



A new Pharo IDE

Growing the power user in you

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PLOVDIV





A new Pharo IDE

Growing the power user in you

- Focus on coding.
- Preserve what is good while reducing everyday friction.
- An IDE that helps the programmer become a power user.





What do I mean by a **POWER USER**?

Not knowing obscure shortcuts.
A more capable way of working.

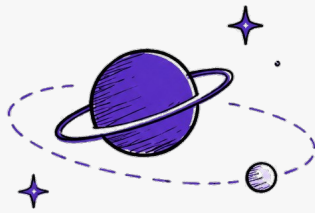




PRIMARY MISSION

CODING FIRST

Code is where the work begins and ends.



PATH FINDER

CONTEXT PRESERVING

Power grows when the path stays visible.



TARGET

PROGRESSIVE POWER

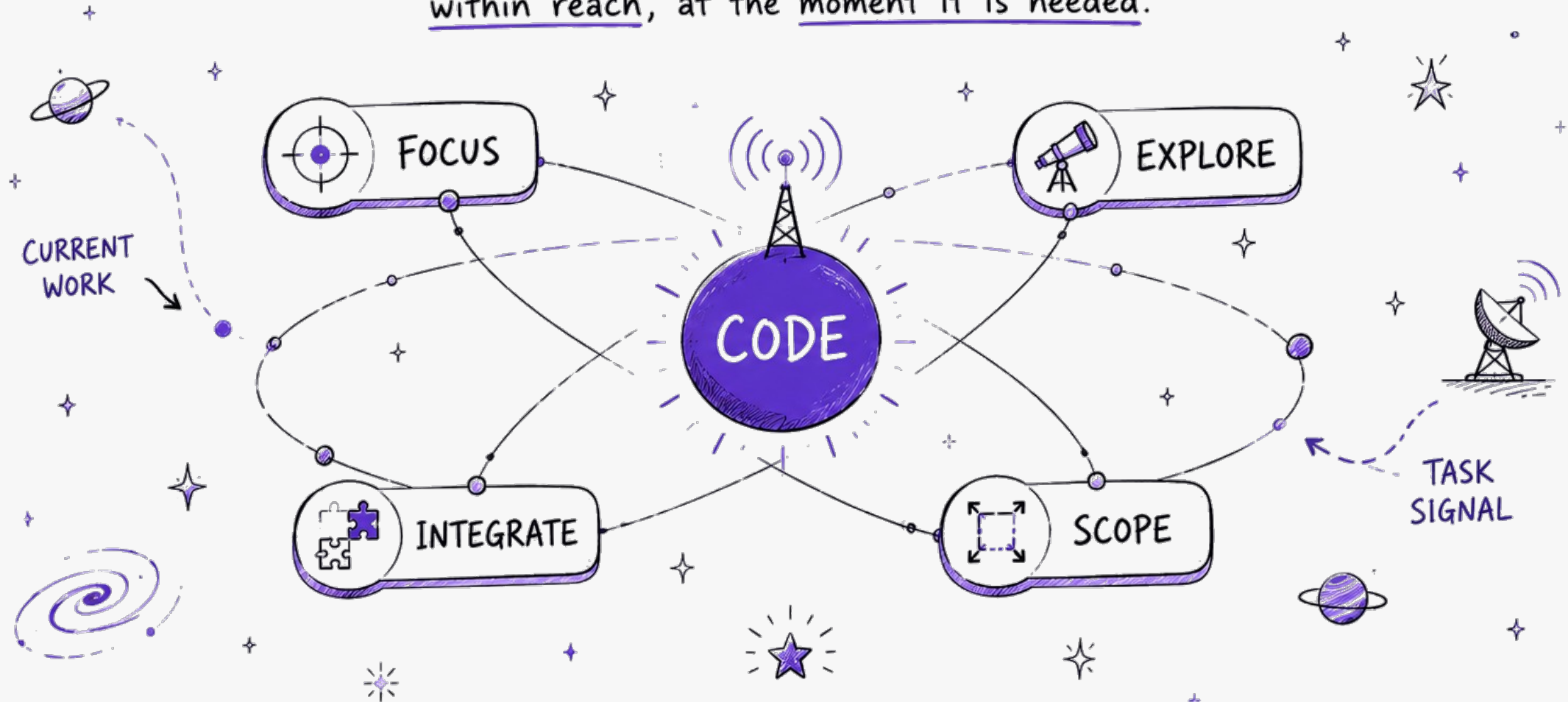
Easy to discover, fast to repeat.

*A powerful IDE should not merely contain powerful tools. **It should help people become capable of using them.***



★ Power is a design problem ★

An IDE grows power users by putting the right capability
within reach, at the moment it is needed.



Project.../pulsar

+ Actions

Announcement

Application

- PulsarApplication
- PulsarApplicationSnapshot
- PulsarCLIApplication
- PulsarConfirmDialog
- PulsarErrorHandler
- PulsarGtkConfiguration
- PulsarIconProxy
- PulsarInformDialog

Filter (3+ characters)...

Editor Stack

3

Welcome to Pharo

PulsarApplication>>initialize

PulsarApplication

Filter...

Repository

+ 🔍

NeoJSON v17

gdb-bindings master ↑ 24

os-ioevents master ↑ 2

petitparser2 master

phanapi master

pharo-cig main

pharo-dbg main

pharo-qrencode main

Filter...

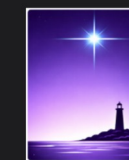
Pharo(Pulsar): Sandbox, Pulsar

Welcome to Pharo

PulsarApplication

initialize

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4Welcome to Pulsar - The alternative IDE for Pharo Smalltalk.

5

6Pharo is a pure object-oriented programming language and a powerful environment,

7focused on simplicity and immediate feedback (think IDE and OS rolled into one).

