

CHAPTER 8

Scripting

In today's computer-centric world, visually-impaired individuals are challenged to meet the same performance goals as their normal-sighted peers. In many situations, especially job related, it can be difficult for these individuals to meet their goals, even when equipped with ZoomText.

With ZoomText's scripting feature you can create and utilize scripts to customize the behavior of ZoomText and other applications, providing more informative visual and audible feedback, and automation of tasks. This in turn allows you to work with improved speed and efficiency.

Here are just a few examples of things you can do with ZoomText scripting:

- Automatically announce selected fields of information in a database or spreadsheet.
- Automatically announce new items in your email inbox and automatically read email when opened.
- Automatically announce application controls and data in more meaningful way.
- Automatically read new text that arrives in a chat window.
- Automatically announce when a selected field of information changes, such as the balance in spreadsheet dipping below a specified value.

What are Scripts and Scripting Languages?

- **What is a script?** A script is a text file containing programming commands that initiate a given ZoomText or application task. Scripts can consist of a few lines of very simple commands or many lines of complex programming. ZoomText scripts are written using one of the industry standard *scripting languages*, such as VBScript, Jscript/JavaScript, C# or Perl. No special tools are required to write a script, in fact, scripts can be written using the Windows Notepad. However, you must have some knowledge and experience writing scripts.
- **What are scripting languages?** Scripting languages are programming languages that control existing applications or their components. Scripting languages can be created and used without special programming software or the need for traditional compiling and building of program code. Thus, they favor rapid development and the ability to communicate with other programs. There are many different scripting languages, each of which is generally designed for a specific type of use.
- **What scripting languages can be used to write ZoomText scripts?** The standard industry scripting languages that we suggest are: VBScript, Jscript/JavaScript, C# and Perl.

Writing ZoomText Scripts

Although most anyone can learn to write basic ZoomText scripts, writing true productivity scripts requires an amount of experience and expertise. Therefore, Ai Squared recommends using an experienced script writer to design, create and test scripts – preferably one that is understands the challenges faced by visually-impaired computer users.

An experienced script writer may be available within your company or organization – start by checking with your department manager or IT department. You may also find an experienced script writer through services advertised on the Internet. If you are unable to find a script writer on your own, Ai Squared may be able to assist you in finding a script writer – contact Ai Squared’s product support department at (802) 362-3612 or send email to support@aisquared.com.

Other Sources of ZoomText Scripts

With growing popularity of ZoomText scripting a variety of scripts for mainstream applications will become available for users to download and purchase. These scripts will be made available in the ZoomText Scripting Library on Ai Squared’s website. For more information, go to www.aisquared.com/scripting.

Scripting Documentation for Script Writers

The ZoomText Scripting Documentation for Script Writers provides instructional information for writing and testing ZoomText scripts.

► **To view the Documentation for Script Writers**

Do one of the following:

- In the Settings menu, choose Scripting ► Documentation.
- In the Windows **S**tart menu, select **A**ll Programs ► **Z**oomText 9.1 ► **S**cripting ► **D**ocumentation.

Managing Scripts

ZoomText's scripting feature allows you to register and run scripts for any application. Some users may only require a few scripts for a single application, while other may need many scripts for many applications. The ZoomText Script Manager makes the process of registering, viewing and managing scripts a simple and intuitive task.

Here's what you can do with the ZoomText Script Manager:

- Register new scripts written for ZoomText
- Enable and disable scripts as needed (without having to unregister them)
- Open and edit scripts. **Important:** Editing scripts should only be performed by a qualified script writer.
- View a description of each script, including the script's purpose

Note: You must have administrative privileges to make changes in the ZoomText Script Manager. Registering and modifying scripts can adversely affect the behavior of your system and should only be performed by a qualified individual or according to their instructions.

