Packaging Octave in Debian

Rafael Laboissière
Lyon Neuroscience Research Center, France

Debian for Scientific Facilities Days
ESFR, Grenoble
2012-06-25

What is Octave?

Octave is:

- a "Matlab clone" (sort of)
- a scripting language ($\neq$ Matlab, but compatible)
- a library for linear algebra and scientific applications

Octave is **not** (in contrast to Matlab and Scilab):

- a program for creating GUI applications
- an Integrated Development Environment (IDE)

At the end of the day, Octave is just:

- a software for geeks (according to S. Ledru)

What is Octave?

Octave is:

- a "Matlab clone" (sort of)
- a scripting language ($\neq$ Matlab, but compatible)
- a library for linear algebra and scientific applications

Octave is **not** (in contrast to Matlab and Scilab):

- a program for creating GUI applications
- an Integrated Development Environment (IDE)

At the end of the day, Octave is just:

- a software for geeks (according to S. Ledru)

What is Octave?

Octave is:

- a "Matlab clone" (sort of)
- a scripting language ($\neq$ Matlab, but compatible)
- a library for linear algebra and scientific applications

Octave is **not** (in contrast to Matlab and Scilab):

- a program for creating GUI applications
- an Integrated Development Environment (IDE)

At the end of the day, Octave is just:

- a software for geeks (according to S. Ledru)

What is Octave?

Octave is:

- a "Matlab clone" (sort of)
- a scripting language ($\neq$ Matlab, but compatible)
- a library for linear algebra and scientific applications

Octave is **not** (in contrast to Matlab and Scilab):

- a program for creating GUI applications
- an Integrated Development Environment (IDE)

At the end of the day, Octave is just:

- a software for geeks (according to S. Ledru)

Octave language & extensions in C++

$$\begin{bmatrix} 3 & 4 \\ 5 & 6 \end{bmatrix} \begin{bmatrix} 1 \\ 2 \end{bmatrix} = \begin{bmatrix} 11 \\ 17 \end{bmatrix}$$

```
b = [1; 2];
A = [3, 4; 5, 6];
C = A * b;
```

Octave

```
ColumnVector b (2);
b(0) = 1; b(1) = 2;
Matrix A (2, 2);
A(0,0) = 3; A(0,1) = 4;
A(1,0) = 5; A(1,1) = 6;
Matrix C = A * b;
```

C++

Octave language & extensions in C++

$$\begin{bmatrix} 3 & 4 \\ 5 & 6 \end{bmatrix} \begin{bmatrix} 1 \\ 2 \end{bmatrix} = \begin{bmatrix} 11 \\ 17 \end{bmatrix}$$

```
b = [1; 2];
A = [3, 4; 5, 6];
C = A * b;
```

Octave

```
ColumnVector b (2);
b(0) = 1; b(1) = 2;
Matrix A (2, 2);
A(0,0) = 3; A(0,1) = 4;
A(1,0) = 5; A(1,1) = 6;
Matrix C = A * b;
```

C++

Octave language & extensions in C++

$$\begin{bmatrix} 3 & 4 \\ 5 & 6 \end{bmatrix} \begin{bmatrix} 1 \\ 2 \end{bmatrix} = \begin{bmatrix} 11 \\ 17 \end{bmatrix}$$

```
b = [1; 2];
A = [3, 4; 5, 6];
C = A * b;
```

Octave

```
ColumnVector b (2);
b(0) = 1; b(1) = 2;
Matrix A (2, 2);
A(0,0) = 3; A(0,1) = 4;
A(1,0) = 5; A(1,1) = 6;
Matrix C = A * b;
```

C++

Octave language & extensions in C++

$$\begin{bmatrix} 3 & 4 \\ 5 & 6 \end{bmatrix} \begin{bmatrix} 1 \\ 2 \end{bmatrix} = \begin{bmatrix} 11 \\ 17 \end{bmatrix}$$

