

EPDT

Experimental Products Development Team

Session 101 - AWIPS/RGB Part I

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2nd NOAA Satellite Science Week 2013

March 18-22, 2013



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Outline

- What is the EPDT?
- Who is on the EPDT?
- What happened before the EPDT Workshop?
- What happened at EPDT Workshop?
- What's next for the EPDT?
- Brainstorm ideas
- Poll Question

What is the EPDT?

GOES-R Proving Ground EPDT

Originally SPoRT EPDT, formed in early 2012 to focus on creating advanced display capabilities for NASA research data in AWIPS II

Fall 2012 - implemented after refinements with NWS/SEC OST Dev. Branch

Goal:

Bring together staff from NASA, NOAA's CIs, and NWS to develop a community of technical expertise (outside of Raytheon's AWIPS II development team) which focuses on the development, demonstration, and transition of new plug-ins and tools to address the near-term needs of the GOES-R PG community.

Objectives:

- Create a community environment to develop and share knowledge and expertise for the AWIPS Development Environment (ADE)
- Generate non-standard plug-ins for the ingest, analysis, and display of GOES-R proxy data in AWIPS II and associated tools which better display GOES-R data and allow for the fusion of the new data with legacy AWIPS data streams
- Based on this experience, provide feedback to NWS and Raytheon on the external development process, including governance of locally developed AWIPS II software



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Who is on the EPDT?

Limited in size to facilitate small group learning and development activities – develop into a “train the trainer” team, *learn-by-doing*

One representative (each) from:

- *NWS Regions*
- *NOAA Cooperative Institutes (and SPoRT)*
- *MDL, GSD, Raytheon*
- *NWS SEC (2), GOES-R PG AWIPS II developer*

Organizational leads asked to nominate team member with appropriate qualifications

- *Team Lead: Jason Burks (NASA scientist and decision support system expert), formerly HUN WFO ITO*
- *Advisor: Ed Mandel (NWS/OST SEC Development Branch Chief)*

Bimonthly conference calls/ WebEx sessions

Biannual workshops at SPoRT AWIPS II Development Facility



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What happened before the EPDT Workshop?

- Team members selected
- Fall 2012 Workshop postponed
 - Biweekly calls with team members to begin training
 - Modified curriculum for Spring Workshop
 - Provided assistance as members began development
 - Determined goal of using Virtual Lab (VLab) to organize the team
 - Worked with NWS/OST on Software Governance Policy

What happened at the EPDT Workshop?



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What happened at the EPDT Workshop?

Presenters

- Jason Burks (NASA/SPoRT) EDEX & Data plug-ins
- Max Schenkelberg (Raytheon) Viz plug-ins
- Ed Mandel (NWS OST/SEC) Software Governance
- Ken Sperow (MDL) VLab
- Matt Foster (NWS/CRHQ) GRIB ingest

Presentations recorded by NASA/MSFC Video Services

Hands-On Exercises

- EDEX plug-in
- Viz plug-in

Brainstorming sessions

- AWIPS II enhancements
- data additions



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What's next for the EPDT?

- NWS/OST will coordinate with members and determine next steps
- VLab
 - Training materials will be available
 - Presentations
 - Assignments
 - Solutions
 - Recordings
 - AWIPS II forum planned
 - Software checklist
 - Project tracking
- Biweekly telecons will continue
 - Training
 - Project planning
- *Code-sprint* possible as next workshop (Fall 2013)

Brainstorm ideas

- Bring in Census Data
- Lots of talk about improved situational awareness displays.
- Current flight delays and in-air location data.
- True color capabilities.
 - Fusion of lightning and satellite data into RGB.
 - Being able to define RGB recipes within bundles.
 - Improved color-map capabilities. (scaling equations)
 - Blended products
 - Combining Python within RGB recipes for deriving new products for input into RGB recipes.
- Radar Interrogation Tool
- GOES-R data delivery and interrogation. (Risk reduction)
- New satellite analysis tools.

EPDT Poll Question

Which of these AWIPS II **satellite visualization enhancement** ideas do you feel is most important?

- A. Fusion of lightning and satellite data into RGB
- B. Ability to define RGB recipes within bundles
- C. Improved use of scaling equations in sampling/displays
- D. Use of Python for RGB recipe implementation