

## **Contents for Control Panel Help**

Windows Control Panel provides you with a graphical way of configuring hardware and customizing Windows.

To learn how to use Help, press F1.

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### **Commands**

[Settings Menu Commands](#)

## Settings Menu Commands

The commands in the Settings menu have corresponding icons which appear in the Control Panel window. The commands listed here are those that appear when you are running Windows on a 386 personal computer with sound, a network, and MIDI capabilities installed.

Use the [scroll bar](#) to see more commands.

### Color

Changes the colors of [screen elements](#).

### Fonts

Installs and removes fonts and sets [TrueType](#) options.

### Ports

Specifies communications settings for serial ports.

### Mouse

Specifies settings for pointing devices.

### Desktop

Changes desktop options, such as [patterns](#) and [wallpaper](#), [screen savers](#), icon spacing, cursor blink rate, grid size, and border width.

### Network

Changes the options for network connections.

### Printers

Adds, removes, and configures printers.

### International

Changes international settings, such as keyboard layout and measurement system, and date/time, currency, and number formats.

### Keyboard

Sets the keyboard delay and repeat rates.

### Date/Time

Changes the system date and time.

### Sound

Assigns sounds to system and application events (such as when Windows starts or displays a message) and turns the warning beep on or off.

### 386 Enhanced

Manages options, such as [device contention](#) and resource allocation, for running Windows in 386 enhanced mode.

### Drivers

Installs and configures [drivers](#) for controlling the devices installed on your computer.

### MIDI Mapper

Changes MIDI settings for output channels, instrument patches, and key assignments.

Unless you install a sound card or connect a MIDI synthesizer for which Windows or the sound-card or synthesizer manufacturer do not provide a MIDI setup, you do not need to use this option. If you connect a MIDI synthesizer that does not include a MIDI setup, you must create a setup that includes the mapping assignments appropriate to your synthesizer.

**Exit**

Quits Control Panel.

## What Is Control Panel?

Control Panel is a Windows application that provides you with a visual way of modifying your system while working with Windows. Each option that you can change is represented by an icon in the Control Panel window.

These options include:

- Your screen colors.
- Other desktop options that determine the look of your screen.
- The fonts recognized by your Windows applications.
- The printer you use.
- Keyboard and pointing-device settings.
- International settings.
- Port and network settings.
- The system date and time.
- The sounds your system uses.
- MIDI settings for a synthesizer connected to your computer.
- Multitasking settings for running Windows in 386 enhanced mode.

When you change an option, it is stored in the WIN.INI file so that it will be in effect the next time you run Windows.

To return to Contents for Control Panel Help, choose the Contents button.

## **Changing the Look of Windows**

You can change the way Windows looks by changing the screen colors and by modifying the desktop. To change screen colors, you use the Colors option. To modify the desktop (for example, to change the background display, the icon spacing, and the cursor blink rate), you use the Desktop option.

For help on changing the look of Windows, choose one of the following tasks:

- [Changing Existing Color Schemes](#)
- [Changing Desktop Options](#)
- [Creating Your Own Colors](#)
- [Using Existing Color Schemes](#)

## Using Existing Color Schemes

Windows provides several [color schemes](#) that you can use to change the colors of all screen elements.

### To use a color scheme

- 1 In the Control Panel window, choose the Color icon.
- 2 Open the Color Schemes list, and then select a color scheme.  
The colors of the elements in the sample screen change to reflect the scheme you select.
- 3 Choose the OK button.

For help with the Color dialog box, choose the Help button or press F1 while using the dialog box.

See Also

[Changing Existing Color Schemes](#)

[Creating Your Own Colors](#)

## Changing Existing Color Schemes

If you want to change the colors in a color scheme, you can select colors from the Basic and Custom Colors palettes.

### To change the colors of a color scheme

- 1 In the Control Panel window, choose the Color icon.
- 2 Open the Color Schemes list, and then select a color scheme.
- 3 Choose the Color Palette button.
- 4 Open the Screen Element list, and then select a part of the screen whose color you want to change.  
Or click the part of the screen in the sample screen.
- 5 From the Basic Colors or Custom Colors palette, select a new color.  
The selected element in the sample screen changes color to reflect your choice.  
To create a new color, use the Define Custom Colors option.
- 6 Change the color of other parts of the screen, if you want.
- 7 Choose the Save Scheme button.
- 8 To assign a new name to the scheme, type the name in the text box.
- 9 Choose the OK button.
- 10 In the Colors dialog box, choose the OK button.

For help with the Color dialog box, choose the Help button or press F1 while using the dialog box.

See Also

[Creating Your Own Colors](#)

[Using Existing Color Schemes](#)

## Creating Your Own Colors

You can create your own colors and apply them to screen elements.

### To create your own colors

- 1 In the Control Panel window, choose the Color icon.
- 2 Choose the Color Palette button.
- 3 Choose the Define Custom Colors button.
- 4 Drag the cursor in the color refiner box and the arrow beside the luminosity bar to define your color.

You can also create a color by typing numbers in the Red, Green, and Blue boxes, or the Hue, Sat (saturation), and Lum (luminosity) boxes. Click the up and down arrows to change the numbers by using a mouse.

Note that the color you create is shown in the left side of the Color/Solid box.

You can double-click the right side of the box or press ALT+O to use the solid color most closely resembling the one you have created.

- 5 In the Custom Colors palette, select a box for the color.  
Select an empty box or one that contains a color you want to change to the new color.
- 6 Choose the Add Color button.
- 7 Create any other colors you want, and add them to the palette.
- 8 Choose the Close button.
- 9 Choose the OK button.

For help with the Color and Custom Color Selector dialog boxes, choose the Help button or press F1 while using the dialog boxes.

See Also

[Changing Existing Color Schemes](#)

[Using Existing Color Schemes](#)



## Changing Desktop Options

Other desktop options that you can specify to change the look of Windows include:

- The pattern or wallpaper displayed as a screen background.
- The screen saver that appears when Windows is idle.
- An invisible grid for positioning windows and icons.
- The amount of space between icons in Program Manager.
- Icon titles that wrap to a new line.
- The rate at which the cursor blinks.
- The width of window borders.

### To change desktop options

- 1 In the Control Panel window, choose the Desktop icon.
- 2 In the Desktop dialog box, specify the settings for the options you want to change.
- 3 Choose the OK button.

If you need help with the Desktop dialog box, choose the Help button or press F1 while using the dialog box.

## Installing and Configuring a Printer

There are several steps to installing and configuring a printer to use with Windows. First, you must install a printer driver that controls your printer. For information about installing a printer driver, see Installing a Printer Driver.

If you have already installed a printer driver, you can complete these remaining tasks. It might be easier if you perform these tasks in order, but it is not necessary:

- Assign a port to the printer.
- Change the Timeouts settings.
- Specify settings for your printer.
- Choose the default printer.
- Connect to a network printer.

If you are not using a network or will only be printing to a local printer, you can skip the last task.

## Installing a Printer Driver

You can install a printer driver provided with Windows or a Windows printer driver supplied by a printer manufacturer or computer dealer.

### To install a printer driver

- 1 In the Control Panel window, choose the Printers icon.
- 2 Choose the Add button.  
If you have not installed a printer, Control Panel chooses the Add button for you.
- 3 In the List Of Printers box, select the printer you want to install.  
If your printer is not listed or does not emulate a printer that Windows supports, but you have a printer driver for it, select Install Unlisted Or Updated Printer.
- 4 Choose the Install button.  
The following two steps do not apply if the printer you are installing uses the same printer driver as another printer already installed on your system.
- 5 Insert in drive A the disk containing the printer driver, or type a drive letter and directory path in the text box. (If you are a non-U.S. customer, the printer driver you need may be on the Additional Non-U.S. Printer Drivers disk.)  
You can also use the Browse button to find and select the drive and directory where the printer driver is located. When you are finished using the Browse dialog box, choose the OK button to return to the Install Printer dialog box.
- 6 In the Install Printer dialog box, choose the OK button.  
If you are installing a driver not included with Windows, a dialog box appears, listing several printers. Select the printer you want, and then choose the Install button.
- 7 If Control Panel prompts you for font files, insert the disk that contains font files. Then choose the OK button.  
The printer name appears in the list of installed printers.
- 8 Go to the next step to assign a port to the printer.

For help with the Printers and Install Printers dialog boxes, choose the Help button or press F1 while using the dialog boxes.

Next Step

[Assigning a Printer Port](#)

## **Assigning a Printer Port**

Control Panel assigns each printer you install to the port LPT1. If your printer is connected to a different port, you need to change the port assignment before you can print.

Note: Do not change the port assignment for your printer if you are currently printing documents to it. If you do so, your documents will disappear from the Print Manager queue. Your documents will still print, but you will not be able to perform Print Manager tasks, such as pausing and resuming printing or viewing status information, for those documents.

### **To assign a port to a printer**

- 1 If you are not already in the Printers dialog box, choose the Printers icon in the Control Panel window.
- 2 Choose the Connect button.
- 3 From the Ports list, select the port you want to assign to the printer.  
If you select a COM port, you might need to change the communications settings.
- 4 If you want to change communications settings, choose the Settings button, complete the Settings dialog box, and then choose the OK button.
- 5 Go on to the next step to change the Timeouts settings. Or choose the OK button in the Connect dialog box, and then choose the Close button in the Printers dialog box.  
For help with the Connect and Settings dialog boxes, choose the Help button or press F1 while using the dialog boxes.

Next Step

[Changing the Timeouts Settings](#)

## Changing the Timeouts Settings

You can use the [Timeouts](#) settings to adjust the amount of time Windows waits before sending you a message about printing problems. Changing the Timeouts settings is optional.

### To change the Timeouts settings

- 1 If you are not already in the Connect dialog box, choose the Printers icon from the Control Panel window, and then choose the Connect button.
- 2 Specify the Timeouts settings you want.
- 3 Choose the OK button.
- 4 Go on to the next step or choose the Close button in the Printers dialog box.

For help with the Connect dialog box, choose the Help button or press F1 while using the dialog box.

Next Step

[Specifying Printer Settings](#)

## **Specifying Printer Settings**

Many printers have specific settings (such as page orientation, paper size, and graphics resolution) that you can specify to get the printing results you want.

### **To specify printer settings**

- 1 If you are not already in the Printers dialog box, choose the Printers icon from the Control Panel window.
- 2 Select the printer you want to use.
- 3 Choose the Setup button.
- 4 Select the settings you want.
- 5 To select additional settings that are specific to your printer driver, choose the Options button, set the options as needed, and then choose the OK button.
- 6 Choose the OK button again.
- 7 Go on to the next step or choose the Close button in the Printers dialog box.

For help with the dialog boxes, choose the Help button or press F1 while using the dialog boxes. For information about which settings to use, see your printer documentation.

Next Step

[Choosing the Default Printer](#)

## Choosing the Default Printer

Windows applications use the default printer unless you specify otherwise in your application.

### To choose the default printer

- 1 If you are not already in the Printers dialog box, choose the Printers icon from the Control Panel window.
- 2 From the Installed Printers list, select the printer you want to use as the default printer.
- 3 Choose the Set As Default Printer button.
- 4 Choose the Close button.

For help with the Printers dialog box, choose the Help button or press F1 while using the dialog box.

You have completed the installation process. If the printer you just installed is a network printer, you need to connect to it before you can print. If you have not already connected to the printer, see [Connecting to a Network Printer](#).

## Using Network Printers

If you installed Windows for use with a network, you can use Control Panel to connect to or disconnect from a network printer. The way you do this varies, depending on the network you are using.

For general information about how to connect to or disconnect from a network printer by using Control Panel, choose one of these topics:

- [Connecting to a Network Printer](#)
- [Disconnecting from a Network Printer](#)

For printer-connection information that is specific to your network, use the Help feature for your network.



## **Connecting to a Network Printer**

### **To connect to a network printer**

- 1 In the Control Panel window, choose the Printers icon.
- 2 Choose the Connect button.
- 3 Choose the Network button.

If you didn't install Windows for use with a network or aren't currently connected to a network, this button is dimmed.

