NUMORSE HELP INDEX

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Instructions on using help

Click on an underlined topic.

Overview of NuMorse

NuMorse is a Windows application designed to help you to learn Morse code. It has many features intended to make this task as painless as possible. Here is a selection:

Alter <u>timing</u> to send code as slowly as you like, speed up as you become more proficient.

Start with just a few characters, add extra characters whenever you wish using <u>filter</u> feature.

Play characters from random stream, disk file or keyboard using <u>character source</u> feature.

Use <u>timing</u> options to alter code style from standard Morse to enhance the clarity of the code.

Morse speed, characters sent, style can all be <u>saved to file</u> and then reloaded.

<u>Prosigns</u> used in FCC tests are supported.

Several <u>drill modes</u>, guess the character sent. <u>Configure</u> how NuMorse responds to your guesses.

Numorse will gather detailed <u>statistics</u> on your performance while training.

NuMorse help Instructions

For more complete instructions press the F1 key while the Help window is active.

To return to the index
>	Click the Contents button at the top of the Help window.

To use the Help Index
>	Click an underlined topic.
or	Press the TAB key until you highlight the topic you want, and then press the ENTER key.

To scroll in the Help window
>	Press PageUp or PageDn keys.
or	Use the scroll bars with the mouse.

To return to the previous topic
>	Click the Back button or press the B key.

To open the Topic Search feature in Help
>	Click the Search button or press the S key.

To close the Help window
>	From Help's File menu, choose Exit (ALT, F, X).
or	Press the ALT F4 key.
or	Click on the minimise icon.
or	Double-click the Control-menu box in the upper-left corner of the help window.

Technical Reference 1

MORSE.INI is an ASCII file in \WINDOWS that defines certain NuMorse default values. If you need to alter this file then make sure that the text editor used is a pure ASCII text editor. MORSE.INI file contents:

Sourceflags	Default source setting: keyboard=1,file random=2,file serial=4,random groups=8,random stream=16
FilterFlags	Default filter setting: custom=1,prosigns=2,punctuation=4,numbers=8,letters=16
Dot	Morse code dot length, normally 30 units
Freq	Frequency, normally 1000
Pause	Morse code character pause length, normally 90units
WordPause	Morse code word pause, normally 210 units
Dash	Morse code dash length, normally 90 units
Retries	Used in drill settings, normally 1, meaning 1 try (no retries)
TimeOut	Drill settings, normally 9, set to >=9 which means no timeout
SessionTime	Drill settings, default set to 610, meaning no time limit
DrillFlags	Show correct character=1,Audible warnings=2, visible warnings=4
PreferencesFlags	Display prosigns=1, reset source file=2
Calibration	WPM calibration factor, normally set to 100
SourceFileName	Specify a default source file name here if required.
SettingsFileName	Specify a default settings file here if required.
Seed	Random seed, set to 0 if a more random character stream is required. This line MUST be present in MORSE.INI The value 255 is reserved do not use.

These are the default settings that NuMorse starts up with. Normally you would alter the program settings and save them to be reloaded AFTER NuMorse has started up.

An ASCII text editor embeds no hidden control characters in the text file. Windows Notepad is an example.

Technical Reference 2

Windows 3.1 Multimedia Sound Functions.

I decided to stick with the original Windows 2.0+ API calls for sound generation. Windows 3.1+ Multimedia Sound Functions are NOT yet supported. This means that on most PC's you will be stuck with one volume level. Some windows 3.1 Sound drivers may prevent NuMorse from working properly and may have to be temporarily de-installed using Windows Control Panel. If there is sufficient support for NuMorse and if enough people ask then I may add support for Win 3.1 sound.

Technical Reference 3

Tech refs 3&4 are reserved for future use!

Technical Reference 4

Tech refs 3&4 are reserved for future use!

