



Raytheon

AWIPS Operational Build 14.3.1: Final Release Notes

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Submitted to:

Mr. Beraq Azeem
Contracting Officer's Technical Representative
U.S. Department of Commerce
NOAA/NWS Office of Operational Systems
FSOC/AWIPS Support Branch
SSMC2, Room 4148
1325 East-West Highway
Silver Spring, MD 20910

By:

Raytheon

Raytheon Technical Services Company LLC

8401 Colesville Road, Suite 800

Silver Spring, MD 20910

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Overview

The Release Notes have been prepared for AWIPS II software release OB14.3.1. 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 175 DRs including that were passed at the Raytheon Facility Test Labs and included in the current release, OB14.3.1. 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 Addressed in the OB14.3.1.** Design Changes for OB14.3.1 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 175 Discrepancy Reports (DRs) passed at the Raytheon Facility Test Labs and included in the current release (OB14.3.1). 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 4). Expanded descriptions follow the table. Sequential numbers in column 1 of the table cross-reference each of the DRs to its expanded description.

Note: Column 3 identifies the Dimensions DR number.

DRs: Release 14.3.1

No.	Redmine	Dimensions (Dim)	Description
1	17112	17904	Radar watchdog alarms continuously and on dial radars
2	17101	17893	MPE: Bad data not being written to file
3	17100	17892	Revert changes made for DR 14998
4	17094	17886	MPE: field length mis-match when writing Precip Field names to the rwresult table.
5	17085	17877	14.3.1 lifted index issue reporting in units of Kelvin but labeled as Celsius
6	17084	17876	Model soundings being interpolated below the surface for elevated sites
7	17082	17874	Implement work around for DR 17065 in install script
8	17081	17873	GFE Service Backup: vtec directory/localVTECPartners.py file not copied to backup site during import config
9	17080	17872	Add Total Lightning (SFPA42) ingest pattern to LDM pqact.conf
10	17079	17871	Soundings listed out of order if frames go into new month
11	17071	17865	Missing tokens for Alert Alarm Service
12	17069	17863	MPE: field gen does not include all selected fields
13	17062	17857	Missing functionality in DCS 15615
14	17054	17849	Disable MRMS in 14.3.1
15	17051	17846	MPE: Daily QC does not display Points and other fields together when option selected
16	17050	17845	Customized Scales have issues after OB14.3.1-41
17	17036	17836	Remove multiple smartInit restrictions added by RM 15623 (RODO 3146)
18	17035	17835	TextWS locks up when running spell checker
19	17016	17827	Allow common-static base localization files to be installed with CAVE
20	17008	17819	NSHARP Hodograph Does Not Loop in D2D Lite Configuration
21	17006	17818	NSHARP freezes when loading a sounding from MDCRS products in Volume Browser
22	16994	17806	System Monitor: DGEX status not updating correctly
23	16993	17805	DrawPolygonDlg has changes that were inadvertently removed and need to be restored

No.	Redmine	Dimensions (Dim)	Description
24	16959	17779	NSHARP freezes when loading a sounding from HiRes-ARW/NMM models
25	16955	17775	HFR: Vector data displays with very elongated vectors/arrows in 14.3.1 vs. 14.2.4
26	16954	17774	MPE: Fix for DualPol functionality
27	16951	17771	EDEX service script prints confusing error message when wrapper exits early
28	16949	17769	Thin Client cannot update grid products with JMS disabled
29	16942	17762	GFE: VTEC Active Tables not getting purged
30	16931	17774	Promoting a Site subscription to Shared fails
31	16929	17752	Service Backup log cleanup script issue on test systems
32	16928	17751	MRMS menus are displaying across multiple perspectives
33	16918	17742	BinLightning Issue with pulseIndex Dataset
34	16911	17737	MPE: Daily QC does not display new Hydro day when time is after 18Z
35	16902	17729	Recompile bignsharp/gempak for 14.3
36	16890	17717	AlertViz error received when runprocedure is run to create a new db
37	16889	17716	MPE: Daily QC does not display SNOTEL data
38	16888	17715	Comp(Src) button not functioning properly in NSHARP display
39	16884	17712	NSHARP crashes if user loops a product and then clicks WINTER/FIRE buttons in Toolbar
40	16871	17699	MPE Gage Table: columns do not sort in descending order
41	16865	17693	Volume Browser data fails to load with Internal Exceptions
42	16864	17692	Selecting Overlay2, CompStn, CompTm, CompSrc, EditGraph throw unhandled event loop exceptions
43	16863	17691	GFE: Check in version 2.12 of the Objective Analysis utility
44	16861	17689	Memory issues when loading RAP13 model family from Model Families A-YY
45	16858	17686	GFE: Add the serplSC.py smartTool to the baseline
46	16857	17685	Change default Save Image type back to .png
47	16852	17681	Triggering of Retrievals inconsistent, sometimes falls outside ranging of retrieval READY query
48	16851	17680	Updating a shared subscription may skip a model run for the original subscription
49	16850	17679	Thin Client connectivity dialog doesn't test gzip compression
50	16844	17676	WarnGen can become disabled when moving storm track
51	16827	17665	LDM configuration updates in 14.2.2 need to be baselined into rpm
52	16810	17661	Fix MRMS mid-level Rotation Track product label
53	16805	17656	Master Rights File and license updates
54	16803	17654	KML Export: Maps exported no longer display in Google Earth
55	16797	17648	Errors are returned during Model Families A-YY grid updates

No.	Redmine	Dimensions (Dim)	Description
56	16788	17642	HierarchicalPreferenceStore is not thread safe
57	16784	17638	loadConfig.py missing LogStream import
58	16782	17636	Bring WCLWatchSrv up to latest standards for writing localization files
59	16750	17608	Security Patch Update (September 2014 scan)
60	16746	17604	Error returned when loading radar mosaic with the Imaging dialog opened
61	16734	17591	GFE: Cannot access user override of edit area groups
62	16727	17584	GFE: Time Range duplicate entries
63	16722	17579	NCWF Grid image fails to display when requested
64	16711	17568	Grids No Longer Float
65	16709	17566	Ingest jvm locked up trying to log messages
66	16699	17556	MPE: GageTableDialog Data Reading Problem
67	15703	17554	GLDisposalManager needs optimizations
68	15693	17545	Volume Browser: MMP units are wrong
69	15692	17544	ColormapComp/ColormapTree can lock UI thread
70	15683	17535	Reduce memory usage of sparse grids
71	15681	17533	Cave should log perspective displays and procedures that are loaded
72	15672	17524	Add check_baseline_changes.sh into baseline repository
73	15653	17505	WA20.13: Implementation of GFS upgrades: Phase II
74	15640	17494	NVIDIA Vulnerability
75	15623	17478	GFE allows multiple smartInits for same model causing lock conflicts
76	15472	17469	Radar Digital Vertical Integrated Liquid wrongly capped at value of >60 kg*m ⁻²
77	15469	17462	SPC Watches do not always update
78	15465	17458	No variable for failed site's MND Header location available for WarnGen to use
79	15059	17457	MPE: Save Best Estimate throws error
80	15053	17451	Ingest, Processing and Display of the Unrestricted Mesoscale Analysis (URMA)
81	659	17439	HPE: DSA Processing Problem
82	658	17438	MPE: LSATPRE Field not generated
83	657	17436	Errors loading Distance Speed tool and Time of Arrival Tool
84	15042	17433	GFE: WCL arrival should generate Alertviz message even if GFE is not open
85	619	17421	Harden collaboration connection to XMPP server
86	15033	17420	WarnGen: IBW templates and 14.2.1 template corrections
87	15005	17383	Volume Browser missing 50mb and 100mb layers
88	597	17373	CAVE Import Geotiff is broken
89	14997	17370	TextDB: RiverPro products occasionally stored twice

No.	Redmine	Dimensions (Dim)	Description
90	14993	17363	LAPS freezing level height not computed; prevents display of hail product
91	595	17362	Contour Tool in GFE displays a sharp gradient in contours
92	593	17351	HydroGen genXML:bad pattern matching
93	14984	17348	HydroGen genXML:bad pattern matching
94	14980	17343	NetCDFGridDatabase is not thread safe
95	14976	17336	Reduce QPID Process Memory Usage
96	14972	17329	Lightning strike totals incorrect on displays "clipped" by the D2D scale
97	14959	17313	Additional true color capabilities for satellite, gridded data
98	14951	17303	Ingest LambertConformal projection with two standard parallels using RegionalSat
99	573	17292	ECMWF product legend colors are incorrect
100	572	17288	Coordinate is misspelled in the exception thrown by the createPolygon method
101	571	17286	VTEC sharing does not work correctly for sites other than the EDEX primary site
102	570	17285	Base configuration cannot display data on all grid levels
103	569	17283	Update SSDD for dataURI
104	568	17282	Rounding Errors when Configured Incorrectly
105	566	17277	AvnFPS hangs IU thread if .hd5 file is missing when displaying wind rose
106	608	17273	Missing NDM File Support
107	14929	17265	WarnGen: "Locations Impacted" section includes locations of neighbor CWA in SMW
108	14889	17212	D-2D: Local Warning Display does not display flood advisories
109	557	17210	Loosen pgadmin rpm dependency on RH version of wxGTK
110	16695	17205	Problem: Update FSI configuration to use dual pol products (A1 DR 21474)
111	14867	17181	Thin Client: AlertViz messages indicate server-side problems
112	556	17177	WarnGen: Use noon/midnight instead of 1200 PM/1200 AM
113	550	17148	Remove ITO calls from monitor_qpid_host.sh
114	648	17129	gage_pp is posting non-top-of-hour data to wrong hour in hourlyPP table.
115	546	17126	Change the PlotModelFactory2's python capabilities to use the PythonJobCoordinate
116	545	17096	HydroBase selected items are incorrectly pointing to rows
117	544	17079	Bundles with density 99999 cause slowdowns
118	543	17075	GFE: Grids in ISC mode should step fwd/backward using ISC times, not Fcst times
119	542	17064	Improve memory efficiency of wind grids in D2D
120	541	17052	Edex shutdown doesn't allow current processing to finish
121	295	16999	Display Extratropical Storm Surge Model (ESTOFS) Data
122	293	16997	Display Multi-grid Wavewatch III Hurricane Wave Model Grids

No.	Redmine	Dimensions (Dim)	Description
123	283	16987	MPE's "Point Filter" slider bars in Daily QC causes unexpected problems
124	539	16954	Multiple flag functionality for textdb is not working properly
125	538	16953	NullPointerException in BlinkToggleAction with 4 panels
126	14719	16933	Text Script Editor :Edit Menu: Delete Line Option
127	537	16928	AvnFPS: Syntax failed to flag format error
128	536	16885	NPE in Hydro Perspective
129	14634	16796	Python DateTime object constructor contains typos.
130	533	16778	SAFESEAS/SNOW/Fog Monitor: Config GUI bug
131	532	16776	Deleted hazard grids not removed from neighboring sites ISC grids
132	531	16759	Nested include statements not handled in WarnGen Templates
133	530	16752	GFSEnsemble Run Snow parameters give error despite showing data present
134	529	16743	Invalid QC message for Areal Flood Advisory
135	528	16707	MPE: Draw Polygons window placement not remembered
136	527	16705	Hydro: TimeSeries save edited data didn't update revision and shef_qual_code
137	526	16694	Duration menu disabled after creating text for a COR SVS
138	641	16683	Invalid County in headline of SPS
139	525	16668	Text Workstation expiration pop-up inconsistent
140	587	16661	Hydro: Shefdecoder gage_pp should post data to hourlypp if pe=pp and dur=1006
141	524	16596	HPE data does not display using D2D Volume Browser
142	523	16586	FFMP: Error when loading a subsequent FFMP for a backup radar or HPE/BHPE
143	574	16583	Data Retrieval over Spatial Sub-domain Using Data Access Framework
144	314	16561	MPE Drawn polygons remain displayed unless "Draw Polygons" window is closed
145	14448	16560	MPE color bar creation behavior differs between AWIPS I and AWIPS II
146	522	16544	Hydro: Storing metadata for HPE products at RFC sites
147	16693	16508	GFE: Remove swear words eliminate words from the dictionary
148	520	16494	Error returned when tearing off a menu in Practice mode
149	248	16473	The shef_post_baddata = PE does not work
150	519	16466	RADAR: txxx Products Not Available
151	518	16456	SITE level FFMPSourceConfig.xml file not being regenerated from BASE file
152	517	16439	SCAN reflectivity threshold alarms not alarming audibly or visibly in D2D perspective
153	516	16400	MPE: Detached Draw Polygons not working
154	514	16356	Line of Storms functionality behaving oddly in WarnGen

No.	Redmine	Dimensions (Dim)	Description
155	513	16322	Maps loaded before opening WarnGen not retained when WarnGen is closed
156	512	16319	Need radar data watchdog functionality
157	14193	16265	Minor Typo in KXXX Menu: Best Res Z + V should be followed by "combo"
158	14188	16259	Minor Typo in Volume Menu of D2D: 4-PanelFamilies
159	510	16215	textdb -pil -a command fails to add scripts with option arguments
160	509	16195	GFE: Product editor still auto-wraps when the option is turned off
161	508	16167	GFE: GFE product dialog doesn't add scroll bars if GUI too big to fit on display
162	14097	16154	Erroneous entry in AllRegionalWarnings.xml
163	507	16148	FFMP gap calculation is incorrect
164	14013	16056	Add Two New RTMA Parameters (Visibility and Wind Gust)
165	14005	16047	Bad rule in gridImageryStyleRules.xml for Convective Inhibition
166	258	15941	Cross section: Switching the log plot to z-coordinate scale
167	13822	15853	GFE: iscMosaic errors if __getDbGrid finds no grid and no grid history
168	256	15814	GFE: Can't see model data for neighboring sites in ISC mode w/o toggling button
169	505	15811	Color table editor does not allow enough significant digits
170	13739	15762	Spelling error: Upper Air Menu - Tallahassee
171	13467	15486	GFE: Need to add Beach Hazards Statement
172	12757	14755	Thin Client: synchronize misspelled
173	504	14068	Small Enhancement for the Real-Time Mesoscale Analysis (RTMA) new Alaska domain
174	559	9784	MPE: Implement PostAnalysis - CHPS support
175	558	2090	GIS Viewer and maps database need to support shape files not in WGS84 lat/lon

1. Problem: Radar watchdog alarms continuously and on dial radars

The radar watchdog functionality that was added with DR #512 can alarm on both dedicated and dial radars. It should only alarm on the former. Also, it is alarming continuously once a failure condition occurs.

AWIPS 1 Behavior: One a failure condition is detected on radar the A1 watchdog will not alarm again until products are received. A1 watchdog only alarms on dedicated/associated radars

Operational Impact: The alarms that appear in AlertViz are annoying to the point they have to be disabled which defeats the purpose of the watchdog.

Required Behavior: The watchdog should only alarm once per detected radar failure condition. (Redmine DR 17112, Dim DR 17904)

2. Problem: MPE: Bad data not being written to file

In Daily QC when setting gages to bad and saving the edits, the gages should be written to the bad values file, they are not, the file is empty. This was working in 14.3.1-41.

Operational Impact: No way to see what data is bad when reviewing QPE data.

Required Behavior: Write assigned "Bad" gages to file. (Redmine DR 17101, Dim DR 17893)

3. Problem: Revert changes made for DR 14998

The changes added to 14.3.1 for DR #14998 caused other issues. Therefore DR 14998 is being backed out of the 14.3.1 release. This DR will track reverse the code changes made in DR 14998. (Redmine DR 17100, Dim DR 17892)

4. Problem: MPE: field length mis-match when writing Precip Field names to the rwresult table.

KRF reported database errors when attempting to run "Save Best Estimate Top" for these Precip Field types:

DP Avg Radar Mosaic

DP Max Radar Mosaic

Local Field #1

Local Field #2

Local Field #3

When any of these field types were selected, running "Save Best Estimate Top" would result in a database-write error.

In routine 'update_rwr_save': could not update record in RWResult for query 'WHERE id.rfc='marfc' AND id.obstime='2015-02-03 18:00:00'.

In the table rwresult, the field mapx_field_type is designated as "character varying(10)".

However, the field names for the 5 problem fields are all 11 characters.

Field name in MPE Code name written to db

DP Avg Radar Mosaic AVGRDMOSAIC

DP Max Radar Mosaic MAXRDMOSAIC

Local Field #1 LOCALFIELD1

Local Field #2 LOCALFIELD2

Local Field #3 LOCALFIELD3

Attempting to manually update the rwresult table indicates the data-length mismatch:

```
# update rwresult set mapx_field_type='AVGRDMOSAIC' where rfc='marfc' and  
obstime='2015-02-03 19:00:00' and last_exec_time='2015-02-03 19:25:20' ;
```

ERROR: value too long for type character varying(10)

```
# update rwresult set mapx_field_type='LOCALFIELD2' where rfc='marfc' and obstime='2015-  
02-03 19:00:00' and last_exec_time='2015-02-03 19:25:20' ;
```

ERROR: value too long for type character varying(10)

Operational Impact: User will be unable to create saved Best Estimate data for the precip types: DP Avg Radar Mosaic, DP Max Radar Mosaic, or Local Field #1 - #3.

Required Behavior: Write operations to the rwresult table will complete without reporting errors. (**Redmine DR 17094, Dim DR 17836**)

5. Problem: 14.3.1 lifted index issue reporting in units of Kelvin but labeled as Celsius

Lifted Index parameter displayed from the GFS40, GFS90, NAM12 and AK-NAM12 are displayed in D2D as Kelvin instead of degrees Celsius, although the product legend in the bottom right of D2D says the units are degrees Celsius. (**Redmine DR 17085, Dim DR 17877**)

6. Problem: Model soundings being interpolated below the surface for elevated sites

When loading model soundings for GFS40, NAM, ECMWF, etc. for sites like BOU that are well above sea level, the soundings are being incorrectly interpolated from the actual surface to the 1000MB level. This is incorrect since that area is below ground.

Required Behavior: Sounds should plot to the correct surface. (**Redmine DR 17084, Dim DR 17876**)

7. Problem: Implement work around for DR 17065 in install script

Until #17065 is fixed, it was requested to put in a work around into edexInstall.sh so that the localization service works correctly with newly installed files in 14.3.1. The work around is to run the following command on dx3 as part of the install:

```
find /awips2/edex/data/utility/*/base -type f ! -name "*.md5" -exec touch {} \;
```

Operational Impact: Site must remove caveData if problem is not addressed during install process.

Required Behavior: Files are pulled down to caveData cache after 14.3.1 install. (Redmine DR 17082, Dim DR 17874)

8. Problem: GFE Service Backup: vtec directory/localVTECPartners.py file not copied to backup site during import config

When going into service backup for site RAH, RAH's localVTECPartners.py file was not copied over to RNK's system. This resulted in problems running text formatters for RAH, including out of memory errors. The problem was worked around by manually copying the file. LCH has reported similar problems in TT 666901.

The root cause appears to be that in the service backup script `proc_receive_config`, from `common_static/site/CCC` only the `gfe` directory is copied and not the `vtec` directory. As a side note, there is an existing DR 16831 on the `colormaps` directory not getting copied from `common_static`.

The service backup cleanup script removes the `vtec` directory if it exists, which means that once sites work around the problem by creating/copying in a `localVTECPartners.py` file for the failed site, they'd need to copy it over again each time they do backup.

AWIPS 1 Behavior: The `localVTECPartners.py` file is in a different directory in A1 and is copied over during the config import.

Operational Impact: If workaround is not applied, sites can experience problems running text formatters for the failed site in service backup.

Required Behavior: `common_static/site/CCC/vtec` must be copied to the backup site during the processing of the configuration import in service backup. (Redmine DR 17081, Dim DR 17873)

9. Problem: Add Total Lightning (SFPA42) ingest pattern to LDM pqact.conf

```
# WMO Heading for Earth Networks Total Lightning is *SFPA42 KWBC*
```

```
# Store data files in /data_store/lightning/
```

```
# Proposed *pqact.conf.template* entry (needs verification):
```

```
<pre>
```

```
HDS    ^(SFPA42) ([A-Z]{4}) (..)(..)(..)
```

```
FILE  -overwrite -log -edex -close
/data_store/lightning/(4:yyyy)(4:mm)4\5\1_3_4\5\6_(seq).%Y%m%d%H</pre>
```

Operational Impact: Sites should be able to ingest Total Lightning data products when the SFPA42 feed is activated over the SBN.

