

4 Port Network Adapter Installation Guide for Intel and Alpha based Servers

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Revision History

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3.0	Mar 8th, 1999	Kiarash Owrang	Updated to include the ANA-62044 installation procedure. Employing #PRE to maintain a stable dedicated network connection between PM and Satellite.
	Mar 8th, 1999	Cristian Gogeoman	Updated to include the DE504 installation procedure for the 4 port card on Alpha based servers.
4.0	Nov 4, 1999	Kiarash Owrang	Updated for newer driver version of 62044 that DG and CREO has switched on.

Creo Products Inc.

4 Port Network Adapter
Installation Guide for Intel and Alpha Servers

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1. INTRODUCTION

This document provides step-by-step instructions for a successful installation of:

- **DE504**, a 4 port network adapter card on the **Alpha2100A** and **Alpha5300** servers; and
- **Adaptec ANA-6944B** and **ANA-62044** Fast Ethernet Network Interface cards on **AV2600**, **AV2700** and **AV3700 DataGeneral** servers.

A 4 port card is used to decrease the main network traffic in a PlateMaster configuration by creating back-to-back network connections (100bT) and redirecting the communication between the PlateMaster and the Creo Satellites or AllegroWorkstations. The systems will still be accessible through the main network by all other systems existing in the main network.

For each PlateMaster or system installed with DE504/ANA-6944B/ANA-62044 cards, two configurations are possible:

1. DE504/ANA-6944B/ANA-62044 in addition to the default existing network card:
    - All 4 ports will be configured on independent subnets to match their back-to-back connected systems (see Table II)
2. DE504/ANA-6944B/ANA-62044 alone: (by removing the default existing network card)
    - The first port is configured for and connected with the main network. The remaining 3 ports are configured on independent subnets to match their back-to-back connected systems (see Table III)

Each Creo Satellite or Allegro Workstation will have two network connections (two network adapter cards):

- One network adapter card configured for and connected with the main network
- One network adapter card configured on the same independent subnet as its back-to-back connection (one of the three or four PlateMaster network ports)

Important: Back-to-back (direct) connections between two systems will be obtained by using a crossover network cable and by configuring these two ports on the same independent subnet. In order to establish a permanent back-to-back connection, a LMHOSTS file will be used on each system. This file will have the necessary information for loading into its cache the NETBIOS name of the other back-to-back connected system.

2. INSTALLATION PROCEDURE – DATA GENERAL INTEL PLATFORMS

2.1 ANA 6944B and ANA 62044 Installation on PlateMaster Side

The following procedure details the installation of ANA-6944B and ANA-62044 network interface cards and contains several steps that are unique to each card.

Note: Naming conventions for ports are based on port 1 being the closest to the slot screw.

1. Install the adapter in the appropriate PCI:

- DG 2700: The preferred slot is PCI BUS 0 slot 3. If this slot is not available, use BUS 1 PCI slot 2.
- DG 3700: The preferred slot is PCI BUS 1 slot 2 or PCI BUS 1 slot 3.

  Note: The installation of the four port card on the DG 3700 server will result in an error message. See section 2.2 of this document, "DG 3700 Four-Port Card Installation Error Message", for information.
- DG 2600: Use any of the top 3 PCI slots.
- DG 2300: Appropriate slots in order of preference are PCI BUS 0 slot 2, 3, 1.

2. Log on as administrator.
3. Right-click on the network neighborhood icon and select **Properties** OR go to Start/Settings/Control Panel and click on the **Network** icon.
4. Select the **Adapters** tab and click **Add**.
5. ***ANA 6944B only:*** Insert the NT driver diskette.

   ANA-62044 only:

   - If you are using driver v 4.1 then insert the diskette labeled "LAN Duralink 64 Fail Over Drivers for DuraLAN Disk 1 of 2" in the floppy drive.
   - If you are using driver v 4.2 then insert the diskette labeled "Duralink 64 v 4.2 for DuraLAN ANA-62000 & 69000 family" in the floppy drive.