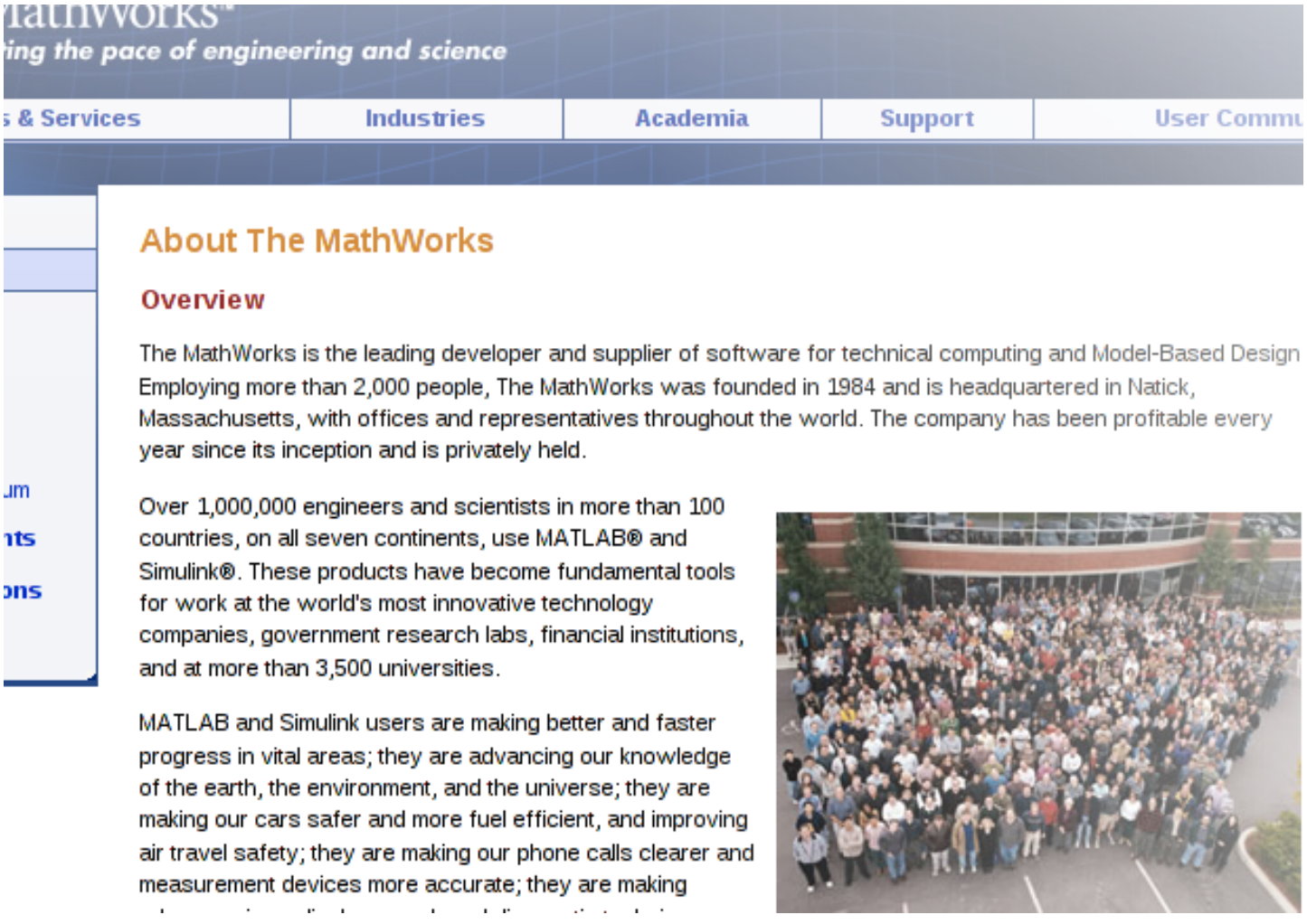
```
b = [1; 2];
A = [3, 4; 5, 6];
C = A * b;
```

Octave

```
ColumnVector b (2);
b(0) = 1; b(1) = 2;
Matrix A (2, 2);
A(0,0) = 3; A(0,1) = 4;
A(1,0) = 5; A(1,1) = 6;
Matrix C = A * b;
```

C++

Them (Matlab)


ing the pace of engineering and science
& Services
Industries
Academia
Support
User Commu
About The MathWorks
Overview
The MathWorks is the leading developer and supplier of software for technical computing and Model-Based Design Employing more than 2,000 people, The MathWorks was founded in 1984 and is headquartered in Natick, Massachusetts, with offices and representatives throughout the world. The company has been profitable every year since its inception and is privately held.
Over 1,000,000 engineers and scientists in more than 100 countries, on all seven continents, use MATLAB® and Simulink®. These products have become fundamental tools for work at the world's most innovative technology companies, government research labs, financial institutions, and at more than 3,500 universities.
MATLAB and Simulink users are making better and faster progress in vital areas; they are advancing our knowledge of the earth, the environment, and the universe; they are making our cars safer and more fuel efficient, and improving air travel safety; they are making our phone calls clearer and measurement devices more accurate; they are making

