

Figure 3-12: Outdoor RP Instruction Flow Chart

3.4.1 Before Beginning

To ensure that the outdoor RP installation goes smoothly, it is necessary to make adequate planning prior to the installation, including:

- Tools required
- Number of people needed to complete the installation
- Location of the RP Main Unit

3.4.2 Outdoor RP Installation

Follow the steps below to install an outdoor RP:

1. Unpack the outdoor RP and accessories and make sure they are in good condition. Refer to Figure 3-13. The package includes:
 - Outdoor RP (1)

- Mounting plate (2)
- One M4 screw (3)
- Four M6 screws (4)

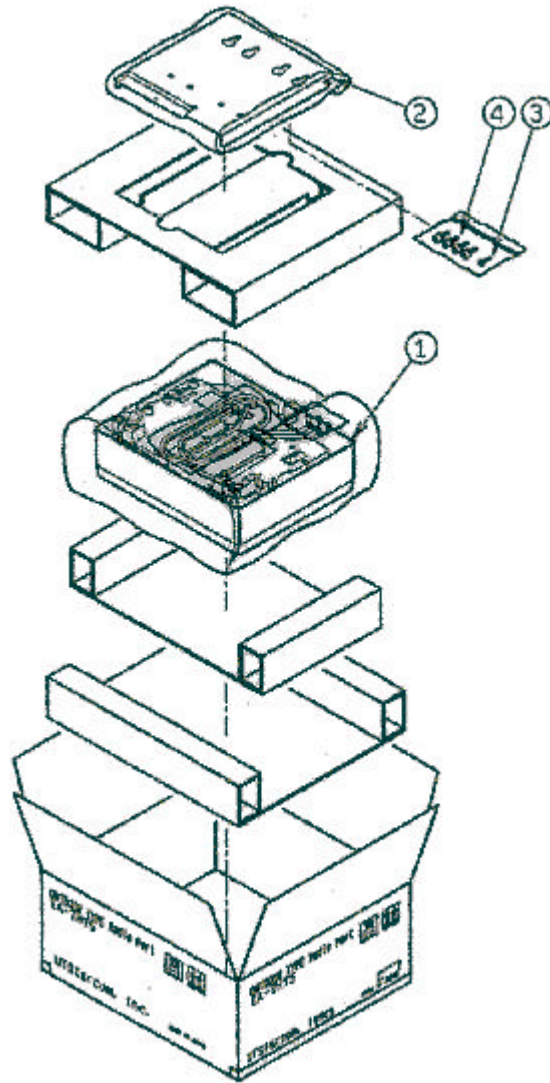


Figure 3-13: Overview of the RP, Packing, and Accessories

2. Make sure that the outdoor RP is installed in one of the positions shown in Figure 3-14.

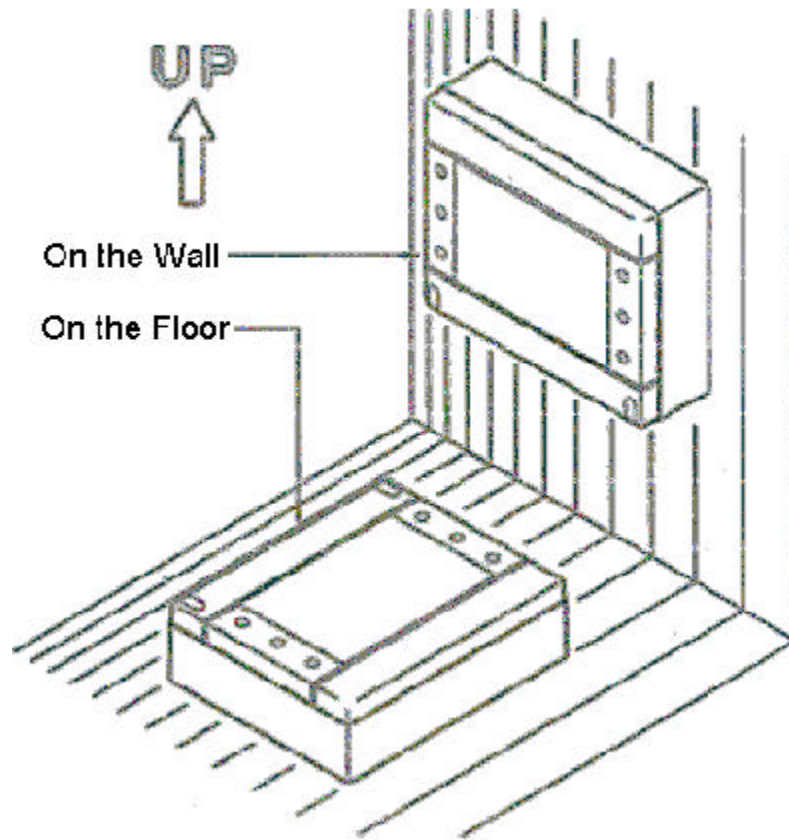


Figure 3-14: Outdoor RP Recommended Positions



WARNING: *Installation of the RP in any other position may permit moisture to enter the device possibly causing damage or injury.*

3. Pre-drill holes for bolts according to the dimensions shown in Figure 3-15. Attach the mounting plate to a wall with 4 bolts. Notice that the lower right edge of the mounting plate has a bend in it. The purpose of this bend is to hold the antenna connectors in place. Refer to Figure 3-15.

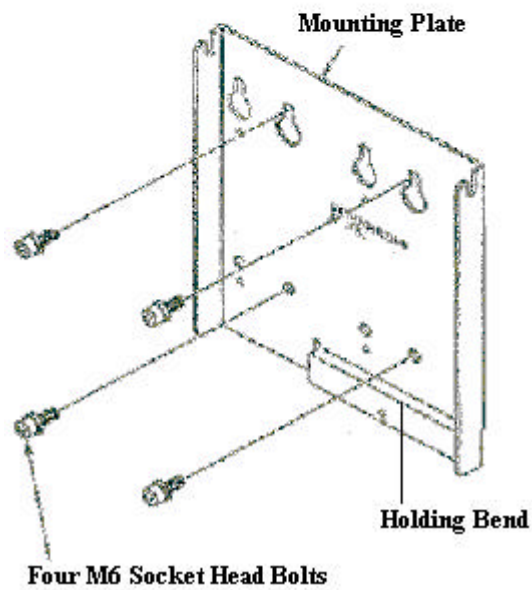
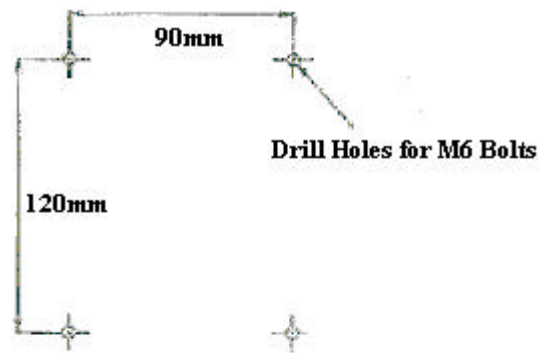


Figure 3-15: Mounting Plate

4. To remove the top cover, lower the screw caps and loosen the screws with the special screwdriver. Pull the top cover backward and upward from the main unit as shown in Figure 3-16.