6. Click **Have Disk**.
7. ***ANA-6944B only:*** Type **a:\winnt\i386** (the path to your Adaptec drivers on the diskette). Click **OK.**

   ANA-62044 only: Type **a:** Click **OK.**
8. ***ANA-6944B only:*** Select the **Adaptec ANA-6944B/TX Quartet PCI Fast Ethernet** adapter.

   ANA-62044 only :

   Driver version 4.1:

   8.1. Select the **Adaptec ANA-62044 Fast Ethernet NIC** adapter

Driver version 4.2:

8.1. Select the **Adaptec DuraLAN Fast Ethernet NIC** adapter.

8.2. In the "Adaptec DuraLAN NIC driver installation" window select **Standard**.

9. Select the exact network connection type based on what customer has in his own network (for example: 100Mb/half duplex) and click **OK**.
10. Repeat this procedure for each port.

    Note: In this stage do not **Cancel.**

11. Click on the bindings tab and show bindings for "All services".
12. Select each service that is listed and click on **Move Up** to bring the satellite ports to the top of each list.

For example, showing the bindings for "All services" and selecting **NETBIOS Interface/ WINS Client** will display a list similar to the example below:

[4] Remote Access WAN Wrapper
[5] Remote Access WAN Wrapper
[7] Adaptec ANA 6944 B / Adaptec ANA 62044
[8] Adaptec ANA 6944 B / Adaptec ANA 62044
[9] Adaptec ANA 6944 B / Adaptec ANA 62044
[6] Adaptec ANA 6944 B / Adaptec ANA 62044
[1] Intel Ether Express Pro adapter

Click **Move up** to bring the satellite ports to the top of the list:

[6] Adaptec ANA 6944 B / Adaptec ANA 62044
[7] Adaptec ANA 6944 B / Adaptec ANA 62044
[8] Adaptec ANA 6944 B / Adaptec ANA 62044
[9] Adaptec ANA 6944 B / Adaptec ANA 62044
[1] Intel Ether Express Pro adapter
[4] Remote Access WAN Wrapper
[5] Remote Access WAN Wrapper

Additional RAS instances can be placed at the bottom of the list.

13. Repeat step 12 for "All protocols".
14. Click **OK** to accept the bindings. Do not reboot the system.
15. Right-click on the network neighborhood icon and select **Properties** OR go to Start/Settings/Control Panel and click on the **Network** icon.
16. Select the **Protocols** Tab.
17. Select TCP/IP Protocol and click **Properties**.
18. Assign a real static IP address for each Adaptec adapter. Each port must be assigned an IP address belonging to a different subnet.

    Note: The DG 2700 and DG 2600 have a built-in 100BT card that is most often configured for the main network (main subnet). The IP address of the main subnet cannot be assigned to any of the four ports. The settings in Table I were used in lab

testing and are provided as an example. Consult with the IS department of the site to receive the optimum network addresses for the four separate subnets.

Table I - Lab Settings

	Built in Adapter Main Network	Satellite. Port1	Satellite. Port2	Satellite Port3	Satellite Port4
IP Address	DHCP set	6.0.0.1	7.0.0.1	8.0.0.1	9.0.0.1
Subnet Mask	NA	255.0.0.0	255.0.0.0	255.0.0.0	255.0.0.0
Def Gateway	NA	Blank	Blank	Blank	Blank
DNS	NA	Blank	Blank	Blank	Blank
Prim WINS	NA	Blank	Blank	Blank	Blank
Sec WINS	NA	Blank	Blank	Blank	Blank

