Pharo3

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http://www.pharo-project.org

What is it?

- Language + Environment
- Simple Language (Smalltalk)
- Object-Oriented, Dynamic, Reflective
  - Explore + Change running systems

- **The Ultimate Programming Environment!**

Pharo

- MIT license
- Mac, Linux, Windows, (Android, iOS)
- Great community
- Improving steadily
- Many excellent libraries

Started 2008

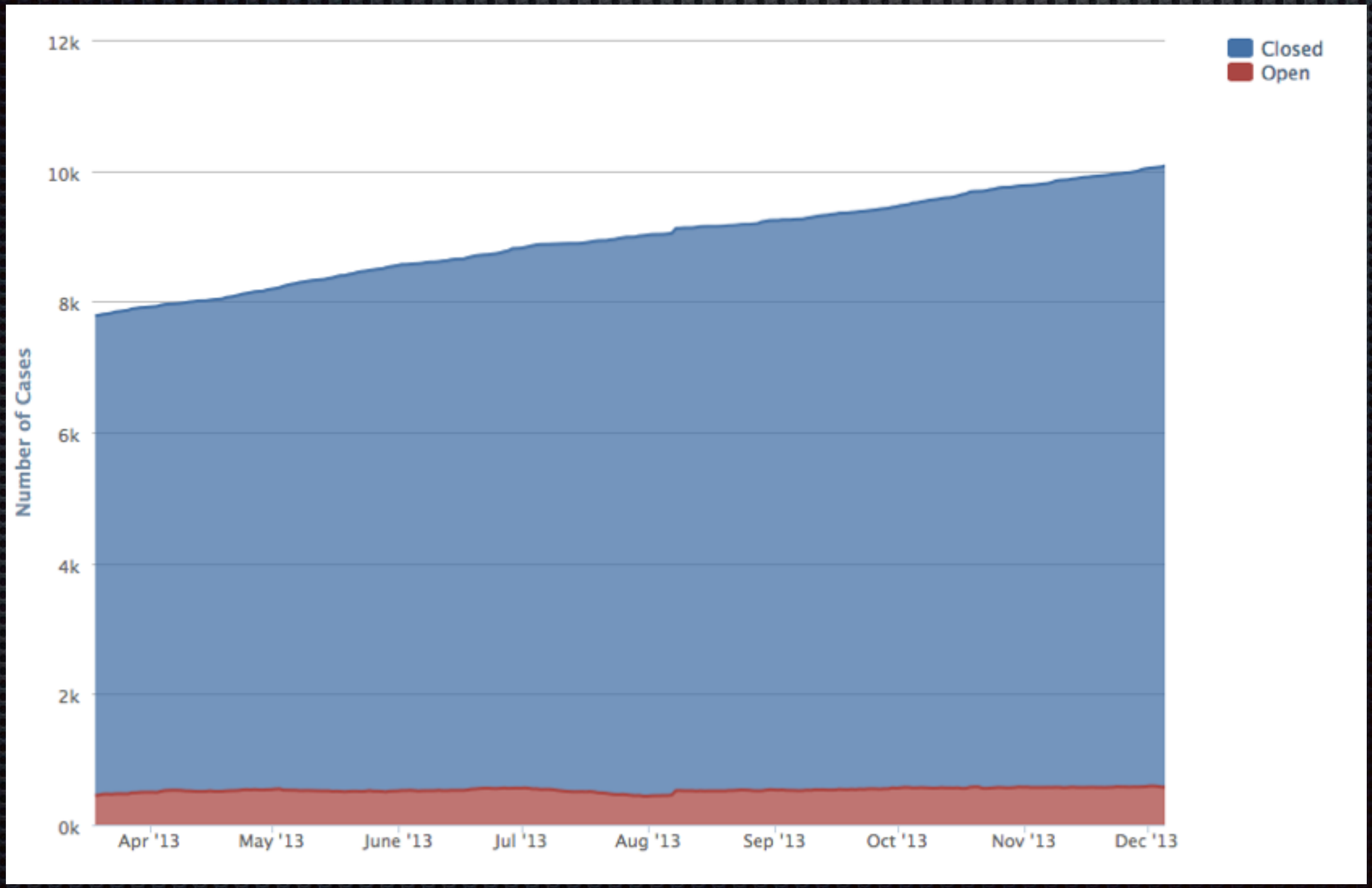
- Pharo 1.0 released October 2009
- 2.0 is the current stable (5th release)
- Released March 2013

