

