

Open Office Calc (Spreadsheet)

Tutorial

Table of Contents

Introduction	3
What is a Spreadsheet?	3
Starting OpenOffice Calc	3
OpenOffice Calc (Spreadsheet) Basics	4
Creating a New Document	5
Entering Data	5
Selecting (Highlighting) Cell(s)	6
To Select One Cell	6
To Select a Range of Cells (e.g. A1:G5)	6
To Select a Column or Row	6
Deleting Cell(s)	6
Opening and Saving a File	6
Opening a File	7
Saving a File	7
Cut, Copy, Paste	8
Cut and Paste	8
Copy and Paste	8
Formatting Text	9
Changing the Font/Font Size	9
Bold, Italics, Underline	9
Cell Alignment	9
Font Color	10
Background (highlighting) Color	10
Undo/Redo Buttons	10
Spelling/Grammar Check	10
Headers/Footers	10
Adding Headers/Footers	10
Deleting a header/footer	11
Adding Pictures	11
Creating Formulas/Calculations	12
Formula Basics	12
Cell References	13
Formatting Cell(s)	14
Text Alignment	14
Merging Cells	14
Other Formatting Hints	14
Example: Adding Borders	14
Renaming Sheets	15
Page Settings	15
Changing Page Orientation	15
Other Page Setting Options	15
Using the AutoFormat feature	16
Creating Charts	17
Printing a File	17
Printing a Selected Area of your Worksheet	17
Printing a Single Worksheet	18
Printing Multiple Worksheets	18

Introduction

OpenOffice is an open source Office Suite package originally designed by Sun Microsystems. OpenOffice is much like Microsoft Office but free to use. The software can be freely downloaded and used.

OpenOffice Calc is much like using Microsoft Excel.

What is a Spreadsheet?

A spreadsheet is the computer equivalent of a paper ledger sheet. It consists of a grid made from columns and rows. It is an environment that can make number manipulation easy and somewhat painless.

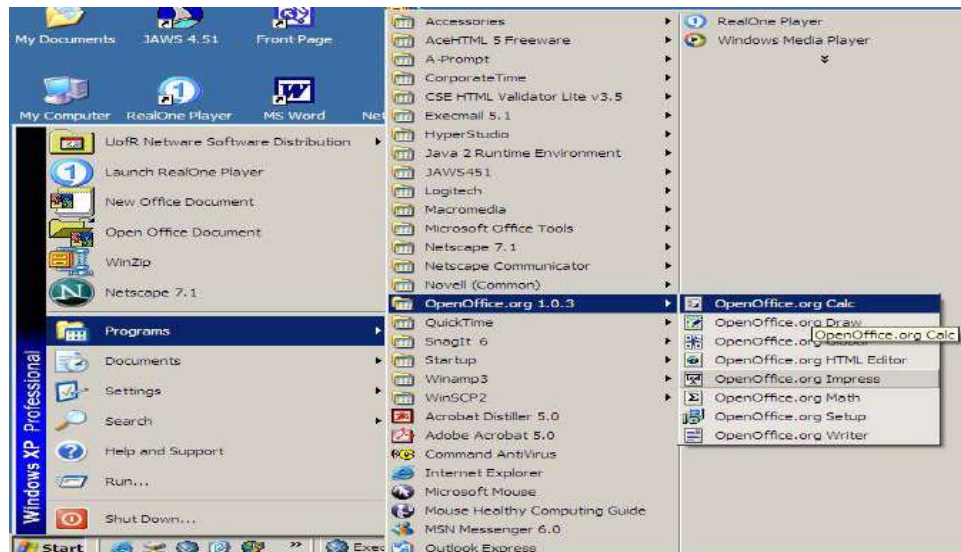
The math that goes on behind the scenes on the paper ledger can be overwhelming. If you change the loan amount, you will have to start the math all over again (from scratch). The nice thing about using a computer and spreadsheet is that you can experiment with numbers without having to redo all the calculations. **Let the COMPUTER do the calculations for you!** Once you have the formulas set up, you can change the variables that are called from the formula and watch the answers change. Spreadsheets are instantly updated if one of the entries is changed. NO erasers! NO new formulas! NO calculators!

