Pharo Status

Pharo Consortium Meeting

consortium-adm@pharo.org

9th February 2023

Pharo 11 - Roadmap

- Keeping our same objectives:

  - Modularisation

  - Clean up

  - Improvements

A mix of Features and Cleanings

Pharo 11 - Roadmap

- UI Issues (Monterrey / Linux / Windows)

- Stability

- Compiler Improvements

- Ephemerons / Image Initialisation

- Iceberg Improvements

- App Packaging / Better GTK Packaging

- Pakbot

- Graphics Improvements (Cairo, HDPI, Athens, Alexandrie, Roassal)…

- Window Manager (Multiple Windows)

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WIP
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WIP
INITIAL RESULTS

IN PLAN

Pharo 11 - Additional Improvements

- UI Speed / Memory Analysis and fixes

- Clean Blocks

- Constant Blocks

- Graph Scene Renderer (Beta soon…)

- Scalable Icons

- Refactorings Improvements

- GTK4

Pharo 11 - Open PRs

- Color Palette (reusing Color instances)

- Replacing Old Test Runner
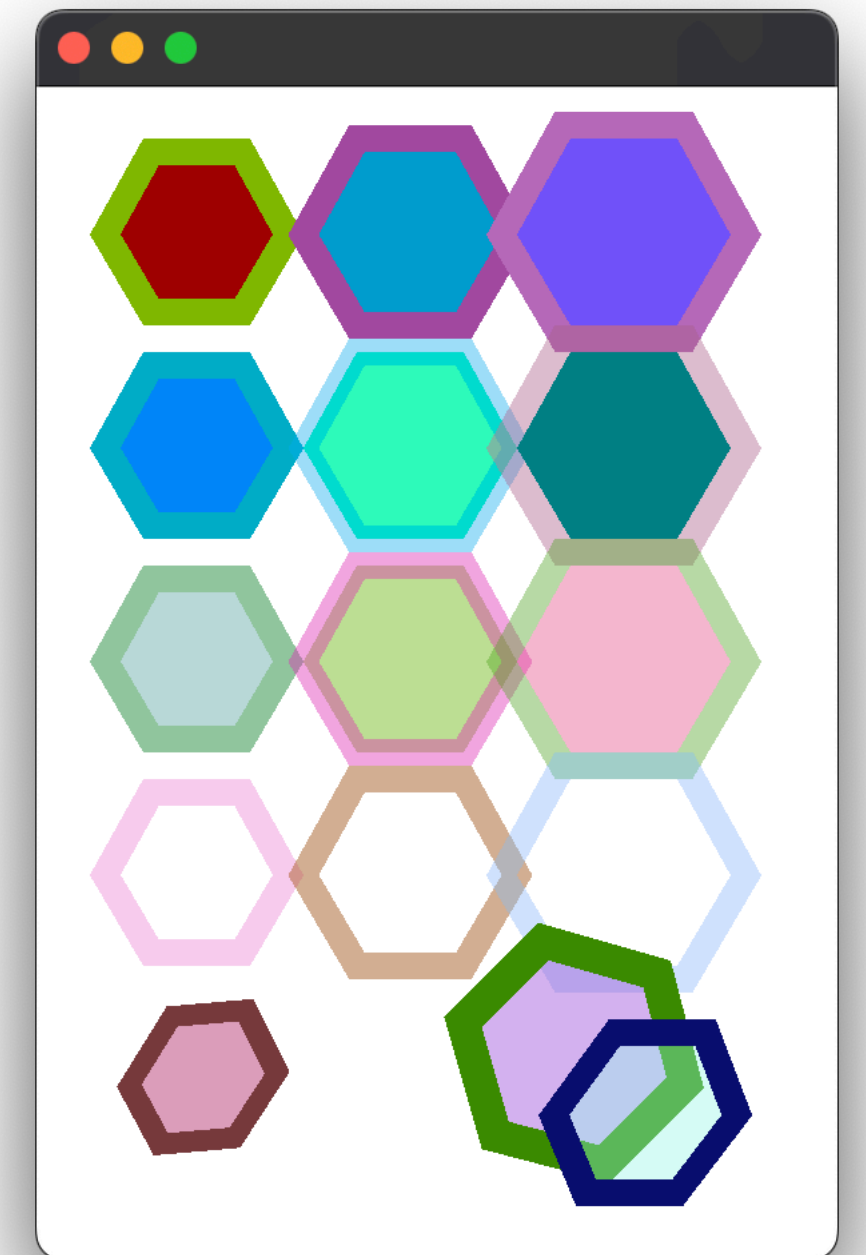
- Ephemeron-Based Finalisation

