LINUXVOICE

GROUP TEST

OFFICE SOFTWARE

Ben Everard now has an office, so sets off in search of some office software.

On Test

Libre Office

URL www.libreoffice.org
VERSION 4.3
LICENCE LGPL/MPL
As the dominant office suite for Linux, LibreOffice sets the standard.

Apache OpenOffice

URL www.openoffice.org
VERSION 4.1
LICENCE Apache
Can Apache rejuvenate this suite now it's been released from Oracle's clutches?

Calligra

URL www.calligra.org
VERSION 2.8
LICENCE GPL
Qt's main contender is getting closer to challenging the status quo.

Gnome Office

URL www.gnome.com/gnome-office
VERSION various
LICENCE GPL
Not really a suite, but a collection of applications from the Gnome project.

Kingsoft WPS

URL www.wps.com
VERSION Alpha 15
LICENCE Proprietary
A newcomer to the Linux world with an excellent interface.

Softmaker FreeOffice

URL www.freeoffice.com
VERSION 690
LICENCE Proprietary
Fast, lightweight, and with excellent document format support.

Office Suites

O ffice suite is an odd term, since it seems to assume that everyone does the same thing in an office. It obviously can't include all software that is needed by anyone in an office (after all, this author has used *Steam* in his office). Similarly, it can't be software that is only needed in an office, because for many people, word processors are only needed for personal work. It can't even be software that is used the majority of the time in an office since, many Linux Voice readers probably spend more office time using a text editor or IDE than a word processor, but that doesn't mean *Vi* should be considered part of an office suite. However, rather than there being any logic to what an office suite is, over the past 30 years, a certain consensus has built up on what to expect from one.

The core of an office suite is undoubtedly a word processor and spreadsheet. Without these, it's hard to claim that a particular bundle of software is an office include some form of visual database tool.

For the purposes of this review, we'll focus most strongly on the word processor, spreadsheet, presentation tool and diagramming software, since in our experience, these are by far the most used part of most office suites.

Good office software should have a shallow learning curve. It should be easy for a beginner to get started, yet have plenty of power for advanced users. Above all, a good office suite should make a typical office worker more productive. In other words, it shouldn't be frustrating to use – it should just get out of the way and let you do your work – and it mustn't lose your work in the event of a crash.

It should also let you collaborate with people using other software. This means it must be able to open *Microsoft Office* documents. While we may wish that this wasn't necessary and that the world used open formats, the fact is that the majority of people using office

> ## "A certain consensus has built up on what to expect from an office suite."

suite. There is generally some form of vector drawing ability (often included for its ability to create diagrams rather than pretty pictures), and a presentation tool. Beyond this, it becomes a little less standard. Some suites include email, contacts management and and calendar software. Others suites are using *Microsoft Office*. This also means that it must be able to use Open Document Format files. While these are no where near as prevalent as Microsoft's format, they are becoming more common especially now the UK government has committed to using them as standard.

LibreOffice

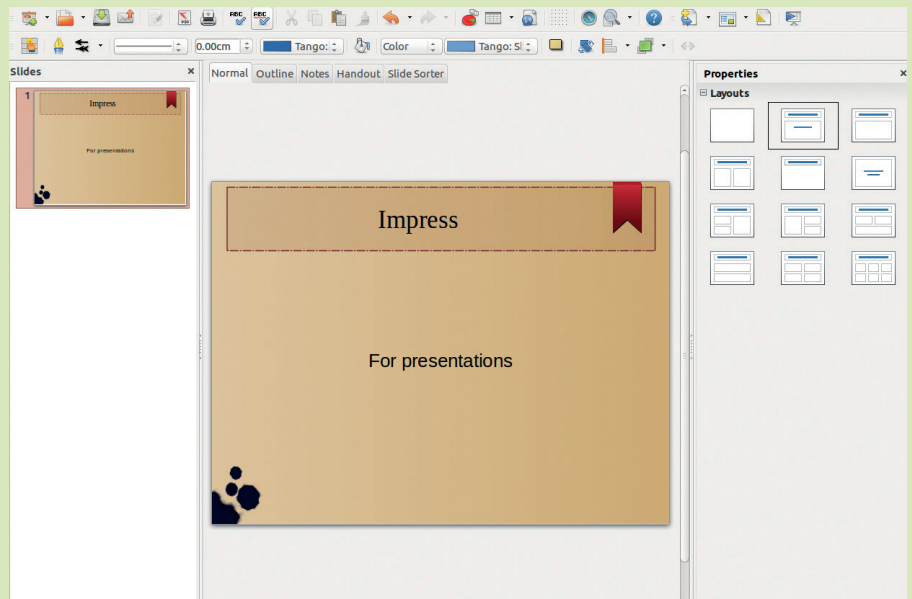## The office suite you probably already have installed.

