

# Chapter 8

## Working with Tables

**T**ables are part of many PDF forms. Tables are commonly set up with columns and rows having a header at the top that describes the content for each column and two or more rows of data following the header.

You find tables in a variety of forms. You might have a job application form where tables are used for work and education history. You see many tables in point of sale purchase forms where you find columns of descriptions, quantity, price, and totals across each row. In other forms, you see tables that make data entry and exporting data intuitive and easy for form fillers.

Tables can be as small as a few rows of data following a header or many pages of data all within a tabular format. In Acrobat, you need to design a table for the maximum anticipated rows of data that a form recipient is likely to use on your form. In LiveCycle Designer, you can create dynamic forms that spawn new rows based on user input or data flowing into a form.

In this chapter, we talk exclusively about creating and editing tables in Acrobat. If you want to know more about dynamic tables created in LiveCycle Designer, see Chapter 28.

### Creating Tables in PDF Forms

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When designing tables, you should use a table feature in an authoring application. Programs like Microsoft Word and Adobe InDesign both have table features that support formatting tables, such as adding columns and rows, adding headers, and alternating fills for cells according to rows; Figure 8.1 shows an example of such a table. Authoring programs like Word and InDesign also allow you to format text within cells and perform many more formatting tasks.

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Exporting data

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FIGURE 8.1

This table contains rows with alternating fills. With the calculations added to this form and the column of combo box fields, this form isn't a good candidate for using auto field detection.

**GLOBAL financial**  
33 west park avenue  
onytown\_usa\_99999  
t: 800.555.1212  
f: 800.555.1213

**PRODUCT ORDER REQUISITION**  
PDF FORMS USING ADOBE® & LIFECYCLE DESIGNER BIBLE

Company \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
ATTN \_\_\_\_\_  
Email \_\_\_\_\_

#	DATE	ITEM	DESCRIPTION	EACH	QUANTITY	ITEM TOTAL
1.	12/07/08	Tape	Bonds Investing	\$49.95	2	99.90
2.	12/07/08	Book	Playing the Market	\$29.95	3	89.85
3.	12/07/08	Video	Global Annual Investment Fest	\$149.95	2	299.90
4.	12/07/08	Tips	Orange Juice	\$19.95	1	19.95
5.		-				0.00
<b>Sub Total</b>						<b>509.60</b>
<b>Less Discount</b>						<b>433.16</b>
<b>Tax</b>						<b>32.49</b>
<b>Shipping</b>						<b>161.06</b>
<b>Total</b>						<b>465.65</b>

RESET FORM

Method of payment      Shipping

ACCT    CC    CK   C.O.D.       Overnight    2-day    Standard

Credit Card Number \_\_\_\_\_ EXP. \_\_\_\_\_

Signature \_\_\_\_\_

Official Use only      Processed by      Shipped by

Date \_\_\_\_\_

Approved   Yes   No      Signature \_\_\_\_\_      Signature \_\_\_\_\_

SUBMIT FORM

GFS-PO-202      www.globalfinancialservices.com

If you have to get the data from a table in a PDF form out to an authoring program, Acrobat recognizes the structure of a table and can easily export data to a spreadsheet application. If you use other authoring programs and use tables and indents, you might find more challenges when attempting to export data. As a general rule, try to use table features in programs to design your original forms that have tables.

After you convert your original authoring application documents to PDF, you can add fields in Acrobat to populate the forms with form field objects. Tables often require you to avoid using auto field detection when you open a form containing a table in Form Editing Mode. You might get away with populating a table that has no calculation fields such as a job application form; but when you have calculations to perform on a form, you most often are best served by adding fields manually.

Knowing when to use auto field detection and when to avoid it is helpful when you create PDF forms containing tables.

## Auto-detecting fields in tables

You can always open a file in Form Editing Mode, populate the form, check over the fields, and delete fields that you feel are better designed by adding field objects manually on a form. This method works if fields are recognized for areas where you don't need some special properties such as calculation formulas for the fields.

Regardless of whether you use auto field detection or open a form and decide to manually add form fields, you'll want to know some standards in regard to adding fields in a table where auto field detection isn't your best solution. The forms that you should plan on manually populate with field objects contain fields such as:

- **Calculation formulas:** If you have to write JavaScripts to calculate row totals, discounts, sales tax, shipping costs, and grand total fields, then you'll want to use hierarchical names in a table, as explained in Chapter 7. Using auto field detection won't help you when hierarchical names are needed.
- **Radio buttons and/or check box columns:** If you have several columns containing radio buttons and check boxes, using hierarchical names will speed up your form editing by ten to one over using auto field detection and using independent field names.
- **Combo box and list box fields:** You might choose to auto-detect fields on a form as a partial solution when adding combo box and list box fields; however, the combo boxes and list boxes should be created manually. If you have long lists of options for each combo/list box, you're better off creating one field for each column/row manually and then placing multiple fields that duplicate the responses while changing field names for the remaining columns/rows. If you rely totally on auto field detection, you'll have to edit properties for each of these field types on the table.
- **Duplicating text fields:** This issue is not related exclusively to forms with tables. If you have a block of text fields that need to be replicated on a form, it's best to use hierarchical field names especially when populating several forms with the same types of fields. For example, suppose you have identifying information for one block of fields and another group of fields designed for emergency contact information. The fields are identical in the two blocks but they need separate field names for each block. You can easily copy one block, change the parent names, and paste the changed name fields back to your form. Using auto field detection requires you to set properties on each field separately.
- **When auto field detection doesn't detect fields:** Quite obviously as explained in Chapter 5, some form designs are not auto field detection-friendly. If Acrobat cannot detect fields on a form, then you need to add fields manually. With many different forms, Acrobat may recognize fields in many areas outside a table. If you find this to be true with some of your forms, you may only need to add the table fields to complete your form editing.

### Creating tables by auto-detecting fields

For forms that don't meet the criteria for low-optimum results when using auto field detection, you can open the form in Acrobat and choose Forms ⇨ Add or Edit Fields. If the fields can be detected on the form, you're prompted in a dialog box to permit Acrobat to use auto field detection as described in Chapter 5.

To see the results of creating a form with a table where auto field detection is used, follow these steps.

**CROSS-REF** To follow the steps, use the *globalEmploymentApplicationRaw.pdf* in the Chapter08 folder on the book's CD-ROM.

