

# BUILDING FOR SYMBIAN TARGETS

## *Requirements*

- 1) [Symbian S60 3rd Edition Maintenance Release \(MR\)](#). Other SDK versions may work, but I did not test it.
- 2) [Carbide C++ version 1.2](#) or higher. You will need the Developer Edition to do on-device debugging (21 days evaluation is available). You can also use the Express Edition; just ignore the instructions on debugging.
- 3) [Nokia PC Suite](#) for the connectivity between the device and your PC (I use version 6.85)
- 4) Latest PJSIP from SVN trunk
- 5) Nokia S60 3rd Edition device (I use Nokia E70, but any S60 3rd Edition device should do, I think)
- 6) Nokia data cable for on-device debugging (you can also use Bluetooth connection, but this tutorial will not cover it)

## **Installations**

### SDK

Follow the installation instructions in the SDK documentation (make sure that the SDK requisites, such as Perl version, are satisfied). Please install Symbian SDK on the same drive as PJSIP.

### Carbide

Follow the installation instructions in the Carbide C++ documentation. The installation should be straightforward, but don't forget to select the Developer's Edition (instead of Personal Edition) to get the On-Device debugging/TRK Debugging feature.

(There is a 21 days evaluation period for the Developers Edition. If you have installed Carbide before and your evaluation period is over, you may not be able to select the Developers Edition, and you will have to purchase the Developers license)

### Nokia PC Suite

Install PC Suite, connect your device with the USB cable, and make sure your PC can access your device.

### Connect Data Cable

Connect the USB cable to the phone, and on the phone, select PC Suite: Leave PC Suite running with the device connected using the USB cable throughout this session.

### Importing PJSIP Projects

Run Carbide C++. When it asks the workspace location, enter a directory where you would want to put Carbide specific settings for PJSIP (or just accept the default value):

- Select File --> Import from the menu: This dialog below will pop up.
- Select Symbian OS --> Symbian OS Bld.inf file from the list, then press Next button:

- On the next dialog, click Browse.. button to select bld.inf file from PJSIP's build.symbian directory, then press Next button:
- Then on the SDK selection dialog, select the build configurations that you want to support. Select WINSW and GCCE from S60 3rd Edition MR SDK, and press Next button (do not select ARMV5 unless you have the commercial ARMV5 compiler):
- press Next press
- press the Finish button: Finish

Wait for the process to complete.

Once it completes, you will see the pjproject tree on the bottom left part of the Carbide main window

Select the Build Configuration

First select the build target by selecting Project --> Active Build Configuration from main menu (or right clicking the *Bld.inf* or *pjproject* item from *Symbian Project Navigator* pane from the bottom left part of the main window).

Select Phone Debug (GCCE) [S60\_3rd\_MR] from the menu:

Then right click *Bld.inf* or *pjproject* item from *Symbian Project Navigator* pane from the bottom left part of the main window, and select Build Target Only:  
Once it completes, watch out for any errors in the *Problems* pane (at the bottom center). There shouldn't be any errors, although there may be few warnings which I think can be ignored, for now.

Preparing the .sis/.six File

The .sis file is the packaging for the executable to be deployed in the device. The .six file is a signed .sis. Both the .sis and .six file can be created very easily with Carbide C++.

Set the .pkg File to be Used

First we'll need to configure the .pkg file to be used to generate the .six file.

Assign the .pkg file to be used by the project by selecting Project Properties:

Then Project Properties dialog will appear. On this dialog:

1. Select *Carbide Build Configuration* from the tree (left part of the dialog).
2. Make sure that the Active Configuration is set to **Phone Debug (GCCE) [S60\_3rd\_MR]** (the SDK name will be different, if you use different SDK version)
3. Set the *PKG File* by clicking *Browse...* button, and choose *symbian\_ua\_udeb.pkg* from PJSIP's *build.symbian* directory.

We can leave the "SIS creation and Signing" settings empty to use the default settings.

The dialog window now should look like this:

