A *clean*, *innovative*, open-source Smalltalk

http://www.pharo-project.org

Roadmap

Short intro

User community

Look at syntax and runtime

Coding Session

Future

In a nutshell

Pharo = language + IDE + update mechanism

Pure object-oriented programming language

Dynamically typed and trait-based

Open and flexible environment

Platform for Seaside and Aida/Web web frameworks

Pharo?

A *progressive*, open-source Smalltalk platform
for *professional* use.

Stable
Bugs fixed fast
But innovative

pharo0.1-10373dev09.07.2.image

OB Package Browser: AutomaticMethodCategorizerApplier

C... (class search), i... (implementor search), #C... (class ref

<< hist. >>

- Recently Modi
ImageForDevelop
AutomaticMethod
AutomaticMethod
Model
Tests

AutomaticMethodCa
AutomaticMethodCa
AutomaticMethodCa
AutomaticMethodCa
AutomaticMethodC
AutomaticMethodCa

-- all --
event handling
event handling - privat
initialization
testing
-- local (7) --
-- required (?) --
-- long (1) --

initializeUsing:onChar
registerForNotificatior

pkgs hier. groups instance ? class

DF 3/20/2006 21:15 - AutomaticMethodCategorizerApplier - initialization - 4

```
registerForNotifications

    changeNotifier
        notify: self
            ofSystemChangesOfItem: AbstractEvent methodKind
            change: AddedEvent changeKind using: #methodAdditionNotifiedWith:;
        notify: self
            ofSystemChangesOfItem: AbstractEvent methodKind
            change: ModifiedEvent changeKind using: #methodModificationNotifie
```

World
Class Browser
Workspace
Test Runner
Monticello Browser
Tools
Windows
Debug
System
Save
Save As...
Save and quit
Quit

OB Package Browser: Automat...
Shout Workspace

seaside

The fast lane to HTTP

About

Screenshots
Success Stories
Examples
What others think
Hosting
Support
Trivia
Merchandise more

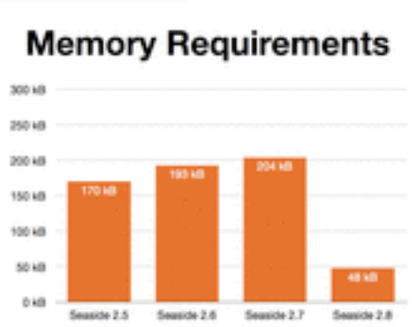
Documentation

FAQ
Tutorials
Migration
Videos more

Community

Weblogs
Mailing Lists
Development
Contribute
Merchandise
Extensions
Projects more

Seaside 2.8



News

[Smalltalk Tidbits, Industry Rants] Industry Misinterpretations 144: Children of Smalltalk *12 July 2009*
You'll have to listen to the entire podcast to understand where the title comes from :) This week ...

London Geek Night *10 July 2009*
I have some pictures to share for people that missed the London Geek Nights with the title Seaside: ...

Web Velocity released *29 June 2009*
Big news from Cincom on the Seaside mailing list today: they've made an evaluation version of their ...

London *23 June 2009*
I'll be in London (UK) on Wednesday June 24 for 10 days or so. If anyone around there wants to meet ...

Seaside 2.8.4 and Pharo *5 June 2009*
We just announced Seaside 2.8.4, the fourth maintenance release for Seaside 2.8.Again this release ...

more

download

open source

Seaside is a free and Open Source™ web application framework distributed under the MIT License.

Seaside is available on the following Smalltalk platforms:

Pharo Smalltalk (download)
Cincom Smalltalk
Dolphin Smalltalk
GemStone Smalltalk
GNU Smalltalk
VA Smalltalk more

EUROPEAN SMALLTALK USER GROUP
esug
www.esug.org

Pier: Content Management System

http://www.piercms.com/

Alltop postini squeaknewcompiler iPhone Dev Center 4-Seasons.TV

Pier: Content Management System

About Download Documentation Development Contact Blog

Pier is a content management system that is light, flexible and free. It is light as in double click and go (download it). It is flexible as in make it be what you want (learn more). It is free as in freedom (MIT license).

Pier 1.2
11 July 2009
Pier 1.2 is now available. What's new: * Mature value links (see Pier syntax for more details) * ...

July Pier sprint
11 July 2009
Yesterday, Lukas and me spent an intense afternoon working on Pier. We focused on closing the open ...

Pier sprint
5 April 2009
Pier-session.jpg Yesterday, Lukas and me sprinted intensively through Pier. It was quite exciting....

Read more blog entries ...

iPhone

3G
20:33
10.13.102.96
Pharo
Workspace
Welcome to Pharo ON THE IPhone
More information at
pharo.gforge.inria.fr
and
squeak.org
RFBServer (stopped)
start server...
passwords
connections
sharing
performance
debugging
help...
about...

GemStone

Seaside under GLASS

GemStone • Linux • Apache • Seaside • Smalltalk

Smalltalk with OO-Database

Pharo is the IDE

Companies

netstyle.ch

cmsbox.com

Pinesoft

Smallworks

Agilitic.be

Inceptive.be

GemStone

SW GmbH

2Denker

...

Universities

Annecy

Lugano

Bern

Douai

Lille

Santiago

Bruxelles

...

Getting started

Model

Tools

Syntax

A Simple and Pure Model

Everything is an object (instance of a class)

