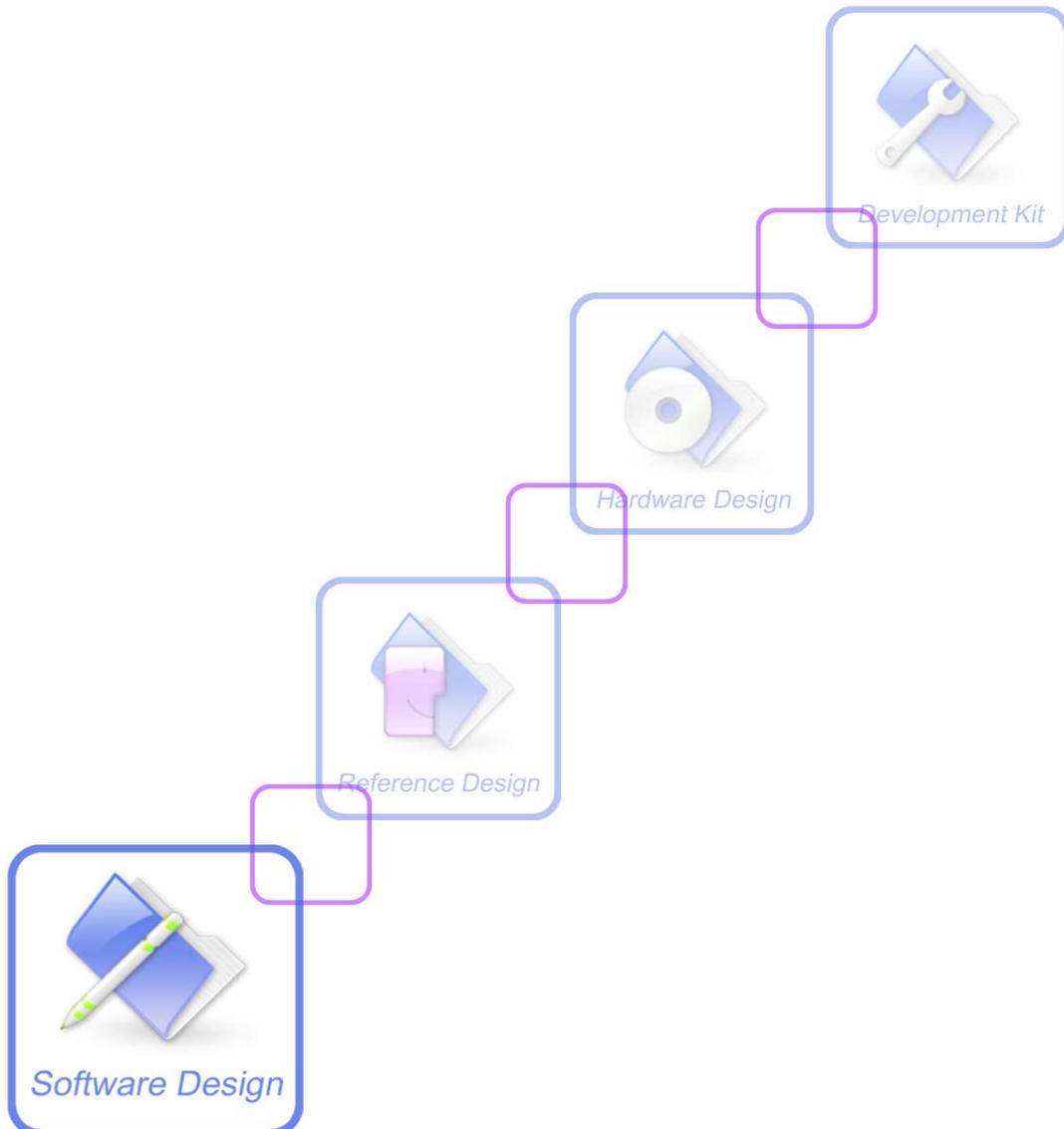




SIM900 Eclipse environment install Application Note_V1.00



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Revision history

Revision	Date	Description of change	Author
1.00	2013-01-11	Initial	MXN

SCOPE

This document describes how to use the IDE tool to develop user's own application. Examples are also given for reference. This document can be used for SIM900 serial modules, like SIM900, SIM900D, SIM900B and SIM900A.

This document is subject to change without notice at any time.

1 Introduction

SIMDevIDE is an IDE tool developed by SIMCom to integrate its core Embedded AT environment with customer's application development process. SIMDevIDE allows customers to edit, compile, link core libraries and download MOT file effortlessly. SIMDevIDE works with all versions of Windows. This document describes how to develop your project in Eclipse IDE.

2 Getting Started

Before installing SIMDevIDE tool, user should install arm compiler tool first.

2.1 Install SimDevIde

Uncompress the rar file (e.g. "1137B02V01SIM900A64_ST_EAT.rar"). Execute installation file (e.g. "SIM900ADevIDE V1.01 (1137B02V01SIM900A64_ST_EAT).exe") and follow the install instructions.

2.2 Install Java SE Development Kit

Go to the website <http://www.oracle.com/technetwork/java/javase/downloads/jdk7-downloads-1880260.html> to download the latest JDK.

2.3 Install Gcc compiler

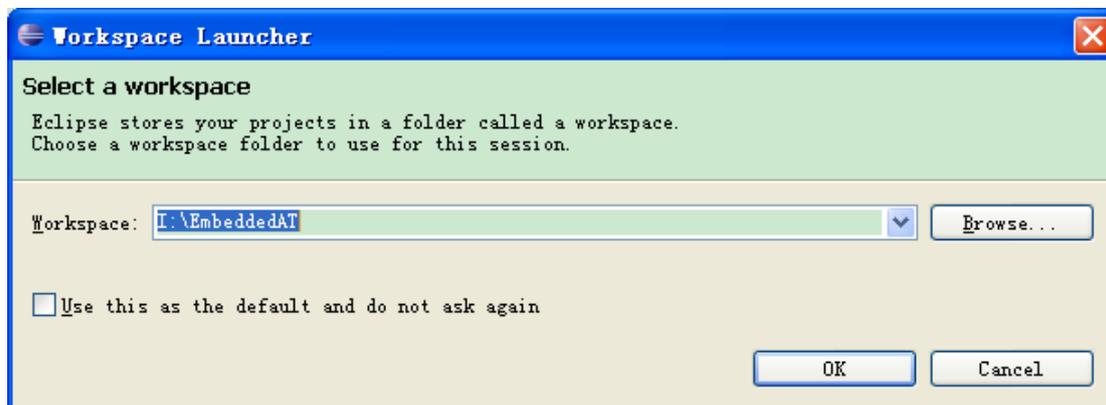
Go to the website <http://www.yagarto.de/> to download [YAGARTO Tools](#) and [YAGARTO GNU ARM toolchain](#). When the user has downloaded these two tools, please install them and note that these two tools must be only installed in the no-space and only English path.

2.4 Download Eclipse and its plug-in

Go to the website <http://www.eclipse.org/downloads/> to download Eclipse IDE for C/C++ Developers and go to the website <http://sourceforge.net/projects/gnuarmeclipse/> to download org.eclipse.cdt.cross.arm.gnu_0.5.4.201202210114.

