

# EZ Keys™ XP User Manual

For Windows®XP, and Windows® 2000

words+

EZ Keys™ xp



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## **Words+ Technical Support**

In the event you have difficulty installing or using E Z Keys XP, please refer to the support options below. Words+ offers free technical support for most products purchased from Words+ or a Words+ dealer. For more information on specific products covered by our technical support policy, please contact a Words+ representative.

You may reach Words+ Technical Support in the following ways:

Toll Free (US & Canada)	(800) 869-8521
Telephone	(661) 723-6523
Fax	(661) 723-2114
E-mail	support@words-plus.com

Before contacting Technical Support, please read the Troubleshooting section of this manual.

**Note:** We provide Technical Support for only those products purchased from Words+. Words+ cannot support products sold by other parties.

## **1.0 Introduction**

### **Welcome**

Welcome to E Z Keys XP, the most advanced software ever developed for adapted access to Windows XP and for text-based augmentative communication. This remarkable program enables you to operate your Windows-based computer quickly and efficiently.

With the introduction of Microsoft's Windows XP operating system, Words+ has created a new version of E Z Keys from the ground up to take full advantage of the new and exciting innovations in this version of Windows. In addition to improved navigation and streamlined graphics, several new features have been incorporated into E Z Keys XP, including secure log-on operation, a valuable feature that enhances privacy and security. The program also includes SAPI 5 capability, allowing the user to choose from a wider variety of synthesized voices available in the market today.

This manual will assist you with the installation and setup of E Z Keys XP and will serve as a reference guide. Be sure to view the instructional videotape that came with your software. If after checking these references you need additional assistance, contact your dealer or Words+ Technical Support.

### **About this manual**

This manual contains instructions on how to install and use your E Z Keys XP software:

- Running E Z Keys XP
- Choosing your input method
- Configuring E Z Keys XP settings
- Using various E Z Keys XP features
- Accessing E Z Keys XP menus
- Troubleshooting basic problems

### **Warnings, Notes and Tips**

**Warnings** must be followed to avoid bodily injury or damage to your hardware or software.

**Notes** contain important information about E Z Keys XP.

**Tips** contain hints you may find useful when operating E Z Keys XP.

## 2.0 How E Z Keys XP Works

E Z Keys XP is a software program that allows the user to communicate using a computer. E Z Keys XP comes with a special hardware device called a SoftKey (sometimes called a switch adapter or "SWAD").

You may run E Z Keys XP by itself or use it to run other standard Windows programs on your computer. E Z Keys XP makes physical access easier through a number of acceleration techniques that let it do some of your work.

E Z Keys XP also provides the ability to generate speech output at any time while you are running standard Windows programs. An optional voice synthesizer generates speech output.

Physical access for Windows programs usually means using a keyboard and a mouse. With E Z Keys XP (and an appropriate switch, such as the Words+ Infrared-Sound-Touch [IST] Switch), you can operate your computer with as little as the blink of an eye or even just by eye movement, if blinking is difficult. You can turn virtually any controlled motion - head, hand, finger, foot, eye, etc. - into a switch action that E Z Keys XP can detect.

### SoftKey

The hardware SoftKey, shown in Figure 2-1, connects to the parallel port of your computer. It serves two purposes: (1) it is a software protection device, and (2) it is a switch and switch-type joystick interface.

Note: If your system includes a MicroCommPac or CommPac, the SoftKey is inside the MicroCommPac or CommPac.

Without a SoftKey connected to the parallel port, the software runs in demo mode. All features are operational in this mode; however, the maximum hits on the Enter key per run is twenty. You can rerun the program as many times as you like, but each time it will terminate after 20 Enter keys or 100 keystrokes, whichever comes first. You can type an entire paragraph without hitting the Enter key, so the demo mode allows you to truly experience the features of the program.



Fig. 2-1 Words+ SoftKey

The SoftKey also serves as the switch interface for those who operate the computer using one or more switches or a joystick. You can plug in one or two switches or a switch-type joystick, which can operate as four or five switches. You select the specific access method you want - keyboard, switches, joystick, mouse, and Morse code - in the Input Menu.

### Computer Access

There are several access methods (input methods) available in E Z Keys XP:

- Standard keyboard
- Special keyboards
- Morse code
- Switch (es) or joystick

The user can switch between methods at any time without restarting E Z Keys XP or any standard Windows programs that are running.

### **Speech Output Communication**

One of the primary purposes of E Z Keys XP is speech output communication. This is provided in several ways. For example, you might be writing a letter, surfing the Internet, or playing a game, when someone wants to talk with you. With E Z Keys XP, simply select the SideTalk window, and you are immediately able to create novel sentences and quickly say any of thousands of preprogrammed phrases and sentences.

You can even talk without leaving the application program you are running, i.e., without going into SideTalk. This is done using Instant Speech abbreviations, such as GM for "Good morning" or SYL for "See you later." You decide what abbreviations you want, and what they should say.

### **Writing**

Experience has taught us that writing is sometimes more important than speech output for a large number of users, particularly for those whose speech output is significantly slower than that of their speaking companions. Writing can be done at your own pace and is completely under your control. It allows you to prepare a large quantity of information beforehand. When a speaking companion comes to visit, you are no longer at the mercy of someone who is unwilling to wait while more complex sentences are formed. You can say exactly what needs to be said by forming sentences ahead of time and saving them on disk or printing them on a printer. This allows you to get across not only your message but also the tone you want to convey (urgent, angry, happy, etc.).

### **Computer Abilities**

For most users of E Z Keys XP, the computer is more than just a communication device. It is a major part of their life, providing an outlet for expression and control that is unmatched by anything else they do. With the power of Windows and the numerous software packages now available, the world is open to anyone who can operate a switch.

With the proper hardware and software, users can take advantage of multimedia, powerful reference materials on a variety of subjects, numerous forms of entertainment, and worldwide communication through e-mail and the Internet.

**Warning:** If by installing additional hardware or software, you corrupt the installation of E Z Keys XP, we briefly will try to assist you by telephone. If the problem cannot easily be solved in a few minutes, we will require you to ship your system to us so that we can correct the problem. You will have to pay the shipping and the hourly rate for our technicians/engineers who do the work, even if they are unable to make your new items work and have to reset your system to a configuration that works with E Z Keys XP. In order to minimize such problems, call us before you purchase or install anything new to ensure there are no known conflicts.

### **3.0 Installation**

This section provides installation instructions for E Z Keys XP. If you received your computer with the program already installed, then you will not need the instructions contained here. You may be interested in the directory structure described in paragraph 2.2.

#### **Minimum System Requirements**

The minimum requirements we recommend to run E Z Keys XP quickly and efficiently and to provide sufficient resources (memory, disk space, etc.) for other programs to run at the same time are as follows:

- 233 MHz Pentium processor (300 MHz recommended)
- 64 MB of RAM (128 MB recommended)
- 10 MB hard disk drive
- Available USB or parallel port
- Sound system (if using speech output feature)

#### **Hardware Connections**

If you obtained a complete system from Words+ or one of our dealers, you can skip this section. If you obtained software and a voice synthesizer to use with a computer you obtained elsewhere, this section provides the instructions you need to connect the various hardware items together in order to use your system.

**Warning:** It is always best to turn off all power switches on your computer, as well as on your voice synthesizer, printer, and other peripherals, before plugging and unplugging items, such as the SoftKey or the MicroCommPac. Be in a static-free environment (preferably a room with no carpet) and ensure that you are not carrying a static electricity charge before you touch the connectors. You can do this by touching a water faucet, a refrigerator, or other large metal object just before you handle the connectors.

#### **SoftKey**

The SoftKey, described earlier, should be connected to the parallel port of your computer. If you are using a printer, it plugs into the female 25-pin connector on the SoftKey.

**Note:** If your printer is plugged in, you must have the printer power turned on before starting E Z Keys XP. If you do not, the program may not be able to detect the SoftKey, and it will run in demo mode.

#### **Input Device**

If you are using an input device other than the keyboard or a built-in mouse-type device, you need to connect it to the computer. Plug switches and switch-type joysticks directly into the SoftKey.

## E Z Keys XP Installation

You should have received one CD-ROM for E Z Keys XP. If you are using a software voice synthesizer, you may have one to three disks for it as well.

- Put the CD-ROM into your CD-ROM drive. The setup program will automatically start up. If it doesn't, please follow these instructions:
- From the taskbar in Windows, select Start and then Run.
- Type d:\setup.exe  
where "d" is the drive letter of your CD-ROM.

**Note:** If this is a first-time installation:

- Follow the instructions on the screen to complete the installation

**Note:** If E Z Keys is already installed on your computer; the Welcome Screen will look like this:

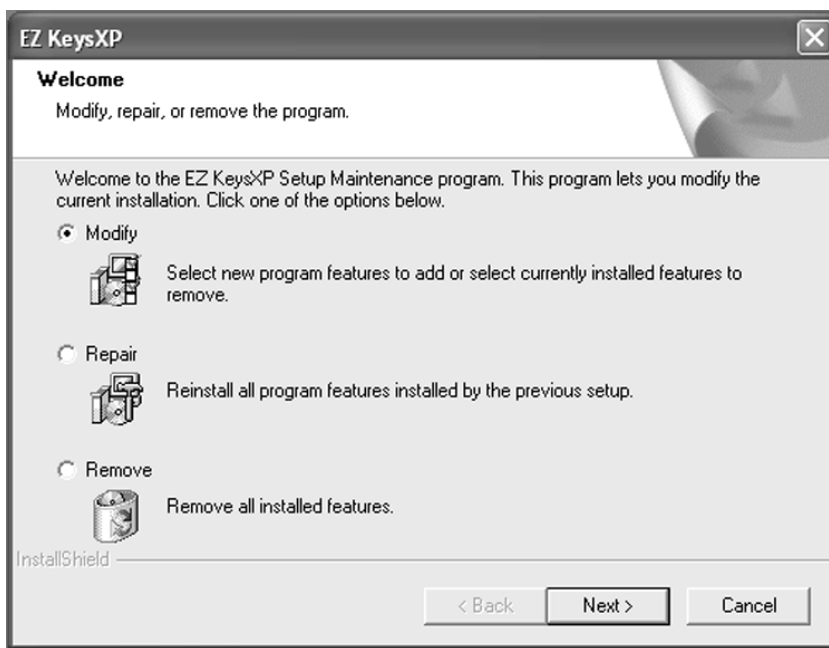


Figure 3-1. E Z Keys XP Welcome Screen

You should select MODIFY if you are upgrading your E Z Keys XP installation with a newer version.

You should select REPAIR if your current version of E Z Keys XP is damaged or not working properly.

You should select REMOVE to completely uninstall E Z Keys XP from your system.

After making your selection, press next and follow the instructions on the screen.

### Software Updates

Your E Z Keys XP software is supported by our policy of free software upgrades for life. If you would like to receive a software update, please contact your dealer or call Words+ at 800-869-8521. If you have access to the Internet, the updates are available for download at our Web site: [www.words-plus.com](http://www.words-plus.com).

## 4.0 Program Reference

This section is a reference for all of the menus and features of E Z Keys XP. It explains how to start the program, how the special features work, and how to set each control in each menu.

### Starting E Z Keys XP

Most users will want E Z Keys XP to load automatically each time they turn on their computer. Some may prefer to start the program themselves.

### Automatic Startup

To have E Z Keys XP load automatically every time Windows XP is loaded, follow these steps\*:

- Click on Start.
- Click on All Programs.
- Right click on Startup Window, click the File Menu and choose New, then Short Cut.
- Browse to the C:\Program Files\Words+, Inc.\EZ Keys Folder and double-click the EZKeysXP.exe file
- Click Next, then Finish.
- The next time you Start your computer, E Z Keys XP should start up automatically

### Manual Startup

If E Z Keys XP is not loaded automatically, then you'll have to load it manually. To load E Z Keys XP manually, double click on the E Z Keys XP icon. \* After a short delay, you will see the title screen. You may see a brief message or two advising you of certain files that E Z Keys XP uses, such as the exception table for voice synthesizers or the word vocabulary file. When the program has finished loading, the title screen disappears and the word prediction box should appear (unless it has been turned off). If the title screen disappears and you see nothing, check to be sure that E Z Keys XP is loaded by pressing the control key (Ctrl), then the letter M. This brings up the Main Menu (unless you changed the Ctrl-M to another hotkey).

\*If you do not have an icon on your desktop for E Z Keys XP, follow these steps to create one:

- Right click with the mouse on the desktop
- Select New off the menu, then select Shortcut
- In the Create Shortcut window, click Browse
- Browse to where you have installed E Z Keys XP  
(typically C:\Program Files\Words+, Inc.\EZ KeysXP\)
- Select the file called EZKeysXP.exe by double clicking on it
- Click Next, then click Finish

## Basic Operations

This section describes the most basic operations you can perform in E Z Keys XP. For specific operations that are unique to keyboard, scanning, mouse, or Morse code, see the sections for each of those input methods.

Note: In the discussion below, if the text says to "select" a key, it means using whatever input method you use. If you use the keyboard, press the key; if you scan, scan to the key on your scanner; if you use Morse code, send the code for that key.

### Hotkeys

E Z Keys XP uses the Ctrl key with its hotkeys. You can change these keys by going to the Input Menu and then selecting Hotkeys. You must either use Ctrl, or use Ctrl and Alt along with a letter. The defaults are as follows:

Ctrl M	Main Menu
Ctrl T	SideTalk
Ctrl X	Unexpand
Ctrl W	Read word box
Ctrl Q	MouseKeys
Ctrl F	Toggle feature

### Moving the Word Prediction Box

There may be times when you want to move the word prediction box or scan box. You can do this with the keyboard using the following key combinations:

Ctrl-Alt-1	moves to upper left corner
Ctrl-Alt-2	moves to upper right corner
Ctrl-Alt-3	moves to lower left corner
Ctrl-Alt-4	moves to lower right corner

With switch scanning, a faster way is to select the Mouse scanner (Ms on the alphabet scanner), and select:

UL	moves to upper left corner
UR	moves to upper right corner
LL	moves to lower left corner
LR	moves to lower right corner

Note: E Z Keys XP has a special focus sensor that will automatically try to move the box away from any control that currently has the focus. If you notice that the box moves by itself, it is because it is trying to avoid covering a control that has the focus.

## Status Line

The status line is the top line of the word box (or scan box depending on your input method). Also called the status bar, it consists of a set of indicators that tell you the status of certain keys and features in the program.

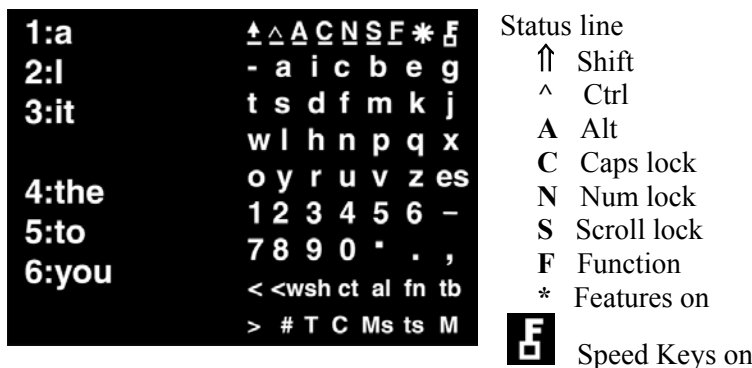


Figure 4-1. Status Line

The underline below a symbol indicates that the key is latched, or selected (see Latching Keys below). For example, the A indicates that you pressed the Alt key. It will clear after the next alpha or numeric keystroke. An underlined A, however, indicates that the Alt key is latched and will not be cleared until you select the Alt key again.

## Latching Keys

E Z Keys XP provides a special feature to latch the Control (Ctrl), Alternate (Alt), and Shift keys. This latching feature is a three-step process:

- 1 The first activation of any of these keys latches the key for the following keystroke. The latched key automatically releases after another keystroke. The symbol for the latched key appears in the status line, as shown in Figure 4-2 for scanning input.
- 2 Activating the latched key again before pressing another key locks the latched key. An underlined symbol in the status bar indicates a locked key.
- 3 Activate the latched key a third time to clear it. The symbol will disappear from the status line.

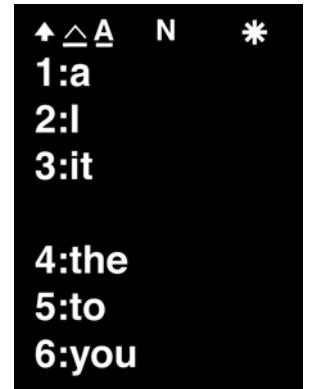


Figure 4-2. Status Line Scanning Input

**Tip:** For further explanation of the status line symbols, please see Status Line above.

For example, suppose you activate the Shift key and then the letter I. You generate the keystroke for the upper case I. The Shift key releases. If you activate the I key again, it generates a lower case I. If you activate the Shift key twice in a row, it remains latched. If you then press the I key four times, you generate "IIII." You must activate the Shift key a third time to unlatch it.

