Dependency metrics

Cognitve Complexity (CogC)

Table

Description automatically generatedMeasures how difficult it is to understand intuitively a piece of code. The cognitive complexity is increased by many factors, such as the lack of familiarity with the tools used or the problem domain, large pieces of code or high essential complexity.

Surprisingly, the methods are easy to understand as per the graphic, meaning that the project contains relatively few long methods and possibly few god classes, which may lead to fewer bugs and less rework. The startElement method from the GanttXMLOptionsParser is the most complex method in the project from a Cognitive complexity perspective, this is because the method is very long and deals with the format of XML files.

Cyclic Complexity (v(C))

Calculates the amount of distinct execution paths needed to test extensively a method. Execution paths depend on the number of if’s, switches, loops, condition expressions and others.

Table

Description automatically generatedAs the graphic shows, the majority of methods have a cyclomatic complexity of one, meaning that they can be tested in only one execution path. The fewer the number of execution paths the easier it might be to test a program. The startElement method from the GanttXMLOptionsParser is the most complex method in the project from a Cyclomatic complexity perspective, this is because the method is very long and contains many if’s and a switch statement.