Technical Note #31

RAS - Host and View Node

Subject: Configuring a Host and a View Node to communicate via modems.

Applies To: PMCS 5.0 / Windows NT 3.51. For later versions of PMCS and NT the process is similiar. Please see your user manuals for exact instructions.

To perform the following tasks, you will need a Windows NT Workstation CD (or diskettes). Due to the possibility of unique, existing NT system configurations, the following steps may vary slightly.

RAS - Host Configuration with No Network Adapter Installed:

1. Access: Main/Control Panel/Network. Network Settings dialog: "Windows NT Networking is not installed. Install now?". Click: *Yes*. **Note**: If you are not prompted with this dialog box, your NT Networking Software has been previously installed. If this is the case, and there is no Network Adapters listed, it will be easier to Remove the installed Network Software and start again. If there is a Network Adapter Installed, go to the next section in this document: Host Configuration with a Previously Installed Network Adapter.
2. Windows NT Setup dialog: Insert your original NT installation disks or CD, enter path, and click *Continue*.
3. Net Adapter Card Detection dialog: Click: *Do Not Detect*.
4. Net Adapter Card Detection dialog: Click: *Remote.*
5. Windows NT TCP/IP Installation Options dialog: Select all Components check boxes, except Connectivity Utilities. Do not select check box Enable Automatic DHCP Configuration. Click: *Continue*.
6. SNMP Service Configuration dialog: Click: *OK*.
7. Windows NT dialog: FTP security question: Click: *Yes*.
8. FTP Service dialog: Take all defaults, Click: *OK*.
9. Remote Access Setup dialog: Automatic restoration of network connections question: Click: *OK*.
10. If the correct modem is **not** displayed, you must Add it now.
11. Your modem should now be displayed and highlighted.
12. Remote Access Setup dialog: Click: *Configure*.
13. Configure Port dialog: Select radio button: *Receive calls only*. Click: *OK*.
14. Remote Access Setup dialog: With your modem displayed and highlighted, Click: *Network*.
15. Network Configuration dialog: Select Server Settings check boxes: *NetBEUI* and *TCP/IP*. Select radio button: *Require Microsoft encrypted authentication*. Click: *OK*.
16. RAS Server NetBEUI Configuration dialog: Select radio button: *This computer only*. Click: *OK*.

17. RAS Server TCP/IP Configuration dialog: Select radio button: *This computer only*. Select radio button: *Use static address pool*. Enter into Begin field: *1.2.3.4*. Enter into End field: *1.2.3.14*. Click: *OK*. **Note**: Any valid address range can be entered.
18. Remote Access Setup dialog: Click: *Continue*.
19. Setup Message dialog: Message advising you to install MS Loopback Adapter: Click: *OK*.
20. Network Settings dialog: Click: *Add Adapter*.
21. Add Network Adapter dialog: Select from dropdown list: *MS Loopback Adapter*. Click: *Continue*.
22. MS Loopback Adapter Card Setup dialog: Take the Frame Type default, Click: *OK*.
23. Windows NT Setup Dialog: Enter: path. Click: *Continue*.
24. Network Settings dialog: Click: *OK*.
25. TCP/IP Configuration dialog: Enter IP Address: *1.2.3.15*. Enter Subnet Mask: *255.0.0.0*. Click: *OK*. **Note**: Any valid address can be entered.
26. Domain/Workgroup Settings dialog: Take default, Click: *OK*. **Note**: You do not need to take the default.
27. Windows NT Workstation Networking Setup dialog: Click: *Restart Computer*.
28. Access: Main/Control Panel/Services.
29. Services dialog: Double-click from list: *Remote Access Server*.
30. Service dialog: Select Startup Type radio button: *Automatic*. Click: *OK*.
31. Services dialog: Click: *Close*.
32. Shutdown and Restart computer.
33. Access: Remote Access Service/Remote Access Admin. **Note**: You should see your computer name listed under Server with the Condition as Running. If you do not see your computer name listed, close Remote Access Admin, wait one minute, and try again. The RAS Service may not have had enough time to startup. If you still cannot see it, try typing the computer name in the Server/Start Remote Access Service/Server dialog box. If this does not start RAS, see the Administrator Tools/Event Viewer for more information.
34. Remote Access Admin dialog: Click: *Users*. Click: *Permissions*.
35. Remote Access Permissions dialog: Click: The user that the view node will login as. Click check box*: Grant dialin permission to user*. Click: *OK*.

