

Network Settings

User Guide

Date: June 25th, 2013
Revision 1.03

Overview

The Network Settings User Guide will walk through setting up the gateway on the network of a PC. This guide will also walk through troubleshooting techniques and methods to get your gateway up and running.

For specific questions, you can call Real Time Automation at 262-439-4999 or toll free at 1-800-249-1612 or via e-mail at support@rtaautomation.com.

Required Tools and Data

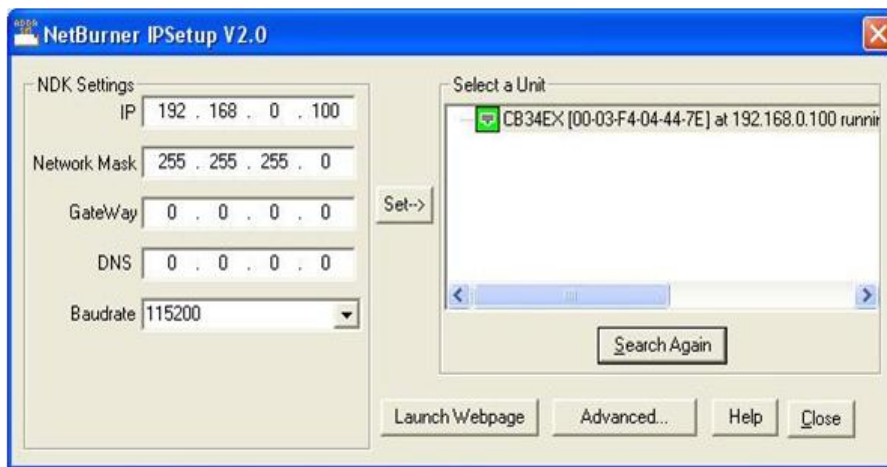
You will need the following tools:

- The Gateway
- The provided CD-ROM
 - Mttty.exe can also be downloaded:
<http://www.rtaautomation.com/support/435NBX/>
- A Working PC (Windows based)
- The Supplied Ethernet Crossover Cable
- A 7-30 VDC power source
- Internet Access (If needed)

Changing IP Settings via IPSetup.exe

Before the device can be configured, the gateway's network settings must be set.

- 1) If the PC is currently setup with DHCP turned on, turn off DHCP and set a static IP and corresponding Subnet Mask for your PC.
- 2) Connect the 7-30 VDC power source to the device.
- 3) Using the supplied crossover cable, connect the device to the PC.
- 4) Insert the provided CD-ROM.