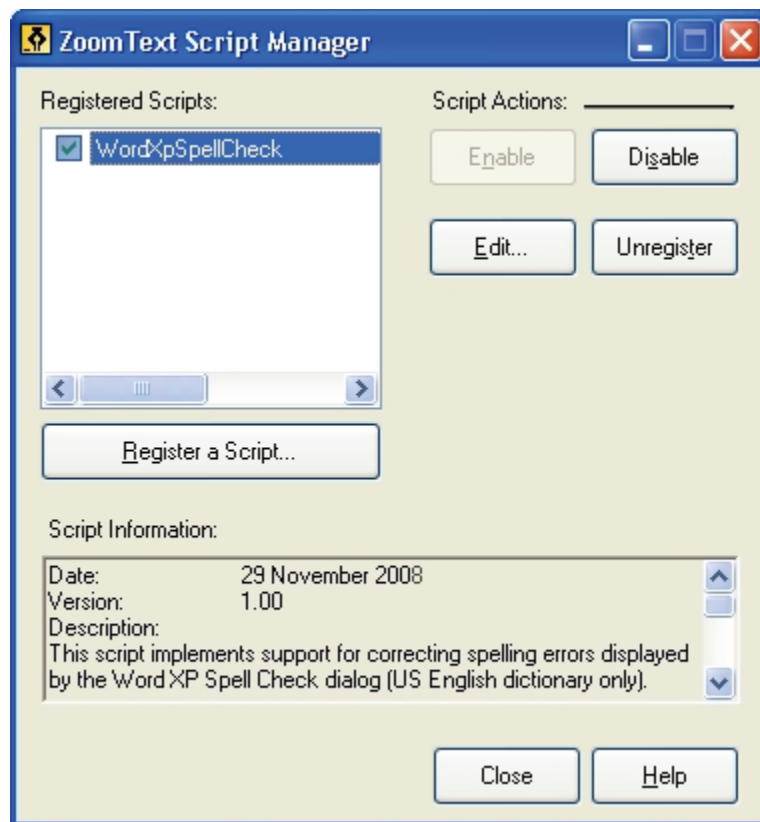
► **To view and manage ZoomText scripts**

In the Settings menu, choose Scripting ► Script Manager...

The Script Manager dialog appears.

Modify the registered scripts as desired.

Click the **OK** button.



The ZoomText Script Manager dialog

The following table describes the Script Manager settings.

Setting	Description
Registered Scripts:	Displays a list of scripts that are currently registered for use when ZoomText is running. Scripts that appear in this list may be enabled and disabled, moved up and down to prioritize their execution (when triggered by the same event), or removed altogether by unregistering the script. To perform these actions, select the desired script (or scripts) and then choose the desired script action.
<u>R</u> egister a Script...	Opens the Register Script dialog where you can specify scripts that you want to register for use with ZoomText. For information on how to register a script, see Registering Scripts.
<u>E</u> nable	<p>Enables the highlighted script (or scripts). When a script is enabled it is executed whenever ZoomText is running – according to its designed purpose.</p> <p>Note: A script can also be enabled or disabled by clicking its associated check box.</p>

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Disable	<p>Disables the highlighted script (or scripts). When a script is disabled it remains registered with ZoomText but is not executed.</p> <p>Note: A script can also be enabled or disabled by clicking its associated check box.</p>
Edit...	Opens the selected script in Windows Notepad where it may be viewed and edited.
Unregister	Removes the selected script so that it is no longer loaded by ZoomText. When a script is unregistered, it is immediately terminated and removed from the list of Registered Scripts.
Script Information:	Displays information about the highlighted script (if provided by the script author), including the author date, version, contact information and a description of the script's purpose.

For more information about creating and registering scripts, see the ZoomText Scripting Documentation for Script Writers. In the **Settings** menu, choose **Scripting ► Documentation**.

Registering Scripts

In order to use scripts written for ZoomText they must first be registered using ZoomText's Script Manager. There are two types of ZoomText scripts that can be registered – script programs and script components.

- A **script program** is a text file and can be registered by simply browsing to and selecting its corresponding file. Script program files are typically written in VBScript (.VBS), Jscript (.JS) or Perl (.PL) scripting languages.
- A **script component** is a program file that must first be registered with Windows and ZoomText. These program files typically have a .DLL or .WSC file extension.

