DQ Inspector

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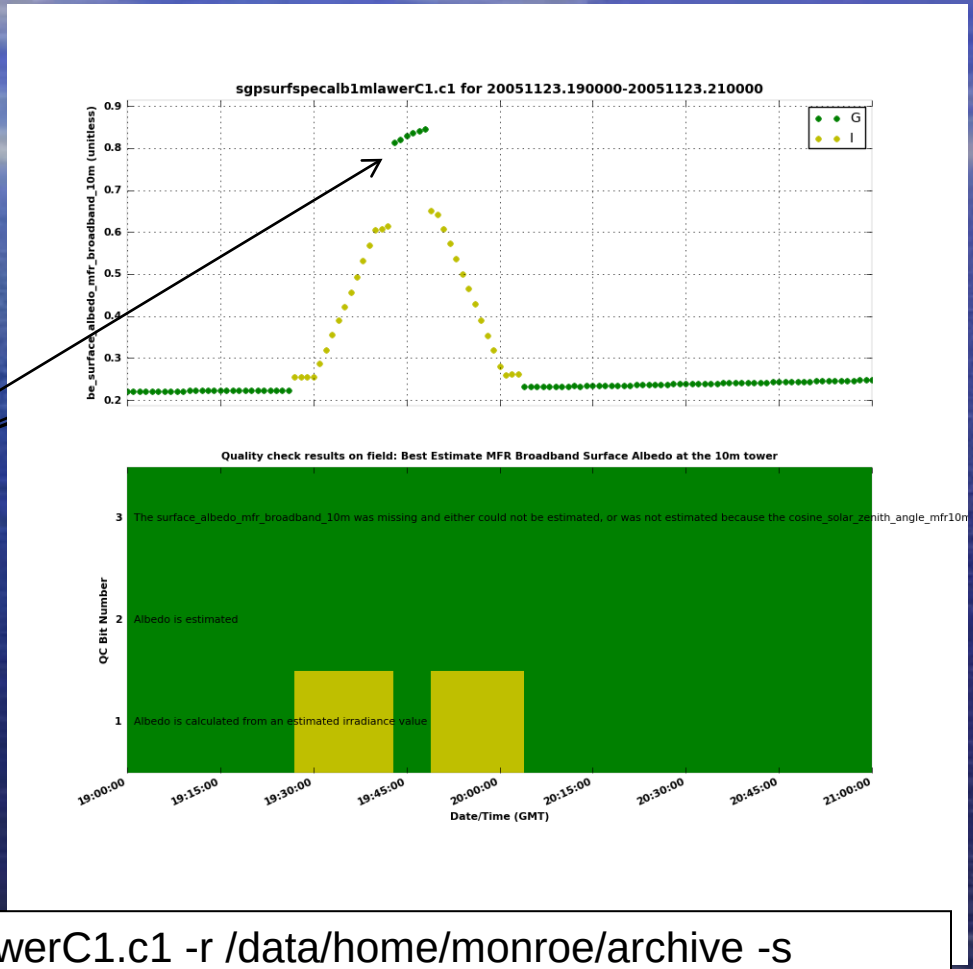
DQ Inspector

- A new Python-based generic plotting tool for ARM-standard netCDF files
- Plots data with summary results from 1D and 2D bit-packed QC variables color-coded by assessment level: Green = “Good”, Yellow = “Indeterminate”, Red = “Bad”
- Depending on the nature of the dataset, can plot time periods covering subsets of one day up through years of data at one
- Very useful for troubleshooting ingests and VAPs during development
- Provides several command-line options which make it very easy to run from a batch script
- Documentation available on the ARM Wiki at: https://wiki.arm.gov/bin/view/Engineering/DQInspector
- ANYBODY with an account on mars.dmf.arm.gov or mercury.dmf.arm.gov can use this tool!

