

# Using JArchitect to analyse code

JArchitect is a static code analysis tool to show you some hints of your project's code quality. Have a glance of its features:

<https://www.jarchitect.com/features>.

It is a non-free software and you can try it free for a few days:

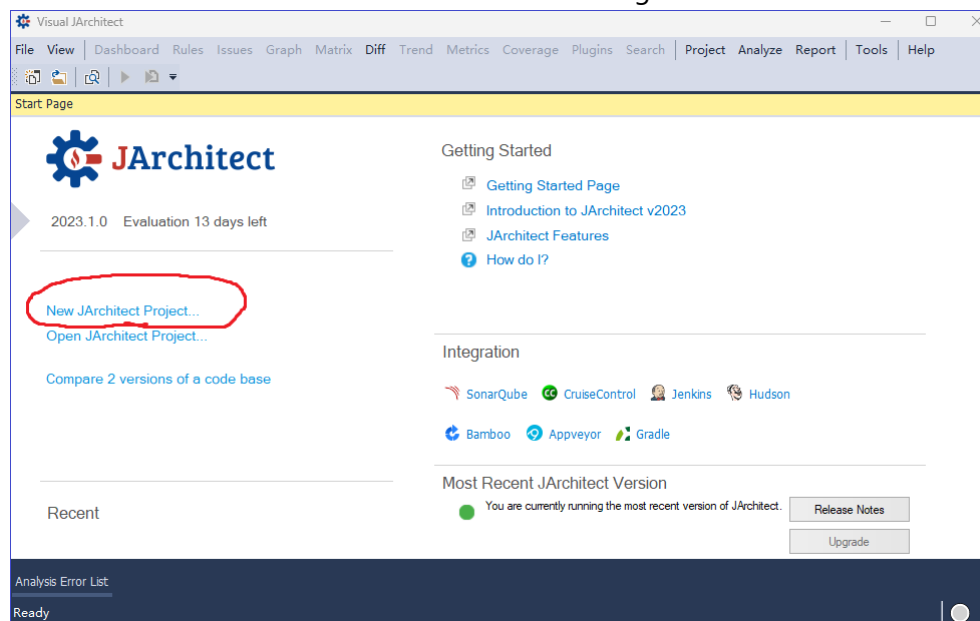
<https://www.jarchitect.com/download>.

## Getting started

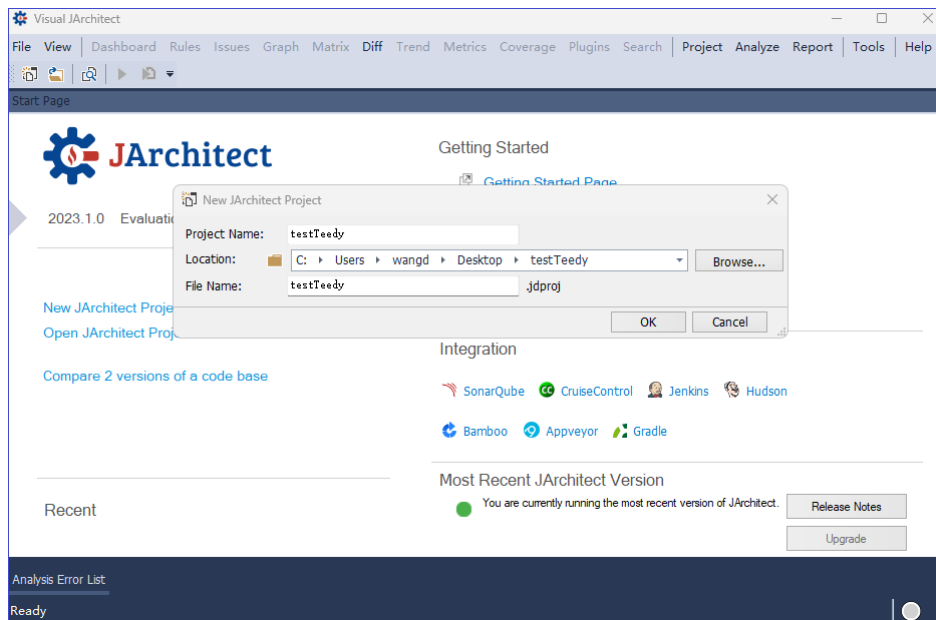
To start with JArchitect, first download the package and uncompress it:

Integration	2023/3/30 17:12
Lib	2023/3/30 17:12
Plugins	2023/3/30 17:13
SourceAnalyzer	2023/3/30 17:13
Tools	2023/3/30 17:13
JArchitect.Console.exe	2023/3/30 17:12
JArchitect.PowerTools.exe	2023/3/30 17:12
VisualJArchitect.exe	2023/3/30 17:13

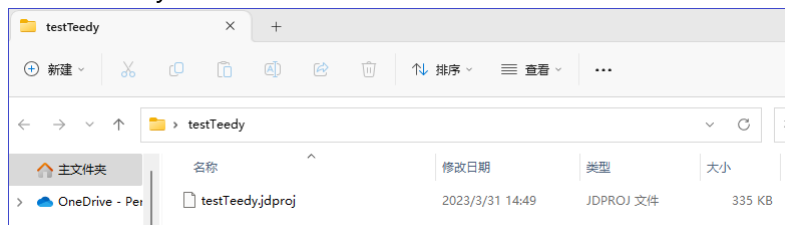
Then double click "VisualJArchitect.exe" to run the gui of JArchitect:



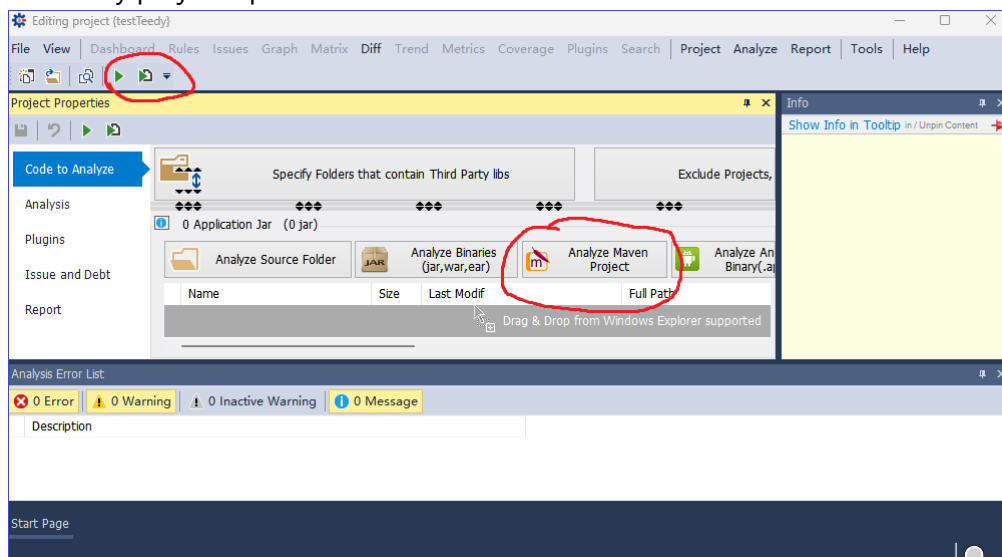
In the above figure, click "new project" and select when you want to put your "JArchitect" project.



