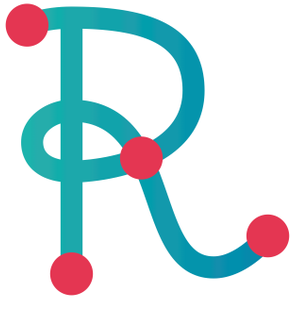


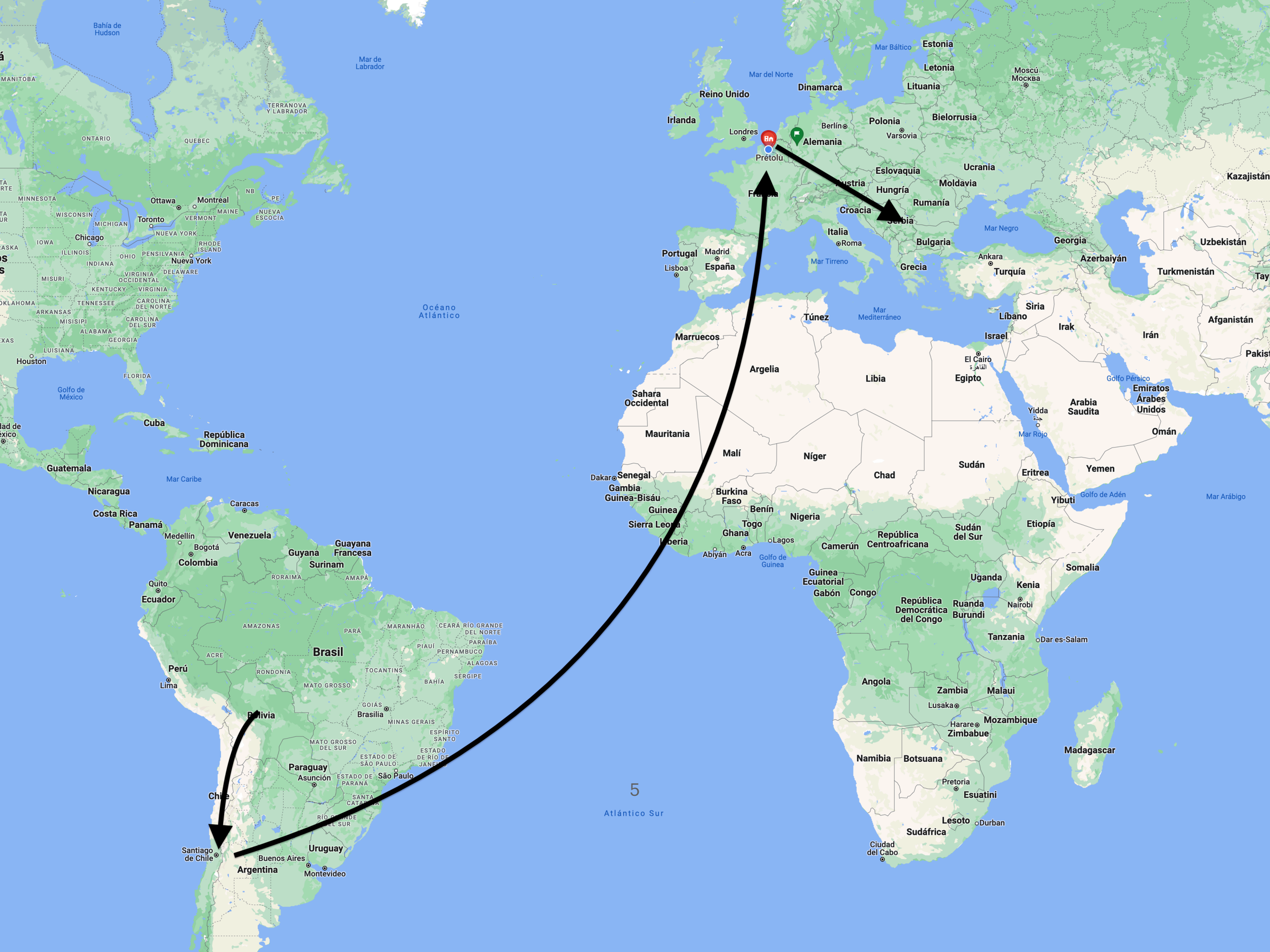
oassal3 updates:

Current status and next step

Milton Mamani. August - 2022 Novi Sad

Who I am?

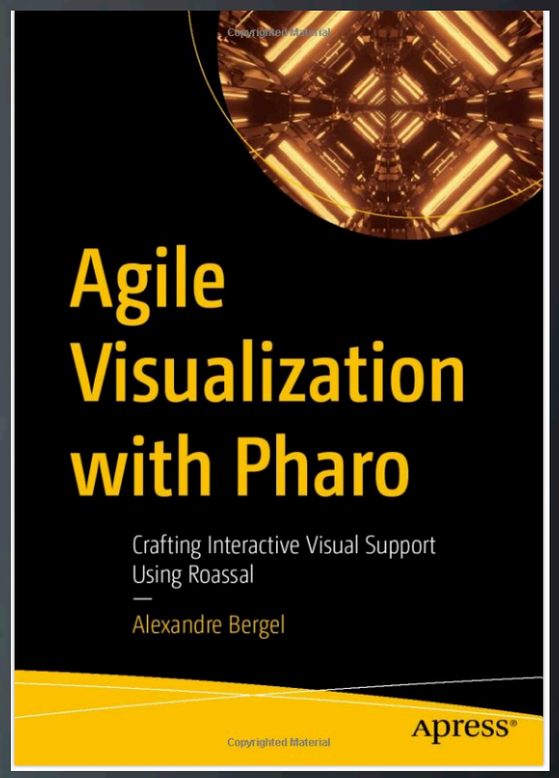
Name: Milton Mamani Torres
Country: Bolivia
Occupation: Software Engineer in Rmod team, Inria
Email: akevalion@gmail.com


Bahía de Hudson
Mar de Labrador
Océano Atlántico
Mar Báltico
Mar del Norte
Mar Negro
Mar Tirreno
Mar Mediterráneo
Mar Caribe
Golfo de México
Golfo Pérsico
Mar Rojo
Golfo de Adén
Mar Arábigo
Golfo de Guinea
Atlántico Sur
Reino Unido
Irlanda
Londres
Prétolu
Alemania
Berlín
Dinamarca
Estonia
Letonia
Lituania
Moscú
Москва
Polonia
Varsovia
Bielorrusia
Ucrania
Eslovaquia
Hungría
Moldavia
Rumanía
Croacia
Italia
Roma
Bulgaria
Grecia
Portugal
Lisboa
Madrid
España
Turquía
Ankara
Georgia
Azerbaiyán
Uzbekistán
Turkmenistán
Kazajistán
Siria
Líbano
Israel
Irak
Irán
Afganistán
Pakistán
Egipto
El Cairo
القاهرة
Libia
Túnez
Marruecos
Argelia
Sahara Occidental
Mauritania
Malí
Níger
Chad
Sudán
Eritrea
Yemen
Arabia Saudita
Yidda
جدة
Emiratos Árabes Unidos
Omán
Senegal
Dakar
Gambia
Guinea-Bisáu
Guinea
Sierra Leona
Liberia
Burkina Faso
Benín
Togo
Ghana
Nigeria
Abiyán
Acra
Lagos
Camerún
República Centroafricana
Sudán del Sur
Etiopía
Somalia
Guinea Ecuatorial
Gabón
Congo
República Democrática del Congo
Uganda
Kenia
Nairobi
Ruanda
Burundi
Tanzania
Dar es-Salam
Angola
Zambia
Malaui
Lusaka
Mozambique
Harare
Zimbabue
Namibia
Botsuana
Pretoria
Esuatini
Lesoto
Durban
Sudáfrica
Ciudad del Cabo
Madagascar
Yibuti
Ottawa
Montréal
Toronto
Chicago
Nueva York
Houston
Cuba
República Dominicana
Guatemala
Nicaragua
Costa Rica
Panamá
Caracas
Venezuela
Medellín
Bogotá
Colombia
Guyana
Guyana Francesa
Surinam
Quito
Ecuador
Perú
Lima
Brasil
Bolivia
Paraguay
Asunción
Chile
Santiago de Chile
Argentina
Buenos Aires
Uruguay
Montevideo
São Paulo
Brasilia
MANITOBA
ONTARIO
QUEBEC
TERRANOVA Y LABRADOR
NB
PE
NUEVA ESCOCIA
MAINE
VERMONT
NUEVA YORK
RHODE ISLAND
PENSILVANIA
DELAWARE
OHIO
INDIANA
ILLINOIS
MICHIGAN
WISCONSIN
MINNESOTA
IOWA
MISURI
KENTUCKY
VIRGINIA
VIRGINIA OCCIDENTAL
CAROLINA DEL NORTE
CAROLINA DEL SUR
TENNESSEE
ARKANSAS
MISISIPI
ALABAMA
GEORGIA
LUISIANA
FLORIDA
OKLAHOMA
TEXAS
RORAIMA
AMAPÁ
AMAZONAS
PARÁ
MARANHÃO
CEARÁ
RÍO GRANDE DEL NORTE
PARAÍBA
PIAUÍ
PERNAMBUCO
ALAGOAS
SERGIPE
BAHÍA
ACRE
RONDONIA
TOCANTINS
MATO GROSSO
GOIÁS
MINAS GERAIS
ESPÍRITO SANTO
MATO GROSSO DEL SUR
ESTADO DE SÃO PAULO
ESTADO DE RÍO DE JANEIRO
ESTADO DE PARANÁ
SANTA CATARINA
RÍO GRANDE DEL SUR

What is Roassal?

A tool to visualize data

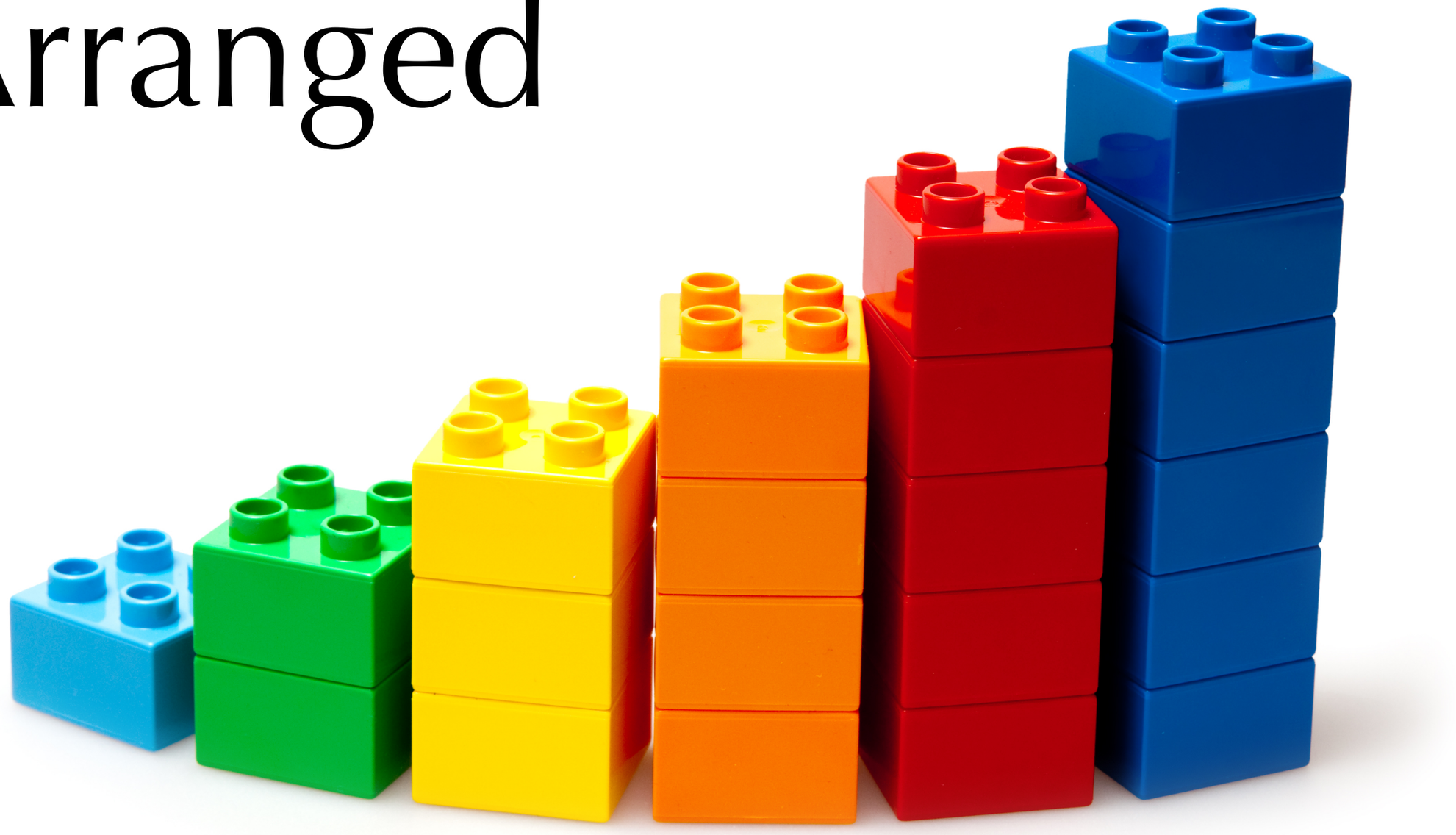
Created by:
Alexandre Bergel
http://bergel.eu/



Data

Sorted

Arranged



Explained with a story

Data can have many presentations

DEMO

New Features

Export into other file formats

Export into other file formats

SVG import support

Playgroun

Do it | Publish | Bindings | Versions | Pages

```
1 canvas := RSCanvas new.
2 tiger := RSSVGImporter fromString: 'Tiger.svg' asFileReference contents.
3 canvas add: tiger.
4 canvas zoomToFit
5
```

