ARM Assembly Language Plugin for Eclipse Installation and Usage Manual

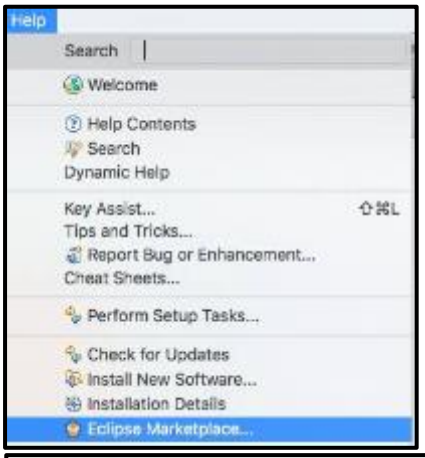
Note: The plugins were built for Eclipse Mars release. The installation instructions refer to the Mars release, which has a different plugin directory structure compared to earlier releases

Preinstallation Requirement

The Eclipse version used must support two features, that is the Xtext and ARM environment.

- Xtext is needed to support the features in the plugin.
- ARM environment is needed to support the direct compile of the ARM syntax in the Eclipse.

Step to install Xtext:



1. Click on Help > Eclipse Marketplace.
2. Search for Xtext.
3. Click on Go.
4. Click on Install.
5. Confirm and agree the remaining steps.

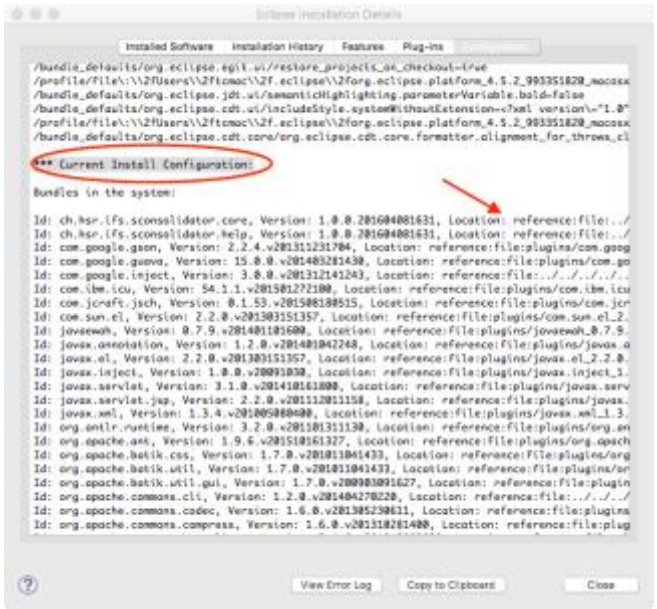
ARMEditor Plugin Installation

Now, you are ready to install the ARMEditor plugin. Get the three pre-built plugin files. Different operating system will have different ways of installation.

MAC OS [Updated for Installing to $USER .eclipse directory]

1. Launch Eclipse.app
2. Select Eclipse->About Eclipse Menu item

3. Click on Installation Details
4. Search for "`*** Current Install Configuration:`" You may want to copy and paste the text into a text editor to search instead of scrolling through the window.



The location is given by the path for existing user installed plugins, which should be similar to:

```
$USER/.eclipse/org.eclipse.platform_4.5.2***/plugins
```

5. Paste the plugin files into the $USER plugin folder.
6. Restart Eclipse.

Linux OS

1. Press Alt+F2.
2. At the terminal pop up, search gksu nautilus.
3. Authenticate by typing password. (Becareful, do not change any other things as this window involves administator's tasks.
4. Click on Computer > opt > eclipse > dropins.
5. Paste the plugin files intot he dropins folder.
6. Close the terminal.
7. Restart Eclipse.

Now, the ARM Assembly Language Plug in for Eclipse is ready to be used.

Setting Up the Project for ARM

1. Create a new C project.
2. Create a new souce file .S.
3. Click on the new project name in the workspace.
4. Click on Project > Properties > C/C++ Build > Setting.
5. Click on Tool Setting tab.
6. Change the feature like below.
    a. ARM family – change to arm7tdmi.
    b. Instuction set – change to ARM (-marm).
    c. Tick Thumb interwork
7. Click OK.

