

# LibreOffice: Powerful, Free Document Editing

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[mmeeks](#),[#libreoffice-dev](#), <irc.freenode.net>

*“Stand at the crossroads and look; ask for the  
ancient paths, ask where the good way is, and  
walk in it, and you will find rest for your souls...” -  
Jeremiah 6:16*

# Rough overview ...



## LibreOffice

- What is it & what's going on
- Why it rocks so
- What's coming next ?
- Things like that

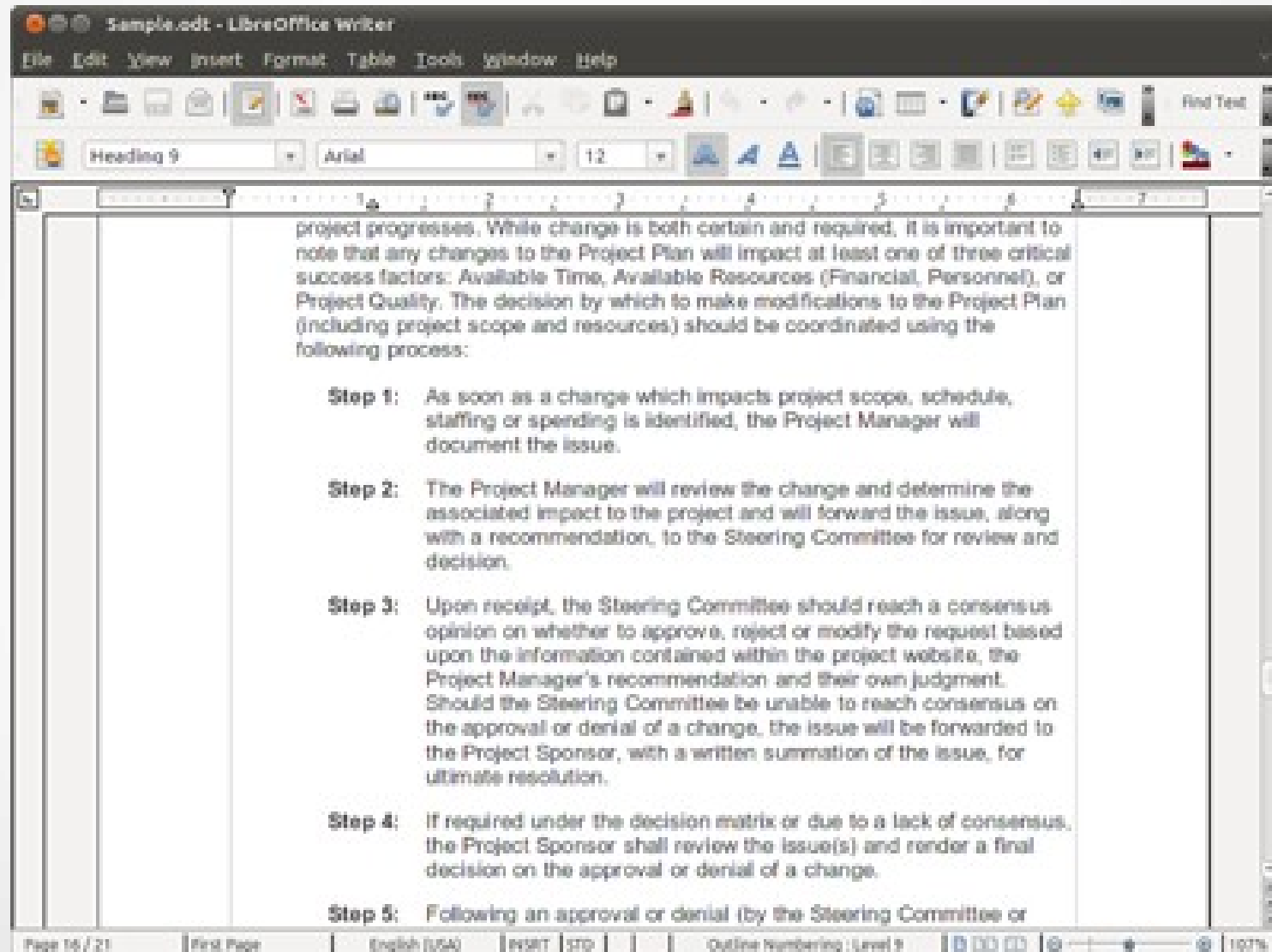
Crazy Demos & the like ...

# LibreOffice



Using the OpenDocument format as native file format

# Writer





# Calc



Sample.ods - LibreOffice Calc

File Edit View Insert Format Tools Data Window Help

Toolbar: Undo, Redo, Save, Print, Copy, Paste, Find, etc.

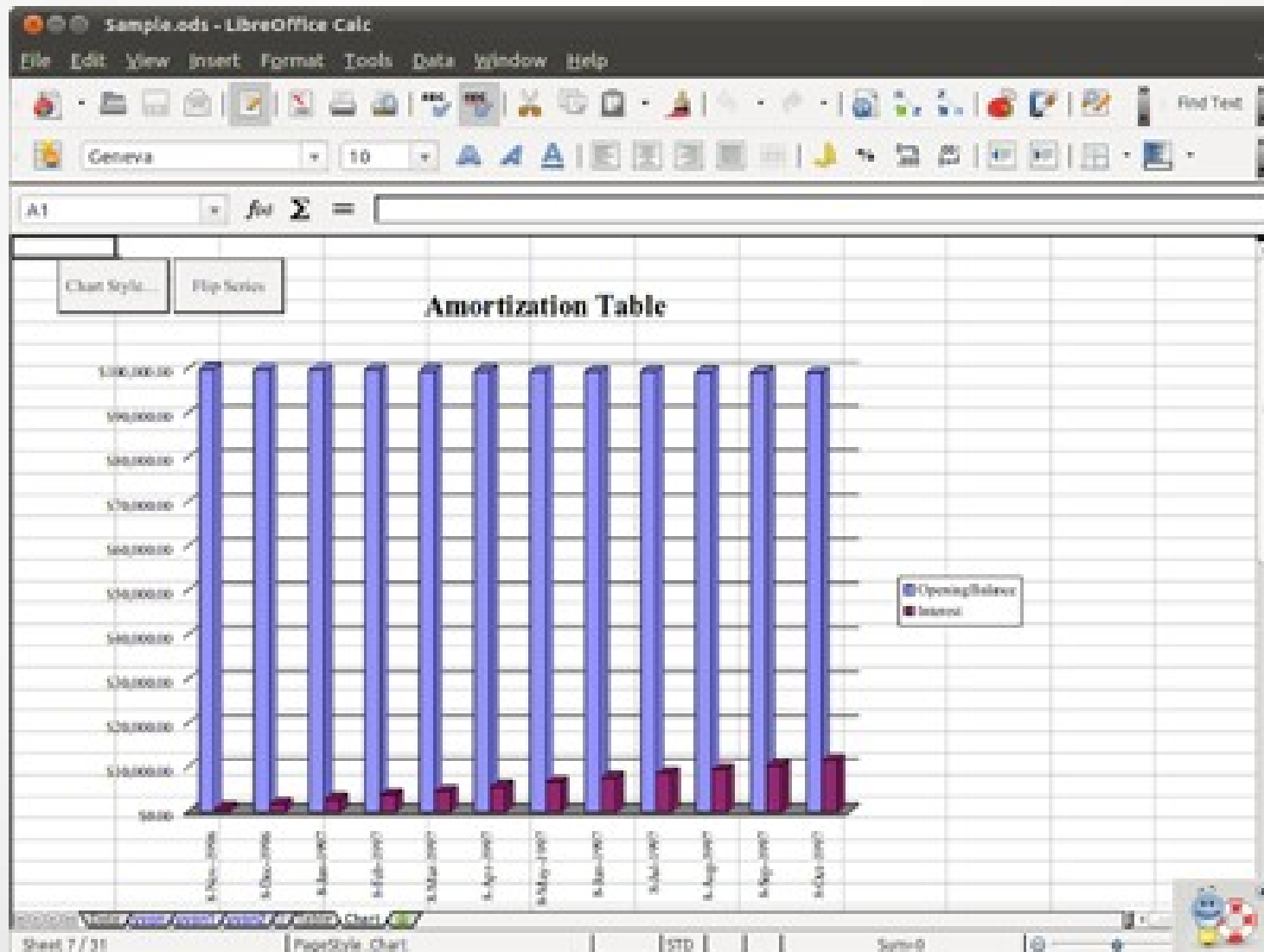
Font: Arial, 9

Formula bar: C4 =

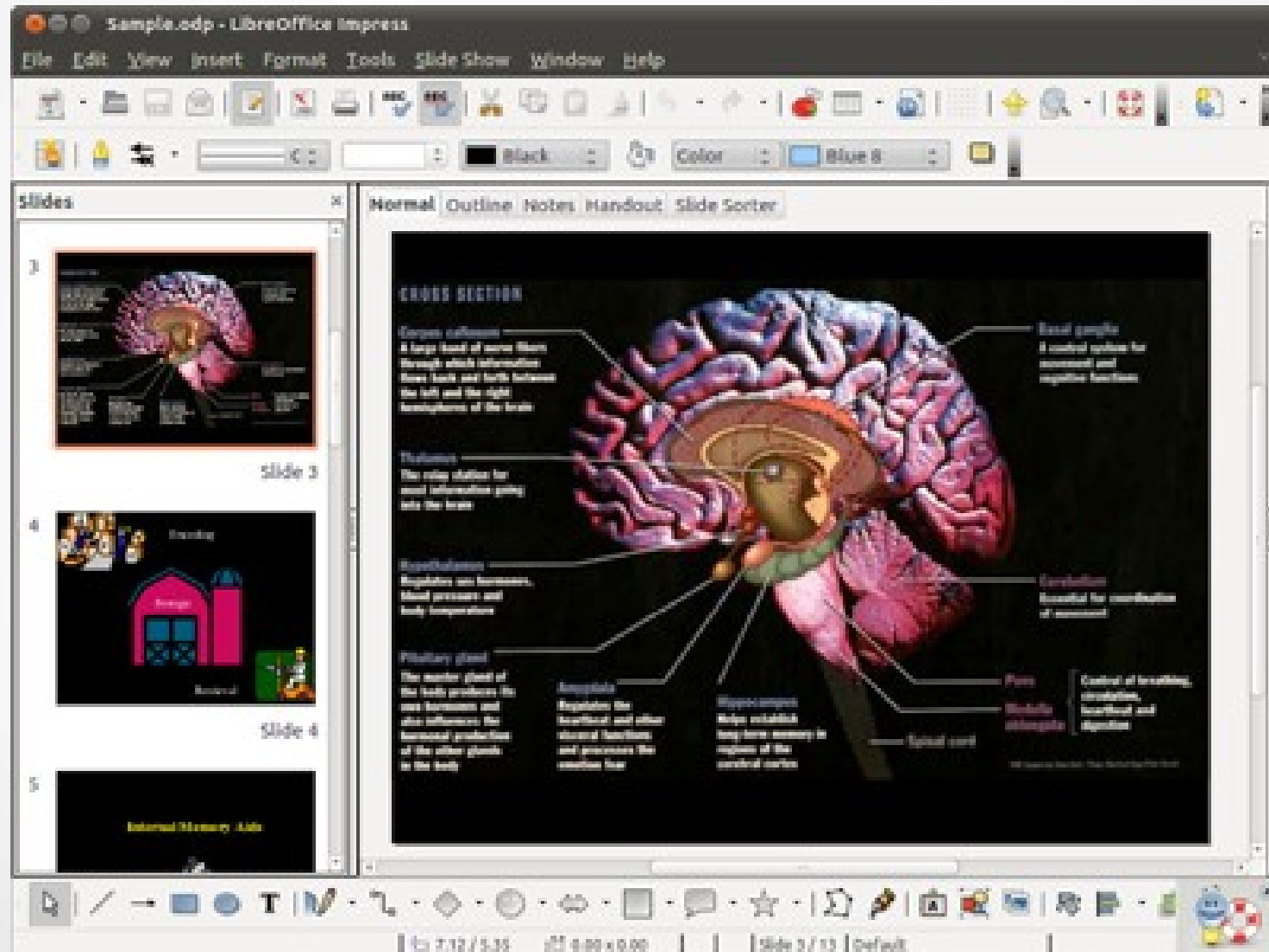
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	NPC	Hero	Battle						Losses	Transports (based on logistics)										
2		attack	Archery	6	7	8	9	10		6	2	4	6	8	10	Total Resources	Food	Lumber	Stone	Iron
3			HR	4	5	6	8	9												
4	1	40		50	12	12	16	10	6	43	36	31	27	24	22	215,000	100,000	20,000	20,000	20,000
5		125																		
6	2	60		100	100	50	25	20	6	71	59	51	44	39	34	355,000	200,000	30,000	30,000	30,000
7	3	70		150	140	135	125	120	6	240	200	171	150	133	120	1,200,000	600,000	75,000	75,000	75,000
8		125				130	125	120												
9	4	70		300	275	225	200		6	452	377	323	283	251	224	2,280,000	1,400,000	120,000	120,000	120,000
10		125				250	225	200	6											
11	5	70		1,000	900	820	420		6	758	685	570	499	443	399	3,990,000	3,000,000	180,000	180,000	180,000
12		125				590	490	300												
13	6	100						3,000	275	1,040	867	743	650	576	520	5,200,000	4,000,000	200,000	200,000	200,000
14	7									900	750	643	563	500	450	4,500,000	500,000	500,000	500,000	500,000
15	8									2,280	1,900	1,629	1,425	1,267	1,140	11,400,000	8,000,000	800,000	800,000	800,000
16	9									3,370	2,808	2,407	2,106	1,872	1,680	16,800,000	14,000,000	300,000	300,000	300,000
17	10									4,460	3,717	3,186	2,788	2,478	2,230	22,300,000	19,000,000	600,000	600,000	600,000
18	Attack																			
19																				
20																				
21																				
22																				
23																				
24																				
25																				
26																				
27																				
28																				
29																				

Sheet 1 / 12 | not | STD | Sum=0 | 100%

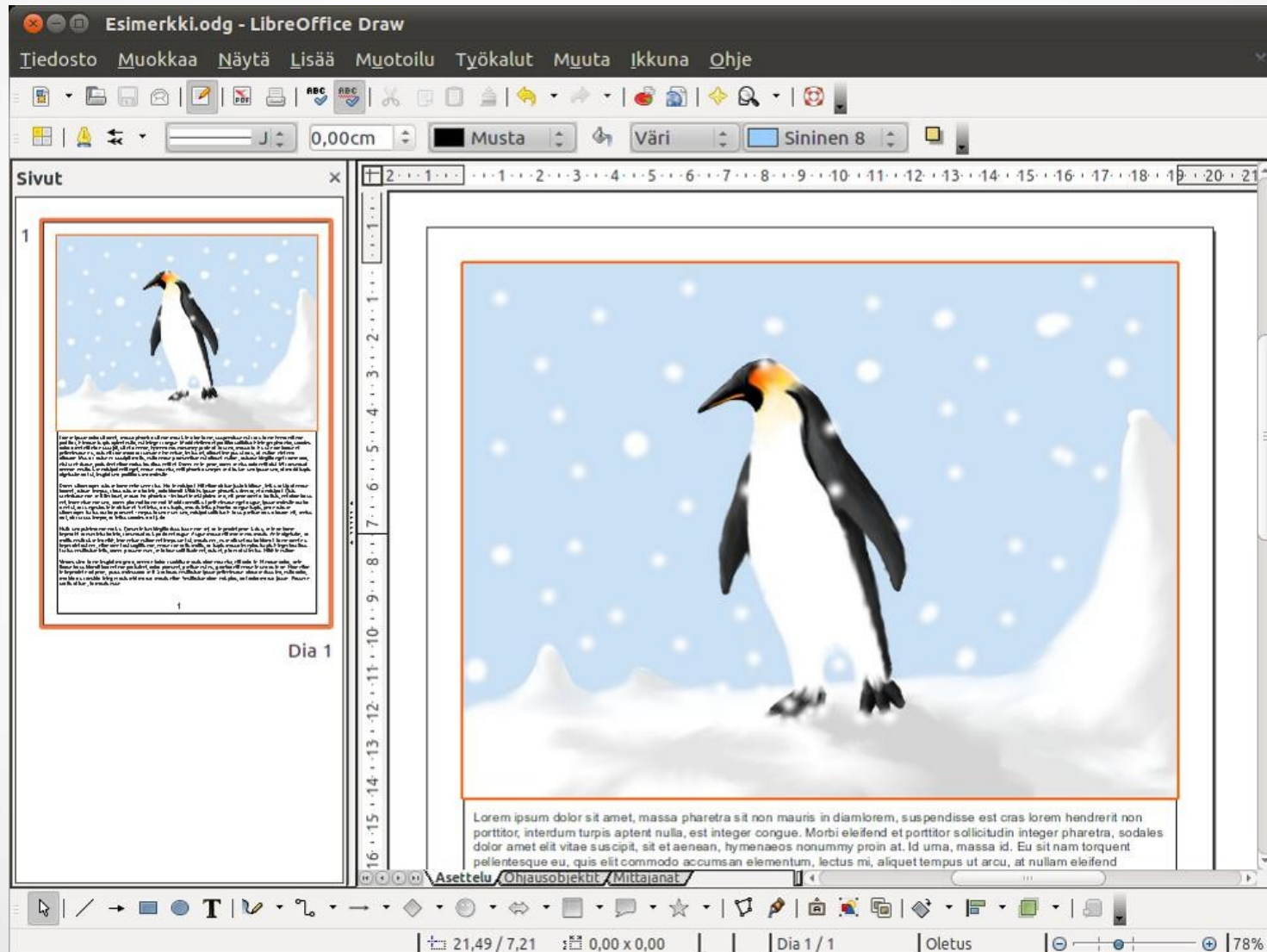
# Graph



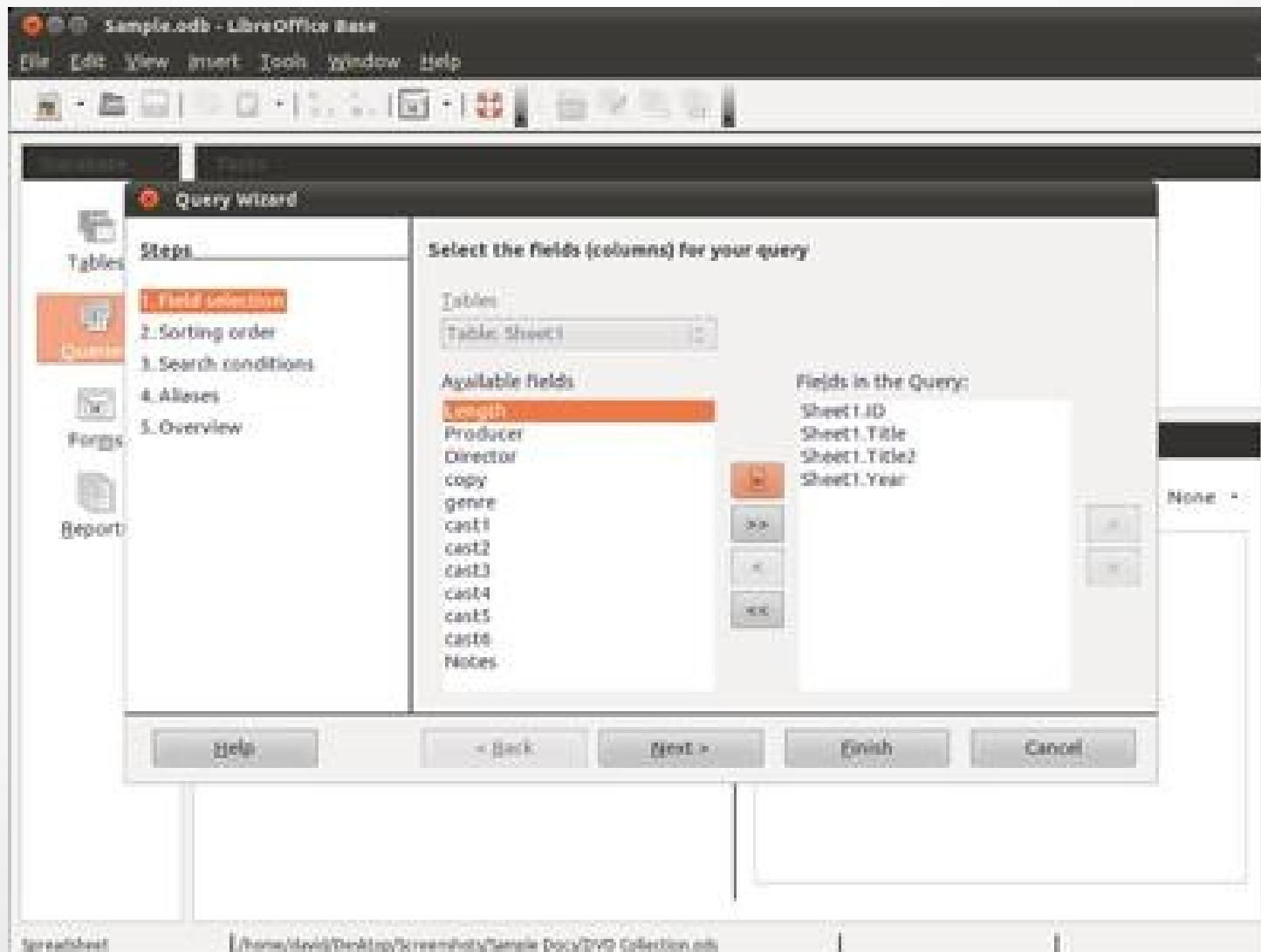
# Impress



# Draw



# Base



# Math



The screenshot shows the LibreOffice Math application window titled "Sample.odf - LibreOffice Math". The window includes a menu bar (File, Edit, View, Format, Tools, Window, Help) and a toolbar with various icons. On the left side, there is a sidebar titled "Elements" containing a list of mathematical symbols and operators such as  $\frac{a}{b}$ ,  $a+b$ ,  $f(x)$ ,  $\Sigma$ ,  $\int$ ,  $\sqrt{x}$ ,  $(x)$ , and  $\frac{a}{b}$ . The main workspace displays the equation 
$$\frac{a}{b} = \frac{b}{a+b}$$
 in a large, elegant font. Below the workspace, a text box contains the LaTeX code `{a} over {b} = {b} over {a + b}`. The status bar at the bottom shows "100%" and a small icon.

# The bits you can't see in screenshots:



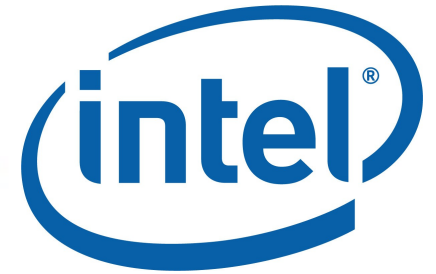
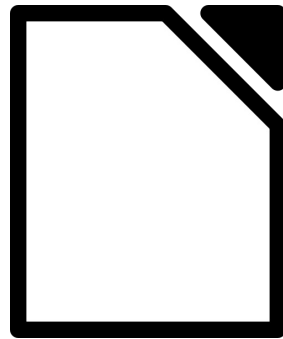
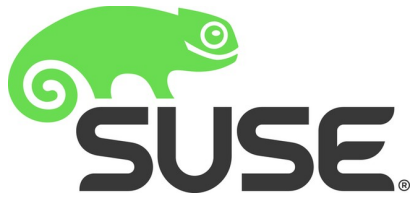
## Cross platform:

- Windows, Mac, Linux
- Android/iOS (in development)

## Interoperable

- Native Open Document Format (ODF)
- Load from tons of proprietary formats
- Load & Save to important MS binary and XML formats.

# Supporters of LibreOffice: the Advisory Board



مدينة الملك عبد العزيز  
للعلم و التقنية KACST



FREE SOFTWARE  
FOUNDATION





Development new-stuff

# It's easy to get involved: no really !

From basket case to:

*“LibreOffice is now ridiculously easy to build”*

**Karl Fogel** – (now working on *“Producing OSS”* (v2) ...)

Credit to team on gnumake port & other cleanups:

We love people to contribute changes:

- We want your first patch to be non-controversial, and easy, so you're up-to-speed and included outright:

[http://wiki.documentfoundation.org/Development/Easy\\_Hacks](http://wiki.documentfoundation.org/Development/Easy_Hacks)

Or get stuck into QA / bug triage / **'BiBisection'**

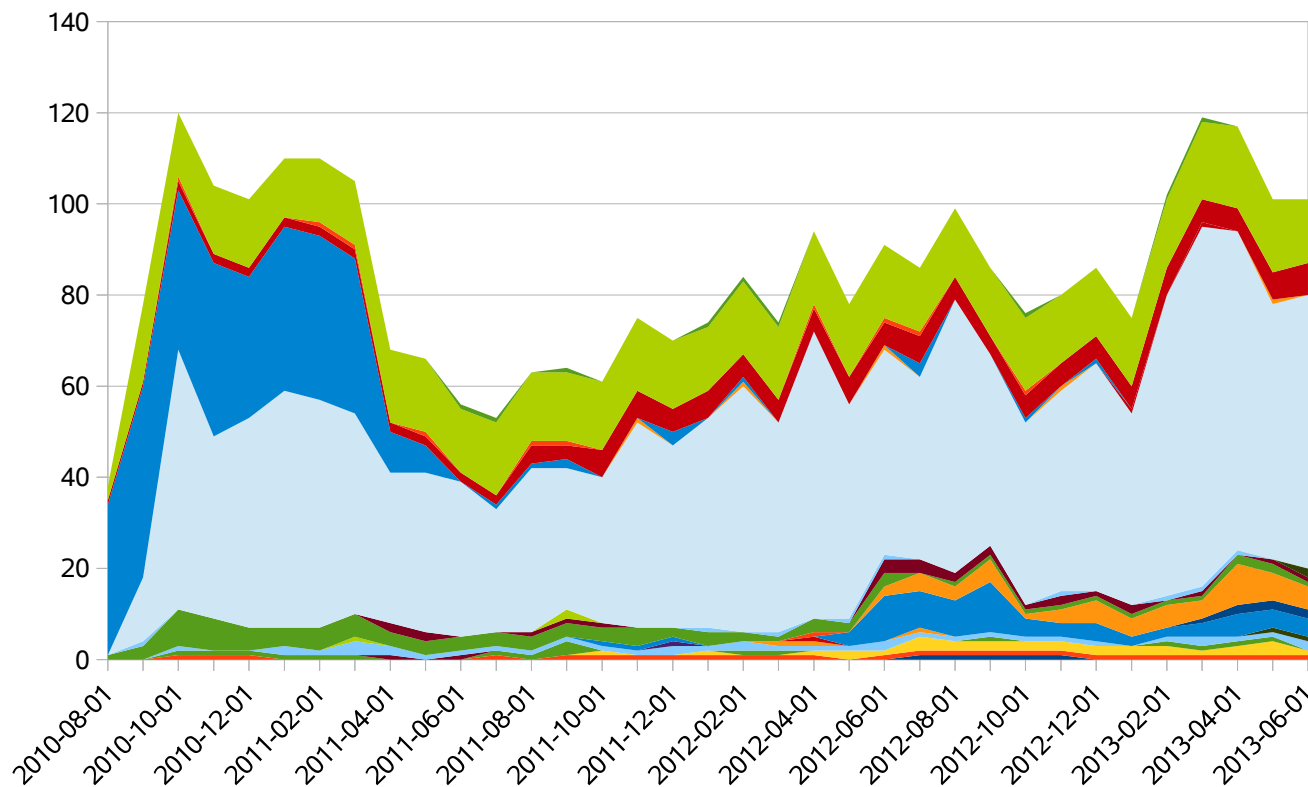
# Good company to hack with:



An extremely diverse, talented and interesting team of guys to develop with: translators, UX, docs, coders etc.

– Vast bulk of active code committers are volunteers:

Active code contributors per month



**Active Code contributors shown: ( just one part of the project ).**

- Tata Consultancy Services
- SIL
- Oracle
- Nou & Off
- Munich
- Linagora
- Known contributors
- Intel
- IBM
- Collabora
- CodeThink
- Canonical
- Assigned
- ALTA
- SUSE
- RedHat
- Openismus
- New Contributors
- MultiCoreWare
- Lanedo
- KACST
- Igalia
- Funky
- CodeWeavers
- CloudOn
- Bobiciel
- Apache Volunteer
- Aentos

# New developer training bits ...



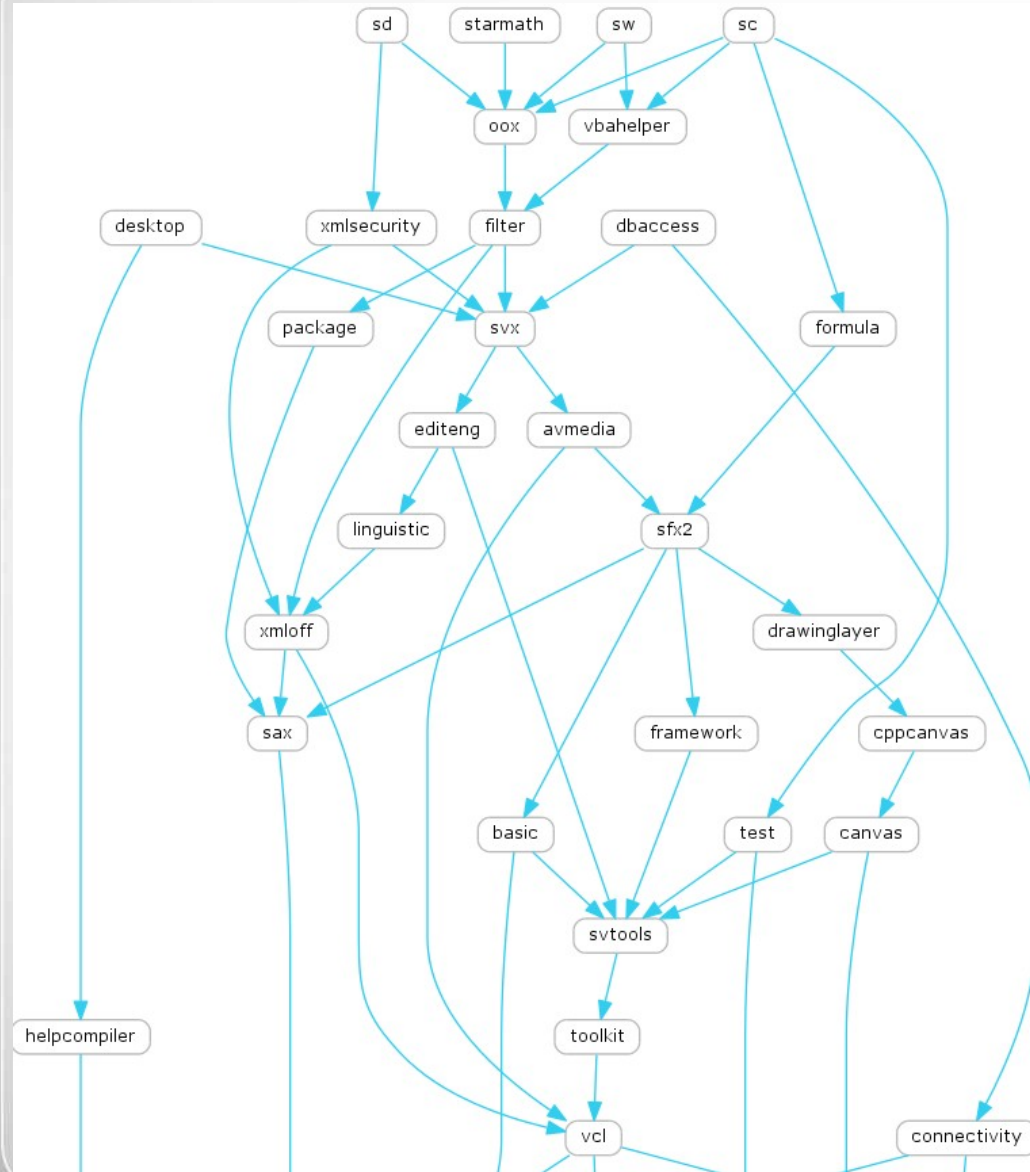
gnumake overview documentation: 'make dump-deps-png'

- Thanks to *David Ostrovsky* and *Peter Foley*

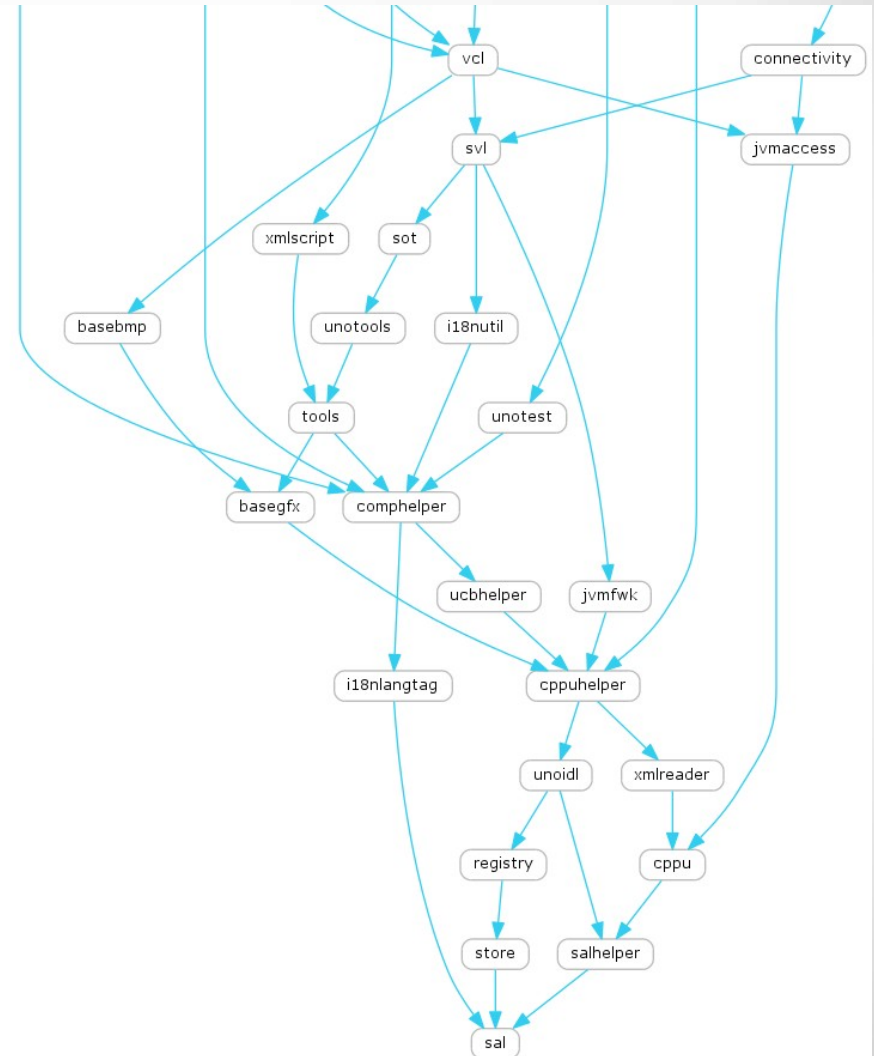
Training slideware with code overview / basics:

- Module overview:
  - <http://people.gnome.org/~michael/data/2013-07-26-libreoffice-code-structure.pdf>
- Low-level types / utilities overview:
  - <http://people.gnome.org/~michael/data/2013-07-26-libreoffice-low-level.pdf>

# A simpler view of dependencies



Built by gnumake, ignore leaf deps.





# Large, fun and growing community

Many contributors to enjoy working with:

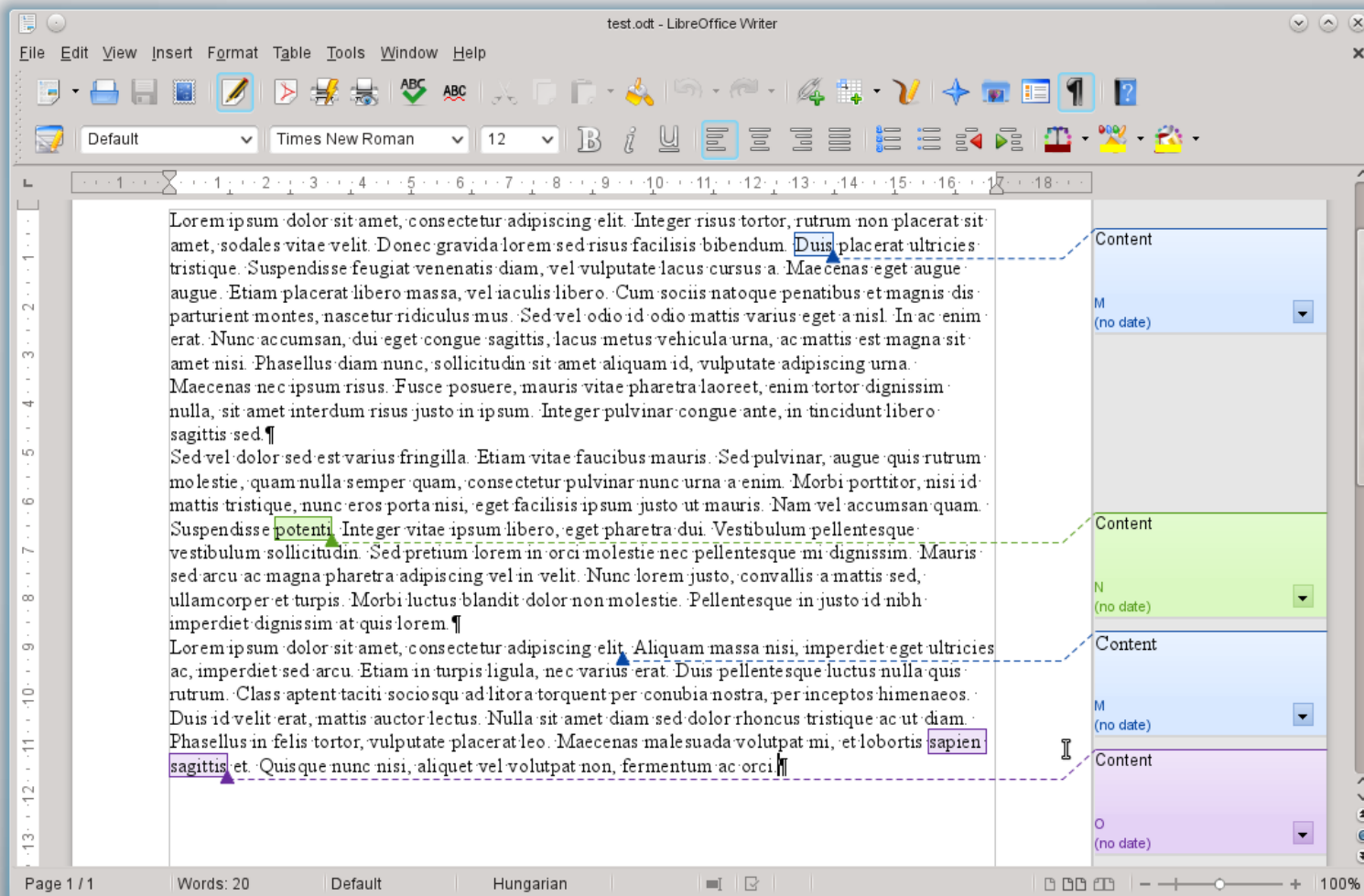


# LibreOffice 4.0 new stuff

*What we released in January ...*

# New Feature: LibreOffice 4.0

## Range Comments (sponsored by OSBA)

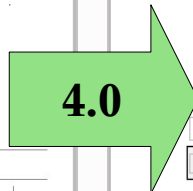
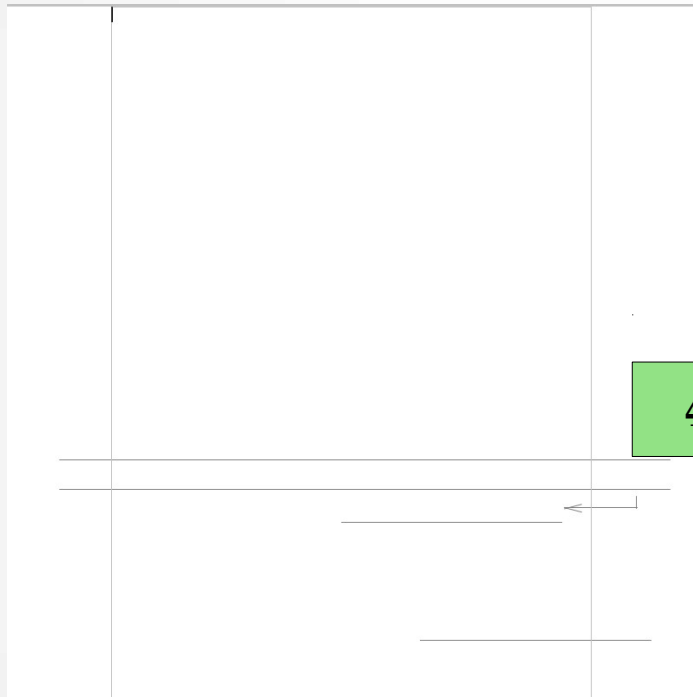




# New Feature: LibreOffice 4.0



- RTF: Drawing Object Import



11 St' Menachem Begin  
Remat Gen  
Israel  
972-3-6339999  
972-3-6296355

HRG Lachish Tours LTD

עוסק מורשה: 510817018

To:	Mr. KAPLAN/LIOR	Co. Vat#:	510817018	IATA No.	37-21078-4
Address:				Issue date:	24-Oct-11
					337768
				Start date:	27-Sep-11
				Due date:	24-Oct-11

**ORIGINAL**

<b>Invoice</b>	<b>60027</b>
For:	Mr. KAPLANLIOR

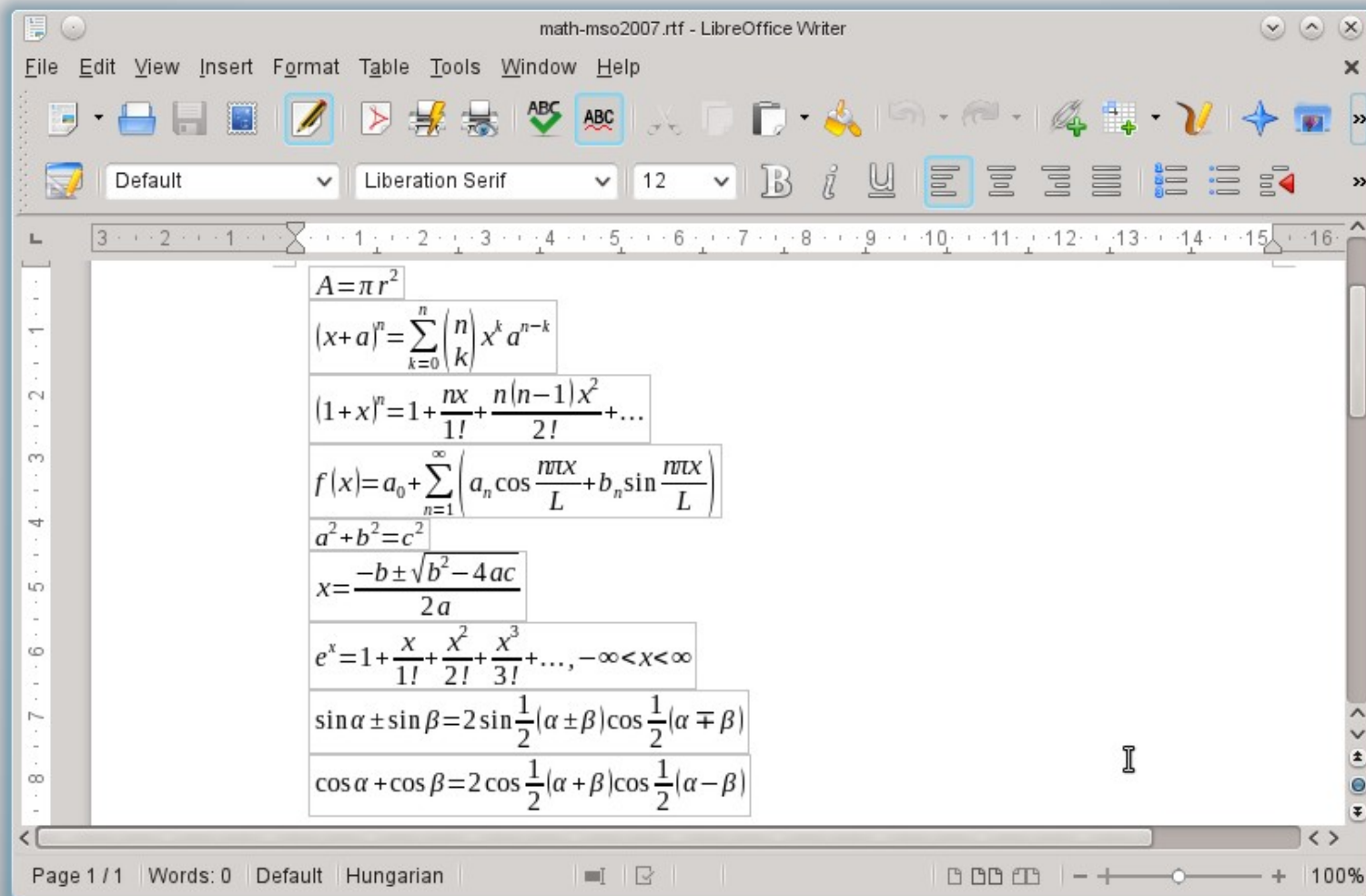
Service	Description	Amount	Tax	Cur
<input checked="" type="checkbox"/> Flight	Dep: 27-Sep-11 17:00 TEL AVIV - BGN APT ELAL 325 T Arr: 27-Sep-11 PARIS - C. DE GAULLE	625.00	111.25	USD
<input checked="" type="checkbox"/> Flight	Dep: 16-Oct-11 00:20 PARIS - C. DE GAULLE ELAL 328 V Arr: 16-Oct-11 TEL AVIV - BGN APT	0.00	0.00	USD
<b>Total:</b>		<b>625.00</b>	<b>111.25</b>	<b>USD</b>

Remarks:		+ Tax:	111.25
		TOTAL:	736.25 USD

ETT1

# New Feature: LibreOffice 4.0

## RTF: Improved eg. Formulae



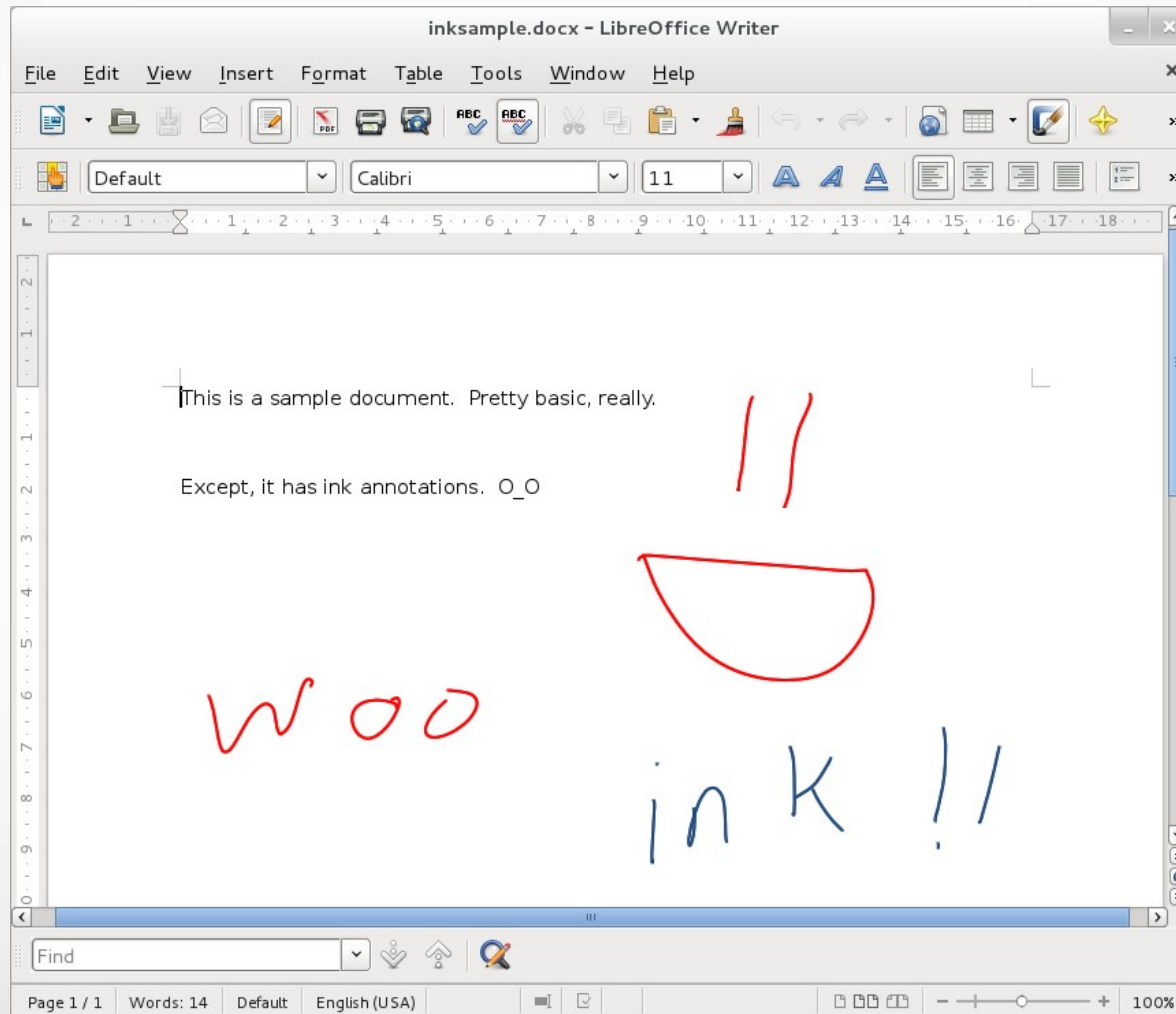
The screenshot shows the LibreOffice Writer interface with a document titled "math-mso2007.rtf". The document contains several mathematical formulae displayed in a list-like structure:

- $A = \pi r^2$
- $(x+a)^n = \sum_{k=0}^n \binom{n}{k} x^k a^{n-k}$
- $(1+x)^n = 1 + \frac{nx}{1!} + \frac{n(n-1)x^2}{2!} + \dots$
- $f(x) = a_0 + \sum_{n=1}^{\infty} \left( a_n \cos \frac{n\pi x}{L} + b_n \sin \frac{n\pi x}{L} \right)$
- $a^2 + b^2 = c^2$
- $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
- $e^x = 1 + \frac{x}{1!} + \frac{x^2}{2!} + \frac{x^3}{3!} + \dots, -\infty < x < \infty$
- $\sin \alpha \pm \sin \beta = 2 \sin \frac{1}{2}(\alpha \pm \beta) \cos \frac{1}{2}(\alpha \mp \beta)$
- $\cos \alpha + \cos \beta = 2 \cos \frac{1}{2}(\alpha + \beta) \cos \frac{1}{2}(\alpha - \beta)$

The interface includes a menu bar (File, Edit, View, Insert, Format, Table, Tools, Window, Help), a toolbar with various icons, and a status bar at the bottom showing "Page 1 / 1", "Words: 0", "Default", "Hungarian", and a zoom level of "100%".

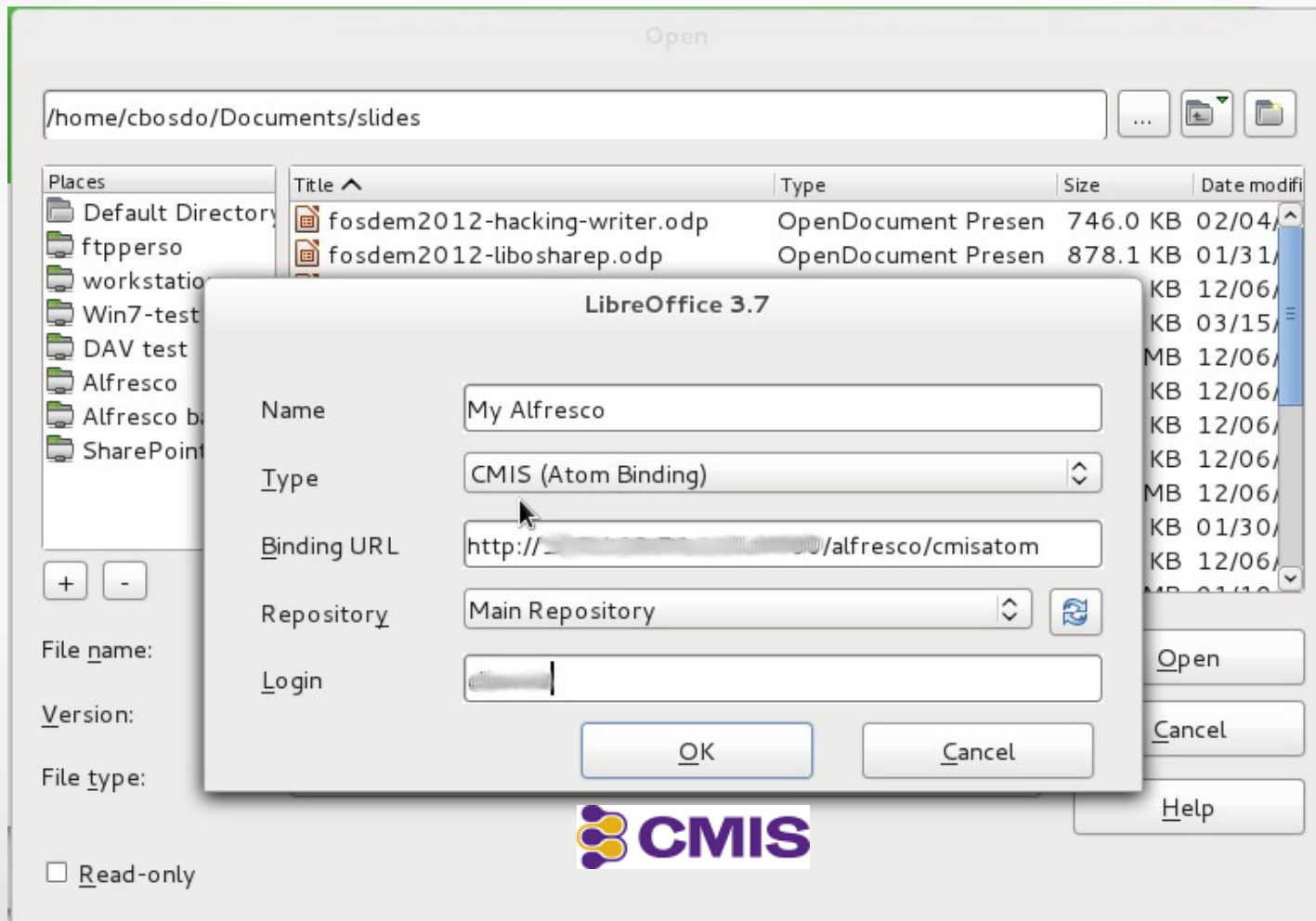
# New Feature: LibreOffice 4.0

## DOCX: Ink Annotation Import



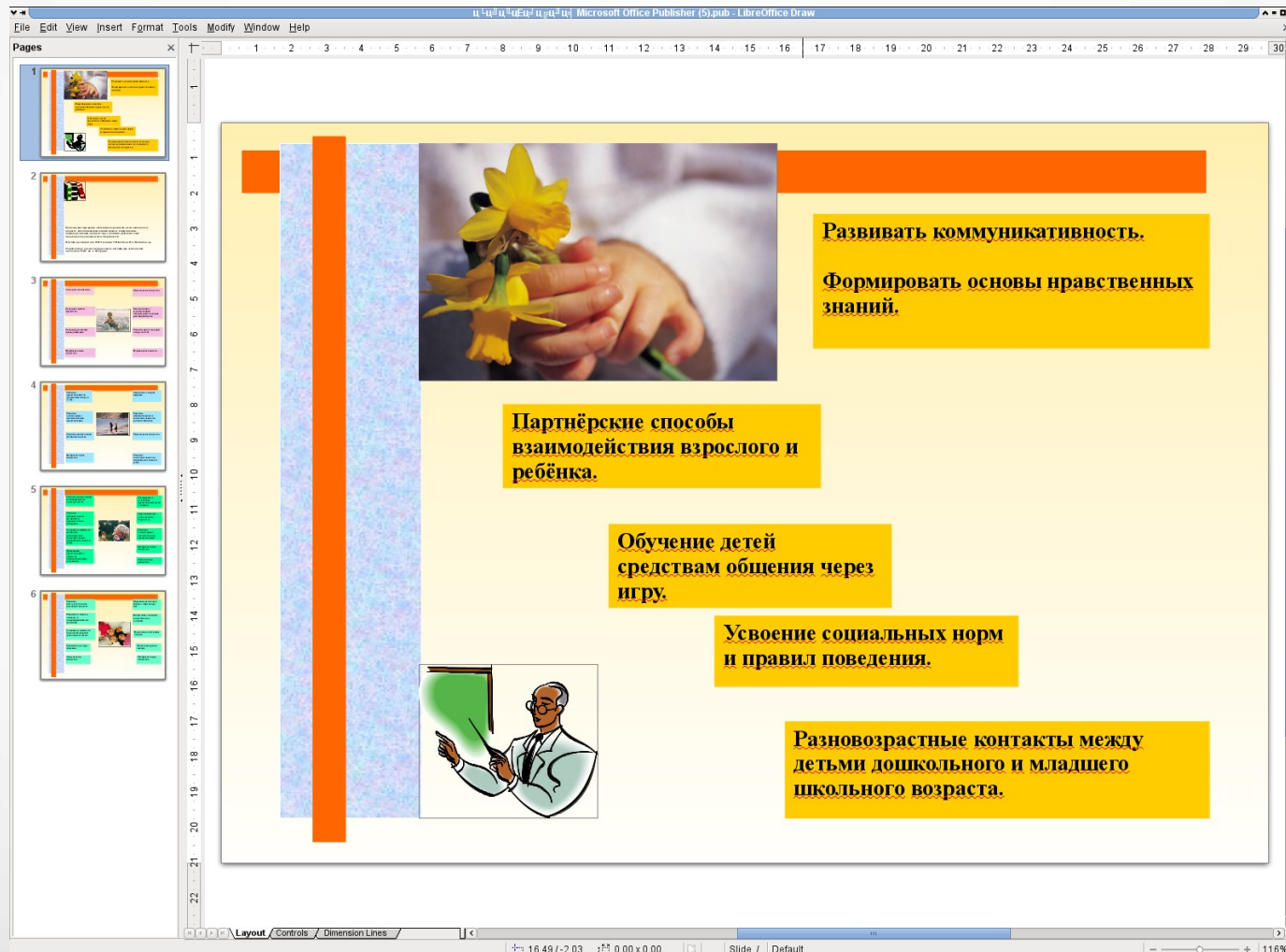
# New Feature: LibreOffice 4.0

Support of CMIS Protocol: Sharepoint, Alfresco, Nuexo, IBM bits, SAP HANA, etc. ...



# New Feature: LibreOffice 4.0

## Microsoft Publisher Import



# All versions Visio import (4.0)



The screenshot displays the LOdev Draw application interface. The main workspace shows a server rack diagram for 'Site 5 Building F First Floor'. The rack is 42 U high and contains the following components from top to bottom:

- 1 U Patch Panel
- 2 U
- 5 U
- 1 U Monitor
- 1 U Keyboard
- 8 U Server1 - 10.1.1.20
- 8 U Server2 - 10.1.1.24
- 8 U Server3 - 10.1.1.26
- 8 U Server4 - 10.1.1.26
- 8 U Primary Router
- 8 U Management Port: 10.1.1.15
- 8 U Primary Addresses: 10.1.1.0/255.255.255.0, 10.1.2.0/255.255.255.0, 10.1.6.0/255.255.255.0, 10.1.7.0/255.255.255.0
- 2 U Power Supply

An 'LOdev' dialog box is open in the foreground, displaying the following text:

**LOdev**  
Version 4.0.0.0.beta1 (Build ID: 87906242e87d3ddb2ba9827818f2d1416d80cc7)

LOdev is a modern, easy-to-use, open source productivity suite for word processing, spreadsheets, presentations and more.

This release was supplied by The Document Foundation  
Copyright © 2000 - 2012 LibreOffice contributors and/or their affiliates  
LOdev is derived from LibreOffice which was based on OpenOffice.org

Buttons: Credits, Website, Close

Nice, separable,  
re-usable library:  
libvisio ...  
Thanks to Fridrich  
Strba & Valek  
Filippov



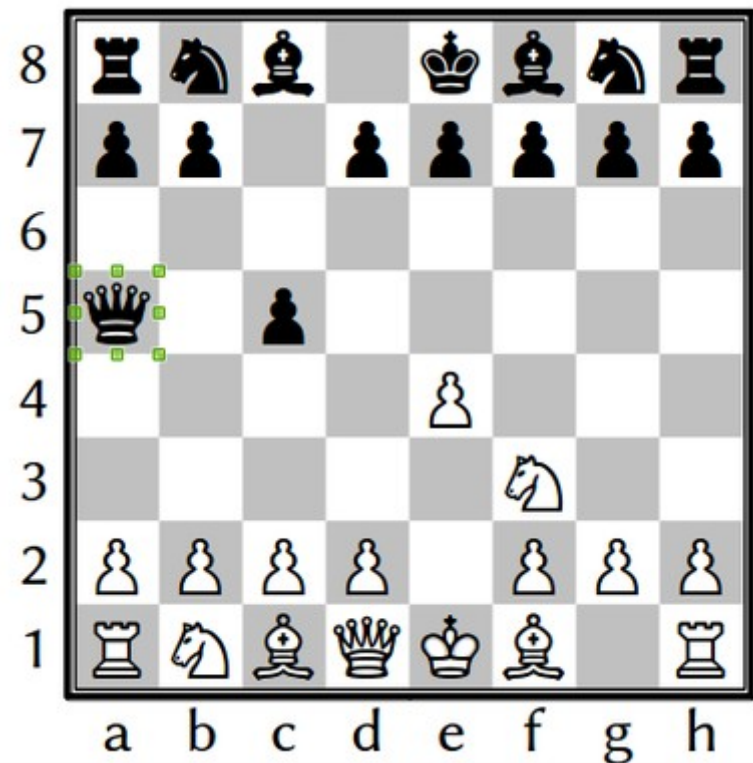
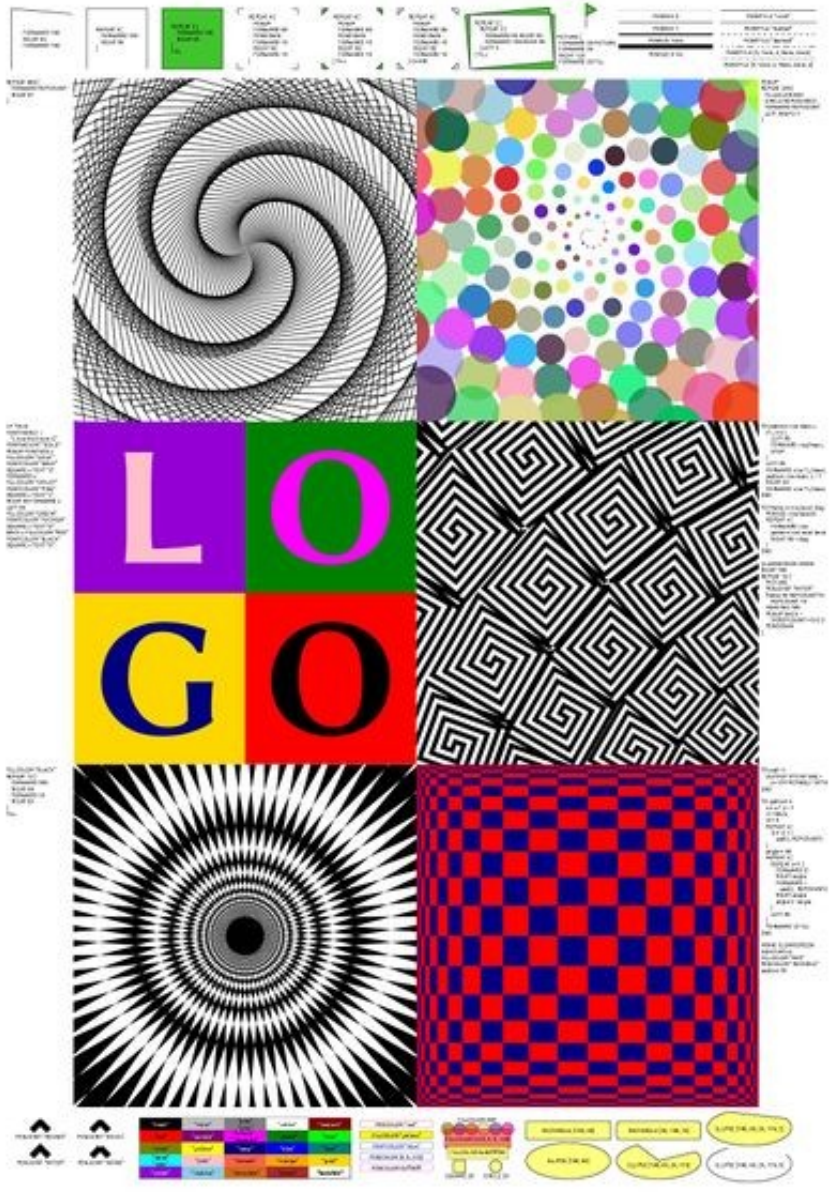
# Schools: LibreLogo integration



A tiny Python implementation

If schools teach 'typing' instead of programming: ensure they have no excuse: add a localised, pretty training language in the office-suite !

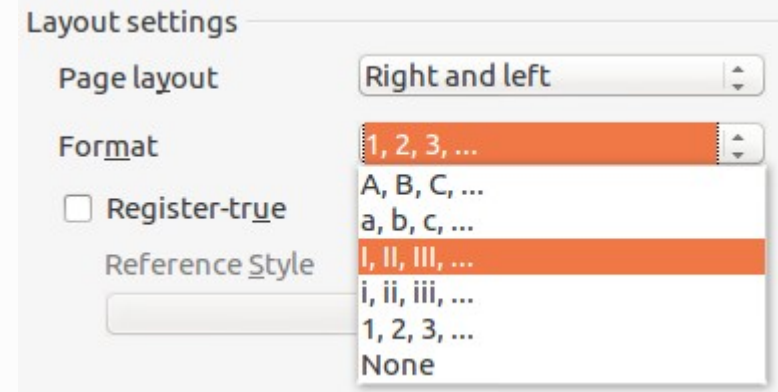
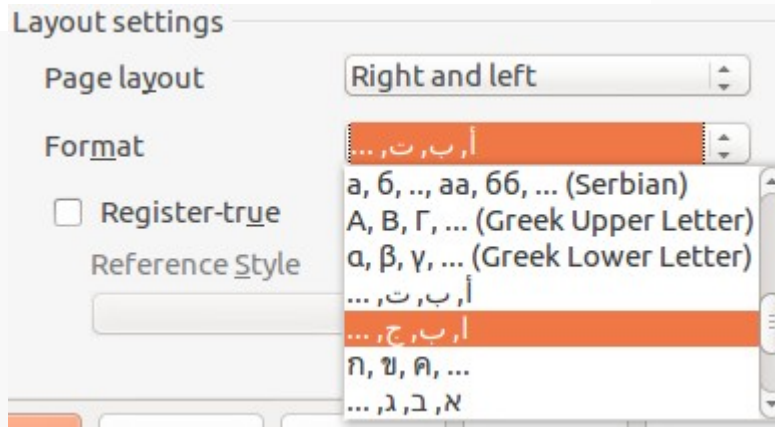
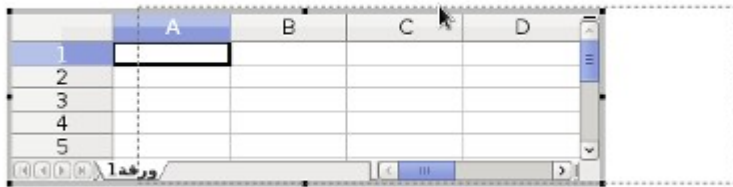
Thanks to Laszlo Nemeth



# Snapshots of the great work from KACST : Motah Getting Arabic & Right-To-Left right.



Funky OLE object dragging fixed.

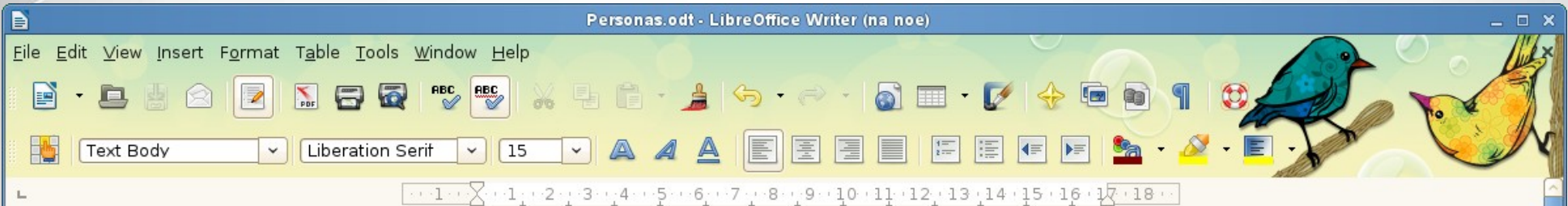


And much more;  
see above link.



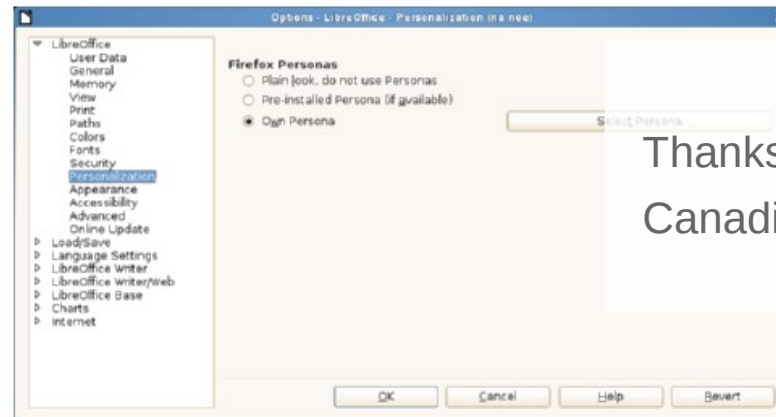


# Personas... shared with Firefox



## LibreOffice 4.0 can use Firefox Personas!

In LibreOffice 4.0, choose **Tools** → **Options...** → **Personalization** → **Select Persona:**



Thanks to *Jan Holesovsky* and a small Canadian food company customer ...

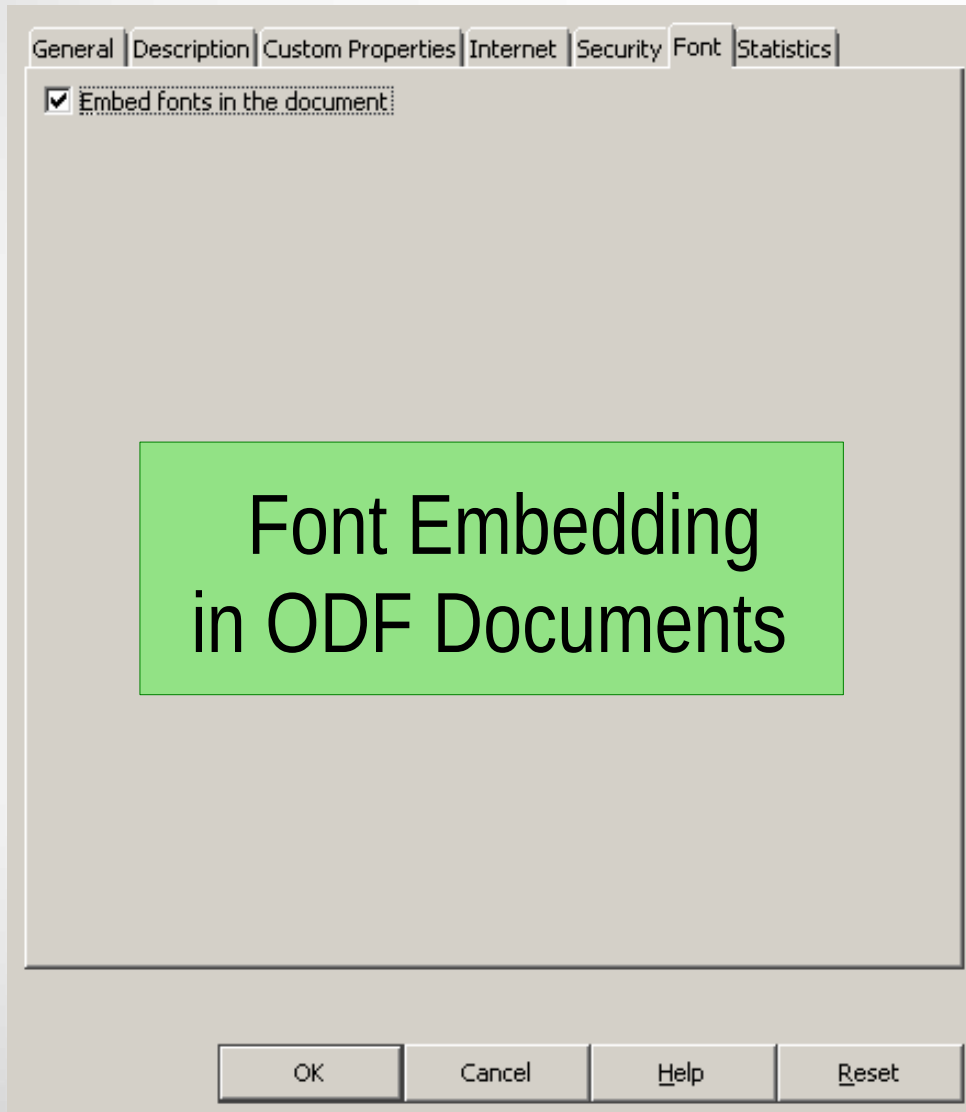
A dialog opens that leads you through the process:



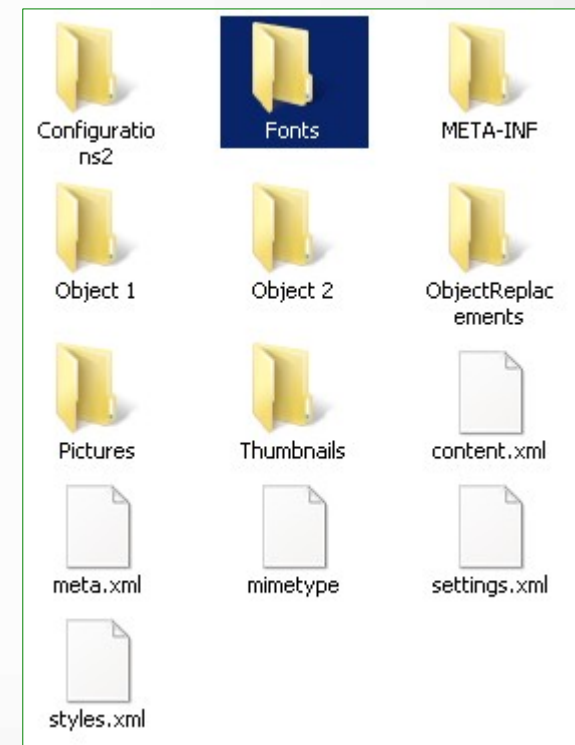
# LibreOffice 4.1 new stuff

*A small flavour of what we just released ...*

# Font embedding #1 ...



**ODF  
Contents  
(ODP)**



# Font embedding for beauty & fidelity ...

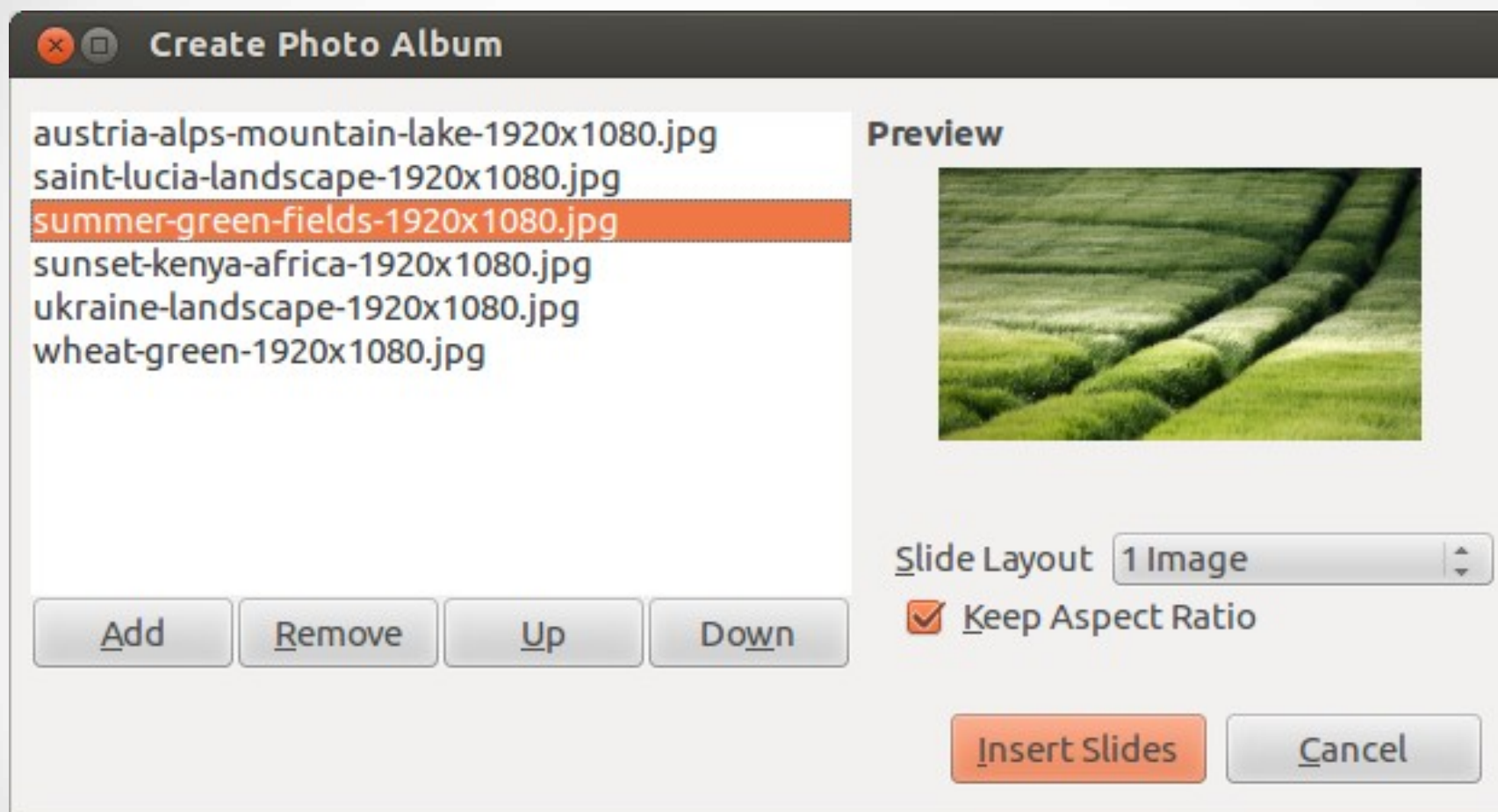


## Embedded fonts test

Libre - Callibri	<b>Libre - Broadway</b>
Libre - Cambria	<b>Libre - Ariel Black</b>
<b>libre - Bauhaus</b>	LIBRE - CASTELLAR
<i>Libre - Blackadder</i>	<b>Libre - Berlin Sans FB</b>
<i>Libre - Vladimir Script</i>	Libre - Gill Sans MT
🔍 ⓘ 🚲 ✕ 📄	<b>Libre - Elephant</b>
<b>Libre - Jokerman</b>	<b>Libre - Impact</b>
<i>Libre - Lucida Cal</i>	<i>Libre - Magneto</i>
Libre - Old English T.	Libre - Playbill
<b>Libre - Revie</b>	<b>LIBRE - STENCIL</b>
<i>Libre - Sketchflow</i>	<i>Libre - Vivaldi</i>

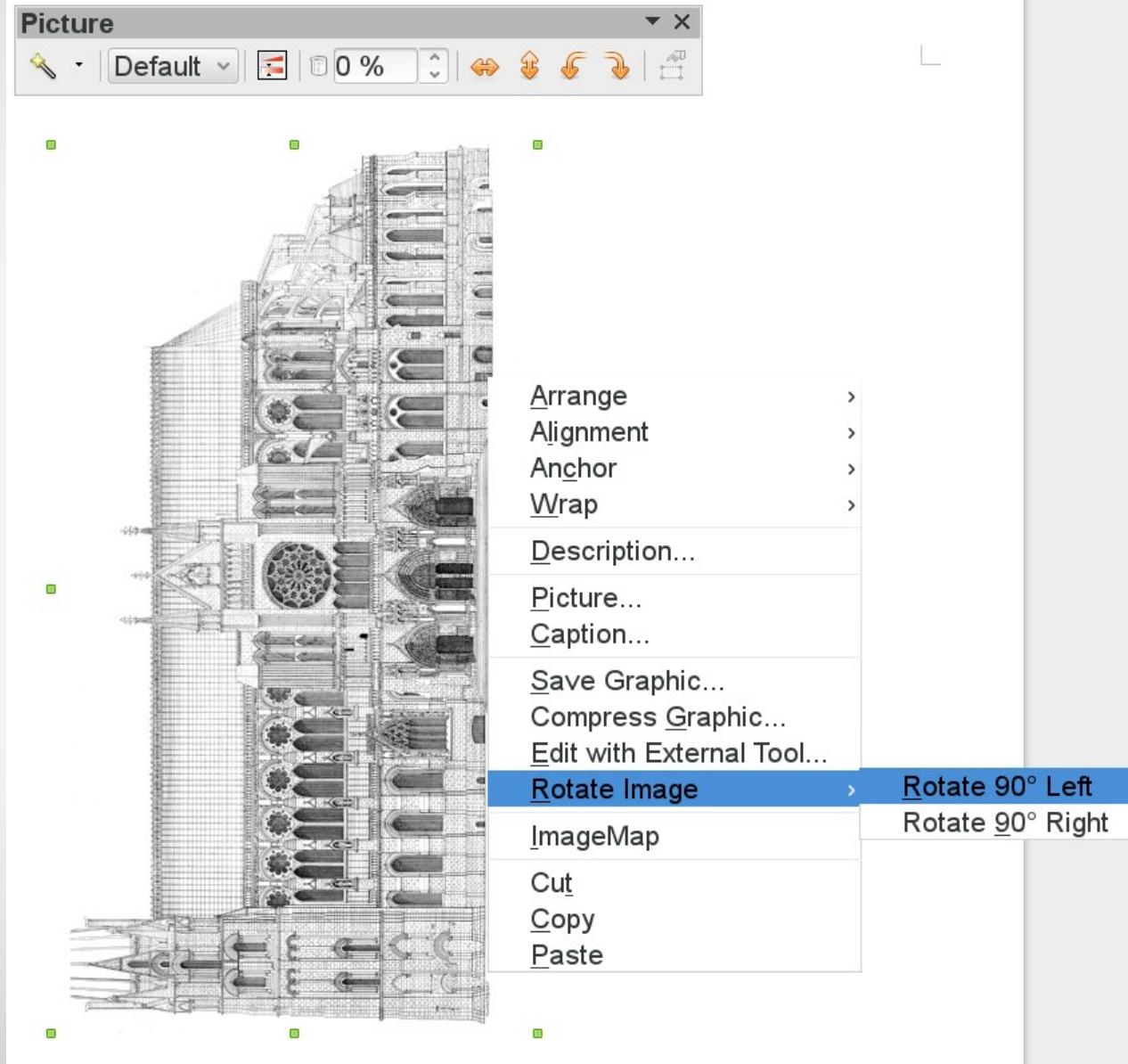
Import / export to ODF and OOXML  
- thanks to *Lubos Lunak, Noel Power, Radek Doulik* and the *Open Source Business Alliance*.

# Easy photo album deck building ...



Thanks to Gergő Mocsi

# UI tweaks / wins: 90 degree image rotation



Writer could not rotate images at all.

Thanks to *Tomaž Vajngerl*











We now do the common case easily.

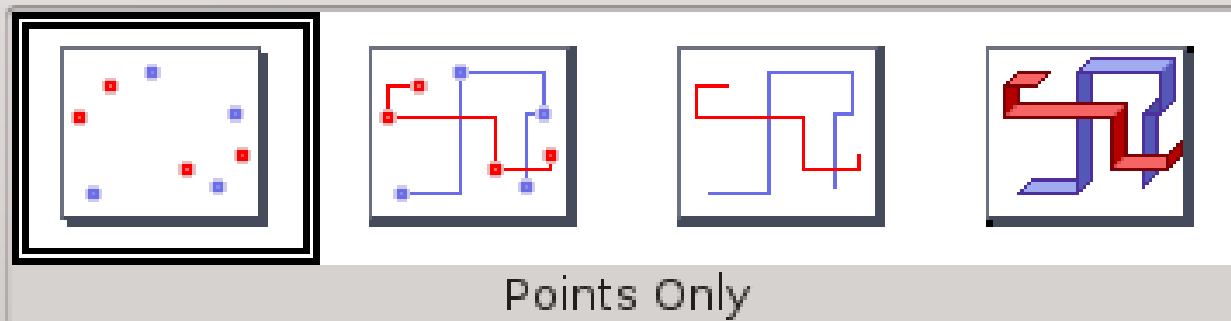


# Stepped line scatter charting ...



## Choose a chart type

-  Column
-  Bar
-  Pie
-  Area
-  Line
-  XY (Scatter)
-  Bubble
-  Net
-  Stock
-  Column and Line



Line type **Stepped** ▼

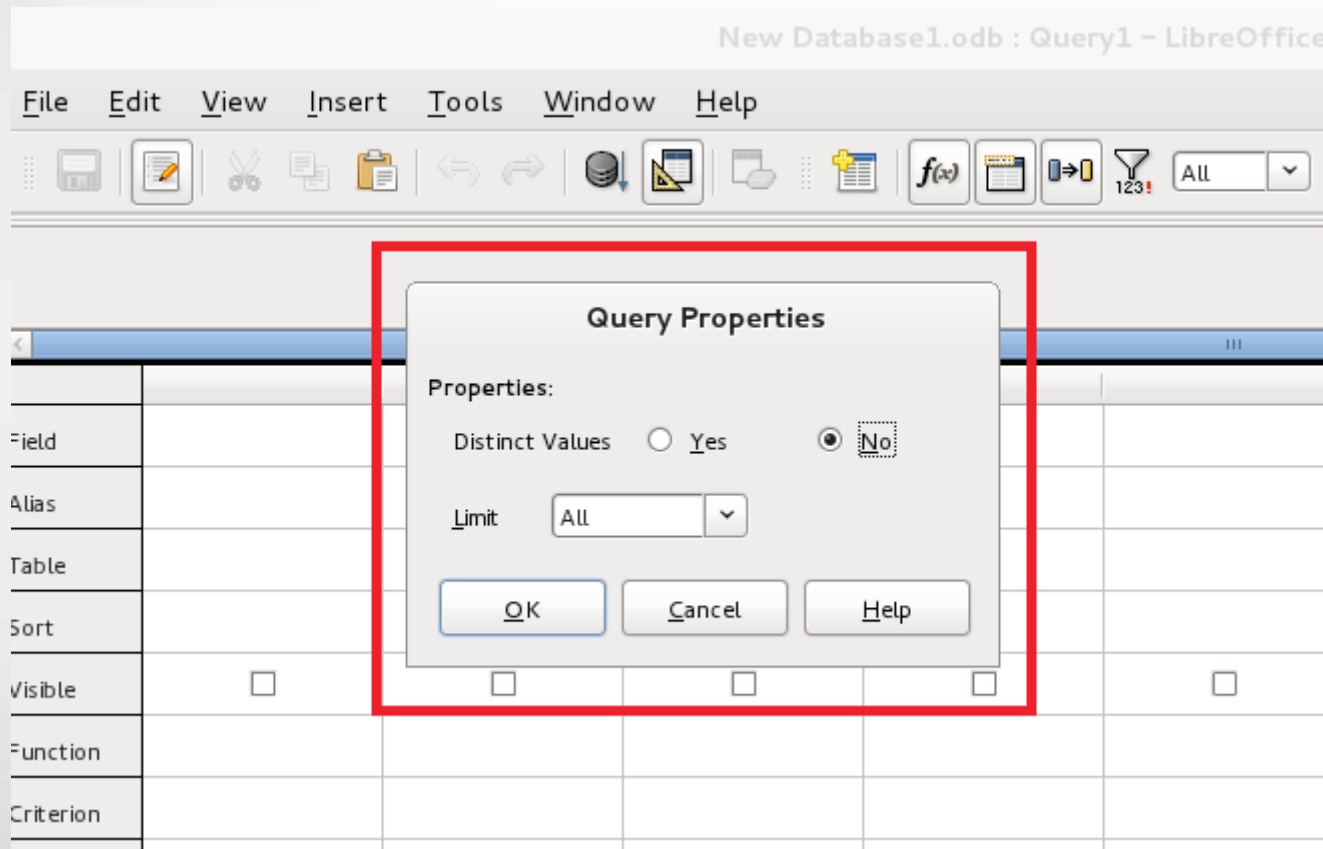
Properties...

Sort by X values

With thanks to *Eric Seynaeve*

# Many Base improvements: finally getting some love ...

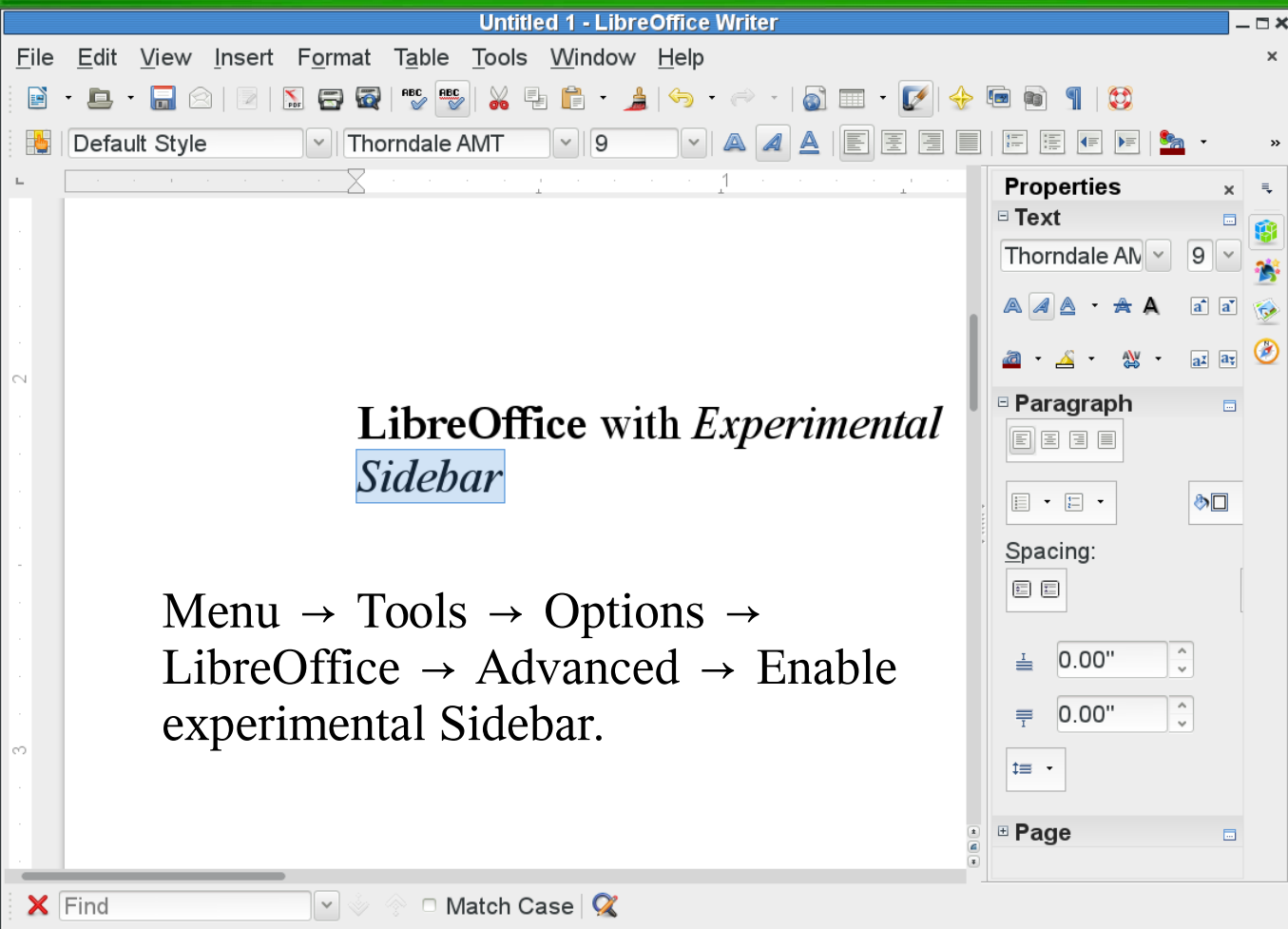
Limit and Distinct values support: with thanks to *Tamás Zolnai*



Also significant work cleaning / debugging base & lots of work on eg. Nanosecond timestamps from many thanks to *Lionel Elie Mamane*



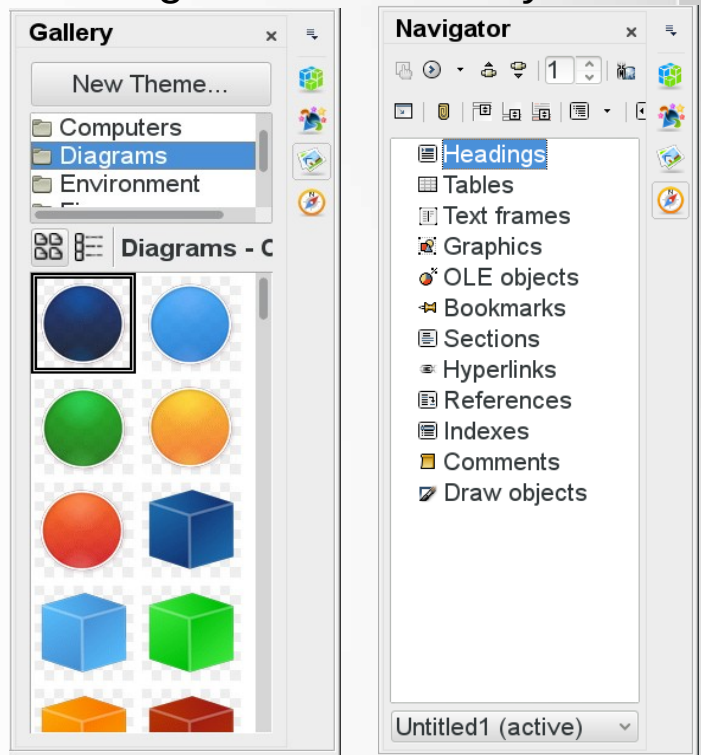
# Sidebar from IBM / AOO (Experimental)



## LibreOffice with *Experimental Sidebar*

Menu → Tools → Options → LibreOffice → Advanced → Enable experimental Sidebar.

Various tabs ... embed existing gallery & navigator conveniently.



Also, improved gallery / clipart & improved translation mechanism

# Other misc. flavours:



GStreamer 1.0 support (as well as 0.10)

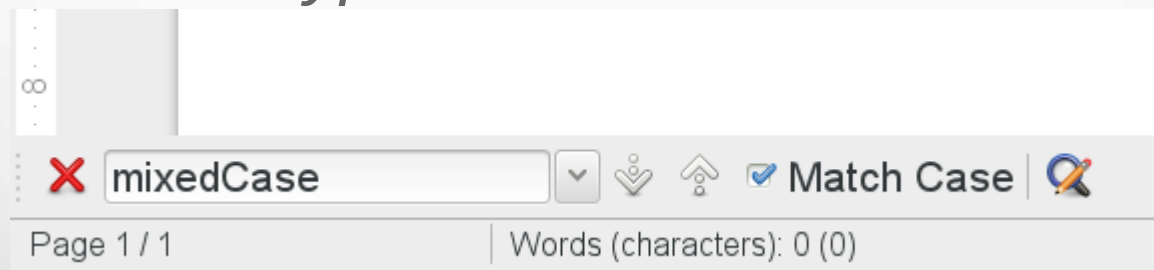
~3000 bug fix patches ( 400 from @apache)

– cf. ~5000 open bugs @ fdo

10k commits since 4.0

Lots of incremental interoperability wins.