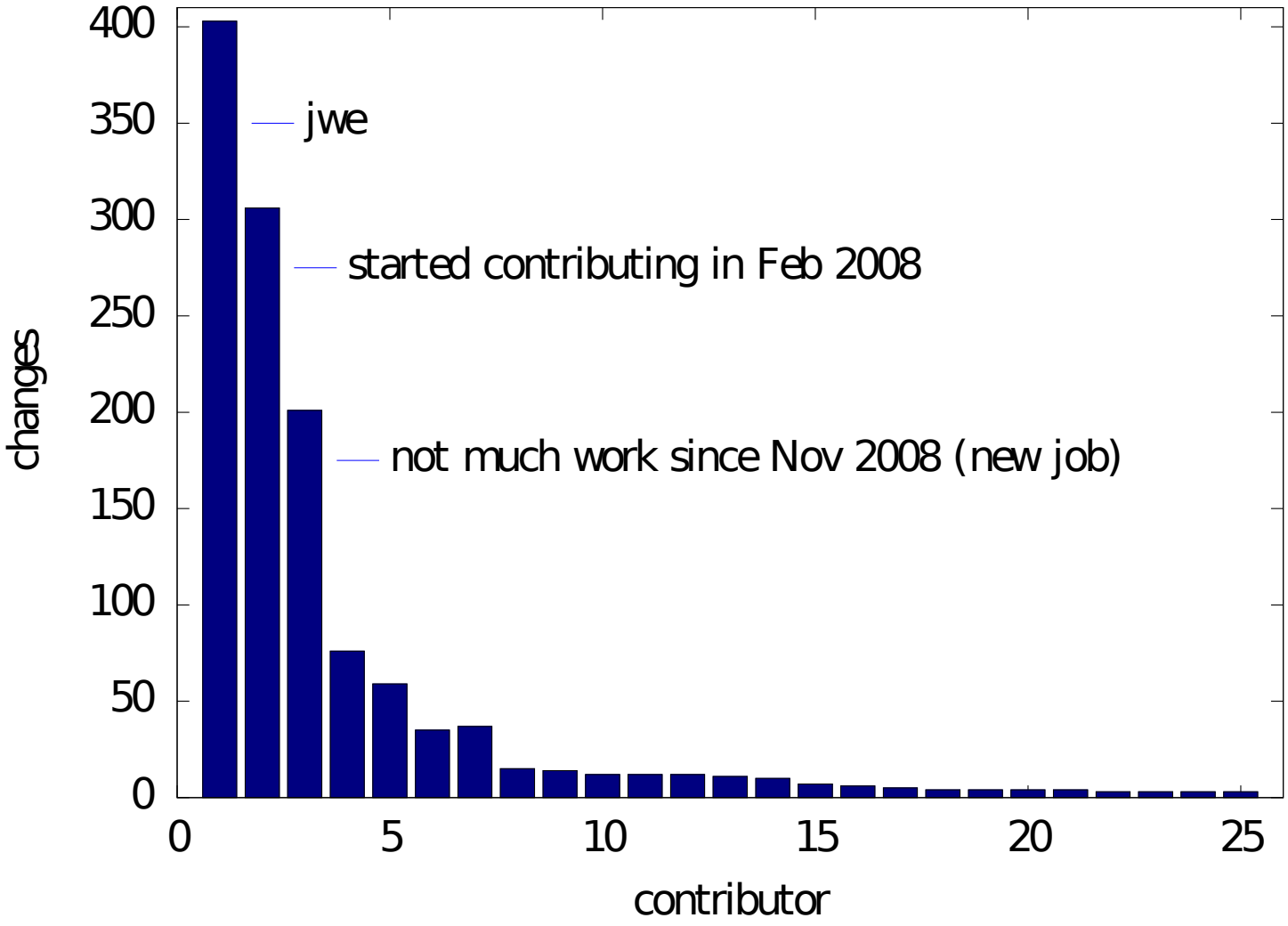
Us (Octave upstream author)

John W. Eaton

Us (Octave contributors)

(credits J. W. Eaton — Libre Planet 2009)

Us (changes per contributor since January 2008)



(credits J. W. Eaton — Libre Planet 2009)

Development Timeline

02/1992 Development begins

01/1993 First announcement on web (version 0.60)

02/1994 First real release (ready for wider distribution?)

12/1996 Second major version (2.0) port to Windows (Cygwin)

03/1998 2.1 development branch

11/2004 2.9 branch in preparation for 3.0 release

12/2007 Version 3.0, major upgrade

06/2009 Version 3.2, improved graphics and Matlab-style objects, package management system

05/2011 Version 3.4

01/2012 Version 3.6

(credits J. W. Eaton — Libre Planet 2009)

Development Timeline

02/1992 Development begins

01/1993 First announcement on web (version 0.60)

02/1994 First real release (ready for wider distribution?)

