Roassal
a year of hard work...

Object Profile
info@objectprofile.com

Vision:

to be the ultimate solution for data visualization

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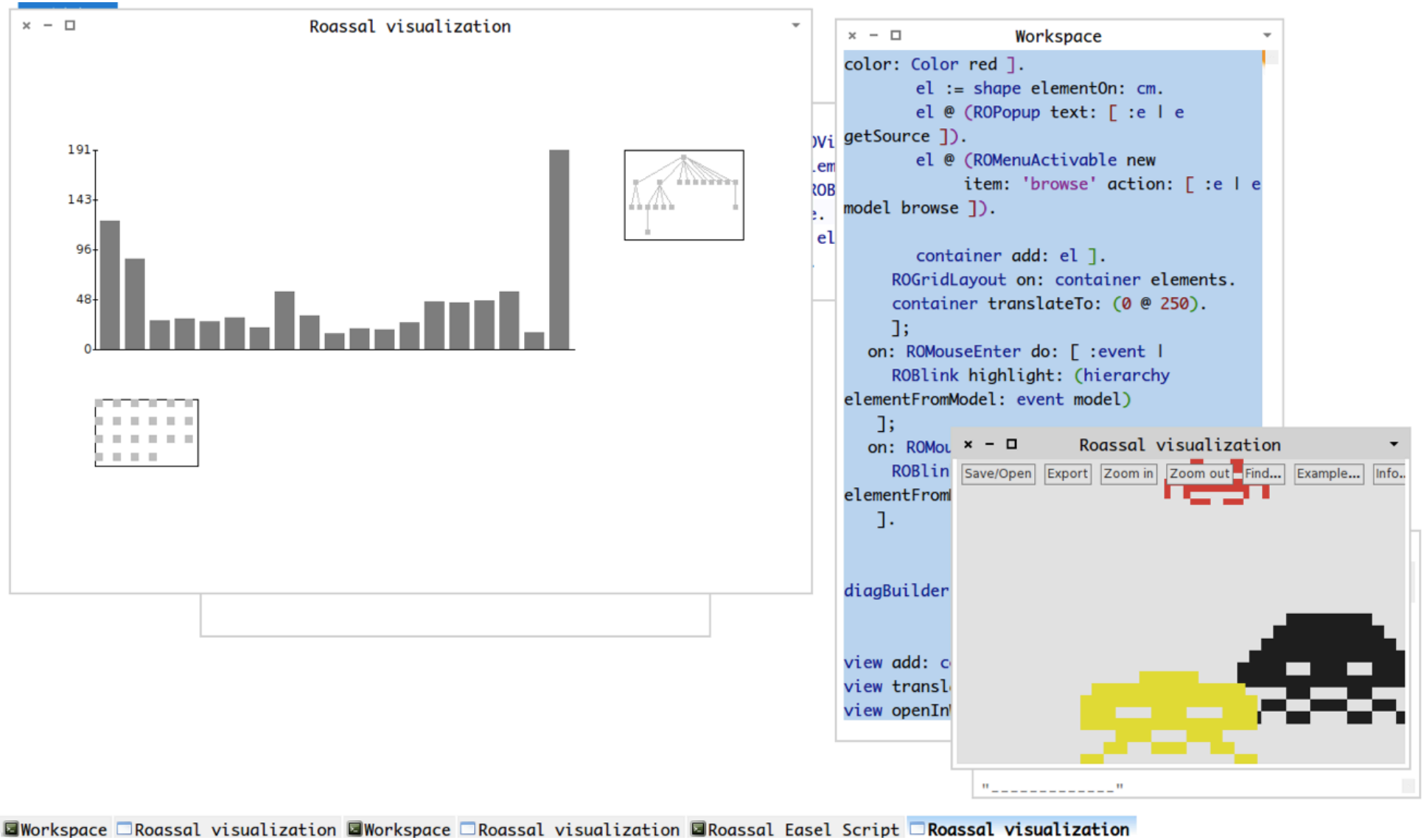
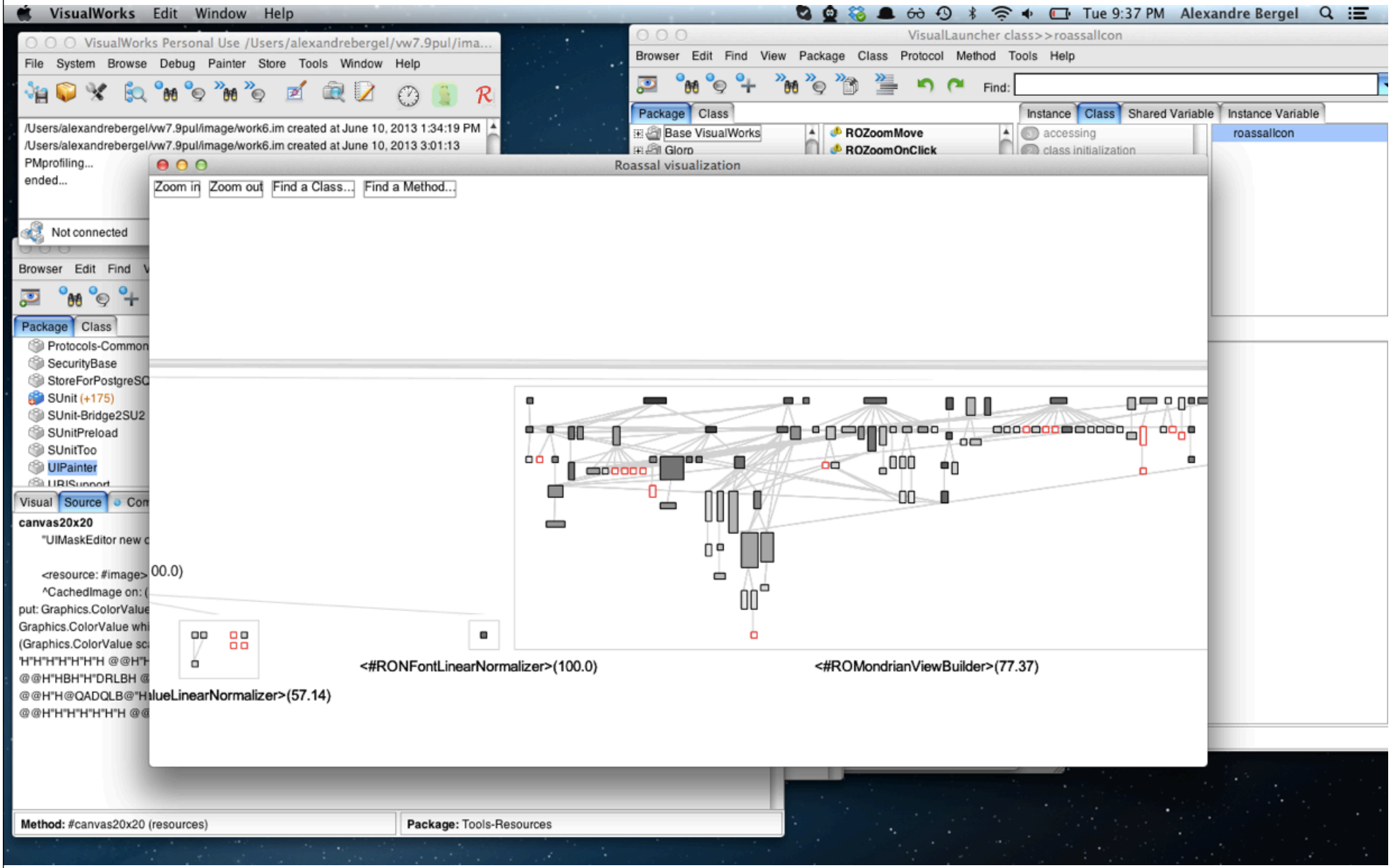
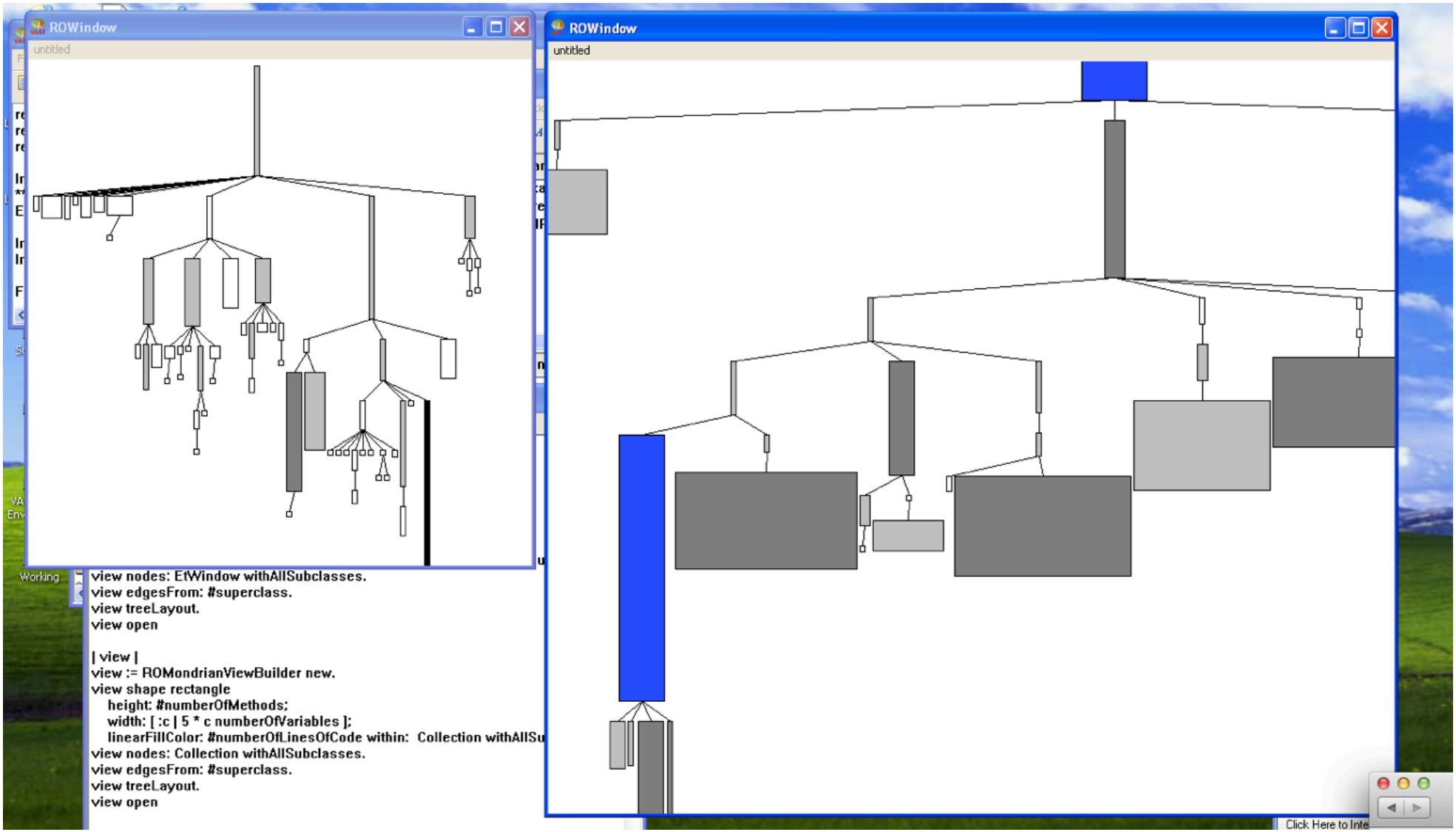
to be the ultimate solution for data visualization

