SERVICES

Have you ever needed to start a service on a remote machine? You can use the tools in the resource kit, but they often aren't handy or give curious results. Each service has a corresponding registry key and each key has a start value. Each service can have one of these start values:

0x0Boot0x1System0x2Automatic0x3Manual0x4Disabled
To alter the way a service starts, change the appropriate start value for each service. I give two examples and list common services and their registry keys for a generic Windows NT installation. Many other services are available; I just listed a few of the more common ones. Make sure you have your system backed up or have a spare test system when you go spelunking in here.

I-1Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Atapi**Value Name:**Start**Data Type:**REG_DWORD**Value:**0x0
This example starts the Atapi service when the machine boots.

I-2Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Eventlog**Value Name:**Start**Data Type:**REG_DWORD**Value:**0x2
This value makes the event log start automatically on the target computer. To change this configuration, run regedt32.exe and select the computer that has the service you wish to alter.

I-3Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Alerter**Value Name:**Start**Data Type:**REG_DWORD**Value:**0x3
This example makes the alerter service start manually on the target machine.

I-4Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Browser**Value Name:**Start**Data Type:**REG_DWORD**Value:**0x2
This example tells the browser service to start automatically every time Windows NT starts.

I-5Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Busmouse **Value Name:**Start**Data Type:**REG_DWORD**Value:**0x4
This example disables the busmouse service.

I-6Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\DHCP **Value Name:**Start**Data Type:**REG_DWORD**Value:**0x2
This example sets the DHCP client service to automatic startup mode.

I-7Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Replicator **Value Name:**Start**Data Type:**REG_DWORD**Value:**0x3
This example sets the directory replication service to manual start.

I-8Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Messenger **Value Name:**Start**Data Type:**REG_DWORD**Value:**0x2
This example automatically starts the messenger service so you can send and receive system broadcast messages.

I-9Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Sermouse**Value Name:**Start**Data Type:**REG_DWORD**Value:**0x2
This example sets the serial mouse service to start automatically.

I-10Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\UPS**Value Name:**Start**Data Type:**REG_DWORD**Value:**0x4
This value controls the uninterruptible power supply service.

I-11 Change the value of BootExecute under the Session Manager key to prevent Windows NT from running chkdsk at boot time.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Session Manager**Value Name:**BootExecute**Data Type:**REG_DWORD**Value:**autocheck autochk *
This change may be necessary if you have really bad disks (other than the boot disk) and need to disable chkdsk so that you can proceed with the boot procedure. Restart the machine for any changes to take effect.

MICROSOFT FINDFAST 8.0/97

I-12Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Shared Tools\Find Fast\97 **Value Name:**Path**Data Type:**REG_SZ**Value:**D:\Program Files\Microsoft Office\Office\Findfast.exe
This path leads to the FindFast executable. Other software can use this key to find the FindFast utility.

I-13Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Shared Tools\Find Fast\97**Value Name:**LogFilePath**Data Type:**REG_SZ**Value:**C:\WINNT\System32\FFASTLOG.TXT
This fully qualified path and filename is where the FindFast utility writes its activity.

I-14Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Shared Tools\Find Fast\97**Value Name:**LogFilePath**Data Type:**REG_SZ**Value:**10800000 (default is 3 hours, 3*60*60*1000)
This value is the interval (in thousandths of a second) at which the FindFast indexes are updated.

I-15Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Shared Tools\Find Fast\97**Value Name:**IFilterConverter**Data Type:**REG_DWORD**Value:**D:\Program Files\Microsoft Office\Office\Office\Ifilter.cnv
This fully qualified path and filename is where the FindFast utility looks for its index filter.

I-16Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Shared Tools\Find Fast\97\Index List**SubKey:**Index 00
This SubKey sets where FastFind looks for information on a given index.

I-17Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Shared Tools\Find Fast\97\Index List\Index 00**Value Name:**Automatic**Data Type:**REG_DWORD**Value:**1
Setting this value to 1 means that NT automatically updates the current index; setting this value to 0 means that the current index is not automatically updated. The value is in binary format.

I-18Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Shared Tools\Find Fast\97\Index List\Index 00**Value Name:**Folder**Data Type:**REG_SZ**Value:**C:\
This fully qualified pathname points to the root of the directory structure to be indexed. All the subfolders from the point specified in this entry are indexed.

I-19Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Shared Tools\Find Fast\97\Index List\Index 00**Value Name:**Additional Folders**Data Type:**REG_SZ **Value:**
This value specifies folders to index in addition to the directory pointed to by the Folder key.

I-20Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Shared Tools\Find Fast\97\Index List\Index 00**Value Name:**Type**Data Type:**REG_DWORD**Value:**0
This value specifies the type of documents to be indexed. Acceptable values are:

0Microsoft Office documents1Microsoft Word documents2Microsoft Excel documents3Microsoft PowerPoint documents4Microsoft Project documents5All indexable file types (excludes .exe, etc.)
I-21Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Shared Tools\Find Fast\97\Index List\Index 00**Value Name:**Index Operation**Data Type:**REG_DWORD**Value:**3
This value specifies the type of operation to perform on the current index. Acceptable values are:

1Create the index2Update the index one time only3Update the index continuously

I-22Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Shared Tools\Find Fast\97\Index List\Index 00**Value Name:**Proximity Search**Data Type:**REG_DWORD**Value:**0
If this value is enabled, entire phrases and quoted strings are included in the index, thus increasing the size of the index file. If it's disabled, the FindFast utility indexes more quickly and keeps a smaller index file, but searching for phrases takes longer.

I-23Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Shared Tools\Find Fast\97\Index List\Index 00**Value Name:**Size Limit**Data Type:**REG_DWORD**Value:**1,537,456,000
This value limits the maximum size of the current index; it specifies the number of bytes allowed.

I-24Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Shared Tools\Find Fast\97\Index List\Index 00**Value Name:**Last Update**Data Type:**REG_BINARY**Value:**50 ea 9c d9 69 54 bc 01
This value specifies the time and date the current index was last updated.

I-25 If your system occasionally hangs up and the desktop is blank or you are missing icons, you have probably discovered that the only way to recover is to reboot. However, look at this registry entry and make sure it is set to 1; the shell can then automatically restart if it crashes.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Shared Tools\Find Fast\97\Index List\Index 00**Value Name:**AutoRestartShell**Data Type:**REG_DWORD**Value:**1
A value of 1 automatically restarts the shell after a crash. A value of zero does not.

I-26Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\SessionManager\Memory Management**Value Name:**NonPagedPoolSize**Data Type:**REG_DWORD**Value:**0
When this value is set to 0, the system uses the default size. A non-zero value specifies in bytes the amount of memory to use.

I-27 Problem: You are copying files from your NT server to an NT workstation on a Token-Ring network and you get the error "Filemanager cannot copy X. The session was canceled." The copying feature works fine with small files but blows up on large files. This registry entry helps you fix this problem.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NETFLX1\Parameters**Value Name:**MaxFrameSize**Data Type:**REG_DWORD**Value:**0x800
This value sets the maximum framesize to 2 kilobytes. This example assumes you are using a NetFlex network interface card.

I-28 Problem: You are having problems with your network after upgrading to FDDI and running Workstation with Novell servers. On the Novell server, your packet size is 4202, but NT workstation gets an error, generally because it tries to execute a read-only file from the Novell server. Changing this registry entry should fix you right up.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Nwrdr\Parameters
Add the following value under the Parameters key:

Value Name: DefaultMaxPacketSize**Data Type:**REG_DWORD**Value:**1012
Restart the machine for these changes to take effect.

THE RUN COMMAND

I-29 If you want to customize what appears in the drop-down box of the Run command (which you get to by clicking Start and selecting Run), change the following registry entries to add and delete items.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Windows\CurrentVersion\Explorer\ RunMRU**Value Name:**MRUList**Data Type:**REG_SZ**Value:**abcdefg (number of entries to display)
The number of letters in this string determines the number of values you want displayed. For example, specifying abc shows only the first three values, whereas abcdef shows the first six values.

For each of the entries below, the value is the command line that is displayed in the corresponding position of the Run command's drop-down box. For example, Value Name "a" corresponds to position 8. A sample value for any of these entries is c:\winnt\notepad.exe.

I-30Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Windows\CurrentVersion\Explorer\ RunMRU**Value Name:**a**Data Type:**REG_SZ**Value:**<full path and file name>
I-31Value Name:b**Data Type:**REG_SZ**Value:**<full path and file name>
I-32Value Name:c**Data Type:**REG_SZ **Value:**<full path and file name>
I-33Value Name:d **Data Type:**REG_SZ**Value:**<full path and file name>
I-34 Value Name:e**Data Type:**REG_SZ**Value:**<full path and file name>
I-35Value Name:f**Data Type:**REG_SZ**Value:**<full path and file name>
I-36Value Name:g**Data Type:**REG_SZ**Value:**<full path and file name>
I-37Value Name:h**Data Type:**REG_SZ**Value:**<full path and file name>
I-38Value Name:i**Data Type:**REG_SZ**Value:**<full path and file name>
I-39Value Name:j**Data Type:**REG_SZ**Value:**<full path and file name>
I-40Value Name:k**Data Type:**REG_SZ**Value:**<full path and file name>
I-41Value Name:l**Data Type:**REG_SZ**Value:**<full path and file name>

I-42Value Name:m**Data Type:**REG_SZ**Value:**<full path and file name>
I-43Value Name:n**Data Type:**REG_SZ**Value:**<full path and file name>
I-44Value Name:o**Data Type:**REG_SZ**Value:**<full path and file name>
I-45Value Name:p**Data Type:**REG_SZ**Value:**<full path and file name>
I-46Value Name:q**Data Type:**REG_SZ**Value:**<full path and file name>
I-47Value Name:r**Data Type:**REG_SZ**Value:**<full path and file name>
I-48Value Name:s**Data Type:**REG_SZ**Value:**<full path and file name>
I-49Value Name:t**Data Type:**REG_SZ**Value:**<full path and file name>
I-50Value Name:u**Data Type:**REG_SZ**Value:**<full path and file name>
I-51Value Name:v**Data Type:**REG_SZ**Value:**<full path and file name>
I-52Value Name:w**Data Type:**REG_SZ**Value:**<full path and file name>
I-53Value Name:x**Data Type:**REG_SZ**Value:**<full path and file name>
I-54Value Name:y**Data Type:**REG_SZ**Value:**<full path and file name>
You can associate an executable with any of the above values. Be sure to enter the corresponding letter in the MRUList value to be able to see the command in the drop down menu. Log out for these changes to take effect.

DESKTOP

I-55Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Command Processor\Completion**Value Name:**Char **Data Type:**REG_DWORD**Value:**9
Setting this value to 9 lets you specify a partial pathname at any command prompt and have it be completed when you press the TAB key. For example, typing **c wind <TAB>** expands to c:\windows.

I-56 Does your desktop seem sloooow? Want to speed it up? Try changing this registry entry. Add the following value under the explorer key.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Windows\CurrentVersion\Explorer**Value Name:**Max Cached Icons**Data Type:**REG_DWORD**Value:**number of icons to cache
This value controls how many icons Windows NT stores in memory and in its cache file %systemroot%\ShellIconCache. You will need to experiment to find the right value for your system. Reboot the machine for these values to take effect.

I-57 Problem: Have you ever wanted to remove the Network Neighborhood Icon from your desktop? Try as you might it can't be done, right? That's what I thought, too, but here is a registry entry that gets rid of it. Add the following value under the Explorer key:

Hive:HKEY _Current _User**Key:**Software\Microsoft\Windows\CurrentVersion\Policies\Explorer**Value Name:**NoNetHood **Data Type:**REG_DWORD**Value:**0x1 Reboot the machine or log off and back on, and presto! No Network Neighborhood.

I-58 Do you have drive mappings that you want to reconnect automatically each time you

log on? Even though you check the “Reconnect at logon” box, they still disappear. Add this value under the NetworkProvider key.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\NetworkProvider**Value Name:**RestoreConnection**Data Type:**REG_DWORD**Value:**0
Setting this value to 1 disables reconnecting when you log on.

I-59 If you don’t want your users to have access to the network connect and disconnect functions, add the following key and value to the registry:

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Windows\CurrentVersion\Policies\Explorer**Value Name:**NoNetConnectDisconnect**Data Type:**REG_DWORD**Value:**1
I-60 Do you want to modify the text that appears in the caption bar beside the title of the Begin Logon, Logon Information, Workstation Locked, and Unlock Workstation dialog boxes? This registry entry lets you display any string of up to 256 characters.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Winlogon**Value Name:**Welcome**Data Type:**REG_SZ**Value:**any string
Restart Windows NT for these changes to take effect.

I-61 Are your users having problems seeing the icons on their desktop? Do you need more control than simply choosing between big or small icons? Try these registry settings for total control over your icon sizes.

Hive:HKEY_CURRENT_USER**Key:**Control Panel\Desktop\WindowMetrics**Value Name:**Shell Icon Size**Data Type:**REG_SZ**Value:**32 pixels (increase for larger icons; for example, 48 or even 64)
I-62 Do you want to disable the menu that appears when you right-click over Start or any application button on the taskbar? Change this entry.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Windows\CurrentVersion\Policies\Explorer**Value Name:**NoTrayContextMenu**Data Type:**REG_DWORD**Value:**0 (default)
Setting this value to 1 disables right-clicking over the task bar. To re-enable this function, set this value to 0 and restart your system. You may need to create part of this key and add this subvalue to the registry.

I-63 You can also disable the menu that appears when you right-click over your desktop or one of the file windows in the Explorer by adding this registry key and value:

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Windows\CurrentVersion\Policies\Explorer**Value Name:**NoViewContextMenu**Data Type:**REG_DWORD**Value:**1
Restart the machine for these changes to take effect.

I-64 This registry entry lets you manipulate the size of the small icons displayed in the

Start menu and in the Explorer windows when looking at files with the Small, List, or Details view settings.

Hive:HKEY_CURRENT_USER**Key:**Control Panel\Desktop\WindowMetrics**Value Name:**Shell Small Icon Size**Data Type:**REG_SZ**Value:**16 (increase for larger icons)
Setting these values to something other than the default setting can slow down the Start Menu, desktop updates, and Explorer Window updates. Windows must initially regenerate the icons from their original 32 x 32 size, though it caches the regenerated icons. Restart your machine for this value to take effect.

I-65 If you need to change how many colors your desktop uses to display icons, this registry entry is for you. This entry regulates the number of bits per pixel (BPP) that Windows NT uses to render the icons.

Hive:HKEY_CURRENT_USER**Key:**Control Panel\Desktop\WindowMetrics**Value Name:**Shell Icon BPP**Data Type:**REG_SZ**Value:**4
A value of 4 sets the system to use 16 colors for rendering (default), 8 sets 256 colors, 16 sets 65536 colors, 24 sets 16 million colors, and 32 sets true color. Windows NT can show the icons only at the maximum BPP that your graphics card and monitor can display. If an icon at that color resolution is not available, Windows NT takes the highest color resolution available and renders the icon accordingly. Restart the machine for these changes to take effect.

I-66 Would you like to run something other than the Open With application when you try to open something that Windows NT doesn't recognize? Change this value.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Classes\Unknown\Shell\OpenAs\Command**Value Name:**<NoName>**Data Type:**REG_EXPAND_SZ**Value:**<program you want to run>
Change the value for <No Name> to the name of the program that you want to use to handle Unknown applications; add a %1 at the end for the path and filename of the file that you tried to open. For example, %SystemRoot%\ system32\notepad.exe%1 starts the notepad. Restart Windows NT for this change to take effect.

I-67 Besides being able to customize the shell, you can also have specialty programs run, such as the NT backup program on a dedicated backup machine. This registry entry lets you specify which program is run as the shell.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\WinLogon**Value Name:**Shell**Data Type:**REG_SZ**Data:**<drivename:\path\program>
I-68 Do you want to make the control panel or printers available from your desktop — not a shortcut, but the real thing? This registry entry lets you do just that.

Hive:HKEY_CLASSES_ROOT**Key:**CLSID\{21EC2020-3AEA-1069-A2DD-08002B30309D}**Value Name:**Default**Data Type:**REG_SZ**Value:**Control Panel

I use Regedit for this one so that I can use the copy key function.

After you copy the control panel object's CLSID (class ID) value to the clipboard, you need to

Right-click on your desktop and add a new folder.

Rename the new folder Control Panel. Be sure to add the period after Control Panel.

Press Ctrl + V to paste the Control Panel's CLSID into the folder's name.

Edit the folder so that it appears as follows: Control Panel.{21EC2020-3AEA-1069-A2DD-08002B30309D}

You now have the control panel on the desktop.

I-69 The same procedure applies for the printer control.

Hive:HKEY_CLASSES_ROOT**Key:**{2227A280-3AEA-1069-A2DE-08002B30309D}**Value Name:**Default**Data Type:**REG_SZ**Value:**Printers
After you have copied the printer object's CLSID value to the clipboard, you need to

Right-click on your desktop and add a new folder.

Rename the new folder Printers. Be sure to add the period after Printers.

Press Ctrl + V to paste the printer's CLSID into the folder's name.

Edit the folder so that it appears as follows: Printers.{2227A280-3AEA-1069-A2DE-08002B30309D}

You now have the Printers on the desktop.

I-70 Would you like to modify or disable the task switcher (Alt-Tab, also known as the cool switch)? These registry entries show you how.

Hive:HKEY_CURRENT_USER**Key:**Control Panel\Desktop**Value Name:**Coolswitch**Data Type:**REG_ SZ**Value:**1
The default value is 1, which enables the task switcher. A value of 0 disables the task switcher.

I-71 You can also change the number of columns that the cool switch displays by changing the value below.

Hive:HKEY_CURRENT_USER**Key:**Control Panel\Desktop**Value Name:**CoolSwitchColumns**Data Type:**REG_ SZ**Value:**7

The default value is 7; change the value to the number of columns you want it to display.

I-72 You can also change the number of rows the cool switch displays.

Hive:HKEY_CURRENT_USER**Key:**Control Panel\Desktop**Value Name:**CoolSwitchRows**Data Type:**REG_ SZ**Value:**3
The default value is 3; change the value to the number of rows you want to display.

I made mine tall and skinny by changing the values to 2 for CoolSwitchColumns and 4 for CoolSwitchRows.

I-73 The following registry values affect the way the Display Properties Control Panel command (right-click on the desktop) works. Add the System key under the Policies key, and add the following values under the System key.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Windows\CurrentVersion\Policies\System**Value Name:**DisableTaskMgr**Data Type:**REG_DWORD**Value:**00
This value disables the Task Manager.

I-74Value Name: NoDispCPL**Data Type:**REG_DWORD**Value:**1
This value removes the Control Panel.

I-75Value Name: NoDispBackgroundPage**Data Type:**REG_DWORD**Value:**1
This value removes the Background tab.

I-76Value Name: NoDispAppearancePage**Data Type:**REG_DWORD**Value:**1
This value removes the Appearance tab.

I-77Value Name: NoDispScrSavPage**Data Type:**REG_DWORD**Value:**1
This value removes the Screen Saver tab.

I-78Value Name: NoDispSettingsPage**Data Type:**REG_DWORD**Value:**1
This value removes the Settings tab from the Display Properties Control Panel command (right-click on the desktop).

I-79Value Name: DisableTaskManager**Data Type:**REG_DWORD**Value:**1
This value disables the Task Manager. You must have installed Service Pack 2 or later for this change to take effect. The default value is 0, which enables the feature.

I-80 Are users logging into your system with roaming profiles and cluttering everything up? Do you want to delete the profile cache after they log out? Try adding the following value under the WinLogin key.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\WinLogin**Value Name:**DeleteRoamingCache**Data Type:**REG_ DWORD**Value:**1

Reboot your system for these changes to take effect.

I-81 Do you want to change the timeout value some of the informative dialog boxes use when logging in? For example, when you log in with a roaming profile and your system can't find the system where your roaming profile is stored, you see an error dialog box. This registry entry is useful for both disabling the timeout feature and speeding up the timeout value.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\WindowsNT\CurrentVersion\WinLogin**Value Name:**ProfileDlgTimeOut**Data Type:**REG_ DWORD**Value:***n*
The value is the time in seconds before the dialog box times out.

I-82 You don't like Explorer and you want to run Program Manager or another alternate shell in its place. Change the following value for Shell from explorer.exe to progman.exe.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Winlogon**Value Name:**Shell**Data Type:**REG_SZ**Value:**explorer.exe
I-83 If you plan to use Program Manager instead of the Explorer, you may also want to set this registry value. This entry lets you specify whether progman.exe waits for your logon scripts to complete before it loads into memory.

Note that this value entry also appears in HKEY_CURRENT_USER\Software\Microsoft\WindowsNT\CurrentVersion\Winlogon. The HKEY_LOCAL_MACHINE value applies to all users. The HKEY_CURRENT_USER value applies only to the current user. You can use the System Policy Editor to change this value.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Winlogon**Value Name:**RunLogonScriptSync**Data Type:**REG_DWORD**Value:**1
I-84Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Winlogon**Value Name:**RunLogonScriptSync**Data Type:**REG_DWORD**Value:**1
A value of 1 tells Windows NT to wait until the logon script is finished before loading. A value of 0 indicates that the logon script and progman.exe can run concurrently. Restart Windows NT for these changes to take effect.

I-85 Are you tired of people changing the way your folders look? You get them set up just right, arranged by date with full details, then someone borrows your machine and messes it up. This registry modification prevents the system from saving changes made during the current session. Add the following value under the explorer key.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Windows\CurrentVersion\Policies\Explorer**Value Name:**NoSaveSettings**Data Type:**REG_DWORD**Value:**1
I-86 If you are trying to restrict what users can do on their systems, you probably want to disable their ability to right-click the Start button, which normally opens the program folder and Explorer and lets the user run Find. This registry modification disables all these

features. Delete the following entries under the shell keys.

Hive:HKEY_CLASSES_ROOT**Key:**Directory\shell**Value Name:**Find
I-87Hive:HKEY_CLASSES_ROOT**Key:**Folder\shell**Value Name:**Find
Now when a user right-clicks Start, nothing happens.

I-88 Do you need to see how your users have set up their screen savers? Or maybe a user secured the screen saver but forgot the password. To access screen savers remotely, fire up Regedt32.exe and open the registry remotely. These registry values give you everything you want to know about the screen saver.

Hive:HKEY_CURRENT_USER**Key:**Control Panel\Desktop**Value Name:**ScreenSaveActive**Data Type:**REG_SZ**Value:**0
A value of 0 specifies that the current screen saver is disabled; set the value to 1 to enable the current screen saver.

I-89Hive:HKEY_CURRENT_USER**Key:**Control Panel\Desktop**Value Name:**ScreenSaveIsSecure**Data Type:**REG_SZ**Value:**0
A value of 0 means the screen saver requires no password to deactivate it. Set the value to 1 to enable password protection.

I-90Hive:HKEY_CURRENT_USER**Key:**Control Panel\Desktop**Value Name:**ScreenSaveTimeOut**Data Type:**REG_SZ**Value:**300
The number represents the time in seconds before the screen saver is activated.

I-91Hive:HKEY_CURRENT_USER**Key:**Control Panel\Desktop**Value Name:**Scrnsave.exe**Data Type:**REG_SZ**Value:**<drivename:\path\program>
This value is the fully qualified path to the program you want to execute when the screen saver is activated.

I-92 Problem: You're tired of looking at the same the Control Panel icons. To change the icons to a custom set, change the following registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Classes\CLSID\{21EC2020-3AEA-1069-A2DD-08002B30309D}\DefaultIcon**Value Name:**<No Name>**Data Type:**REG_EXPAND_SZ**Value:**C:\Program Files\Plus!\Themes\Ancient Pathways Recycle Full.ico,2
The number 2 is the number of the icon in the file you want displayed. In this case, 2 specifies the third icon because the first icon in a file is numbered 0. If no number is used, the default is 0.

I-93 Problem: You're tired of looking at the same the Printer icons in the start menu and want to change them to a custom set. The following registry entry lets you do so.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Classes\CLSID\{2227A280-3AEA-1069-A2DE-08002B30309D}\DefaultIcon**Value Name:**<No Name>**Data Type:**REG_EXPAND_SZ**Value:**C:\Program Files\Plus!\Themes\Ancient Pathways Printer.ico,2
The number 2 is the number of the icon in the file you want displayed. In this case, 2 specifies the third icon because the first icon in a file is numbered 0. If no number is used, the default is 0.

-94 Problem: You're tired of looking at the same the dialup networking icon in the start menu and want to change it to a custom icon. The following registry entry lets you do so.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Classes\CLSID\{a4d92740-67cd-11cf-96f2-00aa00a11dd9}\DefaultIcon**Value Name:**<No Name>**Data Type:**REG_EXPAND_SZ**Value:**C:\Program Files\Plus!\Themes\Ancient Pathways Network.ico,2
The number 2 is the number of the icon in the file you want displayed. In this case, 2 specifies the third icon because the first icon in a file is numbered 0. If no number is used, the default is 0.

I-95 Problem: You are tired of looking at the same the MS Office Binder icon in the start menu. To change it to a custom icon, change the following registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Classes\CLSID\{59850400-6664-101B-B21C-00AA004BA90B}\DefaultIcon**Value Name:**<No Name>**Data Type:**REG_EXPAND_SZ**Value:**C:\Program Files\Plus!\Themes\Ancient Pathways Office.ico,2
The number 2 is the number of the icon in the file you want displayed. In this case, 2 specifies the third icon, because the first icon in a file is numbered 0. If no number is used, the default is 0.

I-96 Problem: You want to rename the Recycle Bin. You right-click on the Recycle Bin icon, but renaming it isn't an option. Modify the following key under ShellFolder.

Hive:HKEY_CLASSES_ROOT**Key:**CLSID\{645FF040-508I-101B-9F08-00AA002F954E}\ShellFolder**Value Name:**Attributes**Data Type:**REG_BINARY**Value:**50010020
Now right-click the Recycle Bin, and you can rename the icon.

I-97 Problem: You want to delete the Recycle Bin Icon. Right-clicking on the icon brings up the menu, but it has no delete option. Modify the following key under ShellFolder.

Hive:HKEY_CLASSES_ROOT**Key:**CLSID\{645FF040-5081-101B-9F08-00AA002F954E}\ShellFolder**Value Name:**Attributes**Data Type:**REG_BINARY**Value:**60010020
Now right-click the Recycle Bin, and you can delete the icon.

I-98 Problem: You have deleted the Recycle Bin and now you want it back. Modify this registry entry and everything will be back as it was.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Windows\CurrentVersion\Explorer\Desktop\NameSpace
Add the following key:

Key:{645FF040-5081-101B-9F08-00AA 002F954E}**Value Name:Data Type:**REG_SZ**Value:**Recycle Bin
Press F5 to refresh the key, and there's the recycle bin.

I-99 Problem: You want to rename the Inbox. You right-click the Inbox icon, but renaming it isn't an option. Try this registry modification.

Hive:HKEY_CLASSES_ROOT**Key:**CLSID\{00020D75-0000-0000-C000-000000000046}\ShellFolder
Modify the following value under ShellFolder:

Value Name: Attributes**Data Type:**REG_BINARY**Value:**50000000
Now right-click the Inbox, and you can rename the icon.

I-100 Problem: You want to delete the Inbox Icon. Right-clicking on the icon brings up the menu, but deleting it isn't an option. Try this registry modification.

Hive:HKEY_CLASSES_ROOT**Key:**CLSID\{00020D75-0000-0000-C000-000000000046}\ShellFolder
Modify the following value under ShellFolder:

Value Name: Attributes**Data Type:**REG_BINARY**Value:**60000000
Now right-click the Inbox, and you can delete the icon.

I-101 Problem: You have deleted the Inbox and now you want it back. Modify this registry entry and everything will be back as it was.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Windows\CurrentVersion\Explorer\ Desktop\NameSpace
Add the following key:

Key:{00020D75-0000-0000-C000-0000 00000046}
Under the key you just added, add this value:

Value Name:Data Type:REG_SZ**Value:**Inbox
Press F5 to refresh the key, and there's the Inbox.

I-102 Problem: Users keep accidentally deleting the Internet icon from the desktop. You can fix this problem by removing the Delete option from the icon menu. Modify the following key under ShellFolder.

Hive:HKEY_CLASSES_ROOT**Key:**CLSID\{FBF23B42-E3F0-101B-8488-00AA003E56F8}\ShellFolder**Value Name:**Attributes**Data Type:**REG_BINARY**Value:**40000000
Right-click the Internet icon, and the delete option is removed.

I-103 Problem: You're tired of looking at those little arrows on shortcuts. This registry modification lets you do away with the arrows, leaving the original icon. Delete the following value from the LNKFILE key.

Hive:HKEY_CLASSES_ROOT**Key:**LNKFILE**Value Name:**IsShortcut
Restart your machine for these new values to take effect.

I-104 Problem: You have a machine that different people use at different times. You have recently had complaints that people can see what others were working on and that it is a potential security problem. You can manually remove these file entries, but this registry modification automatically deletes the files for you. Modify the following value under User Shell Folders.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Windows\CurrentVersion\Policies\Explorer\User Shell Folders**Value Name:**Recent**Data Type:**REG_DWORD**Value:**C:\Recycle
Set your recycle bin to automatically delete files. Log off and then log back on. Now the Document menu option always reads empty.

I-105 Problem: The Explorer interface seems a little slow on some of the older computers in your installation. Here is a neat little trick to turn off animated or so-called "exploding" windows. Add the following value under the explorer key:

Hive:HKEY_CURRENT_USER**Key:**Control Panel\Desktop\WindowsMetrics**Value Name:**MinAnimate**Data Type:**REG_DWORD**Value:**0
I-106 Problem: When you select an option from the Start menu and that menu option has multiple options, a window displays the additional menu selections — but sometimes these additional menus seem slow or delayed. You can really speed things up with the following registry modification. The lower the number, the faster the menus are displayed. The default value on my system was 400. Change the following value under the Desktop key.

Hive:HKEY_CURRENT_USER**Key:**Control Panel\Desktop**Value Name:**MenuShowDelay**Data Type:**REG_SZ**Value:**1
Now choose the Programs option from the Start menu. The submenus are displayed instantly! No delay.

I-107 Problem: You want to restrict access to network drives and local drives from the Explorer interface. This registry modification lets you do just that. To disable all drives, add the following value under the Explorer key:

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Windows\CurrentVersion\Policies\Explorer**Value Name:**NoDrives**Data Type:**REG_DWORD**Value:**03FFFFFF
This value is a bit field, where each bit corresponds to a letter in the alphabet, as shown below.

```
  0   3   F   F   F   F   F   F
0000 0011 1111 1111 1111 1111 1111 1111
     zy xwvu tsrq ponm lkji hgfe dcba
```

If the bit is on (value of 1), access to the drive from Explorer is disabled. If the bit is off (value of 0), access to the drive is enabled. To disable everything but the A, B, C, and D drives, just set this value to 03FFFFF0:

```
  0   3   F   F   F   F   F   0
0000 0011 1111 1111 1111 1111 1111 0000
     zy xwvu tsrq ponm lkji hgfe dcba
```

You must log off for these new values to take effect. Note that this change does not disable access to the drives; it just disables their appearance in the Explorer interface.

I-108 Problem: You have a corporate standard for the way users are supposed to configure their systems. Yet you have a pesky user — you know the one — who knows enough to mess up everything, but not quite enough to fix it. To disable users' ability to save settings on their computers, add the following value under the Explorer key:

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Windows\CurrentVersion\Policies\Explorer**Value Name:**NoSaveSettings**Data Type:**REG_DWORD**Value:**1
Restart your machine for these new values to take effect.

I-109 Problem: You want to keep users from running programs from the Start menu. This registry entry disables the Run command. Add the following value under the Explorer key:

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Windows\CurrentVersion\Policies\Explorer**Value Name:**NoRun**Data Type:**REG_DWORD**Value:**1
Restart your machine for these new values to take effect.

I-110 Problem: Users continually clutter their desktops with icons, then they can't figure out what they've done and you have to come fix it. This registry entry lets you hide all icons on the desktop. That way users can run programs only from their respective program groups. Add the following value under the explorer key:

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Windows\CurrentVersion\Policies\Explorer**Value Name:**NoDesktop**Data Type:**REG_DWORD**Value:**1
Restart your machine for these new values to take effect.

I-111 Problem: You want to keep users from using the Find command in the Start menu. This registry entry lets you disable the Find command. Add the following value under the explorer key:

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Windows\CurrentVersion\Policies\Explorer**Value Name:**NoFind**Data Type:**REG_DWORD**Value:**1
Restart your machine for these new values to take effect.

I-112 Problem: Windows NT selects the location of default folders in the following manner. Each user has a default location where Windows NT stores files — for example, the Favorites folder. This folder points to a directory stored in the HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\Shell Folders key. The default value is %USERPROFILE%\<app type>. For example, Favorites would be stored under %USERPROFILE%\Favorites. You can change the value in any of the thirteen keys to reflect a different directory than the default value.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Windows\CurrentVersion\Explorer\Shell Folders**Value Name:**Favorites**Data Type:**REG_SZ**Value:**<fully qualified path name> example: c:\winnt\profiles\ timd\Favorites
This value gives the path name to which the Favorites button in Word points. Shortcuts you create in Internet Explorer are also stored here.

I-113Value Name: Application Data**Data Type:**REG__SZ**Value:**<fully qualified path name> example: c:\winnt\profiles\ timd\App Data
This value sets where application datafiles reside, on a per-user basis. You could also use this value to point many users to one set of files.

I-114Value Name: Desktop**Data Type:**REG_SZ**Value:**<fully qualified path name> example: c:\winnt\profiles\ timd\otherdesktop
This value sets where Windows NT stores the files or shortcuts that appear on your desktop. This information is stored on a per-user basis.

I-115Value Name: Fonts**Data Type:**REG_ SZ**Value:**<fully qualified path name> example: c:\winnt\profiles\ timd\AppData
This value sets where Windows NT stores the fonts available on the system. This path generally points to a common directory for all users, but it could be modified for different users.

I-116Value Name: NetHood**Data Type:**REG_SZ**Value:**<fully qualified path name> example: c:\winnt\profiles\ timd\newnethood
This value sets where the folders, files, and shortcuts you see when you click on the

Network Neighborhood icon are stored. Values are stored on a per-user basis.

I-117Value Name: Personal**Data Type:**REG_ SZ**Value:**<fully qualified path name>
example: c:\winnt\profiles\ timd\mystuff
This directory is for personal data. When you store files in Word to your personal directory, this value sets the location.

I-118Value Name: PrintHood**Data Type:**REG_SZ**Value:**<fully qualified path name>
example: c:\winnt\profiles\ timd\myprintstuff
This value sets data storage for the folders, files, and shortcuts you see when you click Printers in the Start Menu. PrintHood values are stored on a per-user basis.

I-119Value Name: Programs**Data Type:**REG_ SZ**Value:**<fully qualified path name>
example C:\winnt\profiles\ timd\startmenu\junk
This path sets data storage for data shown when you click Programs in the Start menu.

I-120Value Name: Recent**Data Type:**REG_SZ**Value:**<fully qualified path name>
example: c:\winnt\profiles\ timd\things
This value sets storage for the folders, files, and shortcuts you see when you click Documents in the Start menu. Document values are stored on a per-user basis.

I-121Value Name: SendTo**Data Type:**REG_ SZ**Value:**<fully qualified path name>
example C:\winnt\profiles\ timd\Sendto
This value sets what you see when you right-click an object and choose Send To. The default values are 3½ floppy, Mail Recipient, and Briefcase. You can also add more options.

I-122Value Name: StartMenu**Data Type:**REG_SZ**Value:**<fully qualified path name>
example: c:\winnt\profiles\ timd\AltStrtMenu
This value sets where all the files, shortcuts, and folders that appear under the Start menu are located.

I-123Value Name: StartUp**Data Type:**REG_ SZ**Value:**<fully qualified path name>
example C:\winnt\profiles\ timd\startmenu\programs\Startup
This directory houses the data that appears in the startup menu, which you find by selecting Programs from the Start menu and then selecting Startup.

I-124Value Name: Templates**Data Type:**REG_ SZ**Value:**<fully qualified path name>
example C:\winnt\ShellNew
This directory stores template files for various programs. The default files in the directory are amipro, excel, excel4, lotus, powerpnt, presenta, quattro, winword, winword2 and wordpfct.

The next six registry values affect the way the default logon screen looks. Remember, when you work with the HKEY_USERS hive, your changes affect all users for the

system.

I-125Hive:HKEY_USERS**Key:**Default\Control Panel\Desktop**Value Name:**Wallpaper**Data Type:**REG_SZ**Value:**<your wallpaper file>
This value sets the background on the logon screen. You must provide the fully qualified path and file name. These files are case sensitive, so be sure to type the path and file name correctly. Log off and back on for changes to take effect.

I-126Hive:HKEY_USERS**Key:**Default\Control Panel\Desktop**Value Name:**TileWallpaper**Data Type:**REG_SZ**Value:**1
This value determines whether the default background graphic is tiled. A value of 1 means you want the graphic tiled. A value of 0 centers the graphic. Log off for changes to take effect.

I-127 These registry values determine the behavior of the default screen saver for the logon screen.

Hive:HKEY_USERS**Key:**Default\Control Panel\Desktop**Value Name:**Scrnsave.exe**Data Type:**REG_SZ**Value:**<screen saver file name>
This value is the fully qualified path to the screen saver executable. The default is logon.scr (boring). Log off and back on for any changes to take effect.

I-128Hive:HKEY_USERS**Key:**Default\Control Panel\Desktop**Value Name:**ScreenSaveTimeout**Data Type:**REG_SZ**Value:**<timeout value in seconds>
This value controls how long Windows NT waits before invoking the screen saver. The value is stored in seconds.

I-129Hive:HKEY_USER**Key:**Default\Control Panel\Desktop**Value Name:**ScreenSaveActive**Data Type:**REG_SZ**Value:**1
This registry entry determines whether the screen saver specified in the Scrnsave.exe value is currently active. Setting this value to 0 temporarily disables the current screen saver.