12/1996 Second major version (2.0) port to Windows (Cygwin)

03/1998 2.1 development branch

11/2004 2.9 branch in preparation for 3.0 release

12/2007 Version 3.0, major upgrade

06/2009 Version 3.2, improved graphics and Matlab-style objects, package management system

05/2011 Version 3.4

01/2012 Version 3.6

(credits J. W. Eaton — Libre Planet 2009)

Development Timeline

02/1992 Development begins

01/1993 First announcement on web (version 0.60)

02/1994 First real release (ready for wider distribution?)

12/1996 Second major version (2.0) port to Windows (Cygwin)

03/1998 2.1 development branch

11/2004 2.9 branch in preparation for 3.0 release

12/2007 Version 3.0, major upgrade

06/2009 Version 3.2, improved graphics and Matlab-style objects, package management system

05/2011 Version 3.4

01/2012 Version 3.6

(credits J. W. Eaton — Libre Planet 2009)

Development Timeline

02/1992 Development begins

01/1993 First announcement on web (version 0.60)

02/1994 First real release (ready for wider distribution?)

12/1996 Second major version (2.0) port to Windows (Cygwin)

03/1998 2.1 development branch

11/2004 2.9 branch in preparation for 3.0 release

12/2007 Version 3.0, major upgrade

06/2009 Version 3.2, improved graphics and Matlab-style objects, package management system

05/2011 Version 3.4

01/2012 Version 3.6

(credits J. W. Eaton — Libre Planet 2009)

Development Timeline

02/1992 Development begins

01/1993 First announcement on web (version 0.60)

02/1994 First real release (ready for wider distribution?)

12/1996 Second major version (2.0) port to Windows (Cygwin)

03/1998 2.1 development branch

11/2004 2.9 branch in preparation for 3.0 release

12/2007 Version 3.0, major upgrade

06/2009 Version 3.2, improved graphics and Matlab-style objects, package management system

05/2011 Version 3.4

01/2012 Version 3.6

(credits J. W. Eaton — Libre Planet 2009)

Development Timeline

02/1992 Development begins

01/1993 First announcement on web (version 0.60)

02/1994 First real release (ready for wider distribution?)

12/1996 Second major version (2.0) port to Windows (Cygwin)

03/1998 2.1 development branch

11/2004 2.9 branch in preparation for 3.0 release

12/2007 Version 3.0, major upgrade

06/2009 Version 3.2, improved graphics and Matlab-style objects, package management system

05/2011 Version 3.4

01/2012 Version 3.6

(credits J. W. Eaton — Libre Planet 2009)

Development Timeline

02/1992 Development begins

01/1993 First announcement on web (version 0.60)

02/1994 First real release (ready for wider distribution?)

12/1996 Second major version (2.0) port to Windows (Cygwin)

03/1998 2.1 development branch

11/2004 2.9 branch in preparation for 3.0 release

12/2007 Version 3.0, major upgrade

06/2009 Version 3.2, improved graphics and Matlab-style objects, package management system

05/2011 Version 3.4

01/2012 Version 3.6

(credits J. W. Eaton — Libre Planet 2009)

Development Timeline

02/1992 Development begins

01/1993 First announcement on web (version 0.60)

02/1994 First real release (ready for wider distribution?)

12/1996 Second major version (2.0) port to Windows (Cygwin)

03/1998 2.1 development branch

11/2004 2.9 branch in preparation for 3.0 release

12/2007 Version 3.0, major upgrade

06/2009 Version 3.2, improved graphics and Matlab-style objects, package management system

05/2011 Version 3.4

01/2012 Version 3.6

(credits J. W. Eaton — Libre Planet 2009)

Development Timeline

02/1992 Development begins

01/1993 First announcement on web (version 0.60)

02/1994 First real release (ready for wider distribution?)

12/1996 Second major version (2.0) port to Windows (Cygwin)

03/1998 2.1 development branch

11/2004 2.9 branch in preparation for 3.0 release

12/2007 Version 3.0, major upgrade

06/2009 Version 3.2, improved graphics and Matlab-style objects, package management system

05/2011 Version 3.4

01/2012 Version 3.6

(credits J. W. Eaton — Libre Planet 2009)

Development Timeline

02/1992 Development begins

01/1993 First announcement on web (version 0.60)

02/1994 First real release (ready for wider distribution?)

