

Cyberintegrator Web UI

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Overview

Cyberintegrator web UI design and background.

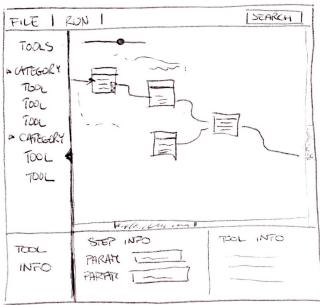
- Overall principles
 - No overwriting of right click menu
 - Support for touch?
- Pages
 - Workflow Editor & execution
 - List workflows
- Workflow editor
 - Three columns?
 - Tools
 - Graph
 - Tool parameters and description
- Tools
 - Add tool
 - Remove tool
 - Add connection
 - Compatible input ports are highlighted when starting to make connections
 - Remove connection
 - Selecting tool changes its color
 - Clicking on a parameter should highlight that parameter in the parameters windows as well, maybe even scroll to it

Technical details

- Divs for nodes and svg for lines
 - yahoo pipes
 - threehodes.js
- Layout algorithms?
- <http://jqueryui.com/draggable/>
- <http://threedubmedia.com/code/event/drag/>
- https://bitbucket.org/galaxy/galaxy-dist/src/8cbb23ed305e6803da733eb7be74bab779ee9ea4/static/scripts/galaxy.workflow_editor.canvas.js?at=default

Mockups

Main layout:



SEARCH: HIGHLIGHTS ELEMENTS (TOOLS)

FILTER LISTS

CLICK INFO/OUTPUT: HIGHLIGHTS COMPATIBLE INPUT/OUTPUTS
HIGHLIGHTS PARAM IN STEP VIEW

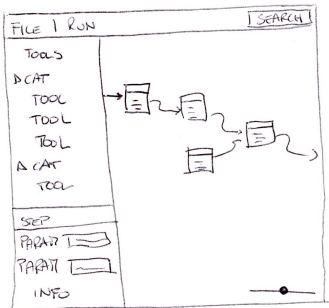
RUNNING: BORDER OF STEPS EXECUTED TURN GREEN
LINES

DIRECTIONS: -- LEFT TO RIGHT
-- TOP TO BOTTOM

LAYOUT: -- AUTO
-- SAVE MANUAL

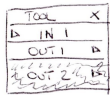
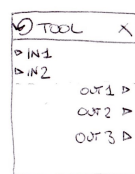
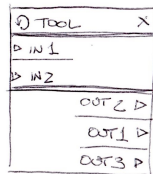
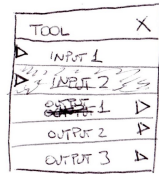
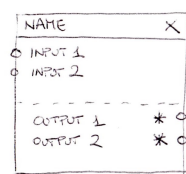
SLIDE INFO IN AND OUT

Alternate layout:



- MORE SPACE FOR CANVAS
- LESS SPACE FOR PARAMS

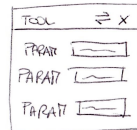
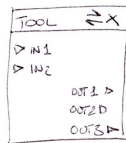
Tools on canvas:



* WHEN CLICKING ON OUTPUT
HIGHLIGHT POTENTIAL
INPUTS ON OTHER TOOLS



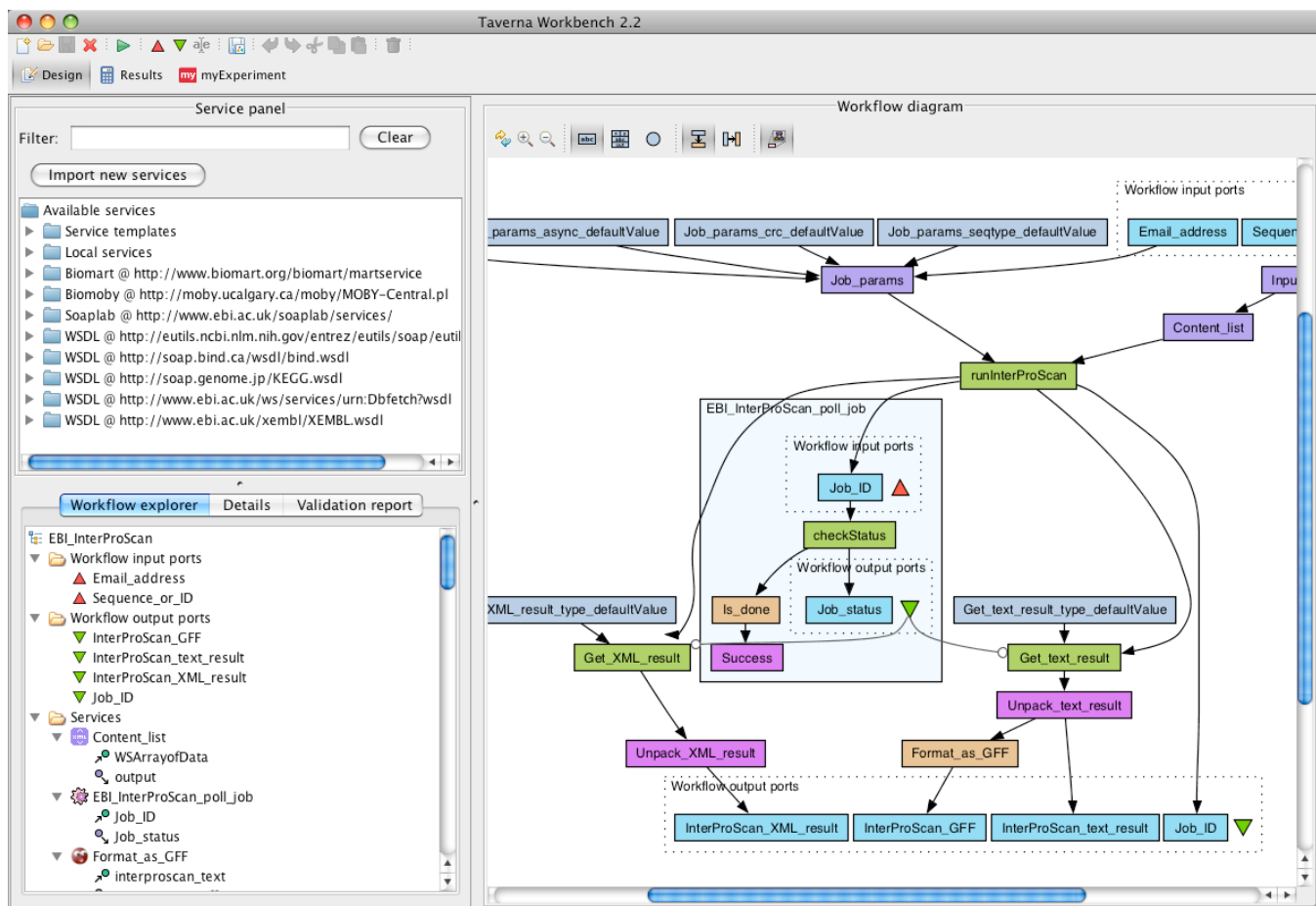
FLIP FOR PARALLEL
SLIDE " "



