Summary

This technical article contains information about how to migrate your existing development environment from Windows XP Embedded to Windows Embedded Standard 2009, the next generation of Windows XP Embedded. It covers the requirements to install Windows Embedded Standard 2009 Studio over Windows Embedded Studio for Windows XP Embedded and the supported migration paths.
If you are a Windows XP Embedded user and you plan to move to Windows Embedded Standard 2009, you may be wondering if you have to uninstall Windows XP Embedded Studio before you install the new product. You may also want to know whether you can install Windows Embedded Standard 2009 over the earlier version and how to maintain all the custom components that you imported into your Component Database.


The Windows Embedded Standard 2009 Setup Wizard handles the migration automatically. It determines whether you have an earlier version of the product installed, and, if an earlier version is installed, it continues with the migration. If the Windows Embedded Standard 2009 Setup Wizard does not detect a version of Windows XP Embedded, it performs a clean installation.

**Note:**

You cannot install separate instances of Windows XP Embedded Studio and Windows Embedded Standard 2009 on the same workstation.

The migration is straightforward, because the Setup Wizard handles all the steps without requiring user intervention. However, before you begin you should review the following sections to determine the correct migration path and requirements:

- Supported Migration Paths
- System Requirements
- SQL Server Requirements

You must purchase a Windows Embedded Standard 2009 toolkit to perform the migration. The toolkit includes a product key that is required to complete the installation. This product key is different from the run-time product key required to activate the run-time image. You can obtain run-time product keys from your distributor.
This technical article does not address how to upgrade an image in the field to Windows Embedded Standard 2009. For that scenario, we recommend that you perform an image update.

For more information about updating an image in the field, see Run-Time Image Replacement1.

**Supported Migration Paths**

All major versions of Windows XP Embedded can be migrated to Windows Embedded Standard 2009, as shown in Figure 1.

**Figure 1: Migration paths from Windows XP Embedded**

The Windows Embedded Standard 2009 Setup Wizard detects any of the earlier versions that are listed in Figure 1. If the Windows Embedded Standard 2009 Setup Wizard does not detect an earlier version, it performs a clean installation. If an earlier version is detected, the Setup Wizard automatically starts the migration process.

The Windows Embedded Standard 2009 Setup Wizard determines whether both the Windows XP Embedded Tools and the Component Database are installed on your workstation. If both are present, the Setup Wizard migrates both to the Windows Embedded Standard 2009 Tools and Component Database. If only the Tools are installed, only the Tools are migrated, and the Component Database is not installed. Similarly, if only the Component Database is installed, only the Component Database is migrated, and the Tools are not installed.

If you want to change your development setup, for example, you previously installed only the Windows XP Embedded Tools and now you want
to install the full Windows Embedded Standard 2009 Studio (Tools and Component Database), then you must uninstall Windows XP Embedded and perform a clean installation of Windows Embedded Standard 2009. Note that you cannot migrate the Component Database if it resides on a remote server.

The Windows Embedded Standard 2009 Setup Wizard does not automatically install Language Packs during the migration. You can install the Language Packs you want after the migration by following the procedure in Adding Features to Your Installation later in this article.

The Windows Embedded Standard 2009 Setup Wizard automatically installs Windows Internet Explorer 7 and Windows Media Player 11 during the migration only if they are installed by Update Rollup 1.0 on your Windows XP Embedded Component Database. By default, it installs Internet Explorer 6 and Windows Media Player 10.

After the migration, you can install Internet Explorer 7 and Windows Media Player 11 by following the procedure in Adding Features to Your Installation later in this article. Be aware that the two features are bundled. You cannot update them separately.

If you have an Evaluation version of Windows XP Embedded, you can migrate to the Evaluation version of Windows Embedded Standard 2009. You can download the Evaluation version from the Windows Embedded Web site2.

Note:
The Evaluation version cannot be migrated to the Retail version. In this case, you must uninstall the Evaluation version and perform a clean installation of the Retail version.

