

Creating Accessible PDFs

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Adobe Acrobat 7.0 Professional for Windows

Publisher:

Adobe Systems

<http://www.adobe.com>

<http://access.adobe.com>

Retail Cost:

Educational discount for California community colleges: <http://www.foundationccc.org>

Adobe Online Store: <http://store.adobe.com/store/main.jhtml>

System Requirements:

Intel® Pentium® processor (not yet possible to create tagged PDF from MS Office in OS X system)

Windows NT® 4.0 with Service Pack 6, Windows 2000 with Service Pack 2, Windows XP Home/Professional

64 MB of RAM (128 MB recommended), 245 MB of available hard-disk space

CD-ROM, MS Internet Explorer 5 or greater

Description

Adobe Systems PDF format is widely used online for dissemination of documents. A PDF (portable document format) file is a graphical file that is an exact image of a document originally created by another application (e.g., MS Word file) and then converted by Adobe Acrobat into PDF format. A PDF document can be viewed using Adobe Reader, which is a free viewer program that provides access to the PDF document. The Adobe Reader viewer allows users to view and enter information into a PDF document (where applicable) as well as enlarge the viewing area of the document.

Accessible PDF documents can be created using the Adobe Acrobat software application in conjunction with Microsoft Word, Excel, PowerPoint 2000/XP/2003 applications. The use of Adobe Acrobat and a supported word-processing application creates a "tagged" PDF document, where document presentation is separated from document content. Assistive computer technology applications have the capacity to then read the "tagged" PDF document to communicate information to the user.

Basic Use

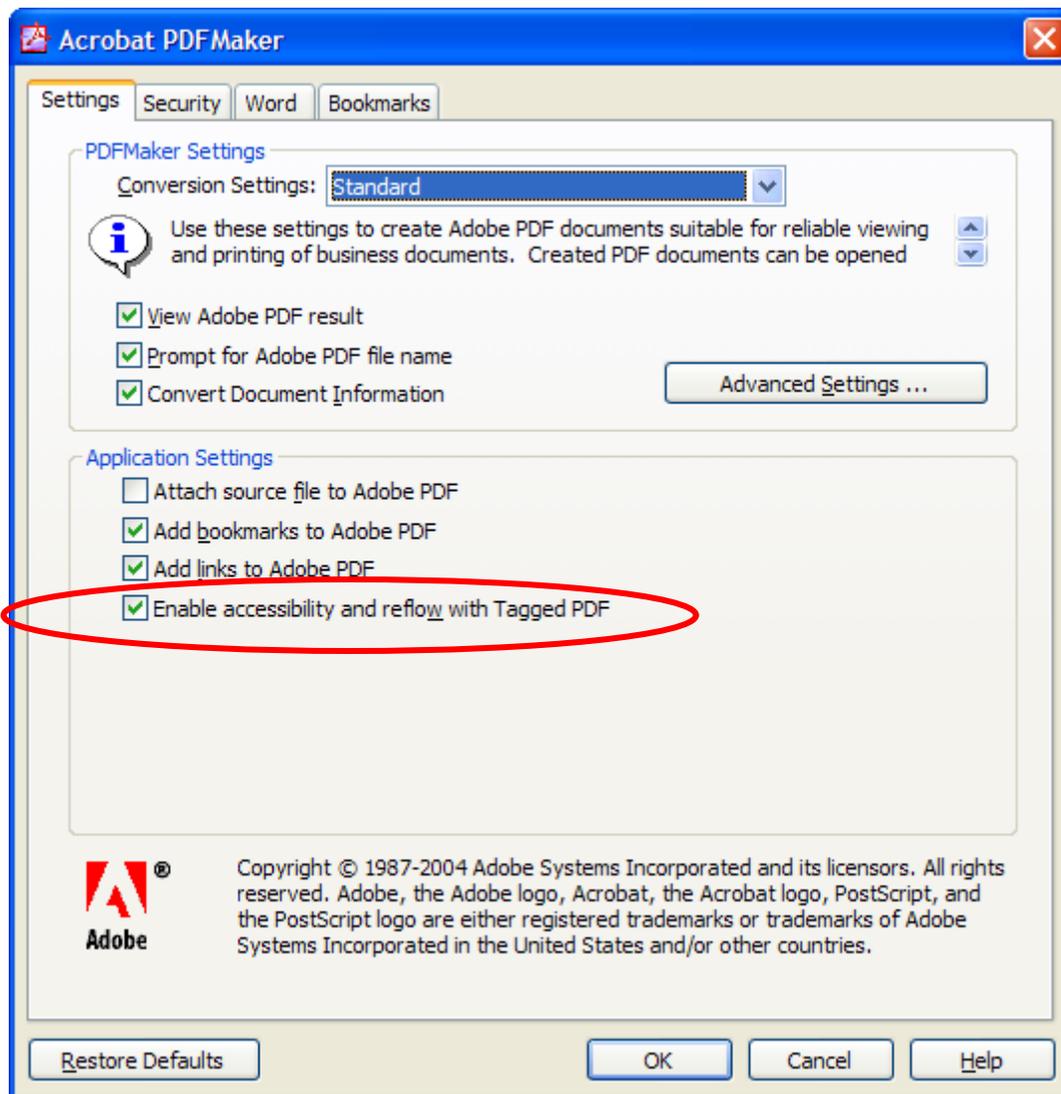
Instructions for downloading and installing the latest versions of Acrobat Reader as well as additional Acrobat plug-ins to increase the functionality and accessibility can be found at <http://access.adobe.com>. While this manual focuses on the use of Adobe Acrobat 7.0 Professional to make content accessible, it is possible to use Adobe Acrobat 6.0 Standard or Adobe Acrobat 7.0 Standard as well (**Note:** Acrobat Standard does not support form development).

Creating a New PDF Document

Creating a new PDF document offers the most flexibility to insure accessibility is designed into the document. Adobe Acrobat 7.0 is designed to work effectively with MS Office 2000/XP applications and later (i.e., Word 2000/XP, PowerPoint 2000/XP, etc.) to create a "tagged" PDF structure. Before a document can be translated to a PDF document format, it is necessary to check the conversion settings of the Adobe Acrobat PDFMaker within Microsoft Office. The default settings should produce a tagged PDF document from MS Word.

To check conversion settings:

1. Open a document in the Microsoft Office application.
2. Choose Adobe PDF from the menu bar and select "Change Conversion Settings".
3. Make sure that "Enable accessibility and reflow with Tagged PDF" is checked.
4. Select "OK".