Public methods

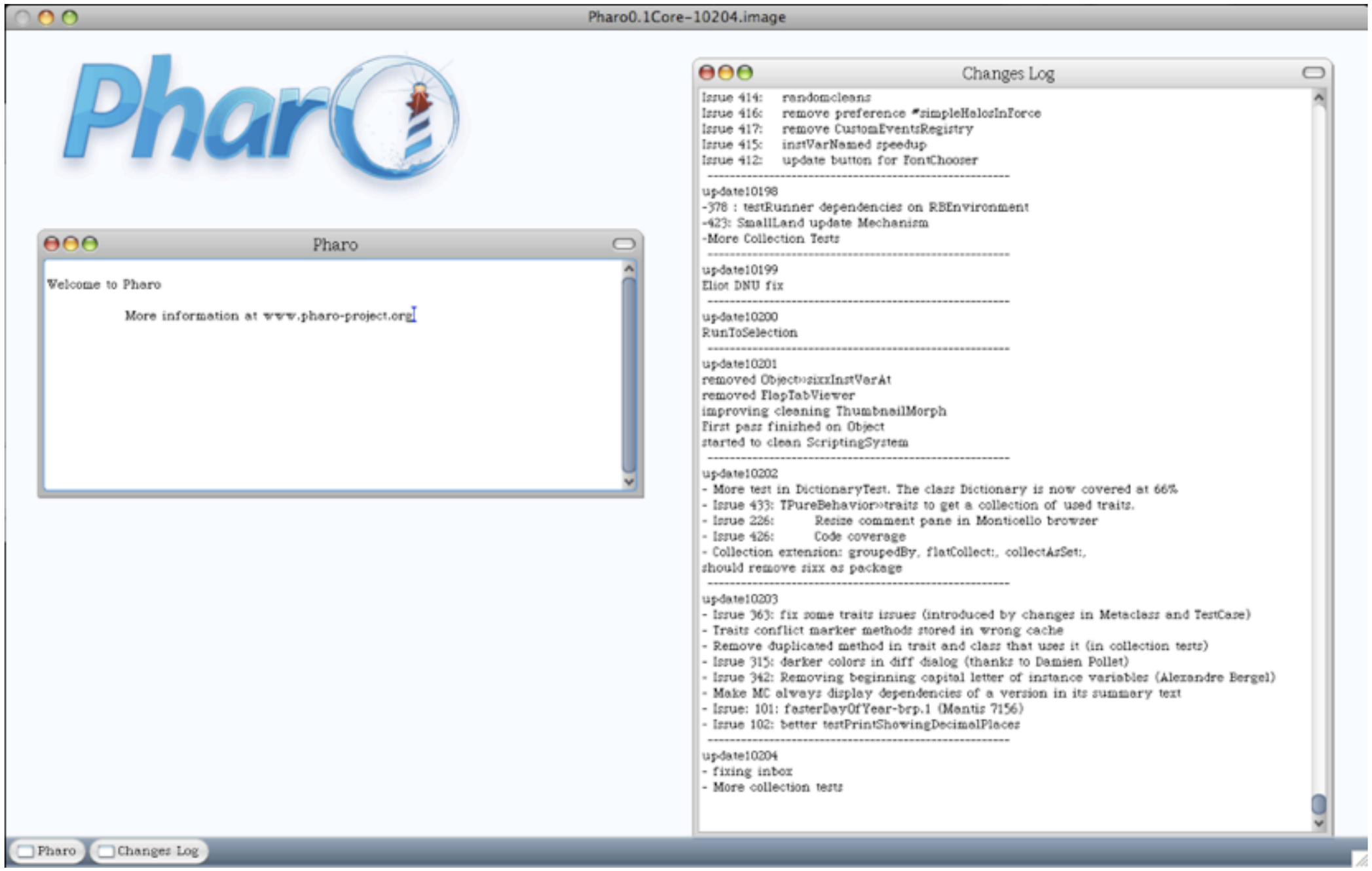
Protected attributes

Single inheritance

Everything happens by sending messages to objects

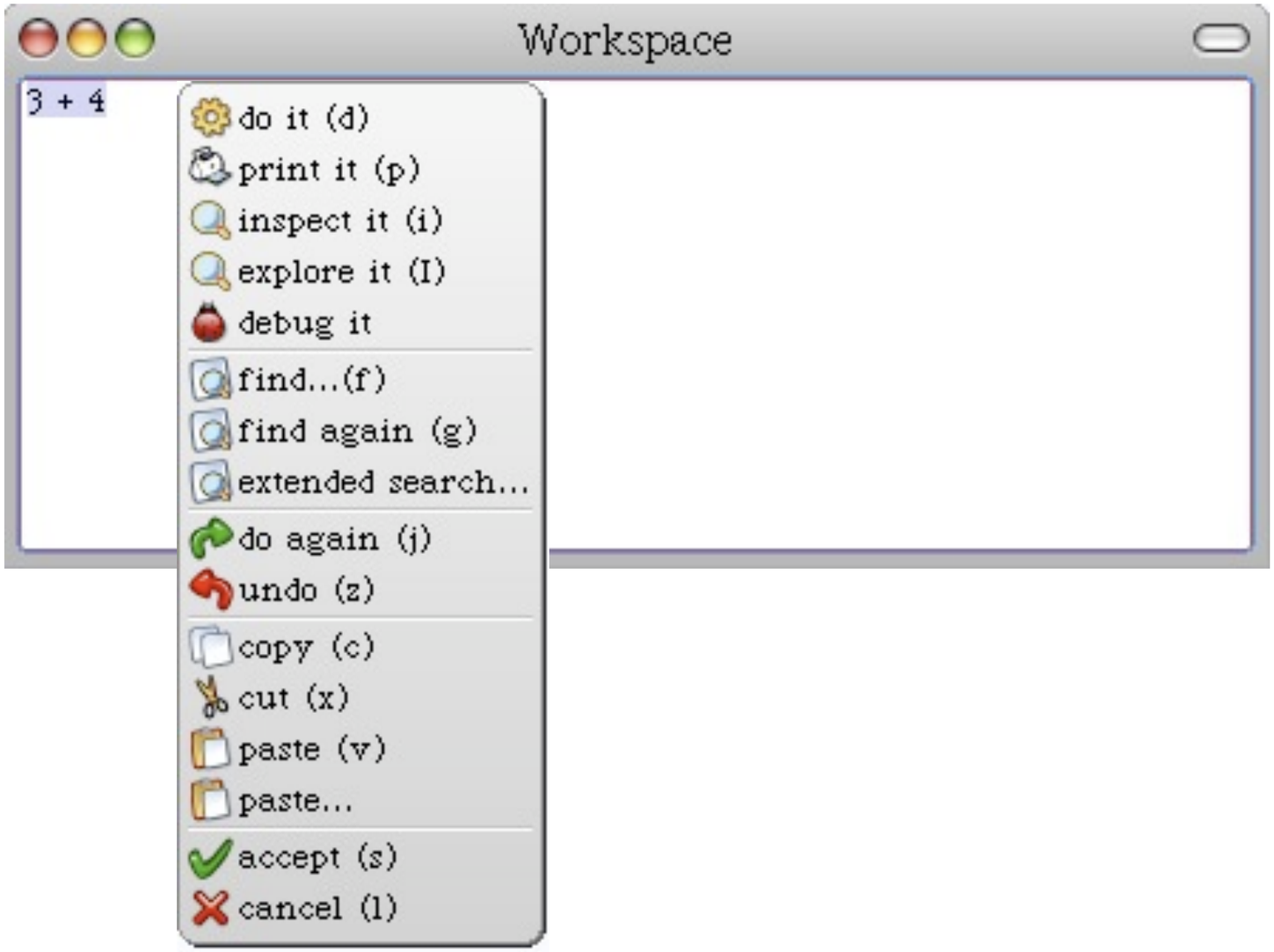
```
1000 factorial / 999 factorial
(Smalltalk isCool) ifTrue: [‘Yeahh’]
#(1 -2 3) collect: [ :each | each abs  ]
```