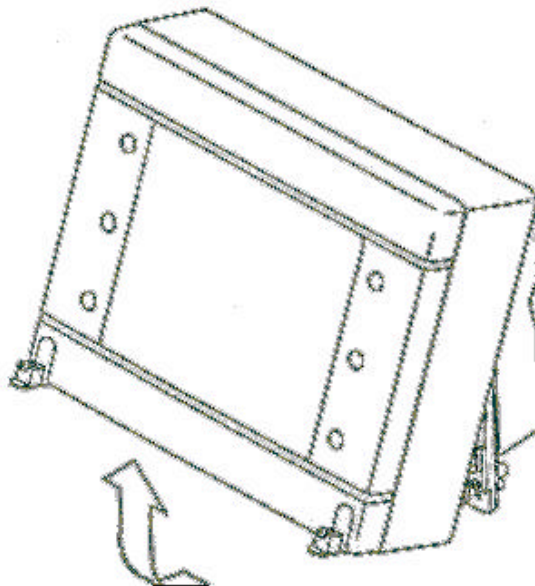
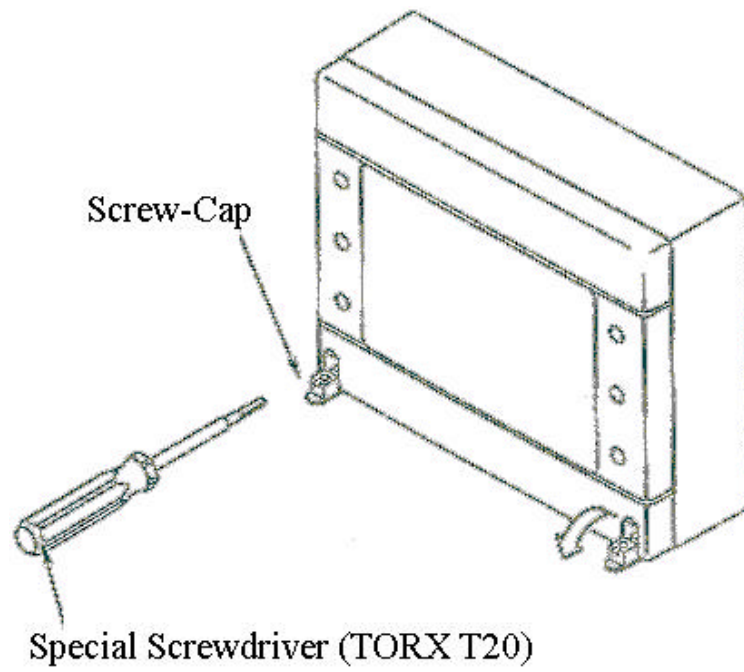


Figure 3-16: Top Cover Removal

5. Mount main unit on the mounting plate. Position both the hinge pins in the u-notches on the mounting plate. Refer to Figure 3-17. Do not fasten with the screws right now. The antenna cables must be connected first.

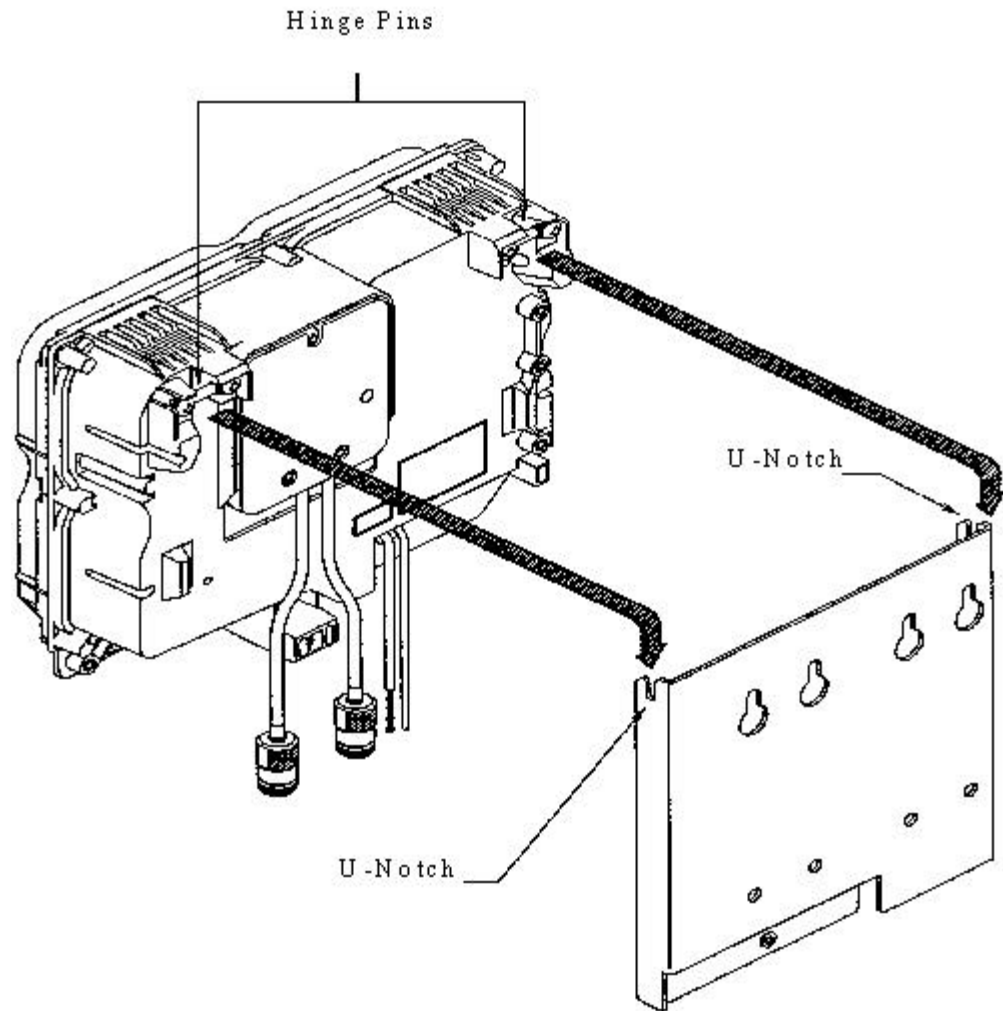


Figure 3-17: Mount Main Unit

6. Connect each antenna cable and push the antenna connectors and surplus antenna cable in between the mounting plate and the RP main unit. Make sure that the antenna connectors are above the holding bend of the mounting plate and that the antenna cables are not caught by it.