Creating the PDF Document:

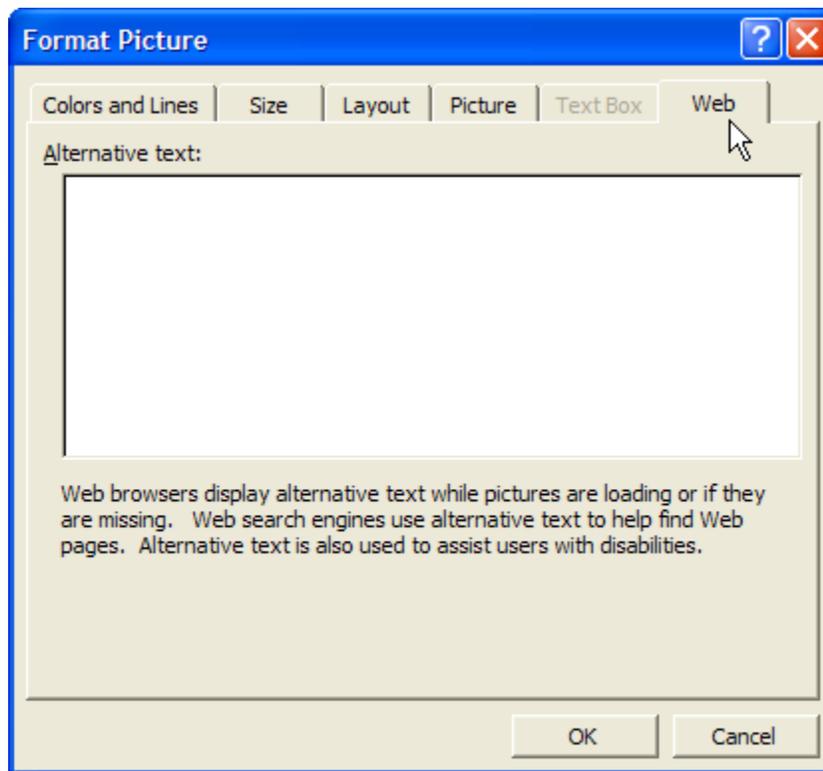
1. Create/open the document in the Microsoft Office application.
2. Use the styles and formatting elements provided in the Office application to control the presentation of the document. For example, do not use tabs and spaces to visually present a two-column document. Rather, use the column-formatting element to control the presentation of the information. Styles can be manipulated under **Styles and Formatting** from Format in the menu bar.
3. Choose "Adobe PDF" from the menu bar and select "Convert to Adobe PDF" (alternatively, click the Convert to Adobe PDF button on the application toolbar).
4. Name and save the file.
5. Open Adobe Acrobat and view the document's tagged structure to insure the information is contained in the correct order.

PDFs with Images

If using images in a PDF document created from MS Word/Excel/PowerPoint, it is possible to add alternative text to represent the image for individuals using assistive computer technology. This method should be used for image content that is relatively simple and does not require extensive description of the image. If a longer description of the image is necessary to fully explain its content, consider inserting a more detailed description of the image within the document text that precedes and follows the image.

To insert simple alternative text:

1. Create/open the document in the Microsoft Office application.
2. Select the image and perform a right-mouse button click and select "Format Picture" from the options. Alternatively, you may select the image and choose "Format" from the menu bar and then "Picture".
3. Under the "Web" tab, enter a short text description of the image. Be descriptive as to what the image is and the purpose of the image. For instance, if using a screenshot of the PDFMaker window in Adobe Acrobat, identify the image as:
"Screenshot of the PDFMaker in Microsoft Word identifying the checkbox Enable Accessibility and Reflow with Tagged PDF is checked."
4. Select "OK" and continue with the document creation.



Adding Alternative Text after Tagging

Some situations will require you to add alternative text to images or figures after adding tags to a PDF document (adding tags will be covered later in the manual). To add alternative text, identify the image/figure in question and perform a right-mouse button click. Choose the "Edit Alternative Text" option. This will allow you to enter the appropriate alternative text for the image/figure you selected.

Converting Existing PDF Documents

Adobe Acrobat 7.0 continues to separate presentation from content when using a PDF file. PDF documents created without using Microsoft Office, created using Acrobat Distiller, or another program that exports to PDF, results in a PDF document that does not contain a "tagged" document structure. This causes increased difficulty (if not the impossibility) for assistive computer technology to gain access to the document information. In fact, the PDF document may actually be only a "picture" of the information (i.e., Image-Only PDF) with no underlying text information. The following recommendations are designed to provide guidance when having to choose what type of method is most appropriate to create an accessible PDF document. Generally speaking, it is better to revert to the original file format (i.e., MS Word) when attempting to recreate an accessible PDF as the document can be created with a "tagged" document structure and result in improved access to the information by assistive computer technology.

Recommendations when using MS Office applications:

1. If the original document is available, open that file in a Microsoft Office application (if possible). Format the presentation of the document using the style elements found under Format on the menu bar. Remember to add an appropriate "alt-tag" to graphics and figures containing information through the Picture Properties menu. Once this process is complete, follow the directions under the Creating the PDF Document section.
2. If the original document is not available (or cannot be opened in a Microsoft Office application), open the PDF document in Adobe Acrobat 7.0. Then, follow the directions in the next section, titled "Adding Tags to a PDF Document".
3. If the PDF document exists in an "Image Only" file format, it will be necessary to use the Paper Capture tool in Adobe Acrobat or Adobe Capture software application (or another OCR program of your choice). The Paper Capture tool or Adobe Capture software provides Optical Character Recognition of the PDF document image to yield a document containing text content (not a graphic representation of the image). This is similar to starting with a TIFF document from a scanner, and then using an OCR program such as OmniPage or ABBY FineReader to recognize the actual letters and symbols on the page. The Paper Capture tool in Adobe Acrobat may be found under the "Document" heading from the menu bar.

Adding Tags to a PDF Document

Adobe Acrobat 7.0 allows users to create a tagged PDF document from untagged PDF files. Tagged PDF documents are necessary for greater user accessibility as well as the capacity to save a PDF document into alternate formats (e.g., HTML, Accessible Text, RTF, etc.). Additionally, tagged PDF documents provide the ability to "reflow" the text information in a PDF file to fit different screen dimensions.

If creating electronic forms, it is necessary to use Adobe Acrobat 7.0 Professional or Adobe Designer 7.0 to create accessible form fields. If the forms may require updating on a regular basis it is recommended to review Adobe Designer to deliver accessible interactive forms.