Running Pharo

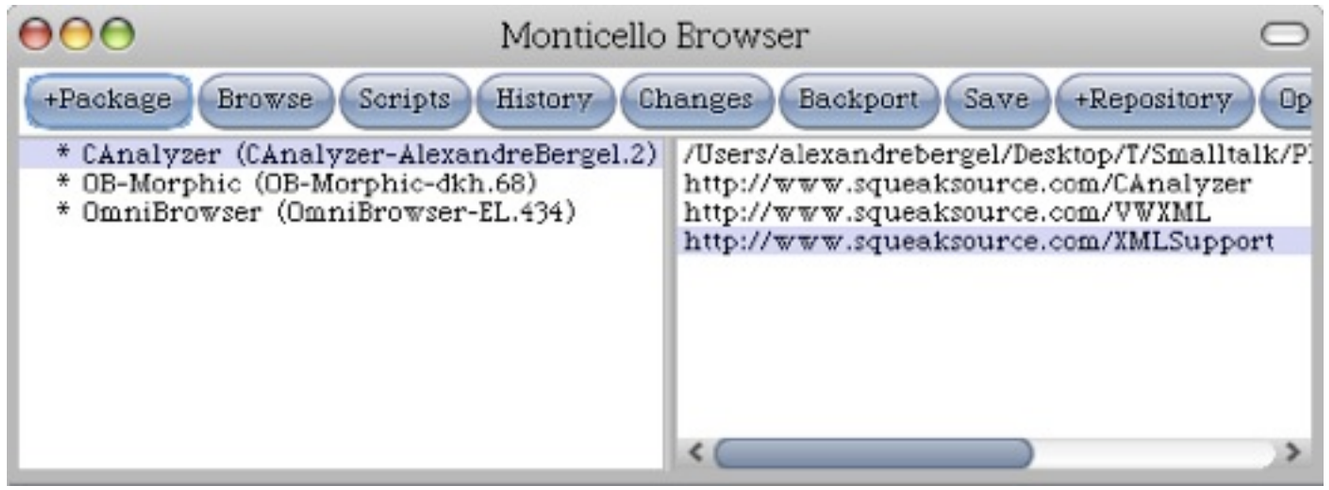


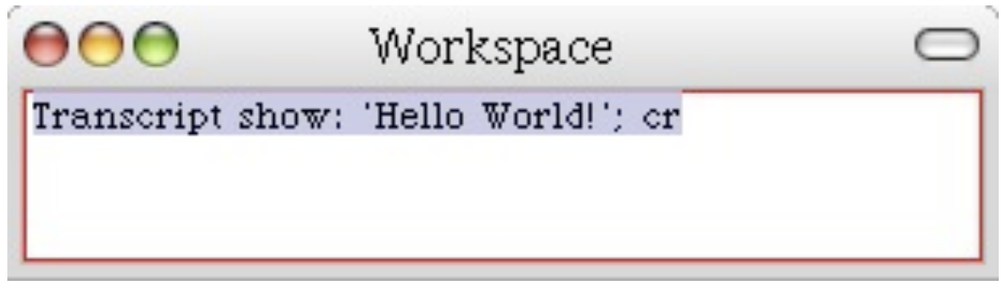
Do it, print it

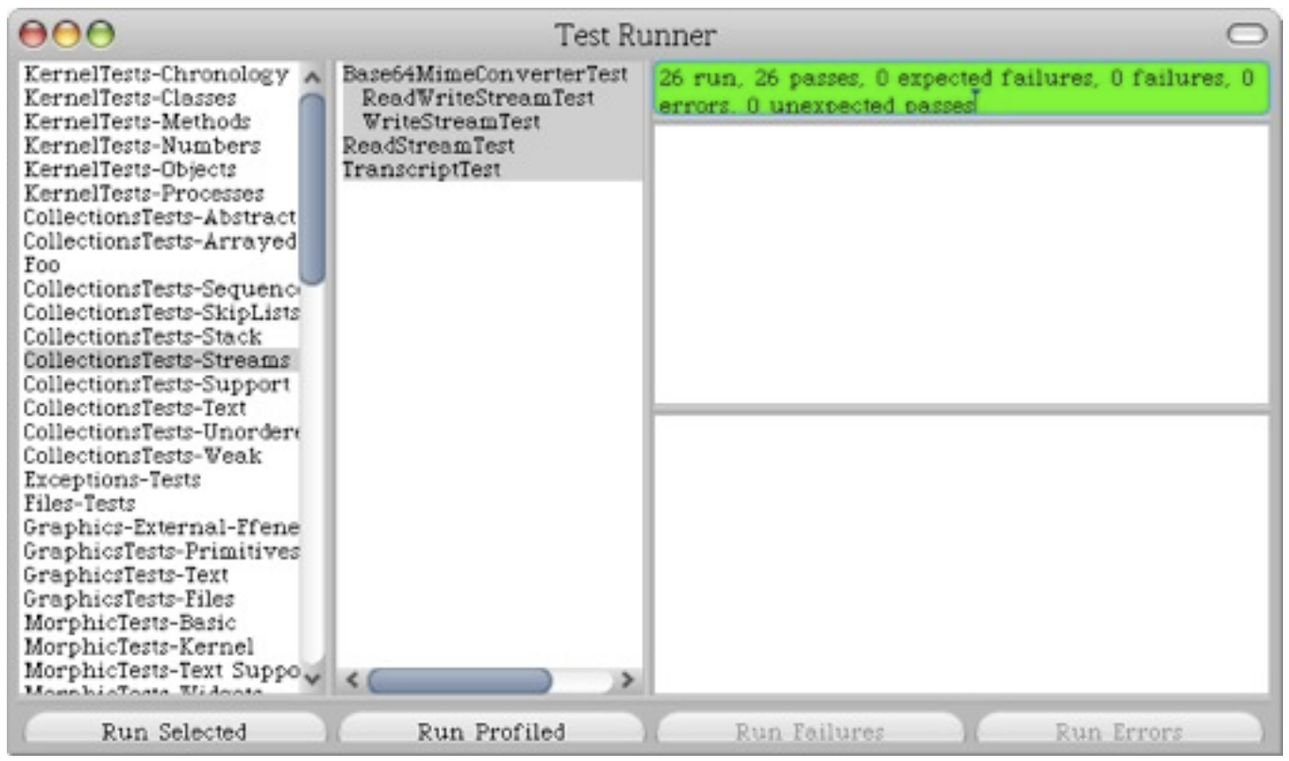
You can evaluate
any expression
anywhere
in Pharo