#### STEPS: Using Auto Field Detection with Tables

- 1. Open a form containing a table in Acrobat.** In our example, we use the *globalEmploymentApplicationRaw.pdf* document found in the Chapter08 folder on the book's CD-ROM.
- 2. Choose Forms ⇨ Add or Edit Fields.** Acrobat prompts you in a dialog box for auto-detecting fields on the form. Click Yes, and the form opens in Form Editing Mode populated with fields, as shown in Figure 8.2.
- 3. Examine the form.** In this example, the table in the Education area of the form was successfully populated with field objects. Acrobat did not pick up the Yes/No boxes/radio button fields needed to complete the form because no geometric shapes were added to the form design.
- 4. Save the form.** The form needs some editing. Before proceeding, save the file by choosing File ⇨ Save As to rewrite the file with a new filename.

The form in Figure 8.2 is a good candidate for using auto-detection of fields. The form requires no calculation fields, only a few radio button/check boxes need to be added, and the form has no combo/list boxes. With a few edits, we can finalize this form and distribute it.

#### Adding fields to a table

Partial auto-detection of fields is most common with many forms and especially on forms with tables. That is to say, you let Acrobat detect fields, and some fields are missed when using auto field detection. You can expect to modify a form with manual edits using the Form tools in Form Editing Mode.

FIGURE 8.2

When you open the form in Form Editing Mode, you see the table in the Education area populated with fields.

**GLOBAL financial**  
33 west park avenue  
anytown, usg, 99999  
t: 800.555.1212  
f: 800.555.1213

### EMPLOYMENT APPLICATION

APPLICATION SUMMARY		APPLICATION SUMMARY		Date	
Last Name			First	Middle	Social Security No.
Street Address			Street Address		Home Phone
City		State		Zip	How Long at Present Address?
E-Mail			E-Mail		Wages Expected
Position Applying For	Were you previously employed by this organization?		Yes, Date (s)		No
List any relatives or friends working for this organization			Name	Relationship	
			Name 1	Relationship 1	
			Name 2	Relationship 2	
In case of accident notify	In case of accident notify			Phone	Phone
EDUCATION	Name and Location of School	Course of Study	No. of Years Completed	Did You Graduate	Diploma or Degree
HIGH SCHOOL	HIGH SCHOOL	Course of StudyHIGH SCHOO	No of Years Completed	Yes	Diploma or DegreeYes
TRADE OR BUSINESS SCHOOL	TRADE OR BUSINESS SCHOOL	Course of StudyTRADE OR B.	No of Years Completed	Yes	Diploma or DegreeYes
COLLEGE OR UNIVERSITY	COLLEGE OR UNIVERSITY	Course of StudyCOLLEGE OR	No of Years Completed	Yes	Diploma or DegreeYes
GRADUATE SCHOOL		Course of StudyRow4		Yes	
				No	

Additional Education

Auto field detection didn't pick up the check box fields

For the form in Figure 8.2, we need to add some radio button or check box fields for the Yes/No responses. To see how this form would be edited in Form Editing Mode, follow these steps.

### STEPS: Editing a Table with Auto-detected Fields

1. Open a form with a table where you need to add more fields after Acrobat has auto-detected fields. In our example, we use the form shown in Figure 8.2.
2. Zoom in to the target area on the form where you want to add fields. Click the Zoom In tool several times to zoom into the area where you want to add fields.

**TIP**

Form Editing Mode doesn't provide you with a Zoom tool in the Form Editing Mode toolbar. To access the Zoom tool, press **Ctrl/⌘+spacebar** on your keyboard.

Click+drag a marquee in the area you want to increase the magnification.

- 3. Add a radio button field.** The Yes/No responses can be either radio button or check box fields. We'll use radio buttons to easily create mutually exclusive fields. In Form Editing Mode, click the Radio Button tool in the toolbar. Make certain the Keep tool selected in the toolbar check box is not checked. Doing so won't open the mini Properties window where you can choose the Radio Group Name.

Click the loaded cursor in the first row where you want the radio button to appear. Don't worry about the size of the field for now. We'll take care of sizing fields after adding all the radio button fields.

- 4. Name the fields.** In the mini Properties window, name the field. In our example, the first two radio buttons are used for Yes/No responses for graduating high school. We named our first radio button field *highSchool*. Type a field name, and press Enter.

**NOTE**

When naming fields, you don't have to press Enter. You can click a tool in the toolbar or click outside the field, and the name you last typed for the field name is

recorded for the field.

- 5. Add another radio button.** Click the Radio Button tool again, and click below the first field. By default, the second radio button is added to the same Radio Group Name. Type No in the Button Value text box, as shown in Figure 8.3.

**TIP**

When creating a mutually exclusive set of radio buttons you can also click the Add another button to group check box to add another radio button field.

- 6. Add an additional Radio Group Name.** Click the Radio Button tool again, and click the loaded cursor in position to add another field. In our example, the next row asks about receiving a trade or business diploma. We typed a new name for the field and called it *businessDiploma*. Then we added a second radio button to this group and set the Button Value to No. By default, Acrobat adds the name of the last group you identified when the last radio button was created.
- 7. Add all the fields needed for the form.** In our example, we need two more groups of radio buttons. We named the next two groups *college* and *graduateSchool*, as shown in Figure 8.4. We changed the Button Value for the second radio button in each group to No and left the default value Yes for the first button in each group.
- 8. Resize an anchor field.** In our example, the radio button sizes are too large. We want to reduce the size of each field. To do so, click the top radio button, press the Shift key, and drag one of the corner handles inward to size the field down. We'll use this field as an anchor field and size the remaining radio buttons to the same size. If the field is not positioned carefully within the area where you want the field to appear, click with the Select Object tool and drag it into position. This field will be used for alignment and positioning of the remaining radio button fields.

**FIGURE 8.3**

Type No for the Button Value for the second radio button field.

