Oxford Update

Hierarchial Data, Tagging and Search

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- Installation of large scale OMERO in production
- Proliferation and promotion of use in Davis lab and beyond
- Feedback to Dundee
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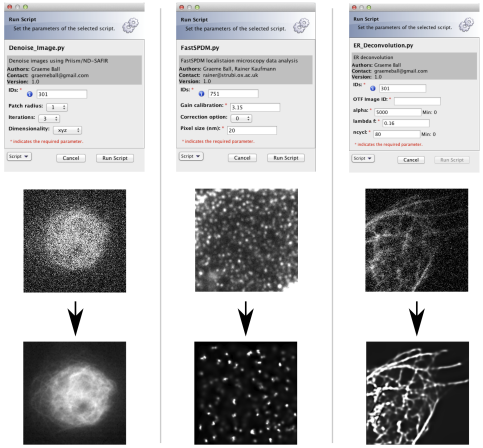
Processing Services

- Denoising
- Deconvolution
- Localisation Microscopy
- Matalab Analysis



Tagging Prototype

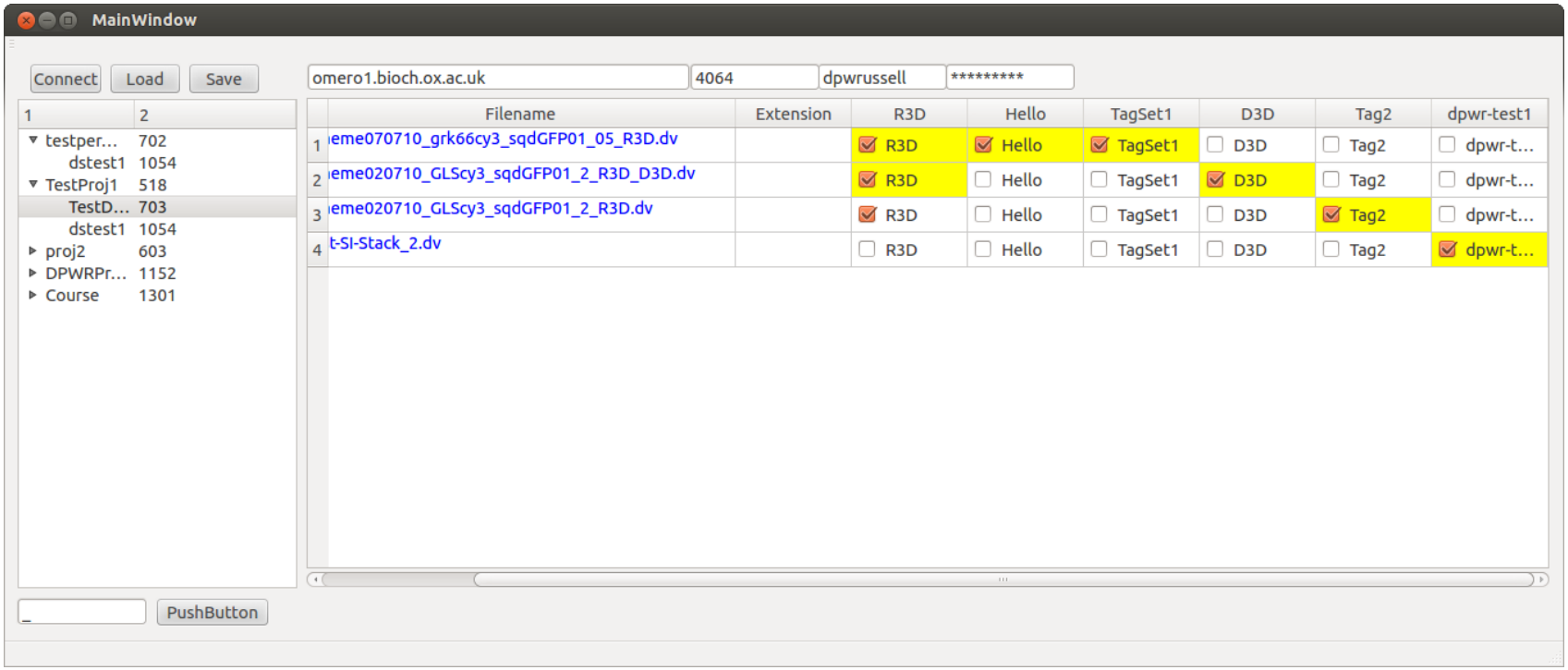


Figure: Prototype Demonstrating Auto-Tagging

C++ Gateway

- Friendlier C++ interface wrapping for OMERO Clients
- Based on and mirroring the Python Gateway

Hierarchial Data, Tagging and Search

- Very common request for OMERO to have more levels than Project and Dataset
- Driven by very reasonable need to organise data
- Why and how are tags a solution to this?
- Can tags be an improvement on this?

