



LibreOffice
The Document Foundation

Writer Guide

Chapter 15

Using Forms in Writer

Copyright

This document is Copyright © 2011–2014 by the LibreOffice Documentation Team. Contributors are listed below. You may distribute or modify it under the terms of either the GNU General Public License (<http://www.gnu.org/licenses/gpl.html>), version 3 or later, or the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), version 4.0 or later.

All trademarks within this guide belong to their legitimate owners.

Contributors

Jean Hollis Weber
John A Smith
Ron Faile Jr.
Barbara Duprey

Feedback

Please direct any comments or suggestions about this document to the Documentation Team's mailing list: documentation@global.libreoffice.org

Note: Everything you send to a mailing list, including your email address and any other personal information that is written in the message, is publicly archived and cannot be deleted.

Acknowledgments

This chapter is based on Chapter 15 of the *OpenOffice.org 3.3 Writer Guide*. The contributors to that chapter are:

Iain Roberts	Tara Hess	Sigrid Kronenberger
Janet Swisher	Jean Hollis Weber	Claire Wood
Michele Zarri		

Publication date and software version

Published 30 September 2014. Based on LibreOffice 4.2.

Note for Mac users

Some keystrokes and menu items are different on a Mac from those used in Windows and Linux. The table below gives some common substitutions for the instructions in this chapter. For a more detailed list, see the application Help.

Windows or Linux	Mac equivalent	Effect
Tools > Options menu selection	LibreOffice > Preferences	Access setup options
<i>Right-click</i>	<i>Control+click</i> and/or <i>right-click</i> depending on computer setup	Opens a context menu
<i>Ctrl (Control)</i>	⌘ (Command)	Used with other keys
<i>F5</i>	<i>Shift+⌘+F5</i>	Opens the Navigator
<i>F11</i>	⌘+T	Opens the Styles and Formatting window

Contents

Copyright	2
Contributors.....	2
Feedback.....	2
Acknowledgments.....	2
Publication date and software version.....	2
Note for Mac users	2
Introduction to forms	4
When to use forms	4
Alternatives to using forms in Writer.....	4
Creating a simple form	5
Create a document.....	5
Open the form toolbars.....	5
Activate design mode.....	5
Insert form controls.....	6
Configure controls.....	6
Use the form.....	7
Form controls reference	7
Example: a simple form	11
Create the document.....	11
Add form controls.....	11
Configure form controls.....	14
Finishing touches.....	15
Accessing data sources	16
Creating a database.....	16
Accessing an existing data source.....	18
Creating a form for data entry.....	19
Entering data into a form.....	21
Advanced form customization	21
Linking a macro to a form control.....	21
Read-only documents.....	23
Fine-tuning database access permissions.....	23
Form control formatting options.....	24
XForms	24

Introduction to forms

This chapter covers the use of forms within Writer documents. Most of the information here also applies to forms in other LibreOffice components, but there are some differences.

The chapter presents information on using forms in four main sections: setting up a basic form, an example for creating a form, linking a form to a data source, and finally some advanced techniques.

LibreOffice forms cover a lot of ground and not everything is included here. Notable omissions are using forms in HTML documents and writing macros to link to form controls.

When to use forms

A standard text document displays information: a letter, report, or brochure, for example. Typically the reader may edit everything or nothing in the document. A form has sections that are not to be edited, and other sections that are designed for the reader to make changes. For example, a questionnaire has an introduction and questions (which do not change) and spaces for the reader to enter answers.

LibreOffice offers several ways to enter information into a form, including check boxes, option buttons, text boxes, pull-down lists, and other items, collectively known as *form controls*.

Forms are used in three ways:

- To create a simple document for the recipient to complete, such as a questionnaire sent out to a group of people who fill it in and return it.
- To link into a database or data source and allow the user to enter information. Someone taking orders might enter the information into a database using a form.
- To view information held in a database or data source. A librarian might call up information about books.

Using forms to access a database offers a fast and easy way to build up complex graphical front ends. Your form can include not only the fields that link up to the data source but also text, graphics, tables, drawings and other elements.

A typical way to use a simple form is:

- 1) You design the form, then save it when you are happy with it.
- 2) You send the form to others (for example, by email).
- 3) They fill in the form, save it and send it back to you.
- 4) You open the form and see what their answers are.

Tip

By using a data source, or setting a form to update over the web, you can automatically gather data. However, both of those are more complex and you might prefer to keep things simple.

Alternatives to using forms in Writer

In LibreOffice, the Base component provides an alternative way to access a data source. There are a lot of similarities between forms in Base and Writer, but one may be better for a particular task than the other. Base is appropriate only if the form accesses a data source; you would not use it for simple forms.

LibreOffice Calc, Impress, and Draw also support forms in almost the same way that Writer does.

Creating a simple form

This section explains how to create a simple form without any links to a data source or database and without advanced customization.

Create a document

There is nothing special to be done when creating a document to use as a form. Create a new Writer document with **File > New > Text document**.

Open the form toolbars

Two toolbars control form creation: Form Controls and Form Design. Select **View > Toolbars > Form Controls** and **View > Toolbars > Form Design** to show them both. The Form Controls toolbar has a button for each of the most commonly used types of control.

You can also open the Form Design toolbar from the Form Controls toolbar. Some of the less commonly used controls are on a third toolbar—More Controls—also opened from the Form Controls toolbar.

You can dock these toolbars in different places on the Writer window, or leave them floating. Figure 1 shows the three toolbars floating. When they are floating, you can also change them from vertical to horizontal and change the number of tools on a row; to make these changes, drag a corner of the toolbar.

See “Form controls reference” on page 7 for descriptions of the tools on these toolbars.

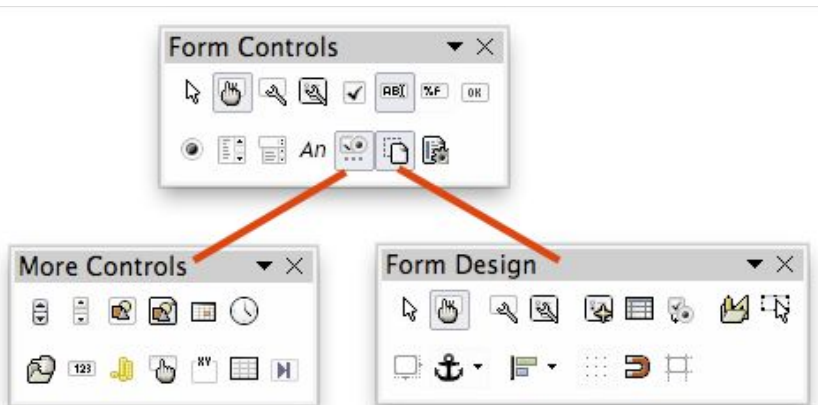





Figure 1: The Form Control, More Controls, and Form Design Toolbars

Activate design mode

Click the **Design Mode On/Off** button () on the Form Controls toolbar to turn design mode on. (Click it again when you want to turn it off.) This activates the buttons for inserting form controls and selects controls for editing.

When design mode is off, the form behaves as it would for the end user. Buttons can be pressed, check boxes selected, list items selected, and so on.


Insert form controls

- 1) To insert a form control into the document, click the control's icon to select it. The mouse pointer changes to look like this: 
- 2) Click in the document where you want the control to appear. (You can move it later.)
- 3) Holding the left mouse button down, drag the control to size it. Some controls have a fixed size symbol followed by the name of the control (for example, *Check Box* or *Option Button*).
- 4) The control button remains active, so you can insert several controls of the same type without needing to go back to the toolbar.
- 5) To change to another tool, click its icon on the toolbar.
- 6) To stop inserting controls, click on the **Select** button () on the Form Controls toolbar, or click on any of the controls you have just inserted. The mouse pointer changes back to its normal appearance.

Tip

Holding down *Shift* when creating a form control makes the control square. If you press *Shift* when resizing an existing control, its proportions are kept the same.

Note

When you insert a group box, list box, or combo box, a wizard is launched to guide you through the setup. If you prefer not to run the wizard, click the **Wizards On/Off** button () on the Form Controls toolbar.

