Cruiser:
A Tool to Package Pharo Applications

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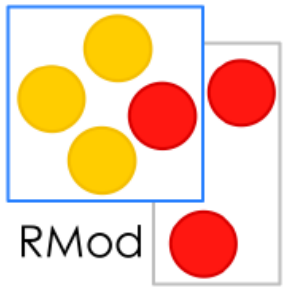
Lam RESEARCH

Who I am

- PhD: Test Selection Practices in a Large IT Company

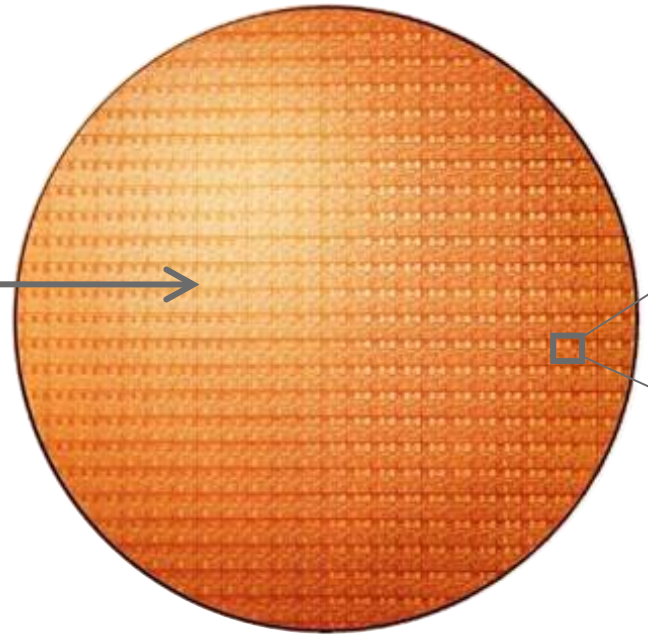


- Post doc @ Lam Research:
  - Full stack team (Chris Thorgrimsson)

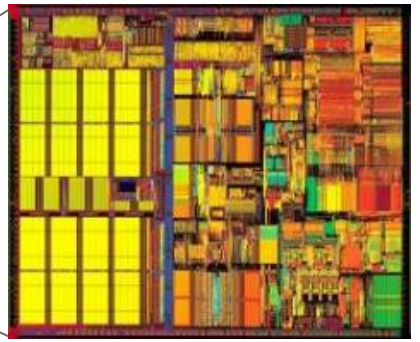
All Begins with....