2.5 Install Eclipse environment.

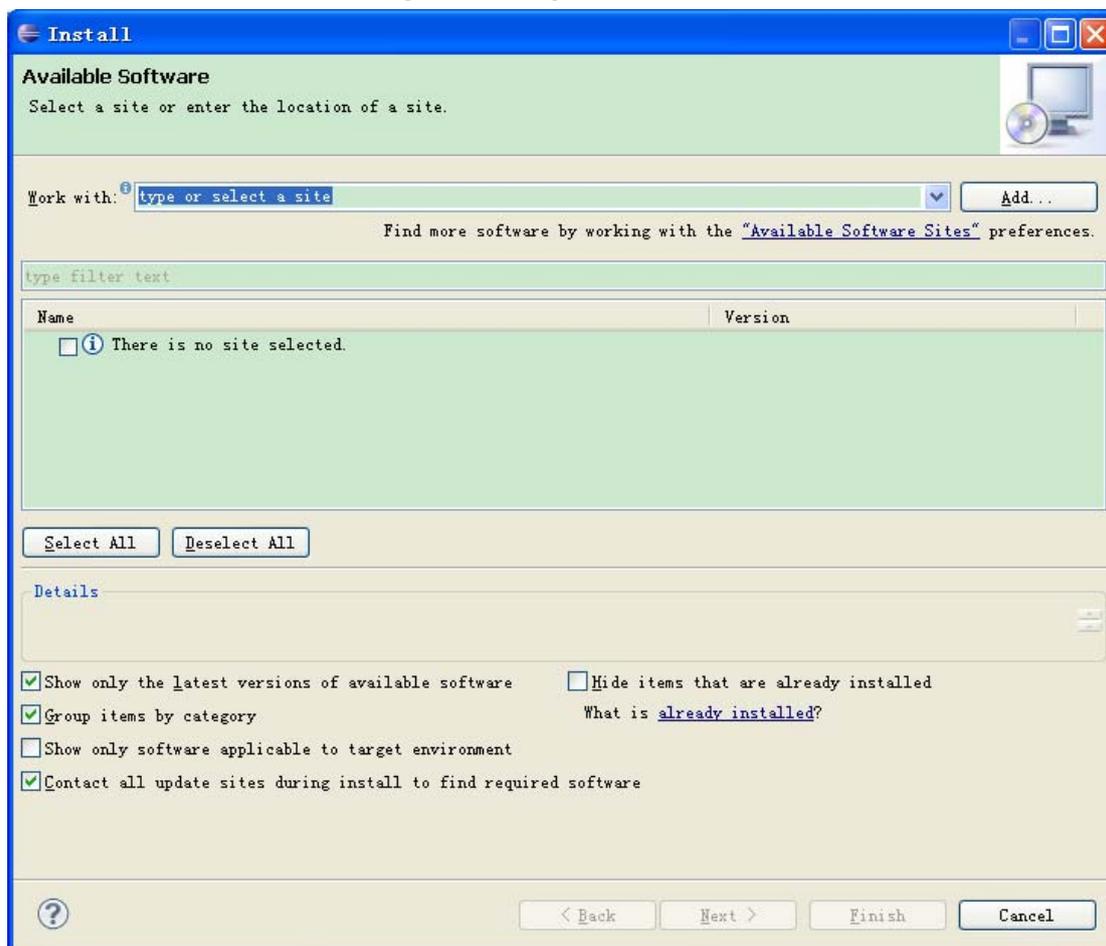
1. Uncompress the zip file (Eclipse IDE for C/C++ Developers) and click “eclipse.exe”.
2. Then select your workspace as following, and then click OK and wait for eclipse initialization.



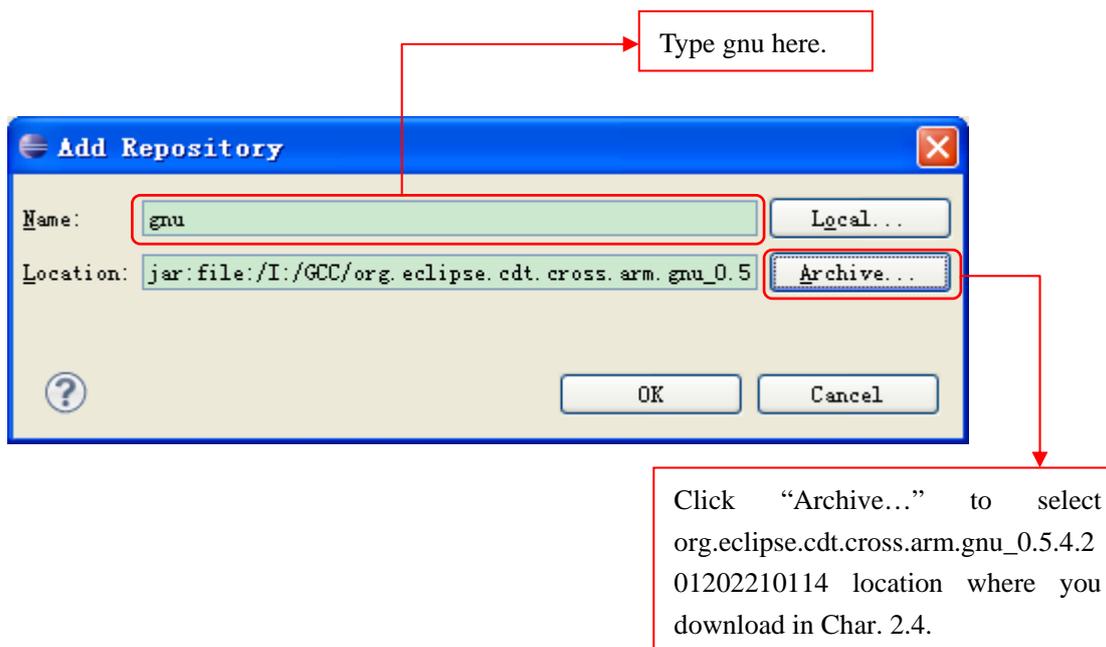
3. The eclipse IDE will show as following:



