Components

OpenOffice.org is a collection of different applications that work together closely to provide the features expected from a modern office suite. Many of the components are designed to mirror those available in Microsoft Office. The components available include:

- Writer — a word processor similar in look and feel to Microsoft Word and offering a widely overlapping range of functions and tools. It also includes the ability to export Portable Document Format (PDF) files with no additional software, and can also function as a WYSIWYG HTML editor for creating and editing web pages. One important difference between OpenOffice Writer and Microsoft Word is that in Writer, many functions and number formats from Calc (below) are available in Writer's tables. Another difference is that in Writer, automatic save is turned OFF by default. Autosave should be turned on if the user lives in a power outage prone area or forgets to save frequently.

- Calc — a spreadsheet similar to Microsoft Excel with a roughly equivalent range of features. Calc provides a number of features not present in Excel, including a system which automatically defines series for graphing, based on the layout of the user's data. Calc is also capable of writing spreadsheets directly as a PDF file.

- Impress — a presentation program similar to Microsoft PowerPoint. It can export presentations to Macromedia Flash (SWF) files allowing them to be played on any computer with the Flash player installed. It also includes the ability to create PDF files. Impress suffers from a lack of ready-made presentation designs. However, templates are readily available on the Internet.[6]

- Base — a database program similar to Microsoft Access. Base allows the creation and manipulation of databases, and the building of forms and reports to provide easy access to data for end-users. As with Access, Base is able to work as a front-end to a number of different database systems, including Access databases (JET), ODBC data sources and MySQL/PostgreSQL. Base only became part of the suite starting with version 2.0.

- Draw — a vector graphics editor comparable in features to CorelDRAW. It features versatile "connectors" between shapes, which are available in a range of line styles and facilitate building drawings such as flowcharts.

- Math — a tool for creating and editing mathematical formulae, similar to Microsoft Equation Editor. Formulae can be embedded inside other OpenOffice.org documents, such as those created by Writer. It supports multiple fonts and can export to PDF.

- Quickstarter — a small program for Windows that runs when the computer starts for the first time. It loads the core files and libraries for OpenOffice.org during computer startup and allows the suite applications to start more quickly when selected later. The amount of time it takes to open OpenOffice.org applications was a common complaint in version 1.0 of the suite, and Quickstarter was a solution of sorts. Substantial improvements were made in this area for version 2.0.

- The macro recorder — is used to record user actions and replay them later to help with

automating tasks, similar to Microsoft [Visual Basic for Applications](#) (VBA). It is available in the Writer and Calc applications[*[citation needed](#)*] and is based on [StarOffice Basic](#). In addition to StarOffice Basic macros, the upcoming Novell edition of OpenOffice 2.0 supports running Microsoft VBA macros,[7] a feature expected to be incorporated into the mainstream version soon.[8]

It is not possible to download these components individually on Windows, though they can be installed separately. Most Linux distributions break the components into individual packages which may be downloaded and installed separately.

Development

[[edit](#)]

Overview

The OpenOffice.org [API](#) is based on a component technology known as [Universal Network Objects](#) (or UNO). It consists of a wide range of interfaces defined in a [CORBA](#)-like [interface description language](#).

The [document file format](#) used is based on [XML](#) and several export and import filters. All external formats read by OpenOffice.org are converted back and forth from an internal XML representation. By using [compression](#) when saving [XML](#) to disk, files are generally smaller than the equivalent binary Microsoft Office documents. The native file format for storing documents in version 1.0 was used as the basis of the [OASIS](#) [OpenDocument](#) file format standard, which has become the default file format in version 2.0.

Development versions of the suite are released every few weeks on the developer zone of the OpenOffice.org website. The releases are meant for those who wish to test new features or are simply curious about forthcoming changes, they are not suitable for production use.

The project is still essentially run by StarOffice staff, and getting non-Sun contributions into the core codebase can be difficult, even for the project's other corporate sponsors.[*[citation needed](#)*]

[[edit](#)]

Native desktop integration

OpenOffice.org 1.0 was criticized for the lack of [look and feel](#) of native applications when comparing to the platform it is running on. Starting from version 2.0, OpenOffice.org uses the native [widget toolkit](#), icons and [typeface](#)-rendering libraries across a variety of [platforms](#), to better match native applications and provide a smoother experience for the user. There are projects underway to further improve this integration on both [GNOME](#)[19] and [KDE](#).[20]

OpenOffice.org can also be used on [Mac OS X](#). A version using the [Aqua](#) interface was planned for OpenOffice.org version 2, but due to technical challenges, licensing complications and limited development resources, the project was abandoned. Instead OpenOffice.org is available in two varieties that run on OS X:

- OpenOffice.org Mac OS X (X11). This version requires the installation of X11.app or XDarwin. It is a close port of the well-tested Unix version. It provides the functional capabilities of the Unix versions, but does not integrate smoothly with OS X fonts, and its user interface is that of an X11 application.[21]

- NeoOffice. This version integrates with OS X by using Java, Carbon and (increasingly) Cocoa. NeoOffice is easier to install, adheres fairly closely to OS X GUI standards (for example, using native pull-down menus), and has full access to OS X's font and printing subsystems. It is the work of a very small team and relies on completion of the OS X X11 version of OpenOffice.org, so its releases lag behind the official OpenOffice.org releases.[22]

[edit]

Other projects

Other projects run alongside the main OpenOffice.org project and are easier to contribute to. These include documentation, internationalization and localization and the API.

