

Making Forms Accessible

Forms deployed on government websites should all be made accessible for persons with vision and motion challenges.



Chapter 21

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USA Federal and state forms need to comply with Section 504 of the US Rehabilitation Act that guarantees certain rights and liberties for persons with disabilities. The act was legislated in May 1977 and through the years more rights were granted to persons with disabilities. Today, disability law has become an international human rights issue with the United Nations, some regions in the world, and many individual countries. As a matter of practice all eForms in the USA and many other countries should be made accessible.

What are Accessible PDF Forms?

Accessible forms contain the structure and design that optimizes readability on screen reading devices for the vision and motion challenged users. Certain tags need to be defined in PDF forms to make the reading experience optimal for screen readers. Images, for example, need alternative text tags that describe the appearance of an image. Form fields need detailed tooltips that describe fields.

Designing for Accessibility

The sample form used for this example is a US Department of Education form. The form is constructed fairly well however there are a few problems that need to be corrected before making this form accessible.

The first item presenting a problem is the underscores below the first text field. When designing forms, stay away from using underscores to designate field positions. When this form is read aloud, each underscore character is read as a separate item. Therefore you hear underscore, underscore, underscore, etc. from the screen reader. The first task therefore is to delete the underscores before making this form accessible.

The second item that needs attention is the *mailto* link at the bottom of the form. When this form was originally designed, a link was created for the EdPartners@ED.gov text. The action set for the link was to open a web link. Clicking the link merely opens the

Figure 21.1 Sample Form

Registration Form

President's Interfaith and Community Service Campus Challenge, 2012-13

White House Faith-based and Neighborhood Partnerships Office
U.S. Department of Education
Corporation for National and Community Service

In response to the President's Interfaith and Community Service Campus Challenge (Name of Institution)
_____ commits to developing or increasing
opportunities for our students, faculty, and staff to participate in interfaith/community service

Institution:

Name: _____
City: _____
State: _____

President/Chancellor/CEO contact information:

Name: _____
Title: _____
eMail Address: _____

Campus Lead contact information:

Name: _____
Position: _____
eMail Address: _____
Phone Number: _____

Return this form to EdPartners@ED.gov.

Form from US Department of Education

users mail client. The form is not attached when clicking the link. A better solution is to add a submit button or change the link action to a Submit Form Action.

To add a submit button, do the following:

1. Create a button field.

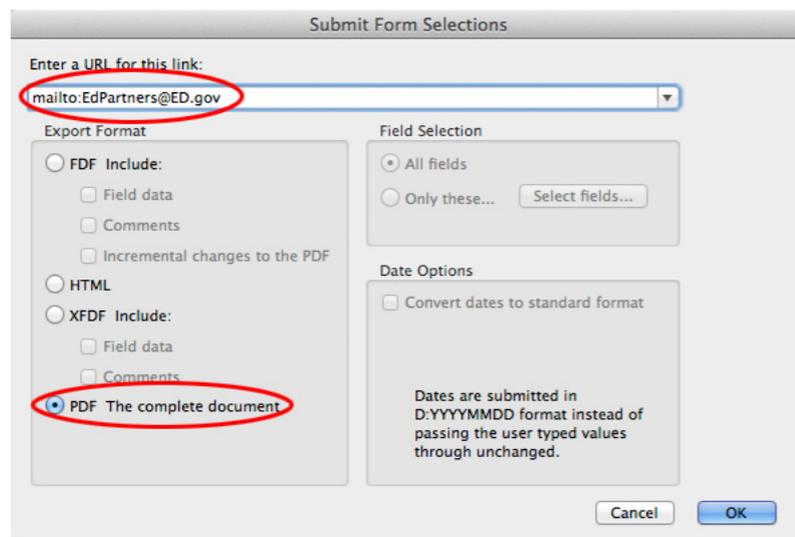
2. Adjust the field properties.

In this example you can simply use a label such as Submit Form

3. Add a Submit Form Action.

Click the Actions tab and choose Submit a form. The Submit Form Selections window opens. At the top of the window enter the email address. In this example *mailto:EdPartners@ED.gov*. Click the PDF the complete document radio button.