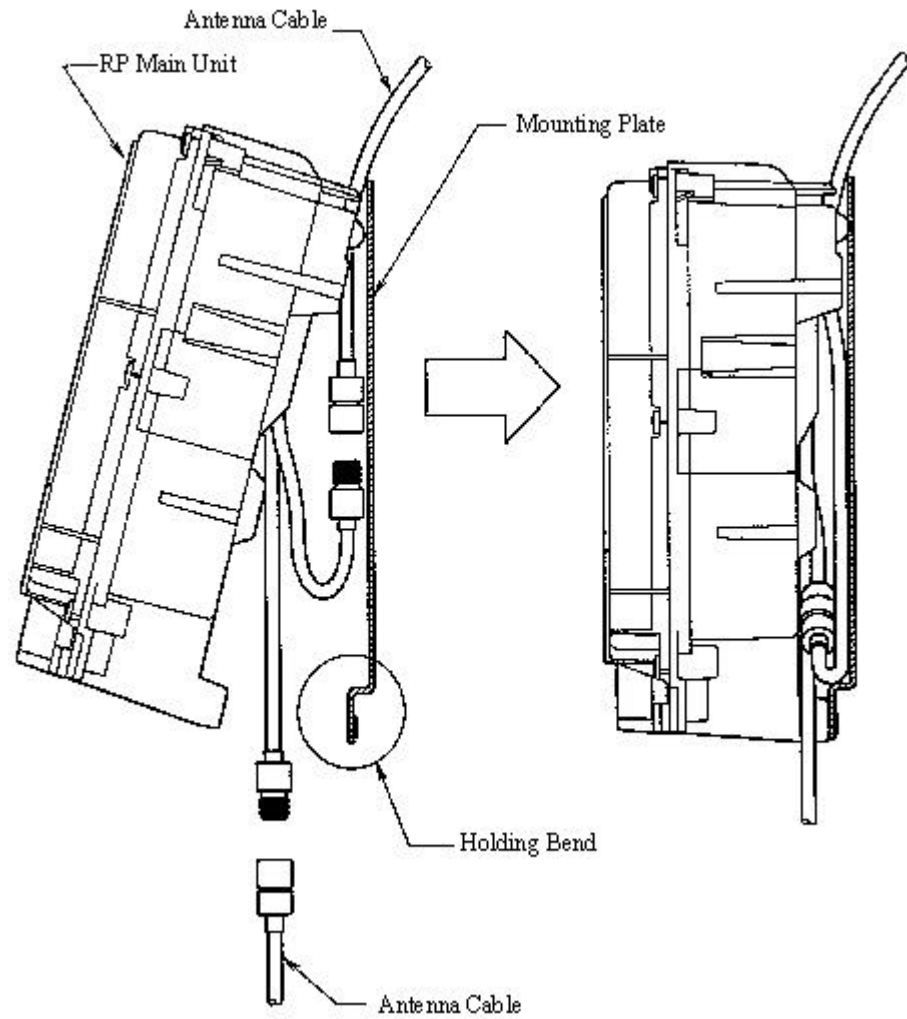


Figure 3-18: Antenna Cable Connections

7. Affix main unit to the mounting plate with the M4 screw as shown in Figure 3-19.

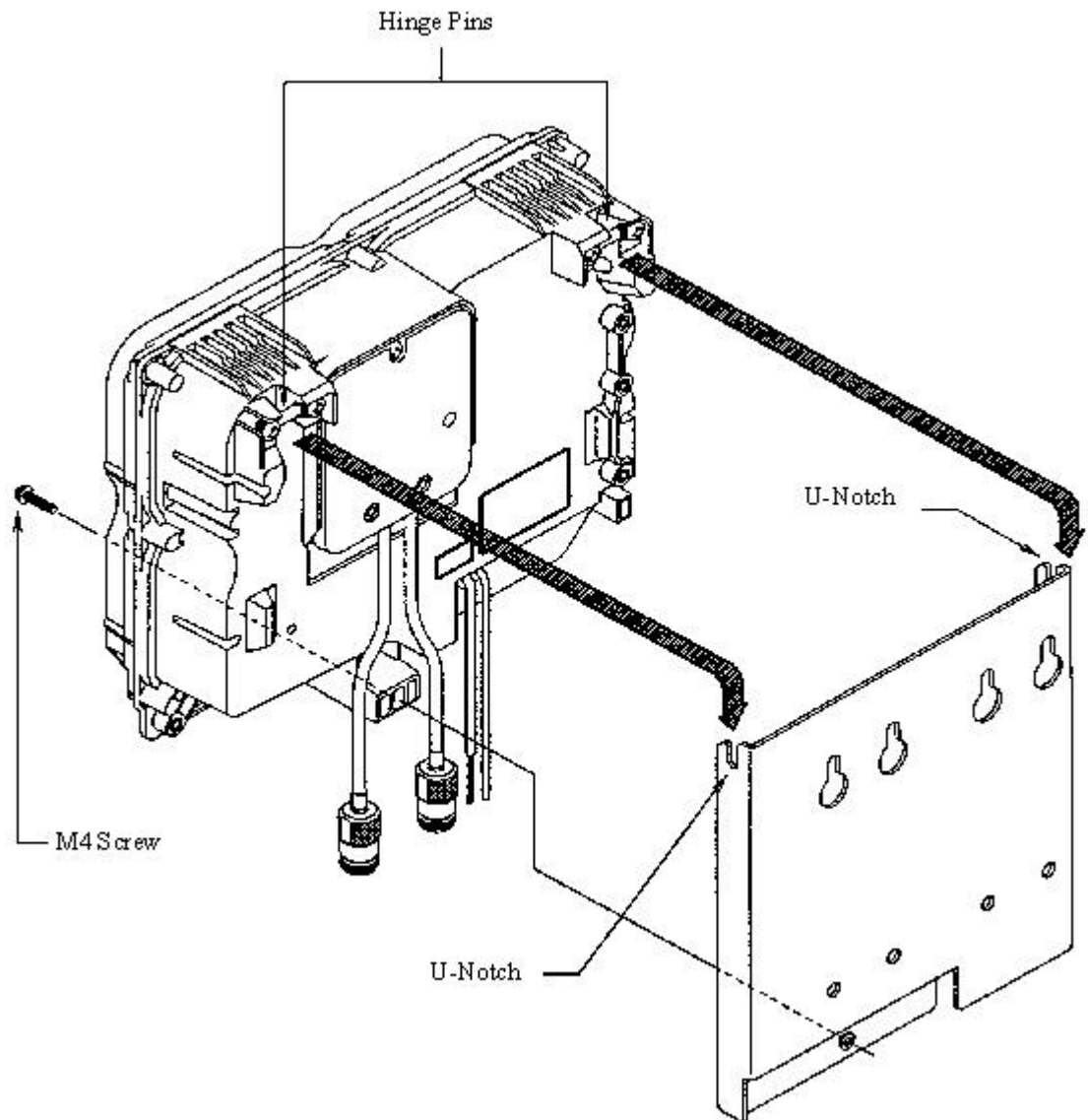


Figure 3-19: RP Attachment to the Mounting Plate

8. Replace the top cover. Make sure it is properly positioned over the fin on the main unit as shown in Figure 3-20. Tighten the screws in the top cover and replace the screw caps.