①

Existing Systems

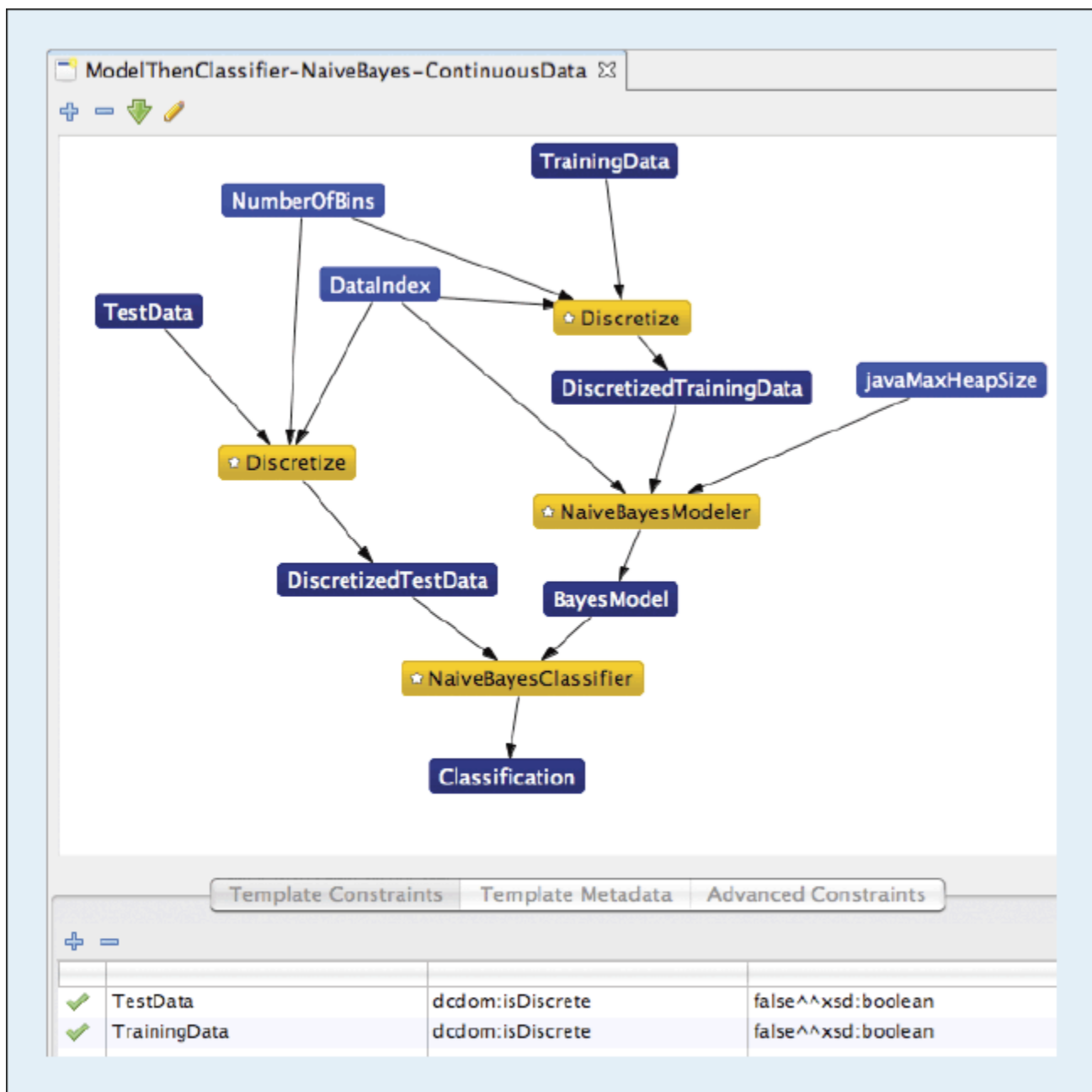
Taverna



Note:

- Web service as a step/input
- Grouping steps

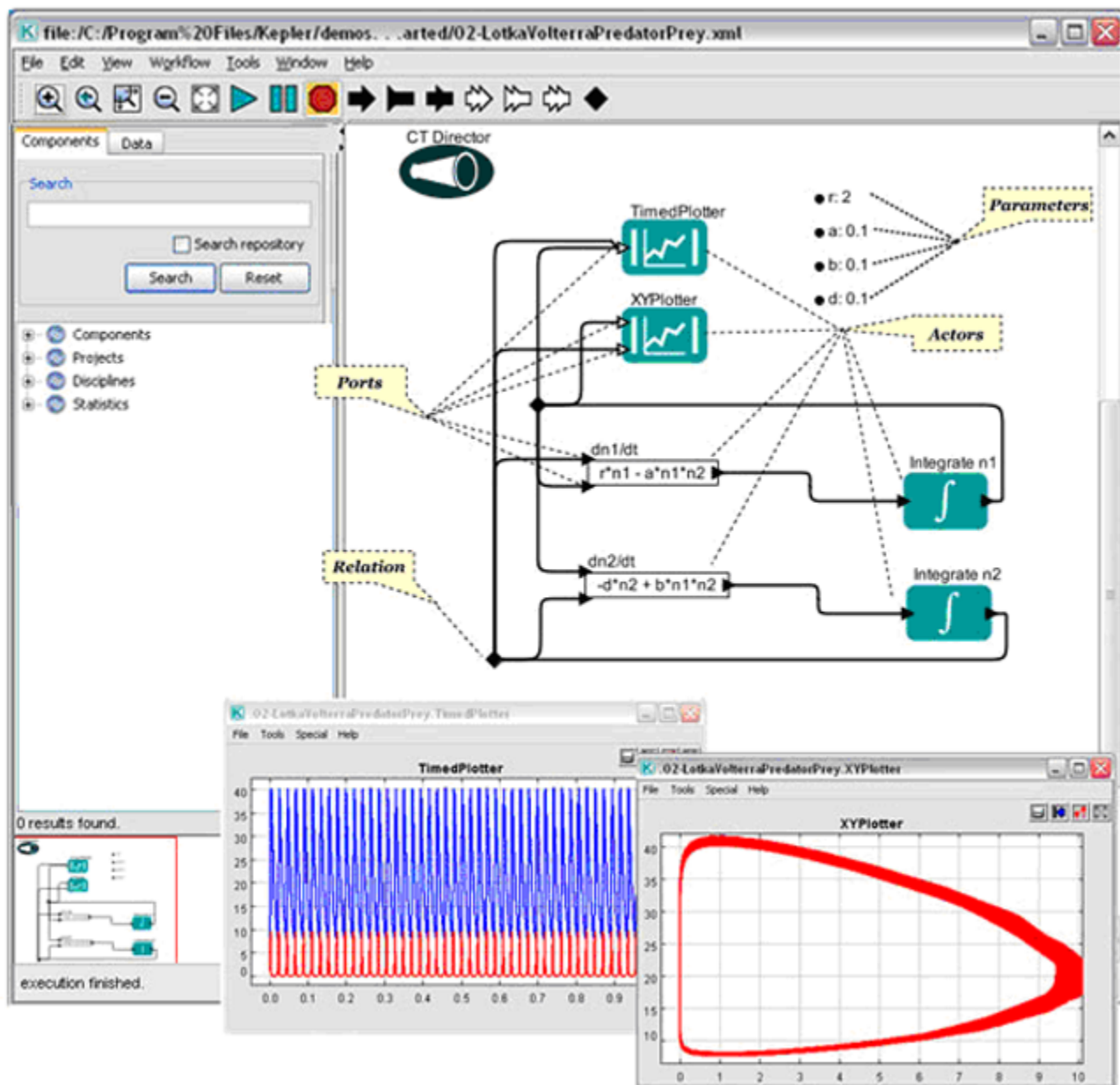
Wings/Pegasus