The term "activate" means to choose the indicated key using your input method, whether it is scanning, Morse code, keyboard, mouse, or another form of access.

## SpeedKeys

SpeedKeys is a feature in E Z Keys XP that currently operates only in the menus of E Z Keys XP. The SpeedKeys icon on the right end of the status line (see Status Line, p. 9) tells you when SpeedKeys are active.

With this feature, you do not have to first press the Alt key before pressing the underlined letter on a command button. For example, on the Main Menu, each command button has an underlined letter, such as the I for the Input Menu, the D for the Design Menu and the V for the Voice Menu. In Windows programs, when you see an underlined letter on a command button, you must first press the Alt key, then the underlined letter to activate the button. With SpeedKeys, you do not have to press the Alt key first - just press I for the Input Menu, V for the Voice Menu, and so on.

**Note:** Editing text within a menu, such as typing an expansion for an abbreviation in the Abbreviations Menu, is an exception. During text editing operations, the SpeedKeys feature is turned off. When you have finished editing, moving the focus away from the text box restores SpeedKeys.

## SideTalk

E Z Keys XP is designed to provide speech output communication (unless you obtained the "no voice" version, in which case you can ignore all references to voice output in this manual).

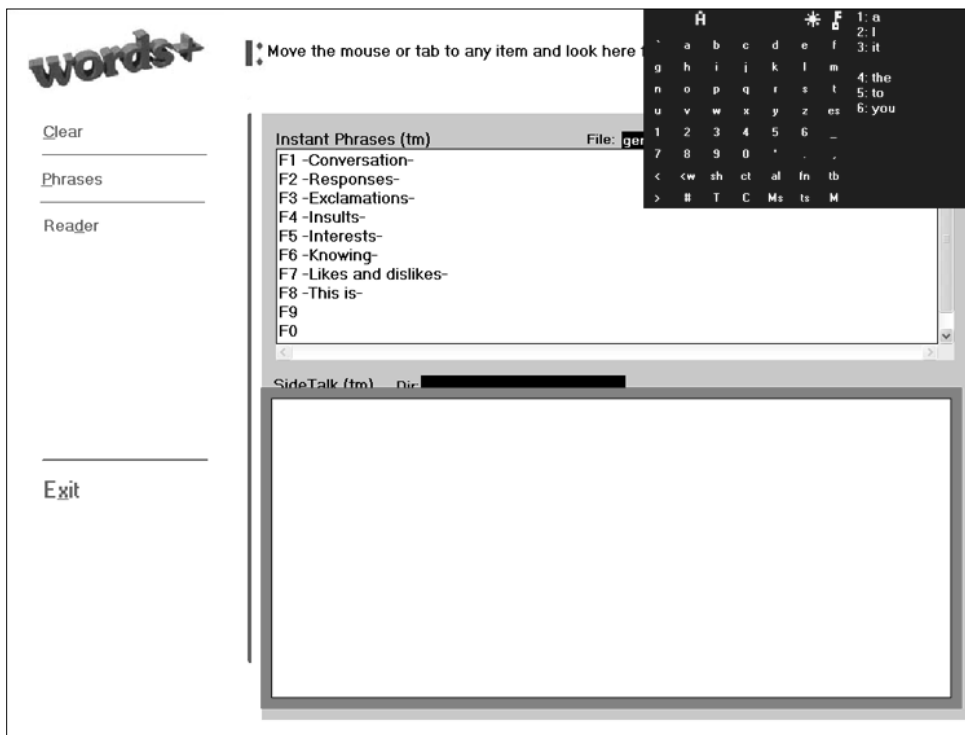


Figure 4-3. SideTalk Window

The ability to create new messages quickly and efficiently is handled by a special window called SideTalk. You open the SideTalk window by selecting Ctrl-T.

## **Constructing Sentences**

Constructing sentences in SideTalk works the same as if you were using a word processor. Use the word prediction and abbreviation expansion features as you would for writing. When you complete the message, select Enter and it will be spoken by the User Voice.

## **Instant Phrases**

Instant Phrases is an extremely powerful language strategy within the SideTalk window. With Instant Phrases, thousands of preprogrammed phrases can be accessed quickly (the term phrase includes complete sentences).

The phrases appear at the top of the SideTalk window, as shown in Figure 4-3. There are ten lines, each beginning with one of the ten function keys, F1-F10 (F0 represents F10). Each of the lines can be a spoken phrase or a group of phrases. If the phrase is to be spoken, there are quotation marks at each end of the line:

F4: "That is very interesting."

If it is a category, there are hyphens at each end of the line:

F2: -Compliments-

There are many possible levels for each key, allowing thousands of phrases in a phrase file (10 at the first level, each with 10 at the second level, and each of those with 10 at each next third level).

With Instant Phrases, phrases on a variety of topics, such as food, clothing, TV shows, music, sports, and various social group activities, can be accessed quickly, without the need to remember abbreviations or codes.

For example, suppose at the top level, the F1 key represents a category of phrases:

F1: -Breakfast-

When you select F1: -Breakfast-, the next level shows:

F1: -Cereal-

F2: -Eggs-

When you select F1: -Cereal- the Instant Phrases show:

F1: "I would like some oatmeal with brown sugar."

F2: "I would like some Cheerios."

.

.

F0: "I do not want cereal right now."

This provides 10 phrases under F1: Breakfast, F1: Cereal.

Under F1: Breakfast, F2: Eggs there could be ten more phrases:

F1: "I would like some scrambled eggs and toast."

F2: "I would like poached eggs, please."

.

.

F0: "I do not want eggs right now."

## Changing Sets of Phrases

E Z Keys XP allows you to store many sets of phrases. These are saved as phrase files on your hard disk. To change from one set of phrases to another, select the Phrases button in the lower right corner of the SideTalk window. This displays a list of the available phrase files on your hard disk. You can then select the file you want.

## Creating and Editing Phrases

The built-in phrase editor lets you create and edit phrase files quickly and easily. To use the phrase editor, select the Edit Phrases button on the SideTalk screen. This loads the current phrase file (the one shown in the Instant Phrases window) into the editor.

Notice that the phrase file has some lines that begin immediately at the left side, some begin with one dot, and some begin with two dots. The dots indicate the levels in the phrases.

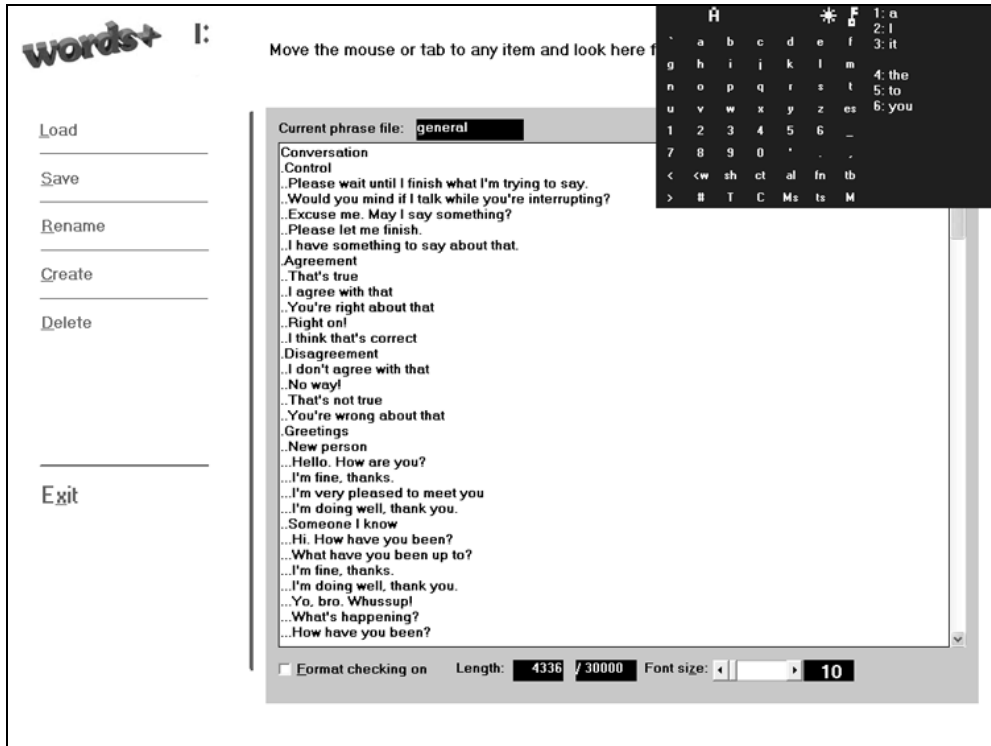


Figure 4-4. Instant Phrases Editor

In the example shown in Figure 4-4, "Conversation" has no dots, so it is at the top level. Within "Conversation" there are several items shown with a single dot in front of them.

- Control
- Agreement
- Disagreement

These are visible in Instant Phrases as

F1:-Control-  
F2:-Agreement-  
F3:-Disagreement-

These are at the second level.

After "Agreement" you see  
...I agree with that  
...Right on!  
...That's true

These display in Instant Phrases as

F1: "I agree with that"  
F2: "Right on!"  
F3: "That's true"

...You're right about that

F4: "You're right about that"

These are at the third (and final) level. To edit a phrase file, follow these steps:

- Open SideTalk.
- Select the Phrases button.
- Select the Edit Phrases button. You are now in the Phrase Editor.
- At the top of the screen, there is a box entitled Current Phrase File. This displays the name of the current file that is loaded and ready for editing. To select a different file, select the Load button and choose the phrase file you wish to edit.
- When you've finished editing the file, select Save.

## Reader

A special feature called Reader makes giving talks to large groups easy. Reader provides a way to quickly present a prepared speech, while simultaneously allowing access to both Instant Phrases and SideTalk to handle questions and interruptions that might occur during the presentation.

To give a speech, first create it in a word processor. Files you want to use in Reader should not have any special formatting (bold text, fancy fonts, etc.) because this will interfere with Reader's ability to read the file. Save it in the word processor as a TEXT ONLY file (with the extension .txt). Remember the name of the file and note where it is saved.

When you are ready to give your talk (or to practice it), go into SideTalk and select Reader. Then select Load to bring up the file selector. Go to the directory that contains the file, and select it. The file is then loaded into the Reader window, and the first sentence is highlighted, as shown in Figure 4-5.

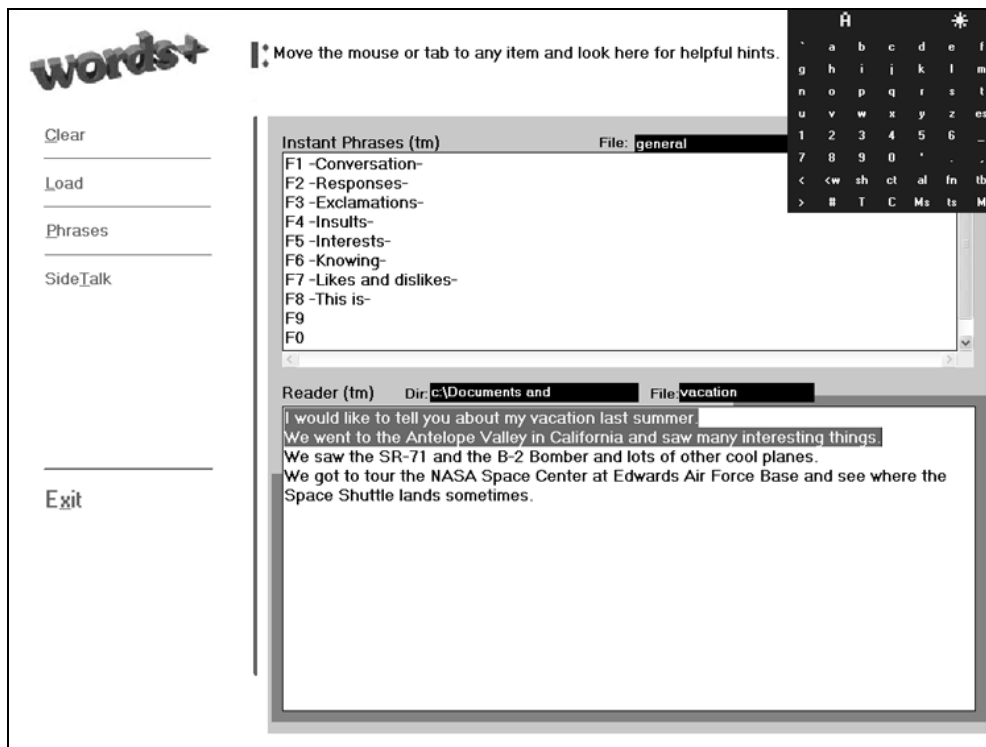


Figure 4-5. Reader

When you are ready to speak the highlighted sentence, select Enter. The sentence is spoken and the highlight moves on to the next sentence in the talk. Select Enter when you want that sentence

to be spoken, and the highlight moves to the next sentence, and so on. This enables you to control the pace of the presentation one sentence at a time.

If you need to repeat a sentence, you can select the up arrow or backspace key and the highlight will move back one sentence. If you decide to skip a sentence, select the down arrow key or the space and the highlight will move down one sentence.

### Changing the System Setup

Once E Z Keys is loaded, you can make changes to how it works. You do this by accessing the Main Menu. If you are using the keyboard, select Ctrl-M. If you are scanning, the Main Menu can be accessed either by selecting "Ctrl" and then "m" or by selecting the "M" in the lower right corner of the main alphabet keyboard operated with your switch.

### The Main Menu

From the Main Menu, you can go to 10 other menus, as shown in figure 4-6. To go to any of these menus, select the appropriate button or press the key for the underlined letter in the menu name, such as "I" for the Input Menu. You can also select any menu by pressing the Tab key until the highlighted box surrounding one of the buttons moves to the desired button. If you're scanning, press your switch when the highlighter reaches the desired menu button.

- To display information about your system, select the System Info button.
- To exit the Main Menu and return to E Z Keys XP, select the Run E Z Keys XP button.
- To exit the entire program, use the Exit button.

