

ImageUltra Builder Version 2.01
White Paper



Creating Base Operating-System Modules for Ultra-Portable Images

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Required Web Updates

This IBM[®] paper describes how to create Ultra-Portable operating system modules using the ImageUltra Builder 2.01 program.

Web Update 4 and later versions of the Web update contain maintenance fixes and provide new features that enable you to create your own base operating-system modules for Ultra-Portable Images using the ImageUltra Builder 2.01 program. Web updates are accumulative; that is, each new Web update includes all of the fixes and features that were contained in previous Web updates. Therefore, only the latest Web update is available for downloading.

Downloading a Web update

To download the latest Web update, do the following:

1. Go to
<http://www-3.ibm.com/pc/support/site.wss/MIGR-44316.html>
2. Scroll down to the Additional information section; then, click **Updates**.
3. Click the file link to download the latest Web update file from the Web page.
4. Follow the instructions on the screen to complete the download process.

Installing a Web update

After you have downloaded a Web update, complete the following steps to install it:

1. Use Windows Explorer or My Computer to navigate to the Web update file you downloaded.
2. Double-click on the Web update file.
3. Click **Next** and wait for the files to be extracted. The IBM ImageUltra Builder 2.01 - Update Welcome window opens.
4. Click **Next**.
5. Read the license agreement. If you accept the terms, click **Yes**.
6. Follow the instructions on the screen to complete the installation.

Using the new features in Web Update 4 and later

The information in the remainder of this document provides instructions for using the ImageUltra Builder program with Web Update 4 or later to create an Ultra-Portable operating-system module using your own enterprise-licensed version of the *Microsoft Select Windows XP CD*. Included are examples, step-by-step instructions on how to create an Ultra-Portable operating-system module, and hints and tips to help you use, build, and deploy Ultra-Portable Images.

The step-by-step instructions are divided into the following parts:

- “Preparing the source files for an Ultra-Portable operating-system module” on page 2
- “Setting the attributes for the custom Ultra-Portable operating-system module” on page 3
- “Building the Ultra-Portable operating-system module” on page 4

- “Creating your Ultra-Portable base map” on page 4

The information in the remainder of this document assumes that you have already installed Web Update 4 or later. If you have not already downloaded and installed Web Update 4 or later, do so now before you continue.

The customization modules required to create the custom Ultra-Portable operating-system module are contained in Web Update 4 and later. When the update is installed, the customization modules are automatically added to your repository.

Preparing the source files for an Ultra-Portable operating-system module

To prepare the files for an Ultra-Portable operating-system module, do the following:

1. Copy the *Microsoft XP Select CD* files to your hard disk as follows:
 - a. Insert the *Microsoft XP Select CD* into your CD drive.
 - b. Open Windows Explorer and create a folder on your hard disk for the *Microsoft XP Select CD* files. In this example, we are using a folder named `C:\iub images\custom Ultra-Portable win xp pro`.
 - c. Select the `\I386` folder on the *Microsoft XP Select CD* and copy it into the `C:\iub images\custom Ultra-Portable win xp pro` folder.
 - d. After the files have been copied, right-click the `C:\iub images\custom Ultra-Portable win xp pro` folder and click **Properties**. The Properties window opens.
 - e. In the General tab of the Properties window, remove the check mark from the Read-only attribute check box.
 - f. Click **OK**.
 - g. Navigate to the `c:\iub images\custom Ultra-Portable win xp pro` folder and locate the `UNATTEND.TXT` file.
 - h. Rename the `UNATTEND.TXT` file to `UNATTEND.ORG`.
 - i. Close Windows Explorer.
2. Create a custom `UNATTEND.TXT` file as follows:
 - a. Open Notepad and create a custom `UNATTEND.TXT` file. You can use the sample file provided in “Sample `UNATTEND.TXT` file” on page 4 as a starting point. Modify the file as needed. For example, change the User Information, PID, and so on to meet your needs. **Do not modify the `GuiRunOnce` data.**
 - b. Open Windows Explorer and copy the custom `UNATTEND.TXT` file into the `C:\iub images\custom Ultra-Portable win xp pro` folder.
 - c. Right-click the custom `UNATTEND.TXT` file and then click Properties. The Properties window opens.
 - d. In the General tab of the Properties window, remove the check mark from the Read-only check box.
 - e. Click **OK**.
3. Continue with “Setting the attributes for the custom Ultra-Portable operating-system module” on page 3.

