



i.MX31 SOM-LV Windows Embedded CE 6.0

Lab 0: Setup

BSP Documentation

Logic // Products
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Abstract

This guide is to help setup a desktop computer to use with the i.MX31 SOM-LV Windows CE 6.0 Labs.

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Revision History

REV	EDITOR	DESCRIPTION	APPROVAL	DATE
A	MH	Initial release	JCA	06/09/09

Table of Contents

1	Introduction.....	1
1.1	Development Computer Requirements.....	1
1.2	Software Requirements.....	1
1.3	Software Download Locations	1
2	Installing Visual Studio 2005 Professional Edition	2
2.1	Installing Visual Studio 2005 Professional Edition SP1	3
3	Installing Windows Embedded CE 6.0	4
4	Installing Windows Embedded CE 6.0 Platform Builder SP1	7
5	Installing .NET Compact Framework 2.0 SP2	7
6	Installing ActiveSync	7
7	Installing Windows Embedded CE 6.0 R2	8
8	Installing TeraTerm	9
9	Installing the BSP	9
10	Preparing the Labs	9

1 Introduction

The following guide is to help setup a desktop computer for the i.MX31 SOM-LV Windows CE 6.0 Labs. Only limited software will be installed in this guide and most will exist in trial or evaluation versions.

1.1 Development Computer Requirements

The following guide is suitable for computers with the following specifications:

- Windows XP with Service Pack 2
- 933 MHz processor; 2 GHz recommended
- 512 MB of RAM required; 1 GB or greater is recommended
- Hard disk space: 20 GB
- DVD-ROM drive
- Display with minimum resolution of 800x600 256 colors
 - Recommended: 1024x768 High Color – 16-bit display
- Keyboard and mouse/compatible pointer device
- An RS232 Serial port (DB9), or USB ports.

1.2 Software Requirements

The following software is required:

1. Visual Studio 2005 Professional Edition
2. Visual Studio 2005 Professional Edition SP1
3. Windows Embedded CE 6.0
4. Windows Embedded CE 6.0 Platform Builder SP1
5. .NET Compact Framework 2.0 SP2
6. Windows Embedded CE 6.0 R2
7. ActiveSync
8. TeraTerm

All of the above applications can be downloaded via the Internet and should be installed in the sequence listed above.

1.3 Software Download Locations

The following are quick links to the download pages for some of the required software:

- Visual Studio 2005 Professional Edition SP 1
<http://www.microsoft.com/downloads/details.aspx?FamilyId=BB4A75AB-E2D4-4C96-B39D-37BAF6B5B1DC&displaylang=en>
- Windows Embedded CE 6.0 Platform Builder SP1
<http://www.microsoft.com/downloads/details.aspx?FamilyId=BF0DC0E3-8575-4860-A8E3-290ADF242678&displaylang=en>

- .NET Compact Framework 2.0 SP2
<http://www.microsoft.com/downloads/details.aspx?familyid=AEA55F2F-07B5-4A8C-8A44-B4E1B196D5C0&displaylang=en>
- ActiveSync 4.5
<http://www.microsoft.com/downloads/details.aspx?FamilyID=9e641c34-6f7f-404d-a04b-dc09f8141141&DisplayLang=en>

If the above links are out of date, try the Windows CE Evaluation page:
<http://www.microsoft.com/windows/embedded/eval/wince/getgoing.msp>