Required Behavior: Total Lightning processing and display plugins are already in 14.3.1. Sites are expecting these data products will be available for spring 2015. (Redmine DR 17080, Dim DR 17872)

10. Problem: Soundings listed out of order if frames go into new month

When a user selects a sounding to load from the Volume Browser, if the amount of frames loaded goes from one month to the next, the list of available soundings gets out of order such that the end of the month is at the top of the list and the start of the month is at the bottom of the list. I have confirmed this with the GFS40, DGEX, and ECMWF-HiRes models. The result of this is the following:

If the user clicks |<< to go to the first sounding in the list, this should be the most current valid time. Alternatively, if the user clicks >>|, it sends the selection to the top of the list, which is the last valid time in the current month. This should send you to the last valid time in the list. (Redmine DR 17079, Dim DR 17871)

11. Problem: Missing tokens for Alert Alarm Service

Need to check-in a new Apps_default file that adds a few tokens, allowing Alarm Alert Service to function properly.

Operational Impact: Alarm Alert Service will not function properly, causing users to use the AWIPS 1 version. (Redmine DR 17071, Dim DR 17865)

12. Problem: MPE: field gen does not include all selected fields

The MPE field gen operation should run calculations for all fields listed in the token mpe_generate_list. Currently it is excluding some of these fields.

In the site Hydro Apps_defaults file, there is a token for: mpe_generate_list The MPE fields in the list will display as enabled on the MPE: PrecipFields drop-down list. Any field name not included in the token is grayed-out. This functionality works. Also, the included fields should be computed when either the hourly mpe_fieldgen runs, or the user selects MPEControl-->Regenerate Hour Fields.

When this runs a log file is created in /awips2/edex/data/share/hydroapps/precip_proc/local/data/log/mpe_fieldgen.

At the top of the log file, all of the fields are listed, along with "ON" or "OFF" to indicate if they're computed. All of the fields in the mpe_generate_list token should have an "ON" setting.

The problem is that the field names at the tail end of the token are not being processed: they're left as "OFF".

AWIPS 1 Behavior: In A1 there are 20 entries for the PrecipFields menu: if all 20 are enabled (i.e., entered in the mpe_generate_list token), they are also included in the hourly field_gen calculations.

Operational Impact: The hourly MPE Field Gen data is missing calculations for fields which the user indicated should be included.

Required Behavior: All field names listed in the mpe_generate_list token are included in field gen calculations. (Redmine DR 17069, Dim DR 17863)

13. Problem: Missing functionality in DCS 15615

The goal of this DCS was to make the menus driven by NDM files dynamic. The DCS did not state it wanted to use the NDM files as input specifically. However this is a desired aspect to the functionality which is missing now that it is being tested. The DCS implemented functionality where one could manually create an xml file from the NDM file which can be used to change menus, but that part of the process is manual.

Operational Impact: Sites will need to take the time to manually generate XML to be put into the NDM endpoint for localization.

Required Behavior: Have the NDM files themselves be supported by the ndm endpoint for creation of the menu xml files automatically. (Redmine DR 17062, Dim DR 17857)

14. Problem: Disable MRMS in 14.3.1

This DR is intended to document changes necessary to disable the MRMS product in 14.3.1 since it was determined that it would now be fully delivered in 14.4.1. This will gray out the D2D menu and also disable the system from ingesting the data when it starts coming over the SBN. These will be turned back on in 14.4.1. (Redmine DR 17054, Dim DR 17849)

15. Problem: MPE: Daily QC does not display Points and other fields together when option selected

When selecting Points+Grids, Points+MAPs and Points+Contours, only the data points are displayed. Previously would display Points on top of Grids or MAPs as requested. (Redmine DR 17051, Dim DR 17846)

16. Problem: Customized Scales have issues after OB14.3.1-41

BCQ reported there were some issues with creating new map scales (i.e., Atlantic or Miscell) after the OB14.3.1-41 Install. Other customized Scales will display correctly, however, they throw an AlertViz error. (Redmine DR 17050, Dim DR 17845)

17. Problem: Remove multiple smartInit restrictions added by RM 15623 (RODO 3146)

Remove multiple smartInit restriction added to doConfig.py by RM #15623 (RODO 3146). (Redmine DR 17036, Dim DR 17836)

18. Problem: TextWS locks up when running spell checker

Using Spell Checker for TextWS is causing workstations to lockup and TextWS to crash in 14.3.1. (Redmine DR 17035, Dim DR 17835)

19. Problem: Allow common-static base localization files to be installed with CAVE

A recent trend is that localization files are moving from cave-static to common-static. This has begun to introduce performance problems, especially with thin client, because all the files must be downloaded from edex. The cave localization code has to be modified to allow common-static files to be installed with cave. When the LocalizationManager is asked to download a file it should check if it is installed in cave, if it is then it should verify the md5sum and if it matches then copy the file to the user's caveData directory. Checking the md5sum is necessary because edex is supposed to hold the master copy so it should always match what's on edex. The copy is intended to minimize risk by keeping the file system layout consistent for common-static.

Operational Impact: Severe performance degradation in 14.3.1 when loading first product that requires derived parameters in D2D in Thin Client mode. Takes 4 - 12 minutes depending on what region IMET users connect to.

Required Behavior: Should not take 4 - 12 minutes to load products. (Redmine DR 17016, Dim DR 17827)

20. Problem: NSHARP Hodograph Does Not Loop in D2D Lite Configuration

When testing NSHARP D2D Lite Configuration, it was noted that the Hodograph option does not loop. The other 3 options for display do loop. But you have to reset your loop parameters each time you click back onto that display. The Hodograph option lets you individually click on the times available and display that way...but it doesn't loop.

Operational Impact: Can be an operational impact in terms of slowing down the forecaster and not properly looping the hodograph, which can be very important in convective forecasting and warning.

Required Behavior: The hodograph should be able to loop just like all the other displays do. (Redmine DR 17008, Dim DR 17819)

21. Problem: NSHARP freezes when loading a sounding from MDCRS products in Volume Browser

In CAVE, if the user attempts to load a sounding from the MDCRS point data in the Volume Browser, CAVE freezes and the user is forced to restart the display.

Required Behavior: Products should load without freezing CAVE. (Redmine DR 17006, Dim DR 17818)

22. Problem: System Monitor: DGEX status not updating correctly

Data not updating for DGEX

AWIPS 1 Behavior: System Monitor page correctly reflects status of DGEX data.

Operational Impact: Users might believe that DGEX data is old and not usable.

Required Behavior: System Monitor page should correctly reflect status of DGEX data. (Redmine DR 16994, Dim DR 17806)

23. Problem: MPE: DrawPolygonDlg has changes that were inadvertently removed and need to be restored

The DrawPolgonDlg.java file has had changes made to it that resulted in the inadvertent removal of changes made in DCS #15559. These changes need to be restored.

AWIPS 1 Behavior: This functionality did not exist in AWIPS1. The new DualPol fields are accessible via the Combo, but not in the old radiobox-based dialog.

Operational Impact: Some parts of dialog will be off screen and inaccessible.

Required Behavior: Dual Pol fields are accessible via Combo box. (Redmine DR 16993, Dim DR 17805)

24. Problem: NSHARP freezes when loading a sounding from HiRes-ARW/NMM models

When loading a sounding from the volume browser for the HiRes-ARW/NMM models, CAVE hangs upon pressing the Load button. (Redmine DR 16959, Dim DR 17779)

25. Problem: HFR: Vector data displays with very elongated vectors/arrows in 14.3.1 vs. 14.2.4

With the implementation of RTOFS and associated style rules causes issues with HFR data, specifically with vector data. (Redmine DR 16955, Dim DR 17775)

26. Problem: MPE: Fix for DualPol functionality

A fix to another feature is breaking the 14.3.1 DualPol functionality for 1-Hour Precip Field Comparison and the ability to use the same color map for all 1-hour precip fields. The fix is to add DisplayFieldData.getFieldName() and use that instead of getCv_use() in a few locations. The getCv_use() method will be restored to return cv_use and will continue to be used in places where the code concerns the display of color values, while getFieldName() will be used when just the field name is needed.

AWIPS 1 Behavior: The Precip Comparison feature is new for 14.3.1, so it did not exist in AWIPS 1.

Operational Impact: The forecaster will be unable to use the new 14.3.1 Dual-Pol comparison feature which creates a 1-hour precip difference and ratio fields to enable the forecaster to view the differences between single and dual pol fields, as well as any another combination of fields.

Required Behavior: When the user selects the Precip Difference or Precip Ratio comparison field to display, the field is displayed in the MPE Perspective's map display area. **(Redmine DR 16954, Dim DR 17774)**

27. Problem: EDEX service script prints confusing error message when wrapper exits early

In some cases, when stopping EDEX, the wrapper can terminate before the actual EDEX process. This does not appear to be a problem as EDEX will terminate eventually. However, the service script assumes that the wrapper always terminates last. If the wrapper terminates first, the script reports *"WARNING: EDEX xxx instance running under new pid, started by another user?"* There is no actual new pid.

The message is the result of comparing a blank value to the original pid.

Required Behavior: The service script should accurately report what is happening with the EDEX and wrapper processes. **(Redmine DR 16951, Dim DR 17771)**

28. Problem: Thin Client cannot update grid products with JMS disabled

When JMS is disabled, grid products on the Thin Client devices do not update. **(Redmine DR 16949, Dim DR 17769)**

29. Problem: GFE: VTEC Active Tables not getting purged

The national centers sites OPCN and NHCN reported the following issue:

When running text formatters, performance was slow, sometimes taking a minute to complete instead of a few seconds. A memory analysis showed that the formatters were spending a lot of time on VTEC active table records. It was found that both OPCN and NHCN had around 150,000 records in their VTEC active tables. Sites manually purged all records from the tables, and since then performance has been normal again. Through active table sharing, the records are shared back into the site's active table, but they build up slowly. Three days after initially purging OPCN/NHCN, the tables were at ~7,000 records.

It was found through logging into some WFO sites that WFOs typically are storing even more than 150,000 records. No performance issues with text formatters or otherwise have been reported at WFO sites however. It is still unknown why national centers have reported the slowdowns but not WFOs.

This DR is to ensure the active tables are regularly purged and/or extraneous records not kept.

Required Behavior: Active table should only keep recent or necessary records and purge out older, unneeded, or duplicate records. **(Redmine DR 16942, Dim DR 17762)**

30. Problem: Promoting a Site subscription to Shared fails

Need to have the GUI override the subscription overlap checks, when promoting a subscription from site to shared subscription. The problem is that it finds itself as an exact match and bounces. Need to exclude "self" from duplicate comparisons. (**Redmine DR 16931, Dim DR 17754**)

31. Problem: Service Backup log cleanup script issue on test systems

Script cleanup_svcbu_logs can fail if the environment variable IFPS_LOG is missing, which results in data being removed from /* according to permissions in place for user awips. The variable can only be missing if it is not present in the svcbu.properties file. This has only been seen at OPGA where the svcbu.properties file was erroneously wiped out. This has not been seen in operations because without svcbu.properties, service backup could not work. The solution is to check for the presence of the IFPS_LOG definition. If the variable is undefined, do not proceed, and exit the script.

Operational Impact: There is a possibility of directories getting removed from /* according to user awips permissions.

Required Behavior: A safety check should be put into place to check for presence of the IFPS_LOG definition, and exit if undefined. (**Redmine DR 16929, Dim DR 17752**)

32. Problem: MRMS menus are displaying across multiple perspectives

Since the integration of MRMS, it was noted that the MRMS menus are showing up in every perspective in CAVE. This DR is to correct this so that the MRMS menus only show up in the D2D perspective in CAVE. (**Redmine DR 16928, Dim DR 17751**)

33. Problem: BinLightning Issue with pulseIndex Dataset

Since the contents of the binlightning hdf5 files changed in 14.3.1, the presence of the older version is causing display problems and the error message referring to pulseIndex. Once the older data was purged out, VHW is able to load the display.

Operational Impact: Not able to display lightning data; errors are thrown. (**Redmine DR 16918, Dim DR 17742**)

34. Problem: MPE: Daily QC does not display new Hydro day when time is after 18Z

OB14.2.4 DR #14578 (Dim 16723) added the ability to choose the Ending Hydrologic Date separately from the MPE 1 hr datetime. The issue described below was observed in the field while testing DR #14578 (Dim 16723).

When selecting Hydro day from dialog box, if time is after 18Z it should display next partial hydro day when displaying data.

Operational Impact: Difficult to display next partial day data for Daily QC when it is expected to automatically adjust. User has to manually adjust the requested day. (**Redmine DR 16911, Dim DR 17737**)

35. Problem: Recompile bignsharp / gempak for 14.3

NCEP made changes to the JNA interface to bignsharp and it is no longer compatible with the Windows dll. bignsharp needs to be re-compiled for Windows as well as gempak (potentially) to support the gempak split that is currently in the baseline (Linux gempak is currently loaded independently of bignsharp). (**Redmine DR 16902, Dim DR 17729**)

36. Problem: AlertViz error received when runprocedure is run to create a new db

While testing #16879 (Dim 17707, RODO 3766) the following error was received when runProcedure is manually executed on a workstation in order to create a new db.

Error occurred on GFE server: Database OAX_GRID__GFS40_20142028_0600 does not exist for getParmList()

(**Redmine DR 16890, Dim DR 17717**)

37. Problem: MPE: Daily QC does not display SNOTEL data

1) The initial DailyQC screen (after selection of group, num days, precip) should display level-1 file Snotel and other precipitation values

2) If snow file is present, when the Snotel station is clicked, the resultant GUI shows precip for each 6hr period and 24hr period (like any other site) with "Snow water change is XXXX inches" in upper third of GUI with associated box to check. If box is checked the snow value from snowfile (XXXX) overrides 24hr precip period and uses 6hr precip to distribute the snow amount to 6hr periods.

In the MPE perspective, if the user selects Gages-->QC Precipitation (or QC Temperature, or QC Freezing Level) then this error appears in AlertViz:

Unhandled event loop exception java.lang.NullPointerException

at java.util.Calendar.setTime(Calendar.java:1106)

Instead, if the user selects MPE Control-->Choose Hour to open the 'Choose Data Period' window: then clicks the Precipitation, Temperature or Freezing buttons, the QC control windows open with no errors. If the user does this first, then selecting Gages-->QC Precipitation will open the QC window also without errors.

AWIPS 1 Behavior: SNOTEL precip data is displayed in QC Precip, when snow level 1 data is available for given time period.

Operational Impact: Inaccurate precip estimates without taking snow water equivalent into account.

Required Behavior: SNOTEL precip data is displayed in QC Precip, when snow level 1 data is available for given time period. (Redmine DR 16889, Dim DR 17716)

38. Problem: Comp(Src) button not functioning properly in NSHARP display

In testing of DR #16864 (Dim 17692), it was discovered that the Comp(Src) functionality is not working correctly. When it is working properly, one should be able to load different models for a given point and compare how the sounding differs over time. Now, if the user executes these steps, all that displays is one sounding profile and as you cycle through, there is no change to the display like there should be.

Required Behavior: Should be able to compare soundings for a given point. (Redmine DR 16888, Dim DR 17715)

39. Problem: NSHARP crashes if user loops a product and then clicks WINTER/FIRE buttons in Toolbar

It has been discovered that NSHARP can crash if the user loops a sounding and then clicks the WINTER/FIRE buttons to display that data. However, NSHARP does NOT crash if the product is not looping. (Redmine DR 16884, Dim DR 17712)

40. Problem: MPE Gage Table: columns do not sort in descending order

In the MPE Gage Table, clicking on a data column header once should display it sorted in ascending order: and with the second click, the data is re-sorted in descending order. Currently, the second click causes the sort-direction icon (small triangle) to change direction, but the data remains displayed in ascending order.

Required Behavior: Clicking on a column header initially sorts the data in ascending order. Clicking it a second time re-displays the data in descending sort order. (Redmine DR 16871, Dim DR 17699)

41. Problem: Volume Browser data fails to load with Internal Exceptions

Whenever a user tries to load model soundings, the following *Internal exception* occurs:

*Internal exception occurred while drawing: String index out of range:
18java.lang.StringIndexOutOfBoundsException: String index out of range: 18
at java.lang.String.substring(String.java:1907)*

at

gov.noaa.nws.ncep.ui.nsharp.display.rsc.NsharpResourceHandler.addRsc(NsharpResourceHandler.java:1952)

at

gov.noaa.nws.ncep.ui.nsharp.display.rsc.NsharpResourceHandler.addRsc(NsharpResourceHandler.java:1766)

gov.noaa.nws.ncep.ui.nsharp.display.NsharpAbstractPaneDisplay.drawTheData(NsharpAbstractPaneDisplay.java:130)

...more

Required Behavior: Should be able to load and view model soundings without error. (**Redmine DR 16865, Dim DR 17693**)

42. Problem: Selecting Overlay2, CompStn, CompTm, CompSrc, EditGraph throw unhandled event loop exceptions

Selecting Overlay2, CompStn, CompTm, CompSrc, EditGraph throws unhandled event loop exceptions as below. This has been identified as a NWS Defect.

Unhandled event loop exception org.eclipse.swt.SWTException: Widget is disposed

at org.eclipse.swt.SWT.error(SWT.java:4374)

at org.eclipse.swt.SWT.error(SWT.java:4289)

at org.eclipse.swt.SWT.error(SWT.java:4260)

at org.eclipse.swt.widgets.Widget.error(Widget.java:492)

at org.eclipse.swt.widgets.Widget.checkWidget(Widget.java:429)

at org.eclipse.swt.widgets.Control.setEnabled(Control.java:4062)

at

gov.noaa.nws.ncep.ui.nsharp.view.NsharpPaletteWindow\$12.handleEvent(NsharpPaletteWindow.java:1004)

at org.eclipse.swt.widgets.EventTable.sendEvent(EventTable.java:84)

at org.eclipse.swt.widgets.Widget.sendEvent(Widget.java:1305)

...more

(Redmine DR 16864, Dim DR 17692)

43. Problem: GFE: Check in version 2.12 of the Objective Analysis utility

Version 2.8 of the Objective Analysis utilities and tools were baselined (RM DCS #15084) in OB 14.3.1. Since then, essential fixes have been made. The current version is 2.12. This DR is to check in the latest version of the Objective Analysis utility and tools.

Required Behavior: The latest version (2.12) of the Objective Analysis utilities/tools should be baselined. (Redmine DR 16863, Dim DR 17691)

44. Problem: Memory issues when loading RAP13 model family from Model Families A-YY

While testing #16797 (Dim 17648, RODO 3669) it was found that CAVE was crashing due to memory issues when the user loads RAP13 from the Model Families A-YY. (Redmine DR 16861, Dim DR 17689)

45. Problem: GFE: Add the serpiSC.py smartTool to the baseline

The serpiSC smartTool should have been included with the check-in for RM DCS #15084 (Dim DCS 25). (Redmine DR 16858, Dim DR 17686)

46. Problem: Change default Save Image type back to .png

In 14.3.1-26 the default image type is .gif. In both 14.2.3-10 and 14.2.4-16 the default is .png. This DR is to change the default type back to .png. (Redmine DR 16857, Dim DR 17685)

47. Problem: Triggering of Retrievals inconsistent, sometimes falls outside ranging of retrieval READY query

In development it was occasionally noticed that the Gridded base reference times are not always on the predicted (calculated by BWM) cycle hour (i.e. 0, 6, 12, 18 etc.). This only affects Gridded NOMADS models with cycles as the retrieval trigger for non-cycle driven models is based on DatasetMetadata arrival, no cross check with time is made. Originally the base reference times were always assumed to be the cycle hour of expected arrival. If it was 18z for the model run, it was expected to have a base reference time of 18:00. This isn't always the case. Earlier it was accounted for this by having the query ranged to look anywhere within the base reference times hour, so 18:00 - 18:59. This isn't good enough evidently.

In testing, it was discovered some instances where the base reference time is actually earlier/later than the straight up hour. (Redmine DR 16852, Dim DR 17681)

48. Problem: Updating a shared subscription may skip a model run for the original subscription

A non-shared subscription was created using rap data (at OUN). Data was successfully retrieved and displayed in D2D.

