

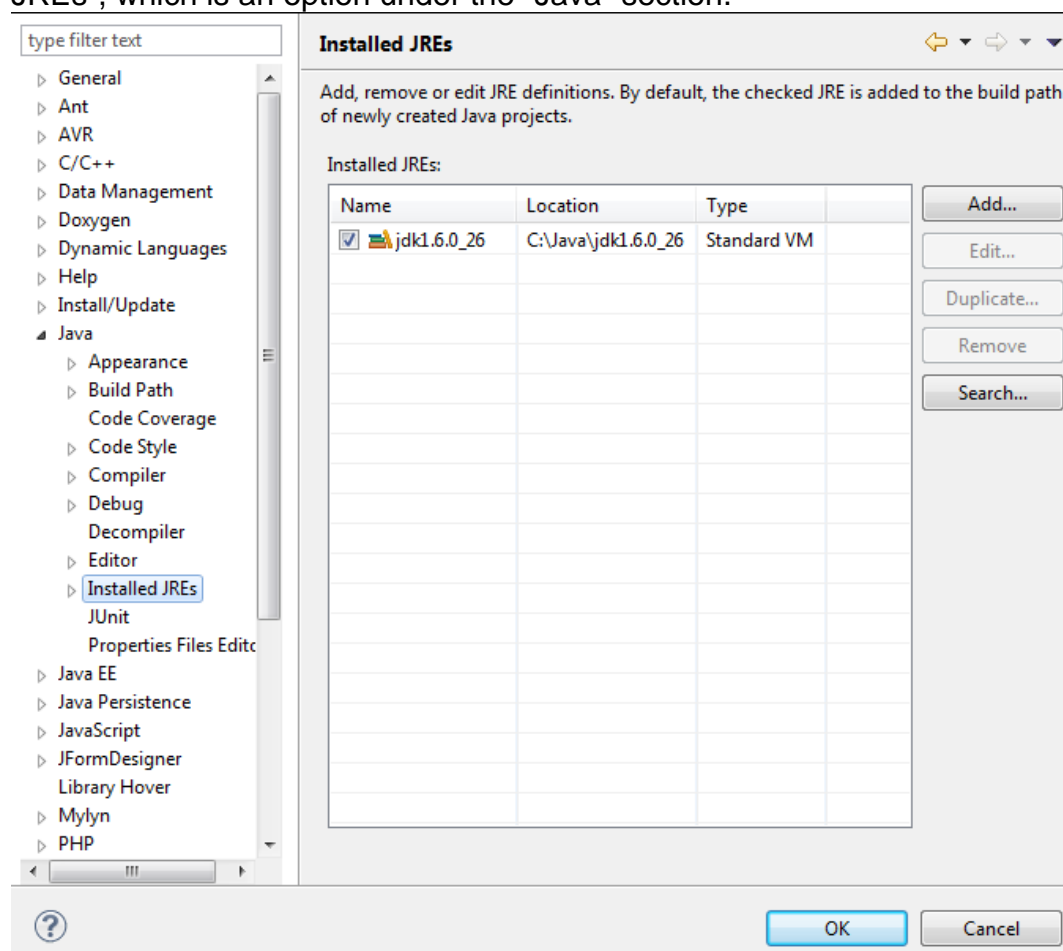
Using Eclipse with the 2012 FRC WPILib

An eclipse plugin is available that will let you create robot programs using either the SimpleRobot or IterativeRobot base classes. In addition you can create Command-based robot programs using these plugins.

These plugins work, but still have a few rough edges, but it seemed better to release them to the community with the appropriate caveats so that teams could evaluate and start using them.

Setting Up Eclipse with a JDK

The first step is to setup Eclipse to use a Java Development Kit, instead of a Java Runtime Environment, so that the plug-ins may find the required tools to compile java files. This process starts (after installing a JDK on your system) by opening the “Preferences” dialog, found under “Window”->“Preferences”. Then, select “Installed JREs”, which is an option under the “Java” section.



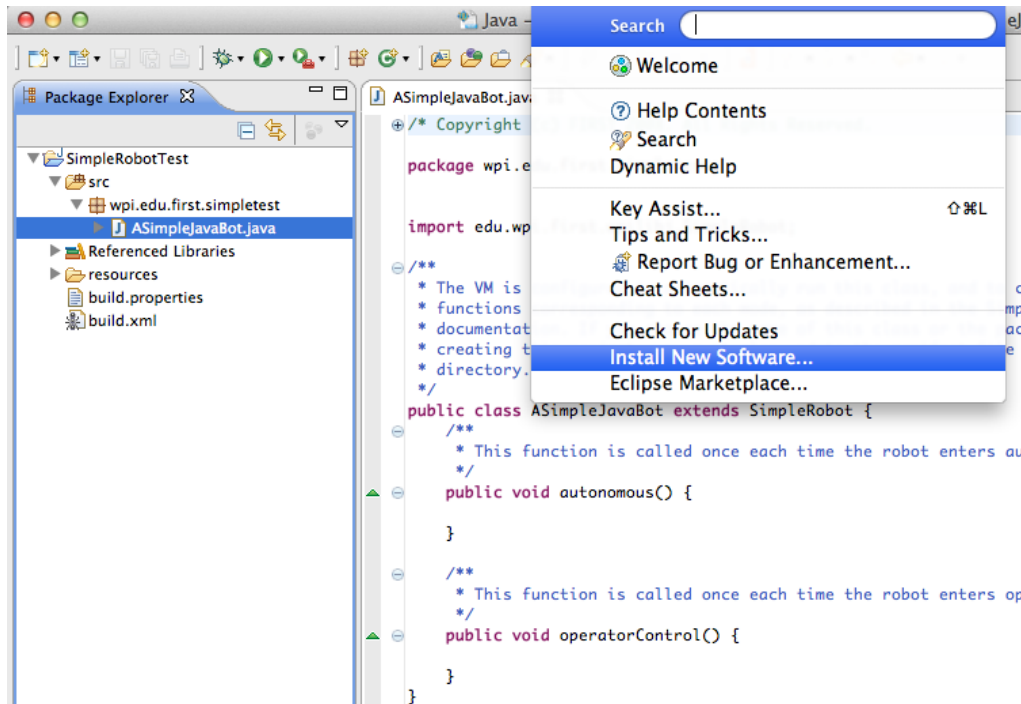
If a JDK is already present and selected (checked off), then you may skip to “Installing the plugin”.

