



Calc Guide

Chapter 6 *Printing, Exporting, E-mailing,* *and Signing*

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Contributors

This book is adapted and updated from the *OpenOffice.org 3.3 Calc Guide*.

To this edition

Jean Hollis Weber

Kees Kriek

To previous editions

Barbara Duprey

Jean Hollis Weber

John A Smith

Peter Schofield

Christian Chenal

Martin Saffron

Feedback

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



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Using LibreOffice on macOS

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

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

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Printing

Quick printing

To quickly print a spreadsheet, click on the **Print Directly** icon on the Standard toolbar to send the entire spreadsheet to the default printer that is defined for your computer.



Note

You can change the action of the **Print Directly** icon to send a document to the printer defined for the document instead of the default printer for the computer. Go to **Tools > Options > Load/Save > General** and select the **Load printer settings with the document** option.



Tip

If the **Print Directly** icon is not shown on the toolbar, you can add it. See Chapter 14, Setting Up and Customizing Calc.

Controlling printing

For more control over printing, use **File > Print** or **Ctrl+P** to open the Print dialog (Figure 1).

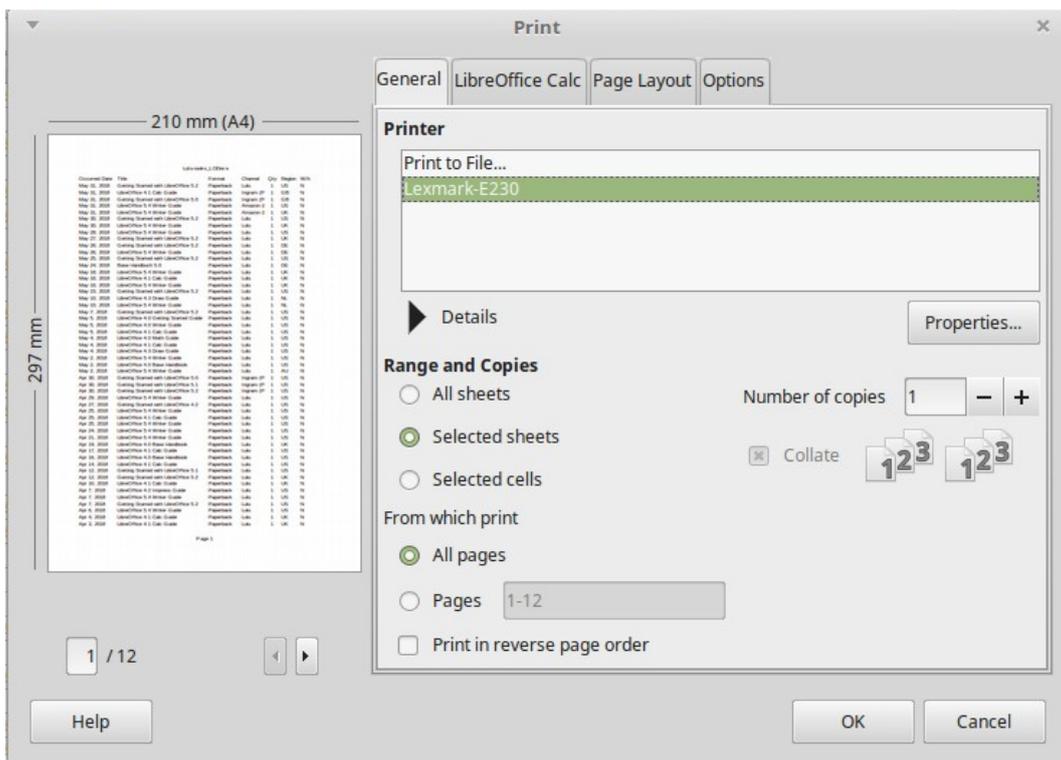


Figure 1: Print dialog – General page



Note

The options selected on the Print dialog apply to this printing of this document only.

To specify default printing settings for LibreOffice, go to **Tools > Options > LibreOffice > Print** and **Tools > Options > LibreOffice Calc > Print**. For details, see Chapter 14, Setting Up and Customizing Calc.

The Print dialog has four tabs where you can choose a range of options, as described in the following sections.

Depending on your computer's operating system, the layout of these tabs may look different from the illustrations shown in this chapter.

General page

On the *General* page of the Print dialog (Figure 1), you can choose:

- The printer to use from the list printers available in the Printer section.
- Which sheets and pages to print, the number of copies to print, whether to collate multiple copies, and the page order for printing in the Range and Copies section. (See “Selecting what to print” on page 7.)
- Printer-specific properties such as paper size, portrait or landscape orientation, duplex printing if available, and which paper tray to use.

LibreOffice Calc page

On the *LibreOffice Calc* page of the Print dialog (Figure 2), you can select whether to suppress the output of empty pages when you print the spreadsheet.

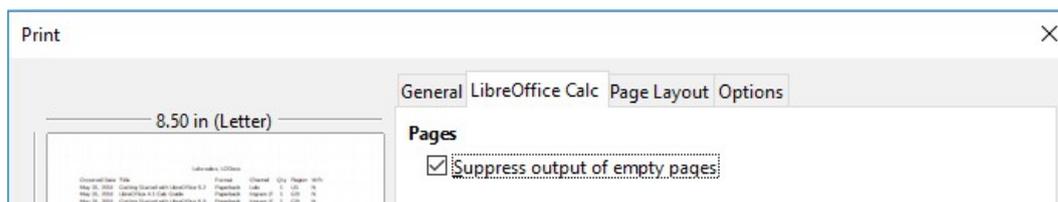


Figure 2: Print dialog – LibreOffice Calc page

Page Layout page

On the *Page Layout* page of the Print dialog (Figure 3), you can select how many pages are printed per sheet of paper, the order in which the pages are printed on a sheet, and whether a border is drawn around each page.

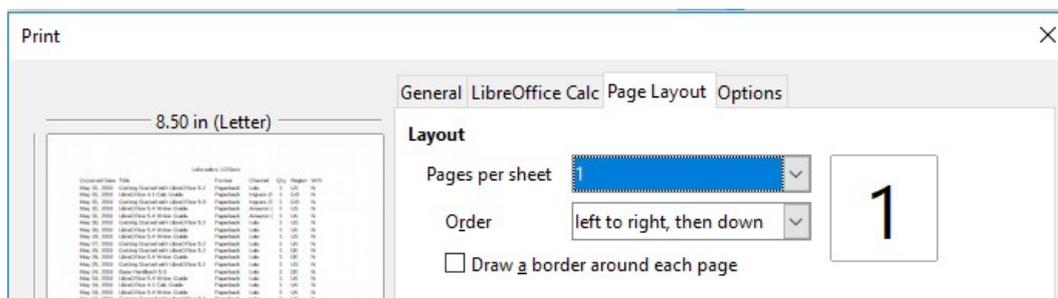


Figure 3: Print dialog – Page Layout page

Options page

On the *Options* page of the Print dialog (Figure 4), you can choose whether to create separate print jobs for collated output, or use only the paper size specified in the printer preferences.

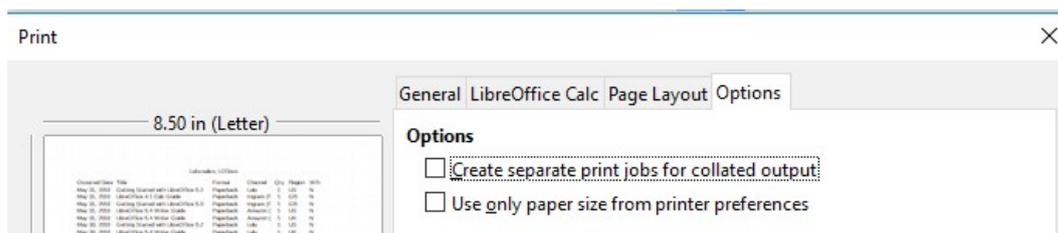


Figure 4: Print dialog – Options page

Printing multiple pages on a single piece of paper

To print multiple pages of a spreadsheet on one piece of paper:

- 1) Use **File > Print** or *Ctrl+P* to open the Print dialog and then select the *Page Layout* page (Figure 5).
- 2) In the Layout section, select from the **Pages per sheet** drop-down list the number of spreadsheet pages to print per sheet of paper. The preview panel on the right shows how the pages will look in the printed document.
- 3) When printing more than two pages per sheet, select the order in which the pages are printed on a sheet from the **Order** drop-down list.
- 4) To distinguish each page on a sheet, select **Draw a border around each page**.
- 5) Click **OK**.

