News and Development Process

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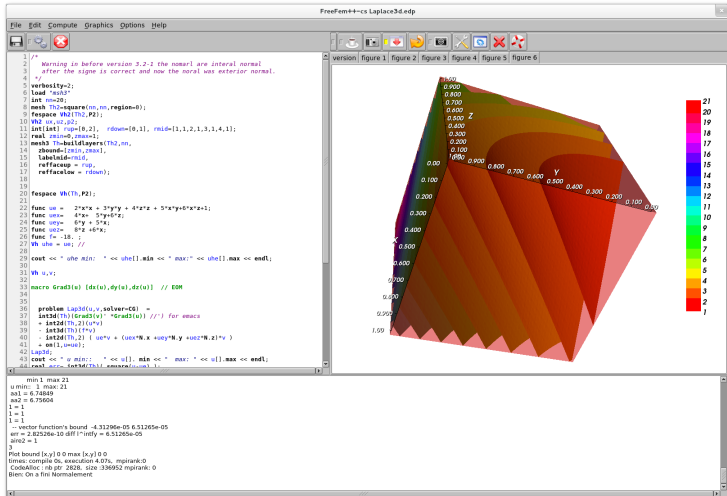
December 10, 2013

Description
Progress
Ongoing Developments
Remote server
Conclusion

FreeFem++-cs
GUI

FreeFem++-cs

A GUI for FreeFem++ with specific goals :

- Easy learning curve
- Users should be able to start from scratch (includes editor!)
- Create a simple interface for most uses

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Graphical User Interface

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Mercurial
Main changes

New Mercurial Structure

> `ffcs/ff/upstream`
> is now cloned from
> `http://www.freefem.org/ff++/ff++`

+   more coherence between sources
-    more work to keep everything coherent

How developers can participate :

- via patches
- via Mercurial clones, published on the web

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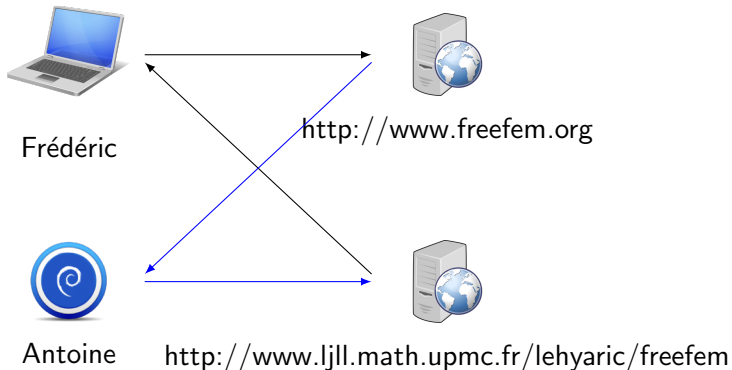Conclusion

Mercurial
Main changes

Mercurial Commands

To download the different versions of the source :

- hg clone http://www.freefem.org/ff++/ff++
- hg clone https://www.ann.jussieu.fr/~lehyaric/freefem
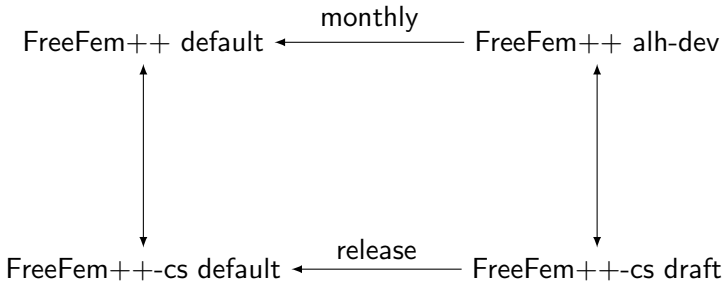- hg clone https://www.ann.jussieu.fr/~lehyaric/ffcs/dev

To select the right branch ("default","alh-dev","draft") :

- hg update [branch]

