Technical Note



Verifying Network Settings

## Introduction

The NV9000 system controller's network ports must be assigned the correct IP addresses and must be placed in a certain "binding order."

The ordering and the IP addresses of the netwoks are as follows:

Network	Primary IP Address	Secondary IP Address
Control net	172.16.1.1	172.16.1.2
Panel and Router Net 1	192.168.1.1	192.168.1.2
Panel and Router Net 2	192.168.2.1	192.168.2.2
(Panel and Router Net <i>n</i> )	192.168 <i>.xxx</i> .1 <sup>a</sup>	192.168 <i>.xxx</i> .2 <sup>b</sup>
NV9000 System Net	192.168.3.1	192.168.3.2
Master Control Net	192.168.7.201	192.168.7.202
House Net	192.168.20.1	192.168.20.2

a. The value of xxx is arbitrary for any additional panel and router networks.

b. The number of networks is limited by the number of NIC ports. To have more than 2 panel and router networks, you might add a NIC or reassign existing network ports.

Use the Advanced Settings option under Windows Network Connections to perform the ordering.

## Ordering

Follow these steps:

1 From the Windows Start menu, choose 'Network Connections':



Then choose 'Advanced Settings' from the 'Advanced' menu.

2 The 'Advanced Settings' dialog appears:



Use the up/down arrows at the right of the 'Connections' display to put the defined networks in the right order. (Select network name and click the arrow to move it.)

This ordering is known as the "binding order."

The lower display shows "bindings" for the currently selected network.

For the control net only, *check* all entries, as shown above. For the other networks, *uncheck* all entries as shown here:

Advanced Settings	? ×
Adapters and Bindings Provider Order	
Connections are listed in the order in which they are accessed by network services. Connections:	
CONTROL NET  PANEL AND ROUTER NET 1  PANEL AND ROUTER NET 2  HOUSE NET  Bindings for CONTROL NET:	t t
□       □	t J
OK Car	ncel

When you have finished, click OK to return to the 'Network Connections' window.

## **Network Properties**

Perform the following steps for each NV9000 network in your system. Repeat the process for the secondary system controller if there is one.

1 In the 'Network Connections' window, double-click the network icon to display the 'Properties' dialog. This illustration shows the properties for the control net:

Connect using:			
Bealtek RTL8169/8110 Family	Gigab Configu	re	'Configure' b
This connection uses the following ite	ems:		
Client for Microsoft Network:	8		
File and Printer Sharing for M	- tiorosoft Networks		
<ul> <li>✓ ➡ File and Printer Sharing for N</li> <li>✓ ☞ Internet Protocol (TCP/IP)</li> </ul>	dicrosoft Networks		
File and Printer Sharing for N     Tore Internet Protocol (TCP/IP)	dicrosoft Networks	es	
Registration      Regist	ficrosoft Networks	es	
Ele and Printer Sharing for N     File and Printer Sharing for N     Totaling Theorem (TCP/IP)      Install      Description     Allows your computer to access reinetwork.	icrosoft Networks	es	
File and Printer Sharing for N	ficrosoft Networks	es	

For the control net, ensure that all 3 connection items are checked. For other networks, ensure that only 'Internet Protocol (TCP/IP)' is checked.

Ensure that the 'Show icon in notification area ...' box is checked.

2 Click the 'Configure' button. The following dialog displays:

altek R	TL8169/8110 Fam	ily Gigabit E	thernet NIC Prop	erties <u>?</u>
General	Advanced Driver	Resources	Power Manageme	nt
	Realtek RTL8169/	8110 Family G	igabit Ethernet NIC	
	w the computer to tur	n off this devic	e to save power.	
E Allo	w this device to bring	the computer	out of standby.	
Г	inly allow managemer	nt stations to b	ring the computer or	ut of standby.
Warnin cause t you tray this feat the batt	g: Allowing this device his computer to period rel with this computer ure as the machine m ery.	e to bring the c dically wakeup or run it on a b nay awaken at	computer out of stan to refresh its netwo pattery, you should r inopportune times c	dby may rk state. If iot turn on ir consume
			OK	Cancel

Choose the 'Power management' tab. Ensure that 'Allow the computer to turn off this device to save power' is *unchecked*. Click OK to return to the properties dialog.

3 Highlight 'Internet Protocol (TCP/IP)' and click 'Properties'. A dialog like this one (which is for the control net) appears:

You can get IP settings assigned this capability. Otherwise, you nee the appropriate IP settings	automatically if your network suppor d to ask your network administrator	rts for
O Dbtain an IP address autom	atically	
	ε	[]
IP address:	172.16.1.1	
Subnet mask:	255 . 255 . 255 . 0	
Default gateway:	· · · ·	
C Obtain DNS server address	automatically er addresses:	
Use the following DNS server     Preferred DNS server:     Alternate DNS server:		

Ensure that there is a fixed IP address with subnet mask 255.255.255.0 for the network, according to this table:

Network	Primary IP Address	Secondary IP Address
Control net	172.16.1.1	172.16.1.2
Panel and Router Net 1	192.168.1.1	192.168.1.2
Panel and Router Net 2	192.168.2.1	192.168.2.2
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Master Control Net	192.168.7.201	192.168.7.202
House Net	192.168.20.1	192.168.20.2

Choose 'Use the following DNS server addresses' but leave the address fields blank.

		usc.		1
	Add	Edit	Bemove	
The following th	ree settings are a	Died to all conn	ections with TCP/	1
enabled. For res	olution of unquali	ied names:		/IP
<ul> <li>Append prim</li> <li>Append prim</li> <li>Append</li> </ul>	olution of unquali ary and connection parent suffixes of	ied names: on specific DNS the primary DNS	suffixes suffix	/IP
enabled. For res Append prim Append Append thes	olution of unquali hary and connectin parent suffixes of se DNS suffixes (ii	ied names: on specific DNS the primary DNS n order):	sulfixes sulfix	
enabled. For res Append prim Append Append thes	olution of unqualil nary and connection parent suffixes of se DNS suffixes (in	ied names: on specific DNS the primary DNS n order):	suffixes suffix	
enabled. For res Append prim Append Append thes	olution of unqualil nary and connecti parent suffixes of se DNS suffixes (in Add	Edit	suffixes suffix	

4 Click the 'Advanced' button. The following dialog appears:

Ensure that the 'Register this connection's addresses in DNS' option is unchecked. Click OK.

5 Close all open dialogs and return to 'Network Connections' to proceed to the next network connection you want to configure or to verify.

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