Configure controls

After inserting the controls, you need to configure them to look and behave as you want. Right-click on a form control within your document and select **Control** from the context menu to open the Properties dialog for the selected control. Double-clicking on a form control also opens this dialog.

The Properties dialog has three pages: General, Data, and Events. For simple forms, only the General page is of any interest. On this page you can set the look and feel of the control. See “Configure form controls” on page 13 and “Form control formatting options” on page 24 for more information, and the descriptions in the Help for details. Configuration for use with a database is discussed in “Creating a form for data entry” on page 19.

The fields on this dialog vary with the type of control. For example:

- Some controls have visible labels, such as Push Button and Option Button. The label text can be set.
- The List Box contains a list of options to choose from. Set these in the List entries box.

Notice the scroll bar in this dialog. You can use the scroll bar or enlarge the dialog to see additional fields.

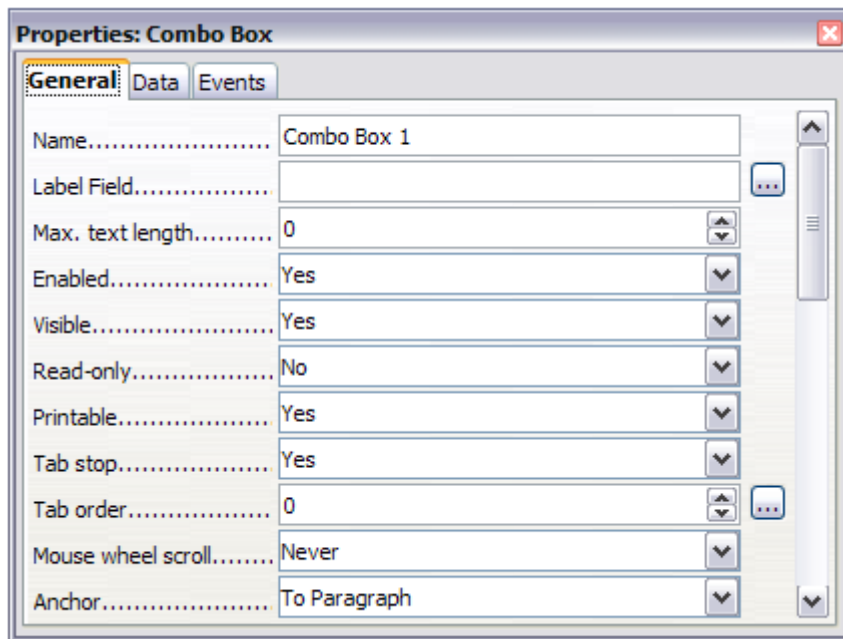











Figure 2: Example of the Properties dialog for a form control

Use the form

To use the form, leave design mode by clicking the **Design Mode On/Off** button () to deactivate it. Save the form document.

Form controls reference

Form Control toolbar

	Select	Selects a form control to perform some other action on it.
	Design mode on/off	Toggles between design mode on (to edit forms) and design mode off (to use forms).
	Control	Launches form control properties dialog. This dialog can be kept open as different controls are selected.
	Form	Launches form properties dialog, controlling properties for the form as a whole, such as which data source it connects to.
	Check Box	A box that can be selected or deselected on the form. You can label the box.
	Text Box	A control to create a box into which the form user can type any text.
	Formatted Field	A control allowing numeric formatting options. For example, you can set maximum and minimum values for the number entered, or the number type (decimal places, scientific, currency).
	Push Button	Creates a button that can be linked to a macro. The label is the name that appears on the button.

Form Control toolbar



Option Button

Creates an option button (also known as a *radio button*). When multiple buttons are grouped together, only one can be selected at a time. The easiest way to group multiple buttons is to use the Group Box button on the More Controls toolbar, with wizards enabled.



List Box

Creates a list of options as a pull-down menu that the user can choose from. If wizards are on, creating a list box launches the List Box Wizard. This wizard is only useful if your form is linked to a data source.

If the form is not linked to a data source, turn wizards off and create an empty list box. Then click the control button and, in the *List Entries* option on the *General* tab, enter the options you want to appear on the list.



Combo Box

As with a List Box, you set up a list of choices. In addition, a panel at the top either displays the choice made or allows the form user to type in something else. This works the same as the List Box.



Label Field

A text label. The difference between this and just typing on the page is that, as a control, you can link a label field to macros so, for example, something happens when the mouse passes over it or clicks on it.



More Controls

Launches the More Controls toolbar.



Form Design

Launches the Form Design toolbar, which can also be opened with **View > Toolbars > Form Design**.



Wizards On/Off

Some form controls (List Box and Combo Box) have optional wizards. If you do not want the wizard to launch when you create one of these controls, use the **Wizards On/Off** button to switch wizards off.

More Controls toolbar



Spin Button

Allows form users to choose a number by cycling through the list of numbers. You can specify maximum, minimum, default, and the step between numbers.

This control is not commonly used in Writer, as the number is not displayed. In Calc, however, a Data tab appears on the Control Properties dialog, so you can link the spin button to a cell.



Scrollbar

Creates a scrollbar, with a number of options to define the exact appearance.

This control is not commonly used in Writer. In Calc, a Data tab appears on the Control Properties dialog, allowing you to link the scroll bar to a cell.



Image Button










Behaves exactly like a push button, but displays as an image. Choose the image in the Graphics option on the *General* tab in the Control Properties dialog.







Image Control

Only useful when the form is connected to a data source and a field in the data source exists that can hold images. You can add new images to the database or retrieve and display images from it.












More Controls toolbar

 Date Field	Stores a date. You need to configure the earliest and latest dates the field will accept, the default date, and the date format. You can add a spinner.
 Time Field	Works like a date field but specifies a time.
 File Selection	Allows a user to select a file, either by typing the path and name directly or by clicking on a Browse button and choosing the file from a dialog.
 Numeric Field	Displays a number. You need to specify formatting, maximum, minimum and default values. You can add a spinner.
 Currency Field	Works like a numeric field; additionally you can add a currency symbol.
 Pattern Field	Pattern fields are useful when the form links into a data source. Specify an Edit Mask to restrict what a user can enter into the field. Specify a Literal Mask to restrict which data is displayed from the data source.
 Group Box	<p>The group box control has two different uses depending on whether wizards are on or off.</p> <p>If wizards are on, creating a group box launches the Group Element wizard. This creates a group of options buttons (in which only one may be selected at a time). In most cases, using a group box is the best way to create a set of option buttons.</p> <p>If wizards are off, a group box is simply a visual box to group together different controls. It has no effect on the way the controls operate.</p>
 Table Control	<p>Table Control is only useful with a data source. If no data source is specified, you will be prompted to choose one in the Table Element Wizard. You then pick the fields to display and, when design mode is off, the data appears in the table. The table also includes controls to step through the records.</p> <p>Records can be added, deleted, and modified in the table.</p>
 Navigation Bar	A navigation bar is the same as the Form Navigation toolbar (View > Toolbars > Form Navigation), but can be placed anywhere in the document and be resized.

Form Design toolbar

 Select	Selects a form control to perform an action on it.
 Design mode on/off	Toggles between design mode on (to edit forms) and design mode off (to use forms).
 Control	Launches form control properties dialog. This dialog can be kept open as different controls are selected.
 Form	Launches form properties dialog, controlling properties for the form as a whole, such as which data source it connects to.

