# Unofficial Thunder Manual (Hotkeys)

For ThunderStorm Version 3. By Alasdair King ([Alasdair@webbie.org.uk](mailto:Alasdair@webbie.org.uk)) 17 August 2011

## Introduction

Thunder is a free screenreader. It’s more powerful than Narrator, easier to use but less powerful than JAWS, and more focused on Microsoft applications than NVDA. If you don’t like it, try NVDA from <http://www.nvda-project.org> or System Access to Go from <http://www.satogo.com>.

This guide assumes you know standard Windows terminology and how things work – windows, desktop, drives, that kind of thing. It focuses on the hotkeys that are useful when using Thunder and how to get around.

## Using Thunder – what you need to know

Using Thunder means learning how to get around the system and what keys you need to press.

CONTROL makes Thunder shut up so you can think about what to do next.

CURSOR KEYS are used in lists and windows and menus and lots of places. They’re most useful in text areas, like Notepad or Email or the Run box in the Start menu.

Use TAB to move around buttons and controls in applications, and SHIFT+TAB to go back. This will go from button to button, or list, or pane, or textbox. It won’t leave the application window and it won’t bring up the application menus. CURSOR KEYS sometimes move around some windows, like the Shut Down window, but not every window.

Use SPACE to toggle checkboxes and press buttons. Use CAPSLOCK+SHIFT+O to read out the button or checkbox or whatever you’re currently on.

You’ll find yourself in text areas a lot – documents in Word, web pages in WebbIE, Notepad and email. You can cursor around these and hear each line. You can also use HOME and END in text areas for the start and end of a line, or CONTROL+HOME or CONTROL+END for start and end of the whole area. CONTROL+A selects all the text in the text area, then CAPSLOCK+H reads it out. CAPSLOCK+L reads the current line. CAPSLOCK+SPACE will start Thunder automatically reading the current text area, one line at a time.

Use ALT+F4 to close the current window. If you’re on the desktop this will shut down your computer.

Use CONTROL+ESCAPE or WINDOWS to open the start menu. Then you can cursor around it. Look in All Programs for programs to run. Or open the start menu, type the name of the program: it’ll be displayed in a list, and you can cursor up and down until you hear it. Sighted tip: add shortcuts to the top of the Start menu for the programs you want to use.

Use ALT+TAB to cycle through the open programs. Hold down ALT then tap TAB slowly to move through the applications, and release ALT when you have got to the application you want. SHIFT+ALT+TAB takes you backwards.

WINDOWS+E opens Windows Explorer. TAB, CURSORS and RETURN will get you around Explorer. If it’s a bit much try the Disk Explorer program in WebbIE.

ALT brings up the menu for a program. Then cursor around to explore the menus. Press return to select a menu item. As you explore you’ll notice common shortcuts listed on the menu items, like CONTROL+S to save, or F1 for Help. These are found in most programs, but not all. Where they are listed in the menus or described in the Help file for the program you can use them. If there aren’t any such shortcuts you’re out of luck with that program.

The other thing to try is pressing the MENU key to the right of the right ALT key, or SHIFT+F10. This usually pops up a context menu of things you can do, like copy or paste. Cursor up and down to hear the menu contents and RETURN to select something.

ESCAPE closes most dialog windows and menus. RETURN makes most things take effect.

WINDOWS+D minimises everything and goes to the desktop. Then you can cursor around icons and files and folders there. Press RETURN to start or open the current item. You can also press TAB and you’ll get to the Start button, the Quick Launch shortcuts, the Task Bar, and the System Tray (Notification Area). This is how you get to things like the time or system volume or alerts in the system tray. Within each section use the CURSOR KEYS and RETURN to start things.

In most lists – Start menu, program menus, Windows Explorer lists of files etc. – you can press the first few characters of the item you’re looking for and the focus will go there. HOME and END will take you to the start or end of the list if you get confused.

CAPSLOCK+; (SEMICOLON) makes Thunder repeat what it just said. This is useful when you’ve got somewhere but not quite grasped what you’ve heard.

CAPSLOCK+F reads the current application window, from top-left to bottom-right. This is useful when there is text in the window that you can’t get to by tabbing around.

CAPSLOCK+SHIFT+N reads the current application window title so you can tell what the current application is.