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Physical location of FreeFem++ source code

Frédéric

http://www.freefem.org

Antoine

http://www.ljll.math.upmc.fr/lehyaric/freefem

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Mercurial Branches

FreeFem++ default ←——— monthly ——— FreeFem++ alh-dev

FreeFem++-cs default ←——— release ——— FreeFem++-cs draft

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Other FFCS changes

- FFCS
  - Plots in parallel scripts
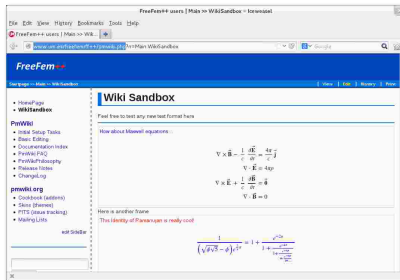 - Many small improvements
    14 releases this year
    https:
    //www.ljll.math.upmc.fr/~lehyaric/ffcs/testing.php

- Common source (FF)
  - OpenBLAS activated if configure.ac does not find a default BLAS library
  - Stabilizing the download and build of external tools (maybe we should completely isolate these downloads in a separate script?)

Ongoing Developments

- Debugger
    - opening the C++ classes
    - connection through GUI
    - connection through other languages
- FreeFem++ full documentation on Wiki

http://www.um.es/freefem/ff++/pmwiki.php
(wiki created by Eliseo Chacon Vera)

Comment Structure

- Doxygen

  http://www.ljll.math.upmc.fr/lehyaric/freefem/html
  http://www.ljll.math.upmc.fr/lehyaric/ffcs/dev/html

- Emacs "org-mode"

  ```
  (require 'org-install)
  (global-set-key "\C-co" 'org-open-at-point-global)
  ```

  ```
  links : [[file:/a/b/c/d.cpp::name]]
  targets : <<name>>
  ```

Changing the GUI framework

- Better looking
- Portable (Linux, MacOS, Windows)
- LGPL
- GTK? Qt? plain Java? Java with Emscripten?
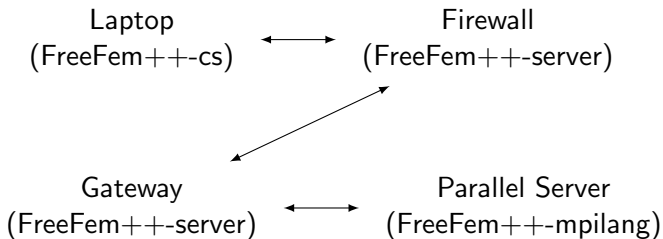- VTK and MacOS Cocoa compatibility issues
- Open to ideas (and volunteers 🙂)

Call for Contributors

> Many thanks to Cico, Fred, John Hunt, José Alberto Rodriguez and all the others who contributed bug reports and improvement ideas in the last year.

- may create a project on an external server like sourceforge or github?
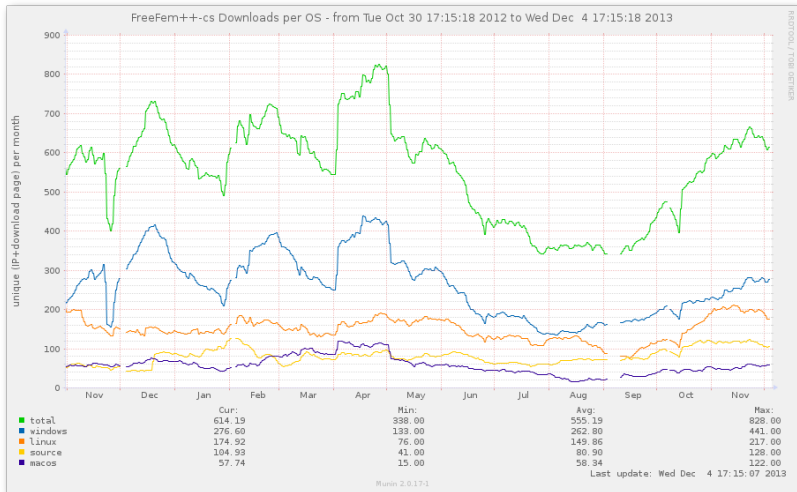
Remote Server