Using DQ Inspector, 1D Case

Start with long
Next plot a month
2 hours. . .
closer view . . .
problem



dq_inspector -d sgpsurfspecalb1mlawerC1.c1 -r /data/home/monroe/archive -s 20051123 -x 20051123.19:20051123.21 -v be_surface_albedo_mfr_broadband_10m

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Using DQ Inspector, 2D Case

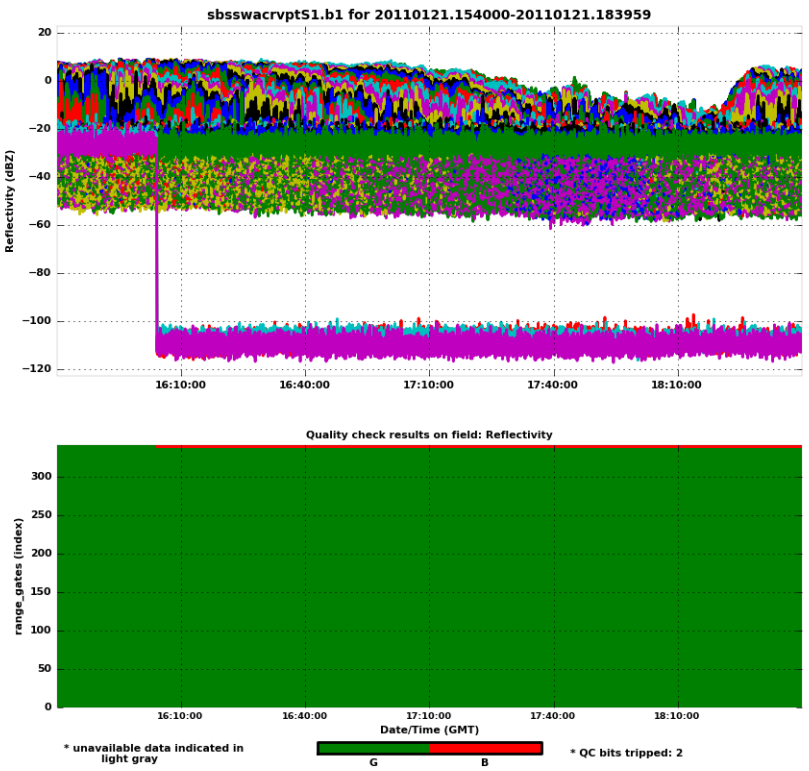
Signal saturation?

Next use time in

Then plot only

Lastly, a 2D time series from 15:40 to 18:40 GMT using the -t option. . .

to -80:40 dBZ bins



dq_inspector -d sbsswacrvptS1.b1 -s 20110121.145714 -e 20110121.191044 -v Reflectivity -q -x 20110121.1540:20110121.1840 -t

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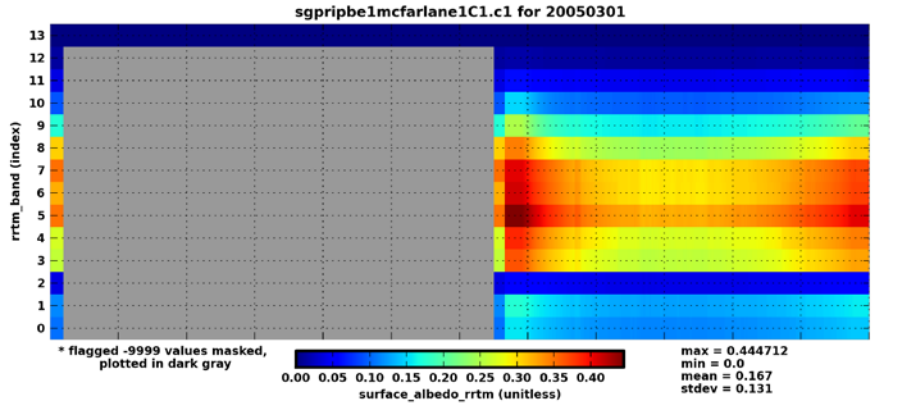
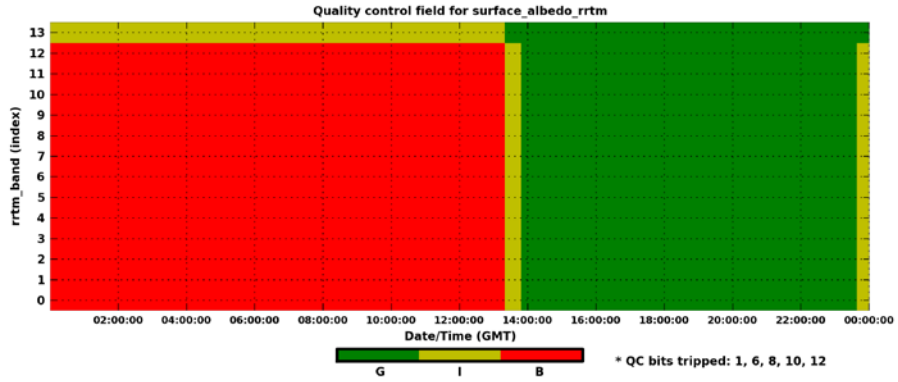
Other Examples