The Product

300 mm Wafer

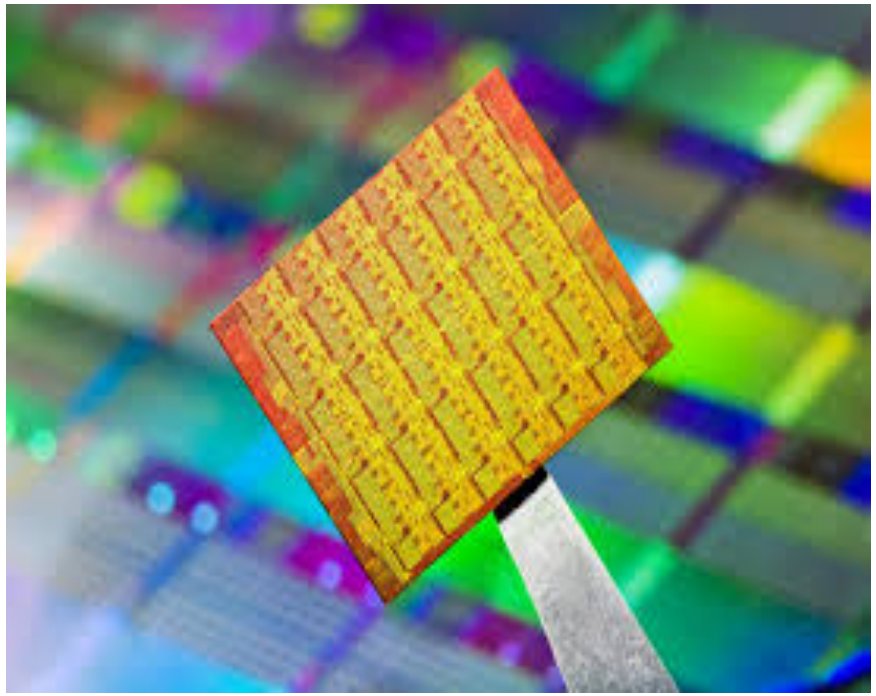


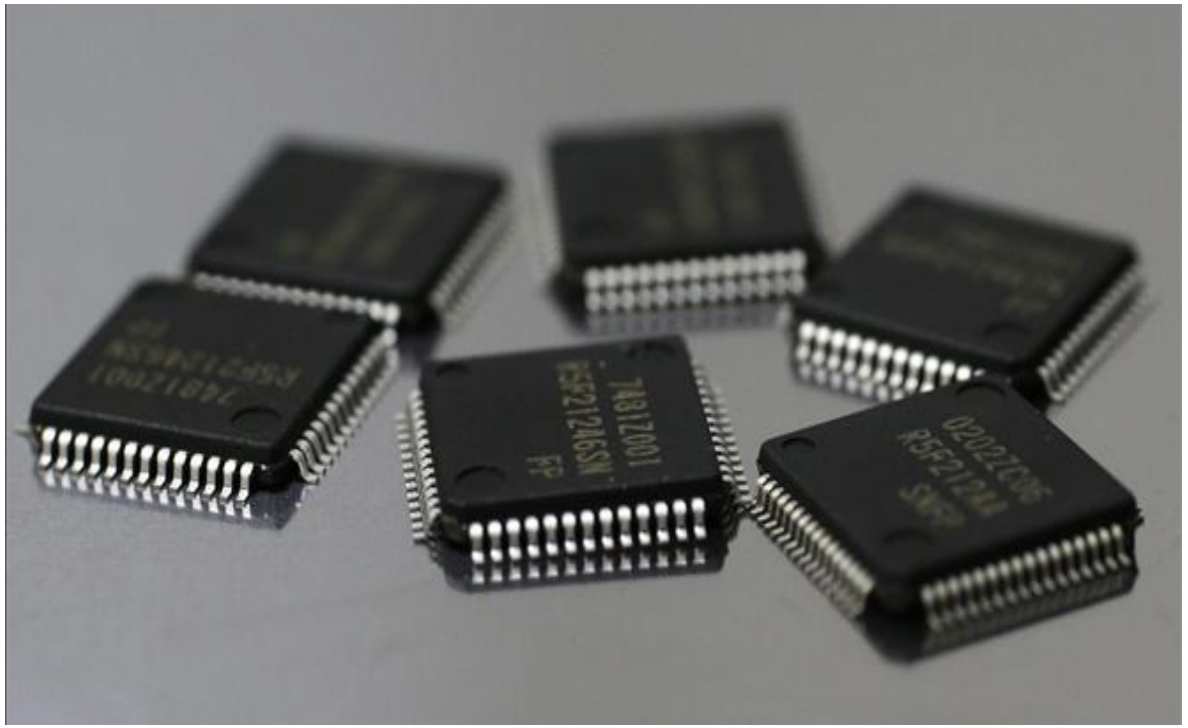
Single Chip



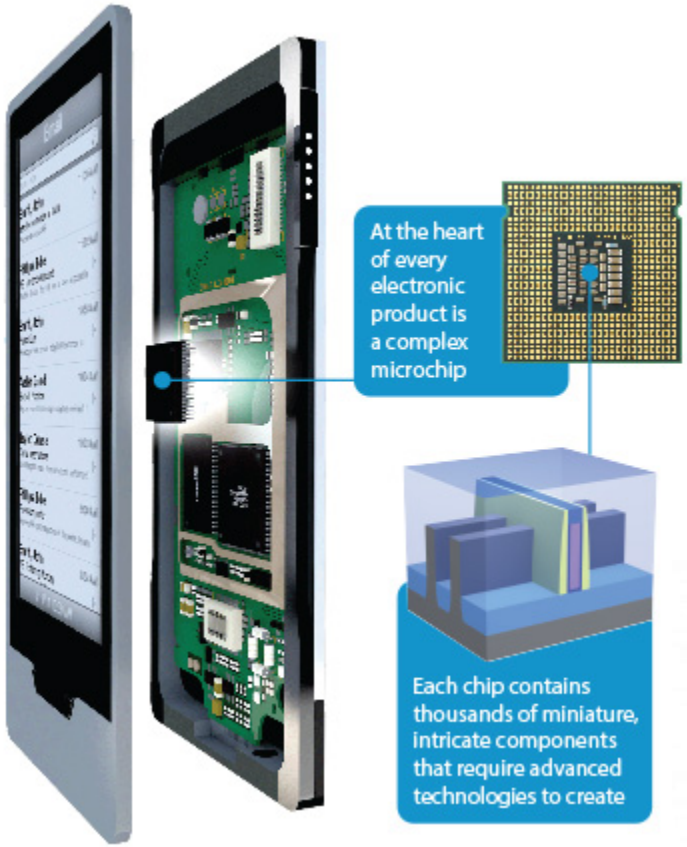
Source: Intel Museum

Which Get Turned Into…





And Go Into Things Like This…



At the heart of every electronic product is a complex microchip

Each chip contains thousands of miniature, intricate components that require advanced technologies to create

What my Team Does

- **We write the software that runs the machines**
  - **Smalltalk**
  - C/C++/C#
  - Java
  - JavaScript
- **We are responsible for infrastructure**
  - Operational infrastructure
    - The core set of code/libraries/frameworks that run the machines
  - Tooling infrastructure
