

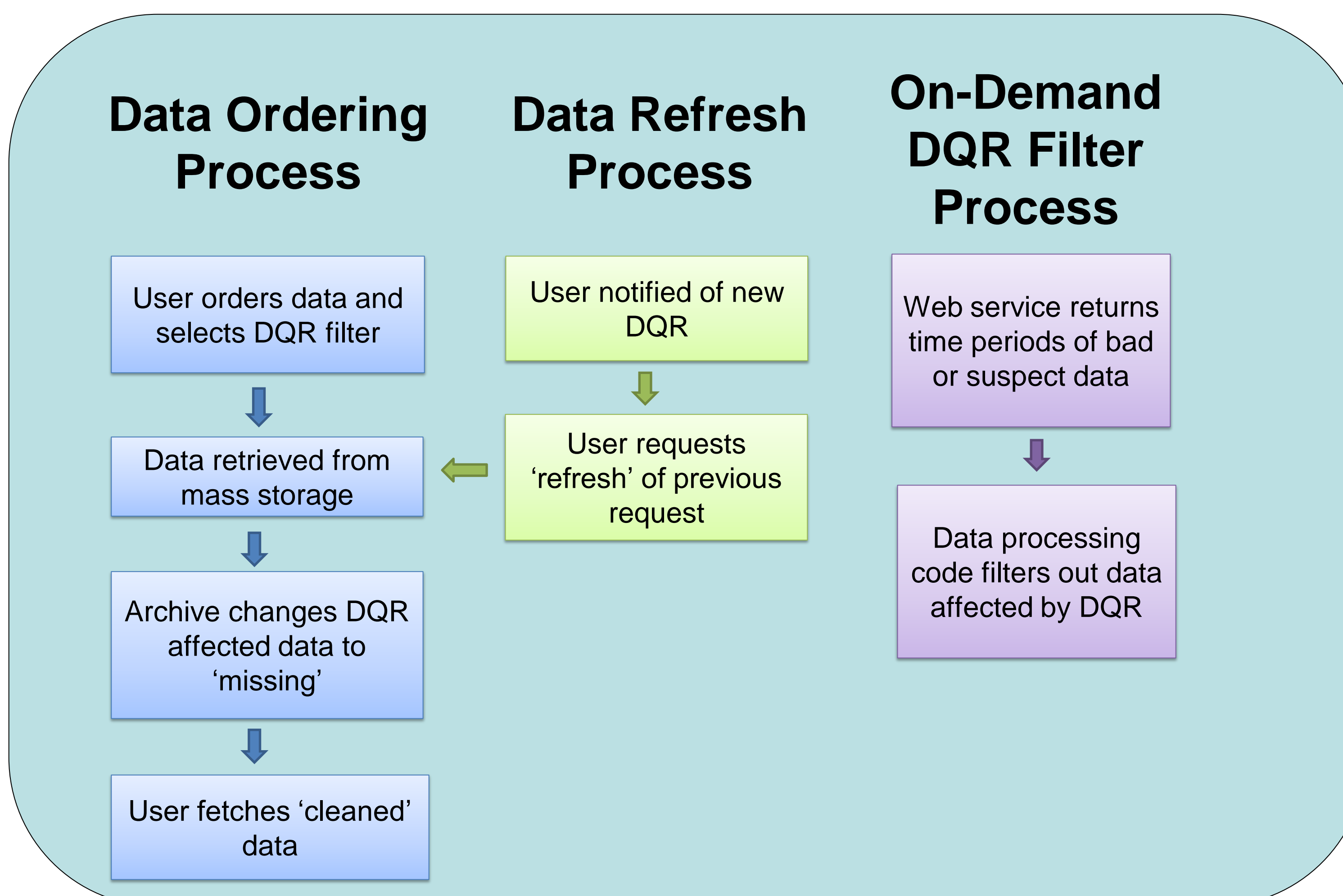
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Overview

- Data issues discovered and confirmed by ARM as problems are stored in Data Quality Reports (DQRs).
- Current reports are not easily used by automated data processing codes, so are underutilized or ignored.
- We are developing methods to simplify application of the DQR data quality status to affected data.

