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Selecting a Keyboard Layout

To select a keyboard layout, <u>choose</u> it from the Keyboard menu by using the mouse or a keyboard command, or use a <u>hot key combination</u>. Notice that the title bar or the icon of *3-D Keyboard* changes when you select a different keyboard layout.

Menu:

<u>Switch</u> to the *3-D Keyboard* window. <u>Choose</u> the desired layout from the Keyboard menu. Then switch back to your application window and return to your work.

Hot Key:

Without leaving your application, press the hot key combination. Hot key combinations are shown on the Keyboard menu next to the layout names. If no hot key is shown for a given layout, use the "Hot keys..." command on the Options menu to select a mnemonic combination. See <u>Customizing the Hot Keys</u> for details.

Whenever you type a key combination such as Ctrl+A, remember that the letter (e.g., A in Ctrl+A) refers to the one that is printed on the key cap of your physical keyboard, not the one that may be assigned to the key in a particular keyboard layout. For example, the French keyboard layout has A in the second row while the physical keyboard made for the U.S. market has A in the third row. To use the command Ctrl+A, press the leftmost key in the third row while holding down Ctrl, regardless of whether you are typing with the U.S. or the French keyboard layout.

When you temporarily leave Windows to work with a DOS program, or when you exit Windows, the standard U.S. keyboard layout takes effect, and the additional layouts cannot be used.

Typing Letters with Diacritics

Most letters with <u>diacritics</u> are typed using the <u>dead key</u> method, though some are assigned to regular keys. In the *3-D Keyboard* window, dead keys are marked by diacritics in an outline font.

Press a dead key. If the 3-D Keyboard window is visible, note the changed letters on the key caps. Only those keys that can now type a letter with a diacritic are marked. The available dead keys are also marked. If the 3-D Keyboard window is minimized, pressing a dead key changes the appearance of the 3-D Keyboard icon.

Press any letter key to type a letter with a diacritic. Use the Shift keys as you normally do when typing upper case letters. Press the space bar to type the diacritic by itself. Press another dead key (if available) to see letters with other diacritics. Press any other key to return the keyboard to its normal state.

Typing Diacritics by Themselves

<u>Diacritics</u> are typed using the <u>dead key</u> method. In the *3-D Keyboard* window, dead keys are marked by diacritics in an outline font.

Press a dead key. If the *3-D Keyboard* window is visible, note the changed letters on the key caps. Only those keys that can now type a letter with a diacritic are marked. The available dead keys are also marked. A diacritic is shown on the space bar. If the *3-D Keyboard* window is minimized, pressing a dead key changes the appearance of the *3-D Keyboard* icon.

Press the space bar to type the diacritic by itself.

Typing the Third Symbol Assigned to Some Keys

Most keyboard layouts have keys that can produce three symbols, typed by:

- the key alone
- the key with Shift held down
- the key with the "Third symbol" key held down (explained below)

The first two symbols are typically lower and upper case letters, or a digit and a punctuation mark, etc. The third symbol, if available, is shown in the bottom right corner of the key cap in the *3-D Keyboard* window. It is usually displayed in a color that is not used for any other purpose.

The Third symbol key is marked by a rectangle of the same color as all third symbols on the key caps.

If you have an IBM XT or AT style keyboard, the Third symbol key will be Alt; if you have an enhanced keyboard, the Third symbol key may be Left Alt, Right Alt or either of the Alt keys. Choose the "Third symbol key" command from the Options menu to customize this setting. See <u>Customizing the Third Symbol Key</u> for details.

Selecting the Physical Keyboard

In most cases, this operation is unnecessary, because *3-D Keyboard* automatically identifies the type of keyboard attached to your computer (e.g., the IBM XT or AT keyboard, the IBM PS/2 keyboard, etc.). Should you suspect that your keyboard has not been identified correctly, <u>choose</u> the "Physical keyboard" command from the Options menu and click the model that matches your keyboard. Be careful not to misuse this command, or the layout displayed in the *3-D Keyboard* window will not match your physical keyboard.