Plan: 1 Release per Year

Pharo3: Release March 14

- Started March 2013
- 2021 Issue tracker entries with Pharo3 tag closed
- 733 Updates
- 40 issue as TODO for release

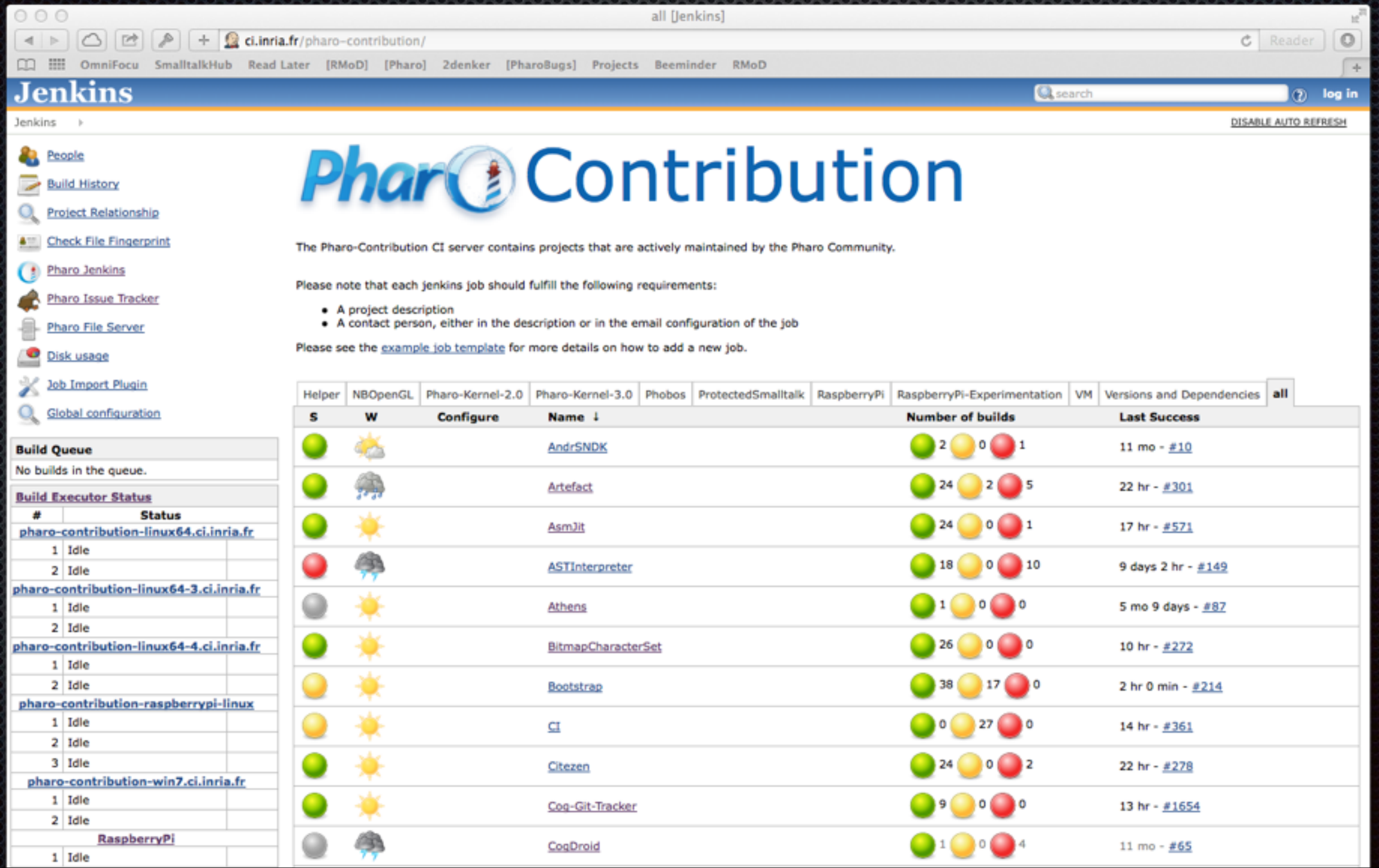
Lots of Activity



Infrastructure: CI

- https://ci.inria.fr is stable and used **a lot**
- Every fix is validated automatically before human review
- Every update triggers test run on 3 Architectures
