

Table 4: View Menu Items (Continued)

MENU ITEM	DESCRIPTION
Log File Name	Path name of directory (folder) where EMS log file is stored (see next item). To change, click on the field and browse to select a file or key in a path name in the dialog window.
Days to save before trimming	Number of days an entry remains in the log file before being automatically deleted by the system. To change the setting, key in a number (1-60).
Modem Initialization	This field is not currently used.
EMS Link Timeout (minutes)	Number of minutes EMS spends looking for a network element before recording an EMS Link Status alarm. Select using pull-down menu.
Cataloging Time	Number of seconds EMS spends looking for host/remote pairs on startup and on Tools⇒Refresh Catalog requests. Select using pull-down menu.
Demo Mode	No = Demo Mode off. Yes = Demo Mode on. <i>Do not use demo mode when real network elements are connected!</i>

4.1.3 View Menu

The **View** menu, shown in [Figure 50](#), contains two items that are always present, **Catalog** and **Alarm Overview**.

In addition, as shown, this menu contains one item for each host/remote pair currently known to EMS.

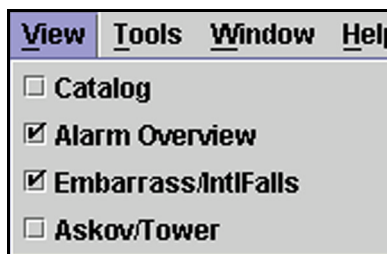


Figure 50. View Menu Example

The **View** menu is built at start up and rebuilt whenever calaloging is requested by a user selection of **Tools⇒Refresh Catalog**. [Table 5](#) describes the selections available on the **View** menu.

Table 5: View Menu Items

MENU ITEM	DESCRIPTION
Catalog	This item is always present. Selecting it causes EMS to look for and identify all network elements connected and known. Selecting this item also causes the View menu to be rebuilt. For Catalog display, see Topic 4.2 on page 65 .
Alarm Overview	This item is always present. Selecting this item displays an alarm summary with a an alarm status indicator for each known network element and an alarm history indicator for each alarm that has not been acknowledged. The Alarm Overview is described in Topic 4.3 on page 66 .
NotNamed/NotNamed	This item is only present if a host/remote pair seen by EMS have not yet been given site names. You should assign site names as described in Topic 3.4 on page 31 .
<SiteName/SiteName>	<p>(“Askov/Tower,” for example) displays the selected host/remote pair alarm windows. From the alarm windows you can select from the listed information tabs including:</p> <ul style="list-style-type: none"> • For the Host Unit: Alarms, RF, Host, DC Pwr, Ext Alm, Prg Load, and Config (see Topic 4.4, Host Displays, on page 69). • For the Remote Unit: Alarms, RF, STM, DC Pwr, Ext Alm, Prg Load, and Config (see Topic 4.5, Remote Displays, on page 80).

4.1.4 Tools Menu

The **Tools** menu, shown in [Figure 51](#), has three items, **Refresh Catalog**, **Opmode**, and **Host Adapt**.

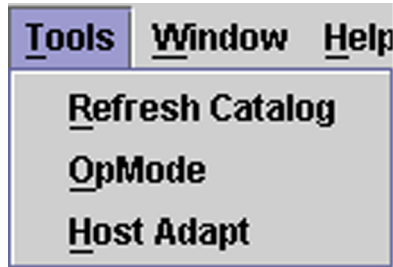


Figure 51. Tools Menu

Selecting **Refresh Catalog** causes EMS to look again for host/remote pairs. EMS then rebuilds the list of host/remote pairs in the **View** menu, providing a way to get to the detail information for those pairs, as described in the previous topic. Selecting **Opmode** displays a window that can be used to select an operating mode for a host unit or remote unit. Figure 52 shows the **Opmode** window with the pull-down menu used to select operating mode.