12/1996 Second major version (2.0) port to Windows (Cygwin)

03/1998 2.1 development branch

11/2004 2.9 branch in preparation for 3.0 release

12/2007 Version 3.0, major upgrade

06/2009 Version 3.2, improved graphics and Matlab-style objects, package management system

05/2011 Version 3.4

01/2012 Version 3.6

(credits J. W. Eaton — Libre Planet 2009)

Development Timeline

02/1992	Development begins
01/1993	First announcement on web (version 0.60)
02/1994	First real release (ready for wider distribution?)
12/1996	Second major version (2.0) port to Windows (Cygwin)
03/1998	2.1 development branch
11/2004	2.9 branch in preparation for 3.0 release
12/2007	Version 3.0, major upgrade
06/2009	Version 3.2, improved graphics and Matlab-style objects, package management system
05/2011	Version 3.4
01/2012	Version 3.6

(credits J. W. Eaton — Libre Planet 2009)

Debian Octave Group (a.k.a. the DOG) — start

Dirk Eddelbuettel

- First release (version 2.0.5) in 03/1997
- My first contribution was in 12/1998
- Versioned package names (octave2.0, octave2.1, octave2.9, octave3.0, octave3.1, octave3.2)
- Octave-Forge project (created at SourceForge in 2000)
- monolithic `octave-forge` Debian package
- I took over maintenance in 01/2005 (version 2.1.64)
- The DOG started in 2005

Debian Octave Group (a.k.a. the DOG) — start

Dirk Eddelbuettel

- First release (version 2.0.5) in 03/1997
- My first contribution was in 12/1998
- Versioned package names (octave2.0, octave2.1, octave2.9, octave3.0, octave3.1, octave3.2)
- Octave-Forge project (created at SourceForge in 2000)
- monolithic `octave-forge` Debian package
- I took over maintenance in 01/2005 (version 2.1.64)
- The DOG started in 2005

Debian Octave Group (a.k.a. the DOG) — start

Dirk Eddelbuettel

- First release (version 2.0.5) in 03/1997
- My first contribution was in 12/1998
- Versioned package names (octave2.0, octave2.1, octave2.9, octave3.0, octave3.1, octave3.2)
- Octave-Forge project (created at SourceForge in 2000)
- monolithic `octave-forge` Debian package
- I took over maintenance in 01/2005 (version 2.1.64)
- The DOG started in 2005

Debian Octave Group (a.k.a. the DOG) — start

Dirk Eddelbuettel

- First release (version 2.0.5) in 03/1997
- My first contribution was in 12/1998
- Versioned package names (octave2.0, octave2.1, octave2.9, octave3.0, octave3.1, octave3.2)
- Octave-Forge project (created at SourceForge in 2000)
- monolithic `octave-forge` Debian package
- I took over maintenance in 01/2005 (version 2.1.64)
- The DOG started in 2005

Debian Octave Group (a.k.a. the DOG) — start

Dirk Eddelbuettel

- First release (version 2.0.5) in 03/1997
- My first contribution was in 12/1998
- Versioned package names (octave2.0, octave2.1, octave2.9, octave3.0, octave3.1, octave3.2)
- Octave-Forge project (created at SourceForge in 2000)
- monolithic `octave-forge` Debian package
- I took over maintenance in 01/2005 (version 2.1.64)
- The DOG started in 2005

Debian Octave Group (a.k.a. the DOG) — start

Dirk Eddelbuettel

- First release (version 2.0.5) in 03/1997
- My first contribution was in 12/1998
- Versioned package names (octave2.0, octave2.1, octave2.9, octave3.0, octave3.1, octave3.2)
- Octave-Forge project (created at SourceForge in 2000)
- monolithic `octave-forge` Debian package
- I took over maintenance in 01/2005 (version 2.1.64)
- The DOG started in 2005

Debian Octave Group (a.k.a. the DOG) — start

Dirk Eddelbuettel

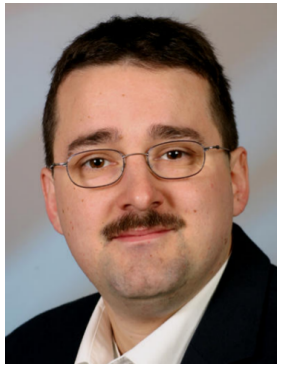
- First release (version 2.0.5) in 03/1997
- My first contribution was in 12/1998
- Versioned package names (octave2.0, octave2.1, octave2.9, octave3.0, octave3.1, octave3.2)
- Octave-Forge project (created at SourceForge in 2000)
- monolithic `octave-forge` Debian package
- I took over maintenance in 01/2005 (version 2.1.64)
- The DOG started in 2005

