





# D2B Update


23/10/2017

# NormaliseToMonitor Updates

- Now supports workspaces with single counts (no ToF axis)
- Now supports detector scans – multiple monitor entries taken into account
- Interface unchanged
- General tidy-up
- PR merged to master
- Needs testing with D20

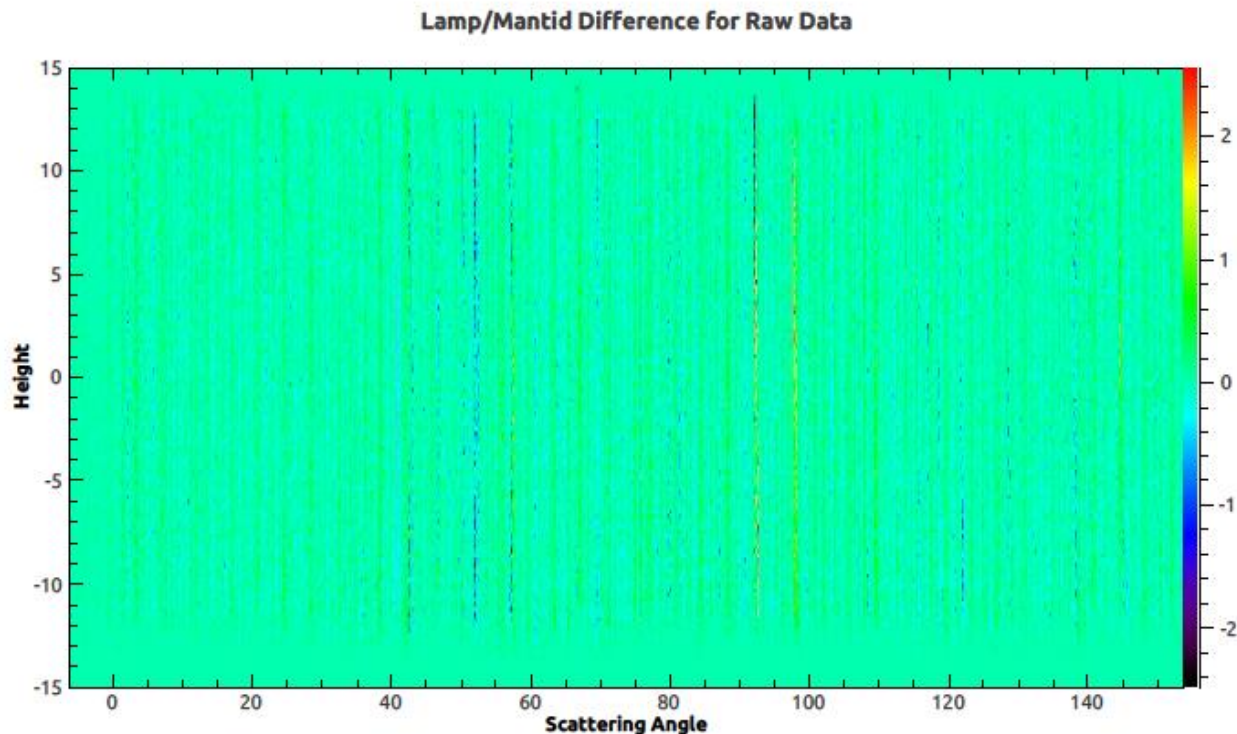
Normalizes a 2D workspace by a specified spectrum, spectrum, described by a monitor ID or spectrum provided in a separate workspace.