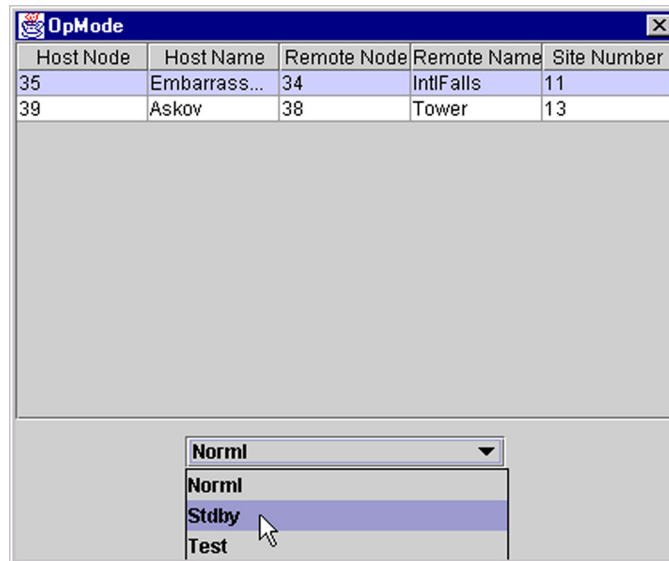


Figure 52. Opmode Window

To set operating mode for a host/remote pair

1. From the **Tools** menu, select **Opmode** to display a table of all currently known host/remote pairs.

2. Click on the table row for the host/remote pair of interest.
3. For a description of the modes, refer to [Table 6](#).

CAUTION! Care is needed to prevent damage to the system in Test Mode. Test Mode causes the system to ignore alarms that would otherwise prevent RF signals from being transported.

4. Select an operating mode using the pull-down menu after first checking the CAUTION statement above.

To stop an operating mode for a host/remote pair

Stop an operating mode by selecting another mode. (In the end, select **Norml** mode to return the host/remote pair to normal operation.)

Table 6: Host Operating Modes

MODE	DESCRIPTION
PrgLd FPGALd	These modes happens automatically when a control program or FPGA is being downloaded to a network element as described in Topic 3.14 on page 50 .
Norml	This is the normal operating mode. In this mode RF signals can be transported normally.
Stdby	This mode can be started by selected Stdby from the pull-down menu. In Standby mode, the host unit stops transporting RF signals and tries to conserve power. Stdby mode can be exited by selecting Norml or Test .
Test	This mode can be started by selecting Test from the pull-down menu. In Test mode, the host/remote pair keeps transporting RF signals even if an alarm exists that would otherwise stop signal transport. This mode is used during installation to turn up a host unit or remote unit and start it transporting RF signals. Alarms would otherwise prevent RF signals from being transported. Test mode can be exited by selecting Norml or Stdby . CAUTION! Care is needed to prevent damage to the system in Test Mode!

Selecting **Host Adapt** activates a function that can be used to match the host unit band and sub-band with the remote unit.

To set the Host Unit Band and Sub-Band to match the Remote Unit

1. From the **Tools** menu, select **Host Adapt**.
2. In response to the warning dialog shown in [Figure 53](#), click on **Yes**. For normal operation, the host unit and remote unit must be set to the same band and sub-band.

NOTE: The only practically possible reason you would ever have to answer **No** to this dialog is if a new remote unit being installed for an existing system was specified incorrectly and thus does not match the existing system band and sub-band. In such a case, as soon as you hook up the remote unit, you will get a **Hardware Mismatch** error (see [Table 10: Host Major Alarms When Faulted on page 69](#)). Forcing the host unit to adapt to the wrong band and sub-band in this situation would result in loss of some existing values for logical channels such as FCC channel numbers and gain settings.

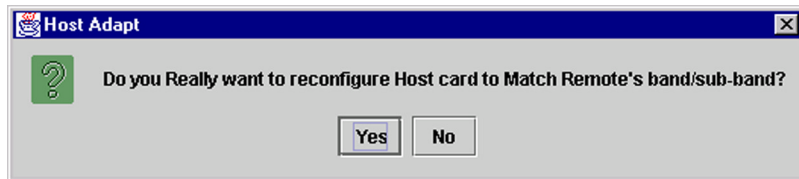


Figure 53. Host Adapt Warning

4.1.5 Window Menu

The **Window** menu, at any moment in time, contains an item for each EMS window currently open, either in displayed or minimized form. Clicking on an item causes the corresponding window to come to the foreground (with respect to other displayed windows).

