LibreOffice: Development and Future ...

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“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's going on
- Why it rocks so
- What's coming next?
- Things like that
- GNOME stuff
- What's done, what's going on
- Opportunities an ongoing work
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:
  RedHat team are all here today: shake their hands.

- 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
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 commiters are volunteers:

![Active Code contributors per month](chart)

Active Code contributors shown: (just one part of the project).
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:
  - Low-level types / utilities overview:
Large, fun and growing community

Many other contributors to enjoy working with:
Supporters of LibreOffice: the Advisory Board
LibreOffice 4.0 new stuff

bits that didn't make last year ...
All versions Visio import (4.0)

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

Thanks to Jan Holesovsky and a small Canadian food company customer ...
Interoperability lots of work ...

Range comments – sponsored by the Open Source Business Alliance
Random Hybrid PDF / Flat ODF demo

- 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 of non-hybrid PDF too ]

- Flat ODF demo
  - Save a file – not as .odt but .fodt
  - Pretty-printed, easy to generate XML
LibreOffice 4.1 new stuff

A small flavour of what we just released …
## Embedded fonts test

<table>
<thead>
<tr>
<th>Libre - Callibri</th>
<th>Libre - Broadway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Libre - Cambria</td>
<td>Libre – Ariel Black</td>
</tr>
<tr>
<td><strong>libre - Bauhaus</strong></td>
<td><strong>LIBRE - CASTELLAR</strong></td>
</tr>
<tr>
<td>Libre - Blackadder</td>
<td>Libre – Berlin Sans FB</td>
</tr>
<tr>
<td>Libre – Vladimir Script</td>
<td>Libre - Gill Sans MT</td>
</tr>
<tr>
<td>![Font icons]</td>
<td><strong>Libre - Elephant</strong></td>
</tr>
<tr>
<td>Libre - Jokerman</td>
<td>Libre - Impact</td>
</tr>
<tr>
<td>Libre – Lucida Cal</td>
<td><strong>Libre - Magneto</strong></td>
</tr>
<tr>
<td>Libre – Old English T.</td>
<td>Libre - Playbill</td>
</tr>
<tr>
<td><strong>Libre - Ravie</strong></td>
<td><strong>LIBRE - STENCIL</strong></td>
</tr>
</tbody>
</table>
| Libre – Sketchflow    | Libre - Vivdi          

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 ...

With thanks to Eric Seynaeve
As I'm sure you are aware from your frequent travels aboard Blue Sky Airlines, we produce a quarterly magazine for our passengers to read while in flight. As editor of Blue Sky's publications, I am writing to you to be our Spring Spotlight Traveler.

Our booking agents tell us that you fly Blue Sky in the company of Vincent, the orangutan from the popular television show. Would you be willing to be interviewed and to pose for some photos, preferably with Vincent? We'd love to publish this story in our fifth anniversary special issue of the magazine.

If you agree to be a Spotlight Traveler, you will receive two complimentary, round-trip tickets to anywhere Blue Sky flies, as well as four, first-class upgrades to use on any flights during the coming year. We will also send you our special Spotlight Traveler card. This card entitles you to preferred service and to special tour packages offered throughout the year only to Spotlight Travelers.

I would like to schedule the interview for a time that is convenient for you. I will call you during the coming week to discuss the details with you. If you have questions before then, please feel free to call me at (555) 555-6543.

Congratulations, Jean!

Sincerely,
Joyeux anniversaire Eric!

Les Dupuis souhaitent vous inviter avec votre famille pour le 7ème anniversaire de leur rejeton !

**Quand** : Samedi 1er avril
**Où** : Buttes Chaumont
Près de la statue du lac
**Quoi** : Nous aurons préparé un pique-nique, apportez juste de l'appétit !

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Où : Buttes Chaumont
Près de la statue du lac
Quoi : Nous aurons préparé un pique-nique, apportez juste de l’appétit !
Rdv : devant le lac à 13H, et à 14H pour le repas.
ALPINE VALLEY NEWS

IT’S TIME TO TRAVEL TO ALPINE VALLEY

Now is an exciting time of the year for skiers. The warm weather of summer is behind us, and as the thermometer dips lower by the day, we anxiously await the first snowfall so we can hit the slopes. Here at Alpine Valley, we have spent the summer making improvements and updates to our facilities in order to develop a proper, fundamental skiing style. Intermediate and advanced classes are also available for those wishing to refine their skills even more.

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Upcoming Ski Weekends

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Legacy binary doc reverse engineering → ODF

AppleWorks 6.0

With many thanks to Laurent Alonso & libmwaw

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February 23, 2000

Mrs. Kathy Jones
2454 Mardell Way
Nashville, TN 37284

Dear Mrs. Jones,

Anno non utinam, noster exercitium privato consulit et privata imposita communis, per quem rem publicam a comminatione factores oppressae in libertatem nundinarum. Eo quae servit decretum hominis in ordinem nume adlegat. C. Pana et A. Hirti consulibus, consulare locum sententiae ducimus, et imperative nulli dedit. Fas publica esse quid dementes caperet, me praeceptore simul cum consulibus prodections resist. Populus autem eodem anno me consulim cum eos utique bello cecidisset, et triumvirum rei publicae constituciæ creavit.

