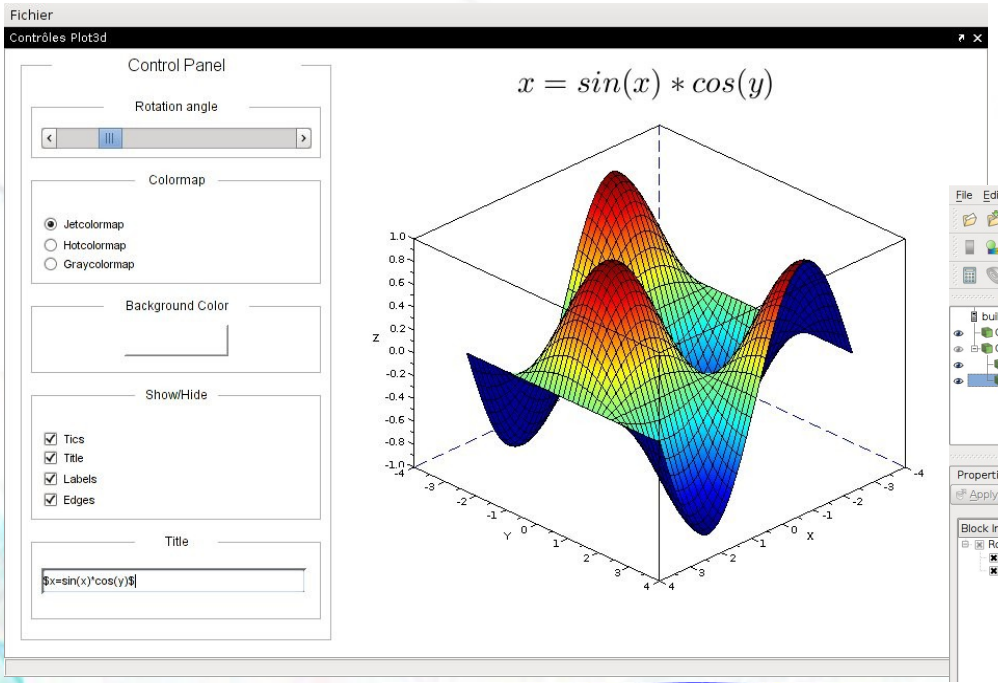
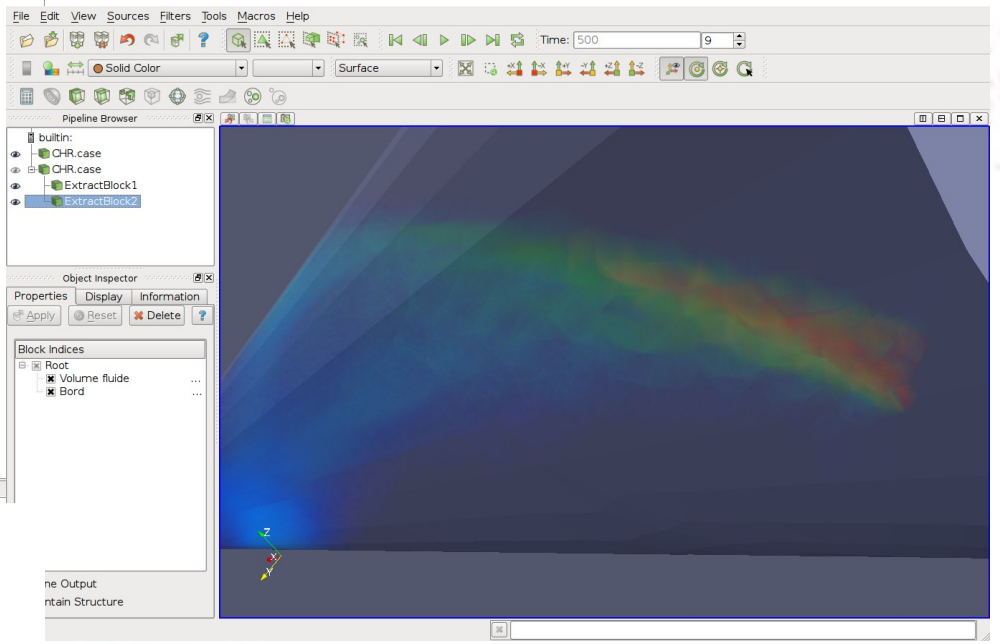
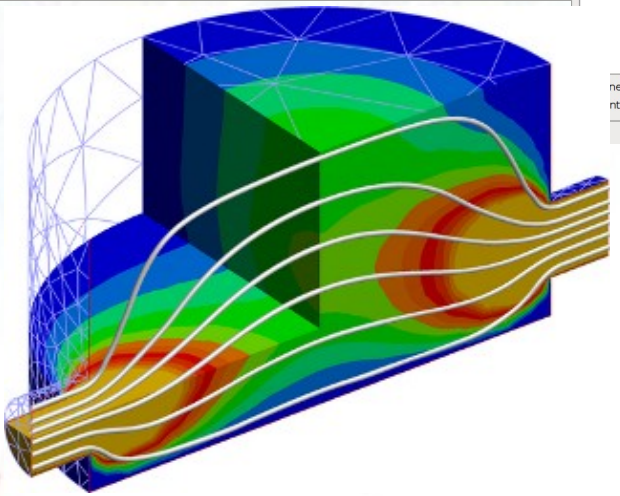
Presentation of Debian Science



