



NPP Data Visualization using McIDAS-V

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<http://www.ssec.wisc.edu/mcidas/software/v/>



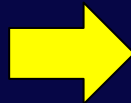
Big Decision in 1994

POES

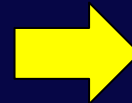
DMSP



NOAA
NASA
DoD



IPO



NPOESS Satellites – Original Plan

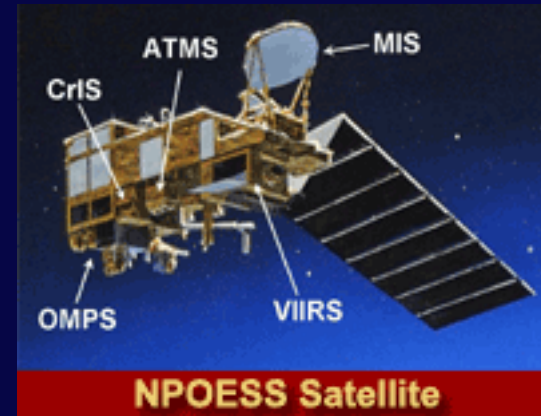
NPP

C1

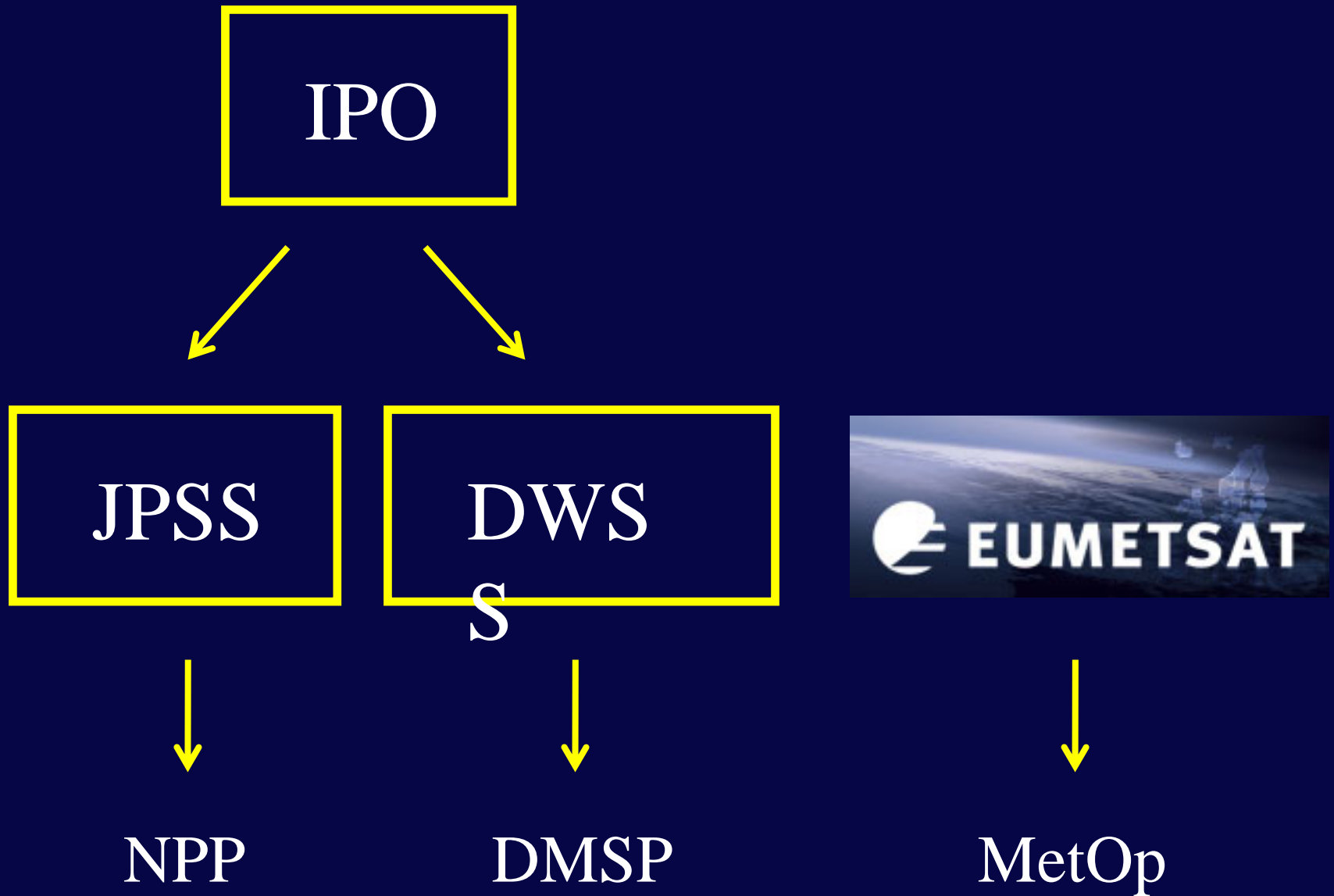
C2

C3

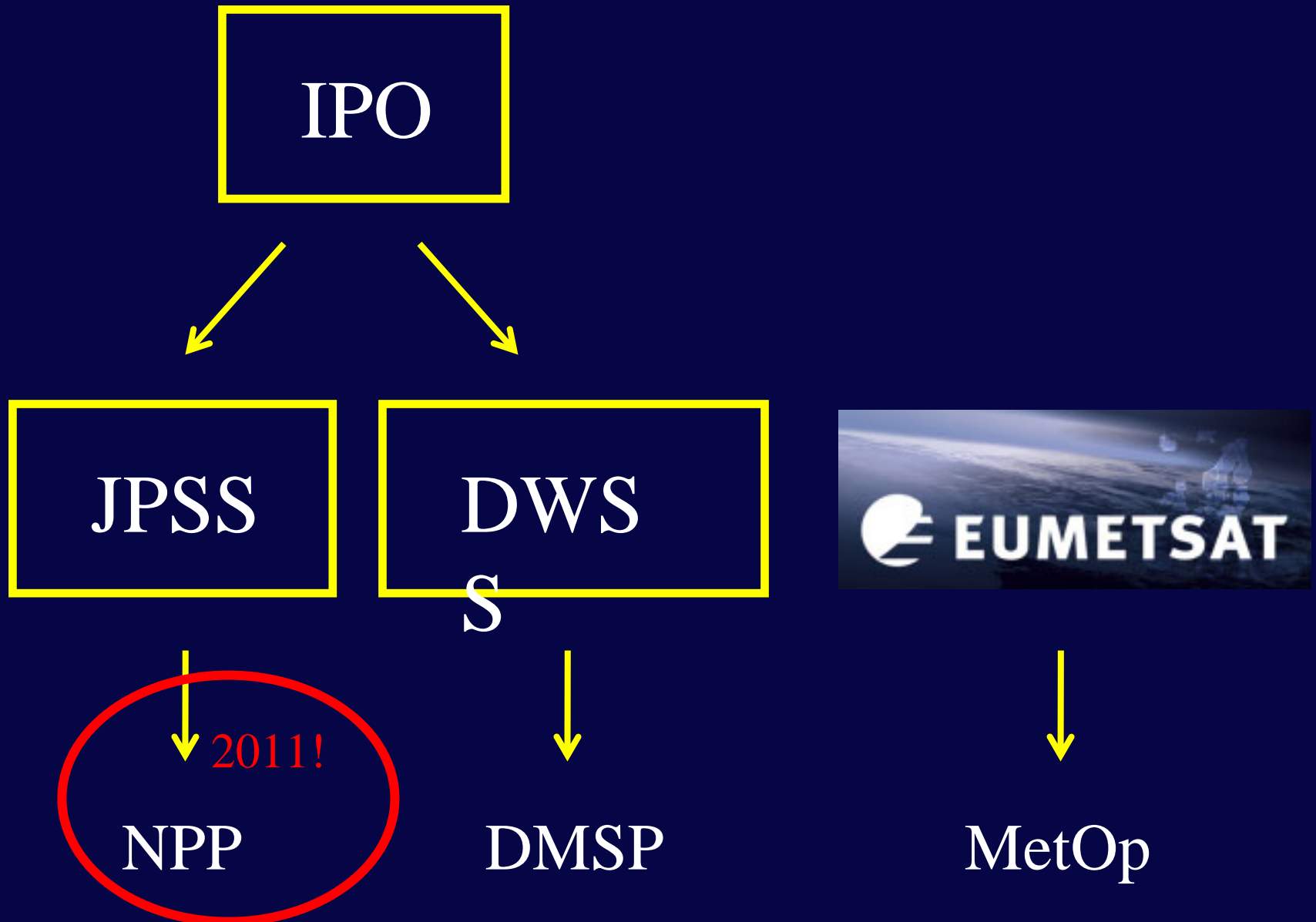
C4



Fast-Forward to NOW



Fast-Forward to NOW



Data Acquisition, Part 1

NOAA HOME WEATHER OCEANS FISHERIES CHARTING SATELLITES CLIMATE RESEARCH COASTS CAREERS

NOAA COMPREHENSIVE LARGE ARRAY-DATA STEWARDSHIP SYSTEM (CLASS)
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

» CLASS Home » Login » Register » Help

CLASS Help All NOAA » SEARCH

Please select a product to search » GO

Around CLASS

- » Home
- » Search for Data
