

OpenOffice.org



**Getting Started with
OpenOffice.org 2.x**

Third edition

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Chapter 1
What is OpenOffice.org?

What is OpenOffice.org?

OpenOffice.org is a freely available, full-featured office suite. This chapter describes:

- The components of OpenOffice.org
- Some of the enhancements and new features in version 2
- How OpenOffice.org compares with other office suites
- How to get help
- How OpenOffice.org is licensed
- Answers to some common questions

Note Because someone else owns the trademark *OpenOffice*, the correct name for both the open-source project and its software is *OpenOffice.org*.

OpenOffice.org (OOo) is both a *software product* and a *community of volunteers* that produces and supports the software.

Everyone is free to redistribute OOo, thanks to its open source license (see “How is OpenOffice.org licensed?” on page 13).

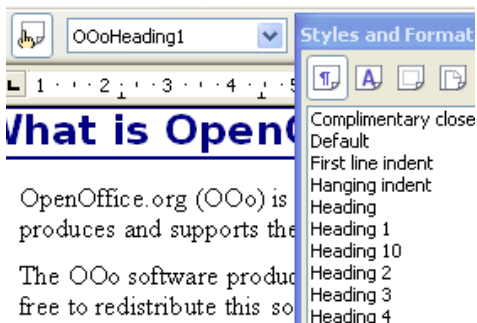
If you are new to OOo, its open source development, and the community that produces and supports it, you should read this chapter.

OOo 2.0 was a major upgrade of an already feature-rich office suite. If you have used previous versions of OOo, please look over the section “New features in version 2” on page 7.

What does OpenOffice.org include?

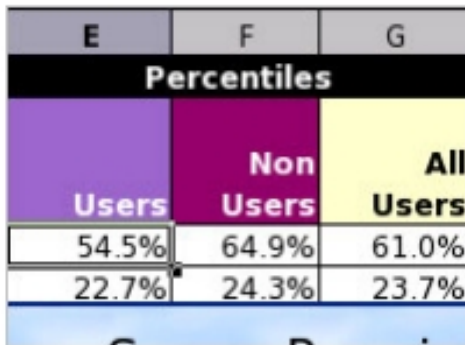
The OpenOffice.org 2.x office suite includes the following components.

Writer (word processor)



Writer is a feature-rich tool for creating letters, books, reports, newsletters, brochures, and other documents. You can insert graphics and objects from other components into Writer documents. Writer can export files to HTML, XHTML, XML, Adobe’s Portable Document Format (PDF), and several versions of Microsoft Word files. It also connects to your email client.

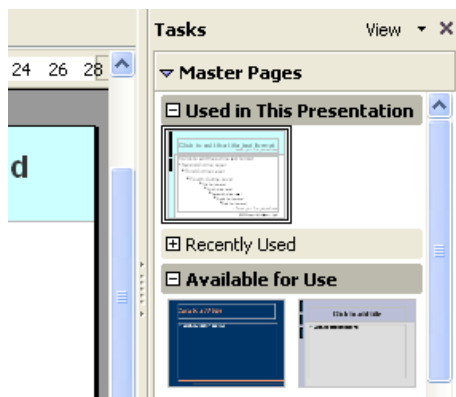
Calc (spreadsheet)



E	F	G
Percentiles		
Users	Non Users	All Users
54.5%	64.9%	61.0%
22.7%	24.3%	23.7%

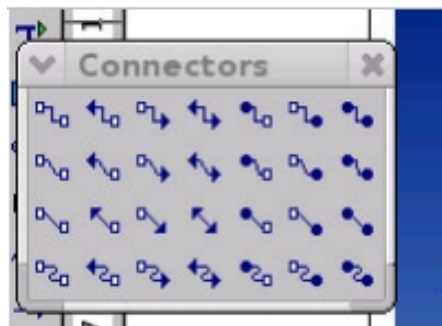
Calc has all of the advanced analysis, charting and decision-making features expected from a high-end spreadsheet. It includes over 300 functions for financial, statistical, and mathematical operations, among others. The Scenario Manager provides “what if” analyses. Calc generates 2-D and 3-D charts, which can be integrated into other OOO documents. You can also open and work with Microsoft Excel workbooks and save them in Excel format. Calc can export spreadsheets to Adobe’s PDF and to HTML.

Impress (presentations)



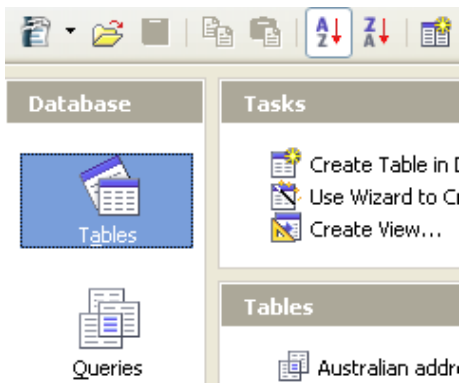
Impress provides all the common multimedia presentation tools, such as special effects, animation, and drawing tools. It is integrated with the advanced graphics capabilities of OOO’s Draw and Math components. Slideshows can be further enhanced with Fontwork’s special effects text, as well as sound and video clips. Impress is compatible with Microsoft’s PowerPoint file format and can also save your work in numerous graphics formats, including Macromedia Flash (SWF).

Draw (vector graphics)



Draw is a vector drawing tool that can produce everything from simple diagrams or flowcharts to 3-D artwork. Its Smart Connectors feature allows you to define your own connection points. You can use Draw to create drawings for use in any of OOO’s other components, and you can create your own clipart and add it to the Gallery. Draw can import graphics from many common formats and save them in over 20 formats including PNG, HTML, PDF, and Flash.

Base (database)



Base provides tools for day-to-day database work within a simple interface. It can create and edit forms, reports, queries, tables, views, and relations, so that managing a connected database is much the same as in other popular database applications. Base provides many new features, such as the ability to analyze and edit relationships from a diagram view. Base incorporates HSQLDB as its default relational database engine. It can also use dBASE, Microsoft Access, MySQL, or Oracle, or any ODBC- or JDBC-compliant database. Base also provides support for a subset of ANSI-92 SQL.

Math (formula editor)

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2}$$

$$\mu\{f > \alpha\} \leq \frac{1}{\alpha} \int f d\mu$$

Math is OOo's formula or equation editor. You can use it to create complex equations that include symbols or characters not available in standard font sets. While it is most commonly used to create formulas in other documents, such as Writer and Impress files, Math can also work as a stand-alone tool. You can save formulas in the standard Mathematical Markup Language (MathML) format for inclusion in webpages and other documents not created by OOo.

The advantages of OpenOffice.org

Here are some of the advantages of OpenOffice.org over other office suites:

- **No licensing fees.** OOo is free for anyone to use and distribute at no cost. Many features that are available as extra cost add-ins in other office suites (like PDF export) are free with OOo. There are no hidden charges now or in the future.
- **Open source.** You can distribute, copy, and modify the software as much as you wish, in accordance with either of OOo's Open Source licenses.
- **Cross-platform.** OOo 2.x runs on several hardware architectures and under multiple operating systems, such as Microsoft Windows, Mac OS X, Linux, and Sun Solaris.
- **Extensive language support.** OOo's user interface is available in over 40 languages, and the OOo project provides spelling, hyphenation, and thesaurus dictionaries in over 70 languages and dialects. OOo also provides support for both Complex Text Layout (CTL) and Right to Left (RTL) layout languages (such as Hindi, Hebrew, and Arabic).
- **Consistent user interface.** All the components have a similar "look and feel," making them easy to use and master.

- **Integration.** The components of OpenOffice.org are well integrated with one another.
 - All the components share a common spelling checker and other tools, which are used consistently across the suite. For example, the drawing tools available in Writer are also found in Calc, with similar but enhanced versions in Impress and Draw.
 - You do not need to know which application was used to create a particular file (for example, you can open a Draw file from Writer).
- **Granularity.** Usually, if you change an option, it affects all components. However, OOo options can be set at a component level or even document level.
- **File compatibility.** OOo includes PDF and Flash export capabilities, as well as support for opening and saving files in many common formats including Microsoft Office, HTML, XML, WordPerfect, and Lotus 123 formats.
- **No vendor lock-in.** OOo 2.x uses OpenDocument, an XML (eXtensible Markup Language) file format developed as an industry standard by OASIS (Organization for the Advancement of Structured Information Standards). These files can easily be unzipped and read by any text editor, and their framework is open and published.
- **You have a voice.** Enhancements, software fixes, and release dates are community-driven. You can join the community and affect the course of the product you use.

You can read more about OpenOffice.org, its mission, history, licensing, and other organizational information here: <http://www.openoffice.org/about.html>

How does OpenOffice.org compare?

OpenOffice.org can match and exceed the feature set of competing office suites. The following table lists the main components of OOo and compares them with their equivalents in two leading office suites, *Microsoft Office 2003* (MSO) and *WordPerfect Office X3* (WP).

Function	OOo	MSO	WP
Word processor	Writer	Word®	WordPerfect® X3
Spreadsheet	Calc	Excel®	Quattro Pro® X3
Vector graphics	Draw	no	no
Presentation graphics	Impress	PowerPoint®	Presentations™ X3
Database	Base	Access® ¹	Paradox® ²
Math or formula editor	Math	yes	no

¹ Professional version only.

² Professional and Student and Teacher editions only.

Features

The following tables list some important features of OpenOffice.org and compare them with two leading office suites, *Microsoft Office 2003* (MSO) and *WordPerfect X3* (WP).

Styles and formatting

Feature	OOo	MSO	WP
Navigator	yes	limited ¹	no
Styles and Formatting window	yes	yes	no
Keyboard support for paragraph styles	yes	yes	no
Support for page, frame, and list styles	yes	no	no
Word completion	yes	Excel only	no
Spelling and language proofing modules	70+	50+ ²	25
Formula or equation tools	yes	yes	no

¹“Outline View” in Word offers a subset of the features of OOo's *Navigator*.

² Requires an additional license for the the *Multilingual User Interface Pack*.

Interoperability

Feature	OOo	MSO	WP
PDF export capability	yes	yes ¹	yes
Flash export capability	yes	no	yes
XML export capability	yes	yes	yes
OpenDocument XML format	yes	no	no
Import/Export Microsoft Office files	yes	yes	yes
Import WordPerfect files	yes	yes	yes
Import Lotus 123 files	yes	yes	yes
Connect to external databases (MySQL, Oracle, Access, etc.)	yes	yes	yes
Languages available (localizations)	40+	35+	30
Supported operating systems	Windows, Mac OS X, Linux, Solaris	Windows only ²	Windows only
Unicode language support	yes	yes	no

¹ Requires additional third-party software, such as *PDF Writer* or *PDF Converter*.

² *Microsoft Office: Mac* is not feature compatible with *Microsoft Office 2003*.

3 Programmability

Macros are programs that automate tasks and can be embedded in a document. The following table lists the languages available for macro development in each office suite.

<i>Language</i>	<i>OOo</i>	<i>MSO</i>	<i>WP</i>
Basic-derived language	OpenBasic	VBA	VBA
Beanshell	yes	no	no
Java	yes	no	no
JavaScript	yes	no	no
Python	yes	no	no

Beyond simple macros, some office suites can be extended to include new features. This capability usually takes the form of plug-ins. In the case of OpenOffice.org, it can also be done through changes to the source code.

<i>Feature</i>	<i>OOo</i>	<i>MSO</i>	<i>WP</i>
C and C++	yes	yes	yes
Java	yes	no	no
Python	yes	no	no
Source code available!	yes	no	no

Security

<i>Feature</i>	<i>OOo</i>	<i>MSO</i>	<i>WP</i>
Digital signatures	yes	yes	yes
Strong encryption	yes	yes	yes
Secure paths for macro execution	yes	yes	no

New features in version 2

OpenOffice.org 2.x delivers hundreds of improvements and new features. Here are some of the major enhancements.

- **Simplified installation.** Installations are now performed by platform-native installers with no need to use command-line switches (or flags) for multi-user installations. You can also specify which version of Java (if any) is to be used by OOo from the installation interface.
- **New database component.** In the new stand-alone database component, you can create forms, reports, queries, tables, views, and relations. OOo now includes HSQLDB, a small, fast, relational database engine that supports a subset of ANSI-92 SQL, along with an easy-to-use interface. Additionally, it is now easier than ever to use other databases (dBASE, MySQL, Oracle, among others).

- **New file format.** OOo 2.x uses the new OpenDocument XML file format (standardized by OASIS, <http://www.oasis-open.org/home/index.php>) as its default file format. This new file format is also used in StarOffice, IBM Workspace, and KOffice, and will be used by other products in the future. OOo 2.x can still read and save files in formats previously supported by OOo 1.x, including Microsoft Office formats.
- **Native system theme integration.** To further integrate OpenOffice.org with the underlying operating system, all user interface elements (such as buttons and scrollbars) have the same look as those used in other native applications for each platform.
- **Digital signatures.** Digital signatures provide authentication of the true author or editor of a document. This feature also provides security with running macros.
- **Enhanced encryption.** Implementation of the new XML (eXtensible Markup Language) encryption algorithm offers additional document security.
- **Usability improvements.** Redesigned toolbars are more usable and display only selected default tools and related options. The usability of the **Menus** tab of the **Tools > Customize** dialog has been improved. Several features have been renamed to conform with common office suite terminology (for example, the “AutoPilot” is now a “Wizard”).
- **Thumbnails.** The new plug-in for the the native file explorer provides a thumbnail preview of an OOo file. Some of the more common file system explorers that can use this new feature are Nautilus (Gnome), Konqueror (KDE), and Microsoft Windows Explorer.
- **Import and export filters**
 - Improved PDF export filter now includes PDF bookmarks, PDF notes, security, and more.
 - Import and export of Microsoft Office 95 and Office 97 spin buttons and scrollbars have been added to the Word filters.
 - The import filter for Microsoft PowerPoint documents now creates text objects having font-independent line spacing enabled.
 - Enhanced export to HTML produces valid XHTML 1.0 Strict documents. XHTML export has been enabled for Calc, Draw, and Impress.
 - You can now open Microsoft Office password-protected documents.
 - New import filters for WordPerfect and Lotus 123.
- **Send document as e-mail.** OOo 2.x makes it easier to use your email client to send the active document as an attachment.
- **Enhanced mail merge feature.** Enhancements include better management of databases and saving into one single file.
- **Drag and drop selections to create styles.** Drag and drop a text selection into the Styles and Formatting window to create a new paragraph style or character style.

- **Form controls.** Form controls can be embedded in all OOo documents that support a form layer.
- **New keyboard shortcuts.** You can now use the keyboard to perform the actions found under **Edit > Paste Special**. Multiple selected sheets in a spreadsheet can be deselected using the keyboard. Paragraph and other styles can be assigned to key combinations.
- **Auto recovery of files and the workspace environment.** The OOo Error Reporting tool and the document recovery features have been combined. Now if OOo crashes, the active documents are saved. You can recover the documents and send an error report.
- **Enhanced features in Calc.** These enhancements include improved number recognition, an improved Hyperlink function, conditional arrays, a greater selection of predefined headers and footers, more options for defining how to print sheets, new options for the DataPilot feature, and support for right-to-left languages.
- **Calc row limit increased.** The number of spreadsheet rows has been increased to 65536, the same number of rows as Microsoft Excel.
- **Enhanced multimedia.** The multimedia presentation model uses the W3C's Synchronized Multimedia Integration Language (SMIL) standard. Now Impress can render nearly all of the Microsoft PowerPoint animation effects. Two new task panels provide access to shape and slide transition effects.
- **Programmatic control of menu and toolbar items.** Third-party developers can write plug-ins to manipulate menu bar and toolbar layouts to their needs. Developers can now insert, remove, and modify menu items, context menus, and toolbar items at runtime.
- **Scripting framework.** The scripting framework allows you to write macros in a number of languages other than OOo Basic. You can assign these macros to menu items, keyboard combinations, application and document events, form controls within documents, and various objects within documents.

For a complete, detailed listing, go to the OpenOffice.org 2.0 Office Suite Guide to New Features located at <http://marketing.openoffice.org/2.0/featureguide.html#enduser>

Minimum requirements

OpenOffice.org 2.x requires one of the following operating systems:

- **Microsoft Windows** 98, Windows ME, Windows 2000 (Service Pack 2 or higher), Windows XP, Windows 2003, or Windows Vista
- **GNU/Linux Kernel version 2.2.13** and glibc 2.2.0 or newer
- **Mac OS X** 10.3.x (10.3.5 recommended), Mac OS X 10.4.x, X11 required
- **Solaris** version 8 or higher

More operating systems will be supported in the future.

Some OpenOffice.org features (wizards and the HSQLDB database engine) require that the Java Runtime Environment (JRE) be installed on your computer. Although OOo will work fine without Java support, some features will not be available. You can download the latest version from <http://www.java.com>.

For a more detailed (and up-to-date) listing of requirements, see:
http://www.openoffice.org/dev_docs/source/sys_reqs_20.html.

Getting the software

You can get the OpenOffice.org installation package in any of these ways:

- Download a copy from the project's home page: <http://www.openoffice.org>.
- Download a copy using the Peer to Peer client, **BitTorrent**. The instructions are here: <http://distribution.openoffice.org/p2p/>.
- Purchase a copy on a CD-ROM or other digital form from a third-party distributor. The project maintains a listing of distributors; however, these distributors are not connected with, nor endorsed by OpenOffice.org: <http://distribution.openoffice.org/cdrom/sellers.html>.
- The OpenOffice.org *Porting Project* has links to versions of the software that have been, or are currently being, “ported” to run under various operating systems, including natively under Mac OS X. <http://porting.openoffice.org/index.html>.

Installing the software

Information on installing and setting up OpenOffice.org on the various supported operating systems is given here: <http://download.openoffice.org/2.1.0/instructions.html>

You can also download the more detailed *Setup Guide* (in several languages) from http://documentation.openoffice.org/setup_guide2/index.html

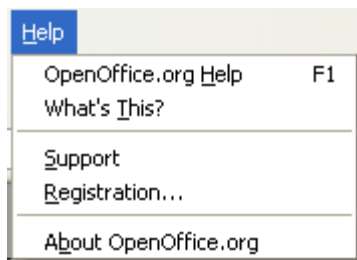
How to get help

Help system

OOo comes with an extensive Help system. This is your first line of support for using OOo.

To display the full Help system, press *F1* or select **OpenOffice.org Help** from the Help menu. In addition, you can choose whether to activate tooltips, extended tips, and the Help Agent (using **Tools > Options > General**).

If tooltips are enabled, place the mouse pointer over any of the icons to see a small box (“tooltip”) with a brief explanation of the icon's function. For a more detailed explanation, select **Help > What's This?** and hold the pointer over the icon.



The Help menu

Free online support

The OpenOffice.org community not only develops software, but provides free, volunteer-based support. Users of OOO can get comprehensive online support from community venues such as *newsgroups*, *forums*, or *mailing lists*. There are also numerous websites run by users that offer free tips and tutorials.

Free OpenOffice.org support	
User Help – FAQ Project	FAQs, information, knowledge base. http://user-faq.openoffice.org/new-faq/index.html
Users Mailing List	Free community support provided by a network of hundreds of experienced users. You must be subscribed to post messages. To subscribe, send a blank email to users-subscribe@openoffice.org List archives are here: http://www.openoffice.org/servlets/SummarizeList?listName=users
Documentation Project	Templates, user guides, how-tos, and other documentation. http://documentation.openoffice.org/
Native Language Project	Information, resources, and mail lists in your language. http://projects.openoffice.org/native-lang.html
Mac Support	Support for installing and using the Mac OS X (X11 based) port. http://porting.openoffice.org/mac/support.html
The OpenOffice.org Forum	Extensive discussion forum for OpenOffice.org issues from setup to advanced programming features. http://www.ooforum.org/
OOo KnowledgeBase	A collection of questions and answers that users can query. http://mindmeld.cybersite.com.au/

Read more about the support options for OpenOffice.org at:
<http://support.openoffice.org/index.html>

Paid support and training

Alternatively, you can pay for support services. Service contracts can be purchased from a vendor or consulting firm specializing in OpenOffice.org.

OOo is supported by Sun Microsystems, Inc. under the Sun Software Support program, which includes two levels of support that cover extended business hours or around-the-clock service for mission-critical deployments.

<http://www.sun.com/service/support/software/openoffice/index.html>

A list of independent consultants and the services they offer, listed alphabetically by region and then by country, is provided on the OpenOffice.org website.

<http://bizdev.openoffice.org/consultants.html>

Other resources and addons

Several websites provide additional free resources and addons to enhance OpenOffice.org. The following table lists a few of these websites.

Free OOo templates, artwork, addons, and other resources	
OOExtras	Provides templates, samples, and macros in several languages. http://ooextras.sourceforge.net/
OOoMacros	A repository for OOo macros and addons and documentation about writing macros or extending OOo. http://www.oomacros.org/
Open Clip Art Library	An archive of clip art that can be used for free for any use. http://www.openclipart.org/
OpenOffice.org Macro Information	Andrew Pitonyak, the author of <i>OpenOffice.org Macros Explained</i> , maintains this site which provides extensive documentation on OOo's macro capability. Many good referral links are also provided: http://www.pitonyak.org/oo.php

A short history of OpenOffice.org

The OpenOffice.org project began when Sun Microsystems released the source code (“blueprints”) for its StarOffice® software to the open source community in 2000. This allowed Sun to use the technical expertise and rapid development times of an open-source project in the development of its own software products. All recent versions of Sun’s StarOffice use source code developed by the OpenOffice.org community. However, the products do not provide exactly the same features due to the copyrights of third parties that are not compatible with open-source licensing.

Read more about OpenOffice.org’s history and organization at: <http://about.openoffice.org/>

Information about StarOffice can be found at: <http://www.sun.com/software/star/staroffice/>

How is OpenOffice.org licensed?

OpenOffice.org is distributed under the Open Source Initiative (OSI) approved Lesser General Public License (LGPL).

The LGPL can be viewed on the OOO website at:
http://www.openoffice.org/licenses/lgpl_license.html

For more general information on OOO's licensing, please refer to:
<http://www.openoffice.org/license.html>

What is "open source"?

The ideals of open-source software can be explained by the four essential rights, which are embodied within the *Free Software Foundation's General Public License (GPL)*:

- The right to use the software for any purpose.
- Freedom to redistribute the software for free or for a fee.
- Access to the complete source code of the program (that is, the "blueprints").
- The right to modify any part of the source, or use portions of it in other programs.

Another view of this philosophy comes from the *Open Source Definition*:

"The basic idea behind open source is very simple: When programmers can read, redistribute, and modify the source code for a piece of software, the software evolves. People improve it, people adapt it, people fix bugs. And this can happen at a speed that, if one is used to the slow pace of conventional software development, seems astonishing."

For more information on Free and Open Source software, visit these websites:

Open Source Initiative (OSI): <http://www.opensource.org>

Free Software Foundation (FSF): <http://www.gnu.org>

Frequently asked questions

Is this software a "demo" version?	No, this is a fully functioning software suite.
May I distribute OOO to anyone?	Yes.
How many computers may I install it on?	As many as you like.
May I sell it?	Yes.
May I use OpenOffice.org in a business?	Yes.
Is OpenOffice available in my language?	OpenOffice.org has been translated (localized) into over 40 languages, so your language probably is supported. Additionally, there are over 70 <i>spelling</i> , <i>hyphenation</i> , and <i>thesaurus</i> dictionaries available for

	languages, and dialects that do not have a localized program interface. The dictionaries are available from the OpenOffice.org website at: http://lingucomponent.openoffice.org/download_dictionary.html
How can you make it for free?	A large share of the development, and much of the support for the project, is currently supplied or sponsored by Sun Microsystems. There are also many other people who work on OOo as volunteers.
What if I need technical support?	Read the section titled “How to get help”.
Who owns the software?	The copyright is shared by Sun Microsystems and all the volunteers who have contributed.
Does that mean that they can take away the software?	No. The licenses under which OOo is developed and distributed can never be revoked, so it cannot be taken away.
I am writing a software application. May I use programming code from OpenOffice.org in my program?	You may, within the parameters set in the LGPL. Read the license: http://www.openoffice.org/license.html
Why is my favorite feature from StarOffice not available in OpenOffice.org?	That feature is probably a third-party add-on that Sun cannot distribute with OpenOffice.org.
Why do I need Java to run OpenOffice.org? Is it written in Java?	OpenOffice.org is not written in Java; it is written in the C++ language. Java is one of several languages that can be used to extend OOo. The Java JDK/JRE is only required for some features. The most notable one is the HSQLDB relational database engine. Note: Java is available at no cost. If you don't want to use Java, you can still use nearly all of the features of OOo.
How can I contribute to OpenOffice.org?	You can help with the development of OOo in many ways, and you do not need to be a programmer. To start, check out this webpage: http://www.openoffice.org/contributing.html
What's the catch?	There really is none; read the licenses: http://www.openoffice.org/license.html



Chapter 2
Starting OpenOffice.org

Starting OOO from the system menu

Using the system menu is the most common way to launch OpenOffice.org. The system menu is the standard menu from which most applications are started. On Windows, it is called the **Start** menu. On GNOME, it is called the **Applications** menu. On KDE it is identified by the KDE logo. On Mac OS X, it is the **Applications** menu.

When OpenOffice.org was installed, a menu entry was added to your system menu. The exact name and location of this menu entry depends on the graphical user interface. This chapter looks at Windows, GNOME and KDE on Linux, and Mac OS X. The concepts should easily be applicable to another operating system.

Windows

On Windows, the OpenOffice.org menu is located in **Programs > OpenOffice.org 2.x**, where “2.x” corresponds to the version number of OpenOffice.org. Figure 1 shows a typical setup on Windows XP. Select **OpenOffice.org Writer** to start Writer with a blank document.

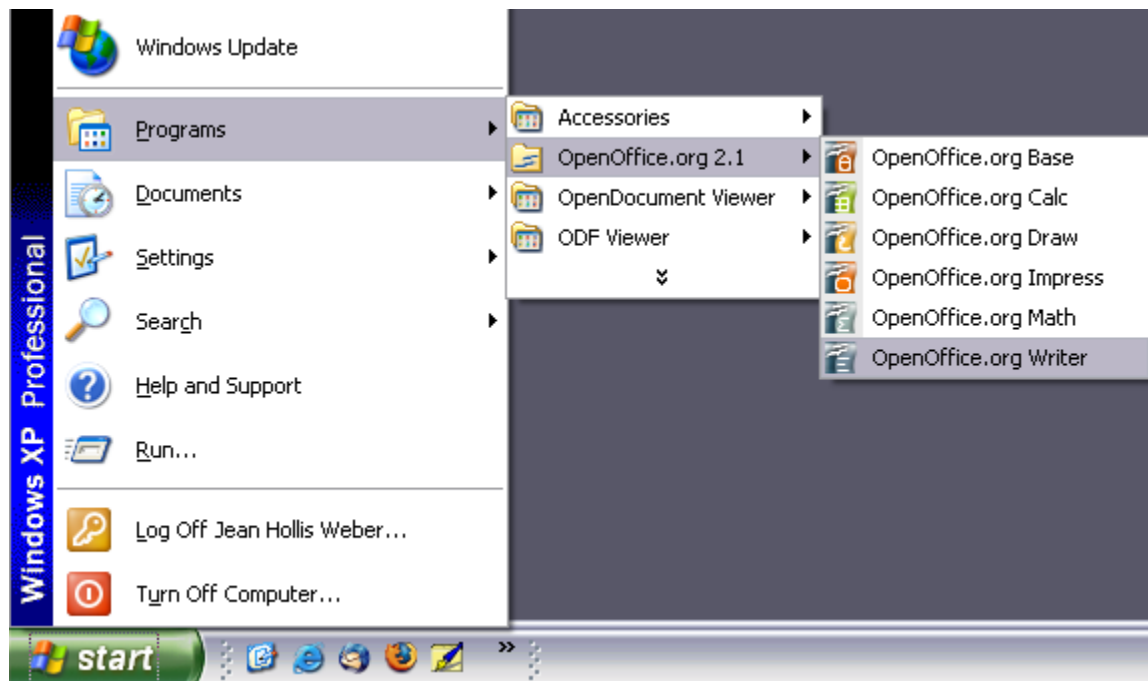


Figure 1: Starting OOO from the Windows XP Start menu

Linux/GNOME

GNOME installations differ from one distribution to the next. Most modern distributions come with OpenOffice.org already installed. You will find OpenOffice.org under **Applications > Office**. See Figure 2.

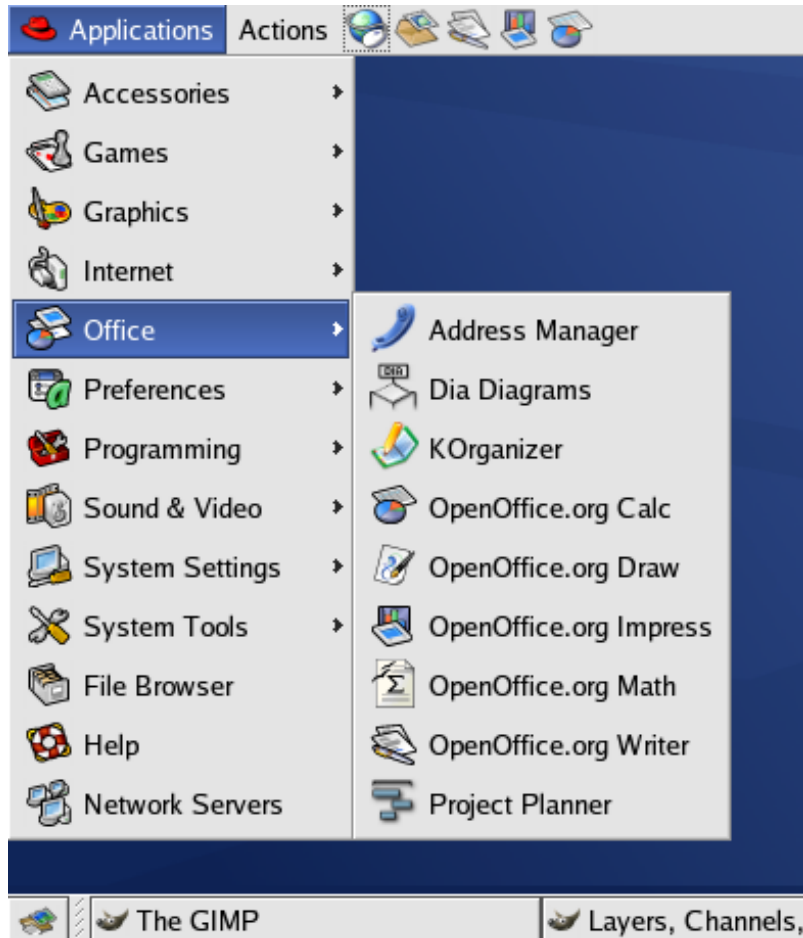


Figure 2: Starting OOo from the GNOME Applications menu

Fedora/Red Hat Enterprise Linux comes with OpenOffice.org installed. On the GNOME desktop, OOo can be found under **Main Menu > Office**. If you have installed a newer version of OOo, you will find it under **Main Menu > Office > More Office Applications**.

If OOo was downloaded from the <http://www.openoffice.org> website, OOo is under **Applications > Other**.

Linux/KDE

On KDE, OpenOffice.org is installed in its own menu, called “Office” (see Figure 3).

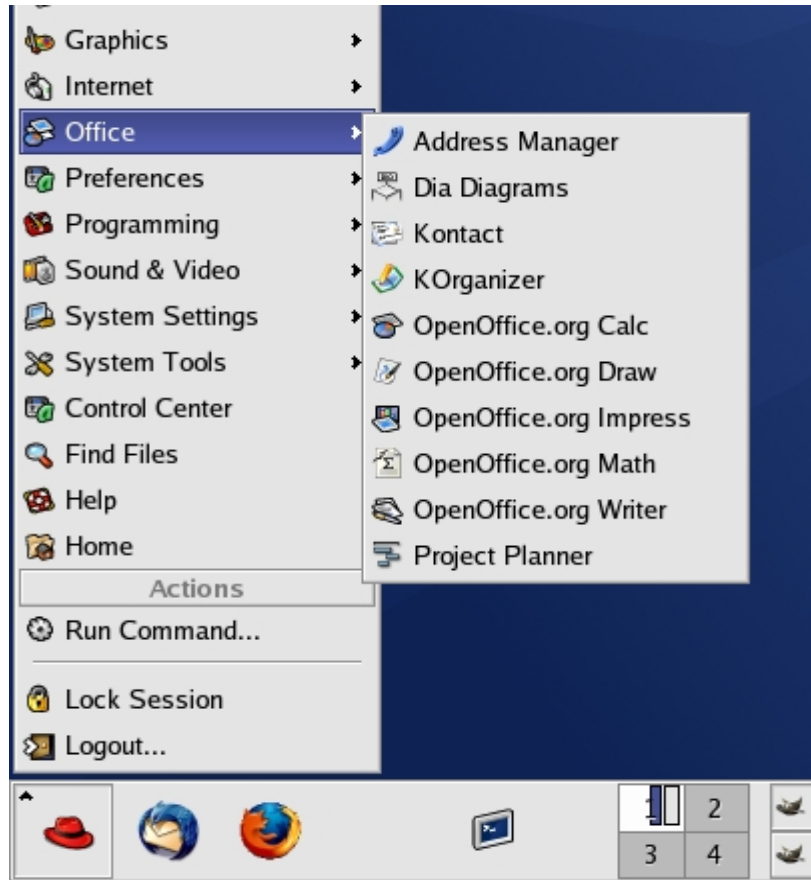


Figure 3: Starting OOO from the KDE start menu

Some Linux distributions install OpenOffice.org in the Office submenu. Mandrake is such a distribution. In this case, to launch Math (for example), choose **Office > Word processors > OpenOffice.org Math**. Figure 4 illustrates this.

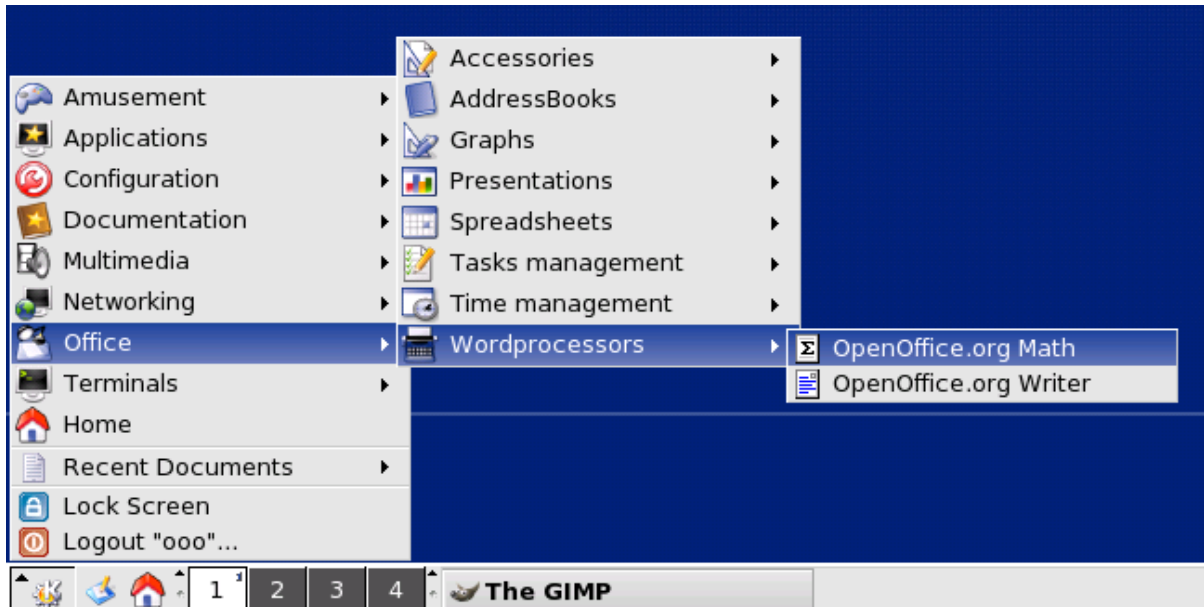


Figure 4: Starting OOo Writer from Mandrake's KDE menu

Mac OS X

Go to the folder where you installed OpenOffice.org. You should see its icon in the Applications folder (Figure 5). To start OpenOffice.org, double-click its icon.

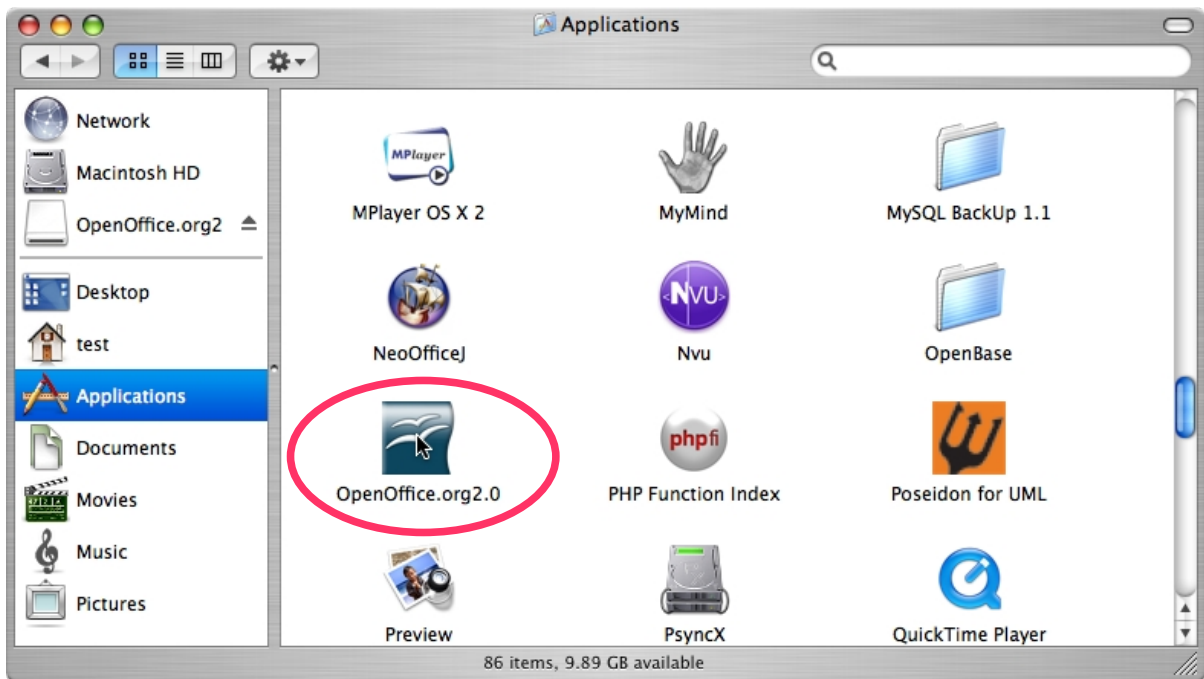


Figure 5: Starting OpenOffice.org from the Mac Applications folder

Starting from an existing document

You can start OOo automatically by double-clicking the filename of an OOo document in a file manager such as Windows Explorer. The appropriate component of OOo will start and the document will be loaded.

For Windows users

File associations are used to open certain types of files automatically with OpenOffice.org. When installing OOo, you could choose to associate Microsoft Office file types with OOo. If you chose to do this, then when you double-click on a .doc (Word) file, it opens in Writer; a .xls (Excel) file opens in Calc, and a .ppt (Powerpoint) file opens in Impress.

If you did not associate the file types, then when you double-click on a Microsoft Word document, it opens in Microsoft Word (if Word is installed on your computer), Excel files open in Excel, and Powerpoint files open in Powerpoint.

You can use another method to open .doc files in OOo and save in the .doc format from OOo. See Chapter 3 (File Management in OpenOffice.org) for more information.

Using the Quickstarter under Windows

The Quickstarter is an icon that is placed in the Windows system tray during system startup. It indicates that OpenOffice.org has been loaded and is ready to use. (The Quickstarter loads library .DLL files required by OOo, thus shortening the startup time for OOo components by about half.) If the Quickstarter is disabled, see “Reactivating the Quickstarter” if you want to enable it.

Using the Quickstarter icon

Right-click the **Quickstarter** icon in the system tray to open a pop-up menu from which you can open a new document, open the Templates and Documents dialog, or choose an existing document to open. (See Figure 6.) You can also double-click the **Quickstarter** icon to display the Templates and Documents dialog.

Disabling the Quickstarter

To close the Quickstarter, right-click on the icon in the system tray, and then click **Exit Quickstarter** on the pop-up menu. The next time the computer is restarted, the Quickstarter will be loaded again.

To prevent OpenOffice.org from loading during system startup, deselect the **Load OpenOffice.org during system start-up** item on the pop-up menu. You might want to do this if your computer has insufficient memory, for example.

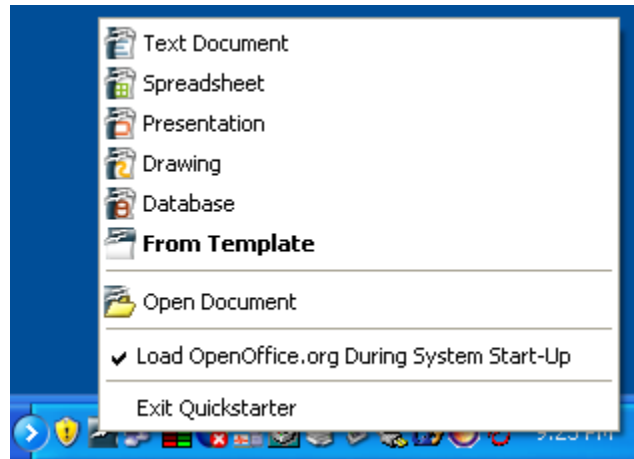


Figure 6: Quickstarter popup menu

Reactivating the Quickstarter

If the Quickstarter has been disabled, you can reactivate it by selecting the **Load OpenOffice.org during system start-up** checkbox in **Tools > Options > OpenOffice.org > Memory**.

Using the Quickstarter under Linux

Some installations of OpenOffice.org under Linux have a Quickstarter that looks and acts like the one described above for Windows (the checkbox on the Memory page is labeled **Enable systray quickstarter**). The Linux Quickstarter is disabled in other installations, but it will be operational in future releases.

Preloading OOO under Linux/KDE

In Linux/KDE, you can use KDocker to have OOO loaded and ready for use at startup. KDocker is not part of OOO; it is a generic “systray app docker” that is helpful if you open OOO often.

Starting from the command line

You may want to start OOO from the command line (using the keyboard instead of the mouse). Why? Well, by using the command line, you have more control over what happens when OOO is started. For example, using the command line, you can tell Writer to load a document and print it immediately, or to start without showing the splash screen.

Note Most users will never need to do this.

There is more than one way to start OOo from the command line, depending on whether a customized version or the standard download from the OpenOffice.org website has been installed.

If you installed using the download on the OpenOffice.org website, you can start Writer by typing at the command line:

```
soffice -writer  
or soffice -writer
```

Writer will start and create a new document. Likewise, you can start other OOo components from the command line:

Type of document	Component	Command-line option
Text	Writer	-writer
Spreadsheet	Calc	-calc
Drawing	Draw	-draw
Presentation	Impress	-impress
Formula	Math	-math
Web page	Writer	-web

To see a list of options you can use when starting Writer at the command line, type:

```
soffice -?
```

Below is a list of some of the more popular options.

Option	Description
-help	Get a complete list of options.
-nologo	Do not show the startup screen.
-show <odp-file>	Start presentation immediately.
-view <documents ...>	Open documents in viewer (read-only) mode.
-minimized	Start OOo minimized.
-norestore	Suppress restart/restore after fatal errors.
-invisible	No startup screen, no default document and no UI. This is useful for third-party applications that use functionality provided by OOo.

If you have a customized version of OOo (such as the one provided by Linux Mandrake or Gentoo), you can start Writer by typing at the command line:

```
oowriter
```

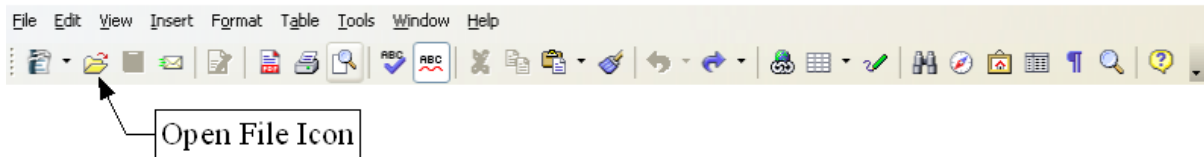
Note Although the command syntax differs, the effect is identical: it starts OOo with an empty Writer document.



Chapter 3
File Management in
OpenOffice.org

Opening files

To open an existing document, choose **File > Open** or click the **Open File** icon on the Standard Toolbar or press *Control+O*.



The Open dialog appears. Figure 13 shows the Windows XP version of this dialog.

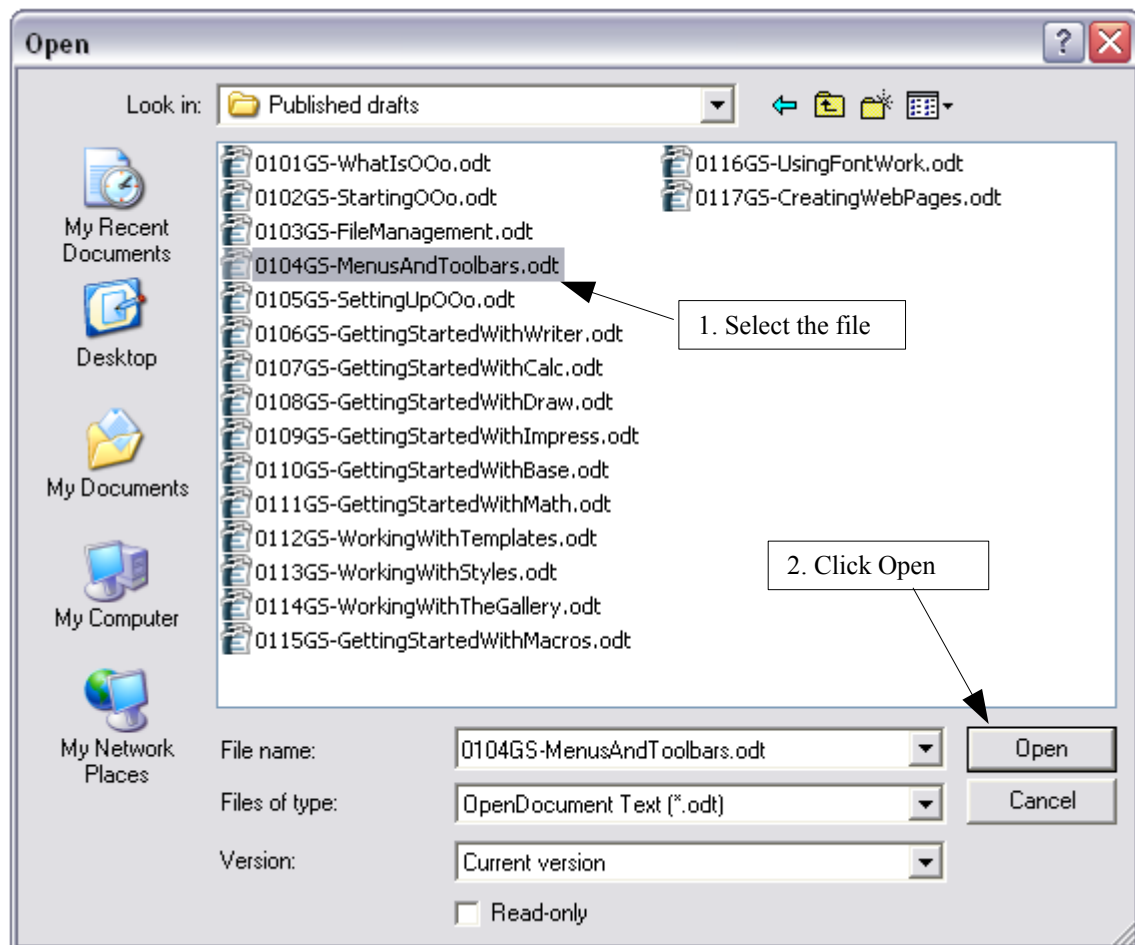


Figure 7. Open dialog in Windows XP

Choose the file and then click **Open**.

Note Under Microsoft Windows you can use either the OpenOffice.org Open and Save As dialogs or the ones provided by Microsoft Windows. See “Using the Open and Save As dialogs” on page 38.

File formats

OpenOffice.org can import Microsoft Office files. However, at the time of writing, Microsoft Office **cannot** import files in the OpenDocument format used by OOo. Plug-ins are becoming available to allow Microsoft Office to read and write OpenDocument files, but if you want to send a file to Microsoft Office users and be sure they can open it, save it in a Microsoft Office format or in .rtf. Table 1 is a list for quick reference.

Table 1: Comparison of OpenDocument and Microsoft Office file types

OpenDocument type	Application	Extension	MS Office equiv
Text	Writer	.odt	.doc
Text Template	Writer	.ott	.dot
Master Document	Writer	.odm	.doc
Spreadsheet	Calc	.ods	.xsl
Spreadsheet Template	Calc	.ots	.xst
Drawing	Draw	.odg	N/A
Drawing Template	Draw	.otg	N/A
Presentation	Impress	.odp	.ppt
Presentation Template	Impress	.otp	.pot
Formula	Math	.odf	N/A
Chart	Chart	.odc	N/A
Database	Base	.odb	.mdb

Default file formats

OpenOffice.org saves files in the OpenDocument format by default unless told otherwise. This default can be changed, for example, if you always want to save as Microsoft Office files. To change the default file formats:

- 1) Go to **Tools > Options > Load/Save > General**. (See Figure 8.)
- 2) In the Default file format section of this page, choose a document type (for example, “Text document”) and a file format from the **Always save as** list.
- 3) Repeat for each document type, as necessary.
- 4) Click **OK** to save your changes.

Notes If the option “Warn when not saving in OpenDocument or default format” is checked on the Options – Load/Save – General dialog (Figure 8), a warning dialog about potential loss of formatting may be displayed. In most cases, no loss of formatting will occur, so you may find this warning annoying and choose to disable it.

The Java Runtime Environment is required to use the mobile device filters for AportisDoc (Palm), Pocket Word, and Pocket Excel.

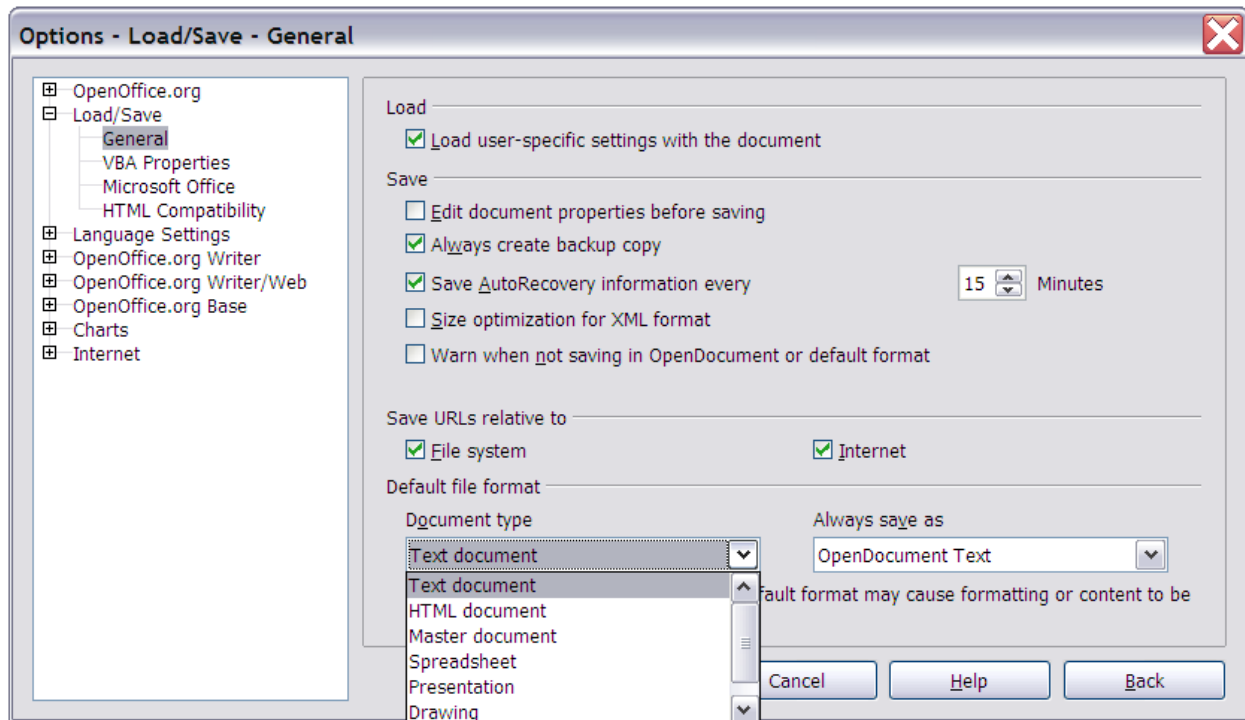


Figure 8. Choosing default formats for saving files

Opening text documents

In addition to OpenDocument formats (.odt, .ott, .oth, and .odm), Writer 2.x can open the formats used by OOo 1.x (.sxw, .stw, and .sxd) and the following text document formats:

Microsoft Word 6.0/95/97/2000/XP (.doc and .dot)	WordPerfect Document (.wpd)
Microsoft Word 2003 XML (.xml)	WPS 2000/Office 1.0 (.wps)
Microsoft WinWord 5 (.doc)	DocBook (.xml)
StarWriter formats (.sdw, .sgl, and .vor)	Ichitaro 8/9/10/11 (.jtd and .jtt)
AportisDoc (Palm) (.pdb)	Hangul WP 97 (.hwp)
Pocket Word (.psw)	.rtf, .txt, and .csv

When opening .htm or .html files (used for web pages), OpenOffice.org customizes Writer for working with these files.

Opening spreadsheets

In addition to OpenDocument formats (.ods and .ots), Calc 2.x can open the formats used by OOo 1.x (.sxc and .stc) and the following spreadsheet formats:

Microsoft Excel 97/2000/XP (.xls, .xlw, and .xlt)	Rich Text Format (.rtf)
Microsoft Excel 4.x–5.0/95 (.xls, .xlw, and .xlt)	Text CSV (.csv and .txt)
Microsoft Excel 2003 XML (.xml)	Lotus 1-2-3 (.wk1, .wks, and .123)
Data Interchange Format (.dif)	StarCalc formats (.sdc and .vor)
dBase (.dbf)	SYLK (.slk)
.htm and .html files including Web page queries	Pocket Excel (pxl)
Quattro Pro 6.0 (.wb2)	

Opening presentations

In addition to OpenDocument formats (.odp, .odg, and .otp), Impress 2.x can open the formats used by OOO 1.x (.sxi and .sti) and the following presentation formats:

- Microsoft PowerPoint 97/2000/XP (.ppt, .pps, and .pot)
- StarDraw and StarImpress (.sda, .sdd, .sdp, and .vor)
- CGM – Computer Graphics Metafile (.cgm)

Opening graphic files

In addition to OpenDocument formats (.odg and .otg), Draw 2.x can open the formats used by OOO 1.x (.sxd and .std) and the following graphic formats:

BMP	JPEG, JPG	PCX	PSD	SGV	WMF
DXF	MET	PGM	RAS	SVM	XBM
EMF	PBM	PLT	SDA	TGA	XPM
EPS	PCD	PNG	SDD	TIF, TIFF	
GIF	PCT	PPM	SGF	VOR	

Opening formula files

In addition to OpenDocument Formula (.odf) files, Math 2.x can open the format used by OOO 1.x (.sxm), StarMath, (.smf), and MathML (.mml) files.

When opening a Word document that contains an embedded equation editor object, if the option for it is checked in **Tools > Options > Load/Save > Microsoft Office**, the object will be automatically converted to an OpenOffice.org Math object.

Saving files

To save a new file:

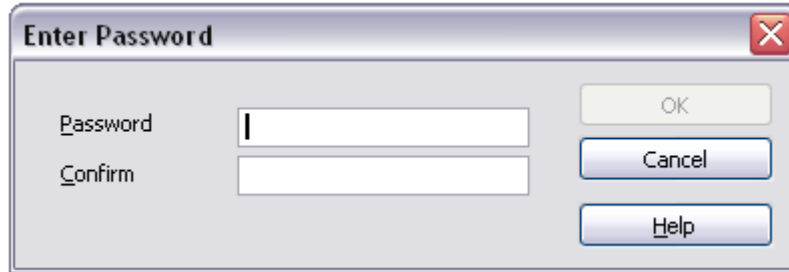
- 1) Choose **File > Save As**.
- 2) When the Save As dialog appears, enter the file name and verify the file type (if applicable).

To save an open document with the current file name, choose **File > Save**. This will overwrite the last saved state of the file.

Password protection

To protect an entire document from being viewable without a password, use the option on the Save As dialog to enter a password. This option is only available for files saved in OpenDocument formats or the older OpenOffice.org 1.x formats.

- 1) On the Save As dialog, select the checkbox beside **Save with password**, and then click **Save**. You will receive a prompt:



- 2) Type the same password in the **Password** field and the **Confirm** field, and then click **OK**. If the passwords match, the document is saved password protected. If the passwords do not match, you receive the prompt to enter the password again.

Note Passwords must contain a minimum of 5 characters. Until you have entered 5 characters, the **OK** button remains inactive.

Saving a document automatically

You can choose to have OpenOffice.org save files for you automatically. Automatic saving, like manual saving, overwrites the last saved state of the file. To set up automatic file saving:

- 1) Choose **Tools > Options > Load/Save > General**. (See Figure 8.)
- 2) Mark **Save AutoRecovery information every**, and set the time interval.

Writer can save to these file formats

In addition to OpenDocument formats (.odt and .ott), Writer 2.x can save in these formats:

- OpenOffice.org 1.x Text Document(.sxw)
- OpenOffice.org 1.x Text Document Template (.stw)
- Microsoft Word 6.0, 95, and 97/2000/XP (.doc)
- Microsoft Word 2003 XML (.xml)
- Rich Text Format (.rtf)
- StarWriter 3.0, 4.0, and 5.0 (.sdw)
- StarWriter 3.0, 4.0, and 5.0 Template (.vor)
- Text (.txt)
- Text Encoded (.txt)
- HTML Document (OpenOffice.org Writer) (.html and .htm)
- DocBook (.xml)
- AportisDoc (Palm) (.pdb)
- Pocket Word (.psw)

Note The .rtf format is a common format for transferring text files between applications, but you are likely to experience loss of formatting and images. For this reason, other formats should be used.

Calc can save to these file formats

In addition to OpenDocument formats (.ods and .ots), Calc 2.x can save in these formats:

- OpenOffice.org 1.x Spreadsheet (.sxc)
- OpenOffice.org 1.x Spreadsheet Template (.stc)
- Microsoft Excel 97/2000/XP (.xls and .xlw)
- Microsoft Excel 97/2000/XP Template (.xlt)
- Microsoft Excel 5.0 and 95 (.xls and .xlw)
- Microsoft Excel 2003 XML (.xml)
- Data Interchange Format (.dif)
- dBase (.dbf)
- SYLK (.slk)
- Text CSV (.csv and .txt)
- StarCalc 3.0, 4.0, and 5.0 formats (.sdc and .vor)
- HTML Document (OpenOffice.org Calc) (.html and .htm)
- Pocket Excel (.pxl)

Note The Java Runtime Environment is required to use the mobile device filters for AportisDoc (Palm), Pocket Word, and Pocket Excel.

Impress can save to these file formats

In addition to OpenDocument formats (.odp, .otp, and .odg), Impress 2.x can save in these formats:

- OpenOffice.org 1.x Presentation (.sxi)
- OpenOffice.org 1.x Presentation Template (.sti)
- Microsoft PowerPoint 97/2000/XP (.ppt and .pps)
- Microsoft PowerPoint 97/2000/XP Template (.pot)
- StarDraw, StarImpress (.sda, .sdd, and .vor)

Impress can also export to MacroMedia Flash (.swf) and any of the graphics formats listed for Draw.

Draw can save to these file formats

Draw can only save in the OpenDocument Drawing formats (.odg and .otg), the OpenOffice.org 1.x formats (.sxd and .std) and StarDraw format (.sda, .sdd, and .vor).

However, Draw can also export to BMP, EMF, EPS, GIF, JPEG, MET, PBM, PCT, PGM, PNG, PPM, RAS, SVG, SVM, TIFF, WMF, and XPM.

Writer/Web can save in these formats

HTML document (.html and .htm)

OpenOffice.org 1.0 HTML Template (.stw)

OpenOffice.org 2.x HTML Template (.oth)

StarWriter/Web 4.0 and 5.0 (.vor)

Text (OpenOffice.org Writer/Web) (.txt)

Text Encoded (OpenOffice.org Writer/Web) (.txt)

Exporting files

Export to XHTML, BibTeX, LaTeX, and Flash


OpenOffice.org can export files to XHTML.

In addition, OOO Writer can export to BibTeX (.bib) and LaTeX 2e (.tex). OOO Draw and OOO Impress can export to Macromedia Flash (.swf).

To export to one of these formats, choose **File > Export**. On the Export dialog, then select the required format in the *File format* list.

Export to PDF

OpenOffice.org can directly export to PDF. This industry-standard file format for file viewing is ideal for sending the file to someone else to view using Acrobat Reader or other PDF viewers.

You can export directly to PDF using a button on the toolbar  or by choosing **File > Export as PDF**.

If you use **File > Export as PDF**, you are asked to enter the filename for the PDF file, and then the PDF Options dialog (Figure 9) opens.

Note If you use the **Export Directly as PDF** button, you are asked to enter the filename for the PDF file, but you cannot choose a page range, the image compression, or other export options.

PDF options

The PDF Options dialog has four pages (General, Initial View, User Interface, Security). Make your selections, and then click **Export**.

General page of PDF Options dialog

On the *General* page (Figure 9), you can choose which pages to include in the PDF, the type of compression to use for images (which affects the quality of images in the PDF), and other options.

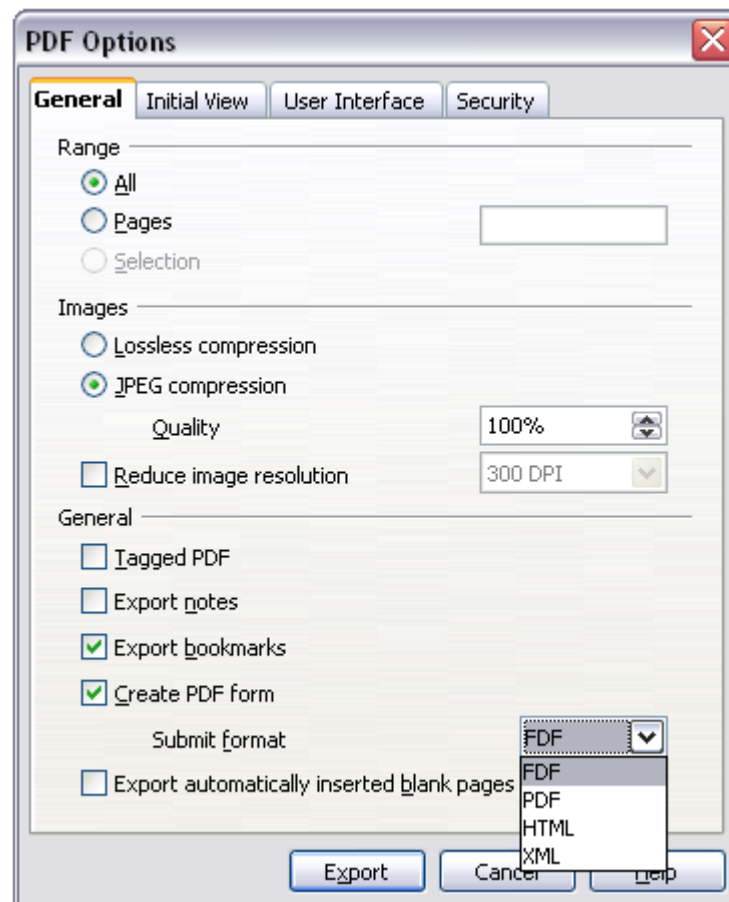


Figure 9: General page of PDF Options dialog

Range section

- **All:** Exports the entire document.
- **Pages:** To export a range of pages, use the format **3-6** (pages 3 to 6). To export single pages, use the format **7;9;11** (pages 7, 9, and 11). You can also export a combination of page ranges and single pages, by using a format like **3-6;8;10;12**.
- **Selection:** Exports whatever material is selected.

Images section

- **Lossless compression:** Images are stored without any loss of quality. Tends to make large files when used with photographs. Recommended for other images.

- **JPEG compression:** Allows for varying degrees of quality. A setting of 90% tends to work well with photographs (small file size, little perceptible loss).
- **Reduce image resolution:** Lower-DPI (dots per inch) images have lower quality.

Note EPS images with embedded previews are exported only as previews. EPS images without embedded previews are exported as empty placeholders.

General section

- **Tagged PDF:** Includes special tags into the corresponding PDF tags. Some tags that are exported are table of contents, hyperlinks, and controls. This option can increase file sizes significantly.
- **Export notes:** Exports notes in Writer and Calc documents as PDF notes. You may not want this!
- **Export bookmarks:** Exports headings as “bookmarks” (a table of contents list displayed by some PDF readers, including Adobe Reader).
- **Create PDF form - Submit format:** Choose the format of submitting forms from within the PDF file. This setting overrides the control’s URL property that you set in the document. There is only one common setting valid for the whole PDF document: PDF (sends the whole document), FDF (sends the control contents), HTML, and XML. Most often you will choose the PDF format.
- **Export automatically inserted blank pages:** If selected, automatically inserted blank pages are exported to the PDF. This is best if you are printing the PDF double-sided. For example, books usually have chapters set to always start on an odd-numbered (right-hand) page. When the previous chapter ends on an odd page, OOo inserts a blank page between the two odd pages. This option controls whether to export that blank page.

Initial View page of PDF Options dialog

On the *Initial View* page (Figure 10), you can choose how the PDF opens by default in a PDF viewer. The selections should be self-explanatory.

User Interface page of PDF Options dialog

On the *User Interface* page (Figure 11), you can choose more settings to control how a PDF viewer displays the file. Some of these choices are particularly useful when you are creating a PDF to be used as a presentation or a kiosk-type display.

Window options section

- **Resize window to initial page.** PDF viewer resizes to fit the first page of the PDF.
- **Center window on screen.** PDF viewer window is centered on the computer screen.
- **Open in full screen mode.** PDF viewer opens full-screen instead of in a smaller window.
- **Display document title.** PDF viewer displays the document’s title in the title bar.

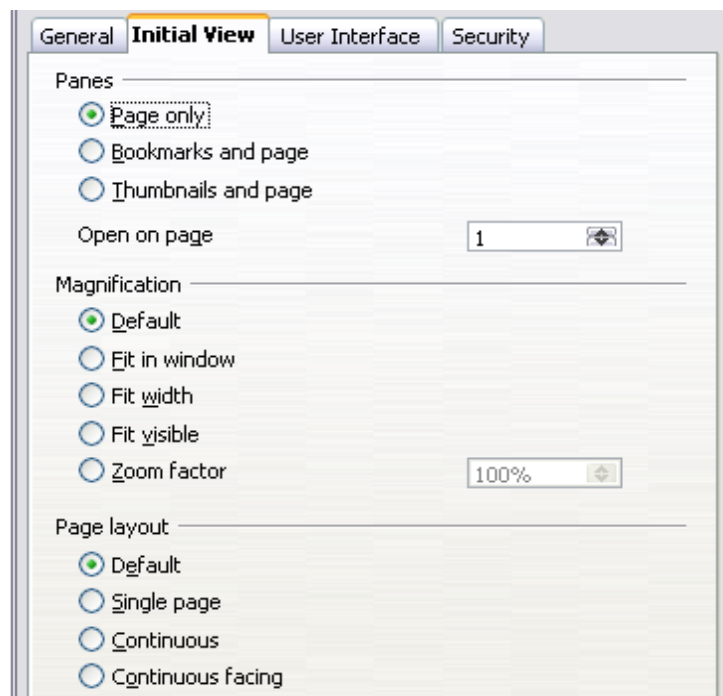


Figure 10: Initial View page of PDF Options dialog

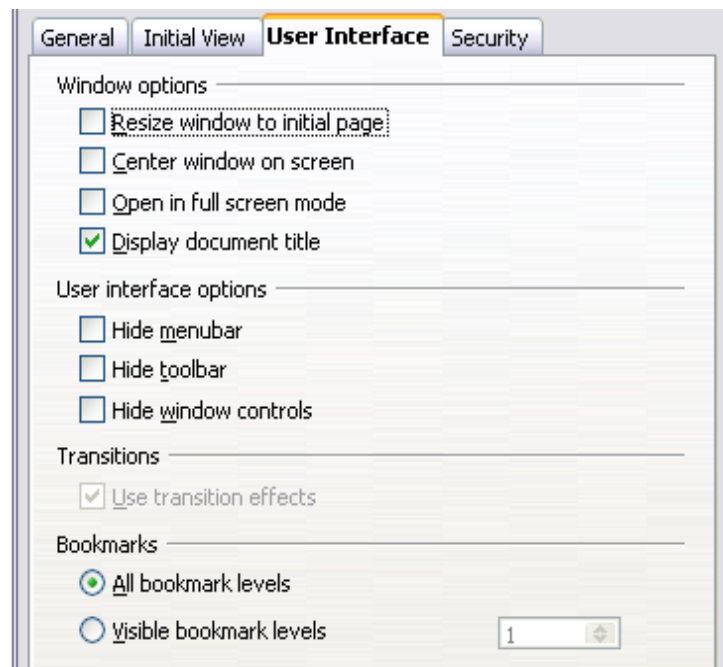


Figure 11: User Interface page of PDF Options dialog

User interface options section

- **Hide menubar.** PDF viewer hides the menu bar.
- **Hide toolbar.** PDF viewer hides the toolbar.
- **Hide window controls.** PDF viewer hides other window controls.

Transitions section

Includes Impress slide transition effects in the respective PDF effects.

Bookmarks section

Select how many heading levels are displayed as bookmarks, if “Export bookmarks” is selected on the General page.

Security page of PDF Options dialog

As of OoO 2.0.4, PDF export includes options to encrypt the PDF (so it cannot be opened without a password) and apply some digital rights management (DRM) features.

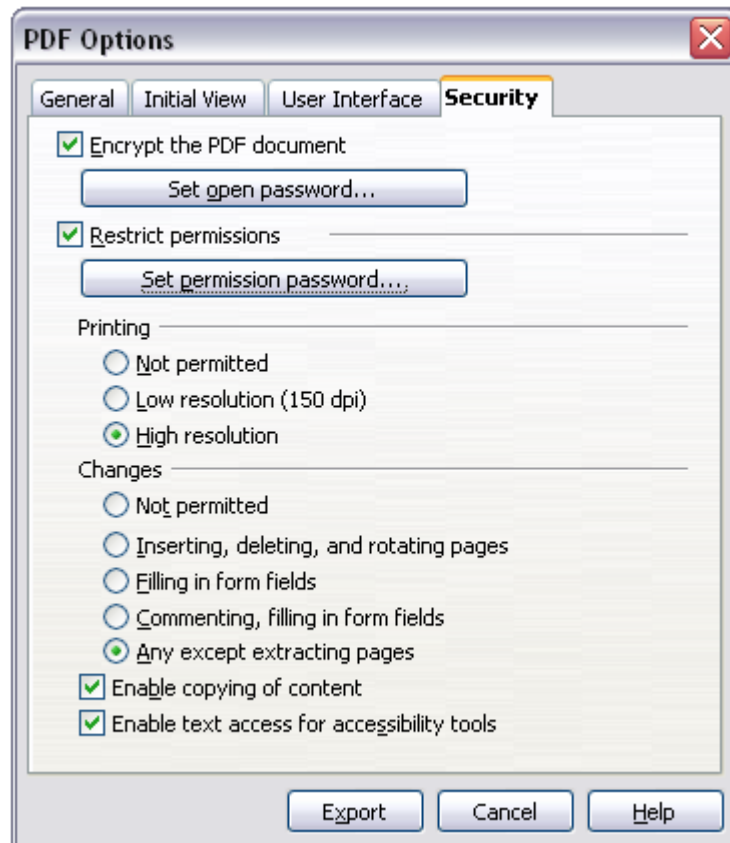


Figure 12: Security page of PDF Options dialog

- With an *open password* set, the PDF can only be opened with the password. Once opened, there are no restrictions on what the user can do with the document (for example, print, copy, or change it).
- With a *permissions password* set, the PDF can be opened by anyone, but its permissions can be restricted. See Figure 12.
- With *both* the open password and permission password set, the PDF can only be opened with the correct password, and its permissions can be restricted.

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

Figure 7 shows the pop-up dialog displayed when you click the **Set open password** button on the Security page of the PDF Options dialog box.

After you set a password for permissions, the other choices on the Security page (shown in Figure 12) become available. These selections should be self-explanatory.



Figure 13: Setting a password to encrypt a PDF

Deleting and renaming files

You can rename or delete files within the OpenOffice.org dialogs, just as you can in your usual file manager. However, you cannot copy or paste files within the dialogs.

Renaming a file

To rename a file while using OpenOffice.org:

- 1) Choose **File > Open** and browse to the required file.
- 2) Right-click on the file name and choose **Rename**. The file name will be selected.
- 3) Typing replaces the selected name, or use a left or right arrow key to move the insertion point to modify the existing name.

Deleting a file

To delete a file while using this dialog:

- 1) Right-click on the file name to display a context menu.
- 2) Click **Delete**, and you will get a confirmation dialog.

Note Instead of **Right-click > Delete**, you can simply press the *Delete* key.

File associations

File associations are used to open certain types of files automatically with OpenOffice.org. You can choose to associate Microsoft Office files with OOO. If you do this, the files remain as Microsoft Office files, but the icon for the files changes to the OOO icon, and double-clicking on the icon opens the files in OOO. (You can still open the files in Microsoft Office by starting MS Office and then choosing **File > Open**.)

When installing OOO, you are prompted to associate file types, as shown in Figure 14. If you want to continue to open your Microsoft Office files in Office by double-clicking them, do **not** check these boxes. (You can open MS Office files in OOO by starting OOO and then choosing **File > Open**.)

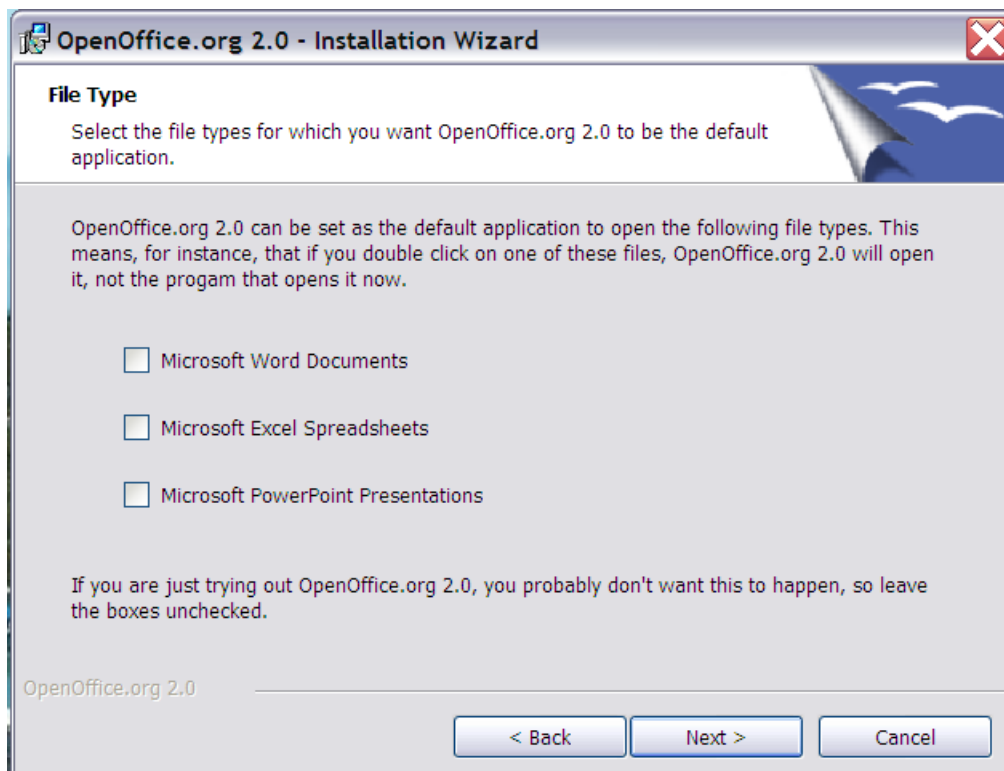


Figure 14. Choosing file associations when installing OpenOffice.org

If during installation you chose not to have OpenOffice.org automatically open Microsoft Word files, you can change this later.

- 1) In Windows, go to **Settings > Add or Remove Programs**. Scroll down to *OpenOffice.org 2.0* and click once on it. Two buttons should be visible: **Change** and **Remove**, as shown in Figure 15. This may appear different on your system.
- 2) Click **Change** to start the Installation Wizard.
- 3) Continue through the Installation Wizard until you reach the page shown in Figure 14. Select the file types you want OOO to open (put a mark in each checkbox) and click **OK**.

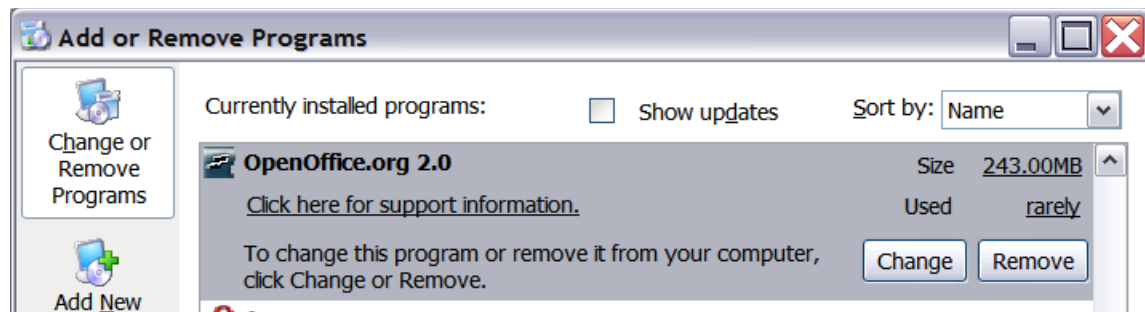


Figure 15. Changing the OOO installation on Windows XP

Creating new files

Different ways of creating a new document:

- Use **File > New** and choose the type of document.
- Use the arrow next to the **New** button on the main toolbar. A menu of choices (Figure 16) drops down; select the type of document to be created.

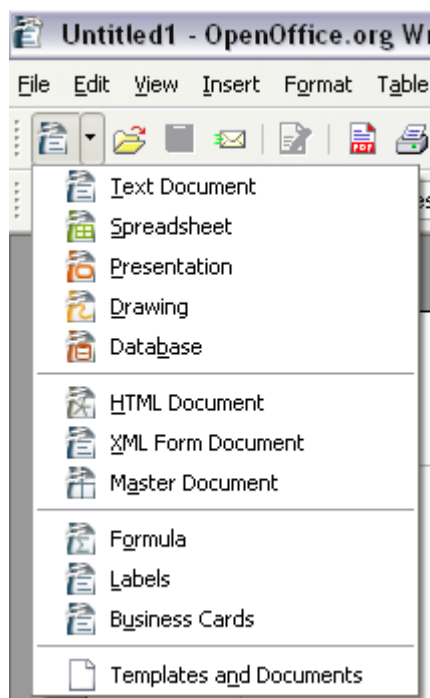



Figure 16. The New menu from the toolbar

- Use a “Quick start” program. For example, the Microsoft Windows version of OpenOffice.org has a *Quickstart* icon  in the system tray. See Chapter 2 (Starting OpenOffice.org) for more information on the Quickstart icon.
- Press *Control+N* on the keyboard.
- Use **File > Wizards** for some types of documents. (See Figure 17.)

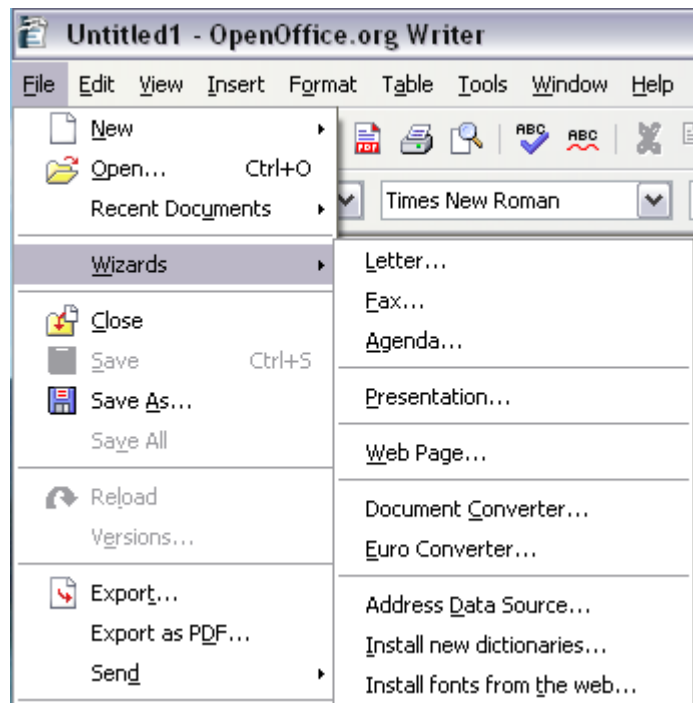


Figure 17. Creating a file using a Wizard

Using the Open and Save As dialogs

If you are using Microsoft Windows, you can choose whether to use the OpenOffice.org Open and Save As dialogs or the ones provided by Windows. To view or change which type of dialog OpenOffice.org uses:

- 1) Choose **Tools > Options > OpenOffice.org > General**.
- 2) Select the **Use OpenOffice.org dialogs** checkbox.

This section discusses the OpenOffice.org Open and Save As dialogs. See Figures 18 and 19 for examples of these dialogs.

The three buttons in the top right of the OOO Open dialog (Figure 18) are, from left to right:

- **Go Up One Level** in the folder (directory) hierarchy. This is a long-click button if you want to go up higher than just one level.
- **Create New Folder**.
- **View Menu**.

For OpenOffice.org documents that have been saved with more than one version, use the version drop-down to select which version you wish to open in read-only mode.

Note For Microsoft Office documents, only the current version can be opened.

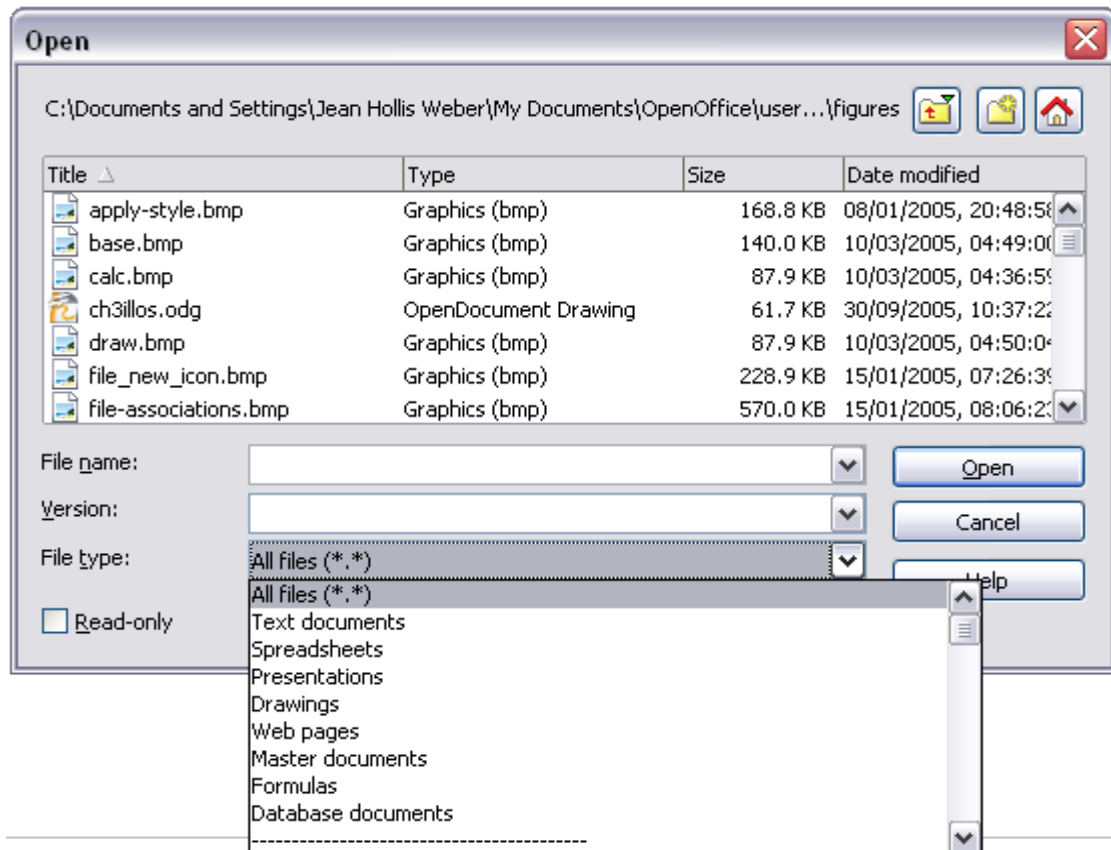


Figure 18. The OOO Open dialog, showing some of the file formats that can be opened

Use the **Files of type** field to specify the type of file to be opened or the format of the file to be saved.

The **Read-only** checkbox opens the file for reading and printing only. Consequently, most of the toolbars disappear, and most menu options are disabled. An **Edit File** button is displayed on the Function Toolbar to open the file for editing.

It is possible to open files from the web using URLs.

