

Chapter  
2

**DESKTOP  
INTERFACE  
AND CONTROL  
FUNCTIONS**

*Get on the  
Fast Track!*



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COMPUTER  
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**Objectives**

You will learn:

- C Windows NT interface and desktop.
- C Menu structure and user profiles.
- C Viewing and modifying the system properties.
- C Task Manager.
- C Windows Diagnostics.
- C Configuring the Console Windows properties.
- C Setting/changing the screen properties.
- C Viewing/setting modem properties and creating connections.
- C Specify Ports Settings.
- C Configure services and startup screen.
- C Set priority and paging file size.
- C Set startup and shutdown options.
- C Network Neighborhood properties - protocols.
- C Services - startup options and hardware profiles.
- C Devices and startup type.
- C Accessibility options.
- C Add/remove programs.

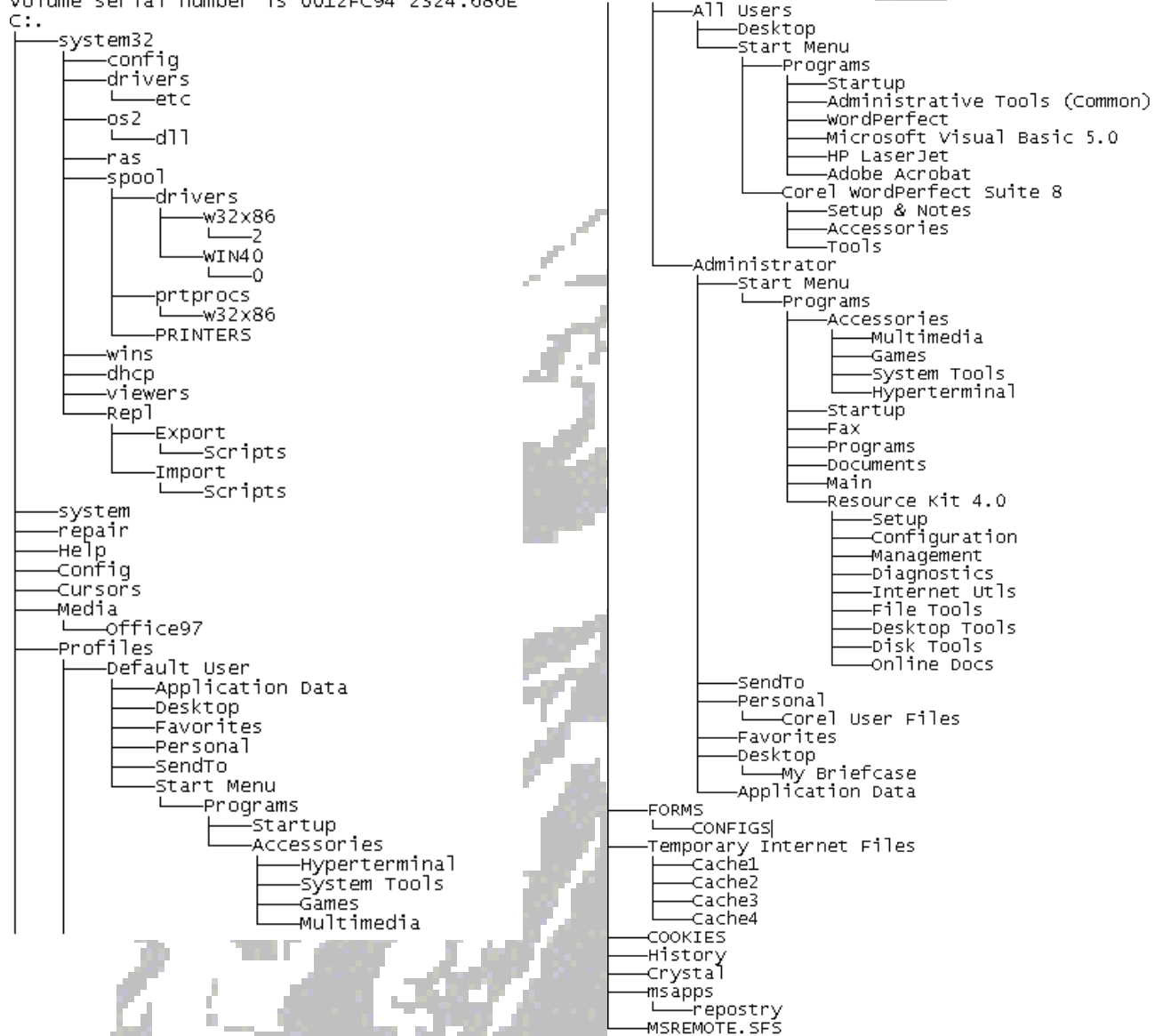
## 1 Windows NT Interface

The following elements are common to the Windows NT interface.

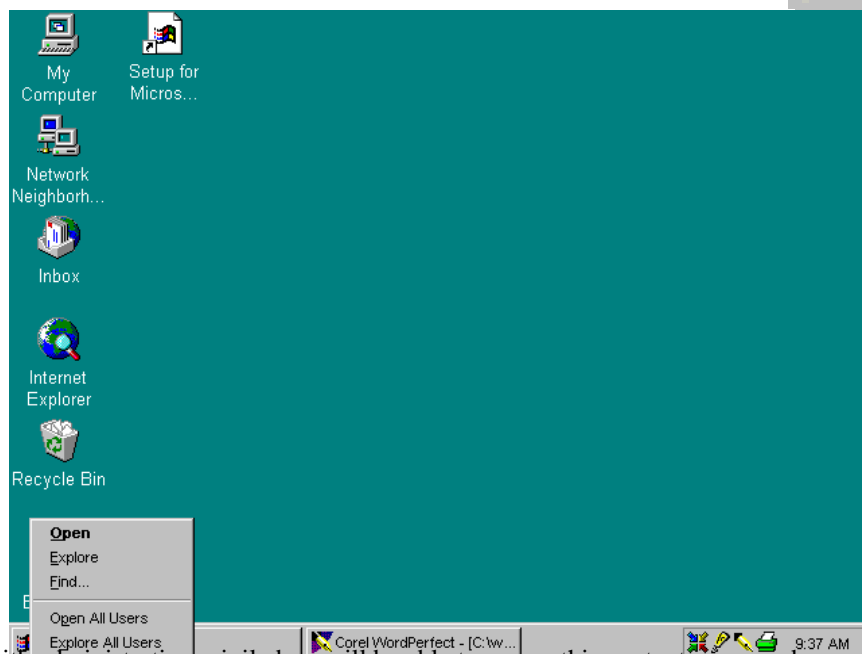
My Computer	An organizer for everything stored on the computer. It corresponds to the File Manager in previous versions of Windows.
Shortcuts	<p>Objects represented by icons that provide links to other objects.</p> <p>Shortcuts provide a convenient way to make the most commonly used folders, programs, and files easily available.</p> <p>A shortcut is a virtual mapping to a physical location. Shortcuts are pointers to the original object.</p>
Network Neighborhood	<p>A grouping of members of the physical/logical network that the user is part of. Opening the Network Neighborhood object presents icons which represent members of the:</p> <ul style="list-style-type: none"> <li>C immediate workgroup/domain</li> <li>C entire network</li> </ul>
Recycle Bin	A storage location for deleted files. Files can be restored/recalled after they have been deleted. Files can also be purged and completely removed from the system.
Taskbar	<p>A quick access point to all active programs. The maintains a row of open program title boxes. It provides a shell which is always available to switch and start programs.</p> <p>Elements of the Task Bar can be customized/maintained:</p> <ul style="list-style-type: none"> <li>C Addition items on the Task Bar.</li> <li>C Programs.</li> <li>C Documents.</li> <li>C Start Menu.</li> </ul>

## 2 Underlying Directory Structure

Directory PATH listing for volume DOSWIN  
Volume serial number is 0012FC94 2324:686E  
C:.



## 2.1 Identifying/Examining User Profiles and Menu Structure

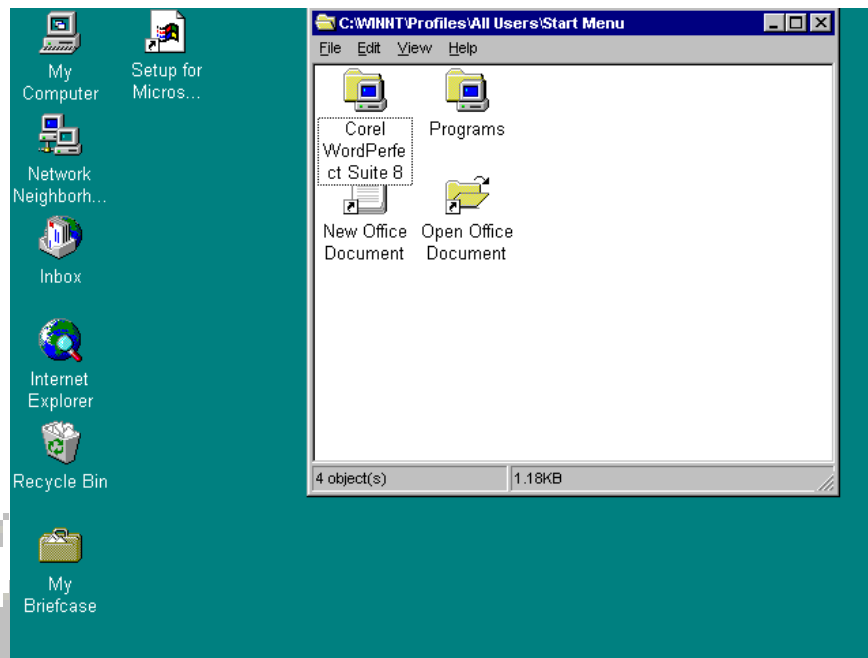


A user account with administrative privileges will be able to access this context menu and manage the information available through the two views:

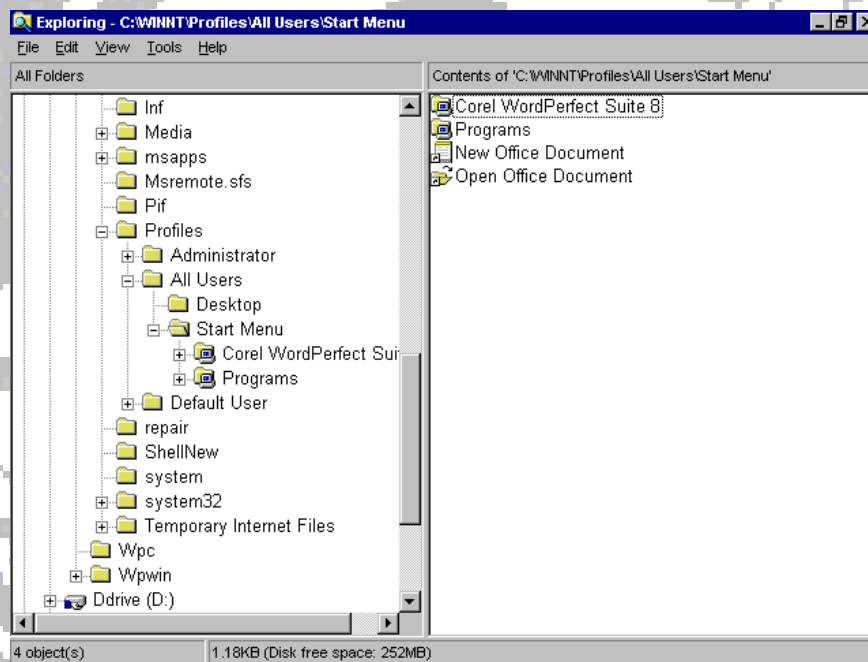
- C Open All Users
- C Explore All Users.

