

# Keyboard Wizard 1.2



## Software for Adjusting Keyboard Settings

### User Guide

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## Overview

The Keyboard Wizard is a program to help you determine the most effective keyboard settings for you. The idea is to make typing easier and more productive, by having the computer adjust itself to your needs. Keyboard Wizard leads you through a series of steps designed to assess your typing style and makes recommendations for changes to the settings if appropriate.

The keyboard settings that are currently checked by the wizard are [Sticky Keys](#), the [Repeat Delay](#), and the [Repeat Rate](#). These settings are all built into Windows, and can be adjusted manually using the Windows Control Panel. Adjusting these settings manually requires time, knowledge of how to access each setting, and knowledge of how to adjust the settings to fit your particular needs. The Keyboard Wizard provides a simpler way to adjust the settings and provides guidance about the values that should be used for each setting.

For each session, a [report](#) is created that may be useful for sharing results with family members, funding sources, and assistive technology (AT) professionals. The report may also be useful for tracking changes in user performance over time.

Note that the Keyboard Wizard does not consider all possible interventions that can assist with keyboard use. Users may also benefit from an evaluation by an AT professional with experience with computer access issues.

## Accessibility

The Keyboard Wizard is designed to be accessible to users with a wide range of abilities. It should work with any type of keyboard that is fully compatible with your computer's operating system and hardware.

### Keyboard Access

The program is designed to be functional using the keyboard and mouse (or other pointing device) or just the keyboard alone. The functions of all of the buttons and check boxes in the Keyboard Wizard can be accessed by using the keyboard shortcuts assigned to each button. To use a shortcut, press the **ALT** key in combination with the shortcut key to have the same effect as clicking that button. The letter in the button's label that is underlined is the shortcut key. It is usually, but not always, the first letter of the label. For example, the shortcut for clicking on the Next button is **ALT-N**.

To see the shortcut underlines, press and hold the **ALT** key. You can also set your computer to show the shortcuts all the time. If your computer has Windows Vista, go to the Ease of Access Center, and click **Make the keyboard easier to use**; then select the **Underline keyboard shortcuts and access keys** check box. In Windows XP, use the Display Control Panel, click the Appearance tab, then the Effects... button. Uncheck the **Hide underlined letters** checkbox.

### Text Size

To make the characters seem larger, you can adjust the screen resolution on your computer. For Vista systems, under the Appearance and Personalization heading, click on **Adjust screen resolution**. Use the Resolution slider to change the clarity of the display. At lower resolutions, text is larger and easier to see but will not appear as sharp and may have jagged edges.

For XP systems, open the Display properties, click on the **Settings** tab, then use the Screen resolution slider to adjust the clarity of the display. At lower resolutions, text is larger and easier to see but will not appear as sharp and may have jagged edges.

If you find instances where the Keyboard Wizard is not fully compatible with your AT, please let us know, at **support@kpronline.com**.

## Getting Started

The Keyboard Wizard is a program to help you determine the most effective keyboard settings for you. As the name implies, it is designed as a wizard type of program. This means that it walks you through the necessary steps in the program. Once you launch the Keyboard Wizard, you perform the step presented on each screen, and click **Next** to move to the next step. That's pretty much all there is to it.

For more information about the screen layout and navigation in Keyboard Wizard, see [Screen Overview](#) and [Navigation Overview](#).

You can learn more about the details of each step in the Keyboard Wizard by looking at the help page for each Keyboard Wizard screen.

## Screen Overview

Each screen in the Keyboard Wizard contains a Title Bar, Main Window, and Program Buttons.

The Title Bar, at the top of the screen, shows the current step and may provide additional information about that step.

The Main Window provides information you need to perform the typing tasks, review your results, and move through the wizard. All of the typing tasks are performed within the Main Window.

The Program Buttons are located at the bottom of each Main Window. The same buttons appear in each screen, but not all buttons are active each time. The functions of the buttons stay consistent throughout the program but perform slightly different actions depending on the steps that have been completed. For more information about the program buttons, see [Navigation Overview](#).



## Navigation Overview

Clicking the **Help** button brings up the full Keyboard Wizard help system.

In addition to using the full help system, tool tips are also available for many of the features. Hold the mouse cursor over an item on the screen and a short description of the item or its function will appear.

The **Previous** button returns you to the prior step in the process. You may be asked whether you wish to discard data and start a step over when moving back to steps that gather information about your typing style.

Clicking the **Next** button moves you to the following step in the process. We suggest that you read the information in each of the Main Windows before moving to the next step.

The **Finish** button becomes active when you have completed the Wizard. This may happen at different points in the process depending on the results of the typing tasks. Clicking on **Finish** will close the program. The Main Window text will provide you with information on the keyboard settings that will be used after you finish.

The **Exit** button allows you to quit the program at any point in the process. Exiting will restore the original keyboard settings that were active before the current Keyboard Wizard session. You will be asked if you are sure you want to return to the original settings before a final exit takes place.



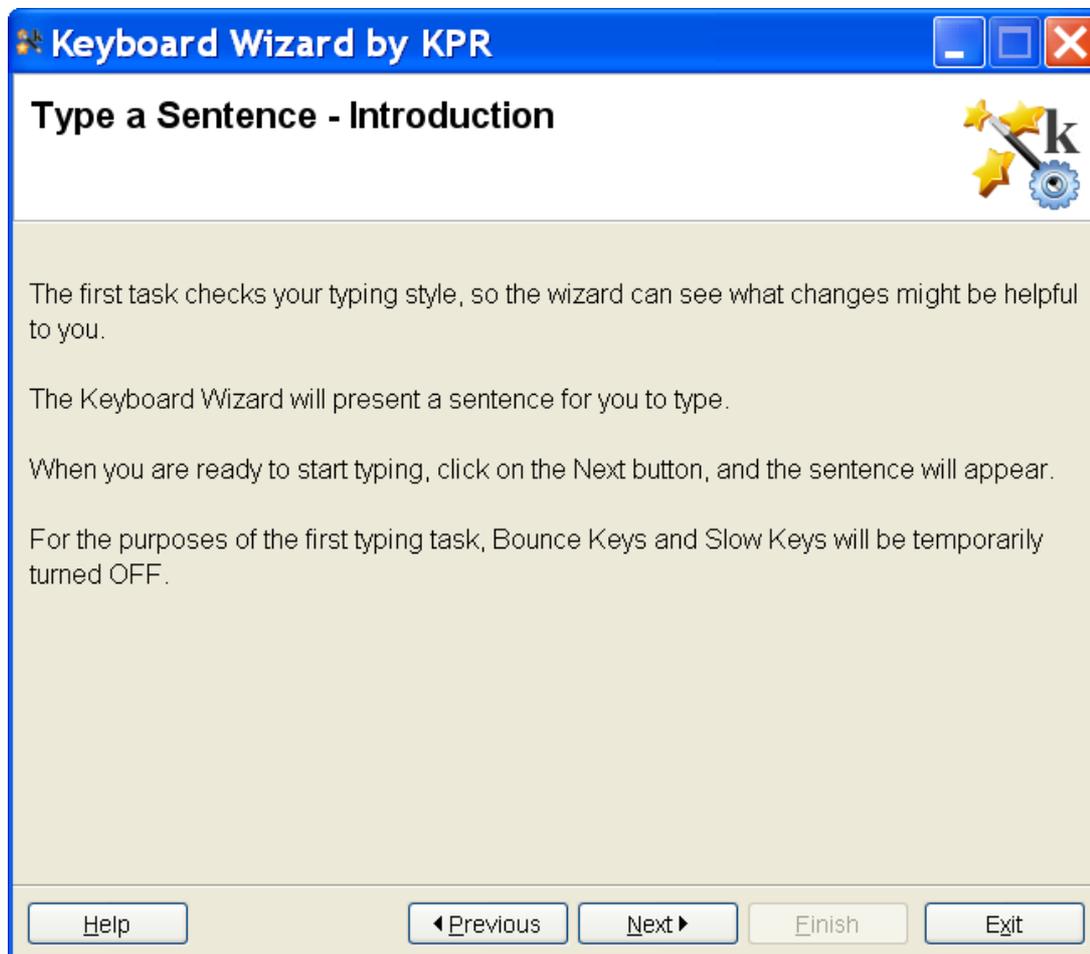
## Welcome Page

The Keyboard Wizard opens to the Welcome page each time you start the program. The Main Window text provides a brief description of the Wizard and an overview of the steps involved in the process.



## Type a Sentence - Introduction

This screen provides an introduction and instructions for the first typing task. When you click **Next** on this screen, the first typing task will begin.