Debian Octave Group (a.k.a. the DOG) — start

Dirk Eddelbuettel

- First release (version 2.0.5) in 03/1997
- My first contribution was in 12/1998
- Versioned package names (octave2.0, octave2.1, octave2.9, octave3.0, octave3.1, octave3.2)
- Octave-Forge project (created at SourceForge in 2000)
- monolithic `octave-forge` Debian package
- I took over maintenance in 01/2005 (version 2.1.64)
- The DOG started in 2005

Debian Octave Group (a.k.a. the DOG) — maturity



Thomas Weber

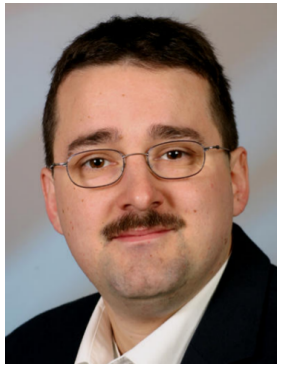
Sébastien Villemot

- `octave> pkg install package.tar.gz`
- Creation of the `octave-pkg-dev` helper, reducing `debian/rules` to a one-line file:

```
#!/usr/bin/make -f
include /usr/share/cdbs/1/class/octave-pkg.mk
```

- I retired from Debian in 2009, work slowed down, `octave3.4`, in experimental, was never released
- We started the sprint before the wheezy freeze in February 2012
- 3.2 → 3.6 transition

Debian Octave Group (a.k.a. the DOG) — maturity



Thomas Weber

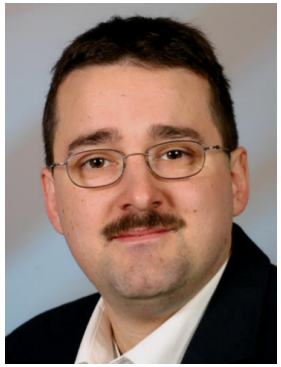
Sébastien Villemot

- `octave> pkg install package.tar.gz`
- Creation of the `octave-pkg-dev` helper, reducing `debian/rules` to a one-line file:

```
#!/usr/bin/make -f
include /usr/share/cdbs/1/class/octave-pkg.mk
```

- I retired from Debian in 2009, work slowed down, `octave3.4`, in experimental, was never released
- We started the sprint before the wheezy freeze in February 2012
- 3.2 → 3.6 transition

Debian Octave Group (a.k.a. the DOG) — maturity



Thomas Weber

Sébastien Villemot

- `octave> pkg install package.tar.gz`
- Creation of the `octave-pkg-dev` helper, reducing `debian/rules` to a one-line file:

```
#!/usr/bin/make -f
include /usr/share/cdbs/1/class/octave-pkg.mk
```

- I retired from Debian in 2009, work slowed down, `octave3.4`, in experimental, was never released
- We started the sprint before the wheezy freeze in February 2012
- 3.2 → 3.6 transition

Octave-Forge packages (toolboxes, in Matlab)

actuarial
ad
ann
audio
benchmark
bim
bioinfo
civil-engineering
combinatorics
communications
control
data-smoothing
database
dataframe
dicom
econometrics
engine
es
fenv
financial
fits
fl-core
fpl
fuzzy-logic-toolkit
ga
general
generate-html
geometry
gnuplot
gsl
ident
image
informationtheory
integration
io
irsa
java
linear-algebra
mapping
mechanics
miscellaneous
missing-functions
msh
multicore
nan
nlwing2
nnet
nurbs
ocs
oct2mat
octcdf
octclip
octgpr
octproj
odebvp
odepkg
openmpi-ext
optim
optiminterp
outliers
parallel
pdb
physicalconstants
plot
pt-br
quaternion
queueing
secs1d
secs2d
secs3d
signal
simp
sockets
specfun
special-matrix
spline-gcvspl
splines
statistics
strings
struct
symband
symbolic
tcl-octave
time
tsa
video
vrml
windows
zenity

● in wheezy (56), ● in squeeze (19), ● not packaged (24)

Octave-Forge packages (toolboxes, in Matlab)

actuarial
ad
ann
audio
benchmark
bim
bioinfo
civil-engineering
combinatorics
communications
control
data-smoothing
database
dataframe
dicom
econometrics
engine
es
fenv
financial
fits
fl-core
fpl
fuzzy-logic-toolkit
ga
general
generate-html
geometry
gnuplot
gsl
ident
image
informationtheory
integration
io
irsa
java
linear-algebra
mapping
mechanics
miscellaneous
missing-functions
msh
multicore
nan
nlwing2
nnet
nurbs
ocs
oct2mat
octcdf
octclip
octgpr
octproj
odebvp
odepkg
openmpi-ext
optim
optiminterp
outliers
parallel
pdb
physicalconstants
plot
pt-br
quaternion
queueing
secs1d
secs2d
secs3d
signal
simp
sockets
specfun
special-matrix
spline-gcvspl
splines
statistics
strings
struct
symband
symbolic
tcl-octave
time
tsa
video
vrml
windows
zenity

