

Figure 4-13: RPC Window

## 4.2.1 Set Time

To set the system time, follow the procedures below:

1. Click the *Set Time* option on the **Configuration** pull-down menu. The **Set Time** window appears, as shown in the figure below.

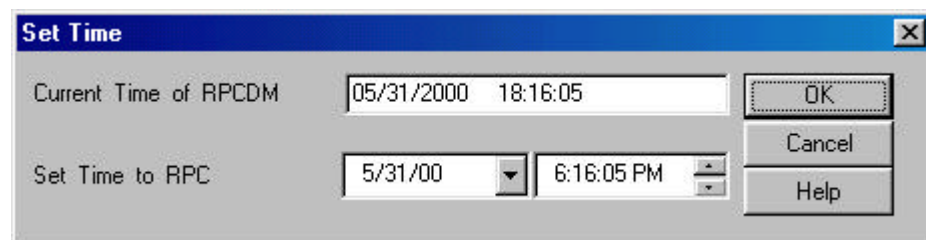


Figure 4-14: Set Time Window

2. By default the RPC time is set to the current time of the PC. Set new date and time to RPC if necessary. Make necessary adjustment using the *Arrow*

buttons in the fields. Click **OK** to accept the setting or **Cancel** to stop the transaction.

## 4.2.2 RPC Change

Sometimes the operation data for an RPC may not be compatible to the hosting RPC. Use this function to make changes to the SDM (System Data Memory) so that it can accommodate the hosting RPC. Before making any change, the RPC device manager will disconnect from the RPC.

1. From the **Configuration** main menu, select **RPC Change**. This opens the **RPC Assignment** window, as illustrated in the figure below.

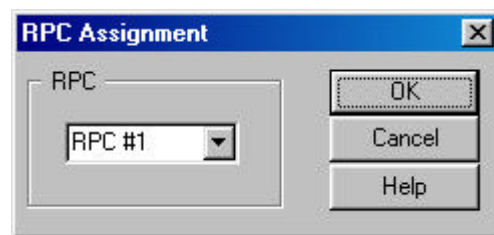


Figure 4-15: RPC Assignment Window

2. Select the target RPC and click **OK**. This will change the SDM to fit the target RPC.
3. If this command doesn't work, exit the current Netman session and restart.

## 4.2.3 Unit Control

The **Unit Control** option can be accessed through the **Maintenance** pull-down menu. It has the following functions:

- Blockade: block or unblock RPIF, E1IF, RPCs, RPs
- TimeSlot Layout: configure the RP control channel time slot
- Maintenance: set or cancel system maintenance
- Master RP: change Master RP
- RPC Sync: RPC Synchronization
- Online Trace: retrieve the information of the active RP

### 4.2.3.1 Blockade/Unblockade

The **Blockade** option is used to block or unblock RP interface, E1 interface, RPs, or the entire RPC. Use this function to block traffic from a malfunctioning device. It is also used when units are replaced. Netman 2000 must be connected to the WLL/V5WLL in order to perform this function. Another important usage of this option is to regain the synchronization of the slave RPCs upon the recovery of the master RPC.

1. From the **Maintenance** main menu, select **Unit Control** and then **Blockade**. This opens the **Blockade/Unblockade** window, as displayed in the figure below.

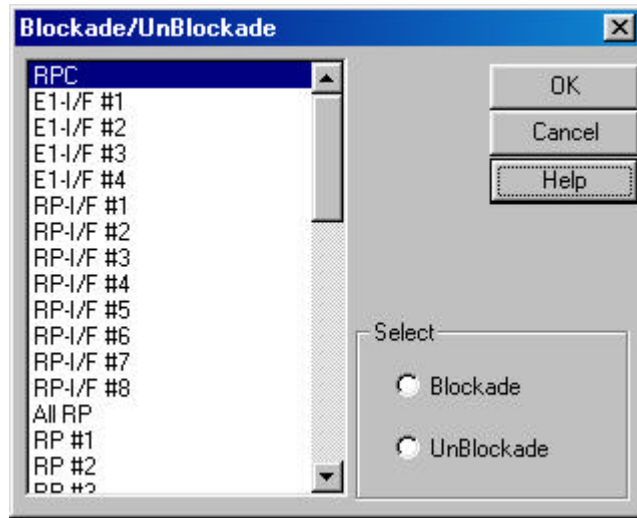


Figure 4-16: Blockade/Unblockade Window

Field Name	Description
RPC	The entire RPC, including all the units under its control
E1-I/F #...	E1 interface. Each RPC uses 4 E1 interfaces to communicate with WLL/V5WLL.
RP-I/F #...	RP interface. RPC uses 8 RP interfaces to control RPs. Each RP interface is connected to 4 RPs.
All RP	All the 32 RPs
RP #...	Individual RP. There are altogether 32 RPs under each RPC.
Blockade	If this radio button is selected, the selected unit is blocked.
UnBlockade	If this radio button is selected, the selected unit is unblocked.

Table 4-1: Blockade/Unblockade Window Field Description

2. Select the target E1 interface, RP interface, RP, or RPC, and then select **Blockade** or **Unblockade**. Click **OK**. Selecting RPC will block or unblock all

the units controlled by the RPC. No new calls will be accepted and all the calls in progress are allowed to complete and then dropped.

- When the action is implemented, the system displays a message in the **Self Message** window, and the **Status View** window will also show the Blockade result, as illustrated in the figure below. Use the window to verify the result.

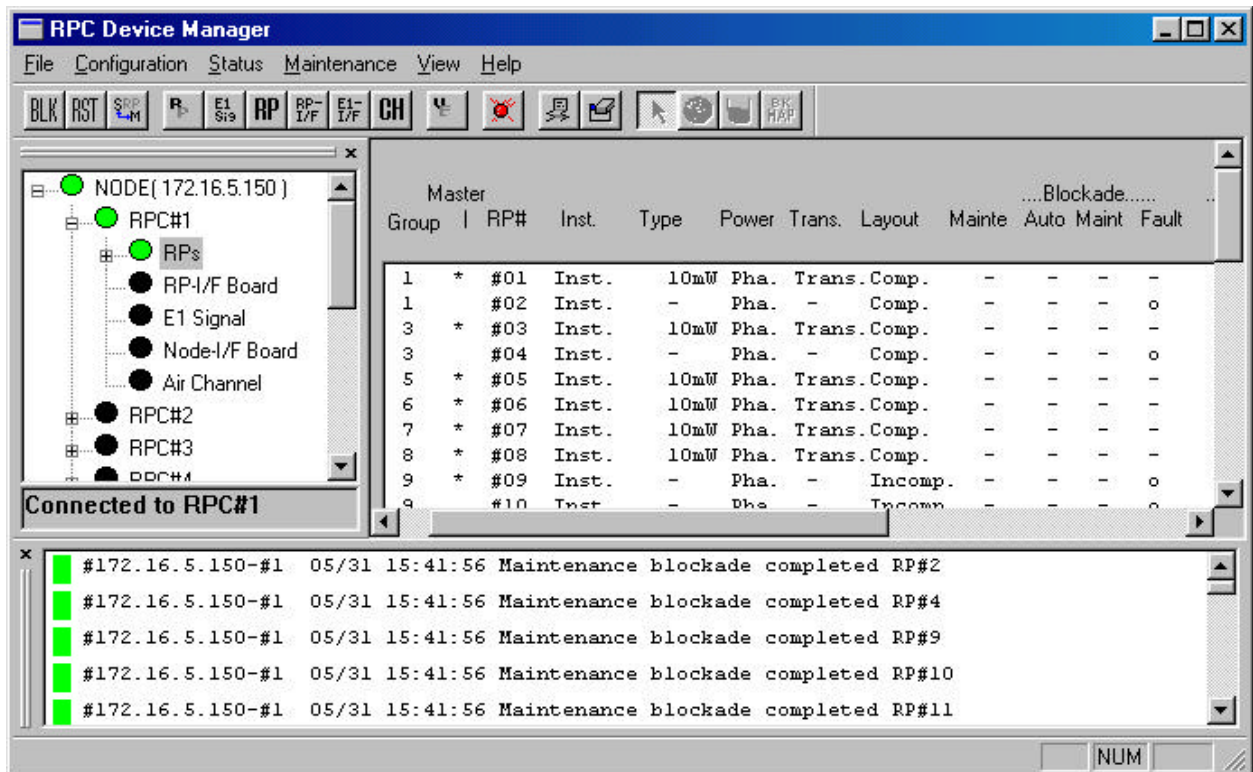


Figure 4-17: Self Message and Status View window for Blockade



NOTE: *If an RPC or all RPs are blocked, calls cannot be made.*

- Zero “o” in the Blockade Maint column means the unit is blocked, and dash “-” means the unit is unblocked. The **Status** and the **Self Messages** windows both indicate that RP#1 and RP#2 are blocked.
- There are two ways to access the **Status View** window. One is to click **Status** and then the relevant options: **RPC**, **RPs**, **RP-I/F Board**, **E1 Signal**, **Node-I/F Board**, **Air Channel**, or **TimeSlot Status**. The other is to click the target item on the left frame of the **RPC** window. In either case the **Status View** window opens on the right frame. Of course, one can always access the window by clicking the relevant toolbar.