Keyboard and Mouse

Menu Commands

[File Menu](#)
[Play Menu](#)
[Settings Menu](#)

Procedures

Hotkeys

Keyboard hot keys allow rapid movement around the program, instead of selecting menu items you just press a hotkey combination. Keyboard hotkeys are displayed alongside menu items where relevant. Here is a list of available hotkeys:

Hotkeys used in most Windows applications, for explanations refer to your Windows Users Guide:

Alt+Space   Open the control menu.
Shift+F1   Help cursor; when help cursor displayed point and click on any menu
item   for help on that item.
F10   Go to files menu.
F1   Get help.
Alt+F4   Close window.
Ctrl+Esc   Bring up task list

Hotkeys specific to NuMorse

F3   Open a settings file
F2   Save current settings file
Alt+X   Exit from NuMorse
Ctrl+F9   Continuous play dialog box
F9   Drill dialog box
Alt+F9   Statistics dialog box

Using the Mouse

Standard mouse usage is implemented throughout the program, only the left mouse button is used. To select a menu item point to it and click.

To get help when using a mouse click on the help menu, then click on the required item.

Many of the dialog boxes in NuMorse have a help button, click on this to summon help.

A quick way to exit from the current window is to double click on the control menu icon. This is the small box that normally appears at the top left corner of a window.

In a dialog box click on the required control to alter its state. Some controls have associated scroll bars, click and drag on these to bring hidden text into view in list boxes.

The File Menu

Here is a list of the commands available from the File menu:

Source open
Source clear
Settings open
Settings save
Settings save as
Exit

The Play Menu

Here is a list of the commands available from the Play menu:

Play
Drill
Statistics

The Settings Menu

Here is a list of the commands available from the Settings menu:
      Source
      Filters
      Timing
      Drill
      Preferences
      Defaults
      Calibrate

Starting NuMorse

To start up the program double click on the NuMorse icon in the NuMorse program group. Another way to start up the program is to type WIN NUMORSE at the DOS prompt.

NuMorse can also be run via File Manager by double clicking on the NUMORSE.EXE directory entry.

When NuMorse launches it will spend a short period loading the file <u>NUMORSE.INI</u> from your \WINDOWS directory. If this file is not detected NuMorse will start up anyway and then initialise NUMORSE.INI automatically with a set of predefined values.

As soon as the main menu is displayed you may go straight to the <u>Play</u> menu, or use the <u>file menu</u> to recall previously saved settings.

Exiting from NuMorse

To exit from NuMorse get back to the main menu. If you are in a dialog box there are various ways of getting back to the main menu:

1. Click on the   cancel button, any changes made in the box will be discarded before the box is closed.
2. Press Esc, this is equivalent to clicking on Cancel.
3. Double click on the system menu icon, top left corner, equivalent to cancelling.
4. Click on the system menu to open it, then click on Close.
5. Click on OK, changes will be saved before the box is closed.
6. If the Cancel or OK button has the focus (indicated by a thick black outline) then pressing the ENTER key will close the dialog box

Here are some ways to exit from the program from the main menu
:
1. Select File/Exit
2. Double click on the system menu icon, top left corner.
3. Press Alt+F4
4. Click on the system menu to open it, then click on close.
5. Press Alt+X

If any program settings were altered you will be asked if you wish to save the new settings before leaving NuMorse.

Playing Morse Code

To play Morse code select <u>Play/Continuous</u> or Ctrl+F9 and the Play dialog box will open. Click on the Play button to start. Click on the Stop button for a temporary pause. You will need to use the <u>Settings menu</u> to adjust the Morse code output to your needs.

Learning Morse code

Here are few suggestions for learning the Morse Code:

When you start dont set the speed TOO slow. You need to get a feel for the rythm of the individual characters and a very slow speed can hinder this process.

Experiment with word and character spacing, Morse code sent at moderate speed, with long gaps between characters is good to get you started. You can then reduce the spacing as you get more proficient.

Familiarise yourself   with a few letters first, then add new characters in small groups of 4 or 5 at a time.

Open source file

The Open source file command displays a <u>File Open dialog</u> box.

In this dialog box, you select the file you want to use when playing Morse code from a file. The option to play Morse from a file is chosen in the <u>Source Settings</u> menu option. NuMorse is not too fussy about the type of source file selected.

Most word processors and text editors should produce suitable files. Windows Notepad is ideal as it produces a minimum of extraneous <u>control characters</u>.

Clear source file

If a source file is open then after confirmation the name will be removed and the file closed; the file itself is not affected. Source files are never written to or altered by NuMorse and they do not need to be explicitly closed.