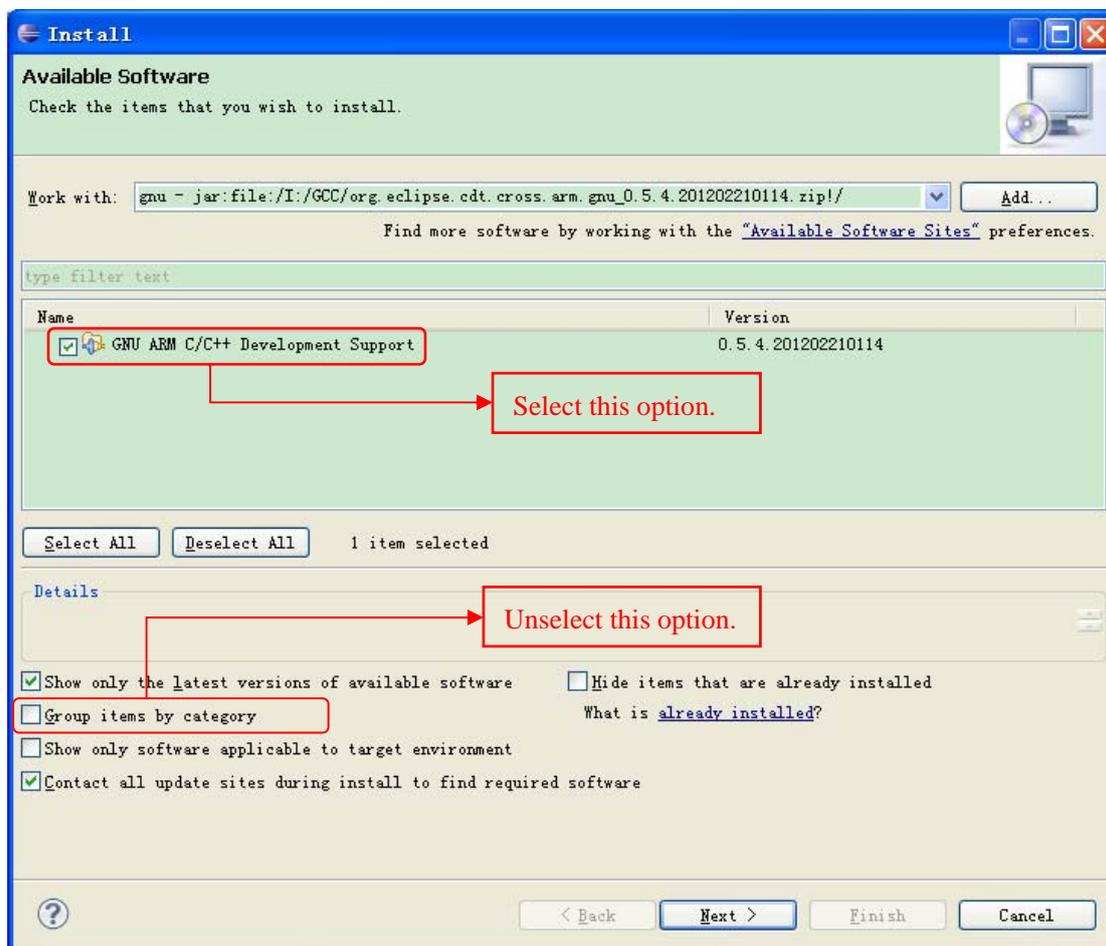
4. Install org.eclipse.cdt.cross.arm.gnu_0.5.4.201202210114. Please click **“help->install new software”**, and it will show a dialog as following:



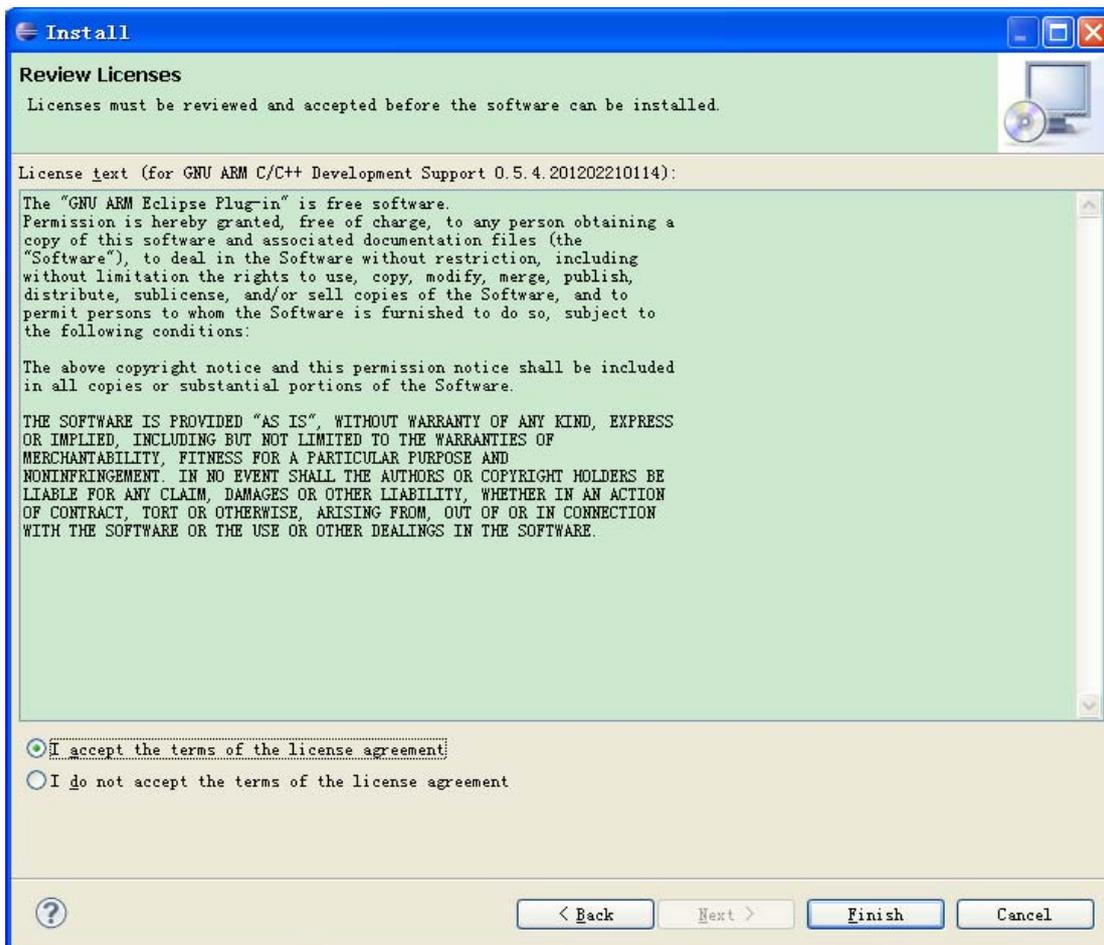
5. Click **“Add”** and then it will show a dialog as following and click **“OK”**:



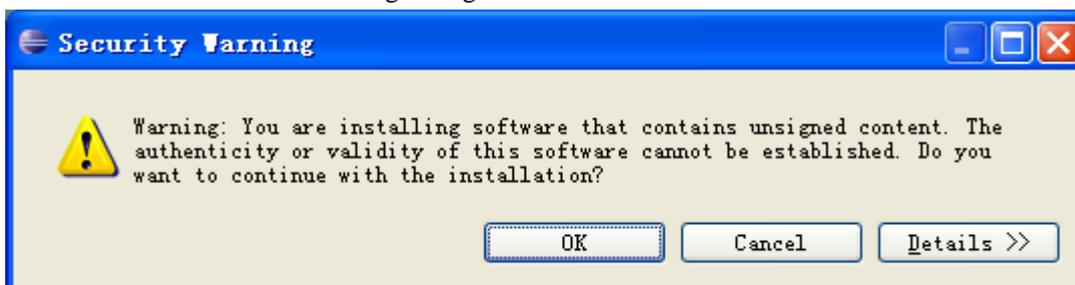
6. Unselect **“Group items by category”** and select **“GNU ARM C/C++ Development Support”**, and then click “Next”.



