

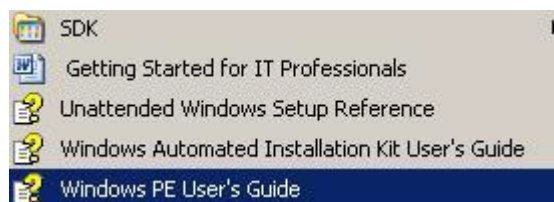
How to create a Windows PE boot CD

Jay-R Barrios

Before we can create a WinPE boot CD you will need to download and install Windows Automated Installation Kit or (WAIK) for those who have not yet used this, WAIK is the DOS replacement for automated deployment from Microsoft. (download it here)



After the installation go to the Windows PE User's Guide in the Programs menu:



You will find the "Introduction to Windows PE" there stating that MS Windows PE 2.0 is a bootable tool that is designed for 3 specific tasks: installation, troubleshooting, and recovery:

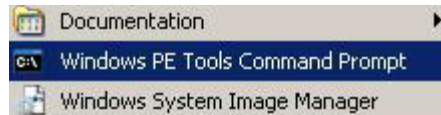
- Installing Microsoft Windows Vista. Windows PE runs every time you install Windows Vista. The graphical tools that collect configuration information during the setup phase are running within Windows PE. In addition, IT departments can customize and extend Windows PE to meet their unique deployment needs.
- Troubleshooting. Windows PE is useful for both automatic and manual troubleshooting. For example, if Windows Vista fails to start because of a corrupted system file, Windows PE can automatically start and launch the Windows Recovery Environment (Windows RE). You can also manually start Windows PE to use built-in or custom troubleshooting and diagnostic tools.

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- Recovery. Original equipment manufacturers (OEMs) and independent software vendors (ISVs) can use Windows PE to build customized, automated solutions for recovering and rebuilding computers running Windows Vista. For example, users can start their computers from Windows PE recovery CDs or recovery partitions to automatically reformat their hard disks and re-install Windows Vista with the original drivers, settings, and applications.

To begin with the creating of the boot CD launch the Windows PE Tools Command Prompt (I would suggest that it is run as the local administrator).



How to do it can be found at Start>Programs>Microsoft Windows AIK>Documentations>Windows PE User's Guide or C:\Program Files\Windows AIK\Docs\CHMs\WinPE.chm

Customizaing Windows PE>Windows PE Walkthroughs>Walkthrough: Create a Bootable Windows PE RAM Disk on a CD-Rom

Step 1:

at the Command Prompy type: `copype.cmd <arch> <destination>` Where <arch> can be x86, amd64, or ia64. Where <destination> is your local directory path. For example, `copype.cmd x86 c:\winpe_x86` (see screen shot below)

A screenshot of the Windows PE Tools Command Prompt window. The title bar reads 'C:\ Windows PE Tools Command Prompt'. The command prompt shows the following text:

```
C:\>copype.cmd x86 C:\winpe_x86

=====
Creating Windows PE customization working directory

C:\winpe_x86
=====

1 file(s) copied.
1 file(s) copied.
C:\Program Files\Windows AIK\Tools\PETools\x86\boot\bcd
C:\Program Files\Windows AIK\Tools\PETools\x86\boot\boot.sdi
C:\Program Files\Windows AIK\Tools\PETools\x86\boot\bootfix.bin
C:\Program Files\Windows AIK\Tools\PETools\x86\boot\etfsboot.com
C:\Program Files\Windows AIK\Tools\PETools\x86\boot\fonts\chs_boot.ttf
C:\Program Files\Windows AIK\Tools\PETools\x86\boot\fonts\cht_boot.ttf
C:\Program Files\Windows AIK\Tools\PETools\x86\boot\fonts\jpn_boot.ttf
C:\Program Files\Windows AIK\Tools\PETools\x86\boot\fonts\kor_boot.ttf
C:\Program Files\Windows AIK\Tools\PETools\x86\boot\fonts\wg14_boot.ttf
9 File(s) copied
C:\Program Files\Windows AIK\Tools\PETools\x86\EFI\microsoft\boot\bcd
C:\Program Files\Windows AIK\Tools\PETools\x86\EFI\microsoft\boot\fonts\chs_boot
.ttf
C:\Program Files\Windows AIK\Tools\PETools\x86\EFI\microsoft\boot\fonts\cht_boot
```