2D QC with Good and Bad Assessment Levels





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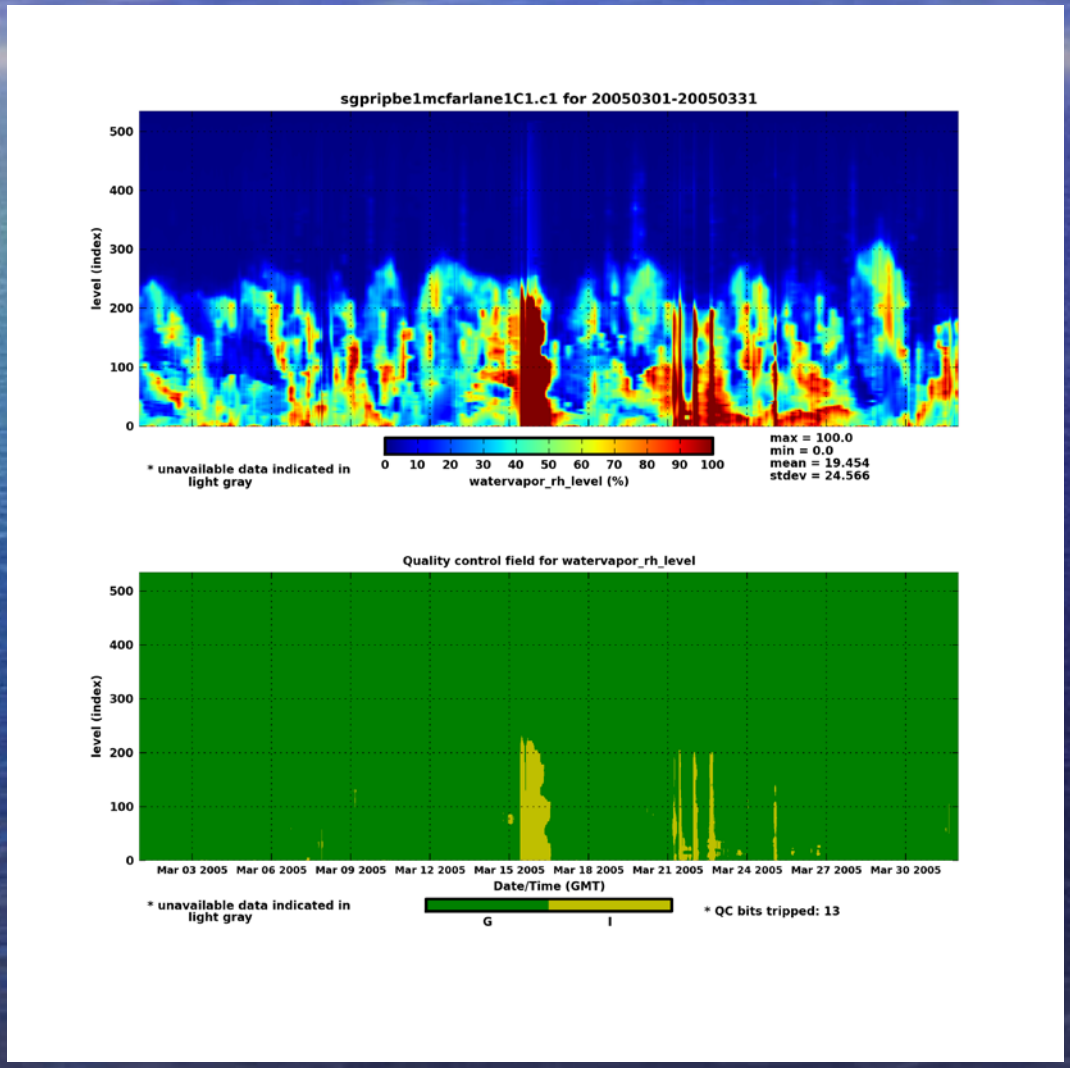
2D QC for Longer Time Series (1 Month)



