

Pharo 8.0^{alpha} (and more)

S. Ducasse

<http://www.pharo.org>

<http://consortium.pharo.org>



Let us start with a super
super cool announce from
this spring...

Consortium...

- Lifeware supports one year engineer
- Schmidt supports one year engineer

...to improve Pharo infrastructure



For Pharo 8.0: 4 engineers

Esteban 



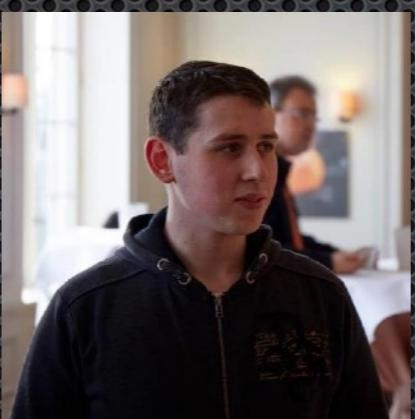
Iceberg
C
FFI
Spec
VM

Pablo 



ClassBuilder
NewTraits
Iceberg
C - FFI
Windows
VM

Cyril  



UI
Tools
Spec
Web
Fixing
Cleaning

Guille  



Iceberg
ClassDef
TaskIt
Spec
Tests
Windows

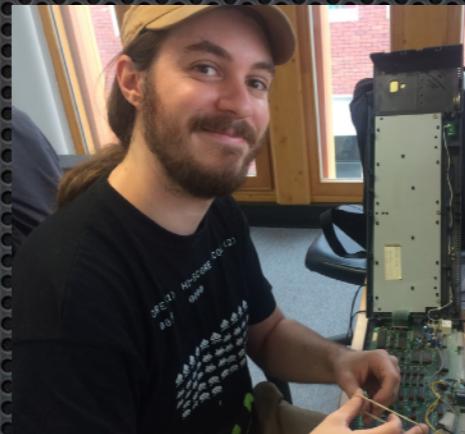
And we got two new RMOD team members

Steven

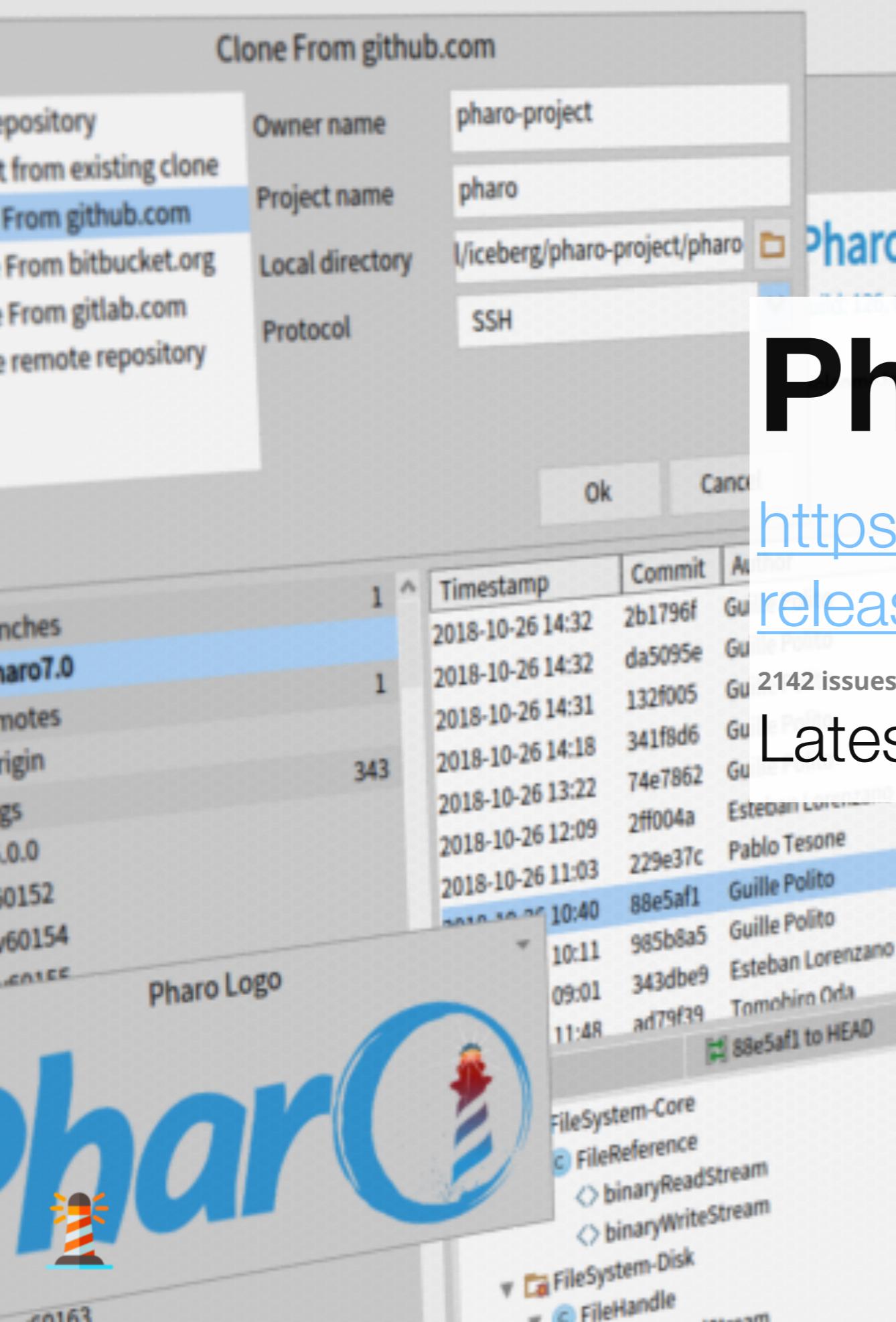


Debugger
Reflectivity
(Compiler)
IoT
(VM)
...
...

Vincent



Python
C
Assembly
Meta modeling
Testing
VM ...



Pharo 7.0

<https://pharo.org/news/pharo7.0-released>

2142 issues!

Latest update 7.0.4 : August'19

P 7.0 in a Nutshell

- 64-bit version in Linux, OSX and Windows (preview)
- PharoLauncher
- Totally new build process with full bootstrap from sources
- All source on <http://github.com/pharo-project/pharo>
- Iceberg: git client significantly improved
- Calypso, the angular stone of PharoThings, new system Pharo browser

P 7.0 main points....

- Stateful traits
- Streams refactor
- Working directory now is a real working directory
- UFFI has been adapted to Windows 64bit
- “Plugin replacement program”: FreeType done
- Windows 64bit VM closer and closer
- The OpenSmalltalkVM has continued improving in several ways.
- Specific plugins like FilePlugin for Windows