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```
C:\ Windows PE Tools Command Prompt
C:\Program Files\Windows AIK\Tools\PETools\x86\EFI\microsoft\boot\bcd
C:\Program Files\Windows AIK\Tools\PETools\x86\EFI\microsoft\boot\fonts\chs_boot
.ttf
C:\Program Files\Windows AIK\Tools\PETools\x86\EFI\microsoft\boot\fonts\cht_boot
.ttf
C:\Program Files\Windows AIK\Tools\PETools\x86\EFI\microsoft\boot\fonts\jpn_boot
.ttf
C:\Program Files\Windows AIK\Tools\PETools\x86\EFI\microsoft\boot\fonts\kor_boot
.ttf
C:\Program Files\Windows AIK\Tools\PETools\x86\EFI\microsoft\boot\fonts\wgl4_boo
t.ttf
6 File(s) copied
    1 file(s) copied.
    1 file(s) copied.

Success

Updating path to include peimg, oscdimg, imagex

C:\Program Files\Windows AIK\Tools\PETools\
C:\Program Files\Windows AIK\Tools\PETools\..\x86

C:\winpe_x86>
```

After that the script created a directory and copies all the necessary files for the particular architecture, as for x86 arch it has created for following:

```
\ winpe_x86, \ winpe_x86\ ISO, \ winpe_x86\ mount
```

Step 2:

To add ImageX (a tool for capturing and applying images during deployment) type: copy "C:\Program Files\Windows AIK\Tools\x86\imagex.exe" C:\winpe_x86\iso\

Step 3:

To created an exclusion list follow the instructions in Step 3 of the Walkthrough: Create a Bootable Windows PE RAM Disk on a CD-Rom

Copy this to a notepad:

```
[ExclusionList]
ntfs.log
hiberfil.sys
pagefile.sys
"System Volume Information"
RECYCLER
Windows\CSC
```

