

SUCCESSFULLY ADOPTING AND INTEGRATING THE OPENDOCUMENT FORMAT (ODF) WITH MICROSOFT OFFICE DOCUMENT FORMATS

An Overview

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Introduction

Brief History Of ODF

The OpenDocument Format (ODF) is the result of a common effort of multiple vendors and stakeholders aiming to create an open and standardized document format. With the digital storage of information becoming the norm, it was necessary to specify a format that was vendor independent, and could guarantee access of the information created with the file format, in the future. A Technical Committee (TC) under the [OASIS](#) industry consortium developed the format in a transparent process, where major vendors like Sun Microsystems and IBM played an important role. In 2006 the OpenDocument specification was approved for release as an ISO and IEC International Standard.

As OpenDocument Format gains momentum and more governments and organizations adopt it, questions about its coexistence with other document formats like Microsoft Office and Portable Document Format (PDF) will arise. Subsequent questions will concern how to take advantage of the features of ODF. This white paper provides a guide for an implementation and integration of the OpenDocument Format in professional environments, where other document formats are also in use.

This guide is divided into three key sections:

1. **Advantages of ODF.** This will discuss interoperability, flexibility, cost savings, support from a broad set of vendors, and continuity (ability to access ODF files 5, 10, or 20 years from now)
2. **Best Practices for common scenarios.** This will cover the use of the OpenDocument Format as the default format in an organization and give tips and tricks on how to successfully coexist with the Microsoft Office document formats.
3. **Action plan and next steps.** This section provides tips on evaluation, pilot, deployment and integration of ODF .

Section One: Advantages of the OpenDocument Format

Choosing a standard document format is a strategic decision for any enterprise, institution or organization, and previously, many organizations implicitly chose their primary document format by using Microsoft Office, and that was probably appropriate. Fortunately, now there is an opportunity with the OpenDocument Format to rethink and reanalyze what document format to set as the primary corporate standard.

The format in which critical data is stored, used, and shared represents an important component of a company's information asset, as many workflow processes, hardware and software purchasing decisions and the long-term data retrieval depend on the format.

In this context the OpenDocument Format emerges as an alternative to other document formats bringing the advantages of openness to the market place. ODF is an ISO-standardized document format based on XML that stores data in a transparent form and not behind a proprietary binary code. ODF is a well specified standard and that makes it suitable for all platforms and office productivity suites. The openness and the interoperability provided by ODF enable the collaboration and exchange of information among diverse communities. The format being open and specified guarantees that files created in ODF today will be accessible tomorrow, independent of application or version used to access them. This is what we mean by continuity and long term information retrieval, as it is possible to implement the format by anyone at any given time. ODF is driven by vendors like Sun Microsystems and IBM and is broadly supported within other office suites. For instance, all open source office suites can and read and write ODF and most use it as the default file format.

ODF can also reduce costs of storage, as ODF-documents can be up to 50% smaller than Microsoft Office 97-2003 documents. This is a significant point considering that companies spend approximately 11% of their hardware budget on storage¹. The OpenDocument Format also gives users the freedom to choose the office suites that meet their needs. And this can represent considerable savings, as the total

¹ Forrester Report, "Archiving: finding Data In 2050", July 2, 2008. Author: Jo Maitland

cost of ownership of office suites that support ODF is typically lower ².

To summarize, the key benefits of the OpenDocument Format are:

- Increased interoperability resulting from adoption, and broad application support
- Flexibility in front-end as well as back-end systems
- Continuity in accessing files, resulting from the ISO Standard
- Lower storage costs resulting from smaller file sizes
- Not locked in - choose from a number of vendors that implement ODF

Section Two: Best practices for ODF coexisting with the Microsoft Office file formats.

The OpenDocument Format can be used in all kinds of organizations. It meets the needs of the private and public sector and fits in enterprises and institutions of all sizes. With a carefully planned implementation, the transition from other document formats can be very smooth. However concerns about collaborating and interacting with Microsoft Office users should be addressed.

The following best practices describe how to ensure the right use of ODF in an organization that uses StarOffice, OpenOffice.org or other office suite that support ODF. In large organizations with different departments it is possible that some departments also use Microsoft Office. The strategies for ODF users to successfully collaborate with MS Office users will be addressed below.

Best Practice # 1: Use ODF Consistently

Using the OpenDocument Format as the standard format for all documents is the best way to ensure that all users can access all information and avoid formatting issues. The consistent use of the OpenDocument Format for all documents created, saved and modified in an organization is critical for a successful ODF environment. This ensures that users will have minimal (if any) document formatting issues.