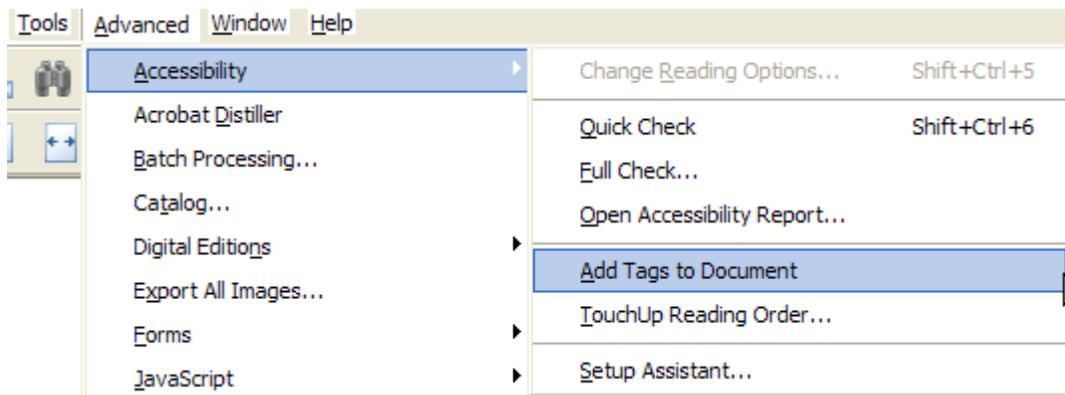
Adding tags manually to a PDF document does have some limitations. While Acrobat can automatically add tags to a PDF document, there is no guarantee that the document content will be tagged in the correct reading order. Documents that contain regions of high complexity, such as visually-rich layouts, may not result in a tagged structure that follows the logical reading order of the original document. Any graphics or charts in the PDF document may not be processed correctly and may be rendered as "Figures" or "Inline Shapes". It is necessary to identify these items and add the appropriate alternative text descriptions.

Adobe Acrobat 7 provides improved functionality to reorder and specify the logical reading order of the PDF document using the "TouchUp Reading Order" tool. However, it is necessary to first add tags to the document.

Adding Tags:

1. Open the PDF document that does not contain the tagged structure.
2. Select Advanced from the menu bar.
3. Select Accessibility.
4. Choose "Add Tags to Document".
5. After the program finishes processing the document, use Save As and save the file with a new name.
6. Open the new PDF document to check the logical order of the tagged file.

Note: A shortcut method of assessing the logical reading order of the tagged PDF document is to save the PDF file as text. Check the logical reading order of the text file as to where there may be errors in order of the tags in the PDF document.



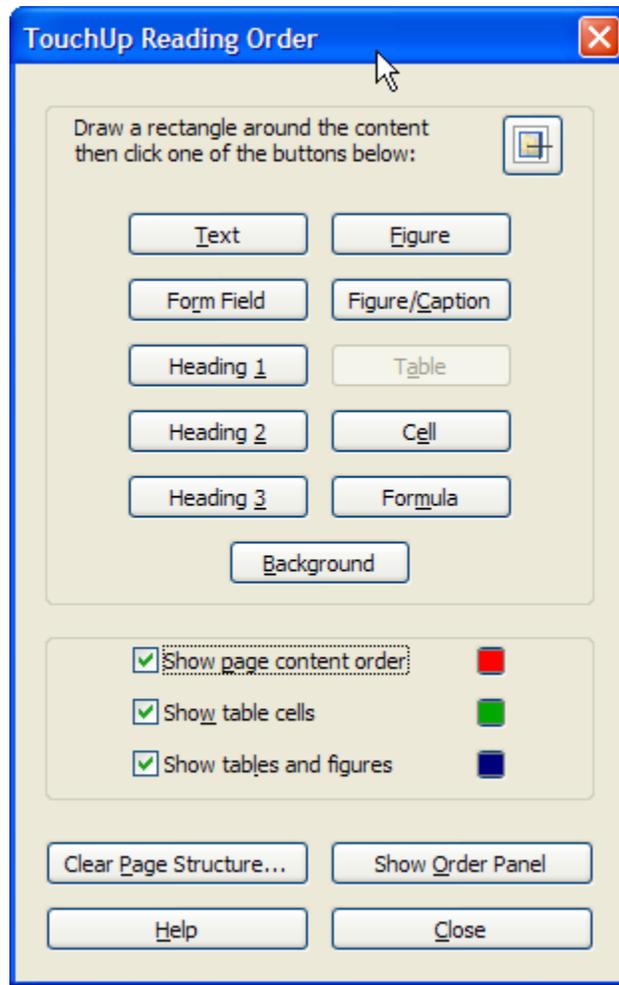
The TouchUp Reading Order Tool

The TouchUp Reading Order tool is new for Adobe Acrobat 7 and provides the opportunity to evaluate the reading order of the PDF document content and make necessary corrections. After adding tags to a PDF document, the TouchUp Reading Order tool will identify blocks of text, headings, figures, tables, and formulas that are contained within the document structure. Additionally, if the PDF document contains images (or figures) containing pertinent information, then it is necessary to use the TouchUp Reading Order tool to add the appropriate alternate text.

While it is possible to manually add and restructure the tags in a PDF document, it is recommended to use the "Add Tags to Document" function followed by the TouchUp Reading Order tool to organize the logical flow of document information. Open the TouchUp Reading Order tool by:

1. Selecting "Advanced" from the menu bar and choosing "Accessibility".
2. Choosing "TouchUp Reading Order".

This will open the tool panel in which to make the necessary corrections to the tagged information in the PDF document.



Information within the PDF document will be identified as separate regions with a number in the upper left part of the region. This number identifies the logical reading order of the text flow of the document.

Adding Content with the TouchUp Reading Order Tool

When you initially open the TouchUp tool, the PDF document will display the various content regions and the reading order in which the regions will be recognized. However, it may be possible that during the tagging process, some content is missed by the "Add Tags to Document" process. This requires the document author to go back and add information to the PDF tag structure.

1. Open the TouchUp Reading Order tool (Advanced > Accessibility > TouchUp Reading Order).

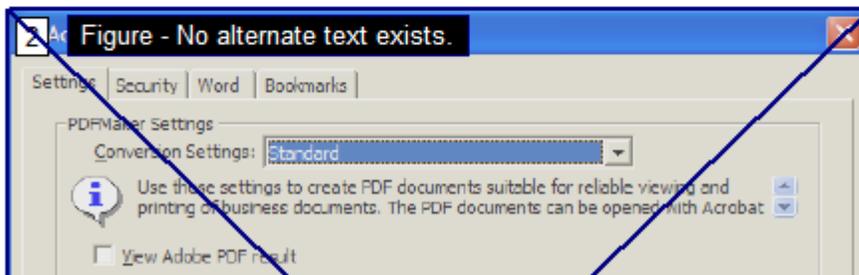
2. Identify the region of text content that is not part of the page structure (e.g., content will not be within a grayed box). In the example below, the information not part of the page structure is not surrounded by a gray box and includes the text: "To check conversion settings:".