Before exit from NuMorse all open files are automatically closed.

For further details on source files see the Source Settings topic.

Open settings file

The current <u>Settings Menu</u> status can be saved using the <u>Save settings file</u> menu option.

The Open settings file command displays a <u>File Open dialog</u> box. In this box you select which group of settings you wish to reload from file.

 All of the Settings menu options are stored except for the <u>Timing Calibration</u> value. If a <u>code source</u> file was open when the settings were saved then this file will be reopened.

Save settings file

The Save command saves the settings in the current Settings Menu to disk.

If the file has no name then NuMorse opens the File Save As dialog box so you can rename the file and save it in a different directory or on a different drive.

If you use an existing file name to name the file, NuMorse asks if you want to overwrite the existing file. All of the Settings menu options are stored except for the Timing Calibration value.

Save settings file as

The Save as command saves the settings in the current <u>Settings Menu</u> to disk.

NuMorse opens the <u>File Save As</u> dialog box so you can rename the file and save it in a different directory or on a different drive.

If you use an existing file name to name the file, NuMorse asks if you want to overwrite the existing file. All of the Settings menu options are stored except for the <u>Timing Calibration</u> value.

Morse code play

This dialog box displays the character currently being sent as Morse code, as well as the last few characters sent. A visual interpretation of the code itself is also shown, which may help speed up the learning process. The on-screen keyboard display is used mainly in the <u>Drill</u> dialog; in the play dialog box; the keys corresponding to the current Morse code character will be seen to press.

Morse code drill

This dialog box appears exactly the same as the Play dialog box , the difference is that the character being played is not displayed, you have to guess it and enter it. To input your guess:

1. Enter the character by pressing the corresponding key on your keyboard
2. Use a mouse to point at the on-screen keyboard, then click.

If you guess correctly then the character is displayed and the next character is sent. If your guess is wrong then the response from NuMorse depends on the Drill Settings options. A typical response might be to allow one or more incorrect guesses before moving onto the next character, with an audible and visual indication that each guess was wrong. NuMorse gathers Statistics on your progress while in Drill mode.

The group of 3 keys shown separated from the keyboard are for some of the characters that are normally accessed as a shift-key combination. They have been arranged like this to allow mouse selection without the use of the keyboard shift key.

Display statistics

Statistics are gathered whenever NuMorse is sending Morse code in the <u>Play</u> or <u>Drill</u> dialog box; they are reset every time one of these boxes is re-opened.   Items such as response time are only appropriate when the drill dialog box has been active, otherwise they will be set to zero. Other items such as session time will be valid for both Play and Drill sessions. The only active control in the statistics dialog box is a list box containing statistics for each character sent in the session. Scroll the list box using the scroll bar or use the cursor control keys.

The session time shown is for the LAST code session before the Play or Drill dialog box is closed. So if you do repeated code stops and starts while in these dialog boxes then only the last of the series will appear in the Statistics dialog box.

Select source for code

This dialog box is where you chose how the Morse code characters are generated, click on the required button to select the source. then click on OK. Open the Play or Drill dialogs to actually hear the Morse code.

Here are the available options:

Source Random stream.
Source Random Groups.
Source File serial.
Source File random.
Source Keyboard.

Whichever option you choose the Morse code output will be subject to the effect of a built in character filter mechanism.

Source Random stream.

Characters are randomly generated in a continuous stream. Actually, the stream is the same psuedo random sequence starting from the same seed number each time the Morse play dialog is activated. If you would prefer a more random sequence then read the section on MORSE.INI in the technical reference topic.

Source Random Groups.

This is the same as Random stream, except that a pause is inserted every five characters. The pause is shown as a space in the character <u>History Box</u> in the Morse Play dialog.

Source File serial.

This causes NuMorse to read characters from a text Source File, if opened. The characters are read in sequence starting at the front of the file. When the file end is reached you are given the option to start again or finish Morse code output. If you break off in the middle of the file and then resume an option in the Preferences dialog determines whether transmission resumes from this break or starts again at the beginning of the file.

Source File random.