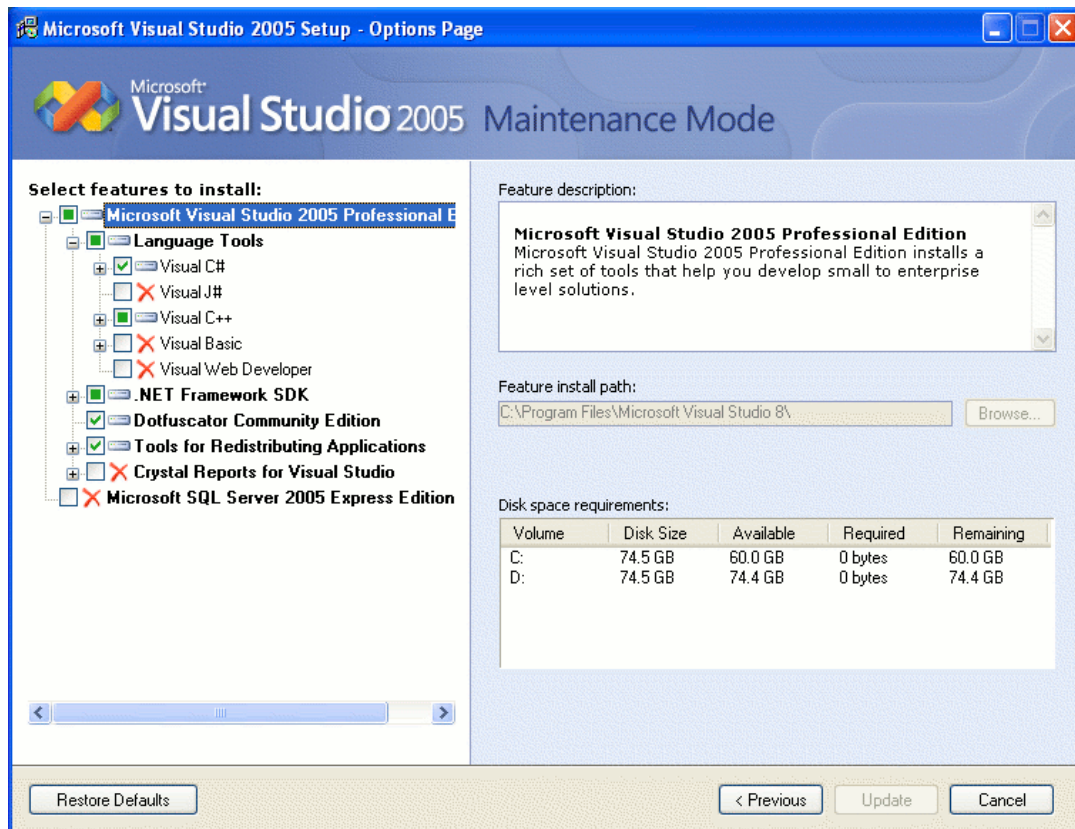
2 Installing Visual Studio 2005 Professional Edition

Visual Studio 2005 will be used for the programming IDE and is the most essential component in developing for Windows CE 6.0. Install this using the 180-Day Evaluation Kit CD.

Within Visual Studio 2005 Professional Edition, there are other products or components that may not be necessary for this training. However, it is important that the components below are included in the installation:

- Language Tools
 - Visual C#
 - Visual C++ (X64 Compilers and Tools is optional)
- .NET Framework SDK (without the Quickstart Samples)
- Dotfuscator Community Edition (strictly optional)
- Tools for Redistributing Applications (strictly optional)

Components other than these are optional; however, installation time tends to take longer with the addition of more components. The figure below will give a better view of the selected component:



Install VS 2005 in the **C:\Program Files\Microsoft Visual Studio 8** folder. Using this location will ease installing additional patches. Along with the components, a .NET Compact Framework should automatically be included during the installation. However, this automatic installation does not include the .NET Compact Framework 2.0 SP1 which is required for this training.