19. Close the **Network Properties** window. Ignore the warning about missing WINS addresses
20. Reboot the system.
21. Right-click on the network neighborhood icon and select **Properties** OR go to Start/Settings/Control Panel and click on the **Network** icon. Select the **Bindings** tab to ensure listings for "All services" and "All protocols" are correct.
22. At the DOS prompt use the "**ipconfig/all"** command to verify the functionality of the 4-port card. If it is installed correctly and functioning correctly, the correct properties of all 4 ports (for example, EMPCI 6-9), including their IP addresses and subnet masks, will be shown.
23. Open the "hosts" file located at: "System Drive/WinNT/System32/Drivers/etc/hosts.
24. Add the name and the IP address of the satellite servers in "hosts" file. The following lines are provided as an example:

    6.0.0.2 *sat1-name*

    7.0.0.2 *sat2-name*

    Note: Each Satellite can have more than one network interface card, and must have different IP addresses for each card. The Satellite IP address listed above is on the dedicated network, not the main network.
25. Create "lmhosts" file at the same location (System Drive/WinNT/System32/Drivers/ etc/lmhosts).

    Note: If using "lmhosts.sam", file must be cleaned before saving as "lmhosts".
26. Add the name and the IP address of the satellite servers in "lmhosts" file. The following lines are provided as an example:

    6.0.0.3 *sat1-name* *#PRE*

    7.0.0.3 *sat2-name* *#PRE*

    Note: Each Satellite can have more than one network interface card, and must have different IP addresses for each card. The Satellite IP address listed above is on the dedicated back to back network, not the main network.

27. Right-click on the network neighborhood icon and select **Properties** OR go to Start/Settings/Control Panel and click on the **Network** icon. Select the **Protocols** tab, **TCP/IP properties**.
28. Select the **WINS** tab and for all of the network instances from the pull-down menu (including the main network adapter and all of the satellite ports) and enable the "**lmhost** lookup" for each listing.
29. Apply NT4 Service Pack 3.
30. Reboot the system.
31. If you have one Satellite server connected, you can disable other adapter instances of your 4-port card (for information on disabling extra ports on the 4-port card refer to section 6 of this document, “Adapter Disabling Procedure”).

2.2 DG 3700 4-Port Card Installation Error Message

Installation of the ANA-6944B and ANA-62044 network interface card on the 3700 server will result in the following error message:

```
Non-volatile settings were INVALID, memory was reprogrammed.
```

Follow the steps outlined below:

1. Press CTRL+C to start Symbios Configuration Utility.
2. Select “Adapter Boot Order” and press ENTER.
3. SYM53C810 has been assigned a boot number of 0, while the two entries for SYM53C896 are blank.
4. Select the first entry of SYM53C896 and assign a boot order of 1. Press ENTER.
5. Select the second entry of SYM53C896 (listed immediately below SYM53C896) and assign a boot order of 2. Press ENTER.
6. Press ESC to save the new settings in nonvolatile RAM.
7. Press any key to reboot the system.

2.3 Settings on Satellite/Allegro Workstation Side

1. Install the second network adapter and repeat steps 11-13 of section 2.1. With two adapters and the RAS instances, only the adapter instance connected to the dedicated network is moved up and the bindings will appear as follows:

   [6] Second Adapter for dedicated network connection (back-to-back network)

   [1] Main network adapter

   [4] Remote Access WAN Wrapper

   [5] Remote Access WAN Wrapper
2. Add the dedicated network IP address of PlateMaster in the “hosts” file. For example:

6.0.0.1 *plate-master-name*

3. Add the dedicated network IP address of PlateMaster in the “lmhosts” file. For example:

   6.0.0.1 *plate-master-name* *#PRE*

4. Right-click on the network neighborhood icon and select **Properties** OR go to Start/Settings/Control Panel and click on the **Network** icon. Select the **Protocols** tab, **TCP/IP properties**.
5. Click on the **WINS** tab, and select check "lmhost lookup" for both of the network adapter instances.
6. Restart the system.
7. It is recommended to run NT4 Service Pack 3 at this time.

3. INSTALLATION PROCEDURE – DEC ALPHA PLATFORMS

3.1 DE504 installation on PlateMaster side

Note: Naming conventions for ports are based on port 1 being the closest to the slot screw.