$$\begin{pmatrix} 23 & 42 \\ 42 & 32 \end{pmatrix} + \begin{pmatrix} 0.3707945 & 0.1903269 \\ 0.2116117 & 0.5607954 \end{pmatrix}$$





Who I am ?

- Core developer & R&D project manager of Scilab (daily job)
- Debian Developer
- Involved in Debian mainly in Science and Java aspects
- sylvestre.ledru@scilab.org / sylvestre@debian.org

What is Debian Science ?

What is Debian Science ?

- A team
  https://alioth.debian.org/projects/debian-science/

  http://qa.debian.org/developer.php?login=debian-science-maintainers@lists.alioth.debian.org

  With the debian-science@lists.debian.org mailing list

What is Debian Science ?

Also series of other Science related teams:

- Debian Med. Focus on medical practice, imaging and bioinformatics.

  ~ 130 packages

Packages overview for Debian Med Packaging Team

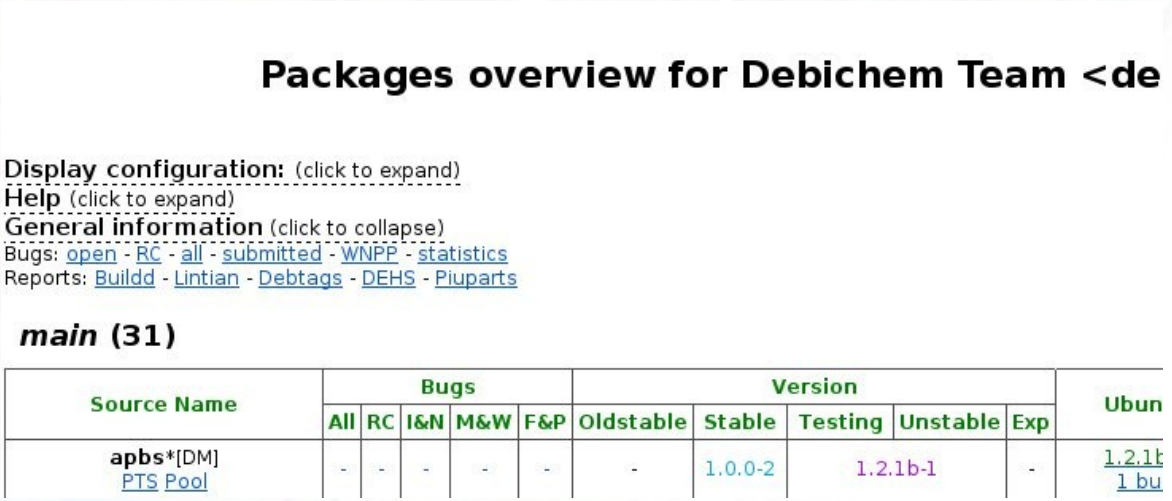
Display configuration: (click to expand)
Help (click to expand)
General information (click to collapse)
Bugs: open - RC - all - submitted - WNPP - statistics
Reports: Buildd - Lintian - Debtags - DEHS - Piuparts

***main* (129)**

Source Name	Bugs					Version				
	All	RC	I&N	M&W	F&P	Oldstable	Stable	Testing	Unstable	Exp
adun.app*[DM] PTS Pool	-	-	-	-	-	-	0.8.2-1		0.81-3	-
aeskulap*[DM]							0.2.2b1-2		0.2.2b1-6	

What is Debian Science ?