- over 80 projects in pharo-contribution

ci.inria.fr/pharo-contribution/



Infrastructure: Misc

- http://files.pharo.org
- http://get.pharo.org
- SmalltalkHub: http://smalltalkhub.com
  - 1025 users, 1200 repos, 15mill hits/day

Small Stuff

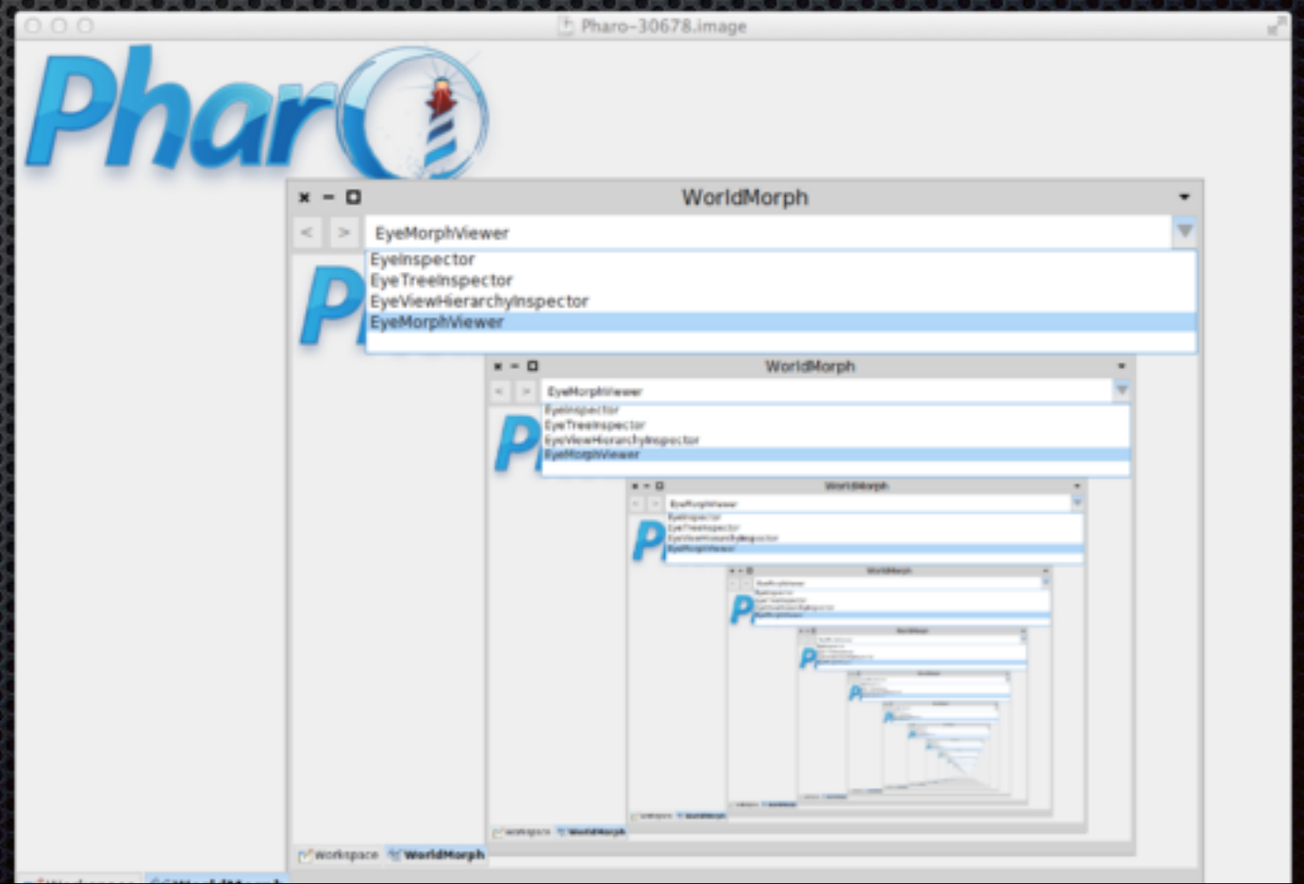
- Lots of Cleanups
- Lots of tuning (perfomance, memory)
- Lots of small improvements