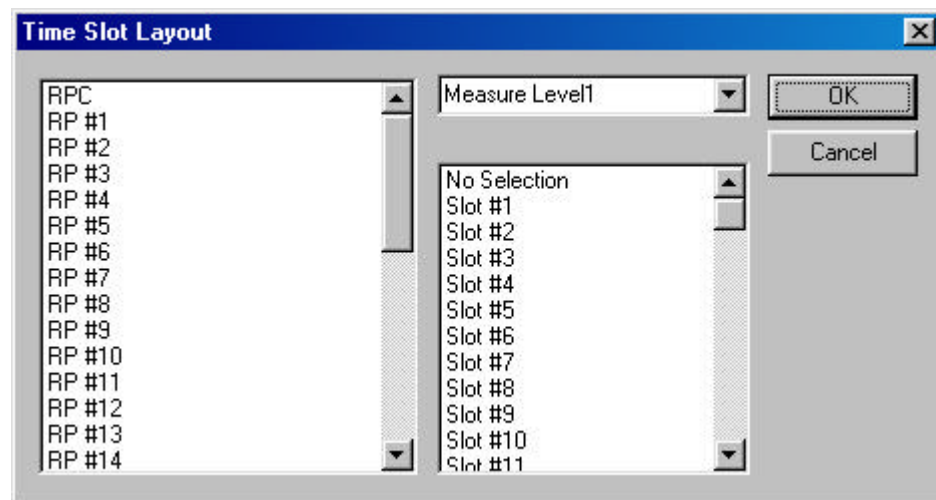
### 4.2.3.2 TimeSlot Layout



**WARNING:** *Users are NOT recommended to make changes to the settings of the Time Slot. Use with caution!*

When connected to an RPC, use this function to reconfigure the RP control channel time slot. This function is used to complete the RP configuration and make it usable. This function applies to both RPCs and RPs.

1. Before configuring the time slot, use the **Blockade** function to block the target RPC or PC.
2. From the **Maintenance** main menu, select **Unit Control** and then **TimeSlot Layout**. This opens the **Time Slot Layout** window, as shown in the figure below.



**Figure 4-18: Time Slot Layout Window**

3. Select the target **RPC** or **RP**.
4. Select **Measure Level1**. If separation is not completed, try another one from **Measure Level2** through **Measure Level4**. Selecting **No Selection** may accelerate separation.
5. Select **No Selection**. If selection must be made, select one from **Slot #1** through **Slot #80**.
6. Click **OK** to close the window.

7. Unblock the RPC or RP.



NOTE: The **Time Slot Layout** window is for configuration purpose only. Actual separation is done when the target RPC or RP is unblocked.

### 4.2.3.3 Maintenance

Use this function to set RPC maintenance status, test RPs, and do other configuration. Eligible units are fully installed RPCs and installed RPs.



NOTE: General PSs can not use RP when maintenance is under way.

1. From the **Maintenance** main menu, click **Unit Control**, and then **Maintenance**. The **Set/Cancel Maintenance** window opens, as displayed in the figure below.

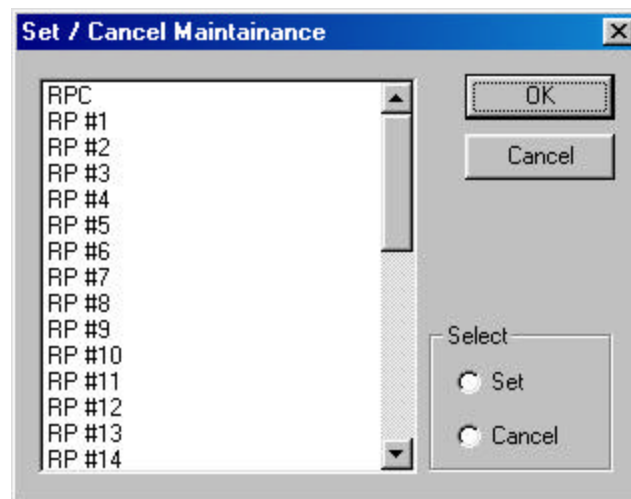


Figure 4-19: Set / Cancel Maintenance Window

2. Select the target RPC or RP, and click **Set** to set the maintenance status or **Cancel** to remove the status.
3. Click **OK** to accept the selection and close the window.

#### 4.2.3.4 Change Master RP

For the operation in a group control mode, it sometimes becomes necessary to switch a master RP to a slave RP, because the master RP is faulty or because the NMS operation requires the switch. Use this feature to switch the function.

1. Select **Unit Control**, and then **Master RP** from the **Maintenance** pull-down menu. The **Master RP** window appears as shown in the figure below. Another way to access the window is to click the **Change Master RP** toolbar.

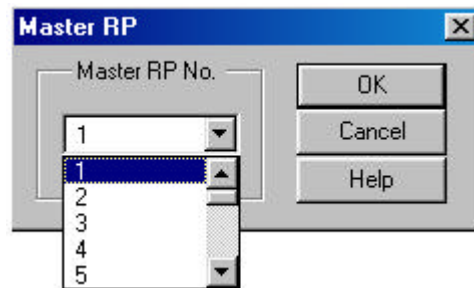


Figure 4-20: Master RP Window

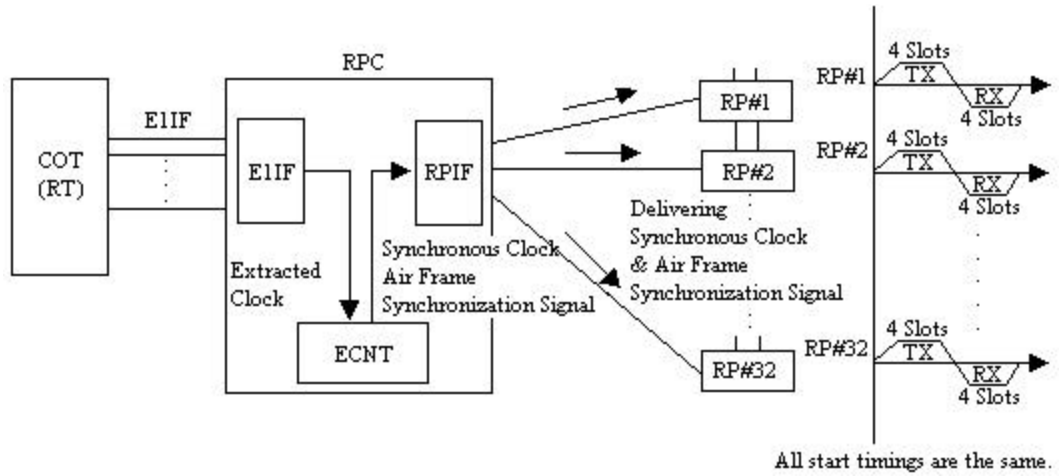
2. Click the **Arrow** button in the **Master RP No.** field to get a list of all the 32 RP numbers. Select the RP to be the new master and click **OK**. That RP becomes the new master RP. The **Self Message** window displays a message, indicating the change has been made. The change can also be verified by viewing the RP status.



NOTE: Each group can have a maximum of 8 RPs.

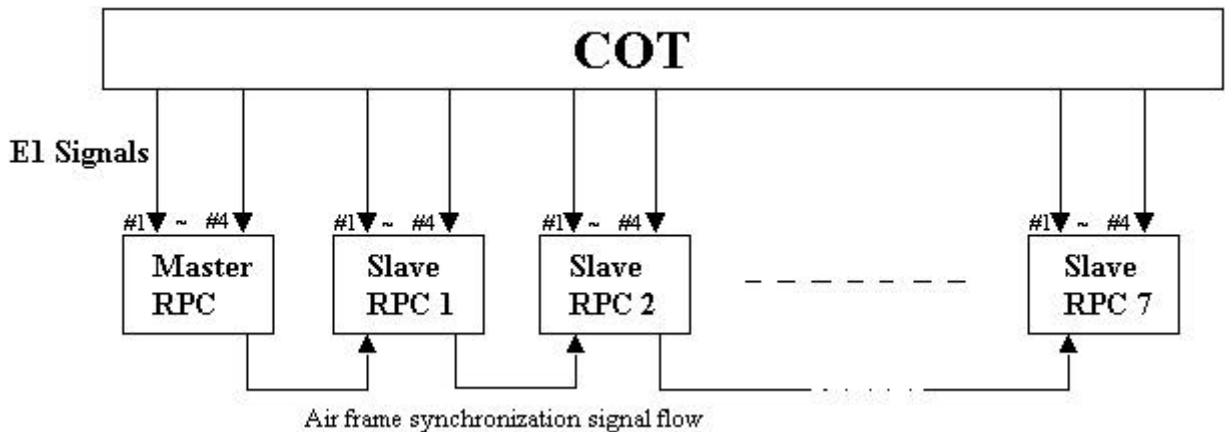
#### 4.2.3.5 RPC Synchronization

The ECNT board on the RPC generates the synchronous clock and the air frame synchronization signal by extracting clock from the E1 interface signal on the E1-IF boards, and delivers them to RPs through the RP-IF boards. As a result, all the RPs that are controlled by the same RPC are operating synchronously. The following figure illustrates the process of clock synchronization and air frame synchronization for one RPC.



