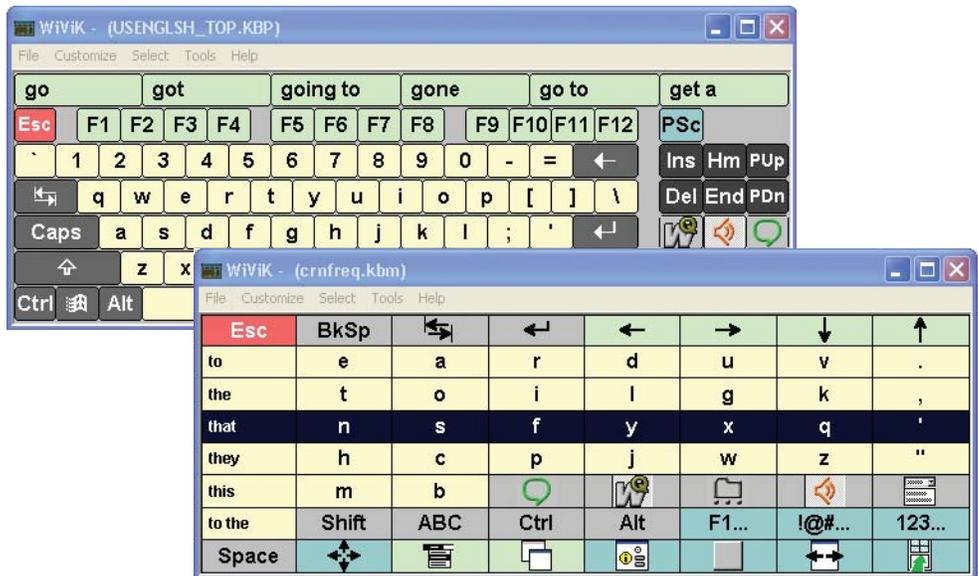


User Guide



WiViK On-screen Keyboard

Version 3 / Microsoft® Windows®



☒ **WiViK 3 is dedicated to Sunil Saraiya and his family.** ☒

Sunil was passionate, thoughtful and gracious as he worked with us to improve our product. As a long-time WiViK user, his exceptional commitment and unique insights will continue to benefit others around the world.

WiViK Development Team
Bloorview MacMillan Children's Centre

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Introduction and Installation

What is WiViK?

WiViK® is an on-screen keyboard that enables people with physical disabilities to access any application within Microsoft Windows 95/ 98/Me/NT4/00/XP. The WiViK keyboard is displayed within a window that you can move and size.

Pointing access

Using any pointing device (e.g., mouse, trackball, touchpad, and headpointer) you can select the WiViK on-screen keys.

All keys work just as they would if you were typing on a physical keyboard. Select a key and WiViK sends it to a word processor, e-mail message, web page or other text-based application you may be using. Keyboards can contain any keys you want, can be moved anywhere on the screen and can be any size. WiViK also has a unique expanding quadrant keyboard for those with limited pointing abilities.

Scanning access

With switch-based scanning, a highlight moves or scans across the keyboard. Select the switch to choose the key you want and WiViK sends it to a word processor, e-mail message, web page or other text based application you may be using. With WiViK you can also use the switch to open menus, edit text, move or resize windows, jump to other applications or move the mouse pointer.

While there are several standard scanning strategies available, WiViK also lets you define your own unique strategy based on your abilities and preferences. By choosing the number of switches (1 – 6), the basic scanning method (automatic, directed, inverse/step etc.) and the pattern of scanning movement you prefer (item, row/column, quadrant) you create your own personal scanning strategy which will make accomplishing your tasks easier and faster.

Word prediction and abbreviation-expansion

WiViK includes WordQ™ state-of-the-art word prediction and abbreviation-expansion that saves time and energy. Word prediction incorporates user vocabularies to predict which word is being typed. Begin typing a word. When it appears in the WiViK keyboard, choose it and WiViK will finish typing it for you. This way, there is no need to type the whole word. With abbreviation-expansion two or three letters can expand into phrases or full sentences. Both features help reduce the number of keystrokes needed for typing and can make writing more productive.

Text-to-speech

To help you with your writing and editing, you can have letters, words, and sentences spoken as you type. This helps you confirm that you have selected the correct character, word, or combination of words and punctuation.

A special reading mode allows you to proofread your text. When Microsoft Word, Outlook, WordPad, or Notepad is used, your text is highlighted and read word-by-word within the application. If you prefer to proofread at your own pace, you have the option to read a word or a sentence at a time. Web browsers and non-standard writing applications can also be read but without highlighting word-by-word.

Some applications will further allow Window items such as menus, lists, icons and buttons to be spoken as you use them.

Hardware Requirements

The hardware requirements for WiViK® are:

- Pentium II - 266 MHz or faster processor
- at least 64 MB RAM; 128 MB RAM is suggested
- sound card and speakers/headset to use speech features
- USB port OR 9-pin joystick port which is typically found on your sound card. Connect either the PRC USB switch box or the PRC two-switch connector

Sound cards

The speech features require a sound card to be present. Any sound card may be used, although cards that support multiple output channels are required if other software is used that fully occupies a sound channel (e.g., RealPlayer). Competing sound applications must be turned off while using WiViK with single-channel sound cards. External speakers may be used, but headphones are suggested for classroom use. Text-to-speech voices are included with a telephone frequency range suitable for lower quality headsets.

Windows compatibility

WiViK is developed for use with Windows 95, 98, Me, NT 4.0 (SP6+), 2000, and XP Home and Professional.

WiViK is intended for individual workstations with single or multiple users. That is, only one user may run a single installation of WiViK software at a time. However, that copy of WiViK software may open and run more than one keyboard and/or user vocabulary file. There are no limits on the number of keyboards or user vocabulary files used with one WiViK installation.

WiViK software may be installed directly on an individual workstation or it may be installed on a network with an installation in each user's network

workspace (User drive). Thus, many simultaneous users may be served with multiple WiViK software installations on a network. On a network, WiViK software must be installed by the System Administrator who must ensure the user has full read and write privileges within the ...**WiViK** and ...**WordQ** subdirectories.

Windows 95/NT 4.0

USB support is only available on some OEM versions of Windows 95 and is not available for purchase. Therefore, the PRC USB switch box for scanning selection may not be supported.

There may be problems in using some of the advanced speech features to read the text of menu items, options, buttons, Desktop icons, and lists. These features use Microsoft® Active Accessibility® which requires Internet Explorer 4.01 Service Pack 2 having been installed at some point on your computer. These speech features will not work (Options>Speech...>Feedback> Program Feedback). Unfortunately, IE 4.01 Service Pack 2 is no longer available from Microsoft.

For Windows 95, if IE 4.01 SP2 has not been installed, a recommended solution is to upgrade to Windows 98 Second Edition or Windows XP (preferred).

For Windows NT 4.0, Service Pack 6 (SP6) or greater must be installed.

Windows 98/Me

There are no known incompatibilities with standard editions of Windows 98 or Me.

Windows 2000/XP

WiViK software must be installed by the System Administrator.

The end-user must be given WRITE privileges on the ...**WiViK** and ...**WordQ** subdirectories by the System Administrator so that user files can be saved.

Install from WiViK CD

1. Insert the WiViK software CD.
2. If the CD Autoplay feature is turned on, you will be prompted to choose **Install WiViK** or to cancel the installation.
3. If the CD Autoplay feature is turned off, view the contents of the CD by double-clicking on **My Computer** and then on the **WiViK CD** icon. Then double-click on the **Setup.exe** file.
4. Follow the online instructions that are presented.
5. The following software will be installed:
 - WiViK® application
 - WordQ application
 - Microsoft® Active Accessibility® Version 1.3
 - Microsoft® SAPI 4.0a drivers
 - Microsoft® Text-to-speech Engine
 - Microsoft® Speech Control Panel

During the installation you may be prompted to locate certain files relating to the Microsoft® SAPI 4.0a drivers. If so, choose 'Skip Files' when prompted in the window that pops up. After completing the installation, locate the ...\\WordQ\\Speech_Engine folder and double-click the file 'spchapi.exe' to install these drivers.

Microsoft® Active Accessibility® is fully implemented in Windows 2000/XP and does not need to be installed.

You may be prompted during the installation to overwrite files that are older than existing files.

IMPORTANT: Choose **No to all** in response to this prompt.

Backup

Keyboard settings and your vocabulary files are automatically saved whenever WiViK software is properly shutdown. You can also manually save your vocabulary files.

Topic lists are included within your vocabulary but may be exported and saved as simple text files for sharing with other users.

Typically, vocabulary files are stored within a subdirectory of the ...\\WordQ directory.

Uninstall WiViK

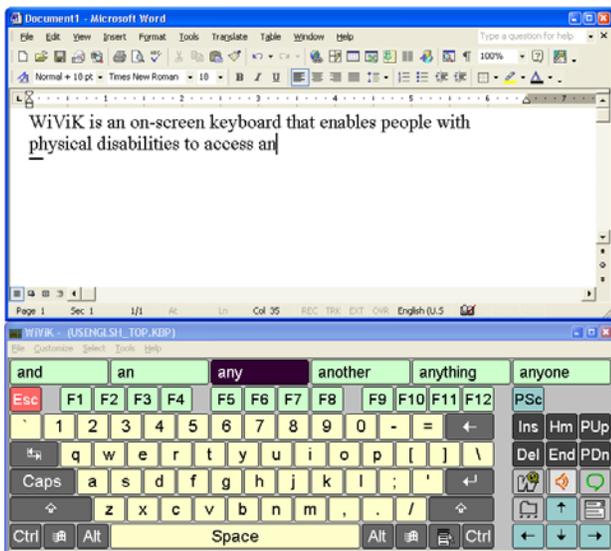
Uninstall WiViK by using the **Add/Remove Programs** applet located in the **Control Panel**.

Basic WiViK Operations

Using WiViK for the first time

1. Choose WiViK from the Start menu (**Start>Programs>WiViK 2002>WiViK**) or double-click the WiViK desktop icon created during installation.

A standard style keyboard is displayed the first time you use WiViK. This keyboard supports word prediction and contains most of the keys found on a physical keyboard.



2. When you first use WiViK, you must create your own WordQ user vocabulary file to use with word prediction. This involves selecting the writing vocabulary that you want to use, and then naming your user vocabulary file.

To learn how to create a new user vocabulary file, see **Create a user vocabulary**.

3. Start the application (e.g., word processor) that you want to use with WiViK.

If you intend to use WiViK frequently, consider adding WiViK and your word processing application to the StartUp folder so that they will run automatically when you start Windows.

4. Size and position WiViK and your application so that they do not overlap one another.
5. Select your application to make it active. Notice the WiViK keyboard remains on top.

WiViK requires a document or application to be active to receive keystrokes.

6. Begin typing into your application by pointing at or clicking on the WiViK keys.

The selected characters will be typed into your document.

*Information about selection options and alternative methods for selecting keys are described in **Click Selection**, **Dwell Selection**, and **Scanning Selection***

7. Select a predicted word by pointing and clicking on a desired word. If the word that you want is not shown, continue typing.

StickyKeys (Shift, Ctrl, Alt)

WiViK includes a “StickyKey” feature that enables you to type two or more keystroke combinations through single key selections.

To type two keystroke combinations

1. Select the modifier key (**Shift**, **Ctrl**, **Alt**) once if you want to combine it with another key. For example, the **Alt** key can be combined with a letter to pop-up a menu.

The modifier key remains selected until the key combination is completed. When the Shift key is selected, the keyboard displays uppercase characters.

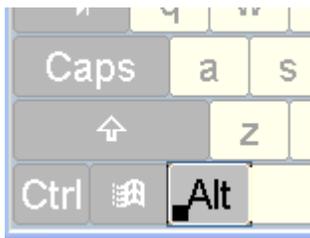
2. Select the key that follows the modifier key.

Depending on the key combination, an uppercase character is typed into your application, or an action is performed. The selection highlight is removed from the modifier key, and the keyboard returns to its original state.

To type multiple keystroke combinations

1. Select the modifier key (**Shift, Ctrl, Alt**) *twice* in a row if you want to hold it down for multiple keystroke combinations.

