

Chapter 5

Operation

5.1. General

This chapter explains in detail how to operate the GiganetView management software and operate, configure and monitor the FibeAir 1500.

5.2. Logging In

To log into the GiganetView management software follow these steps:

1. Select **Start** > **Program** > **GiganetView**.
The Login window is displayed.



Figure 5-1 Login window

To log in, enter your password and click **OK**.

There are two types of passwords, each with a different security level and authorized activities:

Read only – System Operator permitted to perform monitoring activities only.

Read/write – Super User permitted to change system configuration, *System Administrator* parameters and perform monitoring activities.

The initial factory-set read/write password is **giganet**.

After logging in, the Work Area and Physical View windows are displayed (see section 3.3 and 3.4 for details).

5.3. The Work Area Window

The Work Area window is your starting point for all operations. Below is a description of the menus, toolbars and other features of the Work Area window.

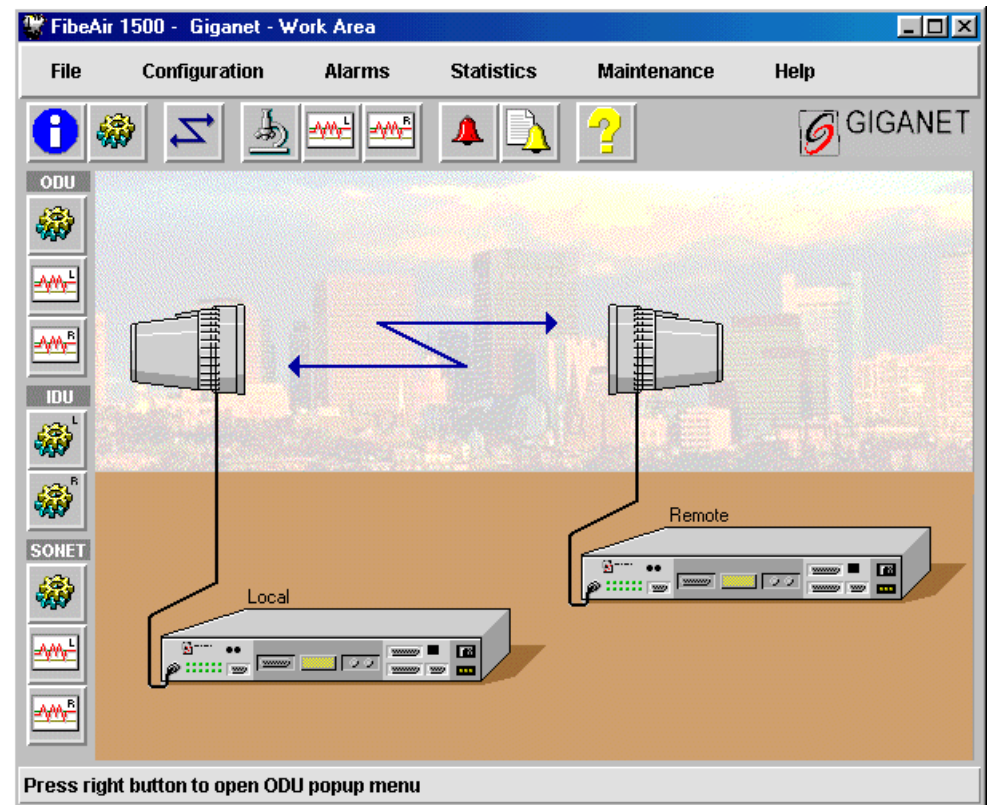


Figure 5-2 Work Area Window

5.3.1. Title Bar

The title bar of the Work Area window displays the following information:



Figure 5-3 Title Bar

Note that the "name of terminal" is user-defined via the General Information window (**Configuration** > **System Information**). See section 4.4 for details.

Closing the Working Area window by clicking on the "close window" button, on the right side of the title bar is tantamount to logging out of the system.

5.3.2. Menu Bar

The menu bar of the Work Area window allows you to select options from six menus.



Figure 5-4 Menu Bar

Below is a list of the various menus and the options they offer:

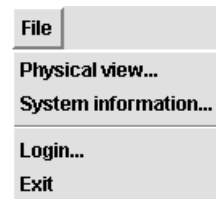


Figure 5-5 File Menu

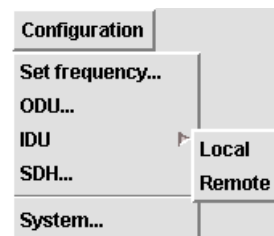


Figure 5-6 Configurations Menu



Figure 5-7 Alarm Menu

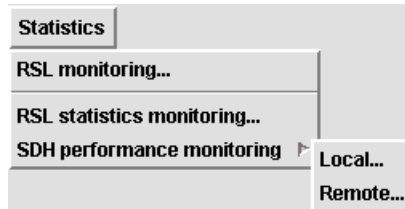


Figure 5-8 Statistics Menu

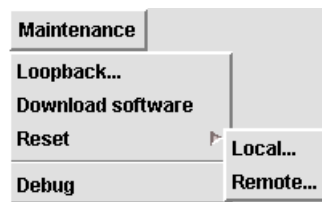


Figure 5-9 Maintenance Menu

5.3.3. Toolbars

The Work Area window has four toolbars:

- a general toolbar horizontally laid out directly below the menu bar
- an ODU toolbar below the File menu option
- an IDU toolbar
- a Sonet/SDH toolbar.

General Toolbar

Key	Explanation
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General Information – view and define system parameters such as link definitions, contacts, system up time and IDU and ODU serial numbers.



System Configuration – view and define general settings such as Local Device Communications, managers list and the alarms reported to them.



Set Frequency – define the frequency of the local and remote units.



Maintenance – perform loopbacks and insert alarm signals.



Local RSL Monitoring – attain a graph of the local received signal level.



Remote RSL Monitoring – attain a graph of the remote received signal level.

Key	Explanation
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Alarm Status – view the current alarm status.



Alarm Log File – view the log file.



Help – starts the online help system.

ODU Toolbar



ODU Configuration – view and set up the radio link parameters.



Local RSL Statistics Monitoring – view local received signal level data.



Remote RSL Statistics Monitoring – view remote received signal level data.

IDU Toolbar



Local Unit Configuration – define Local IDU parameters.



Remote Unit Configuration – define Remote IDU parameters.

Sonet/SDH Toolbar



Sonet/SDH Configuration – view and configure Sonet/SDH parameters.

Local Sonet/SDH Performance Monitoring – view *Sonet/SDH* performance data of the Local unit.

Remote Sonet/SDH Performance Monitoring – view *Sonet/SDH* performance data of the Remote unit.

5.4. Physical View

The Physical View window is constantly displayed after logging into the FibeAir 1500 management program. It provides a real-time virtual display of the IDU front panel. This window may be closed and reopened at any time. The window is reopened by selecting **File > Physical View** on the Work Area window.



Figure 5-10 Physical View Window

Place the pointer over any item in the window and hold it there to view a ToolTip description of the item. Also, the status bar on the bottom of the window constantly displays the name of the currently selected item (e.g., LED Alarms, Power Switch).

The display of the LEDs on the Physical View window indicates the actual real-time status of the LEDs on the front panel of the IDU. Note that there is a slight delay between the changes on the front panel and the time that they are displayed on the Physical View window.



The LEDs on the front panel indicate the status of a number of important factors. For the most part, the following rule applies: Green indicates a good state (OK), Yellow indicates a warning, and Red indicates a major alarm or a severe malfunction. See Table 3-1, below, for details.



Table 5-1 IDU LED Alarms

LED Name	Color			Description
	Red	Yellow	Green*	
“Power”	X		X	Red - Problem with power supplies, system not functional.
“Future Use”				
“Line”	X	X	X	Red - No input to main channel / High BER Yellow – JO mismatch.
“Loss of Frame”	X		X	Red – Radio did not recognize information frame (radio link problem/radio LOF).
“BER”	X	X	X	Red – radio BER higher than radio excessive error threshold definition (please refer to Sonet/SDH configuration screen). Yellow – radio BER higher then radio signal degrade threshold definition (please refer to Sonet/SDH configuration screen).
“Loopback”	X		X	Red – Loopback is active.
“Stand By”		X	X	Yellow – Protected configuration: This unit is currently passive or Tx mute applied.
“Future Use”				
“IDU”	X	X	X	Red – Modem unlocked. Yellow – High temperature / Fan problem.
“ODU”	X	X	X	Red – No link/ ODU Power/ ODU unlocked. Yellow – Radio interference./ High temperature/ Rx/Tx out of range.
“Cable”	X		X	Red – RF Cable open / RF Cable Short.
“Remote”	X	X	X	Red – No link / fault in remote unit (any red led in the remote unit). Yellow – Warning in remote unit (any yellow led in the remote unit).

* **Green** – Normal

5.5. Windows and Menus

The following sections describe the various operational windows of the FibeAir 1500. The options offered on each window are explained and operation instructions are given.