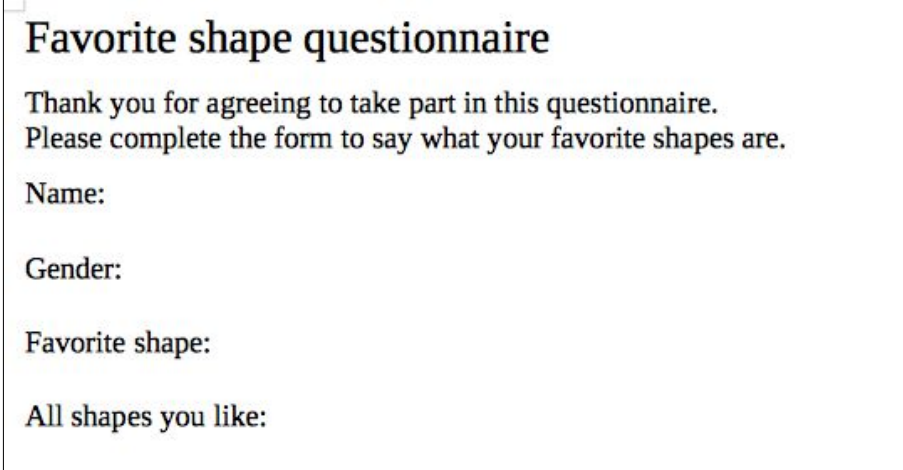
Form Design toolbar

 Form Navigator	<p>The Form Navigator is a utility displaying all the forms and controls in the current document. It allows you to edit and delete them easily.</p> <p>If you use the Form Navigator, it's recommended that you give your controls names (in the properties dialog). The name appears in the navigator so, for example, if you have ten text boxes, you can tell which is which.</p>
 Add Field	<p>Add Field is only useful if you have specified a data source for the form. If no data source is specified, an empty box opens.</p> <p>If you have specified a data source, Add Field opens a list of all the fields in the specified table, which you can then drag and drop onto the page. The fields are placed on the page with the name of the field before them.</p> <p>This is a quick and easy way to create a form from a data source.</p>
 Activation Order	<p>Allows you to specify the order in which focus shifts between controls. You can test the order by leaving design mode and using <i>Tab</i> to switch between the controls.</p>
 Open in Design Mode	<p>Opens the current form in design mode (to edit the form rather than entering data into it).</p>
 Automatic Control Focus	<p>If activated, focus is set to the first form control.</p>
 Position and Size	<p>Launches the Position and Size dialog, allowing you to specify both by typing in precise values, rather than dragging the control. You can also lock the size or position, so they do not get changed accidentally. For some controls, you can rotate and set the slant and corner radius.</p>
 Change Anchor	<p>Just as with a frame, any form control can be anchored to page, paragraph or character and also anchored as a character (meaning that it behaves like any other character on the page).</p>
 Alignment	<p>The Alignment button is disabled unless the control is anchored as a character. You can align a control in different ways, for example so the top of the control lines up with the top of the text or the bottom lines up with the bottom of the text.</p>
 Display Grid	<p>Displays a grid of dots on the page, to help you line up controls.</p>
 Snap to Grid	<p>When a control is brought close to a grid point or line, it will snap to the grid. This makes it is easier to line up controls.</p>
 Guides when Moving	<p>When a control is being moved, lines extend from the control horizontally and vertically to help you position it accurately.</p>

Example: a simple form

Create the document

Open a new document (**File > New > Text Document**). It is a good idea to write down the outline of the document, without form controls, though of course it can easily be changed later.



The screenshot shows a text document with the following content:

Favorite shape questionnaire

Thank you for agreeing to take part in this questionnaire.
Please complete the form to say what your favorite shapes are.

Name:

Gender:

Favorite shape:

All shapes you like:






Figure 3: Initial document without form controls

Add form controls

The next step is to add the form controls to the document. We will have four controls:

- **Name** is a text box.
- **Gender** is three option buttons: male, female, or other.
- **Favourite shape** is a list of options.
- **All shapes you like** is a series of check boxes.

To add these controls:

- 1) Select **View > Toolbars > Form Controls** to open the Form Control toolbar.
- 2) If the tools are not active, click the **Design Mode On/Off** () button to activate them.
- 3) Click the **Text Box** button () , then click in the document and, with the left mouse button held down, drag the shape of the Name text box to approximately the size you want.
- 4) Make sure the **Wizards On/Off** button () is on (shown with a border). Click the **More Controls** button () to launch the More Controls toolbar.
- 5) On the More Controls toolbar, click the **Group Box** button () . Draw a group box by the Sex: entry. The Group Element Wizard opens.
 - a) On the first page of the wizard, enter three names for the options fields: **Male**, **Female**, and **Other**. Click the **>>** button after each entry. Click **Next >>**.

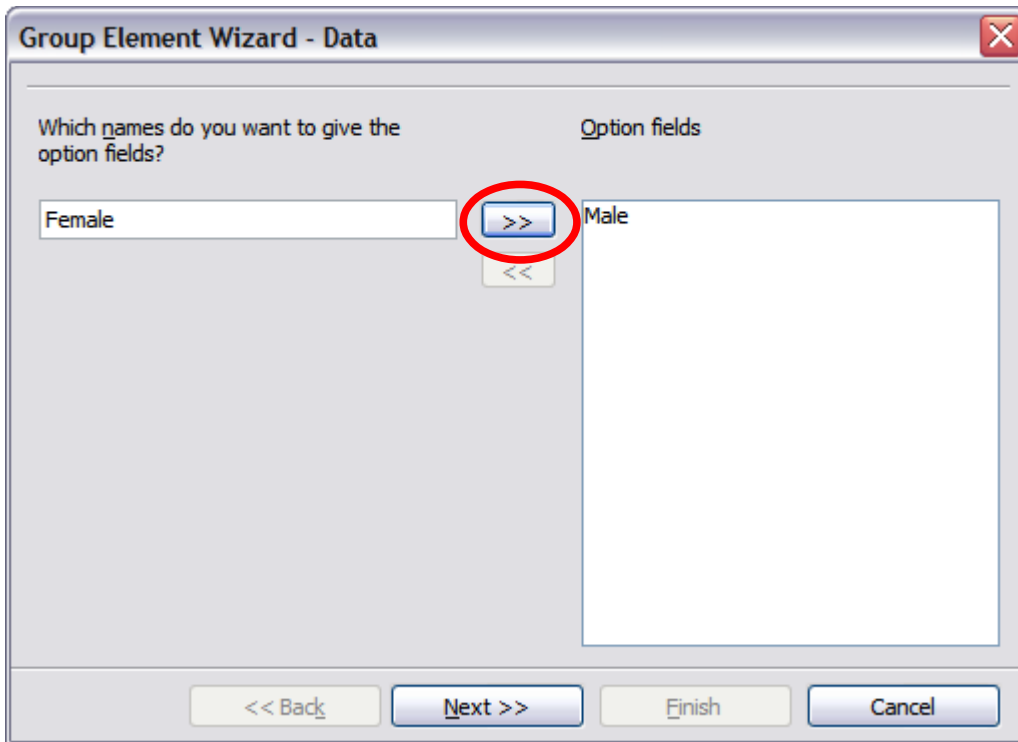


Figure 4: Specifying names for option fields

- b) On the next page, select the option **No, one particular field is not going to be selected**. Click **Next >>**.

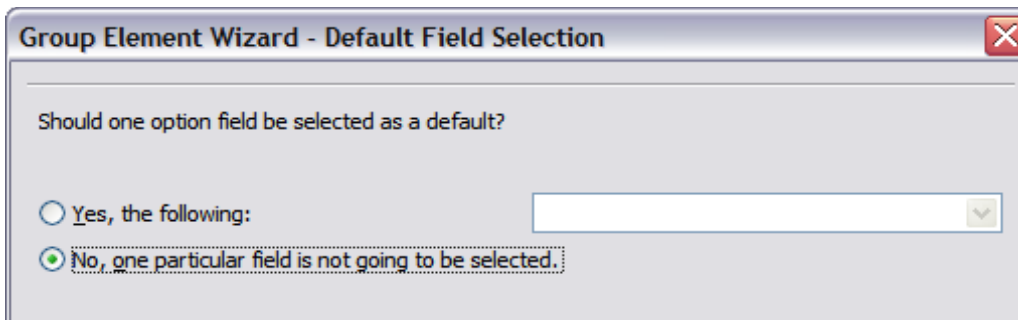


Figure 5: Selecting a default field

- c) Give a value to your fields. Typically, you would give one field the value 1 and the other field the value 2. If there are more than 2 option fields, you would give them values of 3, 4, and so on. Click **Next >>**.

