Fresh Install of Windows XP Professional

Installing Microsoft Windows XP Professional to Dell PowerEdge SC440 Server.

{DIV(type="p", align="justify")}So, you or your neighbor has an unopened licensed three-pack of Microsoft Windows XP Professional in the drawer, and Dell finally offers their PowerEdge SC440 Tower Server on special for 3 days only at a price of $249, including the dual core Intel Pentium CPU and the basic 1 GB of Ram and 80GB SATA hard drive. You quickly order the SC440 server box, of course increasing the Ram to 2GB (1GB x2 Dimms) for an extra $20 and also increasing the SATA hard drive from 80GB to 160GB for an additional $20. Now, all you need to add is the Dell USB keyboard and mouse for $19 more, plus sales tax and 3-day ground shipping. In a few days you will have a brand new quiet-running tank of a workstation albiet without a monitor or an operating system. Yet, you have plenty of flat panel monitors lying around or you have an open set of spider cables on your KVM switch (a PS/2 KVM will require a $10 PS/2 to USB adapter for the Dell USB keyboard and mouse). It is not recommended to install Windows XP on this server box, whether it is the 32 bit or 64 bit version. However, it is certainly possible to install either and XP will work just fine.{DIV}{DIV(type="p", align="justify")}Let's get to installing a fresh copy of Microsoft Windows XP Professional. This same process works quite well for installing XP on most any system, new or old, with at least a Pentium IV Intel processor.{DIV}{DIV(type="p", align="justify")}The SC440 has a pre-installed FAT16 utility partition on the SATA drive. This partition is about 78MB in size, but only utilizing about 8MB or 9MB of space for the Dell utilities software. There is also normally a small FAT32 partition labled c: for operating system, along with a vast amount of unpartitioned space on the hard drive. During installation of XP, it will be necessary to delete the placeholder FAT32 partition and create a new NTFS-formatted partition to replace it that uses the entire remaining unpartitioned space on the hard drive. You may want to back up the utility partition using something like Norton Ghost 2003. For these backup purposes, you may even have a CD that you burned containing the Reatogo version of Bart's X-PE (pre-install environment) with a licensed version of Ghost 9 embedded. However, if you have something like that in your software collection, then you probably don't need to read the rest of this article.{DIV} !Operating System Installation Instructions. *{DIV(type="p", align="justify")}Push the power button on the face of the server tower or other hardware box (the "box") and hurriedly push the button on the CD door to open it and insert the Windows XP Professional cd. Push the cd door button again to close the cd drawer. If you were quick enough the XP cd will autorun upon system boot, or it might echo onscreen to "press any key to boot to cd" (so just tap the spacebar or enter key, whatever, if needed at that point). If it does not autorun, then simultaneously press control+alt+delete on your keyboard to restart and again try to boot from the installation cd. You may need to change the boot sequence in setup, but ordinarily the default boot sequence is first any floppy drive, then a cd, then a hard drive.{DIV} *{DIV(type="p", align="justify")}When the installation cd begins to boot, you will notice that it says something like "Press F6 if you need to install a third party or SCSI RAID driver" for any SCSI or RAID controller, or other mass storage controller, for which Windows installation disk does not have a base set of software drivers. If you did not install an add-in hardware controller, then this is a subject for a different article and you can skip to the next step. If you did install an add-in hardware or RAID controller, then you know that F6 is one the function keys at the top edge of your keyboard, and that you should check the Microsfoft hardware compatibility list ("HCL") as to whether your add-in RAID card is not on the list. If the HCL is no longer published for XP, then you will know soon enough during the XP installation process that XP does not recognize your hard drive attached to that new controller.{DIV} *{DIV(type="p", align="justify")}Setup interface initially has a medium blue background and it states onscreen that "Setup is loading files." You can see the file names of those being loaded. After a bunch of Windows files are loaded to memory, you will see some options, the first of which states "To setup Windows XP