Pharo 8.0^{alpha}



In a Nutshell

- Default VM: Headless VM (alpha out) + new FFI non blocking backend
- VM builds under control (more tests) - See Pablo's talk
- Spec 2.0 (alpha out) - See Esteban's Talk
- Rewriting tools to Spec 2.0 (underway)
- Improving refactorings / eCompletion (under way)
- Better tools with Roassal 3.0 (under way)
- DrTests: Infrastructure for Tests: Much more Tests
- Clap: New command line
- Use new block closure (Sista's back-end) - fixing debugger
- Object-centric debugger (see Steven's talk)

We are supporting



.... let us have a look

Supporting business

- Better 64 bits Windows
- Support for multiple graphical backends
- Better tools and custom points
- Much better UFFI (non-blocking back-end) See Pablo's talk
- Continuously improving (cleans, refactoring, tests)

8 Addressed

- ☁️ Analysis of File primitives performance on Windows
- ☁️ Support for multiple windows
- ☁️ Headless VM (alpha)
- ☁️ Non-blocking FFI back-end
- ☁️ Degradation in performance  8&7
- ☁️ Tons of more tests (see below)



8 Under way for P8

- Cloud with lightning bolt: Memory management and command line
- Cloud with sun: Parallel testing (Checking TaskIt extensions)
- Cloud with lightning bolt: Better refactorings/eCompletion
- Cloud with sun: Latency (Spotter and completion) large images
- Cloud with lightning bolt: Quality rules on big classes/images
- Cloud with lightning bolt: Spec 2.0 (new layout/widgets/transmission/backends)
- Cloud with lightning bolt: Infrastructure for assembly generation (tests, newlib)