Did You Graduate	Diploma or Degree
Yes	Diploma or DegreeYes No
No	
Yes	Diploma or DegreeYes No_3
No	
Yes	Diploma or DegreeYes No_3
No	

Radio Group Name:  
 ▼

Required field [Show All Properties](#)

Button Value:

[Add another button to group](#)

**FIGURE 8.4**

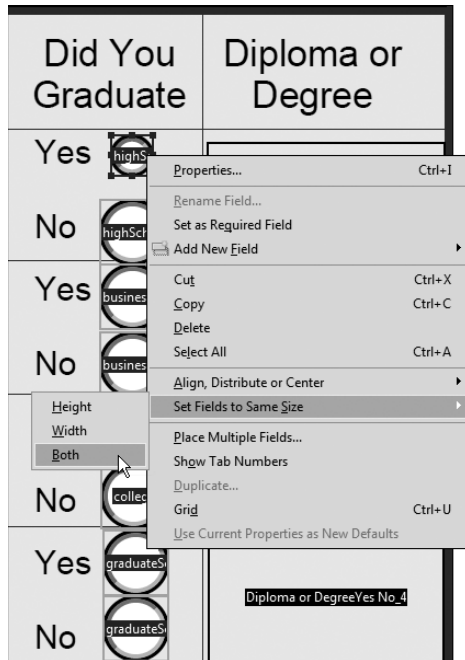
All the radio buttons are added to the form.

Did You Graduate	Diploma or Degree
Yes	Diploma or DegreeYes No
No	
Yes	Diploma or DegreeYes No_2
No	
Yes	Diploma or DegreeYes No_3
No	
Yes	Diploma or DegreeYes No_4
No	

- 9. Resize all the radio buttons.** Drag the Select Object tool through the fields you want to resize. Open a context menu after selecting the fields, and choose Set Fields to Same Size ⇨ Both (for both height and width), as shown in Figure 8.5.

**FIGURE 8.5**

Size the fields to the same size as the anchor field shown with handles on the field rectangle.



- 10. Align the fields.** With the fields selected and the handles appearing on the top anchor field, open a context menu and choose Align, Distribute, or Center ⇨ Align Left.
- 11. Distribute fields.** Click the bottom field with the Select Object tool, press Shift, and drag down (or up) to vertically place the field in proper position. You should have the top and bottom fields in the right position on the form. Drag the Select Object tool through the fields, and choose Align, Distribute, or Center ⇨ Distribute Vertically. The fields should nicely fit into position, as shown in Figure 8.6.



**FIGURE 8.6**

After sizing, aligning, and distributing the fields, they fall into the proper position on the form.

Did You Graduate	Diploma or Degree
Yes <input type="radio"/> highSc	Diploma or DegreeYes No
No <input type="radio"/> highSc	
Yes <input type="radio"/> busine	Diploma or DegreeYes No_2
No <input type="radio"/> busine	
Yes <input type="radio"/> colleg	Diploma or DegreeYes No_3
No <input type="radio"/> colleg	
Yes <input type="radio"/> gradua	Diploma or DegreeYes No_4
No <input type="radio"/> gradua	

The appearance of the radio buttons doesn't match the design of the form in Figure 8.6. We'll hold off for now on changing Appearance Properties and cover the options you have for appearances in Chapter 9. At this point, you should have an idea for some of the kinds of edits you need to make on forms where auto field detection doesn't pick up all fields in a table.

Notice that we first added the fields to our form and didn't worry about sizing and alignment. You could add fields with a guideline in place and snap fields to a guideline as discussed in Chapter 7. You could size them by sizing a field to the correct size and then choosing Use Current Properties as New Defaults. All subsequent radio buttons fields would then be created at the same size. However, you still need to use the context menu command to Distribute the fields. If you try to visually position fields in vertical or horizontal alignment, you'll rarely get it right the first time. Because we had to visit a context menu command for distributing fields, we found it just as easy to size and align fields using the menu commands.

### Adding fields manually to tables

When creating tables on forms, you not only have to decide what tables work with auto field detection, but also what's the easiest way to populate a table. If you read the preceding section, you should have an idea for the complexity of making edits to prepare a single column of fields in a table.

Modifying fields created with auto field detection can sometimes take more time than starting from scratch and adding all fields manually. If you have to edit a few columns, you may as well populate the entire form manually and make edits to all columns and rows. Creating fields manually can sometimes take less time by populating the entire form than using auto-detection for partial field creation.

### Creating tables with radio buttons and check boxes

Figure 8.7 shows a table with several columns and rows. This type of form is just as easy to create manually as it is by letting Acrobat auto-detect fields. If we open the form in Form Editing Mode and use auto field detection, Acrobat misses the first column. The Meeting Days column is designed for a Combo box so this column needs to be created manually. The remaining six columns are designed for check box fields. If Acrobat adds fields via auto field detection, the fields won't be mutually exclusive for the Yes/No columns following the Meeting Days columns. Therefore the last six columns will be unusable. The only usable fields we end up with after auto field detection are the second, third, and fourth columns where we won't need to rename fields.

**FIGURE 8.7**

A table such as this one is created more easily using manual methods than using auto field detection.

**GLOBAL financial**  
28 West Park Avenue  
New York, NY 10022  
T: 800.555.1212  
F: 800.555.1213

**Global Financial Services**  
Broker Regional Chapters - International

Territory: \_\_\_\_\_ Date: \_\_\_\_\_  
Territory VP: \_\_\_\_\_ VP Email: \_\_\_\_\_

Location	Broker in Charge	Regional Office Headquarters	Total Members	Meeting Days	Meet Monthly		Guest Speakers		Workshops	
					YES	NO	YES	NO	YES	NO

RESET FORM      0.00

### Adding the first row of fields

The first order of business for populating the form shown in Figure 8.7 is to add a row of fields in the top row. When you choose Add or Edit Fields, be certain to click No when prompted for auto-detecting fields.

After entering Form Editing Mode, add fields and set the properties appropriately for each field. The Meeting Days column is designed as a combo box with options for days of the week. The last five columns do not need to be populated. We'll just add one check box field for the first column where Yes/No responses are needed. The first two Yes/No columns appear under the Meet Monthly heading. The No column under this heading is intentionally left empty. The form, with the fields added to the top row, appears in Figure 8.8.

**FIGURE 8.8**

Fields needed to populate the table are added in the first row. The last five columns are left empty intentionally.

Location	Broker in Charge	Regional Office Headquarters	Total Members	Meeting Days	Meet Monthly		Guest Speakers		Workshops	
					YES	NO	YES	NO	YES	NO
location	brokerleader.0	regionalOffice	members	days	monthly					

**ON the CD-ROM** We added the first row of fields and two fields at the bottom of the form to the *globalBrokerChaptersFirst.pdf* file found in the **Chapter08** folder on the book's CD-ROM. You can use the file to follow steps in this chapter.