InputWorkspace	<input type="text"/>	
OutputWorkspace	<input type="text"/>	
MonitorSpectrum	<input type="text" value="-1"/>	
MonitorID	<input type="text" value="-1"/>	
MonitorWorkspace	<input type="text"/>	
MonitorWorkspaceIndex	<input type="text" value="0"/>	
IntegrationRangeMin	<input type="text"/>	
IntegrationRangeMax	<input type="text"/>	
	<input type="checkbox"/> IncludePartialBins	
NormFactorWS	<input type="text"/>	

 Keep Open ☐

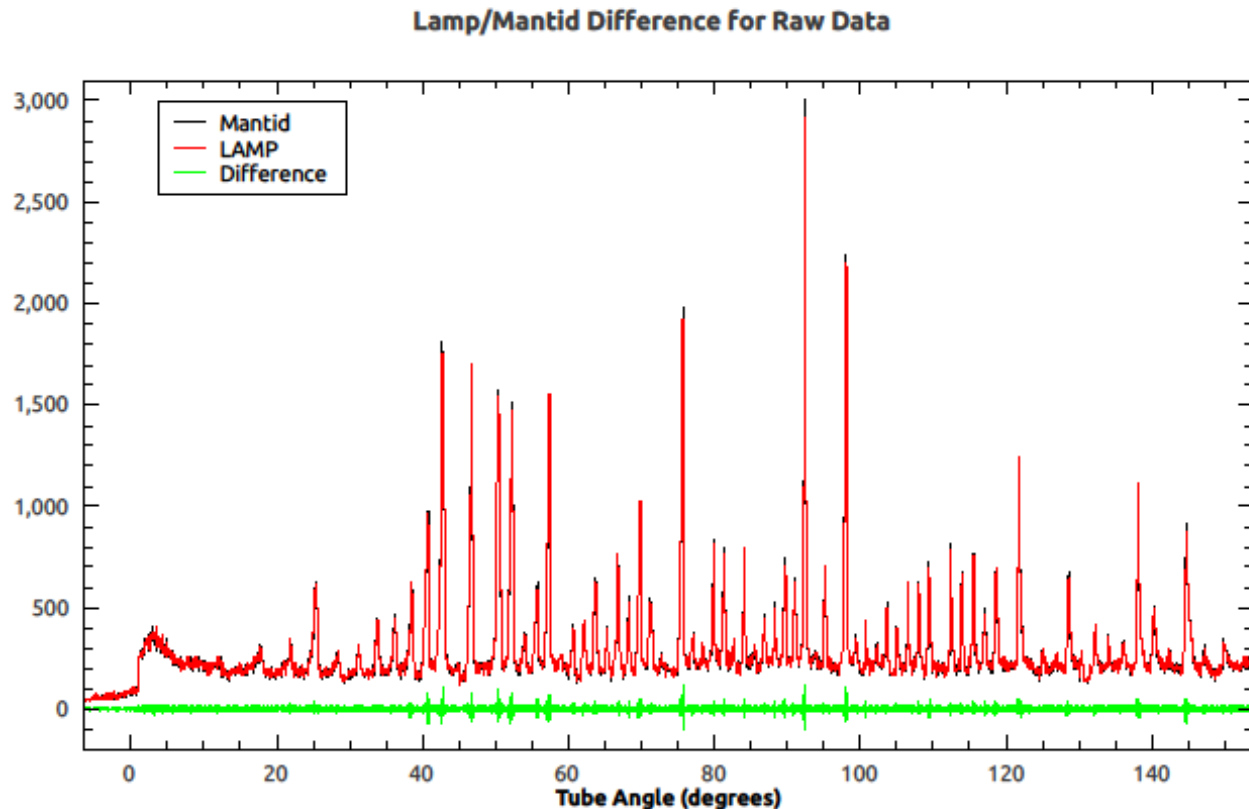
# D2B Loader – Raw Data

- Raw data now has data with all tubes in same orientation
- Discrepancy between Mantid and Lamp of a few counts – needs investigating



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# D2B Loader – Calibrated Data