The **Window** menu always contain two items, **NOC-NEM Terminal** and **Alarm Overview** because these windows are always open. [Figure 54](#) shows an example of a **Window** menu containing an additional item for a host/remote pair. [Table 7](#) describes the menu items.

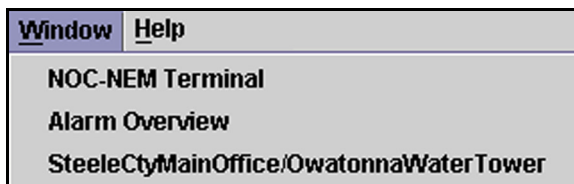


Figure 54. Window Menu Example

Table 7: Window Menu

MENU ITEM	DESCRIPTION
NOC-NEM Terminal	This item is always present. Selecting this item brings the NOC-NEM Terminal window to the foreground of the current display. This window can be used to view user-entered commands, system responses, and automatic status messages and for all host/remote pairs currently accessible through the Maintenance Interface. For a description of NOC-NEM commands and messages, see Section 5 on page 93.
Alarm Overview	This item is always present. Selecting this item brings the AlarmOverview window to the foreground of the current display. For a description, see Topic Topic 4.3, Alarm Overview , on page 66.
<SiteName/SiteName>	This item will be present for a particular host/remote pair if a window is currently open showing the alarm detail for that pair. Selecting the item brings the detail window to the foreground.

4.1.6 Help Menu

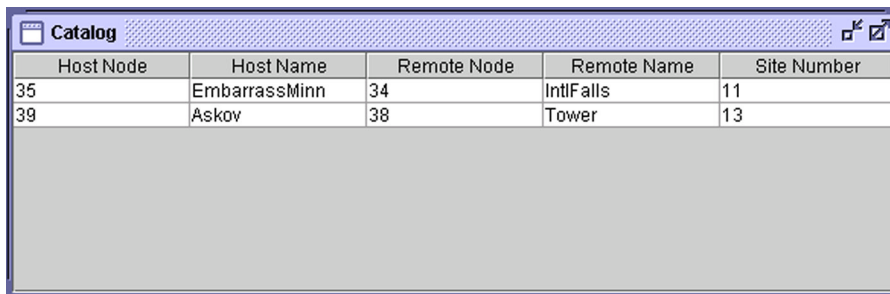
Table 8 describes the selections available on the **Help** menu.

Table 8: Help Menu Items

MENU ITEM	DESCRIPTION
Help	This item has no function.
About EMS	Selecting this item displays a window identifying the EMS version being used.

4.2 Catalog

The **Catalog** window, displayed by selecting **View**⇒**Catalog**, displays a table of all network elements currently known to EMS. [Figure 55](#) shows an example. The table contains one row for each host/remote pair. For a description of the fields, refer to [Table 9](#), below.



Host Node	Host Name	Remote Node	Remote Name	Site Number
35	EmbarrassMinn	34	IntlFalls	11
39	Askov	38	Tower	13

Figure 55. Catalog Example

Table 9: Catalog Fields

FIELD	DESCRIPTION
Host Node	Numeric identifier for a particular host unit. This number is assigned by the system.
Host Name	User-assigned name for the host unit. Equivalent to the “site name.” Can be entered or changed using the Config tab in the Host display (see Topic 4.4.6 on page 78).
Remote Node	Numeric identifier for a particular remote unit. This number is assigned by the system based on the host node value.
Remote Name	User-assigned name for the remote unit. Can be entered or changed using the Config tab in the remote display (see Topic 4.5.7 on page 90).
Site Number	User-assigned number for the host/remote pair. When a new site number is entered, EMS changes the host node and remote node values. (A Tools ⇒ Refresh Catalog is required for these new values to be correctly displayed.)