Important! You must have administrative privileges to register scripts and make changes in the ZoomText Script Manager. Registering and modifying scripts can adversely affect the behavior of your system and should only be performed by a qualified individual or according to their instructions.

► **To register a 'script program' with ZoomText (e.g. VBS, JS, PL)**

In the Settings menu, choose Scripting ► Script Manager...

The Script Manager dialog appears.

In the Script Manager dialog, choose Register a Script...

The Register Script dialog appears.

Browse to folder containing the script program you want to register.

Select the script program and click the **OK** button.

The Script Manager dialog appears.

Click the **OK** button.

► **To register a 'script component' with ZoomText (e.g. DLL, WSC)**

If your script component is already registered with the Windows operating system, proceed to step 2.

Otherwise, first register your script with Windows as follows:

▪ **To register a Windows scripting component (.WSC file):**

- a) In Windows Explorer, locate the scripting file.
- b) Right-click on the file and select **Register**.

▪ **To register a COM scripting component (.DLL file):**

- a) Click on the Windows **Start** button and select **Run...**
- b) Type **COMMAND** and click the **OK** button.

The command prompt appears.

- c) At the command prompt, type:

REGSVR32 {path\filename of script}

- d) Press the **ENTER** key.

The script is registered with Windows.

- e) Type **EXIT** and press the **ENTER** key.

The command prompt window closes.

In the Settings menu, choose **S**cripting ► **S**cript Manager...

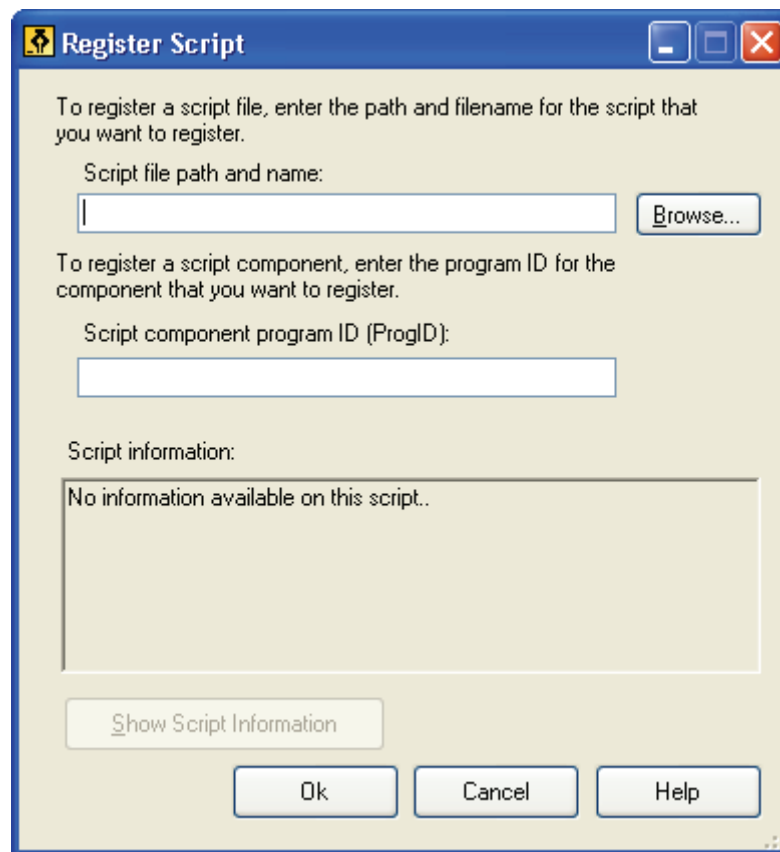
The Script Manager dialog appears.

In the Script Manager dialog, choose **Register a Script...**

The Register Script dialog appears.

In the **Script component program ID** field, type the program ID (aka ProgID) for the script component you want to register.

Click the **OK** button.



The Register Script dialog

The following table describes the Register Script settings.

