Data Management at EBIC: Getting your Data

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Preparing your experiment (Computing services)

Before arriving at DLS:

- Ensure you have a fed ID (user account) and password

  Log in to DLS IT systems.

  Get access to the data during and after your experiment.

- Option Data Dispenser

  External hard-disk drive with own power supply.

  Recommended: USB-3 is faster! (disk must be USB-3, USB-3 cable and use a USB-3 port on the Data Dispenser)

Visit and proposal

- Proposal: <experiment type><number> e.g em325
- Visit number is Proposal-<visit> e.g em325-1

  Note: Some proposal visits are > 100.

- Experiment type is em for Electron Microscopy.

- Experimental data will be in:

  - /dls/$em/data/$year/$VisitNumber with $em = m02 or m03.

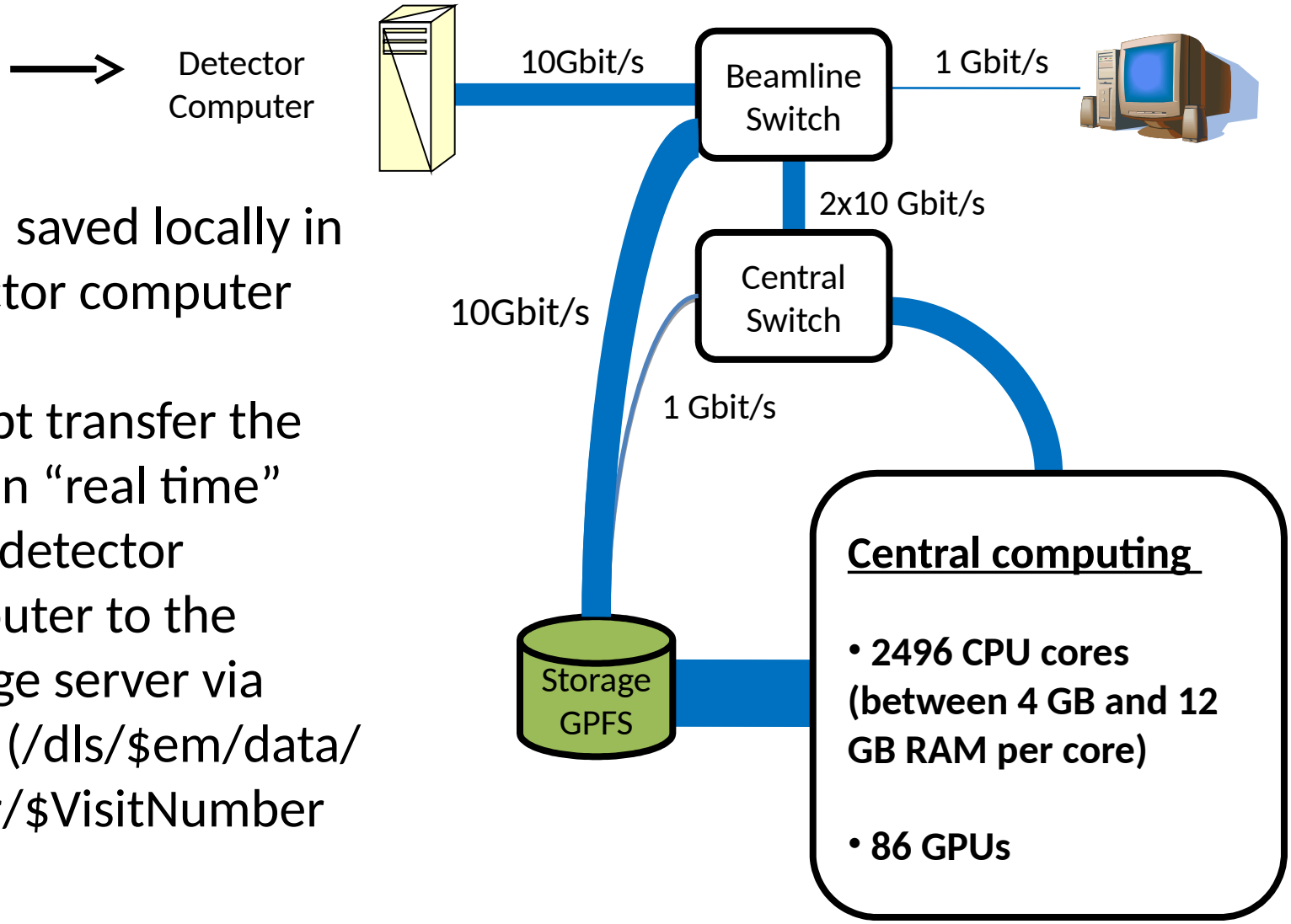
  - You have read access to this area

  - You can process data in the processing subdirectory.