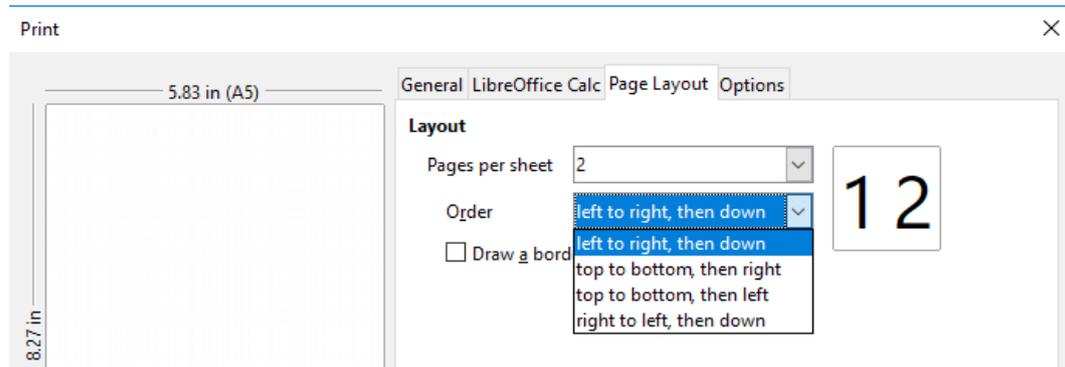


Figure 5: Printing more than one spreadsheet page per sheet of paper

Selecting what to print

In addition to printing a full spreadsheet document, you can choose single sheets, multiple sheets, and selections of cells for printing.

To print an individual sheet:

- 1) In the spreadsheet, click on the sheet tab to select the sheet you want to print.
- 2) Choose **File > Print** from the Menu bar, or press *Ctrl+P*.
- 3) In the *Range and copies* section of the Print dialog, choose **Selected sheets**.
- 4) Click **OK**.

To print a range of sheets:

- 1) In the spreadsheet, select the sheets to print.
- 2) Choose **File > Print** from the Menu bar, or press *Ctrl+P*.
- 3) In the *Range and copies* section of the Print dialog, choose **Selected sheets**.
- 4) Click **OK**.

To print a selection of cells:

- 1) In the spreadsheet, select the cells to print.
- 2) Choose **File > Print** from the Menu bar, or press *Ctrl+P*.
- 3) In the *Ranges and copies* section of the Print dialog, choose **Selected cells**.
- 4) In the sub-section *From which print*, choose **Pages** and type **1** in the box.
- 5) Click **OK**.

Printing in grayscale on a color printer

You may wish to print a spreadsheet in grayscale on a color printer. You can do this in two ways.



Note

Some color printers may print in color regardless of the settings you choose.

For an individual file, you can change the printer settings to print in black and white or grayscale:

- 1) Choose **File > Print**, or press *Ctrl+P*, to open the Print dialog.
- 2) Click **Properties** to open the Properties dialog for the printer. The available choices vary from one printer to another, but you should find options for the Color settings. See your printer's help or user manual for more information.
- 3) The choices for color might include black and white or grayscale. Choose grayscale.
- 4) Click **OK** to confirm your choice and return to the Print dialog,
- 5) Click **OK** to print the document.

You can change the LibreOffice settings to print all color text and graphics as grayscale:

- 1) Choose **Tools > Options > LibreOffice > Print**.
- 2) Select **Convert colors to grayscale**. Click **OK** to save the change.



Caution

This changes the print settings for all components of LibreOffice, not just Calc

Previewing pages/sheets before printing

To preview the sheets in Calc before printing:

- 1) Choose **File > Print Preview** or click the **Toggle Print Preview** icon on the Standard toolbar.

The Calc window now displays the Print Preview toolbar instead of the Formatting toolbar.



Figure 6: Print Preview toolbar (Calc)

- 2) To print the document from this view, click the **Print** icon (on the Standard toolbar) to open the Print dialog.
- 3) Choose the print options and click the **OK** button.
- 4) Click the **Toggle Print Preview** icon again to return to the normal spreadsheet view.

Using print ranges

You can define which range of cells on a spreadsheet are to be printed or exported to a PDF. The cells on the sheet that are not part of the defined print range are not printed or exported. Also, any sheets without a defined print range are not printed or exported.

Defining and printing a print range

To set a user-defined print range, which will replace any existing defined print range:

- 1) Select the range of cells that are to be used in the print range.
- 2) Go to **Format > Print Ranges > Define** on the Menu bar. Automatic page break lines are then displayed on the screen, defining the cells that are included in the print range.

- 3) Click on the **Print Directly** icon on the Standard toolbar to print the defined print range, or open the Print dialog and click **OK** to print the defined print range.



Tip

You can check the print range by using **Toggle Print Preview** or the Preview pane in the Print dialog. Calc will display only the cells in the print range. See “Viewing print ranges” on page 10.

Editing a print range

At any time, you can edit the print range, for example to add or remove cells, or define rows and columns to repeat (such as column or row headings).

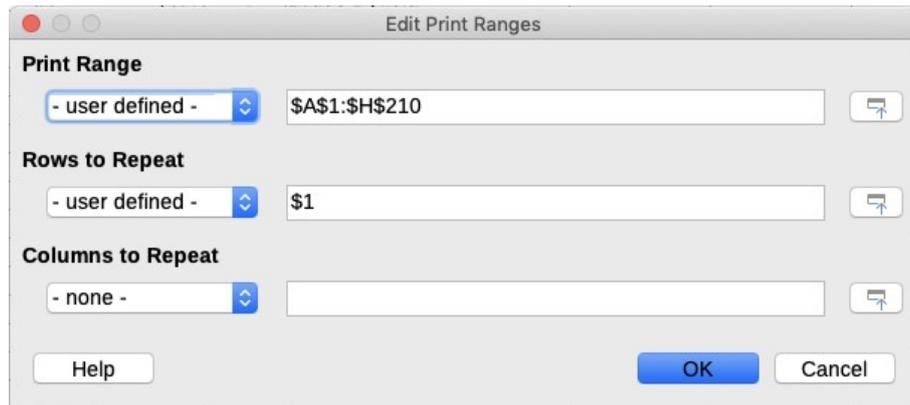


Figure 7: Edit Print Ranges dialog

- 1) Go to **Format > Print Ranges > Edit** on the Menu bar to open the Edit Print Ranges dialog (Figure 7).
- 2) If only a single range is defined, then clicking anywhere in the *Print Range* box displays the defined print range bounded in blue, as shown in Figure 8.

| | A | B |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |

Figure 8: Single print range marked by a bounding box

- 3) To add new cells to the defined print ranges, type a comma at the end of the displayed data in the *Print range* text box as the separator for the print range to be added. Select the cell range using the cursor, or type in the cell references using the same format of the print ranges already defined in the *Print range* text box. Remember to separate the cell references with a colon.
- 4) To remove a print range, select the print range in the *Print range* text box and delete it. Make sure the remaining print ranges only have a single comma as a separator and that there is not a comma at the end of the sequence.
- 5) Click **OK** to save your changes and close the dialog.

Viewing print ranges

After print ranges have been defined, they are formatted with automatic page breaks. To view the page breaks, go to **View > Page Break** on the Menu bar to open the preview (Figure 9).

| | A | B | C | D | E | F |
|----|--------|----------|----------|----------|----------|----------|
| 1 | Amount | Interest | date | Total | | |
| 2 | 30000 | 914.90 | 02/01/11 | 30914.90 | 31829.92 | 62744.88 |
| 3 | 30000 | 1072.50 | 07/01/11 | 31072.50 | 32145.12 | 63217.68 |
| 4 | 20000 | 620.75 | 06/01/12 | 20620.75 | 21241.5 | 41862.25 |
| 5 | 20000 | 720.34 | 08/01/12 | 20750.34 | 21500.68 | 42251.02 |
| 6 | 15000 | 450.23 | 06/01/13 | 15450.23 | 15900.46 | 31350.69 |
| 7 | 10000 | 284.22 | 03/01/13 | 10284.22 | 10568.44 | 20852.66 |
| 8 | 10000 | 297.42 | 07/01/13 | 10297.42 | 10594.84 | 20892.26 |
| 9 | | | | | | |
| 10 | | | | | | |
| 11 | | | | | | |
| 12 | | | | | | |
| 13 | | | | | | |
| 14 | | | | | | |

Figure 9: Page break preview

The print ranges are outlined by default with a blue border and contain a pale gray page number in the center of each page. The nonprinting area of the spreadsheet normally has a gray background.

To exit Page Break preview, go to **View > Normal** on the Menu bar.

Named print ranges

In addition to defining a print range for each print job, you can also define a range of cells to be used repeatedly, without having to select a range of cells every time. This is useful if different areas of a large spreadsheet have to be printed for different reports; several named print ranges can be defined to meet this need.

Define Name

Define the name and range or formula expression.

Name:

Range or formula expression: `'Lulu-sales_all'.A167:D178`

Scope: Document (Global)

Range Options

- Print range
- Repeat column
- Filter
- Repeat row

Buttons: Help, Add, Cancel

Figure 10: Define Names dialog

Defining and naming

- 1) Select the cells you want to define and name as a print range, then go to **Sheet > Named Ranges and Expressions > Define** on the Menu bar to open the Define Names dialog (Figure 10). The selected cells are displayed in the *Range or formula expression* box.

Alternatively, open the Define Names dialog, then select the cells you want to define and name. The selected cells are then displayed in the *Range or formula expression* box.

