

**Adobe® Acrobat® 9 Pro Accessibility Guide:
Creating Accessible Forms**



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Acrobat 9 Pro Accessible Forms and Interactive Documents

Introduction

Determining if a PDF file is meant to be an interactive form is a matter of visually examining the file and looking for the presence of form fields, or areas in the document where some kind of information is being asked for such as name, address, social security number. Boxes or fields drawn on the page are also typical indications that the document is meant to function as a form. If you want users to be able to complete the form online, rather than resort to printing a paper copy in order to complete the form, then the form is meant to be an interactive form.

You can make interactive form fields accessible to vision impaired users and users with mobility challenges by adding fillable fields to the PDF and by properly structuring it. In addition, you can use the Tooltip field property to provide the user with information about the field or to provide instructions. For example, using the Tooltip property value, the screen reader user would hear “Check this box if you will be attending the luncheon.” Without the tool tip property, a screen reader simply provides the name of the form field (Check Box 1), its type (Check Box), and its state (Unchecked). It would not be clear to someone listening to the form that they are indicating their desire to attend a luncheon.

You can have Acrobat Pro detect and create the form fields automatically or you can manually create the necessary fields using Acrobat Pro’s form tools.

This discussion limits itself to the accessibility issues involved with creating form fields with the Acrobat 9 Pro form tools. For a more detailed discussion of PDF forms including forms created with the Adobe LiveCycle Designer, refer to the Acrobat 9 Pro online help.

PDF Form Fields

A PDF form created with Acrobat can contain the following types of fields:

- **Text field.** Lets the user type in text, such as name, address, or phone number.
- **Check box.** Presents yes-or-no choices for individual items. If the form contains multiple check boxes, the user can typically select as many or few of these as needed.
- **Radio button.** Presents a group of choices from which the user can select only one item. All radio buttons with the same name work together as a group.
- **List box.** Displays a list of options the user can select. You can set a form field property that enables the user to Shift-click or Control-click to select multiple items on the list.
- **Combo box.** Lets the user either choose an item from a pop-up menu or type in a value.
- **Button.** Initiates a change on the user’s computer, such as opening a file, playing a sound, or submitting data to a web server. These buttons can be customized with images, text, and visual changes triggered by mouse actions. Action buttons have a different purpose than radio buttons, which represent data choices made by the user.
- **Digital signature field.** Lets the user electronically sign a PDF document with a digital signature.
- **Barcode.** Encodes the input form selected fields and displays it as a visual pattern that can be interpreted by decoding software or hardware (available separately).

Use Acrobat to Detect and Create Interactive Form Fields

You can convert an existing electronic document (for example a Word, Excel, or PDF document) or scan a paper document to a PDF form, and then add interactive form fields to the form.

When you convert a document to an Acrobat form, Acrobat can detect the form fields in the document. In many instances, Acrobat will use the form field labels to name the field and provide a Tooltip. While the results are often acceptable, this is not a foolproof process. You will need to examine the document carefully to verify that Acrobat accurately detected the fields and labelled them appropriately.

Acrobat Form Wizard

You can use the Form Wizard in Adobe Acrobat 9 Pro or Adobe Acrobat 9 Pro Extended to create interactive forms from an existing electronic document (for example a Word, PDF, or Excel document) or scan a paper form into a PDF form.

- Choose Forms > Start Form Wizard.

This displays the Create or Edit Form Dialog. From the Create or Edit Form Dialog, do one of the following, and then follow the on-screen instructions.

- To convert an existing electronic document (for example Word or PDF) to a PDF form, select An Existing Electronic Document. This places the document in Form Editing Mode.
- To scan a paper form and convert it to a PDF form, select A Paper Form. The form will be scanned and placed in Form Editing Mode.
- To use LiveCycle Designer to create a form from scratch or from one of the available templates, select No Existing Form.

Note: Using the Adobe LiveCycle Designer, included in Adobe Acrobat Pro and Adobe Acrobat Pro Extended for Windows, to create accessible PDF forms is beyond the scope of this Best Practices Guide.