LibreOffice is the default office suite for the vast majority of Linux distros, but it hasn't been for long. Up until the start of 2011, most distros came with *OpenOffice.org*, but *LibreOffice* forked from this due to concerns about the way the project was being led. Most distros very quickly adopted *LibreOffice* even though, at that point, the two suites were very similar.

LibreOffice consists of six applications – *Writer*, *Calc*, *Draw*, *Impress*, *Math* and *Base* – which are a word processor, spreadsheet, diagramming tool, presentation tool, maths formula editor and database respectively.

One area that *LibreOffice* has rapidly improved is support for *MS Office* files. Most *MS Office* files open, but complicated formatting can be lost. This becomes less of an issue with each new release.

Easy interface

The layout of *Writer* is based around a menubar and sidebar. Together, these give plenty of access to features, while still providing enough screen space to display the document. The sidebar is quite a new addition, and it doesn't feel like the choice of features on it is optimal just yet, as there's no clear split on what goes in the top bar and what goes in the sidebar. In fact, most controls are simply duplicated on both. The

Impress's controls are scattered about the window, and the sidebars disappear on some tabs.

tool that's improved the most under the *LibreOffice* banner is *Calc*. This is now faster, supports larger spreadsheets and has more advanced formatting options. It also supports GPU acceleration, which allows faster visualisation of real-time data. This is most commonly shown-off as a way of showing stock-market data, and will probably remain a novelty for most users. *Impress* is the one exception to the good

user interface in *LibreOffice*. It's confusing and unintuitive. It's possible to create good presentations using *Impress*, but doing so isn't a nice experience.

> **VERDICT**
> *LibreOffice* is the default office suite in most Linux distributions for a good reason.
> ★★★★☆

Apache OpenOffice

The veteran Linux office suite.

When *LibreOffice* split from *OpenOffice.org*, Oracle handed the project over to the Apache foundation, and it's now known simply as *Apache OpenOffice*.

OpenOffice is at a disadvantage compared with *LibreOffice*, because it uses a more restrictive licence than *LibreOffice* (The Apache 2 licence rather than the LGPL). This means that *LibreOffice* can take any new code from *OpenOffice*, but *OpenOffice* can't take code from *LibreOffice* (unless of course the original author agrees to license it under the Apache Licence). For example, *LibreOffice* acquired its sidebar from

OpenOffice. This flow of code will probably reduce as the two code bases diverge because it will become harder and harder to translate code across.

The biggest problem with *OpenOffice* is simply that *LibreOffice* is just a little better than it in almost every area. There's not so much different that you would immediately notice, but as you use it, you become aware of little things that just make the experience nicer. For example, *LibreOffice* uses standard *GTK* dialog boxes for opening and closing files, whereas *OpenOffice* uses custom-built ones that don't fit in with the look and feel of the rest of the desktop. *LibreOffice* has better

support for *Microsoft Office* files, and a better status bar.

OpenOffice has become a usurped product. If you find yourself with a system that has *OpenOffice*, you probably won't have too many problems, but there's little reason to actually install it if you have a choice. Unless *OpenOffice* can find a niche, it's likely to slowly fade into obscurity.

> **VERDICT**
> The once mighty office suite is struggling to find its purpose.
> ★★★☆☆

Calligra

More applications doesn't mean more productivity

There must be something about office suites that makes people want to fork them. *Calligra* split from *KOffice* in 2010 and quickly became the more popular of the two. *KOffice* stopped development shortly afterwards and now *Calligra* is the only major open source office suite based on *Qt*. Traditionally, this has meant it's the office suite of hardcore KDE distros, but perhaps we'll see it gain some popularity on LXQt, the relatively new desktop that aims to provide a fast working environment using *Qt* widgets.

