APPENDIX C

Creating a Virtual Machine

This appendix shows how I created a virtual machine (VM) in which I then installed Windows Server 2003 R2 (and later WSS 3.0).

Initially, Hour 2, "Installing Windows SharePoint Services 3.0," started with an overview of how to create a virtual machine (VM). I noticed how most books just assume that everyone knows how to do this, but I decided to be more thorough and provide the guidance for doing so.

Unfortunately, being more thorough meant that Hour 2 became far too long, so I moved the creation of a VM to this appendix. It still remains the installation of a Parallels VM because that was the VM system I used for the VMs in the book. However, even if you are not using a Parallels VM system, reading these pages helps you get a feel for installing any VM system.

In the end, there was no space in the printed book for this appendix, so it is only on the book's website.

Note

> The screen shots used are for the Parallels VM system, but the principles and choices are similar for all VM systems.

Most modern VM systems have an express mode, but typically—like what's shown in Figure C.1—it works only for client operating systems. It's usually better to select Custom (or equivalent) so that you can specify, among other things, the amount of memory allocated to the VM.

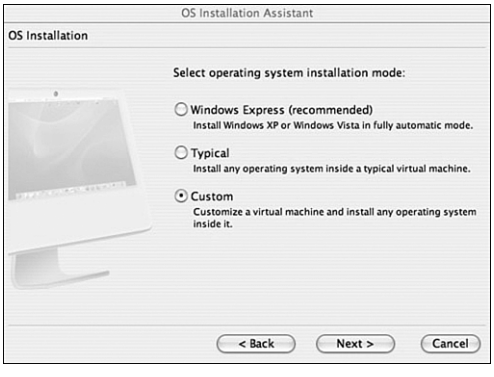

FIGURE C.1
Specifying a custom installation.

Figure C.2 shows a common option with some VM systems. It asks which operating system you want to install. The only effect this has is that the default settings differ. You can still amend them, however.

In Figure C.3, you specify the amount of RAM for your VM. Using 1024MB means that the WSS 3.0 installation will run quickly. Using anything from 512MB upward is perfectly possibly. Less (but still more than 360MB) works if really necessary.

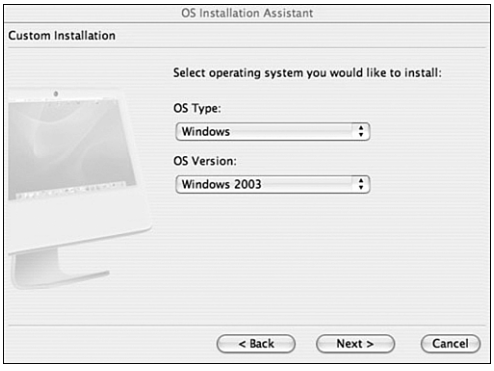

FIGURE C.2 Specifying which operating system you are installing.

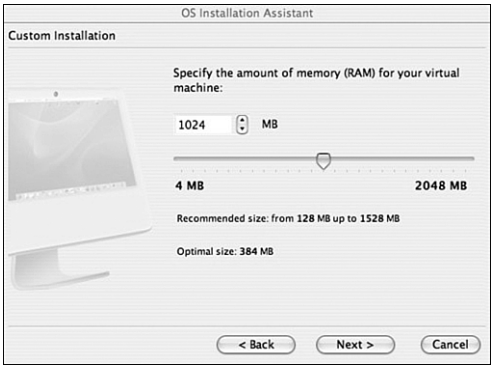

FIGURE C.3 Specifying the amount of memory.

Most VM systems offer you the choice between using an existing image (cloning) and creating a new one. In Figure C.4, I take the clear-cut choice, which is to create a completely new image.

Tip

> In my experience, cloning (in, for instance, VM Workstation) is something that works well and can save you disk space, but it is a monster to administrate.
>
> Nowadays I don't use cloning, because I found that I had deleted the VM that many clones relied on. But I have on my laptop only the two or three VMs that I am using at the time and move others to (and from) a USB drive.

FIGURE C.4 Specifying the kind of image.

Figure C.5 illustrates another typical option. Here, you can specify the size and type of the virtual hard disk.

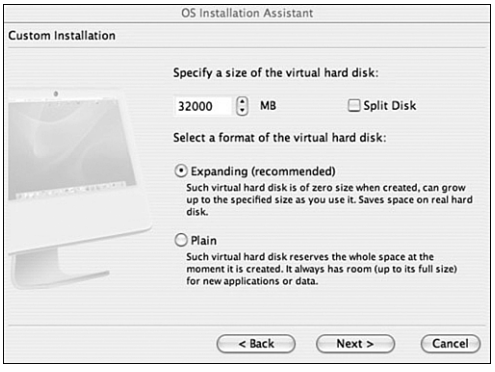

FIGURE C.5 Specifying the size and type of the virtual hard disk.

There are two main options: After I've specified the size of the virtual disk, do I then want all the space to be allocated (which means in the 8GB case that 8GB is formatted)? Or do I want only some of the space to be allocated (and formatted) at once? Doing the second option allows the VM system to expand the space later when more space is needed.

