



**A SCREEN MAGNIFICATION AND SCREEN READER
SOFTWARE PACKAGE**

USER MANUAL

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1. About Lightning with Speech

Lightning with Speech is a magnification software package that also makes the computer to talk to you. Whatever appears on the computer screen can be magnified up to 36 times and it works well with most Windows applications and video clips. It is easy to install and just as easy to use. Without needing to see the screen you will be able to write letters and documents, hear what you have typed letter by letter or word by word, change the speed and voice, and repeat what you have just heard and more. It will speak menus and dialog boxes. You will have full speech feedback for most text-based word processing tasks including editing documents in Microsoft Word, WordPad or Notepad.

2. System Requirements

- **Windows 2000, XP or Vista**
- **233MHz processor**
- **128MB RAM**
- **4MB free disk space**
- **WebbIE, our Internet text browser. Download it from our website or install it from an installation disk. You can't use Internet Explorer on its own.**

3. Installing and Running Lightning with Speech

Lightning with Speech does not appear to clash with other disability access software.

Installing from Download

To download Lightning with Speech:

- 1. Activate the download link**
- 2. Click OK at the security screen**
- 3. Save the installation file to your hard disk**
- 4. Once downloaded, run the file and follow the on screen instructions.**

Installing from CD

Lightning with Speech can also be loaded from a CD. To install:

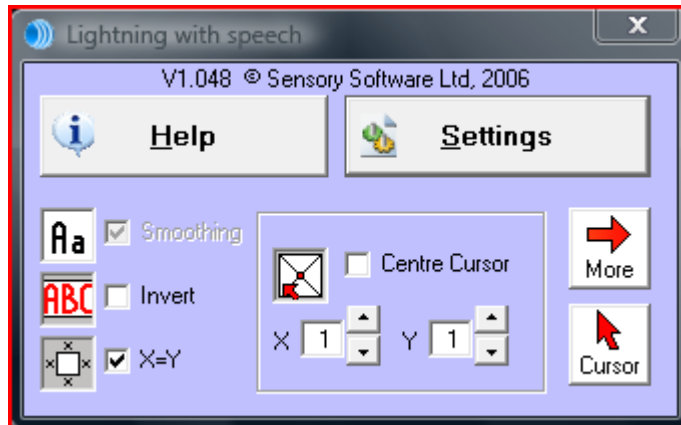
- 1. Place the Lightning with Speech CD in the CD drive**
- 2. The installation should begin automatically, follow the on screen instructions**

Running Lightning with Speech

Lightning with Speech will run automatically when you start your PC. If you do not want this to happen select Start → All Programs → Startup, right click on "Sensory Lightning with Speech" and select Delete.

To run Lightning with Speech, either double click on the icon on the desktop or click on Start and select All Programs → Sensory → Lightning with Speech. A dialog box will appear in the top left corner of the screen offering various options.

4. The Lightning with Speech Dialog Box



The Lightning with Speech dialog box is used to execute the following functions:

- Changing the Level of Magnification (Section 5)
- Smoothing Text (Section 6)
- Colour Inversion (Section 7)
- Changing the Shape and Size of Letters (Section 8)
- Centring the Cursor (Section 9)
- Configuring the area of magnification (Section 10)
- Configuring cursor style (Section 11)

The dialog box initially appears in the left-hand top corner of the screen. When you open an application such as Microsoft Word or Internet Explorer, Lightning with Speech will still be running even though the dialog box is hidden. If you want to get back to the dialog box to make changes, click on Lightning with Speech at the bottom of the screen in the taskbar or hold down the ALT key and keep pressing the TAB key until the Lightning with Speech dialog box appears again.

5. For seeing users and Teachers

Teaching visually-impaired people to enjoy the computer is fundamentally different from the way most of us work within Windows or Apple Mac. Those who can't see where the mouse pointer is must use keyboard shortcut keys to do the equivalent of point and click. This will in time often become quicker and more visually relaxing for those who have a little sight and struggle with the mouse.

Here is an introduction to some shortcut keys:

Bring up the Start Menu by pressing the Windows key (Second key in from the left-hand side nearest to you).