8

9### The Sandbox

10

11Your workspace starts with a **Sandbox** project in the **Projects** pane on the

12left sidebar. It is a *volatile project* — not tied to a Metacello baseline — built

13for quick exploration. It comes with a *Sandbox* package ready for your classes.

14Close it and it cleans itself up; create classes in it and it stays.

15

16### Creating and opening projects

17

18Use the **Projects** pane toolbar or context menu:

19

20- **New project** — Creates a fresh volatile project with an auto-generated package.

21Ideal for prototyping.

22

23- **Open baseline project** — Opens an existing Metacello project with full

24dependency management.

25

26### Next steps

27

28- Create a class inside the *Sandbox* package to explore the Pulsar tools

29- Visit pharo.org for documentation and tutorials

30

Playground

1

Flags on Pulsar-Browser

Name	Place	Message
TODO	PulsarApplication>>windowWillClose:	check la
MESSAGE	PulsarApplication>>checkForLostChanges	this is n
TODO	PulsarApplication class>>reset:	yes, the
TODO	PulsarBaseBrowser>>addWindow:	This co
TODO	PulsarBaseBrowser class>>defineSpotterActionsOn:	Move th

Outline

Instance

Class

Traits

+

(None)

standalone

suspendAnnouncements

+

(All) 61

accessing 9

announcing 2

finalization 1

icon 1

initialization 14

+

applicationId

baselineProvider

checkForLostChanges

cleanUp

colorForTestResultAt:

colorNamed:

colorsForTestResult

copyToClipboard:

defaultWindowPresenterClass

deferToNextCycle:

eventMetacelloExecutionEnd:

eventMetacelloExecutionStart:

exitApplication

fileTypeIconProvider

finalize

iconCache

iconNamed:

inform:

initialize

initializeConfiguration

isProjectInternal:

isShowingLineNumbers

isStandalone

killUnusedProcesses

newConfiguration

Filter...



Pharo(Pulsar): Sandbox, Pulsar

Project.../pulsar

+

Actions

Announcement

Application

PulsarApplication

PulsarApplicationSnapshot

PulsarCLIApplication

PulsarConfirmDialog

PulsarErrorHandler

PulsarGtkConfiguration

PulsarIconProxy

PulsarInformDialog

Filter (3+ characters)...

Editor Stack

+

Welcome to Pharo

PulsarApplication>>initialize

PulsarApplication

Filter...

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NeoJSON v17

gdb-bindings master ↑ 24

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accessing 61

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deferToNextCycle:

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iconCache

iconNamed:

inform:

initialize

initializeConfiguration

isProjectInternal:

isShowingLineNumbers

isStandalone

killUnusedProcesses

newConfiguration

newConfirm

newIconProvider

newInform

newRequest

newRequestText

newSelect

newSettings

osPlatform

performSanityCheck

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The Sandbox

Your workspace starts with a **Sandbox** project in the **Projects** pane on the left sidebar. It is a *volatile project* — not tied to a Metacello baseline — built for quick exploration. It comes with a `Sandbox` package ready for your classes. Close it and it cleans itself up; create classes in it and it stays.

Creating and opening projects

Use the **Projects** pane toolbar or context menu:

- **New project** — Creates a fresh volatile project with an auto-generated package. Ideal for prototyping.

- **Open baseline project** — Opens an existing Metacello project with full dependency management.

Next steps

- Create a class inside the `Sandbox` package to explore the Pulsar tools

- Visit [\[pharo.org\]](https://pharo.org) (<https://pharo.org>) for documentation and tutorials