- Debichem. Focus on chemical applications.
  ~ 30 packages



Packages overview for Debichem Team <de

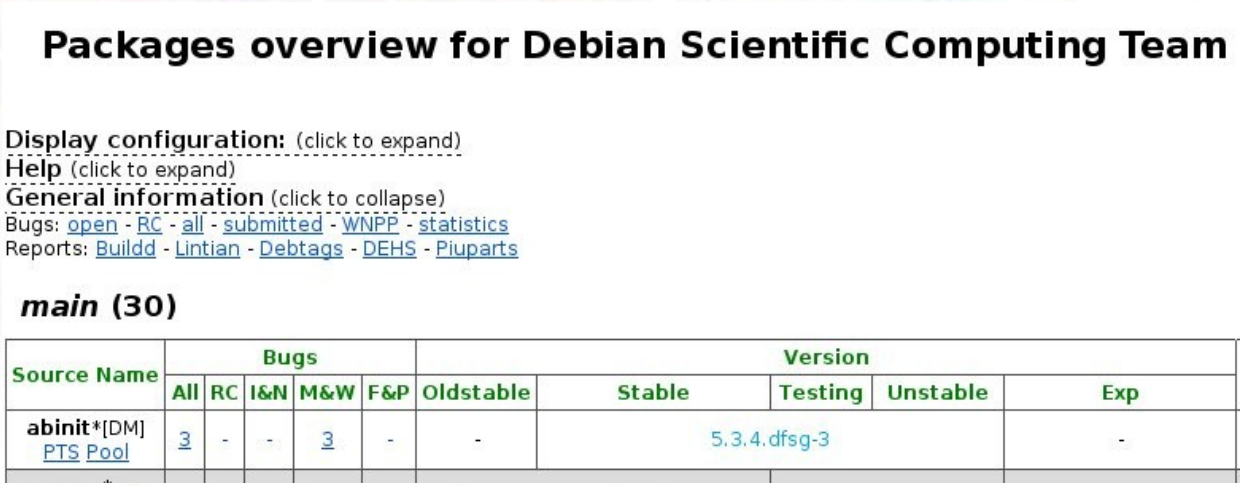
Display configuration: (click to expand)
Help (click to expand)
General information (click to collapse)
Bugs: open - RC - all - submitted - WNPP - statistics
Reports: Buildd - Lintian - Debtags - DEHS - Piuparts

***main* (31)**

Source Name	Bugs					Version					Ubun
	All	RC	I&N	M&W	F&P	Oldstable	Stable	Testing	Unstable	Exp	
apbs*[DM] PTS Pool	-	-	-	-	-	-	1.0.0-2	1.2.1b-1		-	1.2.1b 1 bu

What is Debian Science ?

- Pkg-scicomp. Focus on numerical computation applications and libraries.
  ~ 30 packages



Packages overview for Debian Scientific Computing Team

Display configuration: (click to expand)
Help (click to expand)
General information (click to collapse)
Bugs: open - RC - all - submitted - WNPP - statistics
Reports: Buildd - Lintian - Debtags - DEHS - Piuparts

***main* (30)**

Source Name	Bugs					Version				
	All	RC	I&N	M&W	F&P	Oldstable	Stable	Testing	Unstable	Exp
abinit*[DM] PTS Pool	3	-	-	3	-	-	5.3.4.dfsg-3			-

Goals of the Debian Science team

Goals of the Debian Science team

- Package the best software and libraries in each fields (more and more free software are reaching quality of proprietary software)
- Create a complete science oriented distribution in math, physics, simulation, etc.
- Package some glues for software to work together (ex: Salome <=> Code Aster, Scilab <=> Scipy, getfem++ <=> Python/Scilab, etc)