Outline of current computing resources

- Data saved locally in detector computer

- Script transfer the data in “real time” from detector computer to the storage server via rsync (/dls/$em/data/$year/$VisitNumber)



Getting data

- At DLS:

  - Data dispenser

- At home institute:

  - Within 40 days since session:

    Data size < 20 GB: ftp, sftp or rsync

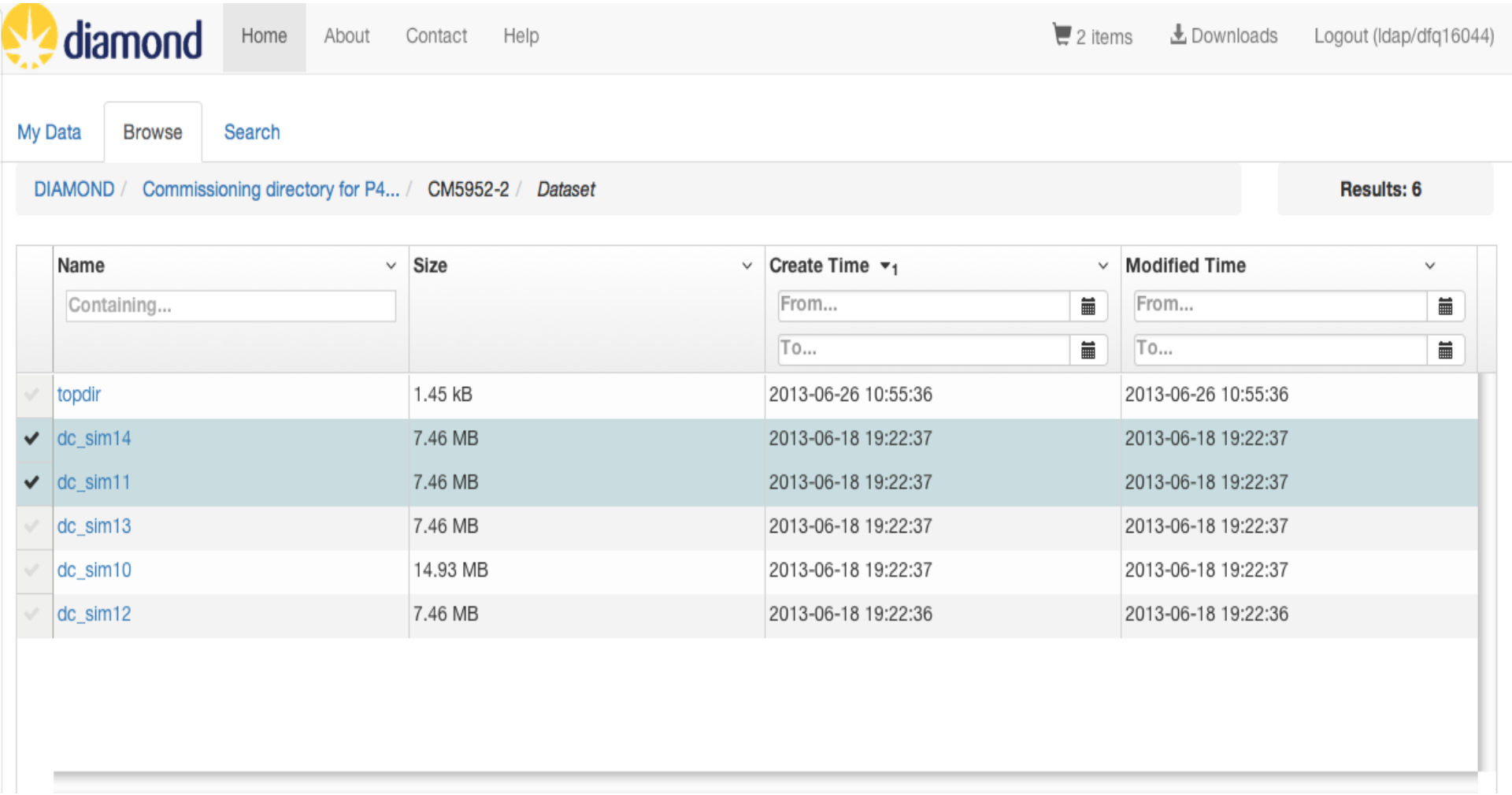
    Data size > 20 GB: Globus

  - After 40 days since session:

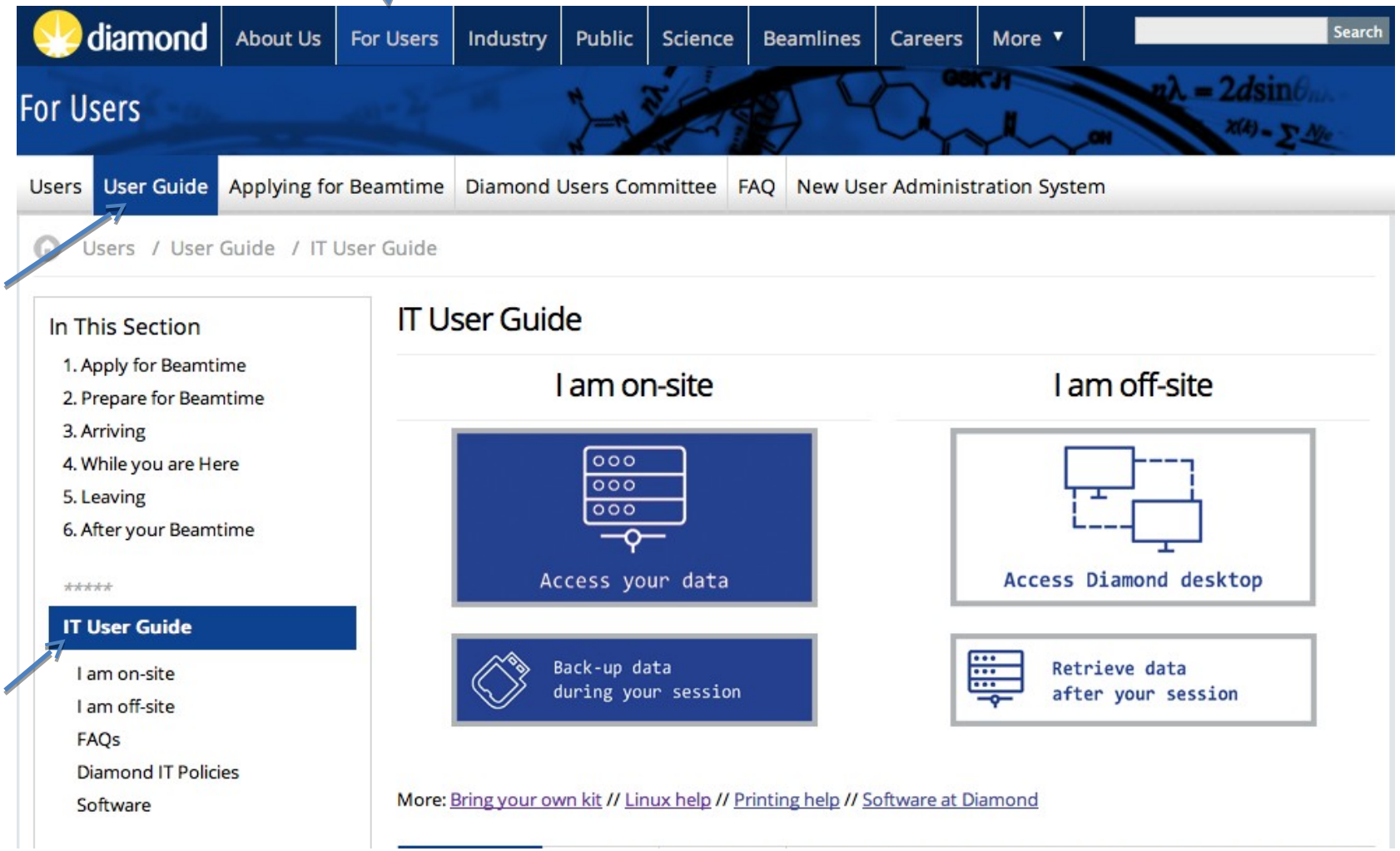
    Data available on tape only (1 copy)