Spreadsheets are made up of columns, rows, and cells (intersection of a column and row). A cell can contain data including text (strings or labels), numeric data, and formulas (mathematical equations).

Starting OpenOffice Calc

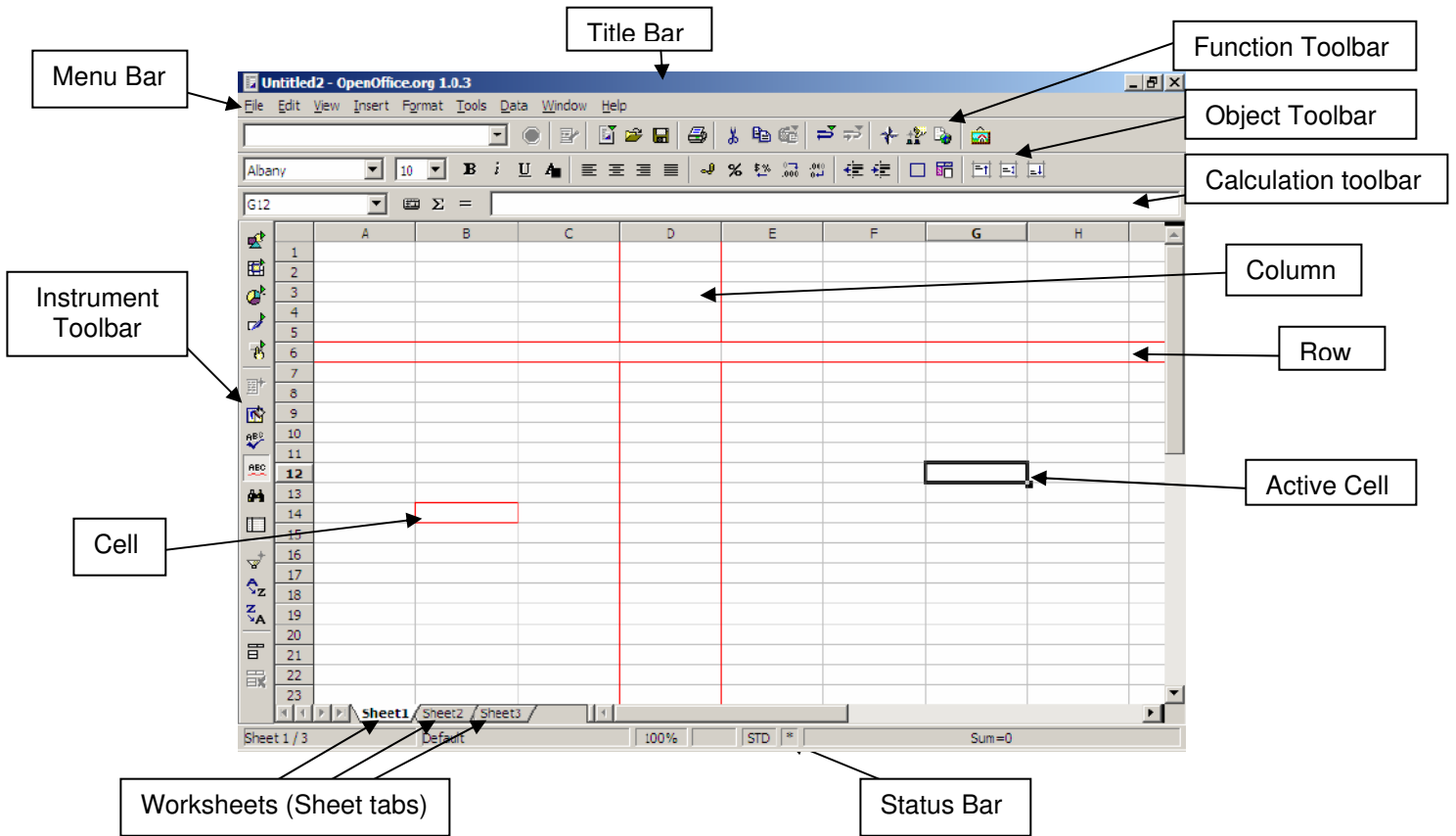
Procedure

1. Click **Start, Programs, OpenOffice.org 1.0.3, OpenOffice Calc.**



OpenOffice Calc (Spreadsheet) Basics

The picture below shows the Calc screen.



