



**LibreOffice**  
Community



## Calc Guide

# *Chapter 14* *Setting up and Customizing*

## Copyright

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## Feedback

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### Note

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## Publication date and software version

Published May 2021. Based on LibreOffice 7.1 Community.

Other versions of LibreOffice may differ in appearance and functionality.

## 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 and Appendix A (Keyboard Shortcuts) to this guide.

<i>Windows or Linux</i>	<i>macOS equivalent</i>	<i>Effect</i>
<b>Tools &gt; Options</b> menu selection	<b>LibreOffice &gt; Preferences</b>	Access setup options
Right-click	Control+click and/or right-click depending on computer setup	Open a context menu
<i>Ctrl (Control)</i>	⌘ ( <i>Command</i> )	Used with other keys
<i>Ctrl+Q</i>	⌘+Q	Exit / quit LibreOffice
<i>F11</i>	⌘+T	Open the Sidebar's Styles deck

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## Introduction

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This chapter presents some of the setup options found under **Tools > Options** on the Menu bar (**LibreOffice > Preferences** on macOS). Additional options, and more details about those given here, are covered in the Help and in Chapters 2 (Setting up LibreOffice) and 14 (Customizing LibreOffice) in the *Getting Started Guide*.

This chapter also describes some common customizations to menus, toolbars, and keyboard shortcuts. Other customizations are made easy by extensions that you can install from the LibreOffice website or from other providers.

## LibreOffice options

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This section covers some of the settings that apply to all the components of LibreOffice and are of particular interest to users of Calc.

- 1) Choose **Tools > Options** to open the Options dialog. The list on the left-hand side varies depending on which LibreOffice component is open. The illustrations in this chapter show the list as it appears when Calc is open.
- 2) Click the expansion symbol (+ or triangle) next to *LibreOffice*. A list of subsections drops down.

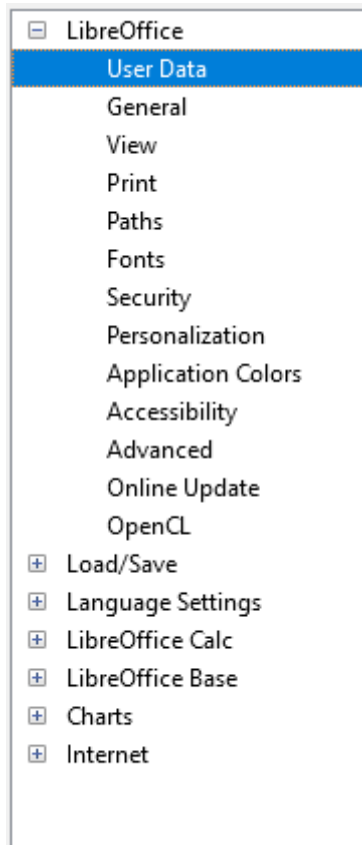


Figure 1: LibreOffice options

### ✓ Note

The **Reset** button, located in the lower right of the full Options dialog, has the same effect on all pages of the dialog. It resets the options to the values that were in place when you opened the dialog.

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## User data

User data is used by templates and wizards in LibreOffice. For example, Calc uses the first and last name stored here to fill in the *Created* and *Modified* fields in the document properties. These fields may also be used in the footer of a printed spreadsheet or as the name associated with comments. If you want your name to appear, then fill in the form on the *LibreOffice – User Data* page.

## View

The options on the *LibreOffice – View* page affect how the document window looks and behaves, including the size and style of toolbar and Sidebar icons. Set these options to suit your personal preferences.

## Print

On the *LibreOffice – Print* page, you can set the print options to suit your default printer and your most common printing method. You can change these settings at any time, either through this dialog or during the printing process (through the Print dialog).

Calc-specific print options are described in “Print options” on page 22.

See Chapter 6, Printing, Exporting, Emailing, and Signing, for more about these options.

## Paths

On the *LibreOffice – Paths* page, you can change the location of files associated with, or used by, LibreOffice to suit your needs. For example, you might want to store spreadsheets by default on a shared server. Some items can have at least two paths listed: one to a shared folder (which might be on a network) and one to a user-specific folder (normally on the user’s personal computer).

## Security

Use the *LibreOffice – Security* page to choose security options for saving documents and for opening documents that contain macros.

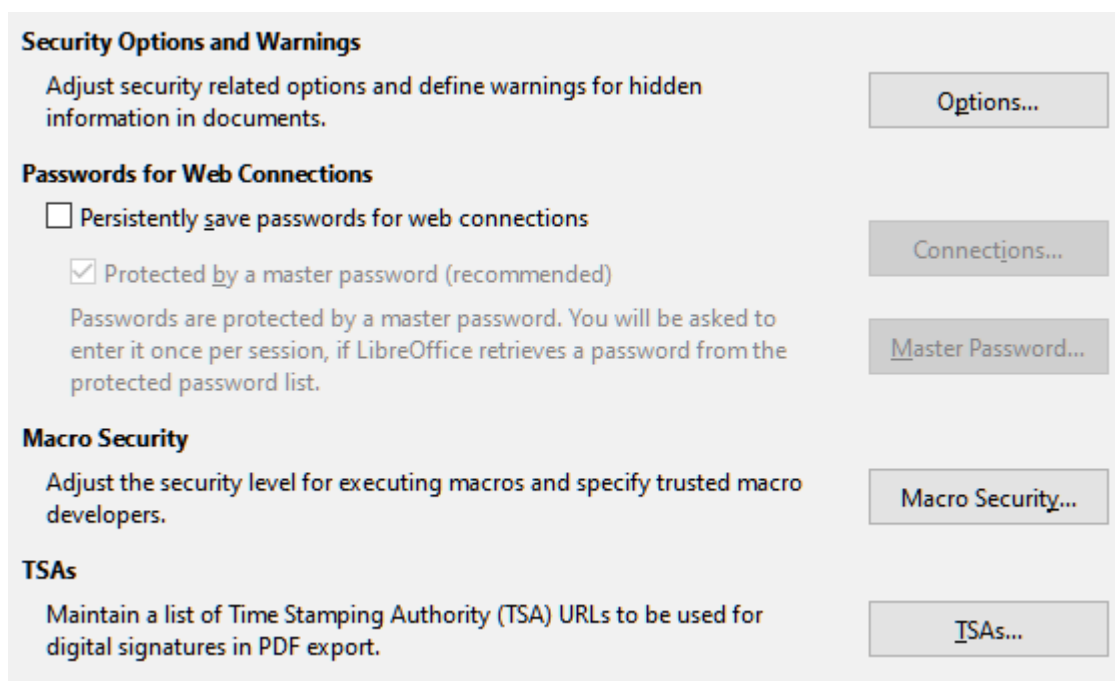


Figure 2: Choosing security options for opening and saving documents

## Security Options and Warnings

If you record changes, save multiple versions, or include hidden information or notes in your documents, and you do not want some of the recipients to see that information, you can set warnings to remind you to remove this information, or you can have LibreOffice remove some information automatically. Note that (unless removed) much of this information is retained in a file whether the file is in LibreOffice's default OpenDocument Format, or has been saved to other formats, including PDF.

Click the **Options** button to open a separate dialog with specific choices (see Figure 3).

## Passwords for Web Connections

You can enter a master password to enable easy access to websites that require a user name and password. If you select the **Persistently save passwords for web connections** option, the Set Master Password dialog opens. LibreOffice will securely store all passwords that you use to access files from web servers. You can retrieve the passwords from the list after you enter the master password.

## Macro Security

Click the **Macro Security** button to open the Macro Security dialog, where you can adjust the security level for executing macros and specify trusted sources.

## Certificate Path

Users can digitally sign documents using LibreOffice. A digital signature requires a personal signing certificate. Most operating systems can generate a self-signed certificate. However, a personal certificate issued by an outside agency (after verifying an individual's identity) has a higher degree of trust associated with it than a self-signed certificate. LibreOffice does not provide a secure method of storing these certificates, but it can access certificates that have been saved using other programs. Click the **Certificate** button and select which certificate store to use.



## Note

The Certificate Path option appears only on Linux and macOS systems. On Windows, LibreOffice uses the default Windows location for storing and retrieving certificates.

## TSAs –Time Stamping Authorities

Allows you to optionally select a Time Stamping Authority (TSA) URL for PDF documents created by LibreOffice. Adding a trusted timestamp to an electronic signature on a PDF provides a digital seal of data integrity and a trusted date and time of when the file was signed. Recipients of PDF documents with a trusted timestamp can verify when the document was digitally or electronically signed, as well as verify that the document was not altered after the date the timestamp vouches for.

## Security Options and Warnings

The following options are on the Security Options and Warnings dialog (Figure 3).

### Remove personal information on saving

Select this option to always remove user data from the file properties when saving the file. To manually remove personal information from specific documents, deselect this option and then use the **Reset Properties** button under **File > Properties > General** on the Menu bar.

### Ctrl-click required to open hyperlinks

The default behavior in most components of LibreOffice is to *Ctrl*+click on a hyperlink to open the linked document, but you can choose to open hyperlinks using a single click.

The other options on this dialog should be self-explanatory.

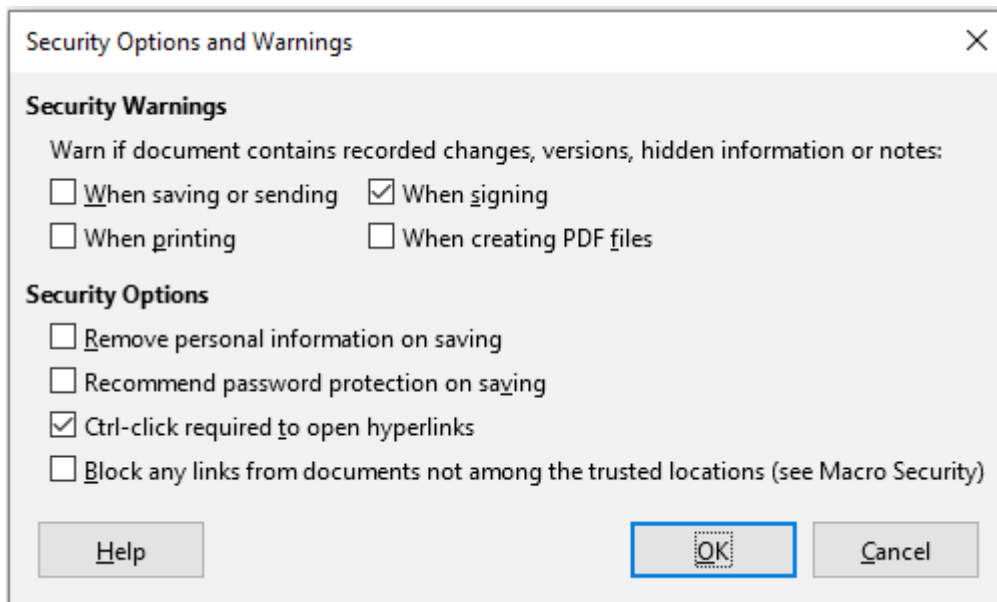


Figure 3: Security Options and Warnings dialog

## Application colors

On the *LibreOffice – Application Colors* page (Figure 4), you can specify which user interface elements are visible and the colors used to display them. Scroll down the list until you find the section headed *Spreadsheet*. To change the default color for *Grid lines* or other on-screen indicators, click the down-arrow by the color and select a new color in the drop-down list.

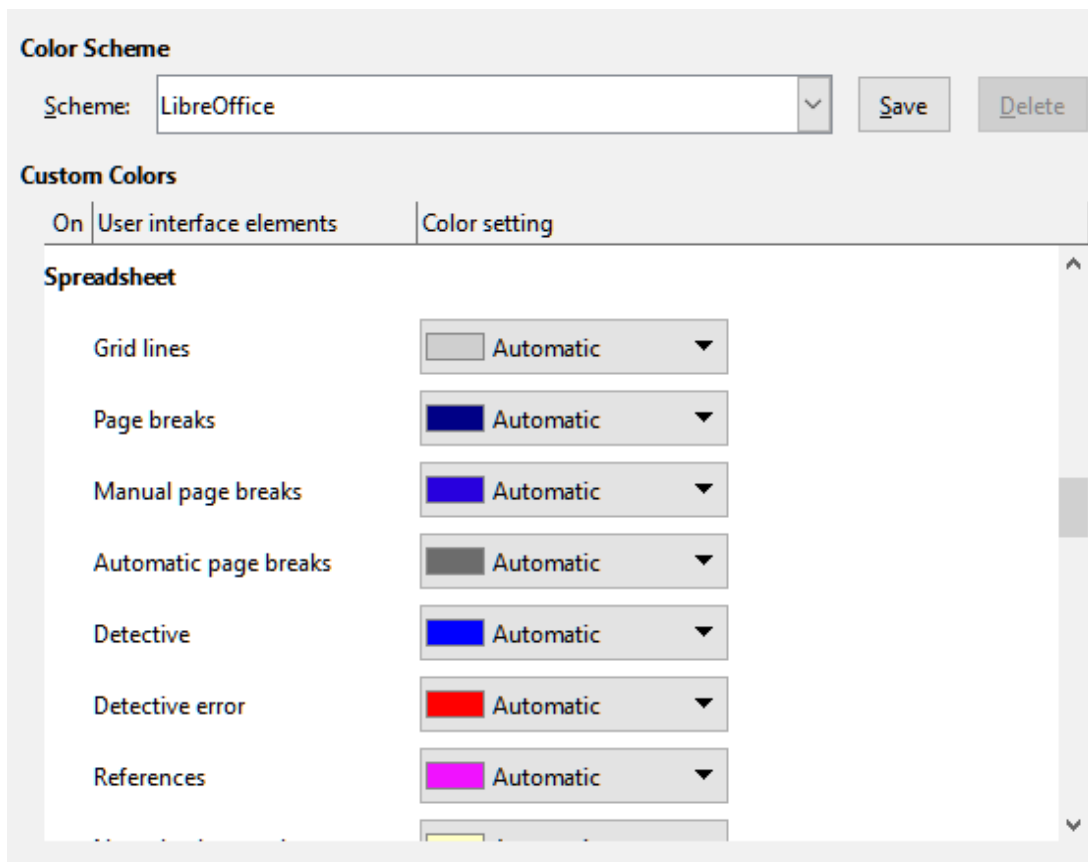


Figure 4: Changing the color of elements in Calc

If you wish to save your color changes as a color scheme, click **Save**, type a name in the *Name of color scheme* box in the pop-up dialog, and then click **OK**.