- Calibrated data option added to loader

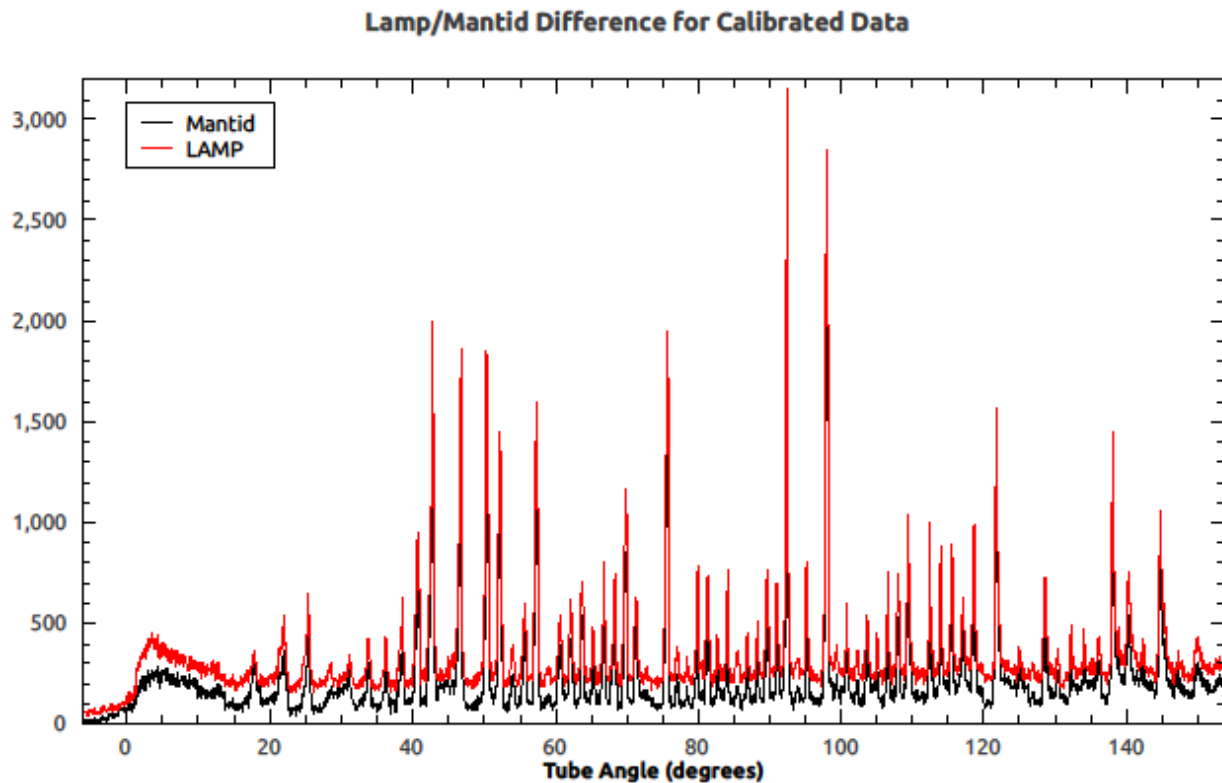
Loads ILL diffraction nexus files.

Filename	<input type="text"/>	<input type="button" value="Browse"/>	*
OutputWorkspace	<input type="text"/>		*
DataType	<input type="text" value="Raw"/>		

?      Keep Open ☐

# D2B Loader – Calibrated Data

- Calibrated data option added to loader
- Calibrated data shows some systematic difference in counts (as expected with interpolation)