**Figure 4-21: Clock Synchronization and Frame Synchronization in One RPC**

However, RPs that belong to different RPCs do not automatically operate with air frame synchronization. This causes the inefficient air channel usage. To redress the problem, the synchronization group is created which includes as many as 8 RPCs. Those RPCs are connected by cables as open daisy chain, through which the air frame synchronization signal is transmitted. The signal is shared by the RPCs, so that the air frames of the RPs among the RPCs are synchronized. The RPC which generates the air frame synchronization signal is named “Master”. The RPCs which receive the signal are called “Slave”. The following figure displays such a synchronization model.



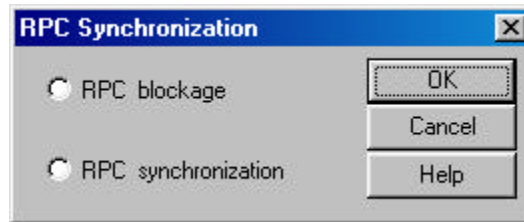
**Figure 4-22: Wired Air Frame Synchronization Group Model**

The master or slave mode is set using the rotary switches on the front of the ECNT board. When the master RPC fails during the operation, the first slave RPC in the synchronization signal flow becomes the provisional master RPC.



Upon the restoration and restart of the failed master RPC, the first slave RPC needs to be blocked and re-synchronized in order to regain synchronization. This process is implemented through Netman.

1. From the **Maintenance** pull-down menu, select **Unit Control**, and then **RPC Sync**. The **RPC Synchronization** window opens, as shown in the figure below.



**Figure 4-23: RPC Synchronization Window**

2. Click the **RPC blockage** radio button to block the slave RPCs. Click **OK** to execute the command. Verify the blockage by checking the **RPC Status** window and the **Self Message** window.
3. Return to the **RPC Synchronization** window and click the **RPC synchronization** radio button. Click **OK** to synchronize the slave RPCs. After the command is implemented, the slave RPCs become synchronous in operation to the upstream RPCs.

#### 4.2.3.6 Online Trace

The **Online Trace** feature is used to check the time slot status of the RPs.

1. From the **Configuration** main menu, select **Unit Control**, and then **Online Trace**. This opens the **Select Online Trace** window, as illustrated in the figure below.

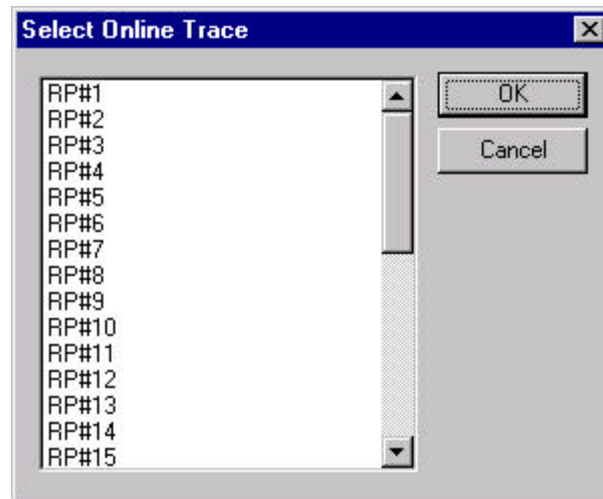


Figure 4-24: Select Online Trace Window

- Click to highlight the target RP# and click **OK**. This opens the **Online Trace** window, as shown below.

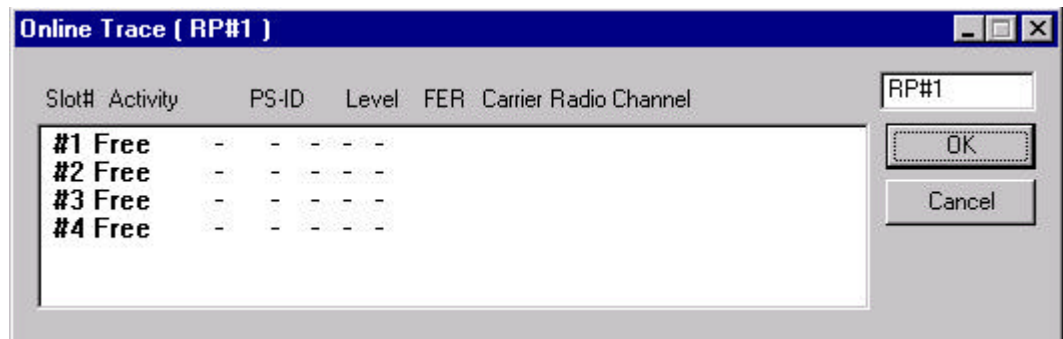


Figure 4-25: Online Trace Window

- This window displays the relevant Time Slot status information about the target RP.

#### 4.2.4 Function Status

The *Status* option windows can be accessed through the **Status** pull-down menu. The following functions are available from the *Status* option:

- Collect and display the status for:
  - RPC

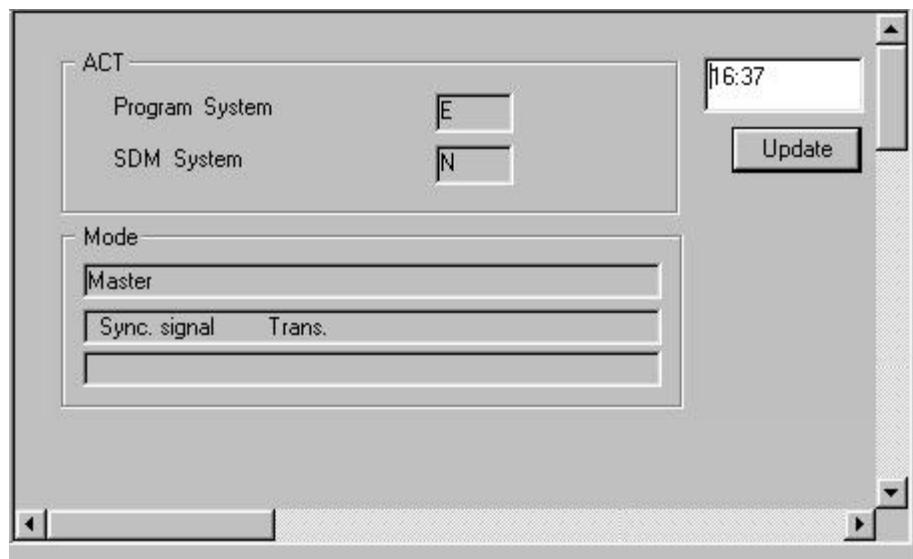
- RPs
  - RP-I/F Board
  - E1 Signal
  - Node-I/F Board
  - Air Channel
  - TimeSlot Status
- Collect hourly traffic data for RPCs and RPs
  - View configuration data for each RP control channel
  - Verify configuration results

#### 4.2.4.1 RPC Status

1. To view the status of the current RPC, click **RPC** from the **Status** option. Another way to open the **RPC Status** window is to click the **RPC Status** button. The RPC status is displayed on the **Status View window**, as shown in the figure below.



**NOTE:** *The following figure is cut out from the **RPC** window. The other **Status View** windows in Section 4.2.4 are also cropped from the overall **RPC** window.*



**Figure 4-26: RPC Status Window**

Field Name	Description
ACT	The active SDM or PDM system for RPC running
Program System	PDM system. There are two plane memory areas for the program data: N and E. Any one can be active or standby.
SDM System	SDM system. There are two plane memory areas for the operation data: N and E. Any one can be active or standby.
Update	Retrieve the latest mode information and display the time when the mode information is updated.
Mode	Display mode information for the current RPC, such as, master/slave status, synchronization status, transmission status, etc. The following rows describe various mode displays.
Mode Display	Description
Master	Master RPC - the RPC that generates the air frame synchronization signal.
Slave	Slave RPC - the RPC that receives the air frame synchronization signal.
Sync. signal Trans.	The RPC transmits the synchronization signal to the slave RPC or the next slave RPC.
Sync. signal Stop	The RPC doesn't transmit the synchronization signal to the slave RPC or the next slave RPC.
Sync. between RPC Sync.	The slave RPC synchronizes to the upstream RPC.
Sync. between RPC Async.	The slave RPC doesn't synchronize to the upstream RPC.

**Table 4-2: RPC Status Window Field Description**

2. This window is for view only. In this instance, there is no special meaning for **N** or **E**. It simply displays which system is active. Refer to *Section 4.3* for the description of the N and E systems.

#### 4.2.4.2 RP Status

Use the **RP Status** option to monitor the operation status of individual RPs and to verify any change made to the RP configuration and setting.

1. To access the **RP Status** window, click **Status**, then **Status**, and then **RPs**. Another way to display the window is to click the **RP Status** button. The RP status is displayed on the **Status View** window, as shown in the figure below.