## Advanced options

Two items of interest on this page are found under *Optional Features*:

### Enable experimental features (may be unstable)

Selecting this option enables features that are not yet complete or contain known bugs. The list of these features is different version by version.

### Enable macro recording (may be limited)

This option enables macro recording, with some limitations. For more about macro recording, see Chapter 13, *Getting Started with Macros*, in the *Getting Started Guide*, and Chapter 12, *Macros*, in this book.

## Options for loading and saving documents

You can set the Load/Save options to suit the way you work. This chapter describes only a few of the options, those most relevant to working with Calc. See Chapter 2, *Setting up LibreOffice*, in the *Getting Started Guide* for a description of the other options.

If the Options dialog is not already open, click **Tools > Options** on the Menu bar. Click the expansion symbol (+ or triangle) by Load/Save on the left-hand side to display the list of load/save options pages.

## General

Many of the choices on the *Load/Save – General* page (Figure 5) are familiar to users of other office suites. Those of most interest to Calc users are in the *Default File Format and ODF Settings* section.

**Load**

- Load user-specific settings with the document
- Load printer settings with the document

**Save**

- Save AutoRecovery information every: 10 minutes
- Edit document properties before saving
- Always create backup copy
- Save URLs relative to file system
- Save URLs relative to internet

**Default File Format and ODF Settings**

ODF format version: 1.3 Extended (recommended) ▼

Doocument type: Text document ▼

Always save as: ODF Text Document (\*.odt) ▼

- Warn when not saving in ODF or default format

Figure 5: Choosing Load and Save general options

### Default File Format and ODF Settings

**ODF format version:** LibreOffice by default saves documents in OpenDocument Format (ODF) version 1.3 Extended. You will rarely need to change this for compatibility when exchanging files with other people.

**Document type:** If you routinely share documents with users of Microsoft Excel, you might want to change the **Always save as** option to one of the Excel formats, including XLSX. However, you can choose an Excel format when you save any individual file.

We recommend that you always save a working copy in ODS format and only create an Excel version if necessary for sharing. Also, note that recent versions of Microsoft Excel can open ODS files, so this may no longer be needed.

## VBA Properties

On the *Load/Save – VBA Properties* page (Figure 6), you can choose whether to keep any VBA (Visual Basic for Applications) macros in Microsoft Office documents that are opened in LibreOffice.

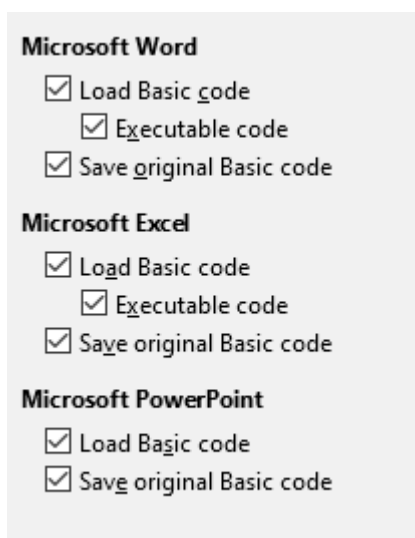


Figure 6: Choosing Load/Save VBA Properties

If you choose **Load Basic code**, you can edit the macros in LibreOffice. The changed code is saved in an ODF document but is not retained if you save into a Microsoft Office format.

If you choose **Save original Basic code**, the macros will not work in LibreOffice but are retained unchanged if you save the file into Microsoft Office format.

If you are importing a Microsoft Word or Excel file containing VBA code, you can select the option **Executable code**. Whereas normally the code is preserved but rendered inactive (if you inspect it with the LibreOffice Basic IDE you will notice that it is all commented), with this option the code is ready to be executed.

**Save original Basic code** takes precedence over **Load Basic code**. If both options are selected and you edit the disabled code in LibreOffice, the original Microsoft Basic code will be saved when saving in a Microsoft Office format.

To remove any possible macro viruses from the Microsoft Office document, deselect **Save original Basic code**. The document will be saved without the Microsoft Basic code.

## Microsoft Office

On the *Load/Save – Microsoft Office* page (Figure 7), you can choose what to do when importing or exporting Microsoft Office OLE objects (linked or embedded objects or documents such as spreadsheets or equations): convert them into or from the corresponding LibreOffice OLE object or load and save them in their original format.

Select the [L] options to convert Microsoft OLE objects into the corresponding LibreOffice OLE objects when a Microsoft document is loaded into LibreOffice.

Select the [S] options to convert LibreOffice OLE objects into the corresponding Microsoft OLE objects when a document is saved in a Microsoft format.

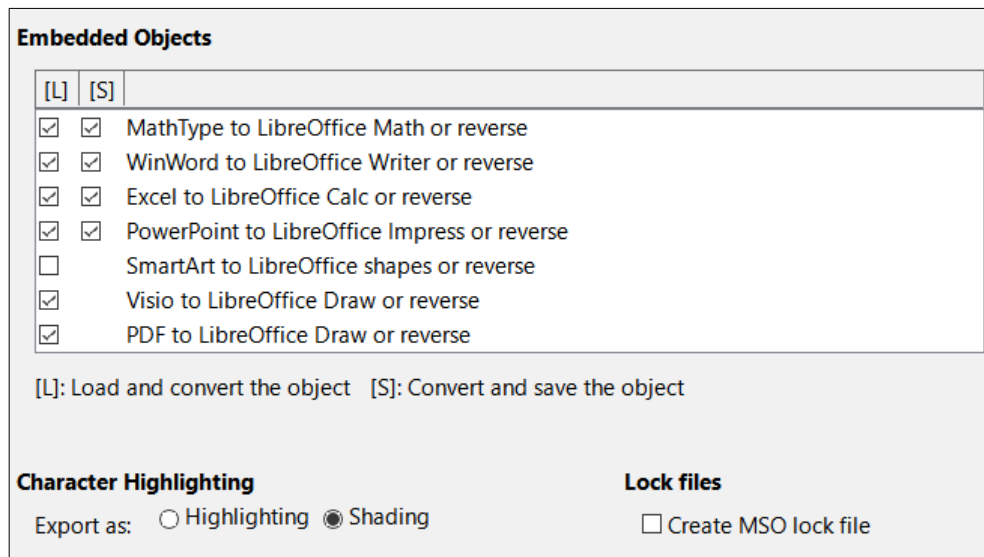


Figure 7: Choosing Load/Save Microsoft Office options

The *Character Highlighting* options enable you to select between the two text highlighting (character background) attributes that Microsoft Office provides, **Highlighting** or **Shading**. **Shading** is the initial default.

The **Create MSO lock file** option improves interoperability with Microsoft Office for shared spreadsheets. When enabled, Calc writes two lock files when opening a Microsoft Office format file, one LibreOffice lock file and one Microsoft Office lock file. This enables users of both suites to be made aware that the file is in use. The option is initially disabled by default.

## HTML Compatibility

Choices made on the *Load/Save – HTML Compatibility* page (Figure 8) affect how LibreOffice imports or exports HTML pages. See Chapter 2, *Setting up LibreOffice*, in the *Getting Started Guide*, and “HTML documents; importing/exporting” in the Help, for more information.

The main items of interest for Calc users are in the *Export* section.

### LibreOffice Basic

Select this option to include LibreOffice Basic macros (scripts) when exporting to HTML format. You must activate this option before you create the LibreOffice Basic macro; otherwise the script will not be inserted. LibreOffice Basic macros must be located in the header of the HTML document. Once you have created the macro in the LibreOffice Basic IDE, it appears in the source text of the HTML document in the header.

If you want the macro to run automatically when the HTML document is opened, choose **Tools > Customize > Events**. See Chapter 12, *Macros*, for more information.

### Display warning

When the **LibreOffice Basic** option (see above) is not selected, the **Display warning** option becomes available. If the **Display warning** option is selected, then when exporting to HTML a warning is shown that LibreOffice Basic macros will be lost.

### Print layout

Select this option to export the print layout of the current document as well. The HTML filter supports CSS2 (Cascading Style Sheets Level 2) for printing documents. These capabilities are only effective if print layout export is activated.

### Copy local images to Internet

Select this option to automatically upload the embedded pictures to an Internet server when uploading using FTP.

## Character set

Select the appropriate character set for the export.

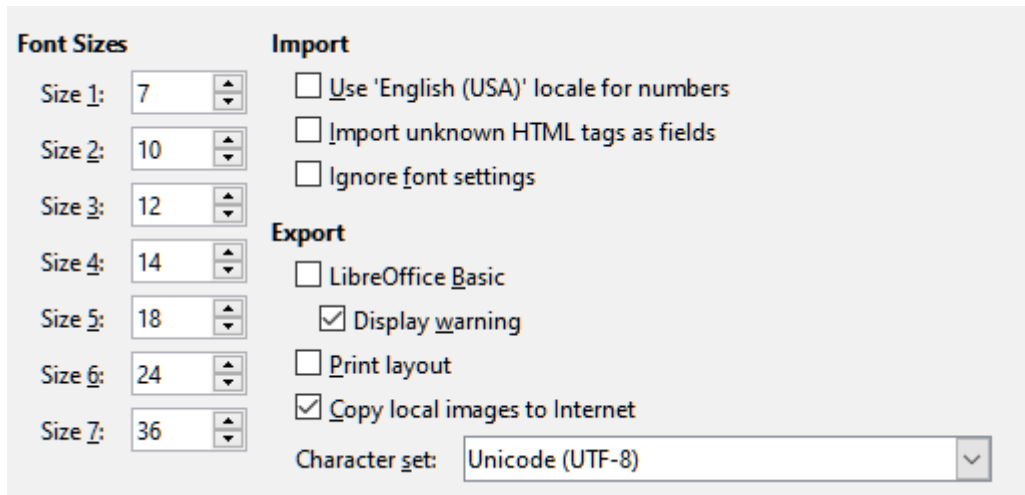


Figure 8: Choosing HTML compatibility options

## Calc-specific options

Calc must be open in order for the LibreOffice Calc options to be displayed in the Options dialog. Click the expansion symbol (+ or triangle) by *LibreOffice Calc*. A list of subsections drops down (Figure 9).

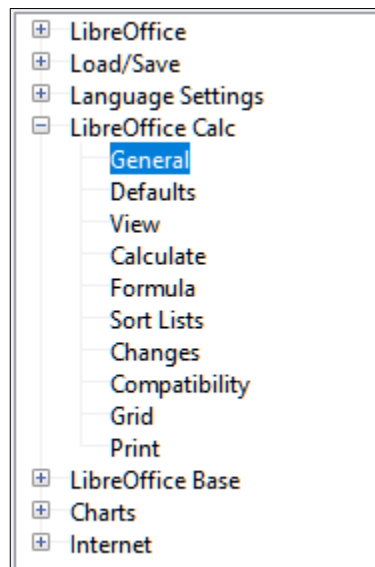


Figure 9: Calc options

## General

The choices on the *LibreOffice Calc – General* page (Figure 10) affect the units used for rulers and other measurements, the default tab stop positions, the updating of links and fields, and various input settings.

### Metrics

Choose the unit of measurement used in spreadsheets and the default tab stops distance.

### Update links when opening

Choose whether to update links when opening a document: **Always**, **On request**, or **Never**. Spreadsheets that include many or large charts or graphics may load slowly if this option is set to **Always**.

