



Raytheon

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Overview

The Release Notes have been prepared for AWIPS software release OB 16.2.2. These Release Notes, which follow the standard format applied to most AWIPS Release Notes documents, consist of the following five sections:

- **Section 1. Requirements DRs.** This section lists the requirements Discrepancy Reports (DRs) identified for the current release.
- **Section 2. Passed DRs.** This section lists the **257 DRs** that were passed at the Raytheon Facility Test Labs and included in the current release, OB 16.2.2. This includes DRs written during the current release as well as DRs deferred from previous releases to this release. [*Note:* All DRs that were passed prior to this release can be accessed through the AWIPS Redmine database.]
- **Section 3. Open DRs.** This section addresses open DRs and DCSs that have been deferred to the next immediate release. The DRs identified in this section may have been initiated during the current release or during a previous release. The DCSs may have been initiated from a previous release or initiated in the next immediate release.
- **Section 4. Design Changes and COTS FOSS Requests: 71 Design Changes and 21 CFRs** are summarized in this section.
- **Section 5. Known Problems, Workarounds, and Additional Release Notes.** This section lists any workarounds or additional release notes that have been issued for the current release. They are identified by their Release Note title. Also identified in this section are any known problems (Priority: 1-Critical), either in the current release or in previous releases, which have been deferred to an unnamed future release. These are identified by the Problem title.

1. Requirements DRs

This section is reserved for requirements Discrepancy Reports (DRs) identified for the current release. No such requirements DRs were identified for the current release.

2. Passed DRs

This section lists the **257 Discrepancy Reports (DRs)** passed at the Raytheon Facility Test Labs and included in the current release (OB 16.2.2). These DRs were either written during the current release or deferred from a previous release. [**Note:** All DRs that were passed prior to this release can be accessed through the AWIPS Redmine database.]

The following tables identify the DRs that have passed by Redmine DR number (see column 2), and briefly describes them (see column 3). Expanded descriptions follow the table. Sequential numbers in column 1 of the table cross-reference each of the DRs to its expanded description.

DRs: Release OB 16.2.2

No.	Redmine	Description
1	19297	NWRWAVES needs to be rolled back to 14.3.1 for HFON, GUM, others for the HLS issuance.
2	19284	GFE: 30 second delay when formatters are run after zone combination change
3	19249	DR bufrsigwx, cwa, tcg, and tcs plugins have incorrect unique constraint
4	19234	On some (not all) products, NWRWAVES is incorrectly adding one month to the start time of the product
5	19221	GFE: Section Headers should be created in All CAPS (As per item#6 of Mixed Case Text Guidelines Ver 12)
6	19218	GFE: Section headers and sub-headers should be followed by Mixed Case instead of ALL
7	19216	GFE: Headline statement should be ALL CAPS for all products (As per item#5 of Mixed Case Text Guidelines Ver 12)
8	19215	GFE: Issuing office line should be created in Mixed Case text for all products (As per item#2c of Mixed Case Text Guidelines Ver 12)
9	19214	GFE: Product type line should be created in Mixed Case text for all products (As per item#2b of Mixed Case Text Guidelines Ver 12)
10	19193	Baseline grid parameter table file missing units, causes decoding errors
11	19186	WarnGen Templates: Case corrections - Make MPH caps for "windTags" and capitalize sentence starters in SPS
12	19183	NWRWAVES: Tcl formatting issue with octal numbers
13	19182	Issue opening Data Sources in hydro database manager
14	19179	AlertViz can report errors during purge and subsequent messages
15	19177	WarnGen: Misspelling in BASE impactSevereWeatherStatement.vm WarnGen

16	19175	Hydro: font size setting is not maintained between sessions
17	19174	EDEX grid decoder stores grids with incorrect name due to bad or mismatched grid definition files
18	19173	EDEX grid decoder may fail to store models defined with COVERAGE pattern
19	19172	Sea level pressure displayed incorrectly with DAT products
20	19166	Hydro Time Series Graph Display is not Drawing X and Y Axis
21	19165	Permissions issues for localization files post 16.2.2
22	19164	Modify environment flag in LAPS and MSAS access script for LAPS V2
23	19161	Add NAVGEM grid definition for 0.5 degree resolution
24	19160	GFE: TCStormSurgeThreat grids are not being purged
25	19158	GFE: make_hti.sh script needs to create a specific file IDG requires in order to generate the mosaics of each element
26	19157	GFE: Add 3 foot option for Inundation Height for TCStormSurgeThreat values
27	19156	GFE: InundationMax grid not read by TCV formatter
28	19155	MPE and Hydro Color Scale Manager: error messages when deleting a color profile
29	19153	TextWS: Alarm/Alert Bell disappears when the products cleared from Current Alarm Queue GUI.
30	19149	Hydro Database Manager: db error when trying to change configuration in Ingestfilter GUI
31	19145	EDEX GRIB decoder: estofsEP stored as estofsUS
32	19144	WarnGen Templates: KTS and IN need to be in CAPS for SMW products
33	19143	16.2.2: Some types of site level station locations are no longer displayed in D2D
34	19142	WarnGen Templates: Cleanup for some Mixed Case updates and delta scripts for sites (from DCS 18172)
35	19141	NWRWAVES crashes in two special cases caused by code of the DR-18595
36	19140	GFE: runIFPText writes WRK files in all CAPS
37	19135	GFE: GetSiteTimeZoneInfoRequest should allow null or empty list for requestedSiteIDs
38	19130	AK REGION not set properly for Wave models
39	19128	16.2.2: Edex processing of qc data failing with camel errors
40	19116	GFE: Incorrect spelling of word "occurring" under the CTA section of HF.W hazard

41	19112	GFE: The first letter "o" of the word "outdoor" was not being capitalized under the Impacts bullet text header (FW.A & FW.W)
42	19110	Cannot Save Custom Points List & Get Alertviz Error When Renaming a Created New Group in Points List Dialog
43	19109	GFE: Bullet text headers should be ALL CAPS according to Mixed Case Text Guidelines (Ver 12 5/5/2016)
44	19097	FFMP RFC Flash Flood Guidance Not Showing All Current Data
45	19096	GFE: PlotTPCEvents can fail with exception casting data type
46	19095	Change national radar pattern to allow for archival
47	19090	FFMP: QPE values 0 in 16.2.2
48	19082	LX Upgrade: NPE received when Product List button is selected a second time
49	19078	GFE: GHG Monitor is not working correctly with zooming features
50	19076	LX Upgrade: FOG/SAFESEAS/SNOW Column Headers Not Aligned
51	17075	synchronise the English BMH list to the Spanish BMH list.
52	19074	synchronise the English BMH unacceptableWords list to the general list in CAVE.
53	19072	Hydro Database Manager: db error when saving Location data.
54	19070	LAPS - satellite access via DAF broken
55	19069	March 2016 Security Patches
56	19049	D2D-Derived Parameters: Null Pointer Exception received when loading some Derived Parameters from Volume
57	19033	BMH SAME Transmitter Alignment uses legitimate SAME Tones
58	19030	LX Upgrade: The FFMP column headers are not aligned
59	19029	Collaboration: Swapped panes do not inherit session name in map tab; maintain session name after session is closed
60	19027	PointSet Netcdf decoder is leaking file handles
61	19026	10km Radar Coded Message Paint Error
62	19025	Additional swear word dictionary cleanup and inappropriate additions
63	19016	MPE Daily QC: error when prompted for saving level 2 data
64	19015	Several functions fail in VerifySSHkeys.sh due to AWIPS security implementations

65	19014	GFE: Sites receiving NDFD integrity errors for Td>T when T and Td are very close
66	19012	MPE and Hydro Color Scale Manager: errors when saving edits to color scales
67	19011	GFE: Occasional errors opening zipfile when gfeclient is run from px machine
68	19005	BMH shell style for trim buttons are missing on a couple dialogs
69	19003	LAPS: reformatTest hangs and uses 100% of CPU on px machine
70	18997	D2D-Tools: LocalizationFileVersionConflictException while saving the boundary data
71	18995	Total Lightning (ENTLN) Unknown flash type Error
72	18990	LX Upgrade: Print outs from CAVE are not centered and being cut off
73	18984	DCS18139 fix didn't enable loading all levels of gfeParamInfo.xml files
74	18983	Hydro Database Manager: UELE when saving updates of River Gage data
75	18980	Collaboration login dialog needs very clear error messages
76	18971	caveUtil.sh may attempt to create a temporary Eclipse configuration directory in a deleted directory
77	18962	GFE silently fails when retrieving large numbers of grids
78	18961	YAJSW jna_tmpdir defaults to /tmp
79	18955	CWASP cannot update automatically
80	18949	Hydro Time Series: error when editing records in tabular view
81	18948	D2D: HiResW-NMM and HiResW-ARW model data are not loading from Volume menu
82	18936	D2D-Tools: Boundary Tool menu item not showing up Tools menu
83	18933	BMH edex and comms_manager will not start with /tmp nodev,nosuid,noexec options enabled
84	18932	NSHARP will not launch with /tmp nodev,nosuid,noexec options enabled
85	18913	Baseline All Radars for National Radar Display
86	18896	National Blend for Global models (Version 2)
87	18895	Performance Improvement in DisplayElementFactory.java
88	18894	Remove IP addresses from BMH test AFC-daily.ASC config
89	18893	Remove IP address from nrldb.conf

90	18892	Tracking Meteogram: TM tab does not dispose on clear when loaded with a 4-panel plot
91	18890	Java heap space parameter in cave.ini and wfo.ini files will not reflect changes made within memorySettings.xml
92	18887	GFE - TestSendWFOMessage fails due to changes in ifpClient.java
93	18886	The Radar Menu in D2D Bar is Missing & Dual Pol User Accum Mosaic Products Cannot be Displayed
94	18872	Postprocessors are not working in 16.2.2
95	18863	D2D: Radar Display Control settings may revert after changing
96	18662	GFE: Save File option on the Formatter Launcher GUI is not working correctly
97	18861	Fix MRMS purge rule
98	18851	LX Upgrade: CAVE preference Video Card Texture Cache Size needs updated
99	18850	16.2.2 thincient cave cannot use derived parameters when connecting to 16.2.1 edex
100	18847	LX Upgrade: Radar Algorithm Overlays - data in tables at top of display are not aligned
101	18846	LX Upgrade: Volume Browser fails to open after switching perspectives
102	18834	(Original DR 18629) Write python DAF regression test script
103	18833	LX Upgrade: RPS List Editor dialog opens on a different monitor
104	18832	LX Upgrade: Font size of station plots are small
105	18831	LX Upgrade: GUI sizing issues in Image Export dialog
106	18830	LX Upgrade: TextWS dialogs open on left monitor rather than the monitor hosting CAVE
107	18829	LX Upgrade: ifpIMAGE fails in LX upgrade build
108	18828	LX Upgrade: GUI sizing issues in the Statistics dialog
109	18827	LX Upgrade: GUI sizing issues in MPE dialogs
110	18826	LX Upgrade: GUI sizing issues in Hydro dialogs
111	18825	LX Upgrade: GUI sizing issues in GFE dialogs
112	18824	LX Upgrade: GUI sizing issues in Data Delivery dialogs
113	18823	LX Upgrade: GUI sizing issues in BMH dialogs
114	18822	LX Upgrade: GUI sizing issues in AlertViz dialogs
115	18821	LX Upgrade: GUI sizing issues in AvnFPS dialogs

116	18815	Update product legends and Volume Browser fields to denote times for PWPF
117	18812	Thin Client connectivity dialog falsely shows failed validation
118	18811	Unable to recall modified colormaps
119	18805	GFE: Large number of weather types causes error in ISC mode
120	18801	Error returned when performing a search within the Data Delivery Notification Center dialog
121	18777	Remove IP addresses from serverConfig.py
122	18768	GFE: When second formatter is run, GUI does not pop up until first formatter has completed
123	18765	Modify LDM software to support higher number of retransmitted products
124	18757	Updating existing subscription shows false positive for complete match and halts update
125	18741	Possible VTEC Handling error at year boundary
126	18730	Data Delivery certificate setup changes for DoD certs
127	18718	Data Delivery: Validation error is returned in Area Filter Selection dialog when manually entering lat/lon entry data into any field
128	18702	Unable to close the Area Filter Selection dialog when clicking Cancel
129	18701	BandwidthMapManager appears to leak memory
130	18700	Reselecting the Pre-defined Region radio button does not reset the lat/lon values
131	18698	Add a Levels attribute to the Grid Subscription Rules
132	18697	FFMP 24hr source fast load and FFTI file purging
133	18686	Issues opening the Alert Viz System Log
134	18683	Error is returned using the Imaging... dialog after loading a combined image
135	18682	SvrWx decoder skips data that does not have a 3 letter stationid
136	18681	NGM MOS has been discontinued
137	18680	PointDataAccessFactory is filling the level database table
138	18679	Remove nonfunctional textdb -tA / -tR options
139	18678	Certain SvrWx files sent incorrectly to WarningDecoder (aka VTECDecoder)
140	18676	Class cast exceptions in registry replication web service

141	18675	Fix sizing issues with Make Hazards Dialog
142	18674	Update text ScriptRunner to not depend on uEngine
143	18673	First user-created smart tools and procedures fail to import
144	18672	Registry Error with delete of orphaned slots
145	18642	Run menu appears in the thin client CAVE
146	18641	Develop windows capture script
147	18634	start-edex-* log files not readable by awips user Develop windows capture script
148	18633	AWIPS II capture script should also capture the current state of processes on px1 and px2
149	18632	DMW barbs are in m/s when legend is in kts
150	18631	Thin Client Network Statistics are broken
151	18630	GFE ISC: No Weather Elements display in ISC Request/Reply dialog
152	18627	The class BufrMosDataLocation should not use the hash code to generate an id
153	18616	PGEN dialog in D2D has two Start and two Help menus
154	18608	Improve radar processing for LAPS
155	18599	MPE: Daily QC for Temperature: grid disappears when closing single-station-edit dialog after having used group edit
156	18595	NWRWAVES produces an incorrect timestamp for products issued on the 31st of the month
157	18586	ANCF - SVC rsync hangs when a site falls off WAN in the middle of a rsync
158	18583	D2D - all panels not same zoom when opening 4-panel product on zoomed in display
159	18575	Fix sizing issues with Loop Properties Dialog
160	18574	NPE returned when double clicking on the 'Loading' entry in the Product Browser before products are listed
161	18566	LSR decoder throws out whole file when a single ob has bad location
162	18565	Changing map scales disables lat/lon readout, but lat/lon checkbox remains selected
163	18564	openSAML upgrade broke registry XACML, registry broken in
164	18559	Replace outdated logging in edex plugins with SLF4J
165	18558	NetworkTrafficSelect traffic logging broken by jetty 9.0.7 upgrade in 16.2.2
166	18557	Better error handling required if no data available for NCEP UpperAir Plots

167	18556	Remove duplicate pygtk in the system
168	18555	Remove PIL from install
169	18554	GFE: AV ULE-NPE error occurs if you attempt to create grid from scratch without having first selected a wx element
170	18553	edex-environment FOSS incompatibility in 16.2.2
171	18552	Delete bufrquikscat plugin
172	18551	Strange metar can be decoded but throws errors storing to HMDB
173	18550	Product Browser should not throw errors when data plugins are missing from edex
174	18549	Renamed tab reverts to 'Map' when opening up a 4-panel display and returning to a single pane
175	18538	Long item lists cause the OK/Cancel buttons to fall off the screen in the Delete Confirmation dialog in the Localization perspective
176	18536	Volume Browser - clearPlanes allows you to re-add Sources and Fields
177	18535	ILocalizationFile should provide API for detecting multiple concurrent edits
178	18529	Error returned when zooming into a cross section such that the entire chart is no longer visible
179	18481	MPE: persistent polygons remain on the display after being deleted
180	18479	Move damage path menu into plugin
181	18450	GFE: Canceling expired products should not be allowed
182	18446	Dendritic Growth Temperatures (Tdend) and Preferred Ice Growth (SnowT) show incorrect units in D-2D image display
183	18440	Making small changes to grids and subgrids requires clearing out data for affected models
184	18413	AvnFPS: Need to add feedback when TAF transmission fails
185	18399	METAR decoder stores sea level pressure with incorrect units
186	18387	Tracking Meteogram: When loading 4-panel radar product, TMT only shows plots from upper left and bottom right products
187	18361	Some synoptic obs data not being decoded
188	18350	MPE: Daily QC displays all temperature data as "missing"
189	18336	Legend does not update when keep-alive records from lightning data sources are received

190	18241	Resource polling job not always properly stopped at application shutdown
191	18168	Total Lightning: Raw total lightning (in-cloud) points should use a larger point symbol to display
192	18157	Tracking Meteogram: Clearing does not get back to original perspective in 1 click
193	18140	Time Series: errors when editing data from graphical view
194	18134	AlertViz: Threat Monitor icons do not change color for new threats.
195	18115	Some WRK products appear to not store to textdb
196	18059	Time of Arrival Tool showing incorrect times
197	18029	Hourly Hurricane track summary forecast plotting incorrectly for cyclones in D2D
198	17989	East Pacific Hurricane track summary is not showing up in d2d
199	17925	Point Data Control: No time window for precip
200	17894	CAVE can lock up when Clear is clicked during a time matching operation
201	17787	H-F Radar Surface Currents (HFR) Displays wrong Units
202	17749	postgresql rpm missing dependency to netcdf
203	17652	Hydrobase: no longer uses location lat/lon as a first guess for new River Gage Entry
204	17651	FFMP Basin Trend - 1st time step excluded from accumulation
205	17614	TextWS does not display updated MND time in editor after sending
206	17567	MDCRS sounding plots showing latitude/longitude instead of airport ID in NSHARP
207	17531	Drag me to storm dot should be editable for EXP products
208	17512	transferNWWS.pl does not write debug messages to transferNWWS.log
209	17387	OCONUS: Satellite menu under Derived Products Imagery display incorrect sector
210	17358	Using RPS List Editor to add DUA
211	17336	Buoys not getting most recent data into RWR and HWR products
212	17311	Cannot create SPS if <warngenOfficeShort> variable contains a "-"
213	17308	14.3.1: Change in storage of LI products for some models results in inconsistent storage, problems in GFE display
214	17245	Bug with RPG selection when doing RMRs

215	17157	GFE: enabling the trace option can result in large log files
216	17110	A2 doesn't display 5 min duration tabular data if it is part of a Time Series group
217	17097	TextWS: Saving a product and re-editing it causes additional headers in the Text Editor window
218	16970	LAPS 1500m Pressure D-2D display incorrect
219	16950	TextDB incremental purge does not work
220	16932	AWIPSII: Issue with Time Series Display
221	16910	Pressure plotted on PVU surfaces is substantially different on NWP models with fewer grid points (e.g. ECMWF, GFS90)
222	16737	Tab loses focus when swapping panes of certain radar products
223	15685	Rehosted climate F6: Monthly mean temperature can be rounded incorrectly
224	15489	HydroView - RiverMonitor/PrecipMonitor missing FFG and Precip Data
225	14977	MKX: AWIPS II Hydro Database Manager: Missing Lat/Lon in text report B-44A
226	14827	MKX: AWIPS II Hydro Database Manager: Missing Lat/Lon in text report B-44A
227	14803	TextWS: WMO Header not being added to Record Event Report products.
228	14802	D2D: Unable to load Max/Min T for RTMA in Volume Browser
229	14792	River Gauge Primary Elements Cannot Be Deleted from Hydrobase
230	14775	GFE: Saving to file fails when correcting a product in product editor
231	14655	Time height,series - when swapped to side panel some of time period lost
232	14647	Model names in NSHARP different from common name
233	14539	Hydro--purge decodedpa log
234	14453	GFE: color issue for TR Wx type
235	14315	City of Bedford in Virginia, FIPS code VAC515 becomes obsolete
236	14307	WarnGen Drop Down Menu Not Sorting Issued Products Correctly
237	14176	d2dContourStyleRules.xml error
238	14165	Hydro: Flash Flood Guidance Areal FFG Mode UELE error
239	14014	GFS40 model run precip display incorrect

240	13996	Order of sampling text reverses at bottom of D-2D display
241	13853	D-2D: Entry for DSD in dual pol version of radar menu is incorrect
242	13794	GFE: pencil tool in ISC mode works incorrectly when using grids
243	13459	GFE: Smart tool hiding does not work in some cases
244	13302	Green Times for upper air soundings do not show non-standard times (D 15312)
245	13298	Bufrua purge rule not being used
246	13261	GFE: alertviz messages from text formatter
247	13214	Word Wrap does not work when text entered from Search/Replace
248	13094	Svr Wx Plot product time (green time) does not match the time from legend
249	13033	GFE: Improve error message for bad characters in text formatter definitions
250	12435	hwrnwsw fails to store product locally
251	12419	Color Scale Truncation - take 2 - TTR6532
252	12085	SNOW: Wind Chill, Frostbite Time should not default to 0. - TTR6392
253	12021	DMD icon does not change when zooming - TTR6373
254	11919	NIMNAT message should be on as default
255	11474	Put Home Cursor Tool Display rounding issue
256	627	GFE: In product editor, `corrected?` misspelled `correctedd?`
257	621	AWIPS2 BCQ--Radar data from radar server and LDM are stored differently

1. Problem: NRRWAVES needs to be rolled back to 14.3.1 for HFON, GUM, others for the HLS issuance.

At Pacific sites (HFO, GUM, others) the NRRWAVES software needs to be rolled back in order to accommodate the issuance of the HLS product.

Operational Impact: The HLS product does not make it to NRRWAVES and hence not getting transmitted over the radio.

Required Behavior: The HLS product should be transmitted over the radio. **(DR 19297)**

2. Problem: GFE: 30 second delay when formatters are run after zone combination change

Spokane WFO reported that when running the formatters after they upgraded to 16.2.2, CAVE appears to freeze for about 15-30 seconds. This occurs when formatters are run upon a change in the zone combinations.

This can be easily reproduced by selecting the "Apply Zone Combo" after changing the zone combinations on the map.

Operational Impact: Delay of operations.

Required Behavior: There should not be a long delay or a freeze of the CAVE window. **(DR 19284)**

3. Problem: bufrsigwx, cwa, tcg, and tcs plugins have incorrect unique constraint

The bufrsigwx, cwa, tcg, and tcs plugins have forecast data but do not include the forecastTime field as part of the unique constraint. As a result, only a single forecast hour is stored for a given event/station for a given base reference time. For some of the plugins this means no forecast data is stored, or a random mix of forecast hours is stored. The database unique constraint needs to be updated to include forecastTime as part of the unique constraint.

This was caused by RODO DRs 5309, 5254, 5286, 5285.

Operational Impact: Data is missing/does not store.

Required Behavior: The database unique constraint needs to be updated to include forecastTime as part of the unique constraint in order for all data is stored. **(DR 19249)**

4. Problem: On some (not all) products, NWRWAVES is incorrectly adding one month to the start time of the product

Ron at OTX reported this issue. This issue applies to all 16.2.2 sites. The issue most likely occurs when the issue time is close to end of a day, say 22z and 23z.

Operational Impact: Products will not go out at the desired time and will be delayed one month.

Required Behavior: Products should have the correct issuing time. **(DR 19234)**

5. Problem: GFE: Section Headers should be created in All CAPS (As per item#6 of Mixed Case Text Guidelines Ver 12)

The section headers in the SFT product was created in Mixed Case instead of ALL CAPS. It was discovered during the testing of DCS18172.

Operational Impact: The headers and sub-headers products will be distributed in Mixed Case text instead of ALL CAPS.

Required Behavior: The headers and sub-headers should be created in ALL CAPS. (DR 19221)

6. Problem: GFE: Section headers and sub-headers should be followed by Mixed Case instead of ALL CAPS

During the testing of DCS18172 for the Mixed Case products, it found that the section headers and sub-headers for SRF and FWF products were followed by ALL CAPS instead of Mixed Case text. See attached files for more details.

Operational Impact: The section headers for the product will be distributed with ALL CAPS instead of Mixed Case text. See below for more details.

Required Behavior: The section headers and sub-headers after the parsing characters (...) should be followed by Mixed Case instead of ALL CAPS. (DR 19218)

7. Problem: GFE: Headline statement should be ALL CAPS for all products (As per item#5 of Mixed Case Text Guidelines Ver 12)

During the testing of DCS18172 for the Mixed Case products, it found that the headline statement was created in Mixed Case text instead of ALL CAPS such as RFD, ESF and PNS.

Operational Impact: The product headline will be distributed in Mixed case instead of ALL CAPS.

Required Behavior: The Headline of the products should be ALL CAPS instead of Mixed case. (DR 19216)

8. Problem: GFE: Issuing office line should be created in Mixed Case text for all products (As per item#2c of Mixed Case Text Guidelines Ver 12)

During the testing of DCS18172 for the Mixed Case products, it found in the section of mass news disseminator header block that the issuing office line were ALL CAPS instead of Mixed Case text (e.g., RFD and ESF).

Operational Impact: The issuing office line of products will be distributed in ALL CAPS instead of mixed case text.

Required Behavior: The issuing office line of the products should be mixed case instead of ALL CAPS. (DR 19215)

9. Problem: GFE: Product type line should be created in Mixed Case text for all products (As per item#2b of Mixed Case Text Guidelines Ver 12)

During the testing of DCS18172 for the Mixed Case products, it discovered in the section of mass news disseminator header block that the product type line were ALL CAPS instead of Mixed Case text (e.g., RFD and ESF).

Operational Impact: The product type line of products will be distributed in ALL CAPS instead of mixed case text.

Required Behavior: The product type line of the products should be mixed case instead of ALL CAPS. (DR 19214)

10. Problem: Baseline grid parameter table file missing units, causes decoding errors

BCQ site reported that the baseline GRIB table 161/0/4.2.209.12.table has entries that are missing the unit field. This causes those fields to not store. The problem fields are: 14, 15, 16, 17, 18, 19. The unit for these fields should be "year".
Should look like:

```
14:14:30 min Precipitation Accumulation Return Period:year:PRP30min
15:15:1 hour Precipitation Accumulation Return Period:year:PRP01H
16:16:3 hour Precipitation Accumulation Return Period:year:PRP03H
17:17:6 hour Precipitation Accumulation Return Period:year:PRP06H
18:18:12 hour Precipitation Accumulation Return Period:year:PRP12H
19:19:24 hour Precipitation Accumulation Return Period:year:PRP24H
```

Operational Impact: For sites that ingest this data, this problem causes the failure to decode of MRMS precipitation return periods, which can be used to evaluated if small streams and infrastructure are likely to be overwhelmed.

Required Behavior: The grib parameter table file should include units so that decoding can succeed. (DR 19193)

11. Problem: WarnGen Templates: Case corrections - Make MPH caps for "windTags" and capitalize sentence starters in SPS

For consistency, MPH should be in all CAPS wherever it is referenced for "windTag" lines in the WarnGen Templates. The only template where it is listed as "mph" is the impactTornadoWarning template - thus, it should be corrected there.

```
dx3-tbdw{rbarnhil}110: grep Tag *.vm | grep mph
impactTornadoWarning.vm:#set($windTag = "<50mph")
impactTornadoWarning.vm: #set($windTag = "60mph")
impactTornadoWarning.vm: #set($windTag = "70mph")
impactTornadoWarning.vm: #set($windTag = "80mph")
impactTornadoWarning.vm: #set($windTag = "90mph")
impactTornadoWarning.vm: #set($windTag = "100mph")
```

Additionally, from EWX:

We recently found the following in an SPS significant weather advisory (significantWeatherAdvisory.vm template) for a nearly stationary storm. In the storm current location description paragraph the template produced:

...or 7 miles west of Comstock. **this storm was nearly stationary.**

I looked in the template and found the following:

In ### Storm current location description ###

line 177 . \${reportType2} nearly stationary. \${smallHail}

The variable \${reportType2} is set at

line 22 #set(\$reportType2 = "these storms were")

for a line of storms and * line 26 #set(\$reportType2 = "this storm was")*

for a single storm. "This" and "These" need to be capitalized.

Operational Impact: None

Required Behavior: MPH should be used to preserve consistency within templates. This and These in the SPS templates should be capitalized as they lead sentences. **(DR 19186)**

12. Problem: NWRWAVES: Tcl formatting issue with octal numbers

MSO reported they were receiving fatal errors in NWRWAVES with products not transmitting. Investigation showed that this was a result of a problem with the tcl code related to a common issue in tcl with octal numbers. The problem only occurs when the number starts with 0, so the 1st of the month through the 9th. Tcl thinks it's an octal number and causes the failure. The error message is below.

```
dx3-mso ERROR]# more fatalerror_160708180416.log
expected integer but got "08" (looks like invalid octal number)
while executing
"format "%02d" $DD"
(procedure "GetIssueTimeGMT" line 34)
invoked from within
"GetIssueTimeGMT $MND"
(procedure "ProductParse" line 320)
invoked from within
"ProductParse $queuefile $PIL $CTA_OPTION"
("foreach" body line 52)
invoked from within
"foreach queuefile $fileToProcess {
  catch {unset watchstatus}
  catch {unset watchnumbers}
  set overview_flag "N"
  set inputfile [string ..."
(file "./nwrwaves.tcl" line 5819)
```

The fix appears to be to comment out line 117 of nwrwaves.tcl and add line 118 as follows: 1. set DD [format "%02d" \$DD]

```
if { [string length $DD] == 1 } { set DD "0$DD" }
```

Operational Impact: NWRWAVES products may fail to transmit.

Required Behavior: The error should not occur. **(DR 19183)**

13. Problem: Issue opening Data Sources in hydro database manager

In Hydro Database manager (via Hydro perspective), when pulling up the Data Sources window (Location -> Data sources), a UELE Alertviz banner pops up, and the Data Sources window never comes up.

Operational Impact: Users are not able to view Data Source window in Hydro Database Manager

Required Behavior: In Hydro Database manager (via Hydro perspective), when pulling up the Data Sources window (Location -> Data sources), the Data Sources window is displayed correctly. **(DR 19182)**

14. Problem: AlertViz can report errors during purge and subsequent messages

AlertViz periodically purges stored messages. If a message arrives during the purge process, the purge can fail. (See attached stack trace.) The failed purge causes the log message database to be closed which can cause the next incoming message to fail to be saved.

This is related to RODO DR 5314 (SS DR #18686)

(Technical information follows.)

Buried in the Derby documentation is the following:

Pitfalls of sharing a connection among threads

Here is a review of the potential pitfalls of sharing a single Connection among multiple threads.

- Committing or rolling back a transaction closes all open ResultSet objects and currently executing Statements, unless you are using held cursors.

However, it appears using `ResultSet.HOLD_CURSORS_OVER_COMMIT` for the prepared statement in `LogMessageDAO.purge` still does not work.

Operational Impact: In some cases, loss of situational awareness due to not seeing an important AlertViz message. In most cases, the messages are an annoyance.

Required Behavior: AlertViz should be able to handle the case of messages arriving during a purge operation without errors. **(DR 19179)**

15. Problem: WarnGen: Misspelling in BASE impactSevereWeatherStatement.vm WarnGen

OB16.2.2-17 beta at DMX. Misspelling in BASE `impactSevereWeatherStatement.vm` WarnGen template - line 1115. "Seek" is misspelled as "sSek". DMX has copied to SITE and fixed locally. This will need fixing in the baseline.

Operational Impact: Minimal.

Required Behavior: Baseline template should not have this error. (DR 19177)

16. Problem: Hydro: font size setting is not maintained between sessions

In the Hydro perspective, manually setting the font size for the display text works as expected. However, if CAVE is restarted, Hydro opens with a large font size; even though the menu is still set to the previous size.

Steps to reproduce:

1. load the Hydro perspective in CAVE.
 2. from the top menu, select Tools-->Set Font.
 3. click the radio button for "Very Small": the font size is redisplayed accordingly (attached screen capture hydro_font_size1)
 4. exit, then reload CAVE.
 5. when the Hydro perspective reloads, note the font size.
- Expected result: the font size is still "Very Small".
Actual result: the font size is equivalent to the "Large" setting.
6. if the Tools-->Set font menu is opened again, "Very Small" is still selected, even though it is not the displayed size. (attached screen capture hydro_font_size_reloaded).

Operational Impact: The Hydro perspective does not load with the desired font size setting. The users must manually adjust the setting for every run of CAVE.

Required Behavior: The user-selected font size is maintained between CAVE sessions. (DR 19175)

17. Problem: EDEX grid decoder stores grids with incorrect name due to bad or mismatched grid definition files

Many existing baseline grid definition files under edex_static/grib/grids are incorrect. Many do not match the official definitions. In some cases, the incoming GRIB data does not match the official definition. Grids still stored because the grid coverage comparison was fairly lax. With DR 18440, grid coverage comparisons are more strict. As a result, the grid decoder cannot match incoming grids to the ones defined in configuration files and grids are stored with a generic GribModel:*:*:* name.

Operational Impact: Reduced forecasting ability due to missing data.

Required Behavior: EDEX grid decoder should store grids according to its configuration files. (DR 19174)

18. Problem: EDEX grid decoder may fail to store models defined with COVERAGE pattern

If a grid model name is defined with a `{COVERAGE}` pattern, and the grid coverage in the database has a null name, grids will fail to store with a NPE (in `GridModel.getTransformedName.`)

A grid coverage database entry can have a null name if model data had previously been ingested without a matching grid definition file under `edex_static/grib/grids/`.

Even if the immediate NPE is fixed, the fact that the name in the database is used instead of `<name>` element from the grid configuration could still result in grids being stored with the wrong model name.

Operational Impact: Reduced ability to generate forecasts

Required Behavior: EDEX should store grids according to the relevant configuration files. **(DR 19173)**

19. Problem: Sea level pressure displayed incorrectly with DAT products

METAR Sea Level Pressure incorrectly displays in surface plots (and tables) loaded via DAT tools (SNOW, FOG, SAFESEAS).

Related to SMS DR 18399/RODO 5345

Operational Impact: Forecaster may be confused over apparent bad data.

Required Behavior: AWIPS should display METAR sea level pressure with correct units. **(DR 19172)**

20. Problem: Hydro Time Series Graph Display is not Drawing X and Y Axis.

In the Hydro Time Series Application, in certain cases when the user selects multiple PEs to be displayed on a single graph via clicking on the Graph button in the Time Series Control dialog, the graph display is not showing the X and Y axis. Everything else on the graph including the data points are drawn correctly. Only the X and Y axis are not drawn on the graph. This is accompanied by a message "CAVE: Problem Painting Graph" and a stack trace in the Alert Visualization Popup Message Dialog. This issue seems to appear only when multiple PEs are selected for display.

Operational Impact: The Hydro application Hydro Time Series Display graph does not display the X and Y axis.

Required Behavior: The Hydro application Hydro Time Series Display graph should show a graph with X and Y axis drawn. **(DR 19166)**

21. Problem: Permissions issues for localization files post 16.2.2.

Users reported noticing permission changes post 16.2.2. In addition external application that do not use currently implemented API cannot access files stored in the localization trees.

Operational Impact: Not having access to the files may impact (slow down or make it impossible) the forecaster's ability to issue products.

Required Behavior: Users should have access to the files in their own localization tree. (DR 19165)

22. Problem: Modify environment flag in LAPS and MSAS access script for LAPS V2

The LAPS/MSAS access script (Rehost/src/pxInstall/updates/awips/fxa/bin/daf/a2rdmdl.csh) needs to be modified to remove the -f flag. The -f argument causes the script to run with whatever environment is in place, rather than sourcing the .cshrc and/or .profile file for the account. This was not important for LAPS V1, but it does matter for LAPS V2 using DAF. Jim Ramer (GSD) has the fix ready to go.

This change will not affect LAPS V1 because a2rdmdl.csh is called within a script called convertRuc40.csh, which does not have the -f argument to start and so does always pick up the default login environment.

Operational Impact: LAPS V2 DAF commands may fail.

Required Behavior: LAPS V2 DAF commands should source the .cshrc and/or .profile for the account running the command. (DR 19164)

23. Problem: Add NAVGEM grid definition for 0.5 degree resolution

Received notification of an upcoming upgrade to NAVGEM.

1. the model definition needs a different grid defined.
2. code added to some grib1 specific files are no longer needed. (Deferred to future release)

FNMOC NAVGEM Upgrade

Scheduled Implementation Date: June 28th, 2016

Summary: Data will be upgraded from 1.0 deg to 0.5 deg resolution.

File formats will change from GRIB1 to GRIB2 and file names will have ".grib2" appended to them.

Operational Impact: NAVGEM model will fail

Required Behavior: Support NAVGEM 0.5 degree resolution which will be implemented on June 24, 2016. (DR 19161)

24. Problem: GFE: TCStormSurgeThreat grids are not being purged

Old StormSurgeThreat grids from previous time periods are not being deleted. Multiple grids/periods are being published. The design is for one threat grid, not multiple. As a result, grid mosaic creation by MDL failed and TBW threat grid was not included in the national mosaic.

Operational Impact: Incorrect storm surge grids may be used if old grids are not purged.

Required Behavior: Old storm surge grids from previous time periods must be deleted. (DR 19160)

25. Problem: GFE: make_hti.sh script needs to create a specific file IDG requires in order to generate the mosaics of each element

Description of Problem -> DR needs to be created for the make_hti.sh script. The make_hti.sh needs to create a specific file IDG requires in order to generate the mosaics of each element.

Additional information about the issue -> Shannon White has a fix for this.

Operational Impact: The HTI script will not produce the output needed.

Required Behavior: make_hti.sh needs to create a specific file IDG requires in order to generate the mosaics of each element. (DR 19158)

26. Problem: GFE: Add 3 foot option for Inundation Height for TCStormSurgeThreat values

EHU site requested this DR be opened.

TCStormSurgeThreat Values

Inundation Height has options for 0-2 feet, requesting for a 3 foot addition in the baseline

They created a 5 foot option there at the site level as an override in GFE. This is requested for the baseline.

To find this, go to CAVE-->GFE-->PROCEDURE-->TCStormSurgeThreat--->Inundation Height Slide option

Site has a fix for this that she can provide on request.

Operational Impact: 3 foot surge height option is not available if it were needed.

Required Behavior: 3 foot storm surge height option should be available. (DR 19157)

27. Problem: GFE: InundationMax grid not read by TCV formatter

During testing of OB16.2.2 in the Raytheon test lab it was found that the InundationMax grid is not being read by the TCV formatter even when data is available. This problem did not occur in OB16.2.1. Investigation showed that the problem seemed to be during the on-the-fly creation of the Intersect edit area by the TCV formatter. For some reason the edit area was not being created correctly and so the InundationMax grids were not found in the edit area.

Operational Impact: Storm surge information will not be available in tropical warning products

Required Behavior: InundationMax grids must be read by the TCV formatter if they exist. (DR 19156)

28.Problem: MPE and Hydro Color Scale Manager: error messages when deleting a color profile

In both the MPE and Hydro Color Scale Manager windows, deleting a user or office-level color profile causes multiple "Error to copy object" errors to appear in AlertViz (see attached text file). The color profile is successfully deleted from the database; so these messages are more of an annoyance.

Seps to reproduce:

1. load the Hydro and MPE perspectives in CAVE.
2. in each perspective, from the top menu select Tools-->Color Manager
3. click on the Source drop-down list, and select "User" or "Office".
4. from the Data Type drop-down list, select one of the color profiles.
5. when the profile is displayed, click one of the 'Delete as:' buttons at the bottom of the window.
6. click 'OK' in the confirmation window.

Expected result: the color profile is deleted without messages appearing in AlertViz.

Actual result: the profile is deleted, but multiple error messages appear in AlertViz.

Operational Impact: The error messages could make it seem that the delete was not successful: causing the user to needlessly repeat the operation.

Required Behavior: Color profiles can be deleted without errors being thrown. **(DR 19155)**

29.Problem: TextWS: Alarm/Alert Bell disappears when the products cleared from Current Alarm Queue GUI.

When a product, for which an alarm/alert is set, comes in - an Alarm/Alert Bell icon pop up. When a user clicks on the the bell icon a GUI Current Alarm Queue with a list of alarmed products pops up. After a product is clicked on it is loaded in a separate window which has, among others, "Clear" button, which clears the current window and removes the product from the list of the alarmed products loaded in the Current Alarm Queue GUI. If there are no more products left loaded in the Current Alarm Queue GUI, subsequent incoming alarmed products will be loaded in the Current Alarm Queue GUI but the Alarm/Alert Bell icon will not pop up upon the alarm/alert notification arrival.

Operational Impact: Not having Alarm/Alert Bell icon pop up upon product arrival can lead to it being unnoticed and ignored.

Required Behavior: Alarm/Alert Bell icon should pop upon product arrival. **(DR19153)**

30. Problem: Hydro Database Manager: db error when trying to change configuration in Ingestfilter GUI

There is a problem with the ingestfilter GUI in the hydro database manager. There is an alertViz error, when you make a change in the Ingestfilter GUI and try to save the changes. This is a side effect from the changes made for DCS 14607: "Hydrobase: Add a WFO filter parameter to Ingest Filter GUI".

Operational Impact: The site can't make changes to ingestfilter table through the ingestfilter GUI, which is used heavily by all hydro applications

Required Behavior: Be able to make changes and save to the database without errors. **(DR 19149)**

31. Problem: EDEX GRIB decoder: estofsEP stored as estofsUS

Changes in 16.2.2 (DCS #18145) cause the estofsEP model (and possible other estofs models) to be stored as estofsUS. This can make it appear that estofUS is "missing data" if one expects to see something on the east coast.

Other sets of models may be storing incorrectly as well.

Operational Impact: Reduced ability to generate forecasts

Required Behavior: EDEX should store grids with correct model IDs **(DR 19145)**

32. Problem: WarnGen Templates: KTS and IN need to be in CAPS for SMW products

Mixed Case work changed KTS and IN to lower case in the specialMarineWarning templates. This text needs to be in CAPS for partners to properly decode the warning products.

Operational Impact: Text should be in CAPS

Required Behavior: Update a SITE version of these templates. **(DR 19144)**

33. Problem: 16.2.2: Some types of site level station locations are no longer displayed in D2D

BTV site reported that after the 16.2.2 upgrade their local METAR station locations were no longer displaying, although the METAR data for those locations does display.

The site versions of MTR.spi, raob.spi, BUOY.spi are kept under common_static/site/<SITEID>/basemaps

Prior to 16.2.2, there were no base-level versions of these files, i.e. they did not appear in the Localization perspective in CAVE, nor were they stored on the individual LX's under /awips2/cave/etc/basemaps. The site version was the one that was used.

In 16.2.2, they did become present at base level as part of VLAB 9407 (DCS 18710), so these base versions are the ones that started to be used instead of the site versions.

NOTE: The workaround is not necessarily the final fix for this DR. It needs to be determined whether it would be better to have the files remain under common_static and read from there as they were pre-16.2.2. Traditionally the local spi files are meant to be created under the common_static site area when sites update their files through the ndm endpoint or config_awips2.sh ndm option.

Operational Impact: The custom/local station locations for metars, raobs and buoys that sites have configured and that they are used to displaying are no longer available.

Required Behavior: Local station locations should display in D2D (**DR 19143**)

34. Problem: DR WarnGen Templates: Cleanup for some Mixed Case updates and delta scripts for sites (from DCS 18172)

There were a few instances where CAPS were excluded from a few templates and these changes need to be added to 16.2.2. Additionally, there are some delta scripts that need to be checked in to help sites properly update their SITE WarnGen files.

Operational Impact: None - WarnGen should function just fine despite not having these changes.

Required Behavior: Templates should be compliant with new Mixed Case guidelines. (**DR 19142**)

35. Problem: NWRWAVES crashes in two special cases caused by code of the DR-18595

MSO site reported that NWRWAVES crashed since 16.2.2 installation.

The error log files show that NWRWAVES crashed in the two cases:

1. The hour of the expiration time is "00"
2. The time in the MND is "12XX PM"

Operational Impact: Nwrwaves fails in processing the products that matches anyone of the two cases in the Description.

