S60 3rd Edition SDK for Symbian OS Supporting Feature Pack 1, for MIDP Installation Guide

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Contents

1.   Introduction

1.1   About this Installation Guide

This document describes what you need to know and do to install S60 3rd Edition SDK for Symbian OS Supporting Feature Pack 1, for MIDP.

The SDK enables MIDP application development for devices based on the S60 platform. The SDK is based on the S60 3rd Edition Developer Platform and Symbian OS v9.2. It includes all key functionality needed for application development, including documentation, API reference information and an emulator.

The SDK installation package is provided as a self-extracting archive file.

The following steps will guide the installation and setting up of the SDK software on your PC. The installation package contains a phone emulator, Java^{TM} class libraries, API reference documentation, user documentation and an uninstaller.

1.2   Who Should Read this Guide?

You should read this guide if you plan to install S60 3rd Edition SDK for Symbian OS, Supporting Feature Pack 1, for MIDP.

1.3   Typographical Conventions

Notation	Explanation
`Courier`	• Text that you enter (as opposed to system prompts and responses) • File paths • Commands • Program code
Italic	• Names of books and documents • New terminology
Bold	Names of Microsoft Windows menus, commands, buttons, and icons
URL link	Active link to an external URL

Table 1: Typographical conventions

2. System Requirements

Before installing the SDK, check that you have the minimum hardware and software requirements listed in this section. With these minimum requirements, you can run the SDK as a standalone application. If you plan to use the SDK with an integrated development environment (IDE), please make sure you have the requirements mandated by the IDE in question.

2.1 Hardware requirements

2.1.1 Minimum hardware configuration

The minimum hardware configuration for installing and running the SDK is:

- 1 GHz processor (minimum IDE and OS requirement of processor is 500 MHz)

- 512 MB RAM (minimum IDE and OS requirement is 128 MB of RAM)

- 16-bit colour

- 1024x768 resolution

- 1 GB free hard disk space

- Microsoft Windows compatible sound card is required for the audio support

- Keyboard and mouse

2.1.2 Supported peripheral hardware

The following peripheral hardware is supported:

Bluetooth cards and dongles:

- TDK BRBLU04

- Brainboxes BL-500

- Casira (HCI BCSP & H4)

- Cards supporting HCI BCSP

- Wrapper for Bluetooth USB dongles (with CSR chipset) at H4 mode.

Infrared devices:

- Extended Systems ESI-9680 RS-232 IR pod (or compatible)

Network cards:

- Ethernet cards that comply with IEEE 802.3 standards (Ndismedium802_3)

Note: See IDE documentation for minimum hardware requirements.

2.2   Software Requirements

The minimum software requirements for installing and running the SDK are listed below.

- Java Runtime version 1.4.2_02 or newer

- DirectX version 9.0c or newer

The following operating systems are supported:

- Microsoft Windows XP Professional SP2

- Microsoft Windows 2000 SP4

2.3   Additional Installation Requirements

- All installations must be performed using an administrator account. Otherwise, some environment variables may not be set correctly.

- The SDK must be installed in a path that does not contain any whitespace characters.

- SDK, IDE and your project files must be located on the same logical drive as build tools to work correctly in all situations.

3.   Installing the SDK

3.1   Prerequisites

All installations should be performed with an account that belongs to local administrators group. You should close all other applications before starting the installer.

The installation order is the following:

1. Install Java™ 2 Platform, Standard Edition (J2SE).

2. Verify that you have DirectX 9.0c installed on your PC.

3. Install the S60 SDK.

3.2   Installing the Java™ 2 platform

To install the Java™ 2 Platform, do the following:

1. Go to the http://java.sun.com/downloads/index.html.

2. Select *J2SE 1.4.2* (or newer) from the **Java Platform, Standard Edition (Java SE)** drop-down menu and click **Go**.