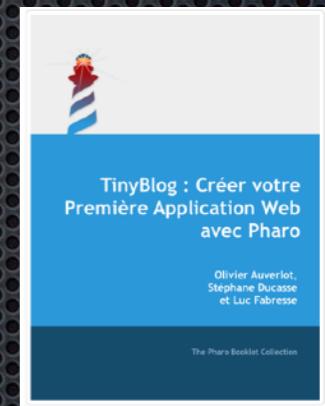
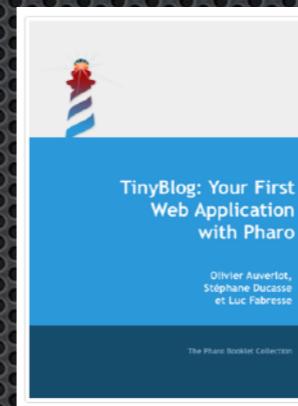
9 Potentially for P9.0

- ⚡ Better GC GC stops 2-3min for fullGC (in large images)
- ⚡ cmd+dot not working in all cases
- ⚡ Bloc
- ⚡ Parallel processing (not just parallel testing, which can be resolved at image side)
- ⚡ More and more tests for the VM and
- ⚡ Cleaner VM

Community, docs and more

[<http://books.pharo.org>]

-  TinyBlog
-  Pharo with Style
- under writing: Spec20, Testing in Pharo, Iceberg, Concurrency



<https://github.com/pharo-open-documentation/awesome-pharo>

The screenshot shows the GitHub repository page for `pharo-open-documentation/awesome-pharo`. The repository has 7 commits, 55 branches, 0 releases, and 11 contributors. The last commit was 13 days ago. The repository is licensed under CC0-1.0. The README.md file is present.

Code Issues 6 Pull requests 1 Projects 0 Wiki Security Insights

A collection of awesome Pharo libraries, tools, frameworks and software.
<https://twitter.com/PharoOpen>

pharo smalltalk awesome-list awesome documentation
libraries

162 commits 55 branches 0 releases 11 contributors CC0-1.0

Branch: master New pull request Create new file Clone or download
Upload files Find File

jecisc Merge pull request #91 from pharo-open-documentation/juliendelplanque... Latest commit 64947ca 13 days ago

.travis.yml Set up continuous integration 3 months ago

CODE_OF_CONDUCT.md Create CODE_OF_CONDUCT.md 7 months ago

CONTRIBUTION.md Create CONTRIBUTION.md 7 months ago

LICENCE.md Add CC0 licence 7 months ago

README.md Merge pull request #91 from pharo-open-doc... 13 days ago

README.md

Awesome Pharo

<https://github.com/pharo-open-documentation/pharo-wiki>

Watch 15 Unstar 79 Fork 36

pharo-open-documentation / pharo-wiki

Code Issues 57 Pull requests 0 Security Insights

Wiki related to the Pharo programming language and environment
<https://twitter.com/PharoOpen>

pharo smalltalk wiki tips-and-tricks tips tricks tutorial

tutorials examples guide guides

594 commits 6 branches 0 releases 21 contributors CC-BY-4.0

Branch: master New pull request Create new file Clone or download

Upload files

Find File

juliendelplanque Merge pull request #209 Latest commit 8584187 6 days ago from pharo-open-documentation/sorting-collect... ...