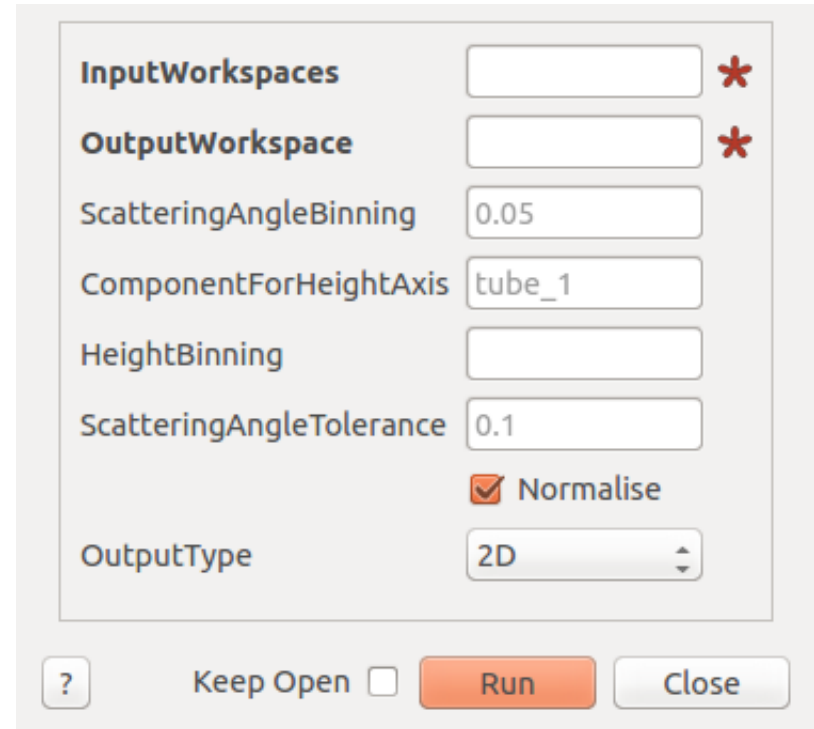


# D2B Calibrated Data

- Tube Dead Zones
  - Do we still need to apply this?
  - Alternative is to mask in Mantid, and ignore detector pixels that are outside good range
- Efficiencies
  - Writing integers in NeXus file – is this ok?
  - Could mean different results when applying efficiencies in Mantid

# SumOverlappingTubes - Straight 2D

- OutputType can be 2D, 2DStraight or 1D (to be added)
- 2D – height, tube centre scattering angle
- 2DStraight – height, pixel scattering angle
- 1D – pixel scattering angle



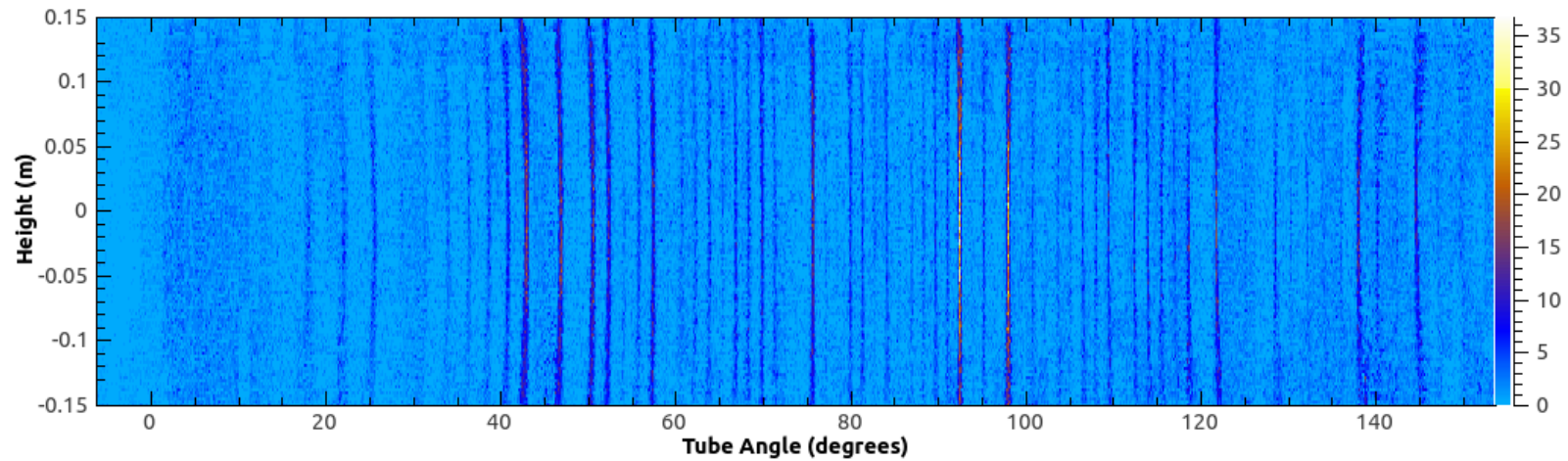
The screenshot shows a software dialog box titled "SumOverlappingTubes - Straight 2D". It contains several input fields and a checkbox. The "InputWorkspaces" and "OutputWorkspace" fields are empty and marked with a red asterisk. The "ScatteringAngleBinning" field is set to "0.05". The "ComponentForHeightAxis" field is set to "tube\_1". The "HeightBinning" field is empty. The "ScatteringAngleTolerance" field is set to "0.1". The "Normalise" checkbox is checked. The "OutputType" dropdown menu is set to "2D". At the bottom, there is a help button with a question mark, a "Keep Open" checkbox, a "Run" button, and a "Close" button.