4.3 Alarm Overview

The **Alarm Overview** window, displayed by selecting **View⇒Alarm Overview**, provides a visual alarm summary for all network elements currently known to EMS. [Figure 56](#) shows an example.

As shown, the display divides into two side-by-side sections, with host units in the left section and remote units in the right section. Each side-by-side pair of units is one operational host/remote pair. If EMS finds any unit without a pair, just the found unit is shown; the other half of the row is blank.

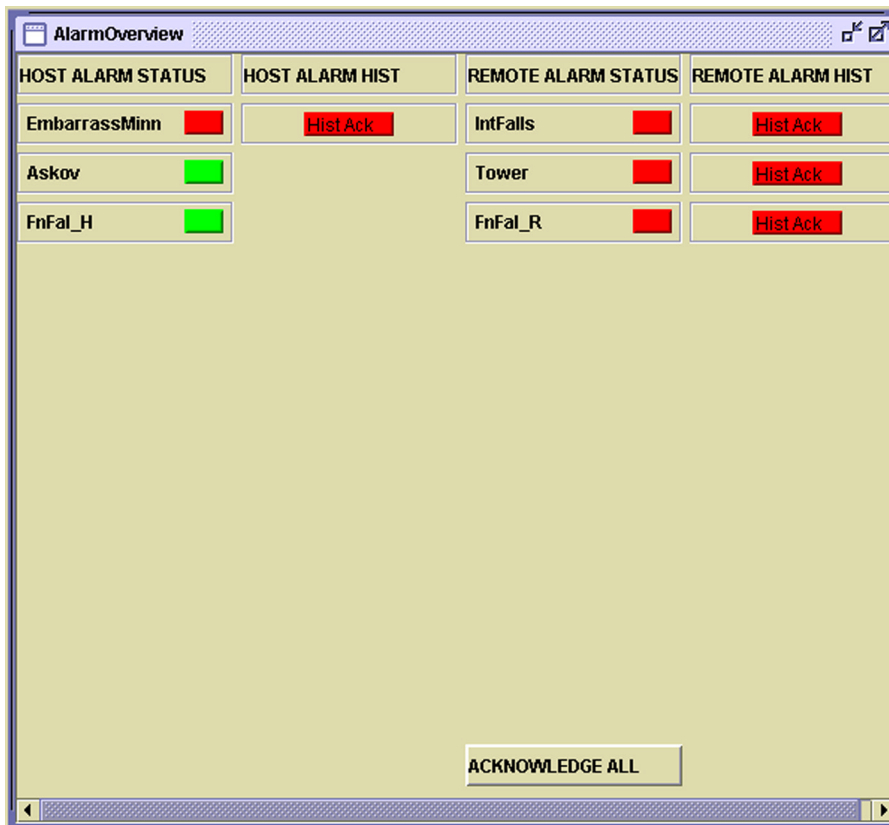


Figure 56. Alarm Overview Example

For each network element, there are two indicators, shown in [Figure 57](#):

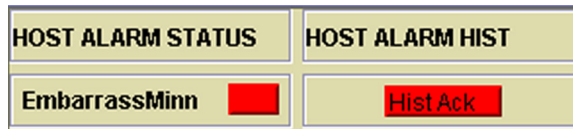


Figure 57. Alarm Overview Indicators

- **(HOST or REMOTE) ALARM STATUS Indicator**—Always displays. Indicates whether an alarm exists for the identified unit:
 - **Red** = one or more major alarms exist. A major alarm places the identified unit in standby operating mode (stopping RF functions).
 - **Yellow** = one or more minor alarms exist at the network element. A minor alarm allows the unit to continue functioning in normal mode.
 - **Green** = no alarms exist at the network element.

An alarm status indicator in an alarm state (red or yellow) can only be returned to normal (green) by correcting the associated problem in the host or remote unit.

- **(HOST or REMOTE) ALARM HIST Indicator**—Individually labeled “Hist Ack,” displays for a unit when an alarm is reported for that unit. It remains displayed until the alarm is acknowledged within this same window.