ExternalProjects Use #writeHeader: 6 months ago

General Apply suggestions from code review 7 days ago

Migration Note about new binary streams 4 months ago

PharoProjects Merge pull request #138 from pharo-open-do... 3 months ago

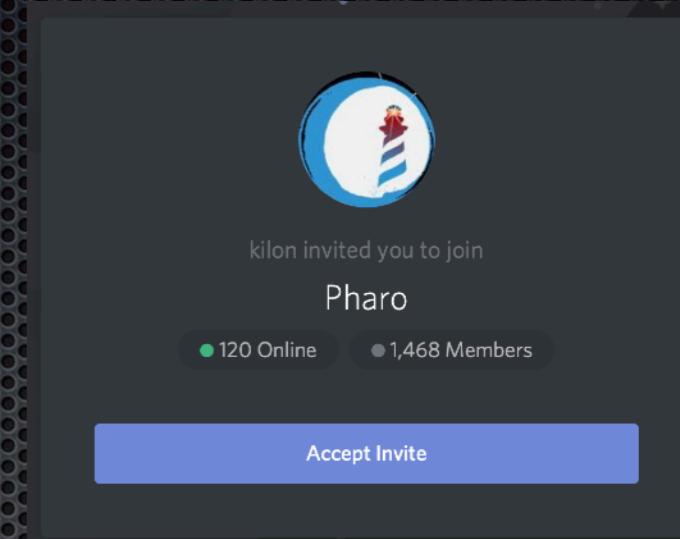
Resources Add resources for contribution guide 8 months ago

.travis.yml Added links to whitelist 3 months ago



Discord server

<https://discordapp.com/invite/QewZMZA>



Pharo

mooc

Use Quick Switcher to get around Discord quickly. Just press: **CMD + K**

- # tutorial-help
- # video-tutorials
- # exercism

PHARO

- # news
- # general
- # development
- # offtopic
- # iceberg
- # bootstrap
- # vm
- # research
- # spec

mooc

@Stepharo yes its the state of the packet. During startup all these sub classes of packets can be created. At run-time choose the subclass packet based on the state of packet arrived ? Is that correct ?

I'm not clear how to make the selection of subclass packets based on state, without any conditionals.

JMGulliet Yesterday at 7:16 PM

@benravin I believe what you are looking for is the Factory Design Pattern from the GoF https://en.m.wikipedia.org/wiki/Design_Patterns Among many others you might have a look at the following (JAVA) tutorial https://www.tutorialspoint.com/design_pattern/factory_pattern.htm# Hope this helps.

Design Patterns

Design Patterns: Elements of Reusable Object-Oriented Software (1994) is a software engineering book describing software design patterns. The book was written by Erich Gamma, Richard Helm, Ralph Johnson, and John Vlissides, with a foreword by Grady Booch. The book is divided...



Design Pattern - Factory Pattern

The best text and video tutorials to provide simple and easy learning of various technical and non-technical subjects with suitable

ADMIN—6

- Alexandre Bergel
- BenComan
- CyrilFerlicot
- Esteban Lorenzano
- Serge Stinckwich
- tudor girba