The **Menu toolbar** contains the main menus of the Calc module. The **Function toolbar** provides user access to function icons such as **Open, Save, Copy, Cut, Paste** and other common tasks in Open Office. The **Object toolbar** consists of a set of tools that are specific to calculation and cell formatting (number format, text alignment, borders). Finally, the **Calculation toolbar** is intended for the entry of formulae necessary for your calculations, and also shows you the position of the cursor within the spreadsheet.

On the left of the screen, you will notice the **Instrument toolbar** (shown here on the right). This toolbar provides the tools that you will need to work with your spreadsheet. The basic functions of the toolbar are explained in this 'How-to'. At the bottom of the screen, you will notice the **Status Bar**. This bar provides essential information such as the sheet that you're currently working on, the page style, and in normal mode, the sum of the cell in which the cursor is situated.


You will also notice that the folder you have just opened contains three worksheets by default, indicated by the presence of three small tabs above the Status Bar and bearing the names: Sheet1, Sheet2, Sheet3.

The spreadsheet is represented as a grid comprising cells, with each cell bearing a unique reference. A cell is referenced by its column (vertical reference), given here as a letter (e.g. A...Z etc.), and its line (horizontal reference), given here as a number (e.g. 1...65000 etc.). These references appear as grey column and line headers on the spreadsheet. Thus, the first cell in the first line (the one at the uppermost left hand corner) bears the reference A1.



Creating a New Document

Procedures

1. Type **CTRL+N** on your keyboard (hold down the CTRL key and type N).
2. Select **File, New, Spreadsheet** from the Menu Bar **OR**
3. Click on the **New Document Icon**  on the Function Bar and select Spreadsheet.

Entering Data

Procedures

To enter text, values or a formula:

1. Click on the cell you wish to enter information.
2. Type the information.
3. Press the **ENTER** key on the keyboard or press one of the arrow keys.

Selecting (Highlighting) Cell(s)

To Select One Cell

Procedure

1. Click in the cell. (The active cell is already selected.)

To Select a Range of Cells (e.g. A1:G5)

Procedures

1. On the first cell of the range (e.g. A1), click and hold the left mouse button while dragging the mouse to the last cell of the range (e/g. G5).
2. All cells will turn black except the first cell will remain white.

To Select a Column or Row

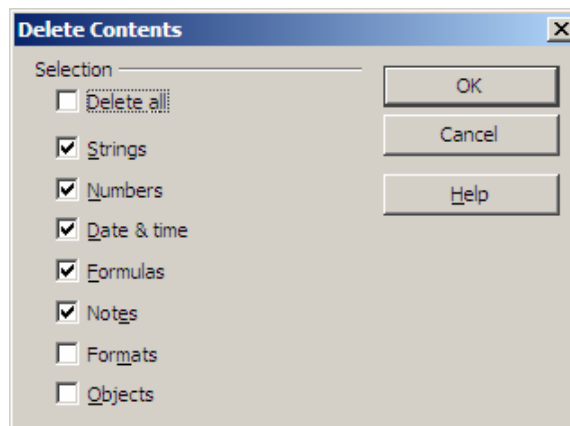
Procedure

1. Click on the column or row heading in gray.

Deleting Cell(s)

Procedures

1. Select the cell(s) you wish to delete.
2. Press the **DELETE** key on the keyboard. The following window will appear.




3. Check the boxes of what you wish to delete (e.g. checking Formats will delete things like bold, italics, font color, borders).
4. Click the **OK** button.