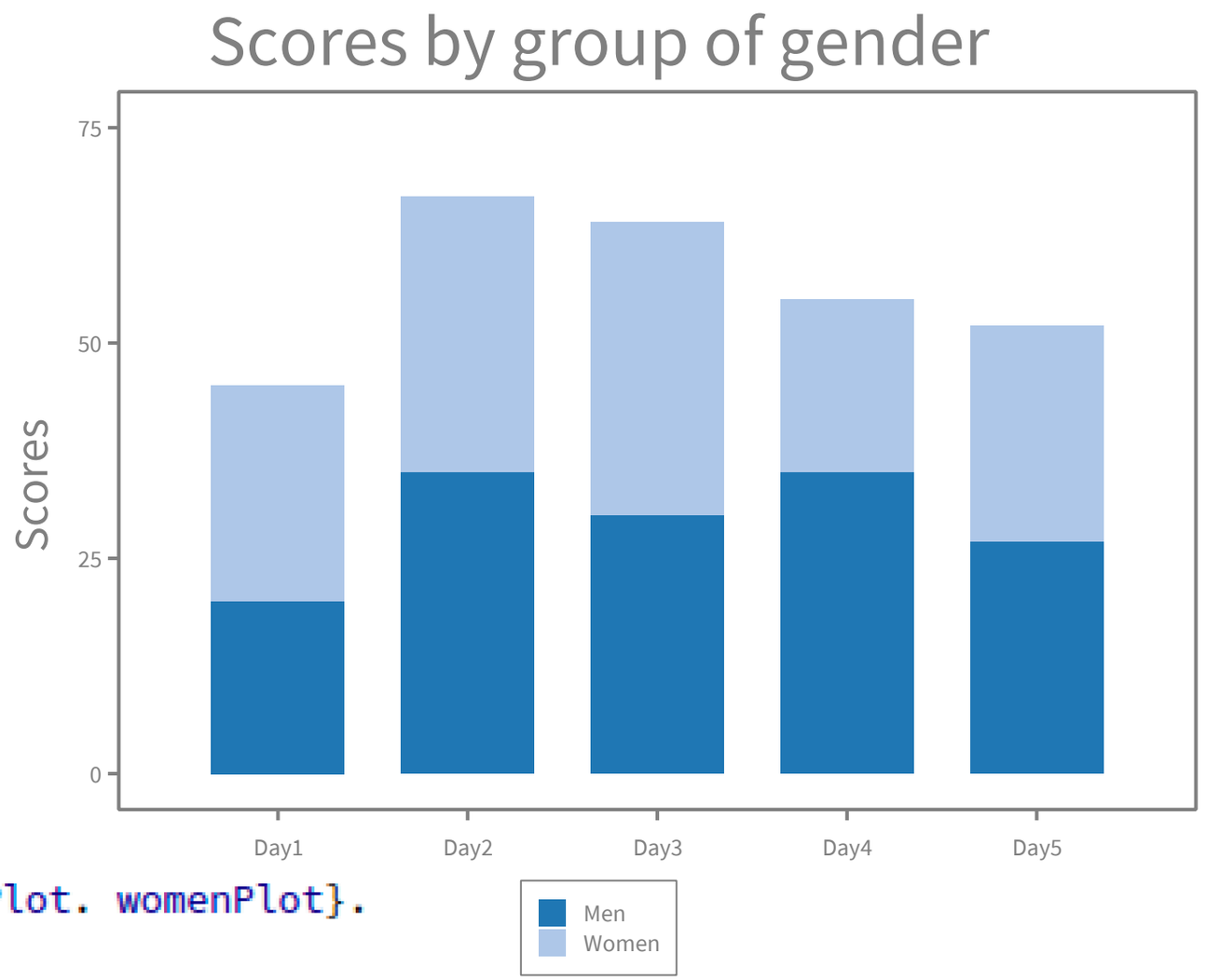
Inspector on a RSCanvas

a RSCanvas

Canvas | Shapes | Raw | Breakpoints | Meta

Chart library

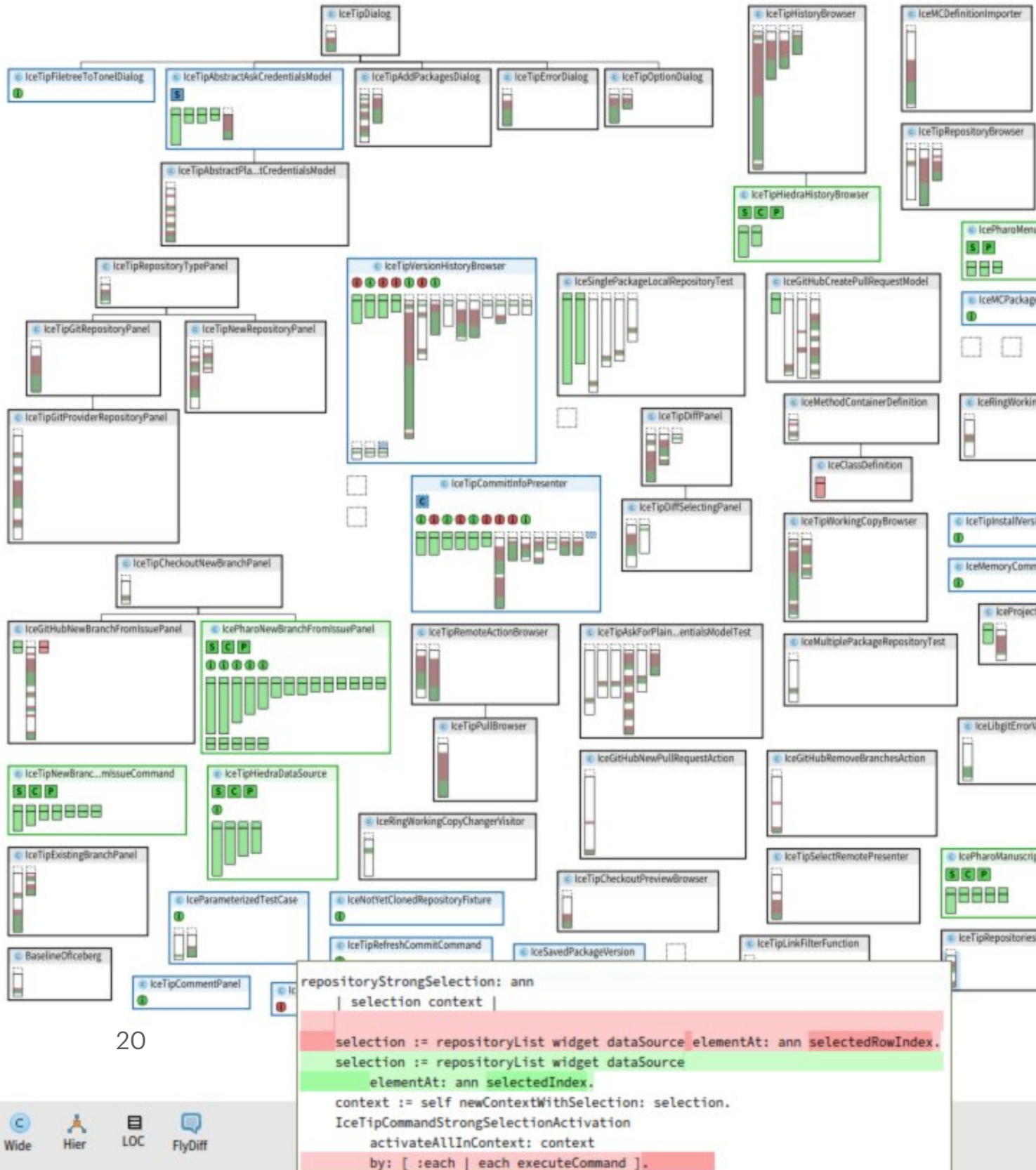
```
menMeans := #(20 35 30 35 27).
womenMeans := #(25 32 34 20 25).

menPlot := DCBarPlot new
    y: menMeans;
    name: 'Men'
    yourself.
womenPlot := DCBarPlot new
    y: womenMeans;
    name: 'Women';
    yourself.

combinedPlot := DCStackBarPlot withAll: {menPlot. womenPlot}.
settings := combinedPlot settings.
settings xtick fromNames: #(Day1 Day2 Day3 Day4 Day5).
settings ytick integer.

combinedPlot
    title: 'Scores by group of gender';
    padding: 0.3;
    ylabel: 'Scores';
    xlabel: '';
    legendDo:[:lb | lb location below ];
    show.
```



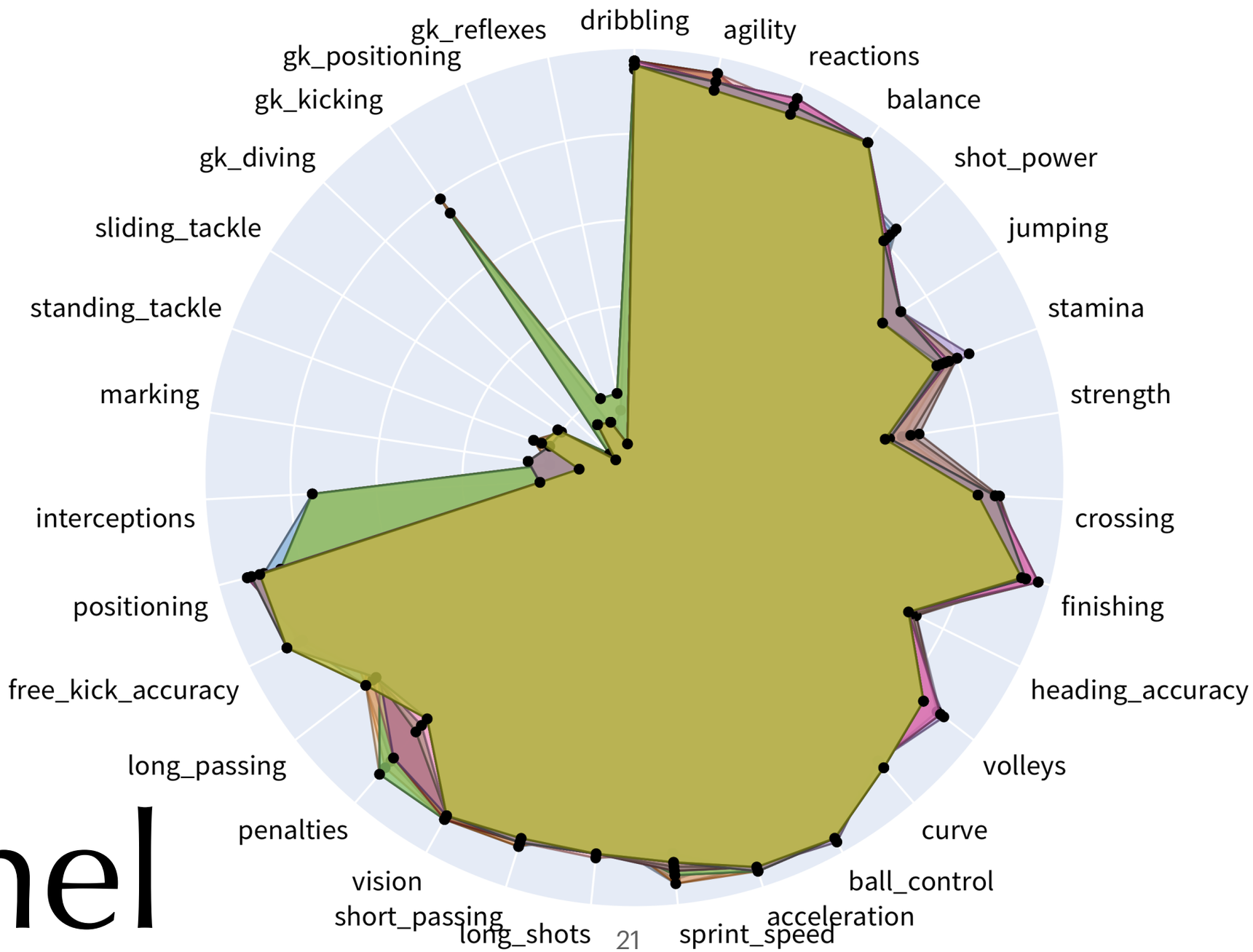
Better support for UML classes

Home | iceberg

Fix 1237
Merge branch 'dev-1.0' into 1234-Do-a-pass-on
Rename flags te make FlagBrowser more user friendly. Fixe 15 May 19
v1.7.0 Cleaning undeclareds 14 May 19
Merge pull request #1233 from guillep/tonel-1.0.14 tone 10 May 19
Fix beInvisible => bePassword 10 May 19
Upgrade to Tonel 1.0.14 10 May 19
fix PR dialog (but layouts, focus and modals are broken) 30 Apr 19
fix new pull request dialog (at least the deprecation) 30 Apr 19
Fix #1225 Implement visiting of conflicting operations by del 18 Apr 19
Add tests for case #1225 18 Apr 19
Fix #1229 - Rename remoteFileReferenceInPath: => removeF 18 Apr 19
Add tests for case #1229 18 Apr 19
Fix UI tests + adapting to latest spec 16 Apr 19
Fix #1231 16 Apr 19
Merge pull request #1214 from estebanlm/fix/tonel-issue 16 Apr 19
Merge pull request #1210 from guillep/feature/spec2 fea 16 Apr 19
Merge branch 'dev-1.0' into feature/spec2 16 Apr 19
Merge pull request #1212 from jecisc/1211-Some-pre 16 Apr 19
Merge pull request #1218 from tinchodias/1217-Intro 16 Apr 19
Fix #1220 16 Apr 19
Merge a54fce5f9441ffd42f3bc508bc3d385e8d0a4563 16 Apr 19
Fix #1230 - use correct url to force a 404 - enforce no 16 Apr 19
Merge pull request #1223 from Alisu/Issue/2998 I 16 Apr 19
Merge pull request #1228 from demarey/patch-1 16 Apr 19
autodeprecations 15 Apr 19
autodeprecations 15 Apr 19
allow to get the list of available project readers 11 Apr 19
Make clone test run on HTTPS to be executable even if SSI 1 Apr 19
Fix tests for latest pharo 8 1 Apr 19
Fixing because a change in Smalltalk CI 29 Mar 19
The update of reprime is not needed anymore 29 Mar 19
Merge branch 'dev-1.0' of github.com:pharo-vcs/iceberg 29 Mar 19
Removing Pharo 6 and adding Pharo 8 29 Mar 19
Fix https://github.com/pharo-project/pharo/issues/ 29 Mar 19
v1.6.0 Merge 3c33bc5a2d8f06138ab547535353fb191 29 Mar 19
Merge pull request #1202 from hogoww/master 29 Mar 19
Add a Hiedra column to the Repository window. I ac 19 Mar 19
Fixes pharo-vcs/tonel#74 13 Mar 19
fix-migration-of-tagged-packages Merge branch 13 Mar 19
ensures base category for packages who define a 13 Mar 19
Do not override ComposablePresenter>>extent Fi 8 Mar 19
Update README.md 6 Mar 19
Merge pull request #1205 from jecisc/1199-Add-a-c 5 Mar 19