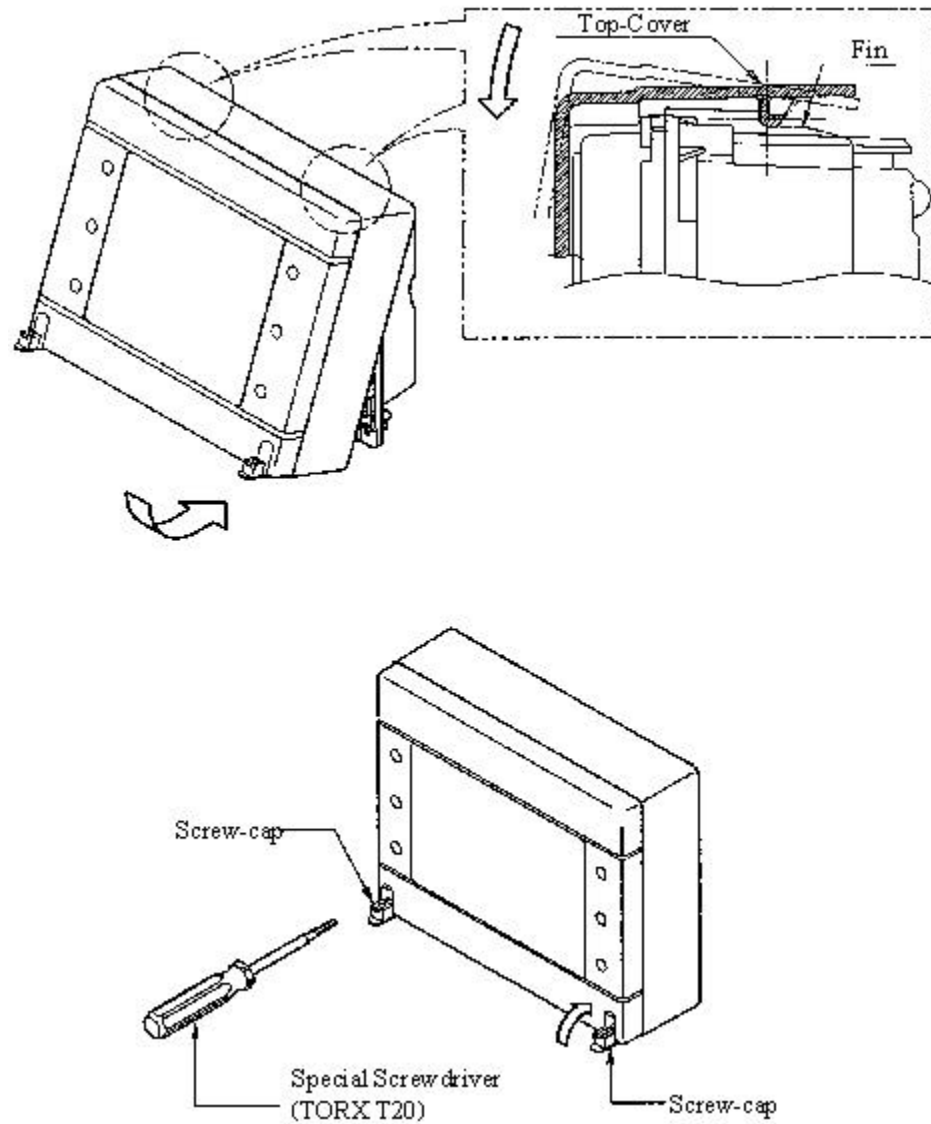


Figure 3-20: Top Cover Attachment

9. This completes the installation of the outdoor RP.

RPC/RP Configuration

4

After the installation of the RPC and RP, configuration must be made to provision the RPC and RP. This is done through the Netman network management system. Netman is the network management tool for the system. It centralizes the management of all the DMs in the network, including the RPCs. This chapter describes the RPC/RP configuration process through Netman 2000.

4.1 Initialize an RPC Node

RPCs are represented as independent DMs on the Netman **Main View** window although they are actually controlled by the COT node to which they are attached. Figure 4-1 and Figure 4-2 represent the toolbar and pull-down menu of the RPC DM window.

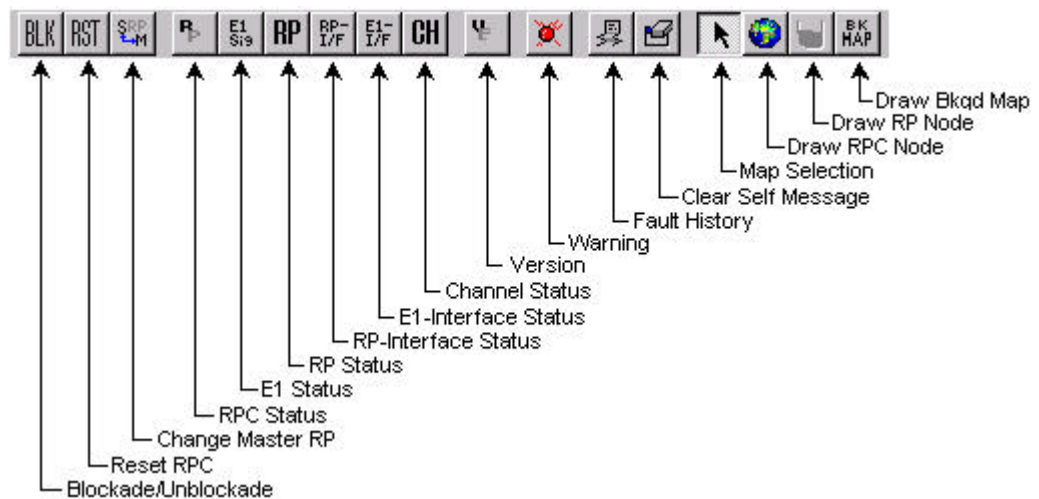


Figure 4-1: Toolbar and Description (RPC R2.4)

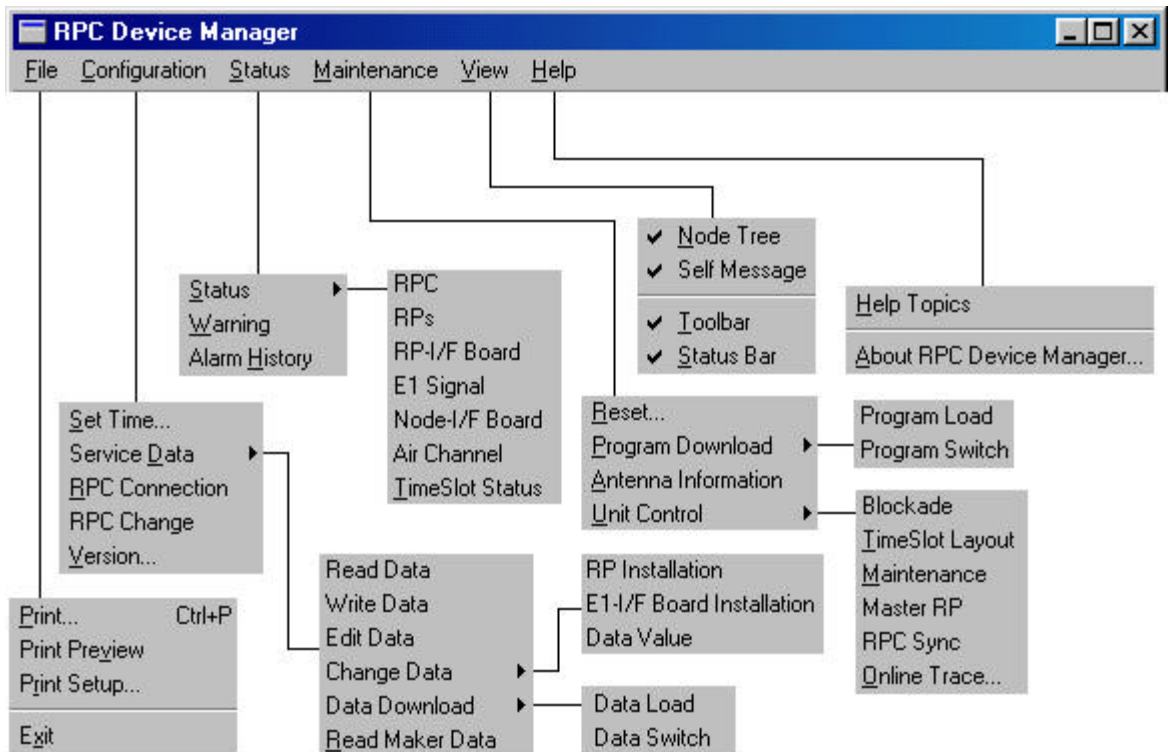


Figure 4-2: Netman Pull-down Menus (RPC R2.4)

This section describes the procedures to initialize an RPC node. Follow the steps below to get connected to an RPC:

1. On the **Main View** window of the Netman network management system, double click the target RPC icon. This opens the **Connect RPCs** window, as shown below.