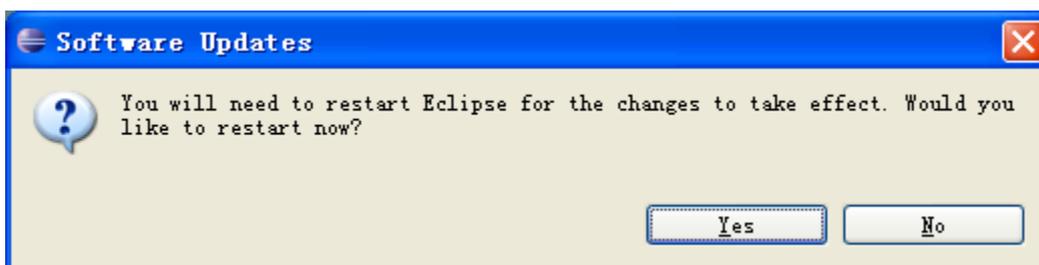
7. Select **"I accept the terms of the license agreement"** and click **"Finish"**.



8. Click **"OK"** when the following dialog is shown.



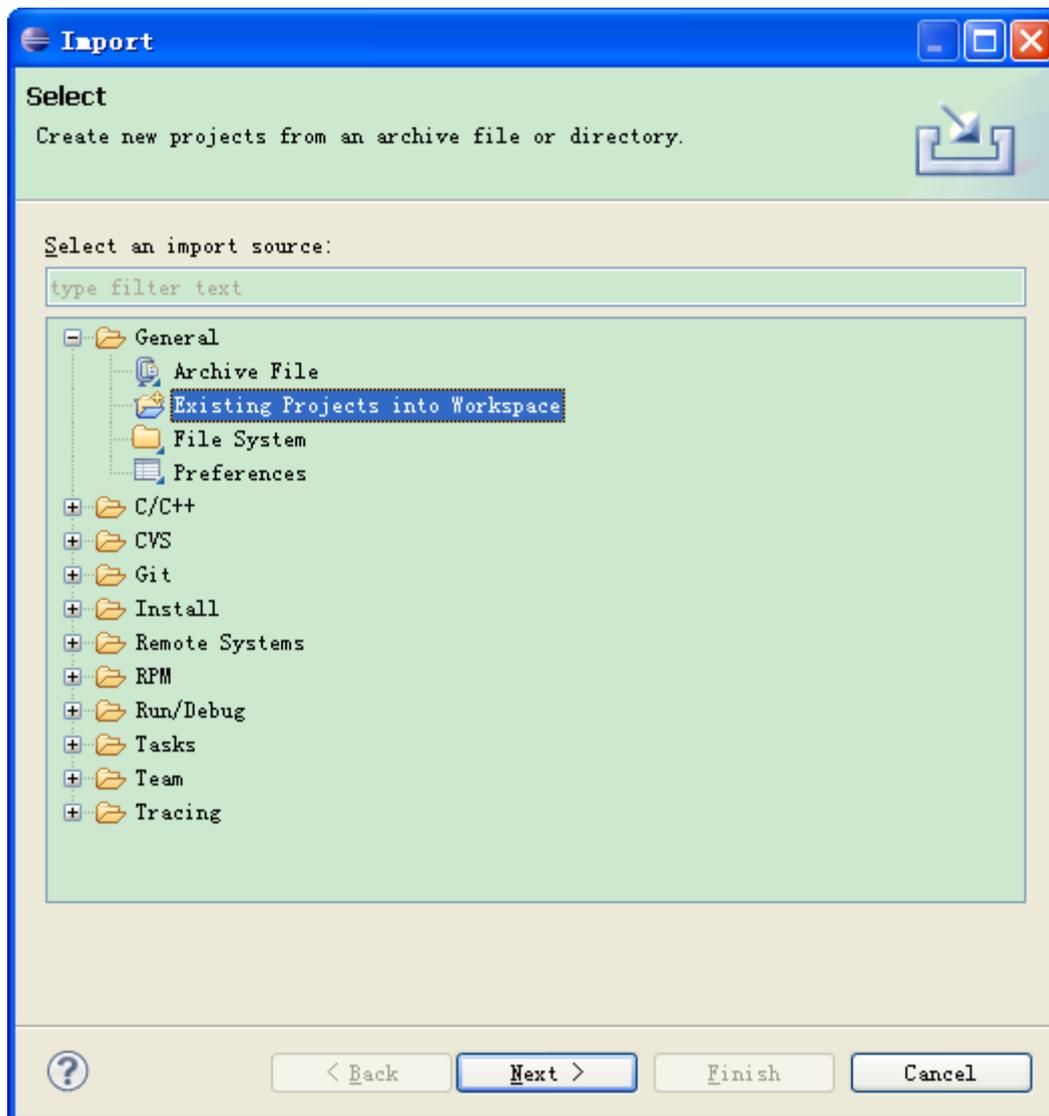
9. Wait for install finished. And click **"Yes"** when the following dialog is shown and wait the eclipse restarts.