These capabilities will not be available to the standard user account; the standard user account will only have the Open, Explore, and Find context menu option.

Open All Users

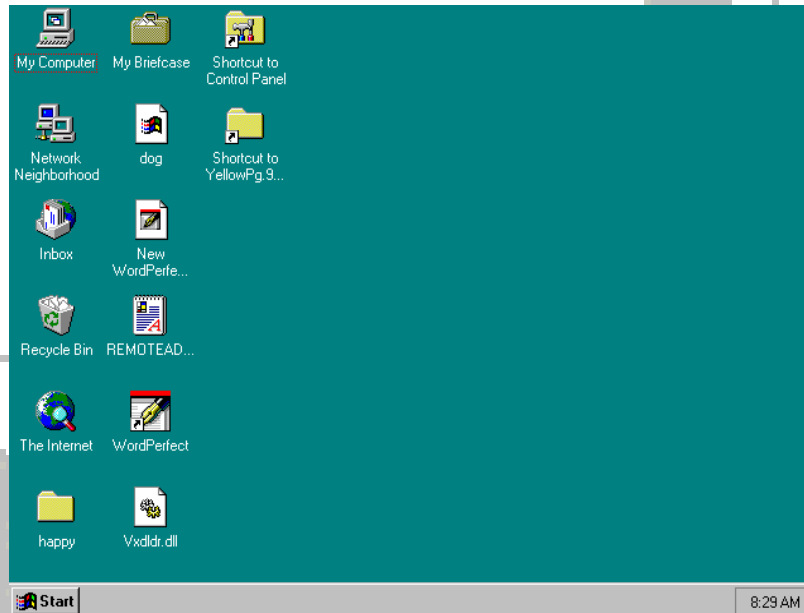


Explore All Users

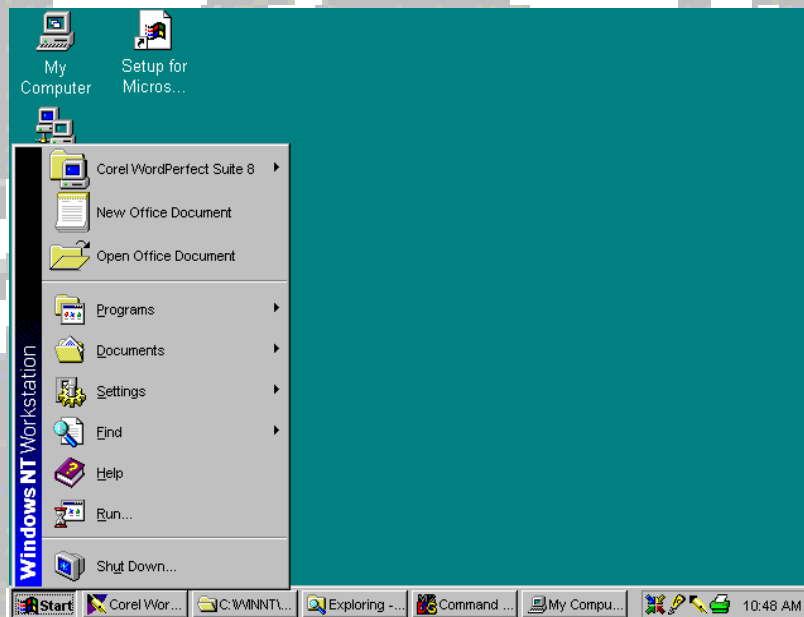


### 3 Examining the Desktop

Screen 1: Typical Windows NT Desktop

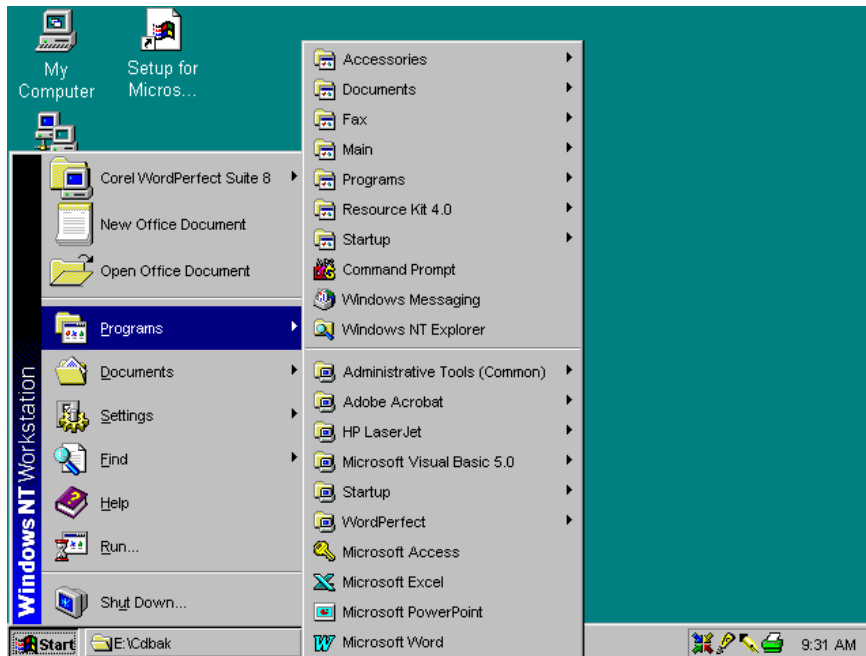


Screen 2: Start Menu



Screens 3 and 4 illustrate a typical fully expanded menu structure associated with the Windows NT desktop.

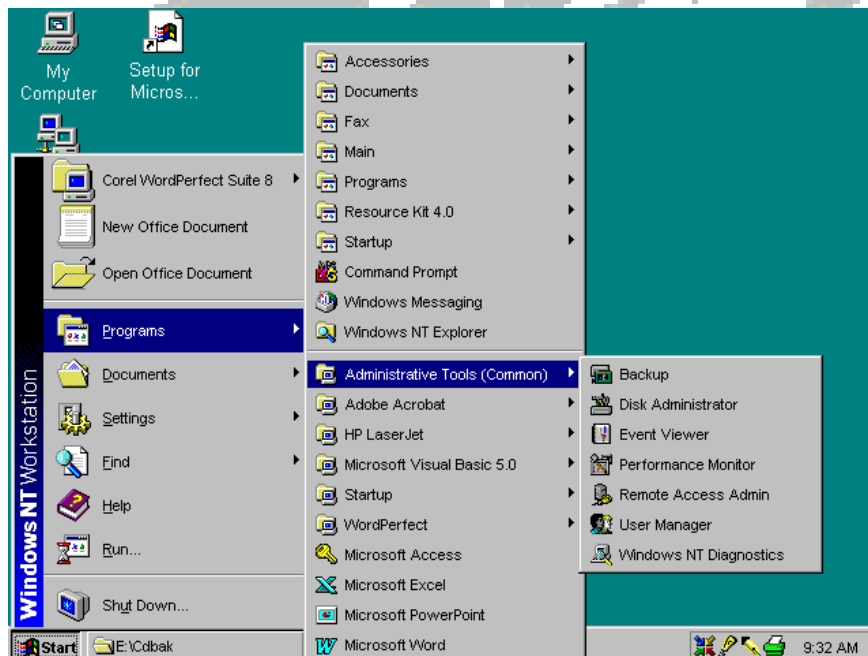
**Screen 3: Program Menu Expanded**



Screen 3 illustrates the two components of the Program Menu.

- C the upper portion of the cascaded menu reflects the userid specific portion.
- C the bottom portion of the menu structure represents the Common User portion.

**Screen 4: AdministrativeTools**

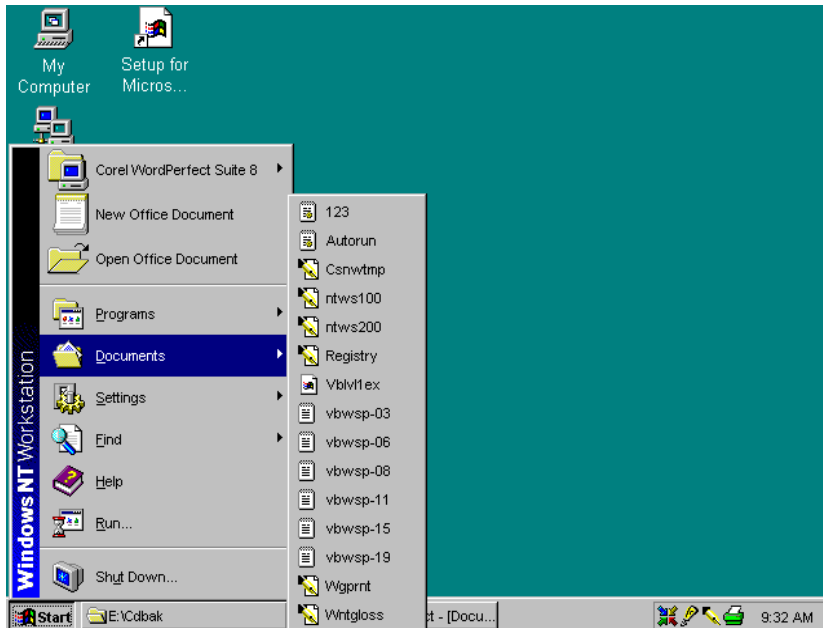


Screen 4 illustrates the cascaded menu structure and standard tools associated with Windows NT Workstation.

The information underlying these menus represents information in structured directories, subdirectories and hidden files.