An individual alarm is acknowledged by clicking on the **HIST ACK** indicator (as shown in [Figure 58](#)) then clicking on the **OK** button in the **Alarm History Info** dialog (shown in [Figure 59](#)).

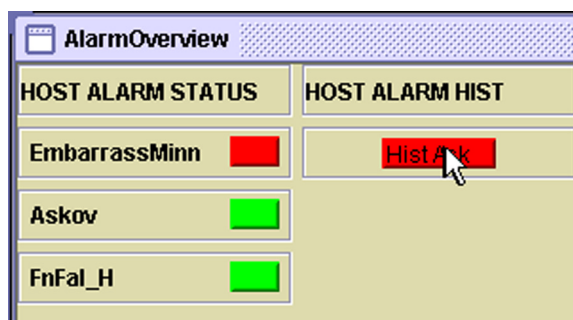


Figure 58. Clicking on the Alarm History Indicator

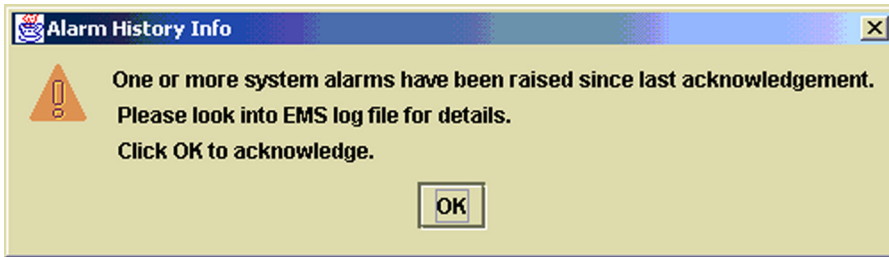


Figure 59. Alarm History Info Dialog

After this is done, the indicator disappears from the display. As advised in the info window, however, whenever acknowledging an alarm, you should also check the EMS log file for details on how the alarm was reported. Figure 60 shows a log file display in the internet browser. For instructions on using the browser to view the log file, see Topic 3.15 on page 53.

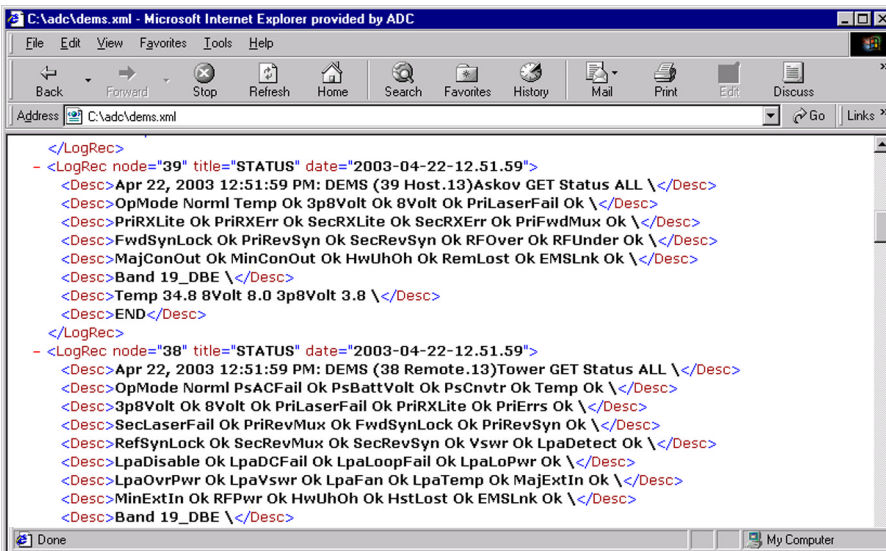


Figure 60. Viewing Alarm Details in EMS Log File

For more information on specific alarms, refer to Topic [Topic 4.4.1, Host Alarms Window](#), on page 69 for host alarm information or to Topic [Topic 4.5.1, Remote Alarms Window](#), on page 80 for remote alarm information.

