
SQL Server 2005 Hands-On Labs

Resource DVD Setup Instructions

PART 1: Install Virtual PC 2007

Microsoft Virtual PC 2007 can be downloaded from Microsoft.com for free here:
<http://www.microsoft.com/windows/products/winfamily/virtualpc/default.msp>

NOTE: Microsoft Virtual Server 2005 R2 can be used instead; however, all specific instructions supplied are for Virtual PC 2007. If you plan to use Virtual Server and are unfamiliar with how to use it, please refer to the Microsoft Virtual Server 2005 R2 site for details:

<http://www.microsoft.com/windowsserversystem/virtualserver/>

If you're interested in the differences between the two, please see the following whitepaper titled *Virtual PC vs. Virtual Server: Comparing Features and Uses* here:

<http://www.microsoft.com/windowsserversystem/virtualserver/techinfo/vsvsvpc.msp>

PART 2: Install the Workshop virtual machine (.vhd and .vmc)

Insert the HOLs DVD and run the setup.exe. This will install the SQLHAVPC.vhd (~10GB) and the SQLHAVPC.vmc (1K) to the \Program Files\SQLHAVPC directory. You can change the location on installation.

NOTE: If you have a read error during the setup.exe, please try it again – at least once or twice. A read error during setup.exe is (typically) caused by a hardware problem with your DVD reader – NOT a problem with the DVD itself. We have found that very full DVDs are a good test for DVD drives and as a result, we have found a few DVD readers that have trouble with 4GB. If you're using a laptop to setup the VPC then you might have problems because laptops are more prone to read errors from the nature of how they get around (and bounce around). You might be best off copying the content to a more stable desktop machine and then move the files around from there.

PART 3: Start/Test the Virtual Machine

During installation, a startup menu shortcut is created titled "SQL Server 2005 Always On HOLs" in the **Start, All Programs** group. Use this to start the VPC, if it fails – it will likely fail due to memory. Change the settings to use 512MB of memory instead of 1024MB.

NOTE: At least 1024MB of physical memory – with 512MB dedicated to the virtual machine – is required to successfully run these exercises. If you can shutdown any unnecessary programs to give MORE than 512MB, please do so. Ideally, you will have a minimum of 1024MB dedicated to the virtual machine.

OPTIONALLY

Once started, update the virtual machine to the latest windows updates and then shutdown and save these changes to the virtual machine. Be sure not to change anything EXCEPT the windows updates as they may conflict with the workshop.

IMPORTANT NOTE: If you see a “blue screen” in the virtual machine?

Virtual PC downloads all of the necessary drivers in the virtual machine; however, there are some cases where the drivers may not be loaded properly. As a result, the virtual machine might blue screen (this does NOT crash your host machine, ONLY the virtual machine). The way to fix this and have machine specific drivers loaded properly is:

- 1) Restart the virtual machine in SAFE mode (start in SAFE mode by pressing F8 when the virtual machine boots). Once safe mode is launched, you will see additional drivers load (just by scrolling across the screen).
- 2) Login under safe mode (this will complete the driver load/installation)
- 3) Shutdown and restart normally
- 4) Login normally
- 5) Close the virtual machine and choose **Shutdown Windows 2003 server and save changes**

A few notes on using these Virtual Machines (FROM the lab manuals)

Using Virtual Machines allows you to isolate and control an environment independently from your host operating system. Your host operating system can run any operating system that supports Virtual PC or Virtual Server. Then, within your Virtual Machine, you can run any “base” operating system desired. In the case of this self-paced lab series, the base operating system is Windows Server 2003 Enterprise Edition with Service Pack 1. A virtual machine has multiple components: a virtual hard drive (*.vhd) and a virtual machine configuration file (*.vmc). With Virtual PC or Virtual Server, you can open the vmc file in order to configure your virtual machine. The initial configuration of this vmc is that it expects 1GB of memory allocated to the virtual machine; this is memory in addition to what your host operating system needs. If you do not have more than 1.5GB of physical memory, reconfigure the virtual machine to use 512MB of memory instead.

Once setup for your environment, start (or turn on) your virtual machine. Once started, you will see a login dialog. In order to access the login dialog within your virtual machine, there are special keystrokes required. The details for the login are provided in the following table:

Tasks	Detailed Steps
Login to your VPC image.	To access the login dialog on the VPC, use Right-Alt + Del and then login in as Administrator with a password of Pass@word1

Within Virtual PC or Virtual Server, most commands focus on using the **Right-alt** key. The **Right-alt** is the alt key immediately to the right of the spacebar.

Command Description	Keystroke Combination
Login	Right-alt + delete
Full Screen/Return to Host (in VPC)	Right-alt + enter