2.1 Installing Visual Studio 2005 Professional Edition SP1

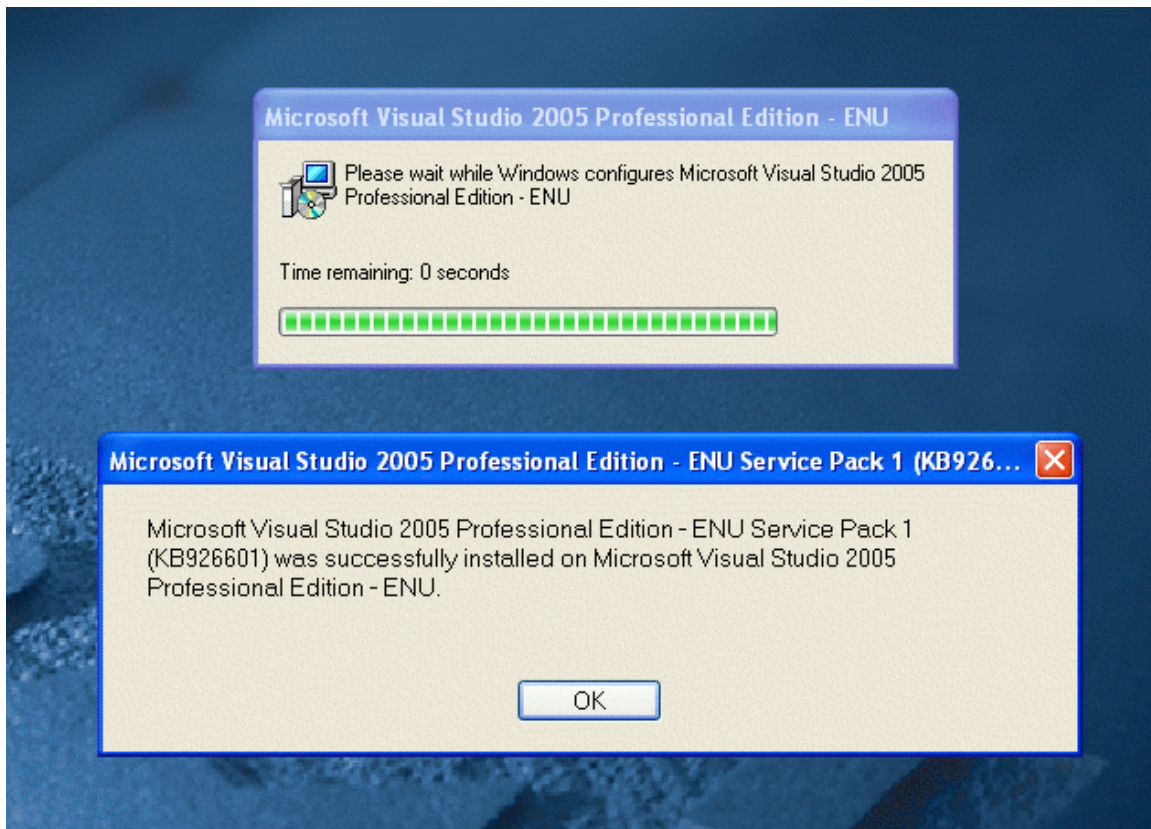
A Service Pack 1 is essential for this training and should be installed after the VS 2005 installation completes.

The following link is to VS 2005 SP1 download page:

<http://www.microsoft.com/downloads/details.aspx?FamilyId=BB4A75AB-E2D4-4C96-B39D-37BAF6B5B1DC&displaylang=en>.

The title on the download page is "Microsoft® Visual Studio® 2005 Team Suite Service Pack 1", but it should also work for the version of VS 2005 installed in the previous section. Please review the "Instructions" section on the download page for more details about the installation. Unlike the VS 2005 trial version, the service pack does not require registration. The downloaded file will contain the filename: VS80sp1-KB926601-X86-ENU.exe.

The installation process of VS 2005 SP1 may take a long time to complete. When the process completes, the following message should appear on the screen:



3 Installing Windows Embedded CE 6.0

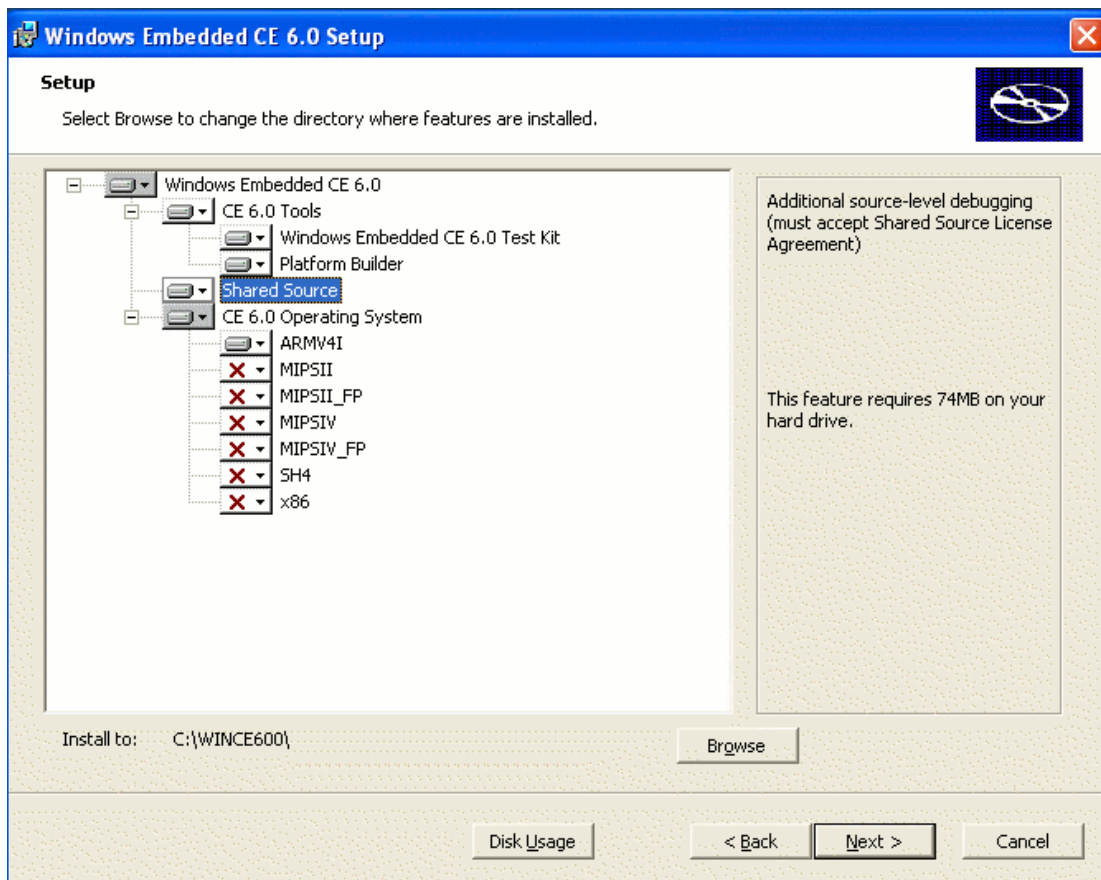
Windows Embedded CE 6.0 or WinCE 6.0 is a plug-in for Visual Studio 2005 and is a necessary component for this training. This component provides a development environment for developing the target device.

Install WinCE 6.0 from the 180-Day Evaluation Kit CD. When the setup.exe launches, the following message should appear:



Follow the onscreen instructions. After a few steps, the setup will ask which WinCE 6.0 should be installed. For the purpose of this training, the following components are required:

- CE 6.0 tools (selected by default)
- Windows Embedded CE 6.0 Test Kit
- Platform Builder
- Shared Source
- CE 6.0 Operation System
- ARMV4I



The picture above shows the components to include in the WinCE 6.0 installation. For the destination of the installation folder, it is best to choose the default **C:\WINCE600** to ease installing additional updates/patches.

The following message should appear to indicate a successful installation of WinCE 6.0:

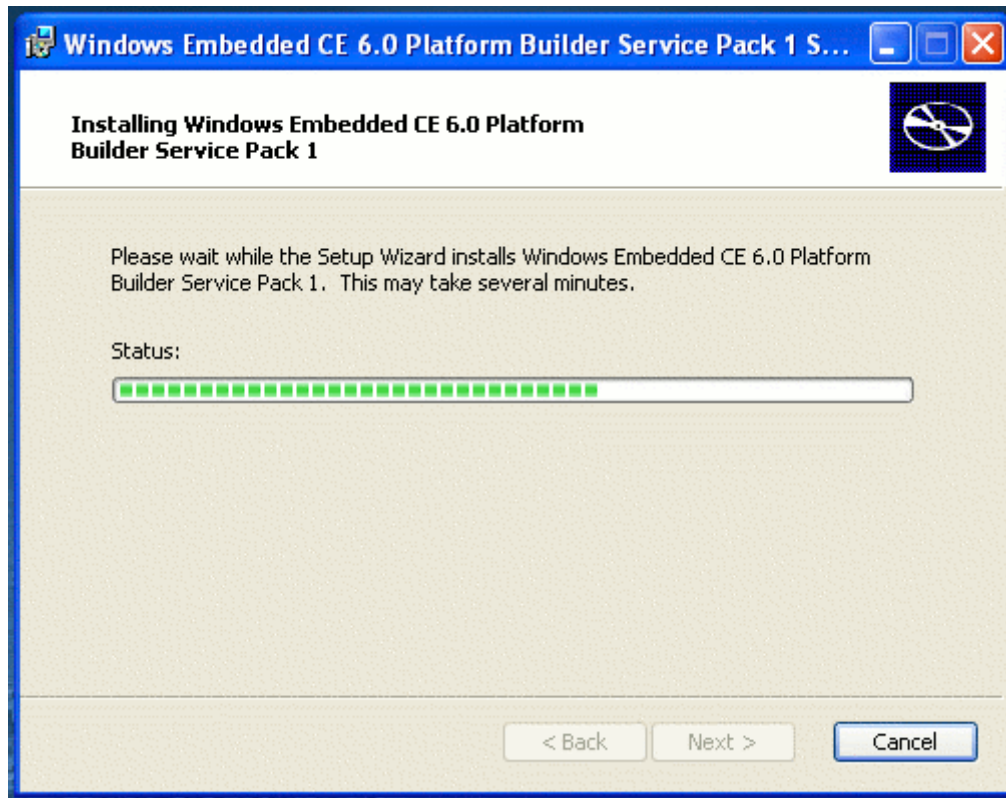


4 Installing Windows Embedded CE 6.0 Platform Builder SP1

The Windows Embedded CE 6.0 Platform Builder Service Pack 1 is required for WinCE to operate properly with the labs. The service pack can be downloaded from:

<http://www.microsoft.com/downloads/details.aspx?FamilyId=BF0DC0E3-8575-4860-A8E3-290ADF242678&displaylang=en>

For the purpose of this training, the Windows Embedded CE 6.0 Platform Builder Service Pack 1.msi file is required. Follow the onscreen instructions to install the service pack.



5 Installing .NET Compact Framework 2.0 SP2

The Service Pack 2 for .NET Component Framework is a necessary update to the .NET Compact Framework 2.0 included in the VS 2005 installation and is required for these labs. This service pack is available for download from:

<http://www.microsoft.com/downloads/details.aspx?familyid=AEA55F2F-07B5-4A8C-8A44-B4E1B196D5C0&displaylang=en>

The downloaded file will have the filename: NETCFSetupv2.msp. Follow the step-by-step onscreen instructions to install the service pack.

6 Installing ActiveSync

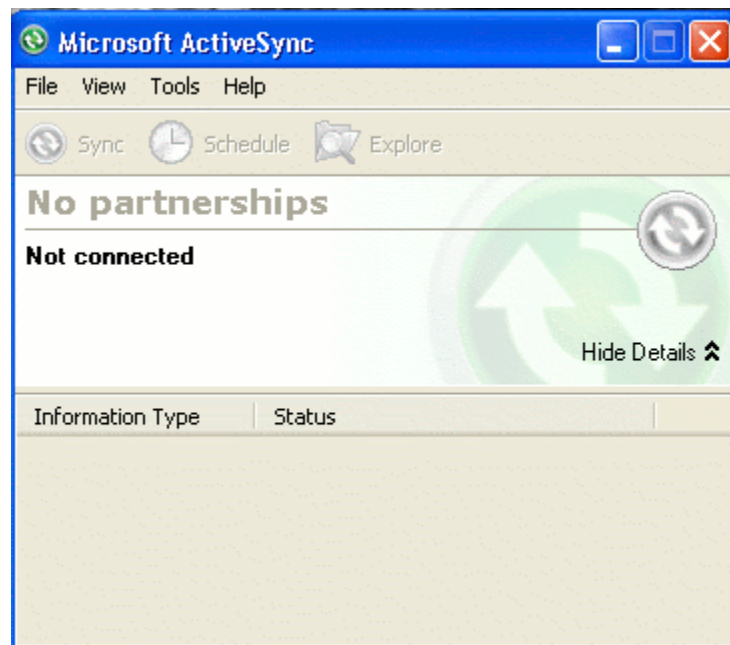
ActiveSync is required to provide a connection between the target device and the desktop computer. It is also useful for device synchronization between the target device and the desktop computer.