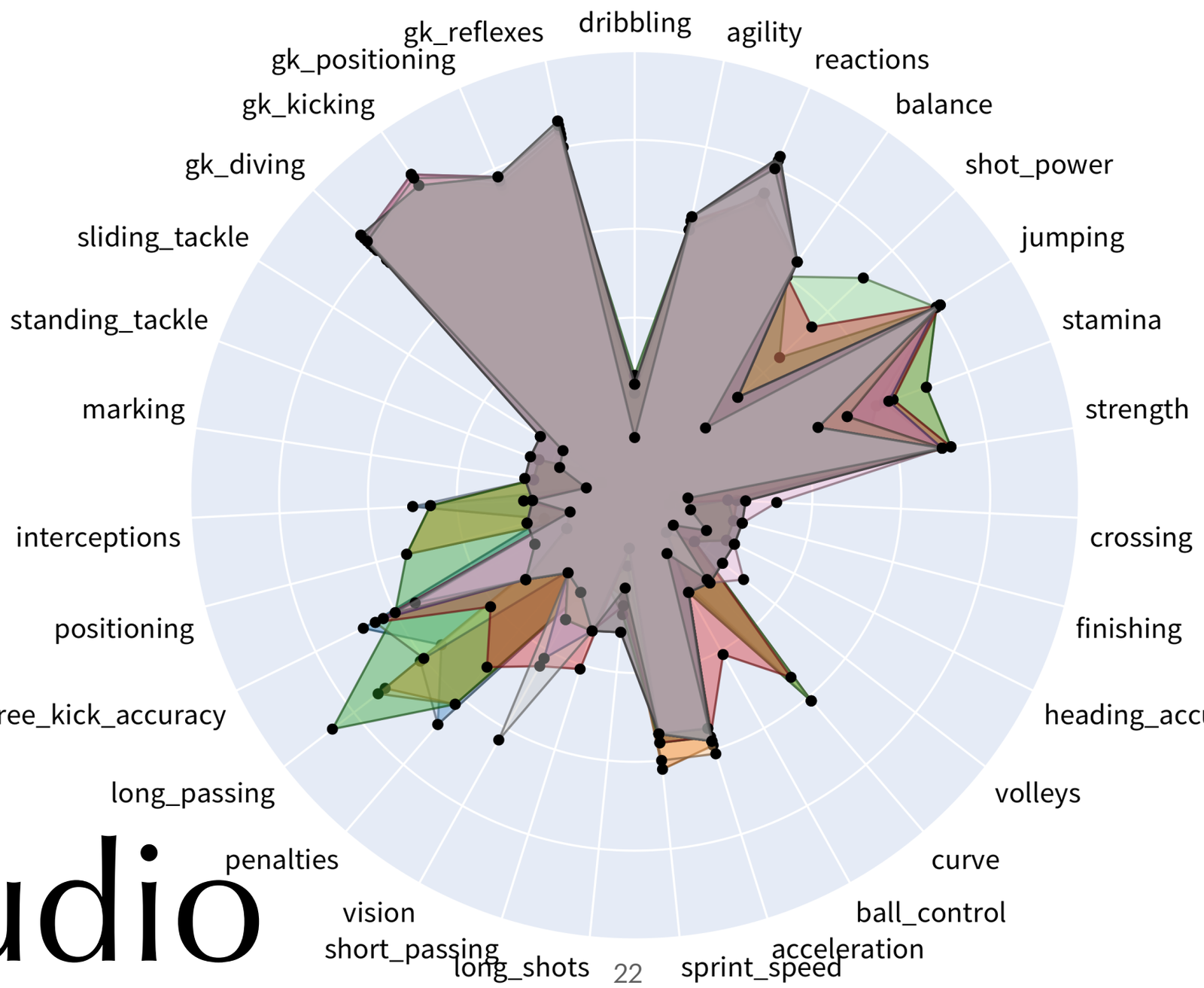


Kiviat

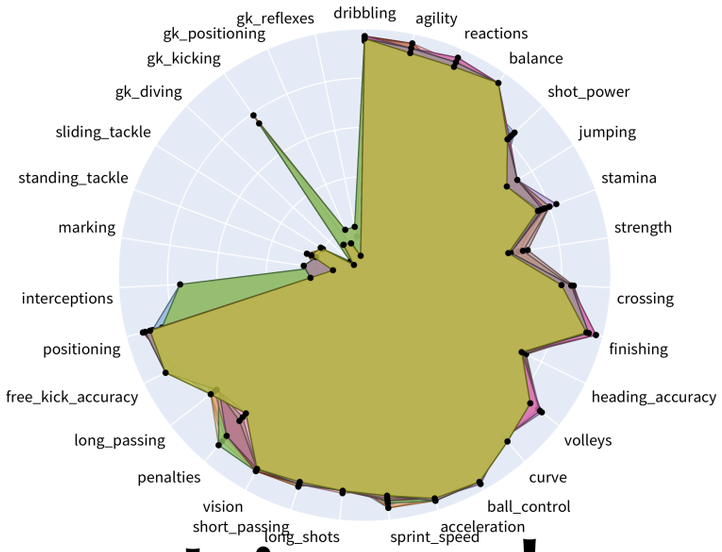


Lionel Messi

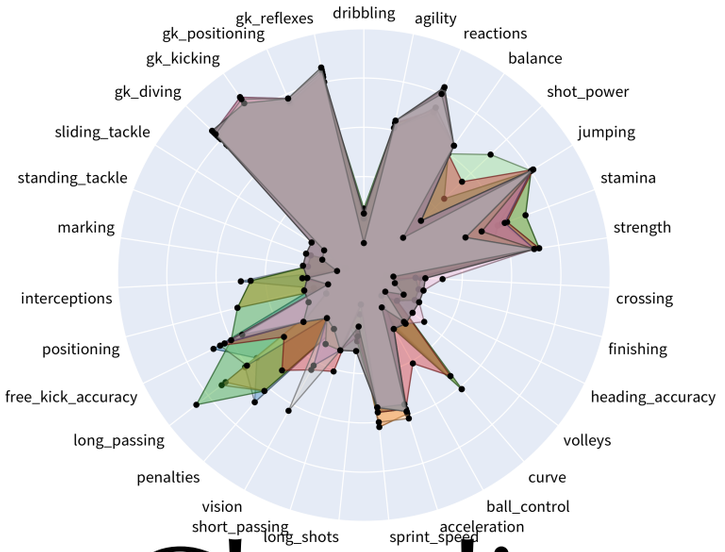
Kiviat



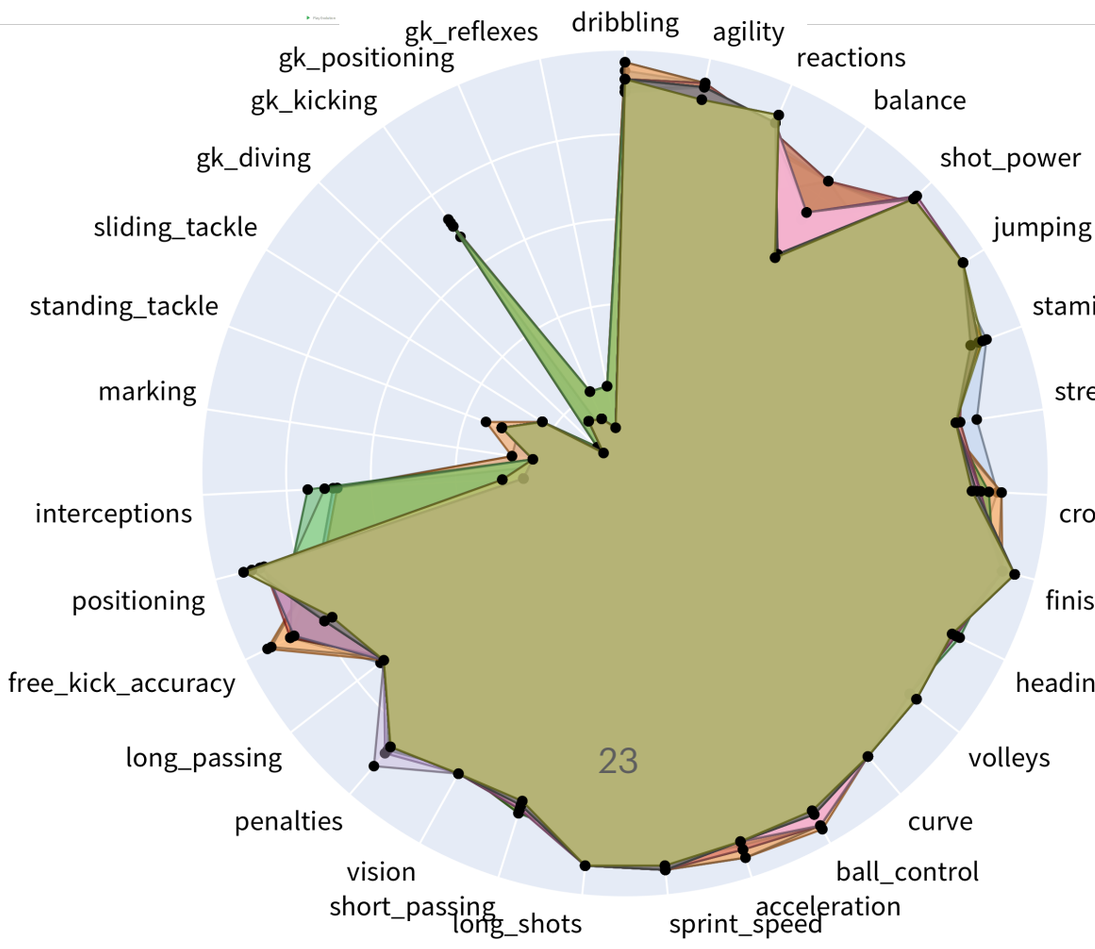
Claudio Bravo



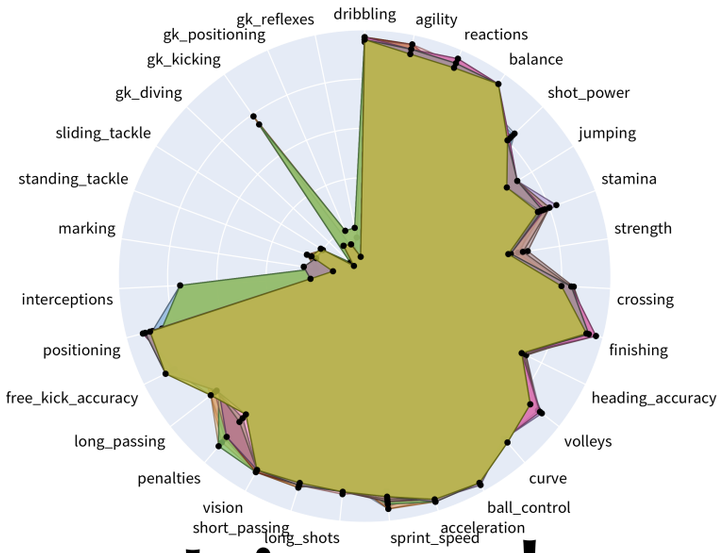
Lionel Messi



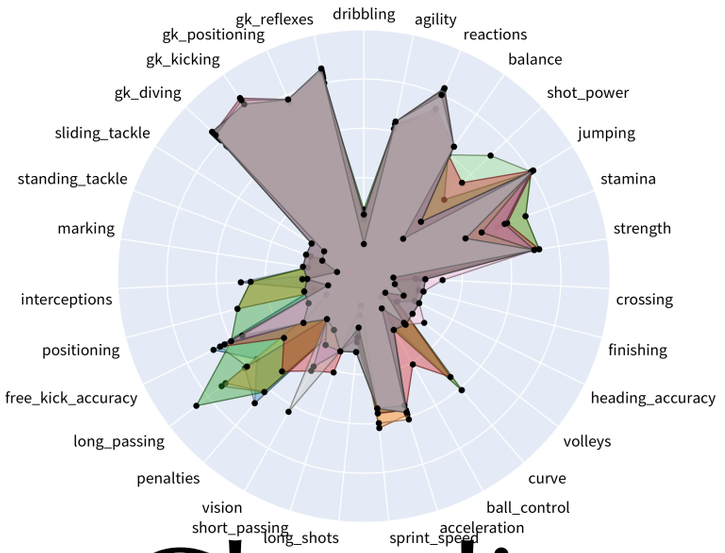
Claudio Bravo



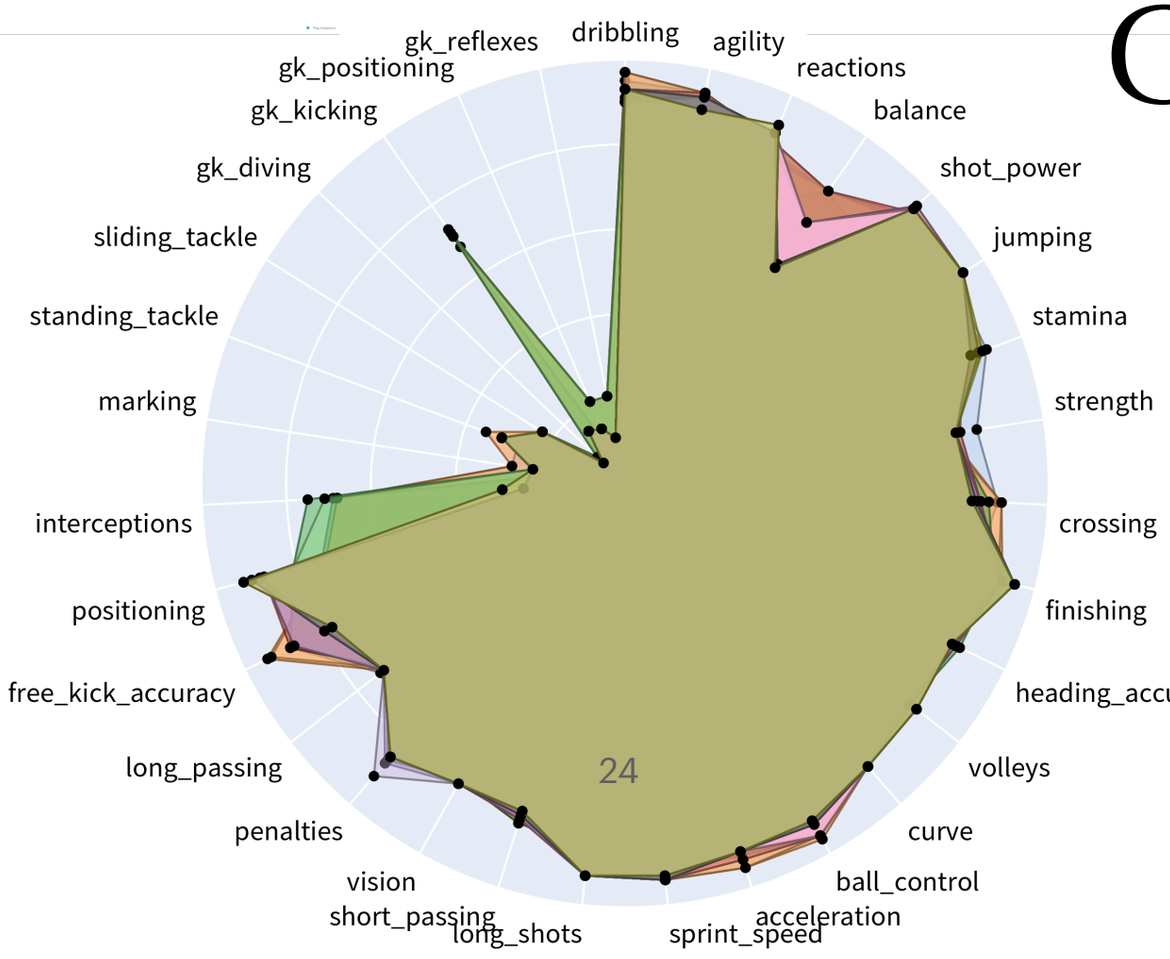
?



Lionel Messi



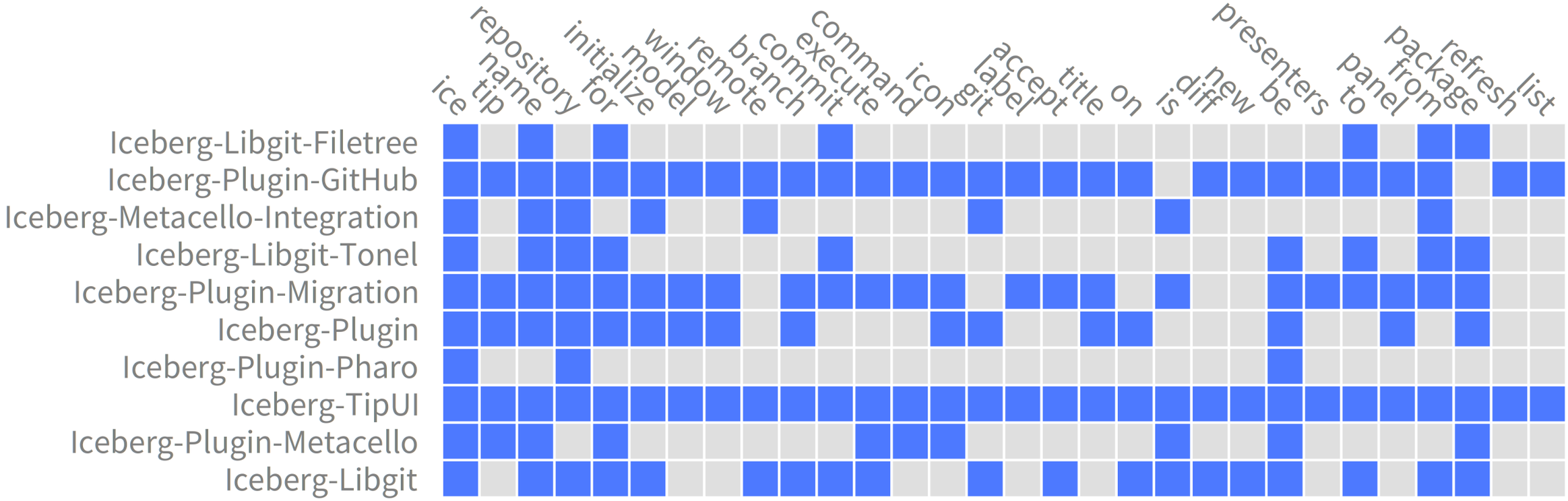
Claudio Bravo



Cristiano Ronaldo

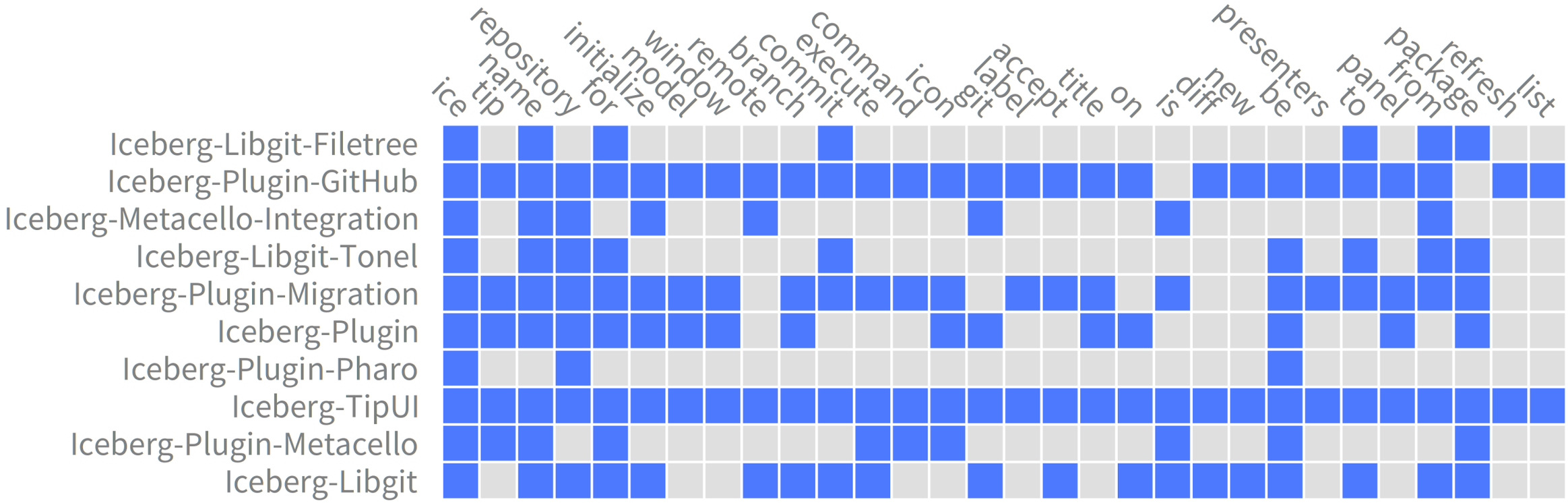
Dependency Structure Matrix

Top 30 selector words used in Iceberg



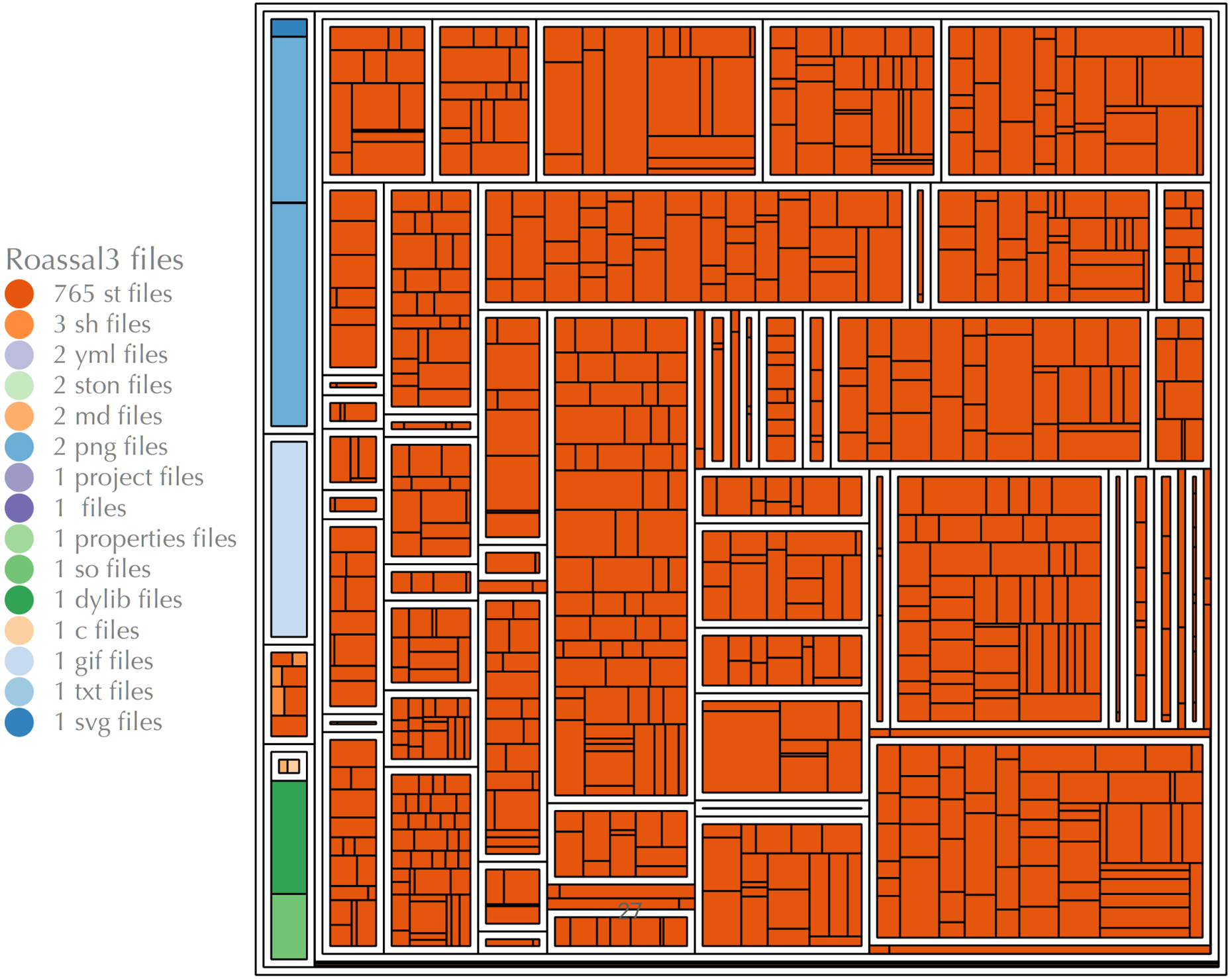
Dependency Structure Matrix

Top 30 selector words used in Iceberg



?

Treemap


Roassal3 files
765 st files
3 sh files
2 yml files
2 ston files
2 md files
2 png files
1 project files
1 files
1 properties files
1 so files
1 dylib files
1 c files
1 gif files
1 txt files
1 svg files

Sankey

Inspector on a Dictionary [2 items] ('links'->an OrderedCollection(a Dictionary('source'->0 'target'->1 'value'->124.729) a Dictionary('source'->1 'target'->2 'value

a Dictionary [2 items] ('li...

Items | Raw | Breakpoints | Meta

Key	Value
nodes	an OrderedCollection [48 items]
links	an OrderedCollection [68 items]

```
1 self
```

an OrderedCollection [68 it...