For web browsing you have two choices: use the WebbIE text browser or Internet Explorer. In Internet Explorer you use PAGE UP and PAGE DOWN to move through the page. F4 brings up a Google search facility so you can just type your search words then get a list of results – much faster than using Google directly. F6 takes you to the next form field. F7 takes you to the next header on the page. F10 brings up a list of just the links on the page. TAB and SHIFT+TAB take you through links and form elements and END and HOME take you through form elements only.

For Adobe Reader PDF files, install Adobe Reader X. You can then load a PDF file, then go to the File menu, Save As, Text, and the whole document will be saved as a text file you can read in Notepad or Wordpad. Inaccessible PDF files won’t save properly and will have to be OCR’d by a scanning program.

## Using Thunder – advanced stuff for geeks

For the vast majority of users, the previous “what you need to know” section is quite sufficient. There are already enough keystrokes to learn. Stop, and learn application-specific keystrokes (like for Word or WebbIE) instead. Work out which applications are accessible to you with what you can do, and don’t use anything else. Get on with doing things you want to do with your computer.

For some users, however, they want to do more with their system. They’ll need to gain a more complex understanding of how Thunder works and how it can interact with applications. You may want to go get NVDA at this point and play with that. Don’t get me wrong, Thunder is enormously powerful in what it can do, but the project isn’t set up for the needs of power users. Don’t expect any help.

Still here? OK, I warned you. You’ll need your number key pad working for lots of the following.

You have two things when you’re using Thunder. There is a **reading cursor**, which is where Thunder is at, and there is the **mouse cursor.** They aren’t the same. If you’re typing into Notepad the reading cursor is moving as you type, but the mouse cursor is sitting where it is. If you’re in Notepad and you’re moving the mouse around the screen, it doesn’t change where letters will appear when you type. The reading cursor isn’t the **caret** either, though. The caret is where you’re typing. The mouse pointer is wherever it’s at. The reading cursor is where you’ve told Thunder to read.

Sometimes you need to explore the screen to find things you can’t tab to. You need to use the Numeric Keypad. If your keyboard doesn’t have one then try to find a special key that turns it on. Then you can use NUMPAD8 to move up, NUMPAD6 to move right, NUMPAD4 to move left and NUMPAD2 to move down. This moves the reading cursor AND the mouse pointer but not the caret. Thunder reads whatever you hit. You can toggle between moving a pixel at a time (NUMPAD\*) or an object (button, menu item, text area) at a time (CAPSLOCK+SHIFT+NUMPAD\*). You can jump to the top-left corner of the current window with NUMPAD7 and the bottom-right corner with NUMPAD3. Other number pad keys move the pointer, but they’re a bit flaky. When you’re done messing around use ALT+TAB or the CURSOR KEYS or TAB to move the reading cursor back to where you were. Or you can press NUMPAD5 to click the mouse pointer wherever it has got to. Or NUMPAD-MINUS to right-click. You can even select text or whatever by pressing NUMPAD-PLUS to left-click-and-hold the mouse, moving the mouse pointer, and then press CAPSLOCK+NUMPAD-PLUS to release the left mouse button.

When you get to somewhere by tabbing or mousing and you want to be able to get there again more quickly, set a marker to that location. Then you can move the mouse straight back there. For example, tab around until you get to a button of interest. Press CAPSLOCK+S and then a letter and this location will then have a marker. At any time you can press CAPSLOCK+G and then the same letter and the mouse pointer and reading cursor will be moved to that location on the screen – but not the focus. But you can then send a left-mouse-click with NUMPAD5. Note that the marker isn’t located where the mouse pointer was, it’s located where the reading cursor or focus is. This all breaks if your window isn’t in the same place as when you placed the marker, of course: you may want to maximise windows before you start making markers, so you are working with a consistent window, which you can do with CAPSLOCK+T for tidy.

There are lots more advanced shortcut keys in Thunder. You can see them all in the Thunder settings window and check out the Hotkeys list of shortcut keys. Many of them aren’t documented, so you’ll have to figure them out yourself. Note that you can’t get to this Hotkeys list unless you know how to move the mouse…

Thunder supports Scripting and has a powerful scripting engine. See the Thunder Scripting Manual for how to create your own scripts. No-one has ever written a script, to our knowledge, except the Thunder developer himself. But you could, for example, set a hotkey that maximises the current window, moves the mouse cursor, then reads the object under the mouse, then moves the mouse back – you could then say to the user “press CAPSLOCK and T and you’ll get the time!” It’s very flexible and powerful.

