

TopOCR 61 Accessible User Interface for Document Cameras

TopOCR's Accessible User Interface for Document Cameras has been designed for people with a wide range of visual impairment. This interface is designed to give you as much camera scanning functionality that it can without having an overly complicated User Interface with a large number of complicated commands to remember.

In addition, the Accessible Interface has no reliance upon visual feedback, nor any reliance upon GUI controls that require visual feedback. The Accessible Interface is based on a keyboard command system that primarily uses the easy to locate Function keys on the top row of a standard keyboard and an optional Accessible Mouse User Interface which uses the standard mouse scroll wheel and left and right mouse button for menu navigation and command selection.

Each Accessible Command is just a single key press and each command also supplies audio feedback. TopOCR allows you to immediately listen to the audio after you scan the page and also gives you the option of converting and backing-up your scanned documents as either MP3 or plain text files on a flash drive with just a single key press.

It also doesn't require visual feedback to launch the TopOCR application.

After you install TopOCR, you can launch TopOCR straight from the Windows DeskTop and put it in Accessible Mode in a simple 2 step process shown below:

1. Type "Cntrl-Alt-Q" to launch TopOCR
2. Type "Control-Q" to put TopOCR into Accessible Mode/ or back to GUI mode

The Three Basic Commands To Use TopOCR

It only requires you to remember as few as 3 Function Keys to use the basic reading function of TopOCR.

F1 key to scan, OCR and speak the output to you

F2 key to pause or resume the Text To Speech

F12 key to exit the program (and optionally turn off your PC)

If you you don't want to use the functions keys, then you can enable the mouse interface and use the up and down mouse scroll wheel and the left and right mouse buttons to be the basic intface to TopOCR.

TopOCR Reader Accessible User Interface Function Keys

Here is a complete description of all of the Accessible Function Keys:

- F1 - Scan an image, OCR the image, and read the OCR Output
- F2 - Pause/Resume Text To Speech reading
- F3 - Select between a document camera or TWAIN scanner - default is document camera
- F4 - Save the OCR output as MP3 audio or text and copy it to an MP3 player or flash drive
- F5 - Turn ON/OFF Super Resolution mode, - default is OFF
- F6 - Select Operating Mode - Standard, Straighten Columns, Neural Warp or Turbo
- F7 - Select Document Camera or WebCam - Default if only 1 camera is present
- F8 - Select Capture Delay Timer for Image Capture - Default is 10 seconds
- F9 - Select Language for OCR and Speech - Default is English
- F10 - Select Volume - select the volume of the voice
- F11 - Audio and Screen Help Information
- F12 - Exit TopOCR (and optionally shutdown PC)

TopOCR's Control Keys

The TopOCR Accessible User Interface also uses 5 easy to locate (Control+QWERT) control keys that are described below:

Control-Q - switch between the Accessible User Interface mode and the standard Windows GUI mode - the default is the standard Windows GUI mode.

Control-W - turn ON/OFF "Debug Mode" (before OCR text is spoken - announce number of spelling errors, light level and document alignment) - default is OFF.

Control-E - change the format of the saved OCR text output as either an MP3 audio or raw text file.

Control-R - change Exit TopOCR F12 key function (exit application only or exit application and shutdown PC - the default is exit application only).

Control-T - turn ON/OFF Mouse Accessible User Interface - default is OFF.

Accessible OCR Output Replay Commands

The TopOCR Accessible User Interface also has additional OCR Output Replay Commands that provides finer access to the OCR output Reading Data.

Ctrl-1 - Replay the entire page audio

Ctrl-2 - Replay the page audio - one sentence at a time

TopOCR's Scroll Control Keys

TopOCR also has four keys to allow you to scroll a displayed image.

Down Arrow - Scroll the currently displayed image downward

Up Arrow - Scroll the currently displayed image upward

Left Arrow - Scroll the currently displayed image to the left

Right Arrow - Scroll the currently displayed image to the right

TopOCR Accessible Mouse UI

The Accessible Mouse UI uses the standard left and right mouse button and vertical scroll wheel. You can move the scroll wheel up or down to scroll through the Command Menu shown below.

You can select the command you just scrolled to with the left mouse button, or pause/resume the Text To Speech with the right mouse button. These two buttons and the menu scroll wheel can serve as the entire operating interface and can also be used in combination with the keyboard interface!

TopOCR Mouse Command Menu

Use the mouse scroll wheel to scroll up or down through the list of commands and the left mouse button to select the command and the right mouse button to pause or resume the Text To Speech.