Master		--- Blockade ---										----- Warning -----		
Group	RP#	Inst.	Power	Trans	Layout	Mainte	Auto	Maint	Fault	RP	Trans	Syn	I/F	
1	*	#01	Inst.	Pha.	Trans.	Comp.	-	-	-	-	-	-	-	
1		#02	Inst.	Pha.	-	Comp.	-	-	-	-	-	-	-	
1		#03	Inst.	Pha.	-	Comp.	-	-	-	-	-	-	-	
1		#04	Inst.	Pha.	-	Comp.	-	-	-	-	-	-	-	
1		#05	Inst.	Pha.	-	Comp.	-	-	-	o	-	-	-	
1		#06	Inst.	Pha.	-	Comp.	-	-	-	o	-	-	-	
1		#07	Inst.	Pha.	-	Comp.	-	-	-	o	-	-	-	
1		#08	Inst.	Pha.	-	Comp.	-	-	-	o	-	-	-	
9	*	#09	Inst.	Pha.	Trans.	Comp.	-	-	-	-	-	-	-	
9		#10	Inst.	Pha.	-	Comp.	-	-	-	-	-	-	-	
9		#11	Inst.	Pha.	-	Comp.	-	-	-	-	-	-	-	
9		#12	Inst.	Pha.	-	Comp.	-	-	-	-	-	-	-	

Figure 4-27: RPs Operation Status View window

Field Name	Description
Group	The ID number of the group to which the RP belongs
Master	The sign * indicates the master RP.
RP#	Radio port ID number
Inst.	Installation status. "Inst." Indicates that the RP has been installed.
Power	The voltage of power. Usually it is 10mW. There are two power supply state: Pha. - supplied from RPC (Phantom) Loc. - supplied from RP power unit (Local)
Trans.	Transmission state for control channel. Group control maximizes the number of channels available for traffic by allowing one control channel to control up to 8 RPs.
Layout	Configuration of the control channel: completed/incompleted.
Mainte	Maintenance state: o indicates the maintenance is configured. - indicates the maintenance is not configured.
Blockade	Blockage state: o indicates the unit is blocked. - indicates the unit is not blocked.
Auto	Automatically blocked by automatic reconfiguration processing
Maint	Blocked manually by HOST or Netman
Fault	Cut off from operation system due to unit trouble
Warning	Warning state: o indicates the existence of a warning. - indicates no warning exists.
RP	RP interface detects RP suspension.
Trans.	RP transmission power is incorrect.
Syn	RP synchronization is lost.
I/F	RP interface detects cut-off from RP.

Table 4-3: RP Status Window Field Description

2. This window displays the operational status for all the RPs controlled by the target RPC. Click the **Update** button to retrieve the current RP status. The

time will be displayed in the box above the button, indicating the time when the data are updated.

3. With this window you can verify RP installation status, monitor alarms, power supply status, and transmission information, and identify areas of trouble.
4. If you want to view the status for an individual RP, you may access such a window by clicking the “+” sign to the left of **RPs** on the **Unit View window**. This displays all the RPs under the RPC. Click the target RP and the **Status View window** opens for that RP, as illustrated in Figure 4-28. With this window you may view or enter the following information about that RP:
  - Node Address
  - RP Number
  - RPC Number
  - RP Location
  - RP Information
  - RP-RPC Line Information
  - RP Antenna Parameters



*NOTE: This is an optional information window. The information is stored on Netman 2000 and will be used in network management, network optimization, and value-added services, such as location services. The information entered does not affect the operation of the RP.*

Node Address :

RP Number :

RPC Number :

---

**RP LOCATION**

RP Street :

Province / State :

Latitude (degree):

RP Address (City) :

Zip / Postal Code :

Longitude (degree):

---

**RP INFORMATION**

Master RP ID :

Power Type :

# of Antennas :

Survey ID :

Bureau ID :

Memo :

Mode :

Power Rating :

Fixture Type :

Serial Number :

RP Type :

Installed

---

**RP-RPC LINE INFORMATION**

Impedance :

Box :

MDF In :

Trunk :

MDF Out :

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**RP ANTENNA PARAMETERS**

	Antenna 1	Antenna 2	Antenna 3	Antenna 4
Latitude :	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Longitude :	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Height :	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
RF Cable Length :	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Elevation :	<input type="text" value="0"/> <input type="text"/>	<input type="text" value="0"/> <input type="text"/>	<input type="text" value="0"/> <input type="text"/>	<input type="text" value="0"/> <input type="text"/>
Azimuth :	<input type="text" value="0"/> <input type="text"/>	<input type="text" value="0"/> <input type="text"/>	<input type="text" value="0"/> <input type="text"/>	<input type="text" value="0"/> <input type="text"/>
Down Tilt :	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Type Name :	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Figure 4-28: Status View window for One Individual RP

Field Name	Description
Node Address	The IP address of the node to which the RP is associated
RP Number	The ID number of the RP
RPC Number	The ID number of the RPC which controls the RP
RP Location	The physical location of the RP
RP Street	The street name of the location
Province/State	The province/state name of the location. Select from the drop-down list.
RP Address (City)	The city name of the location. Select from the drop-down list.
Zip/Postal Code	Zip/Postal Code of the location
Latitude (degree)	Latitude degree of the RP location.
Longitude (degree)	Longitude degree of the RP location
RP information	Information about the RP operation status
Master RP ID	The ID number of the Master RP
Power Type	There are two power supply patterns: Local - the power is supplied from the RP power unit. Remo - the power is supplied from the RPC. Select from the drop-down list.
# of Antennas	The number of the antennas the RP has. The indoor or outdoor 10mW RP has 2 antennas, and the outdoor 200mW RP has 4 antennas. Select from the drop-down list.
Survey ID	The ID number of the survey
Bureau ID	The ID number of the bureau
Memo	Short note
Mode	Master RP or slave RP. Select from the drop-down list.
Power Rating	Power: 10mW or 200mW. Select from the drop-down list.
Fixture Type	The way the RP is mounted. Select from the drop-down list.
Serial Number	The serial number of the RP
RP Type	Indoor or outdoor type. Select from the drop-down list.
Installed	If the RP is installed, check the box.
RP-RPC Line Information	Information about the communication cable connecting the RP and the controlling RPC
Impedance	The resistance of the communication cable
Box	The specification of the switch box. For instance, a 200mW RP can have the following specification: Power Voltage – 220V AC Dimension – 217mm x 258.5mm x 98mm Weight – about 4.1 kg
MDF In	Main Distribution Frame. The wiring arrangement which connects the cable coming in from outside
MDF Out	Main Distribution Frame. The wiring arrangement which connects the cable going out from inside
Trunk	The communication line between the RP and the RPC
RP Antenna Parameters	The specification of the RP antennas
Latitude	Latitude of the antenna location (string) (WGS94)
Longitude	Longitude of the antenna location
Height	Height of the antenna
RF Cable Length	Radio Frequency cable length
Elevation	Height above the ground
Azimuth	The horizontal angle which the radiating lobe of an antenna makes in angular degrees, in a clockwise direction, from a north-south line in the northern hemisphere. In the southern hemisphere, the reference is the south-north line.
Down Tilt	The extent with which the antenna mechanically slopes downward
Type Name	Name of the antenna type, for instance, OMNI antenna (Co-Liner antenna)
Select Image	Select an image file in .bmp format which presents the mounted RP.
View Image	Use the Image Viewer to view the selected image file.

Table 4-4: RP Status Window Field Description



5. The window in the above window may not display all the information in one screen. Use the horizontal and vertical scroll bars to see all the information.

#### 4.2.4.3 RP-I/F Board Status

With the **RP-I/F Board Status View** window you can view or verify such RP interface operational statuses as RP-IF#, installation, or warning.

1. To access the **RP-I/F Status View** window, click **Status**, then the **Status** option, and then the **RP-I/F Board** option. This opens the **RP-IF Status View window** on the **RPC** window, as illustrated in the figure below.

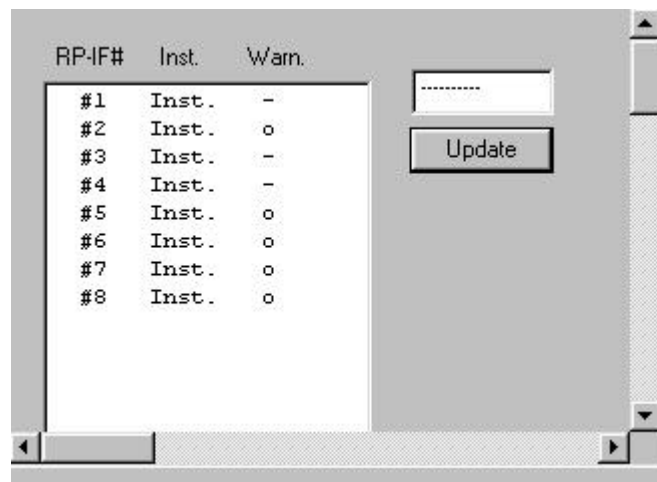


Figure 4-29: RP-IF Status View window

Field Name	Description
RP-IF#	The ID number of the RF-IF#. Each RPC can have 8 RP interface modules, each of which can be connected to 4 RPs.
Inst	The installation status of the RP interface. <b>Inst</b> in the column Indicates that the RP-IF is installed.
Warn	The warning status of the RP interface. o indicates the existence of a warning. - indicates no warning exits.
Update	Retrieve the latest status information.