- 2) Type a name for the range in the *Name* box. Use only letters, numbers, and underscores in the name; no spaces, hyphens, or other characters are allowed.
- 3) If necessary, you can edit or set the range of selected cells for the print range in the *Range or formula expression* box. See “Editing a print range” on page 9 for more information.
- 4) Make sure Document (Global) is selected from the *Scope* drop-down list.
- 5) Select **Print range** from *Range Options* to define the settings as a print range.
- 6) Click **Add** to accept the data and close the dialog.

Printing a named range

To select a named range for printing:

- 1) Go to **Format > Print Ranges > Edit** on the Menu bar to open the Edit Print Ranges dialog (Figure 11).
- 2) Select the defined and named print range from the *Print range* drop-down list.
- 3) Click **OK** to close the dialog.
- 4) Open the Print dialog, which will show only the named range in the Preview. Click **OK**.

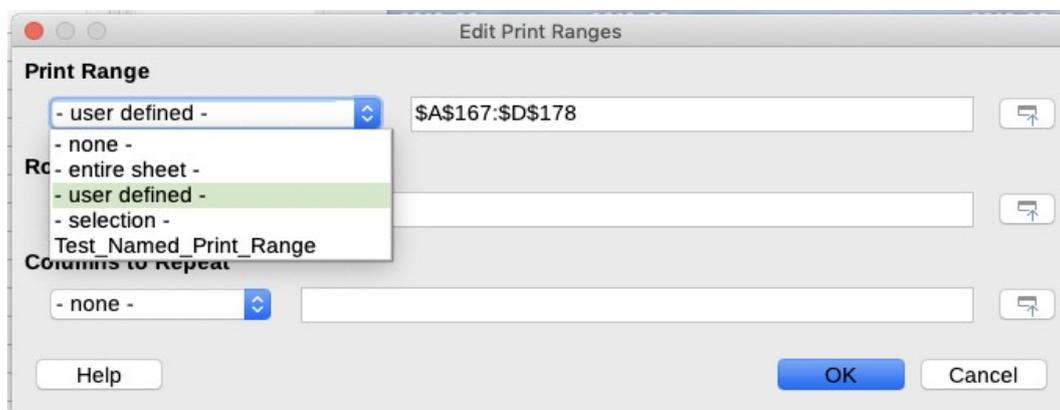


Figure 11: Choosing a named range for printing

Deleting a named print range

To delete a named print range if it is no longer required:

- 1) Go to **Sheet > Named Ranges and Expressions > Manage** on the Menu bar to open the Manage Names dialog (Figure 12).
- 2) Select the named print range you want to delete and confirm it is a print range by checking the options in *Range Options*.
- 3) Click **Delete** and then click **OK** to close the dialog.

Removing print ranges

It may become necessary to remove a defined print range, for example if the whole sheet needs to be printed later, or you no longer want to print some of the added ranges.

Go to **Format > Print Ranges > Clear** on the Menu bar to remove all of the defined print ranges in the spreadsheet, except for named print ranges. After the print range is removed, the default page break lines for the selected paper size will appear on the screen.

To remove named print ranges, see “Deleting a named print range” above.

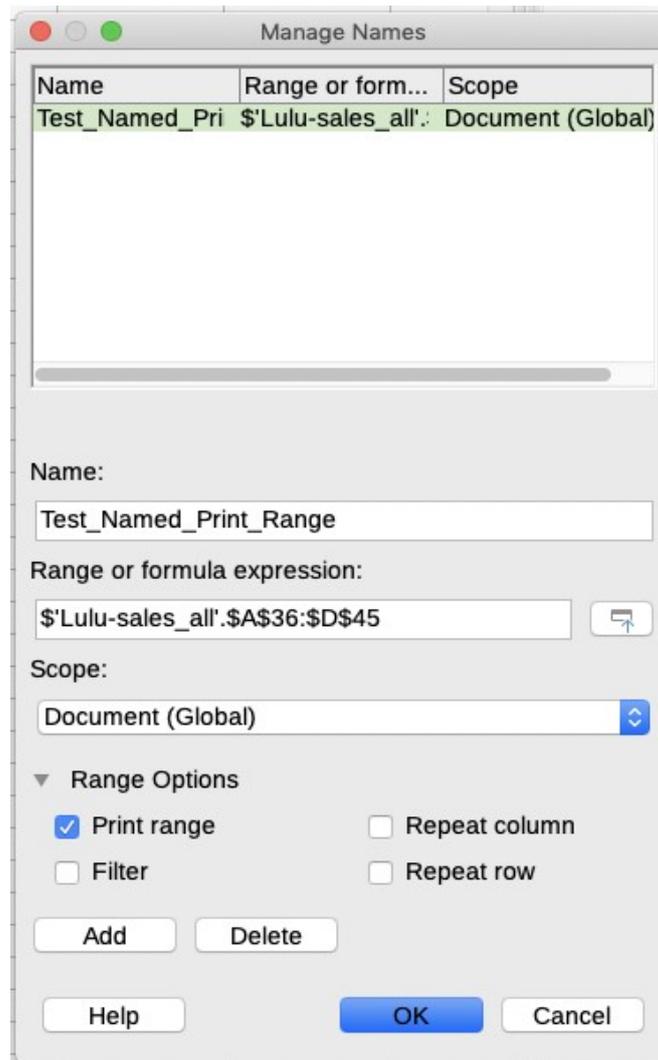


Figure 12: Manage Names dialog

Repeat printing of rows or columns

If a spreadsheet is printed on multiple pages, you can define specific rows or columns (for example, headings) to repeat print on each printed page.

Using print ranges

- 1) Go to **Format > Print Ranges > Edit** to open the Edit Print Ranges dialog (Figure 13).

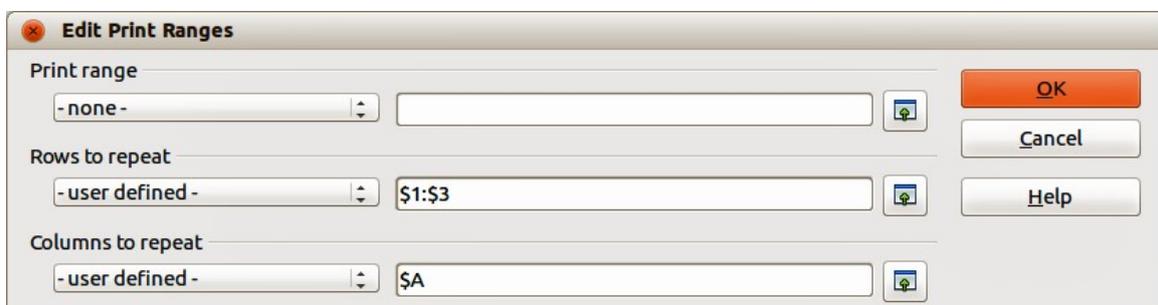


Figure 13: Repeat printing of rows and columns

- 2) In the *Rows to repeat* box, type the references for the rows to be repeat printed. For example, to repeat rows 1, 2 and 3, type \$1:\$3. This automatically changes **Rows to repeat** from - none - to - user defined -.

You can also place the cursor in the *Rows to repeat* box and then, using the mouse, select a cell in each row you want to be repeat printed. It is not necessary to select the whole row.

- 3) In the *Columns to repeat* box, type the references for the columns to be repeat printed. For example, to repeat column A, type \$A. This automatically changes **Columns to repeat** from - none - to - user defined -.

You can also place the cursor in the *Columns to repeat* box and then, using the mouse, select a cell in each column you want to be repeat printed.

- 4) Click **OK** to save your changes and close the dialog.

Using named print ranges

You can also define named print ranges to use for repeat printing of rows or columns as follows:

- 1) Define and name the rows and/or columns you want to repeat print. See “Named print ranges” on page 10 for more information.
- 2) Select **Repeat column** and/or **Repeat row** from *Range Options* to define the columns and/or rows for repeat printing in the Define Names dialog (Figure 10 on page 10).
- 3) Click **Add** to accept the data and close the dialog.
- 4) Go to **Format > Print Ranges > Edit** to open the Edit Print Ranges dialog (Figure 13).
- 5) Select the defined and named print ranges from the *Rows to repeat* and/or *Columns to repeat* drop-down lists.
- 6) Click **OK** to save your changes and close the dialog.

Page breaks

While defining a print range can be a powerful tool, you may sometimes need to manually adjust the page breaks to make sure the spreadsheet prints the way you want it to look. You can insert two types of page breaks into a spreadsheet:

- **Row break** – is a horizontal page break inserted above a selected cell in a row. For example, if the selected cell is H15, then a row break is created between rows 14 and 15.
- **Column break** – is a vertical page break inserted to the left of the selected cell in a column. For example, if the selected cell is H15, then a column break is created between columns G and H.

When a manual break is inserted, it appears as a blue line or as a bold line between the rows or columns on the display. The actual appearance depends on your computer setup. To see manual break lines more easily on your display, you can change their appearance. Go to **Tools > Options > LibreOffice > Application Colors** and scroll down to the *Spreadsheet* section where you can change how page breaks appear.