I-130Hive:HKEY_USERS**Key:**Default\Control Panel\Desktop**Value Name:**ScreenSaveIsSecure**Data Type:**REG_SZ**Value:**0
This value determines whether the screen saver prompts for a password before allowing you access to the system. Since this value specifies the screensaver for the main logon screen, enabling this value is redundant. However, those of you who want double security measures can set this value to 1 (password security enabled). Log off for this value to take effect.

INSTALLATION

I-131 Problem: You install Windows NT from a local drive, either a floppy or CD-ROM. When you update or add components, Windows NT first looks for these components in

the original location you installed from. If you installed an Intel version of Windows NT from the local drive e:\i386, that's where NT looks first. Instead of having to lug the diskettes or CD with you, you can create a directory on your network and copy the pertinent directories from the installation disk.

For example, if you have only Intel-based machines, you may want to copy only the i386 directory to your network drive. Now when you update NT, you can access the installation files from the network. The problem is that NT still looks for your installation files from the original source (e:\i386). You can change the location in the dialog box, but you have to change it every time. Here is a way to update the registry to reflect the new home of your installation files.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion
Value Name: SourcePath**Data Type:**REG_SZ**Value:**drive:\directory
I-132 If you have trouble installing software with Windows NT or if you are constantly prompted to insert your diskette into non-existent drives, consider making these changes. These registry entries let you specify which installation drives are defaults.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion
Value Name: SourcePath**Data Type:**REG_SZ**Value:**E:\i386\
This value is the drive that Windows NT was installed from.

I-133Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion**Value Name:**PathName**Data Type:**REG_SZ**Value:**C:\Winnt40
This value is the current directory of the OS.

I-134Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion**Value Name:**SystemRoot**Data Type:**REG_SZ**Value:**C:\Winnt40
This value is the same as PathName; it's the directory in which Windows NT was installed.

These entries are for older applications — 16 bit and the like.

I-135Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Windows\CurrentVersion\Setup**Value Name:**BootDir**Data Type:**REG_SZ**Value:**C:\
I-136Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Windows\CurrentVersion\Setup**Value Name:**Installation Sources**Data Type:**REG_MULTI_SZ**Value:**A:\
I-137Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Windows\CurrentVersion\Setup**Value Name:**SourcePath**Data Type:**REG_SZ**Value:**A:\
I-138 Are you having problems uninstalling software? Even though you uninstall the

software according to the manufacturer's directions, it just won't go away from the Add/Remove list. Try this registry key and its associated value to fix your problem. You can also just remove the key for the specific application and it will no longer appear on the Add/Remove programs list.

These entries are useful if you have deleted some applications from your hard drive without using the control panel applet.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Windows\CurrentVersion\Uninstall\ [appname]**Value Name:**DisplayName**Data Type:**REG_SZ**Value:**<Name displayed in the uninstall application>
I-139Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Windows\CurrentVersion\Uninstall\ [appname]**Value Name:**UninstallString**Data Type:**REG_SZ**Value:**<Uninstall program and parameters to uninstall the application>
This information is very useful. Sometimes what the uninstall programs actually need to run and what is stored in the registry differ. If you need to, you can manually correct this value.

Restart the machine for the new values to take effect. Next time you need to install something from the installation disk, you can use your new settings.

CONTROL PANEL

Do you need to customize what the Control Panel displays to your users? These registry entries let you limit what is displayed.

I-140Hive:HKEY_CURRENT_USER**Key:**Control Panel
Add the following key under the control panel key:

I-141Key: Don't Load**Value Name:**Console.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Console.cpl control panel applet, which controls the console functions and configuration. A value of "yes" prohibits the loading of the .cpl file. A blank value allows the file to be loaded and displayed.

I-141Value Name: Liccpa.cpl11**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Liccpa.cpl control panel applet, which controls the licensing functions and configuration.

I-142Value Name: Access.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Access.cpl control panel applet, which controls the accessibility functions and configuration.

I-143Value Name: Appwiz.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Appwiz.cpl control panel applet, which controls the Add and Remove applications functions and configuration.

I-144Value Name: Bhcontrol.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Bhcontrol.cpl control panel applet, which controls the network monitor function and configuration.

I-145Value Name: Desk.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Desk.cpl control panel applet, which controls the display functions and configuration.

I-146Value Name: Devapps.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Devapps.cpl control panel applet, which controls the PC card, SCSI, and Tape device functions and configuration.

I-147Value Name: Findfast.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Findfast.cpl control panel applet, which controls the FindFast functions and configuration.

I-148Value Name: Inetcpl.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Inetcpl.cpl control panel applet, which controls the Internet functions and configuration.

I-149Value Name: Intl.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Intl.cpl control panel applet, which controls the regional settings functions and configuration.

I-150Value Name: Main.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Main.cpl control panel applet, which controls the mouse, keyboard, fonts, and printer functions and configuration.

I-151Value Name: Joy.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Joy.cpl control panel applet, which controls the joystick functions and configuration.

I-152Value Name: Mlcfg32.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Mlcfg32.cpl control panel applet, which controls the mail and fax functions and configuration.

I-153Value Name: Mmsys.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Mmsys.cpl control panel applet, which controls the multimedia and sound functions and configuration.

I-154Value Name: Modem.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Modem.cpl control panel applet, which controls the modem functions and configuration.

I-155Value Name: Ncpa.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Ncpa.cpl control panel applet, which controls the network functions and configuration.

I-156Value Name: Nwc.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Nwc.cpl control panel applet, which controls the Gateway Services for Novell functions and configuration.

I-157Value Name: Odbccp32.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Odbccp32.cpl control panel applet, which controls the ODBC functions and configuration.

I-158Value Name: Ports.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Ports.cpl control panel applet, which controls the ports functions and configuration.

I-159Value Name: Rascpl.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Rascpl.cpl control panel applet, which controls the RAS functions and configuration.

I-160Value Name: Sfmmgr.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Sfmmgr.cpl control panel applet, which controls the MacFile functions and configuration.

I-161Value Name: Srvmgr.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Srvmgr.cpl control panel applet, which controls the devices, server, and services functions and configuration.

I-162Value Name: Sysdm.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Sysdm.cpl control panel applet, which controls the System functions and configuration.

I-163Value Name: Telephon.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Telephon.cpl control panel applet, which controls the telephony functions and configuration.

I-164Value Name: Themes.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Themes.cpl control panel applet, which controls the Desktop Themes functions and configuration.

I-165Value Name: Ups.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Ups.cpl control panel applet, which controls the UPS functions and configuration.

I-166Value Name: Datetime.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Datetime.cpl control panel applet, which controls the date and time configurations and functions.

I-167Value Name: Wgpocpl.cpl**Data Type:**REG_SZ**Value:**yes
This value tells the Control Panel not to load the Wgpocpl.cpl control panel applet, which controls the Microsoft Mail Post Office functions and configuration.

ICONS

I-168 When you click My Computer, the default setup is to display all your drives. How about having My Computer come up in Explorer view instead? Change this registry entry.

Hive:HKEY_CLASS_ROOT**Key:**CLSID\{20D04FEO-3AEA-1069-A2D8-08002B30309D}\Shell
Add the following key under the shell key.

Key: Open
Add the following key under the new Open key.

Key:command
I-169 You can do the same thing to the Network Neighborhood by modifying the following registry key:

Hive:HKEY_CLASS_ROOT**Key:**CLSID\{208D2C60-3AEA-1069-A2D7-08002B30309D}\Shell
As before, add the following key under the shell key.

Key: Open
Add the following key under the new Open key.

Key:command
Add the following value under the Command key.

Value Name:<NoName>**Data Type:**REG_SZ**Value:**Explorer.exe
You can also add this feature to these following objects by changing these keys:

I-170Recycle BinCLSID\{645FF040-5081-101B-9F08-00AA0 02F954E}
I-171 My BriefcaseCLSID\{85BBD920-42A0-1069-A2E4-08002 B30309D}
Follow the same procedure you did with My Computer.

I-172 Next, we look at customizing various icons on your system. Each example works for a specific icon. In each case, the number after the comma in the value is the particular icon that you wish to display from a file. In most examples, we use the number 2 to indicate the third icon, because the first icon in a file is numbered 0. If no number is used, the default is 0.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Classes\CLSID\{85BBD920-42A0-1069-A2E4-08002B30309D}**Value Name:**DefaultIcon**Data Type:**REG_EXPAND_SZ**Value:**C:\Program Files\Plus!\Themes\Ancient Pathways Briefcase.ico,2
This entry modifies the briefcase icon on the desktop.

I-173 This entry modifies the Internet Explorer icon on the desktop.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Classes\CLSID\{FBF23B42-E3F0-101B-8488-00AA003E56F8}**Value Name:**DefaultIcon**Data Type:**REG_EXPAND_SZ**Value:**C:\Program Files\Plus!\Microsoft Internet\Iexplore.exe,0
I-174 The next three entries affect the recycle bin icon.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Classes\CLSID\{645FF040-5081-1018-9F08-00AA002F954E}**Value Name:**DefaultIcon**Data Type:**REG_EXPAND_SZ**Value:**C:\Program Files\Plus!\Themes\Ancient Pathways Recycle Full.ico,2
I-175Value Name: Empty**Data Type:**REG_EXPAND_SZ**Value:**C:\Program Files\Plus!\Themes\Ancient Pathways Recycle Full.ico,2
I-176Value Name: Full**Data Type:**REG_EXPAND_SZ**Value:**C:\Program Files\Plus!\Themes\Ancient Pathways Recycle Full.ico,2
I-177 This registry entry is for the Network Neighborhood icon.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Classes\CLSID\{208D2C60-3AEA-1069-A2D7-08002B30309D}**Value Name:**DefaultIcon**Data Type:**REG_EXPAND_SZ**Value:**C:\Program Files\Plus!\Themes\Ancient Pathways Network.ico,2
I-178 This entry modifies the My Computer icon.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Classes\CLSID\{20D04FE0-3AEA-1069-A2D8-08002B30309D}**Value Name:**DefaultIcon**Data Type:**REG_EXPAND_SZ**Value:**C:\Program Files\Plus!\Themes\Ancient Pathways Computer.ico,2
PRINTER SERVICE

I-179 NT doesn’t use DOS-style interrupts in printing. If this feature causes you problems,

enable them with this change.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Windows
Change the following value under the Windows key.

Value Name: DosPrint**Data Type:**REG_SZ**Value:**No
Reboot for this change to take effect.

I-180 Your network contains a few Novell servers and you think printing is a pretty good job for them. The problem is that every time you print on that printer, you get a pop-up message telling you about your print job. To turn off the message, change the following registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\Print\Providers**Value Name:**NetPopup**Data Type:**REG_DWORD**Value:**0
Change the NetPopup value to 0; you may have to add it under the Providers key if it doesn't exist. Reboot the machine for the changes to take effect.

I-181 During installation, NT opted to use a slow drive for your print spooling. You have recently installed a bigger and faster drive and want to change the drive NT uses for print spooling By default, NT uses the %systemroot%\system32\spool folder. The following registry entry lets you specify an alternate path for all printers. Change the value for DefaultSpoolDirectory under the Printers key to your new path and directory.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\Print\Printers
Value Name: DefaultSpoolDirectory**Data Type:**REG_SZ**Value:**<path>
SECURITY

I-182 Are you worried that someone will see who logged into a system last? This registry entry disables that feature.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\WinLogin
Add the following value under the WinLogin

Value Name: DontDisplayLastUserName**Data Type:**REG_DWORD**Value:**1
Make sure you restart the machine for these changes to take effect.

I-183 You want to add a corporate message or disclaimer before people log on to their machines. The next two registry entries let you display a message before the user logs on.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Winlogon

Change the following values under the Winlogon key.

Value Name: LegalNoticeText**Data Type:**REG_SZ**Value:**"Text you want displayed before the user logs on"
I-184Value Name: LegalNoticeCaption**Data Type:**REG_SZ**Value:**"Text you want displayed on the title bar of the dialog box"
I-185 If you have a Windows NT machine and you don't really care about security, you can have the system log on for you automatically by modifying or adding the following registry entries. Set the DefaultDomain and the DefaultUserName to the domain and user name that you want the system to use to log on.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\WinLogin**Value Name:**DefaultDomainName**Data Type:**REG_SZ**Value:**<domain name>
Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\WinLogin**Value Name:**DefaultUserName**Data Type:**REG_SZ**Value:**<username>
Next, add these two values:

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\WinLogin**Value Name:**DefaultPassword**Data Type:**REG_SZ**Value:**<password>
Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\WinLogin**Value Name:**AutoAdminLogon**Data Type:**REG_SZ**Value:**1
Be sure to set the AutoAdminLogon value to 1. Remember, your system is now quite insecure. Anyone with access to the registry can read the password.

NOVELL 4.0

I-186 If you have NetWare 4.0 servers on a network with Windows NT servers and you're trying to synchronize user accounts via the Directory Service Manager for NetWare (DSMN), you may run into problems. First, make sure your NetWare 4.0 server is running in bindery emulation mode, then add the following registry value:

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSSYNC\parameters**Value Name:**Allow4X**Data Type:**REG_DWORD**Value:**1
Restart the machine for this change to take effect.

LOGON SCRIPTS

I-187 If your logon scripts aren't working correctly, you may want to verify the following value on your server — it's the fully qualified path to the directory where the Logon Scripts are stored.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NetLogon\Parameters**Value Name:**Scripts**Data Type:**REG_MULTI_SZ**Value:**<fully qualified

pathname>

DOMAIN CONTROLLERS

I-188 If you need to verify the list of trusted domains on a machine from a remote location, look at the following registry value.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NetLogon\Parameters**Value Name:**TrustedDomainList**Data Type:**REG_MULTI_SZ**Value:**<any list of valid domain names>

I-189 If you are having database problems with your primary domain controllers (PDCs), you may want them to completely synchronize every time they boot. This value lets you control the behavior of individual domain controllers. Change the Update value to Yes.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Netlogon\Parameters**Value Name:**Update**Data Type:**REG_SZ**Value:**Yes

I-190 If you apply large-scale changes to your domain user accounts all at once, you can cause network congestion. Tuning the following parameters can help reduce that congestion.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Netlogon\Parameters
Add the ChangeLogSize value.

Value Name: ChangeLogSize**Data Type:**REG_SZ**Value:**0x4000000
This value defines the size of the Change Log (%systemroot%\Netlogon.chg). The default value is 64K. Changing this value to the maximum 4 MB helps congestion on systems that are very volatile or frequently have large changes. In testing this value, we noted little impact on overall system performance.

I-191Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Netlogon\Parameters
Add the Pulse value.

Value Name: Pulse**Data Type:**REG_DWORD**Value:**300
The pulse value defines how often (in seconds) a pulse is sent to a backup domain controller (BDC) that needs to be updated with SAM or LSA changes. By default, the NetLogon service determines the optimal frequency for pulses. If you are doing lots of updates, you may need to increase this value. Frequent updates clog the network, and decreasing the value would reduce clog. However, decreasing the value means you could lose more data if your system crashes, because it’s been longer since a backup. The range is 60 to 172,800. Restart the server for this value to take effect.

I-192Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Netlogon\Parameters
Add the PulseConcurrency value.

Value Name: PulseConcurrency**Data Type:**REG_DWORD**Value:**20
This value determines the maximum number of concurrent pulses the PDC sends to BDCs. This value lets you control how many BDCs are being updated at any one time, which can reduce network traffic.

I-193 This value determines the absolute longest interval that a BDC goes without receiving a request for update (pulse), even if the BDC is up-to-date.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Netlogon\Parameters
Add the PulseMaximum value.

Value Name: PulseMaximum**Data Type:**REG_DWORD**Value:**7200
The default is 7200 seconds (2 hours). Reboot the machine for any changes to take effect.

I-194Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Netlogon\Parameters
Add the PulseTimeout1 value.

Value Name: PulseTimeout1**Data Type:**REG_DWORD**Value:**5
This value tells the PDC how long to wait before giving up on a BDC that has failed to respond. Once a PDC sends a pulse to a BDC, the BDC must respond within this time frame; if it doesn't, it is considered unavailable. The PDC then sends a pulse to another BDC. If this value is set very high and you have many BDCs on your network, network updates can take a long time. However, if you have a heavily congested network, setting this value too low causes the PDC to give up on the BDC prematurely. The default value is 5 seconds, and the range is 1 to 120 seconds.

I-195Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Netlogon\Parameters
Add the PulseTimeout2 value.

Value Name: PulseTimeout2**Data Type:**REG_DWORD**Value:**300
This value determines how long a PDC waits for a BDC to finish replication. Even if a BDC has responded correctly to a pulse, it is still possible for BDCs to have problems during replication. If the PDC doesn't hear from the BDC in the interval specified by PulseTimeout2, the PDC determines that the BDC is having trouble. The default is 300

seconds, and the valid range is 60 to 300 seconds.

I-196Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Netlogon\Parameters**Value Name:**Randomize**Data Type:**REG_DWORD**Value:**1
When the BDC receives a pulse, it waits the number of seconds specified in the Randomize value before answering. You should keep this value small. If you tune the value in PulseTimeout1, remember to set the Randomize value smaller. If this value is not in the registry, Netlogon figures out the best value depending on server load. Restart the machine for any changes to take effect.

I-197Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Netlogon\Parameters**Value Name:**ReplicationGovernor**Data Type:**REG_DWORD**Value:**100
This value sets the frequency with which the PDC transfers data to the BDC and the amount of data it sends at a time. If the replication governor is set to 50, the BDC has a replication call pending only 50 percent of the time and uses a 64K buffer instead of the 128K buffer it uses for a 100 setting. A value of 0 causes Netlogon to never replicate, which gets the databases on the PDC and BDC completely out of sync.

ENVIRONMENT VARIABLES

I-198 If you want to set certain environment variables for all the users on a particular machine, try this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\Session Manager\Environment
Here you will find some environment variables such as ComSpec and Path. You can add more variables or change existing ones.

Value Name: Path**Data Type:**REG_SZ**Value:**any valid path statement
You must restart the machine for any changes to take effect.

I-199 The default system font NT uses is not very readable on high-resolution displays. You can change the system fonts by editing the following registry values. You can substitute any .fon file from your %systemroot%\SYSTEM directory for the default fonts.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\ GRE_Initialize**Value Name:**Fixedfon.fon**Data Type:**REG_SZ**Value:**vgafix.fon
I-200Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\ GRE_Initialize**Value Name:**Fonts.fon**Data Type:**REG_SZ**Value:**vgasys.fon
I-201Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVer

sion\ GRE_Initialize**Value Name:**Oemfont.fon**Data Type:**REG_SZ**Value:**vgaoem.fon
Restart your system for these values to take effect.

I-202 When you reboot your Windows NT system, you sometimes get popup warning messages. Most of the time, these messages are very helpful and point to potential problems. However, when you are debugging a system, you often don't need to be reminded each time. This registry entry disables these messages, including event errors.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Winlogon**Value Name:**NoPopupsOnBoot**Data Type:**REG_SZ**Value:**1
I-203 When you're debugging a server problem or configuring new systems, it is often expedient to have the system complete its boot process as quickly as possible. This registry entry lets you reboot the system without going through all the BIOS checks (i.e., perform a warm boot).

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Winlogon**Value Name:**EnableQuickReboot**Data Type:**REG_SZ**Value:**1
Reboot your machine for these changes to take effect.

I-204 Holding down the shift key when Windows NT boots keeps any programs located in the Startup folders from executing. As an administrator, you may want these programs to execute for a variety of reasons. This registry entry lets you disable the option of holding down the shift key during the boot process.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Winlogon**Value Name:**IgnoreShiftOveride**Data Type:**REG_SZ**Value:**1
A value of 1 enables the shift override mechanism. The default is 0.

I-205 Do you want to disable the Autorun feature of the CD-ROM? Does it annoy you that every time you insert a CD, it runs its little splash screen and install program? This registry disables the Autorun feature.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\CDROM**Value Name:**AutoRun**Data Type:**REG_DWORD**Value:**0
Restart Windows NT for this change to take effect.

I-206Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Winlogon**Value Name:**ReportBootOk**Data Type:**REG_SZ**Value:**1
When this value is set to 0, it disables the automatic startup acceptance. This registry entry is used in conjunction with the Bootvrfy.exe program, which lets you verify the startup of a system from a remote system. To correctly implement the procedure, change the following keys and values as well. See the Windows NT Resource Kit for more information on this procedure.

I-207Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\BootVerification**Value Name:**ErrorControl**Data Type:**REG_DWORD**Value:**1
I-208Value Name: ImagePath**Data Type:**REG_EXPAND_SZ**Value:**bootvrfy.exe
I-209Value Name: ObjectName**Data Type:**REG_SZ**Value:**LocalSystem
I-210Value Name: Start**Data Type:**REG_DWORD**Value:**0x3
I-211Value Name:TypeData Type:REG_DWORD**Value:**0x2
Restart Windows NT for these changes to take effect.

I-212 Do you need to reinstall Windows NT, but you've lost your CD Key? This registry entry stores the value.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion
Value Name: ProductID**Data Type:**REG_SZ**Value:**<MACHINE dependent>
Ignore the first five numbers. The next ten are your CD Key. Ignore the last five numbers, too.

I-213 If you don't want your users to have access to Task Manager for security reasons, change these entries:

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Windows\CurrentVersion\Policies\System**Value Name:**DisableTaskMgr**Data Type:**REG_BINARY**Value:**01 hexadecimal
The default value is 00 hexadecimal, which enables the Task Manager. Changing this value to 01 hex disables Task Manager, and you should see a message that your administrator has disabled the Task Manager.

I-214 Do you need to have all your 16-bit applications run in separate virtual DOS machines? This registry lets you specify this setup as the default for running 16-bit applications.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\WOW**Value Name:**DefaultSeperateVDM**Data Type:**REG_SZ**Value:**YES
Reboot for this change to take effect.

I-215 Problem: you want to open a command prompt and switch to a directory that is nested deep within your directory structure without typing a long **chdir** pathname. These registry keys allow you to start a command prompt in the folder or drive of your choice by simply right-clicking over the folder in which you want to open a command prompt.

Hive:HKEY_CLASSES_ROOT**Key:**Directory\Shell\DosHere**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Command Prompt Here
This value is the text that appears on the popup menu when you right-click a directory.

I-216Hive:HKEY_CLASSES_ROOT**Key:**Directory\Shell\DosHere\Command**Value Name:**<No Name> **Data Type:**REG_SZ**Value:**(system directory)\System32\cmd.exe /k cd "%1"
This value is the command that is executed when you select the "Command Prompt Here" item you set for the popup menu in the entry above.

I-217Hive:HKEY_CLASSES_ROOT**Key:**Drive\Shell\DosHere**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Command Prompt Here
This value sets the text that appears on the popup menu when you right-click a drive.

I-218Hive:HKEY_CLASSES_ROOT**Key:**Drive\Shell\DosHere\Command**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**(system directory)\System32|cmd.exe /k cd "%1"
This value sets the command that is executed when you select the "Command Prompt Here" item you set for the popup menu in the entry above.

I-219 Does your system support Auto Powerdown? Do you want to enable it on NT? This registry entry does the trick.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Winlogon**Value Name:**PowerDownAfterShutDown**Data Type:**REG_SZ**Value:**1
Reboot for this change to take effect.

I-220 If your system takes too long to shut down, you may want to adjust the next three registry entries.

Hive:HKEY_CURRENT_USER**Key:**Control Panel\Desktop**Value Name:**HungAppTimeout**Data Type:**REG_DWORD**Value:**time in milliseconds
This value governs how long the system waits after you try to close an application before displaying the Wait, End Task, and Close dialog box.

I-221Hive:HKEY_CURRENT_USER**Key:**Control Panel\Desktop**Value Name:**WaitToKillAppTimeout**Data Type:**REG_DWORD**Value:**time in milliseconds
This value governs how long the system waits after the Log Off or Shutdown command was given to an application before it displays the Wait, End Task, and Close dialog box.

I-222 To have the system automatically shut down all hung applications, change the following registry value.

Hive:HKEY_CURRENT_USER**Key:**Control Panel\Desktop**Value Name:**AutoEndTasks**Data Type:**REG_DWORD**Value:**1
By default, this value is 0, which shows the Wait, End Task, and Close dialog box; changing the value to 1 automatically shuts down all hung applications.

I-223 If you need to specify which executables Windows NT runs at logon, the next two

registry entries show you the default executables and let you add a few of your own. These executables run in the User context.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Winlogon**Value Name:**Userinit**Data Type:**REG_SZ**Value:**Userinit,Nddeagnt.exe
I-224 These executables run in the System context.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Winlogon**Value Name:**System**Data Type:**REG_SZ**Value:**LSASS.exe
These values are the defaults. You can add your own by editing the string, being sure to include commas. Restart Windows NT for these changes to take effect.

I-225 Tired of having to log on just to power down? Try this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Winlogon**Value Name:**ShutDownWithOutLogon**Data Type:**REG_SZ**Value:**1
Reboot for this change to take effect.

I-226 Do you get those annoying "insufficient memory" messages for the server service when you know you have plenty of disk and memory? These registry parameters control the server service, and tweaking them can help you avoid these messages.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\Parameters**Value Name:**MinFreeConnections**Data Type:**REG_DWORD**Value:**3
This parameter specifies the number of free connection blocks maintained at each system in the connection. Acceptable values can range from 2 to 5.

I-227Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\Parameters**Value Name:**MinFreeWorkItems**Data Type:**REG_DWORD**Value:**2
This value specifies the minimum number of available work items that the server receives before it starts processing a potential multiblock SMB request. Increasing this value increases the probability that work items are available for nonblocking requests. The downside of increasing the value is that the likelihood of rejecting blocking requests goes up. The default value is 2; any value between 0 and 10 is acceptable.

I-228Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\Parameters**Value Name:**MinKeepSearch**Data Type:**REG_DWORD**Value:**480
This parameter specifies the minimum time in seconds the server keeps incomplete MS-DOS searches. You should not have to tweak this unless you are approaching the maximum number of open searches. The default is 480; values can range between 5 and 5000.

I-229Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\Parameters**Value Name:**MinLinkThroughPut**Data Type:**REG_DWORD**Value:**0
This value specifies the minimum throughput the server allows before it disables certain locks for a given connection. Increasing this value helps tune for network congestion. The default is 0; values can range from 0 to infinity.

I-230Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\Parameters**Value Name:**MinRcvQueues**Data Type:**REG_DWORD**Value:**3
This parameter specifies the minimum number of free receive work items the server needs before it allocates more Receive Queues. The value can range from 0 to 10.

I-231 If you simply want to stop the insufficient memory messages, the following series usually does the trick.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\Parameters**Value Name:**MinFreeConnections**Data Type:**REG_DWORD**Value:**5
Start Control Panel and go to the network icon. Highlight Services and choose the Server service. Select Properties and then select Maximize Throughput for File Sharing. These changes should solve the problem.

I-232 Are you tired of having error messages popping up and slowing down your system? This registry entry shows you how to eliminate them.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Windows
Add the following value under the Windows key.

Value Name: ErrorMode**Data Type:**REG_DWORD**Value:**0
You have a choice of three values for this value. A value of 0 serializes errors and waits for a response. A value of 1 excludes system errors the system writes to the event log. Normal errors still show up. A value of 2 logs the error to the Event Log and suppresses the message box. The default is 0; to turn off pop-up messages, set this value to 2. Reboot for these changes to take effect.

I-233 If you ever wondered where the Performance Monitor messages are stored, look at this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\ Perflib\009**Value Name:**Help**Data Type:**REG_MULTI_SZ**Value:**
I-234 This registry entry sets the %Server environment variable on a server.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\SessionManager\ Environment

Add the following value under the Environment key.

Value Name: Servername**Data Type:**REG_SZ**Value:**<server_name>
I-235 You upgraded to Windows NT 4.0, and you need to have a HPFS file system on the server. But NT 4.0 doesn't support HPFS. Bummer. This registry modification lets you get around that problem.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurentControlSet\Services\Pinball
Add the following values under the Pinball Key.

Value Name: ErrorControl**Data Type:**REG_DWORD**Value:**0x1
I-236Value Name: Group**Data Type:**REG_SZ**Value:**Boot File System
I-237Value Name: Start**Data Type:**REG_DWORD**Value:**0x1
I-238Value Name: Type**Data Type:**REG_DWORD**Value:**0x2
Copy Pinball.sys from the NT 3.51 distribution CD to your servers' %systemroot%\system32\drivers directory. You must reboot your machine for these changes to take effect.

I-239 You want to let a user schedule jobs, but the user doesn't have administrator rights. This registry entry shows you how.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\LSA
Add the following value under the Parameters key.

Value Name: SubmitControl**Data Type:**REG_DWORD**Value:**00000001
The value is in hexadecimal. Reboot your system for the changes to take effect. If changing this key doesn't work, you may need to change the following entry as well.

I-240Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Schedule
On the subkey for the accounts you want to grant access, choose Full Control for Permissions Access Type Stop and restart the scheduler service in the control panel applet.

I-241 To set a server on your network to act as the domain time source server, change this entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanManServer\ Parameters
Add the following value under the Parameters key.

Value Name: TimeSource**Data Type:**REG_DWORD**Value:**1
Restart Windows NT for these changes to take effect.

I-242 You want to limit the use of command extensions for any .cmd file. This registry

entry does just that.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Command Processor**Value Name:**EnableExtensions**Data Type:**REG_DWORD**Value:**0
When the value is set to 0, the .cmd files do not run. Reboot your machine for these values to take effect.

I-243 Your computer locks up when you are using the drag-and-drop method to move files to your floppy drive. The only way out is a reboot. Try this registry entry to help solve the problem.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\GraphicsDrivers\
Add the following key under the GraphicsDrivers Key:

Key: DisableUSWC
When you add this key, you tell Windows NT not to use Uncache Speculative Write Combining on the video cards. No value is needed under the DisableUSWC key. Reboot the machine for this change to take effect.

I-244 Modifying the registry entries below lets you disable the Long File Names feature in Windows NT. Note this change doesn't change any disk structures; it only affects the way Windows NT behaves from the time you make the change.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\FileSystem**Value Name:**Win31FileSystem**Data Type:**REG_DWORD**Value:**1
Reboot your system for these changes to take effect.

I-245Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\FileSystem**Value Name:**NtfsDisable8dot3NameCreation**Data Type:**REG_DWORD**Value:**1
This change prohibits Windows NT from creating an 8.3 twin for the long filenames you create.

I-246 Problem: In a previous version of NT, you were notified by a message that NT saw your 16550N UART chip. For some reason, that notification has stopped and you wish to enable it again. This registry modification makes NT notify you when it recognizes the 16550N UART.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Serial
Make sure the following values are present. If any are missing, add them.

Value Name: ForceFIFOEnable**Data Type:**REG_DWORD**Value:**1
I-247Value Name: LogFIFO**Data Type:**REG_DWORD**Value:**1
I-248Value Name: PermitShare**Data Type:**REG_DWORD**Value:**1

I-249Value Name: RxFIFO**Data Type:**REG_DWORD**Value:**0x8
I-250Value Name: TxFIFO**Data Type:**REG_DWORD**Value:**0x1
Reboot the system for these changes to take effect. The event log now reports “While validating that COM1 was really a serial port, a FIFO was detected. The FIFO will be used.”

I-251 Problem: You want to change the registered owner or organization to something other than the one you used during the installation. Change one of these values.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion
Value Name: RegisteredOwner**Data Type:**REG_SZ**Value:**<registered owner>
I-252Value Name: RegisteredOrganization**Data Type:**REG_SZ**Value:**<registered organization>
I-253 Problem: You want to have a program run every time Windows NT loads, but you don’t want to put it in the startup folder where people can tinker with it. This registry modification lets you set a program to execute every time Windows NT loads.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Windows\CurrentVersion\Run
Add the following value under the Run key:

Value Name:<any name>**Data Type:**REG_SZ**Value:**<fully qualified path and name of the program you want to run>
I-254 If you want the program to run only one time, use this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Windows\CurrentVersion\RunOnce
Add the following value under the RunOnce key:

Value Name:<any name>**Data Type:**REG_SZ**Value:**fully qualified path and name of the program you want to run
I-255 We all know that Windows NT lets programs register themselves for later removal. If you ever want to remove a program from the list (and not actually remove the program), this registry entry is for you.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Windows\CurrentVersion\Uninstall
The programs that are registered show under the uninstall key. I use the example of Internet Information Server, but you can substitute any program.

SubKey:MSIIS**Value Name:**DisplayName**Data Type:**REG_SZ**Value:**Microsoft Internet Information Server
I-256Value Name: UninstallString**Data Type:**REG_SZ**Value:**C:\NTS40\System32\Inetsrv\Setup.exe
I-257 Problem: On your dual-boot system, the DOS variables are set up when you boot

Windows NT. This setup is causing problems, and you want to eliminate it. Changing this registry entry does the trick.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\WindowsNT\CurrentVersion\WinLogon**Value Name:**ParseAutoexec**Data Type:**REG_SZ**Value:**0
The default value is 1. Remember, you need to disable autoexec parsing for each user separately.

DIAL-UP

I-258 To enable or disable autodialing for remote connections for individual users, try the following registry entry.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\RAS Autodial\Control**Value Name:**DisableConnectionQuery**Data Type:**REG_DWORD**Value:**0
Setting this value to 0 requires NT to prompt you before it autodials. Restart the machine for these values to take effect.

SYSTEM RECOVERY

I-259 If you have ever lost the administrative password on a Domain controller, you probably thought it was impossible to recover your system. However, if you follow these steps and use the registry, it is possible to regain control of your system.

Power down the primary domain controller.

Using the Windows NT installation disks, install Windows NT to a different directory than you're currently using. For example, if the current installation uses c:\winnt, install this version into c:\winntA.

Copy SrvAny.exe from the resource kit to C:\Temp.

Using Regedt32.exe, open the HKEY_LOCAL_MACHINE hive and highlight the root.

Select the Load Hive option and type the following line: **C:\WINNT\SYSTEM32\CONFIG\SYSTEM.** (You must include the period.)

Now click Open and type **domain controller** at the key name prompt.

Go to the following key and record its value:

Hive:HKEY_LOCAL_MACHINE**Key:**DomainSystem\ControlSet001\Services\Spooler \ImagePath**Value Name:**ImagePath**Data Type:**REG_SZ**Value:**c:\Temp\Srvany.exe
The default value is %SystemRoot%\System32\Spoolss.exe.

Go the following key and add this key:
Hive:HKEY_LOCAL_MACHINE**Key:**DomainController\ControlSet001\Services\Spooler\ Parameters
Add the following two values:

Value Name: Application**Data Type:**REG_SZ**Value:**C:\WinNT\System32\Net.exe**Value Name:**AppParameters**Data Type:**REG_SZ**Value:**user Administrator forgotten
This value sets the administrator password to "forgotten." You can, of course, substitute any password of your liking. Power down the system and reboot using the original configuration (c:\winnt). After the logon screen comes up, wait a few minutes and log on as the domain admin.

Using Regedt32.exe, remove the values you added. Remove the following keys:

Hive:HKEY_LOCAL_MACHINE**Key:**SYSTEM\CurrentControlSet\Services\Spooler\ Parameters
Delete the following two values:
Value Name: Application**Data Type:**REG_SZ**Value:**C:\Winnt\System32\Net.exe
Value Name: AppParameters**Data Type:**REG_SZ**Value:**user Administrator forgotten
Now change the ImagePath key back to its original value:
Hive:HKEY_LOCAL_MACHINE**Key:**DomainController\ControlSet001\Services\Spooler\ImagePath
Change the value to c:\Temp\Srvany.exe
Value Name: ImagePath**Data Type:**REG_SZ**Value:**%SystemRoot%\system32\spoolss.exe You can now edit the Boot.ini file and remove the reference to the c:\winntA installation of Windows NT. When you reboot your machine, all is as it was before, except now you know the Domain administrator password again.

UNINSTALLATION

I-260 Have you ever installed some trial software and removed it at the end of the demo period, only to be plagued by the annoying message "Cannot find file C:\filename" (or one of its components)? Try this registry entry to correct the problem.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Windows\CurrentVersion**Value Name:**Run**Data Type:**REG_SZ**Value:**<filename>

REGISTRY

I-261 Problem: Windows NT 4.0 Server requires that people who can remotely access the registry on a given machine belong to the Administrator group. However, someone is still tampering with your registry. To change the permissions, modify this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\
SecurePipeServers\winreg
Change the permissions on this key to whomever you wish to give access to. The default is Administrators Full Control.

I-262 In Windows NT Workstation, the Winreg key is not in the registry by default. If you add this key to the registry, you must also add the subkey Allowedpaths. Here is the AllowedPaths key under a clean install of Windows NT Server 4.0

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\SecurePipeSe
rvers\ winreg\AllowedPaths**Value Name:**MACHINE**DataType:**REG_MULTI_SZ
Value: System\CurrentControlSet\Control\ProductOptions
I-263 Value: System\CurrentControlSet\Control\Print\Printers
I-264 Value: System\CurrentControlSet\Services\Eventlog
I-265 Value: Software\Microsoft\Windows NT\CurrentVersion
Restart your machine for these new values to take effect.

I-266 Did you ever wonder where the registry files are stored? Well, where else would you expect to find the answer but in the registry itself?

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\Hivelist
Value Name: Registry\MACHINE\Clone **Data Type:**REG_SZ**Value:**
This registry entry stores the clone hive information.

I-267Value Name: Registry\MACHINE\Hardware**Data Type:**REG_SZ**Value:**
This registry entry stores hardware hive information.

I-268Value Name: Registry\MACHINE\SAM**Data**
Type:REG_SZ**Value:**Device\Harddisk0\Partition1\NTS40\System32\Config\SAM
This registry entry stores all the SAM information.

I-269Value Name: Registry\MACHINE\Security**Data**
Type:REG_SZ**Value:**Device\Harddisk0\Partition1\NTS40\System32\Config\Security
This file stores information for the grayed-out Security hive.

I-270Value Name: Registry\MACHINE\Software**Data**
Type:REG_SZ**Value:**Device\Harddisk0\Partition1\NTS40\System32\Config\ Software
This file contains the value for the Software hive.