Items | Raw | Breakpoints | Meta

	Value
1	a Dictionary [3 items] ('source'->0 'target'->1 'value'->124.72
2	a Dictionary [3 items] ('source'->1 'target'->2 'value'->0.597)
3	a Dictionary [3 items] ('source'->1 'target'->3 'value'->26.862
4	a Dictionary [3 items] ('source'->1 'target'->4 'value'->280.32
5	a Dictionary [3 items] ('source'->1 'target'->5 'value'->81.144
6	a Dictionary [3 items] ('source'->6 'target'->2 'value'->35)
7	a Dictionary [3 items] ('source'->7 'target'->4 'value'->35)
8	a Dictionary [3 items] ('source'->8 'target'->9 'value'->11.606
9	a Dictionary [3 items] ('source'->10 'target'->9 'value'->63.96
10	a Dictionary [3 items] ('source'->9 'target'->4 'value'->75.571
11	a Dictionary [3 items] ('source'->11 'target'->12 'value'->10.6
12	a Dictionary [3 items] ('source'->11 'target'->13 'value'->22.5
13	a Dictionary [3 items] ('source'->11 'target'->14 'value'->46.1
14	a Dictionary [3 items] ('source'->15 'target'->16 'value'->104.
15	a Dictionary [3 items] ('source'->15 'target'->14 'value'->113.
16	a Dictionary [3 items] ('source'->15 'target'->17 'value'->27.1

```
1 self
```

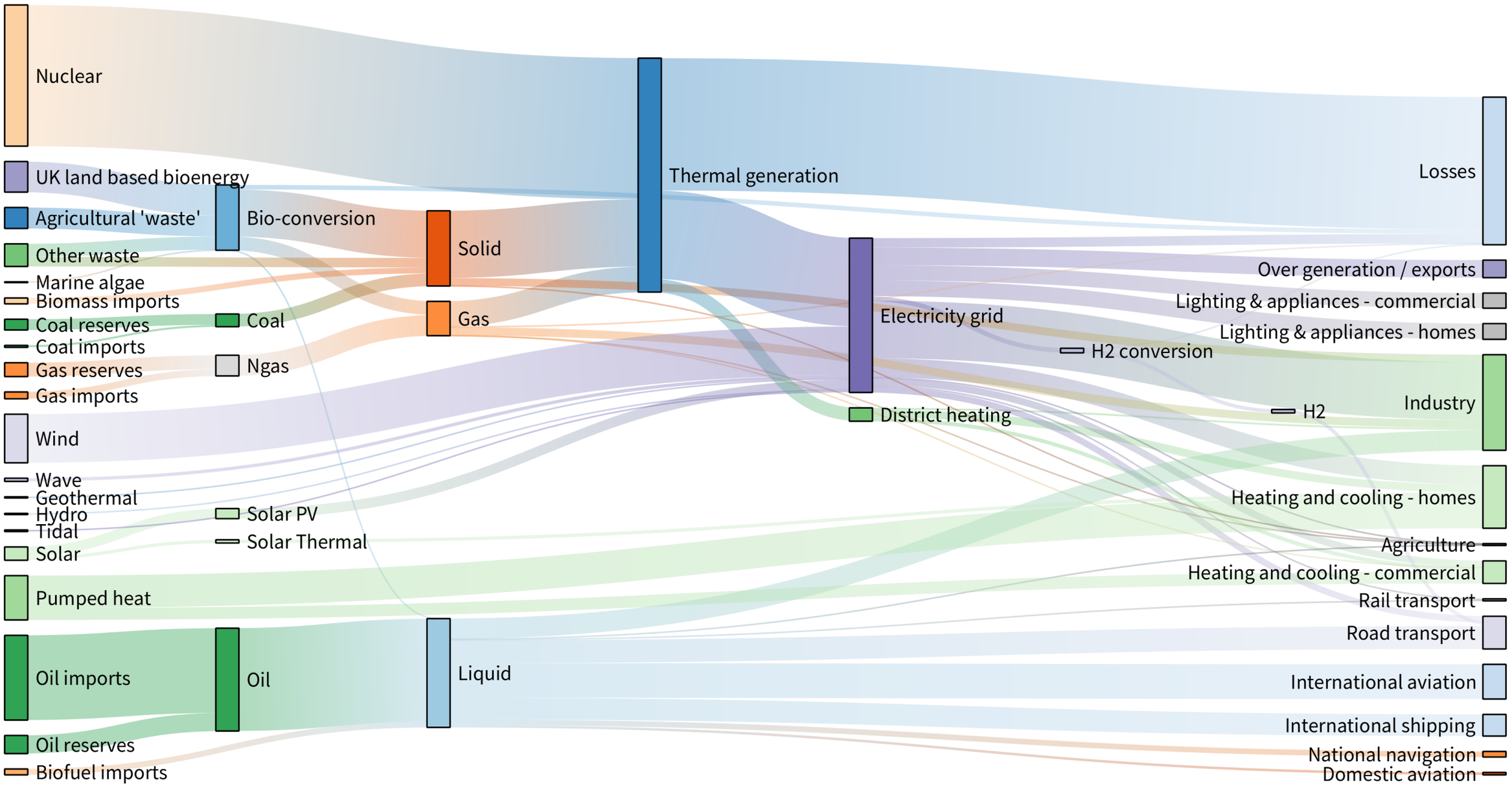
a Dictionary [3 items] ('so...

Items | Raw | Breakpoints | Meta

Key	Value
source	11
value	22.505
target	13

```
1 self
```

Sankey


Nuclear
UK land based bioenergy
Agricultural 'waste'
Other waste
Marine algae
Biomass imports
Coal reserves
Coal imports
Gas reserves
Gas imports
Wind
Wave
Geothermal
Hydro
Tidal
Solar
Pumped heat
Oil imports
Oil reserves
Biofuel imports
Bio-conversion
Coal
Ngas
Solar PV
Solar Thermal
Oil
Solid
Gas
Liquid
Thermal generation
Electricity grid
District heating
H2 conversion
H2
Losses
Over generation / exports
Lighting & appliances - commercial
Lighting & appliances - homes
Industry
Heating and cooling - homes
Agriculture
Heating and cooling - commercial
Rail transport
Road transport
International aviation
International shipping
National navigation
Domestic aviation

Layouts

Layouts

Pharo Browse Debug Sources System Library Windows Help

RSAnimationExamples>>example33AnimatedLayout

Ring-Tests-Core
Ring-Tests-Monticello
Ring-TraitsV2Support
Roassal3
Roassal3-Animation
Roassal3-Animation-Tests
Roassal3-Builders
Roassal3-Chart
Filter...

RSAnimationExamples
RSBasicAnimationExamp
RSBasicShapeExamples
RSDSMExample
RSHighlightableExample
RSInspectableExample
RSLayoutExamples
RSRenderTreeExamples
Filter...

instance side
extensions
examples
lines
perlin

example32SimpleClock
example33AnimatedLayout
example34ForceLayout
example35Roassal
example36Title
example37RectangleForceLayo
example38PerlinRose
example39Duna
example40Circles
example41River

All Packages | Scoped View | Flat | Hier. | Inst. side | Class side | Methods | Vars | Class refs. | Implementors | Send

Comment | RSAnimationE | example33Ani | UML-Class | Inst. side meth

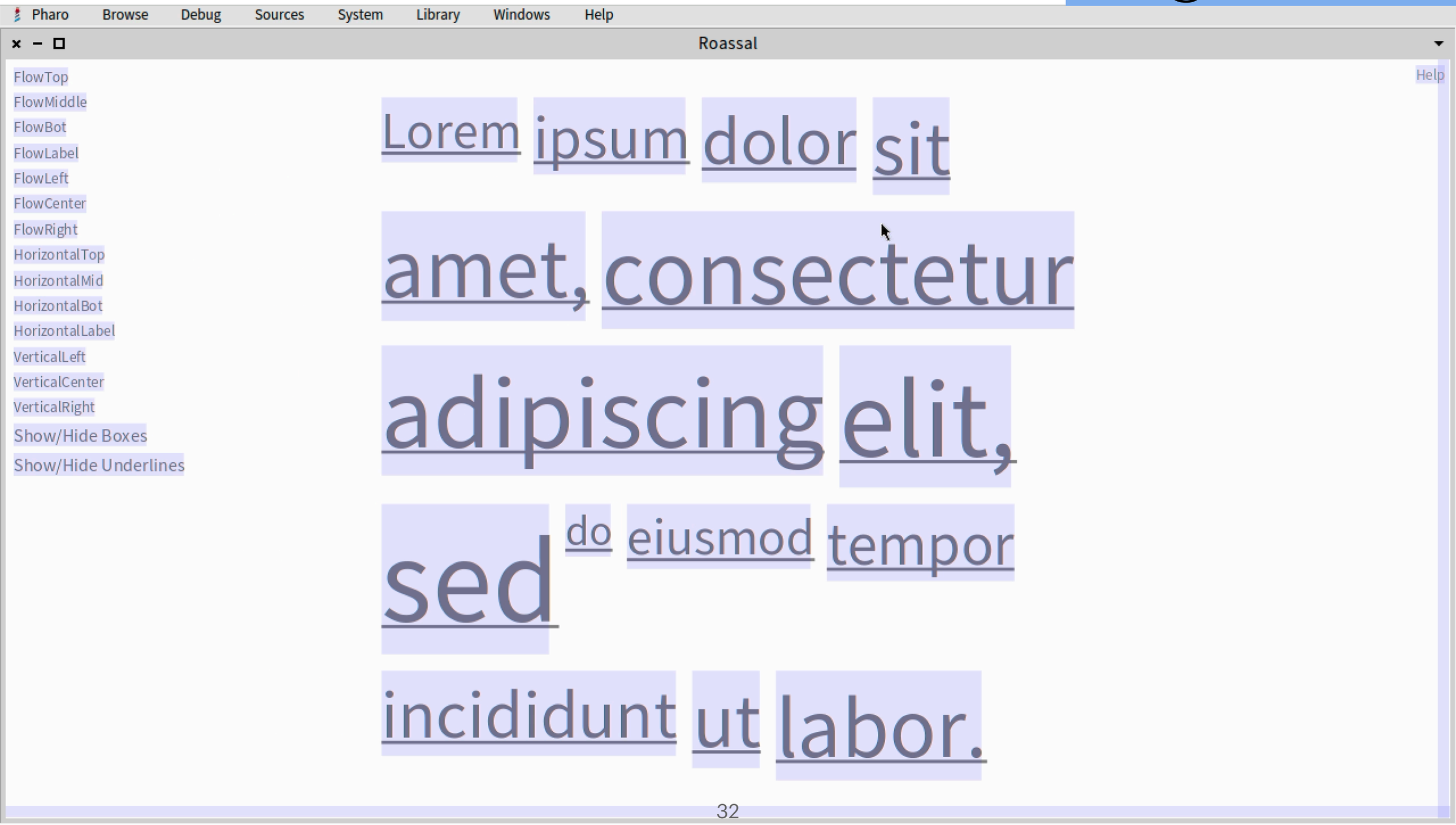
```
            signalUpdate ];
         when: RSMouseClick do: [ :evt | | pos1 pos2 |
            pos1 := shapes collect: #position.
            update value: sel.
            pos2 := shapes collect: #position.
            c newAnimation onStepDo: [ :t |
               shapes doWithIndex: [ :e :i |
                  e translateTo: ((pos1 at: i)
                     interpolateTo: (pos2 at: i) at: t) ].
               c zoomToFit ] ] ].
   c addAll: labels.
   RSHorizontalLineLayout on: labels.
   ^ c
```

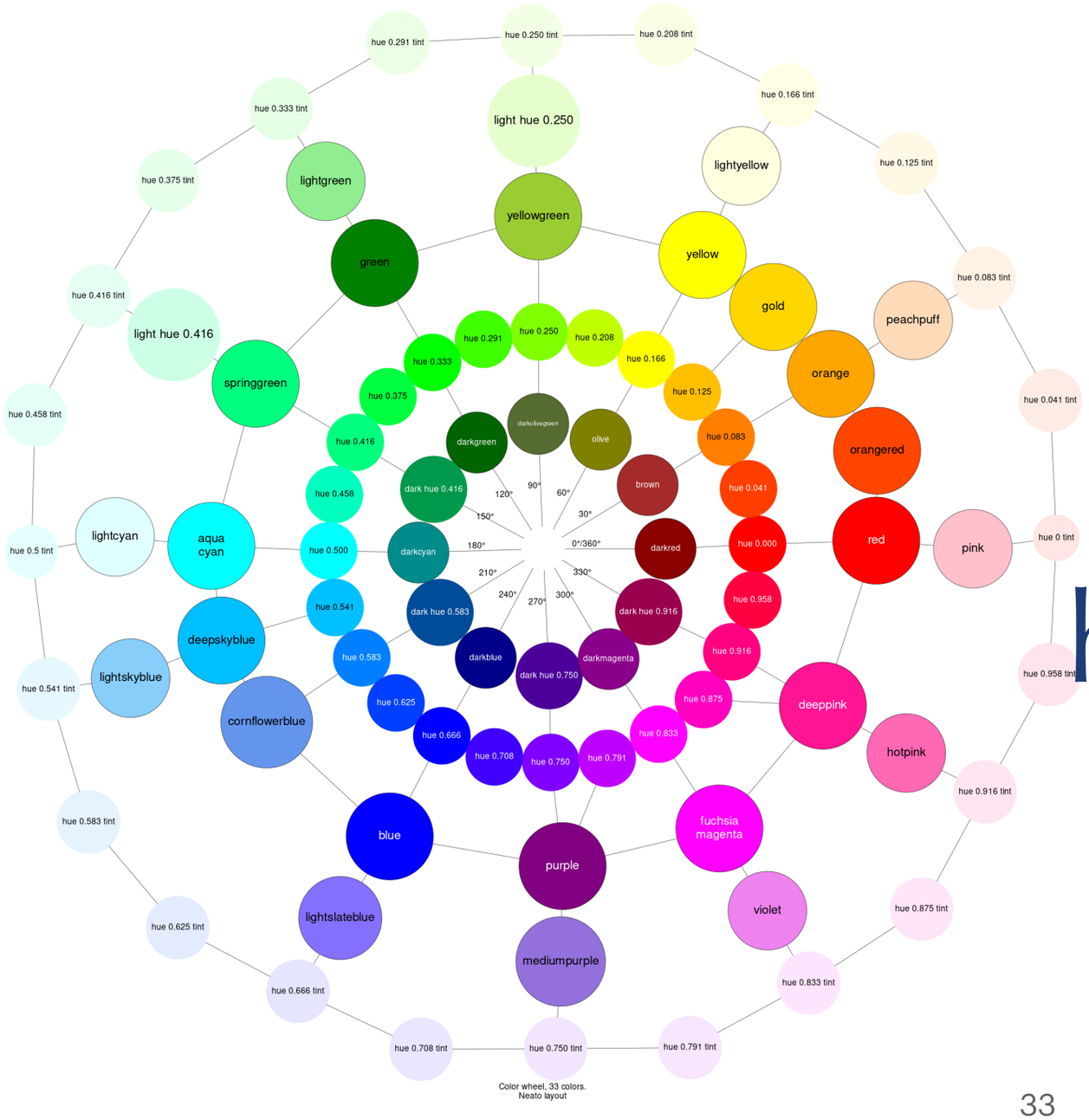
8/57 [21]

× examples extension F +L W

Sends "questionable" message ?