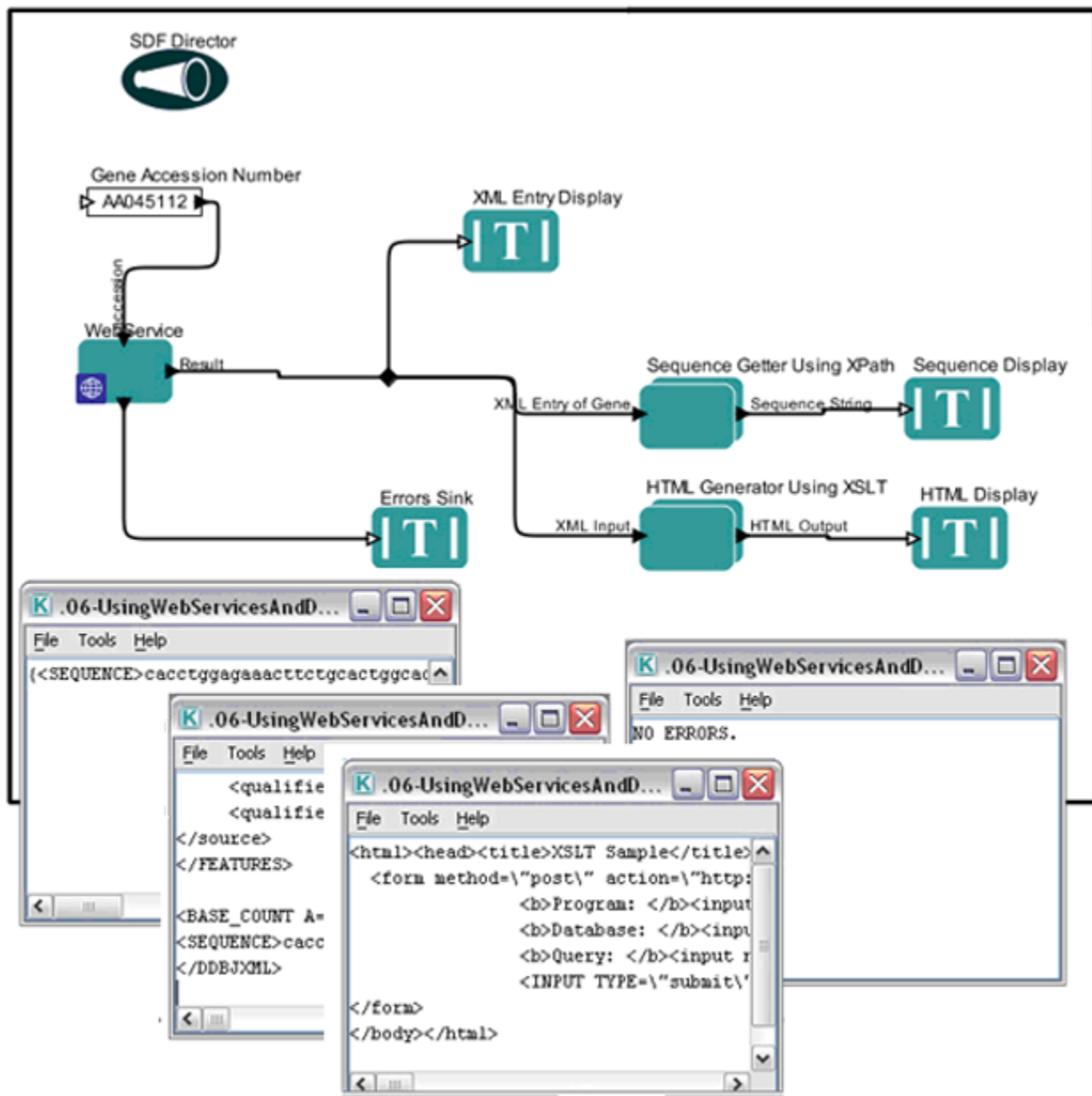


Note:

- Simple UI (Pegasus Engine/complex workflow)