Required Behavior: Nwrwaves should process those products successfully. (**DR 19141**)

36. Problem: GFE: runIFPText writes WRK files in all CAPS

WFO Missoula site reported that since their 16.2.2 build today he noticed that the baseline runIFPText creates workfiles in all CAPS. This text formatter is ran from the command line and should create WRK products in mixed case. One product he mentioned this happening to is WRKZFP.

The formatter in question is ZFP_MSO. It has awipsWANPil set to "KMSOWRKZFP".

Operational Impact: Could not produce desired mixed case text without the fix, specifically for a WRK local cities temp/pop forecast.

Required Behavior: WRK pil products should be formatted in mixed case. (DR 19140)

37. Problem: GFE: GetSiteTimeZoneInfoRequest should allow null or empty list for requestedSiteIDs

Site BTV is reporting issues with the ConsProds scripts.

This issue was caused by changes made to GetSiteTimeZoneInfoRequest under DR #5129. If the requestor supplies a null or empty list for the requestedSiteIDs of the request, we should return the time zones associated with each active GFE site as was the behavior in the previous version.

Operational Impact: TBD--See Omaha

Required Behavior: TBD--See Omaha (DR 19135)

38. Problem: AK REGION not set properly for Wave models

MSO site reported that UNKwave4, UNKwave10 and UNKWAVE239 were storing in hdf5, and that the "UNK" domain should be "AK" for the wave4, wave10, and WAVE239 models which apparently is incorrectly defined in GribModelRegions.xml, but works for all the other AK grib models ingested from the SBN.

Verified that AK wave data is storing as UNKwave4, UNKwave10 and UNKWAVE239 on TBDW as well.

Operational Impact: Since these AK wave data are storing under an incorrect name, they will not match the menu item in the Volume Browser. They will need to be loaded from the Product Browser and the user will need to know to look for UNKwave* as the choice to use.

Required Behavior: AKwave4, AKwave10, AKWAVE238 should store as such. (DR 19130)

39. Problem: 16.2.2: Edex processing of qc data failing with camel errors

VUY site reported that after 16.2.2-11 installation, there is no qc data being stored by edex. Confirmed that it is also occurring on 16.2.2 site BCQ and duplicated on dev platform.

The edex log has errors that point to the 16.2.2 upgrade of camel from 2.14 to 2.16 as the possible culprit:

```
ERROR 2016-06-16 18:02:00,391 [scheduledQCScanWork-1] Logger: Failed delivery for (MessageId: ID-samus-49857-1466099990156-0-48 on ExchangeId: ID-samus-49857-1466099990156-0-49). Exhausted after delivery
```

attempt: 1 caught: org.apache.camel.language.bean.RuntimeBeanExpressionException: Failed to invoke method: .args0.[last].ncSet on null due to: org.apache.camel.language.bean.RuntimeBeanExpressionException: Failed to invoke method: args on null due to: org.apache.camel.component.bean.MethodNotFoundException: Method with name: args not found on bean: [Lcom.raytheon.uf.common.dataplugin.PluginDataObject;@5a49630e of type: [Lcom.raytheon.uf.common.dataplugin.PluginDataObject;. Exchange[]][Message: [Lcom.raytheon.uf.common.dataplugin.PluginDataObject;@5a49630e]

Message History

```
-----
RouteId ProcessorId Processor Elapsed (ms)
[qcToIndexAlert ] [qcToIndexAlert ] [direct-vm://qcToIndexAlert ] [ 1]
[qcToIndexAlert ] [setHeader16 ] [setHeader[pluginName] ] [ 0]
[qcToIndexAlert ] [setHeader17 ] [setHeader[ingestFileName] ] [ 1]
```

Exchange

```
-----
Exchange[
  Id ID-samus-49857-1466099990156-0-49
  ExchangePattern InOut
  Headers {breadcrumbId=ID-samus-49857-1466099990156-0-48, CamelRedelivered=false,
  CamelRedeliveryCounter=0, pluginName=qc }
  BodyType com.raytheon.uf.common.dataplugin.PluginDataObject[]
  Body [Lcom.raytheon.uf.common.dataplugin.PluginDataObject;@5a49630e
]

```

Stacktrace

```
-----
org.apache.camel.language.bean.RuntimeBeanExpressionException: Failed to invoke method: .args0.[last].ncSet on
null due to: org.apache.camel.language.bean.RuntimeBeanExpressionException: Failed to invoke method: args on
null due to: org.apache.camel.component.bean.MethodNotFoundException: Method with name: args not found on
bean: [Lcom.raytheon.uf.common.dataplugin.PluginDataObject;@5a49630e of type:
[Lcom.raytheon.uf.common.dataplugin.PluginDataObject;. Exchange[]][Message:
[Lcom.raytheon.uf.common.dataplugin.PluginDataObject;@5a49630e]
  at org.apache.camel.language.bean.BeanExpression.evaluate(BeanExpression.java:117) ~[camel-core-
  2.16.0.jar:2.16.0]
  at org.apache.camel.language.bean.BeanExpression.evaluate(BeanExpression.java:132) ~[camel-core-
  2.16.0.jar:2.16.0]
  at org.apache.camel.model.language.ExpressionDefinition.evaluate(ExpressionDefinition.java:125) ~[camel-core-
  2.16.0.jar:2.16.0]
  at org.apache.camel.model.language.ExpressionDefinition.evaluate(ExpressionDefinition.java:117) ~[camel-core-
  2.16.0.jar:2.16.0]
  at org.apache.camel.builder.ExpressionBuilder$34.evaluate(ExpressionBuilder.java:844) ~[camel-core-
  2.16.0.jar:2.16.0]
  at org.apache.camel.support.ExpressionAdapter.evaluate(ExpressionAdapter.java:36) ~[camel-core-
  2.16.0.jar:2.16.0]
  at org.apache.camel.builder.ExpressionBuilder$62.evaluate(ExpressionBuilder.java:1480) ~[camel-core-
  2.16.0.jar:2.16.0]
  at org.apache.camel.support.ExpressionAdapter.evaluate(ExpressionAdapter.java:36) ~[camel-core-
  2.16.0.jar:2.16.0]
  at org.apache.camel.builder.SimpleBuilder.evaluate(SimpleBuilder.java:84) ~[camel-core-2.16.0.jar:2.16.0]
  at org.apache.camel.processor.SetHeaderProcessor.process(SetHeaderProcessor.java:49) ~[camel-core-
  2.16.0.jar:2.16.0]
  at org.apache.camel.util.AsyncProcessorHelper.process(AsyncProcessorHelper.java:109) [camel-core-
  2.16.0.jar:2.16.0]
```

```
at org.apache.camel.processor.SetHeaderProcessor.process(SetHeaderProcessor.java:43) ~[camel-core-2.16.0.jar:2.16.0]
at com.raytheon.uf.edex.esb.camel.MessageProducer$2.process(MessageProducer.java:432)
[com.raytheon.uf.edex.esb.camel.jar:na]
at org.apache.camel.processor.DelegateAsyncProcessor.process(DelegateAsyncProcessor.java:91) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.processor.RedeliveryErrorHandler.process(RedeliveryErrorHandler.java:460) ~[camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.processor.CamelInternalProcessor.process(CamelInternalProcessor.java:190) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.processor.Pipeline.process(Pipeline.java:121) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.processor.Pipeline.process(Pipeline.java:83) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.processor.CamelInternalProcessor.process(CamelInternalProcessor.java:190) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.component.directvm.DirectVmProcessor.process(DirectVmProcessor.java:55) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.util.AsyncProcessorHelper.process(AsyncProcessorHelper.java:109) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.processor.DelegateAsyncProcessor.process(DelegateAsyncProcessor.java:87) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.component.directvm.DirectVmProducer.process(DirectVmProducer.java:46) [camel-core-2.16.0.jar:2.16.0]
at
org.apache.camel.component.bean.AbstractCamelInvocationHandler$1.call(AbstractCamelInvocationHandler.java:175) [camel-core-2.16.0.jar:2.16.0]
at java.util.concurrent.FutureTask.run(FutureTask.java:266) [na:1.8.0_77]
at
org.apache.camel.component.bean.AbstractCamelInvocationHandler.doInvoke(AbstractCamelInvocationHandler.java:193) [camel-core-2.16.0.jar:2.16.0]
at
org.apache.camel.component.bean.AbstractCamelInvocationHandler.invokeProxy(AbstractCamelInvocationHandler.java:155) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.component.bean.CamelInvocationHandler.doInvokeProxy(CamelInvocationHandler.java:51) [camel-core-2.16.0.jar:2.16.0]
at
org.apache.camel.component.bean.AbstractCamelInvocationHandler.invoke(AbstractCamelInvocationHandler.java:88) [camel-core-2.16.0.jar:2.16.0]
at com.sun.proxy.$Proxy31.acceptRecords(Unknown Source) [na:na]
at com.raytheon.uf.edex.plugin.qc.QCScanner$QCDirectoryScanner.scanFile(QCScanner.java:248)
[com.raytheon.uf.edex.plugin.qc.jar:na]
at com.raytheon.uf.edex.plugin.qc.QCScanner$QCDirectoryScanner.scan(QCScanner.java:146)
[com.raytheon.uf.edex.plugin.qc.jar:na]
at com.raytheon.uf.edex.plugin.qc.QCScanner.scanInChunks(QCScanner.java:89)
[com.raytheon.uf.edex.plugin.qc.jar:na] at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
~[na:1.8.0_77]
at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62) ~[na:1.8.0_77]
at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43) ~[na:1.8.0_77]
at java.lang.reflect.Method.invoke(Method.java:498) ~[na:1.8.0_77]
at org.apache.camel.component.bean.MethodInfo.invoke(MethodInfo.java:408) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.component.bean.MethodInfo$1.doProceed(MethodInfo.java:279) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.component.bean.MethodInfo$1.proceed(MethodInfo.java:252) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.component.bean.BeanProcessor.process(BeanProcessor.java:177) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.util.AsyncProcessorHelper.process(AsyncProcessorHelper.java:109) [camel-core-2.16.0.jar:2.16.0]
```

at org.apache.camel.component.bean.BeanProcessor.process(BeanProcessor.java:68) [camel-core-2.16.0.jar:2.16.0]
at com.raytheon.uf.edex.esb.camel.MessageProducer\$2.process(MessageProducer.java:432)
[com.raytheon.uf.edex.esb.camel.jar:na]
at org.apache.camel.processor.DelegateAsyncProcessor.process(DelegateAsyncProcessor.java:91) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.processor.CamelInternalProcessor.process(CamelInternalProcessor.java:190) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.processor.Pipeline.process(Pipeline.java:121) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.processor.Pipeline.process(Pipeline.java:83) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.util.AsyncProcessorHelper.process(AsyncProcessorHelper.java:109) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.processor.Pipeline.process(Pipeline.java:63) [camel-core-2.16.0.jar:2.16.0]
at com.raytheon.uf.edex.esb.camel.MessageProducer\$2.process(MessageProducer.java:432)
[com.raytheon.uf.edex.esb.camel.jar:na]
at org.apache.camel.processor.DelegateAsyncProcessor.process(DelegateAsyncProcessor.java:91) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.processor.CamelInternalProcessor.process(CamelInternalProcessor.java:190) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.processor.TryProcessor.process(TryProcessor.java:115) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.processor.TryProcessor.process(TryProcessor.java:86) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.util.AsyncProcessorHelper.process(AsyncProcessorHelper.java:109) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.processor.TryProcessor.process(TryProcessor.java:70) [camel-core-2.16.0.jar:2.16.0]
at com.raytheon.uf.edex.esb.camel.MessageProducer\$2.process(MessageProducer.java:432)
[com.raytheon.uf.edex.esb.camel.jar:na]
at org.apache.camel.processor.DelegateAsyncProcessor.process(DelegateAsyncProcessor.java:91) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.processor.CamelInternalProcessor.process(CamelInternalProcessor.java:190) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.processor.CamelInternalProcessor.process(CamelInternalProcessor.java:190) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.util.AsyncProcessorHelper.process(AsyncProcessorHelper.java:109) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.processor.DelegateAsyncProcessor.process(DelegateAsyncProcessor.java:87) [camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.component.jms.EndpointMessageListener.onMessage(EndpointMessageListener.java:112)
[camel-jms-2.16.0.jar:2.16.0]
at
org.springframework.jms.listener.AbstractMessageListenerContainer.doInvokeListener(AbstractMessageListenerContainer.java:674) [spring-jms-4.1.6.RELEASE.jar:4.1.6.RELEASE]
at
org.springframework.jms.listener.AbstractMessageListenerContainer.invokeListener(AbstractMessageListenerContainer.java:634) [spring-jms-4.1.6.RELEASE.jar:4.1.6.RELEASE]
at
org.springframework.jms.listener.AbstractMessageListenerContainer.doExecuteListener(AbstractMessageListenerContainer.java:605) [spring-jms-4.1.6.RELEASE.jar:4.1.6.RELEASE]
at
org.springframework.jms.listener.AbstractPollingMessageListenerContainer.doReceiveAndExecute(AbstractPollingMessageListenerContainer.java:308) [spring-jms-4.1.6.RELEASE.jar:4.1.6.RELEASE]
at
org.springframework.jms.listener.AbstractPollingMessageListenerContainer.receiveAndExecute(AbstractPollingMessageListenerContainer.java:246) [spring-jms-4.1.6.RELEASE.jar:4.1.6.RELEASE]
at
org.springframework.jms.listener.DefaultMessageListenerContainer\$AsyncMessageListenerInvoker.invokeListener(DefaultMessageListenerContainer.java:1144) [spring-jms-4.1.6.RELEASE.jar:4.1.6.RELEASE]


```

at
org.springframework.jms.listener.DefaultMessageListenerContainer$AsyncMessageListenerInvoker.executeOngoingLoop(DefaultMessageListenerContainer.java:1136) [spring-jms-4.1.6.RELEASE.jar:4.1.6.RELEASE]
at
org.springframework.jms.listener.DefaultMessageListenerContainer$AsyncMessageListenerInvoker.run(DefaultMessageListenerContainer.java:1033) [spring-jms-4.1.6.RELEASE.jar:4.1.6.RELEASE]
at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1142) [na:1.8.0_77]
at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:617) [na:1.8.0_77]
at java.lang.Thread.run(Thread.java:745) [na:1.8.0_77]
Caused by: org.apache.camel.language.bean.RuntimeBeanExpressionException: Failed to invoke method: args on null due to: org.apache.camel.component.bean.MethodNotFoundException: Method with name: args not found on bean: [Lcom.raytheon.uf.common.dataplugin.PluginDataObject;@5a49630e of type:
[Lcom.raytheon.uf.common.dataplugin.PluginDataObject;. Exchange[]][Message:
[Lcom.raytheon.uf.common.dataplugin.PluginDataObject;@5a49630e]
at org.apache.camel.language.bean.BeanExpression$OgnlInvokeProcessor.process(BeanExpression.java:290)
~[camel-core-2.16.0.jar:2.16.0]
at org.apache.camel.language.bean.BeanExpression.evaluate(BeanExpression.java:114) ~[camel-core-2.16.0.jar:2.16.0]
... 74 common frames omitted

```

Operational Impact: No ldadmsonet or msas qc data available for display.

Required Behavior: qc data should decode and store in DB (DR 19128)

40. Problem: GFE: Incorrect spelling of word "occurring" under the CTA section of HF.W hazard

During the testing of DCS18172, I found the incorrect spelling of word "occurring" under the CTA section of HF.W hazard. See below for more details.

It should be:

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Hurricane Force Wind Warning means winds of 64 knots or greater are imminent or "occurring". All vessels should remain in port...or take shelter as soon as possible...until winds and waves subside.

Instead of:

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Hurricane Force Wind Warning means winds of 64 knots or greater are imminent or "occurring". All vessels should remain in port...or take shelter as soon as possible...until winds and waves subside.**Operational Impact:** No operational impact other than a misspelled word going out in a product. Does not impact operations.

Required Behavior: The word of occurring should be spelled correctly. It should be spelled "occurring" instead of "occurring".. (DR 19116)

41. Problem: GFE: The first letter "o" of the word "outdoor" was not being capitalized under the Impacts bullet text header (FW.A & FW.W)

During the testing of DCS18172, I found that the first letter "o" of the word "outdoor" was not being capitalized under the Impacts bullet text header of the FW.A and FW.W. See below for more details.

It should be:

- Impacts...any fires that develop will likely spread rapidly.
Outdoor burning is not recommended.

Instead of:

- Impacts...any fires that develop will likely spread rapidly.
Outdoor burning is not recommended.

Operational Impact: Hazards will be distributed with bad grammar.

Required Behavior: Capitalized the first letter "o" of the word "outdoor" that begin a sentence under the Impacts bullet text header of FWA and FWW hazards. It should be "Outdoor" instead of "outdoor". (DR 19112)

42. Problem: Cannot Save Custom Points List & Get Alertviz Error When Renaming a Created New Group in Points List Dialog

When creating a new point, in the Create Point dialog, the Group dropdown list does not include the created group. Either it just lists <No Group> or both <No Group> & /D2D Points (See attached screenshot Points_List_dialogs.png).

When using the Points List dialog to create a new group list the user can rename the group to a desired name. After the user presses Enter to save the new group an Alertviz error is given (see error below).

Steps to reproduce the error:

1. Delete the caveData folder.
2. On DX3, go to
/awips2/edex/data/utility/cave_static/user/<username>/awipsTools/<site>/points/
3. Delete all files in this folder
4. Start CAVE
5. Click the Points button in the toolbar.
6. Right click and hold on the Interactive Points (Editable) product ID in the product legend.
7. Select Edit Points...
8. Click New Group
9. Rename the new group and press enter. Should get Alertviz error after pressing enter.

Alertviz error:

Error deleting file

/home/rrogers/caveData/etc/user/rrogers/awipsTools/AKQ/points/TEMP_1com.raytheon.uf.common.localization.ex

```

ception.LocalizationException: Error deleting file
/home/rrogers/caveData/etc/user/rrogers/awipsTools/AKQ/points/TEMP_1
at com.raytheon.uf.common.localization.LocalizationFile.delete(LocalizationFile.java:515)
at com.raytheon.uf.viz.points.PointsDataManager.checkGroupDelete(PointsDataManager.java:1360)
at com.raytheon.uf.viz.points.PointsDataManager.checkGroup(PointsDataManager.java:1332)
at com.raytheon.uf.viz.points.PointsDataManager.fileUpdated(PointsDataManager.java:1135)
at
com.raytheon.uf.common.localization.LocalizationFileIntermediateObserver.fileChanged(LocalizationFileIntermedi
ateObserver.java:139)
at com.raytheon.uf.common.localization.PathManager.fireListeners(PathManager.java:742)
at
com.raytheon.uf.viz.core.localization.CAVELocalizationNotificationObserver.notificationArrived(CAVELocalizati
onNotificationObserver.java:100)
at
com.raytheon.uf.common.jms.notification.JmsNotificationManager$JobWrapper.run(JmsNotificationManager.java:
669)
at java.util.concurrent.Executors$RunnableAdapter.call(Executors.java:511)
at java.util.concurrent.FutureTask.run(FutureTask.java:266)
at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1142)
at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:617)
at java.lang.Thread.run(Thread.java:745)
Caused by: java.nio.file.DirectoryNotEmptyException:
/home/rrogers/caveData/etc/user/rrogers/awipsTools/AKQ/points/TEMP_1
at sun.nio.fs.UnixFileSystemProvider.implDelete(UnixFileSystemProvider.java:242)
at sun.nio.fs.AbstractFileSystemProvider.delete(AbstractFileSystemProvider.java:103)
at java.nio.file.Files.delete(Files.java:1126)
at com.raytheon.uf.common.localization.LocalizationFile.delete(LocalizationFile.java:513)
... 12 more

```

Operational Impact: No operational impact as users can still manipulate points to view model point data at a specific location. However, the user will be unable to save a custom list of desired points.

Required Behavior: The user should be able to create a custom list of points. No alertviz error should appear after renaming a newly created group. **(DR 19110)**

43. Problem: GFE: Bullet text headers should be ALL CAPS according to Mixed Case Text Guidelines (Ver 12 5/5/2016)

During the testing of DCS18172 for the Mixed case hazards, it found that the section of the bullet text headers for FW.A and FW.W were created with Mixed case texts instead of ALL CAPS. See below or attached for more details.

It should be:

- AFFECTED AREA...Fire weather zone 017. Fire weather zones 097...098 and 509.
- WIND...|* Enter bullet text *|
- HUMIDITY...|* Enter bullet text *|
- THUNDERSTORMS...|* Enter bullet text *|

* * HIGHEST THREAT...is located (optional bullet)*

- IMPACTS...any fires that develop will likely spread rapidly.
outdoor burning is not recommended.

Instead of:

- Affected area...Fire weather zone 017. Fire weather zones 097...098 and 509.
- Wind...|* Enter bullet text *|
- Humidity...|* Enter bullet text *|
- Thunderstorms...|* Enter bullet text *|

* * Highest threat...is located (optional bullet)*

- Impacts...any fires that develop will likely spread rapidly.
outdoor burning is not recommended.

Operational Impact: Hazards will be distributed with mixed case texts instead of ALL CAPS for bullet text headers.

Required Behavior: Bullet text headers should be ALL CAPS instead of mixed case. **(DR 19109)**

44. FFMP RFC Flash Flood Guidance Not Showing All Current Data

Steve Keighton of RNK reported that they recently noticed that FFMP doesn't display RFC Flash Flood Guidance correctly if one receives guidance from more than one RFC. They get it from 4. He said that when all 4 are in, it looks OK, however, when the first one of the next run comes in, it will only display that guidance and mark all the others as missing.

He said that previously in FFMP it handled this differently and the new RFC FFG would only over write that particular RFC's data, so the 18z TIR data would only overwrite the display of the 12z TIR data and the ALR 12z data would still display until the 18z ALR data came in.

He also provided steps to reproduce the problem:

First and foremost, this can only be testing for a FFMP/CWA domain that includes more than one River Fcst Center domain (where FFG comes from for use in FFMP), and will only be an issue when the FFG is being updated from the RFCs (normally just after 12Z, 18Z, 00Z, or 06Z). We (RNK) are a good example as we have 4 RFCs that cover portion of our area. AKQ has 2. Load the "RFC Boundaries" map background and "County Warning Areas" to see which ones overlap.

1) From SCAN menu, choose radar under FFMP section and first display Guidance>RFCFFG, then choose any option for duration of FFG (1hr, 3hr, 6hr)

2) Open FFMP for same radar and in the FFMP Table set Layer to "All and Only Small Basins". Wait for FFG to start to update just after one of the above times (that's the challenge as it can vary by up to an hour and you have to catch it when one is in for the new cycle and the other(s) are not yet).

3) When one of the RFCs sends the new FFG, some of the small stream basins in the table will have values (from the new FFG) but others will show as missing or "M" (from the older FFG).

4) On the FFG mosaic displayed in step 1, you will see only the latest RFC FFG to come in shows on the current map, but if you step back you will see all the FFG for the previous cycle.

He also provided some screen captures (attached to this DR) that go with this description and steps for replicating.

He mentioned that the desired behavior is that when new FFG comes in from an RFC, the "older" FFG from other RFCs (which is still the most current) displays in FFMP. It may be OK that it does not display in the latest mosaic (with a time stamp of the new cycle time), but it must still display in FFMP so we have something to use. At some time if no FFG is received from an RFC it should probably be flagged by FFMP as being old and not used (for example, if it is from 2 days ago even though it is the most recent received it should probably be listed as missing in FFMP). He is not sure what that latency should be, but he would think at least 12 hrs.

Operational Impact: Not all current FFG data is displayed for a user

Required Behavior: All current FFG data should be displayed for a user. (DR 19097)

45. Problem: GFE: PlotTPCEvents can fail with exception casting data type

Site TAE reported the following error when running PlotTPCEvents for tropical storm Colin: Error in procedure PlotTPCEventsjep.JepException: jep.JepException: <type 'exceptions.TypeError': Cannot cast array data from dtype('int8') to dtype('bool') according to the rule 'safe' The full error is listed below. This caused PlotTPCEvents to crash. It was determined that a particular practice watch issued by the hurricane center in April was the only event that caused the crash. Therefore if that watch was removed from their active table, then it allowed PlotTPCEvents to run successfully. However, it's difficult to remove it permanently due to active table sharing, so the watch would have to be removed each time they want to run PlotTPCEvents. Alternatively, lines 191, 192, 196, and 197 can be commented out in PlotTPCEvents.py, but this is not suggested as a long-term workaround. It's not clear why the problem was only triggered by the particular practice tropical storm watch issued by the hurricane center in April. The other sites issuing advisories for Colin also encountered this issue and had to work around it.

```
Error in procedure PlotTPCEvents
Error in procedure PlotTPCEventsjep.JepException: jep.JepException: &lt;type 'exceptions.TypeError'&gt;: Cannot cast array
data from dtype('int8') to dtype('bool') according to the rule 'safe'
  at jep.Jep.eval(Jep.java:439)
  at com.raytheon.uf.common.python.PythonScript.internalExecute(PythonScript.java:230)
  at com.raytheon.viz.gfe.procedures.ProcedureController.executeProcedure(ProcedureController.java:145)
  at com.raytheon.viz.gfe.procedures.ProcedureJobPool$ProcedureJob.execute(ProcedureJobPool.java:380)
  at com.raytheon.viz.gfe.procedures.ProcedureJobPool$ProcedureJob.processRequest(ProcedureJobPool.java:343)
  at com.raytheon.viz.gfe.procedures.ProcedureJobPool$ProcedureJob.run(ProcedureJobPool.java:322)
  at org.eclipse.core.internal.jobs.Worker.run(Worker.java:54)
Caused by: jep.JepException: &lt;type 'exceptions.TypeError'&gt;: Cannot cast array data from dtype('int8') to
dtype('bool') according to the rule 'safe'
  at /awips2/python/lib/python2.7/site-packages/numeric/core/fromnumeric._wrapit(fromnumeric.py:38)
```

```

at /awips2/python/lib/python2.7/site-packages/numpy/core/fromnumeric.compress(fromnumeric.py:1361)
at /awips2/cave/etc/gfe/userPython/utilities/HazardUtils._getUniqueKeys(HazardUtils.py:348)
at /awips2/cave/etc/gfe/userPython/utilities/HazardUtils._removeHazard(HazardUtils.py:1028)
at /awips2/cave/etc/gfe/userPython/procedures/PlotTPCEvents.removeHazardByZone(PlotTPCEvents.py:159)
at /awips2/cave/etc/gfe/userPython/procedures/PlotTPCEvents.execute(PlotTPCEvents.py:192)
at /home/aenyedi/caveData/common/base/python/MasterInterface.runMethod(MasterInterface.py:136)
at /awips2/cave/etc/gfe/userPython/utilities/ProcedureInterface.runProcedure(ProcedureInterface.py:100)

```

Operational Impact: Cannot run PlotTPCEvents/issue tropical products in GFE until workaround is performed.

Required Behavior: PlotTPCEvents should run to completion and not crash, even if old practice watches are present in the active table. **(DR 19096)**

46. Problem: Change national radar pattern to allow for archival

Site reported that if a site wanted to archive the raw data for mosaics (in case it needs to be reprocessed), it's not possible because it needs to be organized by date.

The issue is the pqact.conf configuration. A current entry is:

1. Additional radars for mosaic

```

NNEXRAD ^(SDUS234578.)
(K|P|T)(LWX|AKQ|RNK|RAH|MHX|CLE|DTX|RLX|GRR|APX|ILN|IWX|JKL|MRX|GSP|CAE|
ILM|CHS|MQT|GRB|MKX|LOT|IND|LMK|OHX|FFC|JAX|DLH|MPX|ARX|DVN|ILX|PAH|H
UN|BMX|TAE|TBW|MLB|MFL|KEY) (..)(..)(..) /p(N0Z|NCR|N1P|NTP|TR0|NVW|NVL)(...)
FILE -overwrite -log -close -edex /data_store/radar/2\8\7\1_5\6_2\8_7_(seq).rad

```

For the data to be organized by date/time to be available to be picked up in the archiver, the data need to be saved in

```
/data_store/radar/(\4:yyyy)(\4:mm)\4\5\2\8\7\1_5\6_2\8_7_(seq).rad
```

I'm guessing sites won't want to archive data from all these radars, but they ought to be able to choose to include it in a case. The processed version of the archive won't have any issues.

Site sent a followup, thinks this would be a better pattern:

```
/data_store/radar/(\4:yyyy)(\4:mm)(\4)\5\2\8\7\1_4\5\6_2\8_7_(seq).rad
```

Operational Impact: Site will not be able to archive these additional radars ingested.

Required Behavior: The radars are stored in date separated directories and are available to archive via the CAVE archiving gui **(DR 19095)**

47. Problem: FFMP: QPE values 0 in 16.2.2

In 16.2.2, QPE values in FFMP are 0, regardless of the amount of precip in the domain.

Operational Impact: Will not be able to use QPE in decision making.

Required Behavior: QPE should be calculated in FFMP. (DR 19090)

48. Problem: LX Upgrade: NPE received when Product List button is selected a second time

An issue was found where an error message is returned when selecting the Product List button a second time after first opening and closing the Alarm/Alert and Proximity Alarm Products dialog. This was introduced by lx upgrade changes.

Operational Impact: Error is thrown and the product list will not re-open after it is opened and closed once.

Required Behavior: The Product List should always open without error. (DR 19082)

49. Problem: GFE: GHG Monitor is not working correctly with zooming features

During the regression test I have encountered that the GHG monitor GUI is not working correctly with the zooming features by using middle mouse (MB2) on TBDW.

Steps to reproduce the issue:

1. Select CAVE --> NEW --> GHG Monitor
2. The GHG Monitor GUI will be displayed with the default map.
3. Use MB2 to zoom in and out the map.
4. Result: Unable to zoom in and out the GHG map on TBDW.

Operational Impact: None.

Required Behavior: When using the MB2 click the map should zoom in and out respectively. (DR 19078)

50. Problem: LX Upgrade: FOG/SAFESEAS/SNOW Column Headers Not Aligned

The column headers in the Configure Display Thresholds dialogs for FOG, SAFESEAS, and SNOW apps (see the attached screenshots).

Operational Impact: Column labels being off means that it might take longer for a user to determine which headers go with which columns - slowing down analysis.

Required Behavior: The column headers should be aligned with the appropriate data in the rest of the column. (DR 19076)

51. Problem: synchronise the English BMH list to the Spanish BMH list.

This DR is being written to synchronize the unacceptableWords.eng.txt file in BMH to the unacceptableWords.spa.txt ; Manually compare the 2 lists and add any words from each list together so both contain all forbidden words in both English and Spanish.

Operational Impact: None, unless product with swear word is inadvertently transmitted. No reports have been received however of this happening.

Required Behavior: make sure that both lists cover the same elements in English and Spanish. (DR 19075)

52. Problem: synchronise the English BMH unacceptableWords list to the general list in CAVE.

This DR is being written to synchronize the inappropriateWords.txt file in CAVE with the unacceptableWords.eng.txt file in BMH; manually compare the 2 lists and add any words from each list together so both contain all forbidden words. The two lists should have the same content even though they are separated.

Operational Impact: None, unless product with swear word is inadvertently transmitted. No reports have been received however of this happening.

Required Behavior: make sure that both lists have the same elements. (DR 19074)

53. Problem: Hydro Database Manager: db error when saving Location data.

In the Hydro Database Manager, clicking the 'Apply' button on the Modify Location page results in database errors displayed in AlertViz.

To reproduce:

1. load the Hydro perspective in CAVE.
2. from the top menu select HydroApps-->Hydro Database Manager
3. single-click on a station record in the main panel.
4. from the top menu of the Hydrobase window, select Location-->Modify Location.
5. edit one or more of the data fields in the Modify Location window.
6. click 'Apply'.

Expected result: the data is saved to the database.

Actual result: AlertViz displays the error "Unable to get data with getConstrainedSelectStatement method."

(see attached text file for full messages)

Operational Impact: Users cannot modify Hydro Location records.

Required Behavior: Edits to Location data can be saved to the database without errors. (DR 19072)

54. Problem: LAPS - satellite access via DAF broken

LAPS satellite access broke when LAPS switched to using DAF scripts with 16.2.2 DCS 18521. With the DAF scripts, null pixels for satellite data come back as NAN instead of 0.

Operational Impact: Some LAPS parameters such as cloud cover and radar will not be available.

Required Behavior: LAPS satellite processing should work with the DAF scripts. (DR 19070)

55. Problem: March 2016 Security Patches

Security Patch update from the March 2016 scans to be included in 16.2.2. (DR 19069)

56. Problem: D2D-Derived Parameters: Null Pointer Exception received when loading some Derived Parameters from Volume

The issue can be reproduced by the following procedure:

1. Open Volume Browser
2. From "Stability" [or "Wind"] drop down menu select "Lapse Rate" ["Wind Shear"]
3. Results in NPE for gamma [Shear]

Operational Impact: User has to close or acknowledge the NPE pop up message.

Required Behavior: No Null Pointer Exception when selecting Derived Parameters in Volume Browser. (DR 19049)

57. Problem: BMH SAME Transmitter Alignment uses legitimate SAME Tones

The BMH SAME Transmitter Alignment capability currently uses a legitimate SAME String. The SAME generation will need to be updated to use a series of repeating "AB" sequences to be in compliance with the directives.

Reference NWSDirective 10-1712:

A.1.1.1 Preamble Byte. The first 16 bytes (prior to the header code and EOM) of the data transmission constitute a preamble with each byte having the same value of hexadecimal AB (8 bit byte [10101011]). For all bytes, the least significant bit (LSB) is sent first.

The bytes following the preamble constitute the actual message data transmission.

NOTE: For NWR system maintenance, NWS will occasionally send a continuous string of preamble code, hexadecimal AB or a continuous tone through its communications links to the NWR transmitters, for several seconds up to around one minute. This is done to align the NWR program console, communications links, and transmitters for optimum system performance.

Operational Impact: Due to the use of a legitimate SAME String in the current implementation, it is possible that during a SAME Transmitter Alignment Test, the tones used for the test may unexpectedly be broadcast and trigger other Transmitters with a mysterious, incomplete future message.

Required Behavior: SAME Transmitter Alignment should not utilize a legitimate SAME String. This will ensure that there can never be any unexpected Transmitter activations as a result of a Transmitter Alignment test. (DR 19033)

58. Problem: LX Upgrade: The FFMP column headers are not aligned

The FFMP column headers are not centered. Once the column is expanded to its maximum size, the text does become centered. With the new lx 27" monitors, this was addressed along with other changes made in the FFMP area.

Required Behavior: Column headers should be aligned the same as the text/data in the rest of the column. (DR 19030)

59. Problem: Collaboration: Swapped panes do not inherit session name in map tab; maintain session name after session is closed

During shared display sessions, if a small pane is swapped into the main pane, the swapped pane is shared with other users. However, the map tab is not labeled with the session name.

Also, when panes that contain the session name in the map tab are swapped into a small pane...and the session is closed, when those same panes are later swapped back into the main pane, the map tab is labeled with the session name.

Operational Impact: Map tabs are not labelled correctly causing confusion.

Required Behavior: If a side pane is swapped into the main pane of shared session, the map tab should inherit the session name in the map tab. (DR 19029)

60. Problem: PointSet Netcdf decoder is leaking file handles

The pointset netcdf decoder opens files and never closes them. If too many pointset files are decoded then the process runs out of file handles and edex will fail to decode products. This failure effects all products on that JVM and not just pointset so it is quite terrible. Pointset files are not currently flowing over SBN so most edices are not noticing this bug but any edices that are using pointset data regularly will eventually hit this problem and fail.

Operational Impact: EDEX throws tons of errors failing to decode data after pointset files are decoded for any data associated with that JVM.

Required Behavior: pointset netcdf decoder needs to close files instead of leaving them open. (DR 19027)

61. Problem: 10km Radar Coded Message Paint Error

The 10km Radar Coded Message product does not display in D2D and a paint error is given in AlertViz.

Operational Impact: No significant impact, but the user would be unable to load the 10km Radar Coded Message if desired.

Required Behavior: The 10km Radar Coded Message product should display in D2D without error. (DR 19026)

62. Problem: Additional swear word dictionary cleanup and inappropriate additions

Add additional words to inappropriateWords.txt, clean out spelldict.txt more, and add a delta script for inappropriateWords.txt.

Operational Impact: Bad words may not be caught by spell checker.

Required Behavior: Bad words that may be added to eclipse dictionary in future, or accidentally to site level dictionaries, are not part of recommended spelling list. (DR 19025)

63. Problem: MPE Daily QC: error when prompted for saving level 2 data

When exiting the MPE Daily QC, an error is displayed in AlertViz, and no prompt appears for saving Level 2 data.

Operational Impact: Users are unable to save Level 2 QC data.

Required Behavior: When the user exits the Daily QC, they are prompted to save the Level 2 data: if they select "yes", the Level 2 files are written. (DR 19016)

64. Problem: Several functions fail in VerifySSHkeys.sh due to AWIPS security implementations

With the implementation of recent security features like NFS root squashing it means that several functions within VerifySSHkeys.sh require changes to continue working as designed. Additionally, future changes with the archiver servers (removal from WFOs and adding of redundant pair at RFCs) require edits to certain functions as well.

Operational Impact: Script, if run, would fail to backup/restore root ssh keys for workstations and fail to correctly account for future archive server setup at RFCs.

Required Behavior: Run to completion without errors and fix any existing SSH key issues. (DR 19015)

65. Problem: GFE: Sites receiving NDFD integrity errors for Td>T when T and Td are very close

Ever since upgrading to NWSInitsConfig (NIC) 3.0, numerous integrity errors were received. We have been in a wet pattern with fog. Temp/dewpoint depressions over Lake Erie are typically small this time of year. The errors almost seem like a resolution or rounding error. When the users queries T and Td in their system they get no indication of an integrity error. If they lower the Td grids in question a fraction of a degree, the errors go away.

Operational Impact: Forecasters have to spend time checking the veracity of a T and Td NDFD integrity error.

Required Behavior: T and Td values should be the same in the netcdf file generated when ifpnetCDF is run in the sendGridsToNDFD process as they are in the Official database. (DR 19014)

66. Problem: MPE and Hydro Color Scale Manager: errors when saving edits to color scales

When attempting to save an edited color scale, or delete an existing one, in the MPE and Hydro Color Scale Managers, AlertViz displays multiple error messages.

Operational Impact: Changes to color scale values throw multiple errors: filling the AlertViz panel with messages and causing the user to think there is something wrong.

Required Behavior: Edits of the default, office or user-level color scales can be saved without error. (DR 19012)

67. Problem: GFE: Occasional errors opening zipfile when gfeclient is run from px machine

BOX reported that after their most recent 16.2.1 install that GFE ShortBlend is erroring out sometimes when it runs. It's giving an error opening zip file.

Based on the errors, it appears that gfeclient now only wants and will only work with actual jar files that it will need to unpack itself. The original jar files can easily be retrieved from the Eclipse plugins directory on a build server.

That means the CAVE build needs to change to not package these as directories.

Operational Impact: Certain model data will not be available when GFE procedures such as ShortBlend fail due to this error.

Required Behavior: The error listed in the description should not occur when running gfeclient. (DR 19011)

68. Problem: BMH shell style for trim buttons are missing on a couple dialogs

The following BMH dialogs have a button missing.

1. BMH Menu->Broadcast Cycle->Periodic Messages: The Minimize button is missing.
2. BMH Menu->Broadcast Cycle->Change Suite: The Close button is missing.

Operational Impact: The user will not be able to Minimize the Periodic Messages dialog. The user will not be able to close the Change Suite dialog via 'X'.

Required Behavior: The user can Minimize the Periodic Messages dialog. The user can close the Change Suite dialog via 'X'. (DR 19005)

69. Problem: LAPS: reformatTest hangs and uses 100% of CPU on px machine

GJT has been seeing the LAPS process reformatTest run at 100% CPU and for hours, which may have contributed to the machine crashing every few days.

Any given instance of reformatTest should never run for more than a minute or so, and usually for just a few seconds.

Operational Impact: Could adversely impact px1 or px2 machines resulting in a high load and potentially a crash of the machine. LAPS data may be missing.

Required Behavior: reformatTest should run correctly and not hang. (DR 19003)

70. Problem: D2D-Tools: LocalizationFileVersionConflictException while saving the boundary data

User receives an Alert Viz popup message "*Localization exception cave_static.site.AKQ/awipsTools/boundaryTool.xml*" when attempting to save new Boundary.

Operational Impact: User gets an alertviz pop up message stating that there has been a localization exception.

Required Behavior: The user can save the boundary without receiving an alertviz pop up message. (DR 18997)

71. Problem: Total Lightning (ENTLN) Unknown flash type Error

While doing some testing of MSAS/LAPS, it was noticed that the MSL pressures for MSAS looked off when compared to earlier releases. After investigation, it was determined that changes in DR 18399 may have caused the issue. Changes are needed to account for the adjustment in how pressures are stored as a result of 18399.

Operational Impact: MSAS values will be off, causing forecasters to look at incorrect data.

Required Behavior: MSAS pressures should plot with correct data. (DR 18995)

72. Problem: LX Upgrade: Print outs from CAVE are not centered and being cut off

When printing from CAVE, the map displays are not centered on the print out, the user only sees a quarter of the display, the rest of the image is chopped off.

Operational Impact: Minimal, print outs are probably not used in an operational sense.

Required Behavior: Print outs from CAVE are correctly centered and entire image appears on sheet. (DR 18990)

73. Problem: DCS18139 fix didn't enable loading all levels of gfeParamInfo.xml files

DCS 18139 fix has implemented the capability to merge gfeParamInfo.xml if the files have same NameSpace by modifying Mapper class, which is a root class for mapping aliases. This modification is also impact other alias mapping as well.

Because only lowest level of gfeParamInfo.xml will be loaded when the server start up, therefore, the sites have to copy BASE level gfeParamInfo.xml to the SITE level directory to make map and merge happen, otherwise, the fix will not able to ake gfeParamInfo.xml automatically accumulative.

In order to fulfill merging BASE and SITE levels of gfeParamInfo.xml, the changes made in the Mapper class is not sufficient. It needs to change from ONLY loading the lowest level gfeParamInfo.xml (currently behavior) if there are other levels localization gfeParamInfo.xml existing to loading all levels gfeParamInfo.xml files and merge them.

Required Behavior: Loading and merge all levels of gfeParamInfo.xml. (DR 18984)

74. Problem: Hydro Database Manager: UELE when saving updates of River Gage data

In the Hydro Database Manager, if additions or edits are made in the River Gage page, clicking 'Apply' causes a UELE error to be displayed in AlertViz (see attached text tile). The data is not saved.

Required Behavior: Additions and edits to river gage data can be saved in the Hydro Database Manager. (DR 18983)

75. Problem: Collaboration login dialog needs very clear error messages

With the FOSS upgrades in 16.2.2, a regression was found where the login popup dialog no longer appears in some cases. This had been resolved in Collaboration version 2.1 under RODO ticket 5404. Instead, the original AlertViz error message appears.

Operational Impact: Users are unable to log in to Collaboration without any error or notification of what the problem may be.

Required Behavior: Provide feedback to user when logging in to Collaboration if the username/password is entered incorrectly or if that user is already logged in. (DR 18980)

76. Problem: caveUtil.sh may attempt to create a temporary Eclipse configuration directory in a deleted directory

DR #13849 changes CAVE startup to use a unique Eclipse configuration directory for each instance. Part of that process is to delete old configuration directories. There is a bug in caveUtil.sh that can cause it to attempt to create the new configuration directory in one of the deleted directories. If this happens, it will fall back from creating a directory under /local/cave-eclipse to \$HOME/.cave-eclipse. If that fails, it will fall back to using a shared \$HOME/.eclipse directory which can cause error messages at startup as described in DR #13849.

