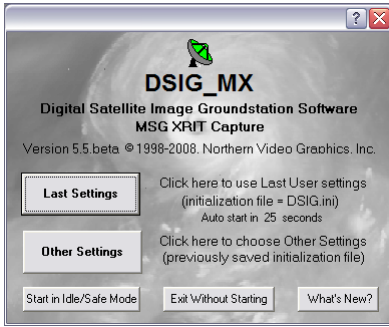


# DSIG\_MX Typical Operation

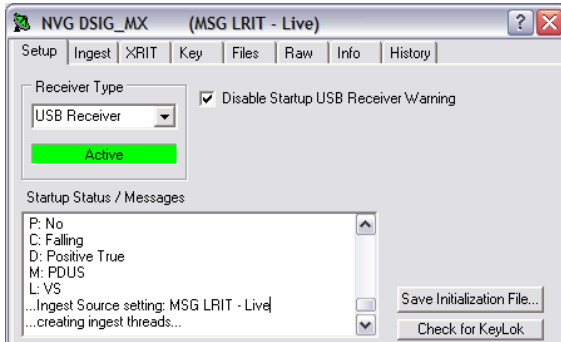
## Ingest Data Type: Source:

## MSG LRIT (Part 1) USB Receiver (Live)



DSIG\_MX is a special version of DSIG to capture XRIT files from the MSG LRIT data stream. Run the DSIG\_MX.EXE program. This is usually done by double clicking on the DSIG\_MX icon on the desktop. The DSIG\_MX start window will appear (left). Choose "Last Settings" if DSIG\_MX was running well the last time it was shut down. Choose "Other Settings" if this is the first time or if different settings are desired. Then choose an Initialization File from list. Choose "Start in Idle / Safe Mode" if previous startup resulted in a startup error. Change settings to match these pages then shut down DSIG\_MX and restart it.

A DSIG\_MX control window appears. Below are 9 tabbed pages typical for MSG LRIT ingest.

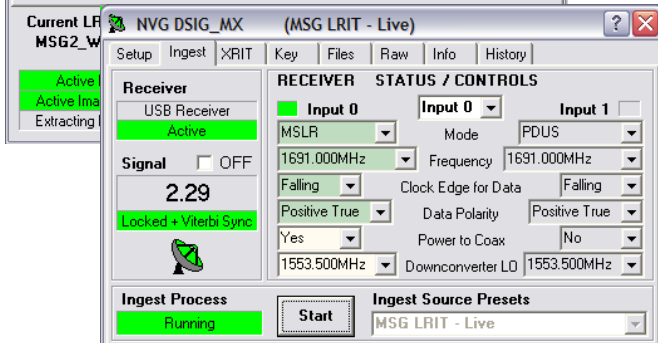


### Setup Page \*\*\*\*\* NECESSARY SETTINGS \*\*\*\*\*

Verify that the Receiver Type is set to "USB", and that it is "Active". Active means that communication with receiver has been established.

Possible reasons for non Active status:

- Not Plugged in (USB cable from receiver to computer).
- Not USB 2.0 port.
- No Power to Receiver (check external power supply - front panel on receiver should be lit).
- USB Receiver Driver not installed.



### Ingest Page \*\*\*\*\* NECESSARY SETTINGS \*\*\*\*\*

Verify that signal level is good (near 2.0 or above) and Locked.

Verify that Input is set to match where antenna cable is plugged.

Verify that MSG LRIT Live settings are chosen (cannot be changed).

Verify that Power to Coax is set to Yes. This assures power to downconverter via RF cable. (Set to No if powered separately)

You may need to click on Stop button to allow these controls to be set. If Stopped, press Start button after making changes.

