
Raytheon

# AWIPS Operational Build 17.1.1
# Final Release Notes

Document No. AWP.RLSN.OB17.1.1-01.00

03 March 2017

Prepared Under

Contract DG133W-05-CQ-1067
Advanced Weather Interactive Processing System (AWIPS)
Operations and Maintenance

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# Change History

| Document No. | Publication Date | Section(s) Affected | Description of Change(s) |
|---|---|---|---|
| AWP.RLSN.OB17.1.1-01.00 | March 3, 2017 | N/A (Original) | N/A (Original) |

# Table of Contents

## Overview

The Release Notes have been prepared for AWIPS software release OB 17.1.1. 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 **111 DRs** that were passed at the Raytheon Facility Test Labs and included in the current release, OB 17.1.1. 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 and COTS FOSS Requests**: **19 Design Changes** and **13 CFRs** are summarized in this section.
- **Section 5. Known Problems, Workarounds, and Additional Release Notes.** This section lists any workarounds or additional release notes that have been issued for the current release. They are identified by their Release Note title. Also identified in this section are any known problems (Priority: 1-Critical), either in the current release or in previous releases, which have been deferred to an unnamed future release. These are identified by the Problem title.

# 1. Requirements DRs

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

## 2. Passed DRs

This section lists the **111 Discrepancy Reports** (DRs) passed at the Raytheon Facility Test Labs and included in the current release (OB 17.1.1). 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 3). Expanded descriptions follow the table. Sequential numbers in column 1 of the table cross-reference each of the DRs to its expanded description.

**DRs:** Release OB 17.1.1

| # | DR | Description |
|---|---|---|
| 1 | 19760 | DB Connection Updates to Scripts for 17.1.1 |
| 2 | 19748 | RiverPro: Dates and times incorrect in RiverPro display |
| 3 | 19740 | GFE: backup files of activetable synced to caveData |
| 4 | 19722 | Change in rehostRun.sh install script necessary to ensure awips-cave and associated RPMs are installed |
| 5 | 19721 | Change in dbRun.sh install script necessary to ensure postgres is up prior to kicking off delta scripts |
| 6 | 19718 | NWRWAVES: Merge changes from DCS 19188 into product.cfg file at sites rather than overwriting |
| 7 | 19711 | All rehost Perl code reading in external DB connect parameters should have them screened for invalid characters |
| 8 | 19703 | BMH database installation on a new system is incorrect |
| 9 | 19702 | Some directories given incorrect permissions by RPM installs |
| 10 | 19700 | GFE: Add products to productsPerDomain in baseline preferences/configureTextProducts for NHC |
| 11 | 19699 | GFE: Problem with DAF requests, Obsdump failing |
| 12 | 19698 | qpidNotify is not able to connect to the message broker sometimes |
| 13 | 19697 | GFE: Users don't have permission to save drafts in GFE |
| 14 | 19694 | Cannot remove an entry from afos2awips.txt |
| 15 | 19692 | RiverPro does not start in 17.1.1 |
| 16 | 19689 | Qpid broker can be overwhelmed by FSI queue backlog |
| 17 | 19683 | Manual changes to site afos2awips.txt are not replicated to legacy file |
| 18 | 19662 | Riverpro  using incorrect information for the VTEC lines and product content |
| 19 | 19659 | Postgres 9.5.3 upgrade script fails during startup |
| 20 | 19647 | Hydro Point Data Control: selecting a PE for which there is no data throws an error |
| 21 | 19643 | Climate/HWR: Error loading libraries in 17.1.1 |
| 22 | 19642 | LSR source "Co-OP Observer" should be "Co-Op Observer" |
| 23 | 19641 | LSR event type "Mrn TstmWnd" should be "Mrn Tstm Wnd" |
| 24 | 19637 | Remove unauthenticated database access - RAX and CA script improvement |

| # | DR | Description |
|---|---|---|
| 25 | 19634 | 17.1.1 Tropical SwIT Issue #3 - Start Time Not Properly Being Determined |
| 26 | 19633 | 17.1.1 Tropical SwIT Issue #2 - Onset hour was being set to None |
| 27 | 19632 | 17.1.1 Tropical SwIT Issue #1 - Wrong Time Range Determination Resulting in highestPhasedReached for Surge Set to Null in the json File |
| 28 | 19629 | The setup-standby.sh script run on TNCF leaves behind unwanted directories when executed as root |
| 29 | 19621 | handleOUP error when sending text products |
| 30 | 19617 | AWIPS Interactive Reference Incorrectly Requiring Login |
| 31 | 19616 | Loss of Format While Editing Text with Word Wrap Engaged |
| 32 | 19613 | Export KML throws error when attempting to save satellite imagery |
| 33 | 19611 | Remove unauthenticated database access - CA script and install |
| 34 | 19600 | WarnGen: specialWeatherStatement CTAs for Freezing precip need to be in lower case |
| 35 | 19597 | Change links on AWIPS System Monitor "Extras" page for new URL in VLAB |
| 36 | 19582 | NCEP/Hydro configured menu files sometimes created incorrectly |
| 37 | 19580 | GFE: InvalidThreadAccess error thrown by offsetTime.py |
| 38 | 19567 | MPE: Single-Pol radar is not displayed due to decoding error |
| 39 | 19566 | TSI SwIT Bug Fixes |
| 40 | 19548 | GFE: Save As functionality in "Output View" throws errors |
| 41 | 19522 | WarnGen: incorrect hail tag of <.75IN for no hail in impactSevereWeatherStatement |
| 42 | 19512 | Remove unauthenticated database access - rehost and fixes |
| 43 | 19502 | National TCV Overwriting Local TCVs |
| 44 | 19500 | Additional changes for moving GFE edex_static files to common_static |
| 45 | 19485 | WA 20.64 - TDWR radar menus have redundant entries for applications |
| 46 | 19477 | Empty Archived HDF files |
| 47 | 19432 | WA 20.58 Port Run_DecodeDPA to Java: Regular and -parallel file log messages do not match |
| 48 | 19427 | Review inappropriate words lists for CAVE and BMH |
| 49 | 19423 | PostgreSQL 9.5 upgrade is missing PostGIS 2.0 |
| 50 | 19422 | QPID fails with OutofMemory errors for direct memory after being down for an hour |
| 51 | 19420 | GFE: TCMWindTool not creating windMax |
| 52 | 19417 | September 2016 Security Patches |
| 53 | 19355 | GFE: TCMWindTool shifting winds into different sector when 8 or 16 slices are used |
| 54 | 19344 | WarnGen Template: Correct grammar in Areal Flood products |
| 55 | 19298 | xmrg -> grib files should not match the FFMPURIFilter |
| 56 | 19289 | GFE: Section Headers for TCV and HLS should be created in All CAPS (As per item#6 of Mixed Case Text Guidelines Ver 12) |

| # | DR | Description |
|---|---|---|
| 57 | 19288 | GFE: Headline statement should be ALL CAPS for TCV and HLS (As per item#5 of Mixed Case Text Guidelines Ver 12) |
| 58 | 19286 | Cities and county names displayed at max density fail in shared displays |
| 59 | 19283 | Resume an interrupted message from the beginning after an interrupt has concluded |
| 60 | 19280 | WarnGen: "pose" should be "poses" in baseline impactSevereWeatherStatement.vm |
| 61 | 19276 | Error returned when selecting Timeseries or Timeseries Lite from the MB3 popup menu when the cursor is off the map |
| 62 | 19275 | PopUp Skew-T dialog is cut off on the left side |
| 63 | 19264 | 17.1.1 Build and Merge Support |
| 64 | 19262 | Collaboration: Invited users are unable to join a reactivated session |
| 65 | 19261 | The workstation freezes when connection to the Collaboration server is lost and the disconnect dialog is blocked |
| 66 | 19258 | GLD lightning products disconnects the leader from Collaboration |
| 67 | 19257 | Drawings failed to clear on the participant's display |
| 68 | 19256 | GOES-R images that utilize a color scale display all white on the participant's display in shared display sessions |
| 69 | 19255 | True Color images do not work in collaboration |
| 70 | 19250 | TextWS: log several pieces of information for Text Editor and AWIPS Header Block |
| 71 | 19246 | TextWS:  Disallow issuing WarnGen PIL products using TextWS Text Editor window. |
| 72 | 19243 | User Cannot Enter a Crest into the Database without Giving a Stage AND Flow |
| 73 | 19239 | Hydro Database Manager: Crest History: db update error occurs when clicking OK after Apply |
| 74 | 19225 | GOES-R decoder can fall behind incoming data |
| 75 | 19224 | WarnGen Templates: ImpactSMW grammar corrections |
| 76 | 19217 | WarnGen: flood severity changes to zero in CAN |
| 77 | 19201 | CAVE session hangs when selecting ISC Request Window when site cannot access IRT Server |
| 78 | 19190 | D2D-Radar: SPG Long Range Reflectivity does not display current elevation |
| 79 | 19185 | GFE: Storm surge popup message from NHCN not received by backup site |
| 80 | 19167 | Diskspace One or more filesystems are at 95% utilized |
| 81 | 19055 | GFE: TCV formatter crashes at inland sites due to missing StormSurgeWW edit area |
| 82 | 19038 | WarnGen Templates: Tornado Warning "test" wording needs case corrections |
| 83 | 19036 | AvnFPS: Wind speeds above 11 knots getting flagged as abnormal weather conditions after climate update |
| 84 | 18960 | WarnGen: Line of Storms not using correct storm duration on initial selection |

| # | DR | Description |
|---|---|---|
| 85 | 18942 | WarnGen Templates: Grammar and parsing fixes for impactSpecialMarineWarning templates |
| 86 | 18753 | RiverPro MND needs to be updated to match Mixed Case Guidelines |
| 87 | 18713 | WarnGen Templates: Improve consistency in "lawEnforcement" tag between flood templates |
| 88 | 18625 | D2D: Paint error while using Diff function for Time Height plot |
| 89 | 18605 | Retrieving text products from DB won't work in TEST mode |
| 90 | 18576 | JSmartUtils.py fails in 16.1.1 |
| 91 | 18326 | Override default behavior of truecolor viz plugin |
| 92 | 18131 | Hydro XDAT component does not update GUI or database while editing data |
| 93 | 17976 | Qpid Java broker 0.30 leaks memory |
| 94 | 16771 | DAT dialogs failed to close after Clear; returned repeated error messages |
| 95 | 16697 | HWR: Guam timezone listed as GSST instead of CHST |
| 96 | 15030 | HPN data not being produced in Grib format in AWIPS2 |
| 97 | 14970 | No gridded data display when valid time is between 1 & 9 minutes after hour |
| 98 | 14822 | GFE/GHG: GHG Monitor not displaying different segment text |
| 99 | 14817 | Error returned after clearing and swapping 4-panel displays |
| 100 | 14774 | CAVE Paint error related to RedbookFrame synchronization problems |
| 101 | 14740 | HYDRO: SHEF message encoded incorrectly in Hydro Time Series |
| 102 | 14570 | GFE: Product header issue with product editor |
| 103 | 13520 | Localization: Null pointer when copying file to deleted protected file name |
| 104 | 13519 | Localization: files with only a SITE version should be generated as CONFIGURED |
| 105 | 13469 | VB Time Series - Y-axis range not dynamic nor configurable for some fields |
| 106 | 12860 | Boundary level wind speed images scaled differently for different models |
| 107 | 12421 | Color Scale Migrating - take 2 - TTR6534 |
| 108 | 12073 | Ocean flag in base topo still not being handled right - TTR6387 |
| 109 | 286 | D2D: fourSat projection display errors |
| 110 | 269 | AK-NAM40 does not display from Volume Browser |
| 111 | 89 | pressure for ldadmesonet stations in d2d not plotting correctly |

## 1. Problem: DB Connection Updates to Scripts for 17.1.1

Need to update scripts to connect to DB in 17.1.1

**Operational Impact:** Scripts cannot connect to DB

**Required Behavior**: Scripts will connect to DB. **(DR 19760)**

## 2. Problem: RiverPro: Dates and times incorrect in RiverPro display

During testing of RiverPro in 17.1.1, it was determined that the dates and times in the RiverPro display were incorrect. Investigation has determined that a code assumption was leading to this issue as it interacted with the database upgrade.

**Operational Impact:** RiverPro will be inaccurate with regards to dates and time from the hydro database.

**Required Behavior**: Times should reflect what is in the database. **(DR 19748)**

## 3. Problem: GFE: backup files of activetable synced to caveData

OB17.1.1 sites EHU and MFL have seen their home partition close to being filling up. It appears that some of the activetable backup files are now being saved under common_static instead of edex_static and are therefore sync'ed to user's caveData.

The active table backup tar.gz files in common_static are being created by the active table sharing process.
/com.raytheon.uf.edex.activetable/utility/common_static/base/vtec/MergeVTEC.py needs to be updated to write its backups to /awips2/edex/data/utility/edex_static/site/${SITEID}/vtec/backup like we do in
/com.raytheon.uf.edex.activetable/src/com/raytheon/uf/edex/activetable/ActiveTableBackup.java

**Operational Impact:** Filling up /home partition. Slowness due to transferring large amount of data.

**Required Behavior**: Activetable backup files don't need to be sync'ed to CAVE. **(DR 19740)**

## 4. Problem: Change in rehostRun.sh install script necessary to ensure awips-cave and associated RPMs are installed

Two sites over the last 4 or so months have been missing the awips2-cave and associated RPMs after the rehostRun.sh script runs to completion without throwing any errors. The yum groupupdate command does not finish, but also does not error.

**Operational Impact:** Rarely, with an install on one or more PXs, the yum groupupdate command within rehostRun.sh will just stop prior to installing RPMs and output zero errors to the log.

**Required Behavior**: The rehostRun.sh script should install all RPMs within the yum group "AWIPS II Rehost Server". **(DR 19722)**

## 5. Problem: Change in dbRun.sh install script necessary to ensure postgres is up prior to kicking off delta scripts

With the upgrade to Postgres 9.5.3 in 17.1.1, it was noticed that the current check within dbRun.sh to ensure the postgres database is up and accepting connections was no longer an accurate assessing the database status. Changes have been made to the dbRun.sh scrip to use the command pg_isready to more accurately assess database status.

**Operational Impact:** Possibility of postgres not being ready prior to delta scripts being kicked off, leading to failure of one or more delta scripts kicked off by dbRun.sh.

**Required Behavior**: Postgres database should be up/accepting connections prior to delta scripts being kicked off by dbRun.sh. **(DR 19721)**

## 6. Problem: NWRWAVES: Merge changes from DCS 19188 into product.cfg file at sites rather than overwriting

Site MFL reported that after their 17.1.1 install, the NWRWAVES product.cfg file was missing some local products and was an older version of the base file. A delta script needs to be written to merge the changes to the product.cfg file at sites rather than overwrite the version that they have in place.

**Operational Impact:** Products that are not listed in the product.cfg file at a site will not be sent via NWRWAVES until the site modifies the product.cfg file or restores a saved version.

**Required Behavior**: Existing product.cfg files at sites should not be overwritten, but rather saved off and new changes related to DCS 19188 merged into them. **(DR 19718)**

## 7. Problem: All rehost Perl code reading in external DB connect parameters should have them screened for invalid characters

All Perl rehost programs that access the PostgreSQL database using secure access read in a number of DB-related parameters (DB host, DB user, DB ssl mode, DB ssl cert dir, etc) from external config files. These values are then used to construct a DB connect string to open a connection to the DB. Before these parameters are used in the connect string, they should be validated for extraneous characters such as spaces or line feeds.

**Operational Impact:** All Perl rehost programs attempting to open a secure connection to PostgreSQL DB will fail.

**Required Behavior**: No errors in Perl rehost programs when connecting to PostgreSQL DB. **(DR 19711)**

## 8. Problem: BMH database installation on a new system is incorrect

The changes to the the awips2-bmh-database RPM spec in DR #19512 are wrong and cause problems with the BMH software when installed on a new system. (Upgrades are not affected.)

* Missing local connection for bmh_practice.

* Incorrect variable reference for pg_hba.conf path.

**Operational Impact:** There may be no operational impact, but affects developers.

**Required Behavior**: The RPM should set up the BMH databases correctly. **(DR 19703)**

## 9. Problem: Some directories given incorrect permissions by RPM installs

Some directories are given incorrect permissions by RPM installs. Notably:

/awips2/ -- Accessible only by owner (via awips2-database-server-configuration)

/awips2/qpid/ -- No execute permissions (via awips2-qpid-java-broker)

Although the incorrect permissions have been in the awips2-database-server-configuration RPM's spec for some time, it was not noticed until 17.1.1 when the RPM actually had to be re-installed.

**Operational Impact:** Impact unknown. Could cause software to fail in unpredictable ways.

**Required Behavior**: Directories should have correct permissions. **(DR 19702)**

## 10. Problem: GFE: Add products to productsPerDomain in baseline preferences/configureTextProducts for NHC

NHCN reported after their 17.1.1 install that several text formatters were not appearing in the formatter launcher including OFFPZ7, OFFPZ8, FWS, and FWF. These need to be added to the baseline productsPerDomain method in preferences/configureTextProducts.py so that they appear.

The changes that Rici made at the site to allow the formatters to appear again are as follows:

/awips2/edex/data/utility/common_static/base/gfe/textproducts/preferences/configureTextProducts.py

```
productsPerDomain = {

   'ONA':  ['OFFN01', 'OFFN02', 'OFFN03', 'MIMATN'],
```

'ONP': ['OFFN07', 'OFFN08', 'OFFN09', 'MIMPAC'],

'NH1': ['HSFEP2', 'HSFEP3', 'FWSNHC', 'TWDEP', 'OFFPZ7', 'OFFPZ8', 'FWSNHC', 'FWFNHC'],

'NH2': ['OFFN04', 'OFFN05', 'OFFN06', 'OFFN20', 'OFFN21', 'OFFNT3',

'OFFNT4', 'MIMATS', 'HSFAT2', 'FWSNHC', 'FWFNHC', 'TWDAT'],

**Operational Impact:** Products do not appear in the formatter launcher and can't be run until they are added to the productsPerDomain file.

**Required Behavior**: Formatters in question should be in the productsPerDomain file and appear in the formatter launcher at NHCN. **(DR 19700)**

## 11. Problem: GFE: Problem with DAF requests, Obsdump failing

Site MFL reported that after their 17.1.1 install there were no obs available in GFE.

The following error was present in the gfecron log:

ERROR 2017-01-19 20:10:19,369 7049 [main] CaveLogger: <type 'exceptions.RuntimeError'>: java.lang.NullPointerException

jep.JepException: <type 'exceptions.RuntimeError'>: java.lang.NullPointerException
at /home/gfecron/caveData/common/base/python/dataaccess/JepRouter.getGeometryData(JepRouterpy:93)
at /awips2/python/lib/python2.7/site-packages/ufpy/dataaccess/DataAccessLayer.getGeometryData(DataAccessLayer.py:119)
at /home/gfecron/caveData/etc/site/MFL/gfe/userPython/procedures/Obsdump.get_metars(Obsdump.py:509)
at /home/gfecron/caveData/etc/site/MFL/gfe/userPython/procedures/Obsdump.execute(Obsdump.py:470)
at /home/gfecron/caveData/common/base/python/MasterInterface.runMethod(MasterInterface.py:136)

at /awips2/GFESuite/bin/src/runprocedure/runProcedure.runProcedure(runProcedure.py:62)

at /awips2/GFESuite/bin/src/runprocedure/runProcedure.run(runProcedure.py:87)

at /awips2/GFESuite/bin/src/runprocedure/runProcedure.__init__(runProcedure.py:143)

at /awips2/GFESuite/bin/src/runprocedure/runProcedure.main(runProcedure.py:235)

at /awips2/GFESuite/bin/src/runprocedure/runProcedure.<module>(runProcedure.py:238)

The problem appears to be related to the DAF.

BCQ also reported the problem in TT 116365.

See attached DAFTestGFEProc.py that Matt Foster provided.

**Operational Impact:** Obsdump does not work resulting in obs not being available in GFE. Obsdump is not baseline, but it's used by most sites so their operations may be impacted.

**Required Behavior**: Obsdump should run without error. **(DR 19699)**

## 12. Problem: qpidNotify is not able to connect to the message broker sometimes

The qpidNotify script notifies EDEX of products coming from the WAN or other sources. It connects to message broker through the "ec" host name instead of "cp1f". The latter is the designated host for the message broker. The former is intended to be used for EDEX requests that are routed to one of the EDEX request servers on the DXs. Although qpidNotify usually gets away with this, at some point, the connection requests to the broker also get redirected away from cpsbn1 to the DXs.

qpidNotify should use the message broker host directly.

**Operational Impact:** Forecast could be delayed due to missing products.

**Required Behavior**: qpidNotify should reliably connect to the message broker. **(DR 19698)**

## 13. Problem: GFE: Users don't have permission to save drafts in GFE

MFL site reported the following issue from after installing OB17.1.1:

A user reported they can't save text drafts in GFE formatter; Message "Error saving output stream". Verified this with a forecaster on duty. However, I was able to save a draft with no issues. When I gave the user "GFE Focal Point" userRole, they can save drafts again.

After review, the changes were made under RODO RM #5816.

A new permission needs to be added:

```
<permission id="com.raytheon.localization.site/cave_static/gfe/drafts"/>
```

And add it to the ALL user:

```
<userPermission>com.raytheon.localization.site/cave_static/gfe/drafts</userPermission>
```

The preferred work around for this issue would be to add the necessary gfe/drafts permissions I mentioned to the site level userRoles.xml rather than just give everyone GFE Focal Point.

**Operational Impact:** Users don't have permission to save drafts until the permissions are modified in userRoles.xml

**Required Behavior**: All users should have permission to save drafts in GFE. **(DR 19697)**

## 14. Problem: Cannot remove an entry from afos2awips.txt

Currently, you cannot override an entry in the base afos2awips.txt file. Sites need the ability to remove entries from the base file without having to do a full file override.

**Operational Impact:** In MFL's case, the SFT GFE formatter failed to run due to extra entries in afos2awips.txt.

**Required Behavior**: Sites need to be able to remove entries from baseline afos2awips.txt. **(DR 19694)**

## 15. Problem: RiverPro does not start in 17.1.1

When launching RiverPro on 17.1.1 the main GUI window fails to open and an error message window appears stating: "FATAL CONDITION...No RiverPro parameters defined".