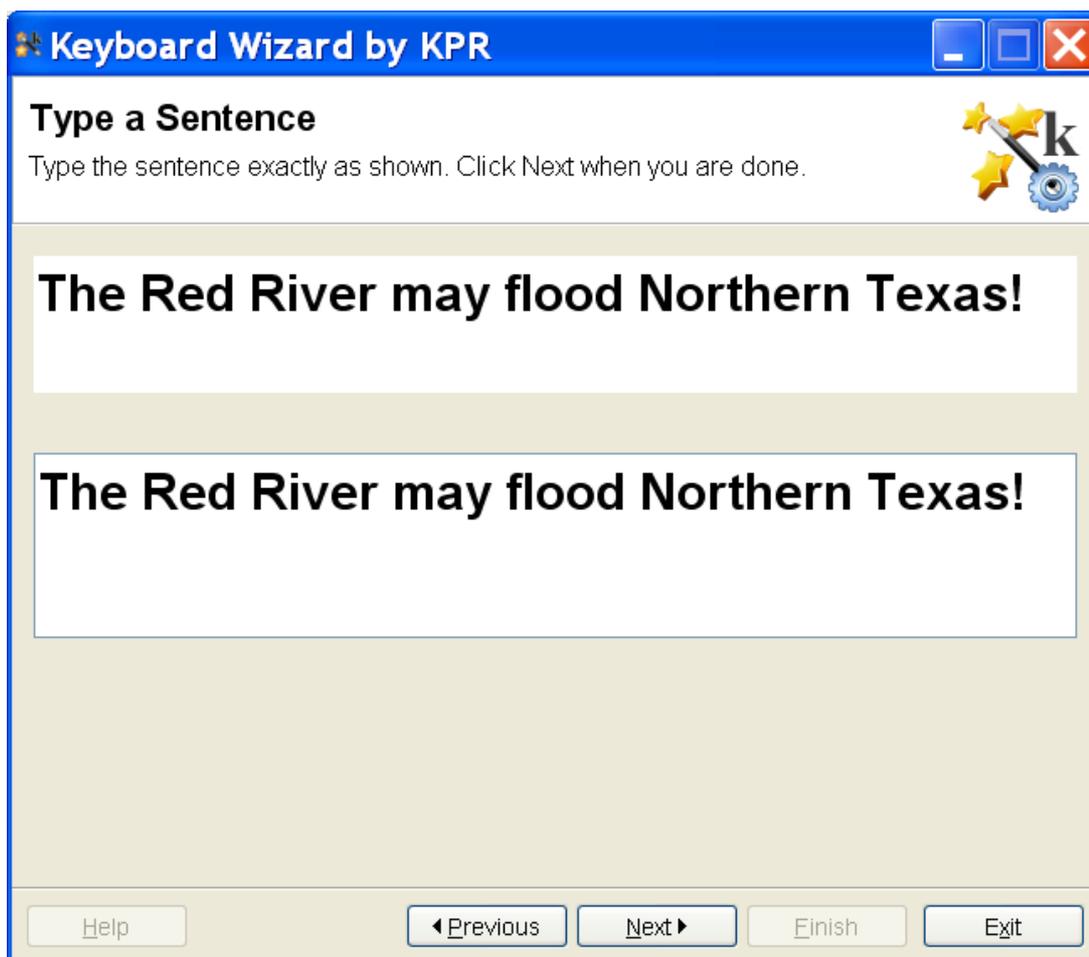
Note that if your keyboard settings have Bounce Keys or Slow Keys turned on when the Wizard is started, they will be temporarily turned off during this task to assist with accurate data collection. These settings will be turned back on when the task is completed. This notice is only displayed if these features are turned on at the start of the task.

## Type a Sentence

This is the screen for the first typing task. The Main Window displays a sample sentence for you to type. There are several sample sentences, so the sentence you see may not be the same each time. Try to type the sentence exactly as shown including the capital letters and punctuation. The typing task is ready to go as soon as the sentence appears; when the window opens you can just start typing.

The task begins when you enter the first keystroke. When you are done typing the sentence, click the **Next** button or press the **Alt-N** keys.

This task is timed to assist in gathering complete information about the effectiveness of your keyboard settings. You have as long as you need to complete the task and do not need to rush. You should try to perform the task quickly and efficiently, but do not hurry or try to work at a speed that you cannot maintain over time.



## View Recommendations

This page opens when you have completed the first typing task. If the current keyboard settings are well matched with your typing style, no changes will be suggested. In that case, you have the options of running the typing evaluation again by clicking the **Previous** button, closing the program by clicking the **Finish** button, or viewing, saving, and/or printing a full report of your session by clicking [View Report](#).

If the current keyboard settings do not seem to be the most effective for your typing style, new settings will be recommended. The current settings and the suggested changes will be displayed in the Main Window. You will have the opportunity to learn more about each setting by clicking the [Learn More](#) button. The settings that can be changed are to turn [Sticky Keys](#) on or off and to adjust the [Repeat Delay](#) and [Repeat Rate](#).

Click the **Next** button to continue to the next step where you can try out the suggested settings. The suggested keyboard settings for your computer are currently in use, but you must finish the wizard process to keep them active. You will have the opportunity to select the settings you wish to change later in the process. If you exit the wizard at this point, your original settings will be restored.



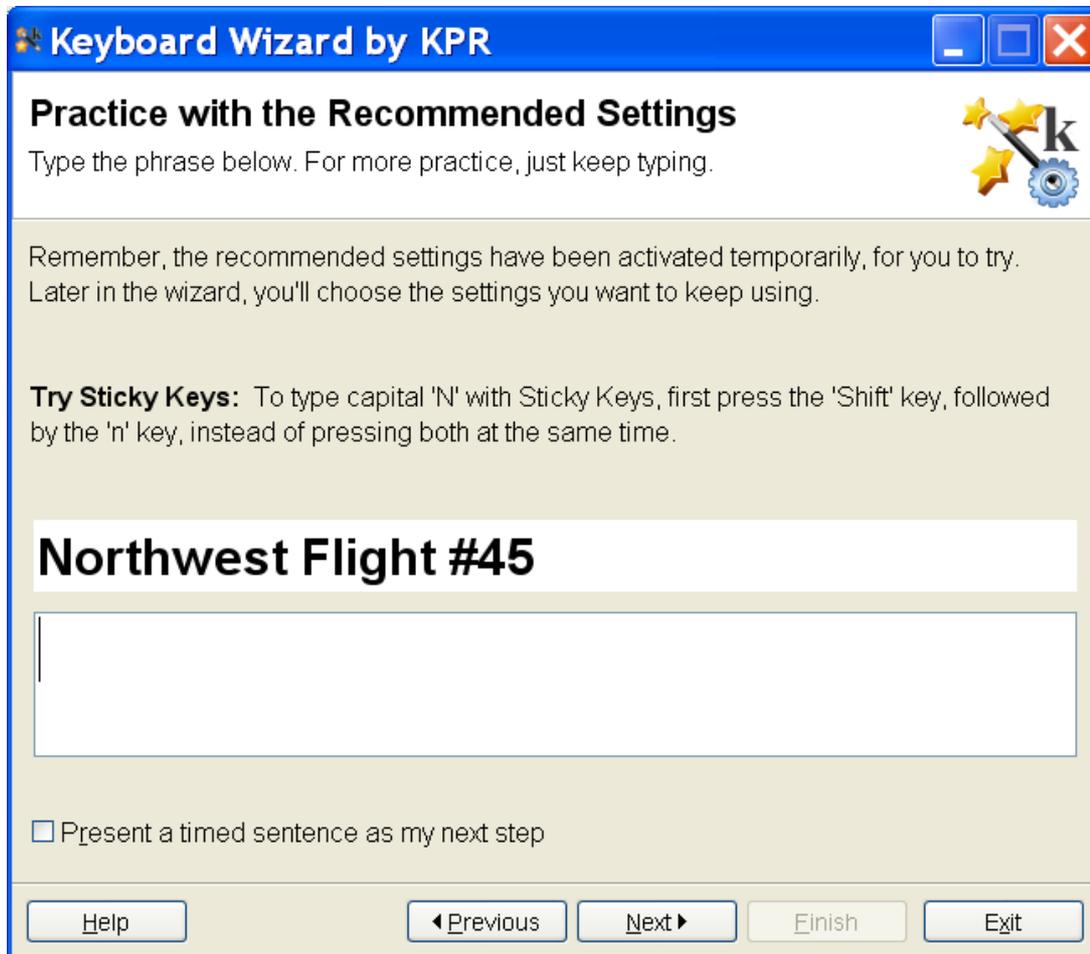
If you wish to retry the typing task, click the **Previous** button. A pop-up window will open to confirm that you would like to type a new sentence. Clicking the **Yes – Start again with a new sentence** button will return you to the Type a Sentence screen where you will be able to repeat the task. The data from the previous sentence are not saved and will not be used to determine appropriate keyboard settings. Clicking the **Cancel** button will return you to the View Recommendations screen.