Operational Impact: Could have annoying/disturbing popup messages.

Required Behavior: CAVE should create unique Eclipse configuration directories for each instance on a local disk if possible, falling back to unique directory under \$HOME, and then falling back to a shared \$HOME/.eclipse. (DR 18971)

77. Problem: GFE silently fails when retrieving large numbers of grids

When ifpClient was refactored under RODO DR #5129, the getGridData method no longer handles the "chunking" of gridded data responses (see RODO DR #3149). This results in only the first chunk being retrieved and the remaining grids not being retrieved and instead using

scratch data. This is being logged as INFO level messages so it doesn't pop up so the user never knows.

We need to fix the message to be logged at ERROR level and fix the grid retrieval to properly handle the "chunking" again.

Operational Impact: No error message is returned when running CheckTandTd with no grids/times selected.

Required Behavior: An error message should be returned when running CheckTandTd with no grids/times selected. (DR 18962)

78. Problem: YAJSW jna_tmpdir defaults to /tmp

A change was recently made to the system /tmp directory to enable the nodev,nosuid,noexec options. The java.io.tmpdir property was set in the EDEX wrapper.conf properties to ensure that EDEX would never attempt to write to /tmp. However, jna_tmpdir was never altered. The jna_tmpdir property specifies where YAJSW should write temporary files (<http://yajsw.sourceforge.net/#mozTocId543401>). The default /tmp location can be overrode by specifying wrapper.tmp.path as a command-line argument. The EDEX start.sh script will need to be updated to ensure that the jna-awips location is created in the EDEX temporary directory instead of the system temporary directory.

Operational Impact: It will not be possible to limit access to the /tmp directory. If /tmp directory access is locked down, EDEX will fail to start.

Required Behavior: EDEX should successfully start even when access to the /tmp directory has been restricted. (DR 18961)

79. Problem: CWASP cannot update automatically

BCQ has seen instances of grid displays failing to auto-update upon the arrival of new model data. The most frequent offender is a locally-developed derived parameter named "CWASP", but it is not clear if this is the only parameter for which this happens. This derived parameter did auto-update prior to 16.2.1. This behavior has been seen for multiple users on multiple workstations.

Operational Impact: The forecaster will not see the latest model data without loading them manually.

Required Behavior: Model CWASP should get updated automatically. (DR 18955)

80. Problem: Hydro Time Series: error when editing records in tabular view

The following error was reported.

```
Unhandled event loop exceptionjava.lang.NumberFormatException: For input string: " 0"  
at java.lang.NumberFormatException.forInputString(NumberFormatException.java:65)
```

Operational Impact: Users are unable to add or edit records in the Hydro Time Series tabular display.

Required Behavior: Records can be edited and added in the Hydro Time Series tabular view without error. **(DR 18949)**

81. Problem: D2D: HiResW-NMM and HiResW-ARW model data are not loading from Volume menu

"HiResW-XXX (where XXX is either ARW or NMM) used to come in with HiResW-XXX-East and HiResW-XXX-West, but we can see something in the Product Browser as HiResW-XXX-US, almost like it's been combined. I see in edex_static/base/grib/models/gribModels-NCEP-7.xml a difference between 16.2.1 and 16.2.2. In 16.2.1 the entry was separated into each component. But in 16.2.2 there only one entry and the name is "HiResW-XXX- $\{\text{REGION}\}$ ". So the baseline volume browser still lists HiResW-XXX-East and West, but its being stored as -US, I presume due to that change to gribModels-NCEP-7.xml, which I think is why we can't load it. I think if I were to change those two entries to -US, we would be able to load the -US model that is being stored.

As best I can tell this change was done under Omaha #5182?"

Operational Impact: The HiResW-NMM and HiResW-ARW cannot be displayed using the Volume menu or from the Volume Browser.

Required Behavior: HiResW-NMM and HiResW-ARW successfully load when selected from the Volume Browser or Volume dropdown menu. **(DR 18948)**

82. Problem: D2D-Tools: Boundary Tool menu item not showing up Tools menu

A baseline code change was made in 16.2.2 that changed how the Tools menu populated. As a result the Boundary Tool is not showing up in the Tools menu.

Operational Impact: The Boundary Tool does not display in the Tools menu, therefore the Boundary Tool cannot be launched and used.

Required Behavior: The Boundary Tool appears in the Tools menu. **(DR 18936)**

83. Problem: BMH edex and comms_manager will not start with /tmp nodev,nosuid,noexec options enabled

After implementing DCS #18378, adding nodev,nosuid,noexec to /tmp mount, BMH edex and comms_manager would not start.

BMH edex received the following error:

```
2016-04-21 20:53:21: Service edex_camel Starting EDEX bmh
java.lang.reflect.InvocationTargetException
    at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
    at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:57)
    at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
    at java.lang.reflect.Method.invoke(Method.java:606) . . . . more
```

Operational Impact: Cannot implement DCS 18378 until this is fixed, which is a CIS security benchmark.

Required Behavior: BMH edex and comms_manager start when DCS 18378 has been implemented. (DR 18933)

84. Problem: NSHARP will not launch with /tmp nodev,nosuid,noexec options enabled

After implementing DCS #18378, adding nodev,nosuid,noexec to /tmp mount, it was found that NSHARP will not launch with the following error:

```
Unhandled event loop exceptionjava.lang.UnsatisfiedLinkError: /tmp/jna-1465607758/jna9177183370999857874.tmp: /tmp/jna-1465607758/jna9177183370999857874.tmp: failed to map segment from shared object: Operation not permitted
    at java.lang.ClassLoader$NativeLibrary.load(Native Method)
    at java.lang.ClassLoader.loadLibrary1(ClassLoader.java:1965)
```

Operational Impact: Cannot implement DCS 18378 until this is fixed, which is a CIS security benchmark.

Required Behavior: NSHARP launches when DCS 18378 has been implemented. (DR 18932)

85. Problem Baseline All Radars for National Radar Display

The National Radar Display products (DCS #18425) currently do not ingest all radars. Originally the radars were listed in separate pqact.conf files where each site selected which radars to ingest, but now it is desired to put all the radars together in one file.

Operational Impact: Regional & National Mosaic products do show every radar for a selected region or nationally when loaded in D2D. This will prevent the user from seeing all data over the selected region or across the nation.

Required Behavior: The regional & national mosaic products should show all radars nationally or for a select region when loaded in D2D. (DR 18913)

86. Problem: National Blend for Global models (Version 2)

This is some works missing in DCS18161.

Populate NBM CONUS in GFE (exclude Precipitation type, predominant Weather).

Populate NBM Alaska, Hawaii, and Puerto Rico in GFE.

Display Oceanic winds in D2D.

Operational Impact: Not able to populate NBM (AK,PR,HI, and oceanic) data in GFE.

Required Behavior: Populate NBM data in GFE. (DR 18896)

87. Problem: Performance Improvement in DisplayElementFactory.java

The class DisplayElementFactory.java has a method that needs to be modified to improve drawing performance.

The createDisplayElement() method needs to change so when looping over the points in the array, the array is not retrieved twice per iteration of the loop. Calling "de.getLinePoints()" returns a copy of the array of points. For every point there are two copies being made. In Hazard Services there are polygons with > 20,000 points resulting in > 40,000 copies of an array of > 20,000 points.

Operational Impact: Any software utilizing DisplayElementFactory.createDisplayElements() code to create geometries will see performance impacts in the rendering of geometries and with CAVE in general as the number of points increases. Performance issues were noted in the testing of Hazard Services since Hazard Services uses this code for drawing. (DR 18895)

88. Problem: Remove IP addresses from BMH test AFC-daily.ASC config

Security has asked that Raytheon have no IP address listed in any software. This ticket addresses AFC-daily.ASC config file. There are several references to AWIPS IPs in this file, they need to be removed (is this file even necessary, could it be removed, as it is part of a test package)

Operational Impact: None. This is just cleaning up IP addresses from source code repositories.

Required Behavior: AWIPS IP addresses do not show up in source code. (DR 18894)

89. Problem: Remove IP address from nrldb.conf

Security has asked that we have no IP address listed in any software. This ticket addresses nrldb.conf which has the IP for dx1-nhor as an example. The IP should be replaced with dx1-

nhor, or with a vague "variable" like "<IP>" (I'm actually not sure what IP sites would normally change this to)

Operational Impact: None. This is just cleaning up IP addresses from baseline configuration files.

Required Behavior: The IP is not listed in the source code. (DR 18893)

90. Problem: Tracking Meteogram: TM tab does not dispose on clear when loaded with a 4-panel plot

While testing TM DRs in 16.2.2, it was noticed that the TM tab (which opens when using tracking meteogram) does not dispose on Clear when loaded with a 4 panel plot. This is not an issue on a single panel display.

Operational Impact: None - just takes up screen space and user needs to close it to gain it back.

Required Behavior: Tab should dispose on clear. (DR 18892)

91. Problem: Java heap space parameter in cave.ini and wfo.ini files will not reflect changes made within memorySettings.xml

Now that all sites have the upgraded LX machines with 32 GB RAM, the Java heap space allocated to each CAVE session can be safely increased up to 6GB from 4GB. Current usage guidelines are for sites to run no more than 3 CAVEs at a time, which at 18GB total, should be no problem with 32GB total. This change will all users to do memory intensive tasks without risking running out of Java heap space.

Operational Impact: Not being able to increase the allotted memory will hinder a forecaster's ability to run multiple CAVE applications.

Required Behavior: The memory parameters in the cave.ini and wfo.ini files need to reflect those in memorySettings.xml after each CAVE installation. (DR 18890)

92. Problem: GFE - TestSendWFOMessage fails due to changes in ifpClient.java

The TestSendWFOMessage.py script fails in 16.2.2. Changes from related RODO DR #5374 made to ifpClient.java did not merge forward into 16.2.2 from 16.2.1 because ifpClient.java was significantly changed in 16.2.2 and moved it to a different project.

Operational Impact: The TestSendWFOMessage.py script fails to run and messages are not sent from one WFO to another.

Required Behavior: TestSendWFOMessage.py should complete without error and the configured sites should receive sent messages and see them displayed by AlertViz. (DR 18887)

93. Problem: The Radar Menu in D2D Bar is Missing & Dual Pol User Accum Mosaic Products Cannot be Displayed

The Radar menu in the D2D bar is missing due to the baseRadarMenu.xml file referencing the wrong xml file. The file is currently referencing "otherMosaicMenus.xml" and it should be "regionalMosaicMenus.xml" in order for the Radar menu to display in D2D.

Two Dual Pol User Accum mosaic products in the Radar menu cannot be displayed in D2D because the DefaultRadarMosaicDPprecip.xml bundle file is currently not in CAVE.

Operational Impact: Without the Radar menu the user cannot open the regional & national mosaic products. The dual pol user accum mosaic products in the Radar menu cannot be displayed in D2D.

Required Behavior: The Radar menu should be listed in the D2D menu bar allowing the user to access regional & national mosaic products. The user should be able to load dual pol user accum mosaic products from the Radar menu into D2D. **(DR 18886)**

94. Problem: Postprocessors are not working in 16.2.2

Postprocessors are not working in 16.2.2. It appears to be due to the change made to GribModels_NCEP-7.xml. In the file history, the change is related to RODO RM 5182.

Operational Impact: Loss of correct calculations for some grid parameters like GFS precip accumulation, RUC13 convective precip, among others.

Required Behavior: All post-processors defined in postProcessedModel.xml should be functional. **(DR 18872)**

95. Problem: D2D: Radar Display Control settings may revert after changing

In some cases, a change made in the D-2D Radar Display Controls GUI will be immediately reverted to the previous value. This can happen due to a race condition in CAVE that results in creating two RDC manager objects. The two objects can then "fight over the correct values." The race condition could be triggered by loading a procedure with multiple SRM displays or possibly just loading a SRM 4-panel from the menu.

It may also be possible for this to happen due to various race conditions between multiple CAVE sessions, multiple EDEX request processes, Qpid, and NFS. A possible scenario is described in the Cause / Corrective Action.

Also reported in CTP TT 724404.

Operational Impact: Forecast could be delayed due to confusion or inability to view SRM data correctly.

Required Behavior: Radar Display Controls should update according to user input. For exact requirements, coordinate with the ROC and WDTB. **(DR 18863)**

96. Problem: GFE: Save File option on the Formatter Launcher GUI is not working correctly

During the testing of DR14775 on TBDW, it found that the option for the "Safe File" on the formatter launcher GUI is not working correctly.

Operational Impact: If the workaround is unavailable the forecasters will not be able to save any products to a text file.

Required Behavior: The forecaster must be able to save the file to the selected folder. **(DR 18862)**

97. Problem: Fix MRMS purge rule

MRMS data only showing 1st 10 min of each hour.

Operational Impact: Allows MRMS data to be archived with other AWIPS2 data.

Required Behavior: Keeps 4 hours worth of data on the system for real-time access. Should be long enough for the archiver to grab and save data prior to being purged. **(DR 18861)**

98. Problem: LX Upgrade: CAVE preference Video Card Texture Cache Size needs updated

With the upgrade of the LX workstations, the video card is much better than the old Nvidia Quattros from years and years ago. CAVE has a setting under Preferences -> Performance called Video Card Texture Cache Size. The default is generally good, but power users and different scenarios (such as thin client, Regional HQs, or National Centers) may want to tweak it. This is further complicated by how many CAVEs a user may run simultaneously as they all load the same preference file. (A thin client user typically has one CAVE, while a WFO might have three CAVEs, and a National Center usually has more than three).

Due to the improved video cards coming with the LX workstation upgrades, we should update the preferences. We should either add a lot more options to the dropdown combo box, or else try to detect the graphics cards' memory and dynamically offer a variety of good options. We should also probably change the default setting.

Operational Impact: Due to the current Video Card Texture Cache Size settings in CAVE->Preferences, users who load large grid datasets can run into CAVE slowdowns.

Required Behavior: The default Video Card Texture Cache Size setting should default to 1GB instead of 512MB, and that 2GB and 4GB are also available options. **(DR 18851)**

99. Problem: 16.2.2 thinclient cave cannot use derived parameters when connecting to 16.2.1 edex

During some compatibility testing with a 16.2.2 thinclient cave and a 16.2.1 edex server, it was discovered that all derived parameters would not work and would throw errors about modules not being found. The incompatibility has been traced to changes introduced under #18535 where a 16.2.2 CAVE is expecting a checksum for a localization directory and a 16.2.1 EDEX returns null checksums for directories. With only one line of code in 16.2.2, support can be added so a 16.2.2 CAVE can handle this condition and address this incompatibility. The code will be heavily documented as to why it is this way and include a TODO to remove the line as it is not necessary once 16.2.2+ is installed everywhere.

Operational Impact: Thin Client windows users will not be able to load any derived parameters if they are using a 16.2.2 client pointed to a 16.2.1 EDEX server.

Required Behavior: Compatibility should be maintained where possible. Users should be able to load derived parameters without issue. (DR 18850)

100. Problem: LX Upgrade: Radar Algorithm Overlays - data in tables at top of display are not aligned

When loading any of the Radar Algorithm Overlays in D2D, the data in the tables at the top of the display were not aligned correctly.

Operational Impact: No operational impact. It's a visual issue where the data is not aligned.

Required Behavior: The table should be sized to correctly align the data within. (DR 18847)

101. Problem: LX Upgrade: Volume Browser fails to open after switching perspectives

The Volume Browser fails to launch in the below example. This was introduced by changes made for the LX upgrade.

Open D2D.

Load VB. - Do not close VB

Open GFE

Swap back to D2D

Close the Opened VB

Swap back to GFE

Swap back to D2D

Attempt to open the VB - nothing happens"

Operational Impact: Volume Browser fails to open

Required Behavior: Volume Browser should open when selected from the Volume menu. (DR 18846)

102. Problem: (Original DR 18629) Write python DAF regression test script

DAF is not easily smoke/regression tested. Many times if updates are made (e.g. dataURI constraints, db changes, pointdata changes) then the DAF factory may break. Testing these scenarios could be resolved by some automated process or a simple one line command run by a tester.

Operational Impact: None.

Required Behavior: Create regression test python script to test DAF. (DR 18834)

103. Problem: LX Upgrade: RPS List Editor dialog opens on a different monitor

On the new LX setup, the RPS List Editor from all radar menus open on a different monitor. In the case tested, CAVE was loaded on the middle monitor and the RPS list editor would open on the left monitor.

Operational Impact: The dialogs will pop up on a monitor that is not associated with the CAVE where they originated from.

Required Behavior: The RPS List dialog should pop up on the monitor where CAVE was launched or moved to. (DR 18833)

104. Problem: LX Upgrade: Font size of station plots are small

On the new 27" monitors, the font size of the METAR/Station plots are very small. The size should be magnified to compare to the old lx setup.

Operational Impact: The font size of the METAR/Station plots are very small and could be difficult to read.

Required Behavior: Font size should be comparable to the old LX state. (DR 18832)

105. Problem: LX Upgrade: GUI sizing issues in Image Export dialog

On the new 27" monitors it was found some text is cut off in the CAVE->Export->Image dialog. In the Export Locations section at the top, the 'Include date and time in file name' text is cut short.

Operational Impact: Text is cut short in dialogs and dialog buttons.

Required Behavior: Text should be fully visible in buttons, title bars, etc. **(DR 18831)**

106. Problem: LX Upgrade: TextWS dialogs open on left monitor rather than the monitor hosting CAVE

There are several instances where TextWS dialogs pop up on different monitors. The following have been noted:

1. The Alarm/Display Window dialog always opens in Monitor1 (left) regardless of which monitor was hosting CAVE (Monitor2 - middle).
2. The (default .xml) Alarm/Alert and Proximity Alarm Products dialog always opens in Monitor1 (left) regardless of which monitor was hosting CAVE (Monitor2 - middle).
3. The Taco Bell always opens in Monitor1 (left) regardless of which monitor was hosting CAVE (Monitor2 - middle).

Operational Impact: The dialogs will pop up on a monitor that is not associated with the CAVE where they originated from.

Required Behavior: All TextWS dialogs should pop up on the monitor where TextWS was launched or moved to. **(DR 18830)**

107. Problem: LX Upgrade: ifpIMAGE fails in LX upgrade build

The following error was reported on the Silver Spring testbeds that include the LX upgrade build when running ifpIMAGE.

<pre>

```
/awips2/GFESuite/bin/src/ifpimage/PngWriter.py line 528: Traceback (most recent call last):
```

```
File ""/awips2/GFESuite/bin/src/ifpimage/PngWriter.py"", line 525, in main
```

```
    pngTimeRange, usrTimeName)
```

```
File ""/awips2/GFESuite/bin/src/ifpimage/PngWriter.py"", line 59, in init
```

```
    self.viz = self.createPainter()
```

```
File ""/awips2/GFESuite/bin/src/ifpimage/PngWriter.py"", line 242, in createPainter
```

```
    return GFEPainter.GFEPainter(width, height, leftExpand, rightExpand, topExpand, bottomExpand,  
mask, wholeDomain, bgColor)
```

```

File
"/awips2/cave/plugins/com.raytheon.viz.gfe_1.15.1.2016031617/python/pyViz/GFEPainter.py", line
86, in init

    VizPainter.VizPainter.__init__(self, display, backgroundColor=bgColor)

File
"/awips2/cave/plugins/com.raytheon.viz.gfe_1.15.1.2016031617/python/pyViz/VizPainter.py", line
64, in init

    self.target.init()

RuntimeError: java.lang.NullPointerException?</pre>
"

```

Operational Impact: ifpIMAGE fails to run.

Required Behavior: ifpIMAGE should run without error. (DR 18829)

108. Problem: LX Upgrade: GUI sizing issues in the Statistics dialog

On the new 27" monitors it was found that in the Statistics Display Control dialog, the 'Select Data/Time' button has text cut short.

Operational Impact: Text is cut short in dialogs and dialog buttons.

Required Behavior: Text should be fully visible in buttons, title bars, etc. (DR 18828)

109. Problem: LX Upgrade: GUI sizing issues in MPE dialogs

Several dialogs have issues where the text is cut short on buttons, on a dialog header, etc. In MPE, the following items were noted:

1. "Bad Gages" dialog: [Delete Selected Item] button text is cut off. 'Item' reads as 'Iten' regardless of dialog expansion.
2. "Edit Bias Table" dialog: The Station ID box is offset above the line containing the associated parameter values. [Screenshots are available if desired]
3. # MPE Color Scale Manager dialog: The Add/Update button is cut off.
4. Delete Polygons dialog has a few issues:
 1. The Date/Time textbox is too small
 2. The dialog appears to be cut off with the MPE Product textbox cut off
 3. The column headers do not look aligned properly
5. Edit Precipitation dialog: The precipitation value textbox/values is too small/cut off.

Operational Impact: Text is cut short in dialogs and dialog buttons.

Required Behavior: Text should be fully visible in buttons, title bars, etc. (DR 18827)

110. Problem: LX Upgrade: GUI sizing issues in Hydro dialogs

Several dialogs have issues where the text is cut short on buttons, on a dialog header, etc. In Hydro, the following items were noted:

1. The Flash Flood Guidance dialog loaded from MapData is fixed in size. Since I cannot expand it, the Time data is cut off so I can only see the day and date, but not the hour. Also, if you select anything, the data is slightly cut off when it populates in the color legend section.
2. The Tabular Time Series dialog is also fixed in size cutting off some text and data on the right hand side. The 'List ALL Forecasts' checkbox text is cut off in the upper right of the dialog, and the 'Posted' column in the table section is cut a little short.
3. Some of the column headers in the Tabular Time Series dialog are also cut off.
4. The table in the Alert and Alarm Data Values dialog (located under LiveData menu) does not line up with column headers
5. In the Alarm and Alert Data dialog (under LiveData menu) the 'Graphical Time Series' button text is cut off
6. Unable to expand the Questionable and Bad Data dialog (under LiveData menu). The dialog should open wider to view the data vice adding a scroll bar. In addition, the data in the table is cut off.
7. The table does not line up with the column headers in the Data Trash Can dialog (under LiveData->Rejected Data Trash Can). In addition, the Physical Element section is too small and cuts off entries. Finally, the table is too small and cuts off the data in the table.
8. The Station Reporting Status Dialog (under LiveData menu) cannot be resized. The POSTING_TIME(Z) is missing from the Latest Data for Selected Location section. Also, the Current Time is cut off at the bottom.
9. Rivery Summary: Stream list is slightly cut off.
10. Rating Curve: Discharge columns are too small. Unable to read data.
11. Product Viewer: List dropdown menu is not long enough, text cut off.
12. Data Sources: DCP->Owner column too small.
13. Hydro Database Manager->Enter Password dialog: Cancel button is slightly cut off. In addition, when the Cancel button is selected, the torn-off HydroApps menu closes.
14. Time Series Graph: When in edit mode (Insert), MB3 click on the Time Series graph. The toggle popup window is too small to read the full title.
15. Tabular Time Series: The Send Products Actions dialog (via Review Send Script button) has 2 checkbox items (Distribute Product and Internal Directory) that are cut off.
16. The Insert Forecasts Data Attributes title is slightly cut off.

17. Help->Show SHEF Tokens: SHEF Apps_defaults Settings dialog: Column headers could be better aligned.
18. Help->Station Legend: Station Legend dialog: Not large enough to display all text. Right column should start to the right of the end of the 'River Forecast Point with Meteorological Station' line.
19. The Flash Flood Guidance dialog has the Time(Z) column header slightly cut off. In addition, column headers are not centered/aligned correctly. Finally, the dialog should automatically open a bit wider as to not force the user to manually expand the dialog.
20. The Time Series Graph button in the Point Data Tabular Display is slightly cut off.
21. Display Best Estimate QPE dialog: The Show Data button is cut off.
22. After clearing the data from the display, the Time Series Graphs/Tables... menu item was selected under LiveData. A UELE error was returned. In order to open the dialog again, the Hydro perspective had to be closed and reopened. Not repeatable in 16.2.1 (non-lx upgrade build).
23. Staff Gage for (station) dialog: The Stage and Flow column headers are not centered.
24. Station Reporting Status dialog: The column headers are not centered in the Latest Data for Selected Location section.
25. Data Sources dialog: (Type->Telemetry): The Telemetry, Owner, and Payor columns/sections are too small to see entire entry.
26. Data Sources dialog: (Type->Observer): The Report section is cut off/can't read entire message.
27. When a gage is selected and Time Series is opened, the gage id is not automatically detected. Instead is defaulting to the first ID in the list.

Operational Impact: Text is cut short in dialogs and dialog buttons.

Required Behavior: Text should be fully visible in buttons, title bars, etc. (DR 18826)

111. Problem: LX Upgrade: GUI sizing issues in GFE dialogs

A couple of issues were noted in GFE on the 27" monitors:

1. (RODO 5444) The GFE Weather Element Browser has hard coded sizes for many of its GUI elements which causes issues, such as the disappearance of the Source drop down when system font size is increased to 14 points or more.
2. (RODO 5479) In the GFE Grid Manager text does not appear in the single hour grid blocks without expanding the time scale.

Operational Impact: Text is cut short in dialogs and dialog buttons.

Required Behavior: Text should be fully visible in buttons, title bars, etc. (DR 18825)

112. Problem: LX Upgrade: GUI sizing issues in Data Delivery dialogs

Several dialogs have issues where the text is cut short on buttons, on a dialog header, etc. In Data Delivery, the following items were noted:

1. In the DD Create and Edit Subscription dialogs:
 1. The text in the 'Select Date' buttons under Subscription Active Period
 2. The 'Select Sites' button under Shared Sites
 3. The 'Deselect All' button under Model Cycle Times"
2. In the Data Delivery System Management dialog, under Settings->Bandwidth, the units on OPSNET Bandwidth is cut off
3. The Dataset Discovery Browser needs to be expanded a tad. On the big monitors the number of Datasets Listed can be cut off if greater than 1 digit.
4. The Subscribe button is cut off in the Data Delivery Subset Manager dialog.
5. The Continue button is cut off in the Data Delivery Subset Manager dialog when editing a subscription.
6. The text in the left column is cut off in the Data Delivery System Management dialog. Expand Rules->Subscription Rules.

Operational Impact: Text is cut short in dialogs and dialog buttons.

Required Behavior: Text should be fully visible in buttons, title bars, etc. (DR 18824)

113. Problem: LX Upgrade: GUI sizing issues in BMH dialogs

Several dialogs have issues where the text is cut short on buttons, on a dialog header, etc. In BMH, the following items were noted:

1. Silence Alarm dialog-Unselect All button text is cut off
2. Broadcast Cycle dialog-Periodic Messages and Message Details buttons has text that is cut off
3. Transmitter Configuration dialog-Group/Transmitter column is not expanded far enough to read the full column text.
4. Broadcast Program Configuration dialog-Rename button text is cut off.
5. Create New Suite dialog-Remove button text is cut off.
6. Suite Manager dialog-Rename button text is cut off.

7. Message Type Manager dialog-Rename button text is cut off.
8. Message Type Association dialog-Remove button text is cut off.
9. Weather Messages dialog-Year text (spinner) text is cut off. Also the Unselect All button text is cut off.
10. Send Demo Message dialog-Submit Message button text is cut off.
11. Emergency Override dialog-Area Selection button text is cut off.
12. Dictionary Manager dialog-The following buttons are cut off:
<pre>
New Dictionary
Delete Dictionary
New Word
Edit Word
Delete Word
Export Dictionary
</pre>
13. New Word dialog-Pronounce Word button text is cut off.
14. Edit Word dialog-The following buttons are cut off:
<pre>
Play Substitution
Clear Substitution
Create/Edit Substitution
</pre>
15. Pronunciation Builder dialog-Phoneme dropdown menu text is cut off. Also, the Build Phoneme button text is cut off.
16. Create DAC Configuration dialog-Configure button text is cut off.
17. TTS Voice Configuration dialog-Add Voice button text is cut off.
18. From the Create Transmitter Language->Add...->Select Message Type dialog, the Show All Types checkbox text is cut off.
19. The Reorder Groups/Transmitters dialog's title bar is cut off.
20. In the Trigger Selection dialog, the Unselect All button is cut off.

21. In the Edit Suite dialog, the Remove button is cut off.
22. In the Create Message Type and Edit Message Type dialogs, the Unselect All button is cut off.
23. In the Create New LDAD Configuration and Edit LDAD Configuration dialogs, the Remove button is cut off.
24. In the Periodic Messages dialog, the Message Details button is cut off.

Operational Impact: Text is cut short in dialogs and dialog buttons.

Required Behavior: Text should be fully visible in buttons, title bars, etc. (DR 18823)

114. Problem: LX Upgrade: GUI sizing issues in AlertViz dialogs

Several dialogs have issues where the text is cut short on buttons, on a dialog header, etc. In AlertViz, the following items were noted:

1. MB3 popup on AV icon and select System Log. The Export Log button is cut off.
2. When selecting the Show Details button, the dialog does not expand to display the details of the selected message.
3. Alert Visualization Configuration dialog->The Cell # column in the upper left window is outside the view of the window. In addition, the 'High-Priority-Low' text above the priority checkboxes is not centered properly.

Operational Impact: Text is cut short in dialogs and dialog buttons.

Required Behavior: Text should be fully visible in buttons, title bars, etc. (DR 18822)

115. Problem: LX Upgrade: GUI sizing issues in AvnFPS dialogs

Several dialogs have issues where the text is cut short on buttons, on a dialog header, etc. In AvnFPS, the following items were noted:

1. The text in the title bar of the AvnFPS Climate Menu dialog is cut off
2. From the AvnFPS Setup dialog, the user opened the Monitoring Rules. Two of the buttons in the mtrs tab on the bottom left hand side of the AvnFPS Monitoring Criteria dialog have text cut off. For example, CAC_AirportOpsThresh says CAC_AirportOpsThre.
CAC_VsbyMetarThresh also has the 'sh' missing.
3. In the AvnFPS TAF Site Info Editor opened from the AvnFPS Setup dialog, the Geography section of the dialog, 'Longitude' is slightly cutoff and the) of 'Runway(s)' is missing
4. In the Climate Data Dialog launched from AvnFPS Setup, the text in the 'Generate Scripts' button is cut off. Click on that button, opens the Generate Scripts dialog. In there, the 'Windows FTP Script' text is cut off.

Operational Impact: Text is cut short in dialogs and dialog buttons.

Required Behavior: Text should be fully visible in buttons, title bars, etc. (DR 18821)

116. Problem: Update product legends and Volume Browser fields to denote times for PWPF

During testing, it was discovered that the PWPF data was implemented correctly. However, when a user selects or loads a product, the hour period (12, 24, 48, 72) is not denoted in the selection of product legend. There are several instances where different hours share similar product names, so being able to tell which is which is important. This DR is to update these names to correctly display these values.

Operational Impact: User could potentially have the same product label for 2 different products loaded - thus not knowing which product they are looking at, impacting forecasting activities.

Required Behavior: Names should be specific enough for the products to know that one is different from the other. Using times is an easy way to accomplish this. (DR 18815)

117. Problem: Thin Client connectivity dialog falsely shows failed validation

1. If the thin client user does not have 'Prompt for settings on startup' selected, the connection dialog should not appear on subsequent CAVE launches. Only the login dialog should pop up for the user to authenticate.

2. After the user enters their authentication information, the Connectivity dialog pops up claiming validation failed. If the 'Validate' button is selected again, validation is successful and CAVE launches.

Operational Impact: User is falsely informed that the validation to the proxy server has failed.

Required Behavior: 1. User should not be prompted to enter connectivity information if they do not have 'Prompt for settings on startup' selected. 2. The Connectivity dialog should not pop up stating validation has failed even though the user can successfully validate after that. " "A couple of situations were encountered with the thin client connectivity preferences/dialog: (DR 18812)

118. Problem: Unable to recall modified colormaps

After modifying and saving a colormap in D2D, the colormap cannot be reloaded without restarting CAVE. This was introduced under #18535.

Operational Impact: If a user modifies a colormap, the modified colormap can not be reloaded without a CAVE restart.

Required Behavior: Modifications to colormaps should not require a CAVE restart. (DR 18811)

119. Problem: GFE: Large number of weather types causes error in ISC mode

Error messages are generated when using GFE in ISC mode when the number of weather types is large:

```
ERROR 2016-03-23 14:30:00,339 [main] CaveLogger: Paint error: -118:: The resource [Parm Resource Wx_SFC:DMX_GRID__Fcst_00000000_0000] has been disabled.
```

```
com.raytheon.uf.viz.core.exception.VizException: Paint error: -118:: The resource [Parm Resource Wx_SFC:DMX_GRID__Fcst_00000000_0000] has been disabled.
```

```
    at
com.raytheon.uf.viz.core.drawables.AbstractRenderableDisplay.paintResource(AbstractRenderableDisplay.java:627)
```

```
    at
com.raytheon.uf.viz.core.maps.display.MapRenderableDisplay.paint(MapRenderableDisplay.java:180)
```

```
    at com.raytheon.viz.ui.panes.VizDisplayPane.g1DrawInternal(VizDisplayPane.java:523)
```

```
    at com.raytheon.viz.ui.panes.VizDisplayPane.draw(VizDisplayPane.java:477)
```

```
    at com.raytheon.viz.ui.panes.DrawCoordinatedPane.draw(DrawCoordinatedPane.java:172)
```

```
    at com.raytheon.viz.ui.panes.DrawCoordinatorJob$1.run(DrawCoordinatorJob.java:196)
```

```
    at java.lang.reflect.Method.invoke(Method.java:606)
```

```
    at org.eclipse.equinox.launcher.Main.invokeFramework(Main.java:629)
```

```
    at org.eclipse.equinox.launcher.Main.basicRun(Main.java:584)
```

```
    at org.eclipse.equinox.launcher.Main.run(Main.java:1438)
```

```
    at org.eclipse.equinox.launcher.Main.main(Main.java:1414)
```

```
Caused by: java.lang.ArrayIndexOutOfBoundsException: -118
```

```
    at
com.raytheon.viz.gfe.core.internal.ISCDataAccess.getCompositeGrid(ISCDataAccess.java:465)
```

```
    at com.raytheon.viz.gfe.rsc.GFEResource.paintInternal(GFEResource.java:825)
```

```
    at com.raytheon.uf.viz.core.rsc.AbstractVizResource.paint(AbstractVizResource.java:510)
```

```
    at
com.raytheon.uf.viz.core.drawables.AbstractRenderableDisplay.paintResource(AbstractRenderableDisplay.java:624)
```

```
... 33 common frames omitted
```

The ArrayIndexOutOfBoundsException comes from this part of the code:

```
in ISCDataAccess.java, module: getCompositeGrid():
```

```
for (int j = 0; j < siteMask.getYdim(); j++) {
    for (int i = 0; i < siteMask.getXdim(); i++) {
        if (siteMask.getAsBoolean(i, j)) {
            byte index = lookupKeyValue(keyIndexMap,
```

```

        iscKey[iscGrid.get(i, j)];
        slice.getWeatherGrid().set(i, j, index);
    }
}
}

```

This code generates an `ArrayIndexOutOfBoundsException` when a value exceeding 127 is assigned to the variable `""index""`. The users have confirmed that the number of weather types was exceeding 127 when the problem occurred.

Operational Impact: Users cannot handle case where the weather is complex and the number of weather elements exceeds 127 using GFE in ISC mode.

Required Behavior: Users should be allowed to handle case where the weather is complex and the number of weather elements exceeds 127 using GFE in ISC mode. **(DR 18805)**

120. Problem: Error returned when performing a search within the Data Delivery Notification Center dialog

When the user tries to perform a search within the Data Delivery Notification Center dialog, an `Alertviz` error is thrown when the Find Next button is clicked. The `""Unhandled Event Loop Exception""` is shown below.

```

Unhandled event loop exceptionjava.lang.NullPointerException
    at
com.raytheon.uf.viz.datadelivery.notification.NotificationTableComp.selectRow(NotificationTableComp.java:1135)
    at com.raytheon.uf.viz.datadelivery.notification.FindDlg.handleFindBtn(FindDlg.java:325)
    at com.raytheon.uf.viz.datadelivery.notification.FindDlg.access$1(FindDlg.java:288)
    at
com.raytheon.uf.viz.datadelivery.notification.FindDlg$1.widgetSelected(FindDlg.java:254)
    at org.eclipse.swt.widgets.TypedListener.handleEvent(TypedListener.java:248)
    at org.eclipse.swt.widgets.EventTable.sendEvent(EventTable.java:84)
    at org.eclipse.swt.widgets.Widget.sendEvent(Widget.java:1305)...more

```

Operational Impact: `Alertviz` errors can be a distraction and can limit the user's ability to locate updates on incoming data.

Required Behavior: The search function should return relevant records without throwing errors. **(DR 18801)**

121. Problem: Remove IP addresses from serverConfig.py

Security has asked that we have no IP address listed in any software. This ticket addresses `serverConfig.py` which has the following:

```
"ANCF" : "http://<ANCF SVCBU IP>:8080/irt",
```

"BNCF" : "http://<BNCF SVCBU IP>:8080/irt"

NCF has setup DNS hosts to resolve to these sites. So these serverConfig.py entries need to be changed to

"ANCF" : "http://svcbu-ancf.er.awips.noaa.gov:8080/irt",

"BNCF" : "http://svcbu-bncf.er.awips.noaa.gov:8080/irt"

Operational Impact: None. However it is a security risk to have software propagate outside of NWS which has these IPs listed in them, which might open us up for attack.

Required Behavior: The software uses DNS hostnames to resolve the IP they need to get to. **(DR 18777)**

122. Problem: GFE: When second formatter is run, GUI does not pop up until first formatter has completed

Billings WFO reported that after we installed OB16.1.2, the behavior of running multiple text formatters in the Formatter Launcher has changed.

16.1.1 behavior: Load in ZFPBYZ formatter, press the gear icon, GUI appears and select Morning Update, then ZFPBYZ formatter starts to generate the product. Load in FWFBYZ formatter, press the gear icon, GUI appears and select Morning Update. The FWFBYZ product generation then waits in the queue for the ZFPBYZ to finish. When the ZFPBYZ finishes, then the FWFBYZ product starts to generate.

16.1.2 behavior: Load in ZFPBYZ formatter, press the gear icon, GUI appears and select Morning Update, then ZFPBYZ formatter starts to generate the product. Load in FWFBYZ formatter, press the gear icon, The GUI DOES NOT appear right away. The forecaster now has to wait for the ZFPBYZ product to finish generating before the GUI for the FWFBYZ formatter to appear. The ZFPBYZ finishes, the GUI for the FWFBYZ appears and now can select Morning Update. The FWFBYZ product starts to generate.

Forecaster liked the 16.1.1 behavior, because that is the way it worked for a decade.

Operational Impact: Different formatter GUI behavior could result in forecasters spending more time generating text products in GFE.

Required Behavior: GUI should pop up after a second formatter is loaded instead of waiting until the first formatter run has completed. **(DR 18768)**

123. Problem: Modify LDM software to support higher number of retransmitted products

LDM software has the capability to receive products from the SBN and store the product details in the memory. It can also identify the received product is a duplicate copy of already transmitted product or not. With the current design, based on the channel, the software is configured to check the currently received/retransmitted product against arbitrary number of products entries. For NMC channel, number of products entries to store is set to 20,000. Data volume will be higher when there are more number of retransmissions caused by solar RF interference during spring and fall. During such occasions, if a site miss products disseminated over SBN and when the

same set of products are retransmitted from NCF, there is a possibility for those products to get discarded and not stored into the LDM product queue.

In order to fix the issue, number of products stored should be increased. Below are the proposed numbers for each channel

NMC - 500,000

NMC2 - 200,000

NOPT - 100,000

ADD - 100,000

EXP - 100,000

ENC - 100,00

NMC3 - 1000

GOES, GOESR-EAST, GOESR-WEST does not support retransmission.

Operational Impact: When many retransmission requests are queued within a short time period -- as happens during spring and summer solar outages, it can take upwards of an hour for all requests to be honored given the small array sizes current in use. If a request is honored after the table entry has been purged, the receiving site will discard it.

Required Behavior: The retransmission tables should be large enough to be able to hold entries for all products broadcast within the past hour to allow delayed retransmissions to be ingested by the requesting site. **(DR 18765)**

124. Problem: Updating existing subscription shows false positive for complete match and halts update

Any modifications to existing subscriptions are producing false positive complete overlap matches. These false matches are preventing legitimate updates to subscriptions. When the user attempted to update a subscription using the 16.2.2 GUI on a 16.2.1 server DD instance (BELLE cluster) (Don't know if that has any significance). Checks for overlap should (at least they used to) ignore the checking subscription in those checks. i.e., it shouldn't check against itself. It would appear that that is no longer the case. That needs to be fixed pronto. It would be good to find out when this got changed because any version since is obviously not working correctly.

Operational Impact: Users are unable to update existing subscriptions.

Required Behavior: Allow subscriptions to accept modifications. **(DR 18757)**

125. Problem: Possible VTEC Handling error at year boundary

The GFE VTEC_CrossingYear_TestScript auto test uncovered a possible issue in our handling of the Active Table. If an event is active and is carried forward into the New Year and a new

event is created in the new year with the same ETN number then one of the events is lost from the active table.

This would only happen if there were a very small number of events near the end of the previous year and a similar number at the beginning of the new year.

We need to include the issuance year in the active table primary key to avoid this problem.

Operational Impact: If an event is active and is carried forward into the new year and a new event is created in the new year with the same ETN number then one of the events is lost from the active table.

Required Behavior: We need to include the issuance year in the active table primary key to avoid this problem. (DR 18741)

126. Problem: Data Delivery certificate setup changes for DoD certs

Currently the Data Delivery certificate tool, keystoreUtil.sh, will generate configuration files necessary for Data Delivery to read the certificate information, as well as generate self-signed certificates and keys and insert them into java key stores.

It has been mandated that DoD certs be used instead of self-signed certs.

We have tested procedures to import the DoD certs, and would like to make changes to the keystoreUtil.sh to automate these steps. Currently we run the keystoreUtil.sh to generate java key stores with self-signed certs, then use CLIs to remove those and import the DoD certs in its place.

Ideally the keystoreUtil.sh can be modified to take the DoD cert and key as arguments and do these steps. One of the steps also requires a java ImportKey class to get the key imported into java key store format, that class would have to be integrated into the DD software.

Here are the steps to get a DoD cert and key imported into DD jks (the first two steps might not be necessary if self-signed certs are never inserted into the java key stores):

```
keytool -delete -alias <site> -keystore keystore.jks
```

```
keytool -delete -alias <site> -keystore truststore.jks
```

```
keytool -importcert -alias <site> -file <DoDcert> -keystore truststore.jks
```

```
openssl pkcs8 -topk8 -nocrypt -in <DoDkey> -inform PEM -out key.der -outform DER
```

```
openssl x509 -in <DoDcert> -inform PEM -out cert.der -outform DER
```

```
java ImportKey key.der cert.der <password> <alias>
```

Operational Impact: Without the DoD certs in place, AWIPS will be unsecure. Without script updates in place, importing DoD certificates will be time and mistake intensive, which will impact the up time for Data Delivery.

Required Behavior: keystoreUtil.sh and software modified to allow script to handle importing DoD certs and keys into DD security store. (DR 18730)

127. Problem: Data Delivery: Validation error is returned in Area Filter Selection dialog when manually entering lat/lon entry data into any field

In the Area Filter Selection dialog, after manually entering a lat/lon setting and going to the next entry field, a Validation Error popup is returned and all the fields turn red.

Operational Impact: User is unable to validate lat/lon settings.