The modifier key remains selected. A small square appears in the bottom-left corner of the key to indicate that it is “latched.”



2. Select keys to combine with the modifier key. Each subsequent keystroke will be modified.

Depending on the key combination, an uppercase character is typed into your application, or an action is performed. *The selection highlight remains until you unlatch the modifier key.*

3. To release the modifier key, select the key once again.

On top feature

When appropriate, the WiViK keyboard automatically hides behind other windows that you are using. This ensures that the information you desire is always in view. Dialog boxes that are hidden by the WiViK keyboard are moved where they can be seen.

To bring your document on top

1. If the WiViK keyboard partially covers your document, click on the title bar or border of your document window to bring it to the top.
2. Point within the keyboard area to return WiViK to the top.

To bring menus and dialog boxes on top

1. When the WiViK keyboard obscures a menu or dialog box, point to the menu or dialog box to bring it to the top.
2. Point within the keyboard area to return WiViK to the top.

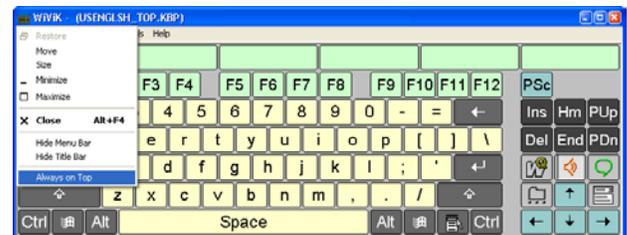
To bring WiViK back on top

When WiViK is partially hidden by another window, point within the keyboard area and WiViK will move to the top.

To always display WiViK on top

Select **Always on Top** under the **Control** menu.

This option ensures that the WiViK keyboard remains visible when another window is selected. Your keyboard remains on top and is never hidden behind other windows.



✓ A check mark beside the **Always on Top** command indicates that this feature is active.

Choose a keyboard

A number of WiViK keyboards are available to you when you install WiViK. These keyboards contain different keys and layouts. When you use WiViK for the first time, the keyboard **USEENGLISH_TOP.kbp** is active. This keyboard is generally used for typing and editing text, and contains most of the keys found on a physical keyboard. You may open more than one WiViK keyboard at the same time.

Types of keyboards

WiViK presently supports different types of keyboard files — standard international keyboards, macro keyboards, quadrant macro keyboards, and standard prediction keyboards.

Standard (.kbd)

Standard keyboards are considered typical keyboards without word prediction keys. They are created with special key codes that should not be modified.

Standard Prediction (.kbp)

Standard keyboards are considered typical keyboards with word prediction keys. They are created with special key codes that should not be modified.

Macro(.kbm)

Macro keyboards contain functions that extend the standard keyboards. They can be customized for different applications or activities. For example, a macro keyboard may contain keys that control your word processing application, type entire phrases, or perform a combination of operations.

Quadrant (.kbq)

Quadrant keyboards are a variation of macro keyboards that have keys organized in quadrants. When a keyboard of this type is selected, the expanding quadrant selection method automatically becomes active. See **Expanding Quadrant Selection**.

To open a keyboard

1. Select **Open Keyboard...** under the **File** menu.
2. Locate and select a keyboard file from either **...\wivik\standard** or **...\wivik\macro** subdirectory

Change international settings

WiViK has a number of international keyboards that allow you to select characters unique to a language. When using an international keyboard, you must select the appropriate Windows keyboard and input locale setting for that language. Keyboard properties are located in the Windows Control Panel.

To change settings in Windows 98/Me/NT/2000

1. Open the international WiViK keyboard that you want to use.
2. Select **Start>Settings>Control Panel>Keyboard**.
3. From the **Language** page (**Input Locales** page in NT/2000), select the **Add...** and **Properties** buttons to set the appropriate language and keyboard layout.
4. To specify the language that you want to use whenever you start up Windows, select the language and then the **Set as Default** button.
5. Press **Enter** or click **OK** when done.

To change settings in Windows XP

1. Open the international WiViK keyboard that you want to use.
2. Select **Start>Control Panel>Regional and Language Options**.
3. From the **Language** page, select the **Text services and input languages>Details...** button to set the appropriate language and keyboard layout.
4. To specify the language that you want to use whenever you start up Windows, select the language and then the **Set as Default** button.
5. Press **Enter** or click **OK** when done.

Using 'What's This?' Help

When you are working in a dialog box and you want information about an option, simply right-click on the option and choose **What's This?** from the pop-up menu. A ScreenTip for the option will appear.

You may also press the **F1** key to display a help description.

Exiting WiViK

To exit WiViK

1. Select the WiViK keyboard and make its menu active.

2. Select **Exit** under the **File** menu, or

Click the **Close** button on the WiViK keyboard.

3. If you have loaded a different keyboard layout since the last time you quit WiViK, you will be prompted to save or ignore the change.

The next time you use WiViK, it will be restored to the state that it was last used. Information about the keyboard layout, position, and selection method is stored in the **wivik.ini** file located in your **\windows** directory.

4. Your word prediction vocabulary and abbreviation-expansion set will also be stored.

Your WiViK Keyboard

Hide/Show the menu and title bars

To hide or show the menu bar

1. Select **Hide Menu Bar** under the **Control** menu to hide the menu bar.



2. Select **Show Menu Bar** under the **Control** menu to show the menu bar.

To hide or show the title bar

1. Select **Hide Title Bar** under the **Control** menu to hide the title bar along with the menu bar.



2. Double-click any border to show the title bar.

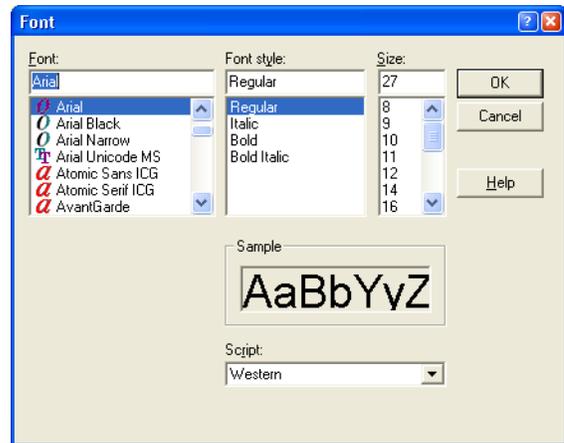
Choose a font

You can change the type and style of font that appears on the labels of your keys.

Changing the font in WiViK does not change the font used by your application.

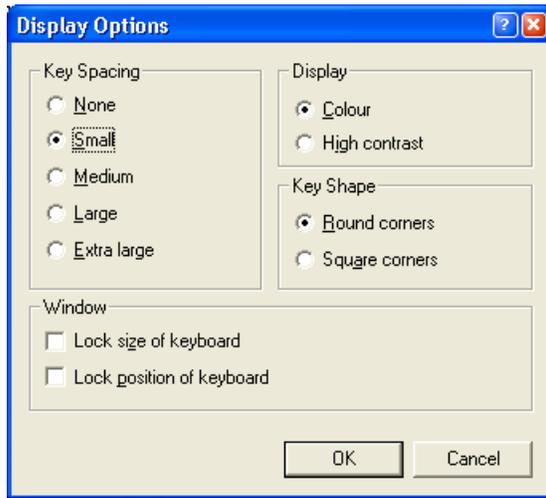
To change the font of the key labels

1. Select **Font...** under the **Customize** menu.
2. Select the type and style of font from the Font dialog box.



Adjust the appearance

Select **Display Options...** under the **Customize** menu.



To lock the window size and position

Lock size of keyboard. Select this to lock WiViK's window so that it is not accidentally re-sized; otherwise you can freely size WiViK by dragging any border.

Lock position of keyboard. Select this to lock WiViK's window so that it is not accidentally moved; otherwise you can freely move WiViK by dragging its titlebar.

Enable key selection feedback

Select **Key Click...** under the **Customize** menu to enable a key clicking sound that confirms a key selection.

To adjust the keyboard spacing

Ⓒ Select **None**, **Small**, **Medium**, **Large**, or **Extra Large** to set an appropriate key spacing.

To choose color or high contrast display

Ⓒ Select **Colour** or **High contrast** to alternate between keyboard display modes. The high contrast mode displays white keys with black text.

To choose key shape

Ⓒ Select **Round corners** or **Square corners** to change the key shape.

Click Selection

Enable click selection

Click selection allows you to point to a key and activate a pointing device's button or switch to indicate your selection.

To enable click selection method

1. Select **Click** from the **Select** menu.
2. It is suggested that **Key Click** under the **Customize** menu is enabled to provide auditory feedback as you select keys.

Set click options

There are several options that you can set to enhance the use of click selection. Select **Options** under the WiViK **Select** menu; then set your desired options.

To change the way keys are highlighted

Select the radio button indicating the desired highlighting mode in the **Click Options** dialog.



Highlight keys that you click. This is the typical mode where a key is highlighted when you first push down on a button or switch. If you move off the key while still pressing down, the highlight goes away and if you then release the button no key will be selected.

Highlight keys while dragging. This is a typical mode for a touchscreen user. Keys are highlighted as you drag over them and selected when you release the button.

Highlight keys while pointing or dragging. Keys are highlighted as you point or drag over them. Keys are selected when you release the button.

To enable additional click options

Click one or more check boxes to enable the following additional options.

Double-click to shift/capitalize a key. This enables you to quickly shift keys from lower to uppercase by double-clicking on a key with your button or switch.

Select key on click down. This is available if you choose **Highlight keys that you click**. It is useful if you want to send a keystroke immediately upon activating the button when there is a delay before the button is released. Some sip and puff switches may have such a delay.

Repeating keys are not available with the Click selection method.

Dwell Selection

Enable dwell selection

Dwell selection allows you to point to a key and select by pausing or dwelling for a specified period of time.

To enable dwell selection method

1. Select **Dwell** from the **Select** menu.
2. It is suggested that **Key Click** under the **Customize** menu is enabled to provide auditory feedback as you select keys.

Set dwell options

There are several options that you can set to enhance the use of Dwell selection. Select **Options** under the WiViK **Select** menu; then set your desired options.

To adjust the dwell time

Slide the **Dwell time** scroll bar in the **Dwell Options** dialog to adjust the dwell time.

To enable additional dwell options

Click one or more check box to enable the following additional options in the **Dwell Options** dialog.

Predict the desired key when pointing is unsteady. This special function averages the dwelling time to make it easier to select a key if your pointing is imprecise or you have a slight tremor. This means that you can move off and on a key during the dwell time period; the key that is dwelled on for the total amount of time equal to the dwell time will be selected.

Allow key to repeat. This allows a key to be repeated by continuing to dwell over it. The repeat rate equals the dwell time.

Stop repeating key when mouse is motionless. This is used along with the auto repeat function. If the cursor remains perfectly still, that is, when you are no longer in contact with the pointing device, the auto repeat is inactive.



Scanning Selection

Enable scanning selection

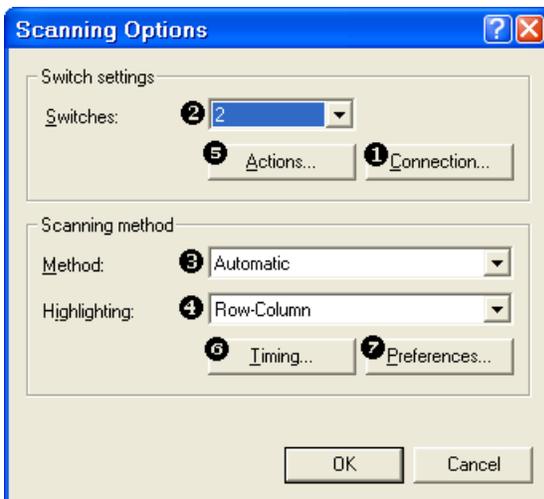
Scanning selection allows you to select WiViK keys to type and manipulate the Windows interface using 1–6 switches.

To enable scanning selection method

Select **Scan** from the **Select** menu.