- » Upload Search
- » Search Results
- » Shopping Cart
- » Order Status
- » Help

User Account

- » User Profile
- » User Preferences

Advanced Options


- » Download Keys

Release Info

- » Version 5.3.2
July 15, 2010

Other Links

- » CLASS Home
- » NODC
- » NCDC
- » NGDC
- » NESDIS
- » NOAA


Hurricane Katrina
GOES 08/28/05

NEWS

Attention All Users:
In order to promote a scheduled CLASS release to version 5.4, parts of the CLASS system including its website will be off-line on 2010 October 26 from 1300 to 1700 UTC (9:00 am to 1:00 pm EDT). This will affect placing orders through CLASS. However, for orders already completed the data will still be accessible via ftp. Most of the enhancements in CLASS will be internal. Information on the enhancements will be posted once the promotion is completed under the Release Info section on the CLASS home page. If you have any questions, please submit them to the CLASS Help Desk at class.help@noaa.gov. Thank you.

Attention GOES-15 testers:
CLASS began ingesting pre-operational GOES-15 data last Monday, August 9, at 21:27 UTC. NOAA is conducting Post Launch Testing. If you need access to the restricted pre-operational data, please send a request to the [CLASS Help Desk](#).

NOAA-18 Gyro Tests will impact data quality:
A series of gyro tests on NOAA-18 is taking place over the next several weeks by NOAA's Office of Satellite Operations. The tests will result in navigation errors of up to 100 km. For a schedule of test dates please click [here](#).

SEARCH FOR DATA

- Environmental Data from Polar-orbiting Satellites
- Environmental Data from Geostationary Satellites
- Defense Meteorological Satellite Program (DMSP)
- Sea Surface Temperature data (SST)
- RADARSAT
- Altimetry / Sea Surface Height Data (JASON-2)
- Other - Miscellaneous products in CLASS