Table 4-5: RP-IF Status View window Field Description

2. Click **Update** to display the current status.

#### 4.2.4.4 E1 Signal Status

Each RPC can have 4 E1 lines to communicate with the WLL/V5WLL. However, the D-channel can be established on only one E1 line. The E1 line on which the D-channel is established is named the master E1 and the other three E1 lines are named slave E1s. If the master E1 line is down, a slave E1 line will be promoted by the system to become the master E1. The D-channel can be established on this slave E1 line. The selection of the master E1 follows the round-robin order.

Use the **E1 Signal** option to monitor and verify the operational status of the E1 signal, including four E1 interfaces, E1 warning, Layers 1 through 3, and other status information.

1. From the **Status** main menu, select **Status**, and then **E1 Signal**. The **E1 Signal Status** window appears on the right frame of the **RPC** window, as shown in the figure below. Another way to open the window is to click the **E1 Status** button.

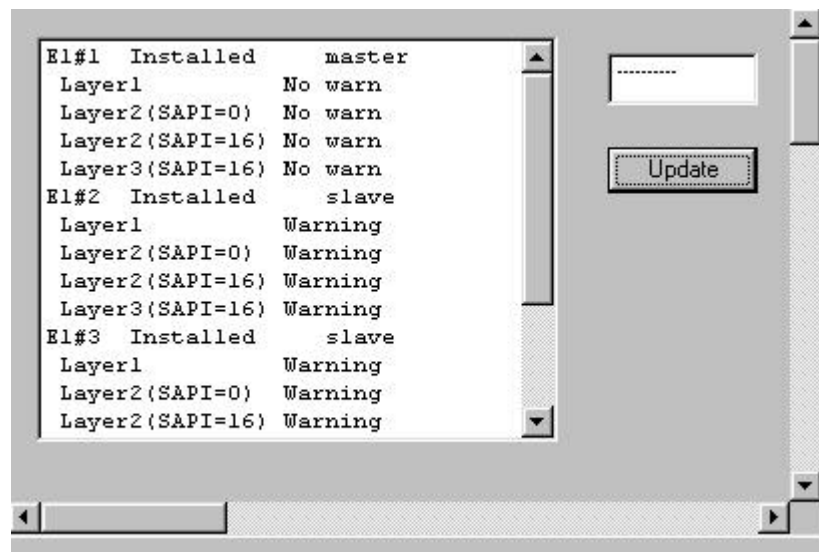


Figure 4-30: E1 Signal Status Window

Field Name	Definition
E1#1	Corresponding to E1-I/F#1, Bch#1 - 30
E1#2	Corresponding to E1-I/F#2, Bch#31 - 60
E1#3	Corresponding to E1-I/F#3, Bch#61 - 90
E1#4	Corresponding to E1-I/F#4, Bch#91 - 120
Layer 1	Physical layer with SAPI=0,16
Layer 2 (SAPI=0)	Data Link layer for call processing
Layer 2 (SAPI=16)	Data Link layer for HOST interface
Layer 3 (SAPI=16)	Network layer for HOST interface
Master	Master E1 on which D-channel is established.
Slave	Slave E1
Warning	There is a warning for the E1.
No warn	There is no warning for the E1.

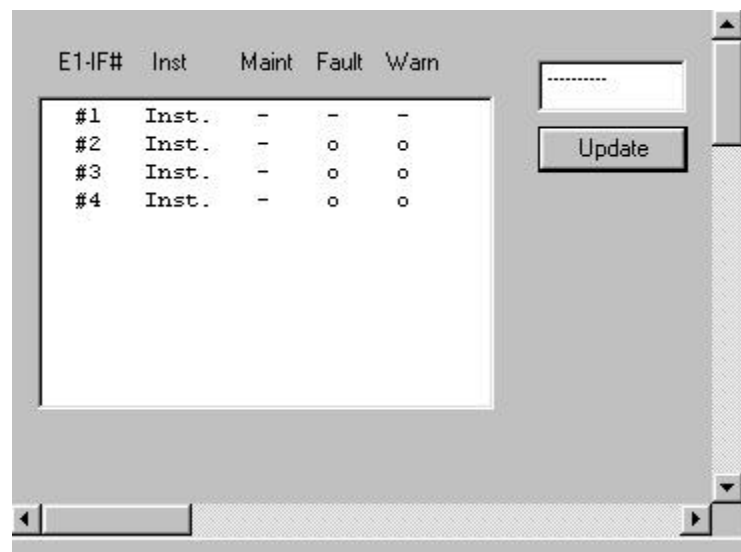
**Table 4-6: Signal Status Field Name Definition**

2. Click *Update* to display the current status.

#### 4.2.4.5 E1 Interface Status

Each RPC has four E1 interface boards to communicate with the WLL/V5WLL. Use the *E1 Interface* option to verify E1 Interface status, monitor alarms, and identify areas of trouble.

1. From the **Status** pull-down menu, click *Status*, and then *Node-I/F Board*. This displays the E1 Interface status on the **Status View** window, as shown in the figure below. Another way to open this window is to click the *E1-Interface Status* button.



**Figure 4-31: E1 Interface Status Window**

Field Name	Description
E1-IF#	E1 interface ID number
Inst	Installation state configured by the system operation data. There are two states: Inst/Uninst.
Maint	Blocked manually by HOST or RMT o indicates blockage. - indicates no blockage.
Fault	Cut off from the operation system due to the unit trouble. o indicates the existence of error. - indicates no error exists.
Warn	Warning status: o indicates the existence of warning - indicates no warning exists.

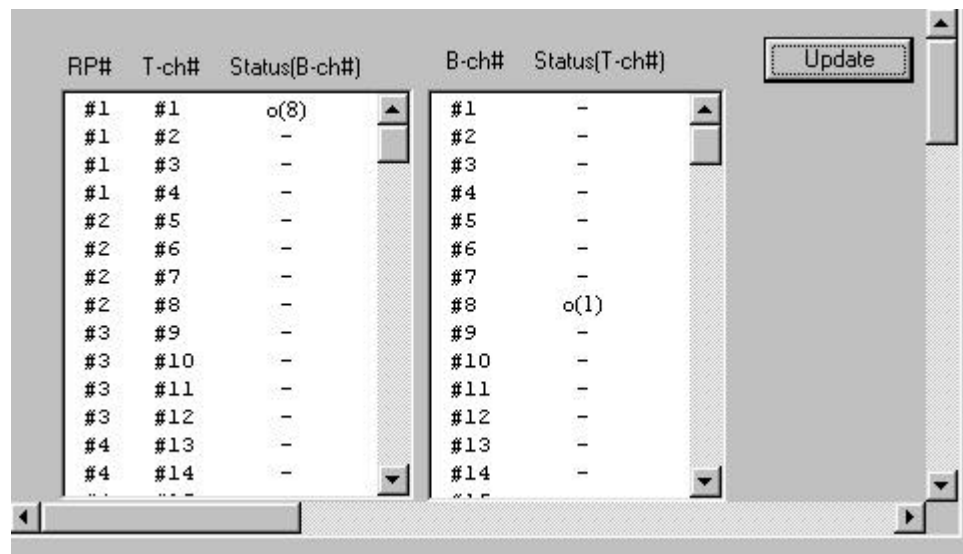
**Table 4-7Table 5-23: E1 Interface Status Window Field Description**

3. Click *Update* to display the current status.

#### 4.2.4.6 Air Channel Status

This function displays the state of wired/wireless channels in use. Use the **Channel Status View window** to determine the availability of the channels.

1. To access the **Status View** window, click the **Status** pull-down menu, then **Status**, and then **Air Channel**. The channel status is displayed on the **Status View** window, as shown in the figure below. The table following the figure provides the description for each field on the **Channel Status View** window.



**Figure 4-32: Channel Status View window**

Field Name	Definition
RP#	RP ID number
T-ch#	Traffic Channel ID number
B-ch#	Bearer Channel ID number
Status(B-ch#)	An o indicates the B channel enclosed in the parentheses is in use by the T channel number. In the example above, B channel 8 is in use by T channel 1.
Status(T-ch#)	An o indicates the T channel enclosed in the parentheses is in use by the B channel number. In the example above, T channel 1 is in use by B channel 8.

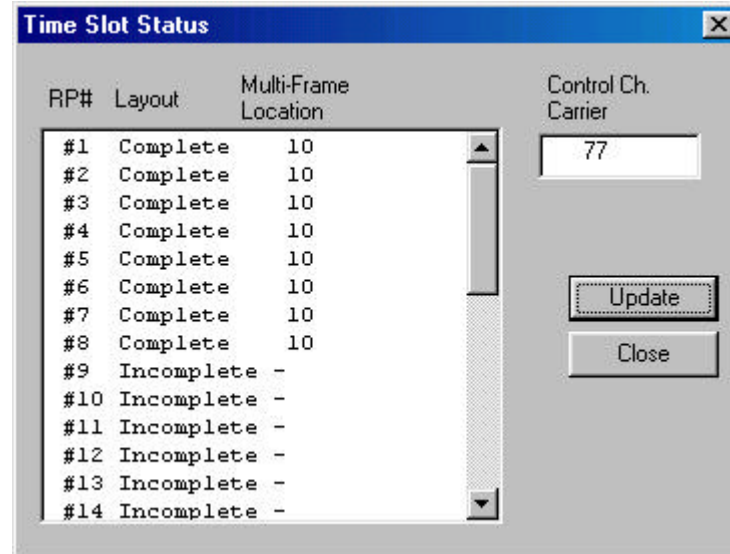
**Table 4-8: Channel Status Field Definitions**

2. Click the *Update* button to display the current status.

#### 4.2.4.7 Time Slot Status

This function is used to display the configuration state of each RP's control channel.

