



LibreOffice
The Document Foundation

Calc Guide

Chapter 2

Entering, Editing, and Formatting Data

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Note for Mac users

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

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

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Introduction

You can enter data into Calc in several ways: using the keyboard, the mouse (dragging and dropping), the Fill tool, and selection lists. Calc also provides the ability to enter information into multiple sheets of the same document at the same time.

After entering data, you can format and display it in various ways.

Entering data using the keyboard

Most data entry in Calc can be accomplished using the keyboard.

Entering numbers

Click in the cell and type in the number using the number keys on either the main keyboard or the numeric keypad.

To enter a negative number, either type a minus (–) sign in front of it or enclose it in parentheses (brackets), like this: **(1234)**.

By default, numbers are right-aligned and negative numbers have a leading minus symbol.

Entering text

Click in the cell and type the text. Text is left-aligned by default.

Entering numbers as text

If a number is entered in the format *01481*, Calc will drop the leading 0. (Exception: see Tip below.) To preserve the leading zero, for example for telephone area codes, type an apostrophe before the number, like this: **'01481**.

The data is now treated as text and displayed exactly as entered. Typically, formulas will treat the entry as a zero and functions will ignore it.

Tip

Numbers can have leading zeros and still be regarded as numbers (as opposed to text) if the cell is formatted appropriately. Right-click on the cell and chose **Format Cells > Numbers**. Adjust the *Leading zeros* setting to add leading zeros to numbers.

Note

When a plain apostrophe is used to allow a leading 0 to be displayed, it is not visible in the cell after the **Enter** key is pressed. If “smart quotes” are used for apostrophes, the apostrophe remains visible in the cell.

To choose this type of apostrophe, use **Tools > AutoCorrect Options > Localized Options**. Select the **Replace** option for apostrophes to activate this function. The selection of the apostrophe type affects both Calc and Writer.

Caution



When a number is formatted as text, take care that the cell containing the number is not used in a formula because Calc will ignore the value.

Entering dates and times

Select the cell and type the date or time. You can separate the date elements with a slash (/) or a hyphen (-) or use text such as 10 Oct 03. Calc recognizes a variety of date formats. You can separate time elements with colons such as 10:43:45.

Entering special characters

A “special” character is one not found on a standard English keyboard. For example, © ¼ æ ç ñ ö ø ¤ are all special characters. To insert a special character:

- 1) Place the cursor in your document where you want the character to appear.
- 2) Click **Insert > Special Character** to open the Special Characters dialog (Figure 1).
- 3) Select the characters (from any font or mixture of fonts) you wish to insert, in order; then click **OK**. The selected characters are shown in the bottom left of the dialog. As you select each character, it is shown alone at the bottom right, along with the numerical code for that character.

Note

Different fonts include different special characters. If you do not find a particular special character you want, try changing the *Font* selection.

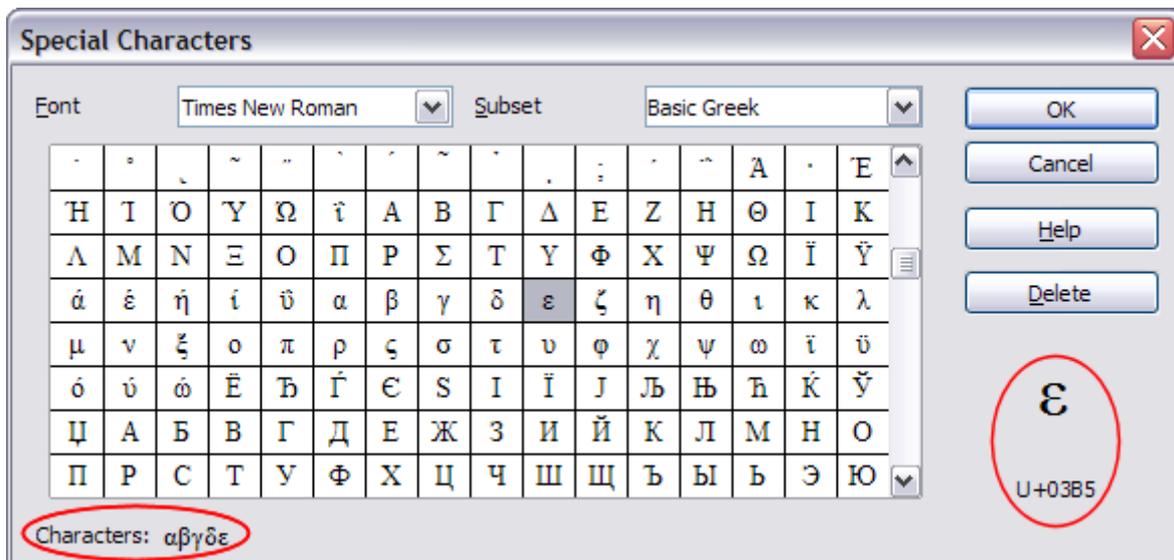


Figure 1: The Special Characters dialog

Inserting dashes

To enter en and em dashes, you can use the *Replace dashes* option under **Tools > AutoCorrect Options > Options** tab. This option replaces two hyphens, under certain conditions, with the corresponding dash.

In the following table, the A and B represent text consisting of letters A to Z or digits 0 to 9.

Text that you type:	Result
A - B (A, space, hyphen, space, B)	A – B (A, space, en-dash, space, B)
A -- B (A, space, hyphen, hyphen, space, B)	A – B (A, space, en-dash, space, B)
A--B (A, hyphen, hyphen, B)	A—B (A, em-dash, B)
A-B (A, hyphen, B)	A-B (unchanged)
A -B (A, space, hyphen, B)	A -B (unchanged)
A --B (A, space, hyphen, hyphen, B)	A –B (A, space, en-dash, B)

Deactivating automatic changes

Calc automatically applies many changes during data input, unless you deactivate those changes. You can also immediately undo any automatic changes with *Ctrl+Z*.

AutoCorrect changes

Automatic correction of typing errors, replacement of straight quotation marks by curly (custom) quotes, and starting cell content with an uppercase (capital) letter are controlled by **Tools > AutoCorrect Options**. Go to the *Options* or *Replace* tabs to deactivate any of the features that you do not want. On the *Replace* tab, you can also delete unwanted word pairs and add new ones as required.

AutoInput

When you are typing in a cell, Calc automatically suggests matching input found in the same column. To turn the AutoInput on and off, set or remove the check mark in front of **Tools > Cell Contents > AutoInput**.

Automatic date conversion

Calc automatically converts certain entries to dates. To ensure that an entry that looks like a date is interpreted as text, type an apostrophe at the beginning of the entry. The apostrophe is not displayed in the cell.

Speeding up data entry

Entering data into a spreadsheet can be very labor-intensive, but Calc provides several tools for removing some of the drudgery from input.

The most basic ability is to drop and drag the contents of one cell to another with a mouse. Many people also find AutoInput helpful. Calc also includes several other tools for automating input, especially of repetitive material. They include the Fill tool, selection lists, and the ability to input information into multiple sheets of the same document.

Using the Fill tool on cells

At its simplest, the Fill tool is a way to duplicate existing content. Start by selecting the cell to copy, then drag the mouse in any direction (or hold down the Shift key and click in the last cell you want to fill), and then choose **Edit > Fill** and the direction in which you want to copy: Up, Down, Left or Right.

Caution

Choices that are not available are grayed out, but you can still choose the opposite direction from what you intend, which could cause you to overwrite cells accidentally.

Tip

A shortcut way to fill cells is to grab the “handle” in the lower right-hand corner of the cell and drag it in the direction you want to fill. If the cell contains a number, the number will fill in series. If the cell contains text, the same text will fill in the direction you chose.

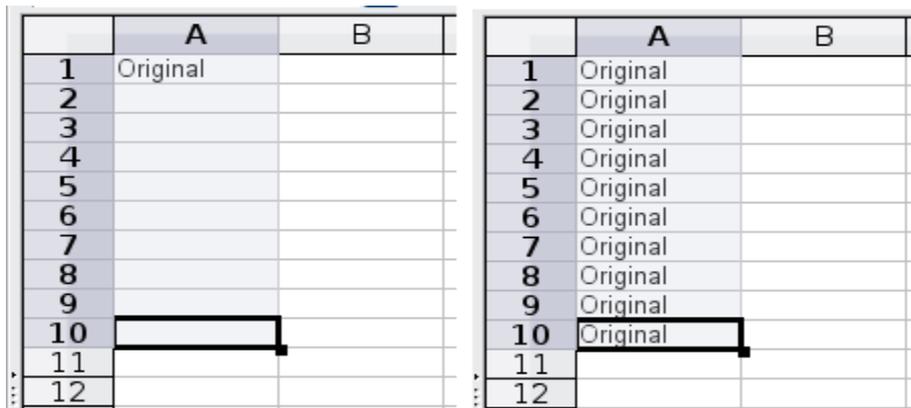


Figure 2: Using the Fill tool

Using a fill series

A more complex use of the Fill tool is to use a fill series. The default lists are for the full and abbreviated days of the week and the months of the year, but you can create your own lists as well.

To add a fill series to a spreadsheet, select the cells to fill, choose **Edit > Fill > Series**. In the Fill Series dialog, select **AutoFill** as the *Series type*, and enter as the *Start value* an item from any defined series. The selected cells then fill in the other items on the list sequentially, repeating from the top of the list when they reach the end of the list.