A shared subscription was created (by OUN) between two sites requesting rap data. The data was successfully retrieved and displayed at both sites.

After NOMADS indicated a new model run was available, but before Data Delivery had access to the data (e.g., around 20 minutes past the hour), the shared subscription was updated by one of the sites (OAX in this instance). A new parameter was added.

Refreshing the Subscription Manager dialog, both sites indicated that the changes were successful per the Details window.

Eventually, the non-shared subscription updated with the next model run, while the original data displayed for the shared subscription failed to update with the next model run.

However, when the following model run became available, it was successfully retrieved and displayed at both sites.

For some reason the initial data for the shared subscription skipped one model run. (**Redmine DR 16851, Dim DR 17680**)

49. Problem: Thin Client connectivity dialog doesn't test gzip compression

Currently, the thin client connectivity dialog tests a connection based on the settings a user has selected, but it does not test if the connection works with gzip. When the server is not configured correctly for the gzipped requests, it results in the connectivity dialog reporting that the connection is valid, and then AlertViz and/or cave refusing to start. (**Redmine DR 16850, Dim DR 17679**)

50. Problem: WarnGen can become disabled when moving storm track

If the storm track (WarnGen or Distance Speed tools) is moved when time matching is being performed (usually when new data is received for the D-2D pane), it is possible to get an AlertViz error and the WarnGen layer will be disabled. The WarnGen layer can be re-enabled by clicking on its legend.

Required Behavior: It should be possible to move the storm track without random errors. (**Redmine DR 16844, Dim DR 17676**)

51. Problem: LDM configuration updates in 14.2.2 need to be baselined into rpm

There were several changes that were put into the 14.2.2 rehost script for LDM to add the data delivery channel and change the system logging and rotation configurations for this new channel. These updates are actually delivered via the awips2-ldm rpm, so in 14.2.4, these rehost updates were being overwritten back to the original values. These changes were added to the ldm installation script so it was not critical to fix this in that release. This DR is to baseline these updates in 14.3.1 so the script doesn't need to do it. (**Redmine DR 16827, Dim DR 17665**)

52. Problem: Fix MRMS mid-level Rotation Track product label

Need to update one of the MRMS menu labels. The mid-level Rotation Track product label is incorrect in the first set of code checked in. Replace "0-3 km AGL" with "3-6 km AGL".

(Redmine DR 16810, Dim DR 17661)

53. Problem: Master Rights File and license updates

Update the current open source credits with software name, version and license information. Include all open source licenses in use. (Redmine 16805, Dim DR 17656)

54. Problem: KML Export: Maps exported no longer display in Google Earth

While testing KML export in 14.4.1, the user noticed that maps will no longer display in Google Earth. No errors are received during the export process, so it seems like everything is fine until the user attempts to open the file in Google Earth. This seems to have been broken in 14.3.1.

(Redmine DR 16803, Dim DR 17654)

55. Problem: Errors are returned during Model Families A-YY grid updates

Errors are returned when most Model Family A-YY grids update while displayed. The products that have issues include A, B, C, D, H, U, V, W, X, Y, YY. (Redmine DR 16797, Dim DR 17648)

56. Problem: HierarchicalPreferenceStore is not thread safe

Access to properties in the HierarchicalPreferenceStore are not thread safe due to the setting of the flag setForceReloadCheck(true). This makes the preference object reload the configurations from the file system on every property access which if another thread attempts to access a property during that time an exception is thrown. This flag should not be required if localization file listeners are properly utilized. (Redmine DR 16788, Dim DR 17642)

57. Problem: loadConfig.py missing LogStream import

If the loadPreferences method in loadConfig.py is called with an invalid or missing config file the exception handler fails to log the error because it is attempting to use LogStream without having imported it. This can affect cave if the config file contains a syntax error. It can also affect gfeclient if a non-existent or unreadable config file used.

This DR is to check-in an improved way of handling what this DR was designed to fix. (Redmine DR 16784, Dim DR 17638)

58. Problem: Bring WCLWatchSrv up to latest standards for writing localization files

WCLWatchSrv needs to be updated to use LocalizationFile.openOutputStream to write out files into the localization hierarchy. (**Redmine DR 16782, Dim DR 17636**)

59. Problem: Security Patch Update (September 2014 scan)

Quarterly security scans were run from the NCF. Results are stored on CD.

Security vulnerabilities identified in the September 2014 scans must be addressed in accordance with DOC (NOAA) security requirements and resolved. (**Redmine DR 16750, Dim DR 17608**)

60. Problem: Error returned when loading radar mosaic with the Imaging dialog opened

The following error was returned when loading the radar mosaic product with the Imaging dialog already opened.

Unhandled event loop exception org.eclipse.swt.SWTException: Failed to execute runnable (java.lang.NullPointerException)

at org.eclipse.swt.SWT.error(SWT.java:4361)

at org.eclipse.swt.SWT.error(SWT.java:4276)

at org.eclipse.swt.widgets.Synchronizer.runAsyncMessages(Synchronizer.java:138)

at org.eclipse.swt.widgets.Display.runAsyncMessages(Display.java:3537)

at org.eclipse.swt.widgets.Display.readAndDispatch(Display.java:3189)

at org.eclipse.ui.internal.Workbench.runEventLoop(Workbench.java:2701)

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.NullPointerException

at com.raytheon.viz.ui.dialogs.ImagingDialog.refreshComponents(ImagingDialog.java:793)

at com.raytheon.viz.ui.dialogs.ImagingDialog\$13.run(ImagingDialog.java:978)

at org.eclipse.swt.widgets.RunnableLock.run(RunnableLock.java:35)

at org.eclipse.swt.widgets.Synchronizer.runAsyncMessages(Synchronizer.java:135)

... 24 more

(Redmine DR 16746, Dim DR 17604)

61. Problem: GFE: Cannot access user override of edit area groups

When the user saves an edit area to an edit area group which exists at the configured or site level, it appears to work in the same CAVE session. When the user restarts CAVE, however, the edit area no longer appears in the saved edit area group but appears instead in the Misc group. By contrast, user defined edit area groups which do not exist at the configured or site levels are always accessible.

AWIPS 1 Behavior: User defined edit area group should override base or site group with the same name. (Redmine DR 16734, Dim DR 17591)

62. Problem: GFE: Time Range duplicate entries

Site overrides for Base level GFE Time Range Entries produce duplicate entries in GFE menus.

Below are the three examples that list a double entry for any BASE level Time Range with a SITE level Override.

GFE-->Define Time Ranges-->Save Select Time Range

GFE-->Viewing Preferences-->Time Scale Periods

Grids-->Select Grids By Time

Time Range entries listed in the Publish menu are fine.

Required Behavior: Site level overrides for Base level Time Ranges should result in a single entry in GFE menus. (Redmine DR 16727, Dim DR 17584)

63. Problem: NCWF Grid image fails to display when requested

When displaying the NCWF product/bundle, the NCWF Current Convective Interest Grid image fails to display in D2D. When sampled, however, values are returned. (Note: This was broken under RODO RM2791.). (Redmine DR 16722, Dim DR 17579)

64. Problem: Grids No Longer Float

Starting in 14.3.1, the grib model definitions can no longer allow the grid to 'float'. If the <grid></grid> line is not in the gribModels*.xml files, the grid data does not get matched up to the model name.

This appears to be the case for the DCS for HRRR data for which Eastern Region supplied the configuration. The grib model definition does not contain a <grid> line, and the data decodes as GribModel:7:0:83 instead of as HRRR on the 14.3.1 test bed. (Redmine DR 16711, Dim DR 17568)

65. Problem: ingest jvm locked up trying to log messages

Both dx3 and dx4 olaf ingest jvms were blocked trying to log to logback for multiple days. (Redmine DR 16701, Dim DR 17566)

66. Problem: MPE: GageTableDialog Data Reading Problem

MPE's GageTableDialog reads the data from each MPE field and determines the field value in the HRAP grid bin associated with the gage. Each field has its own column with an entry for each gage.

The problem is that the GageTableDialog isn't correctly reading the MPE field data files because the file names are not constructed properly. The effect is that the all of the dialog's MPE field-related columns are set to "M" for "missing".

Operational Impact: The GageTableDialog is mostly disabled without the MPE Field-related columns. The user cannot compare the precip gage values with the various co-located MPE field-related values.

Required Behavior: The GageTableDialog should successfully read the data that populates MPE field-related columns. (**Redmine DR 16709, Dim DR 17556**)

67. Problem: GLDisposalManager needs optimizations

GLDisposalManager has several design flaws that can result in too many objects getting backed up and it exhibits poor performance under heavy load. The manager, combined with some image cache thrashing has resulted in UI freezes at BCQ. Some things that need to be done to make the GLDisposalManager more efficient are:

1. autoDisposer should be a set, or custom data structure that can implement performance faster than O(n).
2. There should be some mechanism to remove autoDisposers when dispose is called properly so it is not as sensitive to GC running (especially when many references are pushed to old gen). (**Redmine DR 15703, Dim DR 17554**)

68. Problem: Volume Browser: MMP units are wrong

D2D parameter Field "MCS Maintenance Prob" is displaying in units of hundredths of a percent instead of percent (e.g., 0.86 instead of 86%). This occurs on all workstations. (**Redmine DR 15693, Dim DR 17545**)

69. ColormapComp/ColormapTree can lock UI thread

The ColormapComp and ColormapTree that are displayed on the Image Properties dialog can lock the UI thread. Specifically if you open the Image Properties dialog and then click the colormap button to switch the colormap (not edit it) before it has finished determining all the trees and subtrees of possible colormaps, it locks the UI thread. This is only an issue if there are a huge number of possible colormap directories and/or colormaps, or the network is slow, so this is more likely to affect thin client.

Operational Impact: CAVE hangs when selecting a colormap from the Image Properties dialog in D2D if there are a large number of colormaps or if there are bandwidth limitations. (NOTE:

This will be most noted by thin client users or sites that have a large number of colormaps saved off.). (**Redmine DR 15692, Dim DR 17544**)

70. Problem: Reduce memory usage of sparse grids

Some grids are mostly full of NaNs indicating no data. In these cases it is wasteful to actually retain all of those NaNs. Gridded lightning was optimized on (RODO RM) #3463. We should optimize other grids in a similar manner where applicable. Implement a relatively fast algorithm to detect a sparse grid and then optimize memory usage and access of the grid data for the sparse grids. This should help overall D2D stability in scenarios involving sparse grids. (**Redmine DR 15683, Dim DR 17535**)

71. Problem: Cave should log perspective displays and procedures that are loaded

When diagnosing issues from the field, it is frequently helpful to know what procedures or perspective displays the user was loading if the problem occurred in D2D. Logging code needs to be added so that when a user loads a perspective display, it logs the path to the file. Logging code also needs to be added to the Procedure Dialog to log the name of a procedure that is loaded and the filename that it came from. (**Redmine DR 15681, Dim DR 17533**)

72. Problem: Add check_baseline_changes.sh into baseline repository

In response to sites not knowing when they should update a SITE or USER level override, the Tiger Team asked that a script be created to alert the user to any files which may have changed for which they may have a SITE or USER level override. (**Redmine DR 15672, Dim DR 17524**)

73. Problem: WA20.13: Implementation of GFS upgrades: Phase II

AWIPS II should be enhanced to handle the SBN ingest, GRIB2 decode, store, display, and GFE ingest with all necessary software and supporting documentation that is required to implement the capability into the operational AWIPS II baseline. (**Redmine DR 15653, Dim DR 17505**)

74. Problem: NVIDIA Vulnerability

There is vulnerability in the current driver for the NVIDIA cards that is used in the field.

Issue: Can gain root access to the workstation using the graphics card/driver.

Remediation: Updated Driver Version: 331.79

Operational Impact: Slight possibility of a local user bypassing intended access restrictions to gain access to root in the workstation using the graphics card/driver. (**Redmine DR 15640, Dim DR 17494**)

75. Problem: GFE allows multiple smartInits for same model causing lock conflicts

GFE allows multiple smartInits for same model to run simultaneously causing lock conflicts.

Site accidentally configured both the baseline and a local smartInit for the ENPwave. The way the code currently determines what can be ran at the same time is based on the smartInit name and not the destination database as it should be so both runtimes were allowed which caused a lock error to be reported if both were trying to update a method simultaneously. **(Redmine DR 15623, Dim DR 17478)**

76. Problem: Radar Digital Vertical Integrated Liquid wrongly capped at value of $>60 \text{ kg} \cdot \text{m}^{-2}$

The default color range for Radar Digital Vertical Integrated Liquid is wrongly capped at a value of $>60 \text{ kg} \cdot \text{m}^{-2}$. It should have a maximum value 80 and then $>80 \text{ kg} \cdot \text{m}^{-2}$. The associated color table is: Radar/OSF/Digital VIL.

Operational Impact: Higher values may appear to be larger than they actually are. **(Redmine DR 15742, Dim DR 17469)**

77. Problem: SPC Watches do not always update

Steps to reproduce:

1. Start D-2D.
2. Load NCEP/Hydro -- SPC Watches
3. Wait for new watches to be ingested.
4. Expected result: The new watches should appear.

(Redmine DR 15469, Dim DR 17462)

78. Problem: No variable for failed site's MND Header location available for WarnGen to use

The config.xml file uses XML sections for warngenOfficeShort and warngenOfficeLoc to create the $\{\text{officeShort}\}$ and $\{\text{officeLoc}\}$ variables for the MND header and 1st bullet. When service backup is invoked, the description for the failed site found in the config.xml file's $\langle \text{backupCWAs} \rangle$ location is inserted in both the $\{\text{officeShort}\}$ and $\{\text{officeLoc}\}$ variables. This results in an incorrect MND header and/or 1st bullet depending on what the office enters into the backupCWAs section.

Operational Impact: Product can go out with an incorrect MND heading and/or first bullet.

Required Behavior: Use the proper office descriptor. **(Redmine DR 15465, Dim DR 17458)**

79. Problem: MPE: Save Best Estimate throws error

In MPE when trying to save best estimate top, an error *"In routine "update_rwr_save": could not update record in RWResult for query"* is observed.

Operational Impact: Impacts saving any edits in MPE, due to the problem being associated with all MPE products. This impacts all sites using MPE and making any edits and saving them. (Redmine DR 15059, Dim DR 17457)

80. Problem: Ingest, Processing and Display of the Unrestricted Mesoscale Analysis (URMA)

Implement all necessary software and/or configuration changes to integrate ingest, processing and display of the UNRESTRICTED MESOSCALE ANALYSIS [URMA] into the operational AWIPS II baseline. (Redmine DR 15053, Dim DR 17451)

81. Problem: HPE: DSA Processing Problem

The DSA Radar product from the ROC as of NEXRAD build 14.0/14.1 has a slight format change for the adaptable parameters. This causes DSA products from updated radar sites to be unable to process fully by the HydroDualPol data plugin.

Operational Impact: HPE is unable to save all of the adaptable parameters for updated DSA products.

Required Behavior: The DSA product processor should be able to save the adaptable parameter data. (Redmine DR 659, Dim DR 17439)

82. Problem: MPE: LSATPRE Field not generated

The optional LSATPRE field is not generated by MPE Fieldgen. This DR is related to NCF TT 633783, which mistakenly describes a SATPRE problem instead of LSATPRE.

Required Behavior: MPE FieldGen should be able to generate the LSATPRE field. (Redmine DR 658, Dim DR 17438)

83. Problem: Errors loading Distance Speed tool and Time of Arrival Tool

In 14.3.1, it was determined that code in DR 16356 broke the Distance Speed Tool and Time of Arrival Tool functionality. The following Error was observed when trying to load it:

Paint error: null:: The resource [Distance Speed] has been disabled.com.raytheon.uf.viz.core.exception.VizException: Paint error: null:: The resource [Distance Speed] 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:179)`

at

.....more

(Redmine DR 657, Dim DR 17436)

84. Problem: GFE: WCL arrival should generate Alertviz message even if GFE is not open

There is a **small enhancement** DR written for the following issue:

Site MRX reported in TT 633369 that they fail to receive an AlertViz message when a WCL (Watch Coordination List) comes in. The WCL is a proposed watch from SPC. The site reported that the machine that does not receive the AlertViz message does not have GFE open.

The current behavior in AWIPS I as well as AWIPS II is to only have the messages display when GFE is open. This DR is to make a change so that the messages display in any CAVE whether GFE is open or not. (Redmine DR 15042, Dim DR 17433)

85. Problem: Harden collaboration connection to XMPP server

The xmpp client auto reconnects if disconnected from the server, but the multi user chat listeners don't get reconnected which leads to venue sessions being unusable after reconnect. (Redmine DR 619, Dim DR 17421)

86. Problem: WarnGen: IBW templates and 14.2.1 template corrections

1. Incorporate Central Region Impact Based Warning (IBW) templates into the national baseline for the 2015 severe weather season
2. Alaska Region requested template changes
3. Service backup issues (related to DR 17289)
4. Watch inclusion issues (related to DRs 17380, 16309, 17364, 16593)
5. Hydrologic QC issues related to first bullet wording (related to DR 16743)
6. Corrections to various minor template logic errors. (Redmine DR 15033, Dim DR 17420)

87. Problem: Volume Browser missing 50mb and 100mb layers

In the AWIPS II Volume Browser, in "Plan view", under the "Pres" plane, there are missing pressure layers/ranges - in 50 mb and 100 mb increments that used to be available in AWIPS 1.

Required Behavior: The 50mb and 100mb layers should be available in the Volume Browser (**Redmine DR 15005, Dim DR 17383**)

88. Problem: CAVE Import Geotiff is broken

In 14.2.1 import Geotiff works. In 14.3.1 it is broken.

The error is:

```
An internal error occurred during:
"Initializing...".java.lang.NoClassDefFoundError:
org/jaitools/imageutils/ImageLayout2

at
org.eclipse.osgi.internal.loader.BundleLoader.findClass(BundleLoader.java:412
)

at
org.eclipse.osgi.internal.baseadaptor.DefaultClassLoader.loadClass(DefaultCla
ssLoader.java:107)

at java.lang.ClassLoader.loadClass(ClassLoader.java:357)

... 6 more
```

(**Redmine DR 597, Dim DR 17373**)

89. Problem: TextDB: RiverPro products occasionally stored twice

Site BOX reported in TTs 608069 and 627053 that products are stored twice in the TextDB.

In TT 608069 it is the RTPBOX product (Regional Temp./Precip.Table) and in TT 627053 it is a FLW product.

Required Behavior: Store products only once in TextDB. (**Redmine DR 14997, Dim DR 17370**)

90. Problem: LAPS freezing level height not computed; prevents display of hail product

The problem of the 50 dbz HGT 3/4" hail field missing for LAPS was reported by GID.

This field item is found in the Volume Browser under Field--> Local--> Convection--> and then the product 50 dbz HGT 3/4 inch Hail.

The cause is that freezing level height is not being computed for LAPS, and that is needed to compute this hail product.

Operational Impact: This product aids in prediction of potential severe storm damage.

Required Behavior: Freezing level height and 50 dbz HGT 3/4" hail should be displayable for LAPS. (Redmine DR 14993, Dim DR 17363)

91. Problem: Contour Tool in GFE displays a sharp gradient in contours

Contour Tool in GFE displays a sharp gradient in contours along the north and west portions of the grid. When activating the Contour Tool on a grid in GFE, a bunch of contours are displayed tightly packed along the western and northern portions of the grid. (Redmine DR 595, Dim DR 17362)

92. Problem: HydroGen genXML:bad pattern matching

In the HydroGen genXML PERL script, some bad pattern matching may cause unwanted data to be included in a time series that is sent to the AHPS public web site. The script creates a master list of Location IDs (LID)/ physical elements (PE)/ type sources (TS) and forecast type sources. It then compares these lists to the results of queries to the height, discharge, festheight and festdischarge tables. These queries are returned as one string per row and any rows that match the LID, PE and TS of the master list are bundled up and sent on. The problem is that it doesn't check each item, meaning the master PE is not compared to the rows PE explicitly. The pattern of the PE is compared to the entire row. The result is that an LID that contains the 2 letter string of the PE or TS results in true, even if the PE and TS do not match the master PE or TS. So far, this has only been known to cause labeling problems on the AHPS hydrograph for one location.