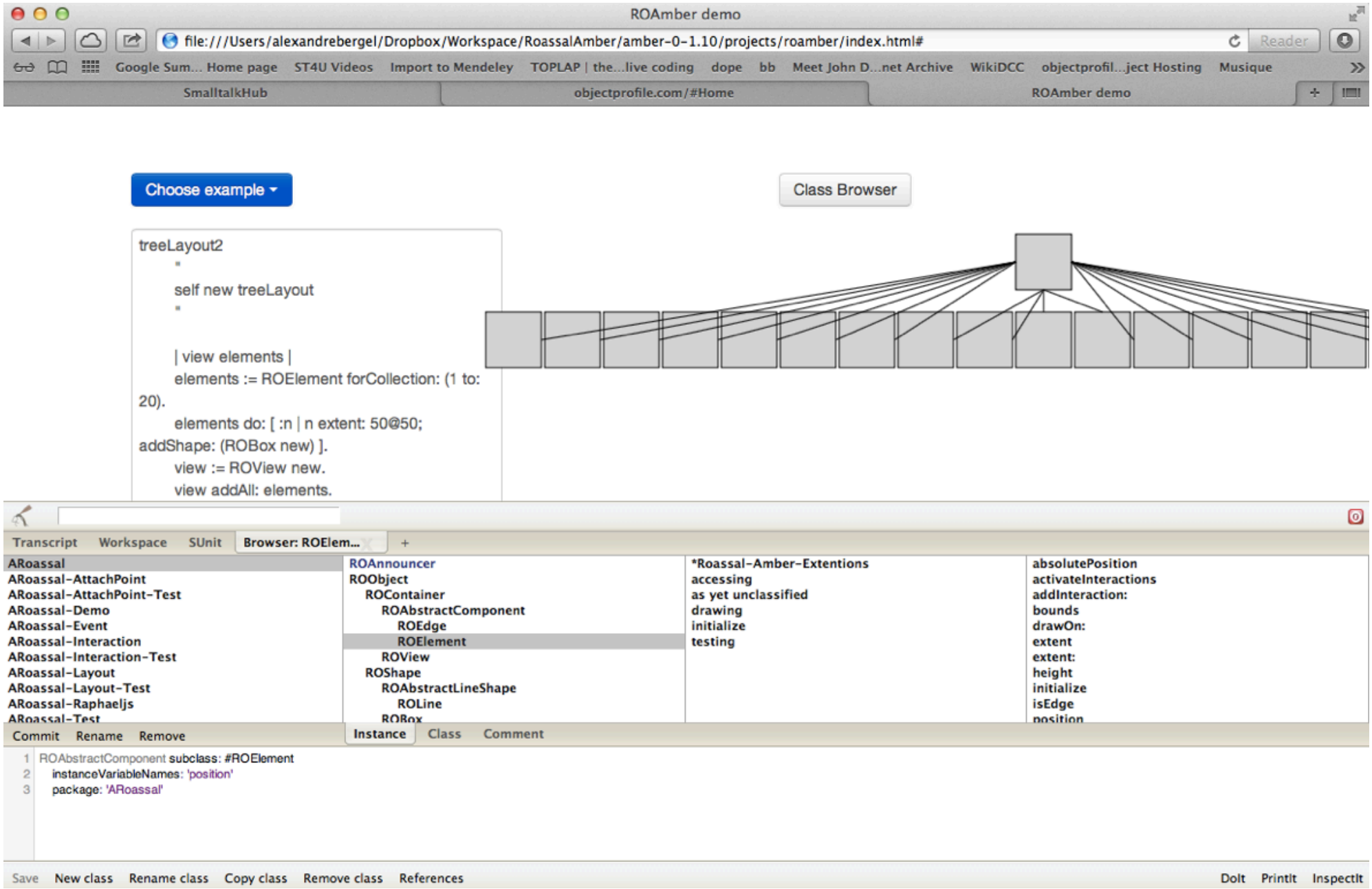
Collateral side effects:

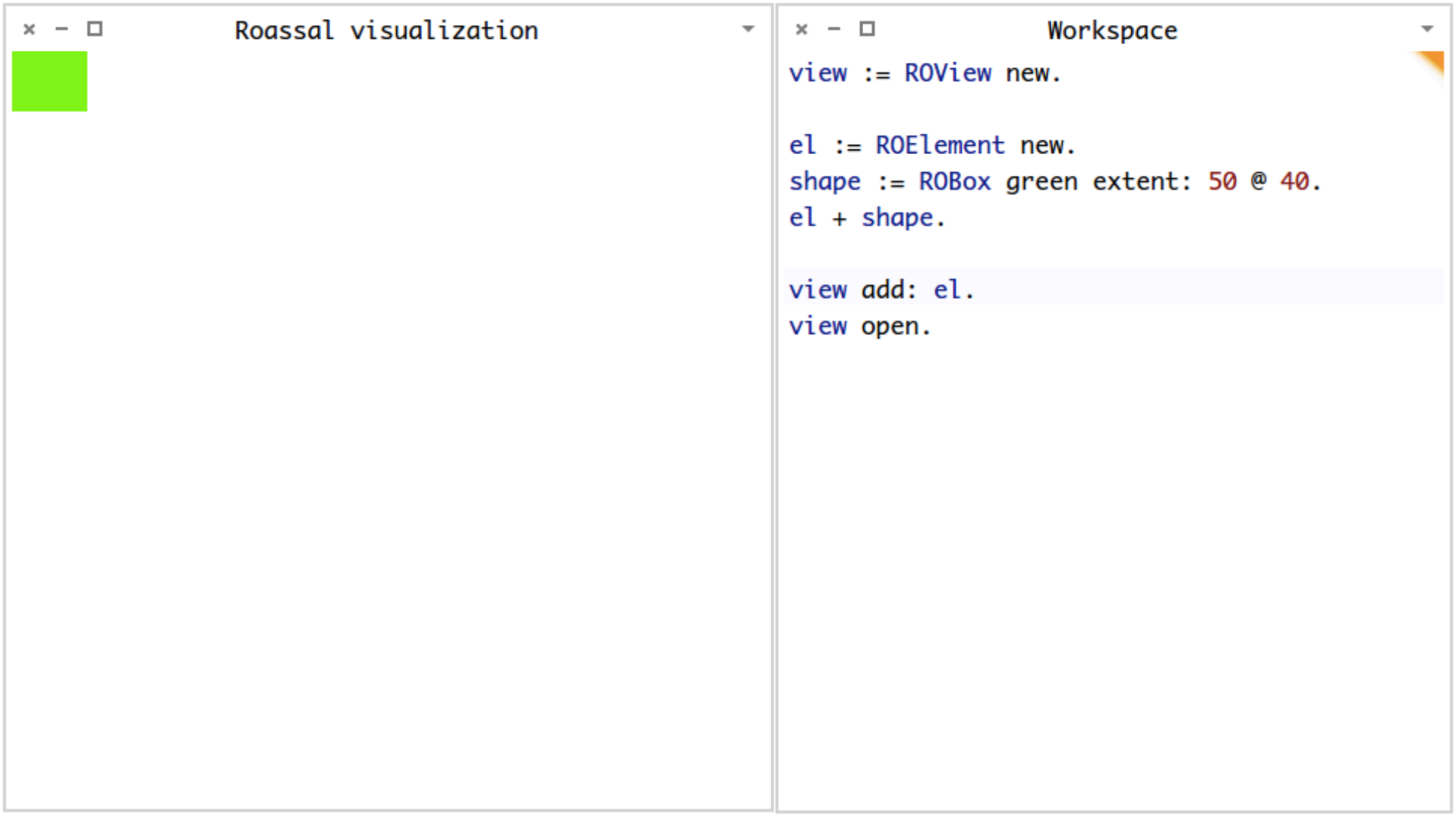
animation, data navigation, browsing, UI building, ...

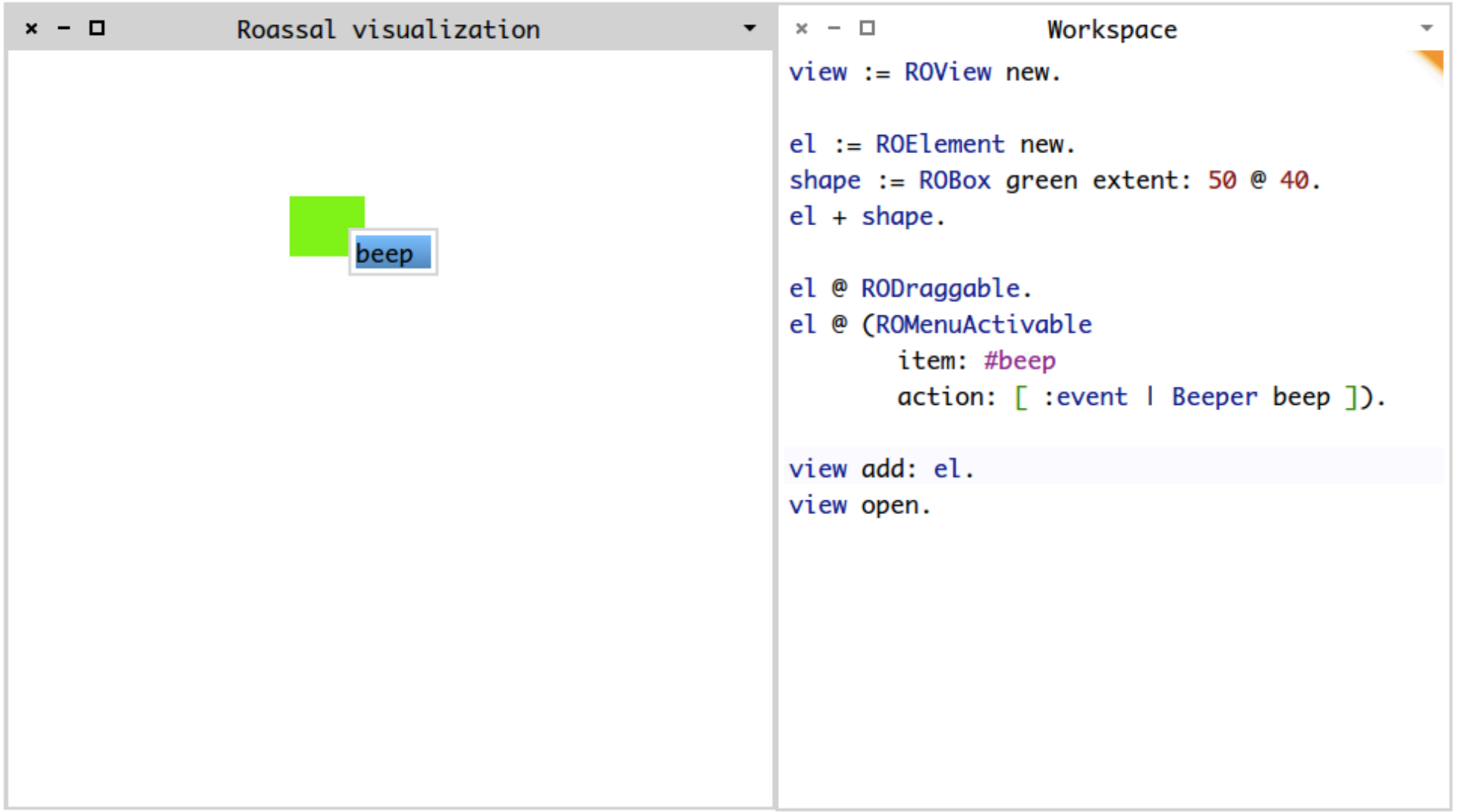

Roassal visualization
191
143
96
48
0
Workspace
color: Color red].
el := shape elementOn: cm.
el @ (ROPopup text: [:e | e
getSource]).
el @ (ROMenuActivable new
item: 'browse' action: [:e | e
model browse]).
container add: el].
ROGridLayout on: container elements.
container translateTo: (0 @ 250).
];
on: ROMouseEnter do: [:event |
ROBlink highlight: (hierarchy
elementFromModel: event model)
];
Roassal visualization
Save/Open
Export
Zoom in
Zoom out
Find...
Example...
Info...
"_____"
Workspace
Roassal visualization
Workspace
Roassal visualization
Roassal Easel Script
Roassal visualization