    Use TopCat

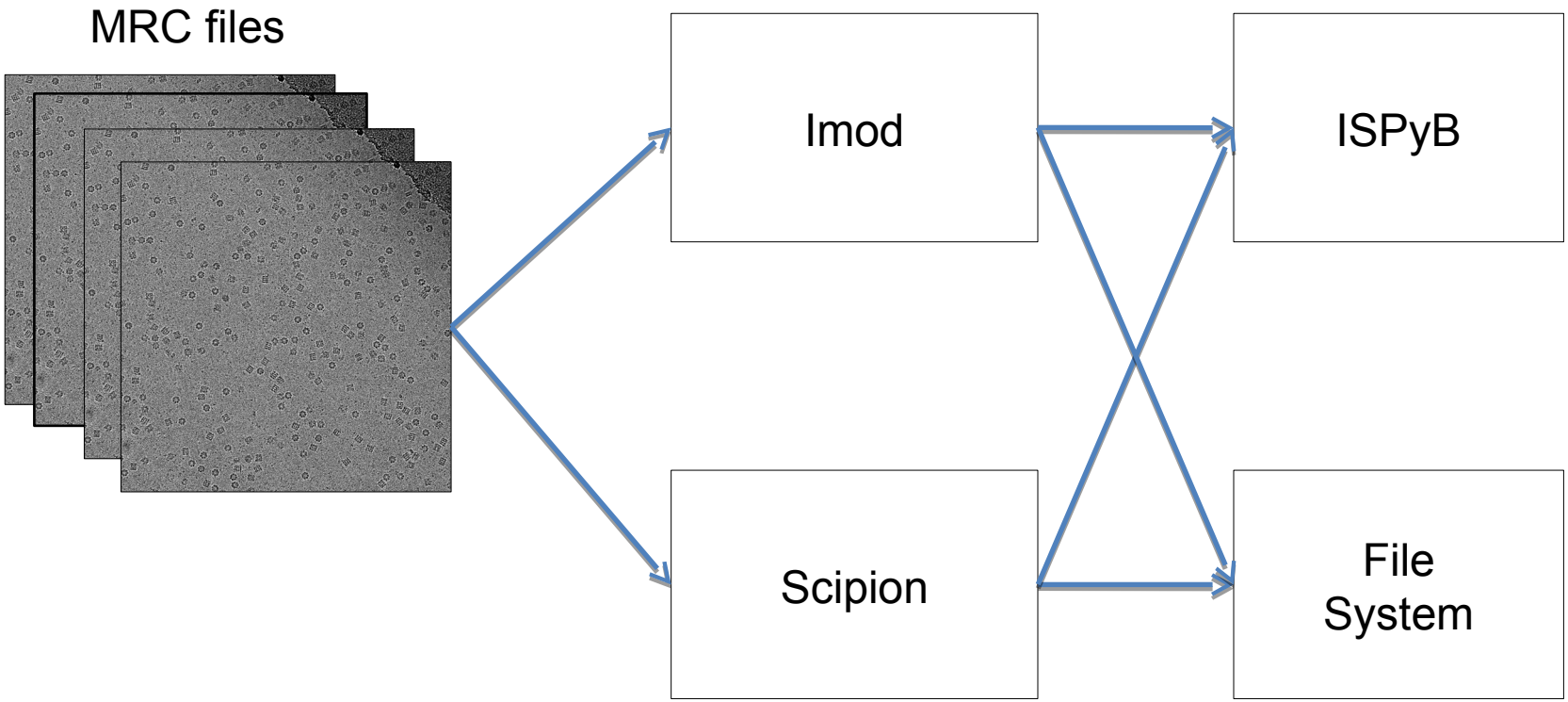
TopCat
(icat.diamond.ac.uk)