Kepler

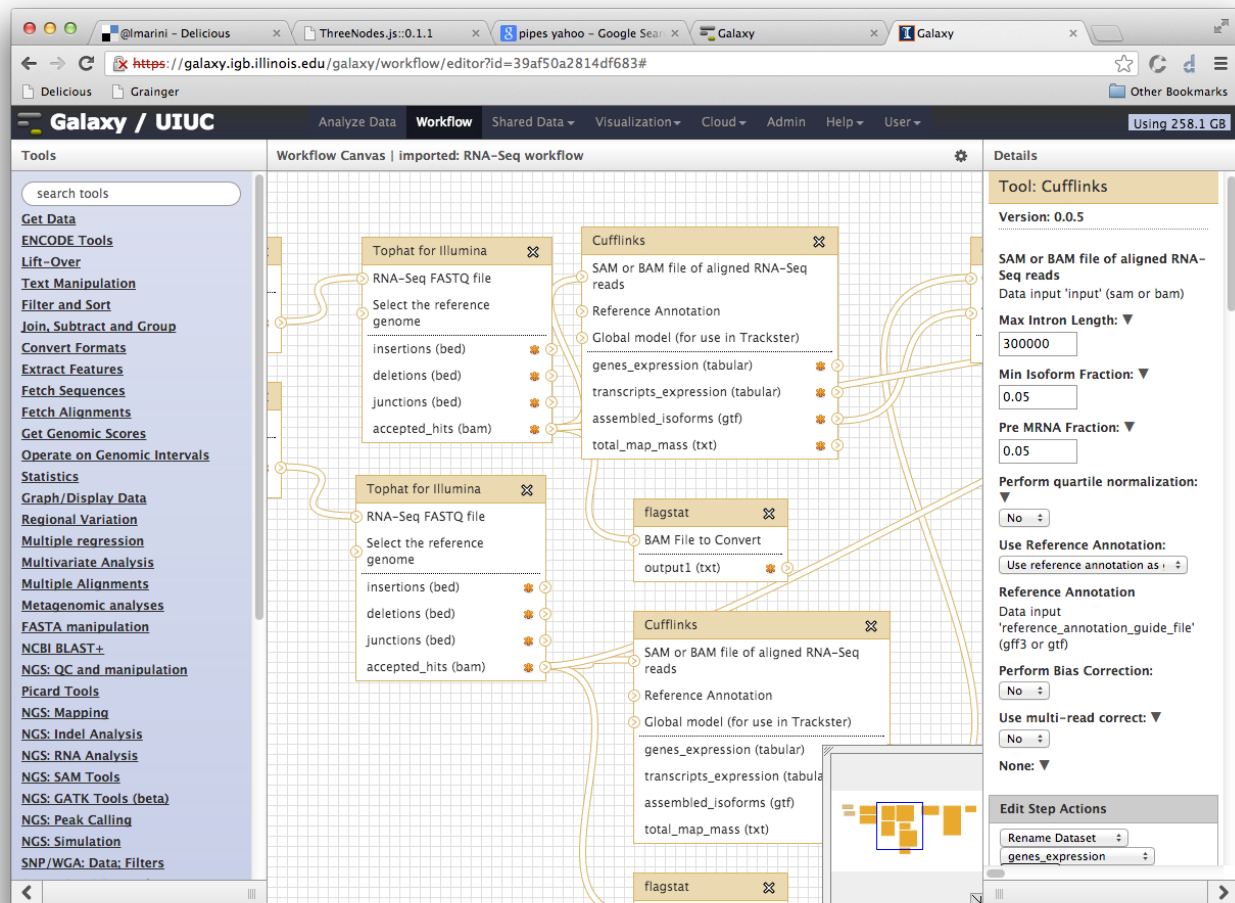




Note:

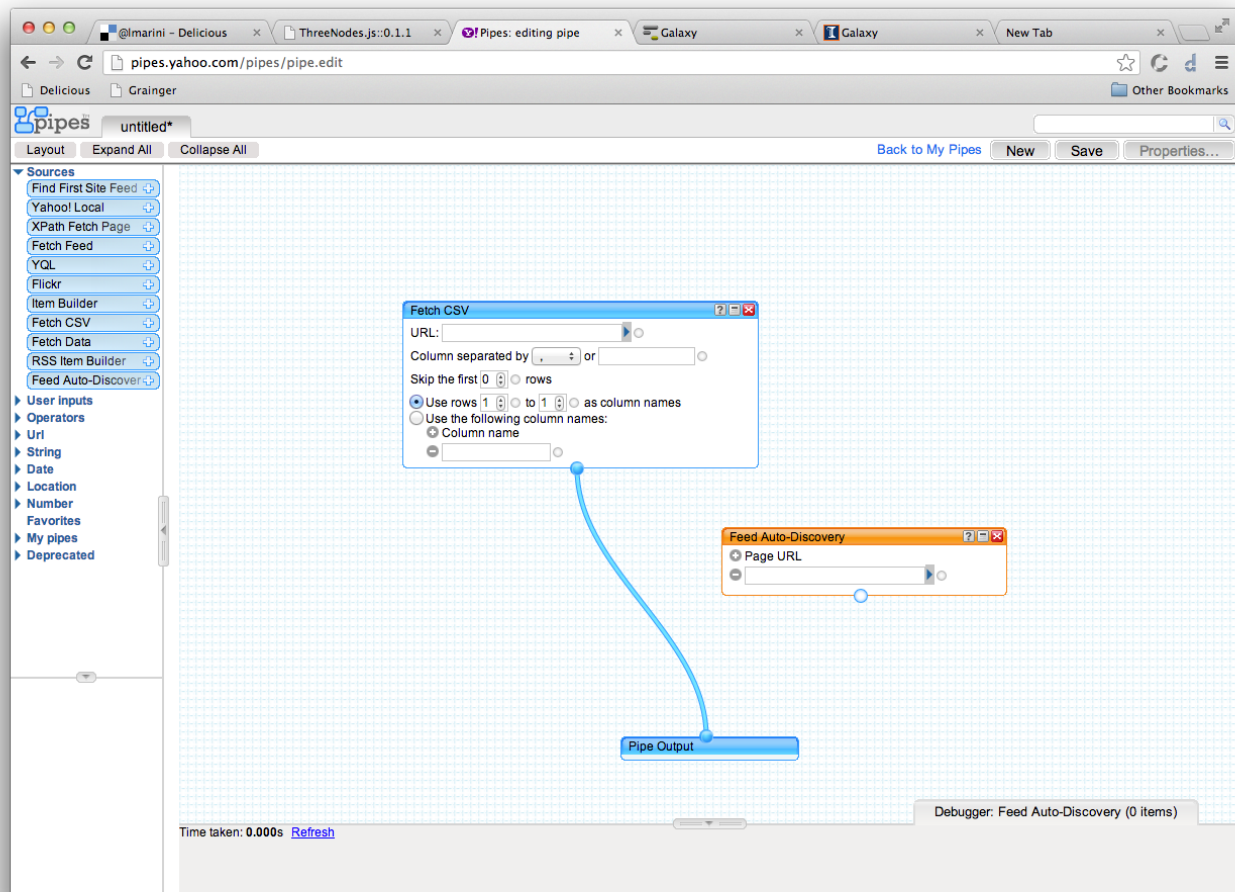
- Visualizing the steps (models/processes)
- Director (manage the execution)
- Workflow overview (mini map)