Cui parentem nem nec tulerunt eos in eximium expul

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Judy Smith
Sidebar from IBM / AOO (Experimental)

Various tabs … embed existing gallery & navigator conveniently.

LibreOffice with Experimental Sidebar

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

Also, improved gallery / clipart & improved translation mechanism
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
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 4.2 new stuff …
the deep, speculative future (6 months out)
Lots of great work from GSOC

- Windows / VLC integration (if present)
- Better codec support than windows → use it.
  - Thanks to Minh Ngo
- Firebird database: move from HSQLDB
  - Significant speedups, thanks to Andrzej Hunt
- libCMIS connector for Google Docs
  - Thanks to Cuong Cao Ngo
- And much more ...
Much improved Android Impress remote

With thanks to Artur Dryomov

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.
GDrive integration (via **libcmis**)
Initial iOS Impress remote control

With thanks to Siqi Liu – sign up for the Beta

I'm not sure if I'm missing something but what should be a simple task just doesn't want to work. I'm trying to add a drop shadow to a UIView in iOS 6. I'm using storyboards and auto layout. I'm drawing the UIView in the storyboard scene with a white...
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 (SUSE), MultiCoreWare
Abstraction of Cell Value Access
ScBaseCell Usage (Before)

ScDocument

- Undo / Redo
- Change Tracking
- Content Rendering
- Excel Filter (xls, xlsx)
- RTF Filter
- Quattro Pro Filter
- HTML Filter
- External Reference
- DIF Filter
- SYLK Filter
- DBF Filter
- CppUnit Test

Document Iterators

UNO API Layer

VBA API Layer

ODF Filter

- CSV Filter
- Conditional Formatting
- Chart Data Provider
- Cell Validation
- Excel Filter (xls, xlsx)
Abstraction of Cell Value Access
ScBaseCell Usage (After)

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.

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

Lots of new unit tests being created for the first time for the calc core.
LibreOffice and GNOME ...
Integration & work with GNOME

- Schedule Synchronisation
  - our .2 release matches the 6 monthly GNOME / distro release cadence.
- gnome_vfs & gio integration
- gconf_ - no dconf yet (volunteers appreciated)
- d-bus (screensaver hold-off API / dbus menu pieces)
- Evolution libebook / addressbook & send-mail integration
- All windows are GtkWindows, glib mainloop integration
- Gtk+ file dialog & ~GtkPrint integration
- Harfbuzz re-use …
- Telepathy integration – coming …
- And more …
 GNOME app menu integration

- Also GMenu integration thanks to Canonical and Antonio Fernandez at Aentos

Thanks to Caolan McNamara
LibreOffice continues to use its 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 ]
LibLibreOffice – prototype:

- A tiny static library
- At run-time, dynamically links / exposes LibreOffice functionality
- An abstract & much simplified programming interface:

```cpp
class LibLibreOffice {
    virtual bool initialize (const char *installPath) = 0;
    virtual LODocument *documentLoad (const char *url) = 0;
};
LibLibreOffice *lo_init (const char *install_path);
```

- GNOME / Documents:
  - Currently re-spawns (via a python script 'unoconv') a LibreOffice process to do PDF conversion → evince.
  - Significant setup / tear-down costs → better to link libreoffice ?
  - Ultimately hope to have a tiled document renderer for 'Documents;
libCMIS integration in GNOME

- libCMIS – standalone library (thanks to Cedric Bosdonnat)
  - [http://sourceforge.net/projects/libcmis/](http://sourceforge.net/projects/libcmis/)
- Uses new “Content Management Interoperability Services” (CMIS) std.
- Implemented by many servers:
  - MS Sharepoint 2010+. Alfresco + in the cloud, EMC Documentum, IBM doc mgmt. systems, Nuexo, OpenCMS, SAP HANA, etc.
- Already have a prototype GVFS backend:
  - Help **much** appreciated to finish & get that into a ship-able state …
- libcmis – also talks to Google Docs.
libCMIS integration in GNOME #2

- Cedric's SUSE hack-week project.
- Nautilus talking to Alfresco:
  - Could easily be SharePoint
- Help appreciated completing / pkging.
LibreOffice & GNOME Conclusions

- LibreOffice is growing & executing
  - Really improved a lot for developers
  - Improving for users: still a long way to go …
- LibreOffice works well with GNOME
  - We want to integrate better with all our platforms
- LibreOffice has ambitious future plans
  - We need new hackers 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