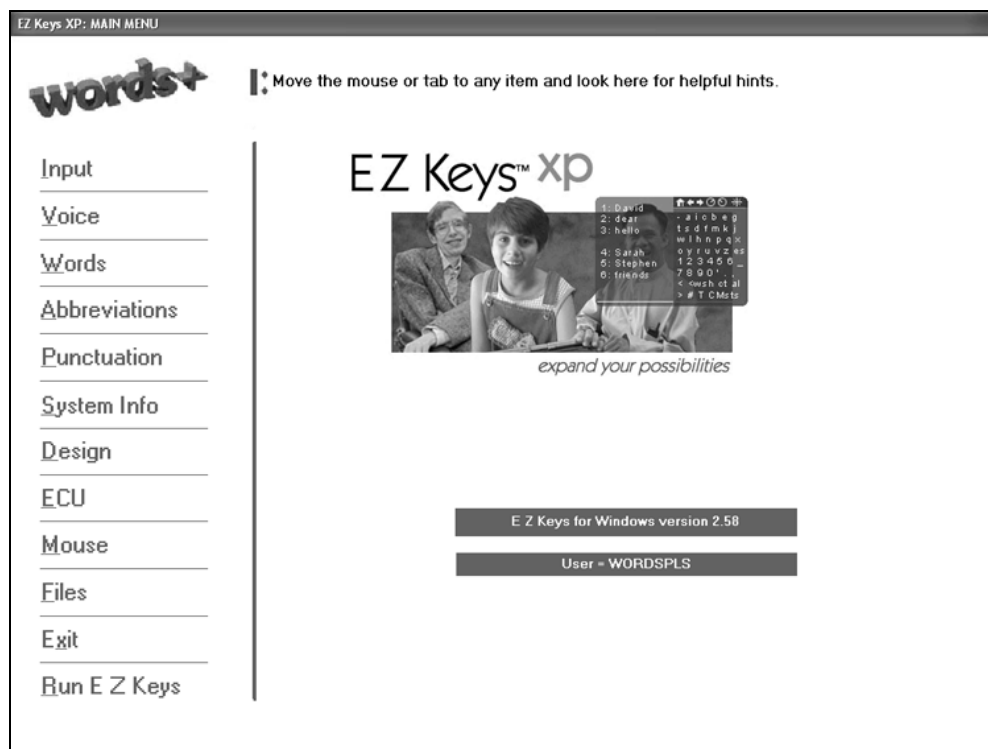


Figure 4-6. E Z Keys XP Main Menu

## Input Menu

The Input Menu allows you to select your input method and to make any required adjustments to it. E Z Keys XP supports the following input methods:

- Keyboard
- Morse code
- Switch scanning
- Joystick (4 or 5 switches)
- Mouse or mouse emulator

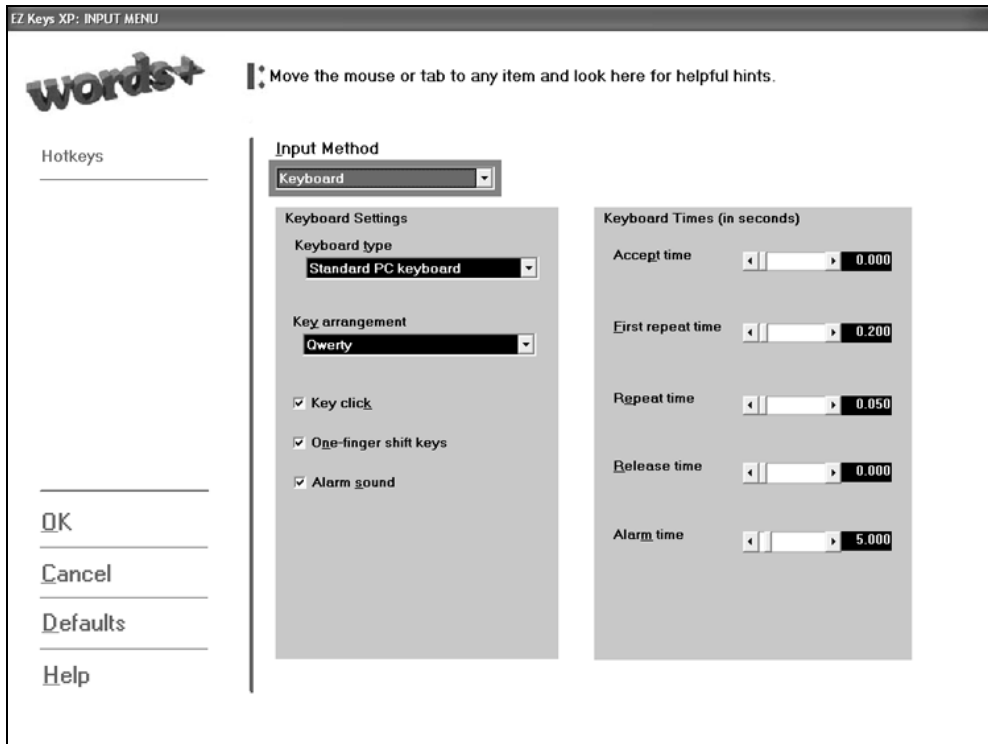


Figure 4-7. Input Menu, Keyboard Input Method

For the initial setup, someone who can use a mouse and keyboard should make the selections. Once the user's input device has been selected and adjusted, then the user can make all further selections.

To select or change input methods, go to the Input Menu and select the appropriate input method from the drop down list. You can make the selection by clicking with the mouse.

Once you have selected the input method you want, you can set a number of adjustable timing parameters to make using the selected method as comfortable as possible.

Figures 4-7 through 4-8 display the Input Menu using various input methods.

The values shown are the defaults for all menu settings.

## Keyboard Operation

Keyboard users of E Z Keys XP find a number of convenient features and adjustments to reduce errors, reduce keystrokes, and save time.

### **Keyboard Type**

Most users have a Standard keyboard. Other keyboard options are LUCY assistive keyboard and Other assistive keyboard. These are not standard keyboard types. You must have one of these assistive keyboards connected to your computer before you select it.

**Recommended setting: Standard**

### **Key Arrangement**

E Z Keys XP provides two arrangements for the keyboard - standard Qwerty and Alphabetic. On an alphabetic keyboard, the first line is ABCDEFGHIJ. On a Qwerty keyboard, the first line is QWERTYUIOP. Select the arrangement by going to the Key Arrangement drop-down list and choosing the name of the arrangement you have.

**Recommended setting: Qwerty**

### **Key Click**

Produces a click sound from the computer's speaker each time you press a key.

**Recommended setting: On**

### **One-Finger Shift Keys**

This is an important feature of E Z Keys XP, often called "sticky keys." The Shift, Ctrl, and Alt keys behave differently with One-finger Shift keys turned on. Normally, you press the Shift (or Ctrl or Alt) key down and a second key at the same time to perform a desired function. Check the box next to One-finger Shift keys and you can press the Shift key, release it, and then press the second key.

**Recommended setting: On.**

### **Alarm Sound**

If you check this box, E Z Keys XP produces an audible alarm through your computer's WAV sound system (if you have one) when you press and hold a key for longer than the alarm time (see Alarm Time, p. 17).

**Recommended setting: On**

### **Accept Time**

Accept time is the amount of time you must hold down a key before E Z Keys XP accepts it as a valid input. This time can be adjusted from zero to 10 seconds. Example: The accept time is set to 2.0 seconds for a keyboard user. The user has to hold down the keys on the keyboard for two full seconds before the keystroke is accepted. E Z Keys XP will not recognize a key that is pressed and released before the accept time is up.

**Recommended setting: Zero**

### **First Repeat Time**

The first repeat time is the length of time you must hold down a key after the accept time has passed in order to have E Z Keys XP repeat the selected item.

**Recommended setting: 1 second**

### **Repeat Time**

The repeat time is the time, once repeating has started that elapses between successive repetitions of the selected item.

**Recommended setting: 0.5 seconds**

### **Release Time**

The release time is the amount of time E Z Keys XP waits after you release a key to accept the fact that you released it. It is the accept time in reverse. It is used when you may have difficulty holding down a key long enough to get past the accept time, releasing it before the accept time is expired and then pressing it again immediately. If the time the key is released is less than the

release time, E Z Keys XP acts as if you had not released it. Release time should be set as short as possible to eliminate most mistakes caused by accidentally releasing a key. If you set it too long, it might slow you down.

Example: Accept time is 1 second, and you press a key but accidentally release it and come right back down on it after only 0.5 seconds. As long as the release time is longer than the amount of time you let go of the key, E Z Keys XP responds as though you held the key down the whole time. Thus, you would not have to start counting the accept time all over just because you prematurely released the key.

**Recommended setting: Zero**

### **Alarm Time**

If the Alarm Sound box on the left side of the Input Menu is checked, an audible alarm sounds if you press and hold a key for longer than the designated time. This can sometimes be used to get someone's attention in a noisy room.

**Recommended setting: 20 seconds**

**Warning:** Do not depend on this alarm sound for emergencies. It may not be loud enough, or it may not operate for various reasons (speaker volume turned down, etc.)

### **Scanning and Joystick Operation**

You can operate E Z Keys XP with one or more switches or a switch-type joystick (with up to five switches) using the scanning controls. (You cannot use a standard joystick with E Z Keys XP.)

### **Scanning Controls**

For those who access E Z Keys XP with switches or a switch-type joystick, the program offers a feature to make access and operation of controls in the program's own menus easier. Control scanning functions by highlighting the controls on the menu, stepping from one control to another until you activate the switch. This way, you directly select the command button you want, instead of scanning through the alphabet to make selections.

When you enter the E Z Keys XP Main Menu, you automatically enter control scanning mode. The word box and alphabet scanner disappear and a "highlight box" appears around one of the controls. The box steps from control to control until you activate your switch.

At this time, control scanning only operates within the menu system for E Z Key XP and on your Windows XP desktop. It does not operate within other application programs. The Radar Mouse and Crosshair Mouse are the most efficient ways to activate command buttons in other software when you are using switch input.

### **Scanning Keyboards**

For switch-scanning input modes, E Z Keys XP provides a set of scanning "keyboards," or arrangements of characters, which, when selected, cause the computer to act as though the corresponding key on the keyboard had been pressed. This is called keyboard emulation (see also mouse emulation, p. 44).

E Z Keys features the following scanner keyboards:

- English Alphabetical
- English Alphabetical Alternate
- English Frequency of Use
- English Vowels/Frequency
- English Word Prediction
- Numbers and Punctuation Scanner
- Mouse Scanner
- Cursor Scanner
- Control Scanner

## Alphabet Scanners

The five alphabet scanner arrangements are shown in Figures 4-8 through 4-12. Each contains all of the letters in the English alphabet and a number of additional keys that are often used in generating text. To select the scanner type, refer to the section on Scanning Menu Controls, p. 22.

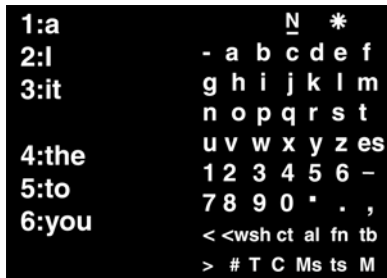


Figure 4-8. English Alphabetical



Figure 4-9. English Alphabetical Alternate

The English Alphabetical scanner provides the letters in alphabetical order. The English Alphabetical Alternate is also in alphabetical order, resembling the scanner used in the DOS Scanning WSKE program.

The efficient Frequency of Use scanner is based on research studies performed at Words+ to determine how frequently letters are used as the first letters in words. Most of the time, the first letter in a word is near the upper left corner, where the fewest steps are required. Once you get used to it, your speed should be faster with this arrangement than with any other.



Figure 4-10. Frequency of Use

English Vowels/Frequency scanner, a variation of the Frequency of Use scanner, places the vowels in the first row for easier access.

English Word Prediction is also based on research studies performed at Words+ and is our preferred scanner setup. It takes a little practice to get used to the location of the letters, but after using this scanner for a week or so, you will notice how useful the arrangement is.

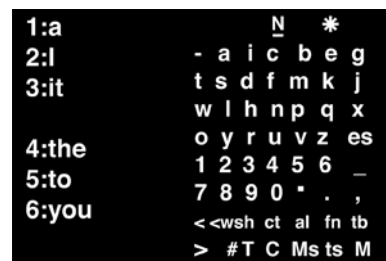


Figure 4-11. English Vowels/Frequency

On all of the alphabet scanners, the letters and basic punctuation marks (.,") generate the equivalent keystrokes, but the numbers are used for word prediction and word endings.

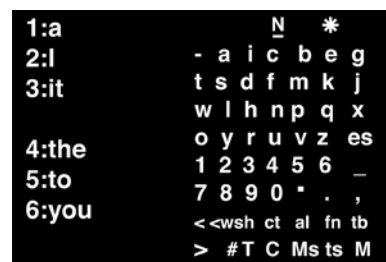


Figure 4-12. English Word Prediction

In addition to the letters of the alphabet, the numbers, and the common punctuation marks (.,"), the remaining "keys" are as follows:

- al** Alt
- C** Go to Cursor scanning keyboard
- ct** Ctrl
- es** Esc
- fn** Function - used along with numbers to emulate function keys\*
- M** Go to Main Menu
- Ms** Go to Mouse scanner
- sh** Shift
- T** Go to SideTalk
- tb** Tab
- ts** Tab scan (used to scan through E Z Keys XP's own menus)
- #** Go to Numbers and Punctuation scanner
- >** Enter
- <** Backspace
- <w** Go back a word (incorrect word selected from word prediction box)
- Hyphen - also causes word prediction box to change to word endings (Note: choose hyphen again for six more word endings)
- \_** Space (use the \_ on the numbers and punctuation keyboard for underline)

**Note:** The fn key does not emulate the fn key found on many notebook computer keyboards. That key cannot be emulated in software. The fn key is used to generate normal function keys (F1-F10) by first selecting fn and then selecting the number (use 0 for 10).

### Numbers and Punctuation Scanner

This is the scan grid used to type numbers. All symbols function as their corresponding keys.

E Z Keys XP also features four additional symbols:

- ^** (upper left corner) - Go to alphabet scanner (use the ^ at the end of the fifth row for the ^ symbol)
- nl** - NumLock
- sl** - Scroll Lock
- cl** - Caps Lock

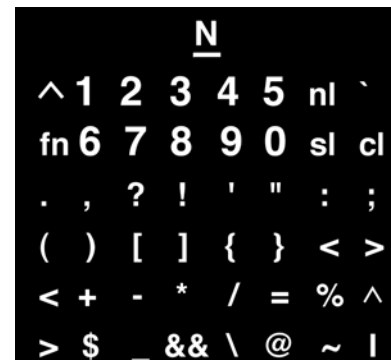


Figure 4-13. Numbers and Punctuation Scanner

### Cursor Scanner

The Cursor Scanner, shown in Figure 4-14, generates cursor movements and other keystrokes that are often used when moving the cursor.

The Cursor Scanner keys function as follows:

<b>^</b>	Go to alphabet scanner	<b>al</b>	Alt
<b>arrows</b>	Move cursor in direction	<b>UL</b>	Moves box to upper left
<b>k</b>	Numeric keypad -	<b>UR</b>	Moves box to upper right
<b>&gt;</b>	Enter	<b>bk</b>	Break
<b>pu</b>	Page Up	<b>tb</b>	Tab
<b>pd</b>	Page Down	<b>in</b>	Insert
<b>hm</b>	Home	<b>de</b>	Delete
<b>en</b>	End	<b>LL</b>	Moves box to lower left
<b>k+</b>	Numeric Keypad +	<b>LR</b>	Moves box to lower right
<b>sh</b>	Shift	<b>rs</b>	System Reset
<b>ct</b>	Ctrl		



Figure 4-14. Mouse Scanner

**Tip:** System reset (rs) terminates E Z Keys XP and performs a Windows shutdown.

### Mouse Scanner

The Mouse Scanner, shown in Fig. 4-15, provides complete control of the mouse. Select the Mouse Scanner by choosing Ms on the Alphabet Scanner or the Control Scanner.

	Go to the alphabet scanner
	Radar Mouse clockwise
	Radar Mouse counter-clockwise
	Crosshair Mouse top down
	Crosshair Mouse bottom up
	Click left button
	Double click left button
	Hold left button (drag)
	Double click right button
	Click right button
	Hold right button (drag)

<b>arrows</b>	Move mouse in each direction
<b>UL</b>	Move box to upper left corner
<b>UR</b>	Move box to upper right corner
<b>LL</b>	Move box to lower left corner
<b>LR</b>	Move box to lower right corner

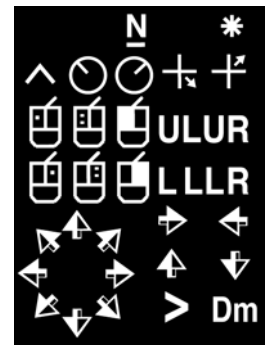


Figure 4-15. Mouse Scanner

### Control Scanner

If you select a drop-down list or other control in one of the E Z Keys XP menus, you can adjust that control. If it is a list, for example, a special Control Scanner, shown in Figure 4-16, appears.

The Control Scanner allows you to move up, down, left, or right; to move to the beginning (<); to move to the end (>); to return to the alphabet scanner (^); or to return to tab scanning (ts). Note that the F4 key is used to open drop-down lists in Windows.

Symbols for Control Scanner are as follows:

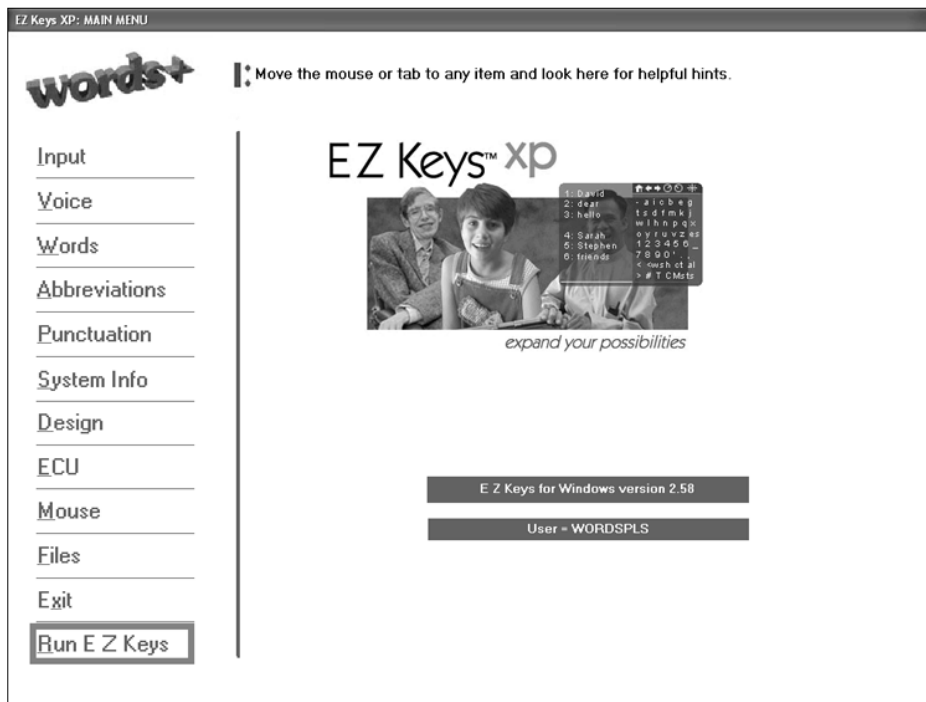
^	go to Alphabet Scanner
ts	Start tab scanning
_	Space
F4	F4 key
>	Enter key
Ms	Go to Mouse Scanner
Tb	Tab
Sh	Shift
arrows	move cursor in direction
⏪	home
⏴	page up
⏵	page down
⏩	end



Figure 4-16. Control Scanner

### Tab Scanning

Tab scanning is a special function in E Z Keys XP that works within its own menus. The term comes from a Windows function that allows the Tab key to be used to move from one control to another. Tab scanning is a way of scanning as though the tab key automatically was being pressed at each scan step.