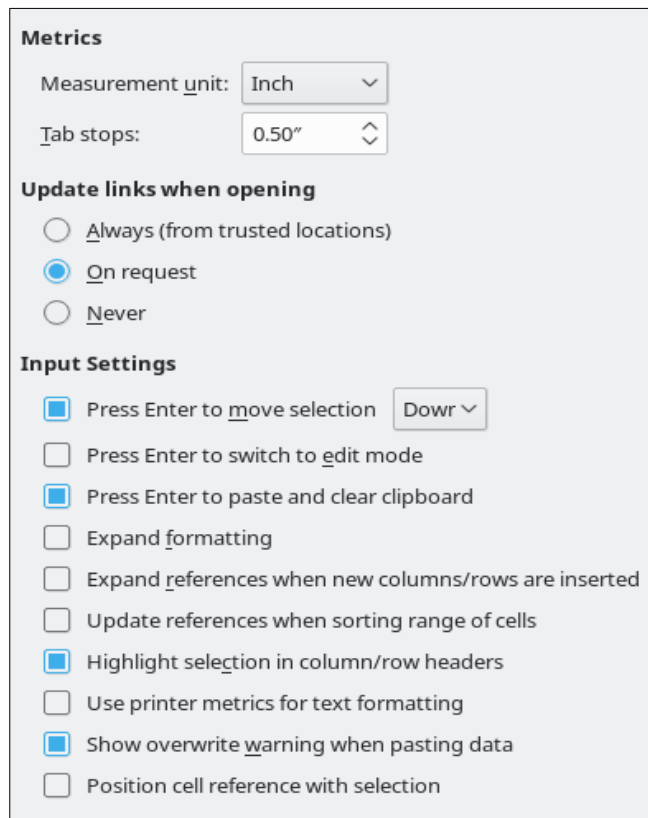


Figure 10: Selecting general options for Calc

## Input Settings section

### Press Enter to move selection

Specifies that pressing *Enter* moves the cursor to another cell. You can also choose the direction the cursor moves: **Up**, **Down**, **Left**, or **Right**. If this option is not selected, pressing *Enter* places the data into the cell but does not move the cursor.

### Press Enter to switch to edit mode

Specifies that pressing *Enter* puts the selected cell into edit mode. To end edit mode and move the cursor in the desired direction, press *Enter* again.

### Press Enter to paste and clear clipboard

When the content of a cell is copied to the clipboard, you can paste the information in another cell by pressing the *Enter* key. After pasting occurs, the clipboard is cleared. Here you can enable/disable this feature.

### Expand formatting

Specifies whether to automatically apply the formatting attributes of the selected cell to empty adjacent cells. If, for example, a selected cell has the bold attribute, this attribute will also apply to empty adjacent cells. However, cells that already have a special format will not be modified by this function. To see the affected range, press *Ctrl+\** (multiplication sign on the number pad). The format will also apply to all new values inserted within this range. This feature works only while you are inserting data in adjacent cells with the previous formatting style; if you insert some data in a non-adjacent cell, Expand formatting will no longer work. In order to get it to work again, you will need to format a cell again (it could be the same one if you like) and insert data into its adjacent cells.

### Expand references when new columns/rows are inserted

Specifies whether to expand references when inserting columns or rows adjacent to the reference range. This is only possible if the reference range, where the column or row is inserted, originally spanned at least two cells in the desired direction.

Example: If the range A1:B1 is referenced in a formula and you insert a new column after column B, the reference is expanded to A1:C1. If the range A1:B1 is referenced and a new row is inserted under row 1, the reference is not expanded, since there is only a single cell in the vertical direction.

If you insert rows or columns in the middle of a reference area, the reference is always expanded.

#### **Update references when sorting range of cells**

When selected, references to cells are updated when a range of cells is sorted. If not selected, the references are unchanged.

#### **Highlight selection in column/row headers**

Specifies whether to highlight column and row headers in the selected columns or rows.

#### **Use printer metrics for text formatting**

Select this option to use the properties of the default printer to format the display of a spreadsheet. Those properties can be found by choosing **File > Printer Settings** and then selecting the **Properties** button for the default printer. If the printer has options for page setup, those settings will be applied to Calc documents. If this option is not selected, pages will be configured for a generic printer.

#### **Show overwrite warning when pasting data**

Pasting contents of the clipboard into a cell will replace the contents of that cell with what is in the clipboard. Select this option to be alerted to a possible loss of data when pasting.

#### **Position cell reference with selection**

With this option set, expanding a selection (with *Ctrl+Shift+Down/Up*) jumps to the end of the range in the column that was added as last to the initial selection. When the option is not set, expanding a selection (with *Ctrl+Shift+Down/Up*) jumps to the end of the range in the column where selecting the cell range was started. The same applies when extending a selection on rows, with *Ctrl+Shift+Left/Right*.

## **Defaults**

On the *LibreOffice Calc – Defaults* page you can enter the number of sheets to be opened by default when you start a new spreadsheet, and either accept the default sheet prefix or type a new one. After a spreadsheet has been created, you can add new sheets and change the label of any tab; see Chapter 1, Introduction, for more information.

## **View**

The options on the *LibreOffice Calc – View* page (Figure 11) affect the way the document window looks and behaves when viewed onscreen.

### **Display section**

Select various options for the display.

#### **Formulas**

Display the content of a cell either as a formula or as the result of that formula.

#### **Zero values**

Display a zero in a cell when the cell has a value of zero, or display an empty cell.

#### **Comment indicator**

Select this option to show a small symbol in the top right corner of a cell that contains a comment.

To always display a comment, right-click on the cell and select **Show comment** in the context menu.

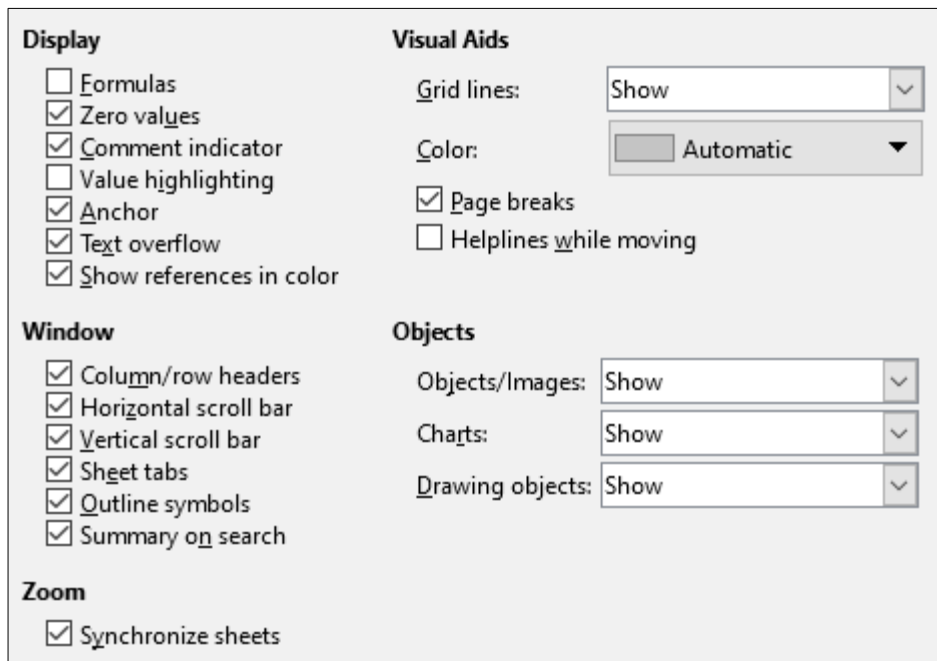


Figure 11: Selecting view options for Calc

### Value highlighting

Select this option to highlight all values, or results of formulas, in the sheet. Text is highlighted in black; numbers, dates and logical values in blue, since they are all handled as number by Calc; formulas are displayed in green. When this option is active, any colors assigned in the document are not displayed.

### Anchor

If an inserted object, such as a picture, is anchored to a cell, an image of an anchor will appear in the cell to which the object is anchored.

### Text overflow

If a cell contains text that is wider than the width of the cell, the text is displayed over empty neighboring cells in the same row. If there is no empty neighboring cell, a small triangle at the cell border indicates that the text continues. If this option is selected, text will wrap inside the cell and the height of the row will expand to accommodate the height of the expanded cell.

### Show references in color

Select this option to provide a visual aid to assist the editing of a formula. Each reference is then highlighted in color in the formula, and the referenced cell range is enclosed by a colored border as soon as the cell containing the reference is selected for editing.

10	Employee #8	\$0.00	\$35,720.00	\$48,550.00	\$84,270.00	
11	Total	\$237,374.00	\$284,301.00	\$311,185.00	\$832,860.00	=SUM(B11:F11)
12						

Figure 12: Formula references – visual aids

### Window section

The following elements of the spreadsheet window can be made visible or invisible: column and row headers, horizontal and vertical scroll bars, sheet tabs, and, if an outline has been defined, outline symbols.

If the **Sheet tabs** option is not selected, you can only switch between the sheets by using the Navigator.

The **Summary on search** option controls the display of the Search Results dialog, which is described in detail in Chapter 2, Entering, Editing, and Formatting Data.

## Visual Aids section

### Grid lines

Grid lines are the borders around the cells of a spreadsheet when viewed onscreen. The options are: **Show**, **Show on colored cells**, or **Hide**. If grid lines are hidden, tables will be displayed on a solid background with no grid around cells. The color choice overrides the selection made in **Tools > Options > LibreOffice > Application Colors > Spreadsheet > Grid lines**.

### ✓ Note

To print grid lines, choose **Format > Page > Sheet > Print > Grid**.

### Page breaks

Specifies whether to view the page breaks within a defined print area.

### Helplines while moving

Specifies whether to view helplines when moving drawings, frames, graphics, and other objects. These lines help you align objects.

In Figure 13, the graph with the dark background represents the image in its original location. The lighter area represents the position of the image as it is being moved. Helplines are the horizontal and vertical dotted lines at the corners of the lighter object.

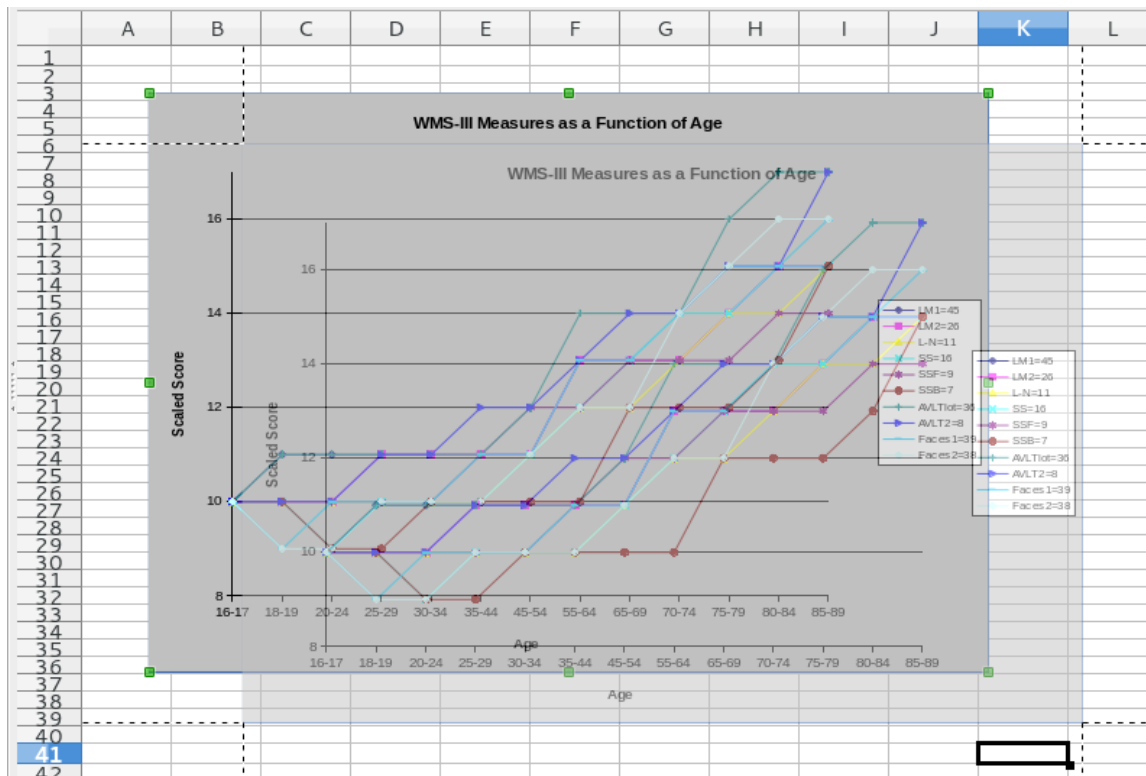


Figure 13: Helplines visible when moving a graphic

## Objects section

Choose whether to show or hide graphics, charts, and drawing objects.