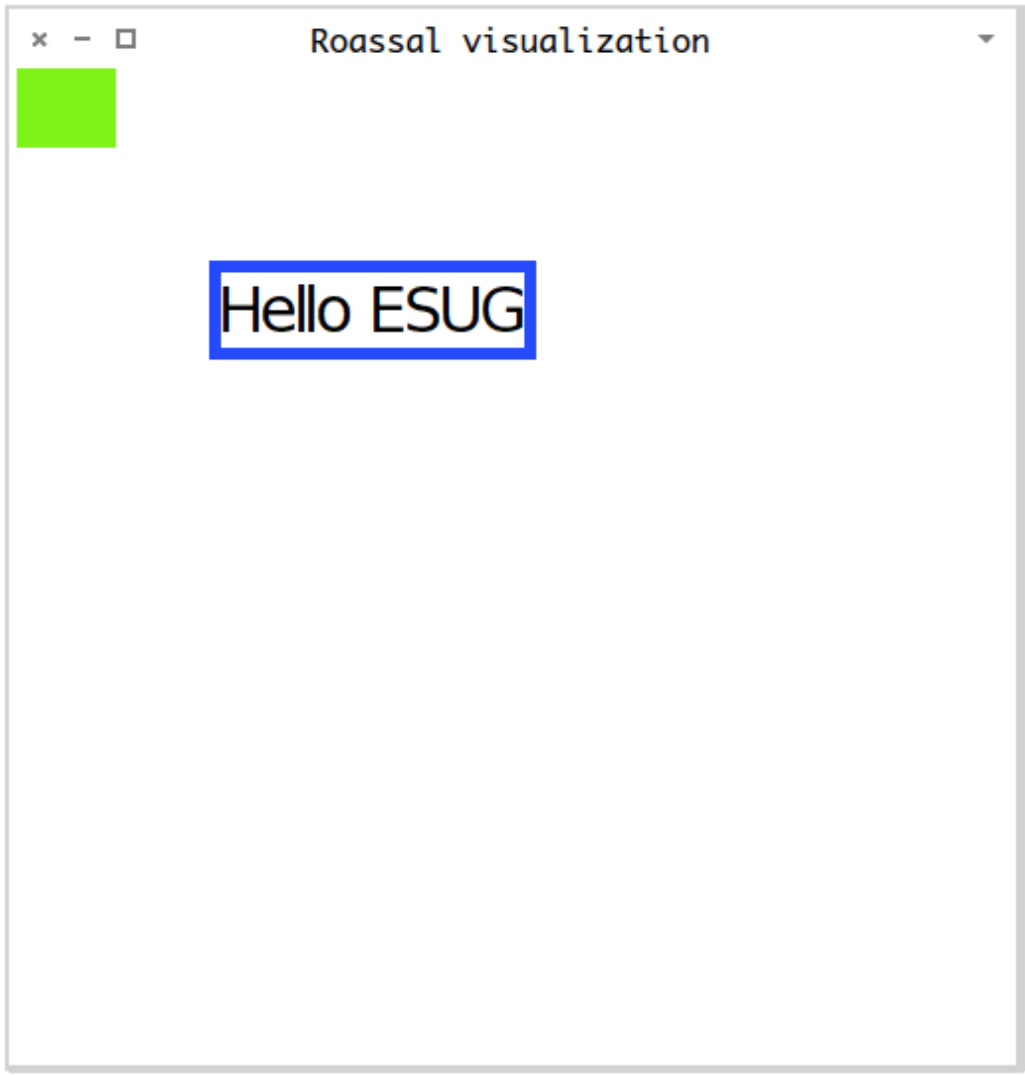

VisualWorks Edit Window Help
Tue 9:37 PM Alexandre Bergel
VisualWorks Personal Use /Users/alexandrebergel/vw7.9pul/ima...
File System Browse Debug Painter Store Tools Window Help
/Users/alexandrebergel/vw7.9pul/image/work6.im created at June 10, 2013 1:34:19 PM
/Users/alexandrebergel/vw7.9pul/image/work6.im created at June 10, 2013 3:01:13
PMprofiling...
ended...
Not connected
VisualLauncher class>>roassalIcon
Browser Edit Find View Package Class Protocol Method Tools Help
Find:
Package Class
Base VisualWorks
Glorp
ROZoomMove
ROZoomOnClick
Instance Class Shared Variable Instance Variable
accessing
class initialization
roassalIcon
Roassal visualization
Zoom in
Zoom out
Find a Class...
Find a Method...
Browser Edit Find
Package Class
Protocols-Common
SecurityBase
StoreForPostgreSC
SUnit (+175)
SUnit-Bridge2SU2
SUnitPreload
SUnitToo
UIPainter
Visual Source
canvas20x20
"UIMaskEditor new c
<resource: #image>
^CachedImage on: (
put: Graphics.ColorValue
Graphics.ColorValue whi
(Graphics.ColorValue sc
'H"H"H"H"H"H @@H"H
@@H"HBH"H"DRLBH @
@@H"H@QADQLB@"H
@@H"H"H"H"H"H @@
00.0)
<#RONFontLinearNormalizer>(100.0)
<#ROMondrianViewBuilder>(77.37)
lueLinearNormalizer>(57.14)
Method: #canvas20x20 (resources)
Package: Tools-Resources


ROWindow
untitled
ROWindow
untitled
Working
view nodes: EtWindow withAllSubclasses.
view edgesFrom: #superclass.
view treeLayout.
view open
| view |
view := ROMondrianViewBuilder new.
view shape rectangle
height: #numberOfMethods;
width: [:c | 5 * c numberOfVariables];
linearFillColor: #numberOfLinesOfCode within: Collection withAllSu
view nodes: Collection withAllSubclasses.
view edgesFrom: #superclass.
view treeLayout.
view open
Click Here to Inte


ROAmber demo
file:///Users/alexandrebergel/Dropbox/Workspace/RoassalAmber/amber-0-1.10/projects/roamber/index.html#
Reader
Google Sum... Home page
ST4U Videos
Import to Mendeley
TOPLAP | the...live coding
dope
bb
Meet John D...net Archive
WikiDCC
objectprofil...ject Hosting
Musique
SmalltalkHub
objectprofile.com/#Home
ROAmber demo
Choose example
Class Browser
treeLayout2
"
self new treeLayout
"
| view elements |
elements := ROElement forCollection: (1 to: 20).
elements do: [:n | n extent: 50@50; addShape: (ROBox new)].
view := ROView new.
view addAll: elements.
Transcript
Workspace
SUnit
Browser: ROElem...
ARoassal
ARoassal-AttachPoint
ARoassal-AttachPoint-Test
ARoassal-Demo
ARoassal-Event
ARoassal-Interaction
ARoassal-Interaction-Test
ARoassal-Layout
ARoassal-Layout-Test
ARoassal-Raphaeljs
ARoassal-Test
ROAnnouncer
ROObject
ROContainer
ROAbstractComponent
ROEdge
ROElement
ROView
ROShape
ROAbstractLineShape
ROLine
ROBox
*Roassal-Amber-Extentions
accessing
as yet unclassified
drawing
initialize
testing
absolutePosition
activateInteractions
addInteraction:
bounds
drawOn:
extent
extent:
height
initialize
isEdge
position
Commit
Rename
Remove
Instance
Class
Comment
1 ROAbstractComponent subclass: #ROElement
2 instanceVariableNames: 'position'
3 package: 'ARoassal'
Save
New class
Rename class
Copy class
Remove class
References
DoIt
PrintIt
InspectIt