If you try to select another physical keyboard, and find that the menu option you desire is disabled (i.e. shown in gray rather than black), you should run Windows Setup and make sure that Windows itself has the correct information about your keyboard.

The physical keyboard selection is recorded in the <u>initialization file</u>, 3DKBD.INI. If the initialization file is deleted, all settings are returned to their defaults.

Keyboard Menu

Note: To see more information about an underlined topic, <u>click</u> it or press Tab to highlight it and then press Enter. If the topic is underlined with a dotted line, hold the button down while you read.

Keyboard Layouts

Use these commands to select a keyboard layout.

Pressing a hot key is a convenient alternative to using this menu, especially when the *3-D Keyboard* window is minimized or hidden by other windows. The hot keys work only in Windows applications. They cease to be active after you exit or close *3-D Keyboard*.

If several layouts have the same hot key assigned to them, pressing this hot key repeatedly will cycle through these layouts.

Exit

Use this command when you no longer need the additional keyboard layouts provided by the "3rd dimension" of the program. When you exit 3-D Keyboard, the default U.S. keyboard layout is automatically selected.

If you do want to use the additional layouts, but do not want to see the 3-D Keyboard window on your screen, minimize the window by clicking the down arrow in the top right corner. The 3-D Keyboard icon will appear at the bottom of your screen. This icon will indicate your currently selected keyboard layout and the availability of the symbols typed after a dead key.

The "Exit" command on this menu is equivalent to the "Close" command on the Control menu (also called System menu). The Control menu is activated by clicking an icon, typing Alt+Space, or clicking the small box in the upper left corner of the window.

Options Menu

Note: To see more information about an underlined topic, <u>click</u> it or press Tab to highlight it and then press Enter. If the topic is underlined with a dotted line, hold the button down while you read.

Hot keys...

Use this command to enable, disable, or <u>customize the hot keys</u>. <u>Hot keys</u> are a convenient alternative to using the Keyboard menu for selecting keyboard layouts, especially when the *3-D Keyboard* window is minimized or hidden by other windows.

Colors...

Use this command to <u>customize the colors</u> used in the 3-D Keyboard window.

Edit keyboard layout...

Use this command to <u>assign letters and symbols to different keys</u> in the currently selected keyboard layout.

Third symbol key

Use this command to customize the Third symbol key.

Font size

Use this command to <u>change the size</u> of the letters and symbols that are used to mark key caps in the *3-D Keyboard* window.

Physical keyboard

Use this command to tell *3-D Keyboard* what <u>type of keyboard</u> is attached to your computer. In most cases this should not be necessary, because the program normally detects this information automatically.

Help Menu

Index

This command displays a list of topics in the Help system, organized by subject.

Keyboard

This command displays instructions on the general use of the keyboard in Windows.

Using help

This command displays instructions for using the Help system. These instructions are part of Microsoft Windows.

About...

This command displays the *3-D Keyboard* version number, copyright notice, and the address and telephone number of the <u>publisher</u>.

Customizing the Hot Keys

The key combinations shown next to the layout names on the Keyboard menu are called <u>hot keys</u>. Pressing a hot key is the easiest way to select a keyboard layout; you can do this even when the *3-D Keyboard* window is minimized or hidden by other windows. These hot keys work only in Windows applications.

Hot keys may be <u>customized</u> by <u>choosing</u> the "Hot keys..." command from the Options menu.

You may wish to customize the hot key settings if:

- you want to set up hot keys that are mnemonic for you
- you want to assign one hot key to several layouts; then you can cycle through these layouts by repeatedly pressing this one hot key
- your current hot key combinations are used in your applications for other purposes (e.g., Ctrl+U may be used for the "Underline" command, in which case you would not want Ctrl+U as a hot key)

To customize a hot key setting:

- choose the "Hot keys..." command from the Options menu
- click the down arrow in the box next to the layout of interest
- scroll through the list of available key combinations and select the one that you like best
- repeat this for all layouts that you want to use
- select None for any layouts that you do not plan to use
- click the OK button (or click Cancel to cancel all your changes)

When you click the word None instead of a key combination, the layout will have no hot key assigned to it. It may still be selected from the Keyboard menu. Remember that the key combinations assigned as hot keys in *3-D Keyboard* are not available as <u>shortcuts</u> in other applications. By selecting None for some layouts you maximize the number of available shortcuts.

