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051017

NEC

PASOLINK NETWORK MANAGEMENT TERMINAL

PNMT (Java version) Operation Manual (for MIU)

NEC Corporation

Table of Contents

Document Warranty

1. The information contained in this document is subject to change without prior notice.
2. The PNMS/PNMT screenshots in this manual are only examples. Screens will vary according to equipment configurations, operation modes, setting parameters, PNMS/PNMT application program version, etc. Screens contained in this manual are current at the moment of publication, and may differ slightly from the actual screens on your PNMS/PNMT.
3. To use this manual, you need a sound understanding of the restrictions, limitations and precautions involved in operating the equipment properly. Always refer to the respective manual to ensure proper operation of the equipment properly.

1 Getting Started

1.1 Introduction

The PASOLINK Network Management Terminal (PNMT) was developed by NEC to manage its PASOLINK fixed point-to-point wireless access system networks and associated plan. The PNMT is a scaled down version of the PASOLINK Network Management System (PNMS) that is designed as a maintenance tool for field engineers to locally and remotely monitor alarms, control points, generate reports, and archive data, all within a familiar graphical user interface, and all in real time. The PNMT is a mobile laptop computer fitted with the NEC PNMT software package that interfaces and controls NEC PASOLINK series short haul wireless communications equipment. Moreover, the PNMT can control and monitor other types of NEC wireless equipment (2500S/2600S/2000S/3000S/3500S) as well as other manufacturer's equipment by using a Management Interface Unit (MIU).

This software package remotely monitors and controls the status and configuration of an entire Pasolink network with associated equipment including the performance of the actual microwave links.

1.2 Conventions Used in this Manual

Font	What the Font Represents	Example
Italics	For manual titles or related document names.	Please refer to *PASOLINK Operation Manual* for details.
Hostname **Bold (or bold italics)**	Items (phrases) in the user interface. Items (phrases) in the computer display. File and directory names.	The **Overall** window … XXXXXXXXXXX
[Button]	Buttons on the user interface.	Click on **[OK]** button to continue … Click on **[Execute]** button to send command.
Menu Items	A menu name followed by a colon (:) means that you must select menu and then a item. When the menu item is followed by an arrow (→), a cascading menu is displayed .	Select **System → Login/Logout**
<username>	A command variable for which the user must enter the appropriate value. This is also commonly used when asking for a password.	Enter the new <password>.
Keycap	Keyboard keys.	Press Enter key.

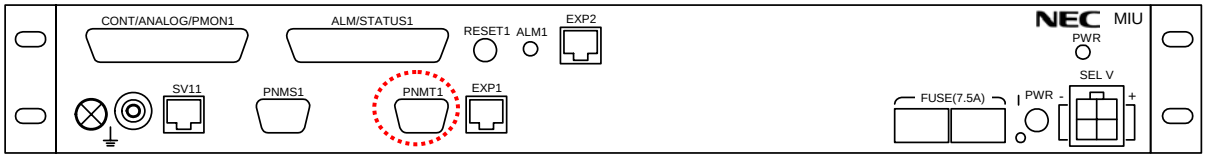
1.3 PNMT Communication Interfaces

1.3.1 Communications

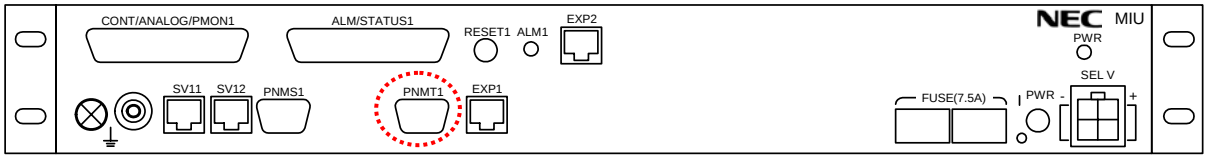
Communications between the PNMT and the managed equipment can be routed via the **PNMT** port of the MIU equipment or via the digital service channel to a remote node in the network.

1.3.1.1 PNMT Port Interface

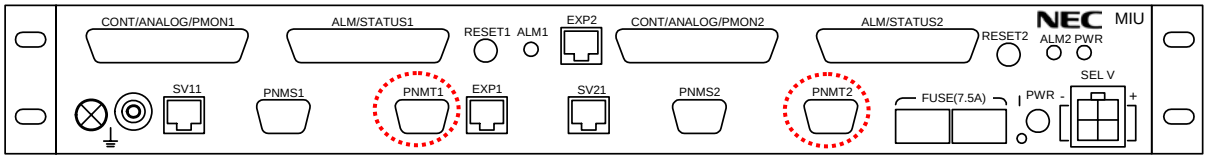
The PNMT port is located on the front of the MIU equipment as shown in the following illustration.



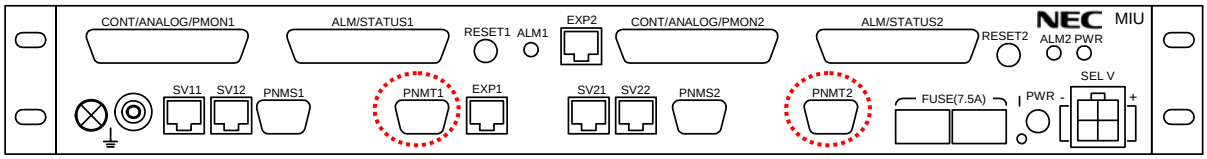
(a) G8003A, G: For 1 System (Equipment) Monitor and Control



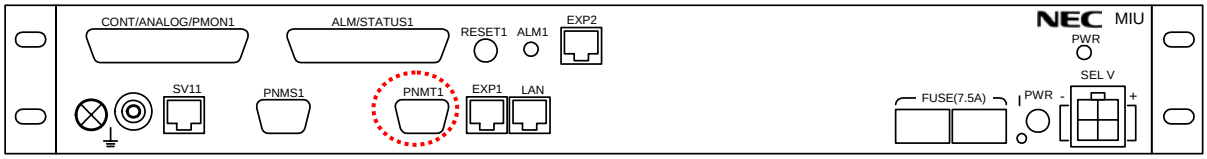
(b) G8003B, H: For 1 System (Equipment) Monitor and Control with G.703 interface



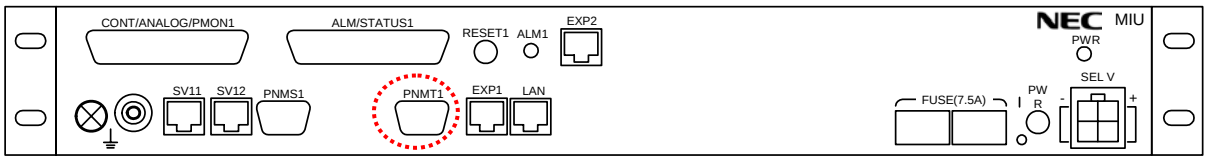
(c) G8003C, J: For 2 System (Equipment) Monitor and Control



(d) G8003D, K: For 2 System (Equipment) Monitor and Control with G.703 interface



(e) G8003E, L: For 1 System (Equipment) Monitor and Control with LAN interface



(f) G8003F, M: For 1 System (Equipment) Monitor and Control with G.703 and LAN interface

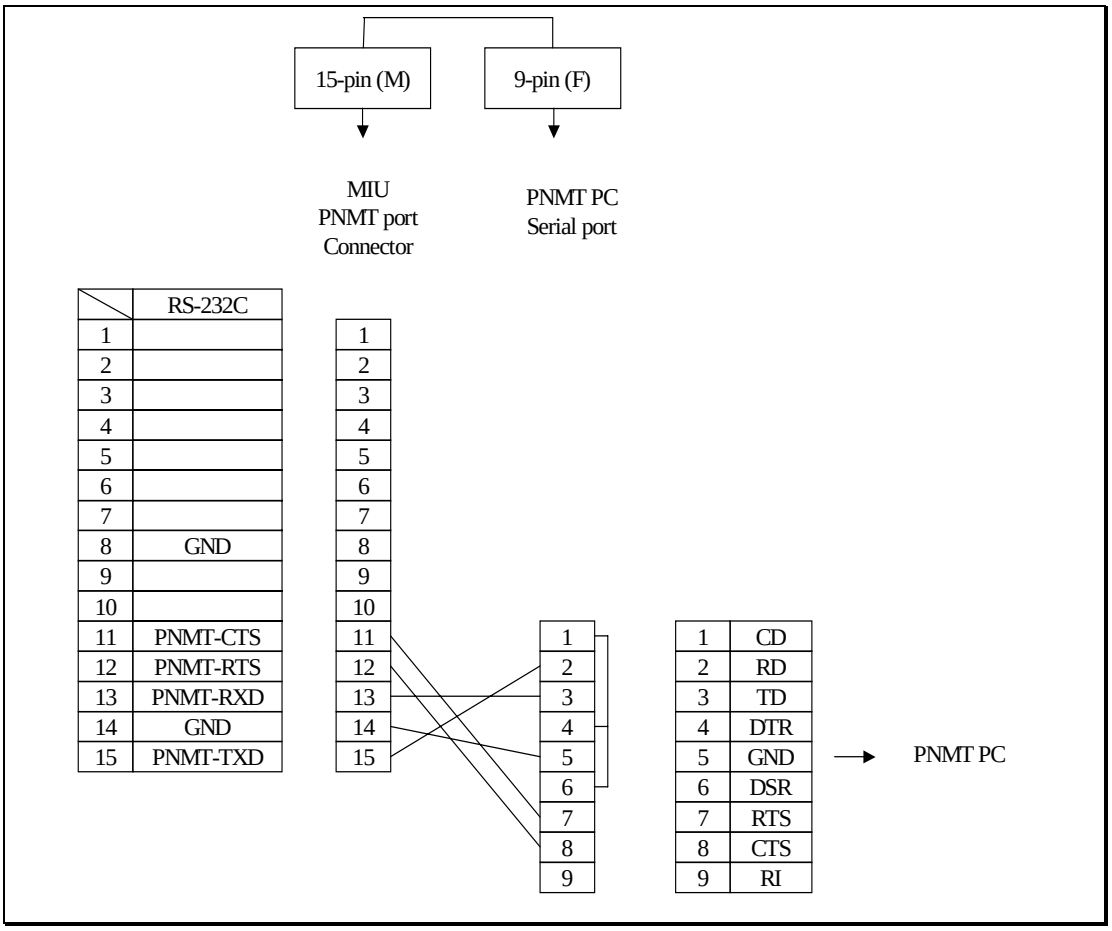
Front View of MIU

The PNMT port consists of a subminiature DB15 connector that plugs in to the PM Card installed in the MIU via the PNMT cable which connects to the relevant communications port of the PNMT PC.

The PNMT port has the following properties:

- Port Configuration: RS-232
- Connector type: Subminiature DB15 (female)
- Bit per second rate: 9600/19200 (default 19200)
- Stop bits: 1
- Data bit length: 8
- Parity: None

The following table shows cabling pin allocation for the connection between PNMT Port and the PNMT PC.



Cabling Diagram for PNMT Port to PNMT PC

2 System Operation & Maintenance

This chapter explains the menu structure and procedures for operating of the PNMT. The explanation uses typical PNMT screenshots to illustrate the menu hierarchy..

2.1 PNMT Screen

The PNMT window is comprised of the following main areas as shown in the following screen example.

- **Title Bar**

The title bar is used to indicate the title of a window.

- **Standard Menu Bar**

The common menu bar of the window presents the **System**, **Refresh** and **Help** options, which commands that can be executed from among the various options. The **Help** function can also display a PDF version of this operation manual.

- **NE-Specific Menu Bar**

This menu is a list of functions involving the network element (NE) displayed in the PNMT. **Configuration**, **Event Log**, and **Link Performance Monitor** functions can be executed with the NE-specific menu bar.

- **Block Diagram**

The block diagram shows the equipment comprising the managed NE. Its main purpose is to show the current alarm status summary for the equipment in the display window. You can click on a specific block to display the status of the network elements (NE) in the data window.

- **Data window**

This window displays in detail the status and alarm items of a specific NE. You can select the tab or the block of a specific NE , which you wish to monitor in the data window.

- **Tab**

To view the status and alarms in the specific part of the NE, click on the tab at the bottom of the Data window.

- **Use Login**

This indicates the user who is currently logged-in to the PNMT.