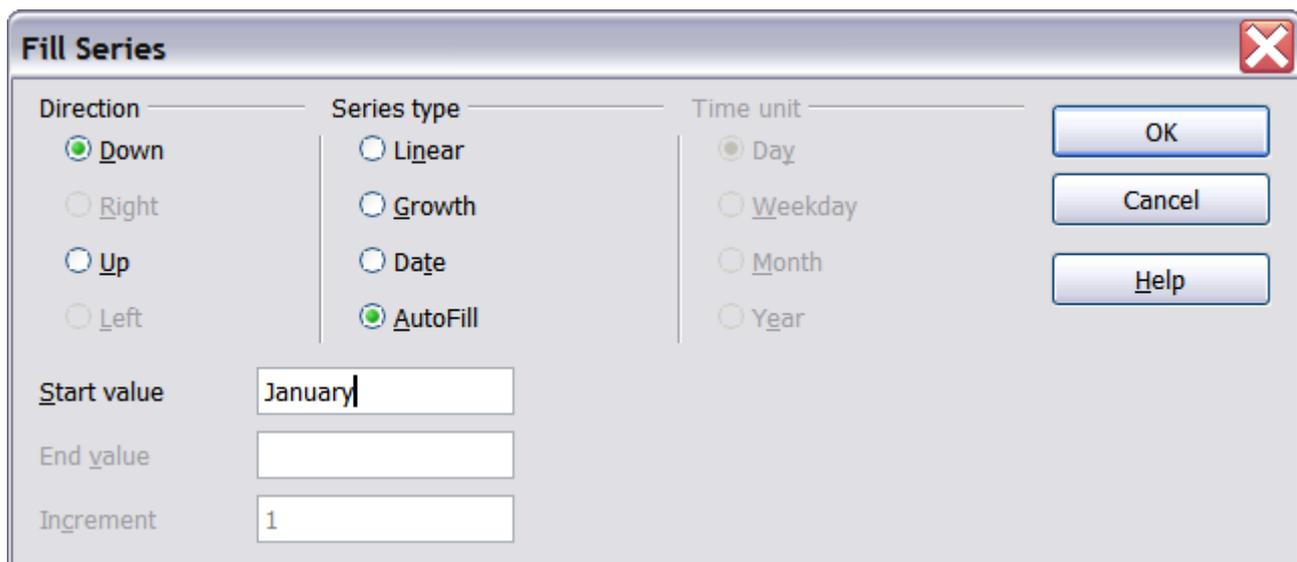


Figure 3: Specifying the start of a fill series (result is in Figure 4)

	A	B
1	January	
2	February	
3	March	
4	April	
5	May	
6	June	
7	July	
8	August	
9	September	
10	October	
11	November	
12	December	
13		

Figure 4: Result of fill series selection shown in Figure 3

You can also use **Edit > Fill > Series** to create a one-time fill series for numbers by entering the start and end values and the increment. For example, if you entered start and end values of 1 and 7 with an increment of 2, you would get the sequence of 1, 3, 5, 7.

In all these cases, the Fill tool creates only a momentary connection between the cells. Once they are filled, the cells have no further connection with one another.

Defining a fill series

To define your own fill series, go to **Tools > Options > LibreOffice Calc > Sort Lists**. This dialog shows the previously-defined series in the *Lists* box on the left, and the contents of the highlighted list in the *Entries* box.

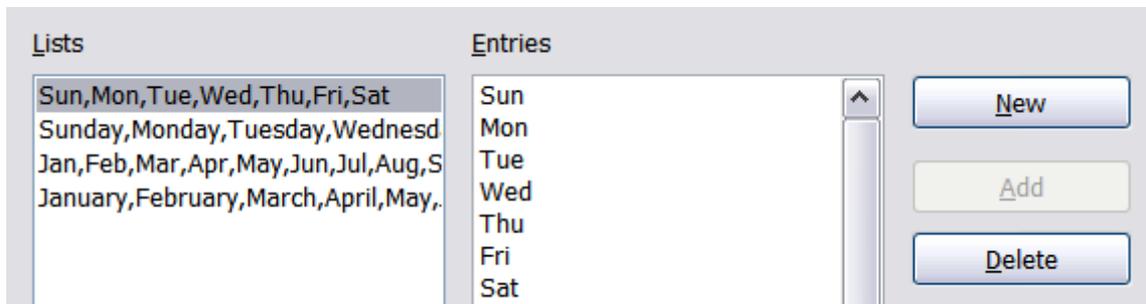


Figure 5: Predefined fill series

Click **New**. The *Entries* box is cleared. Type the series for the new list in the *Entries* box (one entry per line), and then click **Add**.

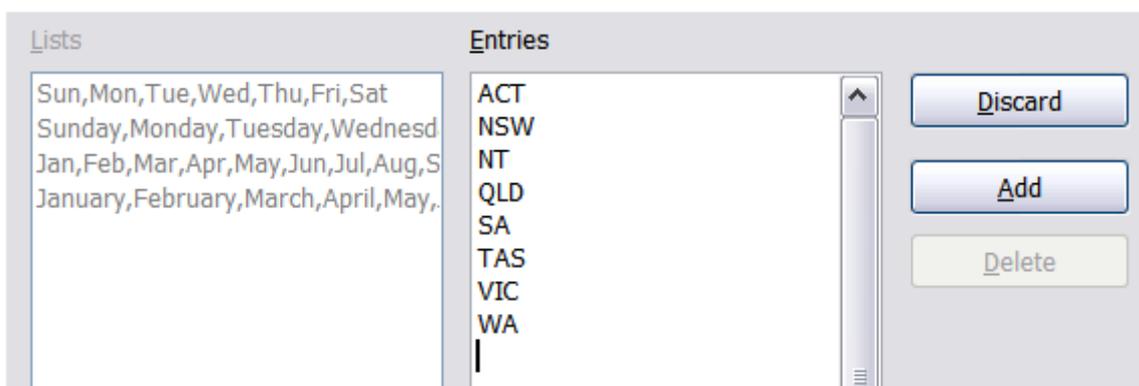


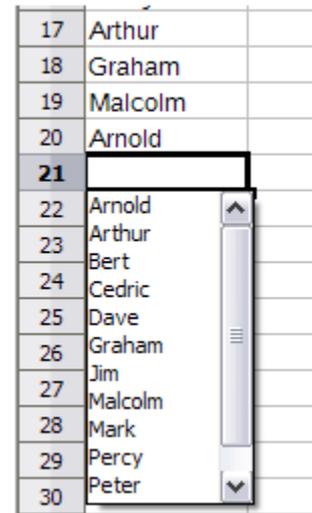
Figure 6: Defining a new fill series

Using selection lists

Selection lists are available only for text, and are limited to using only text that has already been entered in the same column.

To use a selection list, *right-click* a blank cell and select **Selection List** from the context menu. A list box containing all the text, or entries formatted as text, found in the current column is displayed. The text is sorted alphabetically and multiple entries are listed only once. Click on the entry you require.

If you have changed the compatibility setting from **Default** to **OpenOffice.org legacy** in **Tools > Options > LibreOffice Calc > Compatibility**, then clicking in an empty cell and pressing *Ctrl+D* opens the selection list.



Sharing content between sheets

You might want to enter the same information in the same cell on multiple sheets, for example to set up standard listings for a group of individuals or organizations. Instead of entering the list on each sheet individually, you can enter it in all the sheets at once. To do this, select all the sheets (**Edit > Sheet > Select**), then enter the information in the current one.

Caution



This technique overwrites any information that is already in the cells on the other sheets—without any warning. For this reason, when you are finished, be sure to deselect all the sheets except the one you want to edit. (*Ctrl+click* on a sheet tab to select or deselect the sheet.)

Validating cell contents

When creating spreadsheets for other people to use, you may want to make sure they enter data that is valid or appropriate for the cell. You can also use validation in your own work as a guide to entering data that is either complex or rarely used.

Fill series and selection lists can handle some types of data, but they are limited to predefined information. To validate new data entered by a user, select a cell and use **Data > Validity** to define the type of contents that can be entered in that cell. For example, a cell might require a date or a whole number, with no alphabetic characters or decimal points; or a cell may not be left empty.

Depending on how validation is set up, the tool can also define the range of values that can be entered and provide help messages that explain the content rules you have set up for the cell and what users should do when they enter invalid content. You can also set the cell to refuse invalid content, accept it with a warning, or—if you are especially well-organized—start a macro when an error is entered.

Validation is most useful for cells containing functions. If cells are set to accept invalid content with a warning, rather than refusing it, you can use **Tools > Detective > Mark Invalid Data** to find the cells with invalid data. The Detective function marks any cells containing invalid data with a circle.

Note that a validity rule is considered part of a cell's format. If you select **Format** or **Delete All** from the Delete Contents window, then it is removed. (Repeating the Detective's **Mark Invalid Data** command removes the invalid data circle, because the data is no longer invalid.) If you want to

copy a validity rule with the rest of the cell, use **Edit > Paste Special > Paste Formats** or **Paste All**.

Figure 7 shows the choices for a typical validity test. Note the **Allow blank cells** option under the *Allow* list.

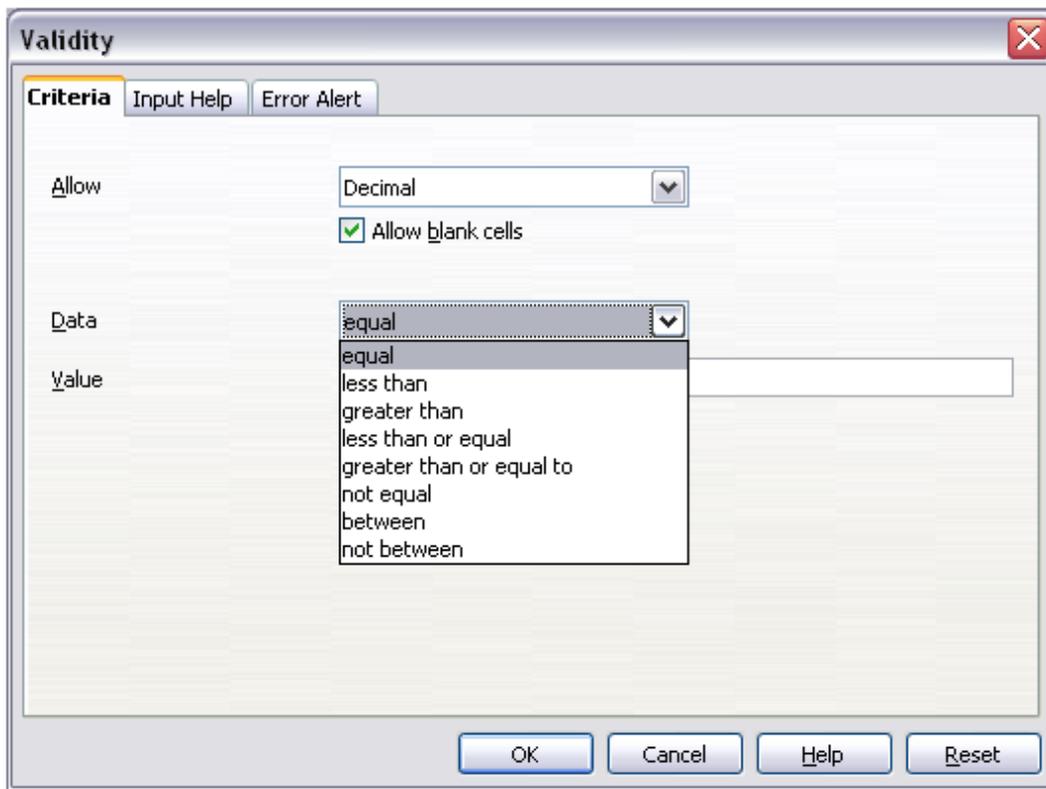


Figure 7: Typical validity test choices

The validity test options vary with the type of data selected from the *Allow* list. For example, Figure 8 shows the choices when a cell must contain a cell range.