If you click the Default button, all hot keys will be returned to their default settings.

The customized settings are recorded in the <u>initialization file</u>, 3DKBD.INI. If the initialization file is deleted, all settings are returned to their defaults.

Customizing the Colors

The 3-D Keyboard window uses three different colors on the key caps for:

- symbols typed by a key alone and by a key with Shift held down
- the symbol typed by a key with the $\underline{\text{Third symbol key}}$ held down; the same color marks the Third symbol key
- dead keys

On monochrome screens, shading and highlighting may be used in place of colors.

To change the current color or shading scheme, <u>choose</u> the "Colors" command from the Options menu, then click the colors you want to try.

If you click the Default button, the colors will be set as when *3-D Keyboard* was shipped by the <u>publisher</u>.

The customized settings are recorded in the <u>initialization file</u>, 3DKBD.INI. If the initialization file is deleted, all settings are returned to their defaults.

Editing the Keyboard Layout

The keyboard layouts used in 3-D Keyboard are based on the standards for personal computers as described in DOS manuals. If you want to move some of the letters and symbols to different keys, select the layout that you want to customize, then choose the "Edit keyboard layout" command from the Options menu.

When the Edit Keyboard Layout dialog box opens, you can use the keyboard, the mouse, or both for selecting letters and symbols from the character chart and assigning them to keys.

Keyboard Only

Press the Tab key until the character chart is active: you will see a double border around it. Press the arrow keys to highlight the desired character. Press the key you want to use when typing this character. To assign the highlighted character to a shifted key, press the key while holding down Shift. To assign it as the third symbol on a key, press the key while holding down the <u>Third symbol key</u>.

Keyboard and Mouse

Move the mouse pointer over the character chart. <u>Click</u> the character that you want to move to a different key. Press the key you want to use when typing this character. To assign the highlighted character to a shifted key, press the key while holding down Shift. To assign it as the third symbol on a key, press the key while holding down the Third symbol key.

Mouse Only

Move the mouse pointer over the character that you want to assign to a different key. Press and hold the left mouse button. Drag the mouse pointer over the key you want to use when typing the selected character. Note that the mouse pointer changes shape and that the highlight on the key cap indicates whether the key will be pressed by itself, with Shift, or with the Third symbol key when typing the new character. Release the button.

Check the customized key in the *3-D Keyboard* window: the symbol on the key cap should immediately reflect your change. Repeat these steps for each key you want to customize, then <u>choose</u> the OK button to finalize your changes. If you want to edit another keyboard layout, <u>select</u> it and repeat these steps. If you close the Edit Keyboard Layout dialog box by using its Control menu, your changes will be cancelled.

Use the Undo button to cancel your latest change. Use the Cancel button to cancel all changes made since you opened the Edit Keyboard Layout dialog box. The Default button will be enabled if you have made any changes to the default key assignments for this layout. Use this button to return all key assignments to their defaults. Use the Help button to display this text.

The third symbols may be erased from keys by using the eraser in the bottom right corner of the character chart. Choose the eraser, then drop it onto the key or press the key while holding down the Third symbol key.

If you assign the same dead key symbol to two or more keys, only one of these keys

will be "dead." The other key(s) will simply type the diacritic.

Letters with diacritics (normally available after a dead key is pressed) are assigned automatically when you assign the corresponding letters without diacritics. A letter with a diacritic may also be assigned directly to any key. You may wish to do this if for some reason you want to avoid using dead keys.

Notes on the Character Chart

Some symbols in the chart look like a thick vertical bar. These character positions are not used in Windows 3.0. If they are used in later versions of Windows, they will also be used in later versions of 3-D Keyboard.