Calligra is made up of *Words* (wordprocessor), *Sheets* (spreadsheet), *Stage* (presentation tool), *Flow* (diagramming tool), *Author* (ebook editor), *Karbon* (vector graphics editor), *Kexi* (a database tool), *Plan* (an organisational tool) and *BrainDump*. That's a lot of applications, but much of it will be irrelevant to most users. Good software is more about quality than quantity.

Calligra supports ODF files very well. *MS Office* formats are also supported quite well for import, but there's no option to save in the most recent formats (DOCX etc).

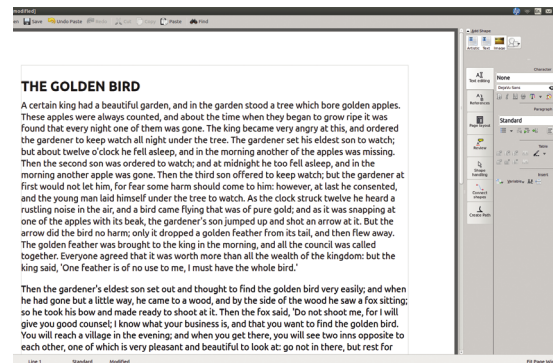Like *LibreOffice* and *OpenOffice*, *Calligra*'s interface is based on a menu bar plus sidebar. However, the menu bar is minimal, and almost all activity takes place in the sidebar. The tabs are clear and well labelled. In some ways, it's a little like a vertical version of Microsoft's ribbon interface. It can take a little while to get used to the sidebar having all of the controls if you're used to looking at the top of the screen, but once you've used it for a while, it becomes second-nature, and it makes good use of the available screen space.

The sidebar seems particularly well suited to *Words* and *Stage*, but it doesn't work as well in *Sheets*. Perhaps this is because of an inherent difference in the way users interact with a spreadsheet or perhaps the *Sheets* interface just needs a little refinement.

Words and *Sheets* both epitomise

Calligra writer keeps the features in a well-ordered sidebar, and leaves the writing area distraction-free.

> "**Once you've used the Calligra sidebar interface for a while, it becomes second nature**"

the term 'alright'. If your needs are fairly basic, both will probably fulfill them. However, neither one really shines, and power users will probably find things missing. Stability has long been a problem with *Calligra*, and it seems to be improving, but it's still an occasional issue. We would struggle to describe the interface of *Stage* (the presentation tool) in positive terms, but it is probably the least bad open source presentation option.

Krita is the shining jewel in *Calligra*'s crown. It's an excellent digital drawing tool. However, it's not for diagramming, but creating art and, as such, it falls too far outside of our definition of an office suite for us to count it here.

The other pieces of graphics software in the suite are also good. *Flow* is a great tool for creating symbols-based diagrams. It's probably the best such tool available for Linux, and it comes with a huge library of artwork to include in your diagrams. *Karbon*, on the other hand, is a more general-purpose vector graphics tool.
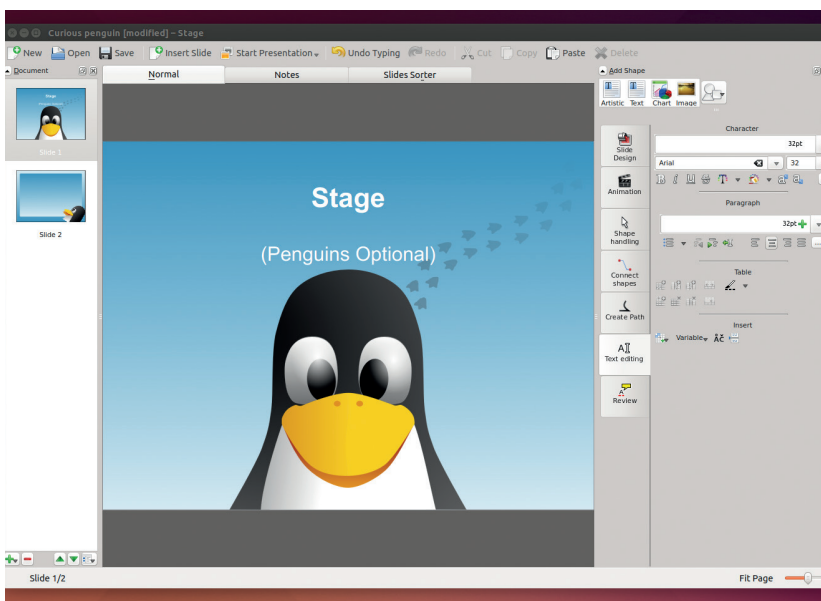
If you only have light office needs, and want to keep your desktop *Qt*-only, then *Calligra* will give you what you want. However, if you're using an office suite regularly, you'll probably find you need to move up to something a little more capable.