Galaxy



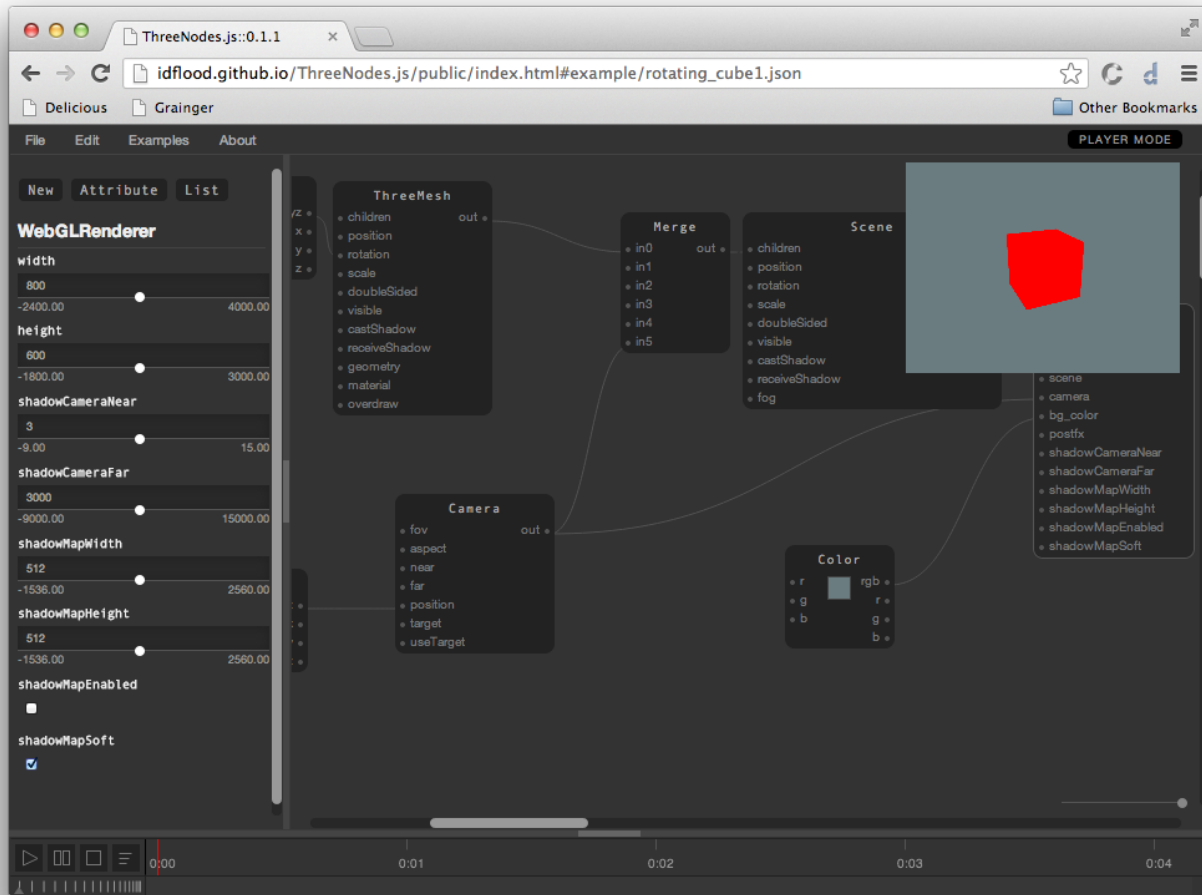
- Web-based editor
- tools show inputs and outputs on canvas but not parameters, those are shown in side panel
- overview of layout in bottom right
- tool parameters setting in the right panel
- button to layout