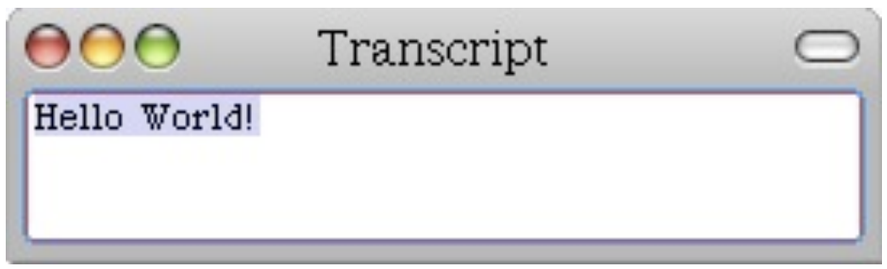


Standard development tools

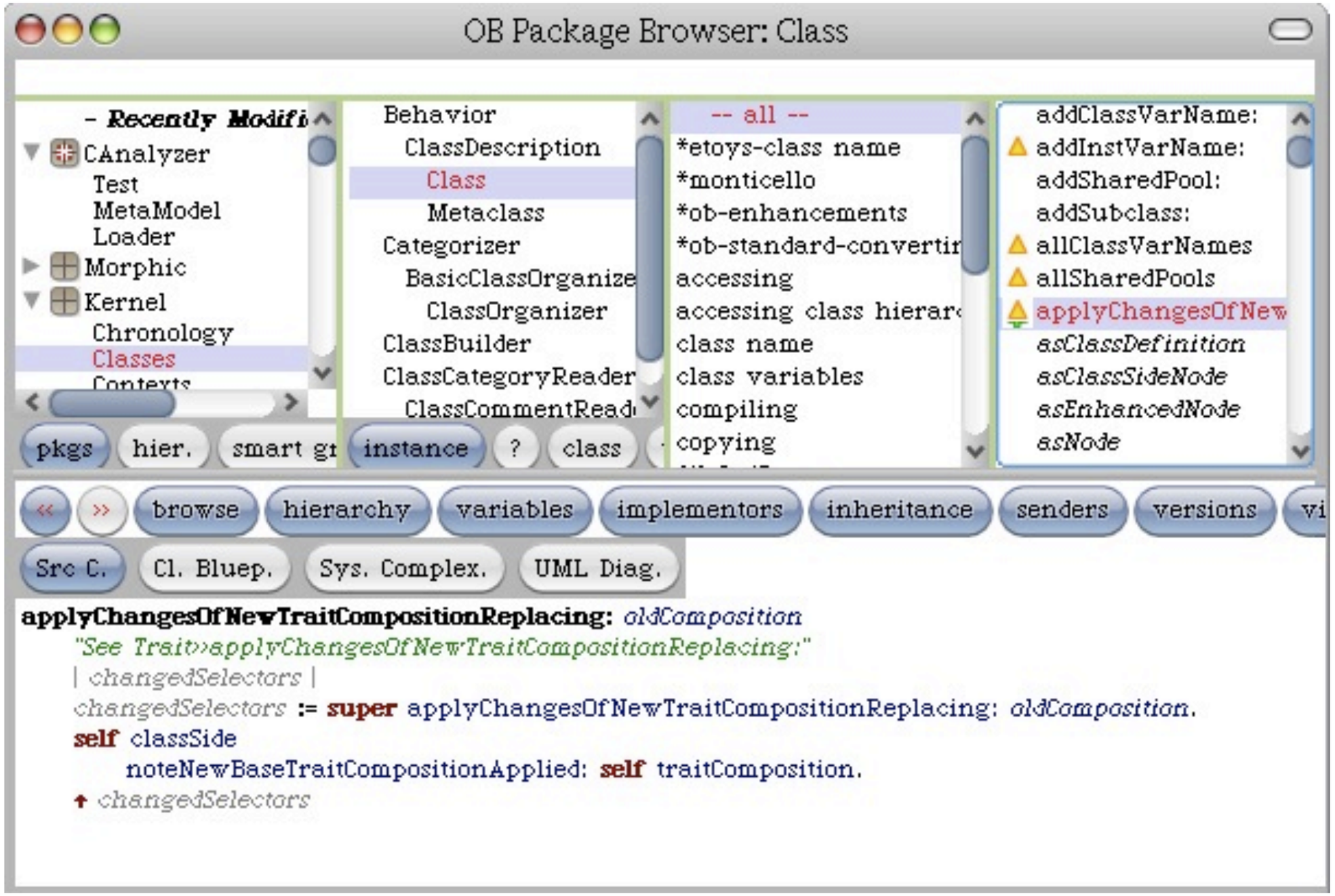




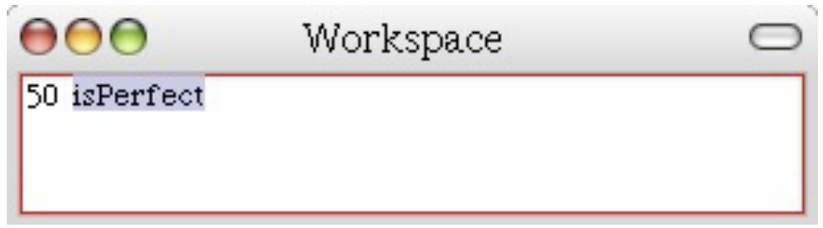


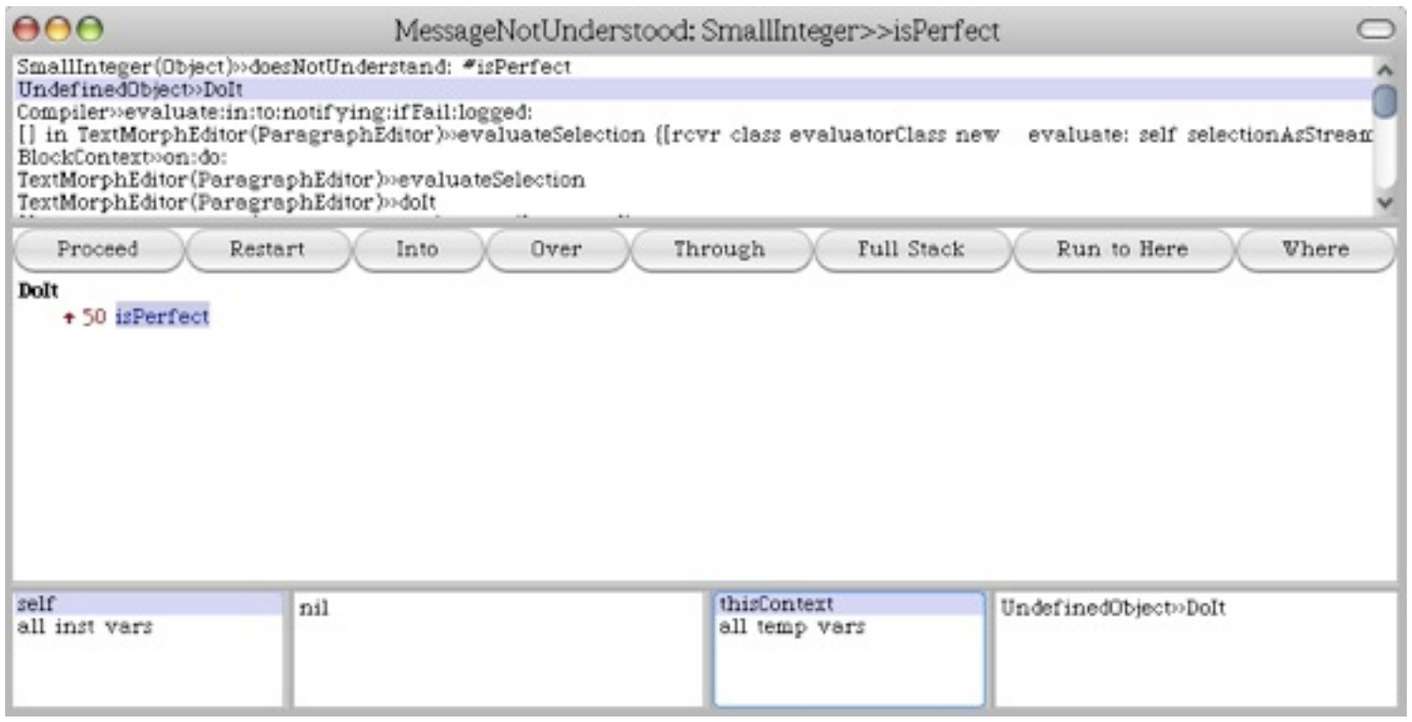


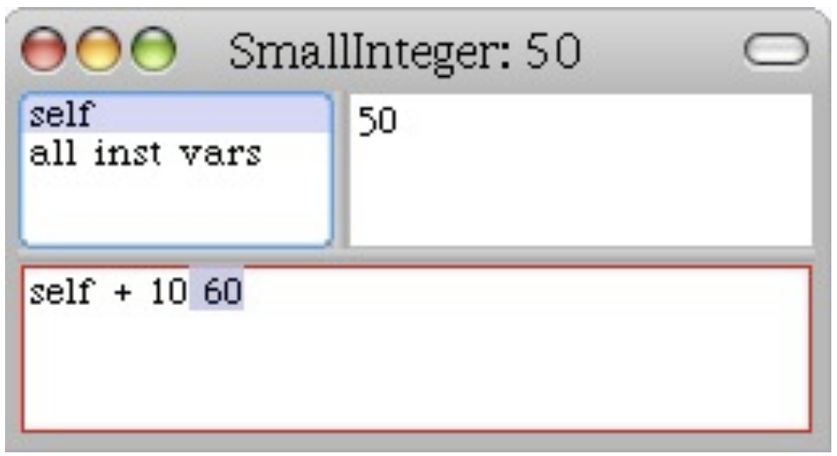
Standard development tools



Debugger, explorer, inspector







Syntax in a nutshell

3 kinds of messages

Unary messages

```
5 factorial
Transcript cr
```

Binary messages

```
3 + 4
```

Keywords messages

```
3 raisedTo: 10 modulo: 5

Transcript show: 'hello world'
```

From Java to Smalltalk

postman.send(mail,recipient);

Removing

```
postman.send(mail,recipient);
```

Removing unnecessary

postman send mail recipient

But without losing information

