OpenOffice.org
Project:

Mac OS X port
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Introduction
Speaker introduction:

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**OpenOffice.org Project**
... a brief history

First working version of OpenOffice.org 2.0 on Mac OS X: January 2005

Mac Intel port: January 2006

Work in progress: Aqua port (sched: 2007)
(no X11 / Aqua Look and feel)
OpenOffice.org Project is ...

A Community Project
( LGPL for code, PDL for documentation)
- Multi OS (Linux, Windows, Mac OS X, Solaris, FreeBSD, OpenBSD, OpenVMS)

- Multi architectures (Intel, PowerPC, ARM, Alpha ...including 32, 64bits)
Everything is project in OpenOffice.org

- **Accepted** projects: framework, gsl, **porting** ... (24)
- **Native Lang Community** (72)
- **Incubator** projects (14)
- **WebWork** (5)
Languages used in OpenOffice.org:

C++ : ~ 90 %
Java : <4,5%
Ansi C : ~ 2,5 %
Perl : 1%
Other (11) < 2 %

Source: http://blogs.linux.ie/caolan/2007/01/
Mac port in the project
• Sources are common, organized in 150 modules (supposed independant)

• OpenOffice.org is a framework

• the code is old

• nothing was existing for Mac OS X port (only an Unix port, including X Windows server, aka X11)
Mac Intel port:

- works since January 2006
- Available for both PowerPC and Intel (two separate binaries)
- Official since 2.0.3 on X11 version
Mac porting project objectives
• Provide a real Mac Application
• get rid of X11
• respect the Aqua Look
• respect Aqua Human Interface Guidelines
Programming Requirements:

- Good C/C++ knowledge (important)
- basic knowledge of the UNIX command line
- Know the Carbon API
- Own a Mac ...
What do we have to do?

Implement:

direct access to Apple graphical engine, using Apple API: Quartz2D/CoreGraphics (and replacing Xlib use)

native events management, using CarbonEventManager (replacing Xlib management)
Implement:

- **native font use**, using Apple Type Server and ATSUI (for Unicode Imagery) (replacing X11 management)

- **native Drag and drop**,

- **native sound**, using QuickTime (replacing Java Media Framework):

- **Native Filepicker**

- **Native Printing**: current uses cups, but native printing is mandatory
Where is located the code to be modified?

**Most of the changes are located in vcl** *(Visual Class Layer)*, for everything graphical, events, fonts, rendering and printing.
Other, for sound and movies will be in avmedia (where the player is implemented in OpenOffice.org sources).

For drag and drop, dtrans is concerned (Pasteboard Manager implementation)

Filepicker : fpicker, sfx2, scp2, vcl
How will the new implementation be tested?

In vcl module", a toy called svdem is built at buildtime. This binary is linked to libvcl* and so all new stuff can be tested.

e.g. : draw anti-aliased lines works well.
Everything implemented in aqua vcl code:

- will be included in libvclplug_aqua,
- svdem source code will contain a specific part to proceed tests.

The magic is:

When all needed features will work with svdem, it will work in the new version of OpenOffice.org!!
Mac OS X native (no X11) specific tree

vcl: means Visual Class Library. Top dir of the module

vcl/aqua: does contain Mac OS X native specific sources

vcl/aqua/inc: does contain all aqua specific headers

vcl/aqua/source: Top dir for specific aqua sources

vcl/aqua/source/app: does contain sources for everything application (instance, display, audio, keyboard, i18n, datas)

vcl/aqua/source/gdi: Does contain everything about drawing, rendering stuff, fonts, User Interface

vcl/aqua/source/ src: Old dir / to be deleted

vcl/aqua/source/ window: Does contain everything around window (frame, menu, obj)
Todo and roadmap
Step 1:

Fix Top 10 of issues, to provide a public version: proof of concept

concerned: crashes, windows refresh, missing functions for fonts, cursor .. to make the aqua version usable (not for production)
Step 2

Code review
Integrate aquavcl01 cws
Start basic QA ( manual tests first, feedback from users .. )
Implement missing parts :
- filepicker, sound , drag and drop, printing ...
Step 3

Beta

Complete QA
Step 4

Complete integration
First Aqua version (1.0)
Connect With the OOo Developer Teams
• IRC Channels :
• server : irc.freenode.net
• channel : #ooo_macport
• Site :
  http://porting.openoffice.org/mac
Mailing lists:

- **dev@openoffice.org**: general developers mailing list
- **mac@porting.openoffice.org**: mac porting specific list
- **dev@gsl.openoffice.org**: vcl specific list (more on vcl later)
WE NEED YOU

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