3. Follow the downloading and installation instructions.

3.3   Verifying DirectX version

To verify that you have DirectX 9.0c installed on your PC, enter the following command in the Command Prompt:

```
dxdiag
```

The DirectX version installed on your PC is displayed in the **System** tab of the **DirectX Diagnostic Tool** window that appears.

If the version is **not** 9.0c (or higher), you need to update it. You can get the latest DirectX from the Microsoft DirectX Home Page at http://www.microsoft.com/windows/directx/default.mspx.

3.4   Installing the SDK

This section provides the basic steps for a typical installation of the SDK. By following the steps below you will install the SDK to your PC and be able to start application development.

Once you have downloaded the installation package (`.zip` file) on you PC, installing the S60 SDK takes place through the SDK Installer, that is, the **InstallShield Wizard**. The following will take you through the steps needed to install the SDK.

1. Start the SDK installation by running the installation executable (`setup.exe`). The **InstallShield Wizard** panel appears:
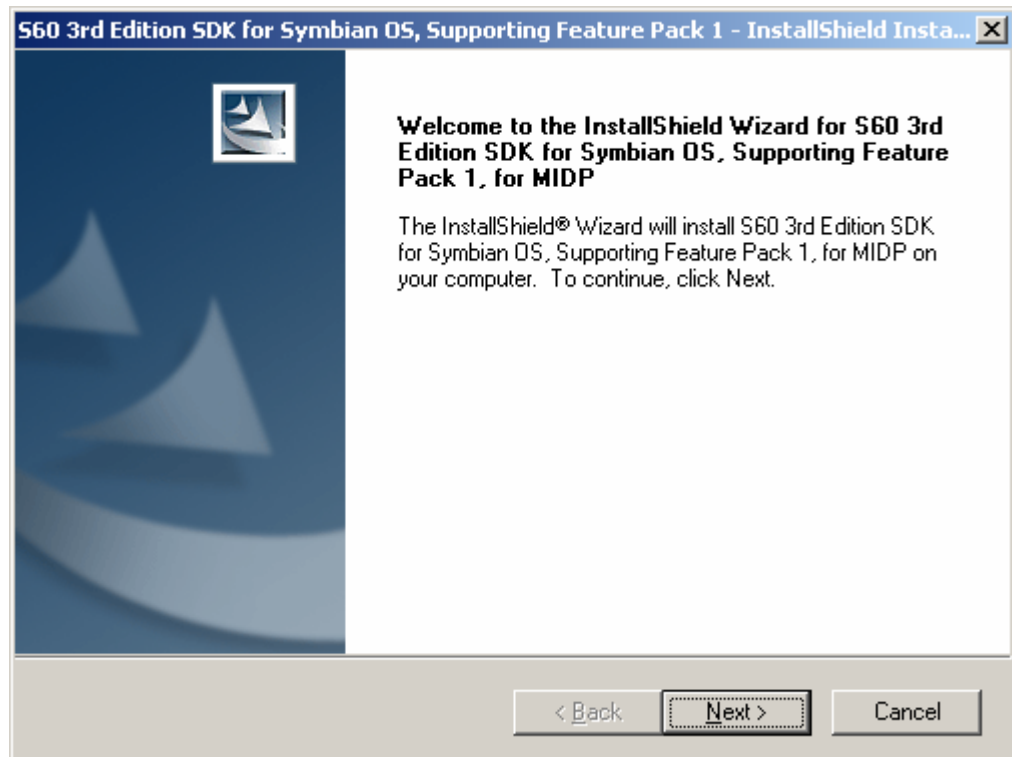
Figure 1: InstallShield Wizard

