



Pharo 10 Status

Pharo Consortium Meeting

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09 December 2021



Pharo Days 2022

<https://days.pharo.org>

March 3rd and 4th 2021

Lille, France





Pharo 10

Ready To Launch!



Pharo 10

Ready To Launch!

Final Details!



Pharo 10

Ready To Launch!

After PharoDays

The logo for Pharo 10 is a stylized lighthouse. The top part is a semi-circle with a gradient from blue to orange, emitting several thin white lines representing light rays. Below this is a dark red, jagged shape representing the lighthouse tower. A blue and white striped ribbon spirals around the tower, starting from the bottom and going up to the top. The entire logo is positioned on the left side of the slide.

Pharo 10

Objectives

- Smaller Iteration
- Simplification
- Tooling
- Modularisation
- General Improvements
- VM Improvements

The logo for Pharo 10 is a stylized lighthouse. The top part is a semi-circle with a gradient from blue to orange, with a bright yellow sunburst effect in the center. Below this is a red, jagged shape representing the lighthouse's body. A blue and white striped ribbon spirals around the lighthouse. The text 'Pharo 10' is in a large, bold, black sans-serif font, and 'Smaller Iteration' is in a smaller, bold, black sans-serif font below it.

Pharo 10

Smaller Iteration

- Improving the Development process
- Shorter iteration to release
- Reduced Set of Objectives
- Better “Ready” definition

The logo for Pharo 10 is a stylized lighthouse. The top part is a semi-circle with a gradient from blue to orange, with a bright yellow sunburst effect in the center. Below this is a red, jagged shape representing the lighthouse's body. A blue and white wavy ribbon spirals around the lighthouse. Several thin, light grey lines radiate from the top of the lighthouse.

Pharo 10

Smaller Iteration

- Improving the Development process
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- Reduced Set of Objectives
- Better “Ready” definition

A result of a big
introspection

The logo for Pharo 10, featuring a stylized sun with rays in orange and yellow, and a red and blue abstract shape below it.

Pharo 10

Simplification

- Removing duplicated / obsolete code
 - Old Tools
 - V3 Compiler Support
 - Old Blocks & Bytecode
 - VM based event handling
 - Glamour
 - GTTools
 - ...

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Pharo 10


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**10% Code
Reduction**

Keeping a good single
one

- 48K LOC



Spec 2

Main Elements

- Core & Basic Layouts
- Basic Presenters
- Application Support
- Styles / Themes
- Code Presenter



Spec 2

Extended Features

- Different Layouts and Composition
- Extended support for Dynamic Layouts
- New Dialog Building
- Transmissions
- Direct Support for Roassal & Cairo
- Multiple Backends (GTK / Morphic)
- Spec Tests and Testing Support



Tooling

- Migrating final tools to Spec
- Improving existing ones
- Fixing issues and glitches
- Improving Refactorings, Deprecator & Rewriting tools.
- Improving Profilers



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- Improving Profilers

In Tools we believe



Fluid Class Syntax

```
TestCase << #AIGraphReducerTest  
  slots: { #graphReducer };  
  tag: 'Tests';  
  package: 'AI-Algorithms-Graph-Tests'
```

```
Trait << #TSetArithmetic  
  traits: {};  
  slots: {};  
  tag: 'Traits';  
  package: 'Collections-Abstract-Tests'
```

```
TestCase << #AIGraphReducerTest  
  layout: FixedLayout;  
  traits: {};  
  slots: { #graphReducer };  
  sharedVariables: {};  
  sharedPools: {};  
  tag: 'Tests';  
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Clear Syntax

Clean Implementation



Compiler Improvements

- Unifying objects variables into a single Hierarchy
- Improved Semantic Analysis
 - use Class and the Environment to lookup the variables
 - use Variable Hierarchy to model variables for name analysis.
- Improved AST Visitor
- Pragma lookup speed-up
- Compiler Speed Improvements



Refactorings

- New Refactorings
 - Extract setUp method
 - Remove senders of method refactoring
 - Copy package as refactoring
 - Rename package (rename manifest)
 - Merge instance var x in y
 - Move to class side method
 - Create accessors with lazy initialization



Refactorings

- Improved ones
 - Deprecate method (simple version)
 - Deprecate class
 - Extract method refactoring
 - Replace senders by another
 - Rename vars in Traits
 - Convert temporary to instance variable
 - Push up method refactoring
 - Add access to pushUp and pushDown refactorings from source code
 - Permute parameters when add an argument
 - Abstract instance variable (now applies abstract methods when there is a reference to more than one variable in a method)



Other Improvements

- Sista Bytecodes w/ Full Block Closures
- Memory Management Configuration
- Integration with Windows
- Zinc



Lots of Bugs Fixed & Improvements

- + 1560 Pull Requests
- + 1100 Issues Closed
- 85 Different Contributors



Pharo 10

VM Improvements

- Sockets
- Clean up old code
- GC Improvements
- Logging
- Stability
- Speed
- Updated Dependencies

The logo for Pharo 10 is a stylized, colorful graphic on the left side of the slide. It features a central sun-like shape with rays in orange, yellow, and blue, surrounded by a red and blue abstract shape that resembles a stylized 'P' or a flame. Below this, there are three wavy, ribbon-like shapes in shades of blue and purple, flowing downwards.

Pharo 10

VM Improvements

- 3 Operating Systems (OSX / Linux / Windows)
- 3 Architectures (ARM64 / ARM 32 / x86_64)
- Full Linux Packages through OBS
- Better FFI



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**A great
Community!!**



Pharo 10

Ready To Launch!

After PharoDays

Thanks!!!

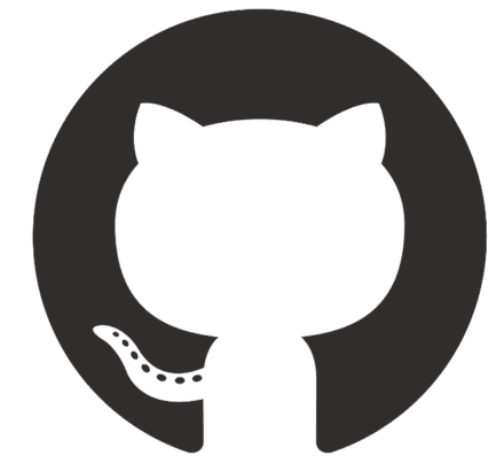


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[pharo-project/pharo](https://github.com/pharo-project/pharo)



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