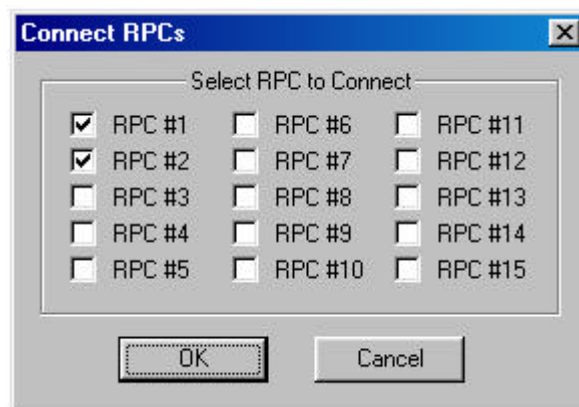


Figure 4-3: Connect RPCs Window

2. There are 15 RPCs to select from. Click the check boxes of the RPCs to be connected and then click **OK**.
3. A connection status box appears, displaying the connection process. When the process is complete, the **RPC** window opens with four frames, as displayed in Figure 4-4.

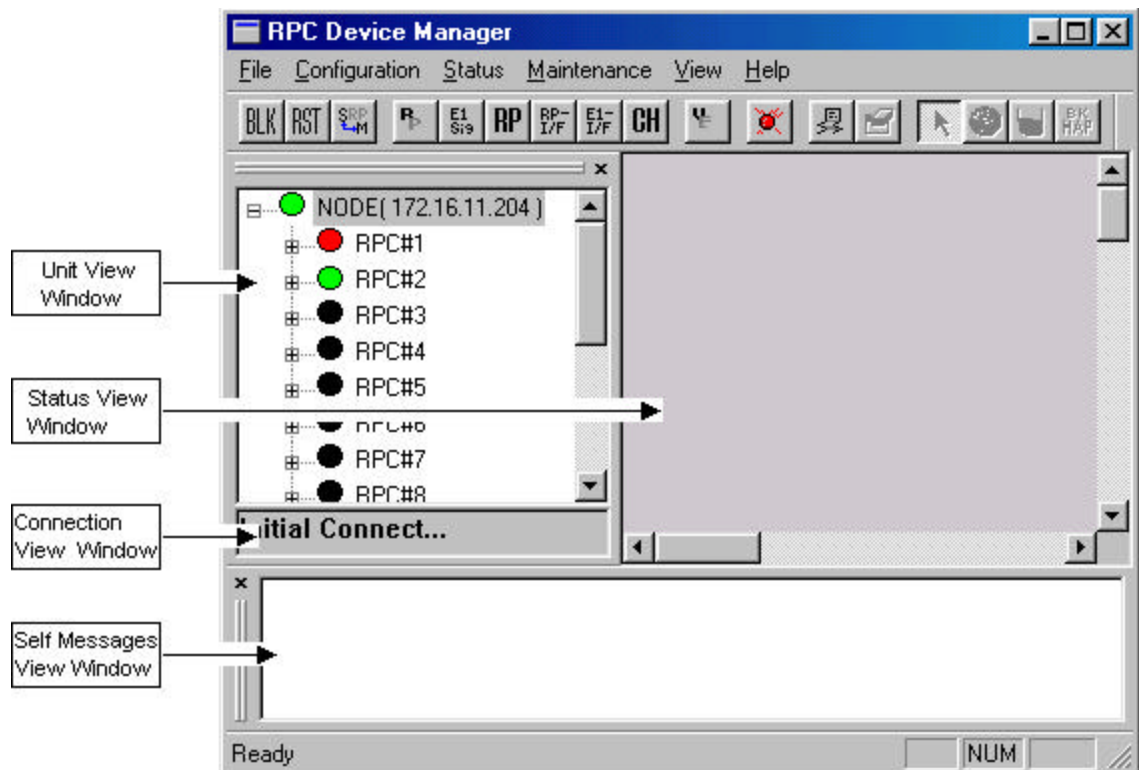


Figure 4-4: RPC Window

The top left frame is called the **Unit View** window. It lists the current units, such as, RPCs, RPs, interfaces, etc. The NODE displays its IP address. The connection status of the RPC nodes on the tree structure is represented in three different colors. The green and red color indicate connected and unconnected RPCs respectively, whereas the RPC nodes in black color indicate that they are not selected for connection.

The top right frame is called the **Status View** window. It displays the relevant status information corresponding to the selection on the left, on the menu bar, or on the toolbar.

The small frame under the **Unit View** window is the **Connection View** window. It displays the connection status and the connected RPC.

Finally, the frame at the bottom is the **Self Messages** window. It displays messages about the command execution results, trap messages, or warnings, if there is any.

4. To get connected to a certain RPC, reselect the RPC by clicking the RPC on the **Unit View** window. A connection status box appears, displaying the connection process. If the connection is successful, a message will appear on the **Connection View** window, stating “Connected to RPC#...” If the connection fails, the message will be: “Not Connected!”
5. When the connection is complete, the **Status View** window displays the relevant status information about the RPC or other units under it, depending on which unit is selected. The figure below illustrates an **RPC** window.