Goals of the Debian Science team

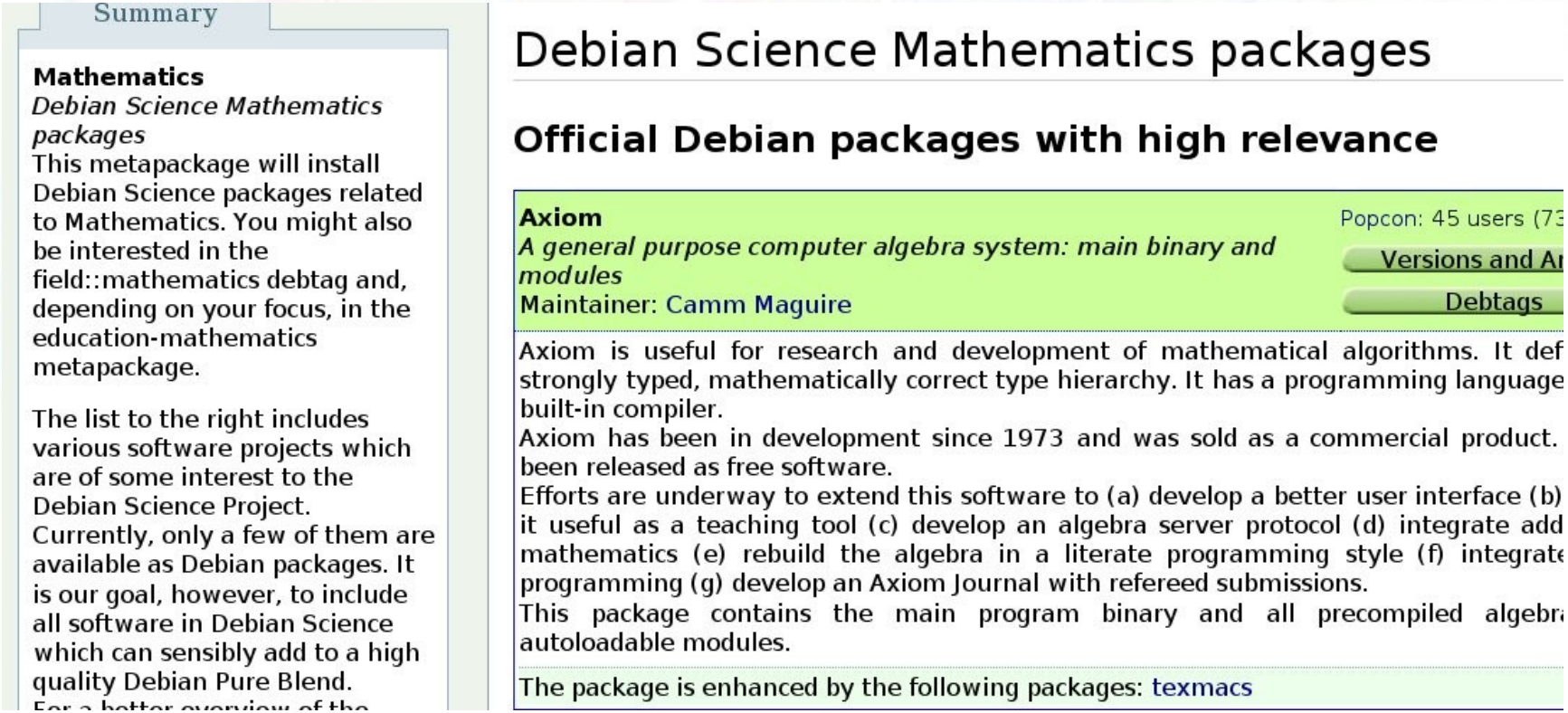
- Connect people
- Help upstream to understand distributions, accept patches upstream, etc.

History of Debian Science team

DebConf 10 – New York – 05/08/2010 – Sylvestre Ledru

History of Debian Science team

- Idea supported initially by Andreas Tille
- And started through Debian Blends (http://blends.alioth.debian.org/)



History of Debian Science team

- Blends provide a straightforward access to the pool of Science packages
- Separated and classified into different metapackages:
  science-astronomy, science-mathematics, science-mathematics-dev, science-viewing, etc

History of Debian Science team

Debian Science

- Creation of the Debian Science project on Alioth and the list debian-science-maintainers@lists.alioth.debian.or at beginning of 2008

History of Debian Science team

- Policy written in mid-2008 by Manuel Prinz and I
- Nothing really original (inspired by other team policies)

Some works completed

Some works completed

- MPI
- Linear algebra libraries
  Adoption of the most common libs
  update-alternatives on BLAS and LAPACK implementations

  => These two subjects will be presented in a next talk
- OpenCascade
- Paraview
- ...

Some works completed

Code Saturne

- General purpose computational fluid dynamics free
- Developed and used by EDF (french energy company)
- Strong interest of upstream for the packaging for quality and diffusion aspects and internal usages