Train users on the advantages of ODF and encouraging them to always use it makes the transition to ODF easier. By setting ODF as the default format to save documents most users will not even notice differences with other formats. And once established as the internal standard (see Figure 1) there is no need to change the existing workflow in the organization as ODF can be read, edited and saved by many applications including OpenOffice.org, StarOffice and Microsoft Office.

² [White Paper: Cost comparison StarOffice, OpenOffice.org and Microsoft Office.](#)

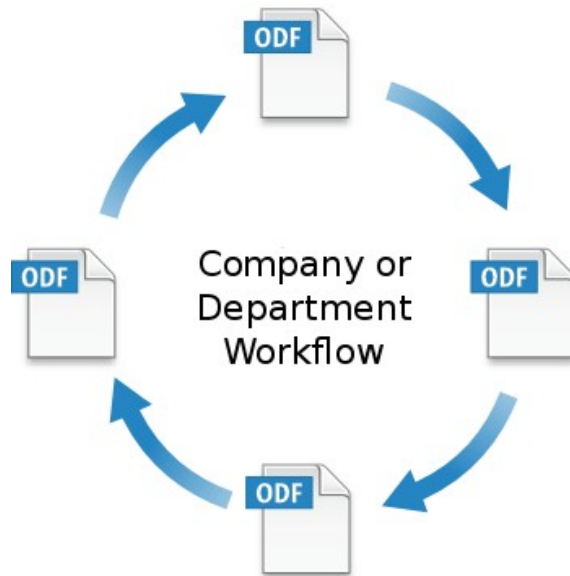


Figure 1: Always create, save and edit documents in ODF. No need to introduce other file formats as ODF can be used universally.

Best Practice # 2: Use PDF when appropriate

Not all documents created in an organization are intended to be modified by the reader. Nor should information about those documents (also known as metadata³) be available for all recipients, as this bears potential risks. It is therefore important to establish which documents should be sent as read-only and to use the standardized Portable Document Format (PDF) for those documents. In this case documents intended for internal use and allowed to be modified are saved as ODF and read-only documents (when necessary) are exported to PDF with a single click with OpenOffice.org or StarOffice.

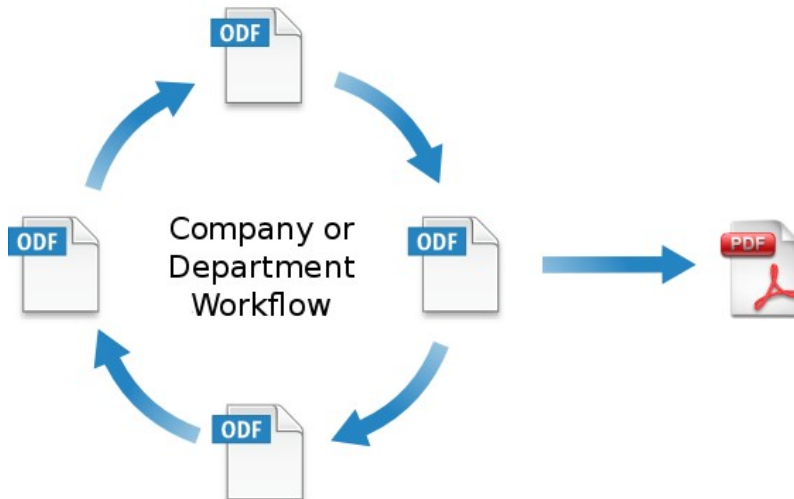


Figure 2: Documents not intended to be modified can be exported to PDF with StarOffice or OpenOffice.org with one click.

³ Metadata is information about data. It might contain sensible information such as the author of the document, date of creation, people that have modified the document, and even the name of the organization, of the network server or of the hard drive the document is saved on.

Best practice #3: Choose a strategy to Collaborate with MS Office users

There are two main strategies to exchange information with MS Office users: (1) an exclusive ODF option where you only use the OpenDocument Format to share content and files or (2) a hybrid strategy where you use both ODF and the MS Office document formats for file sharing. Whatever choice is made will dictate the default file format OpenOffice.org or Microsoft Office will save files in. Choosing the exclusive ODF option is typically preferred because of the many advantages (flexibility, compatibility, continuity) of ODF. In addition, all MS Office users can also easily read, edit and write files to ODF with the Sun ODF Plugin for Microsoft Office⁴. The Sun ODF Plugin⁴ can be downloaded for free and installed with a few clicks. Microsoft Office also offers ODF support with Service Pack 2 for Microsoft Office 2007, but their implementation is currently not as robust⁵. For better results we therefore strongly recommend using the Sun ODF Plugin when using this option.

