Installing Windows 98 in Windows Virtual PC 7 (Windows Virtual PC)

Before beginning, you will need to have a Windows 98 installation CD and a Windows 98 license key and a bootable CD.   A bootable floppy image, VFD, can also be used, but there is no GUI interface exposed to mount a floppy disk.

1. Download the Win98SE Boot ISO from here (or create your own)

   a. http://www.essjae.com/virtualization/win98sebootiso.zip

2. Create a new Virtual Machine

   a. Click the **Start Orb→All Programs→Windows Virtual PC→Windows Virtual PC**.   This will open the window **C:\Users*%username%*\Virtual Machines.**

   b. Click **Create virtual machine** from the menu

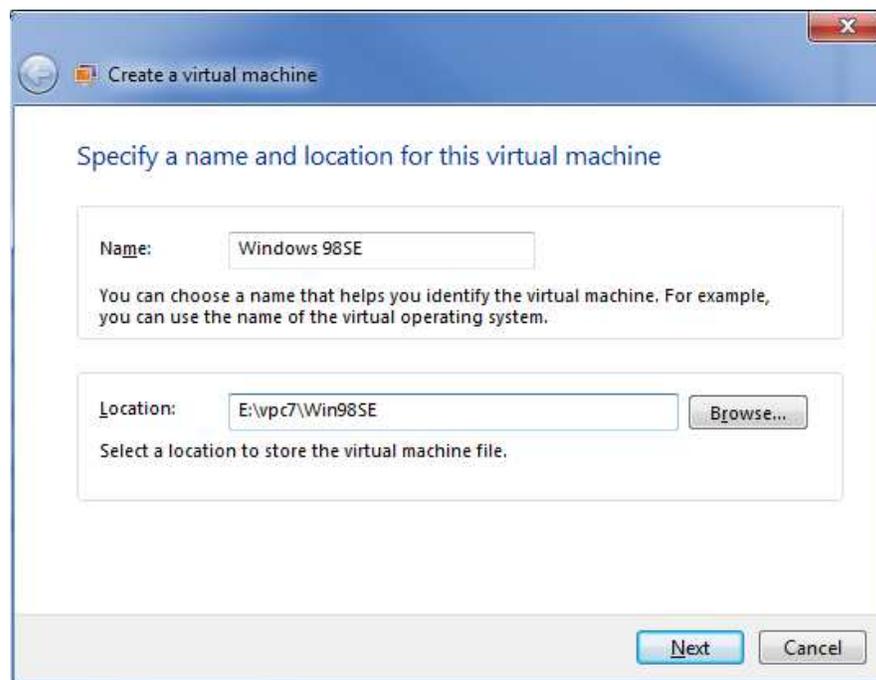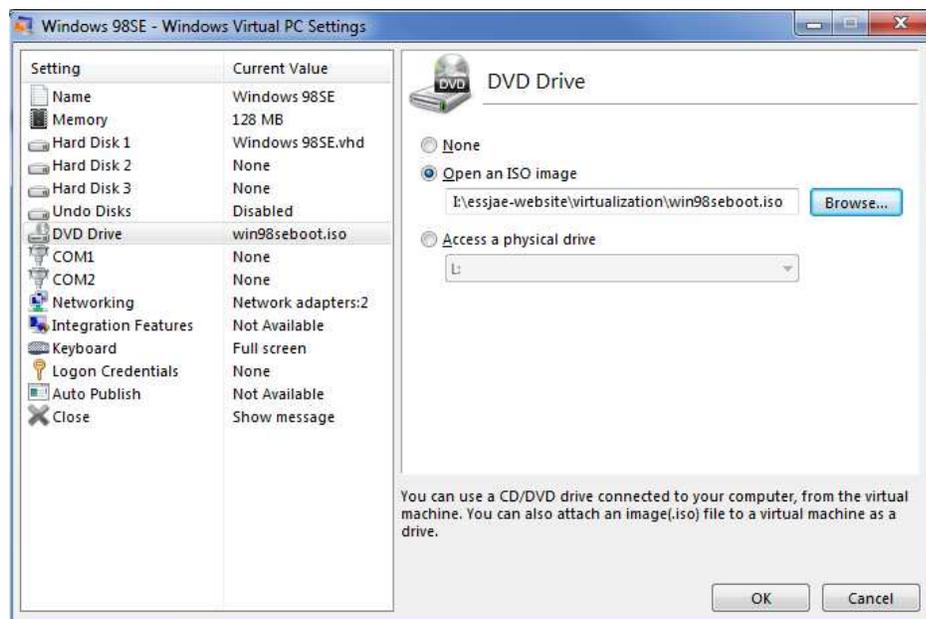   i. **Create virtual machine:** Enter a descriptive name and a location for the VM.