Playground

1

Flags on Pulsar-Browser

NamePlace

TODOPulsarApplication>>windowWillClose:check la

MESSAGEPulsarApplication>>checkForLostChangesthis is n

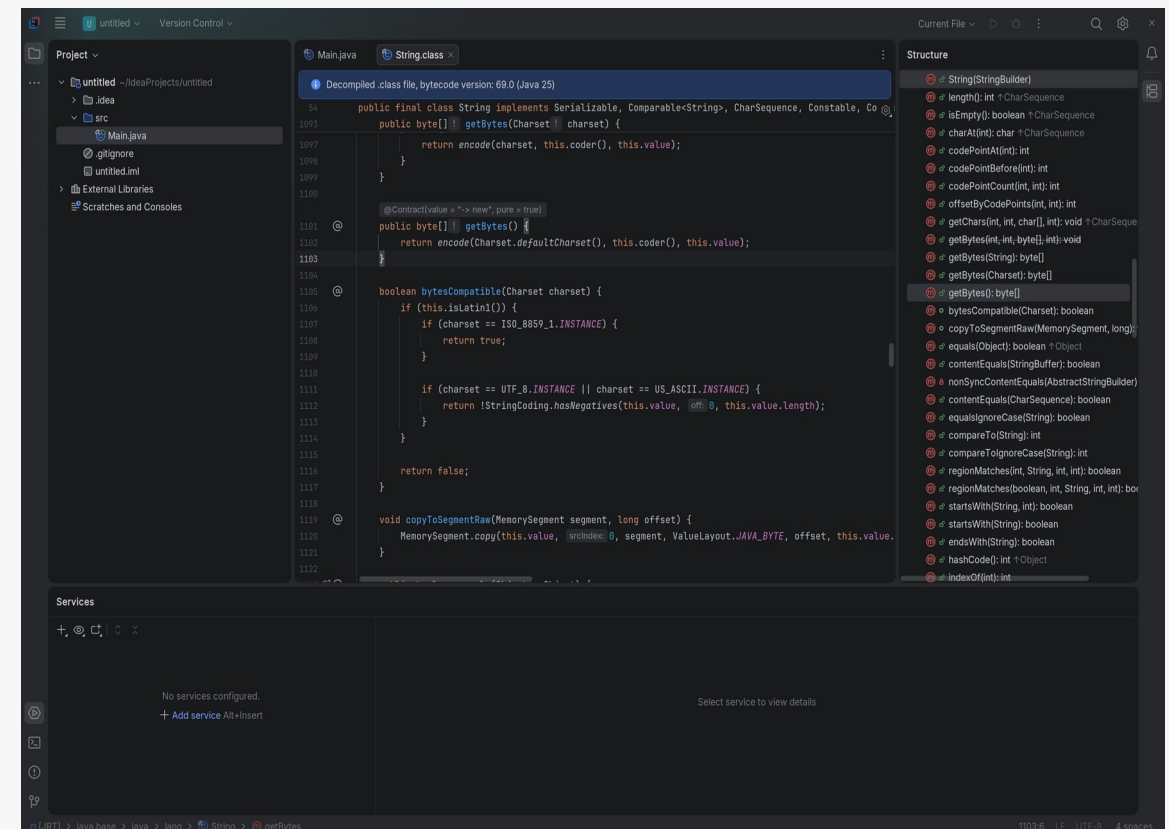
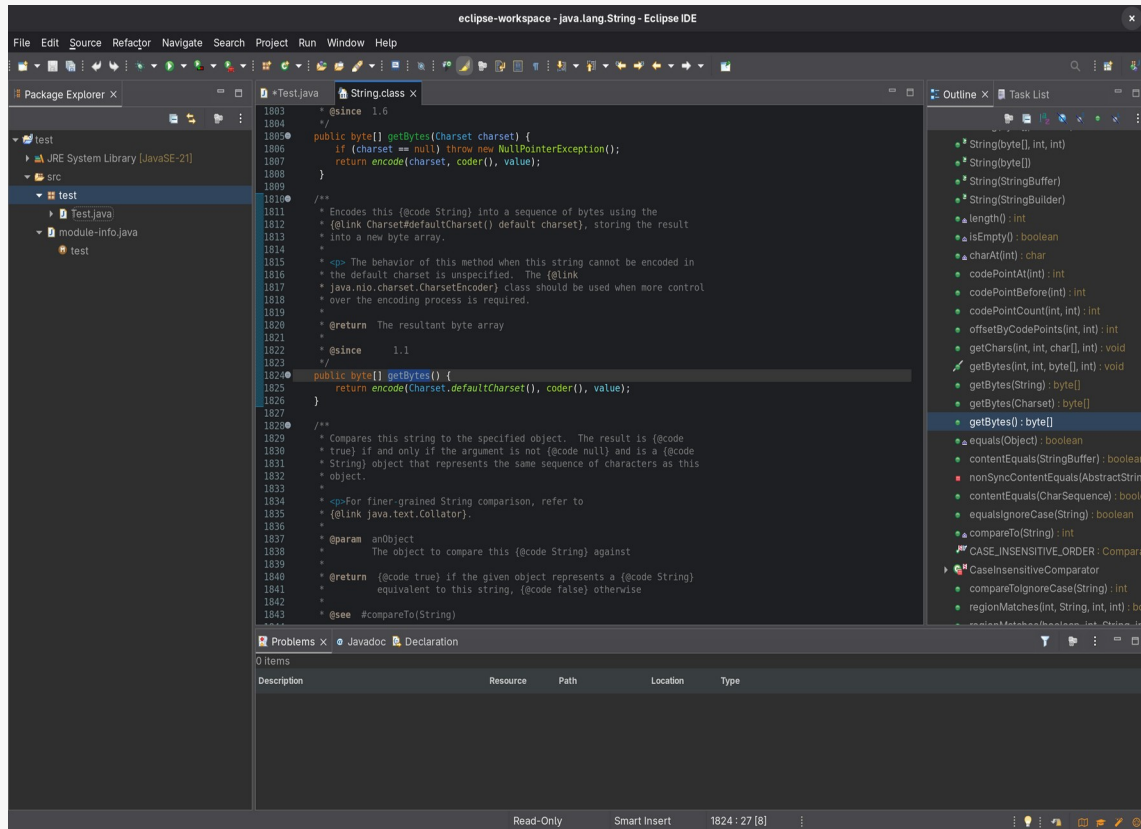
TODOPulsarApplication class>>reset:yes, the

TODOPulsarBaseBrowser>>addWindow:This cou

TODOPulsarBaseBrowser class>>defineSpotterActionsOn:Move th



A structure familiar to users of other IDEs, still very much aimed at Pharo and Smalltalk work.