RAS - Host Configuration with a Network Adapter Installed:

1. Access: Main/Control Panel/Network. Click: *Add Software*.
2. Add Network Software dialog: Select from dropdown list: *Remote Access Service*. Click: *Continue*.
3. Windows NT Setup dialog: Insert your original NT installation disks or CD, enter path, and click *Continue*.
4. If the correct modem is **not** displayed, you must Add it now.
5. Your modem should now be displayed and highlighted.
6. Remote Access Setup dialog: Click: *Configure*.
7. Configure Port dialog: Select radio button: *Receive calls only*. Click: *OK*.
8. Remote Access Setup dialog: With your modem displayed and highlighted, Click: *Network*.
9. Network Configuration dialog: Select Server Settings check boxes: *NetBEUI* and *TCP/IP*. Select radio button: *Require Microsoft encrypted authentication*. Click: *OK*.
10. RAS Server NetBEUI Configuration dialog: Select radio button: *This*

computer only. Click: *OK*.

11. RAS Server TCP/IP Configuration dialog: Select radio button: *This computer only*. Select radio button: *Use static address pool*. Enter into Begin field: *1.2.3.4*. Enter into End field: *1.2.3.14*. Click: *OK*. **Note**: Any valid address range can be entered.

12. Remote Access Setup dialog: Click: *Continue*.

13. Remote Access Setup dialog: Message about how to set RAS permissions, Click: *OK*.

14. Network Settings dialog: Click: *OK*.

15. Network Settings Change dialog: Message stating that the network settings have changed: Click: *Restart Now*.

16. Access: Main/Control Panel/Services.

17. Services dialog: Double-click from list: *Remote Access Server*.

18. Service dialog: Select Startup Type radio button: *Automatic*. Click: *OK*.

19. Services dialog: Click: *Close*.

20. Shutdown and Restart computer.

21. Access: Remote Access Service/Remote Access Admin. **Note**: You should see your computer name listed under Server with the Condition as Running. If you do not see your computer name listed, close Remote Access Admin, wait one minute, and try again. The RAS Service may not have had enough time to startup. If you still cannot see it, try typing the computer name in the Server/Start Remote Access Service/Server dialog box. If this does not start RAS, see the Administrator Tools/Event Viewer for more information.

22. Remote Access Admin dialog: Click: *Users*. Click: *Permissions*.

23. Remote Access Permissions dialog: Click: The user that the view node will login as. Click check box*: Grant dialin permission to user*. Click: *OK*.

RAS - View Node Configuration with No Network Adapter Installed:

1. Access: Main/Control Panel/Network. Network Settings dialog: "Windows NT Networking is not installed. Install now?". Click: *Yes*. **Note**: If you are not prompted with this dialog box, your NT Networking Software has been previously installed. If this is the case, and there is no Network Adapters listed, it will be easier to Remove the installed Network Software and start again. If there is a Network Adapter Installed, go to the next section in this document: Host Configuration with a Previously Installed Network Adapter.

2. Windows NT Setup dialog: Insert your original NT installation disks or CD, enter path, and click *Continue*.

3. Net Adapter Card Detection dialog: Click: *Do Not Detect*.

4. Net Adapter Card Detection dialog: Click: *Remote*.

5. Windows NT TCP/IP Installation Options dialog: Select all Components check boxes, except Connectivity Utilities. Do not select check box Enable Automatic DHCP Configuration. Click: *Continue*.

