OpenOffice.org 2.2
Part 1 – Writer and Calc

Jon Jermey - 2246 words

I have been a Microsoft supporter for many years, and I firmly believe that without them personal computing would be at least five years behind. But I'm feeling a little disillusioned about their current policies. Programs that need endless security patches; unannounced remote-control reboots of unattended PCs; 'upgrades' which pander to the paranoia of big media companies; attacking the competition with litigation – these are signs of an unhealthy company. The last straw came for me when I was having difficulty running Excel 2000. 'Click here for advice on how to deal with this problem' said the Microsoft box. So I did: and here is the online advice Microsoft gave me: 'Consider upgrading'. *Our old product doesn't work as advertised, so please buy our new one.* I don't think so. Especially when replacement systems are available for free.

So I am upgrading – but not to Microsoft. I've already mentioned the OpenOffice suite (officially OpenOffice.org 2.2) several times in articles on Linux and Corel Office, so I decided it was time to fire up the Windows version and give it a whirl. It's a fairly hefty download from www.openoffice.org at just over 100 Mb, but you can often find it on a magazine cover disk. You can also bid on an OpenOffice.org CD at eBay Australia or order it from Linux System Labs Australia (www.lsl.com.au) for $22.50.

Like Linux and other open systems programs, OpenOffice is produced and maintained by a consortium of volunteers. New releases and upgrades appear at regular intervals, and you can choose to check for and install the latest modifications via the Internet. While OpenOffice is clearly modelled on Microsoft Office it has the advantage of having been created from the ground up as a modern and integrated program, while Microsoft has had to combine several disparate programs and gradually tack on new features while maintaining backward compatibility. On the other hand Microsoft has the advantage of decades spent dealing with customer requests and complaints; OpenOffice has yet to learn exactly what their customers require.

OpenOffice comes in six modules: Writer, Math, Impress, Draw, Base and Calc. In this article I will describe the word processing module, Writer, and the spreadsheet module Calc. A later article will look at the remaining modules and how they all integrate. A complete comparison would take a book; I'll just focus on the features that struck me as a user in transition.

OpenOffice Writer

Writer looks a lot like Word at first; in fact you could squint a little and fail to spot that it was a different program. The main menu is exactly the same and there are two toolbars, Standard and Formatting, which contain most of the same buttons as their Word equivalents. The first important differences appear in the View toolbar, where

the Normal and Outline views are both missing. As a fan of the Normal view, I found this a little hard to take. But working in the equivalent of Print Layout view became more natural after a while. As an occasional user of Outline view, it's going to be hard for me to part with that too. There is, however, a Web layout view for working on HTML files.

Writing text is pretty straightforward. Unrecognised words appear with a wavy red underline, and right-clicking on them brings up an option to correct them or to add them to a dictionary – not just one as in Word, but your choice of several. There is a thesaurus tool but no grammar checking. An optional autocorrect feature picks up common errors like 'teh' and a tip feature alerts you with an icon in the corner when autocorrect or other automatic changes are triggered. One Writer feature not available in Word is autocomplete – if I start typing a long word Writer guesses what the end will be and shows it in a highlighted block on the screen. Pressing Tab (or another specified key) completes the word automatically – a very attractive feature for lazy typists. Smart quotes and automatic hyperlinking are supported. Like Word, Writer can be set to automatically save a document at specified intervals.

Selecting text and moving the cursor is a little quirky by Word standards. There is no selection area at the left of the screen and no way to select a single line other than by dragging down alongside it. Double-clicking, triple-clicking and quadruple-clicking work as in Word. Ctrl-Up or Ctrl-Down, instead of moving the cursor, moves a whole paragraph up and down – which practically guarantees nasty surprises for new users. And while there is a shortcut button available to *select* to the end of a paragraph, there doesn't appear to be an easy way to *move* there. Drag-and-drop editing works, but Writer doesn't always add back in the correct spaces between words and after full stops, as Word does.

