

Pharo: steadily improving


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<http://www.pharo-project.org>

Pharo

- ✦ MIT license
- ✦ Mac, Linux, Android, iOS, Windows
- ✦ Great *community* of active doers
- ✦ Improving *steadily*
- ✦ *Many many many* excellent *libraries*


Our goal...



**Create an ecosystem
where business/innovation
can bloom**

We want ****you**** can make money with
Pharo.

inventing solutions to existing problems.



**Create an ecosystem
where business/innovation
can bloom**

Powerful innovative dynamic language to

build **OUR/YOUR** future.

New rethought language/system.

Create a system to enable
you to create!

Some Pharo's success stories

- ✦ **Seaside.st, SmalltalkHub,**
- ✦ **Yesplan.be, netstyle.ch**
- ✦ **Pier, DrGeo, VBridge,**
- ✦ **Cmsbox.ch, objectFusion,**
- ✦ **beta9.be:** T3 Easy (Pharo server side)
- ✦ **Moose, pinesoft.co.uk**
- ✦ **Airflowing, synectique, miriamTech, 2denker...**

We want more success
stories!

The background image shows a large, complex scientific facility, likely a particle accelerator or fusion reactor. The scene is dominated by a dense network of pipes, cables, and machinery. The lighting is a vibrant blue, creating a futuristic and high-tech atmosphere. The perspective is from a low angle, looking up at the ceiling and the intricate structures. A central yellow banner with black text is overlaid on the image.

**A powerful engine
to invent our future**

Since may 2008

- ✦ Pharo 1.0 - oct 2009 (470 updates)
- ✦ Pharo 1.1 - jul 2010 (410 updates)
- ✦ Pharo 1.2 - mar 2011 (500 updates)
- ✦ Pharo 1.3 (700 updates)
- ✦ Pharo 1.4 - Apr 2012 (860 updates)
- ✦ Pharo 2.0 alpha (759 updates)

Pharo 1.4

- ✦ Lot lot improvements
- ✦ More important:
 - ✦ Summer maintenance release
 - ✦ Fall maintenance release

Roadmap for 2.0

- ✦ Building the infrastructure for the next generation
- ✦ [https://gforge.inria.fr/frs/download.php/30434/
PharoVision.pdf](https://gforge.inria.fr/frs/download.php/30434/PharoVision.pdf)

Glimpse at 2.0 alpha

- ✦ core: 1.36 mb so far (hazelnuts: 120 KB)
- ✦ (integration process using metacello! soon)
- ✦ rewriting most tools with Spec
- ✦ Nautilus: new browser
- ✦ Filesystem (no more FileDirectory :)
- ✦ new package implementation
- ✦ new system announcement (no more SystemChangeNotification)
- ✦ (package manifest = package meta data soon)

Ongoing Community Work

- Better widgets, UI Builder (A. Plantec, G. Chambers, B. van Ryseghem)
- Key mapper (G. Polito)
- Serializer (M. Dias, M. Martinez-Peck), Full Proxy (M. Martinez-Peck)
- Opal New compiler (J. Ressia/M. Denker/JB Arnaud)
- Vectorial canvas (I. Stasenko)
- Better FFI (I. Stasenko, E. Lorenzano)
- Package distribution infrastructure (D. Henrichs)
- PDF generation (O. Auverlot)
- Network: Zinc, Zodiac, WebSockets (S. van Caekenberghe)
- Seamless: Remote Smalltalk (N. Papoulias and N. Bouraqadi)

Code Model (1.4)

- ✦ Off-image browsing
- ✦ Representing Smalltalk source code
- ✦ Ring (V. Uquillaz Gomes/A. Kellens/S.Ducasse)
 - ✦ Source code metamodel
 - ✦ *API compatible* with Smalltalk objects
 - ✦ in Pharo 1.4
- ✦ Adding layers on top of it
- ✦ Reusing tools

Next Steps

- ✦ Database to store
- ✦ Better source model
- ✦ Server for queries

Athens Graphics (2.0)