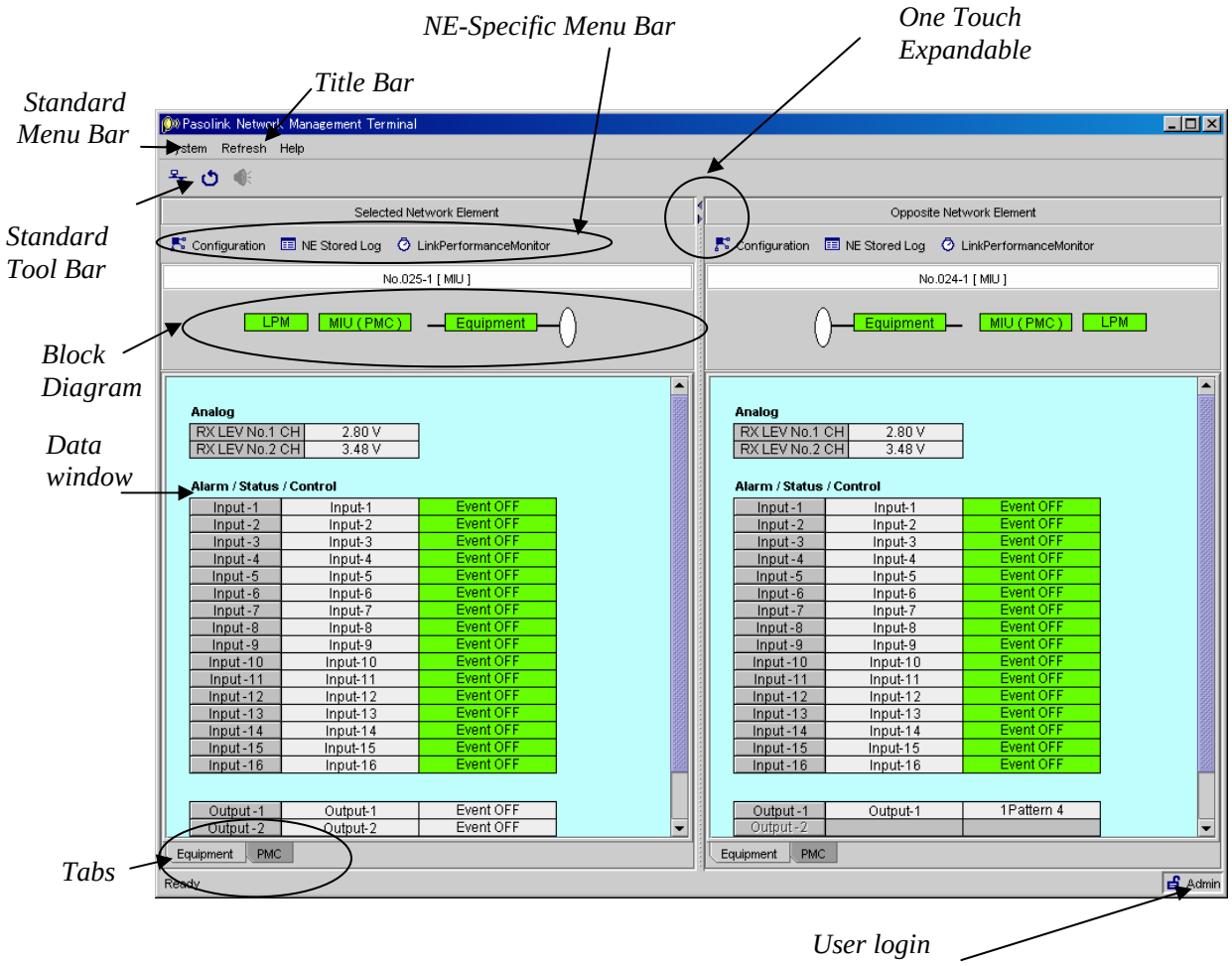


Figure 1: Standard Components of PNMT window (Line concentrator)

2.2 Launching the PNMT Application

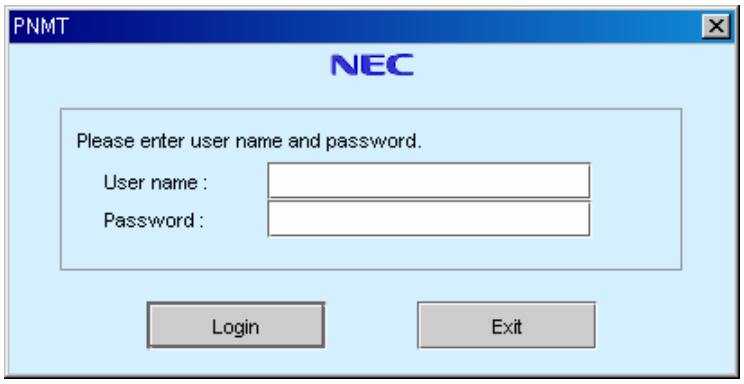
To start PNMT:

1. Turn system power ON.

NOTE

Connect the PNMT cable 30 seconds after IDU power has been turned ON and make sure that the PNMT cable is connected between Com 1 port of the PNMT PC and the PNMT port of the IDU.

2. Login to Windows.
3. Click **Start → Programs → PNMTj → Pnmt**, and continue to the login window.



NOTE

Please do not change the clock settings of your computer once PNMT has started.

2.3 Login

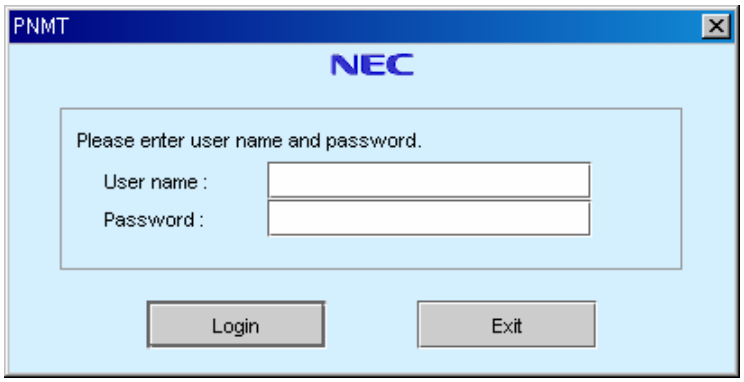
Users are registered by means of login name and password.

To protect the network and the network management system from unauthorized access or modifications, five levels of users with different access privileges are defined (refer to the table shown in section 2.3.1 User Access Privilege Levels). The functions that are available depend on the user's access level. Therefore, some of the functions may or may not be carried out.

The highest or administrator level has full access to the network and the management system.

To login:

1. Start PNMT and the Login window appears.



Login window

2. Enter the <User name>.
3. Enter the valid <Password> for the specific user.
4. Click **[Login]**.

   If you wish to exit the program, click **[Exit]**.

2.3.1 User Access Privilege Levels

: Available, –: Not Available

Functions			User Name and Accessible Functions				
Category		Item	Monitor	User	Local	Remote	Admin
Menu-System		Alarm Buzzer	–	✓	✓	✓	✓
		Connect (Remote Login)	–	–	–	✓	✓
Configuration		NE Name	–	–	✓	✓	✓
		Note	–	✓	✓	✓	✓
		Equipment Type	–	–	✓	✓	✓
		Performance Monitor Input	–	–	✓	✓	✓
		Bit Rate ID (PM)	–	–	✓	✓	✓
		FASYNC Alarm Active (PM)	–	–	✓	✓	✓
		A/D Convert Type	–	–	✓	✓	✓
		Parallel Output Port Usage	–	–	✓	✓	✓
Event Log		Save to disk	–	✓	✓	✓	✓
Link Performance Monitor		Threshold	–	✓	✓	✓	✓
		All Data Reset	–	–	✓	✓	✓
		Save to disk	–	✓	✓	✓	✓
Equipment	Parallel I/O	Input Item	–	–	✓	✓	✓
		Output Item	–	–	✓	✓	✓
PMC	Control	Date/Time	–	–	✓	✓	✓
		Reset	–	–	✓	✓	✓
	Download (PC→PMC)	Configuration File	–	–	–	–	✓
		Program File	–	–	–	–	✓
	Upload (PMC→PC)	Upload (PMC→PC)	–	–	–	–	✓

*Admin: Able to access all Network Elements.

*Remote: Able to access all Network Elements.
(Not able to change network configuration or programs)

*Local: Able to access Local and Opposite NE.
(Not able to change network configuration or change/download programs)

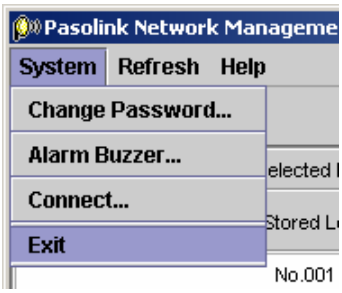
*User: Able to access items insofar as the equipment is not affected.

*Monitor: Able to monitor only (not able to perform control functions).

2.4 Shutting Down PNMT

To exit the PNMT application:

1. Click **System → Exit** on the menu bar of the main window



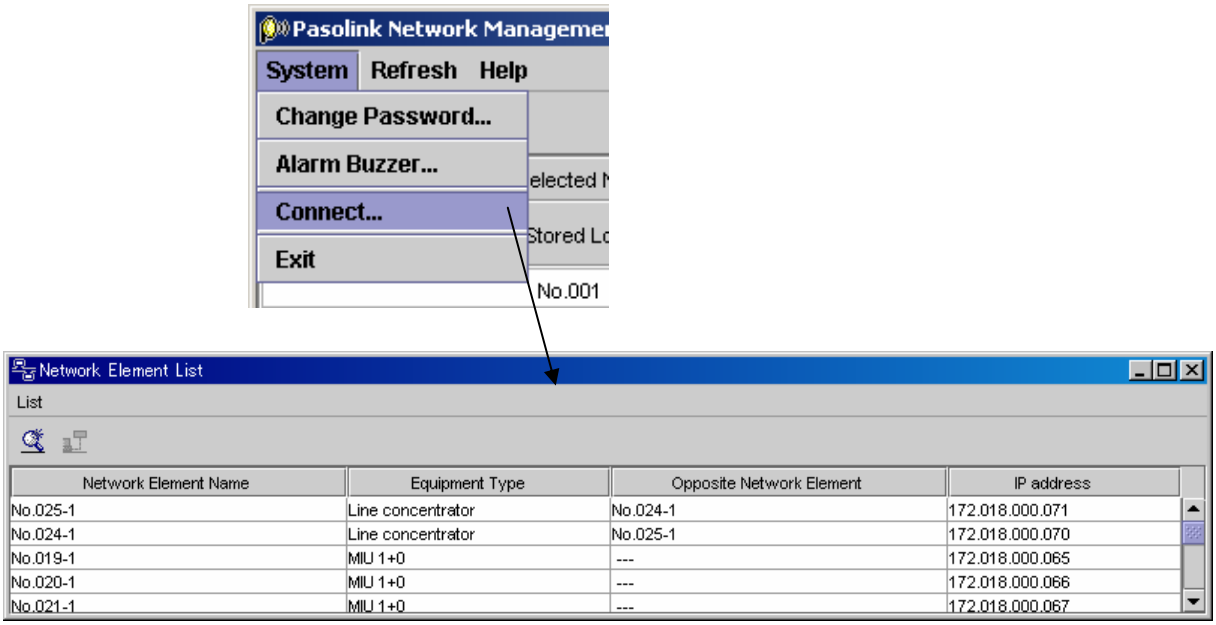
2. Click **[OK]** to confirm that you wish to exit the application.

2.5 Searching for and Connecting to Selected Network Element

The summary description for the current network element (Network Element Name, Equipment Type, Opposite Network Element, etc.), that PNMT is connected to, is displayed with this function. Summary description of the opposite network element belonging to that link is also displayed.

To search for or connect to, a particular Network Element:

1. Click **System → Connect…** on menu bar of **PNMT** main window.



NOTE

Initially only the current NE physically connected to the PNMT and its opposite NE counterpart will be shown in the Network Element List.

2. Click  icon in the tool bar or **List → Search for Network Element** in the menu bar on the Network Element List window to display all connectable Network Elements in the network.

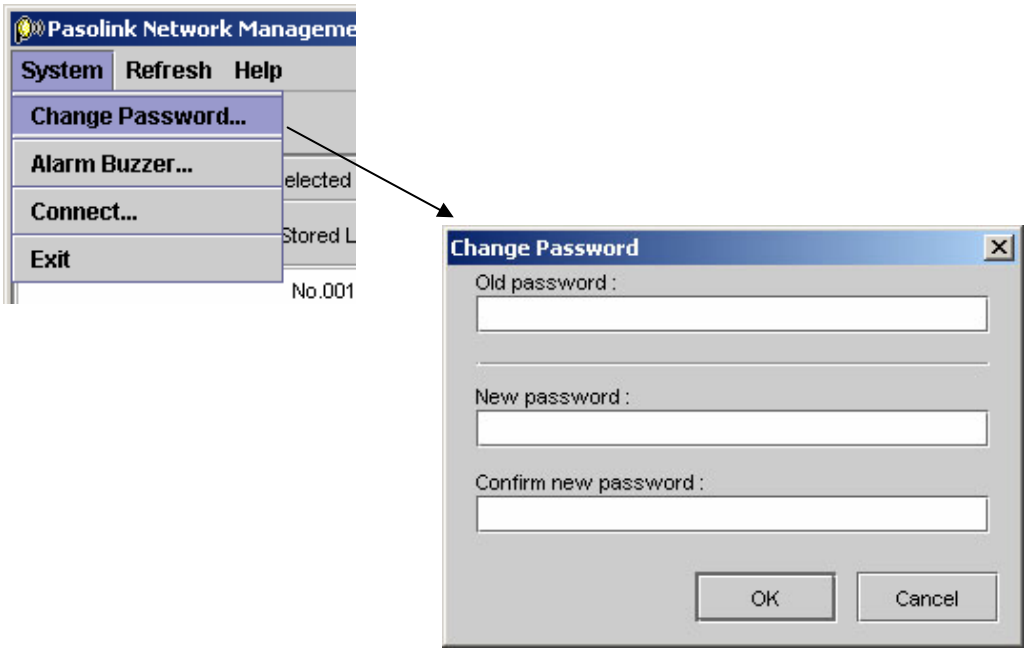
3. Select and highlight the network element to be viewed.