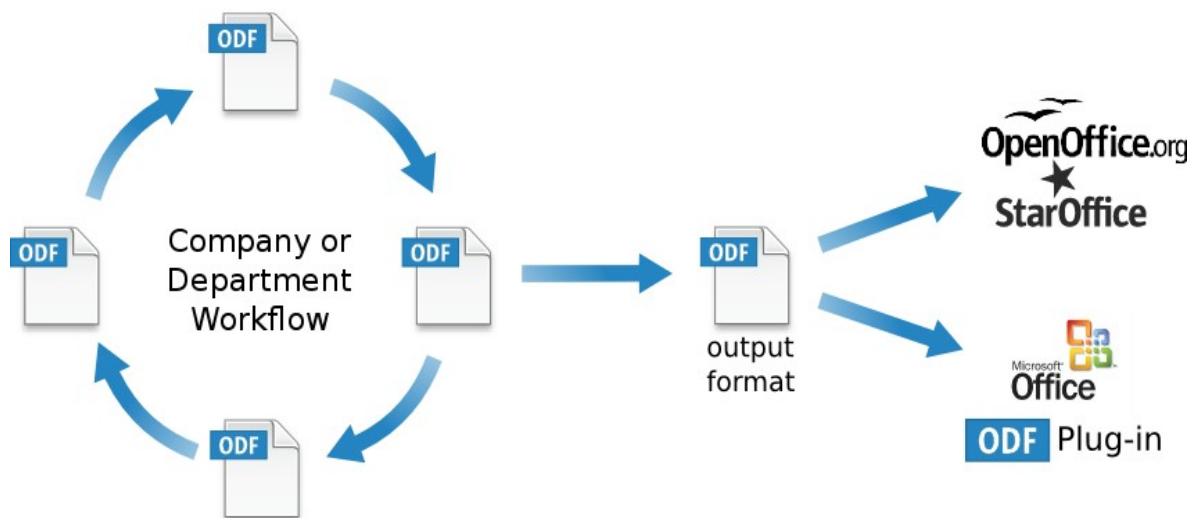


Figure 3: The process flow for strategy 1, where a business uses ODF exclusively to share files with SO/OOo users and Microsoft Office Users (who need the Sun ODF Plug-in)

The second (hybrid) strategy is to use a combination of ODF and Microsoft Office formats. Here, the policy would be to save in Microsoft Office for documents that are sent to Microsoft Office users while saving to ODF for all other documents. Even with this strategy, the best way to avoid formatting problems is to use ODF for most files (even ones created with Microsoft Office) and only use the Microsoft Office format when sending to third parties. With the 'Send Document as E-mail' function in StarOffice, users can easily define the format of the document. This function is very easy to use and has the advantage of not creating a local file in the Microsoft Office format, but only generating the file for the email. If other collaboration systems are in use and don't support or require e-mails, the 'Save As' function can be also be used for saving and exporting documents in the Microsoft Office format.

⁴ The [Sun ODF Plugin for Microsoft Office](#) gives users of Microsoft Office Word, Excel and PowerPoint the ability to read, edit and save to the ODF format.