Required Behavior: Valid lat/long settings should validate without error or without the text fields turning red. (DR 18718)

128. Problem: Unable to close the Area Filter Selection dialog when clicking Cancel

Data Delivery: Unable to close the Area Filter Selection dialog when clicking Cancel after making changes. A Cancel Changes popup window appears. The user clicks the Yes button to close the dialog without selecting an area. The popup closes but the Area Filter Selection dialog fails to close. Clicking the 'X' in the upper right corner does closed the dialog...however, no confirmation popup appears. (Repeatable in 16.2.1 and 16.1.2)

Required Behavior: The Area Filter Selection dialog should close when Cancel is selected in the 'Cancel Changes' pop-up. (DR 18702)

129. Problem: BandwidthMapManager appears to leak memory

Some code in BandwidthMapManager appears to leak memory. Specifically it adds a file updated observer, and if that observer triggers, it calls itself, which adds another file updated observer. So then the next time the file is updated, it will probably trigger two observers, which will add two more, and then exponentially grow.

Operational Impact: The data delivery server could run out of memory.

Required Behavior: The listener should only be added once, not multiple times. (DR 18701)

130. Problem: Reselecting the Pre-defined Region radio button does not reset the lat/lon values

If the user selects the 'Use Dataset Boundary' checkbox in the Subset Manager, the lat/lon values update to reflect the dataset boundary. However, if the user unselects the 'Use Dataset Boundary' checkbox, the 'Pre-defined Regions' radio button becomes active...however the lat/lon values remain unchanged (still the dataset boundary values). If the user expands the Pre-defined Regions dropdown menu and selects WFO, the lat/lon values do not update.

Operational Impact: The lat/lon values in the Subset Manager do not correctly update when switching between Use Dataset Boundary and Pre-defined Regions.

Required Behavior: Lat/lon values should update correctly when the user switches between Use Dataset Boundary and Pre-defined Regions. (DR 18700)

131. Problem: Add a Levels attribute to the Grid Subscription Rules

Currently, if a user creates 2 subscriptions that are identical (same dataset, parameter, forecast hours, spatial area, model cycle times)...but for different levels (700mb and 500mb), a popup appears stating that the subscription cannot be completed as the subscription is completely fulfilled by the other subscription.

The workaround is to modify the existing subscription with the same parameter and add another level to that subscription to acquire the data.

Operational Impact: If a subscription matches an existing subscription but the levels differ, you are unable to create the new subscription.

Required Behavior: Add a check for levels to make sure they are not ignored when creating subscriptions. (DR 18698)

132. Problem: FFMP 24hr source fast load and FFTI file purging

The fast loader files for FFMP are getting orphaned and or are being abandoned when a source is no longer being actively used or has a gap in data. This is in some cases causing Gigabyte plus files to be left to chew up disk space forever.

Operational Impact: Orphaned or abandoned fmp files can impact disk space.

Required Behavior: Add re-pack and orphan cleanup to FFMP. (DR 18697)

133. Problem: Issues opening the Alert Viz System Log

Selecting System Log... from the MB3 popup menu on the AV icon in the system tray returns an "Error fetching data" window.

Clicking OK in that window opens additional "Error fetching data" windows and an empty/gray System Log window. After closing between 5 and 20 of those "Error fetching data" windows, the System Log window populates with a few log messages. Scrolling up within the System Log dialog returns additional "Error fetching data" windows. Not long after, an "Error saving to internal database" window appeared stating that a serious internal error occurred (below). (Not repeatable in 16.2.1)

```
Saved failed
```

```
com.raytheon.uf.viz.alertviz.AlertvizException: Save failed
```

```
at com.raytheon.uf.viz.alertviz.internal.LogMessageDAO.save(LogMessageDAO.java:286)
```

```
at com.raytheon.uf.viz.alertviz.Container.addToLog(Container.java:277)
```

```

at com.raytheon.uf.viz.alertviz.Container.messageReceived(Container.java:147)
at com.raytheon.uf.viz.alertviz.AlertvizJob$4.run(AlertvizJob.java:482)
at org.eclipse.swt.widgets.RunWithLock.run(RunnableLock.java:35)
at org.eclipse.swt.widgets.Synchronizer.runAsyncMessages(Synchronizer.

```

Operational Impact: Unable to open the AlertViz System Log without receiving errors.

Required Behavior: AlertViz system log should open without error. (DR 18686)

134. Problem: Error is returned using the Imaging... dialog after loading a combined image

The following error is returned after loading a combined image (either using the tool in the toolbar or a bundle). The user loaded a Z and then a V radar product. The user retested with a Z+V product from the koax menu as well.

From the MB3 popup menu on the product ID, select Imaging... Clicking on the bottom "Edit koax <radar product>" button worked just fine, opening the colorbar dialog without issues. However, when clicking the top "Edit koax <radar product>" button, the error was returned. (Repeatable in 16.2.1)

```

Unhandled event loop exceptionjava.lang.NullPointerException
at
com.raytheon.viz.ui.dialogs.colordialog.ColorEditDialog.getCapabilityToEdit(ColorEditDialog.java:
252)
at com.raytheon.viz.ui.dialogs.colordialog.ColorEditDialog.<init>(ColorEditDialog.java:197)
at com.raytheon.viz.ui.dialogs.colordialog.ColorEditDialog.openDialog(ColorEditDialog.java:167)
at com.raytheon.viz.ui.dialogs.ImagingDialog$2.widgetSelected(ImagingDialog.java:268)...more

```

Operational Impact: AlertViz error is received and the second Edit Imaging dialog does not open.

Required Behavior: Error should not be received and the Edit Imaging dialog should open. (DR 18683)

135. Problem: SvrWx decoder skips data that does not have a 3 letter stationid

While testing RODO 5236, the user ran into this warning message in the ingest logs:

```

INFO 2016-01-27 19:42:37,626 [Ingest.svrwx-1] Ingest: EDEX: Ingest - svrwx::
/data_store/manual/svrwx/20160118/18/NWUS22_KWNS_181806_254450506.2016011818 processed in: 0.0070 (sec) Latency:
0.0220 (sec)
WARN 2016-01-27 19:42:37,631 [Ingest.svrwx-1] SvrWxParser: EDEX - The following report is missing the required field [StationID]
and will be skipped.
[EVENT_REPORT]{ 1 *TORN 2 NNW HOBE SOUND FL (28 N PBI) 17/0613

```


TORNADO TOUCHED DOWN AS EF-1 NEAR U.S. 1 AND (ML/LSR 2709 8015

MOVED RAPIDLY NORTHEAS)

WARN 2016-01-27 19:42:37,632 [Ingest.svrwx-1] SvrWxParser: EDEX - Discarded 1/6 reports.

Time spent in persist: 30

INFO 2016-01-27 19:42:37,852 [Ingest.svrwx-1] SvrWxRecordDao: EDEX - Discarded : 5 duplicates!

INFO 2016-01-27 19:42:37,853 [Ingest.svrwx-1] Ingest: EDEX: Ingest - svrwx::

/data_store/manual/svrwx/20160118/04/NWUS22_KWNS_180406_252833209.2016011804 processed in: 0.2260 (sec) Latency:

0.2360 (sec)

Operational Impact: SvrWx data may not be processed. (DR 18682)

136. Problem: NGM MOS has been discontinued

There is a database table and some supporting code to support BUFR formatted NGM MOS data. This data was discontinued in March of 2009 (http://www.nws.noaa.gov/mdl/synop/tin/txt/tin08-90ngm_termination.txt). The table and supporting code should be removed.

Operational Impact: None. The data has been discontinued.

Required Behavior: Cleanup baseline by removing supporting code. (DR 18681)

137. Problem: PointDataAccessFactory is filling the level database table

When the PointDataAccessFactory is loading data it will create new levels in the level table. If you load a lot of point data it can potentially create a lot of levels. If you then load the vb and don't click anything you will eventually run out of memory.

Operational Impact: Slowdowns when using the Volume Browser which can potentially lead to CAVE running out of memory.

Required Behavior: Point Data access requests should not cause slowdowns in the Volume Browser. (DR 18680)

138. Problem: Remove nonfunctional textdb -tA / -tR options

These add / remove entries from the textdb watchwarn table which are unused by the rest of the system. The triggers that are in usable come from the textdb -pil options. This will allow deletion of WatchWarn and WatchWarnDao.

Required Behavior: The -tA and -tR options should be removed as they are no longer in use. (DR 18679)

139. Problem: Certain SvrWx files sent incorrectly to WarningDecoder (aka VTECDecoder)

Ideally update the regex in warning.xml to not receive svrwx files but still receive all relevant warning/vtec files.

Similar issue from 2014:

<http://lightning.omaha.us.ray.com/redmine/issues/2971>

Relevant information for developing regexes to match NWS text products:

<http://www.nws.noaa.gov/tg/headef.php>

https://www.wmo.int/pages/prog/www/ois/Operational_Information/Publications/WMO_386/AHLSymbols/AHLSymbols_en.html

Operational Impact: The data is not always parsable by the warning decoder. The decoder takes time attempting to decode it and can either throw errors or even delay decoding of other data.

Required Behavior: The warning decoder should not handle svrwx data. The svrwx decoder should handle svrwx data. **(DR 18678)**

140. Problem: Class cast exceptions in registry replication web service

One of the annoying "unexplained" errors that periodically appears during initial replication of a client registry with central. This needs to be dealt with. This error appears on the central registry when a client is re-initializing and syncing with central. It doesn't appear to harm anything (At least that's what I am told...) but it is really unnerving to see errors like this in the log.

Operational Impact: Could prevent client registry from successful sync.

Required Behavior: The code should cast to the correct object allowing the sync to finish. **(DR 18676)**

141. Problem: Fix sizing issues with Make Hazards Dialog

In GFE, if you go to Hazards -> Make Hazard the dialog can appear with the text "Zones not included" and/or "Zones included" cut off in the lower composite. The sizing appears to be based on the size of the map, but it should be improved to at least have a minimum size necessary to fit all of those labels.

Operational Impact: Depending on the size of the map in the Make Hazards dialog, the Zones Included and Zones Not Included text is cut off.

Required Behavior: The dialog should be sized to include all of the text. **(DR 18675)**

142. Problem: Update text ScriptRunner to not depend on uEngine

Text ScriptRunner currently depends on uEngine classes for the retrieval and execution of text subscriptions. uEngine is deprecated and this dependency needs to be removed.

Operational Behavior: uEngine is a security risk.

Required Behavior: uEngine should no longer be used for the retrieval and execution of text subscriptions. **(DR 18674)**

143. Problem: First user-created smart tools and procedures fail to import

While testing RODO 5096 (#18329), the error occurred immediately upon selecting and importing the attached procedure into the localization perspective. Although the file is listed in the Localization perspective GFE->Procedures folder, it does not show up under the expected GFE: Edit menu until GFE is restarted.

```
Error adding module DR4809jep.JepException: jep.JepException: <type 'exceptions.ImportError'>: No module named DR4809
```

```
at jep.Jep.eval(Jep.java:439)
```

```
at com.raytheon.uf.common.python.PythonScript.internalExecute(PythonScript.java:230)
```

```
at com.raytheon.uf.common.python.PythonScript.execute(PythonScript.java:278)
```

```
at
com.raytheon.uf.common.python.controller.PythonScriptController.addModule(PythonScriptController.java:335)
```

```
at
com.raytheon.uf.common.python.controller.PythonScriptController.processFileUpdates(PythonScriptController.java:255) ...more
```

Operational Impact: If a user has never had a procedure or smart tool before (no user level directory) then the import of the file appears to occur in the localization perspective but is not recognized in GFE.

Required Behavior: Smart Tool/Procedures should import without error and appear in the designated GFE menu without restart. **(DR 18673)**

144. Problem: Registry Error with delete of orphaned slots

This appears to possibly be a situation where these slots are serialized to the eventBus and another thread deletes them while they are still transiting on the bus. Then, when the "Orphaned slot delete operation" happens it can't retrieve the object because it has been deleted. Just a guess though....

```
ERROR 2015-10-19 20:54:26,444 [pool-2-thread-3] EventBus: Could not dispatch event:
```

```
com.raytheon.uf.edex.registry.ebxml.services.RegistryGarbageCollector@6bc04c0a to public void
```

```
com.raytheon.uf.edex.registry.ebxml.services.RegistryGarbageCollector.deleteOrphanedSlot(com.raytheon.uf.edex.registry.events.DeleteSlotEvent)
```

```
leteSlotEvent)
```

```
org.hibernate.StaleStateException: Batch update returned unexpected row count from update [0];
actual row count: 0; expected: 1...more
```

Operational Impact: This issue could fill up the registry with orphaned slot data.

Required Behavior: Should delete the orphaned slots freeing up disk space and removing garbage from the registry. (DR 18672)

145. Problem: Run menu appears in the thin client CAVE

If you launch thin client, you get an extra Run menu on the right. It appears this is coming from Pydev. This did not always occur, and it's unclear what changed to cause it. The menu should not appear in D2D.

Operational Impact: No impact. The user sees an extra menu that is not used for anything within D2D.

Required Behavior: The Run menu should be removed. (DR 18642)

146. Problem: Develop windows capture script

For IMET thin clients we need a capture-like script for Windows. Specifically we are very interested in jstacks of the CAVE process when it is frozen/not responding and of the log files. In some cases we might want heap dumps, but given the intensiveness of the heap dump, the size and difficulty of getting it back to us, and the limited hard drive on the laptops we should not have heap dumps enabled by default.

Required Behavior: Create capture script for Windows thin client. (DR 18641)

147. Problem: start-edex-* log files not readable by awips user

The start-edex-* log files are not readable by awips:fxalpha and cause the log archiver to fail. This results in incomplete archives and

log files accumulating in /awips2/edex/logs for days when edex JVMs are restarted.

```
dx3-lot:ncfuser:1303$ ls -l /awips2/edex/logs/*20151231*
```

```
-rw-rw-rw- 1 awips fxalpha 28487861 Jan 3 00:30 /awips2/edex/logs/20151231.zip
```

```
-rw-rw-rw- 1 awips fxalpha 2336811 Dec 31 23:56 /awips2/edex/logs/edex-ingest-activeTableChange-20151231.log
```

```
-rw-r----- 1 awips fxalpha 14502353 Dec 31 23:59 /awips2/edex/logs/edex-ingestDat-20151231.log
```

```
-rw-rw-rw- 1 awips fxalpha 824042 Dec 31 23:57 /awips2/edex/logs/edex-ingestDat-hibernate-20151231.log
```

```
-rw-rw-rw- 1 awips fxalpha 0 Dec 31 04:19 /awips2/edex/logs/edex-ingest-gen_areal_ffg-20151231.log
```

```
-rw-rw-rw- 1 awips fxalpha 423131 Dec 31 23:58 /awips2/edex/logs/edex-ingestDat-performance-20151231.log
```

Operational Impact: Log archiver fails causing log files to accumulate in /awips2/edex/logs when edex JVMs are restarted.

Required Behavior: Add world read to edex start/stop log. (DR 18634)

148. Problem: AWIPS II capture script should also capture the current state of processes on px1 and px2

Now that we have a set of EDEX processes running on px1 and px2, capture should be updated to capture similar information to the information that is retrieved on dx3 and dx4. Additionally: it would also be useful to update capture so that it could run expansion scripts. Scripts that would be installed at a common location by WA-specific rpms that capture would run to gather information about additional WA-specific processes (ex: comms manager, dac transmit, etc.)

Required Behavior: Update capture script to grab information from px1 and px2. (DR 18633)

149. Problem: DMW barbs are in m/s when legend is in kts

Wanted to send a few updates after having played w/a Himawari DMW file, the user manipulated to the right format, and got working using the GOES-R plugin. The user noticed that the file: /common_static/base/plotModels/goesr/dmwPlotDesign.svg sets winds to "m/s" in two places. This renders the barbs in m/s. These should be "kts", and the vector barbs will then match the legend, which is already correctly expressed in knots.

Required Behavior: The units are not consistent for DMW barbs.

Operational Impact: The units should be in kts in the product legend and when sampling the data. (DR 18632)

150. Problem: Thin Client Network Statistics are broken

Thin client is consistently printing network stats like this:

Last minute sent 0 messages for a total of 0B sent and -88B received

Total sent 1232 messages for a total of 692kB sent and 330MB received

It is impossible to have negative number of bytes. This should be counted correctly.

Operational Impact: The network statistics being logged are not accurate.

Required Behavior: Statistics should be correctly reported in the thin client cave console logs. (DR 18631)

151. Problem: GFE ISC: No Weather Elements display in ISC Request/Reply dialog

When attempting to setup a Site 2 ISC Request/Reply from the primary Site 1, no Weather Elements were displayed in the ISC Request/Reply dialog for any Domain or Grid Source selection.

Operational Impact: It's possible no Weather Elements will display in ISC Request/Reply dialog.

Required Behavior: GFE ISC sites and parms configuration values must be in sync on all cluster members in order for all expected weather elements to display in the ISC Request/Reply dialog. (DR 18630)

152. Problem: The class `BufrMosDataLocation` should not use the hash code to generate an id

This class has a method `generateId()` which just returns the hash code.

Operational Impact: BufrMos data could be associated with wrong location.

Required Behavior: `bufrMos Location` uses an auto-generated key to allow for all locations to have a unique id. (DR 18627)

153. Problem: PGEN dialog in D2D has two Start and two Help menus

When a user loads the PGEN dialog window from the D2D perspective, there will be 2 "Start" and 2 "Help" menus visible along the top of the window.

Operational Impact: Duplicate menus can become cumbersome to the user when needing to quickly access PGEN functionality.

Required Behavior: The PGEN dialog should not contain duplicate drop-down menus. (DR 18616)

154. Problem: Improve radar processing for LAPS

One of the metrics I have been using to gauge how robust the Laps radar processing is has been to count how many radars successfully contribute to computing the Laps 3D wind field each cycle. Until recently, this metric has not been very consistent; at times being not too bad, but at other times being very subpar.

Operational Impact: 3D wind field for LAPS model may not be as accurate as it could be if radar data is not incorporated.

Required Behavior: LAPS incorporates all available radar data when running model. (DR 18608)

155. Problem MPE: Daily QC for Temperature: grid disappears when closing single-station-edit dialog after having used group edit

In the MPE Daily QC for Temperature, if the group edit function is used and then a single station is edited -the grid disappears from the display.

Operational Impact: Significantly slows the editing process for temperature data in the Daily QC.

Required Behavior: When selected for display, grid data remains after using single or group edit any number of times, and in any order. (DR 18599)

156. NWRWAVES produces an incorrect timestamp for products issued on the 31st of the month

This is similar to DR #79. The product GUMCWFGUM issued on 01/31/2016 was produced by NWRWAVES with an incorrect time stamp of 02/31/2106. This is the file

/awips/adapt/NWRWAVES/OUTPUT/GUMCWFGUM.2_31170030, (notice the 160231 timestamp):

```
^aT_ENGGUMCWFGUM16*0231*17001602311700 CD NPMZ151-PMZ152-PMZ153-PMZ154c1602010715
COASTAL WATERS FORECAST OUT TO 40 NAUTICAL MILES, FOR THE MARIANAS
COASTAL WATERS. TODAY, EAST WIND 15 KNOTS. WIND WAVES 3 FEET. EAST
SWELL 6 TO 8 FEET. TONIGHT THROUGH WEDNESDAY, EAST WIND 15 KNOTS. WIND
WAVES 3 FEET. EAST SWELL 4 TO 6 FEET. THURSDAY AND FRIDAY, EAST WIND
15 TO 20 KNOTS. WIND WAVES 3 TO 5 FEET. EAST SWELL 4 TO 6 FEET.
```

^b

Besides the mentioned product GUMCWFGUM, it appears that all the products sent at that time (at 1700Z on 01/31/2016) got the same wrong time stamp in the corresponding file in the OUTPUT directory:

```
[ncfuser@dx1-gum NWRWAVES]$ ls lrt INPUT/*2016013117*
rw-rw-r 1 awips fxalpha 542 Jan 31 17:00 INPUT/GUMZFPMY_20160131170013.txt
rw-rw-r- 1 awips fxalpha 738 Jan 31 17:00 INPUT/GUMCFWFM_20160131170029.txt
rw-rw-r- 1 awips fxalpha 1860 Jan 31 17:00 INPUT/GUMSRFMY_20160131170039.txt
rw-rw-r- 1 awips fxalpha 780 Jan 31 17:10 INPUT/GUMCFWFM_20160131171029.txt
rw-rw-r- 1 awips fxalpha 685 Jan 31 17:10 INPUT/GUMMWGUM_20160131171039.txt

[ncfuser@dx1-gum NWRWAVES]$ grep 0231 OUTPUT/*
OUTPUT/GUMCFWFGUM.V0002_002_31171030: aT_ENGGUMCFWFGUM16*0231*17101602311710 002R202CD NGUZ001-
GUZ002-GUZ003-GUZ004c1601311725
OUTPUT/GUMCWFGUM.1_31170030: aT_ENGGUMCWFGUM160231170016*0231*1700 CD NPMZ150c1602010715
OUTPUT/GUMCWFGUM.2_31170030: aT_ENGGUMCWFGUM160231170016*0231*1700 CD NPMZ151-PMZ152-PMZ153-
PMZ154c1602010715
```

OUTPUT/GUMMWGUM.V0002_102_31171039: aT_ENGGUMMWGUM16*0231*17101602311710 102R302CD NPMZ151-PMZ152-PMZ153-PMZ154c1601311725

OUTPUT/GUMSRFGUM.1_31170040: aT_ENGGUMSRFGUM160231170016*0231*1700 CD NGUZ001-GUZ002-GUZ003-GUZ004c1602010800

OUTPUT/GUMSYNGUM.1_31170030: aT_ENGGUMSYNGUM160231170016*0231*1700 CD NPMZ150c1602010715

OUTPUT/GUMZFPFGUM.1_31170014: aT_ENGGUMZFPFGUM160231170016*0231*1700 CD NGUZ001-GUZ002-GUZ003-GUZ004c1602010830

Operational Impact: 3D wind field for LAPS model may not be as accurate as it could be if radar data is not incorporated.

Required Behavior: LAPS incorporates all available radar data when running model. (DR 18595)

157. Problem: ANCF - SVC rsync hangs when a site falls off WAN in the middle of a rsync

ANCF - SVC rsync hangs when a site falls off WAN in the middle of an rsync.

Operational Impact: If the problem is not noticed, grids will not go to NDFD until rsync is restarted by NCF.

Required Behavior: Rsync should be able to recover from site falling off the WAN in the middle of an rsync and not permanently hang. (DR 18586)

158. Problem: D2D - all panels not same zoom when opening 4-panel product on zoomed in display

After zooming into a map, if the user loads a 4-panel display, 1 of the 4 panels (the upper right panel) displays at a different zoom level than the other 3 panels. See attached image for an example.

Operational Impact: User may be thrown off initially as satellite images will not be at same level of zoom - can cause confusion.

Required Behavior: All panels should load to the pre-defined zoom level. (DR 18583)

159. Problem: Fix sizing issues with Loop Properties Dialog

In D2D, if you click the toolbar button for the Loop Properties Dialog, the dialog appears but cuts off the text on the right of some of the labels. The dialog should be sized appropriately so all the text of the labels is displayed.

Operational Impact: sec reads se due to the size of the Loop Properties dialog.

Required Behavior: The dialog should be sized so all of the 'sec' is in view. (DR 18575)

160. Problem: NPE returned when double clicking on the 'Loading' entry in the Product Browser before products are listed

The following error is returned when double clicking on the 'Loading' entry in the Product Browser before products are listed.

```
Problems occurred when invoking code from plug-in:
"org.eclipse.jface".java.lang.NullPointerException

at
com.raytheon.uf.viz.productbrowser.ProductBrowserView$6.doubleClick(ProductBrowserView.java:261)
at org.eclipse.jface.viewers.StructuredViewer$1.run(StructuredViewer.java:845)
at org.eclipse.core.runtime.SafeRunner.run(SafeRunner.java:42)
at org.eclipse.ui.internal.JFaceUtil$1.run(JFaceUtil.java:49)
at org.eclipse.jface.util.SafeRunnable.run(SafeRunnable.java:175)
at org.eclipse.jface.viewers.StructuredViewer.fireDoubleClick(StructuredViewer.java:843)
...more
```

Operational Impact: No impact besides receiving the error.

Required Behavior: The NPE error should be occur. (DR 18574)

161. Problem: LSR decoder throws out whole file when a single ob has bad location

Since we no longer allow null for DataURI fields, a bad location causes the whole LSR report to be thrown out.

Operational Impact: The local storm report is discarded if a single observation within the report has a bad location.

Required Behavior: The lsr decoder should gracefully reject an observation with a bad location without discarding the entire lsr file. (DR 18566)

162. Problem: Changing map scales disables lat/lon readout, but lat/lon checkbox remains selected

After selecting Lat/Lon Readout on a product, if the map scale is changed, the lat/lon readout does not display, but the Lat/Lon Readout checkbox remains selected. To reactivate the Lat/Lon Readout, the checkbox must be deselected and reselected.

If Sample checkbox is selected, upon changing the map scale, sampling is disabled and the checkbox has been deselected.

If both Sample and Lat/Lon Readout are selected. Upon changing the map scale, both stop displaying (as expected). But when viewing the selection options, only the Sample checkbox is deselected. Reselecting the Sample checkbox will display both Sample and Lat/Lon Readout.

Since sampling and lat/lon readout are intrinsically linked, if a user clicks to check lat/lon readout, sampling should automatically be enabled and also checked. Also if a user clicks to uncheck sampling and disable it, lat/lon readout should automatically be unchecked and disabled.

Operational Impact: Lat/Lon readout in D2D is disabled when map scales are swapped even though it says it is enabled in the pop up menu.

Required Behavior: Keep state of lat/lon when swapping map scales. (DR 18565)

163. Problem: openSAML upgrade broke registry XACML, registry broken in

The openSAML upgrade to version 2.6.5 in 16.2.2 has broken the registry. Instead of rolling back to the previous version, look into adding commons-ssl to openSAML.

Operational Impact: The registry will not start.

Required Behavior: Registry should be unaffected by the FOSS upgrade. (DR 18564)

164. Problem: Replace outdated logging in edex plugins with SLF4J

Various plugins in EDEX are using various logging modules. The variety of logging modules is somewhat dependent on the date the plugin was originally conceived and the engineer who first developed it. These logging modules are:

- java.util.logging
- org.apache.commons.logging
- org.apache.log4j

While SLF4J is able to intercept/receive messages sent through those other logging frameworks, for consistency and maintainability we should strive to standardize. The two currently approved logging modules are org.slf4j and com.raytheon.uf.common.status. For Raytheon developed edex plugins, we should strive to standardize on SLF4J.

Search through Raytheon edex code for the outdated logging modules listed above and replace their logging with slf4j. Do not replace any ufstatus logging, and do not replace any logging in common, viz, or gov plugins (only com.raytheon.uf.edex.* and com.raytheon.edex.* plugins). While in the area clean up warnings that are easy to clean up, and remove any unneeded dependencies' from manifests.

Required Behavior: Update logging to use SLF4J for Raytheon developed edex plugins. (DR 18559)

165. Problem: NetworkTrafficSelect traffic logging broken by jetty 9.0.7 upgrade in 16.2.2

Since the Jetty upgrade to version 9.0.7 in 16.2.2, the SSL NetworkTrafficSelector logging of traffic appears to no longer function.

```
WARN 2015-11-25 20:37:15,708 [qtp1794653715-1635] NetworkTrafficSelectChannelEndPoint:
java.lang.IllegalArgumentException: null
at java.nio.Buffer.limit(Buffer.java:267) ~[na:1.7.0_80]
at
org.eclipse.jetty.io.NetworkTrafficSelectChannelEndPoint.notifyOutgoing(NetworkTrafficSelectChannelEndPoint.java:118)
[jetty-io-9.0.7.v20131107.jar:9.0.7.v20131107]
at
org.eclipse.jetty.io.NetworkTrafficSelectChannelEndPoint.flush(NetworkTrafficSelectChannelEndPoint.java:62)
[jetty-io-9.0.7.v20131107.jar:9.0.7.v20131107]
at org.eclipse.jetty.io.ssl.SslConnection$DecryptedEndPoint.flush(SslConnection.java:754)
```

Operational Impact: Logging of data delivery traffic is broken.

Required Behavior: The logging traffic should not contain errors shown in description. (DR 18558)

166. Problem: Better error handling required if no data available for NCEP UpperAir Plots

This ticket is related to #18335. It was discovered while testing that ticket. The errors provided below occur when attempting to display UA Plot when no data is available in the menu. Need better error handling.

Error 1:

```
An internal error occurred during: "Product Loader".java.lang.NullPointerException
at
com.raytheon.viz.redbookua.rsc.RedbookUpperAirResource.getName(RedbookUpperAirResource.java:154)
at com.raytheon.viz.ui.HistoryList.recursiveBuildName(HistoryList.java:198)
at com.raytheon.viz.ui.HistoryList.buildEntry(HistoryList.java:162)
at com.raytheon.viz.ui.HistoryList.addBundle(HistoryList.java:99)
at com.raytheon.viz.ui.HistoryList.refreshLatestBundle(HistoryList.java:145)
at com.raytheon.viz.ui.BundleLoader.run(BundleLoader.java:143)
at org.eclipse.core.internal.jobs.Worker.run(Worker.java:54)
```

Error 2:

```
Paint error: null:: The resource [null] has been
disabled.com.raytheon.uf.viz.core.exception.VizException: Paint error: null:: The
resource [null] has been disabled.
at
com.raytheon.uf.viz.core.drawables.AbstractRenderableDisplay.paintResource(AbstractRenderableDisplay.java:627)
at
com.raytheon.uf.viz.core.maps.display.MapRenderableDisplay.paint(MapRenderableDisplay.java:180)
```

```

at
com.raytheon.uf.viz.d2d.core.map.D2DMapRenderableDisplay.paint(D2DMapRenderableDisplay.java:222)
at com.raytheon.viz.ui.panes.VizDisplayPane.glDrawInternal(VizDisplayPane.java:523)
at com.raytheon.viz.ui.panes.VizDisplayPane.draw(VizDisplayPane.java:477)
at com.raytheon.viz.ui.panes.DrawCoordinatedPane.draw(DrawCoordinatedPane.java:172)

```

Operational Impact: Instead of saying no data available, NullPointerException and Paint Errors are received.

Required Behavior: Errors should not be received, and the product legend should state "No Data Available. (DR 18557)

167. Problem: Remove duplicate pygtk in the system

pygtk is in our git repos and RPMs twice, once in the standard install and once in the localapps python install. It was probably added to the standard install to support localapps, so there's no reason for it to exist twice in our system. Remove the older one from the standard install, and move the pycairo (that pygtk depends on) down to the localapps repo. (DR 18556)

168. Problem: Remove PIL from install

PIL is not used by awips2 and it has been replaced by Pillow for local apps. Remove PIL so it is no longer part of the install or version control.

Required Behavior: Remove PIL so it is no longer part of the install or version control. (DR 18555)

169. Problem: GFE: AV ULE-NPE error occurs if you attempt to create grid from scratch without having first selected a wx element

When the user inadvertently attempted to create a grid from scratch without having selected a weather element, the user received the ULE error, provided below. When the user moved the duration slide bar. Although this is an error, it should be caught more gracefully. The user verified this issue and is also seen on 15.1.2 and 16.2.1. No problems encountered if a wx element has been selected.

AlertViz error:

```

Unhandled event loop exceptionjava.lang.NullPointerException
at
com.raytheon.viz.gfe.dialogs.CreateFromScratchDialog.durationScaleChanged(CreateFromScratchDialog.java:177)
at
com.raytheon.viz.gfe.dialogs.CreateFromScratchDialog.access$1(CreateFromScratchDialog.java:176)
at
com.raytheon.viz.gfe.dialogs.CreateFromScratchDialog$2.widgetSelected(CreateFromScratchDialog.java:155)
at org.eclipse.swt.widgets.TypedListener.handleEvent(TypedListener.java:248)

```

at org.

Operational Impact: No impact besides the error in AlertViz.

Required Behavior: Error should not be thrown in this instance. (DR 18554)

170. Problem: edex-environment FOSS incompatibility in 16.2.2

Attempting to create an edex-environment in 16.2.2, results in the following error:
[root@dev27 ~]# edex-environment -create /home/bkowal/Desktop/Environment-VDE.xml
Exception in thread "main" java.lang.NoClassDefFoundError:
org.codehaus.jackson.type.TypeReference
at java.lang.Class.forName0(Native Method)
at java.lang.Class.forName(Class.java:278)
at org.eclipse.jdt.internal.jarinjarloader.JarRsrcLoader.main(JarRsrcLoader.java:56)
Caused by: java.lang.ClassNotFoundException: org.codehaus.jackson.type.TypeReference
at java.net.URLClassLoader\$1.run(URLClassLoader.java:366)
at java.net.URLClassLoader\$1.run(URLClassLoader.java:355)
at java.security.AccessController.doPrivileged(Native Method)
at java.net.URLClassLoader.findClass(URLClassLoader.java:354)
at java.lang.ClassLoader.loadClass(ClassLoader.java:425)
at java.lang.ClassLoader.loadClass(ClassLoader.java:358)
... 3 more
ERROR: Failed to configure the VDE environment.
edex-environment still works correctly in 16.2.1.

Operational Impact: edex environments fail to create

Required Behavior: edex environments should create and start up successfully. (DR 18553)

171. Problem: Delete bufquikscat plugin

According to wikipedia the QuikSCAT satellite has not been able to produce any data for the last 6 years. The menu items to display the data were removed 5 years ago. The plugins themselves should be deleted to reduce the size of the repository, database, rpm, etc.

In addition to the decoder plugin and the common plugin, there is also an svg file for QuikSCAT, a reference in the PointDataCubeAdapter and some commented out entries in some menu files that need to be removed. The rest of the system should be searched for references to quikscat (or bufquikscat) and anything else that needs it can be deleted.

Operational Impact: None.

Required Behavior: Remove plugin from awips2 baseline. (DR 18552)

172. Problem: Strange metar can be decoded but throws errors storing to HMDB

Attached is a metar which got past the decoder failed on storage. It possibly was successfully stored into the obs table but then had issues with the HMDB service. Since the strange braces are part of the RMK, it should probably be stored as a valid metar.

```
org.hibernate.QueryException: Unmatched braces for alias path [insert into rpt
values('METAR',0,'KEHA','SAUS80','','2015-10-22 12:48:00','2015-10-22 12:48:00','2015-
10-22 12:48:00','METAR KEHA
221248Z RMK }iAMOS 53/48/3{ _404/M{ _ }iPK WNM_{ _ 17 000',0,37.009998,-
101.879997,0,'','','',0,0);]
```

Operational Impact: Metar failed to store.

Required Behavior: Fix unescaped values in HMDB report so that the valid metar stores successfully. (DR 18551)

173. Problem: Product Browser should not throw errors when data plugins are missing from edex

Somehow, the cave builds and edex builds are slightly off. For example, if CAVE has the NSWRC plugins installed and EDEX does not, the following exception is received when the Product Browser is opened in CAVE...

```
Unable to populate initial product treecom.raytheon.uf.viz.core.exception.NoPluginException:
Can't find record class for nswrc_radial plugin
at com.raytheon.uf.viz.core.RecordFactory.getPluginClass(RecordFactory.java:197)
at
com.raytheon.uf.viz.productbrowser.AbstractRequestableProductBrowserDataDefinition.populateInitial
(AbstractRequestableProductBrowse
ductBrowserDataDefinition.java:129)
```

Operational Impact: No impact besides the error message in AlertViz.

Required Behavior: Should not receive an error. (DR 18550)

174. Problem: Renamed tab reverts to 'Map' when opening up a 4-panel display and returning to a single pane

The renamed tab reverts to 'Map' when opening up a 4-panel display and returning to a single pane.

Operational Impact: The user loses the name of the tab when switching from 4 pane layout to single pane layout.

Required Behavior: The tab should retain the name when switching between 4 panel and single pane layouts. (DR 18549)

175. Problem: Long item lists cause the OK/Cancel buttons to fall off the screen in the Delete Confirmation dialog in the Localization perspective

When the item list in the Delete Confirmation dialog becomes too long, the OK and Cancel buttons fall off the screen. The user cannot select either item...and is forced to close the dialog using the 'X' in the corner of the dialog. This was discovered when attempting to delete multiple chat log files under the CAVE->Collaboration->logs tree.

Operational Required: User cannot see or select the OK and Cancel buttons in the Delete Confirmation dialog when the list is too long.

Required Behavior: A scrollbar should be added to the Delete Confirmation dialog. (DR 18538)

176. Problem: Volume Browser - clearPlanes allows you to re-add Sources and Fields

If you open the volume browser, select a Source and a Field, shouldn't matter which, and then select Edit->Clear Planes (even if you haven't added a plane), you are able to re-add the same Sources and Fields, creating duplicate entries in the boxes. If the Source is the sole-source for a field, it will automatically read the source for the user.

If all of the duplicated sources are selected, and only one is deselected, visually only one will appear to be deselected, but it is treated as if all are deselected and will prevent displaying available products for that source. The same is true for fields.

The menus should act the same after Edit->Clear Planes as when choosing Edit->Clear Sources or Edit->Clear Fields in that any already added entries for the non-cleared menus are disabled.

Operational Impact: Sources and fields appear as available even though they are already selected in the VB allowing a user to have duplicate entries in the VB.

Required Behavior: The selected sources and fields should be disabled in the drop down menus after 'Clear Planes' is selected.(DR 18536)

177. Problem: ILocalizationFile should provide API for detecting multiple concurrent edits

NOTE: These changes are needed in order to implement a fix for #12353.

In the current ILocalizationFile API, if multiple users are concurrently editing a localization file on different computers and they both save the changes at the same time, then one user will overwrite the other with no errors. The API should be modified so that it is possible to detect when a file has changed when a user is editing it and it will throw an exception from SaveableOutputStream.

The typical use case for this is that an object will use

1. Call `ILocalizationFile.openInputStream()`
2. Read the contents
3. Modify the contents
4. Call `ILocalizationFile.openOutputStream()`
5. Write the contents
6. Call `SaveableOutputStream.save()`

The problem arises when two or more computers are simultaneously on step 3. The proposed solution is to make it so that when you call save in Step 6 then we will send the checksum of the file you read in Step 2 along with the contents that were written in step 5.

When the server receives the save request, if the checksum of the current contents does not match the previous checksum sent by the client it will throw an exception that will propagate to the calling object. The thrown exception should be a specific, documented type because there are cases where the calling object may be able to catch the exception and download the newest file and replay the changes or give the user the option to merge.

This problem is deep so of course that solution raises yet another problem. To prevent overwriting other changes we need to know the checksum of the contents that were read in step 2, however since localization files are currently updating themselves it is possible that checksum has changed at any point during or after that step. There is currently no reliable way to know what the starting point of the contents was when opening an output stream and saving. A possible solution to this problem is to stop the `LocalizationFile` from updating itself. If we made it so that each `LocalizationFile` instance represented the file at a specific point in time (with a specific content) and when an update arrived we would create a new `LocalizationFile` then we could know for sure which version of the file any caller is trying to update. This would however require changing all code that currently handles updates since usually we keep using the same file.

Operational Impact: If multiple users are concurrently editing a localization file on different computers and they both save the changes at the same time, then one user will overwrite the other with no errors.

Required Behavior: Code changes do not affect how localization works. (DR 18535)

178. Problem: Error returned when zooming into a cross section such that the entire chart is no longer visible

The following error is returned when zooming into an area off the Cross Section display...so far that the data/chart is no longer visible. The product ID becomes disabled. The data can be displayed again by clicking MB1 on the product ID in the product legend.

```
Paint error: Illegal grid range [0 .. -2] for dimension 0.:: The resource [GFS40 LineB
Temperature ( C ) ] has been
```

```
disabled.com.raytheon.uf.viz.core.exception.VizException: Paint error: Illegal grid range [0 .. -
2] for dimension 0.:: The resource
```


[GFS40 LineB Temperature (C)] has been disabled.

```
at  
com.raytheon.uf.viz.core.drawables.AbstractRenderableDisplay.paintResource (AbstractRenderableDisplay.java:627)
```

```
at  
com.raytheon.uf.viz.xy.graph.AbstractXyRenderableDisplay.paint (AbstractXyRenderableDisplay.java:107) ...more
```

Operational Impact: cross section display becomes disabled and a paint error is thrown in AlertViz only when the user zooms in to an area outside of the cross section (black edges of the display).

Required Behavior: You should be able to zoom into the display without error and without the display becoming disabled. (DR 18529)

179. Problem: MPE: persistent polygons remain on the display after being deleted

When a persistent polygon is created, scrolling through several hours will cause the hourly images to be cached in memory. If the polygon is deleted via the "Delete Polygons" menu selection, it remains on the display for those cached images.

Operational Impact: User is unable to effectively delete polygons from the MPE display. If persistent polygon is deleted from a given hour, it will disappear. However, if the user changes the displayed hour, the polygon will appear (because it's cached).

Required Behavior: Deleted polygons are removed from the display. (DR 18481)

180. Problem: Move damage path menu into plugin

The damage path menu item is not tied to the plugin. In 16.1.1 we were asked to remove the plugin from the CAVE install. We removed the rpm, however the damage path menu item still resided in the tools, and when selected spit out an error since the plugin was not installed. With other plugins, removing the rpm also removes it from the menu, so that separate modification of the base menu xml files is not necessary, and this needs to be done for the damage path tool when it is time to add it back into CAVE.

Operational Impact: The menu for removed software continues to exist after the software is removed causing confusion for the users as to whether the tool should launch or if there is an issue that needs to be investigated.

Required Behavior: If damage path tool rpm is removed, the menu is also removed without additional xml file modifications. (DR 18479)

181. Problem: GFE: Canceling expired products should not be allowed

The VTEC ETN for the SC.Y (Small Craft Advisory) at site LOT did not reset properly back to 1 for the first new advisory of 2016. The problem was caused by the forecaster canceling the product a few minutes after it had expired. Investigation of the code showed that it has been

possible to cancel an expired product up to 30 minutes after expiration dating back to AWIPS I. This is incorrect and should be eliminated.

Operational Impact: Canceling an expired product can affect the VTEC ETN reset on the first of the year which could adversely affect external customers. No impact to forecasters.

Required Behavior: Canceling an expired product should not be allowed. (DR 18450)

182. Problem: Dendritic Growth Temperatures (Tdend) and Preferred Ice Growth(SnowT) show incorrect units in D-2D image display

OAX reported that Dendritic Growth Temperatures loads in Celcius for the contour display, but the image display is in Kelvin.

Operational Impact: Confusion of mismatch between contour and image display.

Required Behavior: Both contours and images of Tdend and SnowT should display in units of C (Celsius). (DR 18446)

183. Problem: Making small changes to grids and subgrids requires clearing out data for affected models

If a small change to grid definition is desired (e.g., DR #13937), it is necessary to clear out all data for the affected models (from HDF5 as well as the various related metadata structures.) If the data is not cleared out, newly ingested data will continue to reference the old grid definition in the metadata database and D-2D will continue to display the grid in the old location.

There is an additional problem for sub-grids: If a sub-grid definition is changed, EDEX will correctly use the new definition as far as storing the selected portion of the grid. However, the grid is displayed in the old location, giving the impression that the data has shifted by some number of grid cells. This was reported in DR #18255 when a code change caused many sub-grid definitions to be interpreted differently.

An alternative to clearing out all data is to modify the grid coverage object in the metadata database. However, this requires the ability to calculate the new values and is inconvenient. New grid definitions should "just work".

The cause of this problem is grid coverage code which only treats coordinates as different if they have a greater than 0.1 degrees lat/lon difference.

Operational Impact: Grids displayed in the wrong location can cause confusion..

Required Behavior: EDEX and CAVE should use updated grid definitions for newly ingested data. (DR 18440)

184. Problem: Need to add feedback when TAF transmission fails

TSA reported an issue with AvnFPS. When transmission of a TAF failed during service backup (user name: svcbackup), there was no feedback or anything to indicate why it failed. It just sat

there so it not give any indication of the cause of failure. There was no status message or popup indicating that transmit has failed. The send dialogue just remained unchanged after selecting send. He had to dig into the caveData logs to find the reason for the failure. The log entries were "WARN" type (should be "ERROR"). The messages were saying "Cannot send the TAF. No forecaster ID for svcbackup in aviation/avnwatch/aviationForecasterConfig.xml." The issue in avnfps is that there was no feedback on the failure. There should be a status message or popup saying transmit failed and why transmit failed.