### Adding the first columns of fields

Beginning with the column heading *Location* and ending with the column heading *Monthly Meetings*, we can use the Place Multiple Fields command to populate the rows below the first row. The Yes/No columns under the *Meet Monthly* heading need some special treatment that we'll use later to populate the last five columns, but we'll use the first Yes field under this heading.

To populate the first six columns, follow these steps.

#### STEPS: Manually Populating Rows in a Table

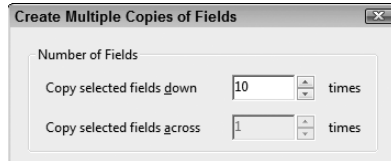
- 1. Select the fields to be populated.** Click the Select Object tool, and draw a marquee around the fields in the first row. All fields on the form in the table are selected.
- 2. Open the Create Multiple Copies of Fields dialog box.** Open a context menu and choose Place Multiple Fields to open the Create Multiple Copies of Fields dialog box. There are ten rows on our form. Type **10** in the Copy selected fields down text box, as shown in Figure 8.9, and click OK to populate all rows with the first five fields.

#### NOTE

When you use Place Multiple Fields, Acrobat doesn't count the first field you created on a form. Inasmuch as you might think Acrobat is copying the first field and pasting nine copies for a column of ten rows, Acrobat is actually replacing the first field and giving it a hierarchical name. Therefore, you need to type the total columns/rows on your form in the Number of Fields text box in the Create Multiple Copies of Fields dialog box.

**FIGURE 8.9**

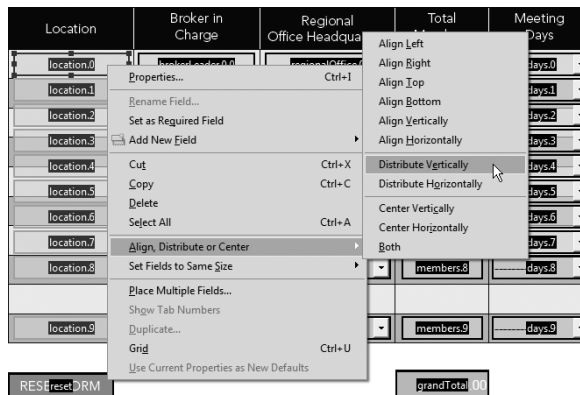
Type **10** in the Copy selected fields down text box to add a total of ten fields for each column.



- 3. Move the bottom row to fit within the last row in the table.** Click the Select Object tool, and drag through the bottom row of fields to select them. Drag the fields to the correct position in the bottom row.
- 4. Distribute the fields.** You must distribute fields individually for each column. Select the first column of fields, and open a context menu. Choose Align, Distribute, or Center → Distribute → Distribute Vertically, as shown in Figure 8.10. Repeat these steps for the remaining five columns.

**FIGURE 8.10**

Select the first column of fields and distribute them.



- 5. Save the file.** The fields added thus far are shown in Figure 8.11. You can use the saved file to follow additional steps later in this chapter.

**FIGURE 8.11**

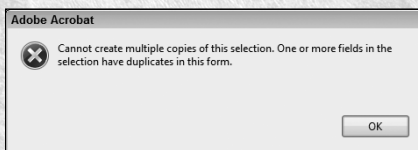
The first six columns of fields are populated in all ten rows.

Location	Broker in Charge	Regional Office Headquarters	Total Members	Meeting Days	Meet Monthly		Guest Speakers		Workshops	
					YES	NO	YES	NO	YES	NO
location.0	brokerLeader.0	regionalOffice.0	members.0	days.0	meet					
location.1	brokerLeader.1	regionalOffice.1	members.1	days.1	meet					
location.2	brokerLeader.2	regionalOffice.2	members.2	days.2	meet					
location.3	brokerLeader.3	regionalOffice.3	members.3	days.3	meet					
location.4	brokerLeader.4	regionalOffice.4	members.4	days.4	meet					
location.5	brokerLeader.5	regionalOffice.5	members.5	days.5	meet					
location.6	brokerLeader.6	regionalOffice.6	members.6	days.6	meet					
location.7	brokerLeader.7	regionalOffice.7	members.7	days.7	meet					
location.8	brokerLeader.8	regionalOffice.8	members.8	days.8	meet					
location.9	brokerLeader.9	regionalOffice.9	members.9	days.9	meet					
RES reset RM			grandTotal							

The first five columns are set up for the form. For the remaining columns, we have to use some different methods for the check box fields and use a little shortcut to easily populate the rest of the form.

## Using Place Multiple Fields with Radio Buttons and Check Boxes

**W**hen you use the Create Multiple Fields command, all fields you want to duplicate need to have unique field names. If you try to duplicate fields with the same name, Acrobat opens a dialog box informing you that you cannot create multiple copies from the selected fields.



When you create radio buttons and check boxes designed to be mutually exclusive fields, you must use the same field name and choose different export values in the field Options Properties dialog box. Having fields with different names and different export values ensures that when one field is clicked in a common row of fields with the same field name, all other fields having the same field name are turned off as the target field is turned on.

The dilemma facing you is that you must use the same field names, but Acrobat won't let you place multiple fields if you do use the same field names. The way you get around the problem is to create one column (or row) of fields using the Place Multiple Fields command, duplicate the fields, and change the export value in the duplicated fields.

### *Adding mutually exclusive fields to a table*

In Figure 8.10, we created ten fields for the first five columns and one field for the *Monthly Meeting* Yes column. This field is a check box field with an export value of Yes. Our next task to complete this form is to add the remaining check box fields to the form for the last five columns.

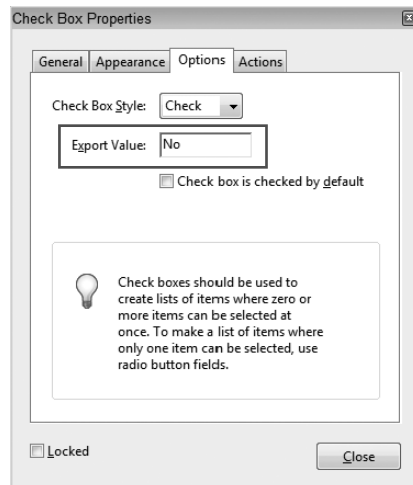
To get a better understanding of how to add radio button/check box fields to a table, follow these steps.

