



## Calc Guide

# *Chapter 1* *Introducing Calc*

*1 Using spreadsheets in LibreOffice*

## What is Calc?

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Calc is the spreadsheet component of LibreOffice. You can enter data (usually numerical) in a spreadsheet and then manipulate this data to produce certain results.

Alternatively, you can enter data and then use Calc in a 'What if...' manner by changing some of the data and observing the results without having to retype the entire spreadsheet or sheet.

Other features provided by Calc include:

- Functions, which can be used to create formulas to perform complex calculations on data.
- Database functions to arrange, store, and filter data.
- Dynamic charts, including a wide range of 2D and 3D charts.
- Macros for recording and executing repetitive tasks; scripting languages supported include LibreOffice Basic, Python, BeanShell, and JavaScript.
- Ability to open, edit, and save Microsoft Excel spreadsheets.
- Import and export of spreadsheets in multiple formats, including HTML, CSV, PDF, and PostScript.



### Note

If you want to use macros written in Microsoft Excel using the VBA macro code in LibreOffice, you must first edit the code in the LibreOffice Basic IDE editor. For more information, see Chapter 12, Calc Macros, in this guide or Chapter 13, Getting Started with Macros, in the *Getting Started Guide*.

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## Spreadsheets, sheets, and cells

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Calc works with documents called spreadsheets. Spreadsheets consist of a number of individual sheets, each sheet containing cells arranged in rows and columns. A particular cell is identified by its row number and column letter.

Cells hold the individual elements – text, numbers, formulas, and so on – that make up the data to display and manipulate.

Each spreadsheet can have up to 10,000 sheets and each sheet can have a maximum of 1,048,576 rows and 1,024 columns. The maximum number of characters in one cell is 32,767.

## Calc main window

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When Calc is started, the main window opens (Figure 1). The various parts of this display are explained below.



### Note

If any part of the Calc window in Figure 1 is not shown, you can display it using the View menu. For example, **View > Status Bar** on the Menu bar will toggle (show or hide) the Status Bar. It is not always necessary to display all of the parts shown; you can show or hide any of them as desired.

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### Title bar

The Title bar, located at the top, shows the name of the current spreadsheet. When the spreadsheet is newly created, its name is Untitled X, where X is a number. When you save a spreadsheet for the first time, you are prompted to enter a name of your choice.

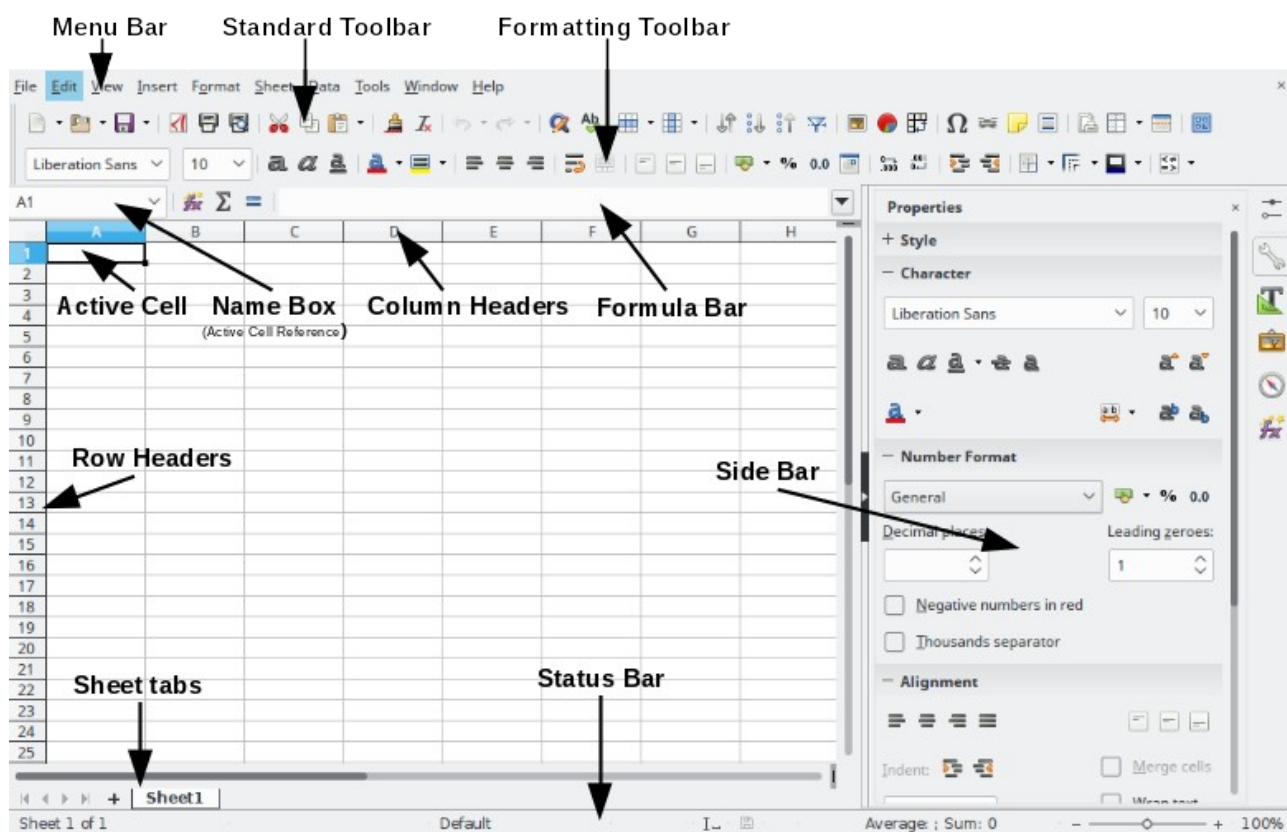


Figure 1: Calc main window

## Menu bar

Under the Title bar is the Menu bar. When you choose one of the menus, a list of options appears. You can also modify the Menu bar, as explained in Chapter 14, Setting Up and Customizing Calc.

- **File** – contains commands that apply to the entire document, such as **Open**, **Save**, **Wizards**, **Export as PDF**, **Print**, **Digital Signatures**, **Templates**.
- **Edit** – contains commands for editing the document, such as **Undo**, **Copy**, **Find & Replace**, **Track Changes**.
- **View** – contains commands for modifying how the Calc user interface looks, such as **Toolbars**, **View Headers**, **Full Screen**, **Zoom**.
- **Insert** – contains commands for inserting elements into a spreadsheet, such as **Image**, **Textbox**, **Headers and Footers**.
- **Format** – contains commands for modifying the layout of a spreadsheet, such as **Cells**, **Page**, **AutoFormat Styles**, **Align**.
- **Styles** – contains options for applying and managing styles, such as **Heading 1**, **Footnote**, **Manage Styles**.
- **Sheet** – contains commands for inserting and deleting elements and modifying the entire sheet, such as **Delete Rows**, **Insert Sheet**, **Rename Sheet**, **Navigate**.
- **Data** – contains commands for manipulating data in your spreadsheet, such as **Define Range**, **Sort**, **AutoFilter**, **Consolidate**.
- **Tools** – contains functions to help check and customize a spreadsheet, for example **Spelling**, **Share Spreadsheet**, **Macros**, **Options**.
- **Window** – contains two commands; **New Window** and **Close Window**. Also shows all open windows in other LibreOffice applications.

- **Help** – contains links to **LibreOffice Help** (included with the software), **User Guides**, and other miscellaneous functions; for example **Restart in Safe Mode**, **License Information**, **Check for Updates**.

## Toolbars

The default setting when Calc opens is for the Standard and Formatting toolbars to be docked at the top of the workspace (Figure 1).

Calc toolbars can be either docked (fixed in place), or floating, allowing you to move a toolbar to a more convenient location on your workspace. Docked toolbars can be undocked and moved to a different docked location or become floating toolbars. Likewise, floating toolbars can be docked.