## Practice with the Recommended Settings

The Main Window of this page displays a phrase that you can use while you practice typing with the new settings. The text shown is only a suggestion. You can type as much and whatever you like until you feel comfortable with the settings. You can insert a new line by pressing the **Enter** key.

When you are done practicing, you can perform a second typing task to learn how your typing speed and accuracy using the new settings compare with your results with the initial settings. Check the **Present a timed sentence as my next step** box and then click the **Next** button to perform the comparison.

If you do not wish to compare results, click the **Next** button to continue on to select the settings you wish to use when you complete the Keyboard Wizard.



The screenshot shows a window titled "Keyboard Wizard by KPR" with a blue header bar. The main content area has a title "Practice with the Recommended Settings" and a subtitle "Type the phrase below. For more practice, just keep typing." Below this is a paragraph: "Remember, the recommended settings have been activated temporarily, for you to try. Later in the wizard, you'll choose the settings you want to keep using." A section titled "Try Sticky Keys:" explains that to type capital 'N' with Sticky Keys, one should press the 'Shift' key followed by the 'n' key. A large text input field contains the phrase "Northwest Flight #45". At the bottom, there is a checkbox labeled "Present a timed sentence as my next step" which is currently unchecked. The window footer contains five buttons: "Help", "◀ Previous", "Next ▶", "Finish", and "Exit".

## Type using the Recommended Settings

This is the screen for the second timed typing task. The task is the same as the one you completed previously in the [Type a Sentence](#) screen.

The Main Window displays a sample sentence for you to type. There are several sample sentences so the sentence you see may not be the same each time. Try to type the sentence exactly as shown including the capital letters and punctuation. The typing task is ready to go as soon as the sentence appears; when the window opens you can just start typing.

The task begins when you enter the first keystroke. When you are done typing the sentence, click the **Next** button or press the **Alt-N** keys.

Note that doing the second timed typing task is optional. This screen is only displayed if you checked the **Present a timed sentence as my next step** box in the [Practice With Recommended Settings](#) screen before clicking the **Next** button. If you do not check the **Present a timed sentence as my next step** box, the wizard will move to the [Select Your Settings](#) screen without running a second typing task.



## Review Your Results

The wizard compares results from the two typing tasks and shows you the differences in speed and accuracy between the tasks. If both measurements show significant positive changes, the recommendation will be to use the changes the wizard suggested.

If the results do not show improvement in both speed and accuracy, there may not be a definite recommendation. You should consider using the suggested settings while doing your normal computer activities. This additional practice may improve your ability to use these settings and will give you a chance to see whether you like using them. After you have more experience with these settings, consider running the Keyboard Wizard again to reevaluate how the settings match your abilities.

If your speed and accuracy decreased with the new settings, the recommendation will be to click the **Previous** button and get more practice using the new settings. If speed and accuracy do not improve after an additional task, you may want to return to your initial settings or accept the changes and practice using these settings while doing your normal computer activities. You should rerun the Keyboard Wizard after you have more experience with these settings to reevaluate the best settings.

No matter what the wizard recommends, the final decision of what settings to use is up to you. When you click on the **Next** button, you will have the option to select some or all of the recommended settings before exiting the program.

If you would like to see more in-depth results from the two tests, click on the **Show Details** button. This will display a table with your typing speed, any errors for each test, and the settings used for each test. Speed is displayed in words per minute (wpm) and Errors is the percentage of keystrokes that were incorrect at the completion of the test. To go back to the simplified results page, click on the **Hide Details** button.

This screen is only displayed after completion of the typing task in the [Type using the Recommended Settings](#) screen. If you did not check the **Present a timed sentence as my next step** box in the [Practice with the Recommended Settings](#) screen, the wizard will move to the [Select Your Settings](#) screen without running a second typing task or displaying the results of that task.

**Keyboard Wizard by KPR**

## Review Your Results

Compare results using original vs. recommended settings.

**With the Recommended Settings:**

- Typing speed was 40% faster.
- Accuracy increased by 78%.

We recommend that you use these settings.

Click Next to choose which settings you'd like to keep using.

[Show Details](#) Click to show detailed results and setting information

[Help](#)   [◀ Previous](#)   [Next ▶](#)   [Finish](#)   [Exit](#)

**Keyboard Wizard by KPR**

## Review Your Results

Compare results using original vs. recommended settings.

**With the Recommended Settings:**

- Typing speed was 40% faster.
- Accuracy increased by 78%.

We recommend that you use these settings.

Click Next to choose which settings you'd like to keep using.

**Detailed Results**

|            | Speed    | Errors | Sticky Keys | Repeat Delay | Repeat Rate |
|------------|----------|--------|-------------|--------------|-------------|
| Sentence 1 | 3.91 wpm | 87.5%  | OFF         | 0.5 sec      | 0.033 sec   |
| Sentence 2 | 5.48 wpm | 9.76%  | ON          | 1.12 sec     | 0.28 sec    |

[Hide Details](#) Click to hide detailed results and setting information

[Help](#)   [◀ Previous](#)   [Next ▶](#)   [Finish](#)   [Exit](#)

## Select Your Settings - Basic

You can choose to use the settings recommended by the Keyboard Wizard or use the settings that were in place when you started the program. The values for each setting are listed below the two options. Click the button next to the option you wish to select, then click the **Next** button to continue. Using the full set of recommended settings is the default option.

You may also choose to use some combination of the recommended and original settings rather than using all of the suggestions as a package. Click the [Advanced Selection](#) button to select individual settings.

Click the [Learn More](#) button to get additional information on the settings that can be changed.



The screenshot shows a Windows-style dialog box titled "Keyboard Wizard by KPR". The main heading is "Select Your Settings" with a sub-instruction: "Choose the settings you want to use. Click Next to activate your choices." There are two radio button options: "Use Recommended Settings" (selected) and "Use Original Settings". Below each option are three settings: "Sticky Keys" (ON/OFF), "Repeat Delay" (1.12 sec / 0.5 sec), and "Repeat Rate" (0.28 sec / 0.033 sec). At the bottom, there are four buttons: "Help", "Previous", "Next", and "Finish". There are also two buttons with text labels: "Learn More" (with a tooltip "Click to learn more about these settings") and "Advanced Selection" (with a tooltip "Click to select each setting individually"). A logo with a key and a gear is in the top right corner.

| Option  | Sticky Keys | Repeat Delay | Repeat Rate |
|---|-------------|--------------|-------------|
| <input checked="" type="radio"/> Use Recommended Settings | ON          | 1.12 sec     | 0.28 sec    |
| <input type="radio"/> Use Original Settings               | OFF         | 0.5 sec      | 0.033 sec   |

Buttons: [Learn More](#) (Click to learn more about these settings), [Advanced Selection](#) (Click to select each setting individually), [Help](#), [Previous](#), [Next](#), [Finish](#), [Exit](#)

## Select Your Settings - Advanced

This screen allows you to use a combination of the recommended and original settings rather than using all of the suggestions as a package. The settings that can be changed are [Sticky Keys](#), the [Repeat Delay](#), and the [Repeat Rate](#). Click the button next to the setting you wish to use for all of the options, then click the **Next** button to continue. The recommended and original values for each setting are shown. Using the recommended settings is the default option.

If you would prefer to select either the recommended or original settings as a group, click the [Basic Selection](#) button to view the groups of settings.

Click the [Learn More](#) button to get additional information on the settings that can be changed.



The screenshot shows a window titled "Keyboard Wizard by KPR" with a blue header bar. Below the header, the title "Select Your Settings" is displayed in bold, followed by the instruction "Choose the settings you want to use. Click Next to activate your choices." and a small icon of a key with stars and a gear. The main area is divided into two sections: "Sticky Keys:" and "Repeat Settings (Delay, Rate):". Under "Sticky Keys:", there are two radio buttons: "ON (recommended)" which is selected, and "OFF (original)". Under "Repeat Settings (Delay, Rate):", there are two radio buttons: "1.12 sec, 0.28 sec (recommended)" which is selected, and "0.5 sec, 0.033 sec (original)". At the bottom of the main area, there are two buttons: "Learn More" with the text "Click to learn more about these settings" and "Basic Selection" with the text "Click to select settings as a package". At the very bottom of the window, there are five buttons: "Help", "◀ Previous", "Next ▶", "Finish", and "Exit".