Required Behavior: The script compares the LID/PE/TS from the master list to the LID/PE/TS elements from the row and not the entire row. (Redmine DR 593, Dim DR 17351)

93. Problem: RADAR: No data on radar mosaic "Hybrid Scan Refl"

When testing radar mosaics on NHDA, the user noticed that there is no green time on mosaic menu "Hybrid Scan Refl" (Radar-->Hybrid Scan Refl). DHR (product 32) products are being centrally collected at field sites and are available from kxxx-->kxxx Precip-->8-bit Hybrid Scan Z (DHR). The mosaic of "Hybrid Scan Refl" should include both 8-bit (product 32) and 4-bit (product 33) Hybrid Scan Reflectivity. (Redmine DR 14984, Dim DR 17348)

94. Problem: NetCDFGridDatabase is not thread safe

NetCDFGridDatabase contains a NetCDFFile object that is not being managed in a thread safe way. When multiple threads are active they interfere with each other as both attempt to open/read/close the file asynchronously resulting in errors due to one thread closing the file while another is using the file. As long as this is only being used in smartInits, DR 3129 mitigates this issue by setting the number of smartInit threads per JVM to 1. If any site is accessing NetCDFDatabases in smartTools or procedures this can still be an issue. (Redmine DR 14980, Dim DR 17343)

95. Problem: Reduce QPID Process Memory Usage

QPID is using 756k of memory for every connection for buffering data. In the field 400 connections is common for normal sites with NCEP routinely have 700. This is a large portion of the QPID server memory process, without any message load. (**Redmine DR 14976, Dim DR 17336**)

96. Problem: Lightning strike totals incorrect on displays "clipped" by the D2D scale

In numerous instances, the lightning "total" displayed in the upper-left corner of D2D lightning displays do not correspond to the strikes actually displayed.

It appears that it is giving the total of what WOULD display on the screen if the whole D2D pane display area was shown. But the display area is often "clipped" by the Scale setting in GFE when you "zoom out" all the way for the scale.

Required Behavior: The number of strikes visible on the display and the strike count in the upper left of the display should match. (**Redmine DR 14972, Dim DR 17329**)

97. Problem: Additional true color capabilities for satellite, gridded data

Proposed modifications to the existing AbstractGridResource and SatResource, as well as the true color viz plug-in, would increase the number of potential resources that can be used to comprise a "true color" image.

Operational Impact: This is an additional capability which would allow users to comprise tri-band "true color" composites using gridded or satellite data. Currently, the functionality is limited to the NPP VIIRS imagery.

Required Behavior: The AbstractGridResource and SatResource should be able to contribute to a red-green-blue (RGB) "true color" display. The framework and "true color" capability exists, but the proposed modifications expand potential uses to incorporate gridded and other satellite data. (**Redmine DR 14959, Dim DR 17313**)

98. Problem: Ingest LambertConformal projection with two standard parallels using RegionalSat

This added capability to the regionalsat EDEX plug-in allows ingest of a netCDF3 Lambert Conformal file with two unique standard latitudes. This requires changes to RegionalSatDecoder.java and RegionalSatSpatialFactory.java as well as the SatMapCoverageDao. Currently, a netCDF3 file with two standard latitudes ingests as if it only has one.

Operational Impact: Currently, when the regionalsat plug-in is presented with a netCDF3 containing a Lambert Conformal projection with two unique standard latitudes, the second one is

ignored and the geometry is established where both of the standard latitudes are equal in value (to the primary standard latitude). As a result of this, when displayed, the data does not map onto the screen properly.

Required Behavior: Upon ingest of a netCDF3 file containing a Lambert Conformal projection with two standard latitudes with the regionalsat plug-in, the geometry should be built and stored using the unique first and second standard latitudes. (**Redmine DR 14951, Dim DR 17303**)

99. Problem: ECMWF product legend colors are incorrect

When activating all product IDs in the product legend such that all contours are displayed in the main pane, it was discovered that there were two products that share nearly identical colors. This does not match the color scheme of the same product on an AWIPS I system. The colors used for the GFS family (which matches the colors for the ECMWF model family on AWIPS I) do not match the colors for the ECMWF products. (**Redmine DR 573, Dim DR 17292**)

100. Problem: Coordinate is misspelled in the exception thrown by the createPolygon method

Coordinate is misspelled in the exception that may be thrown by the createPolygon method of GfeUtil. (**Redmine DR 572, Dim DR 17288**)

101. Problem: VTEC sharing does not work correctly for sites other than the EDEX primary site

At startup GFE loads the localVTECPartners.py file, if present, to configure VTEC table sharing. Currently this file is always loaded from the primary EDEX site, not the appropriate GFE site so if GFE is running as any site other than the primary it will use the settings from the primary site. (**Redmine DR 571, Dim DR 17286**)

102. Problem: Base configuration cannot display data on all grid levels

It was discovered that the product browser is not displaying all grid levels available in the database. It is possible to force it to appear in the product browser by disabling derived parameters but it cannot be loaded because of related errors in derived parameters. (**Redmine DR 570, Dim DR 17285**)

103. Problem: Update SSDD for dataURI

Go through the code and determine where dataURI is used. Then, annotate that in a word document. (**Redmine DR, Dim DR 17283**)

104. Problem: Rounding Errors when Configured Incorrectly

In MPE when the color bar values are configured to be out of a reasonable data range, there are rounding errors. (**Redmine DR 568, Dim DR 17282**)

105. Problem: AvnFPS hangs IU thread if .hd5 file is missing when displaying wind rose

It was found that not having the .hd5 files available when running Wind Rose hangs CAVE (blocks the UI thread from refreshing). This should be handled better.

Also, there is an infinite loop trying to draw the wind rose diagram when the error is thrown. **(Redmine DR 566, Dim DR 17277)**

106. Problem: Missing NDM File Support

The following NDM files have been found to be actively updated and used, but are not supported by the NDM endpoint in AWIPS II:

locationIDs.txt

awips2afos.txt

GOESImagerInfo.txt

selsAnchors.txt

rps-RPGOP-tcp.clear-air

rps-RPGOP-tcp.storm

rps-SPGOP-tcp.storm

tdwrProdList.txt

wmoSiteInfo.txt

Each file should be ingested using the ndm endpoint and update AWIPS II files as appropriate. **(Redmine DR 608, Dim DR 17273)**

107. Problem: WarnGen: "Locations Impacted" section includes locations of neighbor CWA in SMW

When creating a special marine warning at MKX, if the arrow of the storm track reaches the coast area of GRR, the locations at GRR (for example, Muskegon Light) were included in LOCATIONS IMPACTED INCLUDE section.

Required Behavior: Locations in Neighbor CWA should not be included in "Locations Impacted Include" section. **(Redmine DR 14929, Dim DR 17265)**

108. Problem: D-2D: Local Warning Display does not display flood advisories

The Obs -> Local CWA Flood Warnings bundle (and others in the Other Warning Displays menu) do not display flood VTEC FL.Y advisories. They do display FA.Y areal flood advisories.

Note that even if the bundles are changed to display FL.Y events, there is a problem in both A1 and A2 displaying all events in multi-event products (as created by RiverPro).

Required Behavior: A2 should display FL.Y flood advisories in the baseline flood local warning display bundles. (Redmine DR 14889, Dim DR 17212)

109. Problem: Loosen pgadmin rpm dependency on RH version of wxGTK

This DR is a request to remove the dependency on the RH version of wxGTK for the installation of awips2-pgadmin3. This will allow developers and other users on non-RedHat devices to install the rpm if they have a CentOS or other version of wxGTK. (Redmine DR 557, Dim DR 17210)

110. Problem: Update FSI configuration to use dual pol products (A1 DR 21474)

Now that all Dual Polarization has been deployed, the baseline FSIproducts.txt should be updated to enable dual-pol products by default. (Redmine DR 16695, Dim DR 17205)

111. Problem: Thin Client: AlertViz messages indicate server-side problems

NWSHQ reported that periodically the Thin Client gets AlertViz messages that pop-up on the Thin Client appear to indicate problems on the server side. These errors do not appear to affect the retrieval of data.

Scenario:

Thin Client build: 13.3.1-25. 64 bit Workstation: ard-394 EDEX:

Products loaded and looping: 1. National mosaic, elev 0.5 2. GFS 40, 500 mb vorticity image and 500 mb ht 3. Sat IR

The following "red banner" errors each occurred more than once on 2013-05-08 between 17:24:07 and 18:55:24

```
CAVE - Error getting menu green times  An internal error occurred during:
"Retrieving data"  Error redoing time matching  From the log, it looks as
if all were caused by comms problems.  Log file:  ard-
304:/home/a2user/caveData.2013-05-
09_1256/logs/consoleLogs/localhost/cave_20130508_1720
45_pid_5156_alertviz.log  CaveData (w/o cache): caveData.2013-05-09_1256.tgz
The tar ball contains the log file referenced above.  Log file extracts:
Red banner headline: CAVE - Error getting menu green times  Error
getting menu green
timescom.raytheon.uf.viz.core.exception.VizCommunicationException: unable to
post request  to server  Caused by:
```

```

com.raytheon.uf.common.comm.CommunicationException: Error deserializing
streamed response   Red banner headline: An internal error occurred during:
"Retrieving data"   An internal error occurred during: "Retrieving
data".java.lang.RuntimeException:
com.raytheon.uf.common.datastorage.StorageException: Error communicating with
pypies server      Caused by:
com.raytheon.uf.common.datastorage.StorageException: Error communicating
with pypies server  Caused by:
com.raytheon.uf.common.comm.CommunicationException: Error deserializing
streamed response   Red banner headline: Error redoing time matching
Error redoing time
matchingcom.raytheon.uf.viz.core.exception.VizCommunicationException: unable
to post request to server      Caused by:
com.raytheon.uf.common.comm.CommunicationException: Error deserializing
streamed response

```

(Redmine DR 14867, Dim DR 17181)

112. Problem: WarnGen: Use noon/midnight instead of 1200 PM/1200 AM

Any product generated in WarnGen should have the proper noon/midnight generated in the headlines in the second bullet. 1200 PM/1200 AM should be changed to NOON/MIDNIGHT in "REMAIN IN EFFECT UNTIL 1200 PM/1200 AM". **(Redmine DR 556, Dim DR 17177)**

113. Problem: Remove ITO calls from monitor_qpid_host.sh

ITO calls were originally put into monitor_qpid_host.sh because there were concrete limits to the number of connections into qpid that could be handled, and specific actions the NCF needed to take. Now that qpid has switched to the java broker, there is no connection limit. Also, the deadlock condition that was causing an increase in connections has been fixed.

With the addition of the data delivery service, additional connections are made to qpid putting it over the original limits specified, increasing the ITO alarms at the NCF. Those calls should be removed, but continue to log the increased connections, and ITO will be modified to read the connection information and alarm as required with more generalized monitoring information. **(Redmine DR 550, Dim DR 17148)**

114. Problem: gage_pp is posting non-top-of-hour data to wrong hour in hourlyPP table

The A2 replacement for A1 gage_pp is incorrectly time shifting non-top-of-hour reports to the wrong hour.

Consider the following METAR\\'s from Minot AFB:KMIB 191958Z AUTO 20014G19KT 10SM CLR 35/13 A2977 RMK AO2 SLP075 P0002 T03460134 \$KMIB 191858Z AUTO 19009KT 10SM CLR 34/13 A2978 RMK AO2 SLP080 P0003 T03390126 \$KMIB 191758Z AUTO 23011G15KT 10SM CLR 33/13 A2980 RMK AO2 SLP086 T03320131 10332 20194

57014 \$The values for 18Z, 19Z and 20Z are supposed to be 0.00, 0.03, 0.02, but the hourlypp table populated by the new A2 SHEF decoder process shows 18Z, 19Z and 20Z and 0.03, 0.02 and 0.00. It appears to be truncating minutes instead of rounding to the top of the nearest hour. From Lrry:\agn14_rawpp.unl\ shows the SHEF message correctly posted data to the rawpp table.\agn14_test_hourlypp.unl\ shows what the gage_pp process posted to the hourlypp table. 1555Z rounds up to 16Z, so 0.00 should have been written to \"hour16\"; the minute_offset of \"e\" = -5 minutes,

Required Behavior: If the obstime of a PPH report falls within -intlppp or +intuppp (lower and upper period interval for PP, respectively) minutes of the TOH, then it is considered to be a TOH report. (Redmine DR 648, Dim DR 17129)

115. Problem: Change the PlotModelFactory2's python capabilities to use the PythonJobCoordinate

The user's cave session froze on lx1. The user had two cave sessions loaded: one D2D and one GFE. It was the user's D2D session on the left monitor that froze. The freeze occurred when the user tried to focus and then pan on an image displaying radar, metar and mesonet data. The user suspects that the cave session was frozen for about a minute and a half before it unfroze on its own and the user was able to resume normal activity. (Redmine DR 546, Dim DR 17126)

116. Problem: HydroBase selected items are incorrectly pointing to rows

The users cannot use A2 HydroBase to edit the ingestfilter entries.

Required Behavior:

1. When the user opens Data Ingest Filter GUI, the first row in the Ingest Filter locations list should be highlighted with corresponding Physical element.
2. After using Filter by Location, the List should be displayed with the first row highlighted and the Selected Item box should be filled with the location name.
3. When you highlight the row in the Ingest Filter locations list, all the items in Selected Item (location, PE, duration, TypeSource, and Extremum) should be updated to match the contents of the row.
4. Search result should return only the station that is in the search box. (Redmine DR 545, Dim DR 17096)

117. Problem: Bundles with density 99999 cause slowdowns

Loading bundles with really high density values for plot resources causes them to draw way too many plots and run out of memory. (Redmine DR 544, Dim DR 17079)

118. Problem: GFE: Grids in ISC mode should step fwd/backward using ISC times, not Fcst times

When in ISC mode in GFE, AWIPS I steps forward/backward in time based on the ISC grid times, not the Fcst grid times. In AWIPS II, it appears to use the Fcst grid times. This is a critical issue because of how forecasters use ISC mode with Hazard grids in GFE. Even if our grids currently do NOT have a hazard, but our neighbors DO have a hazard, forecasters need to be able to step forward/backward in time to see WHEN neighboring offices stop and start their hazards. With this change to the step forward/backward behavior, the forecasters have to randomly click with the mouse within the "empty hazard blocks" to see when neighbors hazard grids top/start. This wastes valuable time during warning operations.

Operational Impact: If the site's grids currently do NOT have a hazard, but their neighbors DO have a hazard, forecasters need to be able to step forward/backward in time to see WHEN neighboring offices stop and start their hazards. With this change to the step forward/backward behavior - forecasters have to randomly click with the mouse within the "empty hazard blocks" to see when neighbors hazard grids top/start. This wastes valuable time during warning operations. Sites can see neighbor's hazard grids in the ISC database grids but these grids are further down in the grid manager making it inconvenient to look there. The AWIPS I behavior was the desired behavior.

Required Behavior: When in ISC mode, stepping forward or backwards in time uses the ISC grid time rather than the Fcst grid time. (Redmine DR 543, Dim DR 17075)

119. Problem: Improve memory efficiency of wind grids in D2D

In heap dumps of high memory scenarios, the users have seen that wind grids take more memory than is necessary. Specifically, a D2DGridResource displaying wind has magnitude, direction, u, and v. It should be able to display and sample with only two of those grids, which reduces overall memory usage when displaying grids. Improve the memory efficiency of this scenario. (Redmine DR 542, Dim DR 17064)

120. Problem: Edex shutdown doesn't allow current processing to finish

Edex no longer allows a route to finish processing so as to not drop data on the floor. This is especially true of vm type routes. At ARX, a warning product was decoded by the warning decoder but edex was shut down before it finished in the active table processing. This message was lost and never included in the active table causing issues for the site. (Redmine DR 541, Dim DR 17052)

121. Problem: Display Extratropical Storm Surge Model (ESTOFS) Data

Display Extratropical Surge and Tide Operational Forecast System (ESTOFS) model grids in GFE and D2D. (Redmine DR 295, Dim DR 16999)

122. Problem: Display Multi-grid Wavewatch III Hurricane Wave Model Grids

The multi-grid hurricane wave model will provide: 1) Two-way nesting, 2) Increased resolution over the shelf and coastal regions; Potential GRIB decoder issues with "non standard" grids. (Redmine DR 293, Dim DR 16997)

123. Problem: MPE's "Point Filter" slider bars in Daily QC causes unexpected problems

When using the "Point Filter" slider bars in Daily QC in conjunction with the "Group Edit" feature (to set incorrect gages to "bad"), an unexpected problem arises. If you're using the slider bars to limit the visible data on the screen to assist in finding the faulty gages, setting gages to 'bad' by clicking in the vicinity of the suspect gage can result in setting the wrong gages to bad -- ones that are NOT visible (due to the slider bar filtering). In other words, the gages that are not visible are still editable. This is a problem because it can easily lead to unintentionally setting good gages to bad (often without us knowing it) and thus removing "good" gages from our products.

Required Behavior: The expected behavior is that you are only able to mark gages that are visible, and invisible gages cannot be marked. (Redmine DR 283, Dim DR 16987)

124. Problem: Multiple flag functionality for textdb is not working properly

Issuing textdb command with multiple flags should work properly.

Issuing command like:

```
textdb -rw SAUS80 -rs KDBN -rt 232000
```

should return available SAUS80 for KDBN for the specified time.

Required Behavior: Issuing textdb command with multiple flags works properly. Issuing command like: textdb -rw SAUS80 -rs KDBN -rt 232000 returns available SAUS80 for KDBN for the specified time. (Redmine DR 539, Dim DR 16954)

125. NullPointerException in BlinkToggleAction with 4 panels

The following error occurs when using 4 panels.

```
Unhandled event loop exception java.lang.NullPointerException
```

```
at
```

```
com.raytheon.uf.viz.d2d.ui.actions.BlinkToggleAction.setSelectedRsc(BlinkToggleAction.java:159)
```

```
at
com.raytheon.viz.ui.cmenu.ContextMenuManager.fillContextMenu(ContextMenuManager.java:176)

at
com.raytheon.uf.viz.core.rsc.legend.AbstractLegendResource.fillContextMenu(AbstractLegendResource.java:349)

at
com.raytheon.uf.viz.d2d.core.legend.D2DLegendResource.fillContextMenu(D2DLegendResource.java:604)

at
com.raytheon.uf.viz.core.rsc.legend.AbstractLegendResource.provideContextMenuItems(AbstractLegendResource.java:343)

at
com.raytheon.viz.ui.panes.VizDisplayPane.menuAboutToShow(VizDisplayPane.java:315)

..more
```

(Redmine DR 538, Dim DR 16953)

126. Problem: Text Script Editor :Edit Menu: Delete Line Option

While rewriting the Text Product Script Editing section of the User's Manual, an error was found for the keyboard shortcut for "Delete Line," which is an option under the Edit menu of the Text Script Editor. Delete line should be F8 and not F7.

The Undelete option where the keyboard shortcut adds a "Shift +" before the function keys is correct. **(Redmine DR 14719, Dim DR 16933)**

127. Problem: AvnFPS: Syntax failed to flag format error

For example, for the following TAF in the edit area of TAF editor

```
KRST 202320Z 2100/2124 29012KT 4SM HZ SCT006
```

```
FM210000 30011KT P6SM SCT020
```

```
FM210400 31011KT P6SM BKN020=
```

FM group on the second line starts at the same time as the TAF (00Z), which is incorrect, but the current AvnFPS failed to flag this error when Syntax is clicked. **(Redmine DR 537, Dim DR 16928)**

128. Problem: NPE in Hydro Perspective

This error was found in the Hydro Perspective causing a NullPointerException. If the gauges are turned off and a refresh occurs the gauge's Coordinate object is not created (only created when drawn). A double click on the map tries to compare the mouse location Coordinate object to the gauge's Coordinate object, which is null, resulting in a NullPointerException. (**Redmine DR 536, Dim DR 16885**)

129. Problem: Python DateTime object constructor contains typos.

A python script that uses a DateTime object constructor causes errors during execution. (**Redmine DR 14634, Dim DR 16796**)

130. Problem: SAFESEAS/SNOW/Fog Monitor: Config GUI bug

When users are operating the monitoring area config GUI's for SAFESEAS, SNOW, and the Fog Monitor, and they click "OK", they are confronted by a popup that states, "No Changes Made. Do you want to exit?" even when changes are made. When the GUI is closed and reopened the changes are gone. This deprives operational users of these applications the ability to control which counties, zones and surface stations they are monitoring. This functionality had worked in earlier builds. (**Redmine DR 533, Dim DR 16778**)

131. Problem: Deleted hazard grids not removed from neighboring sites ISC grids

When a forecaster deletes a Hazards grid in GFE to cancel it, the deleted action is not sent to ISC to surrounding sites.