10. Now we finish the eclipse gun arm plug-in installation.

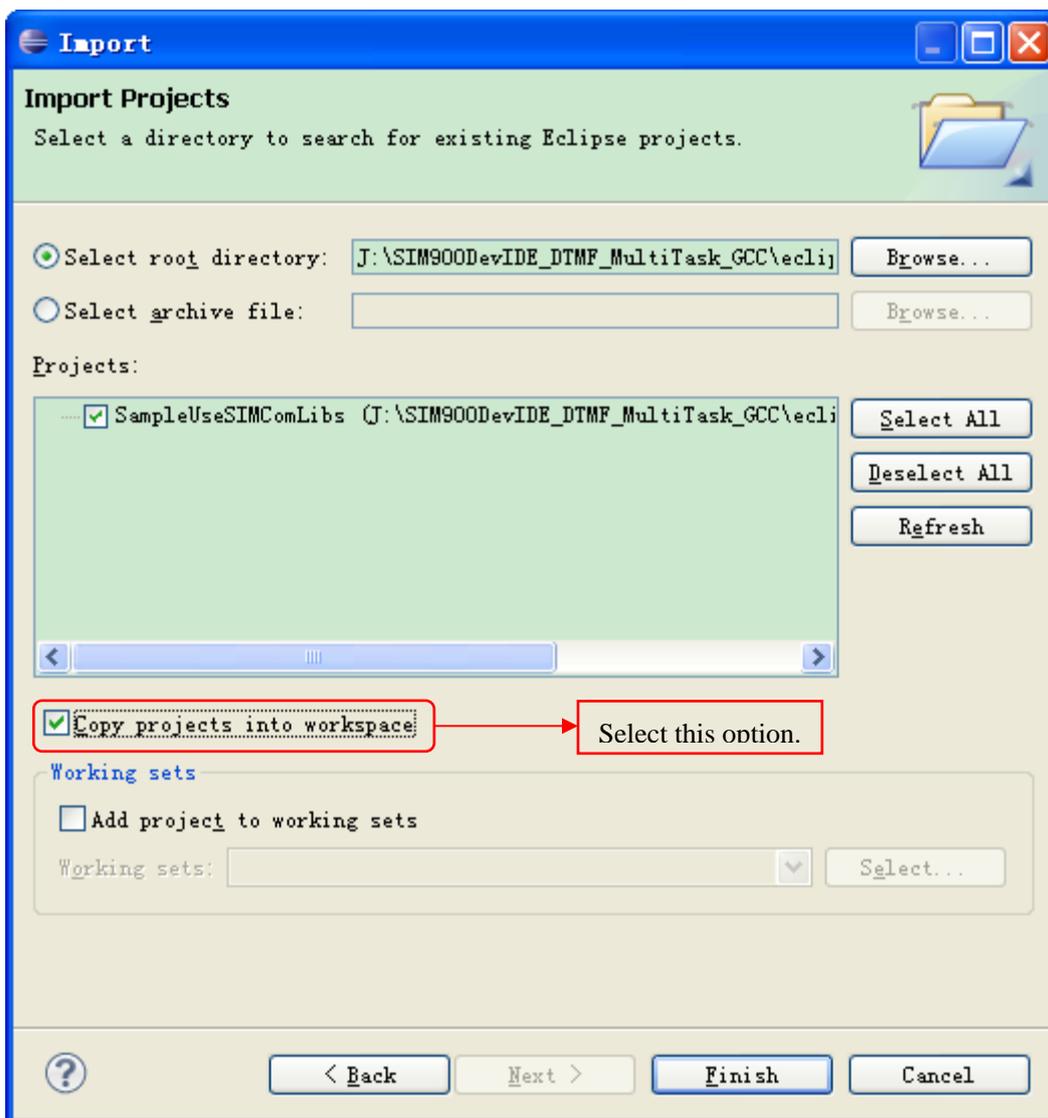
2.6 Import a project

1. Copy **“EmbatSIM”** folder (which is in the SIMDevIDE tool root path) into eclipse workspace path. (In this document, the eclipse workspace path is “I:\EmbeddedAT”)
2. Click **“File->Import”** and select **“General-> Existing Projects into Workspace”**. And then click **“Next”**.



3. Click **“Browse”** to select the project location. The project is located in “SIMDevIDE tool root path\ eclipse_example”. And there are two projects in this folder. One is using SIMCom libraries (SampleUseSIMComLibs) instead of using GCC C standard running libraries. This project is that when the core firmware is changed, you must compile your app again. The other one is using GCC C standard running libraries (SampleWithGccLibs). This project is that when the core firmware is changed, you don’t need to compile your app again.

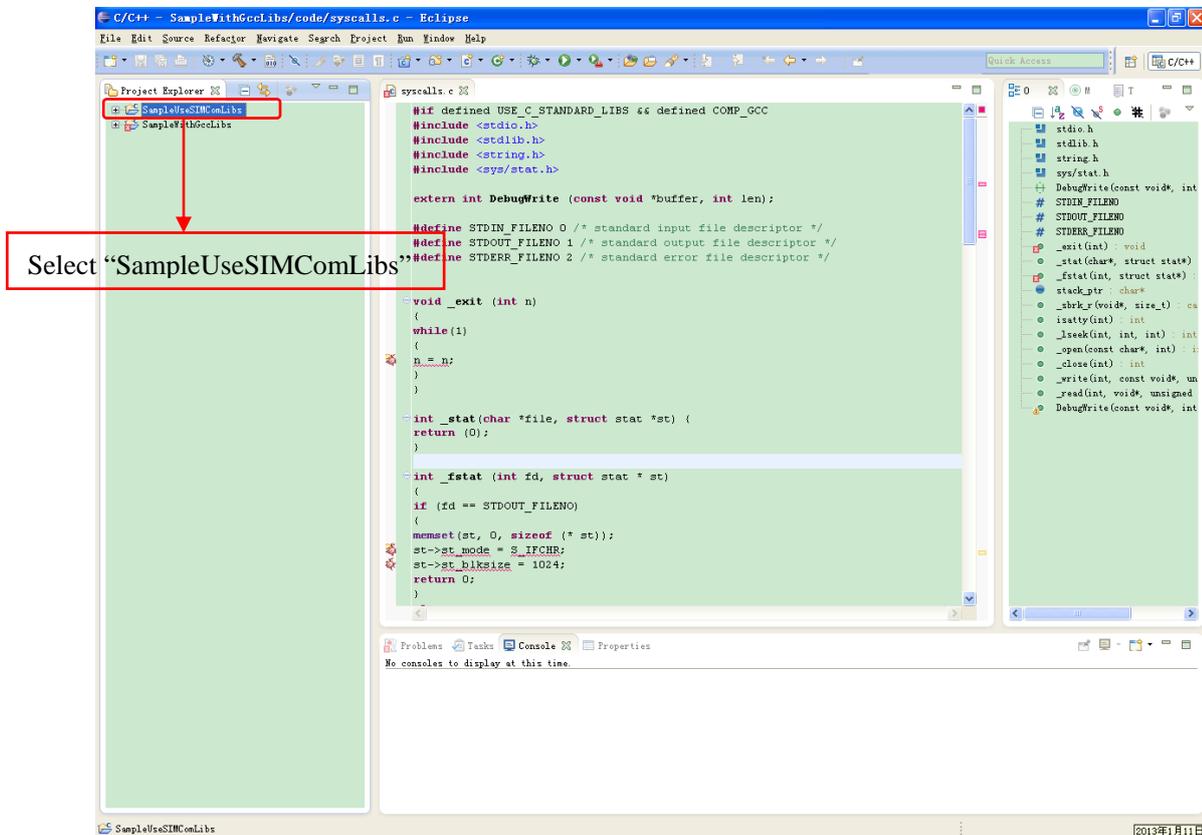
Click **“Finish”**.



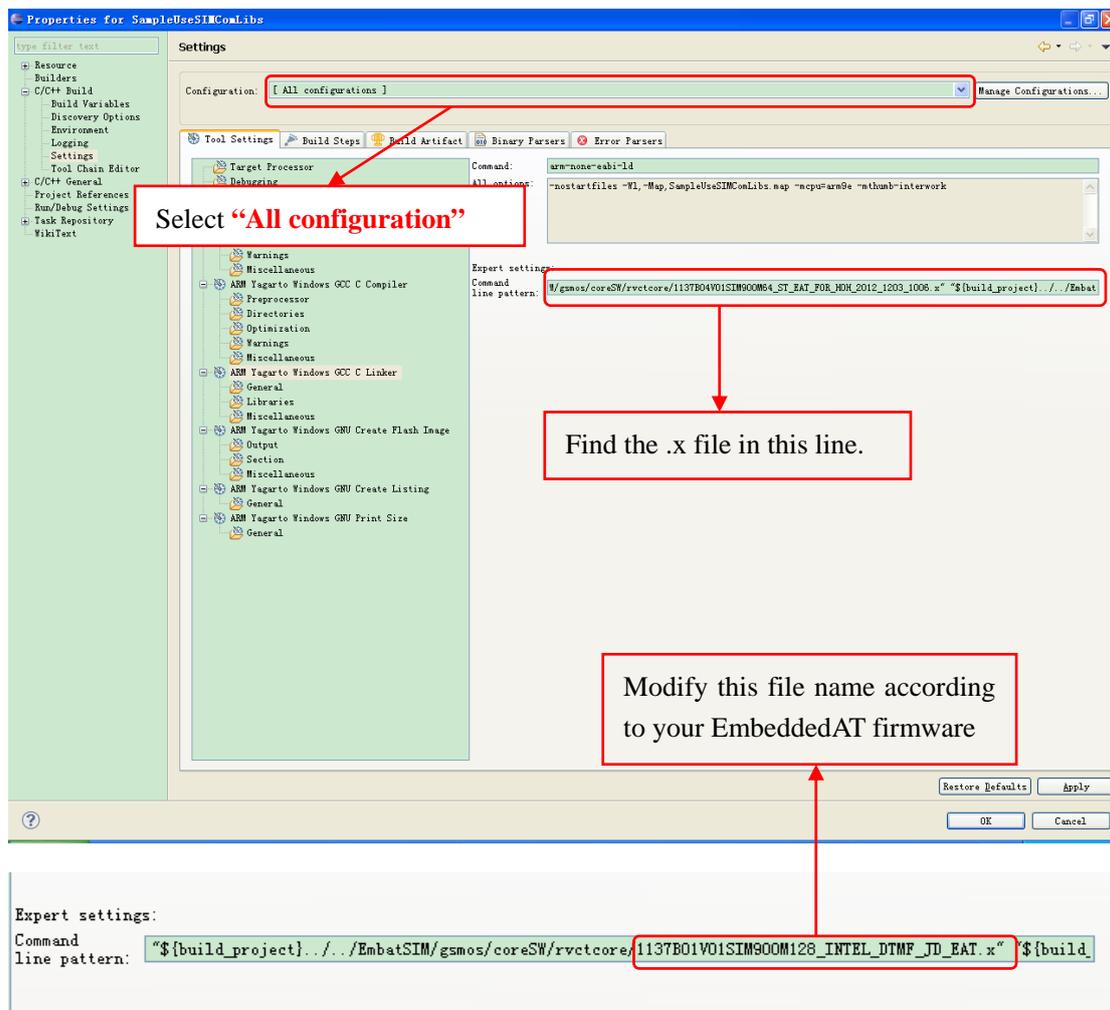
4. If you import “SampleWithGccLibs” project, you don’t need to modify anything, just to compile it. Note that if you use this project and when the core is changed, you don’t want to compile your app again, you must call the function point API instead of function API such as “eat_GetEvent”. Please don’t call “eat1_02GetEvent” function.