Operational Impact: This problem can cause confusion to users and delay in issuing TAFs.

Required Behavior: When transmission of a TAF fails, the user should be notified of the failure and the cause of the failure. (DR 18413)

185. Problem: METAR decoder stores sea level pressure with incorrect units

The EDEX METAR decoder stores sea level pressure as if it were millibars/hectopascals, but the correct unit, as defined in the metadata, is pascals.

METAR Sea level pressure incorrectly in the NCP.

(It has been displaying correctly on the D-2D station plot due to the plot displaying in dPa.)

Operational Impact: Forecaster may be confused over apparent bad data.

Required Behavior: AWIPS should store and display METAR sea level pressure with correct units. (DR 18399)

186. Problem: Tracking Meteogram: When loading 4-panel radar product, TMT only shows plots from upper left and bottom right products

When loading 4 panel radar reflectivity with various tilts, it seems like the TMT only wants to display plots for the products in the top left panel and bottom right panel. The user tried to swap out different tilts and the TMT is adamant on only the top left and bottom right panel getting a plot.

Operational Impact: Sites unable to use TMT with 4 panel reflectivity.

Required Behavior: TMT should work with 4 panel product. (DR 18387)

187. Problem: Some synoptic obs data not being decoded

It was reported that the OPC is decoding synoptic observational data which comes in FM-12 format. There are a number of fields which can be a part of the data that are not being decoded in AWIPS.

3-hr precip, snow depth and 24-hour pressure change are not being stored to the hdf5 files for sfcobs.

Operational Impact: Loss of functionality for national centers who rely on these synoptic fields.

Required Behavior: Ability to decode/store/display the missing synoptic fields. (DR 18361)

188. Problem: MPE: Daily QC displays all temperature data as "missing"

In the MPE Daily QC utility, all temperature data points are displayed with a value of 'm' (missing). This is in spite of there being non-zero values in the temperature point data files. If the Edit Temperature Stations window is opened for a station, the correct temp data is displayed for the 6-hour periods and for the max and min values. Changing either the values or the quality code in the Edit Temperature Station window have no effect on the 'm' display.

Operational Impact: Users are unable to view correct temperature data in the MPE Daily QC screen.

Required Behavior: When the daily QC temperature data is loaded via the Choose Data Period window or the menu selection Gages-->QC Temperature, the values and quality codes from the Level 1 (or Level 2 if it exists) data file are displayed. (DR 18350)

189. Problem: Legend does not update when keep-alive records from lightning data sources are received

CAVE D2D legend should update when "keep-alive" lightning data bulletins (i.e., bulletins with no events) are received from all lightning data sources.

Data sources and WMO IDs:

- Vaisala NLDN (SFUS41 KWBC)
- Vaisala GLD (SFPA41 KWBC)
- Earth Networks Total Lightning (SFPA42 KWBC)

Operational Impact: Forecaster can't tell keep-alive lightning bulletins are being received.

Required Behavior: D2D legend should update when a lightning data keep-alive record (no lightning event) is received. (DR 18336)

190. Problem: Tracking Meteogram: Zooming into events does not result in plot being redrawn

The polling job (which we start in order to wait and listen for incoming resources) is, at CAVE shutdown, being requested by our code to stop (via a call to the Job.cancel method).

However, the javadoc for Job.cancel says that the call is only a request to stop, but that stopping is not necessarily guaranteed. So even though we have written what we think to be correct logic, we still see an error message in the text log from Eclipse saying that PollingForResourcesJob was still running at application shutdown. **(DR 18241)**

191. Problem: Total Lightning: Raw total lightning (in-cloud) points should use a larger point symbol to display

DCS #17616 has made a change displaying Earth Network Lightning in D2D the in-cloud points display as small points and not as circles as they did in their previous build. This change has made the data nearly unusable due to it being difficult to read. A consensus was reached on the DRT to increase the size of the symbol to address this problem.

The attached patch fixes this in 16.2.1.

Click <https://docs.google.com/document/d/1pqvNWRE8ShwT-gkWT3Sikhbxe6C4tw-PGDk2C3cSWw/edit> for the Total Lightning Requirements documentation.

Requirement 6.4 addresses iconography.

Operational Impact: Users have difficulty reading the display.

Required Behavior: Display the point 2x2 pixels instead of a single pixel. **(DR 18168)**

192. Problem: Tracking Meteogram: Clearing does not get back to original perspective in 1 click

When a user loads a product and then the Tracking Meteogram tool, if they click clear, it will not always clear out to the perspective with which they started. For example, if they start on CONUS and then zoom into what would be a "State" level, clicking clear will only return them to a "State" view. They must click Clear again to get back to CONUS.

Operational Impact: More of an annoyance as it causes users to click clear twice to accomplish the function.

Required Behavior: Should clear back to the original perspective, set in D2D. **(DR 18157)**

193. Problem: Time Series: errors when editing data from graphical view

In the hydro time series application, the user gets an error when he tries to move a point multiple times on the graph.

Operational Impact: If a point is moved multiple times from the graphical time series display, the changes cannot be saved to the database

Required Behavior: user should be able to edit w/out error. **(DR 18140)**

194. Problem: AlertViz: Threat Monitor icons do not change color for new threats.

The functionality to change the color for the Threat Monitor icons has not been implemented.

Operational Impact: Without the functionality implemented, the user has no way of knowing if new monitored threat has been observed.

Required Behavior: The threat icons are supposed to change color. (DR 18134)

195. Problem: Some WRK products appear to not store to textdb

AFC reported that some WRK products appear to not store to the textdb. They seem to save - and alert - but cannot be retrieved. 2 examples are: WRKRPT and WRKREC.

The site appears to have Kxxx for recent entries and Pxxx for older entries (May) where xxx is RPT or REC. It was determined that changes under O&M #17455 (RODO 4462) attempt to set the site based on the last 3 characters in the product id. Since REC and RPT are not valid sites, it tacked on a K. If all the sites in the database are the same you get what you expect, which is the case now for WRKRPT at AFC where they are all

KRPT. For REC there are old entries from May with PRPT and recent entries from Sep with KRPT, so textdb -r is returning the latest PRPT as P is the preferred prefix for AFC.

The functionality to change the color for the Threat Monitor icons has not been implemented.

Operational Impact: WRK roducts will be missing from the textdb.

Required Behavior: WRK products should store correctly in the textdb. (DR 18115)

196. Problem: Time of Arrival Tool showing incorrect times

LOT reported the following issue.

Time of Arrival Tool in D2D does not seem to be working correctly. When the point is placed on the line, the times do not match up correctly. This occurs whether it is the point, polyline or front option of time of arrival.

Operational Impact: Minor annoyance when trying to figure out times of arrival to particular locations with times.

Required Behavior: The times should all basically match the time of the line and not vary considerably. (DR 18059)

197. Problem: Hourly Hurricane track summary forecast plotting incorrectly for cyclones in D2D

The issue is with the way cyclones are plotted in D2D regarding the hourly track summary. When you load his most recent 21z hourly forecasted track, then loop it forward one frame at a time this is what you see:

The Hurricane (CP4) is tracking to the WNW for both the 22z and 23z marks. Then at the 0z mark the time-stamp correctly shows 9/10/15 at 0z, however it uses an old advisory and jumps to 9/9/15 at 0z instead.

Operational Impact: It seems when you cross over the 0z mark it somehow gets set back to 0z the previous day.

Required Behavior: When you cross over from the 23z to 0z mark it gets set to 0z the next day **(DR 18029)**

198. Problem: East Pacific Hurricane track summary is not showing up in d2d

East Pacific plots show up blank over Hawaii but it does show 14E new Mexico. The TC track for Kilo, Ignacio and Jimena do not show up. However, it does show up in West Pacific Plots...but then they are labeled as WRNCEN and not the Storm name.

Operational Impact: Users unable to view East Pacific hurricane track summary in D2D over Hawaii.

Required Behavior: Kilo, Ignacio and Jimena should show up under the East Pacific and with the correct storm name associated with it. **(DR 17989)**

199. Problem: Point Data Control: No time window for precip

In the Hydro PDC, there is no time window for precipitation. This was noticed in the ad-hoc mode, for Rain and the "Value for Selected Time" was chosen for the last 24 hours. It would only display if there was data that ended at the exact time in the "Value/Time" window. If the data was even one minute off, it would not display.

Operational Impact: Some sites that do not send TOH data will not have their precip display in the Hydro Perspective, resulting in loss of situational awareness.. **(DR 17925)**

200. Problem: CAVE can lock up when Clear is clicked during a time matching operation

If the D-2D Clear button is clicked while a time matching operation is going on in the background, CAVE will be locked up until the time matching operation completes, but that can be delayed arbitrarily due to networking issues, etc.

Operational Impact: Forecaster will not be able to use that CAVE instance until time matching completes.

Required Behavior: CAVE should remain responsive after clicking the Clear button **(DR 17894)**

201. Problem: H-F Radar Surface Currents (HFR) Displays wrong Units

MFL reported the following:

The problem is the current speed data is displaying the wrong units(cm/s). Units need to be m/s.

Operational Impact: This requires the user to go in and manually change units to make them useful. This creates unnecessary workload.

Required Behavior: units should be displayed in m/s. (DR 17787)

202. Problem: postgresql rpm missing dependency to netcdf

During a fresh install of 14.4.1, the databases will fail to initialize due to the /awips2/postgresql/lib/rtpostgis-2.0.so missing the dependent library /usr/lib64/libnetcdf.so.7. The netcdf rpm is part of the database install, but since it is not listed as a dependency of postgresql, yum will install the rpms in no particular order, and it was installing the netcdf after the database rpms were installed. To force netcdf rpms to install prior to awips2-postgresql, netcdf has to be added as an rpm dependency to awips2-postgresql.

Operational Impact: This issue must be manually corrected during an install otherwise the software will not work.

Required Behavior: The awips2 database successfully installs and initializes with no errors. (DR 17749)

203. Problem: Hydrobase: no longer uses location lat/lon as a first guess for new River Gage entry

In the HydroBase (Hydro Database Manager) application, when a river gage location was being created from an existing non-river gage location, the lat/lon would initially be filled in with the lat/lon from the location entry.

The River Gage->River Gage GUI is the affected GUI.

Operational Impact: Users would need to manually copy lat/lon from the location table or GUI into the lat/lon boxes in River Gage. (DR 17652)

204. Problem: FFMP Basin Trend - 1st time step excluded from accumulation

The most recent time step in the Basin Trend Graph is not included in the accumulation calculation. It is not clear if this is only relative to the Basin Trend visual, or if it also affects the basin table values. Both the plot and the table value calculation should be correct.

Operational Impact: Forecasters who look at the basin trend plot may assume the accumulation trend is "flattening out" rather than see the accumulation increasing.

Required Behavior: The most recent value should be included in the QPE and plotted in the Basin Trend Graph. If the table values are affected, they should be corrected. (DR 17651)

205. Problem: TextWS does not display updated MND time in editor after sending

When WarnGen products are sent from Text Workstation, the WMO heading time and MND time are supposed to be updated with the time at which the Send button is clicked. That works with respect to the product text that is actually sent out and stored in the text database. However, the text that is left in the editor window still contains the original MND time.

Operational Impact: Can cause confusion and makes verification more difficult.

Required Behavior: After sending a product, TextWS should display the actual text it sent. (DR 17614)

206. Problem: transferNWWS.pl does not write debug messages to transferNWWS.log

As reported by LOX, in NSHARP, the station/airport ID name for a MDCRS sounding is not displayed. It is showing up as the latitude/longitude of the location rather than the station ID.

In the d2d perspective from the volume browser, set display type to Sounding, select MDCRS from source, Sounding from fields and the point in question from planes.

The NSHARP display shows the latitude and longitude in the box at the top left corner of the sounding. The airport ID is not shown anywhere.

In A1 the MDCRS sounding displays the airport ID in the legend.

Operational Impact: Difficult to discern what is being displayed.

Required Behavior: Display the airport ID in the MDCRS sounding. (DR 17567)

207. Problem: transferNWWS.pl does not write debug messages to transferNWWS.log

When a user is going to issues a EXP in WarnGen, the "Drag me to Storm" dot should be editable. This will allow the user to put the dot on the current location of the storm that is about to be expired, generating more accurate locations in the product.

Operational Impact: Will not allow the user to move the dot to the current location of the storm. Since the TML (Time - Motion - Location) line is locked, they will not be able to update the current TML of the storm.

Required Behavior: Should be editable like in AWIPS 1. (DR 17531)

208. Problem: transferNWWWS.pl does not write debug messages to transferNWWWS.log

The /data/logs/fxa/YYYYMMDD/transferNWWWS.log is not created in running /awips/adapt/hwr/bin/hwrnwsws on px1.

Operational Impact: None.

Required Behavior: The /data/logs/fxa/YYYYMMDD/transferNWWWS.log should be created in running /awips/adapt/hwr/bin/hwrnwsws on px1. (DR 17512)

209. Problem: OCONUS: Satellite menu under Derived Products Imagery display incorrect sector

GUM reported the following:

At OCONUS sites, the satellite menu for Derived Products Imagery needs to point specifically to the OCONUS satellite data sector for items where such data is available. These include Blended Rain Rate, Blended Total Precip Water and Percent of Normal TPW. Currently, all items on this menu default to the Supernational satellite data.

Operational Impact: The problem is that the baseline tries to assign GUM to Puerto Rico imagery, which is useless. I think someone thought PR stood for Pacific Region...

Required Behavior: Derived Products Imagery should default to the appropriate OCONUS sector when selected from the menu at OCONUS sites. (DR 17387)

210. Problem: Using RPS List Editor to add DUA

MFL reported the following:

They have noticed that in some of their RPS lists, the DUA product exists but does not come into the system when the radar is in that VCP mode. In MFL's case, when KAMX is in VCPs 12 or 212, the DUA product does not come in. Cannot get any combination of them to add the actual duration to the RPS list.

Operational Impact: Cannot get any combination of them to add the actual duration to the RPS list.

Required Behavior: Using RPS List Editor to add DUA should work like A. (DR 17358)

211. Problem: Buoys not getting most recent data into RWR and HWR products

Site MLB reported in TT 673138 that the marine obs were not the most recent ones for those marine stations that have multiple obs within an hour.

Operational Impact: No impact to operations. However HWR text products may not contain most recent marine observations in some cases.

Required Behavior: Get most recent marine observations in HWR products. (DR 17336)

212. Problem: Cannot create SPS if <warngenOfficeShort> variable contains a "-"

In a TT from Tampa Bay, they were unable to create the text for a SPS product. It was determined that the error originated due to the existence of a "-" in the <warngenOfficeShort> variable in the config.xml file. The fix for this will either need to accept this format or provide an error that is more constructive.

Operational Impact: If the site is unable to create a product due to this format, it can prevent them from issuing a SPS.

Required Behavior: Should be able to create products, regardless of format. (DR 17311)

213. Problem: 14.3.1: Change in storage of LI products for some models results in inconsistent storage, problems in GFE display

BOI reported the following:

After the 14.3.1 installation, LI grids from some models have different values in GFE than before 14.3.1. Tools that access some model LI grids are failing since the 14.3.1 installation, because the values returned are not the same as before.

The models affected are:

GFS40 bli sfc

GFS40 sli sfc

NAM12 bli BL0180

NAM12 pli BL030

In comparing the above fields as stored in HDF5 on a 14.3.1 system and a 14.2.4 system, the 14.3.1 system has them stored in Kelvin, whereas the 14.2.4 system stores them as Celsius. They are also stored in Celsius in A1 netCDF files.

This change in storage causes a problem for the GFE tools that try to access this data.

Operational Impact: GFS40 and NAM12 LI products are incorrect in GFE and therefore not useful.

Required Behavior: LI should be stored in Celsius. (DR 17308)

214. Problem: Bug with RPG selection when doing RMRs

There is a bug with the creation of RMRs with respect to the selected RPGs. When you create a new or edit an existing RMR, select the product and then get to the RPG selection GUI, there is a dial and a dedicated list. By default, one of the dedicated RPGs is always selected. While you can select a Dial RPG, you cannot unselect a Dedicated RPG while you're creating the RMR. So

basically you end up creating an RMR for either just a Dedicated or for a Dial and a Dedicated radar. Once the RMR has been created, you can select the Dedicated RPG from the RMR selection list and click 'delete' as a workaround.

Operational Behavior: Causes forecasters to take extra steps to create the RMRs that they want.

Required Behavior: Should work as described in detailed description and in AWIPS 1. (DR 17245)

215. Problem: GFE: enabling the trace option can result in large log files

ALY reported a problem with a cave freeze. The site was running ZFP. The freeze was tracked to ForecastNarrative.py generating a large log file due to "trace" having been enabled at the site. This resulted in a cave lockup where the software was attempting to display the above log file.

Operational Impact: The problem can result in a cave freeze, which the users might perceive as a crash.

Required Behavior: No freeze should result from enabling the trace. (DR 17157)

216. Problem: A2 doesn't display 5 min duration tabular data if it is part of a Time Series group

A2 also can't seem to display 5 min duration tabular data if it is part of a Time Series group.

Operational Impact: The display provide real time data for our forecasters during intense rain and Time Series graphs & groups provides the forecasters with quick access to the most up to date rainfall data -all in one place - so they can decide whether flash flood warnings need to be issued.

Required Behavior: Should display PP 5 minutes in graph and table from mPredefined Group or from station selection. (DR 17110)

217. Problem: TextWS: Saving a product and re-editing it causes additional headers in the Text Editor window

1. Open a product for editing in Text Editor window.

There are two ways to observe the problem:

2a. Click on Save button and then Cancel.

3a. Click Enter Editor again and after clicking Enter in the AWIPS Header Block GUI observe second header.

2b. Click on X and when confirmation message pops up click on Yes.

3b. Click on the Text N: CCCNNNXXX button on the main Text Workstation GUI to bring back the product you have just been editing.

4b. Click Enter Editor again and after clicking Enter in the AWIPS Header Block GUI observe second header.

Notice that each additional iteration of (2a-3a, or 2b-4b) results in an additional extra header.

Operational Impact: The product is not useful without the fix. Without the fix, the contours simply give the terrain 1500 m above the surface.

Required Behavior: The LAPS 1500m Pressure should show 1500m AGL, and should look basically like A1. (DR 17097)

218. Problem: LAPS 1500m Pressure D-2D display incorrect

The LAPS 1500m Pressure is displaying as 1500m AGL rather than 1500m MSL.

Eric implemented the following fix as supplied by GSD:

In the Localization perspective, made SITE version of
CAVE->Menus->local->baseLAPSMSASSurface.xml.

This block of text

```
&lt;contribute xsi:type="bundleItem"
file="bundles/local/SingleGrib.xml"
menuText="1500m Pressure" id="1500mp" useReferenceTime="true">
&lt;substitute key="param" value="P"/&gt;
&lt;substitute key="levelName" value="FHAG"/&gt;
&lt;substitute key="levelOneVal" value="1500.0"/&gt;
&lt;substitute key="model" value="LAPS"/&gt;
&lt;/contribute&gt;
```

Needs to have the "FHAG" changed to "FH".

Operational Impact: The product is not useful without the fix. Without the fix, the contours simply give the terrain 1500 m above the surface.

Required Behavior: The LAPS 1500m Pressure should show 1500m AGL, and should look basically like A1. (16970)

219. Problem: TextDB incremental purge does not work

EDEX has a system of incremental purging for the text database. It keeps track of the IDs of ingested products and will then purge products with those IDs on a periodic basis (rather than processing all products in the database.) That system has a logic error and will usually not work.

The full purge (which runs every three hours by default) does work correctly, so the risk of performance problems is low.

Discovered while investigating TT 650657 which resulted in DR 16941.

Operational Impact: Low. May be confusing to admins that try to change the versions-to-keep value for products.

Required Behavior: Incremental purging should work. (Redmine DR 16950)

220. Problem: AWIPSI: Issue with Time Series Display

In Time Series Control, when display graph for "PP FM Z 6 hr" of a LID, multiple colors are displayed when actually only one item is checked in Toggle Time Series (this dialog is opened by right clicking the in the display).

Even when multiple items are checked in Toggle Time Series, the display stays the same. In addition, when all items are unchecked, the display becomes corrupted.

Operational Impact: The graph for "PP FM Z 6 hr" of a LID is not readable. For 'PP FM Z 6hr' multiple bar graphs from different time zone will be displayed at one time. Also, if you unclick all the items in the Toggle Time Series dialog, the bar graph will be corrupted. This is merely an annoyance and not preventing the site from doing anything

Required Behavior: In Time Series Control, when display graph for "PP FM Z 6 hr" of a LID, by default only bars with a single color will be displayed. If multiple items are checked in Toggle Time Series, then bars with different colors will be displayed. If no items in Toggle Time Series are checked, nothing will be displayed. (DR 16932)

221. Problem: Pressure plotted on PVU surfaces is substantially different on NWP models with fewer grid points (e.g. ECMWF, GFS90)

The values of pressure when plotted on a constant Potential Vorticity Unit (PVU) surface are significantly different (more than 400mb at times) than that of the same forecast hour and model run time of the higher resolution datasets (e.g. GFS40, NAM)

PROBLEM:

The values of pressure when plotted on a constant Potential Vorticity Unit (PVU) surface are significantly different (more than 400mb at times) than that of the same forecast hour and model run time of the higher resolution datasets (e.g. GFS40, NAM)

DATASETS:

The GFS90 and ECMWF (SBN version) were used for this ticket however it may be occurring for other similar models (e.g. those with fewer grid points and thus more spacing between points)...the NAM and GFS40 by contrast are within 1-10mb of each other, while the ECMWF and GFS90 are almost 400mb off when compared to each other and the NAM/GFS40

- This is occurring in AWIPS1 and AWIPSII, however when compared to OB9.16 sites, ICT notes that the values are "more wrong" in AWIPSII, and for all PVU surfaces (0.5, 1.0, 1.5, 2.0)

NOTE: This derived parameters may become sensitive during winter months as higher PV can reach down to troposphere. When that happens, multiple pressure values on a PV surface may occur, sorta like temperature inversion, and which pressure to use is rather subjective when deriving the values. Plotting the pressure at higher PV surfaces, e.g., ≥ 2 PVU, which is defined as the dynamic tropopause, still shows the problems...so this is not a meteorological phenomenon (e.g. "ceaseless wind, tropospheric folding") which may be what the "black hole" regions are on the attached images, that is not the issue here -- the issue is the significant difference in the values.

Operational Impact: Forecaster cannot use the ECMWF, GFS90 (or other LATLON models that may exhibit the same behavior) to model blend or base on dProg/dT; nor can they perform other comparisons to verify the validity of the NWP solution in their forecasting.

Required Behavior: Either document that this is known, or fix the derived parameter/diagnostic calculation.. (**DR16910**)

222. Problem: Tab loses focus when swapping panes of certain radar products

In CAVE, there are specific products that when loaded and swapped to a side pane, can have an "out of focus" tab when being swapped back in. The workaround is to click the screen with the mouse to bring the tab back in focus. Here is a better description of the problem and steps to reproduce from RNK:

1) Load from the kxxx menu, and the 4-Panel Z+SRM/ZDR+V/KDP+HC/CC+SW section, the "All

Tilts Base Data" with 64 frames.

2) Hit the Delete Key (next to End key) to go into single panel display

3) Hit the #6 key on top of keyboard to toggle to Base V (note, we have also seen this with SRM displayed, which is the #5 key)

4) Confirm you can navigate using the keyboard keys, such as left-right-up-down arrow keys, and switching to other products using the numerical keys at the top of keyboard, but go back to Base Vel (#6) before the next step

5) Swap to a side panel

6) Swap your All-Tilts Combo-Panel Dual Pol data back to the main panel, and see if you can manipulate with the keyboard. If

you cannot, note that you CAN still using the mouse with the menu buttons for stepping forward and back, but the important keyboard manipulations are lost.

Operational Impact: In fast paced severe weather, could cause a minor pause in forecaster productivity.

Required Behavior: Tab should remain in focus when being swapped back to main pane. **(DR 16737)**

223. Problem: Rehoused climate F6: Monthly mean temperature can be rounded incorrectly

The site HGX at southern region raised the following issue:

(See attachment CF6 statistical issue for table described).

The CF6 program rounded the tenths place correctly for the average maximum and minimum Temperatures for the month (compare columns 3 to 4 and columns 6 to 7). However, the

program did not round up correctly when computing the monthly average temperature -- compare columns 10 to 12 and columns 11 to 13 for both March and June.

For a check to the CF6 method of finding the monthly average temperature, see columns 8 and 9. Here I computed the monthly average temperature by adding the monthly sums of the daily highs and lows and then dividing that sum by the number of days in the month and then by dividing that number by 2. Note again the differences in March and June.

We could check to see if there was a problem with the CF6 in AWIPS-1 (or even if there was a problem back in the AFOS days) to see if this has been a long-time error. For the time being, I checked NCDC and found that the LCD is available for June (see the attached file). This LCD gives the correct June monthly average temperature of 82.5 and departure of +0.1.

It would be interesting to see if anyone else has found this problem. For now, I think we should at least double check the statistical data that has been computed by the CF6 program. I am also sending a copy of this e-mail to our ITO and our management team to inform them of the problem and to see what we can do to get the program error corrected.

Operational Impact: The person running the CF6 product would have to recognize the error and correct it before sending out. If not corrected, incorrect information is disseminated to public, and site could receive calls from public asking about it.

Required Behavior: Rounding should be standard (ie 82.45 rounds up to 82.5, not down to 82.4) . (DR 15685)

224. Problem: HydroView - RiverMonitor/PrecipMonitor missing FFG and Precip Data

NWSHQ: RiverMonitor/PrecipMonitor.No FFG data was displayed in RiverMonitor/PrecipMonitor.Precip data was not available.Unless the code is changed, netCDF files are needed for FFG data. This is said to be a rehosted application.

Operational Impact:

Required Behavior: . (DR 15489)

225. Problem: MKX: AWIPS II Hydro Database Manager: Missing Lat/Lon in text report B-44A

Site Service Hydrologist called to report a problem in the Hydro DB manager.

Steps to reproduce:

Enter new station

-- Under location

-- Modify location

-- Enters latitude/longitude of station (degrees, minutes,seconds)

-- Converts degrees to % of degrees

-- Save

-- Apply

-- OkNext goes to: Reports -- Text Reports -- Form b44a

The problem is the report says missing for latitude/longitude but if you check the database, the values are there.

Operational Impact: The user has to add by hand lat/lon when he prints out the report. So no operational impact but kind of annoying for the user.

Required Behavior: display latitude and longitude in B-44A report in hydrobase. (DR 14977)

226. Problem: GFE/GHG: GHG monitor is tied too closely to the GFE perspective

Site RNK opened up TT 616837 with the following request. The GHG monitor is tied too closely to the GFE perspective. If you switch to another perspective from GFE, the GHG Monitor window disappears. In AWIPS 1, GHG monitor could be started via command line separately from GFE and in AWIPS 2, there is no way to start the GHG Monitor unless GFE is first opened. Required Behavior: Display of the GHG Monitor should be like in AWIPS 1. The GHG Monitor should be able to be started separately from GFE. The GHG monitor should always be visible regardless of which perspective is open in CAVE. Operational impact: Can take additional time to reopen GFE perspective to view GHG monitor.

Operational Impact: Could take additional time to re-open GFE perspective each time the forecaster wishes to view the GHG monitor.

Required Behavior: Display of the GHG Monitor should be like in AWIPS 1. The GHG Monitor should be able to be started separately from GFE. The GHG monitor should always be visible regardless of which perspective is open in CAVE. Operational impact: Can take additional time to reopen GFE perspective to view GHG monitor. Site contact information: Paul.Jendrowski@noaa.gov, 540-552-1613 x235SSSSSEEEEE Action Taken: (DR 14827)

227. Problem: DR #14803

When Climate program generates a product (RER) WMO header is not put into the product. When the product is opened in Text Editor and the AWIPS Header Block GUI is entered, the lower section (WSFO ID, Product Category and Product Designator) is filled out while the upper one (TTAAii and CCCC) is not. The work around is - user should re-enter Product Category to make the upper section fill out to continue editing the product.

Operational Impact: As there is a work-around it is more a nuisance according to the site.

Required Behavior: The generated product should have the proper WMO heading. **(DR 14803)**

228. Problem: D2D: Unable to load Max/Min T for RTMA in Volume Browser

Reported by Matt Foster of BCQ (816-891-7734): Multiple site's reported that they are unable to load MaxTemperature or Min Temperature for RTMA in VB - D2D. Matt first found this problem on an NA box, but verified it on LXs. This is happening for all scales. He tried this through both the VB and the product browser, they get a no data available alertViz error. From Volume Browser --- SfcGrid - RTMA ----- Sfc/2D-Max/Min T

Operational Impact: Max/Min T from the RTMA is one tool that we use to verify our forecasts. Not having these parameters could make it more difficult for some offices to verify forecasts.

Required Behavior: Should be able to select and load RTMA from the VB. **(DR 14802)**

229. Problem: River Gauge Primary Elements Cannot Be Deleted from Hydrobase

Site TOWN7 in RAH's service area has 2 Primary Elements (PE) for River Stage (HG). One has TypeSrc of 'RZ', the other 'RR'. The TypeSrc RR is unknown data and definitely not river stage...and we would like to delete it. Selecting this entry from the Ingest Filter in HydroBase...it allows us to 'Delete' the data and it disappears from the list of Primary Elements. However, when we then select 'Apply', the data reappears. We then select 'OK', we get PopUp for Unhandled event loop exception. Bottom line...we cannot remove the PE. The exact problem was noted at our primary backup office, RNK, when they tried to delete the HG RR data for TOWN7. *****From TRG - Mark Armstrong - Seems to also occur when you are changing things in the ingest filter. Terry from RAH - They found as a workaround, if instead of clicking apply, if you just do the delete, do not do the apply, and do not do the exit, just click on the X in the GUI, it will delete the element.

Operational Impact:

Required Behavior: Should be able to delete rows from Data Ingest filter dialog in hydrobase. .
(DR 14792)

230. Problem: GFE: Saving to file fails when correcting a product in product editor

AFG site noted that within GFE Format Launcher, any time one uses the Product Editor/Make Correction for any SPS, ZPF, products there is a red banner message that pops-up stating "unhandled loop exception" (see attached screenshot). This has happened on two occasions to different forecasters. Tests showed this occurred to all formatters tried including hazard formatters. Steps to reproduce: 1. In practice mode, create product and transmit it. 2. Select Product Editor/Make Correction from Formatter Launcher's Products menu. 3. Select File > Load Product/Make Correction... Enter the product id to load the product for correction. 4. Select File > Save File. The following exception is received (see attached log file):

```
ERROR 2014-01-16 20:53:28,097 [main] WORKSTATION: WORKSTATION - Unhandled event loop exception
java.lang.NullPointerException at
com.raytheon.viz.gfe.dialogs.formatterlauncher.ProductEditorComp.guessFilename(ProductEditorComp.java:2304) at
com.raytheon.viz.gfe.dialogs.formatterlauncher.ProductEditorComp.saveFile(ProductEditorComp.java:2221) at
com.raytheon.viz.gfe.dialogs.formatterlauncher.ProductEditorComp.access$15(ProductEditorComp.java:2216) at
com.raytheon.viz.gfe.dialogs.formatterlauncher.ProductEditorComp$7.widgetSelected(ProductEditorComp.java:662) at
org.eclipse.swt.widgets.TypedListener.handleEvent(TypedListener.java:248) ...
```

Operational Impact: The first instance AFG WFO noticed this and was reported on 12/28/13 which was an unknown TT (this was opened by Gene Petrescu). In that instance the operational impact would have been more significant because it may cause issues for customers with the PIL and WMO headers in the same line rather than in separate lines. For instance: FPAK51 PAFG DDTTTT CCA ZFPXXX, where the DD - day of month, TTTT - time UTC, XXX 3 letter ID. In every occasion afterward we have only experienced the instance in which the impact is that the red banner appears. In all instances the corrected product in the database is saved and transmits the corrected product as suppose to with the WMO and PIL identifiers on the two separate lines

Operational Impact: The first instance AFG WFO noticed this and was reported on 12/28/13 which was an unknown TT (this was opened by Gene Petrescu). In that instance the operational impact would have been more significant because it may cause issues for customers with the PIL and WMO headers in the same line rather than in separate lines. For instance: FPAK51 PAFG DDTTTT CCA ZFPXXX, where the DD - day of month, TTTT - time UTC, XXX 3 letter ID. In every occasion afterward we have only experienced the instance in which the impact is that the red banner appears. In all instances the corrected product in the database is saved and transmits the corrected product as suppose to with the WMO and PIL identifiers on the two separate lines. POC: Melissa Kreller, melissa.kreller@noaa.gov, (907) 458-3730 SSSSSEEEEE Action Taken:

Required Behavior: Product should be saved to file correctly. (DR 14775)

231. Problem: Time height,series - when swapped to side panel some of time period lost

MKX site notes: with time heights that display in d2d, it displays accurately when on the main window, but it only displays a portion of that forecast time when swapped to the left windows. The full period of time should still display on the left.

Verified on NHDA, compared to A1 (NMTW). In A1 the full time period remains in the display when swapped to side pane. In A2, some of it is cut off. Found that time series display shows the same behavior.

To reproduce:

Open Volume Browser, change from Plan View to Time Height, select an active Source, Field and Plane (Point).

Load the product.

Right click on one of the side panes in D2D to swap the product to the side. Observe that side pane display does not show full time period. Compare to A1.

Do same for Time Series instead of Time Height.

-----Updated by Qinglu Lin on 1/11/2016-----

Attached four screenshots (Rap40*.jpeg and NAME12*.jpeg) show the exact issue:

- 1) The graphics was chopped off in side pane for both RAP40 and NAM12.
- 2) However, RAP40 was chopped off on the right side but NAM12 was on the left side.
- 3) Legends right under the graphic on the x-axis has similar chop-off issues.

Operational Impact:

Required Behavior: When time height or time series display is swapped to side pane, full time period should still be visible. . (DR 14655)

232. Problem: Model names in NSHARP different from common name

In NSHARP, the name of the models are not converted as they are in the Volume Browser such that they are labeled as one of the common models. Example, ETA218 in NSHARP = NAM12 - however, NSHARP displays it as ETA218.

Operational Impact:

Required Behavior: . (DR 14647)

233. Problem: Hydro--purge decodedpa log

Site sent the following e-mail. Logs in /awips2/edex/data/share/hydroapps/precip_proc/local/data/log/decodedpa/ have not been purged since RNK switched over to AWIPS2. SRH has also noticed the problem.**** Found1. In whfs/bin/purge_filesecho " Purging DPA Decoder daily log files..." -- \$fnmfind \$DPA_LOG_DIR \$fnmA2 has /awips2/edex/data/share/hydroapps/precip_proc/local/data/log/decodedpa/decodedpa_log_*2. In A1, log file name is different: see dx3-lwx:/awips/hydroapps/precip_proc/local/data/log/decodedpa/process_dpa_log_10023. It might be A1 use process_dpa and A2 use Run_DecodeDPA, both decode DPA data. In A1, it might be a cron job, and A2 is event triggered.****Should either fix the purge script or program that generate the log file name.

Operational Impact: TBD

Required Behavior: purge log in decodedpa . (DR 14539)

234. Problem: GFE: color issue for TR Wx type

The color for the TR weather type does not match the color for TR in the ISC grid and Official grid. See attached images.To reproduce the problem select or create a Wx grid that includes the TR weather type. Save the grid and publish the grid to the Official database and transmit the grid via ISC. Note the color of the TR weather type in the Fcst database and compare it to the transmitted ISC grid and the Official grid. The color is not always the same if a new GFE is launched. This problem may not be limited to TR.

Operational Impact:

Required Behavior: The colors for any weather type in the Fcst database Wx weather element should be the same as in the corresponding ISC and Official database grids. . (DR 14453)

235. Problem: City of Bedford in Virginia, FIPS code VAC515 becomes obsolete

Site reported the following issue.On July 1, 2013, the Independent City of Bedford in Virginia, FIPS code VAC515 becomes obsolete. This has been updated in the US counties shapefile but needs to be removed from the us_counties.lpi file found in /awips2/cave/etc/basemaps and /awips2/cave/etc/ncep/basemaps. It would be better if the shapefile could be used to plot county names as a map background instead of requiring 2 separately maintained lpi files. Ron Anderson has already looked into this and indicated it would be a small code change to change the County Names bundle. He is ready to check this change in.

Operational Impact:

Required Behavior: Shape file should be used to plot county names instead of lpi file. . (DR 14315)

236. Problem: WarnGen Drop Down Menu Not Sorting Issued Products Correctly

Found during WarnGen FIT @ BCQ and verified on TBDW: The WarnGen Drop Down menu which contains actions for previously issued (active/expiring) products under the active localization is being incorrectly sorted. The incorrect sorting occurs when multiple warnings have been issued for the same product type and after those products have been followed up or additional new products for that product type have been created. Users are still able to correctly issue followups. The list contains the correct product types, ETNs and available actions, but appears to be randomly sorted. In AWIPS 1, products are grouped together and sorted by both Warning Type and ETN. See attached images that illustrate the differences that can occur between AWIPS 1 and AWIPS 2. At the TRG meeting on 7/24/13, it was requested that the following wording be added to the DR description: When right-clicking on the window, we don't want to lose the ability for the followup (any type of followup) to be sorted based on proximity to the point that was clicked on. This functionality has to be maintained when this DR is fixed. In addition, site emailed that <http://www.nws.noaa.gov/os/vtec/EZFollowups.html> shows the change to the followup list when you right-click.

Operational Impact:

Required Behavior: Products should be sorted in a manner similar to AWIPS 1. . (DR 14307)

237. Problem: d2dContourStyleRules.xml error

Site reported seeing the following error for multiple users and workstations when CAVE is started.

```
INFO 2013-05-22 00:16:00,669 [Worker-10] WORKSTATION: WORKSTATION -
d2dContourStyleRules.xml: unexpected element (uri:"", local:"range").Expected elements
are { }displayFlags>,<{ }positiveLinePattern>,<{ }negativeLinePattern>,<{ }displayUnits>,<{ }co
ntourLabeling>,<{ }smoothingDistance> on line 369 column 28
```

```
__*****__
```

Duplicated on NHDA - Start CAVE, and then select an item from the Volume menu.

```
__*****__
```

Cause of error is that in d2dContourStyleRules.xml, the rule for 2m AGL temp/dpt uses the tag <range></range>. This is not a valid tag for d2dContourStyleRules.

NOTE: Error does not prevent data from loading.

Operational Impact:

Required Behavior: There should be no errors about format problems in d2dContourStyleRules.xml . (DR 14176)

238. Problem: Hydro: Flash Flood Guidance Areal FFG Mode UELE error

Launch the Hydro Perspective from CAVE. From the "MapData" pull-down menu, select "Flash Flood Guidance". Set the "FFG Mode" to "Areal". Choose different Areal Types (Zone, County, Basin, All) and select products to display for them. A UELE error is generated for each instance and the data are not displayed. See the attached stack trace FFG_Areal_error.txt

Operational Impact:

Required Behavior: Areal FFG data should be displayed and without errors. . (DR 14165)

239. Problem: GFS40 model run precip display incorrect

HUN site reported For GFS, the Run Accumulation Precip parameter is not showing correct data. It's showing double the amount it should be. For example, through 84 hours, it's showing 5" of rainfall when it should be 2.5".

__*****__

Duplicated on NHDA for GFS40:

From Volume Browser, select GFS40; then in Fields select Sfc/2D->Precipitation. Load the product as an image. Put display back to first frame. Select a single location on the display where at least a few steps worth of precip shows up (overlying Maps->Metar locations can be helpful to pick a non-moving location). Turn on sampling and put cursor on desired location. Make a note of each precip amount while looping through to the last frame using the right arrow key. Add up the individual precip values. In the VB, in Fields box select Sfc/2D->Precip->Run Precip Accum. Load as image, and go to last frame (make sure it is same last frame as above). Turn on sampling and put cursor on same location as above. Compare the value to the summed value from the first part of this procedure. For GFS40 they are not the same.

__*****__

GFS90, GFS360, NAM12, ECMWF_HiRes did not show this behavior.

Operational Impact:

Required Behavior: GFS40 model run precip should show correct accumulated amounts. . (DR 14014)

240. Problem: Order of sampling text reverses at bottom of D-2D display

BOU site reported: With IR Satellite, Lightning, and METAR/Maritime/LDAD plots loaded, noticed that when sampling at bottom of screen, it will put the lines in the wrong order. For example, the information should be displayed as: Line1 Line2 Line3However, when sampling at the bottom of the screen it is displayed as: Line3 Line2 Line1The lines of information are not in the right order, but the data is correct.

Duplicated on NHDA and compared with A1.

If METAR loaded alone, and sampling text is multi-line, the lines are in reverse order. If an additional product is loaded (e.g. satellite), the order of the two products is reversed (as compared to other locations on the display not near the bottom), as well as the multi-line station plot sampling content being in reverse order.

TT 597436 was opened to also make sure this issue is fixed for LDAD products as well as D2D products.

Operational Impact:

Required Behavior: Order of sampling should remain constant at all locations on D-2D display, like A1. (DR 13996)

241. Problem: D-2D: Entry for DSD in dual pol version of radar menu is incorrect

The menu entry for the DSD product (difference between dual pol and legacy Storm Total Precip) in the dual pol version of the D-2D radar menus is non-functional: It does not display a green time and does not load the product. Reported by Steve Keighton at RNK, (540) 552-1041 x3.

Operational Impact: See description.

Required Behavior: The DSD menu entry should display a green time and correct load the product. . (DR 13853)

242. Problem: GFE: pencil tool in ISC mode works incorrectly when using grids

OUN Site reported that when ISC grids from neighboring CWA's have different time constraints (i.e. Sky for OUN is 12 hourly while DDC is hourly grids) the pencil tool operates differently than in AWIPS1. In A2 it appears that the pencil tool only utilizes values where the two grids intersect (i.e. the 12 hour increment). You cannot utilize any of the hourly grid values from the neighboring office to modify your own grid. See attached images for more info. The first image (SkyCover_TimePeriodMatch.png) shows local sky cover and TSA sky cover at the beginning of the Friday time period. The second image (SkyCover_TimePeriodNotMatch.png) shows local sky cover and the TSA sky cover later in the period on Friday. The third image (SkyCover_PencilValueWrong.png) is the result after taking the pencil tool during the TimePeriodNotMatch and trying to drag the values from TSA into our area. The values that get dragged into our area instead are from the TimePeriodMatch. Period match was by clicking right at the beginning of that time period (or the left-hand side of the box). The PeriodNotMatch was by clicking somewhere in the middle **of the period (or somewhere in the middle of the box that represents the time period).**

Operational Impact: TBD**Required Behavior:** The tool should work as in A1. (DR 13794)

243. Problem: GFE: Smart tool hiding does not work in some cases

MSO Site reported: When trying to hide smart tools in the GFE perspective I can put a line in the top of the file HideTool = 1. This works most of the time, but if the WeatherElementEdited = "variableElement", it does not work and the tool is always visible.

Operational Impact: None.**Required Behavior:** In AWIPS I the tool always hide when HideTool is set to 1. . (DR 13459)

244. Problem: Green Times for upper air soundings do not show non-standard times (D 15312)

There are some upper air stations that report non-standard time of observation (something other than 00z and 12z). There are two examples attached. The first is Australia (who report at 5 and 23z) it is shown in AWIPS II as 06Z and 00Z respectively. The next are two sites in Florida (Cape Canaveral and Eglin) who have 15Z and 11Z obs shown as 12Z in the menu.