Get to menu choices with ALT, CURSOR keys and ENTER.

Move around dialog boxes with the TAB key, CURSOR keys and ENTER.

Leave menus or dialog boxes with the ESCAPE key (left-hand key furthest away from you).

Toggle checkboxes ticked or unchecked with the SPACEBAR.

Move between radio button choices with the CURSOR keys.

Read and listen line by line with the CURSOR keys.

When learning Windows shortcut keys, be aware of the underlined letter in menus and dialog boxes, e.g. F is underlined in the File Menu.

Windows standard Shortcut keys can be used instead of the mouse for such tasks as opening a file or printing a document, e.g.

CTRL + N opens a new document.

CTRL + O opens an existing document.

CTRL + P will print the document you are working on.

There are short video clips on the installation disk or as a download which explain this.

Keystrokes are also built into the screenreader for tasks such as reading a line or repeating the last speech you might have missed. Here are some screenreader keystrokes which you can use in Microsoft Word, Notepad or Outlook Express:

CAPSLOCK + L reads the current line you are on.

CAPSLOCK + ; (Semicolon) repeats the last speech you might have missed.

CAPSLOCK + Shift + ; (Semicolon) spells the last speech you might have missed.

In the Hotkeys Reference card, you will find full details of all such keystrokes.

6. Changing the Level of Magnification

Towards the bottom of the dialog box there are two boxes with numbers in.



To change the level of magnification until you find the size that suits you best, click on the arrow buttons.



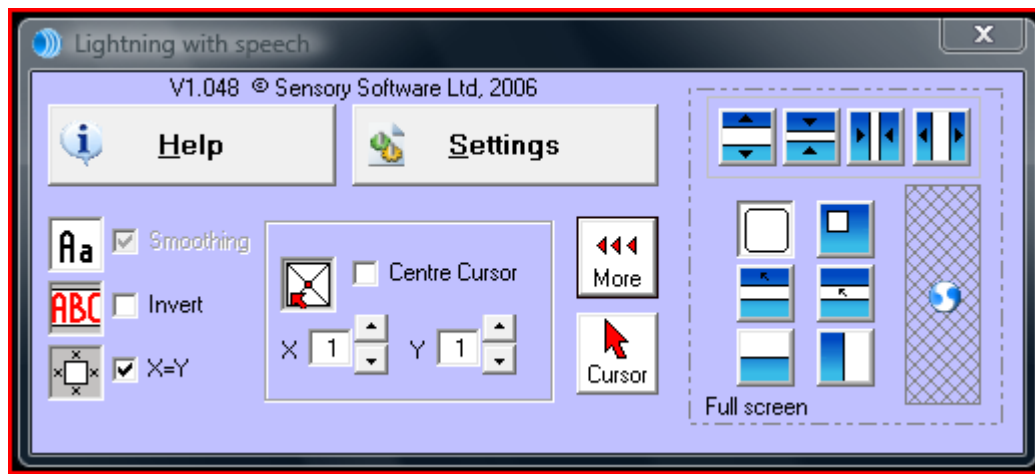
If the X=Y box is checked, the two numbers will always be the same. Please read Section 8 on how to make the numbers differ if this is required. Lightning with Speech will remember your choice whenever you turn your computer on and you can change size at any time to meet the needs of your current task.

It is possible to increase or decrease your current level of magnification using the keyboard by pressing CTRL and + (plus) or - (minus) on the number keypad.

7. Lightning with Speech Magnification Lens Options



The Lens Options button is situated in the top right corner of the dialog box and once clicked; it shows different lens options available which allow you to alter the magnification area.



7.1 Four Lens Adjustment Buttons



There are four buttons along the top of this extension which affect the size and shape of the lens which can be used in any magnification mode apart from full screen. You can experiment with these to suit your purpose. If, for example, you click on the left-hand button, you can extend the lens vertically and this could be useful when studying a particular column of figures.

7.2 Six Magnification Modes



Full Screen Magnification

This is the default and most widely used option. This magnifies the entire screen.



The Magnifying Lens

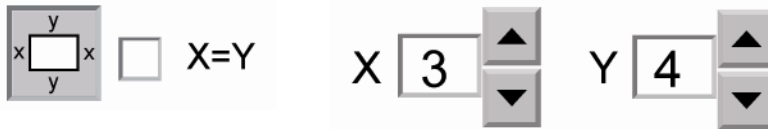
This is the top right hand button. When you click on it, the mouse pointer becomes a small, square magnifying lens. As you drive the mouse pointer round the screen, you see in detail a small area surrounding the pointer. The rest of the screen is not magnified.



The Strip Magnifier with normal sized pointer

When you click on this strip magnifier option, you create a horizontal magnifying strip which moves about the screen as you drive the mouse pointer.

Some users have found that in strip magnifier mode it is useful to increase the height of letters slightly but not the width. To do this, un-tick the X=Y choice on the Lightning with Speech dialog box and set the Y size to be one size higher than the X size.



The Strip Magnifier without normal sized pointer

As above but it does not show the normal sized pointer. The mouse pointer appears only within the strip and is magnified, ideal for reading text line by line.



Vertical and horizontal split screens

There are occasions when it is useful to see half the screen at normal size and the other half at your chosen magnified size for detailed work.

Clicking on one of the two options enables such split screen choices. Once selected, three more options appear to the right.



These allow you to magnify in either half of the screen (top/bottom or left/right) and auto-move the magnification so the correct side of the screen is magnified in relation to where the mouse pointer is.

8. Smoothing Text

Everything on the screen is made up of square pixels, so when you have large letters or magnified pictures, it may be inconvenient to view rough shapes and edges. The smoothing tool can improve this by smoothing black text.



In the top left corner of the Lightning with Speech dialog box, check the box to the left of the word "Smoothing" by clicking on it.

9. Colour Inversion

Some people prefer to look at light letters against a dark background rather than dark letters against a light background. To do this, check the box to the left of the word "Invert" by clicking on it and you will invert the colour scheme.



When you next click on the Invert box, the colours will revert to what they were originally.

Within the Microsoft Windows Operating System, it is possible to change colour schemes, font styles and sizes. Section 14 gives advice on how to get the most out of your Microsoft products.

10. Changing the Shape and Size of Letters

It is possible to change the shape and size of letters or pictures. Uncheck the X=Y box on the left hand side of the Lightning with Speech dialog box by clicking on it.



When the box is unchecked it will allow you to change the level of X and Y independently. If you only increase X, letters and pictures will grow in size horizontally but not vertically. If you only increase Y, letters and pictures will grow in size vertically but remain the same horizontally. Clicking on the

X=Y button again will reset the size when you want the letters or pictures to return to their normal symmetrical shape.

11. Musical Tones

Use Music on/off: ALT + M in Settings

You will hear musical tones as you move about the screen. They are intended to help you build up a mental picture of where you are and where things are on the screen.

The metallic tones go higher as you move up the screen with the CURSOR Keys or Numeric Keypad NKP8. The tones go lower as you move down the screen with the CURSOR key or NKP2. The more wooden tones go higher as you move to the right with the cursor or NKP6 and lower as you move to the left or NKP4. You can either dab at these keys or hold them down to move more quickly.

You will hear characters spoken as you move across the screen using the Right and Left CURSOR keys. You will also hear four levels of tone: the highest indicating a capital letter, the next down indicating a lower case letter, then punctuation, and the lowest indicating a space.

If you move word by word by holding down the CTRL and pressing RIGHT or LEFT CURSOR you will hear the pitch rise as you go to the right and fall as you go to the left to indicate where you are on the line.

You will find these tones particularly useful when proof-reading documents, but if they are too distracting, you can turn them off, see section 10 SCREENREADER SETTINGS - "Use Music".

12. Screenreader Settings

"Settings" is where you can change how the screenreader speaks, its volume and speed, whether it speaks letter by letter, word by word or both, whether punctuation is spoken and more. Experiment until you find what you like and you can always have it work that way, but you can change at any time, perhaps having a slower speed when reading unfamiliar web pages.

To get to "Settings" after you have switched on and are at the Desk top, press TAB until you hear "Settings". Alternatively, to get to SETTINGS from anywhere, press ALT + / (Forward Slash) and you are among the choices.

To explore the list of settings you can change, keep pressing TAB, or hold down SHIFT and dab at TAB to go back through the list.

Some settings such as Novice Mode have just two choices, on or off, the Screenreader will say "checked" and "unchecked" as you press the SPACEBAR. Leave it "checked" if you want the feature or "unchecked" if you don't. This is a toggle key. You can instead use the hotkeys listed below to switch between "checked" or "unchecked".

If there are more than two choices you will need to press the cursor keys to make the change. For example, to decrease the speed, TAB to "Speed" and Cursor up and Cursor Down to increase or decrease speed.

To save changes so that your PC always speaks as you want, press ALT and CURSOR DOWN until you hear "Save configuration", press ENTER once to get back to Settings, and again to get out of Settings. You will be back to Thunder. If you were in a document or your emails, hold down ALT and dab at TAB till you hear what you were in.

Here are some of the Settings choices you can make:

NOVICE MODE on/off: ALT + N

When Novice Mode is "checked" you hear lots of speech prompts to remind you of what you can do which may be useful to a beginner, but it may become distracting. Turn it off in "Settings" by pressing TAB until you reach "Novice Mode" and press SPACEBAR to "uncheck" it.

ECHO CHARACTERS: ALT + C

ECHO WORDS: ALT + W

You can choose whether Screenreader speaks letter by letter as you type or word by word or both.

SPEED CHANGE: ALT + S

Cursor UP and DOWN to the speed of speech you like.

VOICE CHANGE: press Tab until you hear "Sam" or one of the other voices and then Cursor UP and DOWN to the one you like. If you need a better voice, please check out the website or get a computer buddy to do it for you.

VOLUME CHANGE: ALT + V

Cursor UP and DOWN until you find the volume you want. You will probably also have a volume knob on your speakers which may be quicker and easier to use.

HOME AND END KEYS

You can choose to have them spoken "checked" or not "unchecked" when you press them.

SPEAK MODIFIERS

The Modifier keys are Alt, Control and Shift. Beginners may like to hear them spoken. Alt and control keys have useful functions within Windows.

Shift, when held down as a letter is pressed, turns a lower case letter into a capital.

PUNCTUATION LEVEL: ALT + P

You can choose how much punctuation is spoken, some, all or none. When listening to a book, you will not want to hear punctuation. But if you are checking a letter you have typed, you may well want to hear that your punctuation is as you intended it to be. The up or down cursor moves you between some, all or none.

USE MUSIC ON/OFF: ALT + M

Turning "Music" off will stop the tones you hear as you move the cursor or mouse pointer about the screen.

BEEP FOR CAPITALS

When this is "checked", you will hear a beep when you type a capital letter. This can be very helpful.

SPELL NUMBERS DIGITS

When this is "checked", you will hear numbers spoken as single digits. E.G., the number 111 will be spoken one one one, not one hundred and eleven. This helps when reading long numbers such as telephone numbers.

SPEAK SHORTCUT KEYS: ALT + K

Shortcut keys are used instead of the mouse for making something particular happen. It can help to have the shortcut underlined letter spoken if you are a beginner or are exploring a new program, E.G., In Microsoft Word when they are "checked" if you press ALT + F for the file menu you will hear "file shortcut ALT F" as confirmation.

To save changes so that your PC always speaks in the way that you want it to, within the Settings dialog, press ALT + F and Cursor Down until you hear "Save configuration". Then press ENTER twice.

13. Centering the Cursor

If you wish to centre the cursor in the magnified area, check the Centre Cursor check box on the Lightning with Speech dialog box by clicking on it.



