

## Semester Project

# Integration of Universe Type System Tools into Eclipse

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**Introduction** The Software Component Technology group has developed the Universe type system, an extension to Java that allows the programmer to perform alias and dependency control. The Universe type system is integrated into the MultiJava and JML tools and multiple stand-alone tools that help to annotate existing programs exist.

**Goal of this semester project** is the integration of those different tools into the Eclipse IDE as a collection of plug-ins. These plug-ins will allow the user to manage the cooperation of the different tools and configurations in an easy manner.

**The main parts** of this project are:

1. devising a plug-in strategy
2. a plug-in to comfortably call the MultiJava and JML tools
3. conversion of the purity analyzer from a stand-alone SWT application to a plug-in
4. a plug-in to show, edit, and insert the inferred type information

Possible further work includes:

1. a plug-in for the static type inference tools
2. a plug-in for the runtime type inference tools

A written report and an oral presentation will complete the project.