Scan an image from the document camera, OCR the image, and read the OCR Output

Save the OCR output as MP3 audio or text and copy it to an MP3 player or flash drive

Select Operating Mode - Standard, Straighten Columns, Neural Warp, Turbo Mode

Select Capture Delay Timer for Image Capture - Default is 10 seconds

Select Language for OCR and Speech - Default is English

Turn ON/OFF "Debug Mode"

Turn On/Off Super Resolution Mode

Select between a document camera or TWAIN scanner - default is document camera

change the format of the saved OCR text output as either an MP3 audio or raw text file

Replay the entire page audio

Replay the page audio - one sentence at a time

Audio and Screen Help Information

Shutdown

Using TopOCR's Debug Mode

The Debug Mode will tell you the light level (a level of 10 or greater is recommended). It will also tell you if there is any text that has been clipped at the edge of the image, as well as the number of spelling errors. Please note that spelling errors will include words not in the dictionary as well as OCR errors.

TopOCR's Text To Speech System with Multiple Voices

Please note that TopOCR is configured by default to be a US English system and so does have a dependency on a US English MS Speech voice being available in order to use the TTS system. If you are operating on a version of Windows on any location other than US English, then you will need to install the Microsoft Speech US English voice and optionally any additional voices you may require. Please go to our Voices page for more information.

TopOCR Installation

After you double-click on the TopOCR installation file there are 3 steps to complete the installation:

- Select "Yes" to allow User Account Control to install the program
- Press "Enter" to begin installation
- Press "Enter" to finish installation

TopOCR Configuration

Once you've installed TopOCR on your PC then you're ready to configure it for use with your document camera. This generally only needs to be done once and takes just a few seconds to complete.

1. Plug your document camera into a USB 2.0 port on your PC.
2. Launch the TopOCR application by typing Ctrl+Alt+Q from the Desktop Window.
3. Type "Control-Q" to put TopOCR into Accessible Mode.
4. TopOCR's default language is English, use the F9 key to select another language.
5. If you have a PC with more than one webcam/document camera, use the F7 key to select the correct one

TopOCR's configuration, like its operation is 100% Accessible, there are no on screen dialogs, menus, or buttons that would require the use of an external screen reader. All functions are handled through the keyboard or mouse with text to speech feedback.

Using Software to Help You!

In order to get the highest OCR accuracy, documents cannot be rotated, or distorted by a page curl effect along the edge of the binder. Depending on the type of document you are scanning, you may want to determine which Page Distortion Correction option will work for best for you. The default which would be suitable for simple images is OFF, however for scanning books and magazines we recommend enabling either the Straighten Columns or Neural Warp function. This will correct for distortion and greatly improve OCR accuracy.

In addition, there is a "Debug Mode" key, if you enable Debug Mode, TopOCR's Text To Speech feedback will announce the light level, if there are page clipping errors and how many spelling errors there are. This will help you "troubleshoot" finding the best Page Distortion Correction setting.

You can change the Page Distortion Correction setting and enable or disable the Debugging Mode by learning just two new functions!

F6 - Page Distortion Correction with Neural Warp and Straighten Columns

Ctrl-W - Debug Mode to detect clipped pages, light level and spelling errors

Using the optimum Page Distortion Correction setting is the **ONLY** way to consistently get high OCR accuracy.

TopOCR and the Clipboard

After OCR, TopOCR automatically places the recognized text in the clipboard, you can then switch to another application and paste the output into this application. TopOCR also allows you to paste images with "Control-V" into the clipboard and have them automatically read to you. A "quick and dirty" screen reader can be easily implemented in TopOCR's Accessible User Interface by typing "Ctrl + Alt + Print Screen" and then typing "Control V" in TopOCR.

TopOCR Keyboard Shortcut

When you install TopOCR it automatically creates a keyboard shortcut. Pressing the Ctrl+Alt+Q key combination will launch TopOCR from the DeskTop. If you want to change the TopOCR keyboard shortcut key to another letter, you can by using the following procedure:

1. Right-click on the DeskTop TopOCR shortcut, and then click Properties
2. In the Shortcut Properties dialog box, click the Shortcut tab
3. Click in the Shortcut key box, press the key on your keyboard that you want to use in combination

with Ctrl+Alt, for instance "G" and then click OK.

After this step has been performed, pressing Ctrl+Alt+G key combination will launch TopOCR from the DeskTop.

TopOCR's MP3 File Creation

The MP3 creation command initiates a procedure that automatically converts the OCR text output into MP3 audio AND writes MP3 files to the root directory of an MP3 player using an auto-incrementing naming system of Page 1, Page2, Page3...Page9999. As a result, you don't need a screen reader to navigate a file save dialog and respond to multiple GUI controls to save your OCR output like you would with a standard Windows application. Instead, we replace all of that with just a single key press (F4) that does everything for you automatically and even tells you when it's done!!

Platform Requirements

OS: Windows 10 Only!

RAM: 4 GB

CPU: 4 core or better, SSE2 or AVX/2 instruction support

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