

Installing Cellphone Development Environment

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1. Here is a list of the required software (all available for free):

- Java SE
- NetBeans
- Nokia PC Suite
- Nokia Series 40 Emulator
- Nokia Series 60 Emulator

Here's where to download the software:

Java SE	(java.sun.com downloads)
Java SE docs	(java.sun.com downloads)
NetBeans (6.5.1)	(www.netbeans.org , click "Download NetBeans IDE" then download the Java bundle that contains Java ME)
Nokia Emulators	(forum.nokia.com/Resources_and_Information/Tools/Platforms/)

2. Install these tools:

- Java SE
- Nokia PC Suite
- Nokia Series 60 Emulator
 - (Unzip nS60_jme_sdk_3rd_e_FP1.zip into a directory and run setup.exe)
- Nokia Series 40 6th Edition emulator
 - (Unzip Series_40_6th_Edition_SDK_v1_0_en.zip and run setup.exe)
- Nokia Series 40 3rd Edition Feature Pack 2
 - (Unzip Series_40_3rd_Edition_FP2_1_0.zip and run setup.exe)

3. Install:

NetBeans

When the installer begins click:

[Customize]

The only portions needed for cellphone development are:

- Base IDE
- Java SE
- Java ME

(Declining to install additional portions will save 300 MB)

Note: you cannot remove (uninstall) NetBeans without Java SE installed on the machine.

4. Apprise NetBeans of emulators. Start NetBeans. Then:

[Tools] → **[Java Platforms]** → **[J2SE]** → **[Add Platform]** →

[Java ME MIDP Platform Emulator] → **[Next]**

[Find More Java ME Platform Folders]

A FileChooser will appear. Specify:

C:\S60

Click:

[Select]

Now the two Nokia emulators will be displayed. Click:

[Next]

Platform details will be displayed. Click:

[Finish] → **[Close]**

Creating a New MIDlet with NetBeans 6.5.1

1. Open NetBeans. Close the “Start Page” tab in the main pane.

2. Choose:

[File] → [New Project]

A form will appear. Highlight:

JavaME and **Mobile Application**

Click:

[Next]

A new form will appear.

3. Fill in the form:

Project Name: **Hello**
Project Location: **C:\celldev**
Project Folder **C:\celldev\Hello**

Set as Main Project: **checked**
Create Hello MIDlet: **unchecked**

Click:

[Next]

A new form will appear.

4. Fill in the form:

Emulator Platform: **S40 SDK 3rd Edition**
Device: **S40 SDK_3rd_Edition**
Device Configuration: **CLDC-1.1**
Device Profile: **MIDP-2.0**

Choice of CLDC-1.0 and MIDP-1.0 will allow application to run on more devices

Click:

[Next]

A new form will appear.

5. This form is where one can specify that a project should build multiple version of the code for different kinds of phones. Don't make any changes to this form.

Click:

[Finish]

6. Create the Java file containing the “main” method (extends MIDlet). Choose:
[File] → [New File]

A form will appear. Highlight:

MIDP and **MIDlet**

Click:

[Next]

A new form will appear. Fill it in:

MIDlet Name: **Hi**
MIDP Class Name: **Hi**

Project: **Hello**
Created File: **C:\celldev\Hello\src\Hi.java**

Click:

[Finish]

Paste code into Hi.java

7. Create additional necessary Java files. Choose:
[File] → [New File]

A form will appear. Highlight:

Java and **Java Class**

Click:

[Next]

A new form will appear. Fill it in:

Class Name: **Helloscreen**

Click:

[Finish]

Paste code into Helloscreen.java

8. Build a Series 60 version and run in emulator. In **Projects** pane (upper left):
]Hello[→ [Properties] → [Platform]

Fill in form:

Select Platform Type: **CLC/MIDP**
Emulator Platform: **S60 3rd Edition FP1 SDK for MIDP**
Device: **S60Emulator**

Click:

[OK]

Clean and Build Main Project

Run Main Project

9. Deploy to S60 phone. Create deployment instance. In Projects pane (upper left):

]Hello[→ [Properties] → [Deploying]

From pull down menu:

Select Deployment Method: **Nokia Terminal connected via PC Suite**

Click:

[Manage Deployment] → [default] → [Add Instance]

New Instance Name: **N95**

Click:

[OK]

[Deploy to Selected Devices]

In “All connected devices” pane:

[N95] → [Close] → [OK]

Select deployment instance:

]Hello[→ [Properties] → [Deploying]

From “Deployment Instance” menu select:

[N95] → [OK]

Clean and Build Main Project

10. Build a Series 40 version. I **Projects** pane (upper left):

]Hello[→ [Properties] → [Platform]

Fill in form:

Select Platform Type:	CLC/MIDP	
Emulator Platform:	S40 6rd Edition SDK	
Device:	S40_6th_Edition_SDK	
Optional Packages	uncheck all	(this is not necessary)

Click:

[OK]

Clean and Build Main Project

Run Main Project

Moving an Existing MIDlet from One Machine to Another

Assume a project has been created using NetBeans, the entire project (and all subdirectories) have been backed up, and that backup should be restored to the original (or another) machine. Example:

Entire Bongo project has been saved to a pendrive

To move Bongo to a new, naked machine:

1. Perform all steps in “Installing Cellphone Development Environment.”
2. Perform steps 1 – 6 in “Creating a New MIDlet with NetBeans 6.5.1” being careful to replace project name “Hello” with “Bongo,” and MIDlet name “Hi” with “Bongo.”
3. Close NetBeans. Step 2 caused a **Bongo** project directory to be created on the target computer. The backup also contains a directory called **Bongo**, with these subdirectories:

- build
- dist
- nbproject
- src

Copy the subdirectories into the Bongo project directory on the target machine.

4. Start NetBeans and open Bongo project. If NetBeans complains about resolving something or other, remove and reinstall the S40 and S60 platforms (in NetBeans). Compile and run.