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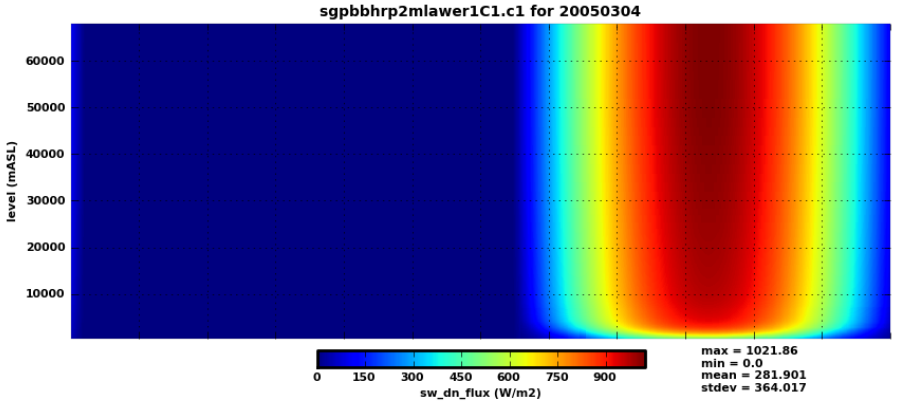
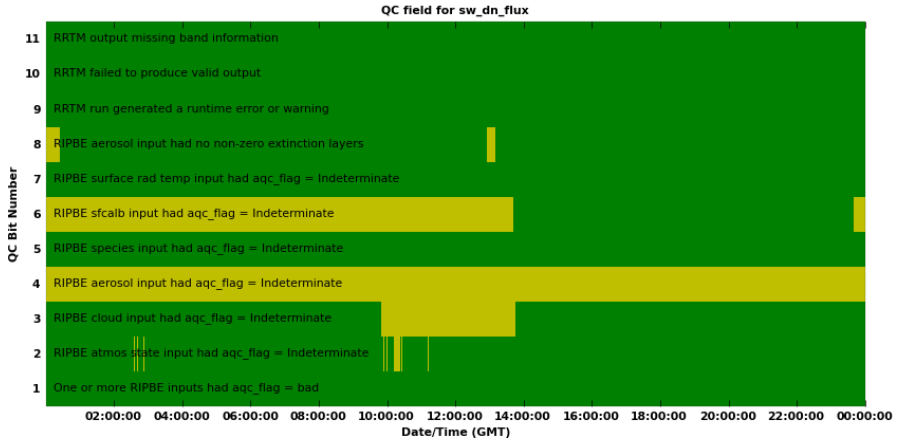
2D Variable with 1D QC





