

# Pharo 7.0 and 8.0 alpha



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<http://www.pharo.org>

Let us start with a super  
super cool announce...

# Consortium...

- Lifeware supports one year engineer to support improve Pharo infrastructure
- Schmidt supports one year engineer to support improve Pharo infrastructure



# For Pharo 8.0: 4 engineers

Esteban 



Iceberg  
C  
FFI  
Spec  
VM

Pablo 



ClassBuilder  
NewTraits  
Iceberg  
C - FFI  
Windows  
VM

Cyril  



UI  
Tools  
Spec  
Web  
Fixing  
Cleaning

Guille  



Iceberg  
ClassDef  
TaskIt  
Spec  
Tests  
Windows

# Pharo 7.0



### Clone From github.com

Repository: pharo-project

Owner name: pharo-project

Project name: pharo

Local directory: /iceberg/pharo-project/pharo

Protocol: SSH

Ok Cancel

Timestamp	Commit	Author	De
2018-10-26 14:32	2b1796f	Guille Polito	Use
2018-10-26 14:32	da5095e	Guille Polito	Mal
2018-10-26 14:31	132f005	Guille Polito	Fix
2018-10-26 14:18	341f8d6	Guille Polito	Use
2018-10-26 13:22	74e7862	Guille Polito	Use
2018-10-26 12:09	2ff004a	Esteban Lorenzano	Mer
2018-10-26 11:03	229e37c	Pablo Tesone	Mal
2018-10-26 10:40	88e5af1	Guille Polito	Mer
10:11	985b8a5	Guille Polito	Mer
09:01	343dbe9	Esteban Lorenzano	Mer
11:48	ad79f39	Tnmohirn Orta	Use



ClyNavigationEnvironmentTest>>testCheckEmptyQueryWhenThereIsNotE...

- BaselineOfCalypso
- Calypso-Browser
- Calypso-NavigationModel
- Calypso-NavigationModel-Te
- Calypso-SystemPlugins-Class
- Calypso-SystemPlugins-Class
- Calypso-SystemPlugins-Class
- Calypso-SystemPlugins-Critic
- Calypso-SystemPlugins-Critic
- Calypso-SystemPlugins-Critic
- Calypso-SystemPlugins-Critic
- Calypso-SystemPlugins-Depe
- Calypso-SystemPlugins-Depn

- ClyBrowserQueryResultExample
- ClyItemFilterTestCase
- ClyItemNameFilterTest
- ClyItemObserverExample
- ClyNavigationEnvironmentTest
- ClyBrowserQueryCursorTestC
- ClyBrowserItemCursorTest
- ClyAsyncBrowserQueryCurs
- ClyRawItemCursorTest
- ClyAsyncRawQueryCursorTi
- ClyItemGroupProviderTestCa
- ClyNavigationEnvironmentTes

```
testCheckEmptyQueryWhenThereIsNotEmptyResult
| query result |
query := self createQueryFromScopeOf: self class.
result := environment query: query.
self assert: result items notEmpty.

self deny: (environment isEmptyQuery: query)
```

```
self critical: [
| initialPosition initialLocalNam
self entryBuffer isEmpty ifTrue:
fileReference writeStream: [if
fileStream setToEnd.

self critical: [
| initialPosition
self entryBuffer to
fileStream write
fileStream setTo
```

# P7.0 in a Nutshell

- ✦ 64-bit version in Linux and OSX
- ✦ PharoLauncher
- ✦ Totally new build process with its full bootstrap from sources
- ✦ All source on github
- ✦ Iceberg, the git client significantly improved
- ✦ Calypso, the angular stone of PharoThings, is the new system Pharo browser