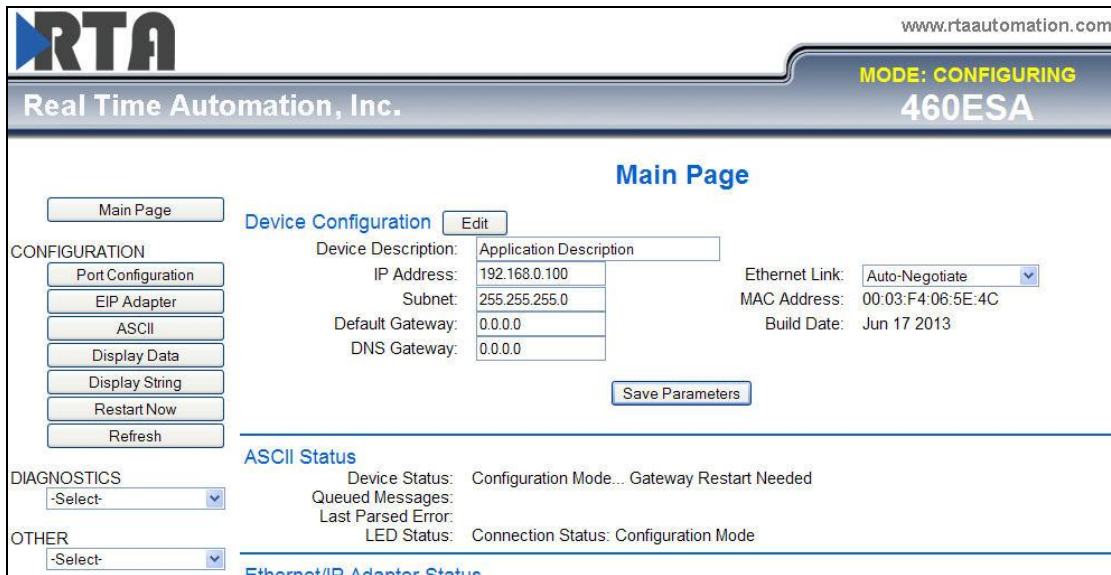


- 5) Run the IPSetup program from the CD-ROM.
- 6) NDK Settings: IP Address is set to 192.168.0.100 and Subnet Mask is set to 255.255.255.0 by default.
- 7) Configure the IP Address and the Subnet Mask so that it matches your PC's network settings.
- 8) Click **Set->**. This will restart the gateway.
- 9) Under Select a Unit, the gateway will come back online. When visible again, highlight and click **Launch Webpage**.
- 10) If gateway does not reappear under Select a Unit, click **Search Again** and repeat step 10. If problems continue, jump to the Troubleshooting section. Otherwise, you may continue with your normal gateway configuration.

Changing IP Settings via Web Browser

Before the device can be configured, the gateway's network settings must be set.

- 1) If the PC is currently setup with DHCP turned on, turn off DHCP and set a static IP and corresponding Subnet Mask for your PC.
 - 2) Switch the PC's static IP Address to be 192.168.0.xxx. Valid values for xxx are 0 - 255, except 100.
 - 3) Switch the PC's Subnet Mask to be 255.255.255.0.
 - 4) Connect the 7-30 VDC power source to the device.
 - 5) Using the supplied crossover cable, connect the device to the PC.
 - 6) Open a web browser.
 - 7) Enter into the URL the IP Address of the gateway: 192.168.0.100 by default. The main page will launch.
 - 8) If the main page does not launch, jump to the Troubleshooting section.
 - 9) Click on **Configuration Mode** in the upper left-hand corner of the screen.
 - 10) Next to Device Configuration, click the **Edit** button to modify the Network Settings.
 - 11) Enter the new IP Address, Subnet, and Default Gateway to match where the device will be placed.
 - 12) Click **Save Parameters** to save the network settings. Restart the gateway by clicking **Restart Now**.
- Note:** The main page will not launch.
- 13) Change the PC's IP Address and Subnet Mask to match the gateway's new network settings.
 - 14) Enter the new gateway's IP Address in the web browser to launch the main page
 - 15) If main page does launch, continue with your normal gateway configuration.
 - 16) If main page does not launch, jump to the Troubleshooting section.



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MODE: CONFIGURING 460ESA

Main Page

[Main Page](#)
[Device Configuration](#)
[Edit](#)

CONFIGURATION
[Port Configuration](#)
[EIP Adapter](#)
[ASCII](#)
[Display Data](#)
[Display String](#)
[Restart Now](#)
[Refresh](#)

Device Description: Application Description
 IP Address: 192.168.0.100
 Subnet: 255.255.255.0
 Default Gateway: 0.0.0.0
 DNS Gateway: 0.0.0.0

Ethernet Link: Auto-Negotiate
 MAC Address: 00:03:F4:06:5E:4C
 Build Date: Jun 17 2013

[Save Parameters](#)

ASCII Status

Device Status: Configuration Mode... Gateway Restart Needed
 Queued Messages:
 Last Parsed Error:
 LED Status: Connection Status: Configuration Mode

OTHER

-Select-
 -Select-

[Ethernet/IP Adapter Status](#)

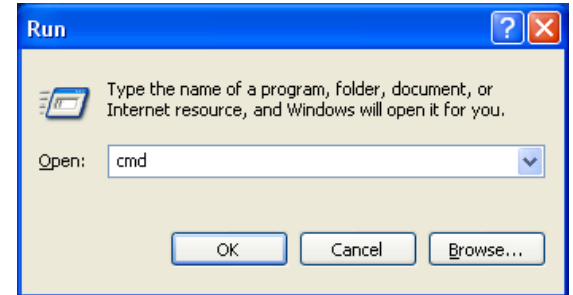
Troubleshooting (Using Command Prompt)

If the Main Page does not launch, then the IP Address or Subnet Mask is most likely incorrect.

Correct the IP Address and Subnet and try again. If you do not know the IP Address or Subnet

use the following procedure:

- 1) Open an MS-DOS Command Prompt. From the Start menu, click Run and enter cmd.
- 2) Type ipconfig and press enter.
- 3) Note the IP Address and Subnet Mask.
- 4) To test the communication between the PC and the gateway type ping (###.###.###.###) in the prompt and press Enter. The (###.###.###.###) is the IP address you set in the gateway, which is 192.168.0.100 by default. If the device is connected to the network properly, the ping will show a response.



```
C:\> C:\WINDOWS\system32\cmd.exe

C:\>ping 192.168.0.100

Pinging 192.168.0.100 with 32 bytes of data:

Reply from 192.168.0.100: bytes=32 time<1ms TTL=128
Reply from 192.168.0.100: bytes=32 time<1ms TTL=128
Reply from 192.168.0.100: bytes=32 time<1ms TTL=128
Reply from 192.168.0.100: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

Successful Ping

- 5) If unsuccessful pings occur, continue with the Troubleshooting section using Terminal.exe.

Otherwise, open up a web browser and enter the IP Address of the gateway in the URL and

continue with your normal gateway configuration.

