Moose, Mondrian and Visualizations

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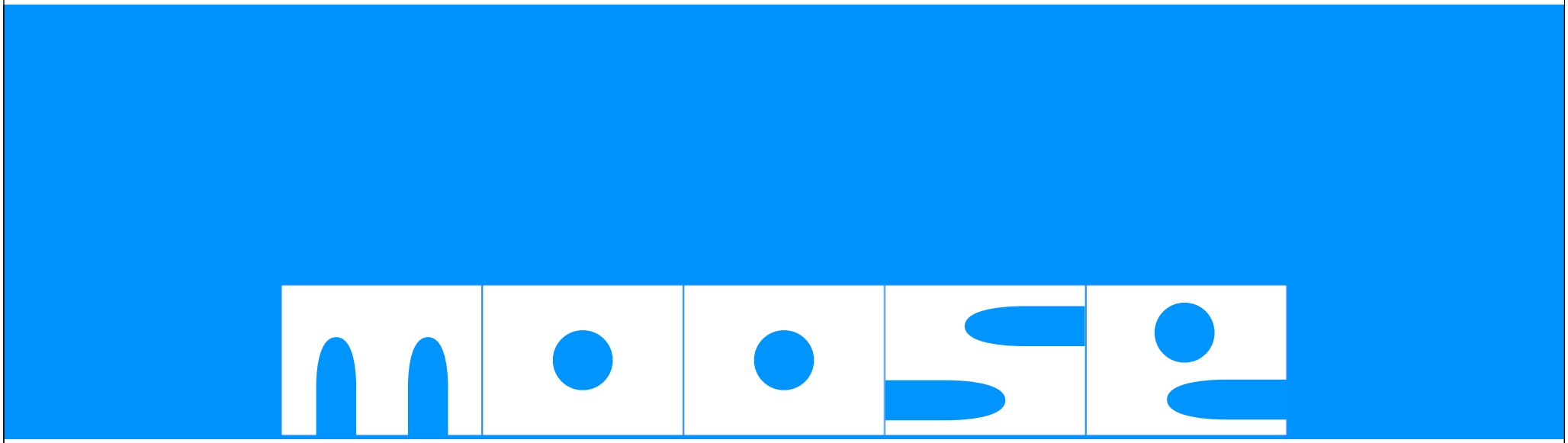

moose

Moose's pillars

Analysis environment for software systems

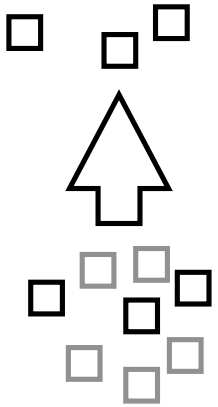
4 core actions

- *navigation*: moving between things
- *selection*: grouping things
- *inspection*: inspecting things
- *presentation*: rendering things