Verify that Donconverter Local Oscillator frequency is set to match that of the downconverter that is being used. Typically:

- 1553.500MHz for Quorum GEO optimized downconverter
- 1556.000MHz for Quorum GEO + Polar downconverter
- 1565.000MHz for Quorum Polar Optimized downconverter

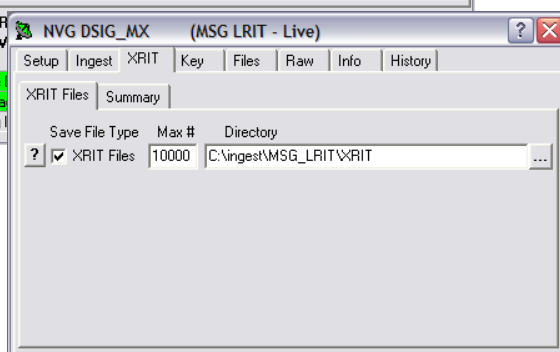
### XRIT Page > XRIT Files SubPage

For DSIG\_MX the Save checkbox is always checked (the only purpose of DSIG\_MX is to capture XRIT files)

Verify Directory for saving XRIT files (or set new one)

Set Max Number of files to save

(when more, then oldest are purged)

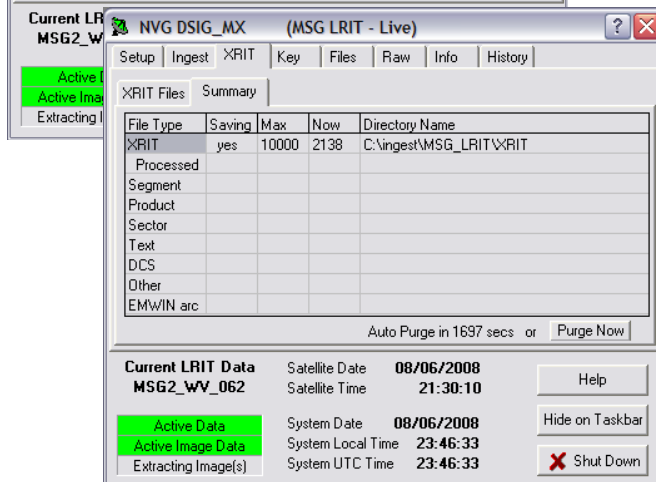


### XRIT Page > Summary SubPage

Shows status and settings for files being ingested

Auto Purging occurs periodically. If you notice the number of files is greater than Max then you can purge manually by clicking on the Purge Now button.

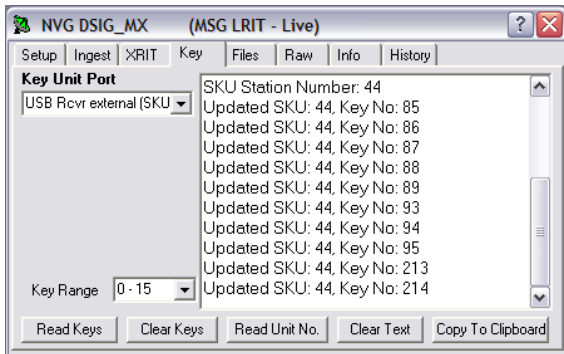
When running the DSIG\_MPX program to process the XRIT files (at the same time as DSIG\_MX is running), the number of XRIT files will be low, as they are processed soon after being captured.



# DSIG\_MX Typical Operation

**Ingest Data Type:**  
**Source:**

**MSG LRIT (Part 1)**  
**USB Receiver (Live)**

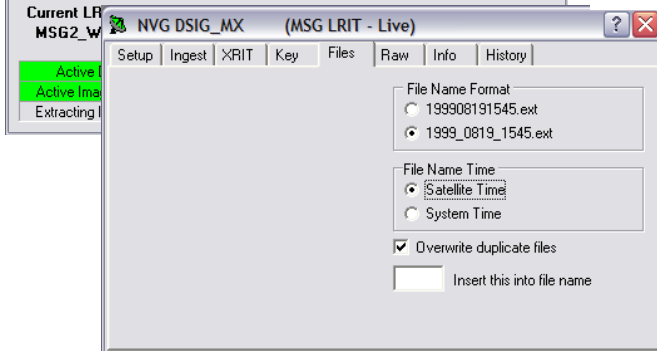


## Key Page \*\*\*\*\* NECESSARY SETTINGS \*\*\*\*\*

Verify that **Key Unit Port** is set to **USB Rcvr external (SKU)** (normal to rcvr).  
(Or, it is possible to use RS-422 to RS-232 converter to connect to Com Port)  
Verify that **Key Unit (SKU) Number** is reported as shown.