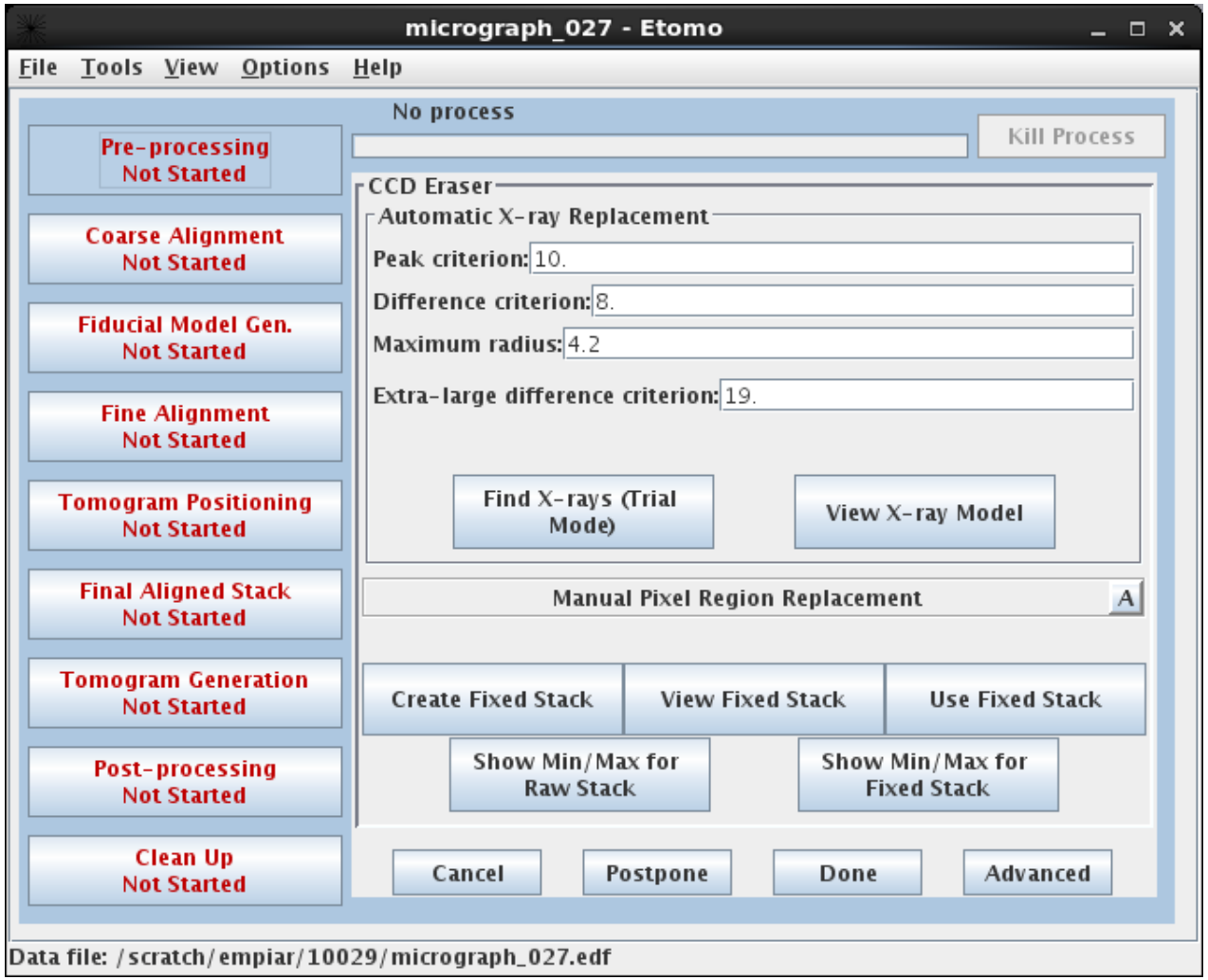
Conclusions (IT Guide)