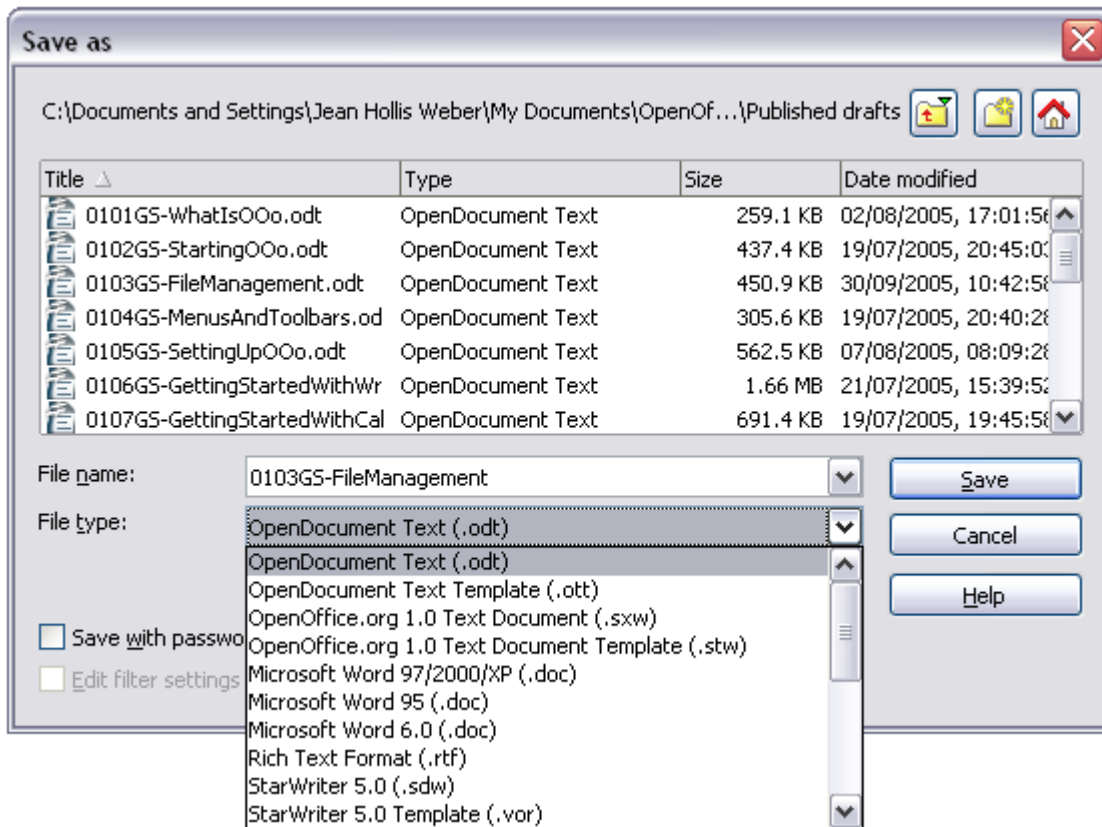


Figure 19. The OpenOffice.org Save As dialog, showing some of the Save formats

Digital signing of documents

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

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


When someone later opens the document on any computer with a recent version of OpenOffice.org, the program will compute the checksum again and compare it with the stored checksum. If both are the same, the program will signal that you see the original, unchanged document. In addition, the program can show you the public key information from the certificate. You can compare the public key with the public key that is published on the web site of the certificate authority.

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

On Windows operating systems, the Windows features of validating a signature are used. On Solaris and Linux systems, files that are supplied by Thunderbird, Mozilla or Firefox are used. For a more detailed description of how to get and manage a certificate, and signature validation, see “Using Digital Signatures” in the OOo Help.

To sign a document:

- 1) Choose **File > Digital Signatures**.
- 2) If you have not saved the document since the last change, a message box appears. Click **Yes** to save the file.
- 3) After saving, you see the Digital Signatures dialog. Click **Add** to add a public key to the document.
- 4) In the Select Certificate dialog, select your certificate and click **OK**.
- 5) You see again the Digital Signatures dialog, where you can add more certificates if you want. Click **OK** to add the public key to the saved file.

A signed document shows an icon  in the status bar. You can double-click the icon to view the certificate.



Chapter 4

Menus and Toolbars

*Using and customizing those common to all
OpenOffice.org components*

Menus

The *Menu bar* (Figure 20) is located across the top of the screen, just below the Title bar. The main menu selections are **File**, **Edit**, **View**, **Insert**, **Format**, **Table**, **Tools**, **Window**, and **Help**. When you choose one of the menus, a submenu drops down to show other options.

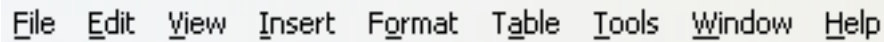
A screenshot of the menu bar in a software application. The menu bar is a horizontal strip with a light gray background. It contains nine menu items, each with a small icon to its left: File, Edit, View, Insert, Format, Table, Tools, Window, and Help. The text is in a standard sans-serif font.

Figure 20. Menu bar

- **File** contains commands that apply to the entire document such as **Open**, **Save**, and **Export as PDF**.
- **Edit** contains commands for editing the document such as **Undo** and **Find & Replace**.
- **View** contains commands for controlling the display of the document such as **Zoom** and **Web Layout**.
- **Insert** contains commands for inserting elements into your document such as **Header**, **Footer**, and **Picture**.
- **Format** contains commands, such as **Styles and Formatting** and **AutoFormat**, for formatting the layout of your document.
- **Table** shows all commands to insert and edit a table in a text document.
- **Tools** contains functions such as **Spellcheck**, **Customize**, and **Options**.
- **Window** contains commands for the display window.
- **Help** contains links to the Help file, What's This help, and information about the version of OpenOffice.org you have installed.

Customizing the menu font

If you want to change the menu font from that supplied by OOo to the system font for your operating system, do this:

- 1) Choose **Tools > Options > OpenOffice.org > View**.
- 2) Check **Use system font for user interface**.
- 3) Click **OK**.

Customizing menu content

It is possible to customize menus in OpenOffice.org. To customize menus:

- 1) Choose **Tools > Customize**.
- 2) On the **Customize** dialog, pick the **Menus** tab (Figure 21).
- 3) In the Save In drop-down list, choose whether to save this changed menu for the application (for example, Writer) or for a selected document.
- 4) In **OpenOffice.org <name of the program (example: Writer)> Menus**, select the menu you want to customize in the **Menu** drop-down list.
- 5) You can customize each menu by clicking on the **Menu** or **Modify** buttons.
- 6) You can add commands in a menu by clicking on the **Add** button.
- 7) You can create a new menu by clicking on the **New** button.

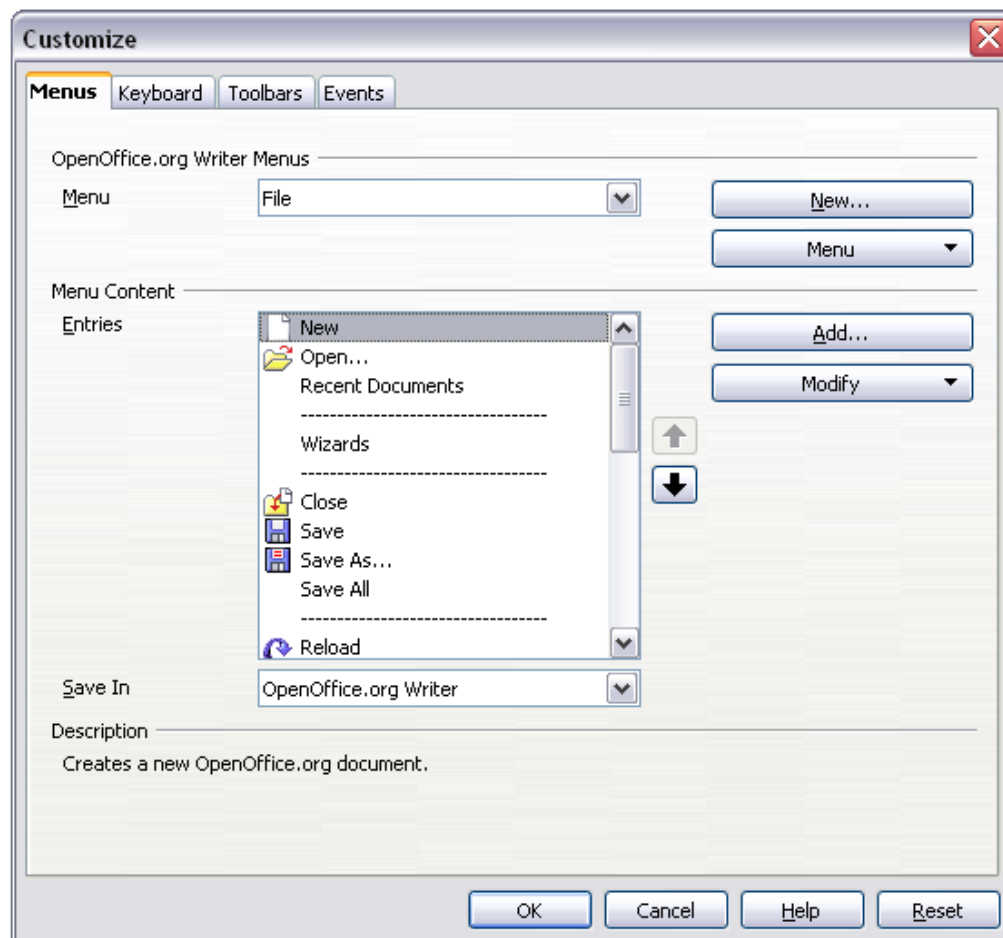
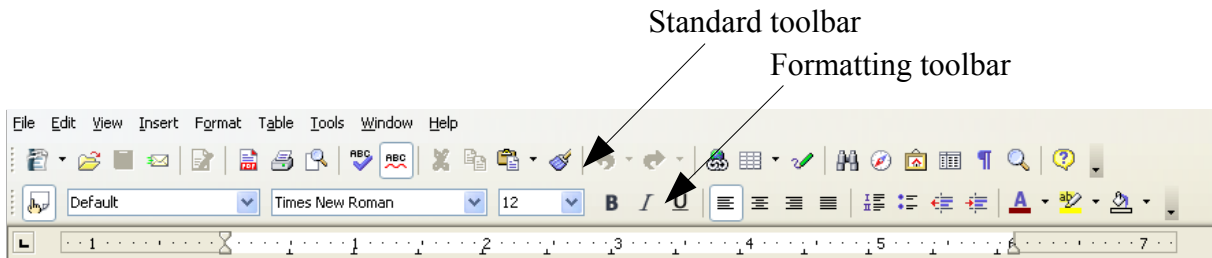


Figure 21. The Menus tab of the Customize dialog

Toolbars

The top toolbar (default position) is called the *Standard toolbar*. The Standard toolbar is consistent across the OpenOffice.org applications.

The second toolbar across the top (default location) is the *Formatting toolbar*. It is a context-sensitive bar which shows the relevant tools in response to the cursor's current position or selection. For example, when the cursor is on a graphic, the Formatting bar provides tools for formatting graphics; when the cursor is in text, the tools are for formatting text.



Floating toolbars

Writer includes several additional context-sensitive toolbars, whose defaults appear as floating toolbars in response to the cursor's current position or selection. For example, when the cursor is in a table, a floating *Table* toolbar appears, and when the cursor is in a numbered or bullet list, the *Bullets and Numbering* toolbar appears. You can dock these toolbars to the top, bottom, or side of the window, if you wish (see “Moving toolbars” on page 47).

Long-click buttons and tear-off toolbars

Buttons with a small black triangle will display *submenus*, *tear-off toolbars*, and other ways of selecting things with a long click, depending on the button.

Figure 28 shows the Paste submenu.

Figure 23 shows a tear-off toolbar from the Drawing toolbar.

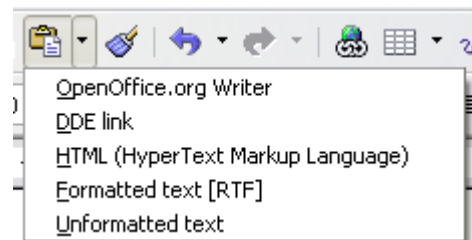


Figure 22: Example of a submenu

The tear-off toolbars can be floating or docked along an edge of the screen or in one of the existing toolbar areas. To move a floating tear-off toolbar, drag it by the title bar. See “Moving toolbars” on page 47.

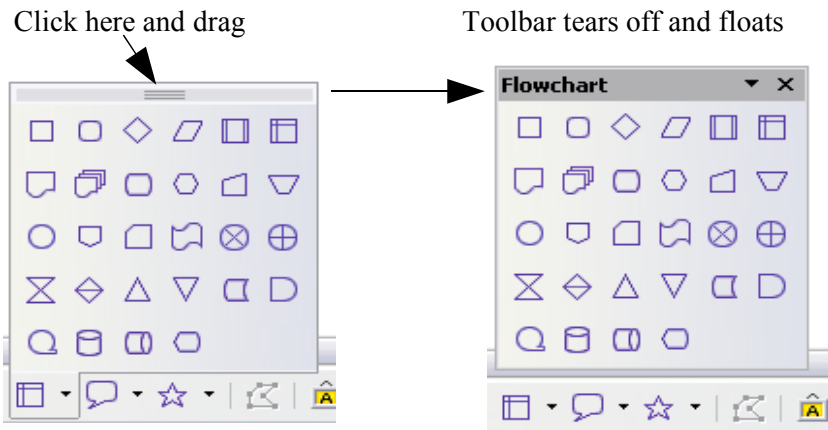


Figure 23: Example of a tear-off toolbar

Displaying or hiding toolbars

To display or hide toolbars, choose **View > Toolbars**, then click on the name of a toolbar in the list. An active toolbar shows a checkmark beside its name. Tear-off toolbars are not listed in the View menu.

Moving toolbars

To move a docked toolbar, place the mouse pointer over the toolbar handle, hold down the left mouse button, drag the toolbar to the new location, and then release the mouse button.

To move a floating toolbar, click on its title bar and drag it to a new location. shows examples.

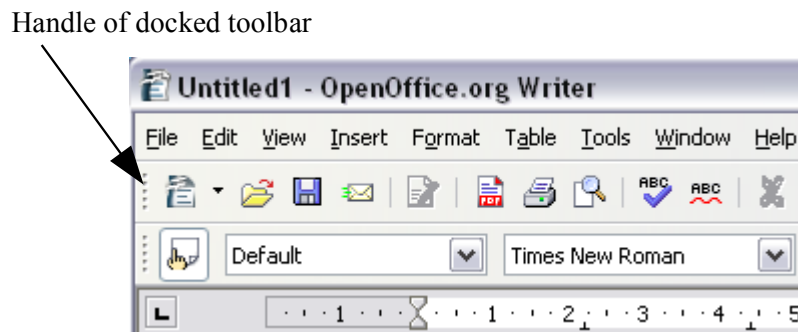


Figure 24: Moving a docked toolbar

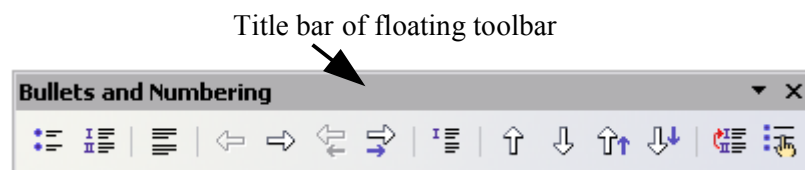


Figure 25: Moving a floating toolbar

Customizing a toolbar

There are three main ways to get to the toolbar customization dialog:

- On the toolbar, click the arrow at the end of the toolbar and choose **Customize Toolbar**.
- Choose **View > Toolbars > Customize** from the menu bar.
- Choose **Tools > Customize** from the menu bar. On the **Toolbars** tab (Figure 26), choose the toolbars you want to modify and click the **Toolbar** or **Modify** button.

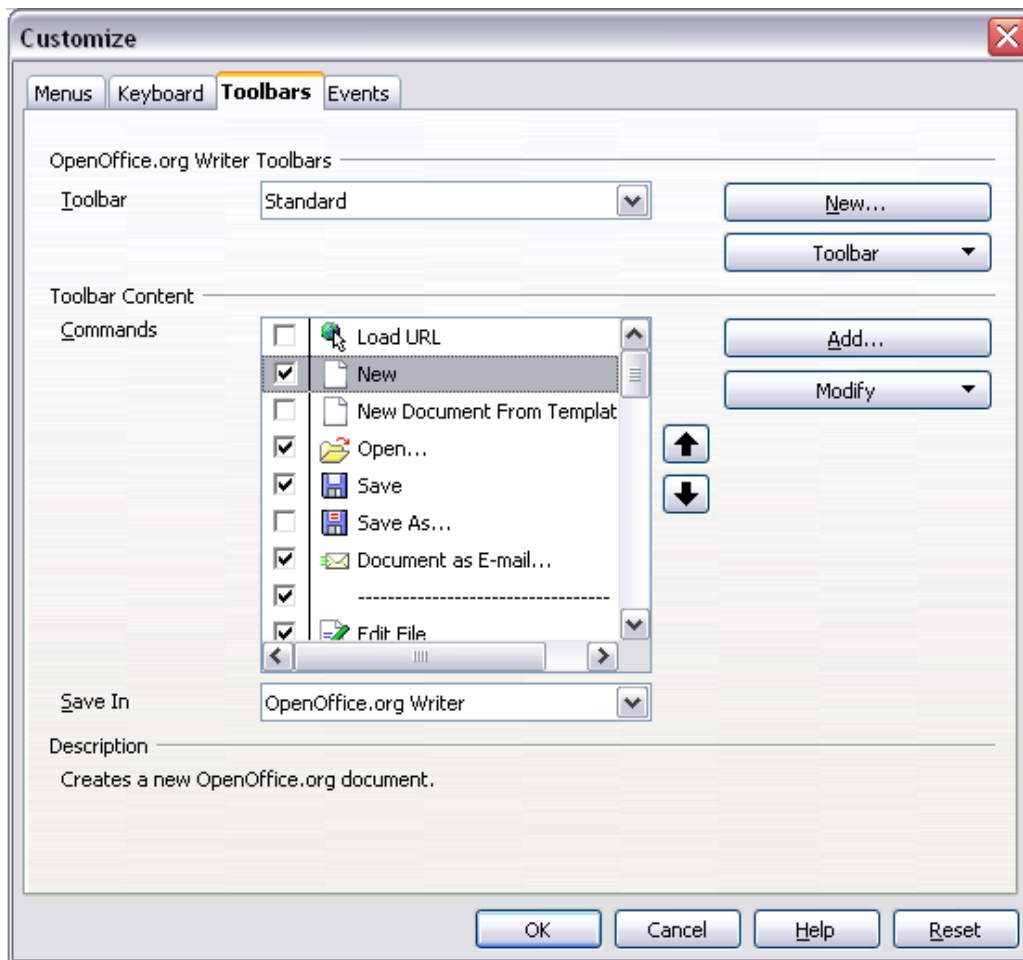


Figure 26. The Toolbars tab of the Customize window

Note There is no in-built tool button editor. To use a custom icon, save it to the `{install path}/share/config/symbol` directory in *.bmp format. OOo automatically searches this directory for new icons each time the Customize Buttons dialog is opened. Custom icons must be 16 x 16 or 26 x 26 pixels in size and cannot contain more than 256 colors.

Creating a new toolbar

To create a new toolbar:

- 1) Choose **Tools > Customize > Toolbars** from the menu bar.
- 2) Click **New**. This will create a toolbar called “New Toolbar1”.
- 3) Customize the toolbar as above.

Using dockable/floating windows and toolbars

Toolbars and some windows, such as the Navigator and the Styles and Formatting window, are dockable. You can move, re-size or dock them to an edge.

To dock a window or toolbar, do one of the following:

- Click on the title bar of the floating window and drag it to the side until you see the outline of a box appear in the main window (see Figure 27), then release the window. This method depends on your system’s window manager settings, so it may not work for you.
- Hold down the *Control* key and double-click on a vacant part of the floating window to dock it in its last position. If that does not work, try double-clicking without using the *Control* key.

To undock a window, hold down the *Control* key and double-click on a vacant part of the docked window.

Note	The Styles and Formatting window can also be docked or undocked by using <i>Control+double-click</i> on the gray area next to the icons at the top of the window.
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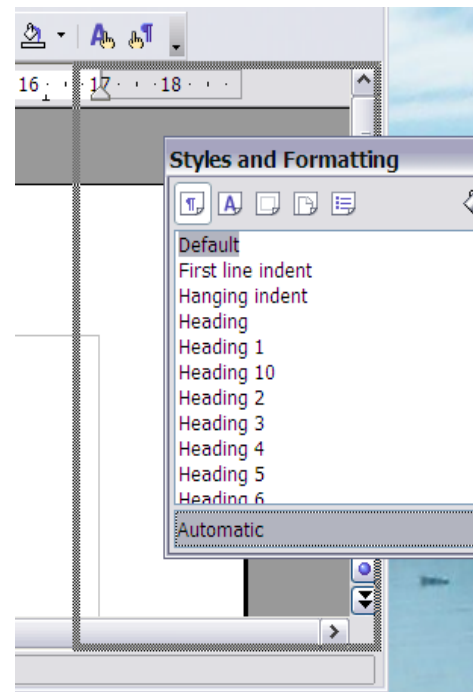
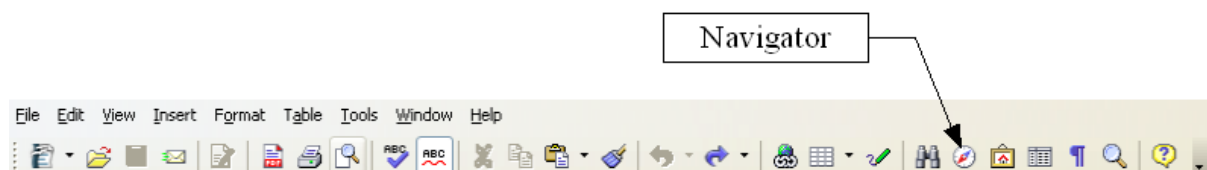


Figure 27: Docking a window

Using the Navigator

The Navigator displays all objects contained in a document. It provides a very convenient way to move around a document and find items in it. The Navigator button is located on the Standard Toolbar.



The Navigator (Figure 25) displays lists of Headings, Tables, Bookmarks, Graphics, Text frames, and other items. Click the + sign by any of the lists to display the contents of the list.

If you only want to see the content in a certain category, highlight the category and click the **Content View** icon.

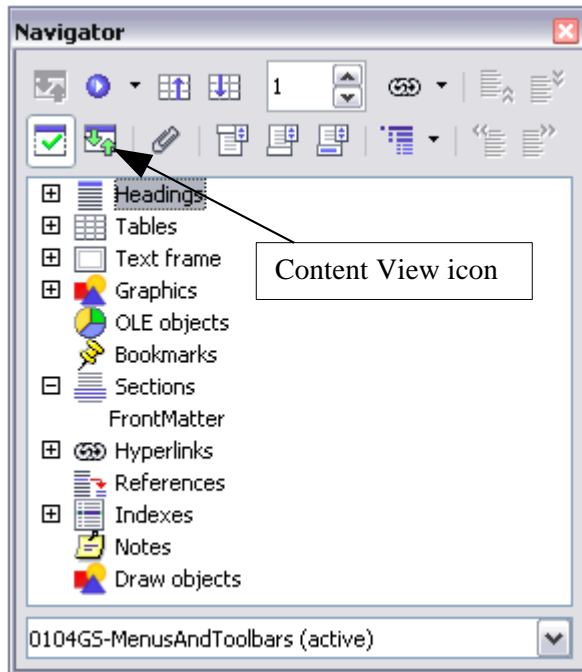


Figure 28. The Navigator

Note The Navigator looks somewhat different in a master document. See Chapter 13 (Working with Master Documents) in the *Writer Guide* for more details.

The Navigator helps you to reach objects quickly. Double-click on the object in the Navigator to jump directly to that object's location in the document, as shown in Figure 24.

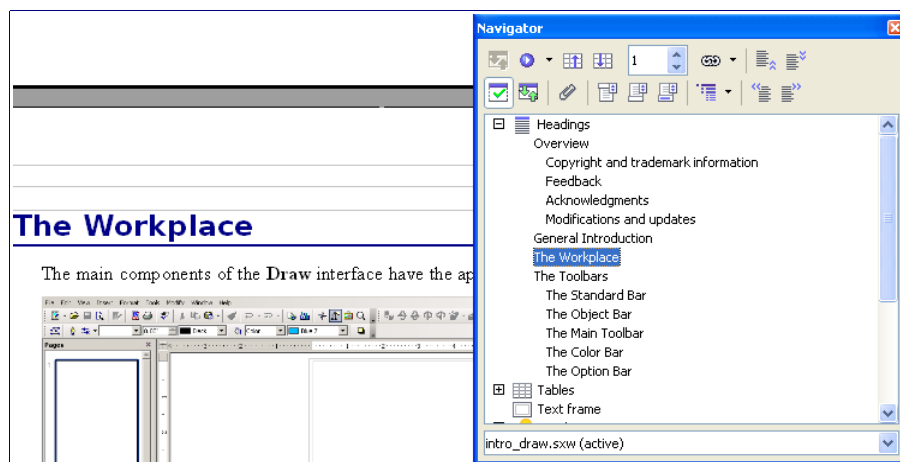
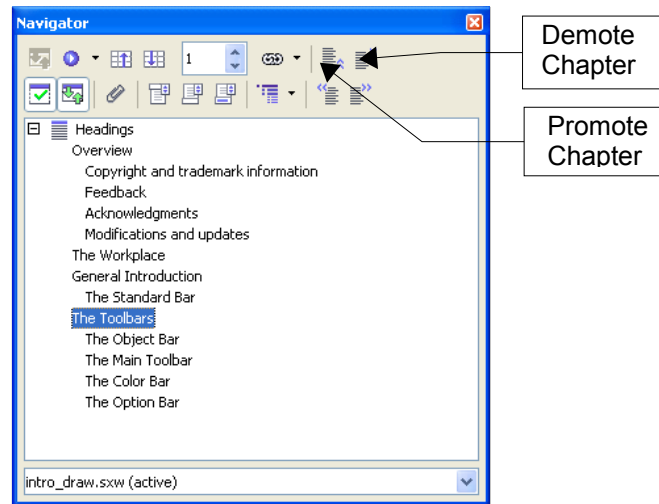


Figure 29. Using the Navigator to jump quickly to a heading in Writer

Arranging chapters using the Navigator

You can arrange chapters and move headings in a Writer document by using the Navigator.

- 1) Click the **Content View** icon.
- 2) Click on the heading in question.
- 3) Drag the heading to a new location on the Navigator or click the heading in the Navigator list, then click **Promote Chapter** or **Demote Chapter**.





Chapter 5
Setting up OpenOffice.org
Choosing Options to Suit the Way You Work

Choosing options that affect all of OOo

This section covers some of the settings that apply to all the components of OOo. For information on settings not discussed here, see the online help.

- 1) Click **Tools > Options**. The list in the left-hand box varies depending on which component of OOo is open. The illustrations in this chapter show the list as it appears when no document is open. (For example, when a Writer document is open, additional options for OpenOffice.org Writer and OpenOffice.org Writer/Web appear on the list.)
- 2) Click the + sign to the left of *OpenOffice.org* in the left-hand section. A list of subsections drops down.

Note The **Back** button has the same effect on all pages of the Options dialog. It resets the options to the values that were in place when you opened OpenOffice.org.

User Data options

Because OOo's revision features mark your changes and comments with the name or initials stored in User Data, you will want to ensure that your name and initials appear there. To do this:

- 1) In the Options dialog, click **OpenOffice.org > User Data**.
- 2) Fill in the form on the OpenOffice.org User Data page (Figure 30), or delete any existing incorrect information.

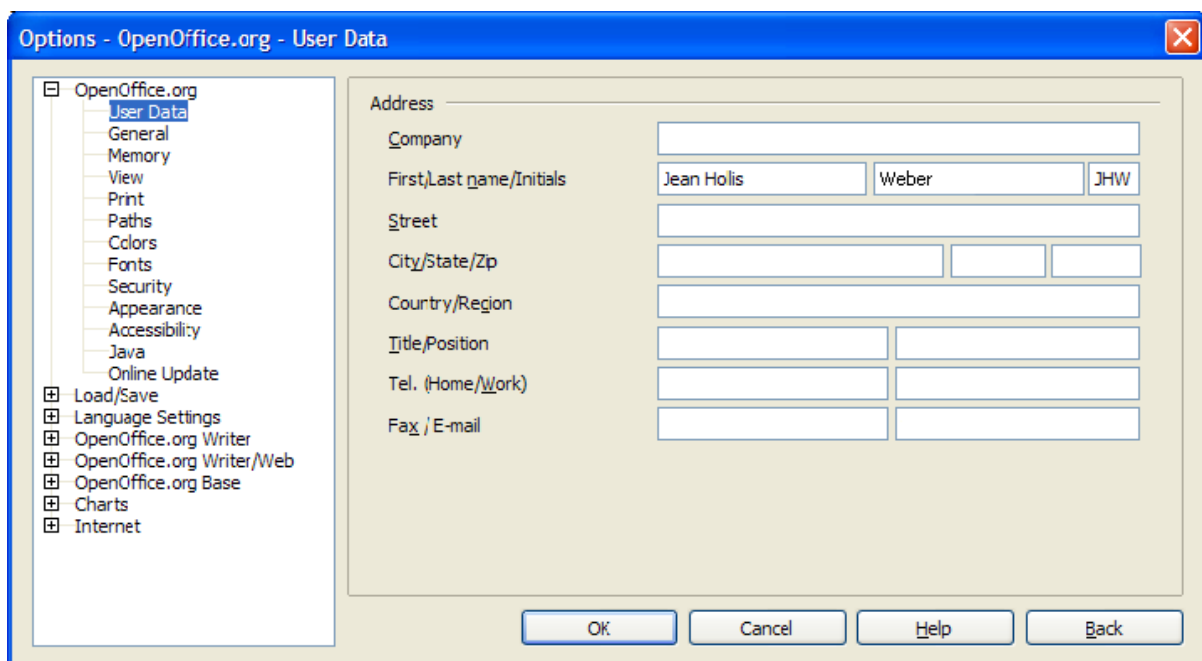


Figure 30. Filling in user data

General options

- 1) In the Options dialog, click **OpenOffice.org > General**.
- 2) On the OpenOffice.org – General page (Figure 31), the options are as described below.

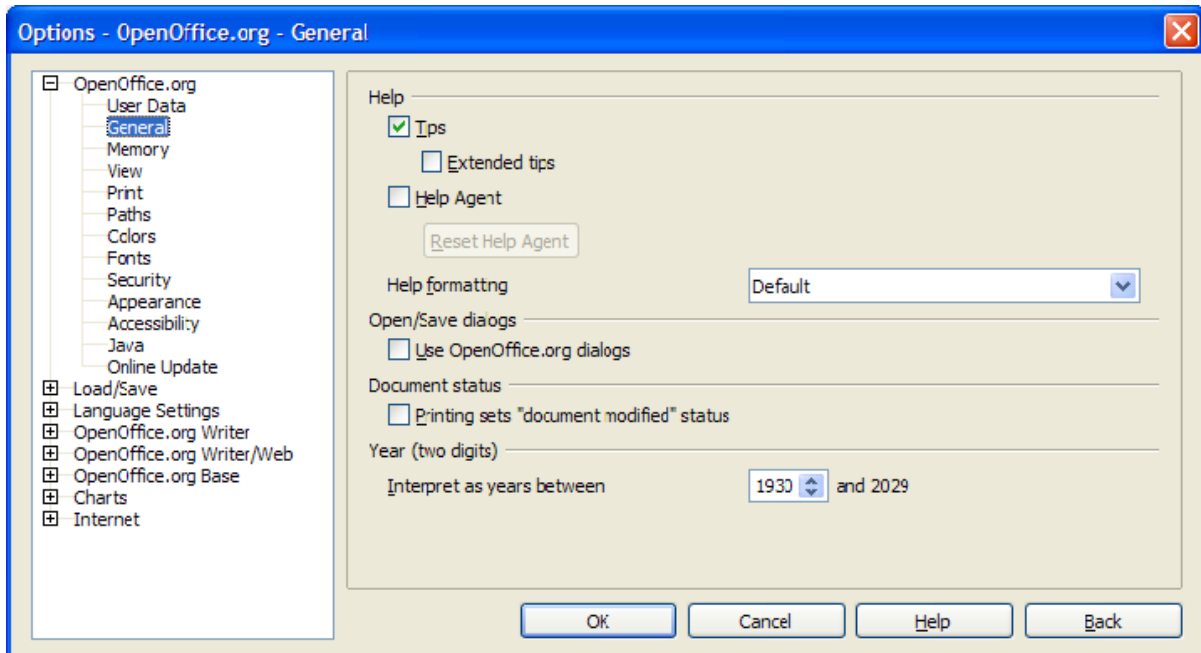


Figure 31. Setting general options for OpenOffice.org

Help - Tips

When *Help Tips* are active, one or two words will appear when you hover the cursor over an icon or field on the main OOo window. This setting also affects the display of notes: if both Help Tips and Extended Tips are turned off, then you will not see the contents of a note when you hover the cursor on the note.

Help - Extended tips

When *Extended tips* are active, a brief description of the function of a particular icon or menu command, or a field on a dialog appears when you hover the cursor on that item.

Help Agent

To turn off the Help Agent (similar to Microsoft's Office Assistant), deselect this checkbox. To restore the default Help Agent behavior, click **Reset Help Agent**.

Help formatting

High contrast is an operating system setting that changes the system color scheme to improve readability. To display Help in high contrast (if your computer's operating system supports this), choose one of the high-contrast style sheets from the list.

Open/Save dialogs

To use the standard Open and Save dialogs for your operating system, deselect the *Use OpenOffice.org dialogs* checkbox. When this checkbox is selected, the Open and Save dialogs supplied with OpenOffice.org will be used. See Chapter 3 (File Management) more about the OOo Open and Save dialogs.

Document status

Choose whether printing a document counts as changing the document. If this option is selected, then the next time you close the document after printing, the print date is recorded in the document properties as a change and you will be prompted to save the document again, even if you did not make any other changes.

Year (two digits)

Specifies how two-digit years are interpreted. For example, if the two-digit year is set to 1930, and you enter a date of 1/1/30 or later into your document, the date is interpreted as 1/1/1930 or later. An “earlier” date is interpreted as being in the following century; that is, 1/1/20 is interpreted as 1/1/2020.

Memory options

- 1) In the Options dialog, click **OpenOffice.org > Memory**.
- 2) On the OpenOffice.org – Memory dialog (Figure 32):
 - More memory can make OpenOffice.org faster and more convenient (for example, more undo steps require more memory); but the trade-off is less memory available for other applications and you could run out of memory altogether.
 - To load the Quickstarter (an icon on the desktop or in the system tray) when you start your computer, select the checkbox near the bottom of the dialog. This makes OpenOffice.org start faster; the trade-off is OOo uses some memory even when not being used. This option (called “Enable systray quickstarter”) is disabled in some Linux installations.

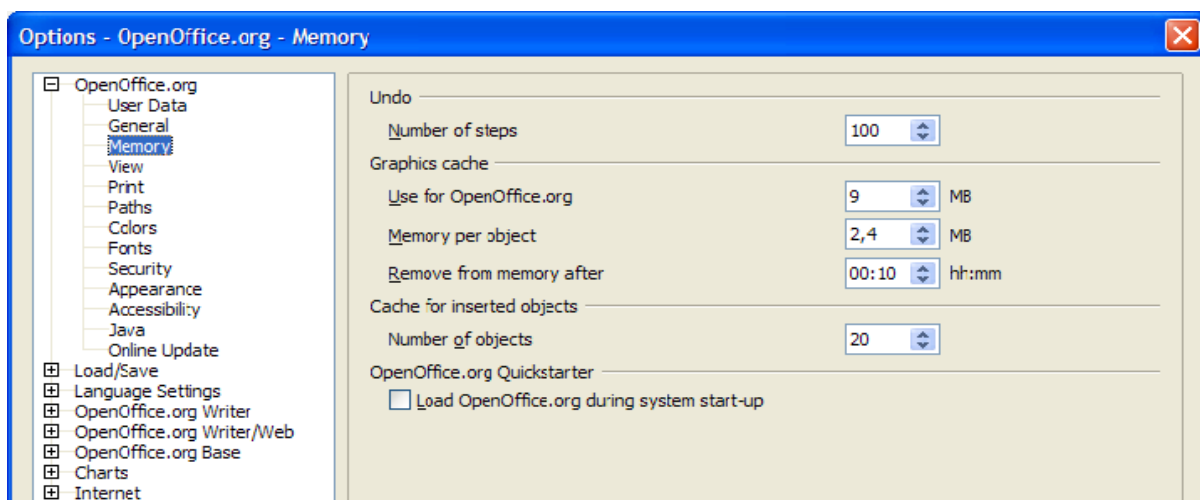


Figure 32. Choosing Memory options for the OpenOffice.org applications

View options

The choices of View options affect the way the document window looks and behaves.

- 1) In the Options dialog, click **OpenOffice.org > View**.
- 2) On the OpenOffice.org – View page (Figure 33), set the options to suit your personal preferences. Some options are described below.

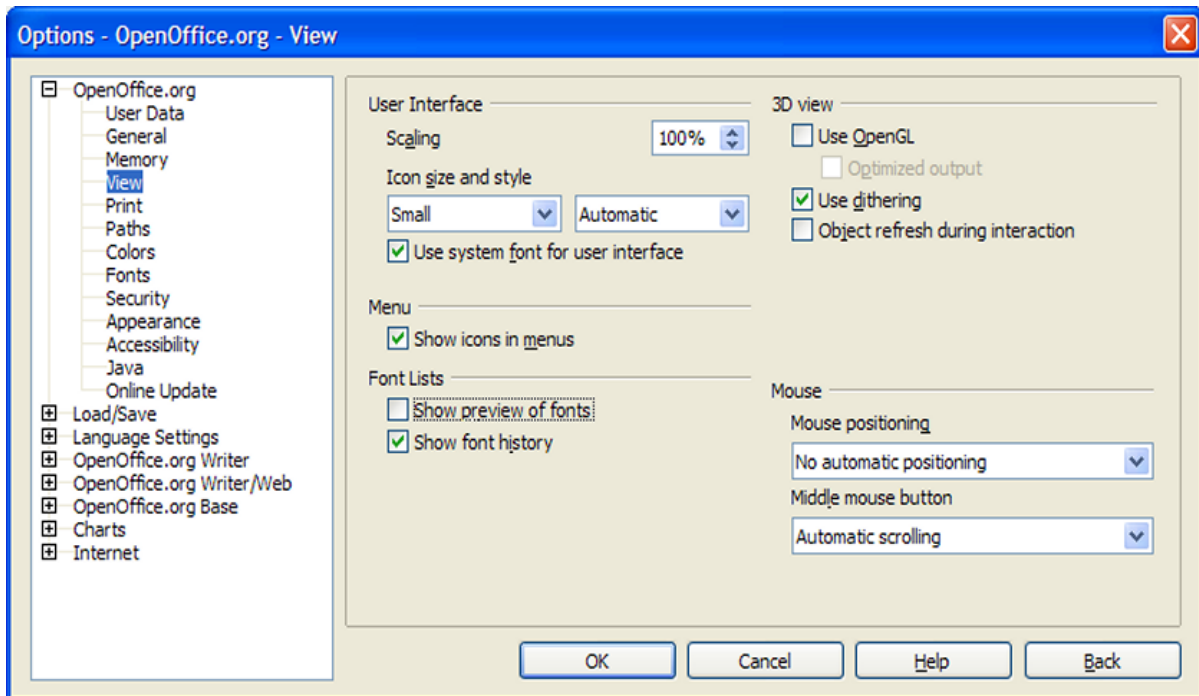


Figure 33. Choosing View options for the OpenOffice.org applications

User Interface – Scaling

If the text in the help files and on the menus of the OOo user interface is too small or too large, it can be changed by specifying a scaling factor. Sometimes a change here can have unexpected results, depending on the screen fonts available on your system. It does not affect the actual font size of the text.

User Interface – Icon size and style

The first box specifies the display size of toolbar icons (small, large or automatic); the Automatic option uses the icon size setting for your operating system. The second box specifies the icon set (theme); here the Automatic option uses an icon set compatible with your operating system and choice of desktop: for example, KDE or Gnome on Linux.

User Interface – Use system font for user interface

If you prefer to use the system font (the default font for your computer and operating system), instead of the font provided by OOo, for the user interface, select this checkbox.

User interface – Screen font antialiasing

(Not available in Windows, so not shown in Figure 33.) Select this checkbox to smooth the screen appearance of text. Enter the smallest font size to apply antialiasing.

Menu – icons in menus

Select this option if you want icons as well as words to be visible in menus.

Font Lists - Show preview of fonts

When you select this option, the font list looks like Figure 34, left, with the font names shown as an example of the font; with the checkbox deselected, the font list shows only the font names, not their formatting (Figure 34, right). The fonts you will see listed are those that are installed on your system.



Figure 34. (Left) Font list showing preview; (Right) Font list without preview

Font Lists - Show font history

When you select this option, the last five fonts you have assigned to the current document are displayed at the top of the font list.

3D view

These options are for use with Draw and Impress. For more information, see the online help or other documentation on these applications.

Mouse

Use these options to choose how the mouse is positioned in newly opened dialogs and to select the function of the middle mouse button.

Print options

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 (by clicking the Options button on the Print dialog).

- 1) In the Options dialog, click **OpenOffice.org > Print**.
- 2) On the OpenOffice.org – Print dialog (Figure 35), look at the *Printer warnings* section near the bottom.

- Here you can choose whether to be warned if the paper size or orientation specified in your document does not match the paper size or orientation available for your printer. Having these warnings turned on can be quite helpful, particularly if you work with documents produced by people in other countries where the standard paper size is different from yours.

Tip If your printouts are coming out incorrectly placed on the page or chopped off at the top, bottom, or sides, or the printer is refusing to print, the most likely cause is page size incompatibility.

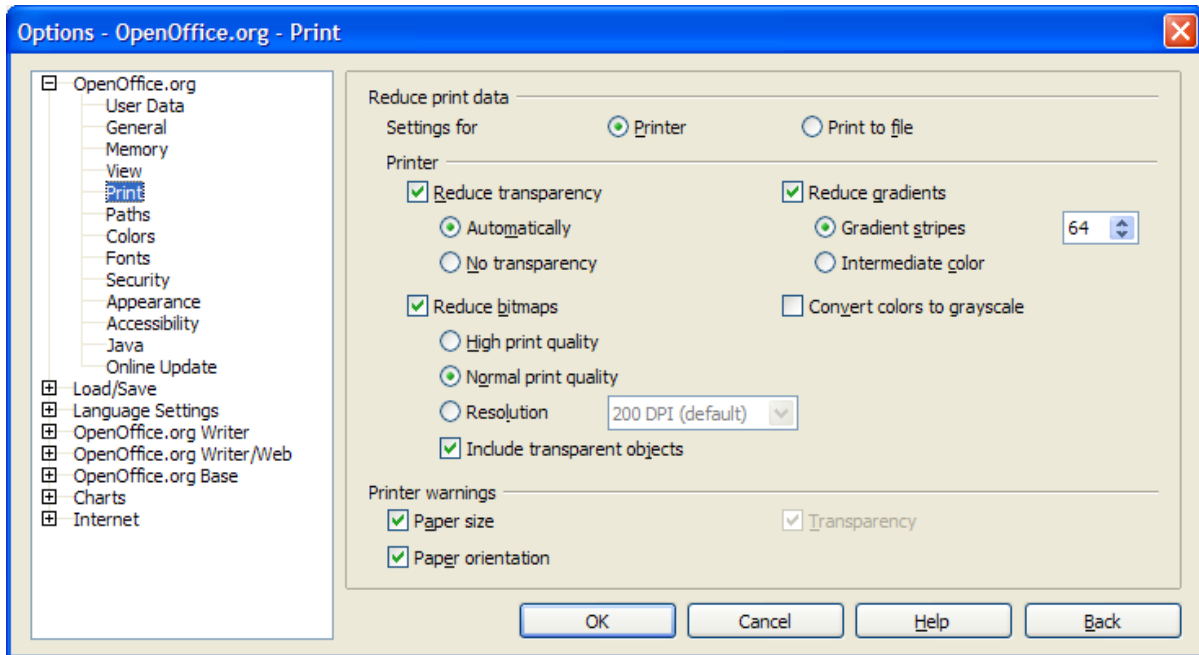


Figure 35. Choosing general printing options to apply to all OOo components

Path options

You can change the location of files associated with, or used by, OpenOffice.org to suit your working situation. In a Windows system, for example, you might want to store documents by default somewhere other than My Documents.

- In the Options dialog, click **OpenOffice.org > Paths**.
- To make changes, select an item in the list shown in Figure 36 and click **Edit**. On the Select Paths dialog (not shown), add or delete folders as required, and then click **OK** to return to the Options dialog. Note that many items 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).

Tip You can use the entries in the OpenOffice.org – Paths dialog to compile a list of files, such as those containing AutoText, that you need to back up or copy to another computer.

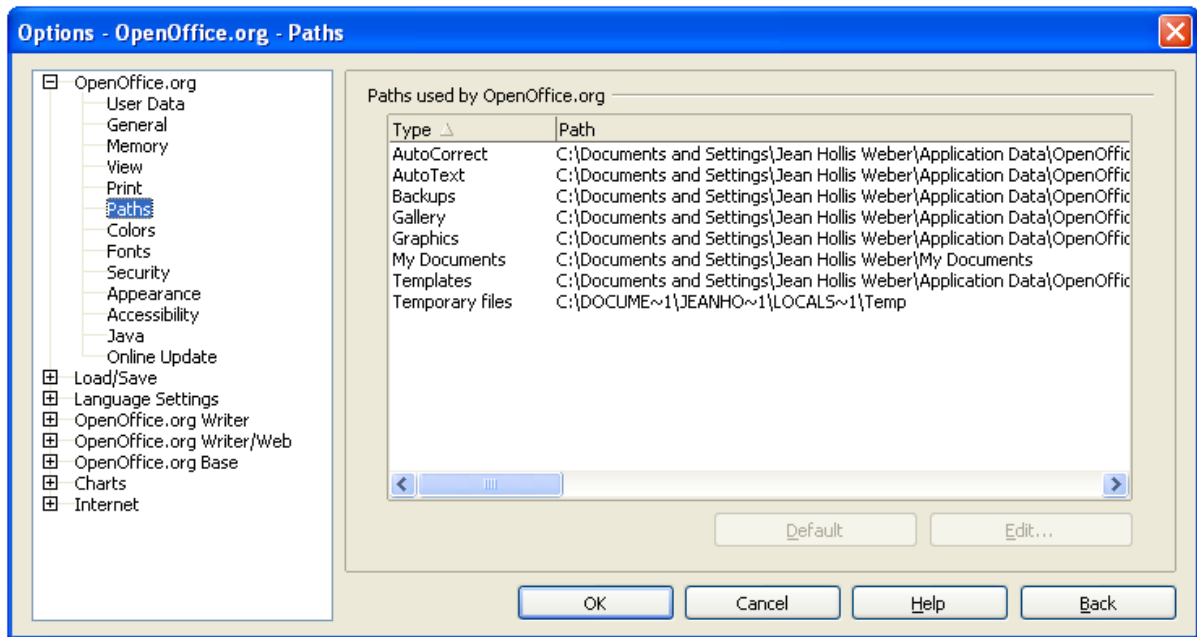


Figure 36. Viewing the paths of files used by OpenOffice.org

Color options

In the OpenOffice.org – Colors dialog (Figure 37), you can specify colors to use in OOo documents. You can select a color from a color table, edit an existing color, or define new colors. These colors will then be available in color selection palettes in OOo.

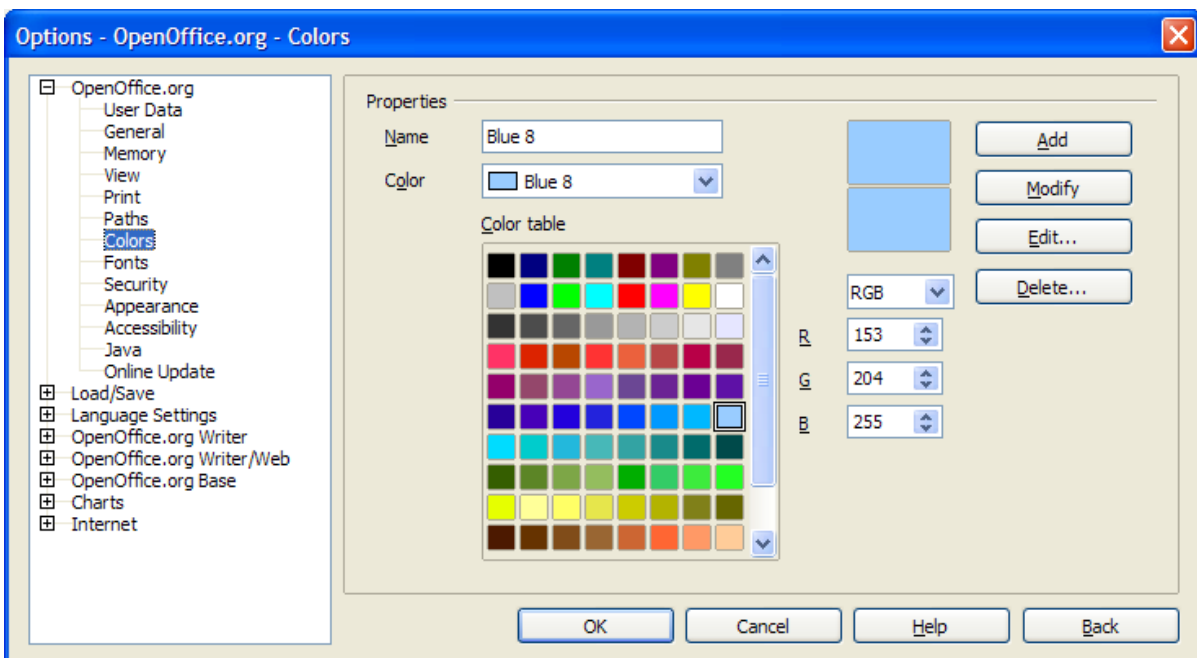


Figure 37. Defining colors to use in color palettes in OOo

Font options

You can define replacements for any fonts that might appear in your documents. If you receive from someone else a document containing fonts that you do not have on your system, OpenOffice.org will substitute fonts for those it does not find. You might prefer to specify a different font from the one the program chooses.

- 1) In the Options dialog, click **OpenOffice.org > Fonts**.
- 2) On the OpenOffice.org – Fonts dialog (Figure 38):
 - Select the **Apply Replacement Table** checkbox.
 - Select or type the name of the font to be replaced in the **Font** box. (If you do not have this font on your system, it will not appear in the drop-down list in this box, so you need to type it in.)
 - In the **Replace with** box, select a suitable font from the drop-down list of fonts installed on your computer.
- 3) The checkmark to the right of the **Replace with** box turns green. Click on this checkmark. A row of information now appears in the larger box below the input boxes. Select the checkboxes under **Always** and **Screen**.
- 4) In the bottom section of the dialog, you can change the typeface and size of the font used to display source code such as HTML and Basic (in macros).

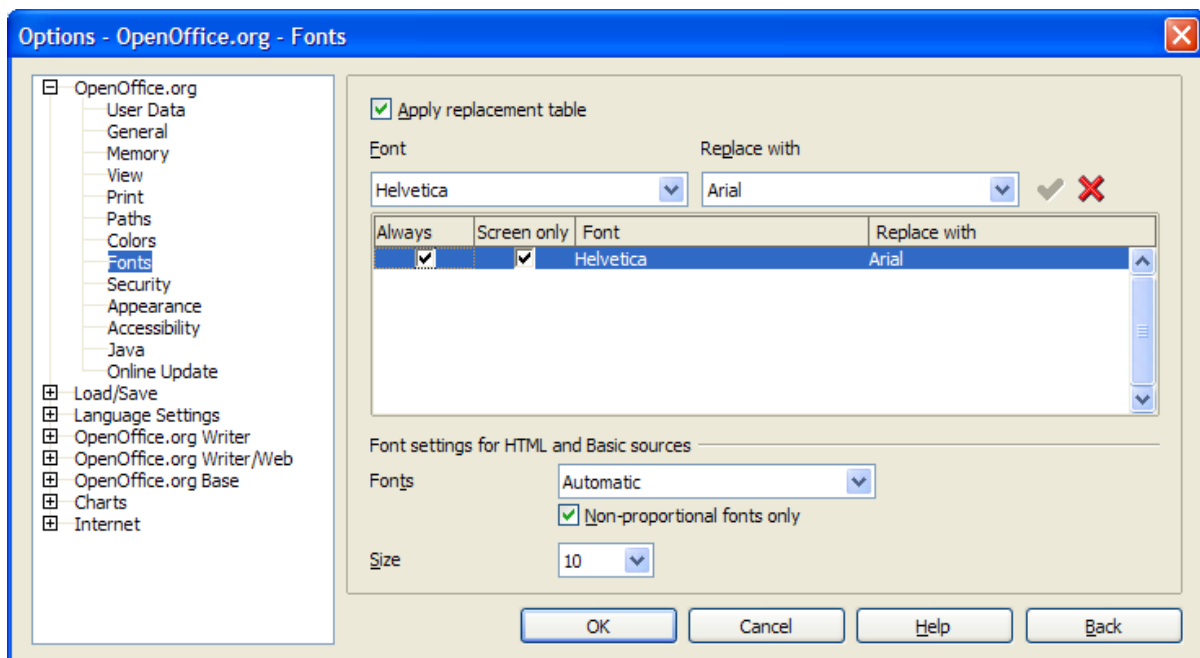


Figure 38. Defining a font to be substituted for another font

Security options

Use the OpenOffice.org – Security page (Figure 39) to choose security options for saving documents and for opening documents that contain macros.

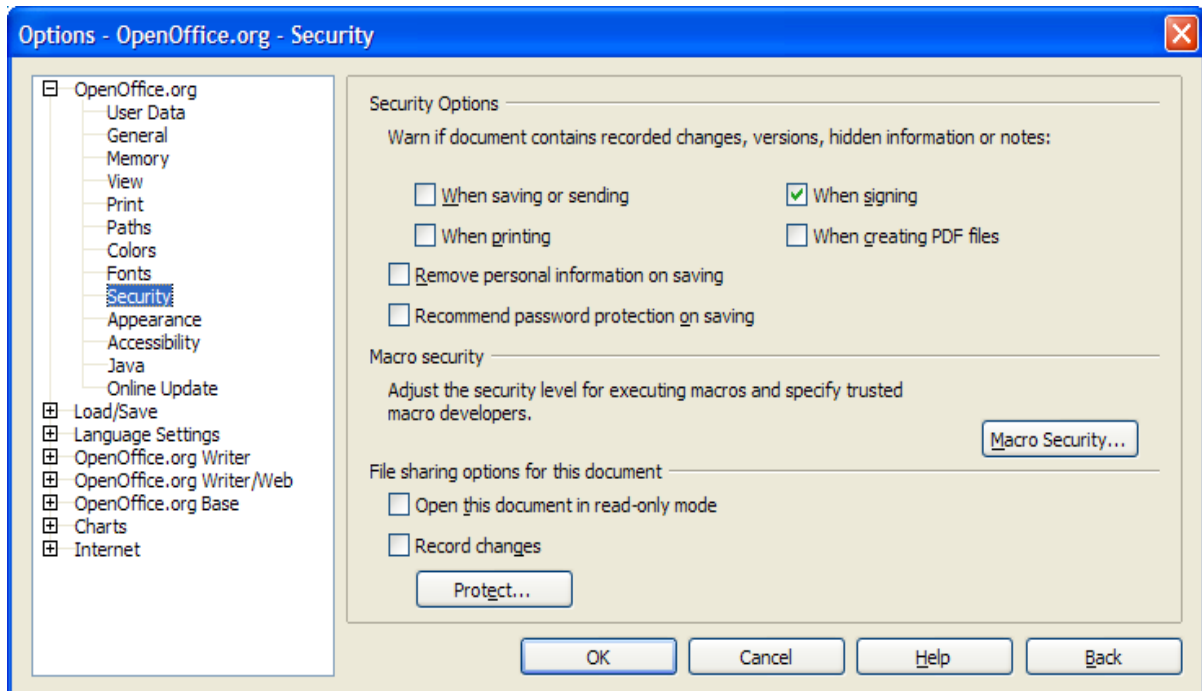


Figure 39. Choosing security options for opening and saving documents

Appearance options

Writing, editing, and page layout are often easier to do when you can see as much as possible of what is going on in your document. You may wish to make visible such items as text, table, and section boundaries (in Writer documents), page breaks in Calc, and grid lines in Draw or Writer. In addition, you might prefer different colors (from OOo's defaults) for such items as note indicators or field shadings.

On the OpenOffice.org – Appearance page (Figure 40), you can specify which items are visible and the colors used to display various items.

- 1) In the Options dialog, click **OpenOffice.org > Appearance**.
- 2) To show or hide items such as text boundaries, select or deselect the checkboxes next to the names of the items.

To change the default colors for items, click the down-arrow in the *Color Setting* column by the name of the item and select a color from the pop-up box.

- 3) To save your color changes as a color scheme, click **Save**, type a name in the *Scheme* box; then click **OK**.

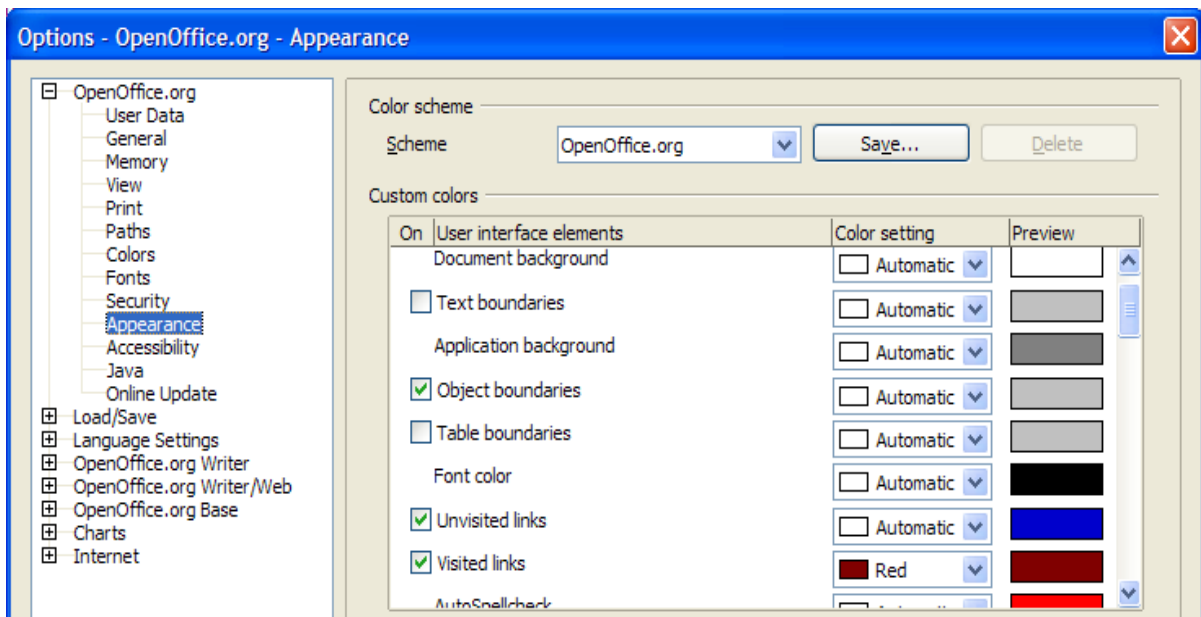


Figure 40. Showing or hiding text, object, and table boundaries

Accessibility options

Accessibility options include whether to allow animated graphics or text, how long help tips remain showing, some options for high contrast display, and a way to change the font for the user interface of the OpenOffice.org program (see Figure 41).

Accessibility support relies on Sun Microsystems Java technology for communications with assistive technology tools. See “Java options” on page 64. The “Support assistive technology tools” option is not shown on all OOo installations. See “Assistive Tools in OpenOffice.org” in the Help for other requirements and information.

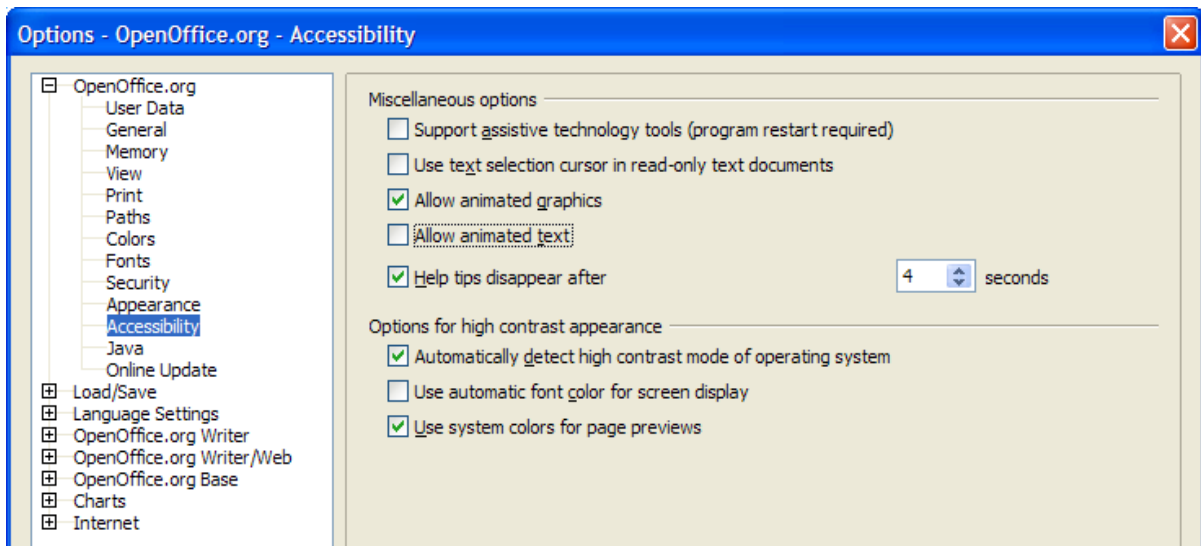


Figure 41. Choosing accessibility options

- 1) In the Options dialog, click **OpenOffice.org > Accessibility**.
- 2) Select or deselect the options as required.

Java options

If you install or update a Java Runtime Environment (JRE) after you install OpenOffice.org, or if you have more than one JRE installed on your computer, you can use the Java options page (Figure 42) to choose the JRE for OOO to use.

If you are a system administrator, programmer, or other person who customizes JRE installations, you can use the Parameters and Class Path pages (reached from the Java page) to specify this information.

- 1) In the Options dialog, click **OpenOffice.org > Java**.
- 2) If you do not see anything listed in the middle of the page, wait a few minutes while OOO searches for JREs on the hard disk.
- 3) If OOO finds one or more JREs, it will display them there. You can then select the **Use a Java runtime environment** checkbox and (if necessary) choose one of the JREs listed.

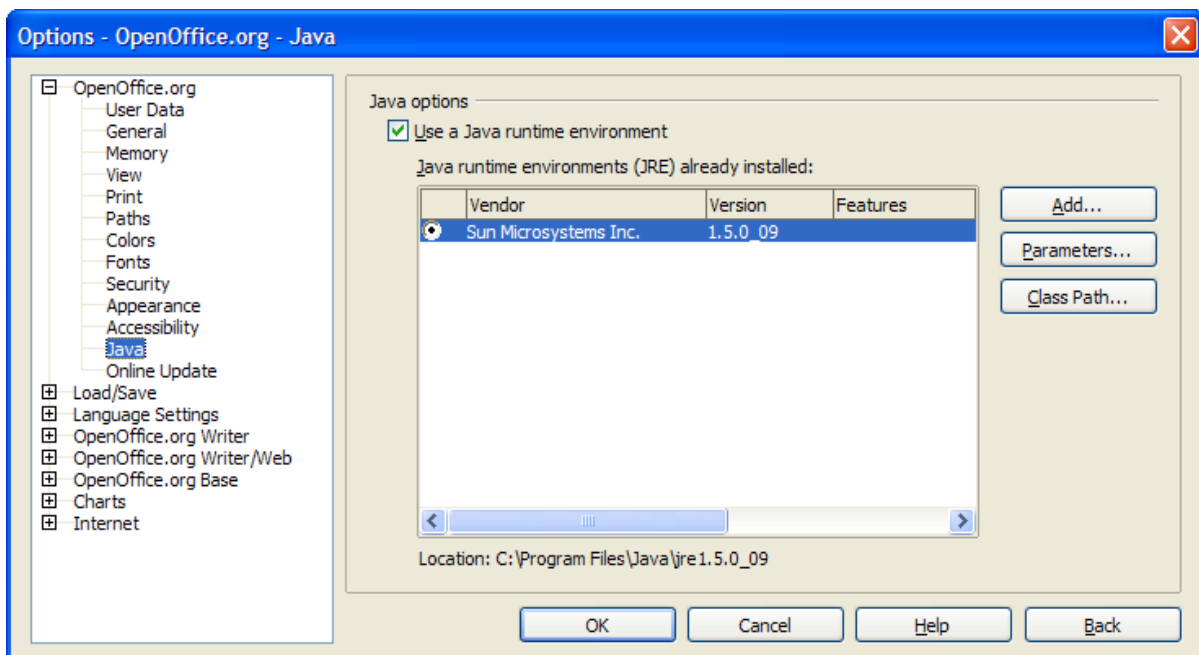


Figure 42. Choosing a Java runtime environment

Online Update options

On the Online Update page (not shown here), you can choose whether and how often to have OOO check the OOO website for program updates.

Choosing options for loading and saving documents

You can set the Load/Save options to suit the way you work.

General Load/Save options

- 1) If the Options dialog is not already open, click **Tools > Options**. Click the + sign to the left of Load/Save.
- 2) Choose **Load/Save > General**.

Most of the choices on the Options – Load/Save – General dialog (Figure 43) are familiar to users of other office suites. Some items of interest are described below.

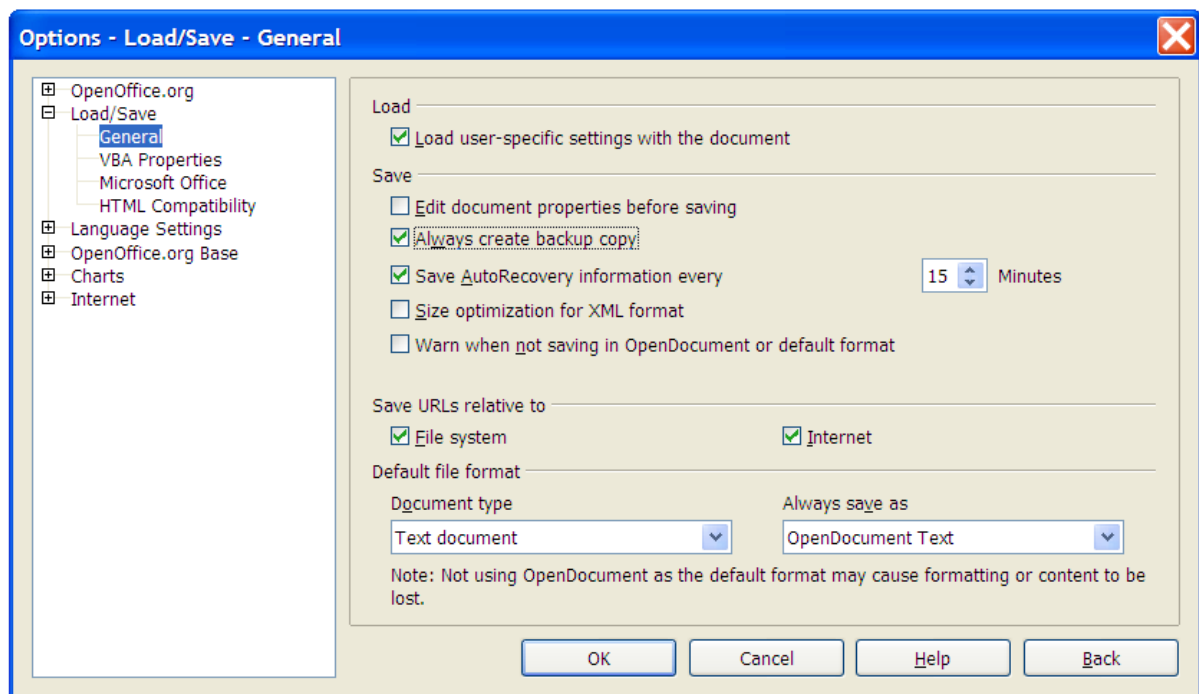


Figure 43. Choosing Load and Save options

Load user-specific settings with the document

When you save a document, certain settings are saved with it. For example, your choice (in the options for OOO Writer) of how to update links is affected by the **Load user-specific settings** option. Some settings (printer name, data source linked to the document) are always loaded with a document, whether or not this checkbox is selected.

If you select this option, these document settings are overruled by the user-specific settings of the person who opens it. If you deselect this option, users' personal settings do not overrule the settings in the document.

Edit document properties before saving

When you select this option, the Document Properties dialog pops up to prompt you to enter relevant information the first time you save a new document (or whenever you use Save As).

Save AutoRecovery information every

Note that AutoRecovery in OpenOffice.org overwrites the original file. If you have also chosen **Always create backup copy**, the original file then overwrites the backup copy. If you have this set, recovering your document after a system crash will be easier; but recovering an earlier version of the document may be harder.

Size optimization for XML format (no pretty printing)

OpenOffice.org documents are XML files. When you select this option, OOO writes the XML data without indents and line breaks. If you want to be able to read the XML files in a text editor in a structured form, deselect this option.

Default file format

If you routinely share documents with users of Microsoft Word, you might want to change the **Always save as** attribute for text documents in the Standard file format section to one of the Word document types.

VBA Properties Load/Save options

- 1) Choose **Load/Save > VBA Properties**.
- 2) On the Options – Load/Save – VBA Properties dialog (Figure 44), you can whether to keep any macros in MSOffice documents that are opened in OOO.
 - If you choose **Save original Basic code**, the macros will not work in OOO but are retained if you save the file into Microsoft Office format.
 - If you choose **Load Basic code to edit**, the changed code is saved in an OOO document but is not retained if you save into an MSOffice format.

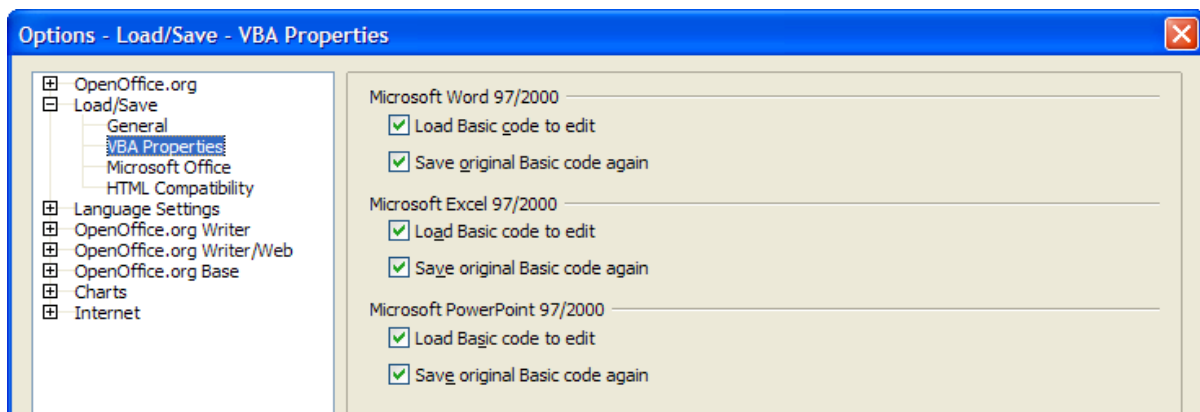


Figure 44. Choosing Load/Save VBA Properties

Microsoft Office Load/Save options

- 1) Choose **Load/Save > Microsoft Office**.
- 2) On the Options – Load/Save – Microsoft Office dialog (Figure 45), you can choose what to do when importing and exporting Microsoft Office OLE objects (linked or embedded objects or documents such as spreadsheets or equations).

Select the [L] checkboxes to convert Microsoft OLE objects into the corresponding OpenOffice.org OLE objects when a Microsoft document is loaded into OOo (mnemonic: “L” for “load”).

Select the [S] checkboxes to convert OpenOffice.org OLE objects into the corresponding Microsoft OLE objects when a document is saved in a Microsoft format (mnemonic: “S” for “save”).

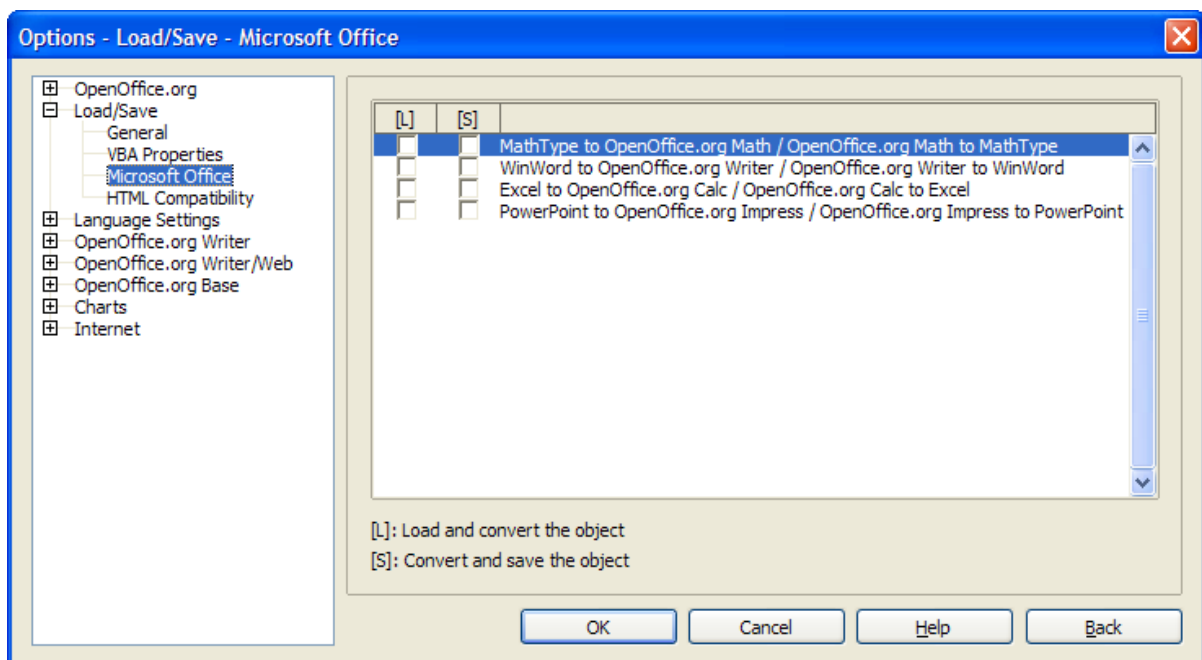


Figure 45. Choosing Load/Save Microsoft Office options

HTML compatibility Load/Save options

Choices made on the Load/Save – HTML Compatibility dialog (Figure 46) affect HTML pages imported into OpenOffice.org and those exported from OOo.

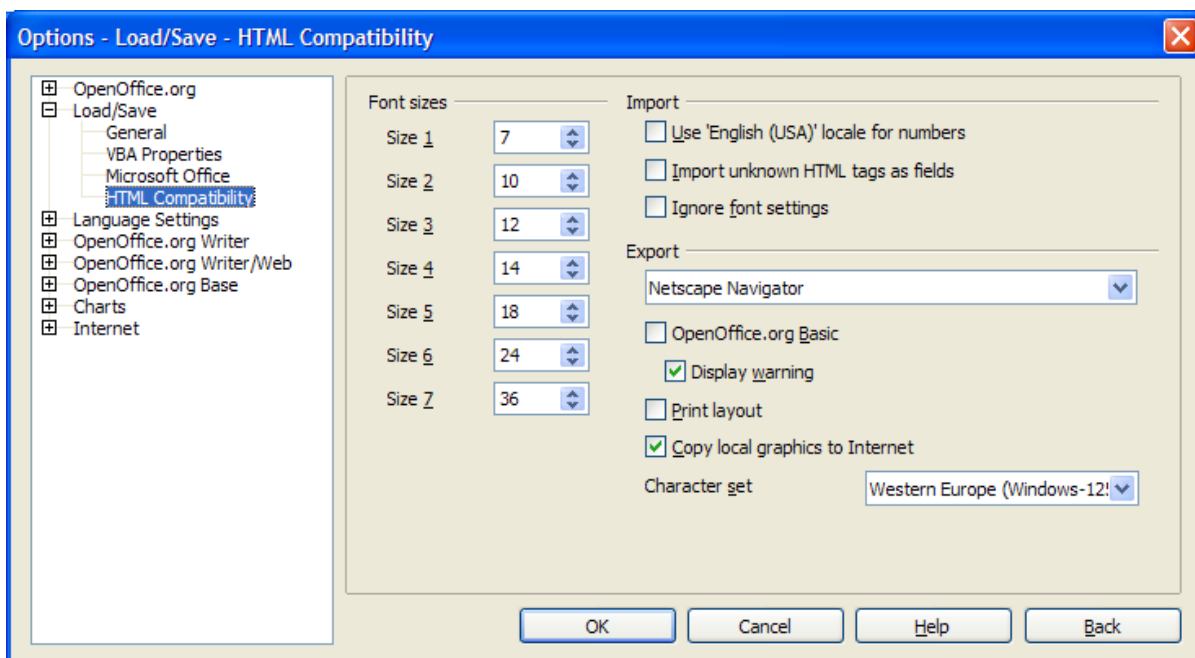


Figure 46. Choosing HTML compatibility options

Choosing language settings

You may need to do several things to set the language settings to what you want:

- Install the required dictionaries
- Change some locale and language settings
- Choose spelling options

Install the required dictionaries

OOo 2.0 automatically installs several dictionaries with the program. To add other dictionaries, use **File > Wizards > Install new dictionaries**. An OOo document will open with links to different languages that you can install. Follow the prompts to install them.

Change some locale and language settings

You can change some details of the locale and language settings that OOo uses for all documents, or for specific documents.

- 1) In the Options dialog, click **Language Settings > Languages**.
- 2) On the right-hand side (as shown in Figure 47), change the *Locale setting*, *Default currency*, and *Default languages for documents* as required. In the example, English (Australia) has been chosen as the locale setting, and the Australian dollar (AUD) for the default currency. Although an English (Australia) dictionary exists, the English (UK) dictionary has been selected in the *Default languages for documents*.

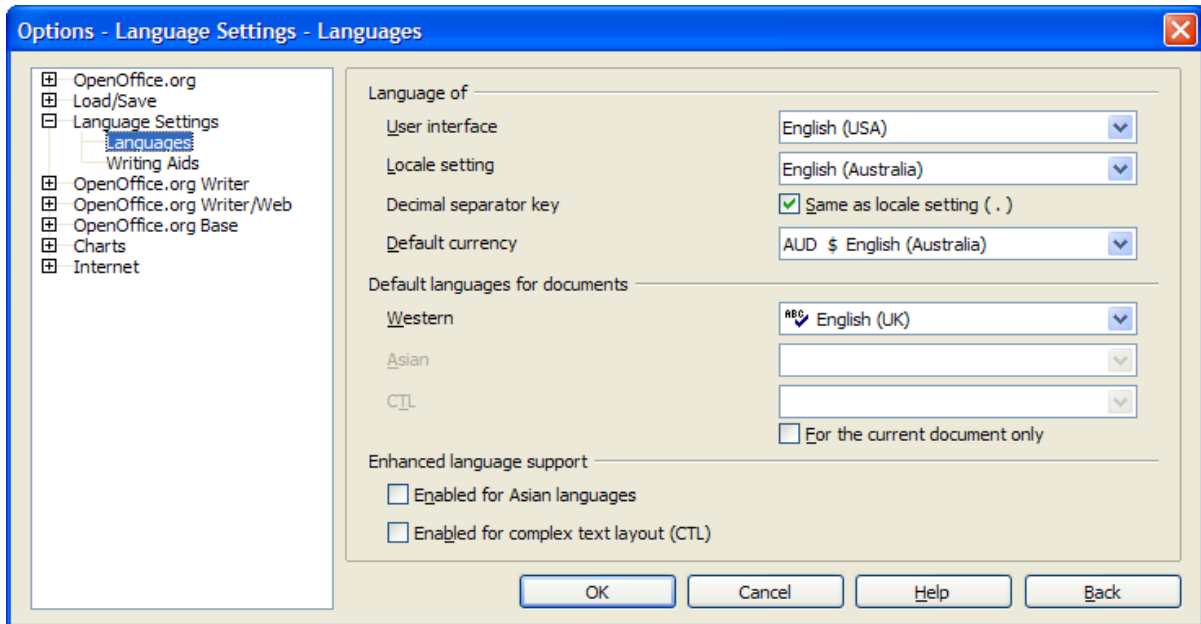


Figure 47. Choosing language options

- 3) If you want the language (dictionary) setting to apply to the current document only, instead of being the default for all new documents, select the checkbox labelled *For the current document only*.
- 4) If necessary, select the checkboxes to enable support for Asian languages (Chinese, Japanese, Korean) and support for CCTL (complex text layout) languages such as Hindi, Thai, Hebrew, and Arabic. If you choose either of these checkboxes, the next time you open this dialog, you will see some extra choices under Language Settings, as shown in Figure 48. These choices (Searching in Japanese, Asian Layout, and Complex Text Layout) are not discussed here.
- 5) Click **OK** to save your changes and close the dialog.

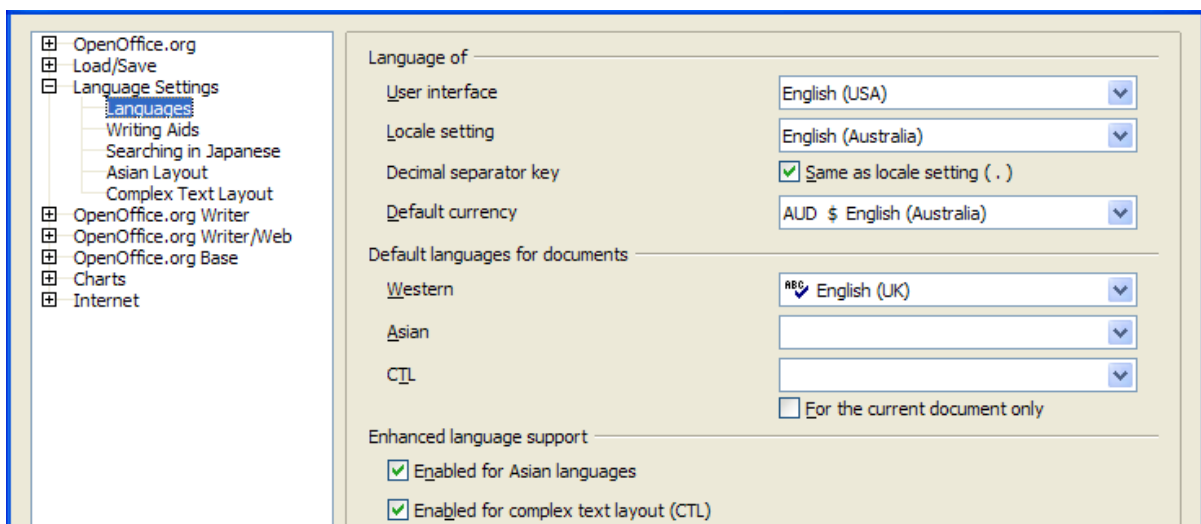


Figure 48. Extra language settings when enhanced language support options are selected

Choose spelling options

To choose the options for checking spelling:

- 1) In the Options dialog, click **Language Settings > Writing Aids**.
- 2) In the *Options* section of the Language Settings – Writing Aids dialog (Figure 49), choose the settings that are useful for you. Some considerations:
 - If you do not want spelling checked while you type, deselect *Check spelling as you type* and select *Do not mark errors*. (To find the second item, scroll down in the Options list.)
 - If you use a custom dictionary that includes words in all uppercase and words with numbers (for example, AS/400), select *Check uppercase words* and *Check words with numbers*.
 - *Check special regions* includes headers, footers, frames, and tables when checking spelling.
 - Here you can also check which user-defined (custom) dictionaries are active by default, and add or remove dictionaries, by clicking the **New** or **Delete** buttons.

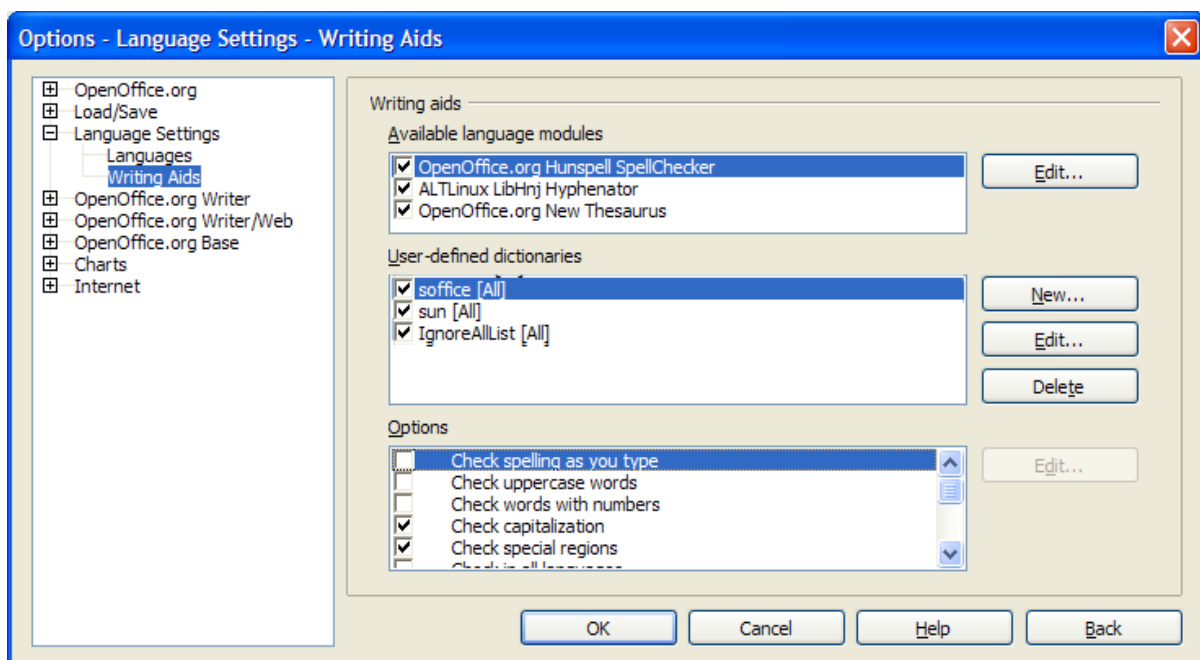


Figure 49. Choosing languages, dictionaries, and options for checking spelling

Internet options

Use the Internet Options pages to define search engines and save proxy settings for use with OpenOffice.org.

If you are using a Netscape or Mozilla browser (such as Firefox), you can enable the Mozilla Plug-in so you can open OOO files in your browser, print them, save them, and work with them in other ways.

If you are using a Unix or Linux based operating system (including Mac OS X), an additional page of E-mail options is available, where you can specify the e-mail program to use when you send the current document as e-mail (Figure 50).

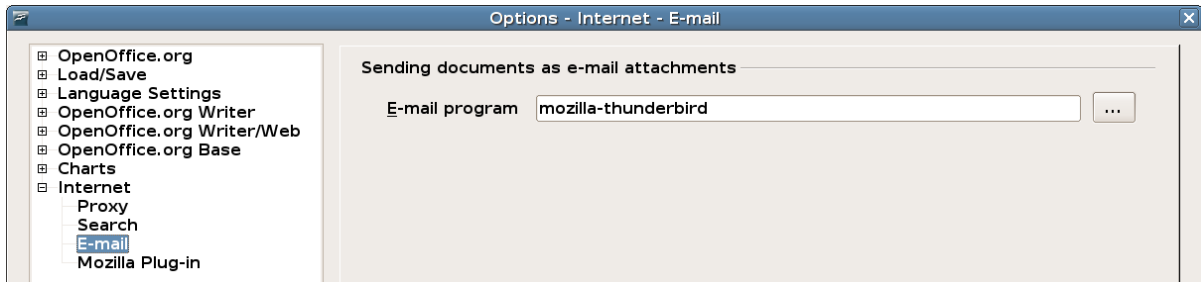


Figure 50: Internet options, showing E-mail page available to Linux users

Controlling OOO's AutoCorrect functions

Some people find some or all of the items in OOO's AutoCorrect function annoying because they change what you type when you do not want it changed. Many people find some of the AutoCorrect functions quite helpful; if you do, then select the relevant checkboxes. But if you find unexplained changes appearing in your document, this is a good place to look to find the cause.

