

Making a PDF Accessible with VirtualView and OCR

Introduction

Hello, I'm Marc Solomon with Ai Squared and this tutorial will demonstrate how to gain access to the text found in an inaccessible image-only PDF file using the VirtualView app included with Window-Eyes. The computer I am using is a custom built desktop with a Pentium D 3.2 GHz CPU and 4 GB of RAM. It is running a 32-bit version of Windows 10 Pro and Window-Eyes 9.2.

I have a PDF file open in Adobe Reader DC and it contains an image of a document that was scanned into the computer. This is a common accessibility problem that users of screen readers encounter all too often. When I try to read the contents of this PDF using Window-Eyes, no accessible text is found. I will use the new optical character recognition feature (OCR) in VirtualView to overcome this accessibility challenge.

Turning On the TIFF iFilter

Before you can use the OCR feature in VirtualView, you must first enable a Windows feature called TIFF iFilter. This is easy to do and only needs to be done once on each computer that you use.

1. Open the Start menu by pressing the Windows key.
Screen reader says: Cortana. Search box, edit.
2. Type in "Windows Features".
Screen reader says: Turn Windows Features on or off, Control Panel
3. If needed, use the Up or Down Arrow keys to select "Turn Windows features on and off".
4. Press Enter to open the Windows Features dialog.
Screen reader says: Windows Features, OK button. .NET Framework 3.5 (includes .NET 2.0 and 3.0) closed, one of twenty-nine, tree view unchecked depth one.
5. Press Down Arrow or use first letter navigation until the "Windows TIFF iFilter" check box item is selected.
Screen reader says: Windows TIFF iFilter, 26 of 29, unchecked.
6. Press Spacebar to check the check box.
Screen reader says: Checked. Checked, Windows TIFF iFilter, 26 of 29.
7. Press Enter to activate the OK button.
[Ascending tone is played] Screen reader says: Windows Features. Close button.
8. Now that the feature has been installed, press Enter to activate the Close button.
9. Restart your computer for the changes to take effect

Launching VirtualView

The easiest way to launch VirtualView is by pressing the app's default hotkey Control-Alt-V. I will press the hotkey now.

Screen reader says: Source, Active Window, A, radio button checked, one of three. Dialog, Select Window or File to Virtualize.

Selecting the Source and Method

Now that the VirtualView dialog is open, I need to select a Source and Method for virtualization. I want to configure it to use a File as the source. This can be done by checking the File Source radio button. I will press Down Arrow until File is checked.

Screen reader says: Source, Focused Window, F, radio button checked, two of three. Source, File, I, radio button checked, three of three.

Next, I will configure VirtualView to use OCR as the method. I will press Tab to focus the next group of radio buttons in the dialog.

Screen reader says: Method, OCR, O, radio button checked.

The OCR radio button is already checked.

Selecting a File

I will now press Enter to activate the OK button and bring up the Open File dialog that I can use to select the file I want to OCR.

Screen reader says: File name, N, combo edit. Dialog, Open File.

The exact steps you use to select the file will depend on where the file is located on your computer. The file I am looking for is named "NJ State Library Guide to Services.pdf" and it is saved to my Desktop. I will use the address bar in the Open File dialog to choose the file location.

First, I will Press Alt-D to focus the address bar.

Screen reader says: Address, D, C:\Users\Marc\Documents\My Conference Recordings, combo edit

I will now type in Desktop followed by Enter to change the current file location.

Screen reader says: All locations button.

I will now Tab to the File name combo edit so I can type in the name of the file I want to open.

Screen reader says: Search box edit, Organize button, Desktop expanded two of two, five items, tree view, depth one, This PC, File Name, N, combo edit.

I will now start typing the name of the file.

Screen reader says: N, J, NJ State Library Guide to Services.pdf, one suggestion.

This is the file I am looking for, so I will press Down Arrow to select the suggestion in the drop down list.

Screen reader says: NJ State Library Guide to Services.pdf, one suggestion

I will now press Enter to activate the Open button and complete the Open file process.

Screen reader says: Page 1 of 5, page 2 of 5, page 3 of 5, page 4 of 5, page 5 of 5 Begin Image...



I just pressed Control to silence Window-Eyes. I am now focused in a read only edit box that contains all of the text content displayed in the original inaccessible PDF file. And, thanks to the OCR feature in VirtualView, I can now use my Arrow Keys and other basic keyboard commands to read all of the text that was recognized.

Closing

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