Figure 21.2 Submit Form Selections



Add *mailto:* and the email address in the top line and check the PDF The Complete document radio button

When the user clicks the Submit Form button, the default mail client opens and the PDF document is automatically attached to a new mail message.

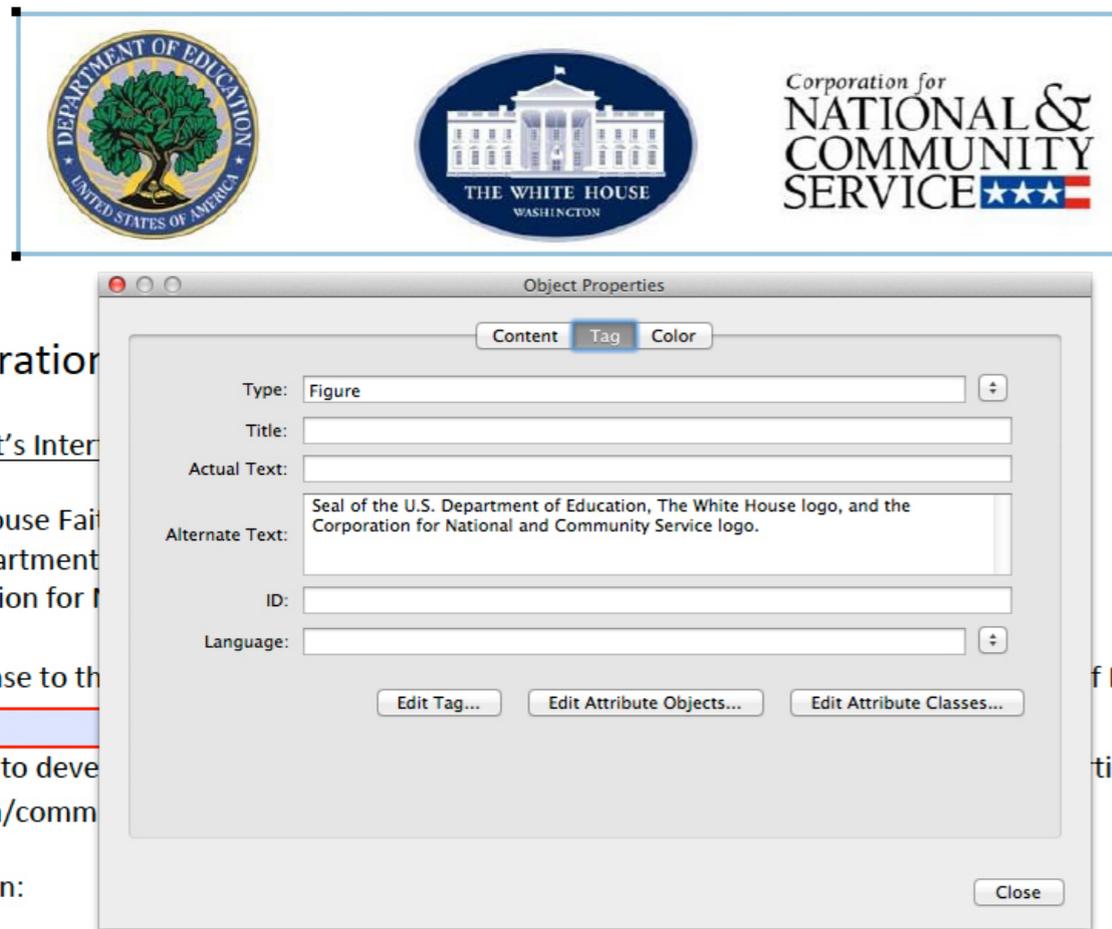
A third item that needs attention in the original form is the document metadata. This form had no metadata for the Title, Author, Subject, and Keywords fields. The accessibility checker picks this problem up after checking accessibility so we can handle adding document metadata later.

Before running the Accessibility Checker, you may want to review all images in a file. On the sample form I use here the alternate tags were properly added to the seals at the top of the form. You can add alt tags to images easily by right clicking a graphic with the Edit Object tool (found among the Print Production tools) and choose Properties from a context menu (Figure 21.3). When the Object Properties window opens click the Tag tab. Here you can type alternate text.