```
C:\> C:\WINDOWS\system32\cmd.exe

C:\>ping 192.168.0.100

Pinging 192.168.0.100 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.0.100:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

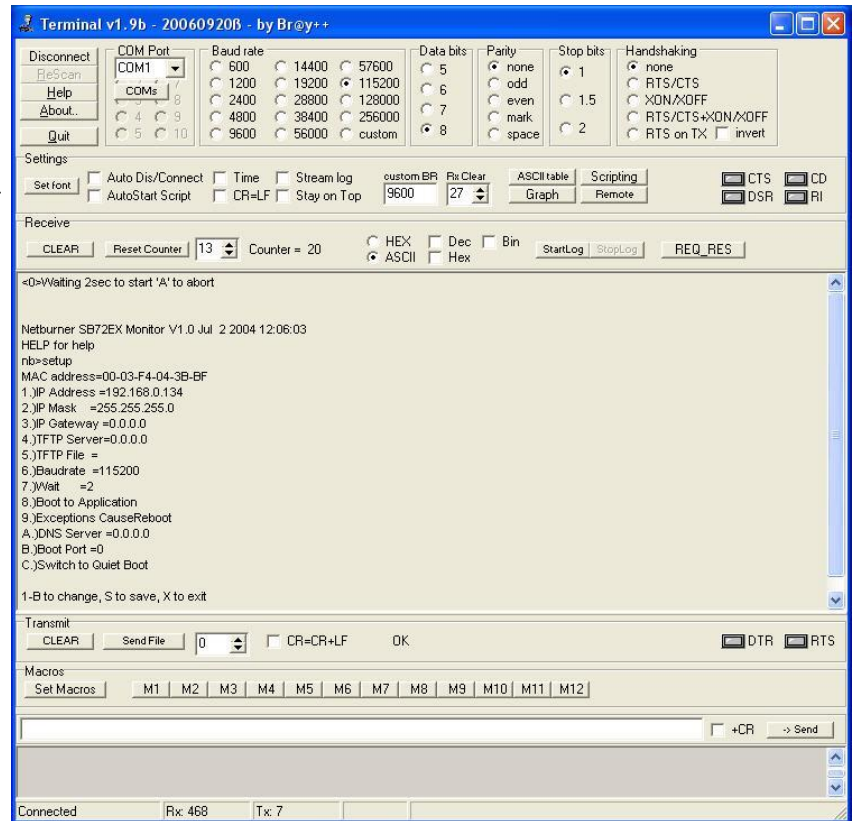
C:\>
```

Ping Failure

Troubleshooting (Using Terminal.exe)

If the Main Page does not launch, then the IP Address is most likely incorrect. Correct the IP Address and try again. If you do not know the gateway's IP Address use the following procedure:

- 1) Run Terminal.exe from the CD provided.
- 2) Connect a DB9 Null Modem cable: For the Dual DB9 Hardware, use Port 0. For the T-Strip and DB9 Hardware, use Port 1.
- 3) In Terminal.exe, select the PC's COM Port that you are connected to.
- 4) Select the Baud Rate of 115200.
- 5) Select 8 Data Bits.
- 6) Select 1 Stop Bits.
- 7) Select None for the Parity.
- 8) Click **Connect**.
- 9) Cycle power to the gateway. Immediately typing "A" in Terminal.exe + pressing enter.



- 10) If successful, there will be a prompt "nb>". If unsuccessful, then repeat step 9 until prompt is shown.
- 11) Type "setup" and enter. This will show you all of the Network settings plus some additional fields.
- 12) To change the IP Address, enter a value of 1. To change the Subnet Mask, enter a value of 2. To change the Default gateway, enter a value of 3. Multiple changes can be made before saving. Once all changes are completed, type "s" and enter to save all the changes. The gateway will restart.
- 13) Attempt to ping the device. If successful, browse for the main page and continue with normal gateway configuration. If unsuccessful, try and repeat these steps otherwise, contact Real Time Automation for further diagnostics.

Support for your device is available any time.

Support: 262-439-4022

Toll free: 800-249-1612

Email: support@rtaautomation.com