1. From the **Status** main menu, click *Status*, and then *TimeSlot Status*. This opens the **Time Slot Status** window, as shown in the figure below.



**Figure 4-33: Time Slot Status Window**

Field Name	Description
RP#	The ID number of the RP which transmits control channel LCCH
Layout	Complete/Incomplete configuration. Complete: RP has found the control channel. Incomplete: RP has not been able to find the control channel (e.g. due to interference).
Multi-Frame Location	Position to which the RP transmits control channel LCCH
Control Ch. Carrier	Channels over which the RP transmits control channel LCCH
Update	Retrieve the latest status information.

**Table 4-9: Time Slot Status Window Field Description**

2. Click the *Update* button to get the latest status information. Click *Close* to close the window.

### 4.2.5 Self Messages

Whenever there is a change in configuration or a new warning is received, a message will be displayed in the **Self Message** window, notifying of the situation. The **Self Message View** window is located at the bottom of the **RPC** window. Figure 4-34 illustrates the **Self Message** window with event messages.

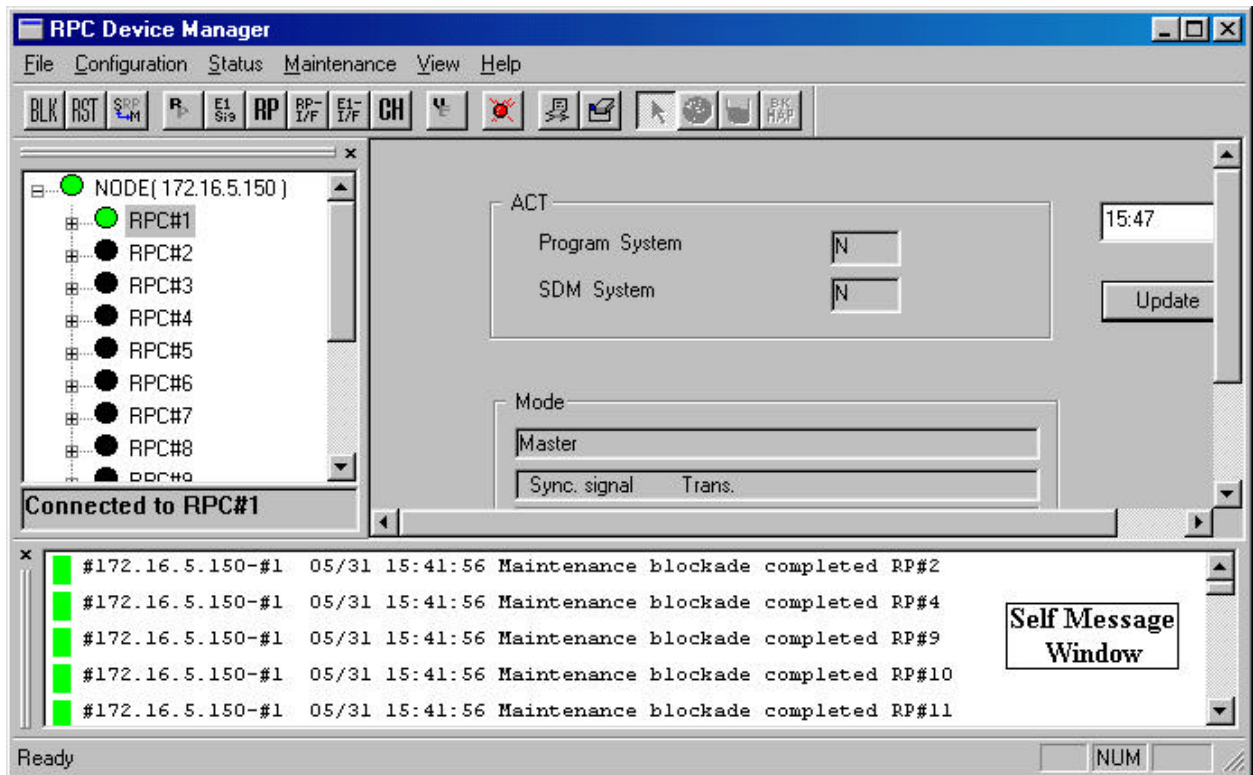


Figure 4-34: Self Message Window

This **Self Message** window displays only the event messages received from the RPCs that are connected to the host RT. In the above example the host RT has the IP address of 172.16.5.150. This RT controls 15 RPCs. The **Self Message** window is updated without the need for special operation action.

## 4.2.6 Reset RPC

When a system component experiences trouble and the problem cannot be solved, it may be necessary to reset that component. RPC resetting may also be needed after certain provisioning operation.

1. Select **Reset** from the **Maintenance** main menu. The **Reset RPC** window appears as shown in Figure 4-35.

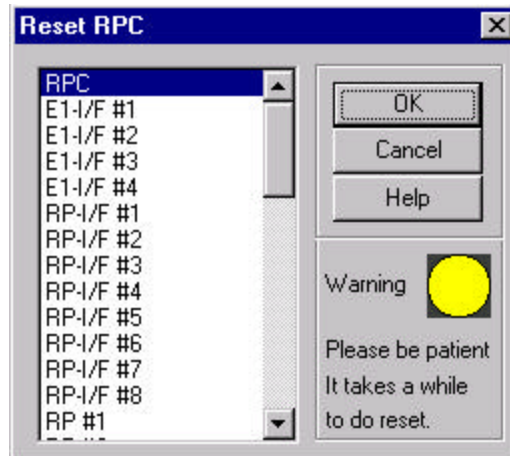


Figure 4-35: Reset RPC Window

2. Before resetting any component, verify that there are no calls active by checking the air channel status. Select the target component and click on **OK**. If an **RPC** is selected to be reset the following window opens.

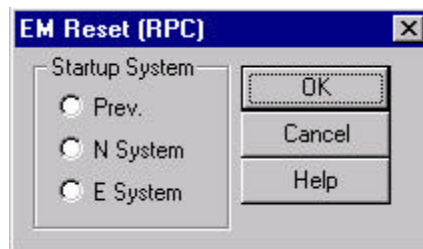


Figure 4-36: EM Reset Window

There are three options for Startup System.

- Prev
  - N system
  - E system
3. Select the system to be reset and click **OK**.
  4. After EM reset is complete, the RPC is disconnected. To resume normal operation, reconnect to the RPC.



## 4.2.7 Antenna Information

1. Select *Antenna Information* from the **Maintenance** main menu, and the **Antenna Information** window opens as shown in Figure 4-37.

Figure 4-37: Antenna Information Window

2. Antenna name and type are read from the database. If new information is added, click the *Add New* button and the new information is saved into the database.
3. If users want to add more pattern resolution, click *Add* and the **Add a Point** window opens as shown in Figure 4-38. Users enter the values and click *OK*. The values are added into the list box of the **Antenna Information** window.

Figure 4-38: Add a Point Window

### 4.2.8 RPC Connection

To change the number of RPCs to be connected, select **RPC Connection** from the **Configuration** main menu, the Connect RPCs window displays as shown in Figure 4-39. Click the check button of the target RPCs to be connected and click **OK** to connect to the selected RPCs.

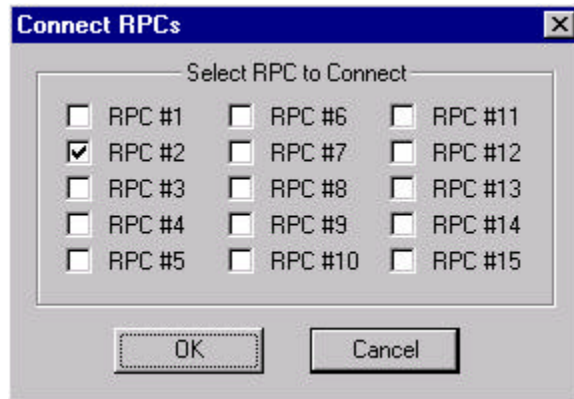


Figure 4-39: Connect RPCs Window

### 4.2.9 Version Window

1. From the **Configuration** pull-down menu, click the **Version** option. This opens the **Version** window, as illustrated in the figure below.

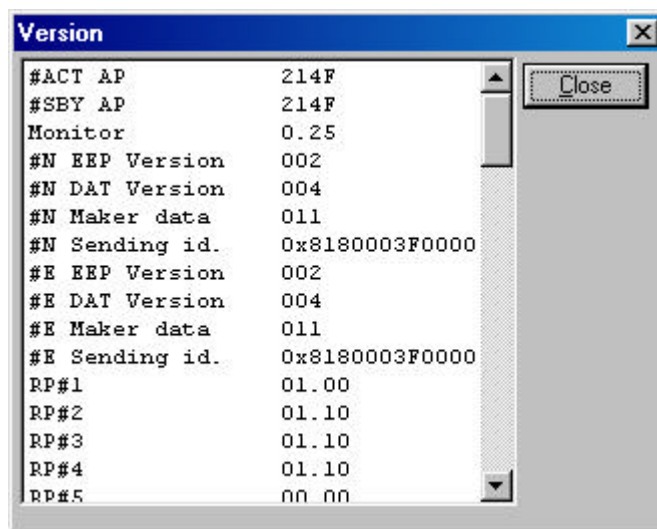


Figure 4-40: Version Window

2. There are two columns in this window. The left column lists the item names. The right column shows the corresponding version. This window displays the version of each item in operation.