5.5.1. File Menu Options

Physical View

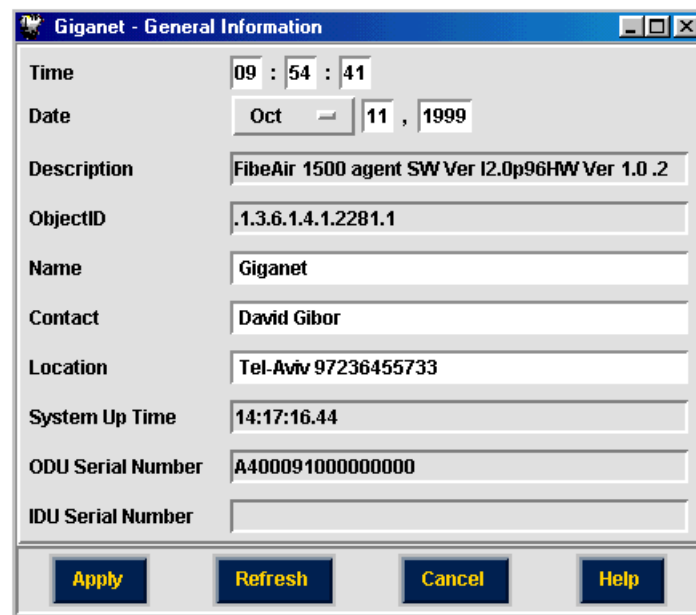
This option displays the Physical View window, a real-time virtual display of the IDU front panel. By default, the Physical View window, along with the Work Area window, is displayed after logging in to the FibeAir 1500 management software.

System Information

This option allows you to view and define general settings for the FibeAir 1500.



1. Select **Configuration** > **System Information** in the Work Area window. The General Information window is displayed.



Time	09 : 54 : 41
Date	Oct 11, 1999
Description	FibeAir 1500 agent SW Ver I2.0p96HW Ver 1.0.2
ObjectID	.1.3.6.1.4.1.2281.1
Name	Gigaset
Contact	David Gibor
Location	Tel-Aviv 97236455733
System Up Time	14:17:16.44
ODU Serial Number	A400091000000000
IDU Serial Number	

Figure 5-11 General Information Window

2. In the Time field, enter the current time of day in HH:MM:SS format (24 hour format).
3. In the Date field, select the month using the pull-down menu and enter the day of the month and year.

The Description field is read-only. It displays a textual description of the entity. This value includes the full name and identification of the system's hardware type, software operating system, and networking software.



The Object ID field is read-only. It displays the vendor's authoritative identification of the network management system contained in the entity.

4. (Optional) In the Name field, enter an administrative-assigned name for this managed node (link). By convention, this is the node's fully-qualified domain name.
5. (Optional) In the Contact field, enter the name of a person to contact in case of problems with the system, together with information on how to contact this person.
6. (Optional) In the Location field, enter the actual physical location of the node or agent (e.g., 'telephone closet, 3rd floor').

The System Up Time field (read-only) displays the time elapsed since the system was powered.

The ODU Serial Number field (read-only) displays the serial number of the ODU.

The IDU Serial Number field (read-only) displays the serial number of the IDU.

7. Click **Apply**.
The definitions and settings determined in the General Information window are saved.
8. Click **Cancel**.
The General Information window is closed.

Login

The Login option is used to change authorizations. This option may also be used to lock the application without exiting. After selecting this option, you are prompted for your password in a pop-up window. Enter your password and click **OK**.

Exit

This option allows you to exit the FibeAir 1500 management software. This is the same as clicking on the Close Window icon in the title bar. When this option is selected, an "Are You Sure?" prompt is displayed. Click **OK** to exit the software; click **Cancel** to return.

5.5.2. Configuration

a) Setting Frequency



1. Select **Configuration** ➤ **Set frequency** in the Work Area window. The Frequency Plan window is displayed.

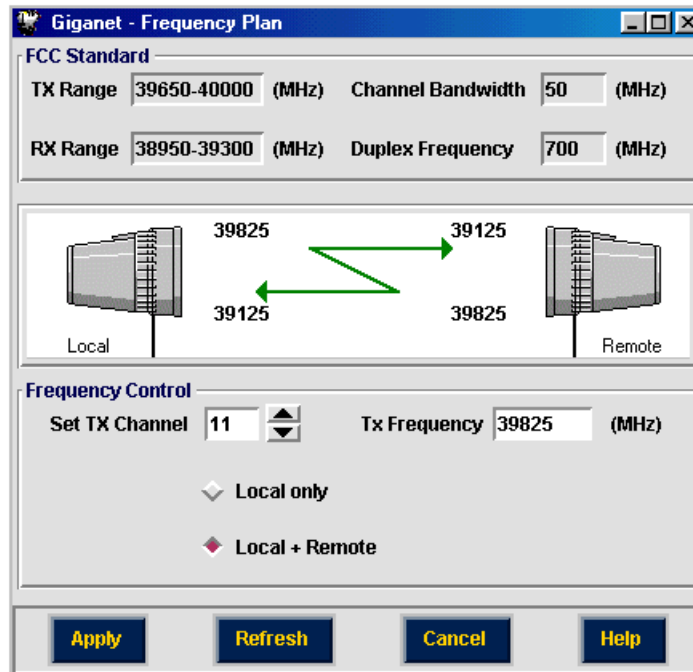


Figure 5-12 Frequency Plan Window

At the top of the window, the system displays Tx/Rx frequency ranges and the gap between them according to the appropriate standard (FCC or ETSI), the type of ODU installed, and the channel bandwidth.

2. In the Frequency Control section, set the TX Channel to the required channel. The corresponding frequency is displayed. By default, it is set to the first channel. You can type the Tx frequency directly in Tx Frequency field.

If you are unsure of the required channel, refer to Appendix E for FCC or ETSI channel allocations.

3. Select the Local + Remote option (radio button should be filled). By default, the Local + Remote option is selected. This option applies the TX Channel setting you make to both the local and remote units. This step requires established remote connection.
4. Click **Apply**. The settings are saved. From this point on, the ODU is set to the desired frequency.
5. Click **Cancel**. The Frequency Plan window is closed.

b) ODU Configuration



1. Select **Configuration** > **ODU** in the Work Area window. The ODU Configuration window is displayed.

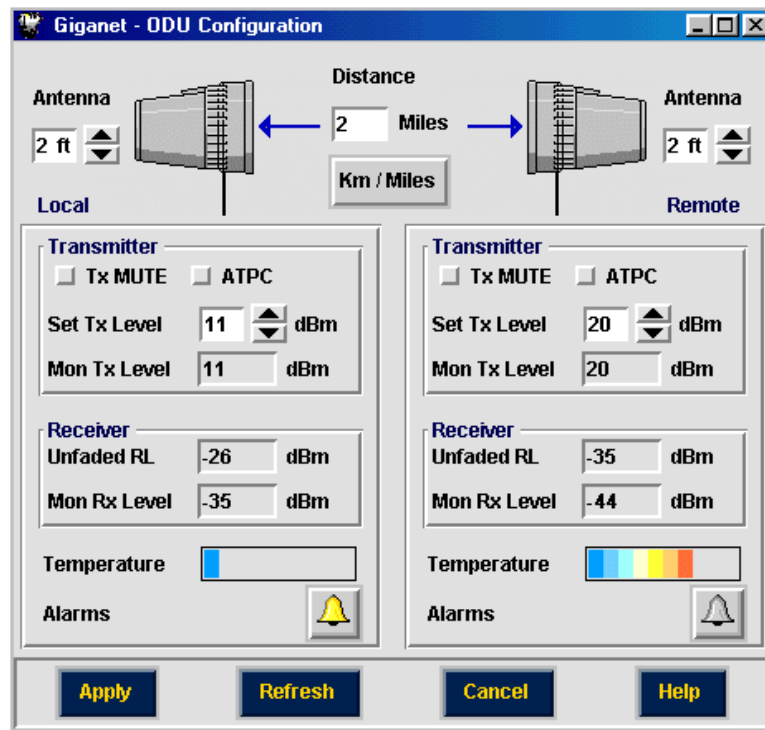


Figure 5-13 ODU Configuration Window

2. In the top center of the window, enter the distance between the local and the remote antennas.

Perform the following steps for both the local and remote units (on the left and right sides of the window):

3. In the top of the window, select the diameter of the antenna (1, 2, 4, or 6 feet). The default value is 1 foot.

Note: Steps 2 and 3 required for calculating appropriate unfaded RL.


4. (Optional) In the Transmitter section, click on the Tx MUTE option to block transmission to the remote unit. By default, this option is not selected.
5. Click the ATPC option to enable Automatic Transmit Power Control (ATPC) mode. By default, this option is not selected. When activating ATPC option two entries for local and remote Rx levels are displayed. The system's power transmission levels are set to achieve appropriate Rx levels, as entered by the user.
6. In the Set Tx Level fields, enter or select the designated signal level. Possible range: -10 to max power level. By default, the transmit signal level is set to the maximum power level (+15 ÷ +22dBm, according to the frequency band). For more information, see Appendix E.

The Mon Tx Level field (read-only) displays the system's transmitted power level.