    - Tools for the developers
    - CI: Jenkins
    - SCM: Store, Git
    - Test: Sunit, ATAC

An Example Machine

Lam Research does not use Pharo so why Pharo?

- **It is currently the leading Smalltalk "idea incubator"**
  - If we like what we see, we will invest in porting
- **Adopted by the Smalltalk academic & research community**
  - Engagement with the academic community is vital
  - I am with Lam because of this engagement
- **Pharo embraces opensource**
  - If we commit to backing work in Pharo (or Squeak) we will commit to making that work open
    - Roassal
    - IntelSoft
    - GraphQL
    - ObjectChanges
    - Snowglobe

A First Thing to do

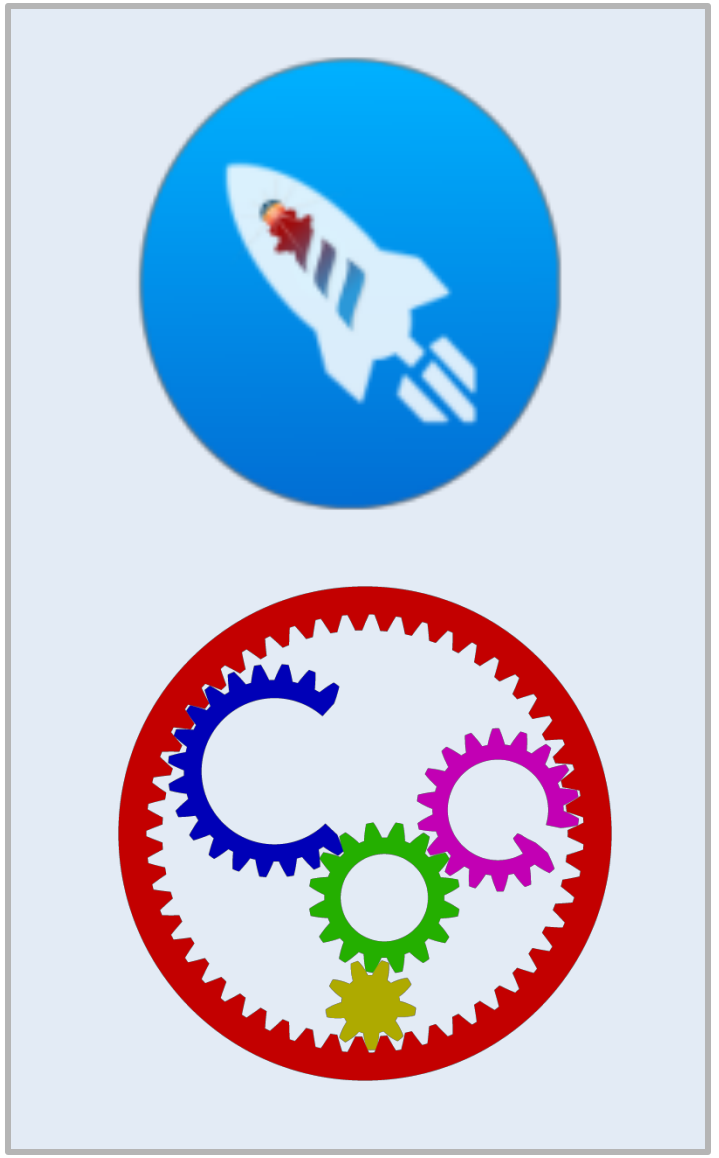
Idea **Executable**

Packaging tool:

- Where configurating and adding new features is easy
- With the good Virtual Machine
- Without writing to the file system
- Without access to developers tools

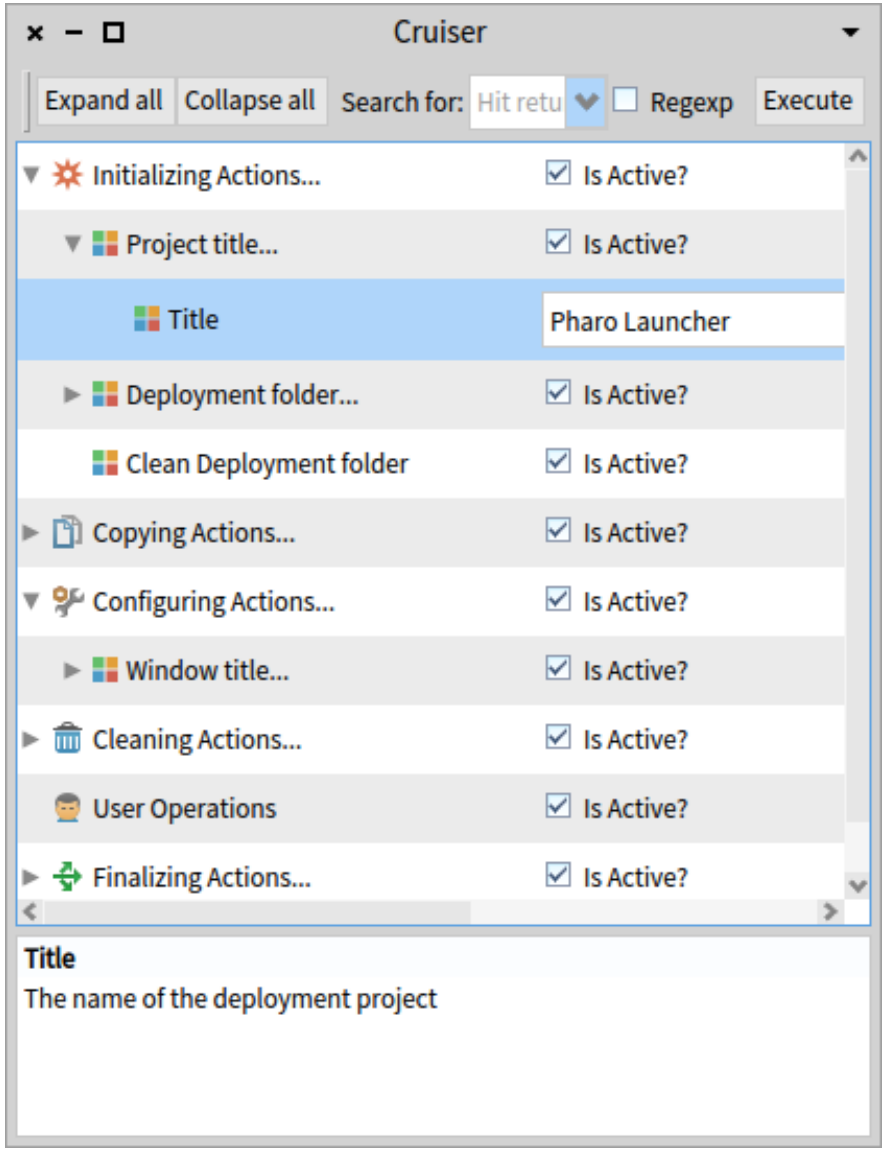
Cruiser

What does that do?



How it Works

- List of actions for the packaging
- Actions grouped by topic:
  - Initialization
  - Copy
  - Configure
  - Cleaning Actions
  - User operations
  - Finalizing
- Based on the settings engine
  - Pragmas: no strong coupling
  - Actions are easy to create



How to use it?

