

ALViC - Accessible Linux for Visually Challenged – 0.1.2

ALViC is a GNU/Linux distribution created specially for visually challenged users. It is based on Ubuntu 10.04; and uses Orca 3.2.0 xdesktop screen reader. Visually challenged users can use it out of the box because accessibility settings required by them are already enabled. Special accessibility features of this distribution are briefly described below. These features have been added as part of the project 'Enhancing Accessibility of FOSS Desktops' at CDAC, Mumbai. This project is funded by the Department of Information Technology, Ministry of IT, under the NRCFOSS-Phase II project. For details, please check <http://www.cdacmumbai.in/accessibility>.

1. List keyboard shortcuts

Orca uses a large number of keyboard shortcuts. New users find it difficult to remember them. List Shortcuts feature enables a user to list all available Orca shortcuts. The new feature was accepted in May 2010, and is a default feature in Orca v2.31.2 and later. It works like this. The user enters 'List Shortcuts' mode by pressing Orca + h (double click). Pressing '1' lists Orca's default shortcuts. Pressing '2' lists Orca's shortcuts for the current application. The user can navigate and hear the listed shortcuts by pressing 'Up/ Down', can toggle to the other group of shortcuts by pressing '1' or '2', or can exit by pressing 'Escape'. For more details about the enhancement, visit the link https://bugzilla.gnome.org/show_bug.cgi?id=616820

2. Skim Reading

Before reading a document containing a large quantity of text, the user may first want a quick overview. Or, having already read the document once, may want to navigate quickly to a specific point. The sayAll command in Orca reads the document from the current cursor position to the end. Orca provides another way of moving through the text, by using the Up/ Down arrow keys. Both these methods read each line encountered along the way. So they are not useful in quickly accessing a specific portion of the text.

The skim read feature meets the above requirement. When a user issues "Skim Read" command (Ctrl + KP_Add in desktop, Orca + Ctrl + semicolon in laptop), Orca skims through the entire document. It starts at the current line/ sentence, and then reads only the first line/ sentence of each subsequent paragraph. Whether it reads the lines or sentences depends on the Say All By setting. If the user presses the Ctrl key, then skim reading stops at the line/ sentence just read. The feature works with Libre/Open Office Word Processor, Gedit text editor and Firefox web browser. For more details about the enhancement, visit the link https://bugzilla.gnome.org/show_bug.cgi?id=577481

3. Navigation by sentence

This feature provides navigation by sentence in Libre/Open Office Word Processor documents and text documents. To read the current sentence, press Windows+m. To read the previous sentence, press Windows+comma. To read the next sentence, press Windows+period. For more details about the enhancement, visit the link https://bugzilla.gnome.org/show_bug.cgi?id=520591

4. Structural navigation in Libre/Open Office Word Processor documents

This feature enables a user to navigate a Word processor document by heading, table or other document element by pressing a single key. Turn on structural navigation by pressing Orca+z. When structural navigation is on, pressing h takes the user to next heading and pressing Shift+h to the previous heading. Pressing a key corresponding to n (1 <= n <=6) takes the user to the next heading at level n, and pressing Shift+n takes him to the previous heading at level n. For more details about the enhancement, visit the link https://bugzilla.gnome.org/show_bug.cgi?id=652105

5. Accessing a pdf document

Press Ctrl+Alt+p to launch the access pdf script. Choose the pdf file to open and click on OK button. This invokes Poppler library command pdftohtml which converts the pdf content to html format. The html content is opened with Firefox web browser. Orca can access the content just like a web page. For more details about the enhancement, visit the link http://live.gnome.org/Orca/Acroread#Use_pdfhtml.

6. Easier navigation of icons on desktop

Usually it is quite difficult for a visually disabled user to navigate all icons on the desktop using arrow keys on the keyboard. He may get stuck at the end of a row or a column. He may miss some icons. This new feature enhances the file manager and makes it very easy to navigate icons on the desktop. Just by repeatedly pressing the down/ right arrow key, the user can navigate from the first to the last icon without missing any. Also, existing item search facility for desktop icon view is modified to suit visually challenged persons. For more details about the enhancement, visit the link https://bugzilla.gnome.org/show_bug.cgi?id=613111.

7. Other Assistive Tools

Other assistive tools included in the distribution are:

OCRFeeder:

A free software OCR suite, converts document images to text files.

Audiobook converter:

Creates MP3 audiobooks from text files.

Sound converter:

Leading audio file converter for the GNOME Desktop.

Emerson:

A cross-platform EPUB and DAISY reader.

8. Dark and light colour themes

There are a number of dark themes suitable for partially sighted users, and light themes suitable for sighted users. The themes can be quickly changed using keyboard shortcuts.

9. Keyboard shortcuts

Press Ctrl+Alt+k to open the complete list of keybindings. It includes keybindings for Orca screen reader, Gnome desktop and Compiz window manager.

Press Ctrl+Alt+q to read answers to frequently asked questions.

Press Ctrl+Alt+i to read the installation manual.

Known issues about this distribution are listed in the Release Notes.