This DR is dependent on #13298 (Dim 15312) first being worked.

Operational Impact: Forecaster may not have all available data.**Required Behavior:** Product and legend times should be reported as in AWIPS I. (DR 13302)

245. Problem: Buf rua purge rule not being used

While doing regression testing I have found that the default purge rule for BUFRUA (Skew-T) products is incorrect. Currently it is only saving 11 products, in AWIPS I it saves 21. When looking in dx3:/awips2/edex/logs/edex-ingest-purge-yyyyymmdd.log the following messages are shown for buf rua: INFO 2012-08-09 15:10:00,016 [Purge-BUFRUA-Thread] PurgeLogger: EDEX - BUFRUA::Purging expired data... WARN 2012-08-09 15:10:00,099 [Purge-BUFRUA-Thread] PurgeLogger: EDEX - BUFRUA::No purge rules specified. Using default INFO 2012-08-09 15:10:01,885 [Purge-BUFRUA-Thread] PurgeLogger: EDEX - BUFRUA::Purged 0 items total. INFO 2012-08-09 15:10:01,885 [Purge-BUFRUA-Thread] PurgeLogger: EDEX - BUFRUA::Data successfully Purged! INFO 2012-08-09 15:10:01,933 [Purge-BUFRUA-Thread] PurgeLogger: EDEX - BUFRUA::Purge run time: 1917 ms In /awips2/edex/data/utility/common_static/base/purge there is a file buf ruaPurgeRules.xml which does show that it should keep 21 versions. DR 15316 is dependent on this DR. This DR needs to be fixed before 15316 can be worked.

Operational Impact: Forecaster may not have all available data.

Required Behavior: There should be 21 versions of upper air data saved. (DR 13298)

246. Problem: GFE: alertviz messages from text formatter

ILM Site reported: Our office has customized the PFM formatter to include point forecasts for marine locations in addition to the land-based points. Therefore, in the PFM_ILM_Definitions file, we specify these locations using marine zone UGC (AMZ) instead of land zone UGC (NCZ or SCZ). Below is an example of how this is configured in our definitions file. The only significant difference is the use of AMZ instead of NCZ. Definition["defaultEditAreas"] = [("KILM", "NCZ107\nWILMINGTON INTERNATIONAL\n34.27N 77.92W\n32"),("KTTR", "AMZ250\nTOPSAIL TIRE REEF\n34.35N 77.60W\n0")]When the PFM formatter is run, we get warning messages when these AMZ references are encountered. The messages say this:

```
/home/morgan/caveData/etc/configured/ILM/gfe/userPython/textProducts/PFM.py line 424:
WARNING: Entry AMZ250 missing from AreaDictionary. Using default time zone.Although
the message says that AMZ250 is missing from the AreaDictionary, it actually isn't. Note that the
formatter doesn't actually fail. It will produce a correctly formatted PFM which includes our
marine points. However we do get the AlertViz popup every time we run it.Because the
formatter will actually run, this isn't a critical issue. However having AlertViz open up incorrect
warning banners in front of the GFE each time it is run does have at least some operational
impact.Comment: There have been a few DRs of this type. The changes so far have been to
lower the logging level of the messages. To fully eliminate the issue (and thus future tickets and
DRs), we may have to stop sending the messages to alertviz and log them to file only as in
AWIPS I.
```

Operational Impact:

Required Behavior: In AWIPS I the messages are logged to files. The messages can appear due to missing TZ setting of the entries and are misleading in these cases. The TZ setting is not absolutely necessary and the messages are more of an informational nature and probably only useful for the focal points for configuring the formatter.In AWIPS II the messages are directed to alertviz, and they appear in the popup due to the high logging level. The alertviz popup can be confusing to users and is the only issue here. . (DR 13261)

247. Problem: Word Wrap does not work when text entered from Search/Replace

While working with the text editor's Search/Replace function it was found that if what is replaced make the line go beyond 69 characters (either by adding more than 69 characters of text or not) the product is allowed to be sent without fixing the problem. In AWIPS I an error would be thrown making the user fix the problem with a pop-up GUI.

Operational Impact: N/A

Required Behavior: The text should be wrapped into the next line and no line breaks should be created because of the wrapping. (DR 13214)

248. Problem: Svr Wx Plot product time (green time) does not match the time from legend

While testing DR 14543, I noticed that the time on the legend does not match with the product time for Svr Wx Plot under the NCEP/Hydro. I compared to A1 which shows the time on the legend matches with the product time on the menu. The screen prints for A1 and A2 are attached. BCQ site has reported that similar behavior has been exhibited for other products on the same menu.

Operational Impact: TBD

Required Behavior: N/A (DR 13094)

249. Problem: GFE: Improve error message for bad characters in text formatter definitions

APX site reported the error message below. It turned out that he had an errant comma at the end of a definition in a text formatter. The software developer figured out the problem with the following analysis: I had to look at what the Java code was doing at ProductEditorComp.java:427 to see it was related to awipsWANPil. The exception tells me it expected a String and got a java.util.Collections\$UnmodifiableRandomAccessList which is what tuples are translated into for Java. This helped isolate the errant comma. To a regular user however the error has little meaning and therefore it's difficult to know what to look for. Unhandled event loop exception java.lang.ClassCastException: java.util.Collections\$UnmodifiableRandomAccessList cannot be cast to java.lang.String at com.raytheon.viz.gfe.dialogs.formatterlauncher.ProductEditorComp.<init>(ProductEditorComp.java:427) at com.raytheon.viz.gfe.dialogs.formatterlauncher.ProductAreaComp.createProductEditorComp(ProductAreaComp.java:568) at com.raytheon.viz.gfe.dialogs.formatterlauncher.ProductAreaComp.createGridStackComposite(ProductAreaComp.java:538) at com.raytheon.viz.gfe.dialogs.formatterlauncher.ProductAreaComp.initializeComponents(ProductAreaComp.java:266) at com.raytheon.viz.gfe.dialogs.formatterlauncher.ProductAreaComp.init(ProductAreaComp.java:254) at com.raytheon.viz.gfe.dialogs.formatterlauncher.ProductAreaComp.<init>(ProductAreaComp.java:209) at com.raytheon.viz.gfe.dialogs.FormatterLauncherDialog.createProductTab(FormatterLauncherDialog.java:751) at com.raytheon.viz.gfe.dialogs.FormatterLauncherDialog.access\$7(FormatterLauncherDialog.java:741) at com.raytheon.viz.gfe.dialogs.FormatterLauncherDialog\$7.widgetSelected(FormatterLauncherDialog.java:677) at org.eclipse.swt.widgets.TypedListener.handleEvent(TypedListener.java:234) at org.eclipse.swt.widgets.EventTable.sendEvent(EventTable.java:84) at

org.eclipse.swt.widgets.Widget.sendEvent(Widget.java:1258) at
org.eclipse.swt.widgets.Display.runDeferredEvents(Display.java:3540) at
org.eclipse.swt.widgets.Display.readAndDispatch(Display.java:3161) at
org.eclipse.jface.window.Window.runEventLoop(Window.java:825) at
org.eclipse.jface.window.Window.open(Window.java:801) at
com.raytheon.viz.gfe.actions.FormatterlauncherAction.execute(FormatterlauncherAction.java:65
) at org.eclipse.ui.internal.handlers.HandlerProxy.execute(HandlerProxy.java:293) at
org.eclipse.core.commands.Command.executeWithChecks(Command.java:476) at
org.eclipse.core.commands.ParameterizedCommand.executeWithChecks(ParameterizedComma
nd.java:508) at
org.eclipse.ui.internal.handlers.HandlerService.executeCommand(HandlerService.java:169) at
org.eclipse.ui.internal.handlers.SlaveHandlerService.executeCommand(SlaveHandlerService.jav
a:241) at
org.eclipse.ui.menus.CommandContributionItem.handleWidgetSelection(CommandContribution
Item.java:820) at
org.eclipse.ui.menus.CommandContributionItem.access\$19(CommandContributionItem.java:80
6) at
org.eclipse.ui.menus.CommandContributionItem\$5.handleEvent(CommandContributionItem.jav
a:796) at org.eclipse.swt.widgets.EventTable.sendEvent(EventTable.java:84) at
org.eclipse.swt.widgets.Widget.sendEvent(Widget.java:1258) at
org.eclipse.swt.widgets.Display.runDeferredEvents(Display.java:3540) at
org.eclipse.swt.widgets.Display.readAndDispatch(Display.java:3161) at
org.eclipse.ui.internal.Workbench.runEventLoop(Workbench.java:2640) at
org.eclipse.ui.internal.Workbench.runUI(Workbench.java:2604) at
org.eclipse.ui.internal.Workbench.access\$4(Workbench.java:2438) at
org.eclipse.ui.internal.Workbench\$7.run(Workbench.java:671) at
org.eclipse.core.databinding.observable.Realm.runWithDefault(Realm.java:332) at
org.eclipse.ui.internal.Workbench.createAndRunWorkbench(Workbench.java:664) at
org.eclipse.ui.PlatformUI.createAndRunWorkbench(PlatformUI.java:149) at
com.raytheon.viz.ui.personalities.awips.AbstractCAVEComponent.startComponent(AbstractCA
VEComponent.java:195) at
com.raytheon.uf.viz.application.VizApplication.start(VizApplication.java:81) at
org.eclipse.equinox.internal.app.EclipseAppHandle.run(EclipseAppHandle.java:196) at
org.eclipse.core.runtime.internal.adaptor.EclipseAppLauncher.runApplication(EclipseAppLaunc
her.java:110) at
org.eclipse.core.runtime.internal.adaptor.EclipseAppLauncher.start(EclipseAppLauncher.java:79
) at org.eclipse.core.runtime.adaptor.EclipseStarter.run(EclipseStarter.java:369) at
org.eclipse.core.runtime.adaptor.EclipseStarter.run(EclipseStarter.java:179) at
sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method) at
sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:39) at
sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:25) at
java.lang.reflect.Method.invoke(Method.java:597) at
org.eclipse.equinox.launcher.Main.invokeFramework(Main.java:619) at
org.eclipse.equinox.launcher.Main.basicRun(Main.java:574) at
org.eclipse.equinox.launcher.Main.run(Main.java:1407)

Operational Impact: TBD**Required Behavior:** See detailed description. (DR 13033)

250. Problem: hwrnwws fails to store product locally

When troubleshooting a problem with hwrnwws at FSLC for the BOU AWIPS II test, I found that when hwrnwws runs, the product is never stored locally. Something is preventing the AWIPS II CLI (textdb) from completing its textdb -w.

When I run hwrnwws '-t' manually as user fxa, the product will not be stored. However the handleOUP log claims that the product IS stored (it is however fibbing -- do not believe this unless a textdb -r proves it is true)

When I edited /awips2/fxa/bin/textdb and changed the following line:

```
$_PYTHON $_MODULE "$@"
```

To:

```
$_PYTHON $MODULE "$@" 2>> /var/tmp/textdb4.out
```

I found that the following error occurs:

```
ImportError: No module named site
```

I found that the textdb write call is actually called by handleOUP.pl which is called by transferNWWS.pl

When I run handleOUP.pl command by hand, the textdb -w succeeds

When I run the transferNWWS.pl command by hand, the textdb -w succeeds

It is just when transferNWWS.pl is called by hwrnwws does the textdb return the ImportError: No module named site.

I attempted to change the textdb script in AWIPS II and add the PYTHONPATH of /awips2/python/lib/python2.7 however it just yields additional errors at that point.

Secondary issue is that the log file name is set in such a way that it gets created for each new process overwriting the previous log resulting in a loss of debugging capability.

Several TTs have been opened for this issue: MRX 623140, RNK 632841, HNX 645469.

Operational Impact: TBD

Required Behavior: hwrnwvs -t yields a successful local text store without the product coming back over the SBN. . (DR 12435)

251. Problem: Color Scale Truncation - take 2 - TTR6532

In reference to TTR#6394, Track DR#11541, AWIPS II DR#14067 - Color Scale Truncation ? ranked ?Critical? by TRGAt first glance during testing, it appeared that the Color Scale Truncation issue had been fixed which would justify the TTR/DR being closed. However, after exhaustive trial and error, I have found a number of examples for today where the truncation is still a problem. It appears that depending on the day?s value as to how many examples you may find. Today I have found the following examples: DGEX 500mb HeightAK-NAM12 500mb HeightDGEX 850mb HeightGFS360 1000mb HeightGFS90 500mb TemperatureGFS360 500mb TemperatureNAM95 500mb TemperatureECMWF-HiRes 500mb TemperatureUKMET 500mb TemperatureGFS90 500mb VorticityAK_NAM12 500mb VorticitySee attached graphics.

Operational Impact: TBD

Required Behavior: N/A . (DR 12419)

252. Problem: SNOW: Wind Chill, Frostbite Time should not default to 0. - TTR6392

Wind Chill and Frostbite Time should not be calculated if the temperature is too high or the wind speed is too low. In the SNOW table, however, the wind chill and frostbite time are defaulting to 0 (which, at least for wind chill, is an attainable result. Please see th attached image) If conditions are not me, the wind chills and frost bite times should revert to "N/A". Operationally, forecasters won't be fooled by this bad data, but valid results could get lost in the mix.

Operational Impact: TBD

Required Behavior: N/A. (DR 12085)

253. Problem: DMD icon does not change when zooming - TTR6373

Using menu kxxx---kxxx Algorithm Overlays---Digital Mesocyclone (DMD) to load a DMD product to D2D. Then zoom in the display. When zoomed to a certain scale, the DMD icon should enlarge to cover a larger area with further zooming. See the behavior in AWISP I.

Operational Impact: it is useless

Required Behavior: symbol expanding (when zooming). (DR 12021)

254. Problem: NIMNAT message should be on as default

The NIMNAT message should be set on as default, and should be a separate setting, not just the generic announcer.

POC is Steve Hentz. DR #~~11919~~ (Dim 13897) was CANCELED as a duplicate of DR #~~12029~~ (Dim 14007).

The site noted that the regions would like to have the "tinkle.au" as the baseline sound associated with NIMNAT described in DR #~~11919~~.

Operational Impact: TBD

Required Behavior: TBD . (DR 11919)

255. Problem: Put Home Cursor Tool Display rounding issue

In the Put Home Cursor tool if the user types in a Lat/Lon then presses Go, the values input then displayed with more precision than when typed it. For example the user inputs 36.76, -77.24 and then presses Go. The values are then displayed in the GUI as 36.75999832..., -77.2399978...

The values should stay the same as when input. See attached images.

Operational Impact: Values do not exactly reflect location entered by the user.

Required Behavior: Entered values for the latitude and longitude are unchanged when the user selects 'Go'. **(DR 11474)**

**256. Problem: GFE: In product editor, `corrected? misspelled`
`correctedd?`**

HUN site reported a couple of issues with product correction using the product editor. She has seen the following problem with a WSW and HWO product. When any user on any workstation runs a product as a correction, the word "Corrected" is being misspelled "Correctedd". This problem occurs when within the format launcher, a user will select the product to run, then on the Type pulldown menu select RRA (which then becomes CCA), and runs the product, it will have the word "Corrected" misspelled. The problem doesn't occur if the user runs the following steps... Product Editor - Make Correction - LoadProduct, then make the correction in the product - "Corrected" is spelled properly.

Operational Impact:

Required Behavior: After loading product for correction, selection of type RRA should cause RRA to be appended to the WMO heading and ...DELAYED to be appended to MND. Making a change to the text should cause the type to change to CCA, and cause RRA in the WMO heading to be replaced with CCA and ...DELAYED in the MND to be replaced with ...CORRECTED. Changing type to CCB and back should cause the corresponding change in the WMO heading. . **(DR 627)**

257. Problem: AWIPS2 BCQ---Radar data from radar server and LDM are stored differently

This is also happening in NHDA.go to dx1 /data_store/radarAKQ looks like thiskakaq:AAP CZ DPA ET LRM OSD RCM SPD SSD STP TRU V ZAPR DHR DVL GSM MD OSW RSS SRM SSW SW TVS VILCFC DMD EET HI OHP PRR SO SS STI THP ULR VWPbut CCX (for example) looks like thisKCCX:DHR DVL N0R N0V N1Q N2Q N3Q NAQ NBU NMD NVLDPA EET N0S N0Z N1S N2S N3S NAU NCR NST NVWDSP N0Q N0U N1P N1U N2U N3U NBQ NET NTPwhich cause FSI unable to process.See ticket 467746 for more information.

Operational Impact: N/A

Required Behavior: N/A (DR 621)

3. Open DRs and DCSs

This section addresses open DRs and DCSs that have been deferred to the next immediate major release. The DRs identified in this section may have been initiated during the current release or during a previous release. The DCSs may have been initiated from a previous release or initiated in the current release. The CFRs are initiated in the current release.

DRs and DCSs for Release 16.4.1

| Redmine | DR, DCS or CFR | Description |
|---------|----------------|--|
| 19131 | DCS | Remediation of high findings from source code scan - Part 2 |
| 19124 | DCS | Port AWIPS I MPE and Hydro code to Java from native wrapped code (Phase 1) |
| 19123 | DCS | Migrate localization files to common_static (Phase 1) |
| 19122 | DCS | Add Grib Wizard to Localization Perspective |
| 19115 | DCS | Make openfire improvements based on realtime watching of national test |
| 19105 | DCS | Remediation of high findings from source code scan - Part 1 |
| 19099 | DCS | Remove FLASH Products from MRMS product menus |
| 19089 | DCS | NCF - Implement NIC bonding on MHS servers |
| 19084 | DCS | Update BMH to use the new date/time spinner available in the common baseline |
| 19067 | DCS | Add missing capabilities/functionality to the DateTimeSpinner |
| 19064 | DCS | DBGeo Plugin: Configuration file controlled capability for ingest and display of geometry data |
| 19056 | DCS | Remove single implementation interfaces from Data Delivery |
| 19054 | DCS | Improve time entry widget in Calendar dialog |

| Redmine | DR, DCS or CFR | Description |
|---------|----------------|--|
| 19051 | DCS | Enhanced DMW Plugin: Further abstraction of the GOES-R Derived Motion Wind (DMW) plugin is needed to take advantage of pressure level information and add flexibility to implement both GOES-R and Himawari AMVs |
| 19048 | DCS | Losing connection to collaboration chat server should be handled better |
| 19032 | DCS | Remove microEngine dependency from PGEN retrieveActivity utility |
| 18993 | DCS | Collaboration needs preference to play a sound when receiving an invite |
| 18974 | DCS | Improve New Map Projection dialog to support NCP and more use cases |
| 18867 | DCS | BMH: Change coloring for Trigger messages in Broadcast Program dialogs |
| 18817 | DCS | GFE: HPCQPF Grid Definition in AWIPS |
| 18816 | DCS | D2D: HPCQPF Grid Definition in AWIPS |
| 18796 | DCS | Implement new Radar - Shift change checklist product |
| 18795 | DCS | Allow Radar VCP selection via AWIPS |
| 18785 | DCS | Convert LSR Products to Mixed case |
| 18781 | DCS | Frame suppression to support GOES-R |
| 18779 | DCS | Decommision Uengine by enhancing the DAF |
| 18778 | DCS | Performance Improvements for CASA radar |
| 18724 | DCS | Data Delivery PDA |
| 18598 | DCS | Expand availability of Derived Parameters to GFE and DAF |
| 18590 | DCS | NWPS: Baseline all coastal domains |
| 18351 | DCS | Updates for new PQPF data |
| 18218 | DCS | Investigate having thin client proxy at regional HQs reject requests to uEngine |
| 17912 | DCS | Add capability to import and plot GeoJSON object files |
| 17830 | DCS | Just in Time Training Plugin |
| 17826 | DCS | Jason Altimetry Products |
| 17825 | DCS | Ingest and Display NOS data (unstructured) |
| 16915 | DCS | Initial Migration from AFOS PILS to AWIPS ID |
| 13499 | DCS | Missing Precipitable Water % of Normal in VB |
| 19332 | DR | GOES-R - DMW ingest fails |
| 19331 | DR | Services on central registry cause server to be constantly in swap |
| 19330 | DR | PDA: Cannot create an adhoc query for a specific date |
| 19329 | DR | PDA retrieval process incorrectly reports successful retrieval when products are failing |
| 19328 | DR | PDA Metadata parser broken |

| Redmine | DR, DCS or CFR | Description |
|---------|----------------|--|
| 19327 | DR | DD PDA: When zoomed into the mapscale, only the colorbar and the product legend will display when loading of a PDA product |
| 19316 | DR | Rehosted climate F6: Monthly mean temperature can be rounded incorrectly |
| 19308 | DR | Registry internationalstring and localizedstring tables not being purged |
| 19307 | DR | Localization files have not been migrated over from edex_static to common_static |
| 19305 | DR | Database permissions cause failures on EDEX/CAVE startup after clean install |
| 19304 | DR | EBXML hibernate queries are returning the cartesian product of all slots on queries. |
| 19303 | DR | MPE Daily QC: UELE when loading a date with saved Level 2 data. |
| 19302 | DR | PDA: Registry jvm takes over an hour to start with PDA subscriptions active |
| 19301 | DR | Registry is dropping replication events |
| 19294 | DR | GOES-R "Hide incomplete Frames" feature is listed for each GOES-R product loaded |
| 19248 | DR | GFE - runProcedure.py fails after Jep 3.5 upgrade |
| 19238 | DR | Upgrade script for DCS 19131 doesn't hit all databases |
| 19207 | DR | File missed in upgrade of Openfire in 16.4.1 |
| 19205 | DR | Error is returned when running the AFM formatter in GFE |
| 19197 | DR | June 2016 Security Patches |
| 19171 | DR | NCF Bandwidth Manager persistence issue at start up |
| 19170 | DR | The Version menu becomes dithered/inactive in the Text Display window when the cursor is in the AWIPS ID, or WMO TTAAii CCCC textboxes |
| 19169 | DR | Geometry in ActiveTableRecord causing OutOfMemory errors on ingest JVM |
| 19168 | DR | Cryptacular java lib missing, 16.4.1 registry won't start |
| 19159 | DR | HPE Not Inserting Correct Data Source Value into HpeRadarResult DB Table |
| 19146 | DR | BMH scheduling, issue with changing suite |
| 19137 | DR | GFE: PlotSPCWatches failed to run - database deadlock |
| 19133 | DR | DD: Data Provider Agent does not work after 16.4.1 CXF upgrade |
| 19120 | DR | Generate single retransmission request for each missing product with LDM |
| 19113 | DR | Shared displays are broken due to collab-dataserver errors |
| 19085 | DR | Dac Transmit does not retry audio reads on failure |
| 19083 | DR | GOES-R true color is broken |
| 19081 | DR | Station NCKN6 from ALY showing values of 'zero' in site |

| Redmine | DR, DCS or CFR | Description |
|---------|----------------|---|
| 19077 | DR | GFE: Product Editor word wrapping issue |
| 19073 | DR | EDEX environment instances not being checked correctly, so only one can be run at a time |
| 19068 | DR | DD: Pressure Levels in Subset Manager Subscriptions are not sorted correctly |
| 19065 | DR | pypies is touching all files on repack instead of files that have changed |
| 19063 | DR | True Color capability only works with open GL rendering |
| 19062 | DR | FSSObs has warnings with some sky covers |
| 19061 | DR | Orphan purging not working |
| 19060 | DR | Colormap names are not restored after reverting a change in the colormap |
| 19059 | DR | Errors decoding profiler data |
| 19058 | DR | Unable to delete folders in the Localization Perspective containing only USER-level files |
| 19057 | DR | GiniSatelliteDecoder incorrectly orients scanMode=3 data |
| 19053 | DR | Indices not set in IDataRecord returned from slab retrieval |
| 19050 | DR | SAILS : A combination of arrow key strokes returns incorrect frames with tdwr All Tilts data |
| 19047 | DR | Confusing chat room behavior when trying to rejoin a room that you left |
| 19046 | DR | Prints from Python to stdout no longer appear in the CAVE console log |
| 19045 | DR | AWIPS 2 parameter lookups in DD should allow for Wind barb drawing etc. |
| 19044 | DR | MPE: Unhandled event loop exception when adding a pseudo gage |
| 19043 | DR | Graceful shutdown stopped an internal route too early |
| 19042 | DR | MPE - UELE error received when opening Gages->QC Freezing Level |
| 19041 | DR | MPE - Opening multiple/concurrent QC dialogs should not be permitted |
| 19040 | DR | MPE: PseudoGage displayed different value from what was set in the Gage Table |
| 19031 | DR | Registry drops replication event tables when restarted |
| 19001 | DR | Shefdecoder fails to automatically create an entry in the IngestFilter database table when token shef_load_ingest is ON |
| 19000 | DR | The width of the 'Add Notifier to' dropdown menu is too small; initially loads name with right justified formatting |
| 18999 | DR | Provide ability to see jids (i.e. usernames) in Collaboration tab |
| 18998 | DR | Collaboration needs more advanced logging to properly diagnose issues |
| 18996 | DR | Complete the migration of proper punctuation as part of the Mixed Case efforts |

| Redmine | DR, DCS or CFR | Description |
|---------|----------------|---|
| 18994 | DR | Collaboration Server Login window can be opened multiple times |
| 18992 | DR | Add a double click option in the Room Search dialog to join a room |
| 18991 | DR | Chat scrollbar can be positioned incorrectly when switching tabs |
| 18985 | DR | VIR switch updates to access new ats1 ssh port |
| 18972 | DR | 16.4.1 Build and Merge Support |
| 18970 | DR | Fix FOSS manifest version numbers |
| 18959 | DR | Novra S300 DVB Receiver Monitoring and Collection Tool |
| 18953 | DR | D2D: NLDN and ENTLN stats plotting incorrectly |
| 18946 | DR | D2D display of CIMSS Probability Severe Model sometimes throws Paint error |
| 18943 | DR | CAVE Collaboration plugin should have BASE config.xml |
| 18940 | DR | GFE: Product Editor not wrapping first line of text |
| 18939 | DR | Generalize WMOHeader class regular expression to eliminate LightningWMOHeader class. |
| 18908 | DR | Warning expiration notice message appears immediately after issuing a warning in simulated time |
| 18907 | DR | Warngen pathcasts do not work with WES-2 Bridge in simulated time |
| 18897 | DR | CAVE shutdown closes Views before initiating closing process |
| 18871 | DR | UELE/paint errors in Hydro perspective point data control |
| 18800 | DR | Remove WSR-88D Alerting functionality from AWIPS |
| 18798 | DR | D-2D Radar NEXRAD Unit Status incorrectly reports Backup Comms status as Unknown |
| 18797 | DR | Radar - remove from AWIPS those products that are obsolete in WSR-88D Build 17 |
| 18774 | DR | HWR: Buffer limit prevents display of more than approx. 115 stations in RWR product |
| 18762 | DR | GOES-R - Alaska sector navigation problem |
| 18755 | DR | DD SBN data being sent to ingestGrib |
| 18753 | DR | RiverPro MND needs to be updated to match Mixed Case Guidelines |
| 18743 | DR | BOIVerify: Issue with data on which forecaster edited the grids |
| 18736 | DR | MPE Gage Table: satellite values are off by 1 hour compared to the display |
| 18735 | DR | Unable to delete user-created subset area in data delivery |
| 18728 | DR | RadarServer cluster installs do not share configuration data |
| 18726 | DR | Remove patched gov.noaa.nws.ncep.edex.uengine.jar |
| 18653 | DR | AvnFPS: AvnFPS program freezing when TAF packages autosaves |
| 18622 | DR | Radar: OTR elevation list active radars unsorted and contains duplicates |

| Redmine | DR, DCS or CFR | Description |
|---------|----------------|--|
| 18594 | DR | GFE: Error in SAF Formatter Overrides causes incorrect end of line period |
| 18587 | DR | CWSU ThinClient: Implement functionality to prevent /home directory filling up over time. |
| 18567 | DR | Himawari-8 satellite products have shifted to the northeast |
| 18547 | DR | TextWS: Can not edit WRK products in text window that have a ZCZC header but no empty following line. |
| 18542 | DR | Issue with "Populate_SkyTool" base line smart tool |
| 18517 | DR | EDEX Purger: The selectedRetentionHours tag in the RAW_DATA.xml and PROCESSED_DATA.xml are not being honored |
| 18507 | DR | Crest History checkboxes get checked when new crests added |
| 18438 | DR | TextWS: No space at the end of lines makes wrapping not work in some cases. |
| 18409 | DR | ArealQpeGenSrv is not working |
| 18376 | DR | MPE: Daily QC: error when trying to run from the top menu |
| 18365 | DR | TextWS: Automatic filling out of AWIPS Header Block GUI fields problem. |
| 18352 | DR | AvnFPS Text Editor hardcoded background color for discrepancy check |
| 18346 | DR | BiasCorr_all.sh script error |
| 18253 | DR | EDEX Fails to Handle End-of-month Metars |
| 18169 | DR | Bug in BOIVerifyUtility getStatModelCases method |
| 18159 | DR | Warngen: portion of zone incorrect if zone table has two records for same zone |
| 18114 | DR | GFE Text Products showing in GMT rather than MST |
| 17885 | DR | No way to select TDWR elevations below 0.5 in RMR GUI |
| 17748 | DR | Error in NEXRAD Unit Status with MESO-SAILS |
| 17642 | DR | Lifted index issue reporting in units of Kelvin but labeled as Celsius |
| 17507 | DR | NAM12 Thunderstorm Probability (Tstorm Prob) displays only 0 HR forecast |
| 17470 | DR | chps_backup_weekly failing to run |
| 17453 | DR | AvnFPS: Problem with syntax checking |
| 17411 | DR | Local (LDAD) obs are not displaying precip data during rain events |
| 17295 | DR | AvnFPS: "Save As" function not working properly |
| 17213 | DR | GFE: Problem with rsyncGridsToCWF_client.sh (rsyncGridsToCWF.sh) script |
| 16940 | DR | Loss of pan and zoom features in main D2D panel when NWS Collaboration |
| 16834 | DR | WAN backup products are not ingested |
| 15633 | DR | GFE: Weather Element cannot be created with WFO type "NC" in its name |

| Redmine | DR, DCS or CFR | Description |
|---------|----------------|--|
| 15543 | DR | RDUWRKLCO is being sent to the shefdeocder but not making to the database |
| 15030 | DR | HPN data not being produced in Grib format in AWIPS2 |
| 14895 | DR | Multiple LAPS fields not created properly |
| 14857 | DR | CCFP products not displaying when no convection is forecast |
| 14758 | DR | GFE: Spell checker does not replace all the selected words in GFE |
| 14687 | DR | Text products with FOUS12 KWNO header not stored with expected AFOS PII |
| 14622 | DR | LSR: Update script for copying spotters list for 64-bit workstations |
| 14504 | DR | KRF---AWIPSII---A2 version of shef_decode_raw crashing on certain messages |
| 14493 | DR | D-2D: map background blinks or appears and disappears with zooming |
| 14331 | DR | GFE: Extrapolate Procedure in GFE moving grids in wrong direction |
| 13977 | DR | Missing Hydro QPE products in D2D |
| 13824 | DR | TextWS: Non-US METARs do not auto update. |
| 13773 | DR | Svr Wx Plot poor behavior |
| 13221 | DR | Time Options does not work for NSHARP soundings |
| 12353 | DR | Localization Perspective Allows Multiple Users to Edit Files Simultaneously With |
| 9631 | DR | MDCRS/ACARS Sounding does not display dewpoint curve |
| 7587 | DR | The NWRBrowser GUI doesn't open when selecting Edit Climate Product in the Monitoring Controller GUI |
| 272 | DR | goes/poesBufferStationInfo.txt file not processed properly by ndm endpoint |
| 18930 | CFR | Update security FOSS to match CXF 3.1.5 - org.bouncycastle (bcprov) |
| 18929 | CFR | Update security FOSS to match CXF 3.1.5 - org.apache.ws.security (wss4j) |
| 18928 | CFR | Update security FOSS to match CXF 3.1.5 - org.apache.xml.security (xmlsec) |
| 18904 | CFR | Address POA&M #69895. |
| 18845 | CFR | Upgrade ActiveMQ to 5.13.x |
| 18844 | CFR | Add jasypt 1.9.2 foss |
| 18842 | CFR | Update security FOSS to match CXF 3.1.5 - openSAML |
| 18841 | CFR | Upgrade org.apache.commons.collections to 3.2.2 |
| 18840 | CFR | Upgrade Apache HttpClient to 4.3.6 |
| 18839 | CFR | Upgrade Apache CXF to 3.1.5 |
| 18838 | CFR | Upgrade spring framework to 4.2.4 |
| 18837 | CFR | Upgrade camel to 2.16.2 |

| Redmine | DR,
DCS or
CFR | Description |
|---------|----------------------|--|
| 18836 | CFR | Upgrade Jep to 3.5 |
| 18835 | CFR | Upgrade jetty to 9.2.14 |
| 18820 | CFR | Upgrade Jackson json to 2.6.5 |
| 18520 | CFR | Python Modules for RFCs |
| 18297 | CFR | Apache HttpClient-3.1 vulnerable and end-of-life -> Replace with Apache HttpComponents |
| 18163 | CFR | Upgrade Openfire to 3.10.2 |

4. Design Changes and COTS/FOSS Requests

71 Design Changes and 21 CFRs for release 16.2.2 are summarized in this section.

1. Redmine DCS_19263

NWRWAVES - Copy messages to "nwr/sent" directory after sending to BMH

The SendToNWR script (part of NWRWAVES) is currently used to send NOAA Weather Radio message files to CRS, BMH, or both, for transmission over NWR. If its run mode is CRS or BOTH, a copy of the message file is saved to the nwr/sent directory, and can be accessed by the NWR Browser GUI. WFO personnel have expressed a strong desire to do the same if the script is running in BMH mode, to allow them to adjust SAME tones, resubmit messages, etc. A simple 5-line change to this script will implement this.

2. Redmine DCS_19028

Collaboration should provide an optimized extension for PointSet rendering

Several new products are being rendered using the pointset plugin and triangulation. For OpenGL, there is a custom graphics extension that can render this very efficiently and accurately. For collaboration there is no custom graphics extension so it falls back to using a generic rendering method which projects the triangles onto an image. This has the disadvantage that it is sending more data (using more bandwidth) and the data is less accurate. It does have the advantage that the generic rendering is fully backwards compatible so remote users can view the pointset data even without having a newer version of CAVE.

Collaboration will need to implement a custom extension that sends the triangulation information similar to the way we send existing colormap data and mesh information. In order to maintain backwards compatibility this task must be split into 2 parts

1. First CAVE must support receiving triangulated rendering messages and have the ability to load the GL extension and display the data. At this time CAVE will not send triangulated messages so it will only actually render them if it receives messages from later versions of CAVE.
2. Several releases later, after all fielded versions of cave have the first change we should add the custom collaboration extension so that the leader will begin sending triangulated messages.

3. Redmine DCS_18938

MHS, to support PGEN XML file sharing between sites

Add MHS configuration code 60 to the receive handler table, and the script that is invoked for that code.

4. Redmine DCS_18764

SBN & NWWS Data Availability Metrics Collection

Develop a temporary system to collect data from NCF and subset of AWIPS sites for computing SBN data availability. This will be identical to the metrics reported by PAMS system.

Log files for GOES, NMC, and NMC2 are collected from the NCF and from a subset of AWIPS sites for the SBN data availability report.

The number of GOES, NMC, and NMC2 products broadcast over the SBN and received at the specific AWIPS sites is extracted from the log files.

The success rate (percentage of products transmitted that were successfully received) for individual sites are calculated.

Total number of NMC and NMC2 products that were retransmitted from the NCF is reported.

The average SBN data availability is calculated.

List of sites used for data collection:

AFC AFG AWCN BOI BOU BOX BYZ EAX FWD HGX HPCN HUN MKX MTR OAX OKX
OPCN OUN PQR PTR RNK SLC SPCN

5. Redmine DCS_18733

Add 20km Pacific GFS grid and remove 381km GFS data

This includes the removal of 381km (data to be turned off in March 2016) and addition of the 20km Pacific grid. The 20km grid has already been sent through no-harm and there is an approved DRG RC 14467. Include appropriate menu updates.

6. Redmine DCS_18729

CAVE: Increase java heap space from 4096M to 6144M in cave.ini and wfo.ini files

Now that all sites have the upgraded LX machines with 32 GB RAM, the Java heap space allocated to each CAVE session can be safely increased up to 6GB from 4GB. Current usage guidelines are for sites to run no more than 3 CAVEs at a time, which at 18GB total, should be no problem with 32GB total. This change will all users to do memory intensive tasks without risking running out of Java heap space.

In the cave.ini file, change the line

-Xmx4096M

to

-Xmx6144M

7. Redmine DCS_18711

NSHARP improvements for 16.2.2

NSHARP provides interactive sounding analysis in the AWIPS II National Centers Perspective. The National centers use the capabilities of NSHARP to augment their forecasts. NSHARP was originally written as part of

N/AWIPS and remains an operational requirement for their use in AWIPS II. These bug fixes and enhancements provide functionality as close to what they now use in N/AWIPS.

8. Redmine DCS_18710

NCEP CAVE Plugins for 16.2.2

Bug fixes and minor enhancements to support NCEP migration to AWIPS II.

9. Redmine DCS_18709

NCEP EDEX Plugins for 16.2.2

Bug fixes and minor enhancements to support NCEP migration to AWIPS II.

10. Redmine DCS_18699

Consolidate DD registry/centralRegistry modes with ebxmlRegistry mode

The original way to start the registry was created with in DD and was a mode called "registry".

There is now, thanks to the removal of registry from DD, several modes to start registry in.

Not all of these are specific to DD. The registry itself is free of DD plugins. DD and HS modes should simply depend on the "ebxmlRegistry" mode. We can then remove registry specific plugin/bean definitions from DD and HS modes so they are not listed multiple times.

11. Redmine DCS_18690

Add support for short data to the PointSet plugin

Evan Polster (developer at GSD), Scott Longmore (A Research Associate with CIRA) and others have been experimenting with the PointSet plugin and trying to ingest new data. Some of that data is stored in netCDF files using shorts. One of the biggest limitations of the pointset plugin is the performance of loading all the data because of the overhead from the Lon/Lat arrays. If the data is naturally shorts then it would be good if we could get it all the way through the system as shorts so that it could load quicker and we could support more points with good performance.

Currently the NetCDF PointSet decoder is able to decode and store the short datatypes but the display is not working. Also the decoder is discarding the scaling and offset information which is important for making nice displays

Scott Longmore has provided details on his attempts to display the data and also sample data we could use for testing:

The NESDIS NSOF NPP ATMS data has some short variables (with scale/offsets) originally. I ingested them into EDEX both as short and recast as integer (using the NCO utilities) but they wouldn't display in CAVE. Used the NCO operators to cast them as float and then they displayed in CAVE. I have an example of the original (short), integer and float files...

The files have been downloaded to /awipscm/bsteffen/data/polar_sat/NPP_ATMS

12. Redmine DCS_18678

ByteArrayOutputStreamPool doesn't allow for safe data access after close

Some output streams that would wrap ByteArrayOutputStream aren't fully done writing until after close() is called. Since close() automatically returns the stream to the pool, this makes it incompatible with wrappers like ZipOutputStream. One suggestion is to make two getter methods from the pool; one stream that auto returns on close and one that must be explicitly returned to the pool. The returnToPool method should be made to handle both auto returning and non-auto returning streams safely since someone might be confused and return an auto returning stream to the pool explicitly.

13. Redmine DCS_18688

EDEX should periodically monitor tables for need to reindex

We have repeatedly gotten phone calls or emails about performance slowdowns that have been traced to a need to reindex a postgres table. This is inevitable due to the continuous churn of ingesting and purging data. However, the performance should never be allowed to degrade to the point where users notice significant slowdowns. EDEX should periodically monitor tables [somehow] and detect if a table is in need of a reindex. This detection should perhaps be partially configurable, much like garbage collection, as to what thresholds indicate time to reindex.

Because reindexing is relatively lightweight, EDEX should just go ahead and reindex tables as necessary when detected, but log plenty of information about what it is doing.

14. Redmine DCS_18687

Isolate simple text product decoding

Many different text products come with WMO headers. Currently, the text plugin has a lot of responsibilities outside of decoding and storing text products such as subscriptions and textdb retrieval services. To promote code reuse, it would be beneficial to isolate the logic that takes in a WMO message, separates it, and parses the various headers. This would accommodate situations where only simple ingestion of text is required.

15. Redmine DCS_18685

Update JAXBManager for Java 7 (maintain backwards compatibility)

Currently, JAXB Manager is still primarily using Java 6 capabilities. JAXB Manager still uses: java.io as opposed to java.nio. So, all newer code that started utilizing java.nio after the transition to Java 7 must switch back and forth between using java.nio and java.io when interacting with JAXBManager.

16. Redmine DCS_18684

Menu variable substitution cannot substitute variables

For VLab Issue 14581 - DCS18425 they want to add a bunch of nearly identical submenus to the radar menu. During code review it came up that we could reduce the redundant xml by using menu substitutions like this:

```
<contribute xsi:type="subinclude" fileName="menus/radar/radarMosaicProductMenu.xml">
<substitute key="mosaicIcaoList" value="{northeastList}" />
</contribute>
```

Unfortunately that doesn't work because we do not do variable substitution on variable substitution values. So mosaicIcaoList was literally "{northeastList}" instead of evaluating that substitution and getting "kcbw,kcxx,kgyx,kyx,kenx,kbox,...." and since there is no radar with an icao that is "{northeastList}" you end up with no data.

This DR will enable that type of substitution.

17. Redmine DCS_18677

Replace calls to deprecated LocalizationFile methods in Raytheon edex/common/viz plugins

Various methods on LocalizationFile have been deprecated. In each case javadoc indicates a better method. Do a sweep through the system of com.raytheon.edex/common/viz.* and com.raytheon.uf.edex.* plugins, replacing calls to deprecated methods with the better replacement methods. Also, where possible without introducing risk, switch code using LocalizationFiles to instead use ILocalizationFiles.

18. Redmine DCS_18671

UtilityManager should optimize checksum loading of large directories

When listing a directory, the UtilityManager currently loads a checksum file for each file in the directory. For directories with hundreds of files, the opening and closing of all the checksum files becomes a bottleneck. We should find some way to optimize this so the IO doesn't take as long.

The most notable impact is derived parameters which routinely has 800+ files at the common_static base level in one folder so requires opening and closing 800+ tiny files to do a listing.

One option for how we could make it better would be to write all the checksums for all the files in a directory to a single file. This might be bad for frequently changing directories so if we want to be conservative we could start off applying this concept to base since it rarely changes. This has been abandoned do to timing concerns

Another option is to just use an in memory

19. Redmine DCS_18670

ebxml-thrift-client-route.xml duplicates much of request-service.xml

The registry JVM offers an http endpoint to listen for thrift requests. Perhaps in the past this needed special behavior, but now that endpoint has devolved into a copy of request-service.xml except with a different port.

ebxml-thrift-client.xml then duplicates another piece of request-service.xml. Ideally we should be able to reuse request-service.xml but have the registry JVM offer slight changes through properties files as necessary (such as the port). This would reduce the amount of xml we have to maintain.

20. Redmine DCS_18643

Rework thin client connections (JMS) preferences to be more intuitive

The thin client connectivity dialog currently has a checkbox for "Disable JMS". It's been voiced that this is not intuitive. Furthermore, this item is available in the thin client preferences, with the following options:

- Disable JMS
- Disable Menu Times
- Menu Time Update Interval (min)
- Data Update Interval (min)

In our system we use JMS for push notifications of new data arriving and being ingested. For thin client, if JMS is disabled, we do timed polling and pulling of new data. We need to reword or rethink these options to alleviate confusion. Technically, JMS is available within the NWS network (CWSUs) but not available to users outside the firewall on the open internet (IMETs). We have some options:

1. Hide the option altogether, and just detect if JMS is available or not based on a connection exception. (Note the option is really helpful for testing and development though).

