XC Daps

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Welcome to XC Daps

XConnect is Sutron Corporation's latest data collection, data processing and data storage software. Built on the strong principles of PcBase2, XConnect is compliant with today's 32-bit Windows operating systems and provides new tools and options for the user.

XConnect is a collection of executables designed to provide a complete solution for data collection, data handling, data viewing and data storage

The role of XC Daps within an XConnect data collection system is to retrieve DCP messages from NOAA's DAPS (DCS Automated Processing System) / DCS (Data Collection System) and store them in ASCII files. XC Daps automates a telnet session to the DAPS system. It scripts and sends the required DAPS commands to automatically download satellite messages on a use-defined interval.

These ASCII files are called Raw files because that contain raw (undecoded) satellite messages. Actual decoding and processing of the messages is performed by the **XC Decode** program.

Using XC Daps

Moving around in XC Daps

The XC Daps application consists of these main areas:

- The **Menu Bar** provides access to all user-controllable functions within the application.
- The **Toolbar** provides one-click access to important functions.
- The **Status Window** provides the user with informational or error messages.
- The **Latest Message** panel displays information about the most recently received message.

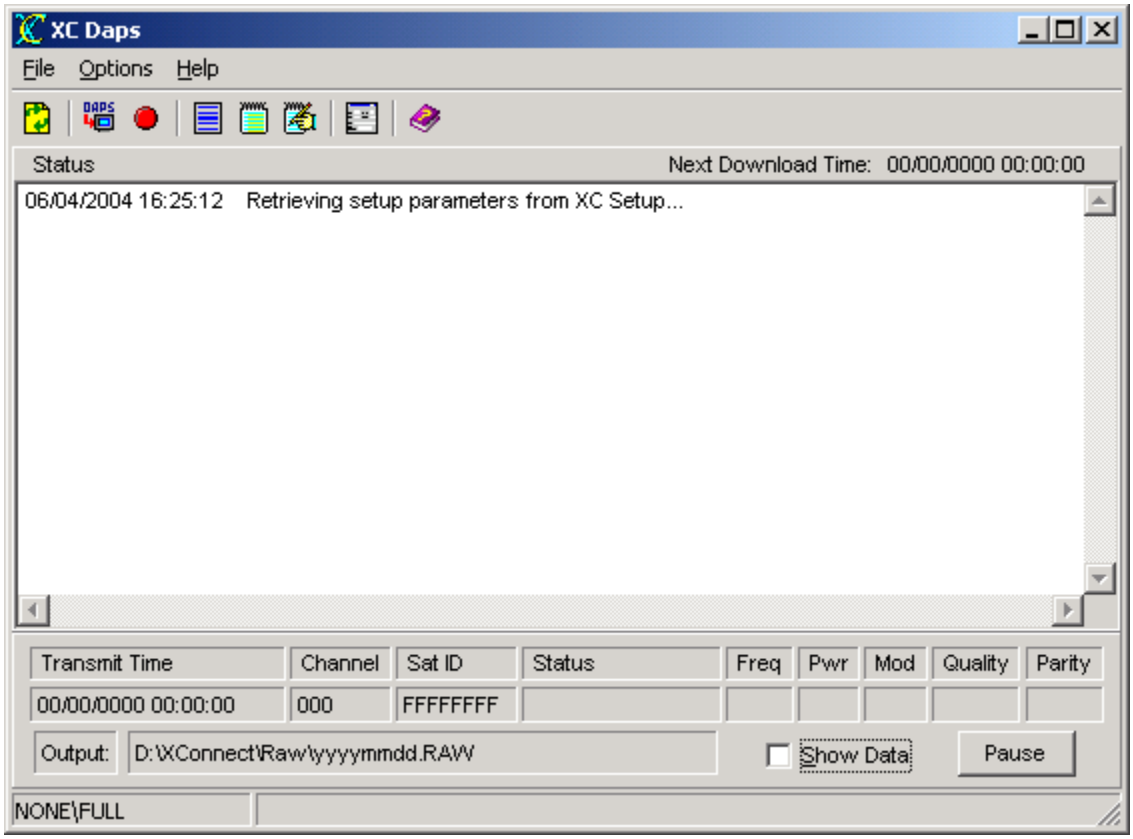

Figure 1. XC Daps main window

The Menu Bar

The Menu Bar provides access to the following menus:

File	○ **ReInitialize** -- reloads the latest setup information from XC Setup and reinitializes the communication ports by releasing the com port and opening it with new port parameters. ○ **Login** -- user login for XConnect system. ○ **Exit** -- terminates the application.
Options	○ **Download Now** -- starts a telnet session to download satellite message immediately.