Set scanning options

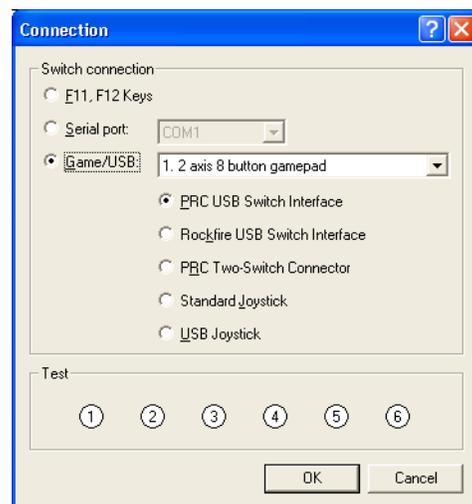
1. Select **Options** from the **Select** menu after choosing **Scan** as the selection method.



2. It is suggested that you set scanning options in the following order.
 1. Choose switch interface connection.
 2. Select number of switches.
 3. Choose automatic, inverse or directed scanning method.
 4. Select highlighting style with automatic and inverse scanning.
 5. Assign specific actions to switches.
 6. Set timing options.
 7. Set scanning preferences.

Switch connection

This dialog specifies how the switches are connected. Initially, the **F11** and **F12** keys are selected instead of switches. You will need to change the interface setting for the particular switch connection you are using. Test the switches in this dialog. As you press a switch, the corresponding switch number will highlight.



Scanning methods

Automatic

In *automatic* scanning, groups or items are automatically highlighted or scanned in sequence. The highlight pauses at each group/item for a preset time.

When you activate (press and release) the *select* switch, scanning begins across smaller groups or individual items. If you click the *select* switch when an individual item is highlighted, that item is selected. One or two switches are usually used with automatic scanning with *select* and *cancel* actions assigned to switches.

You must be able to activate the switch within the preset time to make a selection.

Inverse

With *inverse* scanning you advance the highlight by holding the *select* switch down. While the switch is held down, the highlight pauses at each item for a preset time.

Step scanning is a variation where you advance by repeatedly activating the *select* switch. Sometimes, *step* and *inverse* scanning are combined.

The advantage of *inverse/step* scanning is that timing is not as critical as with *automatic* scanning. Groups or items are selected with a *select* switch or by *dwelling*. Typically two or three switches are used with *move*, *select* and *cancel* actions assigned to switches.

Directed

Directed scanning matches separate switches with moving the highlight across individual keys. These switches are used in a *step* or *inverse* fashion.

The switches are often housed in a gated joystick, allowing users to *direct* the scanning cursor as they would drive an electric wheelchair. Items are selected by activating the *select switch*, or by *dwelling* for some period. Directed scanning requires the greatest degree of control.

Highlighting styles

Row-column

Rows of items are highlighted from the top down one at a time. A selected row is then highlighted column-by-column (item-by-item) until the desired item is reached and selected. The highlighting returns to the first row after a selection.

Row-group-item

Groups of items in a selected row are highlighted until a group containing the desired item is selected. Then items within that group are highlighted until the desired item is reached and selected. The highlighting returns to the first row after a selection.

Column-row

Columns of items are highlighted one at a time. A selected column is then highlighted row-by-row (item-by-item) until the desired item is reached and selected. The highlighting returns to the first column after a selection.

Column-group-item

Groups of items in a selected column are highlighted until a group containing the desired item is selected. Then items within that group are highlighted until the desired item is reached and selected. The highlighting returns to the first column after a selection.

Quadrant scanning

The keyboard is divided into quadrants. Each quadrant is highlighted in succession. Sub-quadrants within a selected quadrant are highlighted and the process continues until individual items are highlighted.

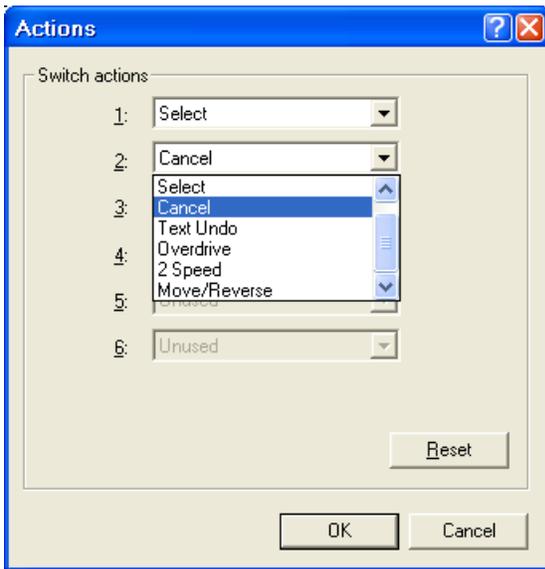
Item scanning

Each item is highlighted one at a time, usually from left-to-right and top-to-bottom until an item is selected. After a selection, highlighting begins again with the first item and repeats scanning. Element scanning is typically limited to less than 15 items.

Automatic switch actions

For each available switch, assign an appropriate action after choosing **Actions** from the **Scanning Options** dialog.

*At least one switch must be defined as a **Select** switch. You can repeat a key by holding down the **Select** switch.*



- Select** Starts scanning initially; makes selection of row/column, group, or item; repeats selection if switch is held down.
- Cancel** Stops scanning; control is switched to the next open WiViK keyboard when switch is activated twice in a row.
- Overdrive** Advances the highlight faster according to **Time** adjusted by the **Speed Factor** while switch activation is maintained.
- 2 Speed** Toggles between scan **Time** and scan **Time** adjusted by the **Speed Factor**.
- Move/Reverse** Toggles direction of scanning.

Inverse switch actions

For each available switch, assign an appropriate action after choosing **Actions** from the **Scanning Options** dialog.

*At least one switch must be defined as a **Move**-style switch. You can repeat a key by holding down the **Select** switch. If a **Select** switch is not defined, keys are automatically selected by **dwelling**.*

- Select** Selects item.
- Cancel** Stops scanning; control is switched to the next available scanning WiViK keyboard when switch is activated twice in a row.
- Overdrive** Modifies speed associated with **Move** switch according to **Time** adjusted by the **Speed Factor**.
- Move, Reverse** Advances highlight when you hold the switch down or repeatedly activate the switch.
- Move fast, Reverse Fast** Advances highlight when you hold this switch down using the scan **Time** adjusted by the **Speed Factor**.
- Move 2 speed, Reverse 2 Speed** Advances highlight when you hold the switch down using the standard scan **Time** interval until you release the switch; then when you next hold down the switch the highlight advances according to the **Time** adjusted by the **Speed Factor**; this action toggles.
- Move/Reverse** Advances highlight when you hold the switch down until the switch is released; moves highlight in reverse direction when you next activate the switch; this action toggles.
- Move/Rev fast** Advances highlight when you hold the switch down using the scan **Time** adjusted by the **Speed Factor** until you release the switch; moves highlight in reverse direction when you next activate the switch; this action toggles.

Directed switch actions

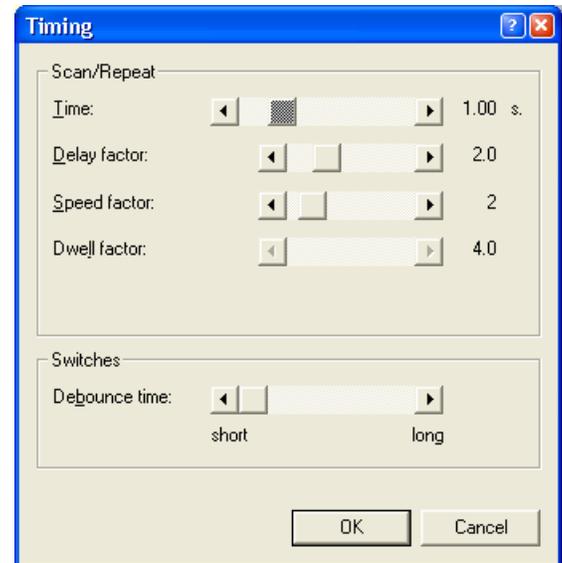
For each available switch, assign an appropriate action after choosing **Actions** from the **Scanning Options** dialog.

*At least two switches must be defined for horizontal and vertical movement. You can repeat a key by holding down the **Select** switch. If a **Select** switch is not defined, keys are automatically selected by **dwelling**.*

Select	Selects item.
Cancel	Stops scanning; control is switched to the next available WiViK keyboard when switch is activated twice in a row.
Right, Left, Up, Down	Moves highlight in the switch direction when you hold the switch down or repeatedly activate the switch.
Right, Left, Up, Down Fast	Moves highlight in the switch direction when you hold the switch down using the scan Time adjusted by the Speed Factor .
Right/Left	Moves highlight in the switch direction when you hold the switch down; moves highlight in the opposite direction when you next activate the switch; this action toggles.
Right/Left Fast Up/Down Fast	Moves highlight in the switch direction when you hold the switch down using the scan Time adjusted by the Speed Factor until you release the switch; moves highlight in the opposite direction when you next activate the switch; this action toggles.

Timing settings

Timing is the most important aspect of scanning access. WiViK incorporates several timing settings that accommodate wide ranging abilities. All are based on the setting of a basic scan interval.



The following timing settings are set within each scanning strategy.

Time. This is the time interval that the highlight pauses at one location before advancing while switch activation is maintained; also, the time interval between repeating keystrokes. This should be set so that you can hit or release the switch before the highlight passes the desired row, group or item. When step scanning is used, this should be set high so that the highlight does not advance over more than one item with each hit.

This time also controls the *repeat time* when you hold down the select key beyond the **Delay Factor**. The repeat function works as follows: Delay Factor—1st selection—Delay Factor—2nd selection—Delay Factor at Scan/Repeat time.

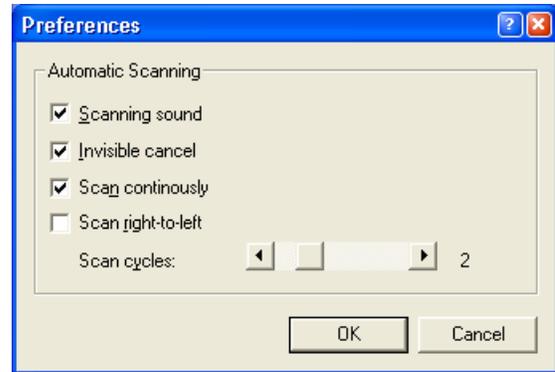
Delay Factor. Increases the **Time** of the first group or item scanned by this factor. This gives you a chance to seek out the next item for selection. Typically this is set to 2.

Speed Factor. Decreases the **Time** by this factor when using a switch defined as *Overdrive*, *2 Speed*, or *Fast*. It allows you to quickly move to the approximate location of the desired row, group or item. Typically **Speed Factor** is set to 2 or 3. You must stop before reaching the target.

Dwell Factor. Increases the **Time** by this factor to dwell or wait to make a selection or to cancel scanning. If no *Select* switch is defined, selection is automatically set to *dwelling*. **Dwell Cancel** is only available when a *Select* switch is defined. Typically **Dwell Factor** is set to 4 or 5 for dwell selection and 6–10 for dwell canceling.

Debounce Time. The time that the user must hold down a switch to activate it. It prevents double activations of the switch caused by bouncing on the switch or poor contacts within the switch.

Automatic preferences



Scanning sound. If checked, the computer beeps with every movement of the highlight.

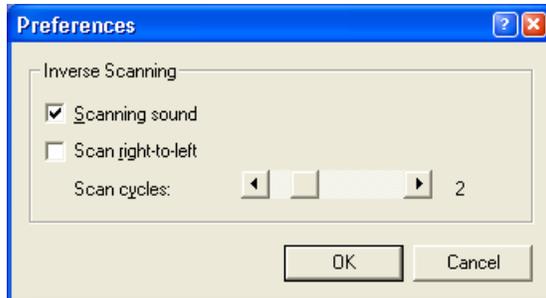
Invisible cancel. If checked, there is an added scan interval at the end of a cycle (e.g., row) where nothing is highlighted. When the selection switch is activated, scanning stops if **Scan continuously** is not checked, otherwise scanning returns to the top level. (Used when a separate *cancel* switch is not available.)