Alignments


Pharo
Browse
Debug
Sources
System
Library
Windows
Help
Roassal
FlowTop
FlowMiddle
FlowBot
FlowLabel
FlowLeft
FlowCenter
FlowRight
HorizontalTop
HorizontalMid
HorizontalBot
HorizontalLabel
VerticalLeft
VerticalCenter
VerticalRight
Show/Hide Boxes
Show/Hide Underlines
Help
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labor.



Color wheel, 33 colors.
Neato layout

GraphViz layouts

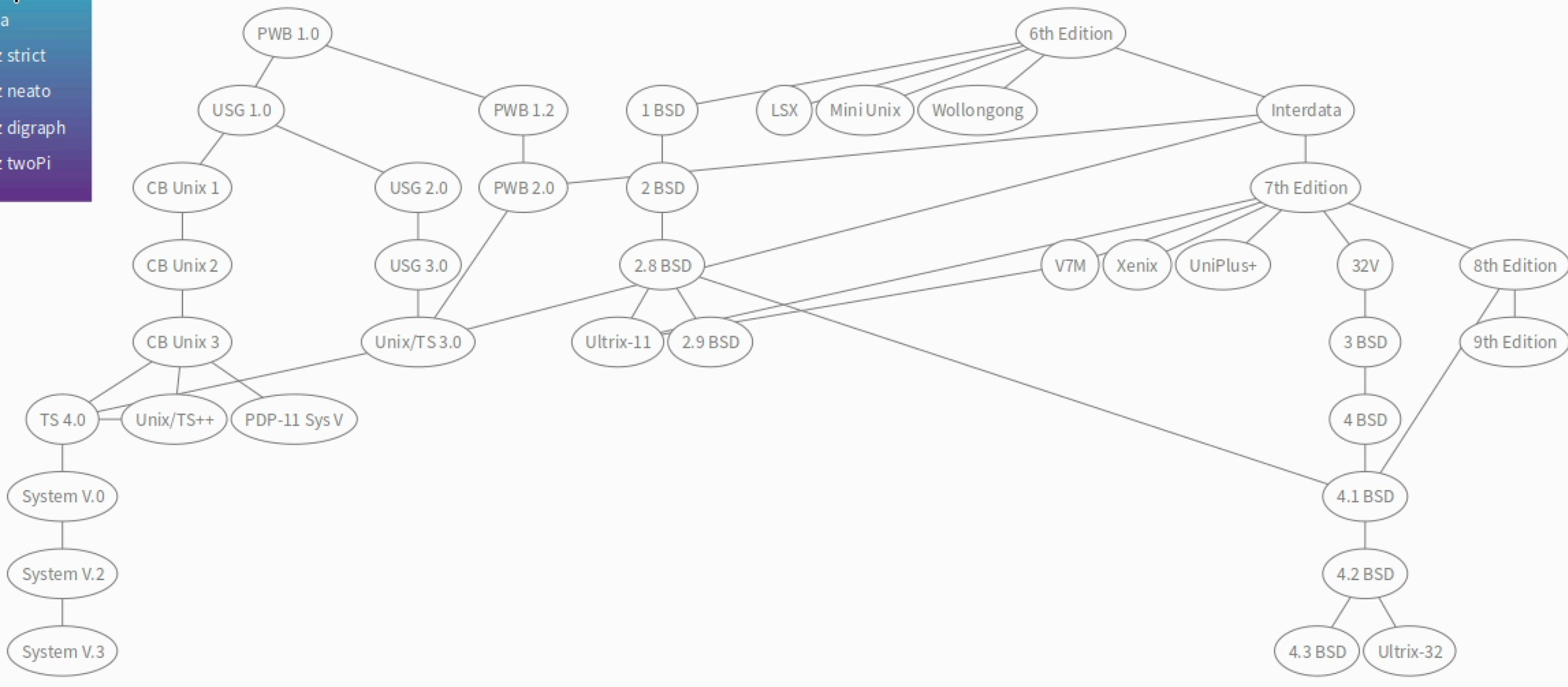
https://graphviz.org/

GraphViz layouts

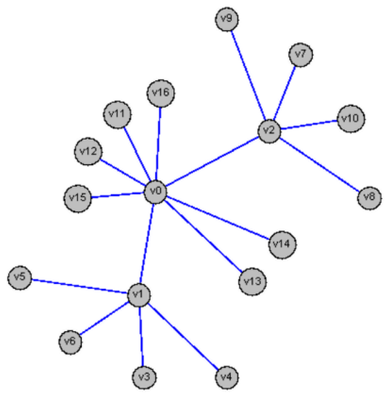
Pharo Browse Debug Sources System Library Windows Help

Roassal

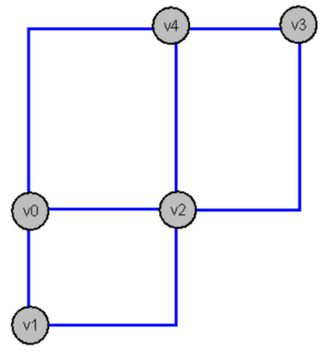
- Roassal layouts
- Tree
- Force Based
- Sugiyama
- GraphViz strict
- GraphViz neato
- GraphViz digraph
- GraphViz twoPi



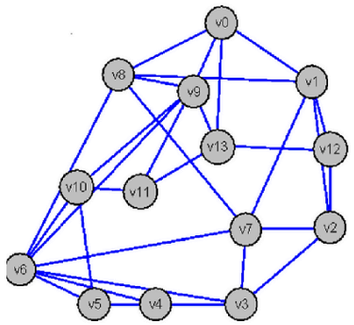
Forthcoming layouts



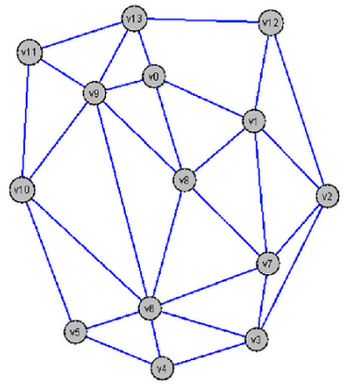
Radial Tree



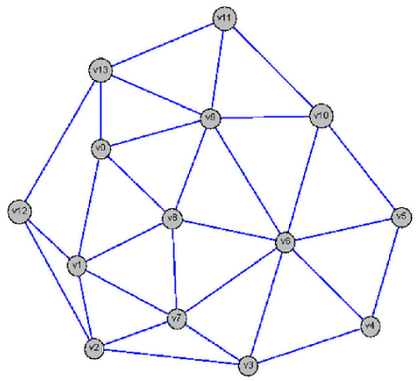
Orthogonal



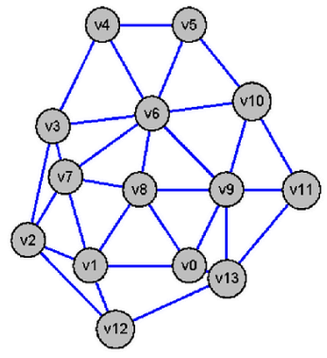
Spring



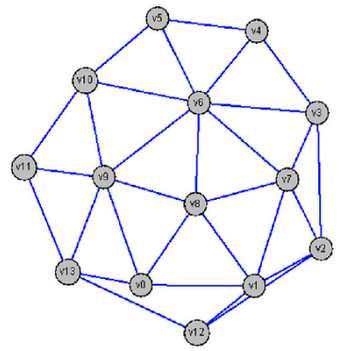
ISOM



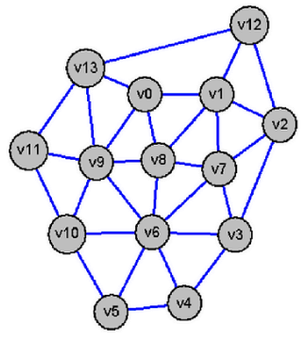
Fruchterman-Reingold



Fast organic



Kamada-Kawai



Organic

Animations

From A to B

Transition animation

```
roassalCanvas newAnimation
   onStepDo: [ :aColor | ... ].
```

```
roassalCanvas newAnimation
   from: 20@30;
   to: 40@ -50;
   duration: 1 second;
   onStepDo: [ :aPoint | ... ].
```

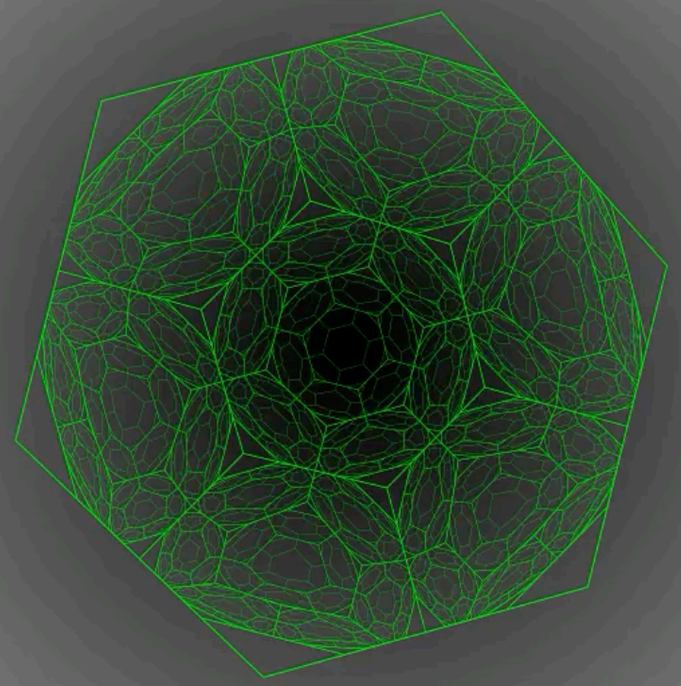
```
roassalCanvas newAnimation
   delay: 1 minute;
   from: 10;
   to: 100;
   duration: 5 seconds;
   onStepDo: [ :aNumber | ... ].
```

```
roassalCanvas newAnimation
   from: Color red;
   to: Color transparent;
   duration: 500 milliSeconds;
   onStepDo: [ :aColor | ... ].
```

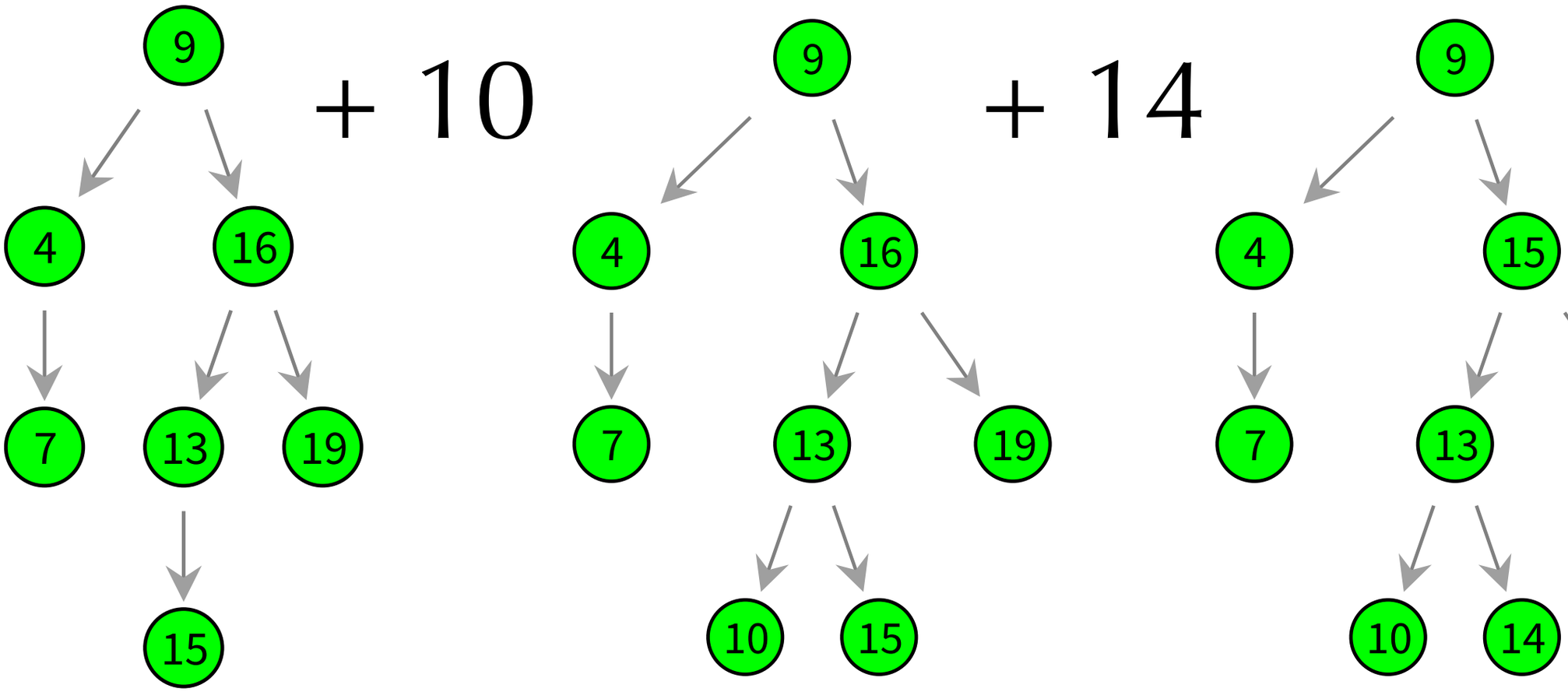
Easing

```
60 canvas newAnimation
61     delay: 0 seconds;
62     easing: RSEasingInterpolator bounceOut;
63     duration: 10 seconds;
64     from: a position;
65     to: b position;
66     onStepDo: [ :t |
```