To open the AutoCorrect dialog, click **Tools > AutoCorrect**. (You need to have a document open for this menu item to appear.)

In Writer, this dialog has five tabs, as shown in Figure 51. In other components of OOO, where the dialog has only four tabs, the contents of the Options tab is as shown in Figure 52.

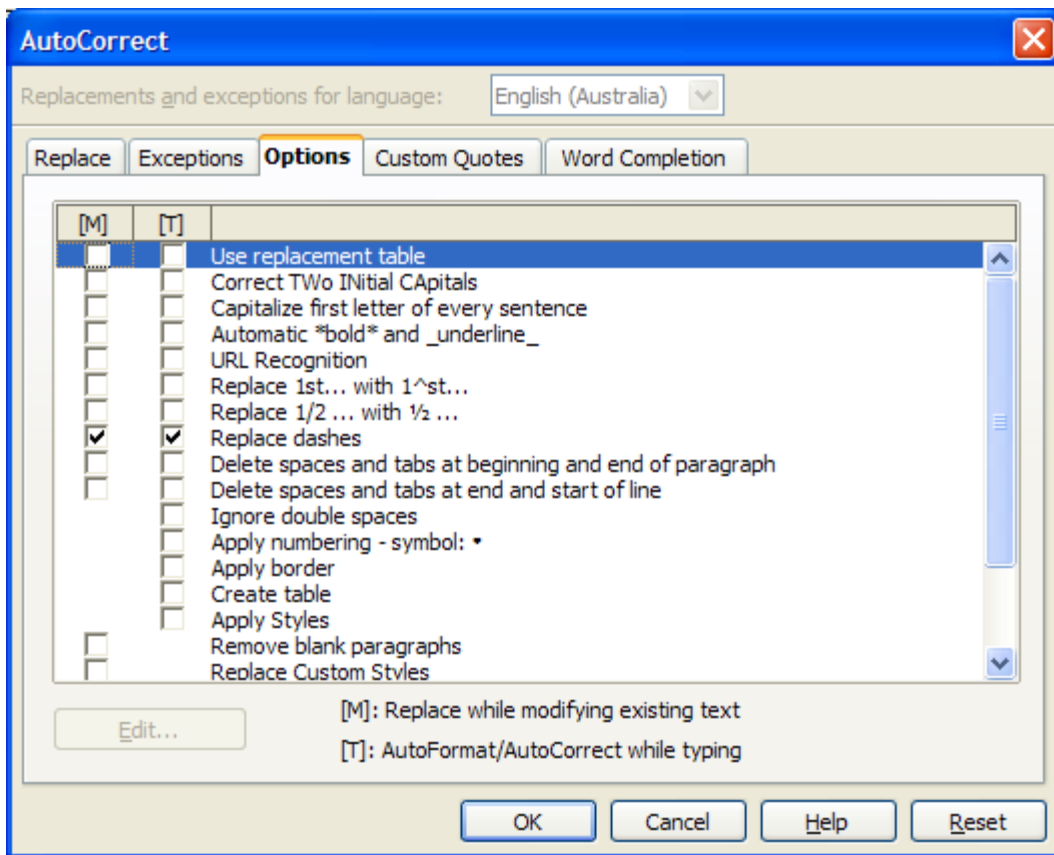


Figure 51. The AutoCorrect dialog in Writer, showing the five tabs and some of the choices

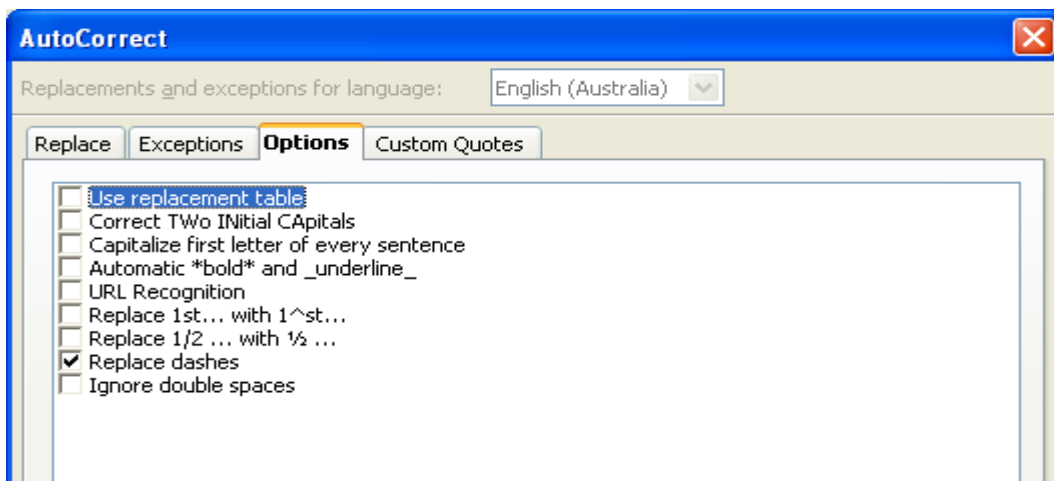


Figure 52. The AutoCorrect dialog in Calc, showing four tabs and the Options choices



Chapter 6
Getting Started with Writer
OpenOffice.org's Word Processor

What is Writer?

Writer is the word processor component of OpenOffice.org (OOo). In addition to the usual features of a word processor (spell checking, thesaurus, hyphenation, autocorrect, find and replace, automatic generation of tables of contents and indexes, mail merge and others), Writer provides these important features:

- Templates and styles
- Powerful page layout methods, including frames, columns, and tables
- Embedding or linking of graphics, spreadsheets, and other objects
- Built-in drawing tools
- Master documents
- Change tracking during revisions
- Database integration, including a bibliography database
- Export to PDF, including bookmarks
- And many more

These features are covered in detail in the *Writer Guide*.

The Writer interface

The main Writer workspace is shown in Figure 53. The menus and toolbars are described in Chapter 4 (Menus and Toolbars). Other features of the Writer interface are covered in this chapter.

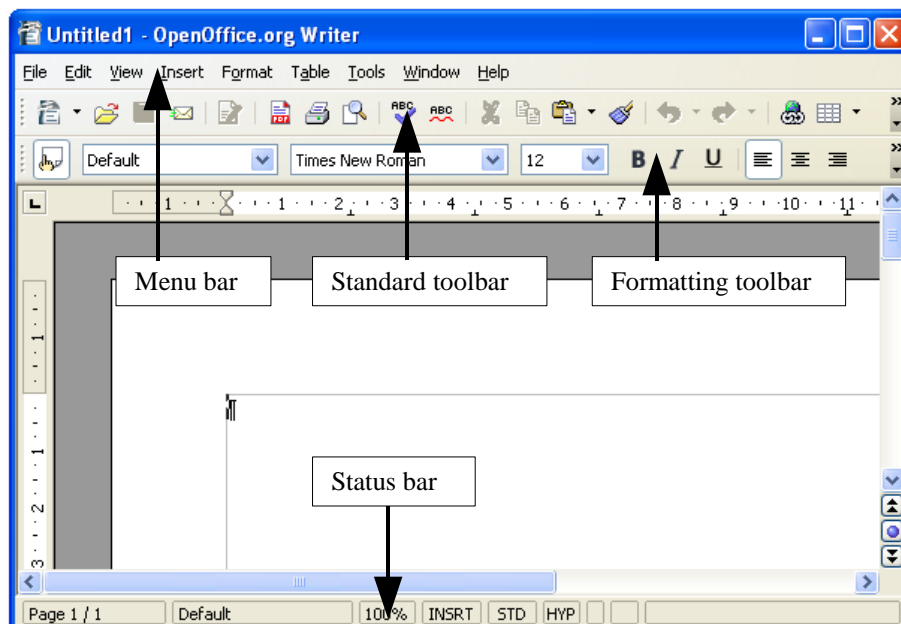



Figure 53: The main Writer workspace in Print Layout view

Changing document views

Writer has several ways to view a document: Print Layout, Web Layout, Full Screen, and Zoom. To access these choices, go to the **View** menu. The only document view option with a submenu is Zoom.

Creating a new document

You can create a new, blank document in Writer in several ways:

- Press the *Control+N* keys. A new empty document opens. If you already have a document open, the new document appears in a new window.
- Use **File > New > Text Document**. The result is the same as pressing the *Control+N* keys.
- Click the **New** button on the main toolbar .

Creating a document from a template

You can use templates to create new documents in Writer. Templates serve as the foundation of a series of documents, making sure they all have a similar layout. For example, all the chapters in this book are based on the same template. By doing this, all the chapters look alike; they have the same headers and footers, use the same fonts, and so on.

Unfortunately, a brand-new OpenOffice.org installation does not contain many templates. It is possible to add new templates to your installation and use them for new documents. This is explained in Chapter 12 (Working with Templates). Many more templates can be downloaded from the Internet.

Once you have templates on your system, you can create new documents based on them by using **File > New > Templates and Documents**. This opens a window where you can choose the template you want to use for your document.

The example shown in Figure 54 uses a template called “book” in the My Templates folder. Select it, then click **Open**. A new document is created based on the formats defined in the template.

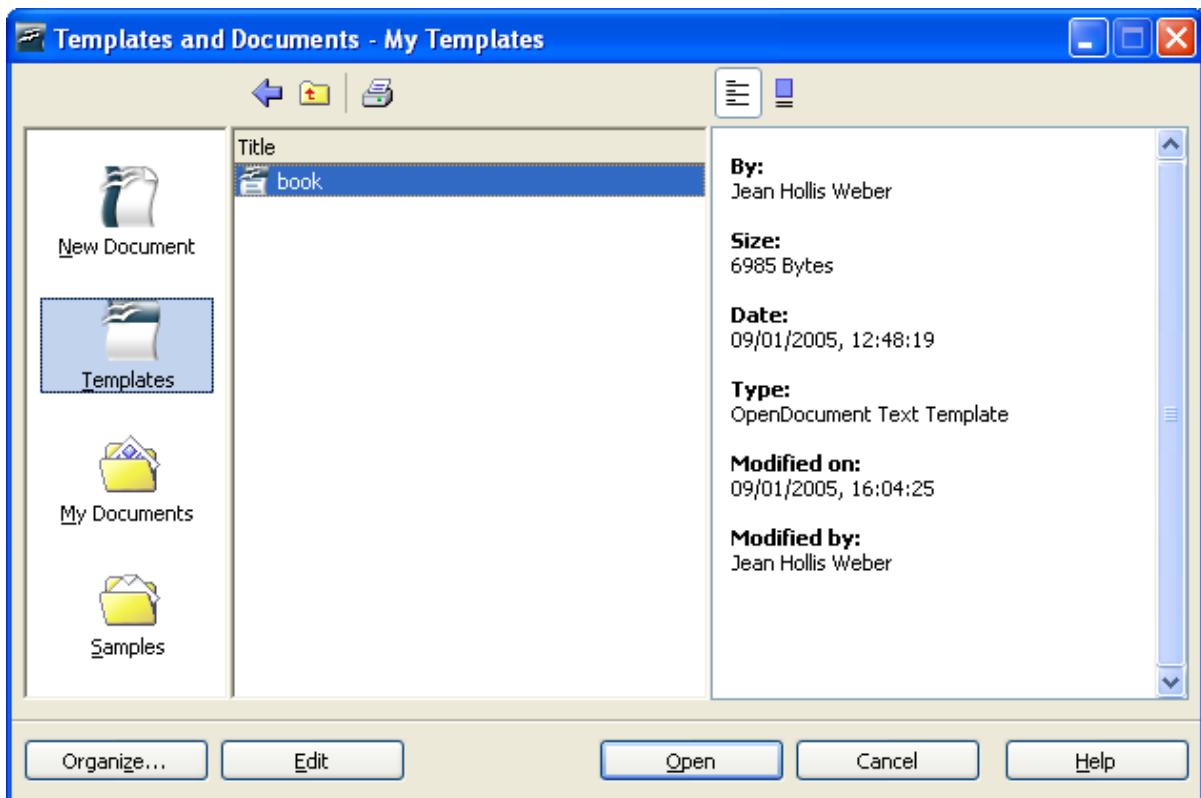


Figure 54. Creating a document from a template

Saving a document

Save Writer documents the same way you save other documents. For more information, see Chapter 3 (File Management in OpenOffice.org).

Saving as a Microsoft Word document

You may need to share your documents with other people who do not use OOO, but use Microsoft Word instead. Most versions of Microsoft Word cannot read or write OOO files, although filters are becoming available. Fortunately, OOO can read and write Word files. To save a document as a Microsoft Word file:

- 1) First save your document in OOO's format (.odt). If you do not, any changes you made since the last time you saved will only appear in the Microsoft Word version of the document.
- 2) Then click **File > Save As**. The Save As window (Figure 55) appears.
- 3) In the **Save as type** drop-down menu, select the type of Word format you need. Click **Save**.

From this point on, *all changes you make to the document will occur only in the Microsoft Word document*. You have actually changed the name of your document. If you want to go back to working with the OOO version of your document, you must open it again.

Tip To have Oo save documents by default in the Microsoft Word file format, go to **Tools > Options > Load/Save**. In the section named **Default file format**, under **Document Type**, select *Text Document*, then under **Always save as**, select the preferred file format. See also “Choosing options for loading and saving documents” in Chapter 5 (Setting up OpenOffice.org).

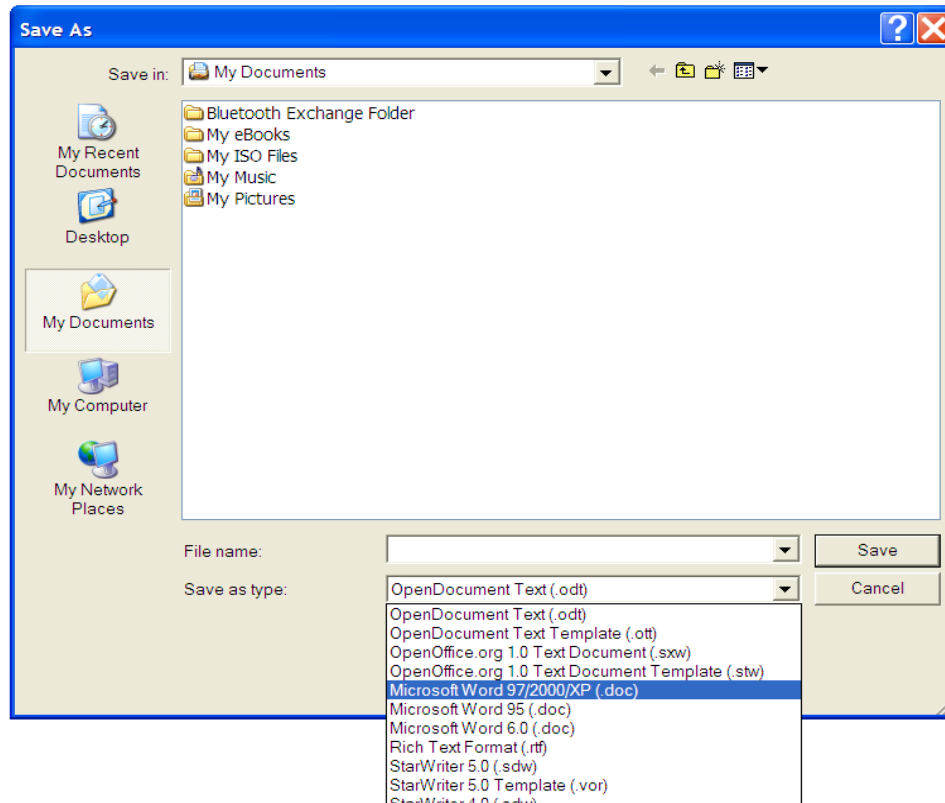


Figure 55. Saving a file in Microsoft Word format

Working with text

Working with text (selecting, copying, pasting, moving) in Writer is similar to working with text in any other program. Oo also has some convenient ways to select items that are not next to each other, move paragraphs quickly, and paste unformatted text.

Selecting items that are not consecutive

To select nonconsecutive items (as shown in Figure 56) using the mouse:

- 1) Select the first piece of text.
- 2) Hold down the *Control* key and use the mouse to select the next piece of text.
- 3) Repeat as often as needed.
- 4) Now you can work with the selected text (copy it, delete it, change the style, or whatever).

Note Macintosh users: substitute the *Command* key when instructions in this chapter say to use the *Control* key.

To select nonconsecutive items using the keyboard:

- 1) Select the first piece of text. (For more information about keyboard selection of text, see the topic “Navigating and selecting with the keyboard” in the Help.)
- 2) Press *Shift+F8*. This puts Writer in “ADD” mode. The word ADD appears on the status bar.
- 3) Use the arrow keys to move to the start of the next piece of text to be selected. Hold down the *Shift* key and select the next piece of text.
- 4) Repeat as often as needed.
- 5) Now you can work with the selected text.
- 6) Press *Esc* to exit from this mode.

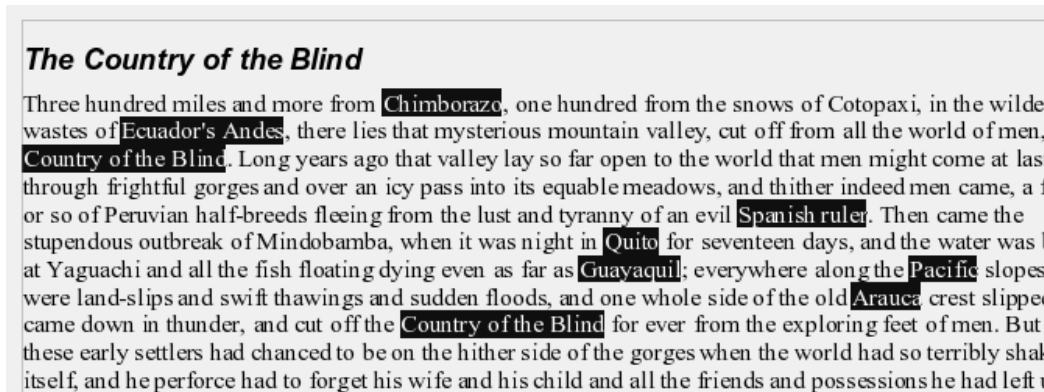


Figure 56: Selecting items that are not next to each other

Cutting, copying, and pasting text

Cutting and copying text in Writer is similar to cutting and copying text in other applications. You can use the mouse or the keyboard for these operations.



Cut: Use **Edit > Cut** or the keyboard shortcut *Control+X* or the Cut icon on the toolbar.



Copy: Use **Edit > Copy** or the keyboard shortcut *Control+C* or the Copy icon.



Paste: Use **Edit > Paste** or the keyboard shortcut *Control+V* or the Paste icon.

If you simply click on the Paste icon, any formatting the text has (such as bold or italics) is retained. To make the pasted text take on the formatting of the surrounding text where it is being pasted, click the triangle to the right of the Paste icon and select **Unformatted text** from the menu (Figure 57).

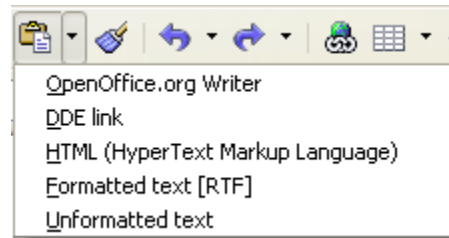


Figure 57: Paste menu

Moving paragraphs quickly

- 1) Put the cursor anywhere in the paragraph.
- 2) Press and hold the *Control* key and then press the up-arrow or down-arrow key.

The paragraph will move to before the previous paragraph or after the next paragraph in your document. To move more than one paragraph at a time, select at least part of both paragraphs before pressing the *Control+arrow* keys.

If you are using the Solaris operating system, the key combination is *Control+AltGr+arrow* keys.

Tip If your paragraphs suddenly jump from one place to another, the most likely reason is that you have accidentally pressed one of these key combinations.

Finding and replacing text and formatting

Writer has a Find and Replace feature that automates the process of searching for text inside a document. In addition to finding and replacing words and phrases, you can:

- Use regular expressions (wildcards) to fine-tune a search (see the Help for details).
- Find and replace specific formatting (see the *Writer Guide* for more information).
- Find and replace paragraph styles (see the *Writer Guide* for more information).

To display the Find & Replace dialog (Figure 58), use the keyboard shortcut *Control+F* or select **Edit > Find & Replace**.

- 1) Type the text you want to find in the **Search for** box.
- 2) To replace the text with different text, type the new text in the **Replace with** box.
- 3) You can select various options such as matching the case, matching whole words only, or doing a search for similar words. See below for some other choices.
- 4) When you have set up your search, click **Find**. To replace text, click **Replace** instead.

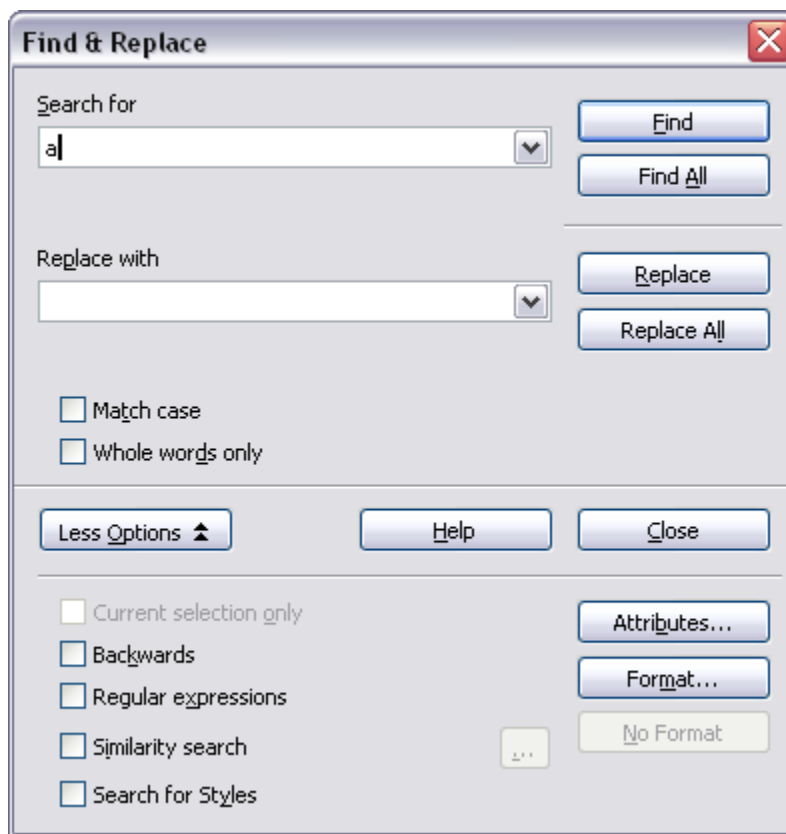


Figure 58: Expanded Find & Replace dialog

Tip If you click **Find All**, OOo selects all instances of the search text in the document. Similarly, if you click **Replace All**, OOo will replace all matches.

Caution Use **Replace All** with caution; otherwise, you may end up with some hilarious (and highly embarrassing) mistakes. A mistake with **Replace All** might require a manual, word by word, search to fix.



Inserting special characters

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

- 1) Place the cursor where you want the character to appear.
- 2) Click **Insert > Special Character** to open the Special Characters window (Figure 59).
- 3) Select the characters you wish to insert, in order, then click **OK**. The selected characters are shown in the lower left of the dialog. As you select a character, it is shown on the lower right, along with its numerical code.

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

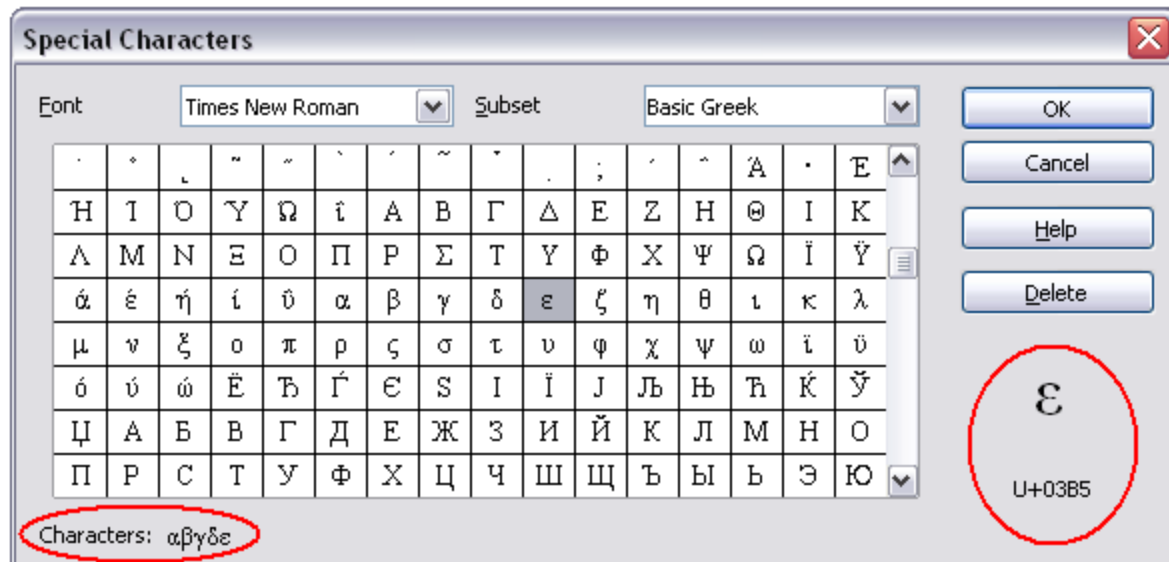


Figure 59: The Special Characters window, where you can insert special characters.

Tips Notice that the characters selected appear in the bottom-left corner of the window.

Setting tab stops and indents

The horizontal ruler shows both the default tab stops and any that you have defined. To set the measurement unit and the spacing of default tab stops, go to **Tools > Options > OpenOffice.org Writer > General**.

You can also set or change the measurement unit by right-clicking on the ruler to open a list of units, as shown in Figure 60. Click on one of them to change the ruler to that unit.

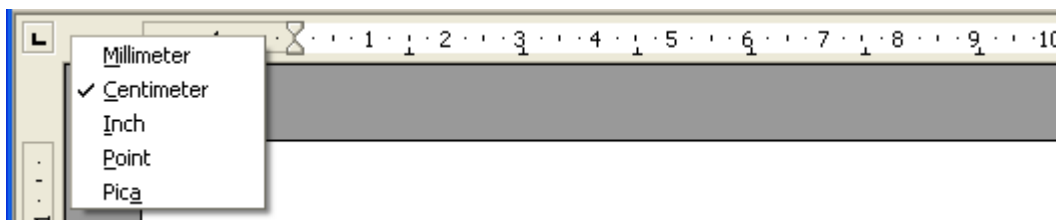


Figure 60: Ruler showing default tab stops

Double-click on a part of the ruler that is not between the left and right indent icons to open the Indents & Spacing page of the Paragraph dialog. To fine-tune tab stop settings, double-click anywhere between the left and right indent icons on the ruler itself to open the Tabs page of the Paragraph dialog.

Checking spelling

Writer provides a spelling checker, which can be used in two ways.



AutoSpellcheck checks each word as it is typed and displays a wavy red line under any misspelled words. Once the word is corrected, the line disappears.



To perform a separate spelling check on the document (or a text selection), click the Spellcheck button. This checks the document or selection and opens the Spellcheck dialog if any misspelled words are found.

Here are some more features of the spelling checker:

- You can change the dictionary language (for example, to Spanish, French or German) on the Spellcheck dialog.
- You can add a word to the dictionary. Click **Add** in the Spellcheck dialog and pick the dictionary to add it to.
- The Options dialog of the Spellcheck tool has a number of different options such as whether to check uppercase words and words with numbers. It also allows you to manage custom dictionaries, that is, add or delete dictionaries, and add or delete words in a dictionary.
- On the Font page of the Paragraph Styles dialog, you can set paragraphs to be checked in a specific language (different from the rest of the document). See Chapter 7 (Working with Styles) in the *Writer Guide* for more information.

Using AutoCorrect

Writer's AutoCorrect function has a long list of common misspellings and typing errors, which it corrects automatically. For example, "hte" will be changed to "the". Select **Tools > AutoCorrect** to open the AutoCorrect dialog. There you can define which strings of text are corrected and how. In most cases, the defaults are fine.

Tip AutoCorrect is turned on by default. To turn it off, uncheck **Format > AutoFormat > While Typing**.

- To stop Writer from replacing a specific spelling, use **Tools > AutoCorrect > Replace**, highlight the word pair and click **Delete**.
- To add a new spelling to correct, type it into the *Replace* and *With* boxes and click **New**.
- See the different pages of the dialog box for the wide variety of other options available to fine-tune AutoCorrect.

Tip AutoCorrect can be used as a quick way to insert special characters. For example, (c) will be autocorrected to ©. You can add your own special characters.

Using word completion

If Word Completion is enabled, Writer tries to guess which word you are typing and offers to complete the word for you. To accept the suggestion, press *Enter*. Otherwise continue typing.

Tip Many people prefer not to use Word Completion. If you do not want to use it, select **Tools > AutoCorrect > Word Completion** and uncheck *Enable Word Completion*.

You can customize word completion from the **Tools > AutoCorrect > Word Completion** page:

- Add (append) a space automatically after an accepted word.
- Show the suggested word as a tip (hovering over the word) rather than completing the text as you type.
- Change the maximum number of words remembered for word completion and the length of the smallest words to be remembered.
- Delete specific entries from the word completion list.
- Change the key that accepts a suggested entry—the options are *Right arrow*, *End* key, *Return (Enter)*, and *Space bar*.

Note Automatic word completion only occurs after you type a word for the second time in a document.

Using AutoText

AutoText allows you to assign text, tables, graphics and other items to a key combination. For example, rather than typing “Senior Management” every time you use that phrase, you might just type “sm” and press *F3*. Or you can save a formatted Note (like the one on this page) as AutoText and then insert a copy by typing “note” and pressing *F3*.

To assign some text to an AutoText shortcut:

- 1) Type the text into your document.
- 2) Select the text so it is highlighted.
- 3) Select **Edit > AutoText** (or press *Control+F3*).
- 4) Enter a name for your shortcut. Writer will suggest a one-letter shortcut, which you can change.
- 5) Click the **AutoText** button on the right and select **New (text only)** from the menu.
- 6) Click **Close** to return to your document.

Tip If the only option under the AutoText button is **Import**, either you have not entered a name for your AutoText or there is no text selected in the document.

AutoText is especially powerful when assigned to fields. See Chapter 14 (Working with Fields) in the *Writer Guide* for more information.

Inserting dashes and non-breaking spaces

You can insert a dash by using the Special Characters window or by using AutoCorrect. For more about AutoCorrect, see “Controlling OOO’s AutoCorrect functions” in Chapter 5 (Setting up OpenOffice.org) and “Using AutoCorrect” on page 82 in this chapter.

- is an en-dash; that is, a dash the width of the letter “n” in the font you are using. It is U+2013 (scroll down to the *General Punctuation* section in the Special Characters window). To enter an en-dash using AutoCorrect, type at least one character, a space, two hyphens, another space, and at least one more letter, then a space. The two hyphens will be replaced by an en-dash.
- is an em-dash; that is, a dash the width of the letter “m” in the font you are using. It is U+2014. To enter it using AutoCorrect, type at least one character, two hyphens, and at least one more character, then a space. The two hyphens will be replaced by an em-dash.

To insert a non-breaking space (to keep characters together, for example in a telephone number), press *Control+Space* on the keyboard.

Formatting text

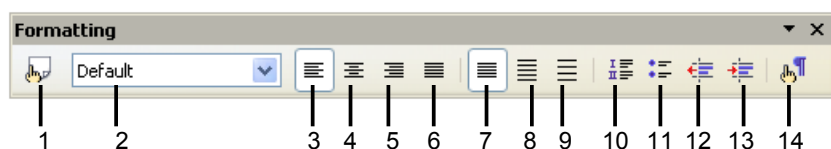
Using styles

Styles are central to using Writer efficiently. Styles enable you to easily format your document consistently, and to change the format with minimal effort. A style is a named set of formatting options. Writer defines several types of styles, for different types of elements: characters, paragraphs, pages, frames, and lists. For information on the advantages of styles, and how to use them, see Chapter 13 (Working with Styles) in this book. The use of styles is described in detail in Chapter 6 (Introduction to Styles) and Chapter 7 (Working with Styles) in the *Writer Guide*.

Formatting paragraphs

You can apply many formats to paragraphs using the buttons on the Formatting toolbar. Figure 61 shows the Formatting toolbar as a floating toolbar, customized to show only the buttons for paragraph formatting.

Tip It is highly recommended that you use *paragraph styles* rather than manually formatting paragraphs, especially for long or standardized documents.



- | | | |
|-------------------------------------|---------------------|----------------------------|
| 1 Open Styles and Formatting window | 5 Align Right | 10 Numbering On/Off |
| 2 Apply Style | 6 Justified | 11 Bullets On/Off |
| 3 Align Left | 7 Line Spacing: 1 | 12 Decrease Indent |
| 4 Centered | 8 Line Spacing: 1.5 | 13 Increase Indent |
| | 9 Line Spacing: 2 | 14 Paragraph format dialog |

Figure 61: Formatting toolbar, showing buttons for paragraph formatting

Figure 62 shows examples of the different alignment options.

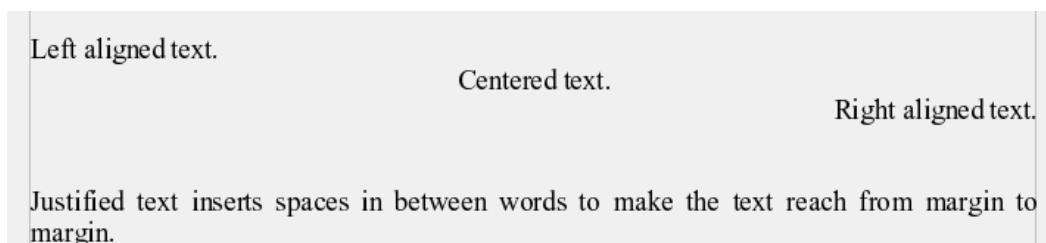
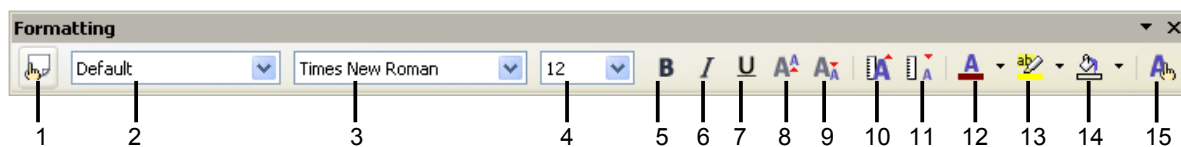


Figure 62: Different text alignment options

Formatting characters

You can apply many formats to characters using the buttons on the Formatting toolbar. Figure 63 shows the Formatting toolbar as a floating toolbar, customized to show only the buttons for character formatting.

Tip It is highly recommended that you use *character styles* rather than manually formatting characters.



- | | | | |
|-------------------------------------|---------------|---------------------|---------------------------------|
| 1 Open Styles and Formatting window | 5 Bold | 10 Increase Font | 15 Open Character Format dialog |
| 2 Apply Style | 6 Italic | 11 Reduce Font | |
| 3 Font Name | 7 Underline | 12 Font Color | |
| 4 Font Size | 8 Superscript | 13 Highlighting | |
| | 9 Subscript | 14 Background Color | |

Figure 63: The Formatting toolbar, showing buttons for character formatting

Tip To remove manual formatting, select the text and click **Format > Default Formatting**, or right-click and select **Default Formatting** from the pop-up menu.

Autoformatting

You can set Writer to automatically format parts of a document according to the choices made on the Options page of the AutoCorrect dialog (**Tools > AutoCorrect > Options**).

Tip If you notice unexpected formatting changes occurring in your document, this is the first place to look for the cause.

Some common unwanted or unexpected formatting changes include:

- Horizontal lines. If you type three or more hyphens (---), underscores (___) or equal signs (===) on a line and then press *Enter*, the paragraph is replaced by a horizontal line as wide as the page. The line is actually the lower border of the preceding paragraph.
- Bulleted and numbered lists. A bulleted list is created when you type a hyphen (-), star (*), or plus sign (+), followed by a space or tab at the beginning of a paragraph. A numbered list is created when you type a number followed by a period (.), followed by a space or tab at the beginning of a paragraph. Automatic numbering is only applied to paragraphs formatted with the *Default*, *Text body* or *Text body indent* paragraph styles.

To turn autoformatting on or off, go to **Format > AutoFormat** and select or delete the items on the submenu.

Creating numbered or bulleted lists

There are several ways to create numbered or bulleted lists:

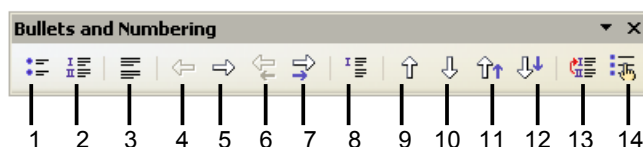
- Use autoformatting, as described above.
- Use list (numbering) styles, as described in Chapter 7 (Working with Styles) in the *Writer Guide*.
- Use the Numbering and Bullets icons on the paragraph formatting toolbar (see Figure 61). This method is described here.

To produce a numbered or bulleted list, select the paragraphs in the list, and then click the appropriate icon on the toolbar.

Note It is a matter of personal preference whether you type your information first, then apply Numbering/Bullets, or apply them as you type.

Using the Bullets and Numbering toolbar

You can create nested lists (where one or more list items has a sublist under it, as in an outline) by using the buttons on the Bullets and Numbering toolbar (Figure 64). You can move items up or down the list, or create subpoints, and even change the style of bullets. Use **View > Toolbars > Bullets and Numbering** to see the toolbar.



- | | |
|--|-----------------------------|
| 1 Bullets On/Off | 8 Insert Unnumbered Entry |
| 2 Numbering On/Off | 9 Move Up |
| 3 Numbering Off | 10 Move Down |
| 4 Up One Level | 11 Move Up with Subpoints |
| 5 Down One Level | 12 Move Down with Subpoints |
| 6 Move Up (One Level) with Subpoints | 13 Restart Numbering |
| 7 Move Down (One Level) with Subpoints | 14 Bullets and Numbering |

Figure 64: Bullets and Numbering toolbar

Hyphenating words

To turn automatic hyphenation of words on or off:

- 1) Press *F11* to open the Styles and Formatting window (Figure 65).
- 2) On the Paragraph Styles page of the Styles and Formatting window, right-click on **Default** in the list and select **Modify**.

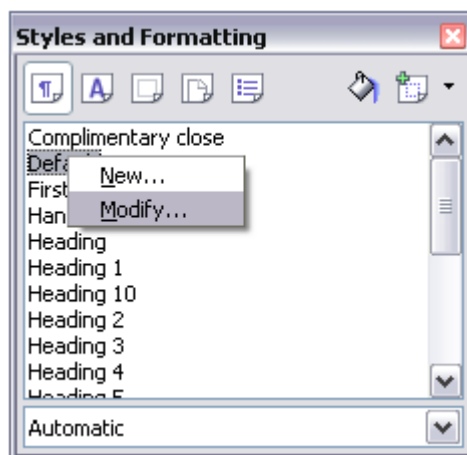


Figure 65: Modifying the Default style

- 3) On the Paragraph Style dialog, go to the *Text Flow* page (see Figure 66).
- 4) Under *Hyphenation*, select or deselect the **Automatically** checkbox. Click **OK** to save.

Note Turning on hyphenation for the Default paragraph style affects all other paragraph styles that are based on Default. You can individually change other styles so that hyphenation is not active; for example, you might not want headings to be hyphenated. Any styles that are not based on Default are not affected.

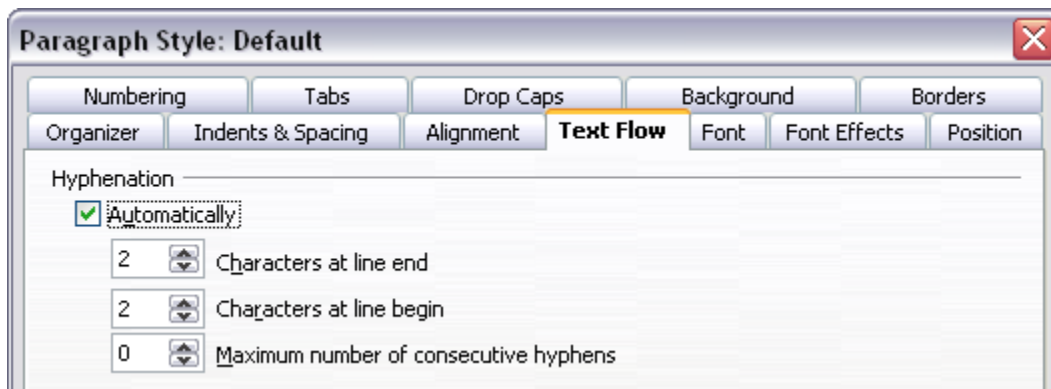


Figure 66: Turning on automatic hyphenation

You can also set hyphenation choices through **Tools > Options > Language Settings > Writing Aids**. In Options, near the bottom of the dialog, scroll down to the find the hyphenation settings (see Figure 67).

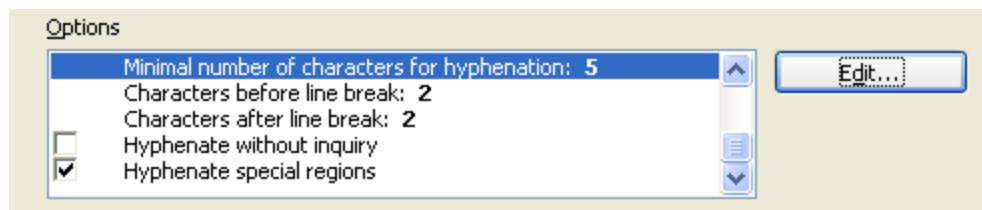


Figure 67: Setting hyphenation options


Notes Hyphenation options set on the Writing Aids dialog are effective only if hyphenation is turned on through paragraph styles.

Choices on the Writing Aids dialog for “characters before line break” and “characters after line break” override settings in paragraphs styles for “characters at line end” and “characters at line begin”. This is a bug.

To enter a conditional hyphen inside a word, press *Control+minus sign*. The word is hyphenated at this position when it is at the end of the line, even if automatic hyphenation for this paragraph is switched off.

To insert a non-breaking hyphen, press *Control+Shift+minus sign*.

Undoing and redoing changes

To undo the most recent change, press *Control+Z*, or click the Undo icon  on the Standard toolbar, or select **Edit > Undo** from the menu bar.

The Edit menu shows the latest change that can be undone, as shown in Figure 68.

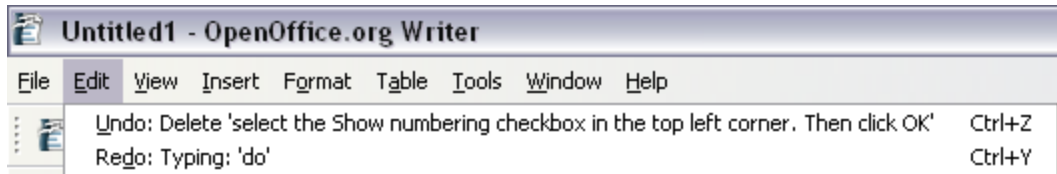


Figure 68: *Edit > Undo last action*

Click the small triangle to the right of the **Undo** icon to get a list of all the changes that can be undone (Figure 69). You can select multiple changes and undo them at the same time.

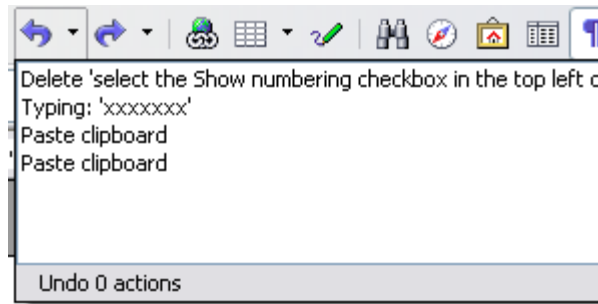



Figure 69: *List of actions that can be undone*

After changes have been undone, **Redo** becomes active. To redo a change, select **Edit > Redo**, or press *Control+Y* or click on the **Redo** icon . As with Undo, click on the triangle to the right of the arrow to get a list of the changes that can be reapplied.

To modify the number of changes OpenOffice.org remembers, select **Tools > Options > OpenOffice.org > Memory** and change **Undo number of steps**. Be aware that asking OOo to remember more changes consumes more computer memory.

Tracking changes to a document

You can use several methods to keep track of changes made to a document.

- 1) Make your changes to a copy of the document (stored in a different folder, or under a different name, or both), then use Writer to combine the two files and show the differences. Click **Edit > Compare Document**. This technique is particularly useful if you are the only person working on the document, as it avoids the increase in file size and complexity caused by the other methods.
- 2) Save versions that are stored as part of the original file. However, this method can cause problems with documents of non-trivial size or complexity, especially if you save a lot of versions. Avoid this method if you can.
- 3) Use Writer's change marks (often called "redlines" or "revision marks") to show where you have added or deleted material, or changed formatting. Later, you or another person can review and accept or reject each change.

Tip Not all changes are recorded. For example, changing a tab stop from align left to align right, and changes in formulas (equations) or linked graphics are not recorded.

Recording changes

See Chapter 2 (Setting up Writer) in the *Writer Guide* for instructions on setting up how changes will be displayed.

- 1) To begin tracking (recording) changes, click **Edit > Changes > Record**.

To show or hide the display of changes, click **Edit > Changes > Show**.

Tip Hover the mouse pointer over a marked change; you will see a Help Tip showing the type of change, the author, date, and time of day for the change. If Extended Tips are enabled, you will also see any comments recorded for this change.

- 2) To enter a comment on a marked change, place the cursor in the area of the change and then click **Edit > Changes > Comment**. (See Figure 70.) In addition to being displayed as an extended tip, the comment is also displayed in the list in the Accept or Reject Changes dialog.

You can move from one marked change to the next by using the arrow buttons. If no comment has been recorded for a change, the Text field is blank.

- 3) To stop recording changes, click **Edit > Changes > Record** again.

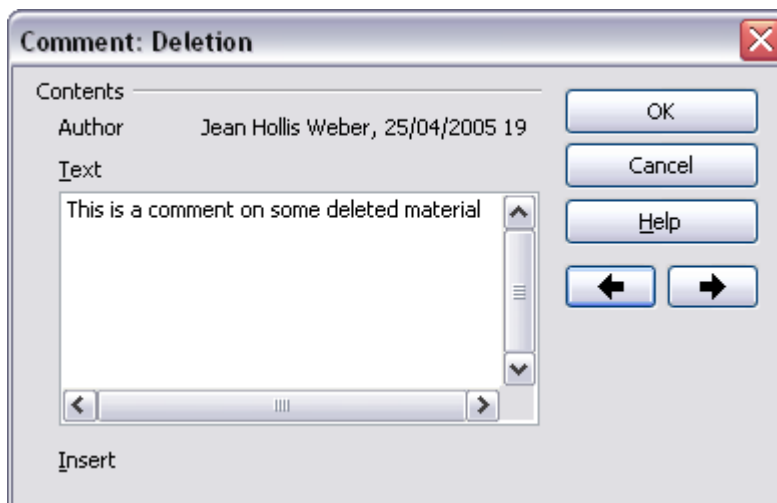


Figure 70: Inserting a comment during change recording

Inserting notes

To insert a note that is not associated with a recorded change:

- 1) Place the cursor at the text you want to comment on, then click **Insert > Note**.
- 2) On the Insert Note dialog (Figure 71), type your note. Click **Author** to insert your initials and the date and time.

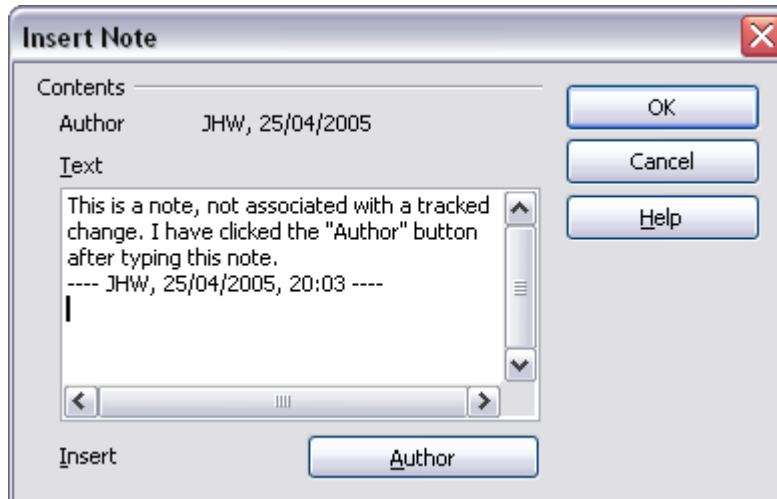


Figure 71: Inserting a note

To view a note, move the mouse pointer over the note marker (displayed as a small yellow rectangle). Writer displays the note in a Tip above the text. You can also double-click on the note to see it inside the Edit Note dialog. If you have trouble viewing or selecting notes this way, you can use the Navigator instead: expand the list of notes, select the one you want, right-click on it, and select **Edit** to display the Edit Note dialog.

The Edit Note dialog looks much like the Insert Note dialog, with the addition of forward and back arrow buttons if the document contains more than one note.

Tip You can change the color of the note marker using the **Tools > Options > OpenOffice.org > Appearance** dialog.

Accepting or rejecting changes and comments

- 1) Click **Edit > Changes > Accept or Reject**. The Accept or Reject Changes dialog (Figure 72) opens.
- 2) When you select a change in the dialog, the actual text is highlighted in the document, so you can see what the editor changed.
- 3) Click **Accept** or **Reject** to accept or reject the selected change. You can also click **Accept All** or **Reject All** if you do not want to review the changes individually.

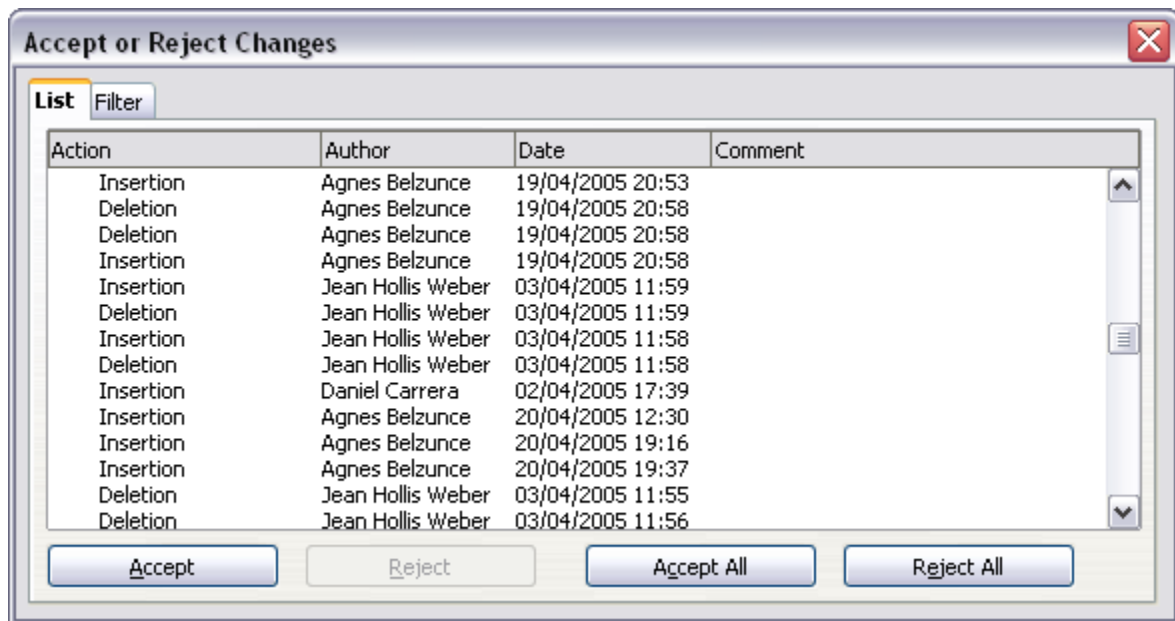


Figure 72: The List tab of the Accept or Reject Changes dialog

Changes that have not yet been accepted or rejected are displayed in the list. Accepted changes are removed from the list and appear in the text without any marking.

To show only the changes of certain people, or only the changes made on specific days, or various other restrictions, use the Filter tab on the Accept or Reject Changes dialog. After specifying the filter criteria, return to the List tab to see those changes that meet your criteria.

Formatting pages

Writer provides several ways for you to control page layouts:

- Page styles
- Columns
- Frames
- Tables
- Sections

For more information, see Chapter 4 (Formatting Pages) in the *Writer Guide*.

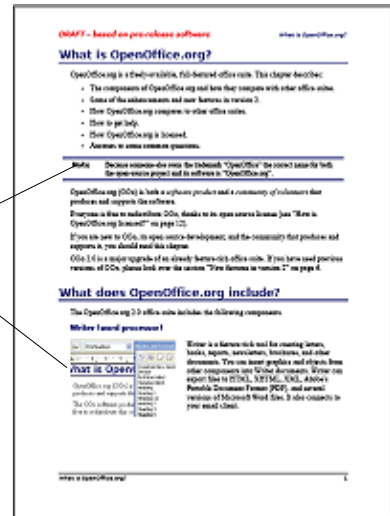
Tip Page layout is usually easier if you show text, object, table, and section boundaries in **Tools > Options > OpenOffice.org > Appearance**, and paragraph ends, tabs, breaks, and other items in **Tools > Options > OpenOffice.org Writer > Formatting Aids**.

Which layout method to choose?

The best layout method varies depending on what the final document should look like and what sort of information will be in the document. Here are some examples.

For a book similar to this user guide, with one column of text, some figures without text beside them, and some other figures with descriptive text, use page styles for basic layout, and tables to place figures beside descriptive text when necessary.

Items formatted as a table



For an index or other document with two columns of text, where the text continues from the left-hand column to the right-hand column and then to the next page, all in sequence (also known as “snaking columns” of text), use page styles (with two columns). If the title of the document (on the first page) is full-page width, put it in a single-column section.

Title is in a single-column section

Basic layout is in two columns



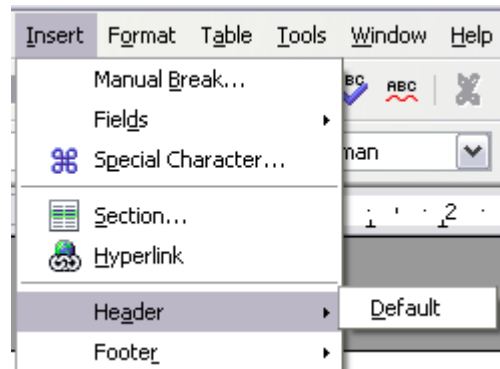


Figure 73: Inserting headers and footers

Other information such as document titles and chapter titles is often put into the header or footer. These items are best added as fields. That way, if something changes, the headers and footers are updated automatically. Here is one common example.

To insert the document title into the header:

- 1) Click **File > Properties > Description** and enter a title for your document.
- 2) Add a header (**Insert > Header > Default**).
- 3) Place the cursor in the header part of the page.
- 4) Select **Insert > Fields > Title**. The title should appear on a gray background (which does not show when printed and can be turned off).
- 5) To change the title for the whole document, go back to **File > Properties > Description**.

Fields are covered in detail in Chapter 14 (Working with Fields) in the *Writer Guide*.

For more about headers and footers, see Chapter 4 (Formatting Pages) and Chapter 6 (Introduction to Styles) in the *Writer Guide*.

Numbering pages

To automatically number pages:

- 1) Insert a header or footer, as described in “Creating headers and footers” on page 94.
- 2) Place the cursor in the header or footer where you want the page number to appear and click **Insert > Fields > Page Number**.

Including the total number of pages

To include the total number of pages (as in “page 1 of 12”):

- 1) Type the word “page” and a space, then insert the page number as above
- 2) Press the spacebar once, type the word “of” and a space, then click **Insert > Fields > Page Count**.

Note The Page Count field inserts the total number of pages in the document, as shown on the Statistics page of the document's Properties window (**File > Properties**). If you restart page numbering anywhere in the document, then the total page count may not be what you want. See Chapter 4 (Formatting Pages) in the *Writer Guide* for more information.

Restarting page numbering

Often you will want to restart the page numbering at 1, for example on the page following a title page or a table of contents. In addition, many documents have the “front matter” (such as the table of contents) numbered with Roman numerals and the main body of the document numbered in Arabic numerals, starting with 1.

You can restart page numbering in two ways.

Method 1 (recommended):

- 1) Place the cursor in the first paragraph of the new page.
- 2) Click **Format > Paragraph**.
- 3) On the Text Flow page of the Paragraph dialog (Figure 66 on page 88), in the **Breaks** section, select **Insert** and then **With Page Style** and specify the page style to use.
- 4) Specify the page number to start from, and then click **OK**.

Tip Method 1 is also useful for numbering the first page of a document with a page number greater than 1. For example, you may be writing a book, with each chapter in a separate file. Chapter 1 may start with page 1, but Chapter 2 could begin with page 25 and Chapter 3 with page 51.

Method 2:

- 1) **Insert > Manual break**.
- 2) By default, **Page break** is selected on the Insert Break dialog (Figure 74).

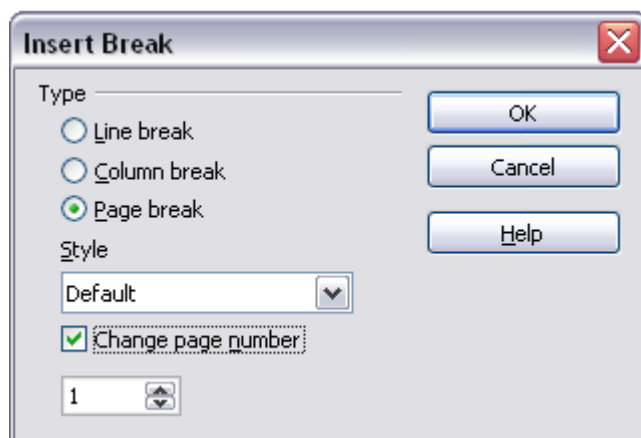


Figure 74: Restarting page numbering after a manual page break

- 3) Choose the required page **Style**.
- 4) Select **Change page number**.
- 5) Specify the page number to start from, and then click **OK**.

Changing page margins

You can change page margins in two ways:

- Using the page rulers—quick and easy, but does not have fine control.
- Using the Page Style dialog—can specify margins to two decimal places.

Note If you change the margins using the rulers, the new margins affect the page style and will be shown in the Page Style dialog the next time you open it.

To change margins using the rulers:

- 1) The gray sections of the rulers are the margins (see Figure 75). Put the mouse cursor over the line between the gray and white sections. The pointer turns into a double-headed arrow.
- 2) Hold down the left mouse button and drag the mouse to move the margin.

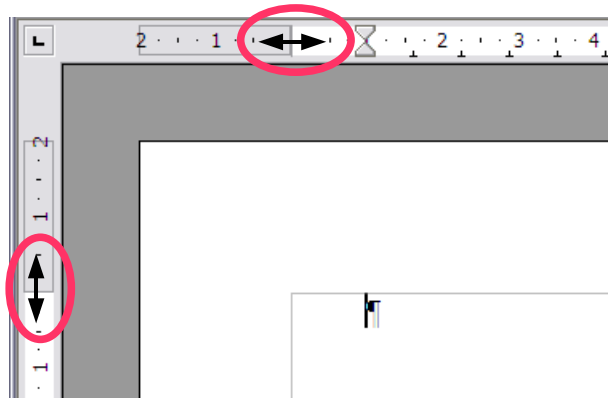


Figure 75: Moving the margins

Tip The small arrows on the ruler are used for indenting paragraphs. They are often in the same place as the page margins, so you need to be careful to move the margin marker, not the arrows. Place the mouse pointer between the arrows and, when the pointer turns into a double-headed arrow, you can move the margin (the indent arrows will move with it).

To change margins using the Page Style dialog:

- 1) Right-click anywhere on the page and select **Page** from the pop-up menu.
- 2) On the **Page** page of the dialog, type the required distances in the Margins boxes.



Chapter 7

Getting Started with Calc

OpenOffice.org's Spreadsheet

What is Calc?

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

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

Spreadsheets, sheets, and cells

Calc works with elements called *spreadsheets*. Spreadsheets consist of a number of individual *sheets*, each containing a block of cells arranged in rows and columns.

These cells hold the individual elements—text, numbers, formulas etc.—which make up the data to be displayed and manipulated.

Each spreadsheet can have many sheets and each sheet can have many individual cells. Each sheet in Calc can have a maximum of 65,536 rows and a maximum of 245 columns (A through IV). This gives 16,056,320 individual cells per sheet.

Parts of the main Calc window

When Calc is started, the main window looks similar to .

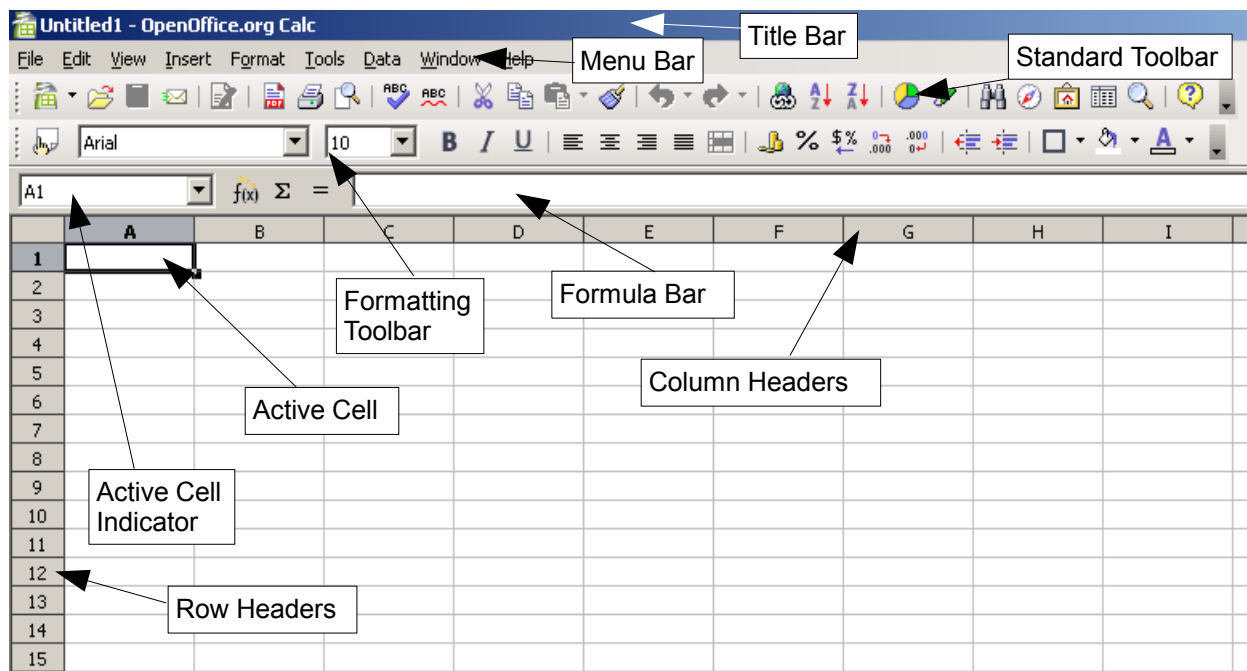


Figure 76: Parts of the Calc window

Formula bar

On the left of the Formula bar (see Figure 77) is a small text box, called the **Name** box, with a letter and number combination in it, such as *D7*. This is the column letter and row number, called the cell reference, of the current cell.

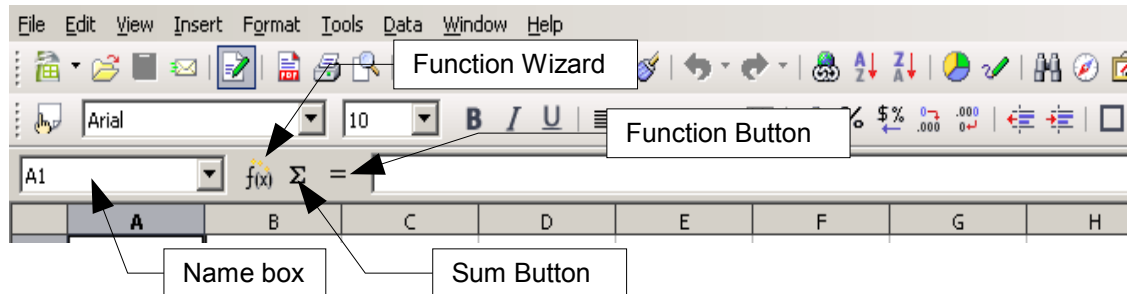


Figure 77. Formula Bar

To the right of the Name box are the Function Wizard, Sum, and Function buttons.

Clicking the **Function Wizard** button opens a dialog from which you can search through a list of available functions. This can be very useful, because it also shows how the functions are formatted.

The **Sum** button inserts a formula into the current cell that totals the numbers in the cells above, or to the left if there are no numbers above, the current cell.

The **Function** button inserts an equals sign into the selected cell and the Input Line, thereby setting the cell ready to accept a formula.

When you enter data into a cell, the Sum and Equals buttons change to **Cancel** and **Accept** buttons  .

The contents of the current cell (data, formula, or function) are displayed in the *Input Line*, the remainder of the Formula bar. You can edit the cell contents of the current cell in the Input Line, or you can do that in the current cell. To edit inside the Input Line area, left-click the appropriate part of the Input Line area, then type your changes. To edit within the current cell, double-click the cell.

Individual cells

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

At the top of the columns and at the left-hand end of the rows are a series of gray boxes containing letters and numbers. These are the column and row headers. The columns start at A and go on to the right and the rows start at 1 and go on down.

Sheet tabs

At the bottom of the grid of cells are the sheet tabs (see Figure 78). These tabs enable access to each individual sheet, with the visible, or active, sheet having a white tab.

Clicking on another sheet tab displays that sheet and its tab turns white. You can also select multiple sheet tabs at once by holding down the *Control* key while you click the names.




Figure 78. Sheet tabs

File management


Starting new spreadsheets

A new spreadsheet can be opened regardless of which other component of OOO you are using at the time. For example, a new spreadsheet can be opened from Writer or Draw.

- From the menu bar—Click **File** and then select **New > Spreadsheet**.
- From the toolbar—Use the **New Document**  button on the Standard toolbar. Click the drop-down arrow for a choice of what type of document to open (text document, spreadsheet, and so on). Click the button itself to create a new document of the type that is currently open (if a spreadsheet is open, a new spreadsheet document will be created).
- From the keyboard—If you already have a spreadsheet open, you can press *Control+N* to open a new spreadsheet.

Opening existing spreadsheets

A spreadsheet can also be opened no matter what component of OOO you are in.


- From the menu bar—Click **File** and then select **Open**.
- From the toolbar—Click the **Open** button  on the Standard toolbar.
- From the keyboard—Use the key combination *Control+O*.

Each of these options displays the Open dialog, where you can locate the spreadsheet that you want to open.

Saving spreadsheets

Spreadsheets can be saved in three ways.

- From the menu bar—Click **File** and then select **Save**.

- From the toolbar—Click on the **Save** button  on the Function bar.
- From the keyboard—Use the key combination *Control+S*.

If the spreadsheet has not been saved previously, then each of these actions will open the Save As dialog. Here you can specify the spreadsheet name and the location in which to save the spreadsheet.

Navigating within spreadsheets

Going to a particular cell


Using the mouse

Place the mouse pointer over the cell and left-click.

Using a cell reference

Click on the little inverted black triangle just to the right of the Name box (Figure 77). The existing cell reference will be highlighted. Type the cell reference of the cell you want to go to and press *Enter*. Or just click into the Name box, backspace over the existing cell reference and type in the cell reference you want.

Using the Navigator

Click on the Navigator button  in the Standard toolbar (or press *F5*) to display the Navigator. Type the cell reference into the top two fields, labeled Column and Row, and press *Enter*. In Figure 79 the Navigator would select cell F5.

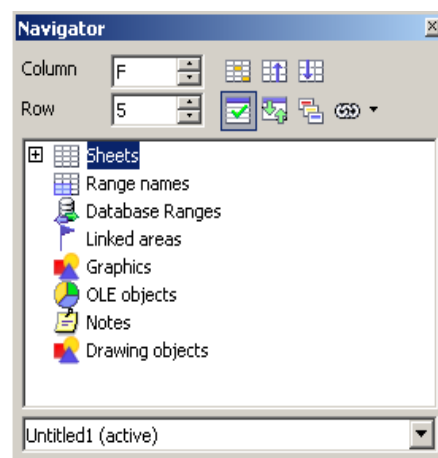


Figure 79. Calc Navigator

Moving from cell to cell

In the spreadsheet, one cell, or a group of cells, normally has a darker black border. This black border indicates where the *focus* is (see Figure 80).

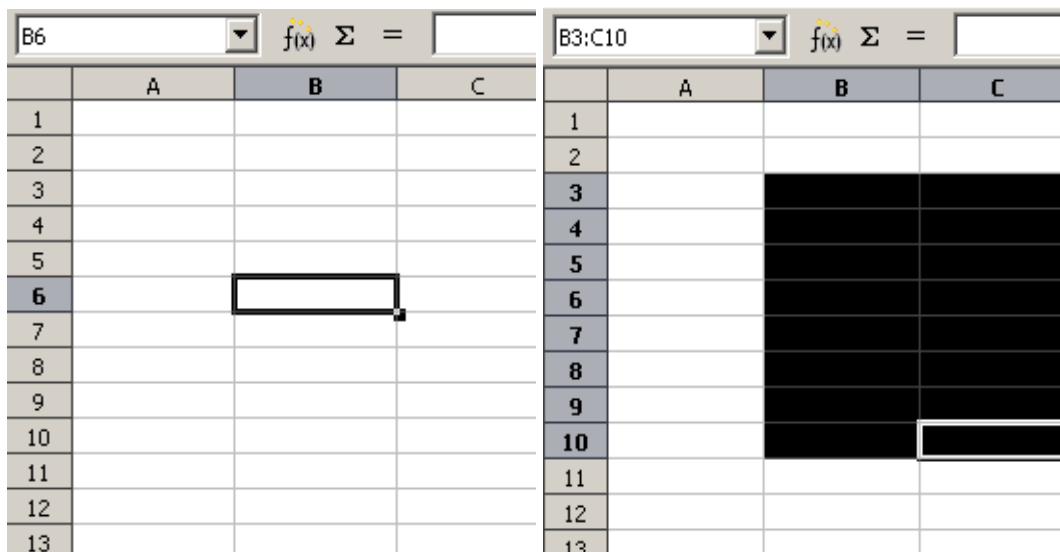


Figure 80. (Left) One selected cell and (right) a group of selected cells

Using the Tab and Enter keys

- Pressing *Enter* or *Shift+Enter* moves the focus down or up, respectively.
- Pressing *Tab* or *Shift+Tab* moves the focus right or left, respectively.

Using the cursor keys

Pressing the cursor keys on the keyboard moves the focus in the direction of the arrows.

Using Home, End, Page Up and Page Down

- *Home* moves the focus to the start of a row.
- *End* moves the focus to the column furthest to the right that contains data.
- *Page Down* moves the display down one complete screen and *Page Up* moves the display up one complete screen.
- Combinations of *Control* and *Alt* with *Home*, *End*, *Page Down*, *Page Up*, and the cursor keys move the focus of the current cell in other ways.

Tip Holding down *Alt+Cursor key* resizes a cell.

Moving from sheet to sheet

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

Using the keyboard

Pressing *Control+PgDn* moves one sheet to the right and pressing *Control+PgUp* moves one sheet to the left.

Using the mouse

Clicking one of the Sheet Tabs (see Figure 78) at the bottom of the spreadsheet selects that sheet.

If you have a lot of sheets, then some of the sheet tabs may be hidden behind the horizontal scroll bar at the bottom of the screen. If this is the case, then the four buttons at the left of the sheet tabs can move the tabs into view. Figure 81 shows how to do this.

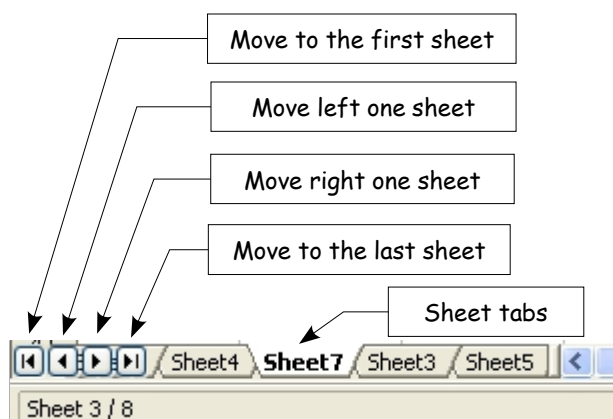


Figure 81. Sheet tab arrows

Notice that the sheets here are not numbered in order. Sheet numbering is arbitrary – you can name a sheet as you wish.

Note The sheet tab arrows that appear in Figure 81 only appear if you have some sheet tabs that can not be seen. Otherwise they will appear faded as in Figure 78.

Selecting items in a sheet or spreadsheet

Selecting cells

Cells can be selected in a variety of combinations and quantities.

Single cell

Left-click in the cell. The result will look like the left side of Figure 80. You can verify your selection by looking in the Name box.

Range of contiguous cells

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

To select a range of cells by dragging the mouse:

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

To select a range of cells without dragging the mouse:

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

To select a range of cells without using the mouse:

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

The result of any of these methods will look like the right side of Figure 80.

Tip You can also directly select a range of cells using the Name box. Click into the Name box as described in “Using a cell reference” on page 103. To select a range of cells, enter the cell reference for the upper left hand cell, followed by a colon (:), and then the lower right hand cell reference. For example, to select the range that would go from A3 to C6, you would enter *A3:C6*.

Range of non-contiguous cells

- 1) Select the cell or range of cells using one of the methods above.
- 2) Move the mouse pointer to the start of the next range or single cell.
- 3) Hold down the *Control* key and click or click-and-drag to select a range.
- 4) Repeat as necessary.

Selecting columns and rows

Entire columns and rows can be selected very quickly in OOo.

Single column or row

To select a single column, click on the column identifier letter (see Figure 76).

To select a single row, click on the row identifier number (see Figure 76).

Multiple columns or rows

To select multiple columns or rows that are contiguous:

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

To select multiple columns or rows that are not contiguous:

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

Entire sheet

To select the entire sheet, click on the small box between the A column header and the 1 row header. You can also use the keyboard to select the entire sheet by pressing *Control+A*.

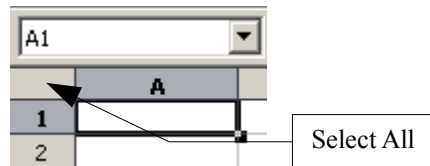


Figure 82. Select All box

Working with columns and rows

Inserting columns and rows

Columns and rows can be inserted in several different way and quantities.

Single column or row

A single column or row can be added using the **Insert** menu:

- 1) Select the column or rows where you want the new column or row inserted.
- 2) Select either **Insert > Column** or **Insert > Row**.

Note When you insert a single new column, it is inserted to the left of the highlighted column. When you insert a single new row, it is inserted above the highlighted row.

A single column or row can also be added using the mouse:

- 1) Select the column or row where you want the new column or row inserted.
- 2) Right-click the header.
- 3) Select **Insert Row** or **Insert Column**.

Multiple columns or rows

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

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

Deleting columns and rows

Columns and rows can be deleted individually or in groups.

Single column or row

A single column or row can only be deleted by using the mouse:

- 1) Select the column or row to be deleted.
- 2) Right-click on the column or row header.
- 3) Select **Delete Column** or **Delete Row** from the pop-up menu.

Multiple columns or rows

Multiple columns or rows can be deleted at once rather than deleting them one at a time.

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

Working with sheets

Like any other Calc element, sheets can be inserted, deleted and renamed.

Inserting new sheets

There are many ways to insert a new sheet. The first step for all of the methods is to select the sheets that the new sheet will be inserted next to. Then any of the following options can be used.

- Click on the **Insert** menu and select **Sheet**, or
- Right-click on its tab and select **Insert Sheet**, or
- Click into an empty space at the end of the line of sheet tabs (see Figure 83).

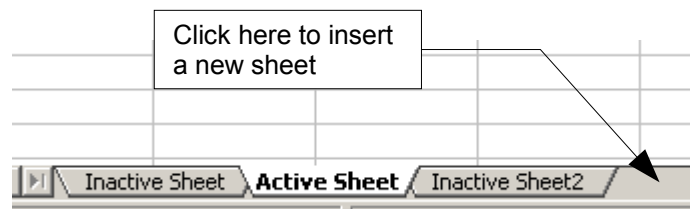


Figure 83. Inserting a new sheet

Each method will open the Insert Sheet dialog (Figure 84). Here you can select whether the new sheet is to go before or after the selected sheet and how many sheets you want to insert. If you are inserting only one sheet, there is the opportunity to give the sheet a name.

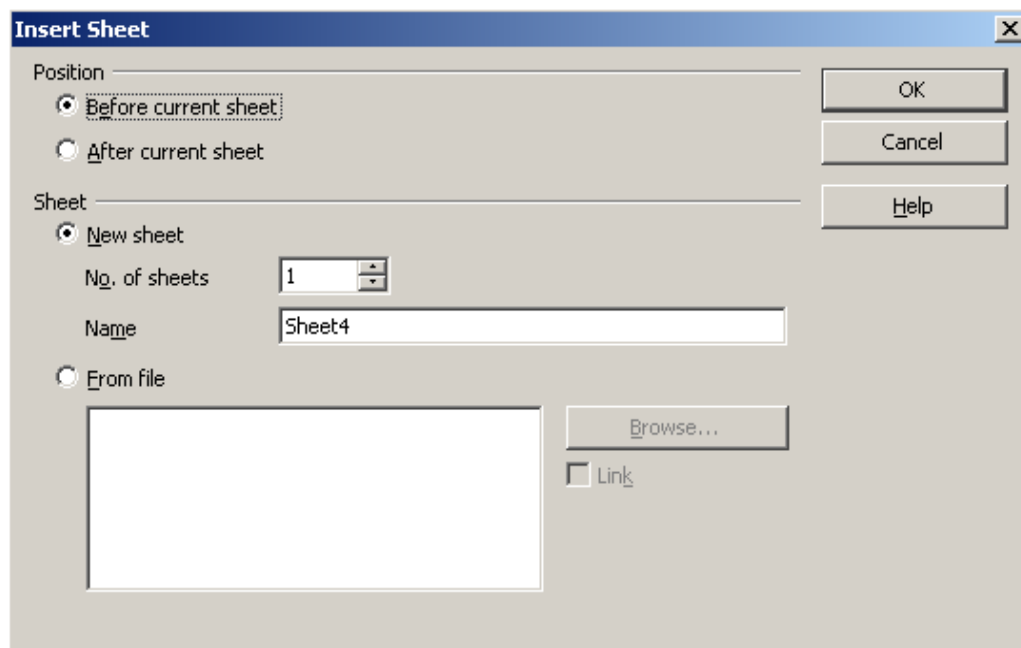


Figure 84. Insert Sheet dialog

Deleting sheets

Sheets can be deleted individually or in groups.

Single sheet

Right-click on the tab of the sheet you want to delete and select **Delete** from the pop-up menu.

Multiple sheets

To delete multiple sheets, select them as described earlier, right-click on one of the tabs and select **Delete** from the pop-up menu.

Renaming sheets

The default name for the a new sheet is “Sheet X ”, where X is a number. While this works for a small spreadsheet with only a few sheets, it becomes awkward when there are many sheets.

To give a sheet a more meaningful name, you can:

- Enter the name in the name box when you create the sheet, or
- Right-click on a sheet tab and select **Rename Sheet** from the pop-up menu and replace the existing name with a better one.

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

Viewing Calc

Freezing rows and columns

Freezing locks a number of rows at the top of a sheet or a number of columns on the left of a sheet or both. Then when scrolling around within the sheet, any frozen columns and rows remain in view.

Figure 85 shows some frozen rows and columns. The heavier horizontal line between rows 3 and 14 and the heavier vertical line between columns C and H denote the frozen areas. Rows 4 through 13 and columns D through G have been scrolled off the page. Because the first three rows and columns are frozen into place, they remained.

	A	B	C	H	I	J	K	L	M	N	O	P	Q	R	S	T
1				Safety Poster	Safety Contract	Safety Quiz 2	Unit Conv. Pop Qu	Element Quiz 1	Element Quiz 2	p. 36 15 & 16	Article Quiz	Lab #1	Chp. 1.1 #1-7	p. 35 #'s	Chp. 1 Test	Penny Density
2		Total	Date	10-02	10-03	10-04	10-05	10-06	10-07	10-08	10-09	10-10	10-11	10-12	10-13	10-14
3	Average	267.5	Possible	28.0	1.0	3.0	12.0	18.0	28.0	4.0	6.0	6.0	3.5	4.0	78.0	11.0
14	78.6%	200.0	Smith, John	28.00	1.00	X	0.00	8.00	26.00	0.00	6.00	0.00	3.50	4.00	55.50	8.00
15	67.9%	181.5	Klein, Mike	28.00	1.00	1.00	11.50	8.00	6.00	0.00	5.00	6.00	3.50	3.50	47.50	10.00
16	72.7%	186.5	Johnson, Tom	27.00	1.00	3.00	0.00	13.00	6.00	0.00	6.00	3.50	3.00	47.50	9.00	10.00
17	82.6%	213.0	Doe, John	27.00	1.00	1.00	2.00	17.00	17.00	4.00	6.00	6.00	3.50	3.50	54.00	9.00
18	96.4%	258.0	Doe, Jane	28.00	1.00	3.00	9.00	16.00	28.00	4.00	6.00	6.00	3.50	4.00	79.50	10.00
19	67.3%	172.0	Kupfer, Peter	26.00	1.00	3.00	X	16.00	20.00	0.00	6.00	6.00	0.00	3.50	41.00	6.50
20	83.9%	224.5	Newton, Issac	28.00	1.00	3.00	6.00	15.00	23.00	4.00	6.00	6.00	3.50	3.50	57.50	9.00
21	80.6%	207.5	Lunak, Robert	26.00	0.00	2.00	5.00	15.00	17.00	4.00	6.00	6.00	3.50	0.00	62.50	9.00
22	78.1%	209.0	Matteson, Brittany	28.00	0.00	3.00	3.00	17.00	22.00	4.00	6.00	6.00	3.50	3.00	47.50	9.00
23	79.4%	212.5	Murphy, Kathleen	26.00	1.00	3.00	6.00	16.00	11.00	4.00	6.00	6.00	3.50	4.00	53.50	9.00
24	81.3%	215.0	Nolen, Emily	28.00	1.00	X	2.00	17.00	19.00	4.00	6.00	6.00	0.00	3.50	64.00	10.00

Figure 85. Frozen rows and columns

You can set the freeze point at one row, one column, or both a row and a column as in Figure 85.

Freezing single rows or columns

- 1) Click on the header for the row below where you want the freeze or for the column to the right of where you want the freeze.
- 2) Select **Window > Freeze**.

A dark line will appear to indicate where the freeze is put.

Freezing a row and a column

- 1) Click into the cell that is immediately below the row you want frozen and immediately to the right of the column you want frozen.
- 2) Select **Window > Freeze**.

You will see two lines appear on the screen, a horizontal line above this cell and a vertical line to the left of this cell. Now as you scroll around the screen everything above and to the left of these lines will remain in view.

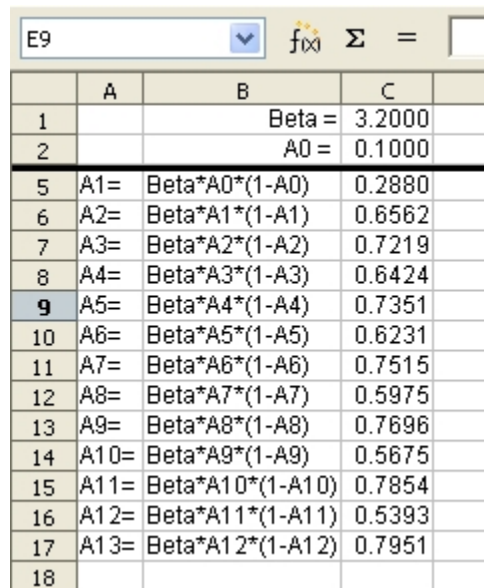
Unfreezing

To unfreeze rows or columns, select **Window > Freeze**. The checkmark by **Freeze** will vanish.

Splitting the window

Another way to change the view is by splitting the window—otherwise known as splitting the screen. The screen can be split either horizontally or vertically or both. This allows you to have up to four portions of the sheet in view at any one time.

Why would you want to do this? Imagine you have a large sheet and one of the cells has a number in it which is used by three formulas in other cells. Using the split screen technique, you can position the cell containing the number in one section and each of the cells with formulas in the other sections. Then you can change the number in the cell and watch how it affects each of the formulas.



	A	B	C
1		Beta =	3.2000
2		A0 =	0.1000
5	A1 =	Beta*A0*(1-A0)	0.2880
6	A2 =	Beta*A1*(1-A1)	0.6562
7	A3 =	Beta*A2*(1-A2)	0.7219
8	A4 =	Beta*A3*(1-A3)	0.6424
9	A5 =	Beta*A4*(1-A4)	0.7351
10	A6 =	Beta*A5*(1-A5)	0.6231
11	A7 =	Beta*A6*(1-A6)	0.7515
12	A8 =	Beta*A7*(1-A7)	0.5975
13	A9 =	Beta*A8*(1-A8)	0.7696
14	A10 =	Beta*A9*(1-A9)	0.5675
15	A11 =	Beta*A10*(1-A10)	0.7854
16	A12 =	Beta*A11*(1-A11)	0.5393
17	A13 =	Beta*A12*(1-A12)	0.7951
18			

Figure 86. Split screen example

Splitting the screen horizontally

To split the screen horizontally:

- 1) Move the mouse pointer into the vertical scroll bar, on the right-hand side of the screen, and place it over the small button at the top with the black triangle.

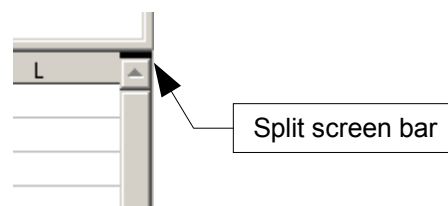


Figure 87. Split screen bar on vertical scroll bar

- 2) Immediately above this button you will see a thick black line (Figure 87). Move the mouse pointer over this line and it will turn into a line with two arrows.