Checking for Accessibility

After you design a form and you're confident that the fields are designed properly, the fields have tooltips describing all the fields, and JavaScripts work properly, you're ready to check the form for accessibility. This is the first step in making a form accessible.

Figure 21.3 Image Tag Properties

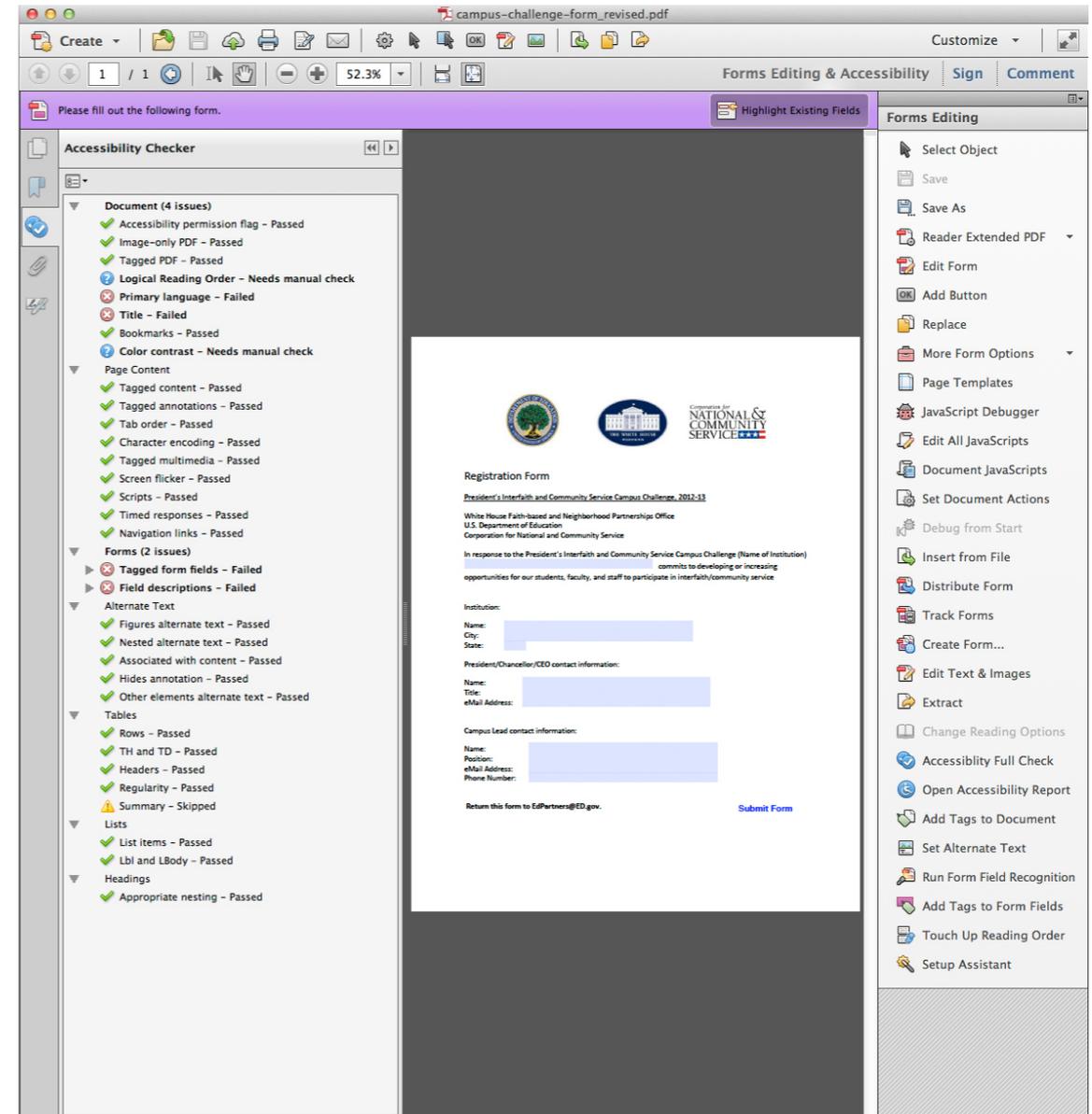


Type the tag information in the Alternate Text box.