The highlighter (a colored rectangle) moves from one control to the next when tab scanning is operating. Just as if you were pressing the Tab key; the control is activated when you select a control that is highlighted.

Figure 4-17. Main Menu with Tab Scanner

### Scanning Menu Controls

This section explains each of the controls on the Input Menu when switch scanning is the input method.

**Tip:** For a complete list of the functions of the keys on each scan grid, see pages 18-21.

## Scan Mode

The scan mode refers to the way the highlighter moves through the scanner keyboards.

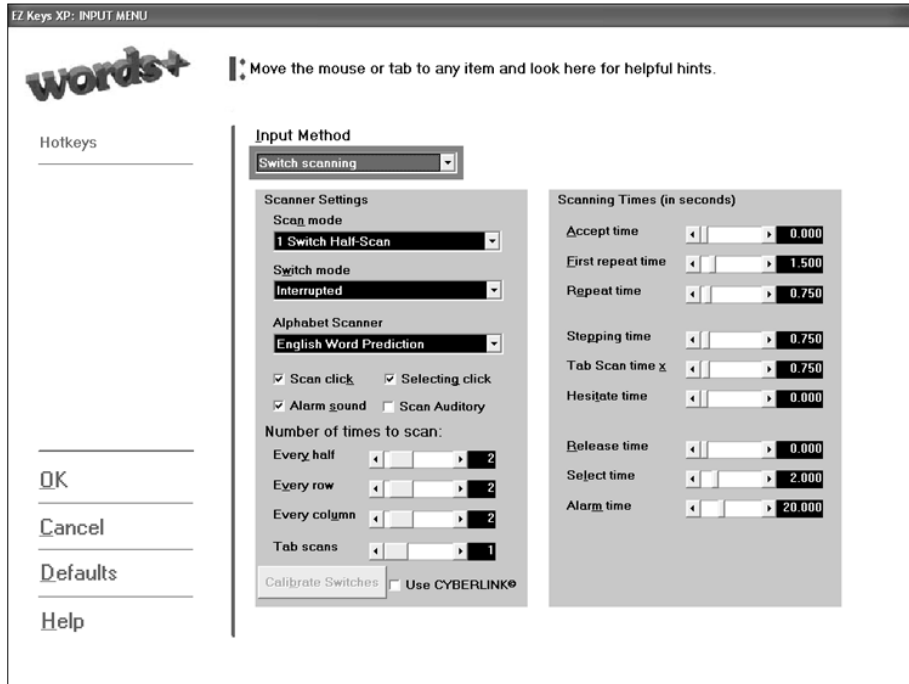


Figure 4-18. Input Menu with Scanning Input Method

*1 Switch Half Scan:* The scan first highlights the top half of the current scanner and then the bottom half, moving at the Stepping time you've set. When you activate your switch, the half that is highlighted is selected, and a row-column scan within that half begins. Activate the switch a second time to select a row and a third time to select an individual cell.

*1 Switch Row-Column Scan:* Highlights each row in order, with the scanner moving at the selected Stepping time. When you activate your switch, the highlighted row is selected, and the scanner changes to a column scan, moving left to right one cell at a time. Activate your switch a second time to make your selection.

*1 Switch Linear Scan:* Highlights each cell beginning with the first row. After the scan has moved all the way across the first row, it scans each subsequent row until all rows have been scanned. After the last row has been scanned, it begins again with the first row. When you activate your switch, the highlighted cell is selected.

*2 Switch Half, Row-Column, and Linear Scan:* Similar to the one-switch modes except that one switch acts as the Move switch and the other as the Select switch. Activate the Move switch until the desired item (half, row, or column) is highlighted, then press the Select switch. If needed, go back to the Move switch and move the highlighter again. Activate the Select switch to make the next selection.

**Recommended setting: 1 Switch Half Scan**

### **Switch Mode**

E Z Keys XP offers the following switch mode options:

*Interrupted:* In this mode, the scanner automatically moves until you interrupt it by activating your switch. This is sometimes called automatic scanning.

*Directed:* In this mode, nothing happens until you press your switch. When you press and hold the switch, the scanner steps from one item to the next until you release the switch.

*Stepped:* In step scan, the scan moves only once when you press your switch - no matter how long you hold the switch closed. When you release the switch, a timer starts (the Select time). If you do not press your switch again before the timer finishes, then the highlighted item is selected.

**Recommended setting: Interrupted**

### **Alphabet Scanner**

Using the drop-down list, select the arrangement of the Alphabet Scanner.

**Recommended setting: English Word Prediction**

### **Scanning Click**

If this box is checked, an audible click is heard each time the scanner moves a step. The click is produced through your computer's sound system (if you have one) and can be helpful for developing the sense of rhythm that goes with efficient scanning. To turn off the sound, uncheck the box.

**Recommended setting: Off**

### **Selecting Click**

If this box is checked, an audible click is heard each time you select an item.

**Recommended setting: On**

### **Alarm Sound**

Holding any of your switches closed for longer than the specified Alarm time produces an audible alarm until you release the switch (see Alarm Time, p. 25).

**Recommended setting: On**

**Warning:** Do not depend on this alarm sound for emergencies. It may not be loud enough, or it may not operate for various reasons (speaker volume turned down, etc.)

### **Scan Auditory**

Adjusts speech output to notify you what section or character is being scanned.

**Recommended setting: Off**

## **Number of Times to Scan**

*Every half* - The number of times the highlighter steps back and forth from one half to another.

**Recommended setting: 5**

*Every row* - The number of times the scanner steps through the rows before going back to scanning halves (if half scan is selected) or stopping (if row-column scanning is selected).

**Recommended setting: 2**

*Every column* - The number of times the scanner moves across a row through the cells before it goes back to row scanning.

**Recommended setting: 2**

**Tab scans** - The number of times the Tab Scanner highlights each control on a menu before stopping.

**Recommended setting: 1**

## **Accept Time**

Determines how long you have to hold a switch closed before the computer decides you really meant to press it. If you hold your switch closed for less than the accept time, the computer does not accept the selection. This is especially helpful if you accidentally activate the switch at certain times, such as when using an infrared switch with eye-blink motion.

**Recommended setting: 0**

## **First Repeat Time**

The length of time you must hold on a selected key before it repeats.

**Recommended setting: 1.0 second**

## **Repeat Time**

The length of time it takes for repeated keys to be generated once the first repeat time has elapsed.

**Recommended setting: 0.50 second**

## **Stepping Time**

The length of time it takes the scanner to move from one location to the next.

**Recommended setting: 0.75 seconds**

## **Hesitate Time**

The additional amount of time the scanner stays on the first row and first column during scanning. With half-scanning, the extra time is included in the first row of both halves. The purpose of this time is to make it easier to do the "double hit" required to select the first item in a row (actually a "triple hit" to select the top left corner of either half during half scanning).

**Recommended setting: 50-100% of the Stepping time**

## **Release Time**

The amount of time the computer waits after you release a switch before it accepts the release. If you release a switch, but close it again before the release time expires, then the computer acts as though you never released it.

**Recommended setting: 0**

**Select Time**

During directed and step scan modes, the amount of time the computer waits when you stop on a location to decide that you want to select that location. If you close a switch to move to a new location before the Select time expires, the timer resets until you stop again.

**Recommended setting: 2.0 seconds**

**Alarm Time**

The amount of time you must hold a switch closed in order to activate the alarm feature.

**Recommended setting: 20 seconds**

**Morse Code Operation**

Morse code is an extremely efficient way to operate a computer and/or communication device using one or two switches. Morse code is not hard to learn - many users learn to use it efficiently after only a few weeks practice. The fastest users of communication and computer-access systems are Morse code users, achieving rates of over 40 words per minute using word prediction and abbreviation expansion.

Morse code is supported in E Z Keys XP for both one-, two-, and three-switch operation. Morse code is similar to keyboard operation, except that you generate your keystrokes by sending the Morse codes for them instead of by pressing the keys. The Input Menu with Morse code selected is shown in Figure 4-19.

**Morse Codes**

The Morse codes used in E Z Keys XP were originally developed for E Z Keys for DOS but have been enhanced to include additional codes useful in the Windows environment. A complete list of the codes is presented in Appendix D.

**Morse Code Menu Commands**

The input adjustments for Morse code depend on the number of switches used to send the code. Figure 4-19 shows the Input Menu with one-switch Morse code selected. The controls are slightly different for two-switch Morse code.

**Switch Mode**

This control selects whether you want one-, two-, or three-switch Morse code. With one switch, dots and dashes are sent by holding your switch closed for a short or long amount of time. With two switches, one switch sends dots, and the other sends dashes. With three-switch operation, one switch sends dots, one sends dashes, and the third sends the complete character.

**Recommended setting: User preference**

**Default: One switch**

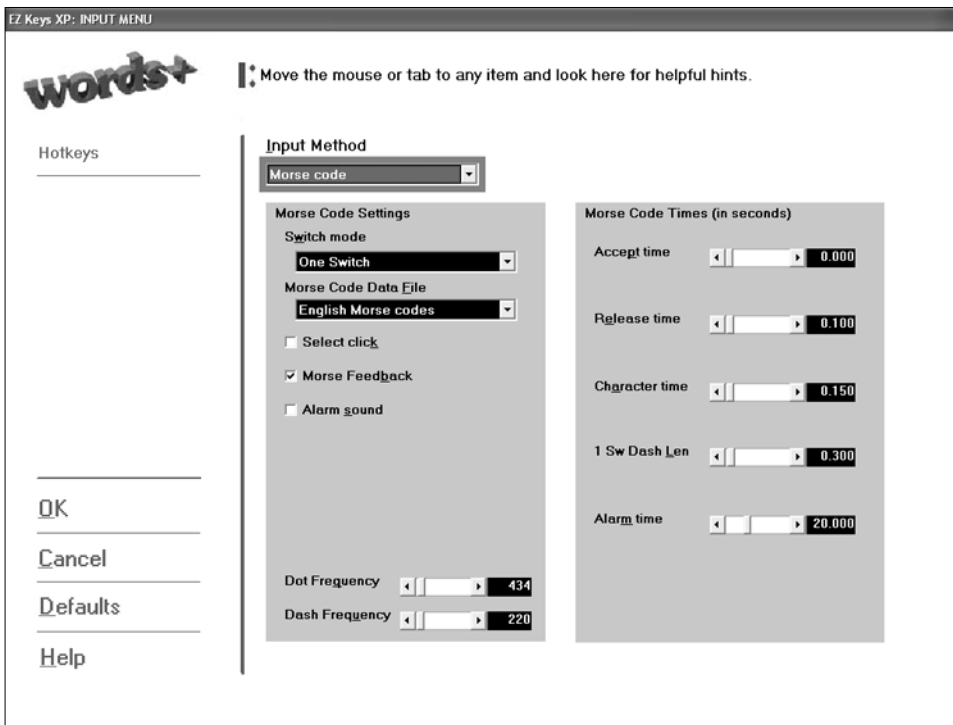


Figure 4-19. Input Menu with Morse Code Input Method

### Morse Code Data File

A special disk file holds the information used by the Morse code translator to determine what each pattern of dots and dashes represents. This drop-down list allows you to select the file you want to use. At this time, E Z Keys XP contains only one file: English Morse codes.

**Recommended setting: English Morse Codes**

### Select Click

Check this box if you want a click sound to be generated after each character is translated from the Morse code you sent.

**Recommended setting: Off**

### Morse Feedback

Check this box if you would like to hear tones while you are sending your Morse codes. You can also adjust the tone frequencies (see the sections on Dash and Dot Frequencies, p. 27). If you want silent Morse codes, uncheck this box.

**Recommended setting: On**

### Alarm Sound

If this box is checked and you hold a switch closed for more than the Alarm time (see Alarm Time, p. 28), an audible alarm sounds until you release the switch.

**Recommended setting: On**

**Warning:** Do not depend on this alarm sound for emergencies. It may not be loud enough, or it may not operate for various reasons (speaker volume turned down, etc.)

### Dot Rate (two-switch)

This control adjusts the rate at which dots are generated when you hold the dot switch closed during two-switch operation. If you want to send the letter h (four dots), for example, hold the dot switch closed until you count four dots and then release it. For the number zero (five dashes),

hold the dash switch closed until you count five dashes and then release it. This feature allows you to send codes faster than with one switch.

**Recommended setting: 0.05 second**

#### **Dash Rate (two-switch)**

This control adjusts the rate at which dashes are generated when you hold the dash switch closed during two-switch operation. If you want to send the letter O (three dashes), for example, hold the dash switch closed until you count three dashes and then release it. For the number zero (five dashes), hold the dash switch closed until you count five dashes and then release it. This feature allows you to send codes faster than with one switch.

**Recommended setting: 0.10 second**

#### **Dot Length (two-switch)**

The length of time the tone sounds for each dot as it is being generated during two-switch Morse code.

**Recommended setting: 0.10 second**

#### **Dash Length (two-switch)**

The length of time the tone sounds for each dash as it is being generated during two-switch Morse code.

**Recommended setting: 0.20 second**

**Note:** There is also an adjustment for one-switch dash length (see Dash Length, one-switch, p. 27).

#### **Dot Frequency**

The tone produced when a dot is generated. In one-switch operation, the tone starts at the dot frequency. If you hold the switch closed long enough to make a dash, the frequency changes to the dash frequency.

**Recommended setting: 434**

#### **Dash Frequency**

The tone produced when a dash is generated. In one-switch operation, the tone starts at the dot frequency. If you hold the switch closed long enough to make a dash, the frequency changes to the dash frequency.

**Recommended setting: 220**

#### **Accept time**

The length of time you have to hold your switch closed before the computer accepts the selection. If you hold your switch closed for less than the accept time, the computer will not accept it. This is especially helpful if you accidentally activate the switch.

**Recommended setting: 0**

#### **Release Time**

The amount of time the computer waits after you release a switch before it accepts the release. If you release a switch, but close it again before the release time expires, the computer acts as though you never released it.

**Recommended setting: 0.10 second**

#### **Character Time**

The length of time the computer waits after you stop sending dots and dashes before it translates the code. If you send another dot or dash before the time expires, the timer resets.

**Recommended setting: 2 seconds**

**Dash Length (one-switch)**

In one-switch Morse code, the length of time you must hold your switch for E Z Keys XP to realize you want a dash instead of a dot.

**Recommended setting: 1 second**

**Alarm Time**

The amount of time you must hold a switch closed in order to activate the alarm feature.

**Recommended setting: 20 seconds**

**Mouse Operation**

E Z Keys can be operated using a standard Microsoft mouse or mouse emulators. Figure 4-20 shows the Input Menu with Mouse selected as the Input Method.

**Tip:** For a complete list of the functions of the keys on each scan grid, see pages 18-21.

**Mouse Input Menu Controls**

This section explains each of the Input Menu controls when Mouse is the Input Method.

**Device Type**

The only mouse device supported at this time is Standard mouse device. This means that your mouse device must emulate a standard Microsoft/IBM mouse.

**Recommended setting: Standard mouse device**

**Selection Action**

E Z Keys accepts input from standard Microsoft mouse emulators in two modes:

*Point and Hold* - Selects a character when you stop on a cell for a specified length of time (see Select Time, p. 31).

*Point and Click* - Selects a character when you press the left mouse button for a specified length of time (see Accept Time, p. 29).