## 4.3 Manage RPC Data

RPC data include program data and operation data. RPCs have two plane memory areas for the program data and two plane memory areas for the operation data. As a result, the RPC data can be categorized into the following types:

1. For the program data
  - PDM (Program Data Memory)-#N
  - PDM (Program Data Memory)-#E
2. For the operation data
  - SDM (System Data Memory)-#N
  - SDM (System Data Memory)-#E

In effect, the RPC continues to run based on 1 SDM and 1 PDM. Therefore, SDM and PDM have two types of operation status:

1. Active (ACT): the SDM and PDM which are used for RPC running.
2. Standby (STY): the SDM and PDM which are not used for RPC running.

Suppose that an RPC ran based on SDM-#N and PDM-#E, the operation status for the RPC data systems would be:

- SDM-#N: ACT
- SDM-#E: SBY
- PDM-#N: SBY
- PDM-#E: ACT

These data systems can be manipulated through the options under the **Configuration** and **Maintenance** main menus. Use the procedure in this section to manage the RPC data.

### 4.3.1 Program Load

The *Program Download* option of the **Maintenance** pull-down menu offers the function of downloading the program data from Netman 2000 to the SBY PDM of

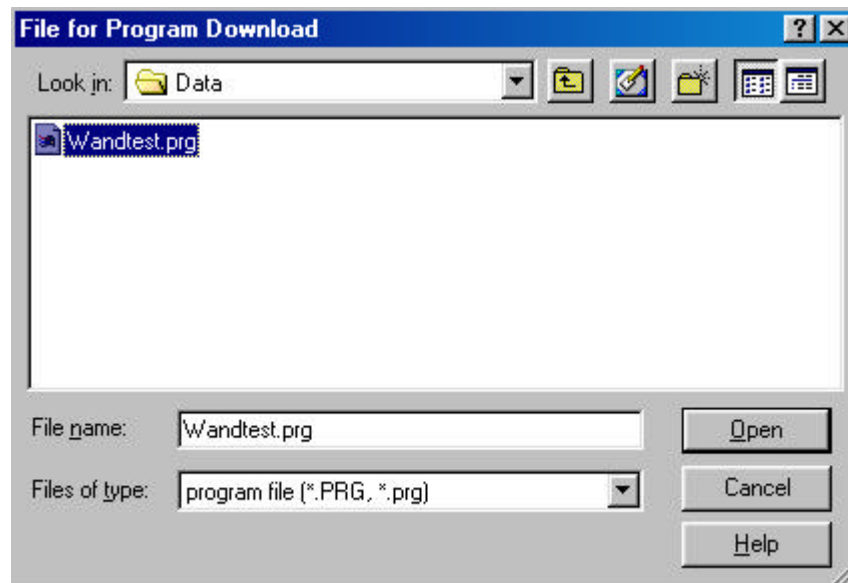
the target RPC and putting it into operation by switching to the new program data at the specified time.



*NOTE: It is recommended that program download be done using RMT via WLL/V5WLL.*

*During the operation the system prompts you to disconnect the target RPC. Click **OK** to disconnect it. After the operation reconnect the RPC.*

1. Click the **Maintenance** main menu, select the **Program Download** option, and then the **Program Load** option. This opens the **File for Program Download** window, as shown in the figure below.



**Figure 4-41: File for Program Download Window**



*NOTE: The program file must be in the Netman directory. The proper path should be: C:\program files\UTStarcom\Netman\data. This rule applies to other data files and data operation.*

2. Select the program data file to be downloaded. The program data file must be of the **.prg** or **.PRG** type. When the **Open** button is clicked, a confirmation dialog box opens, as displayed below.

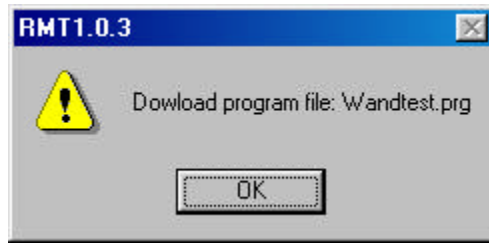


Figure 4-42: Download Confirmation Dialog Box

3. Click **OK**, and the **Program Download** window opens, as shown in the figure below.

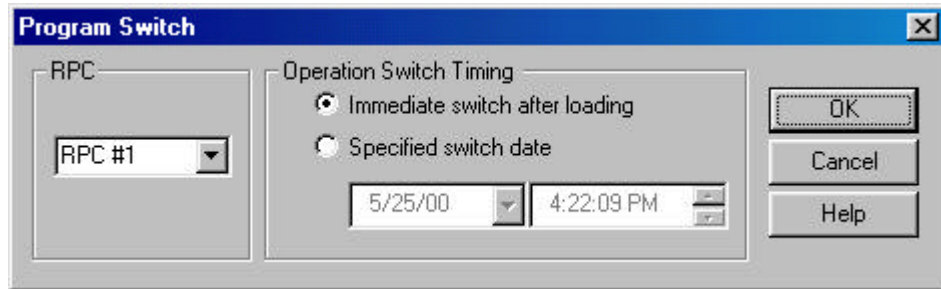


Figure 4-43: Program Download Window

Field Name	Description
RPC	The ID number of the RPC to which the program data are to be downloaded. Click the <b>Arrow</b> button to make a selection.
Immediate switch after loading	If selected, the RPC will switch to the new program data immediately after downloading.
Specified switch date	If selected, the RPC will switch to the new program data at the date and time specified in the two fields provided.

Table 4-10: Program Download Window Field Description

4. Select the RPC to which the program data are to be downloaded, and make a selection in the **Operation Switch Timing** block. Click **OK**. The program data are downloaded to the SBY PDM.
5. After the data have been downloaded, click **OK**.

### 4.3.2 Program Switch

Use the **Program Switch** option to switch the operation status of the SBY PDM and the ACT PDM.

1. From the **Maintenance** pull-down menu, select **Program Download**, and then **Program Switch**. The **Program Switch** window appears, as shown in the figure below.

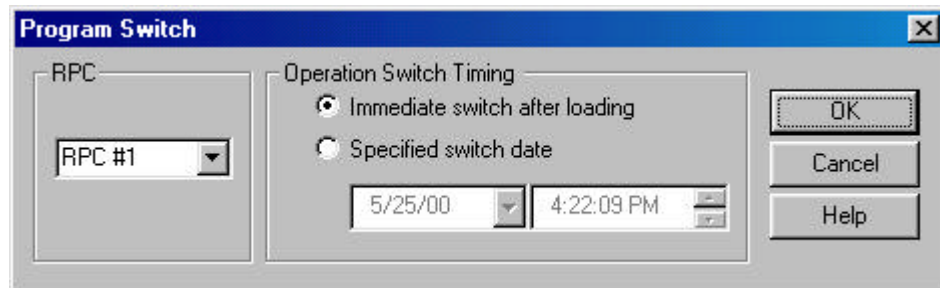


Figure 4-44: Program Switch Window

2. This window is exactly the same as the previous one. Make a selection in the **Operation Switch Timing** block. If you click the **Specified switch date** radio button, specify the date and time for the new program to go into operation. Click **OK** to accept the setting or **Cancel** to stop the transaction. After switching at the specified time, RPC runs based on the SBY PDM and each PDM status is switched.

### 4.3.3 Data Load

Operation data can be loaded and put into operation by selecting the **Service Data** options. Use the procedure in this section to load the operation data to the SBY SDM and to specify the time to switch to the new data.

1. From the **Configuration** pull-down menu, select **Service Data**, then **Data Download**, and then **Data load**. This opens the **File for Data Download** window, as illustrated in the figure below.

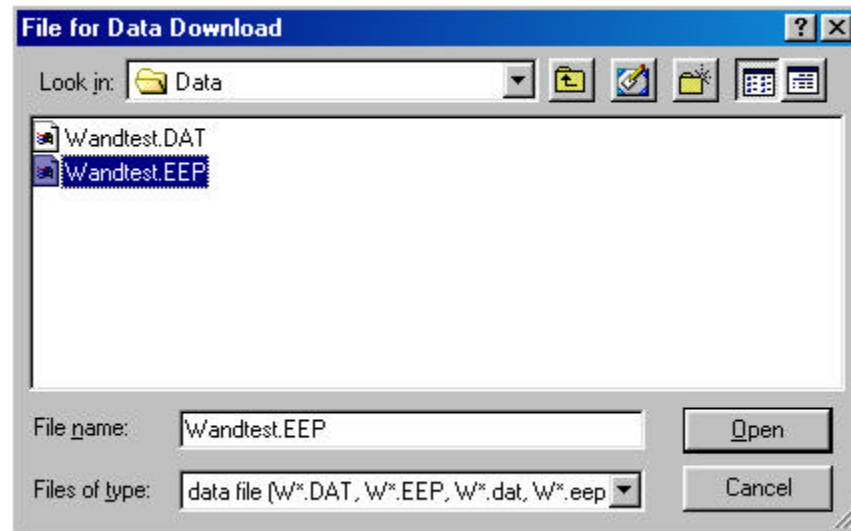


Figure 4-45: File for Data Download Window

2. Select the data file to be downloaded. The data file must be of the **.DAT** or **.EEP** type. When the *Open* button is clicked, a confirmation window opens. Click *OK*. This opens the **Service Data Download** window, as shown in the figure below.