Required Behavior: Deleting the hazard grid should effectively remove the hazard information from the ISC database. (**Redmine DR 532, Dim DR 16776**)

132. Problem: Nested include statements not handled in WarnGen Templates

With the addition of the geospatial config xml files with OB13.5.2 WarnGen templates there is a possibility that sites want to have a nested include statement (geospatialConfig is included in an individual product xml template and an include statement is in the geospatialConfig file). This operation was handled in AWIPS I however within the java code, no ability is present (or ever has been present) in AWIPS II.

Required Behavior: Nested include statements are handled correctly. (**Redmine DR 531, Dim DR 16759**)

133. Problem: GFSEnsemble Run Snow parameters give error despite showing data present

When trying to load the GFSEnsemble Run Snow products from the Volume Browser, it appears based on the Green Box and the presence of data in the "Product availability section" that data is

present. However, when the user clicks "load", an AlertViz error as below appears that seems to indicate that there is No Data Available.

```
No data available for resource
com.raytheon.viz.grid.rsc.GridResourceDatacom.raytheon.uf.viz.core.exc
eption.NoDataAvailableException:
```

```
No Data Available
```

```
    at
com.raytheon.uf.viz.core.rsc.AbstractRequestableResourceData.construct
(AbstractRequestableResourceData.java:232)
```

```
    at
com.raytheon.viz.grid.rsc.GridResourceData.construct(GridResourceData.
java:120)
```

```
    at
com.raytheon.uf.viz.core.drawables.ResourcePair.instantiateResource(Re
sourcePair.java:244)
```

```
    at
com.raytheon.uf.viz.core.rsc.ResourceList.instantiateResources(Resourc
eList.java:918)
```

```
    at
com.raytheon.viz.ui.BundleLoader$InstantiationTask.run(BundleLoader.ja
va:86)
```

```
.....more
```

(Redmine DR, Dim DR 16752)

134. Problem: Invalid QC message for Areal Flood Advisory

In WarnGen, if a user issues an Areal Flood Advisory and selects "Ice Jam and Rain" as the Primary Cause, a QC Error is thrown when the user clicks send that should not be there. The QC error says that *"Immediate Cause missing in first bullet or is inconsistent with VTEC"*. **(Redmine DR, Dim DR 16743)**

135. Problem: MPE: Draw Polygons window placement not remembered

In MPE, the Draw Polygons window placement is not remembered when the window is re-opened. This differs from the behavior in AWIPS I.

In AWIPS I MPE, a forecaster will

- 1) Select "Draw Polygons" to open the "Edit Precipitation" window
- 2) May choose to move the "Edit Precipitation" window to the side of the display to allow viewing of the precipitation and edit area

- 3) Makes edits and save, then select "close" to close the window
- 4) Re-select "Draw Polygons" to open the "Edit Precipitation" window to make further edits and QC.

In AWIPS I, the MPE GUI will post "Edit Precipitation" window in the location previously set off to the side each time it is re-opened in that edit session.

In AWIPS II, following the same steps above, the MPE GUI will ALWAYS open the "Edit Precipitation" in the center of the MPE GUI Display, requiring the forecaster to move off to the side again. The A2 version does not retain a memory of the prior placement of the "Edit Precipitation" window during the same edit session. (**Redmine DR 528, Dim DR 16707**)

136. Problem: Hydro: TimeSeries save edited data didn't update revision and shef_qual_code

The behavior of the hydro time series application has changed when it comes to editing data.

In AWIPS I when editing data, in addition to the data value being changed, it also changes the fields shef_qual_code to M (for manual edit) and revision to 1.

In AWIPS II when editing data it only changes the data value. (**Redmine DR 527, Dim DR 16705**)

137. Problem: Duration menu disabled after creating text for a COR SVS

In WarnGen, if a user issues a correction and then wants to immediately send out NEW product of the same type, the "Duration" menu is disabled. Even if the user clicks the "Restart" button, the menu does not become enabled. This occurs only once the "Create Text" button has been clicked, so if a user brought up the COR product and never made an action on it, this issue would not exist. (**Redmine DR 526, Dim DR 16694**)

138. Problem: Invalid County in headline of SPS

If the SPS product is set up such that it is to output county headlines instead of zone headlines and a county is toggled off via right click, the county is incorrectly put into the headline even though the zone name is removed from the UGC line.

Required Behavior: The county headline is consistent with the UGC line. (**Redmine DR 641, Dim DR 16683**)

139. Problem: Text Workstation expiration pop-up inconsistent

At 10 minutes to expiration, the text workstation should always send a pop up window saying that a warning is expiring at a particular time. If a warning is issued and then followed up two or more times, no pop-up is received. Also, if a correction is transmitted for a NEW product the number of pop-ups is

equal to the combined number: the number of CORs sent plus 1 (for the NEW warning). (**Redmine DR 525, Dim DR 16668**)

140. Problem: Hydro: shefdecoder gage_pp should post data to hourlypp if pe=pp and dur=1006

The gauge-pp is not posting hourly pp correctly. The DB is reporting 0 one hundredths while the MPE is reporting 8 one hundredths of an inch. In addition, the accumulation total over 24hrs is wrong. (**Redmine DR 587, Dim DR 16661**)

141. Problem: HPE data does not display using D2D Volume Browser

When testing DR-16157 "DHR radar data did not decompress" it appeared data was being decompressed and decoded properly. If HPE data is being properly decoded, to test this, the HPE data should be viewable using the D2D Volume Browser. No "green times" are displayed, indicating no current data is available for display. (**Redmine DR 524, Dim DR 16596**)

142. Problem: GFE: FFMP: Error when loading a subsequent FFMP for a backup radar or HPE/BHPE

An AlertViz red banner error is displayed while executing the following:

1. Launch CAVE
2. Launch FFMP for the primary radar
3. Clear FFMP
4. Launch FFMP for a backup radar, HPE or BHPE
5. If you do not get the error right away, repeat clearing and loading FFMP, changing layers, duration, etc.

The red banner can be cleared and FFMP remains usable. Red banner AlertViz message should be taken seriously so this error should not be displayed if it doesn't indicate a real problem. The problem occurs frequently and was found with general FFMP testing. (**Redmine DR 523, Dim DR 16586**)

143. Problem: Data Retrieval over Spatial Sub-domain Using Data Access Framework

Build OB13.5.1 has the basic implementation of Data Access Framework (DAF) to allow user to get data over the ENTIRE grid domain. However, the DAF should be extended to include the data retrieval implementation over any spatial sub-domain by an "IGeometryRequest" request, at least for the data types of "radar", "satellite", "model", "lightning" and "map".

Required Behavior: This Small Enhancement DR supports MDL to continue its development for Tracking Meteorogram project. The data retrieval over a sub-domain using DAF should be

supported via "setEnvelope()" method by an "IGeometryRequest" constraints. (**Redmine DR 574, Dim DR 16583**)

144. Problem: MPE Drawn polygons remain displayed unless "Draw Polygons" window is closed

Drawn polygons remain displayed unless "Draw Polygons" Pop-Up window is closed. This also happens after changing hours or changing "Precip Fields".

Required Behavior: Start MPE, from the main menu, select "Draw Polygons". Draw a polygon. Draw others. Once an action is applied to a polygon, it is no longer displayed. An action would be anything that applies an action to the polygon (set, raise, lower, scale, snow, substitute or set). Changing Precip Fields or Hour displayed also causes the polygon to be removed.

The polygons should clear the same way that they do when you close the dialog box. This should be done after finishing each polygon. (**Redmine DR 314, Dim DR 16561**)

145. Problem: MPE color bar creation behavior differs between AWIPS I and AWIPS II

AWIPS I behavior:

- (1) Change a color and/or a color level to the color bar scale in the MPE color manager dialog
- (2) With the color manager dialog still open, save the changes
- (3) Color bar scale and map update in the MPE map display window change immediately, as desired; that is the color bar scale and map update in the MPE map display window without closing the color manager dialog

The key point here is that the color bar scale and map update in the MPE map display window without having to close the color manager dialog. This is desirable GUI behavior because it allows the user to immediately view the results of the change color scale and iterate changes more efficiently

AWIPS II behavior:

- (1) Change a color and/or a color level to the color bar scale in the MPE color manager dialog
- (2) Save the changes
- (3) Close the color manager dialog
- (4) Color bar scale and map update in the MPE map display window change as desired

Consequently, in A2 the only way to update the color bar scale and map in the MPE map display window is to close the color manager dialog -- this is not the desired behavior wanted by the NWS. The NWS wants the color bar scale and map in the MPE map display window to update as soon as the change is saved, without the need to close the color manager dialog. (**Redmine DR 14448, Dim DR 16560**)

146. Problem: Hydro: Storing metadata for HPE products at RFC sites

HPE and HPN are being modified to use either legacy radar precipitation estimates (single-polarization DHR-based) or Dual Pol based (DPR) precipitation estimates. The HPE data includes instantaneous precipitation rate and 1 hour accumulation for HPE/Bias-HPE/HPN. The HPE data is input to both the Volume Browser and FFMP. Forecasters need to know whether single-pol or dual-pol radar is the data source HPE is using. The source needs to be displayed in volume browser and available as input to FFMP in order to effectively use the data in hydro meteorological decision making. **(Redmine DR 522, Dim DR 16544)**

147. Problem: GFE: Remove swear words eliminate words from the dictionary

This enhancement is related to the existing Dim 7240 (A1 DR 21041).

RNK's requirement is to eliminate words from the dictionary so that inappropriate words will also be flagged by the spell checker. Its subtle difference but it could be possible to implement a solution to eliminate from the suggestion list but still let an inappropriate word pass the spell check. **(Redmine DR 16693, Dim DR 16508)**

148. Problem: Error returned when tearing off a menu in Practice mode

Some menus were successfully torn off without error (e.g., Maps and Tools), while other menus returned errors. Products were still able to be displayed from the error-prone tear-off menu. Also noted was that the color-filled menu items on some portions of the tear-off menu (specifically Satellite).

When moving the cursor over the color-filled menu items, the background changed from orange to white. Lastly, if another dialog was opened and moved over a tear-off menu, the error would return probably due to the tear-off menu being redrawn.

The following error was returned when tearing off a menu while in Practice mode.

```
Unhandled event loop exceptionjava.lang.NullPointerException
at
com.raytheon.uf.viz.ui.menus.widgets.tearoff.MenuItemComposite.setBackground(
MenuItemComposite.java:259)
at com.raytheon.viz.ui.dialogs.ModeListener.setControl(ModeListener.java:115)
at com.raytheon.viz.ui.dialogs.ModeListener.setControl(ModeListener.java:123)
at com.raytheon.viz.ui.dialogs.ModeListener.setControl(ModeListener.java:123)
at com.raytheon.viz.ui.dialogs.ModeListener.setControl(ModeListener.java:123)
at
com.raytheon.viz.ui.dialogs.ModeListener.paintControl(ModeListener.java:97)
at org.eclipse.swt.widgets.TypedListener.handleEvent(TypedListener.java:230)
```

```
at org.eclipse.swt.widgets.EventTable.sendEvent(EventTable.java:84)
at org.eclipse.swt.widgets.Widget.sendEvent(Widget.java:1276)
...more
```

(Redmine DR 520, Dim DR 16494)

149. Problem: The shef_post_baddata = PE does not work

The shef_post_baddata = PE does not work. When the Apps_defaults file token shef_post_baddata is set to PE, and ingest data with bad data the record was not posted in the PE table for the test case the record was not stored in the Height table.

Required Behavior: When the Apps_defaults file token shef_post_baddata is set to PE, and an HGIRZ bad data record is ingested, the record is not rejected and is stored in the Height table.

(Redmine DR 248, Dim DR 16473)

150. Problem: RADAR: txxx Products Not Available

A number of txxx products are not available. These products include:

Precip products

Cave->txxx ->txxx Precip->STP, OHP, or THP all missing

Derived products

Cave->txxx ->txxx Derived Products->CZ, precipitation, VIL, composite reflectivity, echo tops, etc.

Algorithm overlays

Cave->txxx ->txxx Algorithm Products->STI, HI and others missing

(Redmine DR 519, Dim DR 16466)

151. Problem. SITE level FFMPSourceConfig.xml file not being regenerated from BASE file

When the SITE level version of the FFMPSourceConfig.xml file is removed, it should be regenerated from the BASE level file when EDEX restarts. EDEX recognizes that the file is missing, but the file does not get regenerated from the BASE level file. The SITE level file is updated, but its contents are unchanged. BASE is currently being copied manually to SITE as part of 13.5.1 delta script.

Required Behavior: When the SITE level version of the FFMPSourceConfig.xml file is removed, it should be regenerated from the BASE level file when EDEX restarts. (Redmine DR 518, Dim DR 16456)

152. Problem: SCAN reflectivity threshold alarms not alarming audibly or visibly in D2D perspective

The Reflectivity (also for other attributes) threshold isn't alarming at all. In order for it to work, a user had to check the setting and press "OK".

Required Behavior: When an alarm threshold is set for a certain value for any parameter, it should alarm when the SCAN table shows it has exceeded that value. A user should not need to go under the Configure (Configuration) menu to check the setting and then click the "OK" button in order to get alerts. (Redmine DR 517, Dim DR 16439)

153. MPE: Detached Draw Polygons not working

In an effort to draw multiple polygons, the user "detached" the Polygon pull down menu. While it was "floating", the user could not draw a polygon. MPE responded like that the user was grabbing and panning the map. After closing the Polygon floating window, the user was then able to draw and apply polygons.

Required Behavior: Draw Polygons should work whether it's detached or not. (Redmine DR 516, Dim DR 16400)

154. Problem: Line of Storms functionality behaving oddly in WarnGen

There are two issues dealing with the Line of Storms (LOS) functionality in WarnGen:

1. If the user attempts to create a polygon using the LOS functionality, the polygon that is created is different from AWIPS I. In AWIPS I, regardless of where you created the polygon, the track of the storm was adjusted to run perpendicular to the rectangular polygon that is created. In AWIPS II, the track of the storm does not modify itself to become perpendicular to the polygon drawn and thus results in a parallelogram being drawn.
2. If at any point while WarnGen is open a user wants to use the LOS functionality, if they click the "Restart" button in WarnGen, this causes the track for the next created LOS to be drawn on an West to East line, regardless of where the line is placed. Consequently, if a user reverts back to wanting to create a polygon for a Single Storm, the default track is now pointing due East, with a polygon attached. This occurs even if a Single Storm polygon was created prior, pointing in an entirely different direction. In AWIPS I, using the "Restart" button did not impact either the LOS or Single Storm tracks.

Required Behavior: Storm tracks using the Line of Storms functionality should be drawn perpendicular to the created polygon as in AWIPS 1. Clicking the "restart" button while using this functionality should not result in a track laying west to east. This track should also not have an impact on the single storm functionality. (Redmine DR 514, Dim DR 16356)

155. Problem: Maps loaded before opening WarnGen not retained when WarnGen is closed

When a user loads a map in D2D before opening WarnGen, then opens and closes WarnGen, the map is sometimes unloaded. This has been observed when loading County Names, Marine Zones, and Forecast zones. However, these maps are only unloaded upon the closing of WarnGen if a product in WarnGen is enabled that also loads the same map from within the WarnGen GUI. For example, if you load County Names, start WarnGen, Click Tornado or Severe Thunderstorm, then close WarnGen - the County Names maps unload. In earlier releases this same process did not result in the unloading of the initial maps. This was also noticed for Marine Zones (enabling Special Marine Warning) and for Forecast Zones (enabling Significant Weather Advisory). Finally, if WarnGen is loaded in a clear, standalone display, then closed, previous releases and AWIPS 1 kept the County Names, but now the entire display is cleared.

Required Behavior: Maps loaded prior to opening WarnGen should be retained when WarnGen is closed. (Redmine DR 513, Dim DR 16322)

156. Problem: Need radar data watchdog functionality

A1 has a "radar watchdog" that alerts users (via Guardian) when radar data is not being ingested in a timely manner. This functionality is missing in A2.

Steps to reproduce:

1. Stop Ingest for some radar
2. Log into a workstation so that AlertViz starts
3. Wait up to six minutes
4. Expected result: An AlertViz message reports data for that radar is not being ingested.

(Redmine DR 512, Dim DR 16319)

157. Problem: Minor Typo in KXXX Menu: Best Res Z + V should be followed by "combo"

A minor typographical error was observed in the D2D KXXX Menu (Local WSR 88D radar menu). The menu section title "Best Res Z + V" should be followed by "combo". This is correct in A1 and in the A2 TXXX menu (Local TDWR. (Redmine DR 14193, Dim DR 16265)

158. Problem: Minor Typo in Volume Menu of D2D: 4-PanelFamilies

A minor typographical error was observed in the Volume Menu of D2D. The menu item "4-PanelFamilies" is missing a space between 4-Panel and Families. This was compared with A1, where it is correct: "4-Panel Families". (Redmine DR 14188, Dim DR 16259)

159. Problem: textdb -pil -a command fails to add scripts with option arguments

The "textdb -pil -a" command does not correctly add scripts when the script command contains single-letter option arguments. Example:

```
textdb -pil -a SOMEPIILXX "/path/to/script -t"
```

The resulting trigger will be missing the "-t" argument. Options like "--option" or "-opt" are correctly included.

Also, if one invokes the command without correctly quoting the script with its arguments, textdb does not always print an error message

Required Behavior: The textdb command correctly adds the trigger script with all specified arguments. The textdb command fails with an appropriate error message when incorrect commands are given. (Redmine DR 510, Dim DR 16215)

160. Problem: GFE: Product editor still auto-wraps when the option is turned off

OUN called and stated that in the GFE formatter launcher, their auto-wrap function in the options menu is working when it's turned off and vice versa. This is for their baseline HWO that is issued.

Also the auto-wrap function is not affected by the toggling on/off of the "Auto Wrap" option from the Options menu within the Formatter Launcher. Also, while testing some GFE text products on BCQ the users noticed that turning off the "Auto Wrap" toggle under the editor's Options menu seems to have no effect. With the Auto Wrap off, the user edited a line that was shorter than the maximum line length. The lines following the line we were editing were all pulled up, destroying the formatting of our product.

Required Behavior: The auto wrap function should turn on/off as the item on the Options menu is selected/deselected. (Redmine DR 509, Dim DR 16195)

161. Problem: GFE: GFE product dialog doesn't add scroll bars if GUI too big to fit on display

When running a formatter from the Formatter Launcher, the issuance dialog GUI does not add scroll bars if there are more entries defined in the product's VariableList that will fit vertically on the display. If you resize the window to be smaller, a scrollbar is added but it does not allow for scrolling all the way to the end. The impact is all options needed to run a formatter cannot be set. (Redmine DR 508, Dim DR 16167)

162. Problem: Erroneous entry in AllRegionalWarnings.xml

A typo was discovered in AllRegionalWarnings.xml where TO.W entry was repeated twice. This affects all items under Obs - Other Warning Displays - All Regional Warnings.

Required Behavior: The String instead of looking like this:-constraint
constraintValue="MA.W,FF.W,FA.W,FA.Y,TO.W,TO.W,EW.W" constraintType="IN" /-
should look like this:-constraint
constraintValue="MA.W,FF.W,FA.W,FA.Y,TO.W,SV.W,EW.W" constraintType="IN" /
(Redmine DR 14097, Dim DR 16154)

163. Problem: FFMP gap calculation is incorrect

The amount of gap that FFMP is calculating is incorrect.

As of 13.4.1, once FFMP is launched, if the time slider is placed at 24 hours, as data updates occur, the data gap will grow (very quickly!), according to the label in the Basin Table. The actual data gap is still zero, though.