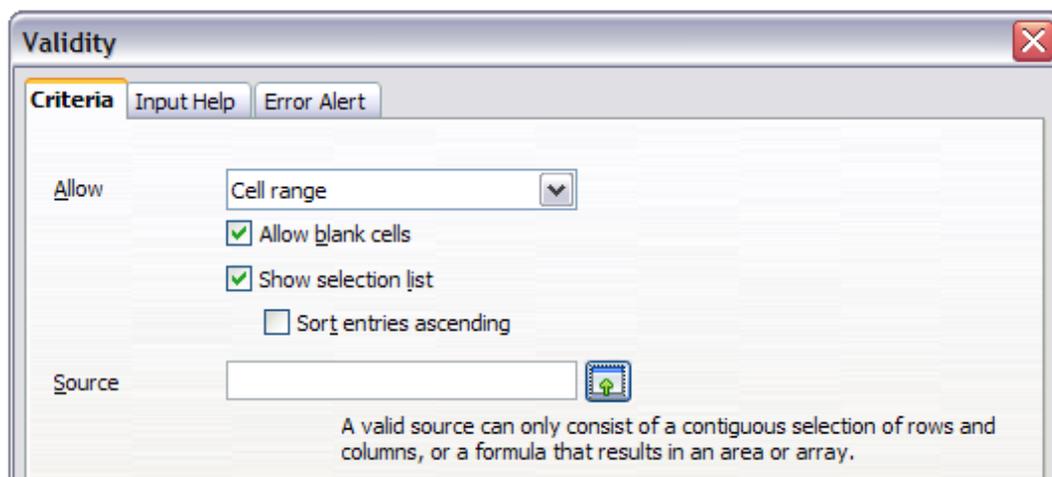


Figure 8: Validity choices for a cell range

To provide input help for a cell, use the Input Help page of the Validity dialog (Figure 9). To show an error message when an invalid value is entered, use the Error Alert page (Figure 10). Be sure to write something helpful, explaining what a valid entry should contain—not just “Invalid data—try again” or something similar.

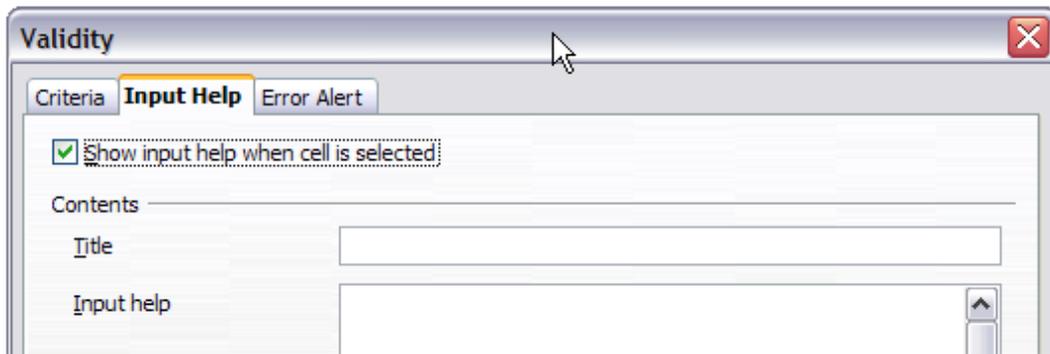


Figure 9: Defining input help for a cell

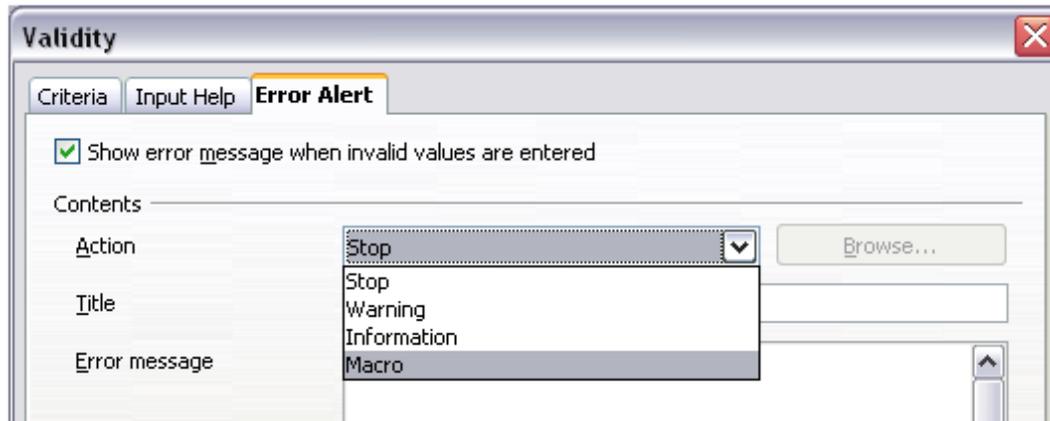


Figure 10: Defining an error message for a cell with invalid data

Editing data

Editing data is done in much the same way as entering it. The first step is to select the cell containing the data to be edited.

Removing data from a cell

Data can be removed (deleted) from a cell in several ways.

Removing data only

The data alone can be removed from a cell without removing any of the formatting of the cell. Click in the cell to select it, and then press the *Delete* key. In *OpenOffice.org* legacy mode, press the *Backspace* key.

Removing data and formatting

The data and the formatting can be removed from a cell at the same time. Press the *Backspace* key, or if in legacy mode press the *Delete* key (or right-click and choose **Delete Contents**, or use **Edit > Delete Contents**) to open the Delete Contents dialog (Figure 11). From this dialog, different aspects of the cell can be deleted. To delete everything in a cell (contents and format), check **Delete all**.

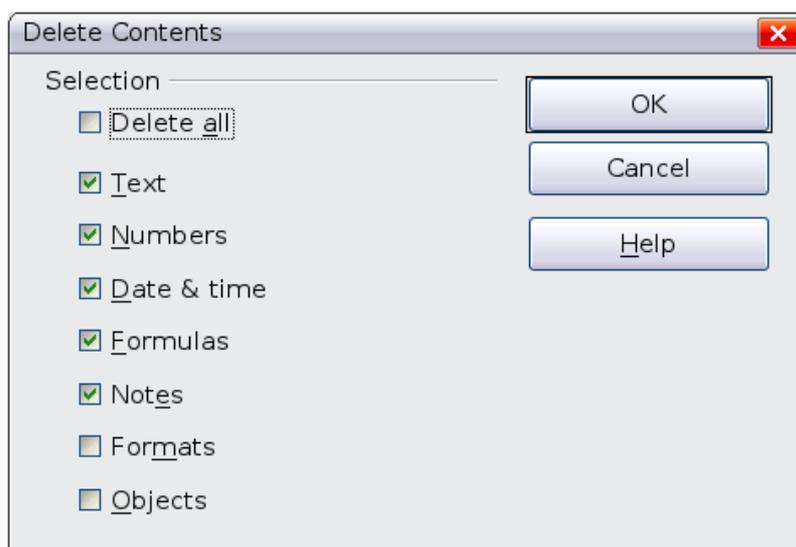


Figure 11: Delete Contents dialog

Replacing all the data in a cell

To remove data and insert new data, simply type over the old data. The new data will retain the original formatting.

Changing part of the data in a cell

Sometimes it is necessary to change the contents of a cell without removing all of the contents, for example when the phrase “See Dick run” is in a cell and it needs to be changed to “See Dick run fast.” It is often useful to do this without deleting the old cell contents first.

The process is the similar to the one described above, but you need to place the cursor inside the cell. You can do this in two ways.

Using the keyboard

After selecting the appropriate cell, press the *F2* key and the cursor is placed at the end of the cell. Then use the keyboard arrow keys to move the cursor through the text in the cell.

Using the mouse

Using the mouse, either *double-click* on the appropriate cell (to select it and place the cursor in it for editing), or *single-click* to select the cell and then move the mouse pointer up to the input line and click into it to place the cursor for editing.

Formatting data

The data in Calc can be formatted in several ways. It can either be edited as part of a cell style so that it is automatically applied, or it can be applied manually to the cell. Some manual formatting can be applied using toolbar icons. For more control and extra options, select the appropriate cell or cells range, *right-click* on it, and select **Format Cells**. All of the format options are discussed below.

Note

All the settings discussed in this section can also be set as a part of the cell style. See Chapter 4, Using Styles and Templates, for more information.

Formatting multiple lines of text

Multiple lines of text can be entered into a single cell using automatic wrapping or manual line breaks. Each method is useful for different situations.

Using automatic wrapping

To set text to wrap at the end of the cell, *right-click* on the cell and select **Format Cells** (or choose **Format > Cells** from the menu bar, or press *Ctrl+1*). On the *Alignment* tab (Figure 12), under Properties, select **Wrap text automatically**. The results are shown in Figure 13.