Setting	Description
Script file path and name:	Provides a place for you to type the location and file name of the script program you want to register. If you are not sure of the program's location or file name, click Browse.
<u>B</u> rowse...	Displays the Select Script File dialog box, which allows you to navigate files folders and select existing script files.
Script component program ID (ProgID):	Provides a place for you to type the program ID for the script component you want to register. Program IDs are provided by the script author.
Script information	Displays information about the specified script file or script component (if provided within the script), including the author date, version, contact information and a description of the script's purpose.
<u>S</u> how Script Information	When entering a program ID, clicking the Show Script Information button will display the script information (if provided within the script).

Script Hotkeys

ZoomText scripts can be written so that they execute automatically in response to specified events or when pressing a hotkey (or hotkeys). When a script is written for execution by hotkey(s), the hotkey(s) will appear in ZoomText's Hotkeys dialog box. Like all ZoomText hotkeys, you can view and modify the script hotkey assignments.

► **To view the script hotkeys**

In the **Options** menu, choose **Hotkeys...**

A list of script hotkeys appear in the Hotkeys Command list.

In the **Hotkey Group** box, select **Scripts**.

The Hotkeys dialog appears.

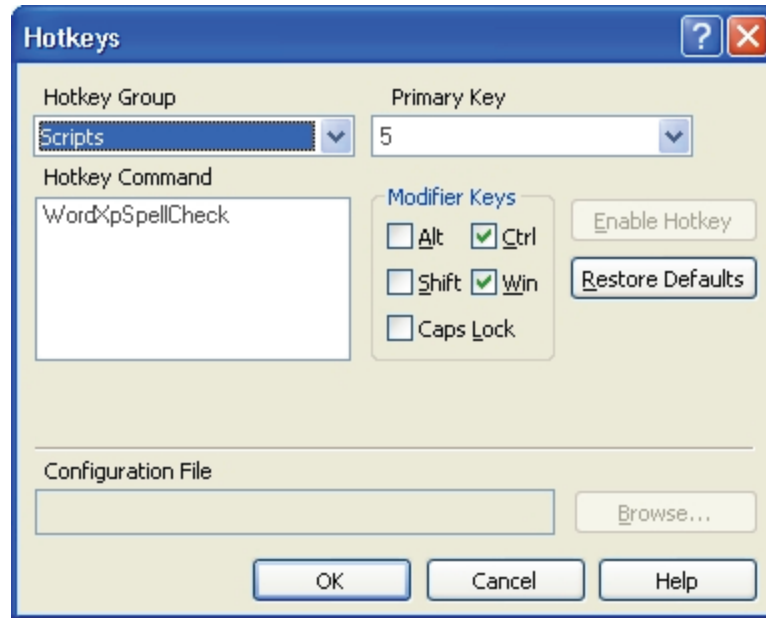
To view a script hotkeys assigned key combination, click on the desired script hotkey.

The hotkey's assigned key combination appears in the Primary Key and Modifier Keys settings.

Adjust the hotkey combination as desired.

Repeat steps 3 and 4 for each hotkey you wish to view or modify.

Click the **OK** button.



The Hotkeys dialog

The following table describes the new Hotkey settings related to scripts.

Setting	Description
Hotkey Group	Selects a group of related hotkeys. The hotkeys in the selected group appear in the Hotkey Command list.
Hotkey Command	Displays a list of all hotkeys in the selected hotkey group. When a hotkey is highlighted, its primary and modifier keys are displayed.
Primary Key	Sets the primary key for the highlighted hotkey command. Any key in the drop down list can be selected, including mouse buttons.

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Modifier Keys	Sets the modifier keys for the highlighted hotkey command. One or more modifier keys must be selected.
<u>D</u> isable Hotkey	Disables a hotkey command from functioning. When a hotkey is disabled, the primary and modifier keys are grayed out. Click on the Enable Hotkey button to re-enable the hotkey.
<u>R</u> estore Defaults	Restores all hotkeys to their original settings.
Configuration File	Displays the name of the configuration file associated with a Load Configuration hotkey.
<u>B</u> rowse...	<p>Displays the Select Configuration dialog box, which lists the existing configuration files. A configuration file can be assigned to a Load Configuration hotkey by selecting the desired file and choosing OK.</p> <p>Note: The Browse button is only enabled when a Load Configuration hotkey command is highlighted.</p>