Required Behavior: The amount of gap that FFMP calculates must be correct, taking into consideration the use of the "expiration time" adjustment. (Redmine DR 507, Dim DR 16148)

164. Problem: Add Two New RTMA Parameters (Visibility and Wind Gust)

Add two new RTMA parameters, visibility and wind gust, for all available RTMA Domains: Alaska at 5.9 and 3 km horizontal resolution, CONUS at 2.5 and 5 km horizontal resolution, Hawaii at 2.5 km horizontal resolution, Puerto Rico at 2.5 km horizontal resolution and Guam at 2.5 km horizontal resolution

Required Behavior: AWIPS Requirement: Ingest, decode and process the new visibility and wind gust parameters for the RTMA data for use in the Common AWIPS Visualization Environment (CAVE) Volume Browser and in the Graphical Forecast Editor (GFE). (Redmine DR 14013, Dim DR 16056)

165. Problem: Bad rule in gridImageryStyleRules.xml for Convective Inhibition

The image style rule for Convective Inhibition (NBE and cCin) contain a range limit via the <minValue> and <maxValue> tags that prevent the products from displaying as an image. The baseline values are 1 and 450 for minValue and maxValue, respectively. Convective Inhibition values are negative, so the range needs to be in negative values.

Required Behavior: Convective Inhibition values are negative, so the range needs to be in negative values. (Redmine DR 14005, Dim DR 16047)

166. Problem: Cross section: Switching the log plot to z-coordinate scale

Load a reflectivity cross section in d2d via a baseline using a z-coordinate scale of kfeet gets an error similar to "line a not loading" and no data appears. When attempting to plot Cross Section, Time height or Var vs Hgt from the Volume Browser for Point sources, the AGL and MSL scales do not work. The plots work for the pressure scales (such as Log 1050-150).

To reproduce: Open the Volume Browser. Change Plan View to Var vs Hgt. Change 'Log 1050-150' to '0-45 kft AGL'. In the Sources box, select Point --> NAMBuftr, in Fields box select Basic --> Rel Humidity. In Planes box select one of the points. Load the Product. An error "Paint error: Parameter not present: zAGL: The resource has been disabled." pops up and the plot does not display. Repeat for Time Height and Cross Section. (**Redmine DR 258, Dim DR 15941**)

167. Problem: GFE: iscMosaic errors if __getDbGrid finds no grid and no grid history

Sometimes iscMosaic returns mosaic failures if __getDbGrid returns no grid. This causes banner messages to users periodically like: "Swell2, Period" Grids=43[23 FAILED].

```
ERROR 2013-02-05 16:51:02,662 [18683:1407761296] iscMosaic.py: Failure to
process grid in file [ /awips2/GFESuite/products/ISC
```

```
/TBW-238755.001.NH2 ] Parm= Wx_SFC Time= (20130206_1200,20130206_1800)
Traceback (most recent call last):
```

```
File "/awips2/edex/data/utility/edex_static/base/gfe/isc/iscMosaic.py",
line 602, in __processParm
```

```
    mGrid, tr, inFillV)
```

```
File "/awips2/edex/data/utility/edex_static/base/gfe/isc/iscMosaic.py",
line 667, in __processIncomingGrid
```

```
    gotGrid = self.__getDbGrid(m[0])
```

```
File "/awips2/edex/data/utility/edex_static/base/gfe/isc/iscMosaic.py",
line 754, in __getDbGrid
```

```
    grid = self._wec[tr]
```

```
File "/awips2/edex/data/utility/edex_static/base/gfe/isc/iscMosaic.py",
line 112, in __getitem__
```

```
    grid = self._we.getItem(iscUtil.toJavaTimeRange(key))
```

.....more

Additionally the ISC Processing Errors were observed. The ISC grids are failing to process on LX2.

```
ERROR 2013-03-14 21:57:51,254 [16217:1309670288] iscMosaic.py: Failure to
process grid in file [ /awips2/GFESuite/products/ISC/ALY-982466.001.BOX ]
Parm= Wind_SFC Time= (20130315_0000,20130315_0100) Traceback (most recent
call last):
```

```
File "/awips2/edex/data/utility/edex_static/base/gfe/isc/iscMosaic.py",
line 602, in __processParm
```

```
    mGrid, tr, inFillV)
```



```
File "/awips2/edex/data/utility/edex_static/base/gfe/isc/iscMosaic.py",  
line 718, in __processIncomingGrid
```

```
    self.__storeGrid(m[1], mergedGrid)
```

```
File "/awips2/edex/data/utility/edex_static/base/gfe/isc/iscMosaic.py",  
line 724, in __storeGrid
```

```
    self._wec[tr] = grid.....more
```

Required Behavior: *none* return value should not return merge errors. This causes many trouble tickets, and makes the sites nervous. (Redmine DR 13822, Dim DR 15853)

168. Problem: GFE: Can't see model data for neighboring sites in ISC mode w/o toggling button

Site BOU reported that it has been an issue since first installing AWIPS II.

When in the GFE grid editor in ISC mode, they can see the forecast for surrounding sites. If they go to look at model data however, the surrounding sites are just black and they have to turn off ISC mode to see the data. In AWIPS I, they don't have to turn off ISC mode to see model data in neighboring sites' domains.

Required Behavior: Need to be able to view model data while in ISC mode like in AWIPS I. (Redmine DR 256, Dim DR 15814)

169. Problem: Color table editor does not allow enough significant digits

Color table editor does not allow enough significant digits when editing the Correlation Coefficient (CC) color table.

The CC product (dual pol radar product) is typically sampled down to 3 decimal places. When trying to edit the default color table for this product in the color table editor, the resolution is only one decimal place, which makes it virtually impossible to edit this table.

Required Behavior: It should 3 digits on Color Table. (Redmine DR 505, Dim DR 15811)

170. Problem: Spelling error: Upper Air Menu - Tallahassee

The following spelling error was observed.

CAVE-Upper Air-US Eastern-Tallahassee, FL (KTAE)Tallahassee misspelled Tallahassee; missing second 's'. (Redmine DR 13739, Dim DR 15762)

171. Problem: GFE: Need to add Beach Hazards Statement

Select AWIPS I sites have tested a new Beach Hazard Statement during the 2012 beach season. While well-regarded, this test needs to be expanded to include more sites to better validate this

addition. The AWIPS I code will need to be converted to AWIPS II once OS21 determines this new VTEC is ready to be baselined.

Required Behavior: Sites will be able to issue a BH.S via the CFW instead of the RP.S, CF.S or LS.S. (Redmine DR 13467, Dim DR 15486)

172. Problem: Thin Client: synchronize misspelled

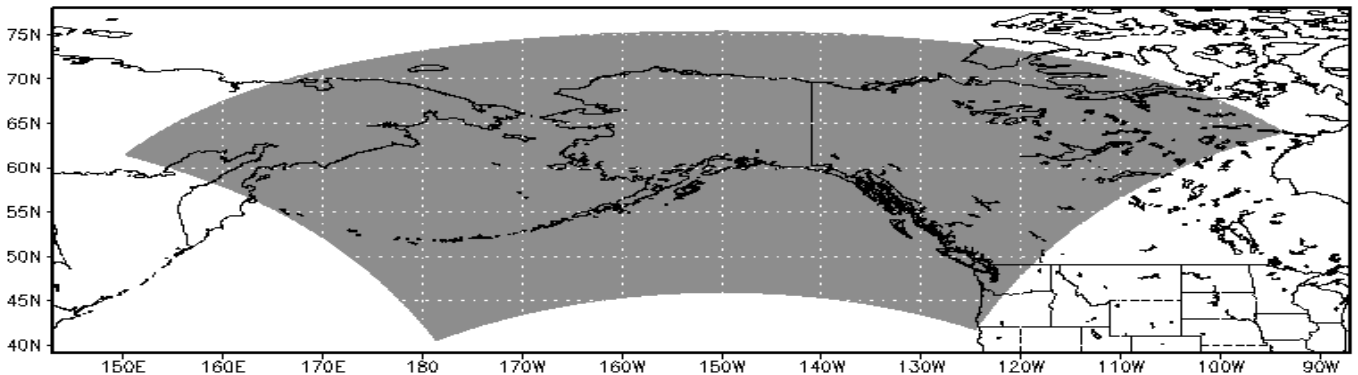
Would you like to synchronize now? In the above phrase "synchronize" is misspelled in a dialog box that is displayed when prompted to synch cached localization files. The term "synchronize" is used in various forms, but spelled correctly only three other times. (Redmine DR 12757, Dim DR 14755)

173. Problem: Small Enhancement for the Real-Time Mesoscale Analysis (RTMA) new Alaska domain

Add new RTMA generated for the Alaska Region at a 3 km horizontal resolution.

AWIPS Requirement: Ingest, decode and process the Alaska RTMA data at a 3 km resolution for use in the Common AWIPS Visualization Environment (CAVE) Volume Browser and in the Graphical Forecast Editor (GFE).

A graphic of the RTMA for the Alaska domain is shown below.



The grid characteristics:

Projection: Polar stereographic

Number of grid points in the east-west direction: 1649

Number of grid points in the north-south direction: 1105

Latitude of the lower left corner point: 40.530101N

Longitude of the lower left corner point: 181.429000E

Latitude where grid spacing in x and y are specified: 60.000000N

y-axis parallel to longitude circle: 210.000000E

Grid spacing in x and y: 2.976563km

Analysis parameters available for this new domain:

Temperature

Dew Point Temperature

Wind Speed

Wind Direction

Wind Gust

Model Terrain Height

Surface Pressure

Visibility

(Redmine DR 504, Dim DR 14068)

174. Problem: MPE: Implement PostAnalysis - CHPS support

Previously, Post Analysis was a separate program that had not been maintained for several AWIPS major builds. However, there existed a need to bring some of the functionality into MPE Daily QC/Editor to bridge the gap between the hourly and Daily QC functionalities. Using the 24hr accumulated grid described in 15 above and X/Motif code adapted from the old Post Analysis routine, this initial check in of the code will display that field side-by-side with the Daily QC 24 hour gage field and also the user will be able to display a merge of the two fields as well. There is other functionality such as overlay display, zoom, 7x7 grid displays and a small window showing point values on the main display windows so the user can see the differences.

(Redmine DR 559, Dim DR 9784)

175. Problem: GIS Viewer and maps database need to support shape files not in WGS84 lat/lon

GIS Viewer and maps database need to be updated to support inputs in other than WGS84 unprojected Lat/Lon.

Looking at the coordinate values in the shape file this appears to be in some projection (i.e. not lat/lon values) since the coordinates values are in the hundreds of thousands (probably meters). This means there should be a .prj file with this shape file in addition to the usual 3 files (.shp, .shx, .dbf).

Also A2 does not currently support shape files that are not in lat/lon. There is an open DR and a thin client work assignment to add this support. This work assignment is also currently planned for 14.3.1. (**Redmine DR 558, Dim DR 2090**)

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.

[**Note:** All other open DRs and DCs prior to release OB14.3.1 can be accessed through the Redmine database using the respective release identifiers.]

DRs and DCs for Release 14.4.1

DR or DCS	Redmine	Dimensions (Dim)	Description
DR	14990	17358	Ingest Earthquake and Tsunami text products into AWIPS
DR	16806	17657	AlertalarmRecord is leaking memory
DR	17117	17909	Stats package performance issues in 14.4.1
DR	16806	17657	AlertalarmRecord is leaking memory
DR	14990	17358	Ingest Earthquake and Tsunami text products into AWIPS
DR	16988	17800	LocalStormReport plugin should store eventType as string, not integer
DR	17103	17895	New dx3/4 hardware can drive EDEX OoM
DR	649	17248	BOIVerifySumTemps crashes on dbName
DR	16991	17803	MSAS/LAPS: Convert radar inventory retrieval to DAF
DCS	16776	325	RADAR: Ingest and display Microburst product MBA
DR	638	16554	Inconsistent Type for scale widget value accessed through the varDict
DR	16969	17787	NativeLib: Update Native Lib to current version of Java and Postgresql
DR	624	15365	GFE: default file save directory different from AWIPS 1
DR	13512	15531	SREF Categorical Precip images sampling wrong
DCS	15253	200	LMA
DR	98	16108	GFE: ifpnetCDF no longer gives an error code in some cases
DR	13936	15975	Only Hi-Res ARW/NMM model soundings don't draw dewpoint lines; other models work
DR	17001	17813	QPID Migration
DR	14006	16048	Default EDEX files out of date w/respect to Laps/MSAS
DR	655	17431	SmartInit thread parameter does not work
DR	13206	15214	NSHARP hangs when loading stations to compare
DR	17003	17815	CAVE freezes drawing wind barbs with unreasonably high speeds
DR	632	16192	Radar Alert Request is generating false alarms

DR or DCS	Redmine	Dimensions (Dim)	Description
DR	14638	16800	triggers not activating on certain 8 letter PILS
DCS	14936	17279	Modify hydrogen cron so it runs 4 times an hour
DR	16747	17605	Hydro Alert/Alarm mismatched report formats between A1 and A2
DCS	15298	295	Ingest,Load,Display severe probability for a storm cell
DR	15054	17452	Ingest, Processing and Display of the Expanded High Resolution Window Model Grids
DR	15055	17453	Ingest and display of High Resolution Window Grids for the Guam domain (D3231)
DR	13684	15706	Dimensionless parameters in D2D sample with "null" in display
DR	15056	17454	Ingest and display of High Resolution Window (HIRESW) Grids for the Puerto Rico
DR	13387	15404	NCEP Hydro: Sampling error for RFCFFG image when interpolation turned off
DR	11982	13960	Print Icon in CAVE does not print
DCS	15303	301	Upgrade Spring Framework to 3.2.8
DCS	16956	17776	Preliminary Support for Standard Terrain
DCS	16838	344	GFS Upgrade Phase II b
DCS	15302	300	Upgrade PyDev to 3.4.1
DCS	15300	298	Upgrade Apache Camel to 2.13.2
DCS	15299	297	Upgrade ActiveMQ to 5.9.1
DCS	15309	307	Data Access Framework Updates (Omaha 14.4.1 Delivery)
DR	634	16388	OAX: AWIPSII---> Missing Data not getting into HML file
DR	15482	17468	WA20.14 - ingest, processing and display of the upgraded GEFS (Phase I)
DCS	15307	305	Collaboration (Omaha 14.4.1 Delivery)
DR	17038	17838	Create delta script to preserve the site's current AreaDictionary.py file
DR	16917	17741	Optimize FFMPTemplates initialization for memory efficiency
DR	17009	17820	Add Guam to countyTypes.txt file to account for "no counties"
DR	630	16166	GFE: EDEX can leave stale NFS file handles from ifpnetCDF failures
DR	16904	17731	Running a text formatter switches Zulu time to local time in procedures
DR	15662	17514	Add AWIPS2 release ID to COTS/FOSS rpm component.spec file
DR	642	16725	GFE: Smartsript method createTimeRange cannot create local-time time range

DR or DCS	Redmine	Dimensions (Dim)	Description
DR	14946	17296	GFE: ZFP displaying time for office timezone for zones in different timezone
DR	628	16061	AWIPS2 -> Hydro Crest History Issue
DR	17055	17850	GFE: Error preventing activeTableChange logging from occurring
DR	17057	17852	AlertViz: New erroneous message from RPG
DCS	16901	17728	Archive menus under CAVE menu should be consolidated
DR	13358	15374	NWRWAVES fails to regenerate a CRS message in Browser
DR	540	17026	GFE: Separate processing of product scripts from text formatters
DR	17063	17858	Patch for BinLightningDecoder.java
DCS	17064	376	MSAS/LAPS Build in RHEL6
DR	16859	17687	Text decoder processes collectives inefficiently
DR	17066	17860	afoslookup entry for site KEY is missing
DR	631	16171	GFE: smartInit file baseline error with LAPS sky cover
DR	15689	17541	MPE: Gage Color by Value does not display correctly
DCS	15280	228	LAPS Improvements: implement Tools GUI
DCS	15194	137	ingestAT kept old records (A1 DR 21391)
DR	15635	17488	Unhandled event loop exception when right clicking off map for certain tools
DR	14303	16392	GFE: SmartScript's setCombineMode throws invalid thread access exception
DCS	16815	330	Add FOSS project concurrentlinkedhashmap 1.4
DR	633	16252	GFE: SmartScript method loadParm() exception handler broken
DR	16829	17667	TextWS: Problem with AlarmAlertFunctions static class initialization.
DCS	16713	17570	Capture frames with date and time in file name
DR	17000	17812	Attempts to locate non-existent file in SAFESEAS Monitor Area Configuration dialog's Monitor Area Zones field causes "UELE - Index out of bounds" error
DR	14926	17259	Hydro Alert/Alarm: NEW_OR_INCREASED mode reporting errors
DR	14124	16186	Hawaii satellite ingest fails with Out of Memory errors (DR 15294)
DR	14246	16326	MPE Transmit Best Estimate option needs to be implemented
DR	15670	17522	Remove Morning, Afternoon, and Evening from Watch information in WarnGen
DR	644	16939	SmartScript's callFromProcedure() passes incorrect time range to procedures if c
DR	12464	14451	Precip and Snow Accum only loads to 180 hours

DR or DCS	Redmine	Dimensions (Dim)	Description
DR	16992	17804	Collaboration chat windows need to support advanced user customization of foreground and background color
DR	521	16509	AWIPS II GRIB Decoder cannot properly decode Ensemble Kernel Density (EKD)
DR	13897	15931	GFE: Invalid thread access error in SetDeltaDialog when active parm is changed
DCS	16816	331	Additional GeoTools 10.5 Functionality
DR	622	15196	Total Precipitable Water (TPW) satellite field should be displayed in inches
DR	636	16399	WarnGen: when it overlays on FFMP, follow-up type cannot be issued by right-click
DR	625	15447	Problem with functionality of BOIVerify Gui in A2
DR	643	16855	Text Workstation mishandles editing WRK products with numbers in PIL
DR	645	17054	GFE: CarSnowAmt smart tool can return incorrect amount
DR	646	17055	GFE: Event end time cannot be set beyond 96 hours on the MakeHazard GUI
DR	653	4311	DTE: Data not available for HiResW-xxx-XXX grids
DR	637	16535	Create a base level map bundle for the WarnGenLoc shape file
DR	17093	17885	Issues with TextWS scripting in 14.4.1
DR	635	16394	WarnGen: when it overlays on FFMP, polygon snaps back to default shape
DCS	14944	17293	Make warning polygon outline settable in bundle file
DR	16736	17595	OHD's RunReportAlarm Service does not notify EDEX's AlarmAlertNotification Observer.
DCS	15035	17424	Add SFMG WNJ GFE Domain definition to baseline serverConfig
DR	12144	14123	Alaska raobs plot incorrectly aloft in NSHARP - TTR6406
DCS	16822	337	Upgrade YAJSW to 11.11
DCS	16824	339	Common Support for BMH
DCS	16818	333	Upgrade jetty to 8.1.15
DCS	16842	347	Upgrade QPID to 0.28
DR	15017	17399	RADAR: Add PPS products to ASR/ARSR menu
DCS	16813	17664	Misspelling in the Archive Retention dialog
DCS	16823	338	NCEP Support (Omaha 14.4.1 Delivery)
DR	639	16593	Watch wording being incorrectly put into text products
DR	14130	16193	Satellite: Derived Products Plots problems for SSM/I Point Data