Scan continuously. If checked, the scanning continues after any selection, otherwise scanning stops when a single item is selected.

Scan right-to-left. By default, the highlight scans left-to-right; this may be changed to right-to-left orientation.

Scan cycles. This adjusts the number of times that the highlight cycles through a group (e.g., all rows) before stopping and disappearing; if set to 0 then the highlight cycles indefinitely.

Inverse preferences

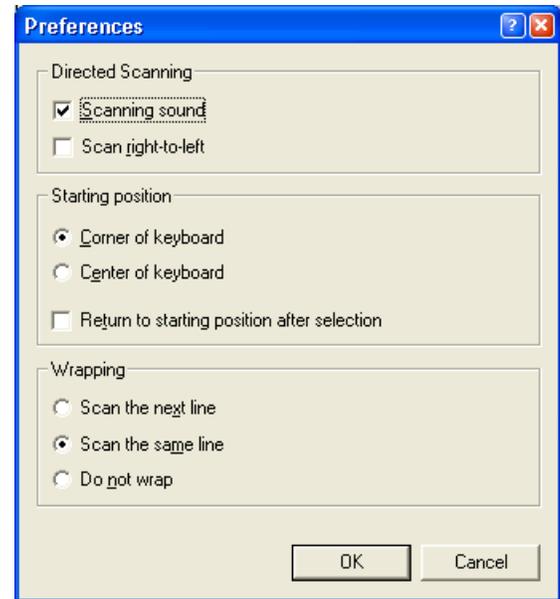


Scanning sound. If checked, the computer beeps with every movement of the highlight.

Scan right-to-left. By default, the highlight scans left-to-right; this may be changed to right-to-left orientation.

Scan cycles. This adjusts the number of times that the highlight cycles through a group (e.g., all rows) before stopping and disappearing. If set to 0 then the highlight cycles indefinitely.

Directed preferences



Scanning sound. If checked, the computer beeps with every movement of the highlight.

Scan right-to-left. By default, the highlight scans left-to-right. This may be changed to right-to-left orientation.

Select either **Corner of keyboard** or **Center of keyboard** to indicate where the highlight will start scanning.

Return to starting position after selection. If checked, the highlight returns to its starting position after every selection.

Select **scan to the next line**, **scan the same line**, or **none** to indicate how the highlight continues when it reaches the end of a line.

Word Prediction

About WordQ word prediction

WiViK incorporates **WordQ™** technology for its word prediction. WordQ is a separate application that runs at the same time as WiViK and displays predicted words within WiViK on-screen keyboards. As you type, correctly spelled words are continuously displayed. When you see the word you want to use, you can choose it with your pointing device or switch. You can also display a word with its different word endings. Using knowledge about the last word that you wrote, WordQ software also suggests relevant next words in your sentence.

A user vocabulary reflects your personal writing style. This user vocabulary continually adapts as you write and improves its performance as you use it. This vocabulary ensures words are suggested that you regularly use and understand, thus reducing confusion. A number of initial user vocabularies are included based upon starting, intermediate, and advanced writing styles. You can further customize your user vocabulary by adding novel words and by importing text files.

You can also create and use groups of words called topics, such as your favourite sport, the family pet, or general math concepts. When you write about one of your topics, its words are more likely to be suggested.

When WordQ encounters unfamiliar and misspelled words, it saves them for you to review at a later time. You can then delete a misspelled word or add a novel word to your vocabulary.

Use word prediction

To select a predicted word

Select a predicted word just as you would any other key.

To quickly undo a misselected word

You can undo the last word that you selected. Press the **Esc** key and that word will be removed from your document up to the initial letter(s) that you typed.

If you do not undo a word immediately following its selection, you will need to use the standard editing features of your application to remove the word.

To display different word endings

Word endings are displayed differently depending on whether you choose to have WiViK automatically add a space after you select a predicted word or not.

With **auto spacing** turned on, select the root word that you want. Then press the **Backspace** key until the list displays the word with different endings, for example: ing, ed, es, ies, and ly.

With **manual spacing** select the root word that you want. All word forms beginning with that root word are now shown. In some cases you may need to select the **Backspace** key. Select one of these words, or press **Spacebar** to go on to type your next word.

Create a user vocabulary

When you first start WiViK, you will need to create your own user vocabulary file. This involves selecting the writing vocabulary that you want to use, and then naming your user vocabulary file.

WordQ has several initial vocabularies from which you can choose. The vocabularies support different levels of writing. Use these vocabularies to help get you started, but with use you will notice that your vocabulary will adapt to your personal needs.

To access the user vocabulary features, you must first display the WordQ **Options** menu and button bar by selecting the **Options** button on the WiViK on-screen keyboard.

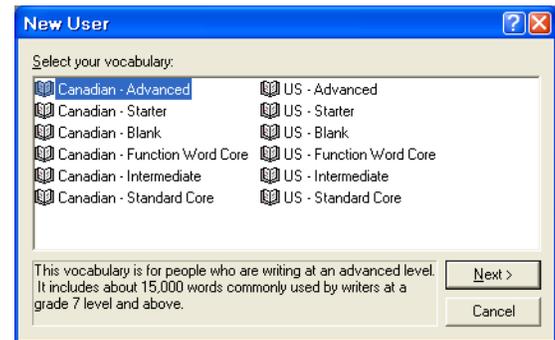


To create a new user vocabulary

1. Select **New User** from the **Options** menu on the WordQ button bar.



2. Choose a vocabulary that matches your writing level. This is only a starting point – WordQ adapts to your own writing as you use it.



 **Starter:** This vocabulary is for people who are starting to write. It includes about 5,000 words commonly used by writers up to grade **3** level.

 **Intermediate:** This vocabulary is for people who are writing at an intermediate level. It includes about 10,500 words commonly used by writers at a grade 2 to 8 level.

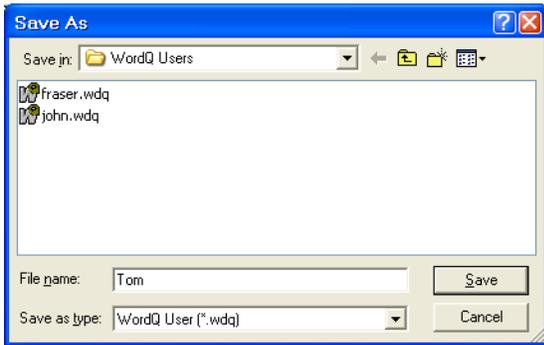
 **Advanced:** This vocabulary is for people who are writing at an advanced level. It includes about 15,000 words commonly used by writers at a grade 7 level and above.

 **Blank:** There are no words associated with this template. This template is used when you want to create your own list of words, rather than start from one of the other vocabularies.

 **Standard Core:** This template is used when you want to start with a limited number of words. It includes function words, days, months, numbers, colors, and provinces or states.

 **Function Word Core:** This template is used when you want to start with a profile that contains function words only. This template includes about 500 function words.

3. After choosing a vocabulary, you will be prompted to enter a filename, such as your own name, to create a user file. Your user file will contain your vocabulary and optional settings.



4. If you wish, you can modify your vocabulary and settings, or allow WordQ to adapt as you use it.

You can have more than one user vocabulary.

To create a user vocabulary based on the current user vocabulary

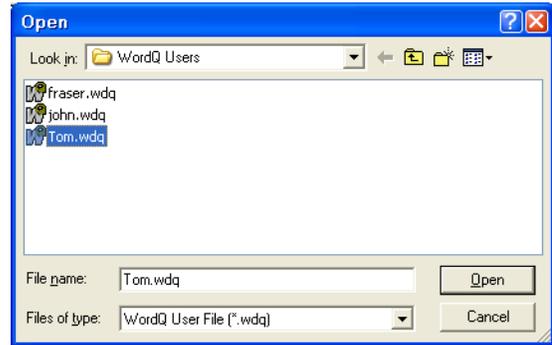
1. Select **Save User As...** from the **Options** menu on the WiViK button bar.
2. Type a different user name and press **Save**.
3. The vocabulary and settings from the existing user vocabulary will be copied to the new user vocabulary. You can modify these as necessary.

To create a user vocabulary with a limited vocabulary

1. Select **New User...** from the **Options** menu on the WordQ button bar.
2. Begin with the Blank, Standard Core or Function Word Core.
3. Add your own words to your vocabulary, and remove any words you do not want to use. See **Modify your main words**.
4. To keep your vocabulary from learning new words, or to have words predicted from your limited vocabulary only, you should set the appropriate prediction options. See **Set options to enhance prediction and punctuation**.

Use another user vocabulary

1. Select **Open User...** from the **Options** menu on the WordQ button bar.



2. Select a user vocabulary name and press **Open**.
3. You will then be asked whether you want to save any changes to the previous user file before opening the selected user file.

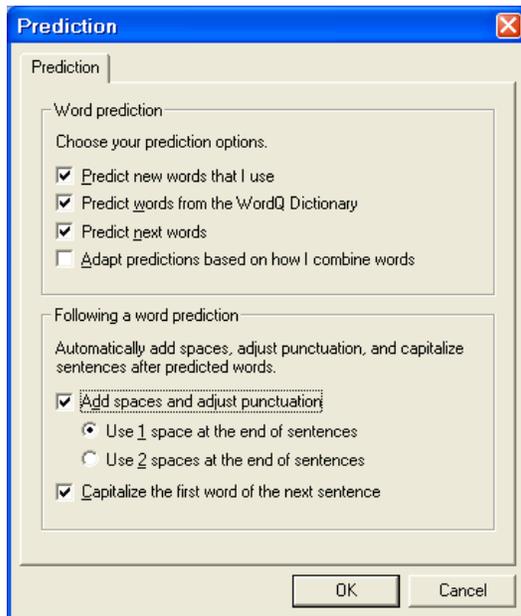
Delete a user vocabulary

1. Select **Open User...** from the **Options** menu on the WordQ button bar.
2. Select a user vocabulary file name from the **Open...** dialog box and press the **Delete** key on your keyboard.

Set options to enhance prediction and punctuation

You can set various options to enhance the prediction and punctuation capabilities.

Select **Prediction...** from the **Options** menu on the WordQ button bar.



Word prediction

Select one or more of the following options:

- Predict new words that I use** enables WordQ to automatically add correctly spelled words to your vocabulary. Novel and misspelled words are put aside for you to review. See **Review misspelled or unrecognized words**.
- Predict words from the WordQ Dictionary** suggests words from the WordQ Dictionary when appropriate words cannot be found in your vocabulary.
- Predict next words** displays the words that are most likely to follow the word you have just selected.

- Adapt predictions based on how I combine words** enables WordQ to learn which words you use to follow one another. If you have trouble with grammar, you may want to leave this option unchecked.

Following a word prediction

If you are used to typing the spacebar after every word, do not choose the options below. You will have an added advantage of seeing different word endings that you may choose before pressing the spacebar.

- Add spaces and adjust punctuation.** You can choose to let WordQ automatically add a space after you select a predicted word. When you type a punctuation mark, WordQ will remove this training space, place the punctuation and add any necessary spaces. You may also choose to:
 - Add 1 space after you end a sentence.** This is the common rule in desktop publishing when using proportional fonts.
 - Add 2 spaces after you end a sentence.**
- Capitalize the first word of the next sentence.** This option is only available when the previous option is selected, and only works if you immediately begin typing the next sentence after typing an end-of-sentence mark.