postman send mail to recipient

```
postman send: mail to: recipient

postman.send(mail,recipient);
```

Precedence

(Msg) > Unary > Binary > Keywords

from left to right

No mathematical precedence

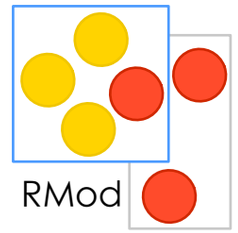
2 + 3 squared

2 + 3 squared
> 2 + 9

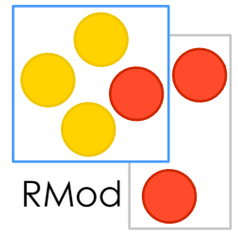
2 + 3 squared

> 2 + 9

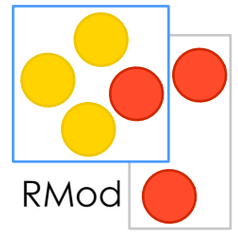
> 11



Color gray - Color white = Color black

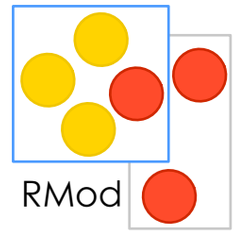


Color gray - Color white = Color black



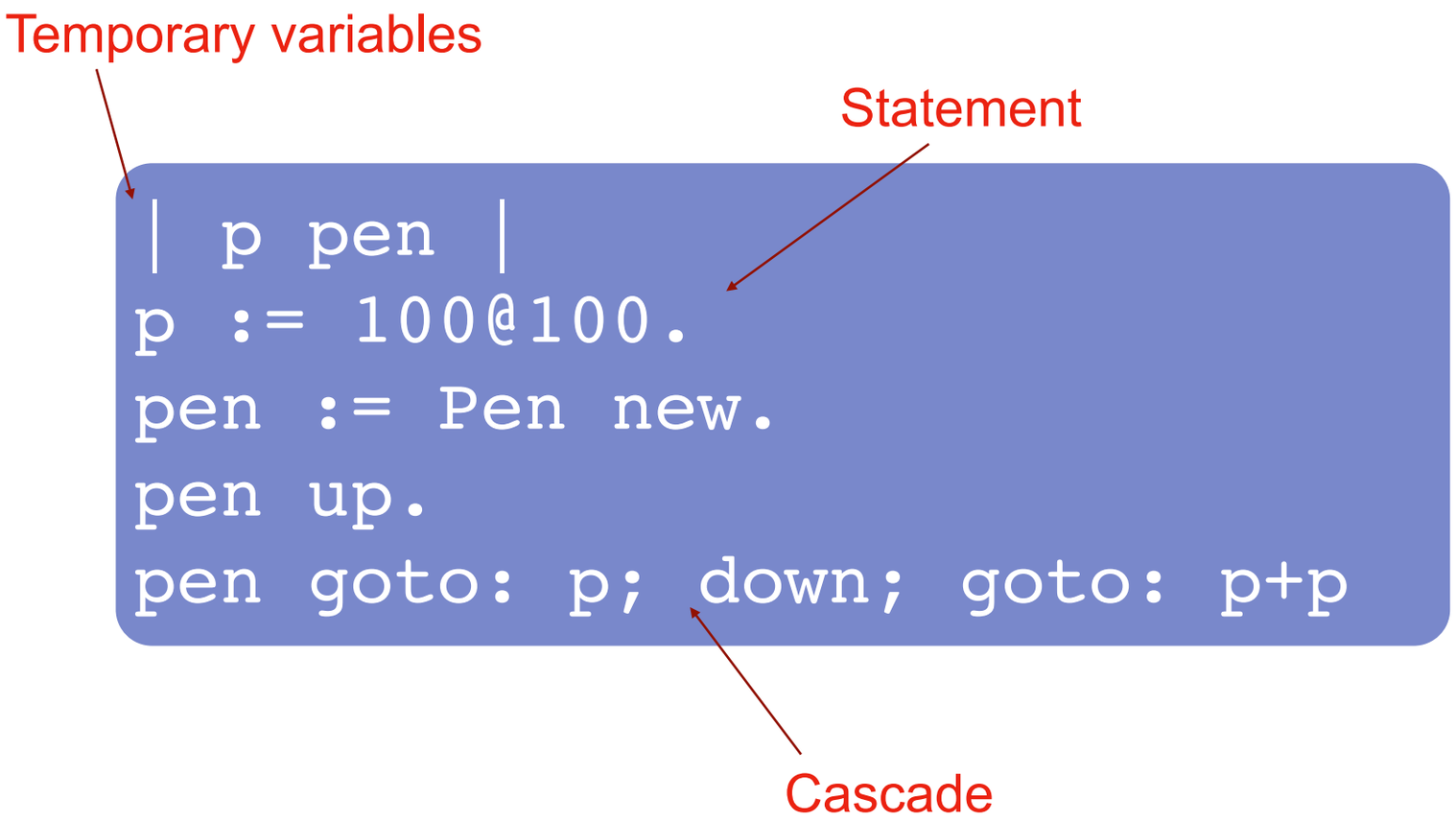
Color gray - Color white = Color black

> aColor = Color black




```
Color gray - Color white = Color black
> aColor = Color black
> true
```