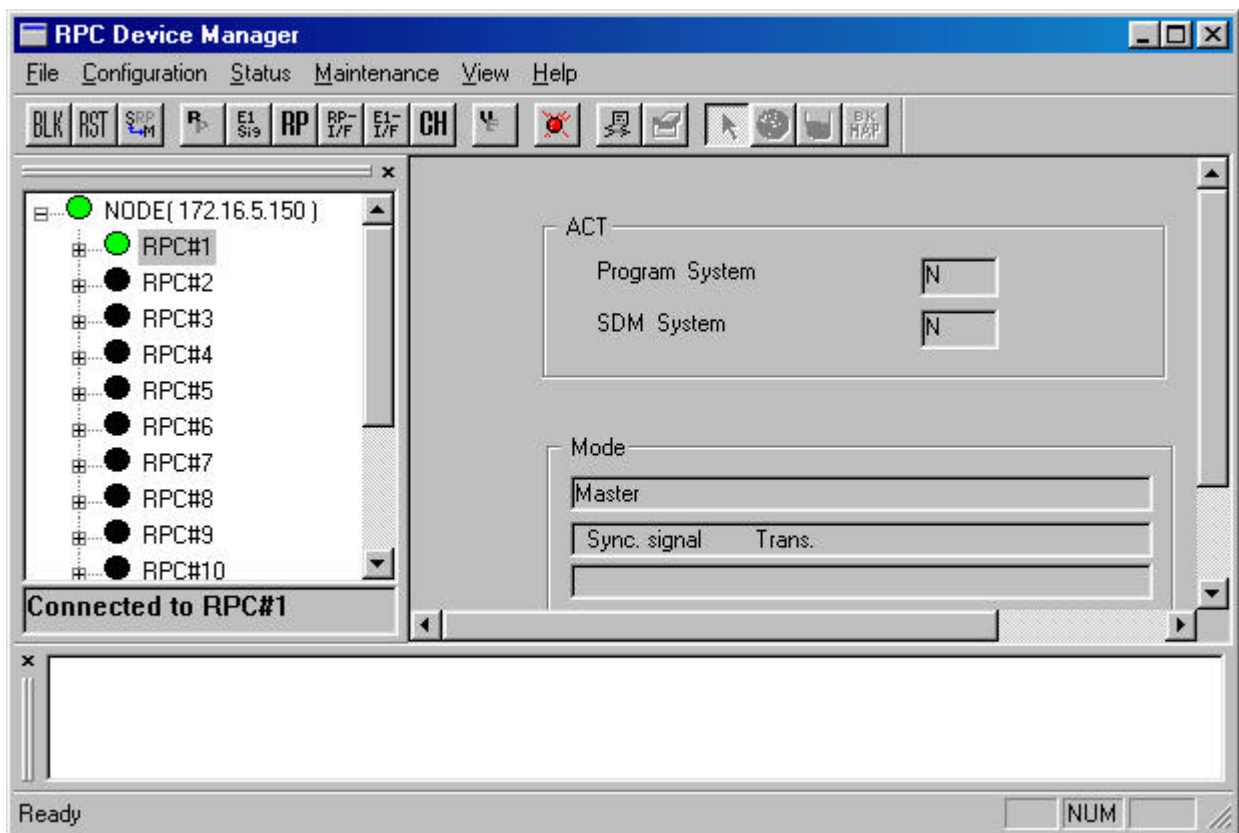


Figure 4-5: RPC Window

6. Open an RPC by clicking the + sign to the left of the RPC. This displays the RPs, RP Interface Board, E1 Signal, Node Interface Board, and Air Channel inside. Users may access each of the RPs by clicking the + sign to the left of the RPs. Each RPC controls 32 RPs.

4.1.1 Background Map

A street map can be added as a background image on the **Status View** window to highlight the location of the RPC or RP.

1. Click **NODE** on the **Unit View** window to enable the **Draw Background Map** button on the **RPC** window.
2. Click the **Draw Background Map** button and click anywhere on the **Status View** window. The **Background Map** window opens, as shown in Figure 4-6.

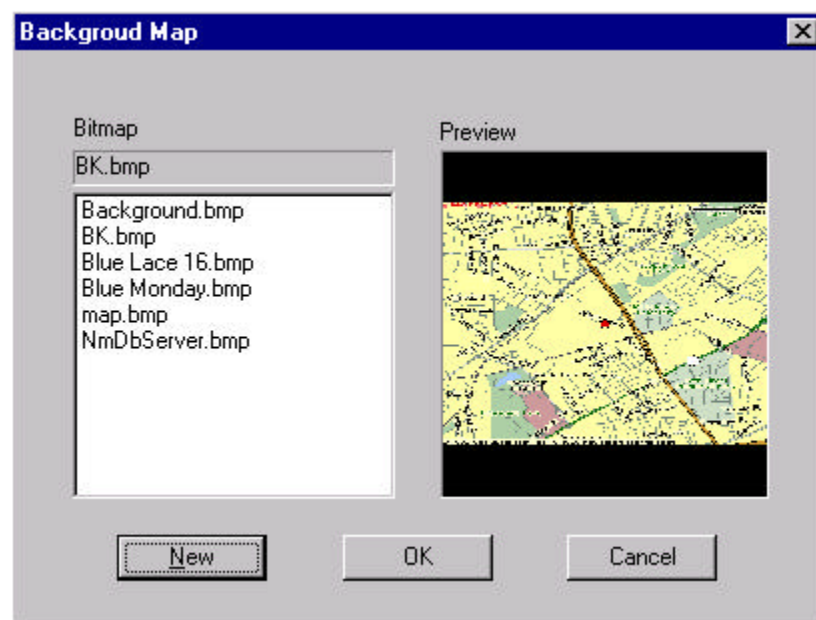


Figure 4-6: Background Map Window

3. Select the target background file from the **Bitmap** field. The **Preview** field displays the selected background image. If users are satisfied with the image, click **OK**. The image is pasted to the background of the **Status View** window, as illustrated in Figure 4-7.

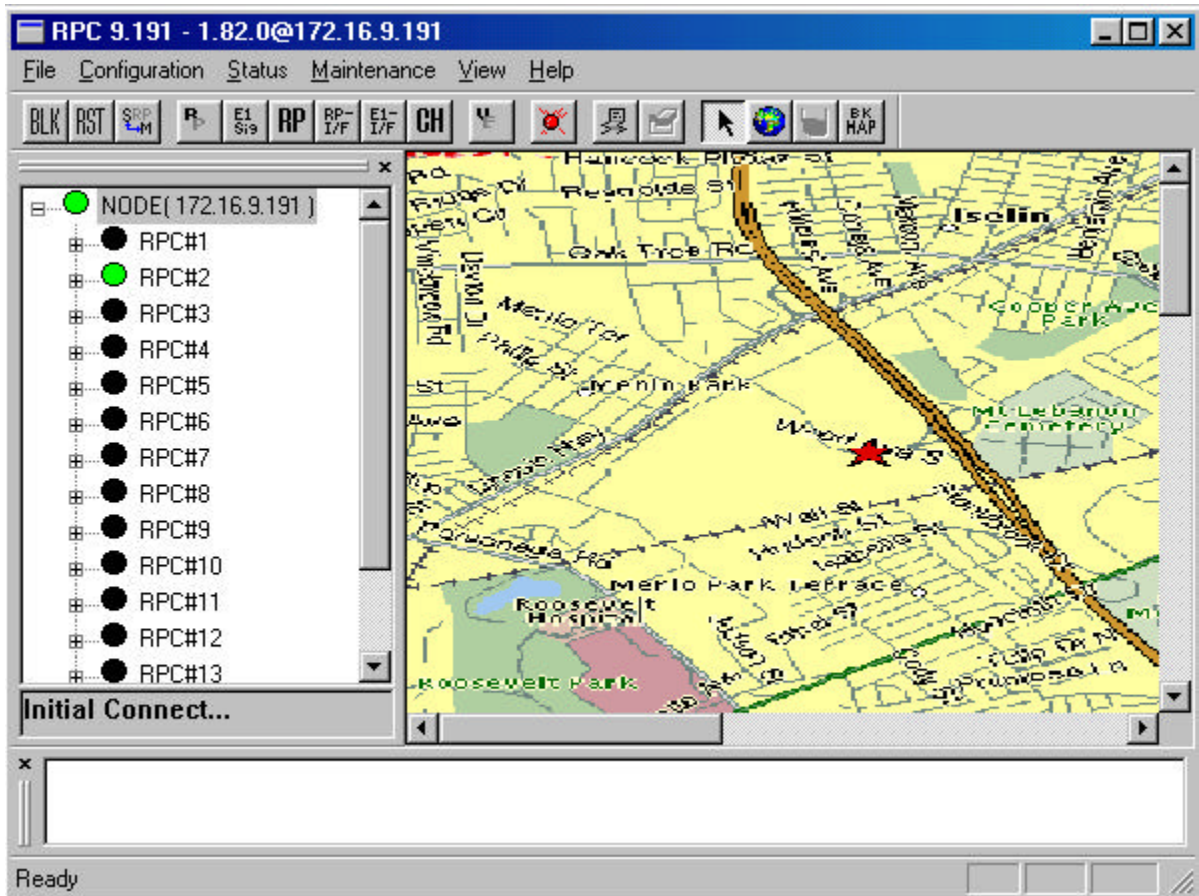


Figure 4-7: RPC Window with Background Image

4. To select another background image other than those on the **Bitmap** field, click the **New** button. The **Open** window appears, as illustrated in Figure 4-8.

