

# **3 USING EMS FOR NETWORK TASKS**





# 3

# USING EMS FOR NETWORK TASKS

This section contains instructions for all tasks performed using the Maintenance Interface. Some of these tasks can also be done using the NOC-NEM interface. If so, there is a cross-reference to the NOC-NEM instructions in Section 5. This section also includes instructions for viewing the EMS log file.

## 3.1 Master List of Tasks

[Table 2](#) lists all EMS tasks and tells where to look for instructions.

**Table 2: Master List of EMS Tasks**

YOU CAN	SEE TOPIC
Start EMS.	<a href="#">3.2 on page 28</a>
Define EMS ports.	<a href="#">3.3 on page 29</a>
Set directory (folder) for EMS program file.	<a href="#">3.4 on page 31</a>
Set name, directory, and trim time for EMS log file.	<a href="#">3.5 on page 32</a>
Set link timeout, cataloging time, and demo mode.	<a href="#">3.6 on page 34</a>
Enter site names and site number for a host/remote pair.	<a href="#">3.7 on page 36</a>
Use the alarm overview to view and acknowledge alarms.	<a href="#">3.8 on page 38</a>
View alarm detail for a particular host/remote pair.	<a href="#">3.9 on page 42</a>
Determine RF signal levels.	<a href="#">3.10 on page 43</a>
Enter RF attenuation settings for remote unit antenna.	<a href="#">3.11 on page 44</a>
Define RF logical channels and signal gain.	<a href="#">3.12 on page 46</a>
Set the host/remote operating mode.	<a href="#">3.13 on page 48</a>
Load software from EMS computer to host/remote pair.	<a href="#">3.14 on page 50</a>
View the EMS log file.	<a href="#">3.15 on page 53</a>

### 3.2 Starting EMS

After being installed, EMS has an icon on the desktop. The icon can be used to start EMS.