	○ **Stop Download** -- stops current telnet session. ○ **View Satellite IDs** -- views and edits the satellite ID download list. ○ **Detailed Status** -- enables detailed status messages. ○ **Log Messages** -- logs all status messages to a disk file. ○ **Edit Setup Parameters** -- edits the setup parameters for XC Daps. ○ **Clear Status Messages** -- clears the status window.
Help	○ **XC Daps Help** -- accesses this help system and defaults to Index tab. ○ **XC Daps Contents** -- accesses this help system an defaults to Contents tab. ○ **About** -- get version information for this application.

The XC Daps Toolbar

The toolbar area allows you to quickly access various XC Daps functions.

The following tools are provided:


Reinitialize application. Flush local buffers and reload the latest setup information from XC Setup. Additionally, XC Daps will release the port and obtain new port information and re-open the port.


Start a telnet session to download satellite message immediately.


Stop current telnet session.


View and edit the satellite ID download list.


Show detailed status messages.


Log all status messages to a disk file.


Edit the setup parameters for XC Daps.


Open the on-line help (*this* document).

The Last Message panel

The latest message panel displays the following information about the most recently received DCP message:

- Transmit time

  The date and time of when the message was received in Greenwich Mean Time (GMT) by DAPS.

- channel

  The channel the message was received on.

- satellite ID

  Satellite ID, Platform ID, NESDIS ID or DCP Address.

- status

Status of message. Possibilities are:

- Good - Good message
- Short Msg - Short message received
- Bad Chan - Message received on wrong channel
- Parity Err - Errors in message

- frequency

  Frequency Offset in 50 Hz increments of message.

  0=0-49 Hz, 1=40-99 Hz, ... 8=400-449 Hz, A=500-549 Hz

  A minus sign indicates the same range only below the center frequency.

- power

  Signal Strength of received message in dB. Normal operation is 44 to 48. Reliable data can be received as low as 37 if no other signal problem exists.

- modulation

  Modulation Index or Phase Deviation.

  - N = Normal, 60 +/- 5 degrees
  - H = High, > 70 degrees
  - L = Low, < 50 degrees

- quality

  Signal to Noise quality.

  - N = Normal, error rate better than 1 x 10-6
  - F = Fair, error rate between 1 x 10-4 and 1 x 10-6
  - P = Poor, error rate worse than 1 x 10-4

- parity errors

  Number of parity errors in the message.

In addition, the panel also contains the following elements:

- The name of the **Output** file where the DCP messages are being written.
- A **Show Data** Control to toggle display of satellite data in the status window.
- A **Pause** button to halt display of status messages in the status window.

The Status Window

The **Status Window** gives a list of events performed or detected by the XC Daps program.

The **Next Download Time** indicates the date and time of the next telnet download session for satellite messages.

This list of status messages is in time order with each entry stamped with the date and time. Newest messages will appear at the top. Scroll bars will appear as needed to allow an operator to view parts of the display that may not fit in the window.

The Status Bar

The **Status Bar** is divided in two sections. The left-hand panel displays the user logged in and his/her privileges. The right-hand panel displays parameter hints.

If no users are defined, the user logged in will be NONE and the privileges will be FULL. As soon as a user is defined in XC Desktop, the user and privileges displayed will be NONE and NONE.

Data Flow

Data flow in satellite systems using XC Daps is represented below.

1. XC Daps and XC Decode retrieve setup information from XC Setup.
2. XC Daps receives satellite messages via a telnet session to the DAPS database at Wallops Island, MD, USA.
3. XC Daps saves messages into Raw files
4. XC Decode reads Raw files and processes the data based on setup and sensor information
5. XC Decode stores data to data storage option