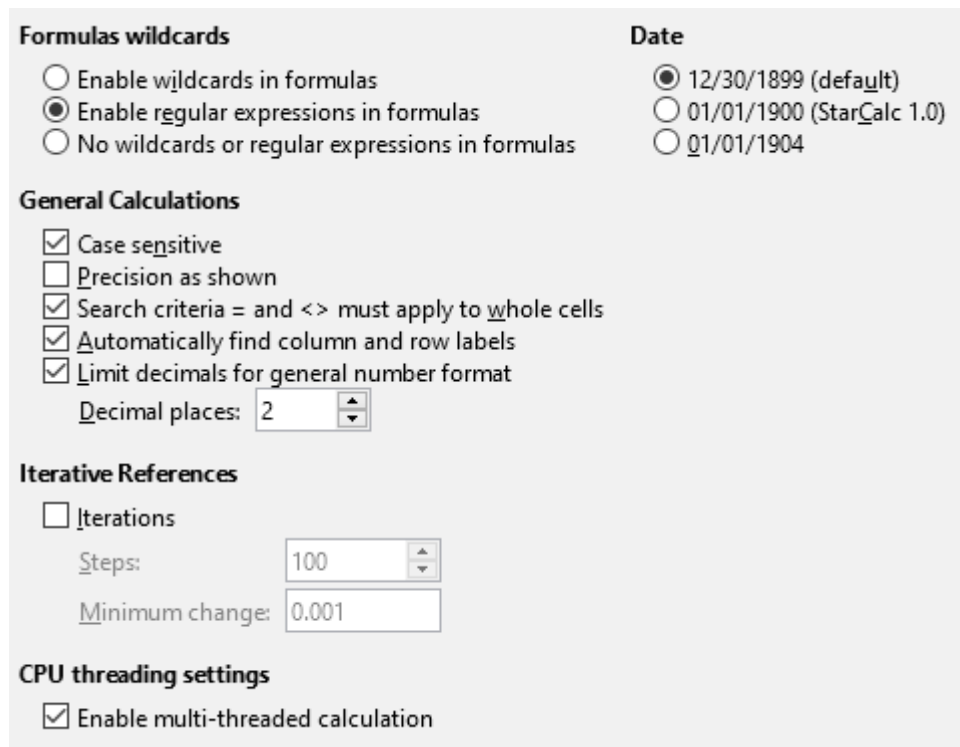
## Zoom section

Select the **Synchronize sheets** option to apply any selected zoom (magnification) factor to all sheets in the spreadsheet. If this option is not selected, separate zoom factors can be applied to individual sheets.



## Calculate

Use the *LibreOffice Calc – Calculate* page (Figure 14) to define the calculation settings for spreadsheets.



The screenshot shows the 'Calculate' dialog box in LibreOffice Calc, divided into several sections:

- Formulas wildcards:** Three radio buttons: 'Enable wildcards in formulas' (unselected), 'Enable regular expressions in formulas' (selected), and 'No wildcards or regular expressions in formulas' (unselected).
- Date:** Three radio buttons: '12/30/1899 (default)' (selected), '01/01/1900 (StarCalc 1.0)' (unselected), and '01/01/1904' (unselected).
- General Calculations:** Five checked checkboxes: 'Case sensitive', 'Precision as shown' (unchecked), 'Search criteria = and <> must apply to whole cells', 'Automatically find column and row labels', and 'Limit decimals for general number format'. Below is a 'Decimal places' spinner set to 2.
- Iterative References:** An unchecked 'Iterations' checkbox, a 'Steps' spinner set to 100, and a 'Minimum change' text box set to 0.001.
- CPU threading settings:** A checked 'Enable multi-threaded calculation' checkbox.

Figure 14: Calc calculation options

### Formulas wildcards section

#### Enable wildcards in formulas

Specifies that wildcards are enabled when searching and also for character string comparisons. Select this option for spreadsheets that need to be interoperable with Microsoft Excel.

#### Enable regular expressions in formulas

Specifies that regular expressions instead of simple wildcards are enabled when searching and also for character string comparisons. Do not enable regular expressions in formulas for spreadsheets that need to be interoperable with Microsoft Excel.

#### No wildcards or regular expressions in formulas

Specifies that only literal strings are used when searching and also for character string comparisons. Do not disable wildcards in formulas for spreadsheets that need to be interoperable with Microsoft Excel.

The options listed above are mutually exclusive. For more information about them, see Chapter 7, Using Formulas and Functions.

### Date section

Select the start date for the internal conversion from days to numbers.

12/30/1899 (default) – Sets December 30, 1899 as day zero.

01/01/1900 (StarCalc 1.0) – Sets January 1, 1900 as day zero. Use this setting for StarCalc 1.0 spreadsheets containing date entries.

01/01/1904 – Sets January 1, 1904 as day zero. Use this setting for spreadsheets that are imported from foreign formats.

## General Calculations section

Specify a variety of options relevant to spreadsheet calculation.

### Case sensitive

Specifies whether to distinguish between upper and lower case in texts when comparing cell contents. For example: type 'Test' in cell A1; and 'test' in B1. Then type the formula =A1=B1 in cell C1. If the **Case sensitive** option is checked, FALSE will appear in the cell; if the analysis was case insensitive, TRUE will appear in the cell. This option is not applied to the EXACT text function, which is always case-sensitive.

### Precision as shown

Specifies whether to make calculations using the rounded values displayed in the sheet. Charts will be shown with the displayed values. If the **Precision as shown** option is not marked, the displayed numbers are rounded, but they are calculated internally using the non-rounded number.

### Search criteria = and <> must apply to whole cells

The default search method in Calc is to search for any instance of the target regardless of the position of the target within a word. For example, when searching for day, Calc will match Friday, Sunday, and days. Select this option to search an exact occurrence of the target. Wildcard symbols can be used to expand the search to match the default condition.

### Automatically find column and row labels

Calc will name the range of data, under a column heading or to the right of a row heading, using the text in those headings.

Example: Cell E5 contains the text Europe. Below, in cell E6, is the value 100 and in cell E7 the value 200. If the **Automatically find column and row labels** option is selected, you can write the following formula in cell A1: =SUM(Europe).

### Limit decimals for general number format

Limits the number of decimals to be displayed for numbers with the general number format. This overrides the setting applied in the General option of the Format section inside the Number Category in **Format > Cells > Numbers**. This setting refers to how numbers are displayed. When decimal places are limited, calculations are not affected because of rounding.

## Iterative References section

Iterative references are formulas that are continuously repeated until the problem is solved. In this section you can choose the number of approximation steps carried out during iterative calculations and the degree of precision of the answer.

### Iterations

Select this option to enable iterations. If this option is not selected, an iterative reference causes an error message.

### Steps

Sets the maximum number of iteration steps.

### Minimum change

Specifies the difference between two consecutive iteration step results. If the result of the iteration is lower than the minimum change value, then the iteration will stop.

## CPU threading settings section

### Enable multi-threaded calculation

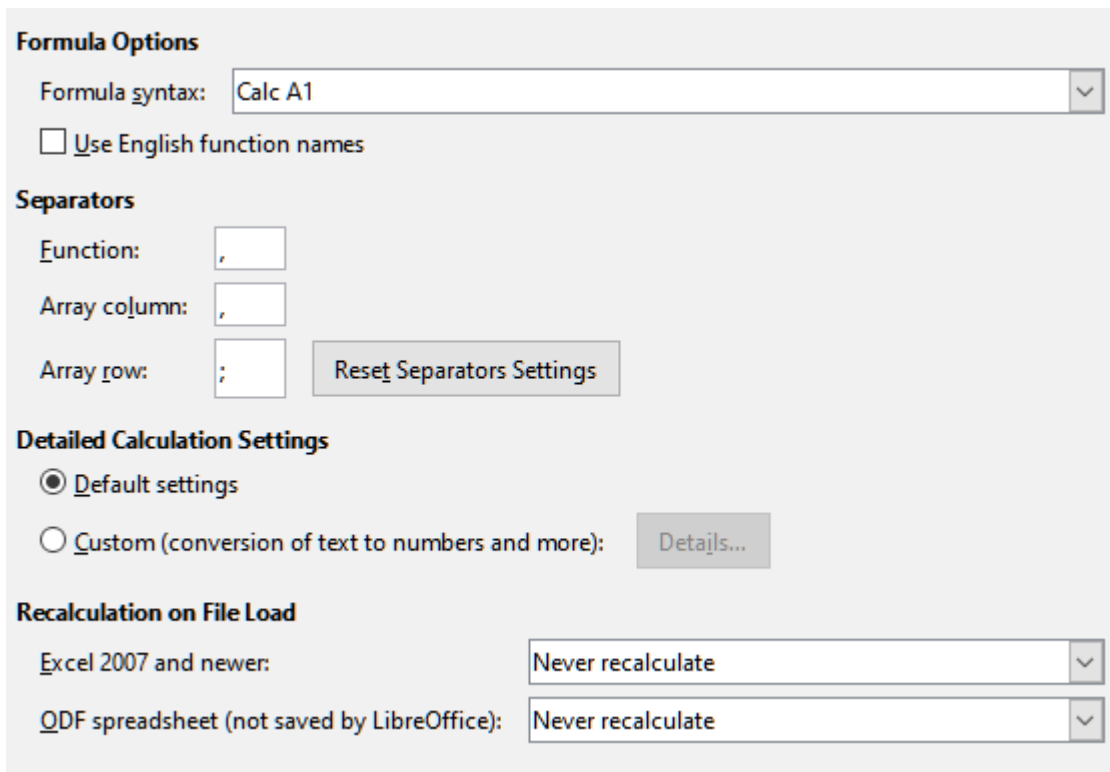
Controls the use of multi-threading / parallelism, which can be used to speed up LibreOffice Calc calculations on computers with multiple processing cores. See Chapter 7, Using Formulas and Functions for more information.

## Caution

When calculations involve a range that includes an empty cell, take note of the setting for **Zero values** in the **LibreOffice Calc > View** options. If this option is not selected, a value of zero will display as an empty cell. Empty cells and the value zero are treated differently by many functions. For example, COUNT will not include an empty cell as an item to be counted. The average of eight cells, one of which contains the value zero, is not the same as the average of eight cells, one of which is empty (an empty cell is not included in determining the average).

## Formula

Use the *LibreOffice Calc – Formula* page (Figure 15) to specify the following formula options.



The screenshot shows the 'Formula Options' dialog box in LibreOffice Calc. It is organized into several sections:

- Formula syntax:** A dropdown menu currently set to 'Calc A1'.
- Use English function names**
- Separators:** Three input fields for 'Function:', 'Array column:', and 'Array row:' containing commas, commas, and semicolons respectively. A 'Reset Separators Settings' button is located to the right of these fields.
- Detailed Calculation Settings:** Two radio buttons: 'Default settings' (selected) and 'Custom (conversion of text to numbers and more):'. A 'Details...' button is next to the 'Custom' option.
- Recalculation on File Load:** Two dropdown menus. The first is for 'Excel 2007 and newer:' and the second is for 'ODF spreadsheet (not saved by LibreOffice):'. Both are currently set to 'Never recalculate'.

Figure 15: Formula options

### Formula syntax

Syntax is the format in which formulas are written. Choose the syntax most appropriate for your work. If you regularly open or save to Microsoft Excel formats, you may wish to use one of the Excel syntaxes.

To illustrate the differences between syntaxes, assume a spreadsheet contains two sheets.

The cell C4 can be referenced in three ways:

Calc A1 =`$Sheet2.C4` – the default syntax for Calc.

Excel A1 =`Sheet2!C4` – the default of Microsoft Excel.

Excel R1C1 =`Sheet2!R[3]C[2]` – the relative row and column addressing used in Excel.

### Use English function names

The default names for functions in Calc are those for the user's locale. For English users, the localized names are the same as the English names. When the language set by locale is not English, you may wish to express functions in English; if so, select this option to change formula input and display, Function Wizard, and formula tips.

## Separators

Separators are used in functions to distinguish points in the range used in the function: the symbols used between elements. Enter the separator character to be used for functions, row arrays, and column arrays. For example, a comma can be used as a separator in functions and instead of writing `=SUM(A1;B1;C1)` the function would be expressed as `=SUM(A1, B1, C1)`.

## Detailed Calculation Settings

Most users will not need to change the default setting. For custom settings, select **Custom** and click **Details** to choose reference syntax and whether to treat empty strings as zero.

## Recalculation on File Load

Recalculating formulas can take significant time while loading very large files.

*Excel 2007 and newer.* Loading a large spreadsheet file can take a long time. If you do not need to update your large spreadsheet data immediately, you can postpone the recalculation to a better time. Calc allows you to defer recalculation of Excel 2007 (and more recent) spreadsheets to speed up loading time.

*ODF spreadsheet (not saved by LibreOffice).* Recent versions of Calc cache spreadsheet formula results in its ODF file. This feature helps Calc to recalculate a large ODF spreadsheet saved by Calc faster. For ODF spreadsheets saved by other programs, where such cached formula results may not exist, recalculation can be deferred to speed up file loading as with Excel 2007 files.

For each of these two options, the following choices are possible: *Never recalculate* (no formulas will be recalculated on loading the file), *Always recalculate* (all formulas will be recalculated on file load), and *Prompt user* (prompt user for action).

Calc saved ODF spreadsheets will honor *Never recalculate* and *Always recalculate* options.

