

# Running SCAN in Displaced Real-Time Mode

April, 2010

Note: This must be conducted by user 'fxa' on the PX1 machine

Also Note: If SCAN DRT sessions are run consecutively, you must stop and re-start the notificationServer in between sessions as it retains the inventory the DRT sends it. If this is not done, the D2D will not update properly.

1. Set the following environmental parameters:

```
setenv SCAN_DRT_RADAR radar_id
setenv SCAN_DRT_DIR storedProductDirectory
setenv SCAN_DRT DRTmode
```

<u>Value</u>	<u>Definition</u>	
<i>radar_id</i>	The numeric radar site ID (ie: 303 for Sterling, VA.).	
<i>storedProductDirectory</i>	The directory where all of the radar products for all of the radars are stored. These are the products intended for processing which will be copied to the /data/fxa/radar/@@@@ radar directories. <b>Make sure your entry ends with a final "/"</b> .	
<i>DRTmode</i>	Can have the following values:	
	0 or undefined	<b>Normal (non-DRT):</b> The process is triggered by real-time radar products.
	1	<b>DRT - Basic processing:</b> Each radar file is processed in succession with no meaningful time interval. Real-time radar products will not be processed.
2	<b>DRT - Timed processing:</b> Processes according to the radar file timestamp, simulating real-time. Real-time radar products will not be processed.	

2. Set up your radar data files appropriately. Under the \$SCAN\_DRT\_DIR directory, create a directory for each radar product that you have (ie: CZ, VIL, STI, M, Z, TVS) and put the time-stamped radar product files that you intend to process in the SCAN DRT in these corresponding directories. The products that **MUST** be available for the DRT session are: CZ, Z, VIL. The others are optional.
3. Make sure the radar products for your radar of interest are not being ingested in real-time. You can do this by editing the RPS list, making sure these products are not on the list. You can use the D2D to edit the current RPS list - see the AWIPS manual for instructions. Remember, the products to temporarily take off the RPS list are: CZ (or CR,

1km res.), Z (½ degree tilt, 1km res.), VIL, STI, M, TVS.

If stopping real-time ingest is not feasible or possible, you can still run a SCAN DRT session *in between* the receipts of the real-time CZ products, but you must use the *DRTmode 1*.

4. Stop the SCANprocessor by issuing the following command as 'fxa' on PX1. *Be sure to inform the NCF of your DRT run so they do not manually attempt to re-start the SCANprocessor.*

#### **stopSCANprocessor**

5. Remove some files. If you want to save the files for restoration after the SCAN DRT session, copy them to a safe name/location instead of removing them. Keep in mind that all of the data under the radar directory tree will be scoured every day. This means, at one point during the day, all old files (most likely the DRT case files) will be deleted. If this happens in the middle of your DRT sessions, it *will* cause problems. Try to find out when your site conducts the scour on the DS1 and work your DRT schedule around the scour schedule. With the SCANprocessor not running, you can delete those files under the tstorm tree first.

```
rm /data/fxa/radar/@@@@/tstorm/StormCellInfo/*
rm /data/fxa/radar/@@@@/tstorm/StormMesoInfo/*
rm /data/fxa/radar/@@@@/tstorm/StormTvsInfo/*
rm /data/fxa/radar/@@@@/tstorm/ScanSiteMsg/*
rm /data/fxa/radar/@@@@/tstorm/SCTI/*
rm /data/fxa/radar/@@@@/tstorm/QPF/prob??/*
rm /data/fxa/radar/@@@@/tstorm/QPF/rain_cat/*
rm /data/fxa/radar/@@@@/CZ/layer0/res1/level16/*
rm /data/fxa/radar/@@@@/VIL/layer0/res4/level16/*
rm /data/fxa/radar/@@@@/Z/elev0_5/res1/level16/*
rm /data/fxa/radar/@@@@/STI/*
rm /data/fxa/radar/@@@@/M/*
rm /data/fxa/radar/@@@@/TVS/*
```

@@@@ = four-letter radar identifier (ie: klwx)

?? = amount of QPF probabilities. Ie; 10, 25, 50, 75 hundredths of inches

6. If you have binary plot lightning data files, copy them to the appropriate directory, which is */data/fxa/point/binLightning/plot/*.
7. Re-start any D2Ds you wish to use for this SCAN DRT session.
8. Start the SCAN processor as fxa on PX1. (The process and its DataController should stop by itself once all DRT radar file have been processed.)

**startSCAN\_DRT**

As the process runs, it will display the data time it is currently processing in the text window as well as create a log file as it would when running normally.

9. **When you are finished with the DRT session**, remember to:
- a. Put the radar products back on the RPS list (if you needed to take them off in step #3).
  - b. Remove the files listed in step 5. These are the files produced by the SCAN DRT.
  - c. Re-start the SCANprocessor for real-time operation.  
**unsetenv SCAN\_DRT**  
**startSCANprocessor**