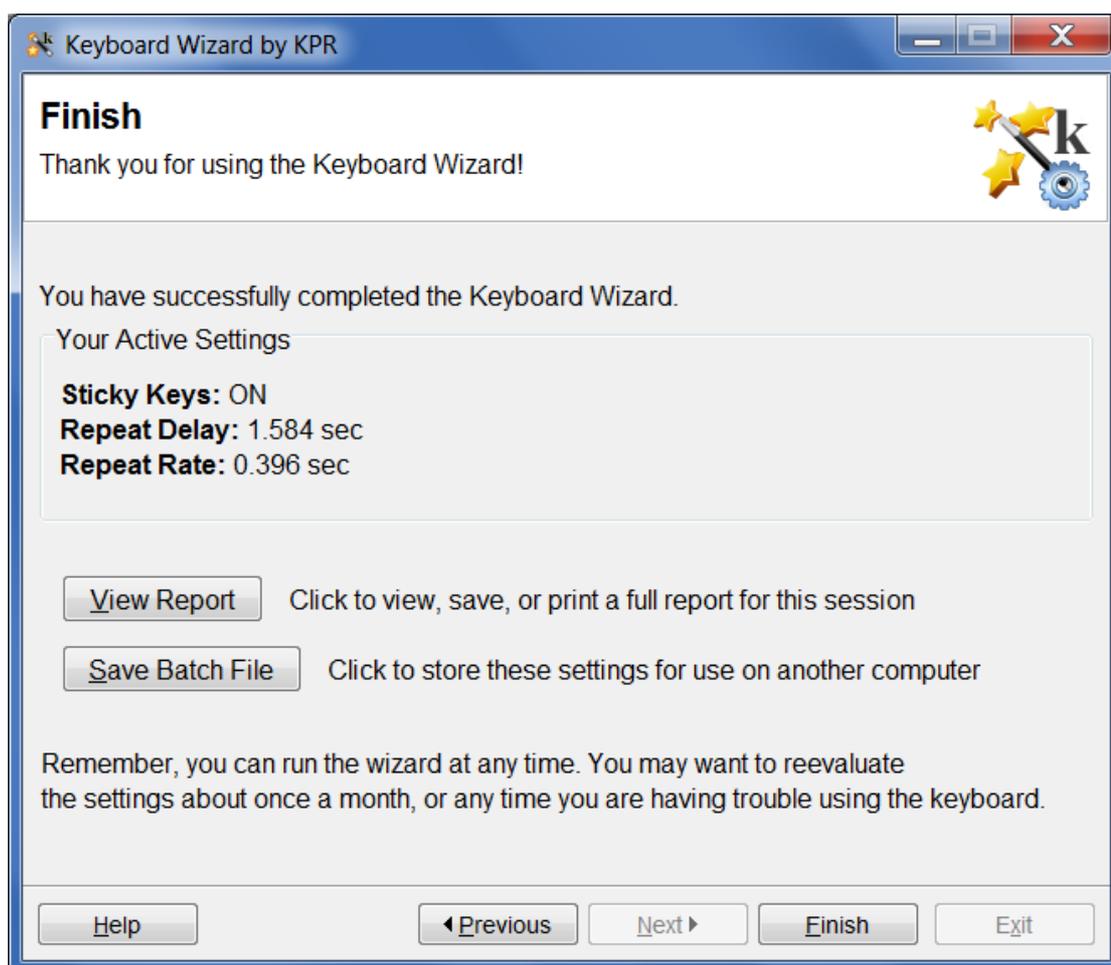
## Finish

The Finish screen is the last active step in the wizard. It displays the settings that will be used when you click **Finish** to indicate you have completed the wizard process and wish to close the program. If you do not want to use the settings shown, you may click the **Previous** button to return to the [Select Your Settings](#) screen where you can make the changes.

You also have the option of viewing, saving, and/or printing a full report of your session by clicking the [View Report](#) button.

You can also store the active settings in a batch file for use on another computer by clicking the [Save Batch File](#) button.

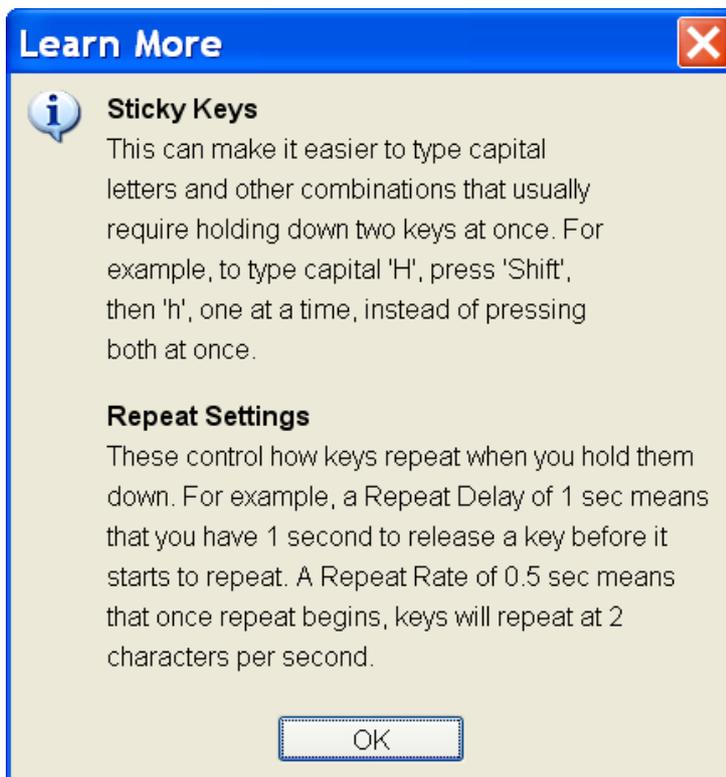
You can repeat the Keyboard Wizard at any time. We recommend checking your keyboard settings about once a month or any time you have difficulties using the keyboard.



## Learn More PopUp

This screen pops up when you select the **Learn More** button in the [View Recommendations](#) or [Select Your Settings](#) screens. It provides basic information about the keyboard settings that can be changed by the wizard. You can learn more by closing this window and then clicking on the **Help** button. Click the **Close** button to close the window and return to the screen where you started.

More detailed information about the keyboard settings adjusted by Keyboard Wizard can be found in the following Help pages: [Sticky Keys](#), [Repeat Delay](#), [Repeat Rate](#), [Filter Keys](#).



## Sticky Keys

Sticky Keys is a feature built into the Windows operating system. When Sticky Keys is on, you don't have to hold down two or more keys at once. This is useful for people who have difficulty pressing more than one key at a time. You can press one or more modifier keys and they will remain active until the next key is pressed. For example, to get a question mark with Sticky Keys, press the **Shift** key then the **?** key. The next key you press will not be modified.

If you want to keep the modifier key on (for instance, to type a whole sentence with capital letters), press the **Shift** key twice. When you want to stop using the **Shift** key, press it again to "release" the Shift.

Modifier keys that work with Sticky Keys include **Shift**, **CTRL**, and **ALT**.

To turn Sticky Keys on, use the Control Panel to open the Ease of Access Center (Vista) or Accessibility Options Control Panel (XP), depending on your version of Windows. You can also try pressing the Shift key five times in a row. When Sticky Keys is on, you will see an icon in your system tray (see below) that includes four small rectangles.

There are several Sticky Keys options that can be set when Sticky Keys is turned on. These are explained below, in case you want to make any adjustments to them.

Use the Sticky Keys dialog box to make adjustments to Sticky Keys. To open the Sticky Keys dialog box, use the Control Panel to open the Ease of Access Center (Vista) or Accessibility Options Control Panel (XP), depending on your version of Windows. If the Sticky Keys icon is displayed in the task bar, you can also double click on the icon to open the Sticky Keys options window.

The Sticky Keys options include:

**Lock modifier keys when pressed twice in a row** - When this is selected, pressing a modifier key twice in a row will set it so that it stays "on" until pressed again. For example, when the Shift key is pressed twice, letter keys pressed after will result in a capital letter. This is useful for typing titles and other text where a string of letters needs to be all uppercase. The wizard does not change this setting. By default, this option is on.

**Turn off Sticky Keys when two keys are pressed at once** - When this option is on, Sticky Keys will be turned off if any two keys (such as **Shift** and **A**) are pressed at the same time. This feature allows users who do not use Sticky Keys to turn it off when they are using the computer. This may be a useful feature on shared computers where some people use Sticky Keys and some do not. A disadvantage of this being on is that Sticky Keys will be turned off if the user

misses the center of a key and accidentally presses two keys at once. The wizard sets this feature to be **OFF**.

**Turn on Sticky Keys when Shift is pressed five times** - Selecting this option provides a keyboard shortcut to turn Sticky Keys on or off. Pressing either Shift key five times in a row will toggle the status of Sticky keys. This may be a useful feature on shared computers where some people use Sticky Keys and some do not. The wizard does not change this setting. The default option is on.

**Play a sound when keys are pressed** - A tone will sound each time a modifier key is pressed if this feature is turned on. This confirms that the modifier key was pressed and is active and lets the user know if it was accidentally pressed. The wizard does not change this setting. The default option is on.