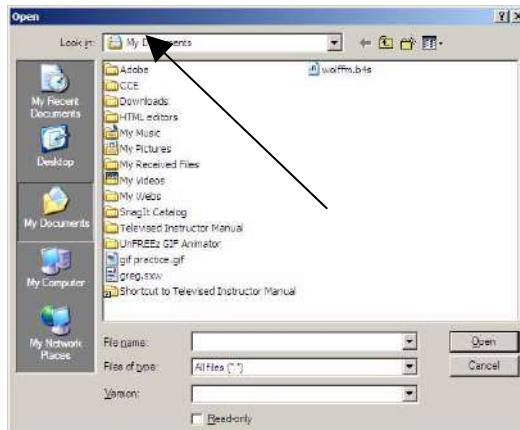
Opening and Saving a File

The opening, saving, and printing of files are the most common actions in a word processor, and therefore, they have to be very easy and accessible.

Opening a File

Procedures


1. Select the **File menu, Open** from the Menu Bar, **OR**
2. Click the **Open File icon**  on the toolbar.
3. An **Open File Dialog box** will appear as shown below. From the drop down list (shown by the arrow) indicated below, choose the directory that contains the file you wish to open.

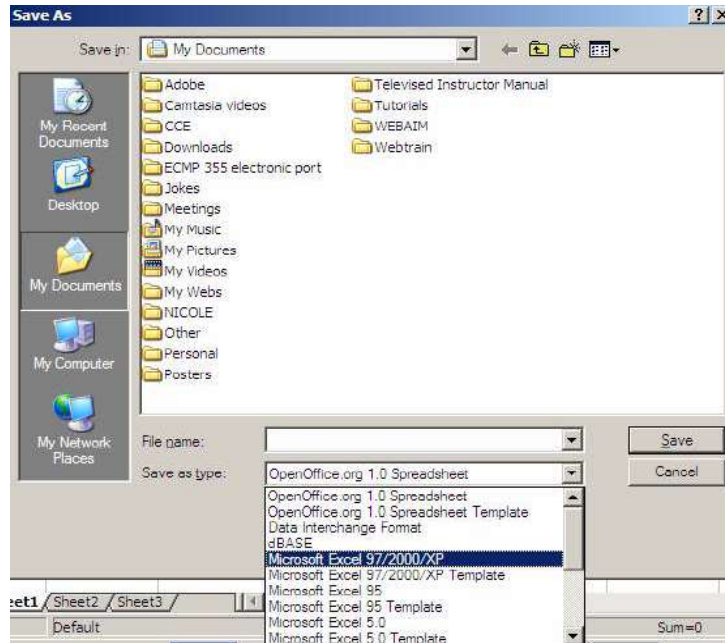


4. When a list of files appears, double click on the filename to open the file.

Saving a File

Procedures

1. Choose **File, Save** from the Menu Bar, **OR**
2. Click the **Save icon**  on the Function Bar.
3. If you are saving for the first time, a **Save File Dialog Window** will be displayed.
4. Type a filename and choose a location to save the file.
5. If you wish to save your file as a Microsoft Excel file format, change the Save as type to Microsoft Excel 97/2000/XP.



6. Click the **Save** button.



Cut, Copy, Paste

You can perform four main actions on a selected text: *copying, cutting, deleting, and formatting.*

Cut and Paste

This allows the user to move selected text so that it can be placed somewhere else in the document or in another document.


Procedures


1. Select cell(s) that contain the information you wish to cut (move).
2. Click the **Cut**  button on the toolbar or **CTRL + X** on the keyboard.
3. Click in the cell where you want to paste the information.
4. Click the **Paste**  button on the toolbar or **CTRL+ V** on the keyboard.

Copy and Paste

This allows the user to create a duplicate (copy) of the selected text to be placed somewhere else in the document or in another document.

Procedures

1. Select cell(s) you wish to cut (move).
2. Click the **Copy**  button on the toolbar or **CTRL + C** on the keyboard.
3. Place the cursor where to place the cut cell(s).

4. Click the Paste  button on the toolbar or **CTRL+ V** on the keyboard.

Formatting Text

The formatting action in Open Office is slightly different from other Office applications such as Microsoft Office. There are two ways to format text in Open Office Writer.

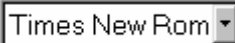
Procedure

1. Use the buttons provided from the Toolbar or Format Menu.

Changing the Font/Font Size

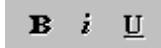
Font is the style of writing and font size is the size of the text with a 12-point size being 1/6 of an inch.