#### To start EMS

1. Double-click on the ADC icon, shown in [Figure 13](#).



Figure 13. ADC Icon

2. Watch for the DEMS.BAT program to start at the DOS prompt as shown in [Figure 14](#).

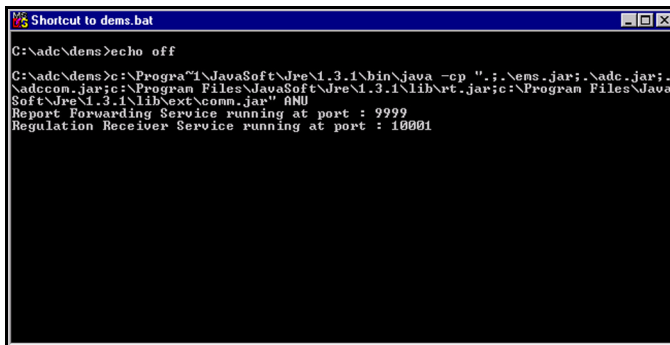


Figure 14. DEMS.BAT Starting at DOS Command Line

3. Watch for the EMS initial screen shown in [Figure 15](#).

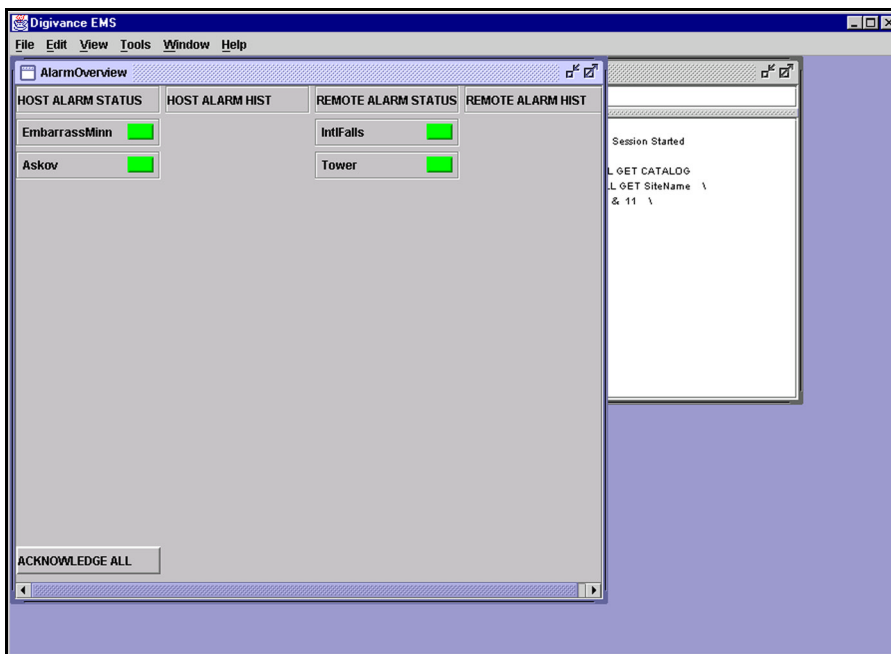


Figure 15. EMS Initial Screen

### 3.3 Defining EMS Ports

Using the **Preferences** window in EMS, shown in [Figure 16](#), you can define the communication ports to be used by EMS. For a description of the EMS ports, refer to [Topic 1.7, Use of Ports, on page 14](#).

#### To display the Preferences window

Select **Edit**⇒**Preferences**.

#### To define EMS ports

NOTE: EMS default port values may not need to be changed.

1. Check the current setting for two ports in the top left area of the Preferences window (shown in [Figure 16](#)):

- **EMS/Host/Remote Comm Port**—This is the port connected via the ADC-provided RS-232 interface cable to the DB-9 SERVICE port on the host unit front panel. This port provides all components of the Maintenance Interface including the NOC–NEM interface window.
- **NOC Comm Port**—This is an optional second port that can be connected via an RS-232 cable to a direct data link with a remote terminal or with a computer running a terminal emulator program.

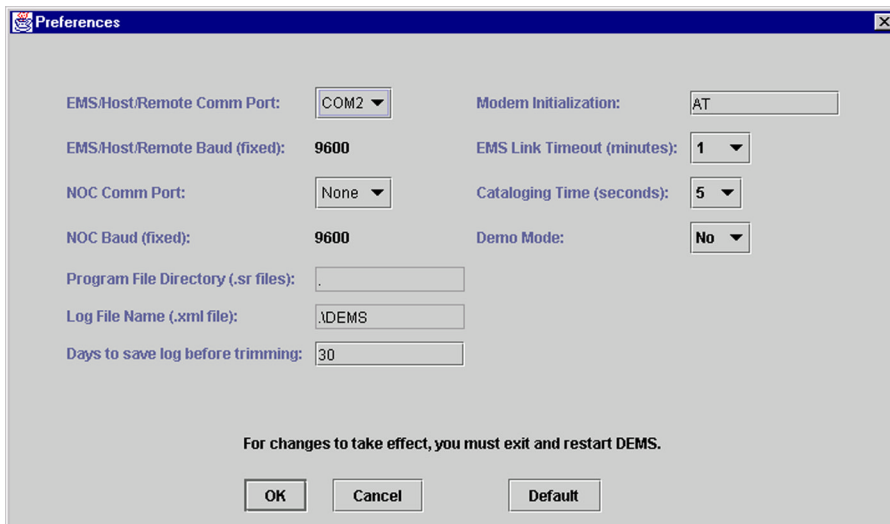


Figure 16. Preferences Window

2. If either of these ports is incorrectly identified:
  - a. Click in the port pull-down menu (port names listed are PC-specific).
  - b. Select the port name causing it to be highlighted as shown in Figure 17.

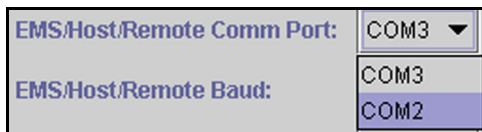


Figure 17. Set Comm Ports Dialog

When done with all entries in the Preferences window, click on **OK**. For changes to be effective, you have to quit and restart EMS