Proposed Functionality

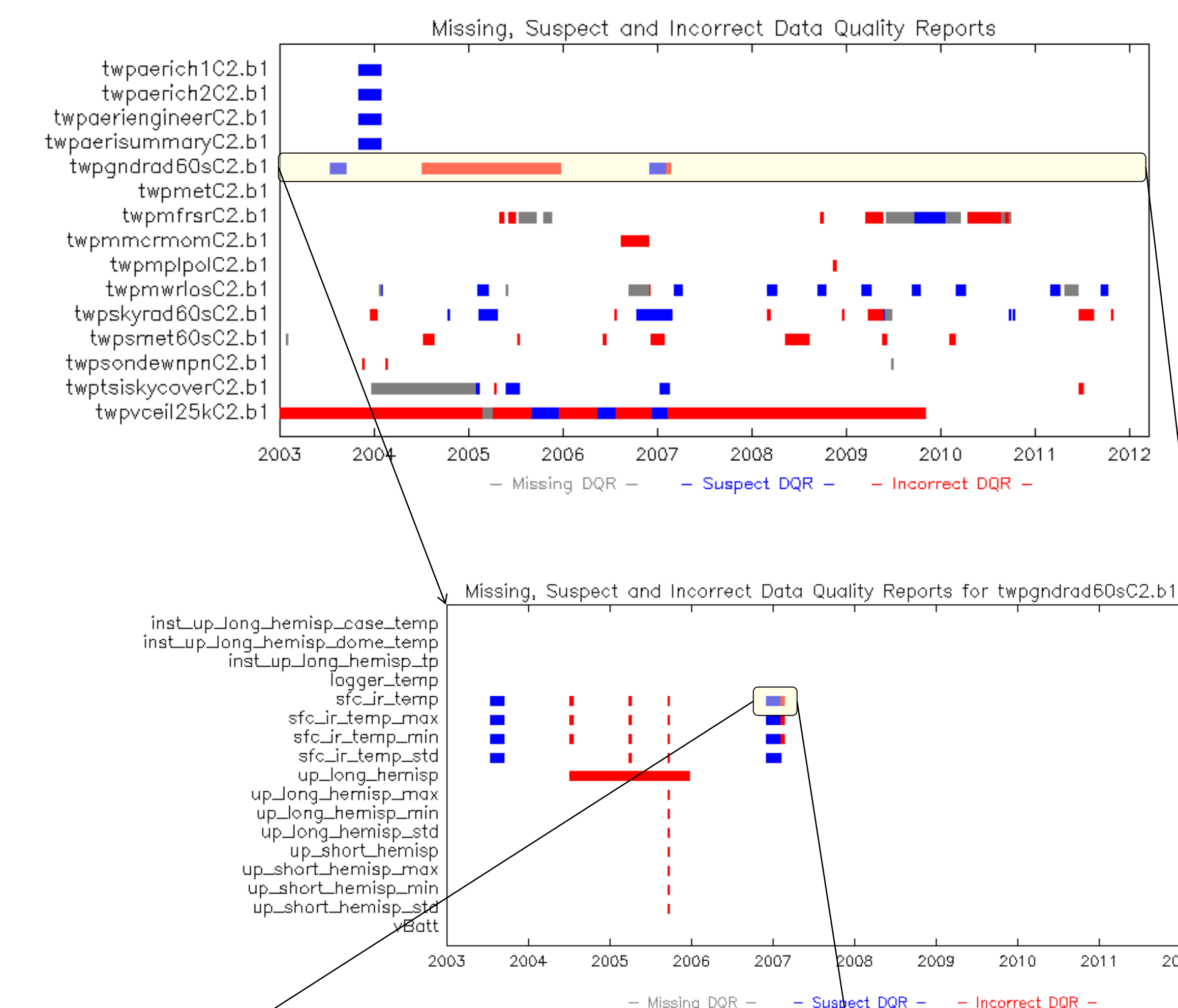
- World accessible web service to allow for on-demand query of known data quality status for any ARM measurement, in a machine readable format
- Flag or filter data from Archive orders known to be 'incorrect' or 'suspect' before delivering data to end users.
- Allow users to easily 'refresh' data orders when new information regarding data quality is known



Milestones

- Design Finished: March 2012
- Design Review: April 2012
- Beta Release: September 2012
- Production Release: December 2012

Sample Queries and Reports



DQR Web Service

- Given a datastream field, return a list of date/time ranges that document when data is bad or suspect
- Response is either simple to parse delimited text or a fully qualified XML document
- Output can be customized to the user's liking, with choice of time formats and selection of DQR fields

Example:

Return time periods of incorrect data for sfc_ir_temp

Query

http://www.archive.arm.gov/dqrws/ARMDQR?datastream=twpgndrad60sC2.b1&varname=sfc_ir_temp&dqrfields=dgrid,starttime,endtime,metric&timeformat=yyymmdd.hhmmss&responsetype=delimited

Delimited Type Response: DQR | Start | End | Metric

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D100604.2|20100417.143400|20100420.033500|missing
D030730.1|20030712.210000|20030914.110000|suspect
D041015.3|20040705.050100|20040719.020600|incorrect
D050504.2|20050327.233000|20050403.034000|incorrect
D050926.6|20050917.015200|20050923.011500|incorrect
D070110.1|20061203.040000|20070204.231600|suspect
D070406.6|20070204.231700|20070217.040000|incorrect
D090702.1|20090624.205000|20090625.235000|missing
  
```

Revised Data Ordering Interface

Total Files: 997
 Total File Size(MB) : 179.29

Select files to order

- twpgndrad60sC2.b1.20061008.000000.cdf
- twpgndrad60sC2.b1.20061009.000000.cdf
- twpgndrad60sC2.b1.20061010.000000.cdf
- twpgndrad60sC2.b1.20061011.000000.cdf
- twpgndrad60sC2.b1.20061012.000000.cdf
- twpgndrad60sC2.b1.20061013.000000.cdf
- twpgndrad60sC2.b1.20061014.000000.cdf
- twpgndrad60sC2.b1.20061015.000000.cdf
- twpgndrad60sC2.b1.20061016.000000.cdf
- twpgndrad60sC2.b1.20061017.000000.cdf

Remove data from order that is known to be:

- Incorrect
- Suspect