McCabe = 21

NOM = 102

LOC = 753,000

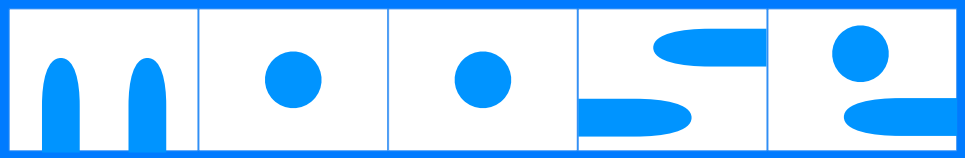


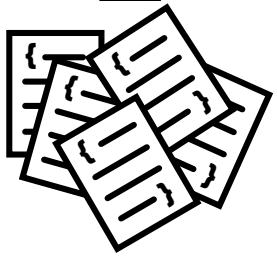
Metrics

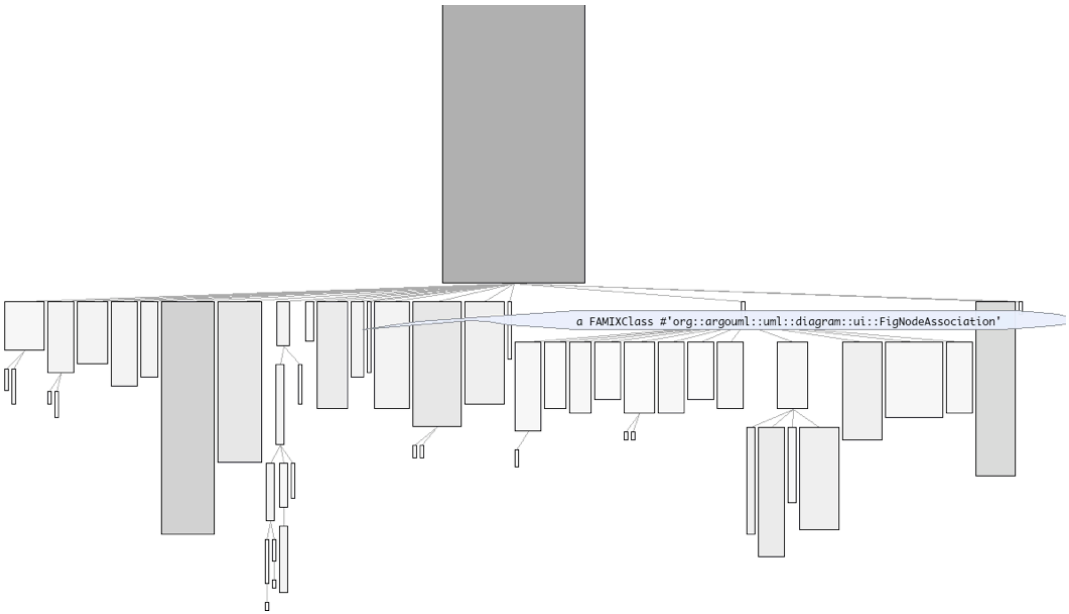
Queries

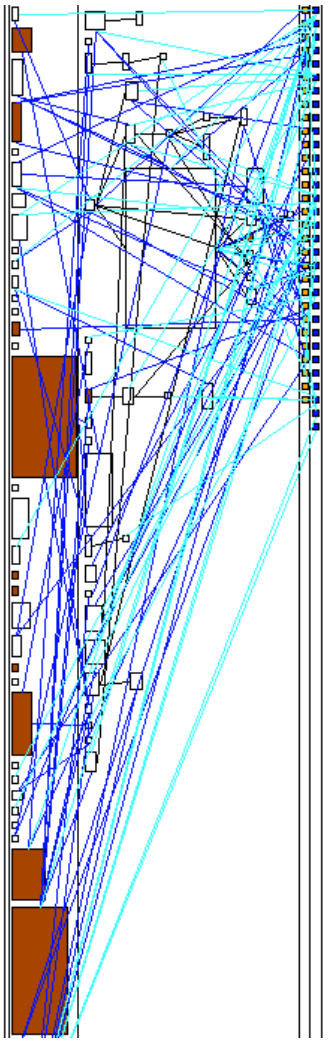
Visualizations

. . .