To keep your vocabulary from learning new words

- Uncheck* **Predict new words that I use**
- Uncheck* **Adapt predictions based on how I combine words**

To predict words from only your vocabulary

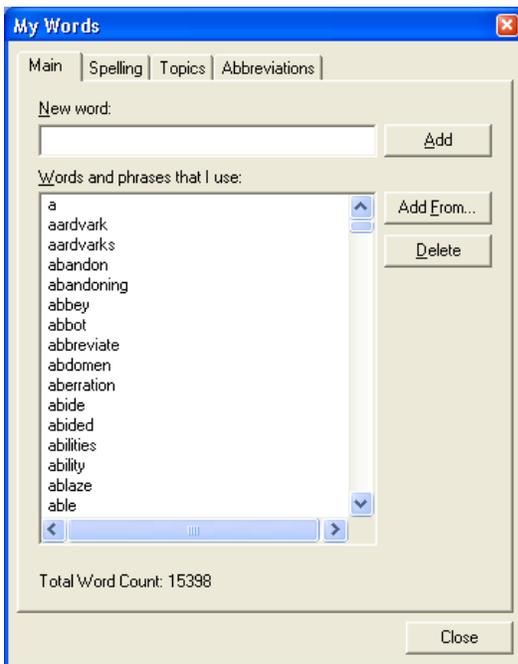
- Uncheck* **Predict words from the WordQ Dictionary**

Modify your main words

You can add personal words or phrases to your WordQ vocabulary such as the names of family and friends. While WordQ includes many common names, adding your own names helps WordQ identify ones that are important to you.

You can also choose to add your words as you type. WordQ will automatically learn them.

Click on the Select **My Words...** from the **Options** menu on the WordQ button bar. Then click the **Main** tab.



To add a word or a phrase

1. Type a word or short phrase (up to 30 characters) in the New Word box and then select **Add** or press **Enter**.
2. You may add any number of words that you want. Be careful with your spelling, as words are not checked for spelling at this time.
3. If the word is already in the list, it will be highlighted for you.
4. Select **Close** to accept your words.

To add words from a text file

1. Select the **Add From...** button. This displays an **Add From** dialog box.
2. Browse to the directory where your text file (*.txt) is located, and select the file containing your words.

Use Notepad to create this text file, or save your word processing file in a text format (*.txt).

3. The words in the file will be merged with your main words.

Words will be checked for proper spelling, and misspelled or novel words will be set aside. See **Review misspelled or unrecognized words**.

To add words as you type

1. Select **Prediction...** from the **Options** menu on the WordQ button bar, and then click the **Prediction** tab. Ensure that the following option is set:

Predict new words that I use

2. Type your words into any word processor. Your words will automatically be added to your vocabulary as you type.

The words will be checked for proper spelling. Misspelled words and unrecognized words will be put aside for you to review later.

To undo changes to your vocabulary

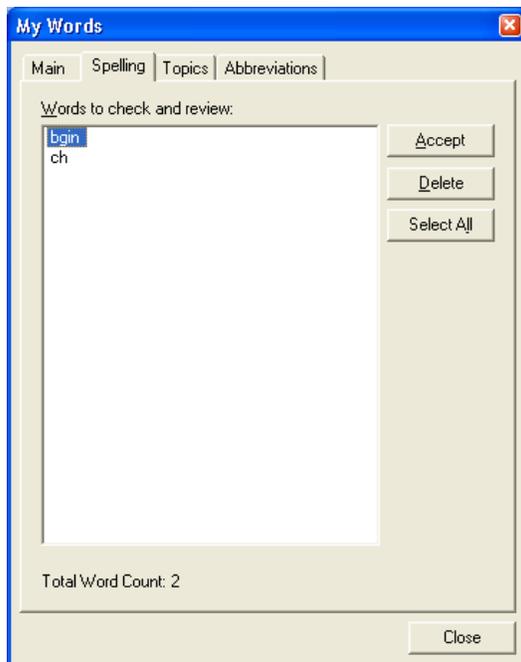
To undo unwanted changes to your vocabulary, close or exit WiViK and click on **No** when prompted to save your vocabulary file. Open WiViK again to use your original vocabulary.

Review misspelled or unrecognized words

Misspelled and unrecognized words that you type are put aside for you to review.

Select **My Words...** from the **Options** menu on the WordQ button bar. Then click the **Spelling** tab.

You will see a list of words that may be misspelled or not found in the WordQ Dictionary such as proper names and acronyms. Review this list of words for proper spelling.



To accept words for prediction

1. Select the words you would like to add to your main list of words. You can select a range of words with the common Windows **Shift+click** action. Select separate words with **Ctrl+click**.
2. Click the **Accept** button to add the selected words to your main list of words. The words will now be used in word prediction.
3. Click **Close** when done.

To delete misspelled words

1. Select words by clicking on them. Select a range of words with the common Windows **Shift+click** action. Select separate words with **Ctrl+click**.
2. Click the **Delete** button to remove selected words from the list.
3. Click **Close** when done.

Leaving words in the spelling list does not affect word prediction. You may accept or delete words at any time.

Use topic words

You can easily add and use topics to emphasize words in the prediction process. While only one topic can be active at a time, there are no limits on the number of topics that you use. You can switch between topics at any time.

To access the topic lists, select the **Topics** button on WiViK.



This will bring up the WordQ button bar with its dropdown **Topic** list.



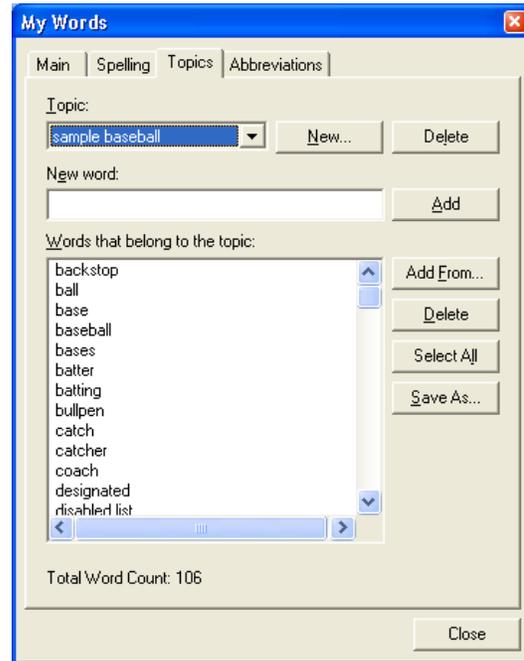
To switch to a particular topic

1. Use your mouse to point to and select a topic, or use the **↓** key to step through the list followed by **Enter** to select a topic.
2. Click back in your writing application and return to typing.

Choose **<none>** as a **Topic** to turn off the use of topics

Create a topic list

Select **My Words...** from the **Options** menu on the WordQ button bar. Then click the **Topics** tab.



To view a topic list

Click on the dropdown Topic list and select a topic to view it. The list is blank if no topics have been created.

To create a topic

1. Click on the **New...** button.
2. Type in a **Topic Name** and press **OK** in the pop-up dialog.
3. Follow instructions below to add words one-by-one or from a text file.

To add topic words one-by-one

1. Type in the **New** word box and click **Add** or press **Enter**.
2. The word will be copied to the list and placed in alphabetical order.
3. Repeat for all topic words.

To add topic words from a list in a text file

1. Select the **Add From...** button. This will display the **Add From** dialog box.
2. The directory (... \WordQ \topics \) contains sample topics saved as text files (*.txt). Browse to the directory where your topic file is located, and then select your file.
3. Your words in the file will be merged with the current topic.

Topic files contain one word or a short phrase per line and are best created as a text file (.txt) with Notepad.

To save topic words as a list in a text file

1. Select the **Save As...** button. This will display the **Save As** dialog box.
2. Browse to the directory where you want to save your topic file. You may save your topic in the directory (... /WordQ /topics /) that includes sample topics.
3. Give your file a name. The filename can be the same as the topic name, or you may choose another name.
4. Your topic will be saved as a text file (*.txt). Each word or phrase will be put on a separate line. You may view this file with Notepad.

To delete words from a topic

1. Select words by clicking on them. Select a range of words with the common Windows **Shift+click** action. Select separate words with **Ctrl+click**.
2. Click the **Delete** button to remove selected words from the list.

To delete a topic list

1. Select a topic from the dropdown Topic list.
2. Click on the **Delete** button.

Abbreviation-Expansion

About WordQ abbreviation-expansion

WiViK incorporates **WordQ™** technology for its abbreviation-expansion. Abbreviation-expansion is a technique in which a combination of letters, an “abbreviation,” is used to represent a word or phrase. When you type an abbreviation followed by the **Spacebar** or **Enter** key, it expands to the assigned word or phrase.

You can create your own set of abbreviations that are easy for you to use and remember. There is no limit on the number of abbreviations that may be saved in one set. Because you must memorize each abbreviation, a small set of abbreviations is suggested. A sample abbreviation-expansion set is available for you to use to get started.

Your abbreviations will be caught as possible misspellings and held in the **Spelling** dialog (**Options>My Words...>Spelling**). You can choose to add them to your prediction vocabulary so that they will appear as predicted words. This can reduce keystrokes as well as be a helpful memory cue, especially with abbreviations of three or more characters.

A suggestion is to begin your abbreviations with the letter “x” so that they are obvious abbreviations.

Use abbreviation-expansion

To turn abbreviation-expansions on and off

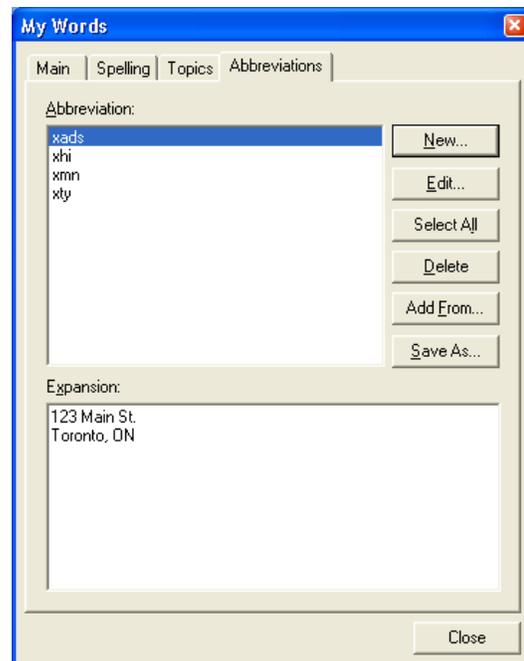
Select **Abbreviations** from the WordQ **Options** menu or from the WiViK **Tools** menu.

To use an abbreviation-expansion

You can use an abbreviation at any time. Just type the abbreviation followed by a space, and the expanded text will be typed in its place.

Create and edit abbreviation-expansions

Select **My Words...** from the **Options** menu on the WordQ button bar. Then click the **Abbreviations** tab.



To add abbreviation-expansions one-by-one

1. Click on the **New...** button.
2. Type in an abbreviation and press **OK** in the pop-up dialog.
3. The word will be entered in the list of abbreviations in alphabetical order.
4. Type the expanded text for the abbreviation in the **Expansion** box.
5. Repeat for all abbreviation-expansions.

Use CTRL+Enter to add a line in an expansion.

To add abbreviation-expansions from an external file

1. Select the **Add From...** button. This will display the **Add From** dialog box.
2. Browse to the directory where your abbreviation-expansions file (*.abb) is located, and then select your file.
3. Your words in the file will be merged with your current abbreviation-expansions.

To save abbreviation-expansions to an external file

1. Select the **Save As...** button. This will display the Save As dialog box.
2. Browse to the directory where you want to save your abbreviation-expansion file.
3. Give your file a name.
4. Your abbreviation-expansions will be saved in a specialized file with the extension ".abb" that can be opened in another user's vocabulary or on another computer.

To delete abbreviation-expansions

1. Select words by clicking on them. Select a range of words with the common Windows **Shift+click** action. Select separate words with **Ctrl+click**.
2. Click the **Delete** button to remove selected words from the list.

To include nonalphabetic keystrokes into an expansion

You may include nonalphabetic keystrokes into an expansion by typing the appropriate keystroke code as shown below:

Code	Keystroke
<SHIFT>	Sticky Shift
<CTRL>	Sticky Ctrl
<ALT>	Sticky Alt
<ENTER>	Enter/Return
<ESC>	Escape (Esc)
<BKSP>	Backspace
<TAB>	Tab

*A complete list of available keystroke codes is available in the on-line Help. See **Help> Abbreviation-Expansion: Keystroke definitions**.*

Speech Feedback

About speech feedback

WiViK incorporates **WordQ™** technology for its speech output. There are two main speech features – typing echo and proofreading text.

