Anticipated Quality Problems

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- Four step algorithm
  - Get list of tiles with unacceptable QA values
  - Tile samples
  - Pixel samples in selected tiles
  - Determine ***possible*** cause of problem
- TBD's
  - Number of tiles, number of pixels

Problem Sources and Results

- Sensor
  - Clouds, Cross-Talk, …
  - Regular Patterns (stripes, clouds, ...)
  - Visual detection

Problem Sources and Results

- Transmission
  - Depends on protocol used (TCP - no problem)
  - Possible: Systematic loss of data with period close to latency
  - Only between satellite and ground
  - Visual or automated detection

Problem Sources and Results

- Science and Software
  - Closely related
  - Benchmark comparison
  - Shows as good input - bad output
  - Can be random

Problem Sources and Results

- Data Production
  - Scheduler problems
  - Tiles missing or mismatched
  - Regular pattern that propagate thru products

Problem Sources and Results

- Archive
  - Corrupted data, incorrect formats
  - Random in nature
  - Easily traceable

Problem Sources and Results

- Input Data
  - Data out-of-bounds, …
  - Costly to check
  - Problems can show randomly

Problem Sources and Results

- Ancillary Data
  - Static (mostly)
  - Correctness verifiable beforehand
  - If corrupted => archive problem

Conclusions

- Hard to determine specific sources
- Rather determine subset of possibilities
- Visual analysis may be most efficient
- Error tracking database