## STEPS: Adding Mutually Exclusive Check Boxes to a Table

1. **Open a form with a table in Acrobat designed for several columns of check boxes used for mutually exclusive choices.** For this example, we continue with the form shown in Figure 8.11. This form has one column of check boxes formatted for our use.
2. **Duplicate a column.** Click the Select Object tool, and drag through the column of check box fields to select them. Press **Ctrl/⌘+Shift**, and duplicate the fields by dragging to the next column. Using the Shift key constrains the movement so your vertical alignment remains intact.
3. **Change the Export value.** Open a context menu on the selected fields, and choose Properties. Be careful not to deselect any of the fields. When the Check Box Properties dialog box opens, click the Options tab. Note that when you have multiple check box or radio buttons selected and you open the Properties dialog box, you can change the Export Value for all the selected fields. Type No in the Export Value text box as shown in Figure 8.12. Click Close after editing the Export Value.

**FIGURE 8.12**

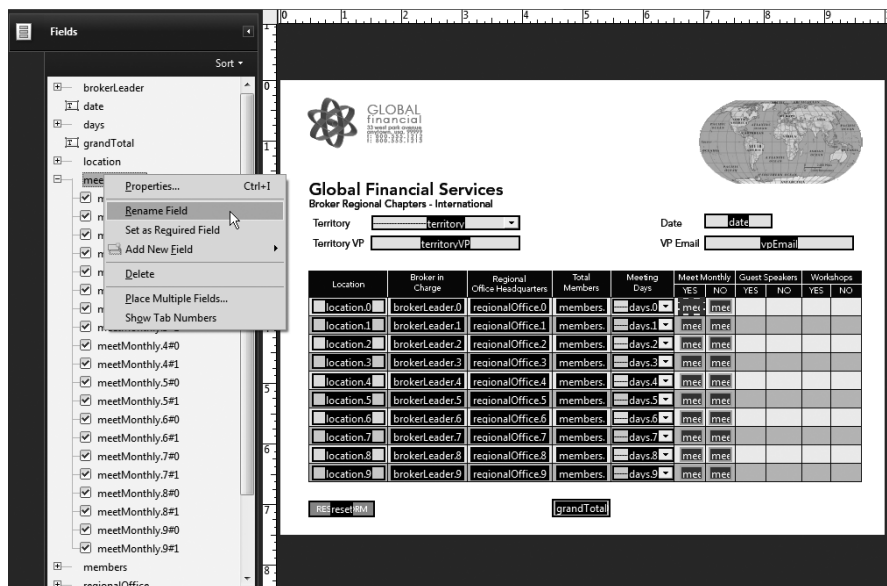
Select a column of check box fields, and open the Options tab in the Check Box Properties dialog box. Change the Export Value, and you can apply a new export value to all the selected fields.



4. **Save the form.** Click File ⇨ Save to update your edits. This step is critical at this point. From here we're going to make some temporary changes, and we'll want to revert our file to this saved version.
5. **Open the Fields panel.** If you're not in Form Editing Mode, choose Forms ⇨ Add or Edit Fields. Be certain the Fields panel is open, and open the Sort pull-down menu. From the menu options, choose Alphabetic Order.
6. **Select the field parent name you want to edit.** Scroll the Fields panel to locate the *monthly* field. The parent name for the check box fields is *monthly*. We need to change this name, and all the child names nested below the parent name will change too. Open a context menu on the parent name, and choose Rename Field, as shown in Figure 8.13.

**FIGURE 8.13**

Select the parent name you want to edit, and choose Rename Field from a context menu.



7. **Type a new name for the parent name.** When you choose Rename Field, the name for the field in the Fields panel becomes highlighted and ready to accept new text. In our example, we type xxx for the new parent name, as shown in Figure 8.14. This is a bogus name that we'll use temporarily.
8. **Copy the fields with the new parent name.** Drag the Select Object tool through all fields having the same root name. You should see both the Yes and No check box fields appearing with new parent/child names. When selected, choose Edit ⇨ Copy.
9. **Select Edit ⇨ Undo.** At this point, the copied fields on the clipboard have the parent name xxx. It does us no good to paste the same names on a form. We cannot change

parent names in the Fields panel for a partial list of names. Therefore, we need to undo the renaming the fields to return the first column back to the original field names—*Monthly*—while keeping the clipboard names at xxx.

- Paste the fields on the clipboard into your form.** Choose Edit ⇨ Paste (or press Ctrl/⌘+V) to paste the fields in the document. By default, the Select Object tool is active. Click one of the selected fields, and drag them to position on the form.

**FIGURE 8.14**

Type a new name for the parent name in the Fields panel, and all children nested below the parent likewise change names.

Location	Broker in Charge	Regional Office Headquarters	Total Members	Meeting Days	Meet Monthly		Guest Speakers		Workshops	
					YES	NO	YES	NO	YES	NO
location.0	brokerLeader.0	regionalOffice.0	members.	days.0	xxx.0	xxx.0				
location.1	brokerLeader.1	regionalOffice.1	members.	days.1	xxx.1	xxx.1				
location.2	brokerLeader.2	regionalOffice.2	members.	days.2	xxx.2	xxx.2				
location.3	brokerLeader.3	regionalOffice.3	members.	days.3	xxx.3	xxx.3				
location.4	brokerLeader.4	regionalOffice.4	members.	days.4	xxx.4	xxx.4				
location.5	brokerLeader.5	regionalOffice.5	members.	days.5	xxx.5	xxx.5				
location.6	brokerLeader.6	regionalOffice.6	members.	days.6	xxx.6	xxx.6				
location.7	brokerLeader.7	regionalOffice.7	members.	days.7	xxx.7	xxx.7				
location.8	brokerLeader.8	regionalOffice.8	members.	days.8	xxx.8	xxx.8				
location.9	brokerLeader.9	regionalOffice.9	members.	days.9	xxx.9	xxx.9				

- Edit the parent name.** The fields are pasted with xxx as the parent name. In the Fields panel again, choose Alphabetic from the Sort pull-down menu and locate the xxx field's parent name. Open a context menu, and rename the parent. In our example, we renamed the field *Guest Speakers*.
- Add another group of fields.** The xxx fields are still on your clipboard. Press Ctrl/⌘+V to paste another group, and rename the fields in the Fields panel. We named our third group of fields *Workshops*, as shown in Figure 8.15.
- Save the final form.** Choose File Save As, and rewrite the form to optimize it.