DR or DCS	Redmine	Dimensions (Dim)	Description
DR	15432	15324	Radar Menu - Dual Pol Mosaic Products
DR	16767	17624	RADAR: Add hail size classes of large and giant hail
DR	16999	17811	Update Windows Build with Packages from #16821
DR	17114	17906	EDEX ingest JVM cannot start (Ima-ingest.xml Update)
DR	14637	16799	Hydro--run_report_alarm -f option missing forecast report
DR	16990	17802	Changes in the area configuration files for FSSObs monitors should change the URI filters
DR	16996	17808	Dialogs for adding and editing new zones and stations in Fog, SNOW, and SAFESEAS configuration GUI not working properly
DR	14044	16093	SAFESEAS and Fog Monitor not ingesting Moving Maritime and MAROBS data
DCS	17070	17864	Add pattern for MRMS products to LDM config file and re-enable menu items
DR	16997	17809	Input mechanism for input/update of encrypted provider username and password at Central Registry location
DR	17095	17887	Update, Site Removal, and Data Retrieval notification messages for shared subscriptions do not appear in the Notification Center dialog
DCS	16745	321	Modify the EDEX grib plugin project to export decoderpostprocessor
DR	17102	17894	MESO-1 and MESO-2 products should act as separate products when displayed in D2D
DR	16804	17655	MPE: Null DAA Radar Product Handling
DR	17106	17898	Fix improper UI thread use; conversion from UI to Job thread (fix DCS 16768)
DR	17113	17905	Assign proper name to EKD MOS model when grids are stored
DR	16706	17563	D2D: A conflict between CONUS and Alaska >> MEX/MAV/MET MOS
DCS	15310	308	EDEX Performance & Stability (Omaha 14.4.1 Delivery)
DR	17105	17897	Viz UI plugin cannot stop if PathManager is not configured
DR	17004	17816	Promoting a Site Subscription to Shared creates two subscriptions
DCS	15168	111	AWIPS needs the ability to issue mixed case products
DCS	16768	323	Ensemble Tool - FDSE
DCS	16774	324	Product Generation (PGEN) availability in D2D Perspective
DCS	15588	265	MRMS in AWIPS2
DCS	16826	341	Add GOES-R to AWIPS II Baseline
DCS	16819	334	Upgrade OpenSAML to 2.6.1
DR	14024	16069	Add and sub-grid 2.5km Gridded LAMP

DR or DCS	Redmine	Dimensions (Dim)	Description
DCS	16817	332	Upgrade Apache Commons HttpClient to 4.3.5
DCS	16820	335	Upgrade PostgreSQL to 9.3.5
DR	16748	17606	MPE /DailyQC disagg Option
DCS	16751	322	Implement NAM Nest GRIB post-processor
DCS	16821	336	Upgrade python to 2.7.8
DR	17096	17888	Deleted/Removed shared subscriptions continue to pull data if the shared subscription is still active at another site
DCS	16825	340	Implement LAPS/MSAS into AWIPS II Baseline
DR	17092	17884	Add cronOTRs.xml to radar NDM files
DCS	16835	342	VerifySSHkeys.sh redesign for rsh port closure
DR	17074	17868	GFE: configureTextProducts failing after DR #15168 (Dim DCS_111, RODO 3685)
DR	17118	17910	Update GFSLAMP smartInit
DCS	16837	343	Update hibernate from 3.5.6 to 4.2.x
DCS	16839	345	Ingest and display of himawari data
DCS	16846	348	NCEP NAWIPS Migration for 14.4.1 - EDEX and EDEX Common
DR	17122	17914	BandwithManager design
DCS	15295	292	Upgrade CXF to 2.7.10
DCS	16847	349	NCEP NAWIPS Migration for 14.4.1 - CAVE Plugins
DCS	16814	329	Add Apache XMLBeans 2.6.0
DR	16995	17807	Improve https certificate checking to be enabled/disabled
DR	17045	17840	Allow common-static base localization files to be installed with CAVE
DR	629	16077	GFE: when runProcedure terminates unexpectedly locks remain in gfelocktable
DCS	15083	24	Nearshore Wave Prediction System (NWPS)
DR	17065	17859	Installer: Set dates on localization files to the installation date
DR	17059	17854	Thin Client: Cannot authenticate if user password is entered incorrectly the first time
DR	17058	17853	Error returned when adding a subscription to a group
DR	17090	17882	GFE: Error messages with some smartTools that return Wx grids (wxValues, keys)
DCS	17056	17851	RHEL6 CIS Level 1 Benchmark platform fix script
DR	16900	17727	Error retrieving satellite data received on rare occasions
DCS	15305	303	CAVE Performance & Stability (Omaha 14.4.1 Delivery)
DR	647	17113	GFE: Files not getting purged out of /awips2/GFESuite/products/ISC

DR or DCS	Redmine	Dimensions (Dim)	Description
DR	17039	17839	GFE: Remove HighlightFramingCodes feature from AWIPS II
DCS	15301	299	Upgrade Java to 1.7.0_65
DCS	15311	309	Merge & Build Support (Omaha 14.4.1 Delivery)
DCS	15314	312	Upgrade Xalan Java to 2.7.2
DCS	15313	311	Thin Client (Omaha 14.4.1 Delivery)
DCS	15308	306	Data Delivery Security Features (Omaha 14.4.1 Delivery)
DR	17029	17831	GFE: Thread safety issue in product editor
DCS	16934	356	Uninstall or disable insecure protocols in AWIPS
DR	15037	17426	Add Higher Resolution Gridded MOS
DR	14953	17305	Update Install and VerifySSHkeys scripts for new RP/chps servers and cp2f
DR	15007	17387	AvnFPS: TAF Editor "Restore From" function not working properly
DR	16952	17772	MPE: Daily QC estimate values are very erratic in value
DR	16998	17810	Data Provider Agent doesn't start without a Central Registry
DR	17010	17821	December 2014 security vulnerability patches
DCS	15453	316	Common Support for Hazard Services (Omaha 14.4.1 Delivery)
DCS	16958	17778	AF: Give nwws_relay ability to do PIL lookup

4. Design Changes Addressed in the 14.3.1 Delivery

The Design Changes for OB14.3.1 are listed below.

Redmine DCS_14461, DIM DCS_320

Ingest and display Total Lightning CG & IC products

Ingest and display cloud-to-Ground (CG) and intra-cloud lightning data from ENI's Total Lightning Detection Network for CONUS sites.

RODO RM3213: Implement a new edex decoder plugin for total lightning data. Ideally this should store to the existing binlightning storage mechanism if possible. A delta script may be required if reusing the binlightning table and hdf5 store.

Please refer to the google doc entitled Total Lightning SFPA42 Data Description for the spec of the data

https://docs.google.com/a/noaa.gov/document/d/1PtJSX1bAzIGI5gI6FplsG2AMFn_tjgpT-QqTQ2NFSmY/edit#heading=h.m4p9kyip71ci

RODO RM3214: Update the D2D menus and implement bundles that can display total lightning data. Update lightning display code as necessary to handle the total lightning data.

Redmine DCS_15650, DIM DCS_317

CAVE & EDEX Performance/Stability Pulled Back from 14.4.1 (additional Omaha 14.3.1 Delivery)

This DCS covers tickets opened by Omaha for continued CAVE performance and stability improvement. Code improvements range from logging and stability for later analysis and diagnosis to capture improvements, performance optimizations, and general CAVE errors.

Redmine DCS_15613, DIM DCS_296

Add Capability to Ingest MetOp-B ASCAT T Winds to AWIPS II

This DCS covers the implementation of the new MetOp-B ASCAT Wind data that was proposed for SBN activation on May 6th, 2014.

Redmine DCS_15612, DIM DCS_290

GOES-R Support (Omaha 14.3.1 Delivery)

This DCS covers changes to the common baseline necessary to support GOES-R development.

Redmine DCS_15610, DIM DCS_288

Thin Client - remote script execution from NCP

Thin Client - remote script execution from NCP (National Centers Perspective)

Redmine DCS_15609, DIM DCS_287

NCEP NAWIPS Migration for 14.3.1 - SWPC

This is a combined project for SWPC-specific functionality in the National Centers Perspective (NCP) for OB14.3.1.

Redmine DCS_15608, DIM DCS_286

NCEP NAWIPS Migration for 14.3.1 - CAVE NCP Plugins

This is a combined upload for all CAVE plugins for the NCP (National Centers Perspective) for OB14.3.1.

Redmine DCS_15607, DIM DCS_285

NCEP NAWIPS Migration for 14.3.1 - EDEX and EDEX Common

This is a combined up-load of all NAWIPS Migration packages supporting the AWIPS2 EDEX Services for OB14.3.1.

Redmine DCS_15605, DIM DCS_283

Common Support for Hazard Services

This DCS covers Phase 1 of Hazard Services

Redmine DCS_15603, DIM DCS_281

Upgrade OpenFire (Omaha 14.3.1 Delivery)

This DCS covers the upgrade of OpenFire to 3.9.0 due to a serious security bug reported in versions prior to 3.9.0.

Redmine DCS_15602, DIM DCS_280

Windows Thin Client 64-bit Build (Omaha 14.3.1 Delivery)

This DCS covers updating the Runtime Installer to have a 64 bit version of Java, Python, and python packages, as well as a PDE build to produce a 64 bit CAVE.

Redmine DCS_15601, DIM DCS_279

Thin Client - NCEP COOP Support (Omaha 14.3.1 Delivery)

This DCS covers the support for remote execution of EDEX scripts via Thin Client including GUIs in CAVE to execute and monitor script status.

Redmine DCS_15599, DIM DCS_277**Merge & Build Support (Omaha 14.3.1 Delivery)**

The actions covered under this DCS are to simplify and streamline the process of building, merging, and installing new builds.

Redmine DCS_15598, DIM DCS_276**KML Export GFEResource Improvement (Omaha 14.3.1 Delivery)**

This DCS covers the improvement of GFEResource for KML exporting of images, contours, or the shapes of wx and hazards.

Redmine DCS_15597, DIM DCS_275**Java Upgrade to Version 1.7.0_51**

This DCS covers the upgrade of Java to version 1.7.0_51.

Redmine DCS_15596, DIM DCS_274**GeoTools Upgrade**

This DCS covers the upgrade of GeoTools.

Redmine DCS_15595, DIM DCS_273**EDEX Performance & Stability (Omaha 14.3.1 Delivery)**

This DCS covers tickets opened by Omaha for continued EDEX performance and stability improvement. Code improvements range from cleaning up errors in the EDEX logs to fixing out of memory issues.

Redmine DCS_15594, DIM DCS_272**Data Delivery IOC+1 (Omaha 14.3.1 Delivery)**

This DCS covers improvements to EDEX, CAVE Components, and the infrastructure of Data Delivery in order to support future targeted data providers.

Redmine DCS_15593, DIM DCS_271**Data Access Framework Updates (Omaha 14.3.1 Delivery)**

This DCS covers the addition of subgrid support for grid, satellite, radar, maps, and binlightning.

Redmine DCS_15592, DIM DCS_270**Collaboration IOC+1 (Omaha 14.3.1 Delivery)**

Chat Functionality, Session Management Functions, and Data Sharing Functions

Redmine DCS_15590, DIM DCS_269**CAVE Performance & Stability (Omaha 14.3.1 Delivery)**

This DCS covers tickets opened by Omaha for continued CAVE performance and stability improvement. Code improvements range from speeding up application start up times to logging improvements to fixing hangs, freezes, and crashes.

Redmine DCS_15587, DIM DCS_264**Ingest and Display Gridded Data from the Atlantic and Global RTOFS**

National Weather Service (NWS) coastal Weather Forecast Offices (WFOs) are responsible for analyzing and forecasting several elements (i.e. wind, temperature, and waves) that are heavily influenced by ocean parameters (i.e. Sea Surface Temperature (SST) and currents). Presently, there is no guidance available to NWS forecasters in the Advanced Weather Interactive Processing System (AWIPS) or the AWIPS Graphical Forecast Editor (GFE) that provides forecasts of these ocean parameters. The Real Time Ocean Forecast System (RTOFS) is a real time ocean nowcast/forecast system (based on the HYbrid Coordinate Ocean Model (HYCOM)) that produces ocean surface forecasts of SST, salinity, sea surface height, mixed layer depth, horizontal currents, and vertical velocities and full volume forecasts of temperature, salinity and velocity components at depths of 0, 100, 200, 500, 700, 1000, 2000, 3000, and 4000 m. There are presently two applications of the RTOFS model: the operational RTOFS Atlantic which covers the Atlantic Basin from roughly 25 Deg S to 70 Deg N and the operational RTOFS Global which covers the entire global ocean domain. This project (OSIP 10-014) targets the provision of RTOFS ocean data in AWIPS at the coastal WFOs for improved meteorological and ocean analyses and forecasts.

References: AWIPS RC 13853, DRG RC 13878, TIN 13-27 (amended)

http://www.nws.noaa.gov/os/notification/tin13-27grtofs-grib_aab.htm

Parameters:

u of surface current (m/s): UOGRD

v of surface current (m/s): VOGRD

Temperature (C): T

Salinity (psu): SALTY

sea surface height relative to geoid (m): SSHG

u of barotropic current (m/s): UBARO

v of barotropic current (m/s): VBARO

Redmine DCS_15615, DIM DCS_221**Dynamic CAVE Menus to Allow for Smoother Changes Resulting from NDM File Mods**

Early in AWIPS I, it was discovered that certain data would be added to the SBN during times when a software release was not ready. It was determined that these types files and the associated menu changes in D2D should be removed from the software release cycle. Therefore, the National Data Management (NDM) data sets were developed. The files included in the NDM data sets contained the data keys and depict keys to allow for the decoding and display of new data sets. The good news is that AWIPS II allows for an easier time in decoding these NDM data sets. Unfortunately, the current AWIPS II infrastructure does not allow for baseline menu changes on the fly. Therefore, it is requested that the NCEP/Hydro and the Satellite menus become dynamic to allow for baseline changes on the fly. Our understanding is that the Radar and the Upper Air/RAOB menus are already dynamic. If not, these menu items should become dynamic, as well.

Redmine DCS_15560, DIM DCS_168**High-Resolution Precipitation Estimator (HPE) dual-polarization upgrade**

New radar product decoders/remappers will be introduced to enable HPE to ingest and use dual-polarization radar quantitative precipitation estimates (QPEs) as well as legacy single polarization. The new ingest product are the Digital Precipitation Rate (DPR) and Digital Stormtotal precipitation Array (DSA) products;

New dual-pol radar-only and gauge-radar QPE mosaics will be introduced.

Redmine DCS_15559, DIM DCS_167**Multisensor Precipitation Estimator dual-polarization upgrade**

New radar product decoders/remappers will be introduced to enable MPE to ingest and use dual-polarization radar quantitative precipitation estimates (QPEs) as well as legacy single polarization. The new product is the Digital Accumulation Array DAA product; New dual-pol radar-only, gauge-radar, and gauge-radar-satellite QPE mosaics will be introduced.

Existing radar and mosaic editing functions will be modified to include dual-polarization.

QPE products: A function enabling comparison between dual-pol and single-pol mosaics will be introduced in MPE Editor

Redmine DCS_15454, DIM DCS_53**Adding 3 RTMA parameters to AWIPS product set**

NCEP and OSandT are working to meet a field request to add three Real Time Mesoscale Analysis(RTMA) parameters to the SBN/AWIPS product set.

The three new RTMA parameters are:

1. Surface Pressure
2. Surface Pressure Analysis Uncertainty
3. RTMA Terrain Height NCEP generates the RTMA.

They have already starting making these products and disseminating them to AWIPS (via the NWSTG and NCF/SBN).

NCEP produces RTMA for four geographical regions:

1. CONUS
2. Alaska
3. Hawaii
4. Puerto Rico However, the baseline AWIPS configuration does not yet have the necessary elements (i.e., GRIB2 decode, netCDF store, D-2D display, GFE) in place for the three new RTMA products. Therefore, the intent of this TT/DR is for the AWIPS software modifications to be made in the baseline, so that these parameters can be accessed by the forecasters in D-2D and GFE.

Redmine DCS_15591, DIM DCS_27

Add NCEPs GFS-DNG (for Guam) to AWIPS

Over the last two years EMC developed the GFS downscaling processing to the point where it is ready for operational dissemination into AWIPS. The GFS-based DNG products will be provided by NCEP in GRIB2 format, via the SBN. The WMO headers for these products will be [L/M]*G*** KWBT. The GFS-based DNG products will be produced for the 0000, 0600, 1200 and 1800 UTC model cycles with output every 3 hours from 0 to 192 hours after model initialization time. The Guam DNG products are horizontally interpolated from the 27 km GFS native grid to the 2.5 km mercator NDFD grid for Guam. This is the so-called grid 199, whose grid specification is at: <http://www.nco.ncep.noaa.gov/pmb/docs/on388/tableb.html#GRID199>

Vertical interpolation to the high resolution terrain is performed at NCEP using Smartinit. The following elements/parameters will be produced by NCEP and should be handled by AWIPS: temperature at surface level dew point at surface level specific humidity at surface level u - wind at surface level v - wind at surface level wind gust at surface level pressure at surface level height at surface level land mask at surface level total cloud cover at surface level height at lowest level wet bulb visibility at surface level wind direction at planetary boundary wind speed at planetary boundary relative humidity at planetary boundary geopotential height at planetary boundary best (4 layer) lifted index at surface level total precipitation at surface level categorical rain at surface level maximum temperature at surface level minimum temperature at surface level maximum relative humidity at surface level maximum relative humidity at surface level AWIPS should be enhanced to handle the SBN ingest, GRIB2 decode, store, display, and GFE ingest. Refer to the NAM-based DNG (already implemented throughout AWIPS) for example.

Redmine DCS_15084, DIM DCS_25**GFE: Baselining of Objective Analysis smart tools, procedures, utilities**

INTRODUCTION

Using Objective Analysis Techniques to modify point forecast into grid forecasts (baselining these objective analysis techniques into AWIPS) – DCS25

Development Change Specification (DCS) 25 was written up to baseline a series of GFE Smart Tools, Utilities and Procedures (listed below). These Smart Tools, Utilities and Procedures use a variety of objective analysis techniques to modify GFE forecast grids.

- ObjAnal_UTILITY
- serpTool
- serpISC Tool
- serpfile Tool
- Erase Tool

CURRENT STATE OF OPERATIONS

These GFE Smart Tools, Utilities and Procedures are Local Applications. As such, they are maintained by a field developer, who must keep up with the changes to AWIPS Baseline. This local maintenance takes time and effort away from the maintainer of these Local Applications, along with administrative staff at field sites, who use this software. This wasted time could be put to use in investigating and/or solving scientific or operational issues at their office.

PROPOSED CONCEPT OF OPERATIONS

The purpose for baselining software packages is twofold. First, as mentioned above, part of the purpose is to ease the delivery of the software packages to all of the country by including its distribution in the already established AWIPS II Release and Deployment CM. Second, it allows for routine maintenance of the software packages to be moved from the field to one of the AWIPS baseline development organizations. This allows the developer to focus on other scientific or operational issues at their office

Chat Functionality, Session Management Functions, and Data Sharing Functions

XML/base, WarnGen Template, and RPM Changes

The changes to XML/base, WarnGen Template and RPM made in OB14.3.1 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.

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 14.3.1 release.

<https://docs.google.com/a/noaa.gov/spreadsheet/ccc?key=0AgBfHuim8iP0dDluY0d4WFY5WkZNTDZncUFIVDFGX2c#gid=18>

Release Note: DR#522 Hydro- Storing metadata for HPE products at RFC site - in AWIPS II Build 14.3.1

During 14.3.1 beta testing, a bug was identified concerning the implementation of DR#522. For the HPE products (non-bias), the label for the Bias Source information is incorrect on the non-bias HPE displays in the Volume Browser and FFMP. HPE products should always say "Bias Source: None", and there should be no radars listed. HPE never has a bias applied to it, so it is misleading to put bias information on HPE. A listing of radars and mean field biases should only be displayed for BiasHPE products.

There are two ways to distinguish HPE (non-bias) products from the BiasHPE products.

- 1) In the Volume Browser, Under "Sources", the user selects between "BiasHPE" and "HPE". With a selection of "HPE", whether the "field" is "Storm Tot Precip" or "Precip Rate", the loaded image is an HPE (non-bias) product image. Otherwise, it loads a bias HPE product image. Similarly on FFMP, when selecting "HPE" in the submenu, the HPE product image is displayed.
- 2) On the bottom of the Volume Browser display, there is a label that indicates if the product is the HPE (non-bias) product or the Bias HPE product.

It is intended that a fix for this issue will be delivered 15.1.1 or, if possible, in 14.4.1.

Release Note: Redmine #2560

CAVE collaboration communication now better meets the XMPP spec. This means that CAVE's chat capabilities can now chat with other XMPP clients such as Pidgin or nwschat. This also means that a 14.3.1 CAVE cannot share displays with a pre-14.3.1 CAVE.

Release Note: Redmine #2667

Binlightning data is now hooked into the Data Access Framework. Along with this change the field lightSource was renamed to source to eliminate redundancy and improve ease of use when requesting the data through Data Access Framework. Delta script, renameLightningSourceIn*.sh, have been provided to rename the column in the db, saved procedures and saved bundles.

Release Note: Redmine #2312

Under the Cave Export menu the two options to export captured images have been consolidated to one menu item and it can also export to an animated GIF.

