

Marlin Processor in Eclipse

Prerequisites

Here's how to set up Eclipse to work with a Marlin Processor, including debugger.

These instructions are for Eclipse Indigo. The instructions at <https://twiki.cern.ch/twiki/bin/view/CLIC/LCSimEclipse> may be a starting point to set up Eclipse, although they are for a different version.

Either

- Check out the Marlin Project and build it
 1. `source /afs/cern.ch/eng/clic/software/x86_64-slc5-gcc41/ILCSOFT/v01-12/init_ilcsoft.sh`
 2. `cmake -C $ILCSOFT/ILCSOFT.cmake ..`

or

- Create a new SVN project in eclipse and "Configure Project using New Project Wizard". Use the wizard to create a new C++ project.



Workspace Imports

When creating a new C++ Project from existing sources, the existing sources MAY NOT be in the eclipse Workdir.

Adding Marlin sources

Once you have the Project configured as a C++ project in Eclipse, Marlin sources are made available like this

1. Add the ILCSOFT include paths, e.g.
 - `/afs/cern.ch/eng/clic/software/x86_64-slc5-gcc41/ILCSOFT/v01-12/LCFIVertex/v00-06/include`
 - `/afs/cern.ch/eng/clic/software/x86_64-slc5-gcc41/ILCSOFT/v01-12/ilcutil/v00-02/include`
 - `/afs/cern.ch/eng/clic/software/x86_64-slc5-gcc41/ILCSOFT/v01-12/lcio/v02-00/include`
 - `/afs/cern.ch/eng/clic/software/x86_64-slc5-gcc41/ROOT/v5-30-00/include`
 - `/afs/cern.ch/eng/clic/software/x86_64-slc5-gcc41/ILCSOFT/v01-12/MarlinUtil/v01-04/include`
 - `/afs/cern.ch/eng/clic/software/x86_64-slc5-gcc41/ILCSOFT/v01-12/Marlin/v01-01/include`
 - They should show up under **Properties -> C++ General -> Paths and Symbols -> Includes Tab -> GNU C++**. You may be able to add them right there, but for me I had to
 - a. Enable **Generate Makefiles automatically** in **Properties -> C/C++ Build**
 - b. Add these paths under **Properties -> C/C++ Build -> Settings -> Tool Settings Tab**
 - c. Disable **Generate Makefiles automatically** in **Properties -> C/C++ Build**
2. Some parts of the code may be wrapped in `#ifdef`. Define the symbol for this `#ifdef` (e.g. `USEROOT`) under **Properties -> C++ General -> Paths and Symbols -> Symbols Tab -> GNU C++**
3. Specify the build location of your Makefile. In **Properties -> C/C++ Build**, in the build location field, add `/build` within the curly braces after the name of your project.

Now you're done and should have code completion available.

You can add **Run** and **Debug** configurations by specifying the location of the Marlin executable and adding the necessary `MARLIN_DLL` and `LD_LIBRARY_PATH` environment configurations. Details to be put here upon request.