**Display the Sticky Keys icon on the task bar** - When this is selected, Sticky Keys will display an icon in the system tray, which is typically at the bottom right of your screen. The icon shows a box for the **Shift**, **CTRL**, **Win**, and **ALT** keys for most keyboards. If a box is white, the corresponding key is off; if the box is black, the corresponding key is active. The Sticky Keys icon in the circle below shows the **Ctrl** key as being active and other modifiers keys off. The wizard does not change this setting. The default option is on.



## Repeat Delay

The Repeat Delay is a setting that is built-in to the Windows operating system. It determines how long the computer waits before the key starts to repeat as you hold it down. If keys begin to repeat before you can release them, increasing the delay may be useful. The number shown in the wizard is the amount of time, in seconds, that the computer waits before starting to repeat the key.

This can be a hard concept to describe in words. If you're unfamiliar with Repeat Delay, try this on your keyboard: press and hold a key until it starts to repeat. Let it repeat for a few characters, and then let go. The computer decided when to begin repeating based on the Repeat Delay. A longer repeat delay gives you more time to release a key before repeating starts.

There are two ways to adjust the Repeat Delay; the character repeat delay in the Keyboard Control Panel and the [Filter Keys](#) feature in the accessibility settings. The wizard uses the [Filter Keys](#) method; see the [Filter Keys](#) page for more information.

## Repeat Rate

The Repeat Rate is a setting that is built into the Windows operating system. It determines the speed at which a keystroke will repeat when held down. After a key is held for the amount of time specified in the [Repeat Delay](#) setting, the computer will start to reenter the keystroke at the Repeat Rate specified. By default in Windows, keys repeat at a rate of 30 characters per second, for a Repeat Rate of 0.033 sec.

Adjusting this setting may be useful if keys repeat faster than you can control them. An example of this is the cursor overshooting the desired location when using the arrow keys on the keyboard.

This can be a hard concept to describe in words. If you're unfamiliar with Repeat Rate, try this on your keyboard: press and hold a key until it starts to repeat. Let it repeat for a few characters, and then let go. The computer decided when to begin repeating based on the [Repeat Delay](#). (Note that [Repeat Delay](#) is different from Repeat Rate.) Once it starts to repeat, the Repeat Rate controls how quickly it repeats. A longer repeat rate will repeat more slowly.

There are two ways to adjust the Repeat Rate in Windows: the character repeat rate in the Keyboard Control Panel and the [Filter Keys](#) feature in the accessibility settings. The wizard uses the [Filter Keys](#) method; see the [Filter Keys](#) page for more information.

## Filter Keys

Filter Keys is a feature built into the Windows operating system. It lets you control the repeat settings of the keyboard, i.e., the [Repeat Delay](#) and the [Repeat Rate](#), as well as some other settings related to the keyboard.

If the Keyboard Wizard makes a change to your repeat settings, it will activate Filter Keys in order to make that change. Filter Keys does have several options that you may want to be aware of, in case you want to make any adjustments to them. This page gives an overview of those options and how to control them.

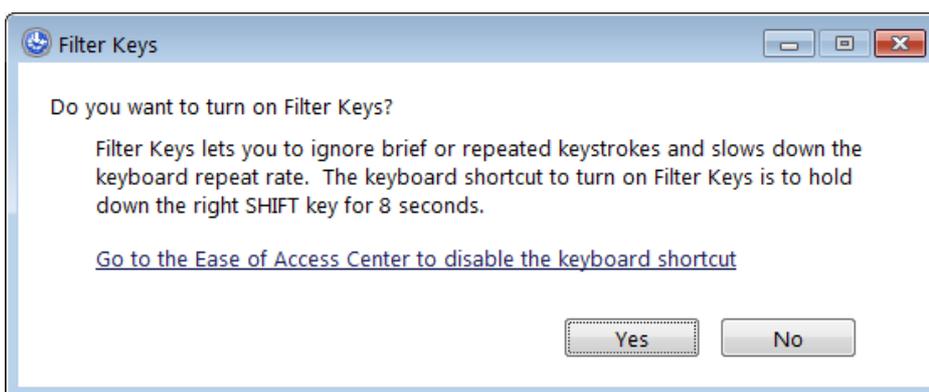
To open the Filter Keys dialog box, use the Control Panel to open the Ease of Access Center (Vista) or Accessibility Options Control Panel (XP), depending on your version of Windows. If the Filter Keys icon is displayed in the task bar, you can also double click on the icon to open the Filter Keys options window.

The Filter Keys dialog has a number of options. These include:

### Keyboard Shortcut:

**Turn on Filter Keys when right Shift is pressed for 8 seconds** - When this is selected, pressing and holding the right Shift key will turn on Filter Keys. Holding the Shift key again will not turn it off. The wizard does not change this setting. The default option is on.

**Display a warning message when turning a setting on-** (not available in XP) This feature helps you avoid accidentally turning Filter Keys on with the keyboard shortcut. When selected, the window below will pop up when Filter Keys is activated using the right Shift key. The wizard does not change this setting.



**Make a sound when turning a setting on or off-** (not available in XP) This feature helps you avoid accidentally turning Ease of Access settings on or off with the keyboard shortcut. When selected, a warning chirp will sound when settings are changed using the shortcuts. The wizard does not change this setting.

### Filter Options:

**Note-** Use these options with caution. Keyboard Wizard adjusts the Filter Options when you choose to activate new repeat settings. If you change the Filter Options directly in Filter Keys, you will undo any Keyboard Wizard changes that have already been made.

**Turn on Bounce Keys-** (called "Ignore repeated keystrokes" in XP) When this option is on, the computer will ignore a keystroke that is repeated until a defined time has passed. You can pick the time from the drop down menu. The range is from 0.5 to 2.0 seconds. If set to 1.0 seconds, you will have to wait at least one second before the computer will accept the same keystroke again. To type the word "setting", you will have to type s, e, t, wait one second, t, i, n, g. The wizard does not change this setting. The default option is off.

**Turn on Repeat Keys and Slow Keys-** (called "Ignore quick keystrokes and slow down the repeat rate" in XP) When this is selected the computer can be set to ignore brief keystrokes. A key will need to be held down for a set time before the computer accepts it. To adjust these settings, click on Set up Repeat Keys and Slow Keys. The Keyboard Wizard adjusts the repeat delay using these settings.

#### **Other Settings:**

**Beep when keys are pressed or accepted-** A tone will sound each time a key is held long enough to be accepted by the computer. This is helpful when starting to use these settings to learn how the keyboard will perform. The wizard does not change this setting. The default option is on.

**Display the Filter Key icon on the task bar-** (called "Show FilterKeys status on screen" in XP) When this is selected, the watch icon shown below will be displayed in the notification area of the task bar indicating that Filter Keys has been turned on. The wizard does not change this setting. The default option is on.



## How the Wizard Does It

If you are curious about how the Keyboard Wizard comes up with its recommendations, this page tries to provide an overview. In very general terms, the wizard observes your typing during the [first typing task](#), and bases its recommendations from that. Note that any typing you do after the first typing task, whether on the [practice screen](#) or for the optional [second timed task](#), is not used to make recommendations for you.

For [Sticky Keys](#), the wizard uses a combination of criteria to determine whether Sticky Keys should be on or off. Here are some reasons why it would recommend Sticky Keys ON for you:

- You typed a lowercase letter instead of a capital letter (e.g., 'd' instead of 'D')
- You used CAPS LOCK to type a capital letter
- You hold the Shift down a lot longer than you hold other keys down (suggesting you may have some trouble using the Shift key)
- Sticky Keys is already on, and you are using it.

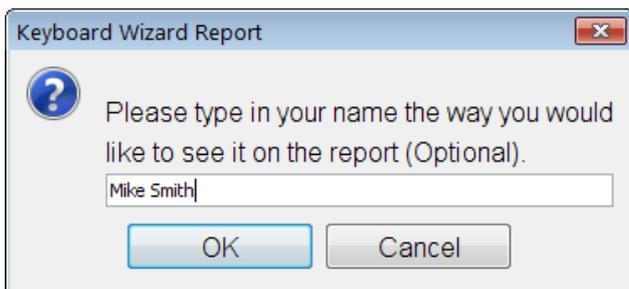
For the repeat settings, the goal is to prevent unwanted key repeats, but let you still use repeats for things like backspacing or moving the cursor. The Keyboard Wizard measures how long you hold down each key. Then it recommends a [Repeat Delay](#) so that it is very unlikely that your natural hold time will cause a repeat. It recommends a [Repeat Rate](#) that is 1/4 of the Repeat Delay.

(Really detailed note: it does not consider your hold time for keys like Shift and cursor keys when making these calculations. Those are keys you might be holding down on purpose, so including them would make it harder to use repeats when you want to use them.)