## Vista and Windows 7 – the Ease of Access Center and User Account Control

Thunder works fine in UAC. Install, in the Ease of Access Center – under “Use the computer without a display” –make sure Thunder is checked. Thunder should now start up in UAC, but it can be temperamental. Start Thunder, then with it still running restart the machine. When you log back in all should be well. If you close Thunder at any point you may have to restart to get it to work again.

## Getting Help and Advice

There’s a big set of help files in Thunder: hit the Help button on the main Thunder form. Then contact Roger or Marg at Screenreader.net. You’re probably best calling on 0844 500 4441, but you can also email [info@screenreader.net](mailto:info@screenreader.net).

## Thunder shortcut keys

It’s hard to work out what each of the shortcut keys do. After reading the above this table should make some more sense.

### Global Thunder Shortcut Keys

|  |  |  |
| --- | --- | --- |
| Thunder name | Key | Explanation |
| 1 Script key 1 | Alt+1 | These do different things depending on the current application. The function is defined in the script for the application, if there is one. For example, Word has many functions, but Firefox has none. |
| 2 Script key 2 | Alt+2 |
| 3 Script key 3 | Alt+3 |
| 4 Script key 4 | Alt+4 |
| 5 Script key 5 | Alt+5 |
| 6 Script key 6 | Alt+6 |
| 7 Script key 7 | Alt+7 |
| 8 Script key 8 | Alt+8 |
| 9 Script key 9 | Alt+9 |
| 10 Script key 10 | Alt+0 |
| 11 Top of window | NUMPAD7 | Moves the mouse pointer and the reading cursor to the top-left-hand corner of the current window. |
| 12 Top edge of window | CAPSLOCK+NUMPAD7 | Moves the mouse pointer and the reading cursor vertically up to the top of the current window, but doesn’t move them horizontally. |
| 13 Bottom edge of window | CAPSLOCK+NUMPAD3 | Moves the mouse pointer and the reading cursor vertically down to the bottom of the current window, but doesn’t move them horizontally. |
| 14 Bottom of window | NUMPAD3 | Moves the mouse pointer and the reading cursor to the bottom-right-hand corner of the current window. |
| 15 Left edge of window | CAPSLOCK+NUMPAD1 | Moves the mouse pointer and the reading cursor horizontally left to the left edge of the current window, but doesn’t move them vertically. |
| 16 Right edge of window | CAPSLOCK+NUMPAD9 | Moves the mouse pointer and the reading cursor horizontally right to the right edge of the current window, but doesn’t move them vertically. |
| 17 Reading cursor Up | NUMPAD8 | Moves the mouse pointer and the reading cursor up. In “move by pixel” mode they move by up to 24 pixels or until they get to some new text under the mouse, whichever is first, then Thunder reads out any new text or says “blank”. In “move by object” mode they move until they get to a new MSAA object with some text or they hit the top of the screen, whichever is first. However, Thunder reads out the line of text under where the mouse ended up, not the text in the MSAA object you hit, so you may not get any useful text. |
| 18 Reading cursor Down | NUMPAD2 | See “Reading cursor Up”. |
| 19 Reading cursor Left | NUMPAD4 | See “Reading cursor Up” |
| 20 Reading cursor Right | NUMPAD6 | See “Reading cursor Up” |
| 21 Left mouse button down | NUMPAD+ | Holds down the left mouse button – not the same as a click, use NUMPAD5 for that. This is so you can select with the mouse – hold down left, move the mouse, release the mouse. |
| 22 Left mouse button up | CAPSLOCK+NUMPAD+ | Releases the left mouse button. You can now do CAPSLOCK+H to read whatever you’ve managed to highlight. |
| 23 Title bar | ALT+NUMPAD7 | Moves the mouse pointer and the reading cursor to the centre of the current window’s title bar. |
| 24 Taskbar | ALT+NUMPAD9 | Moves the mouse pointer and the reading cursor to 200 pixels from the left of the screen and 15 pixels from the bottom, which is normally the Windows Taskbar. If you have docked the Taskbar somewhere else, or made it hide itself, this will not work. |
| 25 Speech off until next command | CAPSLOCK+SHIFT+M | Mutes Thunder until you press another hotkey. |
| 26 Where am I? | CAPSLOCK+/ | Reads out the X,Y pixel coordinates of the current reading cursor. |
| 27 Read character | CAPSLOCK+I | Reads the character at the reading cursor. |
| 28 Read word | CAPSLOCK+J | Reads the word at the reading cursor. |