2. Click **Next**.

   The **License Agreement** dialog is displayed:
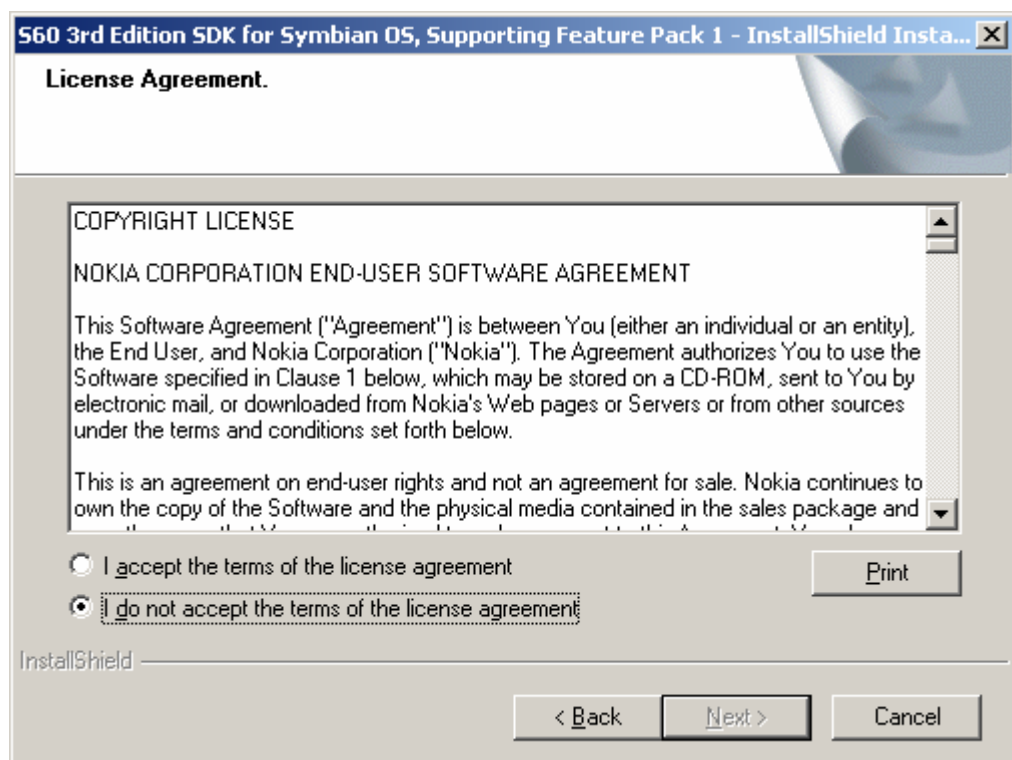
Figure 2: License Agreement

3. If you are ready to accept the license agreement (recommended), click the **I accept the terms of the license agreement** radio button and click **Next**.

    The **Choose Destination Location** dialog is displayed:
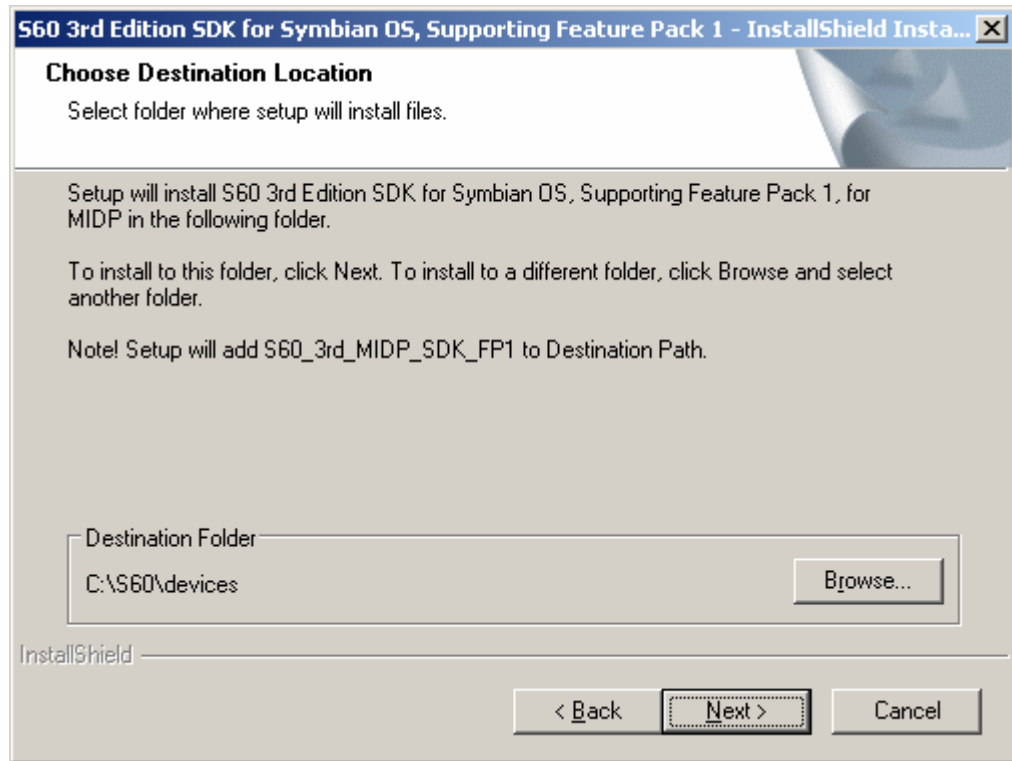
Figure 3: Choose Destination Location