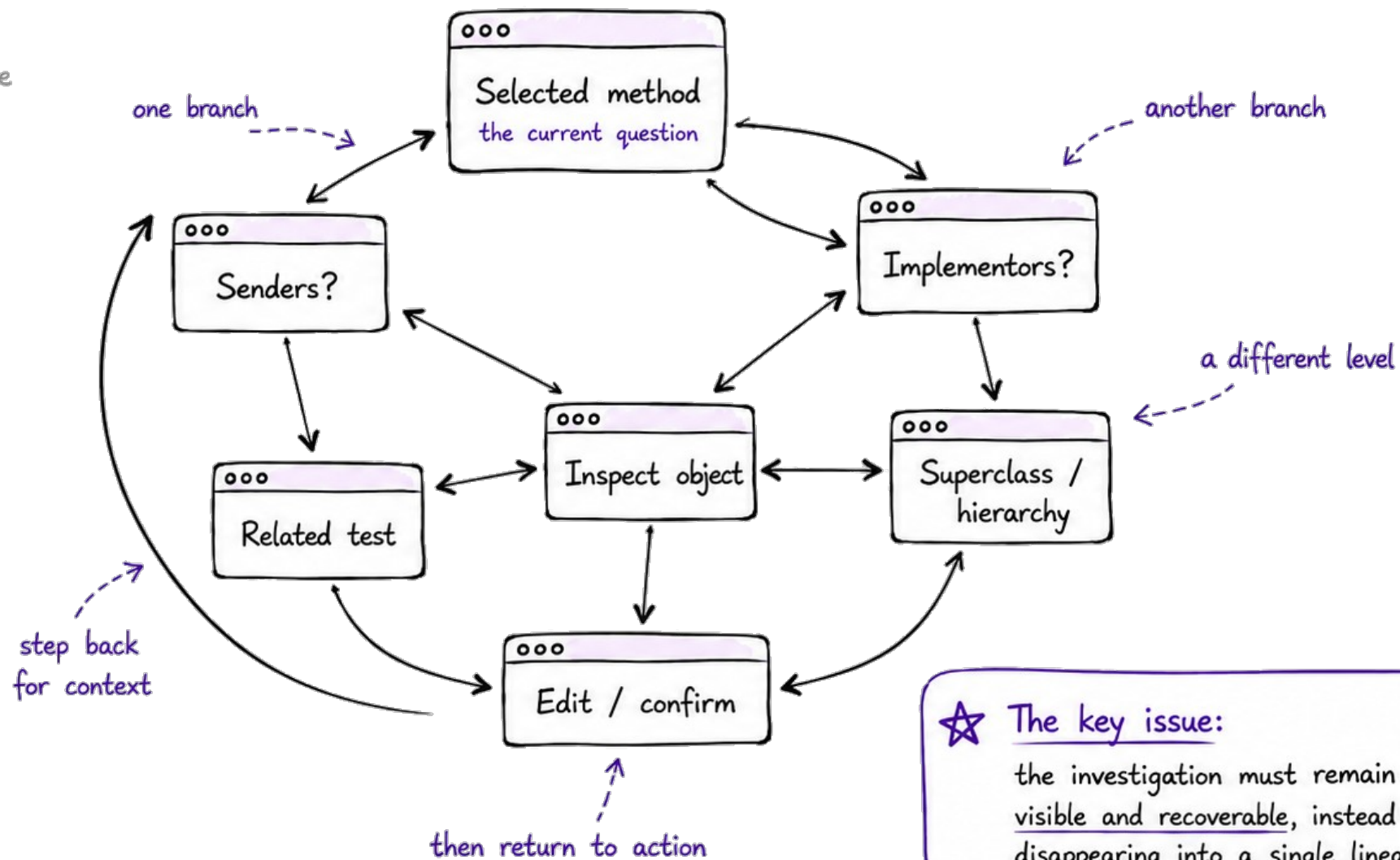
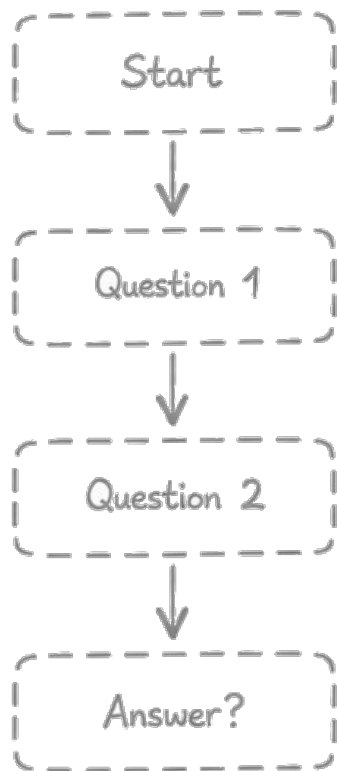


The coding loop remains the center of gravity.



Hold the **SCENE**, not only the frame

What a linear path looks like



★ The key issue:

the investigation must remain visible and recoverable, instead of disappearing into a single linear path.



editors

project context

editors stack list

open repositories

playgrounds

flags, critiques, other info

editing class structure overview

Pharo(Pulsar): Sandbox, CIG

Project: .../pulsar

- CigTranslatedUnit
- CigType
- CigTypeNotFound
- CigVisitor
- C
- C-Template
- Constant
- FFI-Support
- Logging
- Node
- Node-Special

Filter (3+ characters)...

Editor Stack

- String>>asByteArray
- # String
- CigTranslatedUnit>>generateFrom:
- CigTranslatedUnit
- Welcome to Pharo

Repository

- NeoJSON v17
- gdb-bindings master ↑ 24
- os-ioevents master ↑ 2
- petitparser2 master
- phanapi master
- pharo-cig main
- pharo-dbg main
- pharo-qrencode main

Filter...

Playground

1

Flags on CigTranslatedUnit

Name	Place	Message
TODO	newTranslateUnitFromFile:header:	Make an abstraction for this
TODO	anyExclusionsMatches:	refactor this to be able to add exclusion
TODO	anyExclusionsMatches:	See if this is still happening with latest

```
generateFrom: aHeader
    "makes a tree of elements I can use to generate the wrapper file and classes."

    logger trace.

    self reset.

    "initialize variables"
    nameGenerator := aHeader nameGenerator.
    prefix := aHeader prefix.
    namespaces := aHeader namespaces.
    definesBeforeHeader := aHeader cDefinesBeforeHeader.
    defines := aHeader cDefines.
    includingPaths := aHeader cIncludePaths.
    excludingPaths := aHeader cExcludePaths copyWith: '/usr/lib'.
    excluding := aHeader excluding.
    variadics := aHeader variadics.

    logger trace: prefix.
    logger trace: namespaces.
    logger trace: definesBeforeHeader.
    logger trace: defines.
    logger trace: excluding.
    logger trace: includingPaths.
    logger trace: excludingPaths.

    self preprocess: aHeader.
    aHeader imports valuesDo: [ :each |
        self generateTarget: each from: aHeader ].
    variadics keysAndValuesDo: [ :aSelector :aDeclaration |
        self addElement: (CigVariadic newDeclaration: aDeclaration selector: aSelector) ].

    aHeader elementGenerator postProcess: self
```

Instance Class Traits

(None)

nodeClasses

registerUnknown

prefix

namespaces

defines

accessing

accessing - logging

generating

initialization

inspecting

testing

utilities

accept:

acceptDataStructures

addElement:

addNode:parent:

allDefines

anyExclusionsMatches:

collectArgumentsFrom:

defaultClangArguments

defines

definesBeforeHeader

diagnosticsFrom:

elementAtPath:

elementAtPath:excluding:

elements

findDeepElementMatching:

findElementMatching:

findElementMatchingCursor:

findNode:startingAt:ifAbsent:

findParent:

flatSelect:

generateFrom:

generateTarget:from:

hasElements

Filter...