Lots of larger things

- Closure class now standard in Pharo3
- Terminal output for stderr
- Cleanup Source file related code
- AST Interpreter
- AST based Navigation in Browser
- Komitter
- Launcher
- Font Speedup
- ….

New Inspector

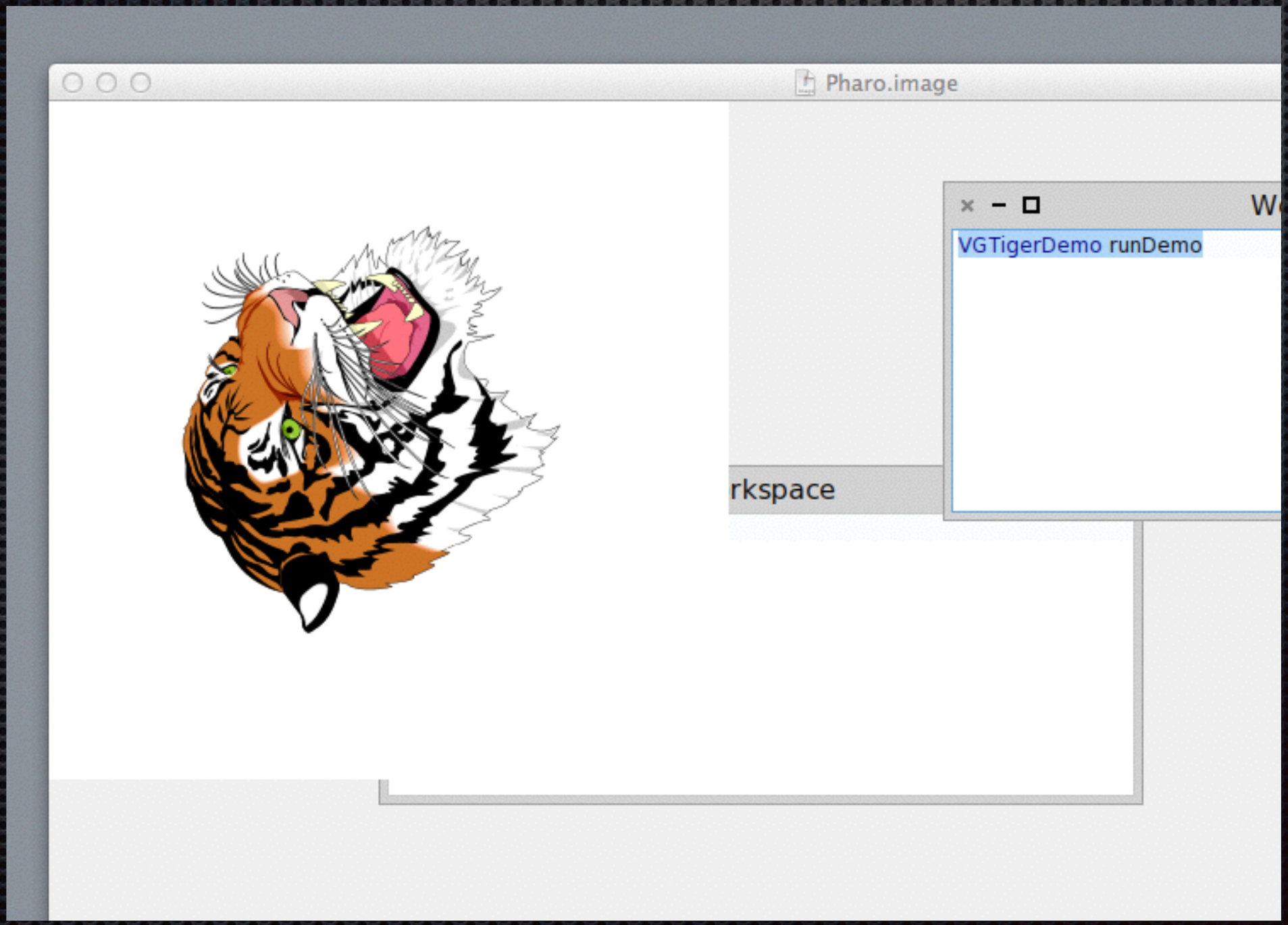
- Unify Inspector and Explorer
- Make specialised inspectors visible