Setting the attributes for the custom Ultra-Portable operating-system module

After you have prepared the source files, create the Ultra-Portable operating-system module as follows:

1. Open the repository where you want the new Ultra-Portable operating-system module to reside.
2. If your repository contains folders, navigate to the folder where you want the new Ultra-Portable operating-system module to reside.
3. From the Main Window menu bar, click **Insert** and then click **Operating System....** The New Module Wizard opens.
4. Click **Next**.
5. Verify that the Operating System radio button is selected and then click **Next**.
6. In the Name field, type a name that you want to use to identify this module. Be as specific as possible (example: Windows XP Pro I386 Ultra-Portable). This name will be the name that appears in your repository.
7. Click the **No** radio button to indicate that this module is not a container.
8. Click **Next**.
9. Click **Next** without selecting any of the modules listed.
10. Click the **Add-on operating system module** radio button, and then click **Next**.
11. Click **Finish**. The New Module Wizard closes and the Operating System window for the new module opens.
12. In the General tab, do the following:
 - a. In the Version field, type the full version of the operating system.
 - b. If you want to assign a password to this module, type an encryption key in the "Encryption key for the password" field.

Note: A password helps prevent the module from being unpacked by any process other than an ImageUltra Builder process. When you assign an encryption key, the ImageUltra Builder program assigns a password to the module. Encryption keys can be up to 16 characters long using any combination of alpha-numeric characters. Symbols are not supported.
 - c. In the Comments field, type any comments you want kept with module.
13. In the OS/Languages tab, do the following:
 - a. In the left pane, put a check mark next to each language for which this operating system will be used.
 - b. In the right pane, put a check mark next to the appropriate operating system.
14. In the Source tab, do the following:
 - a. In the Source Directory field, type the complete path to the folder that contains the operating system source files (example: C:\iub images\custom Ultra-Portable win xp pro).
 - b. Leave the Silent install command, Preinstall command, and Postinstall command fields blank.
15. In the Options tab, do the following:
 - a. In the "Path to copy installable files" field, type \I386.
 - b. In the HIIT behavior field, use the drop-down menu to select **Always install**.
 - c. Leave all other fields unchanged.

16. Click the **Save** icon in the Main window tool bar; then, close the Operating System window. An entry for the new Ultra-Portable operating-system module is placed in the repository.
17. Continue with “Building the Ultra-Portable operating-system module.”

Building the Ultra-Portable operating-system module

Before you can use the new Ultra-Portable operating-system module, you must build it.

1. Open the repository where the Ultra-Portable operating-system module entry resides.
2. If your repository contains folders, navigate to the folder where the Ultra-Portable operating-system module entry resides.
3. Click the **Operating System** tab.
4. Click the applicable module entry (example: Windows XP Pro I386 Ultra-Portable).
5. In the Main window menu bar, click **Tools**, and then click **Build**.
6. Follow the instructions on the screen.

Creating your Ultra-Portable base map

When building a base map that includes a Windows XP Pro Ultra-Portable operating-system module that you created, you must also include the following modules:

- ImageUltra 2.2 - IBM Customization 2.2 (0GQZT0A.CRI)
- ImageUltra 2.2 - Win XP Pro Primary DOS Partition 2.2 (2MQMF0A.CRI)

For more information about creating and building base maps, refer to your *ImageUltra Builder User's Guide*.

Considerations about custom Ultra-Portable operating-system modules

Consider the following when creating and deploying a custom Ultra-Portable operating-system module:

- You can modify the UNATTEND.TXT file with the information needed (such as User Information, the PID, and so on; but *do not* modify the GuiRunOnce data.
- If you choose to convert the file system to the NTFS, modify the UNATTEND.TXT file to perform the conversion (convert=NTSF).

Sample UNATTEND.TXT file

The following is a sample UNATTEND.TXT file that you can use as a starting point to create your own custom UNATTEND.TXT file.


```
[Data]
MsDosInitiated="0"
UnattendedInstall="Yes"

[Unattended]
Unattendmode=FullUnattended
OemPreinstall=YES
UnattendSwitch=YES
FactoryMode=NO
TargetPath=*
OemPnPDriversPath=DRIVERS\VIDEO;DRIVERS\AUDIO;DRIVERS\MODEM;DRIVERS\NETWORK;DRIVERS\OTHER
Filesystem=LeaveAlone
OemSkipEula=YES
WaitForReboot=NO

[GuiUnattended]
AdminPassword=*
AutoLogon=Yes
AutoLogonCount=10000
OEMSkipRegional=1
OemSkipWelcome=1
TimeZone=35

[GuiRunOnce]
Add2Stup="C:\IBMWORK\DSTARTM.CMD"

[UserData]
ProductKey=
FullName="IBM USER"
OrgName="IBM CUSTOMER"
ComputerName=*

[Identification]
JoinWorkgroup=
[Display]
BitsPerPel=32
XResolution=1024
YResolution=768

[TapiLocation]
CountryCode=1
Dialing=Tone
AreaCode=
```

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