Inserting page breaks

- 1) Select the cell where you want to insert a manual break in the spreadsheet.
- 2) Go to **Sheet > Insert Page Break** on the Menu bar.
- 3) Select **Row Break** to insert a row break above the cell or **Column Break** to insert a column break to the left of the cell.

Alternatively, go to **View > Page Break** on the Menu bar, right-click in the spreadsheet and select **Row Break** or **Column Break** from the context menu. Remember to go to **View > Normal** on the Menu bar and return to the standard spreadsheet view.

Deleting page breaks

- 1) Select the cell where you want to delete a manual break from the spreadsheet.
- 2) Go to **Sheet > Delete Page Break** on the Menu bar.
- 3) Select **Row Break** to delete a row break from above the cell or **Column Break** to delete a column break from the left of the cell.

Deleting multiple page breaks

Multiple manual row and column breaks can exist in the same spreadsheet. If you want to remove all breaks from the spreadsheet:

- 1) Go to **View > Page Break** on the Menu bar.
- 2) Right-click in the spreadsheet and select **Delete Page Breaks** from the context menu to remove all manual breaks from your spreadsheet.
- 3) Go to **View > Normal** on the Menu bar to return to the standard spreadsheet view.

Printing options for page styles

When using page styles for your spreadsheets, you can include printing options within the page style; for example, page order, details, scale to be printed, and so on. Using page styles allows you to quickly set up and change the printing options of different sheets within your spreadsheet. See Chapter 4, Using Styles and Templates, for more information about page styles.

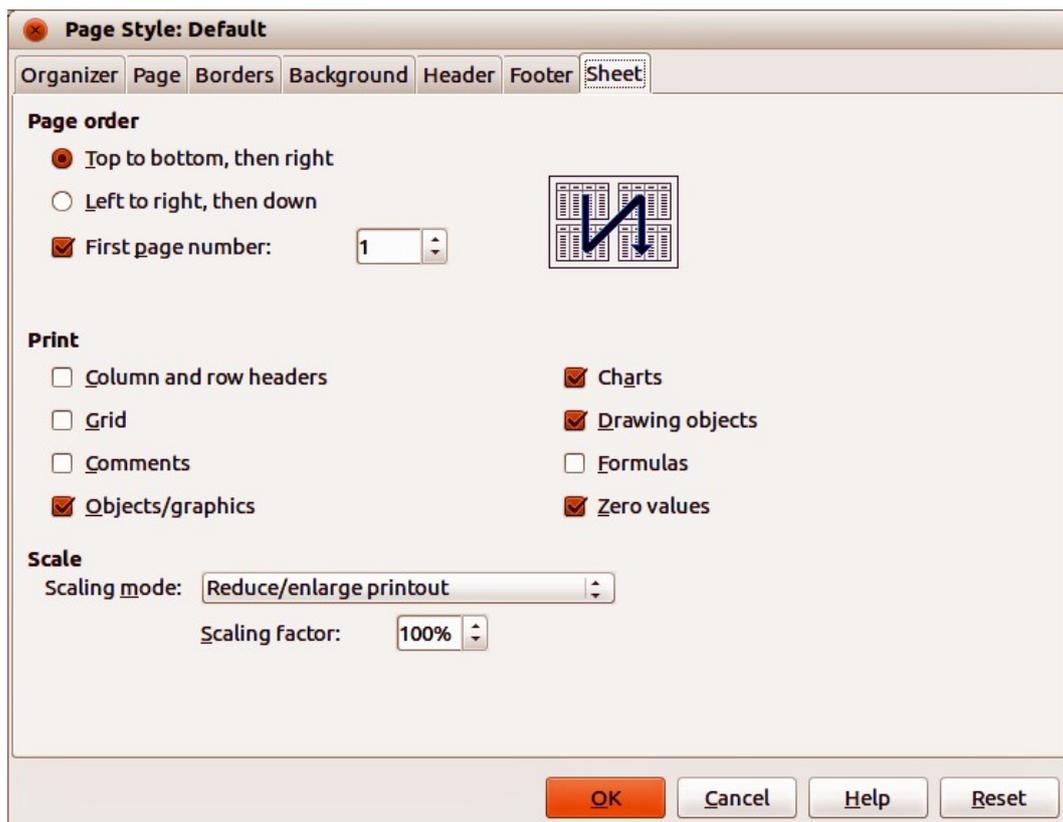


Figure 14. Page Style dialog – Sheet page

Make sure you have selected the correct sheet within the spreadsheet before setting the print options. Go to **Format > Page** on the Menu bar to open the Page Style dialog, then click on the *Sheet* tab (Figure 14) to set the printing options for a page style. The dialog indicates which page style you are about to change.

- **Page Order** – defines the order in which data in a sheet is numbered and printed when it does not fit on one printed page. A preview of the page order is shown in the graphic on the top right of the dialog in Figure 14.
 - *Top to bottom, then right* – prints vertically from the left column to the bottom of the sheet.
 - *Left to right, then down* – prints horizontally from the top row of the sheet to the right column.
 - *First page number* – select this option if you want the first page to start with a number other than 1. Enter the number of the first page in the box.
- **Print** – defines which elements of the spreadsheet are to be printed.
 - *Column and row headers* – prints the column and row headers.
 - *Grid* – prints the borders of the individual cells as a grid. For the view on screen, make your selection under LibreOffice > Preferences > LibreOffice Calc > View > Grid lines.
 - *Comments* – prints the comments defined in the spreadsheet. Comments will be printed on a separate page, along with the corresponding cell reference.
 - *Objects/Images* – includes all inserted objects (if printable) and graphics with the printed spreadsheet.
 - *Charts* – prints the charts that have been inserted into your spreadsheet.
 - *Drawing Objects* – includes all drawing objects in the printed spreadsheet.
 - *Formulas* – prints the formulas contained in the cells, instead of the results of any formulas used in the spreadsheet.
 - *Zero Values* – specifies that cells with a zero value are printed with a zero (0) in the cell.
- **Scale** – defines a page scale for the printed spreadsheet.
 - *Scaling mode* – select a scaling mode from the drop-down list. Appropriate controls for the scaling mode selected will be shown below the drop-down list box.
 - *Reduce/enlarge printout* – specifies a scaling factor to scale all printed pages. Enter the scaling factor as a percentage in the box.
 - *Fit print range(s) to width/height* – specifies the maximum number of pages horizontally (width) and vertically (height) on which every sheet with the current Page Style is to be printed.

The print ranges are always scaled proportionally, so the resulting number of pages may be less than specified.

You may clear one of the boxes; then the unspecified dimension will use as many pages as necessary.

If you clear both boxes, the scaling factor will be 100%.

- *Width in pages* – enter the maximum number of pages to be printed horizontally across.
- *Height in pages* – enter the maximum number of pages to be printed vertically stacked.
- *Fit print range(s) on number of pages* – specifies the maximum number of pages to be printed for each sheet that uses the same Page Style. The scale will be reduced as necessary to fit the defined number of pages.
- *Number of pages* – enter the maximum number of pages to be printed.

Headers and footers

Headers and footers are predefined pieces of text that are printed at the top or bottom of a sheet outside of the sheet area. Headers and footers are set the same way and you can have different content on left and right pages that use the same page style.

Setting headers and footers

To turn the headers or footers on in your spreadsheet:

- 1) Select the sheet where you want to turn on the header or footer.
- 2) Go to **Format > Page** on the Menu bar to open the Page Style dialog and select the *Header* (or *Footer*) tab (Figure 15). The *Header* and *Footer* pages in the Page Style dialog are identical.
- 3) Select the **Header on** or **Footer on** option.
- 4) Enter the values for the other options according to your requirements. These options are described below.
- 5) Click **OK** to save your changes and close the dialog.