2. Reword disable JMS to something more intuitive. First it's something of a double negative where you check a checkbox to disable something, as checking a checkbox is usually enabling something. So we could reverse it and do something like "Enable Time Refreshes".

3. Reword the whole set of options into something more intuitive. An example could be a radio button where you choose push or timed pull of new dat. It could also be a combo box dropdown.

Consider dropping the menu time update interval leaving only the data update interval.

Also, there was a request that users outside the firewall on the open internet shouldn't have to click the Use Proxy Server checkbox, however, using that checkbox makes CAVE alter its addresses for connections so that may not be easily feasible.

Investigate options and come up with an intuitive user interface for thin client connectivity and preferences.

21. Redmine DCS_18628

Remove dataURI from database where possible

Storing dataURI in the database causes a lot of unnecessary overhead since it's already stored in the database as its individual fields. Initial work was completed under #14200, and this is a follow on. Unique constraints will need to be updated on many datatypes to match what used to be in the dataURI. dataURI will be removed from the following plugins:

bufncwf

bufsigwx

cwa

svrwx

tcg

tcs

22. Redmine DCS_18615

Format query results on the EBXML registry web interface query page into a more user friendly format

The query page on the EBXML registry web interface currently returns the query results in unformatted XML. This makes it somewhat difficult or at the very least, inconvenient to find the results you are looking for. XSLT was used to transform the results into a more readable and user friendly format. This will be a useful enhancement for other developers and even the customer to have the query results returned in a more readable format.

23. Redmine DCS_18614

PythonJobCoordinator API code enhancement

The PythonJobCoordinator API is powerful but confusing. It needs to be cleaned up and documented better. Some suggestions:

1. The threadLocal that exists in the PythonJobCoordinator instance is confusing. It's there to be passed along when jobs/tasks are submitted, but it should reside in some kind of intermediary or internal object instead of on the instance itself.
2. getInstance() vs newInstance() is confusing. With newInstance(), the developer must always call shutdown() to ensure memory is cleaned up. We should only have one or the other and the documentation should be forceful about the need to call shutdown.
3. shutdown() is a misleading name for the method since it only shuts down if the refcount hits zero. It could be renamed for clarity.
4. PythonThreadFactory should not be visible outside of the package. It's purely internal.
5. PythonThreadFactory.PythonThread should have documentation that the finally block in run() will only occur when the executor service is shut down. Furthermore, after calling threadLocal.get().dispose() it should call threadLocal.remove() for good measure.
6. shutdownTask(String) is not implemented. It has a TODO. It's misleading if someone doesn't open the source code and assumes it will work. The naming and arguments should be updated to match the submit methods, i.e. either submitSyncJob(IPythonExecutor) and cancelJob(IPythonExecutor) or submitSyncTask(IPythonExecutor) and shutdownTask(IPythonExecutor). (And same for async). Meanwhile if it's not implemented, we should throw UnsupportedOperationException or some kind of not implemented yet exception so no one who calls it will expect it to work.

24. Redmine DCS_18613

EDEX GFE startup should initialize on its own thread

When EDEX starts up, GFE is activated/initialized on the EDEXMain thread. This slows down startup as this can be a blocking action (if another cluster member is activating GFE at the time) and a lot of work is done on startup. Furthermore, by using EDEXMain thread the same thread is used for multiple python interpreters, which has been discovered to be a notable risk to system stability (i.e., deadlock or crashes).

Change the EDEX GFE activation code to spawn a separate thread at startup to perform GFE startup actions. This way startup can be sped up and not entirely blocked if another cluster member is starting GFE. However, do not start the camel contexts until GFE has completed startup as otherwise problems could result.

25. Redmine DCS_18612

Use netcdf data description in goesr decoder

#16984 and #17689 created new, shared xml elements to use when describing netCDF data and how to map the fields into a PluginDataObject. Some of these elements are very similar to the existing description xml used by GOES-R but they are different enough that it will be confusing. The GOES-R description format should be updated to match the other two wherever possible.

For example, here is the current dateTime description for GOES-R:

```
<dateTime attribute="time_coverage_start" dateFormat="yyyy-MM-dd'T'HH:mm:ss.S'Z'" />
```

And this is what it looks like in the new common format:

```
<dateTime>
<formattedRefTime dateFormat="yyyy-MM-dd'T'HH:mm:ss.S.'Z'">
<attribute name="time_coverage_start" />
</formattedRefTime>
</dateTime>
```

26. Redmine DCS_18611

16.2.2 NCEP Support

This DCS covers requested changes from NCEP made by Omaha to support NCEP development.

27. Redmine DCS_18603

Handle GOES-R products received in the Center/Test position

The current baseline will handle the East and West, but not the Center/Test location.

Below are the paths to sample files required for the Center/Test products so that they will be described, placed into the database, available for pull-down in the CAVE D2D menu, and purged. We tested these config files with live Center/Test psn data during the Oct 2015 GRE, and are actively testing them on our local systems.

GOES-R center/Test position

Description files: (describes Imagery and L2+; new files not in baseline)

/awips2/edex/data/utility/common_static/base/satellite/goesr/descriptions/Level2/GOES-Test-Sectors.xml (new file)

/awips2/edex/data/utility/common_static/base/satellite/goesr/descriptions/Sectorized_CMI/GOES-Test-Sectors.xml (new file)

(note, above two file names are the same, but to different dir paths)

Menus: (Adds Test/Center position as pull-down options; all files are edits to existing baseline files of the same name, which currently account for East and West positions only)

/awips2/edex/data/utility/common_static/base/menus/dmwMenu.xml

/awips2/edex/data/utility/common_static/base/menus/goesrBySectorByChannel.xml

/awips2/edex/data/utility/common_static/base/menus/goesrBySectorLocallyDerived.xml

/awips2/edex/data/utility/common_static/base/menus/goesrBySectorRGBComposites.xml

Purge: (Purges GOESR Center/Test data, added to existing baseline file of the same name, which currently accounts for East and West positions only)

/awips2/edex/data/utility/common_static/base/purge/satellitePurgeRulesGOESR.xml

28. Redmine DCS_18072

VIIRS Imagery Updated NCC Color Table and VIIRS Purge Rules

1. Install a new default color table, VIIRS Near-constant contrast (NCC)/ Day-Night Band product, which generates pseudo-albedo values: NCC_zero_to_one.cmap
2. Update the VIIRS imagery styleRules file to point to the new color table.
3. Add a purge rule file for current VIIRS imagery channels. None is included in the 16.1.1 baseline.
4. Add 3 colortables for the GOES fog and low stratus (FLS) product.

The current AWIPS2, default color table (ZA (Vis Default).cmap) has a linearly varying grayscale palette (range of 0-1.6) with black specified at the top of the scale for highest albedo values, where values are otherwise

white. Many clouds are moderately bright, while areas where there should be bright city lights (e.g., ≥ 1.6) contain black values, and washes out the bright areas. The new color table fixes this discrepancy and maintains

white color at the top of the scale. The new styleRules file points to the new table (NCC_zero_to_one.cmap), and is otherwise

Files:

- awips2/edex/data/utility/common_static/base/colormaps/NPP/VIIRS/NCC_zero_to_one.cmap
- awips2/edex/data/utility/common_static/base/styleRules/viirsImageryStyleRules.xml
- awips2/edex/data/utility/common_static/base/purge/viirsPurgeRules.xml
- awips2/edex/data/utility/common_static/base/colormaps/Sat/MVFRPROB.cmap

- awips2/edex/data/utility/common_static/base/colormaps/Sat/LIFRPROB.cmap

- awips2/edex/data/utility/common_static/base/colormaps/Sat/IFRPROB.cmap

Updated via email (2/5/2016) from Lee Byerle:

The NCC "zero to one" color table should replace the current baseline colormap entitled "ZA (Vis Default)", located in:

/awips2/edex/data/utility/common_static/base/colormaps/NPP/VIIRS. The new color table is intended for the Channel 10/Mod Res (0.7)-deg VIIRS NCC (day-night-band) product.

The three fog and low stratus (FLS) color tables have been well-tested by the Ops Proving ground (and deemed the default tables) using a local version of the GOES-N/O/P fog and low stratus product. Although it has not yet been implemented by the NWS Obs office into AWIPS 2, it will be implemented this Spring. Our customer requests that they be placed into the baseline so they'll be available and in-place upon implementation of the FLS product.

29. Redmine DCS_18582

Remediation of high findings from source code scan

Source code scanning was performed on the 14.2.1 AWIPS II code base and the following high findings were found, which need to be remediated. See remediation finding list (not attached for security reasons) for specific items.

30. Redmine DCS_18537

Improve efficiency of rendering satellite winds

This DCS is to improve the efficiency of rendering wind products that are currently using

PlotResource2, most notable is scatterometer winds which is currently the worst performing plot resource type. This could also help with HDW, MTHDW, and DMW.

1. One of the performance problems is loading an svg for each barb. The class VectorGraphicsRenderable is capable of rendering many barbs efficiently by generating wireframe shapes. It has been used successfully for grid barb rendering for a few years and would be much more efficient. This would greatly reduce memory and render faster but it would still be slow to progressively disclose.

This would require writing a new resource and figuring out some way to force that resource to load for specific data types or SVG files (or just a fancy upgrade script?). The major drawback to this approach is that SVGs could not be customized for other displays, although that could always remain an option.

2. Move the data out of HDF5 and into postgres. Currently only wind direction is loaded from hdf5 while windspeed is in postgres (for ascats, other types are different). Moving direction into the database should make retrieval faster. This approach is used by DMW winds already.

3. Make a new satellite_winds data type, pdo, and resource. The point data API is not efficient for this many points so storing in a custom format could be optimized more easily. This would break backwards compatibility and it

31. Redmine DCS_18528

16.2.2 Build and Merge Support

The actions covered under this DCS are to simplify and streamline the process of building, merging, and installing new builds.

32. Redmine DCS_18521

Switch LAPS/MSAS to use DAF scripts

In a previous release, GSD delivered updates to LAPS/MSAS which included the ability to use the DAF to access data through EDEX, rather than the legacy uEngine method. However they delivered the software still pointing to the uEngine. This DR will track the switch to using the DAF scripts for data access to ensure the software still works correctly using that method. GSD delivered a script to facilitate this switch.

33. Redmine DCS_18497

DSA Product Processing: Need to add new functionality due to ORPG Build 17 Changes

The format of the adaptable parameters found in the dual-pol radar DSA products will be changing with the implementation of ORPG Build 17. The Build 17 implementation includes some new parameters and also removes some parameters found in Build 16.

ORPG Build 17 is currently scheduled to begin deployment at radars in July 2016 and continue until May 2017. Therefore, the new code must be written in such a way as to handle both Build 16 and Build 17 format adaptable parameters. Because DSA products from two different formats will be processed, the code will print all DSA adaptable parameters to the edex-ingestDat log for verification and to be certain that the new documentation is correct.

The DSA adaptable parameters are currently stored in the DSAAadapt table in the IHFS db. A postgres script will be written as part of this DCS to update the DSAAadapt table to add columns to allow for the storage of both

Build 16 and Build 17 parameters. During the time when Build 16 and Build 17 format parameter sets are being processed, any columns not used will be set to a NULL value. In the future, after the Build 17 deployment is complete, it is expected that another DCS will be written to remove the code for processing of the Build 16 format parameters and to remove the fields in the DSAAadapt table which are no longer necessary.

The current AWIPS2 schedule calls for Build 16.2.2 to begin deployment in July 2016. This correlates nicely with the current ORPG Build 17 deployment plan which begins in Summer 2016.

We previously checked in code for DCS 18497. Since then, we have changed the file we are writing the log messages to. We are now writing log messages to

`/awips/edex/logs/awips-ingestDat-hydrodualpol-YYYYMMDD.log`

Refer to Integration tickets #17691 and #17692.

34. Redmine DCS_18427

Code Improvements for DR 18384 (Vlab 13938)

Some code improvements were suggested in Vlab Redmine 13938 (DR 18384).

<https://vlab.ncep.noaa.gov/code-review/4511>

Line 64: `e.printStackTrace();`

While you're in here a good code improvement would be to implement the UFSt

35. Redmine DCS_18425

National Radar Display

DCS 18425 is opening the door to the SBN radar products in order to create Regional and National radar mosaics for the entire CONUS. DCS 18223 created new DSS/IMET maps, this DCS 18425 creates radar mosaics that match those maps. Although the SBN radar data consist of the lowest 4 elevations angles, we are only adding 0.5 and 1.5 Reflectivity and Velocity products to the pqact file.

N01 – 0.5 Reflectivity

N1Q – (1.3, 1.5) Reflectivity (depends on VCP whether you get a 1.3 or 1.5 elevation angle)

N0V - 0.5 Velocity

N1U – (1.3, 1.5) Velocity

NST – Storm Track Information (in order to create SRM products at the workstation)

NCR – Composite Reflectivity (16 Data Level)

TZL – Long Range Ref (0.6) TDWR

TR1 – 1.0 Reflectivity TDWR

TV1 – 1.0 Velocity TDWR

The xml files are straight forward mainly “additions”, but the radarsInUse.txt and the pqact.conf files need to be merged so we don’t wipe out their existing access to those higher/additional SBN data that they already get.

36. Redmine DCS_18408

Remove or separate legacy binlightning decoder

Either completely remove the binlightning legacy code or separate it (if possible and needed) so that it's in its own decoder plugin & rpm to facilitate removal.

37. Redmine DCS_18405

Add an entry to userRoles.xml

Add an entry to userRoles.xml for the awipsTools directory with SITE level permissions where BoundaryTool data will be saved

38. Redmine DCS_18403

A user-defined boundary type for AWIPS2 Boundary Drawing Tool

Allow the user to define a boundary type

39. Redmine DCS_18402

Storing boundaries data to site level

The Warning Decision Training Division suggested that saved boundaries be shared among different users.

40. Redmine DCS_18378

CIS nodev/nosuid/noexec /tmp implementation

The CIS document mandates that the /tmp partition on all AWIPS boxes should be mounted with the nodev/nosuid/noexec options. Previously this was found to break EDEX, but with the implementation of DR #17602 in 16.1.1 this should now be possible.

41. Redmine DCS_18338

Ensemble Tool: Distribution Viewer

Allows the user to see a probability distribution by sampling grid points of loaded forecast model data.

42. Display MRMS v11 Products

Adding menu selections, style rules, and other configuration for several new MRMS products coming along with MRMS v11, due to be released on the NCEP operational system mid-March 2016. No source code changes are needed. New products include 1) Flooded Locations And Simulated Hydrographs (FLASH) products, 2) two 5km CONUS (non-clipped) reflectivity products.

43. Redmine DCS_18308

Expand SPC Watches to outer coastal marine zones.

Add SPC issued Tornado Watches (TO.A) and Severe Thunderstorm Watches (SV.A) to all the outer coastal marine zones (i.e.~20-60 nm from coastline) around the CONUS. See attached spreadsheets for list of outer coastal marine zones and products affected.

44. Redmine DCS_18251

Add PWPF data to AWIPS2

PWPF is a new winter weather product, produced by WPC that needs to be added to AWIPS 2 over the SBN. See attached TIN for more information (<http://www.nws.noaa.gov/os/notification/tin15-45pwpf.htm>)

AWIPS 2 will need to decode, store and correctly display this product.

From Mark Klein (mark.klein@noaa.gov):

Regarding units, here's what we are thinking.

- For probability products, the images you have are in hundredths. Please multiply the values in this field by 100 to get percentages
- For the percentile accumulation products....Snow: currently it's in meters, so please convert this to inches. Freezing rain: currently in millimeters, also convert to inches.

Each of these grids does contain values below zero, but we don't want these displayed. So have the color bar start at 0 for everything and only display positive values

For colors, we are limited to 32 in GEMPAK, so our displays are a bit crude. To be consistent with what we currently have, here are links to snow/ice probabilities (

http://www.wpc.ncep.noaa.gov/pwpf/wwd_accum_probs.php?ftype=probabilities&fpd=24&ptype=snow), snow accumulation (

http://www.wpc.ncep.noaa.gov/pwpf/wwd_percentiles.php?ftype=percentiles&fpd=24&ptype=snow), and freezing rain accumulation (

http://www.wpc.ncep.noaa.gov/pwpf/wwd_percentiles.php?ftype=percentiles&fpd=24&ptype=icez). I've attached color tables for each (RGB values), which also include the contour

intervals we display for each. I imagine AWIPS will have better color gradation capability, but this is what we've got. (These attachments are included below)

45. Redmine DCS_18218

Investigate having thin client proxy at regional HQs reject requests to uEngine

At present uEngine is deprecated and only used for local apps and the NCP. Thin client does not support either of those at this time.

uEngine is a security risk, but it has a very specific path that we should be able to reject when coming in from outside the firewall with authenticated users. The regional HQ servers have an apache httpd (http server) instance set up to receive incoming requests and authenticate against the LDAP. Once the user is authenticated, it either redirects the CAVE requests to edex at ec:9581/services or pypies at dx2:9582/pypies based on the path in the http request.

EDEX provides multiple different services at different paths, such as /services/thrift, /services/pyproductjaxb, etc. uEngine is a security risk, especially from outside the firewall, if someone managed to first authenticate against the LDAP. Since uEngine is not required to support thin client capabilities, we should block those paths when they are incoming from outside the firewall.

Investigate updating the regional HQ proxy settings in httpd conf files and having the httpd proxy reject requests to

/services/pyproductthrift and /services/pyproductjaxb. (Those are the two routes to access uEngine). After updating the conf, test against TBWO with a connection over the internet and verify thin client still works. Also verify that entering those addresses in a web browser will reject the request. It should probably return error 403 for those two paths.

Note this only applies to regional HQs for thin client, not CWSUs since those are inside the firewall and do not use the LDAP authentication.

46. Redmine DCS_18180

Study and address RODO code improvement recommendations for DR 17935

RODO made some code comments that should be looked at.

47. Redmine DCS_18172

Finalizing the Product Specifications for Mixed Case

Raytheon has provided assistance in incorporating Mixed Case into AWIPS II Product Creation through GFE/GHG and WarnGen. This work used general guideline based on initial Analyze, Forecast and Support Office (AFSO) [Formerly OCWWS] guidance. AFSO has now finalized a set of Product Description Specifications for each of its suite of products. This has resulted in some minor changes to the format of the products, which will need to be included in GFE/GHG Text Formatters and WarnGen Templates.

48. Redmine DCS_18161**National Blend for Global models (Version 2)**

The requirement is to display in D2D and make available in GFE the following data

1. NBM CONUS - Add 4 additional elements (QPF, Snow Amount, Predominant Weather, Precipitation Type)
2. NBM Alaska - Add NBM guidance over the Alaska NDFD domain
3. NBM Hawaii - Add NBM guidance over the Hawaii NDFD domain
4. NBM Puerto Rico - Add NBM guidance over the Puerto Rico NDFD domain
5. NBM Oceanic Winds - Add NBM Oceanic Winds over the NDFD domain used by OPC and TAFB

49. Redmine DCS_18145**grib decoder is unable to differentiate between two different model sources that share the same grid definition and forecast_process id**

Support independent processing of grids from different model sources which share the same domain (nx,ny,dx,dy) and forecast process ID.

50. Redmine DCS_18139**Make gfeParamInfo.xml overrides be accumulative, not a full override**

The gfeParamInfo.xml file is critically important to adding new grid datasets into GFE. As it stands now, a SITE level override fully overrides the BASE file. This will cause the SITE file to mask a newly added entry at the BASE level. We suggest that it would be better if the SITE level aliases were appended to the BASE entries. It might even be that this is the desired behavior for ALL aliasList files. That would need further discussion.

51. Redmine DCS_18133**Radar: Implement two new Volume Coverage Patterns (VCPs)**

The Radar Operations Center designed two new VCPs (VCP 35 and VCP 215) which they plan to implement in Build 18 (System Test/July 2016; Beta Test/January 2017; Deploy/March 2017). VCP 35 is a new Clear-Air Mode VCP and scans 9 elevations (0.5, 0.9, 1.3, 1.8, 2.4, 3.1, 4.0, 5.1, 6.4) and completes in 410 - 540 seconds, depending on the active PRF and the use of SAILS. VCP 215 is a new a Storm Mode VCP that scans 15 elevations (i.e., the 15 elevations are: 0.5, 0.9, 1.3, 1.8, 2.4, 3.1, 4.0, 5.1, 6.4, 8.0, 10.0, 12.0, 14.0, 16.7, 19.5) and completes in 265 - 435 seconds, depending on the active PRF, the AVSET termination angle and the use of SAILS. The site-specific scan-strategy for radar site KLGX (Langley, Hill, WA), will continue to add one additional elevation scan at 0.2 degrees (16 elevations in total).

52. Redmine DCS_17997

Gamma control for true color imagery

This enhancement will allow users to modify a standard linear component of a true color "RGB" with a gamma adjustment. More on gamma correction is available at https://en.wikipedia.org/wiki/Gamma_correction.

53. Redmine DCS_17952

Changes to Support LX Workstation Replacement

The NWS is planning to procure the AWIPS LX/XT Workstation Combination as specified in the AWIPS Task Order Request for Proposal entitled "AWIPS LX/XT Workstation Combination, ARD Workstation, WES Workstation Replacement". An evaluation involving 10 users' representatives that included WFOs and RFC/s, Central Region Headquarters and NWS Headquarters. The users were provided access to the proposed workstation for up to a day. After which they were asked to provide comments which have been included in the requirements section of this document.

The plan is to do kit proof/OT&E in May 2016. The config items could be handled by the O&M ENV team, although the software changes would likely need to be done by Omaha and in the 16.2.1 time frame.

The requirements to be satisfied by this WA include:

1. Initial CAVE startup - When starting CAVE for the first time it spans both 27 inch monitors. The user must select the 'deselect 'Maximize Window'', re-size, exit CAVE and re-launch. CAVE should launch on one screen and both.
2. Starting additional CAVES - Each CAVE as launched overlays the other. Instead, each CAVE launch should be next to the other CAVE and not on top.
3. Fonts size - The user needs the able to adjust and save font size. This includes product and map legends. The user select should be able to change to different sizes between the 27 inches and 19 inch. In each case the fonts should be user selectable and be retained for that user between secession and where loading procedures and perspectives. This includes GFE and Hydro application.
4. POP up Menu behavior - Some of the pop-up menus appear on the left 27 inch. Instead, these menus should appear over or near the active window. It is easy to lose track of the menu pop-ups, which one goes with which CAVE. The suggestion from the users was color tag the CAVE and its associate pop up.
5. Starting text workstation - Need menu option to start text work stations on the 19 inch.
6. Starting AvnFPS - Need menu option to start AvnFPS on the 19 inch monitor.
7. Need ability to configure menu - to permit launching option on either 27 inch or 19 inch (out-growth of 5 and 6 above).

8. Volume Browser - Ability to resize and retain the user selected dimensions in the volume browser.

9. There will be a need to support both old LX configurations and new LX configurations with some kind of turnkey or script when the site installs the new LX.

54. Redmine DCS_17821

Damage Path Tool Kit (Phase III)

Make changes based on 16.1.1 testing

The following changes have been requested for Damage Path in 16.2.2:

1. Standardize metadata attributes for Damage Path. It has been requested to simplify the metadata key/value feature in the damage path tool. Instead of making the key names freeform, would like a few hardcoded names. Additionally, where possible, it is preferred the metadata values work on a drop-down of pre-configured values.

Some clarification is still required on what the metadata key names will be. These are the new metadata options they want available in damage path:

- Hazard Type:
 - * Selected from combobox, values populated from XML config file.
 - * XML contains an abbreviation and long name field
 - * UI displays abbreviation and long name using a combo box
 - * Abbreviation is put into final geoJSON
 - * Default hazards to support:

```
<hazard>
<longName>Preliminary Tornado</longName>
<abbreviation>TO</abbreviation>
</hazard>
<hazard>
<longName>Significant Wind Damage</longName>
<abbreviation>WI</abbreviation>
</hazard>
```

```

<hazard>
<longName>Hail</longName>
<abbreviation>HL</abbreviation>
</hazard>
<hazard>
<longName>Flood</longName>
<abbreviation>FL</abbreviation>
</hazard>
<hazard>
<longName>Extreme Ice or Snow</longName>
<abbreviation>WW</abbreviation>
</hazard>
<hazard>
<longName>Other Man Made/Natural Hazard</longName>
<abbreviation>XX</abbreviation>
</hazard>
•Name:
•* free text (limit 50 characters, optional)
•Comments:
•* free text (limit 400 characters, optional)

```

2. Use script to export geoJSON data to LDAD. The current script may be sending data to a server inside the firewall, where it needs to be sent to a specific server outside the firewall.

55. Redmine DCS_17815

WAVEWATCH III - add Wave Steepness

Add wave steepness parameter of WW3 to the SBN so that numerical guidance of wave steepness will be delivered to WFOs. Providing the data through the SBN will ensure guidance is delivered into local AWIPS in a consistent and timely manner.

Significant wave height is the parameter commonly forecasted by WFOs. But Wave Steepness is a better measure to use when determining the relative hazard of the marine environment.

56. Redmine DCS_17685

Damage Path Tool (Phase III)

1. Allow multi user control and display of tracks. Should not be tied to a specific user or workstation. Forecaster A and B both have the tracking tool loaded, Forecaster B should see an edit when Forecaster A makes one and vice versa. This allows for situational awareness and quick handover of tracking when needed due to workload, sectorization, etc.

2. Ability to add and modify metadata about a track, i.e. optional fields such as name, description, etc. (OGC Compliant information)

Add additional attributes to the GeoJson output (I.E. Ability to add and modify metadata about a track, i.e. optional fields such as name, description, etc. [OGC Compliant information])

57. Redmine DCS_17637

Remove NWSRFS Deliverables from the AWIPS Baseline Deployment

The goal of this DCS is to stop delivering the executables to the RFCs for the items listed in the NWSRFSDeliverablesRetirementFinalList attachment titled in NWSRFC Deliverables to be removed from the AWIPS Baseline.

58. Redmine DCS_17419

Addition/reconfiguration of Satellite Imagery Menu selections for OCONUS sites.

OCONUS sites need to have a dedicated section on the Satellite imagery menu that displays the data relevant to their sites. Currently, the only way to access this data is through the Product Browser and/or "Sonder" imagery menu.

Workarounds: Local SITE configuration to various xml files.

59. Redmine DCS_16853

Nationalization of SmartInits

There is considerable variability in NWS ops regarding the states of various GFE initialization scripts. This can cause problems when scripts are shared amongst offices as well as in general maintenance of the scripts when something underlying them changes.

There is an initiative to standardize these initialization scripts across all AWIPS systems operated by the NWS. This DCS will chronicle this effort.

The plan is to define multiple "releases". This DCS covers Release 1.

60. Redmine DCS_15116**Install LAPS at the RFCs and OCONUS sites in order to get radar data into GFE**

The issue is that in order to get radar data into GFE, LAPS needs to be running.

61. Redmine DCS_14845**Ingest and Display NAM-DNG 2.5km CONUS**

(1) Add regex pattern to pqact.conf. Refer to RC 12903 (attached) for the WMO ID pattern.(2) Add NAMDNG2.5km to the Volume Browser. These grids will replace the NAMDNG 5km CONUS.

62. Redmine DCS_14607**Hydrobase: Add a WFO filter parameter to Ingest Filter GUI**

Adding a WFO filter parameter to the Ingest Filter GUI would make navigation easier for users.

63. Redmine DCS_14576**SE: Need to calculate Haines Index for models**

Tony Freeman at EHU reported that they are not able to calculate the Haines index for models. They cannot calculate the low, medium, and high layers so the hanes index isn't getting created. Apparently, this graphical functionality hasn't worked in a long time and so their workaround has been to use the layer fields instead. Because this functionality didn't exist in AWIPS I either, DR is listed as small enhancement.

64. Redmine DCS_14471**Latestobsvalue Table not updating in Hydro Time Series**

In the Hydro Time Series program, one of the table is not updating with new data. The table is called Latest Obs Value. Its accesses the hydro database to get this data. Normally, they use XDAT to get this data, but happened to check the Time Series program and detect it.

65. Redmine DCS_14232**Expand locarea:area field in IHFS DB**

The area field of the locarea table in the IHFS database needs to be expanded. This field is used for the LAT/LON description of the warning polygons produced in riverpro. The current length of 80 characters only supports 5 vertices which limits the effectiveness of the polygon. Expanding it to 500 characters would allow for a much better polygon for public use.

66. Redmine DCS_14228**Expand text fields in the IHFS DB/Hydrobase**

Expand the remarks sections in the following tables: location, riverstat, benchmark, gage, crest (cremark), lowwater (lwrem). Most of these fields have a 255 character limit and can be doubled. Hydrobase may need to be modified to remove any limits that may be there.

67. Redmine DCS_14217**Remove Hydro Time Series Limitations**

In the hydro time series application, there are a few hard-coded limitations that are unnecessary. There is a limit on the number of days that data will be displayed for of 90. There is also a limit on the number of pages of graphs produced using the pre-defined group mode of 30. These should either be completely removed or made much larger.

68. Redmine DCS_13910**GFE: Wave model data should be available in 3-hrly timesteps**

OPCN requested the following enhancement: Globalwave data in D2D is available in 3-hrly intervals, but in GFE it's only available every 6 hours. He would like all of the data that's available in D2D to also be available in GFE. This involves changing the baseline model time constraint from TC6 to TC3. This is an enhancement request because it's a change from the A1 behavior. 3/15/2013 Addition to DR, from TT 557802: Specifically, the 9 wave models "WCwave10", "WCwave4", "WNAwave10", "WNAwave4", "AKWAVE", "AKwave10", "AKwave4", "EPwave10", "GlobalWave", all have a native temporal resolution of 3 hours. But they all inherit this line in the baseline serverConfig.py file which sets them to 6 hours: # Global Wave Watch III, WNAWAVE, AKWAVE Model database parameter groupings WAVEPARMS = [(WindWaveHeight, WaveHeight, SurfHeight, Wind], TC6), (Swell, Swell2, Period, Period2], TC6)] Some other wave models do still have a TC6. So my suggestion to fix the 9 wave models listed above is to make a new 3-hourly WAVEPARMS definition such as this: WAVEPARMS3 = [(WindWaveHeight, WaveHeight, SurfHeight, Wind], TC3), (Swell, Swell2, Period, Period2], TC3)] And change the lines in serverConfig.py around line 1803 which sets up the IFP databases for the various wave models from this: (AKWAVE, WAVEPARMS + localAKWAVEParms), (AKwave10, WAVEPARMS + localAKwave10Parms), (AKwave4, WAVEPARMS + localAKwave4Parms), (EPwave10, WAVEPARMS + localEPwave10Parms), (GlobalWave, WAVEPARMS + localGlobalWaveParms), (WCwave10, WAVEPARMS + localWCwave10Parms), (WCwave4, WAVEPARMS + localWCwave4Parms), (WNAwave10, WAVEPARMS + localWNAwave10Parms), (WNAwave4, WAVEPARMS + localWNAwave4Parms), to something like this: (AKWAVE, WAVEPARMS3 + localAKWAVEParms), (AKwave10, WAVEPARMS3 + localAKwave10Parms), (AKwave4, WAVEPARMS3 + localAKwave4Parms), (EPwave10, WAVEPARMS3 + localEPwave10Parms), (GlobalWave, WAVEPARMS3 + localGlobalWaveParms), (WCwave10, WAVEPARMS3 + localWCwave10Parms), (WCwave4, WAVEPARMS3 +

localWCwave4Parms), (WNAwave10, WAVEPARMS3 + localWNAwave10Parms), (WNAwave4, WAVEPARMS3 + localWNAwave4Parms), That way the smartInits will have 3 hourly temporal resolution by default, which would match the same resolution as shown in D2D. Otherwise sites have to manually override the serverConfig to get higher resolution data. This should not be necessary. I think the "TC6" in the WAVEPARMS declaration came from older wave models, such as the original GWW. That model should probably be retired from the SBN as it has been superceded by the improved "GlobalWave" model. If I can answer any questions about this DR, please get in touch with me. A similar DR has been opened on this issue for just the "GlobalWave" model (DR#15945) but that DR could be expanded to include these other models since they have the same issue.

69. Redmine DCS_13475

Hydro TimeSeries do not update in time series while zoomed in

Hydrographs do not update in Hydro Time Series while zoomed in

70. Redmine DCS_11248

Add NAVGEM(COAMPS) to list of known models

COAMPS model is required in the Pacific region as we do not have access to CONUS models such as the RUC, DGEX, etc. An override to grib.xml successfully sent our COAMPS files to the grib decoder, then it showed up as an unknown model. The parameters in one of the unknown model entries were 58:0:90:Unknown 373x337 19km Mercator grid, and in the other 58:0:116:Unknown 373x337 19km Mercator grid.

71. Redmine DCS_8593

ApparentT Smart tool missing - TTR4093

There is no ApparentT_SmartTool in the baseline.

Redmine CFR_18981

RedHat 6 KDE kompare file comparison tool for the ADE at WFOs

Install the RedHat 6 KDE package "kdesdk" from the tool set distribution as it contains a file comparison tool called kompare on any and all NWS WFOs ADE. This or another file comparison tool is necessary for the mandatory migration of upper-case text to mixed-case text found in the GFE override files.

Redmine CFR_18319

Upgrade Postgresql to 9.3.10. Currently on 9.3.9.

CVE-2015-5288

Summary: The crypt function in contrib/pgcrypto in PostgreSQL before 9.0.23, 9.1.x before 9.1.19, 9.2.x before 9.2.14, 9.3.x before 9.3.10, and 9.4.x before 9.4.5 allows attackers to cause a denial of service (server crash) or read arbitrary server memory via a "too-short" salt.

Published: 10/26/2015 10:59:01 AM

CVSS Severity: 6.4 MEDIUM

CVE-2015-5289

Summary: Multiple stack-based buffer overflows in json parsing in PostgreSQL before 9.3.x before 9.3.10 and 9.4.x before 9.4.5 allow attackers to cause a denial of service (server crash) via unspecified vectors, which are not properly handled in (1) json or (2) jsonb values.

Published: 10/26/2015 10:59:02 AM

CVSS Severity: 6.4 MEDIUM

Redmine CFR_18318

Upgrade org.apache.commons.codec to 1.10

Redmine CFR_18317

Upgrade org.apache.commons.pool to 1.6

Redmine CFR_18316

Upgrade org.apache.commons.lang to 2.6

Redmine CFR_18315

Upgrade org.apache.commons.compress to 1.10

Redmine CFR_18314

Upgrade slf4j to 1.7.12

Redmine CFR_18313

Upgrade spring framework to 4.1.6

Redmine CFR_18312

Upgrade camel to 2.16.0

We are currently using camel 2.14.3. The 2.16 release has some fixes that we want, in particular:

- <https://issues.apache.org/jira/browse/CAMEL-6460>

- <https://issues.apache.org/jira/browse/CAMEL-8643>

Investigate updating to a 2.16 release and any complications resulting from that. Here are the release notes:

<http://camel.apache.org/camel-2160-release.html>

Pay special attention to the API breaking and dependency upgrades for dependencies that we use. Here are the 2.15 release notes:

<http://camel.apache.org/camel-2150-release.html>

Redmine CFR_18307

Upgrade jasper-1.900.1 security patch

There is a security patch in the baseline:

AWIPS2_baseline: nativeLib/rary.cots.jasper/jasper-1.900.1-security_fixes-1.patch

but it's from earlier than August 2012.

These vulnerabilities have been addressed in a second patch:

CVE-2014-8138, CVE-2014-8137, CVE-2014-9029, CVE-2014-8157, CVE-2014-8158

Here's a nice webpage with the security sequel:

<http://www.linuxfromscratch.org/blfs/view/svn/general/jasper.html>

Redmine CFR_18306

Upgrade openSAML to 2.6.5

CVE-2015-0851

Summary: XMLTooling-C before 1.4.5, as used in OpenSAML-C and Shibboleth Service Provider (SP), does not properly handle integer conversion exceptions, which allows remote attackers to cause a denial of service (crash) via schema-invalid XML data.

Published: 8/12/2015 10:59:01 AM

CVSS Severity: 5.0 MEDIUM

AWIPS2_foss/lib/org.opensaml/xmltooling-1.4.1.jar

Changing this to upgrade ALL of openSAML to 2.6.5

CFR_18305

Upgrade wss4j from 1.6.14 to 1.6.19

These are from a distribution flagged for vulnerabilities (CVE-2011-4461):

AWIPS2_baseline/tests/lib/servlet-api-2.5.jar

AWIPS2_baseline/tests/lib/javax.servlet.jsp-2.1.0.v201105211820.jar

This one is ok:

ufcore-foss/lib/org.eclipse.jetty/jetty-servlet-8.1.15.v20140411.jar

Contact slharris for the location of the jetty-distribution-8.1.15.v20140411.tar.gz package

CFR_18304

Upgrade or consolidate Jetty to 8.1.15 or greater

These are from a distribution flagged for vulnerabilities (CVE-2011-4461):

AWIPS2_baseline/tests/lib/servlet-api-2.5.jar

AWIPS2_baseline/tests/lib/javax.servlet.jsp-2.1.0.v201105211820.jar

This one is ok:

ufcore-foss/lib/org.eclipse.jetty/jetty-servlet-8.1.15.v20140411.jar

Contact slharris for the location of the jetty-distribution-8.1.15.v20140411.tar.gz package

CFR_18303

Upgrade ActiveMQ to 5.12.0

Vulnerabilities in 5.9.1:

CVE-2014-8110, CVE-2014-3576, CVE-2014-3612, CVE-2015-6524

CFR_18302

Upgrade Apache Httpd 2.2.3 & 2.2.15 to 2.2.15-47

Vulnerability:

CVE-2014-3583

Resolved Release:

https://httpd.apache.org/security/vulnerabilities_22.html

AWIPS2_baseline/rpms/awips2.core/Installer.httpd-pypies/src/httpd-2.2.15-SOURCES.tar

AWIPS2_baseline/rpms/awips2.core/deploy.builder/httpd.SOURCES/httpd-2.2.3-SOURCES.tar

CFR_18301

Upgrade Apache Derby 10.10.1.1 to 10.12.1.1

All versions of Apache Derby prior to 10.11.1.1 are subject to password corruption and privilege escalation vulnerabilities

From the Derby website:

<http://apache-database.10148.n7.nabble.com/ANNOUNCE-Apache-Derby-10-11-1-1-released-td141726.html>

"Derby 10.11.1.1 contains many bug, security, and documentation fixes."

CFR_18300

Upgrade CXF from 2.7.11 to 2.7.14 or better

Vulnerability:

CVE-2014-3623

AWIPS2_foss/lib/org.apache.commons.cxf/apache-cxf-2.7.11-src.jar

Redmine CFR_18299

Upgrade Apache Batik 1.6 to 1.8

Vulnerability:

CVE-2015-0250

ufcore-foss/lib/org.apache.batik/

Redmine CFR_18298

Upgrade Apache Ant from 1.7.1 to version 1.9.6

Vulnerability in 1.7.1:

CVE-2013-1571 – see apache ant Bugzilla Report 55132; secunia 53846, 54067

AWIPS2_baseline: rpms/awips2.core/Installer.ant/src/apache-ant-1.7.1-bin.tar.gz

Redmine CFR_18196

Upgrade Jackson json to 1.9.x

Jackson is used for JSON and therefore used by a few pieces of the software that have to interact with other applications through the JSON format. It is also used by Hazard Services. We are on version 1.7.3 which is about 4 years old. We should upgrade to the 1.9 release to be more current. There is also a 2.y set of releases, but the major version number will require more time as there are API changes, so we should delay that for a followon ticket.

Redmine CFR_17274

Upgrade Smack XMPP library to version 4.1.4

Upgrade Smack XMPP library to version 4.0.x

XML/base, WarnGen Template, and RPM Changes

The changes to XML/base, WarnGen Template and RPM made in OB 16.2.2 are shown in Appendix A.

5. Known Problems, Workarounds, and Additional Release Notes

This section lists any workarounds or additional release notes that have been issued for the current release. They are identified by their Release Note title. It also lists any known problems (Priority: 1-Critical), either in the current release or in previous releases, which have been deferred to an unnamed future release. These are identified by the Problem title. RODO corresponds to Omaha Database.

Note: The content listed under the Release Note title can be found at the following link. These are updated periodically, so please check for the latest updates to the 16.2.2 release.

<https://docs.google.com/spreadsheets/d/1wv3ygGxfI9g9LTsxyNtwipkGhoCDqxuPor3dwbL-IW8/edit#gid=831868547>

Release Note: RODO 5066

PostgreSQL has been upgraded to version 9.3.10. PostgreSQL will need to be upgraded on the database servers. This upgrade was a minor upgrade; so, no updates need to be made to any databases for compatibility. Additionally, psql has also been upgraded to 9.3.10; psql should be upgraded on every machine that psql is currently installed on.

Upgrading the PostgreSQL installation on the build servers is also recommended because it is used to build pgsadmin.

Release Note: RODO 5121

The edex-environment macro build has been streamlined so that it will no longer be built as an Eclipse PDE product. However, the edex-environment build is now dependent on ant 1.9. Ant 1.9 is the version of ant delivered with 16.2.2 and it will need to be installed on the build servers; while also potentially allowing for a dynamic switch between ant 1.7 and 1.9 to support building previous versions of the AWIPS II baseline.

Release Note: RODO 5059

The xml tags used in the GOES-R product description files has been changed to be closer to what is used by the pointset netcdf decoder(used for some polar satellite data) and the grid netcdf decoder(used by ncom and others). The new tags use common code for processing that will be more robust, maintainable, and easier to understand. The baseline description files have already been updated, any experimental or site specific descriptions will need to be updated. Match tags and tags which specify a distinct value are the same, however tags which are used read, parse, or format a netCDF attribute have new tag and attribute names, see the baseline description files for examples.

Release Note: DCS 18425

National Radar Display. Allows sites to ingest a very limited set of the lowest two elevation angles from sites outside their radarsInUse.txt file in order to create a national radar display. In addition, predefined regional and national radar mosaics are provided as baseline menu items to

display the data while keeping a site's original mosaic intact. And finally, the Dial Radars menu is expanded so sites can look at the data from any radar, individually. A post-Install step will be required by sites to correctly ingest the data.

Release Note: RODO 4767

Jackson upgraded to version 1.9.13.

Release Note: RODO 4797

Apache Ant upgraded to version to 1.9.6.

Release Note: RODO 4798

Apache Batik upgraded to version 1.8.

Release Note: RODO 4799

Apache CXF upgraded to version 2.7.18.

Release Note: RODO 4801

Apache Derby upgraded to version to 10.12.

Release Note: RODO 4808

Apache Httpd upgraded to version 2.2.15.

Release Note: RODO 4832

Apache ActiveMQ upgraded to version 5.12.0.

Release Note: RODO 4839

Jetty upgraded to version 9.0.7.

Release Note: RODO 4843

Apache WSS4J upgraded to version 1.6.19.

Release Note: RODO 4844

OpenSAML upgraded to version 2.6.5

Release Note: RODO 4999

Apache Camel upgraded to version 2.16.0.

Release Note: RODO 5000

Spring framework upgraded to version 4.1.6.

Release Note: RODO 5001

SLF4J upgraded to version 1.7.12.

Release Note: RODO 5002

Apache Commons Compress upgraded to version 1.10.

Release Note: RODO 5003

Apache Commons Lang upgraded to both versions 2.6 and 3.4.

Release Note: RODO 5004

Apache Commons Pool upgraded to version 1.6.

Release Note: RODO 5016

Apache Commons Codec upgraded to version 1.10.

Release Note: RODO 5208

The pointset plugin was updated to have better support for integer, short and byte datatypes

Release Note: RODO 5253

The dataURI column for the svrxw table has been removed. A delta script has been provided to remove the column and apply a unique constraint.