ActiveSync 4.5 can be downloaded from the following link:
<http://www.microsoft.com/downloads/details.aspx?FamilyID=9e641c34-6f7f-404d-a04b-dc09f8141141&DisplayLang=en>

The registration process is completely optional and will not affect the installation process. When selecting files to be downloaded, please select setup.msi, this is the file that contains the ActiveSync 4.5 program.

After the download is completed then you can proceed to the installation process, which should only take a moment. Follow the onscreen instructions and use the recommended installation destination of **C:\Program Files\Microsoft ActiveSync**.

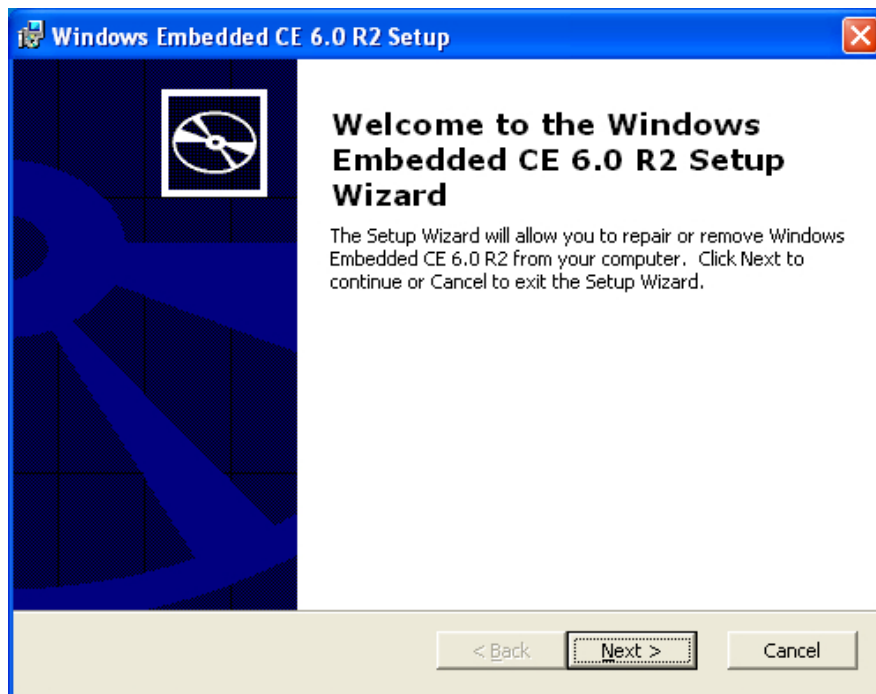
The ActiveSync installation requires a restart of the desktop computer. After restart, the ActiveSync application should be ready for use. The figure below shows a running window of ActiveSync:



7 Installing Windows Embedded CE 6.0 R2

Windows Embedded CE 6.0 R2 adds several features to Windows CE 6.0 including RDP support, new BSPs, and enhanced VoIP. Install this using the 180-Day Evaluation Kit CD.

Follow the onscreen instructions to install. It is not necessary to change any of the settings from their default values during the installation.



8 Installing TeraTerm

Obtain TeraTerm Pro from the i.MX31 SOM-LV downloads page on Logic's website: <http://support.logicpd.com/auth/downloads/i.MX31/>. Extract the zip file and run setup.exe.

9 Installing the BSP

Unzip the i.MX31 Windows CE 6.0 Source BSP obtained from Logic's website at the same URL above. This folder will contain the raw BSP files.

Copy the LPD_IMX31 directory from the zip folder (under WINCE600/PLATFORM) to C:\WINCE600\PLATFORM\.

10 Preparing the Labs

Copy the Labs directory contained within this ZIP file to the C:\ drive. The Labs directory contains all the necessary files and source code for the labs.