



FFMPA: DRT

Displaced Real-Time Instructions

OB8.3+

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FFMP DRT is a bit different in FFMP Advanced in OB8.3+ (compared to the old FFMP before OB8.3). It is hopefully easier to use, and more flexible and complete.

First:

| Some Definitions | |
|-------------------------------------|---|
| Term | Definition |
| <i>AWIPS Directory</i> | The directory that contains the data that will be <i>input</i> into FFMP. This is often archived. This is the data directory that the data key points to. (The data key is found, among other places, in the <i>FFMP Data Config File</i> .) |
| <i>FFMP Directory</i> | The directory that will contain the <i>output</i> from FFMPprocessor and is used by FFMP displays. This will be under /data/fxa/ffmp. |
| <i>Staging Directory</i> | The directory that FFMP_DRT will look in for data to be processed in a DRT session. This is input data, and should be of the form that exists in the <i>AWIPS Directories</i> . |
| <i>FFMP Data Config File</i> | \$FXA_DATA/ffmp/FFMPsourceConfig.dat – defines what data sources FFMP should attempt to use (localize, ingest, process, output). There is a separate document describing the full contents of this file. |

- 1) Make sure the AWIPS data files that you intend to process are copied to the ***Staging Directory***. It is expected these files would be copied from some archive, but can be copied from the ***AWIPS Directory*** itself, for testing. (It also helps to choose an ‘interesting’ case.)

There are 2 ways to process data in FFMPA’s DRT:

single data source and *multiple* data sources.

-If- you intend to process only one data source in one FFMP DRT session,
-then- just populate your ***Staging Directory*** with data files.

-If- you intend to process multiple data sources in one FFMP DRT session,

-then- your ***Staging Directory*** should contain one directory per data source, named with the data source ID, which can be found in the ***FFMP Data Config File***. Each of those data source directories should be populated with your data files (respectively, of course).

- 2) **-If-** the data source to be processed by FFMP_DRT is being ingested in real-time, **-then-** you **must** stop the real-time ingest (or attempt these steps in between real-time ingests with *mode* = -1). How you stop real-time ingest will depend on how the data source is ingested in to AWIPS in real-time. For example, you could remove the DHR product from the RPS list for a radar data source.

It is easier to run a DRT session for a data source that is not being ingested in real time at all, thus it can be helpful to define a data source in the *FFMP Data Config File* that may only be used for testing and DRT cases.

NOTE: For data sources that have the same grid dimensions , you can use data from one source, and tell FFMP_DRT that it is from another source. For example: I can take DHR radar products from klwx and push them through FFMP_DRT, calling them kakq DHR radar products (assuming I have both klwx and kakq defined properly as data sources in the *FFMP Data Config File*).

- 3) **-If-** you intend to use a data source that has been recently ingested in real time, **-or-** you are running an FFMP DRT session right after another FFMP DRT session for the same data source(s) and times, **-then-** stop the FFMPprocessor by issuing the command as '*fxa*' on PX1

stopFFMPprocessor

-If- you intend to use a data source that has not been ingested in real time, **-and-** this is your first DRT session of the day, **-then-** you do not need to stop the FFMPprocessor.

NOTE: The FFMPprocessor can ingest some data sources in real-time and others in DRT, simultaneously.

NOTE: The FFMPprocessor will still attempt to send Monitor messages to Guardian, no matter whether the data is real-time or DRT. If the FFMPprocessor is processing real-time for some data sources and DRT for others, the *DRT* Monitoring may get ignored, due to it being 'significantly' older than the real-time.

- 4) Ensure any data in the *AWIPS Directory* is deleted , moved, or temporarily renamed after ingest has been ceased.
- 5) Ensure any data in the *FFMP Directory* is deleted, moved, or temporarily renamed after the FFMPprocessor has been stopped.
- 6) **-If-** you had to stop the FFMPprocessor in Step 3, **-then-** restart it, as user '*fxa*' on PX1:

startFFMPprocessor

7) Run the DRT session with the following command, *as any AWIPS user, on any machine*:

FFMP_DRT staging_directory mode {sourceID} {VB_gridname}

| FFMP_DRT Argument Definitions | | |
|-------------------------------|---|---|
| Argument | Definition | |
| <i>staging_directory</i> | The full <i>Staging Directory</i> path. | |
| <i>mode</i> | Allowed mode values | |
| | Integer | Meaning |
| | -1 | Process in quick succession, with no artificial interval. |
| | 0 | Process with an interval that is defined by the actual data times of the files to be processed. |
| | variable | The number of whole seconds to artificially wait in between each file's processing. |
| {sourceID} | <p>-If- you are processing a <i>single</i> data source, -then- this is the ID for that data source, as defined in the <i>FFMP Data Config File</i>. -If- you are processing <i>multiple</i> data sources, -then- this argument is omitted.</p> | |
| {VB_gridname} | <p>This is for OB9+: -If- you are processing a single data source that is a Volume Browser netCDF grid (as typed in the <i>FFMP Data Config File</i>), -then- this is the name of that grid. The name is usually defined or determined in AWIPS grid ingest, which is separate from FFMPA. -If- you wish to process a Volume Browser netCDF grid data source, -then- you must use single-source processing. This will not work with multi-source processing.</p> | |

8) **-If-** any of the D2Ds you wish to use for viewing the FFMP DRT data had previously loaded an FFMP display in the current session,
-then- you may need to re-start any D2Ds used for viewing the DRT data (due to memory caching in the D2D)

Once you are finished with viewing the DRT data in FFMP displays, etc.:

- 1) **-If-** you wish to recover the real-time data that was moved/renamed in Steps 4 and 5,
-then- do so.