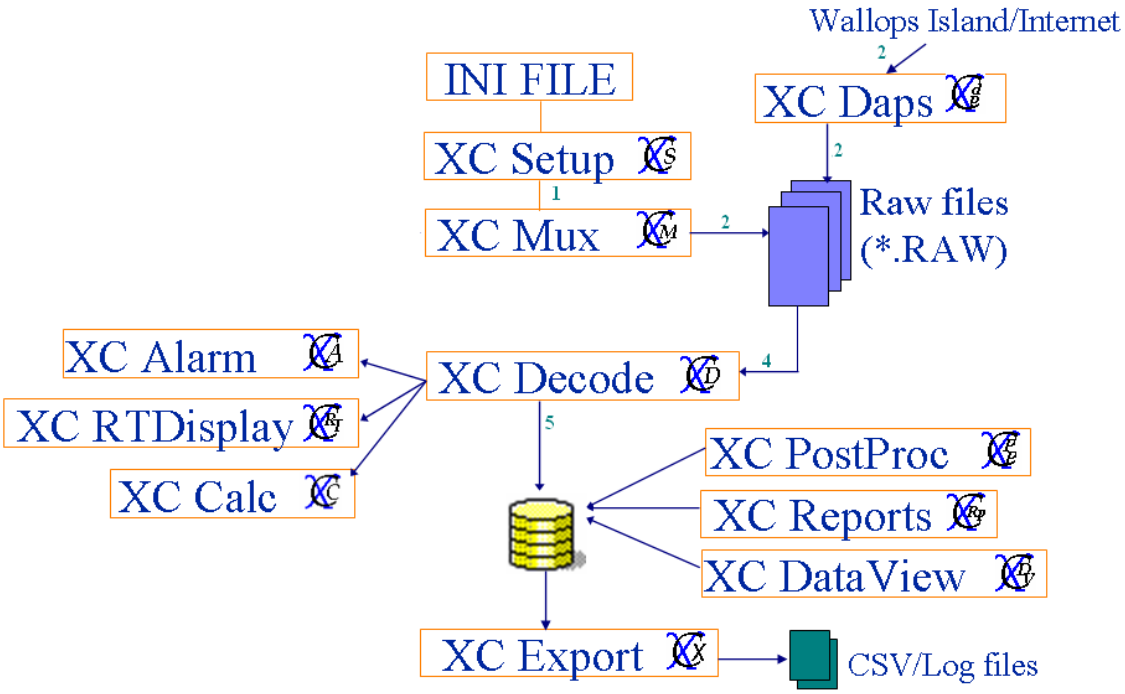

Figure 2. Data Flow

RAW files

All messages downloaded by XC Daps are stored into raw files. **It is good practice to backup/archive all raw files on CD or tape.** Because they contained the original measured data values, they can always be re-read or re-processed by XC Decode to create any final data storage output.

If ever a new equation or rating/look up table to older data, having the original raw files allows XC Decode to apply whatever adjusted equation to the data. In many cases, the original satellite messages are transmitted in ASCII, so can easily be exchanged with other organizations to share data history.

Messages in the status window

Below are the status messages XC Daps will display in the status window as it downloads data from the DAPS site:

- *xx* items in download list.

  This messages displays the total number of satellite IDs in the download list.

- WARNING: No data received for *satellite id.*

  No messages were downloaded from the DAPS database. Verify the station is transmitting properly. Select the Detailed Status option from the Options menu to view all DAPS messages.

- *xx* is not present in Downloaded data.

  An unlikely message indicating the satellite data in the downloaded data does not match the expected satellite ID in XC Daps. Stop download process and re-start.

- Waiting for next retry. Press Stop to abort.

  The first download attempt failed. XC Daps may have failed to login in or access the DAPS website. XC Daps will wait the Retry Wait time (seconds) before attempting to login again.

- Timeout occurred... Trying again to receive data - retry *xx*.

  20 seconds have elapsed since any data has been received from the DAPS database. XC Daps will try to download again.

- Aborting command - *xx.*

  The total number of retries has been attempted. XC Daps will abort the current download command.

- Retrying download.

  XC Daps is retrying the last download command.

- Sending Username.

  XC Daps is sending the user name to attempt to login to the DAPS database.

- Sending Password.

  XC Daps is sending the password to attempt to login to the DAPS database.

- Sending Firewall Username.

  XC Daps is sending the firewall user name to get access to the DAPS database.

- Sending Firewall Password.

  XC Daps is sending the firewall password to get access to the DAPS database.

- Login preamble received...

XC Daps has successfully logged into the DAPS database and has received the login preamble text.

- Completed Download list. Logging out.

  XC Daps has complete the download list and is logging out of the DAPS database. XC Daps logs in each download cycle.

- Processing command: *xxx*.

  XC Daps is currently send the current command to the DAPS database.

- Receiving data.

  XC Daps fcurrently receiving data rom the DAPS database.

- Logging out.

  XC Daps is logging out of the DAPS database.

- Download complete.

  The current download command for the satellite ID is completed. XC Daps will send the next download command.

- Received: *xxx*.

  When the Detailed Status option is selected, the user will see all text sent and received by XC Daps and the DAPS database.

- Sent: *xxx*.

  When the Detailed Status option is selected, the user will see all text sent and received by XC Daps and the DAPS database.

- Telnet session closed.

  The telnet session to the DAPS database has been closed.

- Telnet session connected.

  The telnet session to the DAPS database has been opened and is connected to the DAPS IP address.

- Finishing current download before logging out.

  If the user selects the Stop Download option, XC Daps will complete the current download command before closing the telnet session with the DAPS database.

- Download Interval is 0. No downloads will occur.

  While validating parameters in the Edit Parameters window, the user left the download interval to 0. No auto downloads will occur without specifying a download interval.

- No items in download list.

  In the View Satellite ID List, the user has not selected any satellite IDs in the download list. No downloads will occur.

- No satellite ID selected.

  In the View Satellite ID List, the user has selected the Add button but has not selected a satellite ID.