    Note: If you do not accept the license agreement, installation of the SDK is aborted.

    If you do not want to install the SDK to the proposed default directory (`C:\S60\devices\`) you can browse the installation directory by clicking the **Browse** button. The installation directory should not contain spaces.

	As the installation directory must be same as the name of the device, the installer always creates an `S60\Devices\S60_3rd_MIDP_SDK_FP1` directory under the selected directory.

4. Click **Next**.

    The **Start Copying Files** dialog is displayed:
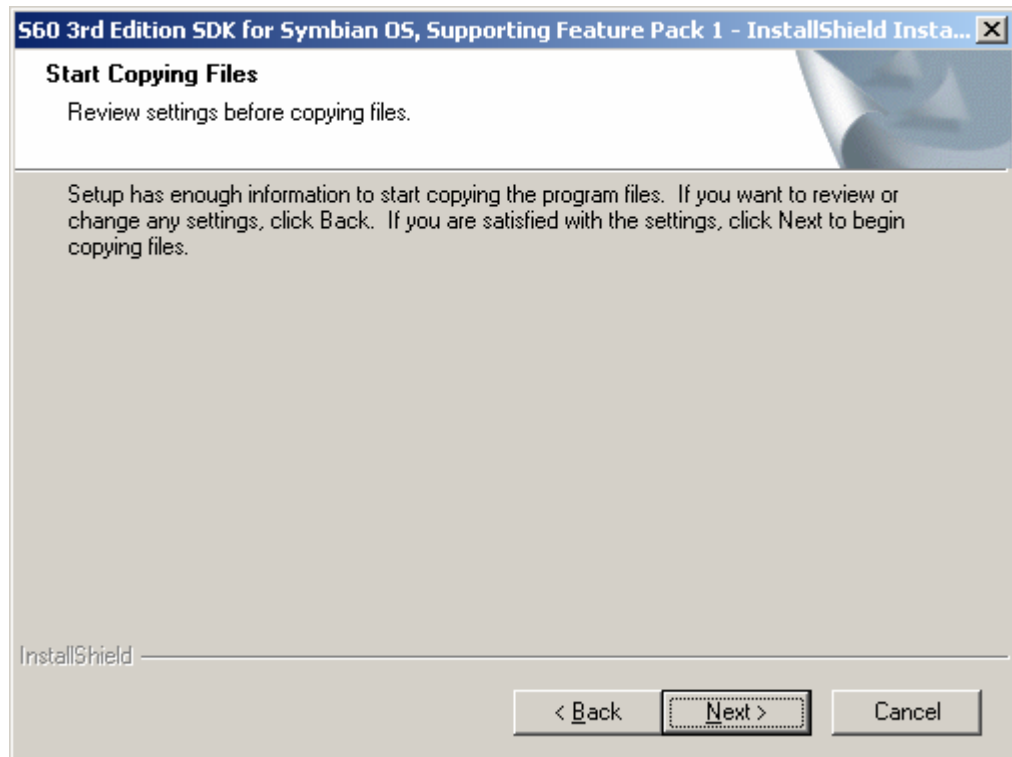
Figure 4: Start Copying Files

5. Accept the settings by clicking **Next.** (If you want to modify them, click **Back** and modify the settings as needed.)

