Progress and Problems

- Being used at DLS
  - Single plug-in
    - Very bespoke reconstruction code
  - Very minimal integration
    - Communications with the GDA(Java)
- Properties
  - Defining these generically was virtually impossible.
Main Issue

• Data Format
  – Many different formats for different programs.
  – With large data sets, conversions are not really feasible.
  – Hopefully standardisation across the Synchrotron community coming soon.
Immediate Aims

- Identify standard distributable programs which can be used
  - TomoJ
- Redefine the pipeline based on 2 simple execution plug-ins.
  - Sinogram generation for n slices
  - Reconstruction of n slices
- Identify a way of dealing with parameters
Back to Basics - Use cases

• Reconstruct 1/n slices with
  – Multiple routines
  – Multiple parameters

• Reconstruct the whole thing
  – Single routine
  – Single parameter
Pipeline Overview

- Generate Slice/s
- Reconstruc Slice/s
- Properties Information
- Detector Data
- Sinogram
- Results
Plug-in Specifics

• Sinogram Generation
  – Should be designed to deal with a filling directory as standard.

• Reconstruction
  – Key need to deal well with parameters
Parameters

- Tomography routines have different parameters
  - This doesn't matter to the main code
  - Just needs to be reproducible
  - Plug-ins could register their parameters with the control plug-in
  - This could make use of the new multiple inputs and outputs from the kernel
Conclusions and Strategies

- Initial Tomography plug-in a good exercise, but needs reworking.
- Reduce the complexity of the internal plug-ins
- Add the complexity to the control plug-in
- Internal plug-ins can register their parameters with the control plugin