Typing echo

In addition to allowing you to see and hear word choices, you can have letters, words, and sentences spoken as you type. Any combination of these may be used.

Proofreading text

The final level of prompting is proofreading the text at a sentence level. This level is fully available in Microsoft Word, WordPad, Notepad, and Outlook.

Press the **Read** button located on the WiViK keyboard or on the WordQ buttonbar to activate the **Read** mode and highlight the sentence where the cursor is located emphasizing that this is the sentence being reviewed. You can quickly move to other sentences with the **↑** or **↓** keys.



Begin reading the sentence by pressing the **spacebar**. The sentence is then spoken with each word highlighted word-by-word, again emphasizing the visual/auditory shape of each word. All of this is done directly in the word processor application. At the end of the sentence, the sentence is highlighted again so that you do not lose your place. You can repeat reading the sentence.

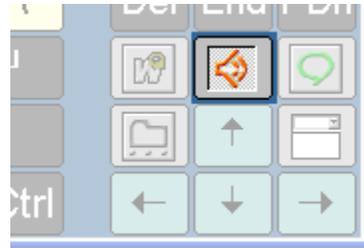
At any time while reading, you can pause with the **spacebar**. You can also read word-by-word by using the **→** or **←** keys to help locate an error. To exit the **Read** mode, press the **Read** button again, press **Esc**, or click anywhere with the mouse.

Another reviewing option is to highlight the text (e.g., a paragraph or a few words) first and then press the **Read** button. In this case, the highlighted selection is read with word-by-word highlighting and the **Read** mode is automatically exited when done reading.

When other applications are used (e.g., WordPerfect, Internet Explorer, Inspiration), word-by-word highlighting is not available and you must manually highlight the text. If you want word-by-word highlighting, you can easily copy and paste the text into Notepad or WordPad for reading.

Turn speech on and off

Press the **Speech** button to toggle speech on/off.

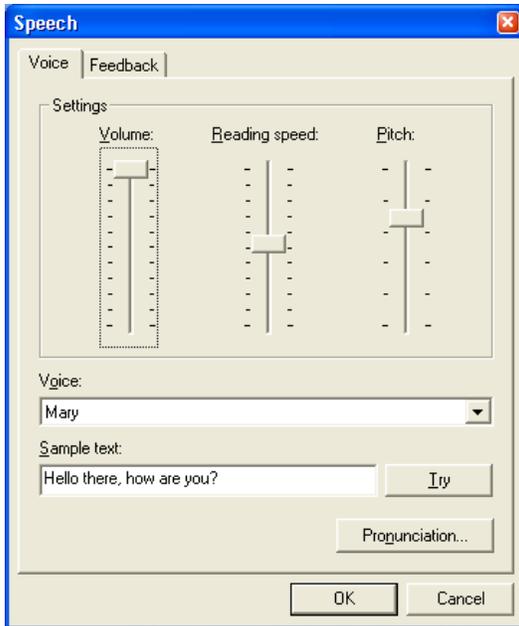


If there is no sound from your speakers, please ensure that they are connected and powered on. Also, ensure that the volume is adjusted both on the speakers and in Windows.

Change voice settings

You may change various settings that affect how the reading voice sounds.

Select **Speech...** from the **Options** menu on the WiViK button bar.



To adjust the voice

Adjust one or more of these sliders:

Volume adjusts the speech volume. The maximum volume is the current Windows volume setting.

Reading Speed adjusts the reading speed of the selected voice.

Pitch adjusts the pitch of the selected voice.

To change the reading voice

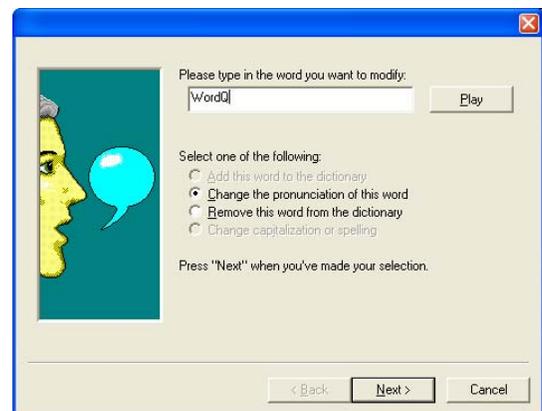
1. Choose from the list of available voices.
2. Press the **Try** button to hear how the voice sounds with its selected settings.

Change the pronunciation of a word

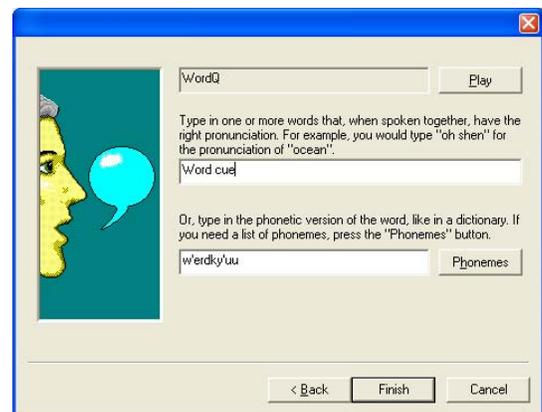
Select **Speech...** from the **Options** menu on the WordQ button bar. Then click the **Voice** tab.

To change the pronunciation

1. Press the **Pronunciation...** button to start the Microsoft Speech editor.
2. Type the word that you would like pronounced differently. Press **Next**.

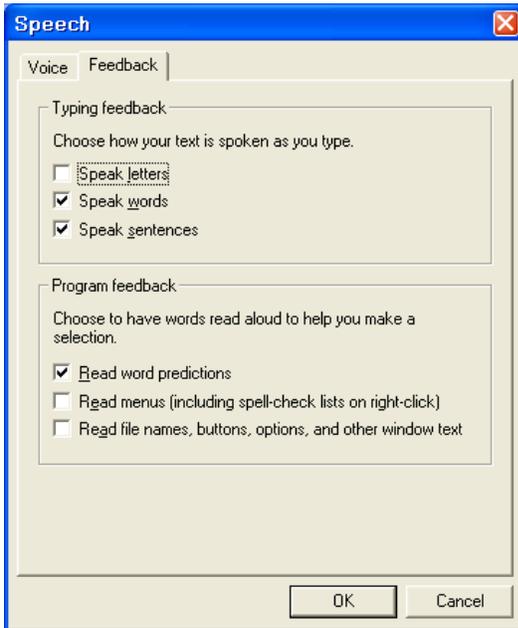


3. Type in one or more words that when spoken, have the proper pronunciation. Press **Finish**.



Hear what you type

Select **Speech...** from the **Options** menu on the WordQ button bar. Then click the **Feedback** tab.



To hear what you type

Select one or more of the following options:

- Speak letters** helps you confirm which character you have typed. Each letter is spoken as you type it.
- Speak words** helps you detect spelling errors. Each word that you type or select is spoken.
- Speak sentences** helps you hear the word flow in a sentence to decide whether the proper words and punctuation have been used.

Hear Windows interface objects

Select **Speech...** from the **Options** menu on the WordQ button bar. Then click the **Feedback** tab.

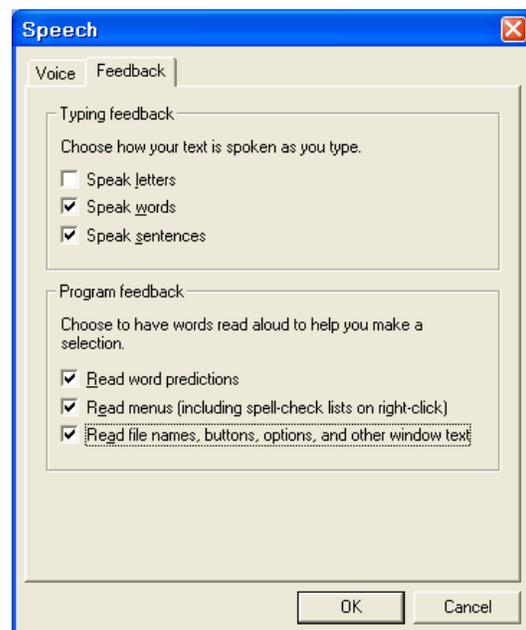
To hear menus, including spelling suggestions in MS Word

- Select **Read menus** to hear items spoken when you point to them. This includes items in pop-up menus such as the spelling suggestions provided by Microsoft Word. Use the right mouse button to display these.

A limitation of Windows is that some pop-up menus cannot be spoken. This includes the grammar suggestions in Microsoft Word.

To hear file names, buttons, options and other window text

- Select **Read file names, buttons, options and other window text** to hear the names of these objects. This includes desktop icons and file lists.



Proofread your text in MS Word, WordPad, Notepad, and Outlook

To read a sentence

1. Position the text cursor at the sentence that you want to read.
2. Press the **Read** button .
3. The sentence will be highlighted.
4. Press **Spacebar** to begin speaking the sentence. Each word is highlighted as it is read.
5. The sentence is highlighted again after it has been read.
6. You may then:
 - Stop proofreading by pressing the **Esc** key.
 - Read the sentence again by pressing **Spacebar**.
 - Go to the previous or next sentence by pressing **↑** or **↓**.
 - Read individual words by pressing **à** or **←**.

To read highlighted text

1. Highlight the block of text to read.
2. Press the **Read** button .
3. The text is spoken immediately. Each word is highlighted as it is read.

To read at your own pace

1. Press the **Read** button .
2. Press **↑** or **↓** to move to the sentence that you want to read.
3. Press **→** or **←** to read one word at a time.

To cancel or stop reading

Press the **Esc** key or click the mouse button at any time to stop reading.

To pause/resume reading

1. Press **Spacebar** to pause reading of your text.
2. Press **Spacebar** again to resume reading.

Read in Web browsers and non-Microsoft applications

You can read selected text in Web browsers and non-Microsoft editors and applications. However, the words will not be highlighted as they are read.

To read selected text

1. Select the text to read. In a web browser, use your mouse to select text by dragging over it.
2. Press the **Read** button .
3. The word list will temporarily disappear and the text will be spoken immediately.

To cancel or stop reading

Press the **Esc** key or click the mouse button at any time to stop reading.

Speech limitations

1. The **Read** function, which helps you proofread your text, may be limited as described above.
2. WordQ is unable to read back a line of text that exceeds 2000 characters in length.
3. **Documents containing special formatting features such as tables and embedded objects do not show proper highlighting when read.**
4. Words that immediately follow a **/**, ****, **(**, or **"**, are not highlighted when read.
5. Speech feedback is not be available when RealPlayer or another media player is also running. This depends on the type of soundcard and whether it supports multiple channels of output. You should shut down all programs that use your sound card.

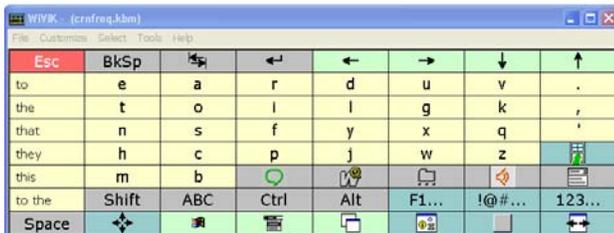
Scanning the Desktop

Scanning keyboard: Crnfreq.kbm

WiViK includes several keyboard layouts that are appropriate for various scanning strategies. They include commands to scroll, resize and move windows, scan menus, position the text cursor, and emulate mouse movements.

The keyboard **crnfreq.kbm** is the most commonly used scanning keyboard. It has been designed for row/column scanning with letters arranged so that frequently used letters are close to the upper left-hand corner. This keyboard, described in detail here, illustrates the features of a scanning keyboard.

All scanning keyboards include the same features described here, although the layout of keys varies. All of these are located in the subdirectory ...\\WiViK\\macro and are shown in **Appendix A**.



