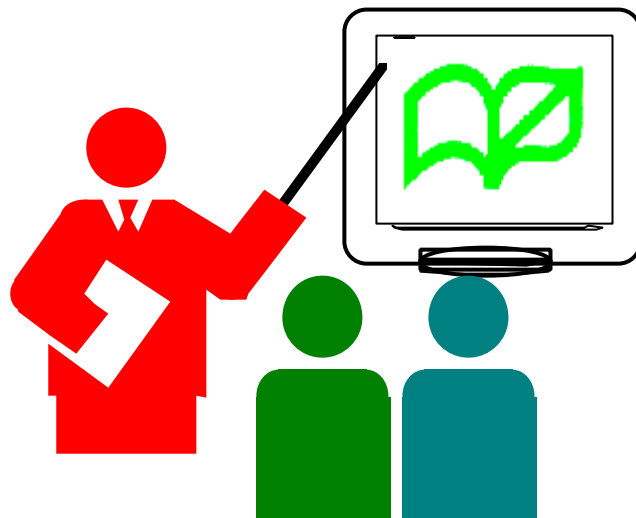


Information Technology in Education Project

# OpenOffice.org Based Office Suites

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## OpenOffice.org Based Office Suites

Office suites are integrated office application programs that combine a number of different functions, such as word processing, spreadsheet capabilities, and database management into a single package.

The family of Microsoft Office suites have dominated the office suite market for many years since the mid 1990s.

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### **About this document:**

*This document is written for users in schools who are considering using office suites other than the Microsoft Office suite.*

*It is assumed that readers are already familiar with the features available in Microsoft Office. Comparisons are made directly with each core component in the office suite.*

*Information of the latest version of Microsoft Office – Office XP, is also included for general reference.*

Recently, a number of office suites have been developed which are claimed to be highly compatible with the Microsoft Office suite. Some of the most popular ones are derived using technologies made available from the OpenOffice.org source project by Sun Microsystems.

Three of these OpenOffice.org based office suites running in the Microsoft Windows environment would be reviewed in this paper.

They are:

KaiOffice 6.2 (Chinese) –  
(<http://www.Kaisource.com>);

ThizOffice 3.0 (Chinese) –  
(<http://www.thizlinux.com/hk/>); and

StarSuite 6.0 (Chinese) –  
(<http://www.sun.com/software/star/starsuite/>).

The former two packages are localized versions especially developed for Hong Kong. The latter package is offered by Sun Microsystems and can be freely used in schools in Hong Kong.

As not all of these packages offer professional versions, therefore for the sake of fairness, only standard versions are used in the comparisons.

Due to its backward compatibility with previous versions of Microsoft Office, the latest version in the family – Microsoft Office XP, would be used in the comparisons.

### **OpenOffice.org Background**

*StarDivision, the original author of the StarOffice suite software, was founded in Germany in the mid 1980s. Sun Microsystems acquired the organization during mid 1999 and released StarOffice 5.2 in mid 2000.*

*Sun Microsystems then moved on to develop a series of technologies for building its StarOffice 6.0.*

Through the OpenOffice.org source project (<http://www.openoffice.org/>), Sun Microsystems has been open-sourcing this series of underlying technologies to the community in the form of the OpenOffice.org sources and binaries. Since then, developers have been producing and distributing their versions (including localized versions) of office suites based on the OpenOffice.org source.

## **Findings in Openoffice.org Based Office Suites**

### **Features**

The three packages for review are all derived from the same source code. Hence, they are very similar in terms of their features.

They include standard office suite's applications such as word processor, spreadsheet, presentation software, drawing program and HTML editor in the package.

### User Interface

All the three suites provide the same "look and feel" interface similar to Microsoft Office suite (see *diagram 1*). Users who have used Microsoft Office suite should be able to use them at ease.

### Functionalities

All the three suites support common office suite's functionalities such as editing tables, inserting graphics, Object Linking and Embedding (OLE), etc.

They also include some sophisticated tools such as help wizard and version control. However, "Chinese Help" is only available in StarSuite 6.0, but not in ThizOffice 3.0 and KaiOffice 6.2.