You can choose the single-toolbar alternative to the default double toolbar arrangement. It contains the most-used commands. To activate it, enable **View > Toolbars > Standard (Single Mode)** and disable **View > Toolbars > Standard** and **View > Toolbars > Formatting**.

For additional information on toolbars, see Chapter 1, *Introducing LibreOffice*, of the *Getting Started Guide*.

The default set of icons (sometimes called buttons) on toolbars provides a wide range of common commands and functions. You can also remove or add icons to toolbars. See Chapter 14, *Setting Up and Customizing Calc*, for more information.

Placing the mouse cursor over an icon, text box, or menu command displays a small box called a tooltip that shows the name of the item's function. To close a tooltip, click once away from the icon or press the *Esc* key.

To see a more detailed explanation of an icon, textbox, or menu command, do one of the following to open extended tips:

- To activate extended tips just once: press *Shift+F1*.
- To activate extended tips from the Menu bar: go to **Help > What's This?** and hover the mouse pointer over the icon.
- To turn extended tips on or off: go to from **Tools > Options > LibreOffice > General** on the Menu bar.


## Formula Bar

The Formula Bar is located at the top of the Calc workspace. It is permanently docked in this position and cannot be used as a floating toolbar. However, it can be hidden or made visible by going to **View > Formula Bar** on the Menu bar.





Figure 2: Formula bar

From left to right in Figure 2, the Formula Bar consists of the following:

- **Name Box** – gives the current active cell reference using a combination of a letter and number, for example A1. The letter indicates the column and the number indicates the row of the selected cell. If you have selected a range of cells that is also a named range, the name of the range is shown in this box. You can also type a cell reference in the Name Box to jump to the referenced cell. If you type the name of a named range and press the Enter key, the named range is selected and displayed.
- **Function Wizard**  – opens a dialog from which you can search through lists of available functions and formulas. This can be very useful because it also shows how the functions are formatted.

- **Sum**  $\Sigma$  – totals the numbers in the cells above the selected cell and then places the total in the selected cell. If there are no numbers above the selected cell, then the cells to the left are totaled.
- **Formula**  $=$  – inserts an equals (=) sign in the selected cell and the Input line, allowing a formula to be entered.
- **Input line** – displays the contents of the selected cell (data, formula, or function) and allows you to edit the cell contents. To turn the Input line into a multiline input area for very long formulas, click the drop down button on the right. To edit inside the Input line area, click in the area, then type your changes.

You can also directly edit inside the cell by double-clicking on the cell. When you enter new data into a cell, the **Sum** and **Formula** icons change to **Cancel** and **Accept** icons  .



## Note

In a spreadsheet, the term “function” covers much more than just mathematical functions. See Chapter 7, Using Formulas and Functions, for more information.

## Status Bar

The Calc status bar at the bottom of the workspace (Figure 3) provides information about the spreadsheet and convenient ways to quickly change some of its features. Most of the fields are similar to those in other components of LibreOffice. See Chapter 1, Introducing LibreOffice, in the *Getting Started Guide* for more information.

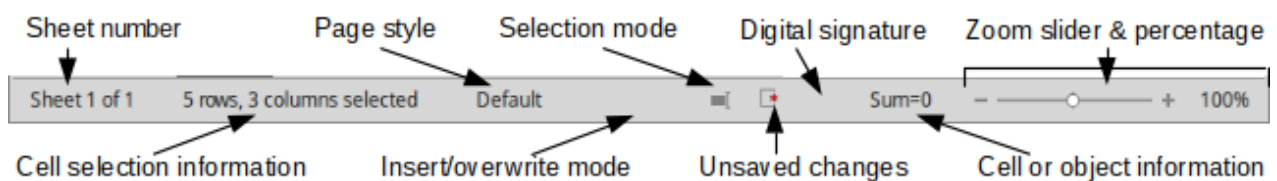


Figure 3: Calc status bar

The fields on the Status Bar, from left to right, are as follows.

### Sheet number

Shows the sequence number of the current sheet and the total number of sheets in the spreadsheet. The sequence number may not be the same as the name on the sheet tab if sheets have been moved. Double-click on this zone to open the Navigator.

### Number of selected rows and columns

Shows how many rows and how many columns are selected.

### Page style

Shows the page style of the current sheet. To edit the page style, double-click on this field and the Page Style dialog opens.

### Language

Shows current default language as selected at **Tools > Options > Language Settings > Language**.

### Insert mode

This field is blank if the program is in insert mode. Press the Ins key to change modes. Overwrite shows when in overwrite mode.

### Selection mode

Right-click to open a context menu and select **Standard selection**, **Extending selection**, **Adding selection** or **Block selection**. The icon does not change when different selection modes are selected, but the tooltip shows the current status. See Chapter 1, Introducing LibreOffice, in the *Getting Started Guide* for more information.

### Unsaved changes

This icon indicates the spreadsheet contains unsaved changes. Double-click this icon or use **File > Save** to save the spreadsheet.

### Digital signature

If the document has been digitally signed, an icon shows here. You can double-click the icon to view the certificate. See Chapter 6, Printing, Exporting, E-mailing, and Signing for more information about digital signatures.

### Cell or object information

Displays information related to the position of the cursor or the selected element of the spreadsheet. When a group of cells is selected, the sum of the contents is displayed by default. Right-click in this field to select other functions, such as the average value, maximum value, minimum value, or count (number of items selected).

### Zoom slider

Drag the zoom slider, or click the + and – signs to change the view magnification.

### Zoom percentage

Indicates the magnification level of the document. Right-click on the percentage to open a list of magnification values from which to choose. Double-click on the percentage to open the Zoom & View Layout dialog.

## Sidebar

The Calc Sidebar (Figure 4) is a mixture of toolbar and dialog. When opened (**View > Sidebar** or **Ctrl+F5**), it appears on the right side of the window and consists of five decks: *Properties*, *Styles*, *Gallery*, *Navigator*, and *Functions*. Each deck has a corresponding icon on the *Tab* panel to the right of the sidebar, allowing you to switch between them. The decks are described below.

### Properties

This deck includes five content panels. These panels, with the exception of the Style panel, have More Options buttons that open dialogs with additional options. These dialogs lock the document for editing until they are closed.

**Style:** Options for applying, updating, or creating cell and page styles.

**Character:** Options for formatting the text, such as font family, size, and color. Some controls, such as superscript, only become active when the text cursor is active in the Input line of the Formula bar or the cell.

**Number Format:** Options for formatting numbers, including decimals, currency, dates, or numeric text.

**Alignment:** Options for arranging the text in various ways, including horizontal and vertical alignment, wrapping, indenting, merging, text orientation, and vertical stacking.

**Cell Appearance:** Options include background color, border formats including line color and style, and grid lines.

### Styles

This deck is the same as the dialog opened by selecting **Styles > Manage Styles** from the Menu bar or **F11**.

### Gallery

This deck is the same as the dialog opened by selecting **View > Gallery** from the Menu bar.

### Navigator

This deck is the same as the Navigator window opened by selecting **View > Navigator** from the Menu bar or **F5**. See “Using the Navigator” on page 28.