Keys for particular key unit will be received every few images. **Verify that keys are updated** (as shown, this may take a while). Keys are stored in key unit memory.

Each image requires a particular key for decryption, but the key must be reasonably "fresh". Once key is updated, then next few images using that key are

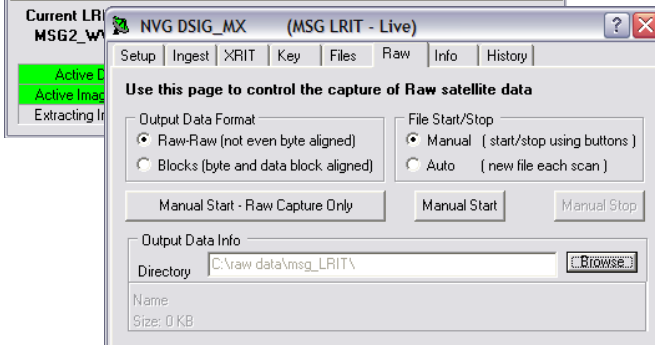


## Files Page

Verify that the **Overwrite Duplicate Files** checkbox is checked.

Other settings do not matter for DSIG\_MX since XRIT files are given standard filenames (contained in the data stream). These names are quite long. Two examples of XRIT filenames are:

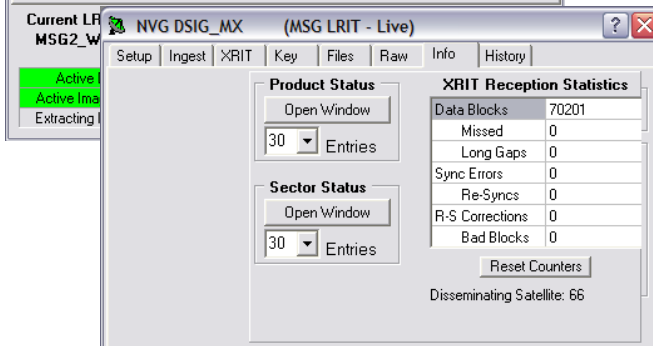
```
L-000-MSG2__-MSG2_____ -IR_039__-000019____-200808062245-C_
L-101-MSG2__-SERVICE_____ -ADMIN____-02230_001-200808062259-__
```



## Raw Page

Do not worry about Raw File Ingest for typical operation.

This is useful for capturing data to be sent back to software engineers if problems arise.



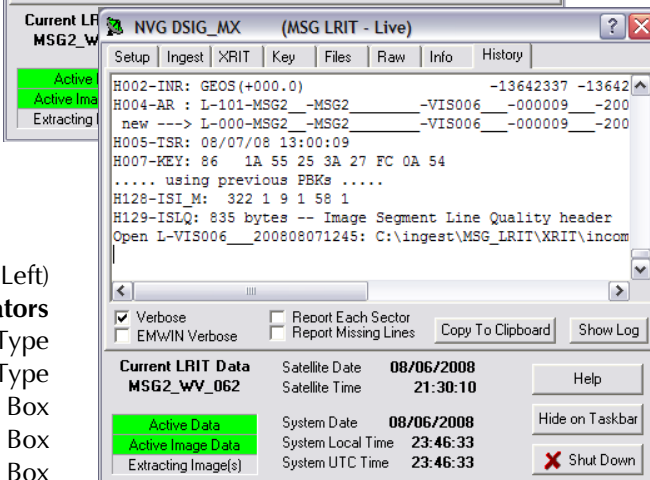
## Info Page

If good satellite signal (and "Active Data" Status Box is green). Then:

**Verify that Data Blocks Value is increasing.**

Other numbers will be low or even zero for good data signal.

Click on Open Window to display windows showing status of product image and sector image ingest. (Not useful for DSIG\_MX.)



## History Page

Verify that each scan is being reported. Check **Verbose** to see much more info. Click on **Show Log** to view a longer time span report of the History Window Messages

## Always in View

Verify that Satellite Date and Time are updating (true only if "Active Data" status box is green).

- Always in View (Lower Left)
- Status Indicators
- Satellite Type
- Scan Type
- Active Data Status Box
- Active Image Data Status Box
- Extracting Image Data Box (not applicable)