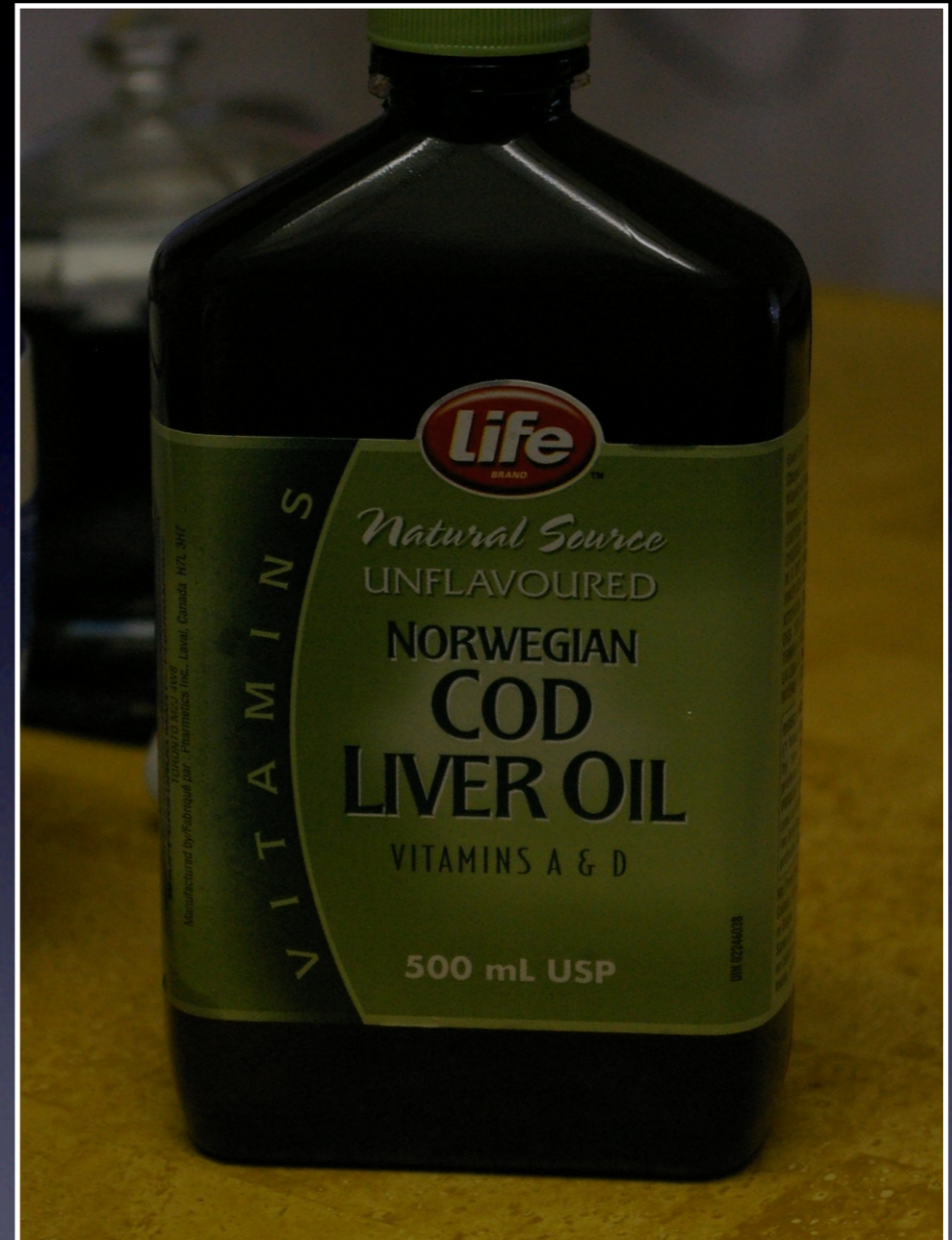


Towards Lensfield: data management, processing and semantic publication for vernacular e-science