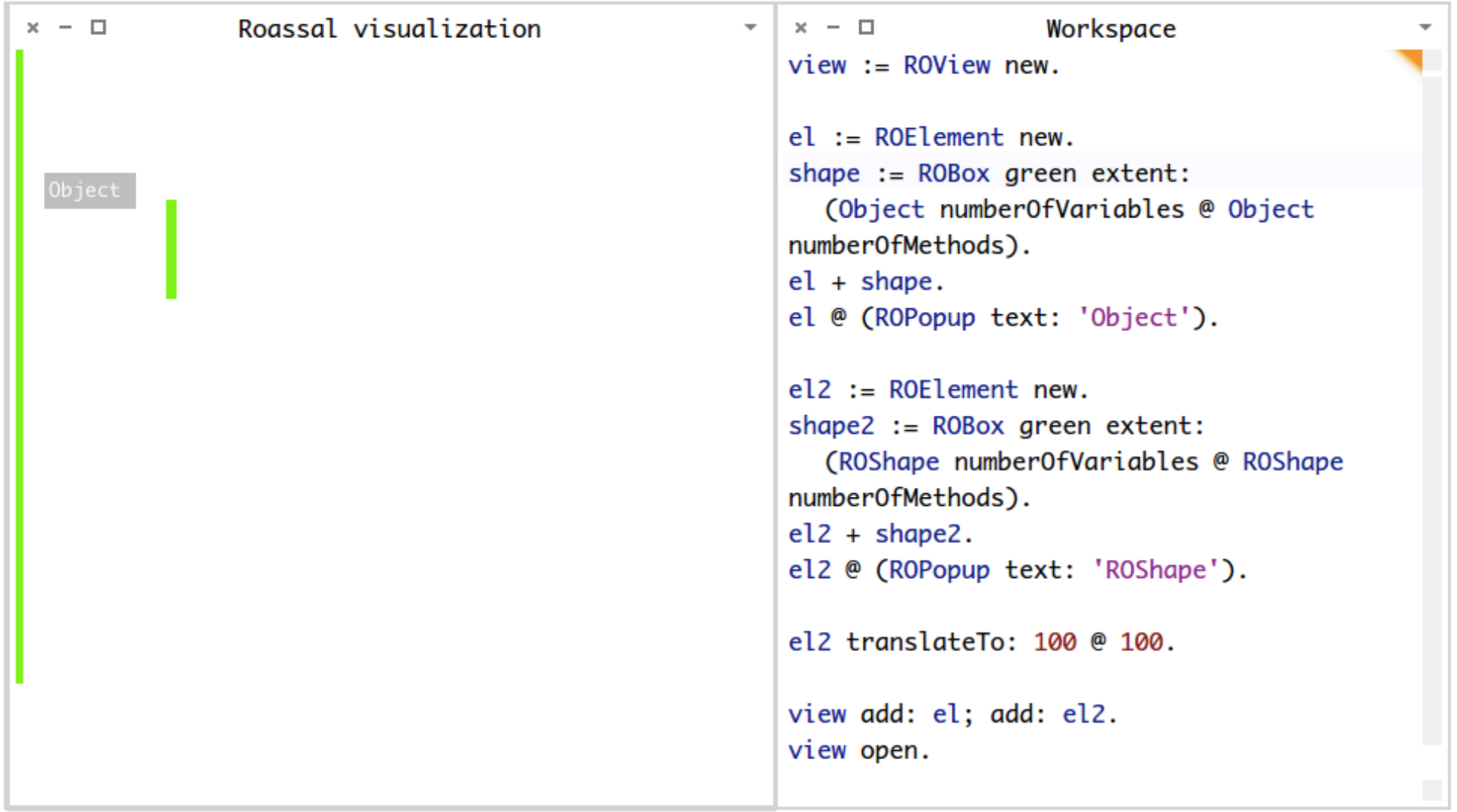

Roassal visualization
Workspace
view := ROView new.
el := ROElement new.
shape := ROBox green extent: 50 @ 40.
el + shape.
view add: el.
view open.

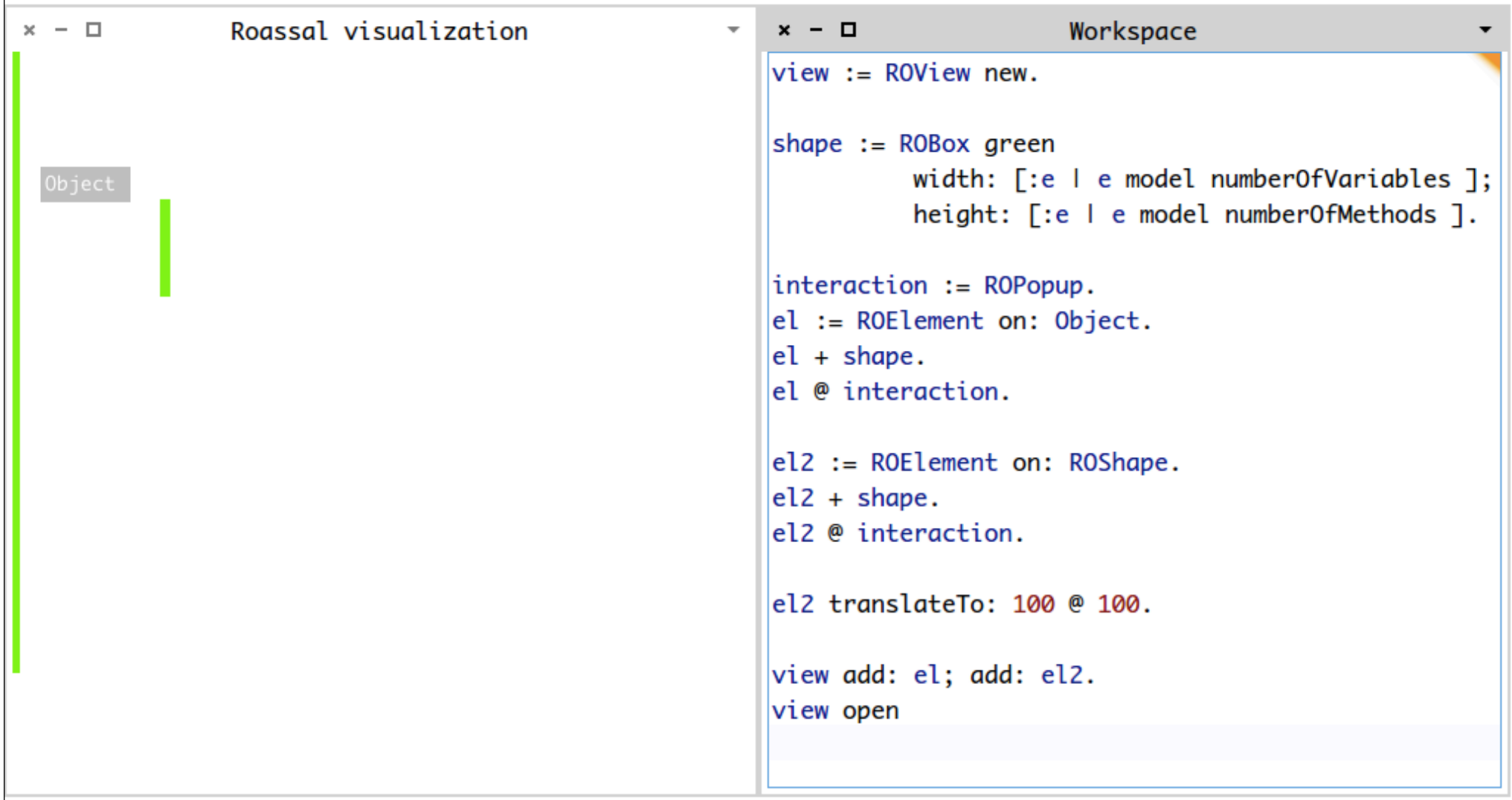

Roassal visualization
beep
Workspace
view := ROView new.
el := ROElement new.
shape := ROBox green extent: 50 @ 40.
el + shape.
el @ RODraggable.
el @ (ROMenuActivable
item: #beep
action: [:event | Beeper beep]).
view add: el.
view open.

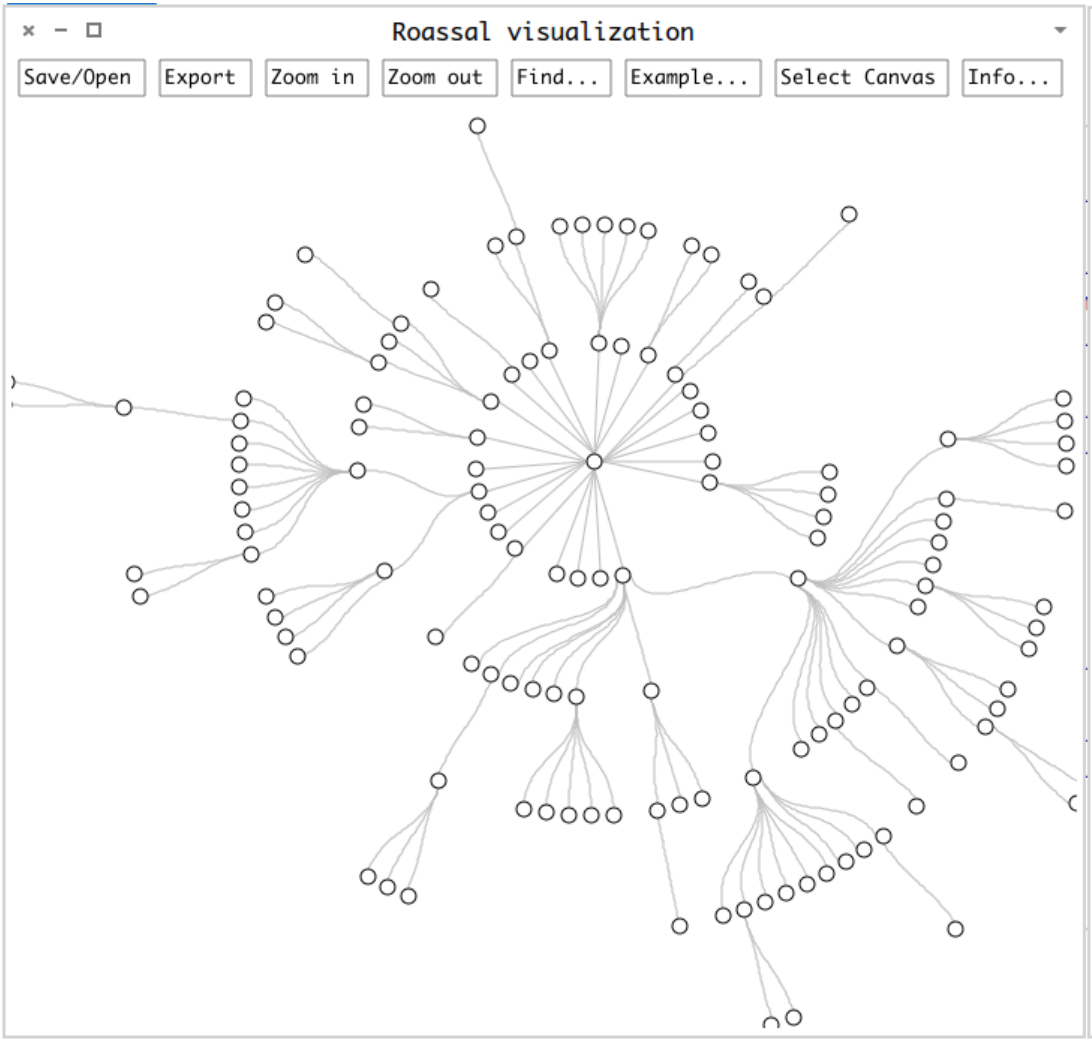


Workspace

```
view := ROView new.

el := ROElement new.
shape := ROBox green extent: 50 @ 40.
el + shape.

el2 := ROElement new.
el2 +
   (ROBorder blue strokeWidth: 6) +
   (ROLabel new
      fontSize: 40;
      text: 'Hello ESUG').

el2 translateTo: 100 @ 100.

view add: el; add: el2.
view open.
```