## View Report

You may view, save, and/or print a full report of your session by clicking the **View Report** button. This button is on the [Finish](#) screen, and, in some cases, on the [View Recommendations](#) screen, if no changes in settings were recommended.

Once you click **View Report**, a pop-up window will appear and you will be prompted to type a name as you would like it to be displayed in the report. The name you enter will appear on the report as the Keyboard Wizard User. Entering a name is optional and you can use any format you wish.



Click the **OK** button to view the report. Click the **Cancel** button to return to the previous screen.

## Report Overview

The Keyboard Wizard Report provides a record of a single wizard session. The header of the report shows the date of the session, the Windows user account that was active, and the name you entered (if any) when opening the report. The report is organized into several sections, including [Summary](#), your [Original Settings](#), [Results of the First Timed Sentence](#), the [Recommended Settings](#), [Results of the Second Timed Sentence](#), the [Final Settings](#) and a general [Description of Keyboard Settings](#).

You can navigate through the pages of the report by clicking on the **Previous** and **Next** buttons. The text between the buttons shows the current page and the total number of pages in the report.

The wizard does not automatically save a copy of the report. Clicking the **Save** button will bring up a window that allows you to assign a file name and location for the report. Reports are saved in Rich Text Format (RTF). This type of file can be opened and edited using most word processors, if desired.

Click the **Print** button to bring up a print dialog box with basic settings for printers that are installed on your system.

Click the **Close** button to exit the report and return to the wizard. If you have not already done so, you will be asked if you wish to save the report before it closes.

## Report - Summary Section

The summary section of the report shows all the Windows keyboard settings and how they have changed during the Keyboard Wizard session. The settings are shown for three points in the wizard session: at the start of the session, the recommended settings, and the final settings. Additional details about the settings at each point in the session are displayed later in the report.

| Setting         | Original | Recommended | Final     |
|-----------------|----------|-------------|-----------|
| StickyKeys      | OFF      | ON          | ON        |
| KeyboardDelay   | 1        | n/a         | n/a       |
| KeyboardSpeed   | 31       | n/a         | n/a       |
| FilterKeys      | OFF      | ON          | ON        |
| AutoRepeatDelay | n/a      | 1.617 sec   | 1.617 sec |
| AutoRepeatRate  | n/a      | 0.404 sec   | 0.404 sec |

This example table shows a session in which the keyboard settings were originally set to the Windows default values. Note that in Windows, the default repeat settings are controlled by the 'KeyboardDelay' and 'KeyboardSpeed' settings. The values of 1 and 31 correspond to the Keyboard Control panel values for these settings. This represents a [Repeat Delay](#) of 0.5 seconds, and a [Repeat Rate](#) of 0.033 sec.

The 'Recommended' column in the example table shows what the wizard recommended after the first typing task. It recommended that [Sticky Keys](#) be on, to make it easier to type capital letters. It also recommended that the repeat settings be changed to allow more time for the user to release keys before they begin to automatically repeat. Note how the change in repeat settings means that [Filter Keys](#) becomes active. The values for 'AutoRepeatDelay' and 'AutoRepeatRate' correspond to a [Repeat Delay](#) of 1.617 seconds and a [Repeat Rate](#) of 0.404 seconds. The 'Final' column shows that the user decided to use the wizard's recommendations.

Note: It may seem strange to show the repeat settings with two different sets of names (e.g., 'KeyboardDelay' vs. 'AutoRepeatDelay') and two different units instead of just using seconds. These are included in the report tables this way because Windows itself has two different types of repeat settings, and the Keyboard Wizard needs to reflect that.

## Report - Original Settings Section

The Windows keyboard settings that were active at the start of the Wizard are displayed in a table. This may be useful when comparing results or if you wish to return to these settings.

| Original Settings |     |
|-------------------|-----|
| StickyKeys        | OFF |
| KeyboardDelay     | 1   |
| KeyboardSpeed     | 31  |
| FilterKeys        | OFF |
| AutoRepeatDelay   | n/a |
| AutoRepeatRate    | n/a |

This example table shows a session in which the keyboard settings were originally set to the Windows default values. Note that in Windows, the default repeat settings are controlled by the 'KeyboardDelay' and 'KeyboardSpeed' settings. The values of 1 and 31 correspond to the Keyboard Control Panel values for these settings. This represents a [Repeat Delay](#) of 0.5 seconds, and a [Repeat Rate](#) of 0.033 sec.

This example also shows that [Filter Keys](#) was off in the original settings. This means that the remaining settings (starting from 'AutoRepeatDelay') were inactive, so they are shown as 'n/a', for 'not applicable', in the table.

## Report - Results of First Timed Sentence

This section of the report shows two tables containing the settings and results for the first timed sentence task. The settings in this table are the same as those shown in the [Original Settings](#).

The results table shows the typing speed in words per minute (WPM) and the accuracy for the first sentence. Accuracy reflects how accurately you typed during the task as well as how accurate your sentence is at the completion of the task. To get 100% accuracy, your completed sentence must be 100% accurate AND you must have made no mistakes along the way.

| Settings for First Sentence |     |
|-----------------------------|-----|
| StickyKeys                  | OFF |
| KeyboardDelay               | 1   |
| KeyboardSpeed               | 31  |
| FilterKeys                  | OFF |
| AutoRepeatDelay             | n/a |
| AutoRepeatRate              | n/a |

| Results for First Sentence |        |
|----------------------------|--------|
| Speed                      | 18 wpm |
| Accuracy                   | 14.5%  |

## Report - Recommended Settings Section

The keyboard settings that were recommended by the Keyboard Wizard after the initial timed typing task are displayed in a table.

| Recommended Settings |           |
|----------------------|-----------|
| StickyKeys           | ON        |
| KeyboardDelay        | n/a       |
| KeyboardSpeed        | n/a       |
| FilterKeys           | ON        |
| AutoRepeatDelay      | 1.617 sec |
| AutoRepeatRate       | 0.404 sec |

This example table shows a session in which the wizard recommended the use of Sticky Keys and also a change in repeat settings. The values for 'AutoRepeatDelay' and 'AutoRepeatRate' correspond to a [Repeat Delay](#) of 1.617 seconds and a [Repeat Rate](#) of 0.404 seconds. Note that because Filter Keys is on, the values for 'KeyboardDelay' and 'KeyboardSpeed' are inactive, so they are shown as 'n/a', for 'not applicable.'

## Report - Results of Second Timed Sentence

This section of the report shows two tables containing the settings and results for the second timed sentence task. The settings used for this task and shown in this table are the same as those in the [Recommended Settings](#) section.

The results table shows the typing speed in words per minute (WPM) and the accuracy for the second timed sentence. Accuracy reflects how accurately you typed during the task as well as how accurate your sentence is at the completion of the task. To get 100% accuracy, your completed sentence must be 100% accurate AND you must have made no mistakes along the way. The table also shows the percent change in these results relative to the first timed sentence. This is the increase or decrease in performance using the recommended settings compared to the original settings in place at the start of the wizard.

| Settings for Second Sentence |           |
|------------------------------|-----------|
| StickyKeys                   | ON        |
| KeyboardDelay                | n/a       |
| KeyboardSpeed                | n/a       |
| FilterKeys                   | ON        |
| AutoRepeatDelay              | 1.617 sec |
| AutoRepeatRate               | 0.404 sec |

|          | Results for Second Sentence | Change relative to First Sentence |
|----------|-----------------------------|-----------------------------------|
| Speed    | 38.6 wpm                    | 114.84% faster                    |
| Accuracy | 97.6%                       | increased by 83.1%                |

Note that if a second timed task wasn't completed, these tables won't appear in the report. You control whether a second timed task is presented by checking the box on the [Practice with the Recommended Settings](#) screen.

## Report - Final Settings Section

The Windows keyboard settings that will be active when the Keyboard Wizard is finished are displayed in a table. This information may be useful in order to use these settings on another computer. The Keyboard and Accessibility Options Control Panels in Windows allow you to control these settings.

| Final Settings  |           |
|-----------------|-----------|
| StickyKeys      | ON        |
| KeyboardDelay   | n/a       |
| KeyboardSpeed   | n/a       |
| FilterKeys      | ON        |
| AutoRepeatDelay | 1.617 sec |
| AutoRepeatRate  | 0.404 sec |

This example table shows a session in which the user chose to use Sticky Keys and also to change the repeat settings. The example values for 'AutoRepeatDelay' and 'AutoRepeatRate' correspond to a [Repeat Delay](#) of 1.617 seconds and a [Repeat Rate](#) of 0.404 seconds. Note that because Filter Keys is on, the values for 'KeyboardDelay' and 'KeyboardSpeed' are inactive, so they are shown as 'n/a', for 'not applicable.'

