

## 3.2 Additional Tests for PDF Accessibility

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## **Why Manual Accessibility Checks are Important**

Not all accessibility issues in a document can be identified using the Acrobat **Accessibility** tool. Having performed all the required manual edits and automated checks of the PDF remediation process, the user must now carry out manual tests involving the screen reader and tab order to ensure WCAG compliance. The color contrast will also need a manual check, the process for which is covered in a previous module, *Testing PDF Color Contrast*. This module will focus on tests of the logical reading order in Acrobat.

## **Testing the Tab Order**

The 'Logical Reading Order' test in **Accessibility Checker** is always displayed in a 'Needs manual check' status as it's impossible for a computer to determine whether the PDF content's tab order (and reading order) is presented logically. Let's look at how to test the tab order and then examine the instances where the tab order could be unclear or incorrect.

### **Order Pane**

A document's logical or 'correct' tab order must be manually confirmed by the content creator. This can be done with the keyboard and the **Order Pane**, which presents content containers in their reading order, only out of context of the tag tree. If **Order** is not yet visible in the **Navigation Pane**, right-click the **Navigation Pane** and select 'Order'. **Order** is designed to be a visual reference while the user tests the tab order of each page with the keyboard's 'Tab' and arrow keys. Take note that if changes to the tab order of the content need to be made, they should be carried out in the **Tags** menu so the user can also control what tags move with them. However, **Order** is an efficient tool to artifact content containers if any were missed during the tagging process.

*To Artifact a Content Container with the Order Pane:*

1. In the **Order** content tree, select the content container to be set as an artifact. Use the 'Ctrl' button if multiple containers are being selected.
2. Right-click the content container and select 'Tag as background/artifact'. The content container should then disappear from the **Order** menu.
3. Navigate to **Tags** and open the **Tags** 'Options' menu. Select 'Delete Empty Tags' to delete any tags that contained the artifacts.

### **Keyboard Traps**

When tabbed over, certain areas of a document may prevent a user from accessing other areas of the document with a keyboard. This is called a keyboard trap which is often caused by changes in formatting or the presence of interactive content in the PDF. Form elements can often generate this problem, as the shift of the keyboard focus from paragraph to form elements can cause other content to be skipped or misplaced in the tab order. If a keyboard trap or other tab order issues relates to a form element, keep in mind that the 'Fields' list, available in the Acrobat **Prepare Form** tool, allows the order of forms to be reviewed and arranged. Regardless of the cause, keyboard traps usually reflect an incorrect tag structure or order. Fix these issues by adjusting the order of the content in the **Tags** menu.

### **Figures and Images**

A picture or diagram may sometimes be 'wrapped' or, in other words, embedded, in a body of text for aesthetic or formatting purposes. An automatically tagged document will often place the 'Figure' tag of this 'wrapped' image in between tags of a split paragraph or body of text. This will be

confusing in regard to the reading order and tab order. In these cases, the text content that has been split by the image should be consolidated into one paragraph tag. Additionally, the 'Figure' tag is best placed directly after the content that describes or relates to it. Take note that the exact placement of the image within the **Tags** menu and tab order may depend on the context and the user's own intuition.

### ***Testing with a Screen Reader***

Testing a document with a screen reader will simultaneously check that the content is 'legible', logically ordered, devoid of empty tags and free of artifacts. This is usually done after the tab order is verified. The Adobe 'Read Out Loud' feature built into Acrobat is recommended for the screen reader test, as it will only narrate the document contents and not the Acrobat interface as edits are made.

### **Using Adobe Read Out Loud**

*To Test a Document with Adobe Read Out Loud:*

1. Navigate to and open the Acrobat **View** menu. Expand the 'Read Out Loud' option and select 'Activate Read Out Loud'.
2. Again, open the Acrobat **View** menu and select 'Read Mode'. This view will temporarily hide editing features while the document is being read.
3. Once more, open **View** and then 'Read Out Loud'. For this step, the user can either choose 'Read This Page Only' or 'Read To End of Document'. Acrobat should start narrating the contents of the current page or the whole document.
4. To re-narrate a specific element such as a paragraph or heading, select the element with the cursor. 'Read Out Loud' will read only that element until another is selected, either with the keyboard arrow keys or mouse cursor.

Note that this feature can be paused or restarted at any time by reopening **View** and 'Read Out Loud'. Additionally, allowing 'Read Out Loud' to narrate the entire document is often unrealistic in terms of time constraints. For lengthy documents, users should focus on testing areas of the document that contain complex formatting or a nonintuitive reading order (for example tables and form fields).

### **Conclusion**

In this module, we've manually confirmed a document's logical reading order by testing the tab order and using a screen reader. Content beyond this module will provide fixes to advanced troubleshooting issues encountered during the PDF remediation process.