In this case, I chose to use only some of the space now because I don't have much space available on the portable—certainly not 32GB. In a system where you were concerned with performance, specify that all space be allocated at once.

In Figure C.6, the most appropriate choice is not the "recommended" choice of Shared Networking, but Bridged Ethernet. This way, the VM has its own network address in whichever local network it is installed.

The screen shot shows the default value, not Bridged Ethernet. Be sure to select Bridged Ethernet!

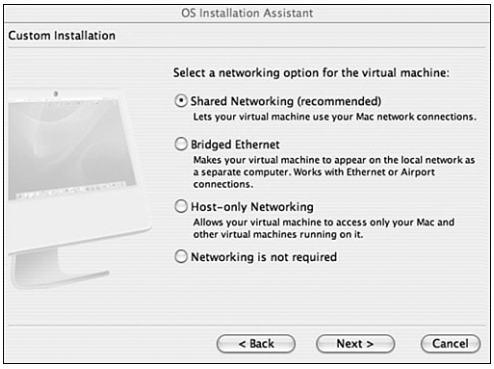

FIGURE C.6 Specifying the type of networking.

In my case, I want to be able to access the VM from Windows machines running XP Pro and Vista (and Office 2003 and Office 2007) and usually not from the Mac itself.

Tip

> If I had a Mac with a massive amount of memory, I could achieve the availability of different Windows-based machines on that Mac by selecting Host-Only Networking and creating other VMs running XP Pro/Office 2003 and Vista/Office 2007 and use those as my Windows machines.

Think carefully about which networking option you select in Figure C.6 (or in its equivalent in another VM system).

Tip

> The names might be different in the different VM systems, but the descriptions will be similar.

Even if the selection you make here later proves to be incorrect (I chose Shared Networking by mistake), it can be corrected later.

As shown in Figure C.7, give your VM a name. The name should tell you what it is and write over the default name.

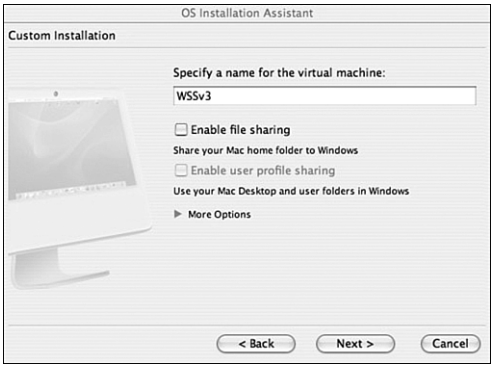

FIGURE C.7 Specifying the name of the "server" (= virtual machine).

When I'm using this VM, it will usually be the only thing running on the Mac. I will be using a Windows client to access it. In this case (and in most cases), it's best to give the VM as much power as possible (see Figure C.8). It is, after all, going to be running a server system.

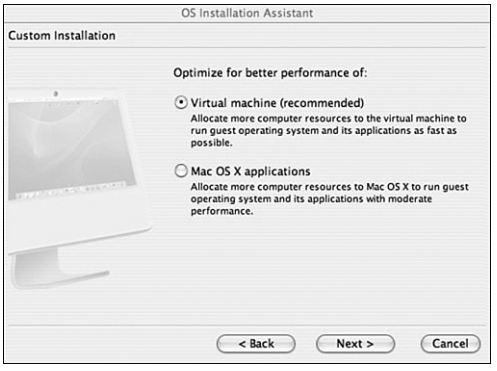

FIGURE C.8 Specifying whether the main or the virtual machine gets most of the computer's resources.

In Figure C.9, you have a choice between using a real CD/DVD or an ISO file. (An ISO file, when opened, appears to the installation routine as if it were a real CD/DVD.) In the present case, I select real CD/DVD because I have one available.

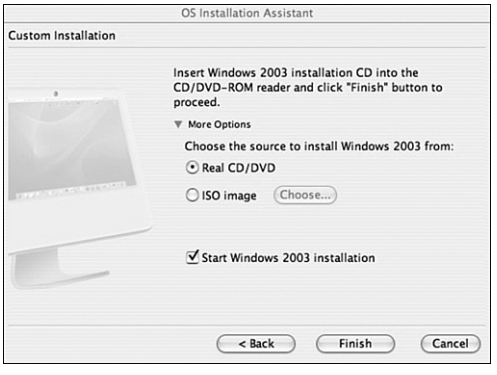

FIGURE C.9 Specifying the source of the operating system.

Normally, I would select ISO Image and download an ISO copy of the CD/DVD from MSDN. The main reason I would do this is that I would then keep the ISO copy in a directory on the Mac (or the PC if I had the VM system there). I could then reuse it to create the next test system. (I didn't do it this time because MSDN was having problems and wouldn't let me access my MSDN subscription, so I couldn't download it.)

Both options are equally valid for a single installation and each lead to the same set of installation screens for (in this case) the operating system you are probably installing.

Tip If the operating system you are installing is Windows Server 2008 (see online Appendix B, "Installing WSS 3.0 on Windows Server 2008"), you select Windows Server 2008 (Experimental) in Figure C.2.