The Mon Rx Level field (read-only) displays the received power level.

The unfaded Rx Level field displays the predicted receive level as calculated from the distance and the antenna size.

The temperature scale shows the temperature of the ODU units, ranging from blue (cold) to red (hot).

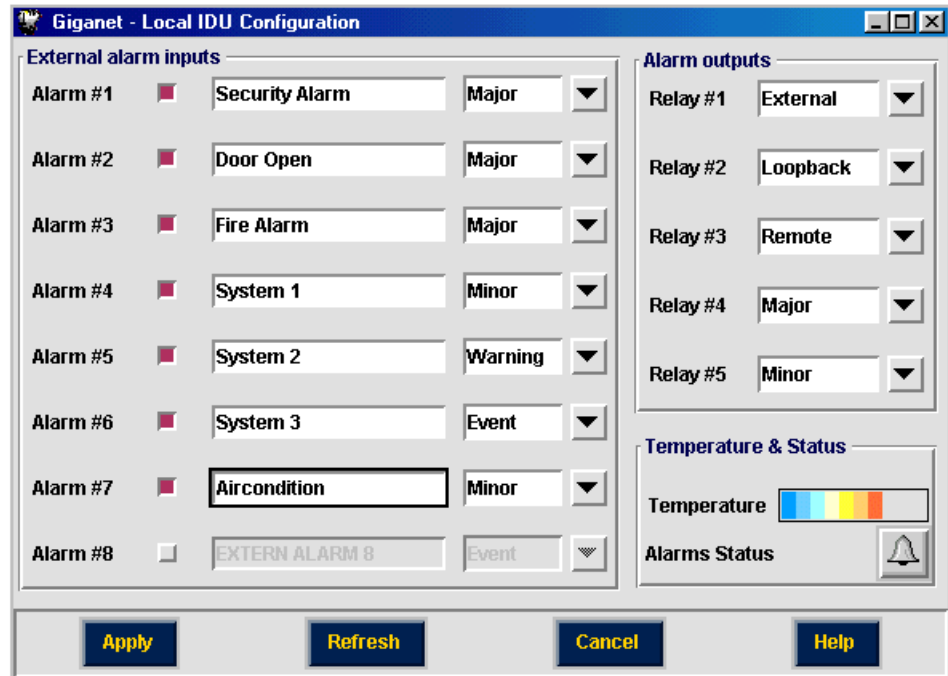
The color of the  icon indicates the severity of the most severe alarm currently triggered (if any). Click on the icon to view the current alarm list.

7. Click **Apply** to store current window settings.
8. Click **Cancel**.
The ODU Configuration window is closed.

c) IDU Configuration



1. To define IDU Configuration select **Configuration** > **IDU** in the Work Area window. The IDU Configuration window is displayed.



External alarm inputs			Alarm outputs	
Alarm #1	Security Alarm	Major	Relay #1	External
Alarm #2	Door Open	Major	Relay #2	Loopback
Alarm #3	Fire Alarm	Major	Relay #3	Remote
Alarm #4	System 1	Minor	Relay #4	Major
Alarm #5	System 2	Warning	Relay #5	Minor
Alarm #6	System 3	Event		
Alarm #7	Aircondition	Minor		
Alarm #8	EXTERN ALARM 8	Event		

Figure 5-14 IDU Configuration Window

Follow the steps below for both the Local and Remote sides.

Setting External Alarm Inputs

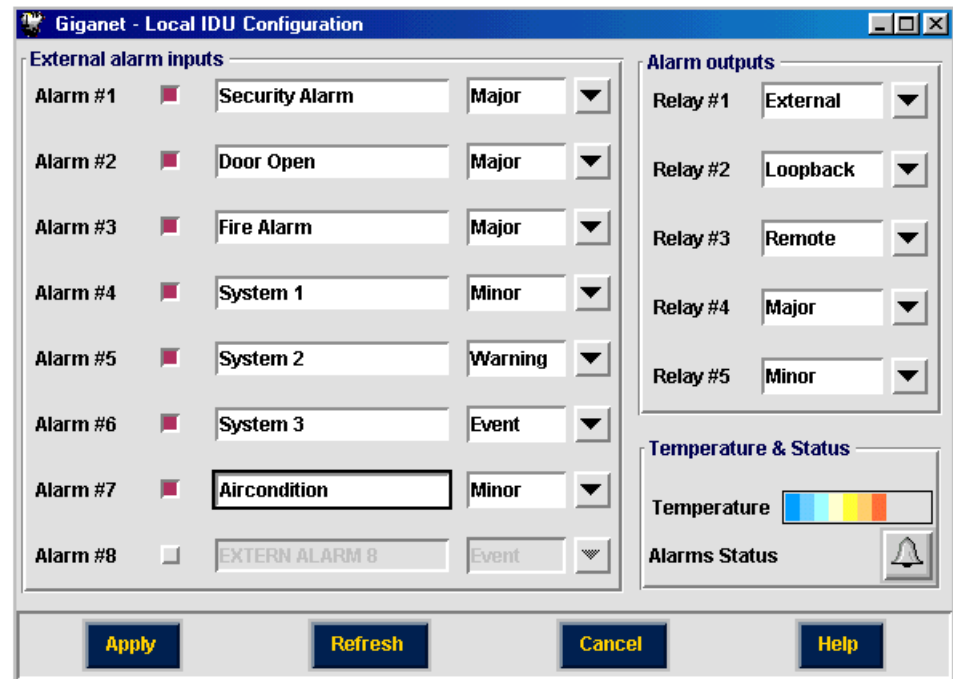
The microcontroller in the IDU reads the alarm inputs (dry contact) and transmits them over the management channel to the GiganetView management system. This allows the FibeAir 1500 system to report external alarms not related to itself.

For each alarm:

1. Click on the box next to the alarm number to enable/disable the alarm. Alarms that are enabled are indicated by a filled red box (■); disabled alarms are indicated by an empty box ().
2. Place the cursor in the field to the right of the enable/disable button and type a description for the alarm (e.g., "door open", "A/C Failure").
3. Select a severity (Major, Minor, Warning or Event) for the alarm.

Setting Alarm Outputs

The FibeAir 1500 provides five alarm outputs, which may be used by other systems to sense FibeAir 1500 alarms.



The screenshot shows the 'Giganet - Local IDU Configuration' window. It is divided into two main sections: 'External alarm inputs' and 'Alarm outputs'.
External alarm inputs: This section lists eight alarms. Each alarm has a checkbox to its left, a text field for the alarm name, and a dropdown menu for severity. Alarm #1 is 'Security Alarm' (Major), Alarm #2 is 'Door Open' (Major), Alarm #3 is 'Fire Alarm' (Major), Alarm #4 is 'System 1' (Minor), Alarm #5 is 'System 2' (Warning), Alarm #6 is 'System 3' (Event), Alarm #7 is 'Aircondition' (Minor), and Alarm #8 is 'EXTERN ALARM 8' (Event). Alarm #8 is currently disabled.
Alarm outputs: This section lists five relays. Each relay has a dropdown menu for its output type. Relay #1 is 'External', Relay #2 is 'Loopback', Relay #3 is 'Remote', Relay #4 is 'Major', and Relay #5 is 'Minor'.
Temperature & Status: This section includes a 'Temperature' indicator with a color scale from blue to red, and an 'Alarms Status' indicator with a bell icon.
At the bottom of the window are four buttons: 'Apply', 'Refresh', 'Cancel', and 'Help'.

Figure 5-15 Setting Alarm Outputs

The alarm outputs are Form C Relays. Three pins are provided for each alarm:

- Normally open (NO)
- Normally Closed (NC)
- Common (C).

Any output alarm may be defined as any one of the following:

- Major
- Loopback
- IDU
- Cable
- Signal Degrade
- External
- Minor
- Power
- ODU
- Remote
- Line


The default alarm output settings are:

- Relay 1: On-Line (Power)
- Relay 2: IDU
- Relay 3: ODU
- Relay 4: CBL (Cable)
- Relay 5: RMT (Remote)

These relays may be connected to customer-specific applications. Refer to Appendix B for details on the alarm connector pin assignments.

IDU Temperature and Alarms

The temperature scale shows the temperature of the IDU unit ranging from blue (cold) to red (hot).

The color of the  icon indicates the severity of the most severe alarm currently triggered (if any). Click on the icon to view the current alarm list.

4. Click **Apply** to store current window settings.
5. Click **Cancel**.
The ODU Configuration window is closed.

d) Sonet/SDH Configuration



1. To define Sonet/SDH Configuration, select **Configuration** > **Sonet/SDH** in the Work Area window. The Sonet/SDH Configuration window is displayed.