- 3) Hold down the left mouse button and a grey line will appear, running across the page. Drag the mouse downwards and this line will follow.
- 4) Release the mouse button and the screen will split into two views, each with its own vertical scroll bar.

Notice in Figure 86, the ‘Beta’ and the ‘A0’ values are in the upper part of the window and other calculations are in the lower part. You may scroll the upper and lower parts independently. Thus you can make changes to the Beta and A0 values and watch their affects on the calculations in the lower half of the window.

You can also split the window vertically as described below—with the same results, being able to scroll both parts of the window independently. With both horizontal and vertical splits, you have four independent windows to scroll.

Splitting the screen vertically

To split the screen vertically:

- 1) Move the mouse pointer into the horizontal scroll bar at the bottom of the screen and place it over the small button on the right with the black triangle.

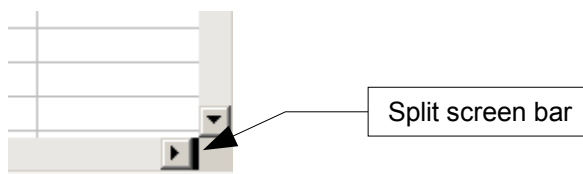


Figure 88: Split bar on horizontal scroll bar

- 2) Immediately to the right of this button you will see a thick black line (Figure 88). Move the mouse pointer over this line and it will turn into a line with two arrows.
- 3) Hold down the left mouse button and a grey line will appear, running up the page. Drag the mouse to the left and this line will follow.
- 4) Release the mouse button and the screen will be split into two views, each with its own horizontal scroll bar.

Note Splitting the screen horizontally and vertically at the same time will give four views, each with its own vertical and horizontal scroll bars.

Removing split views

- Double-click on each split line, or
- Click on and drag the split lines back to their places at the ends of the scroll bars, or
- Select **Window > Split**. This will remove all split lines at the same time.

Tip You can also split the screen using a menu command. Click in a cell that is immediately below and immediately to the right of where you wish the screen to be split, and choose **Window > Split**.

Entering data into a sheet

Entering numbers

Select the cell and type in the number using either the top row of the keyboard or the numeric keypad.

To enter a negative number, type a minus (–) sign in front of it or enclose it in brackets (). By default numbers are right-aligned and negative numbers have a leading minus symbol.

Entering text

Select 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. To preserve the leading zero, in the case of telephone area codes for example, precede the number with an apostrophe, like this: *'01481*. However, the data is now regarded as text by Calc. Formulas and functions will treat the entry like any other text entry, which typically results in it being a zero in a formula, and being ignored in a function.

Note When entering an apostrophe to allow a leading zero to be displayed, the apostrophe will not be visible in the cell after the *Enter* key is pressed only if the apostrophe is a plain apostrophe (not a “smart quote” apostrophe). The type of apostrophe is selected by choosing **Tools > Autocorrect > Custom Quotes**. The selection of the apostrophe type will affect Calc and Writer. If “smart quotes” are selected for apostrophes, the apostrophe will remain visible in the cell after pressing *Enter*.

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

Entering dates and times

Select the cell and type the date or time. You can separate the date elements with a slant (/) 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.

Printing

Calc offers a powerful and highly configurable printing system. Many different details can be selected to print or not to print. The order the sheets will print in can be specified, as well as their size. Particular rows or columns can be specified to print on all sheets and the print range can be specified.

Printing a spreadsheet

To print a spreadsheet either to a printer or a file, choose **File > Print**. The Print dialog (Figure 89) allows printer settings to be changed. What to print can be set quickly here: the whole document, specific sheets or a group of selected cells. The number of copies, and whether to collate the copies, are also set in this dialog. Choose **OK** to start printing.

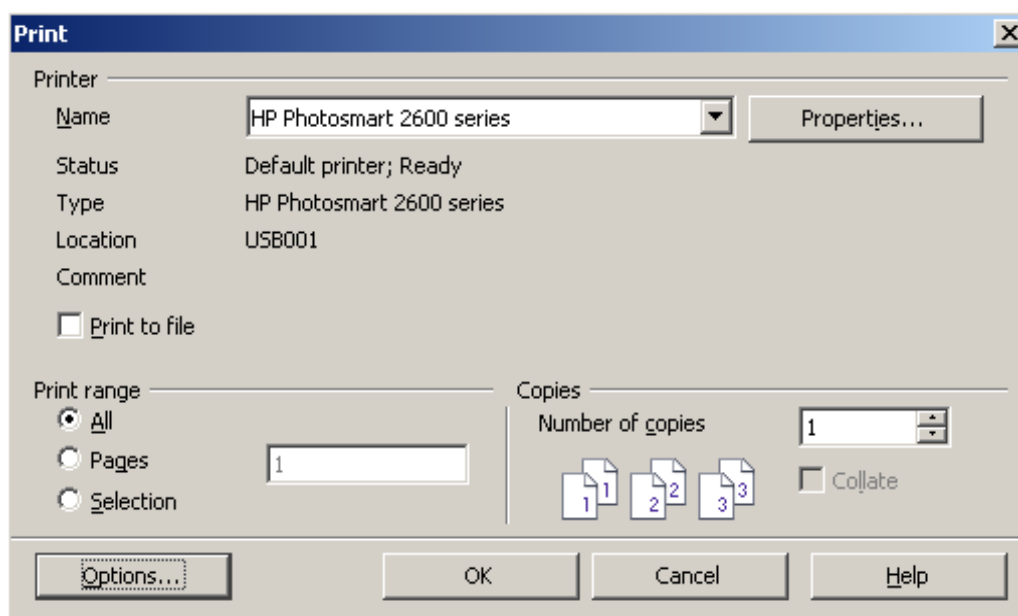


Figure 89. The Print dialog

Print options

Printer options can be set for the current document only or for all spreadsheets. To select for the current document, on the Print dialog, click the **Options** button in the bottom left. To set print options permanently, go to **Tools > Options > OpenOffice.org Calc > Print**. The dialog boxes for both are very similar. See Figure 90.

Selecting sheets to print

One or more sheets can be selected for printing. This can be useful if you have a large spreadsheet with multiple sheets and only want a certain sheet to print. An example would be an accountant recording costs over time where there was one sheet for each month. If only the November sheet were to be printed, this is the procedure to follow.

- 1) Select the November sheet. (If more than one sheet is to be printed, hold down the *Control* key as you click on each sheet tab.)
- 2) Choose **File > Print** and select **Options**.

Note The *Options* button is different from the *Properties* button. *Properties* deals with the settings of the printer, whereas *Options* deals with OOO's settings.

- 3) Check the **Print only selected sheets** checkbox. Click **OK**.

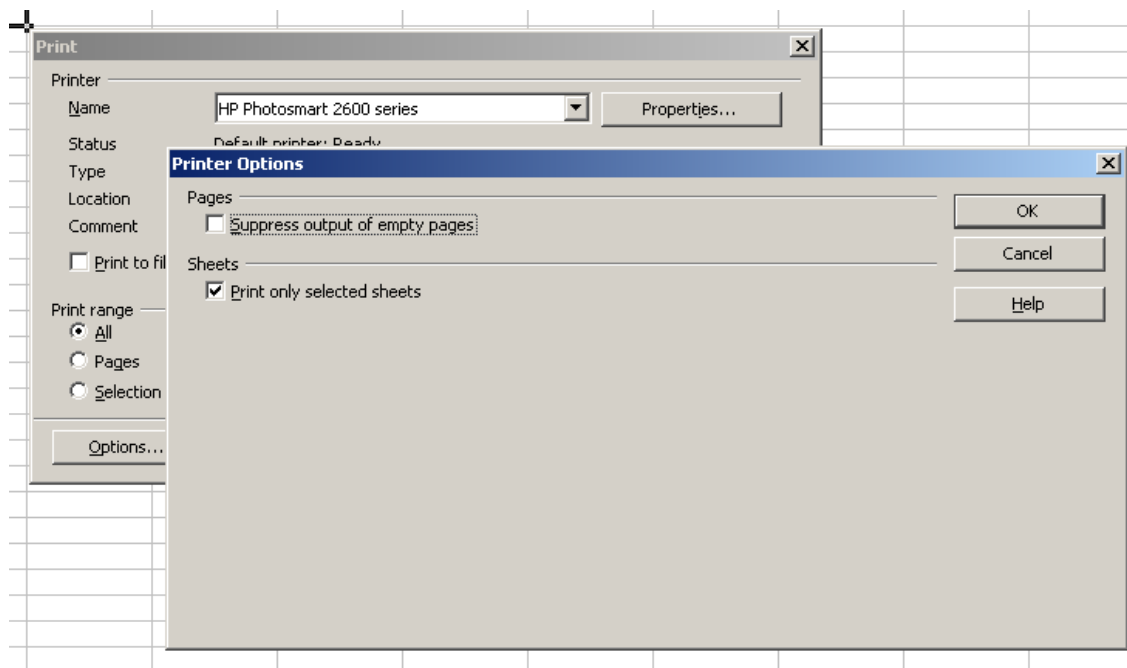


Figure 90. Printer Options dialog

Adjusting the print range

Printing rows or columns on every page

If a sheet will be printed on multiple pages, certain rows or columns can be set up to repeat on each printed page.

As an example, if the top two rows of the sheet as well as column A need to be printed on all pages, do the following:

- 1) Choose **Format > Print Ranges > Edit Print Range**.
- 2) The *Edit Print Ranges* dialog (Figure 82) appears. Click on **- none -** to the left of the **Rows to repeat** area, and change it to **- user defined -**.
- 3) In the text entry box in the center, type in the rows to repeat. For example, to repeat rows one and two, type **\$1:\$2**. (Or alternatively, click in cell A1 and drag to cell A2.)
- 4) Columns can also repeat; click on **- none -** to the left of the **Columns to repeat** area, and change it to **- user defined -**.
- 5) In the text entry box in the center, type in the columns to repeat. For example, to repeat column A, type **\$A**. (Or alternatively, click in cell A1.)
- 6) Click **OK**.

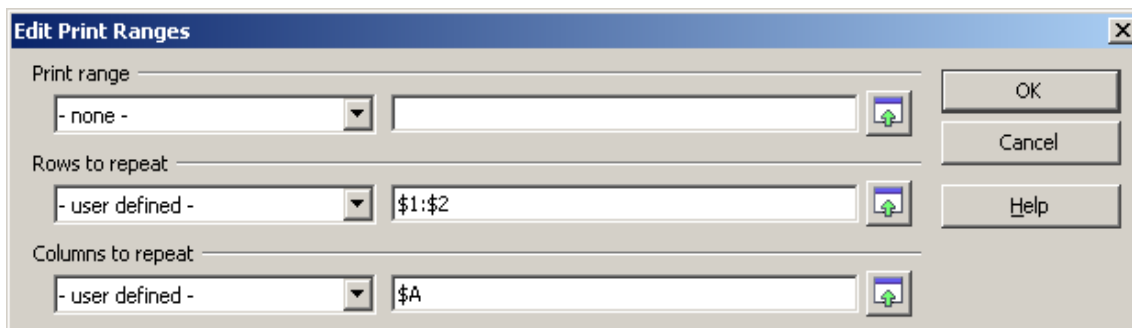


Figure 91. *Edit Print Ranges* dialog

Note The entire range of the rows to be repeated does not need to be selected. Just selecting one cell in each row will work.

Defining a print range

By default, if no print range has been defined, the entire contents of the worksheet will be printed. Optionally, a print range can be defined. Use this option to modify or set a defined print range. This could be useful if, in a large spreadsheet, only a specific area of data needs to be printed.

To define a print range:

- 1) Highlight the range of cells that comprise the print range.
- 2) Choose **Format > Print Ranges > Define Print Range**.

The page break lines will display on screen.

Note You can check the print range by using **File > Page Preview**. OOo will only display the cells in the print range.

Adding to the print range

After defining a print range, you can add more cells to it. This allows you to print multiple, non-contiguous areas of the same sheet, while not printing the whole sheet. Once you have defined a print range:

- 1) Highlight the range of cells that should be added to the print range.
- 2) Choose **Format > Print Ranges > Add Print Range**.

This will add the extra cells to the print range.

The page break lines will no longer show up on the screen.

Note The additional print range will print as a separate page, even if both ranges are on the same sheet.

Removing a print range

It may become necessary to remove a defined print range, for example if the whole sheet needs to be printed at a later time.

To remove the print range, choose **Format > Print Ranges > Clear Print Range**.

This will remove all defined print ranges on the sheet.

After the print range is removed, the default page break lines will appear on the screen.



Chapter 8
Getting Started with Draw
OpenOffice.org's Vector Drawing Component

What is Draw?

Draw is a vector graphics drawing program. It offers a series of powerful tools that enable you to quickly create all sorts of graphics. Vector graphics store and display an image as vectors (two points and a line) rather than a collection of pixels (dots on the screen). Vector graphics allow for easier storage and scaling of the image.

Draw is perfectly integrated into the OpenOffice.org suite, and this makes exchanging graphics with all components of the suite very easy. For example, if you create an image in Draw, reusing it in a Writer document is as simple as copying and pasting. You can also work with drawings directly from within Writer and Impress, using a subset of the functions and tools from Draw.

Draw's functionality is very extensive and complete. Although it was not designed to rival high-end graphics applications, Draw possesses more functions than the majority of drawing tools that are integrated into office productivity suites.

A few examples of drawing functions might whet your appetite: layer management, magnetic grid point system, dimensions and measurement display, connectors for making organization charts, 3D functions enabling small three-dimensional drawings to be created (with texture and lighting effects), drawing and page style integration, and Bézier curves, to name a few.

This chapter introduces some of Draw's features, but it does not attempt to cover all of them. See the *Draw Guide* and the application Help for more information.

The Workplace

The main components of the Draw interface are shown in Figure 92.

The large area in the center of the window is where the drawings are made. It is surrounded by toolbars and information areas. You can vary the number and position of the visible tools, so your setup may look a bit different. For example, many people put the main Drawing toolbar on the left-hand side of the workspace, not at the bottom as shown here.

Toolbars

The various Draw toolbars can be displayed or hidden according to your needs.

To display or hide the toolbars, click **View > Toolbars**. On the menu that appears, choose which toolbars you want to display.

You can also select the buttons that you wish to appear on the corresponding toolbar. On the **View > Toolbars** menu, select **Customize**, click on the **Toolbars** tab, select the toolbar you want to change, and then select the desired buttons for that toolbar. Each toolbar has a different list of buttons. See Chapter 4 (Menus and Toolbars) for more information.

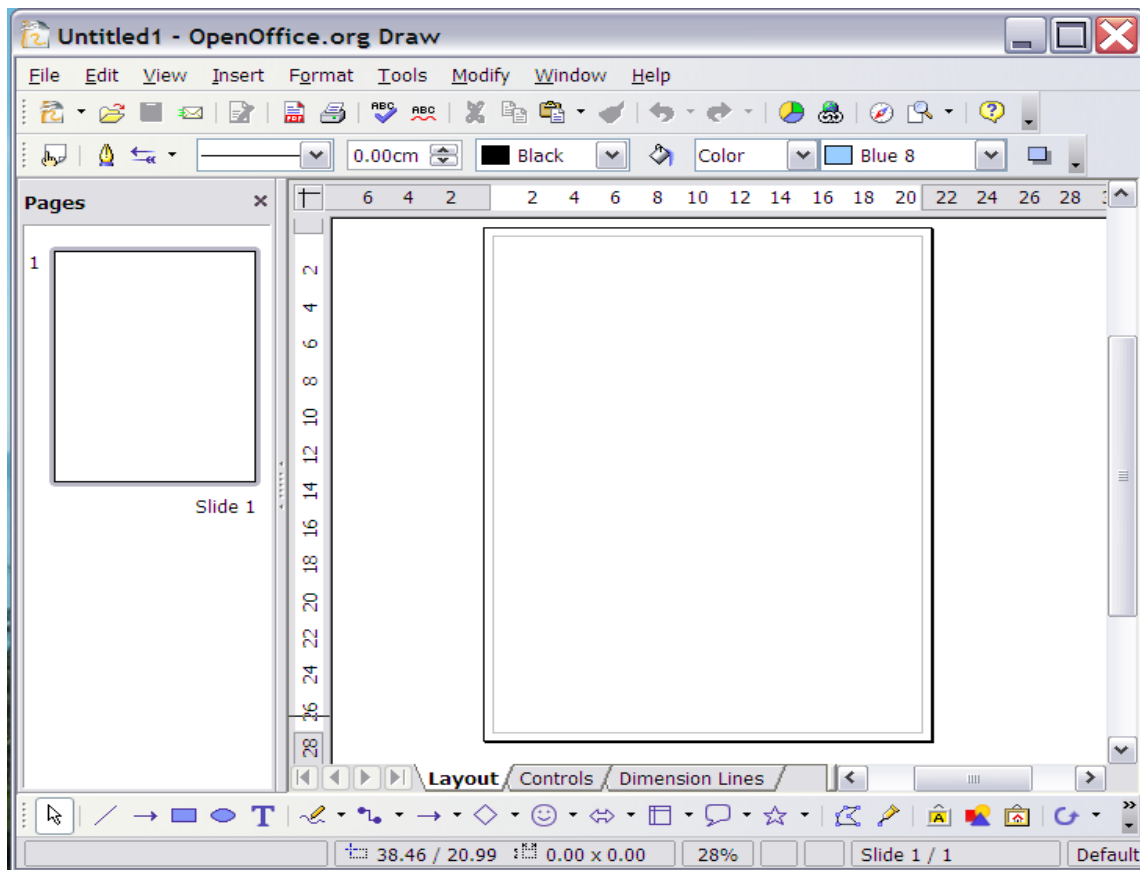


Figure 92. Initial Draw window

Many toolbar buttons are marked with a small arrow beside the button. The arrow indicates that this button has additional functions. Click the arrow and a submenu or floating toolbar appears, showing its additional functions (see Figure 93).

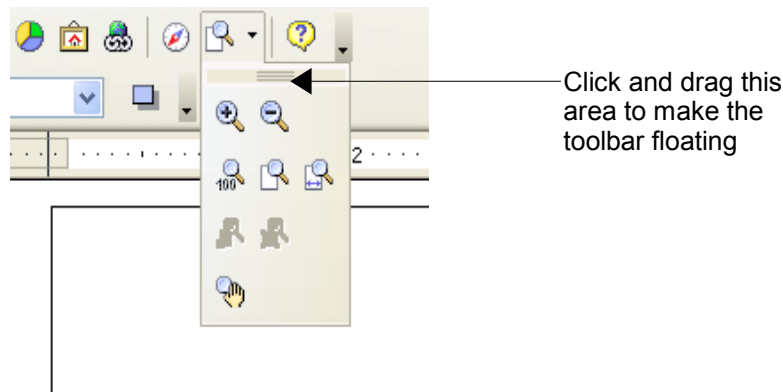


Figure 93 An arrow next to a button indicates additional functions

You may wish to keep this submenu displayed on your screen, but in a different position. You can make a submenu into a *floating toolbar*. To do so, click the area at the top of the submenu, drag it across the screen, and then release the mouse button. Floating toolbars can be docked on an edge of the screen or within one of the existing toolbar areas at the top of the screen, as described in Chapter 4.

Note Most buttons marked with the small arrow can become floating toolbars. The floating toolbar capability is common to all components of the OpenOffice.org suite.

Click the arrow on the title bar of a floating toolbar to display additional functions (see Figure 94).

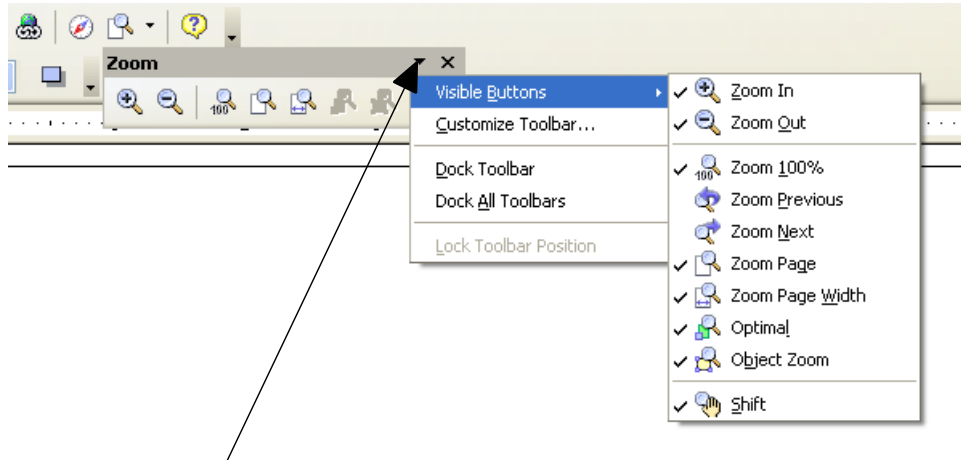
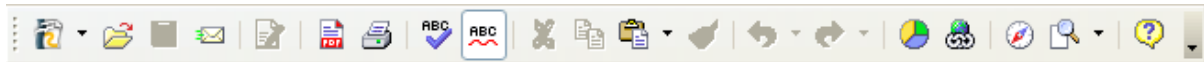


Figure 94. An arrow on a floating toolbar indicates additional functions

The tools available in the various toolbars are explained in the following sections.

Standard toolbar

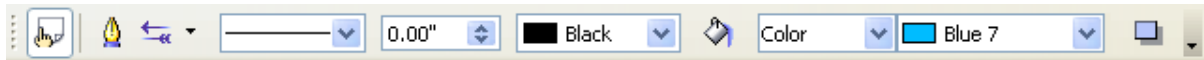
The Standard toolbar looks like this:



It is the same for all parts of OpenOffice.org.

Line and Filling toolbar

The Line and Filling toolbar lets you modify the main properties of a drawing object. See page 137 for details.



If the selected object is text, the toolbar changes to the one shown below, which is similar to the Formatting toolbar in Writer.



Drawing toolbar

The Drawing toolbar is the most important toolbar in Draw. It contains all the necessary functions for drawing various geometric and freehand shapes and organizing them on the page.



Color Bar

To display the Color Bar, use **View > Toolbars > Color Bar**. The toolbar then appears at the bottom of the workspace.



This toolbar lets you rapidly choose the color of the objects in your drawing. The first box in the panel corresponds to Invisible (no color).

The default color palette can be changed using **Format > Area**, as shown in Figure 95. Choose the tab marked **Colors**.

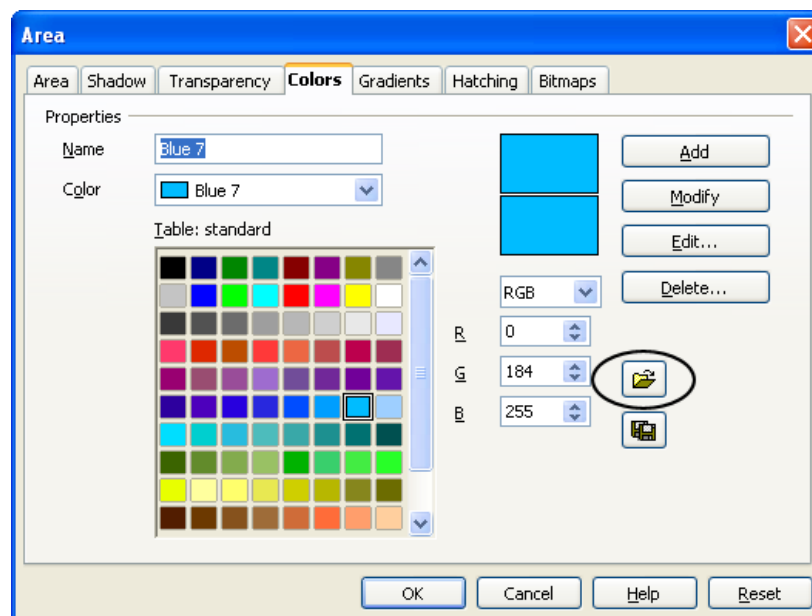


Figure 95. Changing the color palette

If you click on the **Load Color List** button (circled), the file selector asks you to choose a palette file (bearing the file extension **.soc**). Several palettes are supplied as standard with OpenOffice.org. For example, **web.soc** is a color palette that is particularly adapted to creating drawings that are going to appear in web pages, because the colors will be correctly displayed on workstations with screens displaying at least 256 colors.

The color selection box also lets you individually change any color by modifying the numerical values in the fields provided to the right of the color palette. You can click on **Edit** to display a dialog (shown in Figure 96), making the choice of colors easier.

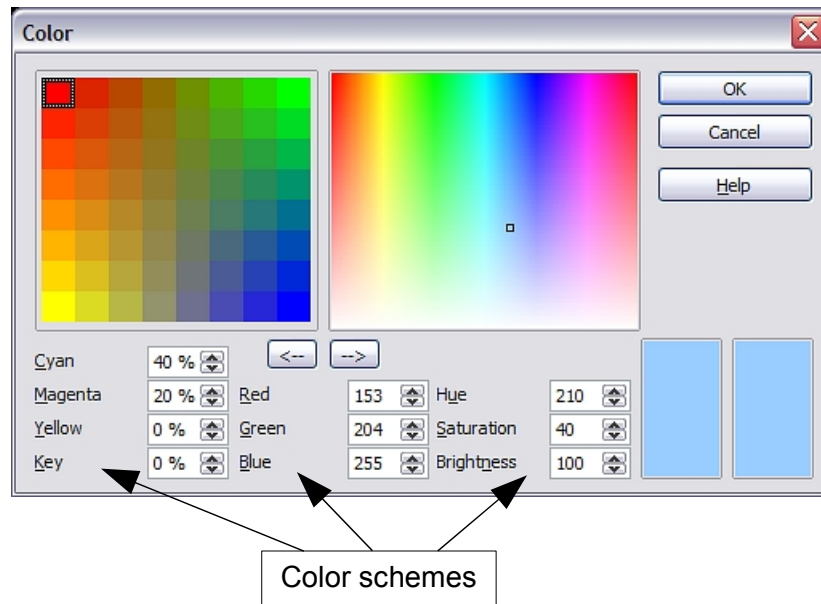
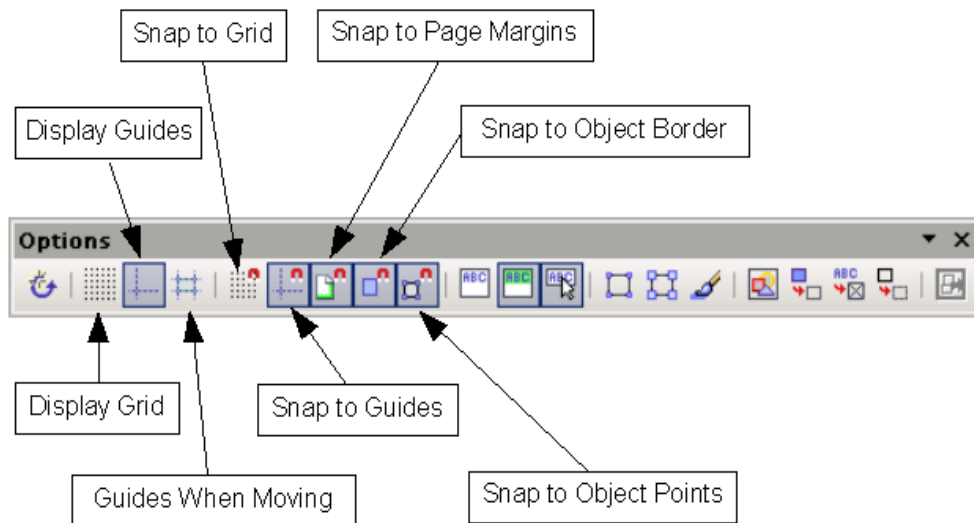


Figure 96. Defining color schemes

You can use the color schemes known as CMYK (Cyan, Magenta, Yellow, Black), RGB (Red, Green, Blue) or HSB (Hue, Saturation, Brightness).

Options toolbar

The Options toolbar lets you activate or deactivate various drawing aids. The Options toolbar is not displayed unless it is first selected. To display it, select **View > Toolbars > Options**.



Using the grid

The snap tools are divided into three groups: the grid, snap lines, and snap points.

Draw provides a grid of points to which objects can be snapped. Click on the *Display Grid* button in the Options toolbar to display the grid, and then click on the *Snap to Grid* button to activate it. The work area will be filled with a grid, as shown in Figure 97. This grid will not be printed or appear in exported files, such as a PDF.

When the grid is active, shapes can be positioned easily by using the dots as a guide. In the following example, the objects are positioned exactly on the dots in the grid.

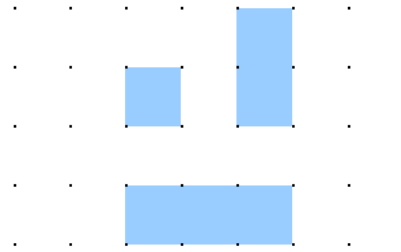


Figure 97: With snap to grid, objects align to the grid precisely.

The spacing between the dots is defined in the Grid options dialog under the Drawing area of the OOO options (**Tools > Options > OpenOffice.org Draw > Grid**).

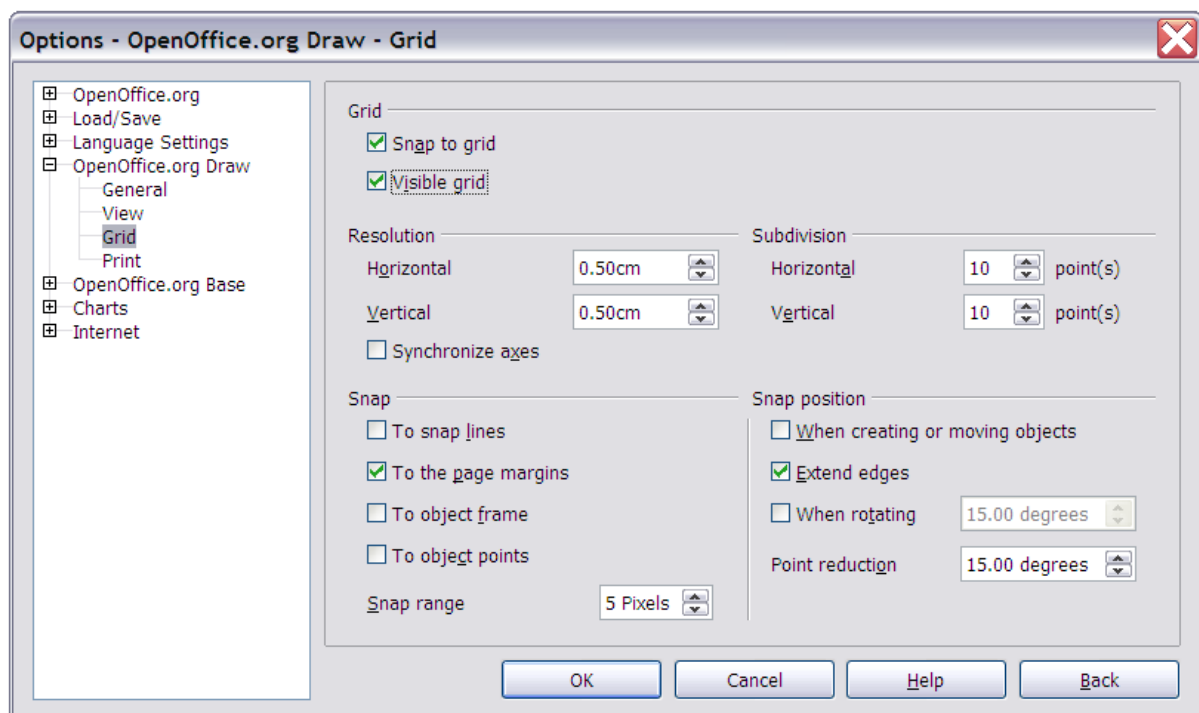


Figure 98. Setting grid options

In the dialog shown in Figure 98, you can set the following parameters:

- Vertical and horizontal spacing of the dots in the grid. You can also change the unit of measurement used in the general Draw options (**Tools > Options > OpenOffice.org Draw > Grid > General**).
- The resolution is the size of the squares or rectangles in the grid. If the resolution is Horizontal 1cm, Vertical 2cm, the grid consists of rectangles 2cm high and 1cm wide.
- Subdivisions are additional points that appear along the sides of each rectangle or square in the grid. Objects snap to subdivisions as well as to the corners of the grid.
- The pixel (pix element) size of the snap area defines how close you need to bring an object to a snap point or line before it will snap to it.

The default grid dots are light gray, which can be very hard to see. To improve visibility, go to **Tools > Options**, then **OpenOffice.org > Appearance** (Figure 99).

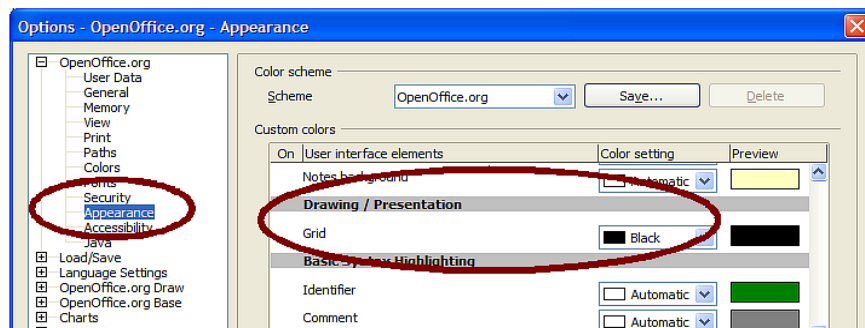


Figure 99: Changing the grid color

Under **Custom colors**, scroll down until you see **Drawing / Presentation**. Then set the Grid color to a darker color like black.

Rulers

You should see rulers on the upper and left-hand sides of the workspace (see Figure 100). These show the size of the objects on the page. The rulers show the location of the mouse cursor, to help you position objects more precisely. The rulers also are used to manage handle points and capture lines that make positioning objects easier.

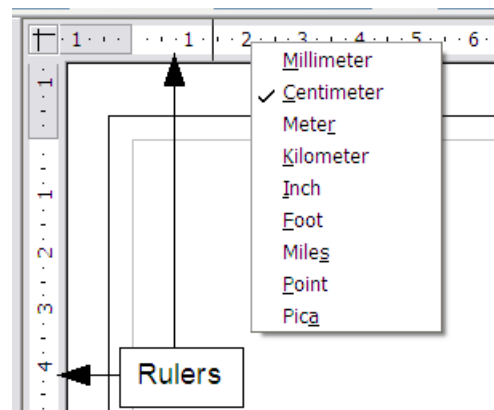
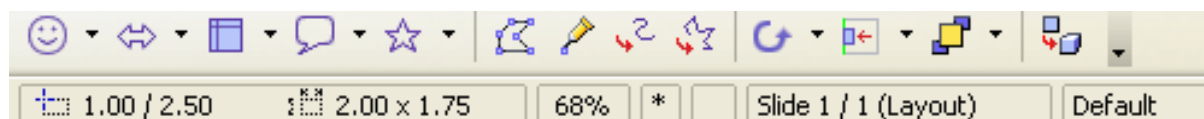


Figure 100. Rulers in a drawing

The page margins in the drawing area are also represented on the rulers. You can change the margins directly on the rulers by dragging them with the mouse. To modify the units of measurement of the rulers, right-click on one of the rulers. The two rulers can have different units.

Status Bar

The Status Bar is located at the bottom of the screen. The middle part of this area (shown below) is particularly relevant to the Draw module.




The sizes are given in the current unit (not to be confused with the ruler units). This unit is defined in **Tools > Options > OpenOffice.org Draw > General**, where you can also change the scale of the page. Another way to change the scale is to double-click on the number shown in the status bar.

The basic drawing shapes

Draw provides a wide range of shapes, located in palettes accessed from the Drawing Toolbar. This chapter describes only a few of the basic shapes; see the *Draw Guide* for a complete description of the shapes available. These shapes include rectangles and squares; circles, ellipses, and arcs; 3D objects; curves; lines and arrows; text; and connectors.

Drawing a straight line

Let's start by drawing the simplest of shapes: a straight line. Click on the Line button on the Drawing Toolbar  and place the mouse cursor at the point where you wish to start drawing.

Drag the mouse while keeping the button pressed down. Let go of the mouse button when you want to stop drawing the line. A blue or green handle point will appear at each end of the line, showing that this is the currently selected object. The colors depend on the default selection mode (they will be green for simple selection and blue when in point edit mode).

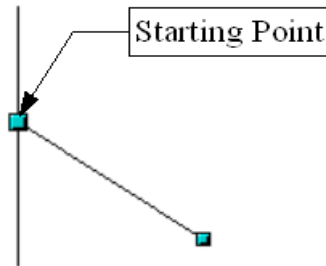


Figure 101: Drawing a straight line


Hold down the *Shift* key while drawing the segment to force the line to be drawn at a multiple of 45° from the horizontal.

Hold down the *Control* key (*Ctrl* in PCs) to toggle temporarily your settings for Snap to Grid.

Hold down the *Alt* key to draw the line symmetrically from the start point (the line extends out to both sides of the start point equally). This lets you draw straight lines by starting from the middle of the line.

The line you draw will have the default attributes (such as color and line type). To change the line attributes, click on the line to select it and then use the tools in the Line and Filling toolbar; or for more control, right-click on the line and choose **Line** to open the Line dialog.

Drawing a rectangle

Drawing rectangles is similar to drawing straight line segments, except that you use the Rectangle button  from the Drawing Toolbar. The (imaginary) line drawn with the mouse corresponds to the diagonal of the rectangle.

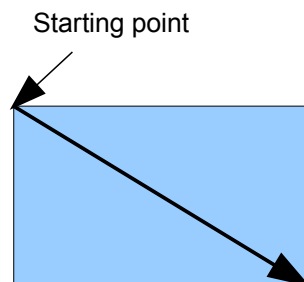



Figure 102: Drawing a rectangle

Hold down the *Shift* key to draw a square. Hold down the *Alt* key to draw a rectangle starting from its center. To combine the effects, hold down both the *Shift* and *Alt* keys simultaneously.

Drawing a circle or ellipse

To draw an ellipse or circle, use the Ellipse Button  from the Drawing Toolbar (a circle is simply an ellipse where the two axes are the same length). The ellipse drawn is the largest ellipse that would fit inside the (imaginary) rectangle drawn with the mouse.

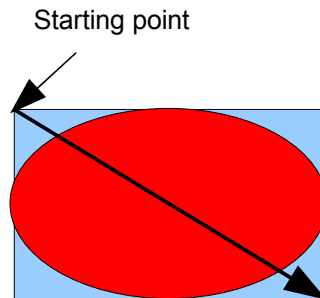



Figure 103: Drawing an ellipse

There are three other ways to draw an ellipse or circle:

- Hold down the *Shift* key while drawing to force the ellipse to be a circle.
- Hold down the *Alt* key to draw a symmetrical ellipse or circle from the center instead of dragging corner to corner.
- Hold down the *Ctrl* key while drawing to snap the ellipse or circle to grid lines.

Note If you first press (and hold) the *Control* key before clicking on any of these buttons (Line, Rectangle, Ellipse, or Text), the chosen object appears directly on the page with a default size, shape, and color. All of these can then be changed.

Writing text

Use the Text tool  to write text and select the font, color, size, and other attributes. Click on an empty space in the workspace to write the text at that spot or drag an area to write inside the dragged frame. Press *Enter* to drop to the next line.

When you have finished typing text, click outside the text frame. Double-click on the text at any time to edit it.

When you type text, the upper toolbar includes the usual paragraph attributes: indents, first line, and tab stops.

You can change the style of all or part of the text. The Styles and Formatting window also works here (select **Format > Styles and Formatting** or press *F11* to launch), so you can create Graphics styles that you can reuse for other text frames. Graphics styles affect all of the text within a text frame. To style parts of the text, use direct formatting with the toolbar.

Text frames can also have fill colors, shadows, and other attributes, just like any other Draw object. You can rotate the frame and write the text at any angle. These options are available by right-clicking on the object.

Use the Callout tool, located on the Drawing toolbar, to create callouts (also known as captions or figure labels).

If you double-click on an object or press *F2* (or the **Text** icon in the Drawing toolbar) when an object is selected, text is written in the center of the object and remains within the object. Nearly any kind of object contains such an additional text element. These texts have slight differences to those in text frames concerning position and hyphenation.

Using connectors



Connectors are a type of line or arrow whose ends stick to *glue points* on other objects. When you move the other object, the connector moves with it. Draw has a range of advanced connector functions. You can change connector types using the context menu.

Connectors are particularly useful for making organizational charts. You can reorganize the blocks of your chart and all the connected objects stay connected.

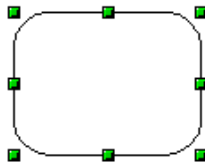
Glue points are different from handles (the small blue or green squares around an object). Use the handles to move or resize an object; use the glue points to attach connectors to an object.

Selection modes

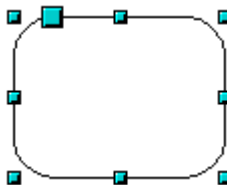
There are three selection modes: moving and changing size, rotating, and editing points.


The default mode for selecting objects depends on whether the **Points** button on the Drawing toolbar is active (appears lit)  or not inactive (appears dark or dimmed) .

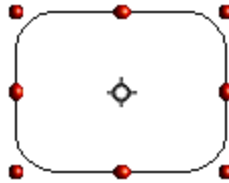
When the **Points** button is not active, the default mode is for selections to be moved or changed in size; these selections are indicated by small green squares.



When the **Points** button is active, the default mode is for selections to be edited; these selections are indicated by blue squares. Some objects will have one or more extra handles, which are larger or colored differently. This is explained in more detail in the *Draw Guide*.





Selections for rotating objects are indicated by small red circles and a symbol representing the center of rotation. To choose these selections, click on the **Effects** drop-down button  from the Drawing toolbar.




Changing the selection mode

To go from one mode to another, you can do one of the following:

If necessary, toggle the **Points** button on the **Drawing** toolbar to switch from the simple selection mode to the Points mode . You can also use the keyboard shortcut *F8* (Points).

Choose the **Effects** drop-down button from the **Drawing** toolbar  to activate the Rotation mode for a selected object.

By choosing the **Rotation Mode after Clicking Object** button  from the **Options** bar, you can cycle through normal and rotation modes just by clicking on the object. This can be more convenient than clicking the object, then clicking the **Rotate** button from the **Drawing** Toolbar.

Selecting objects

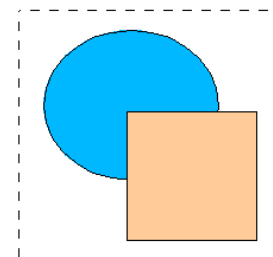
Direct selection

To select an object, the easiest way is to click directly on it. For objects that are not filled, you have to click directly on the object's outline to select it.

Selection by framing

You can select several objects by dragging a large rectangle around the objects with the select button, as shown.

For an object to be selected, it must be entirely within the rectangle.



Selecting hidden objects

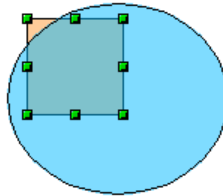
When objects are located behind others, they can still be selected. To select an object that is covered by another object, hold down the *Alt* key and click the object. To select an object that is covered by several objects, hold down the *Alt* key and click through the objects until you reach the required underlying object. To cycle through the objects in reverse order, hold down the *Alt+Shift* keys when you click. To help in making accurate selections, you can check the number and type of the selected objects, shown at the left of the status bar.

Note There may be some variation in the use of the *Alt* key on different operating systems.

To select an object that is covered by another object using the keyboard, press *Tab* to cycle through the objects. To cycle through the objects in reverse order, press *Shift+Tab*.

The easiest method is to use the *Tab* key to cycle through the objects, stopping at the object you wish to select. (This may not be practical if you have a large number of objects in your drawing.) When you click on your selected object, its outline will appear briefly through the objects on top of the selected object.

In the illustration below, the square located beneath the circle was selected in this way (the circle was made transparent in order to see the square).



Arranging objects

In a complex drawing, you may have objects stacked up, one on top of the other. To rearrange stacked objects, use either of these methods:

- Select one of the stacked objects and then click **Modify > Arrange** and select the appropriate **Bring Forward** or **Send Backward** options.
- Right-click the object and select **Arrange** from the pop-up menu, then select the appropriate **Bring Forward** or **Send Backward** options.

Draw also provides tools for aligning multiple objects; details are given in the *Draw Guide*.

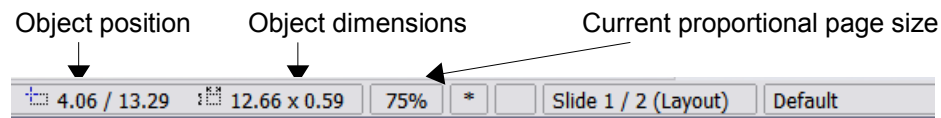
Selecting several objects

To select or deselect several objects one by one, press the *Shift* key and click on the various objects to be selected or deselected.

Moving and dynamically adjusting an object's size

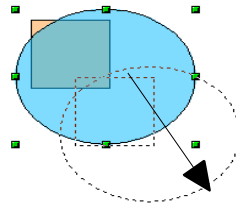
There are several ways of moving or changing the size of an object. The method described here will be called *dynamic* in the sense that it is carried out using the mouse.

When you dynamically change an object, remember to check the central area of the status bar at the bottom of your screen. This area shows detailed information about the ongoing manipulation. For example, during a resizing manipulation, you will see the following information displayed. This information changes when the mouse is moved.



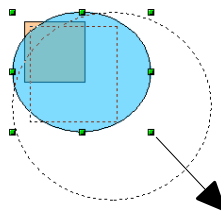
Dynamic movement of objects

To move an object, select it and then click within the object's border and hold down the left mouse button while moving the cursor. To drop the object at its new location, let go of the mouse button. During movement, the shape of the object appears as dotted lines to help with its repositioning.



Dynamic size modification of objects

To change the size of an object (or group of selected objects) with the mouse, you need to move one of the handles located around the selection. As shown in the following illustration, the outline of the resulting new object appears as a dotted line.



The results will differ depending on which handle you use. If you choose a corner handle, you will resize the object along two axes at the same time. If you use a side handle, the objects will only be resized along one axis.

Note If you press the *Shift* key at the same time as you carry out the resizing operation, the size change will be carried out symmetrically with respect to the two axes; this enables you to keep the aspect (height/length) ratio of the object.

Special effects

With Draw, you can apply many special effects to objects and groups of objects. This section describes a few of these effects. Others include distorting, shadows, and transparency. See the *Draw Guide* for examples of the many effects available.

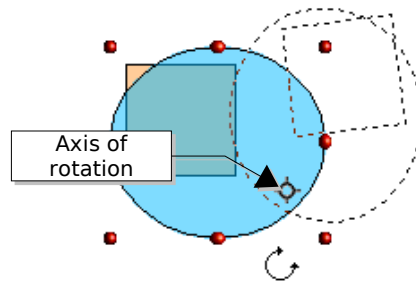
Rotation

Rotating an object lets you move the object around an axis. To do this dynamically, use the red handles, as you do when changing the size of the object.

Note Rotation works in a slightly different way for 3D objects because the rotation occurs in 3D space and not in one plane. See also the *Draw Guide* regarding rotation when Edit Points mode is active.

To rotate an object (or a group of objects), drag the red corner handle points of the selection with the mouse. The mouse cursor takes the shape of an arc of a circle with an arrow at each end. A dotted outline of the object being rotated appears and the current angle of rotation is dynamically shown in the status bar.

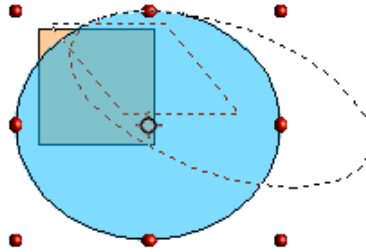
Rotations are made about an axis which is displayed as a small symbol. You can move the axis of rotation with the mouse, as shown below.



If you hold down the *Shift* key during the rotation, the operation will be carried out in increments of 15°.

Inclination

To incline or slant an object, use the red handles located on one of the edges of the selected object. The inclination axis is shown as the nearest handle to the opposite edge.



As with rotation, you can set the inclination to occur as steps of 15° by pressing the *Shift* key while moving the handle.

Duplication

This function duplicates a given shape while enabling you to change the options applied to the duplicates. The result of a duplication is a new group.

To start duplication, click on an object (or on a group of selected objects), then choose **Edit > Duplicate**. The dialog shown in Figure 102 appears.

You can choose:

- The number of copies.
- The displacement along the X and Y axes between two copies.
- The angle of rotation between two copies.
- The change in size between each copy.
- The colors of the start and end copies.

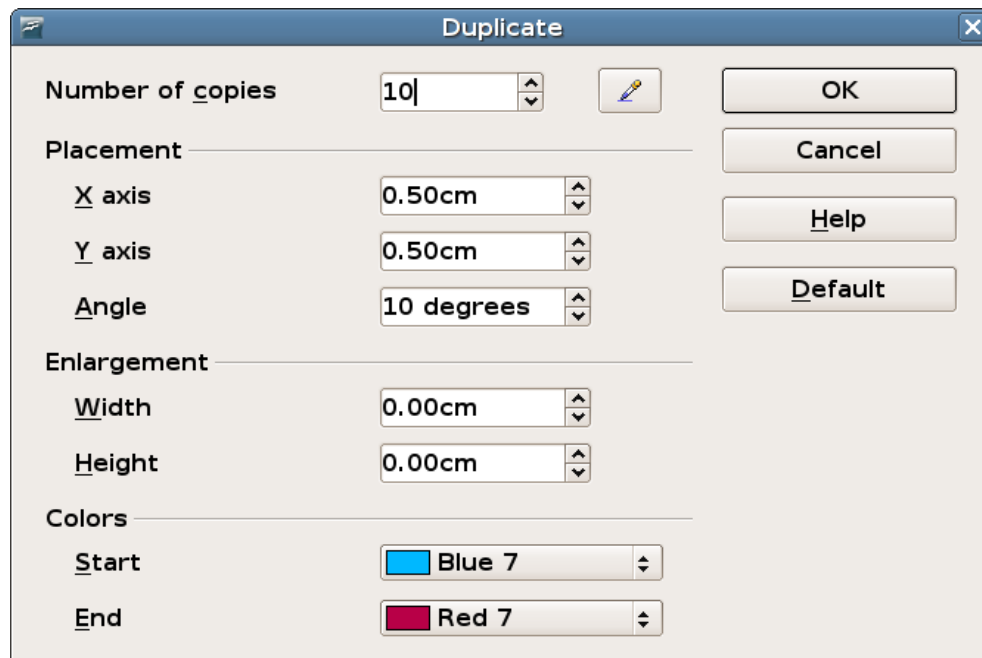
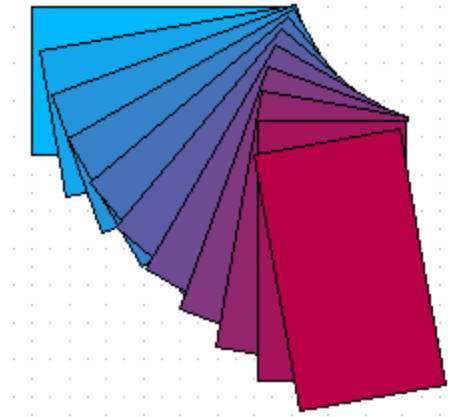


Figure 104: Duplicating an object

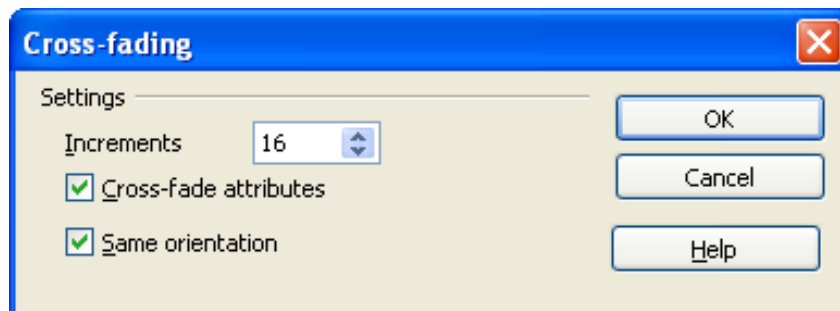
The options above applied to a blue rectangle produce the following result:



Cross-fading

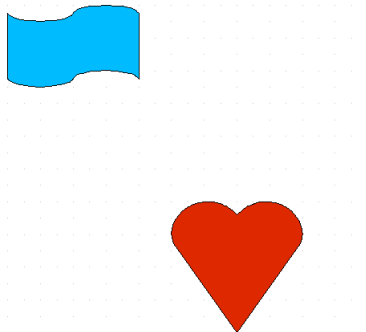
Cross-fading transforms a shape from one form to another, with OpenOffice.org handling all of the intermediate transitions. The result is a new group of objects.

To carry out a cross-fade, select both objects (hold the *Shift* key while selecting each object in turn) and then choose **Edit > Cross-fading**. The following dialog appears.

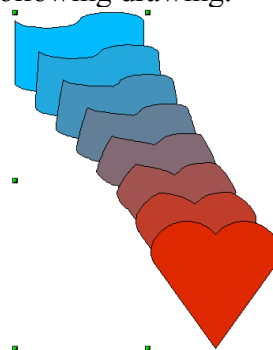


Here is an example of its use.

We start with two shapes...





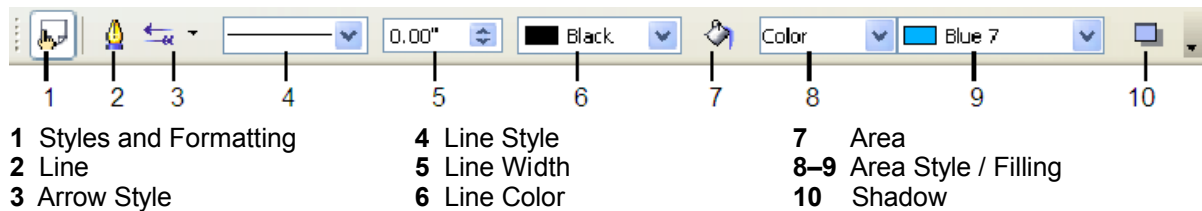
...and carry out the cross-fade to obtain the following drawing.



Editing objects

To change an object's attributes (such as color and border width), you can use the Line and Filling toolbar or the right-click menu.

If the Line and Filling toolbar is not visible, you can display it using **View > Toolbars > Line and Filling**. From here you can edit the most common object attributes. You can also open the Line dialog by clicking on the  icon and the Area dialog by clicking on the  icon to see more options.



When an object is selected, you can right-click on the object to bring up a context menu (Figure 101). The entries with an arrow contain a submenu.

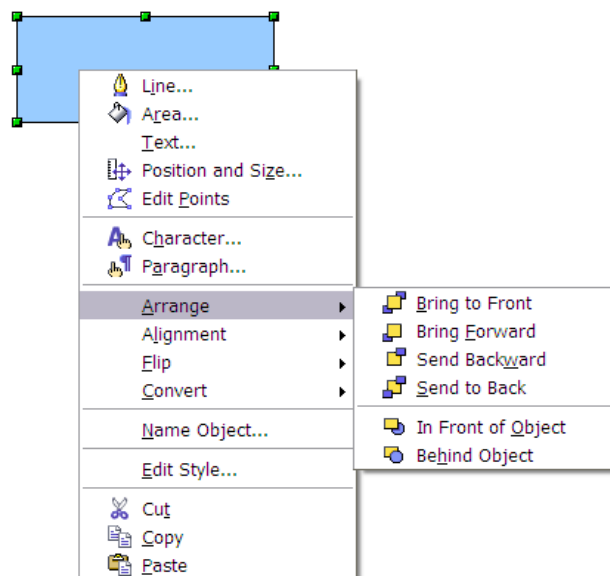


Figure 105: Right-click on a selected object to see the context menu.

Most often the property you want to change is the line's style (solid, dashed, invisible), its color or width. These options are all available from the Line and Filling toolbar. You can also edit these properties from the Line dialog. You can also define new line and arrow styles (see the *Draw Guide* for details).

The OOO term for the inside of an object is **Area fill**. The area fill of an object can be a uniform color, a gradient, or an image. Most often you will want to use one of the standard fill options, whether it is a color, a gradient, or an image. These options are all available from the Line and Filling toolbar. You can also define new area fills (see the *Draw Guide*).

Inserting pictures from other sources

You can add pictures from several sources:

- The Gallery—see Chapter 14 (Working with the Gallery)
- Directly from a scanner (**Insert > Picture > Scan**)
- Images created by another program, including photographs from a digital camera (**Insert > Picture > From File**)

Draw provides tools for working with bitmap images such as photographs: the Picture toolbar and the bitmap image management palette. See the *Draw Guide* for details and examples.

Exporting objects and files

To save a Draw image in a foreign format, use **File > Export**. Draw can save to many graphic file formats, as listed in Chapter 3 (File Management).

You can also export Draw files to HTML, PDF, or Flash. PDF export is the same as for any part of OpenOffice.org, as described in Chapter 3 (File Management). Flash export creates a .swf file.

HTML export uses a conversion wizard that creates as many web pages as there are pages in your Draw document. You can optionally choose to display the pages in frames with a navigator and can set an index page. For more information, see Chapter 16 (Creating Web Pages: Saving Documents as HTML Files).



Chapter 9
Getting Started with Impress
OpenOffice.org's Presentations

What is Impress?

Impress is OpenOffice.org's slide show (presentations) program. You can create slides that contain many different elements, including text, bulleted and numbered lists, tables, charts, clip art, and a wide range of graphic objects. Impress also includes a spelling checker, a thesaurus, prepackaged text styles, and attractive background styles.

This chapter includes instructions, screenshots, and helpful hints to guide you through the Impress environment while designing the easier presentations. Although more difficult designs are mentioned throughout this chapter, explanations for creating them are in the *Impress Guide*. If you have a working knowledge of how to create slide shows, we recommend you use the *Impress Guide* for your source of information.

Note To use Impress for more than very simple slide shows requires some knowledge of the elements which the slides contain. Slides containing text use styles to determine the appearance of that text. Slides containing objects are created the same way that drawings are created in Draw. For this reason, we recommend that you also study Chapter 8 (Getting Started with Draw) and Chapter 13 (Working with Styles).

Creating a new presentation

This section describes how to set up a new presentation. The settings selected here are general: they apply to all the slides. The section “Working with slides” on page 153 explains how to apply settings to specific slides. These explanations can also apply to some of the general settings.

Planning a presentation

The first thing to do is to decide what you are going to do with the presentation. For example, putting a group of digital photos together in a presentation requires very little planning. However, using a presentation to increase the knowledge of others about your topic requires much more planning.

Note This chapter has been put into presentation form and is available for download from http://oooauthors.org/en/authors/user_howtos/Simple_Presentation.odp. It was developed by using the steps in this chapter.

You need to ask and answer many questions before you begin creating a presentation. If you are not acquainted with creating presentations, the answers will be more general. Those who have created a variety of presentations in the past will want to have more specific answers.

Who is to see the presentation? How will it be used? What is the subject matter? What should be in its outline? How detailed should the outline be? Will an audio file be played? Is animation desirable? How should the transition between slides be handled? These are some of the many questions that should be asked, answered, and written down before creating the presentation. Sound and animation are more advanced topics and are explained in the *Impress Guide*.

Again, it is not always necessary at this point to have specific answers to every question. Making an outline is extremely important. You may already know exactly what some of the slides will contain. You may only have a general idea of what you want on some of the slides. That is alright. You can make some changes as you go. Change your outline to match the changes you make in your slides.

The important part is that you have a general idea of what you want and how to get it. Put that information on paper. That makes it much easier to create the presentation.

Starting the Presentation Wizard

You can start Impress in either of two ways:

- Click the triangle to the right of the **New** Icon and select *Presentation* from the drop-down menu.
- Choose **File > New > Presentation** from the menu bar.

When you start Impress, the Presentation Wizard appears (Figure 106).

Tip If you do not want the wizard to start every time you launch Impress, select the **Do not show this wizard again** checkbox.

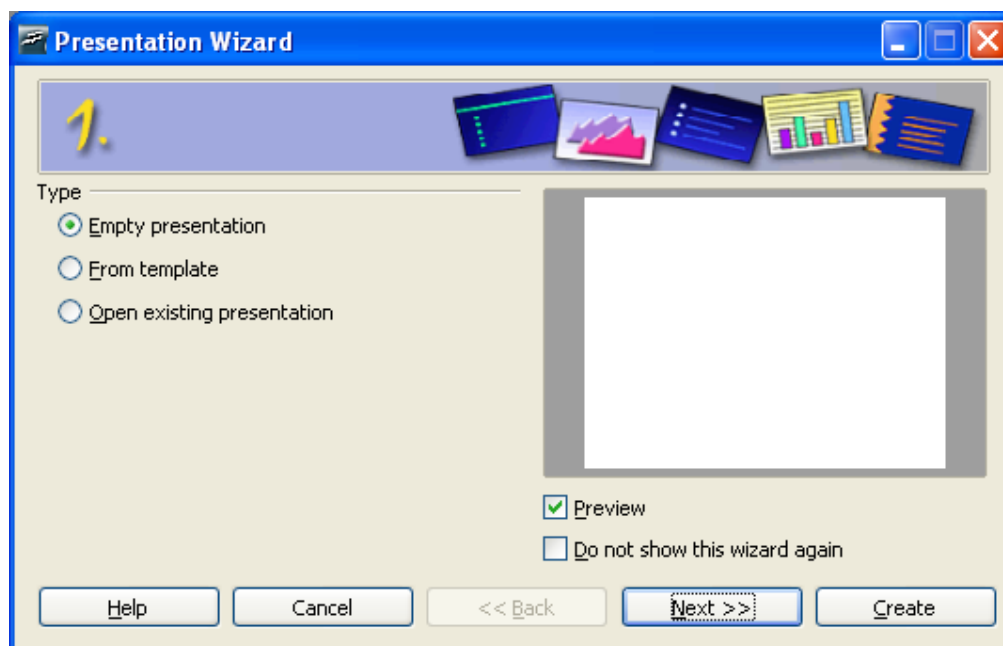


Figure 106. Using the Presentation Wizard to choose the type of presentation

3) Select *Empty Presentation* under **Type**. It creates a presentation from scratch.

Tip Leave the **Preview** checkbox selected, so templates, slide designs, and slide transitions appear in the preview box as you choose them.

- Note** *From Template* uses a template design already created as the basis for a new presentation. The wizard changes to show a list of available templates. Choose the template you want.
- Open Existing Presentation* continues work on a previously created presentation. The wizard changes to show a list of existing presentations. Choose the presentation you want.
- Both of these options are covered in the *Impress Guide*.

- 4) Click **Next**. The Presentation Wizard step 2 appears. Figure 107 shows the Wizard as it appears if you selected *Empty Presentation* at step 1. If you selected *From Template*, an example slide is shown in the Preview box.

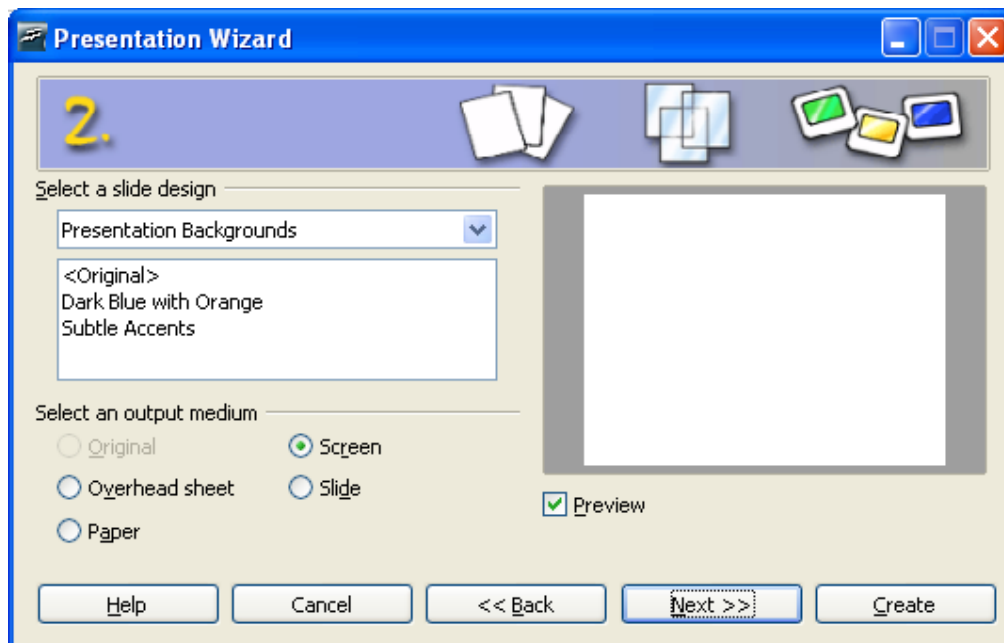


Figure 107. Selecting a slide design using the Presentation Wizard

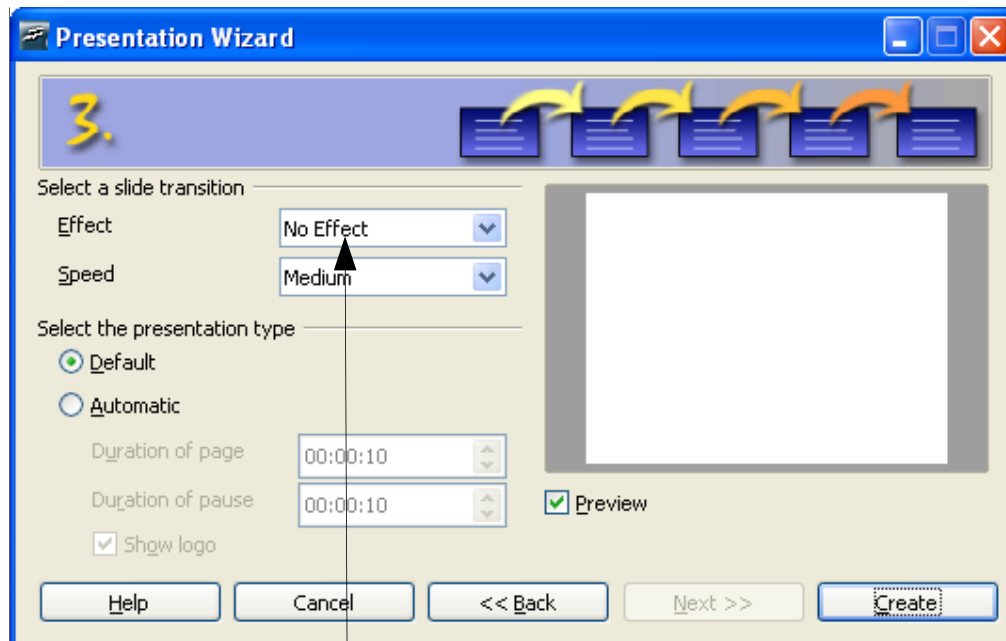
- 5) Choose a design under **Select a slide design**. The slide design section gives you two main choices: *Presentation Backgrounds* and *Presentations*. Each one has a list of choices for slide designs. If you want to use one of these other than <Original>, click it to select it.

The types of *Presentation Backgrounds* are shown in Figure 107. By clicking an item, you will see a preview of the slide design in the Preview window. Impress contains three choices under *Presentations*: <Original>, *Introducing a New Product*, and *Recommendation of a Strategy*.

- <Original> is for a blank presentation slide design.
- Both *Introducing a New Product* and *Recommendation of a Strategy* have their own prepackaged slide designs. Each design appears in the Preview window when its name is clicked.

Note *Introducing a New Product* and *Recommendation of a Strategy* are prepackaged presentation templates. They can be used to create a presentation by choosing **From template** in the first step (Figure 106).

- 6) Select how the presentation will be used under **Select an output medium**. Most often, presentations are created for computer screen display. Select *Screen*.
- 7) Click **Next**. The **Presentation Wizard** step 3 appears (Figure 108).



The **Effect** option creates transitions between all the slides in the presentation. Select **No Effect** for no transition effect. Transitions can be added and changed later. For more information, see “Working with slides” later in this chapter.

Figure 108. Selecting a slide transition effect and speed

- 8) Choose the desired option from the **Effect** drop-down menu.

Tip You might want to accept the default values for both *Effect* and *Speed* unless you are skilled at doing this. Both of these values can be changed later while working with **Slide transitions** and **animations**. These two are explained in more detail later in this chapter.

- 9) Select the desired speed for the transition between the different slides in the presentation from the **Speed** drop-down menu. *Medium* is a good choice for now.
- 10) Click **Create**. A new presentation is created.

Note If you selected *From template* on step 1 of the Wizard, the **Next** button will be active on step 3 and other pages will be available. These pages are not described here.

Formatting a presentation

Now comes the part where you put your presentation together based upon your outline. This is done using the Main window of Impress (Figure 109). We will first describe the purpose of each part of this window. Afterwards, we will describe how to use them in putting your presentation together.

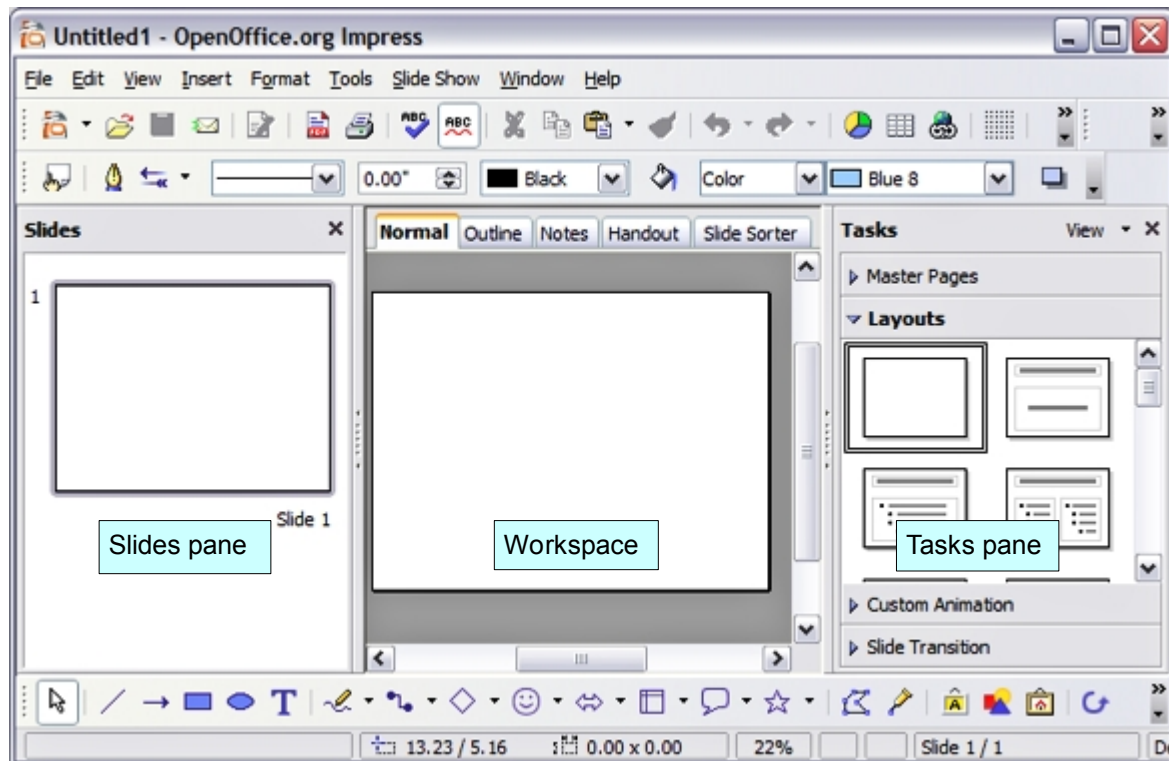


Figure 109: Main window of Impress

Main window of Impress

The Main window has three parts: the *Slides pane*, *Workspace*, and *Tasks pane*. The *Slides pane* contains thumbnail pictures of the slides. You can select an individual slide and perform other operations. The *Workspace* is where most of the work is done to create individual slides. The *Tasks pane* contains a group of four tasks which affect styles, the layout, animation, and transitions between slides in your presentation.

Tip You can remove either the *Slides pane* or *Task pane* from view by clicking the x to close it like any other window, or by using **View > Slide Pane** or **View > Task Pane**. To restore the Slide or Task panes, select **View > Slide Pane** or **View > Task Pane** respectively.

Slides pane

The *Slides pane* contains the thumbnail pictures of the slides in your presentation. They are in the order they will be shown in a default presentation. Clicking a slide selects it and places it in the *Workspace*.

Several additional operations can be performed on one or more slides in the *Slides pane*:

- Add new slides at any place within the presentation after the first slide.
- Mark a slide as hidden so that it will not be shown as part of the slide show.
- Delete a slide from the presentation if it is no longer needed.
- Rename a slide.
- Copy or move the contents of one slide to another (copy and paste, or cut and paste, respectively).

It is also possible to perform the following operations, although there are more efficient methods than using the Slides pane.

- Change the slide transition following the selected slide or after each slide in a group of slides.
- Change the sequence of slides in the presentation.
- Change the slide design. (A window opens allowing you to load your own design.)
- Change slide layout for a group of slides simultaneously. (This requires using the *Layouts* section of the *Tasks pane*.)

Workspace

The *Workspace* has five tabs: **Normal**, **Outline**, **Notes**, **Handout**, and **Slide Sorter**. These five tabs are called **View Buttons** (Figure 110). There are also many toolbars which can be used to create a slide. **View > Toolbars** shows a list of what is available. The *Workspace* section is below the View Buttons. This is where you put the various parts of your selected slide together.



Figure 110: View Buttons

Each view is designed to make completing certain tasks easier.

- *Normal view* is the main view for creating individual slides. Use this view to format and design and to add text, graphics, and animation effects. Many of the other sections in this chapter describe how to create and edit slides in Normal view. Additional information is available in the *Impress Guide*.
- *Outline view* shows topic titles, bulleted lists, and numbered lists for each slide in outline format. Use this view to rearrange the order of slides, edit titles and headings, rearrange the order of items in a list, and add new slides.
- *Notes view* lets you add notes to each slide that are not seen when the presentation is shown. Just click on the words “Click to add notes” and begin typing. You can resize the notes text box using the green resizing handles and move it by placing the pointer on the border, then clicking and dragging. Changes can also be made in the text style using the *F11* key.

- *Slide Sorter view* shows a thumbnail of each slide in order. Use this view to rearrange the order of slides, produce a timed slide show, or add transitions between selected slides.
- *Handout view* lets you print your slides for a handout. You may choose one, two, three, four, or six slides per page from **Task pane > Layouts**. This choice determines how many thumbnails are visible. You can rearrange the thumbnails in this view by simply dragging and dropping them.

Task pane

The Task pane has four sections:

- *Master Pages*: Here you define the Page Style you will be using for your presentation. Impress contains five prepackaged Master Pages (slide masters). One of them—Default—is blank, and the rest have a background.

Tip Press *F11* to open the *Styles and Formatting* window, where you can modify the styles used in any slide master to suit your purpose. This can be done at any time.

- *Layout*: Twenty prepackaged layouts are shown. You can choose the one you want, use it as it is or modify it to your own requirements. At present it is not possible to create custom layouts.
- *Custom Animation*: A variety of animations for selected elements of a slide are listed. Animation can be added to a slide, and it can also be changed or removed later.
- *Slide Transition*: Fifty-six transitions are available, including *No Transition*. You can select the transition speed (slow, medium, fast). You can also choose between an automatic or manual transition, and how long you want the selected slide to be shown (automatic transition only).

Building a presentation

This process begins with the decision as to what basic characteristics you want all the slides to have. These characteristics determine which slide master you will use for your slides and what modifications if any you will make to it.

Choosing a slide master

A *Slide Master* is a slide with a specified set of characteristics which is used as the beginning point for creating other slides. These characteristics include the background, objects in the background, formatting of any text used, and any background graphics.

Note Impress uses three interchangeable terms for this one concept. *Master slide*, *slide master*, and *master page* all refer to a slide that is used to create other slides. This chapter and the *Impress Guide*, however, use only the term *slide master*.

For a simple presentation, there is normally only one Master Page. All slides are created by adding elements to the Master Page. Another Master Page can be used for some of the slides if so desired.

If you decide later that the Master Page you chose does not meet your needs, you can still choose a different Master Page, or you can change parts of your Master Page. All the slides which apply this Master Page will be changed the same way.

Tip As you are developing your slide master and then succeeding slides, use *F5* or *F9* regularly to see what the slide you are working on looks like full screen. Then use the *Esc* key to return to your work of creating your slide show. You can spot problems sooner and easier this way.

You should first determine the styles you want to use for your presentation. There are five prepackaged slide masters, found in the Master Pages section of the Task pane (Figure 111). Pick the one that comes closest to what you want. We look at how to make changes in the slide master later.

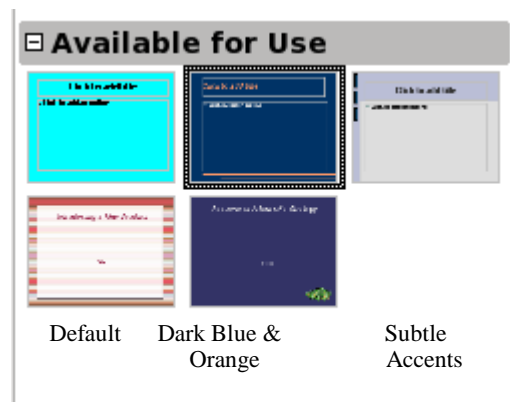


Figure 111: Available slide master

Note The *Default Master Page* is a blank slide with specific Outline styles. The other four *Master Pages* contain designs as well as specific Outline styles.

To see what is possible to do, look at how the prepackaged Master Pages were made. To do this, select **View > Master > Master Slide** to open the *Master Pages* section. Since the *Default Master Page* is blank, consider only the other four available Master Pages.

Tip **View > Master > Master Slide** allows you to make changes in the slide master. Whatever changes are made to the slide master will be made on all the slides of the presentation.

View > Normal allows you to work only on individual slides, but none of these changes will change the slide master on which the slide is based.

The first two steps to building a presentation are: Select the slide master which comes closest to meeting your needs, and save the presentation. Then you need to modify the slide master.

Caution



Remember to save frequently while working on the presentation, to prevent any loss of information should something unexpected occur. You might also want to activate the AutoRecovery function (**Tools > Options > Load/Save > General**). Make sure *Save AutoRecovery information every* is selected and that you have entered a number of minutes. (Set the value between 5 and 10 minutes.)

Make changes to the slide master you have chosen by selecting **View > Master > Master Slide**. Most of this is done using styles. *F11* opens the Styles and Formatting window. The Presentation Styles icon should already be selected, if it is not, select it now. Fourteen styles are listed, and all can be modified, but no new styles can be added. To change any of these styles, right-click the style name and choose **Modify** from the pop-up menu.

Tip

When you select **View > Master > Master Slide**, the *Master View* toolbar (Figure 112) also opens. See the *Impress Guide* for instructions on the use of this toolbar.

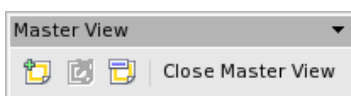


Figure 112: Master View toolbar

The following Presentation styles are available.

1) *Background* styles:

- *None* means all slide backgrounds will be white.
- *Color* allows you to select your own background color.
- *Gradient* has 15 prepackaged backgrounds. The increments between one color and the other is automatically set by default, but you can set it manually if you desire. New gradients can be created, using **Format > Area > Gradient** (tab).
- *Hatching* has 10 prepackaged patterns. More can be created using **Format > Area > Hatching** (tab). A background color can be added to the hatching.
- *Bitmap* has 20 prepackaged patterns. More bitmaps can be added to this list if they are one of the graphic formats OOo recognizes. (See the note below.) Use **Format > Area > Bitmaps**. Use the **Import** button to locate the bitmap and give it a name. Using *F11* and selecting *Bitmaps* from *Background* styles, you should see your imported bitmap at the bottom of the list.

Notes

Tools > Options > OpenOffice.org > Colors allows you to create your own custom colors. Once you create a color this way, it will be listed in the selection of colors available for the background.

For information on creating new gradients, hatching, and bitmaps, see the *Impress Guide*.

To see all of the graphic formats OOo will accept as a bitmap, select **Format > Area > Bitmaps**. Click **Import**. *File types* contains the entire list of acceptable graphic formats.

- 2) *Background objects* style: Use this to set the characteristics of all objects you add to the slide master. Make any changes you need. Remember to use *F5* after making a change to make sure that is what you want. Using the *Esc* key afterwards will return you to your work.

Note Just like Paragraph and Character styles in Writer, Background objects styles can be overridden by applying manual formatting. So it is possible to have two background objects with different formatting.

The use of background objects requires a knowledge of OOo's Draw component and is beyond the scope of this chapter.

- 3) *Notes*: If you want to have notes attached to your slides, right-click the *Notes* style, select **Modify**, and set the formatting you want your notes to have. Make sure you make the font size large enough to be readable. Just remember that this formatting will be applied to the note of every slide using the same slide master. The bottom part of the Notes window contains an example of what any of your choices looks like.

Note At the present time, you cannot view your notes while you are running a slide show. Notes can be included in a printed handout of the slide show.

- 4) *Outline 1* through *Outline 9*: These styles set the formatting for each level of text in the text boxes of the slides. All of these have default values that are fairly good. You would probably want to leave most if not all of these values as they are. Since in a simple presentation, only one slide master is used, any changes made will affect all slides containing the affect style. For example, five slides have text with the Outline 2 style. When you change the Outline 2 font size from 20 to 18, this change will be made on all five slides to every paragraph using the Outline 2 style.
- 5) *Title and Subtitle*: Set these styles the same way you set the styles for Outline 1 through Outline 9. Most of these styles work very well as they are. The parts that you might want to change are the Font, Typeface, Font size, and Font color (**Font Effects** tab).
- 6) When you are finished making your changes, use **View > Normal**. Or, you could click **Close Master View** in the *Master View* toolbar.

Creating the first slide

The first slide is normally the Title Page. Decide which of the layouts (Figure 113) will suit your purposes for your first slide. It is good practice to keep it rather simple. Some suitable layouts are *Title Slide* (also contains a section for a subtitle), or *Title Only* slide. The rest of the layouts seem to be better suited for later slides in the presentation, or for more complex presentations.

Note For very simple presentations, you may not need a title; for example, if the presentation is simply a group of pictures put together for someone to see. But in most cases, you will need to use the title as the first slide.

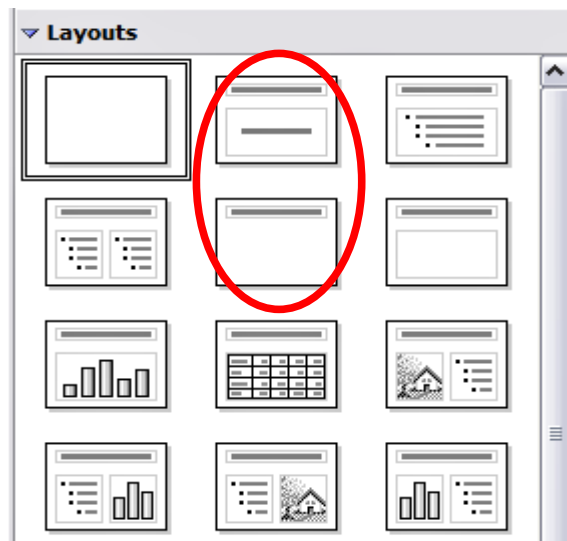


Figure 113: Choosing a slide layout

Adding elements to the Title Page

All the suggested layouts contain a title section at their top. To create the title, click the phrase *Click to add title*. Type the title. Adjustments to the formatting of the title can be done by using the *F11* key, right-clicking the *Title* style, and selecting **Modify** from the pop-up menu.

If you are using the *Title Slide* layout slide, click the phrase *Click to add text* to add a subtitle. Make any adjustments in the formatting you desire. Do this the same way as if you are changing the title formatting: use the *F11* key, right-click the *Subtitle* style, select **Modify** from the pop-up menu, and make your changes. Click **OK** to apply your changes to the subtitle.

The *Title, Object* layout slide can also be used. To do this requires knowledge of how to move and resize graphic images (objects). Insert the object as an *OLE Object*. To do so:

- 1) Double-click the graphic.
- 2) Select *Create from file* and click **OK**.

Caution Choose **Link to file** only if you are going to keep the presentation and the file in the same directory in which they were originally saved. Otherwise, you may not be able to access your OLE Objects from your slide show when you need them.



- 3) Click **Search** to browse to the file's location. Select the file, and click **Open**. Then click **OK**.
- 4) Resize and center the object to fit the slide as needed.

Inserting additional slides

The steps for inserting additional slides are basically the same as for selecting the title page. It is a process that has to be repeated for each individual slide. Since you are going to be using only one slide master, your only concern right now is the *Layouts* section of the *Tasks* pane on the right.

First, you should insert all of the slides your outline indicates you will need. Only after this should you begin adding special effects such as custom animation and slide transitions. (These are covered in the next section.)

Step 1: Insert a new slide. This can be done in a variety of ways. Take your pick.

- **Insert > Slide.**
- Right-click on the present slide, and select **New Slide** from the context menu.
- Click the *Slide* icon in the *Presentation* toolbar (Figure 114).



Figure 114: Presentation toolbar

Step 2: Select the layout slide that best fits your needs.

If your slide consists only of a title with a graphic, chart, or spreadsheet, inserting it as an OLE Object is the simplest. But be advised, doing this for a chart or spreadsheet is not simple. This is an advanced technique.

Step 3: Modify the elements of the slide. At this stage, the slide consists of everything contained in the Master page as well as the chosen layout slide. This includes removing unneeded elements, adding needed elements (pictures and OLE Objects), and inserting text.

Caution



Changes to any of the prepackaged layouts can only be made using **View > Normal** which is the default. Attempting to do this by modifying a slide master will result in an error message. (The slide master is modified using **View > Master > Master Slide.**)

- 1) Remove any element on the slide you do not need (Figure 115).
 - a) Click the element to highlight it. (The green squares show it is highlighted.)
 - b) Press the *Delete* key to remove it.

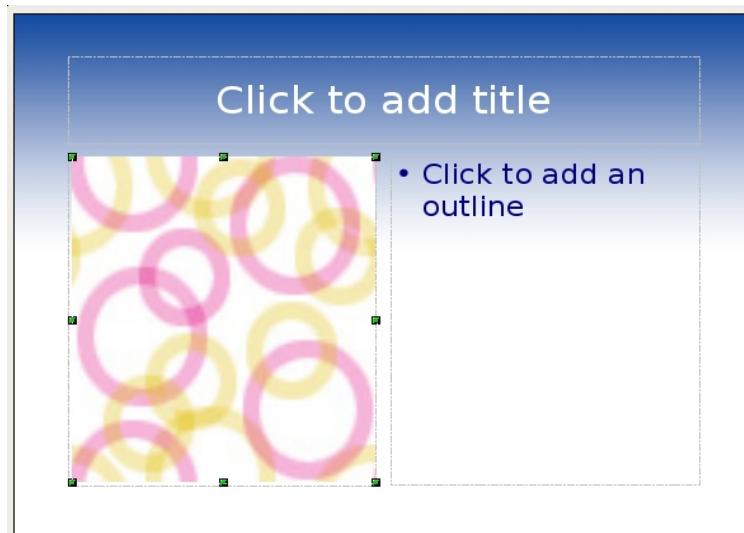



Figure 115: Deleting an element of a slide

Tip Sometimes you will accidentally select the wrong layout slide. You can at any time click the correct layout slide and continue your work.