4. Click  icon in the tool bar or **List → Connect to Network Element** in the menu bar on the Network Element List window. The PNMT main window of the selected network element and its opposite NE counterpart will be displayed.

2.6 Change Password

To change the password:

1. Click **System → Change Password** on the menu bar in the main window.



2. Enter the **Old password**.
3. Enter **New Password**
4. Enter new password in the **Confirm New Password** field to confirm.
5. Click **[OK]**.

NOTE

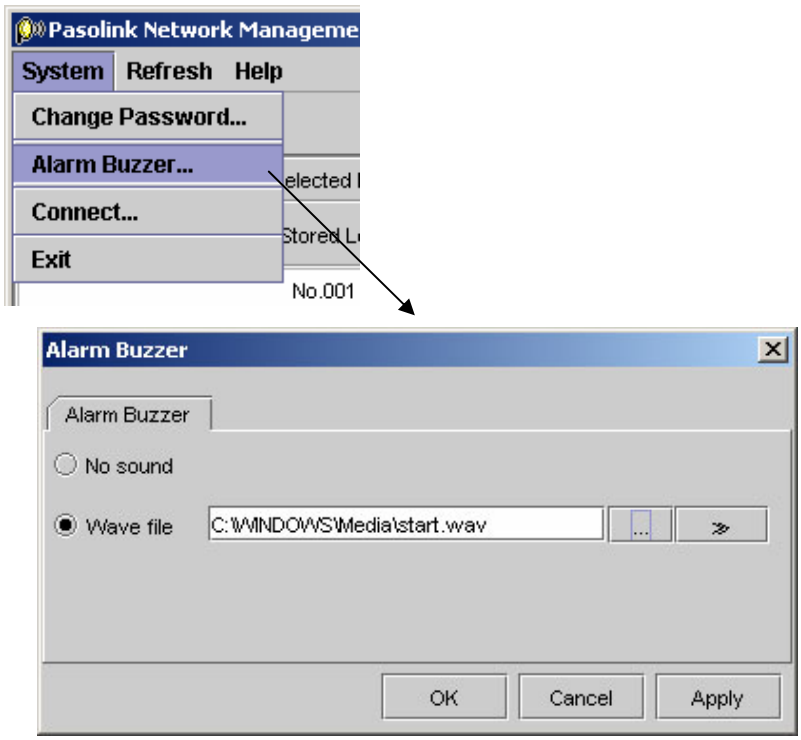
For details on initial user name and password, please refer to PNMT Installation manual.

2.7 Alarm Buzzer Setting

This function is used to activate and set the Alarm Buzzer. The desired sound scheme can also be set using this procedure.

To set the Alarm Buzzer:

1. Click **System → Alarm Buzzer** in the main window.



2. Select the **Wave file** box to activate the buzzer. **No sound** is the initial factory setting of the PNMT.

3. Enter the location of the sound file (*.wav) Otherwise; click **[…]** to locate the desired file. You can also preview the *.wav file by clicking on the arrow next to the browse button.

4. Click **[OK]** or **[Apply]** to activate the new setting.

NOTE

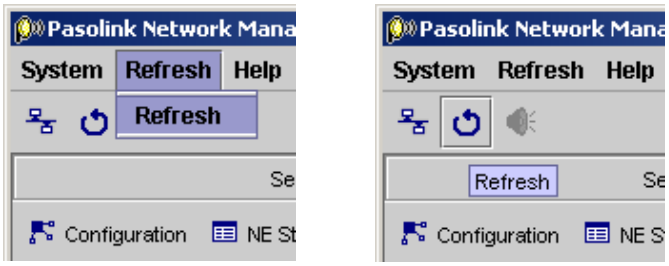
When the text column is blank, it is possible to set the alarm buzzer properties. In this case, the buzzer does not sound although the buzzer stop functio is activated.

2.8 Refresh

This function is available only for PNMT. This procedure enables PNMT to obtain all status data manually and NE information to be updated.

To Refresh:

1. Click **Refresh → Refresh** in the main window or click on the refresh icon in the tool bar.



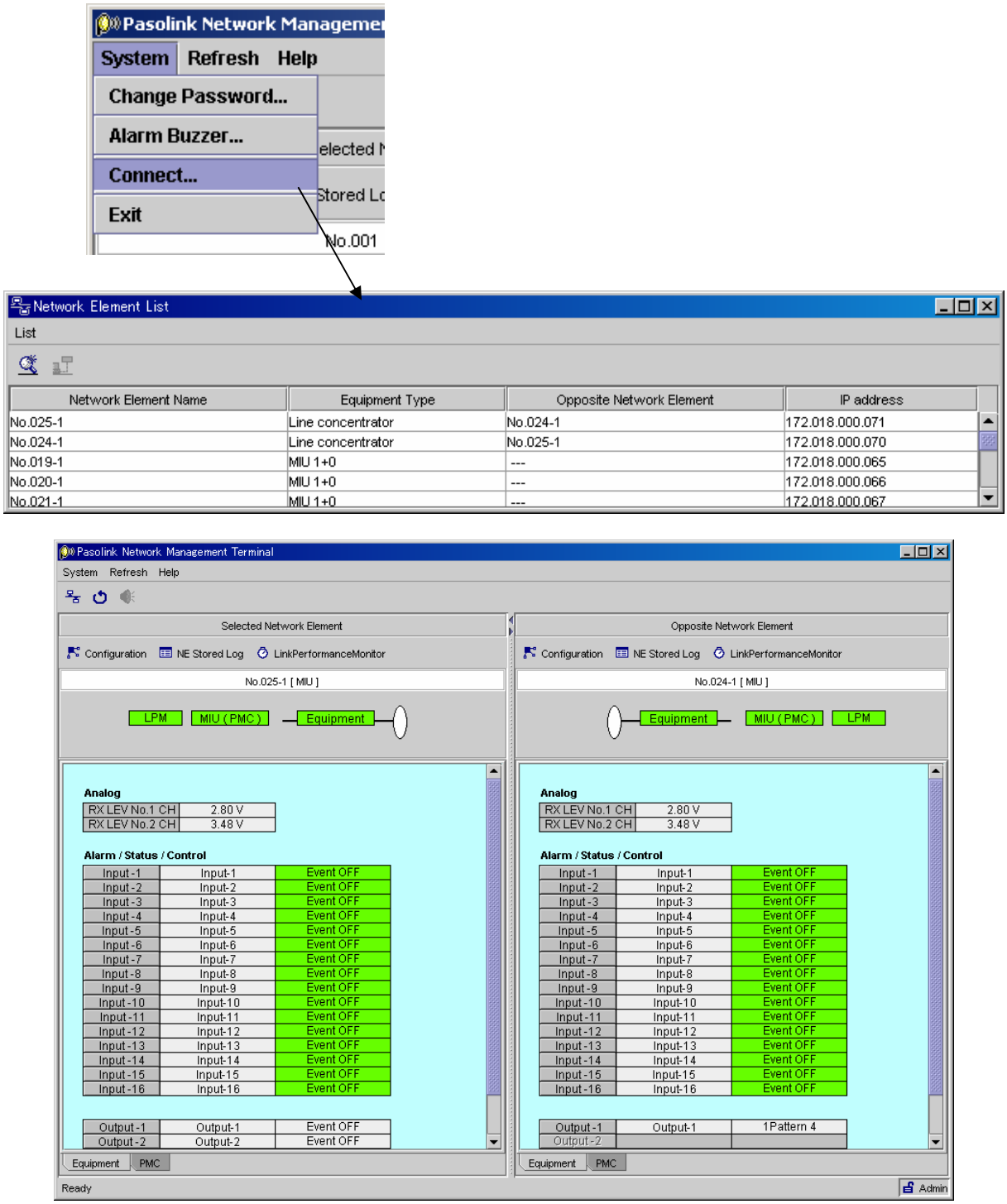
NOTE

Metered items such as TX power, RX level, power supply and BER are automatically refreshed every 15 seconds. This function is used when the status of metered items needs to be refreshed or when immediate confirmation of all current status information is required.

2.9 Remote Viewing PNMT main window

You can view a target link within one CPMC cluster of the Pasolink network by searching through the connected NE's and then connecting to the target NE. Please refer to **Section 2.5 Searching for and Connecting to Selected Network Elements**. This function allows remote connection to any NE in the network.

NOTE: With multi-CPMC networks, you can only connect to those NEs that are polled by the same CPMC as the local NE with which you are directly connected – via the PNMT cable.



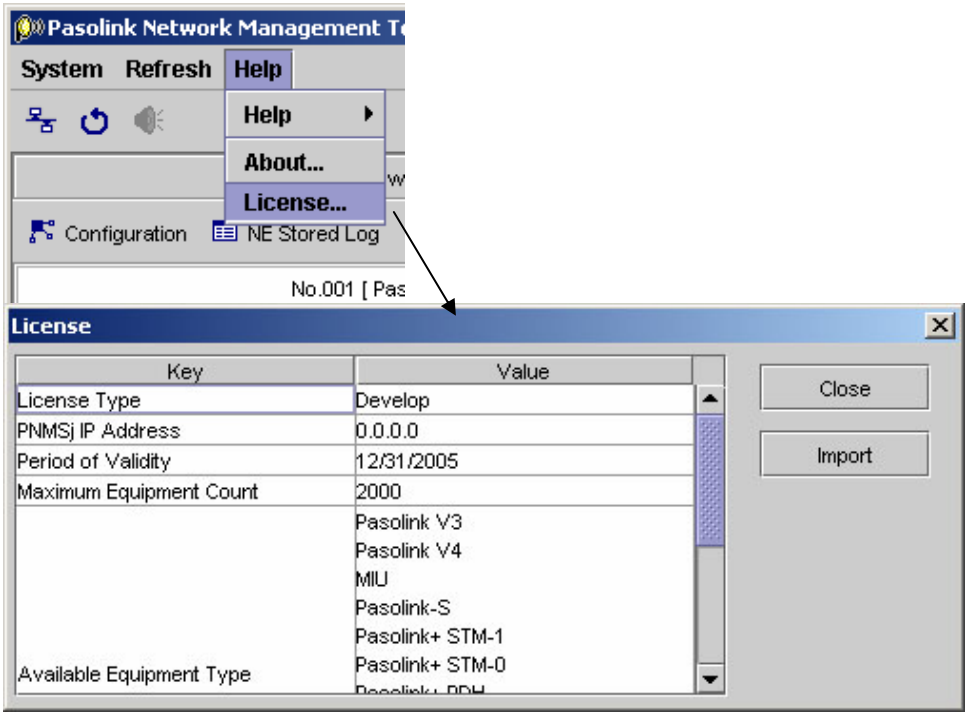
PNMT Main window (Line concentrator)

2.10 License

To protect PNMT functions, the PNMT application includes license files.

To display the current license status,

1. Click **Help → License…** in the main window.



When changing the license file, click **[Import]**.

2.10.1 Monitored Item

Following items can be monitored via the **Equipment** tab in the **PNMT** main window.

MONITOR PARAMETER
RX LEVEL No.1 CH
RX LEVEL No.2 CH

MONITOR STATUS
Parallel Input (Alarm/Status)
Parallel Output (Control)

Following items can be monitored via the **PMC** tab in the **PNMT** main window.