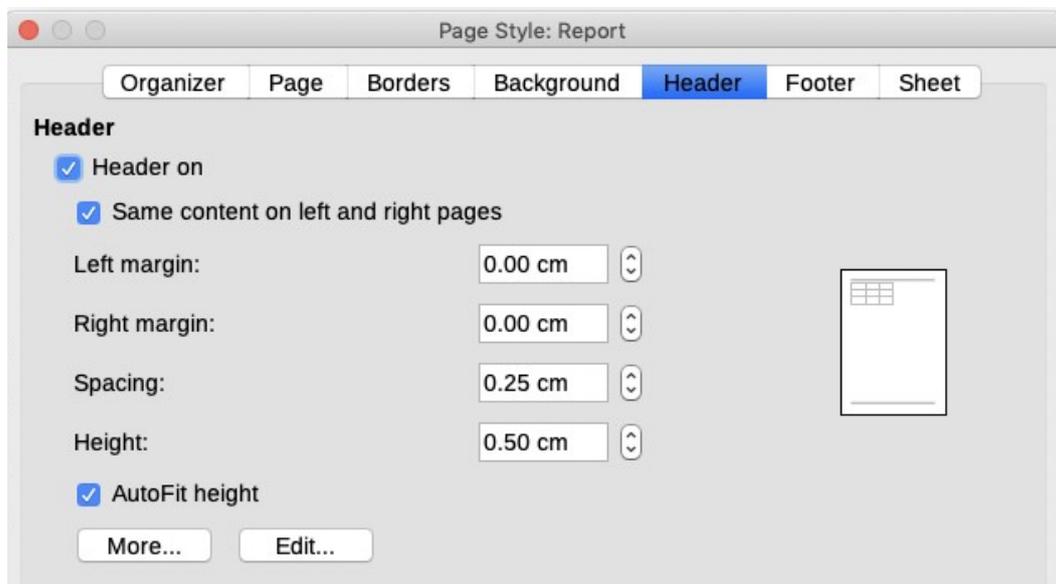


Figure 15: Page Style dialog – Header page

- **Header on** or **Footer on** – adds a header or footer to the current page style.
- **Same content on left and right pages** – causes left and right pages to share the same header or footer content. To assign a different header or footer to left and right pages, deselect this option and then click **Edit**. See “Header or footer contents” on page 17 for more information.
- **Left margin** – enter the amount of space to leave between the left page margin and the left edge of the header or footer.
- **Right margin** – enter the amount of space to leave between the right page margin and the right edge of the header or footer.
- **Spacing** – enter the amount of space to maintain between the bottom edge of the header or footer and the top edge of the spreadsheet.
- **Height** – enter the height for the header or footer.
- **AutoFit height** – automatically adjusts the height of the header or footer to fit the content.
- **Preview** – displays a preview of the current selection.

- **More** – opens the Border/Background dialog, where you can define the appearance of borders and background colors or images for headers or footers. See Chapter 4, Using Styles and Templates in Calc, for more information.
- **Edit** – opens the Header or Footer dialog where you can add, edit, or format text that is placed in the header or footer. See “Header or footer contents” below for more information.

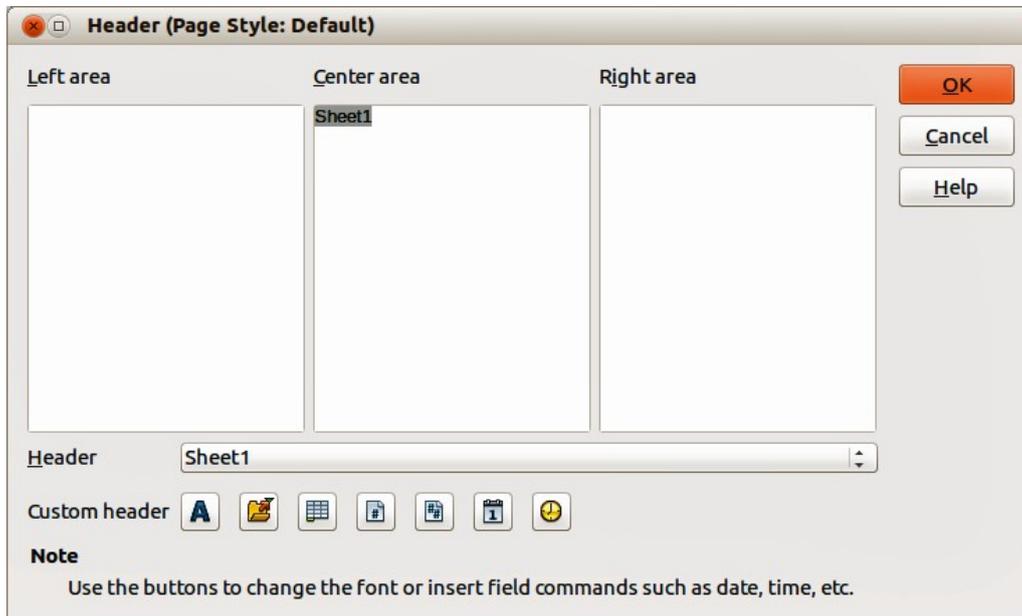


Figure 16: Header dialog

Header or footer contents

The headers and footers in a Calc spreadsheet have three columns for text. Each column can either be empty or have different contents from the other columns.

- 1) Select the sheet where you want to turn on the header or footer.
- 2) Open the Page Style dialog (Figure 15), then select *Header on* or *Footer on* and the options for the header or footer. See “Setting headers and footers” above.
- 3) Click **Edit** to open the Header or Footer dialog (Figure 16). If **Same content on left and right pages** is deselected in the Page Style dialog, the Header or Footer dialog will have tabbed pages where you can set the header or footer contents for right and left pages.
- 4) To enter standard contents into the header or footer, select an option from the Header or Footer drop-down list.
- 5) To enter customized contents into the header or footer, click in one of the area boxes and type your text, or click in one of the area boxes and click one of the **Custom header** or **Custom footer** icons. These icons are explained below.
- 6) To change the appearance of the text in the header or footer, click the **Text Attributes** icon to open the Text Attributes dialog, where you can set the font, font effects and font position.
- 7) Click **OK** to save the changes to text attributes and close the Text Attributes dialog.
- 8) Click **OK** to save the changes to the contents of the header or footer and close the Header or Footer dialog.
- 9) Click **OK** to save the changes to your header or footer and close the Page Style dialog.

The options available for a *Custom header* or *Custom footer* are as follows:

- **Text Attributes** – opens a Text Attributes dialog where you can assign formats to new or selected text. The Text Attributes dialog contains tabbed pages for Font, Font Effects, and Position.

- **Title** – inserts a file name placeholder in the selected area. Click to insert the title. Click and hold to select either **Title**, **File Name** or **Path/File Name** from the context menu that opens. If a title has not been assigned to the spreadsheet, the file name for the spreadsheet will be inserted instead.
- **Sheet Name** – inserts a placeholder in the selected area for the sheet name of the selected sheet in the spreadsheet.
- **Page** – inserts a placeholder in the selected area for the page number. This allows continuous page numbering in a spreadsheet.
- **Pages** – inserts a placeholder in the selected area for the total number of pages in the spreadsheet.
- **Date** – inserts a placeholder in the selected area for the current date which will be repeated in the header/footer on each page of the spreadsheet.
- **Time** – inserts a placeholder in the selected area for the current time which will be repeated in the header/footer on each page of the spreadsheet.

Exporting to PDF

LibreOffice can export documents to PDF (Portable Document Format). This industry-standard file format is ideal for sending a file for someone else to view using Adobe Reader or other PDF viewers.



Warning

A document in PDF format is not protected against contents tampering or editing by default. The PDF document contents can be edited by specialized software tools, including LibreOffice Draw.



Tip

Unlike **Save As**, the **Export** command writes a copy of the current document in a new file with the chosen format, but keeps the current document and format open in your session.

Quick export to PDF

Click the **Export as PDF** icon on the Standard toolbar to export the entire spreadsheet using the PDF settings most recently selected on the PDF Options dialog (see below). You are asked to enter the file name and location for the PDF, but you do not get a chance to choose a page range, image compression, or other options.

Controlling PDF content and quality

For more control over the content and quality of the resulting PDF, use **File > Export as PDF**. The PDF Options dialog opens. This dialog has six pages (*General*, *Initial View*, *User Interface*, *Links*, *Security*, and *Digital Signatures*). Select the appropriate settings, and then click **Export**. Then enter the location and file name of the PDF to be created, and click **Save** to export the file.

General page of PDF Options dialog

On the General page (Figure 13), you can choose which pages to include in the PDF, the type of compression to use for images (which affects the quality of images in the PDF), and other options. For more information, see the *Getting Started* guide or the Help. In most cases, the defaults will be what you need.