- 4 Specify the network path and the port (and the password, if required).  
Some networks support the Browse and Previous buttons. Use these buttons to browse all the network printers or to reconnect to a printer.
- 5 Choose the Connect button.  
The Current Printer Connections list adds your new printer.
- 6 Choose the Close button.
- 7 Choose the OK button.
- 8 In the Printers dialog box, choose the Close button.

For help with the Printers, Connect, and Network dialog boxes, choose the Help button or press F1 while using the dialog boxes.

## **Disconnecting from a Network Printer**

### **To disconnect from a network printer**

- 1 In the Control Panel window, choose the Printers icon.
- 2 Choose the Connect button.
- 3 In the Connect dialog box, choose the Network button.
- 4 In the Current Printer Connections list, select the printer you want to disconnect from.
- 5 Choose the Disconnect button.
- 6 Choose the Close button.
- 7 Choose the OK button.
- 8 In the Printers dialog box, choose the Close button.

For help with the Printers, Connect, and Network dialog boxes, choose the Help button or press F1 while using the dialog boxes.

## **Specifying Network Options**

Depending on your network software, you can specify network options or perform tasks such as:

- Signing on and off the network.
- Changing your user ID and password.
- Sending messages to other network users.
- Restoring network connections when you start Windows.

### **To specify network options**

- 1 In the Control Panel window, choose the Network icon.
- 2 Use the menus or dialog box to specify network options.

The menus and options vary, depending on the network software you are using. For information about how to use the menus or dialog box, see your network software documentation, or use the Help feature, if available.

## **Customizing Windows for International Use**

You can customize Windows for working in different languages. The international options you specify are used by all Windows applications. These options include:

- Language.
- Keyboard layout.
- Measurement system.
- The character used to separate lists.
- Number, date, time, and currency formats.

### **To specify international options**

- 1 In the Control Panel window, choose the International icon.
- 2 Open the Country list, and then select the country whose date, time, currency, and number formats you want to use.
- 3 Change any of the other options you want. To change the date, time, currency, or number formats for the selected country, choose the corresponding Change button, and then complete the dialog box.
- 4 Choose the OK button.

For help with the International and Format dialog boxes, choose the Help button or press F1 while using the dialog box.

## **Installing and Removing Fonts**

Windows supports a variety of fonts that can determine the overall look and emphasis of your documents. You can make your documents easier to read, depending on which fonts you use.

For help with using fonts, choose one of the following tasks:

- [Adding Fonts](#)
- [Removing Fonts](#)
- [Setting TrueType Options](#)

## **Adding Fonts**

By using the Fonts option, you can add screen, plotter, or TrueType fonts to your Windows applications.

### **To add fonts**

- 1 In the Control Panel window, choose the Fonts icon.  
The fonts already installed are listed in the Installed Fonts box.
- 2 Choose the Add button.
- 3 In the Add Fonts dialog box, select the font you want to add. If the font is not located in the current drive or directory, select the drive and directory where it is located.  
You can add more than one font at a time. You can also select all the fonts listed by choosing the Select All button.
- 4 If you are low on disk space and want to use the fonts directly from the directory (network or local) where they are located, without copying the font files to the Windows directory, clear the Copy Fonts To Windows Directory check box.
- 5 Choose the OK button.
- 6 In the Fonts dialog box, choose the Close button.

For help with the Fonts and Add Font Files dialog boxes, choose the Help button or press F1 while using the dialog boxes.

See Also

[Removing Fonts](#)

[Setting TrueType Options](#)

## Removing Fonts

If you are not using a font, you can remove it to free some memory for your applications. Removing a font deletes the font from the Installed Fonts list, but does not delete the font file from your hard disk, unless you specify otherwise.

Note: The MS Sans Serif font is used for most Windows dialog boxes. If you remove this font, the text in dialog boxes will be difficult to read.

### To remove a font

- 1 In the Control Panel window, choose the Fonts icon.
- 2 Select the font that you want to remove. You can select several fonts at a time.
- 3 Choose the Remove button. A message appears, asking you to confirm your decision to remove the font.
- 4 If you want to delete the font file from the disk in addition to removing it from memory, select the Delete Font File From Disk check box.
- 5 Choose the Yes button, or, if you want to remove several fonts at the same time, choose the Yes To All button.
- 6 Choose the Close button.

For help with the Fonts dialog box, choose the Help button or press F1 while using the dialog box.

See Also

[Adding Fonts](#)

[Setting TrueType Options](#)

## Setting TrueType Options

Windows supports the use of TrueType fonts. TrueType fonts are scalable fonts that appear in your printed document exactly as they appear on your screen. If you are not using TrueType fonts in your documents, you can turn them off to free memory for your applications.

If you are using only TrueType fonts, you can specify that you want to use TrueType fonts exclusively so that other fonts do not appear listed in your Windows applications.

In either case, the font files will not be deleted from your hard disk.

### To set TrueType options

- 1 In the Control Panel window, choose the Fonts icon.
- 2 Choose the TrueType button.
- 3 Select the options you want to use.
- 4 Choose the OK button.

If you change the Enable TrueType Fonts option, the change does not take effect until you restart Windows. A message appears, asking whether you want to restart Windows.

- 5 To restart Windows, choose the Restart Now button.

For help with the TrueType dialog box, choose the Help button or press F1 while using the dialog box.

See Also

[Adding Fonts](#)

[Removing Fonts](#)



## **Changing the System Date and Time**

Using the Date/Time options, you can change your system's date and time. Date and time changes are recognized by Windows applications that use the system clock.

### **To change the date and time**

- 1 In the Control Panel window, choose the Date/Time icon.
- 2 Select the part of the date or time you want to change, and then type a new value.  
Or click the up or down arrow to increase or decrease the number by one.
- 3 Choose the OK button.

For help with the Date & Time dialog box, choose the Help button or press F1 while using the dialog box.

## **Changing Keyboard Options**

Using the Keyboard option, you can customize your keyboard. You can adjust how long your computer waits after you press and hold down a key before it repeats that key, and how fast the key repeats when you hold it down.

### **To customize your keyboard**

- 1 In the Control Panel window, choose the Keyboard icon.
- 2 Adjust and test the settings you want.
- 3 Choose the OK button.

For help with the Keyboard dialog box, choose the Help button or press F1 while using the dialog box.

## **Changing Pointing-Device Options**

Using Control Panel, you can customize pointing devices, such as a mouse. For example, if you are using a mouse, you may be able to swap the right and left mouse button and adjust the double-click and tracking speeds.

The options you can set depend on the pointing device you are using. For information about these options, see the documentation that comes with your pointing device or use the Help feature, if available.

### **To customize your pointing device**

- 1 In the Control Panel window, choose the icon for your pointing device.
- 2 Change any of the settings you want.
- 3 Choose the OK button.

## Changing Serial-Port Settings

Using the Ports option, you can specify basic settings, such as the baud rate and data, parity, and stop bits for your serial ports. You can also specify advanced settings that determine the I/O address and the interrupt request line (IRQ) that Windows uses to send information to a serial port.

If you plan on using only serial ports COM1 and COM2, you may need to change only the basic settings. If you plan on using COM3 and COM4, you may also need to change the advanced settings.

For help with changing communications settings for serial ports, choose one of the following tasks:

- [Specifying Basic Serial-Port Settings](#)
- [Specifying Advanced Serial-Port Settings](#)

## Specifying Basic Serial-Port Settings

Use the Settings dialog box to specify the baud rate, data bits, parity, stop bits, and flow-control settings for the selected serial port.

### To specify serial-port settings

- 1 In the Control Panel window, choose the Ports icon.
- 2 Double-click the port you want to use.  
Or press `TAB` to select the port, and then press `ALT+S` to choose the Settings button.
- 3 Change any settings you want.
- 4 Choose the OK button.
- 5 In the Ports dialog box, choose the Close button.

For help with the Settings dialog box, choose the Help button or press `F1` while using the dialog box.

See Also

[Specifying Advanced Serial-Port Settings](#)

## Specifying Advanced Serial-Port Settings

Use the Advanced Settings dialog box to specify an I/O address and an interrupt request line (IRQ) for your serial port.

### To set advanced port options

- 1 In the Control Panel window, choose the Ports icon.
- 2 Double-click the port you want to use.  
Or press `TAB` to select the port, and then press `ALT+S` to choose the Settings button.
- 3 Choose the Advanced button.
- 4 Change the base I/O address if your serial-port hardware uses address values other than the values that Windows detects.
- 5 If you are using a computer that cannot access COM1 and COM3 or COM2 and COM4 simultaneously, and you want to use these ports, specify a unique IRQ number for each port.
- 6 Choose the OK button.  
Any changes you make will not take effect until you restart Windows.
- 7 To make your changes take effect now, choose the Restart Now button.

For help with the Settings and Advanced Settings dialog boxes, choose the Help button or press `F1` while using the dialog boxes.

See Also

[Specifying Basic Serial-Port Settings](#)

## **Optimizing Windows for 386 Enhanced Mode**

When Windows applications and non-Windows applications are running simultaneously in 386 enhanced mode, they may request to use the same device (such as a printer or modem) at the same time. You can specify options that determine how Windows handles these requests.

You can also specify how Windows allocates system resources to each of the applications and change the settings for swap files.

For help with optimizing Windows for 386 enhanced mode, choose one of the following tasks:

- Managing Device Requests and Allocating System Resources
- Changing Swap-File Settings

## **Managing Device Requests and Allocating System Resources**

### **To specify how Windows manages device requests and allocates system resources**

- 1 In the Control Panel window, choose the 386 Enhanced icon.
- 2 Select the port connected to the device you want to control.
- 3 Select the settings you want for Device Contention and Scheduling.
- 4 Choose the OK button.

For help with the 386 Enhanced dialog box, choose the Help button or press F1 while using the dialog box.

See Also

[Changing Swap-File Settings](#)



## Changing Swap-File Settings

You can change the drive location, size, and type of the swap file. These settings control how your system uses virtual memory.

Generally, you should leave these settings at their default values. However, there might be times when you want to change the settings. For example, if you work with an application that requires a large amount of memory, you might want to create a larger swap file.

### To change swap-file settings

- 1 From Control Panel, choose the 386 Enhanced icon.
- 2 Choose the Virtual Memory button.  
The Virtual Memory dialog box appears, displaying the current settings.
- 3 Choose the Change button.
- 4 Change the appropriate settings.
- 5 Choose the OK button.
- 6 In the 386 Enhanced dialog box, choose the OK button.

For help with the Virtual Memory dialog box, choose the Help button or press F1 while using the dialog box.

See Also

[Managing Device Requests and Allocating System Resources](#)

## **Controlling Sound**

Control Panel provides several options for controlling how sound works in Windows. With these options, you can assign different sounds to system and application events, and specify settings for devices that support MIDI.

To use sound in Windows, the sound drivers that control your sound devices must be installed and configured for your system.

For help on using the Windows sound features, choose one of the following tasks:

- [Installing Device Drivers](#)
- [Assigning Sounds to Events](#)
- [Changing MIDI Settings](#)

## **Installing and Removing Device Drivers**

When adding a new device to your system, you need to install a driver for that device. Most devices come with the appropriate drivers. In addition, Windows supplies sound drivers for common sound devices, such as sound cards. If you do not have a driver for your device, contact your device manufacturer.

Note: You cannot install an updated version of a driver that is already installed on your system until you remove the old driver. If you do not remove the old driver, you will receive an error message while attempting to install the new driver.

For help installing or removing a driver, choose one of the following tasks:

- [Installing Device Drivers](#)
- [Removing Device Drivers](#)

If you are installing a printer, you need to use the Printers option to install the printer driver. For more information, see [Installing and Configuring Printers](#).

## Installing Device Drivers

### To install a new driver

- 1 In the Control Panel window, choose the Drivers icon.
- 2 In the Drivers dialog box, choose the Add button. The drivers listed in the Add dialog box are those supplied by Windows.
- 3 In the List Of Drivers box, select the device you want to install.  
If the device is not listed, select Add Unlisted Or Updated Driver.

4 Choose the OK button.

- 5 Insert the disk with the driver in drive A, or type a drive letter and directory path in the text box.

You can also use the Browse button to find and select the drive and directory where the driver file is located. When you finish using the Browse dialog box, choose the OK button.

- 6 In the Install Drivers dialog box, choose the OK button.

If you are installing a driver not included with Windows, the Unlisted Or Updated Drivers dialog box appears, listing your drivers. Select the driver you want, and then choose the OK button.