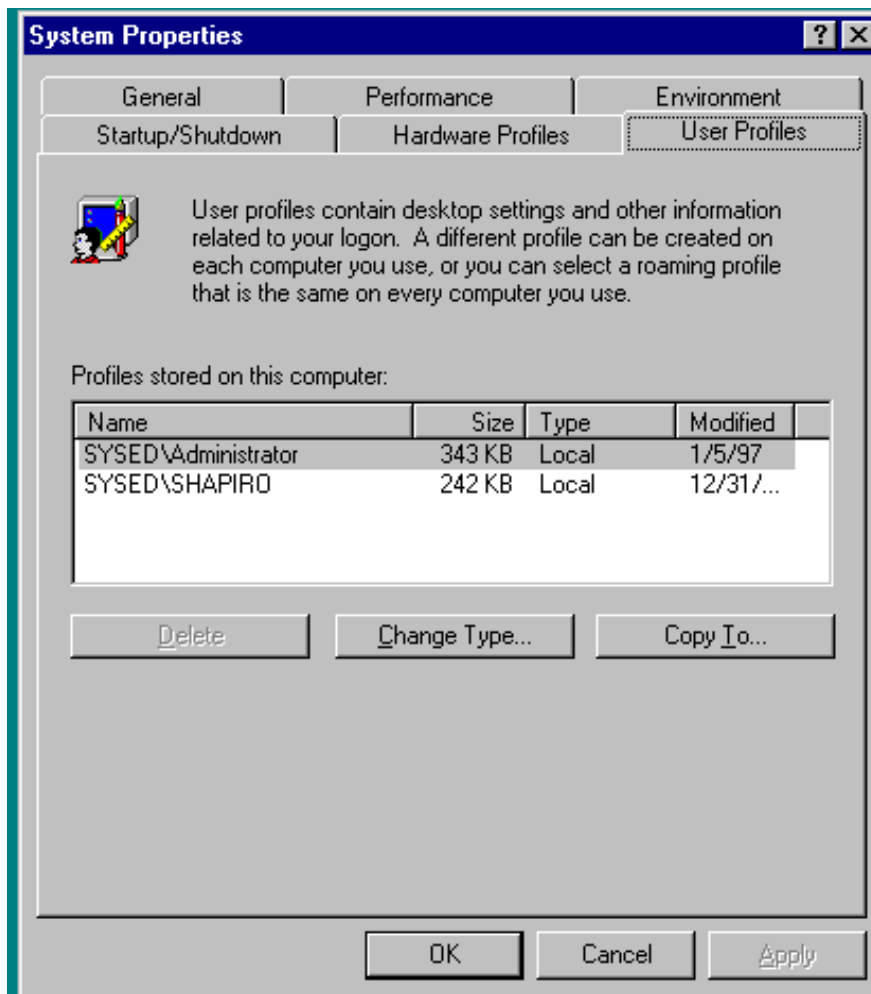
Information relating to a user's desktop is stored in the registry file for each user profile - NTUSER.DAT.

Screen 5: Shortcuts to Previously Opened Data Files



Screen 5 illustrates the menu structure which tracks the data files most recently opened via applications operating through the Window NT GUI (graphical user interface).

### 3.1 User Profiles



A user account with administrative privileges will be able to access this menu structure and make changes to the profiles: Change Type, Copy To, and Delete User profiles.

These capabilities will not be available to the standard user account.

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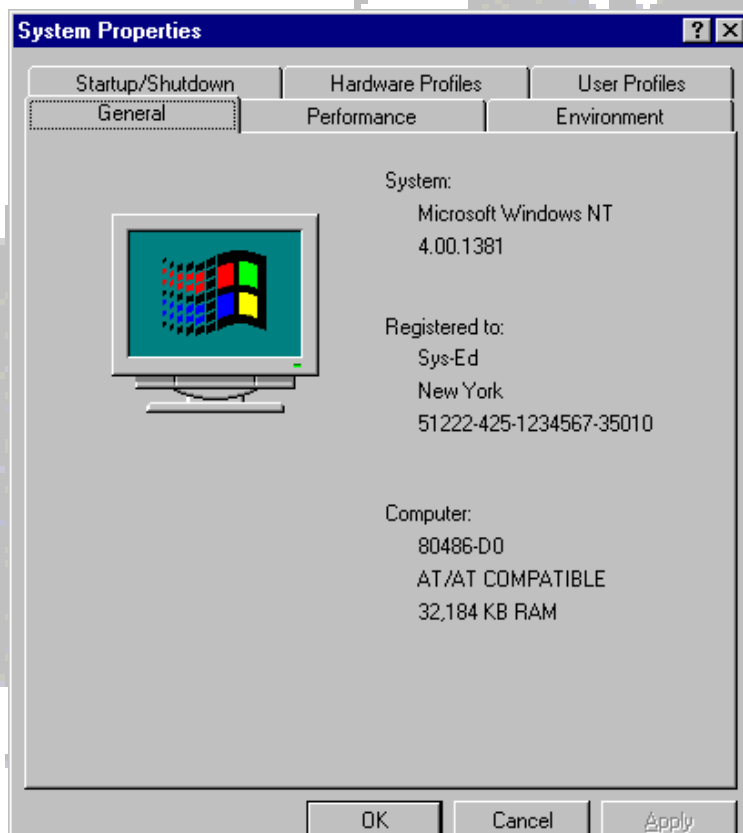
## 4 My Computer - System Properties

The System properties are accessed either through the properties of the My Computer icon on the desktop or the System icon in the Control Panel.

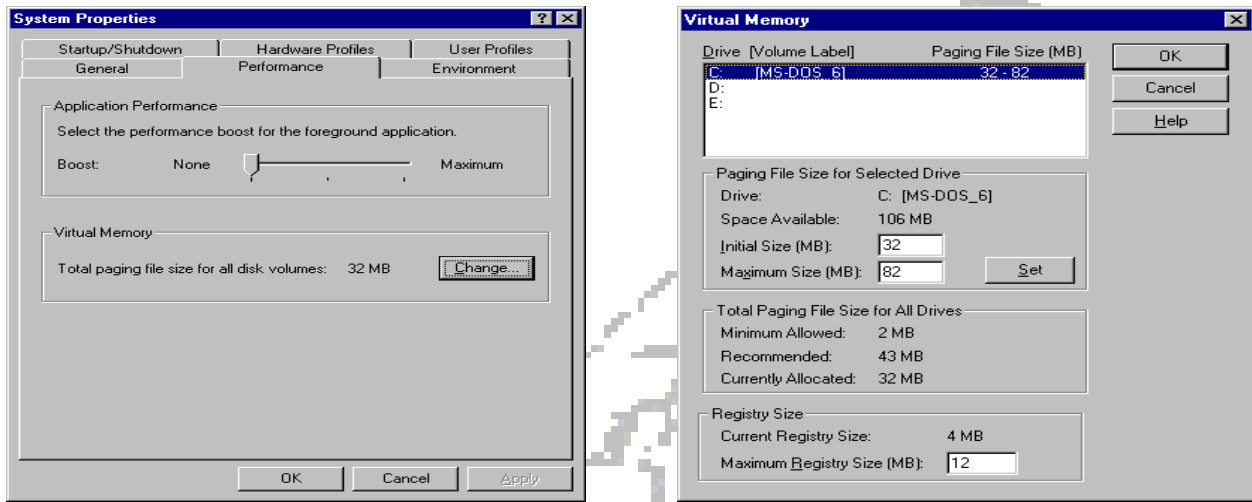
There are six tab pages which can be used for viewing and/or changing the system property settings. Most of the settings on the pages can only be changed by user with Administrator privileges.

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### 4.1 General

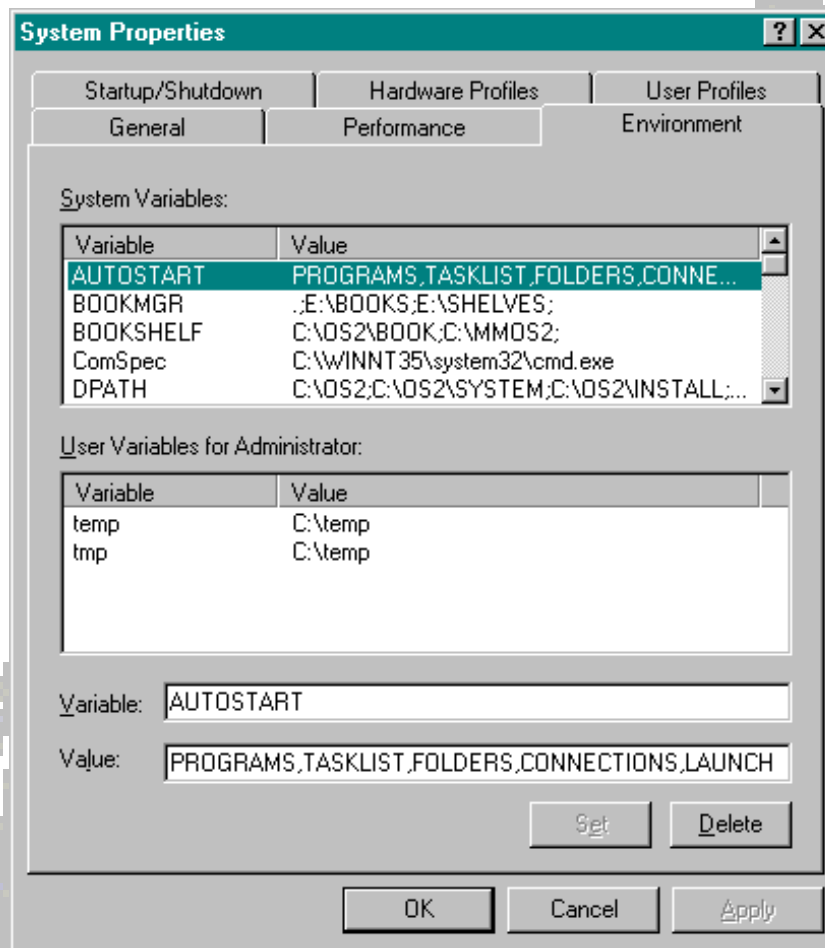


## 4.2 Performance



Property	Description
Virtual Memory	Enables the configuration of the virtual-memory paging file, named Pagefile.sys, for the hard disk(s).
Paging File Size (MB)	Shows the current initial and maximum sizes for the paging file on a drive in megabytes (MB).
Initial Size (MB)	For best performance, set the initial size to be equal to or greater than the Recommended size under Total Paging File Size for All Drives.
Maximum Size (MB)	Enables the maximum size for the virtual-memory paging file to be specified on the selected drive.
Total Paging File Size for All Drives	Specifies the Minimum Allowed, Recommended, and Currently Allocated space of the paging file available on all the hard drives.
Maximum Registry Size (MB)	Specify the maximum size for the Registry. Setting the Registry size doesn't guarantee that the space will be available for the Registry; it, only sets the maximum size that can be used when it is needed.  When a Registry size limit is set, it limits both the page pool size and the amount of disk space that can be used by the registry.