The first time you follow the steps outlined here, it may seem a little lengthy and cumbersome. However, after you perform these steps a few times and can rely on memory to complete them, you'll find populating tables with mutually exclusive fields to be efficient and much faster than trying to edit field names and properties after Acrobat has recognized them with auto field detection.

## Copying and pasting non-table data

Changing parent names and pasting fields back to a form is not something you need to reserve for columns and rows in tables. Even some of the simplest forms can take advantage of creating fields quickly and efficiently using similar methods you use for tables.



**FIGURE 8.15**

After you've pasted all three sets of columns, the form contains mutually exclusive check box fields.

The screenshot shows a web form with a sidebar on the left and a main table area. The sidebar contains a list of checkboxes for items like 'workshops.0#0', 'workshops.0#1', 'workshops.7#1', 'workshops.1#0', 'workshops.2#0', 'workshops.2#1', 'workshops.3#0', 'workshops.3#1', 'workshops.4#0', 'workshops.4#1', 'workshops.6#0', 'workshops.6#1', 'workshops.7#0', 'workshops.7#1', 'workshops.8#0', 'workshops.8#1', 'workshops.9#1', and 'regionalOffice.9'. Below these is a checkbox for 'vpEmail'. The main table area has a header with 'Territory VP' and 'VP Email'. The table has columns: Location, Broker in Charge, Regional Office Headquarters, Total Members, Meeting Days, Meet Monthly (YES/NO), Guest Speakers (YES/NO), and Workshops (YES/NO). The table contains 10 rows of data, each with a 'location' and 'brokerLeader' value, and a 'grandTotal' row at the bottom.

For example, in the form in Figure 8.16, we have a block of fields set up for employee identification, including name, address, phone, email, and so on. Some of the fields require special formatting, such as the state combo box field, the zip code field, and the phone number field.

**FIGURE 8.16**

This form has two sections with virtually identical fields. You can easily copy and paste fields in this type of form.

The screenshot shows a 'CUSTOMER ID FORM' for 'GLOBAL financial'. The form has a header with the company logo and name. Below the header, there are two identical sections for employee information. Each section includes fields for 'First Name', 'Last Name', 'Address', 'City', 'State', 'Zip', 'Email', and 'Phone'. There is also a section for 'Emergency Contact Info' with similar fields. To the right of the main form, there is a section for 'Hire Date', 'Department', 'Supervisor', and 'Invalidation Date'. The form is branded with 'GLOBAL financial' and 'CUSTOMER ID FORM'. At the bottom, there are logos for 'PCECT resetForm' and 'CIDAMIT resetForm'.

Below the employee ID section is another section for emergency contact information. The emergency contact fields are identical to the employee ID fields. On this form, you can easily format all the fields in the first section and then copy and paste the fields for the emergency contact fields. To see how easy it is to perform the task, follow these steps.

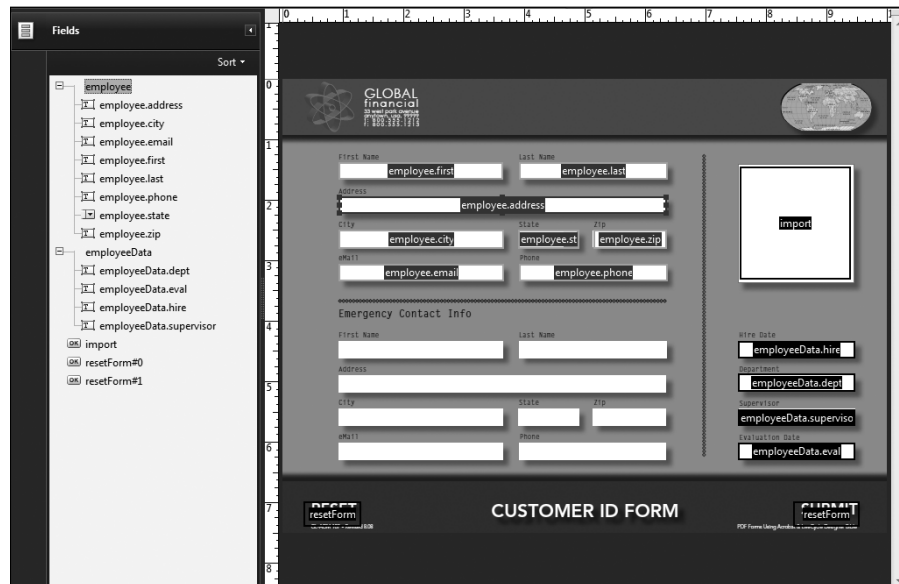
**ON the CD-ROM** To follow the steps here, you can use the *globalCreditApp.pdf* form in the Chapter08 folder on the book's CD-ROM.

### STEPS: Copying and Pasting Fields with Hierarchical Names

1. Open a file that requires setting up two identical blocks of fields. In our example, we use the *globalCreditApp.pdf* form on the CD-ROM.
2. Open the form in Form Editing Mode. Choose Forms ⇨ Add or Edit Fields.
3. Rename the parent name for the employee ID fields. Choose Alphabetic from the Sort pull-down menu, and click the *employee* parent name as shown in Figure 8.17. If you click again on the parent name, the name is highlighted and ready to accept new text. Type *emergency* for the parent name.
4. Select the renamed fields. Drag the Select Object tool through the *emergency* fields, and press **Ctrl/⌘+C** to copy the fields to the clipboard.

**FIGURE 8.17**

Click once on a parent name, and click again to highlight the text. Type a new name to change the parent name and all children names assigned to the parent.



5. **Choose Edit ⇨ Undo.** The employee fields return to the default parent names when you opened the file while the fields on the clipboard remain with the *emergency* parent name.
6. **Paste the fields.** You don't need to open the fields panel and change names on this form, so you can use either Form Editing Mode or Viewer mode and paste the fields. If using Viewer mode, click the Select Object tool and then press **Ctrl/⌘+V**. The final result is shown in Figure 8.18.

**FIGURE 8.18**

You can paste the fields on the clipboard while in Viewer mode.