If the driver requires specific settings to work properly with Windows, a setup dialog box appears.

- 7 Select the settings required by the driver.

It is important that the settings you specify do not conflict with the settings used by other devices installed on your system, such as a mouse or network card. For example, the interrupts used by each device must be unique. See the manuals for your devices to determine the settings they are using. Then see the manual that came with the device you are configuring for information about its settings.

- 8 Choose the OK button.

When you install a driver, Windows installs any additional related drivers automatically. These drivers may also require settings. In this case, other setup dialog boxes may appear.

- 9 Repeat steps 7 and 8 until all related drivers have been configured.

The new driver and any changed driver settings may not take effect until you restart Windows. A dialog box may appear, asking whether you want to restart Windows.

- 10 Choose the Restart Now button if you want the new driver to take effect immediately. For help with the Drivers, Add, Install, Browse, and Add Unlisted Or Updated Drivers dialog boxes, choose the Help button or press F1 while using the dialog boxes.

See Also

[Removing Device Drivers](#)

## Removing Device Drivers

If you are no longer using a device, you can remove its driver from the Installed Drivers list in the Drivers dialog box. Removing a driver from the list does not remove the driver file from your hard disk. If you find that you want to use the same device later on, you can install the driver again.

**Caution:** The drivers that are automatically installed during Setup are required by your system. If you remove one of these drivers, your system may not work properly.

### To remove a driver

- 1 In the Control Panel window, choose the Drivers icon.
- 2 In the Drivers dialog box, select the driver you want to remove.
- 3 Choose the Remove button.  
A dialog box appears, asking you to confirm your decision to remove the driver.
- 4 Choose the Yes button.  
The driver is removed from the list.
- 5 In the Drivers dialog box, choose the Close button.  
A dialog box appears, asking whether you want to restart Windows.
- 6 Choose the Restart Now button if you want the removal to take effect immediately.

See Also

[Installing Device Drivers](#)

## **Assigning Sounds to Events**

You can assign sounds to different system and application events. For example, you can select a sound to play whenever you start Windows. You can also turn sounds and the warning beep on or off.

The sounds you can assign are stored in files that have the .WAV extension.

Note: If you do not have a sound card installed, you cannot assign sounds. In this case, the lists of events and sounds are dimmed.

### **To assign sounds to events**

- 1 In the Control Panel window, choose the Sound icon.
- 2 In the Events list, select the event that you want to assign a sound to.
- 3 In the Files list, select the sound file you want to use. If you do not want to assign a sound to the event, select None.
- 4 To hear the sound, choose the Test button or double-click the event or filename.
- 5 To turn the warning beep and all sounds except for those assigned to Windows Exit and Windows Start on or off, select or clear the Enable System Sounds check box.
- 6 When you are finished, choose the OK button.

For help with the Sound dialog box, choose the Help button or press F1 while using the dialog box.

## Changing MIDI Settings

If you are using sound devices with MIDI capabilities, such as a synthesizer or MIDI card, you can specify MIDI settings for your device. Windows uses these settings when playing MIDI information to the device.

After connecting a synthesizer to your computer or installing a sound or MIDI card, you need to select the MIDI setup for your card or synthesizer. MIDI setups include key maps, patch maps, and channel mappings that ensure that MIDI information plays accurate sounds on your MIDI device. Windows provides several MIDI setups to choose from. If a setup is not available for your MIDI device, you may need to create one.

For help with using MIDI setups, choose one of the following tasks:

- Selecting a MIDI Setup
- Creating a MIDI Setup
- Editing Setups, Patch Maps, and Key Maps
- Deleting Setups, Patch Maps, and Key Maps

## Selecting a MIDI Setup

If you are using an application, such as Media Player, that uses [MIDI setups](#) to play MIDI files, you need to select the MIDI setup for the synthesizer you are using.

### To select a MIDI setup

- 1 In the Control Panel window, choose the MIDI Mapper icon.
- 2 In the MIDI Mapper dialog box, open the Name list, and then select the setup you want to use.
- 3 Choose the Close button.

For help with the MIDI Mapper dialog box, choose the Help button or press F1 while using the dialog box.

Note: For a MIDI setup to take effect, the application you are using to play MIDI files or send MIDI information must use the MIDI Mapper. Also, the application must send patch-select messages or a MIDI file must include them. MIDI files authored for Windows meet these requirements. Check your application's documentation or contact the vendor of your MIDI files if you are not sure.

See Also

[Creating a MIDI Setup](#)

[Editing Setups, Patch Maps, and Key Maps](#)

[Deleting Setups, Patch Maps, and Key Maps](#)



## Creating a MIDI Setup

If you are using a MIDI synthesizer for which Windows does not provide a MIDI setup, you need to create one.

Before creating a MIDI setup, set up the synthesizer to receive MIDI messages on multiple MIDI channels and determine whether your synthesizer is a base-level synthesizer or an extended-level synthesizer, or is capable of playing general MIDI files. For more information about the capabilities of your synthesizer, see your synthesizer manual.

There are several steps involved in creating a new MIDI setup. You need to perform these steps in the following order:

- Create a key map.
- Create patch maps.
- Specify channel mappings.

Note: To use the MIDI Mapper option, you should have a basic understanding of MIDI concepts and terminology. It is recommended that you not use the MIDI Mapper to create MIDI setups unless you are experienced with MIDI and understand the results of the changes you make.

## Creating Key Maps

If you are creating a MIDI setup for a synthesizer that does not use the General MIDI key definitions, you need to create a new key map for percussion instruments. If the synthesizer plays certain sounds at registrations that differ from General MIDI definitions (for example, playing a patch a fifth higher than General MIDI specifies), you may also need to create a melodic key map for registration changes.

### To create a key map

- 1 In the Control Panel window, choose the MIDI Mapper icon.
- 2 In the Show area of the MIDI Mapper dialog box, select the Key Maps option.
- 3 Choose the New button.
- 4 In the New MIDI Key Map dialog box, type a name and a description for the new key map in the text boxes.
- 5 Choose the OK button.
- 6 In the MIDI Key Map dialog box, specify the destination keys required by your synthesizer.
- 7 Choose the OK button.
- 8 Choose the Yes button to confirm the changes.

For help with the MIDI Mapper, New MIDI Key Map, and MIDI Key Map dialog boxes, choose the Help button or press F1 while using the dialog boxes.

Next Step

[Create patch maps.](#)

## Creating Patch Maps

If your synthesizer's patch list differs from the General MIDI patch definitions, you need to create two patch maps: one for melodic instruments and one for percussion instruments.

### To create a patch map

- 1 If you are not already in the MIDI Mapper dialog box, choose the MIDI Mapper icon in the Control Panel window.
- 2 In the Show area of the MIDI Mapper dialog box, select the Patch Maps option.
- 3 Choose the New button.
- 4 In the New MIDI Patch Map dialog box, type a name and description for the new patch map in the text boxes.
- 5 Choose the OK button.
- 6 If the patch numbers for your synthesizer start at 1 rather than at 0, choose the 1 Based Patches button in the MIDI Patch Map dialog box.
- 7 Assign a destination patch, volume level, and keymap to the source patches.
- 8 When you are finished, choose the OK button.
- 9 Choose the Yes button to confirm the changes.
- 10 To create the second patch map, repeat steps 3 through 9.

For help with the MIDI Mapper, New Patch Map, and MIDI Patch Map dialog boxes, choose the Help button or press F1 while using the dialog boxes.

Next Step

Specify channel mappings.

## Specifying Channel Mappings

Once you have created the [patch maps](#) and [key maps](#) required by your synthesizer, you can specify the channel mappings for the new [MIDI setup](#).

The MIDI Mapper lists 16 channels. However, not all synthesizers can use all channels. [Base-level synthesizers](#) use source channels 13 through 16. Channels 13 through 15 are the melodic channels and 16 is the percussive channel. [Extended-level synthesizers](#) use source channels 1 through 10. Channels 1 through 9 are the melodic channels and 10 is the percussive channel.

### To specify the channel mapping

- 1 If you are not already in the MIDI Mapper dialog box, choose the MIDI Mapper icon in the Control Panel window.
- 2 In the Show area of the MIDI Mapper dialog box, select the Setups option.
- 3 Choose the New button.
- 4 In the New MIDI Setup dialog box, type a name and description for the new setup in the text boxes.
- 5 Choose the OK button.
- 6 In the MIDI Setup dialog box, specify a destination channel, a port name, and a patch map for each source channel used by your synthesizer.
- 7 Choose the Yes button to confirm the changes.
- 8 In the MIDI Mapper dialog box, choose the OK button.

For help with the MIDI Mapper, New Setup, and MIDI Setup dialog boxes, choose the Help button or press F1 while using the dialog boxes.

## **Editing Setups, Patch Maps, and Key Maps**

You can edit the [patch maps](#), [key maps](#), and channel mapping for an existing [MIDI setup](#). Generally you should not need to do this, unless you are not getting the sounds you expect, or you want to use a setup provided by Windows and the setup specifies different port assignments than those used by your synthesizer.

### **To edit patch maps, key maps, or channel mapping**

- 1 In the Control Panel window, choose the MIDI Mapper icon.
- 2 In the Show area of the MIDI Mapper dialog box, select the Setups, Patch Maps, or Key Maps option, depending on the type of map you want to edit.
- 3 Open the Name list, and then select the name of the channel mapping, patch map, or key map you want to edit.
- 4 Choose the Edit button.
- 5 In the dialog box, make any changes you want.
- 6 Choose the OK button.
- 7 Choose the Yes button to confirm your changes.
- 8 In the MIDI Mapper dialog box, choose the Close button.

For help with the MIDI Mapper or editing dialog boxes, choose the Help button or press F1 while using the dialog boxes.

See Also

[Creating a MIDI Setup](#)

[Deleting Setups, Patch Maps, and Key Maps](#)

## Deleting Setups, Patch Maps, and Key Maps

If you are not using a particular [patch map](#), [key map](#), or [MIDI setup](#), you can delete it. You cannot delete the current setup (the setup that is listed in the Name box when the MIDI Mapper dialog box first appears), a key map that is used in a patch map or a patch map that is used in a MIDI setup. Before deleting key maps and patch maps, make sure that an existing patch map or setup does not reference the key map or patch map you want to delete.

### To delete a setup, patch map, or key map

- 1 In the Control Panel window, choose the MIDI Mapper icon.
- 2 In the Show area of the MIDI Mapper dialog box, select the Setups, Patch Maps, or Key Maps option, depending on the type of map you want to delete.
- 3 Open the Name list, and then select the name of the setup, patchmap, or keymap you want to delete.
- 4 Choose the Delete button.
- 5 Choose the Yes button to confirm the deletion.
- 6 In the MIDI Mapper dialog box, choose the Close button.

For help with the MIDI Mapper dialog box, choose the Help button or press F1 while using the dialog box.

See Also

[Selecting a MIDI Setup](#)

[Creating a MIDI Setup](#)

[Editing Setups, Patch Maps, and Key Maps](#)

## Color

By using the Color option, you can change the colors of Windows screen elements.

Choose one of the following buttons for information about the dialog box:

- [Color Schemes](#)
- [Save Scheme](#)
- [Remove Scheme](#)
- [Sample Screen](#)
- [Color Palette Button](#)

When you choose the Color Palette button, the Color dialog box expands, displaying these additional options:

- [Screen Element](#)
- [Basic Colors](#)
- [Custom Colors](#)
- [Define Custom Colors Button](#)

See Also

[Using Existing Color Schemes](#)

[Changing Existing Color Schemes](#)

## Save Scheme

Use this dialog box to save the changes you have made to the selected color scheme, or to save a new color scheme you have created.

► To change the selected color scheme, leave the text box as it is, and then choose the OK button.

To create a new color scheme, type a name for your scheme in the text box, and then choose the OK button.

See Also

[Changing Existing Color Schemes](#)



## Custom Color Selector

Use this dialog box to create a color and add it to the Custom Colors palette. You create a color by adjusting its hue, saturation, and luminosity or by specifying its red, green, and blue values.