Some works completed

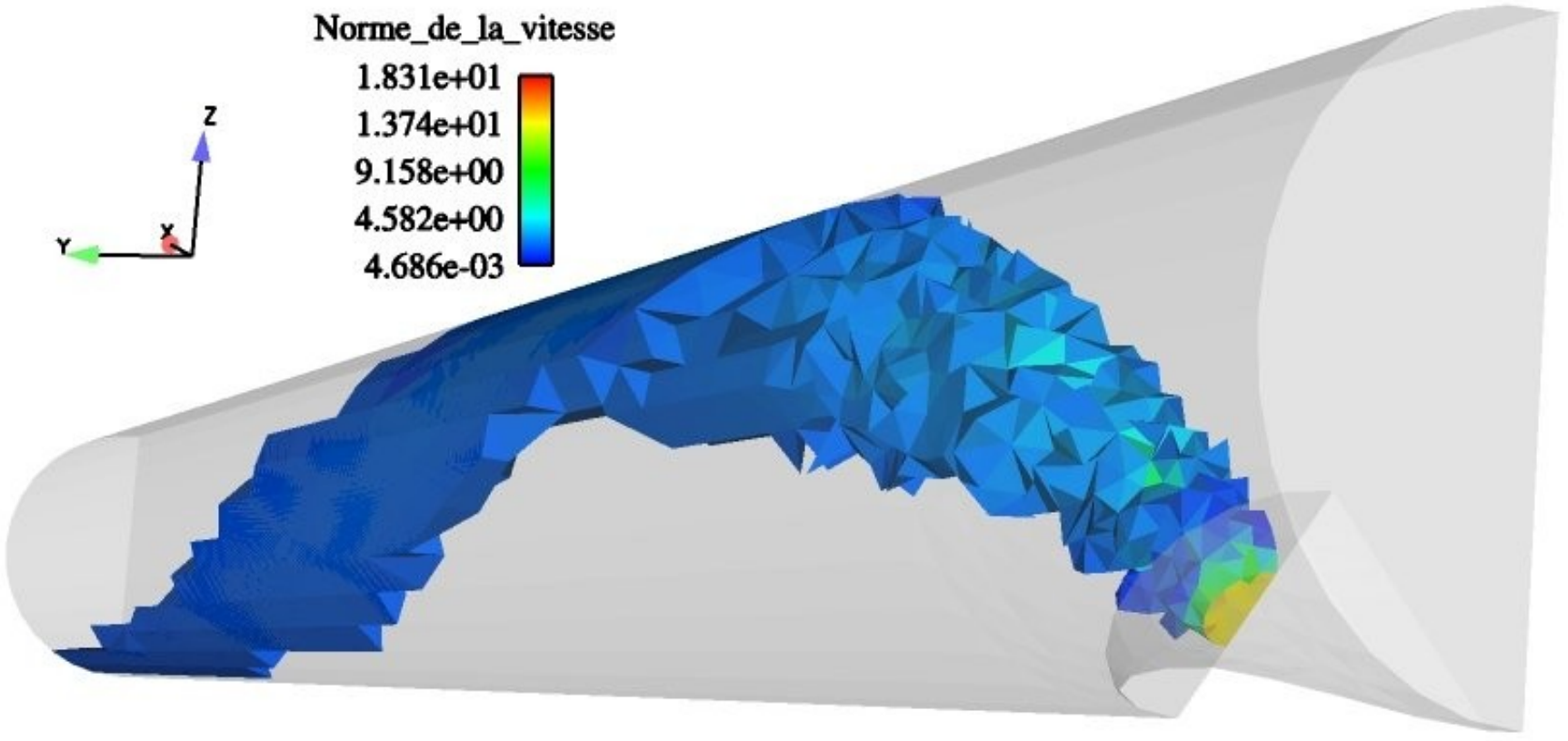
Code Saturne

- General purpose computational fluid dynamics free
- Developed and used by EDF (french energy company)
- Strong interest of upstream for the packaging for quality and diffusion aspects and internal usages

Some works completed

Code Saturne

- Pipe with CO2 and helium injections



Some works completed

Salome

- Pre/Post processing platform
- Packaged by Adam Powell IV and Andre Espaze from Logilab
- First attempt in 2008 but lack of upstream response

Some works completed

- Collaboration with upstream done through a french cooperation project (OpenHPC)
- ~ 50 patches with future upstream inclusions for most of them
- This time, lot of interests from upstream

On going work

Pkg-scicomp

- Admin of pkg-scicomp no longer have the time to manage it.
- Very similar in their policies and objectives.
- Some overlaps and confusions for potential contributors and users.

=> Merge pkg-scicomp into Debian Science

On going work

Status of this merge

- Was: 51 packages
- Now: 33 packages (with some packages already migrated but not uploaded with the new information).
- Slow process.

How you can help ?

- Fix RCs (RC bug fixing + Team upload = Fun)
- Refresh the Wiki Debian Science pages
- Help on finishing the pkg-scicomp / Debian Science merge
- Help on some migrations (MPI)
- Help on the Debian Blends Science
- Screenshotting

Open discussions

- Usage of the mailing list ?

  debian-science@lists.scilab.org for general questions about science software

  debian-science-maintainers@lists.alioth.debian.or for packaging question

- Creation of an hub for science related projects (Debichem, Debian Med, Debian Science, etc) ?