```
[CompressionExclusionList]
*.mp3
*.zip
*.cab
\WINDOWS\inf\*.pnf
```

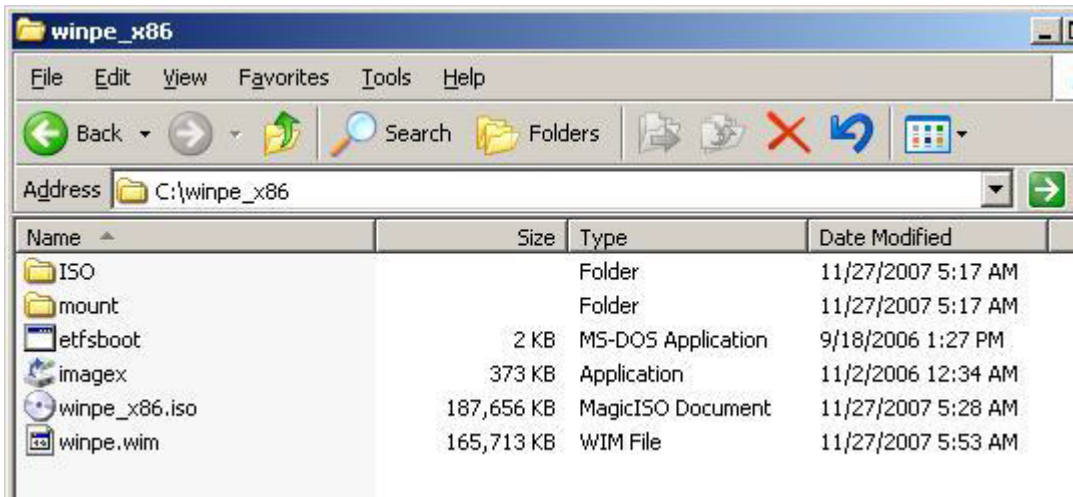
then save it as Wimscript.ini to the winpe_x86\ ISO directory.

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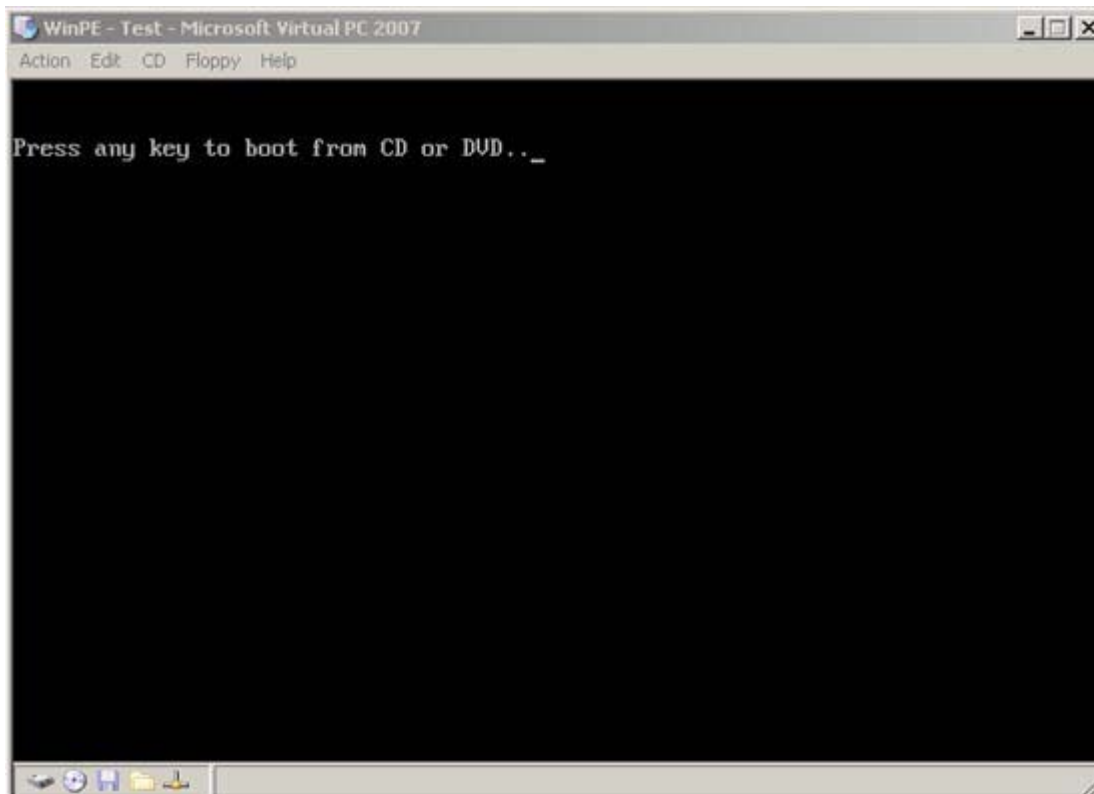