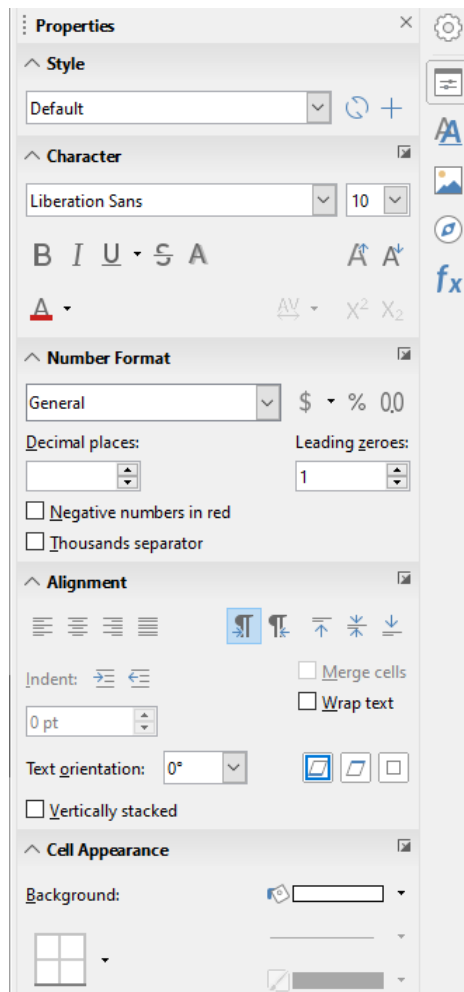


Figure 4: Sidebar

## Functions

This deck contains a list of functions organized by category. It is a simpler version of the Function Wizard, which is opened by selecting **Insert > Function...** from the Menu bar or **Ctrl+F2**.

To the right side of the title bar of each open deck is a Close button (X), which closes the deck to leave only the Tab bar open. Clicking on any Tab button reopens the deck.

To hide the Sidebar, or reveal it if already hidden, click on the edge **Hide/Show** button. To adjust the deck width, drag on the left edge of the sidebar.

## Spreadsheet layout

### Individual cells

The main section of the screen displays the cells in the form of a grid, with each cell located at the intersection of a column and a row.

At the tops of the columns and the left ends of the rows are a series of header boxes containing letters and numbers. The column headers use alpha characters that start with A and increase to the right. The row headers use numerical characters that start at 1 and increase down.

These column and row headers form the cell references that appear in the Name Box on the Formula Bar (Figure 2). If the headers are not visible on the spreadsheet, go to **View > Column & Row Headers** on the Menu bar.



## Sheet tabs

A spreadsheet file can contain many individual sheets. At the bottom of the grid of cells in a spreadsheet are sheet tabs (Figure 1). Each tab represents a sheet in a spreadsheet. Create a new sheet by clicking on the plus sign to the left of the sheet tabs.

Clicking on a tab enables access to an individual sheet. When a sheet is active, the tab is highlighted. Select multiple sheets by holding down the *Ctrl* key while clicking on the sheet tabs.

To change the default name for a sheet (Sheet1, Sheet2, and so on):

- 1) Right-click on the sheet tab and select **Rename Sheet** from the context menu. A dialog opens allowing you to type in a new name for the sheet.
- 2) Click **OK** when finished to close the dialog.

To change the color of a sheet tab:

- 1) Right-click on the sheet tab and select **Tab Color** from the context menu to open the Tab Color dialog (Figure 5).
- 2) Select a color and click **OK** when finished to close the dialog.

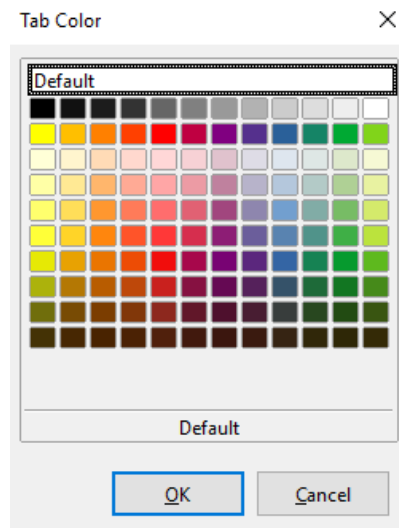


Figure 5: Tab Color dialog

To add new colors to this color palette, see “Adding Custom colors” in Chapter 14, Setting up and Customizing Calc.

## Creating, opening, and saving spreadsheets

### Creating and opening

Creating and opening spreadsheets is identical to creating and opening documents in the other LibreOffice modules. For more information on creating and opening spreadsheets, see Chapter 1, Introducing LibreOffice, in the *Getting Started Guide*.

### Using templates

Calc documents can also be created from templates. For information on how to create and use templates, see Chapter 4, Using Styles and Templates, in this guide.

### Opening a CSV file

Comma-separated-values (CSV) files are spreadsheet files in a text format where cell contents are separated by a character such as a comma or semi-colon. Each line in a CSV text file represents a



row in a spreadsheet. Text is entered between quotation marks; numbers are entered without quotation marks.

To open a CSV file in Calc:

- 1) Choose **File > Open** on the Menu bar and locate the CSV file that you want to open.
- 2) Select the file and click **Open**. By default, a CSV file has the extension .csv. However, some CSV files may have a .txt extension.
- 3) The Text Import dialog (Figure 6) opens. Here you can select options for importing a CSV file into a Calc spreadsheet.
- 4) Click **OK** to open and import the file.

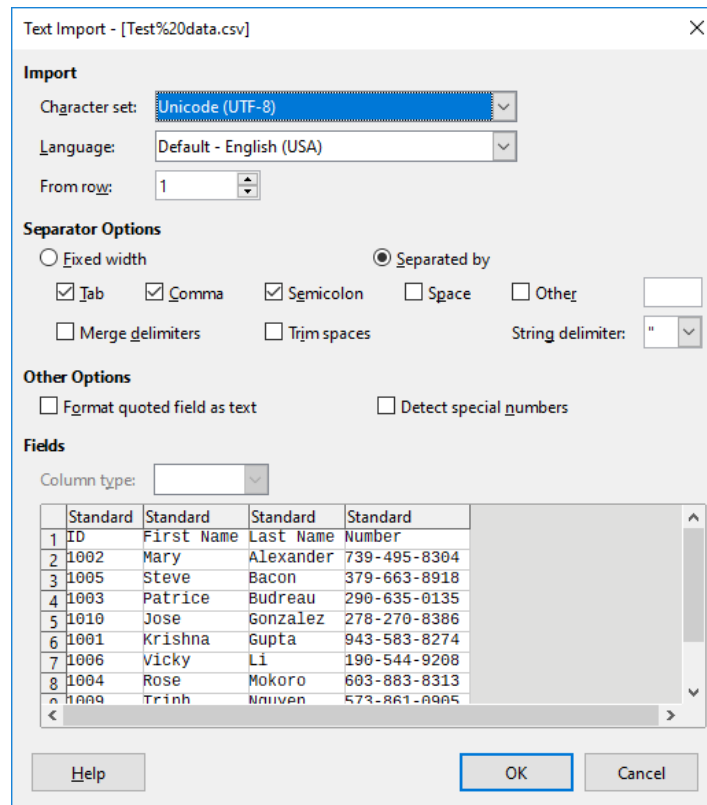


Figure 6: Text import dialog

The options for importing CSV files into a Calc spreadsheet are as follows:

### Import

- *Character Set* – specifies the character set to be used in the imported file.
- *Language* – determines how the number strings are imported. If Language is set to Default, Calc will use the language selected at **Tools > Options > Language Settings > Languages > Default Languages for Document**. If another language is selected, that language will determine how numbers are treated.
- *From Row* – specifies which row the import starts with. The initial rows are visible in the preview window at the bottom of the dialog.

### Separator Options

- *Fixed width* – separates data into columns by a set number of characters. Click on the ruler that appears in the preview window to set the width.
- *Separated by* – separates data into columns based on the separator defined here. Select other to specify another character used to separate data into columns. This custom separator must also be contained in the data.
- *Merge delimiters* – combines consecutive delimiters and removes blank data fields.

- *Trim spaces* – removes starting and trailing spaces from within fields.
- *String delimiter* – select a character to delimit text data.

#### Other options

- *Format quoted field as text* – when this option is enabled, fields or cells whose values are entirely within quotes are imported as text.
- *Detect special numbers* – when this option is enabled, Calc will automatically detect all number formats, including special number formats such as dates, time, and scientific notation. The selected language influences how such special numbers are detected, since different languages and regions many have different conventions for such special numbers.