⁵ Rob Weir, Co-chair, OASIS ODF Technical Committee in his [blog](#), 05/17/09

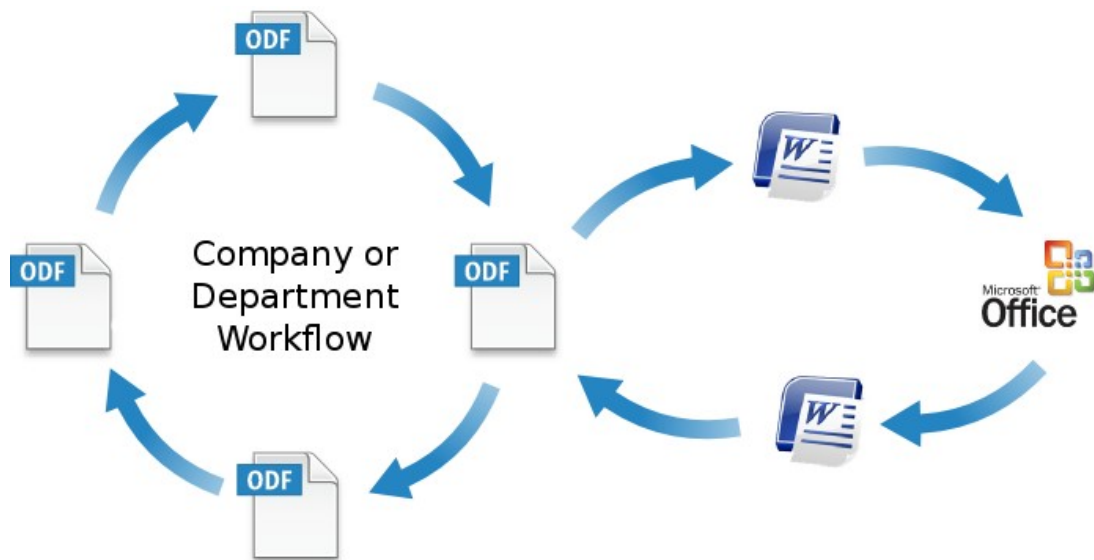


Figure 4: The process flow for strategy 2, the mixed or hybrid strategy for sharing files: ODF users export documents in Microsoft Office formats and send to Microsoft Office users, who edit and send back in Microsoft Office file format.

For receiving documents in the Microsoft Office format the best way to handle them and avoid formatting issues is to save it to ODF. This is highly recommended as problems accumulate if documents are saved many times in the Microsoft Office document format. For further file exchanges with Microsoft Office users the document can be exported to the desired Microsoft Office file format anytime and sent via email as described above.

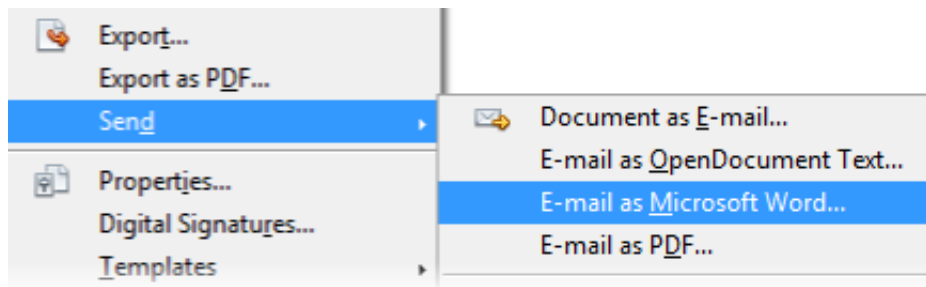


Figure 5: The 'Send As' function makes it easy to share files with Microsoft Office users.

Best practice #4: Use Connectors for Content Management Systems

StarOffice and OpenOffice.org users can seamlessly use Content Management Systems (CMS) such as Microsoft SharePoint Server and Alfresco CMS. These systems provide a wide range of benefits, for example, document storage in a central location, which ensures that your documents are available from different devices and that you can always access the latest version of your document from anywhere.

With two extensions from Sun, the [Sun Connector for SharePoint Server](#) and the [Sun Connector for Alfresco](#), StarOffice and OpenOffice.org are ideal clients for Content Management Systems. Users can load, search, browse, edit or check-in/out documents that are stored in the Microsoft SharePoint Server or the Alfresco server directly in StarOffice or OpenOffice.org and benefit from workflow and document auditing features. The Sun Connector also enables search within documents hosted on the CMS servers and enables search within ODF documents stored in the Microsoft SharePoint Server. Both connectors can be easily installed as an extension and note that the Sun Connector for SharePoint Server is included with StarOffice and is an extra fee for organizations that use OpenOffice.org.