The Form Wizard completes its analysis of the document, adds any form fields it may detect and places the PDF form in Forms Editing Mode where you can edit the automatically created fields or add additional form fields (See “Forms Editing Mode” on page 5).

During form field detection, Acrobat may have missed some fields or created unneeded fields. It may have also created fields of the wrong type. Please verify the fields and field names on your form. You can select Add New Field on the Forms Editing toolbar to add more fields or right click on the form to edit or delete fields.

Enter Forms Editing Mode Directly

If you don't want to use the Form Wizard, you can open the file, and place the document in Form Editing Mode directly.

- From the Acrobat Menu, select Forms > Add Or Edit Fields (Keyboard shortcut is Shift + Ctrl 7).

This displays the Add or Edit Form Fields dialog (See “Figure 1 Add or Edit Form Fields Dialog” on page 5)

Answering “Yes” to the Add or Edit Form Fields dialog question “Do you want Acrobat to detect form fields for you?” results in the automatic detection of form fields prior to placing the document in Form Editing Mode. This is the same as if you had proceeded using the Form Wizard on the current PDF.

Acrobat completes its analysis of the document, adds any form fields it may detect and places the PDF form in Forms Editing Mode where you can edit the automatically created fields or add additional form fields (See “Forms Editing Mode” on page 5).

During form field detection, Acrobat may have missed some fields or created unneeded fields. It may have also created fields of the wrong type. Please verify the fields and field names on your form. You can select Add New Field on the Forms Editing toolbar to add more fields or right click on the form to edit or delete fields.

Answering “No” to the Add or Edit Form Fields dialog question “Do you want Acrobat to detect form fields for you?” also places the document in Form Editing mode, but does not create form fields automatically. You will have to add the form fields manually. Proceed to the next section, “[Create Form Fields Manually](#)” on [page 5](#) for further information.

Create Form Fields Manually

To add form fields manually you first select Forms > Add or Edit Fields (Keyboard shortcut is Shift + Ctrl 7) and answer “No” to the question “Do you want Acrobat to detect the Form Fields for you?” in the resulting dialog (See “[Figure 1 Add or Edit Form Fields Dialog](#)” on [page 5](#)) This places the document in Forms Editing Mode without automatically creating any fields. You can now add new form fields to the PDF form. Proceed to the next section “[Forms Editing Mode](#)” on [page 5](#) for further instruction.



Figure 1 Add or Edit Form Fields Dialog

Forms Editing Mode

With the PDF form in Forms Editing Mode, you can add new fields and buttons to the form and edit or delete any existing field or button (See “[Figure 2 Adobe Acrobat 9 Forms Editing Mode](#)” on [page 6](#)) The Forms Editing Mode changes the Acrobat user interface slightly.

- A Forms Editing Toolbar provides access to the Select Object tool, the Add New Field button, and the Form Preview button. You can configure the Add New Field button to display the Forms tools on the toolbar instead of the Add New Field button if you prefer.
- On the right hand side of the Forms Editing Toolbar, are the Distribute Form button and the Close Form editing button.
- A fields panel appears on the left side of the document.
- There is a forms menu bar which offers users choices that are mostly restricted to forms editing functions.