### 4.3 Environment



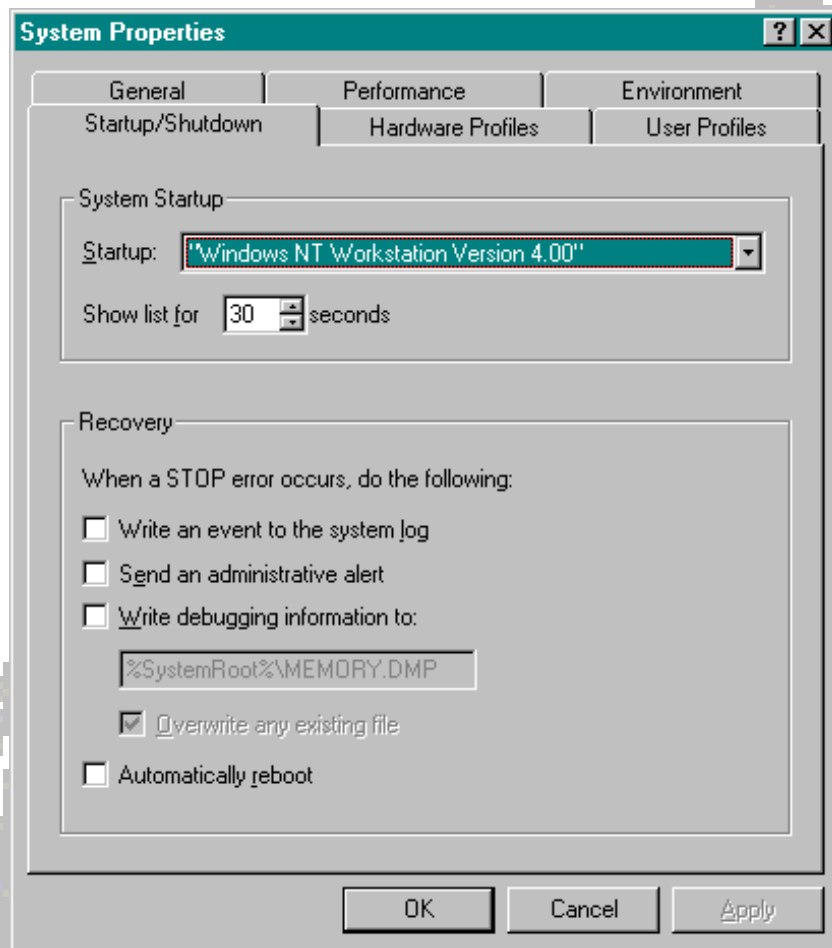
The Environment page:

- C lists system environment variables defined by Windows NT, which are the same no matter who is logged on at the computer.
- C lists user environment variables, such as a path where files are located, which are defined by the user or by programs.

To add or change an environment variable, click its name in the list or type a name in the Variable box, type a value in the Value box, and then click Set.

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## 4.4 StartUp/Shutdown



The Startup/Shutdown page:

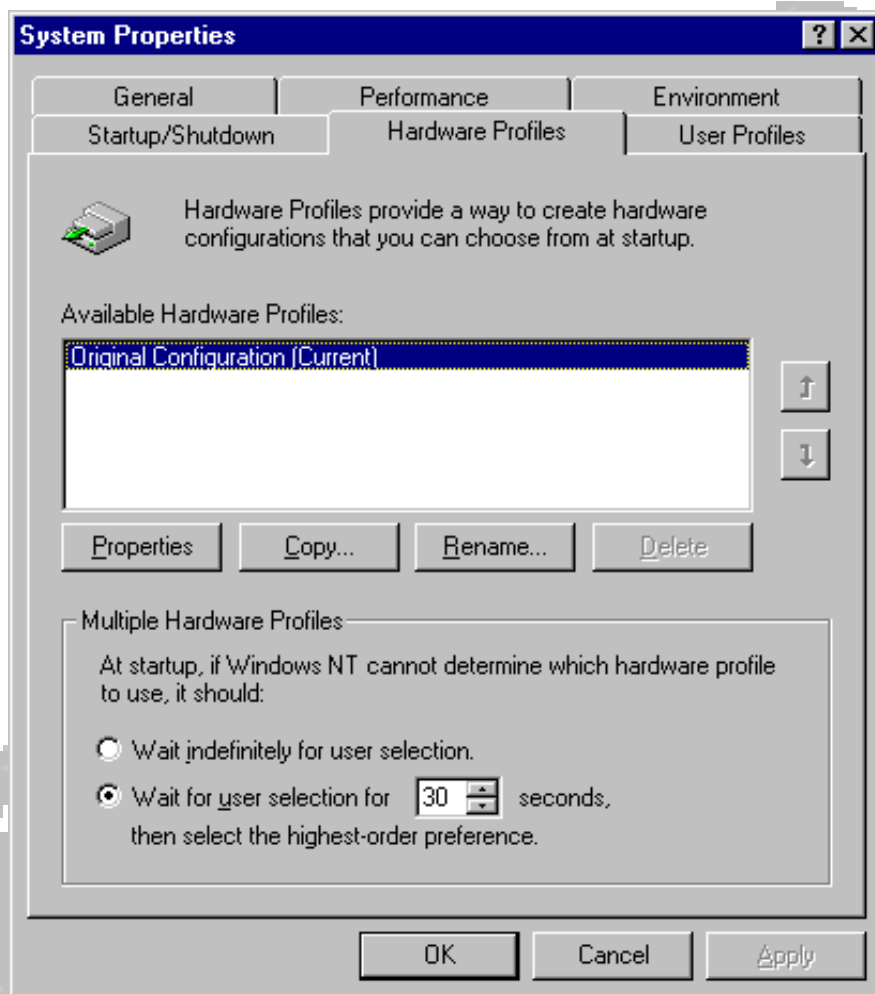
- C lists the operating systems installed on your computer.

To change the default operating system, click one of the systems in the list.

- C includes the recovery options which specify what actions Windows NT performs when a STOP error occurs.

A STOP error (also known as fatal system error) causes Windows NT to stop processing, requiring the computer to be restarted.

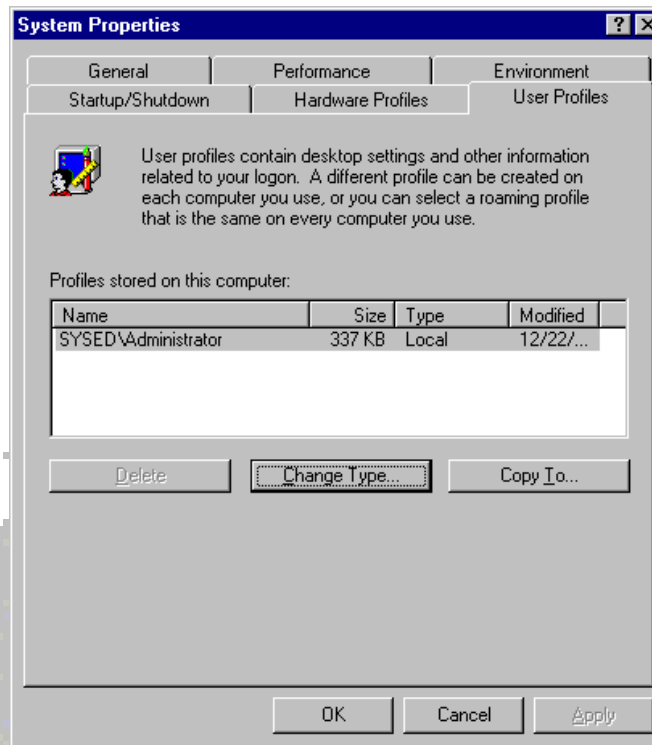
## 4.5 Hardware Profiles



Hardware Profiles provides a means for specifying multiple configurations which can be selected during the boot process.

It can be used for enabling/disabling services and hardware for user specified profiles.

## 4.6 User Profiles



The User Profiles page lists the user profile files used to re-create a user's preferred system environment when that user logs on.

The profile(s) contain the following user-preference information:

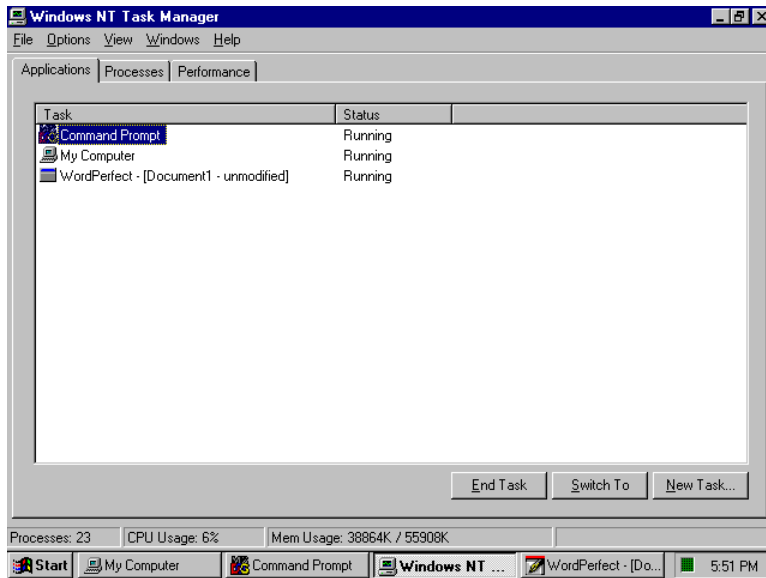
- C User-definable settings for Windows NT Explorer.
- C The personal (top) section of the Start menu's Programs submenu.
- C Taskbar Properties.
- C Network drive and printer connections.
- C Desktop display and sound settings.
- C Certain application-specific settings.

This information is recorded in the HKEY\_CURRENT\_USER section of the Windows NT registry, and copied to a system file named Ntuser.dat.

A separate version of Ntuser.dat is maintained for each user.