CONTROL BUTTON
Date/Time
PMC Reset

Configuration (Download)
Program File (Download)
Configuration (Upload)

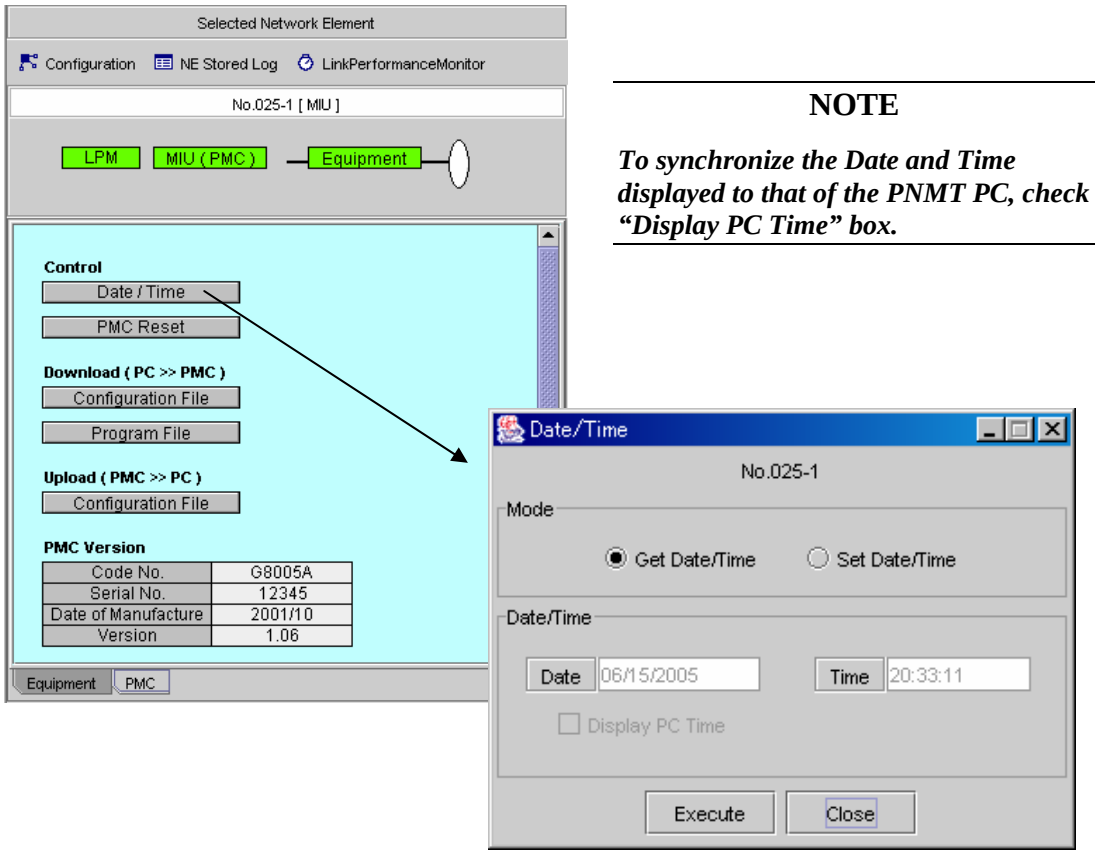
PMC Version

2.11 Date/Time Setting

The date and time stored in the PM Card (PMC) can be displayed and adjusted..

To set the Date/Time:

1. Click **Date/Time** in the **PMC** tab on the **PNMT** main window.



NOTE

To synchronize the Date and Time displayed to that of the PNMT PC, check "Display PC Time" box.

1.1 To check the date and time on the PM Card:

a) Select **Get Date/Time**.

b) Click **[Execute]**.

1.2 To set the date and time on the PM Card:

a) Select **Set Date/Time**.

b) Enter the appropriate values in the **Date** and **Time** fields.

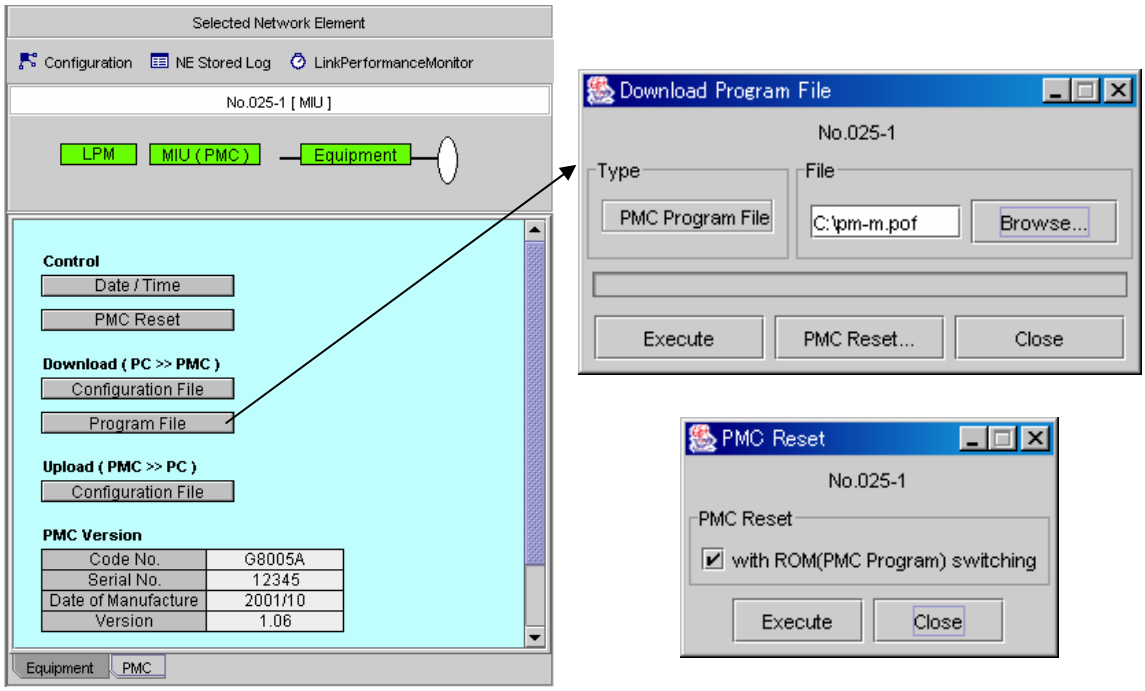
2. Click **[Execute]**.
3. Click **[Close]** when finished.

2.12 PM Card Program Downloading

This function is used to update the application program on the PM Card. This procedure affects only the PMC to PMC communication but not the radio link itself, nor all other communications.

To download the program file to the PM Card:

1. Click **[Program File]** in the **Download (PC >> PMC)** section of the **PMC** tab in the **PNMT** main window.



2. Enter the appropriate location of the program file (*.pof) in the **File** field. Otherwise, click **[Browse]** to locate the file.

WARNING!!!

Make sure that the correct program file is downloaded to the PM Card. Otherwise the PM Card will not function correctly.

3. Click **[Execute]** to start the operation.
4. A message window will appear displaying the status of the operation. **Do Not** click **[Cancel]**, otherwise you will have to repeat the procedure. The message window will close automatically once the download is completed.

NOTE

This procedure may take several minutes (depending on the program file size).

5. Click **[PMC Reset…]** to switch to a new program file.
6. Check the "**with ROM (PMC Program) Switching**" check box.
7. Click **[Execute]** to complete the transition to the new program file.

NOTE

The connection to the selected Network Element will be disrupted for a few minutes, but will be restored automatically.

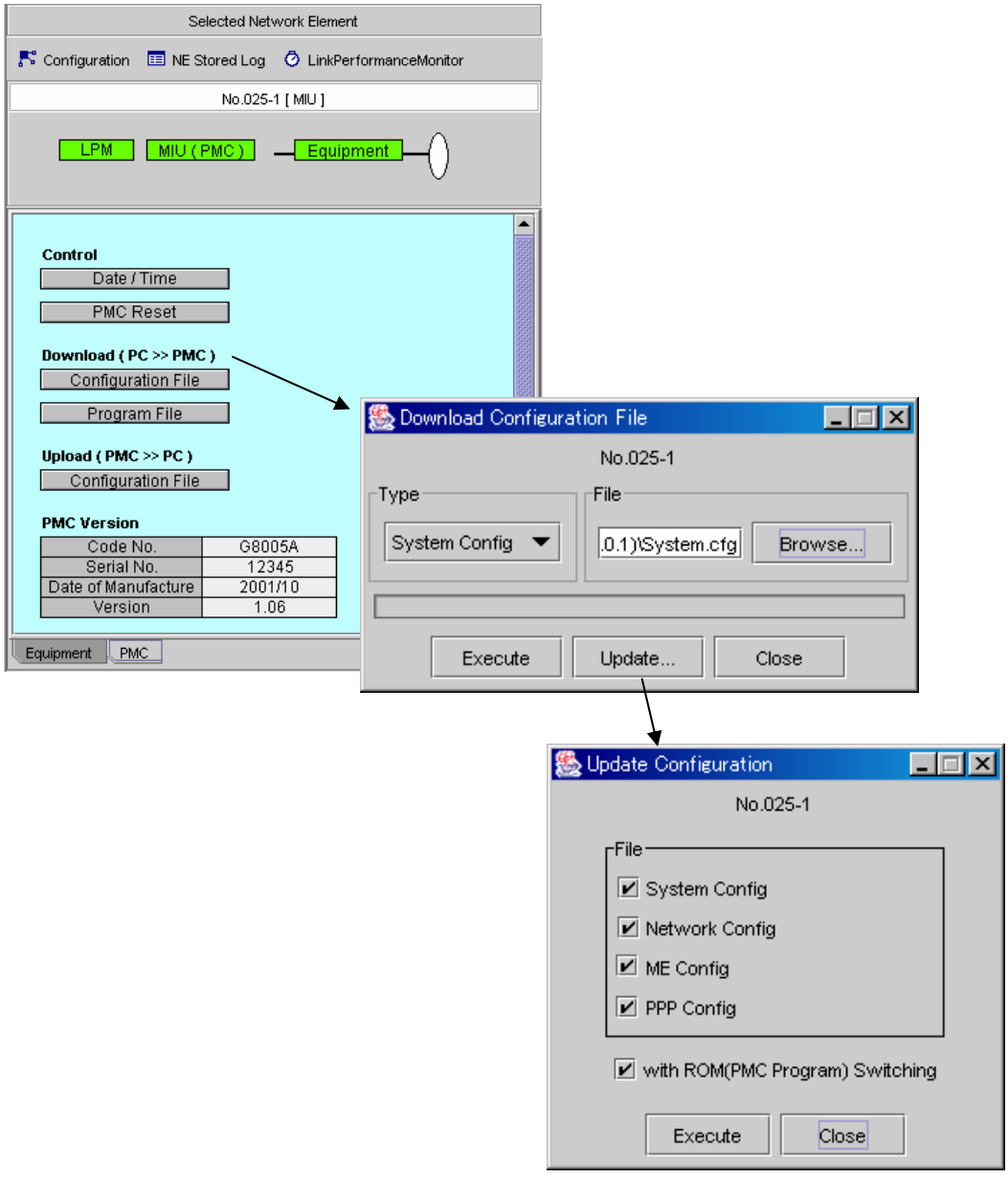
2.13 Downloading Configuration Files

This procedure is used to download configuration files from the PNMT to the PM card. The configuration file - system.cfg, contains the IP address of the PM Card as well as the IP address of the opposite station. The network.cfg file contains the relevant information about the Network Element network where the PM Card is located. The me.cfg file contains the parallel input/output information from the equipment.

To download a new configuration file to the PM Card:

1. Click **[Configuration File]** in the **Download (PC >> PMC)** section in the **PMC** tab on the **PNMT** main window.

2. Select the appropriate type of file to be downloaded from the **Type** list.



3. Enter the location of the configuration file in the **File** field, or click **[Browse]** to locate the file on the local hard disk or diskette.

WARNING!!!

Make sure that the correct configuration file is downloaded to the correct PM Card. Incorrect configuration file will lead to PM Card or network failure.

4. Click **[Execute]** to start the operation.
5. A message window indicating the status of the operation will appear. It will close automatically once the operation is finished. Click **[Cancel]** to abort the operation.

WARNING

Make sure that you have successfully downloaded the configuration file before executing an Update. Otherwise the PM Card will switch to an empty ROM resulting in PM Card failure.

6. Click **[Update]** to activate the new configuration file(s).
7. Select the appropriate box for the type of configuration file that will be updated. One or more configuration files can be updated by checking the box next to the respective configuration file name. Click **[Execute]** to start the procedure.

NOTE

When updating the configuration file, PMC to PMC communication will be disrupted while the PMC re-initializes the new configuration. This WILL NOT affect the radio link. PNMT connection to the Network Element will be temporarily disrupted but will be automatically restored after the PMC has reset.

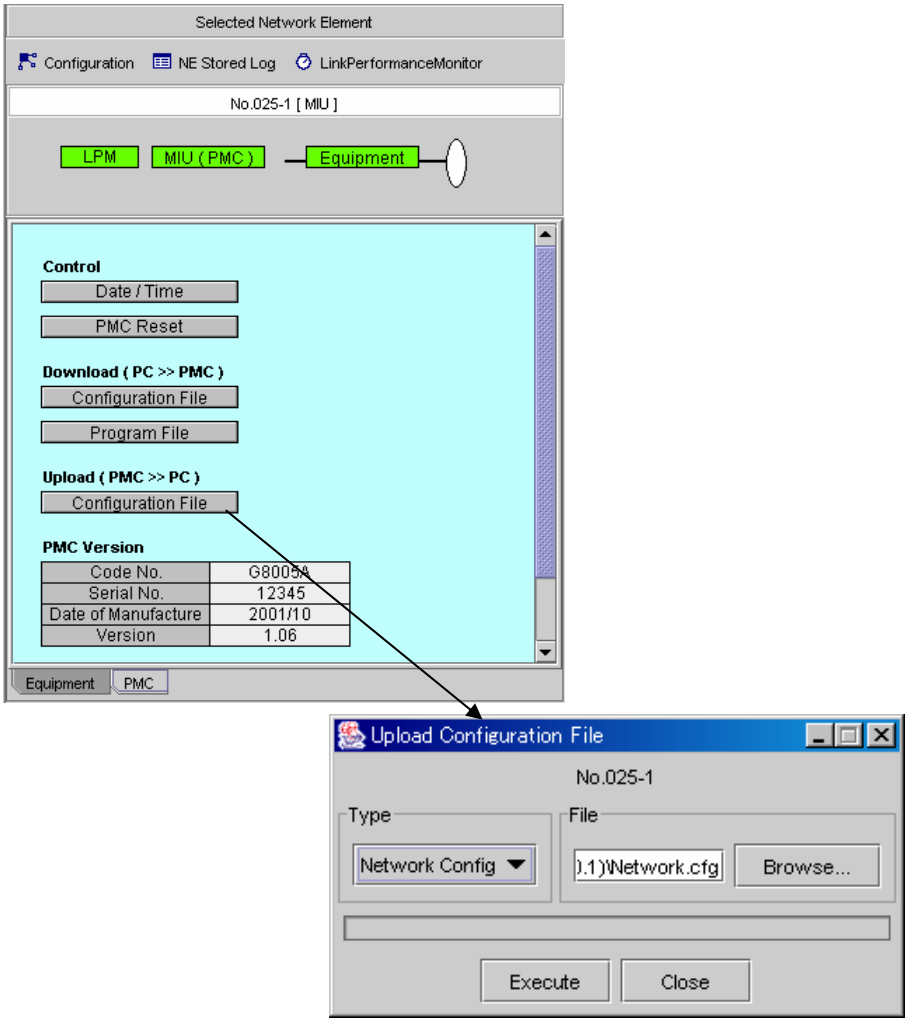
8. Click **[Close]** when done.