Centre Cursor



Centre Cursor

14. Different methods of reading

The following keys enable you to read:

A character at a time: Right or Left Cursor
A word at a time: CTRL Right or Left Cursor
Next line: Down Cursor
Previous line: Up Cursor
Current line: CAPSLOCK + L
Current line to cursor: CAPSLOCK + K
Current word to cursor: CAPSLOCK + J
Character at cursor: CAPSLOCK + I
Document: CTRL + Alt + Down Cursor
Highlighted text: CAPSLOCK + H
Object: CAPSLOCK + O

You can read letter by letter with RIGHT or LEFT CURSOR keys, and word by word by holding down the CTRL key and dabbing at the RIGHT or LEFT CURSOR keys. You can read the next line with The DOWN CURSOR key, and CURSOR UP to read the previous line.

There are some special Screenreader reading keys which let you keep your fingers on the home keys as typists are taught to do, and the cursor will not move.

CAPSLOCK + L reads the line you are on in most situations but you can still cursor up or down and back again to read the line.

CAPSLOCK + K reads the line to where the cursor is including the letter at the cursor point so you know exactly where the cursor is.

CAPSLOCK + I reads where the cursor is and CAPSLOCK + J reads the word just to where the cursor is. These are for precision editing so you don't need to take your fingers from the home position to check what is there letter by letter with the left or right cursor keys.

CAPSLOCK + O speaks the Object that is in focus or under the mouse pointer. This could be the clock in the bottom right-hand corner of the screen.

CAPSLOCK + H reads what is highlighted at the time. Highlighting is used when copying and pasting, deleting and changing the font size of text amongst other things.

Highlight characters by holding down the LEFT SHIFT and moving the Left or Right Cursor keys. Highlight words by holding down the LEFT SHIFT and CTRL keys with the left hand and moving the Left or Right Cursor keys.

Document Read: CTRL+ ALT + DOWN CURSOR

Pause reading: DOWN or UP Cursor Keys

With "Document Read" you can read a long document without having to touch the keyboard. To start and

stop reading at any point, press the Cursor keys, and the cursor will remain at the point where you stopped reading. This function will work well within Microsoft Word.

15. Speech punctuation

Pressing ALT + 4 switches spoken punctuation between all, some and none. Alternatively, press Numeric Keypad 1 (NKP1).

Sometimes, when listening to a book you have found on the Internet or a disk, you will choose not to hear punctuation. Sometimes, when you are writing an important letter, you will want to hear all the punctuation.

16. Repeating Speech

Repeat last speech: CAPSLOCK + SEMICOLON

Repeat and spell last speech: CAPSLOCK + SHIFT + SEMICOLON

Repeat last speech phonetically: ALT + SEMICOLON

Even the most experienced speech users sometimes miss what has been spoken first time. The above keys will work for you in any situation at any time. If you frequently miss speech, try a slower speed or different voice. See Section 10 On Settings

17. Stop speech

Stop speech until next keystroke: CTRL

Stop speech until next Screenreader command: SHIFT + CAPSLOCK + ALT + M (mute)

Close down Screenreader: ALT + F4

Stop speech if you are a seeing user: go to the Thunder message box at the top left of the Desktop and click on the white X on the red background in the top right corner.

However useful speech is, there are times when you need to silence it. Press the CTRL key to stop it instantly at any time in every situation.

To silence speech for a while as you listen to an audio file or radio station, hold down SHIFT + CAPSLOCK + ALT and press M (mute). To hear speech again, press a Screenreader keystroke such as Caps Lock + L.

To stop speech, you can turn down the volume to Zero on your speakers if they have a volume knob or hold down ALT and dab at TAB until you reach the screenreader Message Box where the screenreader announces itself. Press ALT + F4. You will be asked to confirm that you really do want to close the screenreader down and lose speech.

To revive the speech, press CAPSLOCK + Shift + S.

18. Configuring Cursor Style



It is possible to change the colour of the mouse cursor if the default white is not suitable for you. To do this, click the button that has a white cursor on it. A number of colour options will appear, select the one most appropriate for you and click OK.

19. Outlook express keys

Outlook Express must be set up on your PC so that it goes straight to the Inbox when you launch it, and you must have some messages waiting to be read in your Inbox.

Cursor UP and DOWN the inbox and press TAB (not ENTER) on the message you wish to read.