### 3.4 Selecting EMS Program File Directory

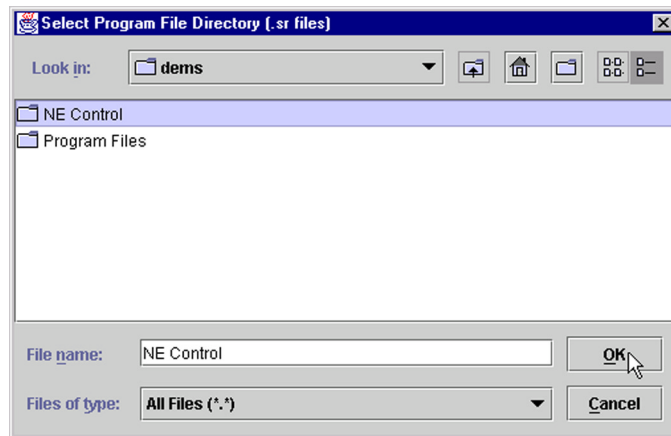
Using the **Preferences** window in EMS (shown in ". Preferences Window" on page 30), you can select the directory (folder) to be used for host and remote control programs and Field Programmable Gate Arrays (FPGAs).

#### To display the Preferences window

Select **Edit**⇒**Preferences**.

#### To select the EMS program file directory

1. Click in the data entry box for **Program File Directory**.
2. In the window that displays, browse to select the desired folder (causing the folder name to display in the **File name** field), and click on **OK**. [Figure 18](#) shows an example.



**Figure 18. Selecting a Program File Directory**

When done with all entries in the Preferences window, click on **OK**. For changes to be effective, you have to quit and restart EMS

*NOTE:* You cannot use NOC-NEM to select the EMS program file directory.

## 3.5 Defining Log File Name and Trim Time

Using the **Preferences** window (shown in [Figure 16 on page 30](#)), you can perform the following tasks related to the EMS log file:

- Select the directory (folder) where the EMS log file is stored.
- Change the EMS log file name (EMSLOG by default).
- Define the trim time.

**EMS Log File**—is a system-created file into which EMS periodically places network status information. This status information includes all parameter values and all alarm states for all NEs currently connected to the system. By default, EMS places new entries into the log file at time intervals of 30 minutes. This time interval can be changed for EMS as a whole, or for any particular NE, using a `SET RECORD` command in the NOC-NEM window. EMS also writes a status entry into the log file whenever any alarm changes in state (for example, from “no alarm” to “major alarm”). The log file can be viewed using a browser such as Internet Explorer (for more information, refer to [Topic 3.15, Viewing the EMS Log File, on page 53](#)).

**Trim Time**—is the number of days that a log file entry remains in the file before it is automatically deleted by the system. When any entry reaches an age in days exceeding the trim time, the entry is deleted. EMS trims the log file once every 24 hours. Maximum trim time allowed is 60 days.

*NOTE:* To avoid losing the entries trimmed from the EMS log file, you should periodically copy and paste the log file into another log folder. To do this, use Windows Explorer copy and paste functions. Save the file with a unique name such as the log file name plus the date on which the file was copied.

### To display the Preferences window

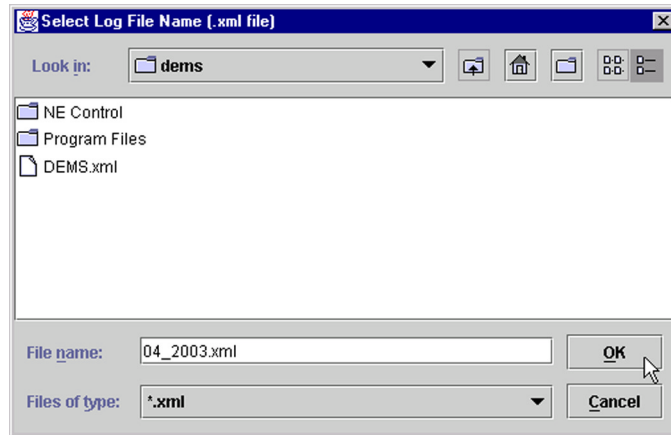
Select **Edit**⇒**Preferences**.



### To define the current log file name

*NOTE:* This does not rename the existing log file, but rather creates a new log file with a new name. The existing file remains with its original name.

1. Click on the current name in the **Logfile name (.xml)** field.
2. Key in or browse to select the current log file (see [Figure 19](#)).
3. Key in the new name in **File name** field.
4. When done, click on **OK**.



**Figure 19. New Log File Name**

### To define the log file trim time

Key in the number of days in the field shown in [Figure 20](#).