Procedures

1. Select the cell(s) you wish to change.
2. On the toolbar, click the  first drop-down arrow to change the font and the second drop down arrow to change the font size.

Bold, Italics, Underline

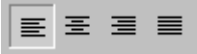
Procedures

1. Select the cell(s) you wish to format.
2. Click on the attribute icon you wish to apply such as  on the Toolbar. These buttons transform the selected text (in sequence from left to right) into Bold, Italics, and Underlined.
3. With the cell(s) still selected, click the button again to turn the feature off.

Note: More formatting options can be accessed by selecting **Format menu, Cells.**


Cell Alignment

Procedures

1. Select the cell you wish to change.
2. Click on one of the alignment icons  on the function toolbar to modify the text alignment (left, center, right, or justified).


Font Color

Procedures



1. Select the cell (s) you wish to change.
2. Click the font color button  on the toolbar and pick the color of your choice.

Background (highlighting) Color

Procedures

1. Select the cell (s) you wish to change.
2. Click the background color button  on the toolbar and pick the color of your choice.



Undo/Redo Buttons

If you perform an action that does not give you the desired result, you can use the Undo button  to reverse the last action. Likewise, the Redo button  can be used to Redo an action that has been undone.

Spelling/Grammar Check

There is only a spell check available in Open Office. Words spelled incorrectly will be underlined in red if the spell check toggle button is turned on.

Procedures

1. To turn the spell check on/off as you are typing, click the  button on the toolbar.
2. If you wish to spell check the entire document in order to make corrections, click the  button on the toolbar.

Headers/Footers

A header/footer is a piece of information you would like to have appear at the top (header) or bottom (footer) of every page such as page numbers.

Adding Headers/Footers

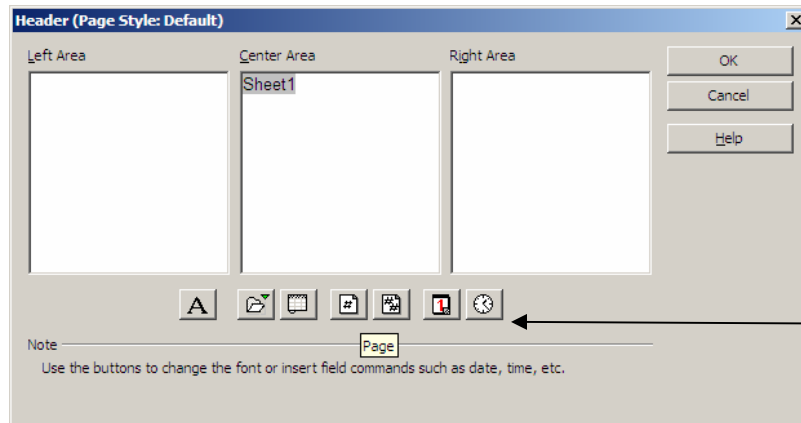
A header is space at the top of the page reserved for such things as page numbers. A footer is space reserved at the bottom of the page.


Procedures

1. From the menu toolbar, choose **Format, Page**.
2. Click on the tab **Footer**.
3. In the window that appears, click on the checkbox that says **Footer on**.

4. The button **More** allows you to add a border or background to the footer.
5. Click the **Edit** button.

The following window will appear.



6. Click in the area you want to place information (each area corresponds to the area of your page).
7. Use the buttons to add information (e.g. page numbers). For example, click on the icon **Page** , you will see the page number written into the selected window or type your own information.
8. Click **OK** to return to the **Page Style** window.
9. Click **OK** to close this window.