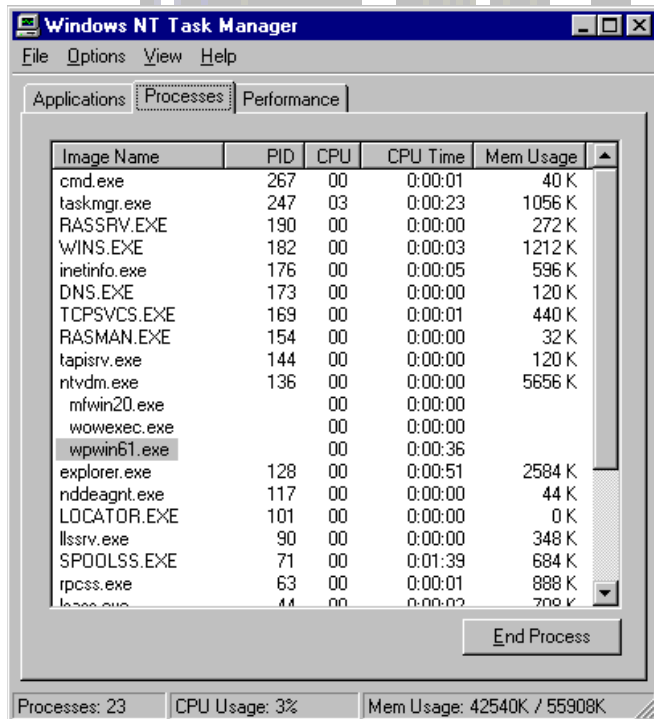
## 5 Windows NT Task Manager

### 5.1 Applications Tab



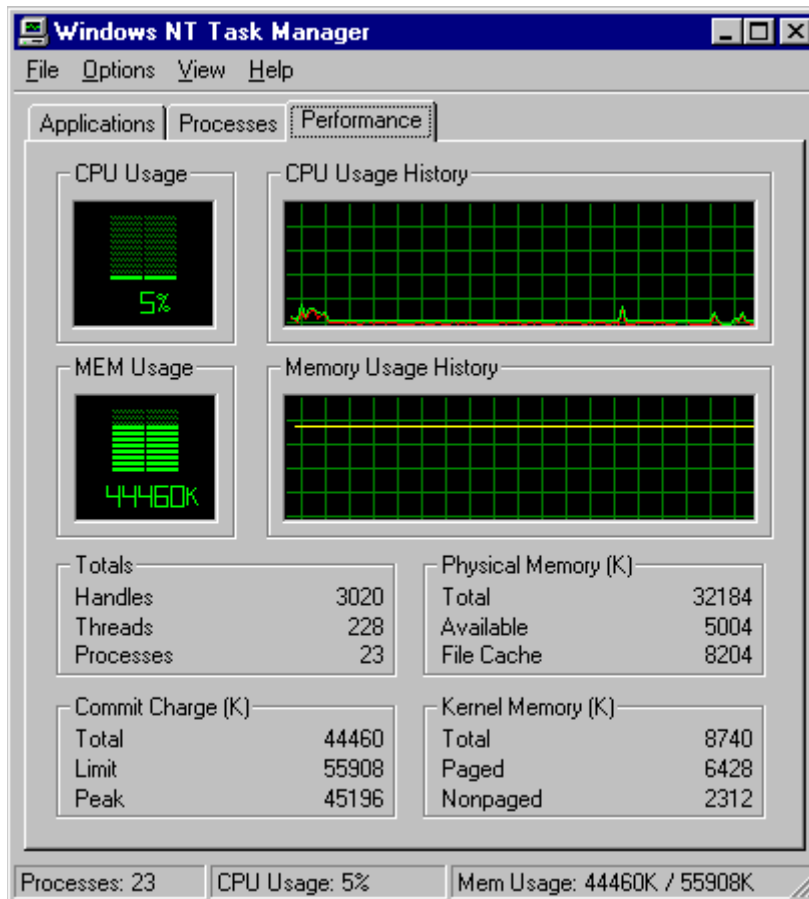
The Windows NT Task Manager is invoked by pressing CTRL+ALT+DEL from the keyboard and then selecting the Task Manager push button.

### 5.2 Processes Tab



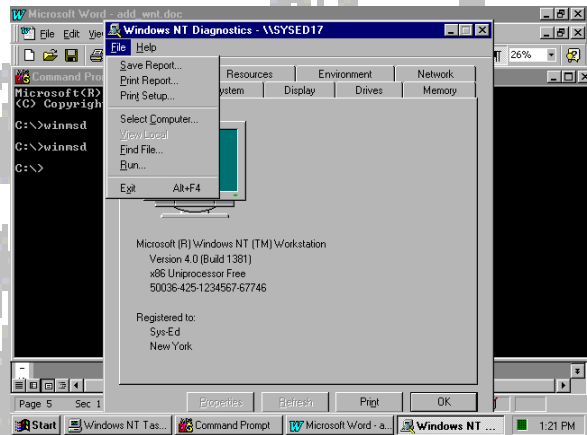
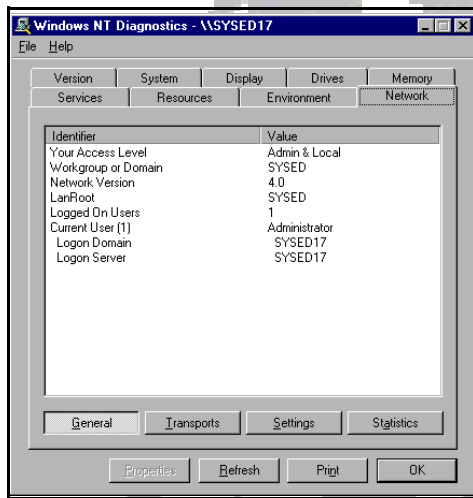
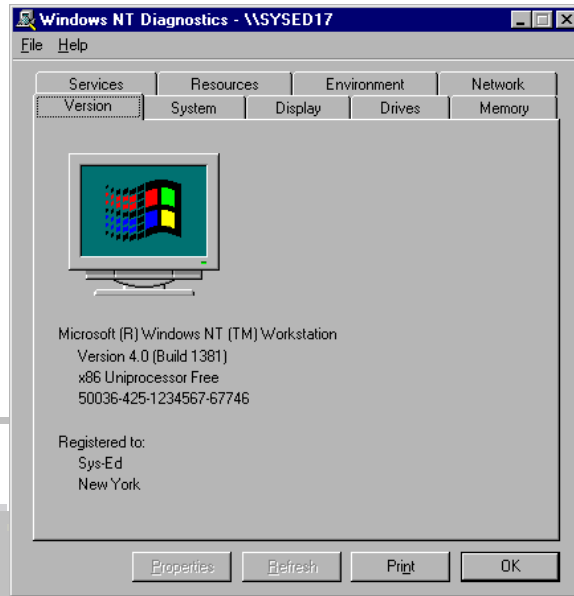
The Processes page can be used for viewing important statistics regarding performance and managing applications such as changing priorities and shutting down errant programs.

### 5.3 Performance Tab



The Performance page provides information about the overall system utilization, throughput, and capacity of resources.

## 6 Windows NT Diagnostics

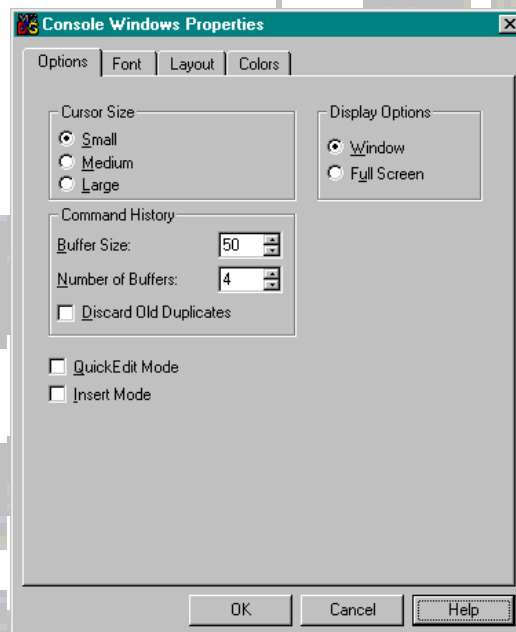


## 7 Console Windows Properties

Console is a Control Panel program that is used for configuring the default appearance of character-based windows (consoles) and Command Prompt windows. It is also possible to configure the properties for a specific Command Prompt application or shortcut.

The settings configured using Console apply to all newly-created console windows.

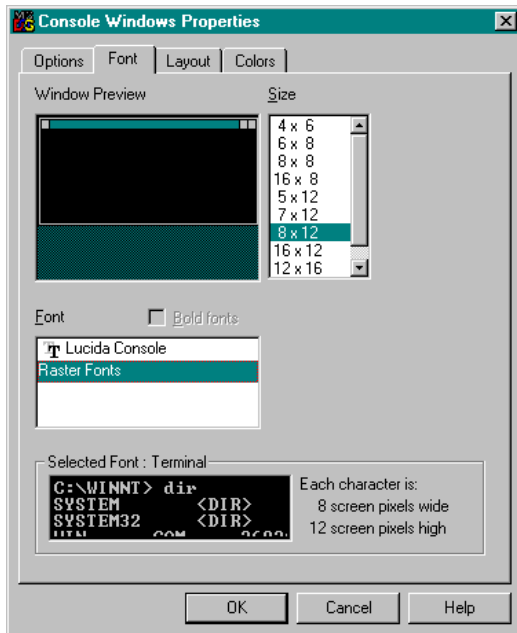
### 7.1 Options



<b>Cursor Size</b>	Resizes the cursor.
<b>Command History</b>	Configures the buffer size to a number and the number of commands to be stored and/or eliminates duplicate commands in the buffer.
<b>Quick Edit Mode</b>	This will bypass the Edit menu and use a mouse to cut and paste.
<b>Insert Mode</b>	Used to insert text at the cursor. If insert mode is not enabled, text that is typed at the cursor replaces existing text (overtypes).
<b>Display Options</b>	If you are using an X-86 based computer, the command prompt can be displayed in either a window mode or full-mode. By default, the command prompt is displayed as a window on your screen.  To toggle between window mode and full-screen mode on x-86-based computers, press ALT+Enter.

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## 7.2 Font



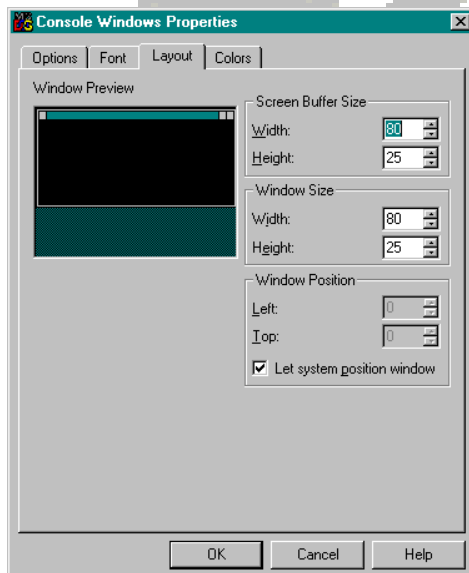
Different display fonts and font sizes can be used for displaying character-based windows (consoles) and command prompt windows.

