Speaker presentation

Eric Bachard

Professor of Applied Physics, UTBM (France)

Developer for Francophone OpenOffice.org

project

Porting Project co-lead

Mac OS X Porting

Plan

- History of the Mac OS X port
- X11 vs Aqua and more
- State of the Art
- Propositions for future of Mac OS X port
- Thanks
- Q & A

OpenOffice.org history

- **1980** creation of Star Division
- **1986** StarWriter for DOS
- **1996** StarOffice 3.1 (Windows, Mac, OS/2, Unix)

- **1999** (Aout) : Star Office 5.1 is downloadable for free, for personal usage only

- **2000** : Start of StarOffice 5.1 (19 july) Announce of OpenOffice.org project creation (13 octobre). Code is free.

- **2002** (may) : Openoffice.org 1.0 / StarOffice6.0

- **2005** : OpenOffice.org 2.0 / StarOffice 8.0

Brief **history** of **Mac** Port

- OpenOffice.org sources available since end 2001

First build for Mac OS : 2002

Most Important contributors for 1.1 to 1.1.2 :
Patrick Luby, asxless, Edward Peterlin, Dan Williams, Kevin
Hendricks, Terry Teague

Existing versions of Mac OS X

- Architecture : PowerPC (G3, G4 G5), and soon Intel x86 "Mactel"

- Mac OSX 10.2 : Jaguar
- Mac OS X 10.3 : Panther
- Mac OS X 10.4 : Tiger

Open**Office.org** 1.1.x for Mac

Version	*1.0*	*1.1.2*	*1.1.4*	*1.1.5*
Date	June 2002	June 2003	Nov 2004	Sept2005
Uses	Aqua	X11	X11	X11
OS	10.1-10.2	10.2->10.4	10.3 and 10.4	10.3 and 10.4

- What means X11 ... and Aqua ?

Differences X11/ Aqua

- X11 : free implementation of XFree provided by Apple : client/server architecture

  Exactly the same as the one used in Linux (gtk, kde can be used)

- Aqua : native Graphical User Interface for MacOS X (using Cocoa)

- All actual OpenOffice.org versions for Mac OS X need X11 to work
- Another project does not use X11 : NeoOffice

What is Aqua ?

- Native Apple User Interface with complete consistency between applications :

  - Drag'n drop

  - All shortcuts are the same for all applications, using "Apple" key.

  - Everything is thought for the user : better look'n feel

To learn more about Aqua Human Interface Guidelines, see

 <http://developer.apple.com/documentation>

Two projects...why ?

- OpenOffice.org **was** LPGL + SISSL
- NeoOffice is a fork under GPL

Some developers disagreed the SISSL+LGPL mix, not protecting developers.

- Kevin Hendricks : «no one wants anyone else to ride freely and make money off ther volounter work »

Actual Status of X11 port

- OpenOffice.org 2.0 /X11 for Mac OS X : ok
- Compatible Panther and Tiger : ok
- Easy to install : ok
- Easy to launch : ok
- Native fonts auto extracted : ok
- Look is now more better

- Complete drag'n drop : not ok

  -> we reach our limits using X11

What does Apple, waiting ...

- One new OS version every year

- Improving Cocoa : Objective-C, and soon Objective-C++ (partial implementation only currently)

- Will X11 still be used in next version of Mac OS X ?

- New hardware generation is planned for june 2006 : "Mactel" with x86 inside

Stop with X11

It's not possible to continue with X11 for next generations of OpenOffice.org versions.

Other potential problems :

- Java 1.4.x mandatory (1.3 won't work at all)

- gcc-4.0.x only

- Assembler problems

We must change for Native port

Conclusion : to be able to follow Apple's evolutions :

- We must stop to use X server for future version (after 2.0), just fixing bugs for 2.0

- Mac OS X port must switch using Cocoa API's : all hardware problems will be solved inside Cocoa API

- More easy to maintain

- More attractive for Mac developers

- Respects what Mac Users expect

What is to do ?

Everything :

- Analyze existing code

- Write the necessary documentation

- Define a todo-list

- Define a complete plan for Mac port

- Write new code

- Build and fix bugs

NeoOffice people, every developers are welcome

Where is the job to do ?

- In vcl (visual class layer):

New code must reimplement what is actually done by X11, but using Cocoa API.

-> quick look in sources
-> what can help us

Syntax part

For (Re)writing vcl part, we must :

- define codelines for C++ -> Cocoa translation
- Define rules/tools for code documentation

Semantic part

- analyze vcl and write doc about it

- analyze aqua part of vcl

- analyze NeoOffice strategy (proposed by Patrick Luby)

- define precisely every task

- rewrite a complete documentation of vcl part (including codelines, sample of codes)

- define a timeline

Proposition of roadmap

End 2005 :

- stable : SRX645 : 1.1.5 is ok for Mac OS X Panther and Tiger

- stabilize SRC680 for both Panther and Tiger

Roadmap (part2)

Development (mactel port and native port)

End 2005 – mars 2006
- analyse code, and write documentation about how it works
- define codelines and rules
- define tasks and a todolist
- start implementation

Mars 2006 - end 2006 : provide a build using native port

Notes on mactel port

- Mactel port : universal binaries build will probably be completed between end 2005 – mars 2006

To do :

- complete use of gcc-4.0.x

- adapt actual OpenOffice.org code

- rewrite (adapt probably) bridge and uno part(Re)writing vcl, we must :

- For actual Mactel port, around 20% builds without any problem for Universal binaries.

- all improvment in native port will be included in

The active Mac OS X porting Team

- Stephan Schäfer (dev)
- Tino Rachui (dev)
- Florian Heckl (dev)
- Etsushi Kato (dev)
- Christian Junker (dev)
- Eric Hoch (build / website)
- Joerg Sievers (we got a QA man !)
- Maho Nakata (dev / official builds)
- Eric Bachard (dev)
- Pavel Janik (everything :-))
... forgoten someone ?

Welcome to the others :-)

Questions ?

- Many thank's to :

- CUSOON for the mactel + ADC select membership
- Team OpenOffice.org e.V. For the tinderbox

- OpenOffice.org project and all contributors

Eric Bachard (ericb@openoffice.org)

porting project co-lead