Release Note: Redmine # 2788

AWIPS2 now delivers 3 topo HDF5 datasets:

1. gtopo30.h5
2. srtm30.h5
3. srtm30_plus.h5

These files all have coverage for the entire globe. The gtopo30 and srtm30 datasets have no data over ocean. The srtm30_plus contains bathymetric data (ocean floor topography).

The dataset used by AWIPS II is determined by a symbolic link (defaultTopo.h5) which is set to gtopo30.h5 by default. This dataset contains the same data as the previous srtm30.hdf (misnamed) delivered by SS but with full global coverage and valid attributes on the interpolated levels so it now works for large domains as used by some national centers. Since the data is identical for latitudes north of 10 degrees south WFOs will see no difference in the data over their domains.

Release Note: Redmine #2673

The Data Access Framework has been update to allow requesting only the reference times for forecast data. To use this from python the refTimeOnlyFlag should be set to true when calling getAvailableTimes.

Release Note: Redmine # 2718

Upgraded GeoTools open source from 2.6.4 to 10.5.

ShapeFileResource/ShapeFileResourceData has been removed from the A2 baseline. This code has not been directly used for some time and was deleted rather than being upgraded to work with the latest GeoTools FOSS. Site will need to import shape files into the maps database and use DbMapResource/DbMapResourceData. It is believed that the config_awips script can do most of this for them if they place the shape files into /awips2/edex/data/utility/edex_static/site/XXX/shapefiles/ appropriately. Prior to the 14.3.1 release a script has to be run to locate any maps bundles that contain references to shapefileResourceData and if found advise the site to move these to the maps database prior to installing 14.3.1. This can be done at any time (e.g. now) as the necessary support for this has been in the baseline for months (years?).

Release Note: Redmine #2683

Java has been updated from 1.7.0_40 to version 1.7.0_51.

Release Note: Redmine #2664

Added support for importing non-WGS84 shape files into GIS Viewer and maps database. If a .prj file is found, importShapeFile will terminate with a prompt to determine the correct srid and reattempt the import providing the srid as a command line parameter. Directions on how to determine the srid from the .prj file are provided. Requires using an external website.

Release Note: Redmine #2594

The CAVE preference to show the memory usage is now turned on by default. It can be turned off through the CAVE preferences if desired. Also, if the memory usage gets too high, CAVE will warn that it is close to running out of memory and offer suggestions to reduce memory usage, which if followed will reduce odds of experiencing issues.

Release Note: Redmine #2855, 2856, 2857, 2858, 2859

AWIPS2 has modified the Redbook product menus to incorporate changes so NDM files can be used to update the menus. The base level files have been changed and will be updated with this release. If any office has a site level override present it must be removed and changed via the NDM process. The NDM process will create new files at the configured level. At install time any files in the following directories will need to be removed or have an NDM version supplied: /awips2/edex/data/utility/cave_static/site/<officeId>/menus/ncepHydro/[hpc, cpc, nco, spc, mpc]

Release Note: Redmine #3004

The Thrift request

com.raytheon.uf.common.dataplugin.gfe.request.ClearPracticeVTECTableRequest has been moved to com.raytheon.uf.common.activetable.request.ClearPracticeVTECTableRequest. Any pure Python local apps that utilize this request will have to update their code to update this request from its new location. For apps that need to support both 14.3 and earlier version of AWIPS II, we suggest using the following code sample to handle importing this module:

try:

```
from dynamicserialize.dtypes.com.raytheon.uf.common.activetable.request import  
ClearPracticeVTECTableRequest
```

except ImportError:

```
from dynamicserialize.dtypes.com.raytheon.uf.common.dataplugin.gfe.request import  
ClearPracticeVTECTableRequest
```

Release Note: Redmine #2897

Support for 10 new Multi-grid Hurricane Wave Model data sets have been added. Sites that define site-level overrides of the following files will have to merge in the entries for the new models into their site-level files:

* /awips2/edex/data/utility/common_static/base/grid/dataset/alias/gfeParamInfo.xml

* /edex/data/utility/cave_static/base/volumebrowser/VbSources.xml

Release Note: Redmine #3454

Add DualPol Capability to AWIPS II.

Included DR and DCS:

DR 9784 – Multi-Sensor Precipitation Estimator (MPE) Implement Post Analysis

DCS 167 – MPE dual-polarization upgrade

DCS 168 – High-resolution Precipitation Estimator (HPE) dual polarization upgrade

Implementation of the following capabilities:

1. Dual Pol precipitation fields into the MPE, and addition of post Analysis mode and an enhanced grid generation algorithm for the DailyQC mode of the MPE.
2. Dual Pol radar data into the HPE and High-resolution Nowcaster (HPN) applications.
3. Data plug-in for radar product (DAA, DPR, DSA) generators for Dual Pol products that are being supplied by AWIPS II.

Release Note: Redmine #2726

The reference to cities.lpi was removed with this DR (Government decision). To use the cities.lpi file (some uses are goodness's and custom city names) edit the Cities.xml file: Replace the tag <resourceData xsi:type="dbPointMapReourceData"> to <resourceData xsi:type="lpiResourceData"> Remove the line: <table>mapdata.city</table> In its place put <filename>cities.lpi</filename>

Release Note: Redmine #2928

EDEX will now reject requests over a threshold to prevent a single process from bringing down the jvm due to excessive data. Thrift requests are limited to 100M and textdb requests are limited to 10M.

Release Note: Redmine #2060

The dataURI column has been removed the grid table. The concept of dataURI remains, but it will be dynamically queried based on the other columns instead of a single column. This will boost performance throughout the system but in particular on grid ingest and grid retrieval. A delta script has been provided to drop the column and update the unique constraints. All relevant baseline code has been updated to handle any local apps that are specifically querying that column will need to be updated.

Release Note: Redmine #3076

Added 'clear all' button to Collaboration Shared Display Session to clear all participants sessions. This button is only enabled for the Leader of the shared display session.

Release Note: Redmine #3274

CAVE has been switched to use the G1 garbage collector. You should not notice any difference in CAVE unless you are watching the heap monitor, in which case it will be more aggressive about freeing memory. Also if you have the heap monitor displayed, clicking the trash-can will be more useful now.

Release Note: DR 16999

ESTOFS forecast data added to D2D and GFE. Instructions to remove previously installed configurations will be posted to awips2dev and emailed to offices. The instructions will need to be applied one day prior to installing 14.3.1.

SITE-level overrides of the following files will have to merge in the new entries:

Localization --> CAVE --> Volume Browser --> VbSources.xml

Localization --> CAVE --> Menus --> xml --> fieldsMenus.xml

edex_static/base/grib/tables/7/4/4.2.10.3.table

edex_static/base/grib/models/gribModels_NCEP-7.xml

common_static/base/grid/dataset/alias/gfeParamInfo.xml

common_static/base/styleRules/d2dContourStyleRules.xml

common_static/base/styleRules/gridImageryStyleRules.xml

common_static/base/purge/gridPurgeRules.xml

Release Note: Redmine #3157

localVTECPartners.py now supports multiple sites for the settings VTEC_SPC_SITE and VTEC_TPC_SITE. For example, if your site could receive TCVs from both NHC and CPHC, and you want to be alerted to run PlotTPCEvents. When products from either site are received you would configure VTEC_TPC_SITE like the following:

```
VTEC_TPC_SITE = ['KNHC', 'PHFO']
```

After updating this configuration file, you will be required to restart the request and ingest JVMs on all cluster members for the changes to take effect.

Release Note: DR #641

The functionality of DR 641 is predicated on an inclusion percentage in the xml file `geospatialConfig_ZONE.xml`. In this file, under `<areaSource variable="affectedCounties">`, change the `<inclusionPercent>` to an integer greater than or equal to 2.

Release Note: Time Zone Map

An issue was discovered during testing where a re-projection AlertViz error appeared when loading the Time Zone map in D2D. The error was resolved by updating the timezone map to the latest from noaa1.

Release Note: DR #16715

The reference to `cities.lpi` was removed with this DR (Government decision). To use the `cities.lpi` file (some uses are goodnesses and custom city names) edit the `Cities.xml` file: Replace the tag `<resourceData xsi:type="dbPointMapReourceData">` to `<resourceData xsi:type="lpiResourceData">` Remove the line: `<table>mapdata.city</table>` In its place put `<filename>cities.lpi</filename>`

Release Note: DR 16843

Additional workaround for DR 16843 (AvnFPS TAMPGenerator take time to spin up post-install): BYZ reported that transmitting the TAFS from the awips text editor fixes the issue. Otherwise, wait for the data to reload post-install. This DR is not yet fixed in OB14.3.1 and is targeted for a later release.

Release Note: Redmine #13467

GFE: Need to add Beach Hazards Statement

Post-Install information: See details at Google Drive

(https://drive.google.com/a/noaa.gov/file/d/0B_2sYeb38vDGRXpTTWVmalD1R0E/view?usp=ssharing)

1.1 CFW

The CFW provided will have BH.S, RP.S and CF.S/LS.S all available. A base set of bullets and their order were provided which includes all of these phenomena. Feel free to modify the provided bullets/order to suit your local needs. Information on doing so can be found at <http://www.nws.noaa.gov/os/training/GFEOB98Changes.html#Bullets>.

Due to the changes, though, any `CFW_Local` override will need to be either removed or closely examined to determine which overrides are still needed.

1.2 AreaFcst, SRF and AFD

The BH.S was added to the allowedHazards definition in all three formatters. If you have an override of allowedHazards in the AFD_XXX_Overrides, ZFP_XXX_Overrides, or SRF_XXX_Overrides, BH.S needs to be added.

1.3 MakeHazard

The MakeHazardConfig has been updated to include the BH.S code to the Coastal Flood section. Since most sites have a SITE override of this file, simply modify the non-GUM hazardDict (second section) to add BH.S and remove any phenomena (RP.S/CF.S/LS.S) that your site/region will no longer be issuing.

1.4 MergeHazards

MergeHazards was modified to add the new BH.S code. If you have a SITE-level override of this file, merge your changes into this new version.

1.5 CTA file

The CallToActions text utility has been updated to include the new BH.S code both at the beginning and to add the default CTA for a BH.S. Other calls to action were modified based on regional and national review. Also, multiple choices were added to the ctaPilCFW definition which allows forecasters to choose a CTA for a particular Beach Hazard Threat via the Product option under CallToActions in the Formatter Launcher.

Make sure to merge these baseline changes with any SITE-level override you have. Any needed modifications can be made to the provided default CTA that will be included with any BH.S or any of the threat-specific CTAs.

1.6 Hazards colortable

The new BH.S and other hazards have been added to the baseline Hazards.cmap. If you have a SITE-level override of this file for local hazards, you will need to merge those changes with this new version, or many hazards' colors will be shifted.

1.7 NWRWAVES

The BH.S code will need to be added to NWRWAVES in order for the hazard to play on NWR.

1. Click on Product Configuration tab on NWRWAVES Setup Utility
2. Click Add Product button
3. Put entries in the pop-up box as you see below
4. Click OK
5. Set up options for the BH.S as needed by your office. The choices below are recommendations.
6. Click save Edits

Problem (Priority1): Lightning display varies depending how long CAVE has been open

1-hr Lightning totals shown on two different CAVEs are not the same, even though called up for same area (full CONUS scale), and same time period (1-hour ending at 12Z). Both were both called up at 12:35Z (approx.) - so not a case of different data available at the time (all lightning data for the hour should have long-since arrived). The only difference was the CAVE on the LEFT screen was very old (up for entire shift - around 7 hours), while CAVE on the center and right screens were just recently re-started.

To reproduce:

Open a CAVE, and let it sit for several hours. Then, open a new and different CAVE, and load a 1-hr lightning plot loop. Back up one frame from the end to get to an old hour. Then, create that same display on the "old" CAVE that has been running for several hours. Compare the lightning totals for the same hour.

Operational Impact: Major. Since this occurs frequently, and with no indication to forecasters that there is a problem, forecasters cannot be sure that lightning plots are complete and correct at any time. They have to call up lightning displays on multiple CAVEs and compare - preferably with a "brand new CAVE", which takes time to start/stop CAVE. Thus, they cannot work effectively with Land Management Agencies, especially on Fire Weather issues, such as potential forest fire starts, etc. This will become quite critical as we move into the summer fire season, as forests dry out and lightning strikes increase.

Required Behavior: All lightning strikes should be plotted regardless of how long CAVE has been open.

Work Around: Load lightning only on newly opened CAVE. **(DR 17367)**

Problem (Priority1): GFE: Spray tool: Too many permutations for tool to run

Site BOX reported that there is a problem running freezing spray tool and mixed precip spraying tool with a java lang out of bounds error.

Required Behavior: That *java lang out of bounds* error should not occur. The tool should be able to handle more than 127 Wx elements in the grids.

Work Around: Have to manually create the grids. **(DR 17187)**

Appendix A. XML/base, WarnGen Template and RPM Changes in OB14.3.1

XML/base and WarnGen Template changes

- <https://drive.google.com/a/noaa.gov/file/d/0BwBfHuim8iP0Z0phZkgwMU0zbVpGYV9HWEJDVVbQdTQxdW1r/view?usp=sharing>

RPM Changes

awips2-14.3.1-52.noarch.rpm
awips2-adapt-native-14.3.1-49.noarch.rpm
awips2-cli-14.3.1-28.noarch.rpm
awips2-database-server-configuration-14.3.1-10.noarch.rpm
awips2-data.gfe-14.3.1-28.noarch.rpm
awips2-data.hdf5-gfe.climo-14.3.1-28.noarch.rpm
awips2-data.hdf5-topo-14.3.1-28.noarch.rpm
awips2-edex-configuration-14.3.1-1.noarch.rpm
awips2-edex-environment-14.3.1-1.noarch.rpm
awips2-gfesuite-client-14.3.1-48.noarch.rpm
awips2-gfesuite-server-14.3.1-48.noarch.rpm
awips2-ldm-6.12.6-14.3.1.50.noarch.rpm
awips2-maps-database-14.3.1-1.noarch.rpm
awips2-ncep-database-14.3.1-20.noarch.rpm
awips2-notification-14.3.1-28.i386.rpm
awips2-python-dynamicserialize-14.3.1-32.noarch.rpm
awips2-python-ufpy-14.3.1-1.noarch.rpm
awips2-qpj-java-broker-0.18-5.el6.noarch.rpm
awips2-qpj-java-client-0.18-5.el6.noarch.rpm
awips2-qpj-java-common-0.18-5.el6.noarch.rpm
awips2-qpj-java-example-0.18-5.el6.noarch.rpm

awips2-alertviz-14.3.1-52.x86_64.rpm
awips2-cave-14.3.1-52.x86_64.rpm
awips2-cave-viz-acarssounding-14.3.1-52.x86_64.rpm
awips2-cave-viz-archive-14.3.1-52.x86_64.rpm
awips2-cave-viz-avnfps-14.3.1-52.x86_64.rpm
awips2-cave-viz-base-14.3.1-52.x86_64.rpm
awips2-cave-viz-collaboration-14.3.1-52.x86_64.rpm
awips2-cave-viz-common-core-14.3.1-52.x86_64.rpm
awips2-cave-viz-core-14.3.1-52.x86_64.rpm
awips2-cave-viz-core-maps-14.3.1-52.x86_64.rpm
awips2-cave-viz-cots-14.3.1-52.x86_64.rpm
awips2-cave-viz-d2d-core-14.3.1-52.x86_64.rpm
awips2-cave-viz-d2d-gfe-14.3.1-52.x86_64.rpm
awips2-cave-viz-d2d-nsharp-14.3.1-52.x86_64.rpm
awips2-cave-viz-d2d-skewt-14.3.1-52.x86_64.rpm
awips2-cave-viz-d2d-ui-awips-14.3.1-52.x86_64.rpm
awips2-cave-viz-d2d-xy-14.3.1-52.x86_64.rpm
awips2-cave-viz-dat-14.3.1-52.x86_64.rpm
awips2-cave-viz-datadelivery-14.3.1-52.x86_64.rpm
awips2-cave-viz-dataplugin-obs-14.3.1-52.x86_64.rpm
awips2-cave-viz-dataplugins-14.3.1-52.x86_64.rpm
awips2-cave-viz-displays-14.3.1-52.x86_64.rpm
awips2-cave-viz-gfe-14.3.1-52.x86_64.rpm
awips2-cave-viz-gisdatastore-14.3.1-52.x86_64.rpm
awips2-cave-viz-grib-14.3.1-52.x86_64.rpm
awips2-cave-viz-hydro-14.3.1-52.x86_64.rpm
awips2-cave-viz-kml-export-14.3.1-52.x86_64.rpm
awips2-cave-viz-localization-perspective-14.3.1-52.x86_64.rpm

awips2-cave-viz-ncep-core-14.3.1-52.x86_64.rpm
awips2-cave-viz-ncep-dataplugins-14.3.1-52.x86_64.rpm
awips2-cave-viz-ncep-displays-14.3.1-52.x86_64.rpm
awips2-cave-viz-ncep-nsharp-14.3.1-52.x86_64.rpm
awips2-cave-viz-ncep-perspective-14.3.1-52.x86_64.rpm
awips2-cave-viz-npp-14.3.1-52.x86_64.rpm
awips2-cave-viz-nwsauth-14.3.1-52.x86_64.rpm
awips2-cave-viz-radar-14.3.1-52.x86_64.rpm
awips2-cave-viz-satellite-14.3.1-52.x86_64.rpm
awips2-cave-viz-sounding-14.3.1-52.x86_64.rpm
awips2-cave-viz-text-14.3.1-52.x86_64.rpm
awips2-cave-viz-thinclient-14.3.1-52.x86_64.rpm
awips2-cave-viz-useradmin-14.3.1-52.x86_64.rpm
awips2-cave-viz-volumebrowser-14.3.1-52.x86_64.rpm
awips2-cave-viz-warngen-14.3.1-52.x86_64.rpm
awips2-collab-dataserver-14.3.1-4.x86_64.rpm
awips2-common-base-14.3.1-43.x86_64.rpm
awips2-edex-14.3.1-50.x86_64.rpm
awips2-edex-archive-14.3.1-50.x86_64.rpm
awips2-edex-base-14.3.1-43.x86_64.rpm
awips2-edex-binlightning-14.3.1-18.x86_64.rpm
awips2-edex-bufr-14.3.1-4.x86_64.rpm
awips2-edex-common-core-14.3.1-43.x86_64.rpm
awips2-edex-core-14.3.1-32.x86_64.rpm
awips2-edex-cots-14.3.1-4.x86_64.rpm
awips2-edex-dat-14.3.1-28.x86_64.rpm
awips2-edex-datadelivery-14.3.1-32.x86_64.rpm
awips2-edex-datadelivery-client-14.3.1-32.x86_64.rpm

awips2-edex-datadelivery-core-14.3.1-37.x86_64.rpm
awips2-edex-dataplugins-14.3.1-50.x86_64.rpm
awips2-edex-dataprovideragent-14.3.1-4.x86_64.rpm
awips2-edex-gfe-14.3.1-43.x86_64.rpm
awips2-edex-grib-14.3.1-52.x86_64.rpm
awips2-edex-hydro-14.3.1-46.x86_64.rpm
awips2-edex-ncp-14.3.1-51.x86_64.rpm
awips2-edex-npp-14.3.1-43.x86_64.rpm
awips2-edex-ohd-14.3.1-19.x86_64.rpm
awips2-edex-ohd-14.3.1-8.x86_64.rpm
awips2-edex-ost-14.3.1-19.x86_64.rpm
awips2-edex-radar-14.3.1-4.x86_64.rpm
awips2-edex-registry-14.3.1-4.x86_64.rpm
awips2-edex-registry-client-14.3.1-23.x86_64.rpm
awips2-edex-remote-script-14.3.1-15.x86_64.rpm
awips2-edex-satellite-14.3.1-43.x86_64.rpm
awips2-edex-text-14.3.1-50.x86_64.rpm
awips2-hydroapps-shared-14.3.1-49.x86_64.rpm
awips2-java-1.7.0_51-3.x86_64.rpm
awips2-pypies-14.3.1-1.x86_64.rpm
awips2-rcm-14.3.1-28.x86_64.rpm
awips2-tools-1.8.5-3.el6.x86_64.rpm