Clearing the status window

The purpose of the status window is for XC Daps to display the informational and warning messages. To clear the window of existing messages:

1. Click the **XC Daps** icon on the desktop. The XC Daps application will start minimized.
2. From the **Options** menu, select **Clear Status Messages** or from the toolbar click on the  icon.

On-demand download

XC Daps will automatically download satellite messages from DAPS based on the **Base Time** and **Interval**. However, if the user does not want to wait for the Next Download Time as displayed in the main status window, the user can force the next decoding cycle. To trigger an on-demand decoding interval:

1. Click the **XC Daps** icon on the desktop. The XC Daps application starts minimized.
2. From the **Options** menu, select **Download Now** or from the toolbar click on the 

icon.

Viewing satellite IDs

XC Daps only downloads messages for satellite IDs for stations defined in XC Desktop. The user can modify the order of the download list or remove satellite IDs from the download list. As an example, all the station may have been configured in XC Desktop, in advance, but the station may not be physically installed and transmitting. In this case, the user may want to remove stations from the download list.

To view or edit the satellite ID list:

1. Click the **XC Daps** icon on the desktop. The XC Daps application will start minimized.
2. From the **Options** menu, select **View Satellite IDs** or click the button on the toolbar.
3. The Satellite Download List window will appear.

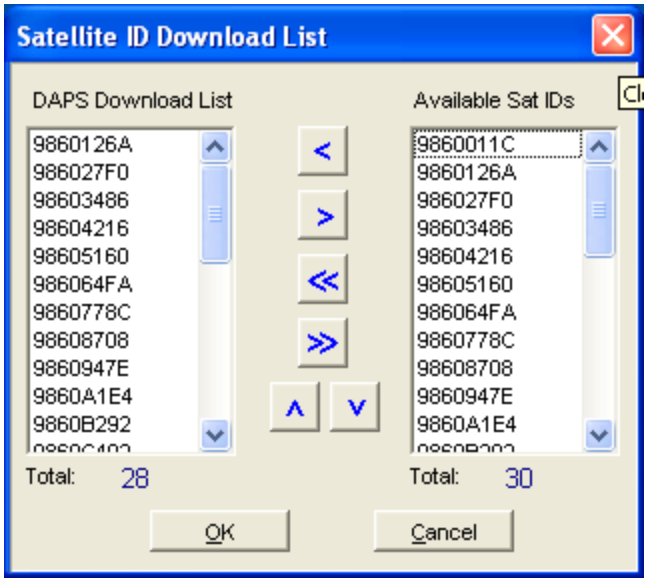

Figure 3. Satellite ID Download list

The satellite IDs listed on left hand side represent the IDs that will be in DAPS download list. The list on the right-hand side represent all the satellite IDs for all the station defined in XC Desktop. Use the arrows to modify the order of the DAPS download list or remove IDs from the list.

Editing setup parameters

In setting up the telnet session with DAPS to receive messages there are a number of critical parameters that must be configured properly. To set these parameters:

1. Click the **XC Daps** icon on the desktop. The XC Daps application will start minimized.
2. From the **Options** menu, select **Edit Setup Parameters** or from the toolbar click the button.
3. The **Edit Daps Setup Parameters** window appears.