I-271Value Name: Registry\MACHINE\System**Data Type:**REG_SZ**Value:**Device\Harddisk0\Partition1\NTS40\System32\Config\System
This entry shows where the System hive is stored.

I-272Value Name: Registry\User\Default**Data Type:**REG_SZ**Value:**Device\Harddisk0\Partition1\NTS40\System32\Config\Default
This entry shows where the default values for the user hive are stored.

I-273Value Name: Registry\User\<big long user id number>**Data Type:**REG_SZ**Value:**Device\Harddisk0\Partition1\NTS40\Profiles\<username>\ Ntuser.dat
This entry shows the user data for the current logged-on user.

DEFAULT SECURITY PERMISSIONS

You can use many combinations of Windows NT security measures. These entries represent the default permissions on a brand-new installation. They are helpful when you need to reset your registry.

I-274Hive:HKEY_CURRENT_USER**User:**Guest**Permissions:**Full Control
User: Administrator**Permissions:**Full Control
User: System**Permissions:**Full Control
I-275Hive:HKEY_USERS**User:**Guest**Permissions:**Read-Only
User: Administrator**Permissions:**Full Control
User: System**Permissions:**Full Control
I-276Hive:HKEY_CLASSES_ROOT**User:**Guest**Permissions:**Full Control
User: Administrator**Permissions:**Full Control
User: System**Permissions:**Full Control
I-277Hive:HKEY_LOCAL_MACHINE**Key:**Security**User:** Guest**Permissions:**None
User: Administrator**Permissions:**Special Access
User: System**Permissions:**Full Control
I-278Hive:HKEY_LOCAL_MACHINE**Key:**SAM**User:**Guest**Permissions:**None
User: Administrator**Permissions:**None
I-279Hive:HKEY_LOCAL_MACHINE**Key:**System**User:**Guest**Permissions:**Read-Only
User: Administrator**Permissions:**Full Control
I-280Hive:HKEY_LOCAL_MACHINE**Key:**Software**User:** Guest**Permissions:**Full Control
User: Administrator**Permissions:**Full Control
I-281Hive:HKEY_LOCAL_MACHINE**Key:**Software\Secure**User:**Guest**Permissions:**Read-only
User: Administrator**Permissions:**Full Control

I-282Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Secure**User:**Guest**Permissions:**Full Control
User: Administrator**Permissions:**Full Control
I-283Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT**User:**Guest
Permissions: Creation Only
User: Administrator**Permissions:**Full Control
I-284Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\ProgramGroup**User:**Guest**Permissions:**Read-Only
User: Administrator**Permissions:**Full Control
I-285Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Windows**User:**Guest**Permissions:**Full Control
User: Administrator**Permissions:**Full Control

GENERAL NETWORKING

I-286 Windows NT automatically disconnects idle sessions after a set number of minutes. To disable this feature (or at least set it to a ridiculously high number of minutes), use the following registry setting.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\ Parameters
Add the following value

Value Name: Autodisconnect**Data Type:**REG_DWORD**Value:**Oxffffffff
Restart the system for this value to take effect.

I-287 If you continually get the dreaded error 3013, “The redirector has timed out to Servername,” in your system log, fix this problem with this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanWorkstation\ Parameters
Increase the following value under the Parameters key or add it if it doesn’t already exist.

Value Name: SessTimeOut**Data Type:**REG_DWORD**Value:**1
I-288 Your 3COM fast Ethernet card is hanging when you perform a soft reset, and the event log says something about bus mastering. This registry entry fixes your problem.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\EL59X1\Parameters
Add the following value under the Parameters key.

Value Name: BusMaster**Data Type:**REG_SZ**Value:**no
This change disables bus mastering on the network card. Restart the machine for these changes to take effect.

I-289 If your Windows NT workstation maintains a browser list and you want to disable this feature, change this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Browser\Parameters
Add the following value under the Parameters key.

Value Name: MaintainServerList**Data Type:**REG_SZ**Value:**no
I-290 Problem: You receive the following error repeatedly in the Server event log:

Event ID: 2022
Source: srv
Detail: The server was unable to find free connection *xx* times in the last *xx* seconds.

The actual number represented by *xx* varies depending on your circumstances. Changing this registry entry helps you work around the problem.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\ Parameters Add the following two values under the Parameters key.
Value Name: MaxFreeConnections**Data Type:**REG_DWORD**Value:**8
Value Name: MaxWorkItems**Data Type:**REG_DWORD**Value:**255 Next, modify this registry parameter to turn off AutoDisconnect.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\ Parameters
Add the following value under the Parameters key:

Value Name: AutoDisconnect**Data Type:**REG_DWORD**Value:**FFFFFFFF Reboot your system for these changes to take effect.

I-291 You're trying to set up a connection to your ISP so that your workstation lets other computers on the network access the Internet. The problem is that you can see your machine but nothing else. Try this registry modification to solve the problem.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\RASARP\Parameters
Add the following value under the Parameters key:

Value Name: DisableOtherSourcePackets**Data Type:**REG_DWORD**Value:**0
I-292 Are you tired of your server flooding you with alert messages? You don't want to turn them off; you just don't want them sent as frequently. This registry entry lets you

specify how often Windows NT checks alert conditions and sends appropriate messages.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServe
r\ Parameters
Add the following value:

Value Name: AlertSched**Data Type:**REG_DWORD**Value:**5
Valid values are from 1 to 65,535, and they are in minutes. The default is 5 minutes. Restart your machine for these values to take effect.

I-293 Are your users leaving open connections to the server and using up resources you don't have? To disconnect idle users after a certain length of time, change this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServe
r\ Parameters**Value Name:**AutoDisconnect**Data Type:**REG_DWORD**Value:**15
Valid numbers are from 0 to 0xFFFFFFF in minutes. The default is 15 minutes. Restart your machine for these values to take effect.

I-294 If you have lots of servers on your network and your users get confused, use this registry entry to specify a comment that is displayed with the server name.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServe
r\Parameters**Value Name:**Srvcomment**Data Type:**REG_SZ**Value:**<new message>
The default is no message. Restart the computer for this change to take effect.

I-295 Are you tired of slow connections making you wait to access your roaming profiles? Do you want to speed things up? These registry entries let you set the time NT waits before timing out and letting you use a local profile.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Windows
NT\CurrentVersion\Winlogon**Value Name:**SlowLinkDetectEnabled**Data
Type:**REG_DWORD**Value:**1
I-296Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Windows
NT\CurrentVersion\Winlogon**Value Name**SlowLinkTimeOut**Data
Type:**REG_DWORD**Value:**2000
If SlowLinkDetectEnabled is set to 1, the value in SlowLinkTimeOut determines how long in milliseconds until users are prompted to choose between Local or Server-based profiles. The default value is 2000 milliseconds.

I-297 To keep your server from showing up in the Network Neighborhood listings, change this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServe
r\ Parameters**Value Name:**Hidden**Data Type:**REG_BINARY**Value:**1

The default is 0. Restart the computer for this change to take effect.

I-298 You must also have the following registry entry set to 1 for the Hidden and Srvcomment value to be active.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\ Parameters**Value Name:**Lmannounce**Data Type:**REG_DWORD**Value:**1
The default is 0. Restart the computer for this change to take effect.

I-299 Are some of your Word for Windows clients that are running IPX having problems connecting to your Windows NT server? Try adding this registry parameter.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\ Parameters**Value Name:**EnableWFW311DirectIpx**Data Type:**REG_DWORD**Value:**True
The default value is False. Restart the computer for this change to take effect.

I-300 If you have older clients running direct-hosted IPX, you may want to add this registry value. It governs how long a client can be idle before it is disconnected, even if it has open files or pipes.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\ Parameters**Value Name:**ConnectionlessAutoDisc**Data Type:**REG_DWORD**Value:**15
Valid entries, in minutes, are 15 to infinity; the default value is 15. Restart the computer for this change to take effect.

I-301 Do you want the server to let you know when the total percentage of network errors is greater than a certain value? This registry entry lets you specify a threshold and force the server to send an alert message that the threshold is exceeded.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\ Parameters**Value Name:**NetworkErrorThreshold**Data Type:**REG_DWORD**Value:**5
Valid entries are 1 to 100 percent. The default value is 5. Restart machine for this value to take effect.

I-302 Do you want to change the default string that users see when they are prompted to log on to your server? Try this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Windows NT\CurrentVersion\Winlogon**Value Name:**LogonPrompt**Data Type:**REG_SZ**Value:**Enter a user name and password that is valid for this system.
The message shown is the default. Replace it with anything you like; you have up to 256 characters.

I-303 Do you want to change how far in advance your users are warned that their

passwords will expire? This registry entry controls the number of days before expiration that Windows NT warns your users.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Windows NT\CurrentVersion\Winlogon**Value Name:**PasswordExpiryWarning**Data Type:**REG_DWORD**Value:**14
I-304 Are your users experiencing slow response time when performing routine file activities? This parameter lets you allocate more resources by specifying the maximum number of active searches that can run concurrently on your server.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\ Parameters**Value Name:**MaxGlobalOpenSearch**Data Type:**REG_DWORD**Value:**4096
Valid values are 1 to infinity. A higher value allows more searches on the server to be active at one time and also uses more resources. A lower value saves resources but can cause clients to experience poor performance.

I-305 Have you ever wanted to set the threshold that triggers the administrative alert for disk space? This registry entry lets you set the value from 0 to 99 percent of remaining free disk space.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\ Parameters**Value Name:**DiskSpaceThreshold**Data Type:**REG_DWORD**Value:**10
Values can range from 0 - 99; the default is 10. Restart your system for these values to take effect.

Mailslots
Mailslot controls are part of tweaking your General Networking values.

I-306Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Netlogon\Parameters
Add the MaximumMailslotMessages value.

Value Name: MaximumMailslotMessages**Data Type:**REG_DWORD**Value:**500
This value governs how much space Netlogon sets aside to buffer incoming Mailslot messages. Under normal circumstances, Mailslot messages are serviced as they arrive; however, if you have a particularly busy network, these messages can back up. Each Mailslot message takes up roughly 1500 bytes of nonpaged pool memory until it is removed from the buffer. Altering this value gives you additional control over how much nonpaged pool memory is used.

I-307Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Netlogon\Parameters

Add the MaximumMailslotTimeout value.

Value Name: MaximumMailslotTimeout**Data Type:**REG_DWORD**Value:**10
This value determines how long, in seconds, a Mailslot message is valid. If Netlogon processes a message that is older than the value set in MaximumMailslotTimeout, it simply discards it. Ideally, Windows NT services incoming Mailslot requests in subsecond time; however, if your system is overloaded or the network congested, you may need to increase this value.

I-308 This number dictates how long NetLogon ignores duplicate Mailslot messages. Netlogon compares previous Mailslot messages with current Mailslot messages. If Netlogon receives the same message as one it has already received in the number of seconds specified by MailslotDuplicateTimeout, it discards the second message.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Netlogon\Parameters
Add the MailslotDuplicateTimeout value.

Value Name: MailslotDuplicateTimeout**Data Type:**REG_DWORD**Value:**2

TCP/IP

I-309 Problem: when you try to connect to Web servers or FTP sites, you often time out or must retry many times before you finally connect. The problem may be that your time to live (TTL) is too small. TTL is a TCP/IP parameter that controls how many “hops” or routers your packet can go through before it is discarded by the network. Every time the packet goes through a router, its value is decremented by 1. When the value reaches zero, the packet is discarded. With the proliferation of servers and routers on the network, a value that was once a reasonable TTL is now not practical. To modify the TTL, change this entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Tcpip\Parameters
Add the following value under the Parameters key:

Value Name: DefaultTTL**Data Type:**REG_DWORD**Value:**255
Restart your machine for these new values to take effect.

I-310 Sometimes it isn’t possible to check all the static routes of a remote machine. You can, however, see which persistent routes a particular system has set up. Use the following registry key and its associated values to see these routes.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Tcpip\Parameters\ PersistentRoutes

Add the following value

Value Name:204.56.55.100,255.255.255.255,127.0.0.1,1**Data Type:**REG_SZ**Value:**
The value name is the actual route. The format is destination address,subnet mask,source address,metric. You must then make it a REG_SZ entry with a blank value. If you add or delete entries here, you must exit Regedt32.exe for them to take effect on the remote machine.

I-311 TCP/IP on Windows NT uses a lot of different files for its information. These files are located in the following registry key.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Tcpip\Parameters**Value Name:**DatabasePath**Data Type:**REG_EXPAND_SZ**Value:**%SystemRoot%\system32\drivers\etc
The actual files stored there are Hosts, Lmhosts, Networks, Protocols, and Services. By altering the directory where these files point, it is possible to have a central location or to have several different working sets of these files.

I-312 If you have trouble with PPTP connections timing out on particularly slow connections, try increasing the following registry parameter:

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Tcpip\Parameters**Value Name:**PPTPTcpMaxDataRetransmissions**Data Type:**REG_DWORD**Value:**9
Increasing the default value gives PPTP packets a better chance of getting through on heavily congested networks or particularly slow links. Restart your machine for this value to take effect.

I-313 If you have a mixed network and need your broadcast packets to be the 0-style broadcasts packets (that is, 0.0.0.0 instead of the default 1-style, or 255.255.255.255), change this registry value:

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Tcpip\Parameters**Value Name:**UseZeroBroadcast**Data Type:**REG_DWORD**Value:**1
I-314 If you have intermittent problems with your gateways (and who doesn't?), you probably have already established a set of alternate gateways. Use this registry entry to have Windows NT automatically switch to the backup gateway if the current gateway is not responding.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Tcpip\Parameters**Value Name:**EnableDeadGWDetect**Data Type:**REG_DWORD**Value:**1
The default value is 1, which enables the feature. Setting this value to 0 disables the detection. Restart your machine for this value to take effect.

I-315 By default, Windows NT tries to discover the maximum transmission unit (MTU) over a given path to a remote host. By finding the largest packet size it can send,

Windows NT maintains a good throughput. Setting this value to 0 causes the MTU to be set to 576 bytes for all connections other than hosts or local subnet destinations.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Tcpip\Parameters**Value Name:**EnablePMTUDiscovery**Data Type:**REG_DWORD**Value:**1
Restart your machine for these values to take effect.

I-316 If you use a RAS connection to route IP packets and are suffering from poor network performance, these registry entries can help you squeeze a little more performance out of your connection.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\<adapter name>\ Parameters\Tcpip**Value Name:**MaxForwardPending**Data Type:**REG_DWORD**Value:**20
The MaxForwardPending value governs how many packets Windows NT forwards to a particular network interface at a given time. If you have a slow connection, changing this value really helps performance. The default value is 20. Restart the machine for any changes to take effect.

I-317 If your Windows NT machine seems to be suffering from lost IP packet syndrome, these registry entries can help you tweak your system for maximum throughput.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Tcpip\Parameters**Value Name:**ForwardBufferMemory**Data Type:**REG_DWORD**Value:**7420
The ForwardBufferMemory value controls how much memory Windows NT sets aside to store packet data in the packet data queue. Each packet buffer is 256 bytes, so the ForwardBufferMemory value should be a multiple of 256. When the packet data queue is full, Windows NT randomly discards packets.

I-318Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\<adapter name>\ Parameters\Tcpip**Value Name:**MaxForwardBufferMemory**Data Type:**REG_DWORD**Value:**0xFFFFFFFF
The MaxForwardBufferMemory value governs the total amount of memory Windows NT sets aside to store packet data in the router packet queue. This value must be greater than or equal to the ForwardBufferMemory value. If you don't have IP routing enabled, this registry value is ignored.

I-319Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\<adapter name>\ Parameters\Tcpip**Value Name:**NumForwardPackets**Data Type:**REG_DWORD**Value:**50
This value governs the number of IP packet headers that can be stored in the router packet queue. This value should be at least as large as the ForwardBufferMemory divided by 256.

I-320 **Hive:** HKEY_LOCAL_MACHINE **Key:** System\CurrentControlSet\Services\<adapter name>\ Parameters\Tcpip **Value Name:** MaxNumForwardPackets **Data Type:** REG_DWORD **Value:** 0xFFFFFFFF
This value sets the total number of IP packet headers that can be stored in the router packet queue at a given time. This value needs to be at least as big as NumForwardPackets, if not larger. Restart your machine for any changes to take effect.

I-321 If you need to control the level at which your Windows NT machine supports the Internet Group Management Protocol (IGMP), then this registry entry is for you.

Hive: HKEY_LOCAL_MACHINE **Key:** System\CurrentControlSet\Services\Tcpip\Parameters **Value Name:** IGMPLevel **Data Type:** REG_DWORD **Value:** 2
A value of 0 prohibits all multicast support. A value of 1 lets the system send IP multicast packets. The default value of 2 lets the Windows NT machine send and fully participate in receiving IP multicast packets. Restart your machine for any changes to take effect.

I-322 If your aborted sessions aren't properly cleaned up or if your idle but live sessions are dropped inadvertently, you may need to adjust these two registry parameters.

Hive: HKEY_LOCAL_MACHINE **Key:** System\CurrentControlSet\Services\Tcpip\Parameters **Value Name:** KeepAliveTime **Data Type:** REG_DWORD **Value:** 7,200,000
I-323 **Hive:** HKEY_LOCAL_MACHINE **Key:** System\CurrentControlSet\Services\Tcpip\Parameters **Value Name:** KeepAliveInterval **Data Type:** REG_DWORD **Value:** 1000
Both values are in milliseconds. The default value for KeepAliveTime is 7,200,000, or 2 hours, and the default for KeepAliveInterval is 1000, or 1 second. KeepAliveTime governs how often Windows NT sends a keep alive packet. A specific application can request that keep-alive packets be sent. If the target system is able, it responds with an acknowledgment. The KeepAliveInterval works with the KeepAliveTime and governs how often keep-alive packets are sent until an acknowledgment is received. If the target machine doesn't respond and the number of retries exceeds the value of TCPMaxDataRetransmissions, the connection is terminated. Restart your machine for any changes to take effect.

I-324 If you need to limit the number of application-requested user ports that Windows NT dynamically assigns, change this registry value.

Hive: HKEY_LOCAL_MACHINE **Key:** System\CurrentControlSet\Services\Tcpip\Parameters **Value Name:** MaxUserPort **Data Type:** REG_DWORD **Value:** 0x1388
This value is in hexadecimal. The default value is 1388 hex, or 5000 decimal. Restart the machine for any changes to take effect.

I-325 If your systems are prone to SYN attacks (Unix hackers love that trick), you may

want to change this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Tcpip\Parameters**Value Name:**TcpMaxConnectRetransmissions**Data Type:**REG_DWORD**Value:**3
This value limits the number of times Windows NT lets someone try to connect during a given connect session. The default value is 3.

I-326 If you have remote users with unreliable connections, you can reduce network congestion by adjusting this registry value.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Tcpip\Parameters**Value Name:**TcpMaxDataRetransmissions**Data Type:**REG_DWORD**Value:**5
This value controls how many times a given data segment is retransmitted. Initially, this value is set according to the length of the round-trip time for a particular connection.

I-327 Do you have too many people connecting to your system with TCP/IP, or are you connecting to more machines than is necessary? You can set a hard limit for the number of connections that TCP/IP can have open at a time.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Tcpip\Parameters**Value Name:**TcpNumConnections**Data Type:**REG_DWORD**Value:**0xfffffe
The default value is 0xfffffe. Restart your system for any changes to take effect

I-328 If you need strict control over the kind of information that comes into your network, these registry parameters let you specify what your network does and doesn't accept.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Tcpip\Parameters**Value Name:**EnableSecurityFilters**Data Type:**REG_DWORD**Value:**1
When this registry value is set to 1, all incoming raw IP datagrams are filtered. This feature must be enabled before you can use the RawIpAllowedProtocols, TcpAllowedPorts, or UdpAllowedPorts values.

I-329Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\<adapter name>\ Parameters\Tcpip**Value Name:**RawIpAllowedProtocols**Data Type:**REG_DWORD**Value:**0 <protocol number>
This value determines which IP datagrams are accepted by the transport. A value of 0 indicates that all values are valid. If this value is missing from the registry for a particular interface, all values are accepted.

I-330Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\<adapter name>\ Parameters\Tcpip**Value Name:**TcpAllowedPorts**Data Type:**REG_DWORD**Value:**0 <port number>

These values control which TCP ports accept SYN requests. A value of 0 indicates that all values are valid. If this value is missing from the registry for a particular interface, all values are accepted.

I-331Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\<adapter name>\ Parameters\Tcpip**Value Name:**UdpAllowedPorts**Data Type:**REG_DWORD**Value:**0 <port number>
This value determines which ports accept incoming UDP datagrams. A value of 0 indicates that all values are valid. If this value is missing from the registry for a particular interface, all values are accepted.

I-132 If you are using your Windows NT server as a dial-up server on the Internet and can't see all the computers on your network, you may be suffering from multiple default routes. To fix this problem, you must add the following key for each LAN adapter that is not connected to the Internet.

Hive:HKEY_LOCAL_MACHINE**Key:**System\Services\<adapter>\Parameters\Tcpip
Add the following value under the Parameters key:

Value Name: DontAddDefaultGateway**Data Type:**REG_DWORD**Value:**1
Then use the route command to add persistent routes for the LAN that the other LAN adapters referenced.

I-333 If you are troubleshooting clients running TCP/IP and you aren't using DHCP (shame on you), you often need to adjust particular settings. Using the remote capabilities of Regedt32, you are just a few registry entries away from tweaking TCP/IP to your heart's content. These registry entries store most of the standard TCP/IP information.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Tcpip\Parameters**Value Name:**Hostname**Data Type:**REG_SZ**Value:**<computer name> Example: BigDog
This value is the DNS name of your computer. When users issue a "ping -a 200.200.200.1" command, your system returns this value.

I-334Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Tcpip\Parameters**Value Name:**IPAddress**Data Type:**REG_MULTI_SZ**Value:**any valid IP address. Example: 200.200.200.1
This value is the IP address of a particular machine. Issuing a "ping -a <hostname>" command returns this value.

I-335Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Tcpip\Parameters**Value Name:**SearchList**Data Type:**REG_SZ**Value:**any valid list of DNS suffixes.

Examples: .com .org .edu
When your system tries to resolve a <machine name> via DNS, it applies this list of suffixes to the generic <machine name>. If you specify bigdog.winntmag, the first suffix applied to this request is .com. The resultant query then searches for bigdog.winntmag.com.

I-336Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\<adapter name>\ Parameters\Tcpip**Value Name:**SubnetMask**Data Type:**REG_MULTI_SZ**Value:**any valid list of IP addresses
Windows NT uses this value when it applies the subnet mask to a particular IP interface bound to an adapter.

DHCP

I-337 To enable the DHCP client service on a remote system, you can use the Select Computer option in Regedt32.exe to remotely change this registry entry. It tells Windows NT to configure the first IP interface on the machine using DHCP.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\<adapter name>\ Parameters\Tcpip**Value Name:**EnableDhcp**Data Type:**REG_DWORD**Value:**1
You need to restart the client for these changes to take effect.

I-338 Ever since you installed DHCP, your network traffic has gone up. This registry parameter helps reduce network broadcast traffic.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\DhcpServer\ Parameters
Add the following value under the Parameters key:

Value Name: IgnoreBroadcastFlag**Data Type:**REG_DWORD**Value:**0
This registry modification works only on homogenous Ethernet networks or same-subnet Token-Ring networks. If your network has a router that translates MAC-level addresses, do not modify this registry entry.

I-339 If you need to find out DHCP information about a particular client but don't have access to the DHCP admin tool, you can still get the information by viewing these registry entries remotely.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\<adapter name>\ Parameters\Tcpip**Value Name:**DhcpDefaultGateway**Data Type:**REG_MULTI_SZ**Value:**any valid IP address
This value specifies the default gateway list assigned to the client by the DHCP server.

I-340Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\<adapter name>\ Parameters\Tcpip**Value Name:**DhcpIPAddress**Data Type:**REG_SZ**Value:**any valid IP address
This value is the IP address assigned to the user via the DHCP server. If the first value is anything other than 0.0.0.0, that value will override the DHCP-assigned value.

I-341Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\<adapter name>\ Parameters\Tcpip**Value Name:**DhcpNameServer**Data Type:**REG_SZ**Value:**any set of valid IP addresses
This value is the set of name servers that your system uses to resolve DNS queries.

I-342Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\<adapter name>\ Parameters\Tcpip**Value Name:**DhcpServer**Data Type:**REG_SZ**Value:**any valid IP address
This value is the IP address of the DHCP server that granted your client the IP address that's stored in the DhcpIPAddress registry value.

I-343Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\<adapter name>\ Parameters\Tcpip**Value Name:**DhcpSubnetMask**Data Type:**REG_SZ**Value:**any valid subnet mask for the current IP address space
This value is the DHCP Server-assigned subnet mask.

I-344Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\<adapter name>\ Parameters\Tcpip**Value Name:**Lease**Data Type:**REG_SZ**Value:**<time in seconds>
This value is the number of seconds that the current lease is valid for a given client.

I-345Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\<adapter name>\Parameters\Tcpip**Value Name:**LeaseObtainedTime**Data Type:**REG_SZ**Value:**number of seconds since 1/1/70
This value is the time in seconds since the current lease was obtained. You need to convert this number to do anything meaningful with it. Several programs available on the Web can convert it for you.

I-346Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\<adapter name>\ Parameters\Tcpip**Value Name:**LeaseTerminatesTime**Data Type:**REG_SZ**Value:**number of seconds since 1/1/70
This value is the time when the current lease will expire, stored in form of the number of

seconds since 1/1/70. Using the remote viewing capabilities of Regedt32.exe, you can view this information on any machine you have access to via the network.

I-347 If you need to see what a client's DHCP parameters were before the most recent changes, you can find them in the following registry entries. Note that you find this out by looking at the ControlSet001 value, which is different from the CurrentControlSet value. To go back one more revision, you can look at ControlSet002 value.

Hive:HKEY_LOCAL_MACHINE**Key:**System\ControlSet001\Services\<adapter name>\ Parameters\Tcpip
The following list of DHCP values is available under the Tcpip key:

Value Name: DefaultGateway**Data Type:**REG_MULTI_SZ**Value:**0.0.0.0
I-348Value Name: EnableDHCP**Data Type:**REG_DWORD**Value:**0x1
I-349Value Name:IPAddress**Data Type:**REG_MULTI_SZ**Value:**0.0.0.0
I-350Value Name:PPTPFiltering**Data Type:**REG_DWORD**Value:**0
I-351Value Name: SubnetMask**Data Type:**REG_MULTI_SZ**Value:**0.0.0.0
I-352Value Name: UseZeroBroadcast**Data Type:**REG_DWORD**Value:**0
You can edit any of these values. Reboot the machine for changes to take effect.

NETBIOS OVER TCP (NETBT)

I-353 If a client is having trouble with its NetBT configuration on Windows NT (see the Appendix for instructions for Windows 95) and you want to change or verify some of the settings, you can use the remote capability of Regedt32.exe. Using the Select Computer option, choose the computer you need to access and use these registry keys to view NetBT-related information. Generally, you set these with the Network Control Panel Application; however, it is very useful to be able to view these values remotely.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NetBt\Parameters**Value Name:**EnableLmhosts**Data Type:**REG_DWORD**Value:**1
When this registry entry is set to 1, NetBT uses the LMHOSTS file to resolve any outstanding queries that couldn't be resolved using WINS or broadcasts.

I-354Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\ Parameters
Add the following value under the Parameters key:

Value Name: OptionalNames**Data Type:**REG_SZ**Value:**< any name you want as an alias>
You can then use this alias for any command that requires a server, such as Net Use.

I-355 **Hive:**HKEY_LOCAL_MACHINE **Key:**System\CurrentControlSet\Services\NetBt\Parameters **Value Name:**EnableDns **Data Type:**REG_DWORD **Value:**0
When this registry entry is set to 1, NetBT uses DNS to resolve queries that it could not resolve with WINS, broadcast, or the LMHOSTS file.

I-356 **Hive:**HKEY_LOCAL_MACHINE **Key:**System\CurrentControlSet\Services\NetBt\Parameters **Value Name:**EnableProxy **Data Type:**REG_DWORD **Value:**0
When this registry entry is set to 1, the machine acts as a proxy name server for networks that are bound to NetBT. A proxy name server answers other clients' name queries for system names it has resolved via WINS.

I-357 **Hive:**HKEY_LOCAL_MACHINE **Key:**System\CurrentControlSet\Services\NetBt\Parameters **Value Name:**NameServer **Data Type:**REG_DWORD **Value:**<any valid IP address>
This value is the address of the machine that the client machine uses for WINS queries. The default value is blank.

I-358 **Hive:**HKEY_LOCAL_MACHINE **Key:**System\CurrentControlSet\Services\NetBt\Parameters **Value Name:**NameServerBackup **Data Type:**REG_DWORD **Value:**<any valid IP address>
This is the address of the secondary WINS server. If the machine whose value is stored in NameServer cannot be reached, the machine at this address is queried.

I-359 **Hive:**HKEY_LOCAL_MACHINE **Key:**System\CurrentControlSet\Services\NetBt\Parameters **Value Name:**ScopeID **Data Type:**REG_DWORD **Value:**<any valid DNS domain name> Example: Winntmag.com
This value governs the NetBios name scope. Any valid DNS domain name automatically overrides the DHCP-assigned equivalent.

I-360 If you have a lot of memory and a fairly busy network, you can specify the maximum amount of memory NetBT allocates to store all outgoing datagrams. If you fill up the allocated memory, any other attempt to send fails.

Hive:HKEY_LOCAL_MACHINE **Key:**System\CurrentControlSet\Services\NetBt\Parameters **Value Name:**MaxDgramBuffering **Data Type:**REG_DWORD **Value:**0x20000
The default is 128K. Restart the machine for any changes to take effect.

I-361 If you have broadcast storms on your network or just are looking for ways to reduce network traffic, try changing these registry entries:

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NetBt\Parameters**Value Name:**BcastNameQueryCount**Data Type:**REG_DWORD**Value:**3

I-362Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NetBt\Parameters**Value Name:**NodeType**Data Type:**REG_DWORD**Value:**1 or 8 (default)
This value determines the way NetBT registers and resolves names. Valid values and their meanings are listed below.

ValueNode-TypeDescription1b-nodeUses broadcasts only2p-nodeUses point-to-point name queries to a WINS server4m-nodeBroadcasts first, then queries the name server8h-nodeQueries the name server first, then broadcasts
Restart your system for any changes to take effect.

I-363 This value limits the number of times NetBT broadcasts a query for a name without receiving a response. Adjusting this value can have a significant effect on the number of broadcasts on your system.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NetBt\Parameters**Value Name:**BcastQueryTimeout**Data Type:**REG_DWORD**Value:**0x2ee
This value is the interval in milliseconds between broadcasts. The default value is 0x2ee, or 750 decimal. If you make any changes to these values, restart your computer.

I-364 If you have a particularly large Lmhosts file and your DNS requests take too long, you can speed up your Lmhosts requests by changing this registry value.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NetBt\Parameters**Value Name:**LmhostsTimeout**Data Type:**REG_DWORD**Value:**6000
The value is the time, in milliseconds, that elapses before a DNS query of Lmhosts times out.

I-365Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NetBt\Parameters**Value Name:**CacheTimeout**Data Type:**REG_DWORD**Value:**0x927c0
This value is the time, in milliseconds, that names are cached in the remote name table. The default is 0x927c0 milliseconds, or 600,000 decimal.

I-366 If you use WINS and have problems changing IP addresses for certain machines, you may want to check the following registry value.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NetBt\Parameters**Value Name:**EnableProxyRegCheck**Data Type:**REG_DWORD**Value:**0 (default)
Setting this value to 1 tells the proxy name server to send a negative response to any broadcast name registration when that name is already registered with WINS or is in the proxy's local name cache with a different IP address. Setting this value back to 0 lets you change IP addresses again.

I-367 If you use a service other than WINS to give you name service information, you can tell NetBT to use it instead of WINS. This registry entry specifies which port NetBT uses. The default is 89, which is the port that the Microsoft WINS Server listens on.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NetBt\Parameters**Value Name:**NameServerPort**Data Type:**REG_DWORD**Value:**0x89
Restart your machine for any changes to take effect.

I-368 If WINS name registration takes too long, use this registry value to speed up the interval at which WINS name registration takes place. When it initially registers names, WINS calculates 1/8th of this value and contacts the name server then. After a name is successfully registered, WINS sends a response to the client with the new refresh interval.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NetBt\Parameters**Value Name:**InitialRefreshTimeout**Data Type:**REG_DWORD**Value:**960000
Restart WINS for any changes to take effect.

I-369 If you are having problems with your network since you installed WINS, you can tweak the following registry entries to help improve performance.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NetBt\Parameters**Value Name:**NameSrvQueryCount**Data Type:**REG_DWORD**Value:**3
This value sets the number of times that NetBT queries the WINS server before receiving a response.

I-370Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NetBt\Parameters**Value Name:**Timeout**Data Type:**REG_DWORD**Value:**1500
This value is the time, in milliseconds, NetBT waits before sending the next query in a series of successive queries.

I-371Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NetBt\Parameters**Value Name:**SessionKeepAlive**Data Type:**REG_DWORD**Value:**3,600,000
This value is the interval, in milliseconds, that NetBT waits between sending keep-alive packets for a particular session.

I-372Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NetBt\Parameters**Value Name:**SizeSmall/Medium/Large**Data Type:**REG_DWORD**Value:**1
This value regulates the size of the name table, which stores local and remote names. Valid values are 1 = small (16 entries), 2 = medium (128 entries) and 3 = large (256 entries).

PPTP

You just installed PPTP and are afraid that you may have exposed your network to unwanted attacks. Well, no network is 100 percent secure, but these registry entries let you add a little more security to PPTP.

I-373Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\RasPPTPE\ Parameters\Configuration**Value Name:**AuthenticateIncomingCalls**Data Type:**REG_DWORD**Value:**1
I-374Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\RasPPTPE\ Parameters\Configuration**Value Name:**PeerClientIPAdresses**Data Type:**REG_MULTI_SZ**Value:**<valid IP addresses>
Using these two values, you can effectively control who can access your network via PPTP. If the AuthenticateIncomingCalls value is set to 0, only the clients whose IP addresses match values stored in the PeerClientIPAdresses value are allowed access. If the AuthenticateIncomingCalls value is enabled and no values are contained in the PeerClientIPAddress value, nobody can access your network via PPTP.

NWNBLINK

I-375 NWNBLink provides many extensions to the Novell NetBios protocol. If you use this protocol in a Microsoft-only shop, you can really speed things up with a few registry parameters.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWNBLink\ Parameters**Value Name:**Extensions**Data Type:**REG_DWORD**Value:**1
Changing this parameter tells NWNBLink to use the Microsoft extensions. If NWBLink is communicating with a client using standard Novell NetBIOS protocol, it falls back to the standard version in favor of the extended version.

I-376Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWNBLink\ Parameters**Value Name:**AckDelayTime**Data Type:**REG_DWORD**Value:**250
Windows NT uses this value, which is in milliseconds, when it sends a delayed acknowledgment. You can use this value in conjunction with the AckWindow value, below, to adjust the frequency at which Windows NT must acknowledge frames it is sent. The default value is 250 milliseconds; the value can range from 0 to 65535.

I-377Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWNBLink\ Parameters**Value Name:**AckWindow**Data Type:**REG_DWORD**Value:**2
This value controls the number of frames that are received before an acknowledgment is

sent. If you have two computers, one on a fast network and the other on a slow link, adjusting this value can increase throughput. Conversely, if both computers are on a fast link, you can turn off this function by setting the value to 0. You can also let Windows NT determine this value dynamically using the AckWindowThreshold value, below. The default value is 2 and represents the number of frames. The range is 0 to 65535.

I-378Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWNBLink\ Parameters**Value Name:**AckWindowThreshold**Data Type:**REG_DWORD: **Value:**500
This value, in milliseconds, dynamically determines whether it is necessary to send automatic acknowledgments. The determination is based on round-trip time. If this value is set to 0, the NWNBLink uses the AckWindows entry. The default is 500 milliseconds; the range is 0 to 65535.

I-379Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWNBLink\ Parameters**Value Name:**EnablePiggyBackAck**Data Type:**REG_DWORD**Value:**1
Enabling NWNBLink's ability to piggyback acknowledgments can increase your overall network performance if you participate in two-way NetBIOS traffic on your network. If you set this value to 1, NWNBLink can piggyback acknowledgments when it detects the end of a message. If this value is set to 0, NWNBLink waits the number of milliseconds set in the AckDelayTime before it sends an acknowledgment.

I-380Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWNBLink\ Parameters**Value Name:**RcvWindowMax**Data Type:**REG_DWORD**Value:**4
This value determines how many frames the receiver handles at one time. This value is generally set at session initialization to tell the sender the limit of frames it can send at a time. Altering this value can increase throughput and performance.

I-381 In addition to Microsoft extensions to NetBIOS, additional parameters can help improve network performance and work with either standard Novell NetBIOS or NWNBLink (Microsoft Extensions to Novell NetBIOS.) Here are a few of these parameters.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWNBLink\ Parameters**Value Name:**BroadcastTimeout**Data Type:**REG_DWORD**Value:**1
This value is the interval, in 500-millisecond increments, that Windows NT waits between sending find-name requests. Depending on the speed and congestion of your network, you may want to increase the value to decrease overall network broadcasts.

I-382Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWNBLink\ Parameters**Value Name:**BroadcastCount**Data Type:**REG_DWORD**Value:**3

Use this value to determine the number of times a particular broadcast is sent. Increasing this value could result in congested networks; however, certain slower links may require it.

I-383 **Hive:** HKEY_LOCAL_MACHINE **Key:** System\CurrentControlSet\Services\NWNBLink\ Parameters **Value Name:** Internet **Data Type:** REG_DWORD **Value:** 1
This value alters the behavior of broadcast packets the NWNBLink protocol sends. If the value is 1, NWNBLink uses Novell-style WAN broadcasts. If you are using the BroadcastCount or BroadcastTimeout registry values, you must set this parameter to 0.

I-384 The next two values determine how Windows NT handles connection probes. The initiator of a session sends connection probes when a remote connection to a machine fails. Adjust these parameters according to your network speed and congestion.