The default setting for the Selection Action is Point and Hold. If you wish to change the setting, follow these steps:

- Using the scanner, select M to access the Main Menu.
- Select I for the Input Menu.
- Move to the Selection Action box by selecting n.
- To activate the drop-down menu, select fn followed by the number 4.
- Go to the Cursor Menu by selecting C.
- Use the up arrow on the scan grid to select Point and Click.
- A dialog box appears that asks if you are sure you wish to make the selection. Select Yes by hitting the Enter key (>) on the scan grid.

If you are using Point and Click and your switch input does not go through our switch adapter, you should select the Use mouse hardware buttons check box (see below). To do this, you must return to the main scan grid:

- Use the left mouse button to select ^. This returns you to the main scan grid.
- Scan to b and click on it. This enables the mouse hardware buttons.

**Recommended setting: User preference**

**Use Crosshairs**

Adjusts the look of your mouse pointer on the E Z Keys XP scan box.

**Recommended setting: On**

**Allow Repeats**

Allows repeated selections by remaining in the same cell.

**Recommended setting: On**

**Scanning Click**

A click sound is produced through your computer's sound system each time the pointer moves.

**Recommended setting: Off**

**Alarm Sound**

Holding any of the mouse buttons down for longer than the specified time (See Alarm Time, p. 28) produces an audible alarm until the button is released.

**Recommended setting: On**

**Warning:** Do not depend on this alarm sound for emergencies. It may not be loud enough, or it may not operate for various reasons (speaker volume turned down, etc.)

**Selecting Click**

A click sound is produced through your computer's sound system each time you make a selection.

**Recommended setting: On**

**Scan Auditory**

Adjusts speech output to notify you what section or character is being scanned.

**Recommended setting: Off**

**Warning:** Do not check the Use Mouse Hardware buttons box if you are using Point and Hold or if you are using switch adapter inputs for scan selection. Failure to follow this rule can cause E Z Keys XP to lock up when directly using the mouse.

**Use Mouse Hardware Buttons**

Check this box if you are in Point and Click mode and are not using the switch adapter inputs for scan selection. This allows full operation when in direct mouse mode (see below). Do not check this box if you are using our switch adapter.

**Recommended setting: On (if you are not using switch adapter inputs for scan selection)**

**Direct Mouse Mode**

When Direct Mouse mode (Dm) is activated, you can use the mouse cursor outside of the scan grid. The direct mouse mode works differently depending on the selections you have made in the Input menu.

To use Direct Mouse mode, select Dm on the scan grid.

If you do not use the mouse hardware buttons in Direct Mouse mode, quickly move the mouse cursor to the work area you desire. You cannot perform left click, double-click, or drag-and-drop operations while in Direct Mouse mode. Allow the mouse cursor to stabilize and Direct Mouse mode will self terminate, sending all mouse movements back to the mouse scan grid.

If you do use mouse hardware buttons in Direct Mouse mode, you will remain in Direct Mouse mode until you left click on the mouse scan grid. You may perform left click, double-click, or drag-and-drop operations in Direct Mouse mode as long as the mouse hardware buttons are enabled.

**Accept Time**

The amount of time you must hold a switch (or button) before E Z Keys XP accepts it as a valid input.

**Recommended setting: Zero**

### First Repeat Time

The length of time you must remain on a character after the accept time has passed in order for E Z Keys XP to repeat the selected item.

**Recommended setting: 1.5 seconds**

### Repeat Time

The time, once repeating has started, that elapses between successive repetitions of the selected item.

**Recommended setting: 0.75 seconds**



Figure 4-20. Input Menu with Mouse Input Method

### Stabilizing Time

The length of time the mouse pointer must remain on a character for it to be selected.

**Recommended setting: 1.80**

### Stabilizing Size

The size of the area around a chosen character (size is measured in pixels).

**Recommended setting: 30**

### Cell Accept Time

The length of time the mouse pointer must remain in a cell's boundaries before a highlight indicates the cell is selected.

**Recommended setting: Zero**

### Cell Release Time

The length of time after which a cell is selected and locks out changes.

**Recommended setting: Zero**

### Release Time

The length of time the computer waits after you release a switch (or button) before it accepts the release. If you release a switch (or button) but close it again before the release time expires, then the computer acts as though you never released it.

**Recommended setting: Zero**

### Select Time

The length of time the computer waits after you stop on a location to decide that you want to select that location. If you close a switch (or button) to move to a new location before the select time expires, then the timer resets until you stop again.

**Recommended setting: 2.0 seconds**

### Alarm Time

When the Alarm Sound box is checked, an audible alarm sounds if you press and hold a key for longer than the specified time. This can sometimes be used to get someone's attention in a noisy room.

**Recommended setting: 20 seconds**

**Warning:** Do not depend on this alarm sound for emergencies. It may not be loud enough, or it may not operate for various reasons (speaker volume turned down, etc.)

### The Voice Menu

The Voice Menu allows you to choose a voice synthesizer and adjust its settings. There are two voices defined in E Z Keys XP: the User Voice and the Feedback Voice.

### User Voice and Feedback Voice

The User Voice is the voice used by the user to talk with someone. It is used for direct person-to-person conversation, for telephone conversation, and for presenting talks to large groups. This voice becomes identified with the user's personality.

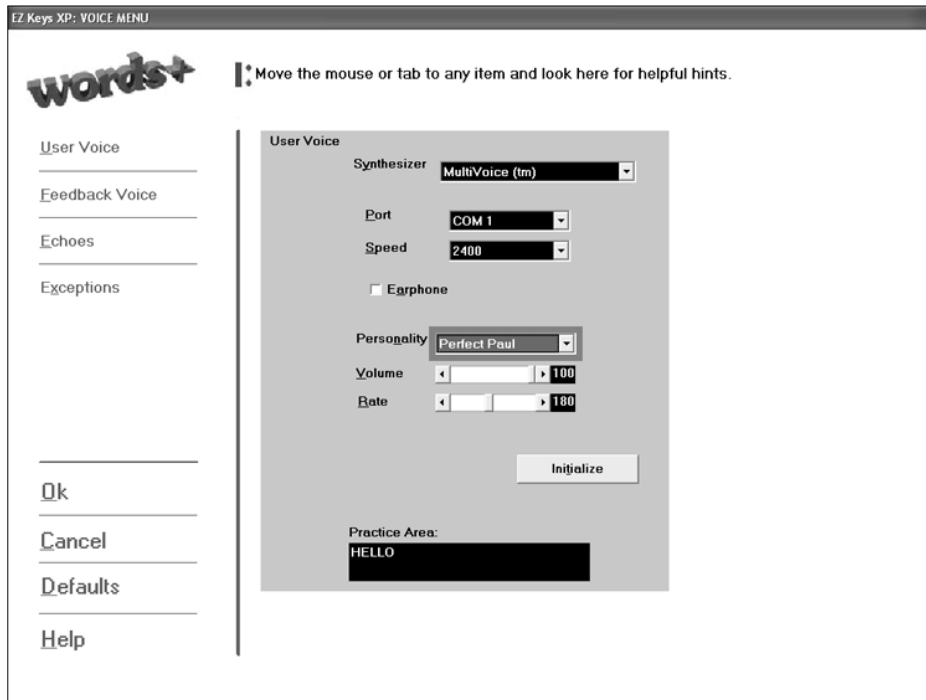


Figure 4-21. Voice Menu

The Feedback Voice is the voice used by the system to provide feedback to the user. With some voice synthesizers, the two voices can be set to different personalities so that there is a clear distinction between when the user is speaking to someone and when E Z Keys XP is providing feedback to the user.

## **Synthesizer**

Select your voice synthesizer following these steps:

- Select either the User or Feedback voice.
- Click on the drop-down box called Synthesizer, and scroll through the list until you find the name of your synthesizer.
- Click the name and the adjustments for that synthesizer will appear.

Be sure to select your synthesizer for both the User and the Feedback voices and to set the adjustments for each.

The following paragraphs describe the controls on the Voice Menu when DECTalk SAPI software voice is selected. Your synthesizer may have slightly different options.

Synthesizers that may be used with E Z Keys XP:

- MultiVoice™
- SAPI Software Voice™  
(SAPI 3 & SAPI 5)
- Other  
(serial hardware voice)

## **Voice Family**

Selects which SAPI software voice you are using.

**Recommended setting: DECTalk Access32 Software**

## **Personality**

DECTalk software voice features nine personalities.

**Recommended setting: User preference**

## **Speed**

The speaking rate in words per minute.

**Recommended setting: 180**

## **Echoes**

Click on the Echoes button and the menu changes to show five check boxes in the center panel. When the box is checked, the Feedback voice speaks the checked item at the appropriate time:

*Echo each character* - Speaks the last character every time a character is selected.

*Echo each word* - Speaks the last word whenever a word is completed.

*Echo each sentence* - Speaks the entire sentence when a sentence is completed with any full-stop punctuation mark (e.g., .?!).

*Echo expansions* - Speaks the expansion whenever an abbreviation is expanded.

*Echo word box when scanned* - Causes the Feedback voice to read each word in the word prediction box as it is scanned.

## Exceptions

When you select the Exceptions button, the center panel displays a list of words and their pronunciation exceptions. An exception is a phonetic spelling used by the voice synthesizer to correct words that are mispronounced. For example, your synthesizer might have difficulty with the word Albuquerque. By giving it a phonetic spelling such as "al buh kerkee," it is pronounced correctly.

## Word Menu

The Word Menu allows you to select vocabulary files, modify word files, and make adjustments related to the word prediction feature. To access the Word Menu, select the Words button on the Main Menu.

Figure 4-22 shows the word prediction box when keyboard or Morse code input is used (no scanner is visible). The box shows the six most frequently used words in American English (based on published research studies). Once you begin typing a word, the box changes to the most frequently used words that begin with the letter(s) you have typed so far. If no such words are in the vocabulary, the box is empty.

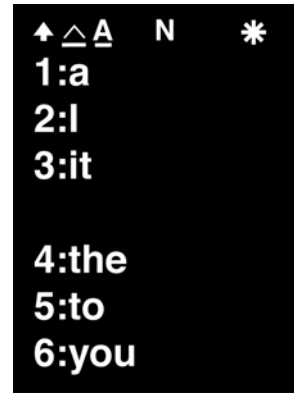


Figure 4-22. Word Prediction

## Using Word Prediction

One of the most powerful acceleration techniques in E Z Keys XP is word prediction. Using word prediction is very easy - there are only two rules:

1. If the word you want is in the word box, select the number in front of the word, and the word is typed for you.
2. If the word is not in the box, select the next letter in the word.

## Settings

The Settings button allows you to enable or disable settings pertaining to the Word List. Select the Settings button and five check boxes appear in the center panel:

*Use word tables* - Tells E Z Keys XP to provide the word prediction feature whenever appropriate.

*Learn new words* - Automatically adds new words to the vocabulary list. When you use a word that is not in the vocabulary list, type the complete word, and E Z Keys XP actually learns the new word and adds it to the list. (It also learns words that are spelled wrong, so be careful!) All new words that are at least four letters long are temporarily added to the vocabulary in the computer's memory. They are not saved to disk and made permanent unless you tell the program to save them or unless you have the Auto save words box checked (see below).

*Learn word patterns* - Learns up to six "next" words for each root word in its vocabulary. The words are learned immediately, so the scheme remembers the six most recently used words after each word. For example: Enter the sentence "I'm going to Birmingham, Alabama." The words Birmingham and Alabama were not in the vocabulary. Now enter the sentence "Do you know anyone in Birmingham, Alabama?" Not only did the program learn the words Birmingham and Alabama, but it also learned that Alabama follows Birmingham.

*Auto save words* - The program permanently saves any new words and word patterns to disk every 15 minutes.

**Recommended settings: All items on (checked)**

## Word List

Select the Word List button to display the Word List.

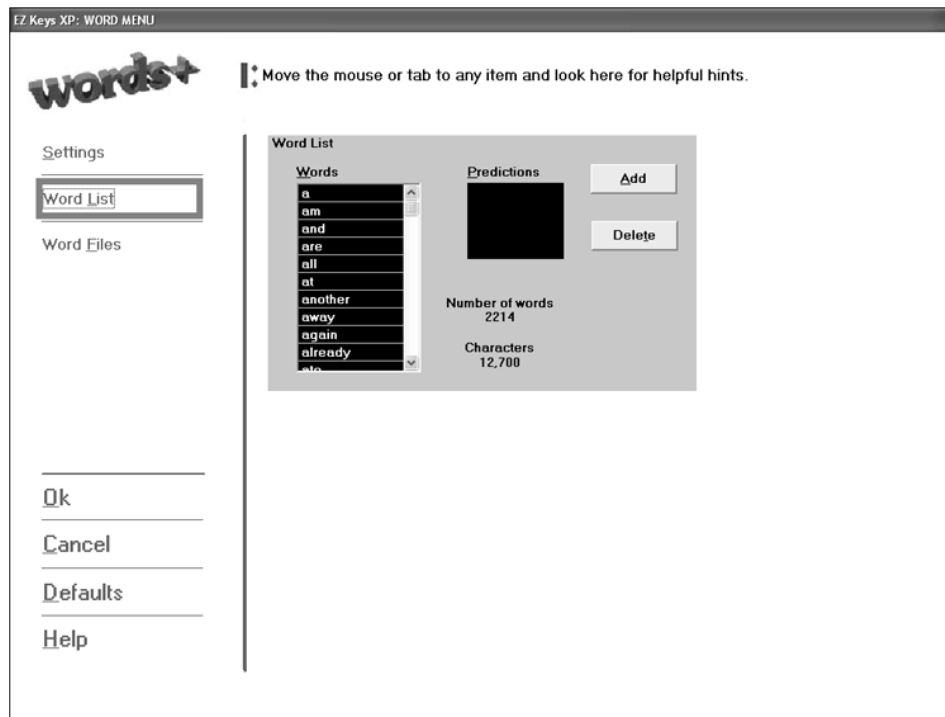


Figure 4-23. Word Menu with Word List center panel

### Words

The Word List contains all of the words in your current vocabulary. To move through the list, use the scroll bar, or click any of the words and use the up and down arrow keys. You may also press the Tab key until the highlighter is around the Word List and then use the arrow keys to move through the list. Notice that the list is in quasi-alphabetical order - all the A words are first, then all the B words, and so on. Within each letter, the words are arranged by frequency of use. Move to the first word that begins with any letter by first selecting the Word List, and then typing that letter (e.g., type B to go to the beginning of the B words). E Z Keys XP allows you to build several word lists. For more information, refer to the section on Word Files, p. 35.

### Predictions

E Z Keys XP displays a list of "next" words that it predicts will be typed after the selected word.

### Add

Select the Add button to type in a new word. E Z Keys XP adds the new word to the Word List at the end of the words that begin with that letter.

### Delete

Select the Delete button to delete the highlighted word from the vocabulary.

### Move

This control will be available in a future version of the program.

### Edit

This control will be available in a future version of the program.

**Word Files**

Select the Word Files button to display a list of available vocabularies. The list of files shows all word files (\*.WRD) in your user directory (C:\Program ZFiles\Words+, Inc\EZ KeysXP\USR).

**Note:** The sample word file SAMPLE.WRD is a protected file. You should save your words under your own file name.

**File Load**

Select a word file in the list and then select the File Load button. The selected vocabulary file is loaded immediately and becomes the new word list.

**File Save**

Select this button to save the current word file to disk.

**New**

Select this button to build a completely new word list. This will clear the current vocabulary list from memory; so be sure and save it to disk (this is done automatically if you have Auto save words turned on under Settings). New words may be added manually by selecting the Add button. You can also type in any word processor, or in SideTalk, with the Learn new words box checked under Settings.

**Abbreviation Menu**

Abbreviation expansion is another acceleration technique in E Z Keys XP. There are three kinds of abbreviations in E Z Keys XP:

Written - These text abbreviations are expanded into typed characters, as though you had typed the expansion. Use text abbreviations in a word processor or in SideTalk to construct new sentences. Use macro abbreviations composed of combinations of Ctrl and Alt keys with other keys to tell the computer to perform a specific function.

Spoken - These instant abbreviations send text to your voice synthesizer to be spoken immediately.

Macros - These abbreviations send commands to an environmental control unit (ECU).

Several sample abbreviations have been provided with E Z Keys XP. A list is available in the Abbreviation Menu (Figure 4-24), which can be accessed by selecting the Abbreviation button on the Main Menu.