- created in cooperation with the EJS project
  http://fem.um.es/Ejs

- good for big runs on parallel machines and local visualisation

Laptop   Firewall
(FreeFem++-cs)   ⟷   (FreeFem++-server)

Gateway   Parallel Server
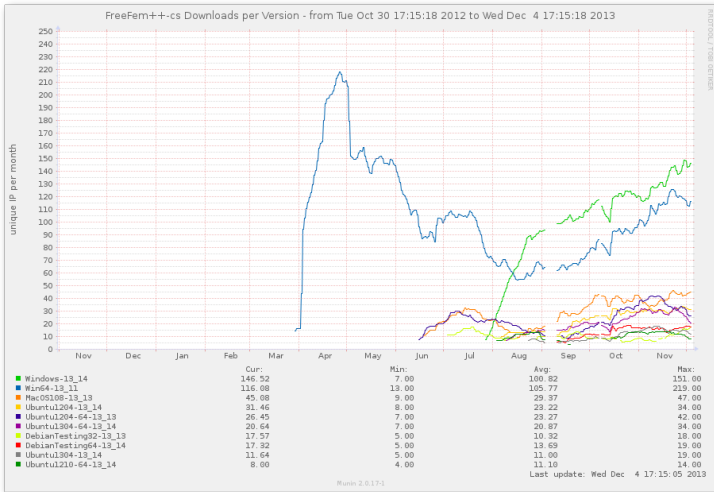(FreeFem++-server)   ⟷   (FreeFem++-mpilang)

FreeFem++-cs "Mobile" Server Connection Details

1. Choose wifi network "ffcs2" (password "freefemdays2013")
2. Start FreeFem++-cs
3. Set Compute/Remote Server
4. Set Compute/Options/Server Hostname = "ffserver"
   (or "192.168.4.1" in case of problem - known bug)
5. Choose an example in File/Open Example :
   - sequential : 3d/Laplace3d.edp
   - parallel : mpi/Laplace3d-hips.edp

   (or any other self contained edp script)
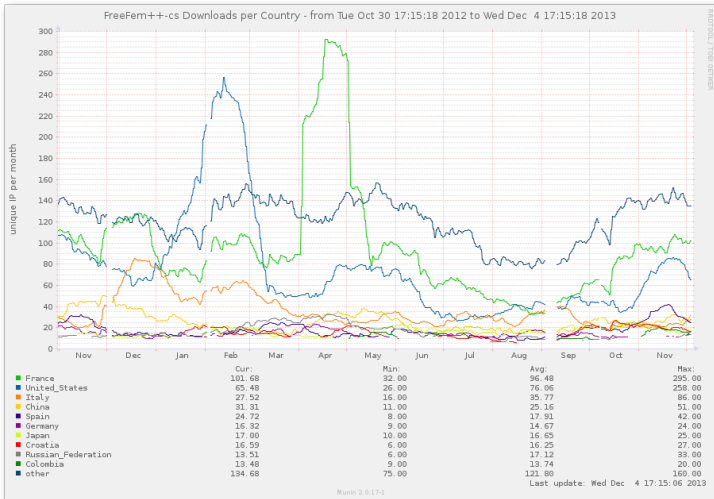6. Set Compute/Use MPI if necessary
7. Run

Stats per OS

Stats per version

Stats per country

Questions

- Comments on most FreeFem++-cs web pages
- freefempp mailing list
  http:
  //ljll.math.upmc.fr/cgi-bin/mailman/listinfo/freefempp
- For the afternoon tutorials, download it early to avoid
  saturating the network

To find FreeFem++-cs on the net : just search for "freefem cs"

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