- 2) Add any elements to the slide you do need.
 - a) Adding pictures to the clipart frame:
 - Double-click the picture within the frame.
 - Browse to the location of the picture.
 - Select the picture and click **Open**.
 - Resize the picture as necessary. Follow the directions in the Caution note below.
 - b) Adding pictures from graphic files to places other than the clipart frame:
 - **Insert > Picture > From File.**
 - Browse to the graphic file, select it, and click **Open**.
 - Move the picture to its location.
 - Resize the picture if necessary.
 - c) Adding OLE Objects is an advanced technique covered in the *Impress Guide*.

Caution  When resizing a graphic, right-click the picture. Select **Position and Size** from the pop-up menu. Make sure **Keep ratio** is selected. Then adjust the height or width to the size you need. (As you adjust one dimension both dimensions will change.) Failure to do so will cause the picture to become distorted.

- 3) Adding text to a slide: If the slide contains text, click the phrase *Click to add an outline* in the text frame. Type the text into the text frame.

Note Text in the slide is in an outline format: each level is indented more than the previous level as you move from level 1 to level 10.

- a) To change Outline Levels as you type, use the **left** and **right** arrow buttons (Figure 116).
- The **left** arrow changes it to the previous Outline Level (level 3 to level 2 for example).
 - The **right** arrow changes to the next Outline Level (level 2 to level 3 for example).



Figure 116: Text moving arrows

- b) To change the order of the paragraphs (lines), use the **up** and **down** arrow buttons.
- The **up** arrow moves the paragraph higher in the text.
 - The **down** arrow moves the paragraph lower in the text.

Note Moving text around usually requires using a combination of these keys. For example, a paragraph needs to be moved higher and its Outline level needs to be changed to a lower level (closer to 1) or a higher level (closer to 10).

Step 4: To create additional slides repeat steps 1–3.

Working with slides

This is the time to review the entire presentation and answer some questions. Run the slide show at least once before answering them. You might want to add some questions of your own.

- 1) Are the slides in the correct order? If not, some of them will need to be moved.
- 2) Would an additional slide make a particular point clearer? The slide needs to be created.
- 3) Would some custom animations help some of the slides? (Advanced technique)
- 4) Should some of the slides have a different slide transition than others? The transition of these slides should be changed.
- 5) Do some of the slides seem unnecessary? Delete the slide or slides after checking if they are indeed unnecessary.

Caution



If one or more slides seems to be unnecessary, hide the slide or slides, and view the slide show a few more times to make sure. To hide a slide, right-click the slide in the Slides pane. Select **Hide Slide** in the pop-up menu. Do not delete a slide until you have done this, otherwise you may have to create that slide again.

Once you have answered these and your own questions, you should make the necessary changes. This is done the easiest in the Slide Sorter view and will be explained there. If you need one or more new slides, create them using the steps listed in “Inserting additional slides” on page 151.

Custom animations

If you know how to add a custom animation to a slide, do it now. This is an advanced technique and is explained in the *Impress Guide*.

Slide transitions

Your first slide show should probably have the same slide transition for all slides. Setting *Advance slide* to *On mouse click* is the default and a simple setting. If you want each slide to be shown for a specific amount of time, click *Automatic after* and enter the number of seconds. Click **Apply to all slides**.

Tip The Slide transition section has a very useful choice: *Automatic preview*. Select its checkbox. Then when you make any changes in a slide transition, the new slide, including its transition effect, is previewed in the workspace area.

Changes that can be made to slide transitions:

- 1) *Apply to selected slides* has a list of slide transitions.
 - a) Make sure *Automatic preview* is checked.
 - b) Click one of the members of the *Apply to selected slides* list.
 - c) Watch the effects of this slide transition.
 - d) Select the slide transition you want.
- 2) *Modify transition* has two drop down lists.
 - Select the *Speed*: slow, medium, and fast.
 - Select a *Sound* from the list if you want one.
- 3) Once you have made your selections, if any, click **Apply to all slides** to give all slides the same transition.
- 4) **Play** and **Slide Show** are used to play one or more slides in the presentation.
 - Clicking **Play** has the same effect as having *Automatic Preview* checked (ticked): a single slide is shown along with its slide transition.
 - **Slide Show** begins the slide show at the selected slide and continues until the end.

Tip If you want to use this button to play the entire slide show, click the top slide in the Slides pane. Then click **Slide Show** in the Slides transitions section of the Task pane.

Workspace

You already know about the first view of Workspace: Normal. All of your work so far has been done in that view, one slide at a time. These other views of Workspace allow you to perform other tasks.

Normal

There are two ways to place a slide in the Slide Design area of the Normal view: clicking the slide thumbnail in the Slides pane, or using the Navigator. To open the Navigator, click the **Navigator** button in the Standard Toolbar (Figure 117). To select a slide, scroll down the Navigator list until you find it and double-click it.



Figure 117: Navigator button

Note One of the purposes of naming the slides is to match them with the outline you created in the beginning. Another purpose is to help find a particular slide that you want to change using the Navigator.

Outline

The Outline view (Figure 118) contains all of the slides of the presentation in their numbered sequence. Only the text in each slide is shown. Slide names are not included.

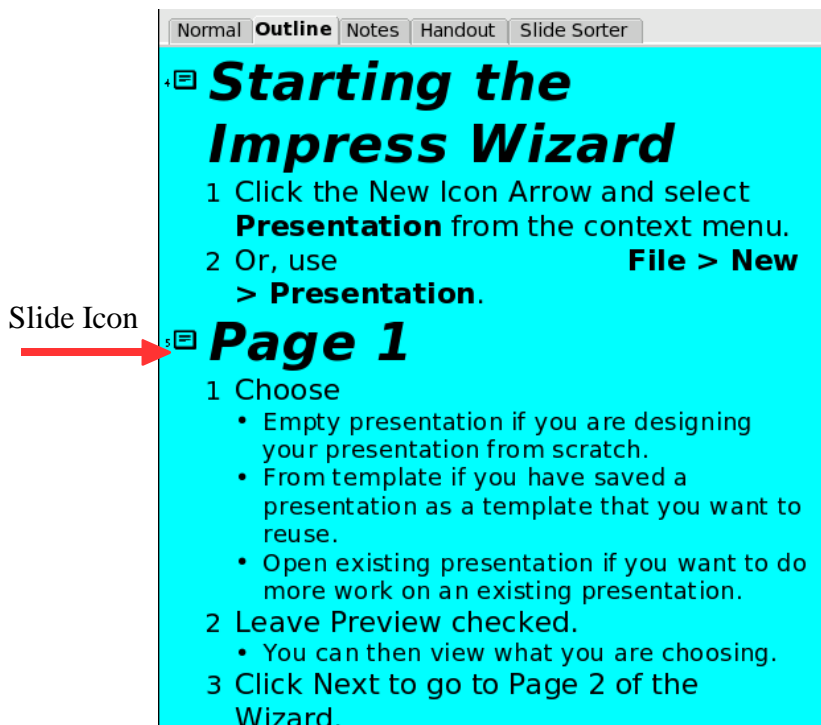


Figure 118: Moving slides in Outline view

The Outline view serves at least two purposes.

- 1) Making changes in the text of a slide:
 - You can add and delete the text in a slide just as you would in the Normal view.
 - You can move the paragraphs of text in the selected slide up or down by using the up and down arrows (Figure 116).
 - You can change the Outline Level for any of the paragraphs in a slide using the left and right arrows.
- 2) The slides can be compared with your outline. If you notice from your outline that another slide is needed, you can return to the Normal view to create the slide. Then return to reviewing all the slides against your outline in the Outline view.
 - If a slide is not in the correct sequence, you can move it to its proper place.
 - Click the slide icon of the slide you are moving.
 - Drag and drop it where you want it.

Notes

The Notes view is used to add notes to a slide. At the present time, they are not visible to the person running the slide show. They can be printed out as part of a handout, but this is not an easy task.

To add notes to a slide:

- 1) Click the **Note** tab in the Workspace (Figure 119).

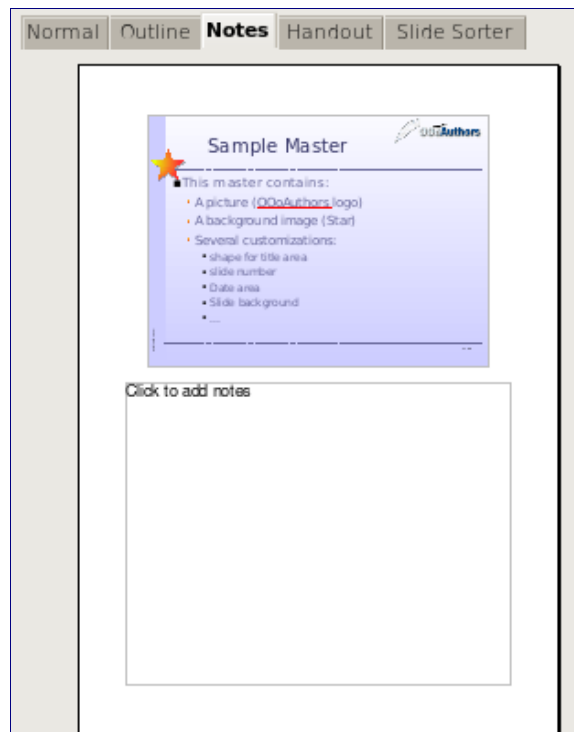


Figure 119: Note view

- 2) Select the slide to which you will add notes.
 - Double-click the slide in the Slide pane, or
 - Double-click the slide's name in the Navigator.
- 3) Type the notes in the text box below the slide.

Slide Sorter

Slide Sorter view contains all of the slide thumbnails (Figure 120). This view allows the selection of multiple slides for the purpose of changing the order. It is also possible to work on one slide at a time.



Figure 120: Slide Sorter view

Change the number of slide per row if desired.

- 1) Check **View > Toolbars > Slide View** to make the Slide view toolbar (Figure 121) visible.



Figure 121: Slide View toolbar

- 2) Adjust the number of slides.
- 3) When you have adjusted the number of slide per row, **View > Toolbars > Slide View** will remove this toolbar from view.

To move a slide in a presentation in the Slide Sorter:

- 1) Click the slide. A thick black border is drawn around the selected slide.
- 2) Drag and drop it to the location you want.

- As you move the slide, a black vertical line appears to one of the sides of the slide.
- Drag the slide until this black vertical line is located where you want the slide.

To select a group of slides:

- 1) Click the number of the first slide.
- 2) Hold down the left mouse button.
- 3) Drag the cursor to the last slide thumbnail. A dashed outline of a rectangle forms as you drag the cursor through the slide thumbnails. Make sure the rectangle includes all the slides you want to select.

To move a group of slides:

- 1) Select the group.
- 2) Drag and drop the group to their new location. The same vertical black line appears to show you where the group of slides will go.

Note Selection of a group of slides works in a rectangular fashion. For example: slides 1, 2, 3, 5, 6, and 7 can be selected, but slides 1, 2, 5, 6, and 7 can not.

You can work with slides in the Slide Sorter view just as you can in the Slide pane. To make changes, right-click a slide and do the following using the pop-up menu:

- Add a new slide after the selected slide.
- Delete the selected slide.
- Change the Slide Layout.
- Change the Slide Transition.
 - a) For one slide, click the slide to select it. Then add the desired transition.
 - b) For more than one slide, select the group of slides and add the desired transition.
- Hide the selected slide. It will not be shown in the slide show.
- Copy and paste a slide.
- Cut and paste a slide.

Handouts

This view is for setting up the layout of your slide for a printed handout. Layout contains five choices: one, two, three, four, and six slides per page (Figure 122). If you want to include slide notes with your handout, consult the *Impress Guide*. This involves advanced techniques.

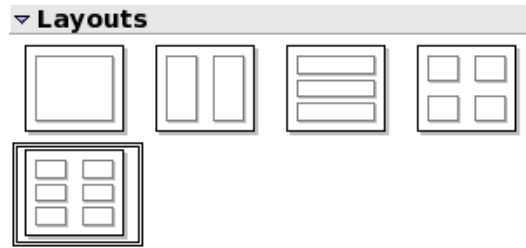


Figure 122: Handout layouts

To print a handout:

- 1) Select the slides using the Slide Sorter. (Use the steps listed in selecting a group of slides on page 158.)
- 2) Select **File > Print** or press *Control+P*.
- 3) Select **Options** in the bottom left corner.
- 4) Check **Handout** and click **OK**.
- 5) Select **Print Range**.
- 6) Click **OK** in the Print window.

Note By selecting a single slide, it is possible to print it and any notes it contains. Printing the entire presentation and all of its notes is beyond the scope of this document.

Running the presentation

To run the slide show, do one of the following:

- Click **Slide Show > Slide Show**.
- Click the Slide Show button (Figure 123).

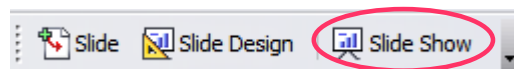


Figure 123: Presentation Toolbar

- Press *F5* or *F9* to start a slide show.

If the slide transition is *Automatic after x seconds*, let the slide show run by itself.

If the slide transition is *On mouse click*, do one of the following to move from one slide to the next.

- Use the arrow keys on the keyboard to go to the next slide or to go back to the previous one.
- You can also click the mouse to move to the next slide.
- Press the spacebar on the keyboard to advance to the next slide.

To exit the slide show at any time including at the end, press the *Esc* key.



Chapter 10

Getting Started with Base

OpenOffice.org's Database Component

Introduction

A data source, or database, is a collection of pieces of information that can be accessed or managed by OpenOffice.org (OOo). For example, a list of names and addresses is a data source that could be used for producing a mail merge letter. A shop stock list could be a data source managed through OOo.

Note OpenOffice.org uses the terms “Data Source” and “Database” to refer to the same thing, which could be a database such as MySQL or dBase or a spreadsheet or text document holding data.

This chapter covers creating a database, showing what is contained in a database and how the different parts are used by OOo. It also covers using the Base component of OOo to register other data sources. A data source can be a database, spreadsheet, or text document.

Data sources are only introduced in this chapter. For more detailed information about the use of databases, see the *Database Guide*.

Note OOo Base uses the HSQL database engine. All of the files created by this engine are kept in one zipped file. The database forms are included in this zipped file.

A *database* consists of a number of *fields* that contain the individual pieces of data. Each *table* of the database is a group of fields. When creating a table, you also determine the characteristics of each field in the table. *Forms* are for data entry into the fields of one or more tables associated with the form. They can also be used for viewing fields from one or more tables associated with the form. A *query* creates a new table from the existing tables based upon how you create the query. A *report* organizes the information of the fields of a query in a document according to your requirements.

Caution The database in OOo requires Java Runtime Environment (JRE). If you do not have it on your computer, you can download it from www.java.com and install it following the instructions on the site. It should be Java 5.0 or higher. In OOo, use **Tools > Options > OpenOffice.org > Java** to register Java.



Windows's version of JRE can **not** be used, while there are other versions that can.

Base creates *relational databases*. This makes it fairly easy to create a database in which the fields of the database have relationships with each other.

For example: Consider a database for a library. It will contain a field for the names of the authors and another field for the names of the books. There is an obvious relationship between the authors and the books they have written. The library may contain more than one book by the same author. This is what is known as a one-to-many relationship: one author and more than one book. Most if not all the relationships in such a database are one-to-many relationships.

Consider an employment database for the same library. One of the fields contains the names of the employees while others contain the social security numbers, and other personal data. The relationship between the names and social security is one-to-one: only one social security number for each name.

If you are acquainted with mathematical sets, a relational database can easily be explained in terms of sets: elements, subsets, unions, and intersections. The fields of a database are the elements. The tables are subsets. Relationships are defined in terms of unions and intersections of the subsets (tables).

To explain how to use a database, we will create one for automobile expenses. In the process, we will be explaining how a database work.

Creating a database

The first step in creating a database is to ask yourself many questions. Write them down, and leave some space between the questions to later write the answers. At least some of the answers should seem obvious after you take some time to think.

You may have to go through this process a few times before everything becomes clear in your mind and on paper. Using a text document for these questions and answers makes it easier to move the questions around, add additional questions, or change the answers.

Here are some of the questions and answers I developed before I created a database for automobile expenses. I had an idea of what I wanted before I started, but as I began asking questions and listing the answers, I discovered that I needed additional tables and fields.

What are the fields going to be? My expenses divided into three broad areas: fuel purchases, maintenance, and vacations. The annual cost for the car's license plate and driver's license every four years did not fit into any of these. It will be a table of its own: license fees.

What fields fit the fuel purchases area? Date purchased, odometer reading, fuel cost, fuel quantity, and payment method fit. (Fuel economy can be calculated with a query.)

What fields fit the maintenance area? Date of service, odometer reading, type of service, cost of service, and next scheduled service of this type (for example, for oil changes list when the next oil change should be). But it would be nice if there was a way to write notes. So, a field for notes was added to the list.

What fields fit the vacations area? Date, odometer reading, fuel (including all the fields of the fuel table), food (including meals and snacks), motel, total tolls, and miscellaneous. Since these purchases are made by one of two bank cards or with cash, I want a field to state which payment type was used for each item.

What fields fit into the food category? Breakfast, lunch, supper, and snacks seem to fit. Do I list all the snacks individually or list the total cost for snacks for the day? I chose to divide snacks into two fields: number of snacks and total cost of snacks. I also need a payment type for each of these: breakfast, lunch, supper, and total cost of snacks.

What are the fields that are common to more than one area? Date appears in all of the areas as does odometer reading and payment type.

How will I use this information about these three fields? While on vacation, I want the expenses for each day to be listed together. The date fields suggest a relationship between the vacation table and the dates in each of these tables: fuel and food. This means that the date fields in these tables will be linked as we create the database.

The type of payment includes two bank cards and cash. So, we will create a table with a field for the type of payment and use it in list boxes in the forms.

Tip While we have listed fields we will create in the tables of the database, there is one more field that may be needed in a table: the field for the primary key. In some tables, the field for the primary key has already been listed. In other tables such as the payment type, an additional field for the primary key must be created.

Creating a new database

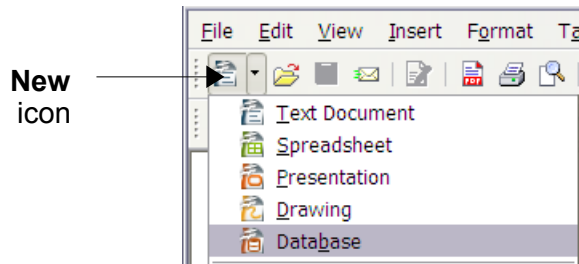


Figure 124: Creating a new database

To create a new database, click the arrow next to the **New** icon. In the drop-down menu, select **Database** (Figure 124). This opens the Database Wizard. You can also open the Database Wizard using **File > New > Database**.

The first step of the Database Wizard has one question with two choices: **Create a new database** or **Connect to an existing database**. For this example, select **Create a new database** and then click **Next**.


The second step has two questions with two choices each. The default choice for the first question is **Yes, register the database for me** and the default choice for the second question is **Open the database for editing**. Make sure these choices are selected and click **Finish**.

Note If the database is not registered, it will not be accessible to the other OOO components such as Writer and Calc. If the database is registered, other components can access it.

Save the new database with the name *Automobile*. This opens the Automobile – OpenOffice.org Base window. Figure 125 shows part of this window.

Tip Every time the *Automobile* database is opened, the Automobile – OpenOffice.org Base window opens. Changes can then be made to the database. The title for this window is always (database name) – OpenOffice.org.

Caution As you create a database, you should save your work regularly. This means more than just saving what you have just created. You must save the whole database as well.



For example, when you create your first table, you must save it before you can close it. If you look at the Save icon in the Standard toolbar at the top after closing the table, it will be active. Click the Save icon, and this icon will be grayed out again. Not only the table has been saved, but it also been made a part of the database.

Creating database tables

Note In a database, a table stores information for a group of things we call fields. For example, a table might hold an address book, a stock list, a phone book or a price list. A database can have from one to several tables.

To work with tables, click the *Tables* icon in the *Database* list, or use *Alt+a*. The three tasks that you can perform on a table are in the *Task* list (see Figure 125).

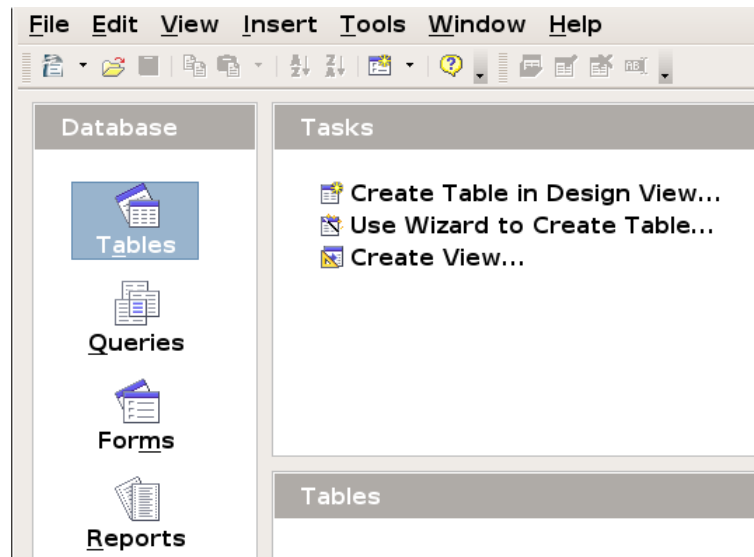


Figure 125: Creating tables

Using the Wizard to create a table

Caution Every table requires a *Primary key field*. (What this field does will be explained later.) We will use this field to number our entries and want that number to automatically increase as we add each entry.



Since none of the fields we need for our Automobile database are contained in any of the wizard tables, we will create a simple table using the wizard that has nothing to do with our database. This section is an exercise in explaining how the Wizard works.

The Wizard permits the fields of the table to come from more than one suggested table. We will create a table with fields from three different suggested tables in the Wizard.

Click *Use Wizard to Create Table*. This opens the Table Wizard.

Note A field in a table is one bit of information. For example, in a price list table, there might be one field for item name, one for the description and a third for the price. More fields may be added as needed.

Step 1: Select fields.

You have a choice of two categories of suggested tables: Business and Personal. Each category contains its own suggested tables from which to choose. Each table has a list of available fields. We will use the *CD-Collection* Sample table in the Personal category to select the fields we need.

- 1) *Category*: Select *Personal*. The *Sample Tables* drop down list changes to a list of personal sample tables.
- 2) *Sample Tables*: Select *CD-Collection*. The *Available fields* window changes to a list of available fields for this table.
- 3) *Selected Fields*: Using the > button, move these fields from the *Available fields* window to the *Selected fields* window in this order: *CollectionID*, *AlbumTitle*, *Artist*, *DatePurchased*, *Format*, *Notes*, and *NumberofTracks*.
- 4) *Selected Fields from another sample table*. Click Business as the Category. Select *Employees* from the dropdown list of sample tables. Use the > button to move the *Photo* field from the *Available fields* window to the *Selected fields* window. It will be at the bottom of the list directly below the *NumberofTracks* field.
- 5) If a mistake is made in the order as listed above, click on the field name that is in the wrong order to highlight it. Use the **Up** or **Down** arrow on the right side of the *Selected Fields* list (see Figure 126) to move the field name to the correct position. Click **Next**.

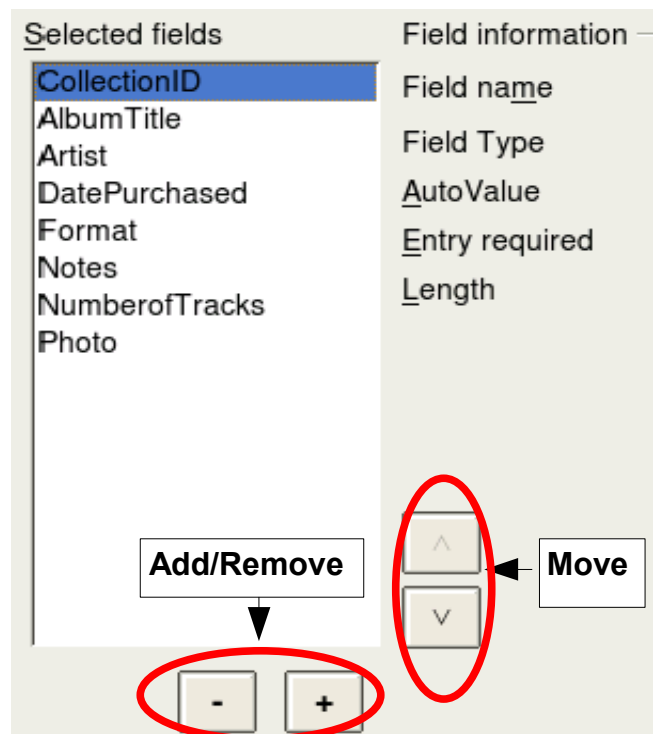


Figure 126: Order of fields

Caution

Below the *Selected Fields* list are two buttons: one with a +, and one with a –. These buttons are used to add or to remove fields from the *Selected Fields* list. Be careful when using these buttons until well acquainted with how to create tables (Figure 126).

Step 2: Set field types and formats.

In this step you give the fields their properties. When you click a field, the information on the right changes. You can then make changes to meet your needs. (See Figure 127.) Click each field, one at a time, and make the changes listed below.

Selected fields	Field information	
CollectionID	Field name	CollectionID
AlbumTitle	Field Type	Integer [INTEGE ▼
Artist	AutoValue	No ▼
DatePurchased	Entry required	No ▼
Format	Length	10
Notes		
NumberOfTracks		
Photo		

Figure 127: Changing field types

Note

If any of these fields requires an entry, set *Entry required* to **Yes**. If *Entry required* is set to Yes, this field must have something in it. For example if *FirstName* has *Entry required* set to Yes, having an entry with the first name missing will not be allowed. In general, only set *Entry required* to **Yes** if something must always be put in that field. By default, *Entry required* is set to **No**.

- *CollectionID*: Change *AutoValue* from **No** to **Yes**.
- *AlbumTitle*:
 - *Entry required*: If all of your music is in albums, change *Entry required* to *Yes*. Otherwise, leave *Entry required* as *No*.
 - *Length*: Unless you have an album title that exceeds 100 characters in length counting the spaces, do not change the length.

Note

In Base the maximum length of each field must be specified on creation. It is not easy to change this later, so if in doubt specify a greater length. Base uses VCHAR as the field format for text fields. This format only uses the actual number of characters in a field up to the limit set. So, a field containing 20 characters will only use space for 20 characters even if the limit is set at 100. So, two album titles containing 25 and 32 characters respectively will use space for 25 and 32 characters and not 100 characters.

- *Artist*: Use the Default setting. And since music has authors, set *Entry Required* to *Yes*.
- *Date Purchased*: *Length*: default setting. *Entry required* should be *No*. (You may not know the date.)
- *Format*: Only change the *Entry Required* setting: from *No* to *Yes*.

- *Notes*: No changes are required.
- *NumberOfTracks*: Change the *Field Type* to *Tiny Integer[TINYINT]*. Your allowable number of tracks will be 999.
- *Photo*: Use the default settings. When you have finished, click **Next**.

Note Each field also has a *Field Type*. In Base the field type must be specified. These types include text, integer, date and decimal. If the field is going to have general information in it (for example a name or a description) then you want to use text. If the field will always contain a number (for example a price) the type should be decimal or another appropriate numerical field. The wizard picks the right field type, so to get an idea of how this works, see what the wizard has chosen for different fields.

Step 3: Set primary key.

- 1) *Create a primary key* should be checked.
- 2) Select option *Use an existing field as a primary key*.
- 3) In *Fieldname* drop down list, select *CollectionID*.
- 4) Check *Auto* value if it is not already checked.
- 5) Click **Next**.

Note A primary key uniquely identifies an item (or record) in the table. For example, you might know two people called “Randy Herring” or three people living at the same address and the database needs to distinguish between them.

The simplest method is to assign a unique number to each one: number the first person 1, the second 2 and so on. Each entry has one number and every number is different, so it is easy to say “record ID 172”. This is the option chosen here: *CollectionID* is just a number assigned automatically by Base to each record of this table.

There are more complex ways of doing this, all answering the question “How do I make sure that every single record in my database can be uniquely identified?”

Step 4: Create the table.

- 1) If desired, rename the table at this point. If you rename it, make the name meaningful to you. For this example, make no changes.
- 2) Leave the option *Insert data immediately* checked.
- 3) Click **Finish** to complete the table wizard. Close the window created by the table wizard. You are now back to the main window of the database with the listing of the tables, queries, forms, and reports.

Creating a table by copying an existing table

If you have a large collection of music, you might want to create a table for each type of music you have. Rather than creating each table from the wizard, you can make a copy of the original table. Each table can be named according to the type of music contained in it.

Possible names could include Classical, Pop, Country and Western, and Rock among others.

- 1) Click on the **Tables** icon in the Database pane to see the existing tables.
- 2) Right-click on the *CD-Collection* table icon. Select **Copy** from the context menu.
- 3) Move the mouse pointer below this table, right-click, and select **Paste** from the context menu. The *Copy table* window opens.
- 4) Change the table name to *Pop* and click **Next**.
- 5) Click the >> button to move all the Fields from the left window to the right window and click **Next**.
- 6) Since all the Fields already have the proper File Type formatting, no changes should be needed. However, this is the time and place to make these changes if they are needed. (See **Caution** below for the reason why.) Click **Create**. The new table is created.

Caution

Once tables have been created using the wizard, editing them is limited. **The Primary key can not be changed in any way.** It is possible to add new fields and remove fields. It is possible to change the field type when creating the field as well as later as long as it is not the primary key. Once data has been added to the database, deleting a field will also delete any data contained in that field. When creating a new table, it pays to create the fields with the correct names, length and format before data is added.

Caution

Tables can be deleted in a very simple way. But doing so removes all of the data contained in every field of the table. Unless you are sure, do not delete a table. To delete a table, right-click it in the list of tables. Select **Delete** from the context menu. A pop up window asks if you are sure you want to delete the table. Once you click *Yes*, the table and its data are gone forever unless you have a backup.

Creating tables in Design View

Design View is a more advanced method for creating a new table. It allows you to directly enter information about each field in the table. We will use this method for the tables of our database.

Note

While the *Field type* and *formatting* are different in *Design View*, the concepts are the same as in the Wizard.

The first table to be created is *Fuel*. Its fields are *FuelID*, *Date*, *FuelCost*, *FuelQuantity*, *Odometer*, and *PaymentType*. *FuelCost* uses currency and two decimal places. *FuelQuantity* and *Odometer* uses the number format with 3 decimal places and 1 decimal place respectively. *PaymentType* uses the text format.

- 1) Click *Create Table in Design View*.
- 2) *FuelID* entries:
 - a) Enter *FuelID* as the first *Field Name*.
 - b) Select *Integer[INTEGER]* as the *Field Type* from the dropdown list. (The default setting is *Text[VARCHAR]*.)

Tip Shortcut for selecting from the Field Type dropdown list: use the key for the first letter of the choice. This might require using the letter more than once to get the choice you want. You can cycle through the choices for a given letter by repeatedly using that letter.

After typing the name of the field in the Fields column, use *the Tab* key to move to the Field Type column. This will enter the field name and highlight the dropdown list. You can then use the key for the first letter of your choice to select the field type. Just remember to use it the correct number of times if necessary.

c) Change the *Field Properties* in the bottom section.

- Change *AutoValue* from *No* to *Yes* (Figure 128).

AutoValue	Yes
Length	10
Format example	0
Auto-increment statement	IDENTITY

Figure 128: Field Properties section (*AutoValue*)

d) Set *FuelID* as the *Primary key*.

- Right-click on the green triangle to the left of *FuelID* (Figure 129).

	Field Name	Field Type
▶	FuelID	Integer [INTEGER]

Figure 129: Primary key field

- Click *Primary Key* in the context menu. This places a key icon in front of *FuelID*.

Note The primary key serves only one purpose. Any name can be used for this field. It is not necessary to use *FuelID* as the name of the primary key field. We have used it so we know to which table it belong by its name.

3) All other entries:

- Enter the next field name in the first column (*Field Name* column).
- Select the *Field Type* for each field.
 - For *Date* use Date[DATE]. (Use the *D* key once to select it.)
 - PaymentType uses Text[VARCHAR], the default setting.
 - All other fields use Number[NUMERIC]. (Use the *N* key once to select it.)
- Select the *Field Properties* (Figure 130).

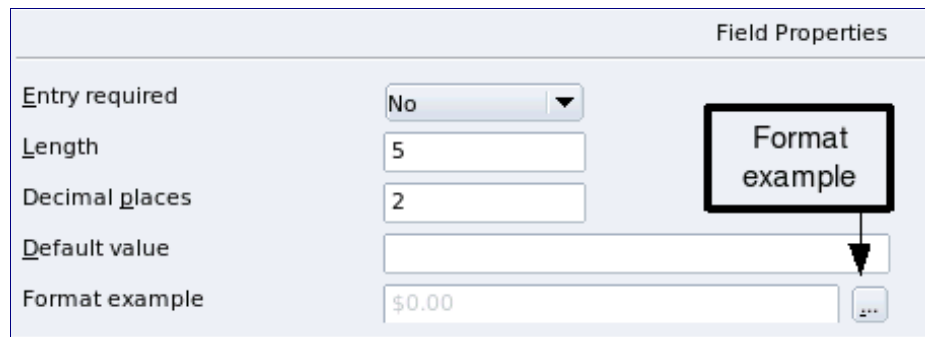


Figure 130: Field Properties section

- FuelCost, FuelQuantity, and Odometer need changes in the Field Properties section (Figure 130).
 - *FuelQuantity*: Change *Length* to 6 and *Decimal places* to 3. (Many fuel pumps measure fuel to thousands of a gallon in the USA where I live.)
 - *Odometer*: Change the *Length* to 10 and the *Decimal places* to 1.
 - *FuelCost*: Change the *Length* to 5 and *Decimal places* to 2. Click the **Format example** button. This opens the *Field Format* window (Figure 131).

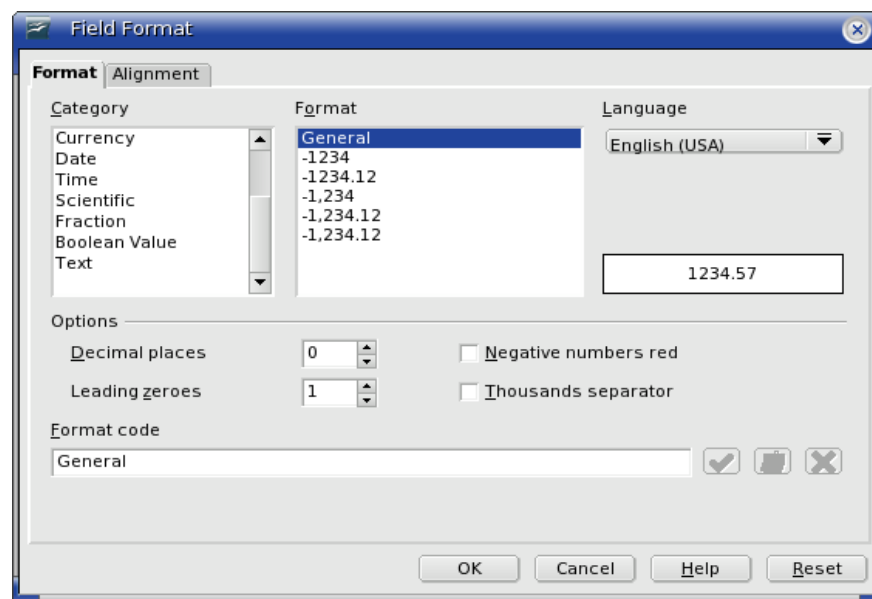


Figure 131: Field Format options

- Use *Currency* as the Category and anything in the Format list with two decimal places.

4) Repeat these steps for each field in the table.

To access additional formatting options, click the button to the right of the Format example panel (*Format example* button).

5) *Description* can be anything, or can be left blank. (Figure 132 is an example of this.)

6) To save and close the table, select **File > Close**. Name the table *Fuel*.

	Field Name	Field Type	
🔑	Date	Date [DATE]	
	Odometer	Number [NUMERIC]	Odometer reading
	Motel	Number [NUMERIC]	
	Tolls	Number [NUMERIC]	total tolls
	Breakfast	Number [NUMERIC]	
	BPayment	Text [VARCHAR]	payment type
	Lunch	Number [NUMERIC]	
	LPayment	Text [VARCHAR]	payment type
	Supper	Number [NUMERIC]	
	SPayment	Text [VARCHAR]	payment type
	SnackNo	Number [NUMERIC]	
	SnackCost	Number [NUMERIC]	
	SnPayment	Text [VARCHAR]	payment type for snacks
▶	Miscellaneous	Number [NUMERIC]	misc. costs
	MPayment	Text [VARCHAR]	payment type for motel
	MiscNotes	Memo [LONGVARCHAR]	
	MiscPayment	Text [VARCHAR]	payment type for miscellaneous

Figure 132: Example of Description entries

Follow the same steps to create the *Vacations* table. The fields and their field types are listed in Figure 132. Make sure you make Date field the primary key before closing, naming the table *Vacations*, and saving it.

Creating tables for the list box

When the same information can be used in several fields, design a table for each type of information. Each table will contain two fields: the information field, and *ID* in this order.

- 1) Follow the directions in “Creating tables in Design View” on page 169. In the table we will create, the two fields can be *Type* and *PaymentID*. Make sure that the *AutoValue* is set to **Yes** for the *PaymentID* field. Set the *PaymentID* field as the primary key. (See Figure 133.)
- 2) Save the table using the name *Payment Type*.

	Field Name	Field Type
▶	Type	Text [VARCHAR]
🔑	PaymentID	Integer [INTEGER]

Figure 133: Table in Design View

Note: If you have several tables to create with the same fields, design one table and produce the other tables by cutting and pasting. (See “Creating a table by copying an existing table” on page 168.)

Adding data to the list table

List tables do not require a form. Instead, add their data directly to the table. In this example, use the names of the two people with a bank card and cash for cash purchases.

- 1) In the main database window, click on the *Tables* icon (Figure 125). Right-click on *Payment Type* and select **Open** from the context menu.
 - a) Enter *Dan* in the first row. Use the tab key to move to the second row.
 - b) Enter *Kevin* in the second row.
 - c) Enter *Cash* in the third row.
- 2) Save and close the table window.

Tip The *Enter* key can also be used to move from field entry to field entry. For this example, enter Jan. in the first *Name* field. *Enter* moves the cursor to the *ID* field. *Enter* then moves the cursor to the second *Name* field.

The *Down Arrow* key can also be used to move from row to row.

Note The *PaymentID* field contains *<AutoField>* until you use the *Enter* key to move to the second row. Then it becomes a 0. As you add the entries to each row, the rows of the *PaymentID* field change to consecutive whole numbers. For example the first three numbers in this field are 0,1,2.

Creating a View

A View is a query. Because of this, the details of how to create and use a View are in the Creating queries section.

	Date	Breakfast	Lunch	Supper	SnackCosts
▶	04/12/07	\$11.23	\$12.56	\$14.95	\$7.34

Figure 134: View of some fields from the *Vacations* table

A View is also a table. Its fields come from the fields of one or more tables of the database. It provides a way to look at a number of fields without regard to the table to which any of the fields belong. A View can consist of some of the fields on one table as in Figure 134. Or, it can consist of fields from more than one field as in Figure 135.

	Date	FuelCost	FuelQuantity	Who
▶	04/12/07	24.99	8.299	Dan
	04/12/07	26.45	11.650	Kevin
	04/13/07	27.50	12.557	Cash
	04/15/07	35.12	10.233	Kevin

Figure 135: View of fields from the *Fuel* and *Payment Type* tables

Caution Data can not be entered into a View like it can be added to a table. It is strictly for viewing data which has already been added.



Defining relationships

Now that the tables have been created, what are the relationships between our tables? This is the time to define them based upon the questions we asked and answered in the beginning.

When on vacation, we want to enter all of our expenses all at one time each day. Most of these expenses are in the Vacations table, but the fuel we buy is not. So, we will relate these two tables using the Date fields. Since the Fuel table may have more than one entry per date, this relationship between the Vacations and Fuel tables is one to many. (It is designated 1:n.)

The Vacations tables also contains several fields for the type of payment used. For each field listing the payment type, there is only one entry from the Payment Type table. This is a one to one relationship: one field in one table to one entry from the other table. (It is designated 1:1.) Other tables also contain fields for the type of payment. The relationship between these fields of those tables and the Payment Type table are also 1:1.

Since the Payment Type table only provides a static list, we will not be defining a relationship between the Payment Type table and the fields of the other tables which use the entries of the Payment Type table. That will be done when the forms are created.

The Fuel and Maintenance tables do not really have a relationship even though they share similar fields: Date, and Odometer. Unless a person is in a habit of regularly getting fuel and having their vehicle serviced, the entries in these tables do not share anything in common.

Tip As you create your own databases, you need to also determine where tables are related and how.

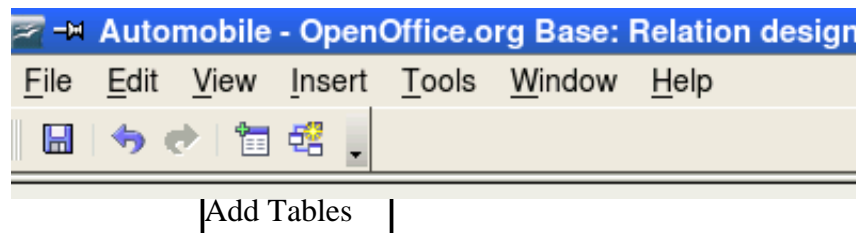


Figure 136: Relation design window

We begin defining relationships by **Tools > Relationships**. The Automobile – OpenOffice.org Base: Relation design window opens (Figure 136). The icons we will use are **Add Tables** and **New Relation**.

- 1) Click the **Add Tables** icon. The Add Tables window opens.
 - a) There are two ways to add a table to the Relation design window.
 - Double-click the name of the table. In our case, do this for both Vacations and Fuel.
 - Or, click the name of the table and then click **Add**.
 - b) Click **Close** when you have added the tables you want (Figure 175).

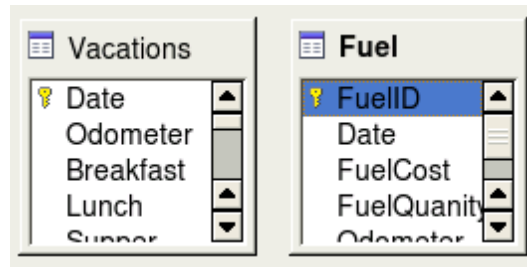


Figure 137: Added table lists

2) Defining the relationship between the Vacations and Fuel tables.

a) Two ways exist to do this:

- Click and drag the *Date* field in the Fuel table to the *Date* field in the Vacations table. When you release the left mouse button, a connecting line forms between the two date fields (Figure 138).

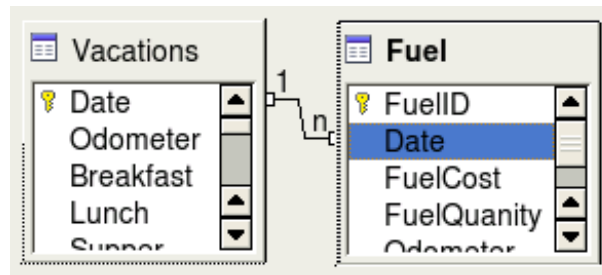


Figure 138: Designation for a 1:n relationship

- Or, click the **New Relation** icon. This opens the Relations window (Figure 139). Our two tables are listed in the *Tables involved* section.
 - In the *Fields involved* section, click the dropdown list under the Fuel label.

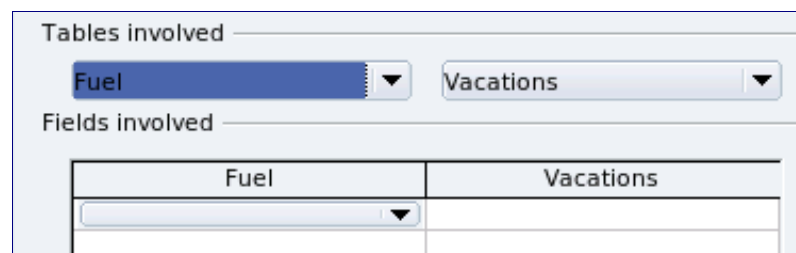


Figure 139: Setting the relationship between tables

- Select *Date* from the Fuel table list.
- Click in the cell to the right of this dropdown list. This opens a dropdown list for the Vacations table.
- Select *Date* from the Vacations table list. It should now look like Figure 140.
- Click **OK**.

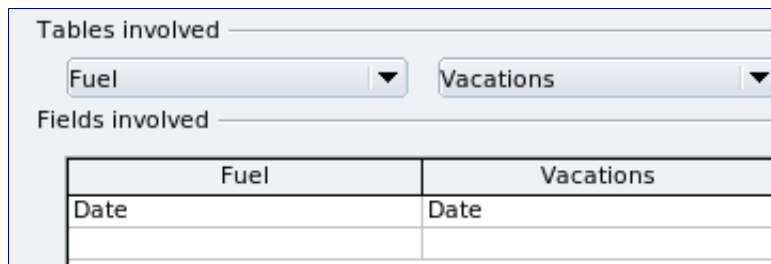


Figure 140: Selected fields in a relationship

- 3) Modifying the *Update options* and *Delete options* section of the Relation window.
 - a) Right-click the line connecting the Date fields in the two table lists to open a context menu.
 - b) Select **Edit** to open the Relation window (Figure 141).
 - c) Select **Update cascade**.
 - d) Select **Delete cascade**.

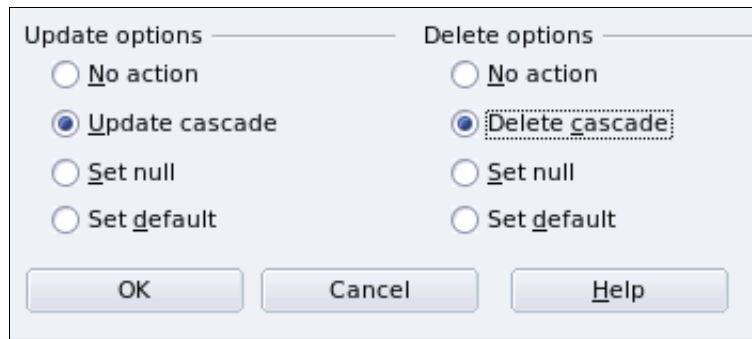


Figure 141: Update options and Delete options section

While these options are not absolutely necessary, they do help. Having these options selected permits you to update a table that has a relationship defined with another table. It also permits you to delete a field from the table.

Creating a database form

Databases are used to store data. But, how is the data put into the database? Forms are used to do this. In the language of databases, a form is a front end for data entry and editing.

A simple form consists of the fields from a table (Figure 207). More complex forms can contain much more. These can contain additional text, graphics, selection boxes and many other elements. Figure 206 is made from the same table with a text label (Fuel Purchases), a list box placed in PaymentType, and a graphic background.

Figure 142: Fields of a simple form

Figure 143: Simple Form with additions

Using the Wizard to create a form

We will use the Wizard to create two forms: Fuel and Vacations. The Fuel form will be a simple form while the Vacations form will contain a form and a subform. We will create the Vacations form with its subform and let you modify the Fuel form using the same process.

In the main database window (Figure 125), click the Form icon. Double-click **Use Wizard to Create Form** to open the wizard (Figure 144). Simple forms use only require some of these steps while more complex forms may use all of them.

Step 1: Select fields.

- 1) Under Tables or queries, select Vacations as the table. *Available fields* lists the fields for the Vacations table.
- 2) Click the right double arrow to move all of these fields to the *Fields in the form* list. Click **Next**.

Figure 144: Form Wizard steps

Step 2: Set up a subform.

Since we have already created a relationship between the Fuel and Vacations tables, we will use that relationship. If no relationship had been defined, this would be done in step 4.

- 1) Click the box labeled *Add Subform*.
- 2) Click the radio button labeled *Subform based upon existing relation*.
- 3) Fuel is listed as a relation we want to add. So, click Fuel to highlight it as in Figure 145. Click **Next**.

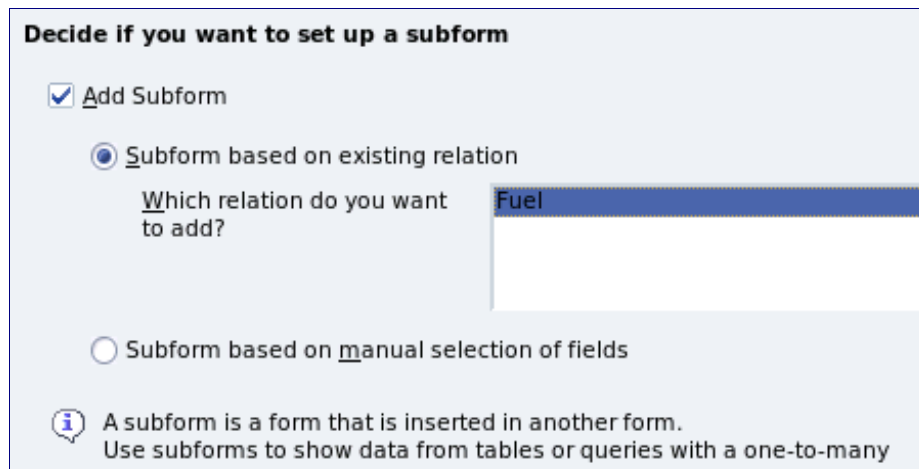


Figure 145: Adding a subform

Step 3: Add subform fields.

This step is exactly the same as step 1. The only difference is that not all of the fields will be used in the subform.

1. Select Fuel under *Tables or queries*.
2. Use the >> button to move all the fields to the right.
3. Click the FuelID field to highlight it.
4. Use the < button to move the FuelID to the left (Figure 146).
5. Click **Next**.

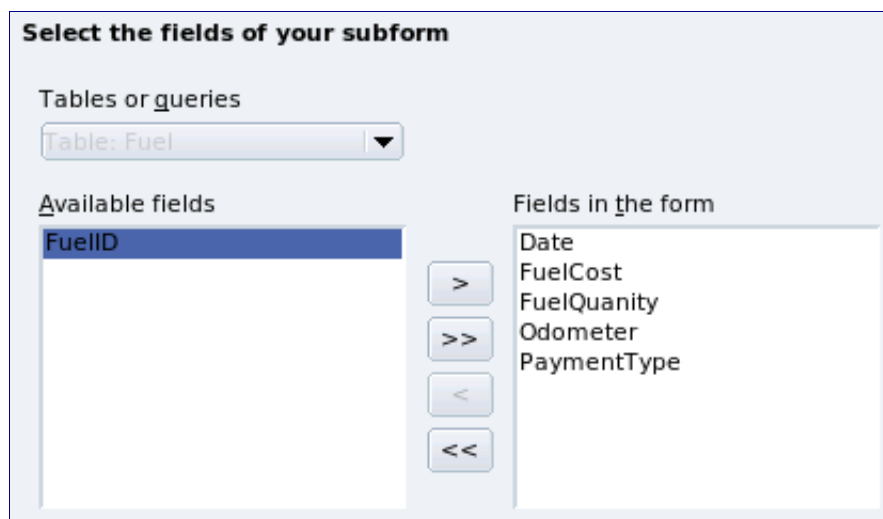


Figure 146: Selecting fields of a subform

Step 4: Get joined fields.

This step is for tables or queries for which no relationship has been defined. Since we want to list all expenses by the day they occur in both the form and subform, we will join the Date fields of these two tables (Figure 147).

Select the joins between your forms

First joined subform field	First joined main form field
Date	Date
Second joined subform field	Second joined main form field
- undefined -	- undefined -

Figure 147: Selection of joined subform and main form fields

- 1) Select Date from the *First joined subform field* dropdown list. This is the Date field in the Fuel table. This is **not** the Primary key for the Fuel table, but it is known as a Foreign key.
- 2) Select Date from the *First joined main form field* dropdown list. This is the Date field in the Vacations table. This **is** the Primary key for the Vacations table. Click **Next**.

Note It is possible to create a relationship between two tables that is based upon more than one pair of fields. How to do that and why is discussed in the Base Guide.

Caution



When selecting a pair of fields from two tables to use as a relationship, they have to have the same field type. That is why we used the Date field from both tables: both their field types are Date[DATE].

Whether a single pair of fields from two tables are chosen as the relationship or two or more pairs are chosen, certain requirements must be met for the form to work.

- No field from the subform can be the Primary key for its table. (FuelID cannot be used.)
 - Each pair of joined fields must have the same file type.
 - One of the fields from the main form must be the Primary key for its table. (Date would have to be used.)
-

Step 5: Arrange controls.

Note Each control in a form consists of two parts: label and field. This step in creating the form determine where a control's label and field are placed in relationship with each other. The four choices from left to right are Columnar left, Columnar - Labels on top, As Data Sheet, and In Blocks - Labels Above (Figure 148).

- 1) Arrangement of the main form: Click *Columnar - Labels on top*. (The labels will be placed above their field.)

- 2) Arrangement of the subform: Click *As Data Sheet*. (The labels are column headings and the field entries are in spreadsheet format.) Click **Next**.

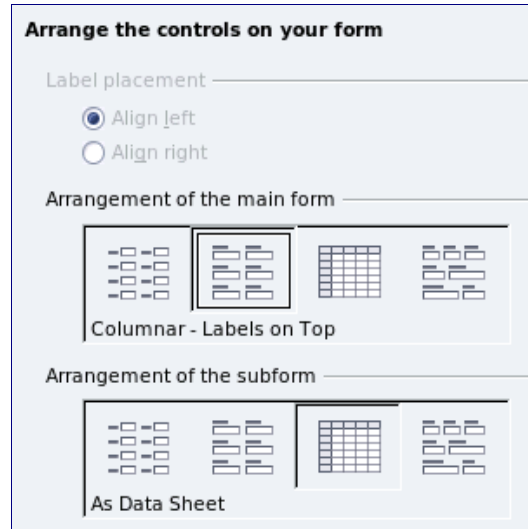


Figure 148: Control arrangements

Step 6: Set data entry.

Unless you have a need for any of these entries to be checked, accept the default settings. Click **Next**.

Step 7: Apply styles.

- 1) Select the color you want in the *Apply Styles* list. (I chose the beige which is Orange 4 in the Color table.)
- 2) Select the Field border you want. (I prefer the 3-D look. You might want to experiment with the different possible settings.)
- 3) Click **Next**.

Step 8: Set name.

- 1) Enter the name for the form. In this case, it is *Fuel*.
- 2) Click the circle in front of *Modify the form*. (This circle is called a radio button.)
- 3) Click **Next**. The form opens in Edit mode.

Modifying a form

We will be moving the controls to different places in the form and changing the background to a picture. We will also modify the label for the PaymentType field as well as change the field to a list box.

First, we must decide what we want to change and to what. The discussion will follow this ten step outline.

- 1) The Date field in the main form needs a dropdown capability. It also needs to be lengthened to show the day of the week, month, day, and year.
- 2) Shorten the length of the payment fields (all fields containing the word payment).
- 3) The controls need to be move into groups: food, fuel subform, and miscellaneous.
- 4) Some of the labels need to have their wording changed. Some single words should be two words. Some abbreviations should be used if possible (Misc. for miscellaneous).
- 5) The widths of several fields and labels need to be changed. Only Lunch, Supper, Motel, and Tolls have acceptable lengths. But for a better appearance, changes will be made to these as well.
- 6) All the fields whose label ends in *Payment* will be replaced with a list box. This box contains the entries from the Payment Type table.
- 7) The Note field needs to be lengthened vertically and a scroll bar added. It also needs to be moved.
- 8) Changes need to be made in the Date and PaymentType columns of the subform that are similar to the changes in the main form.
- 9) Headings need to be added for each group in the main form.
- 10)The background needs to be changed to a picture. Some of the labels will have to be modified so that they can be read clearly. The font color of the headings need to be changed as well.

Here are some pointers that we will be using in these steps. The controls in the main form consists of a label and its field. Sometimes we want to work with the entire control, and other times we want to work with only the label or field. There are times when we want to work with a group of controls.

- Clicking a label or field selects the entire control. A border appears around the control with eight green handles (Figure 149). You can then drag and drop it where you want.
- *Control+click* a label or field selects only the label or field (Figure 150).

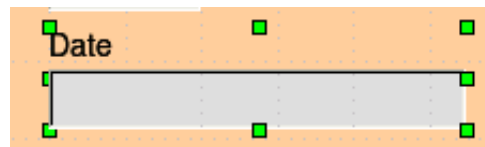


Figure 149: A selected control

- By using the *Tab* key, you can change the selection from the field to the label or the label to the field.

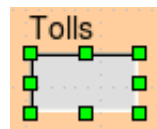


Figure 150: Selecting a field of a control

- Moving a group of controls is almost as easy as moving one of them.

- a) Click the field of one of the top left control to be moved to select it.
- b) Move the cursor to just above and to the left of the selected control.
- c) Drag the cursor to the bottom right of the group of controls and release the mouse button.
 - As you drag the cursor, a dashed box appears showing what is contained in your selection. Make sure it is big enough to include the entire length of all the controls.
 - When you release the mouse button, a border with its green handles appears around the controls you selected (Figure 151).

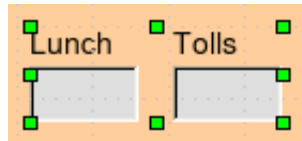


Figure 151: Selecting multiple controls

- d) Move the cursor over one of the fields. It changes to a double arrow (Figure 152).



Figure 152: Double arrow

- e) Drag the group of controls to where you want them.

Before changing the Date field, we will move the Lunch and Tolls controls to the right 5 cm (2 inches).

Tip When either changing a size or moving a control, two properties of the Form Design toolbar should be selected: *Snap to Grid*, and *Guides when Moving*. Your controls will line up better, and an outline of what you are moving moves as the cursor moves. You should also have both rulers active (**Tools > Options > OpenOffice.org Writer > View**). Since the form is created in Writer, that is where you have to make sure both horizontal and vertical rulers have a check in the box in front of them.

Note I use centimeters when making changes in a form because centimeters are more accurate than inches. When moving controls (fields and their labels), placement is also more accurate. You can change your rulers from inches to centimeters by right-clicking each ruler and selecting centimeter from the context menu. You do not have to understand what centimeters are. You only have to match your controls, labels, or fields to specific numerals on a ruler.

Step 1: Change the Date field.

- 1) *Control+click* the Date field to select it (Figure 150).
- 2) Move the cursor over the middle green handle on the right side. It should change to a single arrow (Figure 205).



Figure 153: Single arrow

- 3) Hold the left mouse button down as you drag the cursor to the right until the length is 6 cm. The vertical dashed line is lined up with the 6. (This is approximately 2.4 inches.) Release the mouse button.
- 4) Click the Control icon in the Form Controls toolbar (Figure 154). It is the one circled in red. The *Properties: Date Field* window opens. Each line contains a property of the field.



Figure 154: Form Controls toolbar

- a) Go to the *Date format* property. This is a dropdown list with Standard (short) as the default setting.
 - Click the default *Standard (short)* to open the list.
 - Click the *Standard (long)* entry to select it.
- b) Scroll down to the *Dropdown* property. Its default setting is No. It is also a dropdown list.
 - Click the default *No* setting to open the list.
 - Click *Yes* to select it.

Tip To see what the Date field will look like, click the Form Mode On/Off icon (the second icon from the left in Figure 154). You can do this any time you want to see the form with the changes you have made.

Step 2: Shorten the width of a field.

All of the fields whose label contains the word payment are too wide. They need shortening before the controls are moved.

- 1) *Control+click* the BPayment field (Figure 155).

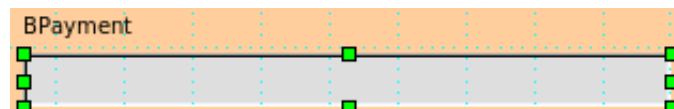


Figure 155: Selecting a field

- a) Move the cursor over the middle green handle on the right. The cursor becomes a single arrow.
- b) Drag the cursor to the left until the field is 2.5 cm wide (1 inch).

Note If you have the *Snap to Grid* and *Guides when moving icons* selected in the Design Format toolbar, you will see how wide the field is as you shorten it.

- c) Repeat these steps to shorten these fields: Lpayment, SPayment, SnPayment, Mpayment, and MiscPayment.

Step 3: Move the controls to group them by category.

We want to move the controls so that they look like Figure 156.

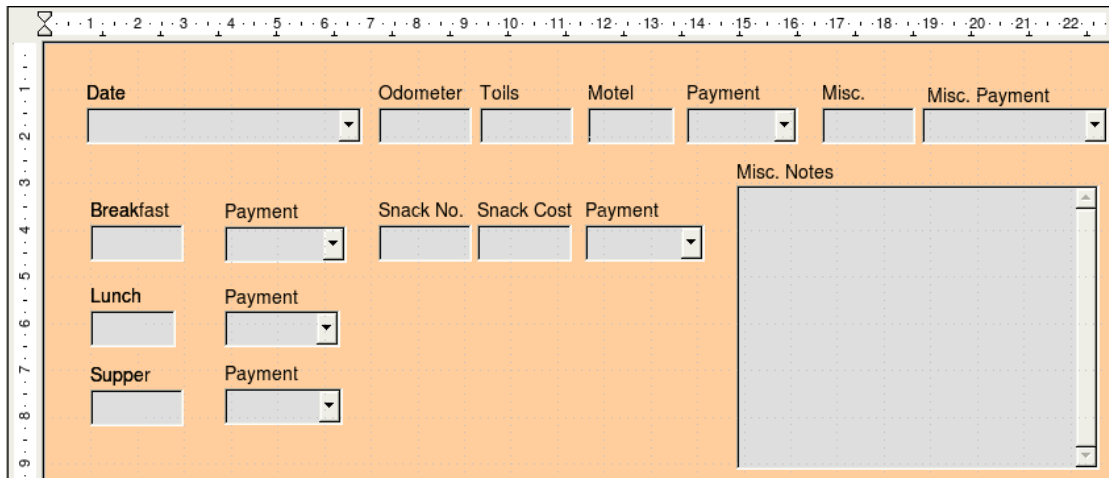


Figure 156: Positioning of Controls

- 1) Click the first control you want to move. A border appears around the control with eight green handles.
- 2) Move the cursor over the label or field of the control. It becomes a double arrow (Figure 152).
- 3) Drag and drop the control to where you want it.

Caution

Do not use *Control+click* when moving a field. It moves either the field or the label but not both. To move both, use a *mouse click* and drag to the desired spot.



- 4) Use the same steps to move the rest of the controls to where they belong.

Note

The only way to learn to do these two steps well is to practice them. Another way exists which will place controls where you want them, but this is a more advanced feature and will be explained in the *Base Guide*.

Step 4: Change the label wording.

Field names need to be single words. However, the labels for the fields can be more than one word. So, we will change them. To do so, we will be editing the text in the label.

- 1) *Control+click* the SnackNo label. Do one of the following:
 - a) Right-click the SnackNo label.
 - Select **Control** from the context menu (Figure 157). The window that opens is labeled Properties: Label field. It contains all of the properties of the selected label.

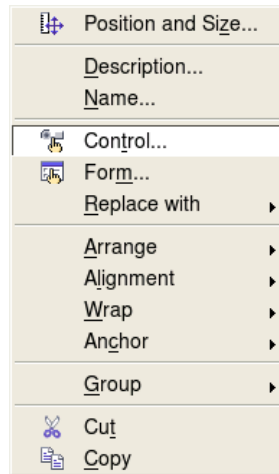


Figure 157: Context menu

- 1) In the Label selection, click between the *k* and *N* in SnackNo.
- 2) Use the *spacebar* to make SnackNo into two words.
- 3) Place a . (period) after the No.
- 1) Close the Properties window.

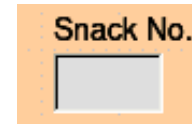


Figure 158: Multi-word label

- b) Or, click the *Control* icon in the Form Control toolbar (Figure 159). The Properties window opens. The rest of the steps are the same.



Figure 159: Form Controls toolbar

- 2) Use the same procedure to change these labels as well: BPayment to Payment, LPayment to Payment, SPayment to Payment, Miscellaneous to Misc., SnackCost to Snack Cost, MPayment to Payment, MiscPayment to Misc. Payment, and MiscNotes to Misc. Notes.

Tip All of the listings in the Properties window can be modified by you. For example, by changing the Alignment from Left to Center, the word or words in the label are centered within the Label. When you have some time, you might want to experiment with different settings just to see the results you get.

Step 5: Change the widths of the labels and fields.

We want the following controls to be 2 cm wide (0.8 inches): Breakfast, Lunch, Supper, Odometer, Snack No., Tolls, Snack Cost, Motel, and Misc. All of the payment fields were changed in step 2, but Misc. Payment needs to be changed to 3 cm (1.2 inches).

- 1) Click Breakfast. The border around it appears with eight green handles.
- 2) Move the cursor over the middle green handle on the right. The cursor changes into a single arrow.

- 3) Drag and drop the cursor to the left to shorten the control or to the right to lengthen the control. Use the guide lines to determine the width.
- 4) Repeat for the other listed controls.

Step 6: Replace fields with other fields.

We want to replace the PaymentType field with a List Box. Then we can choose the type of payment from the Payment Type table rather than having to manually enter the type. In my case, each of my payment types begins with a different letter. If I enter the first letter of the payment type, the rest of the word automatically appears. I can then go to the next field.

- 1) *Control+click* the Payment field for Breakfast. The green handles appear around the field but not around the Label.

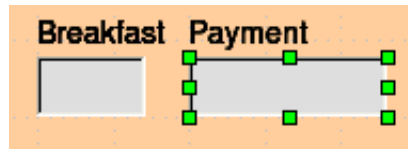


Figure 160: Selecting a field of a control

- 2) *Right-click* within the green handles and select **Replace with > List Box**. (Figure 157 is the context menu which contains the Replace with select, and Figure 161 is the list of replacement fields.)

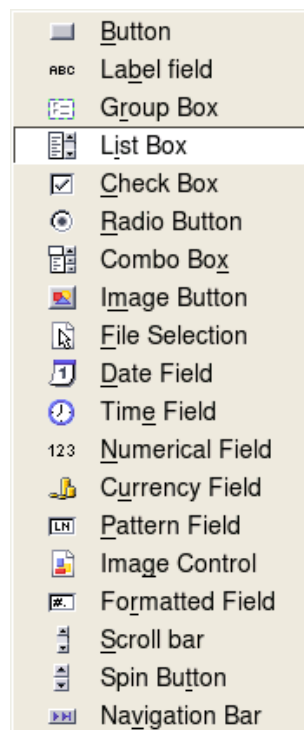


Figure 161: Replacement fields

- 3) *Click* the Control icon in the Form Controls toolbar (Figure 159) to open the Properties window.

- 4) On the General tab, scroll down to the Dropdown selection. Change the *No* to *Yes* in this dropdown list.

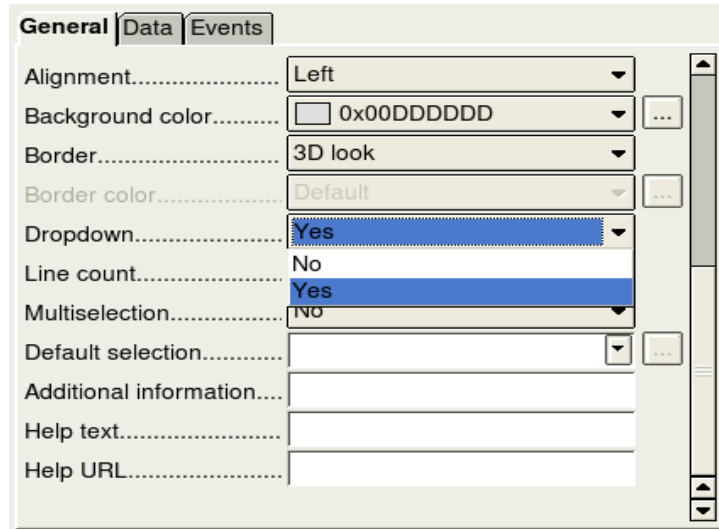


Figure 162: Dropdown list open to reveal choices

- 5) Click the **Data** tab.

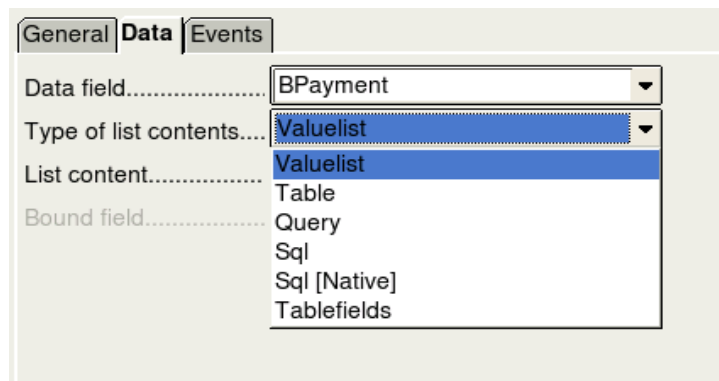


Figure 163: Type of list contents dropdown list

- a) *Type of list contents* is a dropdown list. Change it to *Sql*.
 b) Type the following **exactly** as it is in the *List contents* box:

```
SELECT "Type", "Type" FROM "Payment Type"
```

Tip You should be able to copy and paste *SELECT "Type", "Type" FROM "Payment Type"* from above directly into the *List content* box. Just make sure you copy from the *S* in *SELECT* to the double quotation mark after the phrase *Payment Type* and no more than this.

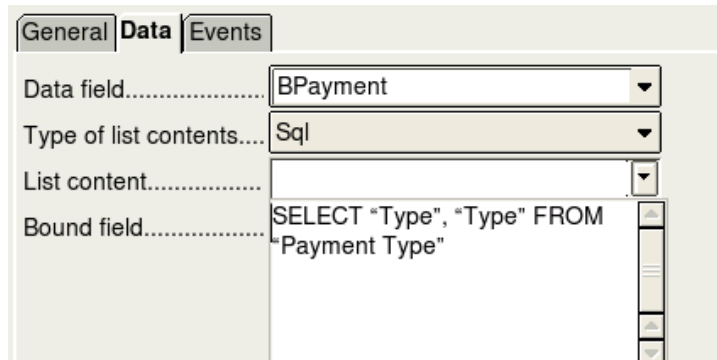


Figure 164: List content for payment type fields

Note What you wrote is called an SQL command. The words *SELECT* and *FROM* are written in capital letters because they are commands. When the command *SELECT* is used, it requires a field name within quotation marks and then the field's alias, also within quotation marks. In this case, the field and its alias are the same. The *FROM* command requires the name of the table which contains the field. Single-word table names do not require quotation marks, but multiple-word table names do.

- 6) Repeat these steps for the payment fields for Lunch, Supper, Motel, Snacks, and Misc. The main form should look like Figure 165 as far as where the controls are located. It also shows what the Note control should look like. Those changes are explained in the next step.
- 7) Close the Properties window.

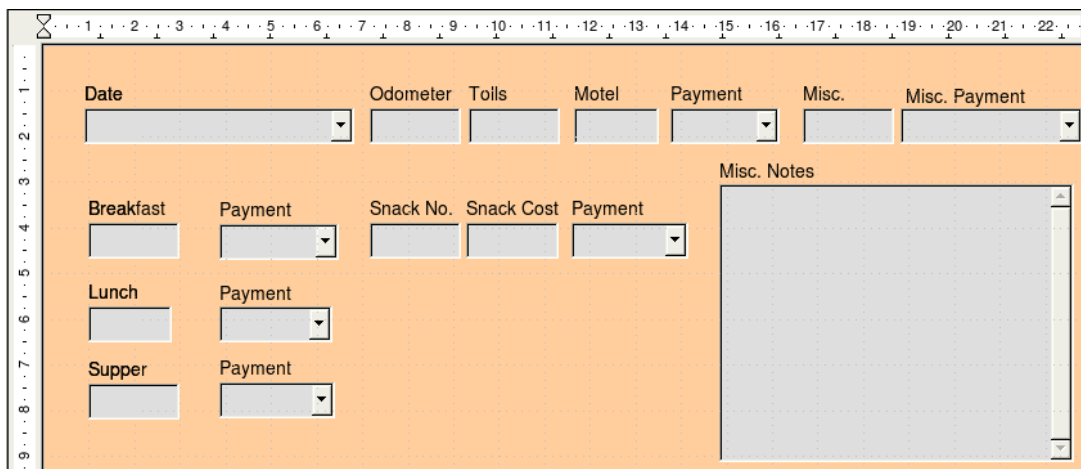


Figure 165: Position of controls in main form

Step 7: Change the Note field.

We want the Note control where it is located in Figure 165. Since it has a memo field type, it needs a vertical scrollbar for additional text space if desired.

- 1) Click the Note control.
- 2) *Control+click* the Note field. The green handles should surround the Note field but not its label.

- 3) Click the **Control** icon to open the Properties window (Figure 154).
- 4) Scroll down to the *Scrollbars* setting. Change the selection from *None* to *Vertical* in this dropdown list.

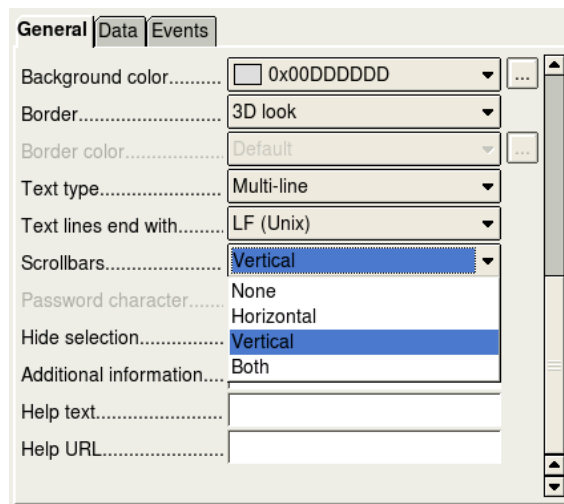


Figure 166: Scrollbar selections in Properties window

- 5) Close the Properties window.
- 6) Lengthen the Note field.
 - a) Move the cursor over the middle green handle at the bottom of the Note field. It becomes a vertical single arrow.
 - b) Drag the cursor down until the length is 6 cm (2.4 inches).

Step 8: Change labels and fields in a subform.

The Date column needs to be widened. The field in the PaymentType column needs to be changed to a list box. The label for PaymentType column needs to be two words.

- 1) Change the PaymentType column.
 - a) Right-click the label PaymentType to open a context menu (Figure 167).

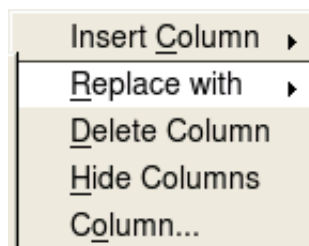


Figure 167: Choices for modifying a control in a subform

- b) Select **Replace with**, and then select **List box** from the context menu.
- c) Again right-click the label PaymentType to open a context menu.
- d) Select **Column**. This opens the Properties window. (Figure 168)

- e) In the *Label* box, change PaymentType to Payment Type.

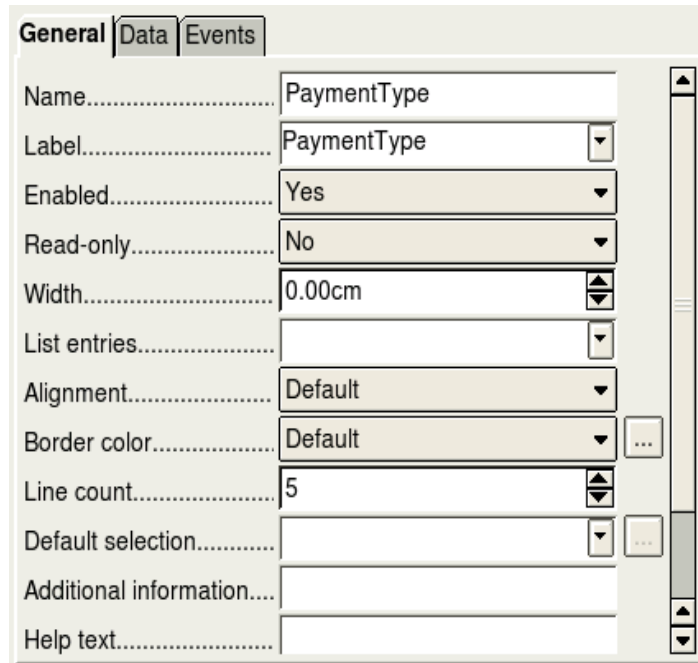


Figure 168: Properties window for control in a subform

- f) Click the **Data** tab.
- g) From the *Type of list contents* dropdown list, select *sql*.
- h) Type the following exactly as it is written:
`SELECT "Type", "Type" FROM "Payment Type"`
- i) Close the Properties window.

Tip Step 6: Replace fields with other fields., beginning with part 5, contains more detailed instruction.

Step 9: Add headings to groups.

- 1) Make sure the cursor is in the upper left corner. If it is not, click in that corner to move it there.
- 2) Use the *Enter* key to move the cursor to the fifth line from the top.
- 3) Change the *Apply Styles* dropdown list from *Default* to *Heading 2* (Figure 169).

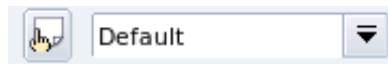


Figure 169: Apply Styles list

- 4) Use the spacebar to move the cursor to where you want the heading to start.
- 5) Type the heading *Meals*.
- 6) Use the spacebar to move the cursor to the center of snack area.

- 7) Type the heading *Snacks*.
- 8) Use the *Enter* key to move the cursor between the Supper control and the subform.
- 9) Use the spacebar to move the cursor to the center of the subform.
- 10) Type the heading *Fuel Data*.

Note If you know how to use styles, you can open the Styles and Formatting window using *F11*. Right-clicking the Heading 2 paragraph style allows you to modify the appearance of all three headings. See the *Writer Guide* Chapter 6.

Step 10: Change the background of a form.

The background for a form can be a color, or a graphic (picture). You can use any of the colors in the Color Table at **Tools > Options > OpenOffice.org > Colors**. If you know how to create custom colors, you can use them. You can also use a picture (graphic file) as the background. We will use a picture found in OOO: sky.gif (Figure 170). Since the background is dark in places, many of the labels and headings will need changing in order to be seen.

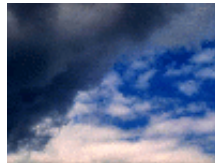


Figure 170: background graphic

- 1) Select the labels of the top row of controls.
 - a) *Control+click* the Date label.
 - b) *Control+shift+click* the rest of the labels of the top row. The border will gradually grow to the right as you do this until all the labels are enclosed in it.



Figure 171: Selecting multiple labels at one time

- c) Click the **Control** icon in the Design Form toolbar to open the Properties window.
 - d) Change the *Background* selection from *Default* to *Light cyan*. (This is a dropdown list.)
- 2) Select the other labels in the same way and then change their background color.
- 3) Close the Properties window.

Note I have chosen to use Light cyan as the background color for my labels. You are free to choose whatever color you wish including a custom color you earlier created.

- 4) Press the *F11* key to open the Styles and Formatting window (Figure 172). Notice the left icon has a black outline around it. This is the *Paragraph Styles* icon. Below it is a list of paragraph styles including headings.

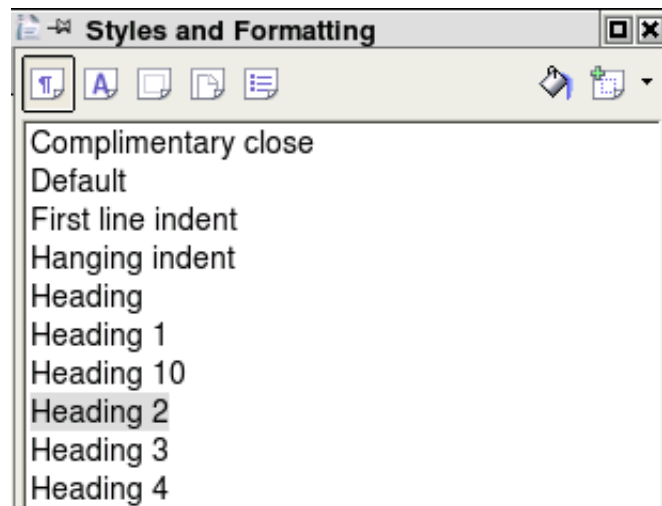


Figure 172: Top portion of the Styles and Formatting window

a) Right-click *Heading 2* and select **Modify** from the context menu.

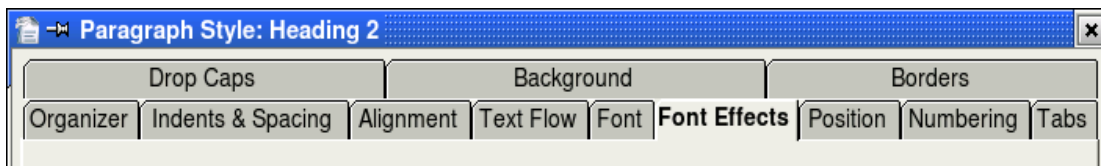


Figure 173: Tabs of the Paragraphs: Heading 2 window

b) On the Paragraph Style dialog (Figure 173), click the **Font Effects** tab.

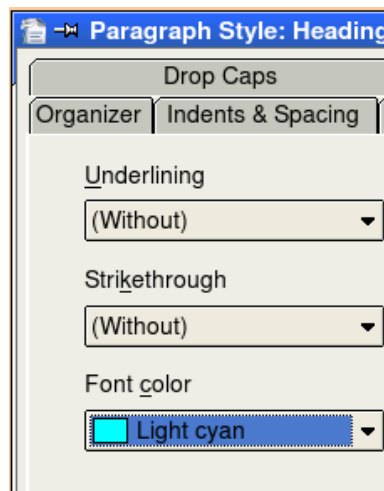


Figure 174: Left side of Font Effects tab

c) Change the *Font color* dropdown list to *Light cyan*.

d) Click **OK** to close the Paragraph Style: Heading 2 dialog.

e) Press the *F11* key to close the Formatting and Styles window.

Tip Learning how to use styles can be very helpful at times. By using styles, we changed the font color for all three headings at one time. There are other methods of changing the font color, but they require repeating the same steps for each heading.

- 5) Right-click the background and select **Page** from the context menu.
- 6) Click the Background tab (Figure 175).

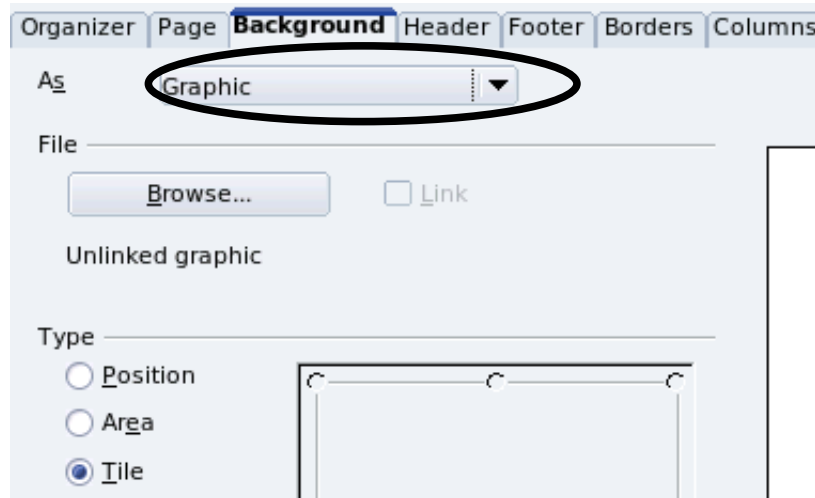


Figure 175: Background tab of Page Styles

- a) Change the *As* dropdown list from *Color* to *Graphic*.
- b) Search for this file: sky.gif. It is located in the Gallery folder of OOo.
- c) Click the **Browse** button in the File section. Browse to the folder containing sky.gif.
- d) Select this file and click **Open**.
- e) In the Type section, select *Area*.
- f) Click **OK** to close the Page Style: Default window.

The form should look like Figure 177.

Step 11: Change the tab order.

The *Tab* key moves the cursor from field to field. This is much easier to do than to click each field to enter data into it. It also permits us to group our expenses into areas before we begin entering data. For example, all of our meal receipts can be grouped together as can our snacks and also our fuel purchases.

- 1) *Control+click* the Date field.
- 2) Click the **Form Design** icon in the Form Controls toolbar to open the Form Design toolbar (Figure 176).



Figure 176: Form Controls toolbar with Form Design icon circled

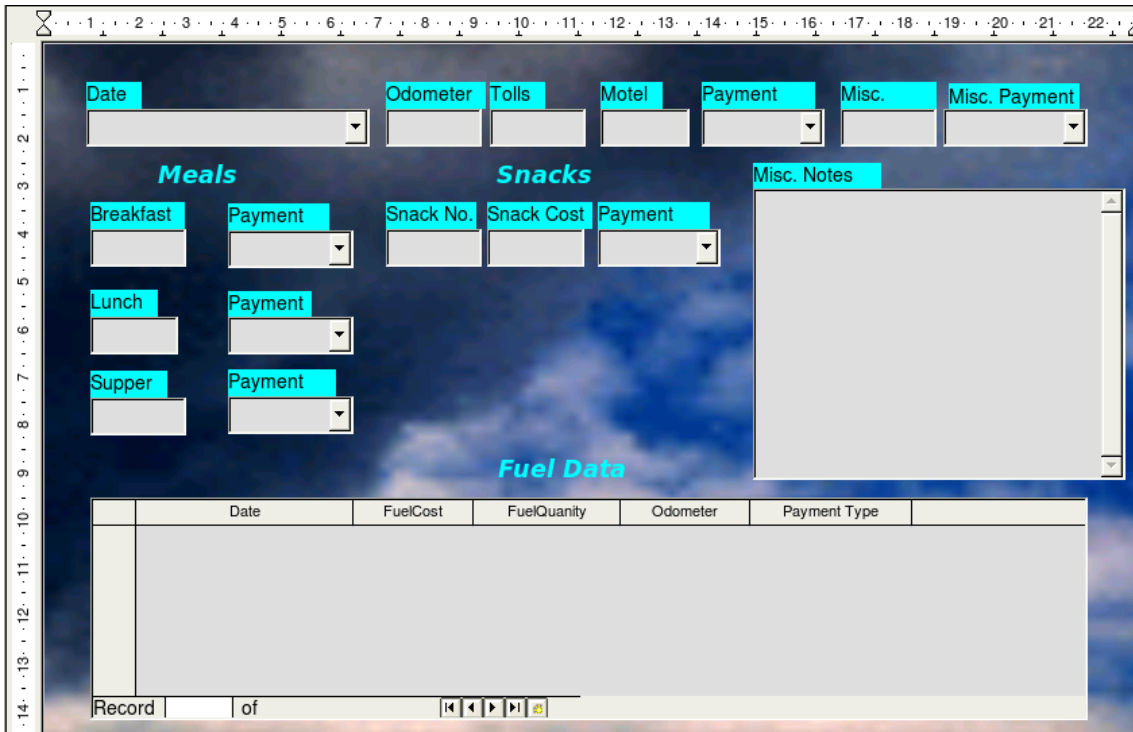


Figure 177: Finished form

3) Click the **Activation Order** icon (Figure 178).