- Compiler Error Reporting

Iceberg Improvements

- UI Revamp

- Bug Fixing

- Adding new Features
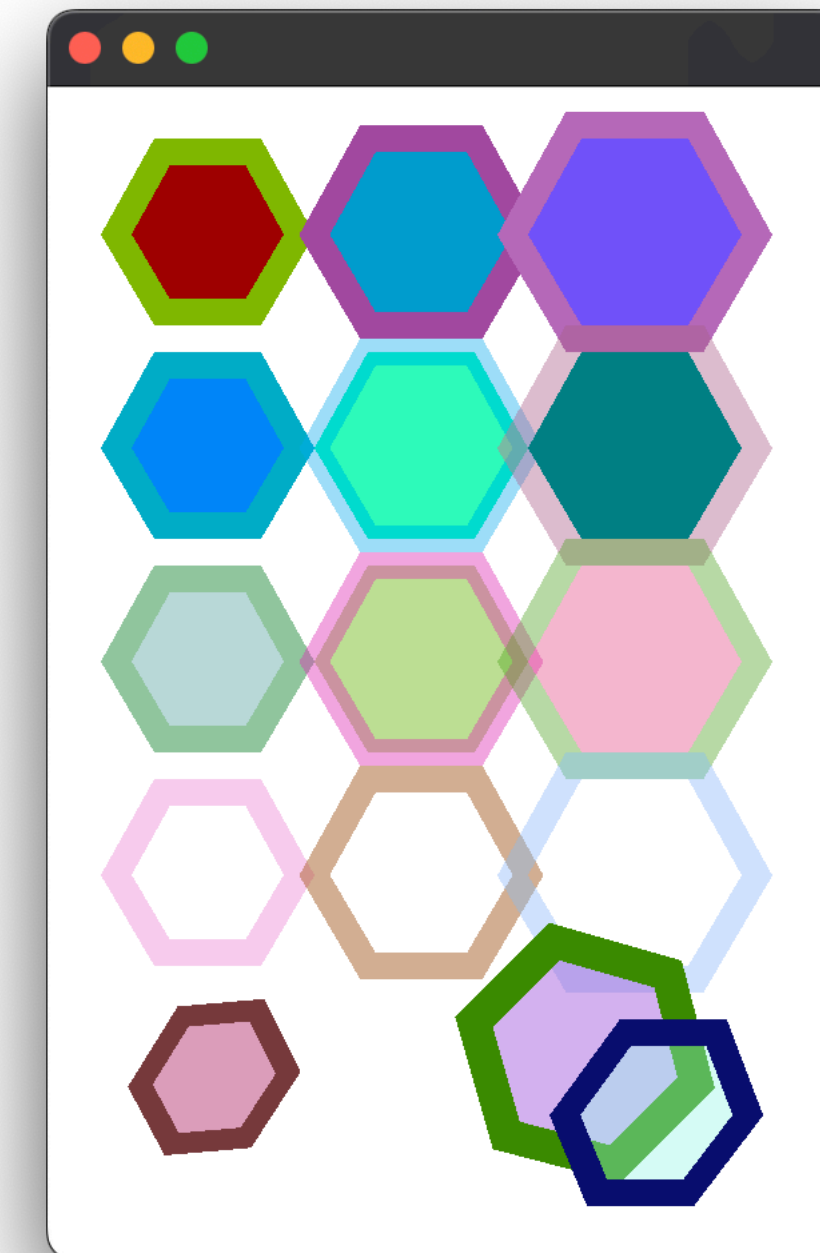
Bloc + Alexandrie v1.0

- Support for most features of Sparta-Cairo, but fast.

