



## STATIC CODE ANALYSIS

**Code analysis** is a method for automated testing of a program's source code. In Copado we use the **Static Code Analysis** that collects information based on source code and allows you to examine code against a set or multiple sets of coding rules.

You can run Static Code Analysis Scans with any Copado license and you can use Static Code Analysis from different records such as **credentials**, **user stories** or **scheduled jobs**.

Copado uses two static code analysis tools: **PMD Code Analyzer** and **CodeScan**.



## PMD

is a static code analyzer that includes built-in rule sets. PMD lives in Copado, so whenever you run code analysis in an environment or user story, Copado will search for the Static Code Analysis Settings included in the pipeline to which the Credential or User Story is linked.

How to create Static Code Analysis **Settings for PMD**:

1. From the **App Launcher**, navigate to the **Static Code Analysis Settings** page.
2. Click on **New**, then select **PMD** as the record type.
3. Fill in the **New Static Code Analysis Settings Name** field and click on **Save**.
4. Open the Static Code Analysis Settings record you just created and click on **Generate Default RuleSet**.

## CODE SCAN

It's a code quality plugin for SonarQube, which helps you identify bugs, define coding rules and measure code quality. SonarQube is the platform where CodeScan lives and is executed.

How to create Static Code Analysis Settings for CodeScan:

1. Open the **App Launcher**.
2. Click on the **Static Code Analysis Settings** tab and then click on **New** to create a new record.
3. Select **CodeScan** as the record type.
4. Give the Static Code Analysis Settings a name. This will be the record's name.
5. Select a version depending on your CodeScan license: **Cloud** or **On-premise** SonarQube.
6. Enter a CodeScan token created in your CodeScan account.

7. Type the URL to access your CodeScan. For the CodeScan Cloud version use <https://app.codescan.io>. If you have CodeScan **On-premise**, you need to expose the machine where CodeScan is installed and include the URL in this field.

8. If Cloud CodeScan Version is selected, Cloud Organization needs to be filled with the organization key that exists under My Organizations on <https://app.codescan.io>.

9. Finally, add your Static Code Analysis Settings to your pipeline. From now on, whenever you run a static code analysis from a User Story or a Credential record with an environment inside this pipeline, it will take the static code analysis settings you previously assigned to the pipeline.

Each rule has a priority within a 1 to 5 interval, and it can be defined according to the relevance of the violated rule.

## REVIEWING YOUR PROMOTION

In a promotion, you will find a summary of all the Static Code Analysis Results of the user stories included in that promotion. But before reviewing the Static Code Analysis Summary, you will have to assign a **Maximum Static Code Analysis Score** to each environment according to your business quality requirements. This value will be used as a reference for the Static Code Analysis result graph on the **Promotion** page.

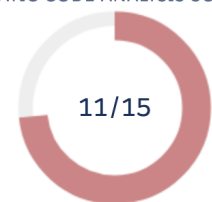
The final Static Code Analysis Score shown in the promotion, under the **Static Code Analysis Summary** tab, is the sum of the scores of all the violated rules in the user stories included in the promotion.

DETAILS   ADD USER STORIES   PROMOTION METADATA   **STATIC CODE ANALYSIS SUMMARY**   SELENIUM TESTING SUMMARY

### Static Code Analysis Summary

Average Score   11  
Worst Score   11  
Worst Scored User Story    US-0000049

STATIC CODE ANALYSIS SCORE



Interested in learning more? Go to:  
<https://success.copado.com/>