Deleting a header/footer

Procedures

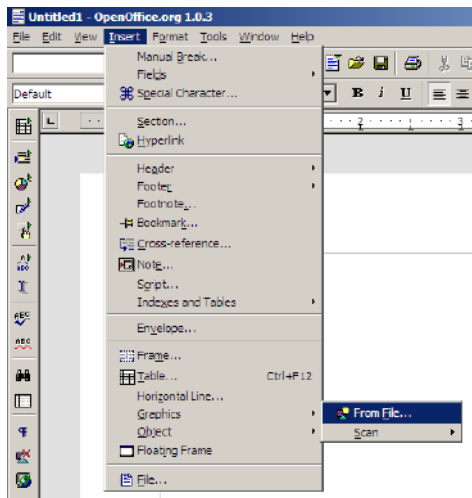
1. Click **Format** menu, Click **Page...**
2. Click **Header** or **Footer** tab.
3. Deselect **Header** or **Footer** checkbox.
4. Click **Yes** to delete the text in the header or footer.

Adding Pictures

Follow these steps if you wish to add pictures that are saved in a file.

Procedures

1. Place your cursor where you want to place a picture.
2. Click **Insert** menu, Click **Graphics**, Click **From File** (as shown below)



3. Pick the location where the file has been saved.
4. Double click filename to insert into document.

Note: Use the following toolbar to modify picture attributes.



Creating Formulas/Calculations

As mentioned above, the boxes that you see formed by the grid are called cells. You can enter text, numbers or formulae in these cells. Of course, the whole purpose of a spreadsheet application is to be able to carry out calculations within these cells. A calculation can be simply adding two numbers or taking the average of ten numbers.

Note: A right mouse button click in the box where Sum is written will give you access to a context-sensitive menu that proposes other choices, such as mean, maximum, minimum...

Formula Basics

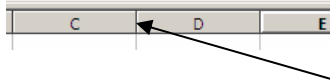
- Just like in Microsoft Excel, formulas are started with an **EQUAL (=)** sign. (e.g. =b3+b4)
- Use cell references (e.g. b3) instead of actual values (e.g. 56) wherever possible.
- Use FUNCTIONS (e.g. SUM, AVERAGE) to save time when creating formulas.

e.g. $=\text{SUM}(A1:A9)$
 Instead of $=A1+A2+A3+A4+A5+A6+A7+A8+A9$

By typing the colon [:] between the cell references, you have told the software that you want to add up the values in the range of cells from A1 to A9. The range is indicated on the screen by a red border. By typing “=sum()”, you are telling the software the type of mathematical operation that you want to carry out on the referenced cells that are between parentheses.

You can also select the ranges to be added together using the mouse. After having typed “= sum()” into the target cell, click on the first cell and whilst holding the mouse button down, drag the mouse to the last cell of the range, and then let go of the mouse button, and you will see the end of the formula inserted in automatically into the Formula bar.

Note : If the number that is displayed is too big to be displayed completely in the cell, it will be replaced by a series of musical flat symbols (###). In order to adjust the size of the cell, all you have to do is click on the right-hand column separator



of any given column and drag the separator rightwards (to broaden) or leftwards (to narrow). The same function can be reached through the command **Format - Column - Optimal width**.

Cell References

It is important to grasp the basics of references when you want to carry out calculations on cells containing formulae.

A relative reference is a range whose references are adjusted when the formula is moved:

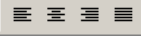
e.g. If you copy the formula “=sum(A1:A9)” to column B, it will become “=sum(B1:B9)”

An absolute reference is used when a calculation has to refer to a precise or absolute cell of the spreadsheet. This is written using dollar signs (\$) around the cell reference. For example, typing \$A\$1 will make column A and row 1 absolute or fixed.

e.g. If you copy the formula “=\$B\$3 * B8” from cell C8 to cell C9, the formula would read “=\$B\$3 * B9. Notice the first part of the formula (=\$B\$3) did not change when copied. A good example of when you might use an absolute cell reference is when you are calculating the tax on an item. The tax (7%) will not change. Each item will be multiplied by the same tax amount.

Formatting Cell(s)


Text Alignment

Use these buttons  found on the toolbar to change the alignment of cell contents.