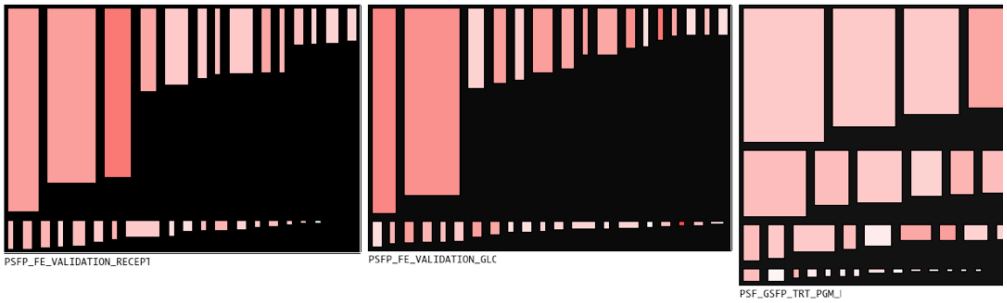


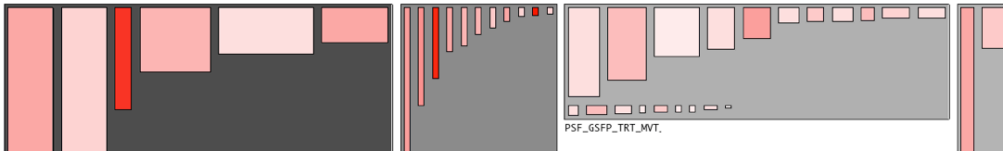


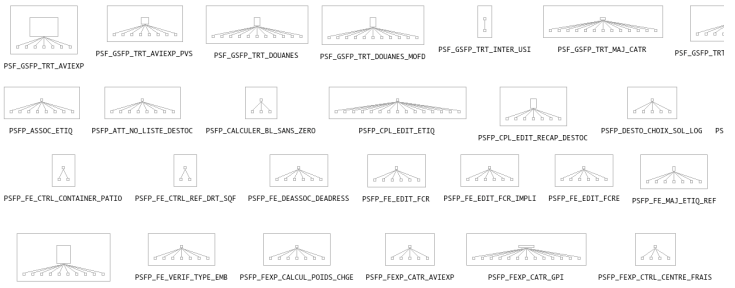


