# Codebase Metrics

## Metrics Set

## 

## Average values of metrics for the classes of ganttproject

* Cyclic ≈ 270,91
* Dcy ≈ 7,12
* Dcy\* ≈ 591,08
* Dpt ≈ 4,25
* Dpt\* ≈ 523,89
* PDcy ≈ 3,25
* PDpt ≈ 2,23

## Explanation

Cyclic (Number of cyclic dependencies)

Indicates the number of classes/interfaces/packages that depend on other classes/interfaces/packages, which in turn also depend on the first ones, resulting in cyclic dependencies. Such dependencies may lead to code that is harder to understand and worse to test

Dcy (Number of dependencies)

Calculates the number of classes/interfaces each class/interface directly depends on. A higher number of direct dependencies may result in code which is harder to maintain.

Dcy\* (Number of transitive dependencies)

Calculates the number of classes/interfaces each class/interface directly or indirectly depends on.

Dpt (Number of dependents)

Calculates the number of classes/interfaces which directly depend on each class/interface. A lower number of dependents may result in code which is not as useful as was initially intended.

Dpt\* (Number of transitive dependents)

Calculates the number of classes/interfaces which directly or indirectly depend on each class/interface.

PDcy (Number of package dependencies)

Calculates the number of packages each class/interface/package directly (or indirectly for classes/interfaces) depend on.

PDpt (Number of dependent packages)

Calculates the number of packages which directly (or indirectly for classes/interfaces) depend on each class/interface/package.

PDpt\* (Number of transitive dependent packages)

Calculates the number of packages which directly or indirectly depend on each package.

## Potential Trouble Spots

net.sourceforge.ganttproject.AbstractChartImplementation (Cyclic = 515)

This class is just one of the many classes in this project that have the highest cyclic number of dependencies, which indicates that code is almost all related, at least through something.

net.sourceforge.ganttproject.task.TaskManagerImpl (Dcy = 78)

This class has a very high dependency count,

org.ganttproject.impex.htmlpdf.itext.ITextEngine (Dcy\* = 890)

This class has the highest transitive dependency count, making it very sensitive to most changes

net.sourceforge.ganttproject.util.MathUtil (Dpt/Dpt\*/PDpt = 0)

This class is not being used anywhere in the project.

net.sourceforge.ganttproject.chart.ChartModelBase (PDcy = 13)

This class depends on various packages.

## Relatability to identified Code Smells

net.sourceforge.ganttproject.calendar.CalendarEditorPanel (Large Class)

The dependency metrics for this class are very high, with-it having lots of dependencies (Dcy = 17), it seems that trying to combine too many dependencies within a single class, results in a very large class.