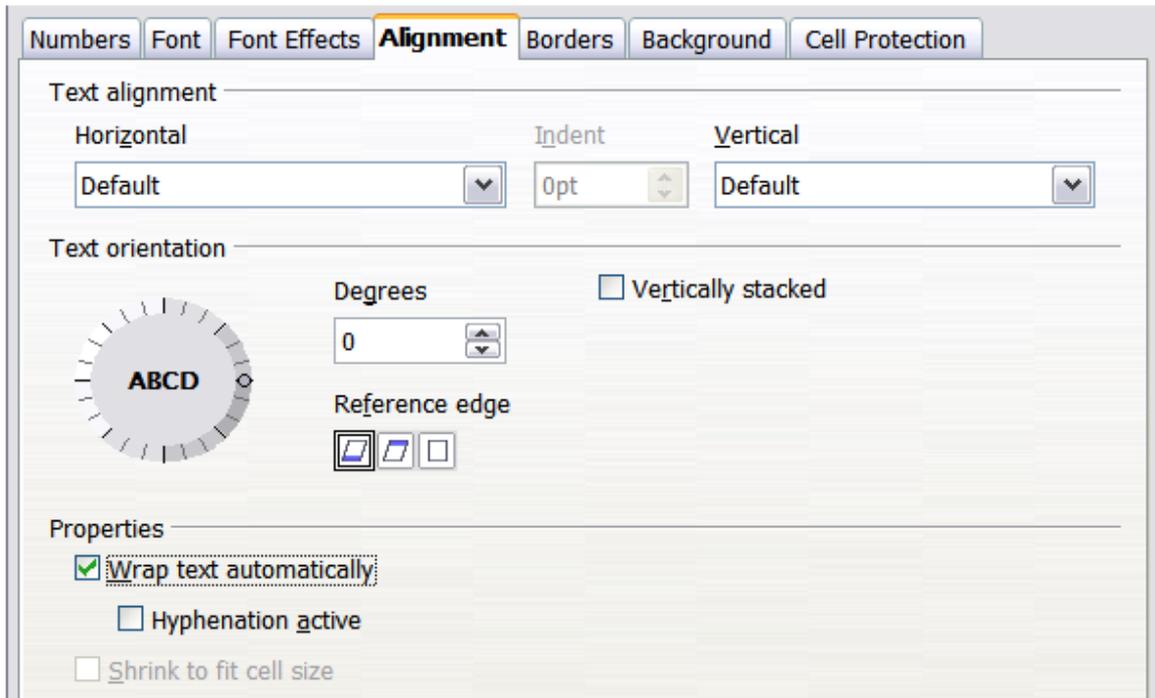


Figure 12: Alignment page of the Format Cells dialog

This cell is not set to wrap text automatically. So they text will just keep going, and goir					
This cell is set to wrap text automatically. The cell will fit more text without getting wider.					

Figure 13: Automatic text wrap

Using manual line breaks

To insert a manual line break while typing in a cell, press *Ctrl+Enter*. This method does not work with the cursor in the input line. When editing text, first double-click the cell, then single-click at the position where you want the line break.

When a manual line break is entered, the cell width does not change. Figure 14 shows the results of using two manual line breaks after the first line of text.

This line contains manual line breaks.			
Lines can be spaced out this way.			
Also, the cell width doesn't change but the text can go on.			

Figure 14: Cell with manual line breaks

Shrinking text to fit the cell

The font size of the data in a cell can automatically adjust to fit in a cell. To do this, select the **Shrink to fit cell size** option in the Format Cells dialog (Figure 12). Figure 15 shows the results.

The quick brown fox jumps over the lazy dog.	The quick brown fox jumps over the lazy dog.	The quick brown fox jumps over the lazy dog.
--	--	--

Figure 15: Shrinking font size to fit cells

Formatting numbers

Several different number formats can be applied to cells by using icons on the Formatting toolbar. Select the cell, then click the relevant icon. Some icons may not be visible in a default setup; click the down-arrow at the end of the Formatting bar and select other icons to display.



Figure 16: Number format icons. Left to right: currency, percentage, date, exponential, standard, add decimal place, delete decimal place.

For more control or to select other number formats, use the *Numbers* tab (Figure 17) of the Format Cells dialog.

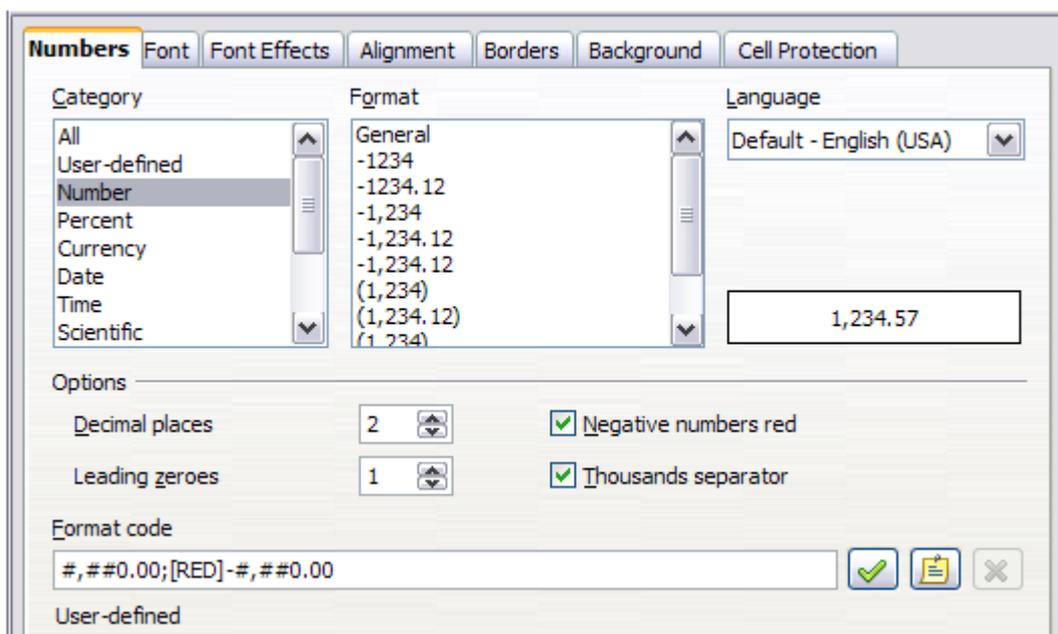


Figure 17: Format Cells > Numbers

- Apply any of the data types in the Category list to the data.
- Control the number of decimal places and leading zeros.
- Enter a custom format code.

The Language setting controls the local settings for the different formats such as the date order and the currency marker.

Formatting the font

To quickly choose the font used in a cell, select the cell, then click the arrow next to the **Font Name** box on the Formatting toolbar and choose a font from the list.

Tip

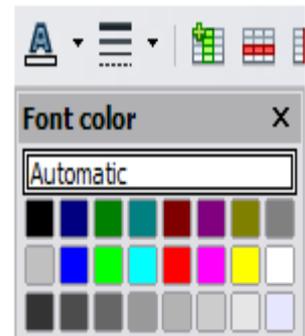
To choose whether to show the font names in their font or in plain text, go to **Tools > Options > LibreOffice > View** and select or deselect the *Show preview of fonts* option in the Font Lists section. For more information, see Chapter 14, Setting Up and Customizing Calc.

To choose the size of the font, click the arrow next to the Font Size box on the Formatting toolbar. For other formatting, you can use the Bold, Italic, or Underline icons.

To choose a font color, click the arrow next to the **Font Color** icon to display a color palette. Click on the required color.

(To define custom colors, use **Tools > Options > LibreOffice > Colors**. See Chapter 14, Setting Up and Customizing Calc, for more information.)

To specify the language of the cell (useful because it allows different languages to exist in the same document and be spell checked correctly), use the *Font* tab of the Format Cells dialog. See Chapter 4 for more information.



Choosing font effects

The *Font Effects* tab (Figure 18) of the Format Cells dialog offers more font options.



Figure 18: Font Effects page of the Format Cells dialog

Overlining and underlining

You can choose from a variety of overlining and underlining options (solid lines, dots, short and long dashes, in various combinations) and the color of the line.

Strikethrough

The strikethrough options include lines, slashes, and Xs.

Relief

The relief options are embossed (raised text), engraved (sunken text), outline, and shadow.

Setting cell alignment and orientation

Some of the cell alignment and orientation icons are not shown by default on the Formatting toolbar. To show them, click on the small arrow at the right-hand end of the toolbar and select them from the list of icons.

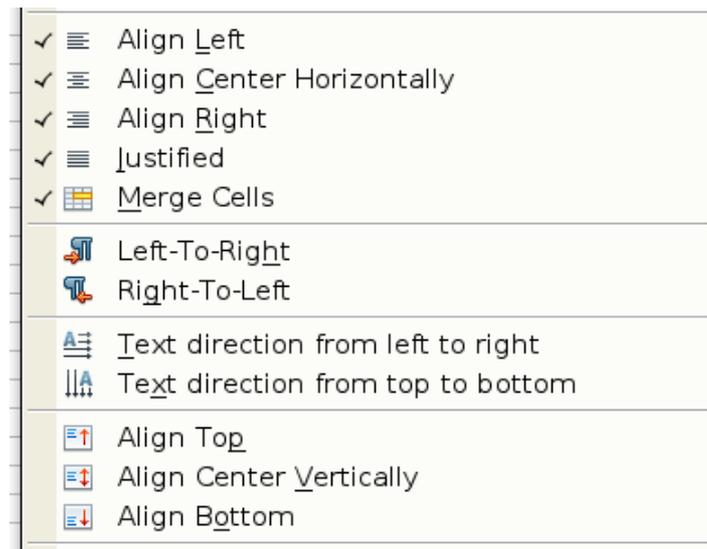


Figure 19: Cell alignment and orientation

Some of the alignment and orientation icons are available only if you have Asian or CTL (Complex Text Layout) languages enabled (in **Tools > Options > Language Settings > Languages**). If you select a non-valid icon from the list, it will not appear on the toolbar.

For more control and other choices, use the *Alignment* tab (Figure 12) of the Format Cells dialog to set the horizontal and vertical alignment and rotate the text. If you have Asian languages enabled, then the *Text orientation* section shows an extra option (labeled **Asian layout mode**) under the **Vertically stacked** option, as shown in Figure 20.

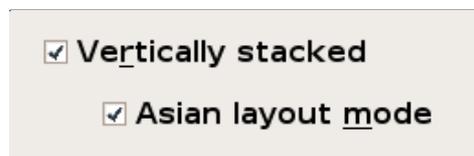


Figure 20: Asian layout mode option

The difference in results between having **Asian layout mode** on or off is shown in Figure 21.



Figure 21: Types of vertical stacking

Formatting the cell borders

To quickly choose a line style and color for the borders of a cell, click the small arrows next to the **Line Style** and **Line Color** icons on the Formatting toolbar. If the **Line Style** and **Line Color** icons are not displayed in the Formatting toolbar, select the down arrow on the right side of the bar, then select **Visible Buttons**. In each case, a palette of choices is displayed.

