

WES-2 Bridge Reprocessing Future Datasets Step by Step Instructions

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The following guide contains step by step instructions on how to reprocess local datasets from future AWIPS-2 versions that are incompatible with the current WES-2 Bridge version. In addition, these instructions will provide the steps necessary to combine the reprocessed data with the original compatible dataset. After completing these steps, you should be able to view the reprocessed data as well as the original data in a fully functional WES-2 Bridge case.

This guide draws heavily from another instructional guide: WES-2 Bridge References - Reprocessing Guide (found on the WES-2 Bridge documentation folder, as well as on the WDTD webpage located at <http://wtdt.noaa.gov/tools/wes2/documentation/ReprocessingGuide.pdf>). The original purpose of that guide was to provide guidance on how to reprocess datasets from previous AWIPS-2 versions forward to current versions of AWIPS-2. Due to database modifications, point datasets in AWIPS-2 version 14.4.1 onward will need to be reprocessed to be able to be viewed using WES-2 Bridge until the WES-2 Bridge software is upgraded to a compatible AWIPS-2 build. The following point datasets have been impacted:

acars	fssobs	poessounding
acarssounding	goessounding	profiler
airep	ldad_manual	qc
bufrscat	ldadhydro	sfcobs
bufrhdw	ldadmsonet	svrwx
bufrmthdw	ldadprofiler	tcg
bufrncwf	lsr	tcs
bufrquikscat	modelsounding	vaa
bufrssmi	obs	
bufrua	pirep	

For this step by step guide, it is assumed you have a WES-2 Bridge case created that needs to have data reprocessed as well as the corresponding raw data available. If the raw data is not available, the point datasets are unable to be reprocessed.

1. Copy and Untar the original archived raw data.

Copy any raw datasets from your archived cases that you would like to reprocess to your WES-2 Bridge workstation. Untar these files.

2. Start EDEX_00

Start EDEX_00 on your WES-2 Bridge workstation. This will be the EDEX that you use to reprocess the archived data.

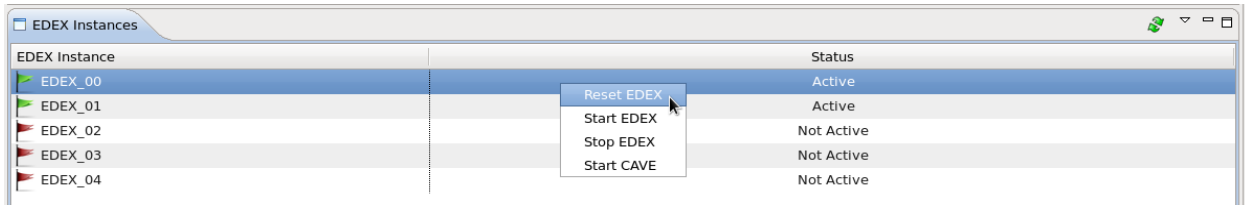
Note: If you are planning on reprocessing gridded datatypes, the EDEX setup.env will need to be changed to your site to ensure the grids are localized to the right area. As the root user, use the following command and edit second line in the following file to your site's localization:

```
vi /usr/local/edex-environment/EDEX_00/edex/bin/setup.env
```

If your case contains many hours of METAR/obs data or if you will be reprocessing shef data, ensure that EDEX_00 is configured with your local hydro (WHFS) database. Follow the instructions in the guide entitled "Transferring Local Hydro Database to WES-2 Bridge".

3. Reset EDEX_00

Once EDEX_00 has started and displays a green flag in the WES-2 Bridge GUI, reset EDEX_00. This will ensure you have an empty database.



Resetting an EDEX

4. Run RawPlay

After the EDEX reset finishes, run the rawPlay4.py program included within your WES-2 Bridge installation on your untarred processed files. Below is an example command line input to run rawPlay to reprocess bufrua and metar data.