1 **Creating a New PDF Document**

Creating a new PDF document offers the most flexibility to insure accessibility is designed into the document. Adobe Acrobat 6.0 is designed to work effectively with MS Office 2000/XP applications (i.e., Word 2000/XP, Excel 2000/XP, PowerPoint 2000/XP, etc.) to create a "tagged" PDF structure. Before a document can be translated to a PDF document format, it is necessary to check the conversion settings of the Adobe Acrobat PDFMaker within Microsoft Office.

To check conversion settings:

1. Open a document in the Microsoft Office application.
2. Choose Adobe PDF from the menu bar and select Change Conversion Settings.
3. Make sure that "Enable accessibility and reflow with Tagged PDF" is checked.
4. Select "OK".

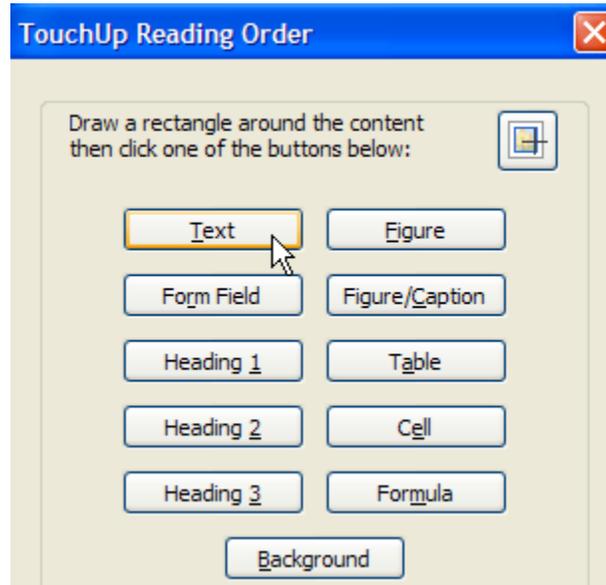


3. Using the cross-hairs, draw a box around the text information. Make sure that all the text information you wish to include is encompassed by blue squares.

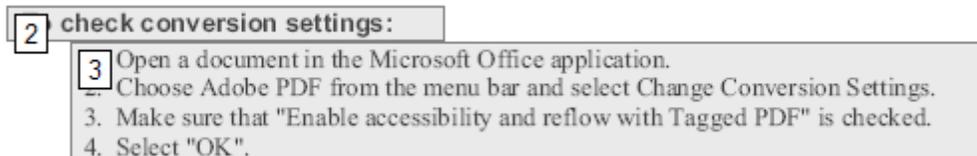
To check conversion settings:

1. Open a document in the Microsoft Office application.
2. Choose Adobe PDF from the menu bar and select Change Conversion Settings.
3. Make sure that "Enable accessibility and reflow with Tagged PDF" is checked.
4. Select "OK".

4. Select the type of content using the reading order panel.



5. After you have identified the content type, you will be able to see a region encompassing the area you selected. In the example below, the region in question is now surrounded by a gray box and has a number value in the upper left corner.



The TouchUp Reading Order tool can be used to add headings, text, figures, tables, and form fields. It is the decision of the author/designer as to how specific they wish to identify the information in the document.

Removing Content with the TouchUp Reading Order Tool

In some cases, it will be necessary to remove content from the document structure. Content that is appropriate for removal may be visual images that are not relevant to the content (e.g., "eye-candy"), information that is misrecognized by the Add Tags to Document tool and does not contain value, or when temporarily separating regions for restructuring.

1. Open the TouchUp Reading Order tool (Advanced > Accessibility > TouchUp Reading Order).

2. Using the cross-hairs, draw a box around the region of content you wish to remove from the document structure. Remember, by removing information from the document structure you are not allowing this information to be utilized by assistive computer technologies and potentially limiting accessibility.
3. In the TouchUp Reading Order dialog window, select the "Background" button. This will remove any gray regions from around the content as well as remove the content from the document structure.

Reclassifying Content with the TouchUp Reading Order Tool

After running the Add Tags to Document function, you may wish to reclassify the information or correct any mistakes the "Add Tags" process may have created. For instance, it is possible that the "Add Tags" process identifies each region on a page as a "Figure", which may not be the true nature of the content. (A description of the different content options is listed in the Adobe Acrobat Help menu, under "TouchUp Reading Order Options")

In addition to correcting the designation of the content, you may wish to create Bookmarks from the different headings within the document. By specifying the correct content as headings using the TouchUp Reading Order tool, it is possible to automatically create a list of Bookmarks.

Reclassifying a Region

1. Open the TouchUp Reading Order tool (Advanced > Accessibility > TouchUp Reading Order).
2. If reclassifying the entire region, click on the number in the upper left corner of the highlighted region. In the TouchUp Reading Order palette, identify the new content type (e.g., Text, Figure, Formula, etc.).
3. The selected region will change to the newly identified content type.

Reclassifying a Part of a Region

1. Open the TouchUp Reading Order tool (Advanced > Accessibility > TouchUp Reading Order).
2. Using the cross-hairs, draw a box around the content you wish to change the document structure. Make sure that there is a blue outline around all the content you are changing.
3. In the TouchUp Reading Order palette, identify the new content type (e.g., Text, Figure, Formula, etc.).
4. The regions should now split into two (or more) distinct regions. Regions can be noted by the gray box surrounding the content as well as a number in the upper left corner.

Controlling Reading Order with the TouchUp Reading Order Tool

Adding tags to a PDF document improves the accessibility of the document by providing structure and controlling the order in which information is presented to the user. However, when using the "Add Tags to Document" tool, the result can vary based on the layout complexity of the page. As a result, it may become necessary to reorder information using the TouchUp Reading Order tool such the content is presented in a logical manner.

There are several methods for evaluating the logical reading order of the PDF document content. You can save a PDF document as text and read the information, review the identified regions with the TouchUp tool, or inspect content using the "Order" navigation tab.

Save as Text

1. Choose "File" from the menu bar and select "Save As".
2. Under the "Save File As Type" menu, choose "Text (Accessible)".
3. Open the text file to review for errors in the logical flow of the document.