Calligra has the potential to be a great office suite, but it's still quite a way off that right now. New releases are coming out every six months at the moment, and, if the team can continue the current pace of development, it will be a real contender in a few years.
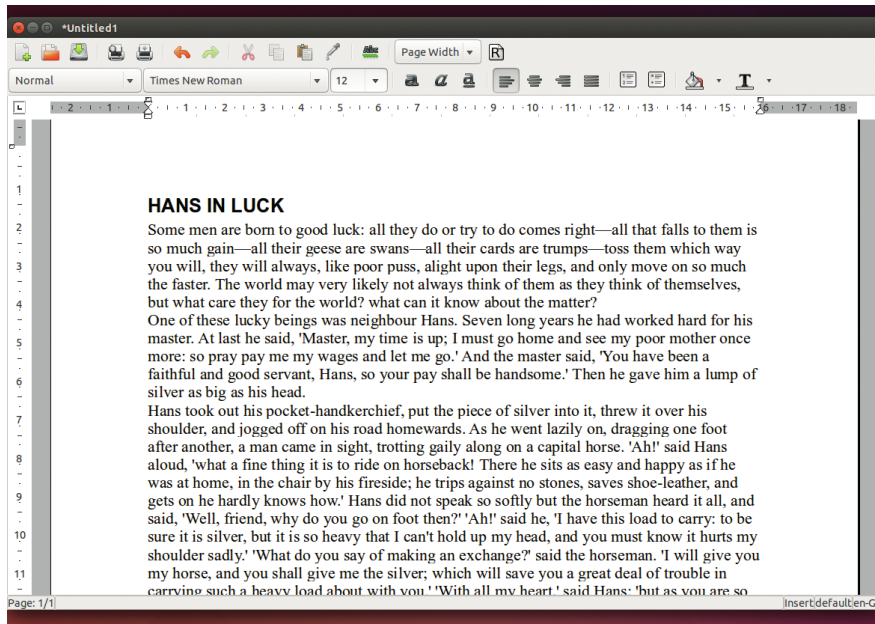

Calligra's presentation application, *Stage*, includes a few slide backgrounds aimed at Linux users including penguins (shown here) and KDE artwork.

Gnome Office

This doesn't mean a desk set up in the garden

AbiWord's simplicity is great if you don't need any complex word processing features.

There isn't actually an official Gnome Office. However, there are a selection of Gnome applications that fulfill the role usually taken by an office suite. Colloquially, these are often known as Gnome Office. This software is: *AbiWord* (word processor), *Evince* (document viewer), *Evolution* (email client), *Gnumeric* (spread sheet), *Inkscape* (vector graphics), *GnuCash* (accounting) and *Dia*.

The lack of a suite also means lack of a single vision. *AbiWord* and *Gnumeric* have carved out a niche as good tools for low-resource computers. This was particularly true a few years ago when *OpenOffice.org* was a bit of a resource-hogging snail. Now, both *Open* and *LibreOffice* have improved significantly in this respect, so *AbiWord* and *Gnumeric* don't enjoy as big an advantage as they did. However, the Gnome options will probably always be faster and have lower footprints because they don't try to include as much functionality, so they're still our go-to office programs for slim computers. Of course, the other side of this is that power users may find that they don't have everything they're used to on more heavyweight tools.

Dia (the diagramming software), hasn't aimed for low-resource usage. It's tried to carve a niche as the best diagramming software, and it's done a good job at it. It's probably the best looking of all the diagramming tools, and it's really easy to use, but it loses out to *Flow* when it comes to features – particularly the range of symbols available. Similarly, *Inkscape* is a good vector graphics tools, but isn't well suited to low-powered machines.