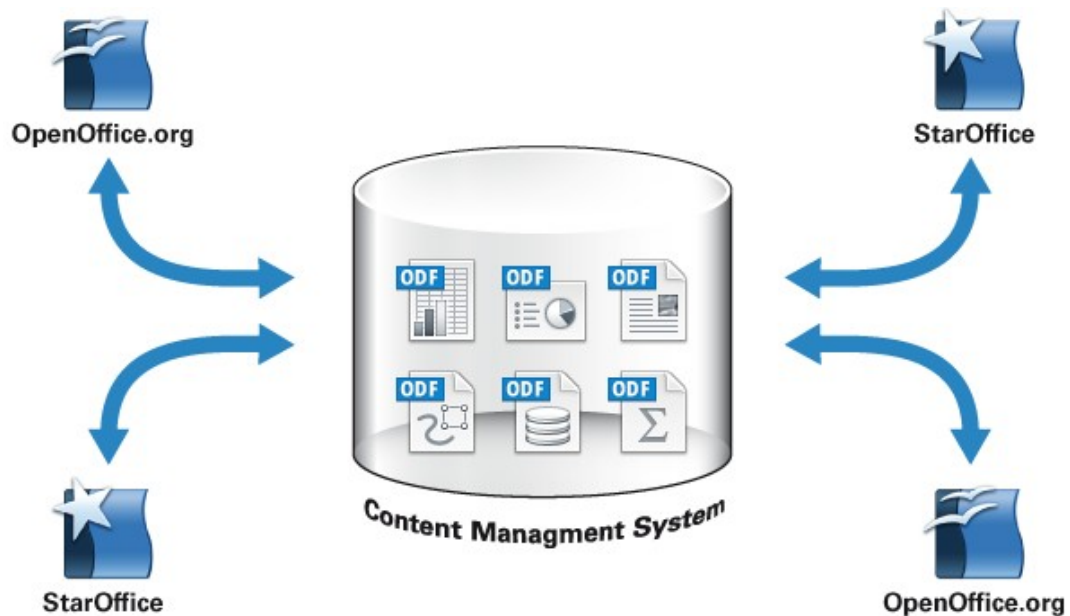


Figure 6: Using the SharePoint Connector to integrate StarOffice/OO.o users

Information on how to obtain the SharePoint Server is in the appendix.

Section Three: Action Plan and Next Steps

Now that you have become familiar with best practices, it's time to determine what are the next steps to evaluate, deploy and spread the use of OpenDocument Format. Sun offers tools to help with this and a list of these tools and how to obtain them, can be found in the Appendix.

Step 1: Move to StarOffice or OpenOffice.org

The first step to start using the Open Document Format is to move to an office productivity suite that strongly supports ODF, like StarOffice or OpenOffice.org. A new office suite can bring along multiple advantages and opportunities, besides ODF support. Among them are lower costs, choice of more operating systems and hardware to run your office suite, open source (and open file formats). More

details can be found in the [Cost Comparison White Paper](#). A migration to a new Office Suite should always be carefully planned. You can therefore find more information about how to plan and execute a successful migration to StarOffice or OpenOffice.org in the [Migration White Paper](#). Locations for both white papers are also in the appendix.

Step 2: Adopt ODF

Files used on a regular basis should be converted to ODF to ensure a smooth workflow. Other files do not need to be converted right away and can be left in their original formats. To achieve this, we recommend analyzing your document repositories. The Enterprise Edition⁶ of StarOffice 9 provides tools that help you to run the analysis on your files.

The easiest way to convert Microsoft Word, Excel, and PowerPoint files is to use StarOffice or OpenOffice.org to open the files and then save them in the OpenDocument Format.

In the case of a small number of documents and templates, you can automate the conversion process with the help of the built-in Document **Converter AutoPilot**. For a larger number of documents and templates the StarOffice 9 Server, a document converting and processing software is an option⁷.

Step 3: Save to ODF as default.

As mentioned in Best Practice [#1](#), the consistent use of ODF is critical for a successful migration and document workflow. With OpenOffice.org and StarOffice, ODF is the default format. This is very helpful in the migration as users will not notice the difference in file formats and you will ensure that all documents are saved in ODF. In case ODF is not set as the default format, StarOffice and OpenOffice.org make it very easy to set ODF as the default. Just click the Tools menu and select Options. Then click Load/Save and select ODF to be the default file format.

Step 4: Train your users on how to collaborate with Microsoft Office users

Once you have moved to StarOffice or OpenOffice.org and are using ODF as the standard format it is important to make sure that your users know how to collaborate with Microsoft Office users. The best strategies for an effective collaboration are described in Best Practices [#2](#) and [#3](#). To ensure these practices are being followed, users should be trained, as it may affect their day to day workflows. It is particularly useful to emphasize the use of PDF, as it will make the collaboration with Microsoft users much easier. Trainings can be a combination of white papers, web-based or instructor-led classes, and these are listed in the appendix.