Explore FREELY, keep deliberately

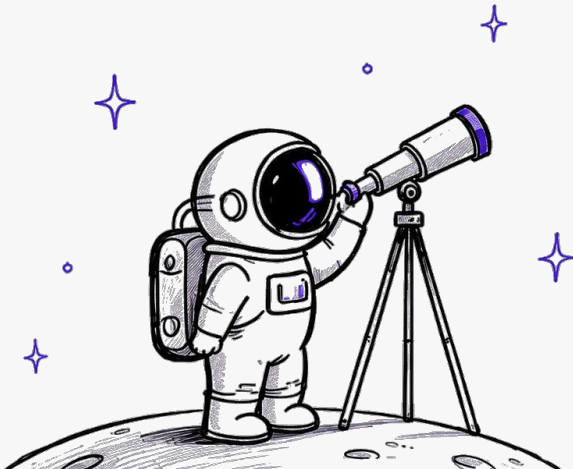
MISSION

Easy to get, easy to follow, easy to dispose.

PATH FINDER

Temporary by default. Persistent when it earns its place.

Fast exploration *should not create*
permanent clutter.



senders (detach window) — —

method hierarchy (popover)

Pharo(Pulsar):

Senders of registerToSystemEvents

Senders of registerToSystemEvents

PulsarApplication>>initialize
PulsarBaseBrowser>>initialize
PulsarBaseBrowser>>initializeSnapshot:
PulsarBaseView>>initialize
PulsarClassEditor>>registerToSystemEvents
PulsarMethodEditor>>registerToSystemEvents

Filter...

PulsarMethodEditor > registerToSystemEvents [initialization]

registerToSystemEvents

Hierarchy on PulsarMethodEditor>>registerToSystemEvents

▼ PulsarBaseView>>registerToSystemEvents
▼ PulsarEditor>>registerToSystemEvents
PulsarMethodEditor>>registerToSystemEvents

eventMethodRecategorized: to: self;
ntMethodRepackaged: to: self;
MethodModified: to: self;
MethodRemoved: to: self

Senders of MethodRemoved

ReChangeManager>>connectToChanges
StCritiqueBrowserPresenter>>registerToAnnouncements
StMethodBrowser>>registerToAnnouncements
StMethodBrowserTest>>testHandleMethodRemovedRemovesMatchingMethod
StMethodBrowserTest>>testHandleMethodRemovedUpdatesSelection
SystemAnnouncer>>methodRemoved:origin:
TestCase class>>initialize
TraitMethodAnnouncementsTest>>testRemoveMethodAnnounceRemovalOnlyInTrait

Filter...

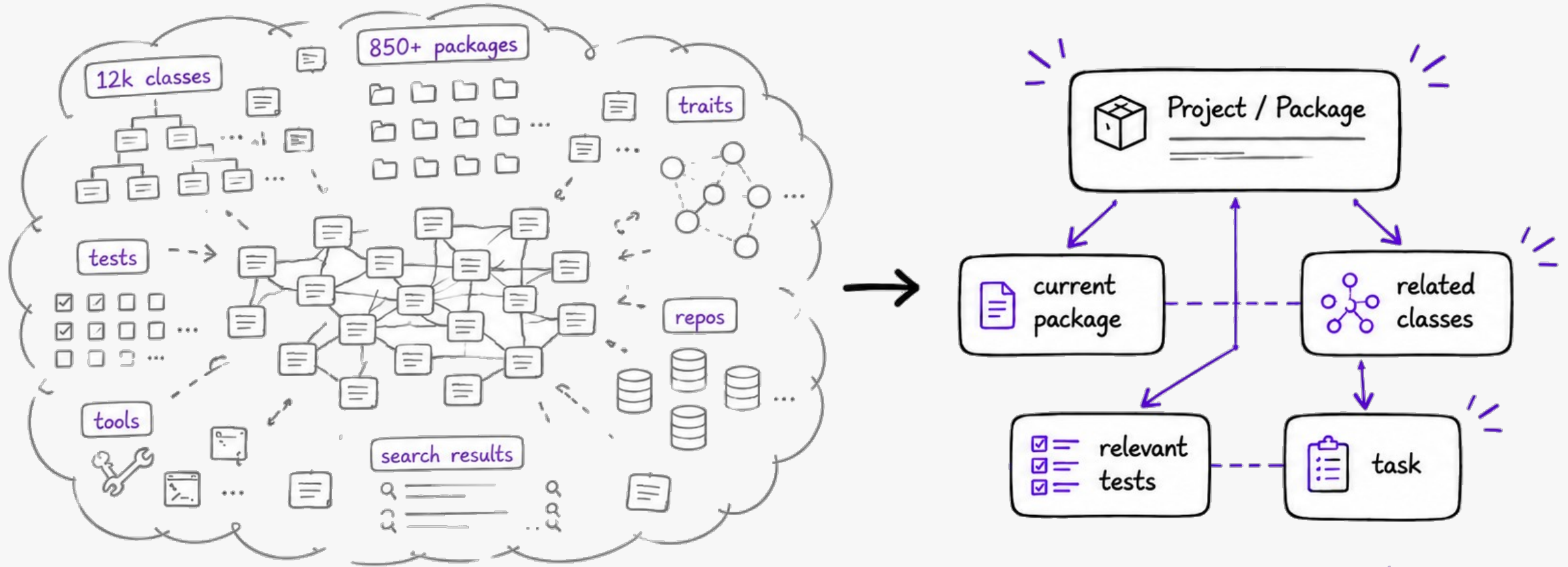
TestCase class > initialize [class initialization]