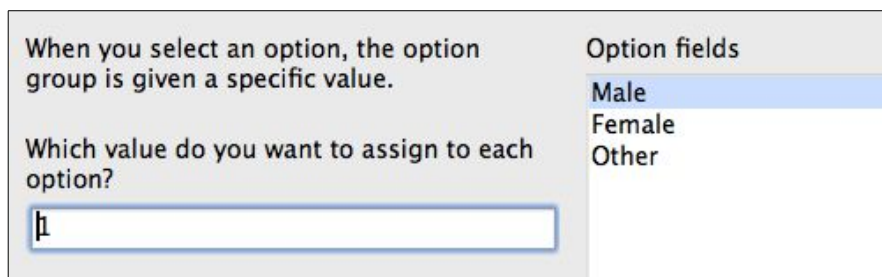


Figure 6: Assigning field values

- d) You can either delete the caption or give a caption to your Group Box. In this example, delete the caption. Then click **Finish**.

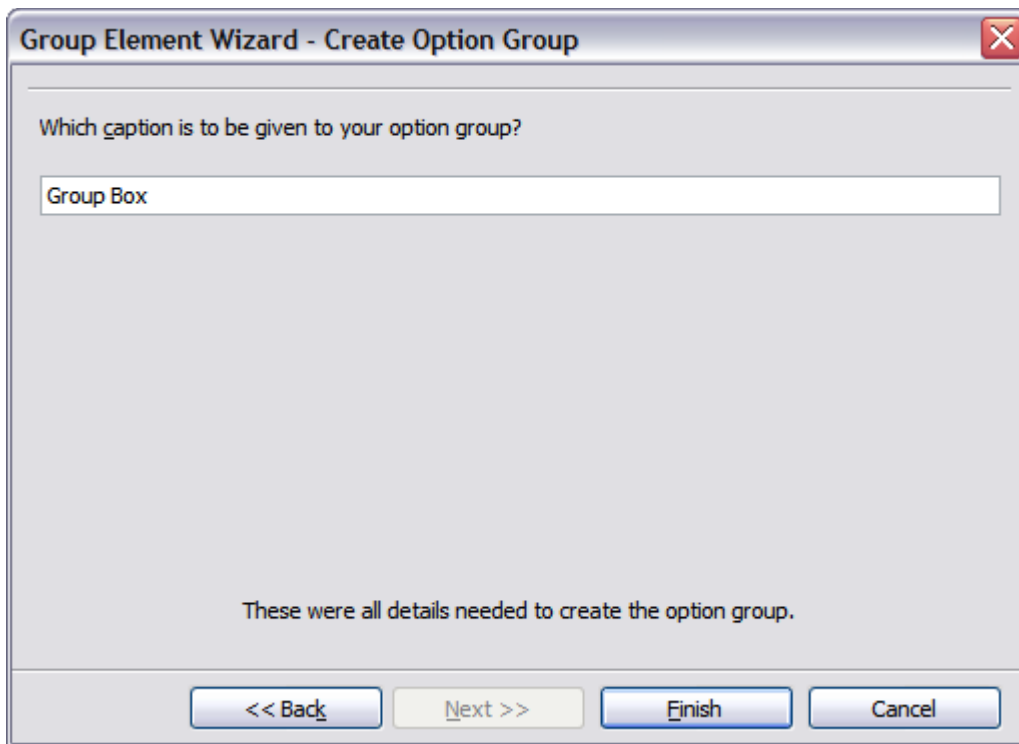





Figure 7: Create Caption Option

- 6) Now create the list box. On the Form Controls toolbar, click the **Wizards On/Off** button () to turn wizards off. Click the **List Box** button () and draw a list box by *Favourite Shape* in the document. This will just be an empty pane for now.
- 7) Finally create four check boxes by *All shapes you like*. Click on the **Check Box** () button and then draw four check boxes, side by side across the page.

You should now have a document looking something like Figure 8.

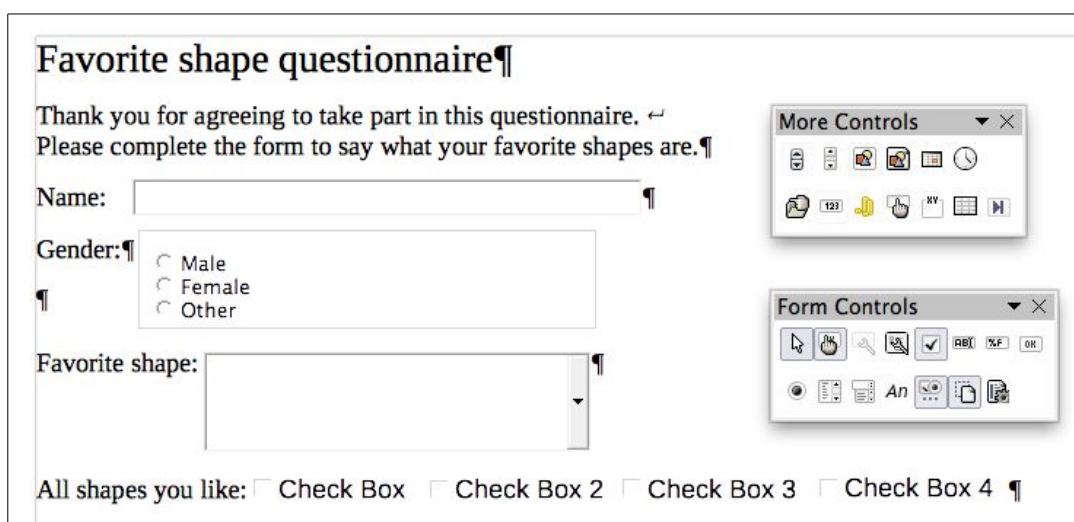


Figure 8: Document with form controls

Configure form controls

No further configuration is required to the Name and Sex fields, but you could, if you wish, give a name to each control and change the appearance of the controls.

The list box must be configured to add the list of options. The check boxes must be configured to add in the names (instead of Check Box, Check Box 2, and so forth). Following are instructions to configure these controls:

- 1) Be sure design mode is on. Double-click on the List Box control within the document to open the control's Properties dialog. Select the *General* tab.
- 2) In the *List Entries* text input box (scroll down if it is not visible), type the names of the shapes (Circle, Triangle, Square, Pentagon) one at a time. After each, press *Shift+Enter*. You should end up with a line saying "**Circle**";"**Triangle**";"**Square**";"**Pentagon**".

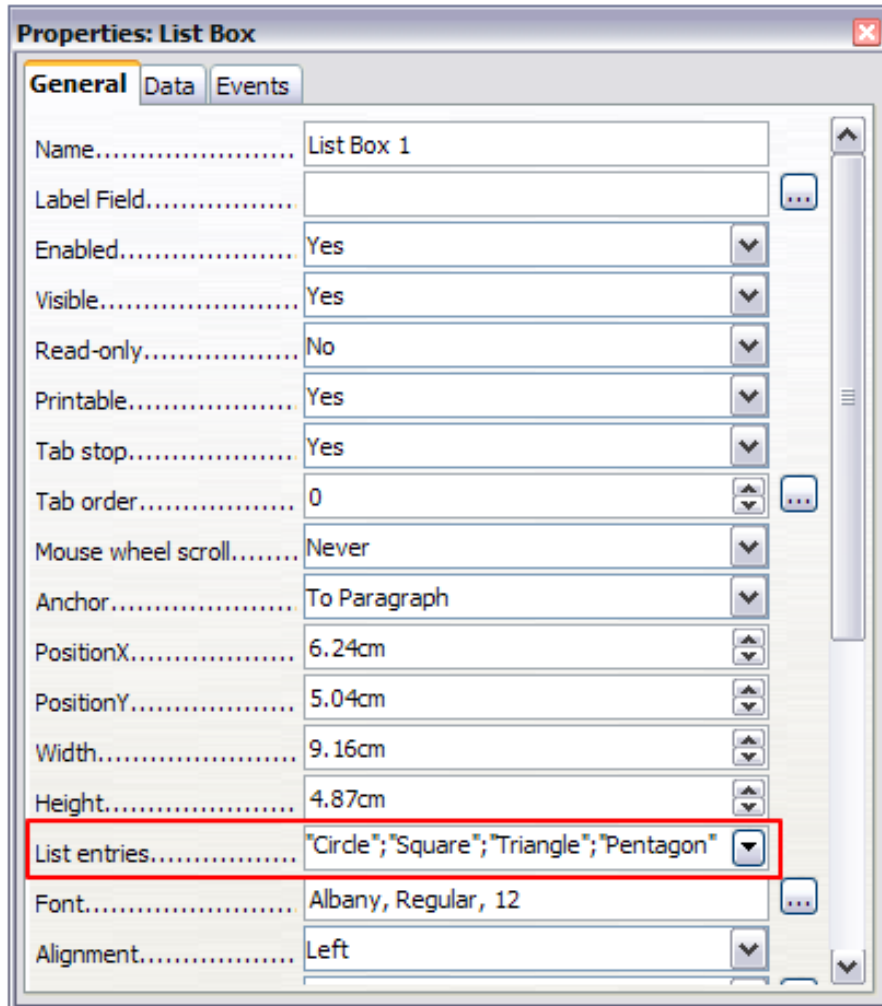


Figure 9: Properties dialog for a list box

- 3) Click on the first Check Box. The Properties dialog stays open but changes to show the properties for the check box.
- 4) Change the text in the *Label* text input box from **Check Box** to **Circle** and press *Enter*. The cursor moves to the *Label Field* text input box, and the label on the check box in the document changes immediately.