At this time you may want to add the Accessibility tools to your Forms Editing toolset. Click the Customize button in the top right corner of the Acrobat window and choose Manage Tool Sets from the drop-down window. Click the Edit button and add all the Accessibility tools to your toolset.

With the tools in place, click the Accessibility Full Check tool in the Tools panel. The Accessibility Checker reports back errors in the Navigation pane (left side of the Acrobat window).

Figure 21.4 After Running the Accessibility Check



Errors are reported in the Accessibility Checker pane in the Navigation pane.

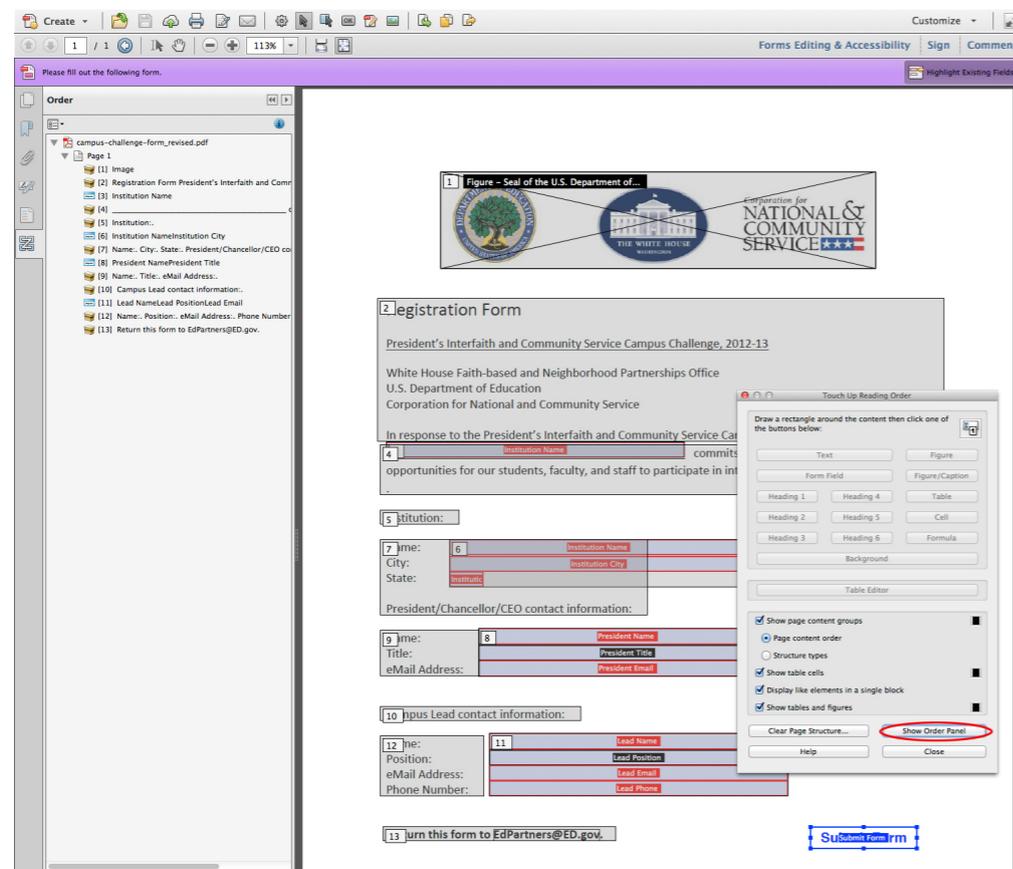
The items in the list report errors where you see a circle with an X. On many of the errors listed in the Accessibility Checker pane you can right click to open a context menu and choose Fix from the menu options. Where you see Title – Failed in the Accessibility Checker pane, open a context menu and choose Fix. The

Document Properties are displayed where you can add Title, Author, Subject, and Keywords.