Figure 1: Create a virtual machine wizard

      ii. **Create virtual machine:** Click **Next** to continue.

      iii. **Create virtual machine:** If the folder specified in **Location** does not exist, you will be prompted to create it.   Click **Yes** to create the folder.
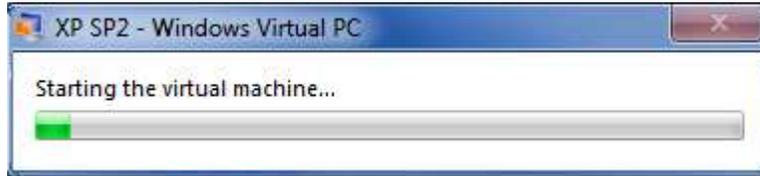
c. **Create virtual machine: Specify memory and networking options**

      i. Set the RAM to 64 or 128MB.   Win98 doesn't need to much.   Setting the RAM too high can cause the installation to fail. Click **Next** to continue.

d. **Create a virtual machine: Add a virtual hard disk**

      i. By default, a new dynamically expanding VHD will be created in the same folder specified above in step 2b.   Click **Create**.

e. The Win98 VM has been successfully completed.

3. Mount the Windows 98 boot ISO.

   a. From the **C:\Users\\%*username%*\\Virtual Machines** select the VM created in step 2 above.

   b. Select **Settings** from the menu

Figure 2: VM Settings
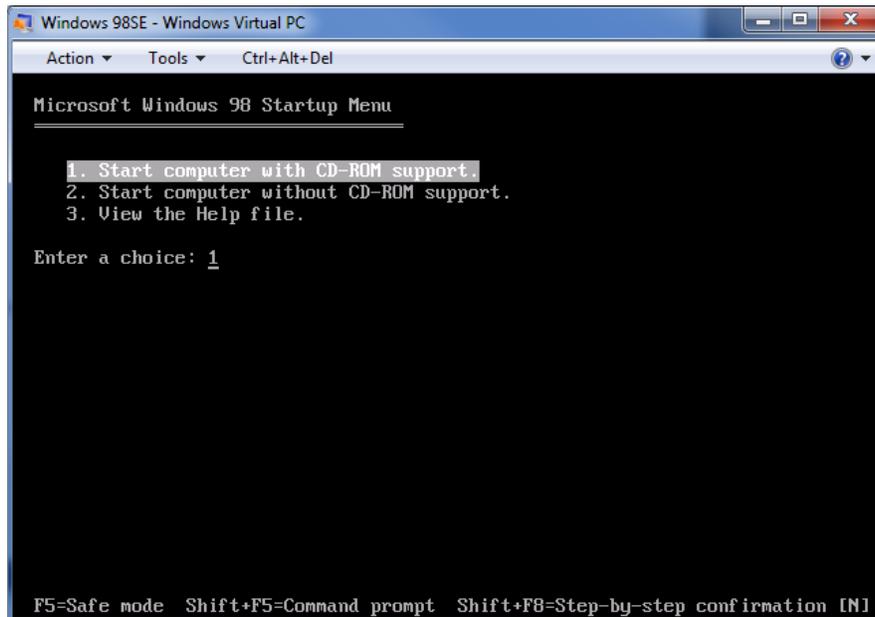
   c. Select **DVD Drive** from the **Windows Virtual PC Settings** window.

      i. Click **Browse** and locate the Win98SEboot.iso downloaded in step 1. Click **OK.**

4. Start the VM.

   a. Double-click the Windows 98 VM to start it.

b. If you see a window similar to Figure 3, press **SHIFT+ESC** to reveal the standard boot screen.