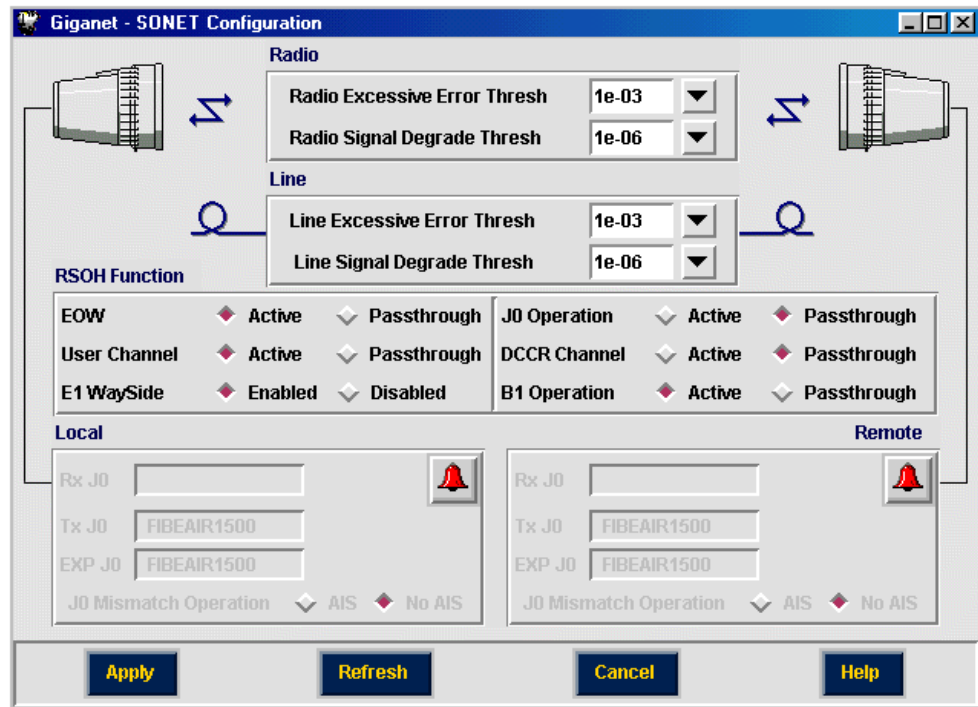


Figure 5-16 Sonet/SDH Configuration Window

Radio BER Alarm Thresholds (Optional):

2. In the Radio Excessive Error Thresh field, select the level above which an Excessive BER alarm is issued for errors detected over the radio link.
3. In the Radio Signal Degrade Thresh field, select the level above which a Signal Degrade alarm is issued for errors detected over the radio link.

Line Parameters (Optional):

4. In the Line Excessive Error Thresh field, select the level above which an Excessive BER alarm is issued for errors detected on the line input.
5. In the Line Signal Degrade Thresh field, select the level above which a Signal Degrade alarm is issued for errors detected on the line input.

Regenerator Section Overhead (RSOH) Function Parameters (Required):

This section of the window allows you to determine the RSOH parameters, which will be used.

6. Set each RSOH parameter that will be used as *active* and leave the others set as *passthrough*. By default, these parameters are set to *passthrough*.

EOW – Engineering Order Wire.

End to end voice channel option – E1 byte at the SDH RSOH – activate/passthrough.

User channel – The 64 kbps user channel – F1 byte at the SDH RSOH – activate/passthrough

E1 wayside – enable/disable the wayside channel.

JO operation – JO byte is used as a trace identifier at the SDH RSOH. If JO is activated, use the “Tx JO” and “Exp JO” to define IDU identifier string and “AIS” mode of operation.

DCCR – activate/passthrough the RSOH communication channel normally used for inband TMN.

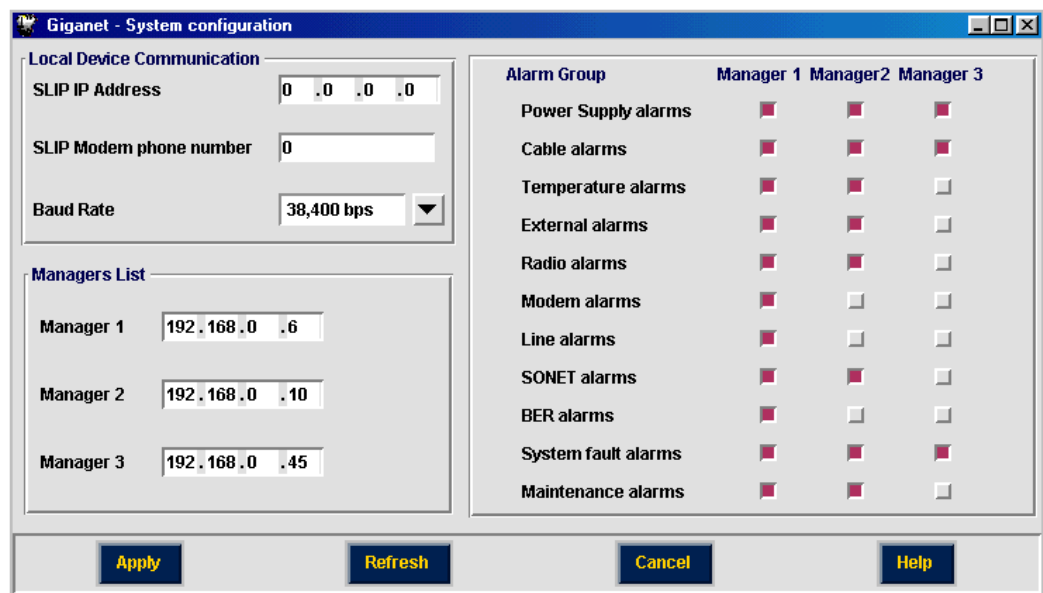
B1 operation – activate/passthrough B1 byte at the RSOH. B1 is used to perform parity byte checks for monitoring SDH quality and service.

7. Click **Apply**.
The definitions and settings determined in the SDH Configuration window are saved.
8. Click **Cancel**.
The SDH Configuration window is closed.

e) System Settings



1. Select **Configuration > System Settings** in the Work Area window.
The System configuration window is displayed.



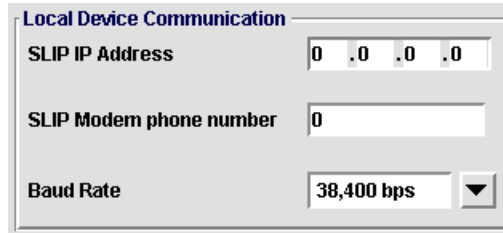
Alarm Group	Manager 1	Manager 2	Manager 3
Power Supply alarms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cable alarms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Temperature alarms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
External alarms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Radio alarms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Modem alarms	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Line alarms	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SONET alarms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BER alarms	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
System fault alarms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Maintenance alarms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Figure 5-17 System Configuration Window

The System Configuration window is divided into three sections:

- Local Device Communication Parameters
- Managers List
- Alarm Groups.

Setting Local Device Communication Parameters



Local Device Communication	
SLIP IP Address	0 .0 .0 .0
SLIP Modem phone number	0
Baud Rate	38,400 bps ▼

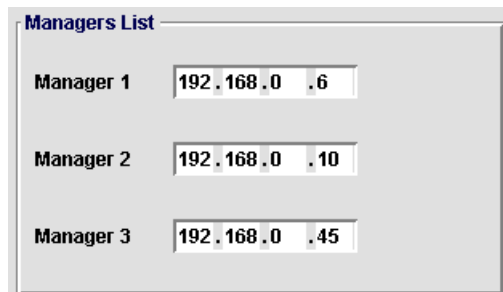
Figure 5-18 Local Device Communication Parameters

1. In the *SLIP IP Address* field, set the SLIP IP Address column to zeros. For further information regarding serial communications, please refer to sections 4.2.7 – 4.2.9 and to Appendix D.
2. (Optional) In the *SLIP Modem phone number* field, enter the phone number to be dialed by the IDU when traps are issued..
3. In the *Baud Rate* field, select the baud rate of your modem.

The baud rate of the NMS terminal and the FibeAir 1500 system must match in order to provide a valid connection between the NMS terminal and the IDU. By default, the IDU's baud rate is set at 19,200. For details on how to set the PC baud rate, refer to section 3.9.7.

Defining the Managers List

The Managers List section of the System Configuration window allows you to define up to three managers to whom the systems alarms will be sent.



Managers List	
Manager 1	192 .168 .0 .6
Manager 2	192 .168 .0 .10
Manager 3	192 .168 .0 .45

Figure 5-19 Managers List

Enter the IP addresses of up to three system managers.

Defining Alarm Groups

The Alarm Groups section of the System Configuration window allows you to determine which alarms are reported to each manager.