# Nautilus (Jules Verne)

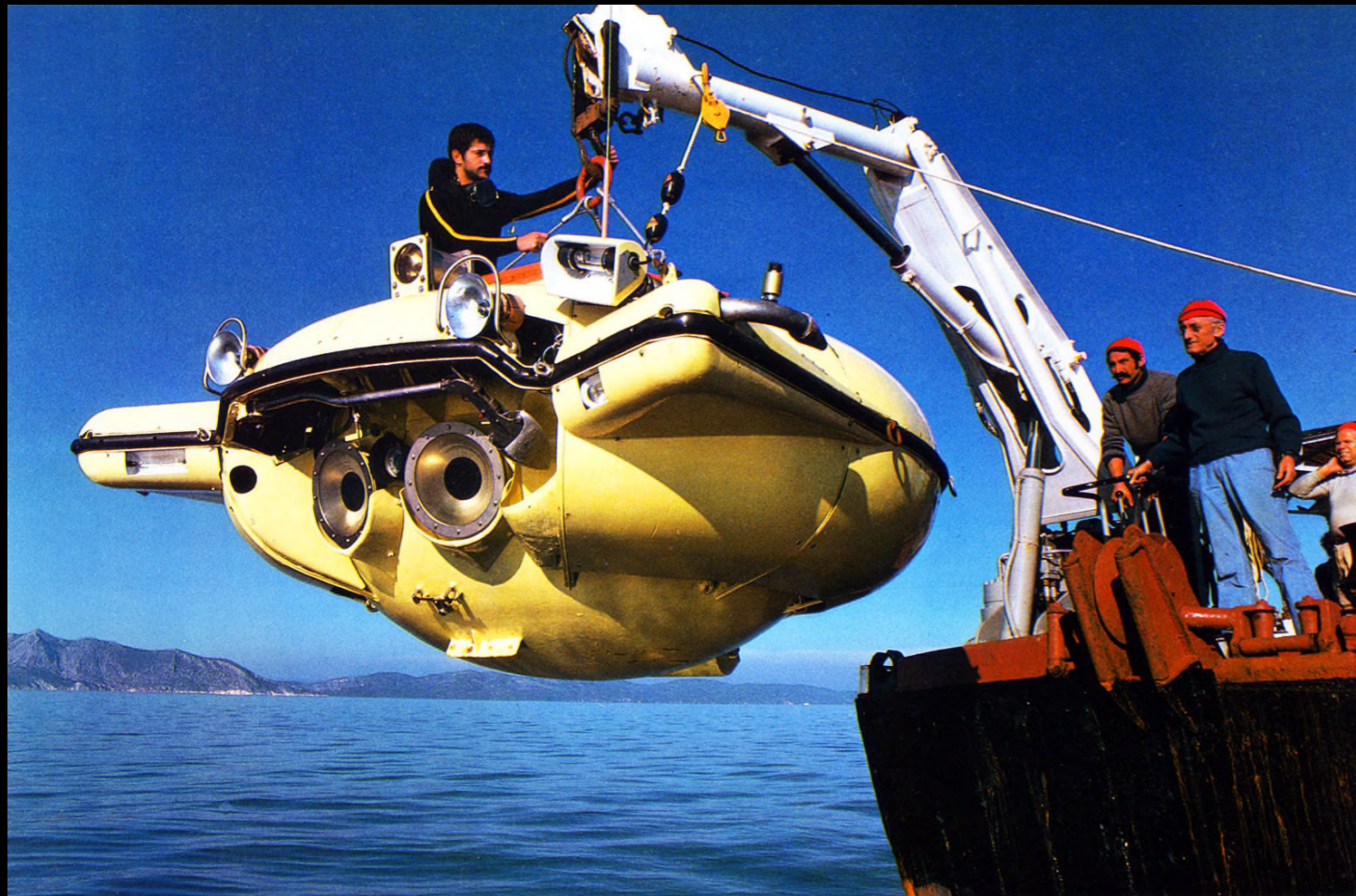




# Calypso (Cousteau)



# Calypso & its submarines



# The new Pharo process\*

- Bootstrapped
- Git, GitHub and Pull Requests (with Iceberg)



pharo-project / pharo

Unwatch 35 Unstar 269 Fork 143

Code Issues 345 Pull requests 14 Wiki Insights Settings

The Sources for Pharo http://pharo.org Edit

pharo Manage topics

6,774 commits 7 branches 346 releases 80 contributors MIT

Branch: Pharo8.0 New pull request Create new file Upload files Find File Clone or download

Ducasse Merge pull request #3127 from tesonep/fixing-performance-source-file		Latest commit 3c8b374 2 hours ago
.github	Update config.yml	3 days ago
bootstrap	enable initializers in minimal Pharo	15 days ago
resources	I removed the Multilingual packages from the bootstrapped image.	a year ago
scripts	Remove package not loaded in the image and add a script to do this if...	a year ago
src	Merge pull request #3127 from tesonep/fixing-performance-source-file	2 hours ago
.bintray.json	deploying in different bintray projects	2 years ago
.gitattributes	add related test	11 months ago
.gitignore	cleanup repository	2 years ago
.project	Integrate Iceberg 1.2.0	8 months ago
.travis.yml	Fix: non restricted travis clone depth	2 years ago

ci.inria.fr 6 search esteban.lorenzano@inria.fr | log out

Jenkins > Test pending pull request and branch Pipeline > Pull Requests (107) [ENABLE AUTO REFRESH](#)

- Up
- Status
- Configure
- Scan Repository Now
- Scan Repository Log
- Repository Events
- People
- Build History
- Project Relationship
- Check File Fingerprint
- Open Blue Ocean
- GitHub
- Config Files
- Pipeline Syntax
- Credentials

**Build Queue** -

No builds in the queue.