A mixed bag

What this all means is that someone looking for a good office suite for a low-performance computer will need to find a different graphics tool, yet someone looking for a fully-featured office suite will have to find a different word processor and spreadsheet. If you're happy to pick and choose what's best for you, that's fine.

Supposedly, Gnome's getting a presentation tool called *Ease*. However, development seems to have stalled about four years ago. In principle, you could deliver a PDF presentation using *Evince* (a suitably determined user could probably even create the presentation in *AbiWord*), but in reality, if you need to give a presentation, you're going to be better off using a different office suite.

> **VERDICT**
> A disparate collection with some real quality, but not exactly what you'd call integrated.
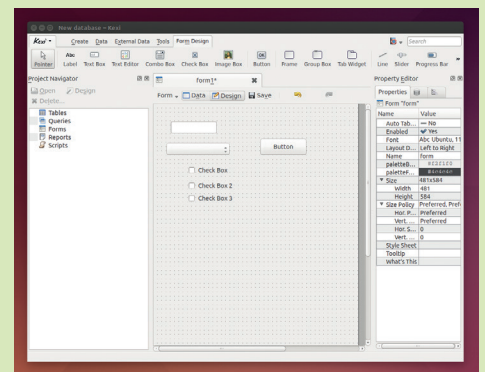> ★★★★☆

Databases

Because spreadsheets can't do everything.

We haven't included database tools in our definition of office suite reviews because (in our opinion), they're not part of regular office software. They're more like IDEs for simple data-driven software than the rest of the office suite. However, three of the suites here (*Calligra, LibreOffice* and *Gnome Office*) do include graphical database tools.

Kexi (from *Calligra*) has an excellent user interface that's easy to navigate and is just generally pleasant to use. It makes it easy to create tables, queries, reports and forms. *LibreOffice*'s *Base* has roughly similar capabilities to *Kexi*, but isn't quite as nice to work with. *Glom* from Gnome Office is the least well known of the three, and it's also the least powerful. It works for simple tasks, but doesn't have the power of *Kexi* or *Base*.

The real problem isn't with any of these programs, but with the idea behind the genre. To use any of these, you have to know how to model data in a relational database, and most people who know how to do this are more comfortable using general-purpose databases like *MariaDB* or *Postgres*. There's also the issue that these pieces of software run on the desktop of a single computer, and this isn't the most useful way of running database-driven software. Usually you want some form of networked client-server model. Something like *Drupal* is far more useful in practice, though it is more complex to use.

This leaves graphical database tools with a very small target audience. Should you find yourself a member of this exclusive group, we'd recommend *Kexi*, but only marginally.

Kexi's form editor enables you to drag and drop a form for entering information into your database.

WPS vs SoftMaker

The battle of the proprietary suites.

Kingsoft's *WPS* and Softmaker's *Free Office* are the two closed-source office suites we're tesing. Take a deep breath.

Until recently, *WPS* was known as *Kingsoft FreeOffice*, and was available for Windows. Linux support is new – so new it's only considered alpha quality – but we decided to include it both because it's interesting software, and because we think it's always worth comparing free software with proprietary software to see just how they stack up.

WPS is very popular in China, but not as well known in the English speaking world. Although the Linux version is new, it is slowly starting to attract some interest. The only major distro to support it by default is Ubuntu Kylin, which is Canonical's distro for the Chinese market. A few smaller distros, such as Makulu, also come with *WPS*. If it's not in your distro's repositories, you can get Debs and RPMs from **http://wps-community.org/download.html**.

WPS consists of a word processor, spreadsheet and presentation tool. While it doesn't have diagramming too, the drawing tools inside the word processor are the most advanced of any we've looked at here. However, because it's not a dedicated graphics tool, it doesn't have the ability to save it as an image (other than PDF). This is also true of *SoftMaker Office*.