Ctrl-F search bar: close + match case thanks to *Andrzej Hunt & Joren De Cuyper*



LibreOffice 4.1 – a slew of  
new rescued documents data.  
*Moving legacy documents to ODF ...*

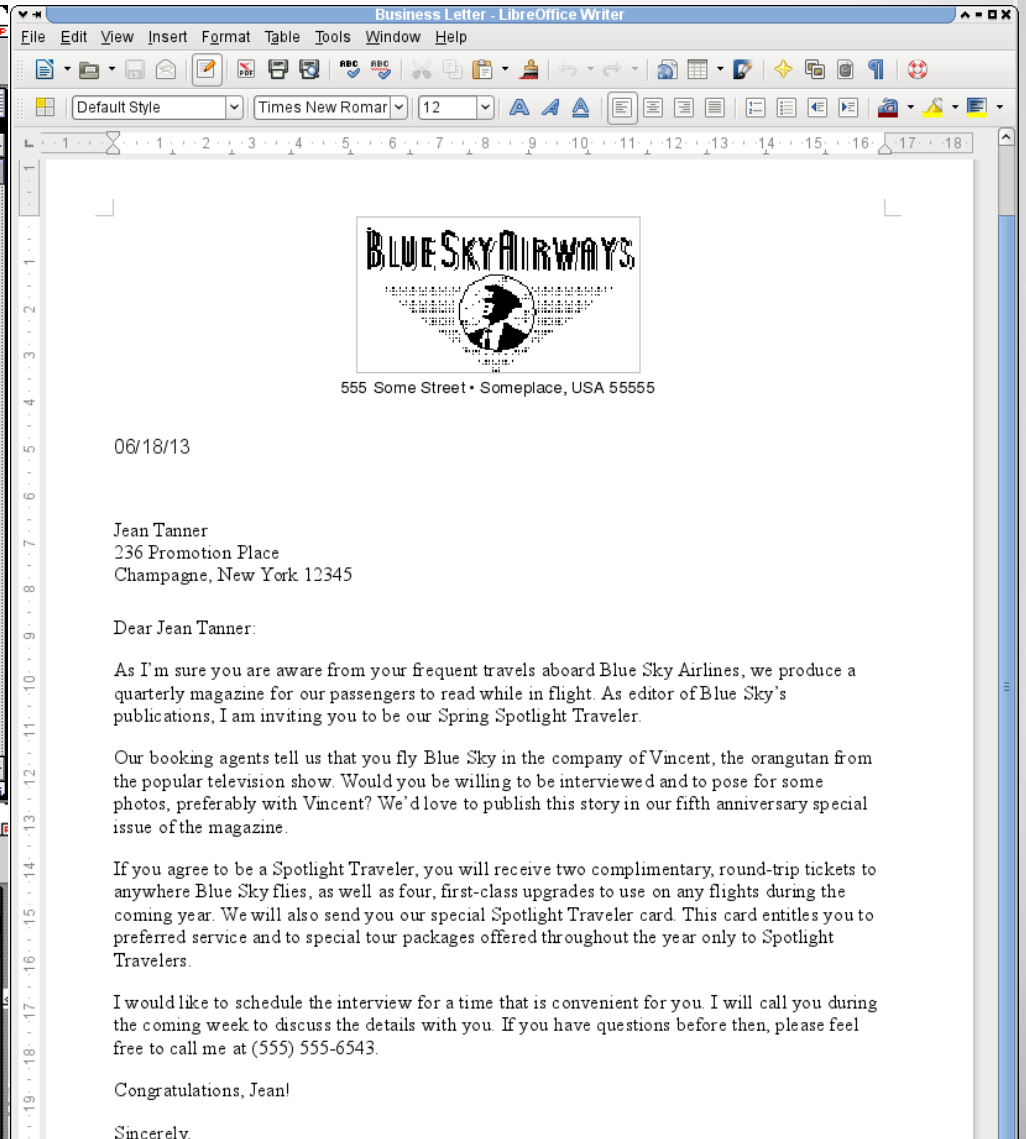
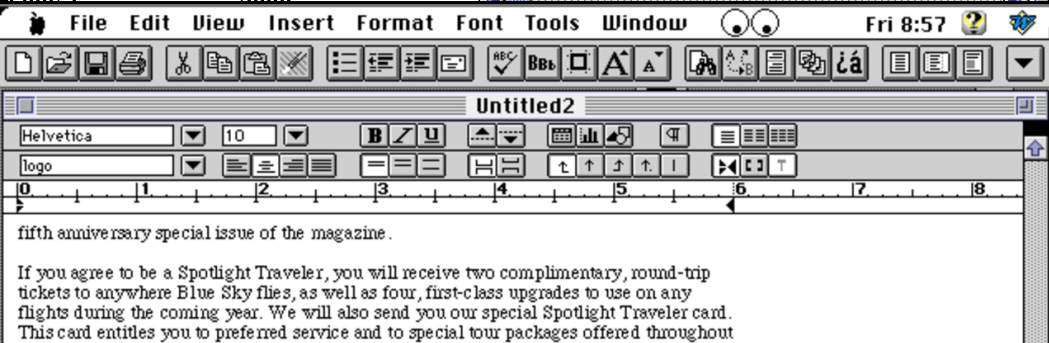
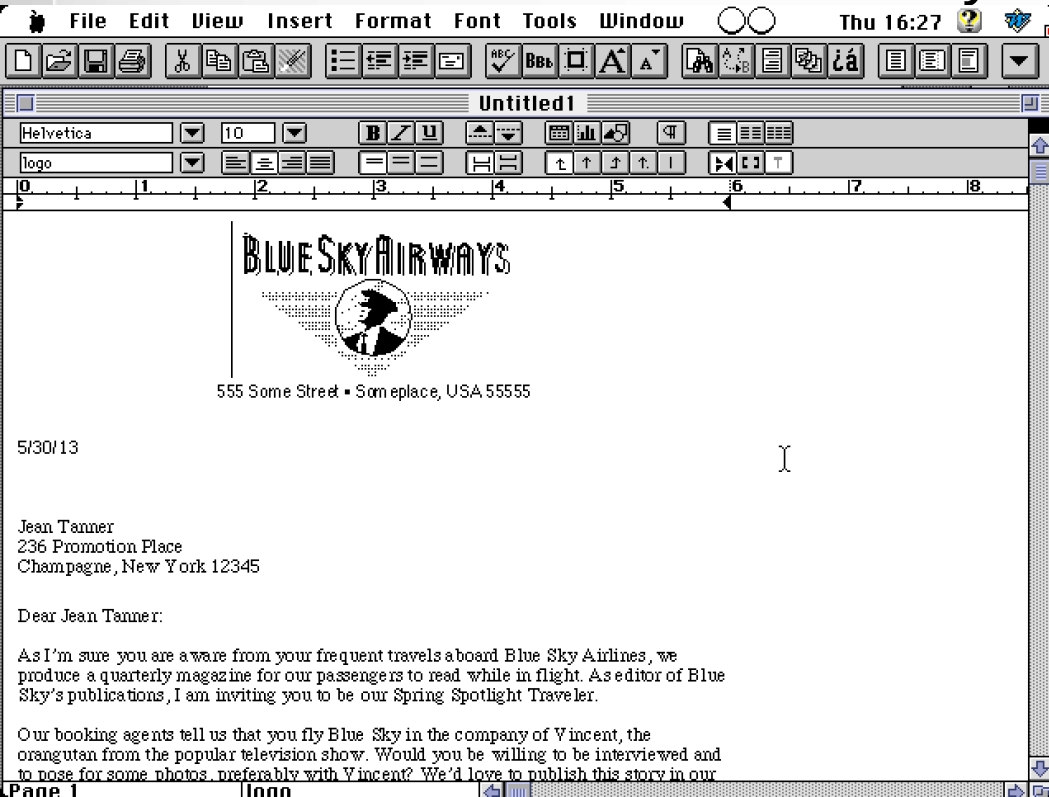
# Legacy binary doc reverse engineering →

## ODF



## Microsoft Word for Mac 5.1 ...

With many thanks to *Laurent Alonso & libmwaw*



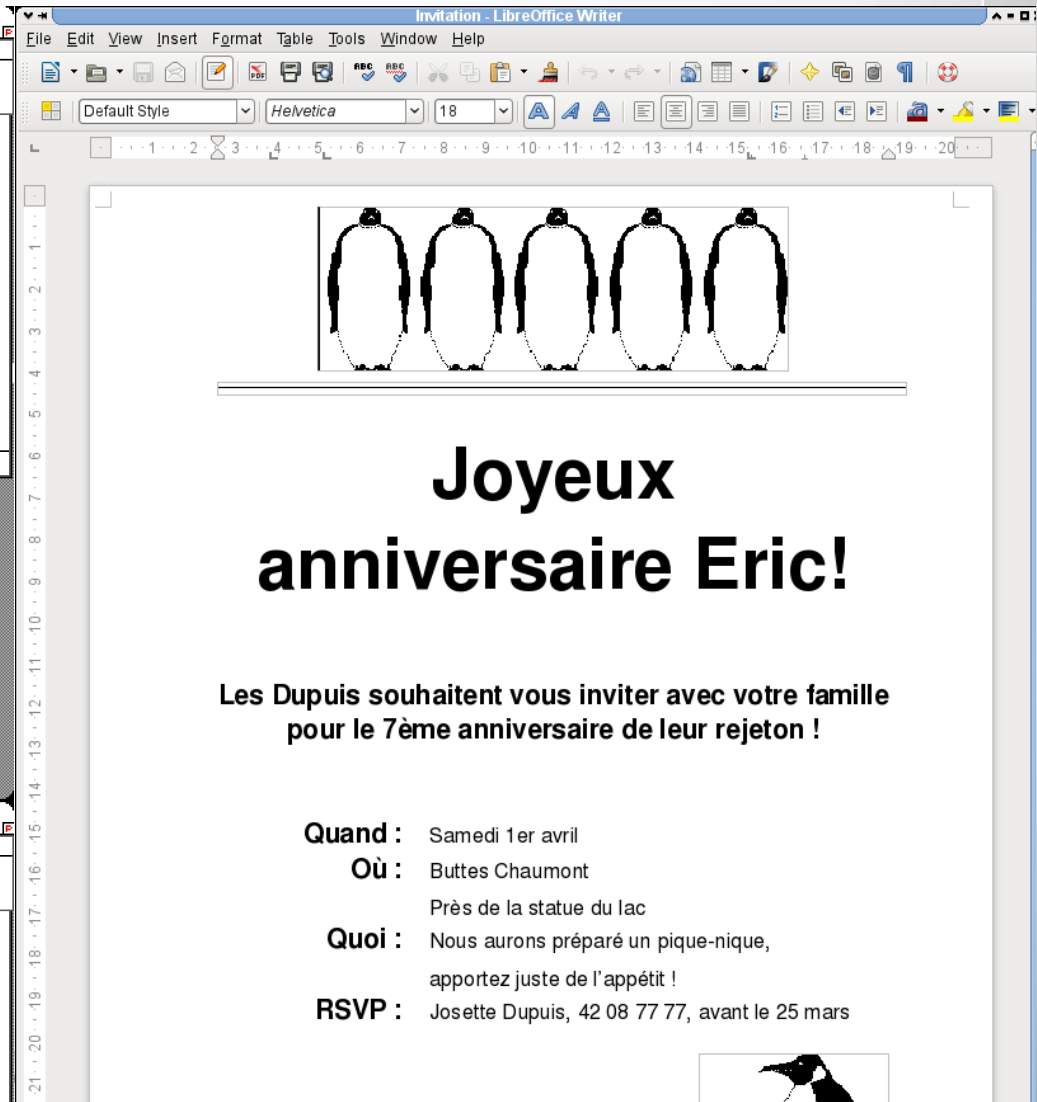
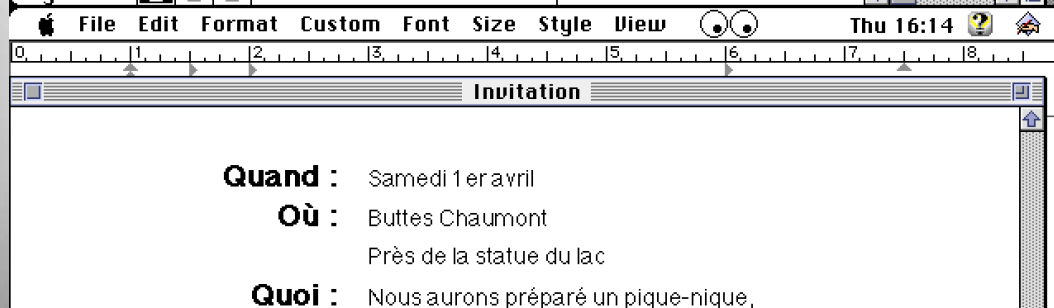
# Legacy binary doc reverse engineering →

## ODF



## Write Now 4.0

With many thanks to *Laurent Alonso & libmwaw*

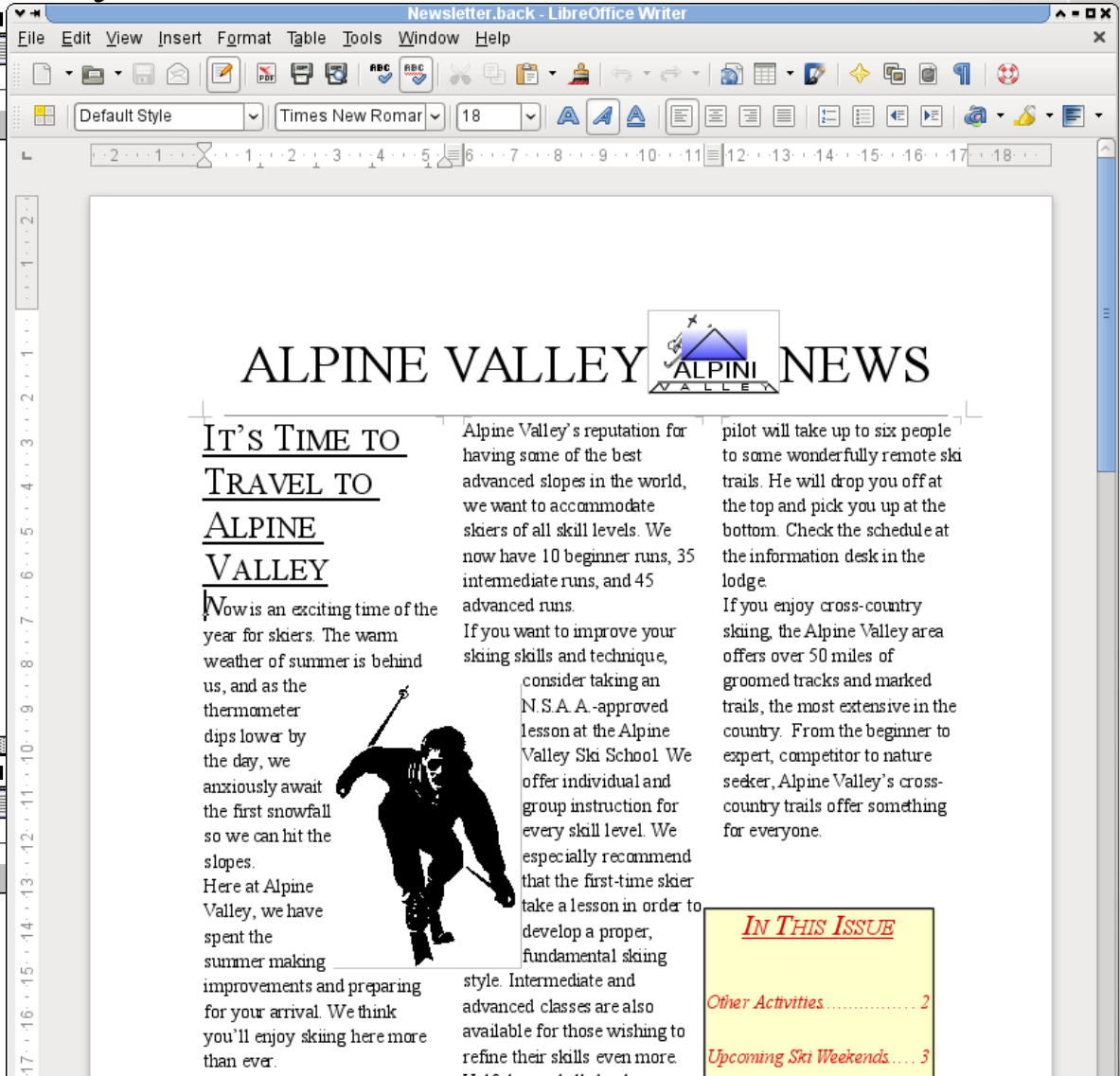
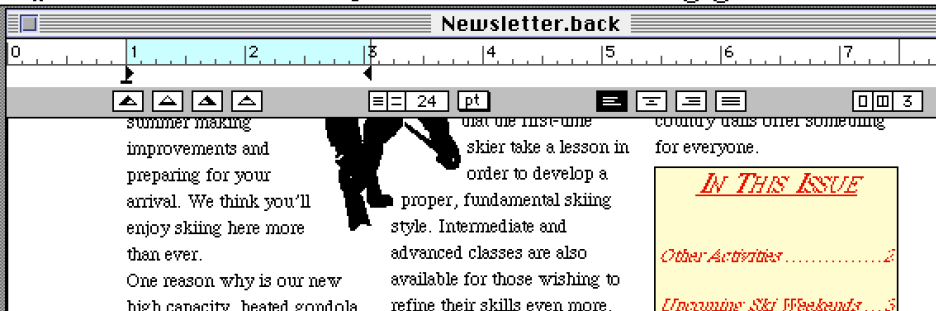


# Legacy binary doc reverse engineering → ODF



## Mac Write Pro 1.5

With many thanks to *Laurent Alonso & libmwaw*





# Legacy binary doc reverse engineering → ODF




## AppleWorks 6.0

With many thanks to *Laurent Alonso & libmww*

AppleWorks File Edit Format Text Outline Table Win

untitled (WP)



### Judy Smith

February 23, 2000

Mrs. Kathy Jones  
2454 Mardell Way  
Smithsville, TN 56784

Dear Mrs. Jones,

Annos undeviginti natus exercitum privato consilio et privata impensa comparavi, per quem rem publicam a dominatione factionis oppressam in libertatem vindicavi. [Ob quae] senatus decretis honorificis in ordinem suum me adlegit, C. Pansa et A. Hirtio consulibus, consularem locum sententiae dicendae tribuens, et imperium mihi dedit. Res publica ne quid detrimenti caperet, me propraetore simul cum consulibus providere iussit. Populus autem eodem anno me consulem, cum cos. uterque bello cecidisset, et triumvirum rei publicae constituendae creavit.


Qui parentem meum trucidaverunt, eos in exilium expuli iudiciis legitimis ultus eorum facinus, et postea bellum inferentis rei publicae vici bis acie.

1425 Sunshine Way  
Anytown, USA 95955  
tel: 515-234-2355  
fax: 515-425-2345

Teacher Letterhead - LibreOffice Writer

File Edit View Insert Format Table Tools Window Help

Default Style Times New Roman 12



### Judy Smith

February 23, 2000

Mrs. Kathy Jones  
2454 Mardell Way  
Smithsville, TN 56784

Dear Mrs. Jones,

Annos undeviginti natus exercitum privato consilio et privata impensa comparavi, per quem rem publicam a dominatione factionis oppressam in libertatem vindicavi. [Ob quae] senatus decretis honorificis in ordinem suum me adlegit, C. Pansa et A. Hirtio consulibus, consularem locum sententiae dicendae tribuens, et imperium mihi dedit. Res publica ne quid detrimenti caperet, me propraetore simul cum consulibus providere iussit. Populus autem eodem anno me consulem, cum cos. uterque bello cecidisset, et triumvirum rei publicae constituendae creavit.

1425 Sunshine Way  
Anytown, USA 95955  
tel: 515-234-2355  
fax: 515-425-2345

LibreOffice 4.2 new stuff ...  
*features coming for end of Jan 2014*

# New Feature: LibreOffice 4.2

File Edit View Tools Window Help

 LibreOffice



Open



Templates



All Recent

Documents

Spreadsheets

**Presentations**

Drawings

Databases

Formulas



New Presentation

Show Templates



LiboCon2011...



LiboCon2011...