ONLINE—108

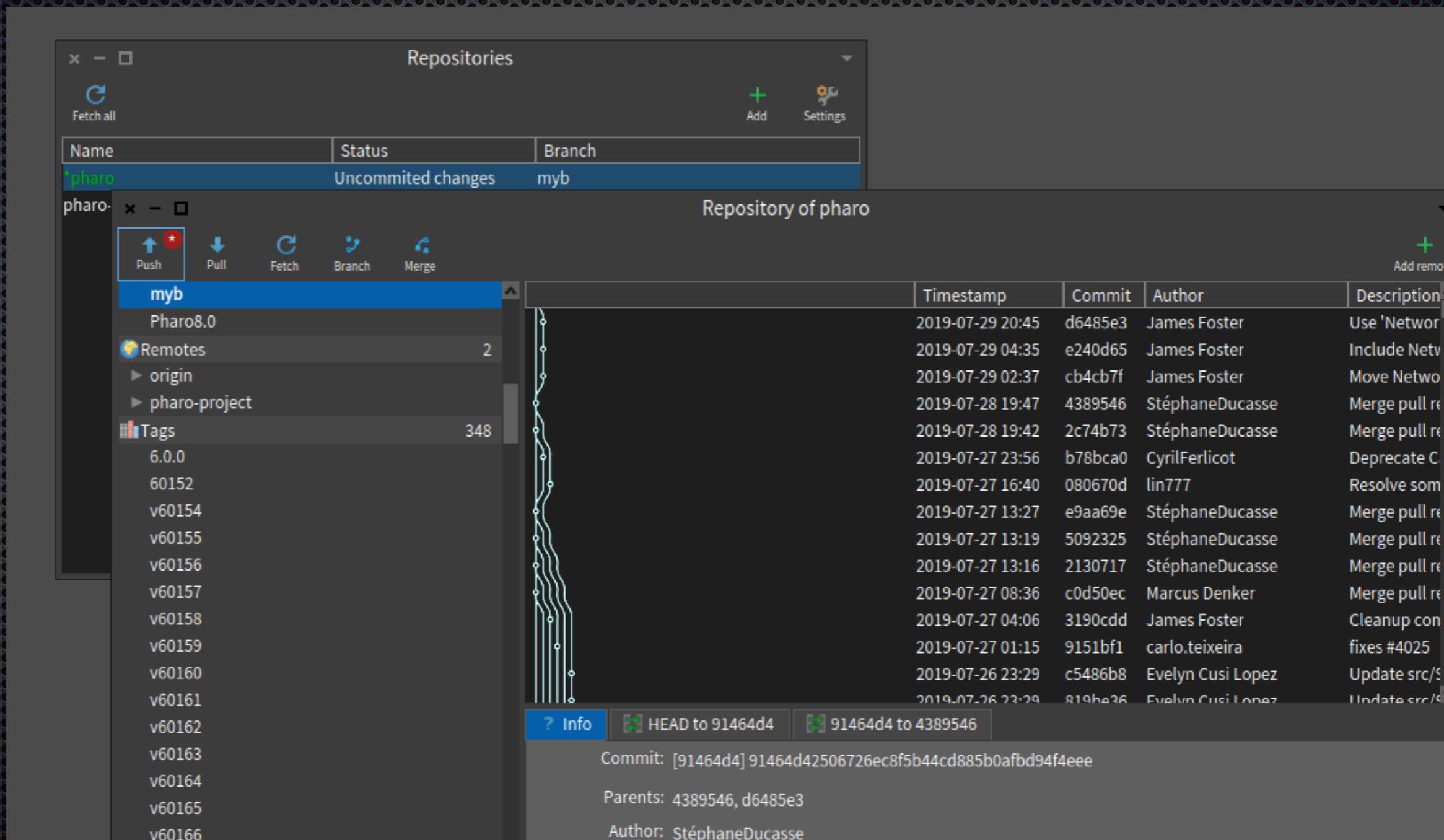
- [MT]fire Playing Garry's Mod
- Alistair Grant
- Allex Oliveira
- Andreina
- Anton
- Benoit Verhaeghe
- Bernd
- Bill Dargel



Stepping back for a moment

Pharo is
getting seriously cool!

Iceberg is making us super agile and efficient



Plugging are coming :)



Pharo Tools System Debugging Windows Help

Push Pull 9 Fetch Branch Merge

Branches 2 ASTARES master

Remotes 1 origin master pr/16 pr/77 pr/78

Tags 0

Repository of Roassal3

Info bf8f74d to HEAD bf8f74d to d7da358 Torch-like Classes Packages Multi

Add remote

Help

RSAbstractUMLRenderer

RSAbstractUMLClassRenderer RSAbstractUMLPackageRenderer

RSBasicUMLClassRenderer RSTorchUMLClassRenderer RSBasicUMLPackageRenderer

RSUMLAbstractModelDescriptor

RSUMLClassDescriptor RSUMLPackageDescriptor

RSActivityMonitorView RSInspectableExample TSAthensRenderer

RSUMLCalypso

RSUMLClassCalypso RSUMLPackageCalypso

RSUMLAbstractBuilder

RSUMLPackageBuilder RSUMLClassBuilder

src

- Roassal3-Examples
 - RSInspectableExample
 - example03Easing
- RSUMLExamples
 - example02ClassDescriptor
 - example09Package
- Roassal3-Inspector
 - RSInspectable
 - inspectElement:
- Roassal3-Interaction
 - RSActivityMonitorView
 - initializeGraphShape
 - RS.Popup

Playground Repositories Repository of Roassal3

Much better Pharo Launcher

- Much better support for windows
- New library to call windows
- 64 bits



About the “pharo is moving”....

