



Pharo 9 Status

Consortium Meeting

10 September 2020



Original Roadmap

- Headless VM
- FFI improvements
- Spec 2: Morphic & GTK Backend
- Sista Bytecodes w/ Full Block Closures
- Memory Management Configuration
- Integration with Windows
- Tools migration (with improvements)
 - Debugger
 - Inspector
 - Playground
- Clean-ups / Bugfixes / Improvements



VM Roadmap (1/3)

Headless VM

- SDL2 World Renderer (Done)
- Remove old VM code for handling graphics & events (Done)
- GTK World Renderer (Ongoing)
- Improvements and clean-ups (Never Ending Story)
- Idle VM (Done - New)
- Implementing World renderers to use Idle VM (Ongoing)
- Use headless VM as default for Pharo 9 (Ongoing - First Stage Complete)
- Open Build Service (Ongoing - First Stage Complete)



VM Roadmap (2/3)

Foreign Function Interface (FFI)

- Threaded FFI backend for UFFI (Done)
- Different running strategies (Worker / Same Thread / Main Thread) (Done)
- Consider using Lowcode to replace part of the machinery (Done / Discarded)
- Replace memory access with machine code primitives (Done - New)
- Improve FFI speed on Callbacks & Callouts (Done - New)
- Replace Old FFI Backend (Ongoing - VM Side Complete)
- Executing FFI callouts through specific bytecodes (ToDo - Later)



VM Roadmap (3/3)

ARM v8 (NEW)

- JIT Testing Infra (Done)
 - VM Simulator + HW Emulators (Intel 32/64 bits, ARM 32/64)
 - Scenario Based Tests (1200+ Tests)
- ARMv8 JIT Backend (Ongoing)
- ARMv8 Non-JIT VM (Ongoing - Missing FFI Support)
- Initial Targets: Linux and Windows (Ongoing - Real HW Access)



Image Roadmap (1/4)

Spec 2

- Core & Basic Layouts (Done)
- Basic Presenters (Done)
- Application Support (Done)
- Styles / Themes (Done)
- Code Presenter (Done) / Diff Presenter (Ongoing)



Image Roadmap (2/4)

Spec 2

- Documentation
 - Core (Done)
 - Layouts (Ongoing)
 - Widgets (Ongoing)
 - Tutorial (Ongoing)
 - Book (Ongoing / Delayed)



Image Roadmap (3/4)

New Tools

- Playground (Done - In the Image)
- Debugger (Done - In the Image)
- Inspector (Ongoing)
- Spotter (ToDo)



Image Roadmap (4/5)

Other Big Goals

- Sista Bytecodes w/ Full Block Closures (Done)
- Memory Management Configuration (Done)
- Integration with Windows (Done)
- Compiler Speed Improvements (Ongoing)
- Clean Block Improvements (Ongoing)
- .NET / Embedding (Ongoing - First Stage done)



Image Roadmap (5/5)

Other Big Goals

- Clean-ups / Bugfixes / Improvements (Ongoing)
- Roassal3 Integrated (Done)
- Having different image distribution (ToDo)
- External “Flavours” loaded (Ongoing - Second Stage done)
- Distributed Test Runner (Ongoing - Second Stage done)
- New Morphic Rendering Framework (Ongoing)
 - High DPI support (Ongoing - Testing)
 - Speed Improvement (ToDo)

A stylized logo on the left side of the slide. It features a sun-like shape at the top with rays, transitioning into a red, jagged, flame-like shape, which then flows into a blue, wavy, ribbon-like shape at the bottom. The colors transition from orange/yellow at the top to red, then to blue.