now, press Enter." There is also an option to repair a Windows XP installation using recovery console by pressing "R." Using this you may be able to repair a previously attempted but failed installation. However, for our fresh or clean install just press ENTER to continue.{DIV} *{DIV(type="p", align="justify")}Accept the windows XP license agreement by pressing the function key → F8 - I agree.{DIV} *{DIV(type="p", align="justify")}On the next screen, make sure you do not delete the FAT (FAT16) Dell utility partition. Use your down-arrow cursor key on the keyboard to highlight/select "c:partition2 (OS)(FAT32)" and "Press "D" key to delete the selected partition" (this placeholder partition). Finally Press "L" which stands for for "lost." Everyting in this partition will be "Lost" when you press "L." On the next screen, I caution you. Do not press enter to Setup Windows XP just yet. We first need to re-partition all the un-partitioned space, including the little FAT32 partition we just removed.{DIV} *{DIV(type="p", align="justify")}Now, use the down-arrow cursor key to select/highlight the unpartitioned space. To create a partition in the unpartitioned space press "C" for create. It asks about "Create Partition of Size in Megabytes (MB), and the default size listed is the entire remaining space on the hard drive. Unless you want to create more than one partition for the rest of the drive, just press ENTER to create one large partition covering the rest of the unpartitioned space on the drive. You will notice that XP always leaves a small 8MB of unpartitioned space, rumored to be used by those who know such things as alternate data streams. Now we are ready to Setup Windows into this new partition.{DIV} *{DIV(type="p", align="justify")}Use the down-arrow cursor to slect Partition2 - New Raw. Now, according to the onscreen option "To Setup Windows XP on that selected ITEM (namely the new Partition2 - Raw and unformatted), press ENTER. Since there is a Dell utility partition and you just removed the previously active partition, setup may state that "The active partition on your computer contains another operating system. To successfully complete the installation of Windows XP, setup must mark this partition as inactive." Press Enter. It seems that the utility partition was somehow automatically set to be the active partition when the placeholder FAT32 partition was just removed.{DIV} *{DIV(type="p", align="justify")}Choose to Format the Partition using the NTFS file system, ENTER = continue.Do not use quick format. I believe that is for merely erasing the files from a previously formatted partition. You will see "Please wait while Setup formats the partition. And a percentage of completion progress indicator starts ... "Setup is formatting - 0%." Go make coffee or watch a sitcom. When the progress indicator reaches 100%, setup will state: "Setup is copying files / Please wait while setup copies files to the Windows installation folders." Again, there is a 0% to 100% progress indicator. Drink a cup while this runs.{DIV} *{DIV(type="p", align="justify")}After files are copied to installation folders on your hard drive, you will see a screen that states, "Please wait while setup initializes. Remove floppy if there is a floppy in Drive A, and press enter to restart, or setup will restart automatically after a brief countdown.{DIV} *{DIV(type="p", align="justify")}As setup shuts down and the computer begins to restart, do NOT press any key to boot from CD. We want setup to restart from the hard drive containing the installation files that will continue setup. Do not remove the Windows XP installation CD because it is still required to complete setup.{DIV} *{DIV(type="p", align="justify")}You will see a Windows XP startup screen for the first time, then you will see a graphic that says: Setup will complete in 39 Minutes.{DIV} {DIV(type="p", align="justify")}-Collecting Information (completed){DIV} -Dynamic Updates (completed) -Preparing Installation (completed) -Installing Windows (highlighted in ORANGE showing that this stage is in process)

-Finalizing Installation

*{DIV(type="p", align="justify")}Soon, a gray screen will pop-up concerning Regional and Language options. You may customize these using the "customize" button and/or the "details" button. However, if you want to use the default settings for "English (United States)" just click Next button.{DIV}

*{DIV(type="p", align="justify")}The next screen asks you to Personalize Your Software. It asks for your full name and your company name on two text input lines. The names you enter will be forever embedded in the System screen on the General Tab stating this software is licensed to YOUR NAME and/or YOUR COMPANY. To continue with setup, you only need to enter something in the first text input box requesting a persons name. The company name is optional. Click Next button.{DIV} *{DIV(type="p", align="justify")}Enter your Microsoft Windows XP Professional "Product Key." Next.{DIV} *{DIV(type="p", align="justify")}If you typed every digit of the product key correctly, setup will propose a name for your computer which will also be used as your computer's name on your local network. I suggest you enter a name of your choice that makes sense and click next. For example, if it is a Dell machine, I normally follow Dell's 8-digit convention of naming the computer starting with the letter "D" for "Dell" plus the 7 alpha-numeric digits contained in the unique Dell Service Tag for that computer. Then, if I need to call Dell support, I can look onscreen at the computer name to get the Service Tag. You can name your computer anything you like, except that I suggest not giving the same name to two computers on your same network.{DIV} *{DIV(type="p", align="justify")}Enter the administrative password. This is the password you choose for the user account named Administrator. With XP professional, in addition to the username you provide for yourself and other users of the computer, there will always be a user who is setup under the name Administrator. You will need to know (or remember) the Adminstrator's password if someday you must access the repair / recovery console. Don't leave this password blank, but make sure it is something you will remember. You can change the Administrator's password from time to time in the Windows Control Panel when you log into Windows as any user having administrative privileges. Click Next.{DIV} *{DIV(type="p", align="justify")}Set the Date and Time, set the time zone, check the box to automatically adjust the clock for daylight savings changes. Click Next.{DIV} *{DIV(type="p", align="justify")}Setup will show that there are approximately 32 minutes left, and will echo onscreen … installing network … which takes about one minute.{DIV} *Setup will show that there are approximately 29 minutes left, and echo onscreen … copying files … which takes a minute or two.