1. Log on as Administrator. Check the systems for network functionality. Make a note of the network configuration (**Control Panel/Network**) and also check **Event Viewer** for existing system problems.
2. **If the system is expected to have only DE504 installed, procedure with the following step. If DE504 is installed in addition to the existing network adapter card, please ignore this step and go to step 3**.
   - Write down all the settings of existent network configuration (**Control Panel/Network/Adapters-Properties** and **TCP/IP-Properties**) – these settings will be used for setting up the first port of the DE504 adapter.
   - Close **Properties**. Do not restart.
   - Highlight the existing adapter and choose **Remove**.
3. Close **Network**. Click on **Yes** to restart the system.
4. When the system is rebooting, at AlphaBios screen, check the bios for minimum recommended versions: Alpha2100A – **4.56**; Alpha5300 – **4.64**. If AlphaBios version is less than recommended, please update it now. Power off the system.
5. **If the system is expected to have only DE504 installed, physically remove the existing network adapter card now.**
6. Add the DE504 network adapter card into the appropriate PCI slot. Boot up the system.
   - For Alpha2100A: PCI 7 (lowest slot).
   - For Alpha5300: 3rd PCI (counting from bottom).
7. After logging back in, open **Control Panel/Network/Adapter** tab and click **Add.**

8. At the **Select Network Adapter** click **Have Disk**, insert the diskette provided with the adapter by DEC. Type the path to your drivers **a:\winnt\alpha**. Click **OK.**
9. Choose **Digital Semiconductor 21143 10/100mpbs Ethernet Controller** and as a connection, choose the appropriate speed for the customer's network - for back-to-back connections, the recommended speed is **100BaseTx(TP100)**. Click **OK** to continue at the message stating that a similar card has already been installed.
10. Repeat this step for each of the 4 ports.

    Important: Do not hit **Cancel** at this time. A successful installation should have all 4 ports installed before unused ports can be disabled.
11. Four adapters are now listed – **Digital Semiconductor 21143 10/100mpbs Ethernet Controller**, click **Close**.
12. At the **Microsoft TCP/IP** window, choose adapter (1) from the pull down **Adapter** list (only adapter on the main network). Specify a real static IP address along with the other settings. Check with the site network administrator for IP address, DNS, WINS, Default Gateway, etc.
13. Click the **WINS Address** tab, **check LMHOSTS Lookup** and **uncheck Enable DNS for Windows Resolution** box.
14. Click the **Routing** tab and **uncheck Enable IP Forwarding** box.
15. From the same pull down menu, choose one-by-one the other 3 or 4 adapters left and type in a different static IP address on a different subnet.

    Note: The 3 or 4 ports will only be connected back-to-back with Creo Satellites and/or AllegroWorkstations. The only settings required are different static IP addresses and their subnet masks. Verify that each adapter has the same settings as those described in steps 13-14.

    The following table should be used as a configuration example only. The main network adapter should have the TCP/IP settings obtained from the on site Network Administrator.

Table II: DE504 in addition to existing network adapter card.

PlateMaster					
Adapter ID:	(1)	(6)	(7)	(8)	(9)
	Default adapter	DE504-1st port	DE504-2nd port	DE504-3rd port	DE504-4th port
IP Address:	192.197.218.23	10.0.0.1	11.0.0.1	12.0.0.1	13.0.0.1
Subnet Mask:	255.255.255.0	255.0.0.0	255.0.0.0	255.0.0.0	255.0.0.0
Def.Gateway:	192.197.218.254	none	none	none	none
DNS:	204.174.12.40	none	none	none	none
Prim. WINS:	192.168.1.1	none	none	none	none
Sec. WINS:	204.174.12.40	none	none	none	none
Check	Enable LMHOSTS Lookup (at WINS Address Tab)				
Uncheck	Enable DNS for Windows resolution (at WINS Address Tab)				
Uncheck	Enable IP Forwarding (at Routing tab)				