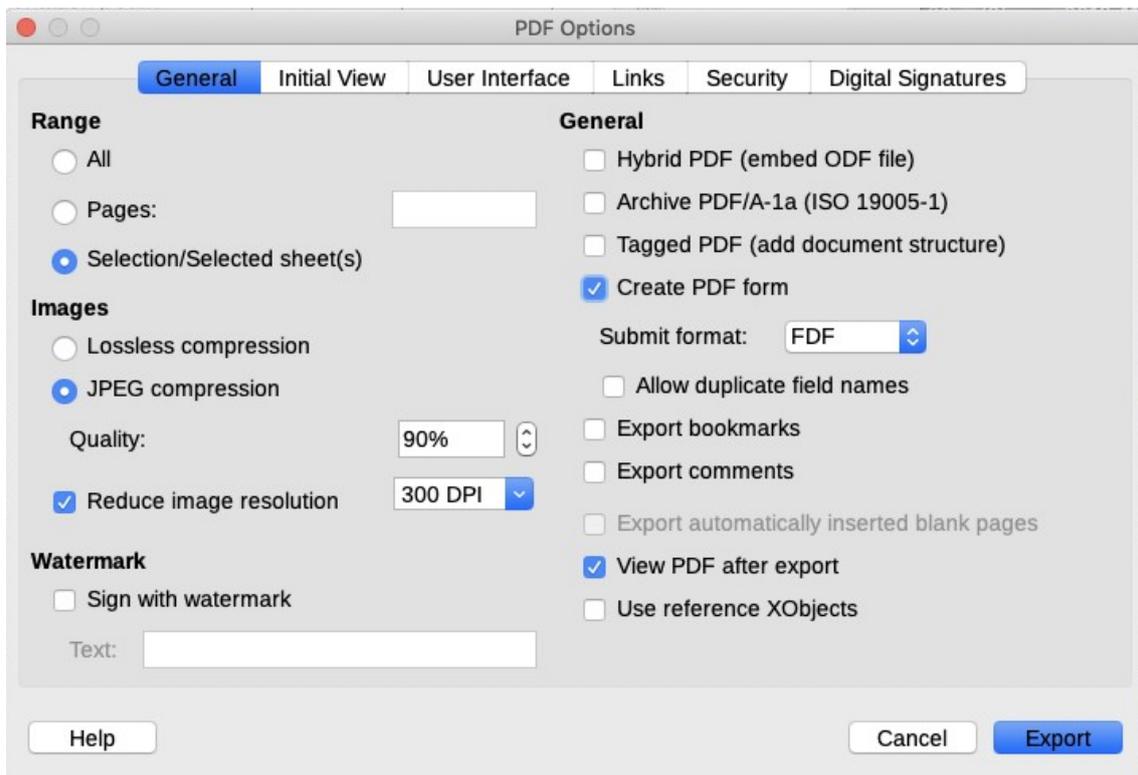


Figure 17: PDF Options dialog – General page

Range section

- *All*: Exports the entire document to PDF.
- *Pages*: To export a range of pages within a selected sheet, use the format 3-6 (pages 3 to 6). To export single pages, use the format 7;9;11 (pages 7, 9, and 11), or a combination of the two formats.
- *Selection/Selected sheet(s)*: Exports the selected material (a sheet or part of a sheet).

Images section

- *Lossless compression*: Images are stored without any loss of quality. Tends to make large files when used with photographs. Recommended for other kinds of images or graphics.
- *JPEG compression*: Allows for varying degrees of quality. A setting of 90% works well with photographs (small file size, little perceptible loss of quality).
- *Reduce image resolution*: Lower DPI (dots per inch) images have lower quality. Higher DPI settings can greatly increase the size of the exported file.

Watermark section

- *Sign with Watermark*: When this option is selected, a transparent overlay of the text you enter into the *Text* box will appear on each page of the PDF.

General section

- *Hybrid PDF (embed ODF file)*: Use this setting to export the document as a PDF file containing two file formats: PDF and ODF. In PDF viewers it behaves like a normal PDF file, and it remains fully editable in LibreOffice.
- *Archive PDF/A-1a (ISO 19005-1)*: PDF/A is an ISO standard for long-term preservation of documents, by embedding all the information necessary for faithful reproduction (such as fonts) while forbidding other elements (including forms, security, and encryption). PDF tags are written.
- *Tagged PDF*: Tagged PDF contains information about the structure of the document's contents. This can help to display the document on devices with different screens, and

when using screen reader software. Some tags that are exported are table of contents, hyperlinks, and controls. This option can increase file sizes significantly.

- *Create PDF form – Submit format:* Choose the format of submitting forms from within the PDF file.
- *Allow duplicate field names* – If enabled, the same field name can be used for multiple fields in the generated PDF file. If disabled, field names will be exported using generated unique names.
- *Export bookmarks:* Generally not used in Calc.
- *Export comments:* Exports comments as PDF notes. You may not want this!
- *Export automatically inserted blank pages:* Not available in Calc.
- *View PDF after export:* If selected, your default PDF viewer will open and display the newly exported PDF.
- *Use reference XObjects:* If you don't know what this means, leave this box unchecked.

Initial View page of PDF Options dialog

On the Initial View page (Figure 18), you can select how the PDF file opens by default in a PDF viewer. The options should be self-explanatory.

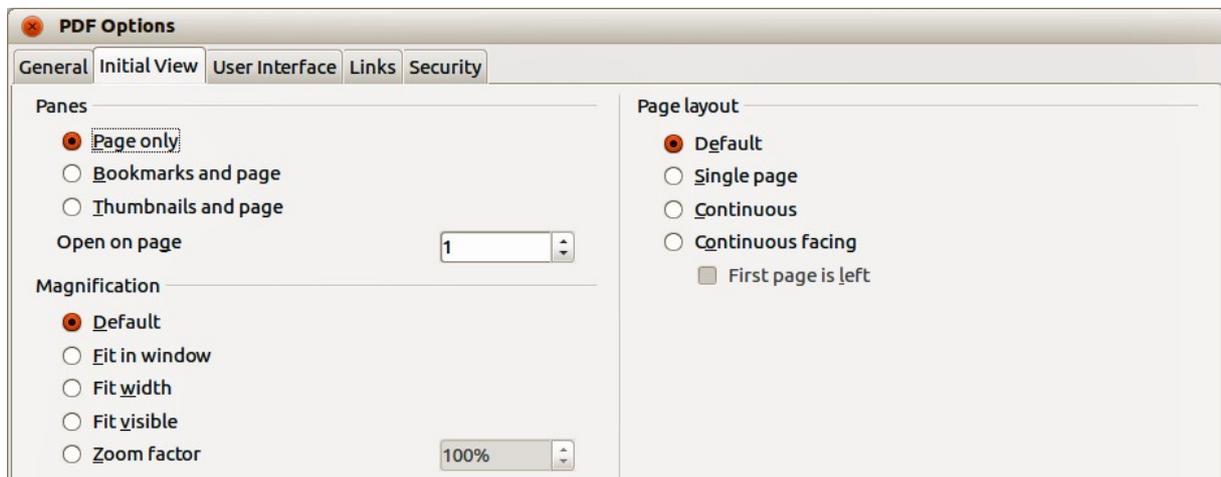


Figure 18: PDF Options dialog – Initial View page

User Interface page of PDF Options dialog

On the User Interface page (Figure 19), you can select options to control how a PDF viewer displays the file. Some of these options are useful when you are creating a PDF to be used as a presentation or a kiosk-type display.

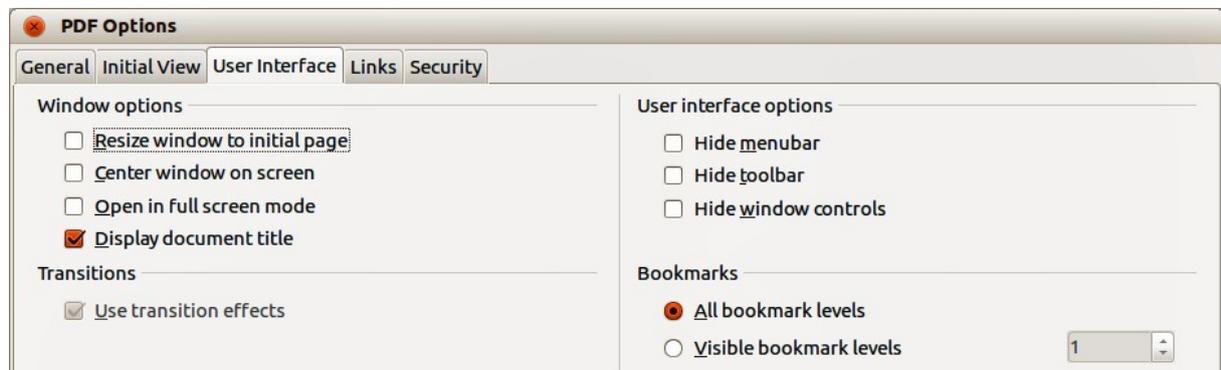


Figure 19: PDF Options dialog – User Interface page

Window options

- *Resize window to initial page*: the PDF reader window displays the whole first page.
- *Center window on screen*: the PDF is shown in a reader window centered on screen.
- *Open in full screen mode*: the PDF reader window is in front of all other windows.
- *Display document title*:– the PDF is shown with the document title in the reader title bar.

Transitions – not used in Calc.

User interface options

- *Hide menu bar*: hides the reader menu bar when the document is active.
- *Hide toolbar*: hides the reader toolbar when the document is active.
- *Hide window controls*: hides the reader controls when the document is active.

Bookmarks

- *All bookmark levels*: shows all bookmark levels when the reader opens the PDF.
- *Visible bookmark levels*: shows bookmark levels down to the selected level when the reader opens the PDF.

Links page of PDF Options dialog

On the *Links* page (Figure 20) you can select how bookmarks and hyperlinks are exported to PDF.