**Figure 20. Defining Trim Time**

When done with all items in the Preferences window, click on **OK**. For changes to be effective, you have to quit and restart EMS.

### To set the log file time interval using the NOC-NEM interface

Use the `SET RECORD` command (see [Topic 5.5.10 on page 108](#)).

*NOTE:* You cannot use NOC-NEM to define the log file name or directory.

## 3.6 Setting EMS Link Timeout, Cataloging Time, Demo Mode

Using the **Preferences** window (shown in [Figure 16 on page 30](#)), you can set the following values:

- **EMS Link Timeout**—defines the number of minutes EMS will try to reestablish communication with a network unit before regarding it as “not found.” When this occurs, EMS reports an EMS Link Status alarm.
- **Cataloging Time**—defines the number of seconds, at startup or in response to a **Tools⇒Refresh Catalog** request, that EMS spends looking for units.
- **Demo Mode**—controls whether EMS operates in demo mode or as a normal working system. Demo mode can only be used when EMS is not connected to a host/remote pair. Demo mode provides a simulated system with two host/remote pairs.

*NOTE:* The **Modem Initialization** field, which also appears in the **Preferences** window, is not currently used.

### To display the Preferences window

Select **Edit⇒Preferences**.

### To set EMS link timeout

Use the pull-down menu to select from the available times shown in [Figure 21](#).

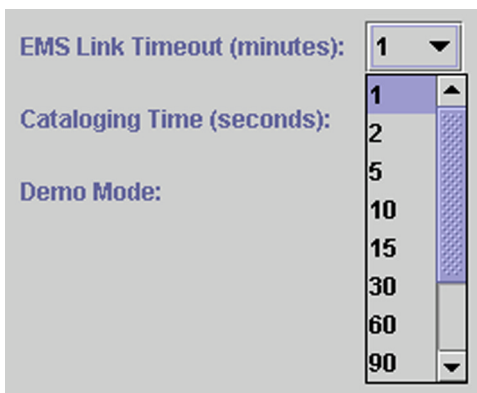


Figure 21. Setting EMS Link Timeout

### To Set Cataloging Time

Use the pull-down menu shown in Figure 22 to specify the number of seconds that EMS should look for units on start up or in response to a **Tools⇒Refresh Catalog** request.

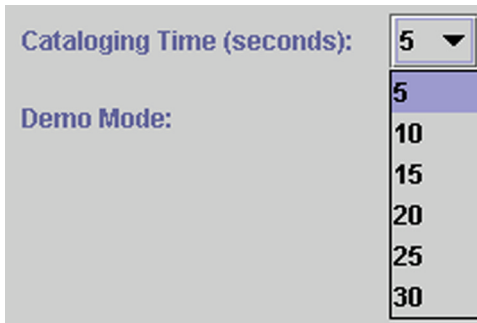
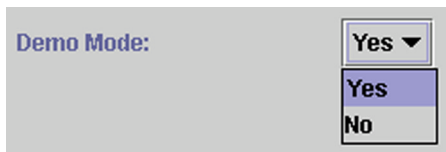


Figure 22. Setting Cataloging Time

### To set demo mode

If EMS is not currently connected a host/remote pair, you can start demo mode by selecting **Yes** from the pull-down menu shown in Figure 23.



**Figure 23. Selecting Demo Mode**

When done with all entries in the Preferences window, click on **OK**. For changes to be effective, you have to quit and restart EMS

**To set the log file time interval using the NOC-NEM interface**

Use the `SET RECORD` command (see [Topic 5.5.10 on page 108](#)).

*NOTE:* You cannot use NOC-NEM to set the link timeout and cataloging time.

**3.7 Entering Host/Remote Site Numbers and Site Names**

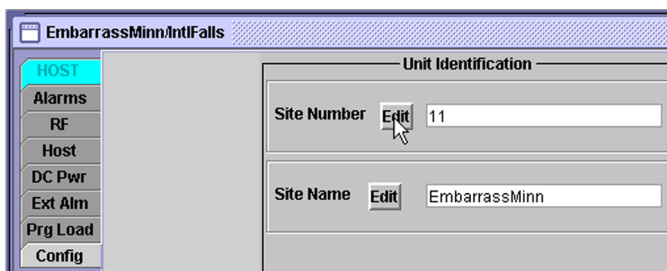
Site number and site name are the basic identifiers for a network element. Each host unit must have a unique site number and site name. A remote unit must have a different site name than its own host unit. Host units and remote also each have a unique node number, assigned by the system.