Read the message line by line with the cursor keys.

Reply to the message: CTRL + R then type your reply.

Send a message or your reply: ALT + S with the message or reply on-screen.

Write new message: CTRL + N then type the recipient's email address. Press TAB twice and type in a subject heading. Press TAB, you will hear the word "Pane", and type your message, then send it by pressing Alt + S.

20 "WHERE AM I" keys

X-Y co-ordinates (where the cursor is on the screen in row and column numbers): CAPSLOCK + / (forward slash)

Read the name of the program or document you are in: SHIFT + CAPSLOCK + N

Windows applications are very visual and often have cluttered screens. Your screenreader's "WHERE AM I" keys can tell you precisely where you are and what you are doing; particularly helpful when exploring and building up a mental picture of what is on the screen.

Some people like to know where the mouse pointer is. You will hear two numbers when you Press CAPSLOCK + / (forward slash) – the key to the left of the right shift key. These numbers represent the horizontal distance from the left side and the vertical distance from the top of the screen. If for instance your screen resolution is set to 800 x 600, and your mouse pointer is down towards the bottom and the right-hand side, you will hear something like “column 790, row 580”.

To hear the name of the program or document you are in when you have several open, presses SHIFT + CAPSLOCK + N. To move between programs that may be open, hold down the ALT and keep dabbing at TAB.

Within a word-processor, the musical tones and CAPSLOCK + / (forward slash) will prove your best location guides. ALT + 3 when in Microsoft Word will give your table row and column position.

You can press the “WHERE AM I” Keys whenever you need a reminder and use Screenreader’s repeat functions if you don’t hear some speech first time, SHIFT + CAPSLOCK + SEMICOLON.

21. CONTROLLING THE MOUSE POINTER WITH KEYSTROKES

Move mouse pointer generally with the NUMERIC KEYPAD (NKP) KEYS to:

Top left-hand corner of the screen: NKP7

Bottom right-hand corner: NKP3

Top edge: CAPSLOCK + NKP7

Bottom edge: CAPSLOCK + NKP3

Left edge: CAPSLOCK + NKP1

Right edge: CAPSLOCK + NKP9

Up the screen: NKP8

Down the screen: NKP2

To the left: NKP4

To the right: NKP6

MOUSE CLICKS

Left click: NKP5

Double click: NKP5 twice

Right click: NKP MINUS

Move about the screen by Pixel: NKP* (STAR)

Seeing people use the mouse for most tasks, but someone with little or no sight can’t point and click a handheld mouse. Instead, the screenreader drives the mouse pointer round the screen when you press the NKP keys as above.

You will have to use the mouse pointer when you need to set and go to markers and to access some CD-ROMS or some anti-virus programs.

22. The screenreader marker system

Marker go to: CAPSLOCK + G followed by a letter

Marker set: CAPSLOCK + S followed by a letter

Tidy window: CAPSLOCK + T

Markers take you straight to a specific point on the screen that you will want to go to regularly, such as the clock at the bottom of the Desktop or the favourite link on a website.

To set a marker at your chosen spot, with the NKP keys, put the mouse pointer where you will want to start reading. Then press CAPSLOCK + S (set) followed by a letter to remind you of that spot, such as C for clock, S for status bar. That marker will be saved so you can come back to it.

To go to your marked spot again, press CAPSLOCK + G (go to) followed by the letter you chose.

There is a refinement that you may just need if there are unforeseen problems. CAPSLOCK + T tidies the window which you might need to do before you set markers and again before you go back to them. Generally, you will not need this tidy window function.

23. Exiting Lightning with Speech

To exit Lightning with Speech, click on the Close symbol in the top right corner of the Lightning with Speech dialog box. Magnification will now cease.



24. Microsoft Program Accessibility

Microsoft provide accessibility information and tips on all of their products, so to get the most out of your PC, visits their website: www.microsoft.com/enable.

Good luck with Lightning with Speech, your new magnifier and speech software.

25. Support & Contact

To view more product please visit www.itzooms.com

If you have any queries, please contact us at support@clarosoftware.com