LiboCon2012



LiboCon2011



FOSDEM2013



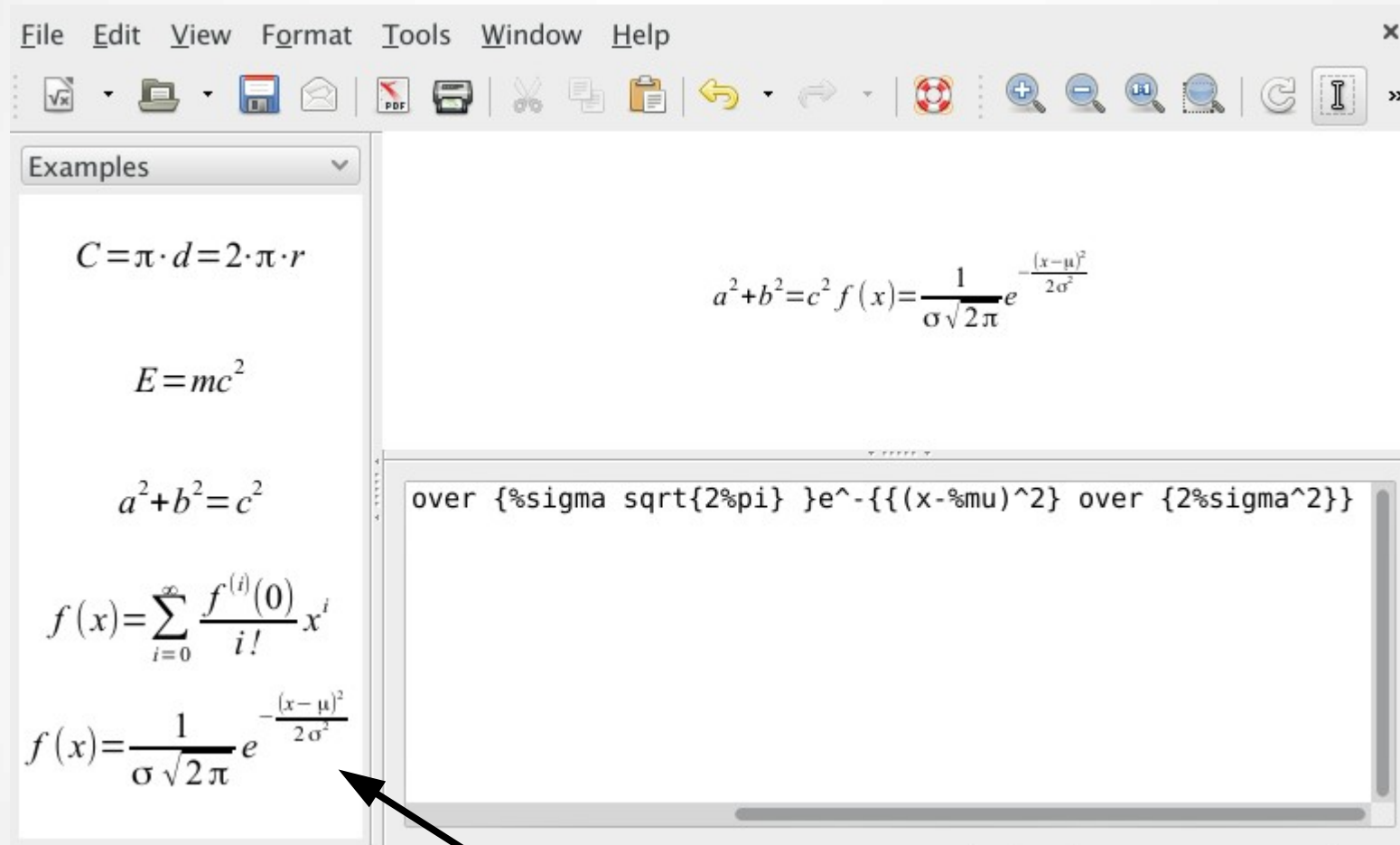
FOSDEM2011



FOSDEM2012

## New Start Center

# New Feature: LibreOffice 4.2



The screenshot shows the LibreOffice 4.2 interface with a new Math Panel. The panel is divided into two sections: 'Examples' on the left and a main editing area on the right. The 'Examples' section contains several mathematical formulas:  $C = \pi \cdot d = 2 \cdot \pi \cdot r$ ,  $E = mc^2$ ,  $a^2 + b^2 = c^2$ ,  $f(x) = \sum_{i=0}^{\infty} \frac{f^{(i)}(0)}{i!} x^i$ , and  $f(x) = \frac{1}{\sigma \sqrt{2\pi}} e^{-\frac{(x-\mu)^2}{2\sigma^2}}$ . The main editing area shows the same formula  $a^2 + b^2 = c^2$  followed by  $f(x) = \frac{1}{\sigma \sqrt{2\pi}} e^{-\frac{(x-\mu)^2}{2\sigma^2}}$ . Below the main editing area, there is a text input field containing the LaTeX code: `over {%sigma sqrt{2%pi} }e^{-{{(x-%mu)^2} over {2%sigma^2}}`. An arrow points from the bottom of the 'Examples' section to the main editing area.

New Math Panel: thanks to *Tomaž Vajngerl*,  
with help from *Marcos Paulo de Souza*

# Much improved Android Impress remote



Slide 1 from 105  
15 minutes left

## Лекция 4. Реляционная алгебра

### § 4.1. Базисные средства манипулирования реляционными данными

**NOTES**

Данная тема посвящена различным операциям над базовыми отношениями, реализованным при помощи реляционных операторов и расширений этих операторов, реализованных в языке SQL. Кроме того, мы обсудим некоторые особенности реляционных операторов и их расширений, связанные с трехзначной логикой и значениями Null.

Ограничение, проекция и соединение – это стандартные реляционные операции,

Slide 1 from 105  
15 minutes left

Collabora Productivity

3G 1:24

## Connection failed

Make sure you enabled remote control. Go to "Tools → Options → LibreOffice Impress → General" in LibreOffice Impress.

You should enable experimental features at "Tools → Options → LibreOffice → Advanced" as well.

Collabora Productivity



# GDrive integration (via libcmis)



Open

/home/nccuong/Documents

Places  
My Documents

LibreOffice 4.2

Name: googleDrive

Type: CMIS

Server Details

Server Type: Google Drive

Binding URL: https://www.googleapis.com/drive/v2

Repository: Google Drive

Path:

User Details

Login:

OK Cancel

Date modified

B	07/17/2013, 17:46:46
B	04/19/2013, 13:48:53
B	06/26/2013, 17:34:03
B	04/12/2013, 11:56:49
B	04/25/2013, 19:07:56
B	06/12/2013, 11:24:54
B	04/19/2013, 10:30:07
B	04/09/2013, 14:42:25
B	07/18/2013, 17:46:53
B	04/09/2013, 14:42:25

File name:

Version:

File type:

Read-only

Open

Cancel

Help

With  
thanks to  
*Cuong  
Cao Ngo*  
and  
*Cedric  
Bosdonna*  
*t*

Properties of

General Description Custom Properties **CMIS Properties** Security Font Statistics

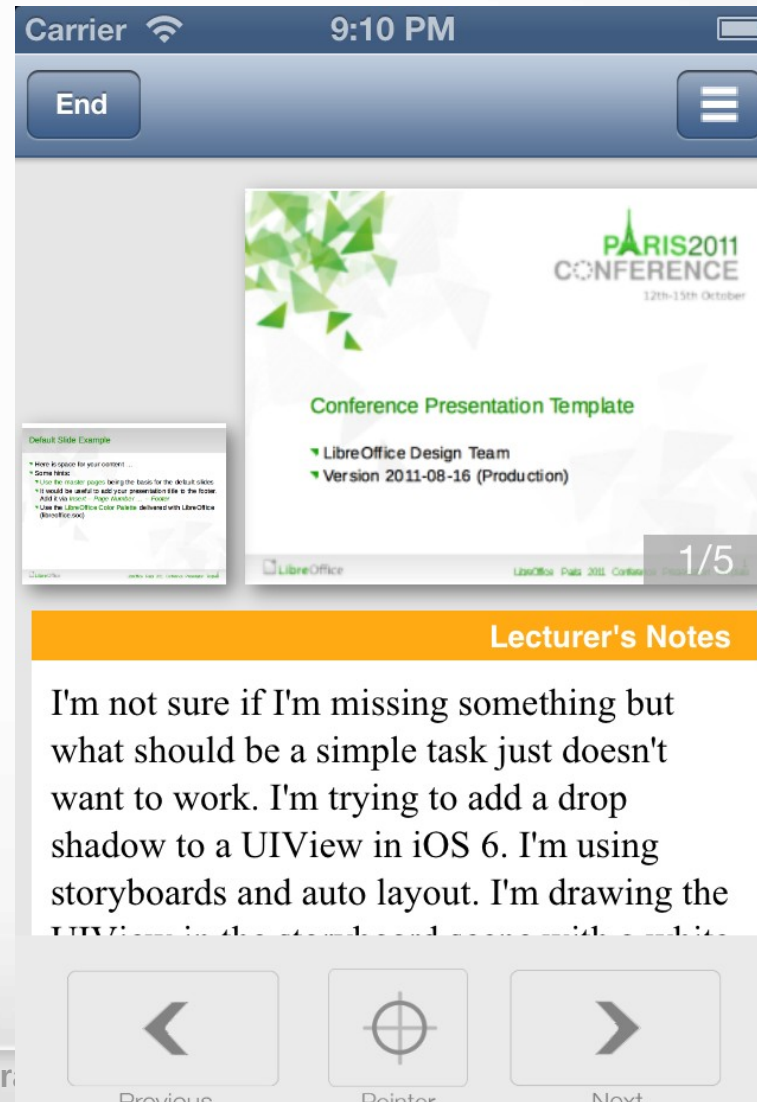
CMIS Properties

Name	Type	Value
alternateLink	String	https://docs.google.com/document/d/1YQ6nKnFkGt7d_M4fm
appDataContents	Bool	<input type="radio"/> Yes <input checked="" type="radio"/> No
title	String	TestSimilar.odt
mimeType	String	application/vnd.google-apps.document

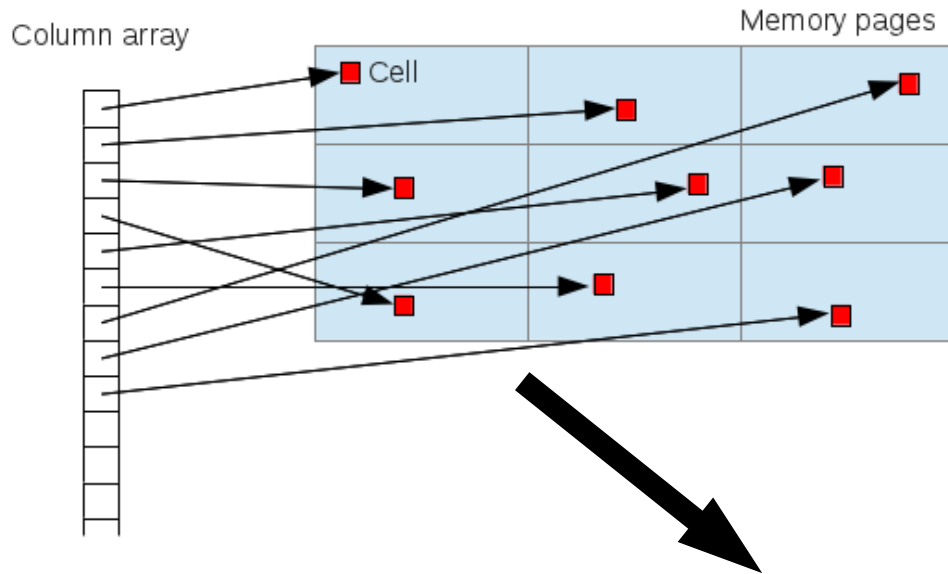


# Initial iOS Impress remote control

With thanks to *Siqi Liu* – [sign up for the Beta](#)

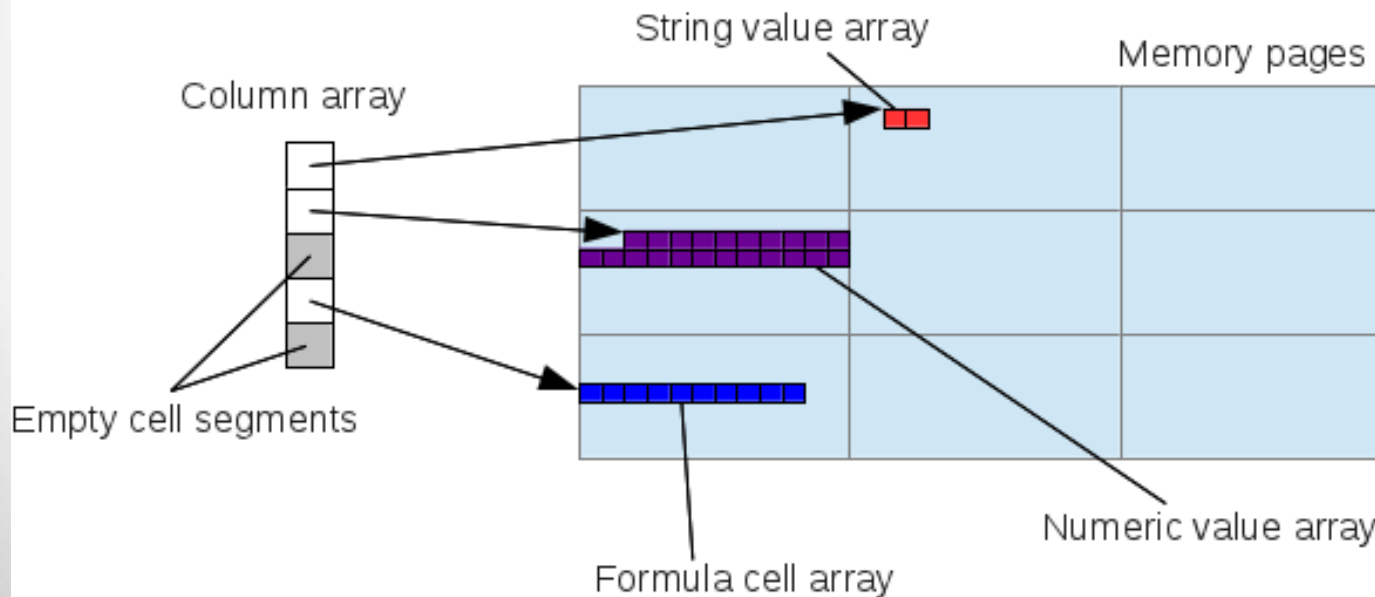


# Re-factor & OpenCL enable calc core



Drug-bust on the internal calc data structures

- Reduced memory size
- Much faster calculation
- OpenCL for ultimate speed ...
- **Thanks to AMD !** (and)  
*Kohei Yoshida (Collabora)*



**Using  
your GPU  
effectively  
for  
Business**

# Abstraction of Cell Value Access

ScBaseCell Usage (Before)



ScDocument

Undo / Redo

RTF Filter

Change Tracking

Quattro Pro Filter

Content Rendering

HTML Filter

Excel Filter (xls, xlsx)

External Reference

Document Iterators

CSV Filter

DIF Filter

UNO API Layer

Conditional Formatting

SYLK Filter

VBA API Layer

Chart Data Provider

DBF Filter

ODF Filter

Cell Validation

CppUnit Test

# Abstraction of Cell Value Access

ScBaseCell Usage (After)



ScDocument

Document Iterators

A milestone of the code is landed in 4.1  
Hopefully without significant perf. impact  
The major speedups / savings & OpenCL come  
for 4.2

## Biggest calc core re-factor in a decade+

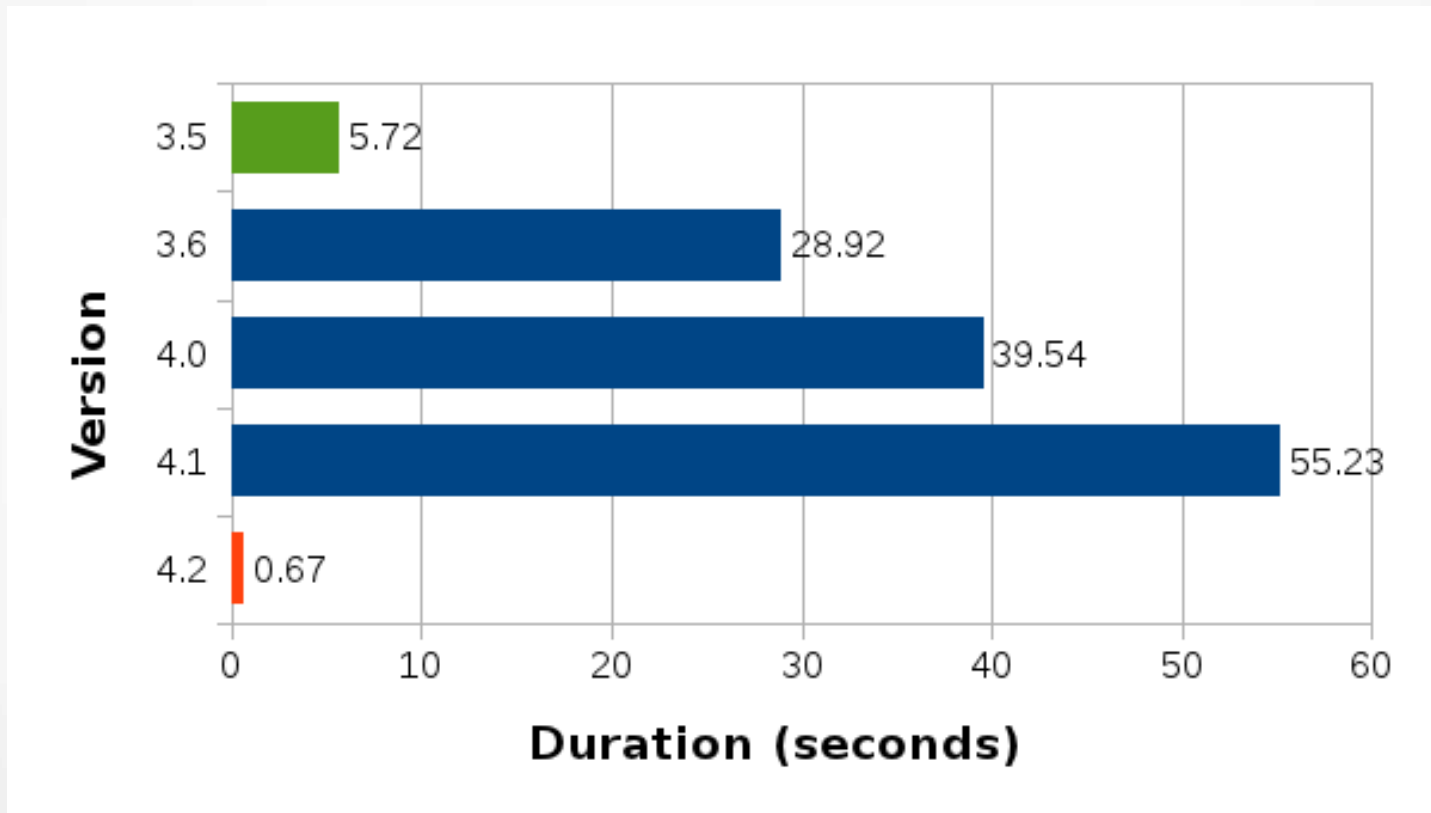
Dis-infecting the horrible,  
long-term, inherited  
structural problems of Calc.  
Moving on to real shared  
formulae & fixed up  
referencing.

Should yield even more  
memory & performance wins  
for large sheets.

Lots of new unit tests being  
created for the first time for  
the calc core.

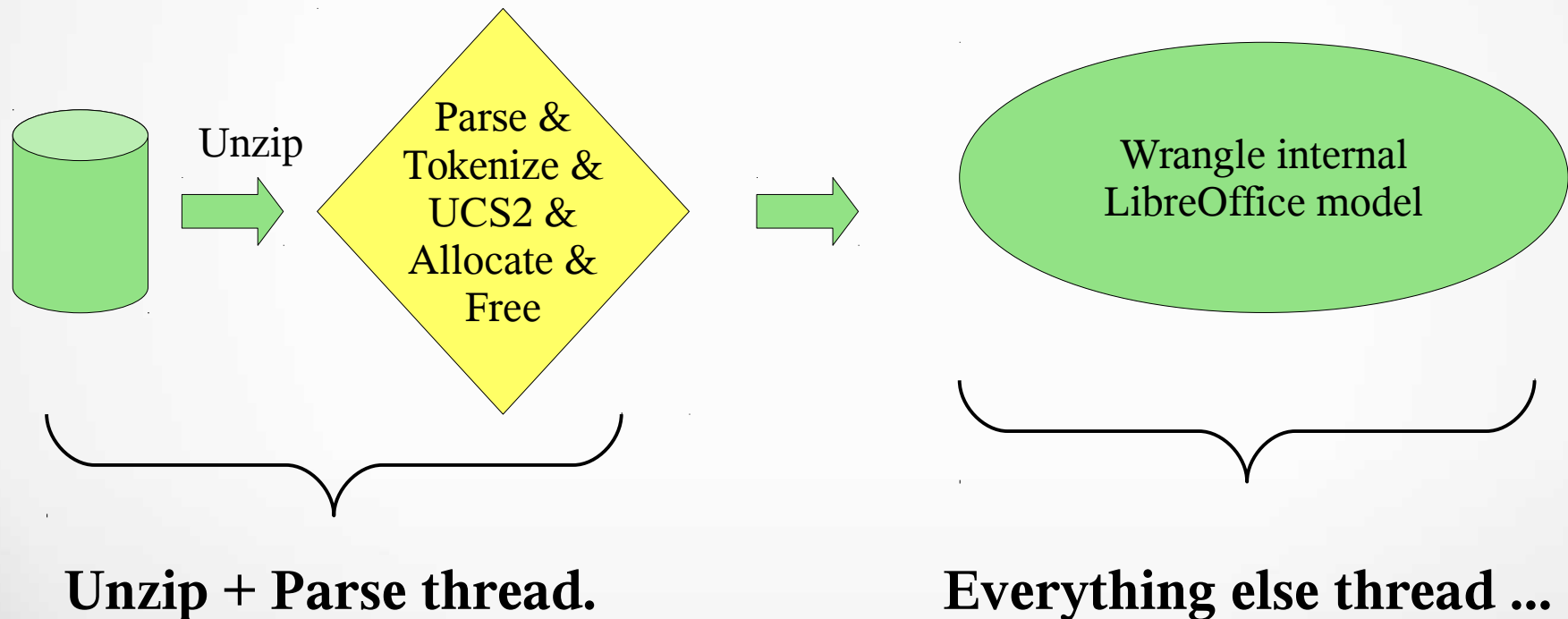
# New Feature: LibreOffice 4.2

## Calc Rich Text Cell Export Performance



# New Feature: LibreOffice 4.2

XML parsing is fun: → speed up parsing.