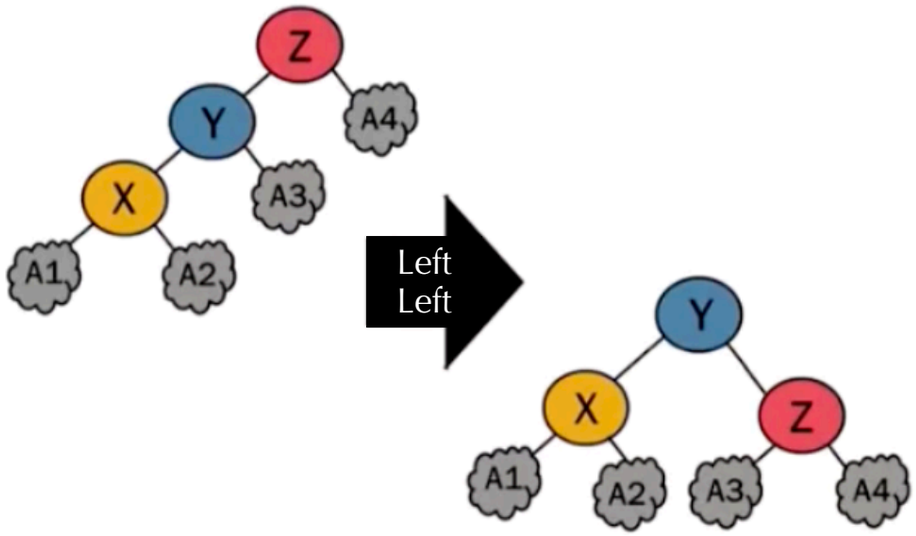
Perlin noise



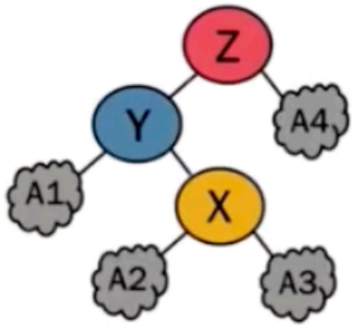
Scaling problem


9
4
16
7
13
19
15
+ 10
9
4
16
7
13
19
10
15
+ 14
9
4
15
7
13
16
10
14
19

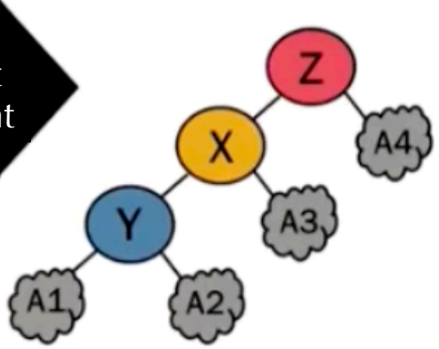
Rotations

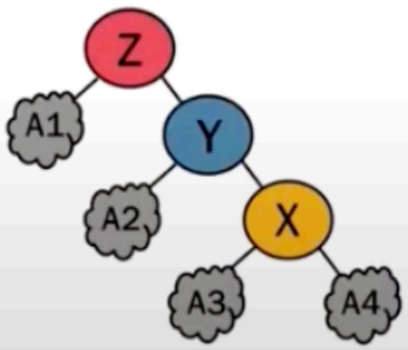


Left
Left

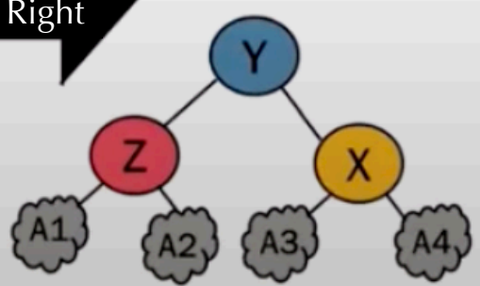


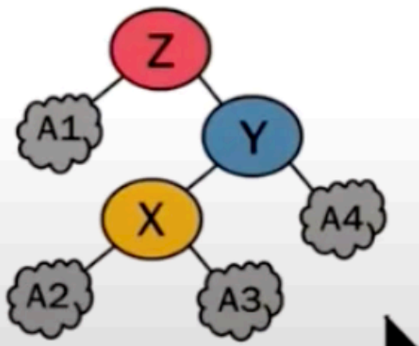
Left
Right



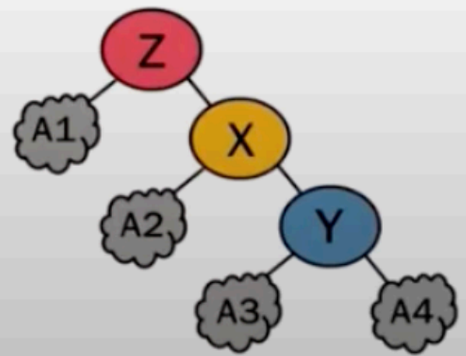


Right
Right

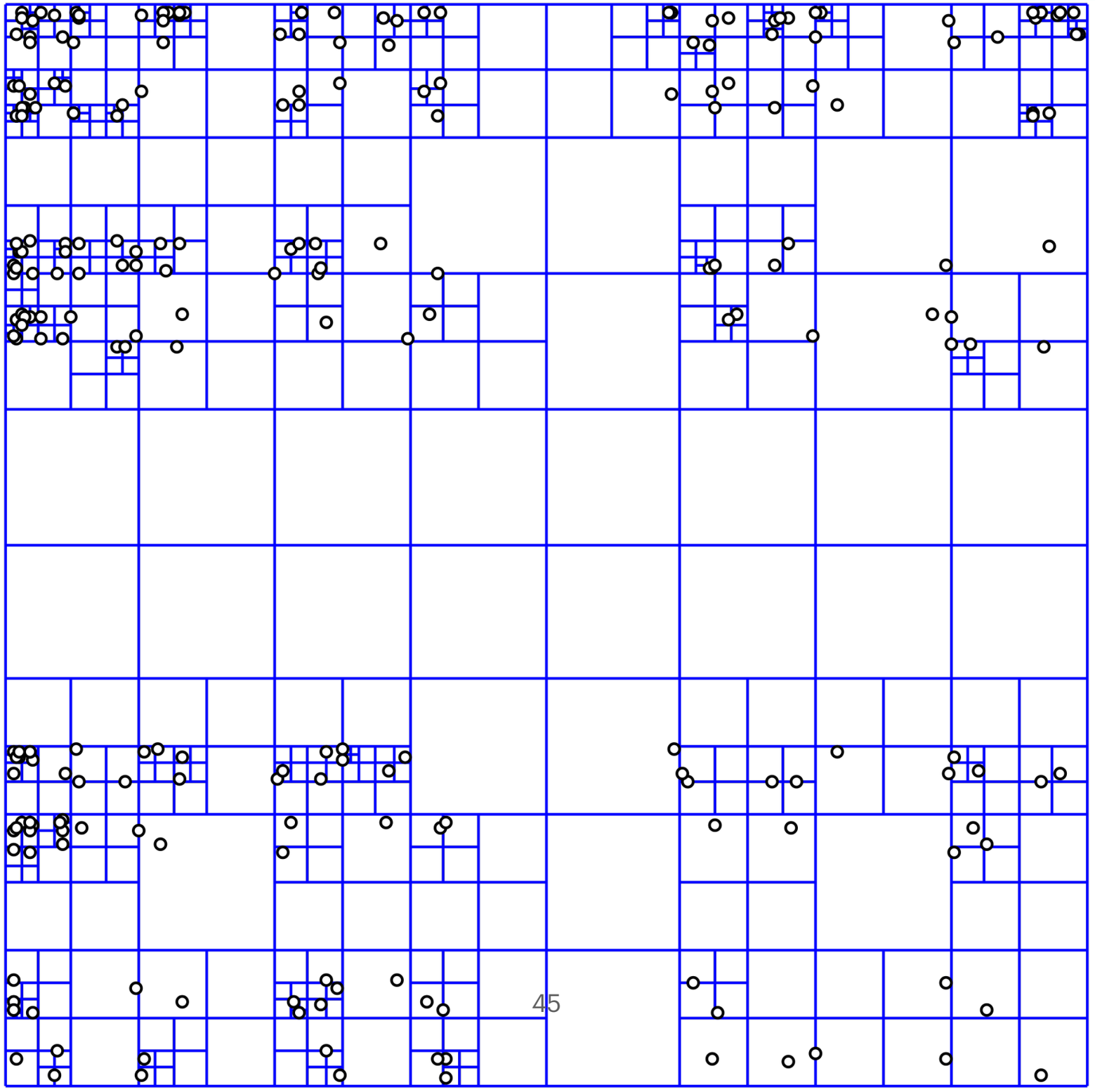


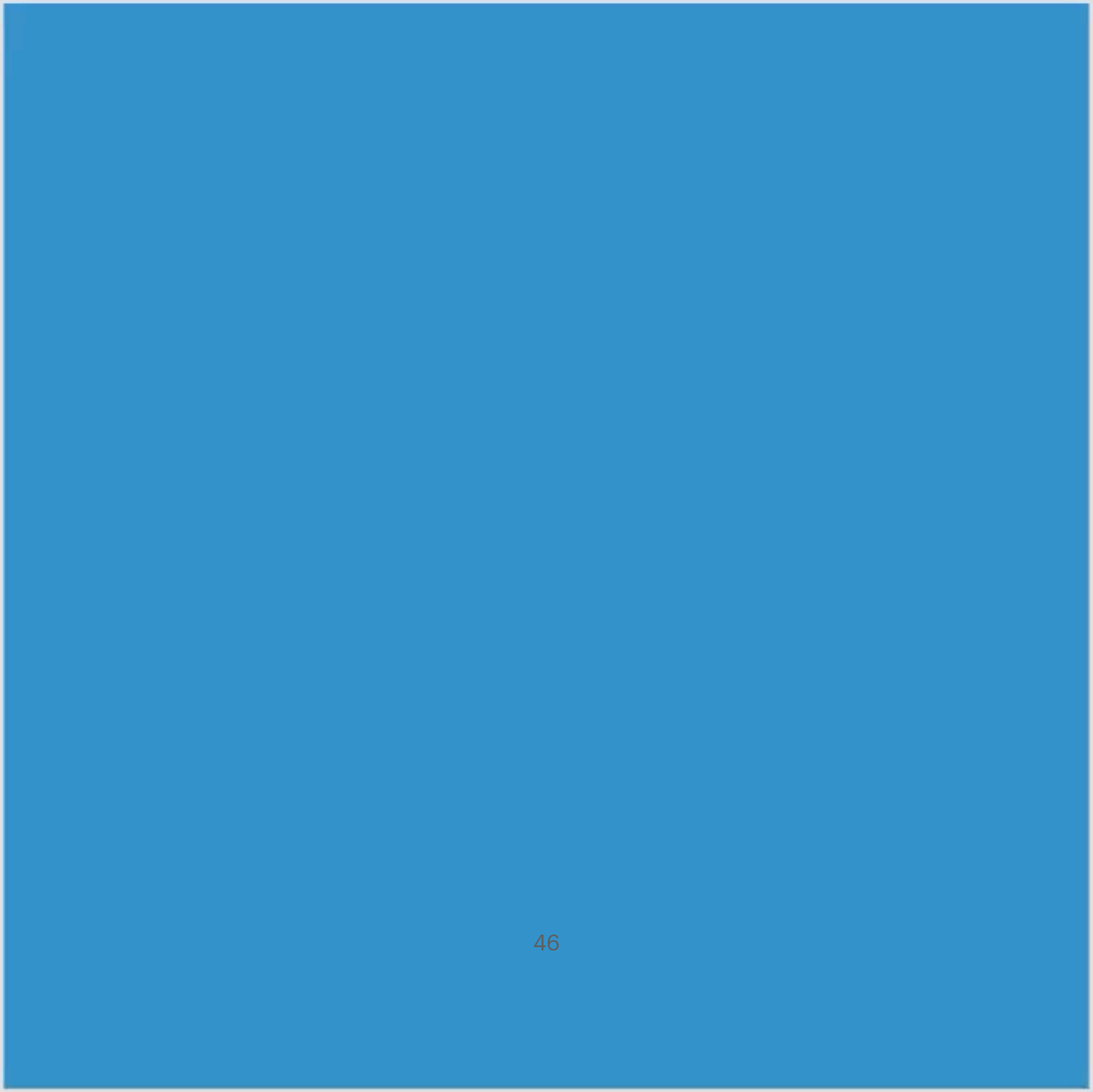


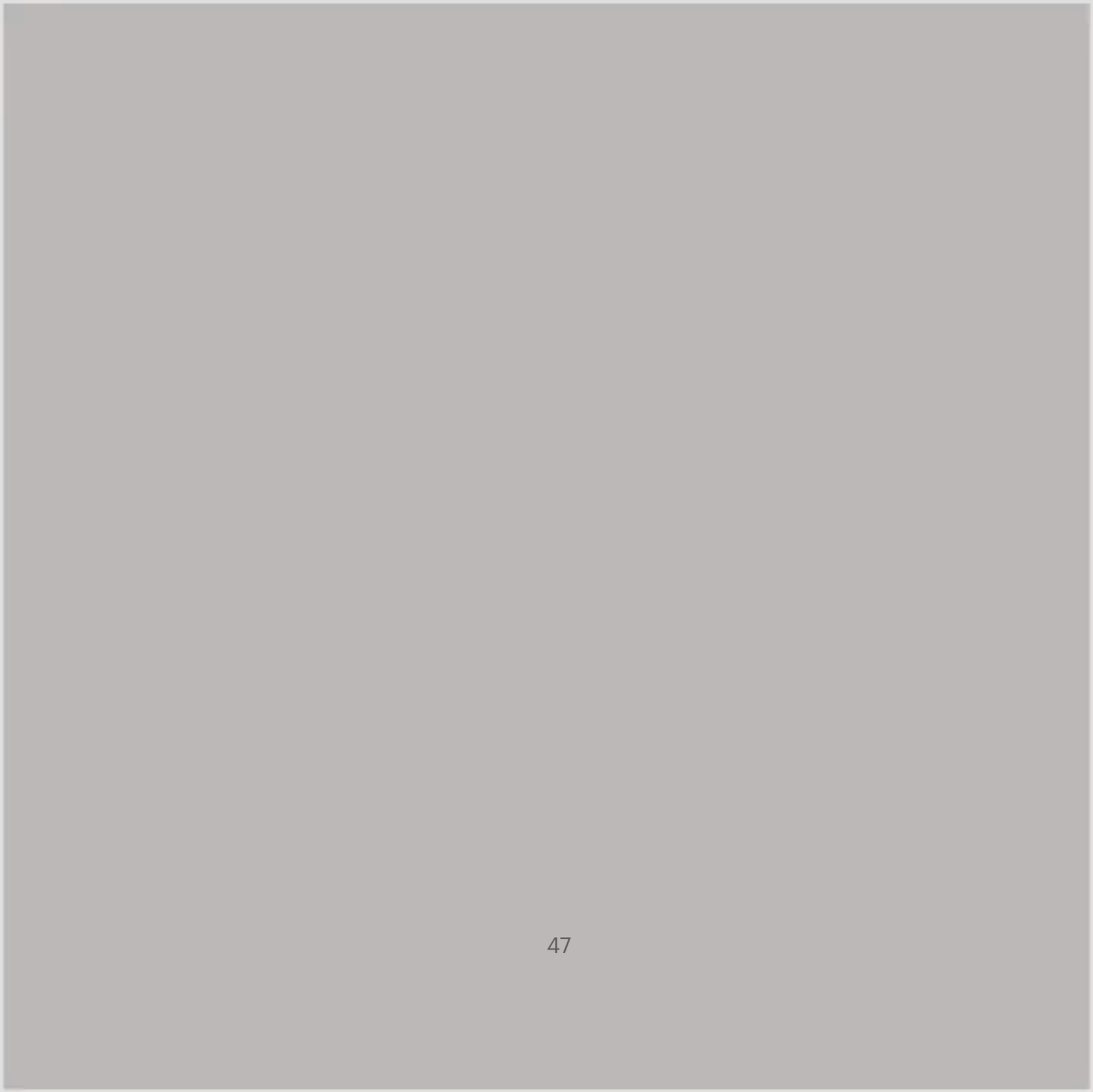
Right
Left



Quad Tree

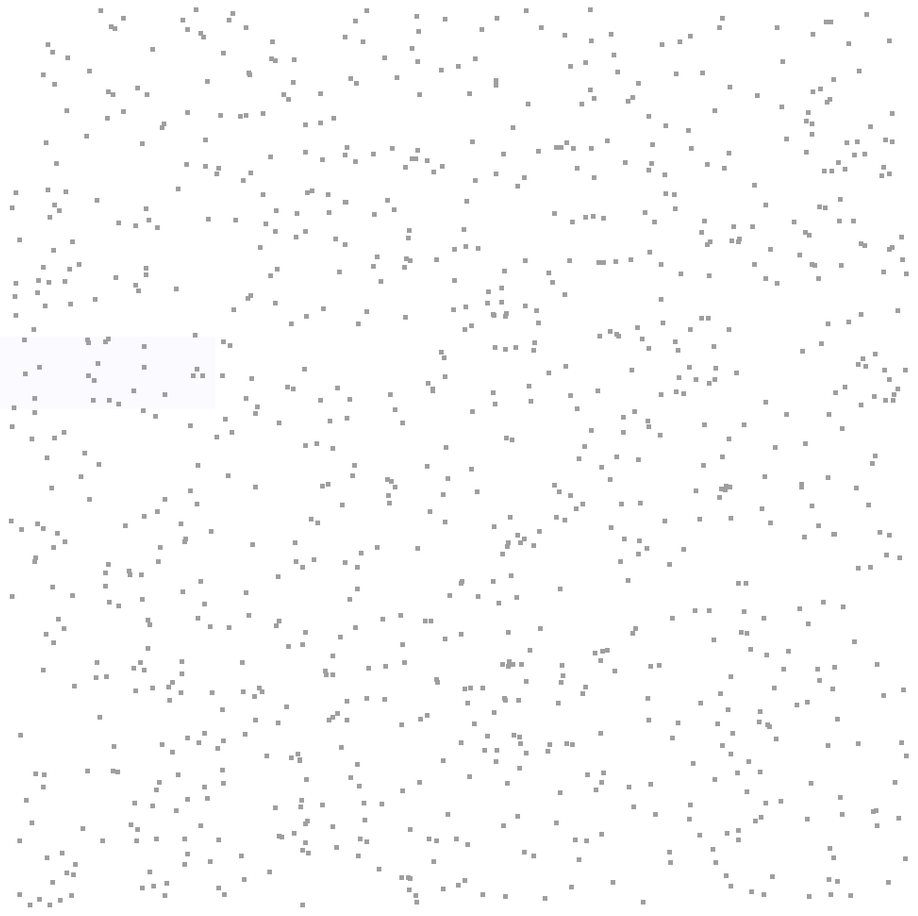






Rectangle Tree

```
| tree random canvas |
tree := RSRTreeShapeCollection new.
random := Random new.
random seed: 777.
canvas := RSCanvas new.
1 to: 1000 do: [ :each | | box |
    box := RSBox new.
    box size: 10.
    box model: each.
    box popup.