**Operational Impact:** Cannot run RiverPro

**Required Behavior**: RiverPro starts without error. **(DR 19692)**

## 16. Problem: Qpid broker can be overwhelmed by FSI queue backlog

If the FSIprocessorEDEX process gets stuck, the fsiRadar queue can back up and cause the Qpid broker to become unresponsive and eventually crash. The FSIprocessorEDEX hang is a new issue in 17.1.1. It may be due to a long-standing issue in the in Qpid C client library and an issue in the new Qpid 6.0.x. FSIprocessorEDEX can be changed to have a separate watchdog timer that prevents a permanent hang.

**Operational Impact:** Forecasters will not have timely data. Products may not get out.

**Required Behavior**: FSIprocessorEDEX should not hang for more than a minute. **(DR 19689)**

## 17. Problem: Manual changes to site afos2awips.txt are not replicated to legacy file

Sites are manually adding entries to afos2awips.txt. These changes are not then replicated to the legacy afos2awips.txt file. On the next install, the legacy afos2awips.txt is then dropped back in to ndm vs config-awips2.sh. All changes to site level afos2awips.txt need to be replicated to the legacy file so that local changes are not overwritten.

**Operational Impact:** Entries added manually to afos2awips.txt in common_static are not replicated to the legacy afos2awips.txt file in /data/fxa which leads to those changes being reverted upon new installs.

**Required Behavior**: All changes to site level afos2awips.txt need to be replicated to the legacy file so that local changes are not overwritten. **(DR 19683)**

## 18. Problem: Riverpro using incorrect information for the VTEC lines and product content

DVN reported a critical problem with riverpro during the weekend. Riverpro is not recognizing forecasts as it should for flood warnings/continuations/cancellation. They had a forecast go above flood stage and Riverpro would not recognize or recommend to issue a flood warning. ARX ended up issuing the warning for DVN and an hour and a half later, Riverpro was finally recommending a NEW flood warning, but was not recommending a CON statement, just a NEW warning. This was for the BRLI4 location. Riverpro was using FE instead of FF even if FE has ts_rank=5 and FF ts_rank=1. That's the random nature of this bug, the query is being sorted randomly now, and not in the same default ordering that postgres used before.
STO site saw this problem in late December as well.

**Operational Impact:** Significantly impacts RiverPro's warning product generation. This issue may cause the incorrect forecast series to be used for recommendation and product generation. RiverPro may not recommend the correct product, and it may use incorrect information for the VTEC lines and product content.

**Required Behavior**: Riverpro should use the forecast series with the highest ts_rank **(DR 19662)**

## 19. Problem: Postgres 9.5.3 upgrade script fails during startup

The delta scripts for #19229 to upgrade Postgres to 9.5.3 fail before the upgrade can begin because they attempt to write logs to a directory where the user may not have write permission. Fix these scripts so that they write their logs to a writeable location.

**Operational Impact:** The upgrade of postgres can fail during and install.

**Required Behavior**: Fix delta scripts so that they write their logs to a writeable directory. **(DR 19659)**

## 20. Problem: Hydro Point Data Control: selecting a PE for which there is no data throws an error

In the Hydro perspective, setting the "Elements" to a data type for which there is no data causes this error in AlertViz:

> Ad Hoc Request FAILED.java.lang.ClassCastException: java.util.ArrayList$SubList cannot be cast to java.util.ArrayList
> *at*
> *com.raytheon.viz.hydro.pointdatacontrol.PointDataControlManager.processAdhocRequest(PointDataControlManager.java:370)*
> *at*
> *com.raytheon.viz.hydro.pointdatacontrol.PointDataControlManager.run(PointDataCont*

*rolManager.java:1218)*
*at org.eclipse.core.internal.jobs.Worker.run(Worker.java:55)*
To reproduce:
1. load the Hydro perspective in CAVE.
2. from the top menu select MapData-->Point Data Control.
3. set the Query Mode to Ad Hoc.
4. set the two drop-down lists in the "Elements" section to a data type which is not configured: e.g., "River" + "QV Cumulative Vol Incr"
(note: it may take several selections before one is found).
Expected result: the display does not change, and no errors appear.
Actual result: the display does not change and an "Ad Hoc Request Failed" message is displayed in AlertViz.

**Operational Impact:** This error does not prevent the user from doing anything; since the selected data type has no data.

**Required Behavior**: Selecting an Element which has no data results in a no-op: i.e., the display does not change. Ideally, an alert would appear notifying the user that the selected element does not have data. **(DR 19647)**

## 21. Problem: Climate/HWR: Error loading libraries in 17.1.1

An error loading libraries was generated when attempting to run climate in OB17.1.1.

After discussion with ASM, CM, and environment, it was determined that CM will attempt to do a separate 32 bit build of postgresql.

**Operational Impact:** Climate/HWR will not run without the libraries. However it's possible to copy them over to get the applications to run.

**Required Behavior**: Climate should run. **(DR 19643)**

## 22. Problem: LSR source "Co-OP Observer" should be "Co-Op Observer"

The sourcesLSRMixedCase.dat configuration file, which contains all mixed case sources for LSR, needs to be updated. The casing of the source "Co-Op Observer" was mistaken typed as "Co-OP Observer".

**Operational Impact:** Minor. Local Storm Reports will be generated with the mistaken casing for "Co-Op Observer" as "Co-OP Observer".

**Required Behavior**: Local Storm Reports should have casing "Co-Op Observer" for the source. **(DR 19642)**

## 23. Problem: LSR event type "Mrn TstmWnd" should be "Mrn Tstm Wnd"

The templateMixedCase and eventsLSRMixedCase.dat configuration files, which contain the list of event types for LSR, needs to be updated. Original documentation for DCS 18785 showed that a new event called "Mrn TstmWnd" should be added to the mixed case baseline of LSR. However, the correct spacing for the event type is "Mrn Tstm Wnd".
While eventsLSRMixedCase.dat and eventsLSR.dat are not actually in use anymore, it was assumed in DCS 18785 that eventsLSR.dat was still baselined in case it was ever desired to switch away from using netCDF files for event listings. As such, eventsLSRMixedCase.dat should be updated in addition to templateMixedCase to make such a future transition easier.

**Operational Impact:** Minor. Local Storm Reports generated will be missing a space in this event type.

**Required Behavior**: Event type spacing should be: "Mrn Tstm Wnd" **(DR 19641)**

## 24. Problem: Remove unauthenticated database access - RAX and CA script improvement

This is a followup DR to DCS 18655. The initial check in is missing some things:

* Support for RAX database.

-Also, the CA scripts need to support non-user accounts such as 'archiver' which does not have its home directory on the DXs.-

The edex-configuration RPM needs to handle the case where DB_SSLMODE is not in setup.env.

**Operational Impact:** This is needed to complete DCS 18655.

**Required Behavior**: Certificate should be generated for RAX database. The database should be configured to use certificate-based authentication. **(DR 19637)**

## 25. Problem: 17.1.1 Tropical SwIT Issue #3 - Start Time Not Properly Being Determined

Notice the surge output for zone FLZ172 in the adv 37B output log. I am looking at the output at the end of the log file. Notice how the system thinks it is in recovery mode. Now look in the log file for line number 39169 or the "Setting Surge Section stats for FLZ172". As you can see, it is starting with the surge InundationTiming sequence at 12Z correctly. And as you can see the moderated InundationMax if > 1 for that period that goes from 12Z to 18Z. Yet it is not determining properly the start time. In fact it thinks it is missing. I think the problem is in the setStats method in Hazard_TCV. Look for the 'for loop' starting around line 3185 in the attached Hazard_TCV. As you go down the code, you never see the elif statement around line 3232 ever kicking in. In fact you never see anywhere in the log the output startCondition looking at 1 period. You see startCondition looking at 2 periods for other zones.

**Operational Impact:** System thinks it's in recovery mode.

**Required Behavior**: Start time determined properly. **(DR 19634)**

## 26. Problem: 17.1.1 Tropical SwIT Issue #2 - Onset hour was being set to None

The condition that led to DR 19632 was the fact that onset hour was being set to None. I tracked the reason for this being in determineTimeRanges and calculateStartTime that is called from there in HLCTCV_Common. In the case where you set the timeRangeList6Hour in determineTimeRanges (which is used for Surge ONLY), I noticed when tracked to calculateStartTime from there that for the surge case (resolution = 6), if we were past half way the current 6 hours time range of an inundationTiming grid the code was returning as start time the start of the next InundationTiming in the sequence. This was causing the code to miss an event in its final hours all together. If you run the formatter say at 1510Z, it was starting to look at InundationTiming at 18Z when it should have still stuck to the sequence starting at 12Z.

The fix for that turned out to be in line 698 of the attached HLSTCV_Common file. Look for the comment with my name on it. The output log for adv 37B shows this corrected that problem. Look at the surge window for FLZ174 between the output for 37A and the output for 37B. This happens in several of the zone segments impacted by surge.

Use this ticket to check-in TSI SwIT code changes made during Nov 14-17. Include fixes for both WFO and NHCN related bugs.

cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/CreateNatlTCVZoneGroups.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/CreateProposedSS.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/FinalizeHazards.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/SendProposedToWFO.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/StormInfo.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/TCFloodingRainThreat.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/TCStormSurgeThreat.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/TCTornadoThreat.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/textProducts/HLSTCV_Common.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/textUtilities/regular/TropicalHazards.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/utilities/TCVDictionary.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/utilities/TropicalUtility.py

**Operational Impact:** Required fixes discovered during 17.1.1 TSI SwIT (Nov.14-18)
**Required Behavior**: Set onset hour to the correct value. (**DR 19633)**

## 27. Problem: 17.1.1 Tropical SwIT Issue #1 - Wrong Time Range Determination Resulting in highestPhasedReached for Surge Set to Null in the json File

When we went from Adv 37 to 37A, several storm surge zones (use FLZ174 as an example) came up with the wrong time range determination resulting in highestPhasedReached for surge set to null in the json file for 37A. The source of this problem was tracked to be in the "if statement" towards the end of the calculateThreatStatementTr method. Line 1619 in the attached file was missing. Meaning when the condition was met, the variable was not being updated in the dictionary being written to the json file. And so the default of null was written instead. We fixed this line and the json file for Advisory 37B shows this did the trick.

Use this ticket to check-in TSI SwIT code changes made during Nov 14-17. Include fixes for both WFO and NHCN related bugs.

cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/CreateNatlTCVZoneGroups.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/CreateProposedSS.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/FinalizeHazards.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/SendProposedToWFO.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/StormInfo.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/TCFloodingRainThreat.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/TCStormSurgeThreat.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/TCTornadoThreat.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/textProducts/HLSTCV_Common.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/textUtilities/regular/TropicalHazards.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/utilities/TCVDictionary.py

cave/com.raytheon.viz.gfe/localization/gfe/userPython/utilities/TropicalUtility.py

**Operational Impact:** Required fixes discovered during 17.1.1 TSI SwIT (Nov.14-18)

**Required Behavior**: Correct value added to the json file. **(DR 19632)**

## 28. Problem: The setup-standby.sh script run on TNCF leaves behind unwanted directories when executed as root

The setup-standby.sh script is run on TNCF as part of the fail-over testing associated with DCS 19424 (RODO 5885). When attempting to run the script as root, it specifically states that it cannot be run as root and proceeds to exit. The issue is that it already creates a directory owned by root and causes further attempts at fail-over to error due to the root-owned directory. The script should properly clean up after itself by not leaving behind any directories.

**Operational Impact:** The server (dds2-tncf) cannot be set as the postgresql standby server during fail-over.

**Required Behavior**: The setup-standby.sh script should run as root and not leave behind root-owned directories if the script fails. **(DR 19629)**

## 29. Problem: handleOUP error when sending text products

The following error occurs when trying to send any sort of product from the TextWS. This includes WarnGen.

ERROR 2016-12-12 19:14:16,269 6064 [qtp2090185767-681] OUPHandler: EDEX - Error executing handleOUP python

jep.JepException: jep.JepException: <type 'exceptions.NameError'>: global name 'myAwipdsId' is not defined

at jep.Jep.eval(Jep.java:485) ~[jep-3.5.3.jar:na]

at com.raytheon.uf.common.python.PythonScript.internalExecute(PythonScript.java:230) ~[com.raytheon.uf.common.python.jar:na]

at com.raytheon.uf.common.python.PythonScript.execute(PythonScript.java:278) ~[com.raytheon.uf.common.python.jar:na]

at com.raytheon.uf.common.python.PythonScript.execute(PythonScript.java:258) ~[com.raytheon.uf.common.python.jar:na]

The fix is to correct the typo "myAwipdsId" to 'myAwipsId" in handleOUP.py

**Operational Impact:** Unable to send any text products.

**Required Behavior**: Should be able to send text products without error. **(DR 19621)**

## 30. Problem: AWIPS Interactive Reference Incorrectly Requiring Login

The AWIPS Interact Reference in 16.4.1 is supposed to launch VLab references in a browser using a right-mouse click in CAVE without requiring a login, but it is currently requiring forecasters to log in to their NOAA accounts. This impacts the ease of use and may result in forecasters rejecting the capability. The solution is a simple change to the serverLocation tag in

the awipsRefConfig.xml to the new web/guest path: <serverLocation>https://vlab.ncep.noaa.gov/web/guest/awips-reference</serverLocation>.

**Operational Impact:** Requiring a password to access the references can be cumbersome for forecasters, potentially causing them to reject the capability.

**Required Behavior**: After the user loads a product in CAVE and right clicks and selects "Reference on Product", a browser with a search tool should pop up with a link to a reference that should load without requiring a password. **(DR 19617)**

## 31. Problem: Loss of Format While Editing Text with Word Wrap Engaged

If a forecaster edits a product with areas open to free hand editing and "Auto Wrap" is turned "On", the original text format can be lost. See attached video clip.

Forecasters prefer to edit products with *Auto Wrap* turned "On"

**Operational Impact:** Forecasters will be required to edit their products with "Word Wrap" turned "Off"

**Required Behavior**: Unless edits are expected to modify the original format, the general format should preserved. **(DR19616)**

## 32. Problem: Export KML throws error when attempting to save satellite imagery

The following Null Pointer Exception is thrown when attempting to export satellite imagery using the Export KML feature.

The following Null Pointer Exception is thrown when attempting to save satellite imagery using Export KML.

An internal error occurred during: "Generating Kml".java.lang.NullPointerException

at com.raytheon.uf.viz.core.tile.TileSetRenderable.getTileLevel(TileSetRenderable.java:344)

at com.raytheon.uf.viz.core.tile.TileSetRenderable.scheduleImagesWithinExtent(TileSetRenderable.java:338)

at com.raytheon.viz.satellite.tileset.SatRenderable.scheduleImagesWithinExtent(SatRenderable.java:119)

at com.raytheon.viz.satellite.rsc.SatResource.initInternal(SatResource.java:227)

at com.raytheon.uf.viz.core.rsc.AbstractVizResource.init(AbstractVizResource.java:374)

at com.raytheon.viz.satellite.rsc.SatBlendedResource.initInternal(SatBlendedResource.java:138)

at com.raytheon.uf.viz.core.rsc.AbstractVizResource.init(AbstractVizResource.java:374)

at com.raytheon.uf.viz.kml.export.KmlExportJob.initPanes(KmlExportJob.java:226)

at com.raytheon.uf.viz.kml.export.KmlExportJob.run(KmlExportJob.java:140)

at org.eclipse.core.internal.jobs.Worker.run(Worker.java:55)

**Operational Impact:** User cannot export satellite imagery using the Export KML feature.

**Required Behavior**: Export KML should export and save satellite imagery without error. **(DR 19613)**

## 33. Problem: Remove unauthenticated database access - CA script and install

This is a followup DR to DCS 18655. The initial check in is missing some things:

* Script to manage certificates/keys and user access.

* Install/delta scripts to make database and EDEX configuration changes.

**Operational Impact:** This is needed to complete DCS 18655.

**Required Behavior**: Configuration of certificate-based authentication should be as automatic as possible. **(DR 19611)**

## 34. Problem: WarnGen: specialWeatherStatement CTAs for Freezing precip need to be in lower case

The "freezingDrizzle" CTA has extra conditions that read in data from earlier on in formatter to know how to correctly phrase the CTA in the warning. These variables that are set earlier on are in lower case, so in order for the CTA string to work properly, it needs to be searching for the "setting" of these lower case variables.

Around line 347 of specialWeatherStetement.vm, this:

#if(${list.contains($bullets, "freezingDrizzleCTA")} && (${describeEventShort} == "FREEZING RAIN" || ${describeEventShort} == "*FREEZING DRIZZLE*"))

The ${describeEventShort} may quickly coat roadways with a thin layer of ice that may be undetectable. Please use extreme caution#commaOrEllipsis()especially on bridges#commaOrEllipsis()overpasses and around curves. Allow plenty of stopping distance and avoid braking suddenly.

Needs to change to this:

#if(${list.contains($bullets, "freezingDrizzleCTA")} && (${describeEventShort} == "freezing rain" || ${describeEventShort} == "*freezing drizzle*"))

The ${describeEventShort} may quickly coat roadways with a thin layer of ice that may be undetectable. Please use extreme caution#commaOrEllipsis()especially on bridges#commaOrEllipsis()overpasses and around curves. Allow plenty of stopping distance and avoid braking suddenly.

**Operational Impact:** If a user selects this CTA, it will not be generated and included in the text of the product.

**Required Behavior**: The CTA, if selected, should be displayed as long as it satisfies all conditions in the code. **(DR 19600)**

## 35. Problem: Change links on AWIPS System Monitor "Extras" page for new URL in VLAB

The AWIPS System Monitor is a web page hosted on PX1f at each site.

On the web page there is a menu item named EXTRAS.

That web page is configured via the */data/fxa/A2_SysMonitor/extras.php* NFS mounted file.

The links in extras.php for the:

# AWIPS CAVE-D2D User's Manual

# AWIPS System Manager's Manual

Need to change from their current URL, which points to NOAA2, to the VLAB addresses which are static URLs.

> +NOTE:+ The hostname for vlab.ncep.noaa.gov is in each site's NIS hosts map file (ypcat hosts | grep vlab) so the changes to the extras.php file should be adequate to have the hostname and not the IPADDR in the "<a href>" tags; however, if the IPADDR changes for vlab.ncep.noaa.gov then the hostname resolution method (in this case NIS, but if it changes in the future to DNS) will need to be modified as well.

The new URLs should be:

# For the latest SMM pdf version without red lines is:
https://vlab.ncep.noaa.gov/object_storage/awips/Documentation/latest/SMM/WithOutRedLines.pdf

# For the latest SMM html version without red lines is:
https://vlab.ncep.noaa.gov/object_storage/awips/Documentation/latest/SMM/WithOutRedLines/toc.html

# For the SMM html version with red lines:
https://vlab.ncep.noaa.gov/object_storage/awips/Documentation/latest/SMM/WithRedLines/toc.html

# For the SMM pdf version with red lines:
https://vlab.ncep.noaa.gov/object_storage/awips/Documentation/latest/SMM/WithRedLines.pdf

# For the latest UM:
https://vlab.ncep.noaa.gov/object_storage/awips/Documentation/latest/UM/Source%20Files/toc.htm

For deployment there should be a simple script to go out and replace the file at all sites, this does not need to be tied to a release.

**Operational Impact:** Sites will not be able to view the SMM and UM from their AWIPS LAN workstations when navigating to the AWIPS System Monitor page however they can navigate currently to the VLAB links which are hosting the SMM and UM manually by entering the URLs listed above in the address bar of a web browser, e.g. Firefox.

**Required Behavior**: The links work on the AWIPS System Monitor page when clicked. **(DR 19597)**

## 36. Problem: NCEP/Hydro configured menu files sometimes created incorrectly

HUN (16.2.2), EWX (16.2.2) and EHU (16.4.1) reported incomplete NCEP/Hydro menu in D2D after an upgrade.

It was found that the xml files under:

/awips2/edex/data/utility/cave_static/configured/<SITEID>/menus/ncepHydro/*

had become emptied out. This may have happened during the running of config_awips2.sh with the 'cave' option.

Since the files in the 'configured' area take precedence over other levels, these incomplete menu files were the ones used to create the menu.

**Operational Impact:** NCEP/Hydro menu unusable.

**Required Behavior**: 'configured' menu files should not be emptied out during install. **(DR 19582)**

## 37. Problem: GFE: InvalidThreadAccess error thrown by offsetTime.py

Site requested that a DR be opened after looking into some of the VTEC issues reported during the 17.1.1 GFE tropical testing:

When examining Pablo's most recent formatter log from lx3-tbdw on Nov 18 I saw an InvalidThreadAccess exception thrown from line 70 of offsetTime.py.

Since the exception was thrown in line 70 setting time to real time, we never got to line 73 where we set the simulated time so any Java code that uses SimulatedTime was running in real time. Lines 78-87 (after the except: clause) were run so the Python side of things was properly set to simulated time.

I did some digging to try to find what in the Java code might have caused the InvalidThreadAccess and found three suspects:

TextEditorDialog

TearOffMenuDialog

TafViewerEditorDlg

Since they were mostly testing GFE and it doesn't support tear off menus I'm guessing 2 and 3 are unlikely. However they may have been using the TextEditor to retrieve/examine products from the text database. Given that this exception may not happen unless one of the 3 offending dialogs are open -- that might explain some of the randomness Pablo mentioned.

**Operational Impact:** No operational impact, but could cause the text formatter to run in real time instead of simulated time during testing.

**Required Behavior**: invalidThreadAccess exception should not be thrown. **(DR 19580)**

## 38. Problem: MPE: Single-Pol radar is not displayed due to decoding error

In the MPE perspective, the dual-polarization radar is shown as all missing data: even though it functions correctly in D2D.

The log file

/awips2/edex/data/share/hydroapps/precip_proc/local/data/log/decodedpa/decodedpa_log_(mmddyyyy) lists only the error messages:

Connecting to database 'tcp:postgresql://dx1f:5432/hd_ob92mhx' as user 'awipsadmin'

error in BigE to LittleE conversion - number of rows ne 131

product deleted

Connecting to database 'tcp:postgresql://dx1f:5432/hd_ob92mhx' as user 'awipsadmin'

error in BigE to LittleE conversion - number of rows ne 131

product deleted

**Operational Impact:** Users are unable to view single-pol radar data in the MPE perspective.

**Required Behavior**: The single-pol radar is correctly displayed in the View Hourly Radar utility in MPE. **(DR 19567)**

## 39. Problem: TSI SwIT Bug Fixes

Use this ticket to check-in TSI SwIT code changes made during Nov 14-17. Include fixes for both WFO and NHCN related bugs.

* cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/CreateNatlTCVZoneGroups.py

* cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/CreateProposedSS.py

* cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/FinalizeHazards.py

* cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/SendProposedToWFO.py

* cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/StormInfo.py

* cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/TCFloodingRainThreat.py

* cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/TCStormSurgeThreat.py

* cave/com.raytheon.viz.gfe/localization/gfe/userPython/procedures/TCTornadoThreat.py

* cave/com.raytheon.viz.gfe/localization/gfe/userPython/textProducts/HLSTCV_Common.py

* cave/com.raytheon.viz.gfe/localization/gfe/userPython/textUtilities/regular/TropicalHazards.py

* cave/com.raytheon.viz.gfe/localization/gfe/userPython/utilities/TCVDictionary.py

* cave/com.raytheon.viz.gfe/localization/gfe/userPython/utilities/TropicalUtility.py

* edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/textproducts/templates/product/HLS.py

* edexOsgi/com.raytheon.edex.plugin.gfe/utility/edex_static/base/textproducts/templates/product/Hazard_TCV.py

**Operational Impact:** Required fixes discovered during 17.1.1 TSI SwIT (Nov.14-18)

**Required Behavior**: Refer to description block **(DR 19566)**

## 40. Problem: GFE: Save As functionality in "Output View" throws errors

In 16.4.1, if the user is looking at a formatter in Output view and tries to "Save As" the product to their local directory as a Text file, the following error occurs - preventing them from saving the file. The workaround is to copy the text to a text file in a terminal browser program such as EMACS or VI:

Unhandled event loop exceptionjava.lang.StringIndexOutOfBoundsException: String index out of range: -1

at java.lang.String.substring(String.java:1927)

at org.eclipse.swt.widgets.FileDialog.presetChooserDialog(FileDialog.java:447)

at org.eclipse.swt.widgets.FileDialog.openChooserDialog(FileDialog.java:339)

at org.eclipse.swt.widgets.FileDialog.open(FileDialog.java:313)

at com.raytheon.viz.gfe.dialogs.formatterlauncher.OutputLogComp.saveOutputLog(OutputLogComp.java:163)

at com.raytheon.viz.gfe.dialogs.formatterlauncher.OutputLogComp.access$1(OutputLogComp.java:154)

at com.raytheon.viz.gfe.dialogs.formatterlauncher.OutputLogComp$2.widgetSelected(OutputLogComp.java:146)

at org.eclipse.swt.widgets.TypedListener.handleEvent(TypedListener.java:248)

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

at org.eclipse.swt.widgets.Display.sendEvent(Display.java:5879)

at org.eclipse.swt.widgets.Widget.sendEvent(Widget.java:1356)

at org.eclipse.swt.widgets.Display.runDeferredEvents(Display.java:5182)

at org.eclipse.swt.widgets.Display.readAndDispatch(Display.java:4771)

at org.eclipse.e4.ui.internal.workbench.swt.PartRenderingEngine$4.run(PartRenderingEngine.java:1127)

at org.eclipse.core.databinding.observable.Realm.runWithDefault(Realm.java:337)

at org.eclipse.e4.ui.internal.workbench.swt.PartRenderingEngine.run(PartRenderingEngine.java:1018)

at org.eclipse.e4.ui.internal.workbench.E4Workbench.createAndRunUI(E4Workbench.java:156)

at org.eclipse.ui.internal.Workbench$5.run(Workbench.java:654)

at org.eclipse.core.databinding.observable.Realm.runWithDefault(Realm.java:337)

at org.eclipse.ui.internal.Workbench.createAndRunWorkbench(Workbench.java:598)

at org.eclipse.ui.PlatformUI.createAndRunWorkbench(PlatformUI.java:150)

at com.raytheon.uf.viz.personalities.cave.component.CAVEApplication.startComponent(CAVEApplication.java:186)

at com.raytheon.uf.viz.application.VizApplication.start(VizApplication.java:97)

at org.eclipse.equinox.internal.app.EclipseAppHandle.run(EclipseAppHandle.java:196)

at org.eclipse.core.runtime.internal.adaptor.EclipseAppLauncher.runApplication(EclipseAppLauncher.java:134)

at org.eclipse.core.runtime.internal.adaptor.EclipseAppLauncher.start(EclipseAppLauncher.java:104)

at org.eclipse.core.runtime.adaptor.EclipseStarter.run(EclipseStarter.java:380)

at org.eclipse.core.runtime.adaptor.EclipseStarter.run(EclipseStarter.java:235)

at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)

at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)

at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)

at java.lang.reflect.Method.invoke(Method.java:498)

at org.eclipse.equinox.launcher.Main.invokeFramework(Main.java:669)

at org.eclipse.equinox.launcher.Main.basicRun(Main.java:608)

at org.eclipse.equinox.launcher.Main.run(Main.java:1515)

at org.eclipse.equinox.launcher.Main.main(Main.java:1488)

Additionally, an error message displays when canceling out of the "Save As" GUI, but has no operational impact. This issue is older than 16.4.1 and is written up in DR 19601.

**Operational Impact:** No operational impact other than not being able to save program level output from a formatter to a text file. The ability to save the actual text formatter output still works in the "normal product" view.

**Required Behavior**: *Save As* should give the user the ability to save the output to a file. **(DR 19548)**

## 41. Problem: WarnGen: incorrect hail tag of <.75IN for no hail in impactSevereWeatherStatement

At JAN, if a TOR is issued with No Hail selected, in its impactSevereWeatherStatement follow-up, No Hail is highlighted correctly in WarnGen GUI but hail tag, "Hail...<.75IN", is put in the followup product incorrectly. The hail tag should be Hail...0.00IN.

**Operational Impact:** Issued a follow-up with incorrect hail information.

**Required Behavior**: Hail size in product should be same as highlighted in WarnGen GUI. **(DR 19522)**

## 42. Problem: Remove unauthenticated database access - rehost and fixes

This is a followup DR to DCS 18655. The initial check in is missing some things:

* BMH hibernate configuration has not been updated.
* EDEX won't work on systems without an 'awips' home directory

* Rhosted WFOA and ADAPT code
* System maintenance scripts (backup, config_awips2.sh, etc.)

**Operational Impact:** This is needed to complete 18655.

**Required Behavior**: EDEX should be able to run without an 'awips' home directory.

Rehosted code and system maintenance scripts should work with the new authentication scheme. **(DR 19512)**

## 43. Problem: Problem: National TCV Overwriting Local TCVs

National TCV Overwriting Local TCVs

**Operational Impact:** Causes WFOs an inability to issue its Local TCV

**Required Behavior**: National TCVs should not overwrite local TCV **(DR 19502)**

## 44. Problem: Additional changes for moving GFE edex_static files to common_static

Under DCS #19270, GFE files in edex_static were moved to common_static and some of the lower level directories were restructured to better organize the gfe files under a single directory hierarchy.

Since then we have found a few places where files are not being generated to or referenced from the new location.

1. AreaDictionaryMaker generates zones2cities.py and fips2cities.py to common_static/configured/gfe/ but the base files were moved to common_static/configured/gfe/python.

2. MapManager creates and references a flag directory in common_static/configured/config/gfe but all other GFE config files were moved to common_static/configured/gfe/config.

**Operational Impact:** Updates to the maps database (zone, county, or city changes) will not be reflected in GFE products.

**Required Behavior**: Files should be located in the correct directories as listed in the description. **(DR 19500)**

## 45. Problem: WA 20.64 - TDWR radar menus have redundant entries for applications

The Radar Applications menu item is listed under the TDWR radar menus. This menu item needs to be removed from those radar menus.

**Operational Impact:** None. Eliminating redundancy.

**Required Behavior**: The Radar Applications menu item should no longer be listed under TDWR menus. **(DR 19485)**

## 46. Problem: Empty Archived HDF files

While looking at archived data from RNK and RLX from this past June, we found a number of HDF files that were 800 bytes long. These files are essentially empty, with the 800 bytes respresenting the shell of the HDF5 file structure. While doing checking, we found a number of HDF files in /archive that were 800 bytes and then saw that there are also H5 files in /awips2/edex/data/hdf5 that were also 800 bytes. The 800 byte files in the realtime HDF store were almost in an older version, i.e., it may be left over from purging. But there should never be an empty file in the archive. My theory is that the purging may be generating empty files that the archiver may be using to overwrite previously valid files, but I have been unable to prove this. Or the valid data may simply being purged before the time the archiver copies the files to /archive.

This issue extends to lots of sites. I have attached a partial file listing from the GRR site that shows some of the 800 byte HDF files in from grid and gfe archives. I have seen this occur in other data types like ldadmesonet, sfcobs and others. This also seems to be an intermittent problem, which is why I haven't been able to prove the purging is responsible. If this were affecting the real-time HDF5 storage, sites likely would have reported it.

**Operational Impact:** Random archived files are empty and thus make viewing the affected archived data impossible in simulations, case reviews or research projects.

**Required Behavior**: See Description (**DR 19477)**

## 47. Problem: WA 20.58 Port Run_DecodeDPA to Java: Regular and -parallel file log messages do not match

When testing DCS 19271, the 'diff' results were not successful (as assisted by the file sizes) between the regular file and -parallel file.

*Original DR (RODO 4622):*

Run_DecodeDPA calls main_decodedpa.c and is used by DecodeDpaSrv in EDEX. The original source code appears to be a bunch of C files currently located at AWIPS2_baseline/nativeLib/rary.ohd.pproc/src/decodedpa/TEXT. There are ~25 files in there, it's unclear if all of those are necessary.

May need further analysis. Test would be to verify the output files match between the wrapped version and the Java version.

*Parent Ticket Description (RODO 4618):*

There are a variety of AWIPS1 native C libraries being run from EDEX. Due to unknown reasons (schedule? inexperience?) these A1 applications were wrapped and placed into A2. They

currently trigger off an EDEX quartz cron or an event, and then edex spawns a separate process that runs a shell script that runs a C application. Many of these tools either create or manipulate data related to MPE or Hydro.

Maintaining these C applications is a major chore. Very few people know how to build them, and building them requires a 32-bit version of Java and the 32-bit version of Postgres libraries to properly compile. Unfortunately oftentimes these separate versions get overlooked and don't move forward with updates for security, performance, bug fixes, etc. Furthermore, because these libraries are native code, we can't debug into them like normal to fix bugs or optimize performance.

Transitioning these native C libraries would significantly reduce some of the build complexity and bring these mpe/hydro tools into line with the AWIPS2 architecture. The code will also be far more maintainable in Java, and will not be dependent on being recompiled with OS, Java, or Postgres updates. This will also make the code 64-bit which could result in performance boosts. This task will be broken into subtasks so that it can be worked incrementally.

**Operational Impact:** There are missing log entries between the regular file and the -parallel file.

**Required Behavior**: Both files contain the same log messages. **(DR 19432)**

## 48. Problem: Review inappropriate words lists for CAVE and BMH

Need to review the inappropriate words list in CAVE and BMH for the 17.1.1 release.

Three lists need to be reviewed:

(1) The CAVE list

(2) The BMH English list

(3) The BMH Spanish list

Reference DRs 19025, 19074, and 19075.

**Operational Impact:** Product with inappropriate words could be inadvertently transmitted.

**Required Behavior**: Inappropriate words are not part of recommended spelling list. **(DR 19427)**

## 49. Problem: PostgreSQL 9.5 upgrade is missing PostGIS 2.0

The delta script that upgrades PostgreSQL databases from 9.3.x to 9.5.x produces the following error:

<pre>

INFO: Starting upgrade

Performing Consistency Checks

----------

Checking cluster versions ok

Checking database user is the install user ok

Checking database connection settings ok

Checking for prepared transactions ok

Checking for reg* system OID user data types ok

Checking for contrib/isn with bigint-passing mismatch ok

Checking for invalid "line" user columns ok

Creating dump of global objects ok

Creating dump of database schemas

ok

Checking for presence of required libraries fatal

Your installation references loadable libraries that are missing from the

new installation. You can add these libraries to the new installation,

or remove the functions using them from the old installation. A list of

problem libraries is in the file:

loadable_libraries.txt

</pre>

The cause of this is that PostGIS was upgraded from 2.0 to 2.2, yet 2.0 needs to be available in the new PostgreSQL install for the database upgrade to work. Add PostGIS 2.0 to the PostgreSQL RPM package so that both versions of PostGIS (2.0 and 2.2) are available at the same time.

**Operational Impact:** TBD

**Required Behavior**: TBD **(DR 19423)**

## 50. Problem: QPID fails with OutofMemory errors for direct memory after being down for an hour

After the QPID upgrade in 17.1.1, Omaha has found that QPID fails every morning after being down for nightly installs. QPID should be able to handle a 1 hour back up of data without failing. Suspect is GC is not happening often enough to clear release the direct byte buffers when edexBridge dumps all of its messages in, and they are then rerouted to the appropriate ingest queues.

**Operational Impact:** QPID fails to start back up if down for an extended period of time (e.g., 30 minutes)

**Required Behavior**: QPID should be able to handle at least a 1 hour back up of data without running out of memory and failing to start. **(DR 19422)**

## 51. Problem: GFE: TCMWindTool not creating windMax

Site CHS reported that during operations with Hurricane Matthew that the TCMWindTool was not creating a maximum wind, which was causing the TCWindThreat procedure to crash. The TCWindThreat procedure will run with out the max wind if the default setting "mesoscale" is changed to "synoptic".

The wind grids created by the TCMWindTool looked ok, but apparently there is an issue with the algorithm that determines max wind.

Pablo Santos at MFL also reported the issue.

**Operational Impact:** The max wind output is missing/incorrect for the tropical cyclone procedures which can cause problems creating the HLS.

**Required Behavior**: TCMWindTool should produce correct windMax output. **(DR 19420)**

## 52. Problem: September 2016 Security Patches

Security Patch update from the September 2016 quarterly scans to be included in 17.1.1

**Operational Impact:** N.A

**Required Behavior**: N/A **(DR 19417)**

## 53. Problem: GFE: TCMWindTool shifting winds into different sector when 8 or 16 slices are used

**Site OPCN reported that during Hermine, the TCMWindTool was showing 50kt winds in the SW sector of the storm where they were not occurring. The text product from the hurricane

center did not describe these 50kt winds in the SW sector.

Tom Lefebvre sent the following analysis:

I did an analysis on this issue, and discovered what is going on. It's a side effect from interpolating the radii from 4 quadrants to anything more than that. If the code interpolates the original 4 slices into 8, for example, the interpolated sector must land on one side of the original 4 slices or the other, which skews the wind field clockwise or counter-clockwise.

However, I did notice that the tool shifted the wind field one slice too far to one side, so I shifted it back and the wind field looks better for some pieSlice selections, but it will still look shifted when 8 and 16 slices are selected. I recommend that offices use the values 12 or 24 for the pieSlice selection, since this leaves an even number of slices to interpolate and allows the tool to properly balance the wind field.

So, the bottom line is that I made a fix to make this look better, but for some pieSlice selections (8 and 16), the wind field will look rotated by one-half slice.

We really should not be re-constructing wind fields from a handful of "point" forecasts, such as those in the TCM. We really need to push for better gridded guidance from NHC.

**Operational Impact:** Forecasters must hand-edit the grid created by the TCMWindTool if it is incorrect.

**Required Behavior**: TCMWindTool should not shift winds into another sector of the storm. **(DR 19355)**

## 54. Problem: WarnGen Template: Correct grammar in Areal Flood products

In several of the areal flood templates, the following line:

Additional rainfall of !** EDIT AMOUNT **! inches is expected over the area. This additional rain will make minor flooding.

needs to be corrected with this:

Additional rainfall of !** EDIT AMOUNT **! inches is expected over the area. This additional rain will result in minor flooding.

Here are the other examples that need to be corrected:

<pre>

dx3-tbdw{rbarnhil}106: grep -A2 -n addRainfall *.vm

arealFloodAdvisoryFollowup.vm:369:#if(${list.contains(${bullets}, "addRainfall")})

arealFloodAdvisoryFollowup.vm-370-Additional rainfall of !** EDIT AMOUNT **! inches is expected over the area.  This additional rain will make minor flooding.

arealFloodAdvisoryFollowup.vm-371-

--

arealFloodAdvisoryFollowup.vm:615:#if(${list.contains(${bullets}, "addRainfall")})

arealFloodAdvisoryFollowup.vm-616-Additional rainfall of !** EDIT AMOUNT **! inches is expected over the area.  This additional rain will make minor flooding.

arealFloodAdvisoryFollowup.vm-617-

--

arealFloodAdvisoryFollowup.vm:807:#if(${list.contains(${bullets}, "addRainfall")})

arealFloodAdvisoryFollowup.vm-808-Additional rainfall of !** EDIT AMOUNT **! inches is expected over the area.  This additional rain will make minor flooding.

arealFloodAdvisoryFollowup.vm-809-

--

arealFloodAdvisory.vm:381:#if(${list.contains(${bullets}, "addRainfall")})

arealFloodAdvisory.vm-382-Additional rainfall of !** EDIT AMOUNT **! inches is expected over the area. This additional rain will make minor flooding.

arealFloodAdvisory.vm-383-

--</pre>

**Operational Impact:**  None other than a poorly worded product.

**Required Behavior**: Product wording should be grammatically correct.  **(DR 19344)**

## 55. Problem:  xmrg -> grib files should not match the FFMPURIFilter

Message arrives on: queue:cpgsrvFiltering

cpgSrvDispatcher receives it and delegates it to FFMPGenerator. FFMPURIFilter confirms that the message is recognized despite the fact that the message is for a grib file that was generated from an xmrg file. The date/time in the file is not properly extracted due to the substring

operations that FFMPURIFilter uses to extract the information. Date parsing fails and FFMPURIFilter just prints the stacktrace.

RODO DR #4722 completed in 16.2.1 slightly altered URI naming and processing.

**Operational Impact:** If the default FFMP source config file is used it could result in the disk filling up due to the log file getting large.

**Required Behavior**: Log file shouldn't get so large it fills up the disk. **(DR 19298)**

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

The section headers for TCV and HLS products were created in Mixed Case instead of ALL CAPS. It was discovered during the testing of DCS18172. See the Mixed Case test results attached for more details.

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

**Required Behavior**: The headers and sub-headers for TCV and HLS should be created in ALL CAPS. **(DR 19289)**

## 57. Problem: GFE: Headline statement should be ALL CAPS for TCV and HLS (As per item#5 of Mixed Case Text Guidelines Ver 12)

During the testing of DCS18172 for the Mixed Case products, it found that the headline statement was created in Mixed Case text instead of ALL CAPS for TCV and HLS. The Mixed Case test results for more details.

**Operational Impact:** The TCV and HLS headlines will be distributed in Mixed case instead of ALL CAPS.

**Required Behavior**: The Headlines for TCV and HLS should be ALL CAPS instead of Mixed case. **(DR 19288)**

## 58. Problem: Cities and county names displayed at max density fail in shared displays

Displaying the cities map at max density and displaying county names and zooming in on a shared display session will disable one or both of the maps with an error message for being too large. Sharing of these maps need to be optimized for shared displays.

**Operational Impact:** Displaying the cities map at max density and displaying county names and zooming in on a shared display session will disable one or both of the maps with an error message for being too large.

**Required Behavior**: Shared display session should not become disabled. **(DR 19286)**

## 59. Problem: Resume an interrupted message from the beginning after an interrupt has concluded

After an interrupt message plays, the BMH scheduling software resumes the interrupted broadcast at the beginning of the Broadcast

Cycle.

We would like this changed so that the broadcast is resumed starting with the beginning of the message that was interrupted provided that the currently broadcasting suite is not changed as a result of the interrupt.

"The operational impact is most significant during a severe weather scenario where multiple interrupt warnings in a short period of time cause the Broadcast Cycle to return to the top after each interrupt, thereby preventing the messages at the bottom of cycle from playing for a long period of time, reportedly 20 minutes at a site recently."

**Operational Impact:** The operational impact is most significant during a severe weather scenario where multiple interrupt warnings in a short period of time cause the Broadcast Cycle to return to the top after each interrupt, thereby preventing the messages at the bottom of cycle from playing for a long period of time, reportedly 20 minutes at a site recently.

**Required Behavior**: Allow resuming interrupted messages after an interrupt when the broadcast returns to the interrupted suite. **(DR 19283)**

## 60. Problem: WarnGen: "pose" should be "poses" in baseline impactSevereWeatherStatement.vm

A word is misspelled in a baseline WarnGen template impactSevereWeatherStatement.vm.

At line 214, "pose" should be "poses" to be grammatically correct since this sentence is discussing a single storm.

Note: do not change line 208 as it IS grammatically correct when using "pose" with the plural "storms".

Line 214 is as follows:

#set($expcanPhrase = "The storm which prompted the warning has weakened below severe limits, and no longer pose an immediate threat to life or property. Therefore, the warning ${expcanBODYTag}.")

**Operational Impact:** Grammatically incorrect product is sent out.

**Required Behavior**: The product should be grammatically correct. **(DR 19280)**

## 61. Problem: Error returned when selecting Timeseries or Timeseries Lite from the MB3 popup menu when the cursor is off the map

The attached error is returned when selecting the Timeseries or the Timeseries Lite options from the MB3 popup menu while the cursor is off the map. This occurs with or without a gage selected.

**Operational Impact:** None. Only an annoying error message.

**Required Behavior**: Error should not occur. **(DR 19276)**

## 62. Problem: PopUp Skew-T dialog is cut off on the left side

When opening the Pop-up Skew-T product, the data on the left side of the dialog is cut off. The 1000mb level reads as '000'. This issue has been around since at least 16.2.1 and was not fixed with the Eclipse 4 upgrade.

**Operational Impact:** Data is cut off and not visible to users.

**Required Behavior**: Dialog includes all expected data. **(DR 19275)**

## 63. Problem: 17.1.1 Build and Merge Support

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

**Operational Impact:** Builds may be broken without resolving merge conflicts or build changes.

**Required Behavior**: Successful build (**DR 19264)**

## 64. Problem: Collaboration: Invited users are unable to join a reactivated session

After users have left a session, that session is listed in the Session History. After a user selects and joins the session that was listed in the Session History, they are able to invite other users to rejoin the session. The invited users will then receive the Session Invitation dialog. However, when the invited users click [Join], the Session Invitation dialog would close, the Collaboration dialog would flash and then the Session Invitation dialog would reopen. Additionally, the following AV error was displayed:

<pre>

Collaboration user jdiaz@dx3-olaf.omaha.us.ray.com has

failed to join room:

nullcom.raytheon.uf.viz.collaboration.comm.identity.CollaborationException

at com.raytheon.uf.viz.collaboration.comm.provider.session.VenueSession.connectToRoom(VenueSession

.java:796)

at com.raytheon.uf.viz.collaboration.ui.actions.DialogJoinRoomAction.connectToRoom(DialogJoinRoomA
ction.java:197)
at com.raytheon.uf.viz.collaboration.ui.actions.DialogJoinRoomAction.runInternal(DialogJoinRoomAction.java:149)
at com.raytheon.uf.viz.collaboration.ui.actions.DialogJoinRoomAction.run(DialogJoinRoomAction.java
:113)
at com.raytheon.uf.viz.collaboration.ui.ConnectionSubscriber$2.run(ConnectionSubscriber.java:196)
at org.eclipse.swt.widgets.RunnableLock.run(RunnableLock.java:35)
at org.eclipse.swt.widgets.Synchronizer.runAsyncMessages(Synchronizer.java:135)
at org.eclipse.swt.widgets.Display.runAsyncMessages(Display.java:3794)
at org.eclipse.swt.widgets.Display.readAndDispatch(Display.java:3433)
at org.eclipse.e4.ui.internal.workbench.swt.PartRenderingEngine$4.run(PartRenderingEngine.java:112
7)
at org.eclipse.core.databinding.observable.Realm.runWithDefault(Realm.java:337)
at org.eclipse.e4.ui.internal.workbench.swt.PartRenderingEngine.run(PartRenderingEngine.java:1018)
at org.eclipse.e4.ui.internal.workbench.E4Workbench.createAndRunUI(E4Workbench.java:156)
at org.eclipse.ui.internal.Workbench$5.run(Workbench.java:654)
at org.eclipse.core.databinding.observable.Realm.runWithDefault(Realm.java:337)
at org.eclipse.ui.internal.Workbench.createAndRunWorkbench(Workbench.java:598)
at org.eclipse.ui.PlatformUI.createAndRunWorkbench(PlatformUI.java:150)
at com.raytheon.uf.viz.personalities.cave.component.CAVEApplication.startComponent(CAVEApplication
.java:186)
at com.raytheon.uf.viz.application.VizApplication.start(VizApplication.java:97)
at org.eclipse.equinox.internal.app.EclipseAppHandle.run(EclipseAppHandle.java:196)
at org.eclipse.core.runtime.internal.adaptor.EclipseAppLauncher.runApplication(EclipseAppLauncher.
java:134)
at org.eclipse.core.runtime.internal.adaptor.EclipseAppLauncher.start(EclipseAppLauncher.java:104)
at org.eclipse.core.runtime.adaptor.EclipseStarter.run(EclipseStarter.java:380)
at org.eclipse.core.runtime.adaptor.EclipseStarter.run(EclipseStarter.java:235)
at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)
at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)

at java.lang.reflect.Method.invoke(Method.java:498)

at org.eclipse.equinox.launcher.Main.invokeFramework(Main.java:669)

at org.eclipse.equinox.launcher.Main.basicRun(Main.java:608)

at org.eclipse.equinox.launcher.Main.run(Main.java:1515)

at org.eclipse.equinox.launcher.Main.main(Main.java:1488)

Caused by: org.jivesoftware.smack.XMPPException$XMPPErrorException: XMPPError: item-not-found - ca

ncel

at org.jivesoftware.smack.XMPPException$XMPPErrorException.ifHasErrorThenThrow(XMPPException.java:

135)

at org.jivesoftware.smack.PacketCollector.nextResultOrThrow(PacketCollector.java:232)

at org.jivesoftware.smackx.muc.MultiUserChat.enter(MultiUserChat.java:311)

at org.jivesoftware.smackx.muc.MultiUserChat.join(MultiUserChat.java:495)

at com.raytheon.uf.viz.collaboration.comm.provider.session.VenueSession.connectToRoom(VenueSession

.java:760)

... 31 more

</pre>

**Operational Impact:** Invited users cannot join a reactivated session. Upon clicking Join in the invitation dialog, an error is received and they are not joined to the session.

**Required Behavior**: Users should be able to rejoin a session. **(DR 19262)**

## 65. Problem: The workstation freezes when connection to the Collaboration server is lost and the disconnect dialog is blocked

The workstation freezes when connection to the Collaboration server is lost and the disconnect dialog is blocked.

Workaround: On another workstation, log into the locked workstation, cd to /data/fxa/cave/<workstation>, grep for cave (ps aux | grep

cave), and kill the cave process (kill -9 <pid>). The CAVE window closes and the workstation is back in use.

**Operational Impact:** The workstation freezes when connection to the Collaboration server is lost and the disconnect dialog is blocked.

**Required Behavior**: Make the DisconnectHandler non-blocking to prevent freezes. **(DR 19261)**

## 66. Problem: GLD lightning products disconnects the leader from Collaboration

Displaying GLD lightning products in a shared display session disconnects the leader from Collaboration. On 16.4.1, the

Collaboration windows/tabs did not close like it did on 16.2.2...but the disconnected from server popup still appeared.

Refer to the attached errors (from both 16.2.2 and 16.4.1).

**Operational Impact:** Displaying GLD lightning products in a shared display session disconnects the leader from Collaboration.

**Required Behavior**: Both leader and participants should not become disconnected from collaboration upon loading lightning data. **(DR 19258)**

## 67. Problem: Drawings failed to clear on the participant's display

In a shared display session, when images and drawings (from the telestrator) are being shared between two users, the drawings fail to clear from the participant's display when the leader clears their display. Both images and drawings are removed from the leader's display. Only the images are removed from the participant's display.

**Operational Impact:** Only images are removed from the participant's display when the leader clears a display that contains both images and drawings.

**Required Behavior**: Both images and drawing should clear from the participants display when the leader clears. **(DR 19257)**

## 68. Problem: GOES-R images that utilize a color scale display all white on the participant's display in shared display sessions

In a shared display session, when GOES-R images that utilize a color scale (vs. black/white) are displayed on the leader's workstation, the image displays in color. However, that same image displays in all white on the participant's display. Refer to the attached images.

**Operational Impact:** GOES-R color images display as a blank white image on the participant's display.

**Required Behavior**: Allow proper display of GOES-R color images on both the leader and participants display. **(DR 19256)**

## 69. Problem: True Color images do not work in collaboration

True color does not work with collaboration. When you share a true color resource, it is disabled. The following error occurs:

<pre>

Caused by: com.raytheon.uf.viz.core.exception.VizException: Could not find valid extension for class: interface com.raytheon.uf.viz.truecolor.extension.ITrueColorImagingExtension

at com.raytheon.uf.viz.core.drawables.ext.GraphicsExtensionManager.getExtension(GraphicsExtensionManager.java:103)

at com.raytheon.uf.viz.remote.graphics.DispatchGraphicsTarget.getExtension(DispatchGraphicsTarget.java:1286)

at com.raytheon.uf.viz.truecolor.rsc.TrueColorRresourceGroup.initInternal(TrueColorResourceGroup.java: 328)

at com.raytheon.uf.viz.core.rsc.AbstractVizResource.init(AbstractVizResource.java: 374)

at com.raytheon.uf.viz.core.rsc.AbstractVizResource$InitJob.run(AbstractVizResource.java: 469)

at org.eclipse.core.internal.jobs.Worker.run(Worker.java: 54)

</pre>

**Operational Impact:** When sharing a true color resource in a collaboration shared display, the resource is disabled and throws an error.

**Required Behavior**: Allow sharing of true color resource without throwing errors. **(DR 19255)**

## 70. Problem: TextWS: log several pieces of information for Text Editor and AWIPS Header Block

At PBZ, a forecaster issued two SV.W.0058 on July 23, 2016. The first one did not get out to the world.

While investigating the issue, the cause of that cannot be determined as the product would not go out 1) if Addressee is changed from ALL to 000 in AWIPS Header block, and 2) if Save button is clicked instead of Send button in Text Editor. To facilitate the diagnosis of this kind of issue and some potential issues in the future, the following information should be logged:

*1) In AWIPS Header Block, TTAAii, CCCC, BBB, BBB Version, WSFO ID, Product Category, Product Designator, Addressee.*

*2) log the text of the initial, the saved (if any), and the sent (if any).*

*3) log the click to File -> Resend Warning Product...*

*4) log the Options -> Autowrap size selection.*

*5) log the prompts that occur after clicking Send button.*

*6) Log the click on the buttons of Enter Editor, Save, Send, Cancel, File/Cancel Editor, Close Window (x on the upper-right corner)*

*7) Log the selection of Yes or No in the pop-up window brought up by clicking Cancel, File/Cancel Editor, Close Window.*

A screenshot for Text Editor and AWIPS Header Block was attached.

Note that 744470 is referred but it's for an issue other than this.

**Operational Impact:** The issue has no operational impact but has significant impact on the diagnosis of the cause of WarnGen product not getting out to the world.

**Required Behavior**: Several pieces of information should be logged. See Description section for detail. **(DR 19250)**

## 71. Problem: TextWS: Disallow issuing WarnGen PIL products using TextWS Text Editor window.

The editing, saving and sending out products with WarnGen PILs (SVT, TOR, FLS, etc) should not be allowed to be performed using text editor window of the Text Workstation. When a product is created using WarnGen a Text Editor window pops up with the scratch product loaded. The user fills out the AWIPS Header Block information and at this point can edit/save/send this product that now has an assigned PIL. Once this product is sent/saved in the db - the user should not be able to load this product (using the assigned PIL) and edit and send this product using Text Workstation.

**Operational Impact:** A user at RNK tried to reissue a warning through the TextWS's text editor and it incremented the VTEC code. This might lead to warnings being missed.

**Required Behavior**: The editing, saving and sending out products with WarnGen PILs (SVT, TOR, FLS, etc) should not be allowed to be performed using text editor window of the Text Workstation. **(DR 19246)**

## 72. Problem: User Cannot Enter a Crest into the Database without Giving a Stage AND Flow

LMK reported that user cannot enter a crest into the database without giving a stage AND flow. In A1, you can enter a crest into the database with giving a stage OR flow.

Testing at NHOR (A2: 16.2.2) confirmed this even if the error message says:"Failed Validation: You must enter a stage OR a flow value".

**Operational Impact:** Crest History can not be created and displayed at AHPS.

**Required Behavior**: A Crest History should be created with giving a stage OR flow (**DR 19243)**

## 73. Problem: Hydro Database Manager: Crest History: db update error occurs when clicking OK after Apply

When adding a new Crest History record in the Hydro Db Manager, clicking the 'Apply' will perform a database insert operation with the new data. Clicking 'OK' will perform an insert, then close the window. If 'Apply' is clicked followed

by 'OK', a db key-violation error is displayed in AlertViz.

Steps to reproduce:

1. load the Hydro perspective in CAVE.
2. from the top menu, select HydroApps-->Hydro Database Manager and enter the password.
3. from the station list, single-click on a river station.
4. from the top menu of the HydroBase window, select River Gage-->Crest History
5. in the Crest History window, click 'New'.
6. enter data in the Stage, Flow, Data and Time fields.
7. click the 'Apply' button: the new record appears in the list of crest records.
8. click the 'OK' button.

Expected result: the Crest History window closes.

Actual result: the window closes and an error is displayed in AlertViz (see attached text file).

**Operational Impact:** The crest history data is successfully updated. However the AlertViz error could lead the user to believe that it has failed; leading to the unnecessary extra effort of re-opening the crest history window and verifying the data.

**Required Behavior**: If a new crest record is added to the db by clicking the 'Apply' button, clicking the 'OK' button will close the Crest History window without generating an error. **(DR 19239)**

## 74. Problem: GOES-R decoder can fall behind incoming data

Qpid queues can back up and GOES-R ingest can fall behind. This was observed at BCQ, but it is not clear if the amount of GOES-R data being ingested was more or less than the amount that would be ingested in an operational setting. In any case, it is probably a good idea to add a configuration setting that controls the number of GOES-R products that can be decoded simultaneously (like DCS #17901.)

**Operational Impact:** Reduced forecasting ability due to not having the latest data.

**Required Behavior**: EDEX should be able to keep up with incoming GOES-R data. **(DR 19225)**

## 75. Problem: WarnGen Templates: ImpactSMW grammar corrections

Site noticed this issue with our IBW follow-up to a SMW template. I fixed this by changing this line at or about line 590:

, ${report}was located ##

to this:

#if(${eventType} == "front")

, ${report}was located ##

#elseif(${stormType} == "line")

, ${report}were located ##

#else

, ${report}was located ##

#end

This was to fix the following verbiage below and to make sure the text did not read "A front were located..." since you would normally use a line to depict a front.

AT 945 AM CDT...STRONG THUNDERSTORMS WAS LOCATED ALONG A LINE

Note the plural "thunderstorms" but incorrect use of "was" -- should be "WERE." I chose a "line of storms" in Warngen.

**Operational Impact:** No impact other than poor grammar in a product.

**Required Behavior**: Grammar should be correct. **(DR 19224)**

## 76. Problem: WarnGen: flood severity changes to zero in CAN

At ILX, in the initial Non-Convective FFW, flood severity in HVTEC was set to 1. However, in the CAN followup (Non-Convective Flash Flood Statement), it was changed to 0 (zero).

**Operational Impact:** HVTEC code doesn't match specifications in NWS directive, but there is no impact to the user.

**Required Behavior**: Flood severity in CAN should be same as in initial Non-Convective FFW. **(DR 19217)**

## 77. Problem: CAVE session hangs when selecting ISC Request Window when site cannot access IRT Server

When the opening of the ISC Request/Reply window results in an inability to connect to the IRT server, the entire CAVE session hangs. He reported that he could not put the window in the background, switch perspectives, etc, until the connect timed out and the AlertViz popup came up with the message stating it failed to communicate with the IRT server. The error was a UELE-type error as noted below.
Ulysses did note that once this UELE error did pop up, subsequent attempts to open the ISC request window (under the

Consistency menu) yielded a window that did load correctly. Ulysses stated that even though a failure to connect to the IRT server is rare, it should not cause CAVE to hang. This issue happened during the OpsNet failure on 07/13/16.

```
ERROR 2016-07-13 19:19:17,012 [main] CaveLogger: Unhandled event loop exception
java.lang.NullPointerException: null
    at com.raytheon.viz.gfe.core.DataManager.doIscRequestQuery(DataManager.java:643)
    at com.raytheon.viz.gfe.dialogs.isc.ISCRequestReplyDlg.initializeData(ISCRequestReplyDlg.java:225)
    at com.raytheon.viz.gfe.dialogs.isc.ISCRequestReplyDlg.initializeComponents(ISCRequestReplyDlg.java:108)
    at com.raytheon.viz.ui.dialogs.CaveSWTDialogBase.open(CaveSWTDialogBase.java:225)
    at com.raytheon.viz.gfe.actions.ShowIscRequestReplyDialog.execute(ShowIscRequestReplyDialog.java:77)
    at org.eclipse.ui.internal.handlers.HandlerProxy.execute(HandlerProxy.java:290)
    at org.eclipse.core.commands.Command.executeWithChecks(Command.java:499)
    at org.eclipse.core.commands.ParameterizedCommand.executeWithChecks(ParameterizedCommand.java:508)
    at org.eclipse.ui.internal.handlers.HandlerService.executeCommand(HandlerService.java:169)
    at org.eclipse.ui.internal.handlers.SlaveHandlerService.executeCommand(SlaveHandlerService.java:241)
    at org.eclipse.ui.menus.CommandContributionItem.handleWidgetSelection(CommandContributionItem.java:829)
    at org.eclipse.ui.menus.CommandContributionItem.access$19(CommandContributionItem.java:815)
    at org.eclipse.ui.menus.CommandContributionItem$5.handleEvent(CommandContributionItem.java:805)
    at org.eclipse.swt.widgets.EventTable.sendEvent(EventTable.java:84)
    at org.eclipse.swt.widgets.Widget.sendEvent(Widget.java:1276)
    at org.eclipse.swt.widgets.Display.runDeferredEvents(Display.java:3562)
    at org.eclipse.swt.widgets.Display.readAndDispatch(Display.java:3186)
    at org.eclipse.ui.internal.Workbench.runEventLoop(Workbench.java:2701)
    at org.eclipse.ui.internal.Workbench.runUI(Workbench.java:2665)
    at org.eclipse.ui.internal.Workbench.access$4(Workbench.java:2499)
    at org.eclipse.ui.internal.Workbench$7.run(Workbench.java:679)
    at org.eclipse.core.databinding.observable.Realm.runWithDefault(Realm.java:332)
    at org.eclipse.ui.internal.Workbench.createAndRunWorkbench(Workbench.java:668)
    at org.eclipse.ui.PlatformUI.createAndRunWorkbench(PlatformUI.java:149)
```

**Operational Impact:** CAVE can be tied up for a few minutes until the AlertViz error pops up.

**Required Behavior**: CAVE should not hang during an ISC Request when the site cannot connect to the IRT server. **(DR 19201)**

## 78. Problem: D2D-Radar: SPG Long Range Reflectivity does not display current elevation

Currently the display of the TDWR SPG Long Range Reflectivity product does not show the elevation value. The problem exists in both single panel and 4-panel views. Elevation value shall be added to the display to show the current elevation. With the introduction of FAA's TDWR Build 2, elevation will vary by site between 0.1 and 0.8 degrees rather than always being 0.6 as it is now. The addition of elevation info will allow the users to know exactly what elevation they are seeing post-upgrade.

**Operational Impact:** With the implementation of TDWR SPG Build 2, users will not know which elevation of the Long Range Reflectivity product they are viewing.

**Required Behavior**: The correct elevation should display for the loaded TDWR SPG Long Range Reflectivity product. **(DR 19190)**

## 79. Problem: GFE: Storm surge popup message from NHCN not received by backup site

EWX site reported the following issue:

They were running a service backup test for CRP and the hurricane center sent a Proposed Storm Surge grid. They did receive the grid, but there was no pop-up message to alert them to the arrival of the grid.

Using the algorithm used by requestAT that attempts to find the "real" site by finding a best match using an algorithm from A1. The first match criteria is the site where the MHSID matches the site ID (i.e. CRP in this example) so it never looked for a backup site since CRP was active. If CRP had been down (more like a real service backup scenario) then EWX would probably have been selected.

ISC simply sends to every site registered with IRT as site XXX.

**Operational Impact:** Site may not know that a grid is being sent by the hurricane center.

**Required Behavior**: Pop-up message should arrive after grid is received from NHCN. **(DR 19185)**

## 80. Problem: Diskspace One or more filesystems are at 95% utilized

This is happening several site's LXs (MQT, ANCF, etc) system:

Received a call from Jason at the site reporting getting lots of AV popups when he started CAVE on lx3. Found /local full.

The /local diskspace is set the same as everything else at all site sand the /local location alarms at 95% and 100%. Occasionally the location fills so fast that it doesn't even alarm at 95% and skips to 100%.

[root@lx3-mqt ~]# df /local

Filesystem 1K-blocks Used Available Use% Mounted on

/dev/mapper/vg00-lvol_local 4097216 3438900 451084 89% /local

[root@lx3-mqt ~]# df /local

Filesystem 1K-blocks Used Available Use% Mounted on

/dev/mapper/vg00-lvol_local 4097216 3848440 41544 99% /local

**Operational Impact:** Fills up on lx's system disk-space upto 100%

**Required Behavior**: Files needs to be deleted from /local/cave-eclipse/* **(DR 19167)**

## 81. Problem: GFE: TCV formatter crashes at inland sites due to missing StormSurgeWW edit area

Site TSA reported that they could not run the TCV formatter in GFE due to a missing edit area, StormSurgeWW. The file is created in the configured directory for coastal sites, but not for inland sites. As a workaround, they can copy in the edit area as a site override. It's been requested that NCF drop the file into the BASE directory of all sites, and re-apply after each release, under this DR is fixed. The workaround is to copy the configured file

/awips2/edex/data/utility/common_static/configured/XXX/gfe/editAreas/StormSurgeWW_EditArea.xml

from a coastal site to the BASE directory

/awips2/edex/data/utility/common_static/base/gfe/editAreas

**Operational Impact:** TCV formatter does not run until workaround is applied.

**Required Behavior**: StormSurgeWW edit area should be provided created in the configured directory at inland sites. **(DR 19055)**

## 82. Problem: WarnGen Templates: Tornado Warning "test" wording needs case corrections

In the Tornado Warning and Impact Tornado Warning templates, the "test" wording needs to be updated/corrected. Despite the move to Mixed Case, all "test" wording should be in CAPS.

After changes, this is the result:

dx3-tbw3{rbarnhil}105: grep -i test impactTornadoWarning.vm

TEST...Tornado Warning...TEST

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...

THIS IS A TEST MESSAGE. ##

THIS IS A TEST MESSAGE. ##

THIS IS A TEST MESSAGE. ##

THIS IS A TEST MESSAGE. ##

THIS IS A TEST MESSAGE. ##

THIS IS A TEST MESSAGE. DO NOT TAKE ACTION BASED ON THIS MESSAGE.

dx3-tbw3{rbarnhil}106: grep -i test tornadoWarning.vm

TEST...Tornado Warning...TEST

...THIS MESSAGE IS FOR TEST PURPOSES ONLY...

THIS IS A TEST MESSAGE. ##

THIS IS A TEST MESSAGE. ##

THIS IS A TEST MESSAGE. ##

THIS IS A TEST MESSAGE. ##

THIS IS A TEST MESSAGE. ##

THIS IS A TEST MESSAGE. DO NOT TAKE ACTION BASED ON THIS MESSAGE.

**Operational Impact:** None really - more of a consistency issue. TEST wording should be easily identifiable in the event that a product gets out.