1. In the column of each manager, click on the types of alarms you want to report to that manager.

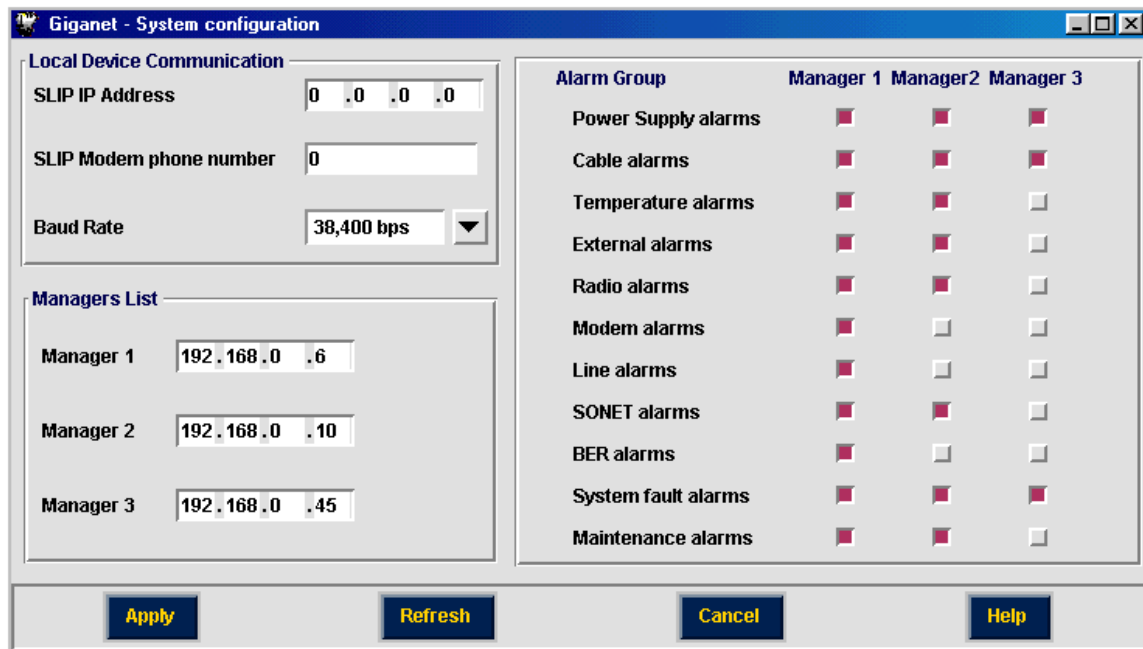


Figure 5-20 Alarm Group Window

2. Click **Apply**.
The definitions and settings determined in the System Configuration window are saved.
3. Click **Cancel**. The System Configuration window closes.

Viewing the Alarm Log File

To view the alarm log file, follow these steps:



1. Select **Alarms** > **View Log File**.

The Alarm Log File window is displayed.

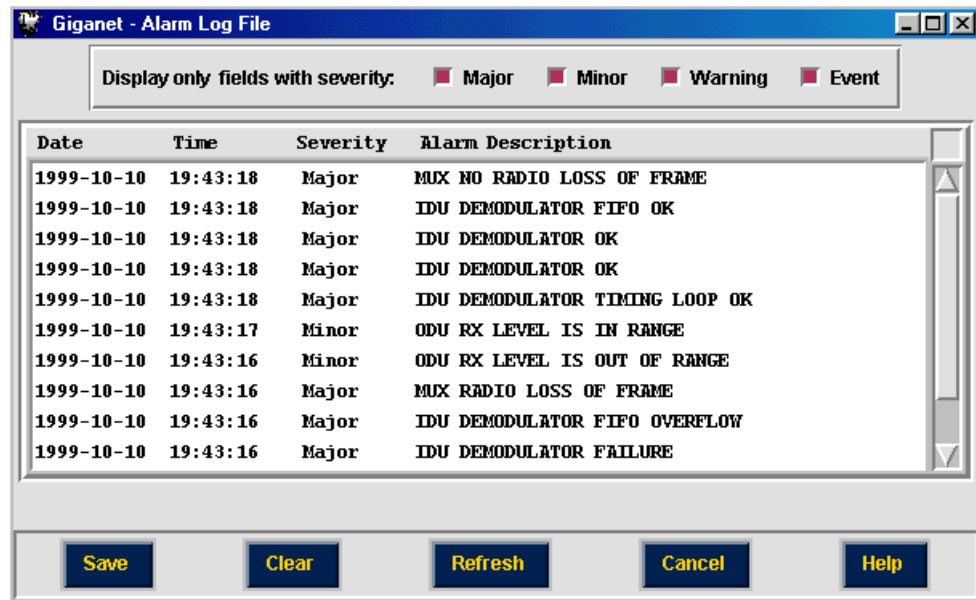


Figure 5-22 Alarm Log File Window

When the system reaches 80% capacity, it automatically saves the current alarms in a log file. These files are stored in the following directory:

C:\GIGANETVIEWLOG

where C:\GIGANETVIEW is the directory in which you installed the Giganet View software.

The Alarm Log File window displays the following information:

Date	The date the alarm was triggered.
Time	The time the alarm was triggered.
Severity	The severity of the alarm.
Alarm Description	A description of the alarm.

Saving a Log File

To save a log file as an ASCII file, click on the **Save** button. The file is saved in the same directory where GigaView software installed, as described above.

5.5.4. Statistics Menu Options

RSL Monitoring

1. Select **Statistics** ➤ **RSL Monitoring** in the Work Area window.
The RSL Monitoring window is displayed.

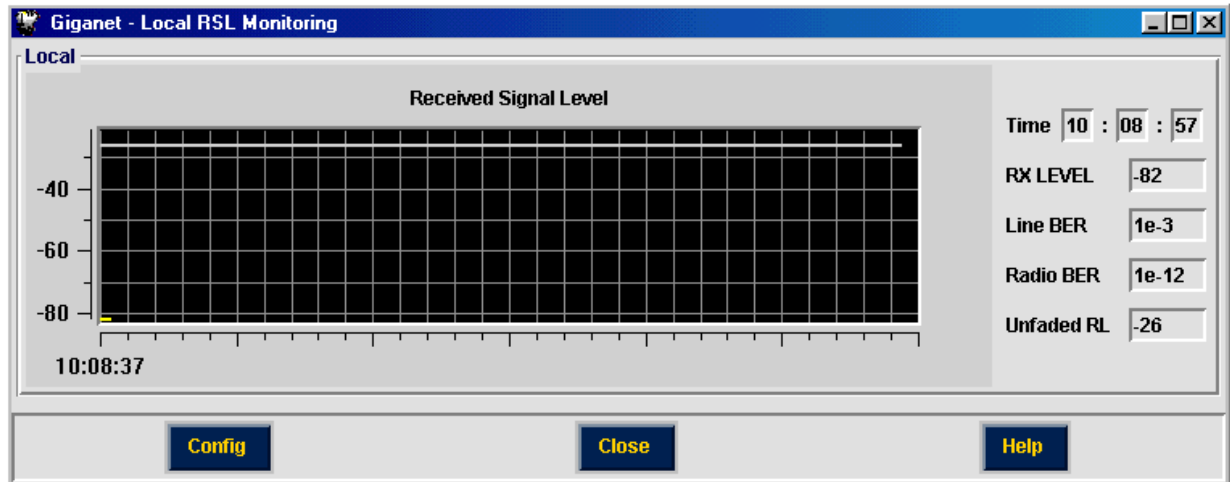


Figure 5-23 Local RSL Monitoring Window

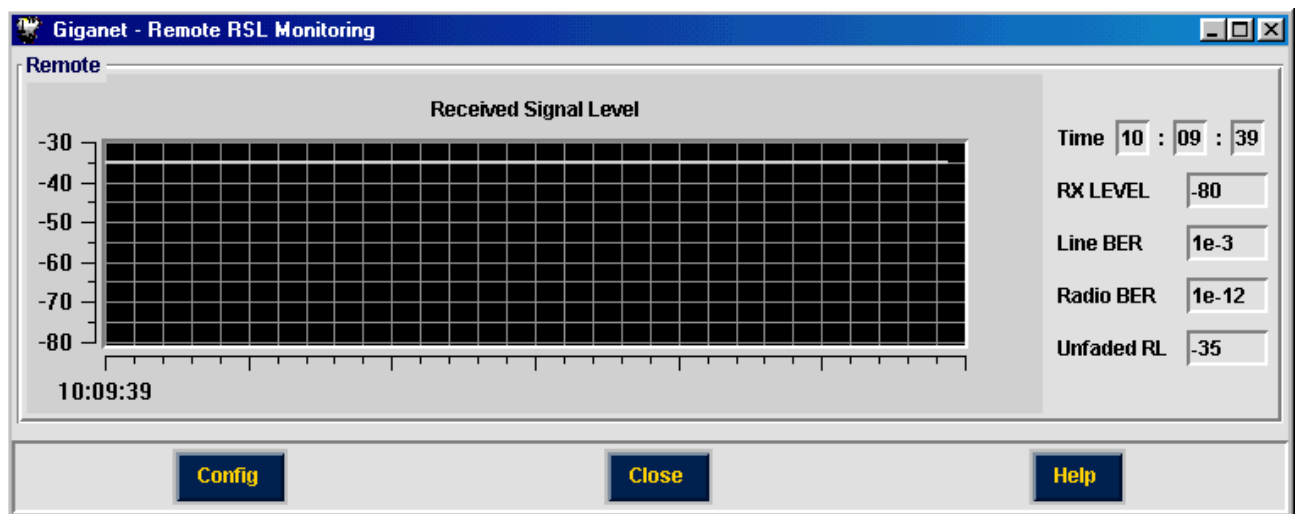


Figure 5-24 Remote RSL Monitoring Window

The RSL Monitoring windows display the current received signal level status and values for both the Local unit (top of screen) and Remote unit (bottom of screen):

The RX LEVEL field displays the current receive signal level.