- Doesn't depend on SurfacePlugin, like Sparta-Cairo, unlike Athens-Cairo

- Bloc v1.0 comes with Alexandrie, plus Sparta-Cairo and Sparta-Skia.

- Check it: https://github.com/pharo-graphics/Bloc

- Mailing list: https://sympa.inria.fr/sympa/info/lse-openbloc

- Weekly Updates: https://pharoweekly.wordpress.com/category/newsletters/

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Version 1.0 Released

Bloc + Alexandrie Next

- Optimize transformations (this is Bloc level)

- Cache more Cairo objects

- Layer composition and Buffer unchanged elements

- Effects (blur, shadow)

- Bug in SVG path geometry

- Clear API (still not stable)

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Possible by the support of

THALES

Pharo VM - 10.0.0
Soon to be Released

- Updating Third Party Dependencies (Cairo, SDL, Libgit2)

- Better Translation to C

- Stability

- SIMD

- Cleaner, Smaller, Simpler…

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- Stability

- Cleaner

- Smaller

- Simpler

Lots of Changes and Improvements

Pharo VM - 10.0.0
Soon to be Released

- Slang Improvements

- Clean Up:

  - Old / Unused / Dead code

  - Old Primitives / Blocks / Bytecode set

- Tests:

  - Primitives / GC / Finalisation

  - Sista Bytecode

  - Machine Code (4 architectures)

- Fixes of GC (Weak, Leaks, Ephemerons, Corruptions)

- Autolocalisation

- Single-Instruction-Multiple-Data:

  - Initialization of Objects

  - Bytecode Extensions

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Pharo VM - 10.0.0
Soon to be Released

Lots of Changes
and
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- More details:

https://github.com/pharo-project/pharo-vm/blob/pharo-10/CHANGELOG.md

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Ready to Release

Pharo VM
PermSpace - Snapshots

- Adding a new Generation of permanent Objects

- New Image Format

- A fixed memory map

- Extensible to save more elements in the future:

  - Machine Code

  - Stack

Pharo VM
PermSpace - Snapshots

- Objectives:

  - Fasters GC (Perm Objects, less frequent)

  - Faster Load / Save (Direct Memory Mapping)

  - Discarding less elements of the runtime (Machine Code, Stack, etc)

Pharo VM
PermSpace - Snapshots

Possible by the support of

Lifeware

- Objectives:

  - Fasters GC (Perm Objects, less frequent)

  - Faster Load / Save (Direct Memory Mapping)

  - Discarding less elements of the runtime (Machine Code, Stack, etc)

Pharo VM
PermSpace - Snapshots

- Beta Access

  - Converting images to the new format

  - New Image Format VM

  - PermSpace Support

https://github.com/pharo-project/PermSpaceSupport

https://github.com/pharo-project/PermSpaceSupport/wiki/Using-Permanent-Space

Pharo Promotion
Books

- Pharo with Style

- Pharo by Example 9

Available for
Printing

books.pharo.org

Pharo Promotion
Mooc

- Revamp of the Pharo Mooc

- A new Advanced Mooc on the Works

mooc.pharo.org

Pharo Promotion
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Downloadable, Accessible, Multiple Langs

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- Mooc - mooc.pharo.org

- Blog - thepharo.dev

Thanks!!!

pharo.org

consortium

consortium-adm@pharo.org

pharo-project/pharo

discord.gg/QewZMZa

thepharo.dev [DEV]