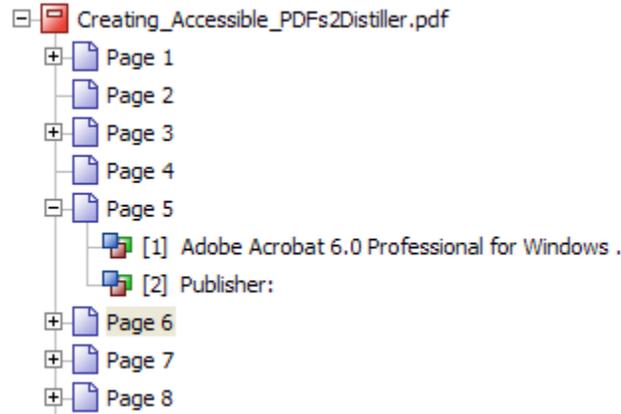
This method will extract the text content of the PDF document (and associated alt-tags) and provides a method to assess the presentation order of information in the PDF document. While this is not a precise test for logical reading order, it can be used to quickly examine if there are major errors in how document content may be rendered by assistive computer technology.

Using the TouchUp Reading Order Tool

1. Open the TouchUp Reading Order tool (Advanced > Accessibility > TouchUp Reading Order).
2. Identify the two regions which are out of the correct reading order. Move the cross-hairs to the number in the upper left corner of the region you wish to move (the pointer should change to a "hand" icon).
3. Click and drag the number to the new location within the other specified region. The icon will change to a "caret" icon to assist you with precise placement of the content. You may need to zoom into the document in order to ensure correct placement.
4. The regions will automatically re-number to show the order in which information will be organized in the PDF document structure. However, the regions will NOT move visually on the PDF document.

Using the Order Tab

1. Select "View" on the menu bar and choose "Navigation Tabs". Select "Order".
2. The Order tab will demonstrate each page and the associated content on each page. Child elements on each page represent the specific regions of content and are numbered sequentially.
3. Move the child element to its appropriate position on the specific page. This will reorder the sequence of the regions in the PDF document structure and change the logical reading order.



Content that is changed in the Order tab will also be changed in the Tags tab. However, the information in the Order tab is more specific to the content of the page rather than the structural elements of the page. When you need to change specific structural elements (e.g., language setting, etc.), it is necessary to use the Tags tab.

Using the Tags Tab

The Tags Tab provides the user with the ability to view the underlying content structure of the PDF document and make necessary changes to increase the availability of content to assistive computer technology. With the Tags tab, the PDF document creator can manipulate the "root" structure of the document as well as the informational content contained within the various tag levels. For example, a PDF document author can insert "alt-tags" for graphical elements that may be considered to have content meaning after creating the PDF document.

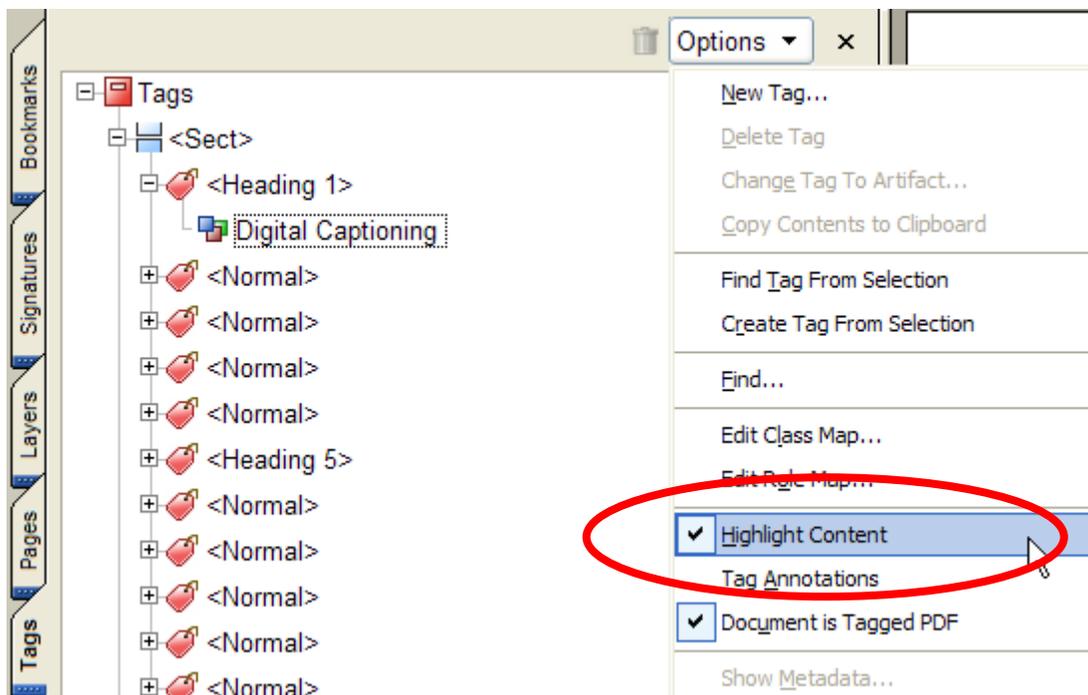
Note: – it is not recommended to manipulate tags in order to specify PDF reading order. Instead, use the TouchUp Reading Order tool (previous section) in order to improve the logical flow of information in a document.

To open the Tags Tab:

1. Open a tagged PDF document in Adobe Acrobat. A non-tagged PDF document will not show information in the Tags Palette
2. Select "View" from the menu bar and then select "Navigation Tabs".
3. Choose "Tags" from the menu. Drag the "Tags" tab to the left side of the screen next to the tab labeled "Bookmark". This will provide easy access to the Tags Palette while working on a document.

Once the tagged structure of the PDF document is revealed, it is relatively easy to make changes to the content structure. Simply select the appropriate level heading where you wish to make the change and click the right-mouse button. The menu will provide different options based on the heading content you have selected. For instance, it is not possible to add a **New Child Element** to the actual content in the Tags Palette, but you may add a **New Child Element** to the heading associated with the appropriate content. In this way, it is possible to add alternative text for graphics or provide the necessary accessibility options when creating forms for PDF documents.