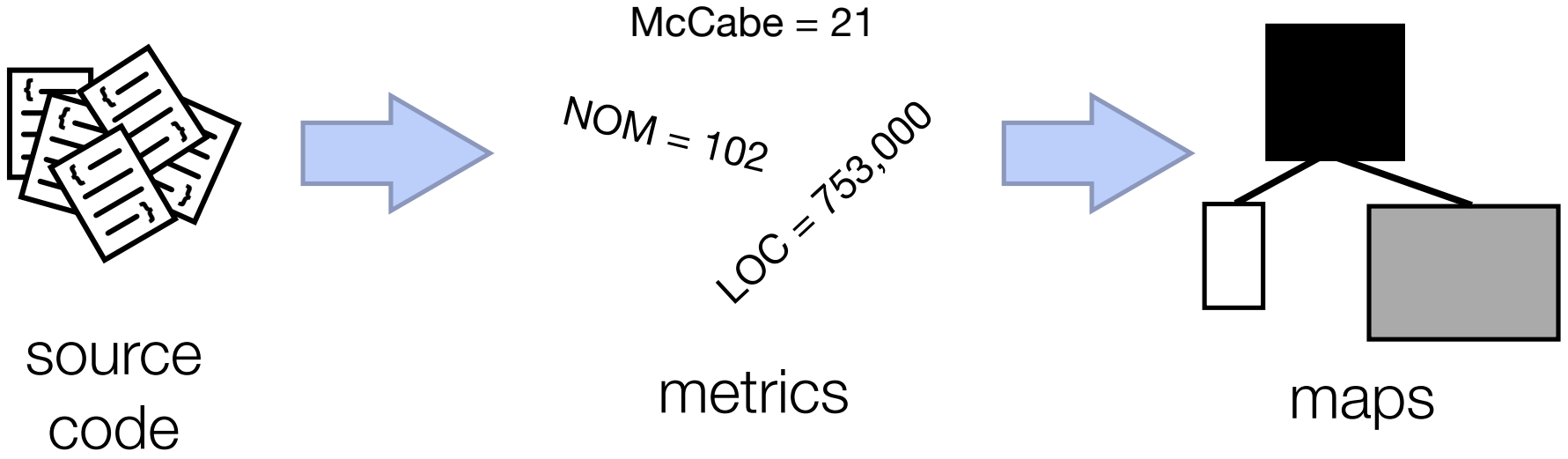


Software maps





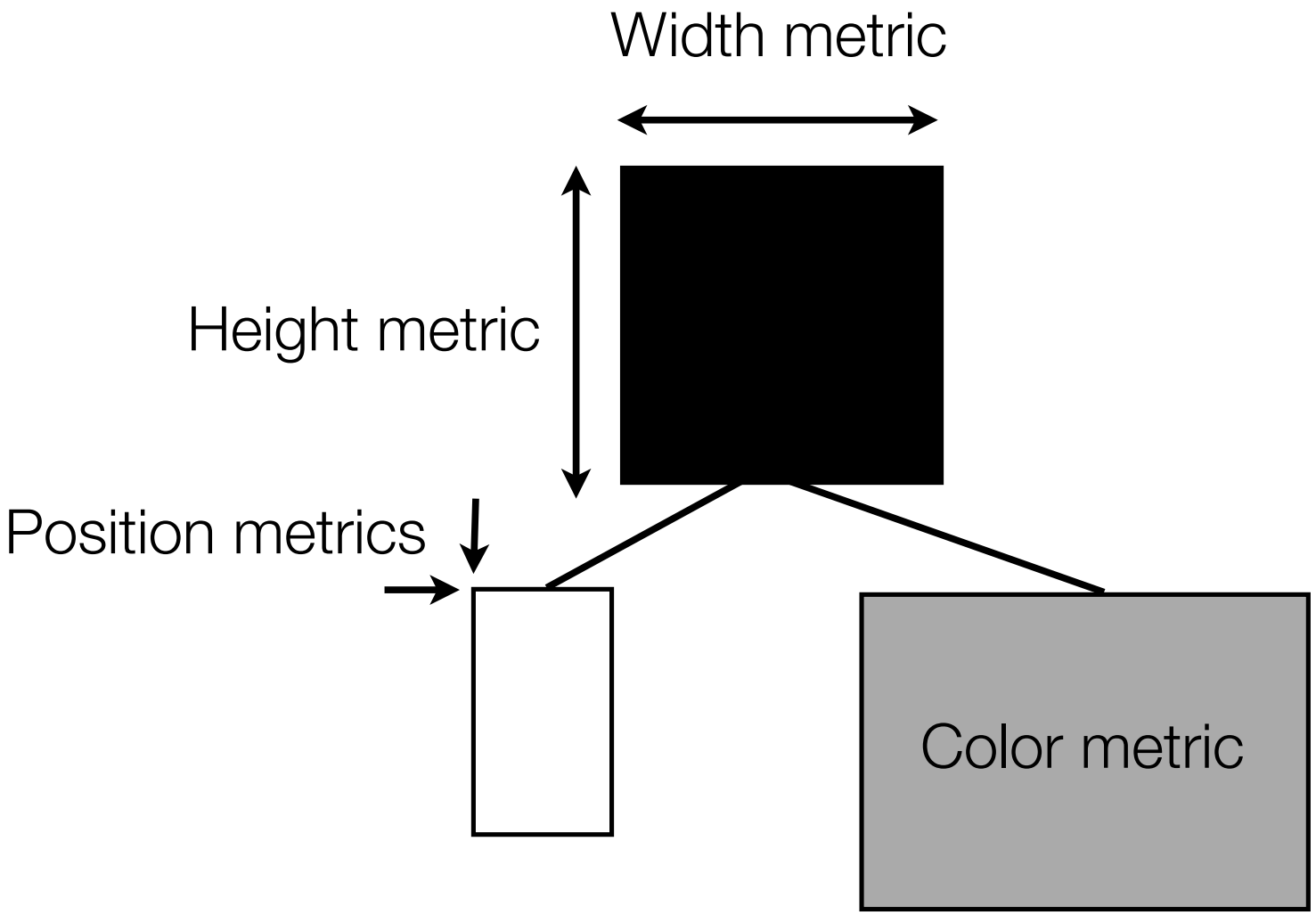



McCabe = 21
NOM = 102