The Line BER field displays the current Bit Error Rate of the line.

The Radio BER field displays the current Bit Error Rate of the radio.

The Unfaded RL field displays the expected receive signal level.

Note: If there is no communication between the local and remote units, the Remote RSL Monitoring window will not be available.

The Received Signal Level graphs show the received signal level over the past hour.

2. Click on **Cancel**.

The RSL Monitoring window is closed and you are returned to the Work Area window.

RSL Statistic Monitoring

The RSL Statistic Monitoring window displays the RSL values measure over the past 24 hours.

1. Select **Statistics** > **RSL Statistic Monitoring** in the Work Area window. The RSL Statistic Monitoring window is displayed.

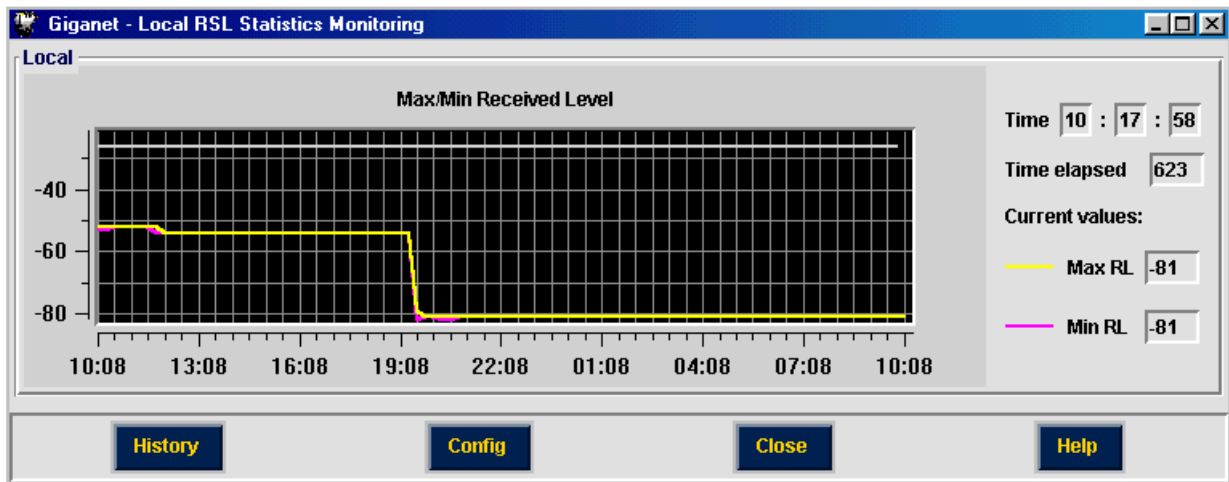


Figure 5-25 RSL Statistic Monitoring Window

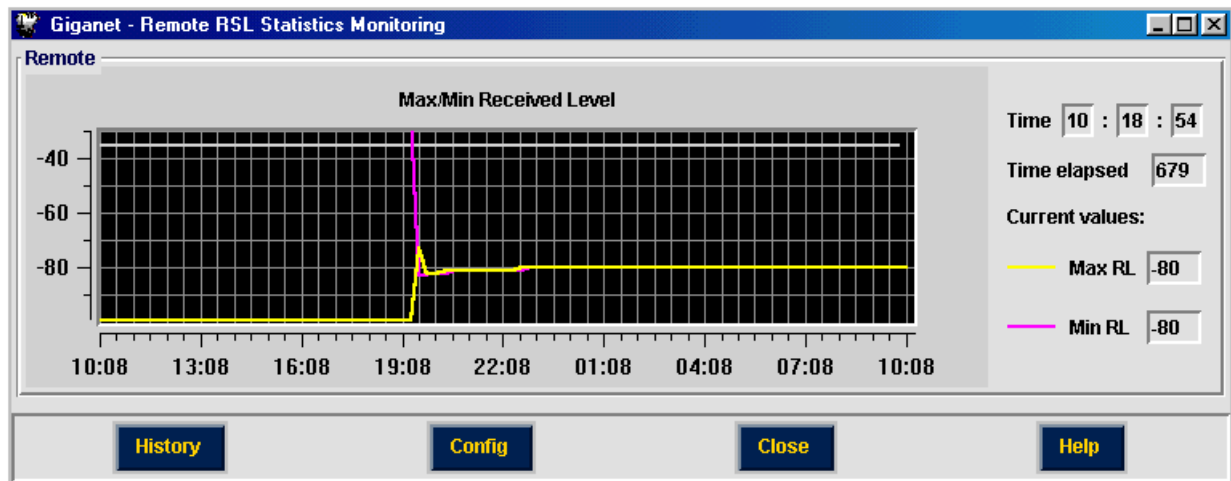


Figure 5-26 Remote RSL Statistic Monitoring Window

Note: If there is no communication between the local and remote units, the Remote RSL Statistics window will not be available.

- Click on the **History** button to open the RSL Local/Remote Performance History window.

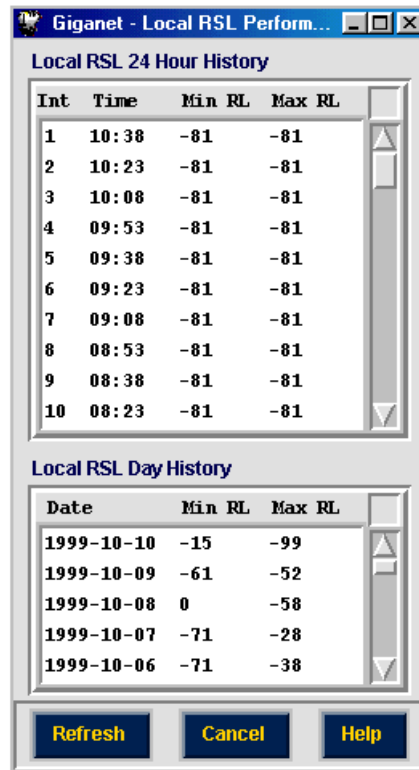


Figure 5-27 Local RSL Performance History Window

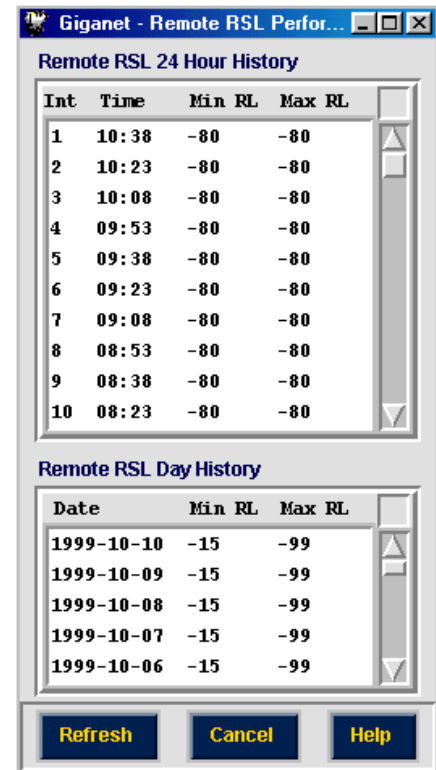


Figure 5-28 Remote RSL Performance History Window

The *Local RSL 24 Hour History* and the *Remote RSL 24 Hour History* sections display the following details about the radio signal over the last 24 hours for the local unit and remote unit, respectively:

- Int** the time interval in which the measurement was made
- Time** the actual time when the measurement was made (according to the internal IDU clock).
- Min RL** the minimum received level measured during the interval
- Max RL** the maximum received level measured during the interval

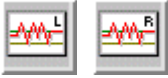
The *Local RSL Day History* and the *Remote RSL Day History* sections display the following details about the radio signal over the last month for the local unit and remote unit, respectively:

- Date** the date in which the measurement was made (according to the internal IDU clock)
- Min RL** the minimum received level measured during the date above
- Max RL** the maximum received level measured during the date above

Note: If there is no communication between the local and remote units, the Remote Performance History window will not be available.

SDH Performance Monitoring

There are two SDH Performance Monitoring options: Local and Remote. Select the unit you are interested in and follow the steps below.



1. To view SDH Performance Monitoring screen, select **Statistics** > **SDH Performance Monitoring** > **Local/Remote** in the Work Area window. The SDH Local/Remote Performance Monitoring window is displayed.