This causes NuMorse to read characters from a text <u>Source File</u>, if opened. NuMorse searches the file at random for whole words, that is strings of characters separated by spaces (and any other control codes). Each complete word is sent as Morse code.

Source Keyboard.

This option allows you to send Morse code by typing in the required characters from the keyboard in real time, use the space bar for inter-word spacing. The CCITT recommendations are used for certain prosigns which are not represented on a standard PC keyboard. It is fairly easy to type faster than Morse code can be transmitted, and so a fairly large (100 characters) type ahead buffer is provided. See the Play Morse dialog for further details on keyboard input.

Select code character filter

This dialog box is where you select what characters are output as Morse code. This feature is useful for those learning the code who wish to practice with a subset of the available characters.Think of this feature as filtering out undesired characters, only the characters selected will be output. Bear in mind that the character filter operates on characters from any source. If you are entering characters from the keyboard and some of the keys do not seem to function then check what characters are being filtered. If the character source is a file it is possible to set up   NuMorse to filter ALL of the characters out before they get converted to Morse code; it can appear as if nothing is happening. In this situation NuMorse will eventually time out with an error message.

NuMorse will not allow exit from this dialog box if you try to filter out all characters!

Here are the available character filter options:

      Letters
      Numbers
      Punctuation
      Prosigns
      Custom

Except for the Custom option you can combine the above to provide various mixtures of character types.

The Preset button is used to preload a group of characters into the custom filter instead of typing them them in to the custom filter edit control manually.

Choose code timing parameters

In this dialog box you set the timing of the various elements of the Morse code generated by NuMorse.   To adjust a timing scroll bar click and drag on the slider, or click on the small arrow symbols at the scroll bar ends.

The WPM display is based on dot length and assumes <u>standard spacing</u>, other spacings will give inaccurate results.

Element lengths are displayed as arbitary units. With the <u>calibration factor</u> set at 100% a dot length of 30 units gives a speed of about 15 W.P.M. on the Authors system when continuously sending the word PARIS at standard Morse code spacing.

Here are the parameters that you can alter:

    <u>Dot length</u>
    <u>Frequency</u>
    <u>Dash Length</u>
    <u>Character spacing</u>
    <u>Word spacing</u>

Two buttons are provided for automatically setting up the timing parameters, this is   how they work:

Dot=30,   sets standard spacing based on a dot length of 30 units.
1:3, sets standard spacing based on currently displayed dot length.

Select drill settings

This group of options affects how NuMorse functions when in <u>Drill</u> mode. Here are the options:

<u>Tries allowed</u>
<u>Response time</u>
<u>Session time</u>
<u>Visual warning</u>
<u>Audible warning</u>
<u>Show correct character</u>

Preferences dialog

The options in this dialog are ones that dont seem to fit into any other specific category, if NuMorse continues to evolve then this dialog box may start to fill up as users ask for extra features! Here are the current options:

Reset source file
Display prosigns

Reset Source File

This affects the behaviour of NuMorse when the <u>Play</u> or <u>Drill</u> dialog box is cancelled during ~~reading of a text file~~.When the dialog box is reopened the file will start from the beginning if this box is checked, otherwise the file read will continue from where it was interrupted.

Display Prosigns

NuMorse can substitute certain prosign characters for ASCII characters according to the CCITT recommendations. This option switches the feature on or off.

Load default settings

After confirmation all of the settings menu options will be restored to their default state. This is done by loading a set of default values from the file MORSE.INI which will have been automatically set up in your \WINDOWS directory. With care you can alter these default values, before you do this read the Section on MORSE.INI in the <u>Technical reference</u> topic.

Calibrate code timing

This dialog box contains one scroll bar. The setting of this control affects the WPM readout in the <u>Timing</u> dialog box. At the default setting of 100% a speed of 15 WPM corresponds to a dot length of 30 arbitary units. This was arrived at by a little trial and error using the standard morse sequence PARIS. Other methods of checking code speed in WPM will give slightly different results; for example the Morse sequence CODEX might be more appropriate under certain circumstances. If our interpretation of WPM is not to your liking then feel free to alter the calibration setting as required.
The default button in the <u>Timing</u> dialog always sets the dot length to 30 arbitary units: this will not correspond to 15 WPM if   the calibration setting is not 100%.
The code timing calibration setting is saved to file as soon as you exit from the dialog box, unlike the other items in the settings menu which are saved on <u>exit</u> from NuMorse.

