Scientific workflow management with ADAMS

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Machine Learning
WEKA, MOA

Data streams
MOA, Twitter

Imaging
ImageJ, Java Advanced Imaging, ImageMagick, Gnuplot

Scripting
Groovy, Jython

Spreadsheets
CSV, MS Excel, ODF

Graphics support
BMP, JPG, PNG, TIF, PDF

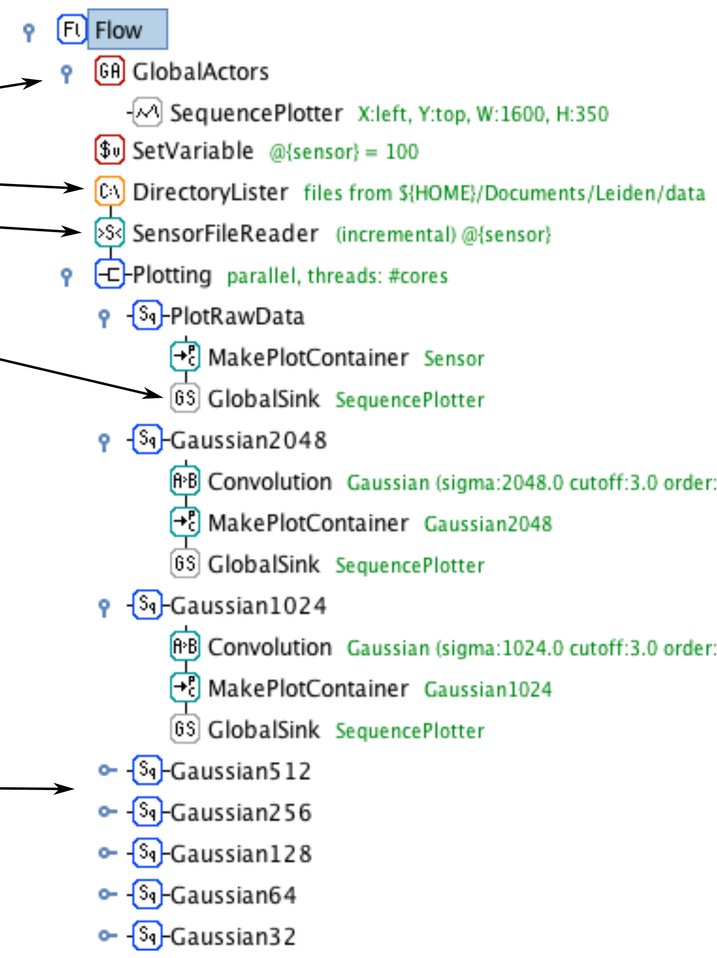
Network
http, (s)ftp, ssh, scp, email

Compression
tar, zip, bzip2, gzip, lzf, lzma

Operators
- Standalone (no input or output)
- Source (only output)
- Transformer (input and output)
- Sink (only input)

Tokens
Data is passed using tokens, wrapping single Java Object and Provenance information

Control actors
Determine how data flows, e.g., Sequence, Branch, Tee, Trigger, WhileLoop, If-Then-Else, Switch, ...



Tree structure
- very compact layout
- can view very large flows (by expanding only required sub-tree)
- no manual connecting of operators

N-to-M semantics
Tree cannot represent N-to-M, but can be mitigated by:
- variables
- key-value pairs
- global actors

Interactivity
Certain actors can interact with user, e.g., selecting file, prompting for making a selection

https://adams.cms.waikato.ac.nz/

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