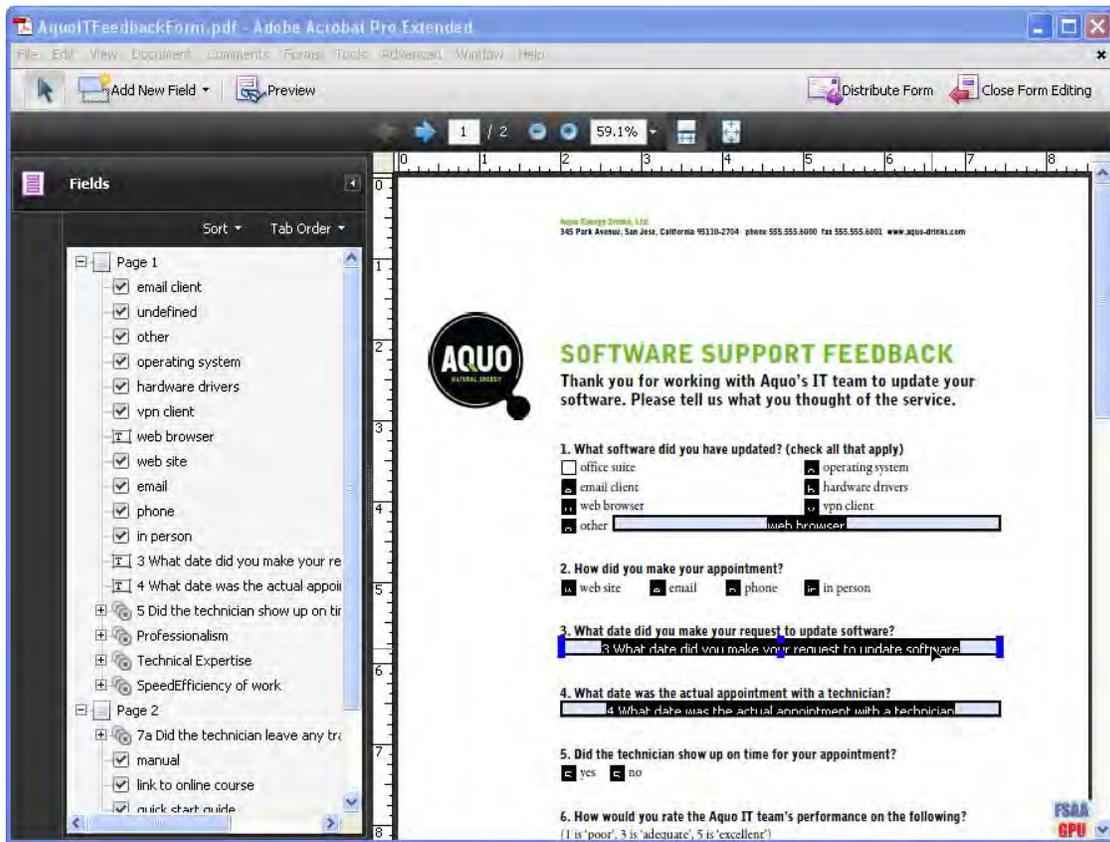


Figure 2 Adobe Acrobat 9 Forms Editing Mode

Creating a New Form Field

In Acrobat, you create a form field by choosing one of the form tools. For each field type, you can set a variety of options through the form field Properties dialog box.

You can access the forms tools one of three ways.

- You can select “Add New Field” on the Forms Editing Toolbar to add more fields
- From the Forms Editing menu you can select Forms > Form Tools (Keyboard accelerator ALT + R + O). This will provide access to the Acrobat form tools.
- You can right click over the form to present options that allow you to add, edit, or delete fields.

The cursor becomes a cross hair.

- On the page, click where you want to add the field to create a field with the default size. To create a field using a custom size, drag a rectangle to define the size of the field.
- In the Field Name box, type the name of the field and specify if you want the field to be a required field. Acrobat provides a default name based upon the field type and the number of fields drawn on the page. You should choose a name that is relevant and descriptive to make organizing and collecting the data easier (See “Figure 3 Field Name Box” on page 7)
- To display the Properties dialog box and modify any other field properties, click Show All Properties (See “Figure 3 Field Name Box” on page 7)

Note: If you have selected the Keep Tool Selected option in the forms toolbar, the Field Name

box doesn't appear after adding a field. Each time you click the page, a new field is added to the form. To exit this mode, press the Esc key or click the Select Object Tool button. To modify the properties of the field, double-click the field.

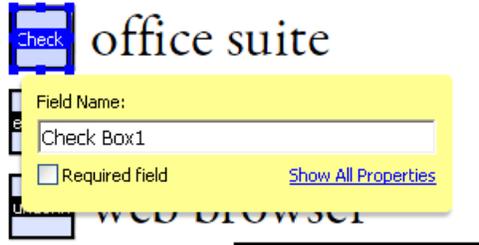


Figure 3 Field Name Box

To test your form, click the Preview button. Previewing a form allows you to view the form the same way the form recipients will and gives you a chance to verify the form. If you are previewing a form, you can click the Edit Layout button to go back to the Forms Editing mode.

