# DEPARTMENT OF HEALTH & HUMAN SERVICES OFFICE OF THE SECRETARY ACCESSIBILITY PROGRAM

# **Adobe PDF Accessibility Reference**

Type: Heading Level 2

Heading Level 3

Heading Level 4



# → Structure Section Headings

**Headings** offer structure and easy navigation to sections for users of assistive technology (AT). Be mindful to use headings sequentially.

- 1. In the **Tags** pane locate the structure tag (**P**, **Span**, etc.) holding the text that needs to structurally be a heading.
- 2. Activate the context menu (or right click) of the structure tag and select **Properties**.
- In the Object Properties dialog, on the Tag tab select a suitable Heading Level from the Type drop down.

# **→** Augment Graphics with Descriptions

Visual elements are categorized as meaningful or decorative. Meaningful images add value and convey information in addition to the surrounding content. Meaningful graphics use the **<Figure>** structure tag and require concise textual descriptions. A meaningful image can be simple or complex. Determining simple or complex depends on how much information from the image needs to be conveyed. Complex images need additional descriptions placed in surrounding text or in appendices.

- 1. Select **Reading Order** from the **Accessibility** pane.
- 2. In the document area locate an image that requires alternate text.
- 3. Activate the context menu (or right click) on the image and select **Edit Alternate Text**.
- 4. In the **Alternate Text** dialog, add or edit the description. Then navigate to and activate **OK**.



# → Remove Repetitive or Decorative Content

Artifacts are non-distinct header and footer content, decorative images, drawing remnants, and sometimes blank characters that do not impact the comprehension of content.

- 1. Locate and select the content tag to be an artifact, <u>not</u> the structure tag (**P**, **Figure**, **Span**, etc.)
- Activate the context menu (or right click) of the tag and select Change Tag to Artifact.
- 3. Navigate to and activate **OK** in the **Create Artifact** dialog.

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# → Inject Hyperlinks

Link structure includes a Link tag with the content tag and a Link-OBJR tag nested beneath Link. New links can be created by navigating to the Edit PDF pane and selecting Link > Add / Edit Web or Document Link tool. Then in the document highlight the content to be linked and follow the Create Link wizard. Sometimes content is clickable but missing the necessary Link-OBJR tag. To add the required tag:

- 1. In the **Tags** pane, locate and select the content tag that is intended to be a link.
- 2. Activate the context menu (or right click) of the tag and select **Find...**
- 3. In the **Find Element** dialog, select **Unmarked Links** from the **Find** drop down and activate the **Find** button.
- 4. With the content highlighted in the document, navigate to and activate the **Tag Element** button followed by activating the **Close** button.
- 5. Confirm a **Link-OBJR** tag appears next to the content tag in the **Tags** pane.





# → Configure Lists and Table of Contents

Proper list structure conveys relationships and hierarchy. Bulleted or numbered lists must contain L and LI tags. The use of LbI and LBody tags are optional. Begin each list with an L tag and nest an LI tag for each item. Table of Contents structure includes TOC, TOCI, Reference, and Link tags for linked TOCs. The item content with page number and Link-OBJR are placed as a child of the Link tag.



- In the Tags pane, activate the context menu (or right click) near a tag where the new list or TOC should be placed and select New Tag.
- 2. In the **New Tag** dialog, from the **Type** drop down select **List** (L) or **Table of Contents** (TOC).
- 3. Activate the **OK** button.
- 4. Activate the context menu (or right click) of the newly created tag and select **New Tag**.
- 5. In the **New Tag** dialog, from the **Type** drop down select **List Item** (LI) or **Table of Contents Item** (TOCI).
- If necessary, move the new LI or TOCI tag beneath the L or TOC (respectively) tag.
- Repeat the steps to access the New Tag dialog and select Reference then Link to complete a TOC structure. Optional for lists: Add Label (Lbl) and List Item Body (LBody) tags.
- 8. Move the structure tags and the content tags as necessary to achieve the desired order of content.

#### → Nest Sub-Items of Lists and Table of Contents

The correct arrangement of sub-items in the tag structure provides users with accurate relationship information. Sub-lists must begin with a new L or TOC tag as a sibling to the content tag to which the sub-item(s) relate. Use the steps in the Configure Lists and Table of Contents section to create the sub-list structure.



#### → Illuminate with Color and Contrast

Sensible color arrays promote allure yet accessible content.