**Build Executor Status** -

## Test pending pull request and branch Pipeline

This task tests everything - latest integration - pending pull request - branches It also uploads build artifacts if in development branch.

Branches (1) **Pull Requests (107)**

S	W	Name ↓	Last Success	Last Failure	Last Duration	Built On	Fav
		<a href="#">PR-1529</a>	1 mo 15 days - <a href="#">#11</a>	14 days - <a href="#">#13</a>	29 min		
		<a href="#">PR-1544</a>	N/A	23 days - <a href="#">#7</a>	14 sec		
		<a href="#">PR-1583</a>	21 days - <a href="#">#8</a>	23 days - <a href="#">#7</a>	39 min		
		<a href="#">PR-1609</a>	19 days - <a href="#">#9</a>	1 mo 22 days - <a href="#">#4</a>	43 min		
		<a href="#">PR-1618</a>	4 days 3 hr - <a href="#">#10</a>	19 days - <a href="#">#5</a>	28 min		
		<a href="#">PR-1619</a>	N/A	23 days - <a href="#">#3</a>	1 hr 23 min		
		<a href="#">PR-1624</a>	1 mo 2 days - <a href="#">#5</a>	23 days - <a href="#">#6</a>	40 min		
		<a href="#">PR-1647</a>	19 days - <a href="#">#7</a>	23 days - <a href="#">#6</a>	28 min		
		<a href="#">PR-1668</a>	24 days - <a href="#">#7</a>	19 days - <a href="#">#10</a>	47 min		
		<a href="#">PR-1673</a>	21 days - <a href="#">#4</a>	23 days - <a href="#">#3</a>	41 min		
		<a href="#">PR-1677</a>	N/A	23 days - <a href="#">#3</a>	30 min		