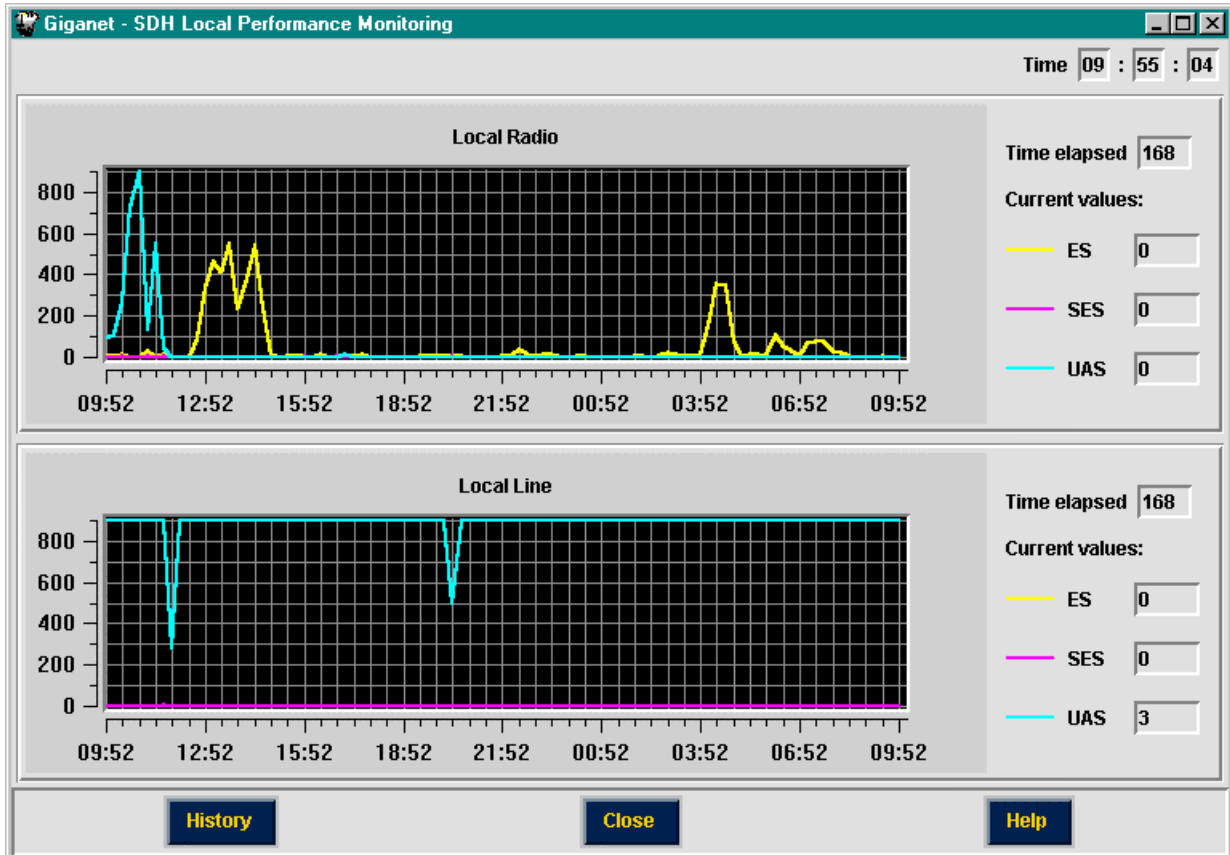


Figure 5-29 SDH Local Performance Monitoring

The SDH Local/Remote Performance Monitoring window displays the signal level measured every 15 minutes over the last 24 hours. The window is split into two sections: the top section displays the Local Radio monitoring data and the bottom section displays the Remote Line monitoring data.

Each section displays the following details:

The Time Elapsed field displays the number of seconds since the current monitoring period commenced.

The ES field displays the number of errored seconds in the period that elapsed.

The SES field displays the number of severely errored seconds in the period that elapsed.

The UAS field displays the number of unavailable seconds in the period that elapsed.

- Click on the **History** button to open the Sonet/SDH Local/Remote Performance History window.

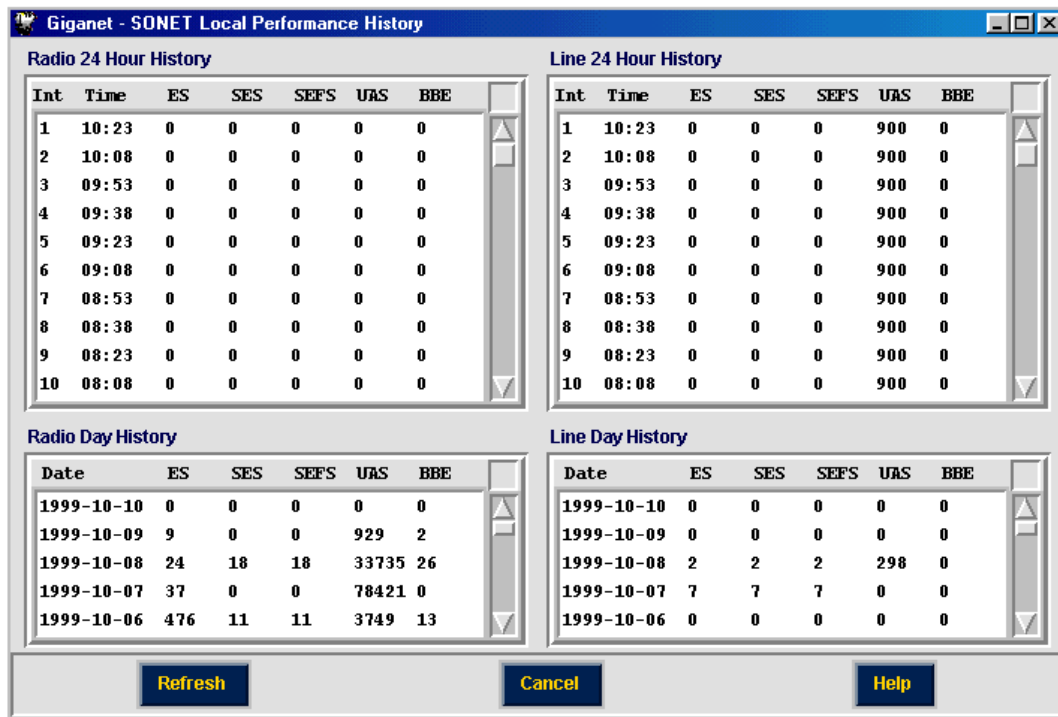


Figure 5-30 SDH Local Performance History Window

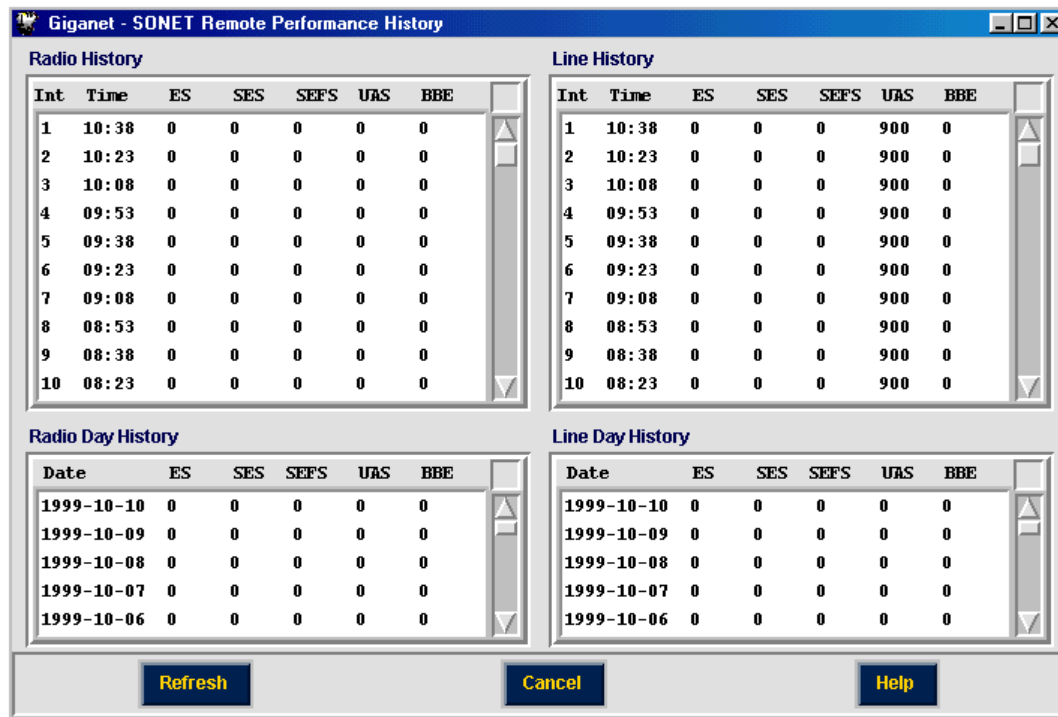


Figure 5-31 SDH Remote Performance History Window

Note: If there is no communication between the local and remote units, the SDH Remote Performance History window will not be available.