Pharo Promotion

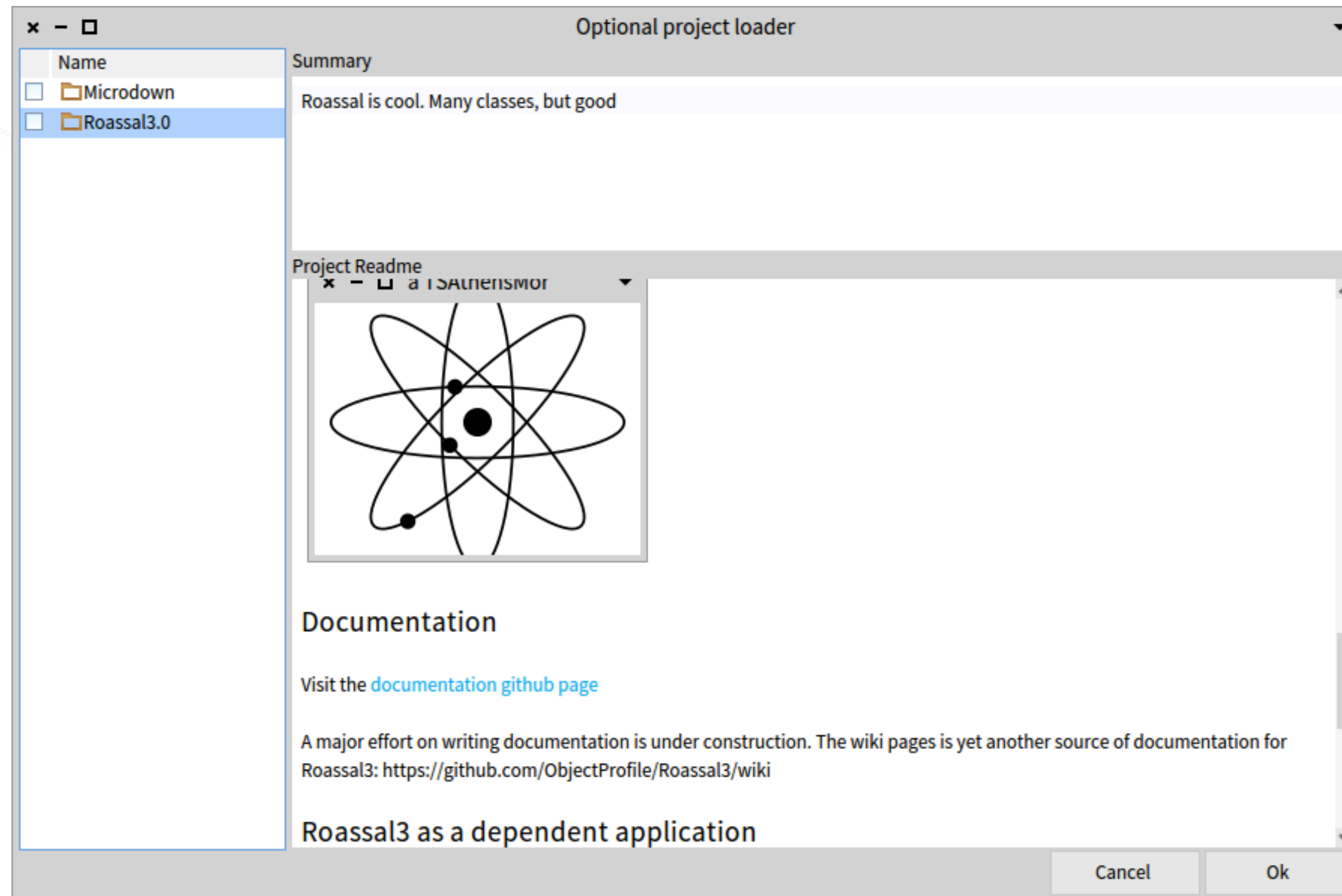
- Mooc with Pharo 8:
 - New 74 videos in French and English
 - New session in November
 - Everything in Youtube
- Pharo Master Class (INRIA Academy / INRIA Chile)
 - 100+ participants
- Pharo By Example - Updated Edition