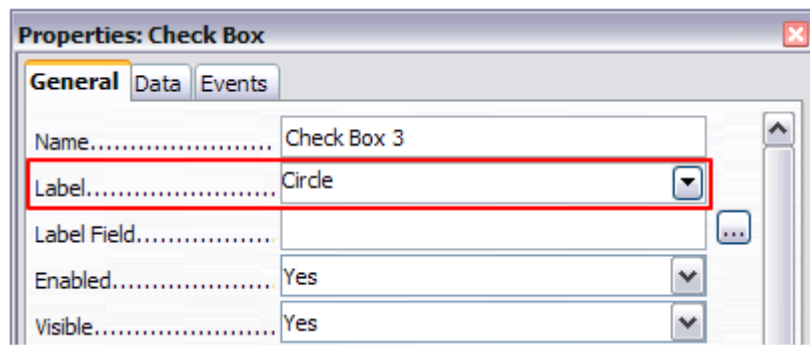



Figure 10: Top part of Properties dialog for a check box

- 5) Click on each of the other three check boxes in turn. Change the text in the *Label* text input box in the Properties dialog to Triangle, Square, and Pentagon in turn.
- 6) Close the Properties dialog.
- 7) Turn design mode off () and close the two Controls toolbars.

You have now completed the form, which should look something like Figure 11.

Figure 11: Completed form

Finishing touches

The form is complete, but you are free to make further changes to the document. If you were sending this out to other people to complete, you would probably want to make the document read-only. The effect would be that users would be able to fill in the form but not to make any other changes to the document.

To make the document read-only, select **File > Properties**, select the *Security* tab and enable the **Open file read-only** option.

Note

If the document is read-only, anyone filling in the form will need to use **File > Save as** to save the document.

Accessing data sources

The most common use for a form is as the front end of a database. You can provide a form that allows users to enter information into a contacts database and, because it is part of a Writer document, the form can contain graphics, formatting, tables, and other elements to make it look just the way you want. Modifying the form is as simple as editing a document.

LibreOffice can access numerous data sources. These include ODBC, MySQL, Oracle JDBC, spreadsheets and text files. As a general rule, databases can be accessed for read and write; other data sources (such as spreadsheets) are read-only.

Tip

To see the list of supported data source types for your operating system, choose **File > New > Database**. On the first page of the Database Wizard (Figure 15), select **Connect to an existing database** and then open the drop-down list. An example is shown in Figure 16.

Creating a database

Chapter 8, Getting Started with Base, in the Getting Started guide covers in more detail how to create a database. Here we give a short guide to creating a very simple database with LibreOffice Base.

- 1) Select **File > New > Database** to start the Database Wizard.



Figure 12: Database Wizard

- 2) Select **Create a new database** and click **Next >>**.
- 3) On the next page, select **Yes, register the database for me** and **Open the database for editing**. Registering the database means that it can be accessed from other LibreOffice components such as Writer and Calc. You need to do this if you want to link forms into it.
- 4) Click **Finish** and save your new database, giving it a name. Unlike creating other documents in LibreOffice, databases must be saved when you first create them.

After saving the database, you should see the main Base window (Figure 13), which contains three panels. The left-hand panel is Database, with icons for Tables, Queries, Forms and Reports.

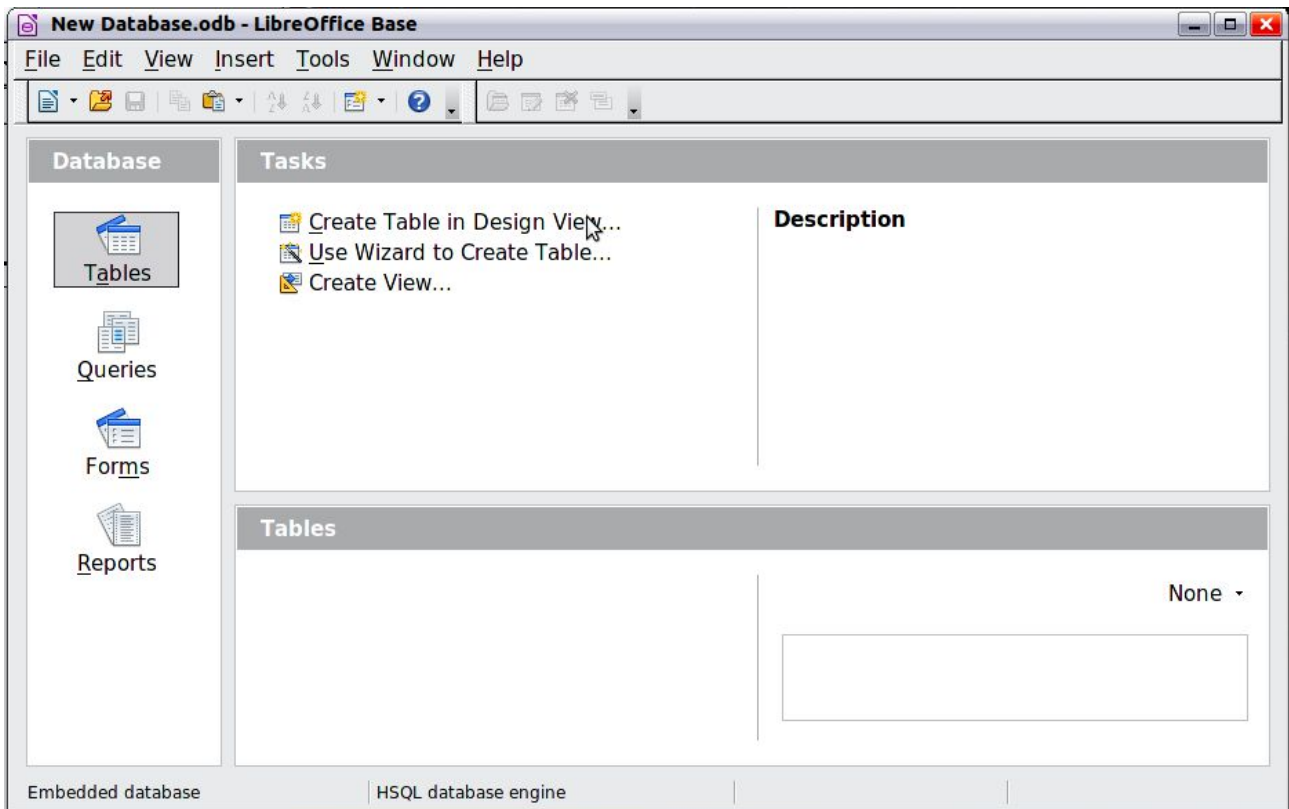


Figure 13: Main Base window

The next step is to create a table. Again, this is covered in more detail in Chapter 8, Getting Started with Base, in the Getting Started guide. Here we are going to create a small table as an example.

- 1) Choose **Tables** in the left-hand column, then choose **Create Table in Design View** under Tasks.
- 2) Use the Table Design window to tell Base which fields to create. We will have three input data fields: Name, Address, and Telephone.
- 3) On the first line, enter under Field Name, **ID**, and set the Field Type to **Integer [INTEGER]**. In the box at the left of the line, right-click and select **Primary Key**, bringing up a key icon in the box. In the **Field Properties** at the bottom of the window is an **Auto Value** option; change this to **Yes**. Optionally, type **Primary key** in the Description column. See Figure 14.