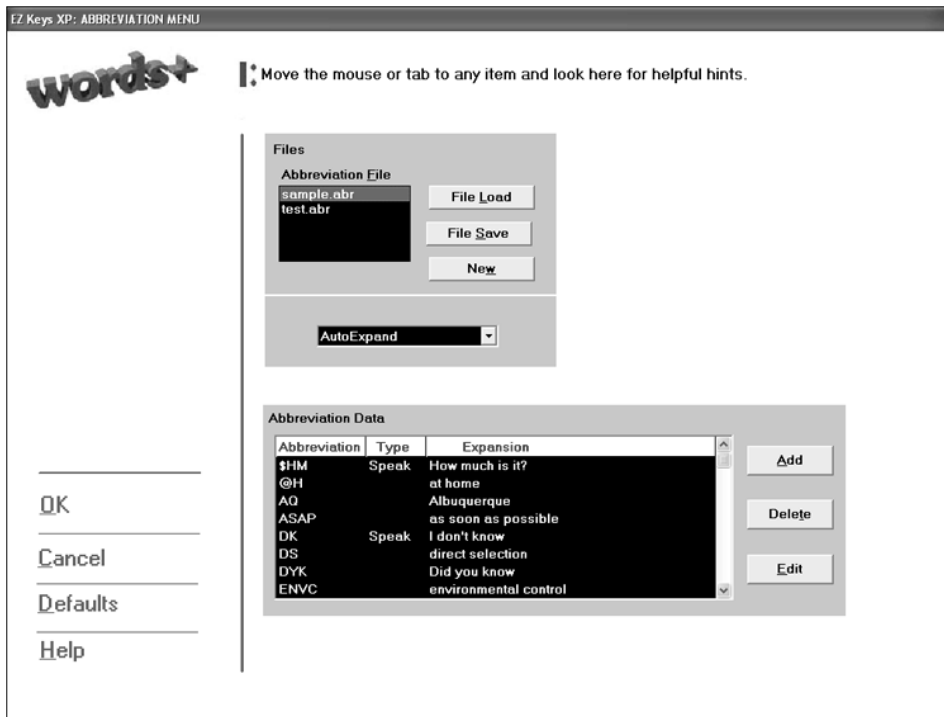


Figure 4-24. Abbreviation Menu

### Abbreviation File

This list shows all abbreviation files (\*.ABR) contained in the user directory of your hard disk (C:\Program Files\ Words+, Inc\EZ KeysXP\USR). Most users want only a single abbreviation file, but a few use more than one, with abbreviations specific to certain situations (work, games, biology, physics, music, etc.).

**Note:** The sample abbreviation file SAMPLE.ABR is a protected file. You should save your abbreviations under your own file name.

### File Load

Loads the file you selected in the Abbreviation Files list.

### File Save

Saves the abbreviations currently in memory.

### New

Clears all abbreviations from memory so you can build a new set.

**Note:** The expand/unexpand hotkey (Ctrl-x unless you changed it) works with predicted words and abbreviations. If you mistakenly select a predicted word or type an abbreviation that gets expanded, just type the unexpand hotkey (in scanning select the <w or select ct and then x), and it is restored to the unexpanded form. This feature can be used to obtain numbers without turning off the word prediction scheme. Select the number, allow the word to be typed, and then unexpand it.

## Expansion Rule

The *Expansion Rule* drop-down list offers you three rules for expanding abbreviations:

*AutoExpand* - expands as soon as the last character of a defined abbreviation is typed. For example, if "asap" expands to "as soon as possible," the expansion occurs as soon as the "p" is typed.

*Expand on separator* - expands after a separator is typed. A separator is a space or a punctuation mark.

*Manual expand* - expands when given the expand/unexpand command, which is defaulted to Ctrl-x.

## Abbreviation Data

Within this area of the Abbreviation Menu, you can see all of your abbreviations and their expansions, and you can modify them using the control buttons.

## Abbreviation List

The list of abbreviations currently in your computer's memory is displayed on the left. You can move through this list to see the abbreviations you currently have.

## Add

Selecting this button allows you to add a new abbreviation to your list:

- Enter the new abbreviation in the Abbreviation box.
- Select Written, Spoken, or ECU Command for the type of abbreviation.
- Use the Tab key to go to the Expansion box and type in the expansion.
- Select the Finished button, and the new abbreviation and expansion appear in the list.

If you make a mistake, select the Undo button. If you change your mind, or if you accidentally selected Add and you don't want to add a new abbreviation, select Cancel.



Figure 4-25. Abbreviation Menu with Edit/Add dialog box

## Macro On/Macro Off

This button is used to go into and out of literal keystroke mode. Literal keystroke mode records in order any keystrokes that you make, such as those that form commands, e.g., holding the Ctrl key and pressing the Esc key. To turn off this mode and return to normal text, select the Esc key twice (Esc, Esc).

## Delete

To delete an abbreviation, highlight the abbreviation in the list and select Delete.

To modify an existing abbreviation, follow these steps:

- Select the abbreviation in the list.
- Select the Edit button. The Edit/Add Abbreviation dialog box should appear.
- Make your changes and then select Finished.

## Punctuation Menu

The Punctuation Menu allows you to set how E Z Keys XP performs special operations when certain punctuation marks are used.

### Punctuation Character

The special punctuation marks used by E Z Keys XP are defined by the user but normally will include the following: . , " ! : ; ) ]

Press a punctuation mark to display it in the Punctuation Character box. The special operations assigned to it are shown to the right.

### Number of Spaces After Punctuation

This feature determines the number of spaces E Z Keys XP inserts after a punctuation mark. Simply type the number and E Z Keys XP automatically fills in the box.

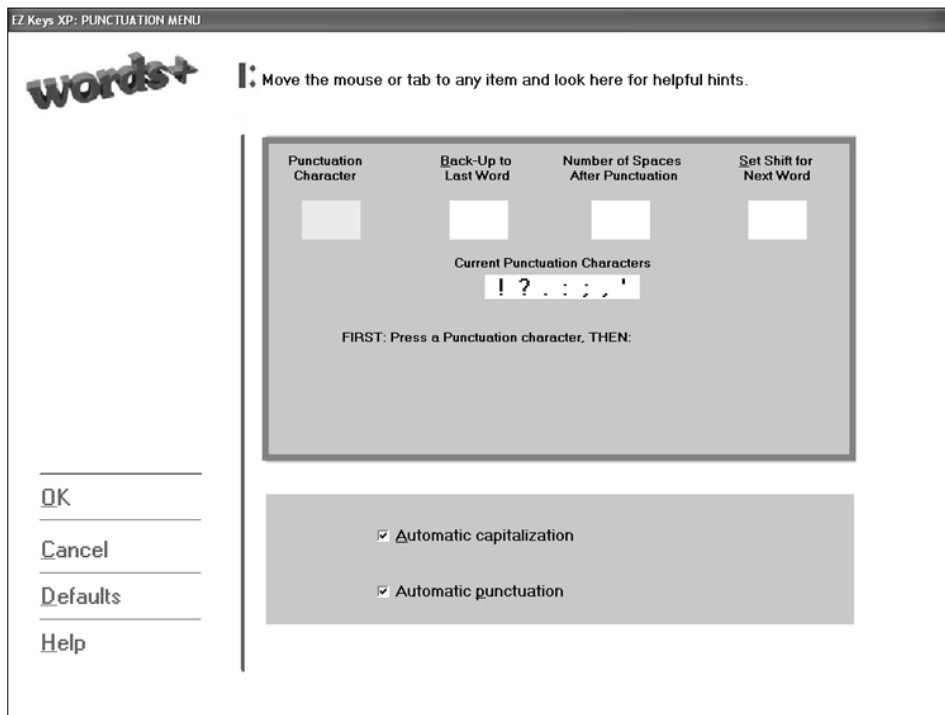


Figure 4-26. Punctuation Menu

## Back Up to Last Word

This feature removes any spaces preceding the punctuation mark back to the last non-space character. This function will not work if you have just pressed any non-printing key prior to the punctuation mark (such as an arrow key, a function key, or many Ctrl and Alt combinations). To turn on this feature, use the letter "b" key to toggle between YES and NO.

## Set Shift for Next Word

This feature automatically sets the shift key after the punctuation mark (and any spaces you told it to add). Normally, you want this setting turned on for all end-of-sentence punctuation marks (sometimes called full stops). Use the letter "s" key to toggle between YES and NO.

## Design Menu

The Design Menu allows you to change certain design characteristics of the Word Box, the scanners, the Focus Enhancer, and the SideTalk window. To go to the Design Menu, click the Design button located on the Main Menu.

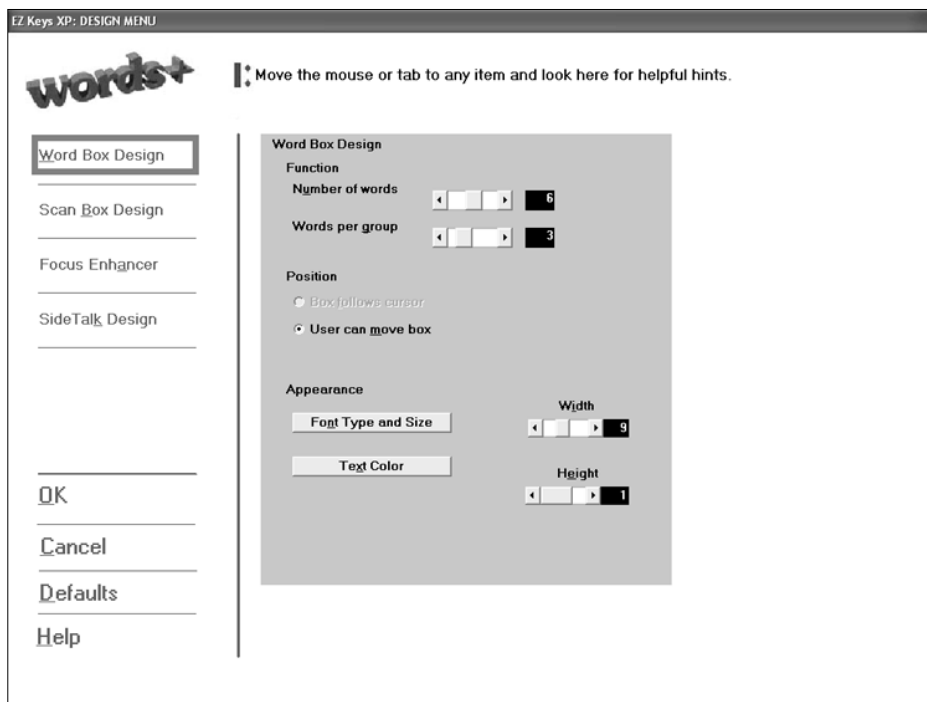


Figure 4-27. Design Menu with Word Box center panel

## Word Box Design

This displays the Word Box Design panel. This panel allows you to change the number of words and word groups, the font size and color, the spacing (width and height), and the movement (follow cursor or remain fixed) of the word prediction box.

### Number of Words

Changes the number of words in the Word Prediction box.

**Recommended setting: 6**

### Words Per Group

Changes how the predicted words are grouped. Each group is separated from the next by a blank line.

**Recommended setting: 3**

**Note:** The most efficient word box arrangement we have found is the default arrangement of six words in two groups of three, based on in-house timing tests. If you find another arrangement is more efficient, please let us know.

### Position

Select between two modes of movement for the word box.

*Box follows cursor* - word box automatically moves as the cursor moves (Win 3.x only).

*User can move box* - word box remains where you put it, unless the focus detector senses that it is covering a control that has the focus.

**Recommended setting: User can move**

### Appearance

These controls allow you to adjust the appearance of your word and scan boxes.

*Font Type and Size* - allows you to choose the font and the font size you prefer for the word box display.

**Recommended setting: MS Sans Serif, bold, 12 point**

*Colors* - allows you to select the colors of the display. The left column is the standard color and the right column is the inverse used during scanning. Select from the left column and the right column is matched to it.

**Recommended setting: Dark blue background with yellow text**

*Width* - Adjusts the width of the word box in characters. The character used is the W, so if you set the control to number 12, the box will be wide enough for 12 Ws: 'WWWWWWWWWWWW'.

**Recommended setting: 9**

*Height* - Adjusts the height of the word box in characters. The character used is the W, so if you set the control to number 8, the box will be high enough for 8 W's:

W  
W  
W  
W  
W  
W  
W  
W

**Recommended setting: 1**

**Note:** Because Windows kerns most fonts, the actual width of a word depends on the letters in the word. Compare the lengths of the following strings of 12 characters:

llllllllllllll  
oooooooooooo  
WWWWWWWWWWWW

## Scan Box Design

### Position

Select between two modes of movement for the word box:

*Box follows cursor* - word box moves automatically as the cursor moves (Win 3.x only).

*User can move box* - word box remains where you put it, unless the focus detector senses that it is covering a control that has the focus.

**Recommended setting: User can move**

### Scanner to Word Box Orientation

Allows you to choose whether the scanner appears on the left or the right side of the word box.

**Recommended setting: Right side**

### Appearance

These controls adjust the appearance of the scan boxes.

*Font Type and Size* - Allows you to choose the font and the font size you prefer for the word box display.

**Recommended setting: MS Sans Serif, bold, 8 point**

*Text Color* - Allows you to choose the color of the display. The left column is the standard color and the right column is the inverse used during scanning. Select from the left column and the right column is matched to it.

**Recommended setting: Dark blue background with yellow text**

*Horizontal Spacing and Vertical Spacing* - Adjusts the side-to-side and up-and-down spacing between characters.

**Recommended setting: 1.20**

**Note:** If you are scanning, the overall height of the word box and scanner is determined by the largest settings for either one. If the scanner is taller than the word box, then the word box will have blank space added under it to match the scanner, and vice versa.

### Focus Enhancer

This feature sets the color and thickness of the Focus Enhancer, making it easier to see which control has the focus within the program's own menus.

**Recommended setting: Color: Red, Width: 7 point**

**Note:** If you select a font size that is too big, you may not see all of your Instant Phrases at the same time.

### SideTalk Design

Allows you to select the font type and size for Instant Phrases, Reader, and SideTalk.

**Recommended setting: MS Sans Serif, bold, 8 point.**

## **ECU Menu**

The Environmental Control Unit (ECU, also called U-Control) Menu provides the means to operate environmental control devices using E Z Keys XP. The U-Control and U-Control II device systems are the only systems currently supported by E Z Keys XP.

### **Setting Up the ECU**

To set up your ECU, follow these steps:

- Select the ECU button on the Main Menu.
- Select your ECU device from the drop-down list.
- Select the com port number to which your U-Control remote is connected.
- Click OK.

For information on programming appliance codes into your U-Control, please see the U-Control manual.

### **Sending Commands with ECU**

Once your device and com port are selected and you have programmed the device codes into the remote, you are ready to send commands:

- Select the Send Commands button.
- Select the appliance you want to control.
- Select the command to send to your chosen appliance. Notice that information appears in the ECU Code String box when you make a selection. You may send as many commands as you want provided that they are all for the appliance you just selected. For example, you could select TV, then Power On/Off, then Volume Up, and finally press the 1 and 3 keys to set the TV to channel 13.
- When you have finished selecting all the commands you want to send, press the Send button.

**Note:** You must press the Send button for codes to be sent; they are not sent as you are selecting commands and building the ECU Code String. While the codes are being sent, you will see the message "Please Wait: Transmitting ECU Codes." During the time that this message is displayed, please do not attempt to select buttons, exit menus, etc. Wait until the message is no longer displayed before continuing. If you decide you do not want to send the ECU Code String, select the Clear button to start over.

If you select Aux X10 as the appliance to send commands to, you must also choose which module you want to control by selecting 1 through F. You can also name each module by first selecting the module and then selecting the Rename button. This allows you to choose a name for each X10 unit in your house (up to 15 maximum). By choosing names such as "living room lamp," it will be easier to know which module controls a particular device. After you select which module to control, you may then select which commands to send to the module. After you have selected all the commands for this module, send the commands by selecting the Send button.

### **Reassigning Appliances**

The Reassign appliance button allows you to change the operation of any of the appliance buttons (except Aux X10). For example, if you have two TVs and no cable box, you may use the Reassign Appliance button to change the Cable button to control your second TV. After selecting the Reassign Appliance button, follow the instructions on the screen.