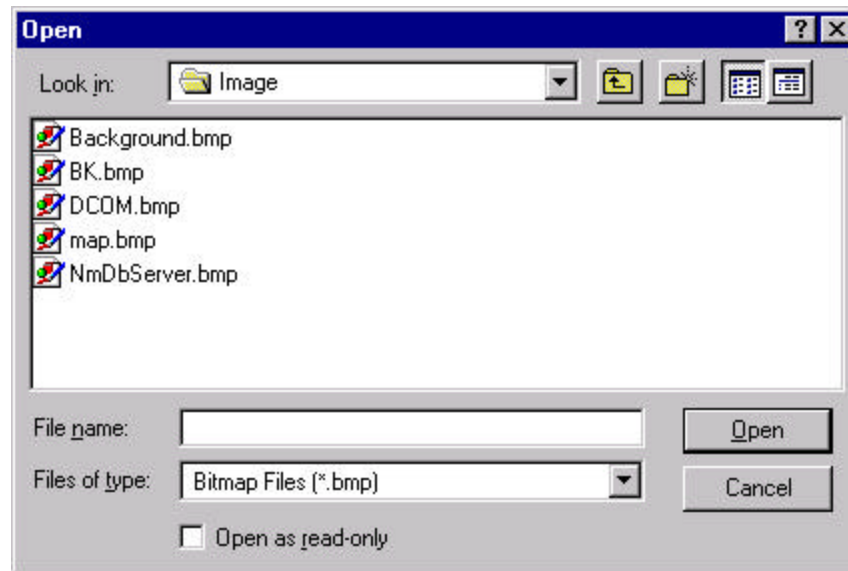


Figure 4-8: Open Window

5. Select the target bitmap file and click **Open**. The selected image file is added to the **Bitmap** list and displayed on the **Preview** field. Click **OK** to paste the image to the background of the **Status View** window if users are satisfied with the image. A similar window appears, as illustrated previously in Figure 4-7.

4.1.2 Add RPC Icons on the Map

RPC icons can be added to the background map to highlight the location information of the RPCs. They can be added, deleted or moved. All map information is stored in the database.

1. To add an RPC icon to the map click the **Draw RPC Node** button on the **RPC** window and click again on the target location of the map. The **Property** window opens as shown in Figure 4-9.

The screenshot shows a 'Property' dialog box with the following fields and values:

Field	Value
Node Type	RPC
IP Address	172 . 16 . 11 . 160
UNCP Address	1 . 82 . 0
Caption	RPC
RPC Number	RPC#1
RP Number	
Location:	
Street	33 Wood Ave.
City	Iselin
Province/State	NJ
Zip/Postal Code	08830

Buttons: Finish, Cancel, Help

Figure 4-9: RPC Property Window

2. Users enter the caption name, select the desired RPC number, enter the address for that RPC, and click ***Finish***. The RPC icon appears on the map and the data are stored in the database, as illustrated in the figure below.