When this option is disabled, Calc will detect and convert only decimal numbers. The rest, including numbers formatted in scientific notation, will be imported as text. A decimal number string can have digits 0–9, thousands separators, and a decimal separator. Thousands separators and decimal separators may vary with the selected language and region.

**Fields** – shows how your data will look when it is separated into columns.

*Column type* – select a column in the preview window and select the data type to be applied to the imported data.

- *Standard* – Calc determines the type of data.
- *Text* – imported data are treated as text.
- *Date* – imported data are treated as dates.
- *US English* – numbers formatted in US English are searched for and included regardless of the system language. A number format is not applied. If there are no US English entries, the Standard format is applied.
- *Hide* – the data in the column are not imported.

## Saving spreadsheets

For information on how to save files manually or automatically, see Chapter 1, Introducing LibreOffice, in the *Getting Started Guide*. Calc can save spreadsheets in a range of formats and also export spreadsheets to PDF, HTML and XHTML file formats; see Chapter 6 Printing, Exporting, Emailing, and Signing, for more information.

## Saving in other formats

If you need to send files to users who are unable to receive spreadsheet files in Open Document Format (ODF) (\*.ods), which Calc uses as default format, you can save a spreadsheet in another format.

- 1) Select **File > Save As** on the Menu bar or *Alt+F,A* to open the Save As dialog (Figure 7).
- 2) In **File name**, if you wish, enter a new file name for the spreadsheet and select the folder where you want to save the file.
- 3) In the Save as type field, select from the drop-down menu the type of spreadsheet format you want to use. If Automatic file name extension is selected, the correct file extension for the spreadsheet format you have selected will be added to the file name.
- 4) Click **Save**.

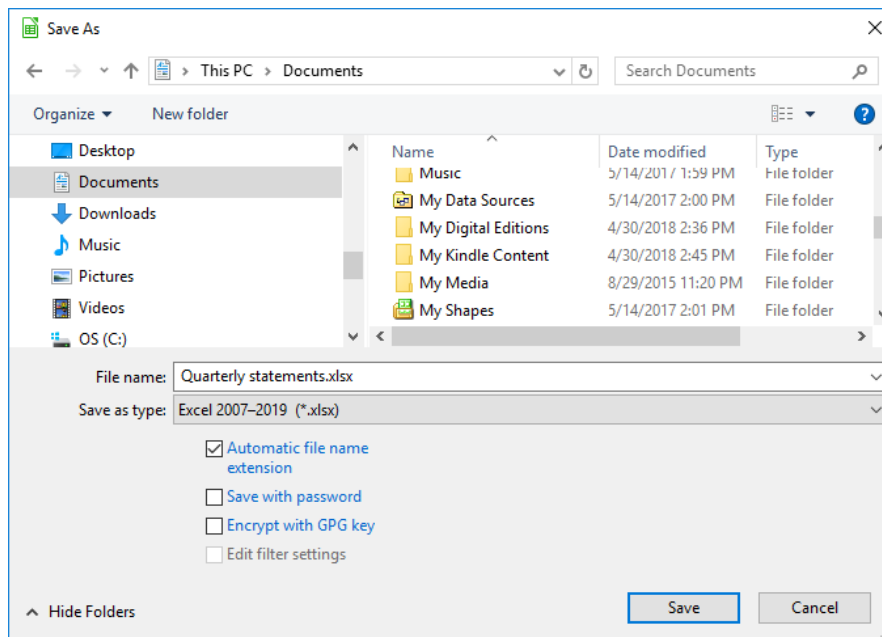


Figure 7: The Save dialog

Each time a file is saved in a format other than ODF format, the Confirm File Format dialog opens (Figure 8). Click **Use [xxx] Format** to continue saving in the selected spreadsheet format or click **Use ODF Format** to save the spreadsheet in Calc ODS format.

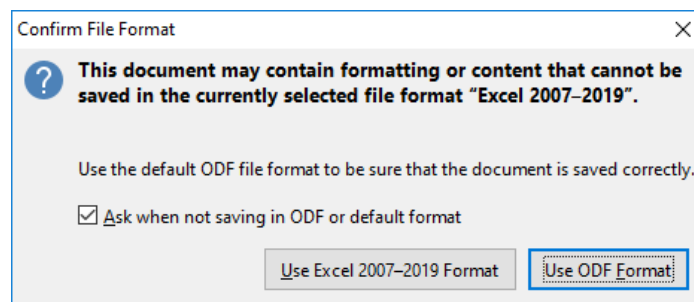


Figure 8: Confirm File Format dialog

If you select Text CSV format (\*.csv), the Export Text File dialog (Figure 9) opens. Here you can select the character set, field delimiter, text delimiter and so on to be used for the CSV file.

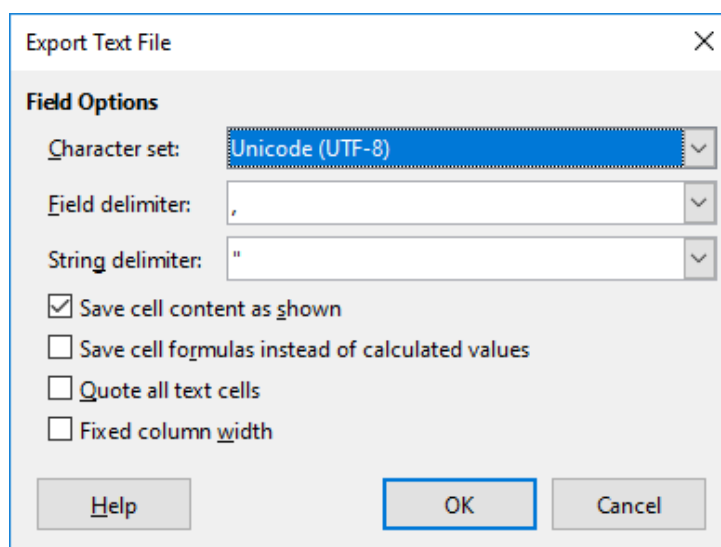


Figure 9: Export Text File dialog



## Note

Once you have saved a spreadsheet in another format, all changes you make to the spreadsheet will now occur only in the format you are using because you have changed the name and file type of your document. If you want to go back to working with an \*.ods version, you must save the file as an \*.ods file.



## Tip

To have Calc save documents by default in a file format other than the default ODF format, go to **Tools > Options > Load/Save > General**. In the section named *Default file format and ODF settings*, next to *Document type*, select **Spreadsheet**, then next to *Always save as*, select your preferred file format, for example Microsoft Excel.

## Password protection

To protect a spreadsheet and restrict who can open, read, and make changes to it, you have to use password protection. Password protection is common to all LibreOffice modules; for more information, see Chapter 1, Introducing LibreOffice, in the *Getting Started Guide*.

## Navigating within spreadsheets

Calc provides many ways to navigate within a spreadsheet from cell to cell and sheet to sheet. You can generally use the method you prefer.

### Cell navigation

When a cell is selected or in focus, the cell borders are emphasized. When a group of cells is selected, the cell area is colored. The color of the cell border emphasis and the color of a group of selected cells depends on the operating system being used and how you have set up LibreOffice.

- Using the mouse – place the mouse pointer over the cell and click the left mouse button. To move the focus to another cell using the mouse, move the mouse pointer to the cell and click the left mouse button.
- Using a cell reference – highlight or delete the existing cell reference in the Name Box on the Formula Bar (Figure 2 on page 9). Type the new cell reference of the cell you want to move to and press the *Enter* key. Cell references are case insensitive. Thus, typing a3 or A3 will move the focus to cell A3.
- Using the Navigator – go to **View > Navigator** or press the *F5* key to open the Navigator dialog (Figure 10). Type the cell references into the *Column* and *Row* fields and press the *Enter* key.
- Using the *Enter* key – pressing *Enter* moves the cell focus down one cell. Pressing *Shift+Enter* moves the focus up one cell.
- Using the *Tab* key – pressing *Tab* moves the cell focus one cell to the right. Pressing *Shift+Tab* moves the focus one cell to the left.
- Using the arrow keys – pressing the arrow keys on the keyboard moves the cell focus in the direction of the arrow pressed.