2.14 Uploading Configuration Files

This procedure is used to upload the configuration file from the PM Card of the selected Network Element to the PNMT PC.

To upload configuration files from the PM Card to PNMT:

1. Click **[Configuration File]** in the **Upload (PMC >> PC)** section on the **PMC** tab in the PNMT main window.
2. Select the type of file to be uploaded from the **Type** field.
3. Enter the location of the configuration file in the **File** field, or click **[Browse]** to locate the file on the local hard disk or diskette.
4. Click **[Execute]** to start the operation.
5. A message window indicating the status of the operation will appear. It will close automatically once the operation is completed.
6. After the upload is finished click **[Close]**.
7. Verify that the file was uploaded to the specified directory.



2.15 PM Card Reset

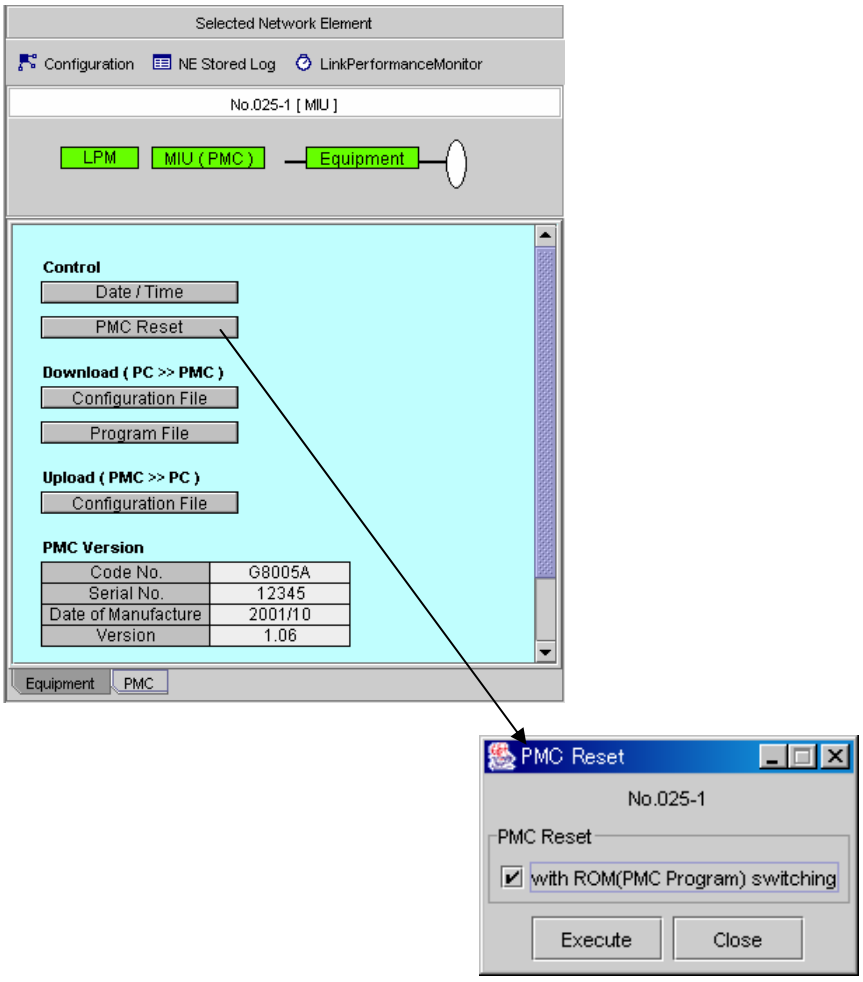
The PM Card can be reset using this function.

NOTE

The connection to the selected Network Element will be temporarily disrupted, but will be automatically restored.

To reset the PM Card:

1. Click **[PMC Reset]** in the **PMC** tab on the **PNMT** main window.
2. Click **[Execute]** to continue the PMC reset operation.
3. Click **[Close]** when finished.



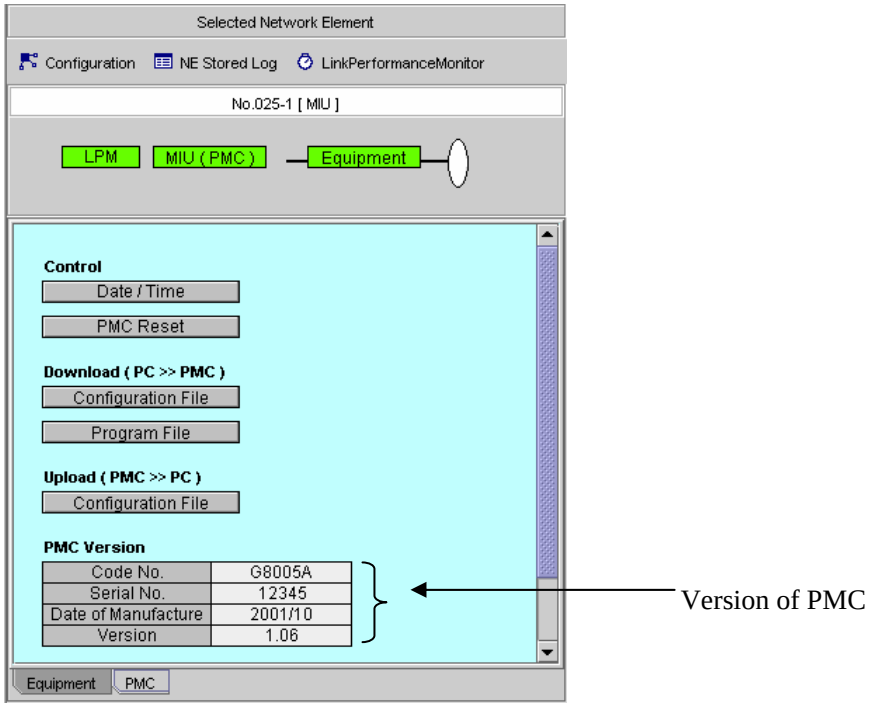
2.16 Version Monitor

The inventory information of the PM Card can be viewed by using this function.

2.16.1 Version Monitor

To display the version of PMC:

1. Click on the **PMC** tab on the **PNMT** main window.



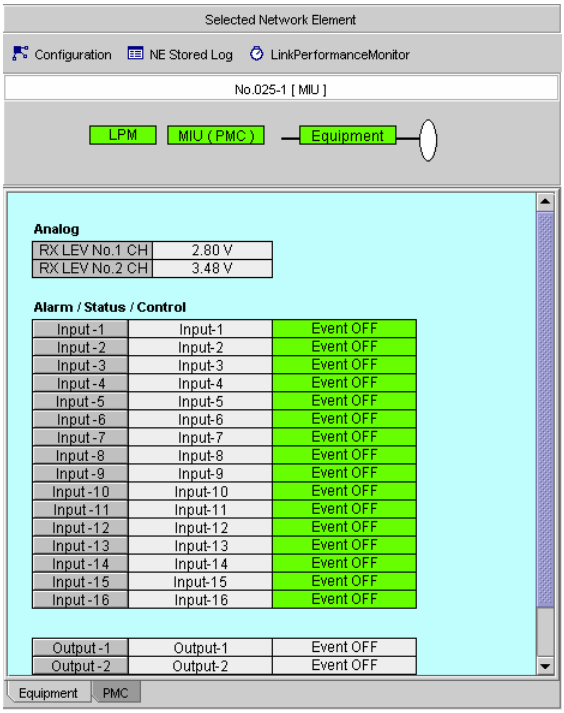
2.17 Parallel I/O Monitor and Setting

4-relay output switches and 16 input photocouplers are provided in the PM Card for equipment control and alarms. (ex. 2500S, 2600S, 2000S, 3000S, etc.)

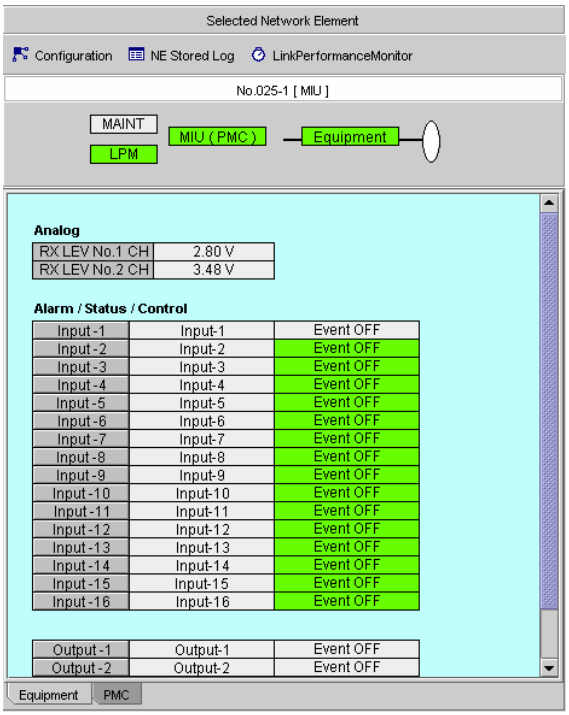
The setting for each relay output/photocoupler is available by clicking on the selected device on the **Equipment** tab in the **PNMT** main window.

To monitor and set Parallel I/O:

1. Click **Equipment** tab in the **PNMT** main window



Equipment Tab
(When no Input channels are set at Maint)



Equipment Tab
(When some Input channel are set at Maint)

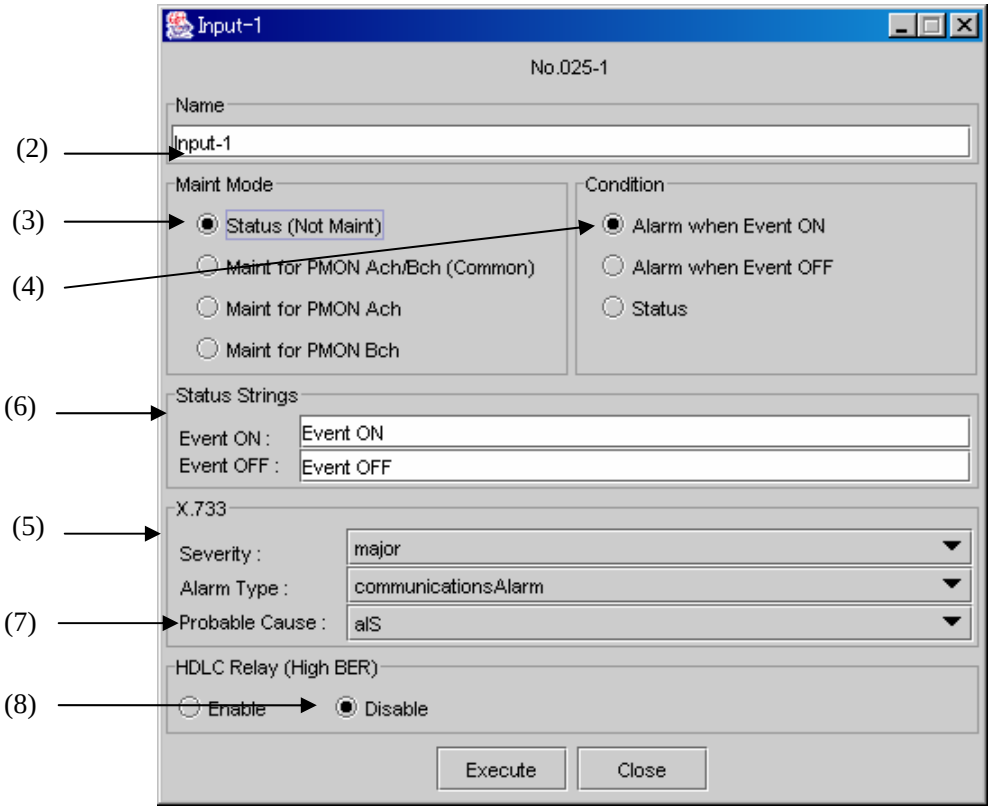
2.17.1 Monitored Item

Following items are monitored.