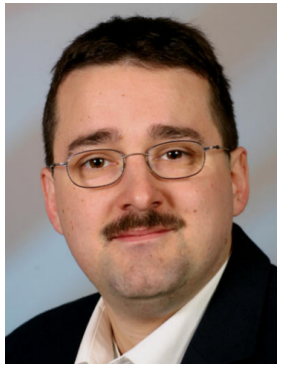
● in wheezy (56), ● in squeeze (19), ● not packaged (24)

Octave-Forge packages (toolboxes, in Matlab)

actuarial
ad
ann
audio
benchmark
bim
bioinfo
civil-engineering
combinatorics
communications
control
data-smoothing
database
dataframe
dicom
econometrics
engine
es
fenv
financial
fits
fl-core
fpl
fuzzy-logic-toolkit
ga
general
generate-html
geometry
gnuplot
gsl
ident
image
informationtheory
integration
io
irsa
java
linear-algebra
mapping
mechanics
miscellaneous
missing-functions
msh
multicore
nan
nlwing2
nnet
nurbs
ocs
oct2mat
octcdf
octclip
octgpr
octproj
odebvp
odepkg
openmpi-ext
optim
optiminterp
outliers
parallel
pdb
physicalconstants
plot
pt-br
quaternion
queueing
secs1d
secs2d
secs3d
signal
simp
sockets
specfun
special-matrix
spline-gcvspl
splines
statistics
strings
struct
symband
symbolic
tcl-octave
time
tsa
video
vrml
windows
zenity

● in wheezy (56), ● in squeeze (19), ● not packaged (24)

Debian Octave Group (a.k.a. the DOG) — maturity



Thomas Weber

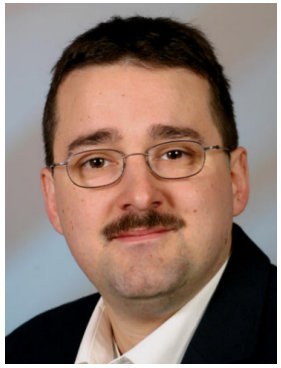
Sébastien Villemot

- `octave> pkg install package.tar.gz`
- Creation of the `octave-pkg-dev` helper, reducing `debian/rules` to a one-line file:

```
#!/usr/bin/make -f
include /usr/share/cdbs/1/class/octave-pkg.mk
```

- I retired from Debian in 2009, work slowed down, `octave3.4`, in experimental, was never released
- We started the sprint before the wheezy freeze in February 2012
- 3.2 → 3.6 transition

Debian Octave Group (a.k.a. the DOG) — maturity



Thomas Weber

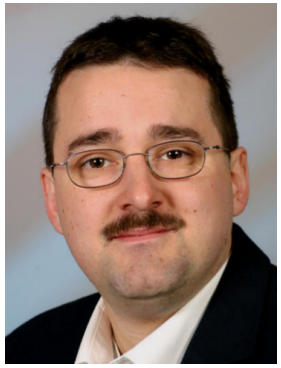
Sébastien Villemot

- `octave> pkg install package.tar.gz`
- Creation of the `octave-pkg-dev` helper, reducing `debian/rules` to a one-line file:

```
#!/usr/bin/make -f
include /usr/share/cdbs/1/class/octave-pkg.mk
```

- I retired from Debian in 2009, work slowed down, `octave3.4`, in experimental, was never released
- We started the sprint before the wheezy freeze in February 2012
- 3.2 → 3.6 transition

Debian Octave Group (a.k.a. the DOG) — maturity



Thomas Weber

Sébastien Villemot

- `octave> pkg install package.tar.gz`
- Creation of the `octave-pkg-dev` helper, reducing `debian/rules` to a one-line file:

```
#!/usr/bin/make -f
include /usr/share/cdbs/1/class/octave-pkg.mk
```

- I retired from Debian in 2009, work slowed down, `octave3.4`, in experimental, was never released
- We started the sprint before the wheezy freeze in February 2012
- 3.2 → 3.6 transition