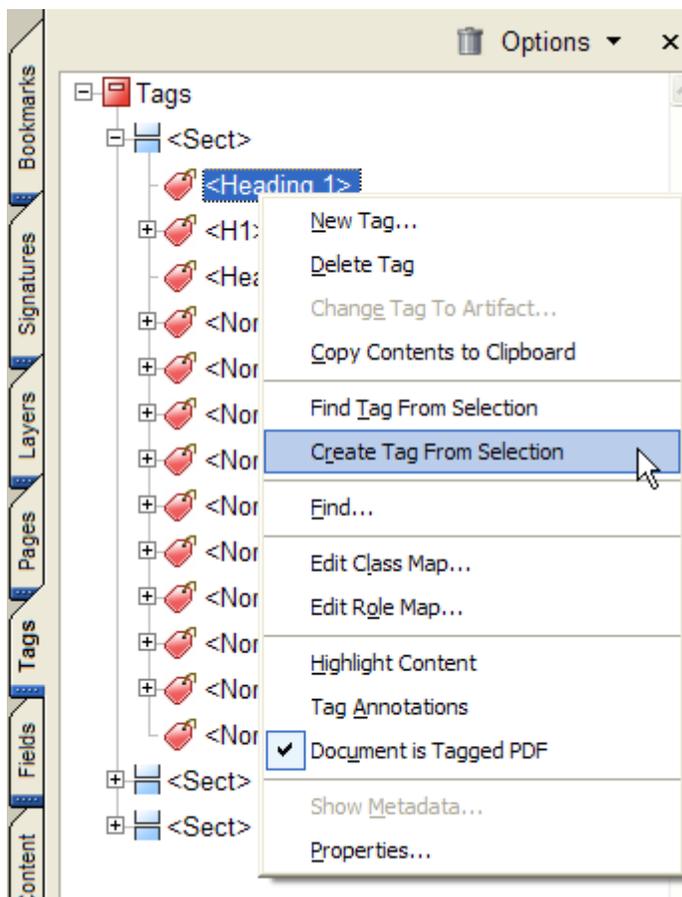
It may be difficult to locate the specific tag for a given image (or text block) when working in a document. It may be easier to locate content and the respective tag by enabling the "Highlight Content" feature in the Tags Palette. The Highlight Content feature is available from the "Option" menu in the Tags Palette or by performing a right-mouse button click on a tag.



Often tagged levels will appear in the Tags Palette, but not refer to page content or improperly refer to PDF document content. It is possible to remove (or add) information to make the PDF document content more accessible to assistive computer technology.

To add content to the Tagged Structure:

1. Select "Tools" from the menu bar.
2. Choose "Advanced Editing" from the menu. Select the "TouchUp Text" tool to add text or the "TouchUp Object" tool to add an object.
3. Select the content that appears in the PDF document, but is not in the Tags Palette. (You may also see a blue outline around the content you selected)
4. In the Tags Palette **and in the correct logical reading order location**, perform a right-mouse button click and select "New Tag...". This will prompt you to add a new tag element.
5. Once again, select the new tag you just created and perform a right-mouse button click. Choose "Create Tag from Selection". This will add the content highlighted in the PDF document as new information into the Tags Palette under the specified heading.



Note: It is critical that when entering tag information manually, the logical reading order is assessed and the information is added in the correct reading order.

To remove content from the Tags Palette:

1. Select the appropriate tag heading in the Tags Palette.
2. Perform a right-mouse button click on the appropriate tag heading and select Delete Element to remove tagged information. The tagged information will be removed, but will still be present in the PDF document view. However, **the content will not be available to assistive computer technology!**

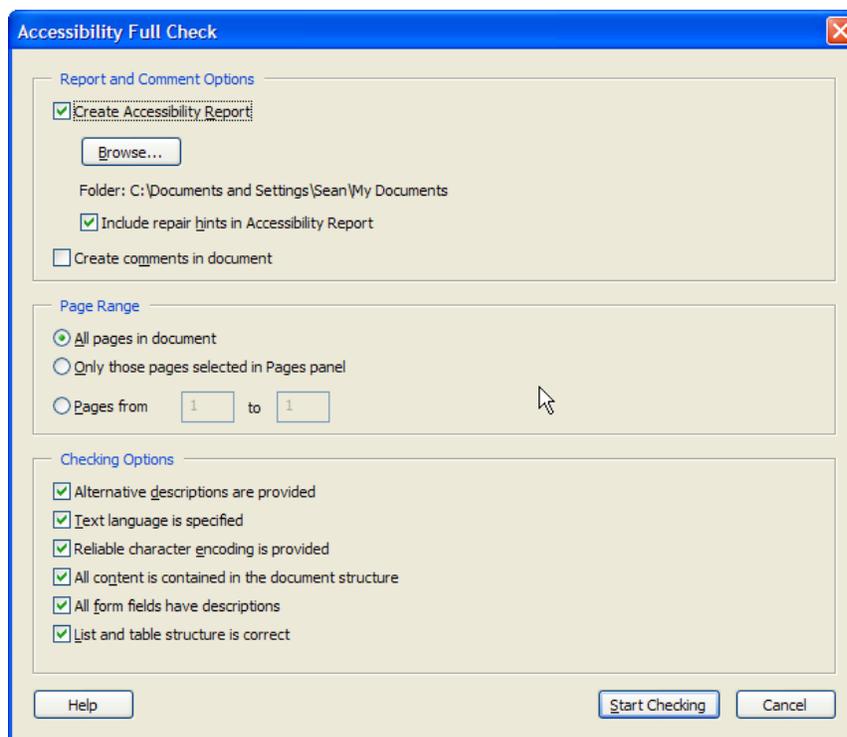
For more information on using the Tags Palette to create accessible PDF documents, please view the **Advanced Techniques for Creating Accessible PDF Files** manual from Adobe Systems.

Accessibility Checker

The Accessibility Checker is a small tool designed to identify potential errors in the accessibility of a PDF document and provide information as to where these errors are located within the document.

To use the Accessibility Checker:

1. Open the tagged PDF document in Adobe Acrobat 7.0.
2. You may choose to generate a report as a text file and identify where that report is saved. Choose "Browse" to locate the report in a different folder.
3. Select the various accessibility options that you wish Acrobat to evaluate.
4. Select "Start Checking" to run the Accessibility Checker.



The Accessibility Checker will evaluate a PDF document to identify potential accessibility errors in the file. However, the Accessibility Checker should not be used to evaluate the PDF document for the logical reading order or to identify if alternate descriptions are correct. Rather, the Accessibility Checker simply evaluates the technical accessibility of the PDF document and whether or not the correct tags have been included in the document. Additionally, there are elements the Accessibility Checker will mark as potential accessibility errors that may not cause a problem for screen-reader technology or other assistive computer technologies. It is necessary to review the original document with the appropriate assistive computer technology as well as check the tagged document structure for possible errors.