InputWorkspaces		*
OutputWorkspace		*
ScatteringAngleBinning	0.05	
ComponentForHeightAxis	tube_1	
HeightBinning		
ScatteringAngleTolerance	0.1	
	<input checked="" type="checkbox"/> Normalise	
OutputType	2D	

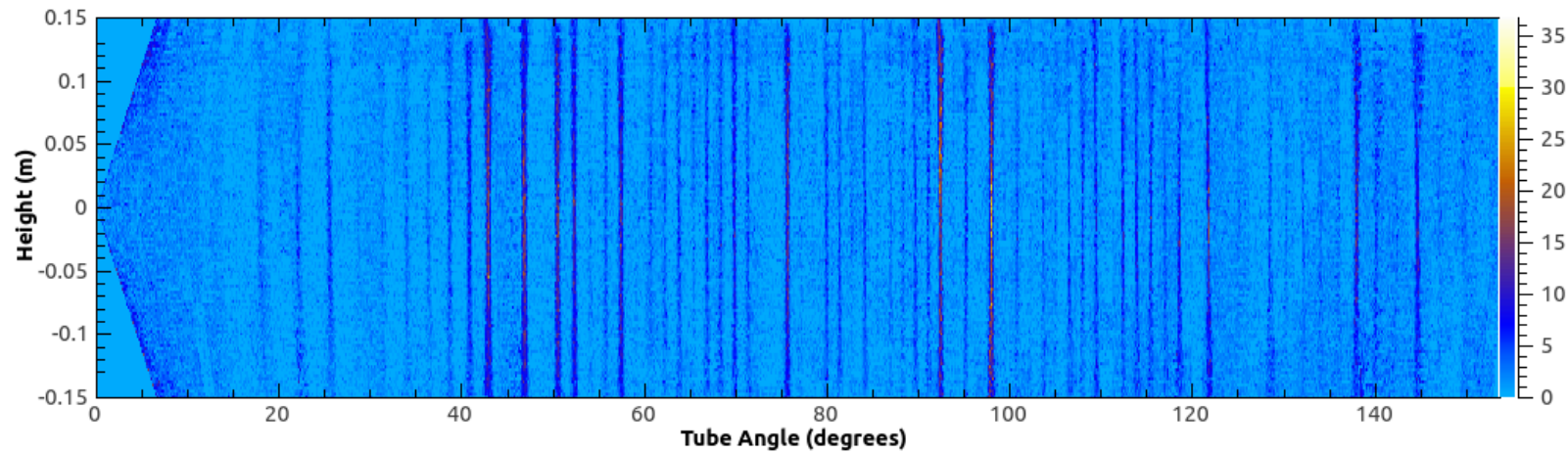
? Keep Open ☐ Run Close



508097



508097 Straightened



# Work To Do

- SumOverlappingTubes
  - 1D Option – for final diffractogram
  - Error propagation
  - Further unit tests for new features
  - Documentation
- Loader
  - Make decision on calibrated data
- Provide build for testing
- Add D2B support to PowderDiffILLReduction workflow algorithm
- Calibration – applying calibration from files