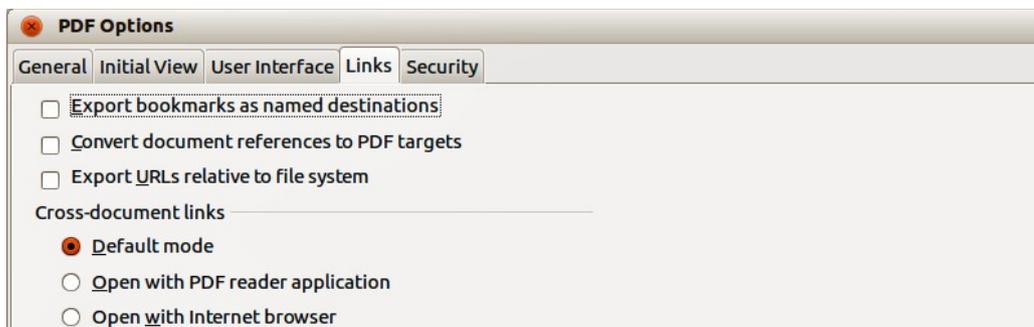


Figure 20: PDF Options dialog – Links page

Export bookmarks as named destinations

If you have defined Calc sheet names, this option exports them as “named destinations” to which Web pages and PDF documents can link.

Convert document references to PDF targets

If you have defined links to other documents with OpenDocument extensions (such as .odt, .ods, and .odp), this option converts the files’ extensions to .pdf in the exported PDF document.

Export URLs relative to file system

If you have defined relative links in a document, this option exports those links to the PDF. See *Relative hyperlinks* in the Calc Help for more information.

Cross-document links

Defines the behavior of links clicked in PDF files. Select one among the following alternatives:

- *Default mode*: The PDF links will be handled as specified in your operating system.
- *Open with PDF reader application*: Use the same application used to display the PDF document to open linked PDF documents.
- *Open with Internet browser*: Use the default Internet browser to display linked PDF documents.

Security page of PDF Options dialog

Use the Security page (Figure 21) to encrypt and set passwords when you export your spreadsheet and create the PDF file. Setting encryption and passwords also allows you to apply restrictions on printing and if changes or copying can be carried out on the PDF file.

Click the **Set passwords** button to open the Set Passwords dialog (Figure 22) where you enter the passwords. You can enter a password (**Set open password**) to open the file and an optional password (**Set permission password**) to restrict what readers can do with the PDF file.

- With an *open password* set, the PDF can only be opened with the password. Once opened, there are no restrictions on what the user can do with the document (for example, print, copy, or change it).
- With a *permission password* set, the PDF can be opened by anyone, but its permissions can be restricted. See Figure 21. After you set a password for permissions, the other choices on the *Security* page become available.
- With both the open password and permission password set, the PDF can only be opened with the correct password, and its permissions can be restricted.

The options on the *Security* page become available only when passwords have been set.



Note

Permissions settings are effective only if the user's PDF viewer respects the settings.

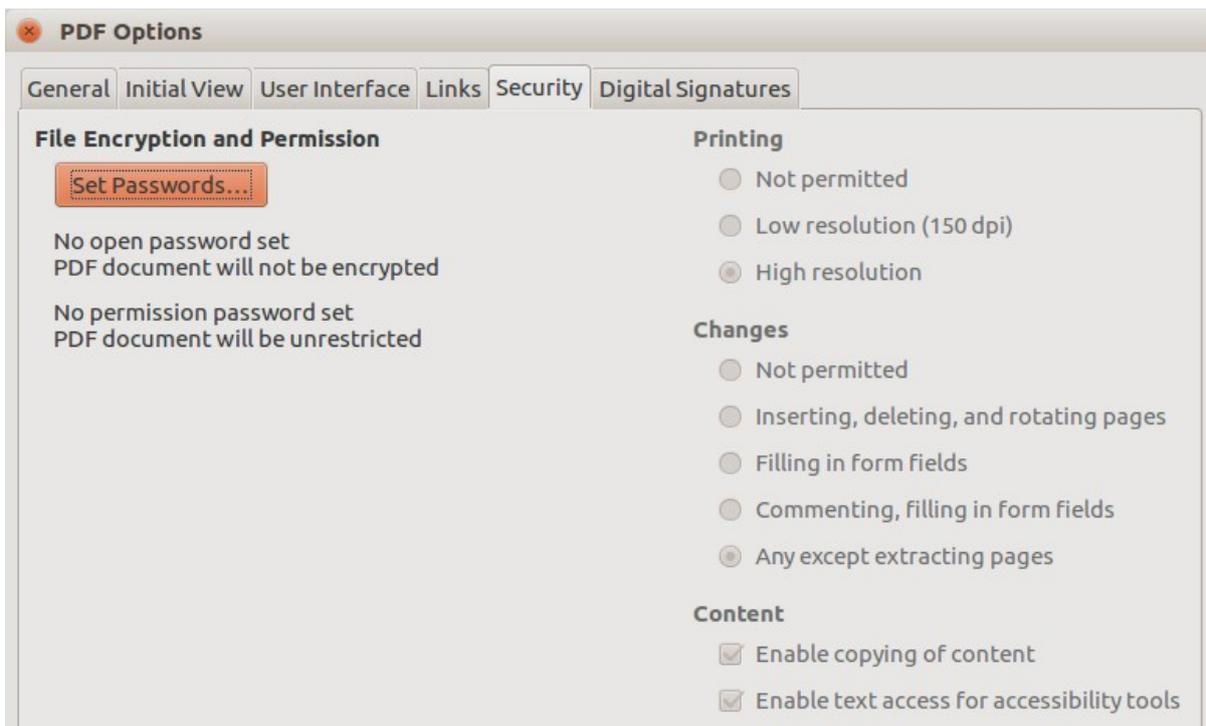


Figure 21: PDF Options dialog – Security page



Figure 22: Set passwords dialog

Digital Signatures page of PDF Options dialog

This page contains the options related to exporting a digitally signed PDF.

Digital signatures are used to ensure that the PDF was really created by the original author (that is, you), and that the document has not been modified since it was signed.

The signed PDF export uses the keys and X.509 certificates already stored in your default key store location or on a smartcard. The key store to be used can be selected under **Tools > Options > LibreOffice > Security > Certificate Path**. (Not available on Microsoft Windows systems, where LibreOffice will access the system certificate storage.) When using a smartcard, it must already be configured for use by your key store. This is usually done during installation of the smartcard software. Details about using these features is outside the scope of this chapter.

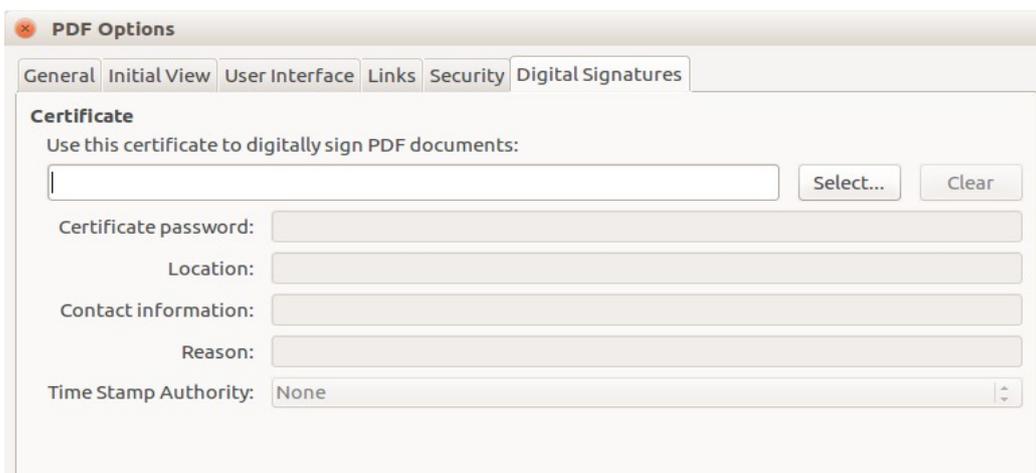


Figure 23: Digital signature page for PDF

- **Use this certificate to digitally sign PDF documents:** Click **Select** to open the Select Certificate dialog, where all certificates found in your selected key store are displayed. If the key store is protected by a password, you are prompted for it. When using a smartcard that is protected by a PIN, you are also prompted for that.

Select the certificate to use for digitally signing the exported PDF, then click **OK**.

All other fields on the *Digital Signatures* tab are accessible only after a certificate has been selected.

- **Certificate password:** Enter the password used for protecting the private key associated with the selected certificate. Usually this is the key store password. If the key store password has already been entered in the Select Certificate dialog, the key store may already be unlocked and not require the password again.

When using a smartcard, enter the PIN here. Some smartcard software will prompt you for the PIN again before signing.

- **Location, Contact information, Reason:** Optionally enter additional information about the digital signature that will be applied to the PDF. This information will be embedded in the appropriate PDF fields and will be visible to anyone viewing the PDF. Each or all of the three fields may be left blank.
- **Time Stamp Authority:** Optionally select a Time Stamping Authority (TSA) URL. During the PDF signing process, the TSA will be used to obtain a digitally signed timestamp that is then embedded in the signature. Anyone viewing the PDF can use this timestamp to verify when the document was signed.

The list of TSA URLs that can be selected is maintained under **Tools > Options > LibreOffice > Security > TSAs**. If no TSA URL is selected (the default), the signature will not be timestamped, but will use the current time from your local computer.