Paper Capture Plug-In

The Paper Capture tool provides Optical Character Recognition (OCR) for Adobe Acrobat 7.0. The Paper Capture Plug-In performs OCR on PDF document Image-Only files to extract text content that is searchable. The Paper Capture Plug-In contains the same technology that is used for the Adobe Paper Capture On-Line service, but will only support PDF documents up to 50 pages in length. PDF documents longer than 50 pages require the Adobe Paper Capture 3.0 software application. OCR support is provided for English, French, German, Brazilian Portuguese, Castilian Spanish, Danish, Dutch, Finnish, Italian, Norwegian, Nynorsk, Portuguese, Spanish, Swedish, Swiss, and German languages on both versions of the Paper Capture software.

In general, the Paper Capture Plug-In provides a service to those individuals unable to access the on-line version of the Paper Capture service. Both applications will perform OCR on a PDF document less than 50 pages and return a document that provides content searchable text. For additional functionality, including batch processing and zone processing, it is recommended to use the Adobe Paper Capture 3.0 OCR software application.

Creating Tables

Tables provide the ability to visually present related pieces of information in a quick and easy format. Similar to data tables on the Web, assistive computer technology is not able to recognize tables and render the content information in a recognizable manner to the user. Rather, the user generally must navigate through the table hearing information, yet not understanding the relationship between different pieces of content as displayed on the screen. To create a table for a PDF document, it is necessary to use the Table formatting option in the appropriate word processing program. **Do not use "spaces" or "tabs" to visually format a table as this will create the incorrect content in the root tagged PDF document!**

Suggestions for a tagged PDF table:

1. The <Table> element should be the first markup "tag" before any content in the table is described.

2. Following the **<Table>** element, the **<TR>** element should be the next child element as this contains all the information for the first, second, third, etc., row. **<TR>** is the table markup for Table Row.
3. After **<TR>**, the next child element should be either **<TD>** or **<TH>**. **<TD>** is the markup for Table Data and represents the information within a specific cell. **<TH>** is the markup for Table Header and represents the Column Header data for a specific column.

While assistive computer technology can recognize the **<Table>** tag in the tagged PDF, it may not recognize the correct column and row heading information even after this content is properly identified. This is a current issue with assistive computer technology and should be considered when creating highly complex data tables.

Creating Forms

Forms in PDF documents allow users to enter content into a form field and print the PDF page or save the document to file. Similar to Web page forms, PDF document forms can be created as a one-line Text box, Combo Box, List Box, or Radio Button. Additionally, information can be added to PDF forms to improve the ability of assistive computer technology to access the form field and prompt the user to input the correct information. Forms that users can enter information with the computer are called "interactive forms".

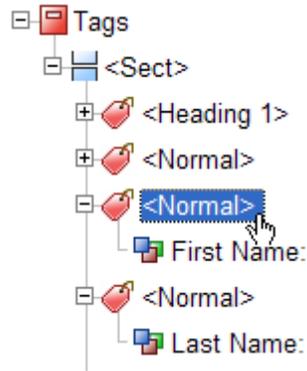
Another application that you may wish to consider is Adobe Designer 7.0. This tool allows for the easy creation of electronic forms and generates a tagged PDF file upon completion. This tool is recommended if you are using forms that may vary in layout or content over time and will significantly reduce the necessary time to re-create accessible PDF forms.

Note: It is very important to not use keyboard characters to visually format the form fields (e.g., creating lines for signatures using the "underscore" character, etc.). Rather, use Adobe Acrobat 7.0 Professional or the Adobe Designer 7.0 tool to create these visual references when constructing PDF forms.

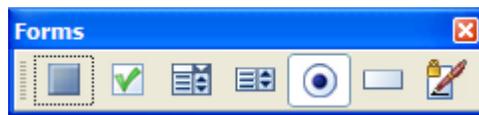
Creating a PDF Form

You must first create a tagged PDF document before adding the necessary form tags. Follow the instructions "Creating a New PDF Document" if you do not have a tagged PDF document.

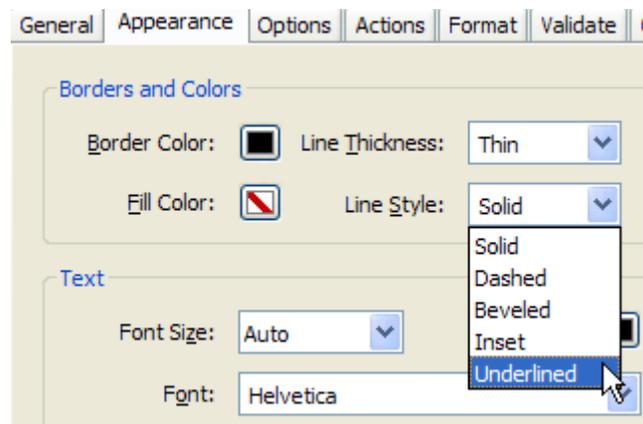
1. Turn on the Tags tab. Under the "Options" menu in the Tags Palette, enable "Highlight Content" and "Tag Annotations".
2. Choose the content in the tag structure that immediately precedes where the form field will be located. For instance, if you are going to enter a form field after the "First Name:" text, then it is necessary to select the tag with the correct text.



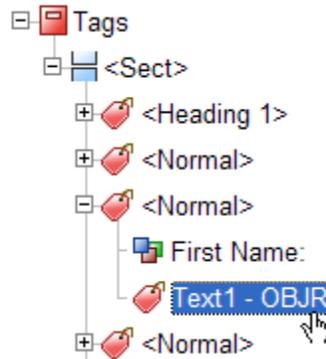
3. Select the appropriate form tool from the formatting bar.



4. Create a form field of the desired size by clicking the mouse button and dragging the crosshairs to the correct dimensions. When you create this form field, the necessary form tags will automatically be placed into the correct location in the tags palette.
5. Enter a unique form field name in the "Name" text field in the Field Properties dialog box.
6. Enter supporting information in the "Tool Tip" text field. The information provided in the "Tool Tip" text field can be accessed by assistive computer technology to prompt the user to enter the correct information.
7. Under the "Appearance" tab, choose the options you desire for your form field. Under the "Line Style" option, you may select "Underlined" to visually represent a line for information.



The correct tag will automatically be added to the tags palette at the location you specified before drawing in the necessary form field.