Step 5: Use ODF Plug-in For Microsoft Office Users

For some specialized users, migrating to StarOffice or OpenOffice.org may not always be the best option. However organizations and businesses can still maintain a smooth workflow based on ODF, as the [Sun ODF Plugin](#) enables Microsoft Office users to import and export to ODF. Once the free Plugin is installed, Microsoft Users will be able to save their data to ODF with just one click. Training Microsoft users and making them aware of the importance of the ODF format is the best way to ensure a smooth workflow.

⁶ For more information on StarOffice 9 Enterprise Edition see the http://www.sun.com/software/staroffice/get_org.jsp page

⁷ For more information on the StarOffice Server, please see sun.com/soserver

Conclusion

Adopting the OpenDocument Format in your applications, reduces costs, increases your flexibility and adds value to your company, institution, organization or even just your department. The interoperability will allow users of different operating systems and office productivity suites to work together. The organization will also be independent from vendors, as it will not be tied to a proprietary format. And with ODF, organizations can freely choose which software they want to use, as there are a wide set of applications supporting ODF. Furthermore the open and standardized formats ensure the long term retrieval of your data and users can be sure that their documents will be available in the future.

No longer being forced to use a specific office suite, an organization can choose one that supports ODF and immediately reduce their licensing costs. In addition there is an opportunity to reduce total cost of ownership over the longer term, please refer to the [Total Cost of Ownership \(TCO\)](#)⁸ white paper comparing costs of StarOffice, OpenOffice.org and Microsoft Office. Besides that, ODF files can be up to 50% smaller than other formats, which can also cut storage costs.

ODF is clearly gaining momentum as more governments, public administrations and international organizations such as NATO⁹ are requiring it as the standard format¹⁰. The adoption of the OpenDocument Format is also accelerating as more and more applications and office productivity suites support it. The migration to the OpenDocument Format can also be seen as a chance to rethink the workflow around documents in an organization and can be used to define better ways to manage information. Users can additionally be easily trained to improve their skills with the new office productivity suite.

The best practices described in this paper will make a transition to ODF smooth and provide guidance for a successful coexistence with the Microsoft Office document formats in a professional environment.

8 [White Paper: Cost comparison StarOffice, OpenOffice.org and Microsoft Office.](#)

9 [See NATO Interoperability Standards & Profiles](#)

10 [ODF Alliance, ODF Adoptions Dec 2008.](#)

Appendix

White Papers

1. [Cost Comparison](#) of StarOffice, OpenOffice.org and Microsoft Office

This white paper shows the significant cost savings of deploying StarOffice and OpenOffice.org instead of Microsoft Office. The costs covered include licensing, migration, training and system administration costs among others. The white paper provides a framework for any customer so they can perform their own StarOffice or OpenOffice.org cost-benefit analysis.

2. [Migration Guide](#) Microsoft Office to OpenOffice.org/StarOffice Migration Overview

This white paper provides a migration blueprint so customers can create an effective migration plan for moving from Microsoft Office to either OpenOffice.org or StarOffice. Key topics include training users, analyzing and migrating files, converting macros and handling custom applications. There are also tips on setting up an evaluation strategy from, a case study showing how a successful migration can be achieved and common scenarios.

Both white papers are based on real customer experiences and data.

Support and Product Offerings from Sun

- [Services for OpenOffice.org](#) – Sun provides enterprise class services for OpenOffice.org similar to our services for StarOffice.
- [StarOffice](#), Sun's Professional Edition of OpenOffice.org. With StarOffice, Sun offers pre-sales support, for enterprises and end-user support for customers that purchase the Standard edition via retail, etail or download. Note that pre-sales support is not available to businesses that deploy OpenOffice.org.
- Sun Connector for Microsoft Sharepoint Server – this extension allows StarOffice or OpenOffice to be used with Microsoft Sharepoint. It comes bundled with StarOffice 9 [Enterprise Edition](#) or can be purchased standalone from our [online store](#). More information about the Sun Connector for Sharepoint can be found at the OpenOffice.org [extension repository](#).
- Sun [Learning Services for OpenOffice.org](#), the Learning Path page for OpenOffice.org shows courses available for OpenOffice.org from basic courses (Essentials) to expert topics. There is also information on how to get certified on OpenOffice.org

More information on ODF

[OpenDocument Format Alliance](#), this website has more technical detail on the ODF standard, including tools, architecture information, applications and vendors that support ODF and much more.

[OASIS](#), The Organization for the Advancement of Structured Information Standards (OASIS) is a global consortium that drives the development, convergence and adoption of e-business and web services standards.