A Navigation panel makes it relatively easy to find one's way around large documents, and Writer includes the same 'browse' options at the bottom of the vertical scroll bar that Word does.

Formatting works as expected. Users can define styles for characters and paragraphs, which appear in a small pop-up box rather than the intrusive side panel of Word. Styles can be categorised – list styles, heading styles, etc. – and modified using the simple approach found in earlier versions of Word. Page setup is under the Format menu where it belongs, rather than under File as in Word, and includes columns, header and footer options, and footnote positioning. Text can be highlighted in a wider range of colours than Word.

There are about a dozen dynamic document templates (called 'wizards'), including one designed to convert Word or Excel documents. Printing is pretty much as in Word but with the advantage of a built-in PDF printer driver. Tables are similar to those in Word but include a point-and-click formula builder as in Excel.

Complex Search and Replace operations in Writer are a little more cumbersome than in Word, but it allows for full regular expression searches, which Word does not. For instance, it can search for 'and' or 'but' and find all occurrences of either word at once. Format searching is also supported, but there is no option to select all entries when found.

Writer supports bookmarks and other embedded fields, including mail merge integration with data source documents. Unlike Word, document information fields (e.g. number of words) are updated automatically as the document is edited – a nice touch which has been on my WP wishlist for some time.

Unfortunately OpenOffice does not support Word macros, which are written in Visual Basic for Applications (VBA), and these have to be re-created in OpenOffice's Basic version, which is powerful and comprehensive, but not very user-friendly. As a moderately experienced VBA user, I felt that it would take me a while to get used to it, especially as the OpenOffice Basic editor lacks the useful automatic indents, pop-up lists and error checks found in VBA. This puts a substantial barrier in the way of anyone currently using pre-written Word macros, including commercial packages. Any developer who can come up with a macro conversion facility from VBA to OpenOffice Basic is going to find themselves very popular.

Here's an example of a OpenOffice Basic macro which removes an old bookmark called 'here', adds it back in at the current location and saves the file. Comments and gaps have been removed to save space. It's not quite impenetrable, but it does take a bit of decoding.

```
sub BookmarkHere
dim document   as object
dim dispatcher as object
document   = ThisComponent.CurrentController.Frame
dispatcher = createUnoService("com.sun.star.frame.DispatchHelper")
dim args1(0) as new com.sun.star.beans.PropertyValue
args1(0).Name = "Bookmark"
args1(0).Value = "here"
dispatcher.executeDispatch(document, ".uno:DeleteBookmark", "", 0,
args1())
dim args2(0) as new com.sun.star.beans.PropertyValue
args2(0).Name = "Bookmark"
args2(0).Value = "here"
dispatcher.executeDispatch(document, ".uno:InsertBookmark", "", 0,
args2())
dispatcher.executeDispatch(document, ".uno:Save", "", 0, Array())
end sub
```

Simple macros can be recorded, as in Word, and then edited if required. Some pre-written macros are available from the web. OpenOffice also supports macros written in Python, JavaScript and a Java-based language called BeanShell.

Macros and other commands can be added to toolbars and menus, and these can be customised with the user's own icons and names as in Word. Users can also define their own keyboard shortcuts, overwriting the default settings if necessary, though the dialog box has frustratingly narrow panels for what should be a wide display.

Fans of Microsoft Clip Art can stop reading now. The graphics gallery included with OpenOffice is – like that with Corel Office – embarrassingly small. Users can add their own pictures, but only one directory at a time, and there is no keyword search option. Anyone intending to use OpenOffice for DTP will need to supplement it with commercial graphics software of some kind.

Document review is available, but only as a comparison between two documents or two versions of the same document. Tracking of changes as they occur is not supported, and there is no Reviewing toolbar. Text can be marked up for inclusion in an index or table of contents, as in Word.