**Required Behavior**: TEST wording should remain in CAPS. **(DR 19038)**

## 83. Problem: AvnFPS: Wind speeds above 11 knots getting flagged as abnormal weather conditions after climate update

A user at ABR reported a problem with Climate QC program. It flags a wind of 11KT as "No similar events in the database. Decrease Wind Speed". This is a very normal weather condition and shouldn't be flagged. Usually, the flag will go away if the wind speeds are lowered, but a 11kt wind is not uncommon. This has been an ongoing issue and the user has tried several times in February/March to fix the issue. The user updated the climate files and that didn't fix the issue. The user also tried removing the climate data completely for one of their sites, then rebuilt it from scratch, but the user still wasn't able to get the QC checks to work properly. The user can see the new climate data in the Historical Metar Viewer under the AvnFPS menu, but there is a weird thing that the user is not sure if it is tied to this issue. When adding the climate data, the user wasn't seeing any Weather information for the last few years of data (e.g. SN, RA).

The problem can be reproduced on a developer's workstation using an updated climate file (the workstation is localized to OAX).

**Operational Impact:** This causes confusion; users cannot use historical data as guidance in preparing forecast.

**Required Behavior**: Climate QC program should not flag a normal weather condition (**DR 19036)**

## 84. Problem: WarnGen: Line of Storms not using correct storm duration on initial selection

In WarnGen, if a user selects a template and then changes to "Line of Storms", the duration listed is not applied immediately to the polygon/track. The track/duration applied is that of the last known product. Here are some steps as an example:

<pre>

Start WarnGen - I have Severe Thunderstorm Warning (30 min duration) as my default.

Switch to Significant Weather Advisory (or another template that does not have a 30 min duration).

One storm should be selected - create the warning and confirm the polygon is for however long the new template is for (Sig Wx Advisory for me is 45 minutes).

Clear the display.

Load Warngen

Swap over to Significant Weather Advisory

Click "Line of Storms" - create a polygon.

Observe the polygon is only created for 30 minutes - the default duration for the initial default template.

</pre>

There is a workaround: Click the Reset button after selecting Line of Storms to force the proper duration to apply.

**Operational Impact:** User could create a product with a time duration different than what is expected.

**Required Behavior**: Template selected should used the time in the GUI regardless of "one storm" or "Line of storms" **(DR 18960)**

## 85. Problem: WarnGen Templates: Grammar and parsing fixes for impactSpecialMarineWarning templates

Field site reported the following grammar issue in impactSpecialMarineWarning template:

When issuing a follow up for a line of storms...

"At 236 PM EDT...Strong *thunderstorms was* located..."

This was also an issue for "Cloud", "Front" and "Shower".

Additionally, impactSpecialMarineWarningFollowup.xml needs to have updated parse strings to deal with pluralized instances of "Thunderstorms", "Cloud", "Front" and "Shower".

**Operational Impact:** Improper grammar would cause products to read incorrectly. Additionally, incomplete parse strings would not pre-select these causes on followups.

**Required Behavior**: Grammar should be correct and parse strings should work for all cases. **(DR 18942)**

## 86. Problem: RiverPro MND needs to be updated to match Mixed Case Guidelines

According to the Mixed Case Guidelines ver 10.0 date 2/29/2016, the Mass News Media Disseminator needs to be changed from Upper Case to Mixed Case with following format:

Flood Statement

National Weather Service Little Rock AR

1044 AM CST Fri Mar 11 2016

...From the National Weather Service in Little Rock...the Flood

Warning continues for the following rivers in Arkansas...

White River At Augusta affecting White and Woodruff Counties

White River At Clarendon affecting Arkansas and Monroe Counties

Cache River Near Patterson affecting Jackson and Woodruff Counties

**Operational Impact:** RiverPro products will not meet current guidelines and eventual directives.

**Required Behavior**: RiverPro products need to match the Mixed Case Guidelines and appear in Mixed Case. **(DR 18753)**

## 87. Problem: WarnGen Templates: Improve consistency in "lawEnforcement" tag between flood templates

In some very deep in the code testing of WarnGen, some minor inconsistencies were noticed related to the lawEnforcement tags in the calls to action. The inconsistencies are basically parseStrings in the GUI control files are not triggering on a phrase, thus not automatically including these selections in followups. Here is an example:

In an Areal Flood Warning extension, if you had previously selected "Local law enforcement reported" in a Continuation statement, it does not get selected in the GUI.

The text in my CON is:

At 244 PM EST, *local law enforcement officials reported* slow moving thunderstorms with very heavy rainfall across the warned area. Up to one inch of rain has already fallen.

The bullet is trying to parse:

<bullet bulletName="lawEnforcement" bulletText="Local law enforcement reported" bulletGroup="source" parseString="*LOCAL LAW ENFORCEMENT REPORTED*"/>

The fix in this instance would be to change the parseString to "LOCAL LAW ENFORCEMENT OFFICIALS".

Additionally, flashFloodWarning templates need to be analyzed as they exhibited similar behavior (see e-mail to Mike Rega for specifics).

Additional Issue:

Template like arealFloodAdvisoryFollowup will incorrectly select the arroyosCTA bullet when burnAreasCTA was selected. Need to check other instances in flood templates.

**Operational Impact:** When sites do followups for these products, if these CTAs are selected, they will not be "auto" selected in some followups. Will require user to select them.

**Required Behavior**: Should parse the text properly and select the items automatically if included in previous versions. **(DR18713)**

## 88. Problem: D2D: Paint error while using Diff function for Time Height plot

The following error was returned when attempting to run a Diff on a Time Height graph via Volume Browser:

Paint error: Unable to paint, resource has been disposed:: The resource [ [GFS40 ptD 42.05N 96.31W Temperature (C) - NO DATA]] has been disabled.com.raytheon.uf.viz.core.exception.VizException: Paint error: Unable to paint, resource has been disposed:: The resource [ [GFS40 ptD 42.05N 96.31W Temperature (C) - NO DATA]] has been disabled.

**Operational Impact:** User will be unable to display a Time-Height plot of a Diff between two fields.

**Required Behavior**: Plot of Diff of a product should be displayable in D2D. **(DR 18625)**

## 89. Problem: Retrieving text products from DB won't work in TEST mode

GUM site reported that in line 2574 in SmartScript.py, it will not let you make a SITE level override. The line of code is:

```
opMode = self.gfeOperatingMode()=="OPERATIONAL"
```

This line requires that the GFE be in OPERATIONAL mode, and it should also be able to pull in old text products and issue new ones in TEST mode.

Shannon White suggested that this line be changed to:

```
opMode = self.gfeOperatingMode() in ["OPERATIONAL", "TEST"]
```

This appeared to fix the problem.

**Operational Impact:** Sites will be unable to get old text products from DB and issue new ones in TEST mode.

**Required Behavior**: Sites should be able to get old text products from DB and issue new ones in both OPERATIONAL and TEST modes. **(DR 18605)**

## 90. Problem: JSmartUtils.py fails in 16.1.1

Site reported: Post 16.1.1 & NWSInits 2.2, the WNAWAVE10 & WNAWAVE4 are in D2D, but not getting into GFE.

The error logs are as follows:

INFO 2016-01-26 14:46:58,381 [smartInitThreadPool-1] EdexLogStream: Calc : Swell_SFC (20160202_1200, 20160202_1300)

2 ERROR 2016-01-26 14:46:58,503 [smartInitThreadPool-1] EdexLogStream: /awips2/edex/data/utility/edex_static/base/smartinit/Init.py line 1082: Error while running method Swell_SFC

3 Traceback (most recent call last):

4 File "/awips2/edex/data/utility/edex_static/base/smartinit/Init.py", line 1065, in __runMethod

5 rval = apply(mthd, tuple(gargs))

6 File "/awips2/edex/data/utility/edex_static/site/TBW/smartinit/SR_WNAwave10.py", line 59, in calcSwell

7 [fillWNA10], Sea)

8 File "/awips2/edex/data/utility/edex_static/site/TBW/smartinit/BaseInit.py", line 387, in BI_calcMarineVector

9 grid = self.BI_fillVector((gridMag, gridDir), fillMasks)

10 File "/awips2/edex/data/utility/edex_static/site/TBW/smartinit/BaseInit.py", line 1572, in BI_fillVector

11 coord1 = self.BI_fillEditArea(coord1, fillMask)

12 File "/awips2/edex/data/utility/edex_static/site/TBW/smartinit/BaseInit.py", line 1501, in BI_fillEditArea

13 grid = JSmartUtils.fillEditArea(grid, fillMask, borderMask)

14 File "/awips2/edex/data/utility/common_static/base/python/gfe/JSmartUtils.py", line 79, in fillEditArea

15 retObj = gridObj.getNDArray()

16 AttributeError: 'numpy.ndarray' object has no attribute 'getNDArray'

17

18 INFO 2016-01-26 14:46:58,539 [smartInitThreadPool-1] EdexLogStream: Calc : Swell2_SFC (20160202_1200, 20160202_1300)

19 ERROR 2016-01-26 14:46:58,662 [smartInitThreadPool-1] EdexLogStream: /awips2/edex/data/utility/edex_static/base/smartinit/Init.py line 1082: Error while running method Swell2_SFC

20 Traceback (most recent call last):

21 File "/awips2/edex/data/utility/edex_static/base/smartinit/Init.py", line 1065, in __runMethod

22 rval = apply(mthd, tuple(gargs))

23 File "/awips2/edex/data/utility/edex_static/site/TBW/smartinit/SR_WNAwave10.py", line 49, in calcSwell2

24 [fillWNA10], Sea)

25 File "/awips2/edex/data/utility/edex_static/site/TBW/smartinit/BaseInit.py", line 387, in BI_calcMarineVector

```
26            grid = self.BI_fillVector((gridMag, gridDir), fillMasks)
27          File "/awips2/edex/data/utility/edex_static/site/TBW/smartinit/BaseInit.py", line 1572, in BI_fillVector
28            coord1 = self.BI_fillEditArea(coord1, fillMask)
29          File "/awips2/edex/data/utility/edex_static/site/TBW/smartinit/BaseInit.py", line 1501, in BI_fillEditArea
30            grid = JSmartUtils.fillEditArea(grid, fillMask, borderMask)
31          File "/awips2/edex/data/utility/common_static/base/python/gfe/JSmartUtils.py", line 79, in fillEditArea
32            retObj = gridObj.getNDArray()
33        AttributeError: 'numpy.ndarray' object has no attribute 'getNDArray'
```

Additionally, MSI/NIC team looked into and reported the following:

The issue that TBW appears to be seeing with their smartInits is that with the recent change from __numpy__ to getNDArray() in 16.1.1 (per the Living Release notes), certain smartInits are failing.

The WNAwave4 and WNAwave10 smartInits for the NIC, use edit areas in their calculations, which calls the 'fillEditArea' method (found in common_static/base/python/gfe/JSmartUtils.py), which results in the "no attribute" error when running the smartInit. The error points to the line in the method:

retObj = gridObj.getNDArray()

(the getNDArray() was changed in the baseline file for 16.1.1 from '__numpy__' to 'getNDArray()')

So, it does appear to be an issue with the 16.1.1 baseline, namely that portion of the method in JSmartUtils.py

**Operational Impact:** The operational impact is low as the sites can use the "baseline" smartinits rather than the NIC versions.

**Required Behavior**: The WNAWave4 and WNAWave10 smartinits should work post 16.1.1 and NWSInits2.2. **(DR 18576)**

## 91. Problem: Override default behavior of truecolor viz plugin

As designed, com.raytheon.uf.viz.truecolor doesn't check whether all three color channels (red, green, and blue) are available before painting a frame in CAVE. As a result, incomplete products can be displayed with incorrect colors, leading to misrepresentation of the products and misinterpretation by forecasters. Ideally, an option within a bundle would be available that would force com.raytheon.uf.viz.truecolor to only paint frames when all three color channels are available. A missing truecolor color component leads to loops that are hard to watch patterns moving, due to a frame that is colored strangely.

See attached sample images. These are examples of a valid and invalid derived 24-bit Air Mass RGB. By "derived", we mean that we utilize Python derivedParameters to generate the product client-side using single-channel satellite data. In the invalid image, the satellite channels necessary to derive the green component are missing, as indicated by the legend. The incomplete product is being displayed, which is something we'd like to avoid. Once we ingest the missing satellite channels, the display refreshed showing a pretty valid image.

**Operational Impact:** If not fixed, it may lead to misrepresentation of the products and misinterpretation by forecasters.

**Required Behavior**: Only paint frames when all three truecolor color channels are available. **(DR 18326)**

## 92. Problem: Hydro XDAT component does not update GUI or database while editing data

Hydro XDAT component does not update GUI or database (height table) while editing data

**Operational Impact:** User unable to use the edit functionality to update XDAT GUI and update database.

**Required Behavior**: User should be able to enter/edit data using the XDAT window and update the GUI and the height table in the database. **(DR 18131)**

## 93. Problem: Qpid Java broker 0.30 leaks memory

Two memory leak issues have been observed at sites running the Qpid 0.30 Java broker. They are documented on the Qpid bug tracker:

* https://issues.apache.org/jira/browse/QPID-6198 (fixed in 0.32, OB16.1.1)

* https://issues.apache.org/jira/browse/QPID-6528 (fixed in a post-0.32 release, date TBD)

Sites/tickets:

LCH 702027
RLX 701642
HGX 700943

Another memory leak affected Qpid 0.30 was previously reported in DR #17639.

Note - Final Fix dependent on release of next version of QPID after 0.32.

**Operational Impact:** NCF has guidelines in place to restart Qpid if high memory usage alarm is triggered w/o a queue backlog indicating a memory leak. No actual impact has been seen by any site from these issues since they had been found by proactive investigation.

Without the above monitoring in place however, EDEX will fail to ingest data or perform other tasks. Various CAVE functionality, such as sending out products will fail.

**Required Behavior**: Qpid should be able to run continuously without leaking memory. **(DR17976)**

## 94. Problem: DAT dialogs failed to close after Clear; returned repeated error messages

After clearing the display with SAFESEAS loaded, the SAFESEAS dialog didn't close. The SAFESEAS dialog happened to be hidden behind the CAVE window while it remained running overnight. In the morning, hundreds of errors (below) were scrolling through the AlertViz dialog. Getting the SAFESEAS dialog to remain open was repeatable if the Clear button was selected while it was loading. This was also repeatable with SCAN and FFMP (although FFMP never fully loaded-the splash window remained displayed with an empty FFMP Basin Table). This was tested and repeated in 14.2.3 and 14.3.1. A CAVE restart is necessary in order to close the DAT dialog.

An error has occured processing the incoming messages.java.lang.NullPointerException

at com.raytheon.uf.viz.monitor.safeseas.SafeSeasMonitor.process(SafeSeasMonitor.java:404)
at com.raytheon.uf.viz.monitor.ObsMonitor$1.run(ObsMonitor.java:212)
at org.eclipse.swt.widgets.RunnableLock.run(RunnableLock.java:35)
at org.eclipse.swt.widgets.Synchronizer.runAsyncMessages(Synchronizer.java:135)
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.ui.internal.Workbench.runUI(Workbench.java:2665)
at org.eclipse.ui.internal.Workbench.access$4(Workbench.java:2499)
at org.eclipse.ui.internal.Workbench$7.run(Workbench.java:679)
at org.eclipse.core.databinding.observable.Realm.runWithDefault(Realm.java:332)
at org.eclipse.ui.internal.Workbench.createAndRunWorkbench(Workbench.java:668)
at org.eclipse.ui.PlatformUI.createAndRunWorkbench(PlatformUI.java:149)
at com.raytheon.viz.ui.personalities.awips.AbstractCAVEComponent.startComponent(AbstractCAVEComponent.java:265)
at com.raytheon.uf.viz.application.VizApplication.start(VizApplication.java:97)
at org.eclipse.equinox.internal.app.EclipseAppHandle.run(EclipseAppHandle.java:196)
at org.eclipse.core.runtime.internal.adaptor.EclipseAppLauncher.runApplication(EclipseAppLauncher.java:110)
at org.eclipse.core.runtime.internal.adaptor.EclipseAppLauncher.start(EclipseAppLauncher.java:79)
at org.eclipse.core.runtime.adaptor.EclipseStarter.run(EclipseStarter.java:353)
at org.eclipse.core.runtime.adaptor.EclipseStarter.run(EclipseStarter.java:180)
at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:57)
at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
at java.lang.reflect.Method.invoke(Method.java:606)
at org.eclipse.equinox.launcher.Main.invokeFramework(Main.java:629)
at org.eclipse.equinox.launcher.Main.basicRun(Main.java:584)
at org.eclipse.equinox.launcher.Main.run(Main.java:1438)
at org.eclipse.equinox.launcher.Main.main(Main.java:1414)

**Operational Impact:** N/A

**Required Behavior**: After clearing the display with SAFESEAS loaded, the SAFESEAS dialog shall close. No error messages returned. **(DR 16771)**

## 95. Problem: HWR: Guam timezone listed as GSST instead of CHST

GUM site reported the following issue:

In the hwrnwws GUI, several time zone options are provided. These include Hawaii, Atlantic, UTC, Eastern, Central, Mountain, Pacific and Guam. Unfortunately, choosing the Guam option results in an output time zone string of GSST. This is not correct, by congressional mandate it needs to be CHST (Chamorro Standard Time, differentiated from Central Standard Time by the additional H).

Site discovered a fix in the baseline code that he has implemented at his site. This is serving as a workaround. An example of the corrected product header is below.

WEATHER ROUNDUP FOR THE MARIANAS

NATIONAL WEATHER SERVICE TIYAN GU

1:00 AM CHST Friday May 2 2014

Site requested this be fixed by AWIPS II so I'm writing up an AWIPS II DR. However, since HWR is rehosted, the same code fix would likely be applicable to either A1 or A2.

**Operational Impact:** With workaround applied there is no impact.Before workaround was applied, timezone was listed incorrectly in RWRGUM product.

**Required Behavior**: Timezone must be listed as CHST in Guam HWR products. **(DR 16697)**

## 96. Problem: HPN data not being produced in Grib format in AWIPS2

EHU site reported the following issue for WTDB site in TT 623578:HPN (High-Resolution Precipitation Nowcaster) is not displayable in the volume browser. Each time HPE runs, the HPN process makes several products and places them all in a .../precip_proc/local/data/hpe/nowcast directory. These products are four 15-minute forecasts of instantaneous rate (with/without bias) plus a 60-minute accumulation forecast (with/without bias). The A2 version of the process_hpe_grib_files script (in precip_proc/bin) does not make the HPN grib files, but the A1 version does (though not in a grib subdirectory). Therefore HPN data is not viewable in the volume browser (which is an important step in actually trying to use HPN data for flash flood warning decision making).

**********NOTE: This problem is not with the Volume Browser. Rather the HPN data is not being produced in Grib format in AWIPS2 so that it can be displayed in the Volume Browser. Should be worked the same time as 17418 and 17419.

**Operational Impact:** Data not being available could reduce situational awareness.

**Required Behavior**: HPN data must be displayable in the volume browser. **(DR 15030)**

## 97. Problem: No gridded data display when valid time is between 1 & 9 minutes after hour

Gridded data with a valid time between 1 and 9 will not be stored properly in the metadatabase and data store, nor will the data be displayed within the CAVE. This occurs because single-digit minutes are not stored with the preceding zero. For example, 13:02 is stored as 13:2 (reported by PBP site).

Steps to reproduce: See the Testing Instructions.This is similar to DR16126 that was cancelled.

**Operational Impact:** Gridded data is not displaying in a similar fashion to two-digit valid times.

**Required Behavior**: Gridded data should display in a similar fashion to two-digit valid times. **(DR 14970)**

## 98. Problem: GFE/GHG: GHG Monitor not displaying different segment text

AFG:

The GHG Monitor within GFE CAVE does not display all the segments in the TEXT portion of the GHG Monitor. It only display one segment which ever happens to be first in the warning hazard. Example provided is the WSWWCZ (winter storm warning for west coast zones) in which there are multiple hazards for each zone but the GHG Monitor only displays one segment of the hazard.This appears to been doing this for some time now but just reported now for AFG now. I have captured some images of the issue. See images in the attached TT614996-screenshots.tar.

AFG normally create their products one segment per zone and there are usually differences in the segment text between the different segments. If the hazard in the different segments are exactly the same (e.g. start time, end time, etc) then only one entry will be listed on the GHG Monitor for the hazard event with the all applicable zones selectedon the map. The segment text is displayed on the Text tab and only the text for the first segment is displayed even though the other segments have different texts.

**Operational Impact:** If a forecaster is using the GHG monitor and is expecting to be able to review all the text of multi-segment products, they will be delayed by having to pull the product up by other means.

**Required Behavior**: N/A **(DR 14822)**

## 99. Problem: Error returned after clearing and swapping 4-panel displays

After loading the attached perspective display, the main pane was cleared...and a small pane was immediately swapped into the main pane. This was repeated until all data was cleared. The perspective display was reloaded...and the same clearing/swapping process was done. At some

point, the error below was returned each time when moving the cursor into and out of the main pane or one of the small panes. Success rate of repeating this issue is around 50%.

**Operational Impact:** Errors incurred would require the user to clear entire display so that errors stopped occurring.

**Required Behavior**: No errors should occur during loading or swapping of panes in perspective displays. **(DR 14817)**

## 100. Problem: CAVE Paint error related to RedbookFrame synchronization problems

BOX site reported that he received a CAVE Paint Error while starting to run a procedure to run visibility grids in GFE. He also has a WPC day 3 to 7 opened on a side panel. Error message is below.Analysis showed that this issue is not related to GFE at all. RedbookFrame has synchronization problems that make it possible to dispose of a frame while it is still initing. The problem likely only occurs when time matching and frame changes line up just right. It is hard to replicate in our test beds. It involves leaving a CAVE session up formany hours with Redbook products displayed. And even then, it Is difficult to make it happen.