SEARCH COLLECTION METADATA

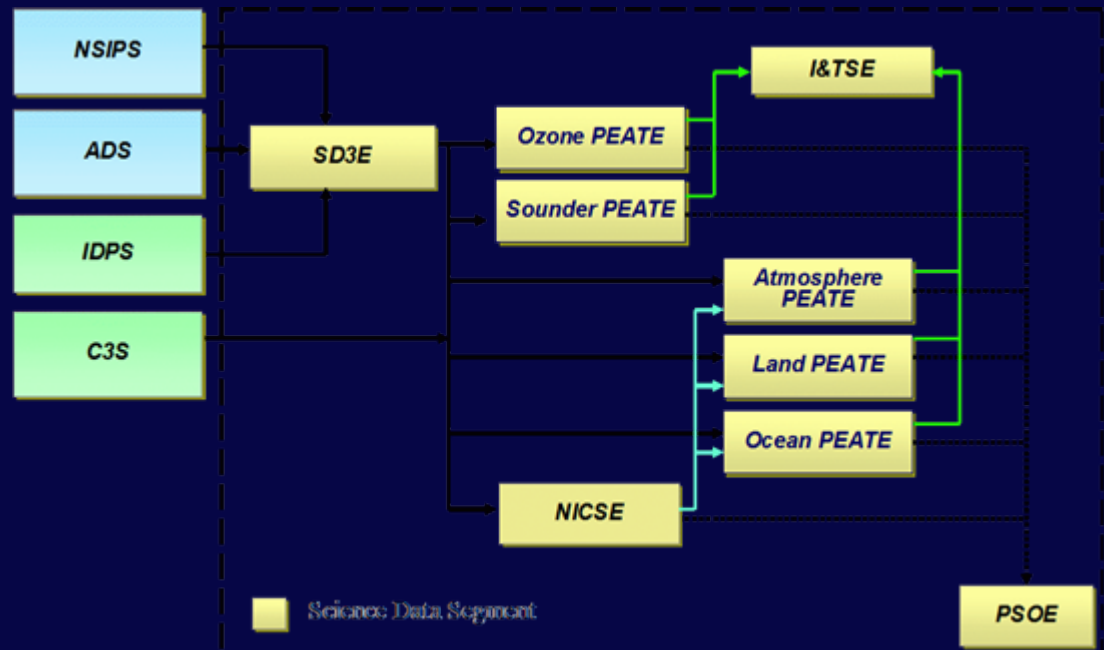
» GO

ABOUT

The Comprehensive Large Array-data Stewardship System (CLASS) is an electronic library of NOAA environmental data. This web site provides capabilities for finding and obtaining those data.

Data Acquisition, Part 2

UW Space Science & Engineering Center hosts the NPP Atmosphere Product Evaluation and Test Element (PEATE): A system for creating and evaluating Atmosphere and Cloud Climate Data Records (CDRs).



NPP data visualization in McIDAS-V

We developed 3 main pieces to accomplish this

1) Data Chooser

- Way to select data
- Decide if all pieces needed are present

2) McIDAS-V Compatible Data Adapter

- Get selected data loaded, organized in memory
- Apply metadata: geolocation, scales, offsets, etc.

3) Granule Aggregator

- Time ordering of product granules
- Cross-granule spatial sub-setting

NPP Data Chooser

- Is there valid, displayable NPP data on this computer?

User navigates to data directory

If a file looks like an NPP Product, and...