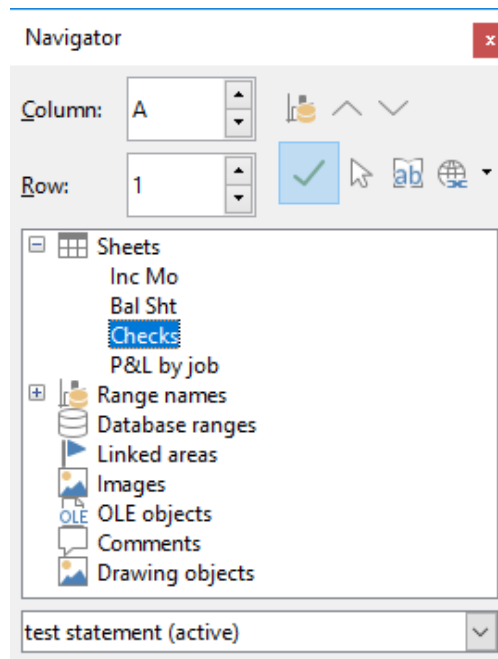


Figure 10: Navigator dialog

- Using *Home*, *End*, *Page Up*, and *Page Down*
  - *Home* moves the cell focus to the start of a row. *Ctrl+Home* moves the cell focus to the first cell in the sheet, A1.
  - *End* moves the cell focus to the last cell in the same row that contains data. *Ctrl+End* moves the cell focus to the last cell in the sheet that contains data.
  - *Page Down* moves the cell focus down one complete screen display.
  - *Page Up* moves the cell focus up one complete screen display.

## Sheet navigation

Each sheet in a spreadsheet is independent of the other sheets, though references can be linked from one sheet to another. There are three ways to navigate between different sheets in a spreadsheet.

- Using the Navigator – when the Navigator is open (Figure 10), double-clicking on any of the listed sheets selects the sheet.
- Using the keyboard – using key combinations *Ctrl+Page Down* moves one sheet to the right and *Ctrl+Page Up* moves one sheet to the left.
- Using the mouse – clicking on one of the sheet tabs at the bottom of the spreadsheet selects that sheet.

If there are many sheets in the spreadsheet, some of the sheet tabs may be hidden. If this is the case, use the four buttons to the left of the sheet tabs to move the tabs into view (Figure 11).



### Note

The sheet tab arrows that appear on the left in Figure 11 are only active if there are sheet tabs that cannot be seen.

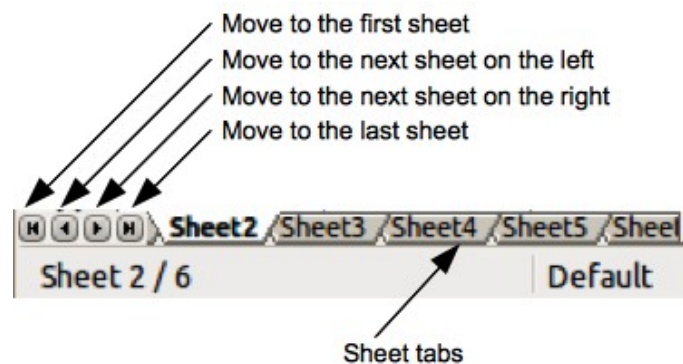


Figure 11. Navigating sheet tabs



## Note

When you insert a new sheet into a spreadsheet, Calc automatically uses the next number in the numeric sequence as a name. Depending on which sheet is open when you insert a new sheet, your new sheet may not be in numerical order. It is recommended to rename sheets in a spreadsheet to make them more recognizable.

## Keyboard navigation

You can navigate a spreadsheet using the keyboard, by pressing a key or a combination of keys at the same time. For example, *Ctrl+Home* moves the focus to cell A1. Table 1 lists the keys and key combinations you can use for spreadsheet navigation in Calc.

Table 1. Keyboard cell navigation

Keyboard shortcut	Cell navigation
→/←	Moves cell focus right/left one cell.
↑/↓	Moves cell focus up/down one cell.
<i>Ctrl+→</i> / <i>Ctrl+←</i>	If focus is on a blank cell, moves focus to the first cell on the right/left that contains data. If focus is on a cell containing data, moves focus to the last/first cell on the right/left containing data. If there are no more cells containing data, moves focus to the last/first cell on the right/left in the spreadsheet.
<i>Ctrl+↑</i> / <i>Ctrl+↓</i>	If focus is on a blank cell, moves focus to the first cell above/below that contains data. If focus is on a cell containing data, moves focus to the cell in Row 1/last cell containing data in the same column. If there are no more cells below containing data in that column, moves focus to the cell in the same column in the last row of the spreadsheet.
<i>Ctrl+Home</i> / <i>Ctrl+End</i>	Moves focus from anywhere on the spreadsheet to Cell A1/the last cell in the lower right-hand corner of the rectangular area of cells containing data on the same sheet.
<i>Alt+Page Down</i> / <i>Alt+Page Up</i>	Moves focus one screen to the right/left (if possible).
<i>Ctrl+Page Down</i> / <i>Ctrl+Page Up</i>	Moves focus to the same cell on the next sheet to the right/left in sheet tabs if there are more sheets in that direction.

Keyboard shortcut	Cell navigation
Tab / Shift+Tab	Moves focus to the next cell on the right/left.
Enter/ Shift+Enter	Moves focus down/up one cell (unless changed by user).

### Customizing the Enter key

You can choose the direction in which the *Enter* key moves the cell focus by going to **Tools > Options > LibreOffice Calc > General**. Use the first two options under Input settings (Figure 12) to change the *Enter* key settings. Select the direction cell focus moves from the drop-down list. Depending on the file being used or the type of data being entered, setting a different direction can be useful. The *Enter* key can also be used to switch into and out of editing mode.

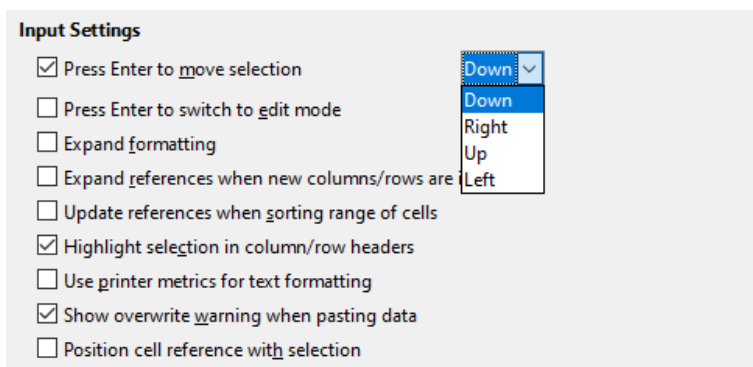


Figure 12: Customizing the Enter key

## Selecting items in a spreadsheet

### Selecting cells

#### Single cell

Left-click in the cell. You can verify the selection by looking in the Name Box on the Formula Bar (Figure 2).

#### Range of contiguous cells

A range of cells can be selected using the keyboard or the mouse.

To select a range of cells by dragging the mouse cursor:

- 1) Click in a cell.
- 2) Press and hold down the left mouse button.
- 3) Move the mouse around the screen.
- 4) Once the desired block of cells is highlighted, release the left mouse button.

To select a range of cells without dragging the mouse:

- 1) Click in the cell which is to be one corner of the range of cells.
- 2) Move the mouse to the opposite corner of the range of cells.
- 3) Hold down the *Shift* key and click.

To select a range of cells using Extending selection mode:

- 1) Click in the cell which is to be one corner of the range of cells.