# request and branch Pipeline

Pipeline

Changes

Tests

Artifacts



Logout



1239  
Branch: development

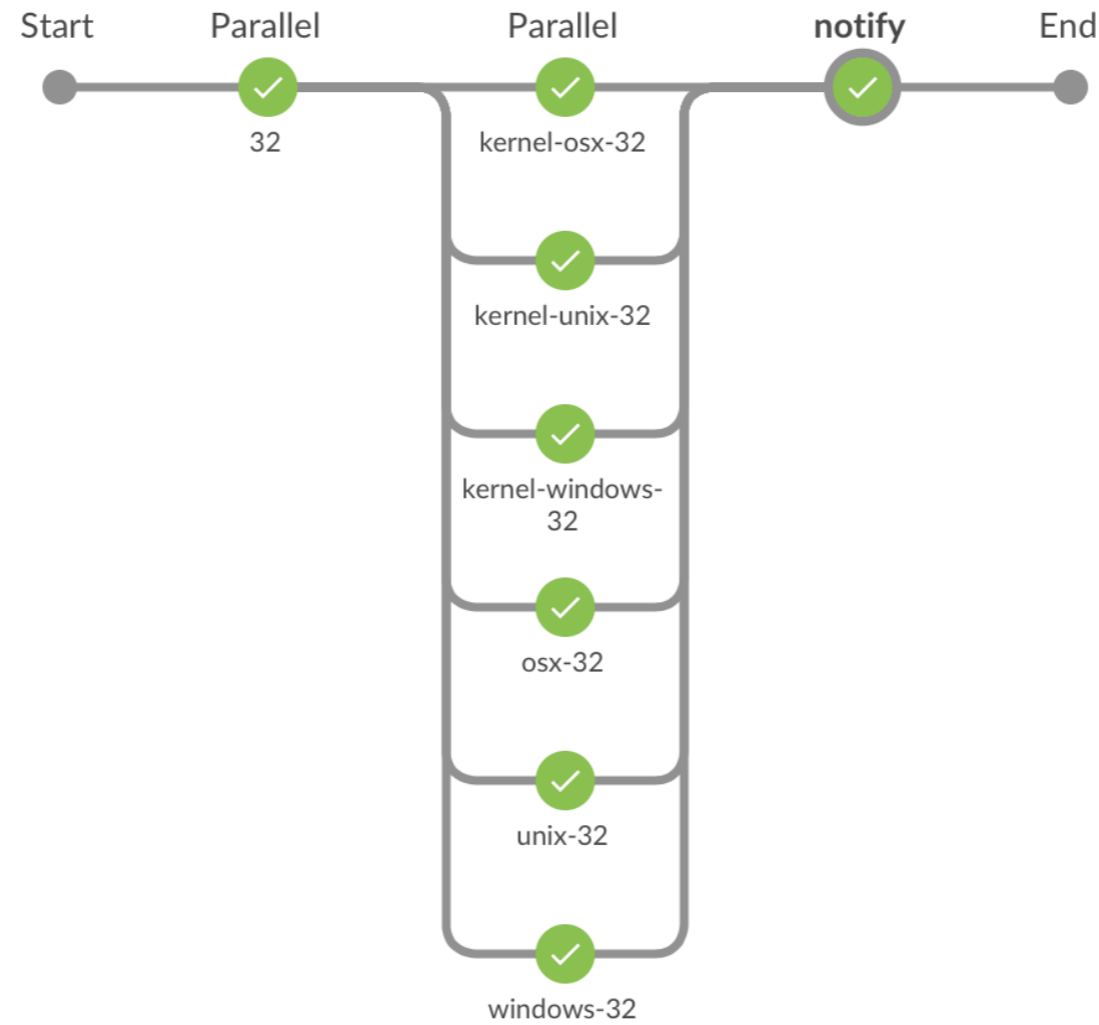
29m 15s

No changes

Commit: -

2 days ago

Push event to branch development



notify - 12s



General SCM

11s



# Why?

- Reproducible.
- Verified (CI).
- Process of review and approve get's accessible to all community (and we can “distribute ownership”).
- Visibility.
- Now we can: release often, back-port better, LTS.



# Some numbers

- More than **2140** Pull Requests closed.
- **104** GitHub forks. [now in P8 **143** ]
- **63** contributors. [now in P8 **78** ]
- And that not counting Iceberg, Calypso and others.





# Since we are always improving...

- Stateful traits\*
- Streams refactor
- Working directory now is a real working directory (and there is #imageDirectory that works as before)
- UFFI has been adapted to Windows 64bit
- “Plugin replacement program”: move to the image while is possible (FreeType done, SSL ongoing)
- Windows 64bit VM closer and closer
- The OpenSmalltalkVM has continued improving in several ways. Not just Cog (The “Core VM”) but also specific plugins like FilePlugin for Windows



# Pharo 8.0 roadmap 🚧

# We will support



... let us have a look

# List summary

- ☀️ File primitives performance on Windows 🚧 8
- ☁️ cmd+dot not working in all cases 🚧 9
- ⚡ Parallel processing (not just parallel testing, which can be resolved at image side) 🚧 8
- ☀️ Memory management and general command line usability/documentation 🚧 8
- ⚡ GC stops 2-3min for fullGC (in large images) 🚧 9
- ☀️ Parallel testing 🚧 9
- ☀️ Refactorings 🚧 8
- ✅ Degradation in performance 🚧 8
- ☁️ Latency (on spotter and completion), remarkable in large images. 🚧 8
- ☀️ Quality rules on big classes/images 🚧 8
- Multiple windows 🚧 8

# List summary ...

-  Spec v2.0  8
-  Better FFI Infrastructure  8
-  Better windows integration  8
-  Basic encryption  8
-  Zip  8

# Supporting business

- ✦ Better 64 bits Windows
- ✦ Support for multiple graphical backends
- ✦ Much better UFFI
- ✦ Avoid multiple solutions doing the same (TextEditor,...)

# Pharo 8.0 alpha

- Headless VM
- Use new block closure
- Deprecating Glamour
- Rewriting (all) tools to Spec 2.0
- Improving refactorings
- Improving eCompletion
- DrTests

# Infrastructure

- UndefinedClasses 
- Compiler enhancement 
- ClassDefinition Parser 
- Scriptable/Object-centric debugger



# Yes this is too much...

- ✦ This list is seriously too large
- ✦ We need help from the community!

# You can have an impact

- ✦ With one hour per week...
- ✦ Enhance tests
- ✦ Add tests
- ✦ Review fixes
- ✦ Fix simple points
- ✦ Do not make us lose time...