Maximize Icon

For information on this topic get to the <u>Windows Help</u> window and click the Glossary button on the toolbar.

Minimize Icon

For information on this topic get to the <u>Windows Help</u> window and click the Glossary button on the toolbar.

Sizing Border

For information on this topic get to the <u>Windows Help</u> window and click the Glossary button on the toolbar.

System Menu

For information on this topic get to the <u>Windows Help</u> window and click the Glossary button on the toolbar.

Title Bar

For information on this topic get to the <u>Windows Help</u> window and click the Glossary button on the toolbar.

The Index contains a list of Help topics available in the NuMorse Help System. For information on how to use Help press F1 or choose Using Help from the Help menu. You can get back to the Index from any point in the help system by clicking on the Toolbar Contents key.

The Windows Help system gives general information about using Microsoft Windows and can be accessed by pressing the F1 key while the NuMorse Help Window is active.

File Open dialog box

The File Open dialog box is where you open a file by typing the file name in the input box or using the directories list box or file name list box to find and open the file.

The File Name input box is where you enter the name of the file , or the file-name mask to use as a filter for the Files list box.

The Files list box lists the names of files in the current directory that match the file-name mask in the File Name input box, plus the parent directory and all subdirectories.

You view the contents of different directories by selecting a directory name in the Directories list box.

Control characters are used by many word processors to control the layout and appearence of text. They are usually not displayed on screen, but will be present in document files. Within reason, NuMorse will try to ignore such characters.

File Save As dialog box

The File Save As dialog box is where you type in the new name in the file name input box (you can include a drive and directory path) or use the directories list box to select a new path.

If you choose an existing file name, NuMorse asks if you want to overwrite the existing file.

CCITT

The CCITT have made certain recommendations regarding conversion of ASCII codes to Morse and other codes. NuMorse provides limited support for some of the most commonly used prosigns :

Prosign	Substitute	Meaning
AR	+	End message
SK	*	End of work
BT	=	Double dash
DN	/	Fraction bar

Numorse optionally displays the dual letter combination or the ASCII substitute when outputting Morse code, select the option in the preferences dialog box.

Prosigns (Procedure Signals) are signals used in Morse Code to indicate such phrases as start of transmission, here is and so on. The FCC code tests require knowledge of:
    AR,SK,BT,DN

Type-ahead is a feature that allows typed characters to be stored until the system can deal with them, it can be thought of as a queue in which the typed characters are held in the exact sequence in which they were typed.

A character History box contains a list of the most recent 15 or so characters output by NuMorse. As new characers are added the oldest ones are discarded.

A psuedo random sequence is a sequence of numbers that is generated mathematically by repeatedly applying a formula to the last number in the sequence and then adding the result to the end of the sequence. The very first number is called the seed number. If a suitable formula is used the sequence can often be used in the place of a true random sequence.

Filter letters

This option removes all characters except for the letters A to Z, and a to z, The lower case letters are the same as upper case in Morse code; ASCII lower case letters are accepted and then converted to upper case before code translation occurs.

Filter numbers

All of the characters except 0 to 9 are discarded by this filter.

Filter punctuation

This option allows the following punctuation symbols to be translated to Morse code:

.	,	?	-	:	;	[	]	{
}	(	)	"	$	_			

The various brace characters are translated to (and).

Filter prosigns

The following ASCII codes are allowed if this feature is active:

*   +   =   /

If the display prosigns option in the <u>Preferences dialog box</u> is active then these characters will be displayed as character pair combinations according to <u>CCITT</u> recommendations, otherwise they will be displayed as above.

Filter Custom

This option allows you to use a filter specified by you, the filter can contain as few or as many characters as you wish. Enter the characters that you wish to be transmitted into the custom filter edit control. The custom filter settings will be automatically saved to disk when you save the program settings. Selecting the filter custom option will automatically deselect any other filter options.

Filter Preset

This button causes the current preset filter options to be loaded into the <u>custom filter edit control</u>. If the <u>Filter custom</u> option is active when the preset button is pressed then the custom edit control is cleared.