## Sort lists

View, define, delete, and edit sort lists on the *LibreOffice Calc – Sort Lists* page. Sort lists are used for more than sorting, for example filling a series of cells during data entry. They are lists that are sorted in a particular order but not alphabetically or numerically; for example, days of the week. In addition to the supplied lists, you can define and edit your own lists, as described in Chapter 2, Entering, Editing, and Formatting Data.

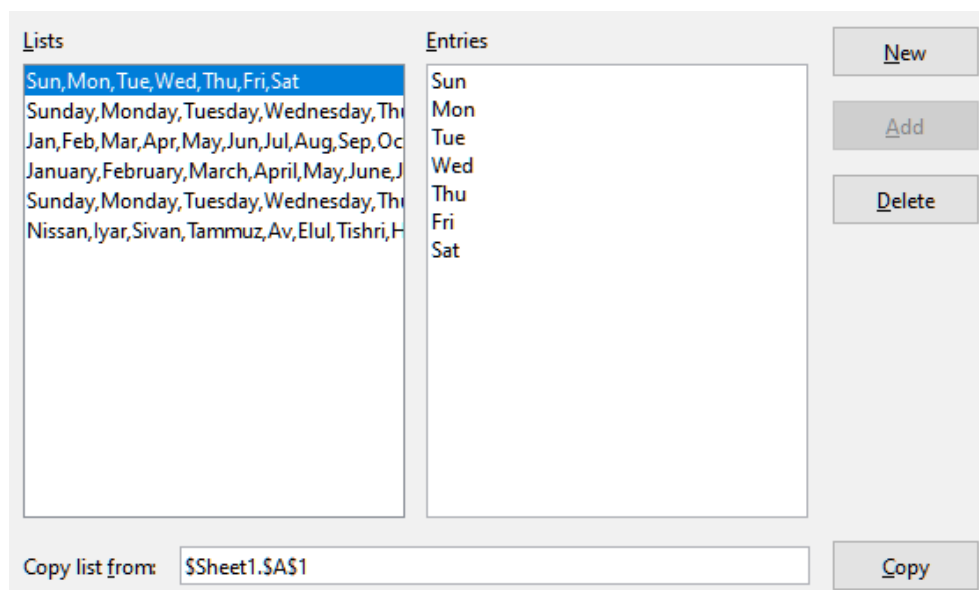


Figure 16: Defining sorting lists in Calc

## Changes

On the *LibreOffice Calc – Changes* page you can assign specific colors for insertions, deletions, and other changes, or you can let Calc assign colors based on the author of the change; in the latter case, one color will apply to all changes made by that author. The selections made here are applied when change recording is enabled by **Edit > Track Changes > Record** on the Menu bar.

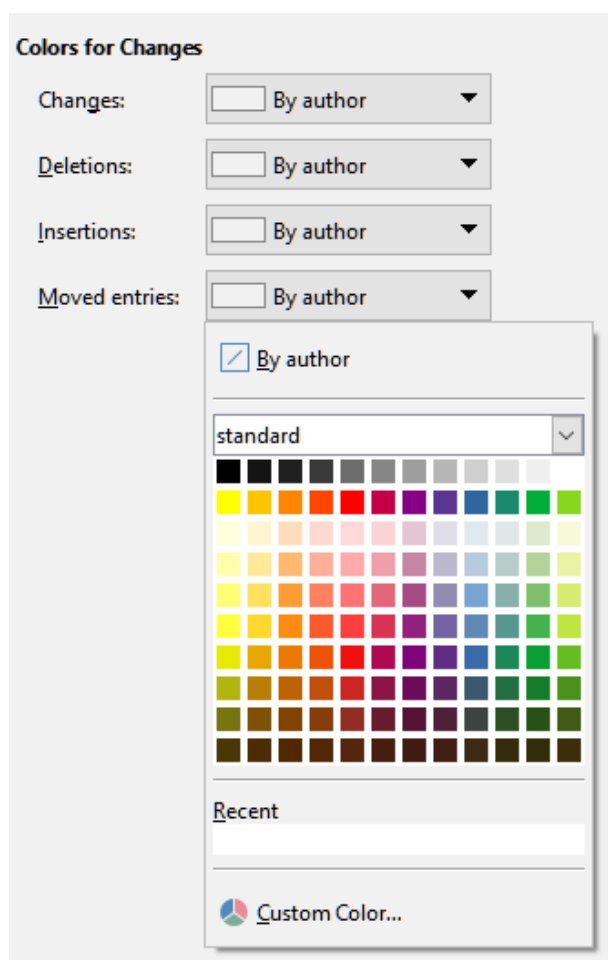


Figure 17: Calc options for highlighting changes

## Compatibility

The *LibreOffice Calc - Compatibility* page provides a quick way to switch between LibreOffice's default key bindings and OpenOffice.org's legacy default key bindings for Calc. Most of the defaults are identical, but there are some differences.

The actions associated with the two key binding choices are shown in the table below.

<b>Key Binding</b>	<b>Default</b>	<b>OpenOffice.org legacy</b>
<i>Backspace</i>	Opens Delete Contents dialog	Immediately deletes contents
<i>Delete</i>	Immediately deletes contents	Opens Delete Contents dialog
<i>Control+D</i> ( <i>Command+D</i> on macOS)	Fills cell content down within selection	Opens the Selection List dialog
<i>Alt+DownArrow</i> ( <i>Option+DownArrow</i> on macOS)	Select header of range; no action in empty cell	Increases row height

## Grid options

The *LibreOffice Calc – Grid* page defines the grid settings for spreadsheets. Using a grid helps you determine the exact position of any charts or other objects you may add to a spreadsheet. You can also set this grid in line with the snap grid.

If you have activated the snap grid but wish to move or create individual objects without snap positions, you can press the *Ctrl* key to deactivate the snap grid for as long as needed.

### Grid section

**Snap to grid** activates the snap function.

**Visible grid** displays grid points on the screen. These points are not printed.

### Resolution and subdivision sections

Here you can set the unit of distance for the spacing between horizontal and vertical grid points and subdivisions (intermediate points) of the grid.

**Synchronize axes** changes the current grid settings symmetrically.

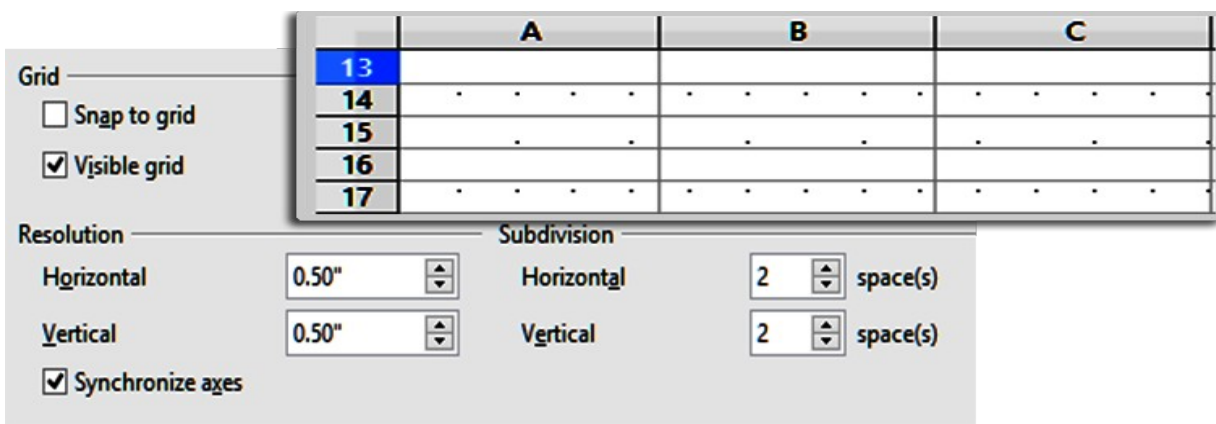


Figure 18: Calc grid options

## Print options

Use the *LibreOffice Calc - Print* page to choose defaults for printing spreadsheets. You can override these for individual print jobs.

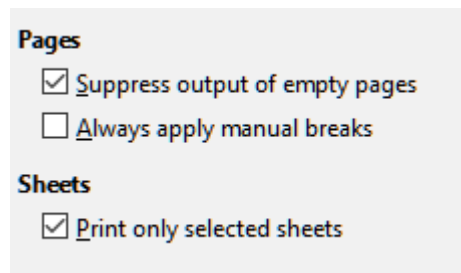


Figure 19: Calc Print options

## Default colors for charts

Use **Tools > Options > Charts > Default Colors** to change the default colors used for charts or to add new data series to the list provided.

To add new colors to the choices, see “Adding custom colors” on page 34.

To change the default color for a data series, select it in the left-hand column and then click on the required color in the color table.

To add another data series, click **Add**, then select the new series and click on the required color.

Click **Default** to restore the color settings that were defined when the program was installed.

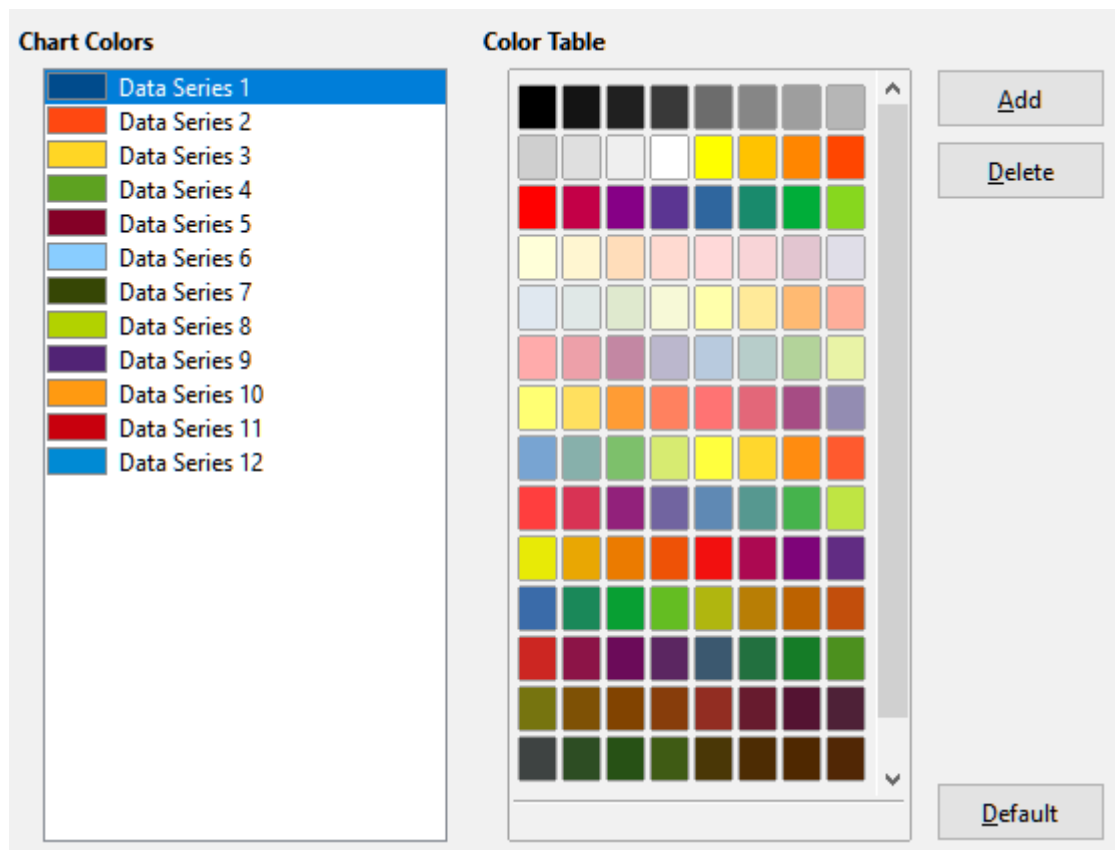


Figure 20: Defining chart colors

## Customizing the user interface

You can customize menus, toolbars, keyboard shortcuts, and the tabbed interface; add new menus and toolbars; and assign macros to events.

### Tip

Changes to menus and toolbars can be saved in a template. First, save them in a document; then, save that document as a template, as described in Chapter 4, Using Styles and Templates.

## Menu content

You can add and rearrange menus on the Menu bar or context (right-click) menus; add, rearrange, and remove commands on menus; and make other changes.

To customize menus, choose **Tools > Customize** on the Menu bar. On the Customize dialog, go to the *Menus* tab (Figure 21) or the *Context Menus* tab. The following examples focus on the *Menus* tab but the *Context Menus* tab is similar in appearance and behavior.