Form Field Properties

How a form field behaves is determined by settings in the Properties dialog box for that individual field. You can set properties that apply formatting, determine how the form field information relates to other form fields, impose limitations on what the user can enter in the form field, trigger custom scripts, and so forth.

You can set a variety of properties for an Acrobat form field, depending on the form field type. The properties for each type of form field are selected on a series of tabs. When you change a property, it is applied as soon as you select another property or press Enter.

All the form field types have a General tab, Appearance tab, and an Actions tab. Other tabs appear only in specific types of form fields. The Options tab appears for most form field types but the options available are unique to each type of form field.

If you are changing the properties of multiple fields, you can leave the Properties dialog box open. Click on each field to change its properties.

Tooltips for Form Fields

For accessibility, the Tooltip option on the General tab is important for entering text that will be announced by screen readers.

You can make form fields accessible to people with disabilities by adding tags to the PDF and by properly structuring it. In addition, you can use the tool tip form field property to provide the user with information about the field or to provide instructions. For example, using the tool tip property value, the screen reader could say "Your first name." Without the tool tip property, a screen reader announces the type and name of the form field (See ["Figure 4 Adding a Tooltip for Form Fields" on page 8](#))

- If necessary, choose Forms > Add or Edit Fields, and make sure that the Select Object tool is selected.
- Double-click a selected form field to open the Properties window.
- In the General tab, type a description into the tool tip box.

The Tooltip also displays text that users may find helpful in filling in the form field. Tooltips appear when the pointer hovers briefly over the form field.

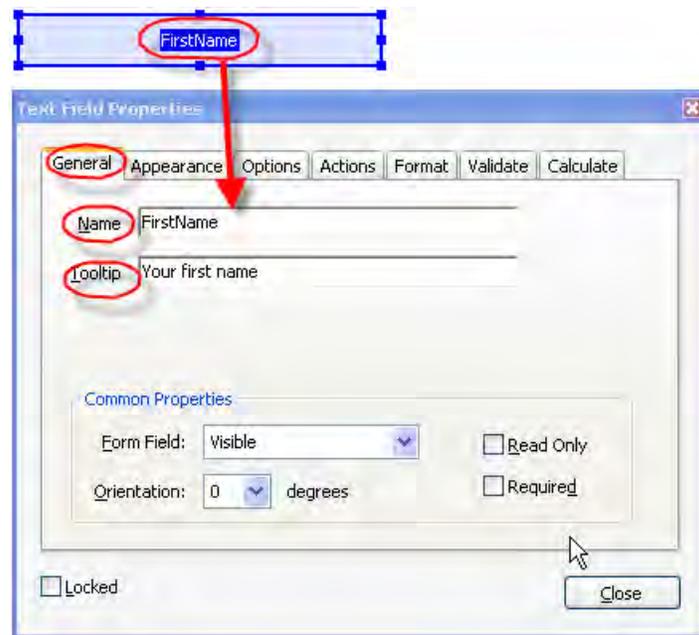


Figure 4 Adding a Tooltip for Form Fields

Tooltips for Radio Buttons

To create a set of mutually exclusive Radio Buttons, where only one field can be selected at a time, give each field the same name but different Button values. The Button value is a field in the options tab of the Radio Button Properties dialog

To make a radio button accessible, in addition to entering unique text in the Button Value field for each choice, you would enter identical text in the Tooltip field of the General properties tab for each radio button in the group (See [“Figure 5 Tooltips and Button Values for Radio Button Short Descriptions” on page 9](#))

For example, you may have a radio button group that asks the question, “Are You a Citizen?”.

- You would create two radio buttons. For each button, you would enter the text “Are You a Citizen?” in the Tooltip field.
- For one button you would enter “Yes” in the Button Value field under the options tab, for the other “No” should be entered in the Button Value field.