Exporting to other formats

LibreOffice uses the term “export” for some file operations involving a change of file type. If you want to use another spreadsheet file format (for example, Microsoft Excel), use **File > Save As**. If you want to create web pages from your spreadsheet, use **File > Export**.

E-mailing spreadsheets

LibreOffice provides several ways to send documents quickly and easily as an e-mail attachment in OpenDocument format (LibreOffice default format), other spreadsheet formats, or as a PDF file. You can also email a document to several recipients. For more information, see the *Getting Started Guide*.

To send the spreadsheet as an email:

- 1) Go to **File > Send** on the Menu bar and select from the following options. LibreOffice opens your default e-mail program with the spreadsheet attached in the selected format.
 - *Email Document:* the spreadsheet is sent in the default ODF format.
 - *E-mail as OpenDocument Spreadsheet:* the spreadsheet is sent in the ODF format.
 - *E-mail as Microsoft Excel:* the spreadsheet is sent in the Excel format.
 - *E-mail as PDF:* The PDF Options dialog opens. Select the parameters to be used for the PDF file. See “Controlling PDF content and quality” on page 18.
- 2) In your e-mail program, enter the recipient, subject, and any text you want to add, then send the e-mail.

Digital signing of documents

To sign a document digitally, you need a personal key, also known as a certificate. A personal key is stored on your computer as a combination of a private key, which must be kept secret, and a public key, which you add to your documents when you sign them. You can get a certificate from a certification authority, which may be a private company or a governmental institution.

When you apply a digital signature to a document, a checksum is computed from the document’s content plus your personal key. The checksum and your public key are stored together with the document.

When someone later opens the document on any computer with a recent version of LibreOffice, the program will compute the checksum again and compare it with the stored checksum. If both are the same, the program will signal that you see the original, unchanged document. In addition,

the program can show you the public key information from the certificate. You can compare the public key with the public key that is published on the web site of the certificate authority.

Whenever someone changes something in the document, the change breaks the digital signature.

On Windows operating systems, the Windows features for validating a signature are used. On Linux systems, files that are supplied by Mozilla Thunderbird or Firefox are used to validate the signature. For a more detailed description of how to get and manage a certificate, and signature validation, see *About Digital Signatures* in the LibreOffice Help.

Applying digital signatures

The following procedure is only an example of how to digitally sign a document. The actual procedure depends on how your computer is set up and the computer operating system.

- 1) Open the file that you want to digitally sign.
- 2) Go to **File > Digital Signatures > Digital Signatures** on the Menu bar.
 - If you have set LibreOffice to warn you when the document contains comments (see “Removing personal data” on page 27), you may see a message box asking whether you want to want to continue signing the document.
 - If the document contains comments, a warning dialog opens asking if you wish to continue. Click **Yes** to continue, or click **No** to exit and take appropriate action to remove the comments and restart this procedure.
 - If you have not saved the document since the last change, a message box appears. Click **Yes** to save the file. When you have saved the file, the Digital Signatures dialog opens (Figure 24).
- 3) Click **Sign Document** to open the Select Certificate dialog (Figure 25).

Select the certificate you want to use and click **OK** to close the Select Certificate dialog. The certificate used is displayed in the Digital Certificates dialog with an icon next to its name. This icon indicates the status of the digital signature.

 - An icon with a red seal () indicates that the document was signed and the certificate was validated.
 - An icon with a yellow caution triangle overlaying the red seal () indicates that the document is signed but that the certificate could not be validated.
 - An icon with a yellow caution triangle by itself () indicates an invalid digital signature.
- 4) Click **Close** to close the Digital Signatures dialog and digitally sign your file.

A signed document shows an icon in the status bar. You can double-click the icon to view the certificate. More than one signature can be added to a document.



Note

If you make any changes to the document after digitally signing, the digital signature is removed automatically and you have to repeat the above procedure to digitally sign it again.

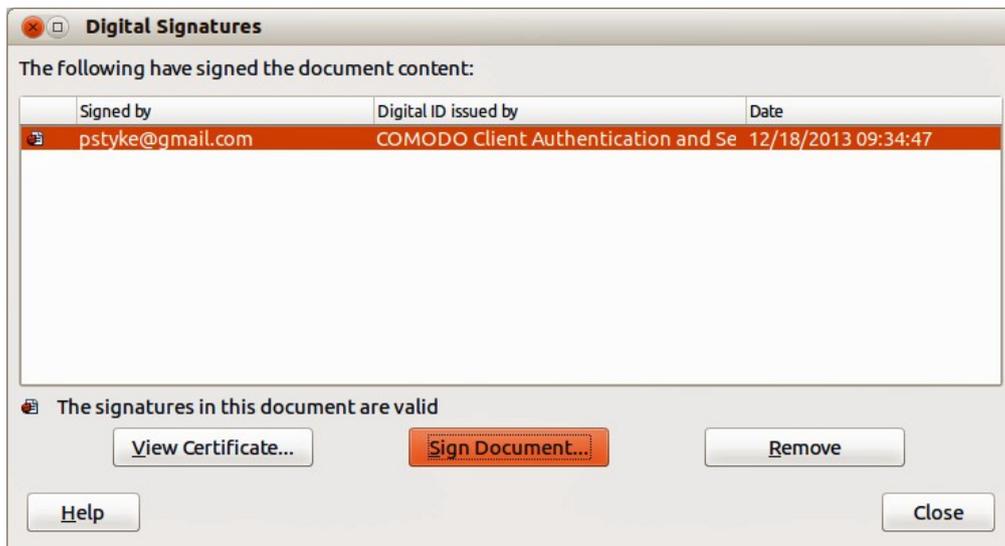


Figure 24: Digital Signatures dialog

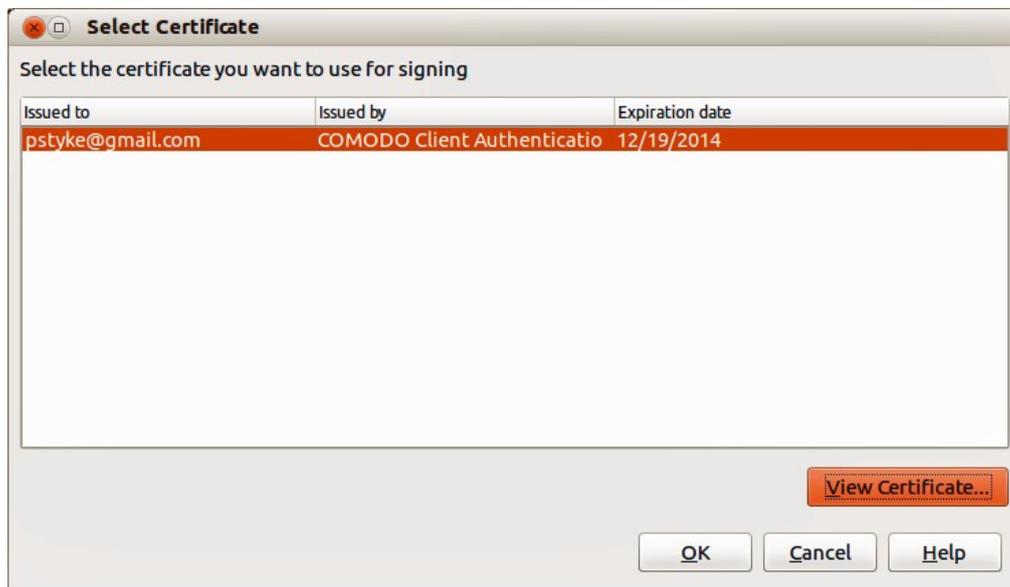


Figure 25: Select Certificate dialog

Signing multiple times with same signature

In the past, LibreOffice prohibited creating multiple signatures by the same author on a document, because there was no semantic meaning of signing the same document multiple times. LibreOffice now provides a signature description, so multiple signatures from the same author are now allowed, because each signature can have a different meaning.

When you select **File > Digital Signatures > Digital Signatures**, the dialog (Figure 24) lists existing signatures together with their description (if they have any).

When you click the **Sign Document** button, the dialog (Figure 25) for certificate selection now also asks for an optional description.

Changing the value of an existing description invalidates the signature.

Digitally signing macros

Normally, macros are part of a document. If you sign a document, the macros inside the document are signed automatically. If you want to sign only the macros, but not the document, go to **Tools > Macros > Digital Signature** on the Menu bar and apply the signature as described above.

Removing personal data

You may wish to ensure that personal data, versions, notes, hidden information, or recorded changes are removed from files before you send them to other people or create PDFs from them.

- In **Tools > Options > LibreOffice > Security > Options**, you can set Calc to remind you when files contain certain information and to remove personal information automatically on saving.
- To remove personal and some other data from a file, go to **File > Properties**. On the *General* page, deselect **Apply user data** and then click **Reset Properties**. This removes any names in the created and modified fields, deletes the modification and printing dates, and resets the Total editing time to zero, the creation date to the current date and time, and the Revision number to 1.
- To remove version information, either go to **File > Versions** on the Menu bar, select the versions from the list and click **Delete**, or go to **File > Save As** and save the file with a different name.