- Repository: https://github.com/VincentBlondeau/Cruiser

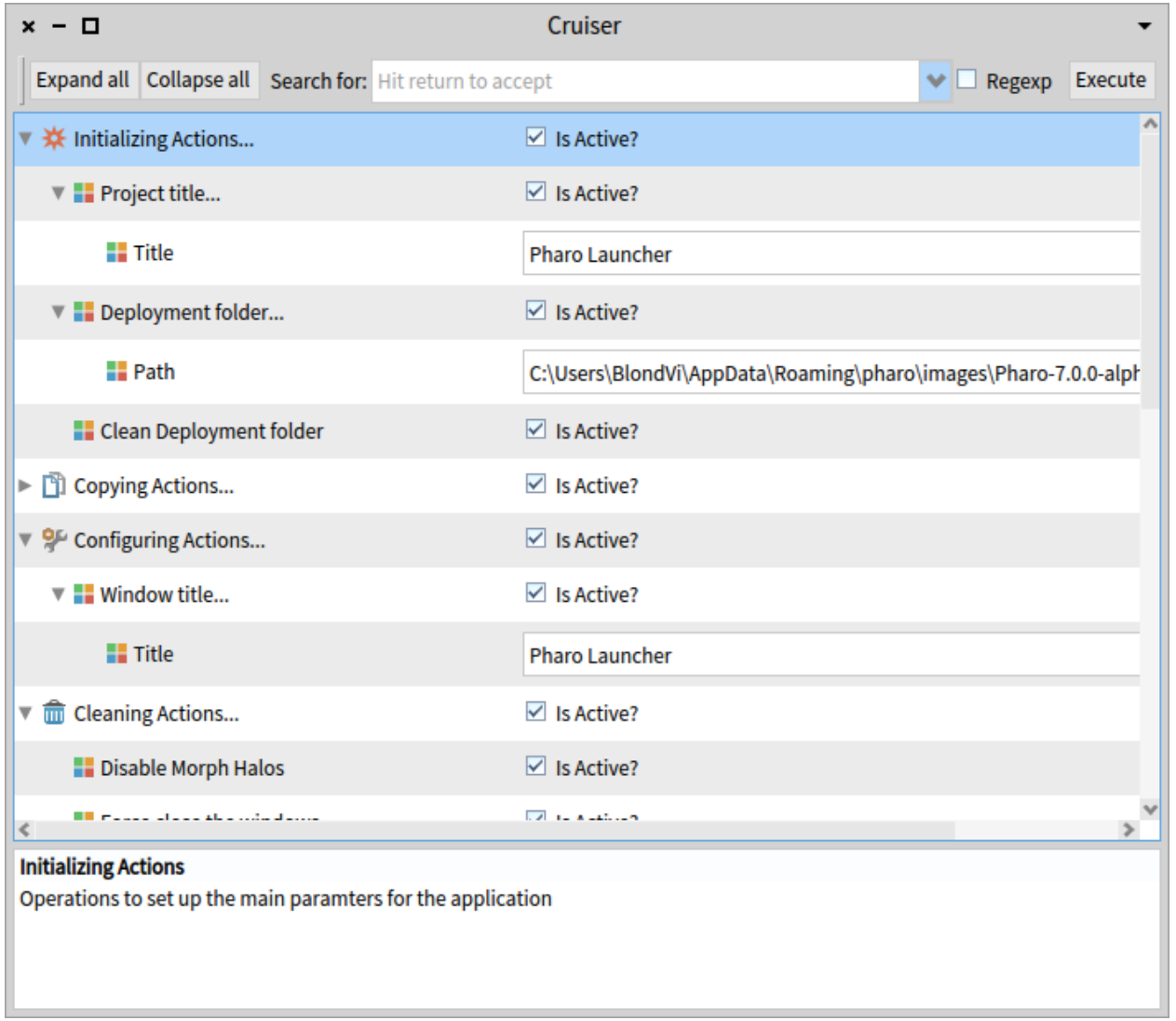
- Tested and working with
  - Windows
  - Pharo 7.0 (Beta)

An Example with the Pharo Launcher

Conclusion

▶Cruiser

- Package Pharo applications
  - No write access
  - No developer tools
- Highly configurable
- Fast deployment