The Help system for Writer is standard for a modern program, which is to say fairly poor, with a tendency to focus on the superficial and obvious rather than explaining the underlying issues. It also copies Word's bad habits by listing its Find results in an arbitrary order rather than alphabetically like Corel. Most users should know by now that they will either have to buy a big textbook, or spend some time Googling, to resolve any serious applications questions.

Writer will open and save documents in an impressive range of formats, including text, Word, Excel, HTML, WordPerfect, XML, Pocket Word (for Pocket PCs) and Palm PDB.

[Insert image about here: OpenOffice Writer]

Writer has avoided some – though not all – of Word's major failings, and added some nice touches of its own. It provides a convenient and user-friendly way for most Word users to put their skills straight to work. The macro issue is going to be a problem for some people, but the open systems approach means that as new macros are developed they can easily be shared with the user community world-wide. For a voluntary project lacking Microsoft's deep pockets, it is an astonishing achievement. Ordinary users should be able to transfer across with no difficulties; power Word users will find it more difficult to adapt.

OpenOffice Calc

There is much more agreement on what constitutes a good spreadsheet program than a good word processor, and as Excel is the front-runner in this area it's not surprising that OpenOffice have followed it as closely as possible with their own application. The screen is very Excel-ish and the only operational difference I noticed at first was that drag and drop editing didn't work. I was able to change this through the Navigator, however, and after that it was plain sailing, though right-click and drag for Autofill remained unavailable.

Another difference emerged when I created a macro; unlike the clumsy Excel system of storing them in a hidden workbook called 'Private.XLS', all OpenOffice macros for any module are stored in the same place and should be available throughout the entire package. What happens when you run a word processing macro in a spreadsheet, or vice versa? Well, it does its best and simply ignores instructions it can't understand.

Entering and formatting text and naming ranges is fairly standard. Backspace removes a cell entry, but the Delete key brings up a dialog box where you can specify what attributes of the cell you want to delete. I found this annoying; others may consider it useful.

[Insert image about here: OpenOffice Calc]

Formulas and functions are identical to those in Excel and – unlike Lotus – Calc uses the same date system, so that date and time cells can be transferred between the programs with no risk of data loss.

Charting is more or less identical to Excel, with the exception that charts cannot occupy a worksheet of their own but must be embedded in a table sheet. There is an option to review changes and an array feature, which should please the one in a thousand Excel users who actually know about it. Like Writer, Calc has an impressive range of output formats.

What was missing? I couldn't find any equivalents for the Excel Text to Columns feature, allowing text data to be broken down into columns. or for the Data Table. There was no way to open or save a plain text file. The macro, graphics and Help systems share the same systemic shortcomings as Writer. Otherwise this is a near-perfect Excel clone.

Calc is an excellent job of reverse engineering, missing a few bits and pieces that will no doubt be added in later versions, but without that spark of inspiration and experimentation to be found in Writer. The price is right but there is nothing original about it. It would be a brave person indeed who thought they could make a better spreadsheet than Excel, but it's a shame to see so many smart designers give up without a fight.

Conclusion

In my next article I will look at the remaining four applications in the suite, Draw, Impress, Math and Base, and add some general conclusions about the package as a whole.

OpenOffice.org 2.2
Part 2 – Draw, Impress, Math and Base

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In a previous article I described Writer and Calc, the word processing and spreadsheet modules from the free OpenOffice suite. In this article I will describe the remaining four applications and draw some conclusions about the suite as a whole.

OpenOffice Draw

Microsoft Office's vector drawing features can be called up from within its applications programs, largely via the Drawing toolbar. The same is true of OpenOffice, but they have also chosen to make more powerful drawing tools available through this separate application. The closest comparison would be to Microsoft Visio, but as this is not available in standard Office packages, users can think of Draw as a handy bonus application.