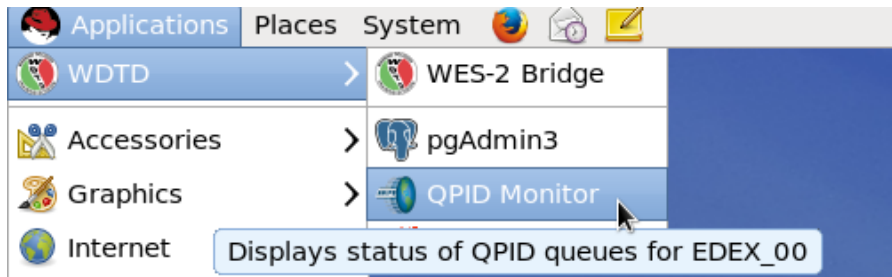
```
/w2b/util/rawPlay4.py -r /path/to/processed/data/folders -x  
-d bufrua,metar -s 20150618_1800 -e 20150619_1200  
-v -l -p 5672 -q 8180
```

More in depth information on rawPlay and the various flags can be found in the Reprocessing Guide located at <http://wdtd.noaa.gov/tools/wes2/documentation/ReprocessingGuide.pdf>

You are also able to monitor rawPlay activity using qpidmonitor using the following command:

```
/w2b/util/qpidmonitor -s localhost -p 8180
```

In WES-2 Bridge 14.3.1, you are also able to use the menu to start qpidmonitor:



Note: RawPlay may take a long time to run depending on the amount of data. As rawPlay runs, awips creates hdf5 data in EDEX_00 hdf5 and db records in EDEX_00 database. During this reprocessing period, you are able to view the data as it is processed by opening up a CAVE that is attached to EDEX_00.

5. Create a Temporary Case with the Reprocessed Data

Once the rawPlay finishes, create a new temporary case with the reprocessed data in EDEX_00 by using WES-2 Bridge's "New Case" functionality. By doing this, you will have a temporary case that contains a "Processed" folder with your reprocessed datatype folders that you can merge with your original case.

At the top of the WES-2 Bridge GUI, select File -> New Case. Fill out the information. For "Case Type", make sure it shows "Ingested Data_EDEX_00", for WFO hit the plus sign and select your site identifier, and for data types select the data types that were reprocessed. If your site ID does not appear in the list, ensure your sites localization has been ported over to your WES-2 Bridge workstation.

Finally before hitting "Create", make sure the "Update Time" button is selected, as this will correct the inserttimes from our reprocessing time to the case time.

New Case

New Case
Create a new case.

Case Information

Information for the case

Output Location:

Case Name:

Case Description:

Case Type:

Case Data Window

Specify the time range for which the data will be exported.

Start Date:

End Date:

Case Creation Information

Specify case related information.

Case Creation Date:

Case Created By:

AWIPS 2 Version:

Update Time

WFO (1) + ✕

LOT

Data Types (2) + ✕

BinLightning
OBS (METAR)

New Case Example

6. BACK UP Original Data

For the original case, tar up the “Processed” folder. This is to maintain the original version that can be used once the WES-2 Bridge is updated to a compatible AWIPS-2 version.

7. Clear the Way for the Reprocessed Data

In the original case’s “Processed” folder, remove the folders for the datatypes that you backed up in the previous step to replace with reprocessed data.

8. Combine the Cases

Once the folders are removed, move the reprocessed data folders from the “Processed” folder of the temporary case to the “Processed” folder in the original case.

9. Update the Permissions

The data requires group write permissions to view within CAVE. In your Processed folder, use the following command to change the permissions for the datatypes that have been reprocessed and moved:

```
chmod -R g+w <datatype> <datatype>
```

10. Unload and Reload the Case

This will put the full dataset into the database, and the reprocessed data should appear in CAVE as part of a Review or Simulation.

If you have any questions, please contact either Alexander Zwink (Alexander.Zwink@noaa.gov) or Dale Morris (Dale.A.Morris@noaa.gov) at WDTD.