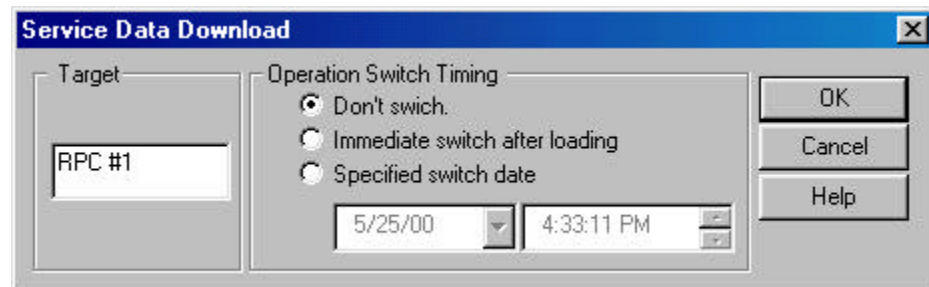


Figure 4-46: Service Data Download Window

3. Select the target RPC to which to download the data. Make a selection in the **Operation Switch Timing** block. If the *Specified switch date* radio button is selected, specify the date and time for the switch operation to be executed. Click *OK*. The operation data is downloaded to the SBY SDM.

### 4.3.4 Data Switch

Use the **Data Switch** option to specify the date and time to switch to the SBY SDM.

1. From the **Configuration** pull-down menu, select **Service Data**, then **Data Download**, and then **Data Switch**. The **Service Data Switch** window appears, as shown in the figure below.

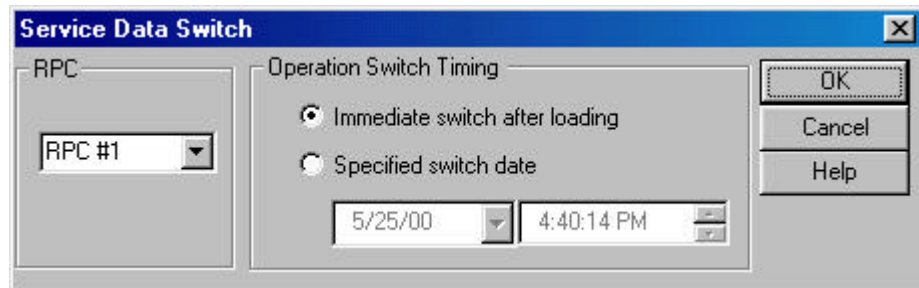


Figure 4-47: Service Data Switch Window

2. Select the target RPC. Make a selection in the **Operation Switch Timing** block. If you click the **Specified switch date** radio button, specify the date and time for the switch operation to be executed. Click **OK** to accept the setting. After switching at the specified time, RPC runs based on the SBY SDM and each SDM status is switched.

### 4.3.5 Read Data

Use this function to read the operation data from the current RPC to Netman 2000 while the RPC is operating.

1. From the **Configuration** main menu, select **Service Data**, and then **Read Data**. This opens the **Read System Service Data** window, as displayed in the figure below.

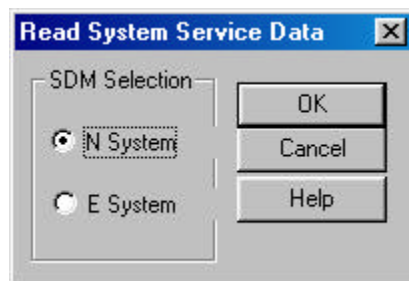


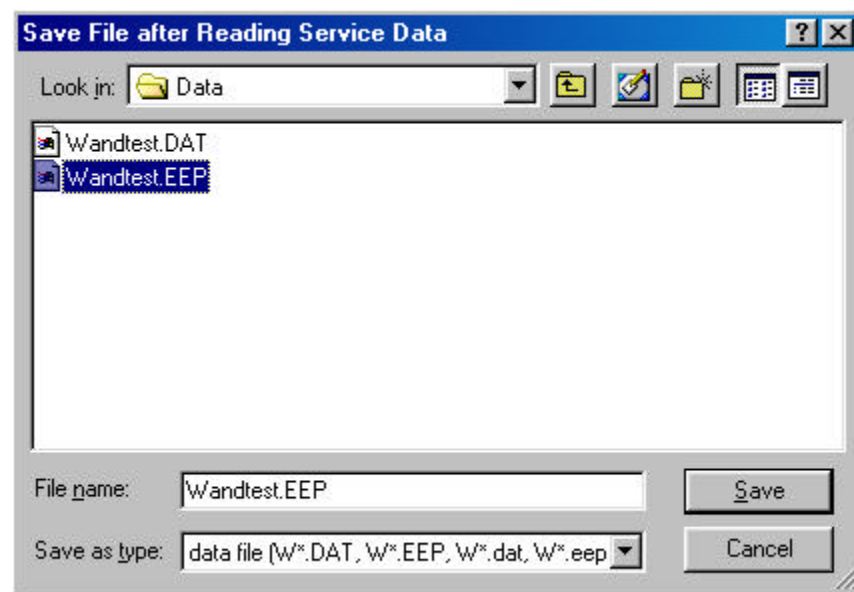
Figure 4-48: Read System Service Data Window



Field Name	Description
SDM Selection	Select one of the two operation data systems: SDM-#N or SDM-#E. Any one can be ACT or SBY.
N System	One of the two operation data systems
E System	One of the two operation data systems

**Table 4-11: Read System Service Data Window Field Description**

2. Make a selection in the **SDM Selection** block and click *OK*.
3. The following window appears, prompting for the folder and file name in which to save the service data after reading out.



**Figure 4-49: Save File after Reading Service Data Window**

4. Select a folder and enter a file name. The file name must have the extension of **.dat** or **.eep**. In addition, the file name must start with **W** and have 8 letters. Then click *Save*.
5. A confirmation box appears. Click *Yes* to start the reading of the data.

### 4.3.6 Write Data

Use the procedure in this section to load the operation data to both the SDMs while the RPC is operating. As for this command, automatic switching is not supported. After the implementation of the command, the RPC still runs based on

the old loaded operation data. For the RPC to run based on the newly loaded operation data, the RPC needs to be reset.

1. From the **Configuration** main menu, click *Service Data*, and then *Write Data*. This opens the **Write System Service Data** window, as shown in the figure below.

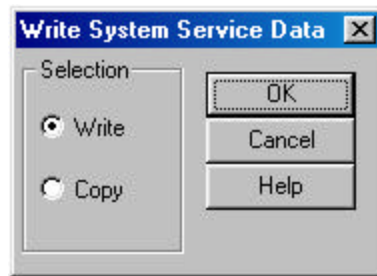


Figure 4-50: Write System Service Data Window

2. Click the *Write* radio button and then click *OK*. The **Select File for Writing Service Data** window appears, as illustrated in the figure below.

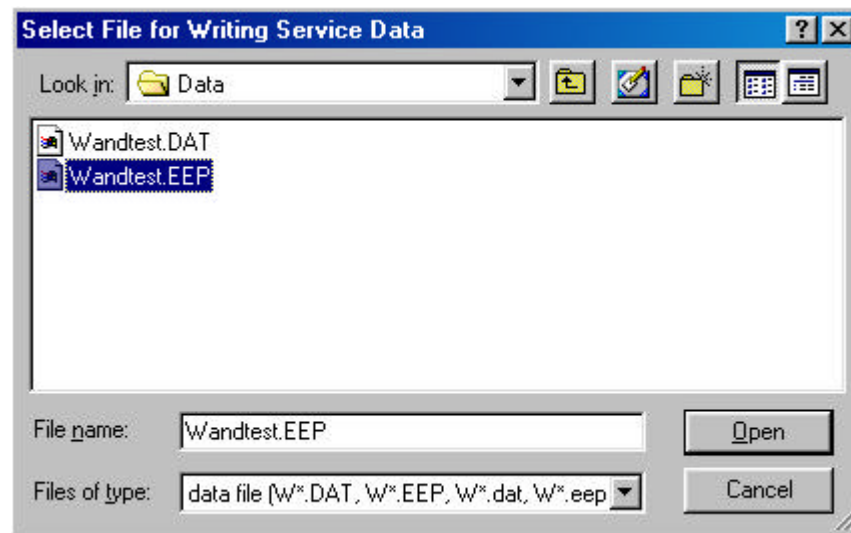


Figure 4-51: Select File for Writing Service Data Window

3. Select the target file with either a **.dat** or a **.eep** extension and click *Open*. The system overwrites the service data on both the SDMs of the RPC.