For more control, including the spacing between the cell borders and the text, use the *Borders* tab of the Format Cells dialog. There you can also define a shadow. See Chapter 4 for details.

Unexpected results can occur when formatting cell borders within a range of cells that already have borders formatted. The newly formatted borders may not be visible on all edges, and may not print either. To ensure that all the newly formatted borders are visible and will print, you may have to increase the border width by trial and error to a size sufficiently large to override adjacent cell border settings. Use the Print Preview control to ensure that borders are visible for printing.

Note

The cell border properties apply to a cell, and can only be changed if you are editing that cell. For example, if cell C3 has a top border (which would be equivalent visually to a bottom border on C2), that border can only be removed by selecting C3. It cannot be removed in C2.

Formatting the cell background

To quickly choose a background color for a cell, click the small arrow next to the **Background Color** icon on the Formatting toolbar. A palette of color choices, similar to the Font Color palette, is displayed.

(To define custom colors, use **Tools > Options > LibreOffice > Colors**. See Chapter 14 for more information.)

You can also use the *Background* tab of the Format Cells dialog. See Chapter 4 for details.

Autoformatting cells and sheets

You can use the AutoFormat feature to quickly apply a set of cell formats to a sheet or a selected cell range.

- 1) Select the cells that you want to format.
- 2) Choose **Format > AutoFormat** from the Menu bar.
- 3) To select which properties (number format, font, alignment, borders, pattern, autofit width and height) to include in an AutoFormat, click **More**. Select or deselect the required options. Click **OK**.

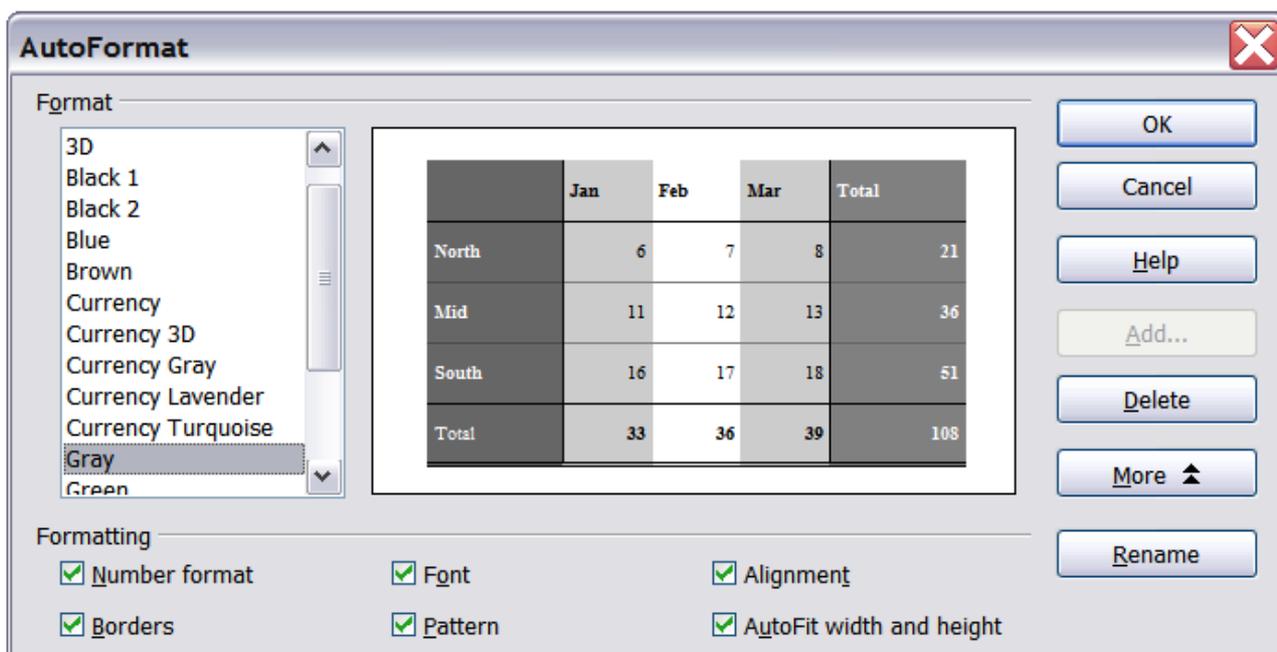


Figure 22: Choosing an AutoFormat

Defining a new AutoFormat

You can define a new AutoFormat that is available to all spreadsheets.

To format a sheet:

- 1) Choose **Edit > Select All**, or press *Ctrl+A*.
- 2) Choose **Format > AutoFormat**.
- 3) Click **Add**.
- 4) In the *Name* box of the Add AutoFormat dialog, type a meaningful name for the new format.
- 5) Click **OK** to save. The new format is now available in the *Format* list in the AutoFormat dialog.

Formatting spreadsheets using themes

Calc comes with a predefined set of formatting themes that you can apply to your spreadsheets.

It is not possible to add themes to Calc, and they cannot be modified. However, you can modify their styles after you apply them to a spreadsheet.

Before you format a sheet with a theme, you have to apply at least one custom cell style to the cells on the sheet. You can then change the cell formatting by selecting and applying a theme in the Theme Selection dialog.

To apply a custom cell style to a cell, you can open the Styles and Formatting window and, in its lower list box, set the Custom Styles view. A list of the existing custom defined cell styles will be displayed. Double click a name from the Styles and Formatting window to apply this style to the selected cells.

To apply a theme to a spreadsheet:

- 1) Click the **Choose Themes** icon in the Tools toolbar. If this toolbar is not visible, you can show it using **View > Toolbars > Tools**. The Theme Selection dialog appears. This dialog lists the available themes for the whole spreadsheet and the Styles and Formatting window lists the custom styles which can be applied to specific cells.



- 2) In the Theme Selection dialog, select the theme that you want to apply to the spreadsheet. As soon as you select a theme, some of the properties of the custom styles are applied to the open spreadsheet and are immediately visible.
- 3) Click **OK**. If you wish, you can now go to the Styles and Formatting window to modify specific styles. These modifications do not change the theme; they only change the appearance of this specific spreadsheet document.

Value Highlighting

This function displays cell contents in different colors, depending on type.

Select **View - Value Highlighting** from the Menu bar, or press *Ctrl+F8*, to toggle the function on or off.

Text cells are formatted in black, formulas in green, and number cells in blue, no matter how their display is formatted. If this function is active, colors that you define in the document will not be displayed. When you deactivate the function, the user-defined colors are displayed again.

The function may be turned on by selecting **Tools > Options > LibreOffice Calc > View** and selecting *Value Highlighting* in the *Display* section. Selecting here will apply Value Highlighting each time you open Calc, which you may not want.

Using conditional formatting

You can set up cell formats to change depending on conditions that you specify. For example, in a table of numbers, you can show all the values above the average in green and all those below the average in red.

Note

To apply conditional formatting, AutoCalculate must be enabled. Choose **Tools > Cell Contents > AutoCalculate**.

Conditional formatting requires the use of styles. If you are not familiar with styles, please refer to Chapter 4. An easy way to set up the required styles is to format a cell the way you want it and click the **New Style from Selection** icon in the Styles and Formatting window.

After the styles are set up, here is how to use them.

- 1) In your spreadsheet, select the cells to which you want to apply conditional formatting.

- 2) Choose **Format > Conditional Formatting** from the menu bar.
- 3) On the Conditional Formatting dialog (Figure 23), enter the conditions. Click **OK** to save. The selected cells are now set to apply result-dependent formatting.

Cell value is / Formula is

Specifies whether conditional formatting is dependent on a *cell value* or on a *formula*. If you select *cell value is*, the **Cell Value Condition** box is displayed, as shown in the example. Here you can choose from conditions including *less than*, *greater than*, *between*, and others.

Parameter field

Enter a reference, value, or formula in the parameter field, or in both parameter fields if you have selected a condition that requires two parameters. You can also enter formulas containing relative references.

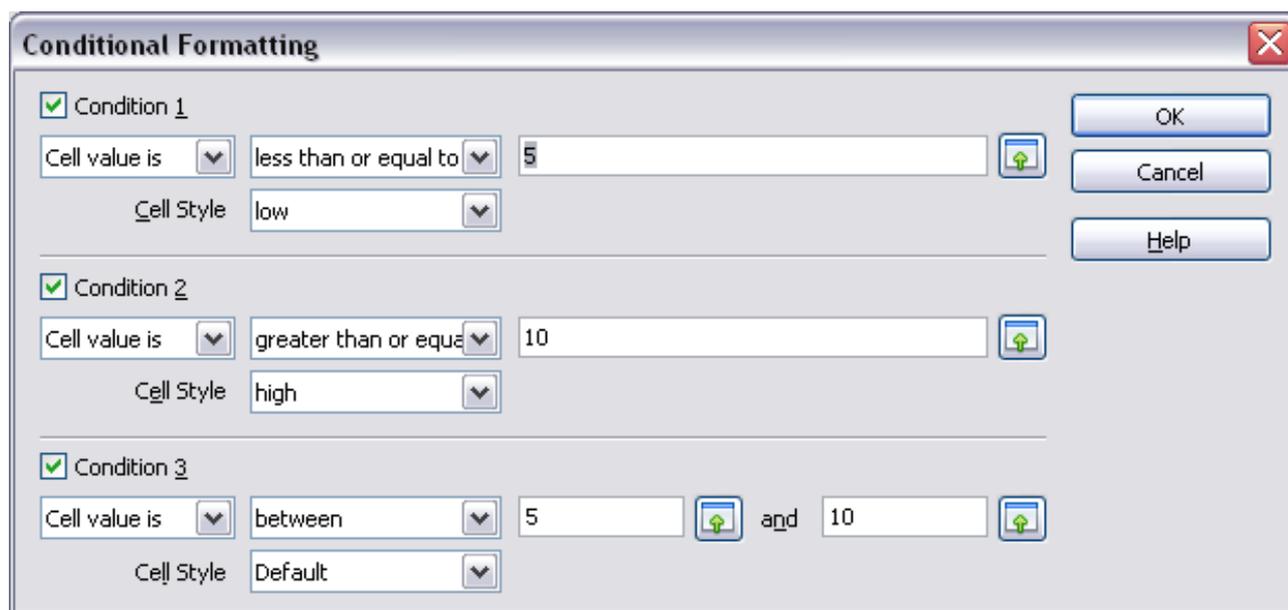


Figure 23: Conditional formatting dialog

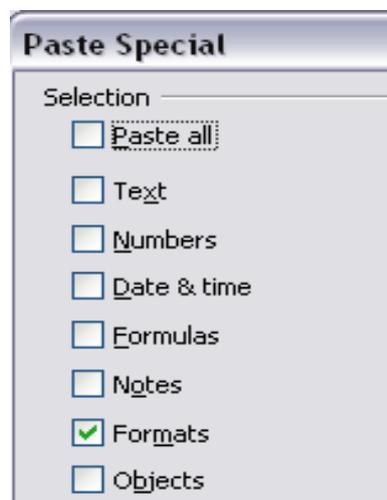
Cell style

Choose the cell style to be applied if the specified condition matches. The style must have been defined previously.