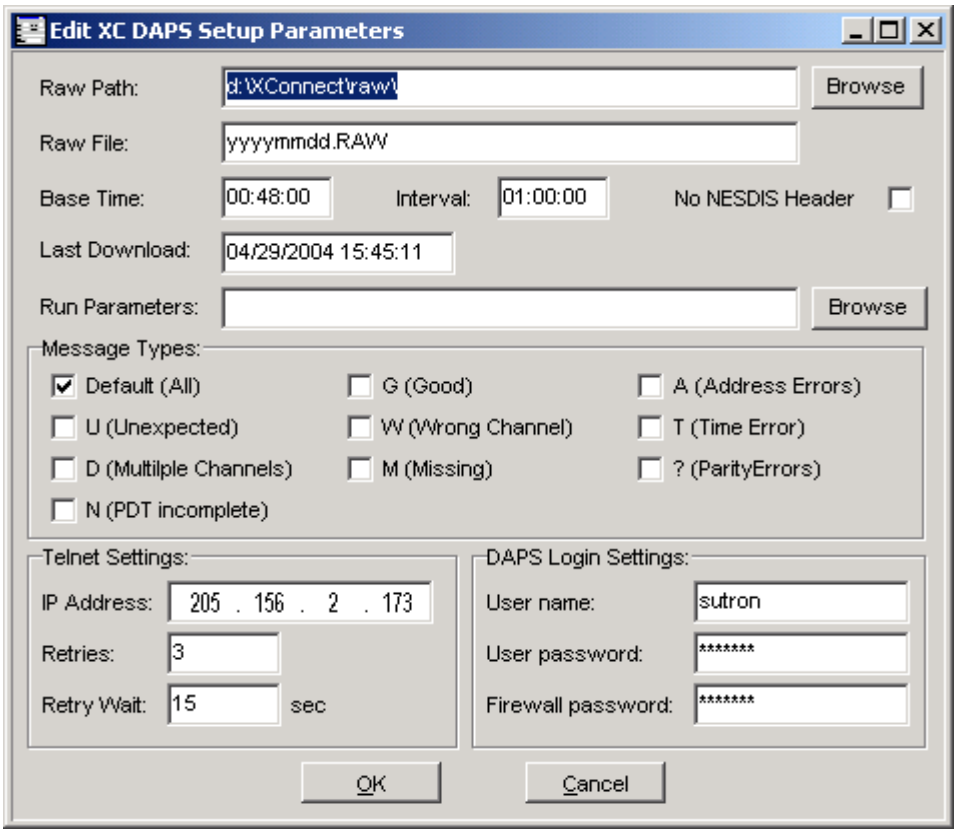

Figure 4. XC Daps setup parameters

From this window you can make changes to the Daps setup as described below. When you are finished, click the **OK** button to save changes. Changes will be saved to XC Setup. Clicking **Cancel** will close the window without saving changes.

This parameters are the same as viewed and edited in XC Desktop - XC Daps Setup window. The user has the option to edit the parameters within XC Daps or in XC Desktop.

XC Daps Setup Parameters

- **Raw Path** - The directory to store the raw NESDIS files as the satellite messages downloaded from DAPS.
- **Raw File** - The naming pattern of the raw data output files. The pattern contained in this field determines the name of the file which XC Daps will create and/or append to as messages are received from DAPS. Tips on raw file naming convention.

  The lower case letters "yy", "yyyy", "mm, "dd", "hh", "mi" can be included in the name to instruct the software to created separate minute, hourly, daily, monthly, or yearly files.

Optionally, "#nn: can be added to specify that a new file should be created every nn minutes (when using "mi") or hours (when using "hh"), or days (all other). The "#nn" can appear anywhere in the string, where nn must be two digits with leading zeros, if necessary.

The dating of raw files is important for easy backup, purging or distribution of raw data; and reprocessing of raw data through XC Decode. If the files are allowed to grow too large, these processes will become more difficult or require excessive time to perform. The default setting of yyyymmdd.RAW creates a separate file each day.

Example 1:

MYDATdd.RAW would create the file MYDAT01.RAW on the first day of the month, MYDAT02.RAW on the second day, and so on until the next month MYDAT01 would be used again. NESmm.RAW would create the file NES01.RAW to contain all the data for January, NES02.RAW to contain all the data for February, and so on until the next month.

Example 2:

yymmddhh.RAW#02 would create a new output file every 2 hours. If the "#02" was left off, a new file would be created every hour. As well, mmddhhmi.RAW#15 would create a new output file every 15 minutes.

- **Base Time** - Used in conjunction with the Interval, this indicates how often XC Daps will login to the DAPS database and download satellite messages into raw files. Base Time represents an offset into the hour. As an example, if the Base Time is 00:05:00 and Interval is 00:30:00, then XC Daps will check for messages at 00:05:00, 00:35:00, 01:05:00, 01:35:00...etc.
- **Interval** - Used in conjunction with the Base Time, this indicates how often XC Daps will login to the DAPS database and download satellite messages into raw files. Base Time represents an offset into the hour. As an example, if the Base Time is 00:05:00 and Auto Interval is 00:30:00, then XC Daps will check for messages at 00:05:00, 00:35:00, 01:05:00, 01:35:00...etc.
- **No NESDIS Header** - Check this flag if you would prefer to strip off the NESDIS header (first 37 characters) from the satellite message before storing to the raw file. This flag is rarely used. This may be useful if the transmitted message is a complete formatted text message (i.e. WMO message) that just needs to be stored to disk.
- **Last Download** - Timestamp of last satellite message downloaded by XC Daps. XC DAPS will update this field each time a messages from a satellite id are stored. XC Daps will track the last download times from all the satellite ids and save the earliest of all the download times as the Last Download time. The Last Download time will be the start time for the next download cycle. The time is GMT like the DAPS database.
- **Run Parameters** - An optional list of programs to run when the XC Daps program is started. These programs will be started before XC Daps begins processing messages. If the application does not reside in the XConnect home directory, list the file path with the executable name (i.e., c:\myapp\myapp.exe).


As an example, a custom client program may used to display decoded data in a specific layout. To ensure the client program is automatically running when XC Decode starts, add the client program executable name to the Run parameter list.

- **Message Types**
  - **Default** - Download all messages in DAPS database for satellite id.
  - **Good (G)** - Download good DCP messages.
  - **Address Errors (A)** - Download messages issued by DAPS with address errors. Address errors can sometimes be correctable by DAPS.
  - **Missing (M)** - Download messages issued by DAPS flagging missing messages.