This feature can save typing effort. For example, to specify a group of 15 alphabetic characters:

1.   Select Filter letters
2.   Click the preset button to load the entire alphabet into the custom edit control.
3.   Delete the 10 letters not required

Filter custom edit control

Type in the characters that are to be output as Morse Code. There is a range of text editing features available in this control, see the Keyboard topic for more information on editing text. Another way of getting text into this control is by using the Filter preset button. This edit control supports horizontal scrolling, click and drag on the scroll bar thumb to bring hidden text into view. You may also use the cursor control keys for scrolling.

Here is the default code spacing used by NuMorse

Pause between elements   1
Pause between words   7
Pause between characters   3
Dot length   1
Dash length   3

Drill Tries Allowed

This parameter determines the programs response to an incorrect input. You can adjust the scroll bar to allow no second attempts. If no second attempts are allowed then you will given a warning that you entered an   incorrect response and then the next character will be displayed.
At the other extreme of the scroll bar any number of attempts are allowed, you will still be warned if an incorrect input is detected, but the same character will then be repeated.
At intermediate settings a certain number of guesses are allowed before proceeding to the next character.

Drill Response Time

At the default setting of <Any> there is no time limit when attempting to guess the Morse code character. Other settings cause NuMorse to wait for a certain interval, if no character is entered by the end of the interval it is treated as incorrect input. What happens next depends on the other settings in the Drill Settings dialog box.

Drill Session time

If this scroll bar is set to maximum then drill sessions will continue until the dialog box is cancelled. Setting the scroll bar to any other position allows you to practise against the clock. After the specified time interval a special audible signal will indicate end of session, and a message will appear. Clicking on the message OK box will then take you back to the main menu. Consult the statistics dialog box to see how you did.

This feature combined with the other drill setting options gives a very large range of possible test situations. For technical reasons (connected with the audible and visual warnings) the session time shown in the statistics box after the drill session may be a second or two longer than the original time specified.

If you click the Stop button during a timed Session then restarting by clicking on the Play button   will have the effect of restarting the session timing clock from zero.

Drill Visual Warning

By default this option is checked. When a wrong character is input a symbol is shown which resembles those crosses your primary grade teacher scribbled across your first attempts at math!

Drill Audible Warning

If this option is checked then NuMorse responds to wrong input by outputting a Hu-Hu sound.instead of the next Morse code character.

Drill show correct character

If the wrong guess is made for a character one of NuMorses responses is to briefly show the correct character. This option.turns the feature off.

Timing Dot Length

The dot length controls the fundamental speed of the Morse code generated by NuMorse. To set up code at the required speed, with <u>standard spacing</u>, adjust the dot length scroll bar until the WPM display reads the correct code speed. Then press the Setup button; this has the effect of adjusting all of the other Timing scroll bars to give code at the displayed speed with correct character and word spacing.

Timing Frequency
This scroll bar allows you to adjust the pitch of the generated tone. This tone is generated using standard Windows 3.0 sound generation procedures. The new Windows 3.1 MCI calls are not supported in this version of NuMorse.

Timing Dash Length

You may wish to set the dash length longer than <u>standard spacing</u> in the early stages of learning Morse code to make the characters easier to decode.

Timing Character Spacing

This option allows you to set the character spacing to a value greater than the default of 3 dot lengths. This can be useful when you are trying to increase your code speed. Set dot and dash length to the higher speed, but increase character spacing to longer than 3 dots in duration until you are comfortable with the new speed.

Timing Word Spacing

You might like to increase word spacing bove the default of 7 dot lengths for the same reasons as increasing character spacing.

MCI calls.

This is a feature introduced in Microsoft Windows 3.1 which allows control of multimedia files and hardware devices, including sound generation hardware. The feature is NOT supported in this version of NuMorse. Certain active MCI device drivers may interfere with the functioning of NuMorse and may need to be de-installed using Windows Control Panel.

Windows Keys

 Choose from the following list to review the keys used in Windows applications:

Cursor Movement Keys

Key(s)	Function
DIRECTION key	Moves the cursor left, right, up, or down in a field.
End or Ctrl+Right Arrow	Moves to the end of a field.
Home or CTRL+Left Arrow	Moves to the beginning of a field.
PAGE UP or PAGE DOWN	Moves up or down in a field, one screen at a time.