Figure 178: Form Design toolbar with Activation Order icon circled

4) Rearrange the order of the fields in the Tab Order window (Figure 179).

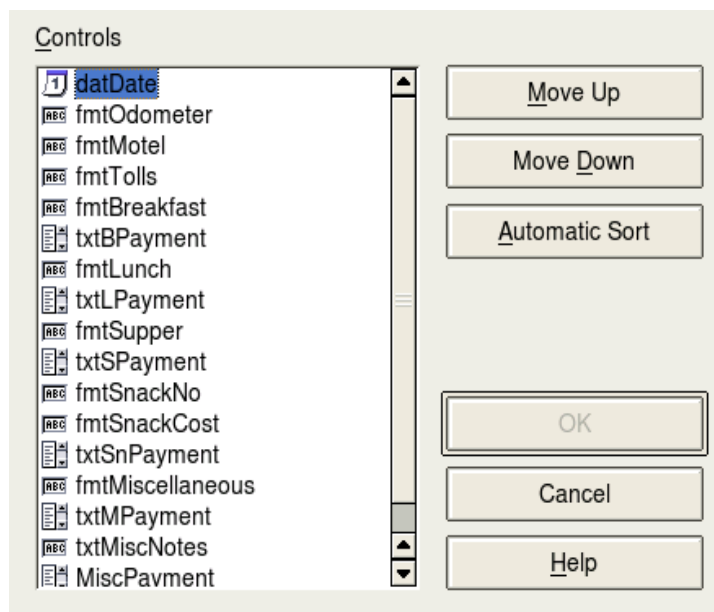


Figure 179: Tab Order window

- a) Find the txtMPayment listing near the bottom of the list and click it.
- b) Click the **Move Up** button until txtPayment is just below fmtMotel.
- c) Use the same two steps to put the fields in the same order as in Figure 180.

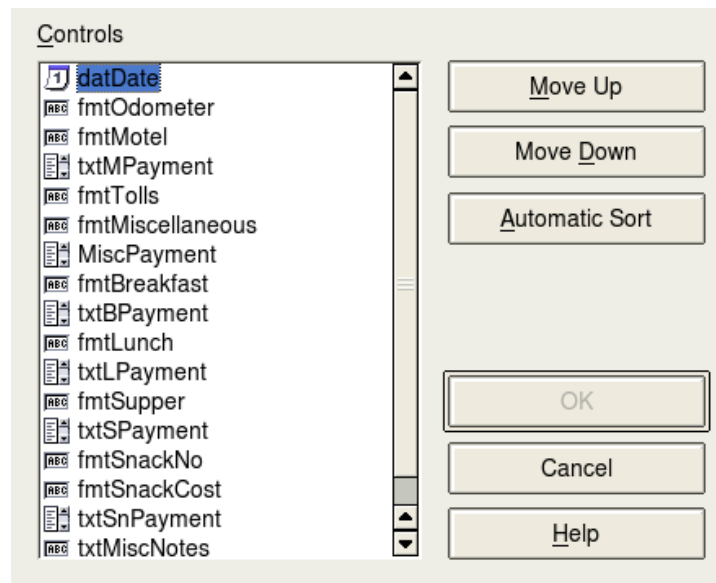


Figure 180: Tab order for the main form

- d) Click **OK**.
- 5) Save and close the form.
- 6) Save the database.

Creating forms in Design View

This method requires using the *Form Controls* and *Form Design* toolbars extensively. These techniques are beyond the scope of this document. Instructions for creating forms using Design view will be described in the *Database Guide*.

Creating subforms in Design View

Again, this is beyond the scope of this document. Creation of subforms in Design View will be described in the *Database Guide*.

Accessing other data sources

OpenOffice.org allows data sources to be accessed and then linked into OOO documents. For example, a mail merge links an external document containing a list of names and addresses into a letter, with one copy of the letter being generated for each entry.

To register a data source, choose **File > New > Database** to open the *Database Wizard*. Select **Connect to an existing database**. This allows access to the list of data sources that can be registered with OOO. These data sources can be accessed similarly to a dBase database as explained in the next section.

Once a data source has been registered, it can be used in any other OOO component (for example Writer or Calc) by selecting **View > Data Sources** or pressing the *F4* key.

Tip Mozilla Address Books and dBase databases (among others) can be accessed, and entries can be added or changed.

Caution Spreadsheets can be accessed, but no changes can be made in the spreadsheet entries. All changes in a spreadsheet sheet must be made in the spreadsheet, itself. Update the database afterwards to see the changes made in the spreadsheet.



Accessing a dBase database

1) **File > New > Database** opens the *Database Wizard* window.

Note Clicking the *New* icon and *Database* in the drop-down menu also open the *Database Wizard* window. (See Figure 124.)

2) Select **Connect to an existing database**. Pressing the *TAB* key highlights the *Database type* drop-down list. Typing *D* selects *dBase*. Click **Next**.

Note Clicking the arrows opens a menu from which you can select *dBase* (Figure 181).



Figure 181: Database type selection

- 3) Click *Browse* and select the folder containing the database. Click **Next**.
- 4) Accept the default settings: *Register the database for me*, and *Open the database for editing*. Click **Finish**. Name and save the database in the location of your choice.
- 5) Create the *Form* using the *Form Wizard* as explained in “Creating a database form” beginning on page 176.

Accessing a Mozilla address book

Accessing a Mozilla Address Book is very similar to accessing a dBase database.


- 1) Select **File > New > Database**.
- 2) Select *Connect to an existing database*. Select *Mozilla Address Book* as the database type (Figure 181).
- 3) Register this data source.

These are steps 1, 2 and 4 of “Accessing a dBase database” on page 196.

Accessing spreadsheets

Accessing a spreadsheet is also very similar to accessing a dBase database.

- 1) Select **File > New > Database**.
- 2) Select *Connect to an existing database*. Select *Spreadsheet* as the *Database type* (Figure 181).
- 3) Click **Browse** to locate the spreadsheet you want to access. If the spreadsheet is password protected, check the *Password required* box. Click **Next**.
- 4) If the spreadsheet requires a user’s name, enter it. If a password is also required, check its box. Click **Next**.

Caution  This method of accessing a spreadsheet does not allow you to change anything in the spreadsheet. All modifications must be made in the spreadsheet itself. This method only allows you to view the contents of the spreadsheet, run queries, and create reports based upon the data already entered into the spreadsheet.

Registering databases created by OOo2.x

This is a simple procedure. **Tools > Options > OpenOffice.org Base > Databases**. Under *Registered databases*, there is a list of these databases. Below this list are three buttons: **New...**, **Delete**, **Edit...** To register a database created by OOo2.x:

- 1) Click **New**.
- 2) **Browse** to where the database is located.
- 3) Make sure the registered name is correct.
- 4) Click **OK**.

Using data sources in OpenOffice.org

Having registered the data source, whether a spreadsheet, text document, external database or other accepted data source, you can use it in other OpenOffice.org components including Writer and Calc.

Viewing data sources

Open a document in Writer or Calc. To view the data sources available, press *F4* or select **View > Data Sources** from the pull-down menu. This brings up a list of registered databases, which will include Bibliography and any other database registered.

To view each database, click on the + to the left of the database's name. (This has been done for the Automobile database in Figure 182.) This brings up Tables and Queries. Click on the + next to Tables to view the individual tables created. Now double-click on a table to see all the records held in it.

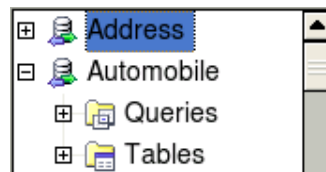


Figure 182: Databases

Editing data sources

Some data sources can be edited in the View Data Sources dialog. A spreadsheet can not. A record can be edited, added or deleted.

The data is displayed on the right side of the screen. Click in a field to edit the value.

Beneath the records are five tiny buttons. The first four move backwards or forwards through the records, or to the beginning or end. The fifth button, with a small star, inserts a new record (Figure 183).



Figure 183: View Data Sources navigation buttons

To delete a record, right-click on the gray box to the left of a row to highlight the entire row, and select **Delete Rows** to remove the selected row.

	FuelID	Date	FuelCost	FuelQuantity	Odometer	PaymentType	
▶	1	04/12/07	26.45	11.650	90997.9	Kevin	
			24.99	8.299	91354.7	Dan	
			27.50	12.557	91699.3	Cash	
			35.12	10.233	92213.5	Kevin	

Record 1 of 4 (1)

Figure 184: Deleting a row in the Data View window

Launching Base to work on data sources

You can launch OOo Base at any time from the View Data Source pane. Just right-click on a database or the Tables or Queries icons and select **Edit Database File**. Once in Base, you can edit, add and delete tables, queries, forms and reports.

Using data sources in OOo documents

To insert a field from a table into a document (for example a Calc spreadsheet or Writer document), click on the field name (the gray square at the top of the field list) and, with the left mouse button held down, drag the field onto the document. In a Writer document, it will appear as <FIELD> (where FIELD is the name of the field you dragged). In Calc it will appear as a text box.

One common way to use a data source is to perform a mail merge. Selecting **Tools > Mail Merge Wizard** or clicking on the Mail Merge icon (a small paper-and-envelope icon on the View Data Source pane) launches the Mail Merge wizard which steps through creating a mail merge document. This is covered in Chapter 11 (Using Mail Merge) in the *Writer Guide*.

Entering data in a form

Records are used to organize the data we enter into a form. They also organize the data we enter into a subform (Figure 185).

Date	FuelCost	FuelQuantity	Odometer	Payment Type

Figure 185: Single Record

Each type of field allows a different method to enter the data. In most if not all cases, more than one method can be used.

The first step to entering data in a form is to open it from the main database window.

- Click the Forms icon in the *Database* list.
- Find the form's name in the *Forms* list (Vacations).
- Double-click the form's name.

The quickest way to enter a date in the Date field is to click the arrow that opens the dropdown calendar. Then click the date you want (Figure 186). Use the *Tab* key to go to the Odometer field.

- Click the left arrow before May to go back one month (April 2007).
- Click the right arrow after 2007 to go forward one month (June 2007).
- Multiple clicks in either direction will change the month and year the same number of times as the number of clicks.



Figure 186: Calendar dropdown

The Odometer, Tolls, and Motel fields are numerical fields. Enter values directly into them, or use the *up* and *down* arrows. When the value is entered, use the *Tab* key to go to the next field.

- The *up* arrow increases the value, and the *down* arrow decreases the value.
- These two arrows only change the numerals to the left of the decimal place.
- Numerals to the right of the decimal place must be changed by deleting them and typing the desired ones.

The Motel's Payment field is a dropdown list. If as in my case, all of the elements of the list start with different letters, typing the first letter will select the desired letter.

- If two or more elements of the list have the same first letter, repeated typing of the first letter will cycle through the elements with this same first letter. So, if you accidentally go past the the element you wanted, you can keep typing the first letter until it reappears again.
- When the selection is correct, use the *Tab* key to go to the Misc. field.

The rest of the fields of the main form are either numerical fields or dropdown lists until we reach the Misc. Notes field. It is a text field. Type anything you desire in this field just as you would any simple text editor.

Caution

Since the *Tab* key is used to move between fields, it can not be used in a text field. All spacing must be done by the *spacebar*. Finally, the *Enter* key only acts as a line break to move the cursor to the next line.

Note

If we did not have a subform for fuel data, using the *Tab* key would save all of the fields, clear them, and make the form ready to accept data on the second record.

Since we have a subform form, using the *Tab* key places the cursor in the first Date field of the subform with the date automatically entered to match the Date field of the main form.

The FuelCost, FuelQuantity, and Odometer fields are numerical fields. The Payment field is a dropdown list. Enter the data just as you did in the main form, and use the *Tab* key to go to the next field.

When you use the *Tab* key to leave the Payment field, it goes to the Date field of the next line and automatically enters the date. Now you can enter your second set of fuel data for this day.

To move to another record when the form has a subform, the directional arrows at the bottom must be use. There are four of them from left to right: *First Record*, *Previous Record*, *Next Record*, and *Last Record* (Figure 187). To the right of these arrows is the *New Record* icon.

To create a new record while in another record, click the *New Record* icon. And, two choices exist for creating a new record following the present record.

- Click the *Next Record* icon.
- Or, click the *New Record* icon.

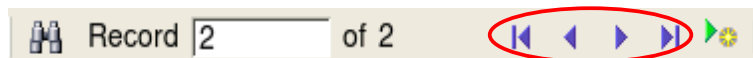


Figure 187: Navigation arrows of a form

Tip

The number in the Record box is the number of the record whose data is shown in the form. (The data from the second record of the Vacations form was displayed when I took the screenshot for Figure 187.)

If you know the number of the record you want, you can enter it into the record box and then use the *Enter* key to take you to that record.

Figure 188 is a record with data inserted in its fields. Note that not all fields have data in them. It is only necessary to have data in every field if you determine ahead of time to require all fields contain data.

Meals

Breakfast: \$11.00, Payment: Dan

Lunch: \$15.00, Payment: Dan

Supper: \$13.00, Payment: Kevin

Snacks

Snack No.: 3, Snack Cost: \$5.00, Payment: Cash

Fuel Data

Date	Fuel Cost	Fuel Quantity	Odometer	Payment Type
Friday, May 25, 2007	\$16.00	14.692	704.2	Kevin
Friday, May 25, 2007	\$7.00	6.428	778.7	Dan

Figure 188: Sample record of the Vacation form and subform

Creating queries

Queries are used to get specific information from a database. Using our CD-Collection table, we will create a list of albums by a particular artist. We will do this using the Wizard. The information we might want from the Fuel table includes what our fuel economy is. We will do this using the Design View.

Note Queries blur the differences between a database and a data source. A database is only one type of data source. However, searching for usable information from a data source requires a query. Since the query (one part of a database) does this, the data source appears to become one part of that database: its table or tables. Query results, themselves, are special tables within the database.

Using the Wizard to create a query

Queries created by the wizard provide a list or lists of information based upon what one wants to know. It is possible to obtain a single answer or multiple answers, depending upon the circumstances. Queries which require calculations are best created with the Design view.

In the main database window (Figure 125), click the Queries icon in the Databases section, then in the Tasks section, click *Use Wizard to Create Query*. The Query Wizard window opens (Figure 189). The information we want is what albums are by a certain musical group or individual (the album's author). We can include when each album was bought.

Note When working with a query, more than one table can be used. Since different tables may contain the same field names, the format for naming fields in a query is Table name and field name. A period (.) is placed between the table name and the field name.

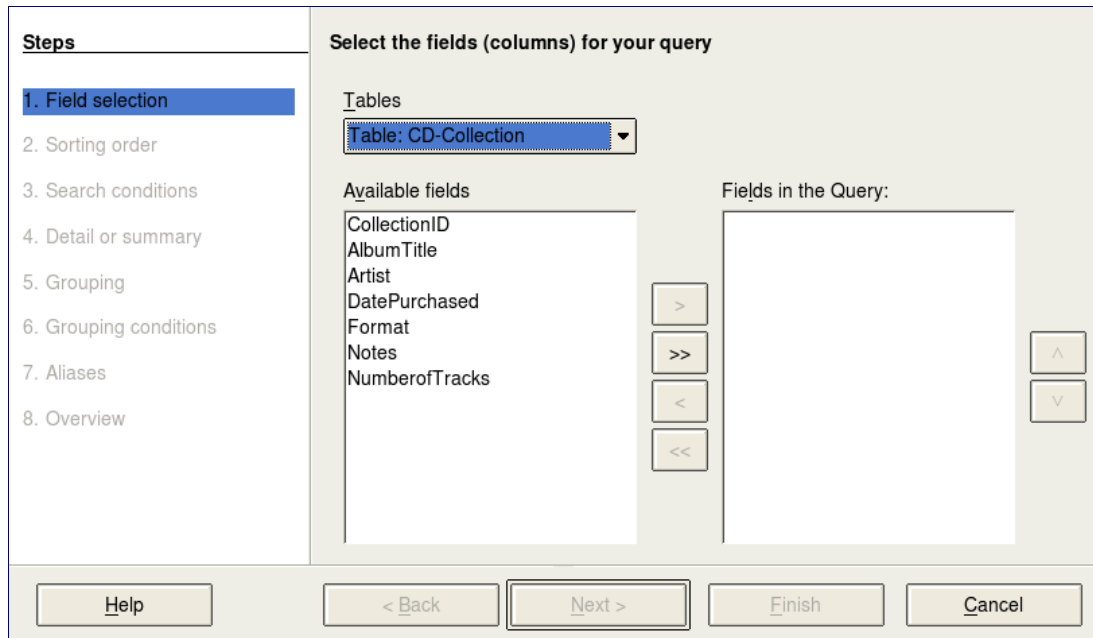


Figure 189: First page of the Query Wizard

Step 1: Select the fields.

- 1) Select the CD-Collection table from the dropdown list of tables.
 - a) If the Tables selection is not *Table: CD-Collection*, click the arrow (circled in red in Figure 189).
 - b) Click *Table: CD-Collection* in the list to select it.
- 2) Select fields from the CD-Collection table in the *Available* fields list.
 - a) Click *AlbumTitle*, and use the > button (black oval in Figure 189) to move it to the *Fields in Query* list.
 - b) Move the *Artist* and *DatePurchased* fields in the same manner.

Tip To change the order of the fields, select the field you want to move and click the up or down arrow to move it up or down (circled in magenta in Figure 189).

- c) Use the up arrow to change the order of the fields: artist, album, and date purchased.
 - Click the *CD-Collection.Artist* field.
 - Click the up arrow to move it above *CD-Collection.AlbumTitle*.

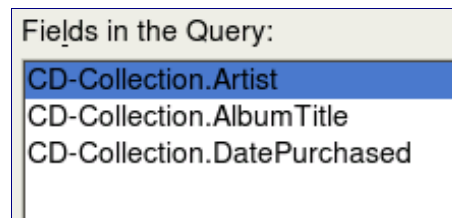


Figure 190: List of fields added to the query

d) Click **Next**.

Step 2: Select the sorting order.

Up to four fields can be used to sort the information of our query. A little simple logic helps at this point. Which field is most important?

In our query, the artist is most important. The album title is less important, and the date purchased is of least importance. Of course, if we were interested in what music we bought on a given day, the date purchased would be the most important.

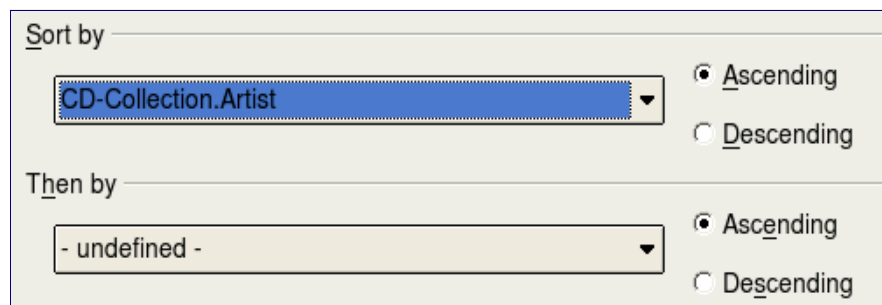


Figure 191: Sorting order page

- 1) Click the first *Sort by* dropdown list.
 - a) Click *CD-Collection.Artist* to select it.
 - b) If you want the artists to be listed in alphabetical order (a-z), select *Ascending* on the right. If you want the artist listed in reverse order (z-a), select *Descending* on the right (Figure 191).
- 2) Click the second *Sort by* dropdown list.
 - a) Click *CD-Collection.ArtistTitle*
 - b) Select *Ascending* or *Descending* according to the order you want.
- 3) Repeat this process for *CD-Collection.DatePurchased*.
- 4) Click **Next**.

Step 3: Select the search conditions.

The search conditions available are listed in Figure 192. They allow us to compare the name we entered with the names of the artist in our database and decide whether to include a particular artist in our query or not.

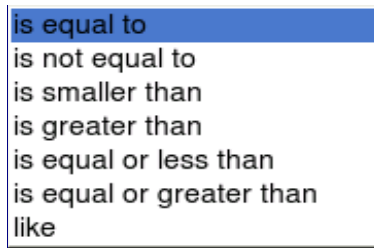


Figure 192: Search conditions in the Query Wizard

- *is equal to*: the same as
- *is not equal to*: not the same as
- *is smaller than*: comes before
- *is greater than*: comes after
- *is equal or less than*: the same as or comes before
- *is equal or greater than*: the same as or comes after
- *like*: similar to in some way

Note These conditions apply to numbers, letters (using the alphabetical order), and dates.

- 1) Since we are only searching for one thing, we will use the default setting of *Match all of the following*.
- 2) We are looking for a particular artist, so select *is equal to*.
- 3) Enter the name of the artist in the *Value* box. Click **Next**.

Step 4: Select type of query.

We want simple information, so the default setting: *Detailed query* is what we want. Click **Next** at the bottom of the window.

Note Since we have a simple query, the *Grouping* and *Grouping conditions* are not needed. Those two steps are skipped in our query.

Step 5: Assign aliases if desired.

We want the default settings. Click **Next**.

Step 6: Overview.

Name the query (suggestion: *Query_Artists*). To the right of this are two choices. Select *Display Query*. Click **Finish**.

Step 7: Modify the query.

We are skipping this step since we have nothing to modify. If you select the *Modify Query* choice, the query would open in Design view. To make modifications, follow the instructions in the next section, “Using the Design View to create a query”.

Using the Design View to create a query

Creating a query using Design View is not as hard as it may first seem. It may take multiple steps, but each step is fairly simple.

What fuel economy is our vehicle getting (miles per gallon in the USA)? This question requires creating two queries, with the first query being used as part of the second query.

Caution



The procedures we will be using only work with relational databases. This is because of how relational databases are constructed. The elements of a relational database are unique. (The primary key insures this uniqueness.) That is, there are no two elements which are exactly alike. This allows us to select specific elements to place into our queries. Without the elements of the relational database being unique from all other elements, we could not perform these procedures.

Step 1: Open the first query in Design View.

Click **Create Query in Design View**.

Step 2: Add tables.

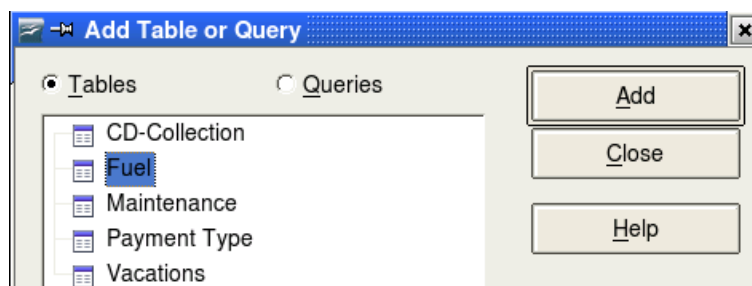


Figure 193: Add Tables or Query window

- 1) Click *Fuel* to highlight it.
- 2) Click **Add**.
- 3) Click **Close**.

Tip

Move the cursor over the bottom edge of the fuel table (Figure 194). The cursor become a single arrow with two heads. Drag the bottom of the table to make it longer and easier to see all of the fields in the table.

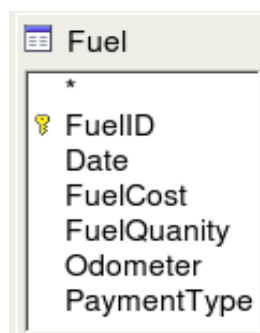


Figure 194: Fuel table in query

Step 3: Add fields to the table at the bottom.

- 1) Double-click the *FuelID* field in the Fuel table.
- 2) Double-click the Odometer field.
- 3) Double-click the FuelQuantity field.

The table at the bottom of the query window should now have three columns (Figure 195).

FuelID	Odometer	FuelQuantity
1	778.7	6.430
2	1032.3	19.570
3	1239.4	15.150
4		
<AutoFie		

Figure 195: Query table

Step 4: Set the criterion for the query.

We want the query's FuelID to begin with the numeral 1.

- 1) Type >0 in the Criterion cell under FuelID in the query table
- 2) Click the *Run Query* icon in the Query Design toolbar. This icon is circled in red in Figure 196.



Figure 196: Query Design toolbar

Figure 197 contains the Fuel table with my entries and the query results based upon the Fuel table.

FuelID	Date	FuelCost	FuelQuantity	Odometer
0	Friday, M	\$16.00	14.690	704.2
1	Friday, M	\$7.00	6.430	778.7
2	Saturday	\$20.00	19.570	1032.3
3	Saturday	\$16.00	15.150	1239.4
4	Sunday, I			
<AutoFie				

FuelID	Odometer	FuelQuantity
1	778.7	6.430
2	1032.3	19.570
3	1239.4	15.150
4		
<AutoFie		

Figure 197: Fuel table and query of the fuel table

Step 5: Save and close the query.

Since this query contains the ending odometer reading for our calculations, name it End-Reading when saving it. Then close the query.

Step 6: Create the query to calculate the fuel economy.

- 1) Click **Create Query in Design View** to open a new query.

- 2) Add the Fuel table to the query just as you did in step 2: Add tables. But, **do not** close the Add Tables window.
- 3) Add the End-Reading query to this query.
 - a) Click the *Query* radio button to get the list of queries in the database (Figure 198).

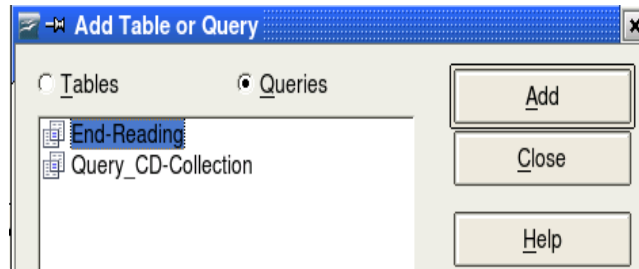


Figure 198: Selecting queries to add to another query

- b) Click End-Reading.
- c) Click **Add**, and then click **Close**.

Step 7: Add fields to the table at the bottom of the query.

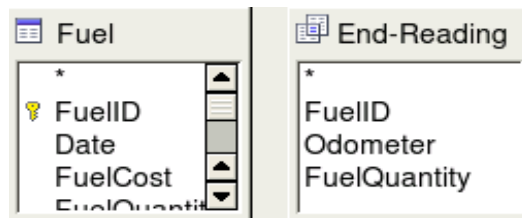


Figure 199: Tables in this query

We are going to calculate the fuel economy. To do this we need the FuelQuantity and distance traveled. Since the FuelQuantity we want to use is at the ending odometer reading, we will use the End-Reading query to get it. We will also use the Odometer field from the Fuel table and End-Reading query.

- 1) Double-click *FuelQuantity* in the End-Reading query.
- 2) Double-click *Odometer* in the End-Reading query.
- 3) Double-click *Odometer* in the Fuel table.

Field	FuelQuantity	Odometer	Odometer
Alias			
Table	End-Reading	End-Reading	Fuel
Sort			
Visible	☒	☒	☒
Function			
Criterion			
Or			

Figure 200: Added fields to the query

Step 8: Enter the FuelID difference field.

We want the difference between the FuelID value of the Fuel table and FuelID value of the End-Reading query to equal one (1).

- 1) Type "End-Reading".FuelID - Fuel.FuelID in the field to the right of the Odometer field of the Fuel Table (Figure 201).

Type the numeral 1 (one) in the Criterion cell of this column.

Caution



When entering fields for these calculations, you must follow this format: table or query name followed by a period follow by the field name. For hyphenated or multiple-word names (table or query), use double quotes around the table or query name. The query will then add the rest of the double quotes as in Figure 201.

Use the arithmetical symbol between the two. More than one calculation can be done by using parentheses to group the arithmetical operations.

Field	FuelQuantity	Odometer	Odometer	"End-Reading"."FuelID" - "Fuel"."FuelID" ▾
Alias				
Table	End-Reading	End-Reading	Fuel	
Sort				
Visible	☒	☒	☒	☒
Function				
Criterion			1	

Figure 201: Typing in calculation of fields

- 2) Calculate the distance traveled (Figure 202):

- Type "End-Reading".Odometer – Fuel.Odometer in the Field cell.
- Type >0 in the Criterion cell.

Field	"End-Reading"."Odometer" - "Fuel"."Odometer"
Alias	
Table	
Sort	
Visible	☒
Function	
Criterion	>0
Or	

Figure 202: Field for distance traveled calculations

- 3) Calculate fuel economy (Figure 203):

- a) Type ("End-Reading".Odometer – Fuel.Odometer)/"End-Reading".FuelQuantity in the Field in the next column to the right.

Field	("End-Reading"."Odometer" - "Fuel"."Odometer") / "End-Reading"."FuelQuantity"
Alias	
Table	
Sort	
Visible	<input checked="" type="checkbox"/>
Function	
Criterion	
Or	

Figure 203: Fuel economy calculation field

Step 9: Run the query and make some modification.

After we run the query to make sure it works correctly, we will hide all of the fields that we do not need.

- 1) Click the Run Query icon in the Design Query toolbar. (Figure 196) The results are in Figure 204.

FuelQuantity	Odometer	Odometer1	"End-Reading"."FuelID" - "Fuel"."FuelID"	Distance	("End-Reading"."Odometer" - "Fuel"."Odometer") / "End-Reading"."FuelQuantity"
6.430	778.7	704.2	1	74.5	11.59
19.570	1032.3	778.7	1	253.6	12.96
15.150	1239.4	1032.3	1	207.1	13.67

Figure 204: Result of running the fuel economy query

Notice that not all of the last column label is visible because some of the labels are long. We can fix this problem by using an alias for many of the fields. The labels are replaced by their aliases.

- 2) Add Aliases: Type in aliases as they are listed in Figure 200.

FuelQuantity	Odometer	Odometer	"End-Reading"	("End-Reading"."
Quantity	Begin	End		Fuel Economy
End-Reading	End-Reading	Fuel		

Figure 205: Query table with aliases added

- 3) Run the query again. The results are in Figure 199.

Quantity	Begin	End	"End-Reading"."FuelID" - "Fuel"."FuelID"	Distance	Fuel Economy
6.430	778.7	704.2	1	74.5	11.59
19.570	1032.3	778.7	1	253.6	12.96
15.150	1239.4	1032.3	1	207.1	13.67

Figure 206: Query run with aliases

We really do not need the column showing the difference between the FuelID fields from the table and query. So, we will hide it. While it will not be visible, it will still be used in the calculations.

- 4) Hide a field that does not need to be seen.

Remove the check in the box of the Visible cell as in Figure 193.

Field	FuelQuantity	Odometer	Odometer	"End-Reading"."FuelID" - "Fuel"."FuelID"
Alias	Quantity	Begin	End	
Table	End-Reading	End-Reading	Fuel	
Sort				
Visible	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Figure 207: Making a field invisible in a query run

5) Rerun the query (Figure 190).

Quantity	Begin	End	Distance	Fuel Economy
6.430	778.7	704.2	74.5	11.59
19.570	1032.3	778.7	253.6	12.96
15.150	1239.4	1032.3	207.1	13.67

Figure 208: Query run with aliases

Step 10: Close, save, and name the query.

My suggestion for a name is *Fuel Economy*.

There are obviously other calculations that can be made in this query such as cost per distance traveled and how much of the cost belongs to each of the payments types.

Note To fully use queries requires a knowledge of mathematics and specifically set operations (*unions, intersections, and, or, complements*, and any combinations of these). For example, we listed all of our criteria in one row. That means that all of these criteria have to be met before a row of values will be created in the query. This is how the *and* operator works on sets.

It also requires having a copy of the *Hsqldb User Guide* available from <http://hsqldb.org/>.

Creating reports

Reports provide information found in the database in a useful way. In this they are similar to queries. Reports are generated from the database's tables or queries. They can contain all of the fields of the table or query or just a selected group of fields. Reports can be static or dynamic. Static reports contain the data in the selected fields at the time the report was created. Dynamic reports can be updated to show the latest data.

For example, a report on vacation expenses divided into categories should probably be a static report because it is based upon specific data that does not change. However, a report on the fuel data should probably be a dynamic report, because this report depends upon data that does change.

Caution All reports are based upon a single table or query. So you need first to decide what fields you want to use in the report. If you want to use fields from different tables, you must first combine these fields in a single query. Then you can create a report on this query.



An example of this caution is creating a report on vacation expenses. Fuel costs are one part of that report as are meal costs. These values are contained in fields of two different tables: Vacations and Fuel. So this report requires creating a query.

Creating a static report

We will create a report on vacation expenses. Certain questions need to be asked before creating the report.

- What information do we want in the report?
- How do we want the information arranged?
- What fields are required to provide this information?
- Will a query have to be created because these fields are in different tables?
- Are there any calculations required in the data before being added to the report?

The expenses for our vacation are motel, tolls, miscellaneous, breakfast, lunch, supper, snacks, and fuel. One possible report would simply list the totals of each of these expense groups. Another possible report would list the expense totals for each day of the vacation. A third possible report would list the totals for each expense group for each type of payment. (This would let us know where the money came from to pay the expenses.) At the present time, using the data from the queries in a spreadsheet is the best way to handle reports like this. In the near future, the report feature will include these abilities.

For our purposes, we will create two reports. The first one will list the expenses each day other than fuel. The second report will list the fuel costs each day.

The fields we will need for the first report from the Vacations table are: Date, Motel, Toll, Breakfast, Lunch, Supper, SnackCost, and Miscellaneous. This report will not require an additional query.

The second report involves the Fuel table. Since fuel was purchased and entered into this table at times other than during the vacation, a query needs to be created that contains only the fuel purchased during the vacation.

Vacations table report

- 1) Create a new report.
 - a) Click the *Reports* icon in the Database list in the Automobile – OpenOffice.org window (Figure 125).
 - b) In the Tasks list, click **Use Wizard to Create Report**. The Report Wizard window opens.
- 2) Select the fields.
 - a) Select Table: Vacations in the Tables or Queries dropdown list.
 - b) Use the > to move these fields from the *Available fields* list to the *Fields in report* list: Date, Motel, Tolls, Miscellaneous, Breakfast, Lunch, Supper, and SnackCost (Figure 184). Click **Next**.

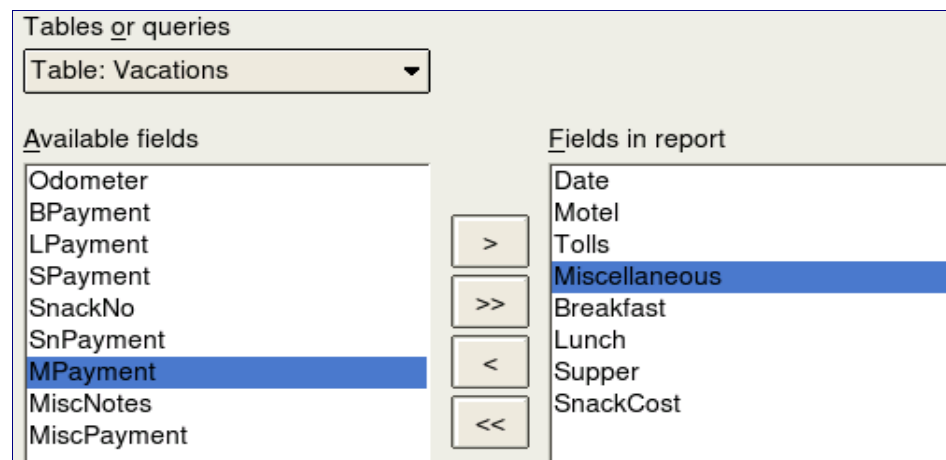


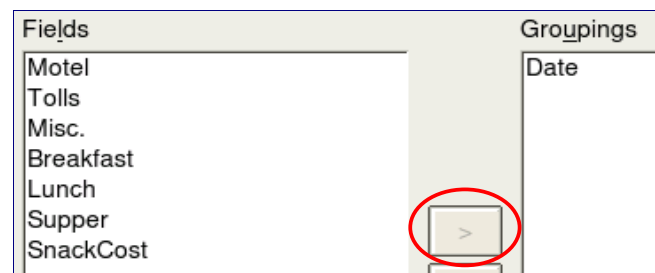
Figure 209: Adding fields to a report

3) Label the fields.

Shorten Miscellaneous to Misc. Click **Next**.

4) Group fields.

Since we are grouping by the date, use the > button to move the *Date* field to the Grouping list. Click **Next**.



5) Sort options.

We do not want to do any additional sorting. Click **Next**.

6) Choose layout.

We will be using the default settings for the layout. Click **Next**.

Note If you feel adventurous, try selecting some of the other layout choices. After selecting a choice, drag and drop the Report Wizard window so that you can see what you have selected. (Move the cursor over the Heading of this window, and then drag and drop.)

7) Create report.

- a) Label the report: Vacation Expenses.
- b) Select Static report.
- c) Click **Finished**.

Vacation fuel report

- 1) Create a query containing only fuel bought on the days of the vacation.
 - a) Open a query in Design View.
 - b) Follow the steps for adding tables in Add tables. Add the Fuel table.
 - c) Double-click these fields in the Fuel table listing: Date and FuelCost to enter them in the table at the bottom of the query.
 - d) In the Criterion cell of the Date field, type the following:

BETWEEN #5/25/2007# AND #5/26/2007#

Field	Date	<input type="checkbox"/>	FuelCost
Alias			
Table	Fuel		Fuel
Sort			
Visible	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Function			
Criterion	BETWEEN #05/25/2007# AND #05/26/2007#		

Figure 210: Setting the criterion for a query

- e) Save, name, and close the query. (Suggestion: *Vacation Fuel Purchases*.)

Tip When using dates in a query, enter them in numerical form MM/DD/YYYY or DD/MM/YYYY depending upon your language's default setting for dates (my default setting is MM/DD/YYYY).
All dates must have a # before and after it. Hence, May 25, 2007 is written #05/25/2007#.

- 2) Open a new report.
 - a) Right-click the *Vacation Fuel Purchases* query.
 - b) Select *Report Wizard* from the context menu.

Note When a new report is opened in this way, the query used to open it is automatically selected in the Tables or Queries dropdown list.

- 3) Create the report.

Use >> to move both fields from the *Available Fields* to the *Fields in Report* list. Click **Next**.
- 4) Label fields.

Add a space to FuelCost to make it Fuel Cost (two words). Click **Next**.
- 5) Group fields.
 - a) Click Date to highlight it.
 - b) Use > to move the Date field to the Groupings list. Click **Next**.

6) Choose layout.

We will be making no changes in the layout. Click **Next**.

7) Create report (final settings).

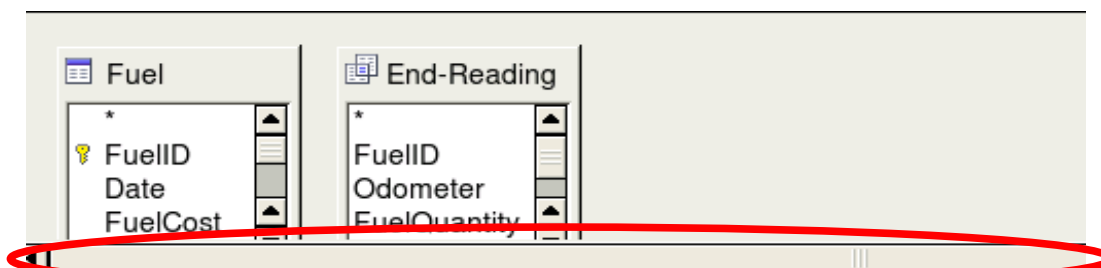
a) Use the suggested name, which is the same as the query.

b) Select *Static report*. Click **Finish**.

Creating a dynamic report

We will create a report with some statistics on our fuel consumption. To do this, we have to modify two queries: End-Reading and Fuel Economy. We will be adding the FuelCost field to the End-Reading query. Then we will add the FuelCost field from the End-Reading query to the Fuel Economy query.

Tip When opening a query to edit it, it might appear as in Figure 174. If you move your cursor over the black line (circled in red), it becomes a double headed arrow. Drag and drop it to a lower position.



Field	Date	FuelQuantity	Odometer	Odometer	"End-Reading
Alias		Quantity	Begin	End	Distance
Table	Fuel	End-Reading	Fuel	End-Reading	
Sort					
Visible	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Function					
Criterion					> 0

Figure 211: Appearance of query when opened for editing

1) Add the *FuelCost* field to the End-Reading query:

a) Right-click the *End-Reading* query and select **Edit** from the context menu.

b) In the Fuel table list, double-click to add *FuelCost* to the bottom table (Figure 171).

c) Save and close the query.

FuelID	Odometer	FuelQuantity	FuelCost
Fuel	Fuel	Fuel	Fuel
✕	✕	✕	✕
> 0			

Figure 212: Adding an additional field to the query

- 2) Add the *FuelCost* field from the End-Reading query to the Fuel Economy query.
 - a) Right-click the *Fuel Economy* query and select **Edit** from the context menu.
 - b) Double-click the *FuelCost* field in the End-Reading query list to the table at the bottom.
- 3) Add a calculation field to the right of the FuelCost field.
 - a) Type the following in the Field cell:
"End-Reading".FuelCost/("End-Reading".Odometer – Fuel.Odometer)
 - b) Type the following in the Alias cell:
cost per mile

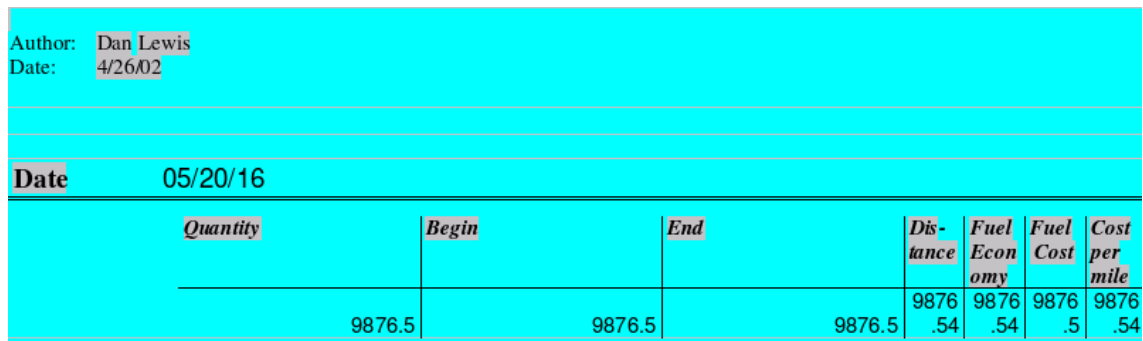
Note If you use the metric system, cost per km is the appropriate alias.

- 4) Save and close the query.
- 5) Open a new report.
Right-click the Fuel Economy query and select **Report Wizard**.
- 6) Select fields.
Move all the fields from the *Available fields* to the *Fields in report* list. Use the >> to do so. Click **Next**.
- 7) Label fields.
Change FuelCost to Fuel Cost by placing a space between the words. Click **Next**.
- 8) Group fields.
Use > to move the Date field to the Groupings list. Click **Next**.
- 9) Sort options: the wizard skipped this one.
- 10) Choose layout.
Accept the default. Click **Next**.
- 11) Create the report.
 - a) Change the report name to Fuel Statistics.

- b) The default setting is Dynamic report, so no change is necessary.
- c) Select *Modify report layout*. Click **Finish**.

Modifying a report

At the end of the last section, we left the Fuel Statistics report open in the edit mode (Figure 166). We will be working on that report. These same steps can be used with any report that you open for editing.



Author: Dan Lewis
Date: 4/26/02

Date 05/20/16

<i>Quantity</i>	<i>Begin</i>	<i>End</i>	<i>Dis- tance</i>	<i>Fuel Econ omy</i>	<i>Fuel Cost</i>	<i>Cost per mile</i>
9876.5	9876.5	9876.5	9876 .54	9876 .54	9876 .5	9876 .54

Figure 213: A report in edit mode

The Author is the name you listed in **Tools > Options > OpenOffice.org > User Data**. The date is not correct. The columns need to be moved to the left to give a better appearance. None of the numbers are correct, but their only purpose is to show the number of decimal places.

Step 1: Change the date.

- 1) Click to the right of the date (4/26/20) so that the cursor is next to the field. Use the *Backspace* key to erase the date.
- 2) **Insert > Fields > Date**. This places today's date where the original date was.
- 3) Changing the date formatting:
 - a) Double-click the date field you just inserted. The Edit Fields: Document window opens (Figure 164).

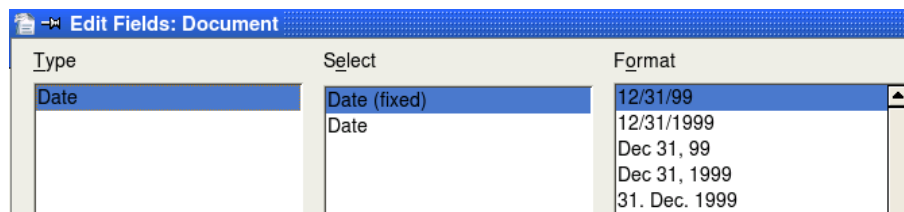


Figure 214: Modifying a date field

- b) Since this is a dynamic report, change the Select field from Date (fixed) to Date.
- c) Change the Format to what you desire. (I use the Friday, December 31, 1999 choice.) Click **OK**.

Step 2: Change the column widths.

The column widths can be changed by moving the cursor over the right border of each column so that it becomes a double-headed arrow. Then drag and drop it where you want it. This has to be done for each column in each table in the report. This can also be done with the last column on the right even though there is no black border. It should now look something like Figure 163.

Author: Dan Lewis						
Date: Thursday, May 31, 2007						
Date: 05/20/16						
Quantity	Begin	End	Distance	Fuel Economy	Fuel Cost	Cost per mile
9876.5	9876.5	9876.5	9876.54	9876.54	9876.5	9876.54

Figure 215: Realigned columns in a report

Step 3: Change the number formatting in the cells.

The fuel quantity should have three decimal places. The Begin, End, and Distance should have one decimal place. Fuel Cost should be currency and have two decimal places, and Cost per mile should have three decimal places.

- 1) Right-click the cell below Quantity to open the context menu. (The cell is circled in red in Figure 163.)
- 2) Select **Number format**.
- 3) In the *Options* section (Figure 162),
 - a) Change the number of Decimal places to 3.
 - b) Click the green checkmark. Click **OK**.

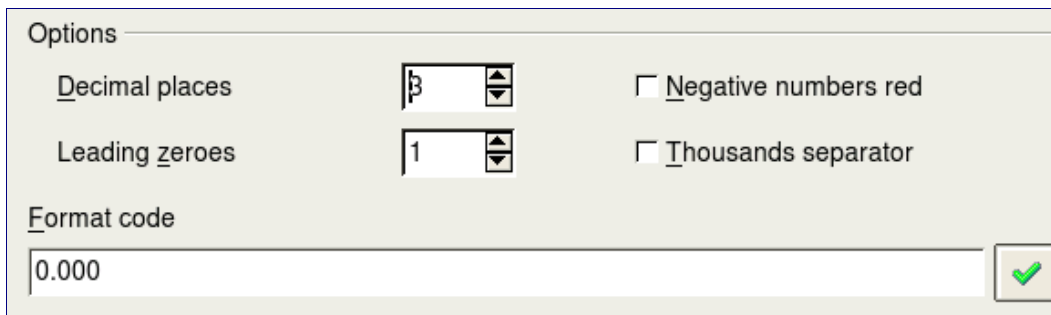


Figure 216: Option section of the Number Formatting window

- 4) Change the Fuel Cost field.
 - a) Right-click in the cell below *Fuel Cost*.
 - b) Select **Number Format**.
 - c) In the Category list, select *Currency*. Click **OK**.

- 5) Change the Cost per mile field.
 - a) Right-click in the cell below *Cost per mile*.
 - b) Select **Number Format**.
 - c) In the Category list, select *Currency*.
 - d) In the Option section:
 - Set the number of decimal places to 3.
 - Click the green checkmark.
 - e) Click **OK**.

Step 4: Save and close the report.

Double-click the report. It should now look like Figure 160.

Title:
 Author: Dan Lewis
 Date: Thursday, May 31, 2007

Date 05/25/07

<i>Quantity</i>	<i>Begin</i>	<i>End</i>	<i>Distance</i>	<i>Fuel Economy</i>	<i>Fuel Cost</i>	<i>Cost per mile</i>
6.430	704.2	778.7	74.5	11.59	\$7.00	\$0.100
19.570	778.7	1032.3	253.6	12.96	\$20.00	\$0.100

Date 05/26/07

<i>Quantity</i>	<i>Begin</i>	<i>End</i>	<i>Distance</i>	<i>Fuel Economy</i>	<i>Fuel Cost</i>	<i>Cost per mile</i>
15.150	1032.3	1239.4	207.1	13.67	\$16.00	\$0.100

Figure 217: Final report



Chapter 11

Getting Started with Math

OpenOffice.org's Equation Editor

What is Math?

Math is OpenOffice.org (OOo)'s component for writing mathematical equations. It is most commonly used as an equation editor for text documents, but it can also be used with other types of documents or stand-alone. When used inside Writer, the equation is treated as an object inside the text document.

Note The equation editor is for writing equations in symbolic form (as in equation 1). If you want to evaluate a numeric value, see the *Calc Guide*.

$$\frac{df(x)}{dx} = \ln(x) + \tan^{-1}(x^2) \quad (1)$$

Getting started

To insert an equation, go to **Insert > Object > Formula**.

The equation editor opens at the bottom of the screen, and the floating Selection window appears. You will also see a small box (with a gray border) in your document, where the formula will be displayed, as shown in Figure 218.

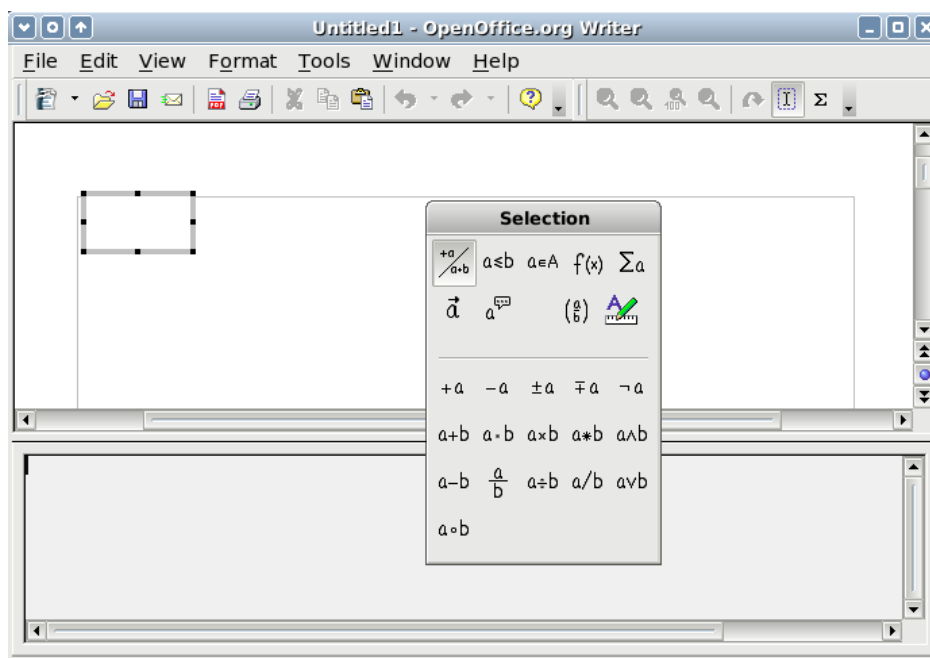


Figure 218. Equation Editor, Selection window, and location of resulting equation.

The equation editor uses a markup language to represent formulas. For example, `%beta` creates the Greek character beta (β). This markup is designed to read similar to English whenever possible. For example, `a over b` produces a fraction: $\frac{a}{b}$.

Entering a formula

There are three ways to enter a formula:

- Select a symbol from the Selection window.
- Right-click on the equation editor and select the symbol from the context menu.
- Type markup in the equation editor.

The context menu and the Selection window insert the markup corresponding to a symbol. Incidentally, this provides a convenient way to learn the OoMath markup.

Note Click on the document body to exit the formula editor.
Double-click on a formula to enter the formula editor again.

The Selection window

The simplest method for entering a formula is the Selection window, shown in Figure 219.

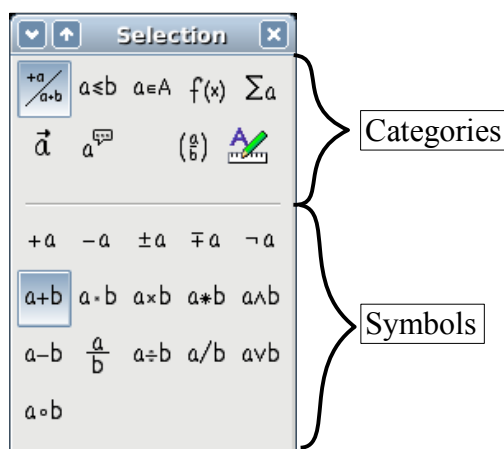


Figure 219. Symbols are divided into categories

The Selection window is divided into two main portions.

- **The top** shows the symbol categories. Click on these to change the list of symbols.
- **The bottom** shows the symbols available in the current category.

TIP You can hide (or unhide) the Selection window with **View > Selection**.

Example 1: 5×4

For this example we will enter a simple formula: 5×4 On the Selection window:

- 1) Select the top-left button of the categories (top) section (Figure 220).
- 2) Click on the multiplication symbol (shown in Figure 220).

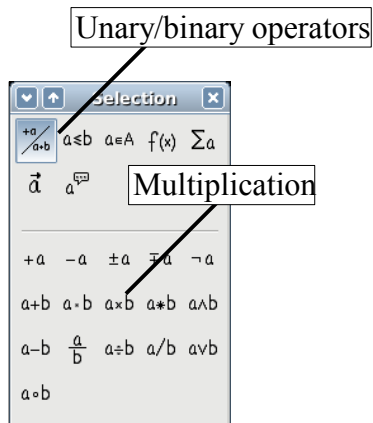


Figure 220. Unary/binary operators

When you select the multiplication symbol on the Selection window, two things happen:

- The equation editor shows the markup: $\langle \? \rangle \text{ times } \langle \? \rangle$
- The body of the document shows a gray box with the figure: $\square \times \square$

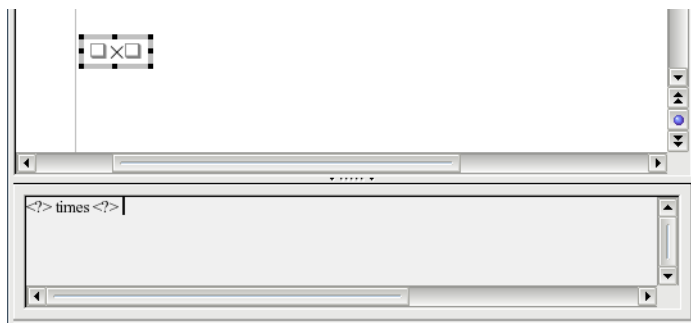


Figure 221. The multiplication symbol

The “ $\langle \? \rangle$ ” symbols (Figure 221) are placeholders that you can replace by other text. The equation will update automatically, and the result should resemble Figure 222.

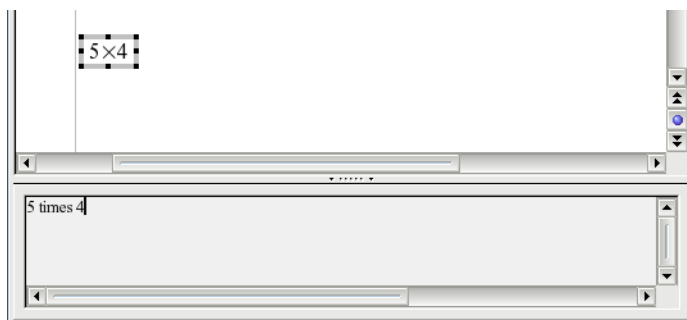


Figure 222. Result of entering "5" and "4" next to the "times" operator

Tip To keep the equation from updating automatically, select **View > AutoUpdate display**. To update a formula manually, press *F9* or select **View > Update**.

Right-click menu

Another way to access mathematical symbols is to right-click on the equation editor. This produces a menu as shown in Figure 223.

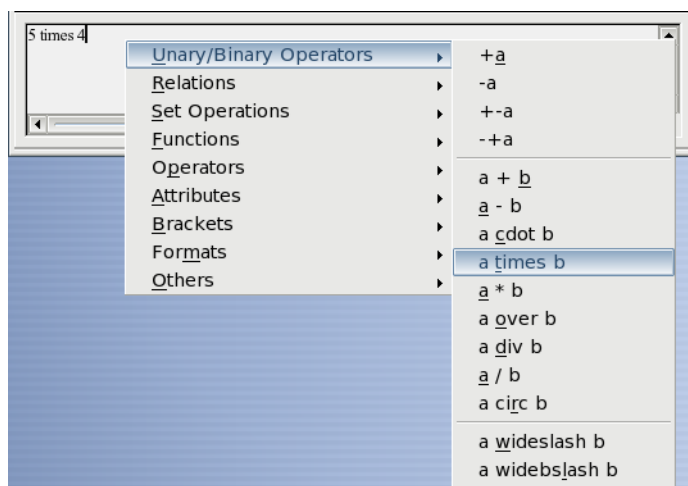


Figure 223. Right-click menu

Note The entries in this menu correspond exactly to those in the Selection window.

Markup

You can type the markup directly on the equation editor. For example, you can type “5 times 4” to obtain 5×4 . If you know the markup, this can be the fastest way to enter a formula.

Tip As a mnemonic, the formula markup resembles the way the formula reads in English.

Below is a short list of common equations and their corresponding markup.

Display	Command	Display	Command
$a=b$	a = b	\sqrt{a}	sqrt {a}
a^2	a^2	a_n	a_n
$\int f(x) dx$	int f(x) dx	$\sum a_n$	sum a_n
$a \leq b$	a <= b	∞	infinity
$a \times b$	a times b	$x \cdot y$	x cdot y

Greek characters

Greek characters ($\alpha, \beta, \gamma, \theta$, etc) are common in mathematical formulas. *These characters are not available in the selection box or the right-click menu.* Fortunately, the markup for Greek characters is simple: Type a % sign followed the name of the character, in English.

- To type a *lowercase* character, write the name of the character in lowercase.
- To type an *uppercase* character, write the name of the character in uppercase.

See the table below for some examples.

Lowercase	Uppercase
%alpha → α	%ALPHA → A
%beta → β	%BETA → B
%gamma → γ	%GAMMA → Γ
%psi → ψ	%PSI → Ψ
%phi → ϕ	%PHI → Φ
%theta → θ	%THETA → Θ

Note A complete table of Greek characters is included in Chapter 16 (Math Objects) in the *Writer Guide*.

Another way to enter Greek characters is by using the catalog window. Go to **Tools > Catalog**. The catalog window is shown in Figure 224. Under “Symbol Set” select “Greek” and double-click on a Greek letter from the list.

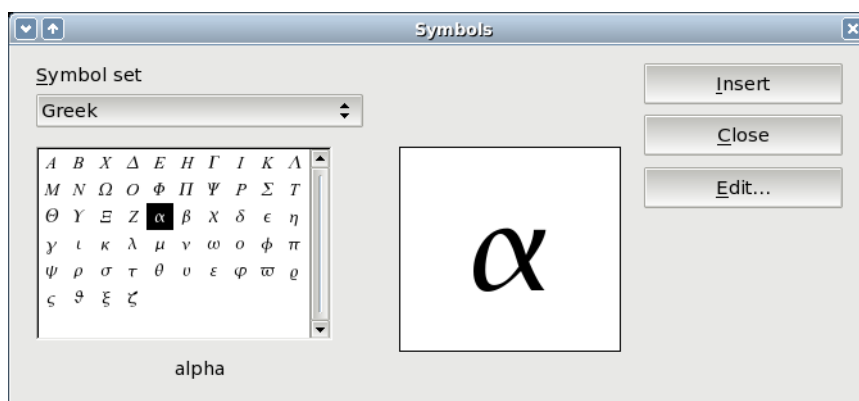


Figure 224. Catalog - used for entering Greek characters

Example 2: $\pi \simeq 3.14159$

For this example we will suppose that:

- We want to enter the above formula (the value of pi rounded to 5 decimal places).
- We know the name of the Greek character (“pi”).
- But we do not know the markup associated with the \simeq symbol.

Step 1: Type “%” followed by the text “pi”. This displays the Greek character π .

Step 2: Open the Selection window (**View > Selection**).

Step 3: The \simeq symbol is a relation, so we click on the relations button $a \leq b$. If you hover the mouse over this button you see the tooltip “Relations” (Figure 225).

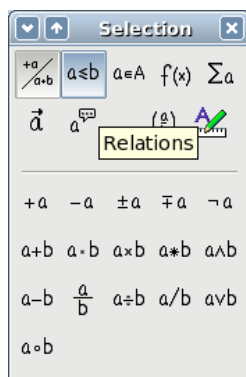


Figure 225. Tooltip indicates the “Relations” button.

Step 4: Delete the $\langle ? \rangle$ text and add “3.14159” at the end of the equation. Hence we end up with the markup “%pi simeq 3.14159”. The result is shown in Figure 226.

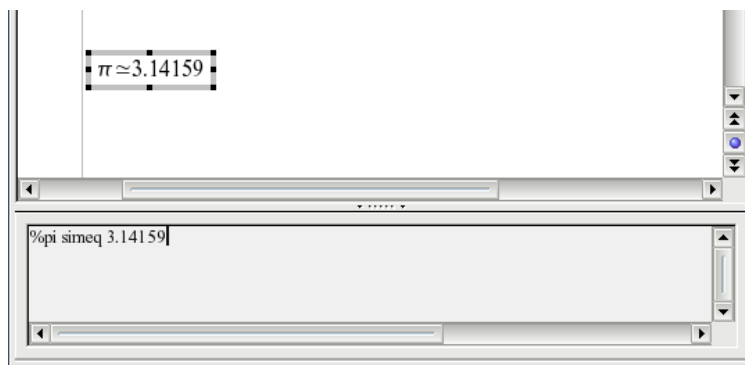


Figure 226. Final result

Customizations

Formula editor as a floating window

As seen in Figure 218, the formula editor can cover a large part of the Writer window. To turn the formula editor into a floating window, do this:

- 1) Hover the mouse over the editor frame, as shown in Figure 227.
- 2) Hold down the *Control* key and double-click.

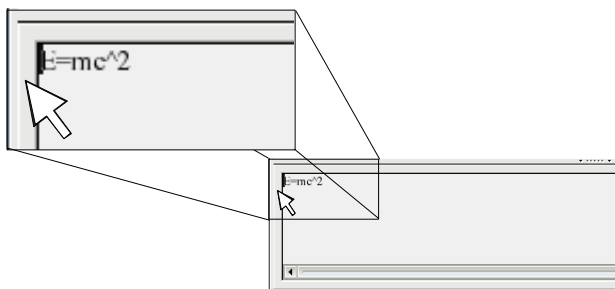


Figure 227. Hold down the *Control* key and double-click on the border of the math editor to turn it into a floating window.

Figure 228 shows the result. You can make the floating window back into an embedded frame, using the same steps. Hold down the *Control* key and double-click the window frame.

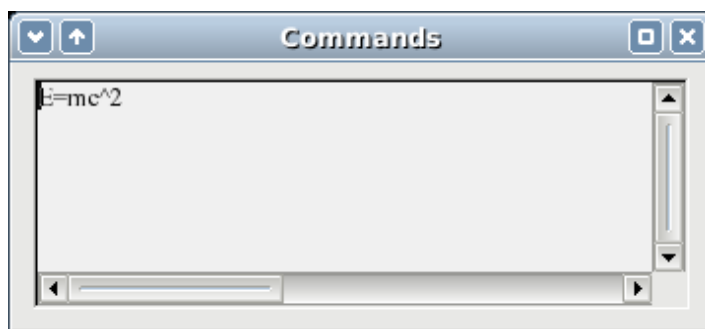


Figure 228. Equation editor as a floating window

How can I make a formula bigger?

This is one of the most common questions people ask about OOoMath. The answer is simple, but not intuitive:

- 1) Start the formula editor and go to **Format > Font size**.

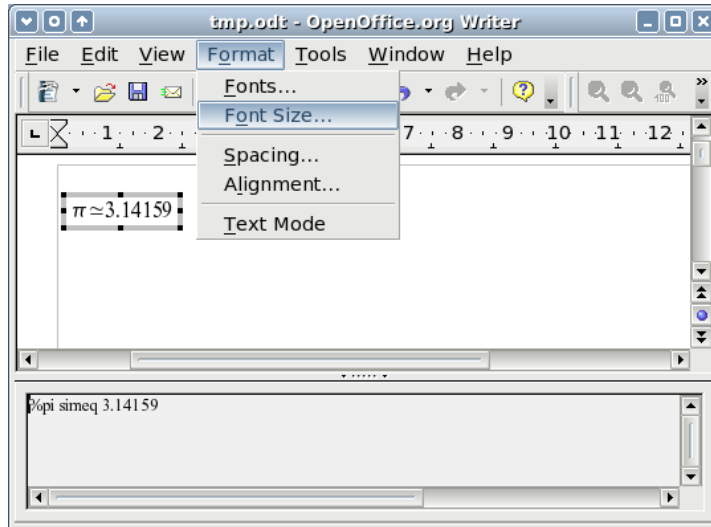


Figure 229. Changing the font size for a formula

- 2) Select a larger font size under “Base Size” (top-most entry), as shown in Figure 230.

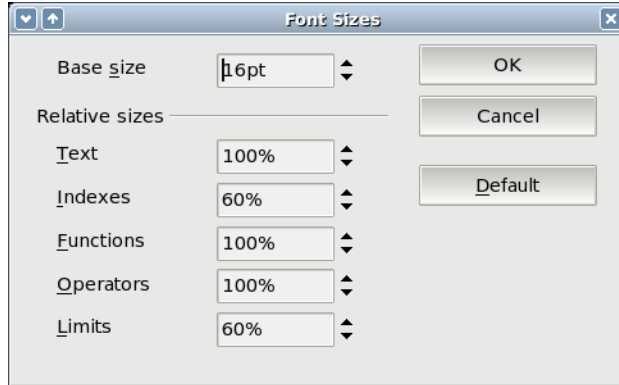


Figure 230. Edit “Base size” (top) to make a formula bigger.

The result of this change is illustrated in Figure 231.

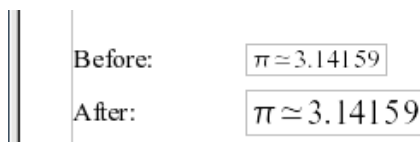


Figure 231. Result of changing the base font size.

Formula layout

The most difficult part of using OOoMath comes when writing complicated equations. This section provides some advice about writing complex formulas.

Brackets are your friends

OOoMath knows nothing about order of operation. You must use brackets to state the order of operations explicitly. Consider the following example:

Markup	Result
2 over x + 1	$\frac{2}{x}+1$
2 over {x + 1}	$\frac{2}{x+1}$

Equations over more than one line

Suppose you want to type an equation covering more than one line. For example: $x=3$
 $y=1$

Your first reaction would be to simply press the *Enter* key. However, if you press the *Enter* key, though the markup goes to a new line, the resulting equation does not. You must type the newline command explicitly. This is illustrated in the table below.

Markup	Result
x = 3 y = 1	$x=3 y=1$
x = 3 newline y = 1	$x=3$ $y=1$

Common problem areas

How do I add limits to my sum/integral?

The “sum” and “int” commands can (optionally) take in the parameters “from” and “to”. These are used for lower and upper limits respectively. These parameters can be used singly or together. Limits for integrals are usually treated as subscripts and superscripts.

Markup	Result
<code>sum from k = 1 to n a_k</code>	$\sum_{k=1}^n a_k$
<code>int from 0 to x f(t) dt</code> or <code>int_0^x f(t) dt</code>	$\int_0^x f(t) dt$ or $\int_0^x f(t) dt$
<code>int from Re f</code>	$\int_{\mathbb{R}} f$
<code>sum to infinity 2^{-n}</code>	$\sum_{n=0}^{\infty} 2^{-n}$

Note For more details on integrals and sums, see Chapter 16 (Math Objects) in the *Writer Guide*.

Brackets with matrices look ugly!

For background, we start with an overview of the matrix command:

Markup	Result
<code>matrix { a # b ## c # d }</code>	$\begin{matrix} a & b \\ c & d \end{matrix}$

Note Rows are separated by two #’s and entries within each row are separated by one #.

The first problem people have with matrices is that brackets do not “scale” with the matrix:

Markup	Result
<code>(matrix { a # b ## c # d })</code>	$\begin{pmatrix} a & b \\ c & d \end{pmatrix}$

OOoMath provides “scalable” brackets. That is, the brackets grow in size to match the size of their contents. Use the commands *left(* (and *right)*) to make scalable brackets.

Markup	Result
<code>left(matrix { a # b ## c # d } right)</code>	$\begin{pmatrix} a & b \\ c & d \end{pmatrix}$

TIP Use `left[` and `right]` to obtain square brackets.

How do I make a derivative?

Making derivatives essentially comes down to one trick: *Tell OOo it's a fraction.*

In other words, you have to use the “over” command. Combine this with either the letter “d” (for a total derivative) or the “partial” command (for a partial derivative) to achieve the effect of a derivative.

Markup	Result
<code>{df} over {dx}</code>	$\frac{df}{dx}$
<code>{partial f} over {partial y}</code>	$\frac{\partial f}{\partial y}$
<code>{partial^2 f} over {partial t^2}</code>	$\frac{\partial^2 f}{\partial t^2}$

Note Notice that we had to use squiggly brackets to make the derivative.

Numbering equations

Equation numbering is one of OOoMath’s best hidden features. The steps are simple, but obscure:

- 1) Start a new line.
- 2) Type “fn” and then press *F3*.

The “fn” is replaced by a numbered formula:

$$E=mc^2 \tag{2}$$

Now you can double-click on the formula to edit it. For example, here is the Riemann Zeta function:

$$\zeta(z)=\sum_{n=1}^{\infty} \frac{1}{n^z} \tag{3}$$

You can reference an equation (“as shown in Equation (2)”) with these steps:

- 1) **Insert > Cross-reference..**
- 2) Click on the *References* tab (Figure 229).
- 3) Under *Type*, select *Text*.
- 4) Under *Selection*, pick the equation number.
- 5) Under *Format*, choose *Reference*.
- 6) Click **Insert**.

Done! If you later add more equations to the paper before the referenced equation, all the equations will automatically renumber and the cross-references will update.

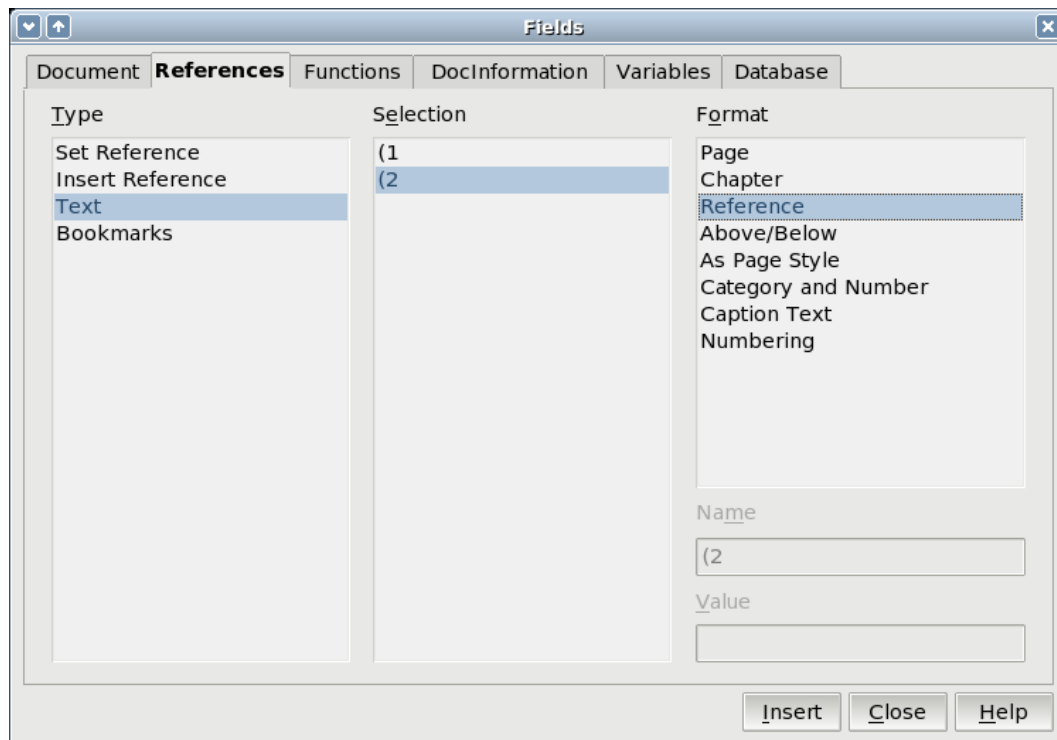


Figure 232. Inserting a cross-reference to an equation number.

TIP To insert the equation number without parenthesis around it, choose *Numbering* instead of *Reference* under *Format*



Chapter 12
Working with Templates

What is a template?

A template is a model that you use to create other documents. For example, you can create a template for business reports that has your company's logo on the first page. New documents created from this template will all have your company's logo on the first page.

Templates can contain anything that regular documents can contain, such as text, graphics, a set of styles, and user-specific setup information such as measurement units, language, the default printer, and toolbar and menu customization.

All documents in OpenOffice.org (OOo) are based on templates. You can create a specific template for any document type (text, spreadsheet, drawing, presentation). If you do not specify a template when you start a new document, then the document is based on the default template for that type of document. If you have not specified a default template, OOo uses the blank template for that type of document that is installed with OOo. See "Setting a default template" on page 243 for more information.

This chapter shows you how to:

- Use a template to create a document
- Create a template
- Edit a template
- Set a default template
- Organize templates

Using a template to create a document

To use a template to create a document:

- 1) From the main menu, choose **File > New > Templates and Documents**. The Templates and Documents window opens. (See Figure 233.)
- 2) In the box on the left, click the **Templates** icon if it is not already selected. A list of template folders appears in the center box.
- 3) Double-click the folder that contains the template that you want to use. A list of all the templates contained in that folder appears in the center box.
- 4) Click the template that you want to use. You can preview the selected template or view the template's properties:
 - To preview the template, click the **Preview** icon. A preview of the template appears in the box on the right.
 - To view the template's properties, click the **Document Properties** icon. The template's properties appear in the box on the right.

- 5) Click **Open**. The Templates and Documents window closes and a new document based on the selected template opens in OOO. You can then edit and save the new document just as you would any other document.

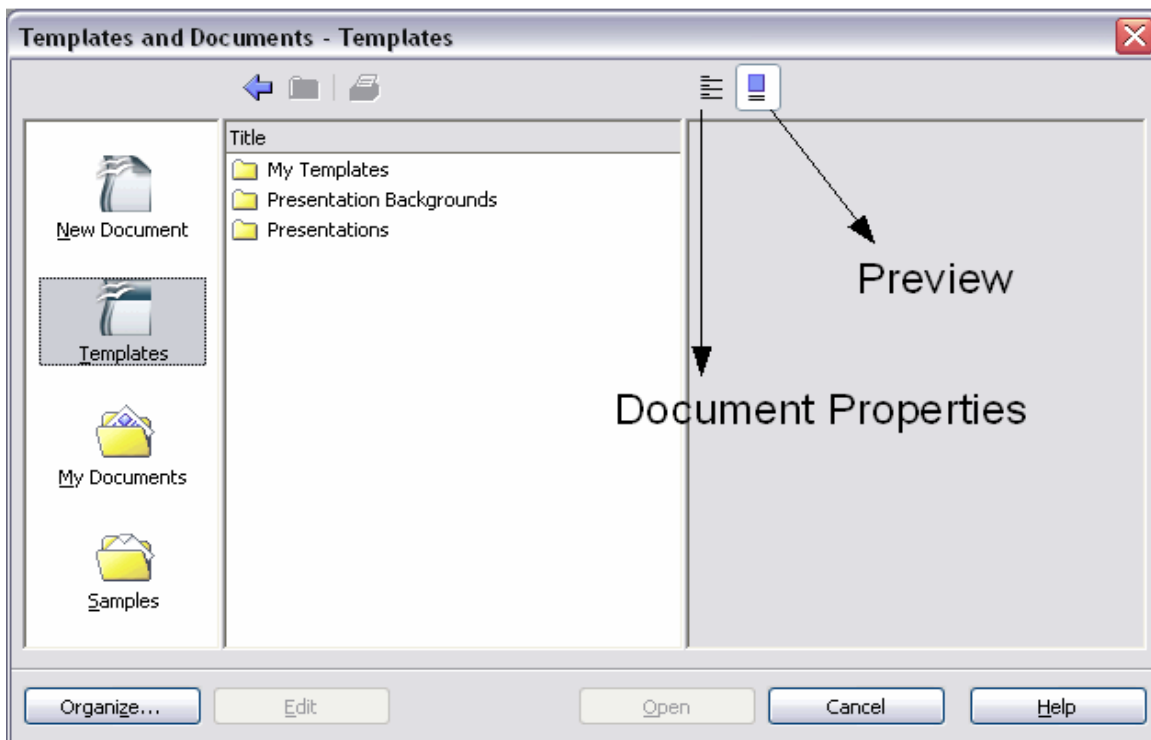


Figure 233. Templates and Documents window

Creating a template

You can create your own templates in two ways:

- From a document
- Using a wizard

Creating a template from a document

To create a template from a document:

- 1) Open a new or existing document of the type you want to make into a template (text document, spreadsheet, drawing, presentation).
- 2) Add the content and styles that you want.
- 3) From the main menu, choose **File > Templates > Save**. The Templates window opens (see Figure 234).
- 4) In the **New template** field, type a name for the new template.

- 5) In the **Categories** list, click the category to which you want to assign the template. (The category is simply the template folder in which you want to save the template. For example, to save the template in the “My Templates” folder, click the **My Templates** category.)

To learn more about template folders, see “Organizing templates” on page 243.

- 6) Click **OK**. OOo saves the new template and the Templates window closes.

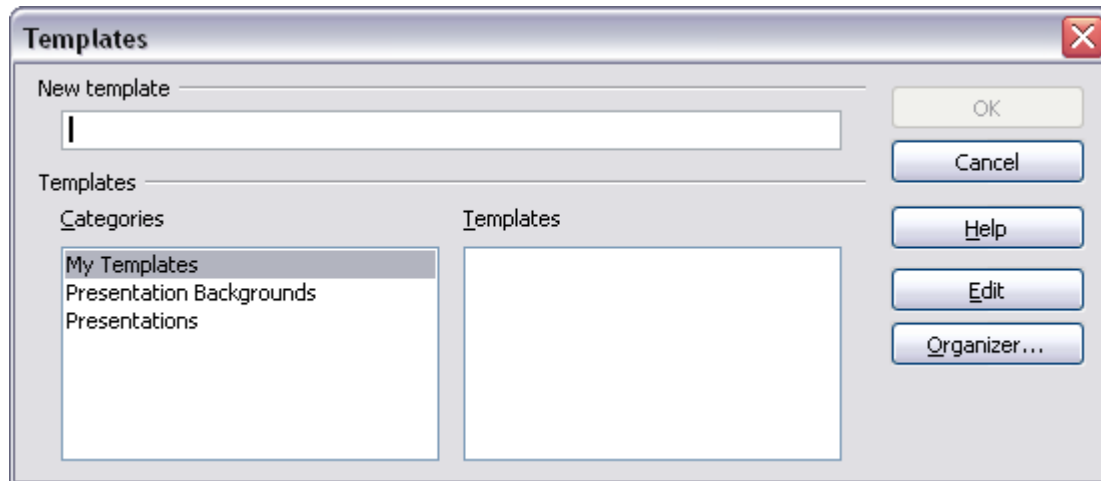


Figure 234. Saving a new template

Any settings that can be added to or modified in a document can be saved in a template. For example, below are some of the settings (although not exhaustive) that can be included in a Writer document and then saved as a template for later use:

- Printer settings: which printer, single sided / double sided, and paper size, and so on
- Styles to be used, including character, page, frame, numbering and paragraph styles
- Format and settings regarding indexes, tables, bibliographies, table of contents

Creating a template using a wizard

You can use wizards to create these types of templates:

- Letter
- Fax
- Agenda
- Presentation
- Web page

For example, the Fax Wizard steps you through the following choices:

- Type of fax (business or personal)
- Document elements like the date, subject line (business fax), salutation, and complementary close

- Options for sender and recipient information (business fax)
- Text to include in the footer (business fax)

To create a template using a wizard:

- 7) From the main menu, choose **File > Wizards >** type of template required (Figure 235).

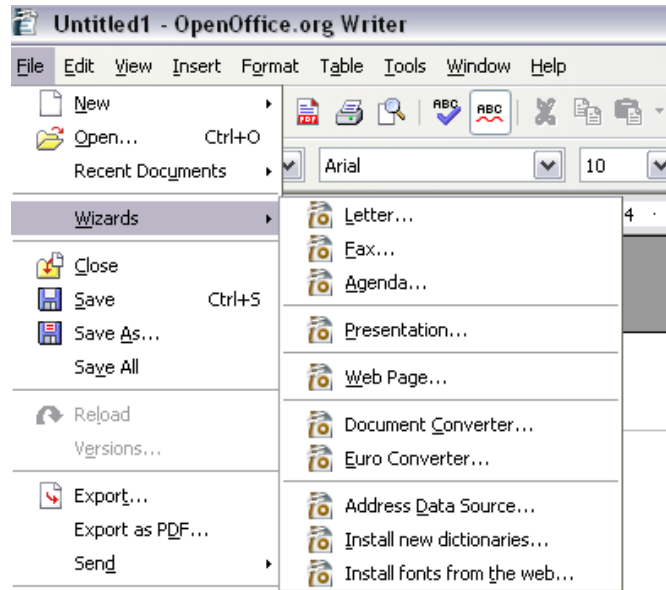


Figure 235. Creating a template using a wizard

- 8) Follow the instructions on the pages of the wizard. This process is slightly different for each type of template, but the format is very similar.
- 9) In the last section of the wizard, you can specify the name and location for saving the template. The default location is your user templates directory, but you can choose a different location if you prefer.
- 10) Finally, you have the option of creating a new document from your template immediately, or manually changing the template. For future documents, you can re-use the template created by the wizard, just as you would use any other template.

Editing a template

You can edit a template's styles and content, and then, if you wish, you can reapply the template's styles to documents that were created from that template. (Note that you can only reapply styles. You cannot reapply content.)

To edit a template:

- 1) From the main menu, choose **File > Templates > Organize**. The Template Management window opens (see Figure 236).

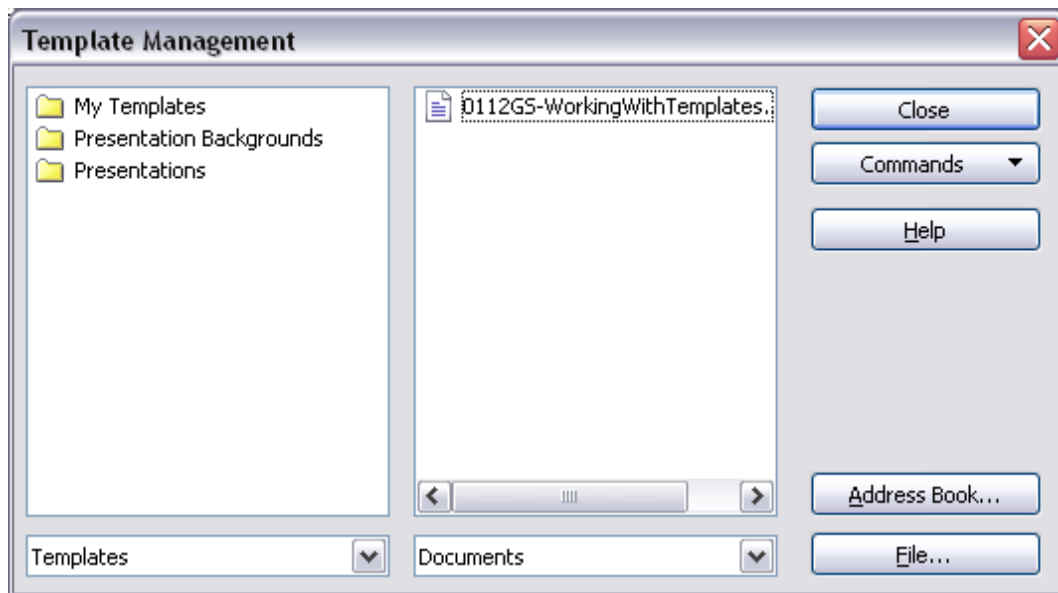


Figure 236. Template management window

- 2) In the box on the left, double-click the folder that contains the template that you want to edit. A list of all the templates contained in that folder appears underneath the folder name.
- 3) Click the template that you want to edit.
- 4) Click the **Commands** button.
- 5) From the drop-down menu, choose **Edit**. The Template Management window closes and the selected template opens.
- 6) Edit the template just as you would any other document. To save your changes, choose **File > Save** from the main menu.

The next time that you open a document that was created from the changed template, the following message appears.

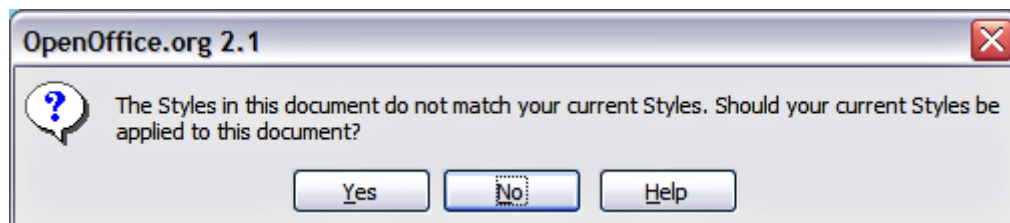


Figure 237. Apply current styles message

Click **Yes** to apply the template's changed styles to the document. Click **No** if you do not want to apply the template's changed styles to the document. Whichever option you choose, the message box closes and the document opens in OOo.

Caution

If you choose **No** in the message box shown in , that message will not appear again the next time you open the document after changing the template it is based on. You will not get another chance to update the styles from the template, although you can use the macro given in the Note below to re-enable this feature.

Note

To re-enable updating from a template:

- 1) Use **Tools > Macros > Organize Macros > OpenOffice.org Basic**. Select the document from the list, click the +, and select Standard. If Standard has a + beside it, click that and select a module.
- 2) Name the macro. For example, you could call it FixDocument. If the **Edit** button is active, click it. If the Edit button is not active, click **New**, type a module name in the pop-up dialog, and click **OK**.

- 3) In the Basic window, enter the following:

```
Sub FixDocument
  TemplateName = ThisComponent.DocumentInfo.Template
  if TemplateName <> "" then
    ThisComponent.DocumentInfo.Template = TemplateName
  end if
End Sub
```

- 4) Click the **Run BASIC** icon, then close the Basic window.
- 5) Save the document.

Next time when you open this document you will have the update from template feature back.