System Requirements

Windows Embedded Standard 2009 has the same hardware requirements as Windows XP Embedded except for hard disk drive space, which requires a minimum of 4.5 GB. A full installation, which includes all language packs and components, requires up to 8 GB of free disk space.

The minimum operating system requirements to install Windows Embedded Standard 2009 is Windows XP Professional SP2 or Windows Server 2003.

Windows Installer 3.1 or a later version must exist for the installation to succeed. Windows Vista and Windows Server 2008 already contain an updated version of the Windows Installer. Windows Installer 3.1 can be installed from the Windows Embedded Standard 2009 product DVD by starting Setup.exe and selecting the Prepare option.

SQL Server Requirements
To install the Windows Embedded 2009 Component Database, you must be running either Microsoft SQL Server 2005 SP1, Microsoft SQL Server 2005 Express SP1, or a later version. Earlier versions of SQL Server are not supported.

If your workstation has a local Windows XP Embedded Component Database running on an earlier version of SQL, such as Microsoft SQL Server Desktop Engine (MSDE), you must upgrade to SQL Server 2005 SP1, SQL Server 2005 Express SP1, or a later version before you start the installation of Windows Embedded Standard 2009. The following section describes how to perform the upgrade.

**Upgrading MSDE to SQL Server 2005 Express**

If you installed MSDE from the Windows XP Embedded installation disks or by using the MSDE .msi setup file, you can generally perform an in-place upgrade of your database to SQL Server 2005 Express by using the following procedure. For additional guidelines about upgrading MSDE to SQL Server 2005 Express, see Upgrading MSDE 2000 to SQL Server 2005 Express.

**To upgrade MSDE to SQL Server 2005 Express**

1. Install Windows Installer 3.1.

   SQL Server 2005 Express requires Windows Installer 3.1, which can be installed from the Windows Embedded Standard 2009 product DVD by starting Setup.exe and selecting the **Prepare** option.

   **Note:**
   
   This option is available only if your workstation does not have Windows Installer 3.1 already installed.

2. Install the Microsoft .NET Framework 2.0.

   This application is a prerequisite to SQL Server 2005 Express. You can download it from the Microsoft Download Center³.

3. Start the SQL Server 2005 Setup program.

   The Windows Embedded Standard 2009 product DVD includes SQL Server Express 2005. To install it from the DVD, insert the media and start Setup.exe.

4. Select the **Prepare** option and then click **Install SQL Server 2005 Express-DVD**, as shown in Figure 2.

   **Figure 2: Install SQL Server 2005 Express from the Windows Embedded Standard 2009 product DVD**
The Setup program runs the system configuration checks. If your system fails the configuration tests, click the failed link for more information and then take the corrective action required.

5. On the **Registration Information** page, shown in Figure 3, clear the **Hide Advance Configuration** check box.

By default, Setup uses the instance name of SQLEXPRESS instead of the MSDE default instance name. By accessing the advance configurations options, you can select the instance installed by MSDE.
6. On the **Feature Selection** page, specify the features to install.

   Generally, accept all defaults.

7. On the **Instance Name** page, select **Named Instance**, and type the MSDE instance name MSSQLSERVER as shown in Figure 4.

   **Figure 4: Advanced configuration options**
8. On the **Existing Components** page, select **SQL Server Database Services 8.00.761**, and then click **Next**.

   **Figure 5: Upgrading existing components**
9. Specify the remaining configuration options.
   Generally, accept all defaults.

10. In the **Ready to Install** dialog box, click **Install**.

   This upgrades the specified instance of MSDE to SQL Server 2005 Express.

**Backing up Your Component Database and Repositories**
Before you continue with the migration, we recommend that you back up your Component Database and Repositories.

For information about how to back up your Component Database, refer to Backing Up the Component Database\textsuperscript{4}.

For information about how to back up your Repositories, follow the guidelines provided by Backing Up the Repository\textsuperscript{5}.

**Migrating to Windows Embedded Standard 2009**

If you have reviewed the sections earlier in this article and are sure that you comply with the requirements, you are now ready to start the migration.