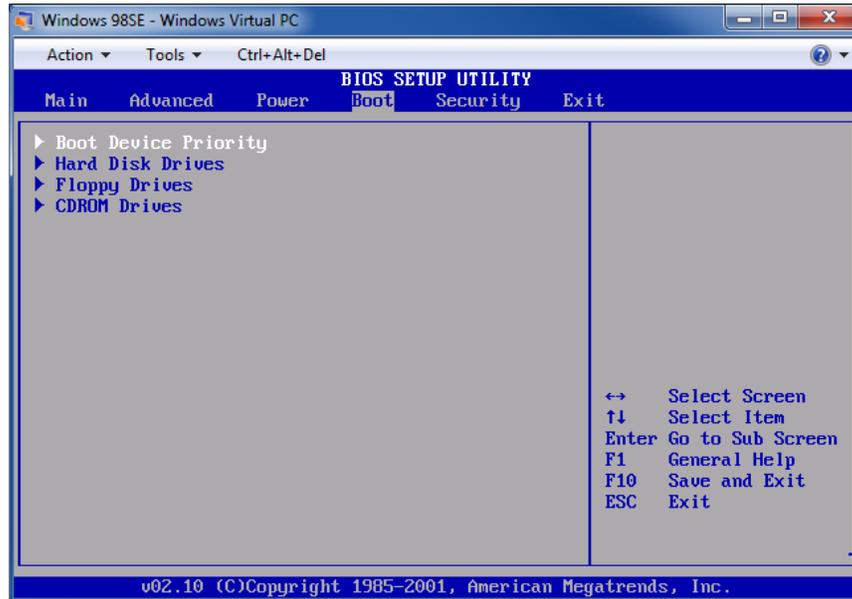**Figure 3: Hidden boot screen**

c. You should see this prompt:

d. Press **Enter** to **Start computer with CD-ROM support.**

5. Partition the VHD

   a. Type *fdisk* and press **Enter**.

      i. Press **Enter** to enable large disk support.

      ii. Press **Enter** to **Create DOS partition or logical DOS drive**

      iii. Press **Enter** to **Create Primary DOS Partition**

      iv. Press **Enter** to use the maximum available size

      v. Press **Esc** to exit FDISK

6. Reboot the VM

a. Click **Ctrl+Alt+Del** on the VM menu bar to reboot.

b. If **Missing operation system** appears, the BIOS boot order needs to be changes.

    i. Click **Ctrl+Alt+Del** again and as soon VM reboots appears, repeatedly press the **DEL** key until the blue and gray BIOS setup screen appears.

Figure 4: BIOS setup

    ii. Use the arrow keys to navigate and select **Boot**.

    iii. Press **Enter** to open the **Boot Device Priority** menu.

    iv. Move the **CD-ROM** above the **Hard Drive**.

        1. For **1st Boot Device**, press **Enter** and select **CD-ROM**. This will swap the **Hard Drive** and **CD-ROM** in the boot order.

    v. Press **F10** to save and exit.   Press **Enter** to **Ok** the changes, save, exit and reboot the VM.

7. Format the VHD

a. Press **Enter** to **Start computer with CD-ROM support.**

b. At the **A:\>** prompt, type *format c:* and press **Enter.**   Type **Y** and pres **Enter** to proceed.

c. Press **Enter** when prompted for a volume label.

d. Load smartdrv, type *smartdrv* and press **Enter**.

8. Mount the full Windows 98 installation CD

    a. From the VM menu bar, click **Tools→Settings→DVD Drive**

        i. Mount the Windows 98 ISO or capture the physical Windows 98 CD, click **OK**

9. Create a Windows 98 directory on the VHD, this prevents any installation issues where the setup program needs to access the CD-ROM before the Windows 98 CD-Rom drivers are loaded

    a. Change to the C: drive, type *c:* and press **Enter**

    b. Type *md win98* to create a new directory

    c. Copy the contents of e:\win98 to c:\win98 (note, if not using the Win98boot.iso from step 1, the drive letter of the CD-ROM may be different.   The drive letter used by the CD-ROM is displayed when MSCDEX is loaded at boot)

        i. Type *copy e:\win98 c:\win98*

10. Run setup.exe from the c:\win98 directory

    a. Type *cd win98*, press **Enter,** then type *setup* and press **Enter**.

See the VPC2007 Tech Ref for complete instructions for installing Windows 98 from this point on. Steps on creating the Windows 98 startup floppy can be skipped.