1. Sixteen (16) inputs (Input-1 to Input-16)
2. Four (4) relay outputs. (Output-1 to Output-4)

2.17.2 Photocoupler Input Setting

To set the photocoupler input:



To set the alarm

1. Click one of **Input-1** to **16** buttons to be selected on the **Equipment** tab in the **PNMT** main window.
2. Enter the desired designation for the respective Input unit in the **Name** field. A maximum number of 32 characters can be used.
3. Select the desired mode (**Status** or **Maint for PMON Ach/Bch** or **Maint for PMON Ach** or **Maint for PMON Bch**) in the **Maint Mode** field. This procedure determines whether the information for the selected Input unit is intended for maintenance mode. Select **Status (Not Maint)** in case it is not for maintenance purposes. Select **Maint for PMON Ach/Bch (Common)** in case it is maintenance information that affects two Performance Monitors CH (Ach/Bch). Select **Maint for PMON Ach** in case it is maintenance information that affects only one Performance Monitor CH (Ach). Select **Maint for PMON Bch** in case it is maintenance information that affects only one Performance Monitor CH (Bch).

NOTE

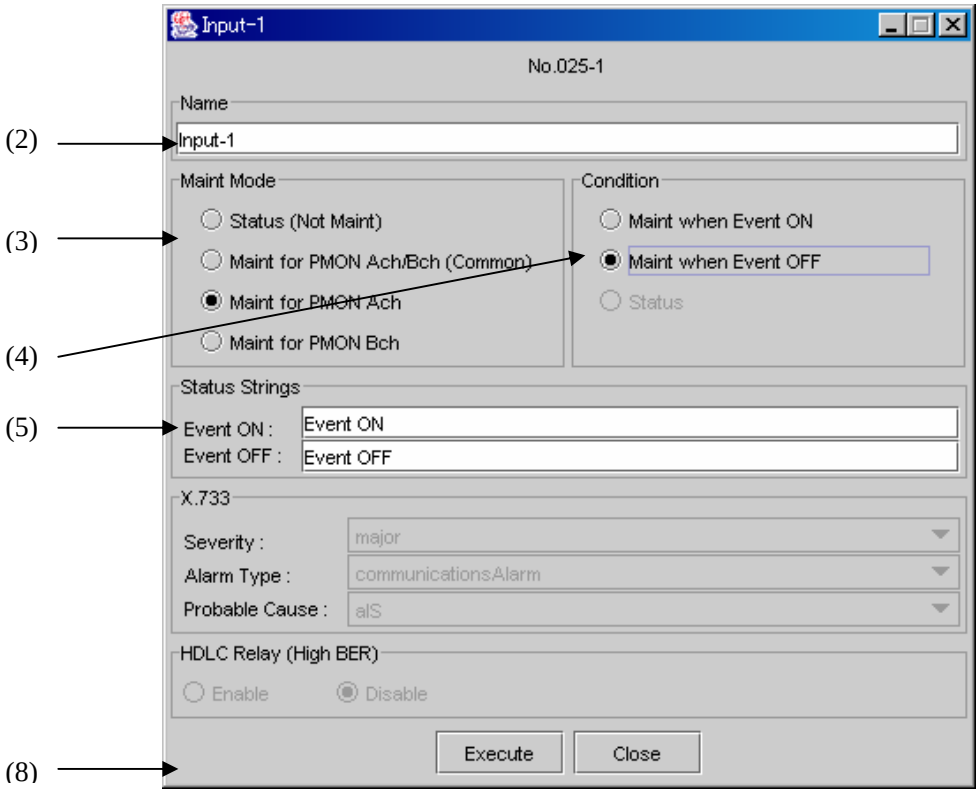
PMON Ach indicates first PMON input information of the CONT/ANALOG/PMON connector on MIU. PMON Bch indicates second PMON input information.

4. Select the desired condition (**Alarm when Event ON** or **Alarm when Event OFF** or **Status**) in the **Condition** field when "**Status (Not Maint)**" is selected in **Maint Mode** field. If "**Maint for…**" item is selected in the **Maint Mode** field, the options available in the **Condition** field change from "**Alarm…**" to "**Maint…**". Select the desired condition (**Maint when Event ON** or **Maint when Event OFF**) in the **Condition** field when "**Maint for…**" item is selected in **Maint Mode** field.
5. Enter the desired name in the **Status Strings** field for the **Event ON** and **Event OFF** states. A maximum number of 32 characters can be used.
6. Select the desired item (**Severity** or **Alarm Type** or **Probable Cause**) that is to be configured in the list on the respective pull-down menu. The X.733 box provides various options that recommendation provides various alarm reporting options (excerpted from ITU-TX.733) which the user can select from.
7. Select the HDLC Relay state (**Enable** or **Disable**) in the **HDLC Relay (High BER)** field.

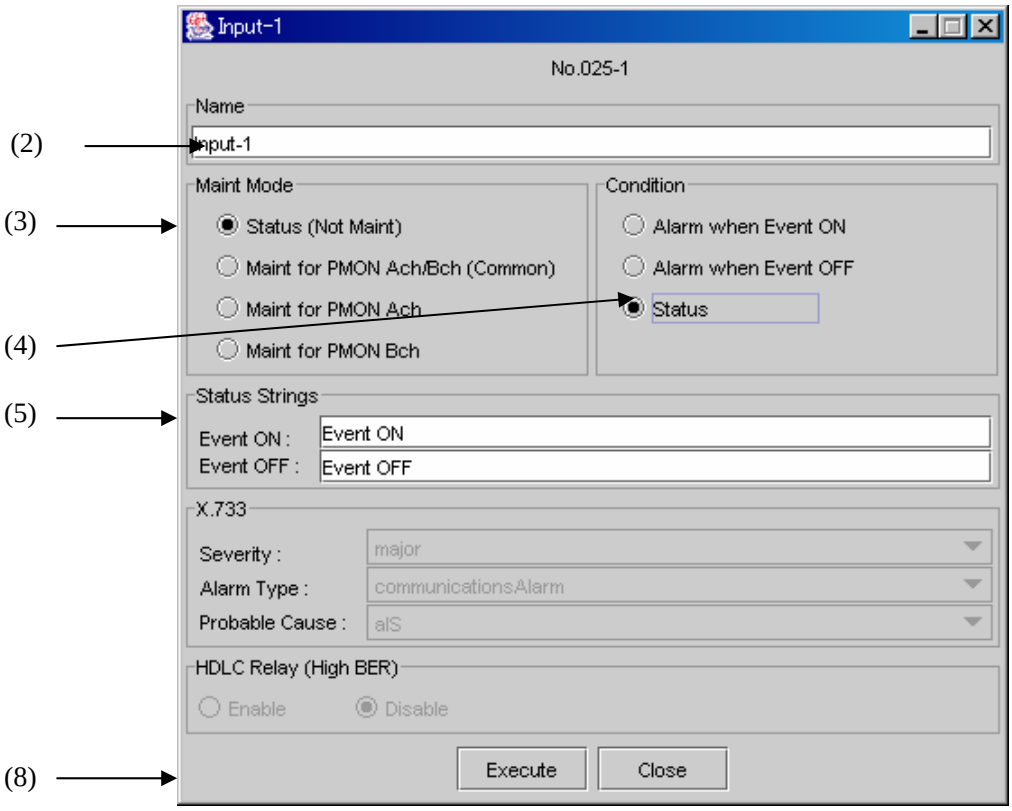
NOTE

When a <u>High BER</u> Alarm occurs on Network Equipment, <u>HDLC Relay</u> control action can prevent the MIU from sending erroneous data to upper MIU.

8. Click **[Execute]** to activate the newly set values.



To set to Maint



For Status Setting

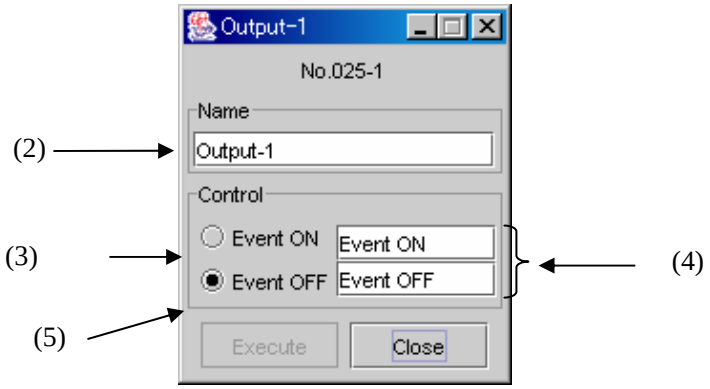
CAUTION:

Input Photocoupler status is set as
Event OFF (low): photocoupler is closed (off).
Event ON (high): photocoupler is open (on).

2.17.3 Relay Output Setting

To set the relay output:

2.17.3.1 1 Port Control Setting



In Case of 1 Port Control Setting

1. Click **Output** (**1-4**) button in **Equipment** tab in the **PNMT** main window.
2. Enter the desired name in the **Name** field. A maximum number of 32 characters can be used.
3. To set **Event ON** or **Event OFF**, the output unit selects the appropriate item (**Event ON** or **Event OFF**).
4. Enter the desired strings for the open and closed states of the Relay in the appropriate **Even ON** and **Event OFF** fields in the **Control** field. A maximum number of 32 characters can be used.
5. Click **[Execute]** to activate the newly set values.

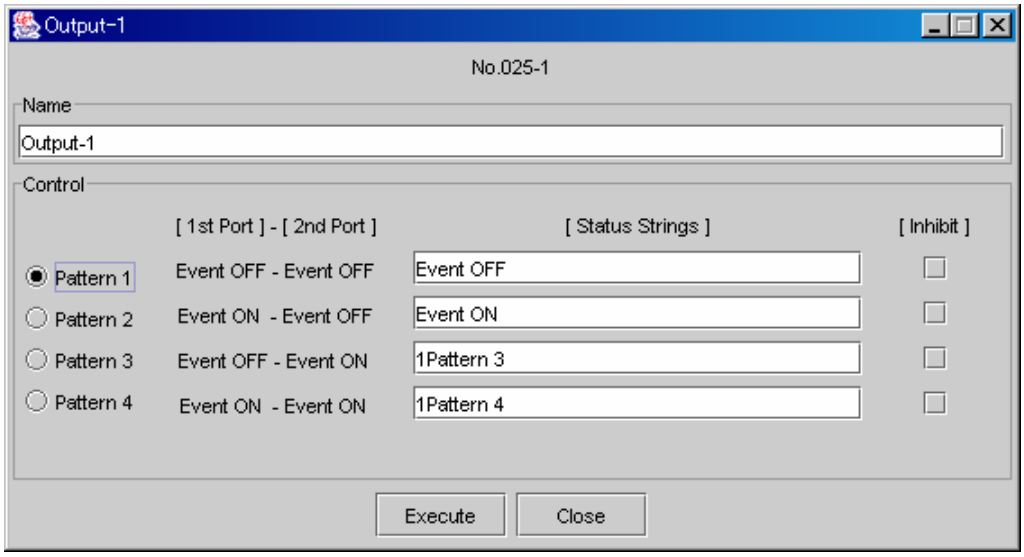
CAUTION:

Output Relay configurations are (Form-C)

Event OFF (low): both Common and NC (Normal Closed) points are closed.

Event ON (high): The status that Common and NO (Normal Open) points are closed.

2.17.3.2 Two-Port Control Setting



For Two-Port Control Setting

1. Click **Output** (**1 or 3**) in Equipment Tab on the **PNMT** main window.
2. Enter the desired name on the **Name** field. A maximum number of 32 characters can be used.
3. To set **Pattern 1, 2, 3** or **4**, the output units select the appropriate item (**Pattern 1, 2, 3** or **4**).

		Odd numbered Port Status (Port 1 or 3)	
		Event OFF (Close)	Event ON (Open)
Even number Port Status (Port 2 or 4)	Event OFF (Close)	**Pattern 1**	**Pattern 2**
	Event ON (Open)	**Pattern 3**	**Pattern 4**

4. Enter the desired strings for the open and closed states of the relay in the appropriate **[Status Strings]** fields in the **Control** field. A maximum number of 32 characters can be used.

CAUTION:

Please refer to your Network Element Operation Manual for details on the management of parallel output data. NEC switches (2500S, 2600S, 2300S, and 3500S) are activated using 2-Port Control.

5. Check the desired item in the **[Inhibit]** box when control is to be restricted.
6. Click **[Execute]** to activate the newly set values.

2.18 Configuration

PM Card portion and Parallel Input/Output usage can be monitored and controlled via this window.