Creo Satellites (back to back connection only)					
Adapter ID:	(1)	(6)	(6)		
	Def.Ad. for both	AWS	PreScript Sat.		
IP Address:	192.197.218.**X**	10.0.0.2	11.0.0.2		
Subnet Mask:	255.255.255.0	255.0.0.0	255.0.0.0		
Def.Gateway:	192.197.218.254	none	none		
DNS:	204.174.12.40	none	none		
Prim.WINS:	192.168.1.1	none	none		
Sec. WINS:	204.174.12.40	none	none		
Check	Enable LMHOSTS Lookup (at WINS Address Tab)				
Uncheck	Enable DNS for Windows resolution (at WINS Address Tab)				
Uncheck	Enable IP Forwarding (at Routing tab)				

Where:

- **X** is a individual IP number assigned by the on site Network Administrator to each of the two Creo Satellites and/or Allegro Workstations.
- **Adapter ID (_)** is a number given by NT to each adapter installed on the system. If a second network adapter is installed after RAS, its Adapter ID or number will be different than (2) or (3). Those numbers will be taken by the instances that the RAS connects with.

Table III: DE504 as only network adapter card installed

PlateMaster					
Adapter ID:	(1)	(6)	(7)	(8)	
	DE504-1st port	DE504-2nd port	DE504-3rd port	DE504-4th port	
IP Address:	192.197.218.23	10.0.0.1	11.0.0.1	12.0.0.1	
Subnet Mask:	255.255.255.0	255.0.0.0	255.0.0.0	255.0.0.0	
Def.Gateway:	192.197.218.254	none	none	None	
DNS:	204.174.12.40	none	none	None	
Prim. WINS:	192.168.1.1	none	none	None	
Sec. WINS:	204.174.12.40	none	none	None	
Check	Enable LMHOSTS Lookup (at WINS Address Tab)				
Uncheck	Enable DNS for Windows resolution (at WINS Address Tab)				
Uncheck	Enable IP Forwarding (at Routing tab)				
Creo Satellites (back to back connection only)					
Adapter ID:	(1) on both	(6)	(6)		
	Def.Ad. for both	AWS	PreScript Sat.		
IP Address:	192.197.218.**X**	10.0.0.2	11.0.0.2		
Subnet Mask:	255.255.255.0	255.0.0.0	255.0.0.0		

Def.Gateway:	192.197.218.254	none	none		
DNS:	204.174.12.40	none	none		
Prim.WINS:	192.168.1.1	none	none		
Sec. WINS:	204.174.12.40	none	none		
Check	Enable LMHOSTS Lookup (at WINS Address Tab)				
Uncheck	Enable DNS for Windows resolution (at WINS Address Tab)				
Uncheck	Enable IP Forwarding (at Routing tab)				

Where:

- **X** is a individual IP number assigned by the on site Network Administrator to each of the two Creo Satellites and/or Allegro Workstations.
- **Adapter ID (_)** is a number given by NT to each adapter installed on the system. If a second network adapter is installed after RAS, its Adapter ID or number will be different than (2) or (3). Those numbers will be taken by the instances that the RAS connects with.

16. Close **Network** window, ignore warning about missing WINS addresses. Close **Control Panel**, but ***do not reboot*** at this time.
17. Start a DOS shell and run REGEDT32.EXE from the command line. Please use caution. You will see 5 windows. Make active the window labeled "**HKEY_LOCAL_ MACHINE**", expand it to full screen, double-click to open the following nested folders in the left vertical pane of the window:

    System -> **Current Control Set** -> **Services** -> **DC21X4** (no numeric suffix) -> **Linkage**.
18. In the **Linkage** folder there are three Keys which need to have their Values edited:

    - Bind
    - Export
    - Route

    For each of these Keys double-click on the Key in the right hand panel, which will bring up an edit window which appears similar to the following example:

    \DEVICE\DC21X4 7
    \DEVICE\DC21X4 8
    \DEVICE\DC21X4 9
    \DEVICE\DC21X4 6

    Edit the lines to appear like the following example:

    \DEVICE\DC21X4 6
    \DEVICE\DC21X4 7
    \DEVICE\DC21X4 8
    \DEVICE\DC21X4 9

19. Click OK to close the edit window, double-click and edit the other two Values (**Export** and **Route**). For **Route**, the Values are enclosed within quotes – repeat the same procedure, changing only the numeric order.
20. After editing these three Keys, close REGEDT32.EXE.
21. Start **Windows Explorer** and find a file called "HOSTS" located in:

    "SystemDrive/Winnt/System32/Drivers/etc"

22. Open file with Notepad and edit file by adding at the end of its text, under:

    127.0.0.1 localhost

    the name of the Creo Satellites and/or Allegro Workstations with their back-to-back static IP Addresses, as in the following example:

    127.0.0.1 localhost

    10.0.0.2 cw404

    11.0.0.2 ps330

    where "cw404" as well as "ps330" should be replaced with the actual names of the systems.

23. Close "HOSTS" file by saving the changes.

    Important: Ensure that the new edited file does not have an extension.

24. In the same location ("SystemDrive/Winnt/System32/Drivers/etc"), create a **New Text Document** (text file). Edit it as follows:

    10.0.0.2 cw404 #PRE

    11.0.0.2 ps330 #PRE

    where "cw404" as well as "ps330" should be replaced with the actual names of the systems.

    Note: Systems names are lower case but PRE should appear in upper case.

25. Save the file as "LMHOSTS" without an extension. If a "txt" extension is added, remove extension.
26. Restart the system.
27. Open **Control Panel/Network** and click on the **Bindings** tab. Using the **Move Up** and **Move Down** buttons, rearrange **All services**, **All protocols** and **All adapters** in the pull down list in the following order:

    [6] Digital Semiconductor 21143 based 10/100 mpbs Ethernet Controller
    [7] Digital Semiconductor 21143 based 10/100 mpbs Ethernet Controller
    [8] Digital Semiconductor 21143 based 10/100 mpbs Ethernet Controller
    [9] Digital Semiconductor 21143 based 10/100 mpbs Ethernet Controller
    [1] "Default Adapter"
    [4] Remote Access WAN Wrapper
    [5] Remote Access WAN Wrapper

28. Click **Close**, do not restart system.
29. Repeat steps to 17-20. Restart the system

30. In both registry and bindings, all 4 or 5 adapters should be in the required order and functional. Use **ipconfig/all** and **ping** commands at the DOS prompt to verify the functionality. Use **nbtstat –c** command to check if the Creo Satellites and/or Allegro Workstations netbios names where cached together with their back-to-back static IP Addresses.
31. It is recommended to run NT4 Service Pack 3 at this time and to restart when prompted.

3.2 Settings on Satellite/Allegro Workstation side

1. After the second network adapter card has been physically added to each of the Creo Satellite and/or Allegro Workstations, log on as Administrator. Follow these steps for each of the systems involved in the configuration.
2. Open **Control Panel/Network/Adapter** tab and click **Add**.
3. At the **Select Network Adapter** install its drivers. Click **OK.**
4. At the **Microsoft TCP/IP** window, choose the new adapter from the pull down **Adapter** list Specify the back-to-back IP address along with the network mask as described in the lower part of Table II and III. Do not change the settings of the default adapter (1).
5. Click **WINS Address** tab, **check LMHOSTS Lookup** and **uncheck Enable DNS for Windows Resolution** box.
6. Click **Routing** tab and uncheck **Enable IP Forwarding** box.
7. Close **Network** window, ignore warning about missing WINS addresses. Close **Control Panel**, but ***do not reboot*** at this time.
8. Start **Windows Explorer** and find a file called "HOSTS" located in:

   "SystemDrive/Winnt/System32/Drivers/etc"
9. Open file with Notepad and edit file by adding at the end of its text, under:

   127.0.0.2 localhost

   the name of the PlateMaster with its back to back static IP Address, as in the following example:

   127.0.0.1 localhost

   10.0.0.1 pm230

   where "pm230" should be replaced with the actual name of the PlateMaster.
10. Close "HOSTS" file by saving the changes. Ensure that the new edited file does not have an extension.
11. In the same location ("SystemDrive/Winnt/System32/Drivers/etc"), create a **New Text Document** (text file). Edit file as follows:

    10.0.0.1 pm230 #PRE

    where "pm230" should be replaced with the actual name of the PlateMaster.

    Note: Systems names are lower case but PRE should appear in upper case.

The back to back static IP Address of the PlateMaster will change for each Creo Satellite and/or Allegro Workstation that has to be configured (11.0.0.1; 12.0.0.1; 13.0.0.1).

12. Save the file as "LMHOSTS" without any extension. If a "txt" extension is added, remove extension.
13. Restart the system.
14. Open **Control Panel/Network** and click on the **Bindings** tab. Using the **Move Up** and **Move Down** buttons, rearrange **All services**, **All protocols** and **All adapters** in the pull down list in the following order:

    [6] "Second Adapter for back to back connection"
    [1] "Default Adapter"
    [4] Remote Access WAN Wrapper
    [5] Remote Access WAN Wrapper

15. Click **Close** and restart.
16. Use **ipconfig/all** and **ping** commands at the DOS prompt to verify functionality. Use **nbtstat –c** command to verify that the PlateMaster netbios name was cached together with its back-to-back static IP Address.
17. It is recommended to run NT4 Service Pack 3 at this time and to restart when prompted.

4. UNINSTALL PROCEDURE

1. Right-click on the network neighborhood icon and select **Properties** or go to Start/Settings/Control Panel and click on the **Network** icon. Select the **Adapters** tab.
2. **Remove** each DE504/ANA-6944B/ANA-62044 listing.
3. Open the "hosts" and "lmhosts" file.
4. Remove lines related to Satellite dedicated IP addresses.
5. Shut down the system.
6. Remove the 4 port card from the slot.

5. VERIFICATION OF DATA TRANSFER

1. On PlateMaster, open the performance monitor and add all instances of "Network Interface".
2. Perform a file transfer between PlateMaster and one of the stations on the main network to determine the network instance that will be activated during the main network file transfer.
3. Perform a network file transfer between PlateMaster and Satellite server.
4. This time another instance should be activated, which means the data is going through the dedicated network.

6. ADAPTER DISABLING PROCEDURE

Do **NOT** attempt to remove extra ports. Extra adapters can be disabled by following the procedure outlined below:

1. Right-click on the network neighborhood icon and select **Properties** OR go to Start/Settings/Control Panel and click on the **Network** icon.
2. Click on the bindings tab and show bindings for "All adapters".
3. Select the adapter to be disabled.
4. Click **Disable**.

Note: The installation of the 4-port network card may affect network browsing speed. Slow network browsing speed can be partially prevented by disabling unused ports.

7. REMARKS AND SIDE EFFECTS OF INSTALLING A 4 PORT NETWORK ADAPTER CARD

- After installation of a 4 port card, the system will normally take a longer time to be ready after login.
- Installation of a 4 port card will slow network browsing.
- Do ***NOT remove*** unused ports. If ports are not required, disable them as described in section 6. Disabling ports will speed up network browsing.
- If the system is still slow after disabling unused ports, Apple Talk Protocol could be also disabled on all back-to-back ports (**not** the ports on the main network).
- Due to the fact that the back-to-back network connections (NETBIOS names with their static IP Addresses) are cached on all systems, disconnection of a crossover cable between PlateMaster and a Creo Satellite (or Allegro Workstation) would make it impossible to establish any network transaction between those systems. Both systems are accessible from the main network.