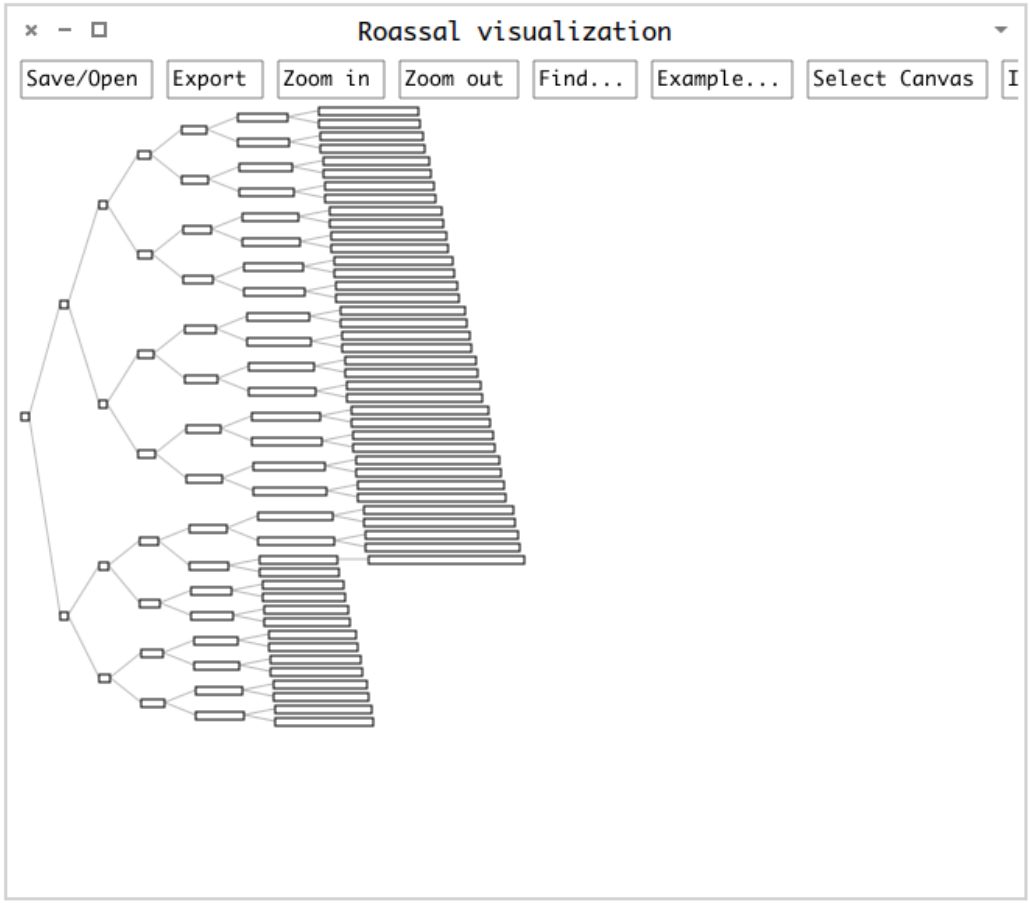

Roassal visualization
Object
Workspace
view := ROView new.
el := ROElement new.
shape := ROBox green extent:
(Object numberOfVariables @ Object
numberOfMethods).
el + shape.
el @ (ROPopup text: 'Object').
el2 := ROElement new.
shape2 := ROBox green extent:
(ROShape numberOfVariables @ ROShape
numberOfMethods).
el2 + shape2.
el2 @ (ROPopup text: 'ROShape').
el2 translateTo: 100 @ 100.
view add: el; add: el2.
view open.


Roassal visualization
Object
Workspace
view := ROView new.
shape := ROBox green
width: [:e | e model numberOfVariables];
height: [:e | e model numberOfMethods].
interaction := ROPopup.
el := ROElement on: Object.
el + shape.
el @ interaction.
el2 := ROElement on: ROShape.
el2 + shape.
el2 @ interaction.
el2 translateTo: 100 @ 100.
view add: el; add: el2.
view open



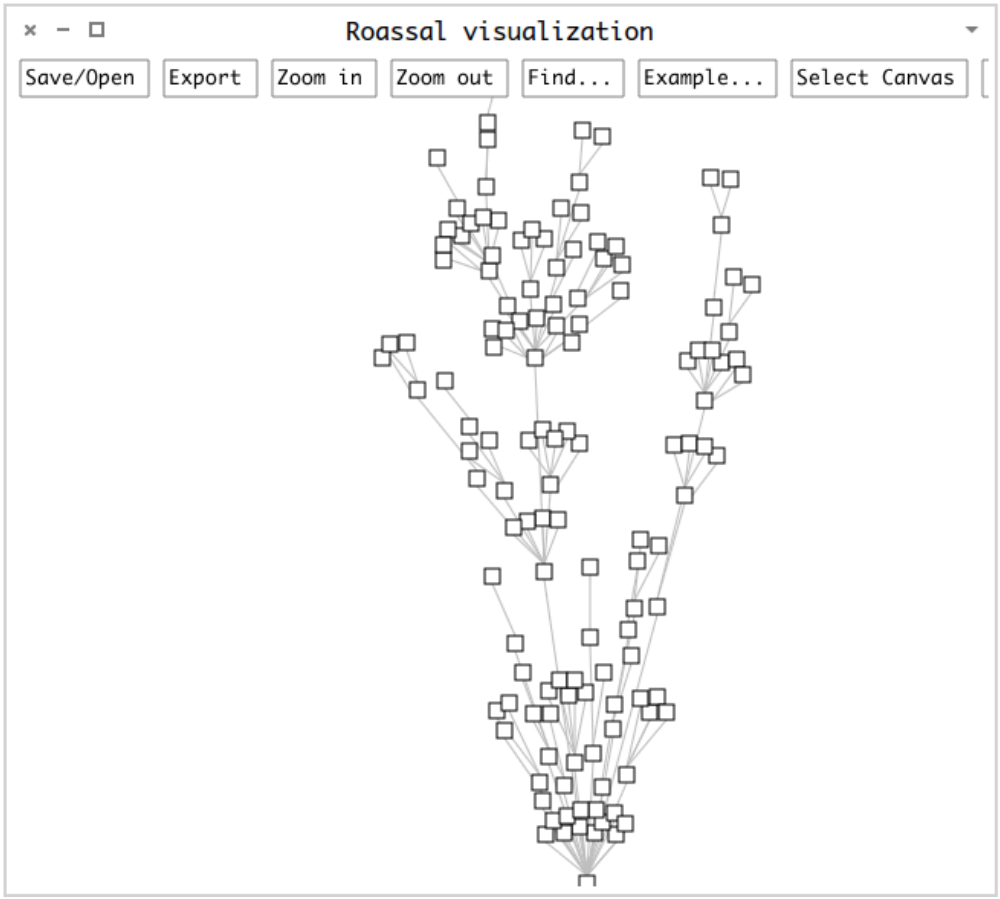
Roassal Easel Script

```
"Source code: ROMondrianExample>>bezierCurveOn:"
"Preambule. It includes the initialization. "
| view rawView  |
rawView := ROView new.
view := ROMondrianViewBuilder view: rawView.
"-------------"
"-------------"

view shape circle size: 10.
view nodes: (Collection withAllSubclasses).
view shape bezierLine.
view edgesFrom: #superclass.
view radialTreeLayout.
view center.

"-------------"
"-------------"
"Below is the initiation of the menu and opening the
visualization"
ROEaselMorphic new populateMenuOn: view.
view open
```