Tip

Setting up the Primary Key field with Auto Value set to **Yes** is an important step. If this is not done, the form you create later will be much trickier to use and may generate errors for the user. It could even prevent the user from saving the records in the form. Make sure you get this step right!

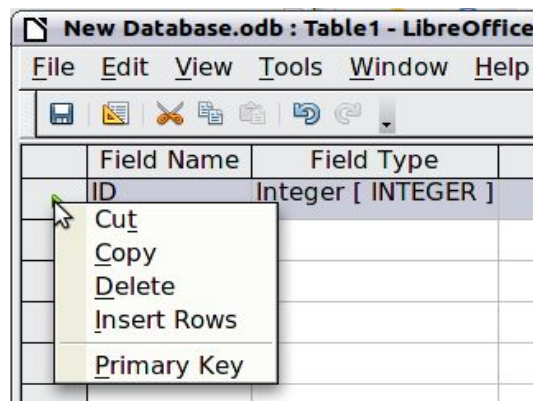


Figure 14: Setting a primary key

- 4) On the next three lines, enter under Field Name **Name**, **Address** and **Telephone**. Accept the default Field Type of Text [VARCHAR] and leave Description blank.

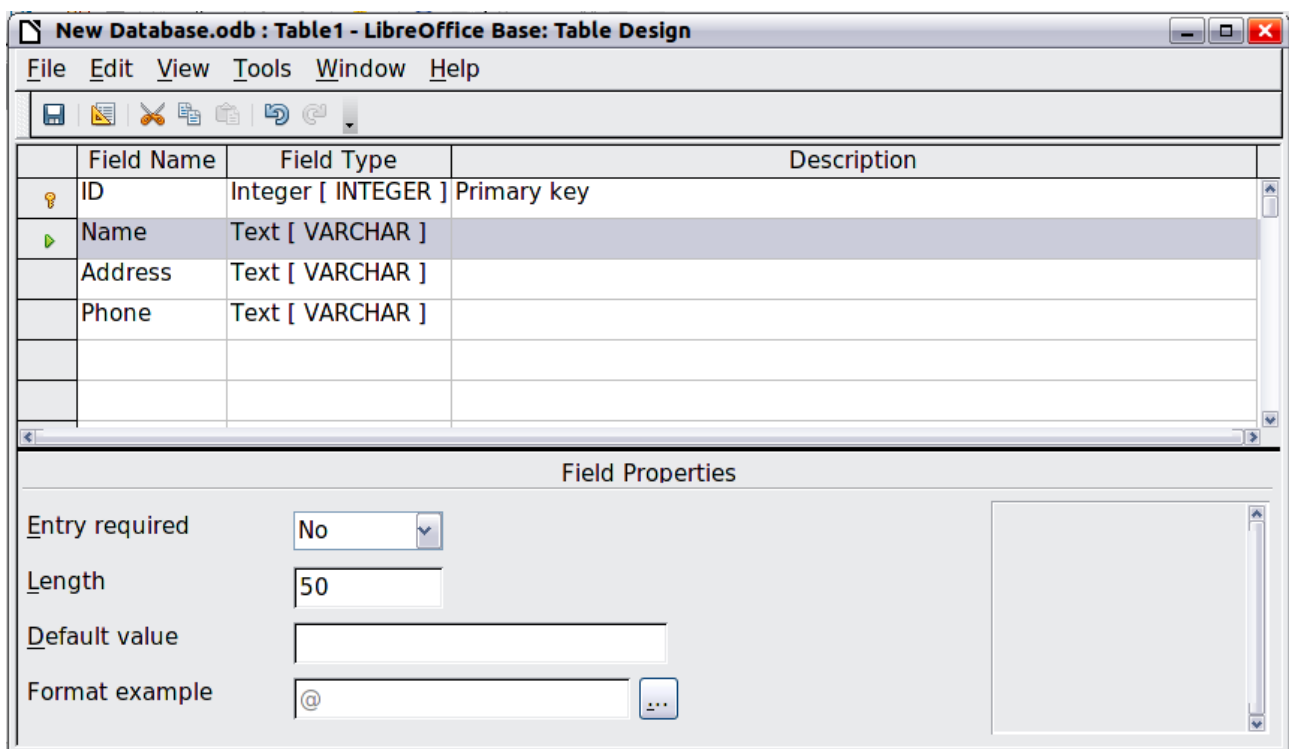


Figure 15: Database table design

- 5) Save the table (**File > Save**). You will be prompted to name it. The name can be anything you like. Click **OK**.
- 6) Finally, close the table design window to return to the main Base window. If **File > Save** is available, select it to save the whole database.

Accessing an existing data source

If you have an existing data source, such as a spreadsheet or database, you simply need to tell LibreOffice about it. This is called registering a data source.

To register an existing data source:

- 1) Select **File > New > Database** to launch the Database Wizard.
- 2) Select **Connect to an existing database** and choose the type from the drop-down list.

- 3) Click **Next** and follow the instructions to select the database to register (the exact process varies between different types of data source).
- 4) In Step 3: Save and proceed, check that **Yes, register the database for me** is selected. Deselect **Open the database for editing**; you just need to register it, not edit it through Base.

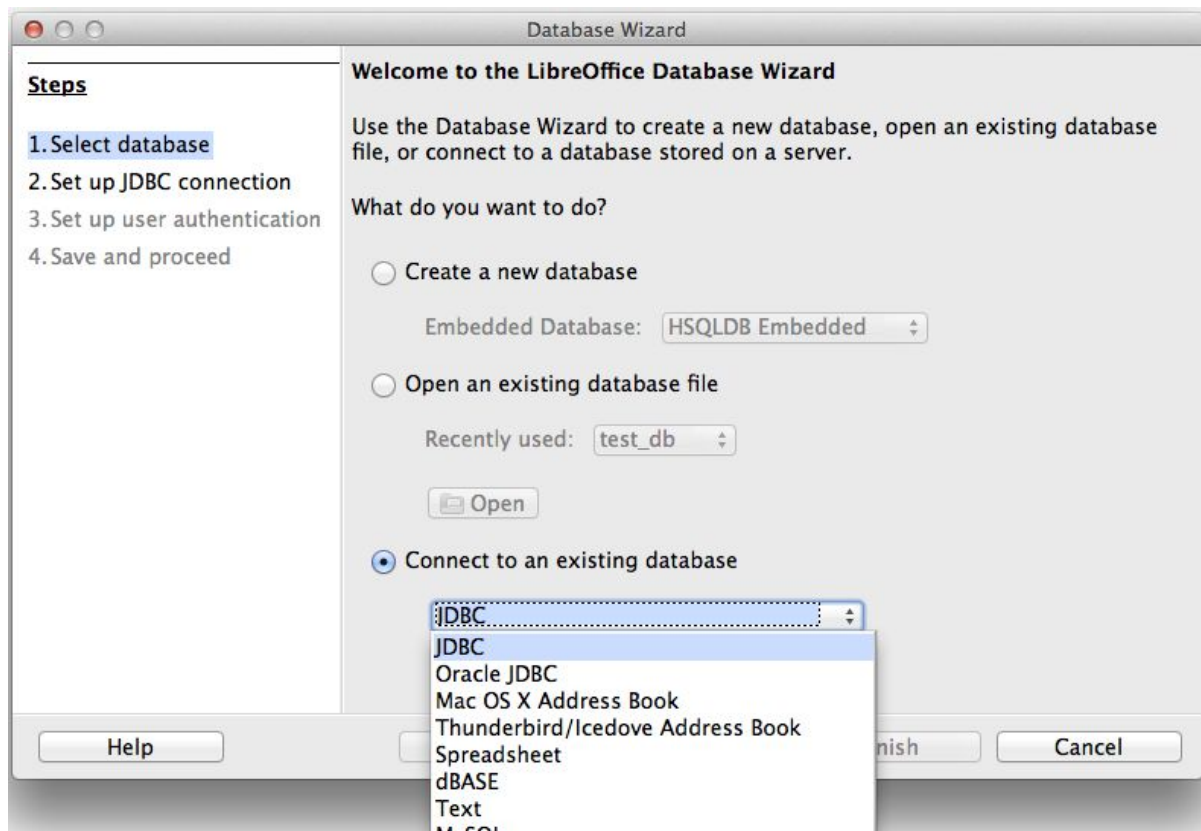






Figure 16: Using the Database Wizard to connect to an existing database

Creating a form for data entry

Whether you created a new database, or already had a data source, it must be registered with LibreOffice (see above). Once it is registered, linking your form to the data source is simple. Follow these steps to create a new form and link it to a registered data source.