Statement and cascades



Block Closures: aka Function

```
fct(x) = x * x + x

|fct|
fct:= [:x | x * x + x].
```

Function Application

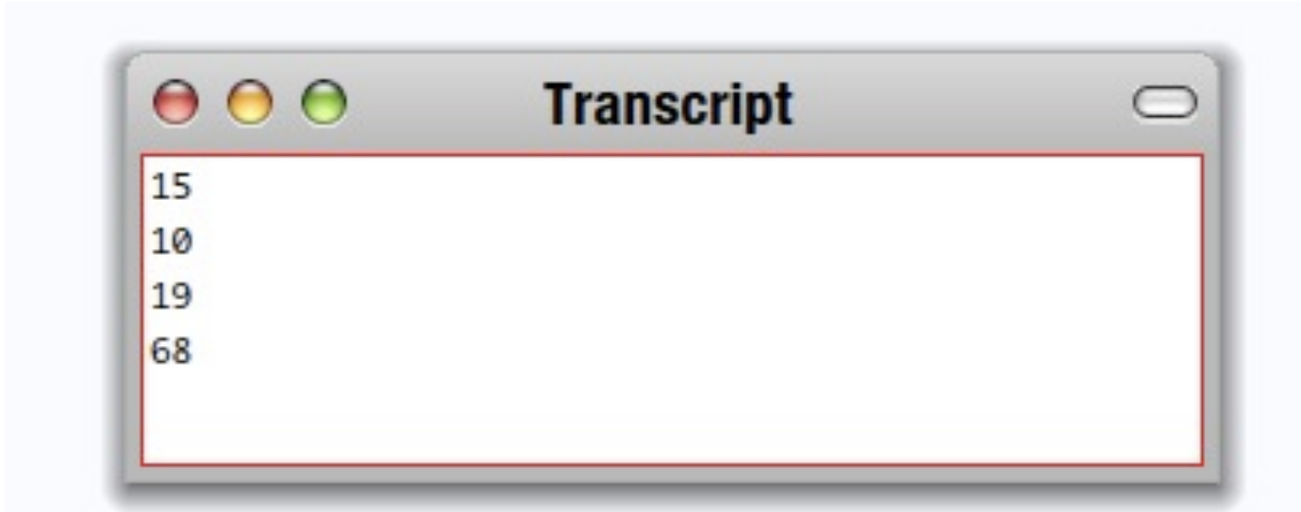
fct (2) = 6
fct (20) = 420

fct value: 2
> 6
fct value: 20
> 420

[:x | x * x + x] value: 2
>6
[:x | x * x + x] value: 20
>420

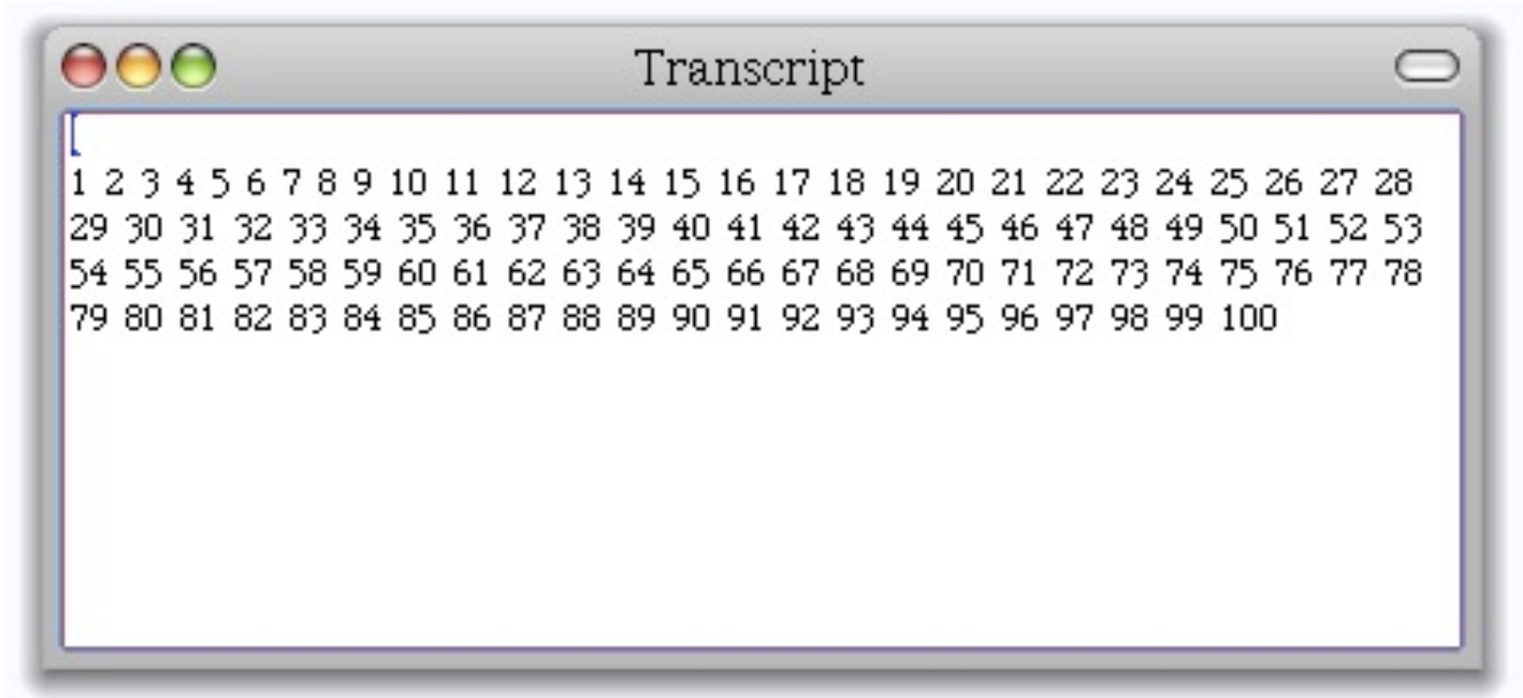
```
#(15 10 19 68) do:
        [:i | Transcript show: i ; cr ]
```

```
#(15 10 19 68) do:
        [ :i | Transcript show: i ; cr ]
```