Shift/upper case

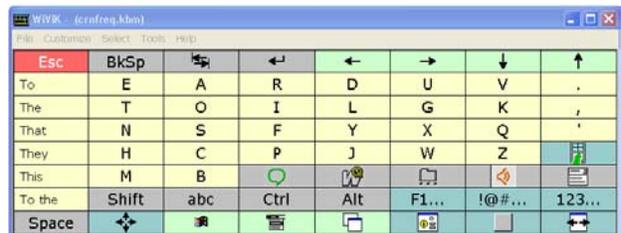
To shift keys

1. Select **Shift** once on the initial letters page to shift the next letter. (Select **Sh** on the initial letters page on the keyboards **linabc.kbm**, **linabc2.kbm**, **linfreq.kbm**, and **linfreq2.kbm**)
2. Select **Shift** twice on the initial letters page to hold down the **Shift** key. Select **Shift** again to release **Shift**. Shifted keys are not displayed as upper case.



To show upper case letters

1. Select **ABC** to display upper case letters. (Select **A** on the initial letters page on the keyboards **linabc.kbm**, **linabc2.kbm**, **linfreq.kbm**, and **linfreq2.kbm**)



2. Select **abc** to return to lower case letters.

Function keys

To display the function keys page

1. Select **F1...** on the initial letters page.



2. You will automatically return to the initial letters page after selecting any function key.

To speed up scanning

1. Select **Faster** on the *function keys* page and the scan time will decrease by 0.25 secs.

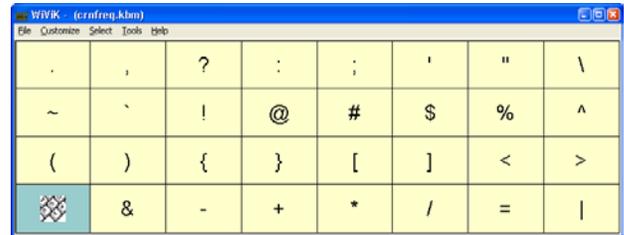
To slow down scanning

1. Select **Slower** on the *function keys* page and the scan time will increase by 0.25 secs.

Punctuation

To display the punctuation page

1. Select **!@#...** on the initial letters page.

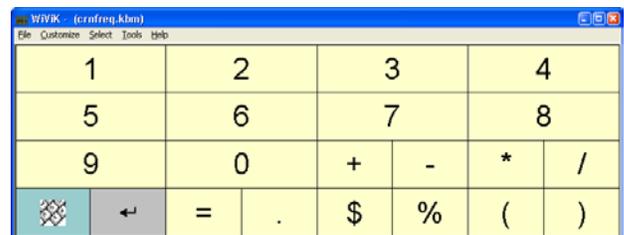


2. You will automatically return to the initial letters page after selecting any punctuation.

Numbers

To display the numbers page

Select **123...** on the initial letters page.



Text cursor movement

Moving the text cursor is an essential part of editing. WiViK includes keys to move the text cursor across your text in a scanning fashion.

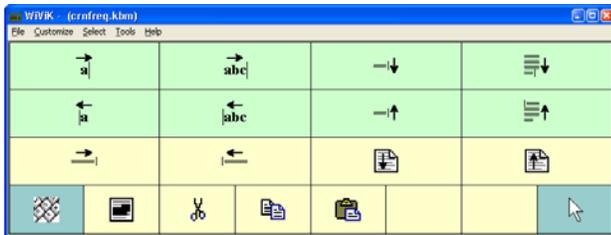
When you choose a text movement key, the text cursor begins scanning across the text. Stop scanning with the **Select** switch. Then choose another key if necessary. It is best to scan first by larger increments and then successively smaller increments. When “extending” a selection, the end point of the selected block appears to be scanning.

To move through your text

1. Select the text cursors icon.



A new WiViK page will be displayed containing cursor movement keys.



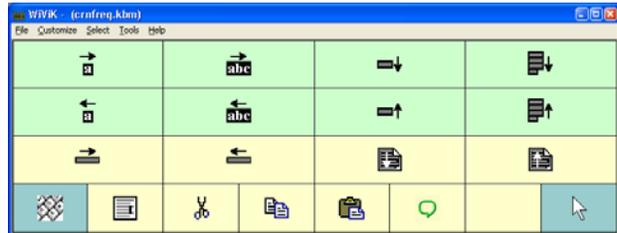
2. Select a desired movement key such as scan right by words.
- 
3. The text insertion cursor will begin scanning the text by words. If you are using **Inverse** or **Directed** scanning, a **Move** or **Direction** switch advances one scan step.
 4. Stop scanning the text with the **Select** switch.

To highlight your text

1. Select the *Extend Select icon* to begin highlighting your text.



A new WiViK page will be displayed containing cursor movement keys that will highlight text.



2. Select a desired movement key such as scan right by words.



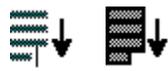
3. The text insertion cursor will begin scanning and highlighting the text by words. If you are using **Inverse** or **Directed** scanning, a **Move** or **Direction** switch advances one scan step.
4. Stop scanning the text with the **Select** switch.
5. Stop highlighting the text with the *Stop Extend Select icon*.

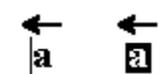


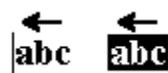
Cursor key description

The following describes the function of each of the displayed keys.

- | | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------|
|  |  | Scan right by characters |
|  |  | Scan right by words |
|  |  | Scan down by lines |

- 
Scan down by paragraphs
(limited to applications that use **Ctrl** + **↓** to move to next paragraph)

- 
Scan left by characters

- 
Scan left by words

- 
Scan up by lines

- 
Scan up by paragraphs
(limited to applications that use **Ctrl** + **↑** to move to previous paragraph)

- 
End of line

- 
Home or beginning of line

- 
Page down

- 
Page up

- 
Return to initial letters page

- 
Extend Select/ Stop Extend Select

- 
Cut

- 
Copy

- 
Paste

- 
Read highlighted text

- 
Display scanning mouse page

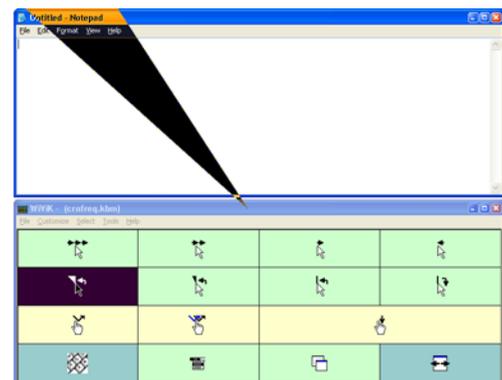
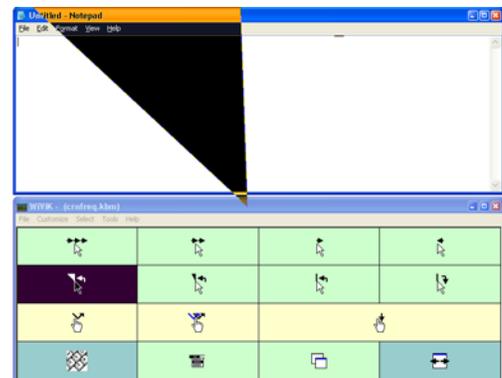
Scanning mouse

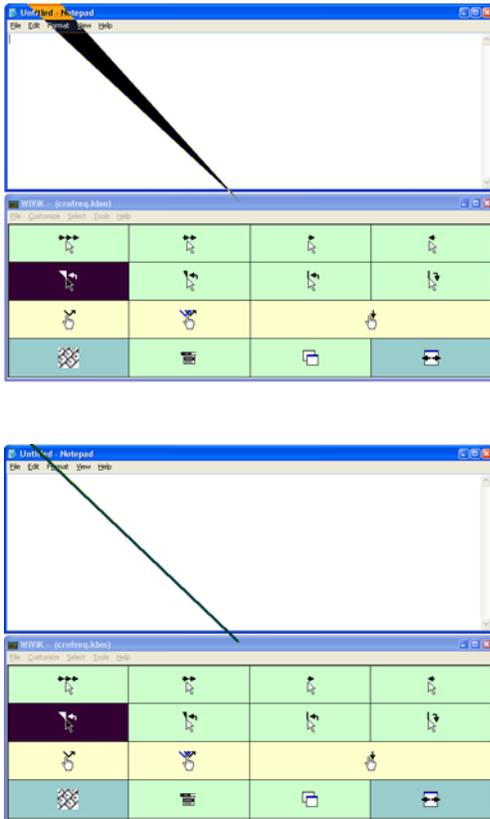
While WiViK provides ways to directly scan menus, text cursors, scroll bars, and windows, some applications (e.g., drawing applications) require mouse input. WiViK therefore includes mouse emulation through a unique radar scanning method which rotates the cursor in scanning steps.

WiViK mouse emulation is accessed by selecting the *Scanning mouse* icon on the *Text cursors* page

Select  then 

When the highlight contains the target, activate the **Select** switch and the highlight sweeps a smaller rotational segment. Repeat this until a straight line is rotating.





This is similar to row/group/item scanning. To use this technique, continue activating the switch whenever the target is highlighted until it is intersected with a straight line.

You then choose a mouse movement key to scan towards the target. Mouse movements also incorporate successively smaller movements.

When the desired location is reached, select the appropriate button (*click, double-click, or button down*).

To use scanning mouse

1. Select the *Scanning mouse* icon on the *Text cursors* page



A new WiViK page will be displayed containing mouse movement keys.

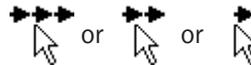


2. Select a *cursor rotation* key to set the movement direction to move. Watch it rotate in a scanning steps.



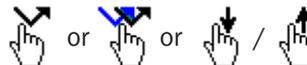
Reduce and eventually stop the rotation by activating the **Select** switch.

3. Select a *cursor movement* key to move the cursor along the chosen direction. Watch it move in scanning steps.



Reduce and eventually stop the movement by activating the **Select** switch.

4. Select a *button action* key as required.



Mouse cursor key description

The following describes the function of each of the displayed keys.

	Scan move ahead by 25, 5 and 1 pixels
	Scan move ahead by 5 and 1 pixels
	Scan move ahead by 1 pixel
	Scan move backwards by 1 pixel
	Scan rotate counterclockwise by 45°, 15°, 5° and 1°
	Scan rotate counterclockwise by 5° and 1°
	Scan rotate counterclockwise by 1°
	Scan rotate clockwise by 1°
	Single-click
	Double-click
	Button down/Button up
	Return to initial letters page
	Scan menus
	Scan switch applications
	Move/resize window

Menus

To scan a menu

1. Select the *Menus* icon.



The target application's menu bar will be scanned from left-to-right.

2. Activate the **Select** switch to stop at a desired menu. That menu will then be scanned from top-to-bottom.
3. Activate the **Select** switch to stop at a desired menu item. That item will then be chosen.

The keyboard will then show the **Dialogs** page after any menu selection allowing you to respond. (See **Dialogs** below)

To cancel scanning menus without making a selection, activate the Cancel switch.

Switch applications

To switch between applications

1. Select the *Application switching* icon.



A small window will appear in the middle of the screen with the names and icons of the application displayed one-by-one in a scanning sequence. Activate the **Select** switch when the desired application name is displayed. (This is the same as repeatedly typing **Alt+Tab**.)



Dialogs

To control a dialog box

1. Select the dialogs icon.



The following page of dialog actions is now shown:



The dialogs page of commands is shown automatically after accessing menus.

Cursor key description

The following describes the function of each of the displayed keys.

Cancel Types **Esc** to select **Cancel** button to cancel dialog

OK Types **Enter**

Yes Types **Alt+y** to select Yes button

No Types **Alt+n** to select No button



Scan between controls or topics using **Tab**
Use **Select** or **Cancel** switch to stop scanning



Scan down a list or group



Scan up a list or group

OK Types **Enter**

 Types **Space** to select a button or checkbox

Help Types **F1** to select *Help*



Page down



Page Up



Return to initial letters page



Scan move window up



Scan move window down

Button actions

To access Window buttons and scroll bars

1. Select the *Button* icon.



The following page of buttons is now shown:



To scroll a window

1. Select a desired *scroll bar* icon to begin scrolling. Watch it scroll in scanning steps.
2. Activate the **Select** or **Cancel** switch to stop scrolling.

Cursor key description

The following describes the function of each of the displayed keys.