The first character in the fifth row is the so-called non-breakable space. It is used by some programs to indicate a space between words that should not be split across lines.

The fourteenth character in the fifth row is the so-called soft hyphen. It is used by some programs to indicate a hyphen that should be displayed and printed only if the word is split between two lines at this point. Other programs may use it for different purposes, e.g. to display a non-breakable hyphen.

Warning

To finish editing the current keyboard layout, you must close the Edit Keyboard Layout dialog box. This is done by <u>choosing</u> the OK or the Cancel button, or by using the Control menu (also called the System menu). If you close this dialog box by choosing Cancel or by using its Control menu, your changes will be cancelled. While it is possible to switch to another program without closing the dialog box, *3-D Keyboard* will not translate keystrokes until the Edit Keyboard Layout box is closed.

The changes made in the keyboard layouts are recorded in the <u>initialization file</u>, 3DKBD.INI. If the initialization file is deleted, all settings are returned to their defaults.

Customizing the Third Symbol Key

Depending on the type of keyboard attached to your computer, you may designate either one or both of the Alt keys for <u>typing the third symbol</u> assigned to some keys. The current Third symbol key is marked with a colored rectangle in the *3-D Keyboard* window. If your physical keyboard has only one Alt key, you cannot customize the Third symbol key setting.

To <u>customize</u> this setting, <u>choose</u> the "Third symbol key" command from the Options menu, then choose Left Alt, Right Alt, or Either Alt.

One reason to customize the Third symbol key is to avoid certain conflicts in the following functions of the Alt keys:

Activating the Menu Bar

In Microsoft Windows, pressing and releasing an Alt key activates the menu bar in the current window. This function is still available when the Either Alt option is selected. When only one of the two Alt keys is set to be the Third symbol key, this Alt key does not activate the menu bar.

Using Alt+Function Key

Some programs use combinations of Alt and function keys as <u>shortcuts</u>, e.g. Alt+F4 for the "Exit" command in Microsoft Word for Windows. This function is still available when the Either Alt option is selected. If only one of the two Alt keys is set to be the Third symbol key, this Alt key cannot be used for such shortcuts.

Using Other Shortcuts with Alt

Some programs use the Alt key in menus and dialog boxes: pressing Alt with an alphanumeric key selects an option. This function is still available when the Either Alt option is selected, but only for alphanumeric keys which do not have a third symbol on them. If only one of the two Alt keys is set to be the Third symbol key, this Alt key cannot be used for such shortcuts.

The customized setting is recorded in the <u>initialization file</u>, 3DKBD.INI. If the initialization file is deleted, all settings are returned to their defaults.

Selecting the Font Size

The characters that are used to mark key caps in the *3-D Keyboard* window may seem too large or too small on your screen. To change their size, <u>choose</u> the "Font size" command from the Options menu, then choose the desired size.

The new font size is recorded in the <u>initialization file</u>, 3DKBD.INI. If the initialization file is deleted, all settings are returned to their defaults.

The 3-D Keyboard Icon

If you do not want to see the *3-D Keyboard* window with the current keyboard layout, you may shrink it to an icon by <u>clicking</u> the down arrow button in the top right corner of the window or by <u>choosing</u> the "Minimize" command from the Control menu (also called System menu). The Control menu is activated by typing Alt+Space or by clicking the box in the top left corner of the window.

The appearance of the *3-D Keyboard* icon changes to indicate the currently selected layout or the recently pressed <u>dead key</u>.

Customizing the colors used by *3-D Keyboard* does not change the colors used in its icon.

Files Used by 3-D Keyboard

The four distribution files described below must be located in the same directory; the installation program for 3-D Keyboard places these files in the directory that you specify. The INI file, also described below, is not distributed by the <u>publisher</u>; it is created in the Windows directory when you make a change in the default settings of 3-D Keyboard.

3DKBD.EXE is the executable program file. Its name, together with the directory name, should be used when creating a Program Manager item for 3-D Keyboard. The installation program for 3-D Keyboard normally does this for you.

3DKBD.DLL is an auxiliary file that is required for operation of the program.