Step 4:

The command to create a bootable CD Rom type: `oscdimg -n -bc:\winpe_x86\etfsboot.com c:\winpe_x86\ISO c:\winpe_x86\winpe_x86.iso`



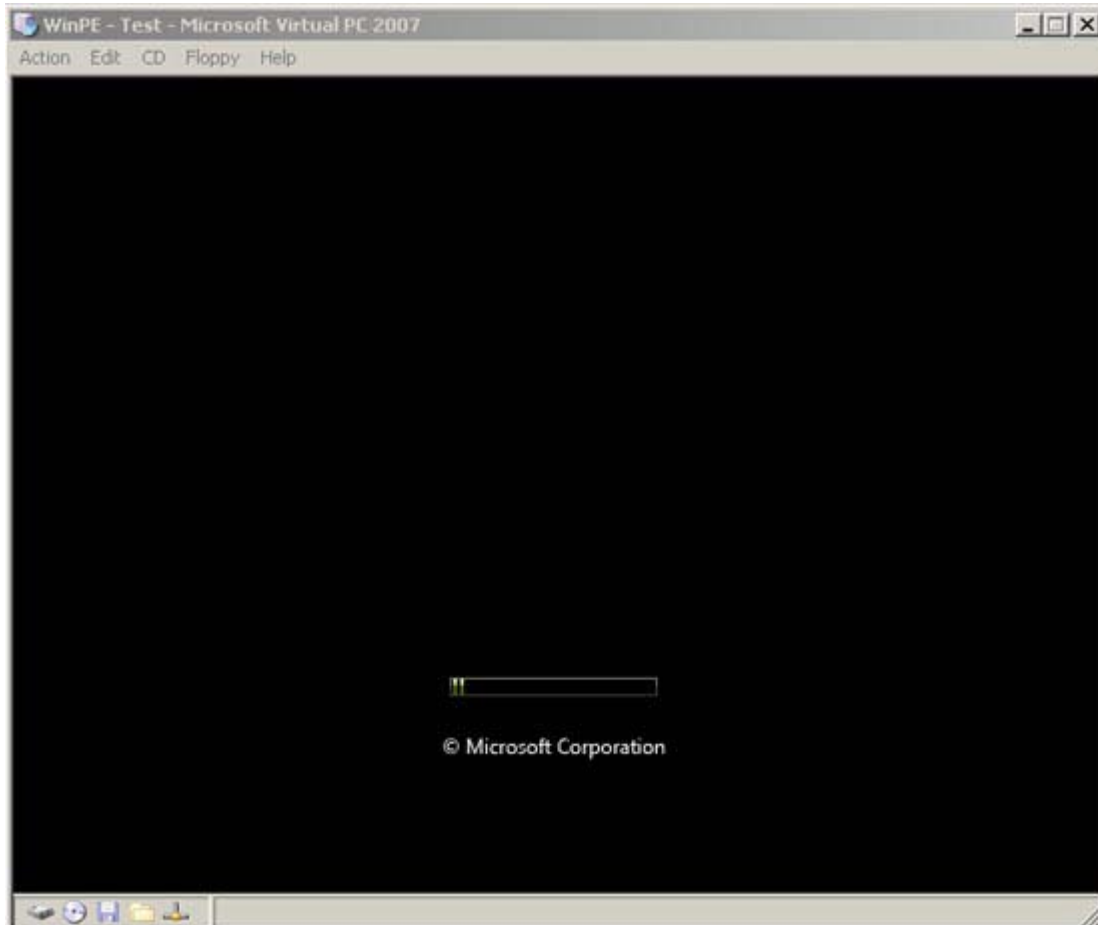
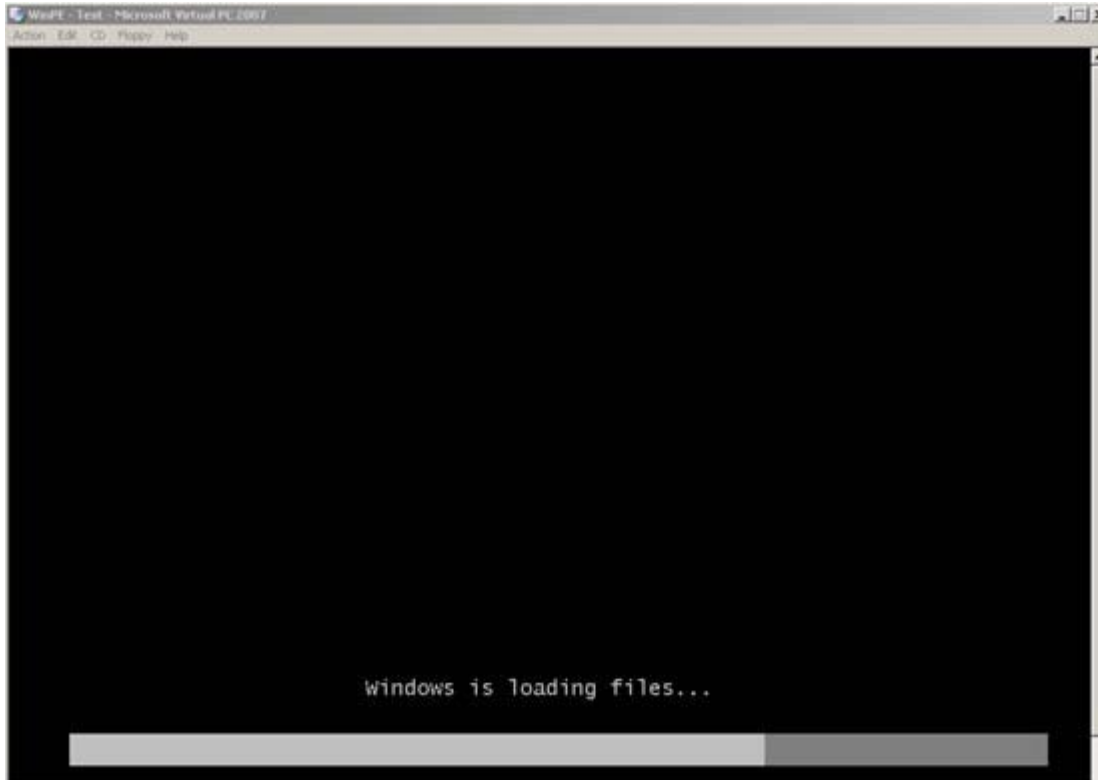
then burn the winpe_x86.iso file on a CD-ROM