Hive: HKEY_LOCAL_MACHINE **Key:** System\CurrentControlSet\Services\NWNBLink\ Parameters **Value Name:** ConnectionCount **Data Type:** REG_DWORD **Value:** 5
This value sets the total number of times that Windows NT sends a connection probe. The default is 5; valid values range from 1 to 65,535.

I-385 **Hive:** HKEY_LOCAL_MACHINE **Key:** System\CurrentControlSet\Services\NWNBLink\ Parameters **Value Name:** ConnectionTimeout **Data Type:** REG_DWORD **Value:** 5
This value dictates how long Windows NT waits between sending connection probes. The default is five 500-millisecond intervals, or 2.5 seconds. Changing this parameter can affect overall network congestion.

I-386 **Hive:** HKEY_LOCAL_MACHINE **Key:** System\CurrentControlSet\Services\NWNBLink\ Parameters **Value Name:** InitialRetransmissionTime **Data Type:** REG_DWORD **Value:** 2
This value is used in conjunction with the RetransmitMax parameter, below. Changing this value can greatly reduce the amount of traffic on your network by delaying the interval that a sender waits before resending data. The default value (in 500-millisecond intervals) is 1; change it to 2 to reduce traffic.

I-387 **Hive:** HKEY_LOCAL_MACHINE **Key:** System\CurrentControlSet\Services\NWNBLink\ Parameters **Value Name:** RetransmitMax **Data Type:** REG_DWORD **Value:** 8
This value governs how many times a computer retransmits data before it treats the network path as a bad path. As you can imagine, a slow link requires more time than a faster one. You can tune this value accordingly.

I-388 If you have applications that use keep-alive packets, these two registry entries can give you some measure of control over how often NWNBLink sends this type of traffic

over your servers and workstations. Fine-tuning this parameter helps reduce network congestion. Using these two values in tandem really helps you control keep-alive traffic.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWNBLink\Parameters**Value Name:**KeepAliveCount**Data Type:**REG_DWORD**Value:**8
This value determines how many times a session-alive frame is sent before the initiator gives up on the receiving computer.

I-389Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWNBLink\Parameters**Value Name:**KeepAliveTimeout**Data Type:**REG_DWORD**Value:**60
This registry value is very important. It determines how often session-alive frames are sent. The value is the number of 500-millisecond blocks it waits before sending a new session-alive frame.

NWLINK

I-390 These registry parameters let you tweak IPX/SPX. One way to think of it is that you can use these entries to manipulate the actual network adapters that NWLink is bound to. If you are troubleshooting the network adapter running NWLink, this is the place to be.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWLink\NetConfig\ Driver01**Value Name:**MaxPktSize **Data Type:**REG_DWORD**Value:**0
This value controls the largest frame size that the network adapter allows. If the value is set to 0, NWLink obtains this value from the network it is running on. Otherwise, you may set a limit that the adapter doesn't support. This setup can be particularly useful if you are on a fast network and the station you are talking with is on a slower connection.

I-391Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWLink\NetConfig\ Driver01**Value Name:**NetworkNumber **Data Type:**REG_DWORD**Value:**0
If this value is set to 0, NWLink gets the value from the network it is currently running on. For those of you who were or are NetWare administrators, this value sets the internal IPX network number. The value is stored in hexadecimal and is 8 hex characters long; for example, AAAABEEF.

I-392 NWLink supports five different packet types. If you need to set the specific packet type for an adapter, this registry parameter lets you specify the packet types for each adapter.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWLink\NetConfig\ Driver01**Value Name:**PktType**Data Type:**REG_DWORD**Value:**3

Valid values are

0Ethernet II1Ethernet 802.32802.23SNAP4Arcnet
I-393 The next two values control the routing information protocol (RIP) as it pertains to NWLink. NWLink uses RIP primarily to keep a list of remote machine names that it can use for name resolution. The list can affect the speed at which your computer can locate other computers on the network.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWLink\NetConfig\ Driver01**Value Name:**RipAgeTime**Data Type:**REG_DWORD**Value:**0
This value determines how many minutes NWLink waits before requesting a RIP update for a particular entry. The value is reset when a valid RIP announcement is received.

I-394Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWLink\NetConfig\ Driver01**Value Name:**RipUsageTime**Data Type:**REG_DWORD**Value:**0
This value controls the length of time a current RIP cache entry is valid. Modifying this parameter with the RipAgeTime parameter lets you reduce your overall RIP-based traffic on a heavily congested network.

I-395 If you have many computers and routers on your LAN, you may want to consider source-routing with your NWLink protocol. NWLink has several registry entries that give you some control over how it uses source-routing. The following four values control the bulk of source-routing features.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWLink\NetConfig\ Driver01**Value Name:**SourceRouteBcast**Data Type:**REG_DWORD**Value:**0
If this value is 0, the broadcast is transmitted to the single-route broadcast. If the value is set to 1, the all-routes broadcast is used. This setting can make a huge difference in network overhead.

I-396Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWLink\NetConfig\ Driver01**Value Name:**SourceRouteDef**Data Type:**REG_DWORD**Value:**0
This value is very similar to the SourceRouteBcast value; it affects those broadcasts destined for machines that are not in the route table. If NWLink finds the computer in the route table, it uses that route; otherwise, if the value is 0, it uses the single-route broadcast. If the value is 1, NWLink uses the all-routes broadcast.

I-397Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWLink\NetConfig\ Driver01**Value Name:**SourceRouting**Data Type:**REG_DWORD**Value:**0
This value specifies whether source-routing should be used on a Token-Ring adapter. This value pertains only to Token-Ring adapters.

I-398Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWLink\ NetConfig\ Driver01**Value Name:**SourceRouteMcast**Data Type:**REG_DWORD**Value:**0
This value affects multicast addresses. If the value is 0, NWLink uses the single-route broadcast. If the value is 1, NWLink uses the all-routes broadcast.

I-399 These next seven values affect IPX/SPX globally. The values under the adapters section affect only a specific card; these values work for the whole NWLink transport.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWLink\Parameters**Value Name:**WindowSize**Data Type:**REG_DWORD**Value:**4
This value sets the number of packets the receiving node can receive at a time. The SPX protocol uses the allocation field of the SPX packet to inform remote nodes of the available window size. This value sets the allocation field in the SPX packet.

I-400 These next two values pertain to RIP on an IPX/SPX network. Altering these settings affects all adapters running NWLink.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWLink\Parameters**Value Name:**RipCount**Data Type:**REG_DWORD**Value:**5
This value determines how many times RIP tries to find a route on a network before it declares the route unusable. Depending on network traffic levels, adjusting this value can increase the likelihood that RIP finds routes.

I-401Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWLink\ Parameters**Value Name:**RipTimeout**Data Type:**REG_DWORD**Value:**1
This value works in conjunction with RipCount to determine in 500-millisecond intervals how long RIP waits between sending request packets for a particular route.

I-402Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWLink\ Parameters**Value Name:**ConnectionCount**Data Type:**REG_DWORD**Value:**10
This value determines how long NWLink tries to connect to a remote machine. If SPX does not get a response within the allotted number of tries, an error occurs. If you have a heavily congested network, tuning this parameter and the ConnectionTimeout parameter below may help you reduce connection timeouts.

I-403Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWLink\ Parameters**Value Name:**ConnectionTimeout**Data Type:**REG_DWORD**Value:**2
This value is how many 500-millisecond intervals NWLink waits between sending connection probes. A value of 2 represents 1 second. By increasing this value and decreasing the ConnectionTimeout value, you can reduce congestion and still maintain

your connections.

I-404Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWLnkSpx\Parameters**Value Name:**KeepAliveTimeout**Data Type:**REG_DWORD**Value:**12
This value is how many 500-millisecond intervals NWLink waits before sending a keep-alive packet to a remote station to verify that the SPX connection is still functioning.

I-405Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWLink\Parameters**Value Name:**KeepAliveCount**Data Type:**REG_DWORD**Value:**12
This value is the number of keep-alive status requests that are sent. If you have long-term connections that are often idle for much of their connect life, you may want to tweak these parameters accordingly.

REMOTE ACCESS SERVER (RAS)

I-406 If you share phone lines with voice or fax and need to change the number of rings RAS waits before it answers the phone, change this registry parameter.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\RasMan\Parameters**Value Name:**NumberOfRings**Data Type:**REG_DWORD**Value:**1 - 20; default is 1
If you try to set the value to a number greater than 20, the default value (1) is used. Restart RAS for this value to take effect. This registry entry only affects UNIMODEM devices.

I-407 From time to time it is necessary to exclude certain dial addresses from the service. Basically, changing this value lets you hide certain RAS addresses without deleting them. If your RAS dialer is set up to choose alternates when it encounters a busy signal, you can appreciate the convenience of this feature. To exclude an address, add it under the following registry value.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\RAS Autodial\Control**Value Name:**DisabledAddresses**Data Type:**REG_MULTI_SZ**Value:**<disabled addresses>
All addresses are case sensitive. This registry value is automatically created the first time you run AutoDial. After it is created, AutoDial does not modify it; you add the addresses you want to deactivate for the AutoDial service.

I-408 If you are experiencing a slight delay after you type your credentials in the "Connecting to" dialog box, you may have accumulated too many cached passwords. This registry entry lets you disable the caching feature.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\RasMan\Parameters

Add this value under the Parameters key:

Value Name: DisableSavePassword**Data Type:**REG_DWORD**Value:**1
Changing this value to 1 effectively clears all cached passwords and prevents RAS from caching any further phonebook entries. The default value is 0, which enables the password-caching feature. Restart your machine for these values to take effect.

I-409 Logging off closes all RAS connections. If you have a remote machine connected to your corporate LAN and multiple people use it, you might want to keep RAS connections open even when a person logs out. This registry entry keeps RAS connections even if you log out.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Windows NT\CurrentVersion\Winlogon
Add this value under the Winlogon key:

Value Name: KeepRasConnections**Data Type:**REG_SZ**Value:**1
Restart the RAS service for this change to take effect.

I-410 You can control the time your RAS server's modem waits before it calls back and authenticates a remote user. This registry entry lets you specify a value between 1 and 255 seconds.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\RasMan\PPP
Value Name: DefaultCallbackDelay**Data Type:**REG_DWORD**Value:**12
The default is 12 seconds. Restart RAS for these values to take effect.

I-411 Are your non-Windows NT and non-Windows 95 clients having trouble connecting to your Windows NT RAS server? If you told the NT server to use clear-text authentication, but you're still having trouble, try setting these registry parameters to help solve your problem.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\RasMan\PPP
Value Name: ForceEncryptedData**Data Type:**REG_DWORDValue: 0
I-412Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\RasMan\PPP**Value Name:**ForceEncryptedPassword**Data Type:**REG_DWORD**Value:**0
Restart Windows NT for these changes to take effect.

I-413 Do you want the "Logon Using Dialup Networking" checkbox in the logon screen to be checked by default? This registry entry tells Windows NT to use dialup networking for logon by default.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Windows NT\CurrentVersion\Winlogon**Value Name:**RASForce**Data Type:**REG_SZ**Value:**1

Restart Windows NT for these changes to take effect.

I-414 VanJacobsen (VJ) compression confuses some older dial-up clients. You can't disable VJ compression on the client, so use these entries to disable it on the server.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\RasMan\IPCP\ Parameters
Add the following value under the Parameters key:

Value Name: RequestVJCompression**Data Type:**REG_DWORD**Value:**0
I-415 You must also change this registry entry to disable VJ compression:

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\RasMan\IPCP\ Parameters**Value Name:**AcceptVJCompression**Data Type:**REG_DWORD**Value:**0
You must restart RAS for this change to take effect.

I-416 If you want to keep track of who is using your RAS server by having RAS write in the Event Log, change this entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\RasMan\ Parameters
Add the following value under the Parameters key:

Value Name: Logging**Data Type:**REG_DWORD**Value:**1
I-417 You recently established service with an ISP. The problem is, you can ping the LAN before you dial up your ISP, but not after. Modify these registry entries to fix this problem.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\RasMan\PPP\IPCP
Add the following value under the IPCP key:

Value Name: PriorityBasedOnSubnet**Data Type:**REG_DWORD**Value:**1
I-418Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\RasMan\ Parameters\PPP**Value Name:**Logging**Data Type:**REG_DWORD**Value:**1
This value controls the logging action of PPP events that the RAS server handles. A value of 1 enables logging and 0, the default, disables logging.

I-419 If you recently added Internet access to your LAN via the RAS server and can get out just fine but everything coming back stops at the default gateway machine, then change this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\RasArp\ Parameters

Add the following value under the Parameters key:

Value Name: DisableOtherSrcPackets**Data Type:**REG_DWORD**Value:**0
Now all your Internet data will make it back to the right machine.

I-420 Are you having problems with your dial-up connections? Are you getting more retries than you should? You may need to enable the FIFO buffer on your serial card (if you have one, and you should). In addition, you may want to lower the receive buffer. These registry entries let you govern the size of the FIFO buffer for both receiving and transmitting.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Serial:**Value Name:**ForceFifoEnable**Data Type:**REG_DWORD**Value:**1
Enable the FIFO buffer by setting this value to 1. Restart the machine and see if this helps. If you still experience problems, try reducing the value of the receive FIFO buffer to 4; if you still have problems, drop it to 1.

I-421Value Name: RxFIFO**Data Type:**REG_DWORD**Value:**4
This value governs the receive buffer.

I-422Value Name: TxFIFO**Data Type:**REG_DWORD**Value:**8
This value governs the transmittal buffer.

I-423 Have you noticed that your laptop seems to receive files when you're connected to the corporate Ethernet but chokes when you're connected at a lesser speed (i.e., on a 28.8 modem connection)? Try modifying this parameter.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\TCPIP\Parameters
Add the following value under the Parameters key:

Value Name: TcpWindowSize**Data Type:**REG_DWORD**Value:**8192
Generally, slower connections benefit from a higher value; however some RAS connections work better with the value set to around 2768. For maximum efficiency, this value should be an even multiple of the TCP maximum segment size.

ROUTING INFORMATION PROTOCOL (RIP)

I-424 Does your Windows NT reject host routes or default routes that are broadcast by RIP-enabled routers? These registry entries will fix you right up.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\IpRip\Parameters

Add the following value under the Parameters key:

Value Name: AcceptHostRoutes**Data Type:**REG_DWORD**Value:**1
The default value is 0. Reboot your machine for these changes to take effect.

I-425Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\IpRip\Parameters
Add the following value under the Parameters key:

Value Name: AcceptDefaultRoutes**Data Type:**REG_DWORD**Value:**1
The default value is 0. Reboot your machine for these changes to take effect.

I-426 Do you want to broadcast your default routes to other RIP-enabled routers in your network? Set this registry parameter to enable this function.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\IpRip\Parameters
Add the following value under the Parameters key:

Value Name: AnnounceDefaultRoutes**Data Type:**REG_DWORD**Value:**1
The default value is 0. Reboot your machine for these changes to take effect.

I-427 Do you want to broadcast your host routes to other RIP-enabled routers in your network? Set this registry parameter to enable this feature.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\IpRip\Parameters
Add the following value under the Parameters key:

Value Name: AnnounceHostRoutes**Data Type:**REG_DWORD**Value:**1
The default value is 0. Reboot your machine for these changes to take effect.

I-428 By default, any new route information or metric change automatically triggers a RIP update. Do you need to disable this feature? This registry entry shows you how.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\IpRip\Parameters
Add the following value under the Parameters key:

Value Name: EnableTriggeredUpdates**Data Type:**REG_DWORD**Value:**0
The default value is 1. Reboot your machine for these changes to take effect.

I-429 This value is used in conjunction with the EnableTriggeredUpdates registry entry; it sets the number of seconds between triggered updates.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\IpRip\Parameters
Add the following value under the Parameters key:

Value Name: MaxTriggeredUpdateFrequency**Data Type:**REG_DWORD**Value:**5
The default value is 5; valid values range from 1 to 86,400 seconds. Reboot your machine for these changes to take effect.

I-430 If you have a lot of dynamic routes created on your network, this registry entry may help you increase performance on your network. This value regulates when a route should be designated as a garbage route.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\IpRip\Parameters
Add the following value under the Parameters key:

Value Name: RouteTimeout**Data Type:**REG_DWORD**Value:**180
The default value is 180; valid values can range from 1 to 259,200 seconds. Reboot your machine for these changes to take effect.

I-431 Are garbage routes on your network not removed as quickly as you would like? This registry entry lets you set how often garbage routes are discarded.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\IpRip\Parameters
Add the following value under the Parameters key:

Value Name: GarbageTimeout**Data Type:**REG_DWORD**Value:**120
The default value is 120; valid values can range from 15 to 259,200 seconds (72 hours). Reboot your machine for these changes to take effect.

I-432 If you're trying to debug RIP problems, this registry entry lets you adjust the amount of information RIP records to the logging file.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\IpRip\Parameters
Add the following value under the Parameters key:

Value Name: LoggingLevel**Data Type:**REG_DWORD**Value:**1
The default value is 1. Valid values are

0No logging1Errors only2Errors and warnings3Errors, warnings, and informational messages
Restart your computer for these changes to take effect.

I-433 Are RIP announcements overloading your network? Do you want to silence periodic updates, yet still send triggered updates and receive all other RIP information? This registry entry suppresses periodic RIP announcements.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\IpRip\Parameters
Add the following value under the Parameters key:

Value Name: SilentRip**Data Type:**REG_DWORD**Value:**1
The default value is 0. Setting the value to 1 suppresses periodic RIP announcements. Restart your machine for changes to take effect.

I-434 If you still want to send periodic updates (updates that contain the entire routing table for a given multiprotocol router), but not as often, you can regulate the frequency of the periodic updates with this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\IpRip\Parameters
Add the following value under the Parameters key:

Value Name: UpdateFrequency**Data Type:**REG_DWORD**Value:**30
The default value is 30 seconds; valid values range from 15 to 86,400 seconds. Restart your MACHINE for these changes to take effect.

MOUSE

II-1 If you get an error message stating that the ring buffer of your mouse overflowed, you may want to increase the size of the ring buffer. Change this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Sermouse\Parameters**Value Name:**MouseDataQueSize**Data Type:**REG_DWORD**Value:**0x64
The default is 0x64; increase this value to increase the size of the buffer. Reboot for this change to take effect.

KEYBOARD

II-2 If you get an error message stating that the ring buffer of your keyboard overflowed, you might want to increase the size of the ring buffer. Change this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\KbdClass\Parameters**Value Name:**KeyboardDataQueSize**Data Type:**REG_DWORD**Value:**0x64
The default is 0x64; increase this value to increase the size of the buffer. Reboot for this change to take effect.

MODEMS

II-3 NT 4.0 uses the unimodem protocol to recognize modems. If you have an old modem that isn't unimodem-compliant and you want NT to use Modem.inf to set the parameters, change this entry.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\RAS\Protocols Add the following value under the Protocols key:

Value Name: EnableUnimodem**Data Type:**REG_DWORD**Value:**0
II-4 If you need to find the firmware revision on your hard drive without physically removing it, these registry entries show you how.

Hive:HKEY_LOCAL_MACHINE**Key:**Hardware\DeviceMap\SCSI\ScsiPort0\TargetId0\ LogicalUnitId0**Value Name:**Identifier**Data Type:**REG_SZ**Value:**Quantum Fireball_TM3 A6B
II-5Value Name: Type**Data Type:**REG_SZ**Value:**DiskPeripheral
These two entries control the first SCSI peripheral, or in this example, an IDE Quantum Fireball drive. Even though the Fireball is an IDE device, you can look at these keys to obtain the information. Note the Type value, which provides extra verification that you are indeed looking at the right peripheral.

II-6Hive:HKEY_LOCAL_MACHINE**Key:**Hardware\DeviceMap\SCSI\ScsiPort1\TargetId 0\ LogicalUnitId0**Value Name:**Identifier**Data Type:**REG_SZ**Value:**Toshiba CD-ROM XM-5702B 2826
II-7Value Name: Type**Data Type:**REG_SZ**Value:**CdRomPeripheral
These two entries control the second SCSI peripheral, or in this case, an IDE Toshiba 12 X CD-ROM. Again, note the Type value, which provides extra verification that you are indeed looking at the correct peripheral.

CPU

II-8 To see what kind of processor chip you are running on a remote computer, look in the registry. These entries give you information about the class of CPU the target machine is running. If you have more than one CPU, the CentralProcessor key has numbered subkeys (1, 2, 3).

Hive:HKEY_LOCAL_MACHINE**Key:**Hardware\Description\System\CentralProcessor\0
Value Name: Identifier**Data Type:**REG_SZ**Value:**x86 Family 6 Model 1 Stepping 7
This value gives you information about the specific CPU revision.

II-9Value Name: VendorIdentifier**Data Type:**REG_SZ**Value:**GenuineIntel
This value gives you the manufacturer of the CPU.

II-10Value Name:?MHz**Data Type:**REG_DWORD**Value:**0xc7
This value is the actual speed of the CPU. This example says my CPU is faster than 199 Mhz, which it is. I tested this on a 200 Mhz Pentium Pro.

NETWORK CARDS

Diamond Net Commander
II-11 If you have installed a Diamond Multimedia Net Commander ISDN adapter and are having problems, you may want to check these registry entries.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Diamond Multimedia\NetCommander\ncVector**Value Name:**Status**Data Type:**REG_SZ**Value:**In Service
If the Net Commander is functioning properly, the value for Status is In Service. If the value is anything else, the card is not functioning properly.

II-12 Problem: after installing the software necessary to run the Net Commander, the configuration screen pop ups every time you reboot. Modify the following registry entry to keep the screen from popping up.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Windows\CurrentVersion\Run**Value Name:**NetCmdrSetup**Data Type:**REG_SZ**Value:**
Delete anything in the Value field. Restart the machine for this change to take effect.

Digiboard
II-13 If RAS can't see all the ports on your Digiboard multiport serial I/O board, make sure the following registry value is set correctly.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Asyncmac\Parameters**Value Name:**Ports**Data Type:**REG_DWORD**Value:**<number of ports>
If you have eight ports available, this value should be 8. Restart the machine for these changes to take effect.

Iomega Zip Drive
II-14 You just bought an Iomega Zip Drive. From time to time you don't have it connected to your computer, which generates an error. To disable the message, change this entry; it stops the driver from reporting an error to the system log.

Hive:HKEY_LOCAL_MACHINE**Key:**System\Current\Controlset\Services\PPA3NT\Parameters

Add the following value under the Parameters key:

Value Name: ErrorControl**Data Type:**REG_DWORD**Value:**0

VIDEO CARDS

Diamond Fire GL
II-15 When using your Diamond Multimedia Fire GL card, you get this error in the Event Viewer: “Glint Error: VideoPortGetAccessRanges failed.” Try changing this registry entry to solve the problem.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Servies\Glint\Device0
Add the following value:

Value Name: UseBiosAddresses**Data Type:**REG_DWORD**Value:**1
Restart Windows NT for these values to take effect.

STB Virge Velocity 3D
II-16 To set the advanced parameters of your STB ViRGE Velcoity 3D Video Card under NT, change the parameters under the following registry key. Several parameters control these advanced settings.

Hive:HKEY_LOCAL_MACHINE**Key:**System\ControlSet\HardwareProfiles\1\System\ CurrentControlSet\Services\STBViRGE\Device0**Value Name:**DefaultSettings.BitsPerPel**Data Type:**REG_DWORD**Value:**0x18
II-17Value Name: DefaultSettings.Flags**Data Type:**REG_DWORD**Value:**0
II-18Value Name: DefaultSettings.VRefresh**Data Type:**REG_DWORD**Value:**0x4b
II-19Value Name: DefaultSettings.XPanning**Data Type:**REG_DWORD**Value:**0
II-20Value Name: DefaultSettings.XResolution**Data Type:**REG_DWORD**Value:**0x400
II-21Value Name: DefaultSettings.YPanning**Data Type:**REG_DWORD**Value:**0x0
II-22Value Name: DefaultSettings.YResolution**Data Type:**REG_DWORD**Value:**0x300
II-23 If you need to find the system’s refresh rate, check this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\ControlSet\Hardware Profiles\0001\System\ CurrentControlSet\Services\STBViRGE\Device0**Value Name:**Vrefresh**Data Type:**REG_DWORD**Value:**0x4b
This example value is the refresh rate for an STB ViRGE video card. You must find the appropriate key for your video card, for example, an ATI or Matrox. The value is stored in hexadecimal.

Matrox Millenium and Matrox Mystique
If you invested in a top-flight video card, you deserve to get the most out of it. These registry settings let you maximize the performance of your Matrox video cards, both the Millenium and the Mystique models.

II-
24Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\mga64\Device0
Device0 refers to the first video card installed on your system.

Value Name: User.AlternateLines**Data Type:**REG_BINARY**Value:**0
When set to 1, this value enables the faster AUTOLINE opcode of the drawing engine to draw lines defined by integer coordinates. The convention that determines which pixels contribute to a given line is slightly different in AUTOLINE and in Windows NT. Setting AlternateLines to 1 trades off compliance with the Windows NT conventions for performance. A value of 0 enforces compliance. Lines defined by non-integer endpoint coordinates are not affected by this setting.

11-
25Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\mga64\Device0**Value Name:**User.ComplexBlt**Data Type:**REG_BINARY**Value:**1
Device0 in the key refers to the first video card installed on your system. When set to 1, this value lets your video card hardware accelerate some complex Raster OPerations (ROPs) by executing a sequence of simple ROPs (ORing, ANDing, etc.) on the display. Artifacts in the target display area may flash because an intermediate result, which will be replaced by the final image on the next cycle, is displayed in video RAM on a given refresh cycle. A value of 0 for the entry means that complex ROPs are performed in software.

II-
26Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\mga64\Device0**Value Name:**User.DeviceBitmaps**Data Type:**REG_BINARY**Value:**1
Device0 in the key refers to the first video card installed on your system. Setting this value to 1 lets the hardware accelerate drawing bitmaps by using off-screen memory for caching them. A value of 0 disables bitmap caching and lets the CPU draw onto all bitmaps. Bitmap caching is internally disabled when a desktop requiring more than one card is in use, regardless of the registry setting.

II-
27Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\mga64\Device0**Value Name:**User.EnableUSWC**Data Type:**REG_BINARY**Value:**1
Device0 refers to the first video card installed on your system. When set to 1, the value lets the frame buffer directly access the write-combining feature of the Pentium Pro processor. Setting this value to 0 may result in slightly slower performance.

II-
28Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\mga64\Device0**Value Name:**User.MgaInfoFile**Data Type:**REG_BINARY**Value:**1
Device0 refers to the first video card installed on your system. When set to 1, this value lets the MGA PowerDesk software control refresh rates. A value of 0 allows all available

refresh rates to be listed.

II-29Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\mga64\Device0**Value Name:**User.SynchronizeDac**Data Type:**REG_BINARY**Value:**0
Device0 refers to the first video card installed on your system. When set to 1, this value requests the driver to wait for a vertical sync before programming the ramdac with a new pointer shape or a new palette. If you notice stray pixels flashing around the pointer, setting this value to 1 might fix the problem. Setting it to 0 gives you slightly better performance.

II-30Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\mga64\Device0**Value Name:**User.SynchronizeEngine**Data Type:**REG_BINARY**Value:**0
Device0 refers to the first video card installed on your system. When set to 1, this value requires the driver to wait until the Millennium hardware is ready to accept new data before programming the next operation. Setting it to 0 results in better performance. On most x86-based systems, the PCI logic should ensure that such a check is redundant. If you're experiencing problems that might be related to timing (with communication programs, for instance), setting this value to 1 may help.

II-31Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\mga64\Device0**Value Name:**User3D.DoubleBuffer**Data Type:**REG_BINARY**Value:**1
Device0 refers to the first video card installed on your system. When set to 1, this value requires the Matrox Millennium or Mystique memory to allocate a back buffer. Set this value to 0 if you don't require a back buffer. Set this value to 1 to fully accelerate 3D animation.

II-32Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\mga64\Device0**Value Name:**User3D.Zbuffer**Data Type:**REG_BINARY**Value:**1
Device0 refers to the first video card installed on your system. When set to 1, this value requires the Matrox Millennium or Mystique memory to allocate a Z buffer. Set it to 0 if you don't require a Z buffer. To accelerate your 3D rendering, set this value to 1. Setting this value and the User3D.DoubleBuffer to 0 effectively disables any 3D hardware acceleration.

MGA Powerdesk
These registry entries let you tweak the features and performance of the PowerDesk software that ships with the Matrox Millenium and Mystique cards.

II-33Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MGACtrl\PowerDesk**Value Name:**PowerDeskPath**Data Type:**REG_SZ**Value:**C:\Program

Files\MGA NT PowerDesk
This value sets the path to the configuration files for the Matrox PowerDesk configuration software. For example, to find out where the monitor configuration files are, look here for the path, then look in the MON subdirectory located under this path.

II-34 **Hive:** HKEY_LOCAL_MACHINE **Key:** System\CurrentControlSet\Services\MGACtrl\PowerDesk\ CurrentSettings **Value Name:** BitsperPixel **Data Type:** REG_DWORD **Value:** 08h
This value sets the number of colors that the card is currently configured to display in bits per pixel (bpp). Valid values are 08h (8 bpp, or 256 colors); 0Fh (15 bpp, or 32 K colors), 10h (16bpp, or 64 K colors), 18h (24 bpp, or 16,777,216 colors), and 20h (32bpp, or true color).

II-35 The next two settings determine the resolution (in pixels) of your desktop area, which includes your entire Windows workspace.

Hive: HKEY_LOCAL_MACHINE **Key:** System\CurrentControlSet\Services\MGACtrl\PowerDesk\ CurrentSettings **Value Name:** Mga.DesktopX **Data Type:** REG_DWORD **Value:** 0x400

II-36 **Hive:** HKEY_LOCAL_MACHINE **Key:** System\CurrentControlSet\Services\MGACtrl\PowerDesk\ CurrentSettings **Value Name:** Mga.DesktopY **Data Type:** REG_DWORD **Value:** 0x300
Your Windows workspace consists of everything you see on-screen and in the off-screen area when you're using a "virtual desktop." (You use a virtual desktop, or viewport, when your desktop area is larger than your display area.)

II-37 These two settings govern the resolution (in pixels) of your display area.

Hive: HKEY_LOCAL_MACHINE **Key:** System\CurrentControlSet\Services\MGACtrl\PowerDesk\ CurrentSettings **Value Name:** Mga.DesktopX **Data Type:** REG_DWORD **Value:** 0x400

II-38 **Hive:** HKEY_LOCAL_MACHINE **Key:** System\CurrentControlSet\Services\MGACtrl\PowerDesk\ CurrentSettings **Value Name:** Mga.DesktopY **Data Type:** REG_DWORD **Value:** 0x300
Your display area is your on-screen workspace, or the actual resolution that the video card sets your monitor to. Generally, these settings are set to the same values as your Desktop settings, though these values can be set smaller than the desktop values to create a viewport into your desktop.

CD-ROM

II-39 Sometimes when running NT 4.0, you get frequent Event Viewer messages specifying an ATAPI source error, Event #9: “The device \device\scsiport0 did not respond within the timeout period.” You can tell Windows NT to stop polling the CD-ROM for disk changes by changing the following registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\CdRom**Value Name:**Autorun**Data Type:**REG_DWORD**Value:**0

SCSI CONTROLLERS

II-40 You recently decided to add a SCSI CD-ROM to your system, and you add a 1522 just for the CD-ROM. You boot NT and it hangs after trying to boot from the 1522. How can you dictate the boot process? This registry entry does the trick.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\SCSI_CONTROLLER_NAME**Value Name:**Tag **Data Type:**REG_DWORD**Value:**
You’ll need the value from the new SCSI controller and from the original controller. If you swap these values, your system should boot from the original controller.

II-41 If you use the Sparrow.sys driver for your SCSI adapter, you may have noticed that by default it is assigned IRQ 11 and this assignment seems to be hardcoded. Do not despair. This registry entry lets you override the hardcoded IRQ 11 and change it to anything you want.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Sparrow
Add the following key under the Sparrow key.

Key: Parameters
Now that you have the Parameters key, you need to add another subkey: Device(n). The n is the device number you are changing the IRQ for. If you only have one adapter, it is Device0.

Key: Device0
Next, you need to add the actual value that lets you change the IRQ settings:

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Sparrow\Parameters\ Device0**Value Name:**DriverParameter**Data Type:**REG_SZ**Value:**IRQ=12 (or any other valid IRQ setting)
You must reboot the machine for this change to take effect.

II-42 To increase the throughput of your SCSI adapter, try changing this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**CurrentControlSet\Services\aic78xx
Add the following key under the aic78xx key:

Key: Parameters
Now add an additional subkey:

Key: Device
Now we are ready to change the value that improves throughput.

Hive:HKEY_LOCAL_MACHINE**Key:**CurrentControlSet\Services\aic78xx\Parameters\Device**Value Name:**MaximumSGList **Data Type:**REG_DWORD**Value:**0xFF
This change works with Adaptec cards and may work with other SCSI adapters, too. As always, make sure you've backed up your registry before proceeding.

SOUND

II-43 You just applied the Windows NT 4.0 upgrade and now your audio doesn't work. Try this registry modification to fix it.

Hive:HKEY_CURRENT_USER**Key:**Control Panel\Sound
Make sure the following value exists.

Value Name: Beep**Data Type:**REG_SZ**Value:**yes
Reboot the system for these changes to take effect

II-44 Your sound card locks up any time you play a .wav file. The only solution is to restart the computer. Try this registry parameter to help solve the problem.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\GraphicsDrivers
Add the following key under the GraphicsDrivers Key:

Key: DisableUSWC
You don't need to specify anything else. By adding this key, you tell Windows NT not to use Uncache Speculative Write Combining on the video cards. Reboot the machine for this change to take effect.

HP DESKSCAN II 2.3

II-45 You upgraded to HP DeskScan II 2.3 from version 2.1 or older, and the program doesn't run. Changing the following registry entries should solve your problem.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services
Add the following Key and the next two values:

Key: Aspi32**Value Name:**ErrorControl**Data Type:**REG_DWORD**Value:**1

Value Name: Start**Data Type**REG_DWORD**Value:**2
Value Name: Type**Data Type:**REG_DWORD**Value:**1
II-46 This entry is the second part of installing the new DeskScan II 2.3 software.

Hive:HKEY_CURRENT_USER**Key:**Control Panel\Mmcpl
Add the following value under the Mmcpl key:

Value Name:HP_Scanjet**Data Type:**REG_SZ**Value:**%systemroot%\system\hpscnmgr.dll
Reboot your system for these changes to take effect. Windows NT now runs the correct driver.
Abstract
This chapter contains registry entries for all types of software, from Microsoft SQL Server to Netscape to Windows NT system information. In this chapter, you can find the details of customizing software for your particular users' needs. You will also find information that lets you troubleshoot problems that typically occur in a day-to-day IT environment.

SMS 1.2

III-1 When SMS creates a package for distribution, it first compresses all the files in the package and then sends the package to the site server. The site server expands the compressed package into a Temp directory. By default, SMS creates the Temp directory on the biggest drive with at least 100 megabytes of available space. Changing this registry value lets you specify which drive SMS uses as the preferred drive. If the minimum conditions aren’t met (100 MB and NTFS), SMS searches for a more suitable drive.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SMS\Components\SMS_DESPOOLER**Value Name:**PreferredDriveForTempDirectory**Data Type:**REG_SZ**Value:**< valid drive letter >
Restart the machine for these values to take effect.

III-2 SMS needs a directory to copy the decompressed package to. By default, it looks at the drive that contains the SMS_SHR and determines whether that drive has at least 100 MB of free space. If it does, SMS creates the SMS_PKGx directory there. SMS by default uses the NTFS volume with the most free space. To change the minimum drive space required for this process, change the following registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SMS\Components\SMS_DESPOOLER**Value Name:**SMSDriveMinimumFreeSpaceinMBytes**Data Type:**REG_DWORD**Value:**0x64
The value is in hexadecimal. Restart the machine for these values to take effect.

III-3 Your most effective tools for troubleshooting SMS performance problems are the

different service logs. These registry entries let you maximize the amount of logging SMS performs. By analyzing these logs, you can get a pretty good picture of where the SMS bottlenecks are on your system.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SMS\Tracing**Value Name:**SQLEnabled**Data Type:**REG_DWORD**Value:**1
This value enables SMS to log its interactions with SQL Server. Restart the SMS Executive for this change to take effect.

III-4Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SMS\Tracing**Value Name:**Enabled**Data Type:**REG_DWORD**Value:**1
This value enables SMS logging. When this value is set to 1, SMS logs the results for all SMS services. Setting this value to 0 disables logging. Restart the SMS Executive for this change to take effect.

III-5 SMS stores individual packages in compressed form before it ships them for distribution. This entry gives you the location of important information about these packages. This information is incredibly useful when debugging site distribution problems.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SMS\Components\SMS_DESPOOLER\ MasterPackages**Key:**< Package Name >
SMS creates a key for each package. This key stays in the registry of the site server until the package is removed from the site server. See III-19 for more about SMS packages.

III-6Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SMS\Components\SMS_DESPOOLER\ MasterPackages**Value Name:**FileName**Data Type:**REG_DWORD**Value:**< fully qualified path to the compressed package file >
This value is the location where the compressed file for each job is stored; along with the directory, the value includes the filename in the format of JobID.wks. An example value is \\Machine_Name\SMS_SHRD\site.srv\ despoolr.box\store\< JobID >.wks.

III-7 To change the number of inventory attempts SMS tries before rolling the client into another domain, change this registry value.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SMS\Components\SMS_MAINTENANCE_MANAGER**Value Name:**Inventory False Logon Limit**Data Type:**REG_DWORD**Value:**3
A common use for this value is when you upgrade SMS versions. If you inadvertently change the site code or site name, you can see problems. Reducing this value lets the clients roll over into the new domain faster. In effect, you are moving them from the old site to a new site.

III-8Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SMS\Components\SMS_D

ESPOOLER\ CancelHistory**Key:**< PackageName >
When SMS cancels a job, it creates a key for each job under the CancelHistory key. The only value stored under these keys is the time stamp for when the job was canceled.