See the Help for more information and examples of use.

To apply the same conditional formatting later to other cells:

- 1) Select one of the cells that has been assigned conditional formatting.
- 2) Copy the cell to the clipboard.
- 3) Select the cells that are to receive this same formatting.
- 4) Choose **Edit > Paste Special**.
- 5) On the Paste Special dialog, in the Selection area, select *only* the **Formats** option. Make sure all other options are **not** selected. Click **OK**.



Hiding and showing data

When elements are hidden, they are neither visible nor printed, but can still be selected for copying if you select the elements around them. For example, if column B is hidden, it is copied when you select columns A and C. When you need a hidden element again, you can reverse the process, and show the element.

To hide or show sheets, rows, and columns, use the options on the Format menu or the right-click (context) menu. For example, to hide a row, first select the row, and then choose **Format > Row > Hide** (or *right-click* and choose **Hide**).

To hide or show selected cells, choose **Format > Cells** from the menu bar (or *right-click* and choose **Format Cells**). On the Format Cells dialog, go to the *Cell Protection* tab.

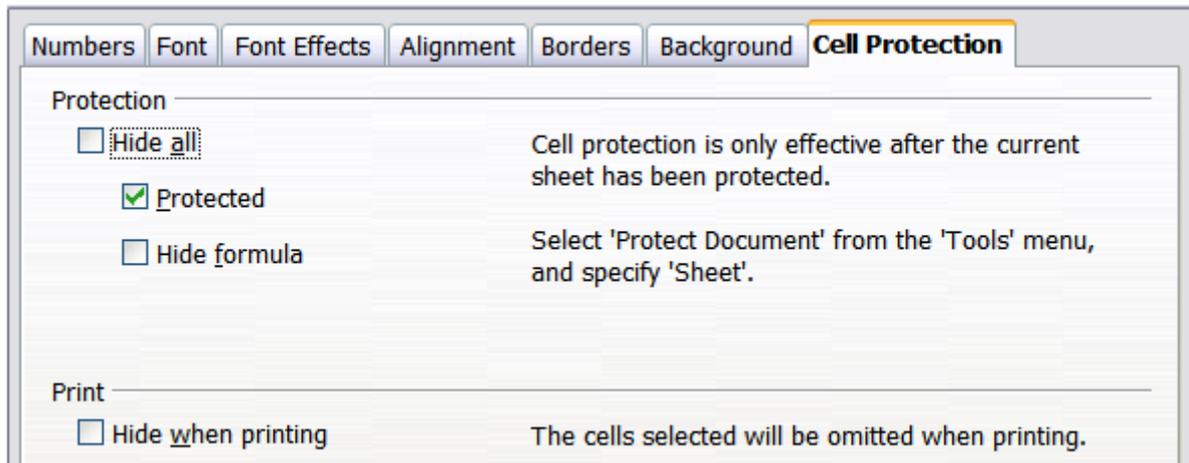


Figure 24: Hiding or showing cells

Outline group controls

If you are continually hiding and showing the same cells, you can simplify the process by creating *outline groups*, which add a set of controls for hiding and showing the cells in the group, that are quick to use and always available.

If the contents of cells fall into a regular pattern, such as four cells followed by a total, then you can use **Data > Group and Outline > AutoOutline** to have Calc add outline controls based on the pattern. Otherwise, you can set outline groups manually by selecting the cells for grouping, then choosing **Data > Group and Outline > Group** or press *F12*. On the Group dialog, you can choose whether to group the selected cells by rows or columns.

When you close the dialog, the outline group controls are visible between either the row or column headers and the edges of the editing window. The controls resemble the tree-structure of a file-manager in appearance, and can be hidden by selecting **Data > Group and Outline > Hide Details**. They are strictly for online use, and do not print.

The basic outline controls have plus or minus signs at the start of the group to show or hide hidden cells. However, if outline groups are nested, the controls have numbered buttons for hiding the different levels.

If you no longer need a group, place the mouse cursor in any cell in it and select **Data > Group and Outline > Ungroup** or press *Ctrl+F12*. To remove all groups on a sheet, select **Data > Group and Outline > Remove**.

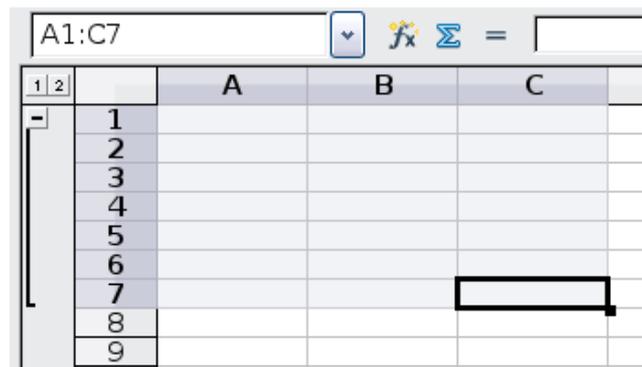


Figure 25: Outline group controls

Filtering which cells are visible

A filter is a list of conditions that each entry has to meet in order to be displayed. Three filters are available from the **Data > Filter** sub-menu.

AutoFilter. This adds a drop-down list to the top row of one or more data columns which lets you select the rows to be displayed. The list includes every unique entry in the selected cells sorted into lexical order. See <http://sheepsystems.com/bookdog/HelpBook/LexicalOrder.html> for an explanation of lexical order. AutoFilter can now be used on multiple sheets without first defining a database range.

Simple example.

	A	B	C	D	E	F
1	Title	Initial	Surname	Address	Town	Postcode
2	Mr	J	Doe	12 Falldown Road	WILFORD	SO91 4VC
3	Mr & Mrs	W	Spitfire	8 Rumbleside	LANDING	DE23 8YT
4	Master	P	Brightstar	34 Brickwall Terrace	NASHFORD	YE40 6RP
5	Miss	W	Pretty	7 Bumbletree Road	COALHOUSE	CR23 8SW
6	Mrs	Peggy	Grant	87 Nelson Ave	HIRST	HL67 9OP
7	Mr	G	Harris	11 Nightwalk Terrace	DOVEHOUSE	DS23 3XZ
8	Mr	W	Harrison	16 Cobblestones Drive	DURVAN	DU12 8WH
9	Mrs	D	Walmsley	45 Acorn Drive	MUSTON	CA34 7BB
10	Master	T	Foxtton	23 Gardenside Ave	MOORING	MO56 7DX
11	Miss	K	Cappel	29 Fireside Walk	SHIPSTONE	SH11 8GH
12	Dr	H. R.	Kapoor	63 Knowle Lane	WOODSHED	HE24 0QQ
13	Mrs	D	Sawbridge	98 Poppy Walk	TURPINGTON	TR23 9KL
14	Mrs	W	Paddle	87 Glowerby Road	TURPINGTON	TR23 9KL
15	Mr	R	Dawson	12 Hayrick Gdns	POPPYFORD	PP19 4FG
16						

Figure 26: An address list to be filtered

- 1) Select the data range which we wish to filter: A1 to F15.
- 2) Select **Data > Filter > AutoFilter** from the Menu bar.
- 3) Drop-down list boxes appear at the top of each column.
- 4) Select the Arrow at the top of the Title column and select all the entries whose title is Mrs by clicking on this entry in the box (see Figure 27).

	A	B	
1	Title	Initial	Surname
2	All		Doe
3	Top 10		Spitfir
4	Standard Filter...		Bright
5	- empty -		Pretty
6	Dr	gy	Grant
7	Master		Harris
8	Miss		Harris
9	Mr		Walm
10	Mr & Mrs		Foxta
11	Mrs	K	Cappi
12	Dr	H. R.	Kapoi

Figure 27: Select Mrs from the Title list

- 5) The list is filtered to show the rows containing only these entries. The relevant row numbers are displayed with the other rows hidden. The arrow in the box on the column we chose to use to filter the data changes color and has an indicator marker in its lower right corner (Figure 28).

	A	B	C	D	E	F
1	Title	Initial	Surname	Address	Town	Postcode
6	Mrs	Peggy	Grant	87 Nelson Ave	HIRST	HL67 9OP
9	Mrs	D	Walmsley	45 Acorn Drive	MUSTON	CA34 7BB
13	Mrs	D	Sawbridge	98 Poppy Walk	TURPINGTON	TR23 9KL
14	Mrs	W	Paddle	87 Glowerby Road	TURPINGTON	TR23 9KL

Figure 28: Row numbers of filtered data and altered arrow

- 6) We can now filter the data by Town, to display only those living in Turpington, by using the method above. Again the drop-down list arrow displays the indicators to show it has been used as a filter (Figure 29).

	A	B	C	D	E	F
1	Title	Initial	Surname	Address	Town	Postcode
13	Mrs	D	Sawbridge	98 Poppy Walk	TURPINGTON	TR23 9KL
14	Mrs	W	Paddle	87 Glowerby Road	TURPINGTON	TR23 9KL
16						
17						

Figure 29: Results of selecting the Town

Filters can be removed individually or all at once.

- To remove the filtering in one go, select the data range:A1:F14. From the Menu bar select **Data > Filter > Remove Filter**. The data then returns to its unfiltered state.
- To remove the filtering from any column: click the arrow of the column to be unfiltered and select **All** from the list. The result will depend on where in the sequence of applying the filters, the filter removed was applied.