Merging Cells

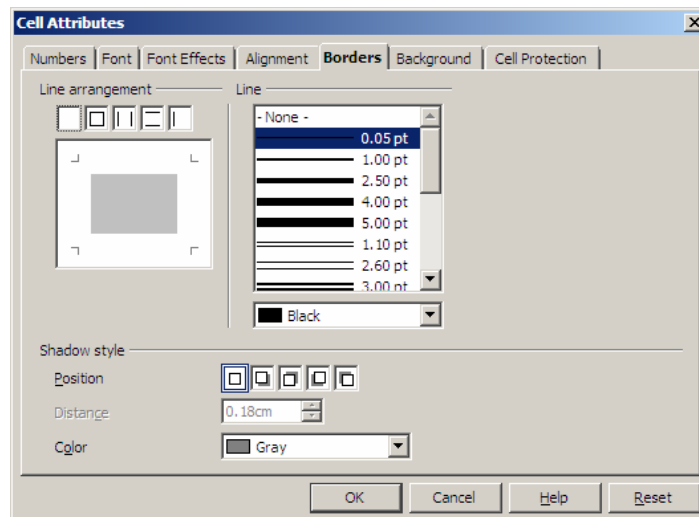
Sometimes you might want to center a title between many columns.

Procedures

1. Select all the cells in which the title is to be centered between.
2. In the menu toolbar, select **Format, Merge Cells, Define**.
3. The cells are now merged into one large cell. Click the **Center** button  on the toolbar to center text within this cell.
4. Click the **OK** button.

Other Formatting Hints


The 'Cell Attributes' window (click Format, Cells) below includes other tabs for cell formatting (e.g. **Fonts, Font Effects, Alignment, etc**). The function toolbar also contains some of these formatting functions.



Example: Adding Borders

A border such as a thick dark border can be added to emphasize a range of cells.

Procedures

1. Select the cells for which you want to add a border.
2. Choose the **Format menu, Cells** and click on the tab called **'Borders'**.
3. Choose the style and thickness of the border  you wish to use.

Renaming Sheets

Your spreadsheet contains three sheets, Sheet 1, 2, 3. Each sheet can be renamed.

Procedures

1. Right-click on the **Sheet name** (e.g. Sheet 1).
2. Click **Rename**.
3. Enter a name for your sheet and click the **OK** button; the sheet will then display the new name in the tab.

Page Settings

Page settings allows you to change settings related to a page as a whole such as changing the page orientation (e.g. portrait - 8.5" x 11" or landscape- 11" x 8.5"), adding headers/footers, and margins.

Changing Page Orientation

Procedures

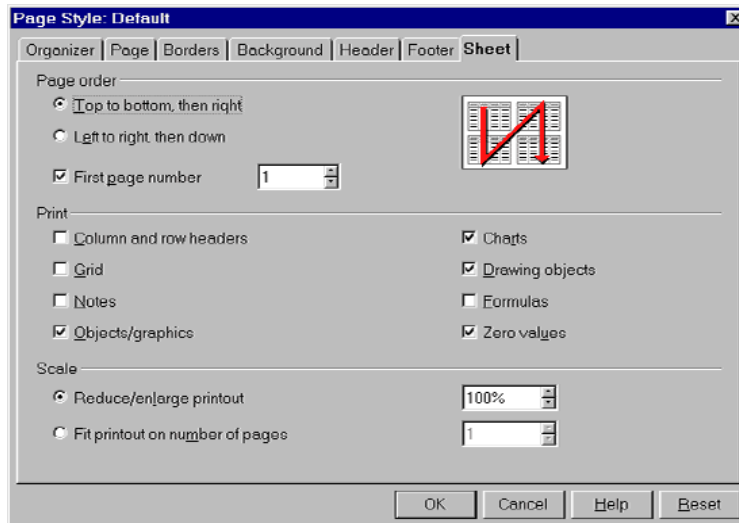
1. From the menu toolbar, choose **Format, Page**.
2. Click on the tab **Page**.
3. At the section *Orientation*, click on the radio button **Landscape**.
4. Confirm with **OK**.

To verify the change in page orientation, click the **File menu, Preview**.

Other Page Setting Options

- In the **Margins section** of the **Page tab**, you set the margin sizes. If you set them beyond the printing area, a message will warn you.
- In the **Layout settings section** of the **Page tab, Page Layout** lets you select how to align the content of the cells inside the sheet.
- In the **Sheet Tab** under **Scale**, the **Reduce/enlarge printout** option allows you to decrease or increase the size of the printed page.