The InstallShield Wizard starts installing the SDK. The **Setup Status** dialog displays the installation status:
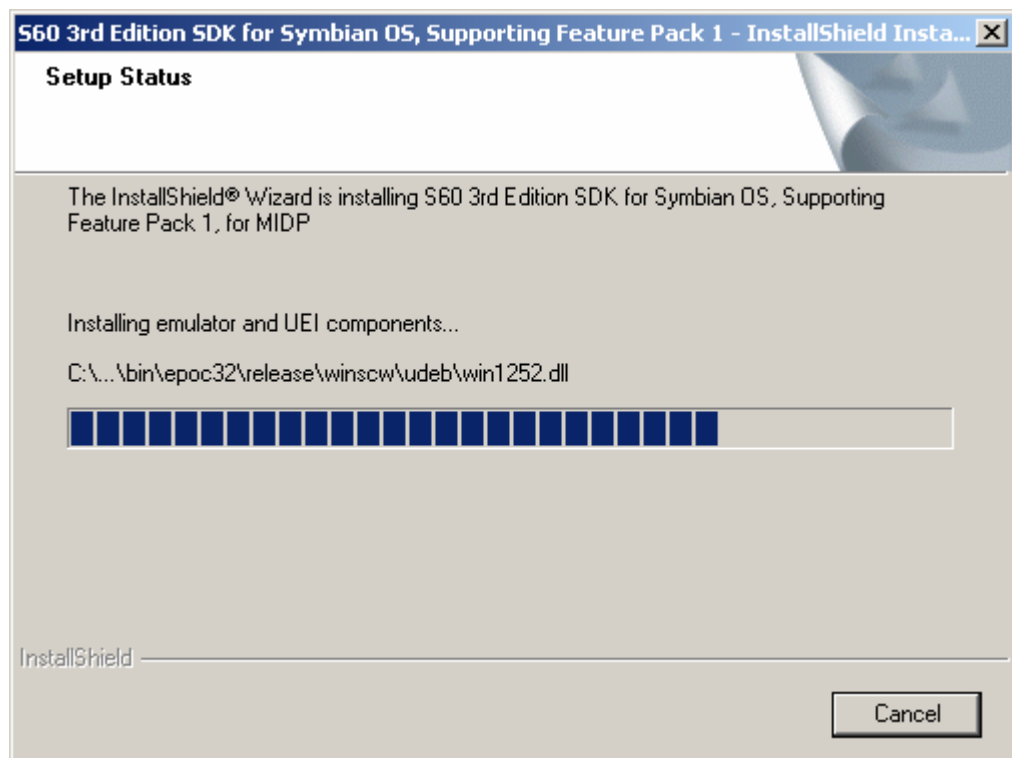
Figure 5: Setup Status