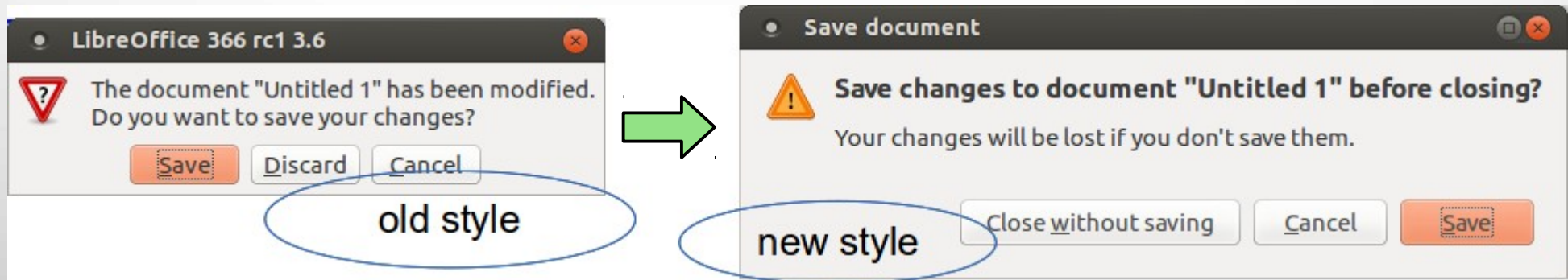


# VCL / Layout integration ...



LibreOffice continues to use it's internal VCL toolkit

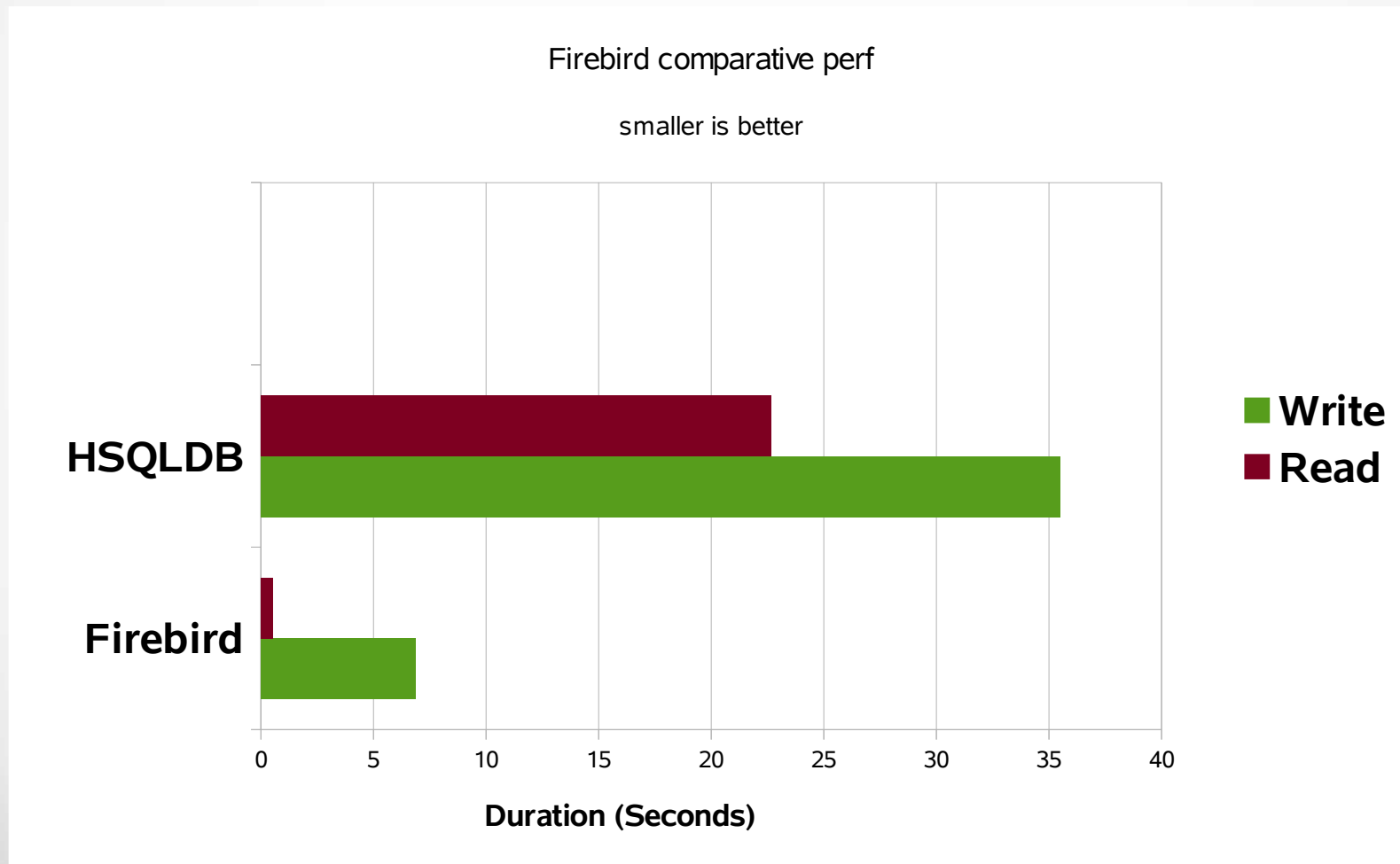
- With backends for gtk2, gtk3, KDE3, KDE4, TDE, raw X etc.
- Thanks to *Caolán McNamara, Krisztian Pinter, Jack Leigh, Alia Almusaireae (KACST), Katarina 'Bubli' Behrens, Abdulaziz A Alayed (KACST), Jan Holesovsky, Faisal M. Al-Otaibi (KACST), Abdulmajeed Ahmed (KACST), Andras Timar, Manal Alhassoun (KACST), Bubli, Albert Thuswaldner, Olivier Hallot, Miklos Vajna, Abdulelah Alarifi (KACST), Gokul Swaminathan (KACST), Rene Engelhard, and others.*
- 335 dialogs (~50%+) moved to GtkBuilder / glade edited .ui files.
- Hope to allow (optional) use of native widgets in the future [ **gtk+3** ]



# Fast FireBird embedded database



New database engine to replace HSQLDB (*Andrzej Hunt (GSOC) & Fridrich Strba, Andres Gomez, Javier Fernandez*)



# Configuration cleanup ...



Hide most of ~25k config settings in about:config alike

*(Efe Gürkan Yalaman (GSOC))*

Options - LibreOfficeDev - Expert Config

LibreOfficeDev

- User Data
- General
- Memory
- View
- Print
- Paths
- Colors
- Fonts
- Security
- Personalization
- Appearance
- Accessibility
- Advanced
- Basic IDE Options
- Expert Config**

Load/Save

Language Settings

LibreOfficeDev Writer

LibreOfficeDev Writer/Web

LibreOfficeDev Base

Charts

Internet

**Preferences**

Preference Name	Property	Type	Value
/org.openoffice.FirstStartWiza	Visible	boolean	true
/org.openoffice.FirstStartWiza	Visible	boolean	true
/org.openoffice.FirstStartWiza	Visible	boolean	true
/org.openoffice.FirstStartWiza	Visible	boolean	true
/org.openoffice.Inet/Settings	oolnetFTPProxyName	string	
/org.openoffice.Inet/Settings	oolnetFTPProxyPort	void	
/org.openoffice.Inet/Settings	oolnetHTTPProxyName	string	
/org.openoffice.Inet/Settings	oolnetHTTPProxyPort	void	
/org.openoffice.Inet/Settings	oolnetHTTPSProxyName	string	
/org.openoffice.Inet/Settings	oolnetHTTPSProxyPort	void	
/org.openoffice.Inet/Settings	oolnetNoProxy	string	
/org.openoffice.Inet/Settings	oolnetProxyType	long	0
/org.openoffice.Interaction/Inte	Propagation	string	named-and-derived
/org.openoffice.Interaction/Inte	ServiceName	string	com.sun.star.filter.pdfexport.P
/org.openoffice.Interaction/Inte	Propagation	string	named-and-derived
/org.openoffice.Interaction/Inte	Propagation	string	named-and-derived
/org.openoffice.Interaction/Inte	Propagation	string	named-and-derived
/org.openoffice.Interaction/Inte	ServiceName	string	com.sun.star.comp.dbaccess.
/org.openoffice.LDAP/UserDir	Mapping	void	
/org.openoffice.LDAP/UserDir	SearchPassword	void	

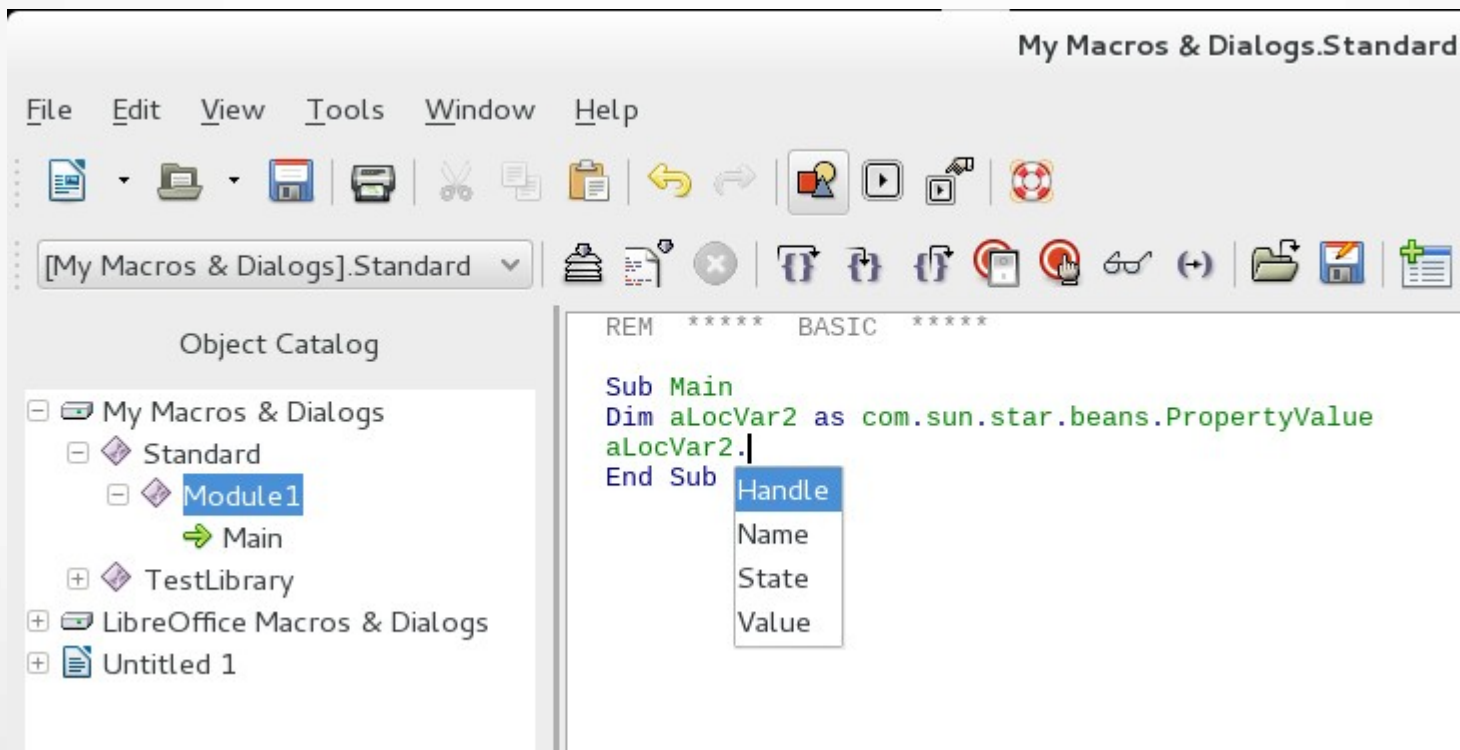
Default Edit

OK Cancel Help Revert

# StarBasic code completion:



Easier to hit the keyboard and getting correct code ...  
*thanks to Gergo Mocsi (GSOC)*




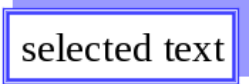
# Support Character Borders





ODF extensions → OASIS, MS filter work etc.

*thanks to Zolnai Tamás.*

 Character border: format one or more characters with a border. Character border: format one or more characters with a border. Character border: format one or more characters with a border. Character border: format one or more characters with a border. Character border: format one or more characters with a border. Character border: format one or more characters with a border.

Character border: add border around .

Before	After
 QQQQQQQQQQ QQQQQQQQQQ QQQQQQQQQQ QQQQQQQQQQ	 QQQQQQQQQQ QQQQQQQQQQ QQQQQQQQQQ QQQQQQQQQQ

**Future / research pipeline ...**  
(or some things we're slowly working on)



# **Android & mobile platforms** (something in your pocket)

# Who did all of this ?



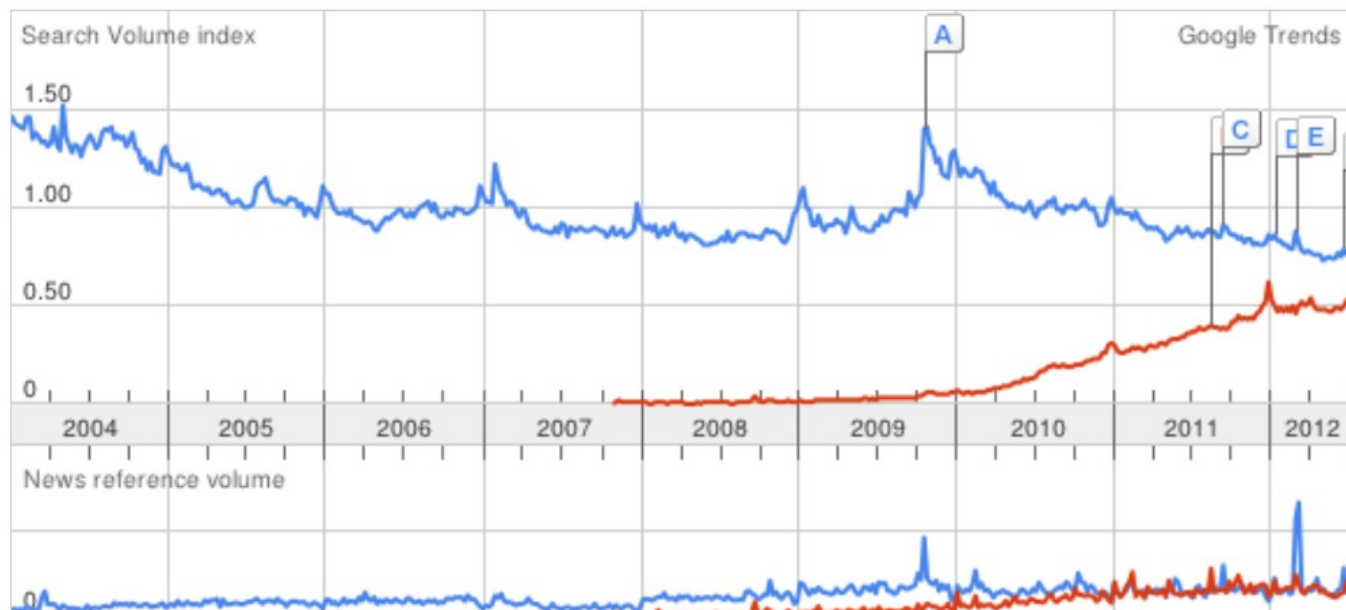
I'm a fraud ! The real work & glory  
should be addressed to:

**Tor Lillqvist's** hours of toil

Why do it ? - futures ...

windows

1.00 **android** 0.10



The man himself ...

Thanks to:  
<http://trends.google.com/>

## Flower Office Presentation

Date: Freitag, 21. Juli 2006

Time: 10:00 - 12:30 a.m.

Location: Room 103  
Saargalerie Building A3  
66125 Saarbrücken

Type of meeting First Presentation

Meeting called by Flower Power Company

Chairperson Product Manager

Attendees IRMs of the European Commiss

## Topics

Num	Topic	Responsible	Time
1.	Presentation of the company	Executive director	10:00
2.	Presentation of Flower Office	Product manager	10:30
3.	Demonstration of Flower Office	Marketing staff	11:30
4.	Answers and Questions	Product manager	12:00

- Pages are rendered to textures by something like a 'liblibreoffice'
- The Java native app renders textures / page numbnails etc.



# Tiled Rendering



*Tablet display*

## LibreOffice / Android 4.x

A small table with an embedded imager

This is a picture of our wedding with some nice text flow going on around it, of course you can edit a custom contour as well as having a crude ellipse, which makes for a very nice look. Below it is an alpha blended free-hand filled spline with drop shadow and gradient.

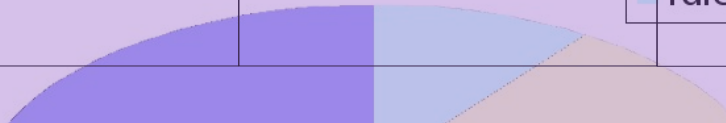


*Large Pre-rendered area for fast pan / zoom etc.*

And chart of the week:

## Persistent Sins

- Jealousy
- Pride
- Lust
- Idleness



Other pieces – on-line & collaboration

# Cloud Office / HTML5 prototype ...



Rendering using the **HTML5 Canvas** ...

Communication using Web-Sockets (**now with v7**)

- very simple plain-text event / control protocol
- **compressed png** for screen updates ...

Bandwidth usage **low** for simple tasks:

- We can see what is re-rendered as we type:
- But really as we type a character: only **this** is sent:

– And that tiny rectangle is png compressed ...

– CopyArea on the client for scrolling.

Hello World this is me typi





Crazy demos & bits ...



Hybrid PDFs are wonderful:

- Embed the pristine ODF data streams alongside the PDF data
- Viewable for anyone with or without LibreOffice as created
- Editable at full fidelity with LibreOffice
  - *[ of course we import / allow some editing non-hybrid PDF ]*

Flat ODF demo

- Save a file – not as .odt but .fodt
- Pretty-printed, easy to generate XML

# LibreOffice Conclusions



## LibreOffice is growing & executing

- Really improved a lot for developers
- Improving for users: but we can do better

## LibreOffice is diverse & easy to deploy

- Lots of corporate support, extraordinary progress

## LibreOffice has ambitious future plans

- We need your help to accelerate them ...

## Thanks for all of your help and support !

- **we rely on you**, to prove the power of Freedom with us.
- to get people **excited** about Free Software they use ...

## Please do get involved and help us ...

*Oh, that my words were recorded, that they were written on a scroll, that they were inscribed with an iron tool on lead, or engraved in rock for ever! I know that my Redeemer lives, and that in the end he will stand upon the earth. And though this body has been destroyed yet in my flesh I will see God, I myself will see him, with my own eyes - I and not another. How my heart yearns within me. - Job 19: 23-27*