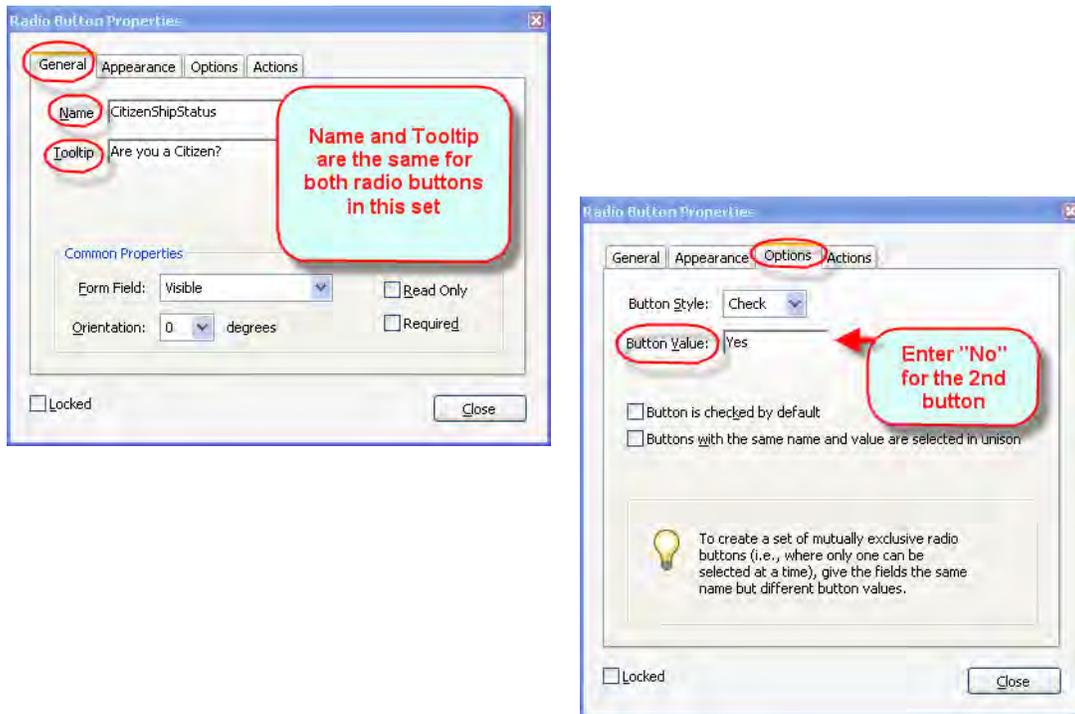


Figure 5 Tooltips and Button Values for Radio Button Short Descriptions

Editing or Modifying an Existing Form Field

You can access Acrobat form field properties only when you are in editing mode (by choosing Forms > Add Or Edit Fields). You can change the properties for multiple form fields at a time.

Open the Properties dialog box using one of the following methods:

- To edit a single form field, double-click it or right-click/Control-click it and choose Properties.
- To edit multiple form fields, select the fields that you want to edit, right-click/Control-click one of the selected fields, and choose Properties.

Change the properties on each of the available tabs, as needed. The property is changed as soon as you select another property or press Enter.

- Click Close to close the Properties dialog box.

If you select form fields that have different property values, some options in the Properties dialog box are not available. Otherwise, changes to the available options are applied to all selected form fields.

To avoid accidental changes to the form field, select Locked in the lower left corner of the Properties dialog box before you close it. To unlock, click the check box again.

Deleting a Form Field

With the document in Forms Editing mode, click on the field you would like to delete and do any of the following.

- Right mouse click and select delete
- Press the delete key.
- From the menu, select Edit > Delete (ALT + ED)

Note: You can select multiple fields by holding the Control key as you click on each one.

Buttons

Buttons are most commonly associated with forms, but you can add them to any document. Buttons can open a file, play a sound or movie clip, submit data to a web server, and much more. When deciding on how to initiate an action, remember that buttons offer the following capabilities that links and bookmarks do not:

- A button can activate a single action or a series of actions.
- A button can change appearance in response to mouse actions.
- A button can be easily copied across many pages.
- Mouse actions can activate different button actions. For example, Mouse Down (a click), Mouse Up (releasing after a click), Mouse Enter (moving the pointer over the button), and Mouse Exit (moving the pointer away from the button) can all start a different action for the same button.