- 1) Create a new document in Writer (**File > New > Text Document**).
- 2) Design your form, without putting in the actual fields (you can always change it later).
- 3) Show the Form Controls toolbar (**View > Toolbars > Form Controls**).
- 4) Click the **Design Mode On/Off** button () to put the document into design mode, if necessary. With design mode off, most of the toolbar buttons are grayed out. If the Design Mode button is also grayed out, click on the **Select** button to activate it.
- 5) Click the **Text Box** button (). Click in the document and, holding down the left mouse button, drag the mouse to create a text box for the first form field (for example, Name, if you are linking to the database created above).
- 6) Click the **Text Box** button () again and drag the mouse to draw another field. Additional fields, of any type, can be added in the same way (click and drag).

So far you have followed the same steps used before when creating your first form. Now you will link the form with the data source you registered.

- 1) Click the **Form** button () in the **Form Controls** toolbar, or right-click on any of the fields you inserted and select **Form**, to open the Form Properties dialog.
- 2) In the **Form Properties** dialog, click on the **Data** tab.
 - a) Set **Data Source** to be the data source you registered.
 - b) Set **Content Type** to be Table.
 - c) Set **Content** to be the name of the table you want to access.
 - d) Close the dialog.

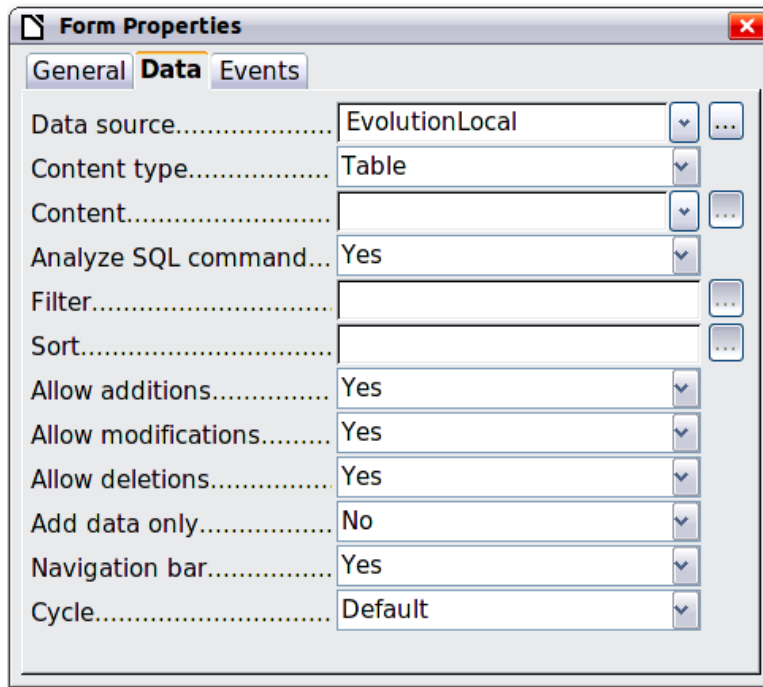



Figure 17: Form properties, connecting to a data source

- 3) For each form control in turn, click on the control to select it (so small green boxes appear around it), then launch the **Properties** dialog: either right-click and select **Control** or click on the **Control** button () on the **Form Controls** toolbar.
- 4) In the **Properties** dialog, click on the **Data** tab (Figure 18). If you set up the form correctly, the **Data Field** option will contain a list of the different fields in the data source (for example, Name, Address and Telephone). Select the field you want.

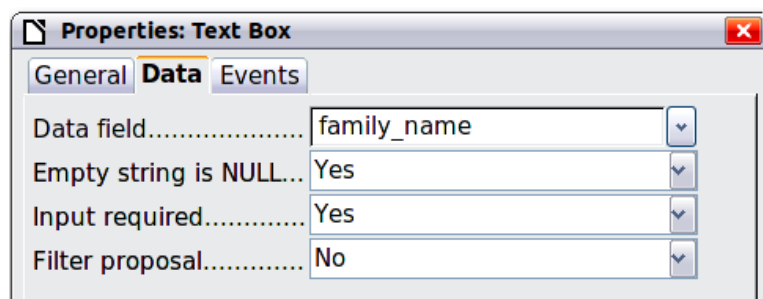


Figure 18: Form control properties, Data tab


- 5) Repeat for each control in turn until every control that should be assigned to a field has been assigned.

Tip

If you created a database in LibreOffice Base and your Primary Key field had **Auto Value** set to *Yes*, that field does not need to be part of the form. If **Auto Value** was set to *No*, you will have to include it and have your users enter a unique value into that field whenever they make a new entry—not something that is recommended.

Entering data into a form

Once you have created a form and tied it to a database, you want to use it to enter data into your data source, or modify data already there.

- 1) Make sure that the form is not in design mode. In the **Form Controls** toolbar, click on the **Design Mode On/Off** button (). If design mode is off, most of the buttons on the toolbar will be grayed out.
- 2) Make sure that the Form Navigation toolbar is on (**View > Toolbars > Form Navigation**). This toolbar normally appears at the bottom of the window.

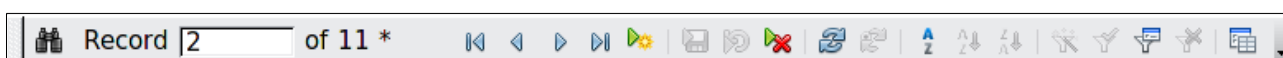


Figure 19: Form Navigation toolbar

- 3) If there is existing data in the data source, use the control buttons on the Form Navigation toolbar to look at different records. You can amend data in a record by editing the values in the form. To submit the changes, press the *Enter* key with the cursor in the last field. The record is saved and the next record is displayed.
- 4) If there is no data in the form, you can start entering information by typing into the fields of the form. To submit the new record, press the *Enter* key with the cursor in the last field.
- 5) Other functions can be performed from the Form Navigation toolbar, including deleting a record and adding a new record.

Tip


If a user tries to fill in the form and receives the error “Attempt to insert null into a non-nullable column”, then the form designer should go back to the database and confirm that the Primary Key field has the Auto Value set to *Yes*. This error will prevent the form user from saving the records.

Advanced form customization

Linking a macro to a form control

You can set any form control (for example, text box or button) to perform an action when triggered by some event. To see the full list of events, right-click on the form control when the design mode is on, select **Control** and click on the **Events** tab.

To assign a macro to an event:

- 1) Create the macro. See Chapter 13, Getting Started with Macros, in the Getting Started guide.
- 2) Be sure the form is in design mode. Right-click on the form control, select **Control** and click on the **Events** tab.
- 3) Click the **browse** () button to bring up the **Assign action** dialog (Figure 21).
- 4) Click the **Macro** button and select the macro from the list in the Macro Selector dialog. You return to the Assign action dialog. Repeat as needed, then click **OK** to close the dialog.