3DKANSI.FON contains the 3-D Key Caps screen fonts. You should not use these fonts in your documents, because they have a very limited range of point sizes and were not designed for printing text.

3DKBD.HLP contains the help system for the program.

3DKBD.INI is the initialization file that is read by *3-D Keyboard* when the program starts. This file is created in your Windows directory, and updated as you customize various options of the program. The format of this file is described in <a href="https://doi.org/10.1001/jheps:1

The Initialization File

The initialization file, 3DKBD.INI, is located in the Windows directory. This file is created the first time you make a change in one of the original settings, such as a hot key setting, the color scheme, etc. After that, a corresponding section in this file is updated every time you change a setting.

If the initialization file is deleted, all settings are returned to their defaults.

You should not need to edit this file; all settings are recorded automatically by 3-D Keyboard as you make changes via the Options menu. The file format is explained below for those who like to know such things.

The following is an example of the entire contents of an initialization file:

[Hot Keys] EnhancedUS=48 France=112 Germany=189 Italy=191 LatinAmerica=0 US=65

[Colors]
NormalCharacter=128 0 0
ThirdSymbol=0 128 0
DeadKey=255 255 0

[Settings]
SymbolKey=3
PhysicalKeyboard=4
FontSize=1

[Keyboard Layouts]

France=&é"'(-è_çà)=q...p!^\$as...lmù<*wxcvbn,;:!!123... etc. (only part of this line is shown; ellipses indicate the omitted parts); The line above is the last line of John's 3DKBD.INI file.

The [Hot Keys] Section

The names of those layouts whose hot keys have been customized are listed here. All spaces and punctuation are removed from the layout names. The numbers to the right of the equal sign are the virtual key codes used by Windows programmers; they are published in Microsoft technical reference manuals. For letters and digits these are the same as ASCII numbers.

The [Colors] Section

The names are the same as on the Colors dialog box in 3-D Keyboard, with spaces and punctuation removed. The numbers are the decimal values for the red, green, and blue components, in that order. These values must be between 0 and 255. The following combination, for example, defines pure red: 255 0 0. Windows Paintbrush shows these numbers as you use the "Edit Colors"

command on its Options menu.

The [Settings] Section

SymbolKey defines the setting for the Third symbol key. PhysicalKeyboard defines the setting for the Physical keyboard. FontSize defines the setting for the size of the characters that are used to mark key caps in the *3-D Keyboard* window.

The numbers stand for the options shown on the respective menus, the top choice being 1.

The [Keyboard Layouts] Section

The names for the layouts are the same as in the Hot Keys section. The characters to the right of the equal sign show the current key assignments; they roughly follow the order of the keys on the keyboard; more precisely, they follow the order of scan codes. An exclamation point precedes every dead key. An exclamation point that does not mark a dead key is shown twice. We do not recommend editing this section of the initialization file; any key assignments may be done with more precision and ease by using the "Edit keyboard layout" command.

A semicolon may be used to introduce a comment line; all text on a line that begins with a semicolon is ignored by 3-D Keyboard.

Control Panel and 3-D Keyboard

Control Panel is a program that is included with Microsoft Windows. It lets you change the configuration of your system, including the default keyboard layout. In order to use *3-D Keyboard*, the default keyboard layout must be set to "US." If you think that your setting is different, choose the "International" command in Control Panel and reset the keyboard layout.

This requirement does not impair any flexibility of Windows, since 3-D Keyboard provides an easy way to switch between keyboard layouts.

The rest of the settings, e.g. the date and currency format, may be selected as desired.

3-D Key Caps Font

While 3-D Keyboard is running, some applications may include the 3-D Key Caps (ANSI) font in the list of available fonts. This is the font that is used in the 3-D Keyboard window. Avoid using this font in your documents, because it has a very limited range of point sizes and was not designed for printing text.

Windows Fonts and 3-D Keyboard

Most Windows applications use the <u>ANSI</u> character set in their fonts. This version of *3-D Keyboard* can be used with all ANSI fonts.