- 2) Click in the Selection mode field on the Status Bar (Figure 3 on page 10) and select **Extending selection**.
- 3) Click in the cell in the opposite corner of the range of cells.



### Tip

Make sure to change back to *Standard selection* or you may find yourself extending a cell selection unintentionally.

To select a range of cells without using the mouse:

- 1) Select the cell that will be one of the corners in the range of cells.
- 2) While holding down the *Shift* key, use the cursor arrows to select the rest of the range.

To select a range of cells using the Name Box:

- 1) Click in the Name Box on the Formula Bar (Figure 2 on page 9).
- 2) Enter the cell reference for the upper left-hand cell, followed by a colon (:), and then the lower right-hand cell reference, then press the Enter key. For example, to select the range that would go from A3 to C6, enter A3:C6.

### Range of non-contiguous cells

To select a range of non-contiguous cells using the mouse:

- 1) Select the first cell or range of cells using one of the methods above.
- 2) Move the mouse pointer to the start of the next range or single cell.
- 3) Hold down the *Ctrl* key and click or click-and-drag to select another range of cells to add to the first range.
- 4) Repeat as necessary.
- 5) To select a range of non-contiguous cells using **Adding selection** mode:
- 6) To select a range of cells using **Adding selection** mode:
- 7) Click in the cell which is to be one corner of the range of cells.
- 8) Click in the **Selection mode** field on the Status Bar (Figure 3 on page 10) and select **Extending selection** before clicking in the opposite corner of the range of cells.

## Selecting columns and rows

### Single column or row

To select a single column, click on the column header (Figure 1 on page 8). To select a single row, click on the row header.

### Multiple columns or rows

To select multiple columns or rows that are contiguous:

- 1) Click on the first column or row in the group.
- 2) Hold down the *Shift* key.
- 3) Click the last column or row in the group.

To select multiple columns or rows that are not contiguous:

- 1) Click on the first column or row in the group.
- 2) Hold down the *Ctrl* key.
- 3) Click on all of the subsequent columns or rows while holding down the *Ctrl* key.

### Entire sheet

To select the entire sheet, click on the small box between the column headers and the row headers (Figure 13), or use the key combination **Ctrl+A** to select the entire sheet, or go to **Edit** on the Menu bar and select **Select All**.

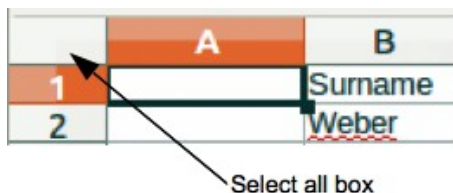


Figure 13. Select All box

## Selecting sheets

You can select either one or multiple sheets in Calc. It can be advantageous to select multiple sheets, especially when you want to make changes to many sheets at once.

### Single sheet

Click on the sheet tab for the sheet you want to select. The tab for the selected sheet becomes white (default Calc setup) or is otherwise highlighted.

### Multiple contiguous sheets

To select multiple contiguous sheets:

- 1) Click on the sheet tab for the first desired sheet.
- 2) While holding down the **Shift** key, click on the sheet tab for the last desired sheet.
- 3) All tabs between these two selections will turn white (default Calc setup). Any actions that you perform will now affect all highlighted sheets.

### Multiple non-contiguous sheets

To select multiple non-contiguous sheets:

- 1) Click on the sheet tab for the first desired sheet.
- 2) While holding down the **Ctrl** key, click on the sheet tabs for other desired sheets.
- 3) The selected tabs will turn white (default Calc setup). Any actions that you perform will now affect all highlighted sheets.

### All sheets

Right-click a sheet tab and choose **Select All Sheets** from the context menu.

## Working with columns and rows

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### Inserting columns and rows

When you insert columns or rows, the cells take the formatting of the corresponding cells in the column to the left or the row above.

### Single column or row

Using the Sheet menu:

- 1) Select a cell, column, or row where you want the new column or row inserted.
- 2) Go to **Sheet** on the Menu bar. For columns, select **Sheet > Insert Columns** and then select **Columns Before** or **Columns After**. For rows, select **Sheet > Insert Rows** and then select **Rows Above** or **Rows Below**.

Using the context menu:

- 1) Select a column or row where you want the new column or row inserted.
- 2) Right-click the column or row header.
- 3) Select **Insert Columns Before / After** or **Insert Rows Above / Below** from the context menu.

### **Multiple columns or rows**

Multiple columns or rows can be inserted at once rather than inserting them one at a time.

- 1) Highlight the required number of columns or rows by holding down the left mouse button on the first one and then dragging across the required number of identifiers.
- 2) Proceed as for inserting a single column or row above. The number of columns or rows highlighted will be inserted.

## **Deleting columns and rows**

### **Single column or row**

To delete a single column or row:

- 1) Select a cell in the column or row you want to delete.
- 2) Go to **Sheet** on the Menu bar and select **Delete Columns**. Right-click and select **Delete Columns** from the context menu.
- 3) Select the option you require from the Delete Cells dialog (Figure 14).

### **Multiple columns or rows**

To delete multiple columns or rows:

- 1) Select the columns or rows. See “Multiple columns or rows” on page 21.
- 2) Go to **Sheet** on the Menu bar and select **Delete Cells**, or right-click and select **Delete** from the context menu, or right-click in the column or row header and select **Delete Columns** or **Delete Rows** from the context menu.

## **Deleting cells**

- 1) Select the cell or cells you want to delete.
- 2) Go to **Sheet > Delete Cells**. Or, right-click on the cell and select **Delete** from the context menu.
- 3) Select the option you require from the Delete Cells dialog (Figure 14).

Alternatively:

- 1) Click in the column or header to select the column or row.
- 2) Go to **Sheet** on the Menu bar and select **Delete Cells** or right-click and select **Delete Columns** or **Delete Rows** from the context menu.

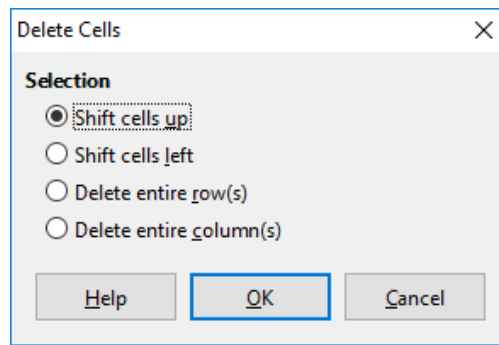



Figure 14: Delete Cells dialog

## Working with sheets

### Inserting new sheets

Click on the **Add Sheet** icon  next to the sheet tabs to insert a new sheet after the last sheet in the spreadsheet without opening the Insert Sheet dialog. The following methods open the Insert Sheet dialog (Figure 15) where you can position the new sheet, create more than one sheet, name the new sheet, or select a sheet from a file.

- Select the sheet where you want to insert a new sheet, then go to **Sheet > Insert Sheet** on the Menu bar or click **Alt+S+S**.
- Right-click on the sheet tab where you want to insert a new sheet and select **Insert Sheet** from the context menu.
- Click in the empty space at the end of the sheet tabs.
- Right-click in the empty space at the end of the sheet tabs and select **Insert Sheet** from the context menu.