I've test it in my virtual machine:



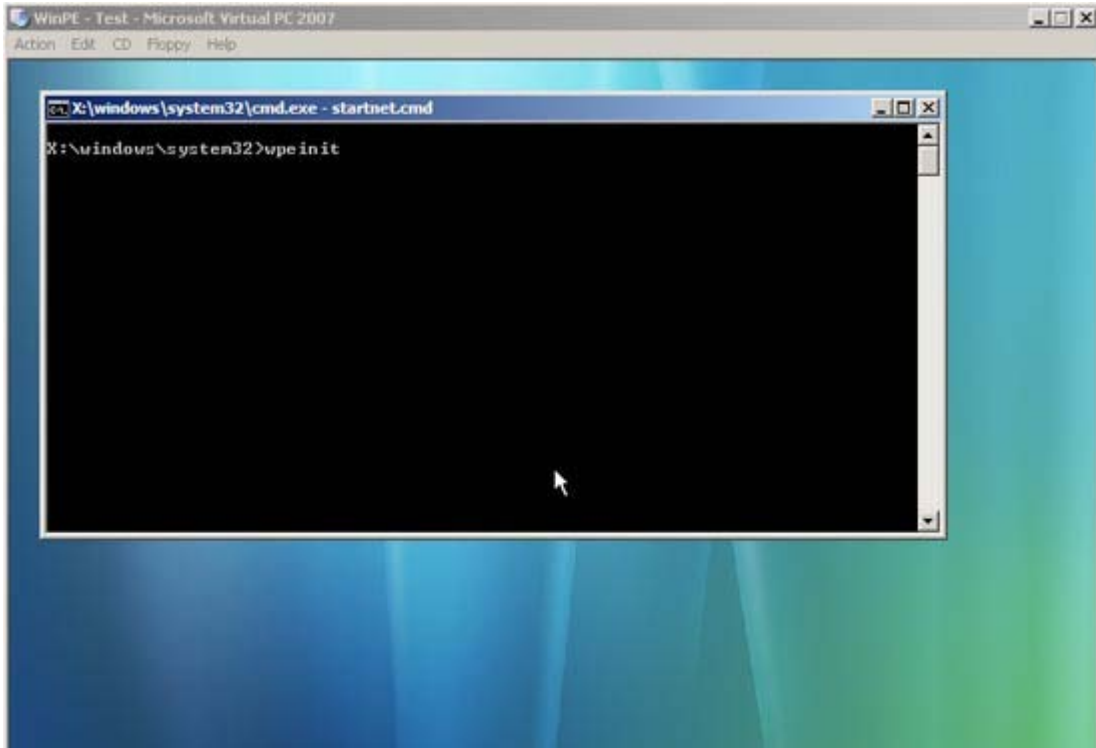
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There we have it, our WinPE bootable CD-ROM and since we have ImageX added we can capture or apply an image already.