- **Unexpected (U)** - Download messages issued by DAPS flagging unexpected messages.
- **Wrong Channel (W)** - Download messages issued by DAPS flagging messages received on the wrong channel.
- **Time Error (T)** - Download messages issued by DAPS flagging transmit time errors.
- **PDT Incomplete (P)** - Download messages issued by DAPS flagging incomplete PDT records.
- **Multiple Channels (D)** - Download messages issued by DAPS flagging messages received on multiple channels.
- **Parity Errors (?)** - Download DCP messages with parity errors.

- **Telnet Settings**
  - **IP Address** - IP address of DAPS database. Consult NOAA DAPS web-site for any changes in DAPS telnet ip address.
  - **Retries** - Number of times to retry it telnet connection to IP address fails.
  - **Retry Wait** - Seconds to wait between retries.
- **DAPS Login Settings**
  - **User name** - DAPS user name. User name is provide by DAPS when application is submitted for satellite ids.
  - **User password** - DAPS user password. Login password into the DAPS database. This is also provided by DAPS.
  - **Firewall password** - DAPS firewall password. This is provided by DAPS.

Logging status messages

The purpose of the **Log Status messages** is more for troubleshooting. Logging all messages will provide Sutron customer support as a historical log of all events to help troubleshoot any problems. To log all status messages:

1. Click the **XC Daps** icon on the desktop. The XC Daps will start minimized.
2. From the **Options** menu, select **Log Status Messages** or from the toolbar click on the  icon. The user will be required to enter/select the name of the file to store the status messages.

Refreshing Setup parameters

XC Daps gets the configuration data it needs from the XC Setup program. Since most of this information is requested at application startup, there needs to be a mechanism for propagating changes that are made to the setup after XC Daps is already running. This mechanism is provided via the **Reinitialize**  function which can be found in XC Daps on the toolbar or under the **FILE** menu.

Clicking the **Reinitialize**  button causes XC Daps to flush the current setup information from its buffer and request new setup information from XC Setup. In addition, XC Daps will also release (close) its IP socket port and then open a port using the new IP specified in the newly refreshed setup information.

Advanced Topics

NESDIS Header Field Description

```
CE122654023652359596G46-3NN052WFF00029@DEAap@JAAap@JAAap@JAgri□
1       2 3  4 5 6 78 9 ABC  DE F    G                        H
```

Field #	Byte Length	Range	Description
1	8	0-9,A-F	Satellite ID, Platform ID, DCP Address
2	2	00-99	Year message was received relative to GMT
3	3	000-365	Julian day message was received relative to GMT
4	2	00-23	Hour message was received relative to GMT
5	2	00-59	Minute message was received relative to GMT
6	2	00-59	Second message was received relative to GMT
7	1	G,?,W,A,B,T,U, M,I,N,Q,C,S	Failure Code G - Good Message ? - Message received with parity errors M - Missing message S - Short or Truncated message (**Sutron Only**) **THE FOLLOWING CODES ARE USED BY NESDIS ONLY:** W - Message received on wrong channel D - Message received on multiple channel (duplicate) A - Message received with address error(s) (correctable) B - Message received with bad address (not correctable) T - Message received late/early (time error) U - Unexpected message I - Invalid address N - PDT entry for platform not complete Q - Bad quality measurements C - Comparison error on test transmission Note: The PDT is NESIDS's platform description table.
8	2	32-57	Signal Strength of received message in dB. Normal operation is 44-48. Reliable data can be received as low as 37 if not other signal problem exists.
9	2	0,1,2...9,A -1,-2...-9,-A	Frequency Offset in 50 Hz increments. 0=0-49 Hz, 1=40-99 Hz,...8=400-449 Hz, A=500-549 Hz. A minus sign indicates the same range only below the center frequency.
A	1	N,H,L	Modulation Index or Phase Deviation N = Normal, 60 +/- 5 degrees H = High, > 70 degrees L = Low, < 50 degrees
B	1	N,H,P	Modulation Quality N = Normal, error rate better than $1x10^{-6}$ F = Fair, error rate between $1x10^{-4}$ and $1x10^{-6}$ P = Poor, error rate worse than $1x10^{-4}$

C	3	000-999	Channel message was received on
D	1	E,W,C,A	Satellite Spacecraft Location E - GOES East W = GOES West C = GOES Central (not currently used) THE FOLLOW CODES HAVE BEEN DEFINED BY SUTRON TO SUPPORT NON-GOES SATELLITES: A = ARGOS (Never see this from NESDIS)
E	2	FF	Uplink carrier status (not used, always FF)
F	5	00000-15750	Message Data Length (plus 4 bytes to account for satellite ID which used to be contained in the message + 1 byte for the EOT stored as a blank space at the end). In the example, there are acutally only 24 bytes of data, however, 24+4+1 or **29** is the actual number stored in the data length.
G	Message Data Length minus 5	!-~,CR,LF, SPACE	Message data. Can be continued on multiple lines separated by a CR and a LF.
H	1	□	Blank space representing EOT (End of Transmission) at end of message.