The SDH Local/Remote Performance History window displays details related to the SDH performance of the local or remote unit. It is divided into four sections:

Radio 24 Hour History – displays the following details about the radio signal over the last 24 hours:

Int	the time interval measurement serial number
Time	the time interval in which the measurement was made
ES	the number of errored seconds
SES	the number of severely errored seconds
EFS	the number of EFS – error free seconds
UAS	the number of unavailable seconds
BBE	the number of BBE – background block errors

Line 24 Hour History – displays the following details about the line signal over the last 24 hours:

Int	the time interval measurement serial number
Time	the time interval measurement was made
ES	the number of errored seconds
SES	the number of severely errored seconds
SEFS	the number of SEFS – severely errored frame seconds
UAS	the number of unavailable seconds
BBE	the number of BBE – background block errors

Radio Day History – displays the following details about the radio signal over the last month:

Date	the date measurement was made
ES	the number of errored seconds
SES	the number of severely errored seconds
SEFS	the number of SEFS – severely errored frame seconds
UAS	the number of unavailable seconds
BBE	the number of BBE – background block errors

Line Day History – displays the following details about the line signal over the last month:

Date	the date measurement was made
ES	the number of errored seconds
SES	the number of severely errored seconds
SEFS	the number of SEFS – severely errored frame seconds
UAS	the number of unavailable seconds
BBE	the number of BBE – background block errors

5.5.5. Maintenance

Loopback



1. To perform loopback testing, select **Maintenance** > **Loopback**. The Loopback window is displayed.

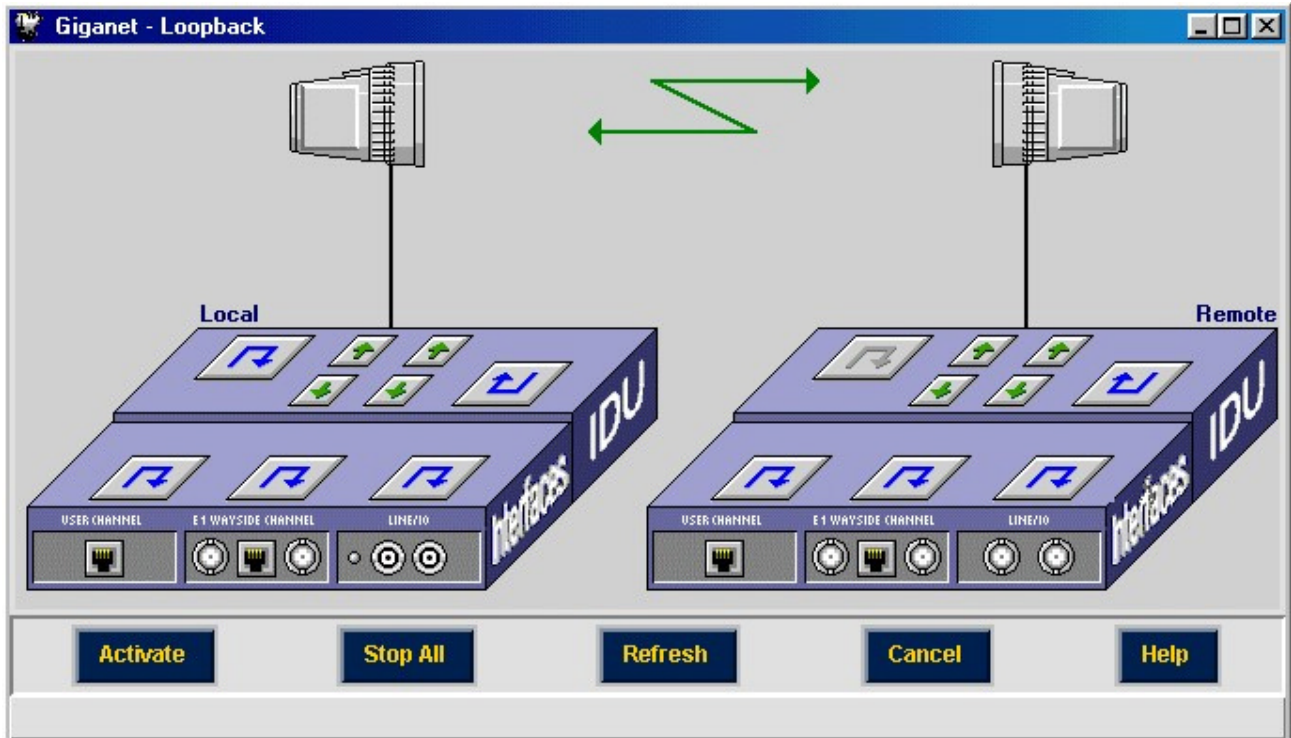


Figure 5-32 Loopback Window

The Loopback window is divided into two sections: *Local* and *Remote*. The Local section is detailed below.

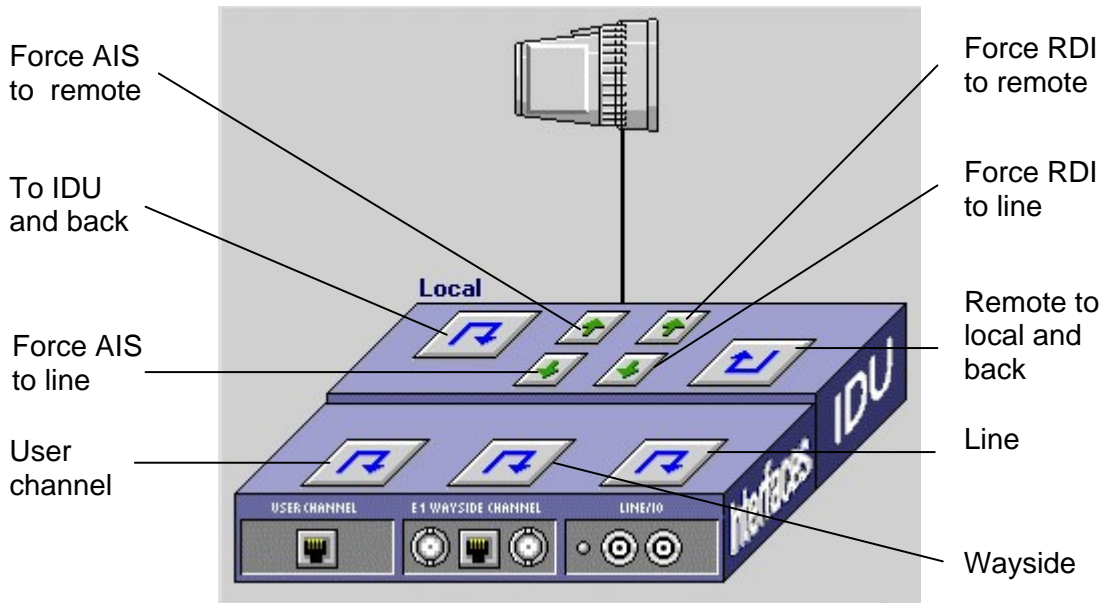


Figure 5-33 Loopback Window - Local Section

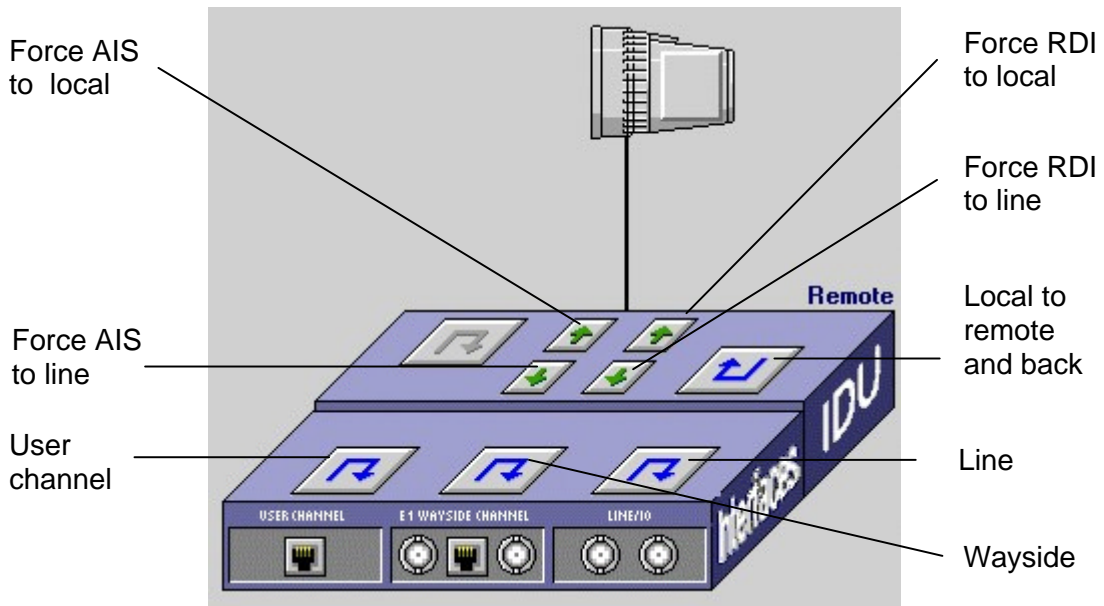


Figure 5-34 Loopback Window - Remote Section

2. Define the tests you want to perform by using the test configuration buttons. When a option button is pressed it is selected and displayed in Red.
 Select Force AIS to test SDH networks.
 Select Force RDI to test networks.

For details on running loopback tests, see Chapter 6. System Maintenance.