- In the **Sheet Tab** under **Scale**, the **Fit printout on number of pages** option allows you to determine the exact number of pages on which the spreadsheet will be printed. The size of the sheets will be adjusted to fit that number of pages.

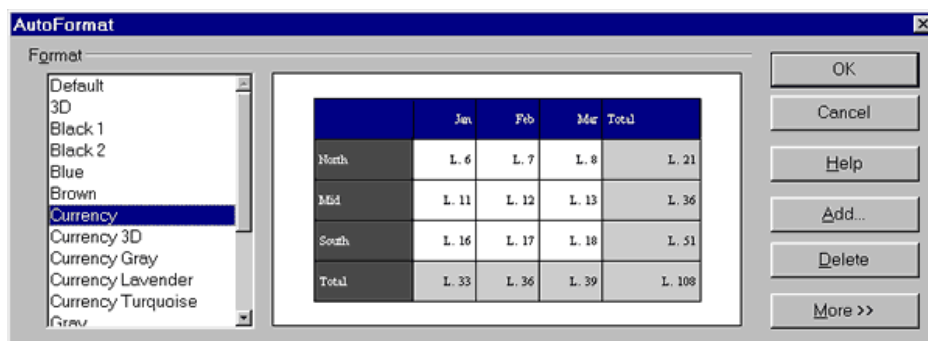


Using the AutoFormat feature

This feature formats a range of cells with color, borders, font, font size, etc. automatically rather than you having to do it one step at a time.

Procedures

1. Select the range of cells you wish to format.
2. Select the **Format menu, AutoFormat**, or click the AutoFormat button  on the toolbar to the left of your screen.
3. The following window will appear.



4. Click the format you want from the left side. You can create your own format (see the **Add...** button to the right) and delete it when you do not want it anymore. By clicking on the **More** button, some additional formatting options appear. If you modify them, the result will be presented in the preview image displayed in the AutoFormat window.

5. Click **OK**.

Creating Charts

A chart (e.g. bar chart, pie chart) is a visual representation of data contained in a spreadsheet.


Procedures

1. Select the cells you wish to include in the chart.
2. Click the **Insert menu, Chart...**
3. **Step 1:** Choose whether you want your chart in the same sheet as your data or a new sheet.
4. Click **Next**.
5. **Step 2:** Choose a chart type from the list.
6. Click **Next**.
7. **Step 3:** Choose a chart sub-type (variant) from the list.
Choose data series in rows or columns.
8. Click **Next**.
9. **Step 4:** Add a title to your chart.
10. Click the **Create** button.

Printing a File

It is a good habit to check how the document will look when printed, before printing. It can be done by using the **Page Preview** feature.

Procedures

1. Select **File, Page Preview** from the menu bar to switch to the **Page Preview Mode**.
2. Click **Page Preview**  button in Page Preview to close Page Preview and return to the main document.

You may want to print part of your spreadsheet, the entire workbook (all worksheets) or even only one sheet.

Printing a Selected Area of your Worksheet

Procedures

1. Select the cell(s) you wish to print.
2. Select the **File menu, Print**.
3. In the dialog box that appears, click on the box **Selection** in 'Print range'.
4. Click **OK**.

Printing a Single Worksheet

Procedures

1. Click the **File menu, Print**.
2. In the dialog box that appears, under **Print Range** click on the radio button **Pages** and enter the page number that you wish to print. If you wish to print more than one page at a time such page 2 and 3, you would enter 2,3.
3. Click **OK**.

Printing Multiple Worksheets

Procedures

1. Select the worksheets you wish to print by clicking the first sheet tab at the bottom of the page, press and hold the **CTRL** key on the keyboard and select the remaining sheets you wish to print.
2. Click on the icon **Quick printing** in the function toolbar.
3. To undo selected sheets, press and hold the **CTRL** key and click once more on the sheet tab.

Source: Gautier, Sophie (January 16, 2002). *OpenOffice.org Documentation Project*. Available at <http://whiteboard.openoffice.org/doc/index.html>