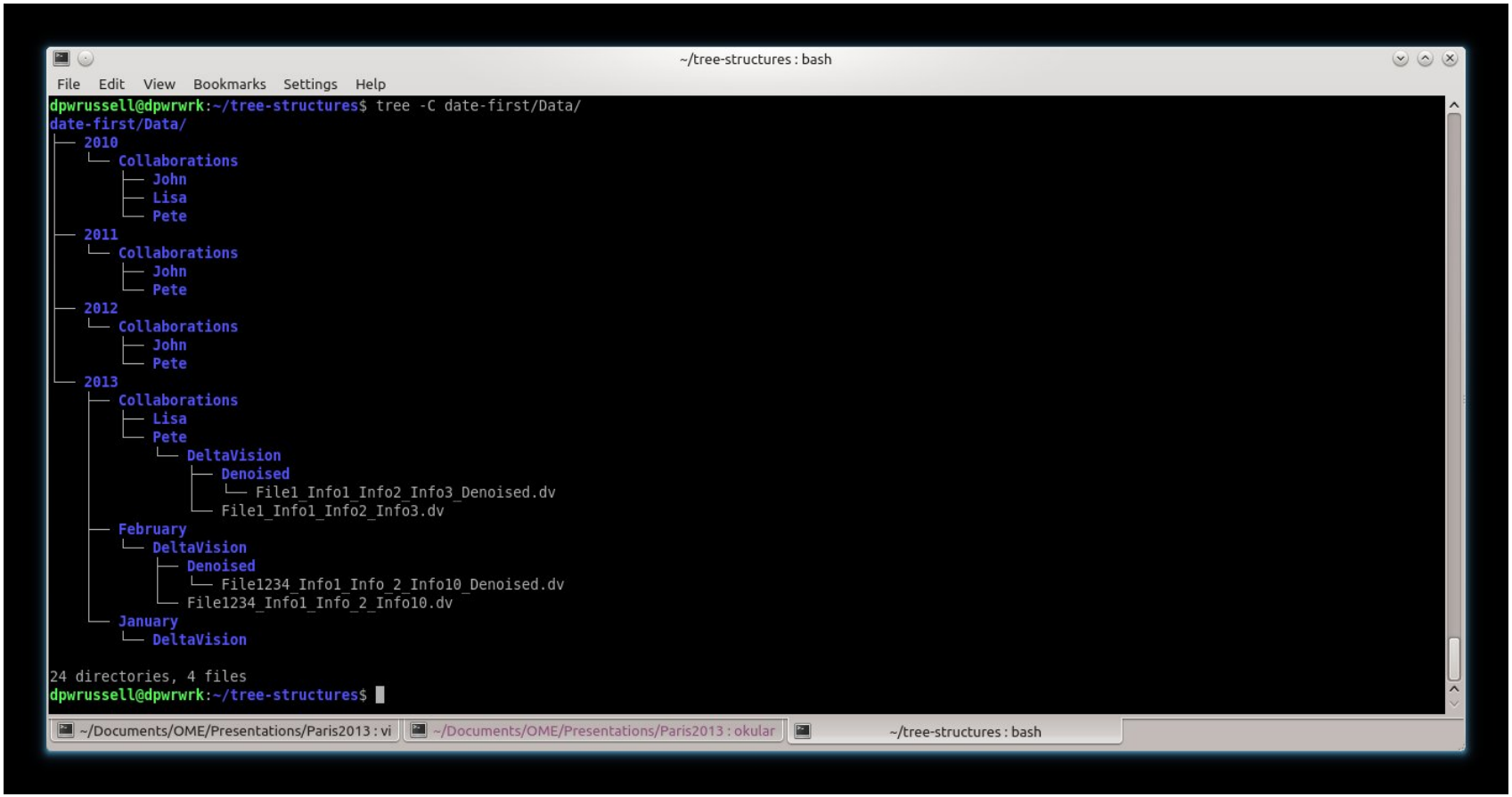


Figure: Filesystem Hierarchy

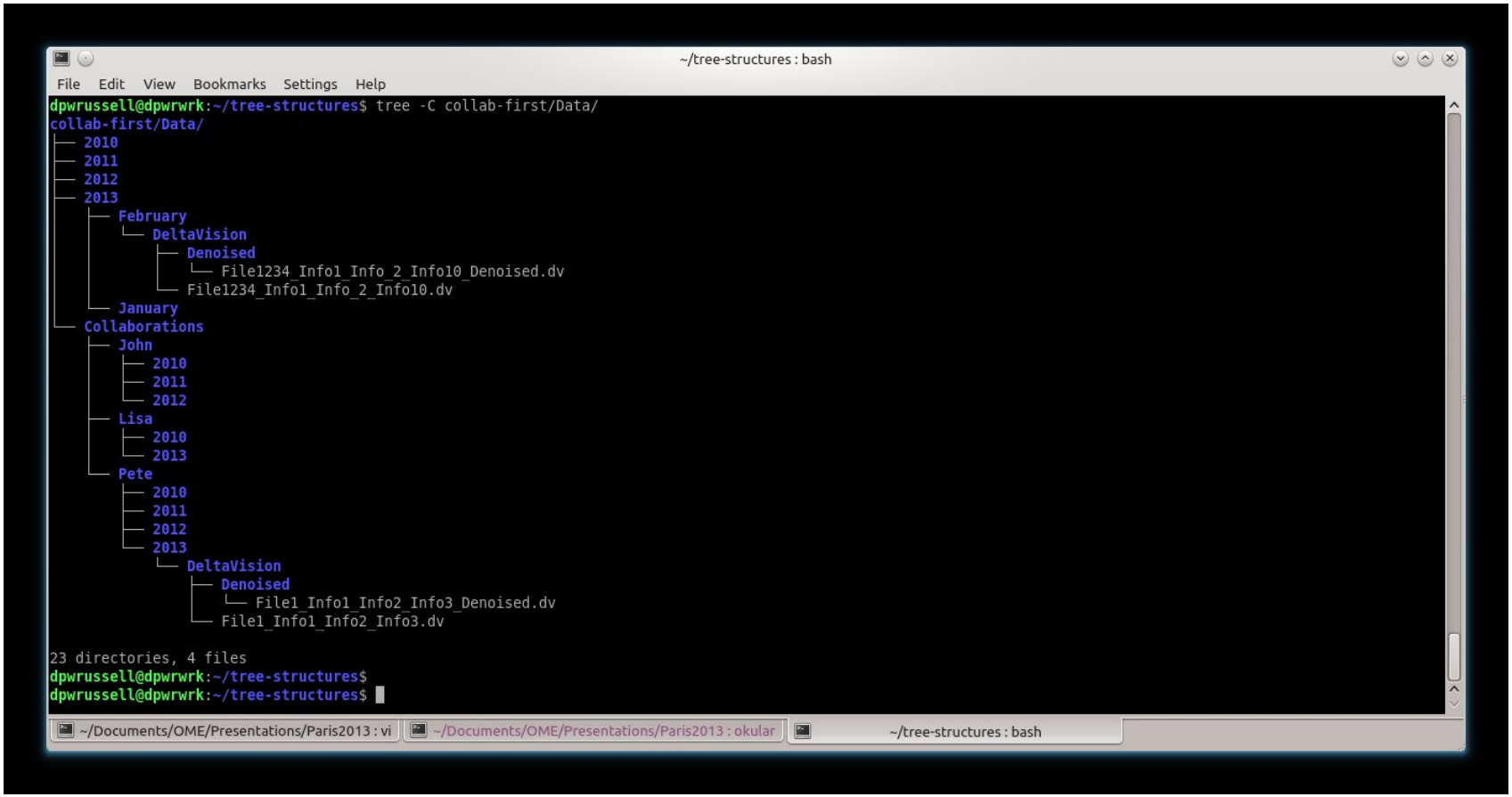


Figure: Alternate Filesystem Hierarchy

The Important Information

- E.g. 'File1_Info1_Info2_Info3_Denoised.dv'
- From directory structure: **2013, Collaborations, Pete, DeltaVision, Denoised**
- From filename: **Info1, Info2, Info3**

Using Tags Instead

- Assign tags for all important information
- The only difference in navigating tagged data as opposed to a filesystem is greater choice of path to take