III-
9Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SMS\Components\SMS_D ESPOOLER\ TransferPackages**Key:**< Package Name >
If you choose a server other than the site server to distribute a package, a key is created for each job under the Transfer Packages key. Under this key, you find a key for each server that has been designated to distribute the package.

III-
10Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SMS\Components\SMS_D ESPOOLER\ TransferPackages**Value Name:**< Machine Name >
This key stores information about the package.

III-
11Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SMS\Components\SMS_D ESPOOLER\ TransferPackages\< Machine Name >**Value Name:**ShareName**Data Type:**REG_SZ**Value:**< any valid share name >
This value determines where on the distribution server the site server copies the decompressed package files. The share is in the format SMS_PKGx, where x is a letter; for example, SMS_PKGD.

III-12 This registry entry stores the name of the default servers that distribute SMS packages. This information is useful if certain servers are used as package servers when you do not want them performing this function.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SMS\Components\SMS_DE SPOOLER**Value Name:**DefaultPackageServers**Data Type:**REG_MULTI_SZ**Value:**< Machine Name >
You must restart the SMS services for these changes to take effect.

III-13 Each of these values sets different aspects of SMS connections.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SMS\Components\SMS_DE SPOOLER**Value Name:**ForcedDisconnectionDelayInMinutes**Data Type:**REG_DWORD**Value:**0x5
III-
14Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SMS\Components\SMS_D ESPOOLER**Value Name:**NumberofRetriesBeforeForcedDisconnection**Data Type:**REG_DWORD**Value:**0xc
III-
15Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SMS\Components\SMS_D ESPOOLER**Value Name:**UseForcedDisconnect**Data Type:**REG_DWORD**Value:**0

III-16Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SMS\Components\SMS_DESPOOLER**Value Name:**PollingInterval**Data Type:**REG_DWORD**Value:**0x1
III-17Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SMS\Components\SMS_DESPOOLER**Value Name:**InventoryChange**Data Type:**REG_DWORD**Value:**0
III-18 This registry entry stores a key for each SMS job that was canceled. If you can't track the status of a particular job, be sure that it doesn't have a corresponding key under the CancelHistory key.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SMS\Components\SMS_DESPOOLER\ CancelHistory\NTL001
In this example, NTL001 is a valid name for an SMS job. You need to know the name of the specific SMS job you want to track.

Value Name: TimeStamp**Data Type:**REG_DWORD**Value:**< the time at which the job was canceled; for example, 0x33166b0a >
SMS creates a key for each job that is canceled. You can decipher the time stamp if you want, but the presence of a key means a job was canceled.

III-19 This registry entry stores a key for each SMS Master package. This information lets you see different packages that have been created over time.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SMS\Components\SMS_DESPOOLER\ MasterPackages\W_NTL00001
In this example, W_NTL00001 is a valid name for an SMS package. You need to know the name of the specific SMS package you want to track.

Value Name: TimeStamp**Data Type:**REG_DWORD**Value:**< the time at which the job was canceled; for example, 0x33166b0a >
SMS creates a key for each job that is canceled. You can decipher the time stamp if you want, but the presence of a key means a job was canceled.

PCANYWHERE32

III-20 Are you having either of these problems getting Windows NT to work with your PCAnywhere 7.0 client?

- After you install the software, the Novell logon dialog box does not appear before users log on.
- You get the message "Novell NetWare Client for Windows NT has detected another 3rd party GINA authenticator installed. Do you want to replace it with Novell NetWare Client for Windows NT GINA authenticator?"

These registry entries fix the problem. You add two keys and a value — and be sure to add them in the correct order.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Symantec\pcANYWHERE
Add a 7.0 key after the pcANYWHERE key.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Symantec\pcANYWHERE\7.0
Add the System key after the 7.0 key.

III-21Hive:HKEY_LOCAL_MACHINE**Key:**Software\Symantec\pcANYWHERE\7.0\System**Value Name:**GinaDLL**Data Type:**REG_SZ**Value:**Nwgina.dll

SCHEDULE PLUS 7.0A

III-22 To run your current Schedule Plus configuration in workgroup mode, change this registry entry.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Schedule+\Application**Value Name:**MailDisabled**Data Type:**REG_DWORD**Value:**0
Setting this value to 0 pops up a dialog box asking if you want to run Schedule Plus in workgroup mode. Exit Schedule Plus before changing this value.

III-23 To find out where your critical Schedule Plus files are stored, check these two registry entries, which point you to their locations.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Schedule+\Application**Value Name:**LocalPath**Data Type:**REG_SZ**Value:**< drive:pathname\username.scd >
This value is the fully qualified path to your current Schedule Plus data file. Changing this value causes Schedule Plus to use data in the file contained in this value.

III-24Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Schedule+\Application**Value Name:**ArchiveFile**Data Type:**REG_SZ**Value:**< drive:pathname\ARCHIVEmmyy.scd >
This value sets the fully qualified path to the current archive file. It is in the format ARCHIVEmmyy.SCD, where mm is the numeric representation of the month the data was archived and yy is the year.

EXCHANGE INFORMATION STORE

III-25 Do you need to tighten security on your Exchange Server? It is possible to force Exchange to assign specific TCP/IP ports to RPCs that access the directory or information store. By default, Exchange assigns ports randomly. To use a packet filter and force

Exchange to use a specific port, change this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\ServicesMSExchange DS\ Parameters
Add the following values under the parameters key:

Value Name:TCP/IP Port**Data Type:**REG_DWORD**Value:**< your port number >
This change forces Exchange to use whatever port number you assign for access to the Directory Store.

III-26Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\ServicesMSExchangeIS\ Parameters
Add the following values under the parameters key:

Value Name:TCP/IP Port**Data Type:**REG_DWORD**Value:**< your port number >
This change forces Exchange to use whatever port number you assign for access to the Information Store. Restart Exchange for either of these changes to take effect.

III-27 Do you need to disable the circular logging Exchange Server 4.0 performs? If you have lots of disk and want to keep your logs for a longer time, use this registry entry to disable circular logging. You can disable circular logging for both the Directory Store and the Information Store.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\ServicesMSExchange DS\ Parameters
Add the following values under the parameters key:

Value Name: Circular Logging **Data Type:**REG_DWORD**Value:**0
This change disables circular logging for the Directory Store.

III-28Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\ServicesMSExchangeIS\ Parameters
Add the following values under the parameters key:

Value Name: Circular Logging**Data Type:**REG_DWORD**Value:**0
This change disables circular logging for the Information Store. Restart the Exchange server for either of these changes to take effect.

III-29 If you need to find out where Exchange stores its files (information that's very useful for moving files remotely or archiving files), the following registry values point you to the pertinent locations.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSExchange DS\ Parameters**Value Name:**Database Log Files Path**Data Type:**REG_SZ**Value:**< fully qualified path >
This value is where Exchange stores the log files for the Data Store.

III-30Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSExchangeDS\ Parameters**Value Name:**DSA Database File**Data Type:**REG_SZ**Value:**< fully qualified path\dir.edb >
This value is where Exchange stores the database file for the DSA (Directory Service Agent).

III-31Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSExchangeDS\ Parameters**Value Name:**DSA Hierarchy Table File**Data Type:**REG_SZ**Value:**< fully qualified path\hierarch.dat >
This value is where Exchange stores the hierarchy table file for the DSA.

III-32Hive:HKEY_LOCAL_MACHIN**Key:**System\CurrentControlSet\Services\MSExchangeDS\ Parameters**Value Name:**DSA Temporary File**Data Type:**REG_SZ**Value:**< fully qualified path\temp.edb >
This value is name of the temporary work file where Exchange stores the DSA.

III-33Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSExchangeDS\ Parameters**Value Name:**DSA Working Directory**Data Type:**REG_SZ**Value:**< fully qualified path >
This value is the directory where Exchange stores the temporary work file or files for the DSA.

III-34Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSExchangeDS\ ParametersPublic**Value Name:**DB Path**Data Type:**REG_SZ**Value:**< fully qualified path\PUB.EDB >
This value is where Exchange stores the Information Store (IS) database file.

III-35Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSExchangeIS\ ParametersSystem**Value Name:**DB Log Path**Data Type:**REG_SZ**Value:**< fully qualified path >
This value is the directory where Exchange stores the system log files.

III-36Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSExchan

geIS\ ParametersSystem**Value Name:**POP3 Protocol Log Path**Data Type:**REG_SZ**Value:**< fully qualified path >

This value is where Exchange stores the log files that are created during a POP3 transaction.

III-37Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSExchangeIS\ ParametersSystem**Value Name:**Working Directory**Data Type:**REG_SZ**Value:**< fully qualified path >
This value is the working system directory for Exchange.

III-38Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSExchangeIS\ ParametersPrivate**Value Name:**DB Path**Data Type:**REG_SZ**Value:**< fully qualified path\priv.edb >
This value is the location of the database for the Exchange private store.

NOVELL NETWARE

You can enable your Windows NT client to log on to your Novell server unattended. If you do, your server is no longer secure; however, you can do it. Change these entries to give the Novell client a default server, user name, and password to use for unattended logon.

III-39Hive:HKEY_LOCAL_MACHINE**Key:**Software\Novell\NWGINA\Login Screen
Add the following value under the Parameters key:

Value Name: DefaultNetwareUserName**Data Type:**REG_SZ**Value:**< username >
III-40Hive:HKEY_LOCAL_MACHINE**Key:**Software\Novell\NWGINA\Login Screen
Add the following value under the Parameters key:

Value Name: DefaultNetwarePassword**Data Type:**REG_SZ**Value:**< user password >
III-41Hive:HKEY_LOCAL_MACHINE**Key:**Software\Novell\NWGINA\Login Screen
Add the following value under the Parameters key:

Value Name: DefaultNDSContext**Data Type:**REG_SZ**Value:**< NDS context >
III-42Hive:HKEY_LOCAL_MACHINE**Key:**Software\Novell\NWGINA\Login Screen
Add the following value under the Parameters key:

Value Name: DefaultNDSServer**Data Type:**REG_SZ**Value:**< server name >
III-43Hive:HKEY_LOCAL_MACHINE**Key:**Software\Novell\NWGINA\Login Screen
Add the following value under the Parameters key:

Value Name: DefaultNDSTree**Data Type:**REG_SZ**Value:**< tree name >
III-44Hive:HKEY_LOCAL_MACHINE**Key:**Software\Novell\NWGINA\Login Screen
Add the following value under the Parameters key:

Value Name: NetwareAutoAdminLogon**Data Type:**REG_SZ**Value:**1

NETSCAPE 3.0

III-45 If you want to fiddle with the Netscape Navigator bookmark file or address book, these registry entries show you where the values are stored.

Hive:HKEY_CURRENT_USER**Key:**Software\Netscape\Netscape Navigator\Bookmark List**Value Name:**File Location**Data Type:**REG_SZ**Value:**< fully qualified path and file name >
III-46Value Name: Add URLs Under**Data Type:**REG_SZ**Value:**Top Level Listing
III-47Value Name: Start Menu With**Data Type:**REG_SZ**Value:**Entire Listing
III-48Hive:HKEY_CURRENT_USER**Key:**Software\Netscape\Netscape Navigator\Address Book**Value Name:**File Location**Data Type:**REG_SZ**Value:**< fully qualified path and file name >
You can change the names of these files or verify that a particular registry entry points to the correct files. This information is very useful in debugging missing bookmarks and address books or creating a common set of bookmarks and address books to distribute.

III-49 If Netscape Navigator's caching feature doesn't work properly, be sure these registry entries refer to the correct directory for caching and match the settings displayed on the navigator administration screens.

Hive:HKEY_CURRENT_USER**Key:**Software\Netscape\Netscape Navigator\Cache**Value Name:**Cache Dir**Data Type:**REG_SZ**Value:**< fully qualified path and file name >
This value is the directory where Navigator stores cached images and files.

III-50Value Name: Disk Cache Size**Data Type:**REG_SZ**Value:**0x00001388 (5000)
This value shows how much disk space Navigator can use to store cached information.

III-51Value Name: Disk Cache SSL**Data Type:**REG_SZ**Value:**No
This value determines whether Navigator caches Secure Socket Layer (SSL) pages.

III-52Value Name: Disk Cache Size**Data Type:**REG_SZ**Value:**0x00000400 (1024)
This value determines how much memory Navigator uses to keep objects cached.

CITRIX WINFRAME

III-53 If your Winframe server runs certain applications slowly, don't fret. WinFrame is

actually trying to do you a favor — it spots bad software and tries to reduce the resources it allocates to these bad applications. To modify this feature, change these registry entries.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\CITRIX\Compatibility\Applications
Add a key under the Applications key with the name of your applications.

Key:< myapp >
Add the following values under the key you just created (whatever you called your myapp key).

Value Name: FirstCountMsgQPeeksSleepBadApp**Data Type:**REG_DWORD**Value:**0xf
III-54Value Name: Flags**Data Type:**REG_DWORD**Value:**0xc
III-55Value Name: MsgQBadAppSleepTimeInMillisec**Data Type:**REG_DWORD**Value:**3
III-56Value Name: NthCountMsgQPeeksSleepBadApp**Data Type:**REG_DWORD**Value:**0x5
Restart the machine for these changes to take effect.

RIGHTFAX

III-57 If your client gets an RPC error message when using RightFax, you need to make sure that both the client and the server machines are using the same maximum IPX packet size. This registry entry lets you set the size.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWLinkIPX\NetConfig\<adapter name >**Value Name:**MaxPktSize**Data Type:**REG_DWORD**Value:**0
If the value is not present or the data is set to 0, it is up to the network adapter to set the MaxPktSize. You need to consult your user manual for your specific network card.

III-58 To test RightFax without installing a fax card, try this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\RightFAX\BoardServer**Value Name:**Fakeboards**Data Type:**REG_DWORD**Value:**1
Now you can simulate fax operations without having any hardware installed.

III-59 To change the separator value for an e-mail or fax address, use the following registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\RightFAX\Gateway**Value Name:**Separator**Data Type:**REG_SZ**Value:**< any character >
Restart the gateway for this value to take effect.

HOTSYNC 1.1

Are you having problems updating from HotSync 1.0 to 1.1? You may need to delete these registry keys for the new version to install properly.

III-60Hive:HKEY_CURRENT_USER**Key:**Software\Palm Computing\Pilot Desktop\Component0
III-61Hive:HKEY_CURRENT_USER**Key:**Software\Palm Computing\Pilot Desktop\Component1
III-62Hive:HKEY_CURRENT_USER**Key:**Software\Palm Computing\Pilot Desktop\Component2
III-63Hive:HKEY_CURRENT_USER**Key:**Software\Palm Computing\Pilot Desktop\Component3
III-64Hive:HKEY_CURRENT_USER**Key:**Software\Palm Computing\Pilot Desktop\HotSync
After deleting these keys, install the new version of HotSync.

MICROSOFT INDEX SERVER

III-65Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\ContentIndex**Value Name:**FilterContents**Data Type:**REG_SZ**Value:**0x1
This value determines whether Microsoft Index Server filters both the contents and properties of a file or only the properties of the file. A value of 0 specifies that the contents are not filtered. Otherwise, the contents and properties are both filtered.

III-66Value Name: DaemonResponseTimeout**Data Type:**REG_SZ**Value:**0x5
This value specifies, in minutes, a period during which the CiDaemon process should provide an appropriate response. The CiDaemon might time out by trying to index a corrupt file.

III-67Value Name: FilterDirectories**Data Type:**REG_DWORD**Value:**0x0
This value identifies whether Index Server filters directories for system properties and displays them in query results. When this value is not 0, directories are filtered.

III-68Value Name: FilterFilesWithUnknownExtensions**Data Type:**REG_DWORD**Value:**0x1
This value identifies whether Index Server filters files with extensions that have not been registered. When this value is set to 0, only registered file types are filtered.

III-69Value Name: FilterRetries**Data Type:**REG_DWORD**Value:**0x4
This value identifies the maximum number of times Index Server tries to filter a file if the initial attempt to filter the file fails.

III-70Value Name: ForcedNetPathScanInterval **Data Type:**REG_DWORD**Value:**0x78
This value identifies the time, in minutes, between forced scans on directories with no notifications.

III-71Value Name: GenerateCharacterization**Data Type:**REG_DWORD**Value:**0x1
This value controls the automatic generation of file characterizations (abstracts).

III-72Value Name: GrovelIISRegistry**Data Type:**REG_DWORD**Value:**0x1
This value controls whether Index Server automatically indexes all virtual roots within Internet Information Server.

III-73Value Name: IsapiDefaultCatalogDirectory**Data Type:**REG_SZ**Value:**c:\bo
This value identifies the default directory that contains the content index catalog.

III-74Value Name: IsapiMaxEntriesInQueryCache**Data Type:**REG_DWORD**Value:**0xa
This value identifies the maximum number of cached queries.

III-75Value Name: IsapiMaxRecordsInResultSet**Data Type:**REG_DWORD**Value:**0x1388
This value identifies the maximum number of rows to fetch for a single query.

III-76Value Name: IsapiMaxRecordsPerGetRows**Data Type:**REG_DWORD**Value:**0xa
This value identifies the maximum number of rows that are returned in a single fetch (get) operation. You can combine multiple fetches to make up a result set.

III-77Value Name: IsapiQueryCachePurgeInterval**Data Type:**REG_DWORD**Value:**0x5
This value identifies the time interval during which a query cache item remains active.

III-78Value Name: IsapiRequestQueueSize**Data Type:**REG_DWORD**Value:**0x18
This value identifies the maximum number of Web query requests to queue during periods of high server activity.

III-79Value Name: IsapiRequestThresholdFactor**Data Type:**REG_DWORD**Value:**0x5
This value specifies a number of threads per processor; when processors reach this threshold, remaining query requests are queued.

III-80Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\ ContentIndexIsapiVirtualServerCatalogs**Value Name:**< No Name >**Data Type:**REG_SZ**Value:**c:\bo
Each key in this section associates a virtual server with a specific catalog. The key name is the IP address of the virtual server (NULL is used for the default server), and the value is the location of the catalog as you would enter it in the CiCatalog parameter of an .idq file.

III-81Value Name: MasterMergeCheckpointInterval**Data Type:**REG_DWORD**Value:**0x100

This value identifies the interval at which Index Server conducts checkpoints during master merges. This parameter determines how often data is written to the new master index and is critical when a master merge is paused and restarted.

III-82Value Name: MasterMergeTime**Data Type:**REG_DWORD**Value:**0x0
This value specifies when a master merge occurs. This value is the number of minutes after midnight.

III-83Value Name: MaxActiveQueryThreads**Data Type:**REG_DWORD**Value:**0x3
This value identifies the maximum number of asynchronous query threads that are processed concurrently.

III-84Value Name: MaxCharacterization**Data Type:**REG_DWORD**Value:**0x140
This value identifies the maximum number of characters in the automatically generated characterization (abstract).

III-85Value Name: MaxFilesizeFiltered**Data Type:**REG_DWORD**Value:**0x100
This value identifies the maximum size of a single file filtered with the default filter. If a file exceeds this size, only file properties are filtered. This limit does not apply to registered file types; that is, to those file types that do not use the default filter.

III-86Value Name: MaxFilesizeMultiplier**Data Type:**REG_DWORD**Value:**0x8
This value identifies the maximum amount of data that can be generated from a single file, based on its size. This value is a multiplier used in conjunction with the current file size to determine the maximum file size after content indexing. For example, a value of 2 means that a file can generate up to 2 times its size in content index data.

III-87Value Name: MaxFreshCount**Data Type:**REG_DWORD**Value:**0x4e20
This value identifies the maximum number of newly indexed files that cause a master merge to start.

III-88Value Name: MaxIdealIndexes**Data Type:**REG_DWORD**Value:**0x5
This value identifies the maximum number of indexes considered acceptable in an ideal system. If the number of indexes exceeds this value and the system is idle, an annealing merge brings the total count of indexes to this number.

III-89Value Name: MaxIdealIndexes**Data Type:**REG_DWORD**Value:**0x32
This value identifies the maximum number of persistent indexes in the catalog. If this number is exceeded, a shadow merge brings the total below this number.

III-90Value Name: MaxMergeInterval**Data Type:**REG_DWORD**Value:**0xa
This value identifies the sleep time between merges. Index Server often activates this to determine whether an annealing (most common), shadow, or master merge is necessary.

III-91Value Name: MaxPendingDocuments**Data Type:**REG_DWORD**Value:**0x20
This value identifies the maximum number of pending documents that are filtered before the content index is considered out-of-date for property queries.

III-92Value Name: MaxQueryExecutionTime**Data Type:**REG_DWORD**Value:**0x2710
This value identifies the maximum execution time of a query. If a query takes more than this amount of CPU time, its processing is stopped and an error is returned.

III-93Value Name: MaxQueryTimeslice**Data Type:**REG_DWORD**Value:**0x32
This value identifies the maximum time allowed for Index Server to execute a query in a single CPU time slice. If more asynchronous queries are active than allowed query threads, Index Server puts a query back in the pending queue after this time interval. CPU time slicing is performed only after a matching row is found, so the time spent in a time slice may overrun this and a considerable number of rows may be examined in the time slice.

III-94Value Name: MaxQueueChunks**Data Type:**REG_DWORD**Value:**0x14
This value identifies the maximum number of in-memory buffers (queue chunks) allotted to keep track of pending documents. The higher the number, the less frequently the memory buffers are written to disk.

III-95Value Name: MaxRestrictionNodes**Data Type:**REG_DWORD**Value:**0xfa
This value identifies the minimum number of restriction nodes created by query normalization. If this value is exceeded, the query fails with the status of QUERY_E_TOOCOMPLEX. This status message means the query was too complex to be completed because the limit imposed in this registry key was reached. This key keeps a user from overloading the server’s capacity with an overly large query.

III-96Value Name: MaxShadowFreeForceMerge**Data Type:**REG_SZ**Value:**0x1f4
When disk space occupied by the shadow indexes exceeds this value and the free space on the catalog disk drive falls below the MinDiskFreeForceMerge value, Index Server executes a master merge.

III-97Value Name: MaxShadowIndexSize**Data Type:**REG_DWORD**Value:**0xf
When the disk space occupied by the shadow indexes exceeds this percentage of the catalog drive, Index Server executes a master merge.

III-98Value Name: MaxWordLists**Data Type:**REG_DWORD**Value:**0x5
This value determines the maximum number of concurrent word lists that can exist.

III-99Value Name: MaxWordlistSize**Data Type:**REG_DWORD**Value:**0x5
This value, in 128K chunks, identifies the maximum amount of memory consumed by an individual word list. When this limit is reached, Index Server finishes the document it’s currently filtering and adds that document only. Any other documents are re-filed and placed in another word list later.

III-100Value Name: MinIdleQueryThreads**Data Type:**REG_DWORD**Value:**0x2
This value sets the minimum number of idle threads kept alive to process incoming queries.

III-101Value Name: MinMergeIdleTime**Data Type:**REG_DWORD**Value:**0x5a
This value identifies when Index Server should perform an annealing merge because the system was idle more than average during the previous merge check period.

III-102Value Name: MinSizeMergeWordlists**Data Type:**REG_SZ**Value:**0x400
This value identifies the minimum combined size of word lists that forces a shadow merge.

III-103Value Name: MinWordlistMemory**Data Type:**REG_DWORD**Value:**0x5
This value identifies the minimum free memory used to create word lists.

III-104Value Name: PropertyStoreMappedCache**Data Type:**REG_DWORD**Value:**0x60
This value identifies the maximum size of memory buffers used for Property Cache.

III-105Value Name: ThreadPriorityMerge**Data Type:**REG_DWORD**Value:**0xfffffffe
This value identifies the priority of the merge thread.

III-106Value Name: MinDiskFreeForceMerge**Data Type:**REG_DWORD**Value:**15
This value is the minimum free disk space needed before the content indexer forces a merge. Acceptable values range from 5 percent to 25 percent.

III-107Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\ContentIndex\Language**Value Name:**InstalledLangs**Data Type:**REG_MULTI_SZ**Value:**English_US English_UK French_French German_German Italian_Italian Japanese_Default Neutral Spanish_Modern Swedish_Default
The InstalledLangs value lists the set of languages installed. Each string in the InstalledLangs value names a subkey below the Language key.

III-108Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\ContentIndex\ Language\English_US**Value Name:**ISAPIDefaultErrorFile**Data Type:**REG_SZ**Value:**/Scripts/Samples/Search/DefError.htx
This value gives the full virtual path to the generic error template file that's displayed to the user. This .htx template is processed when none of the specific error pages applies. The CiRestriction, CiErrorMessage, and CiErrorNumber variables can all be referenced in the .htx file.

III-109Value Name:ISAPIHTXErrorFile**Data Type:**REG_SZ**Value:**/Scripts/Samples/Search/HTXError.htx
This value identifies the full virtual path to the error page returned in response to errors in the .htx file. The CiRestriction, CiErrorMessage, and CiErrorNumber variables can all be

referenced in the .htx file.

III-110Value Name:ISAPIIDQErrorFile**Data Type:**REG_SZ**Value:**/Scripts/Samples/Search/IDQError.htx
This value identifies the full virtual path to the error page returned in response to errors in the .idq file. The CiRestriction, CiErrorMessage, and CiErrorNumber variables can all be referenced in the .htx file.

III-111Value Name:ISAPIRestrictionErrorFile**Data Type:**REG_SZ**Value:**/Scripts/Samples/Search/ResError.htx
This value identifies the full virtual path to the error page returned in response to errors in the query restriction (CiRestriction). This is the error page that users see most often. The CiRestriction, CiErrorMessage, and CiErrorNumber variables can all be referenced in the .htx file.

III-112Value Name: Locale**Data Type:**REG_DWORD**Value:**0x409
This value associates the registry section with a specific locale.

III-113Value Name: NoiseFile**Data Type:**REG_SZ**Value:**noise.enu
This value identifies the file name of the noise-word list for this locale. The file must be located in the %SystemRoot%\System32 directory.

III-114Value Name: StemmerClass**Data Type:**REG_SZ**Value:**{eeed4c20-7f1b-11ce-be57-00aa0051fe20}
This value identifies the ActiveX class ID of the class used for locale-specific stemming.

III-115Value Name: WbreakerClass**Data Type:**REG_SZ**Value:**{59E09780-8099-101B-8DF3-00000B65C3B5}
This value identifies the ActiveX class ID of the class used to split phrases for this locale.

III-116 If Microsoft Index Server is currently indexing all your files, you can make it quit by limiting Index Server to indexing just those files you register.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\ContentIndex
Value Name: FilterFilesWithUnknownExtensions**Data Type:**REG_DWORD**Value:**0
A value of 0 tells the Content indexer to Index only those file types that have been registered and ignore the rest. This feature is handy when you don’t want to index .exe files and .com files, for example.

SQL SERVER

III-117 You can specify the protocol you want SQL Executive to use in its Advanced tab, but if you need to specify a particular protocol for SQL Executive to use when connecting

to servers, you need to add the following registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\MSSQLServer\SQLExecutive**Value Name:**ServerHost**Data Type:**REG_SZ**Value:**< server >
You must still create a specific server connection in the Advanced tab of the SQL Client Configuration Utility. Then set the ServerHost value in the SQL Executive section of the registry to the appropriate server name. SQL should then use the defined protocol on all its connection attempts to subscribing servers.

III-118 To increase the concurrent number of SQLExec tasks that use a DB-Library connection, change the following registry value.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\MSSQLServer\SQLExecutive**Value Name:**MaxDBProcesses**Data Type:**REG_DWORD**Value:**61
The number of available concurrent tasks is the number of MaxDBProcesses — three for SQL overhead. Restart your SQL server for these changes to take effect.

III-119 If the SQLMonitor Service on Windows NT won't start and you recently changed the SQL Server SA accounts password, you should change it back. If you can't remember the password, here's how to fix the problem.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SQLServer\SQLMONITOR\Parameters**Value Name:**Password**Data Type:**REG_SZ
Type the new SA account password for the value.

Value:password
Restart the machine for these changes to take effect.

III-120 You've installed SQL Server 6.5, but SQL Executive does not come up. When you try to start it from the Control Panel, you get an Error 109. To fix the problem, change this registry value.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\SQLServer\CurrentVersion**Value Name:**CurrentVersion**Data Type:**REG_SZ**Value:**6.50.201
Restart the machine for these changes to take effect.

EXCHANGE SERVER 4.0

III-121 If you have tried to change your Exchange password, chances are you have encountered this error: "The NT Domain password could not be changed. A required action was not successful due to an unspecified error." You need to add the following registry parameters to fix this problem.

Hive:HKEY_LOCAL_MACHINE**Key:**CurrentControlSet\Control\LSA
Add the following value under the LSA key:

Value Name: NetWareClientSupport**Data Type:**REG_DWORD**Value:**1
Use this entry if you are running NWLINK.

III-122Hive:HKEY_LOCAL_MACHINE**Key:**CurrentControlSet\Control\LSA
Add the following value under the LSA key:

Value Name: TcpipClientSupport**Data Type:**REG_DWORD**Value:**1
Use this entry if you are running TCP/IP. Restart the machine for these changes to take effect.

III-123 If you cannot communicate with your Exchange Server using your Exchange client and have recently installed a firewall, you may need to change the following registry entries.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSExchange IS\ ParametersSystem**Value Name:**TCP/IP Port **Data Type:**REG_DWORD**Value:**< valid TCP/IP Port number >
III-124Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSExchangeIS\ Parameters**Value Name:**TCP/IP Port**Data Type:**REG_DWORD**Value:**< valid TCP/IP Port number >
Some Internet firewall software doesn't accept the TCP/IP ports Exchange uses to communicate via RPC. You need to modify these ports on the Exchange server to something that your firewall software can use. Restart Exchange for these changes to take effect.

III-125 The Exchange client installs multiple protocols so that it can connect to the server using any one. As a result, sometimes it seems that Exchange takes forever to load. You can speed things up by eliminating the protocols you don't use. For example, if you use only TCP/IP, you can change the following registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\ServicesMSExchange MTA\ Parameters\MT**Value Name:**gateway clients**Data Type:**REG_DWORD**Value:**0x20
The default setting is 0x8 and is fine under normal conditions. If your installation has several gateways or connections configured, try increasing this parameter.

INTERNET NEWS AND MAIL

III-126 If you need to move the address book file, you need to modify these two registry values. This change is especially useful if you have just upgraded your hard drive and want

to move some of the larger files to a disk with more room.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Internet Mail and News**Value Name:**Store Root**Data Type:**REG_SZ**Value:**< fully qualified path and directory >
This value sets where Internet Explorer stores the address book files. Be sure to include the drive and fully qualified path.

III-127Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\WAB**Value Name:**Wab File Name**Data Type:**REG_SZ**Value:**< fully qualified path and directory >
This value is the actual location of the .wab files, in the format username.wab. If your login is tim, your wab file is tim.wab.

PEER WEB SERVICES

III-128 Have you ever tried to change the port numbers for the personal Web server or FTP server that comes with Front Page? Well, now you can. Each of the values below represents its corresponding services TCP/IP port number in hexadecimal. You can change them to any valid port number. Restart your machine for any changes to take effect.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\ServiceProvider\ ServiceTypes**Value Name:**MSFTPSVC **Data Type:**REG_DWORD**Value:**port number in hex
This value is the TCP/IP port number for the FTP Service.

III-129Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\ServiceProvider\ ServiceTypes**Value Name:**W3SVC**Data Type:**REG_DWORD**Value:**port number in hex
This value is the TCP/IP port number for the Web Service.

III-130Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\ServiceProvider\ ServiceTypes**Value Name:**GOPHERSVC**Data Type:**REG_DWORD**Value:**port number in hex
This value is the TCP/IP port number for the Gopher Service.

III-131Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\ServiceProvider\ ServiceTypes**Value Name:**MicrosoftInternetInformationServer**Data Type:**REG_DWORD**Value:**port number in hex
This value is the TCP/IP port number that the administration program for Peer Web services listens on.

NETSCAPE NAVIGATOR 3.0

III-132 You recently joined a domain, and some of your settings were wiped out for Netscape Navigator. You invested a lot of time in setting up Netscape Navigator, and now you can access the correct version only if you boot locally. This registry location shows where Netscape stores its information.

Hive:HKEY_CURRENT_USER**Key:**Software\Netscape
Save the key and then log on to NT as the domain user. Restore the saved key and you're back in business.

III-133 Do you need to browse Japanese, Chinese, or Korean HTML files with your Netscape browser? Follow these steps.

First, download the following free fonts from Microsoft.

- Traditional Chinese — <http://ms.www.conxion.com/msdownload/ieinstall/ie3lpktw.exe>
- Japanese — <http://ms.www.conxion.com/msdownload/ieinstall/ie3lpkja.exe>
- Korean — <http://ms.www.conxion.com/msdownload/ieinstall/ie3lpkko.exe>
- Simplified Chinese — <http://ms.www.conxion.com/msdownload/ieinstall/ie3lpkcn.exe>
- Pan European — <http://ms.www.conxion.com/msdownload/ieinstall/ie3lpkpe.exe>

Change the following registry key:

Hive:HKEY_CURRENT_USER**Key:**Software\Netscape\Netscape\Navigator\INTL
Add the following value under the INTL key:

Value Name: UseUnicodeFont **Data Type:**REG_DWORD**Value:**1

Now run Navigator and select the font from General Preference menu. Choose the language and select the font you downloaded. Follow the same procedure for fixed fonts.

GOPHER

III-134 To change the Administrator name for your Gopher service, change this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\GOPHERSVC\ Parameters
Add the following value under the Parameters key:

Value Name: AdminName **Data Type:**REG_SZ**Value:**Administrator
The default value is Administrator. Change this value to the name that's appropriate for your site. Restart the service for these changes to take effect.

III-135 To change the Administrator e-mail address for your Gopher service, change this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\GOPHERSVC\ Parameters
Add the following value under the Parameters key:

Value Name: AdminEmail**Data Type:**REG_SZ**Value:**Admin@corp.com
The default value is admin@corp.com. Change this address to the appropriate name for your site. Restart the service for these changes to take effect.

III-136 To control the duration of a log file generated by the Gopher service, change this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\GOPHERSVC\ Parameters
Add the following value under the Parameters key:

Value Name: LogFilePeriod**Data Type:**REG_DWORD**Value:**1
The values for LogFilePeriod are as follows:

0 never open a new log file. Instead, log file size is governed by LogFileTruncateSize1open a new log file every day2open a new log file every week3open a new log file every month The default is 0. Restart the service for this value to take effect.

III-137 This registry entry determines the maximum size, in bytes, a Gopher log file can be before the Gopher Server logging service opens a new file.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\GOPHERSVC\ Parameters
Add the following value under the Parameters key:

Value Name: LogFileTruncateSize**Data Type:**REG_DWORD**Value:**1388000
The default value is 1,388,000. If this value is set to 0, the log file grows to fill the available disk space. A value other than 0 specifies the maximum size of the log file before a new log file is opened.

III-138 To limit the maximum number of user connections your Gopher service allows, change this registry entry. It controls how many people can access your gopher server at a given time.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\GOPHERSVC\ Parameters
Add the following value under the Parameters key:

Value Name: MaxConnections**Data Type:**REG_DWORD**Value:**0x186a0
Restart the service for this value to take effect.

WORKS 4.0

III-139 If you recently installed MS Works 4.0 and cannot perform a spellcheck in Exchange, check the following registry values.

Hive:HKEY_LOCAL_MACHINE**Key:**SharedTools\ProofingTools\CustomDictionaries
Value Name:1**Data Type:**REG_SZ**Value:**< fully qualified path and directory >
Sometimes MS Works incorrectly sets this value to an invalid path. You need to find the correct path and change the value 1 to the correct path name.

FTP

III-140 To annotate the directories that are displayed with the FTP service, check this registry entry. It lets you customize the directory display.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSFTPSVC\ Parameters
Add the following value under the Parameters key:

Value Name: AnnotateDirectories**Data Type:**REG_DWORD**Value:**0
The FTP service lets you customize your directories by displaying special text stored in a file called ?ftpsvc?ckm in the directory you wish to customize. The default value for this entry is 0, which disables the feature. Change the value to 1 to enable this feature. Restart the service for this value to take effect.

III-141 To provide a custom greeting and exit message for your FTP users, change this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSFTPSVC\ Parameters

Add the following value under the Parameters key:

Value Name: GreetingMessage**Data Type:**REG_SZ**Value:**< string >
III-142 For an exit message, add the following value under the Parameters key:

Value Name: ExitMessage**Data Type:**REG_SZ**Value:**< string >
III-143 Do you ever need to change the default TCP/IP port IIS, Gopher, Microsoft Internet Service Manager, or FTP uses? You can try to change it using the Microsoft Internet Service Manager. If that doesn't work, and a lot of times it doesn't, try this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\ServiceProvider\ ServiceType\MSFTPSVC**Value Name:**TcpPort**Data Type:**REG_DWORD**Value:**< desired port number >
This value regulates the FTP service.

III-144Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\ServiceProvider\ ServiceType\GOPHERSVC**Value Name:**TcpPort**Data Type:**REG_DWORD**Value:**< desired port number >
This value regulates the Gopher service.

III-145Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\ServiceProvider\ ServiceType\Microsoft Internet Information Server**Value Name:**TcpPort**Data Type:**REG_DWORD**Value:**< desired port number >
This value regulates the Internet Information Server.

III-146Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\ServiceProvider\ ServiceType\W3SVC**Value Name:**TcpPort**Data Type:**REG_DWORD**Value:**< desired port number >
This value sets the default port that the WWW service listens on.

III-147 Problem: You have configured FTP on two servers. One server is a PDC and the other is a stand-alone server. You can FTP to the PDC just fine, but you have trouble using your domain accounts with the standalone server. This registry entry solves the problem.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\FTPSVC**Value Name:**DefaultLogonDomain**Data Type:**REG_SZ**Value:**< domain name >
Restart the machine for these changes to take effect. You should make this change only on the stand-alone server, not the PDC (or any subsequent BDC).

III-148 Several hundred users with valid network accounts frequently access your FTP

server. You also have many anonymous accesses. You can create a setup that logs only the anonymous users by modifying this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSFTPSVC\Parameters
Add the following value under the Parameters key.