Release Note: RODO 5254

The dataURI column for the cwa table has been removed. A delta script has been provided to remove the column and apply a unique constraint.

Release Note: RODO 5285

The dataURI column for the tcs table has been removed. A delta script has been provided to remove the column and apply a unique constraint.

Release Note: RODO 5286

The dataURI column for the tcg table has been removed. A delta script has been provided to remove the column and apply a unique constraint.

Release Note: RODO 5309

The dataURI column for the bufrsigwx table has been removed. A delta script has been provided to remove the column and apply a unique constraint.

Release Note: RODO 5310

The dataURI column for the bufncwf table has been removed. A delta script has been provided to remove the column and apply a unique constraint.

Release Note: RODO 4834

The localization service has been improved. When a file is now saved through the localization perspective (and localization APIs) it can detect if the file was changed by another user and/or process.

Release Note: RODO 5281

The thin client connectivity dialog and preferences have been improved to be more intuitive and easier to understand.

Release Note: RODO 5262

Regex can now be used in key values for a purge rule. Regex can either be set on an individual key value or for an entire rule. Refer to the baselined grid and satellite purge rules files for examples.

Release Note: DCS_18309

The Multiple-Radar / Multiple-Sensor (MRMS) product system is currently operational at NCEP. These products are designed to add value (over traditional single-sensor products) to severe convective weather and flash flood nowcast and warning decision making at WFOs, severe convective weather outlook and watch decision making at the SPC, hydrologic decision making at RFCs, and aviation weather forecast decision making at CWSUs. A subset of “core” MRMS products is already being disseminated via the Satellite Broadcast Network (SBN) for display in AWIPS2. With the release of MRMS version 11 (v11), two new products will be made available on the SBN - 5 km CONUS versions of Composite Reflectivity and Reflectivity At Lowest Altitude (RALA). Once MRMS v11 is deployed (Fall 2016), these products will become available for display via the new submenus in MRMS->Reflectivity Products. A new submenu, MRMS->Precipitation Products->FLASH, was also added in 16.4.1, but FLASH will not be

available in v11, so the menu will be removed in 16.4.1 until FLASH is implemented on the SBN.

Python/JEP/Python Runtime Changes

Workaround for the following 2 DRs.

- Making small changes to grids and subgrids requires clearing out data for affected models. (DR 18440)
- Clipped (subgridded) grid data shifted to south and east when displayed in D-2D, GFE. (DR 18255)

If a grid definition's geospatial information is changed (edex_static/.../grib/grids/*) or if sub-grid definitions are changed (especially <centerLatitude> and <centerLongitude> in edex_static/.../grib/subgrids/* or edex_static/.../grib/defaultSubGridCenterPoint.xml) such that the all of the lat/lon coordinates are less than or equal to 0.1 degrees different, it may be necessary to clear out existing data or repair the grid definition in the metadata database.

Correcting sub-grid definitions

If a sub-grid's definition is changed, it is possible to use the sub-grid checking tool that was provided with OB15.1.1. Refer to the instructions in /data/local/subgrid-offset-check/README for guidance on running this tool.

Clearing out grid data

If a primary grid's definition is changed as described above, it may be necessary to clear out all existing model data that reference the grid. The steps below describe how to clear out specific gridded data from the metadata database and HDF5 stores.

1. First, obtain the list of grid coverage IDs for grids known to have changed based on the model dataset IDs. Substitute ""Model1', 'Model2', ..., 'ModelN'"" below with those dataset IDs.

```
select distinct gridcoverage.id from grid,grid_info,gridcoverage where
grid.info_id=grid_info.id and grid_info.location_id=gridcoverage.id and
grid_info.datasetid in ('Model1', 'Model2', ..., 'ModelN');
```

2. Next, obtain the list of all models that use those grid coverage IDs. (There may be more than the list of known model names.) Substitute ""ID1, ID2, ... IDn"" with the list of numbers obtained above.

```
select distinct grid_info.datasetid from grid,grid_info,gridcoverage where
```

grid.info_id=grid_info.id and grid_info.location_id=gridcoverage.id and
gridcoverage.id in (ID1, ID2, ..., IDn);

3. Delete grid records from the database that reference the grid coverage IDs.

delete from grid using grid_info,gridcoverage where grid.info_id=grid_info.id
and grid_info.location_id=gridcoverage.id and gridcoverage.id in (ID1, ID2, ...,
IDn);

delete from grid_info using gridcoverage where
grid_info.location_id=gridcoverage.id and gridcoverage.id in (ID1, ID2, ..., IDn);

delete from gridcoverage where gridcoverage.id in (ID1, ID2, ..., IDn);

4. Delete each of the directories under /awips2/edex/data/hdf5/grid

DR 18440

Comparisons of grid coverages are more strict. Previously, grids coverages had to have a lat/lon difference greater than 0.1 degrees in order to be considered different. This would cause gridded data to appear to be offset in CAVE when a grid definition (or subgrid definition) changed slightly. The new tolerance value is 0.0025 degrees for the origin coordinate. If the spacing unit is degrees, the tolerance for dx/dy is also 0.0025. If the spacing unit is km, the tolerance for dx/dy is 0.1.

If you have local grid definitions that do not match the actual values in the incoming GRIB files within the new tolerance, the grids will not store with the correct model name and will instead be stored with a name like GribModel:n:n:n. You can check for these grids with the following command.

```
psql -U awips metadata -c "select max(reftime),datasetid,dtype,la1,lo1,la2,lo2,dx,dy,spacingunit from  
grid g, grid_info gi, gridcoverage gc where g.info_id = gi.id and gi.location_id = gc.id and datasetid like  
'GribModel%' group by datasetid,dtype,la1,lo1,la2,lo2,dx,dy,spacingunit order by datasetid;"
```

The reftime field can help indicate if the grid is currently storing with the given name (as opposed to it being old data that has since been fixed.) Note that a number of grids already store as GribModel:n:n:n so their presence does not necessarily indicate a problem. The la1/lo1/dx/dy values shown in the list can be used to correct the local grid definition. It may be necessary to restart the EDEX ingestGrib process after making the corrections.

Previous workarounds such as clearing out gridded data or using the subgrid-offset-check script should not longer be needed.

RODO 5411

Updates for latest Mixed Case Guidelines

1. A check has been added in HandleOUP to force upper case for products not enabled for mixed case transmission. This should hopefully put an end to any product being unintentionally transmitted in mixed case.
2. Added capability for Warngen templates to know if mixed case is enabled so they can format differently (mostly for punctuation). This required defining the productId (nnn ID) in the .xml file so it can be determined prior to the template being run. There are now two new predefined variables in the velocity context: productId and mixedCaseEnabled. There is also a new macro, commaOrEllipsis(), defined in VM_global_library.vm that will conditionally return either ", " or "... " depending on whether mixedCaseEnabled is true or false. This macro serves as an example of the use of the new mixedCaseEnabled flag. We have updated all the template .xml and .vm files to define/use the productId and to use the commaOrEllipsis() macro.
3. New configuration values were added to the TextEditorCfg.xml file to allow replacement of commas with ellipses to be disabled (enabled by default) and to enable a character set check (disabled by default). The allowed character sets for both mixed and upper case are also configurable in this file. Caution should be exercised when editing the character set values as certain special characters must be specially encoded for use in xml. Once the templates have been validated I would recommend disabling the comma replacement. Comma replacement should be considered deprecated. We will work with NWS on a schedule to default it to off and eventually remove it in future releases.
4. For GFE formatter, argDict["mixedCaseEnabled"] has been added so GFE formatters can also perform conditional formatting/punctuation if desired. No formatters have been modified to do so at this time.
5. Added QC check for unsubstituted Velocity template variables.

RODO 5712

There are two delta scripts provided that will update the SITE level WarnGen template files to match changes made to the base templates. See release note for Omaha #5411 for more details.

AddProductIdToWarnGenTemplates: This script will attempt to insert the <productId> tag into any SITE level template .xml files. It will first look for a BASE template .xml file of the same name and copy the productId from that file. If a BASE .xml file is not found it will look for a corresponding SITE level .vm file and attempt to parse the productId from the WMO header in that file. If neither of these attempts are successful it will output a message indicating "ERROR: Unable to insert productId into <xmlFileName>"

AddAllCapsEmphasis: This script will perform a case insensitive search for the following phrases in all SITE level .vm template files and convert them to ALL CAPS to match the changes made to the BASE templates.

TAKE COVER NOW
SEEK SHELTER NOW
SEEK SHELTER IMMEDIATELY
IMMINENT DANGEROUS WEATHER CONDITIONS
IMMINENT, DANGEROUS, AND POTENTIALLY LIFE-THREATENING
WEATHER CONDITIONS
DANGEROUS SITUATION
EXTREMELY DANGEROUS SITUATION
VERY DANGEROUS SITUATION
PARTICULARLY DANGEROUS SITUATION

When these scripts are run the previous version of any modified file will be saved with a .backupN suffix where N will be a number added to ensure uniqueness if a file already exists with the same name. The sites should review any modified files for correctness. Once they are satisfied with the change the *.backupN files should be removed.

It is recommended that the sites compare all their SITE level WarnGen template overrides with the new BASE files to find any other changes that were made that may need to be incorporated into their SITE level files.

See the Mod Note (Section A.4.4) for specific WarnGen post install instructions. After completing the OB16.2.2 WarnGen post install, consult the following page for full WarnGen mixed case migration information:

<https://collaborate.nws.noaa.gov/trac/siteconfig/wiki/MixedCaseMigration>

DCS_17997

The true color plug-in now enables users to dynamically adjust the gamma correction for the three components of a Red-Green-Blue (RGB) image. After loading a RGB with the true color

product, select "Composite Options..." from the product legend menu. The gamma setting is saved in procedures.

RODO 5288

The new D2D Damage Path tool contains a feature accessible from the legend right-click menu called "Export to LDAD". When the user selects this item from the menu, the Damage Path polygon(s) and any metadata will be sent in GeoJSON format to the local LDAD server. Then a script will be executed to export that GeoJSON data to the webservice for the Damage Assessment Toolkit. A configuration file is located at `/awips2/edex/conf/resources/com.raytheon.uf.edex.damagepath.properties` to allow sites to configure this process.

RODO 5128 (DR 14827)

GHG Monitor was moved to the CAVE->New->GHG Monitor... and is now available in all perspectives. The underlying code in GHG Monitor had to be significantly reworked to eliminate GFE dependencies and now much better matches the A1 behavior and appearance.

DR 18861

"The Multiple-Radar / Multiple-Sensor (MRMS) product system operational at NCEP send products over the SBN to AWIPS2 workstations. The original purge rules were not sufficient to capture MRMS data when a field office wanted to archive data. The default purge rules have been modified to reliably keep 8 hours' worth of data on the system for real-time access and are also long enough for the archiver to grab and save data prior to being purged.

As a workaround, field offices can manually update the purge rule by making changes in this file:

`/awips2/edex/data/utility/common_static/site/WFO/purge/gridPurgeRules.xml`

Replace:

```
<rule>
  <keyValue>MRMS_1000</keyValue>
  <versionsToKeep>120</versionsToKeep>
  <period>03-00:00:00</period>
</rule>
```

```
<rule>  
  <keyValue>MRMS_0500</keyValue>  
  <versionsToKeep>120</versionsToKeep>  
  <period>03-00:00:00</period>  
</rule>
```

```
<rule>  
  <keyValue>MRMS_5000</keyValue>  
  <versionsToKeep>120</versionsToKeep>  
  <period>03-00:00:00</period>  
</rule>
```

With:

```
<rule>  
  <keyValue>MRMS_1000</keyValue>  
  <period>00-08:00:00</period>  
</rule>
```

```
<rule>  
  <keyValue>MRMS_0500</keyValue>  
  <period>00-08:00:00</period>  
</rule>
```

```
<rule>  
  <keyValue>MRMS_5000</keyValue>  
  <period>00-08:00:00</period>  
</rule>
```

If the field office desires a different period of time to keep data from being purged, they can replace "00-08:00:00" in all three instances. It is recommended that the value is not less than 4 hours in order to allow the archiver to grab all MRMS data."

RODO 5247

The Tools menu in D2D was pluginized. Plugins can now contribute a new menu item without altering the com.raytheon.viz.awipstool plugin. Please see the com.raytheon.uf.viz.damagepath plugin or com.raytheon.viz.warngen plugins for examples.

DCS 15116

LAPS/MSAS now installed at RFCs. Default configurations used, please see <http://fxa.noaa.gov/ramer/bwips/rehostInstall/rehostInstall.html> for more details on the system and configuring for your domain.

RODO 5182

Grib Models now support matching based on grib file name using the "fileNameRegex" XML tag. If a model contains a fileNameRegex, grib files that match the provided regular expression will match to this model first over any other models that may match. Also if a fileNameRegex is provided in the model, all other comparison fields can be optionally provide for a more specific match, though they are not required.

Example: If all files for a specific models start with "MPE_Mosiac_", then "`<fileNameRegex>^(MPE_Mosiac)_\s*</fileNameRegex>`" can be added to the model and used to match

Grib Model "name" XML tags now support a limited set of meta-characters. These characters will be replaced by information based on the contents of the grib file itself or the grib file name. The following meta-characters are currently supported:

- `{COVERAGE}`: Replaced with the grid name of associated with the model

Example: "MRF22", "MRF23", "MRF24", "MRF25", and "MRF26" models can be condensed to "MRF`{COVERAGE}`"

- `{REGION}`: Replaced with the name of the region for the GridCoverage associated with the model.

Example: "AKwave10", "EPwave10", "WCwave10", and "WNAwave10" models can be condensed to "`{REGION}`wave10"

- `-${RES:(\d+)?(:([01]))?}`: Replaced with the resolution of the grid associated with the model. May provide optional information to specify the precision (`\d+`) and whether or not to add the units to the resolution (`[01]`) may be provided. Defaults to precision stored in grid and no units.

Examples: "GFS20" could be replaced with "GFSS\${RES}."

"GFS0.5" could be replaced with "GFSS\${RES:1}."

"GFSLAMP5km" could be replaced with "GFSLAMP\${RES:0:1}" or "GFSLAMP\${RES::1}."

- `-${\d+}`: Replaced with corresponding numbered group from the provided file name regex.

Example: If all files for a specific models start with "MPE_Mosiac_" and the model contains "`<fileNameRegex>^(MPE_Mosiac)_s*</fileNameRegex>`", the "MPE_Mosiac_Model" can be replaced with "`-${1}_Model`"

Regions are determined by comparing the grib files coverage area with that of all known Grib Model Regions and choosing the best fit. Grib Model Regions are configured by adding region entries in `edex_static/base/grib/modelRegions/GribModelRegions.xml`. Grib Model Region only support rectangular areas in a lat/lon projections, so best approximations are needed for grib models in a polar stereographic projection. The grib region file supports incremental override, so copying the base file is not necessary for adding new regions.

DCS #17913/17419

Added a new sub-menu "OCONUS Imagery" in the D2D Satellite drop down menu. The base version of the new sub-menu is empty. Each OCONUS site can create a site version of `/localization/menus/satellite/oconus/baseOCONUSImagery.xml` and add imagery in it. There is an example in `/localization/menus/satellite/oconus/baseOCONUSImageryTemplate.xml`.

DR 7614

DR 17614 is implemented in the 16.2.2-14 build, however, there is a side effect from this fix that will be addressed in a future build. It should not impact operations as long as the sites are aware of it.

Issue: Text workstation displays strange "blue locking" text after send.

To create: User creates SVR product, edits and sends the product. The product goes out and stores to the database without any issues. However, when the user sends the product, the screen where the text displays updates and some previously "unlocked" text appears blue. This has no impact on the product, but the user might get confused because of the sudden, unintended change in text.

Example...

- * **Severe Thunderstorm Warning for... Clinton County** in northwestern **Missouri**... becomes
- * **Severe Thunderstorm Warning** for... **Clinton County** in **northwestern Missouri**...

If you try to re-edit the product with the "strange blue locking", the blue locking returns to normal.

RODO 5674

If you wish to pan the spatial display for the zone selector used by GFE's MakeHazard dialog or the zone combiner in the Formatter Launcher dialog, you must hold down the Shift key and the middle mouse button together while moving the mouse.

DCS 11248, DR 19161

NAVGEN (which replaced COAMPS and NOGAPS) was added to list of known models. Added NAVGEN 0.5 degree resolution grid definition. With this change to grib2 the forecasts are available every 6 hours, f6-f180.

DCS 18133

The Radar Operations Center designed two new VCPs (VCP 35 and VCP 215) which they plan to implement in Build 18 (System Test/July 2016; Beta Test/January 2017; Deploy/March 2017). VCP 35 is a new Clear-Air Mode VCP and scans 9 elevations (0.5, 0.9, 1.3, 1.8, 2.4, 3.1, 4.0, 5.1, 6.4) and completes in 410 - 540 seconds, depending on the active PRF and the use of SAILS. VCP 215 is a new a Storm Mode VCP that scans 15 elevations (i.e., the 15 elevations are: 0.5, 0.9, 1.3, 1.8, 2.4, 3.1, 4.0, 5.1, 6.4, 8.0, 10.0, 12.0, 14.0, 16.7, 19.5) and completes in 265 - 435 seconds, depending on the active PRF, the AVSET termination angle and the use of SAILS. The site-specific scan-strategy for radar site KLGX (Langley, Hill, WA), will continue to add one additional elevation scan at 0.2 degrees (16 elevations in total). AWIPS has been updated to ingest and display data for the new VCPs.

monthly climate product listed as "expired" and will not transmit on NWR via BMH

Shane Searcy reported the following issue after 16.2.2 and requested it be added to the living release notes in case any other sites experience it.

Via AWIPS Startup Menu, choose Background WFO Apps->Climate Reports
From the climate master GUI,
Choose "Set Up/Edit Climate Products" then OK
In the setup GUI, you have to select "Monthly", enter the ASOS site in the

Prod ID (xxx) box – in my case DSM or ALO. Then, for the Effective Time and Expiration Time – mine were reset to 5:00 a.m. (Local) and 8:00 a.m. (Local) respectively. We've never sent these products that early in the day. Change these times to whatever is desired.

Fire Weather Spot (FWS) formatter in GFE

The FWS formatter now reads the parameters LDSI, ADI, and LVORI. If they are not defined in the localConfig.py, the formatter will throw an error. However the error is not critical and the formatter will complete. To prevent the error, create a site level formatter that doesn't read these parameters.

DR # 19143: 16.2.2: Some types of site level station locations are no longer displayed in D2D

Until DR 19431 has been fixed in a 16.2.2 delta update, sites may need to apply the following workaround for the issue -- the custom/local station locations for metars, raobs and buoys that sites have configured and that they are used to displaying are no longer available:

Copy basemap files from /awips2/edex/data/utility/common_static/site/<SITEID>/basemaps to /awips2/edex/data/utility/cave_static/site/<SITEID>/basemaps

NA Boxes Won't boot after OB 16.2.2 Install

For sites auto-installing OB 16.2.2 on their non-associated workstations (na boxes), an nVidia graphics driver update for the Z620 lx workstations will be applied to the Z600. This will be seen as a "hang" after the certmonger [OK] line during the na workstation boot process. To resolve:

- 1.) ssh into the workstation as root.
- 2.) type 'init 3' at the command line to kill the X process
- 3.) backup /etc/X11/xorg.conf as a precaution
- 4.) run /data/fxa/INSTALL/rhel6/config/lx_xt/64bit/NVIDIA-Linux-x86_64-331.79 --tmpdir /local
- 5.) Follow the on screen prompts, selecting YES EXCEPT FOR THE LAST PROMPT ASKING YOU TO BACKUP THE X CONFIG FILE. If you accidentally click yes, you'll need to restore your xorg.config from backup.
- 6.) type 'reboot' at the command line to reboot the workstation.

FFMP will give error message if old FFFGMasterData.xml site file still exists.

The format of the file FFFGMasterData.xml has changed in OB16.2.2. In order to not get the error message "FFG Master Data not Available", please remove the site version of the file:
dx3: /awips2/edex/data/utility/common_static/site/XXX/monitoring/fffg/FFFGMasterData.xml

OB16.2.2 Beta issues that will be resolved in a subsequent patch within one week from Readiness Review:

DR 19213 - GFE: Hazard_HLS not reading VTEC from active table after TCV update

DCS 18911 - Change CAVE log purging to EDEX process

DR 19297 - NWRWAVES needs to be rolled back to 14.3.1 for HFON, GUM, others for the HLS issuance

DCS 19263 - NWRWAVES - Copy messages to "nwr/sent" directory after sending to BMH

Appendix A. XML/base, WarnGen Template and RPM Changes in OB 16.2.2

XML/base and WarnGen Template changes

The following link lists the XML/base and WarnGen Template changes.

cave/com.raytheon.uf.viz.damagepath/localization/menus/tools/damagepath-index.xml
cave/com.raytheon.uf.viz.damagepath/localization/menus/tools/damagepath-menu.xml
cave/com.raytheon.uf.viz.points/localization/menus/tools/points-index.xml
cave/com.raytheon.uf.viz.points/localization/menus/tools/points-menu.xml
cave/com.raytheon.uf.viz.radarapps.fsi/localization/menus/tools/fsi-tools-index.xml
cave/com.raytheon.uf.viz.radarapps.fsi/localization/menus/tools/fsi-tools-menu.xml
cave/com.raytheon.viz.awipstools/localization/menus/tools/baseTools-menuA.xml
cave/com.raytheon.viz.awipstools/localization/menus/tools/baseTools-menuB.xml
cave/com.raytheon.viz.awipstools/localization/menus/tools/baseTools-menuC.xml
cave/com.raytheon.viz.awipstools/localization/menus/tools/baseTools-menuD.xml
cave/com.raytheon.viz.awipstools/localization/menus/tools/baseTools-menuE.xml
cave/com.raytheon.viz.awipstools/localization/menus/tools/baseTools-menuF.xml
cave/com.raytheon.viz.awipstools/localization/menus/tools/baseTools-menuH.xml
cave/com.raytheon.viz.awipstools/localization/menus/tools/baseTools-menuL.xml
cave/com.raytheon.viz.awipstools/localization/menus/tools/baseTools-menuP.xml
cave/com.raytheon.viz.awipstools/localization/menus/tools/baseTools-menuR.xml
cave/com.raytheon.viz.awipstools/localization/menus/tools/baseTools-menuS.xml
cave/com.raytheon.viz.awipstools/localization/menus/tools/baseTools-menuT.xml
cave/com.raytheon.viz.awipstools/localization/menus/tools/baseTools-menuU.xml
cave/com.raytheon.viz.awipstools/localization/menus/tools/baseTools-menuV.xml
cave/com.raytheon.viz.grid/localization/bundles/mrms/mrmsSFC.xml
cave/com.raytheon.viz.radar/localization/bundles/DefaultRadarMosaicDPprecip.xml
cave/com.raytheon.viz.radar/localization/bundles/DefaultTDWRRadarMosaic.xml
cave/com.raytheon.viz.radar/localization/menus/radar/dialAllRadars.xml
cave/com.raytheon.viz.radar/localization/menus/radar/radarMosaicProductMenu.xml

cave/com.raytheon.viz.radar/localization/menus/radar/regionalMosaicMenus.xml
cave/com.raytheon.viz.radar/localization/menus/radar/tdwrMosaicProductMenu.xml
cave/com.raytheon.viz.radar/localization/menus/tools/radar-tools-index.xml
cave/com.raytheon.viz.radar/localization/menus/tools/radar-tools-menu.xml
cave/com.raytheon.viz.satellite/localization/bundles/Scatterometer.xml
cave/com.raytheon.viz.satellite/localization/menus/satellite/oconus/baseOCONUSImageryTemplate.xml
cave/com.raytheon.viz.satellite/localization/menus/satellite/oconus/baseOCONUSImagery.xml
cave/com.raytheon.viz.satellite/localization/plotWind/ascat_wind.xml
cave/com.raytheon.viz.satellite/localization/plotWind/hdw_wind.xml
cave/com.raytheon.viz.texteditor/localization/menus/tools/texteditor-index.xml
cave/com.raytheon.viz.texteditor/localization/menus/tools/texteditor-menu.xml
cave/com.raytheon.viz.volumebrowser/localization/menus/volumebrowser/fields/planview-timeseries/sfc2d/pwpcf.xml
common/com.raytheon.uf.common.datadelivery.service/utility/common_static/base/datadelivery/systemManagement/rules/PDASubscriptionOverlapRules.xml
edex/gov.noaa.nws.ncep.edex.plugin.nctext/utility/common_static/base/purge/nctextPurgeRules.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/NamDNG.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/PWPF.xml
edexOsgi/com.raytheon.edex.plugin.grib/utility/common_static/base/parameter/definition/pwpcf_parameters.xml
edexOsgi/com.raytheon.edex.plugin.grib/utility/edex_static/base/grib/grids/GFS-AK-20KM.xml
edexOsgi/com.raytheon.edex.plugin.grib/utility/edex_static/base/grib/grids/grid197-RTMA.xml
edexOsgi/com.raytheon.edex.plugin.grib/utility/edex_static/base/grib/grids/gridNBM_OC.xml
edexOsgi/com.raytheon.edex.plugin.grib/utility/edex_static/base/grib/grids/gridNBM_PR.xml
edexOsgi/com.raytheon.edex.plugin.grib/utility/edex_static/base/grib/grids/MRMS-5km-CONUS.xml
edexOsgi/com.raytheon.edex.plugin.grib/utility/edex_static/base/grib/grids/QPE-MSR.xml
edexOsgi/com.raytheon.edex.plugin.grib/utility/edex_static/base/grib/modelRegions/GribModelRegions.xml
edexOsgi/com.raytheon.edex.plugin.grib/utility/edex_static/base/grib/subgrids/namdng25Clip.xml
edexOsgi/com.raytheon.edex.plugin.grib/utility/edex_static/base/grib/subgrids/NamDngClip_AK.xml
edexOsgi/com.raytheon.edex.plugin.satellite/utility/common_static/base/purge/viirsPurgeRules.xml

edexOsgi/com.raytheon.uf.common.dataplugin.goesr.dmw/utility/common_static/base/plotWind/dmw_wind.xml

edexOsgi/com.raytheon.uf.common.monitor/utility/common_static/base/monitoring/fog/DefaultFogMonitorThresholds.xml

edexOsgi/com.raytheon.uf.common.monitor/utility/common_static/base/monitoring/safeseas/DefaultSMSMonitorThresholds.xml

edexOsgi/com.raytheon.uf.common.monitor/utility/common_static/base/monitoring/snow/DefaultSnowMonitorThresholds.xml

edexOsgi/com.raytheon.uf.edex.damagepath/utility/common_static/base/damagepath/hazard-types.xml

edexOsgi/com.raytheon.uf.edex.plugin.goesr/utility/common_static/base/satellite/goesr/descriptions/Level2/GOES-Test-Sectors.xml

edexOsgi/com.raytheon.uf.edex.plugin.goesr/utility/common_static/base/satellite/goesr/descriptions/Sectorized_CMI/GOES-Test-Sectors.xml

edexOsgi/com.raytheon.uf.edex.plugin.text.subscription/utility/common_static/base/notification/text-subscription.xml

viz/com.raytheon.uf.viz.core.maps/localization/bundles/maps/CountyNames.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/AttributeSetGroups/ModelFcstGridContours/GFS0P5-pot_vorticity.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/PlotModels/sfcobs/buoys.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/ResourceDefns/OVERLAYS/acarsAirports/acarsAirports.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/ResourceDefns/OVERLAYS/Canada/Canada.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/ResourceDefns/OVERLAYS/FFMPSmallStreamBasins/FFMPSmallStreamBasins.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/ResourceDefns/OVERLAYS/FFMPSmallStreams/FFMPSmallStreams.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/ResourceDefns/OVERLAYS/FireWxZones/FireWxZones.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/ResourceDefns/OVERLAYS/FixesAndIntersections/FixesAndIntersections.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/ResourceDefns/OVERLAYS/HighAltitudeRoutes/HighAltitudeRoutes.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/ResourceDefns/OVERLAYS/Highways/Highways.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/ResourceDefns/OVERLAYS/iscAll/iscAll.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/ResourceDefns/OVERLAYS/LowAltitudeRoutes/LowAltitudeRoutes.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/ResourceDefns/OVERLAYS/majorRivers/majorRivers.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/ResourceDefns/OVERLAYS/MarineZones/MarineZones.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/ResourceDefns/OVERLAYS/Mexico/Mexico.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/ResourceDefns/OVERLAYS/RiverDrainageBasins/RiverDrainageBasins.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/ResourceDefns/OVERLAYS/SpecialUseAirways/SpecialUseAirways.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/ResourceDefns/OVERLAYS/Spotters/Spotters.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/ResourceDefns/OVERLAYS/WorldNmap/WorldNmap.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/ResourceDefns/SATELLITE/HIMAWARI/HIMAWARI.xml

viz/gov.noaa.nws.ncep.viz.rsc.satellite/localization/ncep/resourceTemplates/HimawariSatellite.xml

viz/gov.noaa.nws.ncep.viz.rsc.satellite/localization/ncep/styleRules/giniSatelliteImageryStyleRules.xml

viz/gov.noaa.nws.ncep.viz.rsc.satellite/localization/ncep/styleRules/himawariSatelliteImageryStyleRules.xml

build/deploy.edex.awips2/esb/conf/spring/edex-db.xml

cave/com.raytheon.uf.viz.alertviz/localization/alertViz/configurations/Default.xml

cave/com.raytheon.uf.viz.d2d.nsharp/localization/menus/upperair/baseAlaska.xml

cave/com.raytheon.uf.viz.d2d.nsharp/localization/menus/upperair/baseAtlantic.xml

cave/com.raytheon.uf.viz.d2d.nsharp/localization/menus/upperair/baseAustralia.xml

cave/com.raytheon.uf.viz.d2d.nsharp/localization/menus/upperair/baseCanadaEastern.xml

cave/com.raytheon.uf.viz.d2d.nsharp/localization/menus/upperair/baseJapan.xml

cave/com.raytheon.uf.viz.d2d.nsharp/localization/menus/upperair/baseMexico.xml

cave/com.raytheon.uf.viz.d2d.nsharp/localization/menus/upperair/basePacificEast.xml

cave/com.raytheon.uf.viz.d2d.nsharp/localization/menus/upperair/basePacificWest.xml

cave/com.raytheon.uf.viz.d2d.nsharp/localization/menus/upperair/baseRussia.xml

cave/com.raytheon.uf.viz.d2d.nsharp/localization/menus/upperair/baseUSCentral.xml

cave/com.raytheon.uf.viz.d2d.nsharp/localization/menus/upperair/baseUSEastern.xml
cave/com.raytheon.uf.viz.d2d.nsharp/localization/menus/upperair/baseUSWestern.xml
cave/com.raytheon.uf.viz.d2d.ui.local/localization/menus/local/baseLAPSMSASSurface.xml
cave/com.raytheon.uf.viz.d2d.ui.ncephydro/localization/bundles/ncepHydro/SvrWxPlot.xml
cave/com.raytheon.uf.viz.d2d.ui.ncephydro/localization/menus/ncepHydro/tpc/hurricane.xml
cave/com.raytheon.uf.viz.d2d.ui.upperair/localization/menus/upperair/baseAddedFeatures.xml
cave/com.raytheon.uf.viz.d2d.ui.upperair/localization/menus/upperair/baseNPNPlot.xml
cave/com.raytheon.uf.viz.d2d.ui.upperair/localization/menus/upperair/baseRadar.xml
cave/com.raytheon.uf.viz.monitor.scan/localization/scan/config/ScanRunConfig.xml
cave/com.raytheon.uf.viz.profiler/localization/menus/upperair/baseEastNPN.xml
cave/com.raytheon.viz.awipstools/localization/menus/tools/toolsindex.xml
cave/com.raytheon.viz.grid/localization/menus/mrms/mrmsProducts.xml
cave/com.raytheon.viz.pointdata/localization/menus/obs/baseMaritime.xml
cave/com.raytheon.viz.radar/localization/menus/radar/baseRadarMenu.xml
cave/com.raytheon.viz.radar/localization/menus/radar/dualPol/baseRadarPrecip.xml
cave/com.raytheon.viz.radar/localization/menus/radar/radarindex.xml
cave/com.raytheon.viz.satellite/localization/bundles/Satellite3_9WindPlots.xml
cave/com.raytheon.viz.satellite/localization/bundles/SatelliteLayerPlot.xml
cave/com.raytheon.viz.satellite/localization/bundles/SatelliteWindPlots.xml
cave/com.raytheon.viz.satellite/localization/bundles/SatelliteWV7_0WindPlots.xml
cave/com.raytheon.viz.satellite/localization/bundles/SatelliteWV7_4WindPlots.xml
cave/com.raytheon.viz.satellite/localization/menus/satellite/baseDerivedProductPlots.xml
cave/com.raytheon.viz.satellite/localization/menus/satellite/baseDerivedProductsImagery.xml
cave/com.raytheon.viz.satellite/localization/menus/satellite/index.xml
cave/com.raytheon.viz.texteditor/localization/menus/textws/baseToolsMenu.xml
cave/com.raytheon.viz.textworkstation/localization/textws/gui/TextEditorCfg.xml
cave/com.raytheon.viz.volumebrowser/DataSelectionMenuItems.xml
cave/com.raytheon.viz.volumebrowser/localization/menus/volumebrowser/fields/planview-
timeseries/sfc2d/marine.xml
cave/com.raytheon.viz.volumebrowser/localization/menus/volumebrowser/fields/planview-
timeseries/winter.xml

cave/com.raytheon.viz.volumebrowser/localization/volumebrowser/VbSources/sfcGrid.xml
cave/com.raytheon.viz.volumebrowser/localization/volumebrowser/VbSources/volume.xml
common/com.raytheon.uf.common.datadelivery.service/utility/common_static/base/datadelivery/systemManagement/rules/GRIDSubscriptionOverlapRules.xml
common/com.raytheon.uf.common.derivparam/utility/common_static/base/derivedParameters/definitions/msl-P.xml
common/com.raytheon.uf.common.derivparam/utility/common_static/base/derivedParameters/definitions/TP.xml
common/gov.noaa.gsd.uf.common.dataplugin.hazards/utility/common_static/base/HazardServices/validation/QualityControlCfg.xml
edex/gov.noaa.nws.ncep.edex.plugin.ncgrib/utility/common_static/base/parameter/alias/gempak.xml
edexOsgi/com.raytheon.edex.plugin.bufrua/utility/common_static/base/purge/bufruaPurgeRules.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/common_static/base/grid/dataset/alias/gfeParamInfo.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/common_static/base/parameter/alias/gfeParamName.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/AKHwave10.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/AKHwave4.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/AKwave10.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/akWave239.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/AKwave4.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/avn202.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/avn203.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/avn211.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/avn213.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/avn225.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/dgex185.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/dgex186.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/enpWave253.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/EPwave10.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/eta207.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/eta211.xml

edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/eta218.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/eta242.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/fcst.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/gfs160.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/gfs161.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/gfs20km.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/gfs212.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/gfs213.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/gfs254.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/GlobalWave.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/GLOBHwave.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/GRLKwave.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/HiResW-
arwAK.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/HiResW-
arwEast.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/HiResW-
arwHI.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/HiResW-
arwSJU.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/HiResW-
arwWest.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/HiResW-
nmmAK.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/HiResW-
nmmEast.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/HiResW-
nmmHI.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/HiResW-
nmmSJU.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/HiResW-
nmmWest.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/hpcGuideNDFD.x
ml

edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/HRRR.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/laps.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/mesoEta215.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/mesoEta217.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/mm5.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/NAHwave10.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/NAHwave15.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/NAHwave4.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/NationalBlend.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/NPHwave10.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/NPHwave15.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/NPHwave4.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/opcWave180.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/opcWave181.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/opcWave182.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/roc_rams.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/rsmMerc10km.xml
|
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/ruc130.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/ruc211.xml
edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/grid/parameterInfo/ruc236.xml
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viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/AttributeSetGroups/SolarImage/SOHO-EIT-ALL.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/AttributeSetGroups/SolarImage/SOHO-LASCO-C2.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/AttributeSetGroups/SolarImage/SOHO-LASCO-C3.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/AttributeSetGroups/SolarImage/STEREO-A-COR2.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/AttributeSetGroups/SolarImage/STEREO-A-EUVI.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/AttributeSetGroups/SolarImage/STEREO-A-HI1.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/AttributeSetGroups/SolarImage/STEREO-A-HI2.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/AttributeSetGroups/SolarImage/STEREO-B-COR2.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/AttributeSetGroups/SolarImage/STEREO-B-EUVI.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/AttributeSetGroups/SolarImage/STEREO-B-HI1.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/AttributeSetGroups/SolarImage/STEREO-B-HI2.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/DefaultRBDs/defaultRBD.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/PlotModels/airep/fullPlot.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/PlotModels/airep/standard.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/PlotModels/amdar/fullPlot.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/PlotModels/amdar/standard.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/PlotModels/bufrmosAVN/standard.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/PlotModels/bufrmosETA/standard.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/PlotModels/bufrmosGFS/standard.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/PlotModels/bufrmosHPC/standard.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/PlotModels/bufrmosLAMP/standard.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/PlotModels/bufrmosMRF/12hrpop.xml

viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/PlotModels/bufrmosMRF/anom_mm.xml

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viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/PlotModels/bufrmosMRF/min_anom.xml
viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/PlotModels/bufrmosMRF/min_mm.xml
viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/PlotModels/bufrmosMRF/mos_anom_mm.xml
viz/gov.noaa.nws.ncep.viz.localization/localization/ncep/PlotModels/bufrmosMRF/pop12_mm.xml

RPM Changes

awips2-16.2.2-29.noarch.rpm
awips2-adapt-native-16.2.2-8.noarch.rpm
awips2-alertviz-16.2.2-29.x86_64.rpm
awips2-ant-1.9.6-16.2.2.1.noarch.rpm
awips2-aviation-shared-16.2.2-1.noarch.rpm
awips2-bmh-1.1-15.noarch.rpm
awips2-bmh-database-1.1-6.noarch.rpm
awips2-bmh-shure-1.1-6.noarch.rpm
awips2-bmh-test-1.1-6.noarch.rpm
awips2-cave-16.2.2-29.x86_64.rpm
awips2-cave-ncep-16.2.2-29.x86_64.rpm
awips2-cave-wrapper-16.2.2-29.x86_64.rpm
awips2-cli-16.2.2-15.noarch.rpm
awips2-collab-dataserver-2.2-1.x86_64.rpm
awips2-common-base-16.2.2-22.x86_64.rpm
awips2-common-bmh-1.1-13.x86_64.rpm
awips2-database-16.2.2-1.noarch.rpm
awips2-database-server-configuration-16.2.2-1.noarch.rpm

awips2-database-standalone-configuration-16.2.2-1.noarch.rpm
awips2-data.gfe-16.2.2-1.noarch.rpm
awips2-data.hdf5-topo-16.2.2-15.noarch.rpm
awips2-eclipse-3.8.2-1.x86_64.rpm
awips2-edex-16.2.2-1.x86_64.rpm
awips2-edex-archive-16.2.2-1.x86_64.rpm
awips2-edex-base-16.2.2-22.x86_64.rpm
awips2-edex-binlightning-16.2.2-8.x86_64.rpm
awips2-edex-bmh-1.1-13.x86_64.rpm
awips2-edex-bufr-16.2.2-28.x86_64.rpm
awips2-edex-common-core-16.2.2-5.x86_64.rpm
awips2-edex-configuration-16.2.2-9.x86_64.rpm
awips2-edex-core-16.2.2-22.x86_64.rpm
awips2-edex-cots-16.2.2-1.x86_64.rpm
awips2-edex-dat-16.2.2-28.x86_64.rpm
awips2-edex-datadelivery-16.2.2-20.x86_64.rpm
awips2-edex-datadelivery-client-16.2.2-20.x86_64.rpm
awips2-edex-datadelivery-core-16.2.2-20.x86_64.rpm
awips2-edex-dataplugins-16.2.2-28.x86_64.rpm
awips2-edex-dataprovideragent-16.2.2-20.x86_64.rpm
awips2-edex-environment-16.2.2-1.noarch.rpm
awips2-edex-gfe-16.2.2-27.x86_64.rpm
awips2-edex-glmdecoder-16.2.2-19.x86_64.rpm
awips2-edex-goesr-16.2.2-4.x86_64.rpm
awips2-edex-grib-decoderpostprocessor-16.2.2-5.x86_64.rpm
awips2-edex-grid-16.2.2-26.x86_64.rpm
awips2-edex-hazards-16.2.2-6.x86_64.rpm
awips2-edex-hydro-16.2.2-9.x86_64.rpm

awips2-edex-mping-16.2.2-5.x86_64.rpm
awips2-edex-ncep-16.2.2-6.x86_64.rpm
awips2-edex-ncep-nco-16.2.2-6.x86_64.rpm
awips2-edex-npp-16.2.2-8.x86_64.rpm
awips2-edex-nswrc-radar-16.2.2-4.x86_64.rpm
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awips2-edex-ogc-wfs-16.2.2-1.x86_64.rpm
awips2-edex-ohd-16.2.2-5.x86_64.rpm
awips2-edex-ost-16.2.2-17.x86_64.rpm
awips2-edex-radar-16.2.2-8.x86_64.rpm
awips2-edex-registry-16.2.2-8.x86_64.rpm
awips2-edex-registry-client-16.2.2-8.x86_64.rpm
awips2-edex-registry-request-16.2.2-1.x86_64.rpm
awips2-edex-remote-script-16.2.2-1.x86_64.rpm
awips2-edex-request-bmh-1.1-13.x86_64.rpm
awips2-edex-satellite-16.2.2-4.x86_64.rpm
awips2-edex-sportlma-16.2.2-19.x86_64.rpm
awips2-edex-text-16.2.2-26.x86_64.rpm
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awips2-gfesuite-server-16.2.2-20.noarch.rpm
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awips2-httpd-pypies-devel-2.2.15-47.el6.x86_64.rpm
awips2-hydroapps-shared-16.2.2-8.x86_64.rpm
awips2-java-1.7.0_80-16.2.2.1.x86_64.rpm
awips2-ldm-6.12.14-16.2.2.14.noarch.rpm
awips2-localapps-environment-16.2.2-1.noarch.rpm
awips2-maps-database-16.2.2-1.noarch.rpm

awips2-maven-3.2.3-16.2.2.1.noarch.rpm
awips2-ncep-database-16.2.2-1.noarch.rpm
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awips2-openfire-database-2.2-1.noarch.rpm
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awips2-postgresql-9.3.10-16.2.2.15.el6.x86_64.rpm
awips2-psql-9.3.10-16.2.2.3.el6.x86_64.rpm
awips2-pypies-16.2.2-1.x86_64.rpm
awips2-python-cherrypy-3.1.2-1.el6.noarch.rpm
awips2-python-dateutil-2.4.2-1.el6.x86_64.rpm
awips2-python-dynamicserialize-16.2.2-27.el6.noarch.rpm
awips2-python-pmw-1.3.2-1.el6.x86_64.rpm
awips2-python-pytz-2015.4-1.el6.x86_64.rpm
awips2-python-six-1.9.0-1.el6.x86_64.rpm
awips2-python-thrift-20080411p1-1.el6.noarch.rpm
awips2-python-tpg-3.1.2-1.el6.noarch.rpm
awips2-python-ufpy-16.2.2-1.el6.noarch.rpm
awips2-python-werkzeug-0.6.2-1.el6.noarch.rpm
awips2-qpidd-java-broker-0.32-2.el6.noarch.rpm
awips2-qpidd-java-client-0.32-1.el6.noarch.rpm
awips2-qpidd-java-common-0.32-1.el6.noarch.rpm
awips2-rcm-16.2.2-15.x86_64.rpm
awips2-tools-1.8.5-16.2.2.15.el6.x86_64.rpm
awips2-yajsw-11.11-16.2.2.7.el6.noarch.rpm