Choose one of the following buttons for information about the dialog box:

- [Color Refiner Box](#)
- [Luminosity Bar](#)
- [Color/Solid Box](#)
- [Hue, Sat, Lum](#)
- [Red, Green, Blue](#)
- [Add Color Button](#)

See Also

[Creating Your Own Colors](#)


## **Date/Time**

By using the Date/Time option, you can change the date and time of your system's clock. The format of the date and time is set with the Short Date and Time Format options in the International settings dialog box.

It is important that your system date and time are always accurate. Many applications, including File Manager, Clock, and Calendar, use your system date and time to record important information.

Choose one of the following buttons for information about the dialog box:

 [Date](#)

 [Time](#)

See Also

[Changing the System Date and Time](#)

## **Desktop**

By using the Desktop option, you can change the look of your desktop. For example, you can specify a background pattern or wallpaper, a screen saver, the cursor blink rate, icon spacing, grid size, and border width.

Choose one of the following buttons for information about the Desktop dialog box:

- Pattern
- Applications
- Screen Savers
- Wallpaper
- Icons
- Sizing Grid
- Cursor Blink Rate

## Screen Savers

Use these options to select and customize a screen saver to display while you are not actively using Windows. You can use the screen savers provided with Windows, or you can use the IdleWild screen savers included in the Microsoft Entertainment Pack.

To use the IdleWild screen savers, the IWLIB.DLL file and the screen-saver files (these have the extension .IW) must be in the same directory. You can place these files in any directory you want. If these files are not in your Windows directory or in the SYSTEM directory, the directory where they are located must be included in your path.

Choose one of the following buttons for information about the screen-saver options:

- [Name](#)
- [Delay](#)
- [Test Button](#)
- [Setup Button](#)

## **Pattern**

Use this option to select a pattern as the desktop background. Windows provides several patterns for you to choose from.

- ▶ Open the Name list, and then select the pattern you want to use.  
If you are using a mouse, you can change an existing pattern or create your own.
- ▶ To edit or create a pattern, choose the Edit Pattern button, and then complete the Edit Pattern dialog box.

## **Applications**

Use this option to turn fast application-switching on or off.

- ▶ Select the Fast "Alt+Tab" Switching check box to turn on fast task-switching. When fast application-switching is active, you can use the ALT+TAB keys to view and switch among applications quickly.
- ▶ Press and hold down ALT and press TAB repeatedly to display the name of the next application Windows will switch to.  
When you reach the name of the application you want to use, release ALT+TAB to switch to that application. If the application is running as an icon, it is restored.  
If, while pressing ALT+TAB, you want to return to your original application, do the following:
  - ▶ Keep holding down ALT, and then press ESC.

## Wallpaper

Use this option to change the desktop background to a wallpaper bitmap. For wallpapers, you can use bitmaps created by Paintbrush or any other painting application that produces .BMP files.

- ▶ Open the File list, and then select the wallpaper file you want to use. Use the Center or Tile option to position the wallpaper on your screen.
- ▶ Select Center to position the wallpaper in the center of your screen.
- ▶ If you selected a small wallpaper bitmap that is easily hidden by application windows, select Tile. This option repeats the bitmap as many times as is necessary to cover the entire screen.

## Icons

Use this option to specify spacing between icons and whether the icon title wraps.

▶ In the Spacing box, click the up or down arrow to increase or decrease the number by one. Or type a number.

Icon spacing is measured in pixels, or pels. The maximum value you can specify is 512 pixels.

▶ Select the Wrap Title check box to wrap the icon descriptions onto another line.



## **Sizing Grid**

Use the options in the Sizing Grid area to specify the width of window borders and to set the spacing of the invisible grid that Windows uses to line up windows and icons on the desktop.

Choose one of the following buttons for information about the options in this area:

- ▶ [Granularity](#)
- ▶ [Border Width](#)

## **Cursor Blink Rate**

Use this option to specify how fast the text cursor blinks.

- ▶ Drag the scroll box toward Fast or Slow to increase or decrease the cursor blink rate. Or use the RIGHT and LEFT ARROW keys.

## **Edit Pattern**

Use the Edit Pattern dialog box to create a new pattern or change or remove existing patterns.

Choose one of the following buttons for information about the dialog box:

- ▶ Name
- ▶ Editing Cell
- ▶ Add Button
- ▶ Change Button
- ▶ Remove Button

Note: You must use a mouse to change or create patterns. You cannot do this with the keyboard.

## **Marquee Setup**

Use this dialog box to change the settings for the Marquee screen saver. The Marquee screen saver displays a line of moving text across the screen. You specify the text you want displayed. As you change settings, your changes appear in the Text Example box.

Choose one of the following buttons for information about the dialog box:

- ▶ Position
- ▶ Background Color
- ▶ Speed
- ▶ Text
- ▶ Password Options
- ▶ Format Text Button

## **Format Text**

Use the Format Text dialog box to change the font used in the Marquee screen-saver text.  
Choose one of the following buttons for information about the dialog box:

- ▶ [Font](#)
- ▶ [Font Style](#)
- ▶ [Size](#)
- ▶ [Effects](#)
- ▶ [Color](#)
- ▶ [Sample](#)

## **Mystify Setup**

Use this dialog box to change the settings for the Mystify screen saver. The Mystify screen saver displays shapes on the screen in colors that you specify.

Choose one of the following buttons for information about the dialog box:

- ▶ [Shape](#)
- ▶ [Active](#)
- ▶ [Lines](#)
- ▶ [Colors to Use](#)
- ▶ [Password Options](#)
- ▶ [Clear Screen](#)

## **Starfield Simulation Setup**

Use this dialog box to change the settings for the Starfield Simulation screen saver. The Starfield Simulation screen saver displays stars that move at a speed you specify.

Choose one of the following buttons for information about the dialog box:

- ▶ [Warp Speed](#)
- ▶ [Starfield Density](#)
- ▶ [Password Options](#)

## **Change Password**

Use this dialog box to set a password for the screen saver.

The Change Password dialog box includes the following options:

### **Old Password**

Use this option to specify the old password. This box is unavailable if you are specifying a password for the first time.

- ▶ Type your old password in the box.

### **New Password**

- ▶ Type your new password in the box.  
Passwords can contain up to 20 characters, including punctuation, and are not case-sensitive. An asterisk (\*) appears in the box for each character you type.

### **Retype New Password**

Use this option to confirm your password.

- ▶ Type your new password again in the box.



## Fonts

Use the Fonts option to add fonts to and remove fonts from your Windows applications, and to set TrueType options.

Choose one of the following buttons for information about the dialog box:

- ▶ [Installed Fonts](#)
- ▶ [Sample](#)
- ▶ [Add Button](#)
- ▶ [Remove Button](#)
- ▶ [TrueType Button](#)

See Also

[Adding Fonts](#)

[Removing Fonts](#)

[Setting TrueType Options](#)

## **TrueType**

Use this dialog box to specify whether to use TrueType fonts and whether to use them exclusively.

If you are not using certain fonts in your documents, turning them off frees memory for your applications. Turning off fonts does not remove them from your system.

The TrueType options include the following:

- ▶ Enable TrueType Fonts
- ▶ Show Only TrueType Fonts in Applications

See Also

Setting TrueType Options

## **Add Fonts**

Use this dialog box to add additional screen or TrueType fonts that you might purchase or receive with another application.

Choose one of the following buttons for information about the dialog box:

- ▶ [List of Fonts](#)
- ▶ [Directories](#)
- ▶ [Drives](#)
- ▶ [Copy Fonts to Windows System Directory](#)
- ▶ [Select All Button](#)

See Also

[Adding Fonts](#)

## **International**

By using the International option, you can specify international settings for applications that use these settings.

Choose one of the following buttons for information about the dialog box:

- ▶ [Country](#)
- ▶ [Language](#)
- ▶ [Keyboard Layout](#)
- ▶ [Measurement](#)
- ▶ [List Separator](#)
- ▶ [Date Format](#)
- ▶ [Currency Format](#)
- ▶ [Time Format](#)
- ▶ [Number Format](#)

See Also

[Customizing Windows for International Use](#)

## **Date Format**

Use the Date Format dialog box to specify the date format used in Windows applications.

### **Short Date Format**

The short date format displays the date as three numbers, representing month, day, and year--for example, 10/07/92.

The Short Date Format area includes the following areas:

- ▶ Order
- ▶ Separator
- ▶ Day Leading Zero
- ▶ Month Leading Zero
- ▶ Century

### **Long Date Format**

The long date format displays the date as a combination of words and numbers--for example, Monday, October 14, 1992.

The Long Date Format area includes the following areas:

- ▶ Order
- ▶ Day of the Week
- ▶ Month
- ▶ Day of the Month
- ▶ Year
- ▶ Separators (3)

## **Time Format**

Use the Time Format dialog box to specify the time format for Windows applications.

Choose one of the following buttons for information about the dialog box:

- ▶ 12 Hour or 24 Hour
- ▶ Separator
- ▶ Leading Zero

## **Number Format**

Use this dialog box to specify the format for displaying numbers in Windows applications.

Choose one of the following buttons for information about the dialog box:

- ▶ 1000 Separator
- ▶ Decimal Separator
- ▶ Decimal Digits
- ▶ Leading Zero

## **Currency Format**

Use this dialog box to specify the format for displaying currency in Windows applications.

Choose one of the following buttons for information about the dialog box:

- ▶ Symbol Placement
- ▶ Negative
- ▶ Symbol
- ▶ Decimal Digits



## **Keyboard**

By using the Keyboard option, you can specify how long your computer waits after you press and hold down a key to repeat that key, and how fast the key repeats.

Choose one of the following buttons for information about the dialog box:

- ▶ [Delay Before First Repeat](#)
- ▶ [Repeat Rate](#)
- ▶ [Test](#)

See Also

[Changing Keyboard Options](#)

## **Mouse**

By using the Mouse option, you can change the options for your mouse.

Choose one of the following buttons for information about the dialog box:

- ▶ [Mouse Tracking Speed](#)
- ▶ [Double Click Speed](#)
- ▶ [Swap Left/Right Buttons](#)
- ▶ [Mouse Trails](#)

See Also

[Changing Mouse Options](#)

## **Network**

By using the Network option, you can change settings for your network connection.

Choose one of the following buttons for information about the dialog box:

- ▶ [Disable Warning When Network Not Running](#)
- ▶ [Restore All Connections at Startup](#)
- ▶ [About Button](#)

See Also

[Specifying Network Options](#)

## **Ports**

By using the Ports option, you can specify the communications settings for the serial (COM) port you select.

▶ Double-click the serial port you want to specify settings for. Or press the TAB key to select it, and then press ALT+S.

See Also

[Changing Serial-Port Settings](#)

## **Port Settings**

Use this dialog box to specify the communications settings for the selected serial (COM) ports.

Choose one of the following buttons for information about the dialog box:

- ▶ Baud Rate
- ▶ Data Bits
- ▶ Parity
- ▶ Stop Bits
- ▶ Flow Control
- ▶ Advanced Button

See Also

[Specifying Basic Serial-Port Settings](#)

## **Advanced Port Settings**

Use this dialog box to specify the I/O addresses and the interrupt request line (IRQ) for the selected port.

Choose one of the following buttons for information about the dialog box:

▶ Base I/O Port Address

▶ Interrupt Request Line (IRQ)

The changes you make in this dialog box do not take effect until you restart Windows. When you choose the OK button, a dialog box appears, asking whether you want to restart Windows.

▶ To restart Windows, choose the Restart Now button.

To stay in your current Windows session, choose the Don't Restart Now button.

See Also

[Specifying Advanced Serial Port Settings](#)

## Printers

By using the Printers option, you can install and remove printers, change printing settings, and select the printer you want to use as the default printer.

Choose one of the following buttons for information about the dialog box:

- ▶ [Default Printer](#)
- ▶ [Installed Printers](#)
- ▶ [Use Print Manager](#)
- ▶ [Connect Button](#)
- ▶ [Setup Button](#)
- ▶ [Remove Button](#)
- ▶ [Add Button](#)

When you choose the Add button, the Printers dialog box expands, displaying these additional options:

- ▶ [List of Printers](#)
- ▶ [Install Button](#)

See Also

[Installing and Configuring a Printer](#)

## **Connect**

Use this dialog box to assign a port to the selected printer, specify timeout options, and to connect to a network printer.

