



<http://www.irill.org>

Initiative pour la Recherche et l'Innovation sur le Logiciel Libre

## Research and Innovation on Free Software

Roberto Di Cosmo

OWF, Montrouge, October 4<sup>th</sup> 2013

# Context : FOSS = radical change

## Society :

- Contributes to scientific and technological commons;
- Give back to citizens control of strategic technologies

## Technology :

- Changes how software is designed, developed, distributed, sold, maintained, customised and taught; from generic infrastructure to specialised applications; in more traditional areas, and in the emerging embedded and mobile market

## Industry/Economy

- Reopens to competition entire sectors of the Economy
- Reduces time to market with software built faster and cheaper
- Reduces cost, and fosters vendor independence in all sectors of activity

# Accompanying FOSS growth

## Face the new challenges

- scientific,
  - New scientific and technological problems are brought to the limelight from FOSS, with an unprecedented change of scale in software artifact size and speed of evolution,
- educational,
  - Teach tomorrow's engineers how to develop software in the FOSS environment, and help them stay up to date,
  - Educate technical and non technical newcomers to FOSS values and principles, and include them in the community
- economic,
  - Help transfer from academia to industry, and ease bottom-up innovation
  - Foster an open ecosystem approach to information technology

See also INRIA's strategic plan

<http://www.inria.fr/valorisation/logiciel%20libre.fr.html>

# IRILL's goals and ambition

Contribute to all three challenges, and become an internationally recognized center on FOSS development, research and education.

Three main axes:

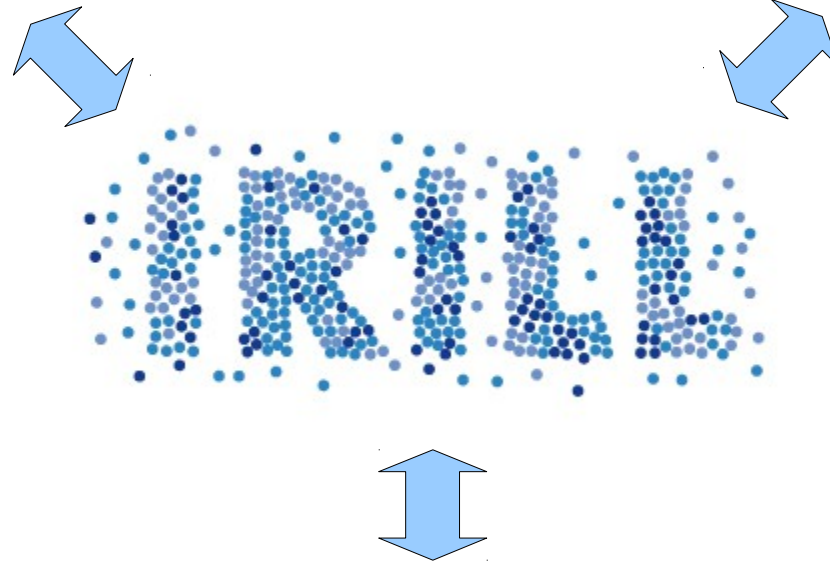
- A reference center for safe and reliable FOSS
  - Work on the technological breakthroughs our enterprises need
- A reference center for developing new curricula for CS with FLOSS
  - Help educating the qualified engineers we all need
- An experimentation platform for FLOSS technology transfer