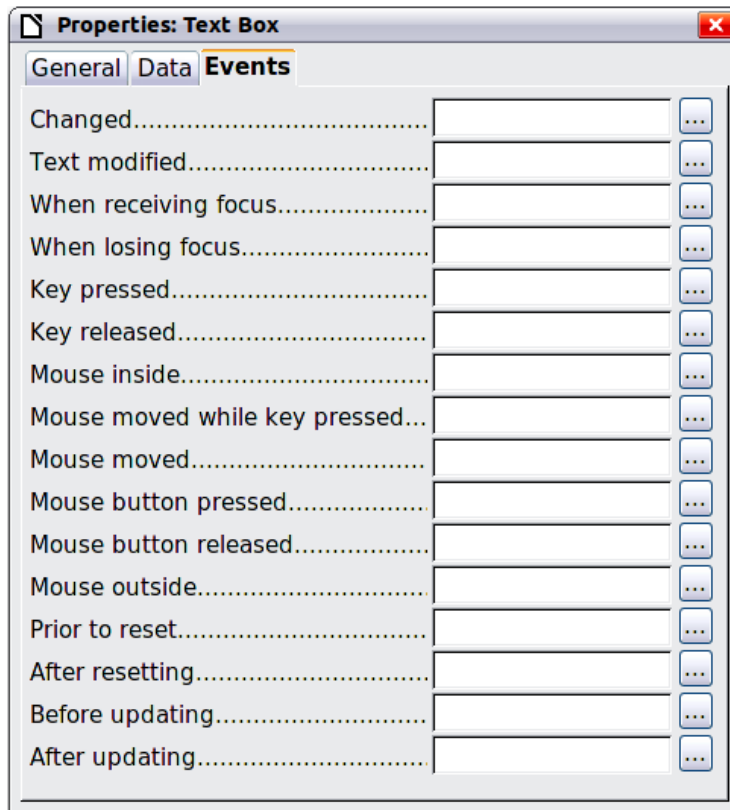


Figure 20: Control properties, Events tab

Macros can also be assigned to events relating to the form as a whole. To assign these, right-click on a form control in the document, select **Form** and click on the **Events** tab.

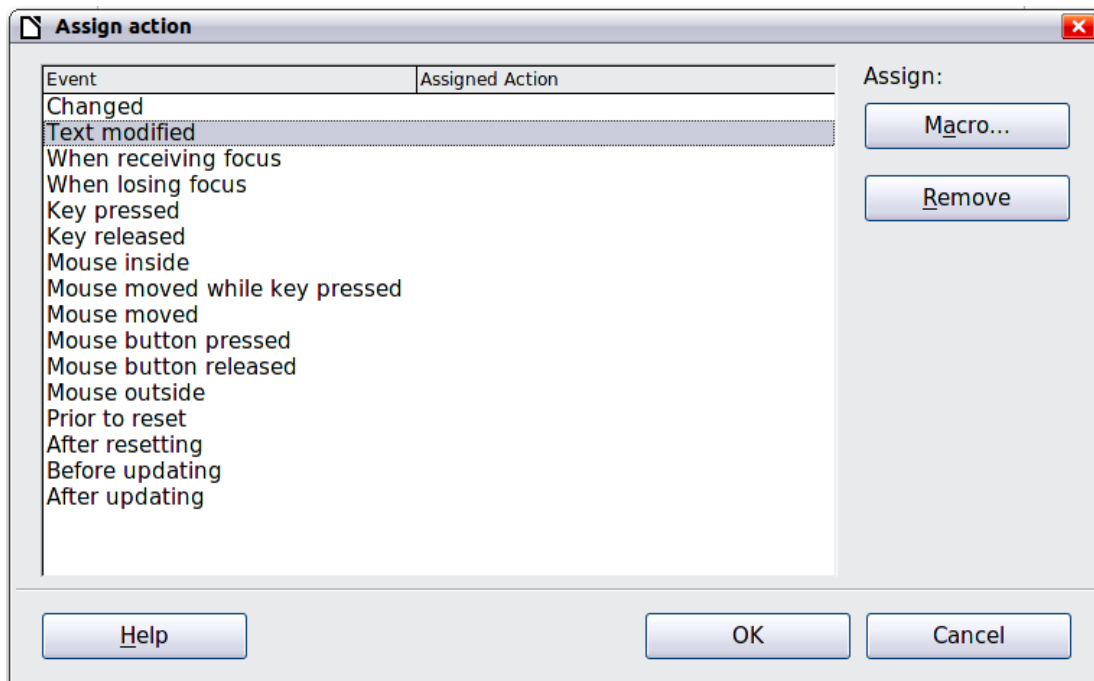


Figure 21: Assign action dialog

Read-only documents

Having created your form, you want whoever is using it to be able to access the information stored in the database, or complete the form, without changing the layout. To do this, make the document read-only by choosing **File > Properties > Security** and selecting the **Open file read-only** option.

Fine-tuning database access permissions

By default, when a database is accessed from a form, any changes can be made to it: records can be added, deleted, and amended. You may not want that behavior. For example, you may want users to be able only to add new records or to be prohibited from deleting existing records.

In design mode, right-click on a form control and select **Form** from the context menu. On the *Data* tab of the Form Properties dialog are a number of options: Allow additions, Allow deletions, Allow modifications and Add data only. Set each of these to Yes or No to control the access users have to the data source.

Individual fields can also be protected. This might be useful if you wanted a user to be able to modify some parts of a record but only view others, such as a stock list where item descriptions are fixed and quantities can be modified.

To make an individual field read-only, in design mode, right-click on the form control within the document and select **Control** from the context menu. Select the *General* tab and set **Read-only** to **Yes**.

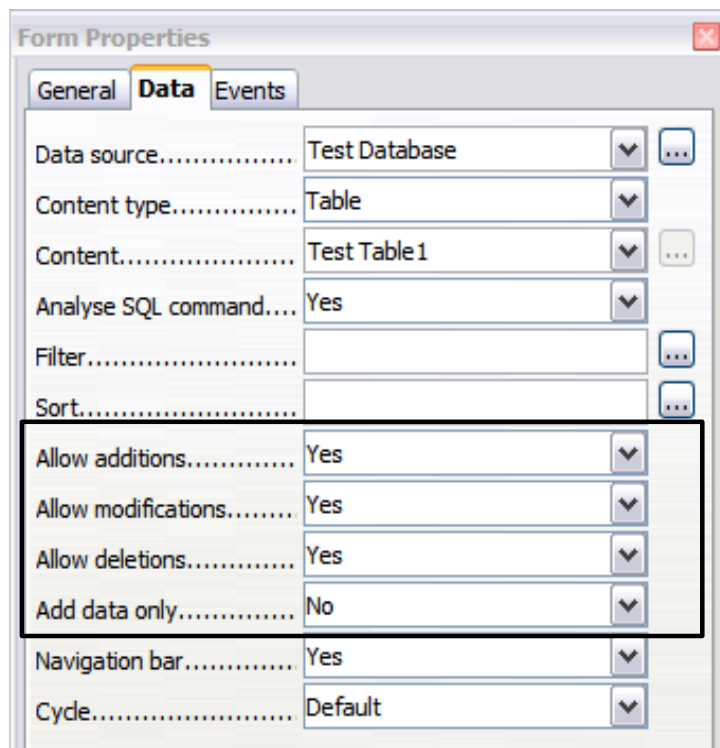


Figure 22: Data Properties of a form

Form control formatting options

You can customize the way form controls look and behave in a number of ways. These are all accessed in design mode. Right-click on the form control, select **Control** from the context menu and select the **General** tab in the **Properties** dialog.

- Set a label for the control in the *Label* box (not to be confused with the box called *Label Field*). Some form controls, such as push buttons and option buttons, have visible labels that can be set. Others, such as text boxes, do not.
- Set whether the form control will print out if the document is printed with the Print option.
- Use the Font setting to set the font, typeface, and size for a field's label or for text typed into a field. This setting does not affect the size of check boxes or option buttons.
- For a text box, you can set the maximum text length. This is very useful when adding records into a database. Every database text field has a maximum length and, if the data entered is too long, LibreOffice displays an error message. By setting the maximum text length of the form control to be the same as that of the database field, this error can be avoided.
- You can set the default option for a form control. By default, a control is blank, or has every option unselected. You can set the control to start with a particular option or list item selected.
- For controls where a password is being entered, setting the Password character (for example to *) displays only that character, but saves what the user really types.
- You can add additional information and help text for a form control.
- Other formatting controls such as background color, 3-D look, text formatting, scroll bars, and borders allow you to further define how the control appears.

XForms

XForms are a new type of web form, developed by the World Wide Web Consortium (W3C). LibreOffice supports the XForms 1.0 open standard for creating web forms with XML.

In LibreOffice, an XForms document is a special type of Writer document. XForms use the same controls as the ordinary forms described in this chapter.

After you create and save an XForms document, you can open the document, fill out the form, and submit the changes to a server.

A detailed discussion of XForms is beyond the scope of this chapter, as it is related more to databases than word processing.