- ✦ New Vector Graphics Canvas

- ✦ OO Design

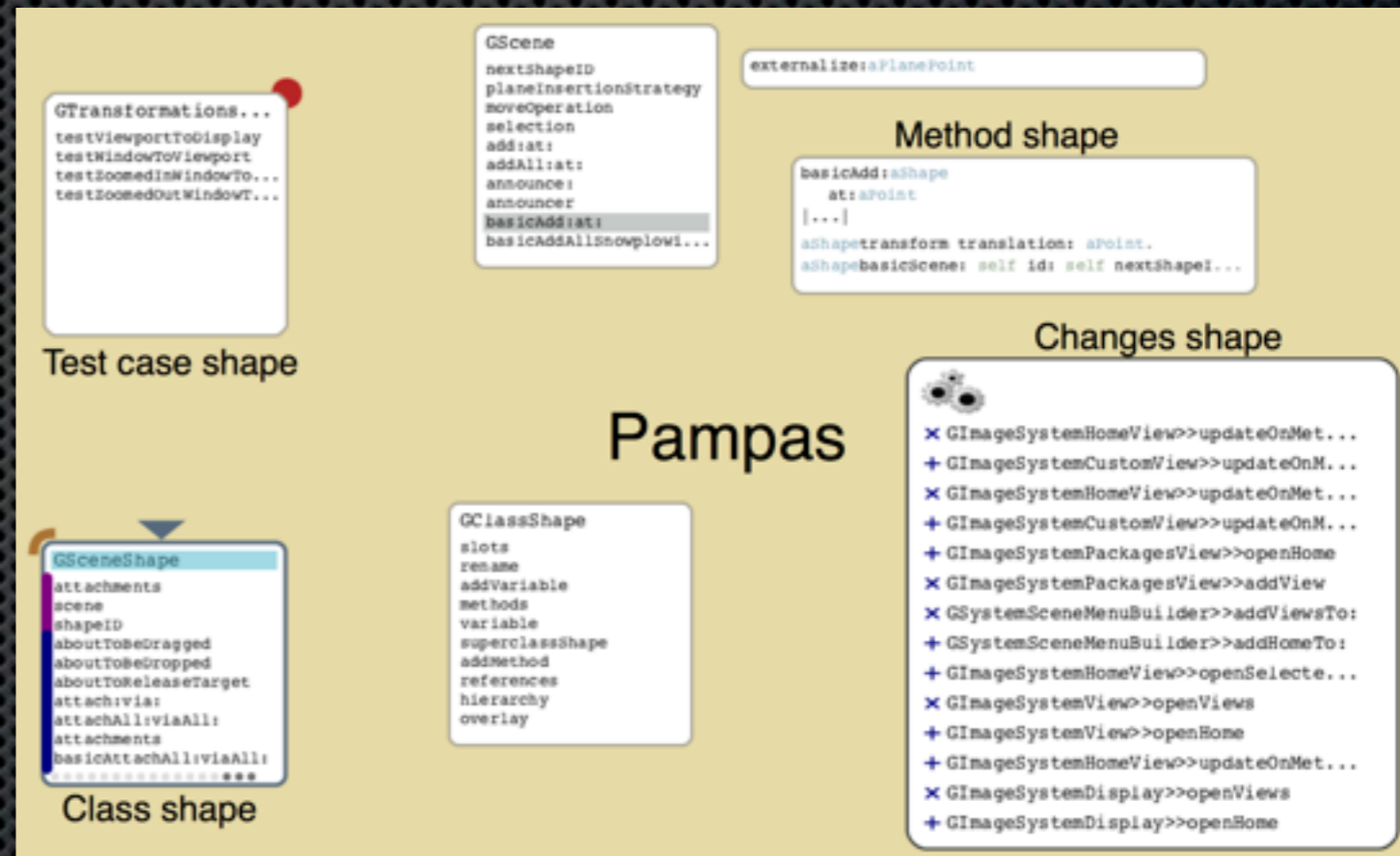
- ✦ Layered Architecture

- ✦ Backends

- ✦ Cairo

- ✦ BitBlt

- ✦ CoreGraphics



Next Steps

- ✦ New TextModel
- ✦ Adapt Morphic
- ✦ Clean all the canvases

Opal (2.0)

- ✦ a more flexible and simpler compiler
- ✦ Will be added in 2.0 next week!
- ✦ Hooks for DSL support
- ✦ Better API
- ✦ New generation of tools

Next Steps

- ✦ Decompiler (was the last missing bit) is nearly finished
- ✦ Throw away the old compiler
- ✦ Then improving the API

Fuel: Fast Serialization (1.4)

- ✦ Done by M. Diaz, M. Martinez-Peck, (T. Bourgeois & S. Ducasse)
- ✦ Don't use ImageSegment (removed in 1.4)
 - ✦ Fuel is fast and even faster (!!)
 - ✦ Much more flexible and easier to understand

Next Steps

- Binary code loader: Tanker (Pharo 3.0)

Distributions: towards a certified catalog

- ✦ I want to go to Mars with just a DVD,
- ✦ and still be able to load the projects I want,
- ✦ and get the right ones loaded.