# IRILL : a place to bind them all

Three communities meet: academia, developers and industry

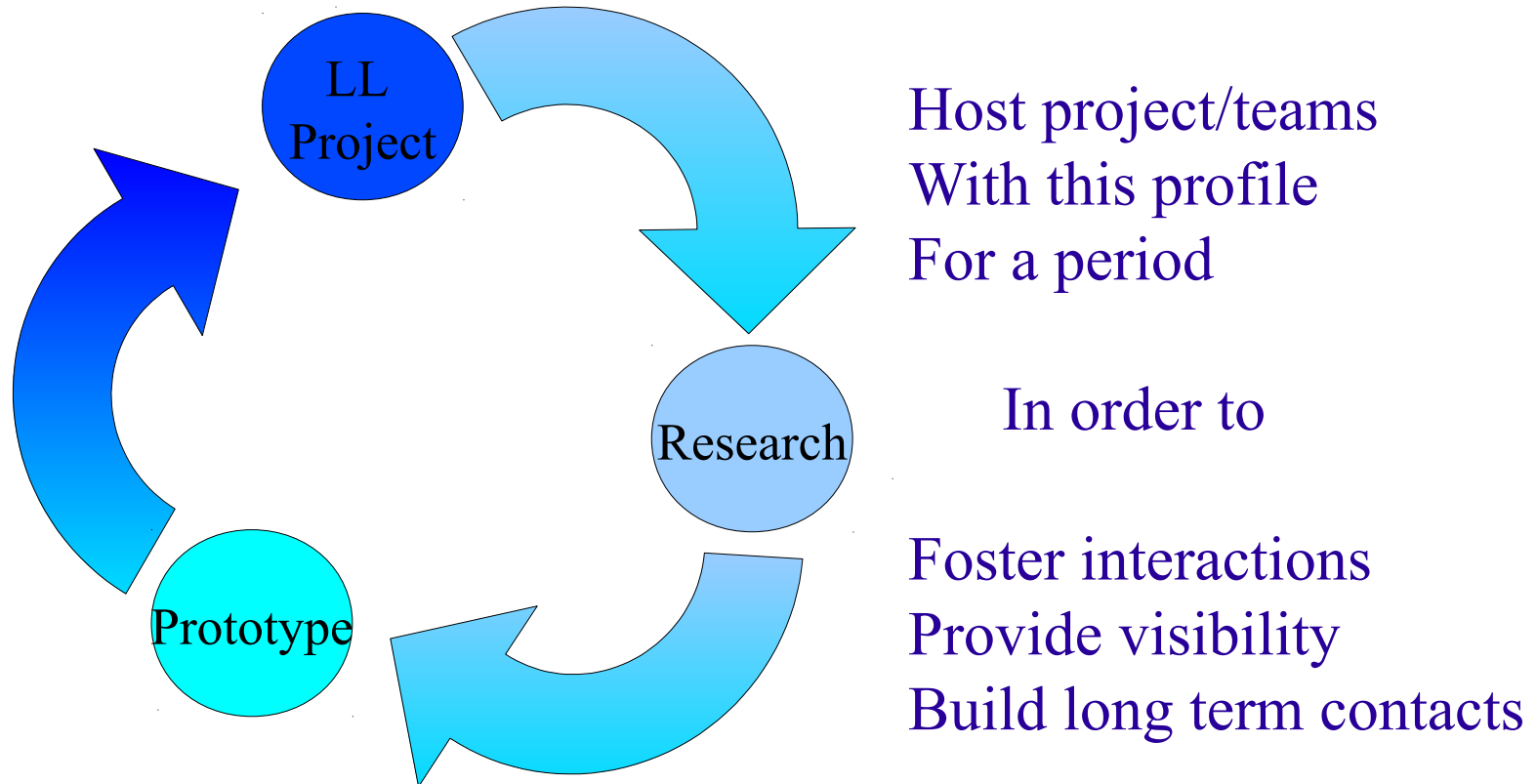
**Developer  
Communities**

**Industries**



**Research and  
Education**

# Our philosophy in an image



## SOME RESULTS

# Irill's first hosted projects



Distributions



Noyau  
Linux



Programmation  
Web





# Browse code on sources.debian.net




DEBSOURCES

package name

Search package

code regex

Search code

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debian / about

## About

### Development

- source code is available via [Git](#): `git clone git://anonscm.debian.org/qa/debsources.git`
- the Git repository is also available via [Gitweb](#)
- please report **bugs** via mail at [info@sources.debian.net](mailto:info@sources.debian.net), after checking that your issue isn't already listed in the [BUGS file](#)
- for Debsources discussions please use the [debian-qa mailing list](#) and the `#debian-qa` IRC channel on [OFTC](#)

### Acknowledgements

- all Debsources [contributors](#) for their work
-  for sponsoring the initial development of Debsources, and offering both server and hosting facilities that power [sources.debian.net](http://sources.debian.net)

Thank you!

### Miscellaneous

- some [statistics](#) about this service

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Source code: [Git](#). Contact: [info@sources.debian.net](mailto:info@sources.debian.net). Last update: Wed, 02 Oct 2013 03:35:59 -0000 .

# More than 400 Videos

All videos recorded by IRILL


Next 3 items » 1 2

IRILL days 2010




16 videos

GNU Hackers Meeting 2011




17 videos

GNU Hackers Meeting 2013




14 videos

FOSDEM 2012



4 galleries, 83 videos

FOSDEM 2013




3 galleries, 89 videos

Euro LLVM 2013




1 galleries, 19 videos

Debian Conference 13



82 videos

Mini Debconf 2012 Paris



23 videos

Richard Stallman



4 videos

Search

Search

Advanced Search...