NOAA DAPS

The DAPS enables all users to retrieve DCP message (MSG) file data, to define and maintain up to five (5) DCP message retrieval or User Network Lists (UNL), and to send and/or receive mail messages to/from the DAPS Operator or Manager. Since there are restrictions with each of these features, users should read the notes included with the COMMAND syntax and heed the cautions.

Although every DCS (Data Collection System) user can receive data from any valid GOES Data Collection Platform (DCP) and view any DAPS Platform Data Table (PDT) record, only the DCP owner has access to change or update a DCP field entries. As per the DCS user's Memorandum of Agreement (MOA), DCP owners are responsible for their respective PDT records. Consequentially if the DCP field entries are incorrect secondary users should contact the platform's owner and not NESDIS. Further NESDIS only disseminates DCP data in raw form as it is received from the DCP with no post processing and is not responsible for the DCP's data content or its accuracy. For further information concerning a specific DCP's data content, the secondary user should contact the DCP owner identified in the PDT record.

To access the DAPS each user is required to have a Memorandum of Agreement (MOA) and a User Data Table (UDT) record. To sign on to the DAPS users must enter a valid Username and Password combination. Upon sign on the DAPS opens the respective users' UDT record, notifies the user as to mail in the system, displays any system status bulletins issued since the last user signon, and provides the ">" prompt for user entry. Each DAPS user is responsible for their UDT. Should a user's operating requirements or representatives change, each user is expected to maintain or update their UDT field entries.

DCP owners of either primary or secondary interrogate DCPs are provided specific COMMANDS that enable manual interrogation or command of the respective DCP.

GOES Data Collection System (DCS) Background

The GOES system supports a radio relay or DCS. The DCS enables a large variety of environmental data to be relayed from point sources, Data Collection Platforms (DCP), which are land, sea, or mobile based through the GOES geostationary satellite and back to Earth, from where these data are selectively disseminated to the systems' user. For additional information go to the NOAA DAPS website http://dcs.noaa.gov.

DAPS System and Commands

The DAPS On-line User Interface provides a means for a user to retrieve DCP messages, request retransmission of messages over DOMSAT, update and display tables in the DAPS DBMS containing information about the user and platforms owned by the user, command or interrogate a platform owned by the user, or communicate with the DAPS operator or manager.

Each variable-length message received by the DAPS is archived in the Global Message Storage (GMS) file. The GMS is a circular file sized to contain approximately three days or 72 hours of DCP message data. DAPS provides commands to display (DISPLAY MESSAGE_FILE) or download (DOWNLOAD MESSAGE_FILE) entries in the GMS. Additionally, users of the DOMSAT Receive Only Terminal (DROT) may request the retransmission of messages (RETRANSMIT) over the DOMSAT. All of the message retrieval commands provide various selection criteria options. One of the primary differences between the DAPS and the old DCS/DPS is that any DCS user may receive any DCP message received via the DAPS in the last 72 hours as many times as desired.

Troubleshooting

Troubleshooting tips

XC Daps relies on an internet connection to download satellite messages. XC Daps opens a telnet session via an IP address to the NOAA DAPS database. Select the **Detailed Status** messages option from the Options main menu. This will enable all messages sent and received from the port to be viewed by the users. The DAPS database may be off-line due to maintenance or unexpected problems. If this is the case, it will be revealed when the Detailed Status option is selected.

Internet connectivity

Ensure that your PC is connected to the internet. Open the Internet Explorer and verify it can open the default home page.

Incorrect DAPS IP address

Ensure the correct IP address has been typed in. The current IP address for DAPS is **205.156.2.173**.

Incorrect login passwords

Ensure the correct the user name, firewall password and the user password are typed in. Secondly, verify that your login user name is an accepted user name by the DAPS firewall. If not, contact DAPS technicians, (757)-824-7450/7451, to add your user name to the firewall password list.

Invalid satellite IDs

While viewing the detailed messages during download sessions, the DAPS database will also send error or warning messages such as INVALID PLATFORM ID. Carefully review the detailed messages and read any messages generated by DAPS.

Error Messages

Potential error messages generated by XC Daps are:

Error 1: User does not have correct privileges to perform action.

Troubleshooting steps:

Reasons for error:

- User name is not configured for read/write privilege.

  Return to XC Desktop to configure user privileges.

Error 2: Invalid user/password settings.

Troubleshooting steps:

Ensure that:

- User name and password are entered correctly.
- Caps lock key is on (User name and passwords are case-sensitive).

Error 3: Unable to run - .

Troubleshooting steps:

Potential reasons for error:

- Application on Run parameter line does not exist.