Value Name: LogNonAnonymous**Data Type:**REG_DWORD**Value:**1
The default value is 1. Set this to 0 to disable logging users who have actual user accounts.

III-149 Are your users having problems downloading files from your FTP server even though they type the exact file names? This registry entry should solve the problem.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSFTPSVC\Parameters
Add the following value under the Parameters key.

Value Name: LowercaseFiles**Data Type:**REG_DWORD**Value:**1
The default value is 0, or disabled. Set this value to 1 to enable lowercase file comparisons.

III-150 Do you want to change the Administrator name for your FTP service? Here is the registry entry that stores that value.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSFTPSVC\Parameters
Add the following value under the Parameters key:

Value Name: AdminName**Data Type:**REG_SZ**Value:**Administrator
The default value is Administrator. Change it to the appropriate name for your site. Restart the service for these changes to take effect.

III-151 If you want to change the Administrator e-mail address for your FTP service, change this entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSFTPSVC\Parameters
Add the following value under the Parameters key:

Value Name: AdminEmail**Data Type:**REG_SZ**Value:**Admin@corp.com
The default value is admin@corp.com. Change value to the appropriate name for your site. Restart the service for these changes to take effect.

III-152 Do you want to limit the maximum number of user connections your FTP service

allows? These entries give you that control. This registry entry lets you control how many people can access your FTP server at a given time. You can set it to send a message to the clients refused access (MaxClientsMessage).

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSFTPSVC\Parameters
Add the following value under the Parameters key:

Value Name: MaxConnections**Data Type:**REG_DWORD**Value:**100,000
This value is the number of clients that can connect to the FTP server at any given time. Restart the service for this value to take effect.

III-153 This entry sends a message you specify when a user connection to your FTP server is refused.

Value Name: MaxClientsMessage**Data Type:**REG_SZ**Value:**< string value >
The message in the string is sent when the value set in MaxConnections is exceeded. Restart the service for this value to take effect.

III-154 You have many FTP users who have user accounts from one particular domain and who continually forget to add the < domainname > parameter in front of their user names when they try to log on. To change the default logon domain so that they'll log on even when they forget to specify the domain name, change this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSFTPSVC\Parameters
Add the following value under the Parameters key:

Value Name: DefaultLogonDomain**Data Type:**REG_SZ**Value:**< domain name >
Restart the service for this value to take effect.

III-155 To gain a little more control over the log files generated by the FTP service, change this registry entry — it lets you control the duration of a log file.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSFTPSVC\Parameters
Add the following value under the Parameters key:

Value Name: LogFilePeriod**Data Type:**REG_DWORD**Value:**1
The valid values for LogFilePeriod are as follows:

0 Never open a new log file. The log file is governed by LogFileTruncateSize. **1** Open a new log file every day. **2** Open a new log file every week. **3** Open a new log file every month. The default is 0. Restart the service for this value to take effect.

III-156 This entry sets the maximum size in bytes your FTP log file can be before a new file is opened by the FTP logging module.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MSFTPSVC\ Parameters
Add the following value under the Parameters key:

Value Name: LogFileTruncateSize**Data Type:**REG_DWORD**Value:**1388000
The default value is 1,388,000. A value of 0 means "do not truncate."

III-157 If you need to change the default FTP port in IIS 3.0, try using the Microsoft Internet Service Manager. If that doesn't work, and a lot of times it doesn't, try this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\ServiceProvid er\ ServiceType\MSFTPSVC**Value Name:**TcpPort**Data Type:**REG_DWORD**Value:**< desired port number >

DR. WATSON

III-158Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\DrWatson**Value Name:**LogFilePath**Data Type:**REG_SZ**Value:**%windir%
This value sets the directory that stores the log file Dr. Watson creates.

III-159Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\DrWatson**Value Name:**AppendToLogFile**Data Type:**REG_DWORD**Value:**0x00000001
This value controls how Dr. Watson records to the log file. If the value is 1, Dr. Watson appends to the log file; a value of 0 creates a new log file for each application error.

III-160Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\DrWatson**Value Name:**CreateCrashDump**Data Type:**REG_DWORD**Value:**0x00000001
This value controls what Dr. Watson does after a crash. A value of 1 creates a crash dump file. A value of 0 suppresses the creation of a crash dump file.

III-161Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\DrWatson**Value Name:**CrashDumpFile**Data Type:**REG_DWORD**Value:**%windir%\user.dmp
This value controls where Dr. Watson writes the file after a Blue Screen of Death (BSOD).

III-162Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\DrWatson**Value Name:**SoundNotification**Data Type:**REG_DWORD**Value:**0x00000001
This value controls whether Dr. Watson notifies you with a sound (wave file). A value of 1 turns on the feature; a value of 0 turns it off.

III-163Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\DrWatson**Value Name:**WaveFile**Data Type:**REG_SZ**Value:**< fully qualified path and filename >
This value is the path to the wave file Dr. Watson plays to notify you.

III-164Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\DrWatson**Value Name:**VisualNotification**Data Type:**REG_DWORD**Value:**0x00000001
This value determines whether Dr. Watson displays the message box when it encounters an error. A value of 1 turns on the feature; a value of 0 turns it off.

INTERNET INFORMATION SERVER 3.0

III-165 To change the Administrator name for your Web service, change this entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\W3SVC\Parameters
Add the following value under the Parameters key:

Value Name: AdminName**Data Type:**REG_SZ**Value:**Administrator
The default value is Administrator. Change this to whatever name is appropriate for your site. Restart the service for these changes to take effect.

III-166 To change the Administrator e-mail address for your Web service, change this entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\W3SVC\Parameters
Add the following value under the Parameters key:

Value Name: AdminEmail**Data Type:**REG_SZ**Value:**Admin@corp.com
The default value is admin@corp.com. Change this value to the appropriate name for your site. Restart the service for these changes to take effect

III-167 To control the duration of a log file generated by the Web service, change this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\W3SVC\Parameters
Add the following value under the Parameters key:

Value Name: LogFilePeriod**Data Type:**REG_DWORD**Value:**1
The values for LogFilePeriod are as follows:

0 Never open a new log file. The log file size is governed by the LogFileTruncateSize value. **1** Open a new log file every day. **2** Open a new log file every week. **3** Open a new

log file every month. The default is 0. Restart the service for this value to take effect.

III-168 This entry determines the maximum size, in bytes, your Web log file can be before the Web logging module opens a new file.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\W3SVC\Parameters
Add the following value under the Parameters key:

Value Name: LogFileTruncateSize**Data Type:**REG_DWORD**Value:**1,388,000
The default value is 1388000. A value of 0 means “do not truncate.”

III-169 Is your IIS not properly recognizing MIDI files? That’s because you need to add this registry key.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\InetInfo\Parameters\ MimeMap
Add the following Key under the MimeMap key:

Key:audio/midi,mid,,
Now when you want to play MIDI files, add this string:
<EMBED SRC="music1.mid" VOLUME=30 WIDTH=144 HEIGHT=60 AUTOSTART=true hidden=true loop=true> <bgsound src="music2.mid" loop=-1>
It will work.

III-170 Do you want to limit the maximum number of user connections your Web service allows? This registry entry lets you control how many people can access your Web server at a given time. You can set it up to send a message to the client that was refused access. You can specify the content of this message in the AccessDeniedMessage value.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\W3SVC\Parameters
Add the following value under the Parameters key:

Value Name: MaxConnections**Data Type:**REG_DWORD**Value:**0x186a0
Restart the service for this value to take effect.

III-171 This entry sets the message displayed when a user is denied a connection to your Web server.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\W3SVC\Parameters
Add the following value under the Parameters key:

Value Name: AccessDeniedMessage**Data Type:**REG_SZ**Value:**< string value >
Restart the service for this change to take effect.

III-172 Have you ever needed to change the location of the virtual root directories that IIS installs for its various services? These registry entries let you change the virtual roots for the main Web directory, the admin directory, the scripts directory, and others.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\W3SVC\Parameters\ VirtualRoots**Value Name:**/:**Data Type:**REG_SZ**Value:**C:\InetPub\wwwroot,1
III-173Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\W3SVC\Parameters\ VirtualRoots**Value Name:**/iisadmin**Data Type:**REG_SZ**Value:**C:\NTS40\System32\inetsrv\iisadmin,,1
III-174Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\W3SVC\Parameters\ VirtualRoots**Value Name:**/Scripts **Data Type:**REG_SZ**Value:**C:\InetPub\scripts,,1
III-175Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\W3SVC\Parameters\ VirtualRoots**Value Name:**/srchadm**Data Type:**REG_SZ**Value:**C:\InetPub\wwwroot\srchadm,,1
The value after the path corresponds to the permission level. A value of 1 gives read-only permission; a value of 4 gives execute permission. A value of 5 gives both read and execute permission.

III-176 If you have an IIS-based Website and want to turn on server caching, change this entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\InetInfo\Parameters
Add the following value under the Parameters key:

Value Name: DisableMemoryCache**Data Type:**REG_DWORD**Value:**0
The default value is 0, which disables server caching. Changing it to 1 enables server caching. Restart the IIS service for these changes to take effect.

III-177 If your site has heavy traffic and you are trying to squeeze every ounce of performance out of your machines, try this registry entry to speed things up a bit.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\InetInfo\Parameters
Add the following value under the Parameters key:

Value Name: ListenBackLog**Data Type:**REG_DWORD**Value:**50
This value can range from 1 to infinity. A value of 50 works well for sites with heavy

traffic.

III-178 You have many Web users with user accounts from one particular domain who continually forget to add the < domainname > parameter in front of their user names when they try to log on. To change the default logon domain so that they'll log in even when they forget to specify the domain name, change this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\W3SVC\Parameters
Add the following value under the Parameters key:

Value Name: DefaultLogonDomain**Data Type:**REG_SZ**Value:**Domain Name
Restart the service for this value to take effect.

III-179 When you install IIS, it creates an anonymous user, generally in the form of IUSR_machinename. To change that user ID, change these entries.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\W3SVC\Parameters
Add the following value under the Parameters key:

Value Name: AnonymousUserName**Data Type:**REG_SZ**Value:**valid user name
III-180 Change this value as well.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\InetStp**Value Name:**AnonymousUser**Data Type:**REG_SZ**Value:**user_name
Stop and start the IIS service for these changes to take effect.

III-181 You can customize the default help that comes with IIS to include instructions that are specific to your Web site. This registry entry shows you the location for the Help file for InetManager; it's an HTML document, so you can modify it with standard tools.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\InetMgr\Parameters**Value Name:**HelpLocation**Data Type:**REG_SZ**Value:**iisadmin\htmldocs\inetdocs.htm
III-182 Are your users complaining of interrupted file transfers? Increasing the value of this registry parameter can help alleviate these symptoms. This value determines how long your server tries to transfer a file to a user before killing the file. The default value is 1000.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\InetInfo\Parameters
Add the following value under the Parameters key:

Value Name: MinFileKbSec**Data Type:**REG_DWORD**Value:**1000
Here is how this value works. The server establishes a timeout value based on the following formula: The timeout equals the timeout value specified in the Internet Service

Manager plus the size of the file being transferred divided by MinFileKbSec registry key.

III-183 If you run a tight ship and have several other applications running on your Web machine, you may want to investigate this parameter. It lets you specify how many threads the server keeps ready to handle input/output requests even when there is no activity. The default is 86,400 seconds, or 24 hours, which keeps threads active all the time. You can adjust this parameter according to your needs.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\InetInfo\Parameters
Add the following value under the Parameters key:

Value Name: ThreadTimeout**Data Type:**REG_DWORD**Value:**86400 (24 hours)
III-184 Problem: You just switched to IIS 3.0 and you're busy creating Active Server pages left and right. Within minutes of deploying your Active Server pages, you're flooded with e-mail. Apparently, Active Server is setting cookies and your users don't like it. The following registry modification fixes this problem.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\W3SVC\ASP\Parameters**Value Name:**AllowSessionState**Data Type:**REG_DWORD**Value:**0
Restart your Web machine — and presto, no more cookies.

III-185 If your log files are particularly large, you might try adjusting this parameter in the registry. It gives you control over how much log data the system caches before it writes to the log file. Decreasing this parameter causes it to write more frequently; increasing it causes it to write less frequently.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\InetInfo\Parameters
Add the following value under the Parameters key:

Value Name: LogFileBatchSize**Data Type:**REG_DWORD**Value:**64
The default value is 64 K. Restart the service for any change to take effect.

III-186 If you have a lot of users on your Web site who log on with a user account (not just via anonymous), this registry parameter can help speed access to your system. It determines whether IIS caches security information about a particular file object when it retrieves it and therefore doesn't need to check the file for subsequent users. The default value is 0, which disables security descriptor caching. A value of 1 enables security descriptor caching.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\InetInfo\Parameters
Add the following value under the Parameters key:

Value Name: CacheSecurityDescriptor**Data Type:**REG_DWORD**Value:**1
III-187 To improve the performance of IIS by allocating more memory to cache, change this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\InetInfo\Parameters
Add the following value under the Parameters key:

Value Name: MemoryCacheSize**Data Type:**REG_DWORD**Value:**3072000
The default value is 3072000, or 3 MB. Valid values for this entry range from 0 to 4294967295 bytes. You must have sufficient RAM on your computer to accommodate your setting. Restart the service for this change to take effect.

III-188 Do you create a lot of pages dynamically on your Web site (who doesn't anymore)? You may want to adjust this parameter so that objects don't stay in cache too long.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\InetInfo\Parameters
Add the following value under the Parameters key:

Value Name: ObjectCacheTTL**Data Type:**REG_DWORD**Value:**30
The value specifies the number of seconds any object stays in the cache; 30 seconds is the default value. If an object is not accessed during this time, it is removed from the cache memory. If your system is constrained by limited memory, reducing the value causes the system to use less memory.

III-189 If you have a lot of users with individual accounts accessing your system, changing this value should improve your performance, too.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\InetInfo\Parameters
Add the following value under the Parameters key:

Value Name: UserTokenTTL**Data Type:**REG_DWORD**Value:**900
The security information for each user helps create a user token on the server that is used to access files or other resources. The token is cached so that verification takes place only the first time the account is accessed (or until the token falls out of the cache). This value determines in seconds how long the token remains in cache. The default is 900 seconds (15 minutes).

INTERNET EXPLORER 3.0

III-190 To change the default download path for Internet Explorer 3.0 on any machine

(even a remote machine), use this registry value.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\InternetExplorer
Change the Value for DownloadDirectory under the InternetExplorer key.

Value Name: DownloadDirectory**Data Type:**REG_SZ**Value:**< fully qualified path and directory >
Restart Internet Explorer for the changes to take effect.

III-191 Are you tired of looking at the same old boring Times New Roman font in Internet Explorer? This example changes the default font from Times New Roman to Wide Latin. Changing this entry changes all references to the default font in your style sheets and thus in Explorer.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Internet Explorer\Styles**Value Name:**IEPropFontName**Data Type:**REG_SZ**Value:**Wide Latin
III-192 Problem: You have the same problem with boring fonts, but you don't want to just change fonts. Instead, you want certain headers to be bold and others to be italic. You need to modify the style sheets Internet Explorer uses and then change the default style sheet. First, let's modify the style sheets.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Internet Explorer\Styles
Each Style sheet has the following thirteen parts:

Style_Sheet_Name_Address_font
Style_Sheet_Name_BlockQuote_font
Style_Sheet_Name_H1_font
Style_Sheet_Name_H2_font
Style_Sheet_Name_H3_font
Style_Sheet_Name_H4_font
Style_Sheet_Name_H5_font
Style_Sheet_Name_H6_font
Style_Sheet_Name_Listing_font
Style_Sheet_Name_Normal_font
Style_Sheet_Name_Plain Text_font
Style_Sheet_Name_Pre_font
Style_Sheet_Name_XMP_font

Each font has a value in the following format:

Style_Sheet_Name_html_type:REG_SZ:Fontname,Bold Toggle,Font Size,Italic Toggle,Underline Toggle.

In our example, for the Style Sheet SerifSmallest, we change Header 3 to Wide Latin and

Header 4 to Wide Latin not bold with a size of 12 points.

Value Name: SerifSmallest_H3_font**Data Type:**REG_SZ**Value:**Wide Latin,Bold,10,NoItalic,NoUnderline**Value Name:**SerifSmallest_H4_font**Data Type:**REG_SZ**Value:**Wide Latin,NoBold,12,NoItalic,NoUnderline
III-193 Now we change Internet Explorer's default style sheet.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Internet Explorer\Styles**Value Name:**Default_Style_Sheet**Data Type:**REG_SZ**Value:**SerifSmallest
If you have Internet Explorer running, exit it and reload. Your new style sheet is in place.

III-194 If you're having trouble finding Web sites, you can use the autosearch function in Internet Explorer 3.0 to help you. Type **go** in the address bar, followed by some keywords that describe what you are looking for; Internet Explorer starts searching using its default search engine, Yahoo! To change the search engine, modify the following registry key.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Internet Explorer\SearchUrl**Value Name:**Default**Data Type:**REG_SZ**Value:**home.microsoft.com/access/autosearch.asp?p=%s
Here are the values for some popular search engines:

Excitewww.excite.com/search.gw?search=%sAltaVistawww.altavista.digital.com/cgi-bin/query?pg=q&q=%sMagellansearcher.mckinley.com/searcher.cgi?query=%sInfoSeekguide-p.infoseek.com/Titles?qt=%siLycoswww.lycos.com/cgi-bin/pursuit?query=%sYahoo! (plain search)search.yahoo.com/bin/search?p=%sYahoo! (IE autosearch)msie.yahoo.com/autosearch?p=%si
III-195 To change the background of Internet Explorer's toolbar, change this registry entry.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Internet Explorer\Toolbar
Add the following value:

Value Name: BackBitmap**Data Type:**REG_SZ**Value:**< fully qualified path and filename of any bitmap file >
Restart Internet Explorer for these values to take effect.

III-196 Do you sometimes get that annoying blank page when you bring up Internet Explorer? To change it to something meaningful other than the ever-popular blank.htm, change this entry.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Internet Explorer\Main**Value Name:**Local Page**Data Type:**REG_SZ**Value:**D:\<system root>\System32\blank.htm
The default value is listed above. Change it to any fully qualified path and file name.
Restart Internet Explorer for this value to take effect.

III-197 Internet Explorer displays the most recent addresses in the Address box below the toolbar. This registry entry shows you where these values are stored.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Internet Explorer\TypedURLs**Value Name:**Url(n) where n is a number. Example Url1, Url2 etc.**Data Type:**REG_SZ**Value:**any valid internet address. Example http://www. winntmag.com
You can delete values from this registry key as well as add them. Restart Internet Explorer for any changes to take effect.

MACAFEE NETSHIELD

III-198 You've installed MacAfee Netshield 2.5 for Windows NT and your users are having problems logging on. Both Windows 95 and Windows NT users receive the same error message at logon: "Not enough server storage is available to process this command." Windows for Workgroup users get a different error message: "Path not found." In either case, error #2011 is logged in the event log. This registry value should fix this problem for all these users.

Hive:HKEY_LOCAL_MACHINE**Key:**CurrentControlSet\Services\LanmanServer
Add the value IRPStacksize

Value Name:IRPStackSize**DataType:**REG_DWORD**Value:**5
The value is the amount of memory, in 36-byte segments, set aside for the Input/Output Request Stack. The default value is 4; change it to 5. The range of valid values is 1 to 12.

SQL ANYWHERE 32

III-199 If you use SQL Server Anywhere and are connecting your 16-bit client application to either SQL Anywhere's 32-bit client or a 32-bit standalone server, you need to make sure that the following registry entries exist. If you are having problems connecting, checking these entries is a good place to start.

Hive:HKEY_CURRENT_USER**Key:**Software\ODBC\ODBC.INI\< datasource name >**Value Name:**AutoStop**Data Type:**REG_SZ**Value:**yes
III-200Value Name: DatabaseName**Data Type:**REG_SZ**Value:**database name
III-201Value Name: Driver**Data Type:**REG_SZ**Value:**c:\sqlany50\win32\wod50t.dll
III-202Value Name:PWD**Data Type:**REG_SZ**Value:**SQL
III-203Value Name: Start**Data Type:**REG_SZ**Value:**c:\sqlany50\win32\dbeng50
III-204Value Name:UID**Data Type:**REG_SZ**Value:**DBA
The 16-bit ODBC Driver Manager (Odbc.dll), provided with SQL Anywhere, lets 16-bit applications access a 32-bit ODBC driver without any changes. However, you must define a datasource with the 32-bit administrator tool. When you create a datasource with the

32-bit ODBC admin tool, entries are created in the registry and in Odbc.ini. Make sure the registry and Odbc.ini are in sync.

MICROSOFT ASSISTANT FOR OFFICE 97

By now you've seen the paper clip that helps you through the trials and tribulations of using Office 97. You can add extra features to this little critter and bend his will to your own with these registry entries.

IV-1Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Office\8.0\Common\Assistant**Value Name:**AsstPath**Data Type:**REG_SZ**Value:**C:\Program Files\Microsoft Office\Office\Actors
This value contains the path where the actor files are stored. It is almost certain that Microsoft and third-party vendors will make new actors available. This path lets you add new actor files as they become available. These files are the Office Assistant actor (. act) and preview (.acp) files that are located on your system.

IV-2Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Office\8.0\Common\Assistant**Value Name:**AsstSourcePath**Data Type:**REG_SZ**Value:**E:\Office\Actors
This value stores the source path for the support files Office 97 needs for the actor files.

IV-3Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Office\8.0\Common\Assistant**Value Name:**AsstFile **Data Type:**REG_SZ**Value:**Clippit.act
This key is handy if you don't want to dig out your Office 97 CD every time you change the assistant. This value is the name of the file that Office 97 uses for the assistant. Note that this value is just the filename, not the full path to the file. Valid values include

Clippit.actClippit Paper ClipDot.actThe Dot (Bouncing Ball)Genius.actThe Genius (Einstein)Hoverbot.actHover BotLogo.actOffice LogoMnature.actMother NaturePowerpup.actPower Pup (The Power Dog)Scribble.actScribble (The Paper Cat)Will.actWill (William Shakespeare) **IV-4** These next two registry entries control the location of the Office Assistant on the screen.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Office\8.0\Common\Assistant
Value Name: AsstTop**Data Type:**REG_DWORD**Value:**
IV-5Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Office\8.0\Common\Assistant**Value Name:**AsstLeft **Data Type:**REG_DWORD**Value:**
For each of these keys, the value is the location where the Assistant appears on the screen, given in pixels. Set these values to determine the location of the top left corner of the Assistant.

IV-6 Would you like to stop the Assistant from moving around on you while you're working on something?

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Office\8.0\Common\Assistant
Value Name: AsstMoveWhenInTheWay**Data Type:**REG_DWORD**Value:**1
Set this value to 0 to keep the Assistant from moving.

IV-7 The noises the Office Assistant makes are fun, but after hearing them about a thousand times, you want it to just shut up. This registry entry lets you do just that.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Office\8.0\Common\Assistant
Value Name: AsstSounds**Data Type:**REG_DWORD**Value:**1
Setting this value to 0 disables sound for the Assistant.

IV-8Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Assistant
Value Name: AsstState**Data Type:**REG_DWORD**Value:**0x5 (5)
This value lets you control the size of the Assistant window. Valid values are

0x5Large and Visible0x9Small and Visible0x6Large but Hidden0xaSmall but Hidden **IV-9** Microsoft includes tip wizards with all the Office 97 products. These next seven registry entries let you enable or disable the wizards.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Office\8.0\Common\Assistant
Value Name: AsstShowTipOfDay**Data Type:**REG_DWORD**Value:**1
Tired of seeing all the tips of the day? Setting this value to 0 disables these tips.

IV-10Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Office\8.0\Common\Assistant**Value Name:**AsstFeatureTips**Data Type:**REG_DWORD**Value:**1
Setting this value to 1 shows tips for features you may not know about and suggests better ways to use the features you do know about.

IV-11Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Office\8.0\Common\Assistant**Value Name:**AsstKeyboardShortcutTips**Data Type:**REG_DWORD**Value:**1
Setting this value to 1 makes the Office Assistant show you keyboard shortcuts for functions that take complicated mouse and menu commands to accomplish.

IV-12Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Office\8.0\Common\Assistant**Value Name:**AsstMouseTips**Data Type:**REG_DWORD**Value:**1
Setting this value to 1 makes the Office Assistant watch your mouse commands and show you tips for using your mouse more effectively.

IV-13 **Hive:** HKEY_LOCAL_MACHINE **Key:** Software\Microsoft\Office\8.0\Common\Assistant **Value Name:** AsstAssistWithHelp **Data Type:** REG_DWORD **Value:** 1
Setting this value to 1 shows the Office Assistant when you press the F1 key in any Microsoft Office application. Setting this value to 0 makes the Help function appear instead of the Office Assistant. Note: In some areas, Help appears when you press the F1 key regardless of this setting.

IV-14 **Hive:** HKEY_LOCAL_MACHINE **Key:** Software\Microsoft\Office\8.0\Common\Assistant **Value Name:** AsstAssistWithAlerts **Data Type:** REG_DWORD **Value:** 1
Setting this value to 1 enables the Office Assistant to show you help messages.

IV-15 **Hive:** HKEY_LOCAL_MACHINE **Key:** Software\Microsoft\Office\8.0\Common\Assistant **Value Name:** AsstGuessHelp **Data Type:** REG_DWORD **Value:** 1
Setting this value to 1 enables context-sensitive help. Set this value to 0 if you do not want help topics to appear unless you specifically ask for help.

IV-16 **Hive:** HKEY_LOCAL_MACHINE **Key:** Software\Microsoft\Office\8.0\Common\Assistant **Value Name:** AsstOnlyHighPriorityTips **Data Type:** REG_DWORD **Value:** 1
Setting this value to 1 shows you only the tips that are important, such as those that alert you to timesaving features. This feature is great for moving from a beginner to an advanced user.

IV-17 **Hive:** HKEY_LOCAL_MACHINE **Key:** Software\Microsoft\Office\8.0\Common\Assistant **Value Name:** AsstOfficeWizards **Data Type:** REG_DWORD **Value:** 1
Setting this value to 1 enables the Office Assistant to provide help with most of the wizards in Microsoft Office applications.

MICROSOFT EXCEL 8.0/97

The following registry keys control the various options that are available within Microsoft Excel 97. Note that to change any of these options, you must exit Excel, change the registry key, then restart Excel.

IV-18 **Hive:** HKEY_CURRENT_USER **Key:** Software\Microsoft\Office\8.0\Excel\Microsoft Excel **Value Name:** DefaultPath **Data Type:** REG_SZ **Value:** D:\My Documents
This value sets the default storage location and search path for documents that you create or use in Microsoft Excel 97. This value overrides the path set in the HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\User

Shell Folders\Personal registry key.

IV-19Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Shared Tools\Outlook\Journaling\ Microsoft Excel**Value Name:**Enabled**Data Type:**REG_DWORD**Value:**0x1
This value controls the Journaling feature in Microsoft Outlook and tracks when and how long you work with any Microsoft Excel Documents.

IV-20Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**Maximized**Data Type:**REG_DWORD**Value:**0x3
This value controls how Excel displays its window and workbook window when starting up. Note that Excel overwrites this value with its current settings when it exits. You have the following options for this value:

3Excel and Workbook window maximized2Workbook window maximized1Excel maximized, Workbook window not maximized0Nothing maximized

IV-21Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**Pos**Data Type:**REG_SZ**Value:**left, top, right, bottom
This value tells Excel how big to make its window and the position of the Top, Left, Right and Bottom corners of its window. An example of a valid value is 66,66,600,411

IV-22Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**Default Chart**Data Type:**REG_SZ**Value:**<type:charttype, subtype>
This value sets Excel's default chart, which is a two-dimensional column chart. The type can be Standard, Built-in, or User-defined; for the charttype variable, select one of the charts listed in the Chart Type menu on the Chart/Chart Type dialog box. Similarly, for the subtype variable, choose one of the Chart sub-types found in the same dialog box. The default value is Standard:1,1. Note that user-defined chart formats are stored in a file called Xlusrgal.xls, which is located in the Program Files\Microsoft Office\Office folder.

IV-23Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**DefSheets**Data Type:**REG_DWORD**Value:**0x3
This value tells Excel how many worksheets to create in a new workbook. If you set this to 1, a new workbook contains only one worksheet.

IV-24Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**MoveEnterDir**Data Type:**REG_DWORD**Value:**0x1
If the "Move selection after Enter" function is enabled, this value controls the direction the selection cursor moves after you press Enter in the current cell. Valid values are

0Down1Right2Up3Left

IV-25Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**DefFileMRU**Data Type:**REG_DWORD**Value:**0x4
This value controls the number of most recently used files to display under the File Menu.

IV-26Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**Font**Data Type:**REG_SZ**Value:**Arial,10
This value specifics the default font and size to use for new worksheets. It also controls the default font used for the Normal style and for the row and column headings.

IV-27Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**MenuKey**Data Type:**REG_DWORD**Value:**47
This value specifies the key to use to activate Excel menus or Help functions; normally this value is a forward slash (/), which is the menu key used for Lotus 1-2-3. This is the value of the key in ASCII.

IV-28Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**Randomize**Data Type:**REG_DWORD**Value:**1
This value causes Microsoft Excel to generate a unique random number each time you use the RAND function.

IV-29 The next two registry keys control where Excel's dialog boxes appear on the screen. Excel updates these values when it closes.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**StickyPtX**Data Type:**REG_DWORD**Value:**479

IV-30Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**StickyPtY**Data Type:**REG_DWORD**Value:**241

IV-31Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**SortCaseSensitive **Data Type:**REG_DWORD**Value:**0x0
This value controls the default Case Sensitive setting for the sorting algorithm that Microsoft Excel uses.

IV-32Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**CustomSortOrder**Data Type:**REG_DWORD**Value:**0x0
This value controls the default setting of the First key sort order, which appears under the Sort/Options dialog box.

IV-33Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**AutoFormat**Data Type:**REG_DWORD**Value:**0x2
This value is the default AutoFormat choice that appears under the AutoFormat dialog box. The value specifies an index number that points to a Table Format.

IV-34Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**AutoFormat Options**Data Type:**REG_DWORD**Value:**0x3f (63)
This value controls the format options specified in the AutoFormat registry key; the options correspond to the attributes in the AutoFormat dialog box. The available options are

1Number2Font4Alignment8Border16Patterns32Width/Height Simply add the values of the options you want. The final value is their sum. For example, if you wanted just the Border and Font options, add 8 and 2 for a value of 10.

IV-35Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Recent File List**Value Name:**File1 or File2 or File3, etc.**Data Type:**REG_SZ**Value:**<last used file>
These values show the most recently used files that appear on the bottom of the File menu.

IV-36Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**Basics **Data Type:**REG_DWORD**Value:**1
If this value is set to 0, Microsoft Excel starts up with the Office Assistant, which displays a menu that lets you see key information. After you click “Start using Microsoft Excel,” Excel sets this value to 1, thereby disabling this function. If you want to go back and learn about the new features, set this value to 0.

IV-37Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**AddIn Path**Data Type:**REG_SZ**Value:**<paths of add-on programs>
In this value, you tell Excel the directories to search in for add-on programs and tools. Separate multiple paths with semicolons (;).

IV-38Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**AltStartup**Data Type:**REG_SZ**Value:**<path of alternate startup folder>
This value specifies the location of the alternate startup folder. Microsoft Excel automatically loads files from this directory after loading files from the Xlstart folder.

IV-39Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft

Excel**Value Name:**3dDialogs**Data Type:**REG_DWORD**Value:**0x1
This value tells Microsoft Excel to use 3-D dialog boxes. If you prefer the look of regular dialog boxes, set this value to 0.

IV-40**Hive:**HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**AutoCalculate**Data Type:**REG_DWORD**Value:**<index value>
This value sets the AutoCalculation function. Your options are

0Count Nums4Sum5Average6Min7Max169Count

IV-41**Hive:**HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**User**Data Type:**REG_SZ**Value:**<user name>
This value is the user name that Microsoft Excel attaches to Workbooks.

IV-42**Hive:**HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Excel\Microsoft Excel**Value Name:**CfDDELink **Data Type:**REG_SZ**Value:**1
If this value is set to 1, Microsoft Excel remembers the last clipboard format used for a successful DDE operation. Setting this option helps reduce the time required for future DDE operations.

IV-43 Have you ever run across this message: “Microsoft Excel was unable to save this file because you do not have rename or delete privileges on the file server where you tried to save it. A temporary file was created on the server. You can re-open this temporary file, and save it to another drive.” Great! Now what? Try this registry entry to solve your problem.

Hive:HKEY_LOCAL_MACHINE**Key:**SYSTEM\CurrentControlSet\LANMAN\Server\Parameters
Add the following value under the Parameters key:

Value Name: CachedOpenLimit**Data Type:**REG_DWORD**Value:**0
Reboot your machine for these changes to take effect.

MICROSOFT WORD 8.0/97

The following registry keys control the various options that are available in Microsoft Word 97. To change any of these options, you must exit Word, change the registry key, then restart Microsoft Word.

IV-44 If your Word is crashing or you’re getting lots of Dr. Watson dialog boxes while you are using Word, try exiting Word and deleting the next two keys. Microsoft Word rebuilds them based on the information stored under the

HKEY_LOCAL_MACHINE\Software\Microsoft\Office\8.0\New User Settings\Word registry key.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Data**Value Name:**Toolbars**Data Type:**REG_BINARY**Value:**<lots of data, varies by user>
This values stores your personal toolbar settings for Microsoft Word.

IV-45Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Data**Value Name:**Settings**Data Type:**REG_BINARY**Value:**<lots of data, varies by user>
This is where your personal settings for Microsoft Word are stored.

IV-46 When using Word 97 to edit an HTML file, you are unceremoniously dumped with an error in Gdi.exe. To fix this problem, you need to have the Office 97 CD handy as well as Regedt32.exe.

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Data
Delete the Settings value under the data key.

Value Name: Settings**Data Type:**REG_BINARY**Value:**<binary value>
Exit Regedt32.exe. Run setup from your Office 97 CD and choose Reinstall/Update. After Office 97 finishes updating the file, reboot the machine and the problem should go away.

IV-47Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Default Save**Value Name:**Default Format**Data Type:**REG_SZ**Value:**
Would you like Microsoft Word to save its documents in a format other than Word 97? Just modify this key to indicate the format that you want, and it automatically saves any new document to the chosen format. It also prompts you if you try saving your document in a different format than you specified via this key. Specify one of the following values for this key. Note that <blank> means you must leave the field blank.

<blank>Word 8.0/97 (*.doc)MSWord6ExpWord 6.0/95 (*.doc)WrdPrfctWinWord Perfect 5.x for Windows (*.doc)WrdPrfctDOS51Word Perfect 5.1 for DOS (*.doc)WrdPrfctDatWord Perfect 5.1 or 5.2 Secondary File (*.doc)WrdPrfctDOS50Word Perfect 5.0 for DOS (*.doc)WrdPrfctDat50Word Perfect 5.0 Secondary File (*.doc)HTMLHTML Document (*.html; *.htm; *.htx)TextText Only (*.txt)CRTextText Only with Line Breaks (*.txt)8TextMS-DOS Text (*.txt)8CRTextMS-DOS Text with Line Breaks (*.txt)UnicodeUnicode Text (*.txt)rtfRich Text Format (*.rtf)DotDocument Template (*.dot)

IV-48Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Office\8.0\Common\Default Save**Value Name:**Prompt Text**Data Type:**REG_SZ**Value:**"Other people may not have the latest version of Office, so if you plan to share this file, you should save it in the following format."
This value sets the text that the Assistant displays when you have Default Save set to

something other than Word 97 and you use the “Save As” command under the File menu. If you want users to save their documents to a specific standard, you can type the string into this value.

IV-49Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**EnableMacroVirusProtection**Data Type:**REG_SZ**Value:**1 (default)
If this value is enabled, which is the default setting, it turns on a warning message that appears whenever you open a document that might contain macro viruses — documents with macros, customized toolbars, menus, or shortcuts. Set this value to 0 to disable this feature.

IV-50Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**AutoSpell**Data Type:**REG_SZ**Value:**1 (default)
This value controls the spelling checker in Word 97. Set this value to 0 to stop Word from checking your spelling while you are working on a document.

IV-51Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options **Value Name:**AutoGrammar **Data Type:**REG_SZ**Value:**1
This value controls the grammar checker in Word 97. If you want to stop Word from checking your grammar while you are working on a document, set this value to 0.

IV-52Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**BackgroundSave**Data Type:**REG_SZ**Value:**1
This value enables or disables background saving, which lets Word save your document in the background while you keep working. Setting this value to 0 disables background saving.

IV-53Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**BackgroundPrint**Data Type:**REG_SZ**Value:**1 (default)
This value enables or disables background printing, which lets you print documents in the background and continue working. Setting this value to 0 disables background printing.

IV-54
Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**NoEditTime**Data Type:**REG_SZ**Value:**0
By default, Microsoft Word tracks the total editing time for a given document. This statistic appears on the File/Properties dialog box under the Statistics tab. When this value is 0, which is the default, Word tracks total editing time; setting it to 1 turns off this feature.

IV-55Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**StartWhatIsNew**Data Type:**REG_SZ**Value:**0
If this value is set to 0, when Word starts up, Office Assistant gives you the options of learning what's new in Word 97, learning about the Office Assistant, or starting Word. After you choose to start Word, Word 97 sets this to 1, thereby disabling this function. If you bypassed your other options the first time and want to learn about the new features in Word 97, set this value to 0.

IV-56Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**LiveScrolling**Data Type:**REG_SZ**Value:**1
With this feature turned on, Word changes the display as you move one of the scrollboxes; with it turned off, Word waits until you let go of the mouse button to update the screen. Set the value to 1, the default value, to turn on the feature; set it to 0 to turn it off. Note that this value affects only the scrollboxes, not any of the other scrolling controls. Turning off this function can be very useful if you have a slow video card.