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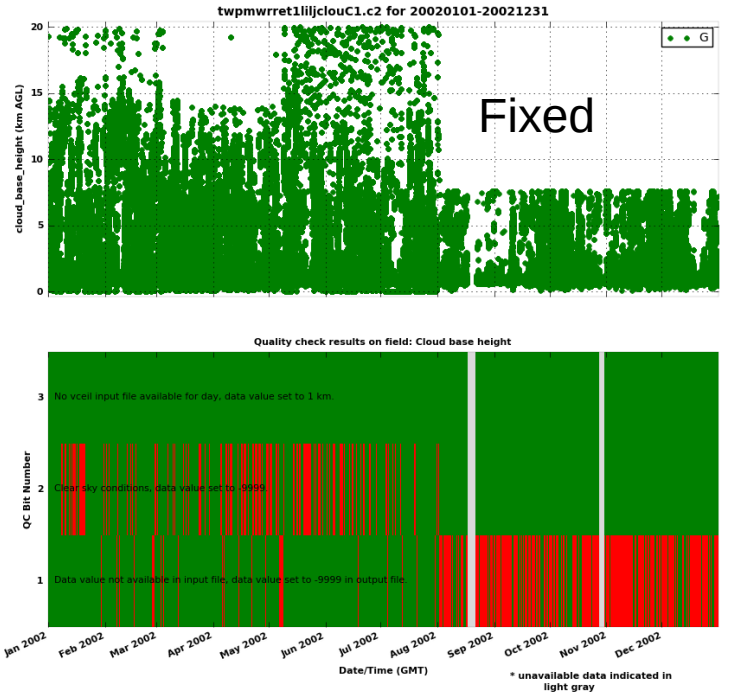
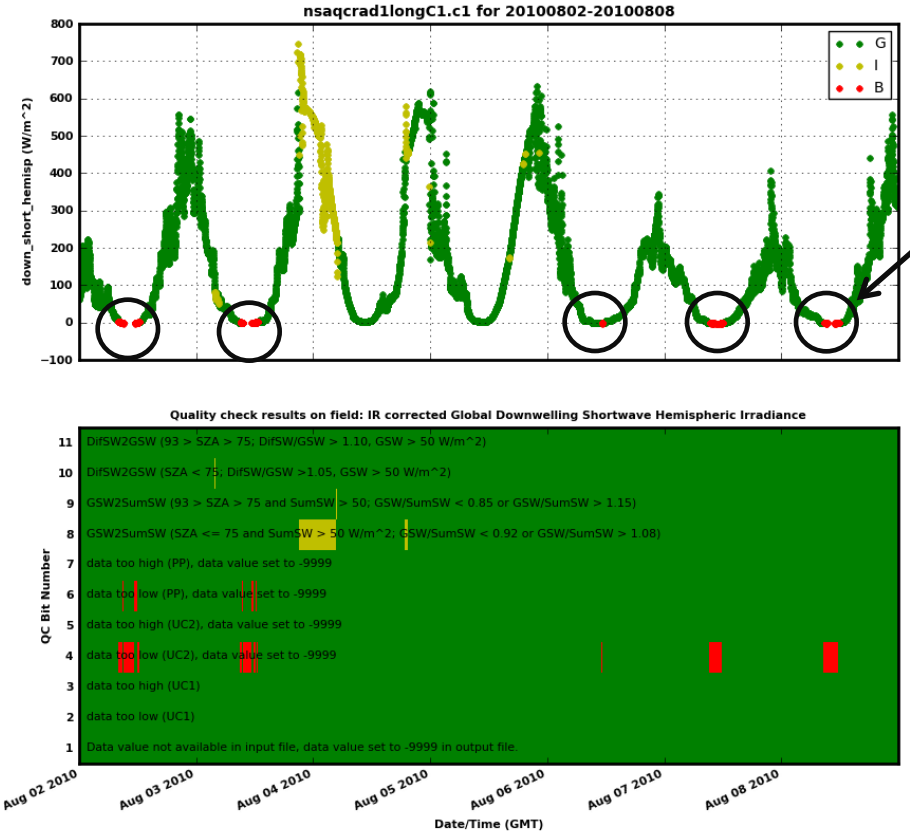
Missing Values Not Flagged