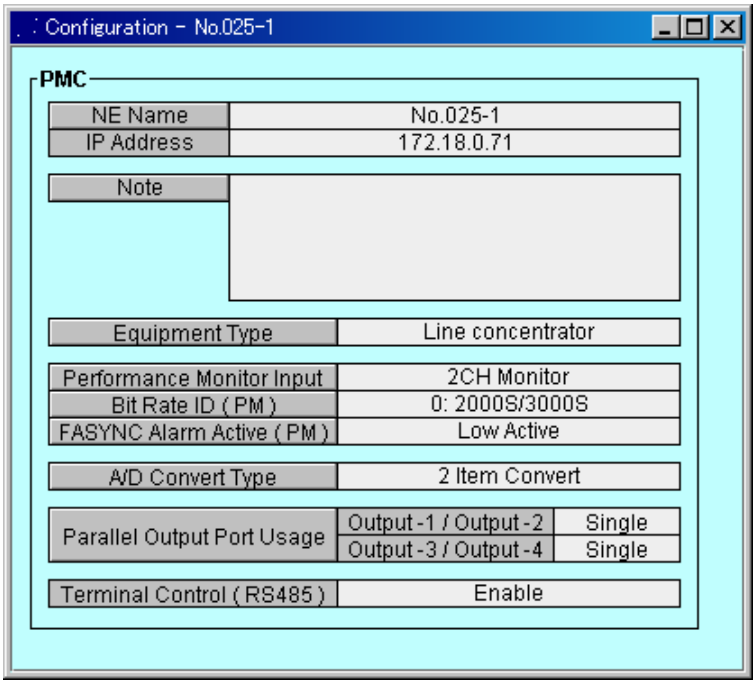
CAUTION:

Please refer to your Network Element Operation Manual for detailed explanations of the configurable items mentioned below.

2.18.1 Configuration Monitor

To open the Configuration Monitor:

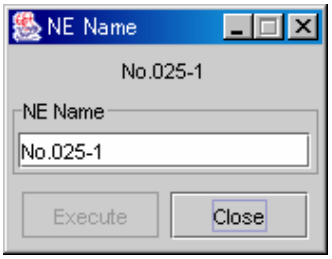
1. Click **[Configuration]** in **PNMT** main window.



2.18.1.1 Editing the NE Name:

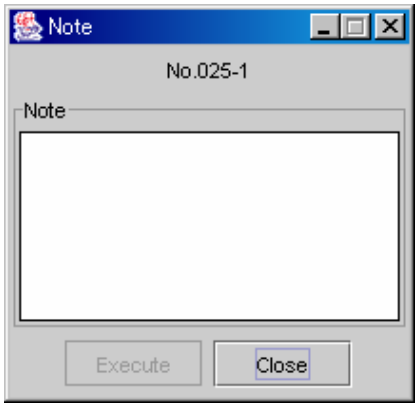
To edit the NE Name:

1. Click **[NE Name]** in **Configuration** window.
2. Enter NE Name in the **NE Name** dialog box. A maximum number of 32 characters can be used.
3. Click **[Execute]** to change to new NE Name.
4. Click **[Close]** when finished.



2.18.1.2 Editing the Note field for Network Elements:

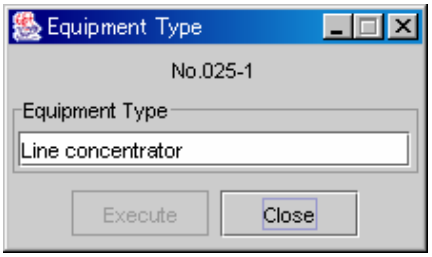
To add an optional description for the current NE:



1. Click **[Note]** in **Configuration** window.
2. Enter the optional description for the specific Network Element in the **Note** dialog box. A maximum number of 80 characters can be used in this field.
3. Click **[Execute]** when finished.
4. Click **[Close]** when finished.

2.18.1.3 Editing the Equipment Type:

To edit the Equipment Type:

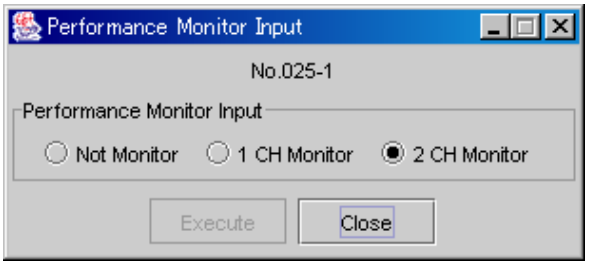


1. Click **[Equipment Type]** in **Configuration** window.
2. Enter Equipment Type in the **Equipment Type** dialog box. A maximum number of 32 characters can be *Please refer to your Network Element Operation Manual for details on the management of parallel output data. NEC switches (2500S, 2600S, 2300S, and 3500S) are activated using - Port Control.*
3. Click **[Execute]** to change to new Equipment Type.
4. Click **[Close]** when finished.

2.18.1.4 Setting the Performance Monitor Input:

To set the Performance Monitor Input:

1. Click **[Performance Monitor Input]** button in **Configuration** window.

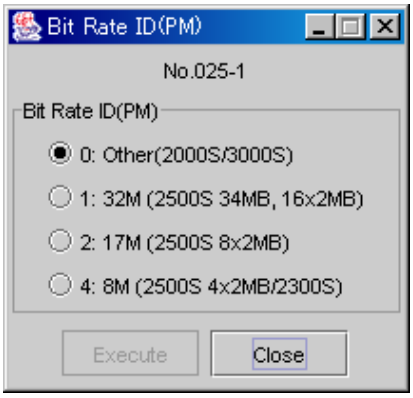


2. Select the desired number of Performance Monitor (**Not Monitor** or **1 CH Monitor** or **2 CH Monitor**) in the **Performance Monitor Input** field. The set data is reflected in the Link Summary Performance Monitor window.
3. Click on **[Execute]** button to change to a new Performance Monitor Input.
4. Click on **[Close]** button when finished.

2.18.1.5 Setting the Bit Rate ID (PM):

To set the Bit Rate ID (PM):

1. Click **[Bit Rate ID (PM)]** in **Configuration** window.
2. Select the desired Bit Rate ID (**Other** or **32M** or **17M** or **8M**) in the **Bit Rate ID (PM)** field. Setting data is used in Block Error Counter for Performance Monitor.



CAUTION:

Please refer to your Network Element Operation Manual for detailed traffic capacity of the Performance Monitor.

3. Click **[Execute]** to change to new Bit Rate ID (PM).
4. Click **[Close]** when finished.

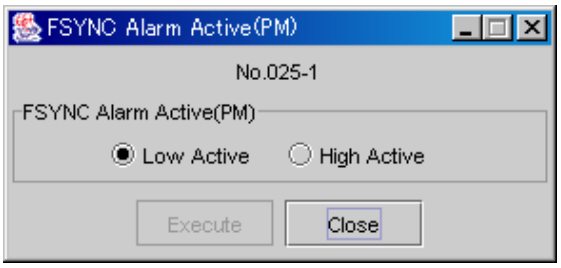
The ollowing table shows the relationship of block value and bit rate.

Bit Rate ID	Bit Rate	Blocks per second(blocks)
0	Other (2000S/3000S)	8000
1	32M (2500S 34MB,16x2MB)	8000
2	17M (2500S 8x2MB)	4000
4	8M (2500S 4x2MB/2300S)	2000

2.18.1.6 Setting the FASYNC Alarm Active (PM):

To set the FASYNC Alarm Active (PM):

1. Click **[FASYNC Alarm Active (PM)]** in **Configuration** window.



2. Select the desired option button (**Low Active** or **High Active**) in the **FASYNC Alarm Active (PM)** field. Setting data is used in UAS Error for Performance Monitor.

CAUTION:

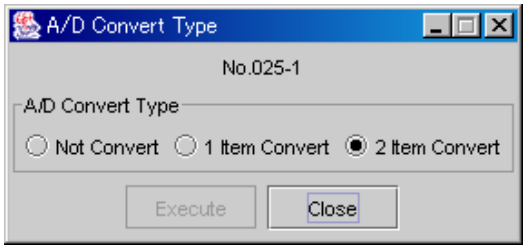
Please refer to your Network Element Operation Manual for detailed FASYNC output information. Existence of FASYNC information depends on your Network Element. FASYNC information can only be utilized for the Performance Monitor if it exists for your Network Element.

3. Click **[Execute]** to change to new FASYNC Alarm Active (PM).
4. Click **[Close]** when finished.

2.18.1.7 Setting the A/D Convert Type:

To set the A/D Convert Type:

1. Click **[A/D Convert Type]** in **Configuration** window.



2. Select the desired option button (**Not Convert** or **1 Item Convert** or **2 Item Convert**) in the **A/D Convert Type** field. The set data will be reflected in the Analog (RX LEV No.1 CH/No.2 CH) indication in the PNMT main window.

CAUTION:

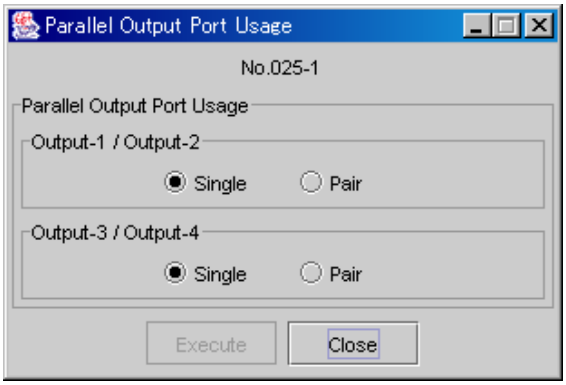
Please refer to your Network Element Operation Manual for the corresponding analog data output values (for NEC equipment).

3. Click **[Execute]** to change to new A/D Convert Type.
4. Click **[Close]** when finished.

2.18.1.8 Setting the Parallel Output Port Usage:

To set the Parallel Output Port Usage (allocation):

1. Click **[Parallel Output Port Usage]** in **Configuration** window.



2. Select the desired **Parallel Output Port Usage** (**Single** or **Pair**) in the **Parallel Output Port Usage** field. For two- port control, a set of even and odd ports is used. The set data is reflected in the Control indication (Parallel Output) on the **Equipment** tab in the **PNMT** main Window.

CAUTION

Please refer to your Network Element Operation Manual for details on managing parallel output data. NEC switches (2500S, 2600S, 2300S, and 3500S) are activated using two-Port Control.

3. Click **[Execute]** to change to new A/D Convert Type.
4. Click **[Close]** when finished.

2.19 Link Performance Monitor

The following performance items can be monitored according to the parameters expressed in the G.826 recommendation:

ES: Errored seconds

SES: Severely errored second

UAS: Unavailable Seconds

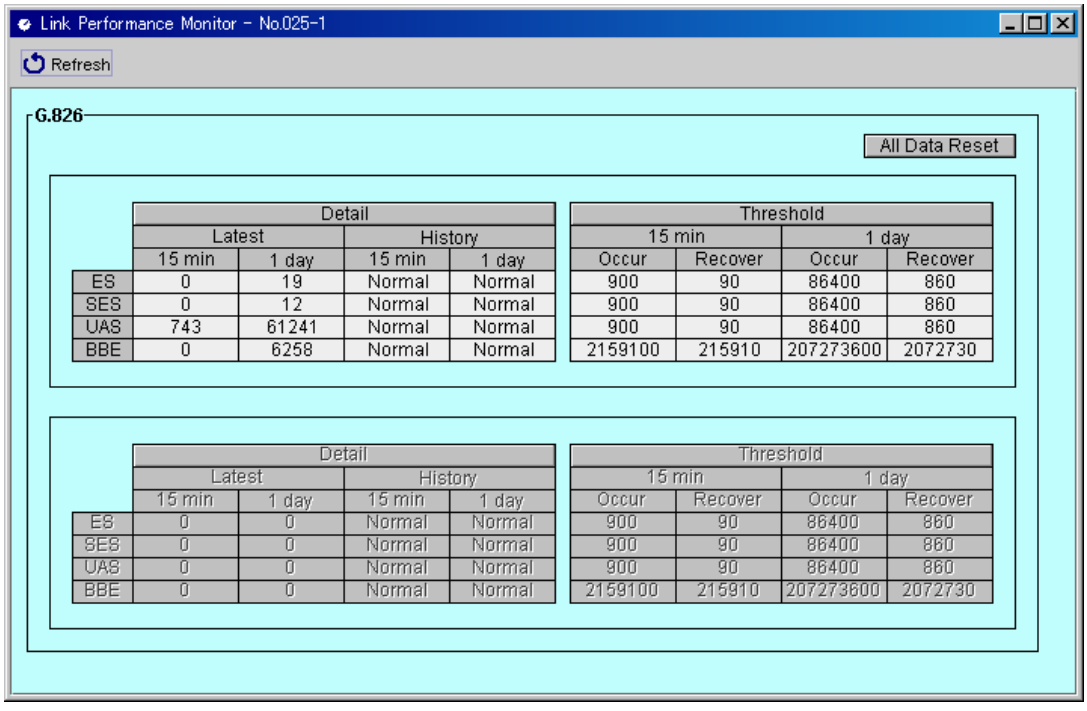
BBE: Background Block Error

Red color in Performance monitor window indicates the occurrence of monitored performance criteria exceeding the threshold values. The threshold values can be set in the threshold window. Yellow color indicates performance monitor during maintenance status. Moreover, all data can be reset with the **[All Data Reset]** button. The detailed daily performance data can be seen by clicking **[Detail]**.