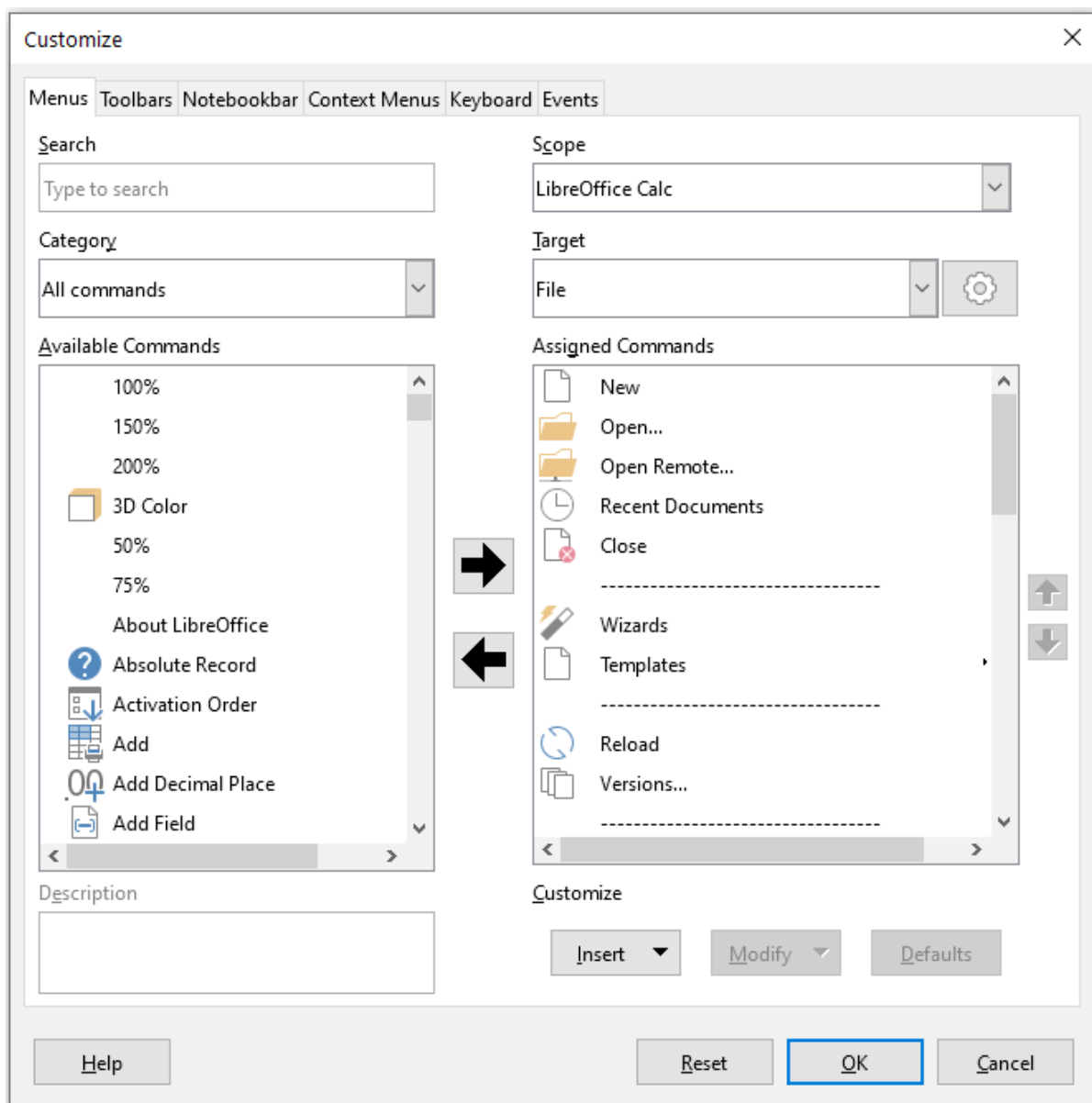


Figure 21: The Menus tab of the Customize dialog

### Modifying an existing menu

- 1) In the *Scope* drop-down list in the upper right of the Customize dialog, choose whether to save this changed menu for Calc or for a selected document.
- 2) In the *Target* drop-down list, select the menu that you want to customize. The list includes all the sub-menus as well as the main menus. The commands on the selected menu are shown in the *Assigned Commands* list below.
- 3) To add a command to the selected menu, click on a command in the *Available Commands* list and then click the right arrow. You can narrow the search by using the *Search* box on the top left or selecting the *Category* in the drop-down list. Use the up and down arrows on the far right-hand side to move the command into the place where you want it in the *Assigned Commands* list.
- 4) To remove a command from the selected menu, click on it in the *Assigned Commands* list and then click the left arrow.
- 5) To insert a separator or submenu, use the commands in the *Insert* drop-down under *Customize* at the bottom right.



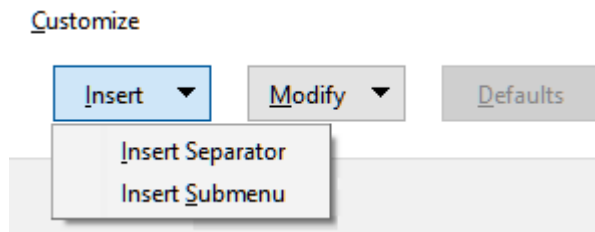


Figure 22: Customize dialog, Menus tab, Insert drop-down

- 6) To rename a menu item, select it in the *Assigned Commands* list and choose **Rename** from the *Modify* drop-down below.

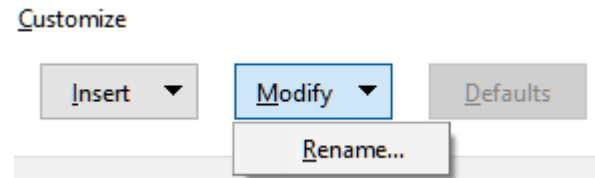


Figure 23: Customize dialog, Menus tab, Modify drop-down

- 7) Use the **Reset** button to reset Calc's menu configuration to the default settings.
- 8) When you have finished making all your changes, click **OK** to save them.

### Creating a new menu

- 1) On the *Menus* tab of the *Customize* dialog, click the button next to the *Target* field (Figure 24) and select **Add** in the drop-down list, to display the *New Menu* dialog (Figure 25).



Figure 24: Location of command to add a new menu

- 2) In the *New Menu* dialog, type a name for the new menu in the *Menu name* box.
- 3) Use the up and down arrow buttons to move the new menu into the required position on the *Menu bar*. Click **OK** to save and return to the *Customize* dialog.

The new menu now appears on the list of menus in the *Customize* dialog. It will appear on the *Menu bar* itself after you save your customizations.

After creating a new menu, you need to add some commands to it, as described above for modifying a menu.

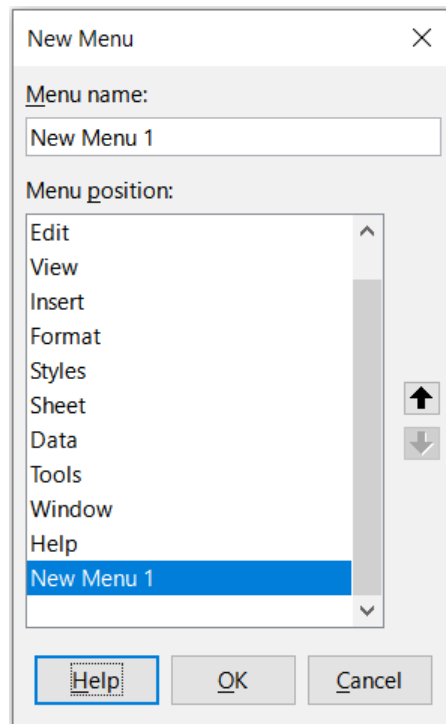


Figure 25: Adding a new menu

### Creating an accelerator

You can allocate a letter in a custom menu's name to be used as a keyboard shortcut. (That letter will become underlined.) When you press *Alt+that letter*, that menu or command will be invoked. Existing submenus can also be edited to change the letter which is used to select them using the keyboard when the menu is open.

To create an accelerator:

- 1) On the Customize dialog, select a menu item in the *Assigned Commands* list.
- 2) Click the **Modify** button and select **Rename**.
- 3) Add a tilde (~) in front of the letter to use as an accelerator.
- 4) Click **OK** to save the change.

For example, if you enter “~Art”, the “A” in the menu item **Art** is now underlined. Press *Alt+A* and the **Art** menu will open.

### Caution

When assigning an accelerator, be careful not to use a letter that is already assigned to a menu or command associated with a menu item. The same letter-key combinations can be used for commands associated with different menu items but not for those associated with the same menu or menu item.

### Toolbars

You can customize toolbars in several ways, including choosing which icons are visible and locking the position of a docked toolbar, as described in Chapter 1, *Introducing LibreOffice*, of the *Getting Started Guide*. This section describes how to create new toolbars and add or delete icons (commands) on a toolbar.

To get to the toolbar customization dialog (Figure 26), do any of the following:

- On the toolbar, right-click in the toolbar and choose **Customize Toolbar**.

- Choose **View > Toolbars > Customize** on the Menu bar and go to the *Toolbars* tab.
- Choose **Tools > Customize** on the Menu bar and go to the *Toolbars* tab.

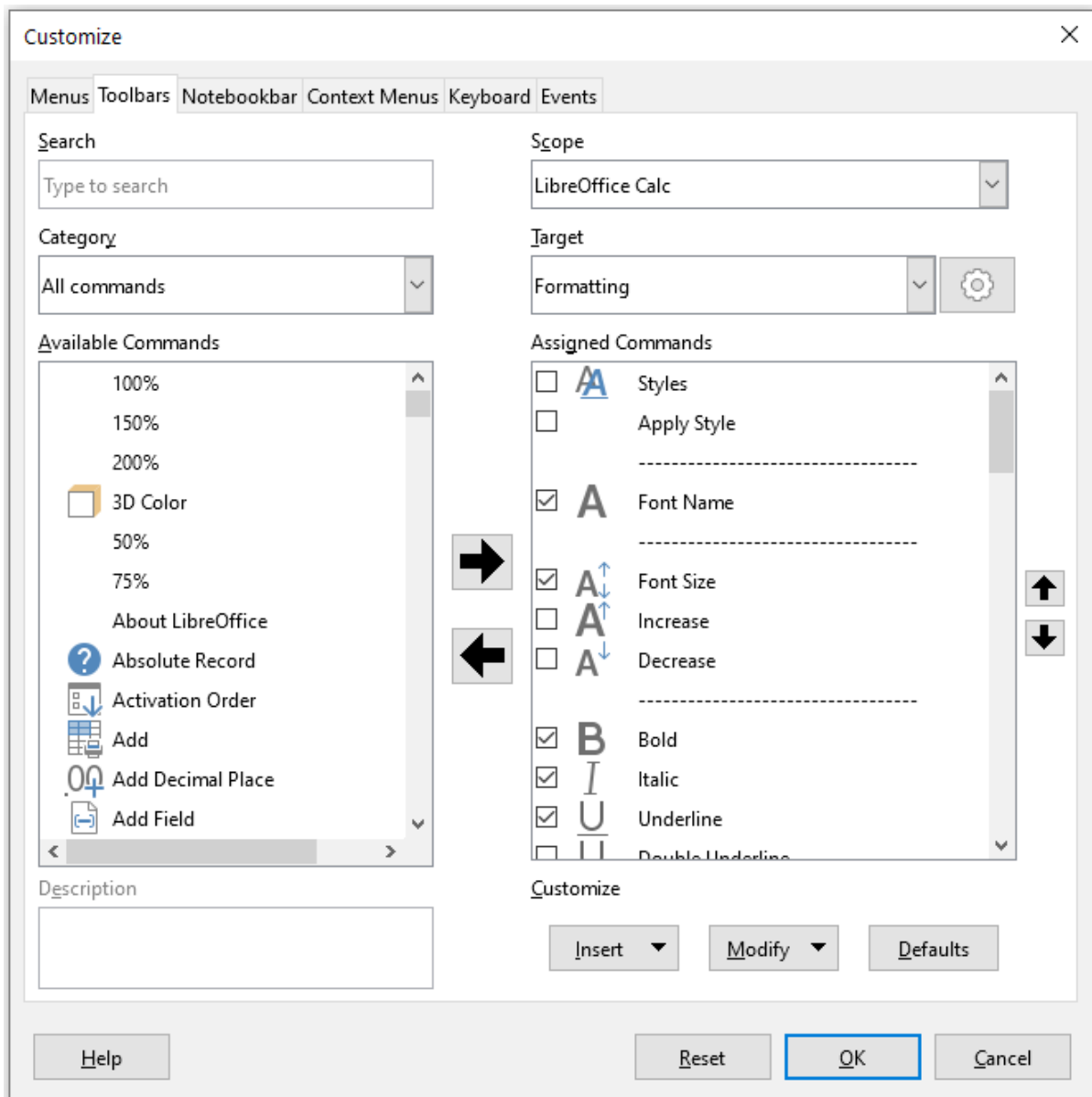


Figure 26: The Toolbars tab of the Customize dialog

To customize a toolbar:

- 1) In the *Scope* drop-down list on the upper right of the Customize dialog, choose whether to save this changed toolbar for Calc or for a selected document.
- 2) In the *Target* drop-down list, select the toolbar that you want to customize. The current toolbar content is displayed in the *Assigned Commands* list.
- 3) Select the command to be added in the *Available Commands* list. You can narrow your search by using the *Search* box on the top left or choosing a category in the drop-down list just below.
- 4) Click on the large right arrow to add the command to the *Assigned Commands* list for the toolbar. Use the up and down arrows in the far right to position the command in the toolbar.
- 5) To remove a command from a toolbar, select it in the *Assigned Commands* list and click the large left arrow.