1 initialize
2
3 self codeChangeAnnouncer unsubscribe: self.
4 self codeChangeAnnouncer weak when: MethodAdded , MethodModified ,
MethodRemoved send: #methodChanged: to: self

class references (popover)



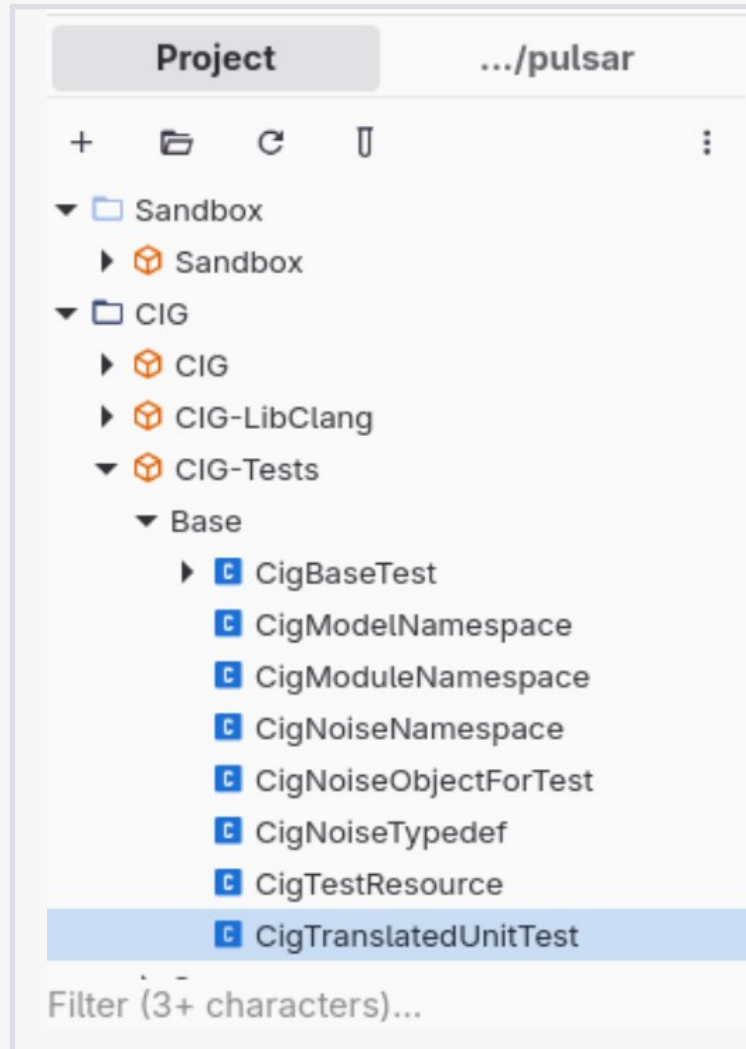
The whole image is not a useful starting point



★ What I need now is a meaningful entry point, not the whole image.



SCOPE in meaningful ways



MISSION

Scope the workspace

Access the system just by demand.

PATH FINDER 1

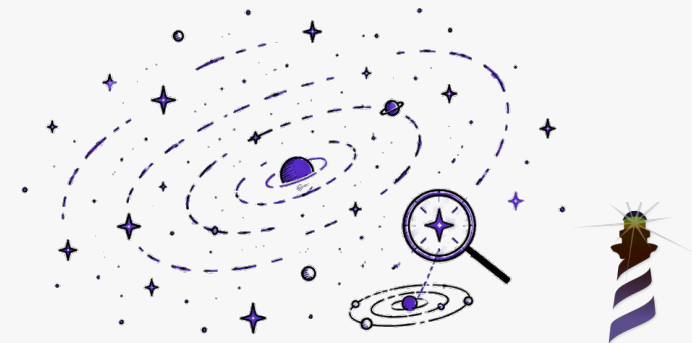
Start from your project

Exploration should start by the project.