### Formatting and Chinese Support

Formatting support of these OpenOffice.org based office suites is similar. Most of the general operations such as alignment, bulleting, paragraph formatting, common Chinese input methods are available. Also, all these packages support different fonts including Hong Kong Special Character Set (HKSCS).

### **Compatibility with Microsoft Office**

In general, Microsoft Office documents in standard formats such as RTF (Rich Text Format), could be opened and edited by OpenOffice.org based office suites (see *Appendix II (c)*).

However, the sophisticated features in these documents are NOT 100% compatible.

For example, OpenOffice.org based office suites **only** support mathematical equations and macro programming in their proprietary formats. Also, animation could be lost when we use an OpenOffice.org

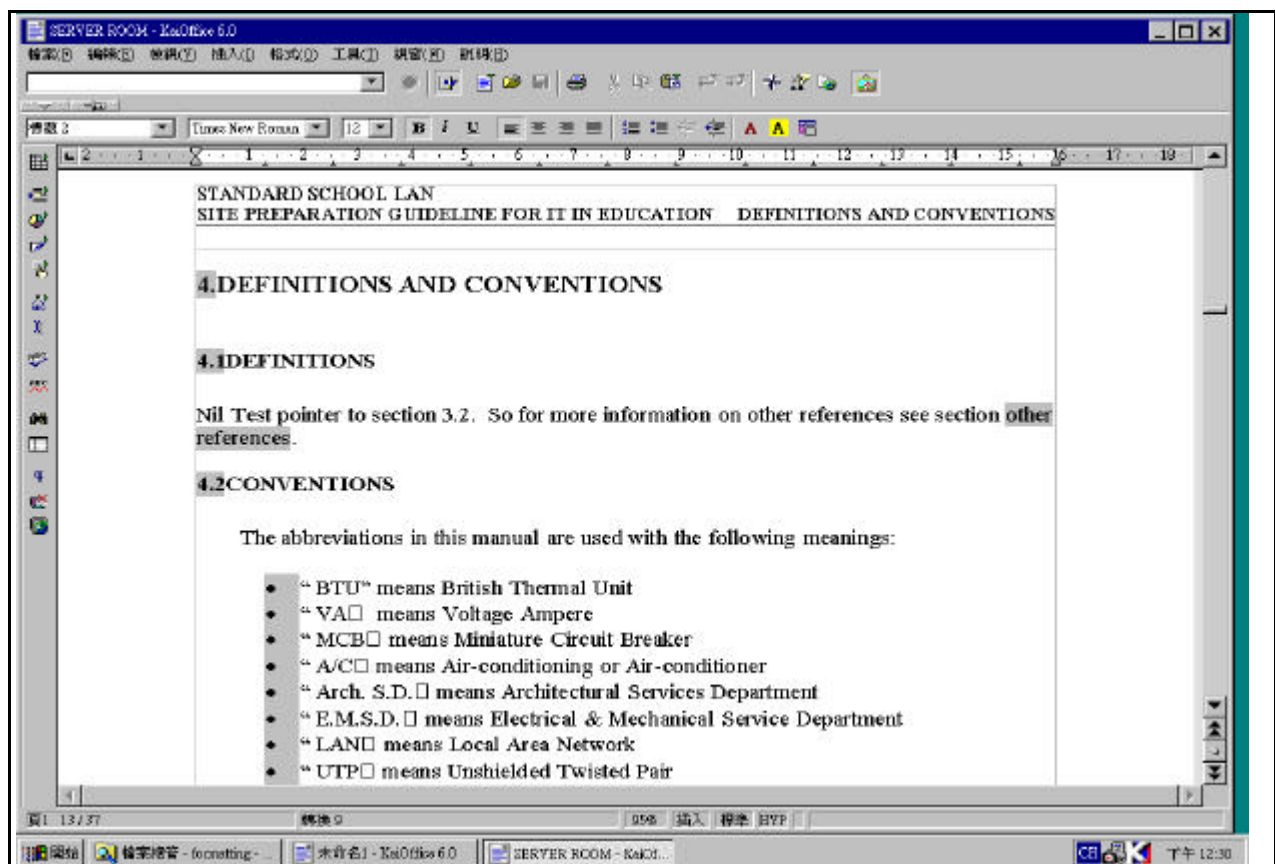


Diagram 1 – "Look and feel" of OpenOffice.org based office suites

based office suite to open PowerPoint documents with such inserts. (see **Appendix IV**.)

