Raytheon

Customer Success Is Our Mission

AWIPS Continuous Technology Refresh (CTR)

AWIPS Software CTR

AWIPS TO11 DR3 Review

NWS and Raytheon Management Team

January 8, 2010

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TO11 DR3

OBJECTIVE:

Complete key tasks necessary to enable NWS AND Raytheon to effectively mitigate program risks, conduct necessary tests and provide useful feedback to complete TO11 and begin OTE.

Key Tasks:

1. Address outstanding capabilities from Snap Up
2. Replace ActiveMQ messaging system with qpid – ***CRITICAL UPDATE***
3. Correct / Resolve as many FBSO DRs as possible

AWIPS TO11 DR3 Results

- 74 TTRs Resolved

- 135 DRs Resolved* and Included in DR3
  - 98 FBSO DRs Resolved
  - 28 Special Handling DRs Resolved
  - Ready for NWS test and validation

  * 40 additional code corrections included in DR3 but not fully tested yet (therefore not included in count shown above)

- All Baseline applications are incorporated; transition to fixing gaps and bugs

AWIPS TO11 DR3 Results

(Ref Deliverables Checklist)

- Volume Families
  - Added capability see #2978: Updated NGM and RUC13 items, Updated NAM80 4-panel
  - Can now test each Volume Family; some holes
- Volume Browser Radar Field and Tilt Levels
- Volume Browser Derived Levels
  - Added capability see #3869 and #4065 (address differences in model inputs)
  - Fixed adding levels to xy Height graph
  - MSL and AGL levels display in meters (DR open for feet)
- Standard Env. Data + Popup Skew-T + Cloud Ht. Sample
  - Added Standard Env. Data #4125
  - Added Popup Skew-T #3351 (DR open for RAOBs)
  - Added Cloud Ht. Sampling #4017

AWIPS TO11 DR3 Results

- DFC Daily Forecast Critique : OCWWS approved plan to replace with BOIVerify
- FOG Monitor #3963
  - Added CAVE rendering, added thresholding, add Fog Monitor Zone Configuration
- SNOW #3424
  - Added hodograph and trend plot
  - Added history table, added config capability
  - Output viewable in SNOW, CAVE Rendering in process
- SAFESEAS #3424
  - Added hodograph and trend plot
  - Added history table, added config capability
  - Output viewable in SAFESEAS, CAVE Rendering in process
- LDAD added remaining plug ins and QC interface capability
  - ldadhydro, ldadmanual, ldadmesonet, ldadprofiler
- Added HLS Formatter
- Added OB9.2.2 (new numbering system) correction for date rollover

AWIPS TO11 DR3 Results

- Hi Resolution Precipitation Estimator (HPE)
  - OB9.2 changes checked in (Rehosted application)
  - See also Known Issues
- Hi Resolution Precipitation Nowcaster (HPN)
  - OB9.2 changes checked in (Rehosted application)
  - See also Known Issues
- Volume Browser Derived Fields
  - Implemented and tested new infrastructure design – KEY TO AWIPS II PROMISE OF ENHANCED ADAPTABILITY / FLEXIBILITY / EXTENSIBILITY
  - Implemented Alias function #4065
  - Added fields (python scripts: EPT, P, TW, and Wind)
  - Majority of core methods incorporated and tested
  - ADDED 121 Meteolib functions (NEW CAPABILITY) – total methods available now 189 (vice AWIPS I @ 68)
  - See also Known Issues

Known Issues

- FSI: FSI processor broken with qpid implementation – NOTE: no impact to FSI, only to notification service in AWIPS II. Simple correction required (need to update libraries for qpid).

- HPE/HPN: GRIBIT broken – library problem; service needed for ingest into EDEX (identified after GRIBIT root cause determined and qpid implementation). Impacts testing of parts of FFMP/FFMPA (NOT the applications). Correction is well understood and simple.

- Volume Browser Derived Fields: Continuing to work on linking methods and menu picks. Testing can proceed. Would like to collaborate to ensure proper focus / prioritization.

Concerns / Key Risks

- Proliferation of FBSO DRs
  - Increasing program risk / incipient scope creep
    - Many FBSOs are not
    - Significant distraction to both NWS AND Raytheon
    - Time to process / review / submit / input / analyze / report / discuss / reassess / etc/etc/etc takes too long
  - Need to:
    - Aggressively reassess and “re-baseline” existing DRs identified as FBSO (Raytheon DR scrub beginning next week)
    - Review with NWS as soon as possible next / following week (for expediency and effectiveness, this review will likely have to be directly with Program Office)
    - Agree and ensure that all future FBSO DRs adhere strictly to agreed upon definition
  - Directly addresses both number 1 and number 3 ranked program risks

- Performance Testing
  - Measuring performance with respect to user experience / mission impact?
  - Impact to TO11?

Moving Forward

- Focus on:
  - Resolving DRs, addressing gaps and repairing broken code
  - Finalizing Component Deployment Design (“architecture”) and related DTP activities
  - Executing System Test

- Critical Path
  - Preparation and execution of System Test