New Consortium Members

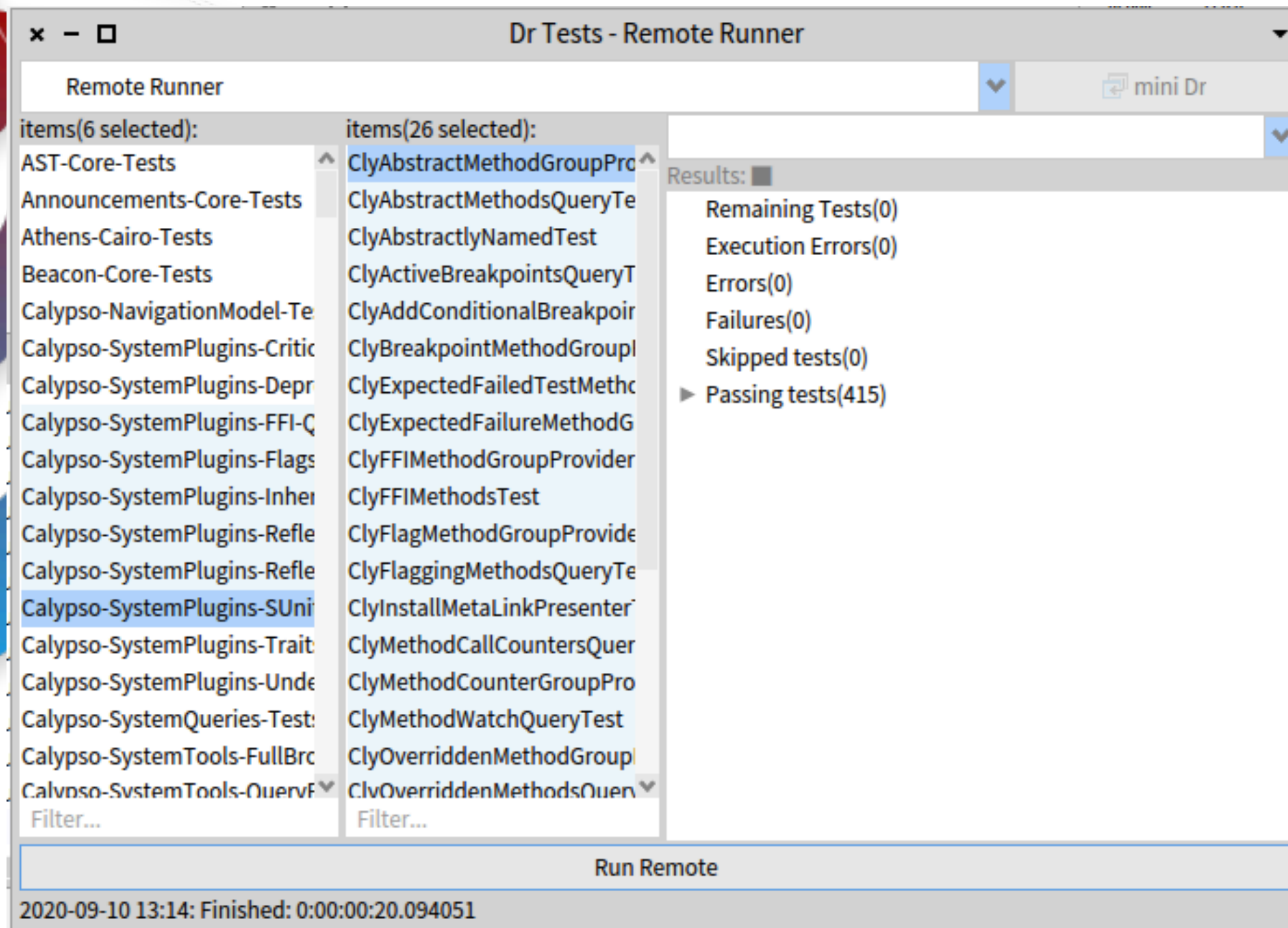
- NASA JPL
- Engineering School of Novi Sad
- InfoOil
- United Nations Org - Macao Lab ([Ongoing](#))