The screenshot shows a web form titled "CUSTOMER ID FORM" for "GLOBAL financial". The form is divided into two main sections: "Employee" and "Emergency Contact Info". Each section contains several text input fields with labels and corresponding values. The "Employee" section fields are: First Name (employee.first), Last Name (employee.last), Address (employee.address), City (employee.city), State (employee.state), Zip (employee.zip), eMail (employee.email), and Phone (employee.phone). The "Emergency Contact Info" section fields are: First Name (emergency.first), Last Name (emergency.last), Address (emergency.address), City (emergency.city), State (emergency.stat), Zip (emergency.zip), eMail (emergency.email), and Phone (emergency.phone). On the right side of the form, there is a large white box with the word "import" inside. At the bottom of the form, there are "RESET" and "SUBMIT" buttons, and the text "CUSTOMER ID FORM" is centered. The footer of the page contains the text "PDF Forms Using Acrobat to create your forms faster".

## Converting Tables to Application Documents

At best, a table exported to another format requires lots of revision if you need it re-edited in an authoring application. A Microsoft Word file, Excel file, or Adobe InDesign file converted to PDF won't get converted back to the authoring program with the original look and design elements created in the native application document as a completely editable table. Still, you can obtain some interesting results when exporting PDFs as tables for purposes of redesigning forms and using tables for other layout uses.

The primary thing to keep in mind is that you have two completely different types of data to work with when exporting PDF files to other file formats. You have the background design that comprises one form of data, and you have the form fields (if populated) with another set of data. In their original state, you cannot export both background data and form data together in another file format.

You can flatten form fields to eliminate the field objects while retaining any data contained in form fields and then export the layout and the data together to another format. After you flatten the form fields, however, you lose all field attributes, and the document is no longer a PDF form.

**CROSS-REF** For more information on flattening fields, see Chapter 13.

If you're concerned with the data only, then exporting table data is perhaps the most successful thing you can do regarding table data exports. Fortunately, Acrobat provides some impressive options for exporting table data.

## Exporting tables to Microsoft Excel

In terms of background design, exporting to Microsoft Excel format sends data to individual cells without retaining any design elements. Only the text is exported when you select background text and export to a spreadsheet.

To export a background layout to Excel, select text on a form with the Select tool. If you want the entire form exported in addition to any tables on the form, press **Ctrl/⌘+A** to select all text. With the text selected, open a context menu and choose **Open Table in Spreadsheet**, as shown in Figure 8.19.

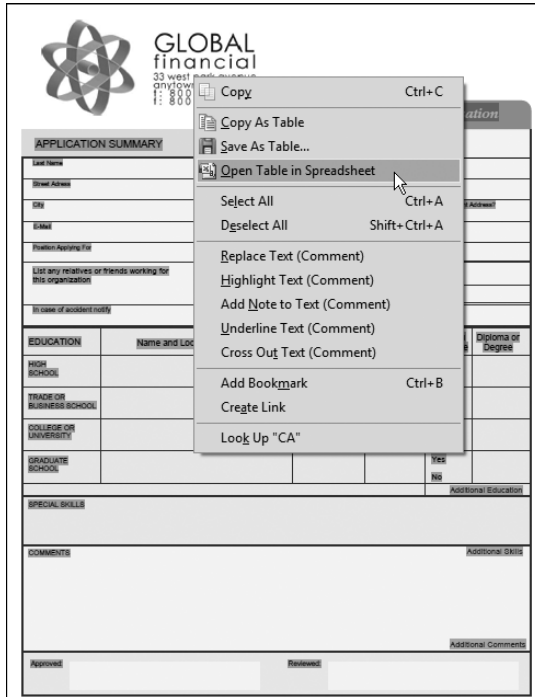
As you might expect, data are exported to a spreadsheet with data appearing in individual cells. As you can see in Figure 8.20, this type of file is fairly useless for redesign purposes when the data appears in a Microsoft Excel spreadsheet.

When it comes to table exports to spreadsheets, the only real use you'll find worthwhile is when exporting field data.

**CROSS-REF** For information related to exporting field data, see “Exporting Table Data” later in this chapter.

**FIGURE 8.19**

Select text with the Select tool, and from a context menu, choose Open Table in Spreadsheet.

**FIGURE 8.20**

Data are exported to a spreadsheet as text only and without any design elements.

	A	B	C	D	E
1	NAMICMARINE" SUPPDynamic Marine Supply 555 Spinnaker	CA 93003 800-555-1234 "			
2	DVLYhttp://www.dynamicMarine.com "				
3	APPLICATION SUMMARY	Date			
4	Last Name	First	Middle	Social Security No.	
5	Street Address			Home Phone	
6	City	State	Zip	How Long at Present Ad	
7	E-Mail			Wages Expected	
8	Position Applying For		Were you previously	Department	
9	List any relatives or friends working for this organization	Name	Relationship		
10					
11					
12	In case of accident notify			Phone	
13	EDUCATION	Name and Location of School	Course of Study	No. of Years Completed	Did You Gradus
14	HIGH SCHOOL				Yes No
15	TRADE OR BUSINESS SCHOOL				Yes No
16	COLLEGE OR UNIVERSITY				Yes No
17	GRADUATE SCHOOL				Yes No
18		Additional Education			
19	SPECIAL SKILLS				
20	COMMENTS	Additional Skills			
21		Additional Comments			
22	Approved:	Reviewed:			

## Exporting tables to Microsoft Word

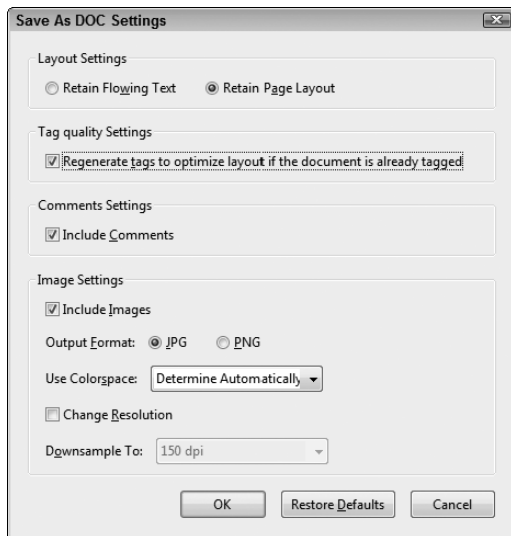
When editing a form design for forms containing tables, you'll find tables exported to Microsoft Word a better solution than exporting to Microsoft Excel. Word can retain formatting from PDF exports much better than Excel, and you have several options for getting PDF content into Word.