- Color cannot be the only means of visually conveying information or prompting a response. Textured patterns (to represent data sets) or textual representation (i.e. an asterisk [\*]) must be included to distinguish content.
- Confirm enough contrast is provided between the foreground and background colors. A minimum contrast ratio of 4.5:1 is required. Activate the Edit PDF pane and highlight text in the document area. Then use the Font Color picker under Format to modify the foreground color.

# **→** Order Content Logically

Content is presented by the order existing within the **Tags** pane.

- 1. Open the **Tags** pane and activate the context menu (or right click) of any tag to ensure **Highlight Content** is checked. Content of the selected tag will be highlighted in the document area.
- 2. Use the **arrow keys** on the keyboard to navigate and verify content is in the visually implied and a logical order.



# **Manage Data Tables**



Table structure must include Table, TR, TH, and TD tags. TH denotes a row or column header. TD represents data cells. Use of table structure is reserved for data tables, not for layout. Avoidance of blank cells, especially table header cells, is equally important for accessibility. Simple and complex data tables elicit the effort their names suggest. Complex data tables require more attention to meet compliance.

# → Inspect a Simple Table

A data table is labeled as simple when a data cell relates to only one row and/or column header.

Example Simple Data Table

Header Cell 1	Header Cell 2
Data Cell 1	Data Cell 2
Data Cell 3	Data Cell 4

Simple data tables must provide the proper cell type and scope.

- 1. To use the **Table Editor** to identify cell type and scope, activate Reading Order from the Accessibility pane.
- 2. Ensure the **Touch Up Reading Order** dialog is not covering the table in the document area and activate the context menu (or right click) over a table cell. Then select Table Editor.
- 3. Confirm a red outline is around the cells. Then activate the context menu (or right click) on a cell that is intended to be a header cell to select Table Cell Properties...
- 4. In the **Table Cell Properties** dialog ensure under **Type** the **Header Cell** radio button is selected and the appropriate option is displayed in the **Scope** drop down.
- 5. Navigate to and activate **OK**.
- 6. Repeat steps 3-5 for all row and/or column header cells.

# → Remediate a Complex Table

Data cells in a complex table can be related to two or more row and/or column headers.

Example Complex Data Table: Multiple Column Headers

Header Cell 1	Header Cell 2	
Category Sub-Header Cell 1		
Data Cell 1	Data Cell 2	
Category Sub-Header Cell 2		
Data Cell 3	Data Cell 4	

Complex tables require **ID**s on the headers. The data cells then must list the associated headers.

- 1. Select **Reading Order** from the **Accessibility** pane.
- 2. Activate the context menu (or right click) over a table cell in the document area and select **Table Editor**.
- 3. Activate the context menu (or right click) of an intended header cell and select Table Cell Properties.
- 4. In the Table Cell Properties dialog enter content in the ID field. Then navigate to and activate the **OK** button.

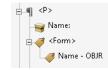


- 5. Repeat steps 3 & 4 for all table header cells.
- 6. For each individual data cell, select Table Cell Properties from the context menu (or right click).
- 7. In the Table Cell Properties dialog activate the Add (+) button for Associated Header Cell IDs.
- 8. Add the cell's associated headers in order from bottom to top of which the headers should be encountered. The bottom listed header will be the first item read.



9. Navigate to and activate **OK**.

### **Enable Fillable Form Fields**



Form elements begin with a **<Form>** tag that contains a Field Name - OBJR tag. The <Form> tag needs to be a peer structurally to the associated content tag.

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# → Offer Descriptive Tooltips on Form Fields

Tooltips indicate to users what information is expected in the field. Tooltips need to comprise a meaningful description along with any constraint, formatting or group information (e.g., "required", "mm/dd/yyyy", "Billing" versus "Shipping").

- 1. Open the **Prepare Forms** pane. When **Form field auto detection is ON** form fields will automatically be added. Activate **Start** when ready.
- 2. In the document area activate the context menu (or right click) of a form element (e.g., text field) and select **Properties**.
- 3. In **Properties** on the **General** tab enter a concise description in the **Tooltip** field, including considerations for constraints.



- 4. Optional: Additional choices from the **General**, **Options**, **Format** or **Calculate** tabs may be useful.
- 5. Navigate to and activate **Close**.
- 6. Repeat steps 2-5 for each form element.

# → Assemble Radio Buttons into Groups

Radio buttons must be grouped to associate the related choices.

- 1. Open the **Prepare Forms** pane.
- 2. In the document area activate the context menu (or right click) of a radio button and select **Properties**.
- 3. In **Properties** on the **General** tab enter a concise description in the **Name** and **Tooltip** fields that can relate the choices (e.g., "Question 1" or "Gender").
- 4. Navigate to and activate the **Options** tab.
- 5. In the **Radio Button Choice** field enter the unique choice for the radio button (e.g., "a)" or "Female").