OpenGroupware.org is a set of extension programs to allow the sharing of OpenOffice.org documents, calendars, address books, e-mails, instant messaging and blackboards, and provide access to other groupware applications.

There is also an effort to create and share assorted document templates and other useful additions at OOExtras. [23]

A set of Perl extensions is available through the CPAN in order to allow OpenOffice.org document processing by external programs.[24] These libraries do not use the OpenOffice.org API. They directly read or write the OpenOffice.org files using Perl standard file compression/uncompression, XML access and UTF-8 encoding modules.

A distribution of OpenOffice.org called "Portable OpenOffice.org" is designed to run the suite from a USB flash drive.[25]

[edit]

Market share

Although Microsoft Office retains 95% of the general market, OpenOffice.org and StarOffice have secured 14% of the large enterprise market as of 2004.[26] The OpenOffice.org web site reports more than 61 million downloads.[27]

Large scale users of OpenOffice.org include Singapore's Ministry of Defense, and Bristol City Council in the UK. In France, OpenOffice.org has attracted the attention of both local and national government administrations who wish to rationalize their software procurement, as well as have stable, standard file formats for archival purposes. It is now the official office suite for the French Gendarmerie. [28]

On October 4, 2005, Sun and Google announced a strategic partnership. As part of this agreement,

Sun will add a Google search bar to OpenOffice.org, Sun and Google will engage in joint marketing activities as well as joint research and development, and Google will help distribute OpenOffice.org. [29]

Besides Sun's StarOffice, there are still a number of OpenOffice.org derived commercial products. Most of them are developed under SISSL license (which is valid up to OpenOffice.org 2.0 Beta 2). In general they are targeted at local or niche market, with proprietary add-ons such as speech recognition module, automatic database connection, or better CJK support[30].

See also the OpenOffice.org Market Share Analysis page for additional details.

 [edit]

Java controversy

Version 1 made use of Java for some auxiliary functions, but version 2 increased the suite's use of the programming platform. The following areas depend on a Java Runtime Environment being present on the user's computer:

- Parts of the Base application
- The media player on Unix-like systems
- All document wizards in Writer
- Accessibility tools
- Report Autopilot
- JDBC driver support
- HSQL database engine, which is used in OpenOffice.org base
- XSLT filters
- BeanShell, the NetBeans scripting language and the Java UNO bridge
- Export filters to the Aportis.doc (.pdb) format for the Palm OS or Pocket Word (.psw) format for the Pocket PC

A common point of confusion is that mail merge to generate emails requires the Java API JavaMail. This is true of StarOffice. As of version 2.01, OpenOffice.org uses a Python-component instead.[31]. Note that in order to activate the Python component mailmerge.py in OpenOffice.org, it is necessary to install Python from the Python website first.

This had drawn criticism from advocates of free software, since the Java Runtime Environment needed to enable these features are typically not licensed using free software principles, thereby undermining the "Free-ness" of OpenOffice.org. The fact that Sun is both the creator of Java and the chief supporter of OpenOffice.org has drawn accusations of ulterior motives for this technology choice. [1][2]

The issue of OpenOffice.org use of Java came to the fore on May 2005 when Richard Stallman appeared to call for a fork of OpenOffice.org in a posting on the Free Software Foundation website.[3] This led to discussions within the OpenOffice.org community and between Sun staff and developers involved in Classpath in which it was determined that all necessary steps were in place to ensure that key OpenOffice.org uses of the Java platform would be supported in GCJ and Classpath.Mailing list post summarizing the state of affairs as of 11 May 2005.

Fedora Core 4 (released on June 13, 2005) included a beta version of OpenOffice.org version 2, running on GCJ and GNU Classpath, a free replacement for Sun's Java implementation. This demonstrated that the use of Java did not need to be a barrier to the use of OpenOffice.org on free software platforms. When 2.0 stable was released, the same continued. The OpenOffice.org developers also placed into their development guidelines various requirements to ensure that future versions of OpenOffice.org could be run on free implementations of Java.

Sun Microsystems announced in May 2006 that it intends to release the Java development system and the Java programming language under an open-source license [4][5]. In late June 2006 a Sun Microsystems Inc. executive announced Sun is "just months" away from making this move. When Java is finally released under an open-source license the so-called "Java controversy" surrounding OpenOffice will be eliminated.

[edit]

Start-up performance

Some users experience start-up performance problems when launching OpenOffice.org. On the GNU/Linux platform, this can usually be moderated by deselecting "Use a Java runtime environment" in the *Tools - Options - OpenOffice - Java* dialog box. (Under Windows, disabling use of the Java runtime has no effect on start-up performance because the JRE is not loaded until it is first used.)

OpenOffice.org is working to iron out several performance bottlenecks following complaints that the application takes relatively long to start up, especially on Linux systems. The project plans to solve the issue, partly by allowing the application to pre-load on systems.[*citation needed*]

[edit]

Trivia & Easter eggs

- By going into Calc and putting **=Game("StarWars")** into any cell, a version of Space Invaders is playable. Although if you try to play it again too soon you will be greeted with the message "oh no, not again." To play again, you must fully close OpenOffice
- By going into Calc and putting **=Game(A1:C3;"TicTacToe")** into cell A4, a version of Tic-tac-toe is playable.
- By going into Calc and putting **=StarCalcTeam()** into any cell, the names and picture of the OpenOffice.org Calc developer team are shown. To view again, you must fully close OpenOffice. Any following times which it is placed into a cell, the cell shows a bold number 42.
- In the About window, holding down Ctrl and pressing s, d, t displays the build number and a list of credits