  Make sure the correct path and name are typed (i.e. c:\myapp\mynewapp.exe)

- First application on Run parameter is run but others are not.

  If all paths and filenames are correct, make sure each application name is separated by a **comma only** and not a comma and space.

Error 4: An instance of the "XCSetup.Applications" OLE Automation class could not be created. Is XC Setup running?

Troubleshooting steps:

A COM interface connection is made by each XConnect application to XC Setup. This allows the applications to retrieve and send configuration parameters related to XC Mux.

Potential reasons for error:

- XC Setup is not running.

  Close current application and restart. XC Setup should start automatically.

- XC Setup does not start automatically with XConnect application.

  Close current application. Start XC Setup manually from Start Menu. Then re-start XConnect application.

  If error still persists, reboot computer.

Error 5: XC Setup is not running. Process halted.

Troubleshooting steps:

XC Setup must be running for all other XConnect applications to function properly. Various parameters are retrieved and stored by the XConnect applications.

Each XConnect application will attempt to start XC Setup if it is not running.

Ensure that:

- XC Setup (XCSetup.exe) is in XConnect home directory.

  Using Windows Explorer or My Computer, ensure that XC Setup was not accidentally deleted from the XConnect install directory. If not present, insert XConnect installation CD to repair.

Error 6: An error occurred while retrieving parameters from XCSetup.

Troubleshooting steps:

Potential reasons for error:

- XC Setup is not running.

  Ensure that XC Setup is shown on the Windows taskbar.

- COM connection to XC Setup is corrupted. Close current application and re-start.

Error 7: Unable to retrieve General Setup parameters.

Troubleshooting steps:

Potential reasons for error:

- XC Setup is not running.

  Ensure that XC Setup is shown on the Windows taskbar.

- COM connection to XC Setup is corrupted. Close current application and re-start.

Error 8: Invalid License Key. Please verify XConnect is properly installed.

Troubleshooting steps:

Ensure that:

- Current XConnect application is part of the purchased XConnect license.

  Refer to the original purchase order.

Error 9: Invalid License Key. Exiting now…

Troubleshooting steps:

Potential reasons for error:

- Current XConnect application is not valid for use with existing XConnect license.

  Call Sutron Sales to upgrade XConnect license.

Error 100: Unable to open file xxx.

Troubleshooting steps:

Ensure that:

- File name exists in the directory. Verify using Windows Explorer or My Computer.

Error 101: Unable to read file xxx.

Troubleshooting steps:

Potential reasons for error:

- File may be corrupt. If it is an ASCII file, can it be opened in Notepad.
- File may be correct extension by wrong expected format. Choose another file.

Error 800: Unable to retrieve XC Daps setup parameters.

Troubleshooting steps:

Potential reasons for error:

- XC Setup is not running.

  Ensure that XC Setup is shown on the Windows taskbar.
- COM connection to XC Setup is corrupted. Close current application and re-start.

Error 801: Unable to update XC Daps setup parameters.

Troubleshooting steps:

Potential reasons for error:

- XC Setup is not running.

  Ensure that XC Setup is shown on the Windows taskbar.
- COM connection to XC Setup is corrupted. Close current application and re-start.

Error 802: Unable to connect to xxx.xxx.xxx.xxx.

Troubleshooting steps:

Potential reasons for error:

- Invalid IP address

  Ensure that the DAPS IP address in the XC Daps setup parameters window is set to 205.156.2.173.
- No internet connection.

  Ensure that you have internet connectivity. Open Internet Explorer and verify the home page can be accessed.

Error 803: Current download cycle failed. Attempted all retries.

Troubleshooting steps:

Potential reasons for error:

- XC Daps failed to connect to DAPS IP address.

  Ensure that the DAPS IP address in the XC Daps setup parameters window is set to 205.156.2.173.

  Ensure that you have internet connectivity. Open Internet Explorer and verify the home page can be accessed.

Error 804: Failed to close current session. Trying again, please wait.

Troubleshooting steps:

Potential reasons for error:

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Error 805: Unable to write status message to log file.

Troubleshooting steps:

Ensure that:

- Directory is not write-protected.

  Go to Windows Explorer and verify the properties of the directory.

- File is not already open by another application.

Error 806: No IP address specified for DAPS.

Troubleshooting steps:

Ensure that:

- DAPS IP address in the XC Daps setup parameters window is set to 205.156.2.173.

Error 807: No stations to download. Go to XC Desktop to add stations.

Troubleshooting steps:

Potential reasons for error:

- No stations defined in XC Desktop.

  Open XC Desktop and configure stations and sensors.

Error 808: Invalid Retries value.

Troubleshooting steps:

Ensure that:

- Retries parameter is an integer.

Error 809: Invalid Retry Wait value.

Troubleshooting steps:

Ensure that:

- Retry Wait parameter is an integer.

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