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Linked Data



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Selling Linked Data

Make it transparent
Make it easy



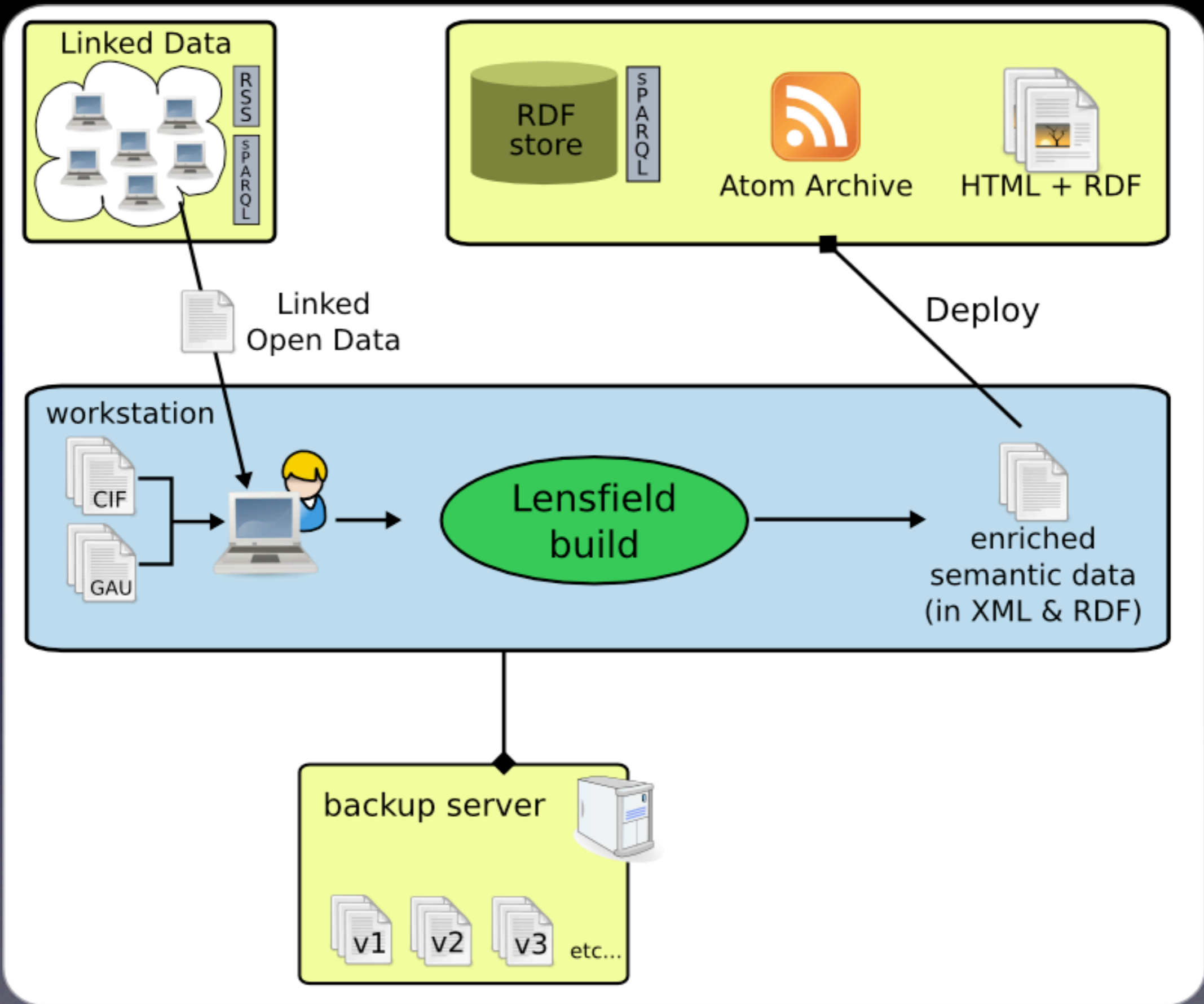
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Selling Linked Data