Operational impact:1. The redbook resource gets disabled. That means that the legend turns gray and you no longer see redbook product(s) in the display.2. All other D2D and CAVE products continue to paint normally. WORKSTATION CAVE Paint error: Cannot add new coordinates, shape has already been compiled. Must initialize shape to modify:: The resource has been disabled. Paint error: Cannot add new coordinates, shape has already been compiled. Must initialize shape to modify: The resource has been disabled.com.raytheon.uf.viz.core.exception.VizException: Paint error: Cannot add new coordinates, shape has already been compiled. Must initialize shape to modify:

The resource has been disabled. at com.raytheon.uf.viz.core.maps.display.MapRenderableDisplay.paint(MapRenderableDisplay.java:179) at com.raytheon.uf.viz.d2d.core.map.D2DMapRenderableDisplay.paint(D2DMapRenderableDisplay.java:220) at com.raytheon.viz.ui.panes.VizDisplayPane.glDrawInternal(VizDisplayPane.java:521) at com.raytheon.viz.ui.panes.VizDisplayPane.draw(VizDisplayPane.java:475) at com.raytheon.viz.ui.panes.DrawCoordinatedPane.draw(DrawCoordinatedPane.java:182) at com.raytheon.viz.ui.panes.DrawCoordinatorJob$1.run(DrawCoordinatorJob.java:229) at org.eclipse.ui.internal.UILockListener.doPendingWork(UILockListener.java:164) at org.eclipse.ui.internal.UISynchronizer$3.run(UISynchronizer.java:158) at org.eclipse.swt.widgets.RunnableLock.run(RunnableLock.java:35) at org.eclipse.swt.widgets.Synchronizer.runAsyncMessages(Synchronizer.java:135) 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.ui.internal.Workbench.runUI(Workbench.java:2665) at org.eclipse.ui.internal.Workbench.access$4(Workbench.java:2499) at org.eclipse.ui.internal.Workbench$7.run(Workbench.java:679) at org.eclipse.core.databinding.observable.Realm.runWithDefault(Realm.java:332) at org.eclipse.ui.internal.Workbench.createAndRunWorkbench(Workbench.java:668) at org.eclipse.ui.PlatformUI.createAndRunWorkbench(PlatformUI.java:149) at com.raytheon.viz.ui.personalities.awips.AbstractCAVEComponent.startComponent(AbstractCAVEComponent.java:261) at com.raytheon.uf.viz.application.VizApplication.start(VizApplication.java:81) at org.eclipse.equinox.internal.app.EclipseAppHandle.run(EclipseAppHandle.java:196) at

org.eclipse.core.runtime.internal.adaptor.EclipseAppLauncher.runApplication(EclipseAppLauncher.java:110) at org.eclipse.core.runtime.internal.adaptor.EclipseAppLauncher.start(EclipseAppLauncher.java:79) at org.eclipse.core.runtime.adaptor.EclipseStarter.run(EclipseStarter.java:353) at org.eclipse.core.runtime.adaptor.EclipseStarter.run(EclipseStarter.java:180) at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method) at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:39) at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:25) at java.lang.reflect.Method.invoke(Method.java:597) at org.eclipse.equinox.launcher.Main.invokeFramework(Main.java:629) at org.eclipse.equinox.launcher.Main.basicRun(Main.java:584) at org.eclipse.equinox.launcher.Main.run(Main.java:1438) Caused by: java.lang.RuntimeException: Cannot add new coordinates, shape has already been compiled. Must initialize shape to modify at com.raytheon.viz.core.gl.GLGeometryObject2D.addSegment(GLGeometryObject2D.java:224) at com.raytheon.viz.core.gl.internal.GLWireframeShape2D.addLineSegment(GLWireframeShape2D.java:201) at com.raytheon.viz.core.rsc.jts.JTSCompiler.handleLineString(JTSCompiler.java:175) at com.raytheon.viz.core.rsc.jts.JTSCompiler.disposition(JTSCompiler.java:267) at com.raytheon.viz.core.rsc.jts.JTSCompiler.handleGeometryCollection(JTSCompiler.java:257) at com.raytheon.viz.core.rsc.jts.JTSCompiler.disposition(JTSCompiler.java:265) at com.raytheon.viz.core.rsc.jts.JTSCompiler.handle(JTSCompiler.java:289) at com.raytheon.viz.core.rsc.jts.JTSCompiler.handle(JTSCompiler.java:339) at com.raytheon.viz.core.rsc.jts.JTSCompiler.handle(JTSCompiler.java:322) at com.raytheon.viz.core.rsc.jts.JTSCompiler.handle(JTSCompiler.java:300) at com.raytheon.viz.redbook.rsc.RedbookFrame.loadRedbook(RedbookFrame.java:189) at com.raytheon.viz.redbook.rsc.RedbookFrame.init(RedbookFrame.java:136) at com.raytheon.viz.redbook.rsc.RedbookResource.paintInternal(RedbookResource.java:255) at com.raytheon.uf.viz.core.rsc.AbstractVizResource.paint(AbstractVizResource.java:484) at com.raytheon.uf.viz.core.maps.display.MapRenderableDisplay.paint(MapRenderableDisplay.java:176) ... 32 more %%%%%% SMARTINIT GFE 'Model: NAM12_1712 (BOX) 51-51h #Grids=2 'Model: NAM12_1712 (BOX) 51-51h #Grids=2!! %%%%%%

**Operational Impact:** Unable to see Redbook products.

**Required Behavior**: RedbookFrame synchronization problems should not occur causing error message to display and then legend to gray and Redbook products not to display. **(DR 14774)**

## 101. Problem: HYDRO: SHEF message encoded incorrectly in Hydro Time Series

See the documented test procedure. Problem is within the Hydro Time-Series application, in the Table GUI, for The Hydro Perspective. For locations with missing data and SHEF Quality Code set to "Q", in the Review Product results, the last column of the SHEF message has MQ (see the last two lines in the attached file Example.txt). This is incorrect. Instead it should just be M without the Q.

**Operational Impact:** TBD

**Required Behavior**: The last column of the SHEF message has MQ (see the last two lines in the attached file Example.txt). This is incorrect. Instead it should just be M without the Q. **(DR 14740)**

## 102. Problem: GFE: Product header issue with product editor

WFO Billings reported an issue with the GFE product editor's handling of the NWS product header line in their WRKAFP product. The header is as follows... NZUS55 KBYZ 301915 WRKAFP SOUTH CENTRAL AND SOUTHEAST MONTANA AREA FORECAST FOR MONTANA (all one line) Now change "Type:" to AAA. This is the result... NZUS55 KBYZ 301917 AAA WRKAFP SOUTH CENTRAL AND SOUTHEAST MONTANA AREA FORECAST FOR (first line) MONTANA...UPDATED (second line)...all was highlighted in blue and everything still looks good. Now change the Type back to Rou... NZUS55 KBYZ 301919 NZUS55 KBYZ 301919 WRKAFP SOUTH CENTRAL AND SOUTHEAST MONTANA AREA FORECAST FOR (first line) MONTANA...UPDATED (second line)The issue with the first line is resolved by DR 16534, however, the "...UPDATED" in the product description line was not removed as it should be and the product description remained two lines. This code is blue, so the forecaster cannot remove the "...UPDATED" from this line. So this is the issue I am opening the ticket on.Also, changing the Type to AAA again... SOUTH CENTRAL AND SOUTHEAST MONTANA AREA FORECAST FOR...UPDATED (first line) MONTANA...UPDATED (second line)...so now ...UPDATED is in the description twice and cannot be fixed being that it is blue. Forecaster would have to regenerate the forecast in the formatter launcher to fix the header and it would cause a delay in getting the product out.

UPDATED (11/14/13):Issue occurs with any GFE product that meets the criteria stated (i.e., has the header line wrapped to the second line).

**Operational Impact:** Forecaster would have to regenerate the forecast in the formatter launcher to fix the header and it would cause a delay in getting the product out.

**Required Behavior**: The product header should not be deprecated or locked to editing. **(DR 14570)**

## 103. Problem: Localization: Null pointer when copying file to deleted protected file name

If a file is protected at the SITE level it can still be deleted by the user. If the user then tries to create a file and copy it to the protected file name to restore the file, a null pointer exception error occurs. The code should handle this situation more gracefully.To produce the problem I copied FFMPTemplateConfig.xml to a new file, then I deleted the SITE level FFMPTemplateConfig.xml file. Next I tried to copy the new file back to FFMPTemplateConfig.xml and I got an Unhandled event loop exception.Unhandled event loop exceptionjava.lang.NullPointerException at com.raytheon.uf.viz.localization.perspective.view.actions.RenameAction.run(RenameAction.java:152) at org.eclipse.jface.action.Action.runWithEvent(Action.java:498)DR 15538 was written to ensure that protected SITE level files are generated as CONFIGURED files so they cannot be deleted. If that DR is accepted and fixed, then this DR would become very low priority, but for now, the problem still exists and users can delete the only copy of a SITE level file with no good way to restore the file.

**Operational Impact:** TBD

**Required Behavior**: If a user copies a file back to a protected but deleted file name, it should be handled gracefully without a null pointer exception. **(DR 13520)**

## 104. Problem: Localization: files with only a SITE version should be generated as CONFIGURED

There are some files in the localization perspective that have no BASE version. Examples are FFMPRunConfig.xml, FFMPTemplateConfig.xml and SCANRunSiteConfig.xml. Currently these files can be deleted by users with the correct permissions which causes problems. These files should be generated as CONFIGURED files so that they cannot be deleted.This may apply to all files where there is only a SITE level file. The developer should determine if this is true or if there are exceptions.

**Operational Impact:** User may be able to delete select site level files for which no BASE level file exists thereby potentially causing a problem with the affected application.

**Required Behavior**: The user should not be able to delete site level files if no BASE level exists. If they are generated as CONFIGURED files they cannot be deleted in the localization perspective. **(DR 13519)**

## 105. Problem: VB Time Series - Y-axis range not dynamic nor configurable for some fields

When displaying Precipitable Water in VB times series plot, the y-axis always defaults to a max value of 15.0, even though the data are less than 4.0 inches. When loading two or more PW time series plots on the same graph, since there is not enough height in the graph to discern the difference between the plots.

In AWIPS I the y-axis was formed dynamically depending on the data.

Duplicated at HQ on development platform and compared to A1 on NMTW. Noticed also that the y-axis for Precipitation seems to default to a 9-inch range, regardless of data amounts.In Volume Browser, switch from Plan View to Time series. In Fields box, select Sfc/2D---Misc---Precipitalbe H2O; in Sources box, select Volume---any active source. Load product.

See attached screen shots.

Updated: One is just precipitation (surface). No matter what the model forecasts, the time series scale ranges from 9.0" to -6.0". If the forecast is only for a few tenths of an inch (as is common out here), you basically get a flat line.

The second plot is precipitable H20 (layer), in which the scale ranges from 0.00" to 15.0". I've never seen a precipitable H20 over 3.00", much less 15.0". Again, it flattens out the plot.

This also happens w/other models.

See attached images (PWAT_Time_Series.png and Precip_Times_Series.png).

**Operational Impact:** Difficult to discern plots when more than one time series is displayed on the same graph.

**Required Behavior**: VB time series y-axis should be configurable or should be determined dynamically based on data values. **(DR 13469)**

## 106. Problem: Boundary level wind speed images scaled differently for different models

It's easiest to see on a 4-panel display. From the Volume Browser, load a different model (ie - GFS, NAM, RUC = chosen from the "Volume" menu) into each panel of boundary layer (chosen from the "Misc" menu) wind speed (or isotachs, depending on format of VB menu) (chosen from the "Wind" menu) and make them an image. The color curve bar on the top of each panels differ between models, making comparisons difficult. See attached images for A2 vs. A1.

**Operational Impact:** TBD

**Required Behavior**: Image scales should be comparable amongst models. **(DR 12860)**

## 107. Problem: Color Scale Migrating - take 2 - TTR6534

This is in reference to TTR#6338, Track DR#11402, AWIPSII DR#13928 which was ranked critical by TRG but was closed. Some features appear to be fixed like thickness, temp, precip, and RH. However, some features remain that still have migrating color scales.I created 88 color curves saving them with unique names. Then I created 88 procedures using these curves. Attached graphic 1 displays the creation values. Attached graphic 2 displays the results of running the procedures 24 to 48hrs later.? Features with remaining migrating color scales are: o Volume: all models Fields, Wind: Wind Speed Planes, Misc: MaxWind o Volume: all models Fields, Wind: Wind Speed Planes, Lyrs: 300mb-200mb o Volume: all models Fields, Basic: Height Planes, Pres: 500mb o Volume:all models Fields,Basic: Temperature Planes, Misc: Trop (addition 1/4/2012)? First indicator, when creating color curves, that a feature may have migrating values in the future is that the creation values for any one given feature (MaxWindSpeed, Layer WindSpeed, or Heights) do not match across models and or model resolutions.? Note an interesting feature?model ?AK_NAM12?, 200-300mb layer WindSpeed values: during creation of color curve values depicted on edit screen color scale were single digit to right of decimal. During checking 24hrs later the values depicted on edit screen color scale were double digit numbers to right of decimal. This is not the first time I have noted this precision change. Believe it has happened on other models on other features. This may be a clue for Raytheon, to help them debug the color scale migration problems.? Above single to double precision change observed during the verification process on model ?AK-NAM40? feature 200-300mb Layer WindSpeed and model ?UNKET? feature 500mb Height also. Again, this may be a clue for Raytheon to consider due to the fact that the only change from single to double precision occurs only on the features that tend to

migrate.? I have documentation (not included) that shows that the same model (GFS) has values that migrated upwards (24.1 units ? in this case knots) at 190km resolution from creation values while at 90km resolution in the same time frame the values migrated lower (17.2 units ? in this case knots) from creation values.? I also have documentation (not included) shows that values for the same model (NAM or GFS) at the same resolution can increase during one period (up 21.5 units ? in this case knots) and then decrease during another period (down 2.5kts from previous check for a net change of plus 19kts).Received additional info from Phil on 5/2/12:The DR is for migrating color scales. The issue was with MaxWindSpeed, LayerWindSpeed, Heights, Thickness, Trop Temps. Today I noticed another parameter that migrates. I created an enhanced color scale for 850mb Temperatures. The original scale was only colorized from -3 to -6 degrees.I created it on April 10th. Today (May 2), the enhancement shows up as a band colorized from -31 to -37 degrees.

**Operational Impact:** TBD

**Required Behavior**: TBD **(DR 12421)**

## 108. Problem: Ocean flag in base topo still not being handled right - TTR6387

TTR6125 -> DR#10595 were written some time ago to deal with serious problems the handling of base topography data was causing MSAS. At the time MSAS was apparently getting its surface pressure using static topography and a standard atmosphere assumption. In the base topo data there are ocean flags with a value of -9999 which were being passed straight through as legitimate topo data. The result of course was to turn the MSAS surface pressures into mulch, along with any field calculated using those pressures.From inspection of behavior, it looks like two changes were made in response to this.

First, logic was changed specifically for MSAS such that the elevation used in the VB was that supplied by MSAS itself. This was a good and necessary change that also masked the issues associated with how the base topo was being handled. The second change wasthat whatever logic composes the static topo grids now convert the ocean flags into missing data point flags rather than passing them through.This second change is an improvement, but just barely. The correct behavior is to convert the ocean flags into zero when using the base topo data to make static topo grids for gridded data sources. However, when composing topo image map backgrounds, it is actually a good thing to convert the ocean flag into a null. That way, a zero elevation that happens to be on the side of Death Valley is visually distinct from a zero elevation over the ocean.

There were two complaints for this DR originally. First was that where the ocean flags were being applied in creating static model terrain grids to use in the VB, the ocean flags were being converted to missing values. The proper behavior would be to convert them into zeros in this case. The second complaint was that for the purpose of creating the hi-res topo display (the one in the Maps menu), the ocean flags were being handled exactly the same as a zero elevation values along the sides of Death Valley. The result is that places like Death Valley visualize like an inland sea rather than dry land that happens to have a lower elevation than sea level.

I tried displaying model terrain for various sources, and it seems clear that the first complaint has been addressed. The second complaint, however, has not been addressed. It would not be a bad thing to have this fixed, but this is not a very impactful problem.

**Operational Impact:** TBD

**Required Behavior**: TBD **(DR 12073)**

## 109. Problem: D2D: fourSat projection display errors

Satellite imagery ingested with regionalSat decoder on fourSat projection does not fully display on Mercator panes, but it does for Polar Sterographic.The menu item is custom to Pacific Region.In order to visualize this problem, you will need to download some sample data: ftp://ftp.ssec.wisc.edu/pub/jordang/spc/MIMICNETC-AWIPS1.tar.ZPlace a netCDF file from the tarball into the manual endpoint with the appropriate pattern so that the regionalsat plug-in handles it. One it is ingested, you should be able to use the product browser to load the data on the various scales. You will notice that the data displays differently on the scales that use a Polar Stereographic projection (which is correct), compared to scales that use a Mercator projection (which is incomplete).In further tests, we identified that this issue seems related to the geometry "the_geom" column entry in the satellite_spatial table. I am guessing that either regionalsat is not constructing "the_geom" correctly for this projection, or it is not handled correctly when it is read out of the database.The test file displays fine on both projections in A1.

**Operational Impact:** TBD

**Required Behavior**: Data should display over the entire N. Hemisphere (**DR 286)**

## 110. Problem: AK-NAM40 does not display from Volume Browser

AFG:AK-NAM40: Data is decoding and being stored, but not displaying through Volume Browser. To replicate:1.0) CAVE - VB - Plan view2.0) Sources: AK-NAM402.1) Fields: all Precip or Snowfall2.2) Planes: load any available (i.e. Surface)UPDATED by Andrew Lare (3/7/2014): No grids with sfc coordinate are being decoded or stored.

**Operational Impact:** TBD

**Required Behavior**: AWISP2 (AK-NAM40 - all Precip or Snowfallshould) menu should be consistent with AWIPS 1. **(DR 269)**

## 111. Problem: pressure for ldadmesonet stations in d2d not plotting correctly

These issues are occurring at VRH, ARCN, and the Adams at AFG and AJK) when plotting ldadmesonet stations in the D2D, the pressure is being plotted incorrectly. It appears the pressure is being stored as Pa, and the value displayed is somehow being truncated, like the plotting portion of the code is expecting the data to be in mb not in Pa.In the image awips1_obsplot.png, the pressure plotted for station MRN is 949, and the data displayed for the station shows 994.9 mb.In the image awips2_obsplot.png, the pressure plotted for MRN is 4900,

and the data displayed for the station shows 99490.00 Pa. The data type .desc file used to decode the incoming data is identical for AWIPS I and AWIPS II and shows the incoming data as in mb.

**Operational Impact:** The forecaster is unable to view ldadmesonet pressure accurately.

**Required Behavior**: See AWIPS1 image for details. All elements need to plot correctly, not just pressure. **(DR 89)**

# 3. Open DRs and DCSs

This section addresses open DRs and DCSs that have been deferred to the next immediate major release. The DRs identified in this section may have been initiated during the current release or during a previous release. The DCSs may have been initiated from a previous release or initiated in the current release. The CFRs are initiated in the current release.

**DRs and DCSs for Release 17.2.1**

| Redmine | DR, DCS or CFR | Description |
|---|---|---|
| 19806 | DR | RHEL7: Python's Tkinter is not working |
| 19786 | DR | LDM fails to install in RHEL7 |
| 19785 | DR | Omaha 17.2.1 RHEL7 fixes to awips2 installs |
| 19784 | DR | RHEL7: Text cut off in GHG monitor after RHEL7 upgrade |
| 19783 | DR | RHEL7: workstation name is incorrect in CAVE Help menu |
| 19759 | DR | RHEL7: Hydroview issues noted after RHEL7 upgrade |
| 19758 | DR | RHEL7: NSHARP fails to load due to an error in the nsharp libraries |
| 19757 | DR | RHEL7: Text in FFMP displays are cut off |
| 19755 | DR | RHEL7: Time zone text is sometimes cut off in Collaboration view log |
| 19754 | DR | RHEL7: BMH issues noted after upgrade to RHEL7 |
| 19753 | DR | RHEL7: AlertViz issues noted with the RHEL7 upgrade |
| 19686 | DR | Forecast Service GUIs are not displayed properly in O/S 7 |
| 19681 | DCS | RHEL7 -- Modification to use Red Hat jsm.ko driver for digiNeo serial communications |
| 19672 | DR | Startup scripts need to monitor pids directly for status in RHEL7 |
| 19543 | DR | 17.2.1: Build support for compiling rehost-wfoa in RHEL 7 |
| 19542 | DR | 17.2.1: Build support for compiling rehost-ohd in RHEL 7 |
| 19541 | DR | 17.2.1: Build support for compiling rehost-laps-msas in RHEL 7 |
| 19540 | DR | 17.2.1: Build support for compiling rehost-adapt in RHEL 7 |
| 19539 | DR | 17.2.1 Build and Merge Support for AWIPS2 |
| 19473 | DR | Applicable code and script for RHEL7 - Communication Processor Weather Wire Uplink (CPWUP) |
| 19472 | DR | Applicable code and script for RHEL7 - Communication Processor Uplink SBN (CPSBUP) |
| 19471 | DR | Applicable code and script for RHEL7 - Message Handling Server (MH) |
| 19470 | DR | Applicable code and script for RHEL7 - Data Uplink Server (DSUP) |
| 19469 | DR | Applicable code and script for RHEL7 - Communication Server (CS) |
| 19468 | DR | Applicable code and script for RHEL7 - Application Server (AS) |
| 19400 | DCS | Migrate from heartbeat to corosync + pacemaker |
| 19382 | DCS | UIDs and GIDs need migrated in RHEL7 |

| Redmine | DR, DCS or CFR | Description |
|---|---|---|
| 19376 | DCS | /etc/init.d startup scripts need to be migrated to use systemd service in RHEL7 |
| 19375 | DR | awips2-notification needs to be rebuilt in 64-bit with both 32- and 64-bit libraries |
| 19357 | DCS | Interpreter language change in RHEL7.2 breaks native path |

# 4. Design Changes and COTS/FOSS Requests

**19** Design Changes and **13** CFRs for release 17.1.1 are summarized in this section.

## 1. Redmine DCS_19685

**GOES-R pqact entries**

Add the following to /usr/local/ldm/etc/pqact.conf on both CPSBN1 and CPSBN2 to receive GOES-R and Polar products:

<pre># GOES-R SCMI imagery products from GSP

ANY ^(TI[RS]...) (KNES) (..)(..)(..) (...)

FILE -overwrite -log -close -edex /data_store/goes-r/(\3:yyyy)(\3:mm)\3/\4/\1_\2_\3\4\5_\6.%Y%m%d%H

# GOES-R Derived products from PDA

ANY ^(IXT[A-RU]99) (KNES) (..)(..)(..)

FILE -overwrite -log -close -edex /data_store/goes-r/(\3:yyyy)(\3:mm)\3/\4/\1_\2_\3\4\5.%Y%m%d%H

# GOES-R Derived products from PDA, cont'd

ANY ^(IXT[YWX]01) (KNES) (..)(..)(..)

FILE -overwrite -log -close -edex /data_store/goes-r/(\3:yyyy)(\3:mm)\3/\4/\1_\2_\3\4\5.%Y%m%d%H

# Polar products

ANY ^(TI[A-Z]B99) (KNES) (..)(..)(..)