Standard Filter. This is more complex than AutoFilter. You can set as many as eight arguments as a filter, using the field name, one of sixteen conditions, and a value, combining them with the operators **AND** or **OR**. Standard filters are mostly useful for numbers, although a few of the conditional operators, can also be used for text.

To obtain the same results as for our AutoFilter exercise, the Standard Filter could use the settings in Figure 30. Other *Conditions* could have been used, for example **Contains**, in the argument for the filter, to return the same results.

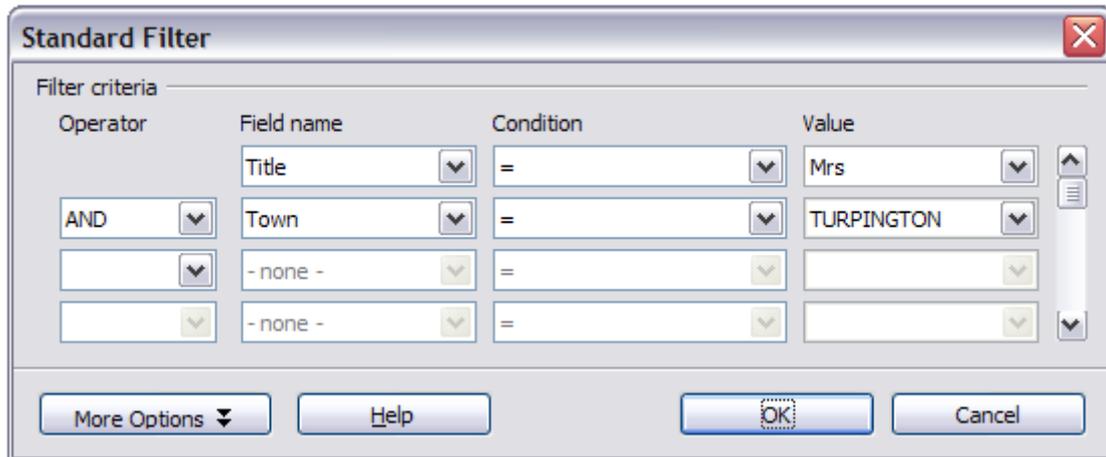


Figure 30: Standard Filter settings for our addresses

Useful in themselves, Standard Filters take on added value when they are used to further refine automatic filters.

Advanced Filter. This has a structure similar to the Standard Filter. The difference is that the Advanced Filter arguments are not entered in a dialog. Instead, filters are entered in a blank area of a sheet, then referenced by the filter dialog in order to apply them.

To filter our data to obtain the same results as our previous examples:

- 1) Copy the data headings to a blank area of the worksheet.
- 2) In the cells below, insert the data which is required as the filter.
- 3) In order to AND the data, enter it on the same row under the relevant pasted headings. (To OR data, enter it onto different rows under the relevant headings).

25	Title	Initial	Surname	Address	Town	Postcode
26	Mrs				TURPINGTON	

Figure 31: The two terms ANDed for the query

- 4) Select the data range containing the data to be filtered: A1:F15.
- 5) Select **Data > Filter > Advanced Filter**.
- 6) Select the data.

If you select the query range with the mouse, which in our example is A25:F26, then during the selection, it is outlined in red. On completion, the selected range is indicated by a blue border around the cells and the Advanced Filter dialog shows the range in absolute terms, indicated by dollar signs (\$) in the references (Figure 32). You can also enter the range directly into the text box by cell reference. In our example that entry would be; **A25 : F26**.



Figure 32: Filter query argument range

- 7) Click **OK**.

The data is filtered, returning the same results as the previous filters.

Note

A maximum of eight rows can be used for the query, **including** the header row. This equates to the eight arguments of the Standard Filter.

Sorting records

Sorting rearranges the visible cells on the sheet. In Calc, you can sort by up to three criteria, which are applied one after another. Sorts are handy when you are searching for a particular item, and become even more powerful after you have filtered data.

In addition, sorting is often useful when you add new information. When a list is long, it is usually easier to add new information at the bottom of the sheet, rather than inserting rows in the proper places. After you have added the information, you can sort it to update the sheet.

Highlight the cells to be sorted, then select **Data > Sort** to open the Sort dialog (Figure 33) or click the **Sort Ascending** or **Sort Descending** toolbar buttons. Using the dialog, you can sort the selected cells using up to three columns, in either ascending (A-Z, 1-9) or descending (Z-A, 9-1) order.

**Tip**

You can define a custom sort order if the supplied alphanumeric ones do not fit your requirements. See “Defining a fill series” on page 9 for instructions.

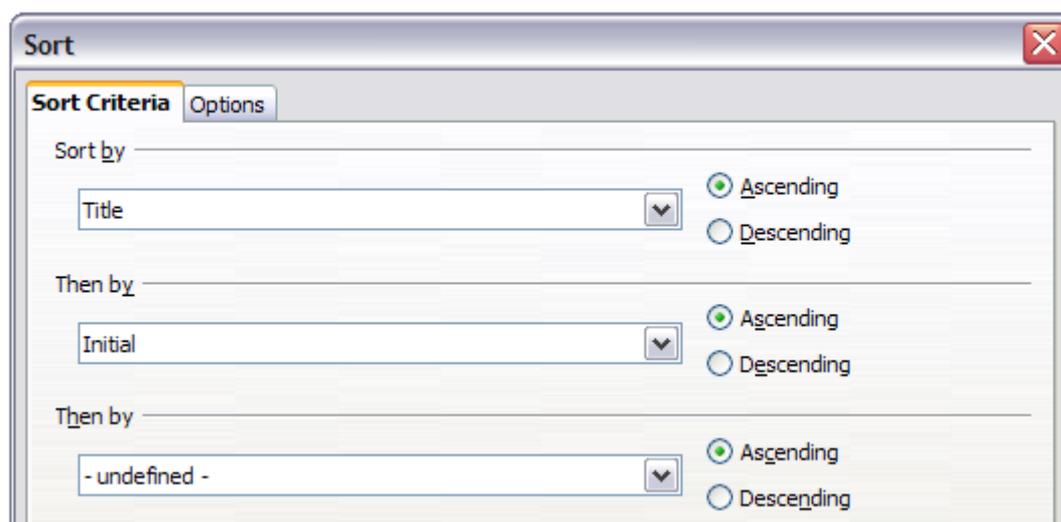


Figure 33: Choosing the criteria and order of sorting

On the *Options* tab of the Sort dialog (Figure 34), you can choose the following options.

Case sensitive

If two entries are otherwise identical, one with an upper case letter is placed before one with a lower case letter in the same position if the sort is descending; if the sort is ascending, then the entry with an upper case letter is placed after one with a lower case letter in the same position.

Range contains column labels

Does not include the column heading in the sort.

Include formats

The formatting of a cell is moved with its contents. If formatting is used to distinguish different types of cells, then use this option.

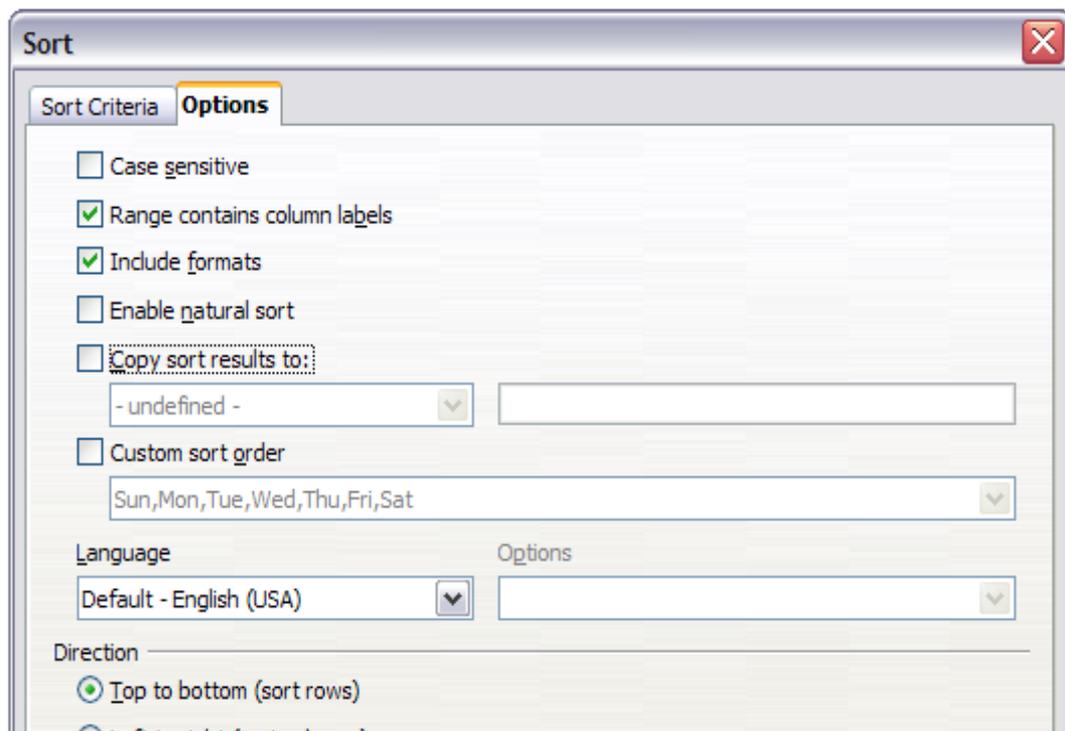


Figure 34: Options for sorting

Enable Natural Sort

Natural sort is a sort algorithm that sorts string-prefixed numbers based on the value of the numerical element in each sorted number, instead of the traditional (lexical) way of sorting them as ordinary strings. For instance, let us assume you have a series of values such as, A1, A2, A3, A4, A5, A6, ..., A19, A20, A21. When you put these values into a range of cells and run the sort, it will become A1, A11, A12, A13, ..., A19, A2, A20, A21, A3, A4, A5, ..., A9. While this sorting behavior may make sense to those who understand the underlying sorting mechanism, to the rest of the population it seems completely bizarre, if not outright inconvenient. With the natural sort feature enabled, values such as the ones in the above example get sorted "properly", which improves the convenience of sorting operations in general.

Copy sort results to

Sets a spreadsheet address to which to copy the sort results. If a range is specified that does not have the necessary number of cells, then cells are added. If a range contains cells that already have content, then the sort fails.