If you import “SampleUseSIMComLibs”, you must modify the .x file path. The steps are as following:

a) Click the project which you want to modify. Here we select the project “SampleUseSIMComLibs”.



- b) Click **“Project->Properties”** and it will show a new dialog as following. Select **“C/C++ build->Settings->ARM Targets Windows GCC C Linker”**. And modify the “.x” file name. The “.x” file is located in “EmbatSIM\gsmos\coreSW\rvctcore” of the Eclipse workspace. Please find .x file and replace the file name.

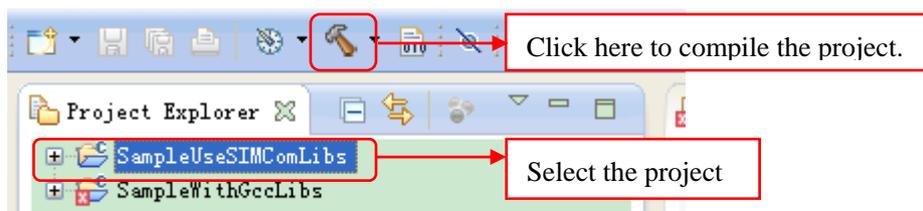


Note: Please don't delete *fl_main*, *fl_ctr0.s*, *syscalls.c* files. These files are the gcc environment boot files.

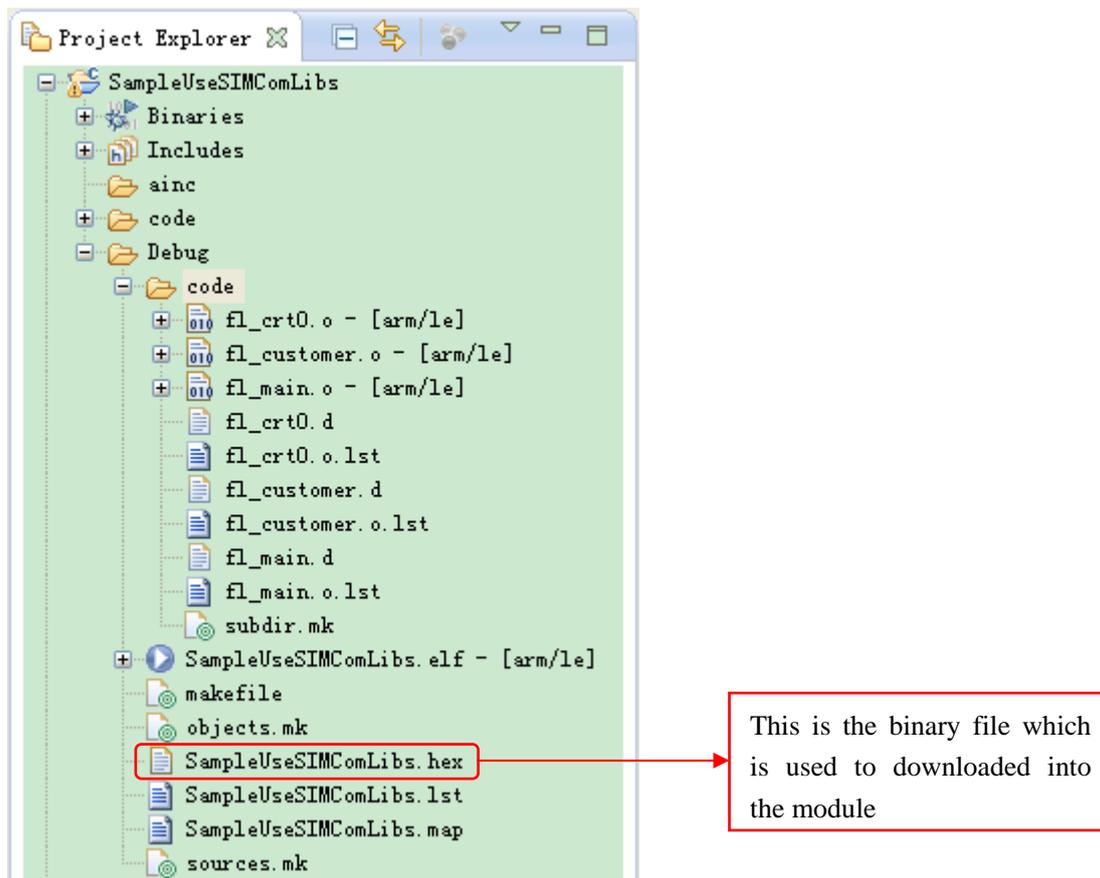
2.7 Compile your project

Click and select the project which you want to compile as following. Click Hammer icon to compile the project.

If the compilation is completed with no problem, the binary file, with a name of xxx.hex, will be generated under the Release or Debug directory of the project directory, depending on which configuration mode you are currently working on.