IV-57Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**PlainTextAutoFormat**Data Type:**REG_SZ**Value:**1
This value turns on the AutoFormat feature for plain-text WordMail messages when you open them. This value affects only WordMail messages; it does not affect pasted text or other text files. Set the value to 1 to turn on AutoFormat; set it to 0 to turn off AutoFormat.

IV-58Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**UpdateDictionaryNumber**Data Type:**REG_SZ**Value:**1
This value specifies the custom dictionary where the spelling checker adds words; the number corresponds to the number in the custom dictionary list. Find this list by going to the Spelling tab, clicking Options, and choosing Custom Dictionaries.

IV-59Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**WPHelp**Data Type:**REG_SZ**Value:**0
This value tells Microsoft Word to use WordPerfect commands along with its own. Setting this value to 0 disables this feature; setting it to 1 turns on this feature.

IV-60Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**Doc-Extension**Data Type:**REG_SZ**Value:**<extension>
This value specifies the default extension added to document filenames; the default value is .doc. To use a different filename extension, change the value of this key to your preferred

extension (you’re not limited to three letters). Don’t forget the leading period.

IV-61Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**Dot-Extension**Data Type:**REG_SZ**Value:**<extension>
This value sets the default extension added to Word template filenames; the default value is .dot. To use a different filename extension, change the value of this key to your preferred extension (you’re not limited to three letters). Don’t forget the leading period.

IV-62Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**Bak-Extension**Data Type:**REG_SZ**Value:**<extension>
If you choose, Word saves a previous version of a document as a backup copy every time you save a document; the default filename extension Word assigns is .bak. To change the extension, change the value of this key to your preferred extension (you’re not limited to three letters). Don’t forget the leading period.

IV-63Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**ProgramDir**Data Type:**REG_SZ**Value:**D:\Program Files\Microsoft Office\Office
This value sets the path to the Microsoft Word executable (Winword.exe) program. Other programs use this path to locate the Word executable and install ancillary programs Word uses.

IV-64Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**Doc-Path**Data Type:**REG_SZ**Value:**D:\My Documents
This value sets the default storage location and search path for documents that you create or use in Microsoft Word 97. This value overrides the value set in the registry key HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\User Shell Folders\Personal.

IV-65Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**Autosave-Path**Data Type:**REG_SZ**Value:**D:\My Documents\Autorecover
This value determines where Word stores documents, templates, and other items that you create in Word; it’s also where Word looks for its AutoRecover files. Setting this value can be very useful if your system crashes while you are working on a document. If you don’t set this value, which is the default setting, Word stores these files in your Temp folder.

If your system has become unusable but you can still access the files, save them in this directory, then set up a new system and restore your files into to the directory you specify

in this value. When you start Word, it AutoRecovers your documents.

IV-66 **Hive:** HKEY_CURRENT_USER **Key:** Software\Microsoft\Office\8.0\Word\Options **Value Name:** Picture-Path **Data Type:** REG_SZ **Value:** D:\Program Files\Microsoft Office\Clipart
This value sets where Microsoft Word looks for pictures, such as clipart, when you select Insert/Pictures/From File. You may want to change this value to point to a common folder for your image files.

IV-67 **Hive:** HKEY_CURRENT_USER **Key:** Software\Microsoft\Office\8.0\Word\Options **Value Name:** PicEditClas **Data Type:** REG_SZ **Value:** Word.Picture.8
This value specifies the object class name for the picture editor Word uses.

IV-68 **Hive:** HKEY_CURRENT_USER **Key:** Software\Microsoft\Office\8.0\Word\Options **Value Name:** Tools-Path **Data Type:** REG_SZ **Value:** D:\Program Files\Microsoft Office\Office
This value specifies where Microsoft Word looks for tools (such as dictionaries).

IV-69 **Hive:** HKEY_CURRENT_USER **Key:** Software\Microsoft\Office\8.0\Word\Options **Value Name:** Startup-Path **Data Type:** REG_SZ **Value:** D:\Program Files\Microsoft Office\Office\Startup
This value sets the Startup folder Word and any Word add-on products use.

IV-70 **Hive:** HKEY_CURRENT_USER **Key:** Software\Microsoft\Office\8.0\Word\Options **Value Name:** WordMail-Path **Data Type:** REG_SZ **Value:** D:\Program Files\Microsoft Office\Office\ WordMail\Favorites
This value sets the location for the document template files you need to use Word as an e-mail editor.

IV-71 If Microsoft Word doesn't show up as one of your journaling options in Microsoft Outlook, you need to add the following key and values.

Hive: HKEY_CURRENT_USER **Key:** Software\Microsoft\Shared Tools\Outlook\Journaling
Add the following key:

Key: Microsoft Word
Next, add these five values:

Value Name: Autojournaled**Data Type:**REG_DWORD**Value:**0x1**Value Name:**Description**Data Type:**REG_SZ**Value:**Microsoft Word **Value Name:**Enabled**Data Type:**REG_DWORD**Value:**0x1**Value Name:**Large Icon**Data Type:**REG_SZ**Value:**[16]**Value Name:**Small Icon**Data Type:**REG_SZ**Value:**[16]
You must change the values in both Autojournaled and Enabled for this change to take effect. A value of 1 turns on this feature; a value of 0 turns it off.

IV-72 You can do the same thing for Microsoft Access. Repeat the procedure but substitute Microsoft Access for the initial Key value and the Description value, as below:

Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Shared Tools\Outlook\Journaling
Add the following key:

Key: Microsoft Access**Value Name:**Description**Data Type:**REG_SZ**Value:**Microsoft Access
Don't forget to add the three other values listed under Microsoft Word, above; their values don't change. As with Word, you must change the values in both Autojournaled and Enabled for this change to take effect. A value of 1 turns on this feature; a value of 0 turns it off.

IV-73Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\AutoCorrect**Value Name:**Path**Data Type:**REG_SZ**Value:**D:\WINNT\username.acl
This value sets Word's AutoCorrect (ACL) file. When you start up Word for the first time, it copies this value from the Mso97.acl file. To set up your own AutoCorrect file and have everyone use it, run Microsoft Word and add entries to the AutoCorrect list with the AutoCorrect command located under the Tools menu. Then exit Word and copy your AutoCorrect file over Mso97.acl or over the specific users' <username>.ACL file. You could also create a common file and point the users' AutoCorrect registry key to your common file.

IV-74Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**BitmapMemory**Data Type:**REG_SZ**Value:**1024
This value sets the maximum size, in K, of bitmap caching used for graphics. Increase this value for better graphics performance. The default cache size is 1,024K.

IV-75Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**CacheSize**Data Type:**REG_SZ**Value:**64
This value sets the maximum size, in K, of caching used for Word documents. Increase this value for better performance. The minimum and default cache size is 64K.

IV-76Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**SlowShading**Data Type:**REG_SZ**Value:**Yes
Adding this line forces Word to use the Windows graphics device interface (GDI) to add shading instead of calling a printer escape code. When you select “Print TrueType As Graphics” in the printer driver dialog box, TrueType fonts print white-on-black shading. However, this method affects the way the shading looks and may slow down printing for documents that contain a lot of shading.

IV-77Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**DraftFont**Data Type:**REG_SZ**Value:**1
This value controls how Word displays documents. Using a draft font displays most character formatting as underlined and bold and displays graphics as empty boxes. To speed up screen display in documents with extensive formatting, enable draft font by setting this value to 1.

IV-78Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**AskForPrinterPicture**Data Type:**REG_SZ**Value:**0
This value controls how Microsoft Excel DDE results display in Word. A value of 0 sets the display to color; set the value to 1 to have it display in black and white.

IV-79Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**NetworkButtons**Data Type:**REG_SZ**Value:**<yes/no>
This value specifies whether to hide or show the Network button in dialog boxes such as Open, Save As, and Open Data Source. The default value is yes.

IV-80Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**MessageBeeps**Data Type:**REG_SZ**Value:**<yes/no>
This value determines whether the system beeps when Word displays a message box. The default value is yes.

IV-81Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Word\Options**Value Name:**NoFontMRUList**Data Type:**REG_SZ**Value:**<yes/no>
This value specifies whether to hide the most recently used fonts on the Formatting toolbar Font list. The default setting is no.

IV-82Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\Office\8.0\Common\Security**Value Name:**DisablePwdCaching**Data Type:**REG_ DWORD**Value:**0
This value controls whether passwords for password-protected documents in Office 97

applications are cached. A value of 0 disables password caching; a value of 1 enables password caching.

IV-83Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Windows\CurrentVersion\Explorer\ User Shell Folders**Value Name:**Personal**Data Type:**REG_EXPAND_SZ**Value:**%USERPROFILE%\Personal
This value sets default storage location and search path for documents that you create or use in any of the Office 97 applications. The default is your Personal folder. Note that you can reset this value for each Office 97 application.

SOUNDS

If you want to add or change the sounds of events in the various Office 97 applications, you need to modify these entries. Three registry keys are associated with each sound: the Office 97 sound or event ID, the default sound file to play for that ID, and the currently configured sound file. Type everything in the Value field, including spaces.

IV-84Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-NewItem**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**New Item**Key:**AppEvents\Schemes\Apps\Office97\Office97-NewItem**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\NewItem.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\NewItem.wav
You must provide a fully qualified path and file name to the wave file.

IV-85Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-AddItemtoView**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Add Item to View**Key:**AppEvents\Schemes\Apps\Office97\Office97-AddItemtoView**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\NewItem.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\NewItem.wav
You must provide a fully qualified path and file name to the wave file.

IV-86Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-Alert**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Alert**Key:**AppEvents\Schemes\Apps\Office97\Office97-Alert**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Alert.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Alert.wav
This value sets the sound that Office 97 applications use when alerting you to important events. You will also hear this when closing the Find window from within Word. You must provide a fully qualified path and file name to the wave file.

IV-87Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-Send**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Send**Key:**AppEvents\Schemes\Apps\Office97\Office97-Send**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Send.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Send.wav
This value sets the sound you hear when you send something, such an e-mail message. You must provide a fully qualified path and file name to the wave file.

IV-88Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-Sort**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Sort**Key:**AppEvents\Schemes\Apps\Office97\Office97-Sort**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Sort.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Sort.wav
This value sets the sound played when one of the Office 97 applications is sorting or resorting anything, such as a spreadsheet. You must provide a fully qualified path and file name to the wave file.

IV-89Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-AutoCorrect**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**AutoCorrect**Key:**AppEvents\Schemes\Apps\Office97\Office97-AutoCorrect**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\AutoCorr.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\AutoCorr.wav
This value sets the sound that Office Applications (primarily Word) use when the AutoCorrect feature becomes active and AutoCorrects something. You must provide a fully qualified path and file name to the wave file.

IV-90Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-BestFit**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Best Fit**Key:**AppEvents\Schemes\Apps\Office97\Office97-BestFit**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\BestFit.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\BestFit.wav
This value sets the sound Office 97 applications play when you select the “Best Fit” feature. For example, you might select a column header and select the “Best Fit” option to make the column fit the data it’s displaying. You must provide a fully qualified path and file name to the wave file.

IV-91Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-ProcessComplete**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Process Complete**Key:**AppEvents\Schemes\Apps\Office97\Office97-ProcessComplete**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\ProcessComplete.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\ProcessComplete.wav
This value sets the sound Office 97 applications play when they are done performing some

action, such as saving a document. You must provide a fully qualified path and file name to the wave file.

IV-92Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-Undo**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Undo
Key: AppEvents\Schemes\Apps\Office97\Office97-Undo**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Undo.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Undo.wav
This value sets the sound played when you undo something in one of the Office 97 applications. You must provide a fully qualified path and file name to the wave file.

IV-93Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-Redo**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Redo**Key:**AppEvents\Schemes\Apps\Office97\Office97-Redo**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Redo.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Redo.wav
This value sets the sound played when you redo an action that you have undone. You must provide a fully qualified path and file name to the wave file.

IV-94Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-Reminder**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Reminder**Key:**AppEvents\Schemes\Apps\Office97\Office97-Reminder**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Reminder.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Reminder.wav
This value sets the sound played when an Office 97 application announces an appointment. You must provide a fully qualified path and file name to the wave file.

IV-95Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-Clear**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Clear**Key:**AppEvents\Schemes\Apps\Office97\Office97-Clear**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Clear.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Clear.wav
This value sets the sound played when you delete selected text in Microsoft Word or clear out a cell or a range of cells in a Microsoft Excel spreadsheet. You must provide a fully qualified path and file name to the wave file.

IV-96Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-Cut&Clear**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Cut & Clear**Key:**AppEvents\Schemes\Apps\Office97\Office97-Cut&Clear**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Cut.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Cut.wav

You must provide a fully qualified path and file name to the Wave file.

IV-97Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-Delete**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Delete**Key:**AppEvents\Schemes\Apps\Office97\Office97-Delete**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Delete.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Delete.wav
This value sets the sound Microsoft Office 97 uses when you delete something. You must provide a fully qualified path and file name to the wave file.

IV-98Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-DeleteRow**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Delete Row**Key:**AppEvents\Schemes\Apps\Office97\Office97-DeleteRow**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Delete.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Delete.wav
This value sets the sound played when you delete a row from something; this sound is used most often within Excel. You must provide a fully qualified path and file name to the wave file.

IV-99Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-InsertRow**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Insert Row**Key:**AppEvents\Schemes\Apps\Office97\Office97-InsertRow**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\InsertRow.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\InsertRow.wav
This value sets the sound played when you insert a row or column; it is used most often in Excel. You must provide a fully qualified path and file name to the wave file.

IV-100Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-DialogCancel**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Dialog Cancel**Key:**AppEvents\Schemes\Apps\Office97\Office97-DialogCancel**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Dialog.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Dialog.wav
This value sets the sound played when you click the cancel button on an Office 97 dialog box. You must provide a fully qualified path and file name to the wave file.

IV-101Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-DialogOk**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Dialog Ok**Key:**AppEvents\Schemes\Apps\Office97\Office97-DialogOk**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Dialog.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Dialog.wav
This value sets the sound played when you click the OK button in an Office 97 dialog box. You must provide a fully qualified path and file name to the wave file.

IV-102Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-Drag**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Drag**Key:**AppEvents\Schemes\Apps\Office97\Office97-Drag**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Drag.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Drag.wav
This value sets the sound played when you start to drag something in an Office 97 application. For example, when you select text in a Word document and drag it someplace, you'll hear this sound. You must provide a fully qualified path and file name to the wave file.

IV-103Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-Drop**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Drop**Key:**AppEvents\Schemes\Apps\Office97\Office97-Drop**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Drop.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Drop.wav
This value sets the sound played when you drop something, such as text or a graphic, into an Office 97 application. You must provide a fully qualified path and file name to the wave file.

IV-104Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-Expand/Collapse**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Expand/Collapse**Key:**AppEvents\Schemes\Apps\Office97\Office97-Expand/ Collapse**Value Name:**.Default **Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Sort.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Sort.wav
This value sets the sound played when you expand or collapse a directory in Outlook. You must provide a fully qualified path and file name to the wave file.

IV-105Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-FolderSwitch**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Folder Switch**Key:**AppEvents\Schemes\Apps\Office97\Office97-FolderSwitch**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Folder.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Folder.wav
This value sets the sound played when you switch folders in Outlook. You must provide a fully qualified path and file name to the wave file.

IV-106Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-GroupScopeSwitch**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Group Scope Switch**Key:**AppEvents\Schemes\Apps\Office97\ Office97-GroupScopeSwitch**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\GroupScopeSwitch.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\GroupScopeSwitch.wav
This value sets is the sound played when you switch groups on the Outlook menu. You

must provide a fully qualified path and file name to the wave file.

IV-107Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-GroupSwitch**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Group Switch**Key:**AppEvents\Schemes\Apps\Office97\Office97-GroupSwitch**Value Name:**.Defaultv **Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\GroupSwitch.wavv**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\GroupSwitch.wav You must provide a fully qualified path and file name to the wave file.

IV-108Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-ModeSwitch**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Mode Switch**Key:**AppEvents\Schemes\Apps\Office97\Office97-ModeSwitch**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\ModeSwitch.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\ModeSwitch.wav This value sets the sound played when you preview a document you're printing and you change from Actual Size to Overview mode or when you change the icon size on the outlook bar. You must provide a fully qualified path and file name to the wave file.

IV-109Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-ViewSwitch**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**View Switch**Key:**AppEvents\Schemes\Apps\Office97\Office97-ViewSwitch**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\ViewSwitch.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\ViewSwitch.wav This value sets the sound played when you switch views of data. For example, if you change the message view in Outlook, you hear this sound. You must provide a fully qualified path and file name to the wave file.

IV-110Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-ZoomIn**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Zoom In**Key:**AppEvents\Schemes\Apps\Office97\Office97-ZoomIn**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\ZoomIn.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\ZoomIn.wav This value sets the sound an Office 97 application plays when you zoom in on a spreadsheet or document (note that Word doesn't use this sound). You must provide a fully qualified path and file name to the wave file.

IV-111Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-ZoomOut**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Zoom Out**Key:**AppEvents\Schemes\Apps\Office97\Office97-ZoomOut**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\ZoomOut.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\ZoomOut.wav

This value sets the sound an Office 97 application plays when you zoom out on a spreadsheet or document (note that Word doesn't use this sound). You must provide a fully qualified path and file name to the wave file.

IV-112 The following registry keys control the sounds that Microsoft Office 97 makes when using the scrollbars. Note that some Office applications don't use these sounds.

Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-PlyScroll**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Ply Scroll **Key:**AppEvents\Schemes\Apps\Office97\Office97-PlyScroll**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\PlyScroll.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\PlyScroll.wav You must provide a fully qualified path and file name to the wave file.

IV-113Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-PlySelect**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Ply Select**Key:**AppEvents\Schemes\Apps\Office97\Office97-PlySelect**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\PlySelect.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\PlySelect.wav This value sets the sound played when you select a tab on the bottom of a workbook to choose a different spreadsheet. You must provide a fully qualified path and file name to the wave file.

IV-114Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-ScrollArrow**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Scroll Arrow**Key:**AppEvents\Schemes\Apps\Office97\Office97-ScrollArrow**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\ScrollArrow.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\ScrollArrow.wav This value sets the sound played when you click one of the scroll bar arrows in most Office 97 applications except Word. You must provide a fully qualified path and file name to the wave file.

IV-115Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-ScrollBar**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Scroll Bar**Key:**AppEvents\Schemes\Apps\Office97\Office97-ScrollBar**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\ScrollBar.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\ScrollBar.wav This value sets the sound played when you click a scrollbar in most Office 97 applications except Word. You must provide a fully qualified path and file name to the wave file.

IV-116Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-ScrollThumb**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Scroll

Thumb**Key:**AppEvents\Schemes\Apps\Office97\Office97-ScrollThumb**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\ScrollThumb.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\ScrollThumb.wav
This value sets the sound played when you click the thumb control on a scroll bar in most Office 97 applications except Word. You must provide a fully qualified path and file name to the wave file.

IV-117 The following registry keys control the sounds of various toolbar actions.

Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-ToolbarClick**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Toolbar Click**Key:**AppEvents\Schemes\Apps\Office97\Office97-ToolbarClick**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Click.wav**Value Name:**.Current **Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Click.wav
This value sets the sound played when you click one of the toolbar buttons. You must provide a fully qualified path and file name to the wave file.

IV-118Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-ToolbarClose**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Toolbar Close**Key:**AppEvents\Schemes\Apps\Office97\Office97-ToolbarClose**Value Name:**.Default **Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Close.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Close.wav
This value sets the sound played when you close a toolbar menu. You must provide a fully qualified path and file name to the wave file.

IV-119Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-ToolbarDock**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Toolbar Dock**Key:**AppEvents\Schemes\Apps\Office97\Office97-ToolbarDock**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Dock.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Dock.wav
This value sets the sound you hear when you dock a toolbar onto one of the sides of an Office 97 application. You must provide a fully qualified path and file name to the wave file.

IV-120Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-ToolbarUndock**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Toolbar Undock**Key:**AppEvents\Schemes\Apps\Office97\ Office97-ToolbarUndock**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Undock.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Undock.wav
This value sets the sound played when you undock a toolbar from one of the sides of an Office 97 application. You must provide a fully qualified path and file name to the wave file.

IV-121Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-ToolbarDrop**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Toolbar Drop**Key:**AppEvents\Schemes\Apps\Office97\Office97-ToolbarDrop**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Drop.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Drop.wav
This value sets the sound played when you are dragging around a toolbar or toolbar window and you drop it (or let go of it). You must provide a fully qualified path and file name to the wave file.

IV-122Hive:HKEY_CURRENT_USER**Key:**AppEvents\EventLabels\Office97-ToolbarFocus**Value Name:**<No Name>**Data Type:**REG_SZ**Value:**Toolbar Focus**Key:**AppEvents\Schemes\Apps\Office97\Office97-ToolbarFocus**Value Name:**.Default**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Focus.wav**Value Name:**.Current**Data Type:**REG_SZ**Value:**C:\WINNT\Media\Office97\Focus.wav
This value sets the sound played when you select one of the “windowed” toolbars. You must provide a fully qualified path and file name to the wave file.

CURSORS

Did you know that Office 97 Applications can display different cursors when you do something such as highlight text in a document or delete a cell within a spreadsheet? With the following 22 registry keys, you can control which cursor Office 97 uses. Note: Some of these cursors show up only in place of the hourglass cursor when one of the Office 97 applications takes time to perform one of these tasks.

IV-123Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**AutoFormat**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\autofmt.ani
This value sets the cursor displayed while your text is AutoFormatted in one of the Office 97 applications such as Word or Excel. You must provide a fully qualified path and cursor file name.

IV-124Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**Charting**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\charting.ani
This value sets the cursor displayed when you create a chart or graph in one of the Office 97 applications such as Excel. You must provide a fully qualified path and cursor file name.

IV-125Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**Cut**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\cut.ani
If you want to change the cursor displayed when you cut something out of a document or delete an e-mail message, point this registry entry to the cursor file you wish to use. You

must provide a fully qualified path and cursor file name.

IV-126Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**DataMap**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\msmap.ani
Microsoft Excel uses this registry key when performing a mapping function. You must provide a fully qualified path and cursor file name.

IV-127Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**HighlightTextHor**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\hilithor.ani
The cursor set in this value is displayed when you highlight text in one of the Office 97 applications. You must provide a fully qualified path and cursor file name.

IV-128Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**HighlightTextVert**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\hilitver.ani
This value sets the cursor displayed when you highlight something that is oriented vertically, such as part of a PowerPoint slide. You must provide a fully qualified path and cursor file name.

IV-129Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**Load**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\load.ani
This value sets the cursor shown when you load in a long file into one of the Office 97 applications. You must provide a fully qualified path and cursor file name.

IV-130Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**MacroRecord**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\macrorec.ani
When you create a macro in one of the Office 97 applications, you might see a spinning cassette with a mouse cursor over it. To change the cursor, change the value in this entry. You must provide a fully qualified path and cursor file name.

IV-131Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**Object**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\object.ani
To change the cursor you see when you insert an object into a document, modify this registry entry. You must provide a fully qualified path and cursor file name.

IV-132Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursor

s**Value Name:**OpenShared**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\opshrfld.ani
The cursor specified in this value appears when you open a file that is already opened by someone else. You must provide a fully qualified path and cursor file name.

IV-133Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**PaintArrow**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\paintptr.ani
This value sets the cursor displayed when you use the Format Painter in any Office 97 application. You must provide a fully qualified path and cursor file name.

IV-134Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**PaintCell**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\paintcel.ani
The cursor set in this value appears when you use the Format Painter to apply formatting in an Excel spreadsheet. You must provide a fully qualified path and cursor file name.

IV-135Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**PaintTextHor**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\painthor.ani
The cursor set in this value appears when you use the Format Painter to paint text formatting horizontally — it's the same cursor you usually see when using the Format Painter to apply formatting. You must provide a fully qualified path and cursor file name.

IV-136Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**PaintTextVert**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\paintver.ani
This registry entry holds the path and file name of the cursor that appears when you apply the Format Painter to vertical text.

IV-137Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**Print**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\print.ani
To change the cursor that's displayed when you print, set the value of this registry key to a fully qualified path and cursor file name of the cursor that you wish to use.

IV-138Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**Recalc**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\recalc.ani
This value sets the cursor Excel uses when it recalculates a spreadsheet. You must provide a fully qualified path and cursor file name.

IV-139Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**Repaginate**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\repag.ani
Change this entry to change the cursor Word uses when repaginating a document. You

must provide a fully qualified path and cursor file name.

IV-140Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**ReplaceAll**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\replace.ani
This value sets the cursor that appears when you tell an Office 97 application to search and replace in a document. You must provide a fully qualified path and cursor file name.

IV-141Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**Save**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\save.ani
This value sets the cursor that appears when you save a document such as a spreadsheet within one of the Office 97 applications. You must provide a fully qualified path and cursor file name.

IV-142Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**SendMail**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\sendmail.ani
This value sets the cursor Outlook displays when you send a message to someone. You must provide a fully qualified path and cursor file name.

IV-143Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**Sorting**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\sort.ani
This value sets the cursor that appears when one of the Office 97 applications sorts or resorts anything, such as a spreadsheet. You must provide a fully qualified path and cursor file name.

IV-144Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\Common\Cursors**Value Name:**WordCount**Data Type:**REG_SZ**Value:**C:\WINNT\Cursors\wrdcount.ani
This value sets the cursor that appears when Word counts the number of words in your document. You must provide a fully qualified path and cursor file name.

MICROSOFT POWERPOINT 8.0/97

The following registry keys control various options available in Microsoft PowerPoint 97. Note that to change any of these options, you must exit PowerPoint, change the registry key, then restart Microsoft PowerPoint.

IV-145Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**Always render high quality 24-bit images**Data Type:**REG_DWORD**Value:**1

Setting this value to 1 enables PowerPoint's ability to render its images at the highest screen quality. Disabling this feature can speed up the display, but may produce a lower-quality display.

IV-146 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**AlwaysSuggest **Data Type:**REG_DWORD **Value:**0
Setting this value to 0 makes PowerPoint automatically display a list of suggested spellings for misspelled words during a spelling check. Setting the value to 1 disables the feature.

IV-147 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**AppMaximized **Data Type:**REG_DWORD **Value:**0
Setting this value to 1 causes PowerPoint to open at its maximum size.

IV-148 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**Background spell checking **Data Type:**REG_DWORD **Value:**1
Setting this value to 1 causes PowerPoint to perform background spell-checking; setting it to 0 disables this feature.

IV-149 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**BackgroundPrint **Data Type:**REG_DWORD **Value:**1
Setting this value to 1 lets PowerPoint print presentations in the background so you can continue working in PowerPoint while you are printing. Setting this value to 1 disables this feature.

IV-150 The next four values set the screen position of the application window when it's not maximized. The values are in pixels, but you must type them in hexadecimal format. For clarity, the decimal value is in parentheses, but you should type only the hexadecimal.

Hive:HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**Left **Data Type:**REG_DWORD **Value:**0x6e (110)

IV-151 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**Bottom **Data Type:**REG_DWORD **Value:**0x210 (528)

IV-152 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**Right **Data Type:**REG_DWORD **Value:**0x31c (796)

IV-153 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**Top **Data Type:**REG_DWORD **Value:**0x69 (105)
The first of these entries sets the left coordinate, the second entry sets the position of the

bottom of the window, the third sets the right coordinate, and the fourth sets the position of the top.

IV-154Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**FrequencyToSaveAutoRecoveryInfo**Data Type:**REG_DWORD**Value:**0xa (10)
This value sets how often PowerPoint creates an AutoRecovery file. The value is time in minutes, but you must type it in hexadecimal format. For clarity, the decimal value is in parentheses, but you should type only the hexadecimal.

IV-155Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**Language Id**Data Type:**REG_DWORD**Value:**0x409 (1033)
This value tells PowerPoint which language to use for its various options such as the spelling checker. Valid values are listed below, but you must type them in hexadecimal format. For clarity, the decimal value is in parentheses above and appears to the left below, but you should type only the hexadecimal.

1030Danish1031German1033U.S. English1034Spanish1036French1040Italian1043Dutch1044Norwegian1054Swedish2057 British English2070Portuguese3081Australian English

IV-156Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**LinkSoundSize**Data Type:**REG_DWORD**Value:**0x64 (100)
This value determines how PowerPoint treats sound files. PowerPoint loads into your presentations those sounds files that are smaller than this value, and it links to sound files larger than this value. The value is in kilobytes, but you must type the value in hexadecimal format. For clarity, the decimal value is in parentheses, but you should type only the hexadecimal.

IV-157Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**Do not underline errors**Data Type:**REG_DWORD**Value:**0
Setting this value to 1 hides the wavy red line under possible spelling errors in your presentation. Disabling this feature causes PowerPoint to mark possible spelling errors with a wavy red line that are visible on the screen but that do not print.

IV-158Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\OptionsValue Name:DocMaximized **Data Type:**REG_DWORD**Value:**1
Setting this value to 1 maximizes the document window when you open PowerPoint.

IV-159Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Opti

ons**Value Name:**DragAndDrop**Data Type:**REG_DWORD**Value:**1
Setting this value to 1 allows drag-and-drop text editing; setting it to 0 causes PowerPoint to extend the selection when you drag the cursor over text.

IV-160Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**FastSaves**Data Type:**REG_DWORD**Value:**1
Enabling this feature speeds up saving by recording only the changes in a presentation. Disabling this feature means that save commands take longer but save the entire presentation.

IV-161Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**GuidesVisible**Data Type:**REG_DWORD**Value:**0
If this value is set to 0, PowerPoint displays the vertical and horizontal alignment guides on your slides. The alignment guides are useful for aligning objects on your slides.

IV-162Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**Ignore email and file names**Data Type:**REG_DWORD**Value:**1
Setting this value to 1 tells PowerPoint's spelling checker to ignore e-mail and filenames.

IV-163Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**Ignore UPPERCASE words**Data Type:**REG_DWORD**Value:**1
Setting this value to 1 tells PowerPoint's spelling checker to ignore words in UPPERCASE letters.

IV-164Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**Ignore words with numbers**Data Type:**REG_DWORD**Value:**1
Setting this value to 1 tells PowerPoint's spelling checker to ignore words that contain numbers.

IV-165Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**MacroVirusProtection**Data Type:**REG_DWORD**Value:**1
Setting this value to 1 enables a warning dialog box that appears whenever you open a PowerPoint presentation that might contain macro viruses — any file that contains macros, customized toolbars, menus, or shortcuts.

IV-166Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**MRUListActive**Data Type:**REG_DWORD**Value:**1
This value controls the most recently used file list. Setting this value to 1 displays the most

recently used files under the File menu.

IV-167 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**NewSlideDialog **Data Type:**REG_DWORD **Value:**1
Setting this value to 1 enables the Show Slide Layout dialog box when you insert new slides into a presentation.

IV-168 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**NoEditTime **Data Type:**REG_DWORD **Value:**0
Setting this value to 1 turns off Edit Time tracker. Setting this value to 0 enables the Edit Time tracker, and the total time shows up under Properties.

IV-169 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**NoStyledTitleBar **Data Type:**REG_DWORD **Value:**0
Setting this value to 1 disables the styled text in the PowerPoint title bar.

IV-170 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**Number of Undos **Data Type:**REG_DWORD **Value:**0x14 (20)
This value sets the number of times you can undo something. Increasing this value decreases the amount of memory available to PowerPoint.

IV-171 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**Options dialog current tab **Data Type:**REG_DWORD **Value:**0
This value is an index to the last-used tab on the Options dialog box. PowerPoint stores this value and displays the most recently used section of Options.

IV-172 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**Produce 8-bit metafiles **Data Type:**REG_DWORD **Value:**0
Turning off this option displays metafiles better on 24-bit systems.

IV-173 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**PromptForFileProperties **Data Type:**REG_DWORD **Value:**0
Setting this value to 0 causes PowerPoint to open the Properties dialog box when you save a PowerPoint presentation for the first time.

IV-174 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**Recolor imported Graph **Data Type:**REG_DWORD **Value:**0

Setting this value to 0 causes PowerPoint to recolor imported graphs, which can slow down the display but makes imported graphs look better.

IV-175 Problem: You have users who want access to PowerPoint clip art, but you don't want to give them administrator access or have them log on as local users. In other words, you want domain users to have access to the clip art without giving away the farm. This registry entry helps you around this problem.

Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\ClipArt Gallery\2.0
With the 2.0 key highlighted, click Permissions. Give everyone full control to this key and the subkeys by clicking on the Change Existing Subkeys box in the dialog box. Now domain users have access to the clip art.

IV-176Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**RulersVisible**Data Type:**REG_DWORD**Value:**0
Setting this value to 1 enables the horizontal and vertical rulers, which appear on the top and left side of the slide window.

IV-177Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**Save Text Content Stream**Data Type:**REG_DWORD**Value:**0
Setting this value to 1 copies all slide text to a Text_Content index stream that the Find File uses. This feature corresponds to the "Save Full Text Search Information" option.

IV-178Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**SaveAutoRecoveryInfo**Data Type:**REG_DWORD**Value:**1
Setting this value to 1 enables PowerPoint's AutoRecovery features.

IV-179Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**SaveFullTextSearchInfo**Data Type:**REG_DWORD**Value:**1
Enabling this feature causes PowerPoint to save full text search information with your presentation.

IV-180Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**Send TrueType fonts as bitmaps**Data Type:**REG_DWORD**Value:**0
Enabling this feature causes PowerPoint to print TrueType fonts as graphic images instead of downloading the TrueType font to your printer.

IV-181Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Opti

ons**Value Name:**Show Preview**Data Type:**REG_DWORD**Value:**0
If this feature is enabled, the Slide Miniature window is visible under the File/Open dialog box.

IV-182Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**ShowStatusBar**Data Type:**REG_DWORD**Value:**1
Disabling this registry key causes PowerPoint to hide the status bar. This feature is useful if you need more working room on the screen.

IV-183Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**SizeOfMRUList**Data Type:**REG_DWORD**Value:**4
This value sets the number of Most Recently Used files PowerPoint tracks and displays at the bottom of the File menu. Acceptable values range from 1 to 9.

IV-184Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**SmartCutPaste**Data Type:**REG_DWORD**Value:**1
Enabling this feature causes PowerPoint to remove extra spaces when you delete text and causes PowerPoint to add spaces when you insert text from the clipboard.

IV-185Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**SmartQuotes**Data Type:**REG_DWORD**Value:**1
If you enable this feature, PowerPoint changes straight quotation marks to smart quotation marks.

IV-186Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**SSEndOnBlankSlide**Data Type:**REG_DWORD**Value:**0
If you enable this feature, PowerPoint displays a black slide as the last slide of your slide show.

IV-187Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**SSMenuButton**Data Type:**REG_DWORD**Value:**1
If you enable this feature, PowerPoint displays the menu button on the bottom left during slide shows.

IV-188Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**SSRightMouse**Data Type:**REG_DWORD**Value:**1
Setting this value to 1 displays a menu when you right-click during a PowerPoint slide

show.

IV-189 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**StartupDialog **Data Type:**REG_DWORD **Value:**1
Setting this value to 1 causes PowerPoint to display its opening dialog box, which prompts you to create a blank presentation or run a PowerPoint creation wizard.

IV-190 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**StartupDialogDefault **Data Type:**REG_DWORD **Value:**8
This value indicates the last setting chosen in the Startup dialog box. Acceptable values are

6AutoContent Wizard (default)7Template8Blank Presentation9Open Existing Presentation

IV-191 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**SummaryInfo **Data Type:**REG_DWORD **Value:**1
If this feature is enabled, PowerPoint displays the Summary Info dialog box when saving your presentation.

IV-192 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**TipOfDay **Data Type:**REG_DWORD **Value:**0
If this feature is enabled, PowerPoint displays the Tip of the Day when you start it.

IV-193 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**TipOfDayId **Data Type:**REG_DWORD **Value:**0
This value is the ID Number of the last Tip of the Day PowerPoint displayed.

IV-194 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**True Inline Conversion **Data Type:**REG_DWORD **Value:**1
This feature is available only in Far East versions of PowerPoint; it chooses the type of IME conversion that PowerPoint uses.

IV-195 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Options **Value Name:**Use Fast OLE Save **Data Type:**REG_DWORD **Value:**1
Setting this value to 1 results in faster saves but slightly larger files.

IV-196 **Hive:**HKEY_CURRENT_USER **Key:**Software\Microsoft\Office\8.0\PowerPoint\Opti

ons**Value Name:**VerticalRuler**Data Type:**REG_DWORD**Value:**1
If this feature is enabled, the vertical ruler is displayed on the left side of the PowerPoint window.

IV-197Hive:HKEY_CURRENT_USER**Key:**Software\Microsoft\Office\8.0\PowerPoint\Options**Value Name:**WordSelection**Data Type:**REG_DWORD**Value:**1
If this feature is enabled, PowerPoint automatically selects the entire word plus the space after the word when you select part of a word.

NT PERMISSIONS

Windows NT Security is a popular topic of discussion these days. Modifying these registry entries lets you set security as tightly or as loosely as you need to.

For each of the following keys, set the following permission.

Group: Permission**Everyone:**QueryValue, Enumerate Subkeys, Notify, Read Control
To see the permissions that are already set, select the key in Regedt32.exe and go to the Security menu.

V-1Hive:HKEY_LOCAL_MACHINE**Key:**Software\
I strongly recommend setting this parameter. It determines who can install software. However, I don't recommend locking the entire subtree using this setting because that can render certain software unusable. Here is a list of each individual subtree. Changing each subtree lets you exert greater control over each individual software component.

V-2 Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\RPC
V-3Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion
V-4Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Profile List
V-5Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\AeDebug
V-6Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Compatibility
V-7Hive:
HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Drivers

V-8Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Embedding

V-9Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Fonts

V-10Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\ FontSubstitutes

V-11Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Font Drivers

V-12Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Font Mapper

V-13Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Font Cache

V-14Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\ GRE_Initialize

V-15Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\MCI

V-16Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\ MCI Extensions

V-17Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\PerfLib

If you remove the Read permissions for the Everyone group, remote users cannot see performance data on the machine.

V-18Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Port (and all subkeys)

V-19Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\Type1 Installer

V-20Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\WOW (and all subkeys)

V-21Hive:HKEY_LOCAL_MACHINE**Key:**Software\Microsoft\WindowsNT\CurrentVersion\ Windows3.1MigrationStatus (and all subkeys)

V-22Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\Shares
V-23Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\UPS
Note that besides setting security on this key, you must also secure any batch or command file associated with the UPS service. Generally, if you allow administrators full control and system full control, everything should function normally.