Choose one of the following buttons for information about the dialog box:

- ▶ [Ports](#)
- ▶ [Device Not Selected](#)
- ▶ [Transmission Retry](#)
- ▶ [Settings Button](#)
- ▶ [Network Button](#)
- ▶ [Fast Printing Direct to Port](#)

See Also

[Assigning a Printer Port](#)

[Changing the Timeouts Settings](#)

[Connecting To and Disconnecting From Network Printers](#)



## **Network Connections**

Use this dialog box to connect to and disconnect from a network printer.

Choose one of the following buttons for information about the dialog box:

- ▶ [New Connection](#)
- ▶ [Current Printer Connections](#)
- ▶ [Connect Button](#)
- ▶ [Previous Button](#)
- ▶ [Browse Button](#)
- ▶ [Disconnect Button](#)

See Also

[Connecting to and Disconnecting from Network Printers](#)

## **Previous Network Connections**

Use this dialog box to reconnect to a network printer, or to delete information about a previous network printer connection.

▶ Select the path for the printer you want to reconnect to, and then choose the Select button.

The path for the printer appears in the Network Path box in the Network Connections dialog box.

▶ To delete information about a previous network printer connection, select the path for the printer, and then choose the Delete button.

## **Unlisted Printers**

This dialog box lists additional printers on the supplemental printer disk.

- ▶ Select the printer you want to install. Choose the Install button to install the printer, and then choose the Close button to return to the Printers dialog box.

## **Browse**

Use this dialog box to find and select the drive and directory where the driver file is located.

- ▶ Open the Drives list, and then select the drive that contains the driver file. The Directories list displays the directories on the selected drive.
- ▶ Open the Directories list, and then select the directory that contains the driver file.

## Sound

Use the Sound option to assign sounds to system and application events and to turn the Windows [warning beep](#) and system sounds on or off. You can assign sounds only if you have a sound card installed in your computer. If you don't have a sound card installed, the lists of sounds and events appear dimmed.

Choose one of the following buttons for information about the dialog box:

- ▶ [Event](#)
- ▶ [Files](#)
- ▶ [Enable System Sounds](#)
- ▶ [Test Button](#)

See Also

[Assigning Sounds to Events](#)

## **MIDI Mapper**

You can use the MIDI Mapper option to select a MIDI setup for a sound device, create a new setup, or edit existing [key maps](#), [patch maps](#), and channel mappings. Windows supplies MIDI setups for the sound devices it supports.

Choose one of the following buttons for information about the dialog box:

- ▶ [Show](#)
- ▶ [Name](#)
- ▶ [Delete Button](#)
- ▶ [Edit Button](#)
- ▶ [New Button](#)

Note: Do not use the MIDI Mapper option to create or edit MIDI setups unless you have a basic understanding of MIDI concepts and terminology and understand the results of the changes you make.

See Also

[Selecting a MIDI Setup](#)

[Creating a MIDI Setup](#)

[Editing Setups, Key Maps, and Patch Maps](#)

[Deleting Setups, Key Maps, and Patch Maps](#)

## **MIDI Setup**

Use this dialog box to specify channel mappings for a new or existing MIDI setup.

Choose one of the following buttons for information about the dialog box:

- ▶ [Src Chan](#)
- ▶ [Dest Chan](#)
- ▶ [Port Name](#)
- ▶ [Patch Map Name](#)
- ▶ [Active](#)

See Also

[Editing Setups, Key Maps, and Patch Maps](#)

[Specifying Channel Mappings](#)

## **MIDI Patch Map**

Use this dialog box to edit or create a [patch map](#). If you are creating a new MIDI setup for a synthesizer whose patch list differs from the [General MIDI](#) patch definitions, you need to create two patch maps: one for melodic instruments and one for percussion instruments.

Choose one of the following buttons for information about the dialog box:

- ▶ [1 Or 0 Based Patches Button](#)
- ▶ [Src Patch](#)
- ▶ [Src Patch Name](#)
- ▶ [Dest Patch](#)
- ▶ [Volume %](#)
- ▶ [Key Map Name](#)

See Also

[Creating Patch Maps](#)

[Editing Setups, Patch Maps, and Key Maps](#)



## MIDI Key Map

Use this dialog box to edit or create a [key map](#). If you are creating a new MIDI setup for a synthesizer whose percussion key definitions differ from [General MIDI](#), you need to create a key map for percussion instruments.

If your synthesizer plays certain sounds at registrations that differ from General MIDI definitions (for example, if your synthesizer plays a patch a fifth higher than General MIDI specifies) you may also need to create a key map for registration changes.

Choose one of the following buttons for information about the dialog box:

- ▶ [Src Key](#)
- ▶ [Src Key Name](#)
- ▶ [Dest Key](#)

See Also

[Creating Key Maps](#)

[Editing Setups, Patch Maps, and Key Maps](#)

## **New MIDI Setup**

Use this dialog box to specify a name and a description for the MIDI setup you want to create.

- ▶ Type a name for the setup in the Name box. The name can be up to 15 characters long.
- ▶ Type a description of the setup in the Description box. The description can be up to 31 characters long.

When you choose the OK button, a dialog box appears in which you can specify the channel mapping for the new setup.

## **New MIDI Patch Map**

Use this dialog box to specify a name and a description for the patch map you want to create.

- ▶ Type a name for the patch map in the Name box. The name can be up to 15 characters long.
- ▶ Type a description of the patch map in the Description box. The description can be up to 31 characters long.

When you choose the OK button, a dialog box appears in which you can specify the settings for the new patch map.

## **New MIDI Key Map**

Use this dialog box to specify a name and a description for the key map you want to create.

- ▶ Type a name for the key map in the Name box. The name can be up to 15 characters long.
- ▶ Type a description of the key map in the Description box. The description can be up to 31 characters long.

When you choose the OK button, a dialog box appears in which you can specify the settings for the new key map.

## **Drivers**

Use the Drivers option to install, remove, and configure drivers that control additional devices, such as sound cards and video players, that you add to your system.

Choose one of the following buttons for information about the dialog box:

- ▶ Installed Drivers
- ▶ Add Button
- ▶ Remove Button
- ▶ Setup Button

See Also

[Installing and Removing Drivers](#)

## **Add**

Use this dialog box to install a new driver.

The drivers supplied by Windows are shown in the List Of Drivers. When you purchase a new device, the appropriate drivers should be included with your device. Contact your sound-device manufacturer if you do not have a driver for your device.

▶ Select the driver you want to install. If the driver is not listed, select Add Unlisted Or Updated Driver.

A dialog box will appear, prompting you to insert the disk that contains the driver file.

## **Install Driver**

This dialog box prompts you for the disk or the drive and directory where driver information or a driver file for your printer, keyboard, sound card, or other hardware device is located.

► Type the appropriate drive letter and directory path in the text box. If the driver file or information is located on a floppy disk, insert the disk in drive A, and then choose the OK button.

If you are not sure where the driver file or information is located (for example, if you want to use a driver that is located on a network drive and you are not sure which directory it is in), choose the Browse button to locate and select the drive and directory.

## **Add Unlisted or Updated Drivers**

This dialog box lists additional drivers that are found on the disk you inserted or on the drive and in the directory you specified in the Install Driver dialog box.

- ▶ Select the driver you want to install, and then choose the OK button.  
If the driver requires additional settings to work properly with Windows, a setup dialog box appears. In the setup dialog box, specify the settings as described in the manual for your device.



## 386 Enhanced

By using the 386 Enhanced option, you can specify how Windows controls simultaneous requests from applications for devices, such as printers and modems. You can also determine how Windows should allocate time slices and computer resources when both Windows applications and non-Windows applications are running at the same time.

Choose one of the following buttons for information about the dialog box:

- ▶ [Device Contention: Ports](#)
- ▶ [Always Warn](#)
- ▶ [Never Warn](#)
- ▶ [Idle](#)
- ▶ [Windows in Foreground](#)
- ▶ [Windows in Background](#)
- ▶ [Exclusive in Foreground](#)
- ▶ [Minimum Timeslice](#)
- ▶ [Virtual Memory Button](#)

Note: To specify how resources are allocated to non-Windows applications, you need to set the Foreground and Background priorities for these applications by using PIF Editor. If the priorities you specify do not allow all your applications to run smoothly, Windows will adjust the values in this dialog box to compensate, causing some of the values you enter to change automatically.

See Also

[Changing Swap-File Settings](#)

[Optimizing Windows for 386 Enhanced Mode](#)

## Virtual Memory

Use the Virtual Memory dialog box to view or change swap-file settings. These settings control how your system uses virtual memory.

Choose one of the following buttons for information about the dialog box:

▶ Current Settings

When you choose the Change button, the Virtual Memory dialog box expands, displaying these additional settings:

▶ Drive

▶ Type

▶ Space Available

▶ Maximum Size

▶ Recommended Size

▶ New Size

▶ Use 32-Bit Disk Access

See Also

[Changing Swap-File Settings](#)

**Exit**

Quits Control Panel.

## **Contents**

Starts Help and displays the topics in Control Panel Help.

## **Search for Help On**

Opens the Search dialog box for Control Panel Help. You can look up Help information by using keywords in this dialog box.

## **How to Use Help**

Describes how to use Help.

## **About Control Panel**

Displays version, mode, and copyright information about Windows.

## **Control Menu**

The Control menu contains the following commands:

### **Restore**

Restores the window to its former size after it has been maximized or minimized.

### **Move**

Enables you to use the keyboard to move the window to another position.

### **Size**

Enables you to use the keyboard to change the size of the window.

### **Minimize**

Reduces the window to an icon.

### **Maximize**

Enlarges the window to its maximum size.

### **Close**

Quits Control Panel, or closes a window or dialog box.

### **Switch To**

Opens Task List, which you can use to switch between running applications and rearrange their windows and icons on your desktop.



**The WIN.INI File**

The WIN.INI file is an initialization file that provides Windows with information about your system configuration, such as the type of printer and pointing device you are using, and about software options, such as network options and how your screen should look while Windows is running. Windows searches the WIN.INI file for your system's configuration and software options so that Windows will run the way you want it to.

## **Color Schemes**

Windows provides several predefined color schemes that you can use to change the colors of several screen elements at once. You can also change the color of one element at a time, modify the existing color scheme, or create a new one by saving your changes.

- ▶ Open the list, and then select the color scheme you want to use.  
The colors in the sample screen change to show you how the new color scheme will look.

### **Save Scheme Button**

You can modify an existing color scheme by changing the color of particular screen elements and then saving your changes. You can also create a new color scheme by saving your changes under a new name.

- ▶ Choose the Save Scheme button to save your changes.

### **Remove Scheme Button**

If you are not planning to use a color scheme, you can remove it from the Color Schemes list.

- ▶ Choose the Remove Scheme button to remove the selected color scheme.

### **Sample Screen**

The sample screen displays the currently selected screen-element colors. The colors of each screen element change to match the color scheme you select.

- ▶ If you have a mouse, click the screen element you want to select. If you are using the keyboard, use the Screen Element list to select an element.

### **Color Palette Button**

The Color dialog box includes two palettes from which you can choose colors for individual screen elements.

- ▶ Choose the Color Palette button to display the rest of the Color dialog box.

**Screen Element**

The Screen Element box displays a list of the screen elements whose color you can change.

- ▶ Open the list, and then select the screen element you want to change. Or click the element in the sample screen.

## **Basic Colors**

Basic Colors is a palette of the preset colors available for your screen.

▶ Click the color you want to use.

Or press `TAB` to move to the palette, use the arrow keys to move to the color you want, and then press the `SPACEBAR` to select the color.

For some screen elements, Windows uses only solid colors. If you select a nonsolid color (a color produced by a pattern of dots that simulate the desired color) for the following screen elements, Windows will use the solid color that most closely matches the selected nonsolid color:

- ▶ Window Frame
- ▶ Window Text
- ▶ Window Background
- ▶ Menu Bar
- ▶ Menu Text
- ▶ Button Text
- ▶ Button Face
- ▶ Button Shadow
- ▶ Button Highlight
- ▶ Highlight
- ▶ Highlighted Text
- ▶ Title Bar Text



## **Custom Colors**

Custom Colors is a palette of any colors you have created in the Custom Color Selector dialog box. A new color is added to the selected square.