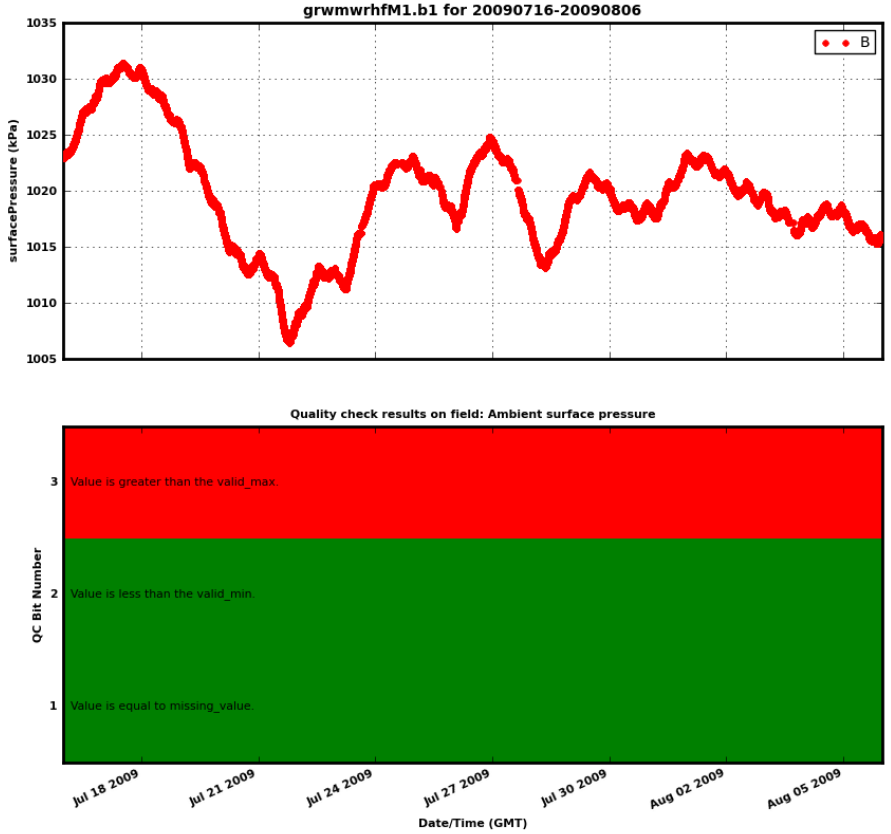


Flagged Values not Changed to -9999



Bad data not changed to -9999

Incorrect Units



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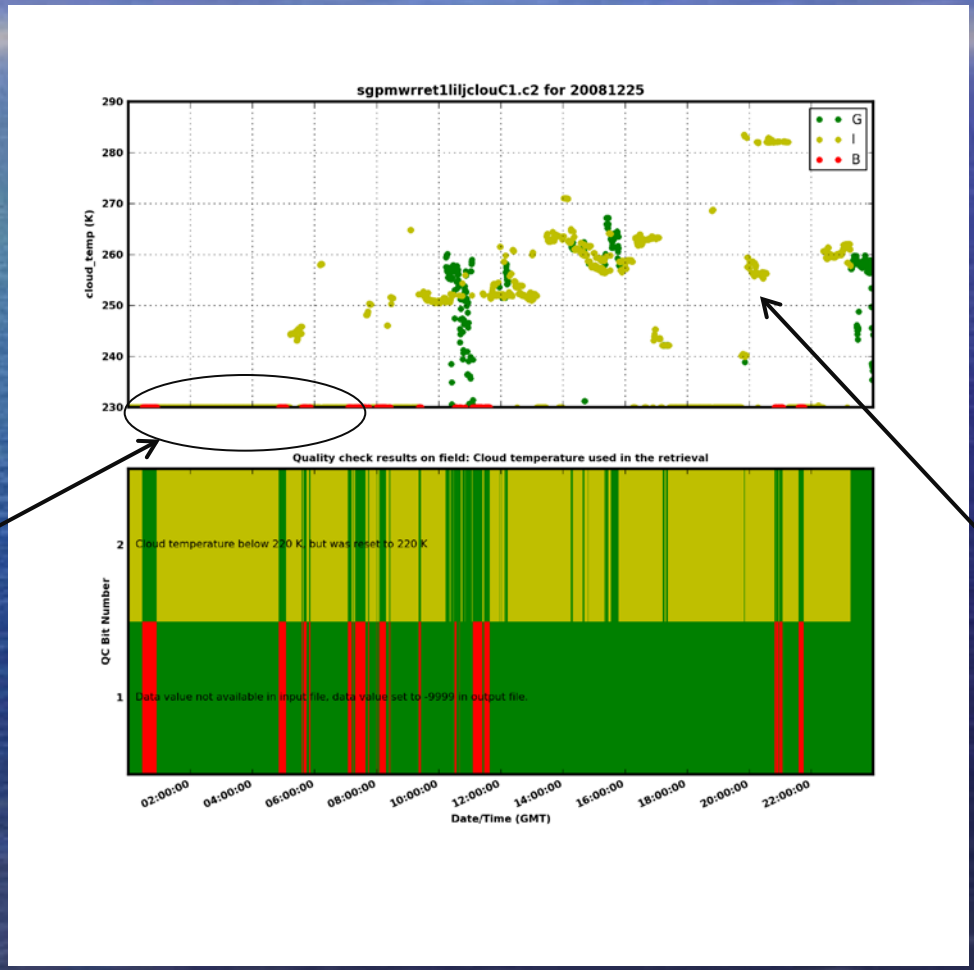
Multiple Tests Not Working as Intended



"Bad" data not changed to missing value

"Indeterminate" test not working correctly as values > 230 K

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