- 6) To show or hide a command assigned to a toolbar, mark or clear the checkbox next to its icon in the *Assigned Commands* list.
- 7) To insert a separator, use the command in the *Insert* drop-down under *Customize* at the bottom right.
- 8) To rename a toolbar item, select it in the *Assigned Commands* list and choose **Rename** in the *Modify* drop-down.
- 9) Use the **Reset** button to reset Calc's toolbar configuration to the default settings.
- 10) When you have finished making all your changes, click **OK** to save them.

### Creating a new toolbar

To create a new toolbar:

- 1) Choose **Tools > Customize** on the Menu bar.
- 2) On the *Toolbars* tab of the *Customize* dialog, click the button next to the *Target* field and select **Add** in the drop-down list, to display the *Name* dialog.
- 3) On the *Name* dialog, type the new toolbar's name and choose in the *Save In* drop-down list where to save this new toolbar – for Calc or for the open document.

The new toolbar now appears on the list of toolbars in the *Customize* dialog.

To add commands to the new toolbar, follow the instructions earlier for modifying a toolbar.

### Choosing icons for toolbar commands

Toolbar buttons can be displayed with **Icon only**, **Text only**, or **Icon and text**. This selection is made through the menu that drops down from the button to the right of the *Target* field. However, not all of the commands have associated icons.

To choose an icon for a command, select the command and click **Modify > Change Icon**. On the *Change Icon* dialog (Figure 27), scroll through the available icons, select one, and click **OK** to assign it to the command.

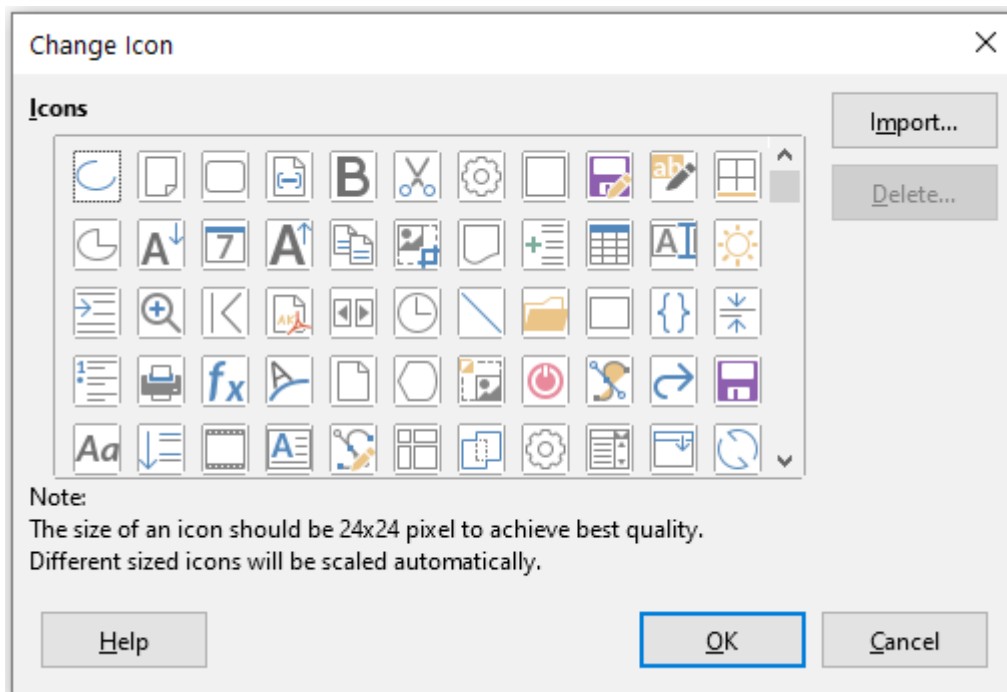


Figure 27: *Change Icon* dialog

To use a custom icon, create it in a graphics program and import it into LibreOffice by clicking the **Import** button on the Change Icon dialog. For best quality, custom icons should be 24 x 24 pixels in size; other sizes will be scaled automatically.

Select **Modify > Reset Icon** to revert to the option's default icon.

## Tabbed interface

By default, Calc's commands are grouped in cascading menus and in toolbars filled with icons. In addition, LibreOffice provides other user interface variants, displaying contextual groups of commands and contents. You can find more information about these variants in the Help system, by searching for "notebook bar" in the index.

One of the variants is *Tabbed*. In this variant, the area at the top of the workspace is divided into tabs, where each tab displays a set of icons grouped by context. The context can change depending on the object selected in the document, for example a table or an image.

Use the checkboxes on the *Notebookbar* tab of the Customize dialog (Figure 28) to show and hide the individual options on the various tabs that are provided in the *Tabbed* user interface.

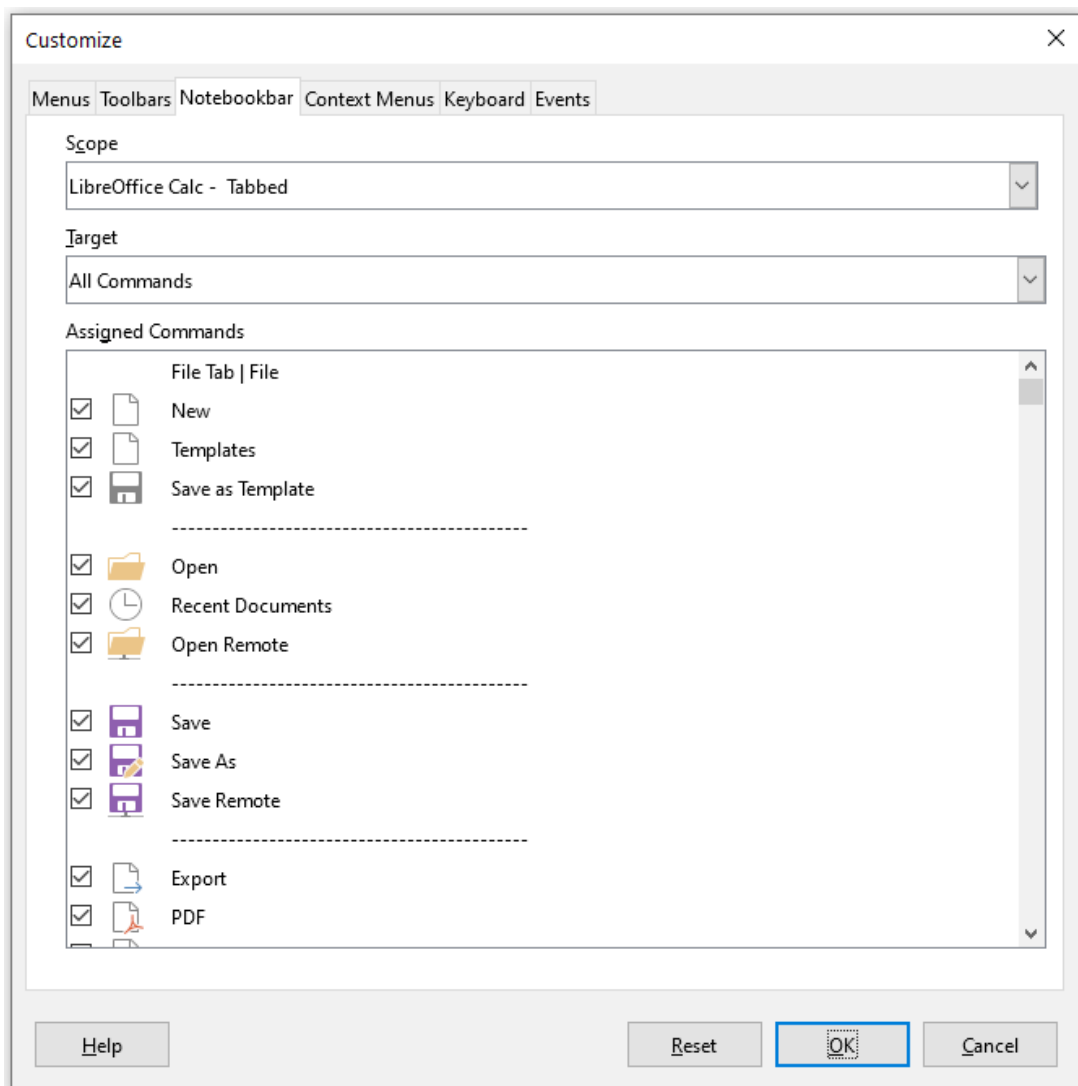


Figure 28: The Notebookbar tab of the Customize dialog

Use the **Reset** button to reset the *Tabbed* configuration to the default settings.

## ✓ Note

Three notebook bar variants can be selected through **View > User Interface** on the Menu bar: *Tabbed*, *Tabbed Compact*, and *Groupedbar Compact*. However, only the first of these can be modified using the *Notebookbar* tab of the Customize dialog.

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## Keyboard shortcuts

In addition to using the built-in keyboard shortcuts (listed in Appendix A), you can define your own. You can assign shortcuts to standard LibreOffice functions or your own macros and save them for use with the entire LibreOffice suite or only for Calc.

## ! Caution

Avoid reassigning your operating system's predefined shortcut keys.

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## ✓ Note

Shortcut keys that are grayed out in the listing on the Customize dialog, such as *F1* and *F10*, are not available for reassignment.

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To adapt shortcut keys to your needs, use the Customize dialog, as described below.

- 1) Select **Tools > Customize** on the Menu bar and select the *Keyboard* tab. (Figure 29).
- 2) To have the shortcut key assignment available only with Calc, select **Calc** in the upper right corner of the page; otherwise select **LibreOffice** to make it available to every component.
- 3) Next select the required function from the *Category* and *Function* lists.
- 4) Now select the desired shortcut keys in the *Shortcut Keys* list and click the **Modify** button at the upper right.
- 5) Click **OK** to accept the change. Now the chosen shortcut keys will execute the function chosen in step 3) above whenever they are pressed.

## ✓ Note

All existing shortcut keys for the currently selected *Function* are listed in the *Keys* selection box. If the *Keys* list is empty, it indicates that the chosen key combination is free for use. If it were not, and you wanted to reassign a shortcut key combination that is already in use, you must first delete the existing key.

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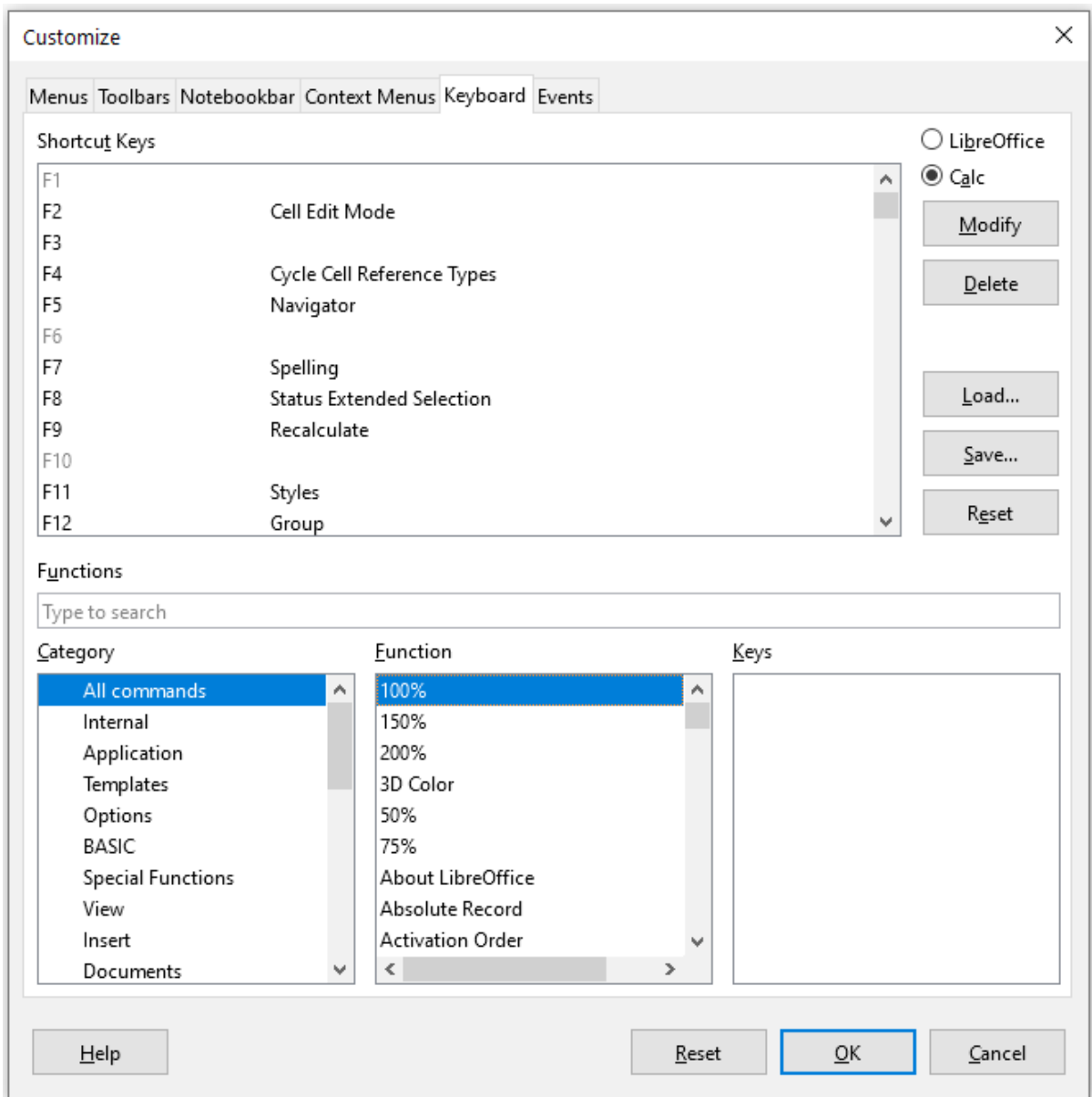


Figure 29: Customizing a keyboard shortcut

### Saving changes to a file

Changes to the shortcut key assignments can be saved in a keyboard configuration file for use at a later time, thus permitting you to create and apply different configurations as the need arises, or to create a standard keyboard configuration file to be distributed among many users. To save keyboard shortcuts to a file:

- 1) After making your keyboard shortcut assignments, click the **Save** button on the right of the Customize dialog (Figure 29).
- 2) In the Save Keyboard Configuration dialog, enter a name for the keyboard configuration file in the *File name* box, or select an existing file (the file extension is .cfg for Configuration).
- 3) Click **Save**. A confirmation dialog appears if you are about to overwrite an existing file, otherwise there will be no feedback and the file will be saved.