6. Once the installation is complete, the following dialog is displayed. To complete the installation, click **Finish**:
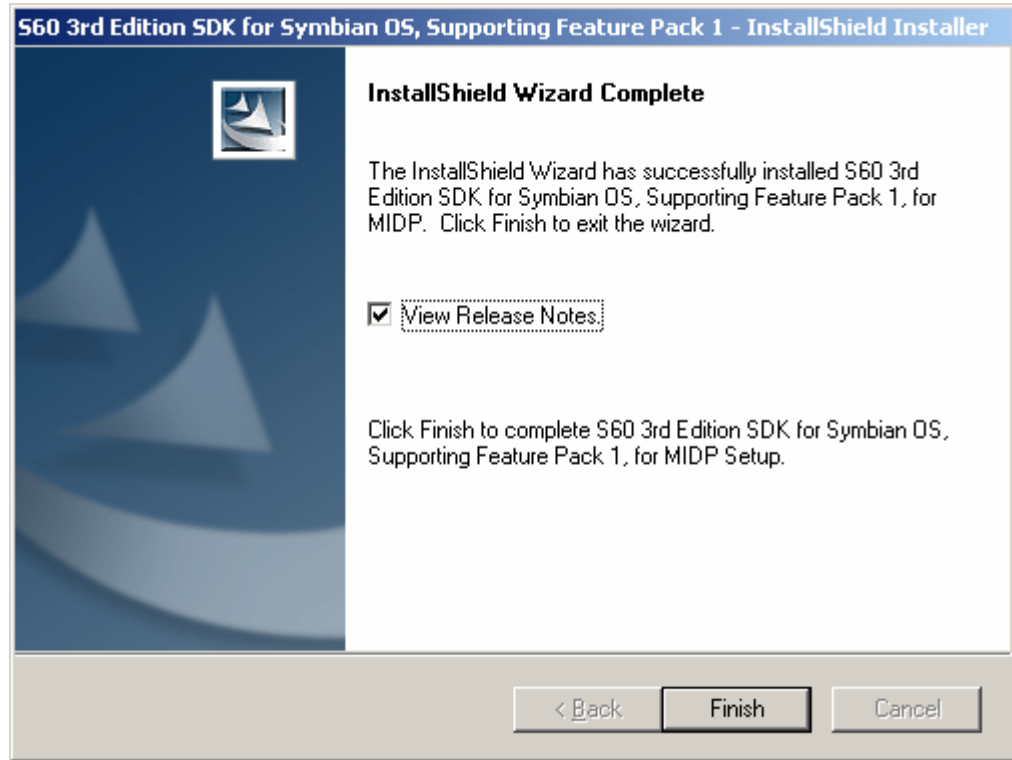
Figure 6: Installation complete

The SDK is now fully installed on your PC. You can verify this through the Windows **Start** menu by, for example, opening the SDK Help by selecting **Start > All Programs > S60 Developer Tools > 3rd Edition FP1 SDK > Java > SDK Help**.

4.   IDE Configuration

If you plan to use the SDK with an integrated development environment (IDE), please read the documentation for the IDE in question for detailed installation and configuration instructions.

The following IDEs are supported by the SDK:

- Eclipse 3.1 or newer

- Carbide.j 1.5

- NetBeans 5.0

- IBM® Websphere Studio Device Developer 5.7.1 (WSDD)

The IDE used must be located on the same logical drive as the SDK. IDEs must be installed on your computer with administrator rights. Otherwise, some environment variables may not be set correctly.

> **Note:** Before installing IDEs, please refer to its documentation for minimum software and hardware requirements.

4.1   Installing Eclipse

1. Download the latest Eclipse version from http://www.eclipse.org/downloads/.

2. Extract the contents of the downloaded zip file to your preferred location (for example, `C:\Program Files\Eclipse`).

    Note: when unzipping, make sure that **Use folder names** is checked to preserve Eclipse's directory structure.

The Eclipse installation is completed when Eclipse is run for the first time.

For more information about Eclipse, please refer to http://www.eclipse.org.

4.1.1   Installing Carbide.j

Since the Carbide.j as a standalone application does not include tools for editing, compiling or debugging the MIDlet and personal profile classes, it is here recommended that you install Carbide.j integrated with the Eclipse IDE, which provides tools for editing, compiling and debugging MIDlets. Thus, these installation instructions presume that you already have Eclipse installed on your PC.

1. Launch the Carbide.j installer.

2. In the **Introduction** pane, click **Next**.

3. In the **License agreement** pane, read through the license agreement, click the *I accept the terms of the License Agreement* radio button and click **Next**.

4. In the **Choose install set** pane, select *Eclipse* as the installation set and click **Next**.

5. In the **IDE integration** pane, click **Choose...**, browse to your Eclipse installation directory and click **Next**.