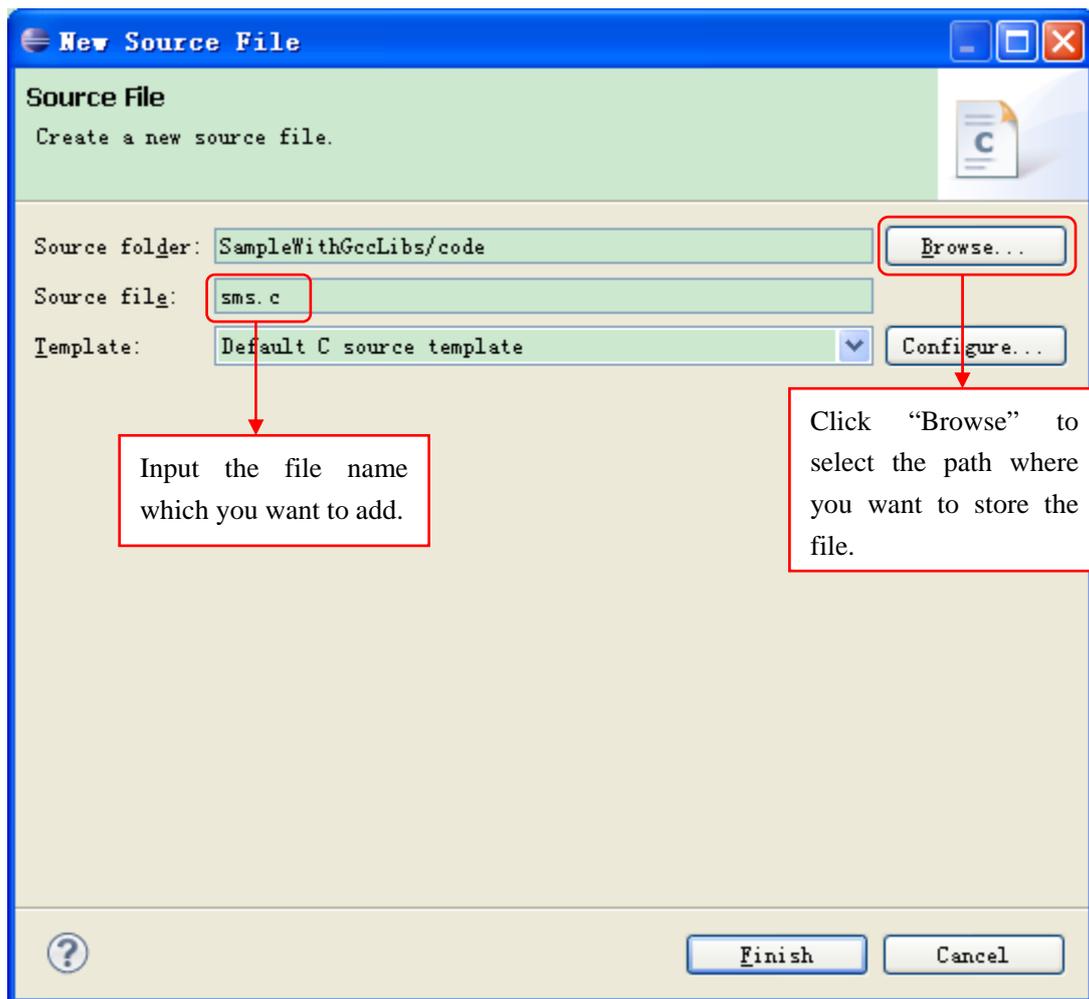


The following is the compiler result:



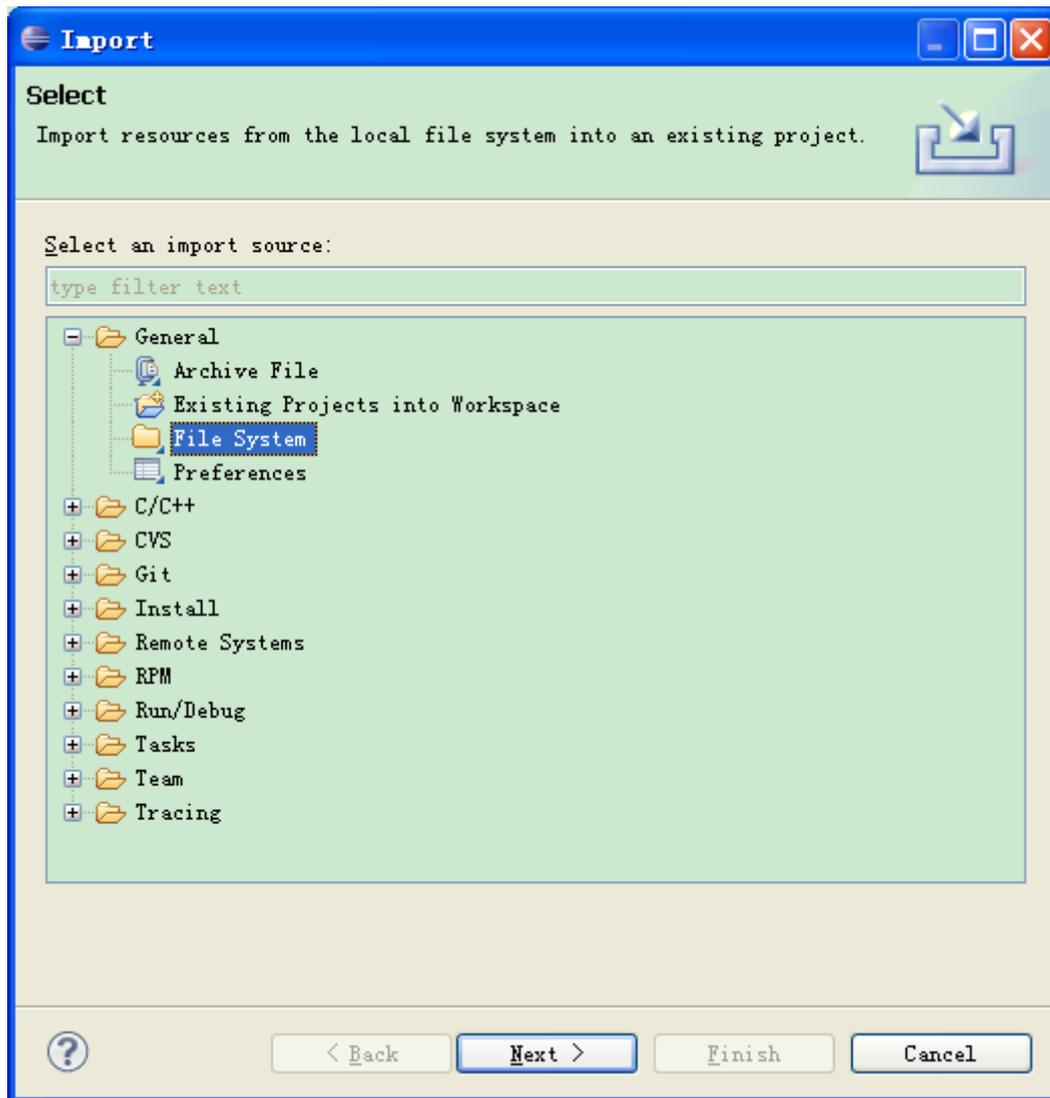
2.8 Add a new file

Click **“File->New->Source File”** or **“File->New->Header File”**. It will show the dialog as following. Click **“Browse”** to select the path where you want to store the file. In **“Source file”** line, please input the file name which you want to add.