Checking the Reading Order

When your form is read on a screen reader you want to be certain that the reading order is the same as the view you see in the Acrobat window. To check the Reading Order click the Touch Up Reading Order tool in the Tools panel. When the Touch Up Reading Order panel opens, click the Show Order Panel button. The Order pane opens in the Navigation pane.

Figure 21.5 Reading Order



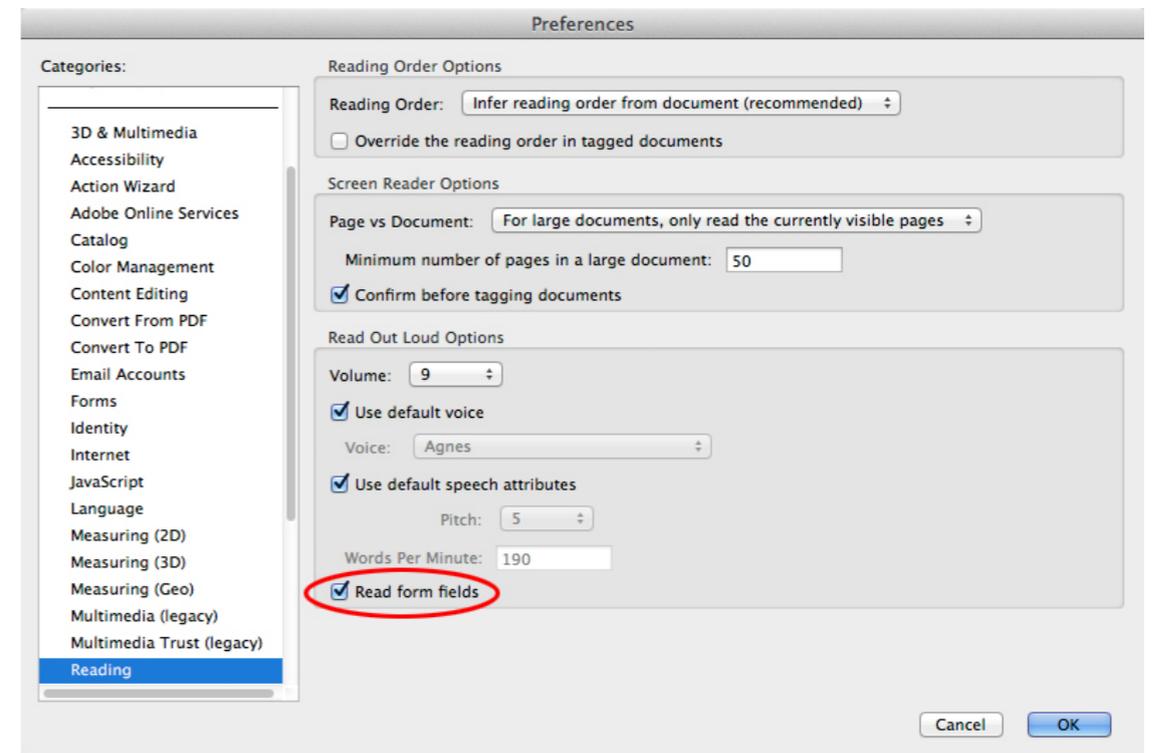
Click the Show Order Panel button to open the Order pane in the Navigation pane.

You can click and drag items in the Order pane to change the reading order.

Testing the Form with Read Aloud

The first step to take to test your file is open the Preferences (CTRL/Command + K). Click Reading in the left pane and check the Read Form Fields check box at the bottom of the Reading Preferences.

Figure 21.6 Reading Preferences



Check Read form fields before reading aloud.

To test the form as it might be read on a screen reader, choose View ► Read Out Loud ► Activate Read Out Loud. Return to the same submenu and choose Read This Page Only or Read to End of Document.

Test the overall reading of the document to be certain the reading order is correct and the graphics all have alt tags. After the document is read aloud, press the tab key. The cursor should jump to the first field and the tool tip is read out loud. Continue tabbing through all fields and check for accurate reading of the tool tips.

After you check the form using Acrobat's Read Out Loud feature, check the form on a screen reader before deploying the form.