Yahoo Pipes



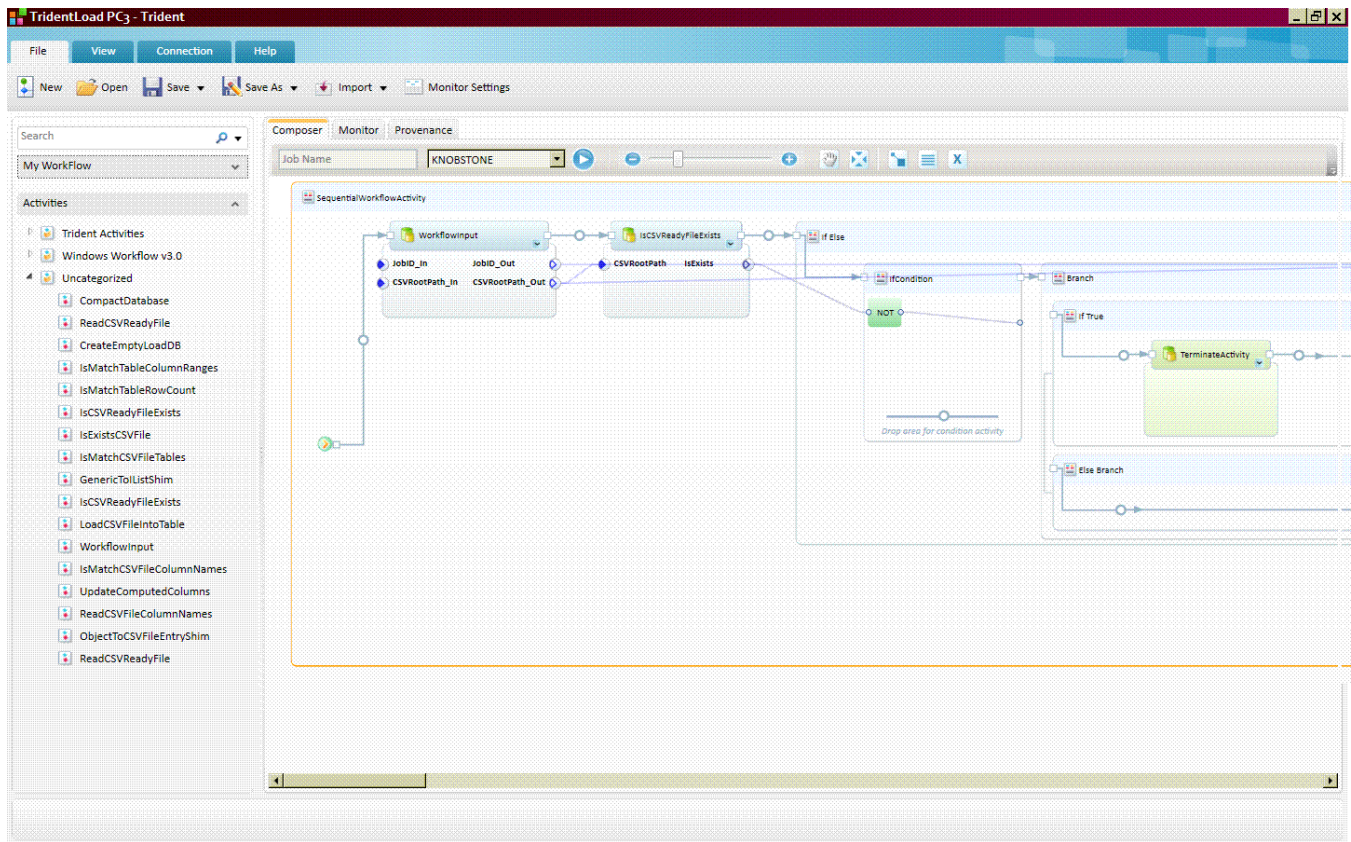
- tools organized by types
- tool parameters inside each tool on canvas
- tool list can be hidden
- button to layout

Threenode.js/vvvvv



- toll list and tool parameters both in left panel, toggle between them
- zooming ability in bottom right
- ability to play
- streaming workflows (continuously running)
- overwrites right-click menus
- inputs and parameters are the same?

Trident



Karma