| 29 Read to cursor | CAPSLOCK+K | Reads the current line of text from the start to the reading cursor. |
| 30 Read line | CAPSLOCK+L | Reads the current line of text. |
| 31 Read object | CAPSLOCK+O | Reads the MSAA object under the reading cursor. |
| 32 Read window | CAPSLOCK+F | Speaks the title of the current window then all the MSAA contents from top-left to bottom-right. |
| 33 Set marker | CAPSLOCK+S | Sets a marker at the current reading cursor position. You have to follow this with another key, which becomes the marker key. |
| 34 Go to marker | CAPSLOCK+G | Moves the reading cursor position – but not the mouse pointer – to the stored reading cursor position. You press this then the marker key you set with “Set marker” |
| 35 Read object at marker | CAPSLOCK+SHIFT+O | Reads the MSAA object at the selected marker position. |
| 36 Read window at marker | CAPSLOCK+SHIFT+F | Reads the text content of the window at the selected marker position. |
| 37 Left click | NUMPAD5 | Does a mouse left-c lick. Press it twice quickly to do a double-click. |
| 38 Right click | NUMPAD- | Does a mouse right-click. |
| 39 Reading cursor to mousepointer | NUMPAD. | Moves the reading cursor position to the mouse pointer position. (It’s not clear how you could separate them without moving the mouse pointer with the mouse.) |
| 40 Tidy window | CAPSLOCK+T | Maximises all windows, which makes it easier to find them and use them and easier for your scripts to work. |
| 41 By-pass key | CAPSLOCK+E | Does nothing. |
| 42 Enter script command | CAPSLOCK+ALT+S | Does nothing. |
| 43 Move by pixel | NUMPAD\* | Changes the “Reading cursor Up/Down/Left/Right” mode to “move by pixel”. See “Reading cursor Up”, above. |
| 44 Move by object | CAPSLOCK+SHIFT+NUMPAD\* | Changes the “Reading cursor Up/Down/Left/Right” mode to “move by object”. See “Reading cursor Up”, above. |
| 45 Help key mode | NUMPAD0 | Toggles “Help key mode” on or off. When you’re in “Help key mode” then, when you press a hotkey, the function of the hotkey is read out but the function is not carried out. |
| 46 Repeat | CAPSLOCK+; | Repeats whatever Thunder last spoke. |
| 47 Repeat and Spell | CAPSLOCK+SHIFT+; | Repeats whatever Thunder last spoke but spells out each letter. |
| 48 Repeat Phonetically | ALT+; | Repeats whatever Thunder last spoke but names each letter with the |
| 49 Script Help | CAPSLOCK+SHIFT+F1 | Application-specific scripts can have special help features, but none has them at the time of writing. However, if you are in an HTML Help window (not an old Microsoft Help window, nor a new Windows Vista/7 Help window) then the Thunder help will open and display the contents of the current HTML Help topic. |
| 50 Read Highlighted | CAPSLOCK+H | Reads whatever is selected by means of copying the current selection to the clipboard then reading the contents of the clipboard. |
| 51 Save markers | NUMPAD9 | Saves the user-selected markers. If you don’t do this then they’ll all be lost when you close Thunder. |
| 52 Change Punctuation | NUMPAD1 | Iterates through “no punctuation”, “some punctuation” and “all punctuation” options. This changes what is pronounced when text is spoken. |
| 53 Set Language | CAPSLOCK+SHIFT+ALT+L | Can change the user interface language, but generally does nothing. |
| 54 Hot key for Settings | ALT+/ | Opens the Thunder settings window, but only if you’re in Thunder, so not any use. |
| 55 Window name | CAPSLOCK+SHIFT+N | Reads the window title. |
| Next | CAPSLOCK+END | Moves the Thunder display window to the right so you can read more of the current line. Actually moves it right to the end of the line, so you may not be able to see the middle. |
| Home | CAPSLOCK+HOME | Moves the Thunder display window to the start of the line so you can start to read from there. |
| Autoread | CAPSLOCK+SPACE | Starts reading the whole of the current text area (e.g. a Word document) a line at a time, so you can listen to the whole thing without having to keep pressing the down key. |
| Show scripting window | + | Displays a window showing the current script. Used for script development. |
| Increase display window size | + (Whoops) | Increases the size of the Thunder display window, including the text within it. |
| Decrease display window size | - | Decreases the size of the Thunder display window, including the text within it. |