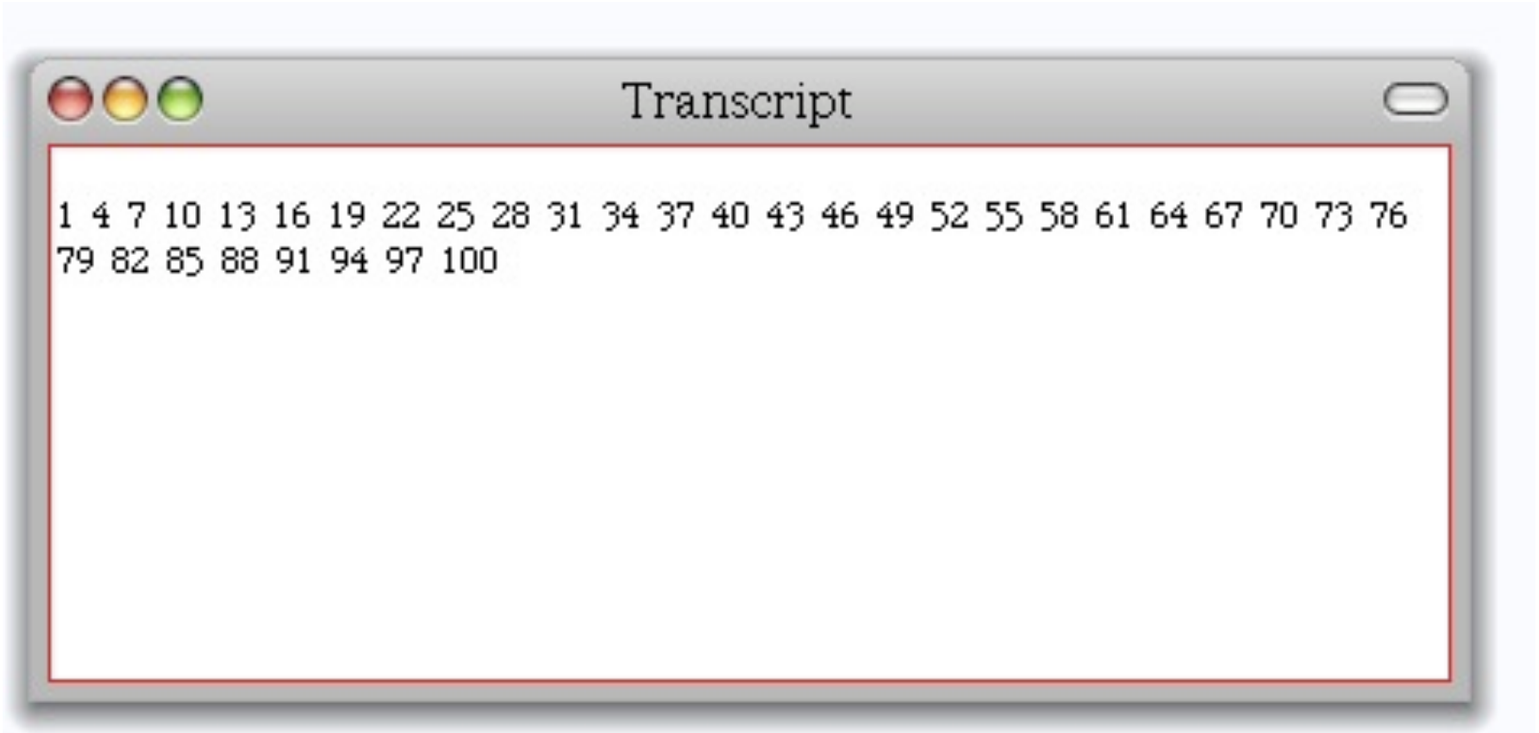
```
1 to: 100 do:
    [ :i | Transcript show: i ; space]
```

```
1 to: 100 do:
    [ :i | Transcript show: i ; space]
```



```
1 to: 100 by: 3 do:
    [ :i | Transcript show: i ; space]
```

```
1 to: 100 by: 3 do:
    [ :i | Transcript show: i ; space]
```



A typical method in Point

Method name

Argument

Comment

```
<= aPoint
   "Answer whether the receiver is neither
   below nor to the right of aPoint."

   ^ x <= aPoint x and: [y <= aPoint y]
```

Return

Instance variable

Binary message

Keyword message

Block

```
(2@3) <= (5@6)
```

```
true
```

Creating classes

Send a message to a class (!)

```
Number subclass: #Complex
  instanceVariableNames: 'real imaginary'
  ...
  category: 'ComplexNumbers'
```

Past....

Started with Squeak Smalltalk

+ *Major* Cleanups (MVC, eToys)
+ New UI Look / TrueType
+ Tools
+ *Block Closures*
+ *Lots* of bugfixes and small improvements
+ Preferences clean up
+ ***MIT license clean***

Update ~1200 Bug-reports closed

496 Updates (1.0)
61 (1.1 unstable)

Release Candidate: October 2009 ;)