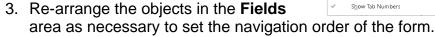
- 6. Navigate to and activate **Close**.
- 7. Repeat steps 2-6 for each radio button. <u>Note</u>: Each radio button of a group must have the same **Name**.

# → Prepare the Form for Use

Verification is necessary to ensure the form properly functions.

# Organize the Tab Order

- Within the Prepare Forms pane, activate the Tab Order menu from the Fields area of the pane.
- 2. Confirm **Order Tabs by Structure** and **Show Tab Numbers** are checked.

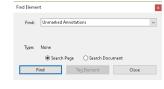


# Populate Fields with Test Data

- 1. From the **Prepare Forms** pane activate **Preview**.
- 2. Enter data in the fields, confirm any restrictions are enforced, and activate **Edit** upon finishing.
- 3. Open the **More** menu and select **Clear Form**.

# Add Form Structure to the Tags Pane

- 1. Open the **Tags** pane and activate the **Options** menu to verify **Tag Annotations** is checked.
- Review the tags to determine if <Form> and Field Name
   OBJR tags are present for each field.
- If <Form> is missing activate the context menu (or right click) of a tag and select New Tag. In the dialog select Form from the Type drop down and activate OK.
- 4. If a **Field Name OBJR** tag is missing activate the context menu (or right click) of a tag and select **Find...** 
  - a. From the Find drop down choose Unmarked
     Annotations and activate Find.



Order Tabs by Row

Order Tabs by Column

Order Tabs Manually

Order Tabs Unspecified

- b. Once the content is highlighted in the document, navigate to and activate **Tag Element** followed by **Close**.
- 5. Repeat steps 3 or 4 as necessary to add all crucial tags.
- 6. Shift and place the tags in a structural and logical order.





#### → Label the Document

Document titles inform users of a document's purpose. The document language allows for correct interpretation of content.

- 1. Navigate to File > Properties.
- 2. Locate the **Title** field on the **Description** tab and enter a descriptive purpose for the document.
- Optional: Insert the name of an organization or office in the Author field.
- 4. Navigate to and activate the **Initial View** tab.
- Locate the Window Options > Show drop down and select Document Title.



File: Sample\_Document

Author: Division/Office

Title: Purpose of Document

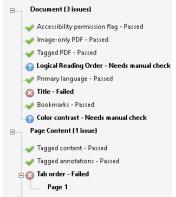
- Navigate to and activate the Advanced tab.
- 7. Within **Reading Options** set the primary language of the document using the **Language** drop down.
- 8. Navigate to and activate **OK**.

# Reading Options Binding: Left Edge Language: English

# → Perform a High-Level Accessibility Check

While a manual inspection is the only method to review the content for 100% of potential issues, running the **Full Check** accessibility checker can identify many potential issues.

- 1. Open the **Accessibility** pane and select **Full Check**.
- 2. Review the selected **Accessibility Checker Options** and then activate **Start Checking**.
- Consider the results in the Accessibility Report pane.
- 4. Activate the context menu (or right click) of an issue to Explain or Check Again among other options. Modifications will likely need to occur in the Tags pane. In a few instances the checker assists by offering the option to Fix the issue.



#### → Take Additional Measures

- Adding bookmarks to lengthy documents can aid navigation. Open the **Bookmarks** pane and confirm bookmarks are present. Insert bookmarks by activating the **Options** menu and selecting **New Bookmarks from Structure...** Typically heading structure (i.e., **H1-H6**) is used. Bookmarks must be organized and properly nested.
- 2. When **watermarks** cannot be avoided, confirm the contents are repeated in the document body and sufficient contrast exists against the document text.
- 3. A few steps are involved to prepare a scanned document and convert it to screen-readable text.
  - a. Open **Tools** > **Enhance Scans**.
  - b. Locate the Enhance menu and activated Scanned Document. Ensure Recognize Text is checked and activate Enhance. This can be run multiple times to improve the quality of the scanned content.
  - c. Locate the Recognize Text menu and activate In This Document. Activate Recognize Text. Upon completion of the recognition process, select Recognize Text > Correct Recognized Text. Use the provided toolbar to make corrections and activate Accept for each item.



d. Open Tools and select Accessibility > Autotag
 Document. Once tags have been added to the Tags
 pane, review all content and tags to confirm
 compliance.

Content in this document is applicable to Adobe Acrobat 2015 through 2020. Newer versions may contain additional features or shortcuts. Instructions were written for the broader audience.