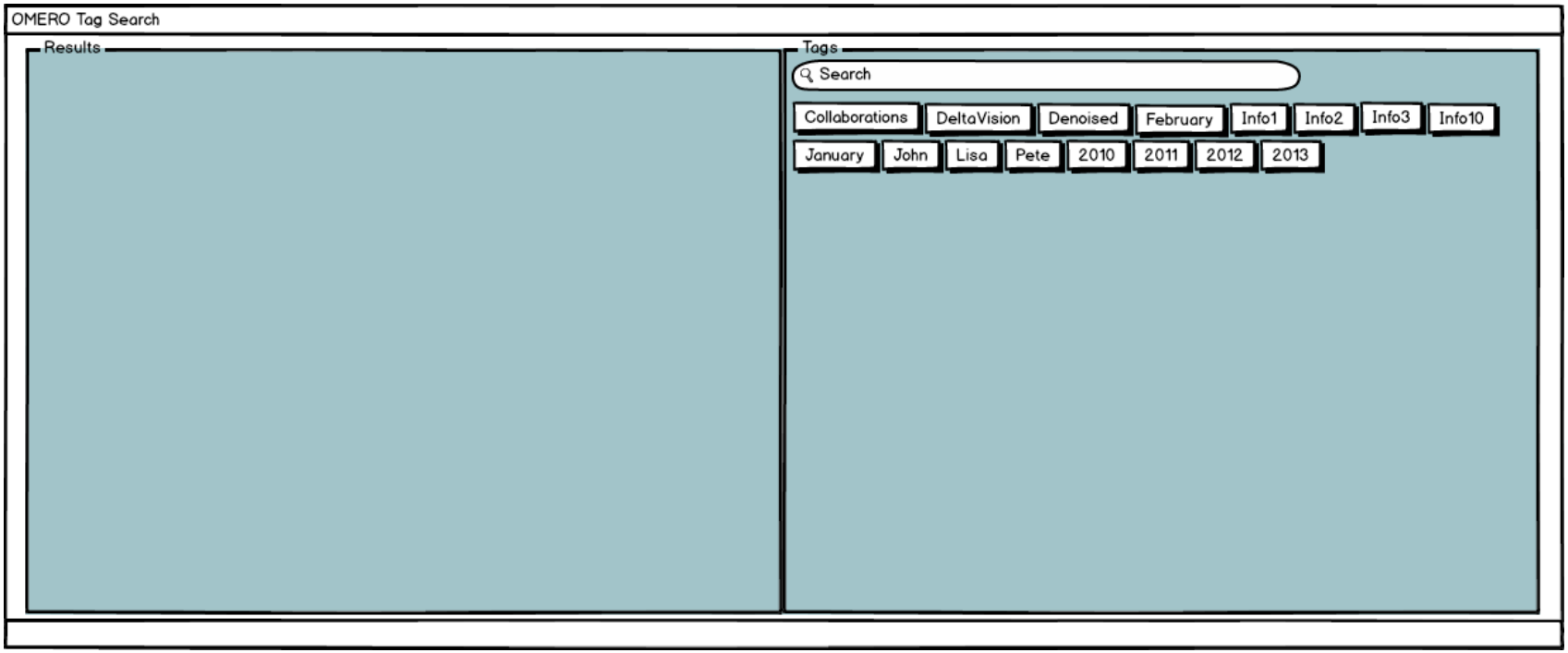


Figure: All Tags, Searchable

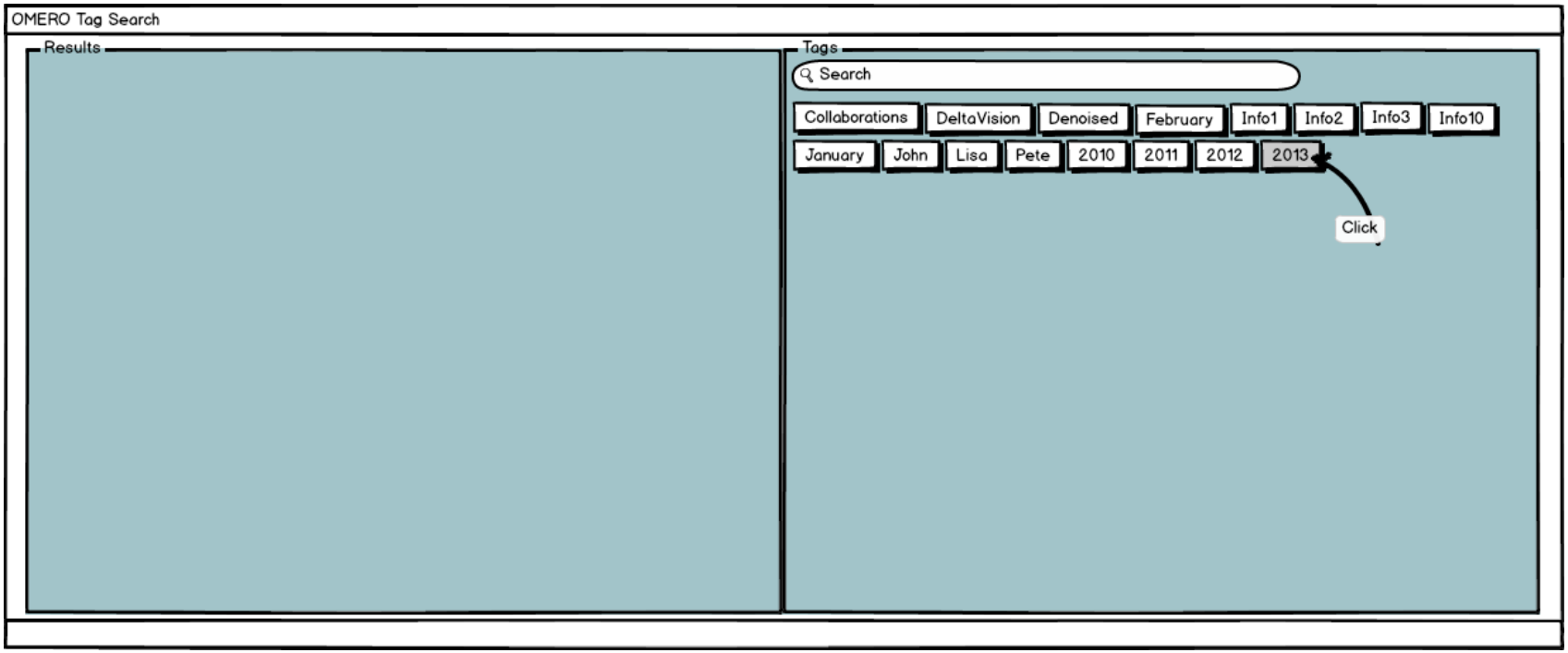


Figure: Selecting Starting Point

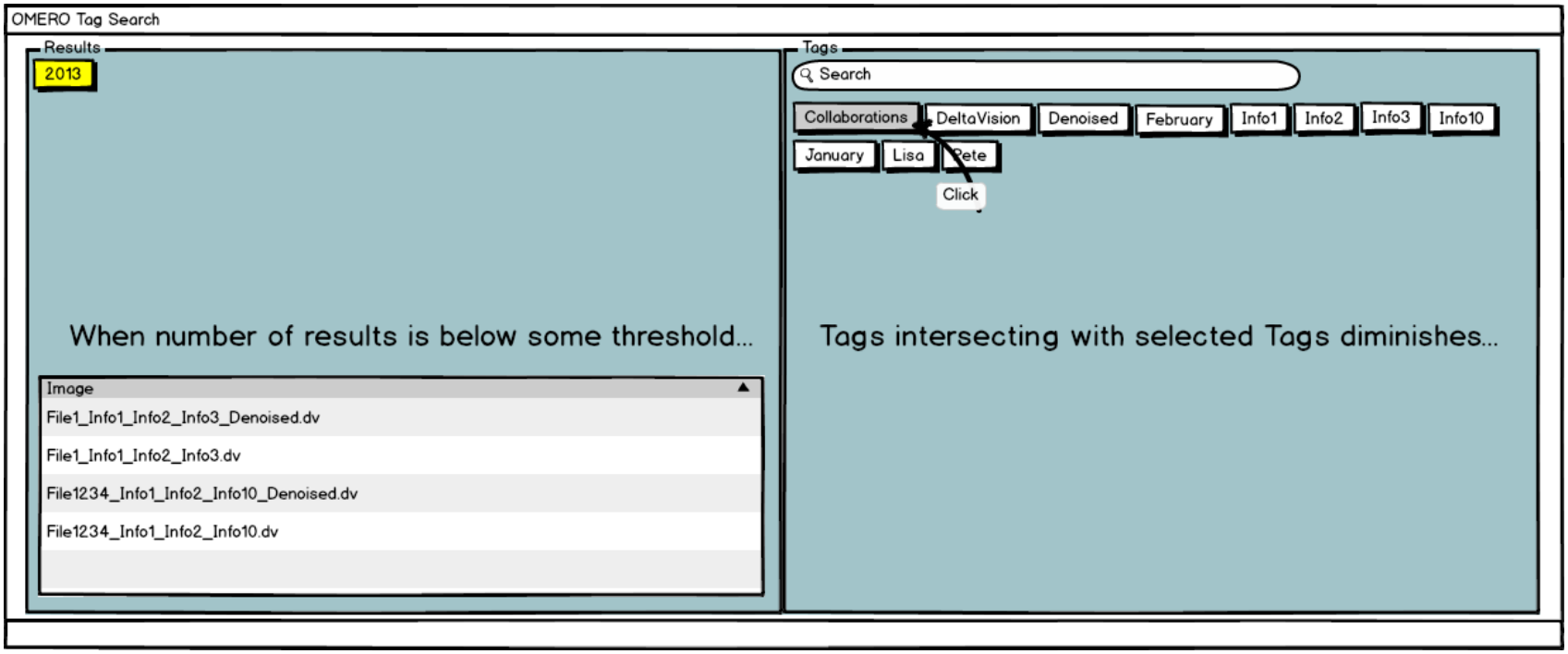


Figure: Initial Tag Intersection and Results

Figure: Reduced Tag Intersection and Results

Figure: Further Reduced Tag Intersection and Results

Figure: Further Reduced Tag Intersection and Results

Figure: Exact Replica of Filesystem Hierarchy

Nested Common Search Critera

- What if the criteria of interest is not at the top level of the filesystem tree?
- Difficult to search in a filesystem.
- What about with tags?
- E.g. All Denoised data from 2013