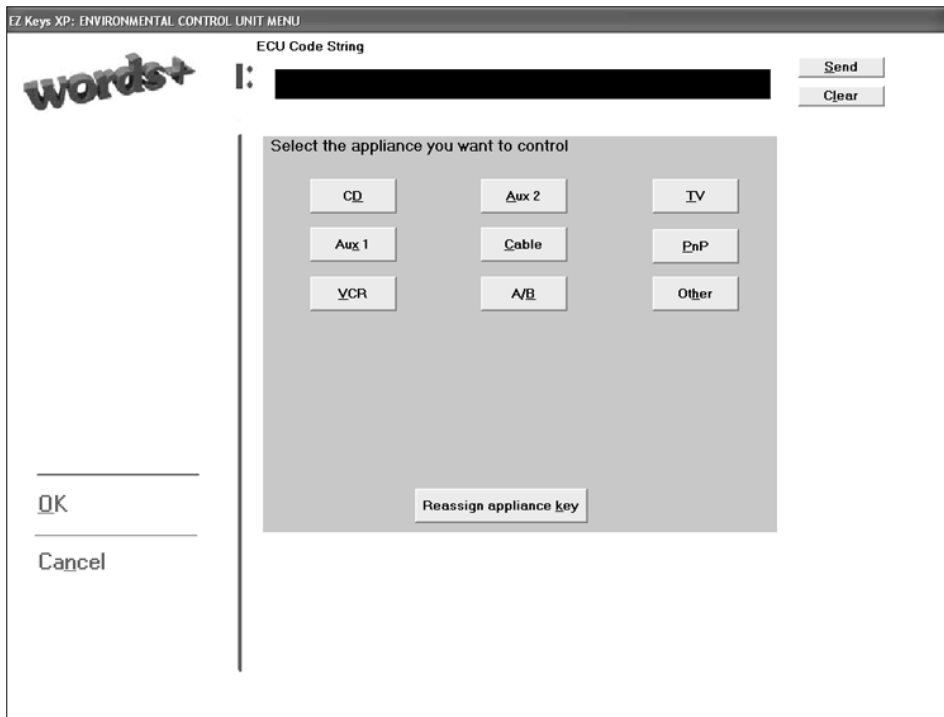


Figure 4-28. ECU Send Commands Menu

Once the reassign process has been completed, you may assign the codes for your second TV to the Cable button.

### Abbreviation Menu

Once you have set up your ECU, if you have one, you may want to program ECU-type abbreviations. To enter an abbreviation, follow these steps:

- Select the Abbreviations button on the Main Menu.
- Select the Add button.
- Type your abbreviation into the Abbreviation text. For example, if you want an abbreviation that turns on the TV and changes the channel to 13, you might want an abbreviation such as TT13.
- Go to the Expansion area and type your expansion for that abbreviation.
- Select the ECU type. The appliance section of the ECU system now becomes visible.
- Set your appliance and command(s) the same way as described above in the ECU section of this document, except that you don't have to select the Send button. If you want to try the ECU command, you may select the Send button.
- Select the OK button. This brings you back to the Abbreviation Menu and displays the ECU Code String as the expansion for your new abbreviation.

**Tip:** Always choose an abbreviation that will not occur in normal writing patterns. If you were to select an abbreviation such as TV and you were writing a letter to a friend about what you saw on TV last night, E Z Keys XP would not print TV. Instead it would turn on the TV and change the channel to 13.

Power macro-type abbreviations are now functional. To enter a power macro, follow these steps:

- Select Add from the Abbreviations Menu.
- Enter the abbreviation as described above, but choose Written as the Abbreviation Type.
- Type the macro into the Expansion text area. To type in unprintable characters (such as Alt + A, or Page Down), you first must select the Macro On button. This sends all keystrokes to the

expansion area with < > surrounding the keystroke name(s). In order to resume the typing of normal text or to quit Macro On mode, select either the Escape key or the End key twice.

- Select Finished. Your new macro now appears in the Abbreviation Data window.

### Mouse Menu

Mouse emulation enables individuals who cannot easily use a standard mouse or a mouse-emulating device to perform mouse operations quickly and easily. The Mouse Menu, shown in Figure 4-29, allows you to adjust the mouse emulation features in E Z Keys XP.

### MouseKeys

Windows is a mouse-intensive environment. MouseKeys, a special feature in E Z Keys XP, allows you to perform mouse operations using the keyboard. MouseKeys is activated by setting the NumLock key or a hotkey you set in the Input menu. When activated, the numeric keypad keys produce mouse operations, as shown below:

#### Mouse Operations on numeric keypad

7 - up & left	8 - up	9 - up & right
4 - left	5 - left single click	6 - right
1 - down & left	2 - down	3 - down & right
/ - right single click	* - right double click	+ - left double click
0 - left button drag		

Some users may not have a numeric keypad. In that case, the keys of a numeric keypad are "remapped" onto the standard keyboard when MouseKeys are activated.

#### Letters/Symbols for remapping of MouseKeys onto keyboard

7 - up & left	8 - up	9 - up & right
U - left	I - left single click	O - right
J - down & left	K - down	L - down & right
/ - right single click	' - right double click	; - left double click
M - left button drag		

**Warning:** Remember to turn off the Mouse Mode when you are finished with mouse actions, as the remapping of keys (discussed above) prevents the normal activities of these keys.

**Note:** The option to use a hotkey is useful for laptop computers that do not have separate numeric keypad keys. Usually, these laptops have the above keycaps printed with the numeric keypad functions in a different color.

**Note:** MouseKeys only works when the input method is set to keyboard. For Scanning and Morse code users, the mouse cursor movement and Radar Mouse/Crosshair Mouse actions are in the scanning grids and Morse codes that you use.

### Radar Mouse™

Using the Radar Mouse feature allows you to position the mouse pointer anywhere on the screen. There are two Radar Mouse options on the Mouse Scanner: one that rotates clockwise and one that rotates counterclockwise. (See Mouse Scanner, p. 20.)

**Tip:** For a complete list of the functions of the keys on each scan grid, see pages 18-21.

To use Radar Mouse, follow these steps:

- Go to the mouse scanning box by select Ms from the main scan grid.
- Select the Radar Mouse icon. A line begins moving across your screen.
- Hit your switch (or key or mouse click, depending on your input method). The cursor moves along the path you selected until you hit the switch again.
- You have now positioned your cursor. To fine-tune the adjustment, use the arrows in the lower left corner of the scan grid.

If you wish to generate a mouse click, you can use one of the six mouse buttons in the second and third rows of the grid. The first row is for left mouse functions. A single dot represents a single click, two dots represent a double-click, and a solid box represents a hold or drag.

If you want to drag something, position Radar Mouse on the object you want to move. Select the left drag and move the cursor to the new location. In order to release a drag, you must either click the drag key again or select the single left click.

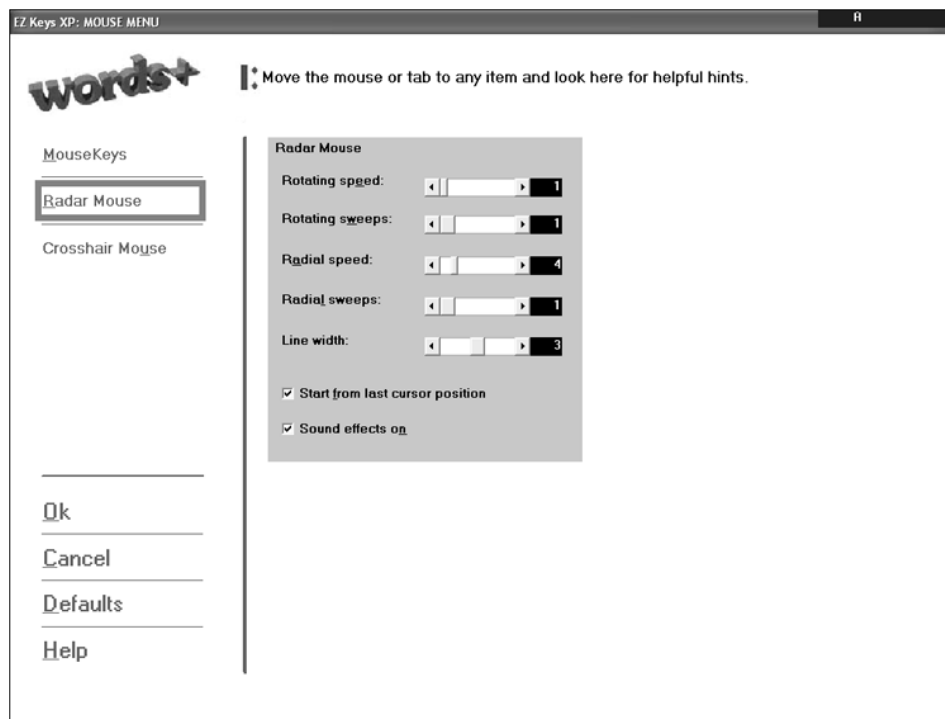


Figure 4-29. Mouse Menu with Radar Mouse center panel

**Note:** There are two icons for each function on the scan grid. This is for quicker access depending on the location of the mouse pointer and your target.

### **Rotating Speed**

Adjusts how fast the radar sweep rotates as it scans around the screen.

**Recommended setting: 1**

### **Rotating Sweeps**

Adjusts the number of times the radar sweep goes around.

**Recommended setting: 1**

**Radial Speed**

Adjusts the speed at which the mouse pointer moves from the center of rotation outward along the radial.

**Recommended setting: 2**

**Radial Sweeps**

Adjusts the number of times the mouse pointer moves along the radial.

**Recommended setting: 1**

**Line Width**

Adjusts the width of the crosshair line.

**Recommended setting: 3**

**Start From Last Cursor Position**

Adjusts the starting point of the radar. When the feature is turned on (box is checked), the center of rotation is at the last mouse pointer position. Turned off, the center of rotation is at the center of the screen.

**Recommended setting: Off.**

**Note:** If you choose to check this box and the last mouse position was near the edge of the screen, you may have difficulty seeing the sweeping ray during part of the sweep because most of it is off the screen.

**Sound Effects On**

Adjusts the sound. When the box is checked, you hear a sonar sound during the first sweep and an electronics sound as the mouse pointer moves along the selected line in both Radar Mouse and Crosshair Mouse.

**Recommended setting: User preference**

**Crosshair Mouse™**

The Crosshair Mouse is similar to the Radar Mouse except that it sweeps vertically and then horizontally, starting either at the top of the screen and moving down or at the bottom of the screen and moving up. When you select the Crosshair Mouse button, the center panel shows the adjustments for the Crosshair Mouse.

**Tip:** For a complete list of the functions of the keys on each scan grid, see pages 18-21.

To use Crosshair Mouse, follow these steps:

- Go to the mouse scanning box by select Ms from the main scan grid.
- Select the Crosshair Mouse icon. A line begins moving across your screen.
- Hit your switch (or key or mouse click, depending on your input method). The cursor moves along the path you selected until you hit the switch again.
- You have now positioned your cursor. To fine-tune the adjustment, use the arrows in the lower left corner of the scan grid.

If you wish to generate a mouse click, you can use one of the six mouse buttons in the second and third rows of the grid. The first row is for left mouse functions. A single dot represents a single click, two dots represent a double-click, and a solid box represents a hold or drag.

If you want to drag something, position Crosshair Mouse on the object you want to move. Select the left drag and move the cursor to the new location. In order to release a drag, you must either click the drag key again or select the single left click.

**Note:** There are two icons for each function on the scan grid. This is for quicker access depending on the location of the mouse pointer and your target.

### **Vertical Speed**

Adjusts how fast the vertical sweep moves up or down the screen.

**Recommended setting: 4**

### **Vertical Sweeps**

Adjusts the number of times the horizontal line sweeps up or down.

**Recommended setting: 1**

### **Horizontal Speed**

Adjusts the speed the mouse pointer moves from left to right along the horizontal line of the sweep.

**Recommended setting: 4**

### **Horizontal Sweeps**

Adjusts the number of times the mouse pointer sweeps from left to right.

**Recommended setting: 1**

### **Line Width**

Adjusts the width of the crosshair line.

**Recommended setting: 3**

### **Start From Last Cursor Position**

Adjusts the starting point of the crosshair. Turned on (box is checked), the vertical sweep begins at the last mouse pointer position. Turned off, the vertical sweep begins at the center of the screen.

**Recommended setting: Off**

### **Offset**

Adjusts how far the horizontal line starts above or below the last mouse pointer position (if the Start from last cursor position is on). It automatically starts on the side away from the direction of movement - if the sweep moves down, then the offset is above the last position, and vice versa.

**Recommended setting: 1**

### **Sound Effects On**

Adjusts the sound. When the box is checked, you hear a sonar sound during the first sweep, and an electronics sound as the mouse pointer moves along the selected line in both Radar Mouse and Crosshair Mouse.

**Recommended setting: User preference**

### **Files Menu**

The Files Menu allows you to access files associated with your E Z Keys XP software. To access the Files Menu, go to the Main Menu, select Files, and then select User.

### **User**

The User panel allows you to load and save user files.

SAMPLE user is a protected user file you can use to see a typical setup.

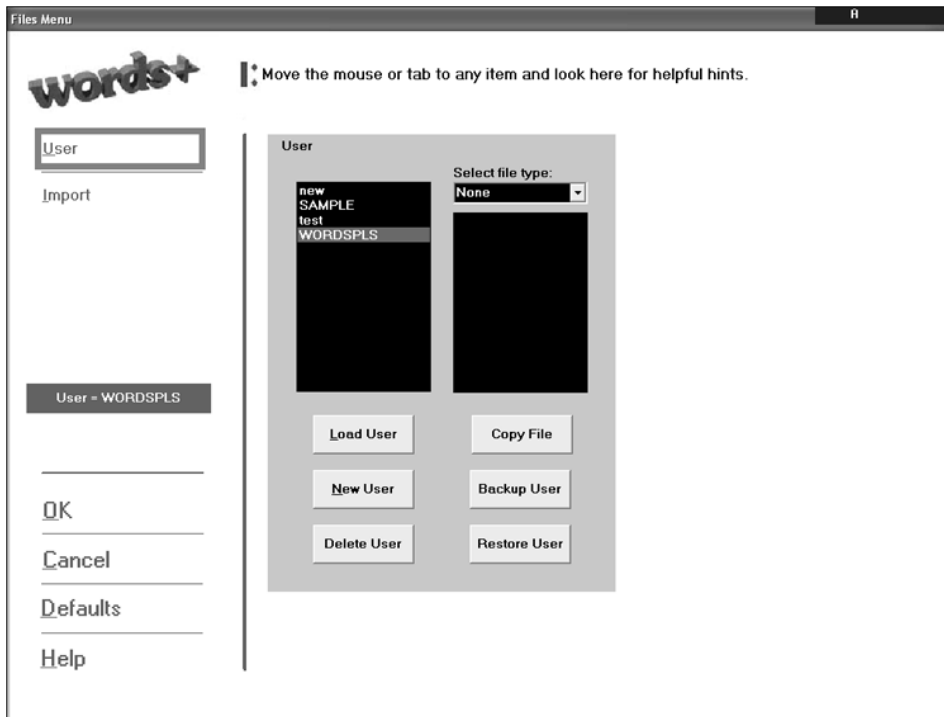


Figure 4-30. Files Menu with User center panel

### **Load User Files**

Loads the selected user's settings.

### **New User**

Allows you to create a new user file. To create a new user, follow these steps:

- Select the New User button.
- Enter the user's name in the dialog box.
- Select OK.

### **Delete User**

Allows you to delete all files for a selected user.

### **Copy Files**

Copies files from the selected user to the current user.

### **Backup User**

Creates a backup copy of the selected user files.

### **Restore User**

Restores backup files for the selected user.

### **Import**

The Import button allows you to import user files, such as Abbreviation, Exception, Phrase, and Word files, from the DOS versions for E Z Keys XP, Scanning WSKE, and Morse WSKE. To import files, select the Import button, choose the file type, and follow the instructions on the screen.

## 5.0 Troubleshooting

This section provides a series of troubleshooting tips to help you correct problems that might arise with E Z Keys XP. If you experience a problem, it might be caused by the computer, by Windows, by your application program(s), or by E Z Keys XP.

### **Program Does Not Start Up**

If the program does not start, check the following items:

- Is the computer running? If not, is the battery charged or is the AC adapter plugged in?
- Does your computer have enough memory and hard disk space available?
- Is Windows running properly? Is E Z Keys XP properly installed? If not, reinstall E Z Keys XP.
- Is the SoftKey plugged into the parallel port? If a printer is plugged in, is it turned on?

### **Voice Synthesizer Does Not Speak**

If E Z Keys XP is running, but the voice synthesizer does not speak, check the following:

If you are using a software voice synthesizer:

- Have the voice synthesizer files been properly installed?
- Does your system have the appropriate sound hardware?
- Is the hardware volume control set high enough to hear?
- Is the proper voice selected on the Voice Menu?
- Is the software volume control high enough on the Voice Menu?

If you are using a MultiVoice or other battery-powered synthesizer:

- Is it turned on?
- Is it charged or plugged into AC power?
- Is the volume control set to a high enough setting?
- Is the cable firmly plugged into the correct serial port?
- Is the correct serial port selected and is the correct baud rate selected on the Voice Menu?
- Is the software volume control set high enough on the Voice Menu?
- Is the earphone option selected? (If you want to hear the voice from the speaker, it should not be.)