Athens: Vector Graphics

- New API for Vector Graphics
- Independent of Backend
  - For now: Cairo
  - Balloon3D for Debugging
  - Future: OpenGL

Athens: Demo



Opal Compiler

- Uses RB AST
- IRBuilder: Bytecode backend with high-level builder
- Much easier to change
- Basis for Reflectivity (see Pharo4 talk)

New ClassBuilder

- Replaces the old ClassBuilder

- Easier to understand and more flexible

- Basis for Slots (see talk about Pharo4)

New Debugger

- Model now separate from View
- Model is scriptable
- Debugger is extensible with Commands

Command Line

```
denker$ ./pharo Pharo.image --list
Currently installed Command Line Handlers:
    Fuel              Loads fuel files
    config            Install Configurations
    save              Rename the image and changes file
    update            Load updates
    printVersion      Print image version
    st                Loads and executes .st source files
    test              A command line test runner
    clean             Run image cleanup
    eval              Directly evaluates one line scripts
```

Pharo Consortium

Started 2013

- 13 Members
- 6 Academic Partners
- 3 Sponsors

http://consortium.pharo.org

esug
EUROPEAN SMALLTALK USER GROUP

Inria
INVENTEURS DU MONDE NUMÉRIQUE

vmware

debris
publishing

HRworks

netstyle.ch

2denker

Yesplan
Let's make it happen

MAD®
ENVIRONNEMENT

Systems that make sense
Sensus

BetaNine
software engineering

COETIC
Gagnez une Qualité d'Avance

CæsarSystems
Accelerate Confidently

OBJECT
PROFILE

Pharo Association

Started 2013

- For individuals
- around 60 Members
- Consortium and Association will merge

http://association.pharo.org

Pharo Books

Pharo
by example
Andrew P. Black, Stéphane Ducasse, Oscar Nierstrasz, Damien Pollet
with Damien Cassou and Marcus Denker

DEEP INTO
Pharo
ALEXANDRE BERGEL - DAMIEN CASSOU
STÉPHANE DUCASSE - JANNIK LAVAL
Foreword by Dave THOMAS

Open Pharo Sprints

May 2008 Bern
July 2009 Bern
October 2009 Lille
November 2009 Buenos Ares
March 2010 Bern
May 2010 Buenos Ares
June 2010 Bern
June 2010 Bruxelles
July 2010 London
September 2010 **Barcelona**
September 2010 Lille
January 2011 Lille
July 2011 Lille
October 2011 Bruxelles
February 2012 Bern
April 2012 Lille
September 2012 Ghent
October 2013 Lille
November 2013 Buenos Aires