6. In the **Installation directory** pane, either accept the default directory suggested or browse to a directory of your own choice by clicking **Choose...**. Then click **Next**.

7. In the **Pre-installation summary** pane, verify that the installation settings are OK and click **Install**.

    If you want to change the installation settings, click **Previous**, make the needed changes (in the panes described above) and, once you return to the **Pre-installation summary** pane, click **Install**.

Once the installation is ready, the **Install complete** pane is displayed.

Notice that you need to restart your PC after installation in order to get all Carbide.j features running. As Carbide.j has here been integrated with Eclipse, you can access its features in Eclipse by selecting **Tools > Carbide.j** from the Eclipse menu bar.

4.1.2   Adding the S60 SDK emulator to Eclipse

In Eclipse you also need to add the S60 SDK Emulator to available emulators. Proceed as follows:

1. Select **Tools > Carbide.j > Configure Emulators**.

2. In the **Configure Emulators** dialog, click **Add**.

3. In the **Open** dialog, browse to the SDK installation directory (for example, `C:\S60\devices\S60_3rd_MIDP_SDK_FP1`) and click **Open**.

The S60 SDK emulator has now been added to the list of supported emulators in Eclipse.

4.1.3   Installing the Eclipse documentation plug-in

The SDK Help documentation can be integrated into the Eclipse Help by with the Eclipse documentation plug-in provided in the SDK installation zip. To install the plug-in, do the following:

1. Close Eclipse.

2. Open the SDK installation zip file.

3. In the SDK installation zip file viewer, double-click `eclipse_documentation_setup.exe`.

4. In the InstallShield Wizard dialog that opens, click **Next**.

5. Read the license agreement that is displayed.

6. If you want to accept the license agreement, click the **I accept the terms of the license agreement** radio button and click **Next**.

    Note: If you do not accept the license agreement, installation of the Eclipse documentation plug-in is aborted.

7. In the **Choose Destination Location** dialog, click the **Browse** button to locate the root folder of your Eclipse installation (for example, `C:\Program Files\Eclipse`) and click **OK** in the **Choose Folder** dialog.

8. Once you have set the root folder of you Eclipse installation as the destination location, click **Next**.

9. In the **Ready to Install the Program** dialog, click **Install**.

    InstallShield installs the Eclipse documentation plug-in to the root folder of your Eclipse installation

10. Once the installation is complete, click **Finish** in the **InstallShield Wizard Complete** dialog.

The SDK Help documentation is now accessible through your Eclipse Help. You can verify this by selecting **Help > Help Contents** from the Eclipse menu bar: the *S60 3rd Edition SDK for Symbian OS, Supporting Feature Pack 1, for MIDP* help is displayed in the Eclipse Help table of contents.

4.2   Installing and configuring NetBeans

In order to integrate NetBeans IDE with MIDP SDK you also need to install NetBeans Mobility Pack. The following steps guide you through installing both NetBeans and the NetBeans Mobility Pack, as well as configuring the S60 SDK for NetBeans.

1. Download the latest NetBeans version from http://www.netbeans.info/downloads/.

2. Double-click the installer's icon in the downloaded installer file to launch the installation wizard. Follow the installation instructions provide by the wizard.

3. Start NetBeans from the Windows **Start** menu by selecting **Start > All Programs > NetBeans 5.0 > NetBeans IDE**.

4. In the NetBeans IDE, select **Tools > Java Platform Manager**.

5. In the **Java Platform Manager** dialog, click **Add Platform...**.

6. In the **Select platform type** section of the **Add Platform** dialog, select *Java Micro Edition Platform Emulator* and click **Next**.

7. In the **Platform folders** section of the **Add Platform** dialog, click **Find More Java ME Platform Folders…**.

8. In the **Choose directory to search for platforms** dialog, browse to the SDK installation directory (for example, `C:\S60\devices\S60_3rd_MIDP_SDK_FP1`) and click **Search**.