-  Scan scroll line down

-  Scan scroll page down

-  Scan scroll line up

-  Scan scroll page up

-  Scan scroll line right

-  Scan scroll page right

-  Scan scroll line left

-  Scan scroll page left

-  Close window

-  Restore window size

-  Minimize window size

-  Maximize window size

-  Return to initial letters page

-  Scan move window up

-  Scan move window down

-  Scan switch applications

Move/resize windows

To move/resize a window

1. Select the *Window manipulation* icon.



The following page of manipulation keys is now shown:



2. Select a desired *move/resize* icon.

The window will begin moving/resizing through scanning.

- 3.. Activate the **Select** or **Cancel** switch to stop moving/resizing.

Cursor key description

The following describes the function of each of the displayed keys.

-  Scan move window up

-  Scan move window down

-  Scan move window left

-  Scan move window right

-  Scan size top border up

-  Scan size top border Down



Scan size left border left



Scan size left border right



Scan size bottom border up



Scan size bottom border down



Scan size right border left



Scan size right border right



Return to initial letters page

Close WiViK and Windows

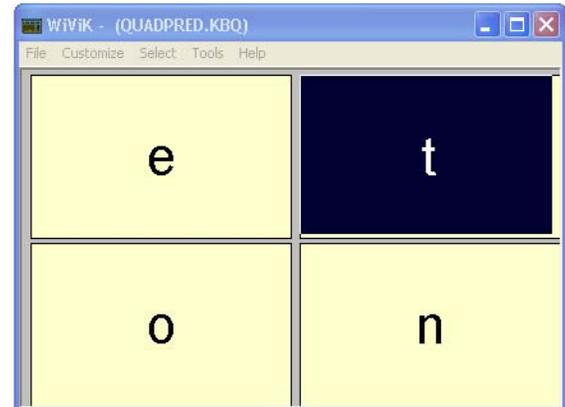
1. Save any open files/documents.
2. Choose  icon.

Expanding quadrant selection

This innovative selection method has been developed for people with imprecise pointing abilities. Quadrants of a keyboard are expanded to provide larger target areas for selection.

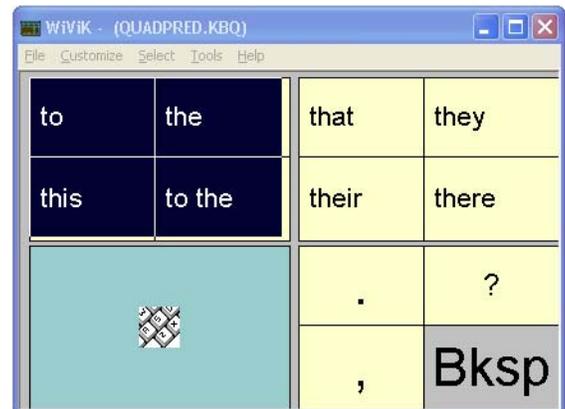
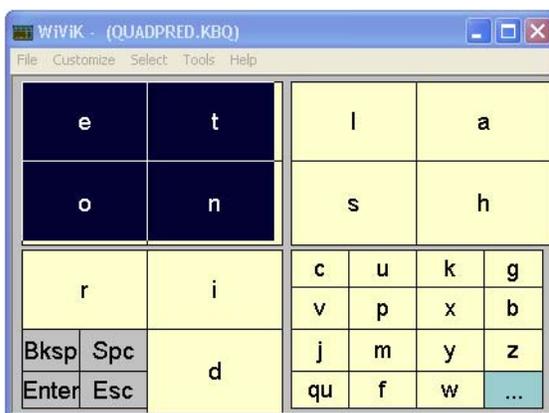
Expanding quadrant selection requires the use of a **.kbq** type of keyboard consisting of 64 keys (4 x 4 keys in each quadrant). A quadrant is selected by either clicking or dwelling.

One quadrant keyboard is included – a letter frequency weighted layout with word predictions.

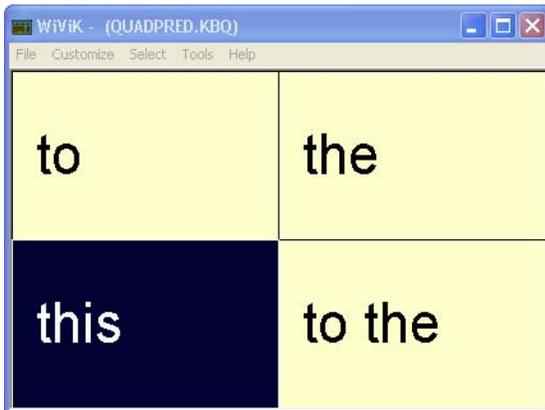


To use expanding quadrant selection

1. Open quadpred.kbq located in the \Program Files\WiviK\macro subdirectory.
2. Point to a quadrant and select it. That quadrant expands to fill the keyboard with 4 quadrants of 2 x 2 keys.



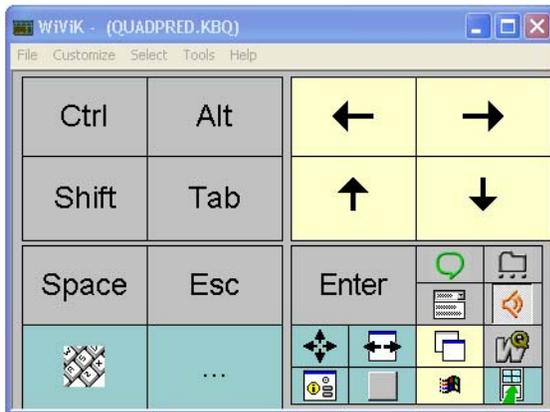
3. At this point, words will be predicted. Use the same technique to select individual words, return to the first page of keys to type another letter, or enter a punctuation.



To go back if the wrong quadrant is chosen

Point at the keyboard and click with the right mouse button or equivalent switch to **escape** to the previous level.

- From the first page you may choose “...” (at the lower-right corner) to access additional functions, including controlling WordQ word prediction and speech feedback as well as manipulating the desktop as in the scanning keyboards.



- Punctuation, numbers and function keys are available by choosing “...” from the above page.



Appendix A: Macro Keyboards

General use macro keyboards

allchar.kbm	All extended ASCII characters available in Windows
calc.kbm	Calculator keyboard
internl.kbm	Keyboard of all ANSI international characters available under Windows by entering the numeric keypad codes as described in the Windows documentation
keystroke.kbm	Keyboard of all possible non-character keystrokes
menuaccs.kbm	Keyboard that allows you to manipulate another WiViK's menus
numpad.kbm	Numeric keypad with cursor movement keys
numpad2.kbm	Numeric keypad
playsnd.kbm	Keyboard illustrating keys that play .wav sounds
sci-calc.kbm	Keyboard for use with Calculator in Scientific mode
typogrph.kbm	Typographical characters such as bullets, curly quotes, en and em dashes, trademark and copyright symbols
wvksym.kbm	Keyboard illustrating keys that use WiViK font for displaying certain keyboard symbols

Automatic/inverse scanning keyboards

crnabc.kbm	ABC layout starting in the upper left-hand corner for Automatic or Inverse Row-Column Highlighting scanning
-------------------	---------------------------------------------------------------------------------------------------------------------------

crnfreq.kbm Frequency-of-use layout starting in the upper left-hand corner for **Automatic** or **Inverse Row-Column Highlighting** scanning and with predicted words along left column

crnfreqtop.kbm Frequency-of-use layout starting in the upper left-hand corner for **Automatic** or **Inverse Row-Column Highlighting** scanning and with predicted words along top row

linabc.kbm Single line ABC layout for **Group-Item** scanning for **Automatic** or **Inverse Row-Column-Group** scanning

linfreq.kbm Single line frequency-of-use layout for **Group-Item** scanning for **Automatic** or **Inverse Row-Column-Group** scanning

simpabc.kbm Simple reduced set ABC layout starting in the upper left-hand corner for **Automatic** or **Inverse Row-Column** scanning

Directed scanning keyboards

ctrabc.kbm ABC layout for **Directed** scanning with **Switch selection**

ctrfreq.kbm Center-based frequency-of-use layout for **Directed** scanning with **Switch selection**

ctrfreqtop.kbm Center-based frequency-of-use layout for **Directed** scanning with **Switch selection** and with predicted words along top row

ctrfreq2.kbm Center-based frequency-of-use layout for **Directed** scanning with **Dwell selection**

ctrfreq2top.kbm Center-based frequency-of-use layout for **Directed** scanning with **Dwell selection** and with predicted words along top row

- simpctr.kbm** Simple reduced set center-based frequency-of-use layout for **Directed** scanning with **Switch selection** and with predicted words along left column
- simpctrtop.kbm** Simple reduced set center-based frequency-of-use layout for **Directed** scanning with **Switch selection** and with predicted words along top row
- simpctr2.kbm** Simple reduced set center-based frequency-of-use layout for **Directed** scanning with **Dwell selection** and with predicted words along left column
- simpctr2top.kbm** Simple reduced set center-based frequency-of-use layout for **Directed** scanning with **Dwell selection** and with predicted words along top row

Opening and saving select options

When you quit or exit WiViK, all of the select options settings are automatically saved. In addition, you can save the settings independently in separate files. This is useful if you are adjusting settings for several WiViK users.

To save the select options

- Select **Save Select Options...** from the **File** menu.
- Type in a name to save the file, e.g., user's name in the **Save Select Options...** dialog.

To open previously saved select options

- Select **Open Select Options...** from the **File** menu.
- Select a file in the **Open Select Options** dialog.

*All **Select Options** files have the ending **.sel**.*

When you later close the WiViK keyboard, the settings that you opened will automatically be saved with that keyboard.

Select Options Files

The following is a list of the sample **Select Options** files provided in the `\wivik` subdirectory. They should be used with the keyboard configurations listed next to them. You may modify any of these settings and/or create your own Select Option settings.

File	Strategy	Switches	Description
aut2lin.sel	automatic	2	row-group-item for linear keyboards
aut2quad.sel	automatic	2	quadrant
autcon.sel	automatic	2	row-column continuous scan
autstop.sel	automatic	2	row-column stop scan
dir3rcw.sel	directed	3	return to corner toggling directions
dir4rcd.sel	directed	4	return to centre dwell select
dir5nr.sel	directed	5	no return switch select
dir5rc.sel	directed	5	return to centre switch select
inv2lin.sel	inverse	2	row-group-item for linear keyboards
invdwc.sel	inverse	3	row column dwell cancel move-fast switch
invswc.sel	inverse	3	row column cancel switch

Appendix B: Additional wivik3.ini Settings

Several features have settings that you must manually change in wivik3.ini, located in the Windows (or WinNT) directory, if you do not like the default setting. These features are not set in any WiViK menu or dialog box. They are described below.

Feature	Setting	Description
MoveDialog	1	(Default) WiViK will attempt to move dialog boxes if they are completely obscured by WiViK, or if they completely obscure WiViK
	0	Dialog boxes are not moved by WiViK
MoveOnTop	1	(Default) WiViK will attempt to move on top of the dialog boxes and menus
	0	WiViK will not attempt to move on top
TransferFocus	1	(Default) Focus will automatically be transferred from WiViK back to the target application
	0	Focus will not be automatically transferred back
ExtraInfoMessages	1	(Default) On hiding the title bar, you will be prompted with a message indicating that double clicking any border will restore it; and when word prediction shifts to a new keyboard, you will be informed

0 Additional message prompts will not be displayed.

QuadrantHighlight 1 Quadrants will be highlighted by being outlined

0 (Default) Quadrants will be highlighted by being inverted

To modify wivik3.ini

1. Open wivik3.ini using Notepad.
2. Change the desired settings.
3. Save wivik3.ini. Your changes will be in effect the next time that you open up a changed WiViK keyboard.

Example

```
[** DEFAULT **]
```

...

MoveDialog=0

MoveOnTop=1

TransferFocus=1

ExtraInfoMessages=0

QuadrantRBUndoString=0

QuadrantHighlight=0

...

End-User License Agreement for WiViK On-Screen Keyboard Software

Version 3.0 for use with Microsoft Windows

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ADDRESS INFORMATION

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CANADA

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