Most non-Windows programs for personal computers use the IBM PC extended character set. The authors of Microsoft Windows refer to this as the OEM character set. Windows 3.0 includes one OEM font called Terminal. Do not use this font with *3-D Keyboard.* When using the Windows Terminal program, select some other font from the Terminal Preferences options on the Settings menu.

In general, non-ANSI fonts, including the Windows Symbol font, cannot be used with this version of *3-D Keyboard*.

Future versions of 3-D Keyboard may support non-ANSI fonts.

If future versions of Microsoft Windows use an expanded character set, future versions of *3-D Keyboard* will also use this character set.

Non-Windows Programs and 3-D Keyboard

3-D Keyboard works only with programs written for Microsoft Windows version 3.0 and later. When you temporarily leave Windows to work with a DOS program, or when you exit Windows, the standard U.S. keyboard layout takes effect, and the additional layouts cannot be used.

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ANSI vs. OEM Character Sets

Choosing a menu item issues a command to the program, e.g. Exit. This can be done with the mouse or with the keyboard.

Mouse

Move the pointer to the menu name and briefly press the left button to activate the menu, then move the pointer to the desired command and briefly press the left button again.

Keyboard

While holding down the Alt key, type the letter that is underlined in the menu name, then release both; now type the underlined letter in the desired command.

Switching to a window makes this window active. The other windows on your screen become inactive. You can switch using the mouse or the keyboard. You can also use the Task List.

Mouse

Move the pointer to any part of the window and briefly press the left button.

Keyboard

Press Alt+Esc several times, cycling through all your running applications until the desired window is active.

Task List

Press Ctrl+Esc, move the mouse pointer or the highlight to the desired application name, and <u>double-click</u> or press Enter.

Clicking a menu, a button, or some other object on the screen activates this object or prepares it for your next action.

To click an object, move the mouse pointer to the object and briefly press the left button.

Double-clicking an object on the screen activates this object and starts some action.

To double-click an object, move the mouse pointer to the object and press the left button twice in rapid succession.

Shortcut key combinations are keyboard alternatives to using menus. For example, in Microsoft Word for Windows, pressing F4 while holding down the Alt key is equivalent to choosing the "Exit" command from the File menu. Shortcuts are specific to applications and can be used only when the application window is active.

A shortcut key combination, if it exists, is shown on the menu next to the command. The notation Alt+F4, for example, means "press F4 while holding down Alt." The letter in the shortcut notation is the one that is printed on the key cap of your physical keyboard, not the one that may be assigned to the key in a particular keyboard layout.

Hot key combinations are a convenient alternative to using the Keyboard menu for layout selection. Hot keys work even when the *3-D Keyboard* window is minimized or hidden by other windows. When you use a hot key, you do not have to leave your application window (e.g. your word processor) in order to select a different keyboard layout.

Hot key settings may be customized by <u>choosing</u> the "Hot keys..." command from the Options menu. See <u>Customizing</u> the Hot Keys for details.

The current hot key combinations are shown on the Keyboard menu next to the names of the layouts. The notation Ctrl+U, for example, means "press U while holding down Ctrl."

The letter in the hot key notation is the one that is printed on the key cap of your physical keyboard, not the one that may be assigned to the key in a particular keyboard layout.

When the same hot key is assigned to several layouts, pressing this hot key repeatedly will cycle through these layouts.

The key combination assigned to a layout as its hot key is not available as a shortcut in any application. For example, if Ctrl+U is the hot key for the U.S. keyboard layout, you cannot use this key combination as a shortcut for the "Underline" command in your word processor. You will have to use a menu or a button for the "Underline" command. Alternatively, you may set the hot key for the U.S. layout to a different key combination.

Hot keys cease to be active when you <u>switch</u> to a non-Windows application or exit *3-D Keyboard*.

Dead keys, when pressed, do not type any letters or symbols. Their purpose is to make additional letters available, typically letters with diacritics. The letter with the diacritic will be typed when its key is pressed after the dead key. For example, to type a German A diaeresis with the Enhanced U.S. keyboard, press the Umlaut dead key and then A.