    NetBeans locates the S60 SDK.

9. Make sure that the S60 SDK installation folder is checked in the **Platform Folders** list and click **Next**.

    NetBeans detects the S60 SDK platform, as displayed in the list of detected platforms.

10. Click **Finish**.

11. Click **Close**.

The S60 SDK has now been configured for the NetBeans IDE.

4.2.1 Installing the NetBeans documentation plug-in

The SDK Help documentation can be integrated into the Eclipse Help by with the Eclipse documentation plug-in provided in the SDK installation zip. To install the plug-in, do the following:

1. Close NetBeans.

2. Open the SDK installation zip file.

3. In the SDK installation zip file viewer, double-click `netbeans_documentation_setup.exe`.

4. In the InstallShield Wizard dialog that opens, click **Next**.

5. Read the license agreement that is displayed.

6. If you want to accept the license agreement, click the **I accept the terms of the license agreement** radio button and click **Next**.

   Note: If you do *not* accept the license agreement, installation of the NetBeans documentation plug-in is aborted.

7. In the **Ready to Install the Program** dialog, click **Install**.

8. Once the installation is complete, click **Finish** in the **InstallShield Wizard Complete** dialog.

The SDK Help documentation is now accessible through your NetBeans Help. You can verify this by selecting **Help > Help Contents** from the NetBeans menu bar: the *S60 3rd Edition SDK for Symbian OS, Supporting Feature Pack 1, for MIDP* help is displayed in the NetBeans Help table of contents.

4.3 Configuring the S60 emulator as a UEI emulator device in WSDD

After installing the IBM® Websphere Studio Device Developer 5.7.1 (WSDD), you need to configure the S60 emulator as a UEI (Unified Emulator Interface) emulator device in order to be able to run MIDlets on it from the WSDD.

1. Select **Devices > Configure...** or click the **Devices** icon the WSDD toolbar.

2. In the **Device Configurations** dialog that opens, select "UEI Emulator Device" from the list and click **New**.

3. Enter a name for the device by editing the **Device** name field.

4. To complete the **Emulator root directory** field, click **Browse** to search for the file system and select the installed S60 MIDP SDK main directory (for example, `C:\S60\devices\S60_3rd_MIDP_SDK_FP1\`):

5. Click **OK**.

The S60 SDK emulator has now been configured for WSDD, enabling you to launch applications in the S60 emulator from WSDD.

5.   Uninstalling the SDK

To uninstall the S60 SDK, do the following:

1. In the Windows Start menu, go to **Start > Control Panel**.

2. In the **Control Panel** double click the **Add or Remove Programs** icon.

3. In the **Add or Remove Programs** window, click the **3rd Edition FP1 SDK** program in the list of currently installed programs.

4. With the **3rd Edition FP1 SDK** program selected, click **Remove**.

5. When prompted to confirm whether you want to uninstall the SDK and all its features, click **Yes**.

   The uninstallation starts.

6. Once the SDK has been removed from your PC, Install Wizard informs you of this: Click **Finish** to exit the Install Wizard.

Note: Always uninstall the SDK through the **Add or Remove Programs** application, as described above. Do not attempt to uninstall the SDK manually in, for example, the Windows Explorer.

However, if you have used the emulator prior to uninstalling the SDK there may remain some SDK-related files and folders in the `<S60_SDK_installation_directory>\S60\devices\S60_3rd_MIDP_SDK_FP1\` directory even after removing the SDK through the **Add or Remove Programs** application. These files and folders need to be removed manually by, for example, deleting them in the Windows Explorer.

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6.   Further information

Once you have installed and initially configured the SDK, you can find information on how to use the SDK from the *User's Guide* and the SDK Help. You can open these from the Windows **Start** menu by selecting **Start > All Programs > S60 Developer Tools > 3rd Edition FP1 SDK > MIDP > SDK Help**.

For late-breaking information, please refer to the **Release Notes**, which you can open directly from the installation package (`ReleaseNotes.txt`).