No my friend, Pharo is massively

improving

More tests than ever

Much stronger and better process



Constant enhancements

pharo

Pharo is a dynamic reflective pure object-oriented language supporting live programming inspired by Smalltalk.

bootstrap language tools mit



pharo live-programming

object-oriented-programming

Smalltalk MIT 175 342 462 26 Updated 1 hour ago

pharo-project / pharo

Code Issues 462 Pull requests 26 Wiki Security Insights Settings

Pharo is a dynamic reflective pure object-oriented language supporting live programming inspired by Smalltalk. <http://pharo.org> Edit

pharo Manage topics

8,403 commits 5 branches 348 releases 94 contributors MIT

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

MarcusDenker Merge pull request #4368 from MarcusDenker/4080-remove-the-class-inst... ... Latest commit d66e5a4 1 hour ago



Constant enhancements

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[Code](#) [Issues 463](#) [Pull requests 24](#) [Wiki](#) [Security](#) [Insights](#) [Settings](#)

Pulse

July 20, 2019 – August 20, 2019 Period: 1 month -

Overview

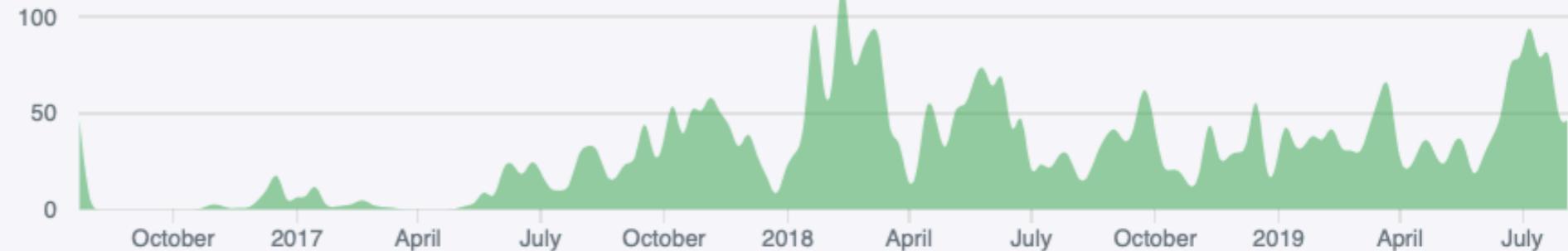
209 Active Pull Requests	181 Active Issues
188 Merged Pull Requests	21 Proposed Pull Requests
122 Closed Issues	59 New Issues

Excluding merges, 22 authors have pushed 285 commits to Pharo8.0 and 286 commits to all branches. On Pharo8.0, 1,503 files have changed and there have been 48,990 additions and 53,522 deletions.



Jul 24, 2016 – Aug 9, 2019

Contributions to Pharo8.0, excluding merge commits



Yes you
really can
join



astares

884 commits 41,873 ++ 35,866 --

#1



pavel-krivanek

619 commits 169,294 ++ 178,118 --

#1



MarcusDenker

592 commits 18,135 ++ 26,105 --

#3



guillep

424 commits 1,738,163 ++ 833,872 --

#1



jecisc

377 commits 151,528 ++ 112,912 --

#5



tesonep

319 commits 38,630 ++ 67,966 --

#

Better process: Github @ Work

- Public and transparent
- Code review / discussion
- Not a single commit without a PR
- Systematic automated validation



Muinch

more tests



More low-level tests

- Compiler tests (optimised, unoptimised, fullblock, ...)
- UI tests on multiple back-ends
- More virtual machine tests
- FFI marshalling tests!! (yes with libs in C to test)

Architecture for test analysis

DrTests is there to get gold
out (y)our tests

Better usability
New test analyses are coming

Much more tests

Parameterised tests are
simply gorgeous

Validated comments

- More comments and turned into tests
- Verified executable comments!

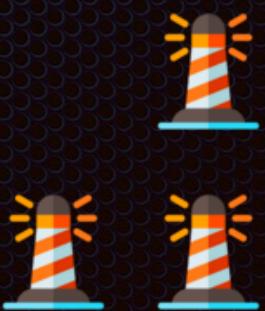
asInteger

```
"Return the integer present in the receiver, or nil. In case of float, re
''1' asInteger >>> 1"
''-1' asInteger >>> -1"
''10' asInteger >>> 10"
''a' asInteger >>> nil"
''1.234' asInteger >>> 1"

^self asSignedInteger
```

You can have an impact

- With one hour per week...
- Enhance tests
- Discord...
- Add tests
- Review fixes
- Open ***clear*** issue
- Fix simple points
- Make us focus on difficult points



Pharo is really getting
seriously productive!

Give a hand and invent the
future with us