**To enter a site number or site name for a network element**

1. Using the **View** menu, select the menu item identifying the host/remote pair for which you want to enter a site name or site number.

*NOTE:* If the host unit and remote unit have not yet been named, they will be listed on the **View** menu as **NotNamed/NotNamed**.

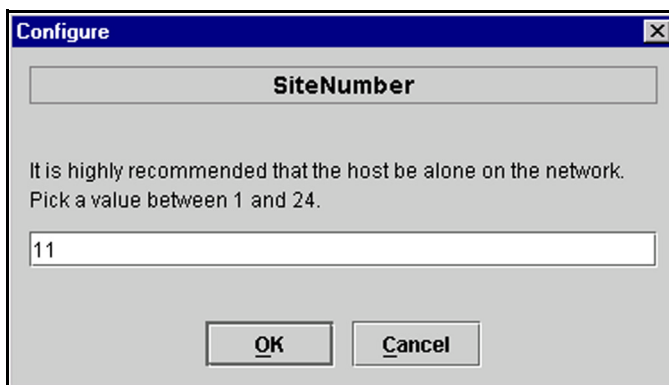
2. Click on the host or remote **Config** tab to display it.
3. Click on the **Edit** button for **Site Number** or **Site Name** area within the **Config** window (see [Figure 24](#)).



**Figure 24. Clicking on Edit Button for Site Number**

4. In the **SiteNumber** or **SiteName** dialog (see example in [Figure 25](#)), key in the desired site number or site name.
5. When done, click on **OK**.

*NOTE:* Site number can only be entered for a host unit. Site name can be entered for either a host unit or remote unit.



**Figure 25. Entering a Host Unit Site Number**

### To enter a site name using the NOC-NEM interface

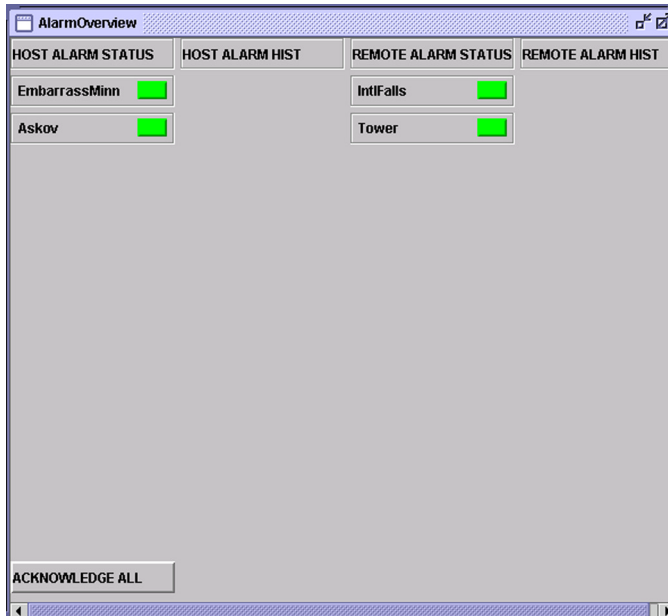
Use the `SET SITENAME` command (see [Topic 5.5.4 on page 99](#)).

*NOTE:* You cannot use NOC-NEM to set the site number.

### 3.8 Using Alarm Overview to View and Acknowledge Alarms

Using the **AlarmOverview** window, shown in [Figure 26](#), you can:

- Identify any network element that is currently reporting an alarm.
- Determine whether any alarm (currently reported or already cleared) has not been acknowledged.
- Acknowledge any as yet unacknowledged alarm.



**Figure 26. Alarm Overview Example**

“Acknowledging” an alarm, as an EMS task, is a simple matter of clicking on the appropriate indicator and then on the subsequent dialog. However, as the dialog advises, this process also should involve checking the NOC-NEM scrollout to determine what caused the alarm condition.

Alarm status and alarm acknowledgement are reported using two different types of indicators:

- **ALARM STATUS Indicator**—always present in the display, immediately to the right of the host or remote sitename, indicates whether that host or remote is currently reporting any alarm.