Adding templates with Extension Manager

The Package Manager was introduced in OOo 2.0.4 and renamed the Extension Manager in OOo 2.1. This feature provides an easy way to install collections of templates, graphics, macros, or other add-ins that have been “packaged” into files with a .OXT extension.

- 1) After you download a package, select **Tools > Extension Manager** from the menu bar. In the Extension Manager dialog (Figure 238), click **Add**.

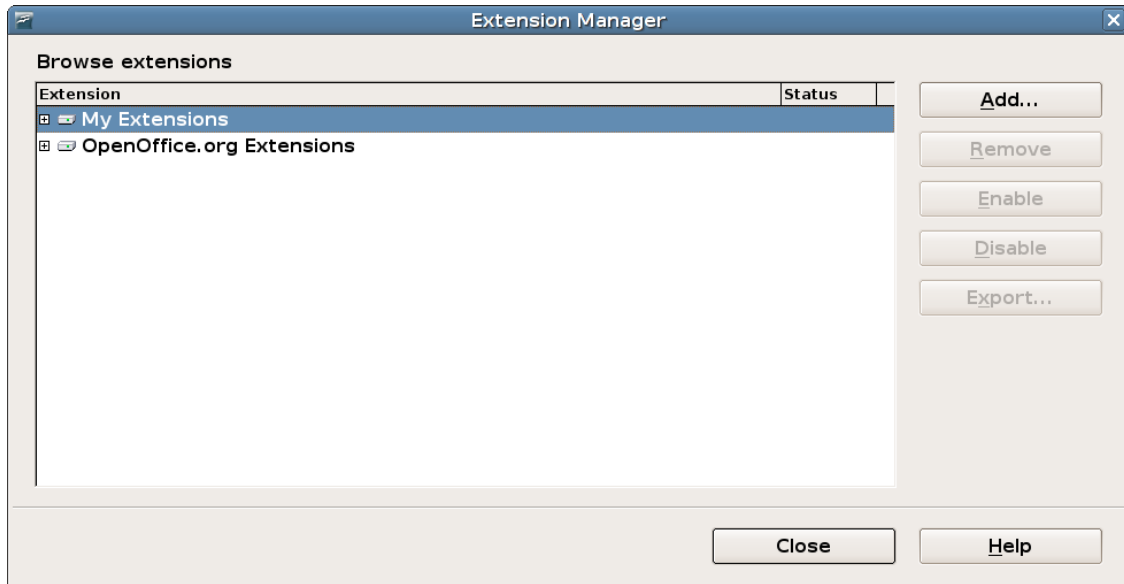


Figure 238: Installing a package of templates

- 2) A file browser window opens. Find and select the package of templates you want to install and click **Open**.
- 3) On the Extension Manager dialog (Figure 237), select the package you just added and click **Enable**.

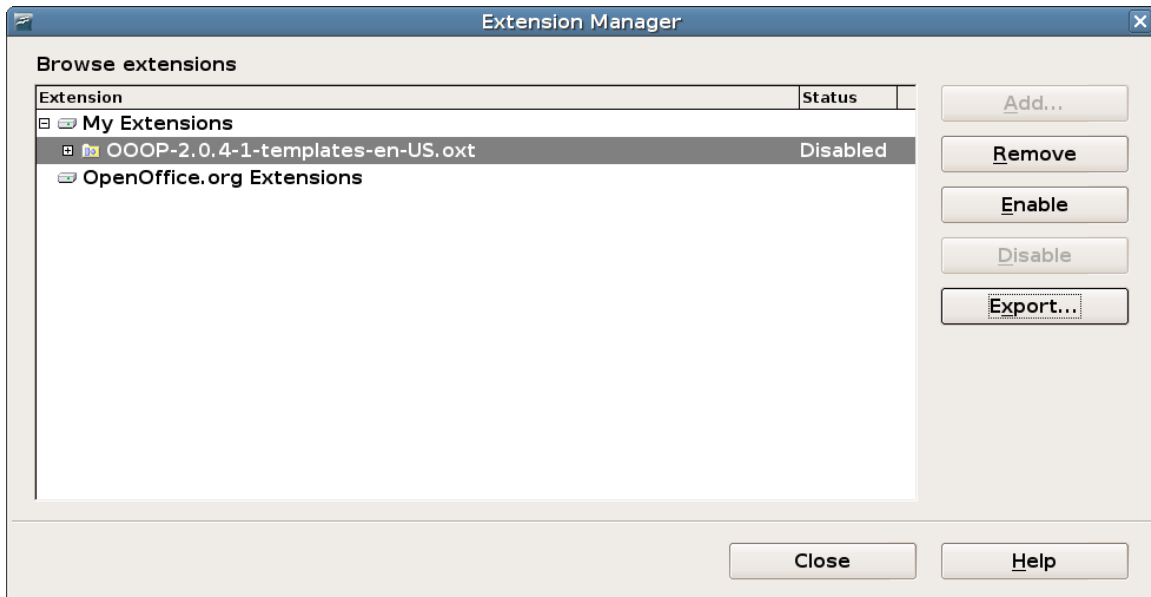


Figure 239: Enabling a newly-added package of templates

Setting a default template

If you create a document by choosing **File > New > Text Document** (or **Spreadsheet**, **Presentation**, or **Drawing**) from the main menu, OOO creates the document from the Default template for that type of document. You can, however, set a custom template to be the default. You can reset the default later if you choose.

Setting a custom template as the default

You can set any template to be the default, as long as it is in one of the folders displayed in the Template Management window.

To set a custom template as the default:

- 1) From the main menu, choose **File > Templates > Organize**. The Template Management window (Figure 236) opens.
- 2) In the box on the left, double-click the folder containing the template that you want to set as the default.
- 3) Click the template that you want to set as the default.
- 4) Click the **Commands** button.
- 5) From the drop-down menu, choose **Set As Default Template**. The next time that you create a document by choosing **File > New**, the document will be created from this template.

Resetting the default to OOO's in-built Default template

To re-enable OOO's Default template for a document type as the default:

- 1) From the main menu, choose **File > Templates > Organize**. The Template Management window (Figure 236) opens.
- 2) In the box on the left, click any folder.
- 3) Click the **Commands** button.
- 4) From the drop-down menu, choose **Reset Default Template**.

Organizing templates

OOO can only use templates that are in OOO template folders. You can, however, create new OOO template folders and use them to organize your templates. For example, you might have one template folder for report templates and another for letter templates. You can also import and export templates.

To begin, choose **File > Templates > Organize** from the main menu. The Template Management window (Figure 236) opens.

Note All the actions made by the **Commands** button in the Template Management window can be made as well by right-clicking on the templates or the folders.

Creating a template folder

To create a template folder:

- 1) In the Template Management window, click any folder.
- 2) Click the **Commands** button.
- 3) From the drop-down menu, choose **New**. A new folder called Untitled appears.
- 4) Type a name for the new folder, and then press the *Enter* key. OOo saves the folder with the name that you entered.

Deleting a template folder

You cannot delete template folders supplied with OOo or installed using the Extension Manager; you can only delete template folders that you have created.

To delete a template folder:

- 1) In the Template Management window, click the folder that you want to delete.
- 2) Click the **Commands** button.
- 3) From the drop-down menu, choose **Delete**. A message box appears and asks you to confirm the deletion. Click **Yes**.

Moving a template

To move a template from one template folder to another template folder:

- 1) In the Template Management window, double-click the folder that contains the template you want to move. A list of all the templates contained in that folder appears underneath the folder name.
- 2) Click the template that you want to move and drag it to the desired folder. If you do not have the authority to delete templates from the source folder, this action *copies* the template instead of moving it.

Deleting a template

You cannot delete the templates supplied with OOo or installed using the Extension Manager; you can only delete templates that you have created.

To delete a template:

- 1) In the Template Management window, double-click the folder that contains the template you want to delete. A list of all the templates contained in that folder appears underneath the folder name.
- 2) Click the template that you want to delete.
- 3) Click the **Commands** button.
- 4) From the drop-down menu, choose **Delete**. A message box appears and asks you to confirm the deletion. Click **Yes**.

Importing a template

If the template that you want to use is in a different location, you must import it into an OOO template folder.

To import a template into a template folder:

- 1) In the Template Management window, double-click the folder into which you want to import the template.
- 2) Click the **Commands** button.
- 3) From the drop-down menu, choose **Import Template**. A standard file browser window opens.
- 4) Find and select the template that you want to import and click **Open**. The file browser window closes and the template appears in the selected folder.

Exporting a template

To export a template from a template folder to another location:

- 1) In the Template Management window, double-click the folder that contains the template you want to export. A list of all the templates contained in that folder appears underneath the folder name.
- 2) Click the template that you want to export.
- 3) Click the **Commands** button.
- 4) From the drop-down menu, choose **Export Template**. The Save As window opens.
- 5) Find the folder into which you want to export the template and click **Save**.



Chapter 13
Working with Styles:
Introduction to Styles in OpenOffice.org

What are styles?

A *style* is a set of formats that you can apply to selected pages, text, frames, and other elements in your document to quickly change their appearance. When you apply a style, you apply a whole group of formats at the same time.

OpenOffice.org supports the following types of styles:

- *Page styles* include margins, headers and footers, borders and backgrounds. In Calc, page styles also include the sequence for printing sheets.
- *Paragraph styles* control all aspects of a paragraph's appearance, such as text alignment, tab stops, line spacing, and borders, and can include character formatting.
- *Character styles* affect selected text within a paragraph, such as the font and size of text, or bold and italic formats.
- *Frame styles* are used to format graphic and text frames, including wrapping type, borders, backgrounds, and columns.
- *Numbering styles* apply similar alignment, numbering or bullet characters, and fonts to numbered or bulleted lists.
- *Cell styles* include fonts, alignment, borders, background, number formats (for example, currency, date, number), and cell protection.
- *Graphics styles* in drawings and presentations include line, area, shadowing, transparency, font, connectors, dimensioning, and other attributes.
- *Presentation styles* include attributes for font, indents, spacing, alignment, and tabs.

Different styles are available in the various components of OOo, as listed in Table 2.

Table 2. Styles available in OOo components

Style Type	Writer	Calc	Draw	Impress
Page	X	X		
Paragraph	X			
Character	X			
Frame	X			
Numbering	X			
Cell		X		
Presentation			X	X
Graphics	(included in Frame styles)		X	X

OpenOffice.org comes with many predefined styles. You can use the styles as provided, modify them, or create new styles, as described in this chapter.

Why use styles?

Many people manually format paragraphs, words, tables, page layouts, and other parts of their documents without paying any attention to styles. They are used to writing documents according to *physical* attributes. For example, you might specify the font family, font size, and any formatting such as bold or italic.

Styles are *logical* attributes. Using styles means that you stop saying “font size 14pt, Times New Roman, bold, centered”, and you start saying “Title” because you have defined the “Title” style to have those characteristics. In other words, styles means that you shift the emphasis from what the text (or page, or other element) looks like, to what the text *is*.


Styles help improve consistency in a document. They also make major formatting changes easy. For example, you may decide to change the indentation of all paragraphs, or change the font of all titles. For a long document, this simple task can be prohibitive. Styles make the task easy.

In addition, styles are used by OpenOffice.org for many processes, even if you are not aware of them. For example, OOO relies on heading styles (or other styles you specify) when it compiles a table of contents.

Applying styles

OpenOffice.org provides several ways for you to select styles to apply.

Using the Styles and Formatting window

- 1) Click the **Styles and Formatting** icon  located at the left-hand end of the object bar, or click **Format > Styles and Formatting**, or press *F11*. The Styles and Formatting window shows the types of styles available for the OOO component you are using. Figure 240 shows the window for Writer, with Page Styles visible.

You can move this window to a convenient position on the screen or dock it to an edge (hold down the *Ctrl* key and drag it by the title bar to where you want it docked).

- 2) Click on one of the icons at the top left of the Styles and Formatting window to display a list of styles in a particular category.
- 3) To apply an existing style (except for character styles), position the insertion point in the paragraph, frame, or page, and then double-click on the name of the style in one of these lists. To apply a character style, select the characters first.

Tip At the bottom of the Styles and Formatting window is a dropdown list. In Figure 240 the window shows *Automatic*, meaning the list includes only styles applied automatically by OOO. You can choose to show all styles or other groups of styles, for example only custom styles.

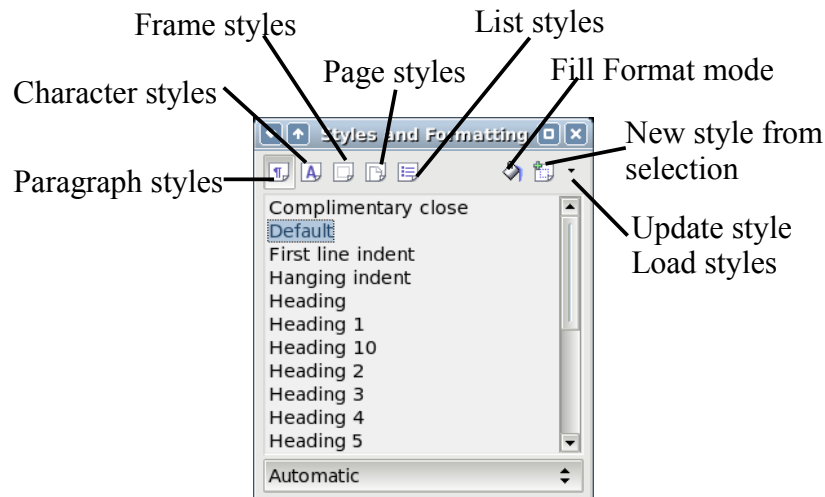



Figure 240. The Styles and Formatting window for Writer, showing paragraph styles

Using Fill Format mode

Use Fill Format to apply a style to many different areas quickly without having to go back to the Styles and Formatting window and double-click every time. This method is quite useful when you need to format many scattered paragraphs, cells, or other items with the same style.

- 1) Open the Styles and Formatting window (Figure 240) and select the style you want to apply.
- 2) Click the **Fill Format mode** icon . The mouse pointer changes to this icon.
- 3) Position the moving icon on the paragraph, page or frame to be styled and click the mouse button.
- 4) If you are applying a character style, hold down the mouse button while selecting the characters.
- 5) To quit Fill Format mode, click the **Fill Format mode** icon again or press the *Esc* key.

Caution



When this mode is active, a right-click anywhere in the document undoes the last Fill Format action. Be careful not to accidentally right-click and thus undo actions you want to keep.

Using the Apply Style list

After you have used a style at least once in a document, the style name appears on the Apply Style list (Figure 241) at the left-hand end of the Formatting toolbar, next to the Styles and Formatting icon.

You can open this list and click once on the style you want, or you can use the up and down arrow keys to move through the list and then press *Enter* to apply the highlighted style.

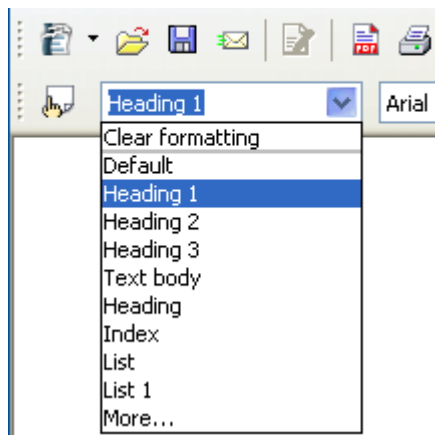


Figure 241. The Apply Style list on the Formatting toolbar

Tip Select **More...** at the bottom of the list to open the Styles and Formatting window.

Assigning styles to shortcut keys

OOo provides a set of predefined keyboard shortcuts that allow you to quickly apply styles while typing in a document. You can redefine these shortcuts or define your own.

- 1) Click **Tools > Customize > Keyboard**. The Keyboard page of the Customize dialog (Figure 242) opens.
- 2) To have the shortcut key assignment available only with one component (for example, Writer), select that component's name in the upper right corner of the page; otherwise select **OpenOffice.org** button to make it available to every component.
- 3) Choose the shortcut keys you want to define. In this example we have chosen *Ctrl+9*.
- 4) In the *Functions* section at the bottom of the dialog, scroll down in the Category list to Styles and click the + sign.
- 5) Choose the type of style (our example uses a paragraph style). The *Function* list will display the names of the available styles for the selected type. The example shows some of OOo's predefined styles.
- 6) To set *Ctrl+9* to be the shortcut key combination for the Text Body style, select *Text Body* in the *Function* list, and then click **Modify**. *Ctrl+9* now appears in the *Keys* list.
- 7) Make any other required changes and then click **OK** to save these settings and close the dialog.

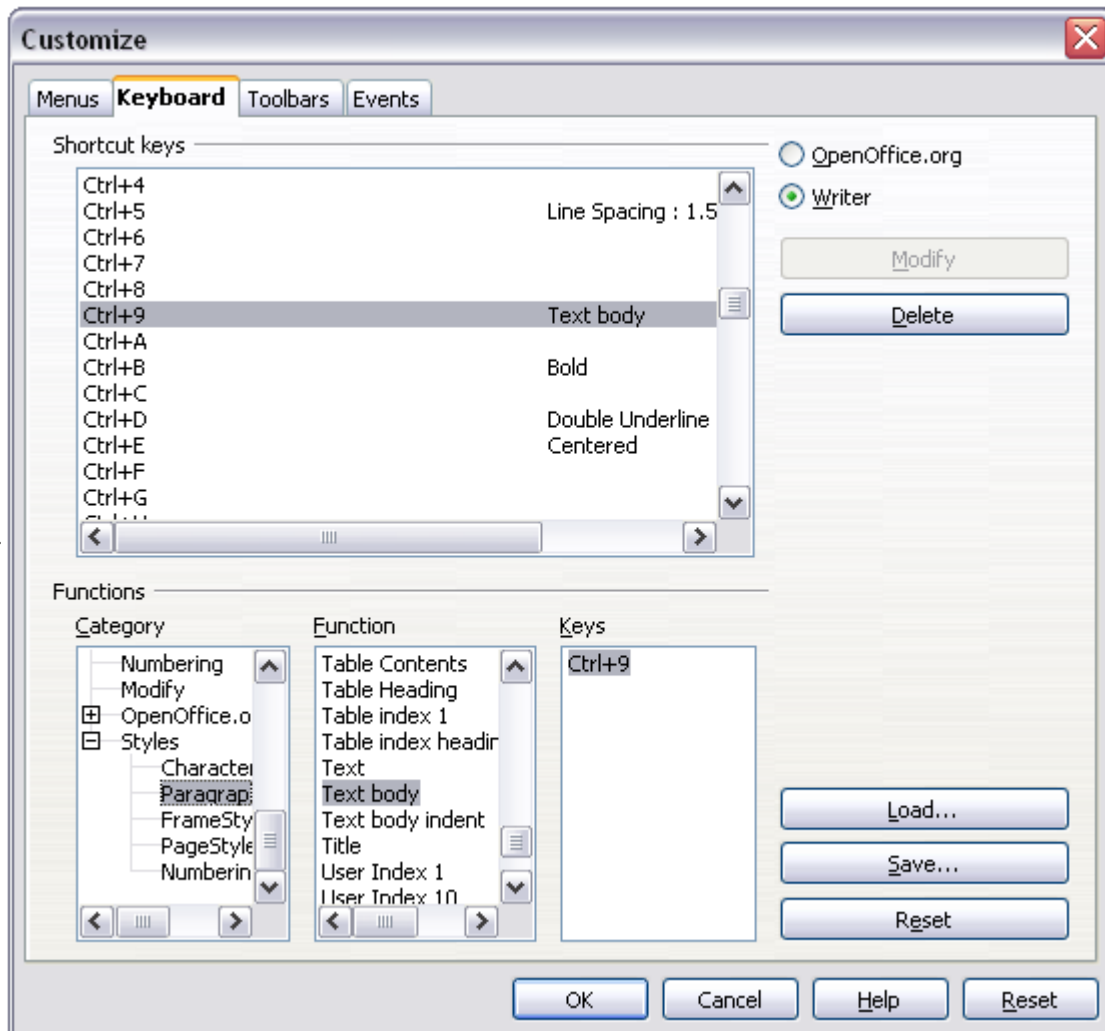


Figure 242. Defining keyboard shortcuts for applying styles

Modifying styles

OpenOffice.org provides two ways to modify styles (both the predefined styles and custom styles that you create):

- Changing a style using the Style dialog
- Updating a style from a selection

Tip Any changes you make to a style are effective only in the document you are working on. The changes do not go into any associated template. If you want the changes to apply to more than one document, you need to change the template (see Chapter 12, Working with Templates) or copy the styles into the other documents as described in “Copying and moving styles“ on page 255.

Changing a style using the Style dialog

To change an existing style using the Style dialog, right-click on the required style in the Styles and Formatting window (Figure 240) and select **Modify** from the pop-up menu.

The Style dialog displayed depends on the type of style selected. Each style dialog has several tabs. See the chapters on styles in the user guides for details.

Updating a style from a selection

To update a style from a selection:

- 1) Open the Styles and Formatting window.
- 2) In the document, select an item that has the format you want to adopt as a style.
- 3) In the Styles and Formatting window, select the style you want to update (single-click, not double-click), then long-click on the arrow next to the **New Style from Selection** icon and click on **Update Style** (see Figure 243).

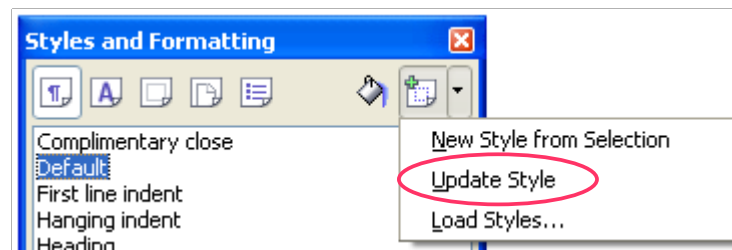


Figure 243. Updating a style from a selection

Using AutoUpdate (paragraph and frame styles only)

If the AutoUpdate checkbox is selected on the Organizer page of the Paragraph Style or Frame Style dialog, applying direct formatting to a paragraph or frame using this style in your document automatically updates the style itself.

Tip If you are in the habit of manually overriding styles in your document, be sure that AutoUpdate is **not** enabled.

Updating styles from another document or template

You can update styles by copying or loading them from a template or another document. See “Copying and moving styles” on page 255.

Creating new (custom) styles

You may want to add some new styles. You can do this in two ways:

- Creating a new style using the Style dialog
- Creating a new style from a selection

Creating a new style using the Style dialog

To create a new style using the Style dialog, right-click in the Styles and Formatting window and select **New** from the pop-up menu.

If you want your new style to be linked with an existing style, first select that style and then right-click and select **New**.

If you link styles, then when you change the base style (for example, by changing the font from Times to Helvetica), all the linked fonts will change as well. Sometimes this is exactly what you want; other times you do not want the changes to apply to all the linked styles. It pays to plan ahead.

The dialogs and choices are the same for defining new styles and for modifying existing styles. See the chapters on styles in the user guides for details.

Creating a new style from a selection

You can create a new style by copying an existing style. This new style applies only to this document; it will not be saved in the template.

- 1) Open the Styles and Formatting window and choose the type of style you want to create.
- 2) In the document, select the item you want to save as a style.
- 3) In the Styles and Formatting window, click on the **New Style from Selection** icon.
- 4) In the Create Style dialog (Figure 244), type a name for the new style. The list shows the names of existing custom styles of the selected type. Click **OK** to save the new style.

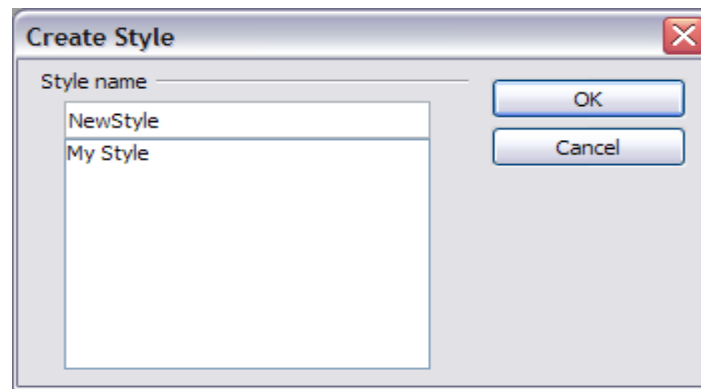


Figure 244: Naming a new style created from a selection

Dragging and dropping a selection to create a style

You can drag and drop a text selection into the Styles and Formatting window to create a new style.

Writer

Select some text and drag it to the Styles and Formatting window. If Paragraph Styles are active, the paragraph style will be added to the list. If Character Styles are active, the character style will be added to the list.

Calc

Drag a cell selection to the Styles and Formatting window to create cell styles.

Draw/Impress

Select and drag drawing objects to the Styles and Formatting window to create graphics styles.

Copying and moving styles

You can copy or move styles from one template or document into another template or document, in two ways:

- Using the Template Management dialog
- Loading styles from a template or document

Using the Template Management dialog

To copy or move styles using the Template Management dialog:

- 1) Click **File > Templates > Organize**.

- 2) In the Template Management dialog (Figure 246), set the lists at the bottom to either Templates or Documents, as needed. The default is Templates on the left and Documents on the right.

Tip To load styles from a file that is not open, click the **File** button. When you return to this window, both lists show the selected file as well as all the currently open documents.

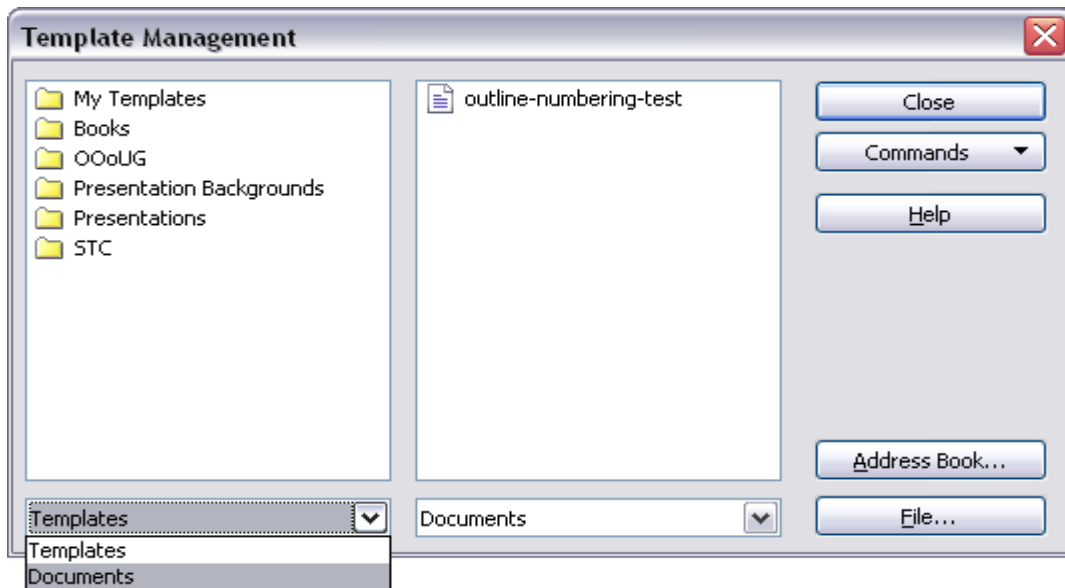


Figure 245: Choosing to copy styles from a document, not a template

- 3) Open the folders and find the templates from and to which you want to copy. Double-click on the name of the template or document, and then double-click the Styles icon to show the list of individual styles (Figure 247).
- 4) To *copy* a style, hold down the *Ctrl* key and drag the name of the style from one list to the other.

Caution If you do not hold down the *Control* key when dragging, the style will be moved from one list to the other. The style will be deleted from the list you are dragging it from.



- 5) Repeat for each style you want to copy. If the receiving template or document has a lot of styles, you may not see any change on screen unless you scroll down in the list. When you are finished, click **Close**.

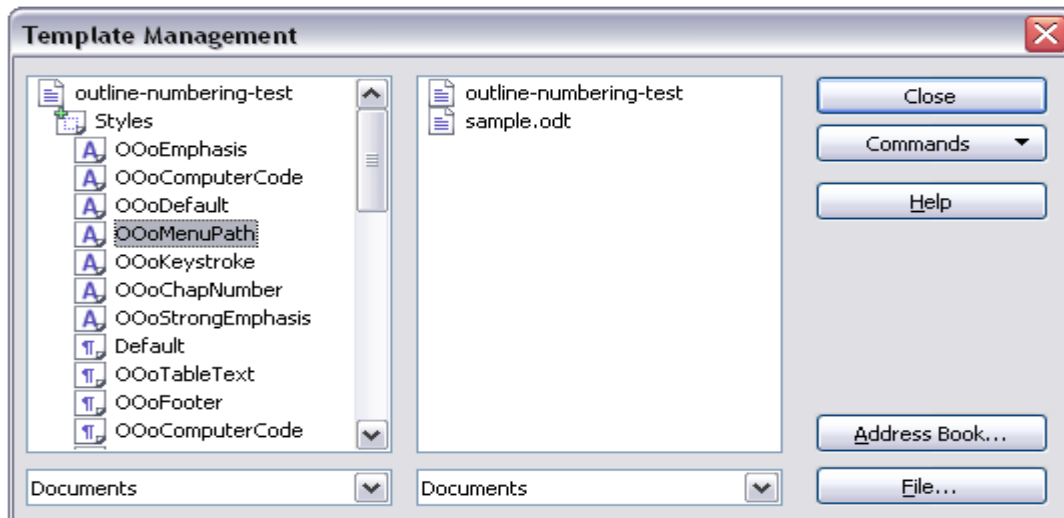


Figure 246: Copying a style from one document to another

Loading styles from a template or document

You can copy styles by loading them from a template or another document:

- 1) Open the document you want to copy styles into.
- 2) In the Styles and Formatting window, long-click on the arrow next to the **New Style from Selection** icon, and then click on **Load Styles** (see Figure 243).
- 3) On the Load Styles dialog (Figure 247), find and select the template you want to copy styles from.

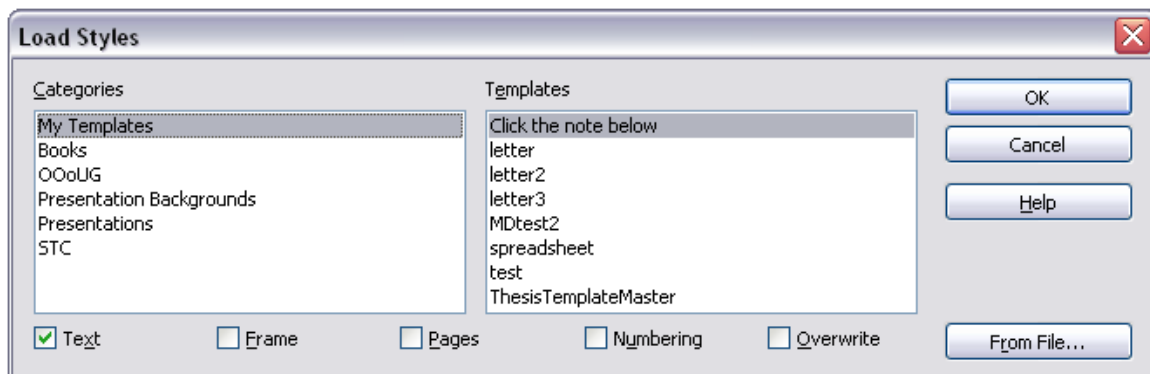


Figure 247. Copying styles from a template into the open document

- 4) Select the checkboxes for the categories of styles to be copied. Select **Overwrite** if you want the styles being copied to replace any styles of the same names in the document you're copying them into.
- 5) Click **OK** to copy the styles. You will not see any change on screen.

Note To copy the styles from another document, click the **From File** button to open a window from which you can select the required document.

Deleting styles

You cannot remove (delete) any of OOO's predefined styles from a template, even if you are not using them.

You can remove any user-defined (custom) styles; but before you do, you should make sure the styles are not in use. If an unwanted style is in use, you will want to replace it with a substitute style.

Replacing styles (and then deleting the unwanted ones) can be very useful if you are dealing with a document that has been worked on by several writers or has been formed by combining several documents from different sources.

To delete unwanted styles, right-click on them (one at a time) in the Styles and Formatting window and click **Delete** on the pop-up menu.

If the style is in use, you receive the message shown in Figure 248.

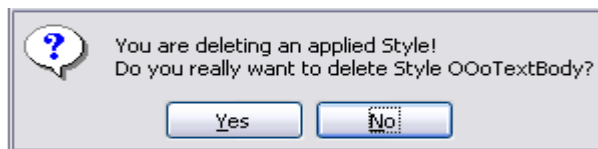


Figure 248. Deleting an applied style

Caution



Make sure the style is not in use before deletion. Otherwise, all objects with that style will return to the default style and retain their formatting as manual formatting. This can be a problem in a long document.

If the style is not in use, you receive the message shown in Figure 245.

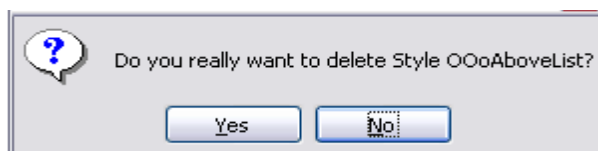



Figure 249. Deleting a style that is not in use



Chapter 14
Working with the Gallery

What is the Gallery?

The **Gallery** contains objects (graphics and sounds) that you can insert into your documents. The Gallery is available in all components of OpenOffice.org.

To open the Gallery, choose **Tools > Gallery**, or click the Gallery icon . If the Gallery is open, these choices close it.

Graphics in the Gallery are grouped by themes, such as Bullets, Rulers, and 3D Effects. You can create other groups or “themes” as you wish.

The box on the left of the gallery window lists the available themes. Click on a theme to see its graphics displayed in the Gallery window.

Figures 250 and 251 show two views of one of the themes supplied with OpenOffice.org.

You have the option of *Icon View* or *Detailed View* for the Gallery, and you can hide or show the Gallery by clicking on the *Hide* button.

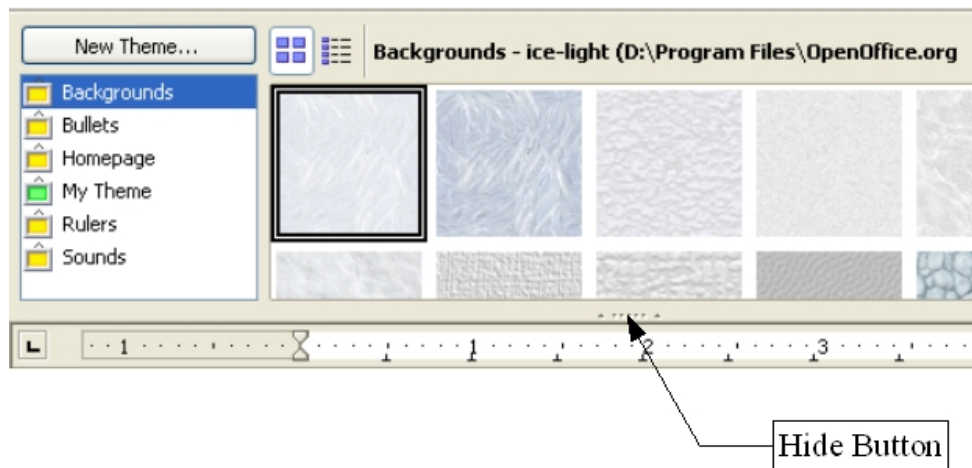


Figure 250. Icon view of one theme in the Gallery

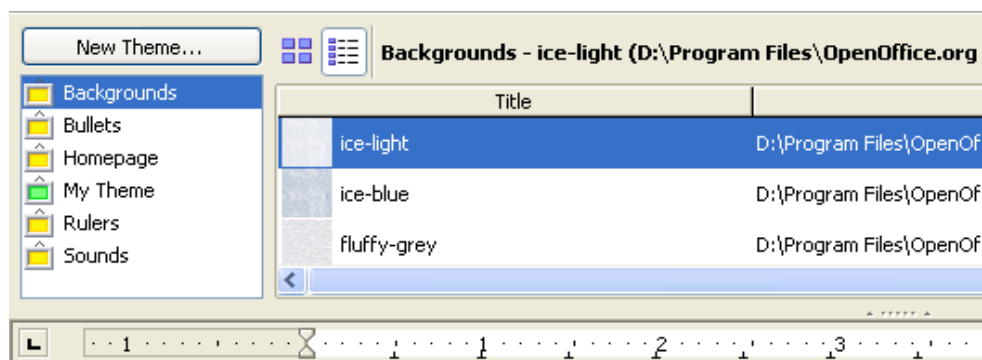


Figure 251. Detailed view of the same theme in the Gallery

Inserting objects into a document

You can copy or link an object from the Gallery into a document. The difference is that a linked object can be updated in your document if the object is changed in the Gallery, simply by updating the link.

To insert an object:

- 1) Choose **Tools > Gallery** and select a theme.
- 2) Select an object with a single click, then drag and drop the object into the document. (See Figure 252.)

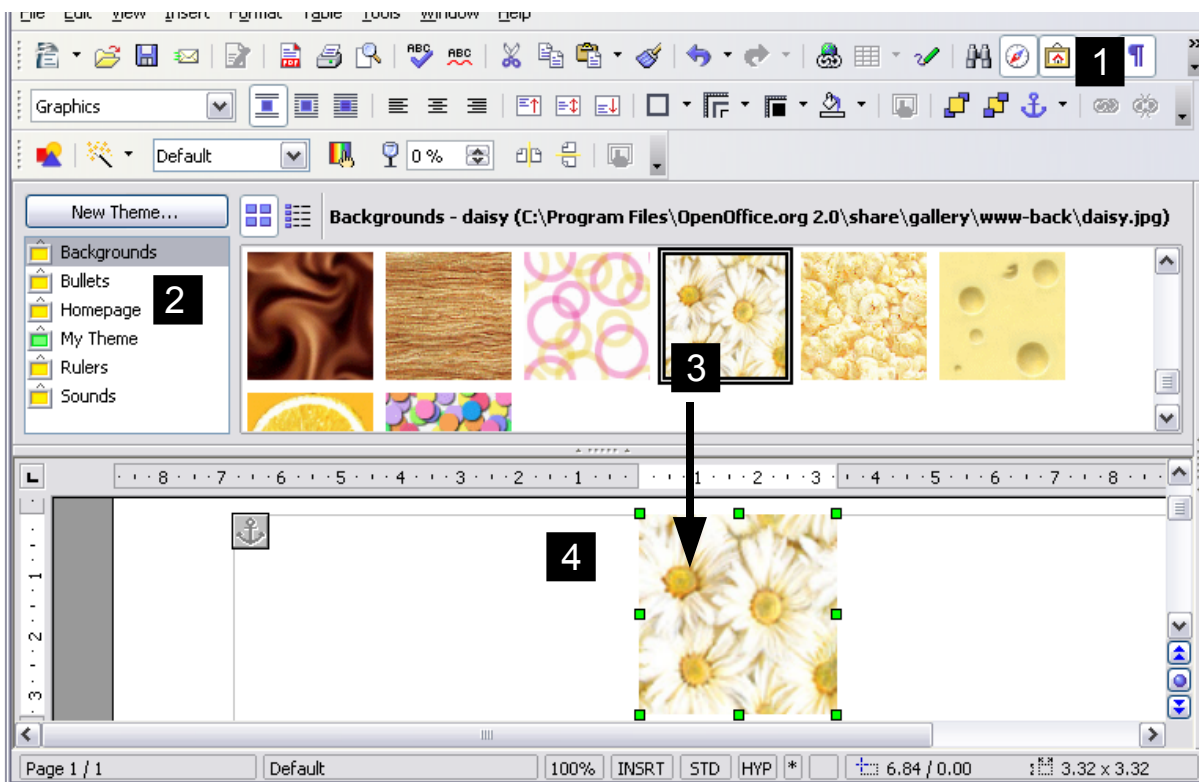


Figure 252. Copying a graphic object from the Gallery into a document

You also can right-click on the object to open the context menu and select **Insert > Copy**.

Inserting objects as links

To insert an object as a link:

- 1) Choose **Tools > Gallery** and select a theme.
- 2) Select an object with a single click, then while pressing the *Shift* and *Ctrl* keys, drag and drop the object into the document.

Inserting an object as a background

To insert an object as the background to a page or paragraph:

- 1) Choose **Tools > Gallery** and select a theme.
- 2) Select an object with a single click, right-click on the object and choose **Insert > Background > Page or Paragraph**.

Managing the Gallery

The default themes are locked; no items can be added or deleted from these themes. The locked themes are easily recognizable by right-clicking on them; the only available option in the pop-up menu is **Properties**.

In a default installation, only the *My themes* theme is customizable, although new themes can be added as explained in

Adding objects to the Gallery

Method 1 (selecting a file):

- 1) Right-click on the theme name in the list of themes and choose **Properties** from the pop-up menu.
- 2) Click the **Files** tab, if necessary.
- 3) Click **Add**.
- 4) Select a file and click **Open**. The image is added to the theme.

Method 2 (drag and drop):

- 1) Open the document containing an image you want to add to the Gallery, and display the Gallery theme to which you want to add it.
- 2) Position the mouse pointer above the image, without clicking.
- 3) If the mouse pointer changes to a hand symbol, the image refers to a hyperlink. In this case, press the *Alt* key while you click the image, to select it without executing the respective link. If the mouse pointer does not change to a hand symbol, you can simply click the image to select it.
- 4) Once the image is selected, evident from the green selection handles around it, release the mouse button. Click again on the image, keeping the mouse button pressed for more than two seconds. Without releasing the mouse button, drag the image into the document.
- 5) Release the mouse button.

Deleting objects from the Gallery

To delete an object from a theme:

- 1) Right-click on the name of the graphics file or its thumbnail in the Gallery.
- 2) Click **Delete** on the pop-up menu. A message appears, asking if you want to delete this object. Click **Yes**.

Note Deleting the name of a file from the list in the Gallery does not delete the file from the hard disk or other location.

Adding a new theme to the Gallery

- 1) Click the **New Theme** button above the list of themes (see Figure 250).
- 2) Click the **General** tab and type a name for the new theme.
- 3) Click the **Files** tab.
- 4) Click **Find Files**. The Select Path dialog opens (Figure 253). Browse to the folder that contains the image files for the new theme and click **OK**.
- 5) Back on the Files tab, either click on **Add All** to install all of the files in the selected folder, or use *File Type* and/or select one or more files from the displayed list, and click on **Add** to install a selection of files to the new theme.
- 6) Click **OK** when finished.

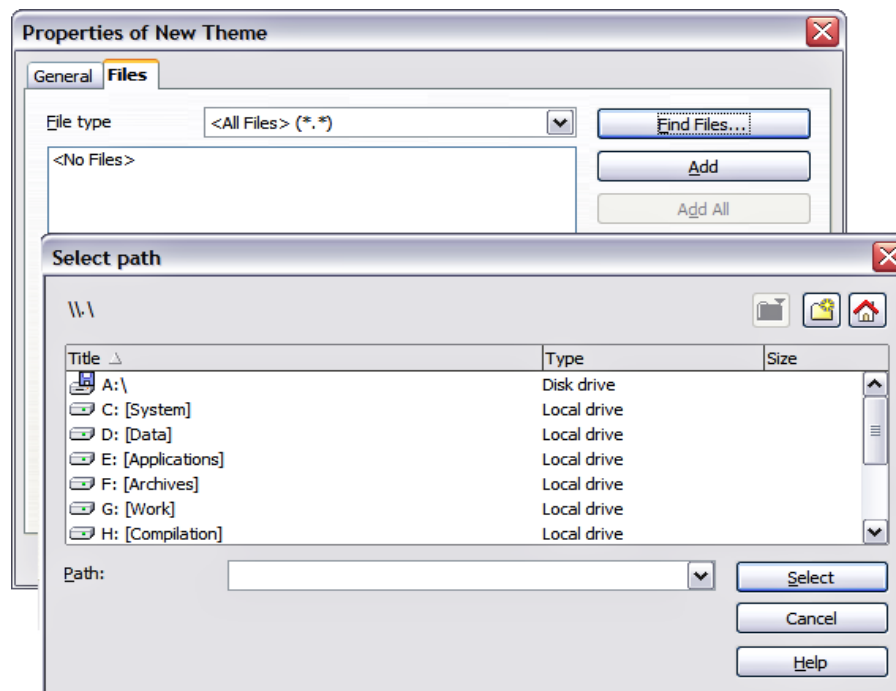


Figure 253. Setting up a new theme in the Gallery

Note The files do not show in the large box under the **File Type** box; and under the **General** tab, the **Contents** will display as “0 Objects,” but the chosen files will be inserted into the new theme. Remember, you can always add or delete image files later.

Deleting a theme from the Gallery

To delete a theme from the Gallery:

- 1) Go to **Tools > Gallery**.
- 2) In the left part of the Gallery, select in the list the theme you wish to delete.
- 3) Right-click on the theme, then click **Delete** on the pop-up menu.

Location of the Gallery and the objects in it

Graphics and other objects shown in the Gallery can be located anywhere on your computer’s hard disk, on a network drive, or on a CD-ROM. Listings in the Gallery refer to the location of each object. When you add graphics to the Gallery, the files are not moved or copied; only the location of each new object is added as a reference.

In a workgroup situation, you may have access to a shared Gallery (where you cannot change the contents unless authorized to do so) and a user Gallery, where you can add, change, or delete objects.

The location of the user Gallery is specified in **Tools > Options > OpenOffice.org > Paths**. Typically it is something like `\openoffice\user\gallery`, although the exact location depends on your operating system. You can change this location, and you can copy your gallery files (*.sdv) to other computers.

Gallery contents provided with OOo are stored in a location like `openoffice\share\gallery`. You cannot change this location.



Chapter 15
Using Fontwork
Creating Graphical Text Art Objects

What is Fontwork?

With Fontwork you can create graphical text art objects for making your work more attractive. There are many different settings for text art objects (line, area, position, size, and more), so you have a large choice. You will surely find one that fits your document.

Fontwork is available with each component of OpenOffice.org (OOo), but you will notice small differences in the way that each component displays it.

The Fontwork toolbars

You can use two different toolbars for creating and editing a Fontwork object.

- Go to **View > Toolbars > Fontwork**.

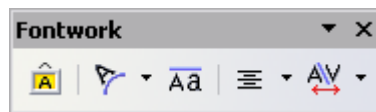


Figure 254. The floating Fontwork toolbar

- If you click on an existing Fontwork object, the Formatting toolbar changes to display the Fontwork options as in Figure 255. The contents of this toolbar vary depending on the OOo component.

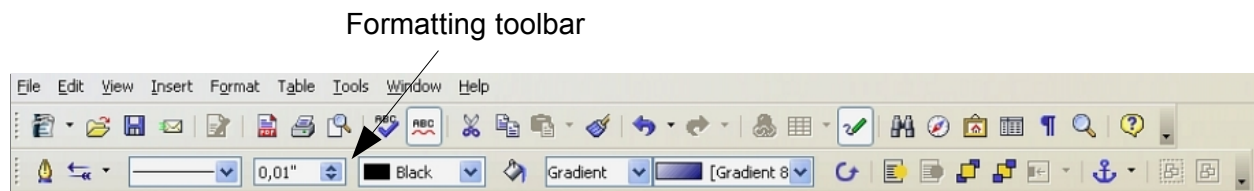



Figure 255. The Formatting toolbar in Writer when a Fontwork object is selected

Creating a Fontwork object

- 1) On the Drawing or Fontwork toolbar, click the Fontwork Gallery icon: . If the Drawing toolbar is not visible, go to **View > Toolbars > Drawing** to display it.
- 2) In the Fontwork Gallery dialog (Figure 256), select a Fontwork style, then click **OK**. The Fontwork object will appear in your document. Notice the blue squares around the edge (indicating that the object is selected) and the yellow dot; these are discussed in “Moving and resizing Fontwork objects” on page 273.

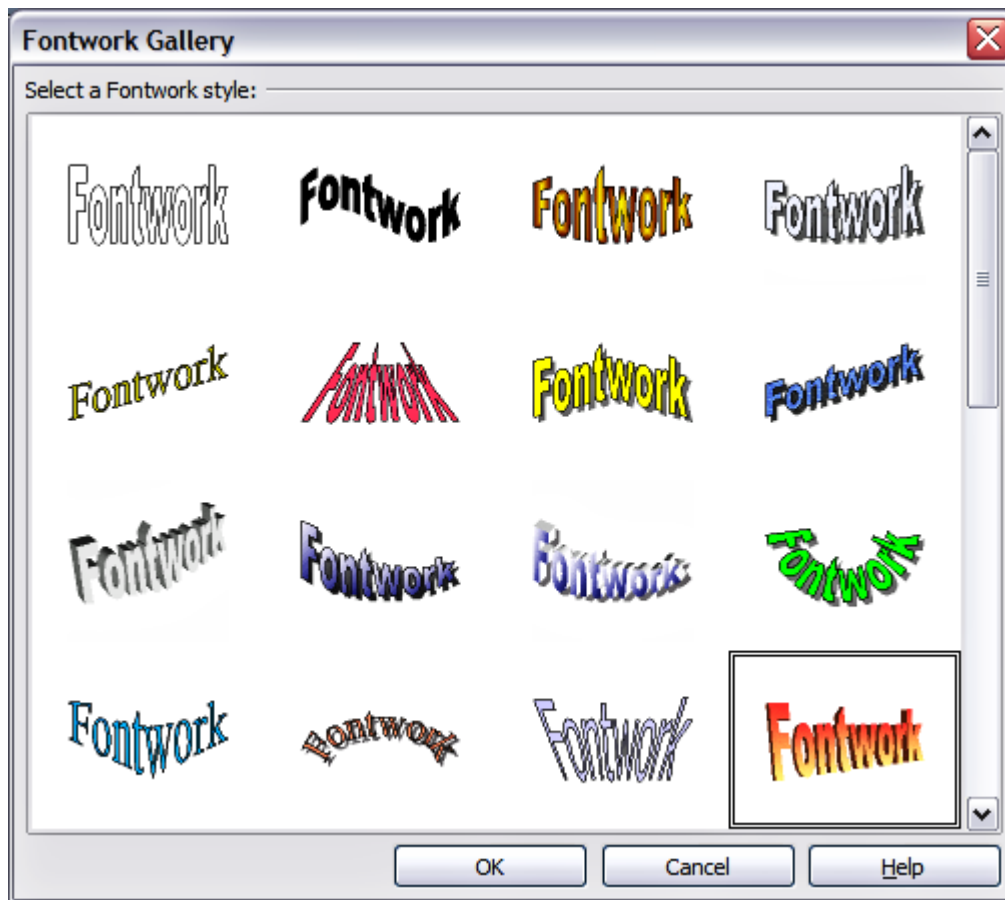


Figure 256. The Fontwork Gallery

- 3) Double-click the object to edit the Fontwork text. Type your own text in place of the black *Fontwork* text that appears over the object (Figure 257).



Figure 257. Editing Fontwork text

- 4) Click anywhere in a free space or press *Esc* to apply your changes.


Editing a Fontwork object

Now that the Fontwork object is created, you can edit some of its attributes. To do this, you can use the Fontwork toolbar, the Formatting toolbar, or menu options as described in this section.

Using the Fontwork toolbar

Make sure that the Fontwork toolbar, shown in Figure 254, is visible. If you do not see it, go to **View > Toolbars > Fontwork**.

Click on the different icons to edit Fontwork objects:

-  **Fontwork Shape:** Edits the shape of the selected object. You can choose from a palette of shapes, as shown in Figure 258.

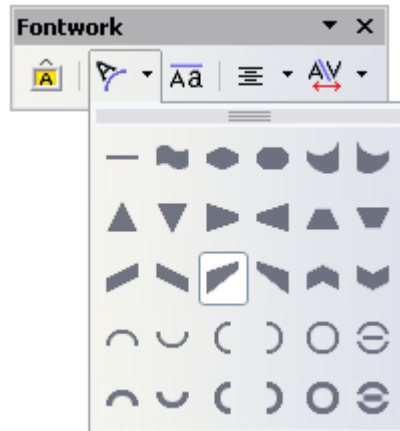



Figure 258. Fontwork toolbar showing palette of shapes

-  **Fontwork Same Letter Heights:** Changes the height of characters in the object. Toggles between normal height (some characters taller than others, for example capital letters, d, h, l and others) and all letters the same height. See Figure 259.

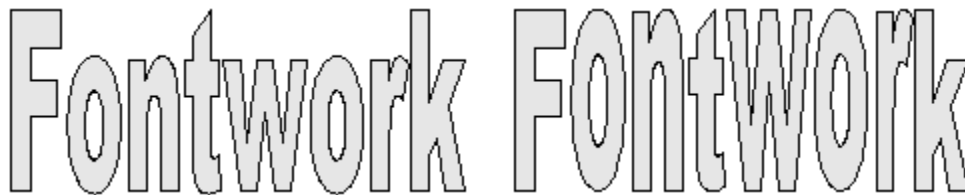



Figure 259. Left: normal letters; right: same letter heights

-  **Fontwork Alignment:** Changes the alignment of characters. Choices are left align, center, right align, word justify, and stretch justify. The effects of the text alignment can only be seen if the text spans over two or more lines. In the stretch justify mode, all the lines are filled completely.

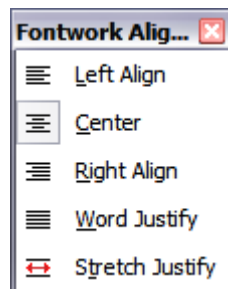


Figure 260: The extended alignment toolbar



Fontwork Character Spacing: Changes the character spacing and kerning in the object. For custom spacing, input a percentage value: 100% is normal spacing; less than 100% is tight spacing; more than 100% is expanded spacing.

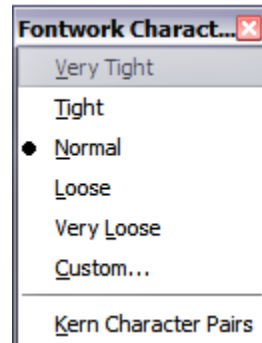


Figure 261: The extended character spacing toolbar

Using the Formatting toolbar

Now let us go further and customize the Fontwork object with several more attributes.

Click on the Fontwork object. The Formatting toolbar changes to show all the options for editing the object. (For example, the toolbar shown in Figure 262 will appear when you use Fontwork in Writer.)

On the Formatting toolbar you have a large choice of options for customizing your object. These choices are the same as the ones for other drawing objects. You can read about them in more detail in the *Draw Guide*.

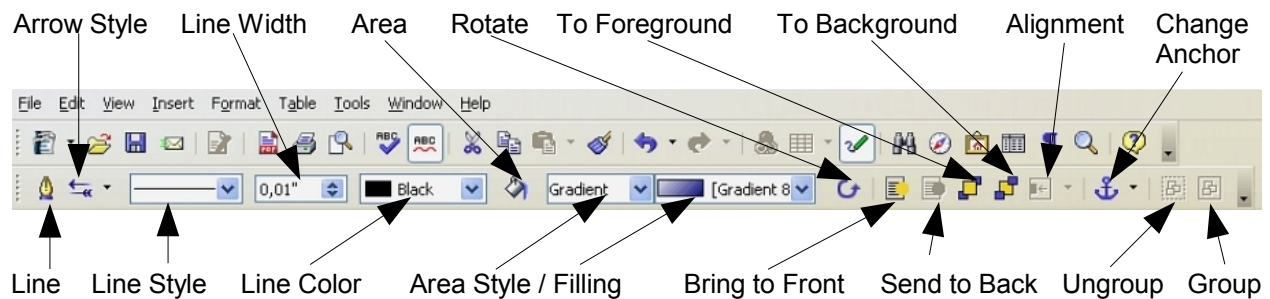


Figure 262. Formatting toolbar with a Fontwork object selected in Writer

Line options

Line icon: Opens a dialog (Figure 263) with three tabs: **Line**, **Line Styles**, **Arrow Styles**.

- Use the **Line** tab to edit the most common properties of the line around the selected Fontwork object, by choosing from previously-defined attributes including line style, line color, and arrow styles.
- Use the **Lines Styles** and **Arrow Styles** tabs to edit the properties of line and arrow styles, and define new styles.

Arrow Style icon: Choose from the different arrow styles.

Line Style box: Choose from the available line styles.

Line Width box: Set the width of the line.

Line Color box: Select the color of the line.

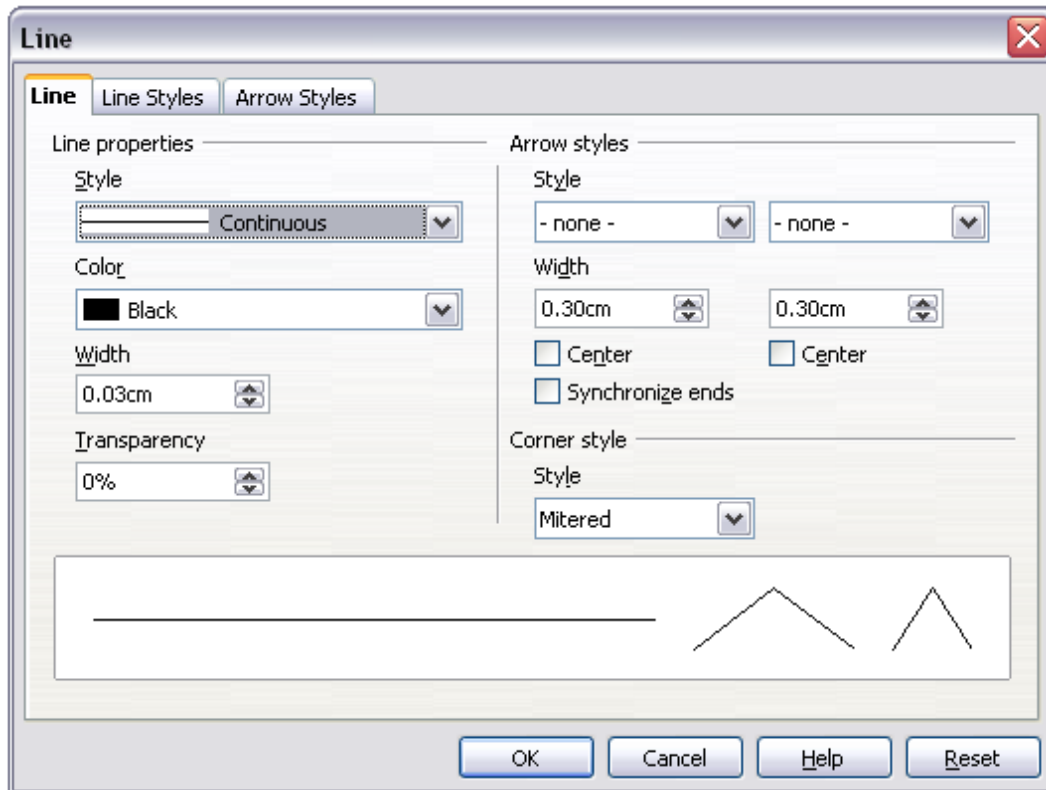


Figure 263. Line options dialog

Area options

Area icon: Opens a dialog (Figure 264) with seven tabs: **Area**, **Shadow**, **Transparency**, **Colors**, **Gradients**, **Hatching**, **Bitmaps**.

- **Area** tab: Choose from the predefined list a color, bitmap, gradient or hatching pattern to fill the selected object.
- **Shadow** tab: Set the shadow properties of the selected object.
- **Transparency** tab: Set the transparency properties of the selected object.
- **Colors** tab: Modify the available colors or add new ones to appear on the Area tab.
- **Gradients** tab: Modify the available gradients or add new ones to appear on the Area tab.
- **Hatching** tab: Modify the available hatching patterns or add new ones to appear on the Area tab.

- **Bitmaps** tab: Create simple bitmap patterns and import bitmaps, to make them available on the Area tab.

Area Style / Filling boxes: Select the type of the fill of the selected object. For more detailed settings, use the Area icon.

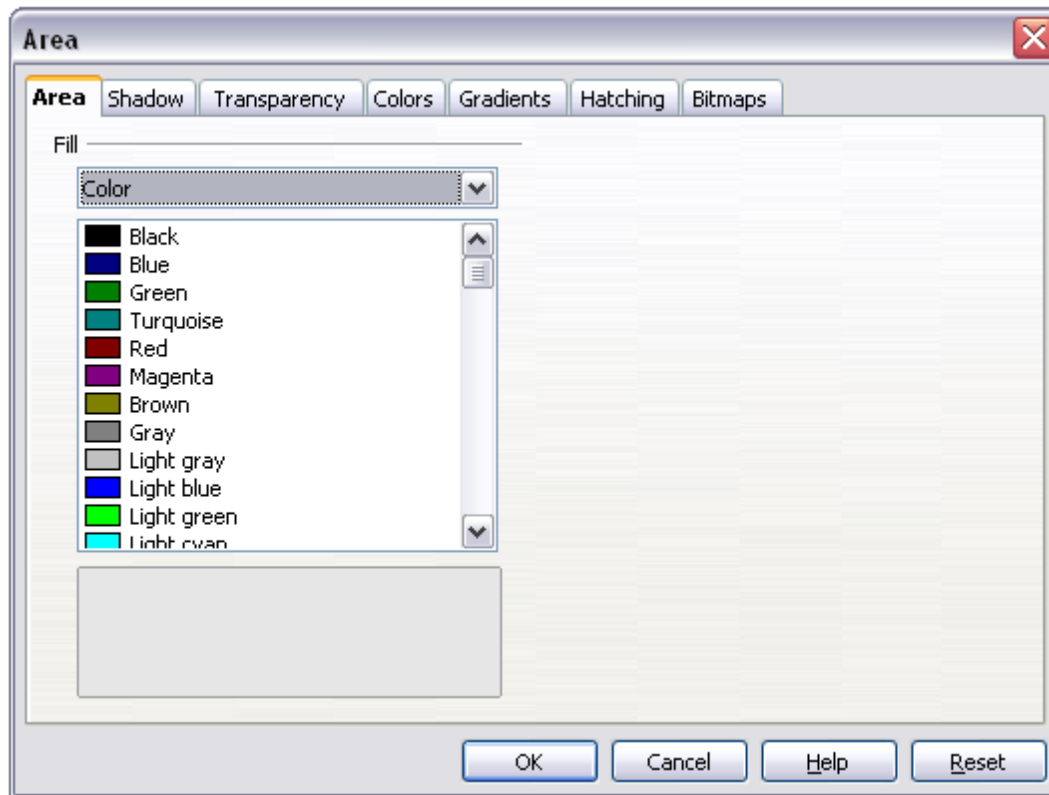


Figure 264. Area options dialog

Positioning options

Rotate icon: Rotate the selected object manually using the mouse to drag the object.

To Foreground icon: Moves the selected object in front of the text.

To Background icon: Moves the selected object behind the text.

Alignment icon: Modifies the alignment of the selected objects.

Bring to front icon: Moves the selected object in front of the others.

Send to back icon: Moves the selected object behind the others.

Change Anchor icon: Switch between anchoring options:

- To Page - The object keeps the same position in relation to the page margins. It does not move as you add or delete text.
- To Paragraph - The object is associated with a paragraph and moves with the paragraph. It may be placed in the margin or another location.

- To Character - The object is associated with a character but is not in the text sequence. It moves with the paragraph but may be placed in the margin or another location. This method is similar to anchoring to a paragraph.
- As Character - The object is placed in the document like any character and moves with the paragraph as you add or delete text before the object.

Ungroup icon: Ungroups the selected objects, so you can manage them individually .

Group icon: Groups the selected objects, so you can manage them as a single object.

Using menu options

You can use some the choices on the **Format** menu to anchor, align, arrange and group selected Fontwork objects, wrap text around them, and flip them horizontally and vertically.

You can also right-click on a Fontwork object and choose many of the same options from the pop-up menu. In addition, the pop-up menu provides quick access to the Line, Area, Text, and Position and Size dialogs. The Line and Area dialogs are described on pages 269 and 270. The Text dialog offers only a few options for Fontwork objects and is not discussed here.

On the Position and Size dialog (Figure 260), you can enter precise values concerning size and position. For more information, see the *Draw Guide*.

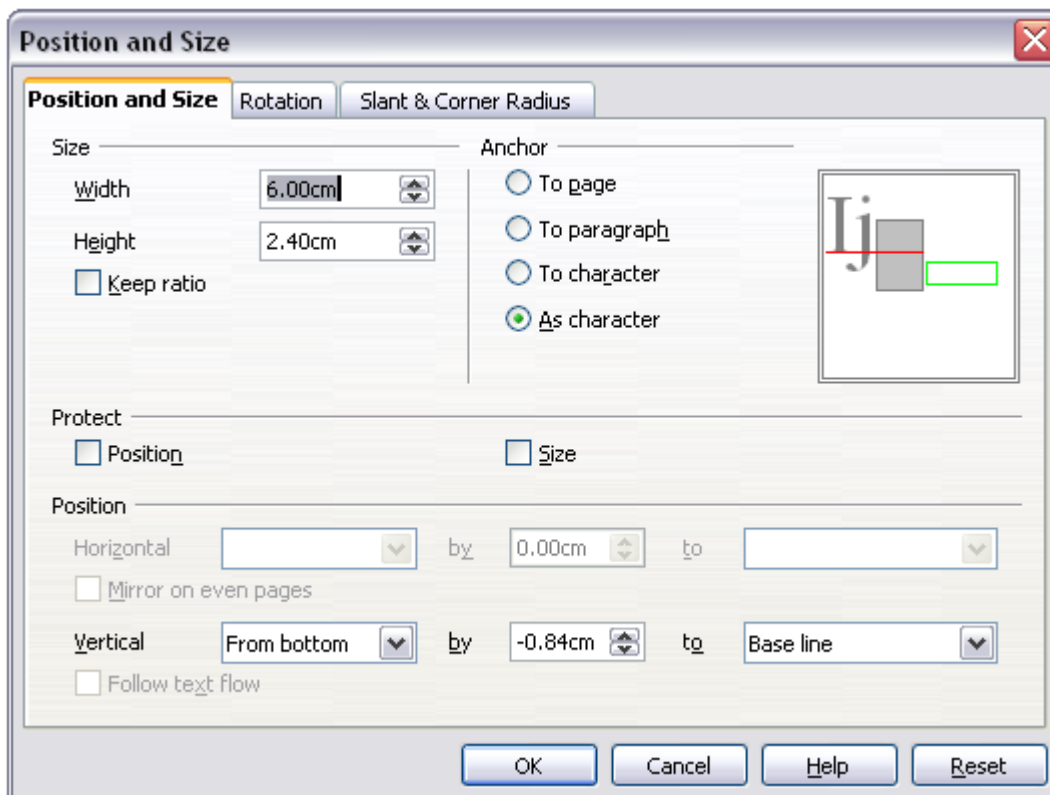


Figure 265. Position and Size dialog

Moving and resizing Fontwork objects

When you select a Fontwork object, eight blue squares (known as *handles*) appear around the edge of the object, as shown in Figure 257. You can drag these handles to resize the object.

A yellow dot also appears on the object. This dot may be along an edge of the object, or it may be somewhere else; see Figure 261 for an example. If you hover the pointer over this yellow dot, the pointer turns into a hand symbol. You can drag the dot in different directions to distort the object.



Figure 266. Yellow dot

Hovering the pointer over other parts of the object turns the pointer into the usual symbol for dragging the object to another part of the page.

For precise control of the location and size of the object, use the Position and Size dialog (Figure 260).



Chapter 16

Creating Web Pages

Saving Documents as HTML Files

Introduction

This chapter describes how to save documents as web pages from Writer, Calc, Draw and Impress.

Note Cross references do not become hyperlinks in an HTML document.


Inserting hyperlinks

When you type text (such as a website addresses or URL) that can be used as a hyperlink, OOO formats it automatically, creating the hyperlink and applying to the text a color and underlining. If this does not happen, you can enable this feature using **Tools > AutoCorrect > Options** and selecting the **URL Recognition** checkbox.

Tips If you do not want OOO to convert a specific URL to a hyperlink, select **Edit > Undo Insert** from the menu bar or press *Control+Z* immediately after the formatting has been applied.

To change the color of hyperlinks, go to **Tools > Options > OpenOffice.org > Appearance**, scroll to *Unvisited links* and/or *Visited links*, select the checkboxes, pick the new colors and click **OK**. Caution: this will change the color for all hyperlinks in all components of OpenOffice.org—this may not be what you want.

In Writer and Calc (but not Draw or Impress), you can also change the *Internet link* character style or define and apply new styles to selected links.

You can also insert and modify links using the Hyperlink dialog (Figure 267). To display the dialog, click the **Hyperlink** icon  on the Standard toolbar or select **Insert > Hyperlink** from the menu bar. To turn existing text into a link, highlight it before opening the Hyperlink dialog.

On the left hand side, select one of the four types of hyperlinks:

- **Internet:** a web address, normally starting with `http://`
- **Mail & News:** for example an email address.
- **Document:** the hyperlink points to another document or to another place in the presentation.
- **New document:** the hyperlink creates a new document.

The top right part of the dialog changes according to the choice made for the hyperlink type. A full description of all the choices, and their interactions, is beyond the scope of this chapter. Here is a summary of the most common choices used in presentations.

For an *Internet* type hyperlink, choose the type of hyperlink (choose between Web, FTP or Telnet), and enter the required web address (URL).

For a *Mail and News* type hyperlink, specify whether it is a mail or news link, the receiver address and for email, also the subject.

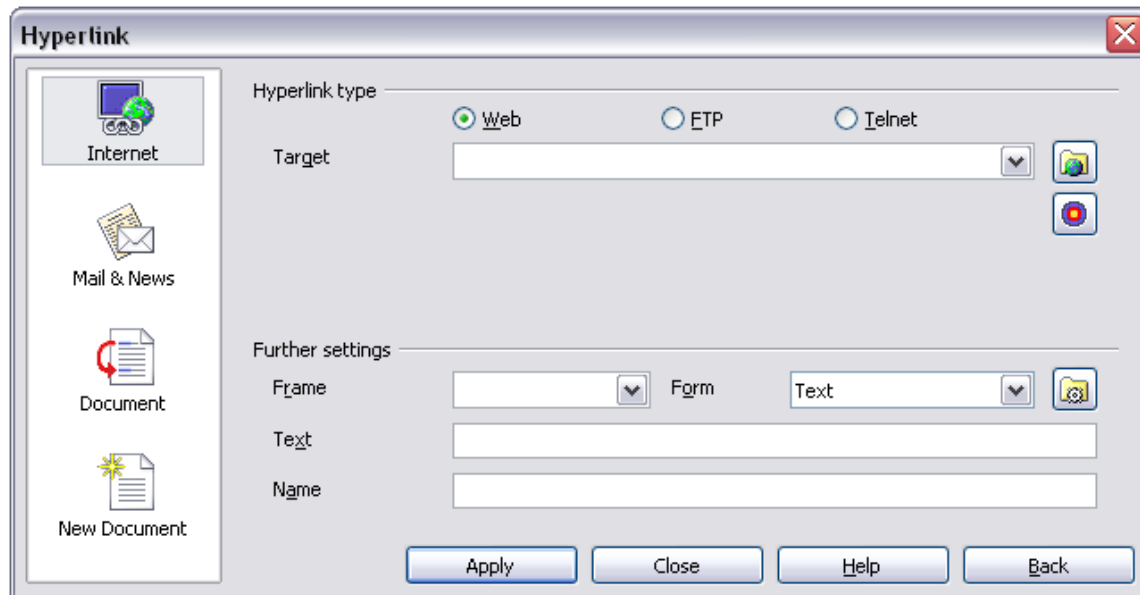


Figure 267. Hyperlink dialog showing details for Internet links

For a *Document* type hyperlink, specify the document path (the **Open File** button opens a file browser); leave this blank if you want to link to a target in the same presentation. Optionally specify the target in the document (for example a specific slide). Click on the **Target** icon to open the Navigator where you can select the target, or if you know the name of the target, you can type it into the box.

For a *New Document* type hyperlink, specify whether to edit the newly created document immediately or just create it (**Edit later**) and the type of document to create (text, spreadsheet, etc.). For a presentation, **Edit now** is the more likely choice. The **Select path** button opens a directory picker.

The *Further settings* section in the bottom right part of the dialog is common to all the hyperlink types, although some choices are more relevant to some types of links.

- Set the value of **Frame** to determine how the hyperlink will open. This applies to documents that open in a Web browser.
- **Form** specifies if the link is to be presented as text or as a button. See “” for more information.
- **Text** specifies the text that will be visible to the user.
- **Name** is applicable to HTML documents. It specifies text that will be added as a NAME attribute in the HTML code behind the hyperlink.
- **Event** button: this button will be activated to allow OOo to react to events for which the user has written some code (macro). This function is not covered in this book.

Editing hyperlinks

To edit an existing link:

- 1) Either move the cursor into the link using the keyboard arrow keys, or click on the letters *HYP* in the status bar to change it to *SEL* (as shown in Figure 268) and use the mouse to position the cursor.

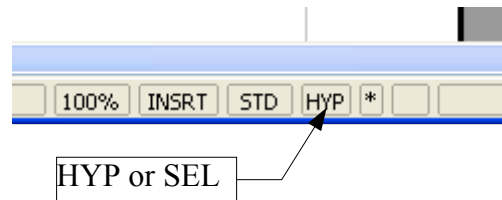


Figure 268. Writer status bar

- 2) Click **Edit > Hyperlink**. The Hyperlink dialog (Figure 267) opens.

Tip If you need to edit several hyperlinks, you can leave the Hyperlink dialog open until you have edited all of them. Be sure to click **Apply** after each one. When you are finished, click **Close**.

Saving Writer documents as web pages

Writer's HTML capabilities include saving existing documents in HTML format, creating new documents as HTML and creating several different types of web pages using a wizard.

The easiest way to create HTML documents is to start with an existing Writer document. You can view it as it will appear on a web page by using **View > Web Layout**.

Saving a document as a single web page

To save a document as a single web page (HTML format), select **Save As** from the **File** menu and specify **HTML Document** as the file type.

Note Writer does not replace multiple spaces in the original document with the HTML code for non-breaking spaces. If you want to have extra spaces in your HTML file or web page, you need to insert non-breaking spaces in OOo. To do this, press *Control+Spacebar* instead of just *Spacebar*.

Saving a document as a series of web pages

Writer can save a large document as a series of web pages (HTML files) with a table of contents page. To do this:

- 1) Decide which headings in the document should start on a new page and make sure all those headings have the same style (for example, Heading 1).

- 2) Select **File > Send** and click on **Create HTML Document**.
- 3) In the dialog (Figure 269), enter the file name to save the pages under. Also specify which style indicates a new page (as decided in step 1).
- 4) Click **Save** to create the multi-page HTML document. (For those who may be interested, the resulting HTML files conform to the HTML 4 Transitional.)

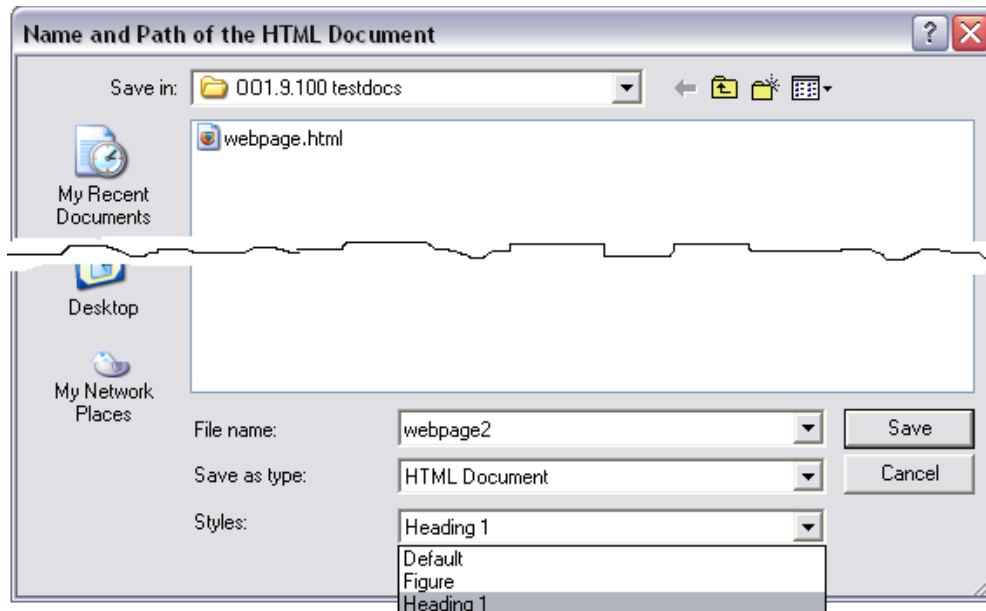


Figure 269. Creating a series of web pages from one document

Creating web pages using a Wizard

OOo's Web wizard allows you to create several types of standard web pages. To use it:

- 1) Select **File > Wizards > Web Page**. On the first page of the Wizard (Figure 270), choose settings and click **Next**.

Note If this is your first web page, the only settings option is Default.

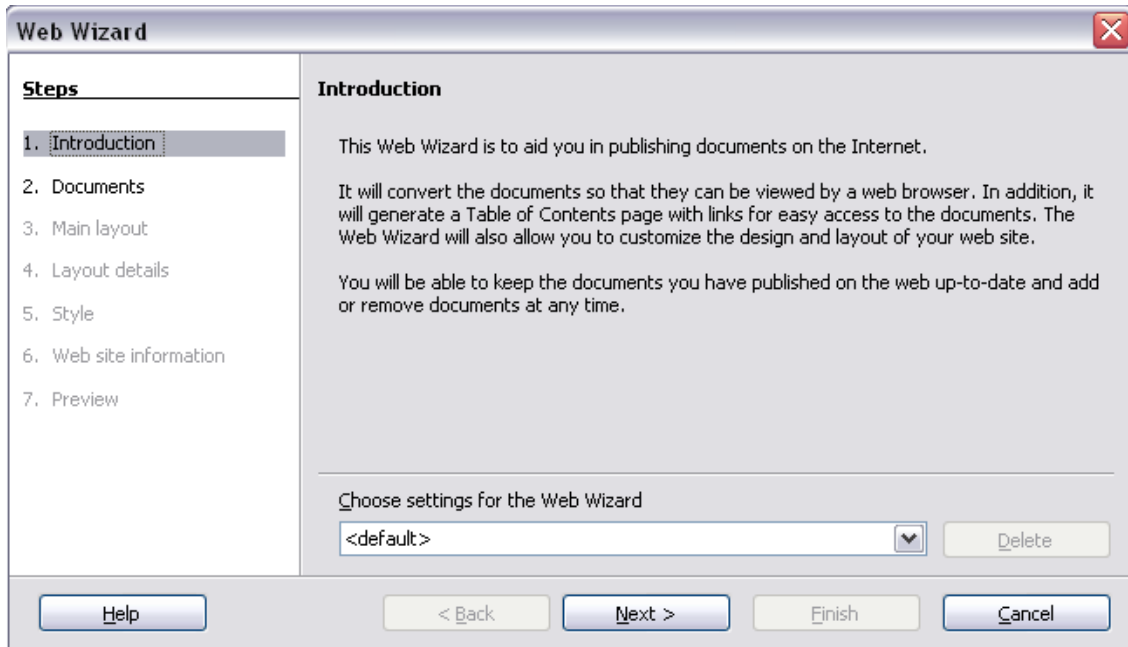


Figure 270. Web page wizard step 1

- 2) Choose or browse to the document you would like to format and add the *Title*, *Summary* and *Author* information as shown in Figure 271. Click **Next**.

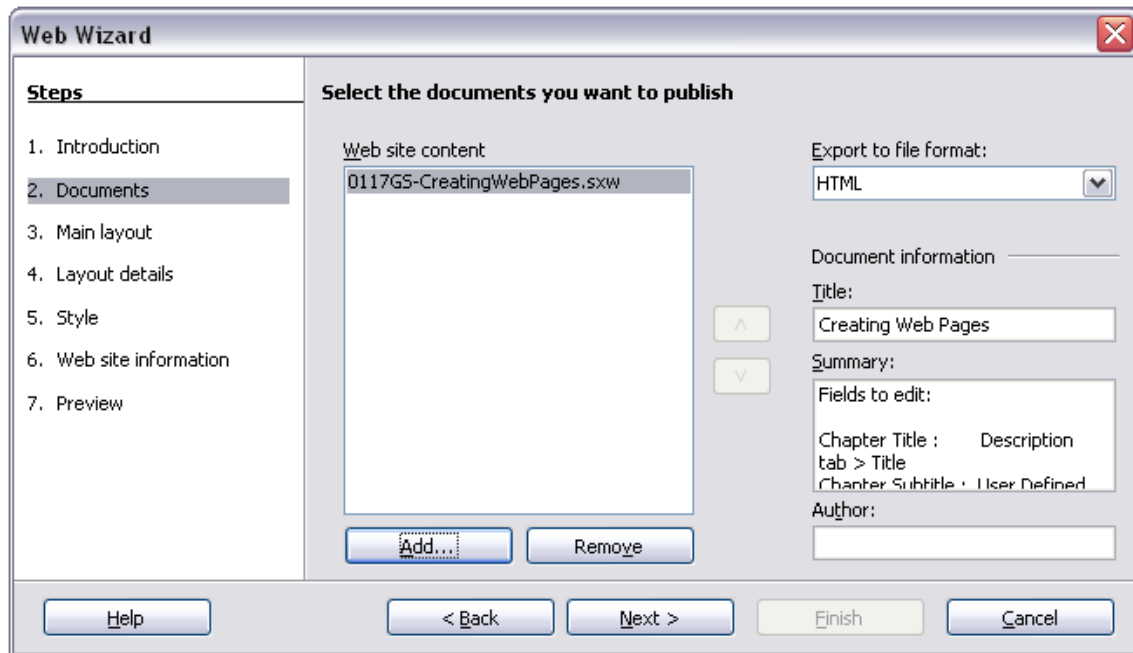


Figure 271. Web page wizard step 2

- 3) Chose a layout for the web site by clicking on the layout boxes shown in Figure 272.
Click **Next**.

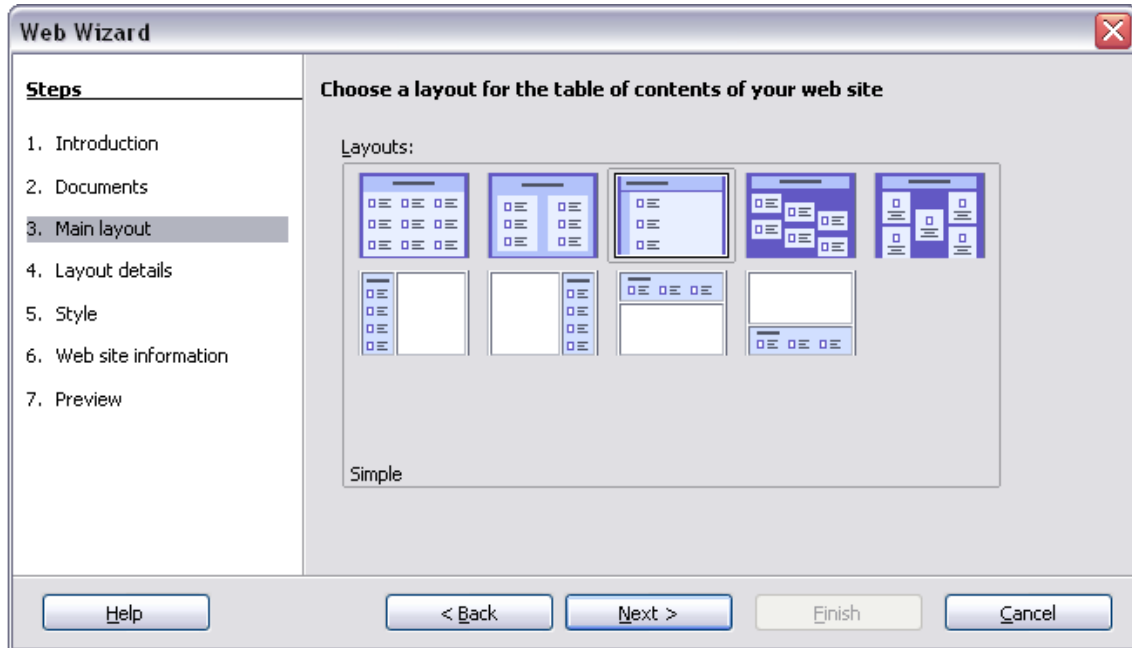


Figure 272. Web page wizard step 3

- 4) Chose the information to be listed and the screen resolution, as shown in Figure 273.
Click **Next**.

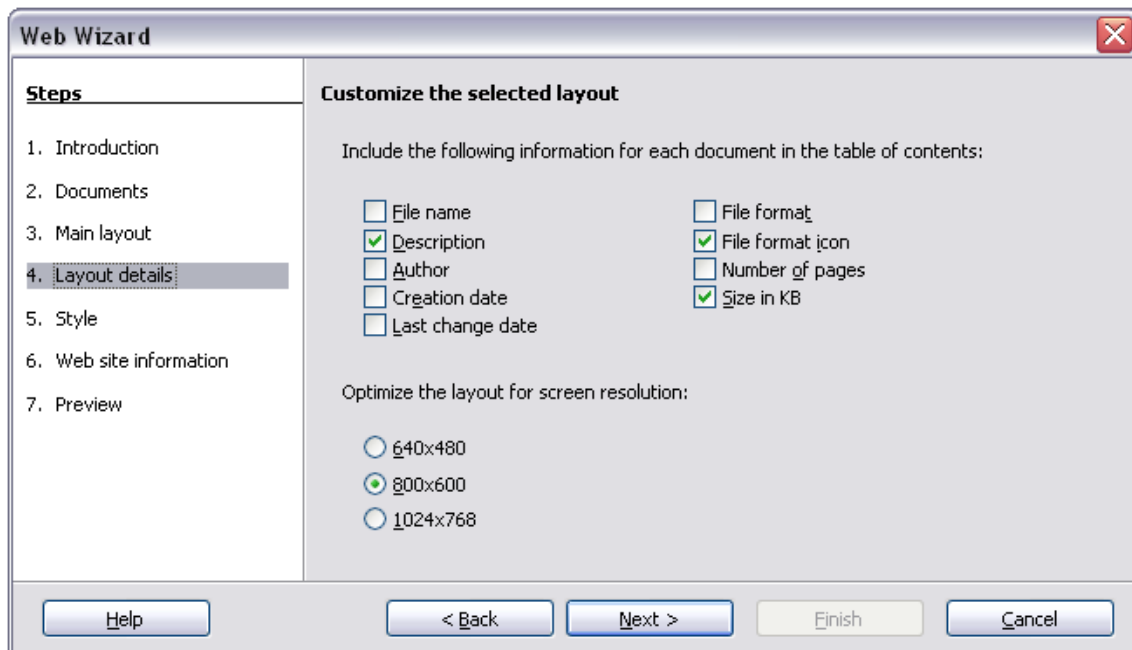


Figure 273. Web page wizard step 4

- 5) Select a style for the page. Use the drop-down list, shown in Figure 274, to choose different styles and color combinations. You can browse to a background image and icon set from the Gallery. Click **Next**.

