

# **QuickStart Guide**

# NV915 system controller

and Accessories

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# **NV915 Product Summary**

Your Miranda shipment contains an NV915 system controller, power cords, and this Quick Start guide. Depending on you order options, the shipment might also include cables and peripheral devices. See Figure 1.

An NV9000 router control system allows you to configure and operate routers, control panels, and other connected equipment. The NV9000 control system includes several parts that work together:

- NV915 system controller.
- NV9000-SE Utilities configuration software.
- PCs running configuration or control software.
- Routers.
- Control panels (physical or virtual).
- Optionally, master control components.
- Optionally, automation, UMD, and other subsystems.

The NV915 system controller's features include:

- Two Ethernet ports, one for routers and panels, and the other for configuration.
- Two USB ports, a COM port and a monitor port.
- Flash-based storage.
- Support for up to 32 NV96xx control panels.
- Support for up to 4 NVISION series routers.
- Small size: 1RU, 9" deep.

## **NV9000-SE Utilities**

NV9000-SE Utilities (NV9000-SE Utilities, for short) is the "next generation configuration tool" to be used with NV9000 routing control systems.

You can use it, connected to the NV915 system controller, to create and upload configurations. You can use it, detached from the NV915, to create configuration files.

NV9000-SE Utilities is designed to model, as closely as possible, the user's tasks and facility structure. It leads the user through the process of configuring a router control system.

NV9000-SE Utilities fits in the NV9000 scheme like this:



Figure 1. System Block Diagram

Figure 1. Package Contents	
NV915(s)	
NV915 Router Control System	Mirandia
(front view)	
(rear view)	
AC power cord(s)	Quick-Start Guide (this document)
	Miranda
1 software and	
documentation disk	

## Installation

To prepare the NV915 system controller for use, you must take these two steps:

- Install the NV915 hardware.
- Install the NV9000-SE Utilities software on a PC. To run the NV9000-SE Utilities, you will need a PC that supports Java 1.5 or later.

## Installing the NV915

Perform the steps that follow to install the NV915.

## **Rack Mounting**

Because the NV915 is small, you might not have enough space to reach behind it to make connections. In that case, leave this step until last.

Place the NV915 in the rack where you want it, aligning the screw holes with holes in your rack frame. Secure the router using your screws, nuts, and washers.



The mounting holes are spaced 1.25″ (31mm) vertically and allow approximately 1/8″ (3mm) of play horizontally.



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#### **Ethernet** Cable

Connect an Ethernet cable (RJ-45) to the "NVISION Net" port. (See Figure 1.) Connect the other end of that cable to an Ethernet switch. Connect your routers and control panels to the Ethernet switch.

Connect an Ethernet cable to the "Config" port. Connect the other end of that cable to the Ethernet switch. Connect the Ethernet port of the computer you intend to use for configuration to the switch.



**Figure 1. Ethernet Connectors** 

▲ Alternatively, use a crossover cable between the Config port and your PC's Ethernet port.

You will have to add the "Config" port address to your PC's network addresses. You will have to add the NV915 system controller to NV9000-SE Utilities on your configuration PC(s). See *Configuration*.

#### Power and Ground

The NV915 accepts "universal" power: 90–130/180–250 VAC, 50/60 Hz, at 0.5/0.3 A, with a 30 W maximum. Simply plug the AC cord into a main socket and into the power socket at the rear of the unit. (There is no on-off switch.) There is no special grounding requirement.



## Installing NV9000-SE Utilities

Insert the Software and Documentation CD (SB0033-*xx*) in your CD drive. The CD will auto-play. Click 'Configuration Software' in the main window. A new window appears. Then cllick 'Install NV9000-SE Utilities'. The installer will launch. When you see the first instruction screen, follow the simple instructions, clicking 'Next' as required. The entire installation takes less than a minute.

#### (Under Windows)

The default pathname of the NV9000-SE Utilities executable is:

C:\Program Files\NVISION\NV9000-SE Utilities\ NV9000-SE Utilities.exe.

(You can specify a different pathname during installation.) If you elect to add the program to the Start menu, its "path" is

Start > Programs > NVISION > NV9000-SE Utilities >
NV9000-SE Utilities

The default pathname of configuration file storage is:

C:\Documents and Settings\*current user*\CtrlSysConfigs\

where "*current user*" is a user's login ID on the PC. Note: SE creates this folder at its first launch. It is not created at installation. SE will create one such folder for each user that logs in and runs SE.

That folder contains subfolders holding configuration data. The subfolder names are the configuration names. The folder 'ControlSysDB' is a prototype containing the default configuration and, in fact, when NV9000-SE Utilities launches for the first time, it opens this configuration. This configuration is essentially "empty."

▲ We recommend that you create a desktop icon for the software.