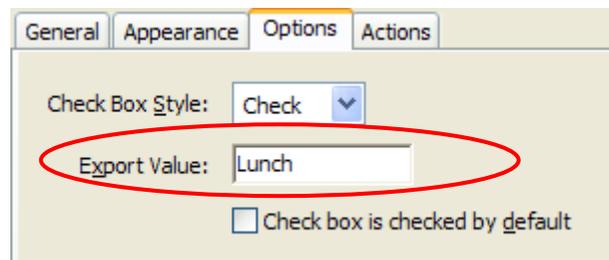


The benefit of this tag is that it will provide information to individuals using assistive computer technology to navigate and complete the appropriate form field elements.

Radio Buttons and Checkboxes

If your form requires the use of radio buttons and checkboxes, make sure to use these form input elements correctly. Radio buttons should be used when you wish to have only one answer reported (i.e., True or False, Male or Female, etc.). Checkboxes should be used when you wish to have none or more than one answer reported (i.e., A and B, Lunch and Dinner, etc.).

In either case, it is possible to identify the export value of the radio button and checkbox for a specific form input element. In the field properties window, select the "Options" tab and enter a value for "Export Value". This information will be spoken when using a screen-reader.



For additional information on creating PDF document forms, reference the Adobe Acrobat 7.0 Help Topics. Additional information can also be found in **Advanced Techniques for Creating Accessible PDF Files** manual from Adobe Systems. For forms that require periodic updating and editing, it is recommended to review Adobe Designer as this may streamline accessible PDF form creation.

Increasing PDF Document Accessibility

There are several additional ways to increase the accessibility of a PDF document through web browser settings to saving as alternate formats to high-contrast viewing. Using Acrobat 7.0, it is possible to save the PDF document into alternate formats, change the text flow/layout of the PDF, or alter Acrobat settings for High-Contrast Viewing. The following procedures detail how to perform these functions.

Saving as Alternate Formats:

1. Choose "File" from the menu bar and select "Save As".
2. When you are prompted to save the file, under the "Save File As Type" menu, choose the format you wish to save the PDF document. Options include Text, Rich-Text, JPEG, XML, HTML, etc.
3. Choose the location on the computer you wish to save the file and select "Save".
4. Open the file with the appropriate application. Depending on the format you selected, you may not receive the entire text content of the original PDF document. This is a problem of the original accessibility of the PDF document.

Setting High-Contrast Viewing

1. Open the tagged Adobe PDF file in Acrobat 7.0.
2. Choose Edit > Preferences > Accessibility.
3. From the Color Scheme menu, choose Use Custom Scheme.
4. In the Document Colors Options area, check the checkbox labeled "Replace Document Colors". Choose your color options for Page Background and Document Text.
5. Select "OK".

Note: Windows also supports a high-contrast viewing mode. If you've already set up your Windows system for this mode, you can choose Use Windows Colors instead.

PDF Documents and Web Browsers

Adobe Acrobat (and Adobe Reader) both offer the capability to view PDF documents from within the web browser interface. However, this integration can make it very difficult for individuals with visual impairments (or using screen-readers) to gain access to the PDF document content. It is possible to disable PDF integration with web browsers by following the steps below.

For Adobe Acrobat

1. Open Adobe Acrobat under the Administrator profile.

2. Choose "Edit" from the menu bar and select "Preferences".
3. Select "Internet", and then uncheck "Display PDF in Browser" and "Check browser settings when starting Acrobat".
4. Select "OK".

For Adobe Reader

1. Open Adobe Reader by double-clicking on the desktop icon or starting it from the Start menu.
2. From the Edit menu, select Preferences, then Options on the left side of the dialog box.
3. In the Web Browser options, deselect the "Display PDF in Browser" option and click OK.

JAWS Specific Keystrokes for Adobe Reader 6

Description	Keystroke
Forms Mode	ENTER
Virtual Cursor On	NUM PAD PLUS
Virtual Find	CTRL+F
Links List	INSERT+F7
Next Page	CTRL+PAGE DOWN
Previous Page	CTRL+PAGE UP
Go to Page	CTRL+SHIFT+N
Go to First Page	CTRL+SHIFT+PAGE UP
Go to Last Page	CTRL+SHIFT+PAGE DOWN

Using JAWS with PDF Forms

JAWS can support the use of forms on PDF documents if created in an accessible format. Additionally, it is necessary for the PDF document creator to set attributes such as the tab index for form elements as well as the ability to enter content into the form fields of the document.

JAWS support includes:

1. JAWS speaks the MSAA (Microsoft Active Accessibility) provided information. The MSAA information in a PDF document is created by the author of the document. If MSAA information is not available for the control, JAWS states: "MSAA information is not available."
2. JAWS speaks the text that appears to be to the left of the active control. This text is spoken as the prompt if the active control is an edit field. **JAWS** does not attempt to "guess" the prompt text for other active controls such as check boxes, radio buttons, etc.

It may be necessary to turn off the MSAA prompt information in a PDF document if both the MSAA content and screen-reader attempt to speak the associated content. It is possible to turn off MSAA prompting and let the screen-reader identify the associated form field control.

To Toggle the Use MSAA for Form Prompts:

1. Press CTRL+INSERT+TAB.
2. Press INSERT+V to open the verbosity dialog. Arrow to the Use MSAA for Form Prompts setting, and press SPACEBAR to toggle the setting.

Using Window-Eyes for PDFs

The Window-Eyes screen-reader application uses the basic HTML navigation commands to read PDF documents. Below are commands for using the Adobe Reader 7.0 application. For specific information about Window-Eyes support for Adobe Reader 7.0, please review the Help menu in Window-Eyes.

Description	Keystroke
Forms Mode	ENTER
Virtual Cursor On	NUM PAD PLUS
Search	CTRL+F
Links List	INS + TAB
Next Page	CTRL+PAGE DOWN
Previous Page	CTRL+PAGE UP
Go to Page	CTRL+SHIFT+N
Go to First Page	CTRL+SHIFT+PAGE UP
Go to Last Page	CTRL+SHIFT+PAGE DOWN

Notes:

Web Resources

Adobe Acrobat 7.0 Website

<http://www.adobe.com>

Accessibility Information at Adobe

<http://www.adobe.com/enterprise/accessibility/main.html>

Accessibility Information and Support

Acrobat Accessibility Resources

<http://www.adobe.com/products/acrobat/solutionsacc.html>

On-Line Conversion Tools

http://www.adobe.com/products/acrobat/access_onlinetools.html

How to Create Accessible PDF Documents

http://www.adobe.com/products/acrobat/access_booklet.html

Creating Accessible Content

<http://www.adobe.com/enterprise/accessibility/creating.html>