Other packages in Debian depending on Octave

cantor-backend-octave
dynare
education-mathematics
fsl-4.1
h5utils
med-physics
mrtrix
mwrap
octave-epstk
octave-lhapdf
octave-pfstools
octave-psychtoolbox-3
octave-sundials
python-scitools
qtoctave
sbmltoolbox
science-mathematics
science-numericalcomputation
science-robotics
sdpam
texmacs
wims
xmds

Future of the DOG

- We usually do not bark, we just work
- "We" = 9 members of the pkg-octave project at Alioth, but only 3 are active (1 DD, 1 DM, 1 retired DD)
- Package the rest of Octave-Forge (?)
- Better integrate the other Debian packages (?)
- Huge amount of Matlab code around: package them (?)
- Key issue: bring new blood into the Group

Future of the DOG

- We usually do not bark, we just work
- "We" = 9 members of the pkg-octave project at Alioth, but only 3 are active (1 DD, 1 DM, 1 retired DD)
- Package the rest of Octave-Forge (?)
- Better integrate the other Debian packages (?)
- Huge amount of Matlab code around: package them (?)
- Key issue: bring new blood into the Group

Future of the DOG

- We usually do not bark, we just work
- "We" = 9 members of the pkg-octave project at Alioth, but only 3 are active (1 DD, 1 DM, 1 retired DD)
- Package the rest of Octave-Forge (?)
- Better integrate the other Debian packages (?)
- Huge amount of Matlab code around: package them (?)
- Key issue: bring new blood into the Group

Future of the DOG

- We usually do not bark, we just work
- "We" = 9 members of the pkg-octave project at Alioth, but only 3 are active (1 DD, 1 DM, 1 retired DD)
- Package the rest of Octave-Forge (?)
- Better integrate the other Debian packages (?)
- Huge amount of Matlab code around: package them (?)
- Key issue: bring new blood into the Group

Future of the DOG

- We usually do not bark, we just work
- "We" = 9 members of the pkg-octave project at Alioth, but only 3 are active (1 DD, 1 DM, 1 retired DD)
- Package the rest of Octave-Forge (?)
- Better integrate the other Debian packages (?)
- Huge amount of Matlab code around: package them (?)
- Key issue: bring new blood into the Group

Future of the DOG

- We usually do not bark, we just work
- "We" = 9 members of the pkg-octave project at Alioth, but only 3 are active (1 DD, 1 DM, 1 retired DD)
- Package the rest of Octave-Forge (?)
- Better integrate the other Debian packages (?)
- Huge amount of Matlab code around: package them (?)
- Key issue: bring new blood into the Group

Future of the DOG

- We usually do not bark, we just work
- "We" = 9 members of the pkg-octave project at Alioth, but only 3 are active (1 DD, 1 DM, 1 retired DD)
- Package the rest of Octave-Forge (?)
- Better integrate the other Debian packages (?)
- Huge amount of Matlab code around: package them (?)
- Key issue: bring new blood into the Group

Links

Octave:	`www.octave.org`
Octave-Forge:	`octave.sf.net`
DOG:	`wiki.debian.org/Teams/DebianOctaveGroup`

Thanks for your attention

Links

Octave:	`www.octave.org`
Octave-Forge:	`octave.sf.net`
DOG:	`wiki.debian.org/Teams/DebianOctaveGroup`

Thanks for your attention

Future of the DOG

- We usually do not bark, we just work
- "We" = 9 members of the pkg-octave project at Alioth, but only 3 are active (1 DD, 1 DM, 1 retired DD)
- Package the rest of Octave-Forge (?)
- Better integrate the other Debian packages (?)
- Huge amount of Matlab code around: package them (?)
- Key issue: bring new blood into the Group

License

Copyright © 2012 Rafael Laboissière

This presentation, as well as its LaTeX-beamer source file, are released under the terms of the Creative Commons Attribution-ShareAlike 3.0 Unported (CC BY-SA 3.0) license, with the following exceptions:

- The picture in page 5 (J. W Eaton) and the graphics in page 7 (changes per contributor) are
  Copyright © John W. Eaton
  All rights reserved
- The picture in page 6 (Octave developers) is
  Copyright © John W. Eaton and others
  All rights reserved
- The picture of Dirk Eddelbuettel in page 9 is
  Copyright © Dirk Eddelbuettel
  All rights reserved
- The picture of Thomas Weber in page 10 is
  Copyright © Thomas Weber
  All rights reserved
- The picture of Sébastien Villemot in page 10 is
  Copyright © Sébastien Villemot
  All rights reserved

The material above is used here with the permission of the copyright holders. For the complete text of the CC BY-SA 3.0 license, see
`http://creativecommons.org/licenses/by-sa/3.0/`.