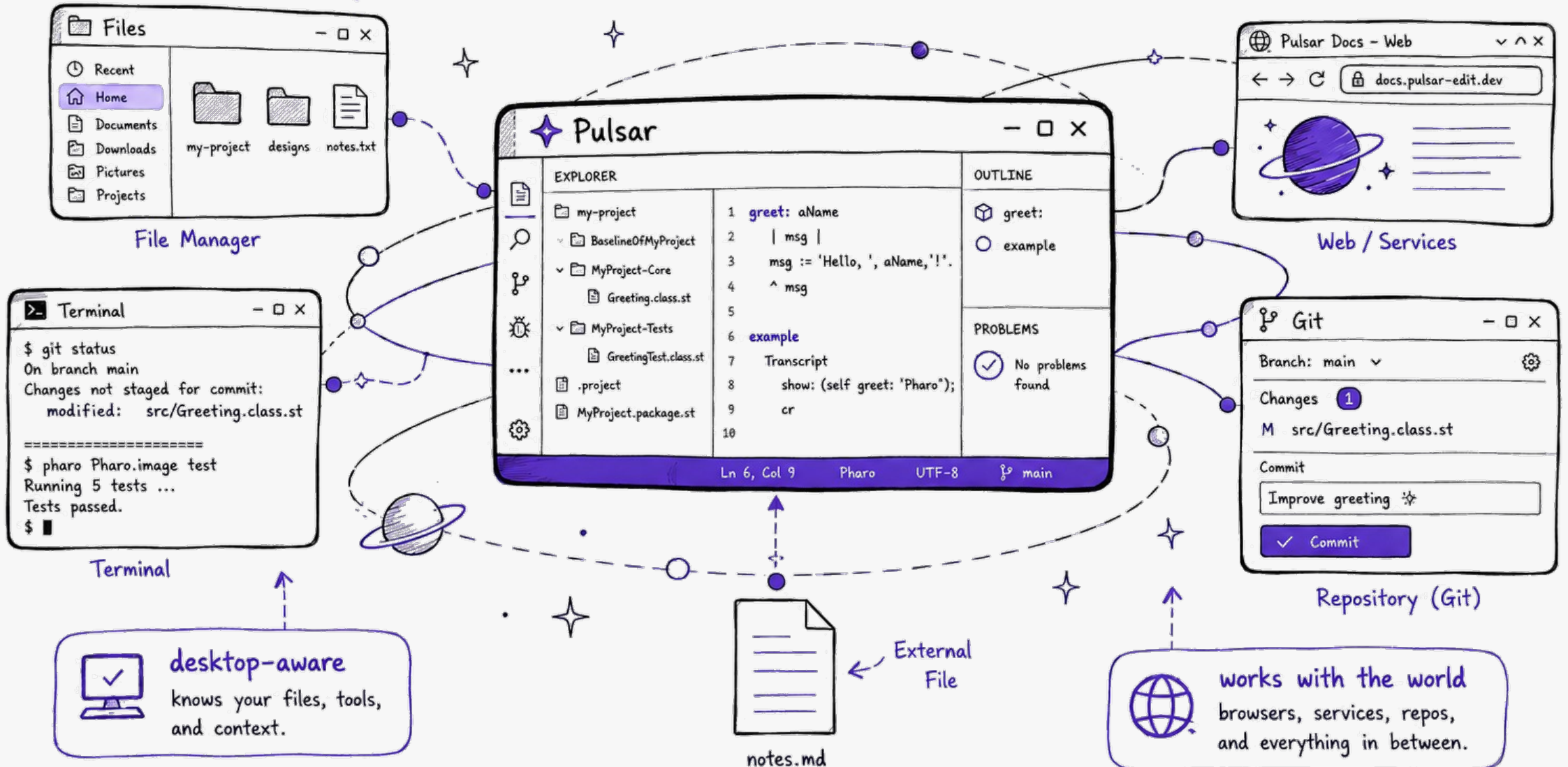
PATH FINDER 2

Volatile projects for quick start

You do not start a project creating a baseline.

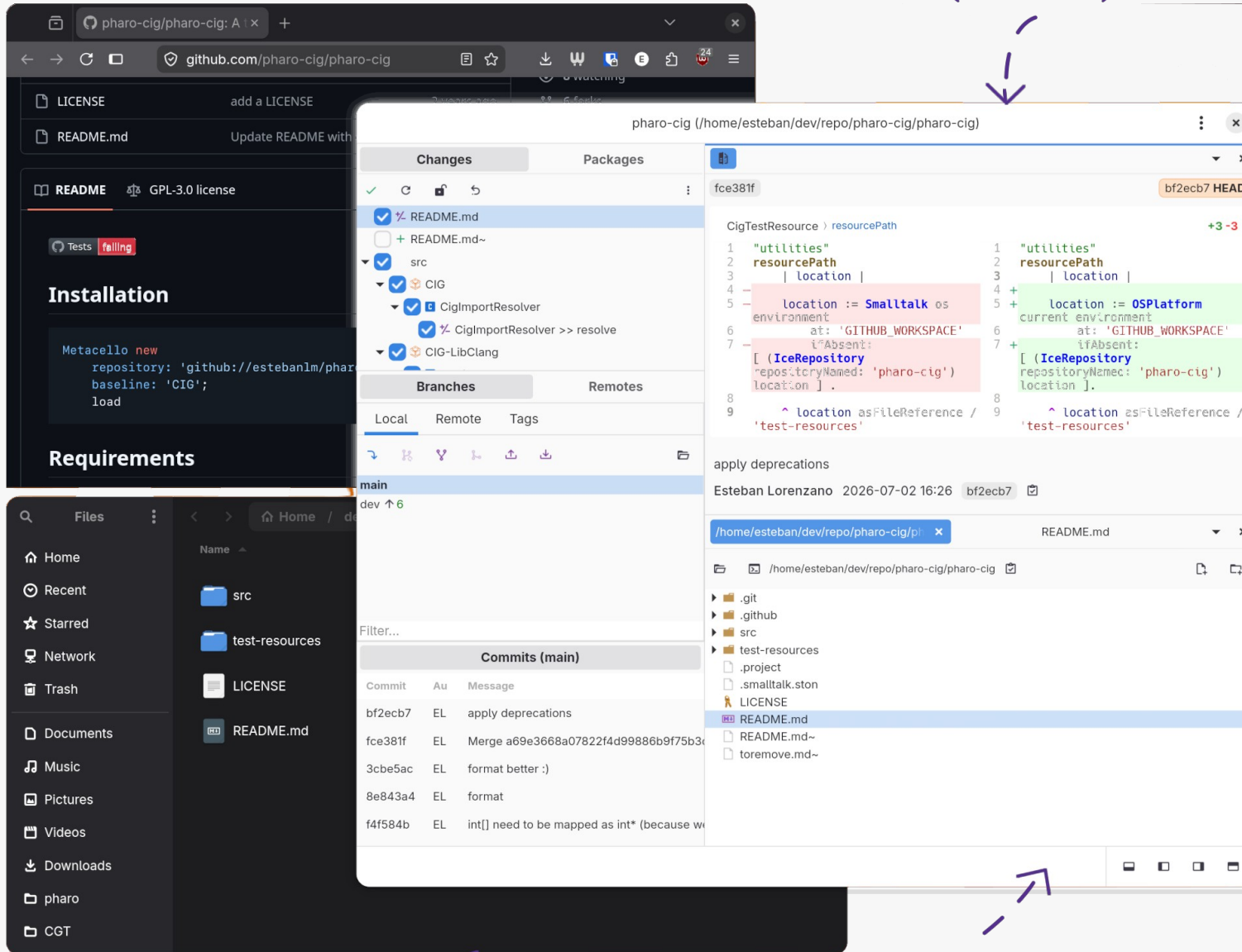


COMPOSE in meaningful ways



remote repository

diff
(includes all)



pharo-cig (/home/esteban/dev/repo/pharo-cig/pharo-cig)