Diacritics are marks added to letters in order to distinguish them from other letters of similar form, e.g. the tilde over the letter n in Spanish. In most keyboard layouts, letters with diacritics are typed using the dead key method.

Customization in this text does not refer to any irreversible changes in 3-D Keyboard. All changes made through the menus of this program may be cancelled at any time by any user. These changes are recorded in the initialization file, 3DKBD.INI. If the initialization file is deleted, all changes are cancelled.

ANSI vs. OEM Character Sets

Most Windows fonts use the so called ANSI character set. ANSI stands for American National Standards Institute. Most non-Windows programs for personal computers use the so called IBM PC extended character set, which the authors of Microsoft Windows refer to as the OEM character set. Windows 3.0 includes one OEM font called Terminal.

Why Some Shortcuts Do Not Work

The key combination assigned to a layout as its hot key is not available as a shortcut in any application. For example, if Ctrl+U is the hot key for the U.S. keyboard layout, you cannot use this key combination as a shortcut for the "Underline" command in your word processor. You will have to use a menu or a button for the "Underline" command. Alternatively, you may set the hot key for the U.S. layout to a different key combination.

Hot key settings may be customized by <u>choosing</u> the <u>"Hot keys..."</u> command from the Options menu.

Limitations of This Version

This version of *3-D Keyboard:*

- includes keyboard layouts only for those languages that are supported by the Windows 3.0 <u>ANSI fonts</u>; it does not work with the Symbol font or the Terminal font, but it does work with the Terminal program when an ANSI font is selected
- cannot be used with versions earlier than 1.80 of the network communication program *Da Vinci eMAIL*
- may be incompatible with some screen saving programs that use the keyboard in unconventional ways; when setting the password in the screen saving program *After Dark*, always use the standard U.S. keyboard layout, and before typing the password, press Caps Lock so that you type in upper case

If you use the macro Recorder that is part of Microsoft Windows, do not assign your macros to Alt key combinations because they are not played back correctly while *3-D Keyboard* is running. Use Shift and/or Ctrl key combinations instead.

3-D Keyboard does not translate keystrokes properly when used with the Microsoft Windows Calculator.

Future and Related Products

Future versions of 3-D Keyboard will support more languages and eliminate other <u>limitations</u> of this version.

If future versions of Microsoft Windows use an expanded character set, future versions of *3-D Keyboard* will also use this character set.

Russian and all modern Slavic languages are supported by a package called *Cyrillic Support*, available from the <u>publisher</u> of *3-D Keyboard*. In addition to a keyboard program similar to *3-D Keyboard*, this package includes Cyrillic-and-Latin screen fonts and matching fonts for dot-matrix and laser printers.

Other laser printer fonts are also available from the publisher of 3-D Keyboard.

Sending Suggestions for Improvement

The creators of *3-D Keyboard*, Peter Cassetta and Slava Paperno, may be reached c/o Exceller Software Corp., 223 Langmuir Lab, Ithaca NY 14850 or c/o Department of Modern Languages and Linguistics, Cornell University, Ithaca, NY 14853. Several other computer programs for teachers and students of foreign languages have been written at the Department by this team and by other linguists.

Publisher

Exceller Software Corp., 223 Langmuir Lab, Ithaca, NY 14850, tel. (607) 257-5634, fax (607) 257-1665.

License Agreement

Grant of license. Under this license you may:

- a) use 3-D Keyboard (the "software") on only one machine at a time, unless an agreement with Exceller Software Corporation ("Exceller") specifies otherwise
- b) copy the software for backup
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Windows Keys

This general information about the use of the keyboard in Windows was prepared by Microsoft. Some of the sections may be easier to read if you enlarge the Help window

Cursor movement keys
Dialog box keys
Help keys
Menu keys
System keys
Window manipulation keys

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 ARROV	N 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

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.
(This feature is not	available in all Windows applications.)

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 <u>Help Keys</u>)

Window manipulation 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.