The Draw screen shows a full page view at the left which can be turned off, and a larger view in the centre on which the user can zoom in and out. Drawing tools in the toolbar across the bottom include straight lines, freehand lines, polygons and 'smart shapes' with extra handles that allow their settings to be modified. For instance, a rectangle shape can be shifted from sharp corners to rounded corners and back again. There is the same rather limited set of shapes as Microsoft equivalents, and it would have been nice to see some new ones – or better still some generic polygon or star drawing tools like the ones in Illustrator. These shouldn't be too hard to add – in fact any competent programmer should be able to do it, using the built-in macro system. Alternatively, effective but slightly cumbersome versions of these tools can be downloaded from the Web.

Once drawn, the shapes can be moved, resized, rotated, pulled apart and edited. Individual points can be added and removed, corners converted to curves or vice versa, and shapes and lines grouped together. Existing clip art in vector form can be brought in and broken apart into its components for editing. Bezier handles make it easy to manipulate curves. Finished shapes can be converted to curves, polygons or bitmaps.

Text can be converted into curves for manipulation, and objects can include formatted text extending over several lines. The Fontwork toolbar doubles for the older-style Microsoft WordArt.

Format Area allows users to change the colour of their shapes, make them semi-transparent, give them gradients between one colour and another, or fill them in with a tiled bitmap or a pattern of their own design. Patterns and gradients can be named and saved for later use. A particular set of formatting attributes can be saved as a 'graphics

style' and re-used on other objects later – a newish Illustrator feature which I hadn't expected to find in a free program.

[Insert image about here: OpenOffice Draw]

A feature quite new to me was the ability to set 'glue points' – points anywhere within a shape where connecting lines will 'snap' and stay fixed as the shape moves. Objects can also be made to snap together or to snap to an underlying grid, and dimension lines can be drawn to show the size of objects, although I couldn't find a way to make them adjust to scale – e.g. showing a 4 cm line as '400 metres' on a plan.

A small number of 3D objects are available, and flat objects can be extruded or rotated to produce more three-dimensional effects. Double-clicking on a three-dimensional object selects it for rotation through any dimension. A 3D Settings toolbar like the one in MS-Office allows users to change extrusion, perspective and lighting effects.

Draw also uses layers, though these are fairly basic: a single layer can be locked, hidden or blocked from printing, but all objects on any unlocked visible layer are accessible with a mouse click, and there are no visual clues as to what layer you are on. A Master page is used for items which appear on all layers.

A single Draw file can contain several 'slides' – entirely separate images – which come up as a slide show when the image is saved in HTML. Other HTML-related options include hyperlinking from shapes, form fields, floating frames and animated text – scrolling, changing fonts or blinking within boxes or other shapes.

Unlike Calc, Draw shows the advantage of not working to a fixed model. OpenOffice has been able to duplicate the functions of the Microsoft Draw module and enhance them with many useful additions of its own. It would benefit from a wider variety of basic shapes, but as it stands Draw is an worthy entry in the field of low-to-middle range vector drawing programs.

OpenOffice Impress

We are back to the Calc approach here of duplicating Microsoft features – the target this time being the presentation package PowerPoint. Obvious differences between the programs are minimal, with the same kind of screen display, right down to the options panel at the right. There are Master Pages, a wide selection of slide transitions, and a range of custom animations that can be applied to objects and text on slides. The same set of layouts is available and slides can be copied and moved around in Slide Sorter view, as they can in PowerPoint. One small difference appears in Outline view – text on slides can be dragged up and down, but not left and right as in PowerPoint; promotion or demotion must be done through toolbar buttons.

Slide shows can be timed to run automatically or triggered by the presenter. Unlike PowerPoint, Impress doesn't allow the presenter to 'write' on the slides while they are on display, but in-show navigation is available, as is the ability to temporarily hide the show and display a black or white screen. Sounds can be triggered by slide transitions or animations.

[Insert image about here: OpenOffice Impress]

Slides can be hidden, and objects on slides can be hyperlinked to other slides, files or websites, though not quite as easily as in PowerPoint. Graphic bullets are not supported, and the shortage of clipart is particularly noticeable. If only one could plug the Microsoft Clip Gallery into programs like these! As it is, users who have Word or Excel can use the Clip Gallery there and then copy and paste the resulting image over to Impress or Draw.