Custom sort order

Select the box, then choose from the drop-down list one of the sort orders defined in **Tools > Options > LibreOffice Calc > Sort Lists**.

Direction

Sets whether rows or columns are sorted. The default is to sort by columns unless the selected cells are in a single column.

Finding and replacing in Calc

Calc has two ways to find text within a document: the Find toolbar for fast text searching and the Find & Replace dialog.

Using the Find toolbar

The Find toolbar is docked by default in the lower left-hand end of the Calc window. You can hide or show the Find toolbar using **View > Toolbars > Find**, or press *Ctrl+F*. You may undock it and move it to where you choose.



Type a search term in the Find box, and then click the **Find Next** (down-arrow) or **Find Previous** (up-arrow) button. To find other occurrences of the same term, continue clicking the button.

Using the Find & Replace dialog

To display the **Find & Replace** dialog (Figure 35), select **Edit > Find & Replace** from the menu bar, or select the **Find & Replace**  icon from the Standard Toolbar.

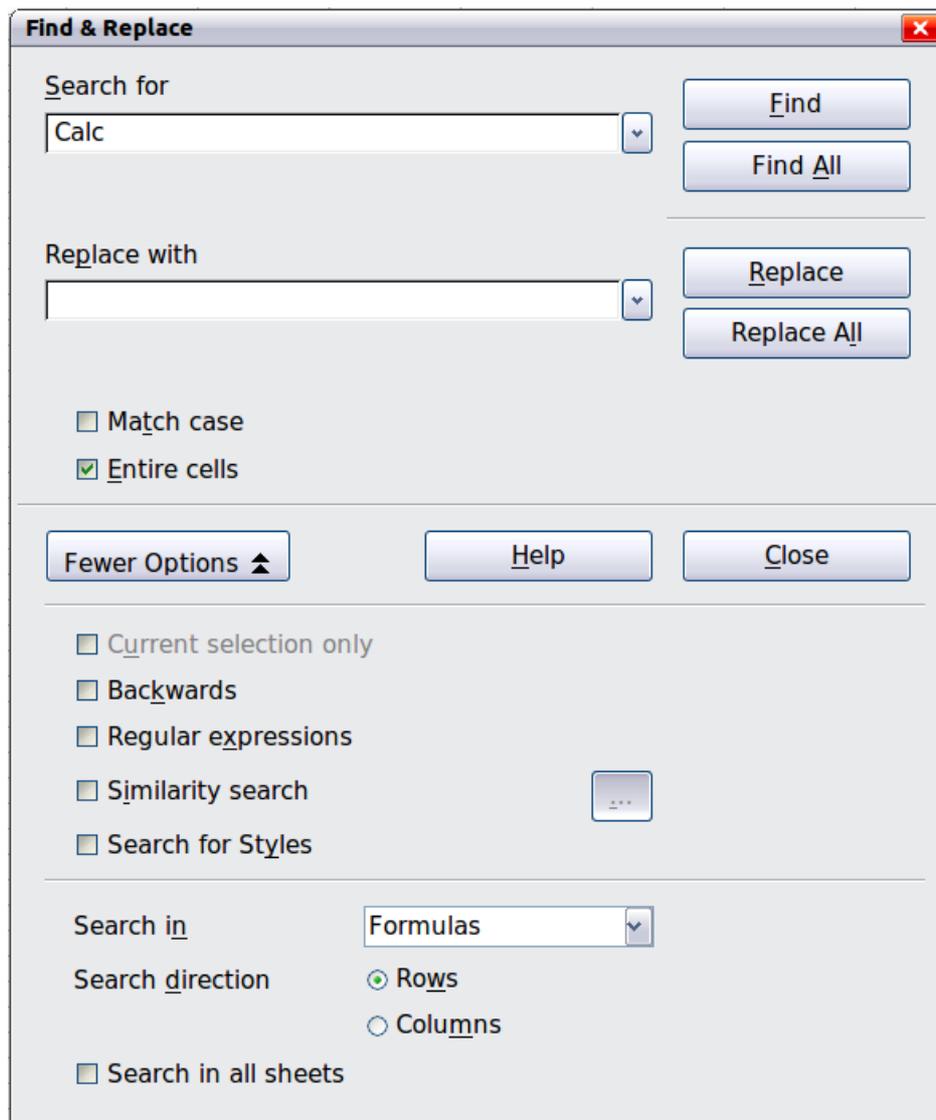


Figure 35: Expanded Find & Replace dialog

Note

Find & Replace shortcut key.

For LibreOffice versions up to and including 3.4.5, press *Ctrl+Alt+F*. For release 3.4.6, press *Ctrl+H*.

In spreadsheet documents you can search for text, formulas, and styles. You can navigate from one occurrence to the next using **Find**, or you can highlight all matching cells at once using **Find All**, then apply another format or replace the cell contents by other content.

Text and numbers in cells may have been entered directly or may be the result of a calculation. The search method you use depends on the type of data you are searching for.

Tip

Cell contents can be formatted in different ways. For example, a number can be formatted as a currency, to be displayed with a currency symbol. You can see the currency symbol in the cell, but you cannot search for it.

By default, Calc searches the current sheet. To search through all sheets of the document, click **More Options**, then select *Search in all sheets* option.

Caution



Use **Replace All** with caution; otherwise, you may end up with some highly embarrassing mistakes. A mistake with **Replace All** might require a manual, word-by-word search to fix, if it is not discovered in time to undo it.

Finding and replacing formulas or values

You can use the Find & Replace dialog to search in formulas or in the displayed values that result from a calculation.

- 1) To open the Find & Replace dialog, select **Edit > Find & Replace**, or use the correct shortcut key combination for the Calc release you are using (see Find & Replace shortcut key.)
- 2) Click **More Options** to expand the dialog.
- 3) Select *Formulas* or *Values* in the *Search in* drop-down list.
 - Formulas finds parts of the formulas.
 - Values finds the results of the calculations.
- 4) Type the text you want to find in the *Search for* box.
- 5) To replace the text with different text, type the new text in the *Replace with* box.
- 6) When you have set up your search, click **Find**. To replace text, click **Replace** instead.

Finding and replacing text

- 1) Open the Find & Replace dialog, click **More Options** to expand the dialog, and select *Values* or *Notes* in the *Search in* drop-down list.
- 2) Type the text you want to find in the *Search for* box.
- 3) To replace the text with different text, type the new text in the *Replace with* box.
- 4) Click **Find**, **Find All**, **Replace**, or **Replace All**.

When you click **Find**, Calc selects the next cell that contains your text. You can edit the text, then click **Find** again to advance to the next found cell. If you closed the dialog, you can press **Ctrl+Shift+F** to find the next cell without opening the dialog.

When you click **Find All**, Calc selects all cells that contain your entry. Now you can, for example, apply a cell style to all of them at once.

Finding and replacing cell styles

To quickly change all the cells containing paragraphs of one (unwanted) style to another (preferred) style:

- 1) On the expanded Find & Replace dialog, select **Search for Styles**. The *Search for* box contains a list of styles already applied, and the *Replace with* box contains a list of styles which can be applied.
- 2) Select the styles you want to search for and replace.
- 3) Click **Find**, **Find All**, **Replace**, or **Replace All**.

Using wildcards (regular expressions)

Wildcards (also known as *regular expressions*) are combinations of characters that instruct LibreOffice how to search for something. Regular expressions are very powerful but not very intuitive. They can save time and effort by combining multiple finds into one.

To use wildcards and regular expressions when searching and replacing:

- 1) On the Find & Replace dialog, click **More Options** to see more choices. On this expanded dialog, select the **Regular expressions** option.
- 2) Type the search text, including the wildcards, in the *Search for* box and the replacement text (if any) in the *Replace with* box.
- 3) Click **Find**, **Find All**, **Replace**, or **Replace All** (not recommended).

Tip

The help file describes many of the regular expressions and their uses.

The following points may be of interest to Calc users:

- In Calc, regular expressions are applied separately to each cell. This means that a search for **r.d** will match **red** in cell A1 but will not match **r** in cell A2 and **d** (or **ed**) in cell A3. (The regular expression **r.d** means the system will try to match **r** followed by any other character followed by **d**.)
- When a match is found, the entire cell is highlighted but only the text found will be replaced. For example, searching for **brown** will result in highlighting a cell containing **redbrown clay**, and choosing nothing in the *Replace with* box leaves the cell containing **red clay**.
- If Find is used twice in a row, and the second time the *Current selection only* box is activated, then the second search will evaluate the *whole* of each selected cell, *not* just the strings that caused the cells to be selected in the first search. For example, searching for **juh?n**, then activating *Current selection only* and searching for **sm.th** will find cells containing **Jon Smith** and **Smythers, Johnathon**.
- If a cell contains a hard line break (entered by *Ctrl+Enter*), it may be found by using the regular expression **\n**. For example, if a cell contains **red [hard line break] clay** then searching for **d\nc** and entering nothing in the *Replace with* box leaves the cell containing **relay**.
- The hard line break acts to mark “end of text” (similar to “end of paragraph” in Writer), found by the regular expression special character **\$**, in addition to the end of text in the cell. For example, if a cell contains **red [hard line break] clay** then a search for **d\$** replacing with **al** leaves the cell with **real [hard line break] clay**. Note that with this syntax the hard line break is not replaced.
- Using **\n** in the *Replace with* box will replace with the literal characters **\n**, not a hard line break.
- The Find & Replace dialog has an option to search within formulas, values, or notes. This option applies to any search, not just one using regular expressions. Searching with the

Formulas option for **SUM** would find a cell containing the formula **=SUM(A1:A6)** as well as a cell containing the simple text **SUMMARY**.

- Searching for the regular expression **^\$** will not find empty cells. This is intentional, to avoid performance issues when selecting a huge number of cells. Note that empty cells will not be found even if you are only searching a selection.
- Finding cell contents using the regular expression **.+** (or similar) and replacing them with **&** effectively re-enters the cell contents without any formatting. This technique can be used to remove formatting automatically applied by Calc when importing data from the clipboard or from badly formatted files. For example, to convert text strings consisting of digits into actual numbers, first format the cells as numbers and then perform the search and replace.

See Chapter 7, Using Formulas and Functions, for the use of regular expressions within formulas.