## **Report - Description of Keyboard Settings**

This section of the report describes the Windows keyboard settings that are currently supported by Keyboard Wizard. The behavior of each setting is provided, along with information about how it can be manually adjusted within Windows, where possible. (While Keyboard Wizard makes these adjustments automatically, there may be times when manual adjustment is useful.)

## Batch File Overview

There may be times when you want to take the settings provided by Keyboard Wizard and move them to a different computer. For example, if you run Keyboard Wizard on your home computer, you may want an easy way to bring the new settings in to your office computer. Or in a school setting, you may not always know what computer you are going to use. Keyboard Wizard's batch file feature lets you package up your settings and load them onto a different computer.

Keyboard Wizard uses Windows batch files to package up your settings. You save a batch file, then copy it to the new computer, and run the batch file to activate the settings on the new computer. See [Save Batch File](#) and [Using Batch Files](#) for more details.

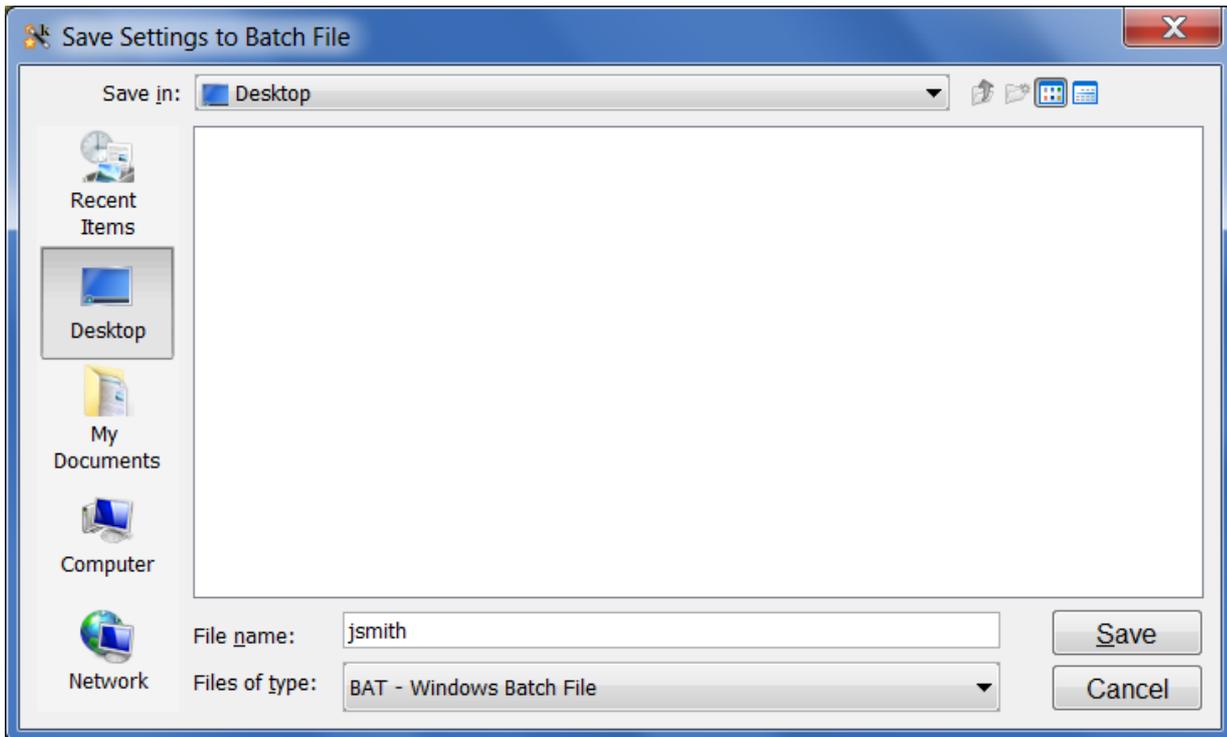
When you save a batch file containing the settings provided by Keyboard Wizard, the wizard automatically writes *Windows-default-kbwiz.bat* to the same location. *Windows-default-kbwiz.bat* can be used to set keyboard settings back to their Windows default values. This can be useful if you share the computer with another person.

Refer to [Batch File Content](#) for details concerning the registry entries that are modified by the batch file.

## Save Batch File

You may store the active settings to a batch file for use on another computer by clicking the **Save Batch File** button. This button is on the [Finish](#) screen.

Clicking the **Save Batch File** button brings up a window that allows you to assign a file name and location for the batch file.



When you click **Save**, the wizard writes the active settings to the file and location that you specified. The wizard also writes *Windows-default-kbwiz.bat* to the specified location, which can be used to restore the keyboard settings to their Windows default values.

When the wizard has successfully completed saving the batch files, the following window is displayed.



Refer to [Using Batch Files](#) for instructions on how to execute the stored batch files.

In the event that the settings cannot be written to the specified file name / location, the wizard displays the following window.



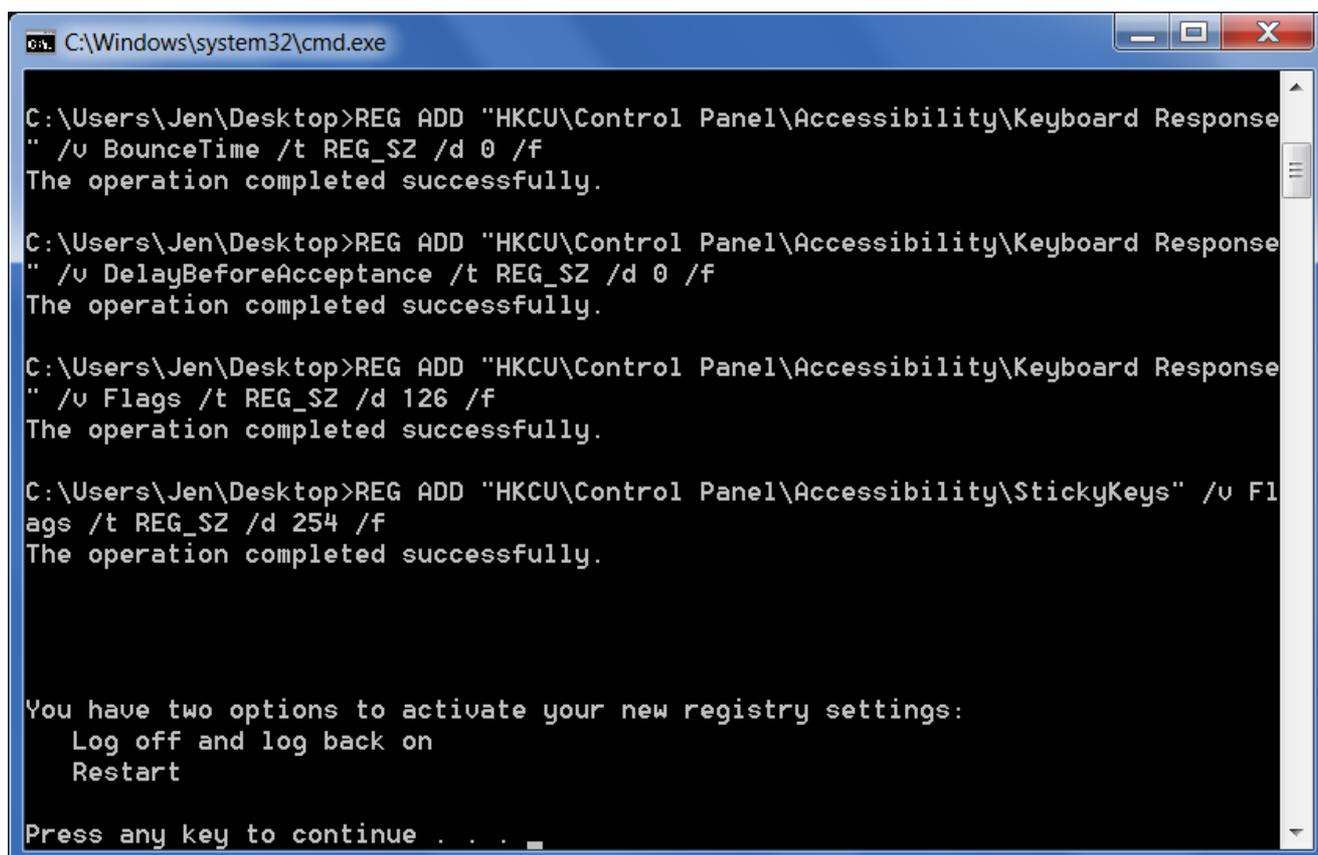
If you see this message, a likely cause is that you do not have permission to write to the specified location. We suggest that you try to save the settings again, at a different location.

## Using Batch Files

When you run Keyboard Wizard on a computer, it activates the keyboard settings that you select. If you want to activate those settings on a different computer, [save a batch file](#), then copy the batch file to the new computer. The Desktop is a good destination, but any location will work.