# Configuration

These are the default IP addresses of the NV915's Ethernet ports:

- "Config" port 192.168.97.1
- "Network" port 192.168.2.1

(You can change these addresses.)

After you have installed the NV915 and NV9000-SE Utilities, two steps are required to get your system running.

- Place your PC on the NV915's Config network.
- Add the Config port to NV9000-SE Utilities.

## **Config Port**

Follow these steps to add your PC to the Config network:

1) Launch 'Settings>Network Configuration' from you PC's Start menu. The following window appears:

SNetwork Connections			
File Edit View Favorites	Tools Advanced Help		
🕝 Back 👻 🕤 👻 🎾 Se	earch 🜔 Folders 🛛 🕼 🐠	× 🍤   📰 -	
Address 🔕 Network Connectio	ns		
Name	Туре	Status	Device Name
LAN or High-Speed Interne	et		
Local Area Connection	LAN or High-Speed Internet	Connected, Firewalled	NVIDIA nForce
New Connection Wizard	Wizard		

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2) Double-click 'Local Area Connection'. Then, choose the General tab and click 'Properties'.

General Support			
Connection			
Status:			Connected
Duration:			09:51:11
Speed:			100.0 Mbps
Activity		- <b>A</b> -A	
	Sent —		Received
Packets:	101,562	1	50,196
Properties	Disable		
			Close

3) Select Internet Protocol (TCP/IP). Click 'Properties' again here:

Connect using:		
NVIDIA nFor	ce Networking Controller	Configure
This connection us	es the following items:	
<ul> <li>✓ ➡ File and Pi</li> <li>✓ ➡ QoS Pack</li> <li>✓ ■ Internet Pi</li> </ul>	rinter Sharing for Microsoft I tet Scheduler rotocol (TCP/IP)	Networks
File and Pile     QoS Pack     Pile     Internet Pile     Install	rinter Sharing for Microsoft I et Scheduler rotocol (TCP/IP)	Networks Properties

4) Select 'Use the following IP address' and enter an IP address on the NV915's Config network. Use the default subnet mask.

Internet Protocol (TCP/IP) Pro	operties 🤶 🔀
General	
You can get IP settings assigne this capability. Otherwise, you n the appropriate IP settings.	d automatically if your network supports eed to ask your network administrator for
O Obtain an IP address auto	omatically
□ 🕞 Use the following IP addre	
IP address:	192.168.97.3
Subnet mask:	255.255.255.0
Default gateway:	9 9 P
C Obtain DNS server addres	ss automatically

The default IP address of the NV915 on the Config network is 192.168.97.1. Therefore, choose 192.168.97.3 or a similar address that is not the same as the NV915's.

5) Click OK and it is done.

## **Network Port**

To make the NV915 known to NV9000-SE Utilities, follow these steps:

1) Launch NV9000-SE Utilities. Choose 'Add Control System' from the **System** menu.



Give your NV915 control system a name. Enter the NV915's config port address. Click 'Add' and then 'Save'.

2) The result is a named control system to which you can add routers and control panels.

Click the 'System Management' pane on the left side of the SE window to see the control system you created:

1119000-5E OUIIILIES 44.1.0 - 5La	IIIIers4
File System Window Help	
Configuration	
Tasks	
Views	
🏧 System Management	
⊡ <mark>₩</mark> 915	
🕀 💼 Routers 915	
Control Panels 915	
System Log 915	

(It is from the System Management pane that you will upload configurations to the NV915 and start, stop, and restart the NV915.)

- ▲ If the NV915 icon remains red and does not turn green [₩] then either you have not specified the network IP address correctly, the Ethernet connection (through the Ethernet switch) is faulty, or you have extra firewall protection installed and active. See *Notices*, following, for more detail.
- 3) Exit NV9000-SE Utilities.

Before you continue with NV9000-SE Utilities, read (or at least browse) all the available documentation.

▲ The CD contain an NV9000-SE Utilities User's Guide. NV9000-SE Utilities itself provides online help.

Beyond those basic steps, configuration of your NV9000 system depends almost entirely on the characteristics of your system.

We recommend that you follow the order of entries in the Configuration pane when you are making a configuration:

Network Address Routers Level Sets Devices Categories Control Panels etc.



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## Notices

1) Personal Security Programs

Some security programs, such as those available from Norton (or Symantec), will block the NV9000-SE Utilities from communicating with the NV915.

To use NV9000-SE Utilities to configure the NV915, you must disable the protection in your personal security software, at least temporarily.

You can create configurations NV9000-SE Utilities "offline" — without the presence of the NV915 — but to upload a configuration, or to start and stop the NV915, you must disable your personal firewall.

## **More Information**

Contact Miranda if you need information about NVISION router control systems or third-party automation systems.



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