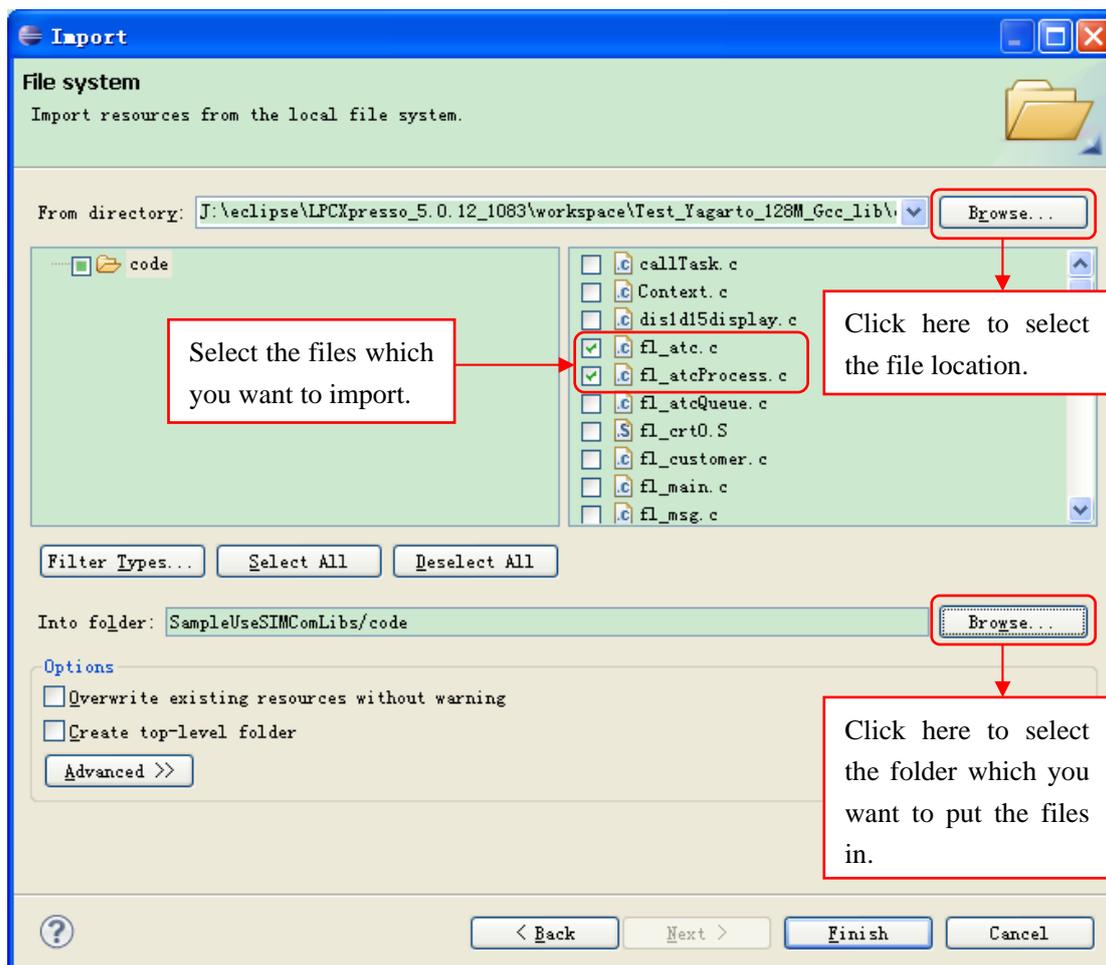
2.9 Add an existing file

1. Click **“File->Import”** and select **“General->File System”**, then click **“Next”**.



2. Click **“From Directory->Browse”** to select the file location and select the file which you want to import. And Click **“Into folder”** to select the folder which you want to put files into. At last,

click **“Finish”**.



2.10 Download to SIMCom Module

1. Select “Build->Download” menu.
2. Configure the options as below. It is recommended to use the default value for the options

“Baud Rate” and “FileCount”.

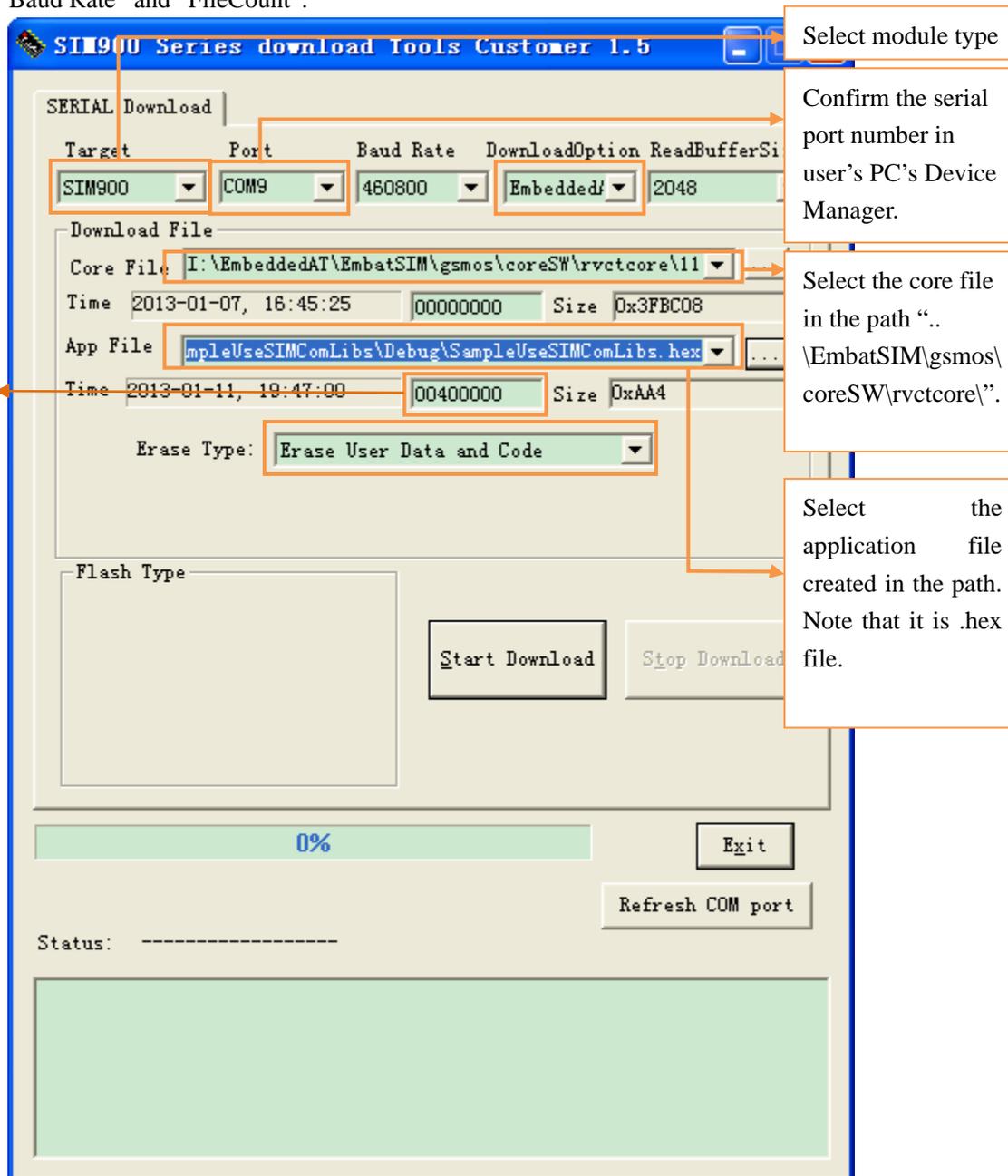


Figure 11

3. Download user's application to the module by pressing "Start Download" button.

Note: If user only needs to download the application file, set the "DownloadOption" option to "NORMAL" and "Erase Type" to "Erase User Data and Code".

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