To run the batch file, simply double-click on it, and a console window will automatically open. You will see commands scrolling through the console window. Each of these commands writes a specific value for a particular keyboard setting. (See [Batch File Content](#) for a complete list of the supported settings.)

**Note:** Unfortunately, the new settings will not automatically take effect. You need to either log off and log back on to Windows, or restart the computer. When the batch file has completed execution, it will remind you to do one of these two things in order to activate the new settings.

A screenshot of a Windows command prompt window titled "C:\Windows\system32\cmd.exe". The window shows a series of registry commands being executed. Each command is followed by the message "The operation completed successfully." The commands are: 1. REG ADD "HKCU\Control Panel\Accessibility\Keyboard Response" /v BounceTime /t REG\_SZ /d 0 /f. 2. REG ADD "HKCU\Control Panel\Accessibility\Keyboard Response" /v DelayBeforeAcceptance /t REG\_SZ /d 0 /f. 3. REG ADD "HKCU\Control Panel\Accessibility\Keyboard Response" /v Flags /t REG\_SZ /d 126 /f. 4. REG ADD "HKCU\Control Panel\Accessibility\StickyKeys" /v Flags /t REG\_SZ /d 254 /f. After the commands, the prompt displays: "You have two options to activate your new registry settings: Log off and log back on Restart". At the bottom, it says "Press any key to continue . . .".

```
C:\Windows\system32\cmd.exe
C:\Users\Jen\Desktop>REG ADD "HKCU\Control Panel\Accessibility\Keyboard Response" /v BounceTime /t REG_SZ /d 0 /f
The operation completed successfully.
C:\Users\Jen\Desktop>REG ADD "HKCU\Control Panel\Accessibility\Keyboard Response" /v DelayBeforeAcceptance /t REG_SZ /d 0 /f
The operation completed successfully.
C:\Users\Jen\Desktop>REG ADD "HKCU\Control Panel\Accessibility\Keyboard Response" /v Flags /t REG_SZ /d 126 /f
The operation completed successfully.
C:\Users\Jen\Desktop>REG ADD "HKCU\Control Panel\Accessibility\StickyKeys" /v Flags /t REG_SZ /d 254 /f
The operation completed successfully.

You have two options to activate your new registry settings:
  Log off and log back on
  Restart

Press any key to continue . . .
```

When you save your active settings to a batch file, Keyboard Wizard also creates *Windows-default-kbwiz.bat* automatically. Running this batch file allows you to reset the keyboard settings back to their Windows default values. This can be useful if another person shares the computer with you or if for some reason, you no longer want to use the settings recommended by the wizard.

## Batch File Content

Batch files write to the same registry settings that Keyboard Wizard changes. In this way, batch files allow you to activate settings recommended by the wizard on computers that do not have Keyboard Wizard installed. These registry settings control [Sticky Keys](#), [Repeat Delay](#) and [Repeat Rate](#).

If you are interested in the details, the following table shows the specific registry settings included in the batch files along with their Windows default values. The file created when you [save your settings to a batch file](#) writes your current settings into the registry keys listed in the table. Saving a batch file also automatically creates *Windows-default-kbwiz.bat*, which activates the Windows default settings, using the default values shown in the table.

| Key  | Name                  | Default Value |
|--|-----------------------|---------------|
| HKCU\Control Panel\Keyboard                        | KeyboardDelay         | 1             |
| HKCU\Control Panel\Keyboard                        | KeyboardSpeed         | 31            |
| HKCU\Control Panel\Accessibility\Keyboard Response | AutoRepeatDelay       | 1000          |
| HKCU\Control Panel\Accessibility\Keyboard Response | AutoRepeatRate        | 500           |
| HKCU\Control Panel\Accessibility\Keyboard Response | BounceTime            | 0             |
| HKCU\Control Panel\Accessibility\Keyboard Response | DelayBeforeAcceptance | 1000          |
| HKCU\Control Panel\Accessibility\Keyboard Response | Flags                 | 126           |
| HKCU\Control Panel\Accessibility\StickyKeys        | Flags                 | 510           |

## Restore Defaults Overview

A utility program called **Restore Keyboard Defaults** is included with Keyboard Wizard. This allows you to change the keyboard settings back to the Windows default values at any time. You might never need this, but it is there if you do.

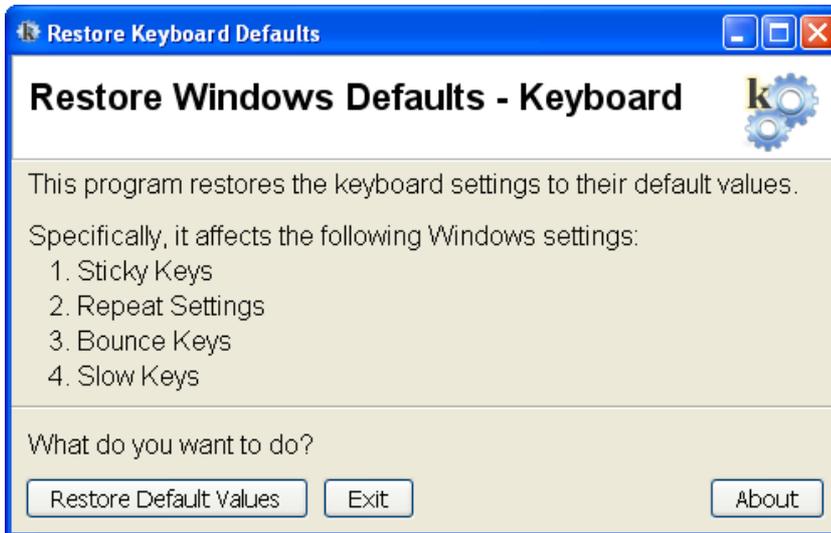
One scenario where you might want to restore defaults is in an assistive technology center that conducts computer access assessments. In that situation, multiple individuals might share a single Windows account. Because you may be adjusting keyboard settings frequently during each computer access assessment, you may want to restore defaults before beginning an assessment with a new individual. This ensures a known starting point for that assessment.

Note that when you restore defaults, the default settings will replace whatever settings were previously active. If you think you might want to go back to the previously active settings for any reason, use the [Batch File Feature](#) to store those settings BEFORE restoring the defaults.

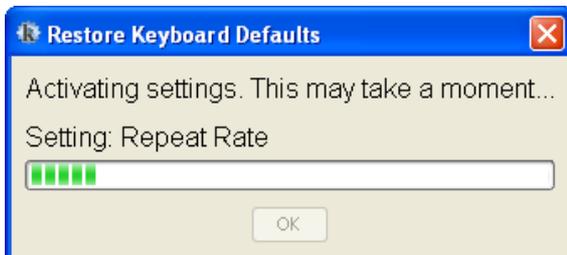
Refer to [How to Restore Defaults](#) for details about using the **Restore Keyboard Defaults** program.

## How to Restore Defaults

To change the keyboard settings back to the Windows default values at any time, you can use the **Restore Keyboard Defaults** utility included with Keyboard Wizard. To launch it, open the Start menu, and select **Restore Keyboard Defaults** from the Keyboard Wizard item. The main screen looks like this:



To restore default values, click the **Restore Default Values** button on the main screen. This will start restoring each of the settings listed, showing you each setting as it progresses:



When it's done, just click **OK** on the dialog box:



Then click **Exit** to quit the program. Your keyboard settings will now be back at their default values.



**Note:** when you restore defaults, the default settings will replace whatever settings were previously active. If you think you might want to go back to the previously active settings for any reason, use the [Batch File Feature](#) to store those settings BEFORE restoring the defaults.

## About KPR

Koester Performance Research (KPR) enhances the usability and accessibility of information and assistive technologies through research, development, and education. We are interested in all aspects of the interaction between people and technology, with an emphasis on the needs of people who have disabilities. We pursue this work through a combination of KPR-initiated projects and consultations with others on usability and research design.

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**Website:** [www.kpronline.com](http://www.kpronline.com)

If you have suggestions about the Keyboard Wizard, we hope you will send them to us at **support@kpronline.com**. We want to make sure the Keyboard Wizard is fully meeting your needs.

## Technical Support

The Keyboard Wizard has been extensively tested and designed with the highest quality and ease of use in mind. We hope that you will have a great experience with it.

If you do have any questions or comments, please contact us at **support@kpronline.com**.

As we develop additional support resources, we will list those on our website at **www.kpronline.com**. You may want to check there regularly to see what's new.

Thanks for using the Keyboard Wizard!

## Development Team

Keyboard Wizard research and development is led by Koester Performance Research, in collaboration with the University of Pittsburgh and the Ann Arbor Center for Independent Living. Support for development was provided by Phase I and Phase II SBIR grants from the National Institutes of Health.

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- Glen Ashlock, AACIL
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The team also thanks all those who participated in field studies on the Keyboard Wizard.

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