

Quick Reference Guide: Advanced PDF Accessibility: Complex Tables & Forms

Complex Tables

1. **Simplify** if possible. Flatten/split tables into multiple simple tables (with one header row and/or one header column).
2. **Test** all complex tables with a screen reader.

Set Scope and Span

Scope refers to whether a header is a column header, a row header, or both a column and row header. **Span** refers to how many rows and columns the header spans.

1. Save as **untagged PDF**.
2. Right-click the **No Tags Available** icon and click **Add Tags to Document**.
3. Delete **empty tags**.
4. Open the **Table Editor** and identify all headers in the complex table.
5. Within the Table Editor, right-click each header and **set the scope and span**.

Set Header IDs and Associate Data Cells

1. Save as **untagged PDF**.
2. Right-click the **No Tags Available** icon and click **Add Tags to Document**.
3. Delete **empty tags**.
4. Check to **identify any incorrectly tagged cells** (for example, a header cell tagged as data cell) and fix them.
5. Open the **Table Editor**.
6. For each header cell, right-click it and select **Table Cell Properties**. Ensure it's set as a Header Cell. Set the Scope, Row Span, and Column Span.
7. For all complicated/tricky cells, **create explicit header associations**:
 1. Give each header associated with complicated cells an ID.
 2. In the Table Editor, right-click each complicated data cell and select Table Cell Properties.
 3. Under the Associated Header Cell IDs section, click the green plus button.
 4. One by one, in order, select the headers that should be announced when a screen reader gets to that cell.

Forms

General Workflow

1. Create the form in **Microsoft Word**.
2. Export to **untagged PDF** (or delete tags if you start with a tagged PDF).
3. Add **form fields** in Acrobat Pro.
4. Set and verify **form field properties**.
5. Check the form field **tab order**.
6. **Add tags** to the document.
7. Fine tune the **reading and tab order**.
8. Check the accessibility of your efforts by **testing your document** with a screen reader.

Start in Microsoft Word

- Ensure **form instructions** are clear.
- Create **visible labels** for all form fields.
- Ensure labels are **meaningful and clear**.
- Place labels **visually adjacent** to their corresponding elements.
- Include meaningful **group labels** where appropriate.
- Indicate which form fields are **required** and if there are any **field constraints**, such as a specific format of entering the data. (This can also be done in Acrobat).
- Provide **help and hints** where appropriate. (This can also be done in Acrobat).

Export to PDF

- Save as **untagged PDF**.
- If you start with a tagged PDF, **delete the tags first**.

Automatically Add Form Fields

1. Click the **Prepare Form tool**.
2. Select your untagged PDF document (selected by default).
3. Leave the option for **This document requires signatures** unchecked.
4. The option for **Form field auto detection** is set to **ON** by default. Leave that as is.
5. Click the blue **Start** button.

Quick Reference Guide: Advanced PDF Accessibility: Complex Tables & Forms

Set and Verify Form Field Properties

1. Right-click a form field and select **Properties**.
2. Provide a **unique Name** for each field.
3. Provide a **tooltip** (accessible name) for each form field.
4. **Do not** rely on the checkbox for **Required** to mark required form fields as it's not accessible.
5. Provide **other field properties** as needed based on type of field.

Check the Tab Order

Exit out of Forms Editing mode and **tab through the form**. Ensure the order is logical. To rearrange the tab order: Open the **Prepare Form tool** and go to the **Fields** area in the right-side menu. You can drag and drop fields there to re-arrange the order.

Preview the Form

Use the **tab key** to move through the fields, filling out the form as if you were an end user. For fields that have specifications such as how data must be entered, deliberately enter it incorrectly to see if the error alert executes and provides you with useful information in correcting the error.

Add Tags

There is no one way to add tags, so you can experiment and find a method that works best for you. An example process is:

1. Create the **Tags Root**.
2. Open the **Options Menu** and select **find**.
3. In the **Find Element dialog** that pops up, select **Unmarked Annotations** from the drop-down menu. Select the radio button option for **Search Document**. Click **Find**.
4. The first form field will be highlighted in a bright pink border. Click **Tag Element** in the **Find Element dialog**.
5. Select **Form** from the **New Tag dialog** that pops up and click **OK**.
6. This will create a **Form tag** with **OBJR** in the tag tree (you'll need to create the other tags later).
7. The dialog will remain open and automatically shift to the next untagged form field. Keep clicking **Find Next** and **Tag Element** (as appropriate) until you make your way through the whole form.

8. Next, add the rest of the tags for each form field. Create an empty **Paragraph tag** and position it next to (above or below) the form tag you're working with.
9. Highlight/select the **visible form label** in the document pane (make sure to click the **Selection Tool** first).
10. Right-click the empty Paragraph tag in the tag tree and select **Create Tag from Selection**. This will create a container for that text, nested as a child of the Paragraph tag.
11. Now **drag and drop** the tags as needed to follow the below-noted hierarchy. Most form fields will have this tag hierarchy:
 - At the top level is the **<Paragraph> tag**.
 - Nested as a child of the Paragraph tag is the **Container element** with the visible form label.
 - Nested as a second child of the Paragraph tag (on the same level as the Container element) is the **<Form> tag**.
 - Nested as a child of the Form tag is the **OBJR tag**.
12. Follow these steps for the rest of the form fields.

Test With A Screen Reader

Test your form with a screen reader and ensure that you can fill it out with no issues using only the keyboard, including radio button selections, check boxes, dropdown menu selections, etc. Make sure all fields have tooltips that are announced as you tab to them.