Image Distributions - Optional Project Loader

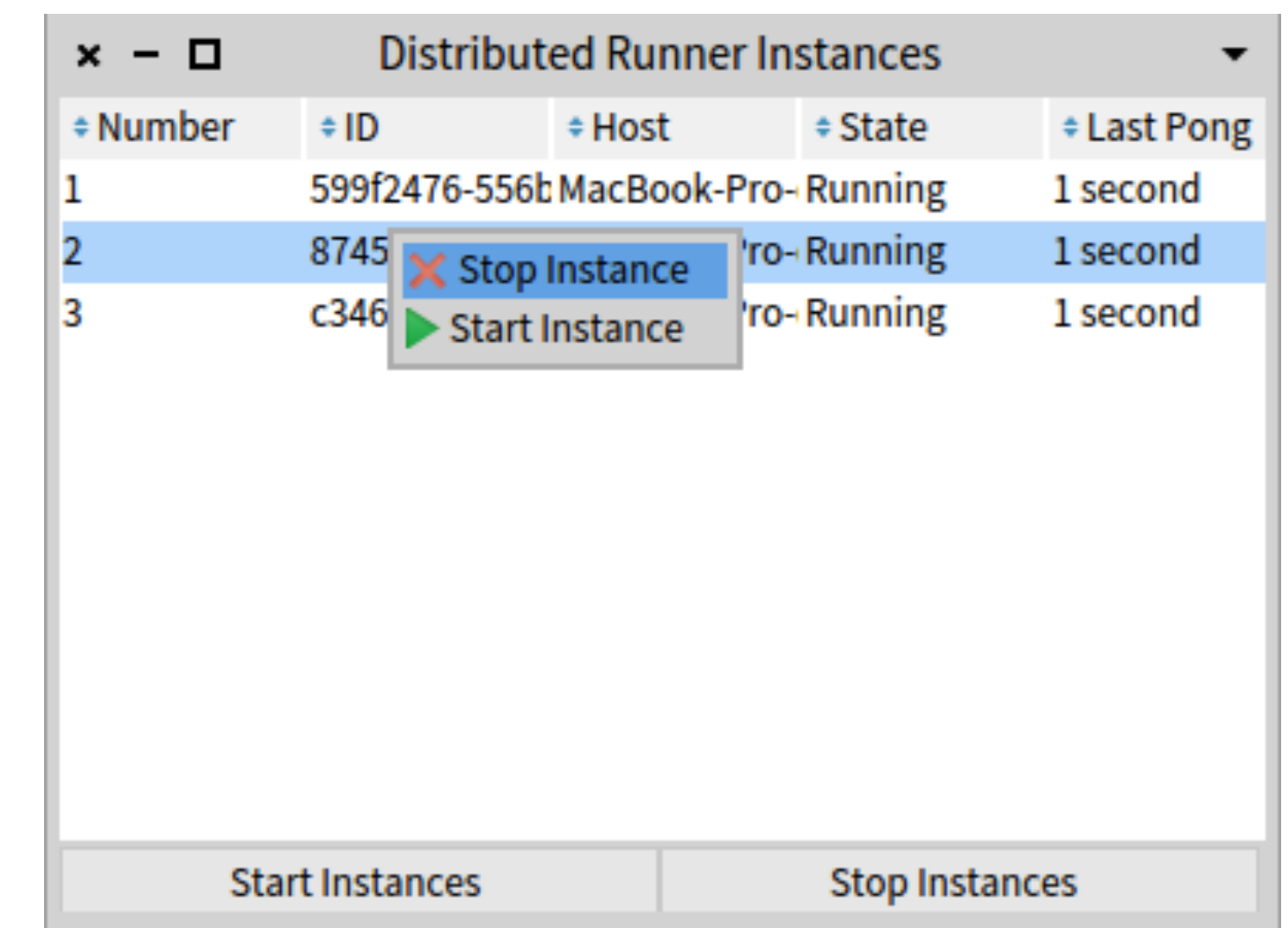
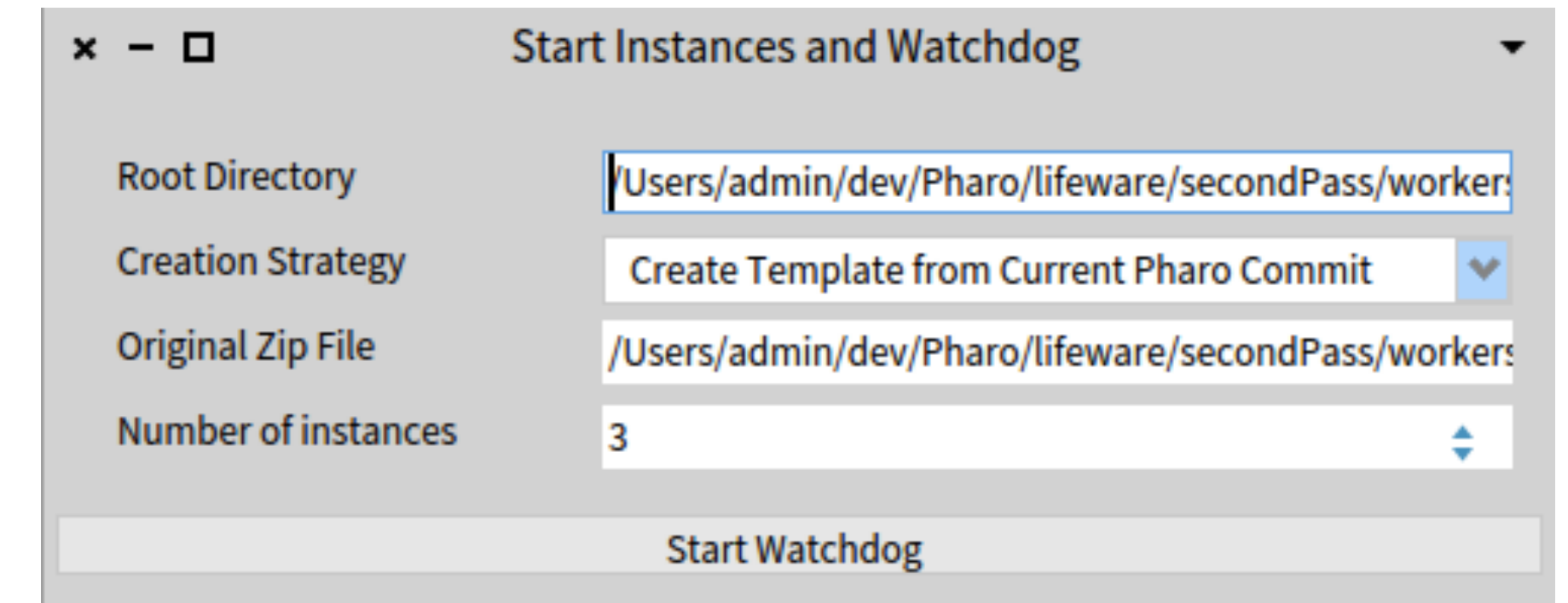


Optional Projects Loader - NewTools

Distributed Test Runner



Integration with Dr. Test

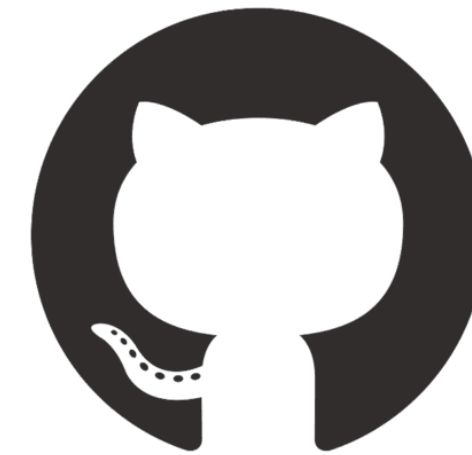


Controlling Instances

Thanks!!!



pharo.org



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



discord.gg/QewZMZa



thepharo.dev