Dialog Box Keys

Key(s)	Function
TAB	Moves from field to field (left to right and top to bottom).
SHIFT+TAB	Moves from field to field in reverse order.
ALT+letter	Moves to the option or group whose underlined letter matches the one you type.
DIRECTION key	Moves from option to option within a group of options.
ENTER	Executes a command button. Or, chooses the selected item in a list box and executes the command.
ESC	Closes a dialog box without completing the command. (Same as Cancel)
ALT+DOWN ARROW	Opens a drop-down list box.
ALT+UP or DOWN ARROW	Selects item in a drop-down list box.
SPACEBAR	Cancels a selection in a list box. Selects or clears a check box.
CTRL+SLASH	Selects all the items in a list box.
CTRL+BACKSLASH	Cancels all selections except the current selection.
SHIFT+ DIRECTION key	Extends selection in a text box.
SHIFT+ HOME	Extends selection to first character in a text box.
SHIFT+ END	Extends selection to last character in a text box

Editing Keys

Key(s)	Function
Backspace	Deletes the character to the left of the cursor.
	Or, deletes selected text.
Delete	Deletes the character to the right of the cursor.
	Or, deletes selected text.

Help Keys

Key(s)	Function
F1	Gets Help and displays the Help Index for the application. If the Help window is already open, pressing F1 displays the "Using Windows Help" topics.
	In some Windows applications, pressing F1 displays a Help topic on the selected command, dialog box option, or system message.
SHIFT+F1	Changes the pointer to so you can get Help on a specific command, screen region, or key. You can then choose a command, click the screen region, or press a key or key combination you want to know more about.

Menu Keys

Key(s)	Function
Alt	Selects the first menu on the menu bar.
Letter key	Chooses the menu, or menu item, whose underlined letter matches the one you type.
Alt+letter key	Pulls down the menu whose underlined letter matches the one you type.
LEFT or RIGHT ARROW	Moves among menus.
UP or DOWN ARROW	Moves among menu items.
Enter	Chooses the selected menu item.

System Keys

The following keys can be used from any window, regardless of the application you are using.

Key(s)	Function
Ctrl+Esc	Switches to the Task List.
Alt+Esc	Switches to the next application window or minimized icon, including full-screen programs.
Alt+TAB	Switches to the next application window, restoring applications that are running as icons.
Alt+PrtSc	Copies the entire screen to Clipboard.
Ctrl+F4	Closes the active window.
F1	Gets Help and displays the Help Index for the application. (See Help Keys)

Text Selection Keys

Key(s)	Function
SHIFT+LEFT or RIGHT ARROW	Selects text one character at a time to the left or right.
SHIFT+DOWN or UP	Selects one line of text up or down.
SHIFT+END	Selects text to the end of the line.
SHIFT+HOME	Selects text to the beginning of the line.
SHIFT+PAGE DOWN	Selects text down one window.
	Or, cancels the selection if the next window is already selected.
SHIFT+PAGE UP	Selects text up one window.
	Or, cancels the selection if the previous window is already selected.
CTRL+SHIFT+LEFT or RIGHT ARROW	Selects text to the next or previous word.
CTRL+SHIFT+UP or DOWN ARROW	Selects text to the beginning (UP ARROW) or end (DOWN ARROW) of the paragraph.
CTRL+SHIFT+END	Selects text to the end of the document.
CTRL+SHIFT+HOME	Selects text to the beginning of the document.

Window Keys

Key(s)	Function
ALT+SPACEBAR	Opens the Control menu for an application window.
ALT+Hyphen	Opens the Control menu for a document window.
Alt+F4	Closes a window.
Alt+Esc	Switches to the next application window or minimized icon, including full-screen programs.
Alt+TAB	Switches to the next application window, restoring applications that are running as icons.
Alt+ENTER	Switches a non-Windows application between running in a window and running full screen.
DIRECTION key	Moves a window when you have chosen Move from the Control menu. Or, changes the size of a window when you have chosen Size from the Control menu.