Also conspicuous by its absence is the enormous collection of slide template designs found in PowerPoint. Some more of these can be downloaded from the Web; others can be imported from existing .PPT files, which Impress reads and writes.

Impress shares most of its graphics features with Draw. Macros should work in Impress and vice versa, though neither supports macro recording. With the addition of a few third-party templates, most current Microsoft users will find that Impress meets their requirements just as well as PowerPoint does.

OpenOffice Math

This is a handy module for creating math formulas. As far as I could tell it did everything it was supposed to, producing complex formulas via a simple linear code, but it was hard to see why it requires an independent application of its own. Most users, I suspect, will call it up from within Writer or Impress via the Insert/Object menu, as is done with the Microsoft Equation module on which it is based.

OpenOffice Base

Spreadsheets and word processor programs are largely interchangeable, but database management systems are not. Creating a relational database management system is a major programming project that has to be done properly from the word go. A faulty database system can suffer thousands of dollars worth of damage in the time it takes to press a button. So writing a good new DBMS is hard; and persuading people to switch from a known product like Access to an untried one like Base is going to be a Herculean task. For myself I can't see why anyone successfully using Access should switch to Base: but new users may find that it meets their needs. There's no reason to think it will fail, but I would want to see any DBMS running successfully for several weeks at least before I trusted my important business data to it.

[Insert image about here: OpenOffice Base, showing Relationships and Form Design windows]

The similarity to the Microsoft product is less marked than with the other programs. There are four options at the left: Tables, Queries, Forms and Reports – no Pages, Macros or Modules as in Access, though Macros are available through the Tools menu. Tables can be set up in a number of ways and there are fairly extensive templates from which to borrow and adapt fields. Field types cover all the usual options; autonumber, integers, text, date/time, binary and object – e.g. graphics. Fields can be assigned default values and allocated specific formats. Base can connect to and work with existing Access database files and Excel, Calc or Lotus spreadsheet tables.

Queries are set up in the same way as in Access, by working through a wizard or by directly modifying settings on the Query Design screen. Relations between tables can be set up beforehand or created within Query Design. Query output is shown on the same screen as the design itself, making debugging very easy. Having created a query, however, there didn't seem to be any way to save the output as a separate file.

Base Forms and reports are created and edited in Writer with the aid of a special Form Design toolbar. They can include subforms and subreports and allow for some pre-designed formats. I didn't see any easy way to include multiple choice lists in forms. There is a simple security system to limit user access. Base also supports SQL and can hook in to the system-level ODBC drivers, making it possible to use it on a network system or web site.

Some useful Access features are missing, but all the essentials appear to be here. As with any database system, though, potential users should test it thoroughly with their own data before making a commitment. However, for a free product Base is extremely impressive, and I would love to see it get the recognition it deserves.

OpenOffice in general

Integration between OpenOffice modules is fairly good; you can open any kind of document from within any application, and copy text material and images back and forth between Impress, Calc and Writer. An Insert/Object menu allows the user to incorporate other kinds of media like videos and music. As mentioned above, the same macros can be called up within different modules and will do their best to run whatever module you are in. Mail merge in Writer can draw on tables from Calc and Base, and as indicated, Base uses Writer as a form design system. All OpenOffice modules can export files directly to PDF, with a range of output options available.

Unlike most Microsoft Office programs, OpenOffice opens each file in a new program window: there are no 'inner windows' to be cascaded or tiled; but most people are unlikely to notice the difference.

Simple dislike of Microsoft is not a good reason to abandon MS-Office yet. There are still many things MS-Office can do that its rivals can't, especially in the fields of clip art and database management. But if you're concerned about corporate ethics, on a limited budget, interested in moving to Linux, and/or keen to fiddle around with interesting new software, then OpenOffice might repay investigation. And in a few years' time, at its current rate of growth, OpenOffice and other free open systems software may well become the rule rather than the exception.