Changes Packages

✓ README.md

src

CIG

CigImportResolver

CigImportResolver >> resolve

CIG-LibClang

Branches Remotes

Local Remote Tags

main

dev ↑ 6

Commits (main)

Commit	Author	Message
bf2ecb7	EL	apply deprecations
fce381f	EL	Merge a69e3668a07822f4d99886b9f75b3c
3cbe5ac	EL	format better :)
8e843a4	EL	format
f4f584b	EL	int[] need to be mapped as int* (because w

diff

```
1 "utilities"
2 resourcePath
3 | location |
4 location := Smalltalk os
5 environment
6 at: 'GITHUB_WORKSPACE'
7 ifAbsent:
8 [ (IceRepository
9 repositoryNamed: 'pharo-cig')
10 location ].
11 ^ location asFileReference /
12 'test-resources'
```

apply deprecations

Esteban Lorenzano 2026-07-02 16:26 bf2ecb7

README.md

/home/esteban/dev/repo/pharo-cig/pharo-cig

.git

.github

src

test-resources

.project

.smalltalk.ston

LICENSE

README.md

README.md~

toremove.md~

EXPERIENCE

Smalltalk inherited the ideal of a full machine

But our projects span image code and things outside the image.

MISSION

Compose our own **tools**, and compose with the **desktop**



TASK 01: DEMO

- TRACE
- FIX
- VERIFY
- COMMIT



TASK: FIX A BUG ON **PHARO-CIG**
PHARO-CIG: A C/C++ TO PHARO
BINDING GENERATOR

(see talk tomorrow)



testAddFFITrait is failing × +

← → ↺ 🖥️ [github.com/pharo-cig/pharo-cig/issues/50](#) ☆      ☰

☰  pharo-cig / **pharo-cig** ▾

  ▾ | ▹ ▸ ⌚ 🔗 📄 📧 

Code **Issues 15** Pull requests Agents Discussions Actions Projects Security and quality Insights More ▾

testAddFFITrait is failing #50

New issue 

🕒 Open

 **estebanlm** opened 14h ago

Member ...

No description provided.

Create sub-issue ▾ 

  **estebanlm** self-assigned this 14h ago

  **estebanlm** added **bug** 14h ago

Add a comment

Write Preview

H B I ≡ <> 🔗 ≡ ≡ ≡ @ 🗨️ 📎 ↩️

Use Markdown to format your comment

Assignees 

 **estebanlm**

Labels 

bug

Type 

No type

Fields

Priority Choose an option

Projects 

No projects

Milestone 

No milestone

Pharo(Pulsar): Sandbox, Pulsar

Project.../pulsar

+

📁

🔄

🔍

⋮

▶ Actions

▶ Announcement

▼ Application

📄 PulsarApplication

📄 PulsarApplicationSnapshot

📄 PulsarCLIApplication

📄 PulsarConfirmDialog

📄 PulsarErrorHandler

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📄 PulsarIconProxy

📄 PulsarInformDialog

Filter (3+ characters)...

Editor Stack

📄 Welcome to Pharo

📄 PulsarApplication>>initialize

📄 PulsarApplication

Filter...

Repository

+

🔍

🔄

📄

×

NeoJSON v17

gdb-bindings master ↑ 24

os-ioevents master ↑ 2

petitparser2 master

phanapi master

pharo-cig main

pharo-dbg main

pharo-qrencode main

Filter...

Welcome to Pharo

PulsarApplication

initialize

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Welcome to Pulsar - The alternative IDE for Pharo Smalltalk.

Pharo is a pure object-oriented programming language and a powerful environment, focused on simplicity and immediate feedback (think IDE and OS rolled into one).

The Sandbox

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Instance

Class

Traits

+

(None)

standalone

suspendAnnouncements

+

⌵ (All) 61

accessing 9

announcing 2

finalization 1

icon 1

initialization 14

+

deferToNextCycle:

eventMetacelloExecutionEnd:

eventMetacelloExecutionStart:

exitApplication

fileTypeIconProvider

finalize

iconCache

iconNamed:

inform:

initialize

initializeConfiguration

isProjectInternal:

isShowingLineNumbers

isStandalone

killUnusedProcesses

newConfiguration

newConfirm

newIconProvider

newInform

newRequest

newRequestText

newSelect

newSettings

osPlatform

performSanityCheck

Filter...

Playground

+

📁

🔄

(x)

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1

🔍

Flags on Pulsar-Browser

🔔

Name

Place

Message

TODO PulsarApplication>>windowWillClose: check l

MESSAGE PulsarApplication>>checkForLostChanges this is n

TODO PulsarApplication class>>reset: yes, the

TODO PulsarBaseBrowser>>addWindow: This co

TODO PulsarBaseBrowser class>>defineSpotterActionsOn: Move th

WATCH VIDEO HERE



TASK 02: AWARDS

- VISIT THE TABLE
- GET HELP
 - TO INSTALL IT
 - TO PLAY WITH IT
- HAVE FUN



GROW THE POWER USER IN YOU.

Pulsar is still evolving — and the point is to make powerful work easier to want, learn, and keep.

- I want you to use it.
- I want you to contribute to it.
- And I want to know what would make you think: **“I want to use this”**

USE IT

BREAK IT

IMPROVE IT



<https://forge.smallworks.eu/pharo/Pulsar-installers>