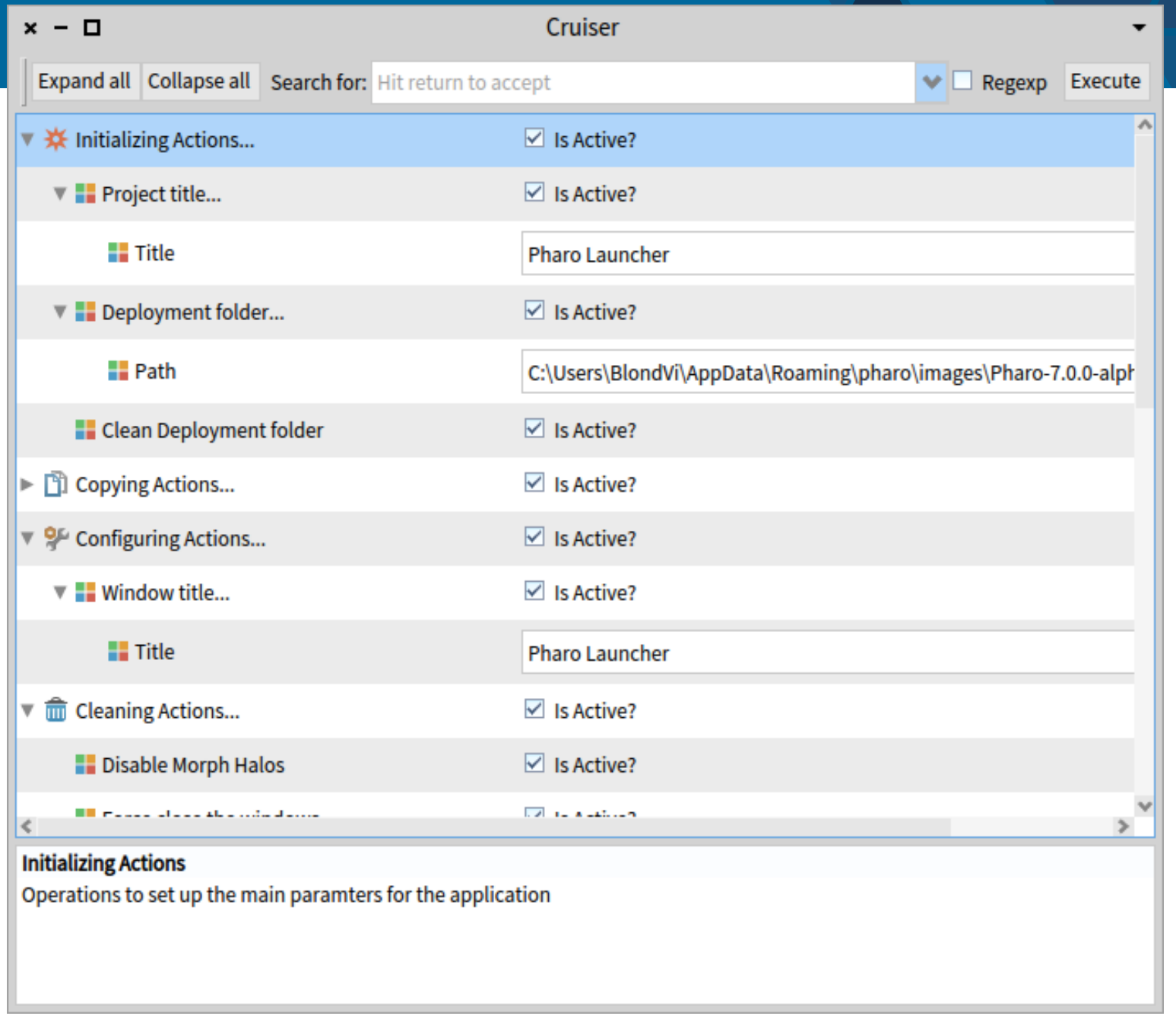


Future Work

- Integration inside the Pharo Launcher
- Support other platforms
- Solve new bugs due to the evolution of Pharo 7
- Avoid to use ProcessWrapper DLL
  - Implies no-blocking FFI multi-threading
- Add new features
  - Loading baseline and configurations
  - Copy Resources
  - Other ideas?

Summary

https://github.com/VincentBlondeau/Cruiser



Innovative **Technology**

Trusted **Productivity**

Fast **Solutions**