Document formatting is another area having compatibility problems. For example, page numbering, section numbering, footer alignment, document margins in Microsoft Office documents will be affected when the documents are opened and displayed by these OpenOffice.org based office suites. (see **Appendix IV**)

### **Experiencing OpenOffice.org based office suites**

In terms of performance, most of the general operations such as spell check and formatting in all the three office suites could be completed within a reasonable amount of time. However, the loading time for these packages is longer than that in the Microsoft Office with the same configuration (see **Appendix III**).

The performance of the OpenOffice.org based office suites is different in different operating systems and hardware platforms (See **Appendix III**). For example, the time required to load an OpenOffice.org based office suite's word processor is 30 seconds in the Windows NT test environment while the same task in the Windows 2000 test environment has taken 5 seconds to finish.

## **OpenOffice.org Based Office Suites Deployment Considerations**

In addition to features and compatibility in document exchange as discussed above, users should also review the following points in order to have a fair evaluation of the product:

### **Cost**

Generally, the prices of the OpenOffice.org based office suites are lower than that of the Microsoft Office. (See **Appendix I**)

In particular, Sun Microsystems has granted all schools in Hong Kong to use its StarSuite 6.0 at no cost.

### **Microsoft Office XP**

The latest version of Microsoft Office Suite is Office XP. The software comes in five editions, namely Standard, Professional, Professional with FrontPage, Professional Special and Developer. These editions differ mainly in the application components.

Office XP can be run under Windows 98, Windows 98 Second Edition, Windows Millennium Edition (Windows Me), Windows NT 4.0 with Service Pack 6 (SP6) or later, Windows 2000 or Windows XP. Like Office 2000, Microsoft released Office XP with Multilingual User Interface (MUI) Pack. With the add-on language packs, additional 30 worldwide languages were supported. However, Office XP with MUI pack cost higher than a localised version.

### **General Features**

Microsoft Office XP has inherited the conventions of its predecessors with enhanced features, such as user interface, functions, formatting and Chinese language support.

In general, the Hong Kong version supports both simplified and traditional Chinese character processing.

### **New Features**

Some new features were introduced in Office XP, such as Smart Tags, Speech Recognition, SharePoint Team Services, etc.. However, these features may require some additional user training.

### **Training**

Different modes of training are available from the developers of the three OpenOffice.org based office suites under review.

For example, Sun Microsystems provides free web based training for StarSuite 6.0 as well as charged instructor led training courses.

For ThizOffice, charged on-site training courses are available from the developer on request.

The developer of KaiOffice does NOT directly provide any training. Charged training course on KaiOffice is available from some third party trainers.

### **Technical Support**

The after sales technical support services from the supplier/distributor of the three OpenOffice.org based office suites vary.

Developers of KaiOffice 6.2 and ThizOffice 3.0 provide free technical support service

through email, fax and telephone for periods from 60 to 120 days. Due to the free-of-charge arrangement, Sun Microsystems does NOT provide free technical support service for the StarSuite 6.0.

## Recommendations

Schools may consider OpenOffice.org based office suite as an alternative to the Microsoft Office suite, as this package provides general features that are comparable to the Microsoft Office suite but at lower cost.

In terms of functions, there is no significant difference among the three OpenOffice.org based office suites under review.

In terms of performance, the three OpenOffice.org based office suites differ under different operating systems and hardware platforms (e.g. ED3 workstation running Windows NT and ED5 workstation running Windows 2000). Schools should consider whether the possible changes in performance in their school environments are acceptable or not.

Document exchange compatibility with Microsoft Office suite also requires special attention as document incompatibilities have been discovered.

Lastly, if schools decide to use these packages, schools should also pay attention to the following in the deployment: (i) the cost and benefit in acquiring the package, (ii) the amount and mode of training available and (iii) the amount of technical support services available.