### Using the Export command

Open a PDF file in Acrobat, and choose File ⇨ Export ⇨ Word Document. When the Save As dialog box opens, click the Settings button; the Save As DOC Settings dialog box opens, as shown in Figure 8.21. In this dialog box, you have some options choices.

**FIGURE 8.21**

Choose File ⇨ Export ⇨ Word Document, and click the Settings button in the Save As dialog box to open the Save As DOC Settings dialog box.



If you want to retain the original format of the form design, choose the Retain Page Layout radio button. Other options appear for tags, comments, and image settings. Make your choices, and click OK. Word does a nice job in converting the PDF content back to a Word .doc file. Not all designs will work for you, but you might get away with copying and pasting tables to new layouts. In Figure 8.22, the tables look fine as converted and are editable in Word.

FIGURE 8.22

The form exported to Microsoft Word.

The screenshot shows a Microsoft Word window titled 'employeeApplicationRetainFlow [Compatibility Mode] - Microsoft Word'. The ribbon includes Home, Insert, Page Layout, References, Mailings, Review, View, Developer, Add-Ins, and Acrobat. The main content area displays an 'Employment Application' form. The form has a header with a logo and the text '800.333.1213' and 'Employment Application'. Below the header is a table with the following structure:

APPLICATION SUMMARY			Date
Last Name	First	Middle	Social Security No.
Street Address			Home Phone
City	State	Zip	How Long at Present Address?
E-Mail		Wages Expected	
Position Applying For	Were you previously employed by this organization? Yes, Date (s)	Department	

Below the main form is a 'SPECIAL SKILLS' section with a table for education details:

In case of accident notify					Phone
EDUCATION	Name and Location of School	Course of Study	No. of Years Completed	Did You Graduate?	Diploma or Degree
HIGH SCHOOL				Yes No	
TRADE OR BUSINESS SCHOOL				Yes No	
COLLEGE OR UNIVERSITY				Yes No	
GRADUATE SCHOOL				Yes No	
					Additional Education

At the bottom of the form, there is a 'COMMENTS Additional Skills' section.

## Using Copy as Table

Another option you have for exports to Word is to use a context menu command to copy a background design as a table and paste the copied content into Word. When exporting to Excel, we used the Open Table in Spreadsheet command from a context menu. When exporting to Word, use the Select tool to select text and open a context menu on the selected text. From the menu options shown earlier (refer to Figure 8.19), choose Copy as Table.

After the data are copied to the clipboard, open Word and press **Ctrl/⌘+V** to paste the clipboard contents. The result you get is text pasted as a table. You won't get any graphic elements when copying a table and pasting into Word. What you wind up with is simply text added to a table.

Ideally, you should return to an original document that was converted to PDF to make any design changes on forms. The methods discussed here are intended for those who need to at least get part of the data in a design application for forms where you don't have the original files that were converted to PDF. In a pinch, you can rescue some parts of a form. However, you should plan of doing lots of revision work when you get to either Excel or Word.

## Exporting Table Data

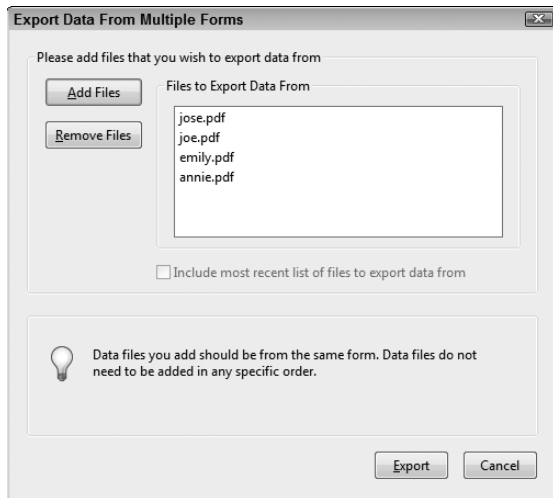
Whereas Microsoft Word is best used for exporting PDF content to an authoring application, when it comes to field data, Microsoft Excel is the program to use. You can export field data to a spreadsheet from one form or many forms having the same data fields.

In Acrobat, choose Forms ⇨ Manage Form Data ⇨ Merge Data Files into Spreadsheet. Note that this command is available only in Viewer mode. When you select the command, the Export Data From Multiple Forms dialog box opens, as shown in Figure 8.23.

Click the Add button, and locate files on your hard drive to import. Select the files, and click Select; the files are listed in the Files to Export Data From list, as shown in Figure 8.23.

**FIGURE 8.23**

Choose Forms ⇨ Manage Form Data ⇨ Merge Data Files into Spreadsheet to open the Export Data From Multiple Forms dialog box.



After adding files to the list, click the Export button; Acrobat aggregates the data and opens a spreadsheet in Microsoft Excel. In Excel, you can sort columns and rows, add new columns and rows, and delete any unwanted columns and rows.

### CROSS-REF

**You have many more options for handling form data. For more on managing Acrobat forms data, see Chapter 15. For more on managing LiveCycle Designer data, see Chapters 31 through 34.**



## Summary

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- You can use auto field detection with tables; however, in many instances tables can be populated with field objects more efficiently using manual methods for adding field objects.
- When manually creating fields on a table, you can use the Place Multiple Fields command only when applying it to fields all having unique field names. The command doesn't work when attempting to create multiple fields having the same name.
- When creating radio buttons, you can set Export Values at the time the radio button is created in the mini Properties window.
- You can edit a parent name for a row or column of fields, copy the fields, undo the edits, and paste a column or row on a form.
- Fields can be aligned and sized to an anchor field via a context menu command.
- After placing multiple fields, select a row or column of fields with the Select Object tool and choose the Distribute (Vertically or Horizontally) command to space the fields equidistant from each other.
- The Distribute command works only when distributing single columns or rows. If you distribute multiple columns or rows, the fields are distributed in a cascaded arrangement.
- You can export table design content to Microsoft Excel as a table. In Excel, the data are placed in individual cells and are not well suited for redesigning a form.
- You can export any PDF file to Microsoft Word format while retaining the layout of the form. Microsoft Word recognizes tables and enables you to edit the tables in Word.
- You can export form data from a single PDF form or multiple PDF forms directly to a spreadsheet.