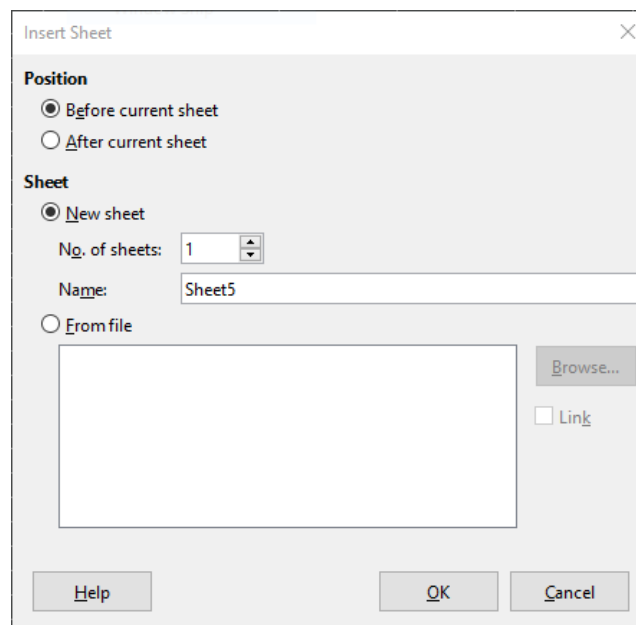


Figure 15: Insert Sheet dialog

### Moving and copying sheets

You can move or copy sheets within the same spreadsheet by dragging and dropping or using the Move/Copy Sheet dialog (Figure 16). To move or copy a sheet into a different spreadsheet, use the Move/Copy Sheet dialog.

## Dragging and dropping

To move a sheet to a different position within the same spreadsheet, click on the sheet tab and drag it to its new position before releasing the mouse button.

To copy a sheet within the same spreadsheet, hold down the *Ctrl* key (*Option* key on Mac) then click on the sheet tab and drag it to its new position before releasing the mouse button. The mouse pointer may change to include a plus sign depending on the setup of your operating system.

## Using Move/Copy Sheet dialog

The Move/Copy Sheet dialog allows you to specify exactly whether you want the sheet in the same or a different spreadsheet, its position within the spreadsheet, and the sheet name when it is moved or copied.

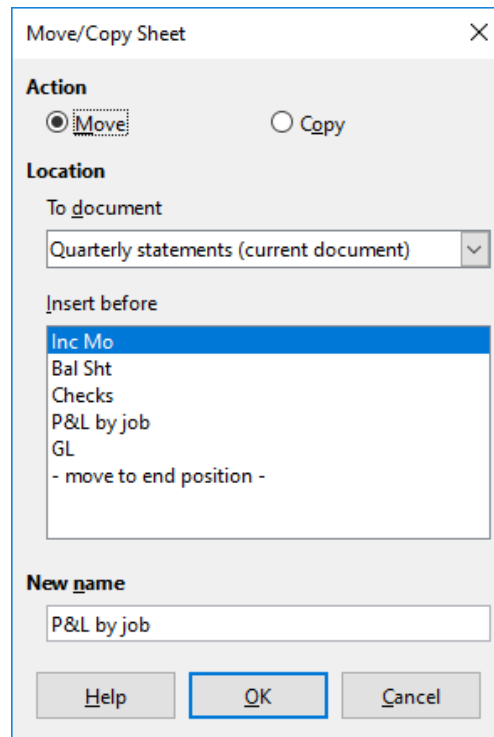


Figure 16: Move/Copy Sheet dialog

- 1) In the current document, right-click on the sheet tab you wish to move or copy and select **Move or Copy Sheet** from the context menu or go to **Sheet > Move or Copy Sheet** on the Menu bar.
- 2) Select **Move** to move the sheet or **Copy** to copy the sheet.
- 3) Select the spreadsheet where you want the sheet to be placed from the drop-down list in To document. This can be the same spreadsheet, another spreadsheet already open, or you can create a new spreadsheet.
- 4) Select the position in Insert before where you want to place the sheet.
- 5) Type a name in the New name text box if you want to rename the sheet when it is moved or copied. If you do not enter a name, Calc creates a default name (Sheet 2, Sheet 3, and so on).
- 6) Click **OK** to confirm the move or copy and close the dialog.



### Warning

When you move or copy to another spreadsheet or to a new one, a conflict may occur if formulas are linked to sheets in the previous location.

## Deleting sheets

To delete a single sheet, right-click on the sheet tab you want to delete and select **Delete Sheet** from the context menu, or go to **Sheet > Delete Sheet** on the Menu bar. Click **Yes** to confirm the deletion.

To delete multiple sheets, select the sheets (see “Selecting sheets” on page 22), then right-click one of the sheet tabs and select **Delete Sheet** from the context menu, or go to **Sheet > Delete Sheet** on the Menu bar. Click **Yes** to confirm the deletion.

## Renaming sheets

By default, the name for each new sheet added is SheetX, where X is the number of the next sheet to be added. While this works for a spreadsheet with only a few sheets, it can become difficult to identify sheets when a spreadsheet contains many sheets..

You can rename a sheet using one of the following methods:

- Enter the name in the Name text box when you create the sheet using the Insert Sheet dialog (Figure 15 on page 24).
- Right-click on a sheet tab and select **Rename Sheet** from the context menu to replace the existing name with a different one.
- Double-click on a sheet tab to open the Rename Sheet dialog.



### Note

Sheet names must start with either a letter or a number. Other characters, including spaces, are not allowed. Apart from the first character of the sheet name, permitted characters are letters, numbers, spaces, and the underscore character. Attempting to rename a sheet with an invalid name will produce an error message.

## Viewing Calc

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### Changing document view

Use the zoom function to show more or fewer cells in the window when you are working on a spreadsheet. For more about zoom, see Chapter 1, Introducing LibreOffice, in the *Getting Started Guide*.

### Freezing rows and columns

Freezing is used to lock rows across the top of a spreadsheet or to lock columns on the left of a spreadsheet. Then, when moving around within a sheet, the cells in frozen rows and columns always remain in view.

Figure 17 shows some frozen rows and columns. The heavier horizontal line between rows 3 and 23 and the heavier vertical line between columns F and Q indicate that rows 1 to 3 and columns A to F are frozen. The rows between 3 and 23 and the columns between F and Q have been scrolled off the page. To freeze rows or columns:

- 1) Click on the row header below the rows you want the freeze or click on the column header to the right of the columns where you want the freeze. To freeze both rows and columns, select the cell (not a row or column) that is below the row and to the right of the column that you want to freeze
- 2) Go to **View** on the Menu bar and select **Freeze Rows and Columns**. Shortcut: *Alt V+R*. A heavier line appears between the rows or columns indicating where the freeze has been place.

	A	B	C	D	E	F	Q	R
1		Surname	First Name	Address	City	Country		
2		Weber	Jean	PO Box 640	Airlie Beach	Australia		
3		Schofield	Peter	Jankowskiego	Opole	Poland		
23								
24								

Figure 17. Frozen rows and columns

## Unfreezing

To unfreeze rows or columns, go to **View** on the Menu bar and click **Freeze Rows and Columns** to toggle it off. The heavier lines indicating freezing will disappear.

## Splitting the screen

Another way to change the view is by splitting the screen displayed (also known as splitting the window). The screen can be split horizontally, vertically, or both, displaying up to four portions of the spreadsheet at any one time. An example of splitting the screen is shown in Figure 18 where a split is indicated by a gray line.

This could be useful for example, when a large spreadsheet has one cell with a number that is used by three formulas in other cells. Using the split-screen technique, the cell containing the number can be positioned in one section of the view and the cells with formulas can be seen in the other sections. This makes it easy to see how changing the number in one cell affects each of the formulas.

	A	B	C
1		Beta=	3.2000
2		A0=	0.1000
5			
6			
7	A1=	Beta*A0*(1-A0)	0.2880
8	A2=	Beta*A1*(1-A1)	0.6562
9	A3=	Beta*A3*(1-A2)	0.7219
10	A4=	Beta*A4*(1-A3)	0.6424
11	A5=	Beta*A5*(1-A4)	0.7351

Figure 18. Split screen example

## Splitting horizontally or vertically

There are two ways to split a screen horizontally or vertically:

### Method One:

- 1) Click on the row header below the rows where you want to split the screen horizontally or click on the column header to the right of the columns where you want to split the screen vertically.
- 2) Go to **View** on the Menu bar and select **Split Window**. A thick line appears between the rows or columns indicating where the split has been placed. An example of a split line is shown below Row 2 in Figure 18.