## Appendix I

### General Information of OpenOffice.org based office suites

Information	KaiOffice 6.2 (Chinese)	ThizOffice 3.0 (Chinese)	StarSuite 6.0 (Chinese)
Price *	<p>HK\$ 98 - Standard Version (Academic Price)</p> <p>HK\$ 320 - Standard Version (Retail)</p> <p>HK\$ 4900 (Academic site Licence - up to 200 PC installations)</p>	<p>HK\$ 50- Standard Version (Academic Price)</p>	<p>Free to schools in Hong Kong</p> <p>US \$ 75.95 (Retail)</p>
	<p>HK\$ 130 - Professional Version (Academic Price)</p> <p>HK\$ 420 - Professional Version (Retail)</p> <p>HK\$ 7900 (Academic Site Licence - up to 200 PC installations)</p>	<p>HK\$ 299- Professional Version</p>	<p>N/A</p>
Training (from developer) *	<p>No training is available directly from developer.</p> <p>Charged instructor led training courses are available from third party trainer. (see <a href="http://www.kaisource.com/autor.htm">http://www.kaisource.com/autor.htm</a>)</p>	<p>Charged on-site instructor led training course are available from the developer on request.</p>	<p>Free web-based training is available from the web site of Sun Microsystems Inc.</p> <p>Charged instructor led training courses are available from Sun Microsystems Inc. (see <a href="http://hk.sun.com/education/courses/staroffice/">http://hk.sun.com/education/courses/staroffice/</a>)</p>
After Sales Technical Support Service *	<p>90 days' free support through telephone, email, or fax</p>	<p>120 days' free support through email</p> <p>60 days' free support through telephone or fax</p>	<p>No free support for free-of-charge versions to schools</p>

\* Information on *Prices, Training and After Sales Technical Support Services* are based on information on 28 November 2002

## Appendix II

### Tests Performed and Results

*Note: To simulate the school environment, all tests have been performed on workstations with configurations that are similar to those drawn from the ED3 and ED5 contracts*

#### Windows NT Environment

*PII 300 with 64MB RAM 4GB HD running Windows NT 4.0 SP5.*

#### Windows 2000 Environment

*PIV 1.6GHz PC with 256MB RAM 20GB HD running Windows 2000 with SP2*

#### a) General Functions Support under Windows NT and Windows 2000

No.	Function	KaiOffice 6.2 (Chinese)	ThizOffice 3.0 (Chinese)	StarSuite 6.0 (Chinese)
1	Help	Only "English Help" is supported	Only "English Help" is available	"Chinese Help" is available
2	Password Protection*	✓	✓	✓
3	Macro Programming*	✓	✓	✓
4	Document Revision Control	✓	✓	✓

\* Password Protection and Macro Programming are implemented in OpenOffice.org based office suite with proprietary formats that are incompatible with those in Microsoft Office suite.

#### b) Formatting and Chinese Support under Windows NT and Windows 2000

No.	Function	KaiOffice 6.2 (Chinese)	ThizOffice 3.0 (Chinese)	StarSuite 6.0 (Chinese)
1	Table support	✓	✓	✓
2	Support of graphics in document	✓	✓	✓
3	Support of different bullet formats	✓	✓	✓
4	Object Linking and Embedding (insert Spreadsheet into word processor)	✓	✓	✓

No.	Function	KaiOffice 6.2 (Chinese)	ThizOffice 3.0 (Chinese)	StarSuite 6.0 (Chinese)
5	Document Creation and support of different input methods	✓	✓	✓
6	Support of different Chinese Font types	✓	✓	✓
7	Paragraph alignment (Right, left, centre)	✓	✓	✓
8	Character formatting (bold, underline, prefix, suffix, colour)	✓	✓	✓
9	Document Printing	✓	✓	✓
10	Support of HKSCS	✓	✓	✓

**c) Document Compatibility with Microsoft Office under Windows NT and Windows 2000**

No.	Function	KaiOffice 6.2 (Chinese)	ThizOffice 3.0 (Chinese)	StarSuite 6.0 (Chinese)
1	Open document that are prepared using Microsoft Office suite (Office XP)	✓	✓	✓
2	Modify contents of that document	✓	✓	✓
3	Save the modified document in common format(s) (RTF, HTML)	✓	✓	✓
4	Document compatibility with Microsoft Office suite	Issues discovered  See <b>Appendix IV</b> for details	Issues discovered  See <b>Appendix IV</b> for details	Issues discovered  See <b>Appendix IV</b> for details