Roassal Easel Script

```
"Source code:
ROMondrianExample>>horizontalTreeLayoutNoLayeredOn:"
"Preambule. It includes the initialization. "
| view rawView |
rawView := ROView new.
view := ROMondrianViewBuilder view: rawView.
"-------------"
"-------------"

view shape rectangle width: #yourself.
view nodes: (1 to: 100).
view edgesFrom: [:x | x // 2  ].
view horizontalTreeLayout.

"-------------"
"-------------"
"Below is the initiation of the menu and opening the
visualization"
ROEaselMorphic new populateMenuOn: view.
view open
```



Roassal Easel Script

```
    layout fix: event element at: event element position.
    layout iterationsToSendEvent: 10.
    layout on: ROLayoutStep do: [ :ev | view raw
signalUpdate. World doOneCycle ].
     view layout: layout.
    view applyLayout ].


  view shape rectangle size: 10.
  view nodes: (Collection withAllSubclasses).
  view edgesFrom: #superclass.

  layout := ROForceBasedLayout new.
  layout fix: (view nodes last) at: 450@450;
          gravityAt: 437@38 .

  view layout: layout.

"-------------"
"-------------"
"Below is the initiation of the menu and opening the
visualization"
ROEaselMorphic new populateMenuOn: view
```

Demo time

ROMondrianExample>>dynamic3

ROMondrianExample>>miniMapOn:

Smart Browser
Visual ID
Spline
Hierarchical Bundle Edges

Scalability

Exporter PNG, SVG

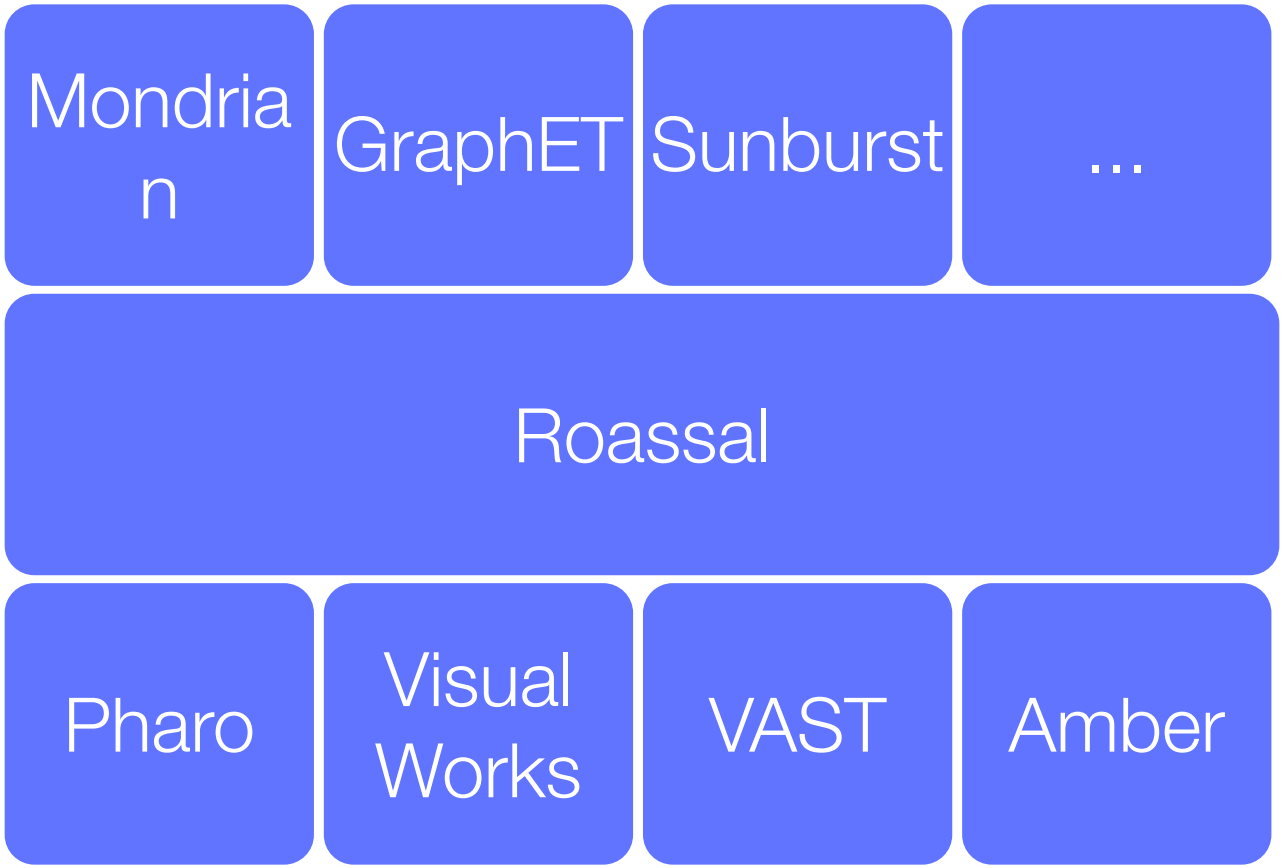
Smooth zooming in/out

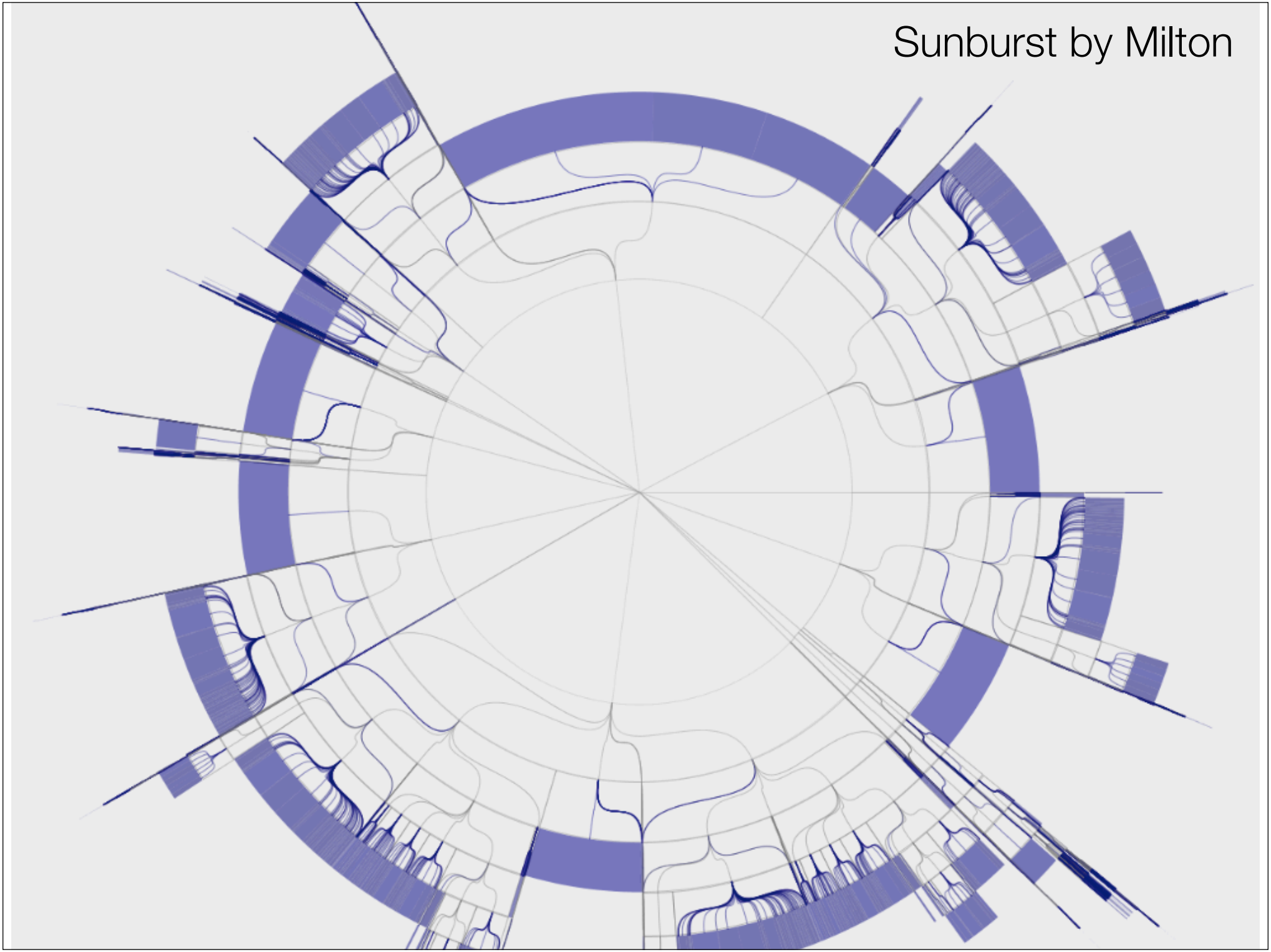
Extended set of tests

Many layouts

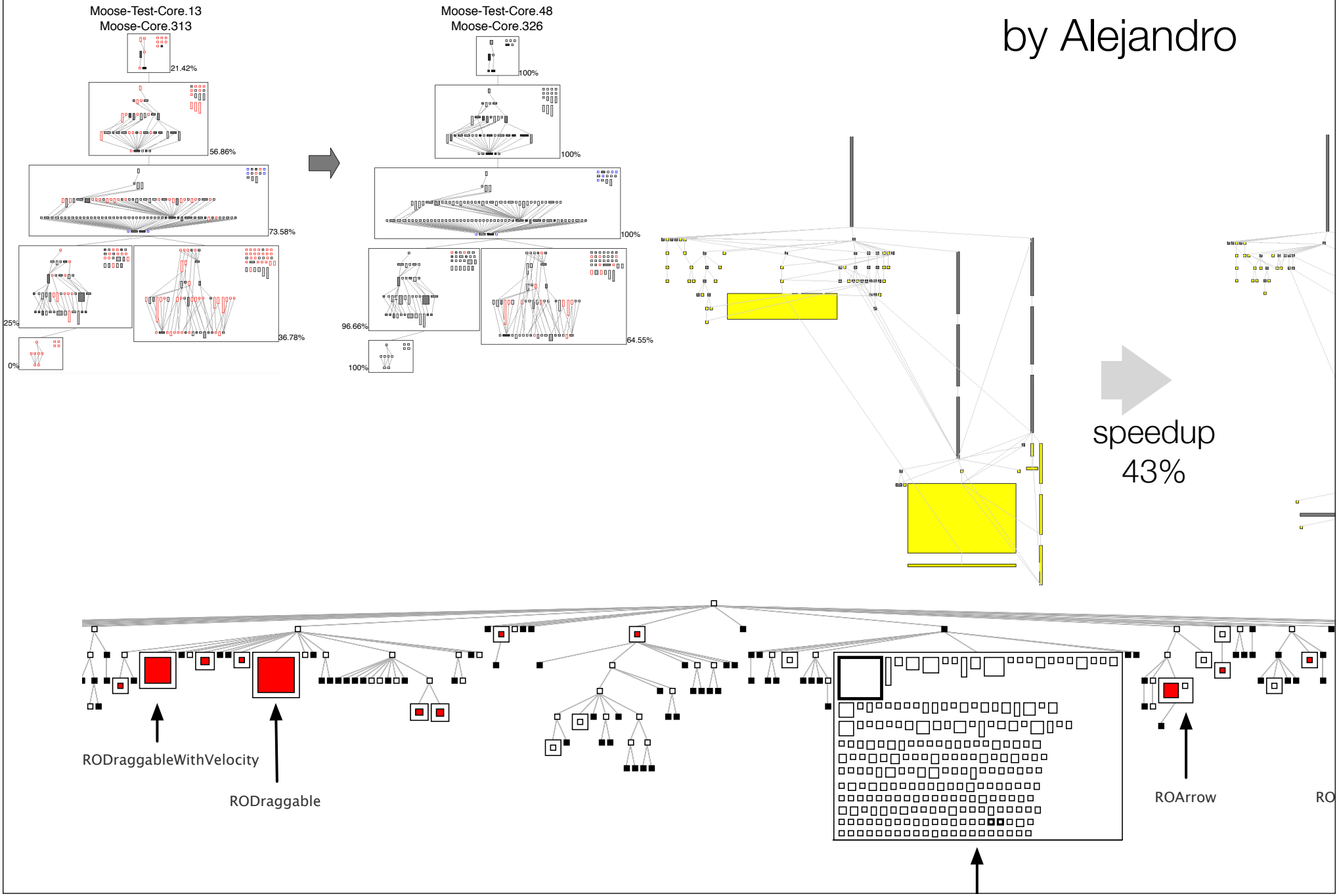
Cairo / Athens support

Integration with GraphViz


Mondrian
GraphET
Sunburst
...
Roassal
Pharo
Visual Works
VAST
Amber

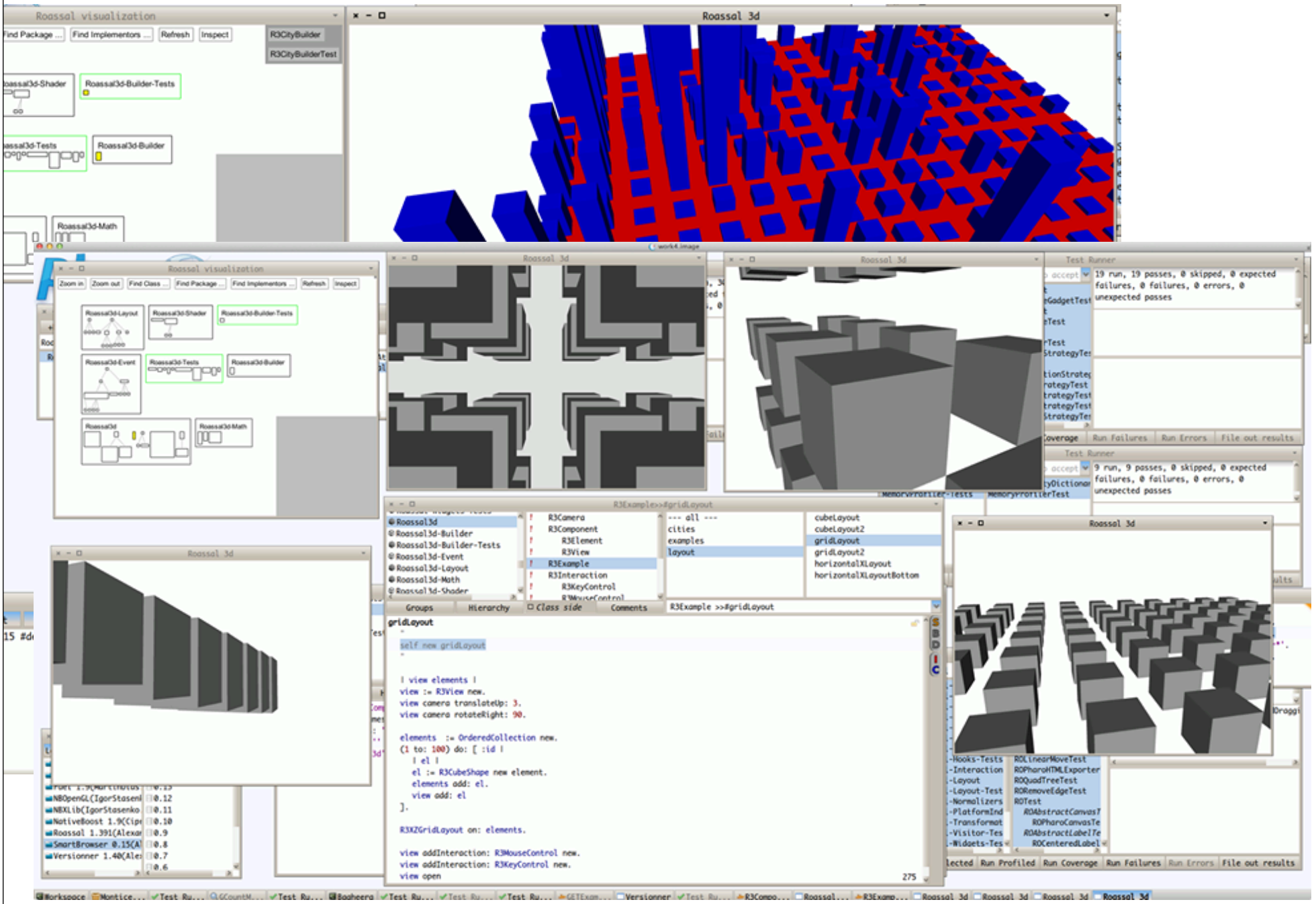

Sunburst by Milton

Application to visualize execution by Alejandro



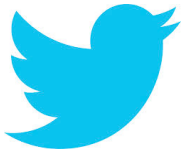
TreeMap, in QuickSilver, by Dennis Schenk

Sunburst by Milton and Ronie



Agile Visualization
with Roassal

Scripting Visualizations
with Mondrian



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