6. SNMP Service Configuration dialog: Click: *OK*.

7. Windows NT dialog: FTP security question: Click: *Yes*.

8. FTP Service dialog: Take all defaults, Click: *OK*.

9. Remote Access Setup dialog: Automatic restoration of network connections question: Click: *OK*.

10. If the correct modem is **not** displayed, you must Add it now.

11. Your modem should now be displayed and highlighted.

12. Remote Access Setup dialog: Click: *Configure*.

13. Configure Port dialog: Select radio button: *Dial out only*. Click: *OK*.

14. Remote Access Setup dialog: With your modem displayed and highlighted, Click: *Network*.
15. Network Configuration dialog: Select Dial out Protocols check boxes: *NetBEUI* and *TCP/IP*. Click: *OK*.
16. Remote Access Setup dialog: Click: *Continue*.
17. Network Settings dialog: Click: *OK*.
18. TCP/IP Configuration dialog: Keep defaults, Click: *OK*.
19. Windows NT Workstation Networking Setup dialog: Click: *Restart Computer*.
20. Access: Remote Access Service/Remote Access. Add a phone book entry for the Host computer.

RAS - View Node Configuration with a Network Adapter Installed:

1. Access: Main/Control Panel/Network. Click: *Add Software*.
2. Add Network Software dialog: Select from dropdown list: *Remote Access Service*. Click: *Continue*.
3. Windows NT Setup dialog: Insert your original NT installation disks or CD, enter path, and click *Continue*.
4. If the correct modem is **not** displayed, you must Add it now.
5. Your modem should now be displayed and highlighted.
6. Remote Access Setup dialog: Click: *Configure*.
7. Configure Port dialog: Select radio button: *Dial out only*. Click: *OK*.
8. Remote Access Setup dialog: With your modem displayed and highlighted, Click: *Network*.
9. Network Configuration dialog: Select Dial out Protocols check boxes: *NetBEUI* and *TCP/IP*. Click: *OK*.
10. Remote Access Setup dialog: Click: *Continue*.
11. Network Settings dialog: Click: *OK*.
12. Windows NT Workstation Networking Setup dialog: Click: *Restart Computer*.
13. Access: Remote Access Service/Remote Access. Add a phone book entry for the Host computer.

NetDDE - Host Configuration:

If applicable, replace GE16MODB with GE16ENET throughout.

1. Run …\SYSTEM32\DDESHARE.EXE. **Note:** For future convenience, you can create a Program Group with a DDESHARE icon.
2. DDE Shares dialog: Click: *Shares*. Click: *DDE Shares…*. Click: *Add a Share…*
3. DDE Share Properties dialog: Enter Share Name: *GE16MODB/** Enter Old Style, Application Name: *GE16MODB* Enter Old Style, Topic Name: * Select check box: *Allow start application*. Select Item Security radio button: *Grant access to all items*. Click: *Permissions…*.
4. DDE Share Name Permissions dialog: Click: *Everyone*. Select from Type of Access dropdown: *Full Control*. Click: *OK*.
5. DDE Share Properties dialog: Click: *OK*.
6. DDE Shares dialog: Click: *GE16MODB/**. Click: *Trust Share…*.
7. Trusted Share Properties dialog: Select all check boxes. Enter into value

field: *2*. Click: *OK*.

8. DDE Shares dialog: Click: *OK*.

Note: Trusted shares can be lost upon rebooting the computer. If you are experiencing problems with a view node accessing the host node after reboot, try deleting the GE16MODB|* share and performing the steps listed above again. It also may be helpful for troubleshooting purposes to look at NT's Event Viewer on the Host and View nodes.

NetDDE on the View Node:

If you are experiencing trouble accessing the Host node, it may be due to the order in which your Services are started. To see if this is the problem, try:

1. Make the RAS connection.
2. Launch …SYSTEM32\DDESHARE.EXE to start the NetDDE Service.
3. Launch the DDE client application (i.e. Excel, InTouch, …).

Keywords:
RAS; Remote Access; NetDDE

Related Notes:
PMCS Network and Device Configurator manual (GEH-6510)

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