## Appendix III

### Performance of Microsoft Office and OpenOffice.org based office suites

#### a) Under Windows NT

No.	Function	KaiOffice 6.2 (Chinese)	ThizOffice 3.0 (Chinese)	StarSuite 6.0 (Chinese)	Microsoft Office XP (Chinese)
5.1	Loading the word processing program - word processor	About 30 sec	About 30 sec	About 30 sec	About 10 Sec
5.2	Spell check of a particular word	About 1 sec	About 1 sec	About 1 sec	About 1 sec
5.3	Formatting a one-page document (Change the right margin)	About 1 sec	About 1 sec	About 1 sec	About 1 sec

#### b) Under Windows 2000

No.	Function	KaiOffice 6.2 (Chinese)	ThizOffice 3.0 (Chinese)	StarSuite 6.0 (Chinese)	Microsoft Office XP (Chinese)
5.4	Loading the word processing program - word processor	About 5 sec	About 5 sec	About 5 sec	About 4 sec
5.5	Spell check of a particular word	About 1 sec	About 1 sec	About 1 sec	About 1 sec
5.6	Formatting a one-page document (Change the right margin)	About 1 sec	About 1 sec	About 1 sec	About 1 sec

## Appendix IV

### Document Compatibility Test (Details)

#### a) Writer (word processor) specific

Step	Case	Observation
1	A document is prepared using Microsoft Office XP under Windows 2000	The 1-page document contains Simplified Chinese characters of different fonts, colours and sizes. It also contains pictures, tables, some page formatting features like header and footer, and different page orientations.
1.1	Open the document with Writer under Windows 2000	<ul style="list-style-type: none"> <li>Overall page format settings including page margins, indents, headers and footers were slightly distorted from the original;</li> <li>Page orientation setting (i.e. landscape / portrait) was lost;</li> <li>Same Simplified Chinese characters were kept;</li> <li>Same font, size and colour were kept.</li> </ul>
1.2	Open the document with Writer under Windows NT	<ul style="list-style-type: none"> <li>In addition to the above results, some Simplified Chinese characters could not be displayed in default font (Ming);</li> <li>These characters could be correctly displayed after switching manually to the font (Song).</li> </ul>
2	A more complex document is prepared using Microsoft Office XP under Windows 2000	The document has 99 pages. It is an English report with a cover page and a table of content. Each page consists of a header and a footer, some footnotes and a different page style like headings and body.
2.1	Open the document with Writer under Windows 2000	<ul style="list-style-type: none"> <li>Overall page format setting was slightly distorted from the original but most page alignment related to formatting was retained;</li> <li>Header and footer formatting were different from the original;</li> <li>The bullet point formats did not match with those of the original;</li> <li>Some page numberings, section numberings and the respective numberings in the Table of Contents did not match the original.</li> </ul>
2.2	Open the document with Writer under Windows NT	<ul style="list-style-type: none"> <li>Same result as in Step 2.1.</li> </ul>

**b) Calc (Spreadsheet) specific**

Step	Case	Observation
3	A simple document is prepared using Microsoft Office XP under Windows 2000	A simple Excel worksheet is prepared using Microsoft Office XP. It comprises Chinese characters, some simple formulae, some data references between pages and some presentation graphs.
3.1	Open the document with Calc under Windows 2000	<ul style="list-style-type: none"><li>● Overall appearance matched the original document;</li><li>● Formulae were kept.</li></ul>
3.2	Open the document with Calc under Windows NT	<ul style="list-style-type: none"><li>● Same result as in Step 3.1.</li></ul>

**c) Impress (Presentation software) specific**

Step	Case	Observation
4	A document is prepared using Microsoft Office XP under Windows 2000	A PowerPoint document is prepared. It comprises English words with some animations and buttons.
4.1	Open the document with Impress under Windows 2000	<ul style="list-style-type: none"><li>● Overall appearance matched the original document;</li><li>● Some animations were lost;</li><li>● User defined button in the document became a bitmap graphic without the intended function.</li></ul>
4.2	Open the document with Impress under Windows NT	<ul style="list-style-type: none"><li>● Same result as in Step 4.1.</li></ul>