We are not asking JArchitect to create a maven project. We are asking it to create a "JArchitect project". When the project is created, we can see the "jdproj" file instead of the "pom.xml" file in this directory:

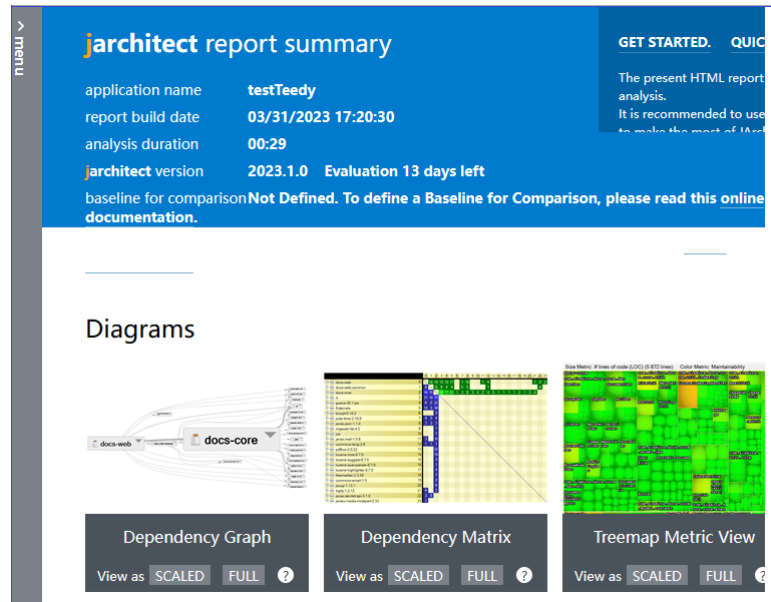


Now we can start to analyse our "Teedy" project. Just click "Analyse Maven Project" and select our Teedy project's pom:



In the above figure, find the green triangle there and run it. The running time may depends on the size of your project. After the project finished running, the report may show up in your

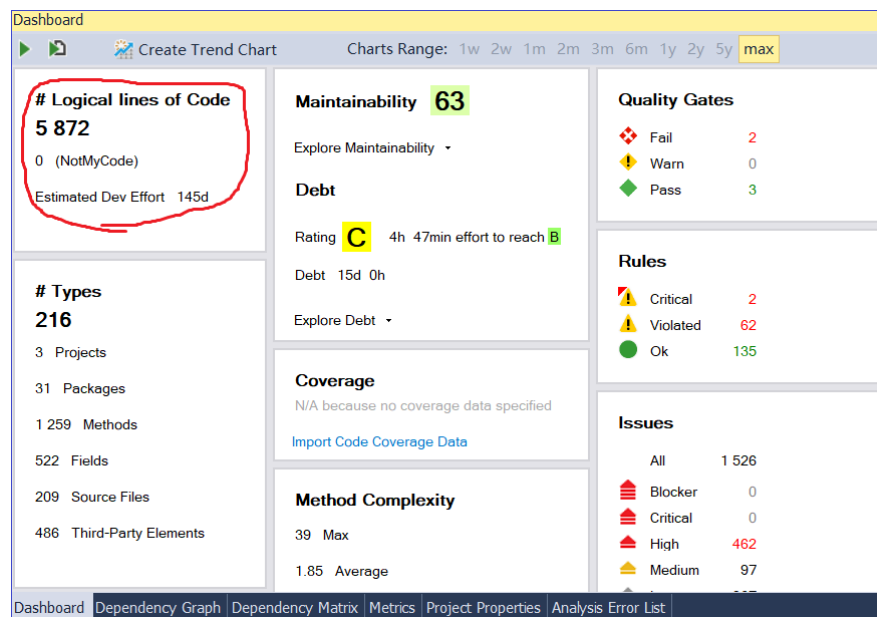
default browser:



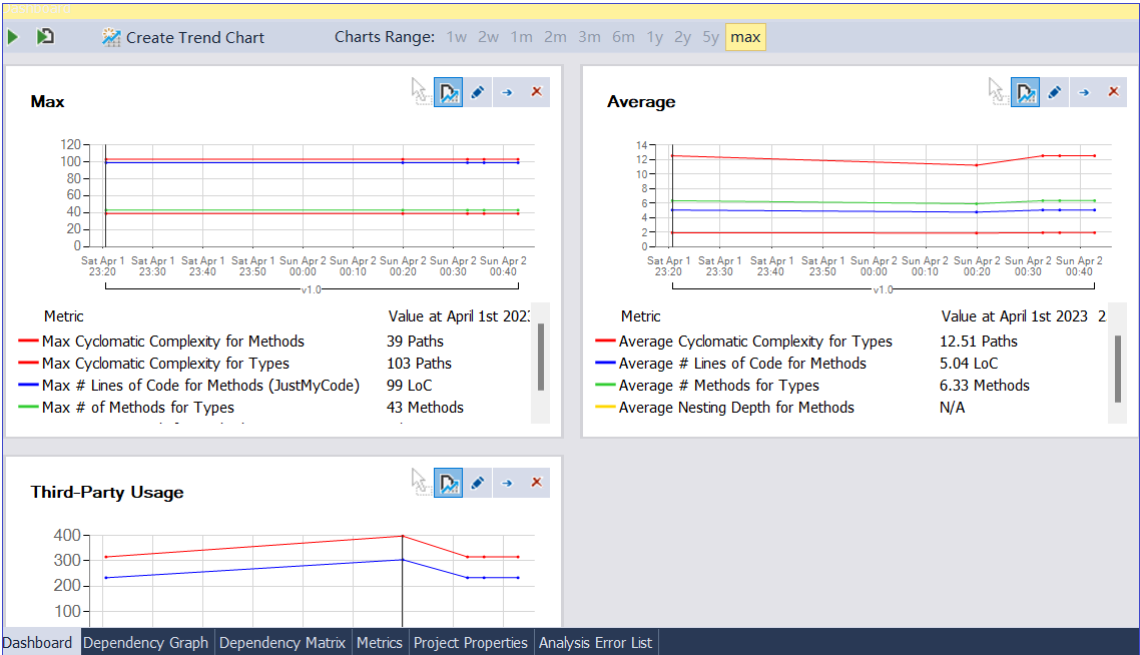
## Viewing JArchitect report summary

Let's view some of the informations JArchitect provided for us.

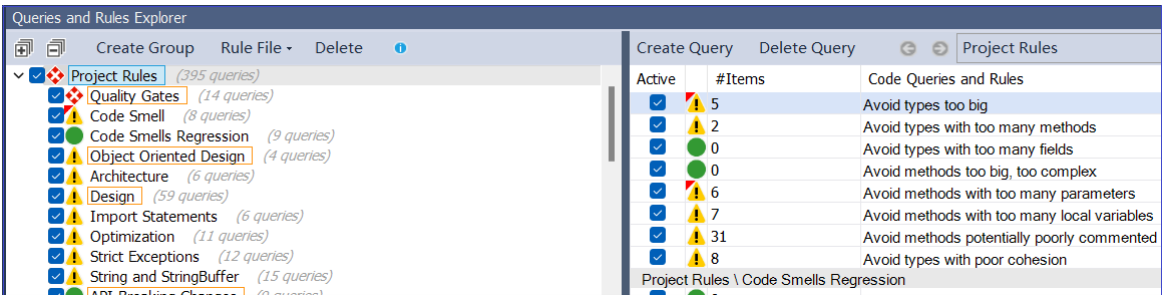
On the "Dashboard" section the you can see many statistics of this project. Including the line of code:



The trend of cyclomatic complexity:

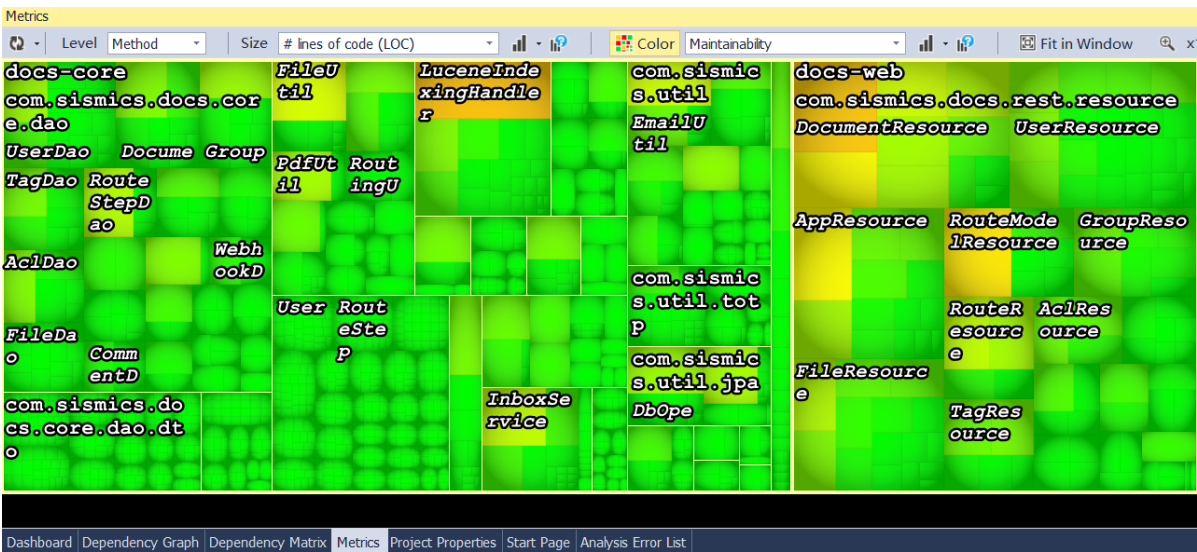


JArchitect also shows you see potential problems of this project, such as "some classes contains too many methods". The details can be explored with the gui.



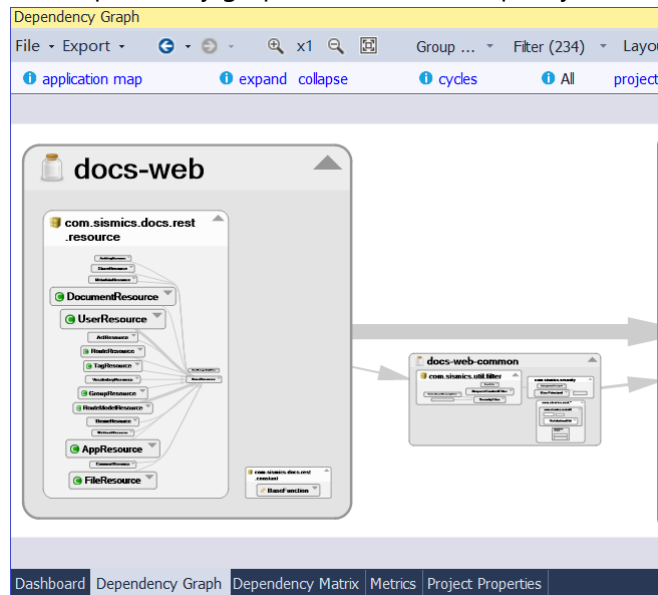
View metrics for each method

You can also view the metrics of each method in the "metrics" view:



View dependency

The dependency graph shows us the dependency relationship between the modules and classes:



This dependency graph is intuitive but not friendly for counting statistics, so there is another view called "dependency matrix":

The screenshot shows the 'Dependency Matrix' view in JArchitect. It displays a table with components as rows and columns. The components listed are 'docs-web', 'docs-web-common', 'docs-core', 'rt', 'Externals', and 'jce'. The table shows the coupling between these components, with numerical values representing the number of members involved in the coupling. The bottom of the window has a navigation bar with tabs: 'Dashboard', 'Dependency Graph', 'Dependency Matrix', 'Metrics', and 'Project Properties'.

	docs-web	docs-web-common	docs-core	rt	Externals	jce
docs-web	97	164				
docs-web-common	26	12				
docs-core	465	53				
rt	66	19	287			
Externals	0	0	1			
jce						11

The matrix shows the coupling of between components of this project. The numbers on the graph shows the number of members involved in the coupling.

## Summary

There are more functions in the tools than this introduction. It is encouraged to explore those functions either through the gui of this software or using the documentation on the official website: <https://www.jarchitect.com/GettingStarted>.