4.4 Host Displays

The EMS “host displays” include seven windows with information available for any operational host connected to the EMS/Host/Remote Comm port. The “host unit” in a Digivance SDR system is the Host PCiX Card in the BTS server.

4.4.1 Host Alarms Window

The host **Alarms** window, shown in [Figure 61](#), contains alarm indicators returned from the host unit. In general, GREEN indicates okay, RED indicates that a major alarm exists, and YELLOW indicates that a minor alarm exists. A major alarm causes RF functions to be halted; a minor alarm allows RF functions to proceed as normal. The indicators are refreshed about every three seconds. [Table 10](#) lists the indicators and describes each one. For a more thorough description, refer to the user manual for the host unit.

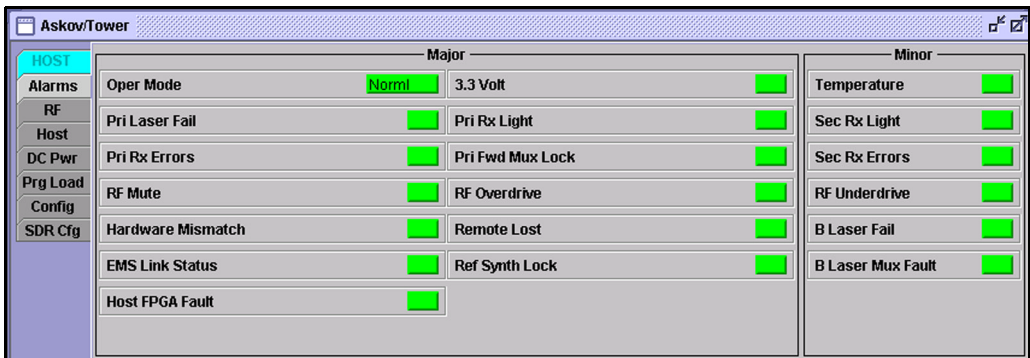


Figure 61. Host Alarms Window

Table 10: Host Major Alarms When Faulted

ALARM INDICATOR	DESCRIPTION WHEN FAULTED
Oper Mode	The operating mode is not “Norml.” For a description of other modes, see Topic 4.1.4, Tools Menu, on page 60 .
3.3 Volt	The 3.3 Volt onboard supply is too low.
Pri Laser Fail	The forward path primary fiber laser is not sending light (no light from host unit to remote unit).
Pri Rx Light	No light is being received from the primary fiber (no light from remote unit to host unit).

Table 10: Host Major Alarms When Faulted (Continued)

ALARM INDICATOR	DESCRIPTION WHEN FAULTED
Pri Rx Errors	Multiple errors are occurring on primary fiber. Error rate has exceeded 10^{-6} (one bit error per million bits).
Pri Fwd Mux Lock	The forward path primary fiber phase-locked-loop is out of lock.
RF Overdrive	The forward path RF signal level is too high.
Hardware Mismatch	Host unit and remote unit are on different bands.
Remote Lost	Host cannot communicate with remote unit.
EMS Link Status	EMS has not heard from host unit for the number of minutes currently specified by the EMS Link Timeout parameter (see Topic Topic 3.6, Setting EMS Link Timeout, Cataloging Time, Demo Mode, on page 34).
Ref Synth Lock	The reference synthesizer is out of lock.
Host FPGA Fault	Fault was reported in FPGA chip on Host PCIx Card.

Table 11: Host Minor Alarms When Faulted

ALARM NAME	DESCRIPTION
Temperature	The host unit temperature is too hot. The temperature is sensed to be greater than 70° Celsius (158° Fahrenheit). Likely cause is a fan failure.
Sec Rx Light	No light is being received from the secondary fiber (no light from host unit to remote unit).
Sec Rx Errors	Multiple errors are occurring on the secondary fiber. Error rate has exceeded 10^{-6} (one bit error per million bits).
Sec Rev Synth Lock	The secondary reverse path synthesizer is out of lock.
RF Underdrive	The forward path RF signal level is too low.
B Laser Fail	Not used. Always green.
B Laser Mux Fault	The secondary fiber phase-locked-loop is out of lock.