Citations

Selling Linked Data

- Visualizations
- Data management
- Automation



Demo

<http://code.google.com/p/lensfield/>

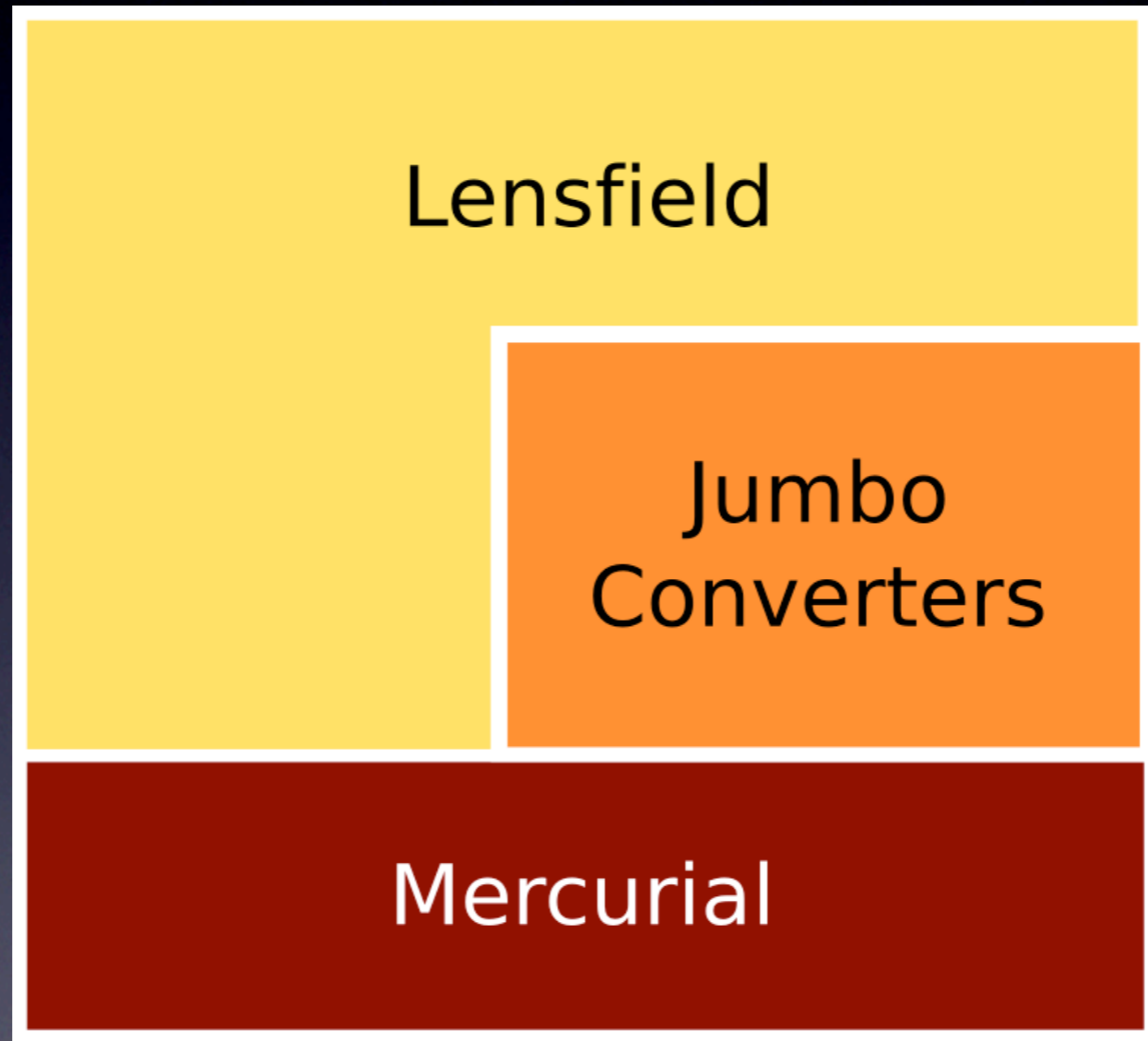
Lensfield Principles

- Make it easier to do the right thing
- Vernacular
- KISS and Embrace constraints

Constraints

- Work on the desktop without infrastructure installation
- Processing tasks could be anything and aren't predictable

Re-use



Jumbo-Converters

- Library of chemistry file format converters, semantifiers and enhancers
- Part of the CML Java libraries
- <http://sourceforge.net/projects/cml/>

Version Control

- Mercurial
 - Excellent support for experimentation
 - Backup to remote machine
 - P2P sharing
- Track script changes with data
- Automatically ignore deterministic intermediates

Build metaphor

- Describing state transitions rather than process better for provenance tracking
- Alternative to graphical programming languages / workflow packages
- hard problems are re-use and comprehension



Clojure

- Strong on concurrency
 - Functional
 - Software Transactional Memory
- Lisp
 - Snapshots, pause and resume, continuations

Future Development

- Templated Parameter Sweeps & sensitivity analysis
- Design of Experiments
- Multicore performance testing
- Grid processing

*The
Fascinator*



<http://fascinator.usq.edu.au/>

Users

- CLARION project
 - Embargo management and publication of Electronic Lab Notebook data.
- OREChem
 - Distributed chemistry eScience using Linked Data.
- Computational Chemical engineering

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Users

You?



... to use Lensfield!

Thanks

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