- ▶ Click the color or empty square you want to use.  
Or press `TAB` to move to the palette, use the arrow keys to move to the color or square you want, and then press the `SPACEBAR` to select the color or square.

### **Define Custom Colors Button**

- ▶ Choose this button to display the Custom Color Selector dialog box for creating your own custom colors.

**Color Refiner Box**

The color refiner box shows all the nonsolid colors (colors that are produced by a pattern of dots that simulate the desired colors) available for your system.

▶ Drag the color refiner cursor to the area of the box that shows the color you want. If you are using the keyboard, adjust the values for Hue and Sat.

The color is shown on the left side of the Color/Solid box. The closest solid color appears on the right.

### **Luminosity Bar**

► Drag the arrow up or down to adjust the luminosity of the color. If you are using the keyboard, type a value in the Lum box.

The luminosity change is shown to the left of the Color/Solid box.

**Color/Solid Box**

This box shows the changes you make to the hue, saturation, and luminosity of a color. As you make changes, the new nonsolid color is displayed on the left side of the box. The right side of the box shows the solid color closest to the selected color.

- ▶ Double-click the right side of the box to select the solid color.

### **Hue, Sat, and Lum**

These options show the number values for the hue, saturation, and luminosity of the selected color.

▶ Type values in these boxes or click the arrows to the right of each box to increase or decrease the value.

The color refiner cursor and the arrow for the luminosity bar move to reflect the new values.

### **Red, Green, and Blue**

These options show the numbers for the red, green, and blue values of the selected color.

▶ Type values in these boxes. Or click the arrows to the right of each box to increase or decrease the values.

The color refiner cursor and the arrow for the luminosity bar move to reflect the new values.

### **Add Color Button**

► Choose the Add Color button to add the new color to the selected square in the Custom Colors palette.



**Date**

- ▶ To change the date, select the month, day, or year, and then type a new value.  
Or click the up or down arrow to increase or decrease the selected number by one.

**Time**

- ▶ To change the time, select the hours, minutes, or seconds, and then type a new value.  
Or click the up or down arrow to increase or decrease the selected number by one.

### Screen Saver Name

- ▶ Open the list, and then select the screen saver you want to use. The screen savers provided by Windows include the following.

<b>Use</b>	<b>To</b>
Blank Screen	Display a blank screen. This screen saver cannot be customized.
Flying Windows	Display Windows logos moving out from the center of your screen.
Marquee	Display a line of text that moves across the screen.
Mystify	Display moving shapes in various colors.
Starfield Simulation	Display stars moving out from the center of your screen.

### **Screen Saver Delay**

▶ Click the up or down arrow to increase or decrease the number of minutes of inactivity before the screen saver appears. Or type a number larger than zero in the text box.

### **Screen Saver Test Button**

- ▶ Choose the Test button to test the screen saver.  
To return to Windows, press any key or move your mouse.

### **Screen Saver Setup Button**

► To change the settings for the screen saver, choose the Setup button, and then complete the Setup dialog box.

## **Granularity**

Use this option to specify the spacing of the sizing grid. The grid is measured in increments of 8 pixels, or pels.

▶ Click the up or down arrow to increase or decrease the granularity of the grid by one. Or type a number.

You can specify a value between 0 and 49. The smaller the grid setting, the more flexible the placement of windows and icons can be. When this option is set to 0, the grid is turned off.

Note: The sizing grid you specify only affects application windows and icons, not secondary (document) windows and icons. Setting the sizing grid too high may make it difficult to position your windows and icons on the screen.

## **Border Width**

Use this option to specify the width of the borders around application and document windows.

▶ Click the up or down arrow to increase or decrease the border width by one pixel (pel). Or type a number.

You can specify a value between 1 and 50, with 1 as the narrowest border.

Note: Setting the value for the border width too low may make it difficult to size windows by using the mouse.



**Name**

This option displays a list of patterns to choose from.

► Open the list, and then select a pattern for editing, or type a name for the new pattern you want to create.

The pattern you selected appears in the Sample box and an enlarged view appears in the editing cell.

## **Editing Cell**

This area shows an enlarged view of the selected pattern.

- ▶ Click each cell in the pattern that you want to change.  
If no pattern is selected (None), you can create a new one in the cell. The Sample box displays how the pattern will look on your screen.

Note: You must use a mouse to change or create patterns. You cannot do this with the keyboard.

**Change Button**

- ▶ Choose this button to save the changes you have made to the selected pattern.

### **Remove Button**

- ▶ Choose this button to delete the selected pattern.

**Add Button**

- ▶ Choose this button to add a new pattern.  
This button is unavailable until you type a new name for the pattern in the Name box.

## **Background Color**

- ▶ Open the list, and then select the color you want to use for the text background. To select a color for the text itself, choose the Format Text button, and then select a color from the Color list in the Format Text dialog box.

**Position**

Use these options to position the text on your screen.

- ▶ If you want the text to move across the center of your screen, select the Centered option.
- ▶ If you want the text to move across the screen in different places, select the Random option.

**Speed**

Use this option to specify how fast you want the text to move across the screen.

- ▶ Drag the scroll box toward Fast or Slow to increase or decrease the speed. Or use the LEFT and RIGHT ARROW keys.



**Text**

Use this option to specify the text that you want to display.

- ▶ Type the text in the box.

### **Format Text Button**

► To select a font and size for the displayed text, choose the Format Text button, and then complete the Format Text dialog box.

## **Font**

- ▶ Select a font from the list.  
You can see what the font looks like in the Sample box. You can use the other areas in the dialog box to change the size and the style of the font.

## **Font Style**

- ▶ Select any style options you want to apply to the new font. You can see what the style looks like in the Sample box. You can use the other areas in the dialog box to change the font and the font size.

## **Size**

► Choose a font size from the list. The larger the size you choose, the larger the characters appear on your screen.

You can see what the size looks like in the Sample box. You can use the other areas of the dialog box to change the font and the style.

## **Effects**

▶ If you want the text to appear with a line through it, select the Strikeout check box. If you want the text to appear underlined, select the Underline check box.

You can use both options at the same time.

**Color**

- ▶ Open the list, and then select a color for the text.  
To select a color for the background, use the Background Color option in the Marquee Setup dialog box.

**Sample**

This box shows what the selected font, styles, size, effects, and color would look like in the screen saver.



**Shape**

- ▶ Open the list, and then select the shape, Polygon 1 or Polygon 2, that you want to specify settings for.

**Active**

- ▶ Select the Active check box to make the selected shape active. If the selected shape is not active, it does not appear on your screen when the screen saver is in use. Also, you cannot specify line and color options for it (the Lines and Colors To Use options are unavailable).

**Lines**

Use this option to specify the number of lines the selected shape will have.

- ▶ Click the up or down arrow to increase or decrease the number by one. Or type a number in the box.

**Colors to Use**

Use this option to specify the colors of the selected shape.

- ▶ Select Two Colors to display the selected shape in two alternating colors. Select one color from each list. The color of the shape will alternate between these colors.  
Select Multiple Random Colors to display the selected shape in several alternating colors, determined by the screen saver.

**Clear Screen**

Use this option to specify whether to clear the screen before displaying the shapes. Clearing the screen does not affect your work.

- ▶ Select this check box to display the shapes on a black background. Clear this check box to display the shapes over your work.

**Warp Speed**

Use this option to specify the rate at which the stars move on your screen.

- ▶ Drag the scroll box toward Fast or Slow to speed up or slow down the rate. Or use the RIGHT and LEFT ARROW keys.

**Starfield Density**

Use this option to specify the number of stars that are used.

- ▶ Click the up or down arrow to increase or decrease the number of stars. Or type a number in the box.

## **Password Options**

Use these options to use a password with the screen saver.

- ▶ Select the Password Protected check box to turn on password protection. When password protection is turned on, you cannot return to Windows from the screen saver until you type the password.  
When this check box is not selected, the Set Password button is unavailable.
- ▶ To assign a password to the screen saver, choose the Set Password button, and then complete the Change Password dialog box.



## **Installed Fonts**

This area displays a list of fonts that are already installed. You can use fonts supplied by printer and font manufacturers in addition to the screen and printer fonts supplied with Windows.

- ▶ To select a font, click it. Or use the arrow keys.

**Sample**

This area shows a sample of the selected font in all the available sizes, unless it is a plotter font or a TrueType font. Plotter fonts are shown in the point size in which they were created. TrueType fonts are shown in a size of about 14 to 16 points.

### **Remove Button**

► Choose the Remove button to remove the selected font from memory and the Installed Fonts list.

Note: The MS Sans Serif font is used for most Windows dialog boxes. Do not remove this set, or the text in the dialog boxes will be difficult to read.

**Add Button**

- ▶ To add a font, choose the Add button, and then complete the Add Fonts dialog box.

### **TrueType Button**

► To turn TrueType fonts on or off or to use TrueType exclusively, choose the TrueType button, and then complete the TrueType dialog box.

### **Enable TrueType Fonts**

- ▶ Clear this check box if you do not want to use TrueType fonts. The change you make does not take effect until you restart Windows. When you choose the OK button, a dialog box appears, asking whether you want to restart Windows.
- ▶ To restart Windows, choose the Restart Now button.  
To stay in your current Windows session, choose the Don't Restart Now button.

### **Show Only TrueType Fonts in Applications**

▶ Select this check box to list TrueType fonts exclusively in your Windows applications. Turning off all other fonts will free up memory.

Note: Some applications do not support listing TrueType fonts exclusively. If you select this check box and no TrueType fonts appear in your application, do not use this option.

### **List of Fonts**

This option lists the fonts you can add. You can select and install more than one font at a time.

▶ Select the font you want to add. To select all the fonts at once, choose the Select All button.

If the font you want is not listed, you may have to change drives or directories first.



**Directories**

This option lists the directories on the current drive.

- ▶ Select the directory that contains the fonts you want to add.  
When you select a directory that contains fonts, the fonts appear in the List Of Fonts box.  
If the directory you want does not appear in the list, you may have to change drives first.

**Drives**

This option lists the disk and network drives on your computer.

► Open the list, and then select the drive that contains the fonts you want to add to your system.

When you select a drive, a list of the directories on the drive appears in the Directories list.

### **Copy Fonts to Windows Directory**

This option is useful if you are low on disk space.

► Clear this check box if you want to use fonts directly from the drive and directory in which they are located, without copying them into your Windows directory.

Select this check box if you want to copy the fonts into your Windows directory. This is the default setting and is recommended if you are using fonts that are located on a network or on an external disk drive.

If you select this check box and are running Windows from a network, the fonts will be copied to your Windows SYSTEM directory.

### **Select All Button**

- ▶ Choose the Select All button to add all the fonts in the List Of Fonts box at once.

**Country**

This option lists the countries supported by Windows.

- ▶ Open the list, and then select the country whose standard settings you want to use. When you select a country, the other Format options in the dialog box change to show the formats for that country. In addition, the Page Size option for any printer that you have installed changes to the default page size for that country.

## **Language**

- ▶ Open the list, and then select the language you want to work in. Windows applications that provide language-specific tasks, such as sorting or case conversion, use this setting.

## **Keyboard Layout**

This option lists the keyboard layouts supported by Windows. The keyboard layout for a language accommodates the special characters and symbols that are part of the language for that country.

- ▶ Open the list, and then select the keyboard layout you want to use.

## **Measurement**

- ▶ Open the list, and then select the measurement system, English or Metric, that you want to use.



### **List Separator**

- ▶ In the box, type the character that you want to use to separate elements in a list.

**Date Format**

This option shows the way short and long date formats are displayed in Windows applications.

- ▶ To change the format, choose the Change button, and then complete the Date Format dialog box.

**Time Format**

This option shows the way time is displayed in Windows applications.

- ▶ To change the format, choose the Change button, and then complete the Time Format dialog box.

**Currency Format**

This option shows the way currency is displayed in Windows applications.

- ▶ To change the format, choose the Change button, and then complete the Currency Format dialog box.

**Number Format**

This option shows the way numbers are displayed in Windows applications.

- ▶ To change the format, choose the Change button, and then complete the Number Format dialog box.

**Short Date Format: Order**

▶ Select the option for the order in which you want the month (M), day (D), and year (Y) to appear in the date.