Default fonts are saved based on the title of the window.

When a font changes, the window size changes to accommodate the new font size.

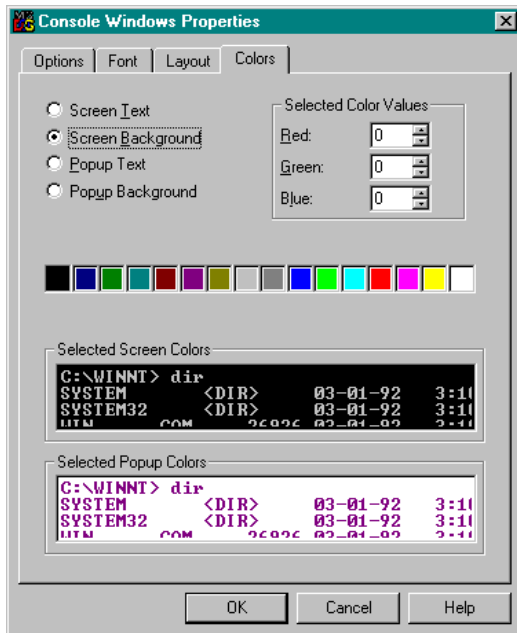
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## 7.3 Layout



The user has the ability to specifying where console windows are to be set up on the screen, the size of the window, and the amount of information the screen buffer contains.

## 7.4 Colors



The user can specify the color of the text and background of all character-based windows (consoles) and command prompt windows.

It is also possible to specify the text and background color of pop-up windows that originate from the command prompt.

To choose colors for screen text, screen background, pop-up text, or pop-up background, select the element to be changed, and then choose the color.

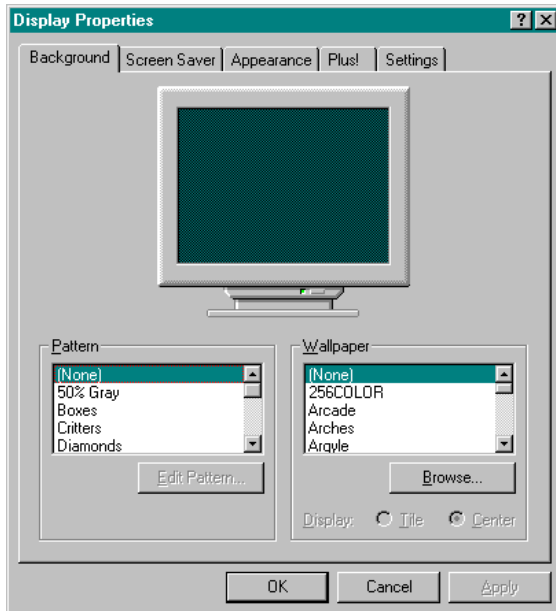
The selections which have been made appear in the Selected Screen Colors or Selected Popup Colors box.

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## 8 Display Properties

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### 8.1 Background

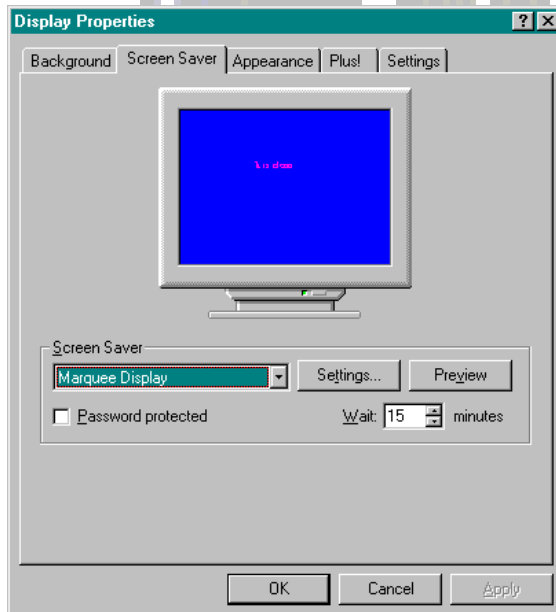


The Background page of Display Properties lists the available patterns that can be used for decorating the desktop.

To preview a pattern, click its name.

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### 8.2 Screen Saver

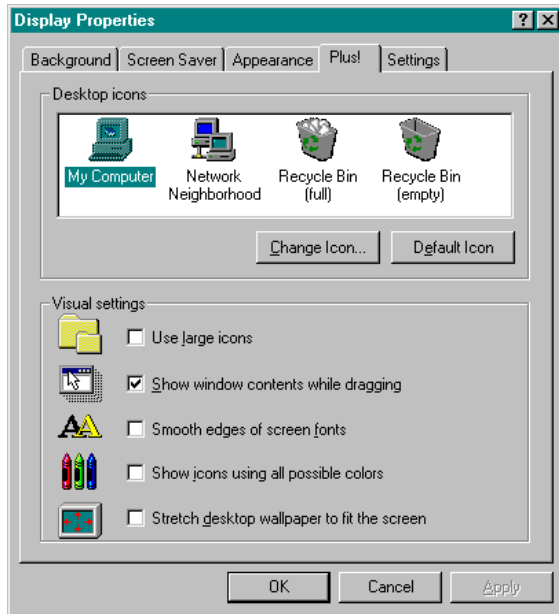


The Screen Saver page of Display Properties lists the available screen savers.

A screen saver displays moving images that prevent damage to your screen.

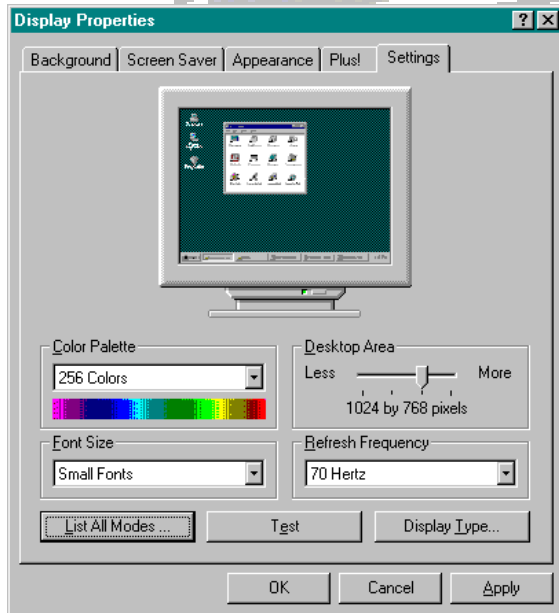
The screen saver starts automatically if the computer is idle for a specified amount of time.

### 8.3 Plus!



The Plus! Page is used for changing the default icons and customizing the visual settings of the Windows NT graphical user interface.

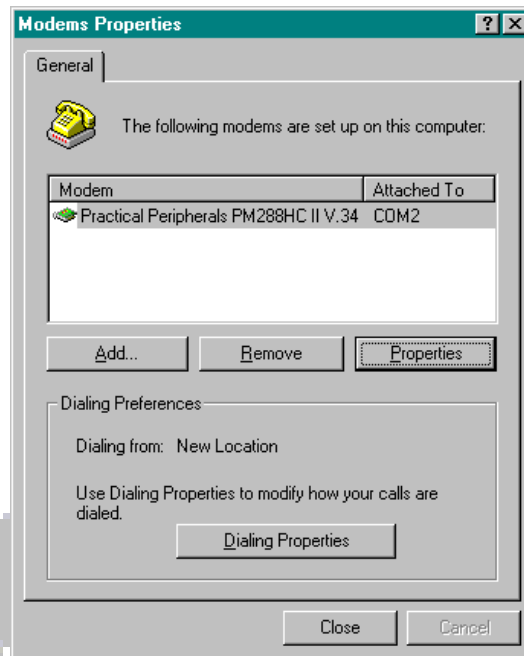
### 8.4 Settings



The Settings page is used for selecting and testing the video display properties.

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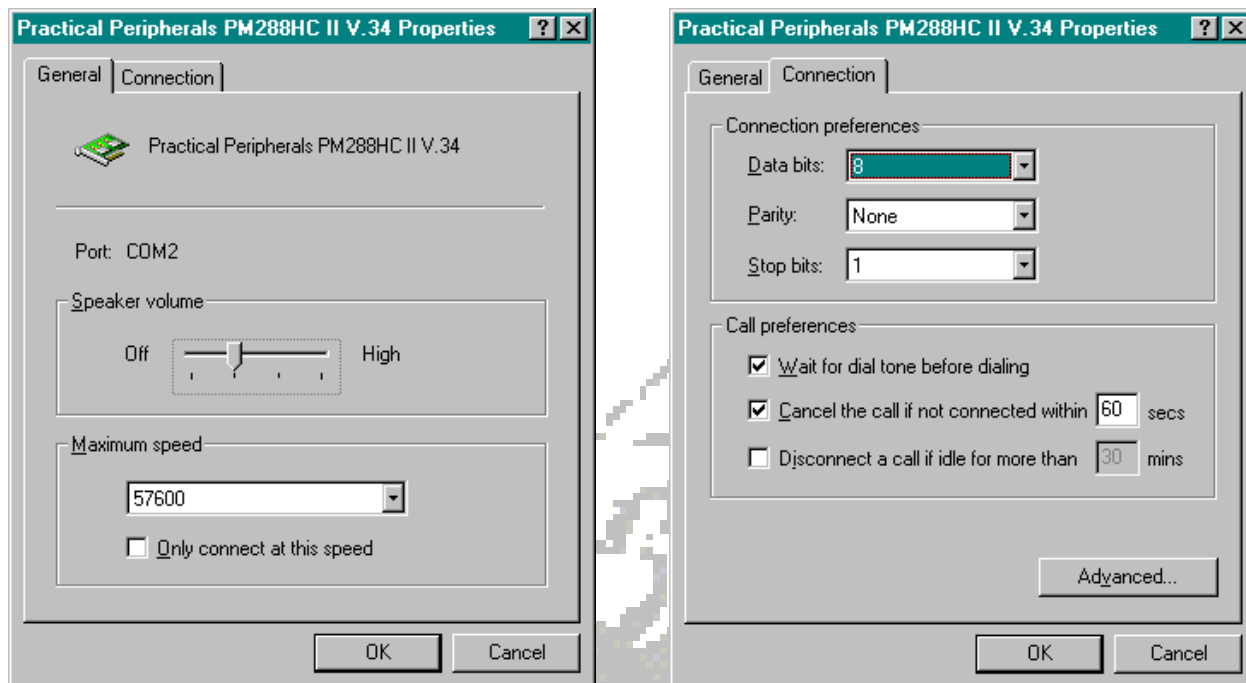
## 9 Viewing and Setting Modem Properties



To configure an installed modem:

1. Open Modems Properties.
2. Enter the changes to be entered, as follows:
  - C To change the Port, Speaker volume, or Maximum speed, click the General tab.
  - C To change Connection preferences, Call preferences, or Advanced connection settings, click the Connection tab.