Buttons are an easy, intuitive way to let users initiate an action in PDF documents. Buttons are added the same way as form fields while in Forms Editing mode. They also should be given a name and a Tooltip and their behavior is determined by the actions the user assigns the button on the actions tab of the Button Properties dialog. They also appear in the Tab order tree. See the Adobe Acrobat Help for a complete discussion of PDF fields and buttons.

Set the Tab Order

If a PDF document doesn't have a specified tab order, the default tabbing order is based on the document structure unless the user has deselected the Tab Order option in the Accessibility preferences.

You can change the tabbing order after you create the fields.

- If you are in Forms Editing mode, you can order the tabs by document structure (default), row, or column.
- You can also choose the order manually by dragging and dropping fields in the Fields panel.
- If you are not in Forms Editing mode, you can change the page properties to order the tabs by row or column. However, you can't customize the tab order manually.

To change the tab order, first select "Order Tabs Manually" from the Tab Order button on the Fields panel. Then you can drag and drop fields where you want them within the Fields panel to modify the tab order (See ["Figure 6 Rearranging Tab Order with the Fields Panel" on page 11](#))

To assist in determining tab order, you can select "Show Tab Numbers" from the Tab Order button of the Fields panel (See ["Figure 6 Rearranging Tab Order with the Fields Panel" on page 11](#))

In the example shown in [Figure 6 on page 11](#), the check box labelled "operating system" is in the fifth position. Selecting the entry for operating system in the Forms panel highlights the corresponding field in

the document view. To move it to the second position, drag it up and drop it below the check box for “office suite”

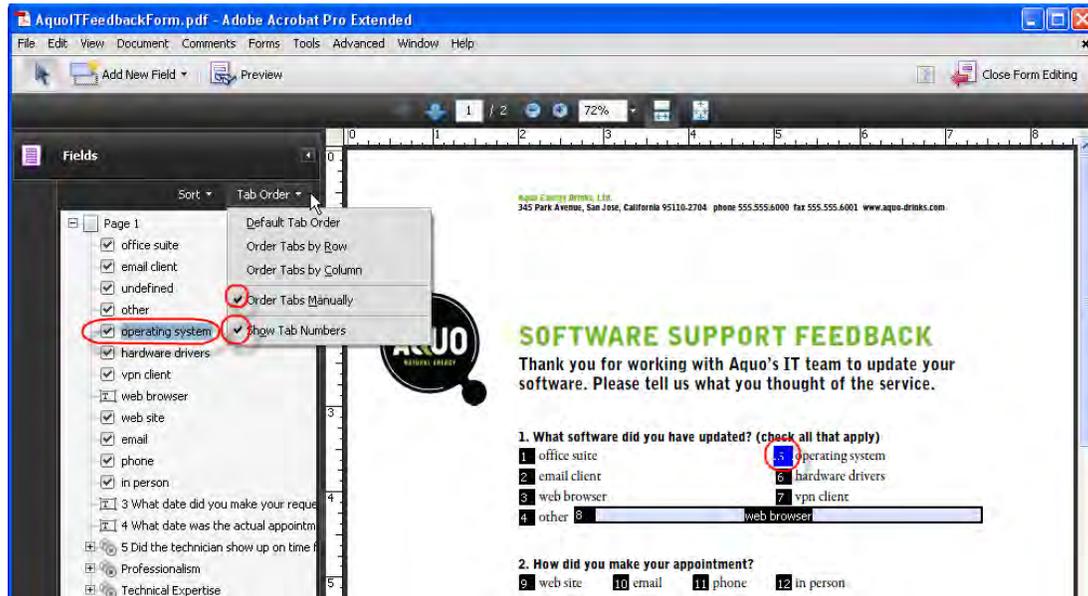


Figure 6 Rearranging Tab Order with the Fields Panel

Add Other Accessibility Features

This stage includes setting the document language, making sure that security settings do not interfere with screen readers, creating accessible links, and adding bookmarks. There may be other tasks to complete on your file before it can be considered accessible. For a discussion on how to proceed from this point, refer to the document *Adobe® Acrobat® 9 Pro Accessibility Guide: PDF Accessibility Repair Workflow*.