### **Environmental Control Does Not Function Properly**

If the U-Control does not operate properly, check the following:

- Is the U-Control transmitter plugged into the correct serial port?
- Is the serial port selection in the U-Control Menu the same?
- Does the LED on the U-Control flash when you press the Power button on the transmitter? (If not, the transmitter may need new batteries.)
- Does the LED flash when you select a software U-Control command? If not, is the command programmed properly?
- If the LED does flash, but you get no response, is the correct appliance code selected for the device you are trying to control?

## Appendix A: Standard Directories

E Z Keys XP uses a set of standard disk directories to store the various program files associated with it. Normally, you will not deal with these files directly because the program automatically manages them for you. The following standard directories can be found on your hard drive, usually C: drive (if it is not C:, substitute the appropriate drive letter of your hard disk):

### Program files:

C:\Program Files\Words+, Inc.\EZ KeysXP - This includes the program itself, help files, and other support files needed by the program.

### User files:

C:\Program Files\Words+, Inc.\EZ KeysXP\USR - This directory is divided into subdirectories, as shown below.

C:\Program Files\Words+, Inc.\EZ KeysXP\USR\SAMPLE - Sample user files.

**Note:** These files are protected. They can be copied to another user, but you cannot save to this directory. This is important for technical support. Please do not change the files in this directory!

C:\Program Files\Words+, Inc.\EZ KeysXP\USR\[username] - Individual user files.

For example, the user called George will have all of his user files in

C:\Program Files\Words+, Inc.\EZ KeysXP\USR\GEORGE

User files include the user's settings in [username].ini, as well as the user's word list(s), abbreviations list(s), and phrase files.

C:\Program Files\Words+, Inc.\EZ KeysXP\USR\[username]\BAK - Backup files.

For example, George's backup files would be contained in the directory

C:\Program Files\Words+, Inc.\EZ KeysXP\USR\GEORGE\BAK

**Tip:** Remember to back up your files on a regular basis to both the hard drive and a floppy disk.

## Appendix B: Morse Codes

This appendix provides a complete list of the Morse codes used in E Z Keys XP. Codes are designed to be as easy to remember as possible, with almost all special codes made up of strings of letters and numbers that easily can be associated with the character they represent. A special set of codes for mouse emulation is also included.

a	· _	-	· _ _ _ ·	(mn)	Caps lock	· _ _ _ _	(sk)
b	· _ _ _	@	· _ _ _ _	(atn)	Scroll lock	· _ _ _ _	(sc)
c	· _ _ ·	#	· _ _ _ _ _	(num)	Repeat	· _ _ _ _	(rr)
d	· _ _	\$	· _ _ _ _	(dr)			
e	·	%	· _ _ _ _	(pn)			
f	· _ _ _	^	· _ _ _ _	(cr)	Page up	· _ _ _ _	(sp)
g	· _ _ ·	&	· _ _ _ _	(and)	Page Down	· _ _ _ _	(sd)
h	· _ _ _	-	· _ _ _ _	(un)	Home	· _ _ _ _	(ho)
i	· ·				End	· _ _ _	(nd)
j	· _ _ _ _				Insert	· _ _ _ _	(ins)
k	· _ ·	F1	· _ _ _ _	(e1)	Delete	· _ _ _	(dte)
l	· _ _	F2	· _ _ _ _	(e2)			
m	· _ _	F3	· _ _ _ _	(e3)			
n	· _	F4	· _ _ _ _	(e4)	Arrow up	· _ _ _	(au)
o	· _ _ _	F5	· _ _ _ _	(e5)	Arrow down	· _ _ _	(ad)
p	· _ _ _ ·	F6	· _ _ _ _	(e6)	Arrow left	· _ _ _	(al)
q	· _ _ _ _	F7	· _ _ _ _	(e7)	Arrow right	· _ _ _	(ar)
r	· _ ·	F8	· _ _ _ _	(e8)	Shutdown Windows	· _ _ _ _	
s	· _ _	F9	· _ _ _ _	(e9)			
t	· _	F10	· _ _ _ _	(e0)			
u	· _ _				Mouse Codes		
v	· _ _ _				Mouse mode	· _ _ _ _	(mse)
w	· _ _	(	· _ _ _ _	(pl)	Exit mouse	· _ _ _	(esc key)
x	· _ _ _	)	· _ _ _ _	(pr)			
y	· _ _ _ _	[	· _ _ _ _	(bl)			
z	· _ _ ·	]	· _ _ _ _	(br)	Mouse movements (small):		
		}	· _ _ _	(sr)	Up	· _ _	(u)
1	· _ _ _ _	{	· _ _ _	(sl)	Down	· _ _	(d)
2	· _ _ _ _				Left	· _ _	(l)
3	· _ _ _				Right	· _ _	(r)
4	· _ _ _ _	+	· _ _ _ _	(ps)	Up+right	· _ _ _ _	(ur)
5	· _ _ _	-	· _ _ _	(mn)	Down+right	· _ _ _	(dr)
6	· _ _ _	*	· _ _ _	(as)	Up+Left	· _ _ _ _	(ul)
7	· _ _ _	/	· _ _ _	(zt)	Down+left	· _ _ _ _	(dl)
8	· _ _ _ ·	=	· _ _ _	(eq)			
9	· _ _ _ _				Radar right	· _ _ _	(ar)
0	· _ _ _ _	<	· _ _ _ _	(ls)	Radar left	· _ _ _	(al)
		>	· _ _ _	(gr)	Crosshair down	· _ _ _ _	(cd)
,	· _ _ _ _	`	· _ _ _ _	(oo)	Crosshair up	· _ _ _ _	(cu)
.	· _ _ _ _	~	· _ _ _ _	(til)			
?	· _ _ _ _	\	· _ _ _ _	(bs)	Left button:		
!	· _ _ _ _	(ext)			Click	·	
'	· _ _ _ _	(ap)	Enter	(ent)	Double click	· ·	
"	· _ _ _ _	(qt)	Space	(eat)	Drag	· · ·	
:	· _ _ _ _	(cn)	Ctrl	(ct)	Right button:		
;	· _ _ _	(sn)	Alt	(alt)	Click	·	
			Shift	(ft)	Double click	· _	
			Backspace	(mm)	Drag	· _ _	
			Tab Key	(tab)		· _ _ _	

Note: To use the above codes, first turn mouse mode on with "mse" (· \_ \_ \_ \_). You will stay in mouse mode until you exit it with the Esc code (· \_ \_ \_).

## Appendix C: General Windows Functions

This section provides instructions on dealing with Windows in general. It briefly describes how programs are loaded and how more than one program can run at the same time. It also describes some of the most common types of "controls" found in Windows programs, and discusses implications of using these various controls with E Z Keys XP.

### Loading Programs in Windows

You can load a program by double-clicking an icon on the desktop or by selecting the program on the Start Menu. Figures C-1 through C-4 show the Windows95 desktop with various programs open. Note that Figures C-3 and C-4 have the same programs running. In Figure C-4, however, one program (WordPad) has been set to use the full screen for its window, so the others are hidden underneath.



Figure C-1. Windows XP Desktop



Figure C-2. Windows XP Desktop with Start Menu

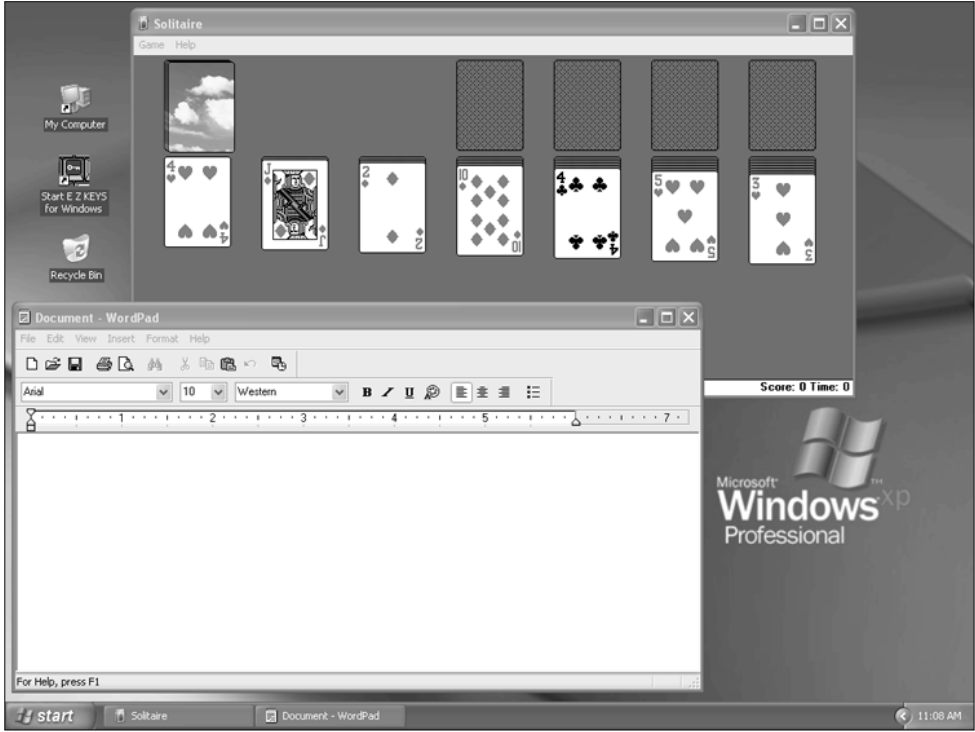


Figure C-3. Windows XP Desktop with Solitaire and WordPad

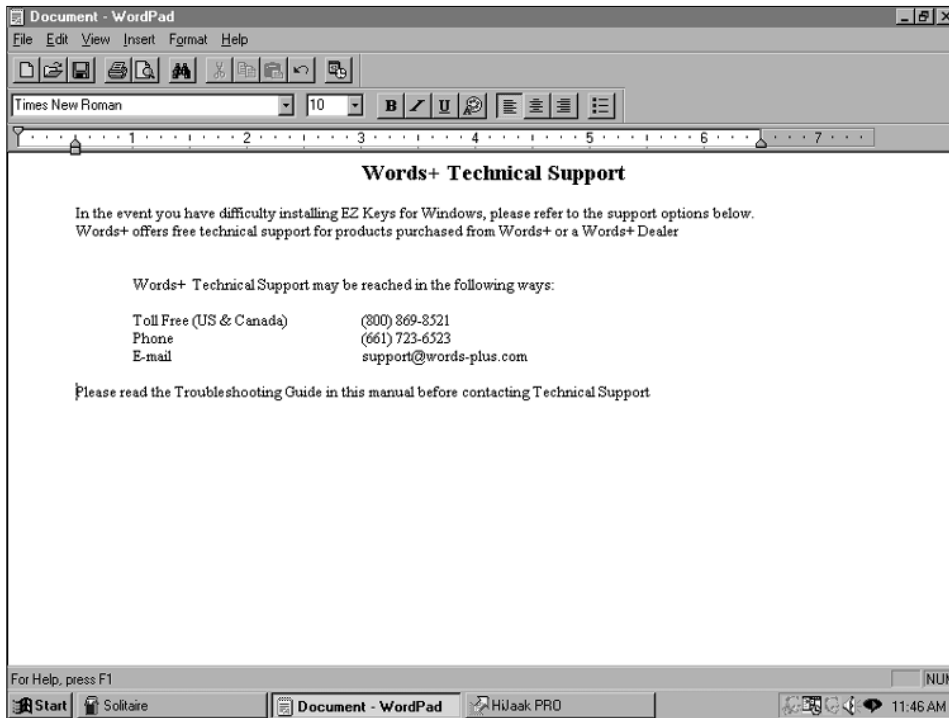


Figure C-4. WordPad. In Full Screen Mode

### Switching Between Programs in Windows XP

When a program is loaded, its window appears. This is the active window, or the window that has the focus. You can have several windows visible at the same time, but only one can have the focus. The desktop or any running program can have the focus. If you want to go from one program to another, you can do it in several ways:

- Move the mouse pointer over a visible part of the window and click the left mouse button.
- Select the open program from the Start Bar in Windows.
- Press and hold the Alt key and then press and release the Tab key. A box appears with a list of available programs. If you continue to hold the Alt key and press the Tab key, the box will change between the various active programs. When it gets to the name of the program you want, release the Alt key and the window of that program will appear.

The window that has the focus usually contains several controls. A change in color and/or a dotted rectangle within the control indicates the control with the focus. Pressing the Enter key activates that control. Note that if you use a mouse, you can click on any control to set the focus to that control. If you click a button or check box, it will activate even if it did not have the focus.

**Tip:** If it seems as if one of your programs is not responding properly, check your focus to make sure you're sending commands to the right program.

## Viewing Types of Controls

Windows programs use controls, or objects, on the display that enable you to perform various actions. Some objects act as soon as they are selected; others require additional input. The most common controls are described below, along with how you activate them with E Z Keys XP.

### Command Buttons

Command buttons can have different shapes and sizes, and they may contain text, graphic symbols, or both. In the WordPad window Figure C-5, there are two rows of command buttons at the top of the screen, the standard shortcut bar and the menu bar.

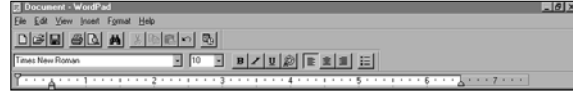


Figure C-5. WordPad Menu and Shortcut Bars

The menu bar has the words:

**File Edit View Insert...**

When you click on any of these buttons, a menu drops down, listing various functions. You can then select the operation you want, such as making text bold, opening a new document, changing text fonts, and so on. The bar of icons (graphic symbols) features shortcuts to specific operations. The icon that looks like an open folder brings up the "open document" window, allowing you to load a file you previously created.

### Text Boxes

Text boxes appear in windows as rectangular boxes into which you can type. The main part of any word processing program is essentially a large text box. Pop-up windows often contain text boxes for you to enter file names or other information. To insert information into a text box, the box must have the focus. If it has the focus, a flashing cursor for the insertion point will appear. When you move the mouse pointer over most text boxes, it will change from the arrow to the I-beam pointer.

### Lists

Lists are controls that allow you to select one or more items from a list that is stored in the program. Lists can include a variety of items, such as file names or options for setting attributes within a program (such as font name and font size). When you set the focus to a list, one item in the list is highlighted. You can change the highlighted item by using the up and down arrow keys or by clicking on a different item in the list

If the list is too long to fit in the box, a scroll bar appears. You can move through the items in the box by clicking on the arrows at the top and bottom of the scroll bar, or by clicking within the bar just above the down arrow or just below the up arrow. You can also use the Home, End, Page Up, and Page Down keys to move within the box.

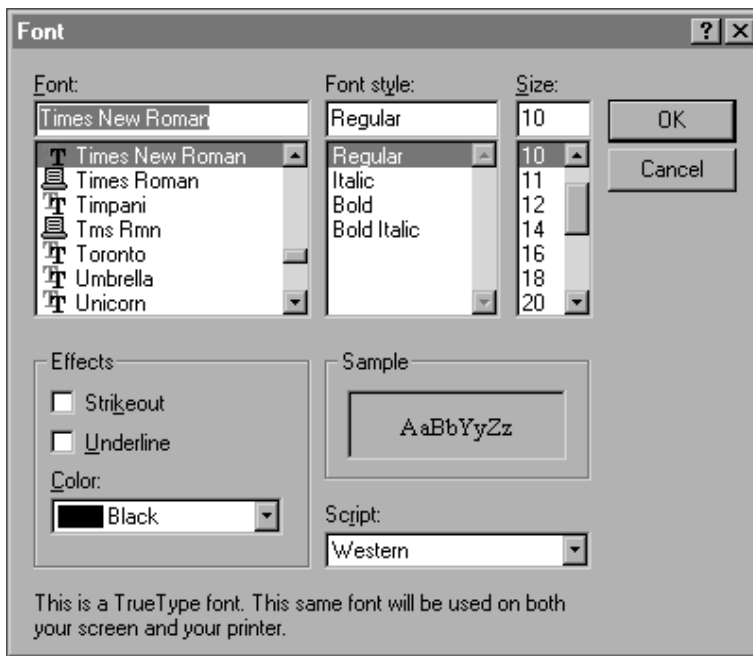


Figure C-6. Controls in WordPad: Lists and Check Boxes.

### Check Boxes

Check boxes are as simple as the name implies - boxes you check to set the indicated item. If a box is checked, then the item is on. If the box is empty (no P or X showing), then the item is off.