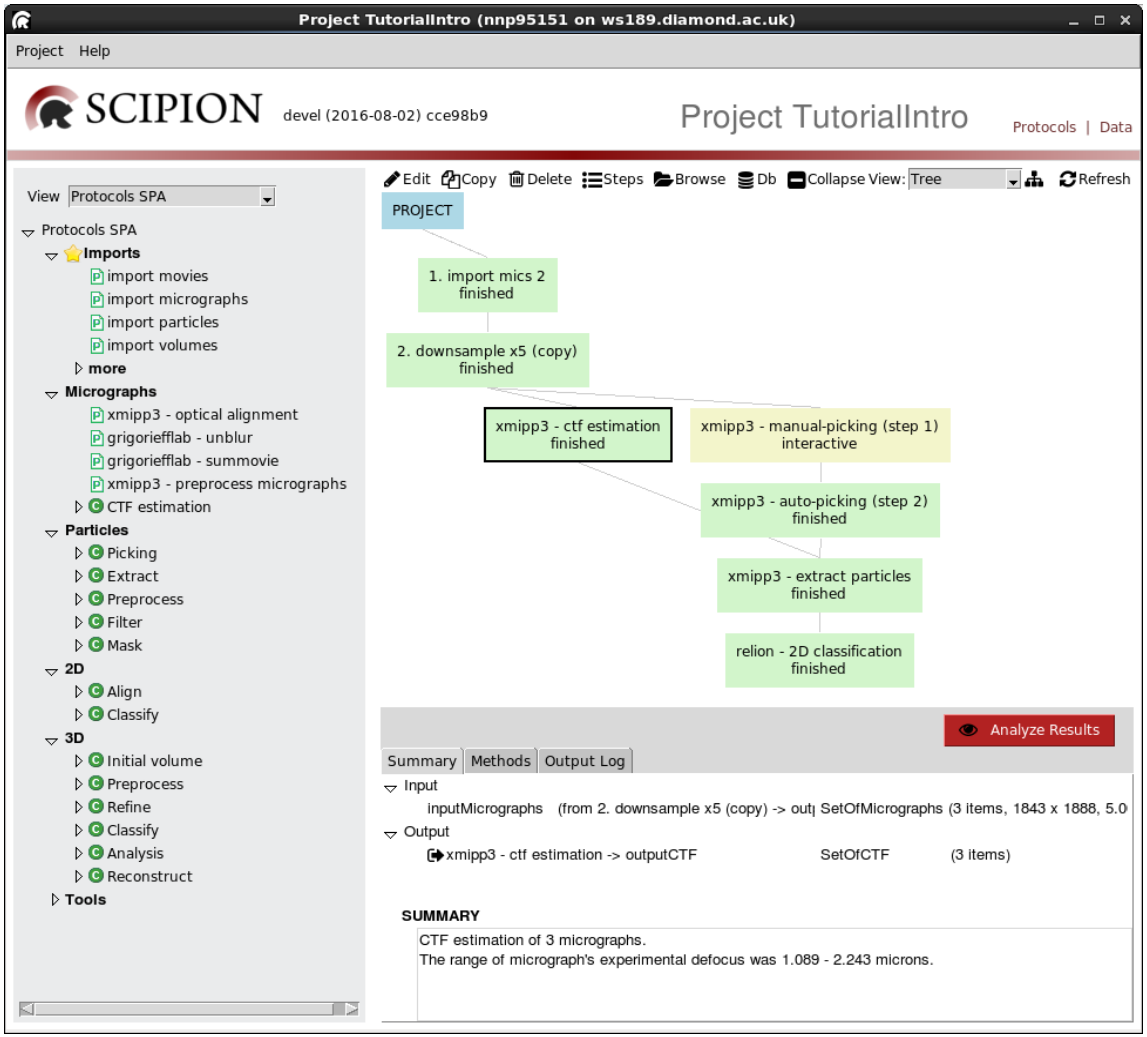
Data Processing Automation



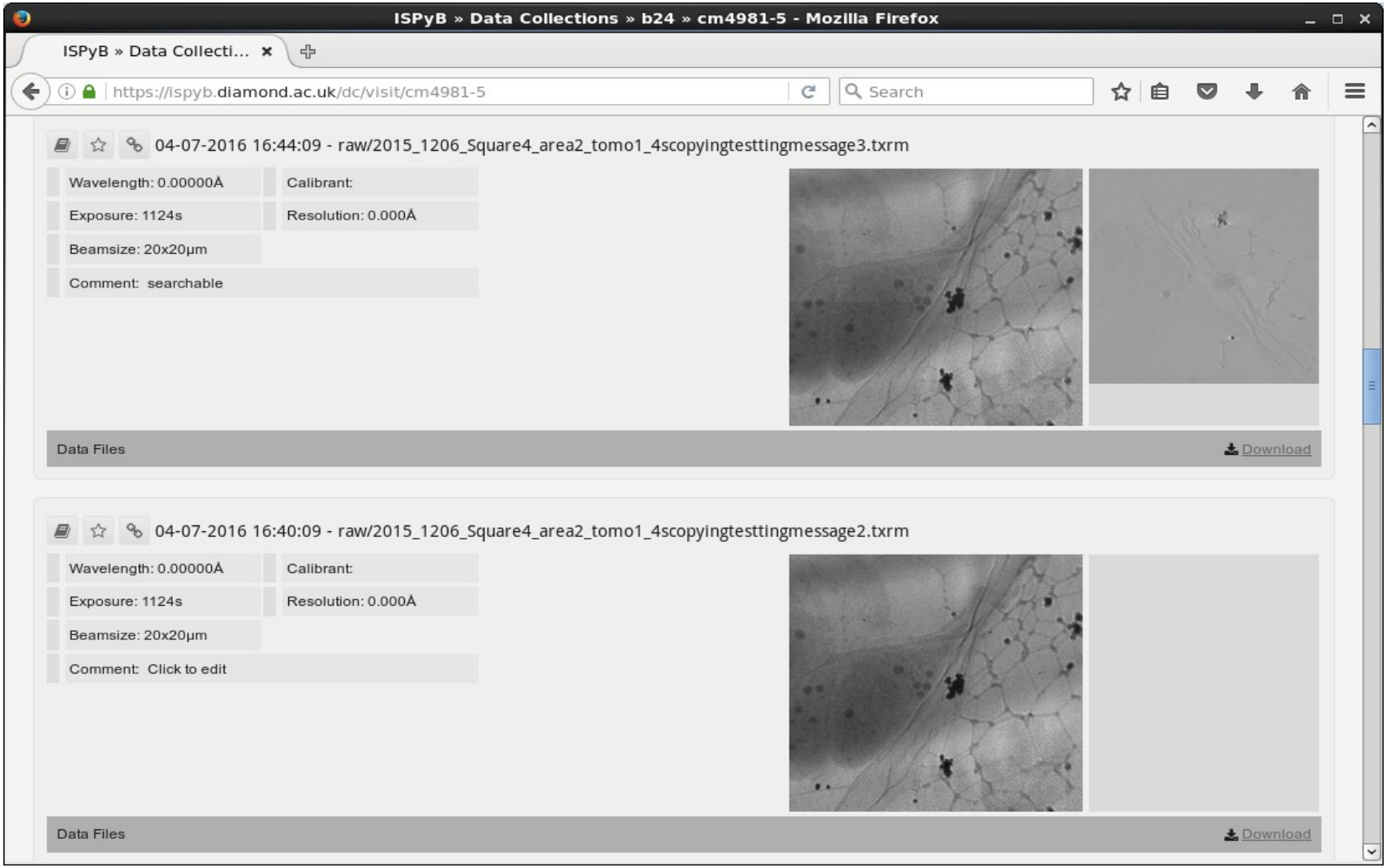
Imod


micrograph_027 - Etomo
File Tools View Options Help
No process
Kill Process
Pre-processing
Not Started
Coarse Alignment
Not Started
Fiducial Model Gen.
Not Started
Fine Alignment
Not Started
Tomogram Positioning
Not Started
Final Aligned Stack
Not Started
Tomogram Generation
Not Started
Post-processing
Not Started
Clean Up
Not Started
CCD Eraser
Automatic X-ray Replacement
Peak criterion: 10.
Difference criterion: 8.
Maximum radius: 4.2
Extra-large difference criterion: 19.
Find X-rays (Trial Mode)
View X-ray Model
Manual Pixel Region Replacement
A
Create Fixed Stack
View Fixed Stack
Use Fixed Stack
Show Min/Max for Raw Stack
Show Min/Max for Fixed Stack
Cancel
Postpone
Done
Advanced
Data file: /scratch/empiar/10029/micrograph_027.edf

Single Particle Analysis



ISPyB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Calibrant:
Exposure: 1124s
Resolution: 0.000Å
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Comment: searchable
Data Files
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Calibrant:
Exposure: 1124s
Resolution: 0.000Å
Beamsize: 20x20µm
Comment: Click to edit
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Timescales

- Tomography – in testing now
- Single particle analysis – lead developer visiting us later this month