### Method Two:

For a horizontal split, click on the thick black line at the top of the vertical scroll bar (Figure 19) and drag the split line below the row where you want the horizontal split positioned.

Similarly, for a vertical split, click on the thick black line at the right of the horizontal scroll bar (Figure 19) and drag the split line to the right of the column where you want the vertical split positioned.



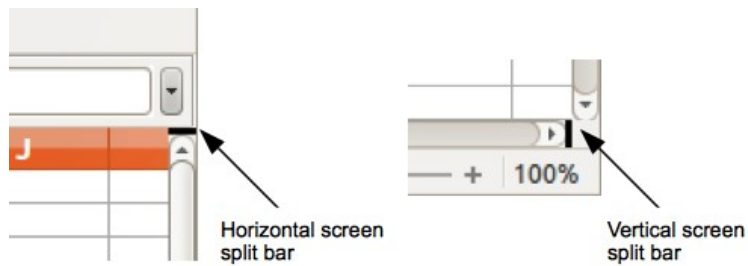


Figure 19. Split screen bars

## Splitting both horizontally and vertically

### Method One:

Position both the black horizontal and the black vertical lines as described above and as shown in Figure 19.

### Method Two:

- 1) Click the cell that is immediately below the rows where you want to split the screen horizontally and immediately to the right of the columns where you want to split the screen vertically.
- 2) Go to **View** on the Menu bar and select **Split Window**. Thick lines appear between the rows and columns indicating where the splits have been placed.

## Removing split views

To remove a split view, do any of the following:

- Double-click on each split line.
- Click on and drag the split lines back to their places at the ends of the scroll bars.
- Go to **View** on the Menu bar and click **Split Window** to toggle it off.

## Using the Navigator

The Navigator (Figure 20) is available in all LibreOffice modules. It provides tools and methods to move quickly through a spreadsheet and find specific items.



Figure 20: Navigator dialog in Calc

The Navigator categorizes and groups spreadsheet objects which you can click on to move quickly to that object. If an indicator (plus sign or triangle, dependent on computer setup) appears next to a category, at least one object in this category exists. To open a category and see the list of items,







click on the indicator. When a category is showing the list of objects in it, double-click on an object to jump directly to that object's location in the spreadsheet.

To open the Navigator, do one of the following:

- Press the *F5* key.
- Go to **View > Navigator** on the Menu bar.
- Click the Navigator icon in the Sidebar.

By default, the Navigator opens in the Sidebar.

The controls and tools available in the Navigator are as follows:

- **Column** – type a column letter and press the *Enter* key to reposition the cell cursor to the specified column in the same row.
- **Row** – type a row number and press the *Enter* key to reposition the cell cursor to the specified row in the same column.
- **Data Range**  – specifies the current data range denoted by the position of the cell cursor.
- **Start**  – moves the cursor to the cell at the beginning of the current data range, which you can highlight using the **Data Range** icon.
- **End**  – moves the cursor to the cell at the end of the current data range, which you can highlight using the **Data Range** icon.
- **Toggle**  – toggles the contents view. Only the selected category and its objects are displayed. Click the icon again to restore all elements for viewing.
- **Scenarios**  – displays all available scenarios. See Chapter 9, Data Analysis, for more information about scenarios. Double-click a name to apply that scenario and the result is shown in the sheet. If the Navigator displays scenarios, you can access the following commands when you right-click a scenario entry:
  - *Delete* – deletes the selected scenario.
  - *Properties* – opens the Edit scenario dialog, where you can edit the scenario properties.
- **Drag Mode**  – opens a submenu for selecting which action is performed when dragging and dropping an object from the Navigator into a document. Depending on the mode you select, the icon indicates whether a hyperlink, a link, or a copy is created.
  - *Insert as Hyperlink* – hyperlinks the entire item.
  - *Insert as Link* – links the copied item to the original item so that when the original item is changed, that change will be reflected in the current document.
  - *Insert as Copy* – inserts a copy of the selected item.



## Tip

Ranges, scenarios, pictures, and other objects are much easier to find if you have given them informative names when creating them, instead of keeping the default Calc names, for example Scenario 1, Image 1, Image 2, Object 1, and so on. These default names may not correspond to the position of the object in the document.

## Using document properties

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To open the Properties dialog for a document, go to **File > Properties** on the Menu bar. The Properties dialog provides information about the spreadsheet and allows you to set some of its properties. The dialog and its tabs are described below.

### General

Contains basic information about the current file.

- The text box at the top of the dialog displays the file name.
- **Change Password** – opens a dialog to change the password. It is only active if a password has been set for the file.
- **Type** – displays the file type of the current document.
- **Location** – displays the path and the name of the directory where the file is stored.
- **Size** – displays the size of the current document in bytes.
- **Created** – displays the date, time, and author when the file was first saved.
- **Modified** – displays the date, time, and author when the file was last saved in a LibreOffice file format.
- **Template** – displays the template that was used to create the file.
- **Digitally signed** – displays the date and time when the file was last signed as well as the name of the author who signed the document.
- **Digital Signatures** – opens the Digital Signatures dialog where you can manage digital signatures for the current document.
- **Last printed** – displays the date, time, and user name when the file was last printed.
- **Total editing time** – displays the amount of time that the file has been open for editing since the file was created. The editing time is updated when you save the file.
- **Revision number** – displays the number of times that the file has been saved.
- **Apply user data** – saves the full name of the user with the file. You can edit the name by going to **Tools > Options > LibreOffice > User Data** on the Menu bar.
- **Save preview image with this document** – saves a thumbnail.png inside the document. These images may be used by a file manager under certain conditions.
- **Reset Properties** – resets the editing time to zero, the creation date to the current date and time, and the version number to 1. The modification and printing dates are also deleted.

### Description

Contains optional editable descriptive information about the spreadsheet.

- **Title** – enter a title for the spreadsheet.
- **Subject** – enter a subject for the spreadsheet. You can use a subject to group documents with similar contents.
- **Keywords** – enter the words that you want to use to index the content of the spreadsheet. Keywords must be separated by commas. A keyword can contain white space characters or semicolons.
- **Comments** – enter comments to help identify the spreadsheet.

## Custom Properties

Use this page to assign custom information fields to the spreadsheet. In a new spreadsheet, this page may be blank. If the new spreadsheet is based on a template, this page may contain fields. You can change the name, type, and contents of each row. The information in the fields will be exported as metadata to other file formats.

Click **Add Property** to add a new custom property. Click **Reset** to delete all custom properties.

## CMIS Properties

Used for spreadsheets stored on remote servers. See the Help or the *Getting Started Guide* for more information.

## Security

Enables two password-protected security options.

- **Open file read-only** – select to allow this document to be opened only in read-only mode. This file sharing option protects the document against accidental changes. It is still possible to edit a copy of the document and save that copy with the same name as the original.
- **Record changes** – select to require that all changes be recorded. To protect the recording state with a password, click **Protect** and enter a password. This is similar to **Edit > Track Changes > Record** on the Menu bar. However, while other users of this document can apply their changes, they cannot disable change recording without knowing the password.
- **Protect** or **Unprotect** – protects the change recording state with a password. If change recording is protected for the current document, the button is named **Unprotect**. Click **Unprotect** and type the correct password to disable the protection.

## Font

When **Embed fonts in the document** is selected, any fonts used in the spreadsheet will be embedded into the document when it is saved. This may be useful if you are creating a PDF of the spreadsheet and want to control how it will look on other computer systems.

**Only embed fonts that are used in documents** – If fonts have been defined for the spreadsheet (for example, in the template), but have not been used, select this option to not embed them.

**Font scripts to embed** – You can choose which types of fonts are embedded: Latin, Asian, Complex. See the *Getting Started Guide* for more information.

## Statistics

Displays statistics for the current file: the number of sheets, cells, pages, and formula groups.