Oct 02, 2013

**Paris LLVM Meetup 2. Octo...**

The LLVM meetups are back

LE BEFFROI 12 PLACE EMILIE

**IRILL @ Open World Forum...**

This week at the Open World Forum, in Paris, IRILL ...

LIP6

**Atelier Génie Logiciel E...**

Le 23 octobre 2013 au LIP6 aura lieu le premier at ...

Agenda

< October 2013 >

Su	Mo	Tu	We	Th	Fr	Sa
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IRILL blog

**First Debian Meetup at IRILL**

**IRILL @ Open World Forum**

# Foss Sourcebook

## Standing on the shoulders of giants

Philosophy Community



### Welcome

General

by Roberto Di Cosmo (Edit Post)

Welcome to FOSS Sourcebook, a simple site devoted to collecting compelling FOSS code examples used for teaching any subject in Computer Science, ranging from Algorithms, to Operating Systems, from Data Bases to Numerical Analysis and beyond.

Learn about our vision on the [Philosophy](#) page.

This post has no tag

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### Parsing HTTP headers in Python

Computer Science, Net Centric Computing, Web Organization, Web Protocols

(Edit Post)

by Jean M. Gonzalez-Barahona

The Python 3.x library has one of the simplest (yet fully functional) web servers that I've seen, the SimpleHTTPRequestHandler / HTTPServer classes (see [documentation about them](#)). Being written in Python itself, it is also very readable and easy to understand. Running it is also simple. From the shell prompt just type (in the following, I'm using Python 3.2, but probably any Python 3.x will do it, and Python 2.x is not that different):

```
python3.2 -m http.server
Serving HTTP on 0.0.0.0 port 8000 ...
```

To try it, just point your web browser to <http://localhost:8000> and you're accessing via HTTP to the directory from where you launched the server.

Reading the implementation of this web server makes you really understand how HTTP works. To focus this post, I will deal only with how headers are parsed, which is just a part of the processing that a web server has to do to attend HTTP requests, although one of the most important ones. The relevant part can be seen in the method `parse_request()` of the `BaseHTTPRequestHandler` class, in the [http.server.py](#) file.

### Categories

- Advanced Analysis
- Algorithms and Complexity
- Computer Science
- Dynamic Programming
- General
- Net Centric Computing
- Web Organization
- Web Protocols

### Categories cloud

Advanced Analysis Algorithms and Complexity  
**Computer Science**  
 Dynamic Programming General Net Centric Computing  
 Web Organization Web Protocols

### Blogroll

- Plugins

# How to join us

- Organize events with us
- Join our projects
- Bring us new problems
- Spread the word
- ...
- Subscribe to the feeds
  - RSS
  - Mailing lists





### Search

 
[Advanced Search...](#)

 23 AVENUE D'ITALIE, PARIS,  
FRANCE - 5TH FLOOR

Oct 04, 2010

IRILL Days 2010

 Where FOSS developers, researchers,  
and communities meet


**Come and discover IRILL at IRILL Days 2010 !**

### Context

Free and Open Source Software is becoming pervasive, providing fundamental building blocks for most of today's and tomorrow's software solutions, being them commercial or not. This phenomenon is tightly connected with the generalisation of complex, and new, interaction patterns between users, developers, researches and other stakeholders, enabled by the quick development of high speed internet connections, and a wealth of other technologies and applications that went along with it, radically changing the traditional landscape of software development: a developer evolving in the **FOSS** world is led to cooperate with partners he interacts with via e-mail, instant messaging, phone and visio-conference, sharing information either directly or through wikis, forums, or indirectly, through search engines, news agregators; he is usually present on one or more software forges, using different kinds of software configuration and versioning systems, and all this happens largely outside the usual centralised control barriers of enterprise intranets. While writing, compiling, testing, installing or customizing them, he may be often led to propose modifications for inclusion in many FOSS components that his company has no control on.

It follows that the problems raised by *successful* software developed as FOSS are *not the same* as those of proprietary software: some new issues come from the *different development process*; other come from the *different economic models*, and some very challenging ones come from the *new possibilities* opened by the fact that software is now becoming *transparent*, complex systems built out of FOSS components can be theoretically opened up and scrutinized fully, from the system level down to the single memory word of data or code, with no artificial barriers imposed by the absence of access to the sources of this or that vital component.

### Agenda

< September 2010 >						
Mo	Tu	We	Th	Fr	Sa	Su
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