LOC = 753,000
source code
metrics
maps

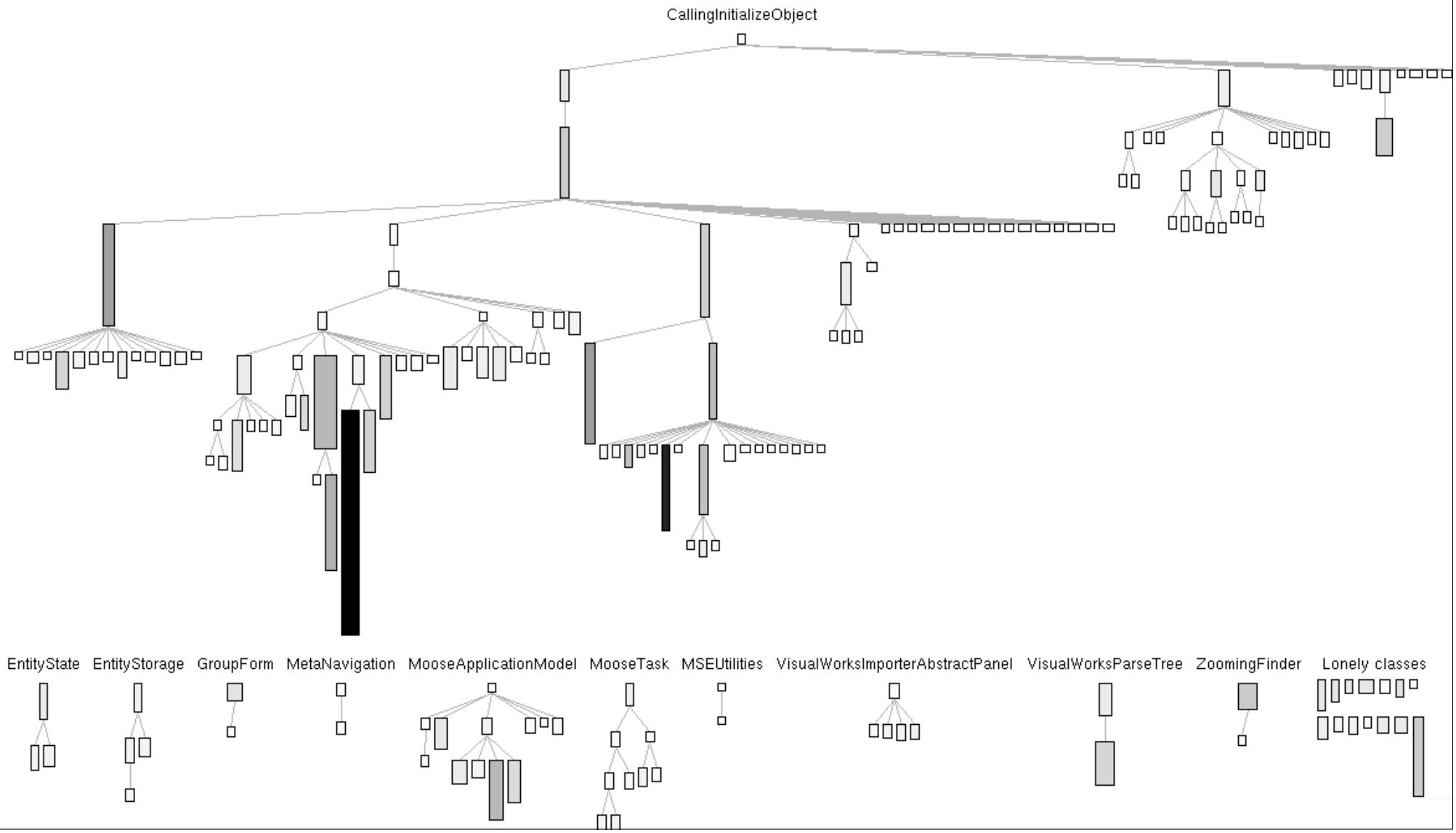
Metrics compress the system into numbers