**Short Date Format: Separator**

► In the box, type the character you want to use to separate the month, day, and year. You can specify any character as the separator. The most common separator characters are the slash (/) and the hyphen (-)

**Short Date Format: Day Leading Zero**

- ▶ Select this check box to specify a two-digit day display.



**Short Date Format: Month Leading Zero**

- ▶ Select this check box to specify a two-digit month display.

**Short Date Format: Century**

- ▶ Select this check box to specify a four-digit year display.

**Long Date Format: Order**

► Select the option for the order in which you want the month (M), day (D), and year (Y) to appear in the date.

### **Long Date Format: Day of the Week**

- ▶ Open the list, and then select a full or abbreviated day-name format.

**Long Date Format: Month**

- ▶ Open the list, and then select a full or abbreviated month-name or month-number format.

### **Long Date Format: Day of the Month**

- ▶ Open the list, and then select a day format with or without leading zeros.

**Long Date Format: Year**

- ▶ Open the list, and then select a two- or four-digit year format.

**Long Date Format: Separators (3)**

► In the box, type the character you want to use to separate the month, day, and year. You can specify any character as the separator. The most common separator characters are the slash (/) and the hyphen (-)



### **12 Hour or 24 Hour**

▶ Select the format, 12- or 24-hour clock, that you want to use to display the time. You can select only one format.

If you are using the 12-hour format, type the the words or symbols (for example, AM or PM) that you want to denote before or after noon in the text box.

If you are using the 24-hour format, you can type a suffix (for example, PST for Pacific Standard Time).

**Separator**

► In the box, type the character you want to use to separate hours, minutes, and seconds. You can use any character. The colon (:) is the most common one used.

**Leading Zero**

▶ Select the format for the hours before 10 that you want to use. For example, you can display 9 o'clock as 9:00 or as 09:00. You can select only one format.

**1000 Separator**

- ▶ In the box, type the character you want to use to separate thousands.

**Decimal Separator**

► In the box, type the character you want to use to separate decimal digits from whole numbers.

**Decimal Digits**

► In the box, type the number of digits you want to display to the right of the decimal separator.

**Leading Zero**

► Select the option (a zero in front of the decimal or no zero in front of the decimal) that you want to use for displaying a number less than 1. You can select only one option.

### **Symbol Placement**

► Open the list, and then select the placement and spacing of the currency symbol, relative to the currency value.

To specify the currency symbol you want to use, use the Symbol option.



**Negative**

► Open the list, and then select the format you want to use for negative currency values.

**Symbol**

- ▶ In the box, type the currency symbol that you want to use for the selected country. To specify the placement of the symbol, use the Symbol Placement option.

**Decimal Digits**

- ▶ In the box, type the number of digits that you want to display after the decimal point.

**Delay Before First Repeat**

Use this option to adjust how long it takes your computer to repeat a key after you press and hold the key down.

- ▶ Drag the scroll box toward Long or Short to increase or decrease the delay. Or use the RIGHT and LEFT ARROW keys.

**Repeat Rate**

Use this option to adjust how fast a key repeats when you press and hold it down.

► Drag the scroll box toward Fast or Slow to increase or decrease the repeat rate. Or use the RIGHT and LEFT ARROW keys.

Note: Some keyboards do not support changes to the repeat rate.

**Test**

Use this option to test the new settings for the keyboard delay time and repeat rate.

- ▶ To test the settings, type any characters you want in the text box.

### **Mouse Tracking Speed**

Use this option to adjust the rate at which the pointer travels across the screen.

- ▶ Drag the scroll box toward Slow or Fast to decrease or increase the rate. Or use the RIGHT and LEFT ARROW keys.

## **Double Click Speed**

Use this option to adjust the speed at which Windows registers a double-click.

- ▶ Drag the scroll box toward Slow or Fast to decrease or increase the speed. Or use the RIGHT and LEFT ARROW keys.
- ▶ Double-click the Test button to see whether Windows recognizes your double-clicks. If the button changes color, Windows recognizes your double-clicks. If it does not change color, decrease the double-click speed.



### **Swap Left/Right Buttons**

Many applications use the left button as the primary tool for selecting text and choosing items. If you are left-handed, you might find it more convenient to switch the two buttons.

- ▶ Select the check box to swap left and right mouse buttons. The mouse diagram above the check box changes to reflect your choice.

Note: Swapping the left and right mouse buttons takes effect immediately, before you close the dialog box. If you swap buttons, press the right button to choose OK or Cancel, or to swap the buttons again.

## **Mouse Trails**

Using the Mouse Trails option can improve the visibility of the mouse pointer if you are using an LCD display adapter. If your display driver does not support Mouse Trails, this option is dimmed.

- ▶ Select this check box to leave a trail of mouse pointers as you move the mouse. The Mouse Trails option takes effect as soon as you select the check box.

### **Disable Warning When Network Not Running**

▶ Select this check box if you do not want a message to appear when you start Windows and your network is not running.

**Restore All Connections at Startup**

▶ Select this check box if you want to restore all your network connections automatically each time you start Windows.

### **About Button**

- ▶ Choose this button to display the version number and copyright information for the network software.

**Baud Rate**

► Open the list, and then select a rate for how fast you want information transferred through the port.

**Data Bits**

► Open the list, and then select the number of data bits you want to use for each character. Most characters are transmitted in 7 or 8 data bits.

**Parity**

- ▶ Open the list, and then select a method for error checking.



### **Stop Bits**

- ▶ Open the list, and then select a number for the time between transmitted characters. Stop bits are not actually bits; they are the timing units between bits.

### **Flow Control**

► Open the list, and then select a method for controlling the flow of data. Xon/Xoff is the standard for the software method. Select Hardware if your device controls data flow.

### **Advanced Button**

► To specify advanced options for the selected port, choose the Advanced button, and then complete the Advanced Settings dialog box.

**Base I/O Port Address**

Use this option to change the base port address for the COM port you want to use. Use this option only if the device connected to your serial port uses an address value that differs from the detected value displayed in the text box. See the manual for your device for information on the base port address that it uses.

- ▶ Open the list, and then select an I/O address. Or type a value in the text box.

### **Interrupt Request Line (IRQ)**

Assigning unique interrupt request lines (IRQ) for each serial port enables you to use COM ports 1 and 3 and/or 2 and 4 simultaneously on a computer that normally does not support this capability.

Before assigning IRQ numbers to serial ports, determine which interrupts are used by the devices connected to the serial ports and which ones are not being used by other cards or boards installed in your computer. You may need to adjust your serial card to use available interrupts. For information, see your serial-card documentation.

- ▶ Open the list, and then select an IRQ. Or type a value in the text box. You can specify a value between 2 and 15.

## **Installed Printers**

This option displays a list of the installed printers.

► Select a printer from the list to change its printing settings or port assignment, or to specify it as the default printer.

Use the Add button to display the list of printers that you can install.

**Default Printer**

This area shows the default printer (the printer to which your documents are sent automatically when you print from an application).

- ▶ To specify the default printer, double-click the printer in the Installed Printers list that you want to use as the default printer. Or select the printer, and then choose the Set As Default Printer button.

### **Use Print Manager**

- ▶ Select this check box if you want to activate Print Manager.

When Print Manager is activated, you can print several documents at a time. Print Manager prints the documents in the order in which they are sent to the printer.

When Print Manager is not activated, documents may print faster, but you must wait until a document is finished printing before you can send another document to the printer.



### **Connect Button**

- ▶ Choose the Connect button to display the Connect dialog box. Use the Connect dialog box to assign a printer to a port, specify Timeouts options, and to connect to a network printer.

## **Setup Button**

- ▶ Choose the Setup button to display a dialog box for setting printing options. Because the printing options are specific to each printer driver, the options in the Settings dialog box vary, depending on the selected printer. Windows automatically uses the settings that should work for your printer most of the time.

If you want to change the settings and need information about the options, choose the Help button or press F1 while using the dialog box.

### **Remove Button**

► Choose the Remove button to remove the selected printer in the Installed Printers list.

The printer-driver file is not deleted from the disk, because other printers might be using the same printer driver. Also, any font files that are used by the printer driver are not deleted, because another printer driver might be using the same fonts.

**Add Button**

- ▶ Choose the Add button to install a printer.  
Choosing this button displays the list of printers supported by Windows.

## **List of Printers**

This option shows a list of the printers supported by Windows. It appears when you choose the Add button in the Printers dialog box.

- ▶ Select the printer you want to install from the list.
  - If your printer is not listed, check your printer manual to see if your printer emulates one of the printers that Windows supports. If so, you can use one of the printer drivers supplied by Windows to support your unlisted printer.
  - If Windows does not include a driver that supports your printer and you have a printer driver for the printer, select Install Unlisted Or Updated Printer from the List Of Printers box.

**Install Button**

This button appears when you choose the Add button in the Printers dialog box.

- ▶ Choose the Install button to install the selected printer.  
A dialog box appears, prompting you to insert the disk that contains the printer-driver file for the printer you want to install.

## **Ports**

This option lists the ports that you can assign to your printer. Next to each port is information about whether it is a local port, assigned to a network printer path, or present on your system.

- ▶ Select the port you want to use.

See your printer manual if you are not sure which type of port to use.

If you use a serial (COM) port, you might need to change its communications settings. By default, Windows uses the communications settings that should work with most printers.

**Device Not Selected**

This option specifies the amount of time (in seconds) that Print Manager continues to check the printer to see if it is online and ready to print.

- ▶ Type the number of seconds in the Device Not Selected box.  
If the printer is not ready to print after the specified amount of time has elapsed, a message appears, notifying you that a printer is offline.



### **Transmission Retry**

This option specifies the amount of time (in seconds) that Print Manager waits before notifying you that your printer cannot accept any more print information.

The default setting is 45 seconds for non-PostScript printers and 90 seconds for a PostScript printer. For a PostScript printers, you may want to increase the value for this option significantly, especially if you plan on printing documents that contain complicated graphics and several different fonts.

- ▶ Type the number of seconds in the Transmission Retry box. When the printer finishes processing the information it currently has, it clears its memory and is ready to accept more information. If this takes longer than the value specified for this option, Print Manager displays a message.

### **Fast Printing Direct to Port**

► Clear this check box if you are using printing software that uses MS-DOS interrupts to control printing. Clearing this check box may slow down printing.

When this option is selected, Windows does not use MS-DOS interrupts for printing. Instead, Windows bypasses MS-DOS and prints directly to your printer, causing your documents to print faster.

**Settings Button**

- ▶ To specify communications settings for the serial port assigned to your printer, choose the Settings button, and then complete the Settings dialog box.

### **Network Button**

► To connect to or disconnect from a network printer, choose the Network button, and then complete the Network Connections dialog box.

## **New Connection**

Use this area to connect to a new network printer.

- ▶ In the Network Path box, type the name of the server and share point for the network printer.
- ▶ Open the Port list, and then select a port for the printer connection.
- ▶ In the Password box, type a password, if required.
- ▶ Choose the Connect Button.

**Current Printer Connections**

This area shows a list of the network printers you are currently connected to. If you want to disconnect from a network printer, you first need to select it from the list.

**Connect Button**

► Choose the Connect button to connect to the printer specified in the Network Path box.

When you choose this button, the printer appears in the Current Printer Connections list.

**Previous Button**

▶ To reconnect to a network printer, choose the Previous button, and then complete the Previous Network Connections dialog box.



**Browse Button**

- ▶ Choose this button to browse the network for available printers. Some networks do not support this option. If your network does not support this option, the Browse button is unavailable.

**Disconnect Button**

▶ Choose this button to disconnect from the printer selected in the Current Printer Connections list.

## **Event**

You can assign sounds to system and application events (for example, when Windows starts or displays a message).

When you assign sounds to events, the sounds play as specified by the application you are using. For example, some applications play the sound assigned to the Default Beep whenever you click the mouse button outside of an open dialog box. Other applications may play the sound assigned to Exclamation or Asterisk whenever you encounter a warning message.

- ▶ Select the event you want to assign a sound to.  
The name of the sound file assigned to the selected event is selected in the File list.

**Files**

The sounds you can assign are stored in sound files. Sound files have the extension *.WAV*.

▶ Select the sound file that you want to assign to the selected event. If you do not want to assign a sound, select None.