FILE -overwrite -log -close -edex /data_store/polar/(\3:yyyy)(\3:mm)\3/\4/\1_\2_\3\4\5.%Y%m%d%H

</pre>

## 2. Redmine DCS_19405

**SCAN Time-Height trend display impacted by addition of SAILS elevations to DMD**

Radar Product Improvement Team (ROC) is introducing RPG Build 18 changes to the DMD product. DMD will use the SAILS elevations (extra 0.5 degree elevations within a volume scan). The DMD product time will be the time of the last 0.5 degree elevation more closely representing the time of the low level data used in the product.

The above change results in two display issues in AWIPS SCAN. The first issue is, when SAILS data initially comes in, the Time-Height trend display goes blank. The blanking does not happen during the arrival and display of non-SAILS data; the display continues to update for the duration of the storm. The second issue is overlapping of time labels and duplicated elevations shown when the SAILS data ingest is completed and the display is populated again. See attached image for additional information.

RPG Build 18 is anticipated to be fielded in July 2017.

*+Background+*

ROC implemented MESO SAILS, which can scan the lowest elevation up to 4 times each volume scan. Currently, the Mesocyclone algorithm does not use this additional data, which means that when displaying the DMD product as an overlay on radar base data, the icon is either misplaced from the circulation feature, or nothing is displayed due to the time of the base product and overlay being too far apart. ROC implemented changes to the mesocyclone for WSR-88D Build 18 (beta and deploy in mid/late 2017) for it to use the MESO SAILS data. The changes resulted in a SCAN Time-Height Trend display issue of the DMD product with overlapping of time labels and duplicated elevations displayed for SCAN times in the past that have been updated with newer entries at 0.5 degree elevation.

*+Requirement+*

The requirement is to correct the SCAN Time-Height Trend display to remove earlier data times and only show the latest data times for the 0.5 degree elevation as updates come in.

## 3. Redmine DCS_19378

**Implement the use of SSL Certificates for all basedline hydro applications that have database access**

This DCS is meant to address POA&M #69105 Excessive AWIPS Database Access

The configuration of the PostgreSQL database instance in each AWIPS site installation allows several instances of "trust" access which do not require sufficient authentication for access. Multiple connections are unauthenticated, and allowed access may exceed mission requirements. Existing accounts may also have excessive access.

This DCS should remove the trust configurations from all PostgreSQL database instances and apply all necessary software changes to the AWIPS baseline hydro applications to still have successful database access. The rehosted applications involved are: riverpro,IDMA,RAXUM, IVP, pdc_precip_pp, ofsde, Site Specific, RiverMonitor, PreciMonitor, DamCatalog, Fcstservice, timeseriesLite and also native libraries code and scripts: Mpe_fieldgen, Hpe_fieldgen, create_mpe_gage_file,run_floodseq, DHRgather, DSPgather, DPAgather , run_create_mpe_station_lists.

## 4. Redmine DCS_19314

**HTI and Local TCV/HLS Revisions for 2017 Hurricane Season**

TBD

## 5. Redmine DCS_19293

**2017 SSWW Operational Implementation - National TCV**

Refer to Google Doc., WWTool_Julyl2016_Sprint (https://docs.google.com/document/d/1BBG4NomE4TTD3dmTHvbpg-p5L3Kc3snaonszENXFYMg/edit) for detailed tasking description.

## 6. Redmine DCS_19282

**Allow message expiration from the Periodic Messages dialog**

Enhance BMH to add the capability to allow users to expire any type of periodic message from the Periodic Messages dialog, which is launched from the Broadcast Cycle dialog.

## 7. Redmine DCS_19281

**Implement an option for message scheduling based on broadcast cycle**

Enhance BMH to allow the operator to schedule individual messages for inclusion in non-sequential Broadcast Cycles, i.e., shall provide message periodicity based on Broadcast Cycle (e.g., "every second broadcast cycle"). In any case that the periodicity is specified, it will take priority.

## 8. Redmine DCS_19279

**Update afos2awips to utilize localization**

Update all afos2awips in A2 to utilize localization files instead of database. The files should match the legacy file (http://www.nws.noaa.gov/ndm/masterfiles_jw/afos2awips.080624). Will be based on incremental override so sites only have their changes listed. Data structure will also include files from all localization sites. Files should be read into memory and put into an efficient structure for common look up use cases. The ndm/localization handler also needs to write out a full legacy version containing all entries to the legacy a2a location (http://www.nws.noaa.gov/ndm/instruct/i-afos2.txt).

## 9. Redmine DCS_19278

**Enable Collaboration optimized extension for Triangulated rendering**

#19028 added a Collaboration extension for Triangulated rendering. This extension is currently disabled so that Triangulated Image related messages are not sent to a collaborator that does not know how to handle it. This extension needs to be enabled once all supported versions of collaboration are newer than 2.3.

## 10. Redmine DCS_19274

**Selecting Create Grids From Scratch without an editable element and selected time range does nothing**

When the Create Grids From Scratch menu item is selected without an editable element and a selected time range, the Create From Scratch Dialog opens. Regardless of what settings are selected in the dialog, clicking OK does absolutely nothing and the dialog closes.

The action of the dialog give the false impression that some action took place. Either the menu item should be disabled or there should be some feedback to the forecaster indicating that an editable element and a time range need to be selected prior to selecting this menu item.

Steps to reproduce the issue:

1. Start CAVE in the GFE perspective.
2. Click Grids->Deselect All to deselect all weather elements.
3. From the menu, select Grids -> Create Grids from Scratch...
4. Click OK and nothing happens

## 11. Redmine DCS_19273

**Radar menus have redundant entries for applications**

That menu is repeated throughout the system once for each individual radar menu and once for the overall Radar menu (all in the top menu bar). For example, system configured as OAX, the same menu four times, under

koax
kuex
kdmx
Radar

Where these repeat, the menu behaves the exact same. We checked out the code, there is literally no difference between clicking each item under one top level menu vs another.

We should remove the Radar Applications entry from all but the top level Radar menu. Elsewhere it's just extra menu clutter, but more importantly, it's slowing down part of the NCEP install. Long story short: the radar menus are not pluginized as they should be, so more steps have to happen at CAVE install, but we can't pluginize it AND have the same menu items exist repeatedly under a variable number of menus.

If we can remove the redundant menus, we can speed up both NCEP cave installs and IMET thin client installs.

## 12. Redmine DCS_19272

**Tile sets need to support prefetching data**

NCEP has reported a flicker upon loading satellite imagery in a loop. The flicker occurs due to not retrieving the data until the frame is reached. We need to provide methods to the TileSet API to enable prefetching the data at a resolution ro prevent flicker. These chnages need to be somewhat configurable so that NCP vs D2D vs Thin Client D2D vs GOES-R in D2D can make their own determinations about whether or not to prefetch and what resolution of data to prefetch.

## 13. Redmine DCS_19271

**Port AWIPS I MPE and Hydro code to Java from native wrapped code (Phase 2)**

This DCS is a continuation of the work started in 16.4.1 under #19124. There are a variety of AWIPS1 native C libraries being run from EDEX. They currently trigger off an EDEX quartz cron or an event, and then EDEX spawns a separate process that runs the C application. Porting these native C libraries to Java would significantly reduce nativeLib build complexity, bring these applications into the AWIPS2 architecture, and make the code more maintainable and perform faster.

## 14. Redmine DCS_19270

**Migrate localization files to common_static (Phase 2)**

This DCS is a continuation of work started in 16.4.1 under #19123. Moving edex_static files to common_static will make them accessible by the localization perspective (eventually) and contribute to the eventual consolidation of localization files to common_static. If some edex classes are tied to XML files through JAXB annotations, and those files are expected to potentially be read or written programmatically (as opposed to by hand), then those classes will need to be moved to associated common plugins.

## 15. Redmine DCS_19265

**Decommison Uengine by enhancing the DAF**

This DCS is a continuation of the work done in 16.4.1 under #18779. Advanced querying still needs to be added to support the remaining DAF factories:

<pre>

GridDataAccessFactory

DerivedGridDataAccessFactory

FFMPGeometryFactory

</pre>

TopoGridFactory should not support advanced querying, so it should be updated to notify users of this fact if they attempt to perform an advanced query.

This DCS will also cover the addition to missing query operations, such as 'NOT' use cases, to the RequestConstraints and DAF.

## 16. Redmine DCS_19260

**Ingest and display RAP and HRRR additional forecast hours**

On or about Tuesday, August 23, 2016, the NCEP will implement Version 3 of the Rapid Refresh (RAP) and Version 2 of the High-Resolution Rapid Refresh (HRRR) systems.

Requirements for RAP and HRRR model upgrades:

# ingest and display additional forecast hours

#* RAP: hourly output will be extended from 18 to 21 hours for all cycles

#* HRRR: hourly output will be extended from 15 to 18 hours for all cycles

# three new RAP Precipitation Fields

#* total precipitation will be added to the output so users no longer need to sum the convective and non-convective amounts.

#* accumulated snow depth that includes variable density hydrometeor accumulation

#* snowmelt

# implement changes to account for new labeling of parameters

Resources:
* Technical Implementation Notice 16-26: http://www.nws.noaa.gov/os/notification/tin16-26rap_hrrrr.htm

## 17. Redmine DCS_19188

**NWRWAVES: Revisions to Support FY17 SS W/W Project**

Development effort associated with disseminating new National TCV (Tropical Cyclone VTEC)

Projected Release - 17.1.1

* Final DSC Code Check-in: 9/15/16
* National Deloyment: Feb. 2017

## 18. Redmine DCS_19106

**Ingest and display BMT BUFR Data**

## 19. Redmine DCS_18655

**Remove direct database access from AWIPS**

This DCS is meant to address POA&M #69105 Excessive AWIPS Database Access

The configuration of the PostgreSQL database instance in each AWIPS site installation allows several instances of "trust" access which do not require sufficient authentication for access. Multiple connections are unauthenticated, and allowed access may exceed mission requirements. Existing accounts may also have excessive access.

This DCS should remove the trust configurations from all PostgreSQL database instances and apply all necessary software changes to AWIPS baseline (including rehosted applications, configuration and installation scripts) to still have successful database access.

The new database configuration should be as secure as possible within the technical abilities of the system and the PostgreSQL database. Certificates would be preferred. Encrypted user authentication at a minimum.

## 20. Redmine CFR_ 19750

**Downgrade Qpid back to version 0.32**

Back out qpid version 6.0.5 and 6.0.4.

## 21. Redmine CFR_19268

**distcache-1.4.5-21**

Needed for httpd-2.4.23

## 22. Redmine CFR_19267

**apr-util-1.5.4**

Needed for httpd-pypies-2.4.23

## 23. Redmine CFR_19266

**apr-1.5.2**

Needed for httpd-pypies-2.4.23

### 24. Redmine CFR_19244

**Upgrade slf4j to 1.7.21**

We are using slf4j 1.7.12. Logback versions 1.1.4+ require slf4j 1.7.16+. To maintain compatibility with logback, upgrade slf4j to the latest version

### 25. Redmine CFR_19235

**Upgrade Qpid to version 6.0.5**

### 26. Redmine CFR_19232

**Upgrade httpd to 2.4.23**

### 27. Redmine CFR_19231

**Upgrade python to version 2.7.12**

### 28. Redmine CFR_19230

**Update Java to version 8u101**

### 29. Redmine CFR_19229

**Upgrade postgres to 9.5.3**

### 30. Redmine CFR_19228

**Upgrade camel to 2.17.2**

### 31. Redmine CFR_19227

**Upgrade spring framework to 4.2.7**

### 32. Redmine CFR_19226

**Upgrade logback to 1.1.7**

Logback 1.1.7 is available and we are on 1.1.2. Specifically 1.1.4 introduced a fix for the following issue which was directly impacting CAVE performance:

http://jira.qos.ch/browse/LOGBACK-730

Based on how logback implemented the fix we should remove my workaround from CAVE and then enable packaging data on EDEX.

Upgrade to 1.1.7 to stay up to date and get that fix.

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# 5. Known Problems, Workarounds, and Additional Release Notes

This section lists any workarounds or additional release notes that have been issued for the current release. They are identified by their Release Note title. It also lists any known problems (Priority: 1-Critical), either in the current release or in previous releases, which have been deferred to an unnamed future release. These are identified by the Problem title. RODO corresponds to Omaha Database.

***Note:*** The content listed under the Release Note title can be found at the following link. These are updated periodically, so please check for the latest updates to the 17.1.1 release.

### Release Note: DR #18326

Validate truecolor images before display. Truecolor images are composed of 3 components called channels, Red, Green, and Blue. If one of those channels is missing on any frame, CAVE will throw a null pointer exception. This fix displays a black frame if a channel is missing from a particular truecolor image. This allows displays of truecolor data if some of the data is missing, however does not try to display the frame with the missing channels, which would be misrepresented if data is missing from a channel.

### Release Note: SS #19188

The newly provided VTECrank.ini.WFO has SS.W and SS.A added to it. If needed, the sites can make changes to it.

### Release Note: SS #19443

When the Ensemble Tool's Matrix navigator tool is active, swapping the active Matrix editor to the side window leaves the tool in an inoperable state. The user must close the Ensemble Tool and reopen it in order to get back to a working state.

### Release Note: Omaha #5761 (19261)

Previously, during a shared display session in Collaboration, the leader would be disconnected from the shared display session if he/she attempted to share a display with too much data. Examples include, loading the cities map or displaying a lightning plot that contains more than 8,000 strikes. This DR helps to prevent the leader from being disconnected from their shared display session. AlertViz messages appear notifying the user that displayed data is too large to be shared. Example AlertViz messages are as follows:

Paint error: Shared rendering data is too large to send over XMPP.:: The resource [1 Hour Cloud to Ground NLDN Lightning Plot ] has been disabled.com.raytheon.uf.viz.core.exception.VizException: Paint error: Shared rendering data is too large to send over XMPP.:: The resource [1 Hour Cloud to Ground NLDN Lightning Plot ] has been disabled.

Unable to marshal payload to XMLcom.raytheon.uf.viz.collaboration.comm.identity.CollaborationException: Data is too large to send over XMPP, blocking send

To stop the AlertViz messages from continuoulsy repeating, simply MB1 click on the resource in the Product or Map Legend to hide the data that is causing the AlertViz messages to appear.

## Release Note: Omaha #2416 (19265)

The Python Data Access Framework now supports subscribing to data updates, to get new data as it arrives. Modules DataNotificationLayer and DataQueue in the ufpy.dataaccess Python package have been provided for local apps to use this new feature. See those modules for more information.

Currently, the following types of data are supported: Point data (all types), radar, satellite, GFE, lightning, FFMP, and normal (non-derived) grids.

## Release Note: Omaha #5801 (19279)

The afos2awips lookup table has been moved from the database to localization files.

A delta script has been provided that will generate and install a site-level afos2awips.txt from the afos_to_awips database table, then drop that table. It will also drop the afoslookup table since that table is no longer used anywhere. Run this script on dx1 only.
DR5801/drop_afos_to_awips_afoslookup.sh

Each time a new afos2awips.txt is ingested, the newest version of it, including those entries specific to the current site, is copied to /data/fxa/afos2awips.txt. Make sure that the legacy file location (/awips/fxa/data/afos2awips.txt) is symbolic-linked to the file at /data/fxa.

## Release Note: SS #19188

The newly provided VTECrank.ini.WFO has SS.W and SS.A added to it. If needed, the sites can make changes to it.

## Release Note: Omaha #5744, #5747, #5750 (all subtasks of Omaha #5211) (19270)

Localization files in edex_static have been migrated to common_static as part of a progressive consolidation of localization files to common_static. Additionally, some site-specific files have moved from base to appropriate site/configured directories:

- The NWWS and WAN exclusionary files for dissemination (NWWS_exclude_<SITEID>.txt, WAN_exclude_<SITEID>.txt) have moved to /awips2/edex/data/utility/common_static/site/<SITEID>/dissemination/.

- The marine information NDM file (MarineInfo.txt) has moved to /awips2/edex/data/utility/common_static/configured/<ALL_SITEIDS>/infofiles/marinesites/.

- The AWIPS priorities file for dissemination (awipsPriorities.txt) has moved to /awips2/edex/data/utility/common_static/configured/<ALL_SITEIDS>/dissemination/.

*** IMPORTANT: There is a delta script at DR5211/preUpgradeMoveLocalizationFiles.sh that must be run BEFORE the 17.1.1 RPM upgrade. This script will migrate the base files listed above. ***

A post-upgrade delta script has also been provided that will migrate non-base files to common_static: DR5211/moveLocalizationFiles.sh.

---

**Release Note: Omaha #5816 (19270)**

The following GFE server configuration files are now available in the Localization perspective:

Server Config Files (siteConfig, localConfig, localMaps, svcbu.properties)

localVTECPartners

Parameter Info Files

gfeParamName.xml

gfeParamInfo.xml

gfeLevelMappingFile.xml

Smart Init Modules

Editing of these files is limited to those users having the new "GFE Focal Point" role.

The delta script for DR5816 removes the site/cave_static/gfe and site/common_static/gfe permissions from the ALL user and will grant the "GFE Focal Point" role to any user that specifically had the either of these permissions listed under their user id.

NOTE: The delta script for DR5816 must be run AFTER the delta script for DR5211!!!!!

**** PLEASE READ THIS! ****

It has been found that the site/common_static/gfe permission is also used to determine who is allowed to run the GFE Site Activation GUI. Please ensure that all your GFE focal points have the "GFE Focal Point" role granted to them after 17.1.1 installation.

Your AWIPS administrator (most likely your ITO) can do this by doing the following:

1. Open a CAVE session

2. Select CAVE->AWIPS User Administration...

3. Select Localization from the Component drop down.

4. Locate each of your GFE focal points and ensure they have the "GFE Focal Point" role granted to them

5. If not select the desired user and click Edit..., ensure Assigned Roles is selected in the Edit: drop down, select "GFE Focal Point" in the left column and click the right arrow to move it to the right column, then click OK.

6. Be sure to click Save when exiting the User Admin GUI if you have made any changes.

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**Release Note: Omaha #5737 / #5794 (19229)**

PostgreSQL has been upgraded from 9.3.10 to 9.5.3.

PostGIS has been upgraded from 2.0.6 to 2.2.2.

pgAdmin has been upgraded from 1.18.1 to 1.22.1.

*** IMPORTANT: There is a delta script at DR5737/postgresql-9.5.3-upgrade/postgres_pre_upgrade.sh that MUST be run before any of the above packages are installed. ***

This is a major upgrade that requires a manual upgrade procedure for all database servers. A set of upgrade scripts is provided at DR5737/postgresql-9.5.3-upgrade/. Read the README file in that directory for the upgrade procedure. Each machine should take 2-3 minutes to upgrade.

## Release Note: Omaha #5819 (13519)

The following localization files for FFMP and SCAN will now be auto-generated as configured instead of site:

FFMPRunConfig.xml

FFMPTemplateConfig.xml

FFMPSourceConfig.xml

SCANRunSiteConfig.xml

Binary files in ffmp/templates, ffmp/sources, and ffmp/ffti

A delta script has been provided that will migrate the site binary files to configured:
DR5819/moveSiteFilesToConfigured.sh

## Release Note: Omaha #5801 (19279)

The afos2awips lookup table has been moved from the database to localization files.

A delta script has been provided that will generate and install a site-level afos2awips.txt from the afos_to_awips database table, then drop that table. It will also drop the afoslookup table since that table is no longer used anywhere. Run this script on dx1 only.
DR5801/drop_afos_to_awips_afoslookup.sh

Each time a new afos2awips.txt is ingested, the newest version of it, including those entries specific to the current site, is copied to /data/fxa/afos2awips.txt. Make sure that the legacy file location (/awips/fxa/data/afos2awips.txt) is symbolic-linked to the file at /data/fxa.

## Release Note: Omaha #5766 (19281)

When BMH 1.3 is built and installed, there is a delta script associated with DR #5766 (within the BMH repository deltaScripts directory) that must be run before starting any of the EDEX BMH services.

## Release Note: Omaha #5757 (19270)

The processing files used for ACARS Sounding generation where moved from /awips2/edex/data/utility/edex_static/base/acars/ to /awips2/edex/data/processing/acars/ in order to remove non-localization files currently in the localization directory structure. ACARS Sounding generation will automatically start using this new location.

A delta script has been provided that will migrate the current files to the new location.
DR5757/relocateAcarsSoundingFiles.sh

## Release Note: WarnGen Templates: Redmine 19344, 18713, 19280, 19522, 18942, 19038, 19217, 19600

Release OB17.1.1 contains various WarnGen template changes related to logic errors, grammar and mixed case issues. There are several dozen template changes, therefore the easiest migration method is to add any site level overrides to the new OB17.1.1 baseline templates. After OB17.1.1 is installed, perform the WarnGen template migration by completing the following steps:

1. Copy the OB17.1.1 base level templates to the user level in the localization perspective. In the File Browser, the template files are located under D2D/WarnGen. The names of the template files changed in OB17.1.1 are included below.

2. Use the Ctrl and Left Mouse button to select both the site and user (base) level versions. Right click and select "Compare." This will present a line-by-line comparison between the two versions. Make the needed edits to the user level (OB17.1.1 baseline) templates and save them in the comparison window.

3. Use Practice Mode and assure that the full lifecycle of all Warngen products are coded correctly with the user level templates.

4. Use the localization perspective to move the user level templates to site level and verify again using Practice Mode. Be careful not to leave any user level files that would override the site level.

A brief summary of the OB17.1.1 WarnGen template changes follow:

1. Files arealFloodAdvisory.vm and arealFloodAdvisoryFollowup.vm correct a grammar error in the additional rainfall expected bullet (DR 19344).

2. Files arealFloodWarning.vm, arealFloodWarningFollowup.vm, arealFloodWarningFollowup.xml and flashFloodWarning.vm correct several inconsistencies with the law enforcement and emergency management source text (DR 18713).

3. File impactSevereWeatherStatement.vm corrects two typographical errors, the wind hail tag for no hail and some incorrect mixed case text (DR 19280, DR 19522).

4. File impactSpecialMarineWarningFollowup.vm corrects several grammar and text parsing errors (DR 18942).

5. Files impactTornadoWarning.vm and tornadoWarning.vm correct several "test" wording mixed case text errors (DR 19038).

6. Files nonConvectiveFlashFloodWarning.vm, nonConvectiveFlashFloodWarningFollowup.vm,and nonConvectiveFlashFloodWarningFollowup.xml correct the VTEC flood severity coding in the cancellation statement (DR 19217).