If step 1 displays Install New Modem instead of Modems Properties, then follow the instructions on your screen to install the modem.



To install a modem:

1. Click here to open Install New Modem.
2. Follow the instructions on your screen.

If step 1 opens Modems Properties instead of Install New Modem, then click Add to open Install New Modem.

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## 10 Connecting to the Internet

Windows NT provides many different ways to connect to the Internet.

However, with either a modem connected to a phone line or an Integrated Services Digital Network (ISDN) card connected to an ISDN card, the TCP/IP protocol and Dial-Up Networking provided with Windows NT can be utilized to connect to the Internet.

To create a Dial-Up Networking connection to an Internet provider:

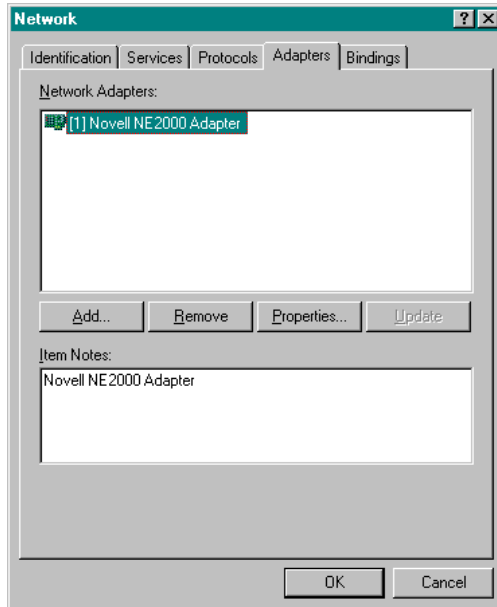
1. Get an Internet account with an Internet access provider.
2. Set up the communications hardware.
3. Install the Windows NT TCP/IP protocol and bind it to the Dial-Up Networking adapter.
4. Enter TCP/IP information.
5. Install Dial-Up Networking.
6. Create a connection to an access provider using Dial-Up Networking.
7. Dial an Internet access provider.

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## 11 Network Configuration

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### 11.1 Installing a Network Interface Card



To install a network adapter:

1. Open the Network properties dialog box.
2. Click Add.
3. Follow the instructions on the screen.

To connect a computer running Windows NT to a network, at least one network adapter card and network software for at least one protocol (or transport) driver must be specified.

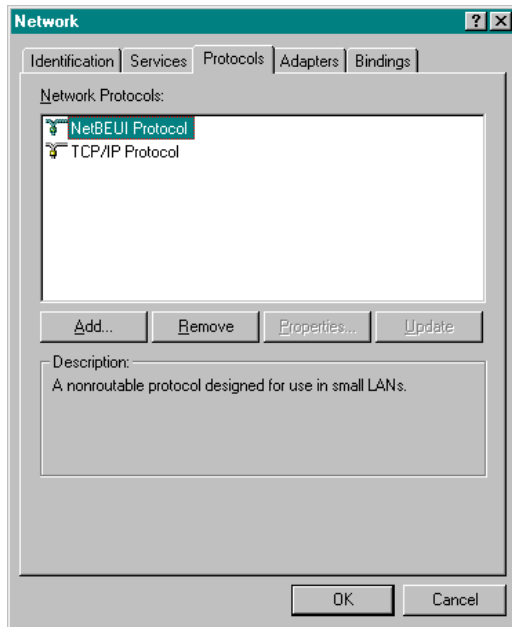
To specify settings for a network adapter:

1. Open the Network properties dialog box.
2. Click the adapter that is to be configured, and then click Properties.

Most Windows NT networking software is self-configuring; it is possible to configure multiple adapter cards and their support software.

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## 11.2 Installing a Network Protocol



To install a network protocol:

1. Open the Network properties dialog box.
2. Click Add; the Select Network Protocol dialog box appears.
3. Follow the instructions on the screen.

If there is a protocol that is not listed (but is for Windows NT), click Have Disk, and then follow the instructions on the screen.

To connect a computer running Windows NT to a network, at least one network adapter card must be specified and network software for at least one protocol (or transport) driver.

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## 11.3 Installing Network Services

To install network services:

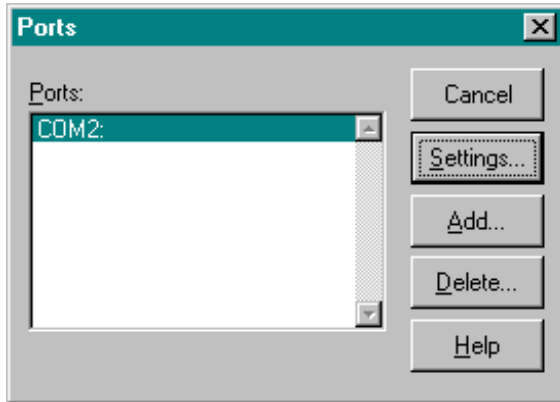
1. Open the Network properties dialog box.
2. Click Add.
3. Click the service to be added.

Or, if it doesn't appear, click Have Disk, and follow the instructions that appear.

Client Service for NetWare (or Gateway Service for NetWare) is included with the Windows NT software and enables you to connect to Novell NetWare servers.

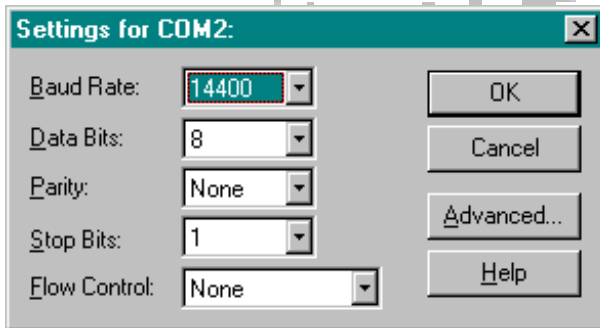
To install this client, click Client Service for NetWare or Gateway (and Client) Services for NetWare in step 3.

12 Ports Settings



Port settings enables communications settings to be set for a selected serial (COM) port.

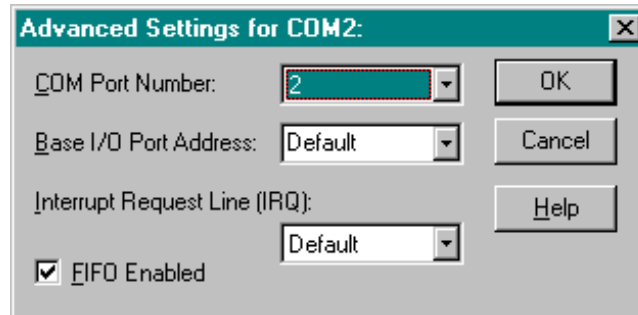
To specify communications settings, click the name of the port and then click Settings.



This dialog box is used to specify the communications settings for the selected serial (COM) ports.

COM Settings	Explanation
Baud Rate	Select a rate for the speed that information is to be transferred through the port.
Parity	Select a method for error checking.
Flow Control	Select a method for controlling the flow of data. C Xon/Xoff is the standard for the software method. C Click Hardware if the device controls data flow.
Data Bits	Select the number of data bits to be used for each character. Most characters are transmitted in 7 or 8 data bits.
Stop Bits	Select a number for the time between transmitted characters.

## 12.1 Advanced Port Settings



This dialog box is used for:

- C Specifying the I/O addresses and the interrupt request line (IRQ) port.
- C Changing the port number of a port.
- C Specifying that buffering of incoming data be implemented in order to increase performance.

When adding a new port, the settings for Base I/O Port Address and IRQ that appear are the recommended choices, not default settings.

In the Base I/O Port Address box, the first two addresses, 3F8 and 2F8, are usually reserved for COM1 and COM2.

If these addresses are being used for a port which has been created, the COM1 or COM2 ports may not function.

## 13 Services

The Services Dialog box is used for starting, stopping, pausing, or continuing each of the services available on the computer, and for passing startup parameters to the service.

Service State	Explanation
Status	Shows the status of a service, as follows: Started, Paused, Stopped (represented by a blank entry).
Startup	Shows the startup type for a service, as follows: Automatic - service starts every time the system starts. Manual - service can be started by a user or a dependent service. Disabled - service cannot be started.
Start	Starts a service that is stopped.  Optionally, to pass startup parameters to the service, type text in the Startup Parameters box and then click Start.
Pause	Pauses a service that is running.
Startup	Specify the startup type of a service or to assign a logon account to a service.
HW Profiles	Enables or disables the selected service for a hardware profile.