Otherwise, select “Add...”. Select “Standard VM”, and you will be presented with a JRE setup dialog. Select “Directory...” and find the directory where you installed a JDK on your system. If the folder name selected should start with “jdk”. The other options will be

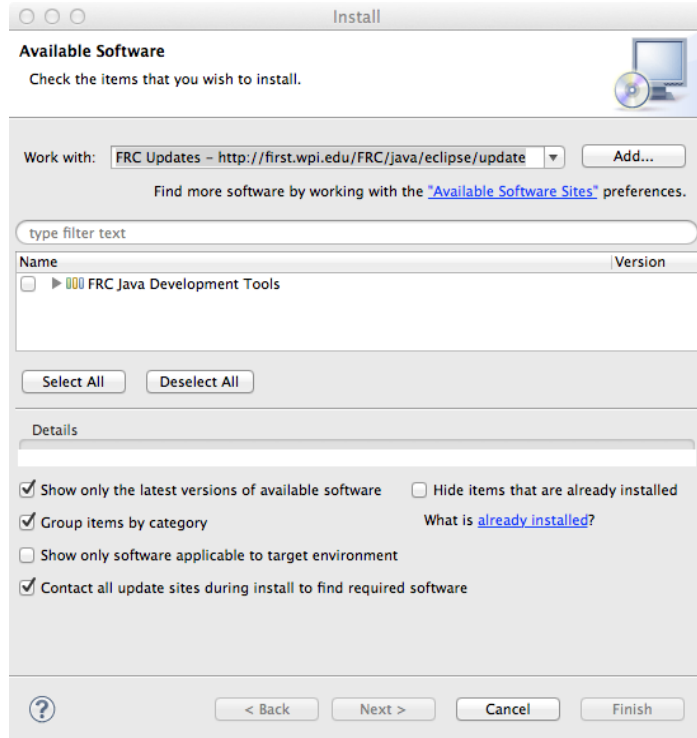
generated after the JDK folder is selected. Select ok, and then check off the newly created JDK option on the preferences screen.

Installing the plugin

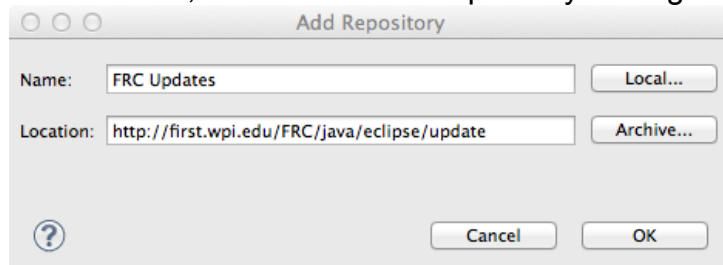
The plugin is installed the same way most plugins are installed in eclipse. Select “Help”, then “Install New Software...”.



Then select the update site (<http://first.wpi.edu/FRC/java/eclipse/update>) and select “Add...”.



When asked, fill out the “Add Repository” dialog:



Select “FRC Java Development Tools” and click “Next”. Then continue choosing the default options.

Plug-in Options

After installing the plug-ins, the only option which must be set is your team number. Go to the preference pages, and select the new “FRC JavaDev” option. Change the team number, and click Apply. The system will take a short time to extract and install the software development kit used by the plug-ins.

Plug-in Basics

The plug-ins will add new project wizards, build options, and element creation menus to your Eclipse installation. The new project wizards can be accessed by right-clicking in the Package Explorer window, selecting New->Project, and choosing a selection from the FRC Projects or FRC Sample Projects categories. If you right-click on one of these projects in the Package Explorer, you will see a menu under “New” labeled “New FRC

Elements”. This allows you to add common elements to your project. In addition, under the “Run As...” menu, you will find options to build and deploy your FRC projects.

Updating

Periodically, there will be updates to the plug-ins, and to the SDK. Be sure to check for updates regularly. Eclipse can be configured to check automatically as well, which is recommended for the best experience.

Problems

If you have any issues, please file a bug at

http://firstforge.wpi.edu/sf/tracker/do/listArtifacts/projects.wpilib/tracker.wpilib_java_bugs

, so we may investigate and solve the issue.