*{DIV(type="p", align="justify")}Setup will show that there are 24 minutes remaining, and echo onscreen … completing installation.{DIV} *Setup will show that there are 21 minutes remaining, and echo onscreen … installing start menu items.

*{DIV(type="p", align="justify")}Setup will show that there are 18 minutes remaining, and echo onscreen … registering components.{DIV} *Setup will show that there are 9 minutes left, and echo onscreen … saving settings.

*{DIV(type="p", align="justify")}At 6 Minutes remaining, this is the conlusion of setup stage of "Installing Windows" and setup has moved to the next stage of "Finalizing Installation" which is now highlighted in orange on the setup list.{DIV} *{DIV(type="p", align="justify")}At 4 Minutes remaining, setup echos onscreen … saving settings … removing any temporary files.{DIV} *The system restarts automatically. Do NOT press any key to reboot from cd. Let the system again boot to Windows on the hard drive.

*{DIV(type="p", align="justify")}Upon restart, you may see an alert box that says, "To approve appearance and visual elements, Windows will automatically adjust your screen resolution. Click the OK button.{DIV} *{DIV(type="p", align="justify")}While screen resolution is being adjusted, Windows will ask, "If you can read this text click the OK button." Click OK to continue.{DIV} *{DIV(type="p", align="justify")}"Welcome to Windows. Let's take a few minutes setting up your computer. To continue, click Next."{DIV} *You are then presented two choices. Whether to turn on automatic updates at this time? I suggest selecting "No, not right now." Then, click next.

*{DIV(type="p", align="justify")}You are now asked to setup usernames for those who will have access to this computer. The first line is for you as first user, the next lines are for 2nd user, etc. I

suggest you enter your first name as first user. Whatever you enter here will show up as the username of the person who is logged in or who will logout. It shows up elsewhere. For example, under C:\Documents and Settings\ folder you will have a subfolder for the "Default User," "All Users," and "Your Name" that you have entered in response to this setup screen.{DIV} *{DIV(type="p", align="justify")}Click the Finish button.{DIV} *{DIV(type="p", align="justify")}Remove the Windows XP Professional Installation CD from the CD tray.{DIV} *{DIV(type="p", align="justify")}Check the Device Manager to see if you need to install network drivers, chipset drivers, audio drivers or others. Click Start button, click Control Panel (or Settings / Control Panel), System, Hardware tab, and Device Manager button. Do you see anything with a yellow exclamation point that probably has no driver installed?{DIV} *{DIV(type="p", align="justify")}For the network driver on a Dell SC440 server, the appropriate Broadcom NetExtreme Gigabit driver from Dell is restricted for installation only on Windows 2003 systems. I suggest that you probably need to go directly to the Broadcom website and download and extract the Broadcom NetExtreme Gigabit "Desktop" Drivers. In the Windows Device Manager, you will need to select misconfigure network adapter, click the Properies button, click either "Reinstall" or "Update Driver" for the misconfigured network adapter and point the wizard to the files you have extracted from the Broadcom download.{DIV} *{DIV(type="p", align="justify")}Now that you have network capability, you can probably go online with the new Windows install. For Dell SC440 you probably need to fix an error in the device manager referring to SM Bus. For this, go to support.dell.com and the download drivers section, and input your Service Tag. Find and download the appropriate chipset drivers, extract them to the default folder or a folder of your choice, and they should auto-install immediately following file extraction.{DIV} *{DIV(type="p", align="justify")}Return to support.dell.com and go to download for drivers in order to fix misconfigured item called "Video Controller (VGA Compatible). From Dell, you probably need to download and extract and install the ATI ES100 for Windows 2003, which will actually work for Windows XP.{DIV}

{DIV(type="p", align="justify")}Finished. Enjoy.{DIV}