**To migrate from Windows XP Embedded to Windows Embedded Standard 2009**


2. On the splash screen select **Install**, and then click **Run the Windows Embedded Standard Installation Wizard**.

   **Figure 6: Start the Windows Embedded Standard installation wizard**
3. On the **License Agreement** page:

   a. Read the license agreement and if you accept the terms, select **I accept the terms of the License Agreement**.  
   b. Type the product key that is printed inside the product DVD box.  
   These two steps are required to continue with the installation.

4. If Setup detects a local Component Database, the name of that SQL Server instance appears. If your database cannot be found, make sure that you have a supported version of SQL Server as described in [SQL Server Requirements](#).

   **Figure 7: SQL Server instance name**
5. The **Preinstallation** page lists the components that will be migrated: Tools, Component Database, or both Tools and Component Database (Figure 8). Verify that the items listed are those you want to migrate and then click **Install** to continue with the installation.

**Figure 8: Preinstallation page for the migration of Tools and Component Database**
6. The migration is executed and Windows Embedded Standard 2009 is installed.

The log files for your installation are located here:

- %TEMP%\WindowsEmbeddedStandardSetup.log
- %TEMP%\WindowsEmbeddedStandard_WEUpdate.log

**Adding Features to Your Installation**
After the migration, you may want to add features to your Windows Embedded Standard 2009 installation. For example, you may want to install a language pack if a customer asks for a localized image in a language that is currently not installed in your Component Database, or you may want to install Internet Explorer 7 and Windows Media Player 11. With Windows Embedded Standard 2009 you can easily add features to your installation as described in the following procedure.

**To add features to your installation**

1. Start Setup.exe from the product DVD.

   or

   Click **Start, Control Panel, Add or Remove Programs** (in Windows XP) or **Programs and Features** (in Windows Vista), select **Windows Embedded Standard**, and then click **Change**.

2. On the page shown in Figure 9, select **Change** to install additional features to your Windows Embedded Standard 2009.

   **Figure 9: Add features, repair or remove Windows Embedded Standard 2009**
3. On the **Feature Selection** pages (shown in Figure 10), select the components that you want to add.

   **Figure 10: Feature Selection page to add components**
Working with Old Configurations

If you used Windows XP Embedded previously, you can open, edit, and build your old configurations using Windows Embedded Standard 2009.

**Note:**
You must upgrade your configuration before you build your image.
After you upgrade your old configuration, make sure that you remove the Windows XP Embedded run-time product key from the Run-time Image Licensing field of your configuration settings and replace it with a Windows Embedded Standard 2009 run-time product key, or leave it blank if you want to build an evaluation image. Replacing the key is necessary because the activation of a Windows Embedded Standard 2009 image requires a Windows Embedded Standard 2009 run-time image product key and cannot be activated with a Windows XP Embedded run-time image product key. Run-time image product keys can be obtained from your distributor.

**Working with Multiple Component Databases**

If you have multiple customers, most likely you have multiple Component Databases on the same workstation. You attach and detach the appropriate database when you need to work with it.

With Windows Embedded Standard 2009, you can still work with multiple Component Databases, including Windows XP Embedded databases. For more information about how to manage multiple databases, see [Managing Multiple XPe Databases on One Development Machine](http://go.microsoft.com/fwlink/?LinkId=156453).

**Additional Resources**

For more information and resources, see the following Web sites:

- [Windows Embedded Web site](http://go.microsoft.com/fwlink/?LinkId=156453)
- [Windows Embedded Developer Center](http://go.microsoft.com/fwlink/?LinkId=157196)
- [Windows Embedded Standard Blog](http://go.microsoft.com/fwlink/?LinkId=157196)

**Conclusion**

**What you have learned**

By using the information in this technical article, you should be able to migrate your development environment from Windows XP Embedded to Windows Embedded Standard 2009 and still use your custom components and work with old configurations.

**Links Table**

1. [http://go.microsoft.com/fwlink/?LinkId=157196](http://go.microsoft.com/fwlink/?LinkId=157196)
2. [http://go.microsoft.com/fwlink/?LinkId=156453](http://go.microsoft.com/fwlink/?LinkId=156453)