## Loading a saved keyboard configuration

To load a saved keyboard configuration file and replace your existing configuration, click the **Load** button on the right of the Customize dialog, and then select the configuration file from the Load Keyboard Configuration dialog.

## Resetting the shortcut keys

To reset all of the keyboard shortcuts to their default values, click the **Reset** button on the right of the Customize dialog (adjacent to the **Load** and **Save** buttons). Use this feature with care as no confirmation dialog will be displayed; the defaults will be set without any further notice or user input.

## Running macros from key combinations

You can also define shortcut key combinations that will run macros. These shortcut keys are strictly user-defined; none are built in. For more information on macros, see Chapter 12, Macros.

## Assigning macros to events

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In LibreOffice, when something happens, we say that an event occurred. For example, a document was opened, a key was pressed, or the mouse moved. You can associate a macro with an event, so the macro is run when the event occurs. A common use is to assign the “open document” event to run a macro that performs certain setup tasks for the document.

To associate a macro with an event, use the *Events* tab of the Customize dialog. For more information, see Chapter 13, Getting Started with Macros, in the *Getting Started Guide*.

## Adding functionality with extensions

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An extension is a package that can be installed into LibreOffice to add new functionality.

Although individual extensions can be found in different places, the official LibreOffice extension repository is at <https://extensions.libreoffice.org/>. These extensions are free of charge. Extensions from other sources may be free or may be available for a fee. Check the descriptions to see what licenses and fees apply to the ones that interest you.

## Installing extensions

To install an extension that is listed in the repository, follow these steps:

- 1) In LibreOffice, select **Tools > Extension Manager** on the Menu bar, or press *Ctrl+Alt+E*. In the Extension Manager dialog, click the **Get more extensions online** link.
- 2) A browser window will open. Find the extension you want and download it to your computer.
- 3) After the extension is downloaded and saved, return to the Extension Manager dialog and click **Add**. Find and select the extension you want to install and click **Open**. The extension begins installing. You may be asked to accept a license agreement.
- 4) When the installation is complete, the extension is listed in the Extension Manager dialog.

To install an extension that is not listed in the repository, download the extension, then continue with step 3) above.

## Updating extensions

Click the **Check for Updates** button on the Extension Manager dialog to check for updates to installed extensions.



## Removing and disabling extensions

To remove (uninstall) an extension that you installed, select the extension in the main window of the Extension Manager dialog and click the **Remove** button.

To disable an extension without removing (uninstalling) it, select the extension in the main window of the Extension Manager dialog and click the **Disable** button, which then changes to **Enable**.

### Tip

Extensions can be installed from some other places in Calc, such as the Gallery on the Sidebar, the Templates dialog, the *Language Settings > Writing Aids* page of the **Tools > Options** dialog and the *Icon Style* section in the *View* page of the **Tools > Options** dialog. In each of these places you will find a small button leading to a filtered view of the items in the Extensions dialog.

### Note

In some cases, the **Remove** and **Disable** buttons may be unavailable, for example when you have selected one of the extensions that was bundled with your LibreOffice installation.

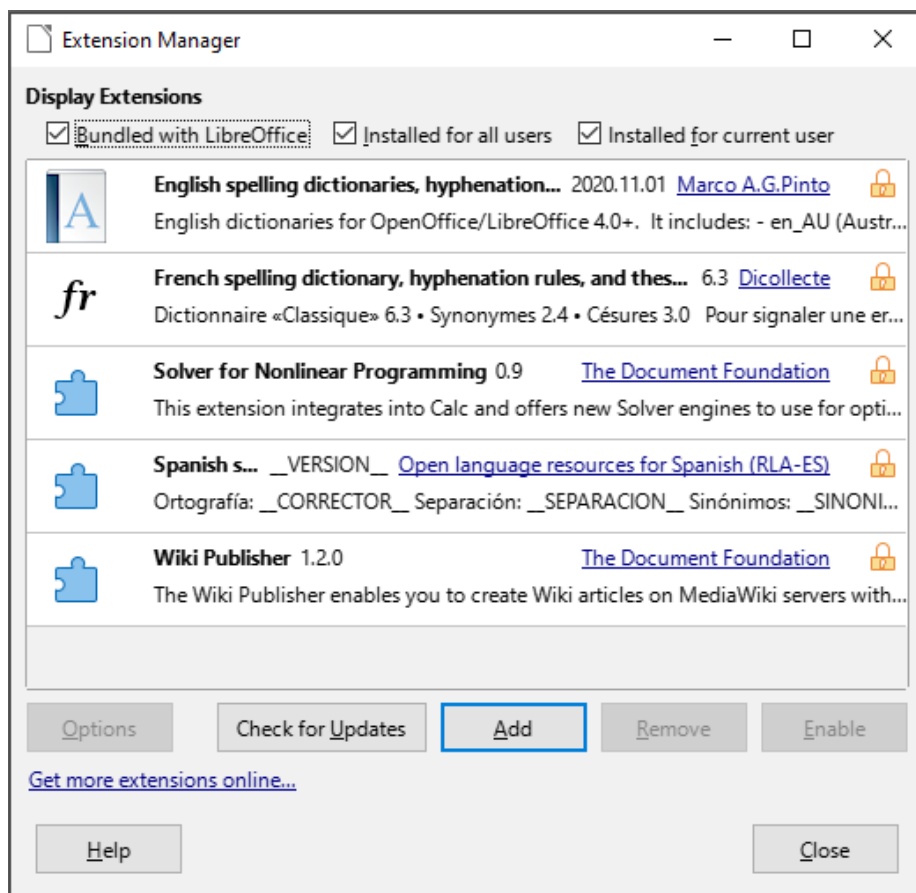


Figure 30: The Extension Manager dialog

## Adding custom colors

The method for defining a custom color is as follows:

- 1) Insert any drawing object, such as a square, into any document.
- 2) Right-click on the object and choose **Area** in the context menu.
- 3) Click on the **Color** button on the Area tab (Figure 31). In the *Palette* drop-down in the *Colors* area, choose which palette you wish to add the new color to. Under *New*, define the new color using RGB or Hex notation, or click the **Pick** button to select the color on the Pick a Color dialog (Figure 32).
- 4) Click **Add** in the lower left corner, enter a name for the new color in the pop-up dialog, and click **OK** to save.
- 5) Delete the drawing object from the document, if it is not needed.

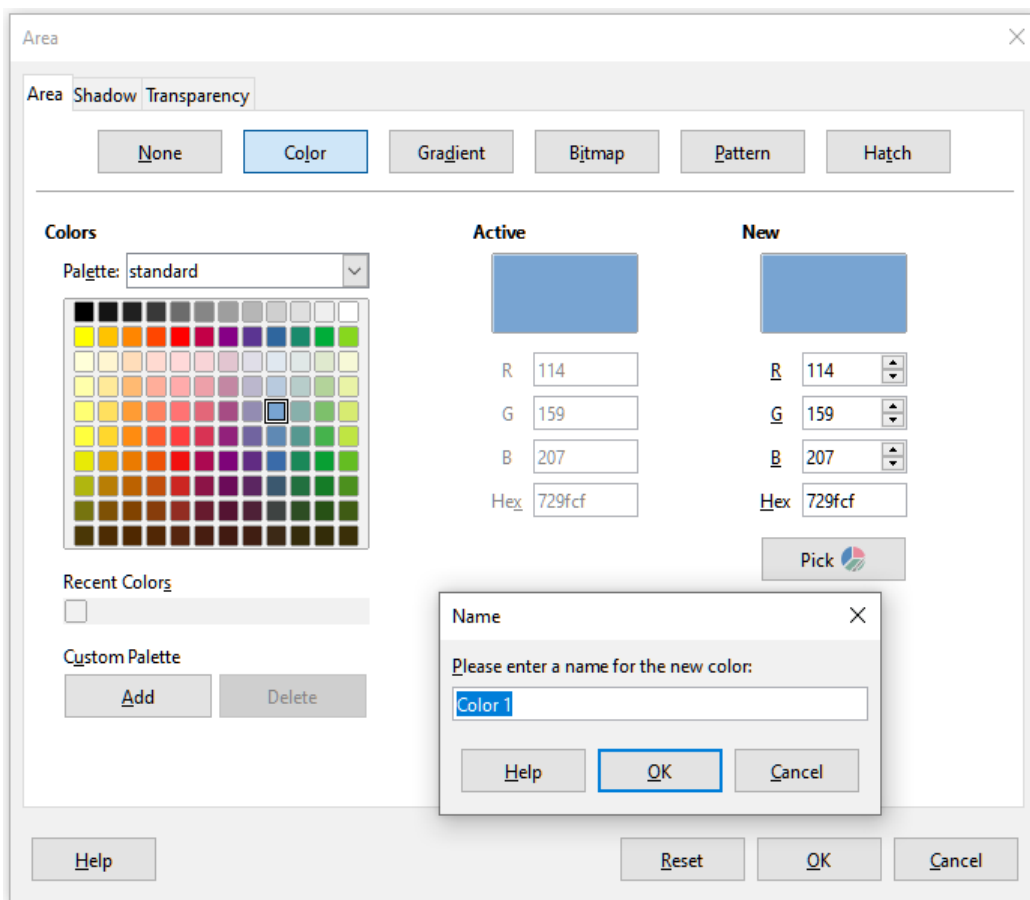


Figure 31: Defining a new color

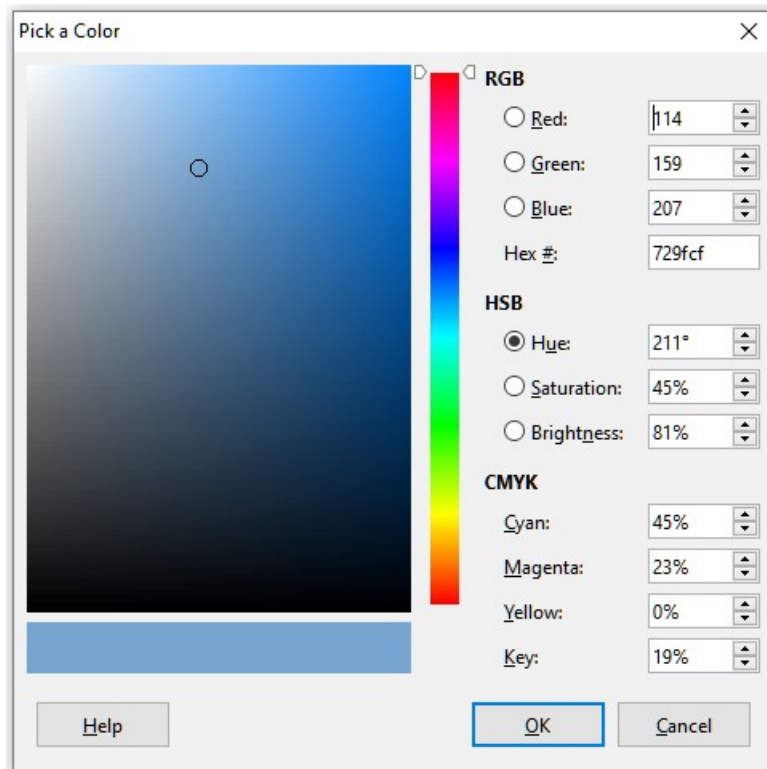


Figure 32: Defining a color by picking it from a color chart