If the sound file you want is on a different drive or in a different directory, select the drive or directory that contains the sound file.

## **Enable System Sounds**

If you do not have a sound card installed in your computer, Windows uses a warning beep when it encounters an error or you attempt to do something your computer does not recognize.

You can turn the warning beep and other sounds (except the sounds assigned to Windows Exit and Windows Start) on or off.

- ▶ Select or clear the Enable System Sounds check box.

If you do not want a sound to play when you start or quit Windows, assign None to the Windows Start or Windows Exit events.

**Test Button**

- ▶ Choose the Test button to find out what the selected sound file sounds like. Or double-click the event or filename.

**Show: Setups, Patch Maps, Key Maps**

Use these options to select the type of map you want to create, edit, or delete.

- ▶ Select the Setups option to create or edit channel mapping for a MIDI setup, or to delete a MIDI setup.
- ▶ Select the Patch Maps option to create or edit the patch maps used in a MIDI setup, or to delete a patch map.
- ▶ Select the Key Maps option to create or edit the key maps used in a patch map or to delete a key map.

**Name**

This option lists the names of existing MIDI setups, patch maps, and key maps, depending on which option you select in the Show area.

▶ Open the list, and then select the setup, patch map, or key map that you want to edit or delete.

A description of the selected setup, patch map, or key map appears in the Description line below the Name box.



### **Delete Button**

- ▶ Choose this button to delete the selected setup, patch map, or key map. The name of the selected setup, patch map, or key map appears in the Name box.

Note: You cannot delete key maps that are used in patch maps or patch maps that are used in setups. You must first edit the patch map or setup and remove all references to the key map or patch map you want to delete.

### **Edit Button**

- ▶ Choose this button to display the Edit dialog box for the selected setup, patch map, or key map. Use the Edit dialog box to change setup, patch map, or key map settings. The name of the selected setup, patch map, or key map appears in the Name box.

**New Button**

► Choose this button to display the New dialog box for creating a new setup, patch map, or key map.

You select the type of map you want to create by selecting an option in the Show area.

**Src Chan**

This column lists the MIDI channels that can be included within a MIDI message sent by an application or stored in a MIDI file. You cannot change these values.

With the MIDI Mapper, not all synthesizers can use all channels. Base-level synthesizers use source channels 13 through 16. Channels 13 through 15 are the melodic channels and 16 is the percussive channel. Extended-level synthesizers use source channels 1 through 10. Channels 1 through 9 are the melodic channels and 10 is the percussive channel.

**Dest Chan**

Use this column to specify the channel that you want your synthesizer to use to play the sounds on the source channel. The default value is the same as the value for the source channel. If your synthesizer supports General MIDI channel definitions, you do not need to change the default value.

- ▶ To change the value, select the Dest Chan box, and then click the up or down arrow until the destination channel number you want is displayed.  
Or select the number, and then type a new number.

**Port Name**

Use this column to specify the name of the MIDI output port that the sounds on the source channel are sent to.

- ▶ To specify the port name, open the Port Name list, and then select the port you want. You do not need to use the same port for each channel. For example, if you are using two synthesizers, such as an Ad Lib and a synthesizer connected to the MIDI output port of your computer, you could send some sounds on certain channels to the Ad Lib port, and other sounds on other channels to the MIDI output port.

**Patch Map Name**

Use this column to specify the patch map used with a particular channel.

- ▶ Open the Patch Map Name list, and then select the patch map you want. The patch map you select depends on whether the source channel is melodic or percussive. For melodic source channels, select the patch map you created for melodic instruments. For percussive source channels, select the patch map you created for percussion instruments. On base-level synthesizers, melodic channels are 13 through 15 and the percussive channel is 16. On extended-level synthesizers, melodic channels are 1 through 9 and the percussive channel is 10.

**Active**

Use this column to specify whether MIDI information for a particular channel is sent to the selected port. When you select a port name, this box is selected automatically, indicating that MIDI information will be sent to the port.

- ▶ To change the setting, click the Active box.  
Or press `TAB` until the box is selected, and then press the `SPACEBAR`.



### **1 Or 0 Based Patches Button**

- ▶ Choose this button if your synthesizer defines patch numbers (either starting with 0 or with 1) differently from how they are displayed in the MIDI Patch Map dialog box.

**Src Patch**

This column lists the MIDI patch numbers that can occur within MIDI messages that are in a MIDI file or that are sent by an application. Some synthesizers define patch numbers from 0 through 127; others define patch numbers from 1 through 128. You cannot change these values.

**Src Patch Name**

This column displays the names of the standard sounds or instruments associated with the source patch numbers for melodic channels, as defined by the General MIDI specification. Use these names as a reference when creating a patch map for melodic instruments. If you are creating a patch map for percussion instruments, you can ignore these names.

**Dest Patch**

Use this column to specify the patch numbers on your synthesizer that match the sounds or instruments displayed in the Src Patch Name box. For synthesizers that support General MIDI, this number is the same as the Src Patch number.

- ▶ To change the destination patch, select the Dest Patch box, and then click the up or down arrow until the destination patch number you want is displayed.  
Or select the number, and then type a new number.

## **Volume**

Use this column to specify the volume of the destination patch. This value is measured as a percentage of the volume specified by a MIDI volume message in the MIDI file. The default value is 100, which specifies that the patch will play at the volume indicated in the MIDI file.

- ▶ To change the volume setting, select the Volume % box, and then click the up or down arrow until the volume percentage you want is displayed.
  - Or select the number, and then type a new number.
  - To increase the volume, use a number greater than 100. To decrease the volume, use a number less than 100.

## **Key Map Name**

Use this column to specify the key map used with each patch.

► To specify a key map, open the Key Map Name list, and then select the key map you want.

If you are creating the patch map for percussion instruments, specify the key map name you created for percussion for all the source patches.

If you are creating the patch map for melodic instruments and your synthesizer produces certain sounds using a registration that differs from General MIDI definitions, select a key map for the patch corresponding to that sound, so that the keys play at the appropriate registration. For example, if your synthesizer plays Chorused Piano one octave higher than defined by General MIDI, select the -1 octave key map for the patch that corresponds to Chorused Piano.

**Src Key**

This column lists the MIDI keys that can occur within MIDI messages that are in a MIDI file or that are sent by an application. You cannot change these values.

**Src Key Name**

This column displays the names of the percussion instruments associated with the source keys, as defined by the General MIDI specification.

Use these names as a reference when creating a key map for percussion instruments. If you are creating a key map to correct registration changes for melodic instruments, you can ignore these names.



**Dest Key**

Use this column to specify the key that is played on your synthesizer when the source key number is sent by an application or encountered in a MIDI file.

- ▶ To change the destination key, select the Dest Key box, and then click the up or down arrow until the destination key number you want is displayed.  
Or select the key number, and then type a new number.

## **Installed Drivers**

This list shows the drivers that are already installed. You can select a driver to either remove it or to change its settings.

- ▶ Select the driver that you want to remove or configure.

### **Add Button**

► Choose the Add button to display the Add dialog box. Use the Add dialog box to install a new driver.

## **Remove Button**

If you are no longer using a device, you can remove its driver from the Installed Drivers list.

- ▶ Choose the Remove button to remove the selected driver from the list.

**Caution:** The drivers that are automatically installed during Setup are required by your system. If you remove one of these drivers, your system may not work properly.

## **Setup Button**

Some drivers require special settings to work properly with Windows.

▶ Choose the Setup button to display the Setup dialog box for specifying driver settings.

If you select a driver that does not require special settings, the Setup button appears dimmed.

**Device Contention: Ports List**

► To specify device contention for a device, select the port that the device you want to use is connected to.

**Device Contention: Always Warn**

- ▶ Select this option to display a message each time an application tries to use a device that is already in use. The message asks you to choose the application that should get control of the port.

**Device Contention: Never Warn**

▶ Select this option to allow any application to use the device at any time, without displaying a message.

Use this option only if you are sure that no more than one application will be using the device at a time. If two applications try to use the device at the same time, it may result in incorrect information.



**Device Contention: Idle**

- ▶ Select this option to specify the number of seconds to elapse after an application stops using a device before another application can use the same device, without displaying a warning message. You can specify a number between 1 and 999.

**Scheduling: Windows in Foreground**

Use this option to specify the number of total time slices normally shared by all Windows applications when a Windows application is active.

- ▶ Click the up or down arrow to increase or decrease the number. Or type a number in the text box. You can specify a value between 1 and 10000.

**Scheduling: Windows in Background**

Use this option to specify the number of total time slices normally shared by all Windows applications when a non-Windows application is active.

- ▶ Click the up or down arrow to increase or decrease the number. Or type a number in the text box. You can specify a value between 1 and 10000.

**Scheduling: Exclusive in Foreground**

▶ Select this check box to specify that all Windows applications get 100 percent of the computer's processing time whenever a Windows application is active.

If this option is selected and a Windows application is active, all Windows applications continue to run and all non-Windows applications in the background do not run.

**Minimum Timeslice**

Use this option to specify the number of milliseconds an application will run before Windows gives processor control to another application. All Windows applications share one time slice, whereas each non-Windows application gets its own time slice.

- ▶ Click the up or down arrow to increase or decrease the number by one. Or type a number in the text box.

### **Virtual Memory Button**

► Choose this button to display the Virtual Memory dialog box for changing the settings for swap files.

**Current Settings**

This area shows the drive, size, and type of the swap file currently being used.

**Drive**

This option lists the disk drives on your computer and the network drives you are connected to.

- ▶ Open the list, and then select the drive where you want the swap file to be located. The available settings in the Type list and Size box change, depending on whether you select a disk or a network drive. For example, if you select a network drive, the Permanent setting used to create a permanent swap file is not available.



**Type**

This option lists the types of swap files you can create, depending on the drive you have selected.

- ▶ Open the list, and then select the type of swap file, Temporary, Permanent, or None, that you want to create.

Using a permanent swap file improves the speed of Windows because the swap file is contiguous and accessing it generally takes less time than accessing a noncontiguous, temporary swap file. Because a permanent swap file must be contiguous, you can create a permanent swap file only as large as the largest contiguous free block of space on your hard disk.

Depending on the type of swap file you select, the Maximum Size and Recommended Size values may or may not appear in the dialog box. For example, if you choose to create a temporary swap file on a network drive, Maximum Size does not appear and Recommended Size changes to Recommended Maximum Size.

Note: You cannot create a permanent swap file on a network drive.

**Space Available**

This value shows the total space available (in kilobytes) on the selected drive.

**Maximum Size**

This value shows the maximum size for a permanent swap file. This size is determined by the amount of contiguous disk space found on the selected drive.

If you select Temporary or None as the swap-file type, this information does not appear in the dialog box.

**Recommended Size**

This value shows the recommended size you should specify for a permanent swap file to achieve the best performance.

If you select Temporary as the swap file type, this information changes to Recommended Maximum Size, displaying the recommended maximum size that the temporary swap file should grow to. This value reflects the most efficient use of your disk, based on the amount of available space.

If you select None as the swap-file type, this information does not appear in the dialog box.

**New Size**

Use this option to specify the size for your swap file.

- ▶ Type a value.

If you are creating a permanent swap file, this is the amount of space on the selected disk that will be allocated to the file. If you are creating a temporary swap file, the swap file cannot grow to exceed this value.

### **Use 32-Bit Disk Access**

Use this check box to turn on or off 32-bit disk access.

▶ Select this check box if you have only a small amount of free memory and you want increased performance when you are using MS-DOS Prompt.

When this box is selected you can run more instances of MS-DOS Prompt and switch between them faster. If you have more than one instance of MS-DOS Prompt running and the applications running in them are all accessing disk drives, the access time is faster when using 32-bit disk access.

When you install Windows, the Windows Setup program checks to determine whether your hard-disk controller is compatible with the 32-bit disk-access feature. If it is compatible, the 32-Bit Disk Access check box appears.

**virtual memory**

The space on your hard disk that Windows uses as if it were actually memory. Windows does this through the use of swap files.

The benefit of using virtual memory is that you can run more programs at one time than your system's physical memory would otherwise allow. The drawbacks are the disk space required for the virtual-memory swap file and the decreased execution speed when swapping is required.

**swap file**

A hidden file on a hard disk or network drive that Windows uses for swapping information from memory to the disk or drive.