7. File specialWeatherStatement.vm corrects mixed case errors in the freezing precipitation CTAs (DR 19600).

## Release Note: User roles changes for 17.1.1

Sites should make a backup copy of their current site-level userRoles.xml file, copy the base to site and re-implement their site permissions from scratch. That would be the best way to get us all in sync.

New role added

"GFE Focal Point" -- This role must be added to GFE Focal Points and site admins in order to edit site-level GFE files.

New Permissions added

com.raytheon.localization.site/cave_static/volumebrowser

com.raytheon.localization.site/common_static/grib

These permissions must be added to site admins in order to successfully run the DataAddonsManager.

Here is an example of how a site might set up a site admin, giving them full access...

Add these permission tags

<permission id="com.raytheon.localization.site/cave_config" />

<permission id="com.raytheon.localization.site/cave_static" />

<permission id="com.raytheon.localization.site/common_static" />

<permission id="com.raytheon.localization.site/edex_static" />

Add this role

<role roleId="Site Admin">

<roleDescription>Role for site adiministrators</roleDescription>

<rolePermission>com.raytheon.localization.site/cave_config</rolePermission>

<role>
<rolePermission>com.raytheon.localization.site/cave_static</rolePermission>
<rolePermission>com.raytheon.localization.site/cave_static/volumebrowser</rolePermission>
<rolePermission>com.raytheon.localization.site/common_static</rolePermission>
<rolePermission>com.raytheon.localization.site/common_static/grib</rolePermission>
<rolePermission>com.raytheon.localization.site/edex_static</rolePermission>
</role>

Add the user

<user userId="some-admin-user-name">
<userRole>Site Admin</userRole>
<userRole>GFE Focal Point</userRole>
</user>

## Release Note: Omaha #6107 (19740)

Earlier builds of 17.1.1 would incorrectly write activetable backups created during the activetable sharing process to the common_static localization directory causing disks to run out of space. This has been corrected and a delta script moveActiveTableBackups.sh has been provided to move activetable backups to their new location.

## Release Note: GFE Service Backup

Sites should keep their 16.4.1 configs on the central server until their backup pairs are all on 17.1.1 or on NIC v5.

## Release Note: NIC

Make sure NIC 4.2 is installed on 16.4.1 before installing 17.1.1. After 17.1.1 is installed, open this file:

px2:/awips2/edex/data/utility/common_static/site/<SID>/gfe/config/masterConfig.py

... and change this line (note highlights):

execfile('/awips2/edex/data/utility/edex_static/site/%s/config/gfe/%smodelDict.py' % (thisSite,myRegion))

... to this:

execfile('/awips2/edex/data/utility/common_static/site/%s/gfe/config/%smodelDict.py' % (thisSite,myRegion))

## Release Note: Backup climate.sh and display.sh scripts for Climate if WFOs have patched them

If WFOs have patched the climate.sh and display.sh scripts in /awips/adapt/climate/bin/Linux directory, they should backup the two scripts before installing 17.1.1. After OB17.1.1, they need to reinsert the patch into the OB17.1.1 versions of these scripts. If neither of these two commands executed from a workstation or server...

grep stationlist /awips/adapt/climate/bin/Linux/climate.sh

grep stationlist /awips/adapt/climate/bin/Linux/display.sh

...returns two lines of code like this...

stationlist=( "18830" "14070" "7888" "14840" )

for station in "${stationlist[@]}"

...then this step can be skipped.

If the two commands do return output, then the patch has been applied at the site and measures have to be taken to re implement the patch before and after the install.

The purpose of the patch is to default the Snowfall and Snow Depth to missing values for ASOS stations that do not report snowfall and snow depth. The baseline defaults the snowfall and snow depth to 0.0 and 0, respectively. The patch defaults them both to 9999.0.

## Release Note: Omaha #5816 (19270)

The following GFE server configuration files are now available in the Localization perspective:

Server Config Files (siteConfig, localConfig, localMaps, svcbu.properties)

localVTECPartners

Parameter Info Files

gfeParamName.xml

gfeParamInfo.xml

gfeLevelMappingFile.xml

Smart Init Modules

Editing of these files is limited to those users having the new "GFE Focal Point" role.

The delta script for DR5816 removes the site/cave_static/gfe and site/common_static/gfe permissions from the ALL user and will grant the "GFE Focal Point" role to any user that specifically had the either of these permissions listed under their user id.

NOTE: The delta script for DR5816 must be run AFTER the delta script for DR5211!!!!!

**** PLEASE READ THIS! ****

It has been found that the site/common_static/gfe permission is also used to determine who is allowed to run the GFE Site Activation GUI. Please ensure that all your GFE focal points have the "GFE Focal Point" role granted to them after 17.1.1 installation.

Your AWIPS administrator (most likely your ITO) can do this by doing the following:

1. Open a CAVE session

2. Select CAVE->AWIPS User Administration...

3. Select Localization from the Component drop down.

4. Locate each of your GFE focal points and ensure they have the "GFE Focal Point" role granted to them

5. If not select the desired user and click Edit..., ensure Assigned Roles is selected in the Edit: drop down, select "GFE Focal Point" in the left column and click the right arrow to move it to the right column, then click OK.

6. Be sure to click Save when exiting the User Admin GUI if you have made any changes.

### Release Note: Omaha #5737 / #5794 (19229)

PostgreSQL has been upgraded from 9.3.10 to 9.5.3.

PostGIS has been upgraded from 2.0.6 to 2.2.2.

pgAdmin has been upgraded from 1.18.1 to 1.22.1.

*** IMPORTANT: There is a delta script at DR5737/postgresql-9.5.3-upgrade/postgres_pre_upgrade.sh that MUST be run before any of the above packages are installed. ***

This is a major upgrade that requires a manual upgrade procedure for all database servers. A set of upgrade scripts is provided at DR5737/postgresql-9.5.3-upgrade/. Read the README file in that directory for the upgrade procedure. Each machine should take 2-3 minutes to upgrade.

### Release Note: Omaha #5819 (13519)

The following localization files for FFMP and SCAN will now be auto-generated as configured instead of site:

FFMPRunConfig.xml

FFMPTemplateConfig.xml

FFMPSourceConfig.xml

SCANRunSiteConfig.xml

Binary files in ffmp/templates, ffmp/sources, and ffmp/ffti

A delta script has been provided that will migrate the site binary files to configured: DR5819/moveSiteFilesToConfigured.sh

### Release Note: Omaha #5801 (19279)

The afos2awips lookup table has been moved from the database to localization files.

A delta script has been provided that will generate and install a site-level afos2awips.txt from the afos_to_awips database table, then drop that table. It will also drop the afoslookup table since

that table is no longer used anywhere. Run this script on dx1 only.
DR5801/drop_afos_to_awips_afoslookup.sh

Each time a new afos2awips.txt is ingested, the newest version of it, including those entries specific to the current site, is copied to /data/fxa/afos2awips.txt. Make sure that the legacy file location (/awips/fxa/data/afos2awips.txt) is symbolic-linked to the file at /data/fxa.

### Release Note: Omaha #5766 (19281)

When BMH 1.3 is built and installed, there is a delta script associated with DR #5766 (within the BMH repository deltaScripts directory) that must be run before starting any of the EDEX BMH services.

### Release Note: Omaha #5473

Logback upgraded to version 1.1.7. http://logback.qos.ch/news.html Needed
http://jira.qos.ch/browse/LOGBACK-730

### Release Note: Omaha #5796 (19244)

SLF4J upgraded to version 1.7.21. http://www.slf4j.org/news.html Required by logback upgrade.

### Release Note: Omaha #5635 (19230)

Java upgraded to version 1.8_101 for security.
http://java.com/en/download/faq/release_changes.xml

### Release Note: Omaha #4684 (19231)

Python upgraded to version 2.7.12 for performance and security.
https://hg.python.org/cpython/raw-file/v2.7.12/Misc/NEWS

### Release Note: Omaha #5741 (19227)

Spring framework upgraded to version 4.2.7 for bug fixes. https://projects.spring.io/spring-framework/

### Release Note: Omaha #5739 (19268, 19267, 19266, 19232)

awips2-httpd-pypies upgraded to version 2.4.23.
http://www.apache.org/dist/httpd/CHANGES_2.4.23

1. awips2-httpd-pypies now requires awips2-httpd-pypies-tools instead of httpd-tools

2. Copy /awips2/httpd_pypies/etc/httpd/conf/httpd.conf.rpmnew to /awips2/httpd_pypies/etc/httpd/conf/httpd.conf after initial install

3. apr, apr-util and distcache dependencies are included with awips2-httpd-pypies-tools

### Release Note: Omaha #5757 (19270)

The processing files used for ACARS Sounding generation where moved from /awips2/edex/data/utility/edex_static/base/acars/ to /awips2/edex/data/processing/acars/ in order to remove non-localization files currently in the localization directory structure. ACARS Sounding generation will automatically start using this new location.

A delta script has been provided that will migrate the current files to the new location. DR5757/relocateAcarsSoundingFiles.sh

### Release Note: WarnGen Templates: Redmine 19344, 18713, 19280, 19522, 18942, 19038, 19217, 19600

Release OB17.1.1 contains various WarnGen template changes related to logic errors, grammar and mixed case issues. There are several dozen template changes, therefore the easiest migration method is to add any site level overrides to the new OB17.1.1 baseline templates. After OB17.1.1 is installed, perform the WarnGen template migration by completing the following steps:

1. Copy the OB17.1.1 base level templates to the user level in the localization perspective. In the File Browser, the template files are located under

D2D/WarnGen. The names of the template files changed in OB17.1.1 are included below.

2. Use the Ctrl and Left Mouse button to select both the site and user (base) level versions. Right click and select "Compare." This will present a line-by-line comparison between the two versions. Make the needed edits to the user level (OB17.1.1 baseline) templates and save them in the comparison window.

3. Use Practice Mode and assure that the full lifecycle of all Warngen products are coded correctly with the user level templates.

4. Use the localization perspective to move the user level templates to site level and verify again using Practice Mode. Be careful not to leave any user level files that would override the site level.

A brief summary of the OB17.1.1 WarnGen template changes follow:

1. Files arealFloodAdvisory.vm and arealFloodAdvisoryFollowup.vm correct a grammar error in the additional rainfall expected bullet (DR 19344).

2. Files arealFloodWarning.vm, arealFloodWarningFollowup.vm, arealFloodWarningFollowup.xml and flashFloodWarning.vm correct several inconsistencies with the law enforcement and emergency management source text (DR 18713).

3. File impactSevereWeatherStatement.vm corrects two typographical errors, the wind hail tag for no hail and some incorrect mixed case text (DR 19280, DR 19522).

4. File impactSpecialMarineWarningFollowup.vm corrects several grammar and text parsing errors (DR 18942).

5. Files impactTornadoWarning.vm and tornadoWarning.vm correct several "test" wording mixed case text errors (DR 19038).

6. Files nonConvectiveFlashFloodWarning.vm, nonConvectiveFlashFloodWarningFollowup.vm,and

nonConvectiveFlashFloodWarningFollowup.xml correct the VTEC flood severity coding in the cancellation statement (DR 19217).

7. File specialWeatherStatement.vm corrects mixed case errors in the freezing precipitation CTAs (DR 19600).

## Release Note: User roles changes for 17.1.1

Sites should make a backup copy of their current site-level userRoles.xml file, copy the base to site and re-implement their site permissions from scratch. That would be the best way to get us all in sync.

New role added

"GFE Focal Point" -- This role must be added to GFE Focal Points and site admins in order to edit site-level GFE files.

New Permissions added

com.raytheon.localization.site/cave_static/volumebrowser

com.raytheon.localization.site/common_static/grib

These permissions must be added to site admins in order to successfully run the DataAddonsManager.

Here is an example of how a site might set up a site admin, giving them full access...

Add these permission tags

<permission id="com.raytheon.localization.site/cave_config" />

<permission id="com.raytheon.localization.site/cave_static" />

<permission id="com.raytheon.localization.site/common_static" />

<permission id="com.raytheon.localization.site/edex_static" />

Add this role

<role roleId="Site Admin">

<roleDescription>Role for site adiministrators</roleDescription>

<rolePermission>com.raytheon.localization.site/cave_config</rolePermission>

<rolePermission>com.raytheon.localization.site/cave_static</rolePermission>

<rolePermission>com.raytheon.localization.site/cave_static/volumebrowser</rolePermission>

<rolePermission>com.raytheon.localization.site/common_static</rolePermission>

<rolePermission>com.raytheon.localization.site/common_static/grib</rolePermission>

<rolePermission>com.raytheon.localization.site/edex_static</rolePermission>

</role>

Add the user

<user userId="some-admin-user-name">

<userRole>Site Admin</userRole>

<userRole>GFE Focal Point</userRole>

</user>

## Release Note: Omaha #6107 (19740)

If WFOs have patched the climate.sh and display.sh scripts in /awips/adapt/climate/bin/Linux directory, they should backup the two scripts before installing 17.1.1. After OB17.1.1, they need to reinsert the patch into the OB17.1.1 versions of these scripts.

The purpose of the patch is to default the Snowfall and Snow Depth to missing values for ASOS stations that do not report snowfall and snow depth. The baseline defaults the snowfall and snow depth to 0.0 and 0, respectively. The patch defaults them both to 9999.0.

## Release Note: Omaha #5927 (19235 & 19422)

Upgraded Qpid Java Broker to 6.0.5 for bug fix https://issues.apache.org/jira/browse/QPID-7465

NOTE: This change was undone with 17.1.1-29q where Qpid was downgraded back to version 0.32

# Appendix A. XML/base, WarnGen Template and RPM Changes in OB 17.1.1

## XML/base and WarnGen Template changes

The following lists the XML/base and WarnGen Template changes.

edex/com.raytheon.uf.edex.datadelivery.retrieval/utility/common_static/base/mapping/pluginRoutes.xml

edex/com.raytheon.uf.edex.pointdata/utility/common_static/base/adaptivePlots/template.xml

edexOsgi/com.raytheon.edex.plugin.bufrua/utility/common_static/base/bufrua/sigWindHeightConversion.xml

edexOsgi/com.raytheon.edex.plugin.satellite/utility/common_static/base/menuTemplate/satellite/baseCompositeTemplate.xml

edexOsgi/com.raytheon.edex.plugin.satellite/utility/common_static/base/menuTemplate/satellite/baseOCONUSDerivedProductsImageryTemplate.xml

edexOsgi/com.raytheon.edex.rpgenvdata/utility/common_static/base/rpgenvdata/EnvironParamsLevelTable.RUC40.xml

edexOsgi/com.raytheon.edex.rpgenvdata/utility/common_static/base/rpgenvdata/EnvironParamsLevelTable.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid100-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid101-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid103-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid104-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid105-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid106-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid107-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid110-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid126-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid127-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid145-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid146-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid170-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid171-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid172-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid175-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid190-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid192-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid194-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid196-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid198-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid1-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid201-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid202-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid203-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid204-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid205-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid206-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid207-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid208-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid209-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid210-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid211-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid212-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid213-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid214-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid215-Definition.xml

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edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid26-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid27-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid28-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid29-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid2-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid30-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid33-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid34-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid37-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid38-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid39-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid3-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid40-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid41-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid42-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid43-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid44-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid45-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid4-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid53-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid55-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid56-Definition.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/grid/grid5-Definition.xml

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edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/lut/mpe-TableA.xml

edexOsgi/com.raytheon.uf.common.mpe.gribit2/utility/common_static/base/mpeLookup/gribit/lut/mpe-TableC.xml

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edexOsgi/com.raytheon.uf.edex.plugin.bufrobs/utility/common_static/base/bufrobs/alias/buoy-alias.xml

edexOsgi/com.raytheon.uf.edex.plugin.bufrobs/utility/common_static/base/bufrobs/alias/synoptic_land-alias.xml

edexOsgi/com.raytheon.uf.edex.plugin.bufrobs/utility/common_static/base/bufrobs/category/buoy-category.xml

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edexOsgi/com.raytheon.uf.edex.registry.ebxml/utility/common_static/base/ebxml/minDB/SubmitObjectsRequest_ActionTypeScheme.xml

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edexOsgi/com.raytheon.uf.edex.registry.ebxml/utility/common_static/base/ebxml/minDB/SubmitObjectsRequest_QueryLangScheme.xml

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edexOsgi/com.raytheon.uf.edex.registry.ebxml/utility/common_static/base/ebxml/minDB/SubmitObjectsRequest_ServiceTypeScheme.xml

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edexOsgi/com.raytheon.uf.edex.registry.ebxml/utility/common_static/base/ebxml/registry/notificationServers.xml

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localization/localization.OAX/utility/common_static/site/OAX/plugin-filters/synopticToShefFilter.xml

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cave/com.raytheon.viz.radar/localization/menus/radar/dualPol/baseLocalRadarMenu.xml

cave/com.raytheon.viz.radar/localization/menus/radar/dualPol/baseTerminalLocalRadarMenu.xml

cave/com.raytheon.viz.radar/localization/menus/radar/klgx/baseLocalRadarMenu.xml

cave/com.raytheon.viz.volumebrowser/localization/bundles/volume/HRRR.xml

cave/com.raytheon.viz.volumebrowser/localization/menus/volume/baseFamilies.xml

cave/com.raytheon.viz.volumebrowser/localization/menus/volume/baseFourPanelFamilies.xml

cave/com.raytheon.viz.volumebrowser/localization/menus/volume/baseSurfaceFamilies.xml

cave/com.raytheon.viz.volumebrowser/localization/menus/volume/ConvectModelFamilies.xml

cave/com.raytheon.viz.volumebrowser/localization/menus/volume/hailFamily.xml

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cave/com.raytheon.viz.volumebrowser/localization/menus/volume/WinterFnFourPanelFamily.xml

cave/com.raytheon.viz.volumebrowser/localization/menus/volume/WinterModelFamilies.xml

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edex/deploy.edex-BMH/esb/conf/db/hibernateConfig/bmh/hibernate.admin.cfg.xml

edex/deploy.edex-BMH/esb/conf/db/hibernateConfig/bmh/hibernate.cfg.xml

edex/deploy.edex-BMH/esb/conf/db/hibernateConfig/bmh_practice/hibernate.admin.cfg.xml

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edexOsgi/com.raytheon.edex.plugin.bufrua/res/pointdata/bufrua.xml

edexOsgi/com.raytheon.edex.plugin.bufrua/utility/common_static/base/distribution/bufrua.xml

edexOsgi/com.raytheon.edex.plugin.gfe/utility/common_static/base/grid/parameterInfo/HRRR.xml

edexOsgi/com.raytheon.edex.plugin.gfe/utility/common_static/base/grid/parameterInfo/ruc130.xml

edexOsgi/com.raytheon.uf.common.dataplugin.grid/utility/common_static/base/styleRules/gridImageryStyleRules.xml

edexOsgi/com.raytheon.uf.common.dataplugin.warning/utility/common_static/base/warngen/arealFloodAdvisoryFollowup.vm

edexOsgi/com.raytheon.uf.common.dataplugin.warning/utility/common_static/base/warngen/arealFloodAdvisory.vm

edexOsgi/com.raytheon.uf.common.dataplugin.warning/utility/common_static/base/warngen/arealFloodWarningFollowup.vm

edexOsgi/com.raytheon.uf.common.dataplugin.warning/utility/common_static/base/warngen/arealFloodWarningFollowup.xml

edexOsgi/com.raytheon.uf.common.dataplugin.warning/utility/common_static/base/warngen/arealFloodWarning.vm

edexOsgi/com.raytheon.uf.common.dataplugin.warning/utility/common_static/base/warngen/flashFloodWarning.vm

edexOsgi/com.raytheon.uf.common.dataplugin.warning/utility/common_static/base/warngen/impactSevereWeatherStatement.vm

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edexOsgi/com.raytheon.uf.common.dataplugin.warning/utility/common_static/base/warngen/impactTornadoWarning.vm

edexOsgi/com.raytheon.uf.common.dataplugin.warning/utility/common_static/base/warngen/nonConvectiveFlashFloodWarningFollowup.vm

edexOsgi/com.raytheon.uf.common.dataplugin.warning/utility/common_static/base/warngen/nonConvectiveFlashFloodWarningFollowup.xml

edexOsgi/com.raytheon.uf.common.dataplugin.warning/utility/common_static/base/warngen/nonConvectiveFlashFloodWarning.vm

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awips2-17.1.1-29q.noarch.rpm
awips2-adapt-native-17.1.1-29q.noarch.rpm
awips2-alertviz-17.1.1-29q.x86_64.rpm

awips2-aviation-shared-17.1.1-29q.noarch.rpm
awips2-cave-17.1.1-29q.x86_64.rpm
awips2-cave-ncep-17.1.1-29q.x86_64.rpm
awips2-cave-wrapper-17.1.1-29q.x86_64.rpm
awips2-cli-17.1.1-26.noarch.rpm
awips2-common-base-17.1.1-29q.x86_64.rpm
awips2-database-17.1.1-14.noarch.rpm
awips2-database-server-configuration-17.1.1-26.noarch.rpm
awips2-database-standalone-configuration-17.1.1-26.noarch.rpm
awips2-data.hdf5-topo-17.1.1-29q.noarch.rpm
awips2-edex-17.1.1-11.x86_64.rpm
awips2-edex-base-17.1.1-29q.x86_64.rpm
awips2-edex-binlightning-17.1.1-7.x86_64.rpm
awips2-edex-bufr-17.1.1-2.x86_64.rpm
awips2-edex-common-core-17.1.1-29q.x86_64.rpm
awips2-edex-config-auto-17.1.1-2.x86_64.rpm
awips2-edex-configuration-17.1.1-29q.x86_64.rpm
awips2-edex-core-17.1.1-29q.x86_64.rpm
awips2-edex-cots-17.1.1-11.x86_64.rpm
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awips2-edex-radar-17.1.1-18.x86_64.rpm
awips2-edex-registry-17.1.1-13.x86_64.rpm
awips2-edex-registry-client-17.1.1-29q.x86_64.rpm
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awips2-localization-TBW-17.1.1-2.noarch.rpm
awips2-maps-database-17.1.1-29q.noarch.rpm
awips2-ncep-database-17.1.1-7.noarch.rpm
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