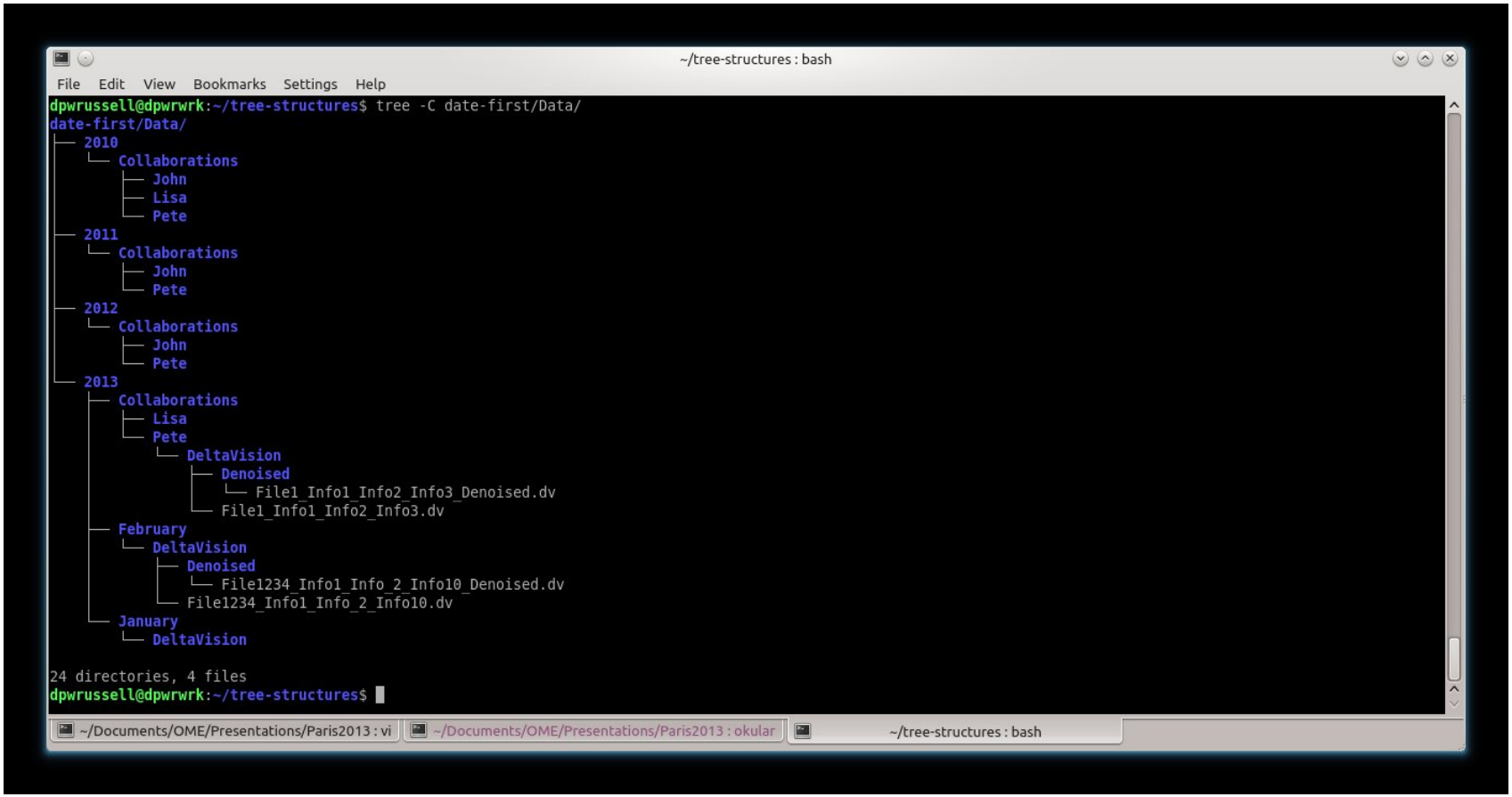


Figure: Filesystem Hierarchy

Figure: '2013' Starting Point

Figure: Results matching '2013' and 'Denoised'

In Practice

- Mockups based on design discussion with Will, Jean-Marie, Gus and others
- For implementation in OMERO Clients
- Search needs some work