NOM	NOC	DUPLINES
LOC	NOCmts	NAI
TCC	NOPA	NOA
WMC	WLOC	NI
CYCLO	WNOC	...
ATFD	WOC	
HNL	MSG	

Polymetric views shows up to 5 metrics

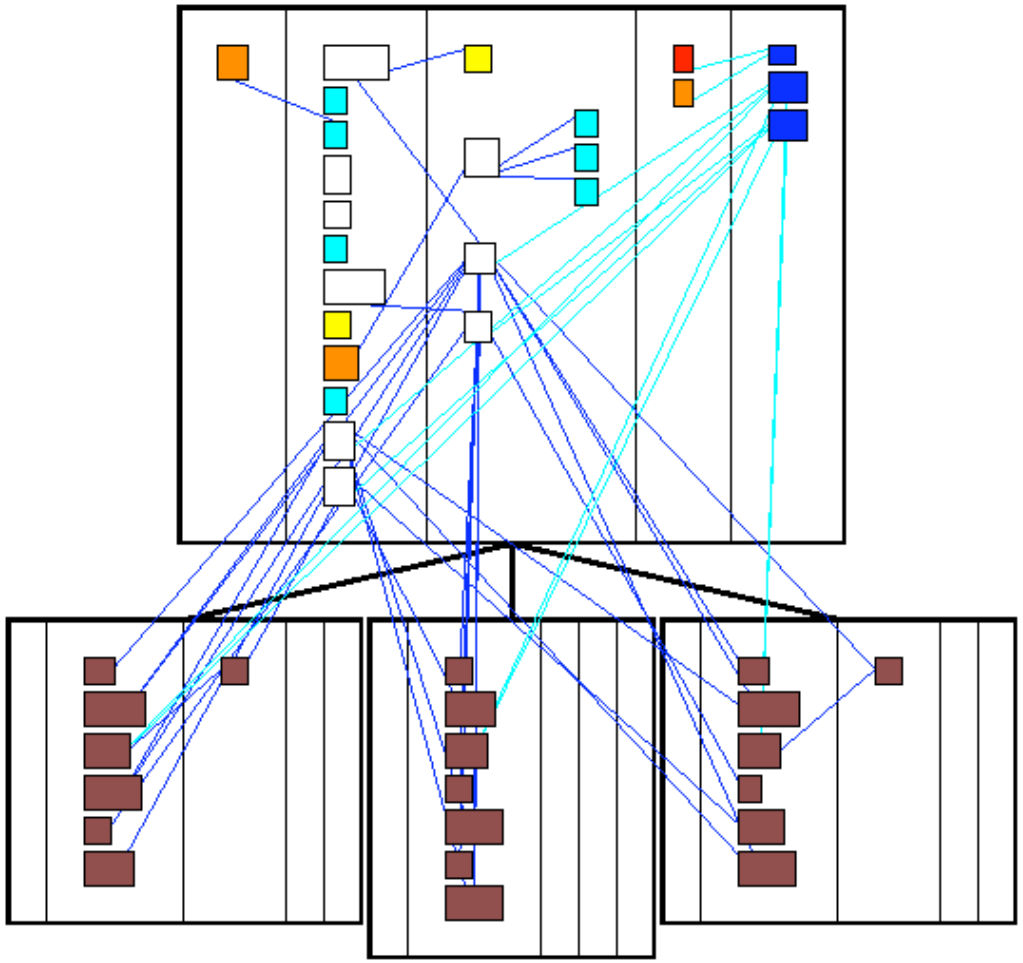


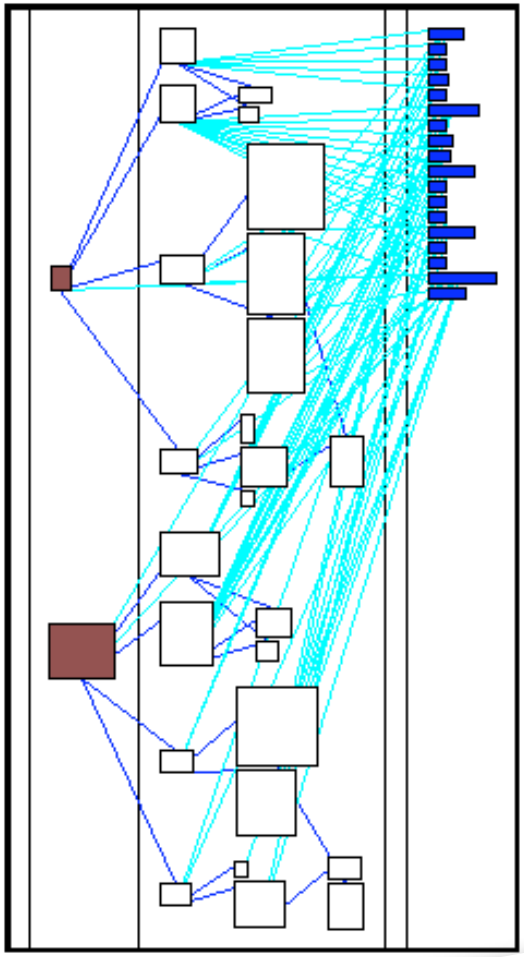
System complexity shows class hierarchy



Class blueprint

shows class internals



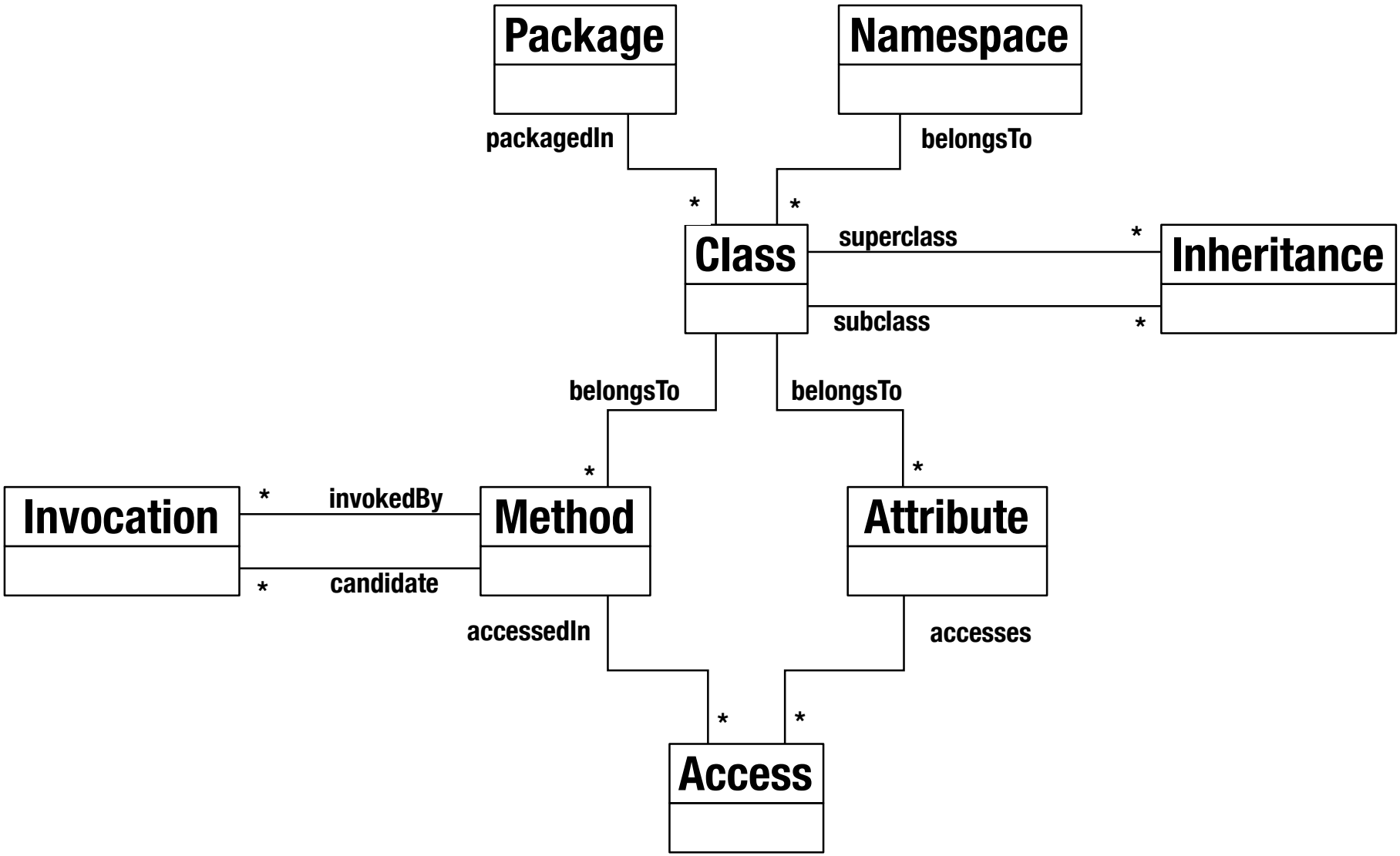


More info

Michele Lanza and Stéphane Ducasse. Polymetric Views—A Lightweight Visual Approach to Reverse Engineering. In Transactions on Software Engineering (TSE) 29(9) p. 782—795, September 2003

Stéphane Ducasse and Michele Lanza. The Class Blueprint: Visually Supporting the Understanding of Classes. In Transactions on Software Engineering (TSE) 31(1) p. 75—90, January 2005.

FAMIX is a language independent meta-model



Installing Moose

http://www.moosetechnology.org/download

Using Mondrian

Mondrian is part of Mondrian

You have nothing to install

A tutorial is available on u-cursos and online

http://bergel.eu/download/Mondrian.pdf

Getting MSE file

MSE is the file format used to exchange meta-models

In order to load a Java application into Moose, you need first to translate your .java files into a MSE file

VerveineJ is a translator Java -> MSE

http://www.moosetechnology.org/tools/verveinej

Tarea (a)

You will conduct a new analyze of ArgoUML

This time using the tools we introduced today

You need to provide a report that contains:

- a description of Argo UML
- analysis of Argo UML using the visualizations and tools we have seen today
- use Mondrian to do a personal visualization
- suggestion for code improvement

Additional links

http://www.moosetechnology.org/

http://www.themoosebook.org/book