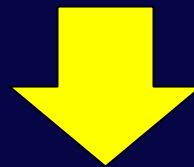
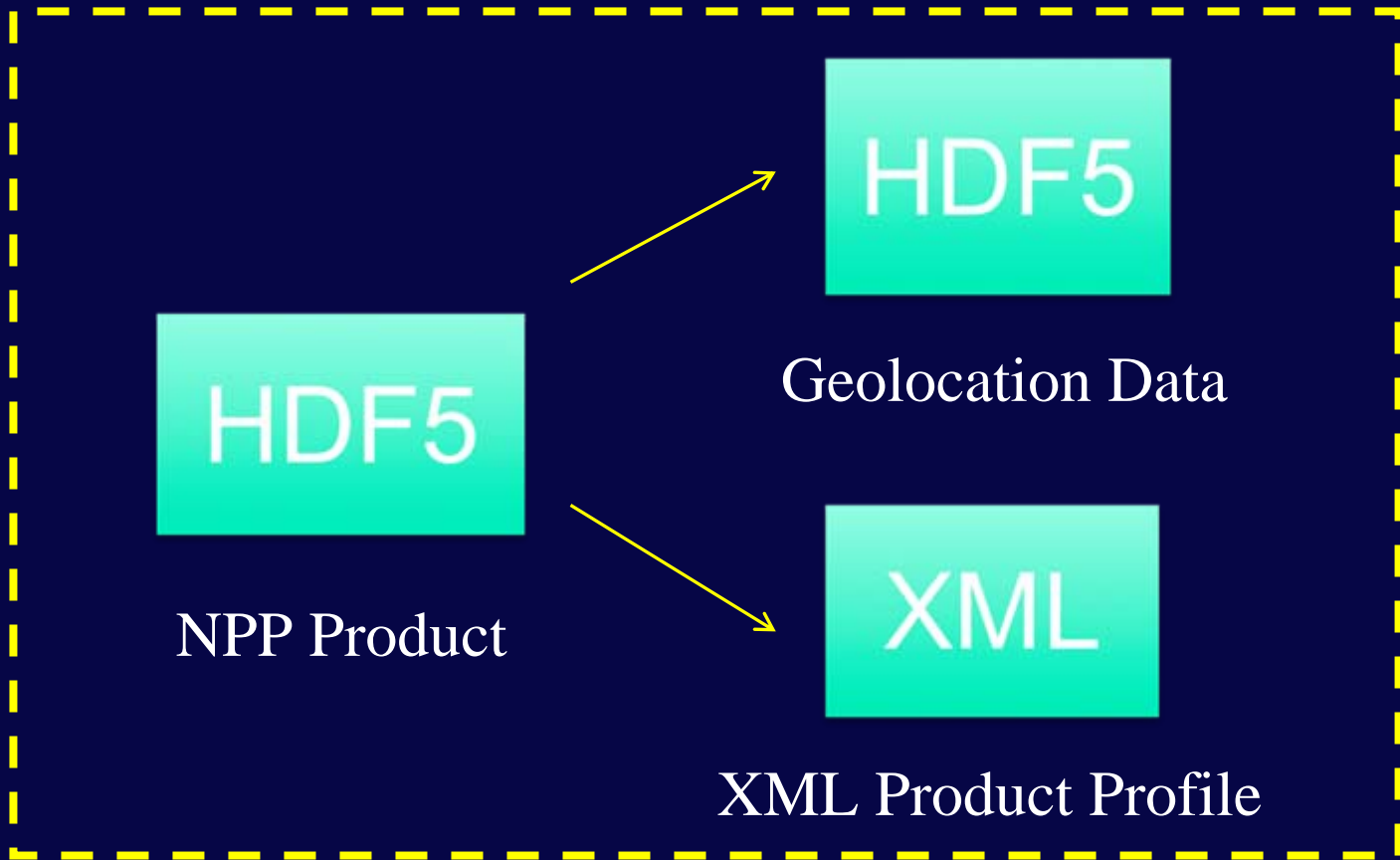
 If we can find the associated geolocation data, and...

 If we can find the associated XML Product Profile

 YES, we can show this data

Assumption for now: All 3 pieces reside in current directory

NPP Data Source Object



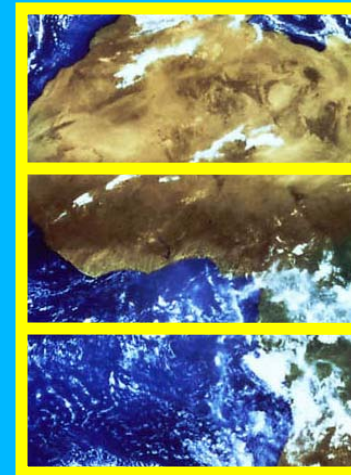
McIDAS-V Data Object

Granule Aggregator

Lets user select arbitrary set of granules for display.

Once loaded, the full McIDAS-V capabilities are available, including:

- Sub-setting
- Reprojecting
- Formulas
- Saving data



Conclusions

- In a short time, we've added support for JPSS data in McIDAS-V, a powerful, free, scientific data visualization and analysis software package.
- Details of how to access, select, and manipulate JPSS data for use in McIDAS-V will be driven by the needs and desires of the user community.