Unlike the other office suites we've looked at, *WPS* can't open open
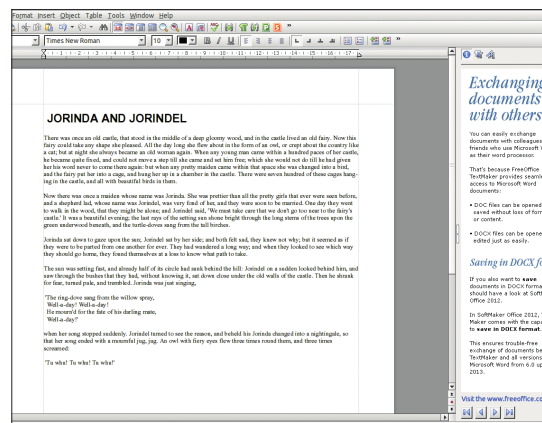
document format files. It handles Microsoft's DOC and DOCX excellently (Kingsoft claims it's 100% compatible, and though we haven't come across a document that doesn't render properly, we're still a little skeptical that it will never fail). In addition, it has its own proprietary format.

Once you get your head around it, the ribbon-style interface is nice to use, though you can switch it to a classic plain menu bar if you don't get on with the ribbon. On Windows, *WPS* comes in free and paid-for versions, and the paid version includes support for VBA macros. Currently, this isn't available on Linux, but perhaps, when it comes out of alpha, we'll finally have the ability to run these on Linux.

Proprietary polish

WPS is the nicest office suite we used in terms of user experience. However – and this is a big issue – it doesn't play that nicely with other Linux office suites, so think carefully about your document format lock-in if you use this, particularly if there's complex formatting or diagrams that may cause problems with DOCX import in other suites. Of course, if your documents are already locked into a proprietary format, this may be less of a concern.

SoftMaker has a zero-cost version (*FreeOffice*) and a paid version (*Office*) with more features. The biggest feature missing from the free version is the ability to save DOCX (and other

FreeOffice isn't the best-looking suite, but it is easy to use.

OOXML) files. This alone is enough for it to be unsuitable for most users. If you pay though, you get excellent support for *Microsoft Office* files. Both versions support ODF files for interacting with open source office suites.

SoftMaker's interface in all three applications (*Presentations*, *PlanMaker* – the spreadsheet – and *TextMaker*) looks quite dated, though is clear and easy to use. The layout seems more geared

> "**Kingsoft's WPS is the nicest office suite we used in terms of user experience.**"

towards casual users, and most of the more powerful features are hidden away in menus. As so often happens, the simple interface sits atop fast and lightweight software.

As the only paid-for option on test, *SoftMaker Office* needs something to justify its price, and the only area in which it stands out is compatibility – it rubs along very nicely indeed with *MS Office* formats (better than the open-source options) and ODT files. Whether this is enough to justify the £55 price tag will depend on how many problems you encounter with document formats.
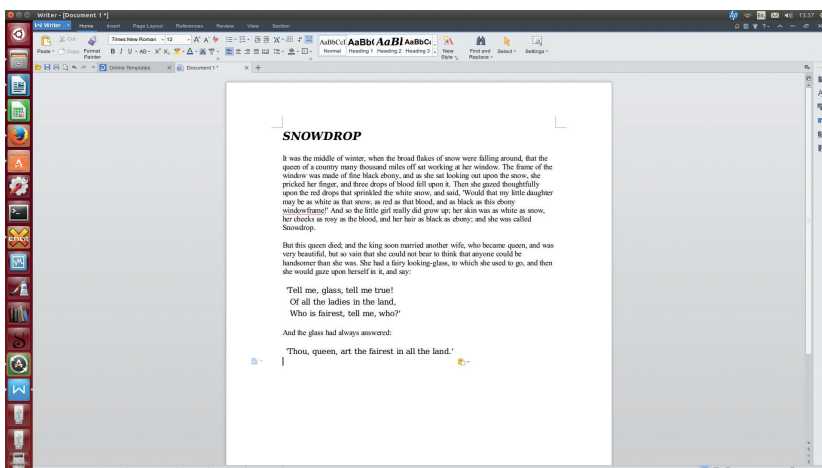

WPS will feel familiar for recent converts from *Microsoft Office*.

VERDICT

WPS: Looks good, solid DOCX support, but can't handle ODF files.
★★★★☆

SOFTMAKER: Fast and easy to use with excellent document compatibility.
★★★★☆

OUR VERDICT

Office Suites

If we were to build our favourite open source office suite, it would be *Writer* and *Calc* from *LibreOffice*, *Sheets* and *Flow* from *Calligra* and *Inkscape* from Gnome. However, this is wimping out of making a decision (and would also leave us with a horribly inconsistent user experience).

LibreOffice wins because it's the best all-rounder. Under the stewardship of The Document Foundation, it's come on leaps and bounds since the split from *OpenOffice* and shows no signs of slowing down.

WPS is great for Linux users in a Windows world. We wish everyone would switch to the open document formats for their data – perhaps one day they will – but the reality is that many people have to work alongside people using Windows. The two big concerns about *WPS* is that it's closed source and that it doesn't support ODF files. These are both very troubling for anyone who cares about freedom. However, if you're part of the minority of Linux Voice readers who aren't bothered by closed file format, it's an excellent suite, especially for anyone used to *Microsoft Office*.
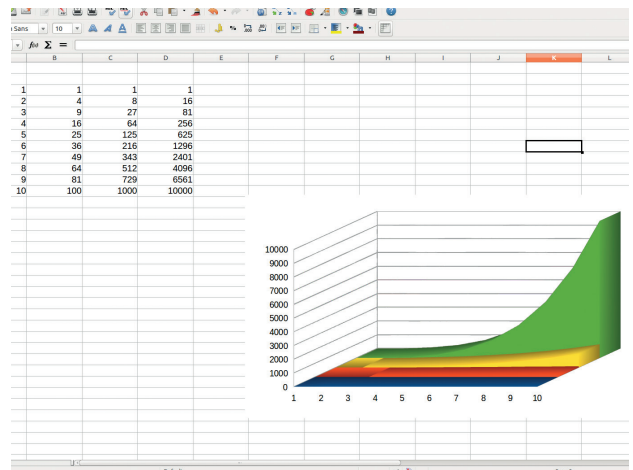
Calligra and *OpenOffice* both struggle, not because they're bad, but because they don't excel in any unique way, so there's little to recommend them over the alternatives. If you like to stick to a pure *Qt* environment, then *Calligra* does the job. If you have a love of all things *Apache*, then *OpenOffice* functions as a perfectly alright office suite. Still, given the choice, we'd recommend using something different. *Calligra*, however, is under more active development, so stands a better chance of rising up the rankings in the future.

We're a little hesitant to refer to office suites on Linux as exciting, but in the last couple of years, the choices for Linux users have improved significantly, and the pace of change is faster now than it has been for a long time. Over the next few years, things are going to get even better.

> ## "LibreOffice has come on in leaps and bounds since the split from OpenOffice."

LibreOffice's *Calc* has everything you could need in a spreadsheet (provided you don't need VBA support).

1st LibreOffice
Licence LGPL/MPL **Version** 4.3

www.libreoffice.org
An excellent standard bearer for free software, and making giant strides with every release.

2nd WPS
Licence Proprietary **Version** Alpha 15

www.wps.com
Brilliant software, but let down by the closed source and lack of ability to open ODT files.

3rd Softmaker FreeOffice
Licence Proprietary **Version** 690

www.freeoffice.com
Linux users working with lots of Microsoft Office files may find this suite is worth the money.

4th Calligra
Licence GPL **Version** 2.8

www.calligra.org
The user interface looks promising, but it needs more work before it's a serious contender.

5th Gnome
Licence GPL **Version** various

www.gnome.com/gnome-office
Some good software, but it lacks a central vision to make it a cohesive suite.

6th OpenOffice
Licence Apache **Version** 4.1

www.openoffice.org
The slow pace of development has allowed other suites to leave *OpenOffice* behind.

YOU MAY ALSO WISH TO TRY...

There's no need to use an office suite at all really. For creating documents, you could use a text editor and some form of document layout engine. Markdown is great for documentation, while *Latex* works well for more complicated stuff. True Unix lovers may contend that you can get by perfectly well without spreadsheets by using comma separated value files (CSVs), and command line tools, but we'd only recommend that for masochists. CSV files can also be handled by most databases, but again, this isn't going to be as user friendly as a spreadsheet.

True to the spirit of the age, there are also a few options in the cloud. Google Docs is the most famous of these, but Microsoft Office Live can also be useful when you've got a DOCX that just won't open properly anywhere else. For the privacy-conscious, OpenCloud also has some office facilities including the ability to do some word processing.