Future

...cleaner

started to run SmallLint... and fix

...smaller

deployment image is 7 MB

...faster

What we dream about

A flexible infrastructure to be able to reinvent itself

Better tools

- next generation refactoring

Better infrastructure

- New compilers
- First class packages
- Minimal core

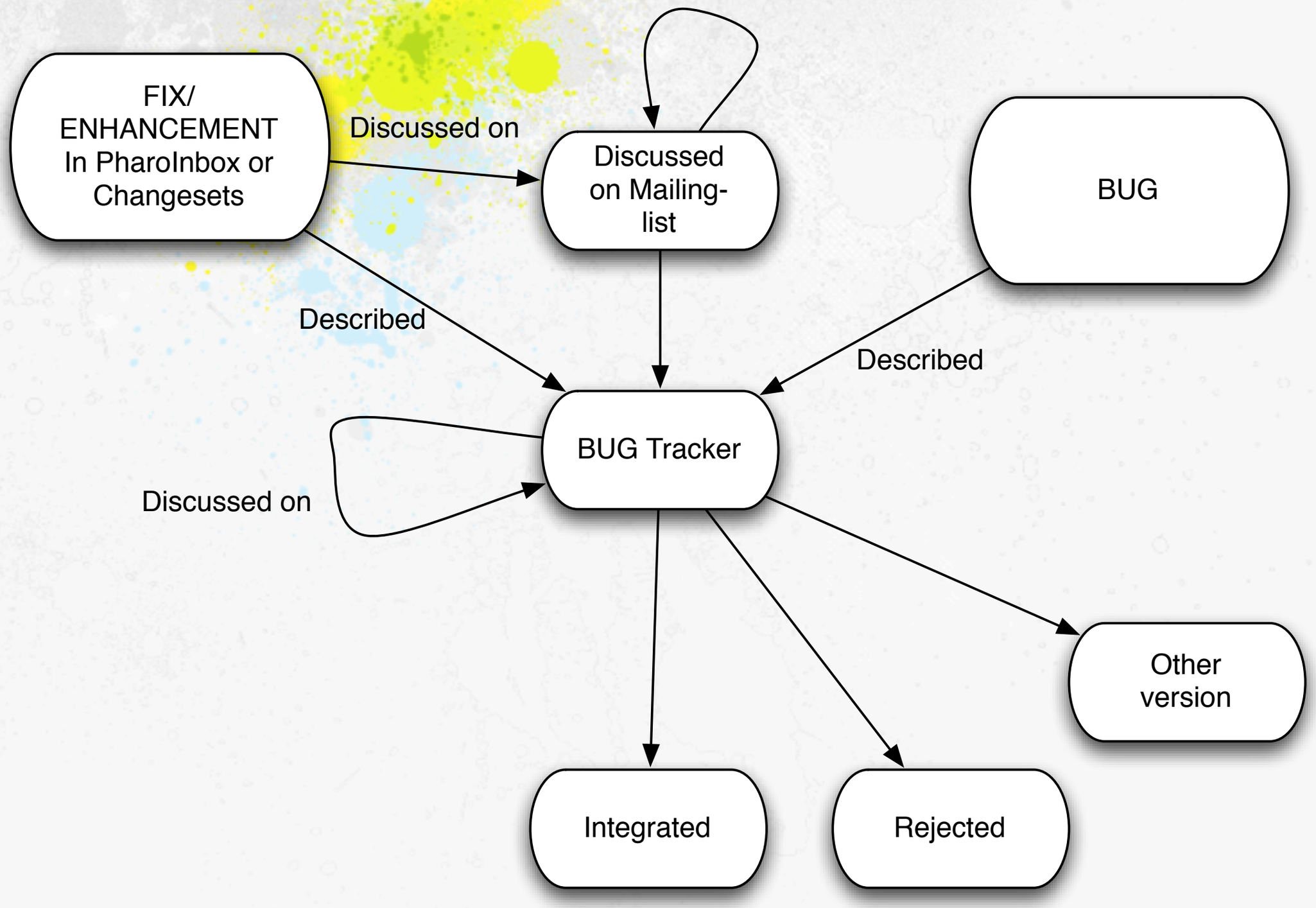
Integration Server....

So that people can invent their future

Everybody can help

Reporting bugs
Confirming bugs
Writing tests
Writing examples
Writing comments
Simple contributing fixes
Deep discussion...

Process


FIX/
ENHANCEMENT
In PharoInbox or
Changesets
Discussed on
Discussed
on Mailing-
list
BUG
Described
Described
Discussed on
BUG Tracker
Other
version
Integrated
Rejected

Pharo Sprints

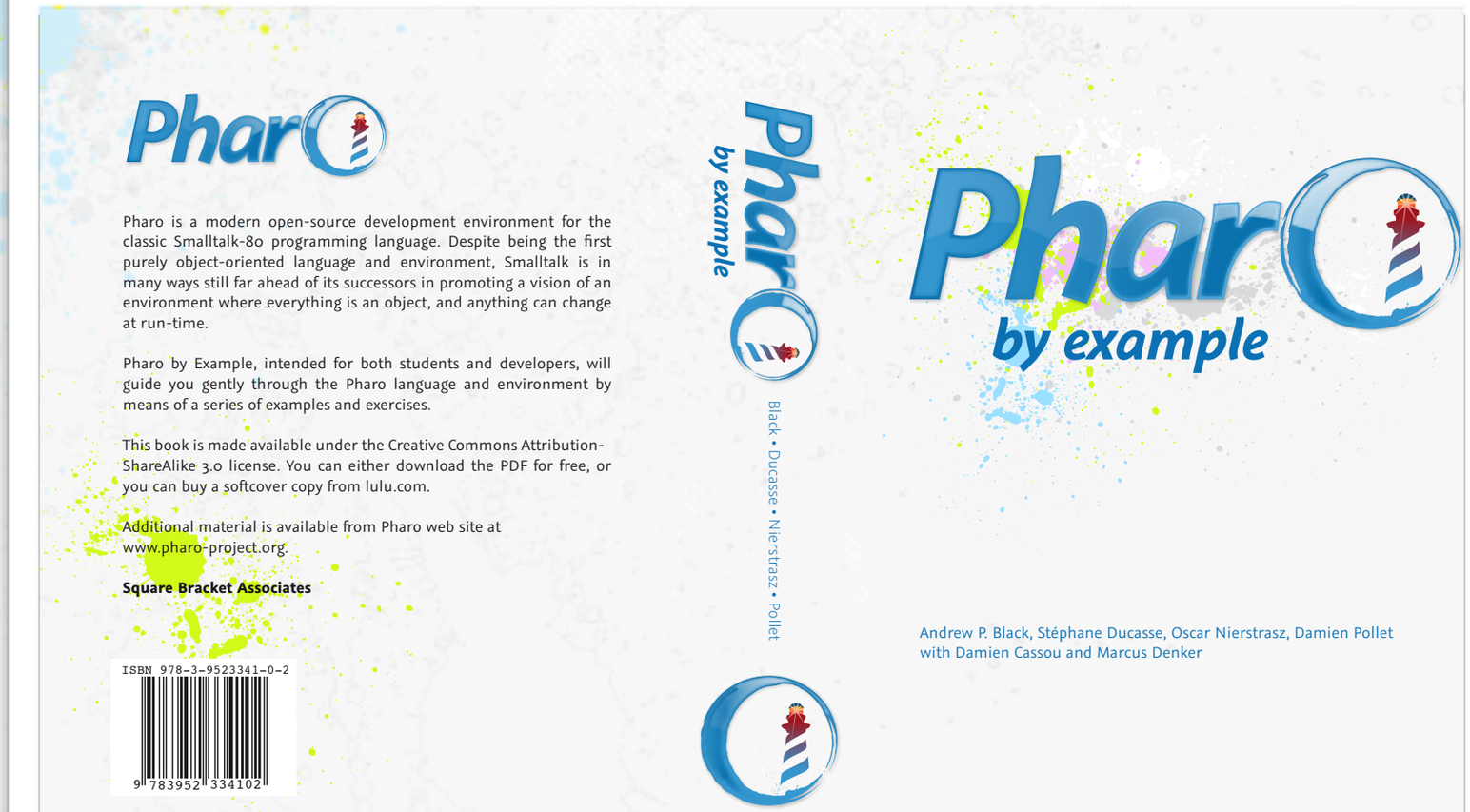
May 2008 Bern
July 2009 Bern
October 2009 Lille
November 2009 Buenos Aires

more in the future...

Books

2nd Volume

in preparation



Thanks

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Lawrence Trutter
Andrew Tween
martin von loewis
Juan Vuletich
Steven Wirts
Hernan Wilkinson

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Creating good energy, software quality,
learning and having fun

http://pharo-project.org