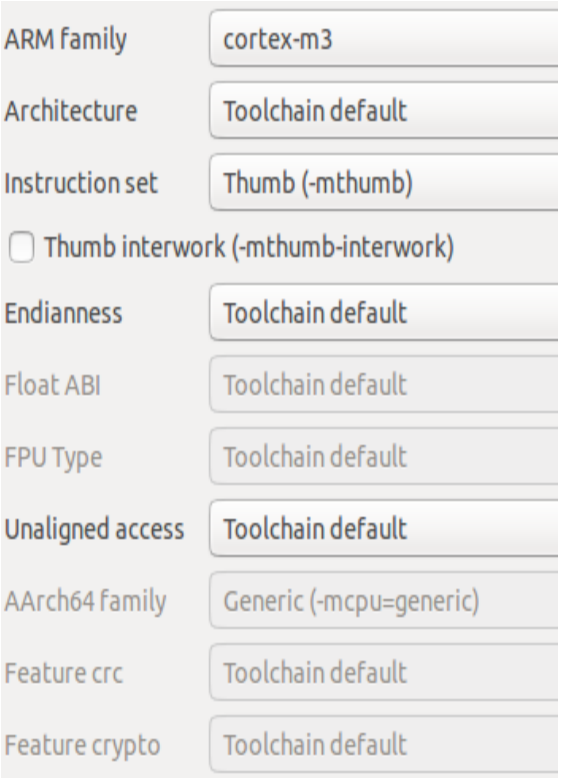


Figure 1 - Default setting.

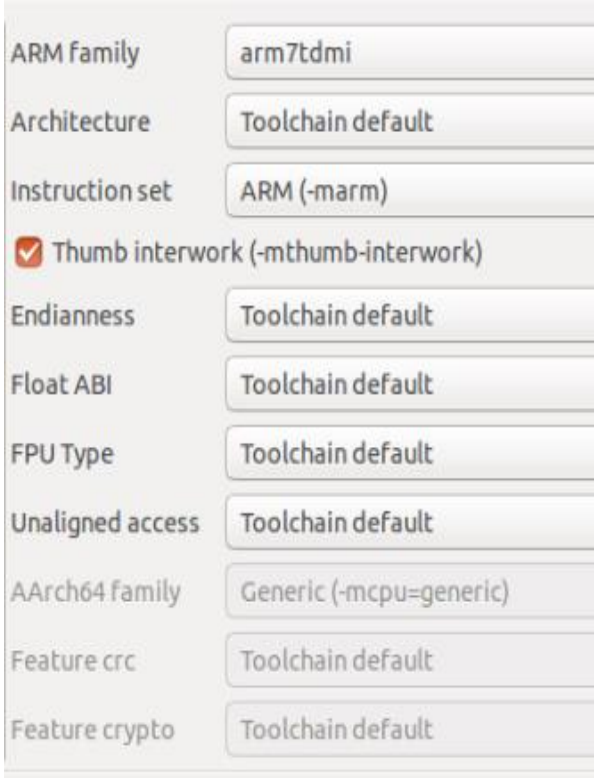


Figure 2 - ARM Setting.

ARMEditor Features

The ARMEditor Release 1.0.0.201604221502 targets the ARMv4T Instruction Set. Newer instructions for ARMv5 and above may not be recognized as valid Opcodes.

1. Right click at the ARM Assembly source file (.S) in the Project Explorer Pane.
2. Select ARM Editor.
3. Start syntax input
4. For Color highlighting, syntax colour should change immediately.
5. For instruction template, press ctrl+space together.
6. For help prompt, hover on syntax.
7. The ARM Assembler can be invoked in Eclipse directly.

Document History

Version (Date)	Description
0.1 (20160603)	Imported from Kow Jia Poh's documentation
1.0 (20160603)	Initial release 1.0.0.201606031414
1.01 (20160603)	Updated Plugin Installation details, org.xtext.arm.tests plugin no longer needed for release
1.02 (20160922)	Updated macOS plugin installation information for $USER plugin directory instead of the $APP plugin directory