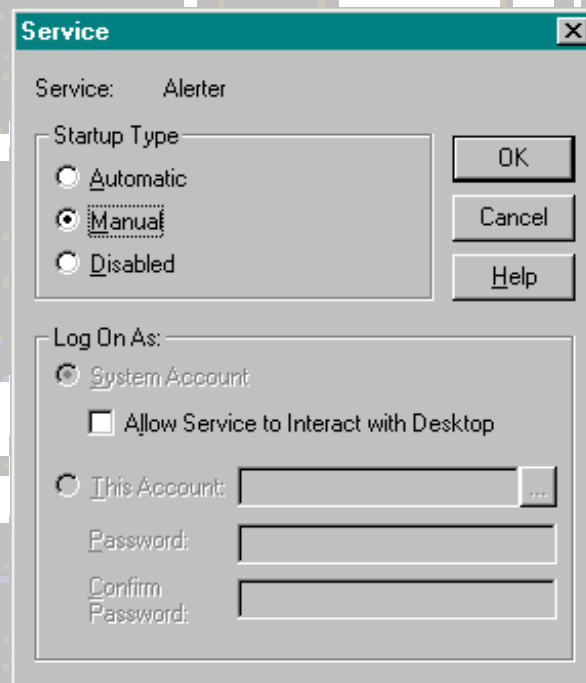
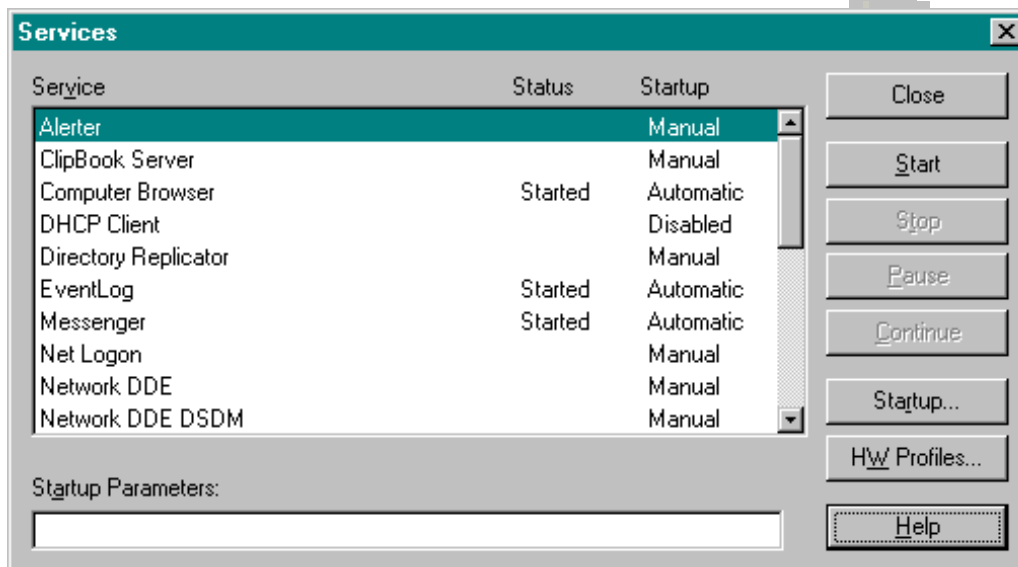
### 13.1 The Default Services

The following services are provided with Windows NT:

C	Alerter	C	ClipBook Server
C	Computer Browser	C	Directory Replicator
C	Event Log	C	Messenger
C	Net Logon	C	Network DDE
C	Network DDE DSDM	C	NT LM Security Support Provider
C	Remote Procedure Call (RPC) Locator	C	Remote Procedure Call (RPC) Service
C	Schedule	C	Server
C	Spooler	C	UPS
C	Workstation		

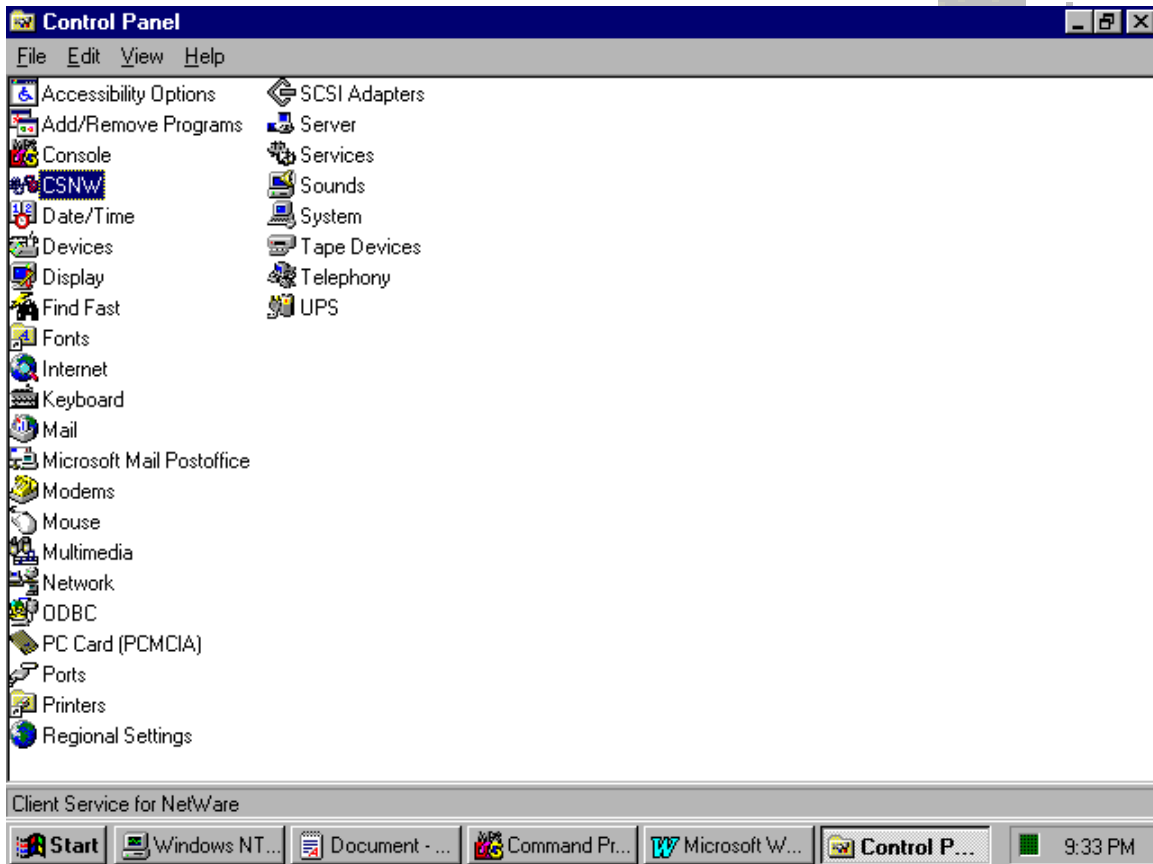
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## 13.2 Services and Startup Type



14 Control Panel

There are a wide variety of Control Panel applications.



Several of the applications provide identical access to the applications and properties available from the desktop GUI:

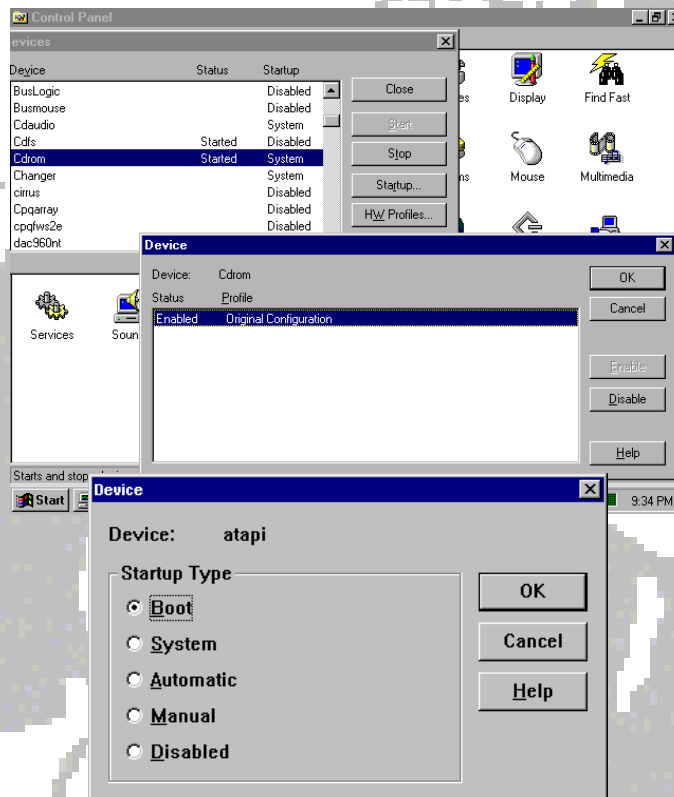
C	Date/Time	C	Display	C	Internet
C	Mail	C	Printers	C	System

## 14.1 Devices

The Devices application is located in the Control Panel and is used for configuring and adding/removing a variety of peripheral devices.

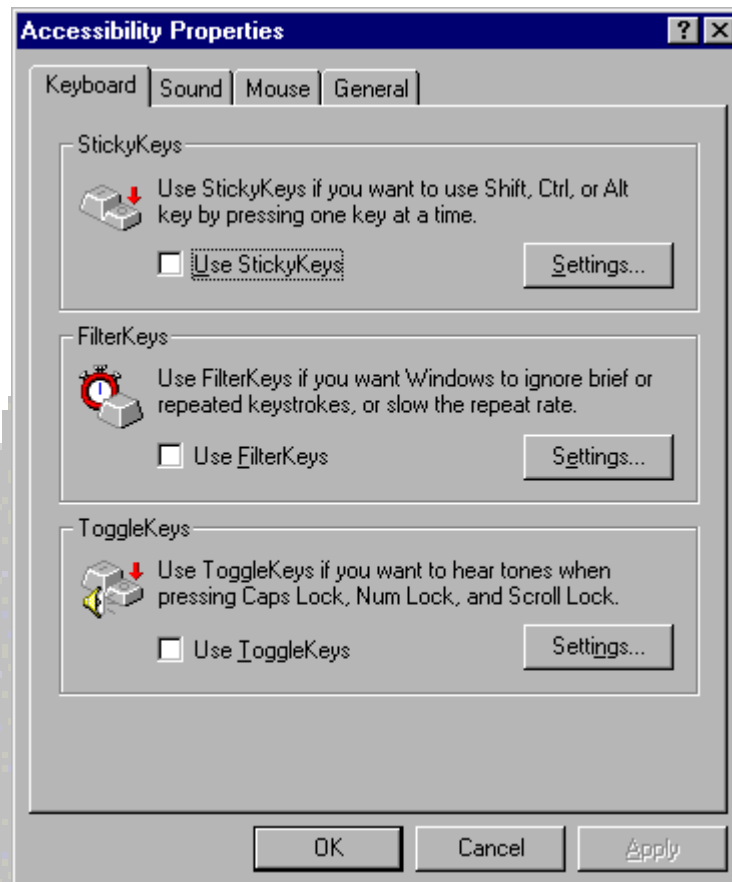
The properties of the devices can be viewed from this Control Panel application.

A number of devices listed here can be enabled and disabled and optionally linked to a hardware profile which can be selected during the initial boot of Windows NT.



## 14.2 Accessibility Properties

The Control Panel Accessibility application provides a means for implementing alternative techniques for invoking components of the Windows NT graphical user interface.



### 14.3 Add/Remove Programs

The Control Panel Add/Remove programs is the correct method for adding/removing components of the Windows NT operating system and related utilities.

The new 32-bit applications are designed to be installed and removed exclusively from this application. This new standard incorporates/removes the relevant information from the Registry for the given application.

In addition to the greater uniformity and standardization of the installation process it also serves to ensure a more efficient Registry.