EVENT LOG

By default, anyone can read your event logs; however, you might not want everyone reading some of the information in your logs. These registry entries let you restrict access to these logs from Guest and Null Logons accounts. A value of 1 restricts guest access and a value of 0 permits it. You must set these values for each log type: Application, Security, and System.

V-24Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\EventLog\Application**Value Name:**RestrictGuessAccess**Data Type:**Dword**Value:**1
This value controls guest access to the Application Log file.

V-25Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\EventLog\Security**Value Name:**RestrictGuessAccess**Data Type:**Dword**Value:**1
This value controls guest access to the Security Log file.

V-26Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\EventLog\System**Value Name:**RestrictGuestAccess**Data Type:**Dword**Value:**1
This value controls guest access to the System Log file. Make sure you change the security on this key to allow only Administrator and System access to these values.

PRINT DRIVER INSTALLATION

V-27Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\Print\Providers\ LanMan Print Services**Value Name:**AddPrinterDrivers**Data Type:**Dword**Value:**1
This value prevents users from adding printers on the local machine. It does not prevent additions from the network.

REMOVABLE MEDIA

V-28 This registry entry restricts access to the floppy disk drives on a system to only those users who are logged on interactively.

Hive:HKEY_LOCAL_MACHINE**Key:**SOFTWARE\Microsoft\WindowsNT\CurrentVersion\ Winlogon
Add the following value under the WinLogon key:

Value Name: AllocateFloppies**Data Type:**REG_SZ**Value:**1
V-29 You can restrict the CD-ROMs as well.

Hive:HKEY_LOCAL_MACHINE**Key:**SOFTWARE\Microsoft\WindowsNT\CurrentVersion\ Winlogon
Add the following value under the WinLogon key:

Value Name: AllocateCDRoms**Data Type:**REG_SZ**Value:**1
If either of these registry entries doesn't exist or is set to a value other than 1, all floppy and CD-ROM devices are available for shared use to all processes on the system.

AUDITING BASE SYSTEM OBJECTS

V-30 If you need to audit the base system objects on your Windows NT Server or Workstation, add the following registry value.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\Lsa:
Add the following value under the Lsa key:

Value Name: AuditBaseObjects**Data Type:**REG_DWORD**Value:**1
You need to turn on auditing in User Manager for the "Object Access" category to actually begin auditing.

FULL PRIVILEGE AUDITING

V-31 Not all privileges are audited by Windows NT by default. Modifying this registry entry lets you audit these additional privileges.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\Lsa:
Add the following value under the Lsa key:

Value Name: FullPrivilegeAuditing**Data Type:**REG_BINARY**Value:**1
The additional privileges audited are bypass traverse checking, debug programs, create a token object, replace process level token, generate security audits, back up files and directories, and restore files and directories.

SHUTDOWN ON FULL AUDIT LOG

V-32 If you monitor your logs closely, you may want to enable this feature. When the security log is full, Windows NT shuts down. The registry value is then set to 2, and when the system reboots, only administrators can log on. The administrator must clean out the log, reset the value to 1, and reboot the system before users can log on.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\Lsa:
Add the following value under the Lsa key:

Value Name: CrashOnAuditFail**Data Type:**REG_DWORD**Value:**1
GENERAL SYSTEM PERFORMANCE

The tuning parameters in this section tune the general performance of NT, rather than a specific aspect of NT such as file systems or memory. By our definition, these keys tune NT itself, not specific device drivers or user-level applications.

VI-1 Managing the number of threads can help you optimize performance. When NT boots, it creates a pool of worker threads that NT's kernel, Executive Subsystems, and device drivers use. When one of these components places a work item, such as the Cache Manager's lazy cache flusher or the Memory Manager's idle memory zero-filler, in a queue, a thread is assigned to process it. If too many threads are in the pool, they needlessly consume system resources. However, if not enough threads are in the pool, work items are not serviced in a timely manner. Adjust the following two registry keys to change the number of threads.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\Session Manager\Executive**Value Name:**AdditionalCriticalWorkerThreads**Data Type:**REG_DWORD**Value:**<any number>
VI-2Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\Session Manager\Executive**Value Name:**AdditionalDelayedWorkerThreads**Data Type:**REG_DWORD**Value:**<any number>
The number you specify in the value increases the number of threads created for the specified work queue. NT has two thread queues. Threads in the Critical Work Queue execute in the low real-time priority range, so they have precedence over most system activity. Threads in the Delayed Work Queue have a slightly lower priority that results in higher latency — the threads that service it compete with other processing for CPU time. The number of threads created for each queue is based on two criteria: whether the system is a server or workstation and how much physical memory the system has. You can't tell directly whether more threads in a particular situation give you better performance, but you can experiment with benchmark workloads to see if they provide a benefit.

VI-3 To make your foreground windows more responsive than your background windows, in Windows 3.51 you could boost priorities. In NT 4.0 Workstation, instead of

boosting priorities, you set quantums to boost foreground windows (Server treats foreground and background windows alike). Change this registry entry to set the boost value.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control**Value Name:**PriorityControl**Data Type:**REG_DWORD**Value:**0
You can also set the boost value with a slider in the Performance tab of the System Control Panel applet. Valid values are shown below.

0No quantum boost for foreground windows1Foreground windows have quantums twice as long as other windows2Foreground windows have quantums three times as long as other windows
VI-4 Here's a tricky registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\Session Manager\Executive**Value Name:**PriorityQuantumMatrix**Data Type:Value:**
Although you can't use this value to enhance performance, its name implies that you can. This value actually encodes expiration data about NT Beta and Release Candidates.

MEMORY PERFORMANCE

When you think of memory performance, fast SRAMs and multilevel caching come to mind. Although these hardware components play a critical role in the latency and throughput of a computer's memory subsystem, tweaking the Registry obviously cannot upgrade your machine's hardware. So in this section, improving memory performance means improving the way NT uses physical and virtual memory. You know you're experiencing memory problems that you can fix with registry entries, rather than additional hardware, when you get "not enough memory to complete task…" messages in the system Event Log or on the display monitor.

VI-5 The file system cache grows and shrinks as the applications' memory demands change. However, at system startup, the cache's minimum, maximum, and "ideal" sizes are calibrated based on the Registry value you set below.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\Session Manager\ Memory Management**Value Name:**LargeSystemCache**Data Type:**REG_DWORD**Value:**0
This value controls the size of the system's file system cache. A value of 0 indicates a small cache, which is the default setting for Workstation, while 1 indicates a large cache, which is the default setting for Server. Servers usually perform some file sharing and therefore require a larger cache.

VI-6 NT categorizes memory as either paged or nonpaged. Paged memory holds data that can temporarily be moved from physical memory to the system's paging file if space is

needed for different data in physical memory. Nonpaged memory stores data that must be present in physical memory at all times. NT allocates a portion of physical memory for nonpaged memory when the system starts up, and this allocation can't grow. If drivers or NT exhaust this storage, the system may become unstable or operations may start to fail. Modifying these two registry entries lets you override the defaults set for the paged and nonpaged pools.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\Session Manager\ Memory Management**Value Name:**NonPagedPoolSize**Data Type:**REG_DWORD**Value:**<number in bytes >
This value is the number of bytes of physical memory you want to allocate for nonpaged memory. To monitor your memory, use Performance Monitor to watch the percentage of committed memory that's used. If more than 80 percent of memory is used consistently, you should increase this value. Likewise, if the system's nonpaged memory usage is low, reducing the amount allocated for it increases system performance.

VI-7Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\Session Manager\ Memory Management**Value Name:**PagedPoolSize**Data Type:**REG_DWORD**Value:**<number in bytes >
This value is the number of bytes in the paged memory pool. It overrides the system's default calculation, which is roughly equal to the physical memory on Workstation and a minimum of 50 MB on Server. Paged pool is different from virtual memory size — the paged pool is space reserved in the system's virtual memory map for NT and device drivers to allocate pageable data.

You can monitor the amount of paged pool the system uses with the Performance Monitor, which also shows the maximum allocation possible. If the amount of memory used is consistently more than 80 percent, you should use this setting to override the default.

NETWORKING PERFORMANCE

The registry gives you lots of control over Windows NT's various networking components. Because your system may not run every networking service, you should identify which components are active so that you can target them when evaluating networking performance with tools like Performance Monitor.

General Networking

VI-8 This value controls the order in which your network redirectors are used. If you have more than one network redirector, such as Lanmanager Workstation or Client Services for NetWare, loaded on your system, you should consider changing this entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\NetworkProvider**Value Name:**Order**Data Type:**REG_SZ**Value:**<redirector name,redirector

name,redirector name>
In this value, you set the order in which the WNet API uses your network providers. When the WNet API is called, it processes requests by sending them to each network provider in the order listed. If it gets back a response that the provider doesn't process that type of request, the API calls the next provider listed. Thus, if most of your system's activity relates to accessing NetWare shares, you should move the NetWare provider name to the start of the list. This small modification can improve performance significantly.

Redirector
The Windows NT Redirector manages remote volume connections. When you access a volume across the network, Redirector takes the file system request and invokes the appropriate protocol to send the request to a file system server component on the other machine.

VI-9 The entry below switches the behavior of Redirector between write-through and write-behind. By default, Redirector delays sending the server write requests to a volume, which lets other operations proceed or complete. When you change this value, Redirector sends write operations immediately and waits for a response before proceeding with other operations.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Rdr\Parameters**Value Name:**UseWriteBehind**Data Type:**REG_DWORD**Value:**0
To disable write-behind, change this value to 1; the default is 0. You may need to use this highly synchronous mode in specialized environments or when tracking down networking problems with a network monitoring tool; otherwise, you should use the write-behind value because write-through degrades performance.

VI-10 The value in the registry entry below is a hybrid between write-through and write-behind modes.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Rdr\Parameters**Value Name:**UseAsyncWriteBehind**Data Type:**REG_DWORD**Value:**1
The default value of 1 enables asynchronous write-behind, which means that Redirector immediately sends write requests to the server but doesn't wait for a response before processing other requests. Changing the value to 0 disables asynchronous write-behind; you should disable it only when the network requires special coherency guarantees or when you're debugging.

Lanmanager Workstation
Lanmanager Workstation is Microsoft's implementation of a Redirector. It speaks SMB (Server Message Block).

V-11Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanW

orkstation\ Parameters**Value Name:**MaxCmds**Data Type:**REG_DWORD**Value:**15
This value specifies the number of threads that the Workstation service creates during initialization to handle requests; the default value is 15. If Workstation has more requests than it has threads to service those requests, it holds up some requests until a thread finishes servicing a request. Therefore, if multiple users or applications are simultaneously accessing remote shares, increasing this value can improve network throughput.

VI-12Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanWorkstation\ Parameters**Value Name:**SessTimeout**Data Type:**RED_DWORD**Value:**45
This value sets the number of seconds after a request is queued before Lanmanager indicates that the request has failed (if it hasn't been processed). The default value is 45. Applications that access network shares may report not having enough memory to process a request — too many outstanding operations are on the volume and some requests are timing out. Raising this value lets more operations be serviced asynchronously and may cause the messages to go away.

VI-13Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanWorkstation\ Parameters**Value Name:**CacheFileTimeout**Data Type:**REG_DWORD**Value:**10
This value specifies the time after which Lanmanager Workstation purges its locally cached data after closing a file. Many applications open files, perform an operation, close them, and repeat this sequence to perform more operations. If you have a system with a dedicated application, you can adjust this value to improve performance. Increase the time if applications close and reopen the same files at intervals longer than 10 seconds, and reduce the time if applications access few files and do not open and close them regularly.

VI-14Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanWorkstation\ Parameters**Value Name:**DormantFileLimit**Data Type:**REG_DWORD**Value:**45
This value sets the number of files that Lanmanger leaves open in the file system cache after an application closes it. By default, Lanmanager Server allows only a certain number of open files from any one Lanmanager Redirector connection. Having a file open on the connection can improve performance if the application opens it again. However, keeping files open can also overload the server's limit, and in those cases you should reduce this value.

VI-15 Normally, Lanmanager Workstation reads and stores data in the local file cache before an application requests it. These read-aheads can cause network degradation when applications rarely read files sequentially on shared volumes or when the network's throughput is low. To better manage the read-ahead function, change this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanWorkstation\ Parameters**Value Name:**ReadAheadThroughput**Data Type:**REG_DWORD**Value:**-1
This value sets the minimum network throughput, in kilobytes per second, before Lanmanager Workstation enables the read-ahead function. The default value is -1.

Lanmanager Server
Lanmanger Server is Microsoft's implementation of an SMB (Server Message Block) file server. It is a focal point of performance tuning for any file-sharing server.

VI-16 If you frequently get "server paged" or "server nonpaged" errors in Performance Monitor, you are seeing Lanmanager Server running out of memory that it's allocated for itself. You may want to raise these values to give Lanmanager Server more memory; however, giving these memory resources to Lanmanager keeps other system drivers and applications from using them. To give Lanmanager more paged and nonpaged memory, change the registry entries below.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\ Parameters**Value Name:**MaxNonPagedMemoryUsage**Data Type:**REG_DWORD**Value:**0
VI-17Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\ Parameters**Value Name:**MaxPagedMemoryUsage**Data Type:**REG_DWORD**Value:**0
These values set the number of megabytes allocated by Lanmanager Server for nonpaged and paged memory. The default, which is determined internally, is 0.

VI-18 By default, Lanmanager Server's worker threads run at one priority level higher than typical application threads. If network throughput is low because the Server's threads are competing with other threads for processor time, you may want to change this registry entry to increase the priority boost.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\ Parameters**Value Name:**ThreadPriority**Data Type:**REG_DWORD**Value:**1
Valid values are 0, 1, or 2, which determine how many levels above normal priority Lanmanager's worker threads run; and 15, which makes Lanmanager Server's threads run at real-time priority. Increasing the priority may reduce the responsiveness of other applications and services on the machine, especially if you set it to real-time priority.

VI-19 When the server maintains extra pre-initialized end-points, establishing new connections takes less processing. This value sets the number of end-points the server maintains.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\ Parameters**Value Name:**MinFreeConnections**Data Type:**RED_DWORD**Value:**2

Valid values range from 2 to 5; the default is determined internally. You can reduce the value to minimize idle memory overhead when the memory resources on the system are in high demand.

VI-20 If memory resources are scarce or if you want to limit the total number of users that can simultaneously log on to the server, change this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\ Parameters**Value Name:**Users **Data Type:**REG_DWORD**Value:**<number>
The value is the number of users who can long on to the server simultaneously.

VI-21 Every time a connection is made to Lanmanager Server, resources are allocated to service it. Sometimes idle connections tie up resources for a long time. To free resources sooner, change this registry entry.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\ Parameters**Value Name:**AutoDisconnect**Data Type:**REG_DWORD**Value:**15
This value specifies the number of minutes a connection can be idle before it is automatically disconnected and the resources associated with it are freed. The default value is 15. Reducing this value can keep resource usage to a minimum, but it's possible to incur additional overhead if clients reconnect after their connections are dropped.

VI-22 The registry entry below tells Lanmanager Server to allocate work items for processing raw SMBs (Server Message Blocks).

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\ Parameters**Value Name:**EnableRaw**Data Type:**REG_DWORD**Value:**1
Setting this value to 1 (the default) enables support for raw SMBs, and performance improves. Setting this value to 0 disables support.

VI-23 Opportunistic locking is a performance-enhancing protocol Windows NT file systems use to detect remote machines' modifications to shared files and directories. Enabling op-locks can cause you to lose cached data if the system fails.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\LanmanServer\ Parameters**Value Name:**EnableOpLocks**Data Type:**REG_DWORD**Value:**1
The default value is 1, which enables op-locking. Change the value to 0 to disable this feature.

Services for Macintosh
Services for Macintosh (SFM) lets Macintosh-based computers transparently access Windows NT network shares. You can tune the performance of these connections with registry entries. You should consider adjusting these values if you have a LAN that depends on the responsiveness of Windows NT share access from Macs.

VI-24 The following entries' values control the amount of paged and nonpaged memory that SFM uses as it processes operations. Under heavy workloads, SFM memory requirements rise, and if it can allocate all the memory it requires in one request, its performance improves. However, raising these values can cause other applications, including Windows NT itself, to be unable to allocate memory when they need to.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MacFile\Parameters**Value Name:**PagedMemLimit**Data Type:**REG_DWORD**Value:**20,000
VI-25Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\MacFile\Parameters**Value Name:**NonPagedMemLimit**Data Type:**REG_DWORD**Value:**4,000
The value in the first key above sets the paged memory limit; the default is 20,000 K. The second key sets the limit of nonpaged memory; the default is 4,000 K.

Dynamic Host Configuration Protocol
VI-26 Dynamic Host Configuration Protocol (DHCP) dynamically assigns IP addresses from a pool of allowable addresses to other machines on a LAN. This registry entry determines whether the DHCP server logs all IP address assignments to a database file. You can then use this database to track down problems in network configuration or behavior. However, logging each DHCP invocation can significantly reduce system performance. If your DHCP seems to be highly stable, you might consider turning off this flag to improve performance.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\DhcpServer\Parameters**Value Name:**DatabaseLoggingFlag**Data Type:**REG_DWORD**Value:**1
The default value of 1 enables DHCP logging; change the value to 0 to disable this feature.

NetBEUI
NetBEUI is a transport that has been migrated forward from LanManager and Windows for Workgroups 3.11. The NetBEUI transport is named NBF in Windows NT.

VI-27 This value controls the time NBF waits before resending Logical Link Control (LLC) messages if they are not acknowledged. You should change this registry entry to raise this value if NBF is running over a slow network.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NBF\Parameters**Value Name:**DefaultT1Timeout**Data Type:**REG_DWORD**Value:**<number>
The value specifies, in 100-nanosecond increments, the timeout period for unacknowledged LLC messages. The default is 600 milliseconds.

VI-28 This entry controls the number of LLC frames NBF sends before it stops sending and waits for acknowledgment. On a very reliable system, you can increase this number and improve performance. If your network is less reliable, raising the value is not wise

because the performance benefit of raising the value is offset by retry operations.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NBF\Parameters**Value Name:**LLCMaxWindowSize**Data Type:**REG_DWORD**Value:**1
The value sets the number of frames NBF sends before waiting for acknowledgment. The default value is 1.

VI-29 This entry determines the number of times NBF retries a request when it gets a T1 timeout. If your NBF is running on a slow network, you might want to increase this value.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NBF\Parameters**Value Name:**LLCRetries**Data Type:**REG_DWORD**Value:**8
A value of 1 or more sets the number of times NBF retries a request; a value of 0 sets no limit on the number of NBF's retries. The default value is 8.

NetLogon
The NetLogon service manages the process of logging on to a domain. It interacts with the NT Local Security Authority (LSA) to validate account and password information. It also keeps all account information synchronized between the Primary Domain Controller (PDC) and the Backup Domain Controllers (BDCs).

VI-30 NetLogon collects account information for a specified period of time and sends it in one batch to each BDC that isn't already up-to-date. By default, NetLogon determines the interval based on the server's load, but you can tune the time period NetLogon collects account data to suit your environment or to minimize network traffic.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Netlogon\Parameters**Value Name:**Pulse**Data Type:**REG_DWORD**Value:**300
The value is the number of seconds in the collection period. The default value is 300 seconds, or 5 minutes. Valid values range from 60 to 172,800 (48 hours).

VI-31 When a BDC receives a pulse from the PDC, it waits a specified time before returning a message. Changing this entry changes the wait period.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Netlogon\Parameters**Value Name:**Randomize**Data Type:**REG_DWORD**Value:**1
The value is the number of seconds that a BDC waits before requesting updated information from a PDC after receiving a pulse. The default value is 1; valid values range from 0 to 120. Typically, you should keep this value small, less than the PulseTimeout1 value under the same key.

VI-32 The following entry specifies how many outstanding pulses the PDC has at any time. By adjusting this value you can control the load on a PDC — the higher the value, the higher the potential load when security or account information is updated. Decreasing the value increases the time required to propagate the information to all the BDCs. You

can estimate the time it takes to replicate account or security database information with the formula ((Randomize/2) * NumberOfBdcsInDomain) / PulseConcurrency

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Netlogon\Parameters**Value Name:**PulseConcurrency**Data Type:**REG_DWORD**Value:**20
The value is the number of outstanding pulse events the PDC allows. The default value is 20; valid values range from 0 to 500.

TCP/IP
VI-33 TCP/IP allows a certain number of bytes to be sent before the system waits for an acknowledgment. You can increase this number, also known as the Window Size, if your network is reliable and has high bandwidth. Ideally, it should be a multiple of the TCP Maximum Segment Size (MSS).

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\Tcpip\Parameters**Value Name:**TcpWindowSize**Data Type:**REG_DWORD**Value:**8760
The value is the size, in bytes, of the TCP/IP window. The default is 8760 in Ethernet networks; valid values range from 0 to 0xFFFF.

NWLink
NWLink is an implementation of the IPX/SPX protocols popular in NetWare networks. The NWNBLink module provides support for the Novell implementation of the NetBIOS protocol.

VI-34 By default, the NWNBLink protocol allocates two frames to receive messages. When the frames are filled, it sends an acknowledgment to the sender. This entry is typically used as a clocking mechanism where the sender is on a fast part of the LAN but the receiver is on a slow link. You can set the value to 0 to prevent NWNBLink from sending any acknowledgments, which can improve performance. Note that you can direct NWNBLink to ignore the AckWindow if round-trip times are below a threshold indicated in the AckWindowThreshold value under the same key.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWNBLink\Parameters**Value Name:**AckWindow**Data Type:**REG_DWORD**Value:**2
VI-35Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWNBLink\Parameters**Value Name:**AckWindowThreshold**Data Type:**REG_DWORD**Value:**2
The value determines the number of frames in the AckWindow that are filled with received messages before NWNBLink sends an acknowledgment. If the value is 0, not acknowledgments are sent. The default value is 2.

VI-36 While NWNBLink sessions are initialized, the maximum number of messages that the receiver can process at one time is transmitted to the sender. Increasing this value may increase performance on high-bandwidth networks.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NWNBLink\Parameters**Value Name:**RcvWindowMax**Data Type:**REG_DWORD**Value:**4
The value sets the number of frames allocated for receiving message. The default value is 4. Valid values range from 0 to 49152.

VI-37 This entry determines how many messages can be received simultaneously; the value is sent to remote connections. Increasing this value could increase performance of IPX messaging on high-bandwidth networks.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NwLnkIpx\Parameters**Value Name:**WindowSize**Data Type:**REG_DWORD**Value:**4
The value is the number of frames allocated for receiving SPX messages. The default value is 4; valid values range from 1 to 10.

VI-38 This value specifies how many messages can be received simultaneously; it is sent to remote connections. Increasing this value could increase performance of SPX messaging on high-bandwidth networks.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Services\NwLnkSPX\Parameters**Value Name:**WindowSize**Data Type:**REG_DWORD**Value:**4
The value is the number of frames allocated for receiving SPX messages. The default value is 4. Valid values range from 1 to 11.

FILE SYSTEM PERFORMANCE

VI-39 This entry is the only performance-altering value related to file systems that you can control in the registry. By default, NTFS creates an MS-DOS-style “short file name” for every file created with a long file name; otherwise, these files won’t be recognized by Windows 3.1 and MS-DOS programs running on NT. NTFS must therefore track two names for these files, which can cause performance to degrade, particularly the performance of directory-related operations such as file look-ups.

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\FileSystem**Value Name:**NtfsDisable8dot3NameCreation**Data Type:**REG_DWORD**Value:**0
The value determines whether short names are generated for long file names. A value of 0 means that NTFS generates short names; a value of 1 means that NTFS doesn’t generate the short names. If you don’t run any Windows 3.1 or MS-DOS programs on your system, you don’t need short file name compatibility; disable this value.

PRINTING PERFORMANCE

VI-40 The print spooler thread is responsible for feeding data to printers. By default, it runs in the NORMAL_PRIORITY_CLASS, along with most of the other threads in a

system. However, you can reduce this value, which may enhance the responsiveness of other more important applications such as the file system server (LanmanServer).

Hive:HKEY_LOCAL_MACHINE**Key:**System\CurrentControlSet\Control\Print**Value Name:**SpoolerPriority**Data Type:**REG_DWORD**Value:**0x20
The value sets the class the print spooler thread runs in. The following three values are recognized; other values are ignored.

0x40IDLE_PRIORITY_CLASS0x20NORMAL_PRIORITY_CLASS0x80HIGH_PRIORITY_CLASS

REGISTRY EDITOR PERFORMANCE

VI-41 Normally, when RegEdit processes a .reg file, it bring up a dialog box informing you that it added items to the registry. Using this feature is usually a good option, unless you want to add certain items automatically with a login script and you don't want users to have to click OK to close the window every time they log on. Luckily, Microsoft has provided an undocumented parameter for RegEdit that bypasses this option: the /y parameter. Use it like this:

```
Regedit /y <regfile.reg>
```

Note that this change only affects Regedit.exe, not Regedt32.exe or Regedt.exe.

REMOTE REGISTRY ADMINISTRATION

Windows NT and Windows 95 both let you administer the registry from remote locations. A simple way to change values on a system is to use Regedt32.exe to connect to a remote computer and modify the registry. This procedure works fine for small numbers of modifications or queries, but what if you have 20, 50, or 100 workstations to change?

You may decide that you want a way to automatically perform registry administration tasks on a remote computer. REGREM is a utility written in C that demonstrates remote registry administration; it queries the registry of a remote Windows NT computer. The program prints to the screen a copy of the network configuration settings for a remote Windows NT computer.

```
// regrem.c
// Steve Scoggins 1997

#include <stdio.h>
#include <time.h>
#include <conio.h>
#include <ctype.h>
#include <windows.h>
```

```
#define OK ERROR_SUCCESS

main(int argc, char *argv[])
{

  static char lpszNIC_Description[80];
  static char lpszNIC_Manufacturer[80];
  static char lpszNIC_ProductName[80];
  static char lpszNIC_ServiceName[80];

  static char lpszTcpip_DefaultGateway[20];
  static char lpszTcpip_IPAddress[20];
  static char lpszTcpip_SubnetMask[20];

  static char lpszTcpip_Domain[80];
  static char lpszTcpip_Hostname[80];
  static char lpszTcpip_NameServer[80];
  static char lpszTcpip_SearchList[128];
  static char lpszComputerName[80];
  static char lpszDefaultDomainName[80];

  char szKeyPart1[] = "SYSTEM\\CurrentControlSet\\Services\\";
  char szKeyPart2[] = "\\Parameters";
  char szServiceKey[128];

  long InterruptNumber, IoBaseAddress;

  HKEY hkey, hNetKey ;
  DWORD lenKeyValue;
  unsigned long DataType;
  int err;

  char *name = argv[1];

    if ((err = RegConnectRegistry(name, HKEY_LOCAL_MACHINE, &hkey)) == OK)
    {

    // Open the Registry Key for the first instance of a Network Adapter
    // in the Registry
    // Read the Description, Manufacturer, Product Name, and Service Name
    // for this instance of an installed Network Adapter.

    if(RegOpenKey(hkey, "SOFTWARE\\Microsoft\\Windows NT\\CurrentVersion\\
        NetworkCards\\1",&hNetKey) == ERROR_SUCCESS)
    {
      RegQueryValueEx(hNetKey, "Description", 0, &DataType, NULL,
        &lenKeyValue);
      RegQueryValueEx(hNetKey, "Description", 0, &DataType,(LPTSTR)
        lpszNIC_Description, &lenKeyValue);
      printf("Windows NT Network Adapter:\n");
      printf("Description: %s\n",lpszNIC_Description);

      RegQueryValueEx(hNetKey, "Manufacturer", 0, &DataType, NULL,
```

```
    &lenKeyValue);
  RegQueryValueEx(hNetKey, "Manufacturer", 0, &DataType,
    (LPTSTR)lpszNIC_Manufacturer, &lenKeyValue);
  printf("Manufacturer: %s\n",lpszNIC_Manufacturer);

  RegQueryValueEx(hNetKey, "ProductName", 0, &DataType, NULL,
    &lenKeyValue);
  RegQueryValueEx(hNetKey, "ProductName", 0, &DataType,
    (LPTSTR)lpszNIC_ProductName, &lenKeyValue);
  printf("Product Name: %s\n",lpszNIC_ProductName);

  RegQueryValueEx(hNetKey, "ServiceName", 0, &DataType, NULL,
    &lenKeyValue);
  RegQueryValueEx(hNetKey, "ServiceName", 0, &DataType,
    (LPTSTR)lpszNIC_ServiceName, &lenKeyValue);
  printf("Service Name: %s\n",lpszNIC_ServiceName);

  RegCloseKey(hNetKey);
}

// Now that we have the ServiceName for the Network Adapter from the
// NetworkCards key we will reconstruct the correct ServiceKey path
// based on the Service Name for this network adapter.

strcpy(szServiceKey, szKeyPart1);
strcat(szServiceKey, lpszNIC_ServiceName);
strcat(szServiceKey, szKeyPart2);

if(RegOpenKey(hkey, (LPCTSTR) szServiceKey, &hNetKey) == ERROR_SUCCESS)
{

  RegQueryValueEx(hNetKey, "InterruptNumber", 0, &DataType, NULL,
    &lenKeyValue);
  RegQueryValueEx(hNetKey, "InterruptNumber", 0, &DataType, (LPBYTE)
    &InterruptNumber, &lenKeyValue);
  printf("Interrupt Number: %x\n",InterruptNumber);

  RegQueryValueEx(hNetKey, "IoBaseAddress", 0, &DataType, NULL,
    &lenKeyValue);
  RegQueryValueEx(hNetKey, "IoBaseAddress", 0, &DataType, (LPBYTE)
    &IoBaseAddress, &lenKeyValue);
  printf("IO Base Address: %x\n",IoBaseAddress);
  RegCloseKey(hNetKey);
}

// Open the TCP/IP Key for this Network Adapter
// Read some of the key TCP/IP parameters for this Network Adapter

strcat(szServiceKey, "\\Tcpip");

if(RegOpenKey(hkey, (LPCTSTR) szServiceKey ,&hNetKey) == ERROR_SUCCESS)
{
  RegQueryValueEx(hNetKey, "DefaultGateway", 0, &DataType, NULL,
    &lenKeyValue);
```

```
  RegQueryValueEx(hNetKey, "DefaultGateway", 0, &DataType,(LPTSTR)
     lpszTcpip_DefaultGateway, &lenKeyValue);
  printf("TCP/IP DefaultGateway : %s\n",lpszTcpip_DefaultGateway);

  RegQueryValueEx(hNetKey, "IPAddress", 0, &DataType, NULL,
     &lenKeyValue);
  RegQueryValueEx(hNetKey, "IPAddress", 0, &DataType,
     (LPTSTR)lpszTcpip_IPAddress, &lenKeyValue);
  printf("TCP/IP IPAddress : %s\n",lpszTcpip_IPAddress);

  RegQueryValueEx(hNetKey, "SubnetMask", 0, &DataType, NULL,
     &lenKeyValue);
  RegQueryValueEx(hNetKey, "SubnetMask", 0, &DataType,
     (LPTSTR)lpszTcpip_SubnetMask, &lenKeyValue);
  printf("TCP/IP Subnet Mask : %s\n",lpszTcpip_SubnetMask);
  RegCloseKey(hNetKey);
}

// Read the global TCP/IP paramters

if(RegOpenKey(hkey, "SYSTEM\\CurrentControlSet\\Services\\Tcpip\\
     Parameters",&hNetKey) == ERROR_SUCCESS)
{
  RegQueryValueEx(hNetKey, "Domain", 0, &DataType, NULL,
     &lenKeyValue);
  RegQueryValueEx(hNetKey, "Domain", 0, &DataType,
     (LPTSTR)lpszTcpip_Domain, &lenKeyValue);
  printf("TCP/IP Domain Name: %s\n",lpszTcpip_Domain);

  RegQueryValueEx(hNetKey, "Hostname", 0, &DataType, NULL,
     &lenKeyValue);
  RegQueryValueEx(hNetKey, "Hostname", 0, &DataType,
     (LPTSTR)lpszTcpip_Hostname, &lenKeyValue);
  printf("TCP/IP Hostname: %s\n",lpszTcpip_Hostname);

  RegQueryValueEx(hNetKey, "NameServer", 0, &DataType, NULL,
     &lenKeyValue);
  RegQueryValueEx(hNetKey, "NameServer", 0, &DataType,
     (LPTSTR)lpszTcpip_NameServer, &lenKeyValue);
  printf("TCP/IP DNS Name Servers: %s\n",lpszTcpip_NameServer);

  RegQueryValueEx(hNetKey, "SearchList", 0, &DataType, NULL,
     &lenKeyValue);
  RegQueryValueEx(hNetKey, "SearchList", 0, &DataType,
     (LPTSTR)lpszTcpip_SearchList, &lenKeyValue);
  printf("TCP/IP Domain Name Search List: %s\n",lpszTcpip_SearchList);

  RegCloseKey(hNetKey);
}

// Read the Computer Name and Domain Name for this Windows NT Computer

if(RegOpenKey(hkey, "SYSTEM\\CurrentControlSet\\Control\\ComputerName\\
     ActiveComputerName", &hNetKey) == ERROR_SUCCESS)
```

```
  {
   RegQueryValueEx(hNetKey, "ComputerName", 0, &DataType,
      NULL, &lenKeyValue);
   RegQueryValueEx(hNetKey, "ComputerName", 0, &DataType,
      (LPTSTR)lpszComputerName, &lenKeyValue);
   printf("Windows NT Computer Name: %s\n",lpszComputerName);

   RegCloseKey(hNetKey);
  }

  if(RegOpenKey(hkey, "SOFTWARE\\Microsoft\\Windows NT\\CurrentVersion\\
      Winlogon", &hNetKey) == ERROR_SUCCESS)
  {
   RegQueryValueEx(hNetKey, "DefaultDomainName", 0, &DataType,
      NULL, &lenKeyValue);
   RegQueryValueEx(hNetKey, "DefaultDomainName", 0, &DataType,
      (LPTSTR)lpszDefaultDomainName, &lenKeyValue);
   printf("Windows NT DomainName: %s\n",lpszDefaultDomainName);

   RegCloseKey(hNetKey);
  }
  RegCloseKey(hkey);
  }

  else
  {
     switch (err)
     {
        #define MSG(x) case x : printf("%s\t\t\t\n", #x)
        MSG(ERROR_OPERATION_ABORTED); break;
        MSG(ERROR_BAD_NETPATH); break;
        MSG(ERROR_ACCESS_DENIED); break;
        default: printf("Error #%u (look in WINERROR.H)\n", err);
        break;
     }
     printf("failed to connect to remote registry");
  }
  printf("bye!\n");
  return 0;
}
```

The source and the compiled executable are available on the CD-ROM that comes with this book. To run REGREM, you must be logged on as an administrator of the Windows NT Domain for the remote computer.

A network administrator could use this type of software utility to query the network configuration for all the Windows NT computers on the local network. The results are printed to the screen. If you want a file containing this information, you can redirect the screen printout to a file using the following form of the command:

```
REGREM ComputerName > FileName
```

Sample output from REGREM is shown below.

```
Windows NT Network Adapter:
Description: 3Com Etherlink III PCI Bus-Master Adapter (3C590)
Manufacturer: 3Com
Product Name: El59x
Service Name: El59x1
Interrupt Number: 12ff8c
IO Base Address: 3
TCP/IP DefaultGateway : 200.200.200.254
TCP/IP IPAddress : 200.200.200.200
TCP/IP Subnet Mask : 255.255.255.0
TCP/IP Domain Name: test.com
TCP/IP Hostname: bigdog
TCP/IP DNS Name Servers:
TCP/IP Domain Name Search List:
Windows NT Computer Name: BIGDOG
Windows NT DomainName: BIGDOG
bye!
```

You can also run the Regrem.exe client on any Windows 95 or Windows NT workstation that is logged on to your Windows NT Domain. To run this utility on a Windows 95 computer, install the Microsoft Remote Registry Services. The REGREM client utility uses Winreg.dll as an RPC client that communicates with the RPC server on the remote Windows NT computer. The RPC service on the remote computer uses Regserv.exe.

You must enable user-level access before you can run remote registry software on a Windows 95 computer. You also must be authenticated by the Windows NT Domain server before you are allowed to connect to a remote registry on a Windows NT computer in the Windows NT Domain.

USING WINDOWS 95-STYLE INF FILES TO MODIFY WINDOWS NT REGISTRY SETTINGS

Another way to modify the Windows NT registry automatically without writing code is to use .inf files. You can change multiple workstations and servers remotely and automatically. To avoid having to fire up Regedt32.exe for each change, you can simply tell the Logon.bat file to run your .inf file, which can perform any sort command or registry modification.

The following command line runs an .inf file on a Windows NT computer:

```
RUNDLL32 syssetup,SetupInfObjectInstallAction DefaultInstall 128 E:\NT
Registry\cdautoff.inf
```

It is very important that you provide the fully qualified path to the .inf file. If you just supply the filename, this procedure will not work. You can place this command line in a logon batch file if you want to make this modification for multiple users. You can then edit

the users' profiles and specify this batch file.

Listed below is an INF file that turns off CD-ROM Autorun via the registry.

```
; CDAUTOFF.INF
;
; This is an example INF setup information file to turn OFF CD-ROM Autorun

[Version]
Signature="$Windows NT$"
Provider=%Provider%

[Strings]
Provider="Steve Scoggins"

[DefaultInstall]
AddReg = add.reg

[add.reg]
HKLM,SYSTEM\CurrentControlSet\Services\Cdrom,"Autorun",0x10001,0
```

You can automatically roll out any number of modifications to the registry using this technique. The trick is learning what the bit fields for each key does.

For more information about using INF files to automate installing applications or making registry changes, I recommend the references cited below:

- *Microsoft Windows NT Workstation Resource Kit*, Microsoft Press ISBN 1-57231-343-9, Chapter 2, Customizing Setup; "Creating .inf files", page 59
- *Microsoft Visual C++ 5.0 Professional Edition*, Microsoft Developer Studio Infoviewer