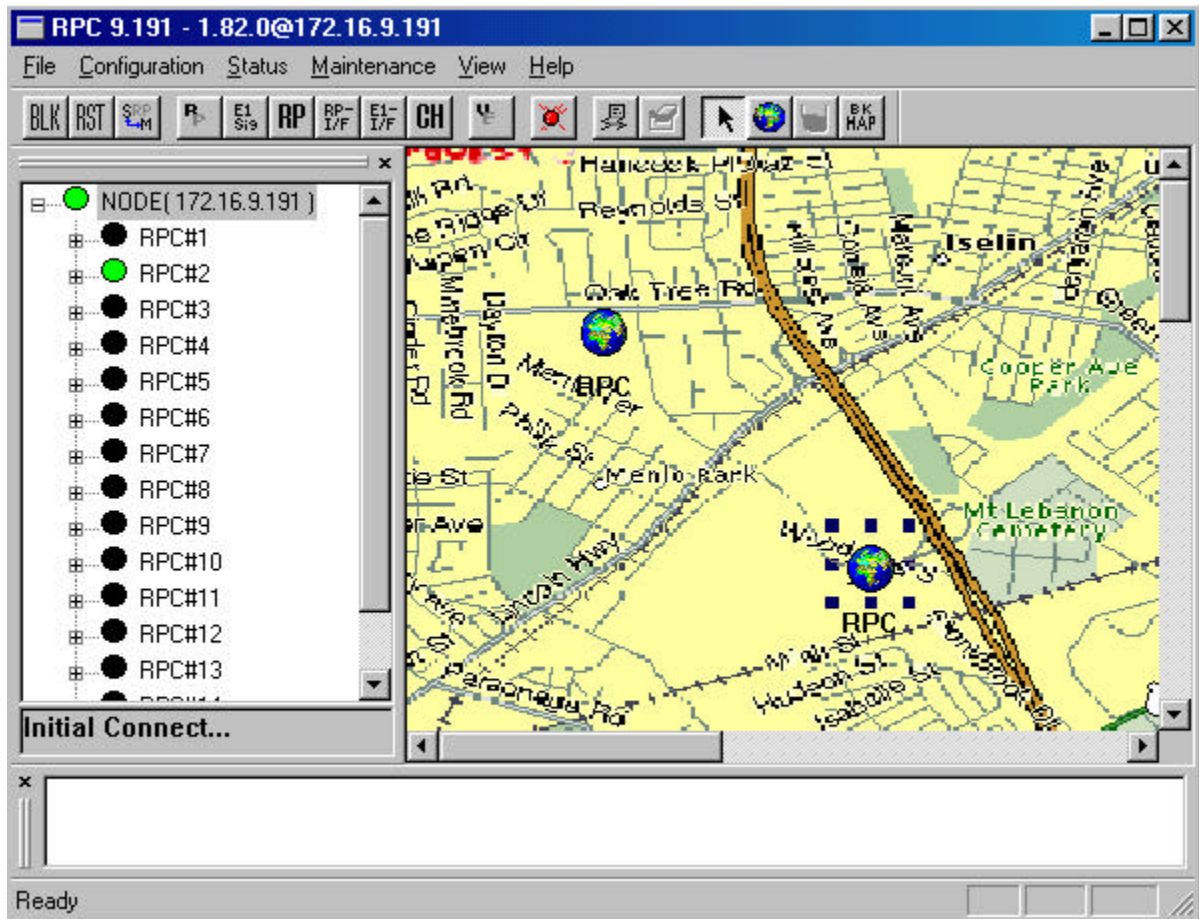


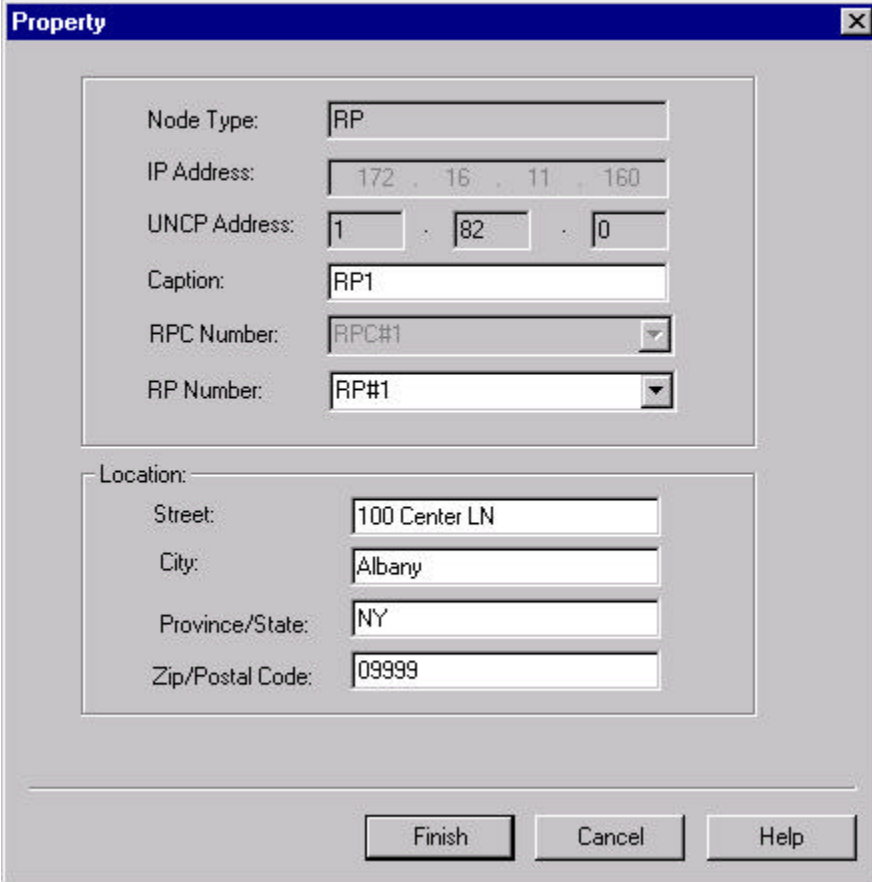
Figure 4-10: RPC Window with RPC icons on the Map

3. The RPC icons can be moved, deleted, or moved to the front or back of the background map. Their properties can also be modified. To perform these operations right click the target RPC icon and select the relevant option from the pop-up menu.

4.1.3 Add RP Icons

RP icons can be added to the map under the dominant RPC. Follow the steps below to perform the operation.

1. Double click the target RPC to access the blank **Status View** window and to enable the **Draw RP Node** button. Now users can add the same background map to the window. Following the procedure in the previous section to add the background map. To add the RP icons on the map, click the **Draw RP Node** button and click again on the target location of the map. The RP Property window opens as illustrated in Figure 4-11.



The image shows a Windows-style dialog box titled "Property" with a close button (X) in the top right corner. The dialog is divided into two main sections. The top section contains several input fields: "Node Type" with a dropdown menu showing "RP"; "IP Address" with a text box containing "172 . 16 . 11 . 160"; "UNCP Address" with three separate text boxes containing "1", "82", and "0"; "Caption" with a text box containing "RP1"; "RPC Number" with a dropdown menu showing "RPC#1"; and "RP Number" with a dropdown menu showing "RP#1". The bottom section is titled "Location:" and contains four text boxes: "Street" with "100 Center LN", "City" with "Albany", "Province/State" with "NY", and "Zip/Postal Code" with "09999". At the bottom of the dialog are three buttons: "Finish", "Cancel", and "Help".

Figure 4-11: RP Property Window

2. This window is similar to that in Figure 4-9. Enter the relevant data into the fields and click ***Finish***. The RP icon appears on the map and the data are stored in the database. Repeat this process to add as many RP icons as needed. Figure 4-12 illustrates a map with three RP icons.

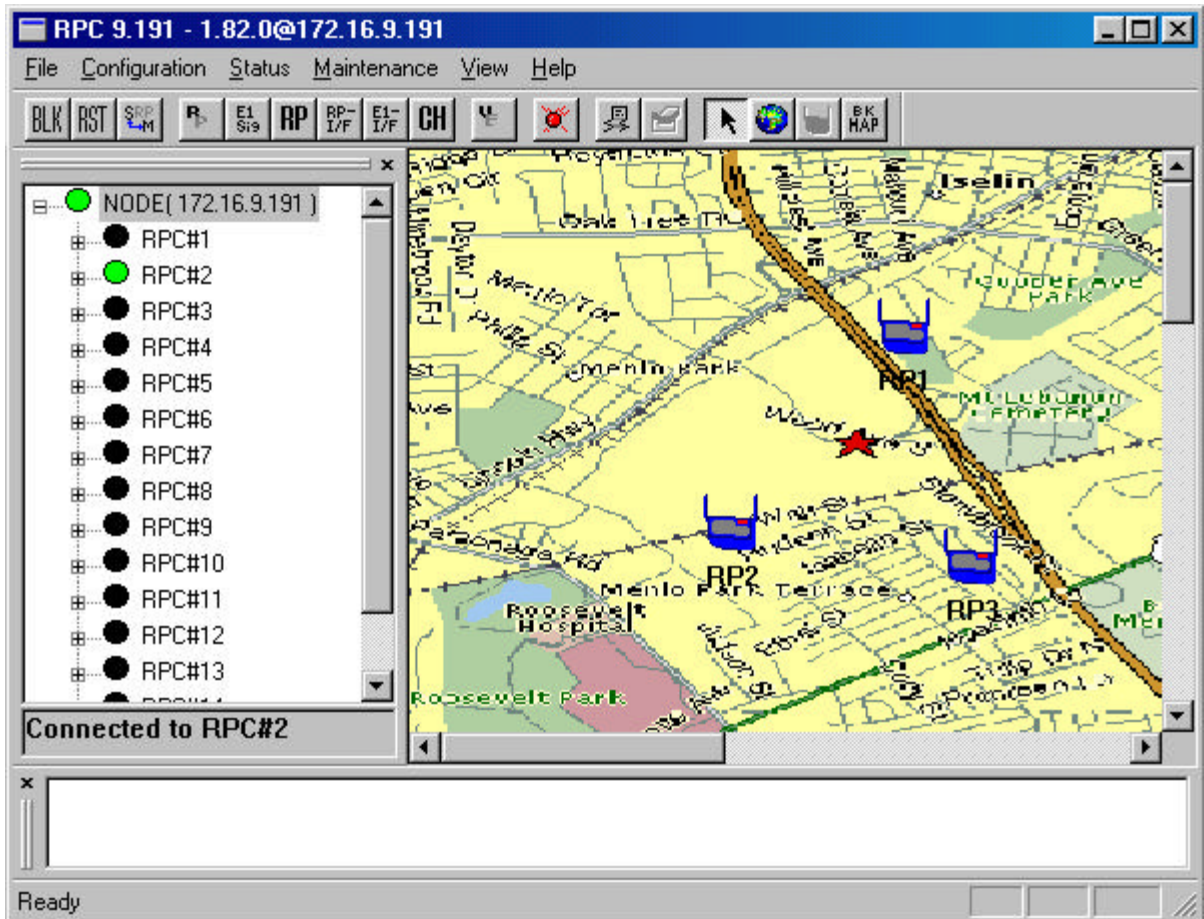


Figure 4-12: RP Map Window

3. To return to the RPC map, click Node on the **Unit View** window. To re-access the RP map, double click the target RPC icon on the RPC map.
4. The RP icons can be moved, deleted, or moved to the front or back of the background map. Their properties can also be modified. To perform these operations right click the target RP icon and select the relevant option from the pop-up menu.

4.2 RPC Configuration

This section describes the procedures of provisioning an RPC. Double click the target RPC node on the **Main View** window to open the **Connect RPCs** window. Select the target RPCs and click **OK**. This opens the **RPC** window, as illustrated in Figure 4-13. With this window open we can perform various types of configuration to the connected RPCs.