    box position: (random next @ random next) * 2000.
    canvas add: box.

    tree add: box.
].
canvas @ RSCanvasController.
^ tree
```



Rectangle Tree

Do it Publish Bindings Versions Pages

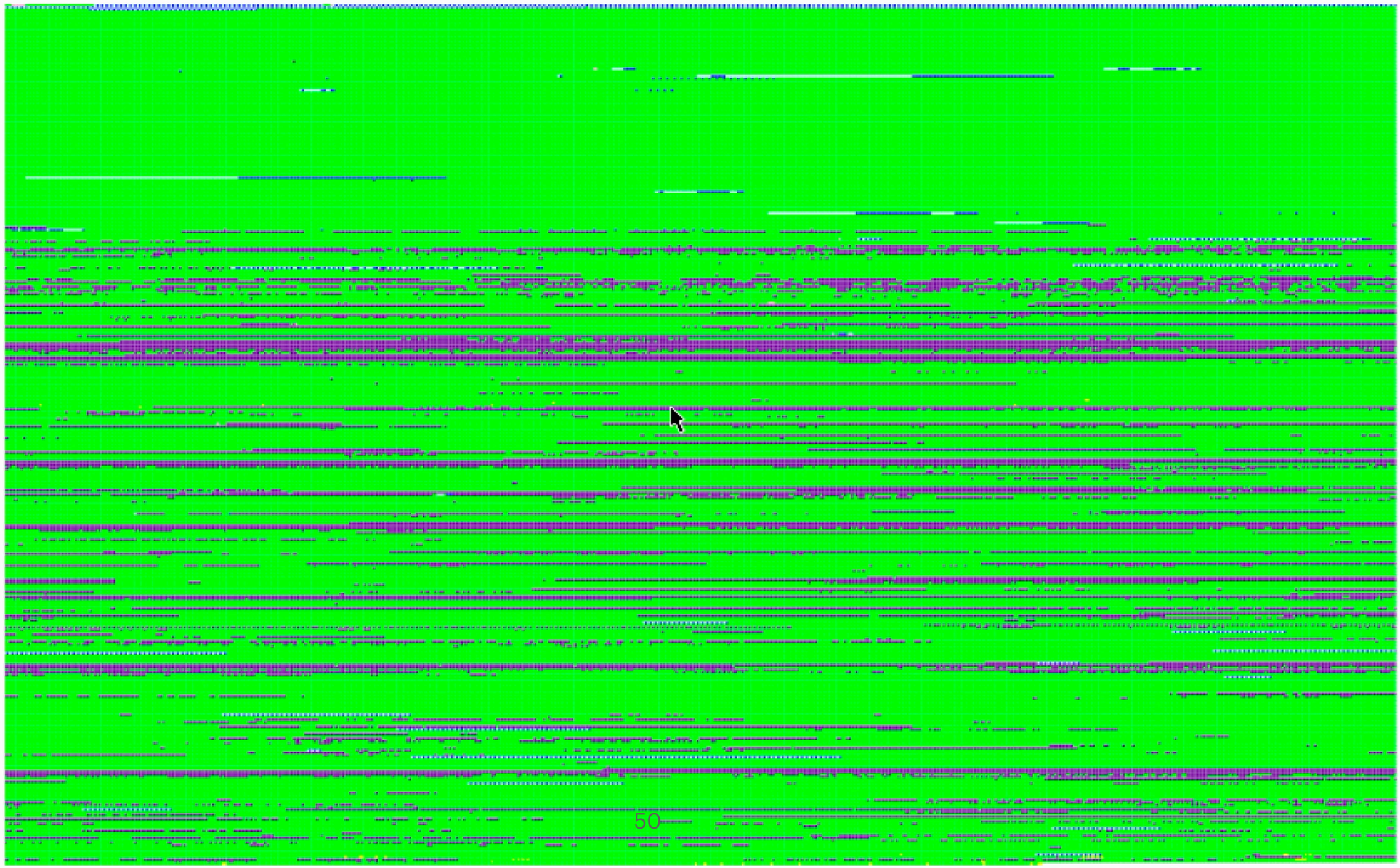
```
| tree random canvas |
tree := RSRTreeShapeCollection new.
random := Random new.
random seed: 777.
canvas := RSCanvas new.
1 to: 1000 do: [ :each | | box |
   box := RSBox new.
   box size: 10.
   box model: each.
   box popup.
   box position: (random next @ random next) * 2000.
   canvas add: box.

   tree add: box.
].
canvas @ RSCanvasController.
^ tree
```


Playground Playground Inspector on a RSRTreeShape...

ug Sources System Library Windows Help

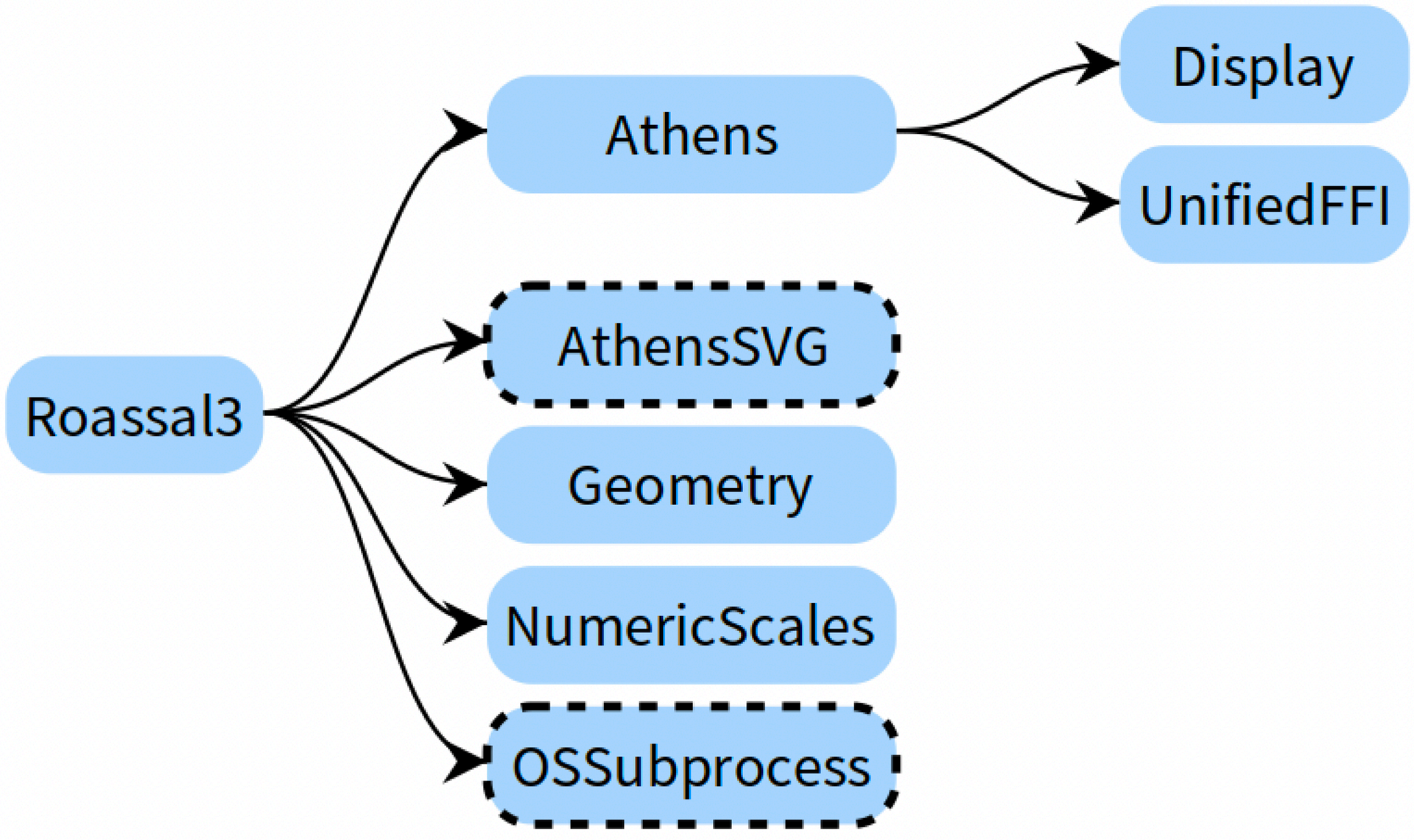
Old Space

Rectangle Tree



Roassal is cool

Dependencies



Thanks to Schmidt GmbH (Richard and Pavel)

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