Package certification (2.0|3.0)

- ✦ Packages should be more self contained
 - ✦ Tests
 - ✦ LintRules managed with **false positives**
 - ✦ Meta data
- ✦ Run and automatically certified

Process

- ✦ You use Metacello!
- ✦ You publish in your repo!
- ✦ When you want, push the code to a distribution project
- ✦ All the code then is recursively copied to the distribution space
- ✦ All the **tests and quality rules** are checked
- ✦ People use your code but with a certain level of confidence :)

Native Boost (2.0)

- ✦ By I. Stasenko (mac, linux and windows 32bits)
- ✦ Generate machine code on the fly :)
- ✦ FFI
- ✦ Implement primitives

Next Steps

- ✦ Merge FFI and NB API
- ✦ Real documentation
- ✦ Cleaning load Alien, FFI, NativeBoost

New IDE Tools (2.0)

- ✦ Throw away StringHolder hierarchy
- ✦ Browser support refactoring, groups, plugins and a lot more :)
- ✦ by B. van Ryseghem

VM

- ✦ Expand knowledge
- ✦ Welcome newbies and idiots (like Stef)
- ✦ Increase tests
- ✦ Enable sharing: yes the code is in GIT
- ✦ Release VM builders from stupid tasks
- ✦ Traceability/Branding

VM builds

- Anybody is now able to build a vm!

VM Infrastructure

- ✦ VM validation after ANY changes
- ✦ Automatic recompilation
- ✦ Automatic test regressions

Mini Bootstrapped Image (3.0)

- ✦ Pavel's Mini image
- ✦ 4.2 mb for Seaside
- ✦ Guillermo and Benjamin's Hazelnuts
- ✦ State: **1.36 mb** for core+compiler
- ✦ Soon Hazelnut: 120 KB

Pharo Consortium

- ✦ How to sustain Pharo?
- ✦ How do we make sure that infrastructure continues to improve?
- ✦ How to structure the community?
- ✦ Should we always rely on people free time?

Consortium Members

- ✦ Managed by INRIA for now
- ✦ Who: companies, institutions, user groups
- ✦ Privileged access to the **core** development team
- ✦ Influence **priorities** of the next development
- ✦ **Engineering support time**
- ✦ Job posts
- ✦ Training/Conferences special prices

Your fears :)

- ✦ Pharo will stay free!
- ✦ No negative impact: just a better Pharo
- ✦ Better maintained system

Consortium Sponsor

- ✦ You can also be a sponsor
 - ✦ Normal
 - ✦ Diamond

Tuitions

- ✦ Gold 4000
 - ✦ 4 days of engineering time + multiple job descriptions for job dashboard + diamond sponsor.
- ✦ Silver 2000
 - ✦ two days of engineering time + one job description + diamond sponsor.
- ✦ Bronze 1000
 - ✦ one day of engineering time + diamond sponsor.

When

- ✦ Started discussions with INRIA two years ago
- ✦ INRIA put money on the table 60 KEuros (Esteban)
- ✦ More than 25 companies are interested
- ✦ Available 3rd week of September

Pharo Users Association

- ✦ Managed by the Pharo Association
- ✦ Individuals
 - ✦ Premium (99 Euros)
 - ✦ Normal (40 Euros)
- ✦ In the mid-term it will manage the consortium

Pharo books

- ✦ Pharo by example
 - ✦ translated to french, merci!
 - ✦ translated to spanish, gracias!
 - ✦ japanese, german started
- ✦ New book soon: Deep into Pharo

The future is what we do!

Every *single* contribution is
important

You can get **impact**

Everybody can help

- ✦ Reporting bugs
- ✦ Confirming bugs
- ✦ Writing tests
- ✦ Writing examples
- ✦ Writing comments
- ✦ Simple contributing fixes
- ✦ Deep discussion...

Open Pharo Sprints

May 2008 Bern

July 2009 Bern

October 2009 Lille

November 2009 Buenos Aires

March 2010 Bern

May 2010 Buenos Aires

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