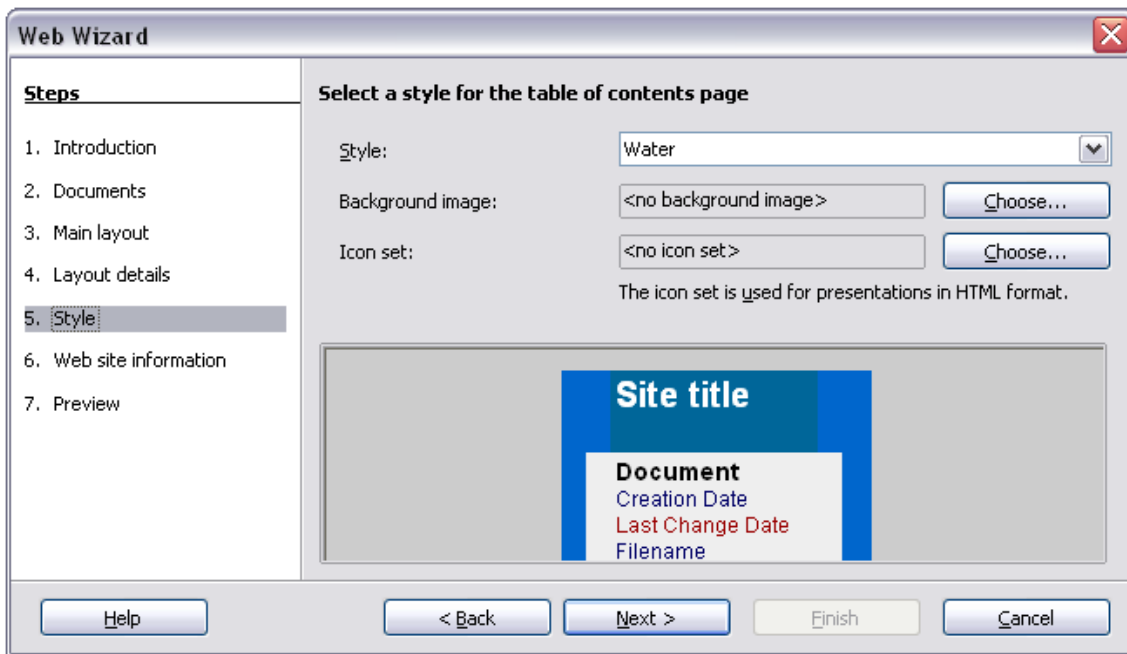


Figure 274. Web page wizard step 5

- 6) Enter general information such as Title and HTML Metadata information, as shown in Figure 275. Click **Next**.

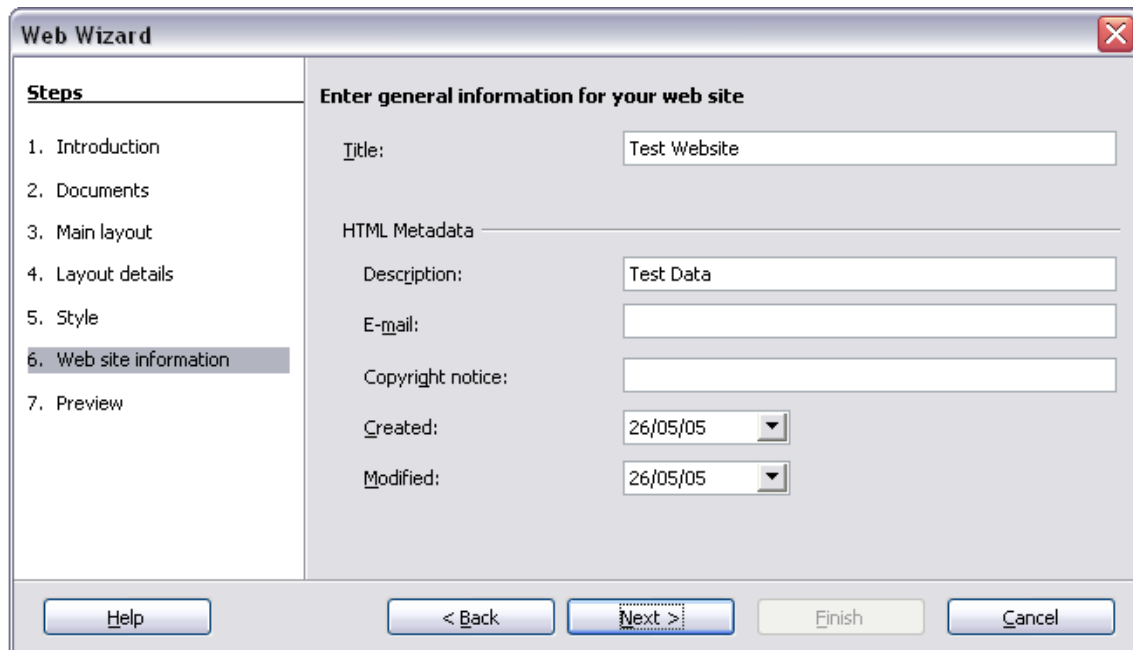


Figure 275. Web page wizard step 6

- 7) Chose where to save the file and preview the page if you wish, as shown in Figure 276. Click **Finish**.

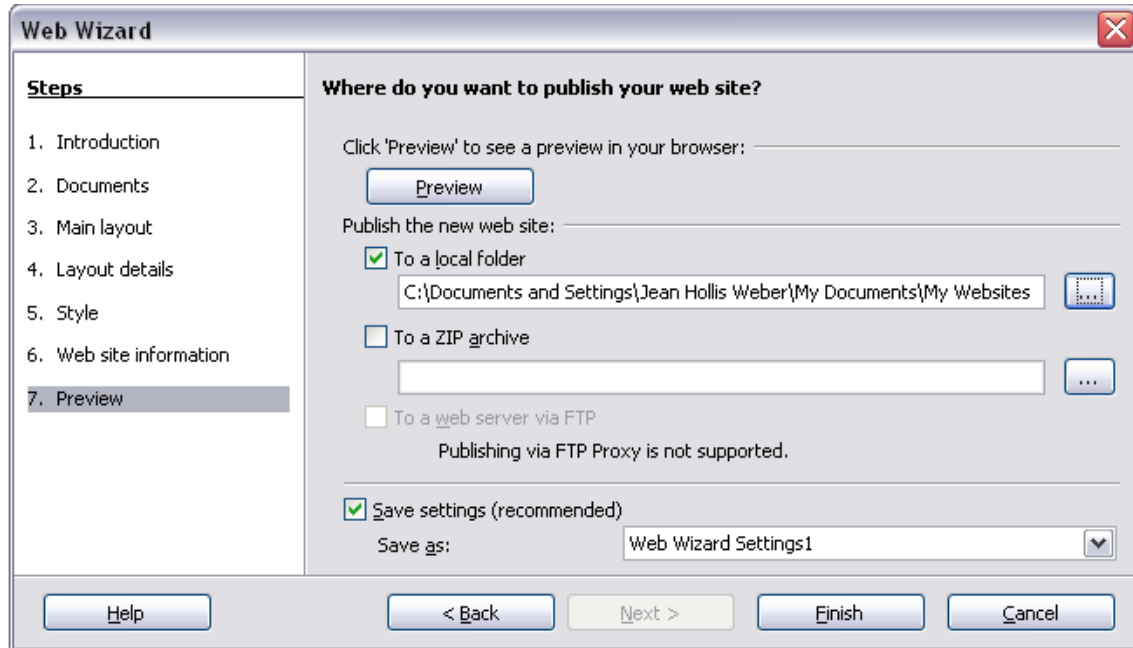



Figure 276. Web page wizard step 7

To edit or view the document's underlying HTML code, click **View > HTML Source** or click the **HTML Source** icon  on the Main toolbar.

Saving Calc spreadsheets as web pages

Calc can save files as HTML documents. As for Writer, use **File > Save As** and select **HTML Document**, or **File > Wizards > Web Page**.

If the file contains more than one sheet, the additional sheets will follow one another in the HTML file. Links to each sheet will be placed at the top of the document. Calc also allows the insertion of links directly into the spreadsheet using the Hyperlink dialog.

Saving Impress presentations as web pages

You can export presentations as Macromedia Flash files: select **File > Export** and choose Macromedia Flash for the file type.

You can also convert presentations into a series of web pages, as described below.

Note Saving as web pages (HTML format) does not retain animation and slide transitions.

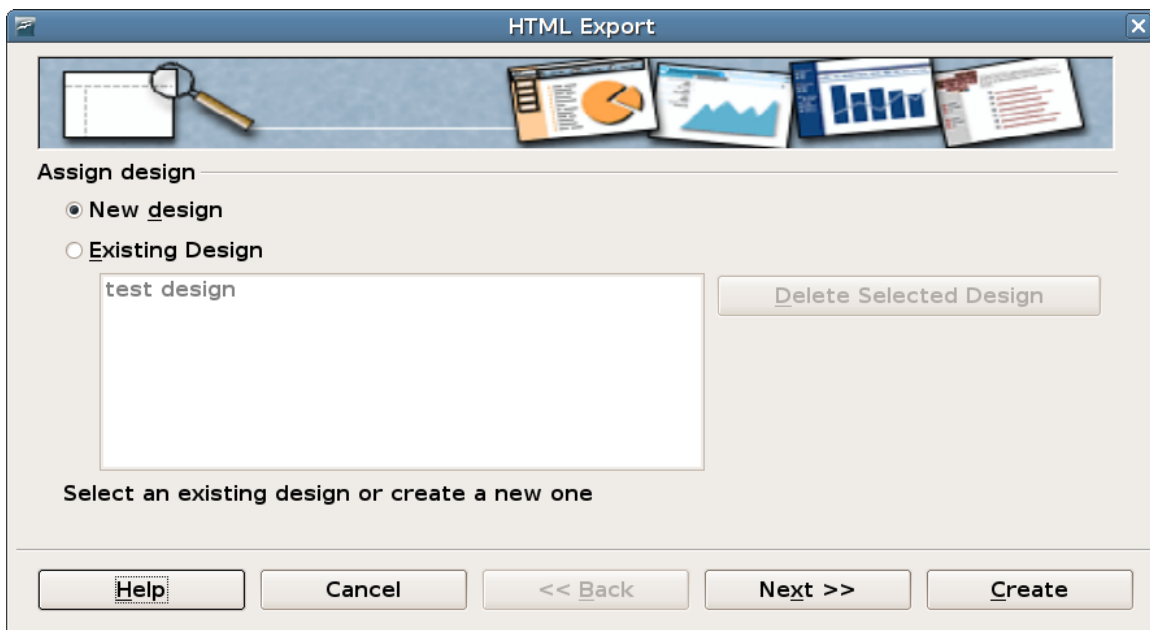
- 1) To begin, select **File > Export** and choose **HTML Document** as the file type.

- 2) Create a folder for the files, supply a name for the resulting HTML file, and click **Save**. The HTML Export Wizard opens.

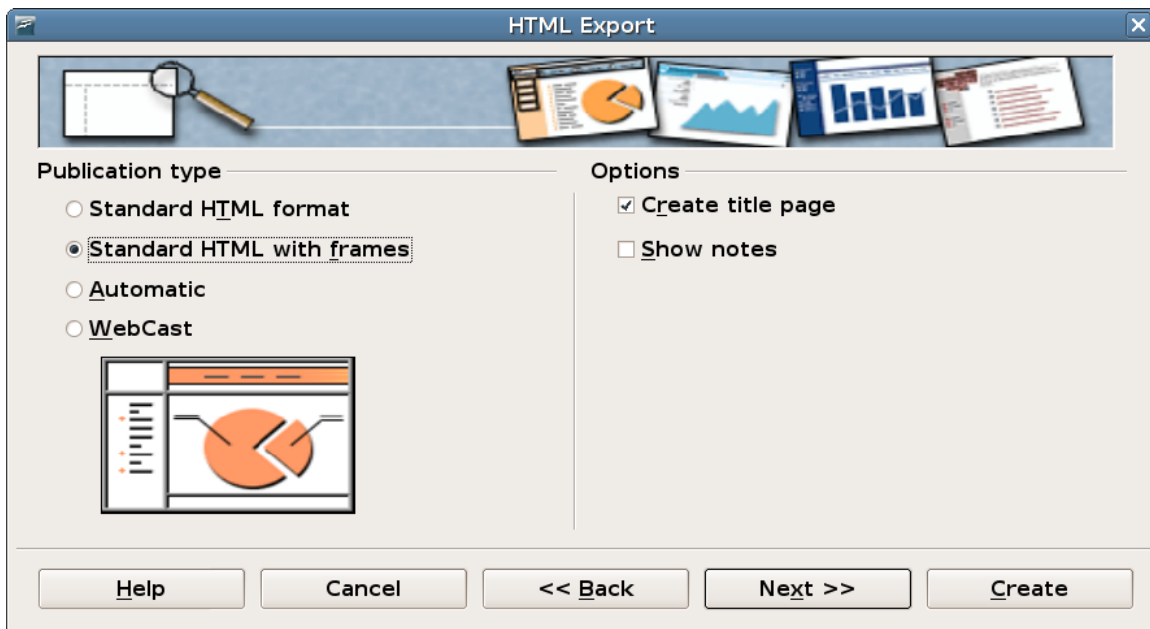
Note Depending on the size of your presentation and the number of graphics it contains, the HTML export function creates many HTML, JPG, and GIF files. If you simply save to your desktop (not in a specific folder), these separate HTML and graphics files will be all over your desktop. So be sure to create a folder to hold all the files.

- 3) Choose the design for all of the pages, either from an existing design or by creating a new one.

If you have not previously saved a design, the *Existing Design* choice is not available.

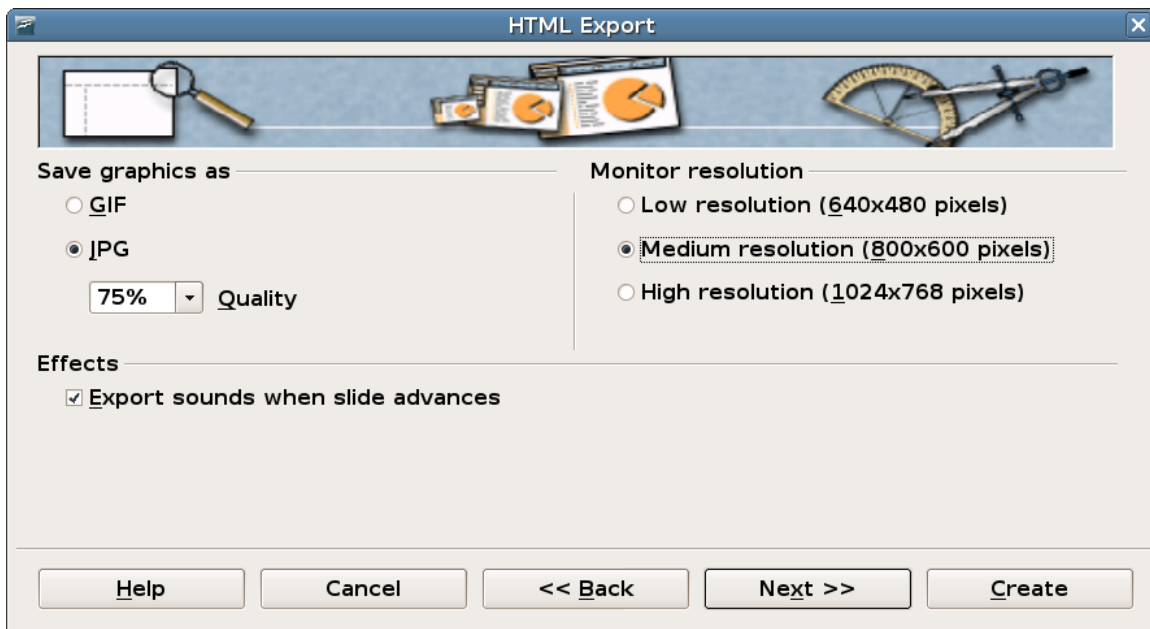


- 4) Click **Next** to select the type of web pages to create.
 - *Standard HTML*: one page for each slide, with navigation links to move from slide to slide.
 - *Standard HTML with frames*: one page with a navigation bar on the left-hand side; uses slide title as navigation links. Click on links to display pages in right-hand side.
 - *Automatic*: one page for each slide, with each page set with the Refresh meta tag so a browser automatically cycles from one page to the next.
 - *WebCast*: generates an ASP or Perl application to display the slides. Unfortunately OOO has no direct support for PHP as yet.



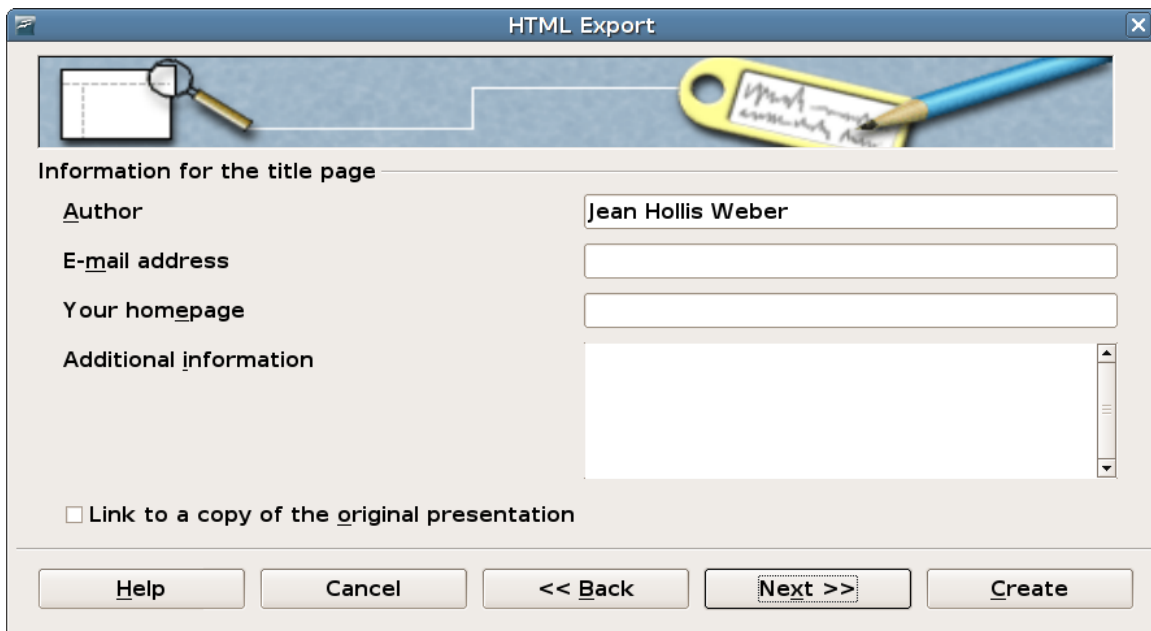
5) Decide how the images will be saved (GIF or JPG) and what resolution to use.

When choosing a resolution, consider what the majority of your viewers might have. If you use a high resolution, then a viewer with a medium-resolution monitor will have to scroll sideways to see the entire slide—probably not desirable.

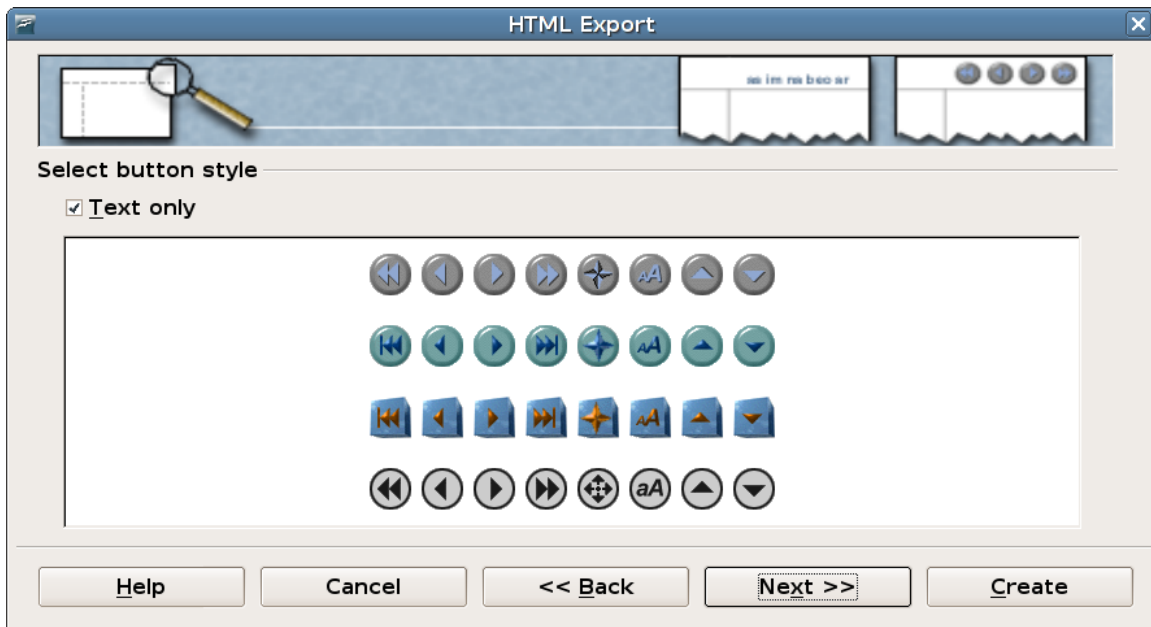


6) If *Create title page* was chosen in step 4, supply the information for it on the next page. The title contains an author name, e-mail address and home page, along with any additional information you want to include.

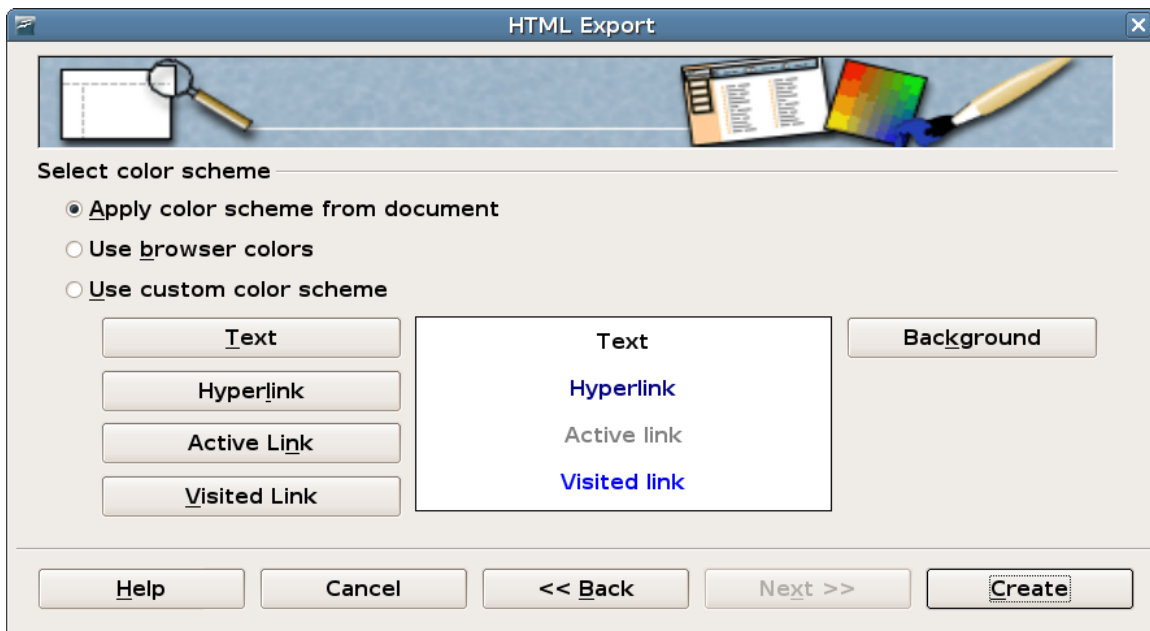
This page of the Wizard does not display if *Create title page* was not chosen.



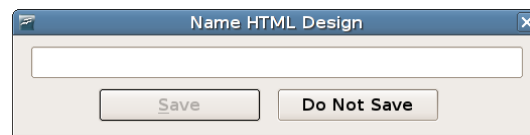
7) Choose the navigation button style to use to move from one page to another. If you do not choose any, OOO will create a text navigator.



8) Select the color scheme for the web pages. Available schemes include the document's existing scheme, one based upon browser colors, and a completely user-defined scheme. You can save a new scheme so that it will appear on the first page of the HTML export wizard.



- 9) Click **Create** to generate the HTML files. If this is a new design, a small dialog pops up. If you might want to reuse this design, you can give it a name and save it. Otherwise, click **Do Not Save**.



Saving Draw documents as web pages

Exporting drawings from OpenOffice.org's Draw application is similar to exporting a presentation from Impress. Use **File > Export** and select **HTML Document** as the file type.

When using the wizard, you can choose to create the web page at any time by clicking the **Create** button.



Chapter 17

Getting Started with Macros

The macro recorder

Your first macro

A macro is a saved sequence of commands or keystrokes that are stored for later use. An example of a simple macro is one that “types” your address. The OpenOffice.org macro language is very flexible, allowing automation of both simple and complex tasks. Macros are especially useful to repeat a task the same way over and over again.

OpenOffice.org macros are usually written in a language called StarBasic, or just abbreviated Basic. Although you can learn Basic and write macros, there is a steep learning curve to writing macros from scratch. The usual method for a beginner is to use the built-in macro recorder, which records your keystrokes and saves them for use.

Most tasks in OpenOffice.org are accomplished by “dispatching a command” (sending a command), which is intercepted and used. The macro recorder works by recording the commands that are dispatched (see “The dispatch framework” on page 299).

Creating a simple macro

Imagine repeatedly entering simple information. Although you can store the information in the clipboard, if you use the clipboard for something else, the contents are changed. Storing the contents as a macro is a simple solution. (In some simple cases, including the example used here, a better solution is to use AutoText.)

- 10) Use **Tools > Macros > Record Macro** to start recording a macro. A small window is displayed so you know that OpenOffice.org is recording.



- 11) Type the desired information or perform an appropriate series of operations. In this case, I typed my name, *Andrew Pitonyak*.
- 12) Click the **Stop Recording** button to stop recording, save the macro, and display the OpenOffice.org Basic Macros dialog (see Figure 277).

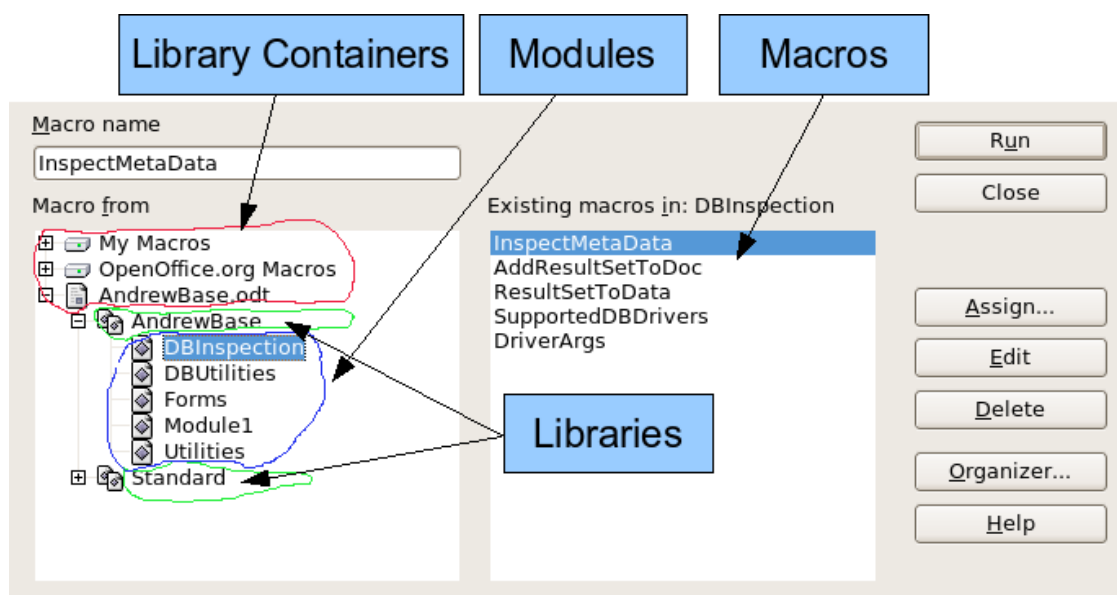


Figure 277: OOo Macro Organizer dialog, DBInspection library selected.

- 13) Be certain to open the library container named *My Macros*. Find the library named *Standard* under *My Macros*. Be warned, *every* library container has a library named *Standard*. Select the *Standard* library and click **New Module** to create a new module to contain the macro.



Figure 278: Give your module a meaningful name.

- 14) The default module name is *Module1*; choose a better name. Although it is still not descriptive, I used *Recorded*. Type a descriptive name and click **OK** to create the module. The OpenOffice.org Basic Macros dialog is displayed again, showing the new module.
- 15) Highlight the newly created module. In the upper left corner, type the macro name to use, such as “*EnterMyName*”, and then click **Save** to save the macro.

If you followed all of the steps, the *Standard* library now contains a module named *Recorded*, which contains the *EnterMyName* macro, as shown in Figure 279. When OOo creates a new module, it automatically adds the macro named *Main*; as seen in Figure 279.

Running the macro

Use **Tools > Macros > Run Macro** to open the Macro Selector dialog (see Figure 279). Select the newly created macro and click **Run**.

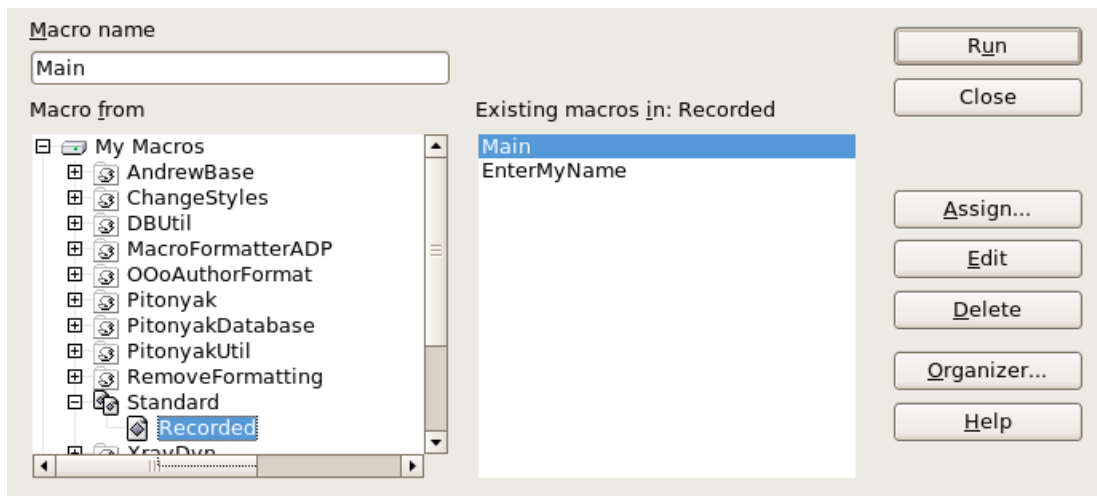


Figure 279: Select your macro and click Run.

There are other methods to run a macro. For example, use **Tools > Macros > Organize Macros > OpenOffice.org Basic** to open the macro organizer, which contains a **Run** button as well. The author, an avid macro writer, prefers the macro organizer because the dialog usually opens faster, but the selection process may be slightly slower.

Viewing and editing the macro

You can view and edit the macro that was just created. Use **Tools > Macros > Organize Macros > OpenOffice.org Basic** to open the OpenOffice.org Basic Macros dialog (see Figure 279). Select the new macro and click **Edit** to open the macro in the Basic IDE (Integrated Development Environment).

Listing 1: Generated “EnterMyname” macro.

```
REM ***** BASIC *****
Sub Main

End Sub

sub EnterMyName
rem -----
rem define variables
dim document as object
dim dispatcher as object
rem -----
rem get access to the document
document = ThisComponent.CurrentController.Frame
dispatcher = createUnoService("com.sun.star.frame.DispatchHelper")

rem -----
dim arg1(0) as new com.sun.star.beans.PropertyValue
arg1(0).Name = "Text"
arg1(0).Value = "Andrew Pitonyak"

dispatcher.executeDispatch(document, ".uno:InsertText", "", 0, arg1())
end sub
```


The macro in Listing 1 is not as complicated as it first appears. Learning a few things helps significantly in understanding the generated macros. The discussion starts with features near the top of the macro listing and describes them. If you like to avoid details, then simply change the text “Andrew Pitonyak” to what you want to insert at the current cursor position.

Comments start with REM

The keyword REM, short for *remark*, starts a macro comment. All text after REM (on the same line) is ignored. As a short cut, the single quote character can also be used to start a comment.

Tip StarBasic is not case-sensitive for keywords, so REM, Rem, and rem all start a comment. If you use symbolic constants defined by the API, it is safer to assume that the names are case-sensitive—if this matters to you, then you are probably too advanced to read this document.

Defining subroutines with SUB

Individual macros are stored in subroutines defined with the keyword SUB. A subroutine ends using the words END SUB. The macro starts by defining the subroutine named Main, which is empty and does nothing. The next subroutine, EnterMyName, is the subroutine of interest, and it contains the newly generated code.

Tip OpenOffice.org creates an empty subroutine named Main when it creates a module.

There are advanced topics that are beyond the scope of this document, but knowing about them might be of interest:

- You can write a subroutine so that values are sent into the macro when it is called from another macro. Recorded macros do not accept arguments from other macros.
- Another kind of subroutine is called a function. A function is a subroutine that can return a value to a calling macro. The keyword FUNCTION is used rather than SUB to define a function. Generated macros are always of type SUB.

Defining variables using DIM

A very simple macro can use hard coded values for everything. Unfortunately, even simple macros that interact with OpenOffice.org must store intermediate values. Storing an intermediate value is similar to writing information on a piece of paper so that you can look at it later. The DIM statement is similar to setting aside a piece of paper to be used to store a message or note.

The EnterMyName macro defines the variables *document* and *dispatcher* as type *object*. Other common variable types include *string*, *integer*, and *date*. A third variable named *args1* is defined. *Args1* is a very complicated type; it is an array of property values. A variable of type *array* allows a single variable to contain multiple values, similar to storing multiple pages in a single book. Values in an array are usually numbered starting from zero. The number in the parentheses indicates the highest usable number to access a storage location. In this example, there is only one value, and it is numbered zero. This sounds confusing, but for now, ignore the problem and more examples will clarify the concept.

Pulling the macro together

The following details are very complete; it is not important to understand all of the details. The first line defines the start of the macro.

```
sub EnterMyName
```

Declare two variables:

```
dim document as object
dim dispatcher as object
```

ThisComponent refers to the current document.

The CurrentController property of a document refers to a service that “controls” the document. For example, when you type, it is the current controller that notices. The current controller then dispatches the changes to the document’s frame.

The Frame property of a controller returns a main frame for a document. Therefore, the variable named *document* refers to a document’s frame, which receives dispatched commands.

```
document = ThisComponent.CurrentController.Frame
```

Most tasks in OpenOffice.org are accomplished by dispatching a command. Starting with OOO version 2.0, a dispatch helper object is available, which greatly facilitates executing dispatches from a macro. The method CreateUnoService accepts the name of a service and it tries to create an instance of that service. On completion, the dispatcher variable contains a reference to a DispatchHelper.

```
dispatcher = createUnoService("com.sun.star.frame.DispatchHelper")
```

Declare an array of properties. Each property has a name and a value. In other words, it is a name/value pair. The created array has one property at index zero.

```
dim args1(0) as new com.sun.star.beans.PropertyValue
```

Give the property the name “Text” and the value “Andrew Pitonyak”, which is the text that is inserted when the macro is run.

```
args1(0).Name = "Text"
args1(0).Value = "Andrew Pitonyak"
```

This is where the magic happens. The dispatch helper sends a dispatch to the document’s frame (stored in the variable named *document*) with the command “.uno:InsertText”. The next two arguments, *frame name* and *search flags*, are beyond the scope of this document. The last argument is the array of property values to be used while executing the command InsertText.

```
dispatcher.executeDispatch(document, ".uno:InsertText", "", 0, args1())
```

Finally, the end of the subroutine.

```
end sub
```

Creating a macro

A recorded macro repeats the same task over and over again. Before creating a recorded macro, I usually ask two questions:

- 1) Can the task be summarized as a simple set of commands that do not change?
- 2) Can the steps be arranged such that the last command leaves the cursor ready for the next command?

A complicated example

I frequently copy rows and columns of data from a web site and format them as a table in a text document. First, I copy the table from the web site to the clipboard. To avoid strange formatting and fonts, I paste the text into a Writer document as unformatted text. I reformat the text with tabs between columns so that I can use **Table > Convert > Text to Table** to convert to a table.

I inspect the text to see if I can record a macro to format the text (remember the two questions that I ask). As an example, I copied the FontWeight constants group from the OpenOffice.org web site. The first column indicates the constant name. Each name is followed by a space and a tab.

DONTKNOW	The font weight is not specified/known.
THIN	specifies a 50% font weight.
ULTRALIGHT	specifies a 60% font weight.
LIGHT	specifies a 75% font weight.
SEMILIGHT	specifies a 90% font weight.
NORMAL	specifies a normal font weight.
SEMIBOLD	specifies a 110% font weight.
BOLD	specifies a 150% font weight.
ULTRABOLD	specifies a 175% font weight.
BLACK	specifies a 200% font weight.

I want the first column to contain the numeric value, the second column the name, and the third column the description. The desired work is easily accomplished for every row except for DONTKNOW and NORMAL, which do not contain a numeric value—but I know that the values are 0 and 100, so I will enter those manually.

The data can be cleaned in multiple ways—all of them easy. The first example uses keystrokes that assume the cursor is at the start of the line with the text THIN.

- 1) Use **Tools > Macros > Record Macro** to start recording.
- 2) Press *Ctrl+Right Arrow* to move the cursor to the start of “specifies”.
- 3) Press *Backspace* twice to remove the tab and the space.
- 4) Press *Tab* to add the tab without the space after the constant name.
- 5) Press *Delete* to delete the lower case s and then press *S* to add an upper case S.
- 6) Press *Ctrl+Right Arrow* twice to move the cursor to the start of the number.
- 7) Press *Ctrl+Shift+Right Arrow* to select and move the cursor before the % sign.
- 8) Press *Ctrl+C* to copy the selected text to the clipboard.
- 9) Press *End* to move the cursor to the end of the line.
- 10) Press *Backspace* twice to remove the two trailing spaces.
- 11) Press *Home* to move the cursor to the start of the line.
- 12) Press *Ctrl+V* to paste the selected number to the start of the line.
- 13) Pasting the value also pasted an extra space, so press *Backspace* to remove the extra space.
- 14) Press *Tab* to insert a tab between the number and the name.
- 15) Press *Home* to move to the start of the line.
- 16) Press *down arrow* to move to the next line.
- 17) Stop recording the macro and save the macro.

It takes much longer to read and write the steps than to record the macro. Work slowly and think about the steps as you do them. With practice this becomes second nature.

The generated macro has been modified to contain the step number in the comments to match the code to the step above.

Listing 2: Copy the numeric value to the start of the column.

```
sub CopyNumToColl
rem -----
rem define variables
dim document as object
dim dispatcher as object
rem -----
rem get access to the document
document = ThisComponent.CurrentController.Frame
dispatcher = createUnoService("com.sun.star.frame.DispatchHelper")

rem (2) Press Ctrl+Right Arrow to move the cursor to the start of "specifies".
dispatcher.executeDispatch(document, ".uno:GoToNextWord", "", 0, Array())

rem (3) Press Backspace twice to remove the tab and the space.
dispatcher.executeDispatch(document, ".uno:SwBackspace", "", 0, Array())
```

```

rem -----
dispatcher.executeDispatch(document, ".uno:SwBackspace", "", 0, Array())

rem (4) Press Tab to add the tab without the space after the constant name.
dim args4(0) as new com.sun.star.beans.PropertyValue
args4(0).Name = "Text"
args4(0).Value = CHR$(9)

dispatcher.executeDispatch(document, ".uno:InsertText", "", 0, args4())

rem (5) Press Delete to delete the lower case s ....
dispatcher.executeDispatch(document, ".uno>Delete", "", 0, Array())

rem (5) ... and then press S to add an upper case S.
dim args6(0) as new com.sun.star.beans.PropertyValue
args6(0).Name = "Text"
args6(0).Value = "S"

dispatcher.executeDispatch(document, ".uno:InsertText", "", 0, args6())

rem (6) Press Ctrl+Right Arrow twice to move the cursor to the number.
dispatcher.executeDispatch(document, ".uno:GoToNextWord", "", 0, Array())

rem -----
dispatcher.executeDispatch(document, ".uno:GoToNextWord", "", 0, Array())

rem (7) Press Ctrl+Shift+Right Arrow to select the number.
dispatcher.executeDispatch(document, ".uno:WordRightSel", "", 0, Array())

rem (8) Press Ctrl+C to copy the selected text to the clipboard.
dispatcher.executeDispatch(document, ".uno:Copy", "", 0, Array())

rem (9) Press End to move the cursor to the end of the line.
dispatcher.executeDispatch(document, ".uno:GoToEndOfLine", "", 0, Array())

rem (10) Press Backspace twice to remove the two trailing spaces.
dispatcher.executeDispatch(document, ".uno:SwBackspace", "", 0, Array())

rem -----
dispatcher.executeDispatch(document, ".uno:SwBackspace", "", 0, Array())

rem (11) Press Home to move the cursor to the start of the line.
dispatcher.executeDispatch(document, ".uno:GoToStartOfLine", "", 0, Array())

rem (12) Press Ctrl+V to paste the selected number to the start of the line.
dispatcher.executeDispatch(document, ".uno:Paste", "", 0, Array())

rem (13) Press Backspace to remove the extra space.
dispatcher.executeDispatch(document, ".uno:SwBackspace", "", 0, Array())

rem (14) Press Tab to insert a tab between the number and the name.
dim args17(0) as new com.sun.star.beans.PropertyValue
args17(0).Name = "Text"
args17(0).Value = CHR$(9)

dispatcher.executeDispatch(document, ".uno:InsertText", "", 0, args17())

rem (15) Press Home to move to the start of the line.
dispatcher.executeDispatch(document, ".uno:GoToStartOfLine", "", 0, Array())

```

```
rem (16) Press down arrow to move to the next line.
dim args19(1) as new com.sun.star.beans.PropertyValue
args19(0).Name = "Count"
args19(0).Value = 1
args19(1).Name = "Select"
args19(1).Value = false

dispatcher.executeDispatch(document, ".uno:GoDown", "", 0, args19())
end sub
```

Cursor movements are used for all operations (as opposed to searching). If run on the DONTKNOW line, the word *weight* is moved to the front of the line, and the first “The” is changed to “She”. This is not perfect, but I should not have run the macro on the lines that did not have the proper format; I need to do these manually.

Running the macro quickly

It is tedious to repeatedly run the macro using **Tools > Macros > Run Macro** (see Figure 279). The macro can be run from the IDE. Use **Tools > Macros > Organize Macros > OpenOffice.org Basic** to open the Basic Macro dialog. Select your macro and click **Edit** to open the macro in the IDE.

The IDE has a **Run Basic** icon in the toolbar that runs the first macro in the IDE. Unless you change the first macro, it is the empty macro named Main. Modify Main so that it reads as shown in Listing 3.

Listing 3: Modify Main to call CopyNumToColl.

```
Sub Main
    CopyNumToColl
End Sub
```

Now, you can run CopyNumToColl by repeatedly clicking the **Run Basic** icon in the toolbar of the IDE. This is very fast and easy, especially for temporary macros that will be used a few times and then discarded.

Sometimes the macro recorder fails

Understanding the OpenOffice.org internals helps to understand how and why the macro recorder frequently fails. The primary offender is related to the dispatch framework and its relationship to the macro recorder.

The dispatch framework

The purpose of the dispatch framework is to provide a uniform access to components (documents) for commands that usually correspond to menu items. I can use **File > Save** from the menu, the shortcut keys *Ctrl+S*, or click on the **Save** toolbar icon. All of these commands are translated into the same “dispatch command”, which is sent to the current document.

The dispatch framework can also be used to send “commands” back to the UI (User Interface). For example, after saving the document, the File Save command is disabled. As soon as the document has been changed, the File Save command is enabled.

If we see a dispatch command, it is text such as `.uno:InsertObject` or `.uno:GoToStartOfLine`. The command is sent to the document’s frame, and the frame passes on the command until an object is found that can handle the command.

How the macro recorder uses the dispatch framework

The macro recorder records the generated dispatches. The recorder is relatively simple to implement and the same commands that are issued are recorded for later use. The problem is that not all dispatched commands are complete. For example, inserting an object generates the following code:

```
dispatcher.executeDispatch(document, ".uno:InsertObject", "", 0, Array())
```

It is not possible to specify what kind of object to create or insert. If an object is inserted from a file, you cannot specify which file to insert.

I recorded a macro and used **Tools > Options** to open and modify configuration items. The generated macro does not record any configuration changes; in fact, the generated code is commented so it will not even be run.

```
rem dispatcher.executeDispatch(document, ".uno:OptionsTreeDialog", "", 0,
Array())
```

If a dialog is opened, the command to open the dialog is likely to be generated. Any work done inside the dialog is not likely to be recorded. Examples include macro organization dialogs, inserting special characters, and similar types of dialogs. Other possible problems using the macro recorder include things such as inserting a formula, setting user data, setting filters in Calc, actions in database forms, and exporting a document to an encrypted PDF file. You never know for certain what will work unless you try it, however. The actions from the search dialog are properly captured, for example.

Other options

When the macro recorder is not able to solve a specific problem, the usual solution is to write code using the OpenOffice.org objects. Unfortunately, there is a steep learning curve for the OOO objects. It is usually best to start with simple examples and then branch out slowly as you learn more. Learning to read generated macros is a good place to start.

If you record Calc macros, and the recorder can correctly generate a macro, there is an add-in created by Paolo Mantovani, which converts Calc macros when they are recorded. The final code manipulates OpenOffice.org objects rather than generating dispatches. This can be very useful for learning the object model.

You can download the macro recorder from Paolo's web site directly or from the OOO Macros web site. You should check both places to see which contains the latest version.

<http://www.paolo-mantovani.org/downloads/DispatchToApiRecorder/>

<http://www.oocomacros.org/user.php>

Macro organization

In OpenOffice.org, macros are grouped in modules, modules are grouped in libraries, and libraries are grouped in library containers. A library is usually used as a major grouping for either an entire category of macros, or for an entire application. Modules usually split functionality types such as user interaction and calculations. Individual macros are subroutines and functions.

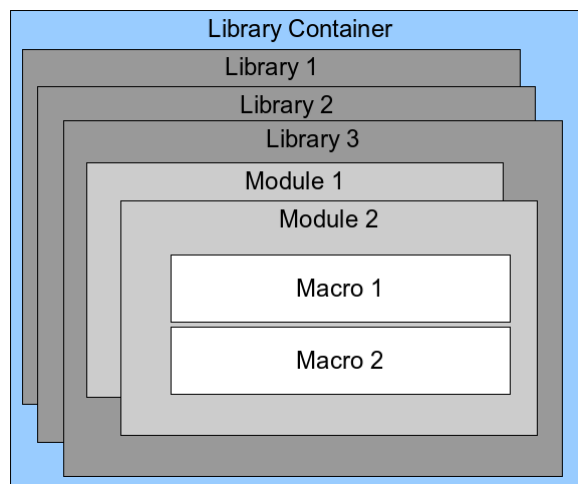


Figure 280: Macro Library hierarchy.

Use **Tools > Macros > Organize Macros > OpenOffice.org Basic** to open the OpenOffice.org Basic Macros dialog (see Figure 281). All available library containers are shown in the *Macro from* list. Every document is a library container, capable of containing multiple libraries. The application itself acts as two library containers, one container for macros distributed with OpenOffice.org called OpenOffice.org Macros, and one container for personal macros called My Macros. As shown in Figure 281, only two documents are currently open.

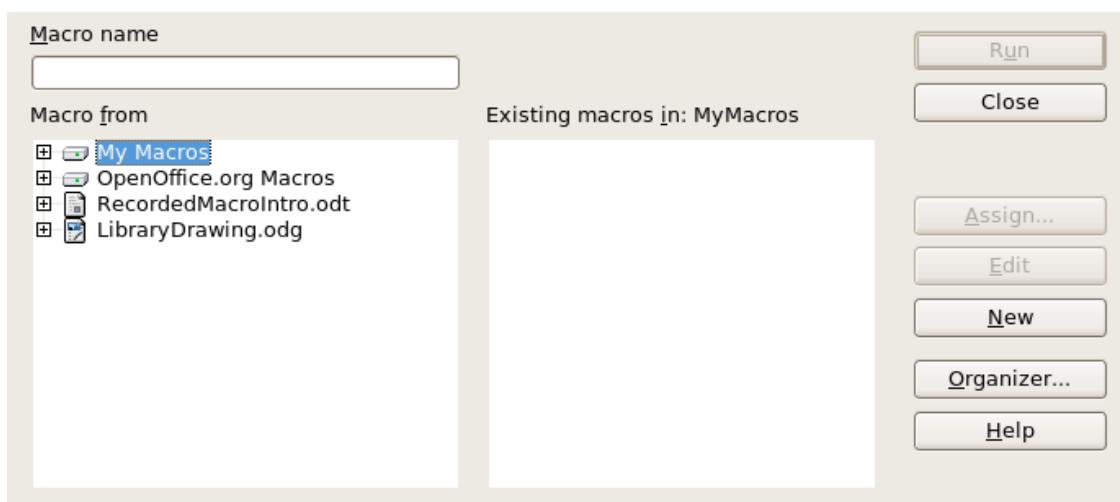


Figure 281: Library containers are shown on the left.

The OpenOffice.org Macros are stored with the application runtime code, which may not be editable to you unless you are an administrator. This is just as well since these macros should not be changed and you should not store your own macros in the OOO container.

Unless your macros are applicable to a single document, and only to a single document, your macros will probably be stored in the My Macros container. The My Macros container is stored in your user area or home directory.

If a macro is contained in a document, then a recorded macro will attempt to work on that document; primarily because it uses “ThisComponent” for its actions.

Every library container contains a library named *Standard*. It is better to create your own libraries with meaningful names than to use the Standard library. Not only are meaningful names easier to manage, but they can also be imported into other library containers whereas the Standard library cannot.

Caution



OpenOffice.org allows you to import libraries into a library container, but it will not allow you to overwrite the library named Standard. Therefore, if you store your macros in the Standard library, you cannot import them into another library container.

Just as it makes good sense to give your libraries meaningful names, it is prudent to use meaningful names for your modules. By default, OpenOffice.org uses names such as Module1. Feel free to use your own meaningful name.

As you create your macros, you must decide where to store them. Storing a macro in a document is useful if the document will be shared and you want the macro to be included with the document. Macros stored in the application library container named My Macros, however, are globally available to all documents.

Macros are not available until the library that contains them is loaded. The Standard library and Template library, however, are automatically loaded. A loaded library is displayed differently from a library that is not loaded. To load the library and the modules it contains, double-click on the library.

Where are macros stored?

OpenOffice.org stores user-specific data in a directory under the user's home directory. For example, on Windows, this is C:\Documents and Settings\<>name>\Application Data. User macros are stored in OpenOffice.org2\user\basic. Each library is stored in its own directory off the basic directory.

It is not important to understand where macros are stored for casual use. If you know where they are stored, however, you can create a backup, share your macros, or inspect them if there is an error. For example, on one or more of my OpenOffice.org upgrades, all of my macros disappeared. Although the macros were still on disk, the macros were not copied to the new directories. The solution was to import the macros into the new installation.

Use **Tools > Macros > Organize Dialogs** to open the OpenOffice.org Macros organizer dialog. Another common way to open this dialog is to use **Tools > Macros > Organize Macros > OpenOffice.org Basic** to open the OpenOffice.org Macros dialog and then click the **Organizer** button (see Figure 282).

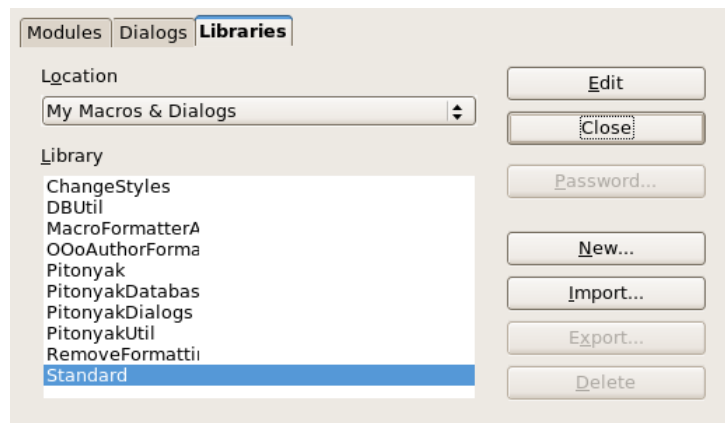


Figure 282: The macro organizer dialog.

The OpenOffice.org Macro Organizer dialog provides functionality to create, delete, and rename libraries, modules, and dialogs. Select the library container to use and then click the **Import** button to import macro libraries (see Figure 283).

Tip You cannot import the library named Standard.

Tip On Linux, the OpenOffice.org-specific files are stored in a directory whose name begins with a period. Directories and files with names beginning with a period are not shown in a normal selection dialog. To open the directory, I navigated to the parent directory, entered the name .openoffice.org2, and then clicked **Open**. This opened the directory, which was not initially shown.

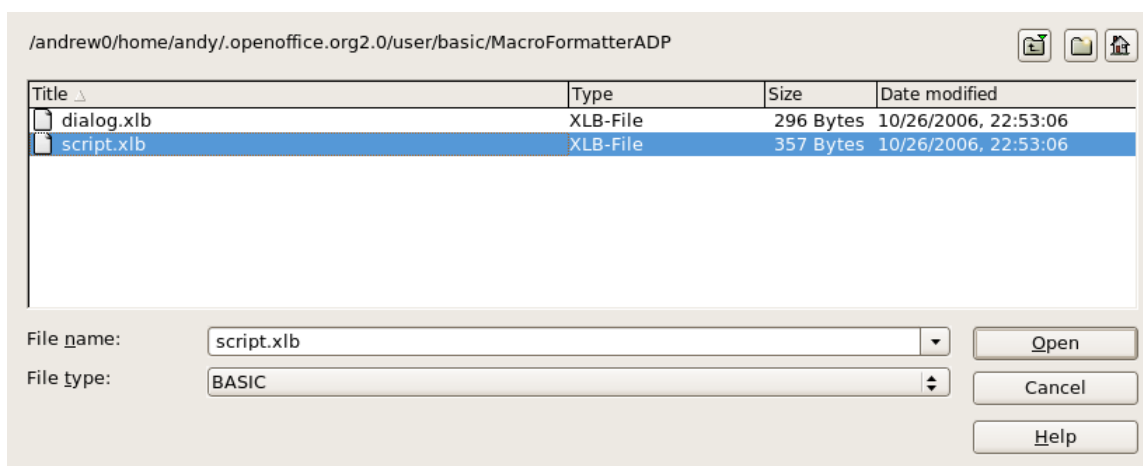


Figure 283: Select a macro library to import.

Navigate to the directory containing the library to import. There are usually two files from which to choose, `dialog.xlb` and `script.xlb`. It does not matter which of these two files you select; both will be imported. Select a file and click **Open** to continue (see Figure 284).

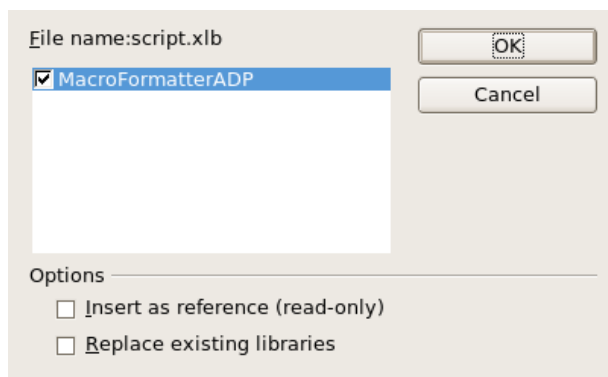


Figure 284: Choose library import options.

If the library already exists, it will not be replaced unless **Replace existing libraries** is checked. If **Insert as reference** is checked, the library is referenced in its current location, but you cannot edit the library. If **Insert as reference** is not checked, however, the library is copied to the user's macro directory.

Macros can be stored in libraries inside OpenOffice.org documents. Select a document rather than a directory on disk (as shown in Figure 283) to import libraries contained in a document.

Downloading macros to import

Macros are available for download. Some macros are contained in documents, some as regular files that you must select and import, and some as macro text that should be copied and pasted into the Basic IDE; use **Tools > Macros > Organize Macros > OpenOffice.org Basic** to open the OpenOffice.org Macros dialog, choose the macro to edit, and then click **Edit** to open the macro in the Basic IDE.

Some macros are available as free downloads on the Internet (see Table 3).

Table 3. Places to find macro examples.

Location	Description
http://www.oocomacros.org/	Excellent collection of packaged macros.
http://www.pitonyak.org/oo.php	Reference materials regarding macros.
http://www.pitonyak.org/database/	Reference materials regarding database macros.
http://development.openoffice.org/	Lots of links to everything.
http://www.ooforum.org/	Many examples and help.

How to run a macro

A typical method to run a macro is as follows:

- 1) Use **Tools > Macros > Run Macro** to open the Macro Selector dialog (see Figure 285).
- 2) Select the library and module in the Library list (left hand side).
- 3) Select the macro in the Macro name list (right hand side).
- 4) Click **Run** to run the macro.

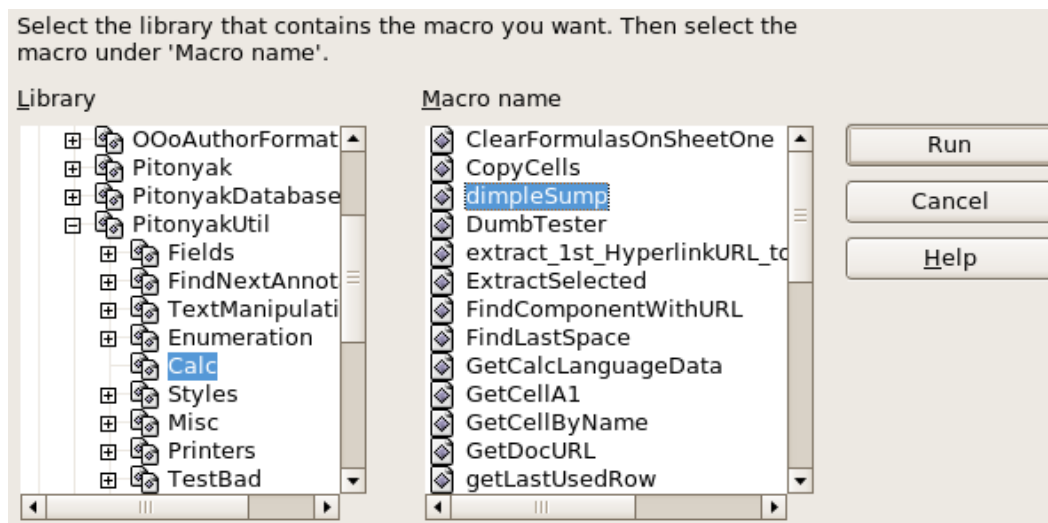


Figure 285. Use the Macro Selector dialog to run macros.

Although you can use **Tools > Macros > Run Macro** to run all macros, this is not efficient for frequently run macros. A more common technique is to assign a macro to a toolbar button, menu item, keyboard shortcut, or a button embedded in a document. While choosing a method, it is also good to ask questions such as:


- Should the macro be available for only one document, or globally for all documents?
- Does the macro pertain to a specific document type, such as a Calc document?
- How frequently will the macro be used?

The answers will determine where to store the macro and how to make it available. For example, you will probably not add a rarely used macro to a toolbar. To help determine your choices, see Table 4.

Table 4. Methods for starting a macro.

Type	OpenOffice.org	Document Type	Document
Toolbar	No	Yes	Yes
Menu	No	Yes	Yes
Shortcut	Yes	Yes	No
Event	Yes	No	Yes

To add a menu item, keyboard shortcut, or toolbar icon that calls a macro, use the Customize dialog (see Figure 286). Open this dialog in either of these ways:

- Choose **Tools > Customize** from the main menu bar.
- Each toolbar has an icon  that opens a menu; choose the **Customize Toolbar** option.

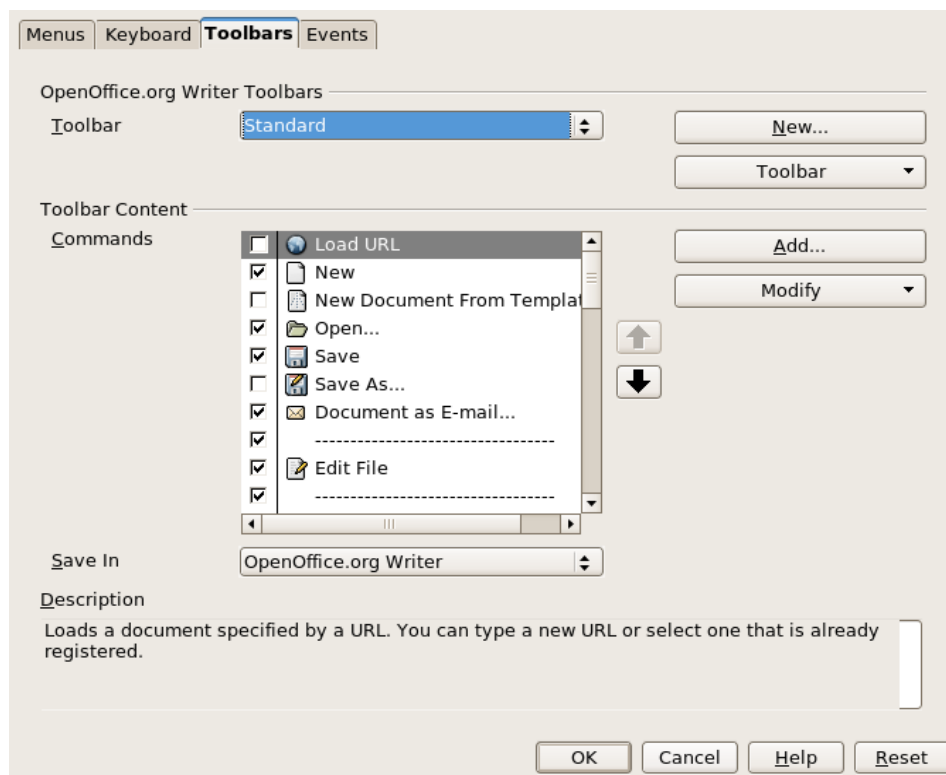


Figure 286: OpenOffice.org Customize dialog.

Tip Complete coverage of the Customize dialog is beyond the scope of this document. Click the **Help** button to access the help pages included with OpenOffice.org.

The Customize dialog contains tabs to configure menus, keyboard bindings, toolbars, and events.

Toolbar

Macros can be added to toolbars. To see more about modifying toolbars, see Chapter 4 (Menus and Toolbars).

Menu item

Use **Tools > Customize** to open the Customize dialog, and select the Menus tab. You can modify an existing menu, or create new menus that call macros. To see more about modifying menus, see Chapter 4 (Menus and Toolbars).

Keyboard shortcuts

Use **Tools > Customize** to open the Customize dialog, and select the Keyboard tab. Assigning keyboard shortcuts is discussed in Appendix A (Keyboard Shortcuts).

Event

In OpenOffice.org, when something happens, we say that an event occurred. For example, a document was opened, a key was pressed, or the mouse moved. OpenOffice.org allows events to cause a macro to be called; the macro is then called an event handler. Full coverage of event handlers is well beyond the scope of this document, but a little knowledge can accomplish much.

Caution

Be careful when you configure an event handler. For example, assume that you write an event handler that is called every time that a key is pressed, but you make a mistake so the event is not properly handled. One possible result is that your event handler will consume all key presses, forcing you to forcibly terminate OpenOffice.org.

Use **Tools > Customize** to open the Customize dialog, and select the Events tab (see Figure 287). The events in the Customize dialog are related to the entire application and specific documents. Use the Save In box to choose OpenOffice.org, or a specific document.

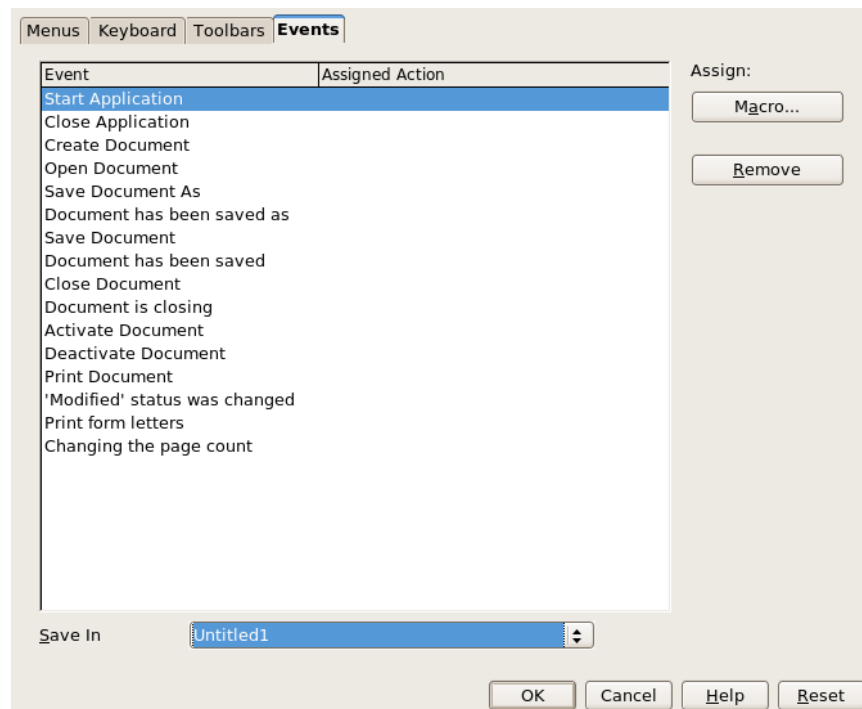


Figure 287: Assign macro to an application level event.

A common use is to assign the Open Document event to call a specific macro. The macro then performs certain setup tasks for the document. Select the desired event and click the **Macro** button to open the Macro Selector dialog (see Figure 280).

Select the desired macro and click **OK** to assign the macro to the event. The Events tab shows that the event has been assigned to a macro (see Figure 278). When the document opens, the PrintHello macro is run.

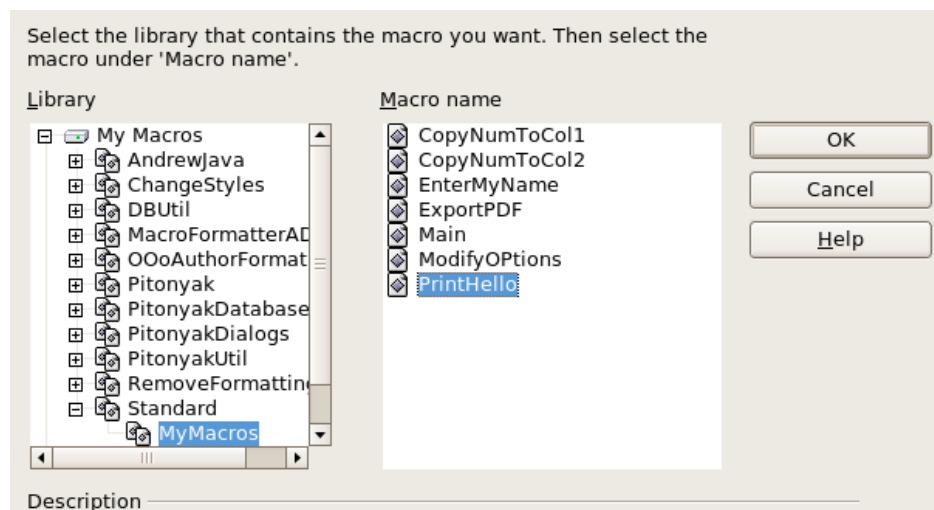


Figure 288: Assign macro to the document open event.

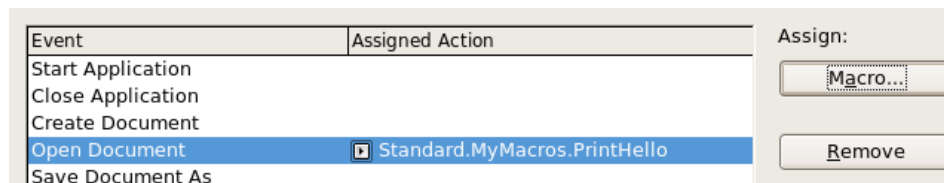


Figure 289: PrintHello is assigned to the Open Document event.

Many objects in a document can be set to call macros when events occur. The most common usage is to add a control, such as a button, into a document. Even double-clicking on a graphic opens a dialog with a Macros tab that allows you to assign a macro to an event.

Extensions

An extension is a package that can be installed into OpenOffice.org to add new functionality. Extensions can be written in almost any programming language and may be simple or sophisticated. Extensions can be grouped into types:

- Calc Add-Ins, which provide new functionality for Calc, including new functions that act like normal built-in functions
- New components and functionality, which normally include some level of UI integration such as new menus or toolbars
- Data pilots that are used directly in Calc
- Chart Add-Ins with new chart types
- Linguistic components such as spell checkers
- Document templates and images

Although individual extensions can be found in different places, there is an extension repository at: http://wiki.services.openoffice.org/wiki/Extensions_repository. To learn more about extensions, see Chapter 12 (Working with Templates) in this book.

Writing macros without the recorder

The examples covered in this chapter are created using the macro recorder and the dispatcher. You can also write macros that directly access the objects that comprise OpenOffice.org. In other words, you can directly manipulate a document.

Directly manipulating OOo's internal objects is an advanced topic that is beyond the scope of this chapter. A simple example, however, demonstrates how this works.

Listing 4: Append the text "Hello" to the current document.

```
Sub AppendHello
    Dim oDoc
    Dim sTextService$
    Dim oCurs

    REM ThisComponent refers to the currently active document.
```



```

oDoc = ThisComponent

REM Verify that this is a text document
sTextService = "com.sun.star.text.TextDocument"
If NOT oDoc.supportsService(sTextService) Then
    MsgBox "This macro only works with a text document"
    Exit Sub
End If

REM Get the view cursor from the current controller.
oCurs = oDoc.currentController.getViewCursor()

REM Move the cursor to the end of the document
oCurs.gotoEnd(False)

REM Insert text "Hello" at the end of the document
oCurs.Text.insertString(oCurs, "Hello", False)
End Sub

```

Finding more information

Numerous resources are available that provide help with writing macros. Use **Help > OpenOffice.org Help** to open the OOO help pages. The upper left corner of the OOO help system contains a drop-down list that determines which help set is displayed. To view the help for Basic, the drop-down must display *Help about OpenOffice.org Basic*.

Included material

Many excellent macros are included with OOO. Use **Tools > Macros > Organize Macros > OpenOffice.org Basic** to open the Macro dialog. Expand the Tools library in the OpenOffice.org library container. Inspect the Debug module—some good examples include `WritedbInfo(document)` and `printdbgInfo(sheet)`.

Online resources

The following links and references contain information regarding macro programming:

- <http://www.openoffice.org> (the main link)
- <http://codesnippets.services.openoffice.org/> (categorized examples)
- <http://www.oofforum.org> (if you need help with your macros this is a good place to ask, probably one of the best supported OOO forums on the web)
- <http://api.openoffice.org/docs/common/ref/com/sun/star/module-ix.html> (official IDL reference, here you'll find almost every command with a description)
- <http://api.openoffice.org/DevelopersGuide/DevelopersGuide.html> (official documentation that contains a detailed explanation)
- <http://www.pitonyak.org/oo.php> (Andrew Pitonyak's macro page)
- <http://www.pitonyak.org/AndrewMacro.odt> (numerous examples of working macros)

- <http://www.pitonyak.org/book/> (Andrew Pitonyak wrote a book on macros)
- <http://www.pitonyak.org/database/> (numerous macro examples using Base)
- <http://docs.sun.com/app/docs> (Sun wrote a book on macro programming—very well written and laid out)
- <http://documentation.openoffice.org> (contains content related to macros)
- <http://ooextras.sourceforge.net/> (examples)
- http://sourceforge.net/project/showfiles.php?group_id=43716 (examples)
- <http://homepages.paradise.net.nz/hillview/OOo/> (numerous excellent macros, including reveal codes macros, key macros, and information on converting from MS Office)

Published material

The following published sources contain macro examples. The most obvious example is the documentation from Sun. Start from Sun's documentation site <http://docs.sun.com/app/docs> and search for StarOffice documentation.

Andrew Pitonyak wrote a book called *OpenOffice.org Macros Explained*. Two chapters are available as direct downloads from the publisher. See <http://www.pitonyak.org/book/>.

Dr. Mark Alexander Bain wrote *Learn OpenOffice.org Spreadsheet Macro Programming* (see <http://www.packtpub.com/openoffice-ooobasic-calc-automation/book>).



Appendix A
Keyboard Shortcuts

Introduction

You can use OpenOffice.org (OOo) without requiring a pointing device, such as a mouse or trackball, by using its built-in keyboard shortcuts. Tasks as varied and complex as docking and un-docking toolbars and windows, or changing the size or position of objects, can all be accomplished with only a keyboard.

OOo has a general set of keyboard shortcuts, available in all components, and a component-specific set directly related to the work of that component (Writer, Calc, Impress, Draw and Base). This document describes the general set: the component specific shortcuts are fully described in the appropriate appendix of the relevant component guide.

For help with OOo's keyboard shortcuts, or using OOo with a keyboard only, search the OOo Help using the "shortcut" or "accessibility" keywords.

Assigning shortcut keys

In addition to using the built-in keyboard shortcuts (listed later in this Appendix), you can define your own. You can assign shortcuts to standard OOo functions or your own macros and save them for use with the entire OpenOffice.org suite.

Caution



Be careful when reassigning your operating system's or OOo's predefined shortcut keys. Many key assignments are universally understood shortcuts, such as *F1* for Help, and are always expected to provide certain results. Although you can easily reset the shortcut key assignments to the OOo defaults, changing some common shortcut keys can cause confusion, frustration and possible data loss or corruption, especially if other users share your computer.

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

- 5) Select **Tools > Customize > Keyboard**. The Customize dialog (Figure 290) opens.
- 6) To have the shortcut key assignment available in all components of OpenOffice.org select the **OpenOffice.org** button.
- 7) Next select the required function from the *Category* and *Function* lists.
- 8) Now select the desired shortcut keys in the *Shortcut keys* list and click the **Modify** button at the upper right.
- 9) Click **OK** to accept the change. Now the chosen shortcut keys will execute the function chosen in step 3 above whenever they are pressed.

Notes

1. 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 wished to reassign a shortcut key combination that is already in use, you must first **Delete** the existing *Key*.
 2. Shortcut keys that are greyed-out in the listing on the Customize dialog, such as *F1* and *F10*, are not available for reassignment.
-

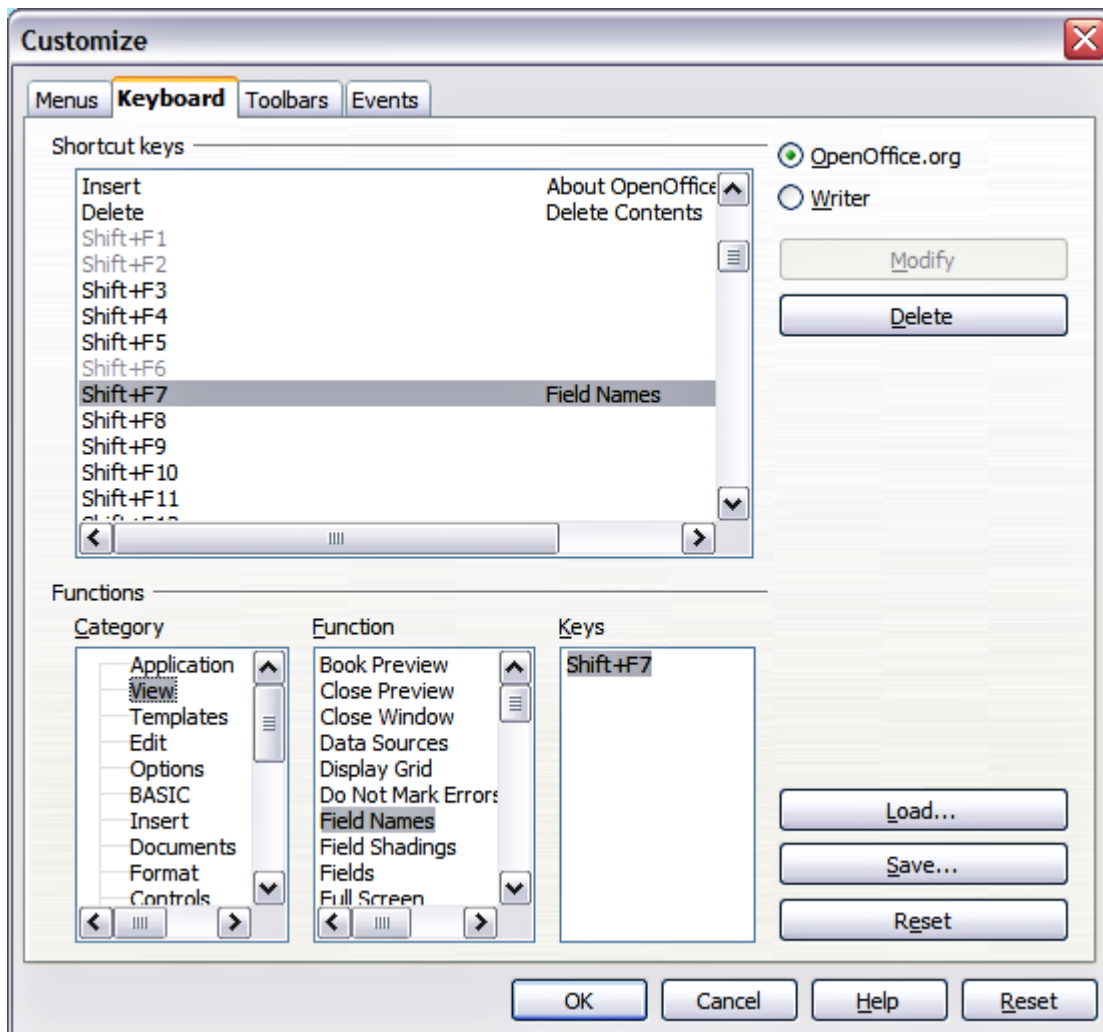


Figure 290: Customize dialog

Saving changes to a file

Changes to the shortcut key assignments (and other configurations) 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. To save keyboard shortcuts to a file:

- 1) After making your keyboard shortcut assignments, click the **Save** button near the bottom right of the Customize dialog (Figure 290).
- 2) In the Save Keyboard Configuration dialog, select *All files* from the **Save as Type** list.
- 3) Next enter a name for the keyboard configuration file in the **File name** box, or select an existing file from the list. If you need to, browse to find a file from another location.
- 4) Click **Save**. A confirmation dialog will appear 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 near the bottom right of the Customize dialog (Figure 290), 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 near the bottom right of the Customize dialog (Figure 290). 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

You can also define shortcut key combinations that will run macros. These shortcut keys are strictly user-defined; none are built in. For information on macros, see Chapter 17 (Getting started with macros).

General shortcut keys for OpenOffice.org

Shortcut Keys	Result
<i>Enter key</i>	Activates the focused button in a dialog.
<i>Esc</i>	Terminates the action or dialog. If in OpenOffice.org Help: goes up one level.
<i>Spacebar</i>	Toggles the focused check box in a dialog.
<i>Arrow keys</i>	Changes the active control field in an option section of a dialog.
<i>Tab</i>	Advances focus to the next section or element in a dialog.
<i>Shift + Tab</i>	Moves the focus to the previous section or element in a dialog.
<i>Alt+Down Arrow</i>	Opens the list of the control field currently selected in a dialog. These shortcut keys apply not only to combo boxes but also to icon buttons with pop-up menus. Close an opened list by pressing the Escape key.
<i>Del</i>	Deletes the selected items into the recycle bin.
<i>Shift+Del</i>	Deletes the selected items without putting them in the recycle bin.
<i>Backspace</i>	When a folder is shown: goes up one level (goes back).
<i>Ctrl+Shift+Space</i>	Removes direct formatting from selected text or objects (as in Format > Default Formatting).
<i>Ctrl + Tab</i>	When positioned at the start of a header, a tab is inserted.
<i>Enter (if an OLE object is selected)</i>	Activates the selected OLE object.
<i>Enter (if a drawing object or text object is selected)</i>	Activates text input mode.
<i>Ctrl + O</i>	Opens a document.
<i>Ctrl + S</i>	Saves the current document.
<i>Ctrl + N</i>	Creates a new document.
<i>Shift+Ctrl+N</i>	Opens Templates and Documents dialog.
<i>Ctrl + P</i>	Prints document.
<i>Ctrl + Q</i>	Exits application.
<i>Ctrl + X</i>	Cuts out the selected elements.
<i>Ctrl + C</i>	Copies the selected items.
<i>Ctrl + V</i>	Pastes from the clipboard.
<i>Ctrl + Shift + V</i>	Opens the Paste Special dialog.
<i>Ctrl + A</i>	Selects all.
<i>Ctrl + Z</i>	Undoes last action.
<i>Ctrl + Y</i>	Redoes last action.
<i>Ctrl+F</i>	Calls the Find & Replace dialog.
<i>Ctrl+Shift+F</i>	Searches for the last entered search term.
<i>Ctrl+Shift+J</i>	Toggles the view between fullscreen mode and normal mode in Writer or Calc.
<i>Ctrl+Shift+R</i>	Redraws the document view.

Shortcut Keys	Result
<i>Shift+Ctrl+I</i>	Enable or disable the selection cursor in read-only text.
<i>Ctrl+I</i>	Applies the Italic attribute to the selected area. If the cursor is positioned in a word, this word is also marked in italic.
<i>Ctrl+B</i>	Applies The Bold attribute to the selected area. If the cursor is positioned in a word, this word is also put in bold.
<i>Ctrl+U</i>	Applies the Underlined attribute to the selected area. If the cursor is positioned in a word, this word is also underlined.

Keyboard shortcuts using the function keys

Shortcut Keys	Result
<i>F1</i>	Starts the OpenOffice.org Help. In the OpenOffice.org Help: jumps to main help page.
<i>Shift + F1</i>	Activates Extended Tips for the mouse pointer, which turns into a question mark. Move the pointer over an item (command, icon or control) to view the extended tip.
<i>Shift+F2</i>	Displays an extended tip for the item (command, icon or control) currently selected by using the keyboard.
<i>Ctrl+F4 or Alt+F4</i>	Closes the current document (close OpenOffice.org when the last open document is closed).
<i>F6</i>	Sets focus in next sub-window (for example, document/data source view).
<i>Shift+F6</i>	Sets focus in previous sub-window.
<i>F10</i>	Activates the first menu (File menu).
<i>Shift+F10</i>	Opens the context menu.
<i>Ctrl+F11</i>	Opens the Style Catalog.

Shortcut keys in the Gallery

Shortcut Keys	Result
<i>Tab</i>	Moves between areas.
<i>Shift+Tab</i>	Moves between areas (backwards).

Shortcut keys in the New Theme area of the Gallery

Shortcut keys	Result
<i>Up arrow</i>	Moves the selection up.
<i>Down arrow</i>	Moves the selection down.
<i>Ctrl+Enter</i>	Opens the Properties dialog.
<i>Shift+F10</i>	Opens a context menu.
<i>Ctrl+U</i>	Refreshes the selected theme.
<i>Ctrl+R</i>	Opens the Enter Title dialog.
<i>Ctrl+D</i>	Deletes the selected theme.
<i>Insert</i>	Inserts a new theme.

Shortcut keys in the Gallery preview area

Shortcut keys	Result
<i>Home</i>	Jumps to the first entry.
<i>End</i>	Jumps to the last entry.
<i>Left Arrow</i>	Selects the next Gallery element on the left.
<i>Right Arrow</i>	Selects the next Gallery element on the right.
<i>Up Arrow</i>	Selects the next Gallery element above.
<i>Down Arrow</i>	Selects the next Gallery element below.
<i>Page Up</i>	Scrolls up one screen.
<i>Page Down</i>	Scrolls down one screen.
<i>Ctrl+Shift+Insert</i>	Inserts the selected object as a linked object into the current document.
<i>Ctrl+I</i>	Inserts a copy of the selected object into the current document.
<i>Ctrl+T</i>	Opens the Enter Title dialog.
<i>Ctrl+P</i>	Switches between themes view and object view.
<i>Spacebar</i>	Switches between themes view and object view.
<i>Enter</i>	Switches between themes view and object view.
<i>Step backward</i>	Switches back to main overview (only in object view).

Selecting rows and columns in a table

Shortcut keys	Result
<i>Spacebar</i>	Toggles row selection, except when the row is in edit mode.
<i>Ctrl+Spacebar</i>	Toggles row selection.
<i>Shift+Spacebar</i>	Selects the current column.

Shortcut keys for drawing objects

Shortcut keys	Result
<i>Select the toolbar with F6. Use the Down Arrow and Right Arrow to select the desired toolbar icon and press Ctrl+Enter</i>	Inserts a Drawing Object.
<i>Select the document with Ctrl+F6 and press Tab</i>	Selects a Drawing Object.
<i>Tab</i>	Selects the next Drawing Object.
<i>Shift+Tab</i>	Selects the previous Drawing Object.
<i>Ctrl+Home</i>	Selects the first Drawing Object.
<i>Ctrl+End</i>	Selects the last Drawing Object.
<i>Esc</i>	Ends Drawing Object selection.
<i>Esc (in Handle Selection Mode)</i>	Exits Handle Selection Mode and returns to Object Selection Mode.
<i>Up/down/left/right arrow</i>	Moves the selected point (the snap-to-grid functions are temporarily disabled, but end points still snap to each other).
<i>Alt+Up/Down/Left/Right Arrow</i>	Moves the selected Drawing Object one pixel (in Selection Mode). Re-sizes a Drawing Object (in Handle Selection Mode). Rotates a Drawing Object (in Rotation Mode). Opens the properties dialog for a Drawing Object. Activates the Point Selection mode for the selected drawing object.
<i>Spacebar</i>	Selects a point of a drawing object (in Point Selection mode) or cancels the selection. The selected point blinks once per second.
<i>Shift+Spacebar</i>	Selects an additional point in Point Selection mode.
<i>Ctrl+Tab</i>	Selects the next point of the drawing object (Point Selection mode). In Rotation mode, the center of rotation can also be selected.
<i>Shift+Ctrl+Tab</i>	Selects the previous point of the drawing object (Point Selection mode).
<i>Ctrl+Enter</i>	Places a new drawing object with default size in the center of the current view.
<i>Ctrl+Enter at the Selection icon</i>	Activates the first drawing object in the document.
<i>Esc</i>	Leaves the Point Selection mode. The drawing object is selected afterwards.
<i>Any text or numerical key</i>	Edits a point of a drawing object (Point Edit mode). If a drawing object is selected, switches to edit mode and places the cursor at the end of the text in the drawing object. A printable character is inserted.

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