### Internet Explorer Thunder Hotkeys

|  |  |  |
| --- | --- | --- |
| Thunder name | Key | Explanation |
| Previous (Internet Explorer) | PageUp | Moves up through a web page in Internet Explorer, speaking each element. |
| Next (Internet Explorer) | PageDown | Moves down through a web page in Internet Explorer, speaking each element. |
| Google Search (Internet Explorer) | F2 | Open a search dialog for Internet Explorer and provides a simple list of results. |

### Microsoft Word Thunder Hotkeys

|  |  |  |
| --- | --- | --- |
| Thunder name | Key | Explanation |
| Speak word count | Alt + 8 | Speaks the number of words in the current document. |
| Speak text attributes | Alt + 5 | Speaks whether the text at the caret is bold, italic and so on. |
| Speak text justification | Alt + 6 | Announces whether the text at the caret is justified left, right, centred or full. |
| Speak table cell location | Alt + 3 | Announces the column and row number of the cell the caret is in. |
| Speak table cell content | Alt + 9 | Announces the contents of a cell in a table. |
| Change spoken punctuation level | Alt + 4 | Same as NUMPAD1 |
| Go to next spelling error | CAPSLOCK + N | Moves the caret to and selects the next spelling error in the document. You can then press the Menu key (Shift+F10) to bring up a list of suggestions from the Word spellchecker. |
| Speak highlighted text | Alt + 2 | Same as CAPSLOCK + H |

### Microsoft Excel Thunder Hotkeys

|  |  |  |
| --- | --- | --- |
| Thunder name | Key | Explanation |
| Speak cell location and contents | Alt + 2 | Announces the current cell coordinates and content. |
| Speak cell contents | Alt + 3 | Announces the current cell content. |
| ? | Alt + 4 | ? |

### Microsoft Windows Messenger

|  |  |  |
| --- | --- | --- |
| Thunder name | Key | Explanation |
| Speak message | Alt + any number key | Announces the last message posted. |

### Microsoft Powerpoint

|  |  |  |
| --- | --- | --- |
| Thunder name | Key | Explanation |
| Speak slide | Alt + any number key | If the number key corresponds to a slide, announces the content of that slide. If the number key is a value greater than the number of slides, announces the content of the shape indicated by the number key value, if possible. Otherwise says “Blank”. |

### Skype

|  |  |  |
| --- | --- | --- |
| Thunder name | Key | Explanation |
| Speak message | Alt + any number key | Announces the last message posted. |

## Bugs and fixes

* **Thunder does not speak in Word, or says the wrong text all the time.** There may be a hidden instance of winword.exe running, to which Thunder is talking in preference to the one you’re looking at. Restart your machine or use Windows Task Manager to close any errant winword.exe.
* **Thunder is hanging (not speaking at all).** Thunder will indeed hang while the application to which it is trying to talk is hung – like when the target application is loading. The easiest thing to do is wait, and most applications will come back to life. Otherwise, get someone to kill the hung application for you or do it yourself with another Thunder or Narrator.
* **Thunder isn’t working in Internet Explorer or Microsoft Word or Microsoft Excel properly.** Use Alt+Tab to go to another window, wait a few seconds, then Alt+Tab back to Internet Explorer. Some applications will not make themselves available to screenreaders until they have lost focus and regained it.
* **Sometimes Thunder hangs or crashes and I want to restart it with a key combination.** Open the Start menu with the Windows key. Cursor around to find the Thunder Screenreader shortcut – usually All Programs, Sensory, Thunder Screenreader. Shift+F10 to open the context menu. Cursor down to Properties and press return. Tab to “Shortcut key” and press T. Press Return. Thunder will now start up whenever you press Control + Alt + T.
* **Sometimes Thunder hangs or crashes and I can’t get it back and I’m stuck.** Start Narrator with Windows Key + U – it will co-exist with Thunder, crashed or otherwise, and you will be able to sort things out. Or restart your machine.
* **I can’t get iTunes to work properly.** Try Edit menu, Preferences. Go to the Advanced tab. Check “Enable full keyboard navigation”. Close Preferences.