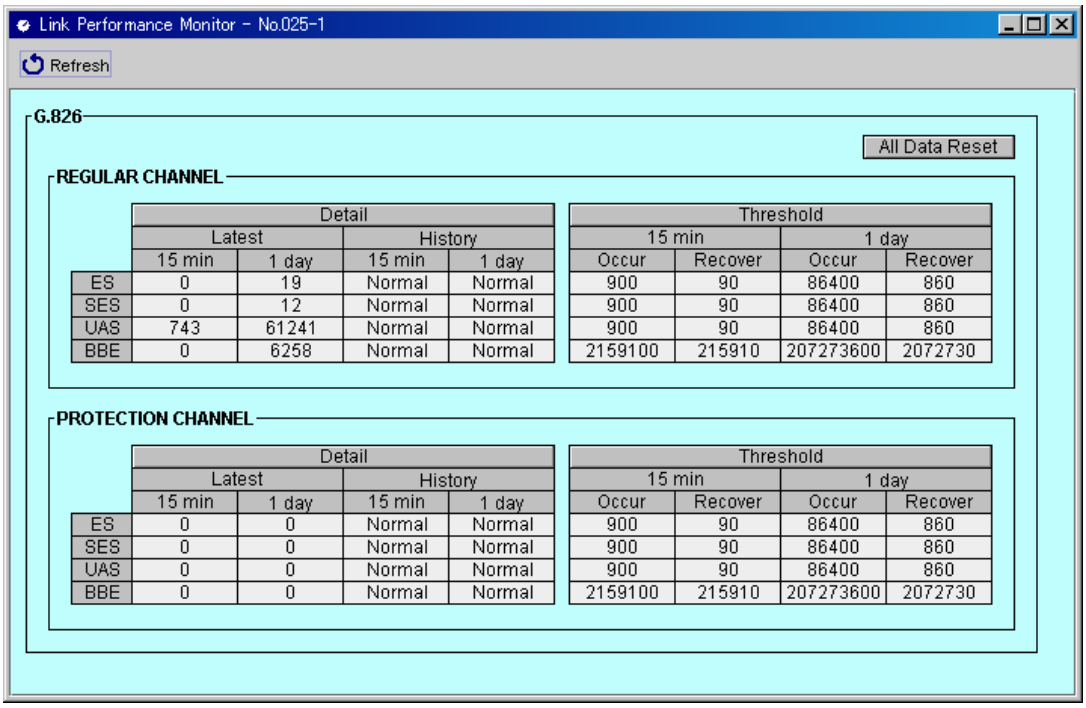
2.19.1 Viewing Summary Link Performance Monitor

To view Summary Link Performance Monitor:

1. Click **Link Performance Monitor** in **NE-specific** menu bar of the target PASOLINK – the PASOLINK that you intend to monitor.



Summary Link Performance Monitor window

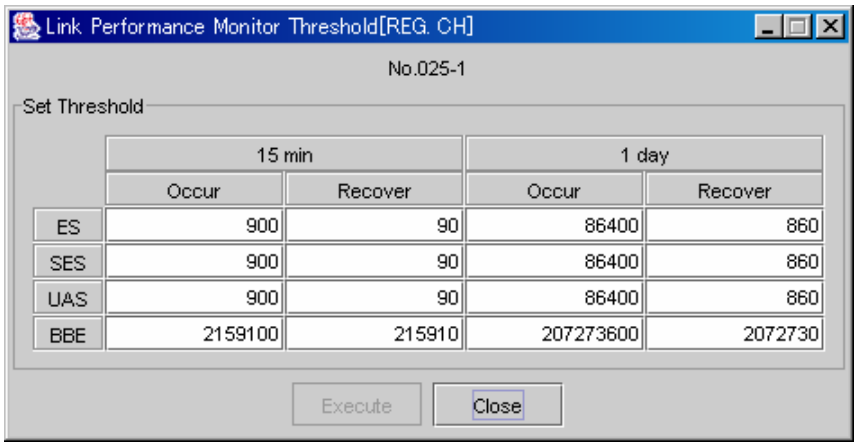


Summary Link Performance Monitor window (2 CH Monitor)

2.19.2 Threshold Setting

To set the threshold values:

1. Click **[Threshold]** in **Summary Link Performance Monitor** window



2. Select the performance item that is to be configured in the table shown above. The G.826 measuring parameters become available for setting when selected. The arrow buttons on the left-hand side of the field indicate this.
3. Set the value when the alarm **occurred (Occur)** and when the alarm **was resolved (Recover)** in the appropriate field. The measuring parameter will initiate an alarm status indication when it reaches the alarm occurrence (occur) value or an alarm clear status when it reaches the resolution (recover) value set in the threshold table.
4. Click **[Execute]** to activate the new settings.
5. Click **[Close]** when finished.

Following table shows minimum and maximum threshold value of Link Performance data.

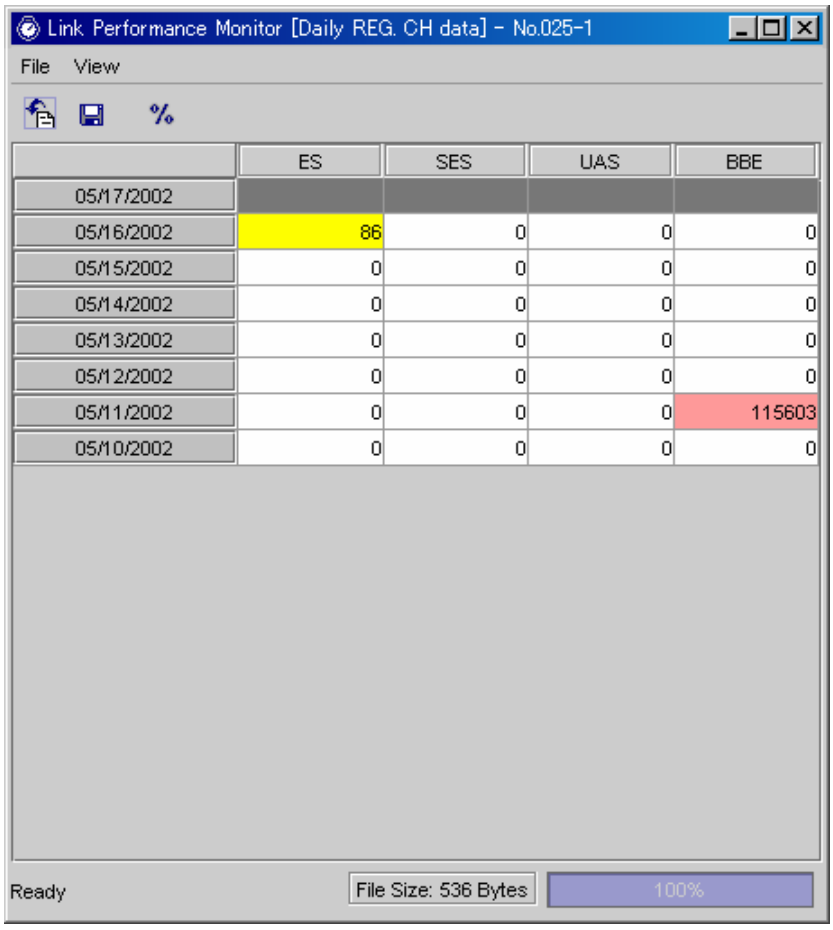
	15-min input range		1 day input range	
	Occur	Recover	Occur	Recover
ES	0 - 900	0 - 900	0 - 86400	0 – 86400
SES	0 - 900	0 - 900	0 - 86400	0 – 86400
UAS	0 - 900	0 - 900	0 - 86400	0 – 86400
BBE	0 - 2159100	0 - 2159100	0 - 207273600	0 - 207273600

2.19.3 Link Performance Monitor (Daily Data) window

This window contains the 24-hour performance data for the current 8 days.

To view the Link Performance Monitor (Daily Data) window:

1. Click **[Detail]** in **Link Performance Monitor** window.



Link Performance Monitor (Daily Data) window

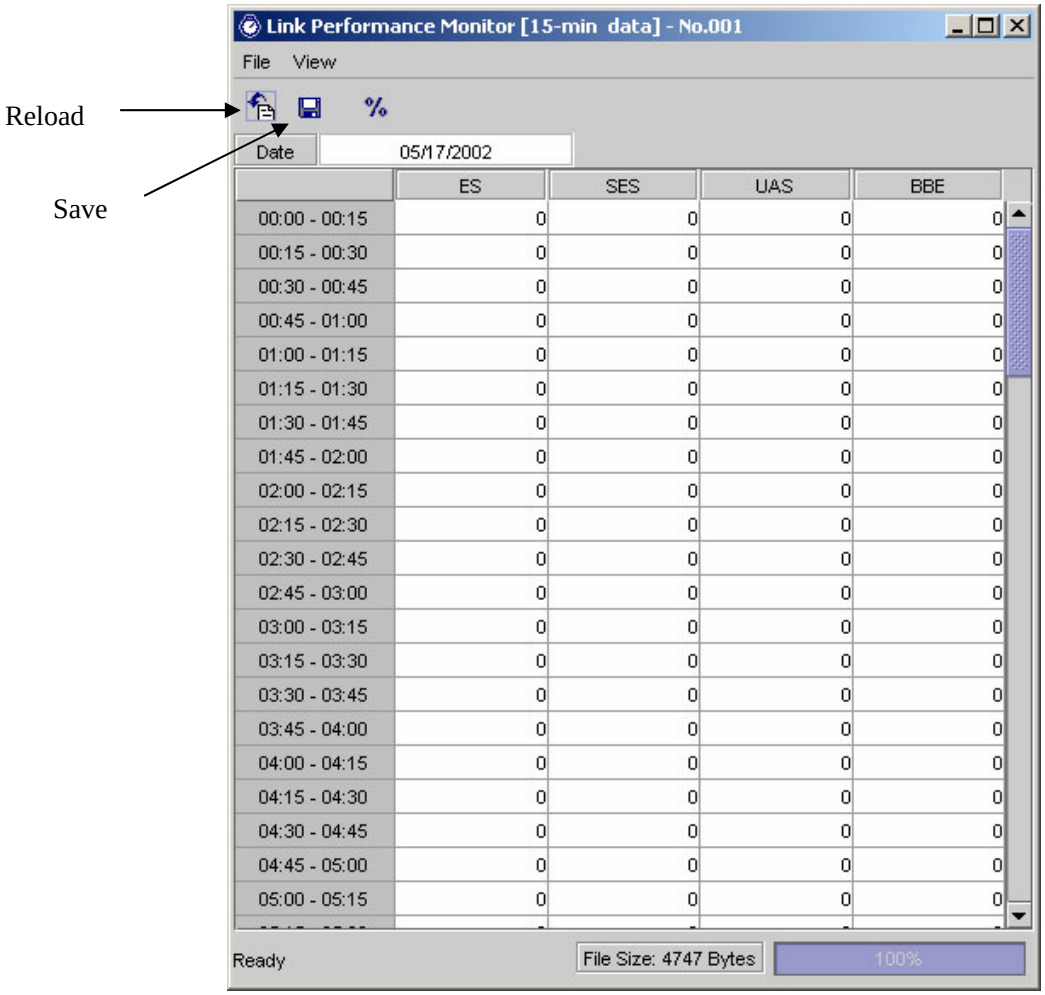
2. In this window a table presents the available data in PMC. The table is presented as G.826 measuring parameters versus the Date. The date buttons on the right-hand side of the table are selectable. Moreover, the buttons reflect the summary alarm for that specific date.

3. Click date to display the detailed 15-min data for that date.

2.19.4 Link Performance Monitor (15-min Data) window

To view the 15-min data for the desired date:

1. Click the target date in Link Performance Monitor (15-min Data) window to display the detailed 15-min performance data.

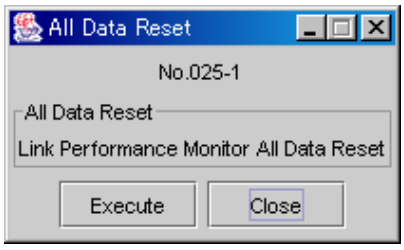


Link Performance Monitor (15-min Data) window

2. The data can be saved in text format by clicking then save icon. It can be refreshed by clicking the refresh button.

2.19.5 All Data Reset

1. Click **[All Data Reset]** in Summary **Link Performance Monitor** window.



WARNING!!!

Make sure that the current data has been saved. This procedure will delete all the performance data of the current week.

2. Click **[Execute]** to reset all data.
3. Click **[Close]** when finished.

2.20 NE Stored Log

The **NE Stored Log** window displays the date when an event or command was received, the equipment, monitored item, and the status.

2.20.1 NE Stored Log Monitor

1. Click **NE Stored Log** in the **NE-specific** menu bar of the target PASOLINK – the PASOLINK that you intend to monitor.
2. A message window showing the progress of the uploading of the NE Stored Log data will appear on screen. Wait until the PNMT finishes uploading the data. The progress window will automatically close once the uploading is completed.
3. The **NE Stored Log View** will be displayed. The **NE Stored Log** is presented in table form showing the date of the event, the item that triggered the event and the status change.