

# HOW TO SET UP A TRIMBLE NETRS AND NETR8/NETR9 FOR RTCM STREAMING OVER TCP/IP (NTRIP)

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The Trimble NetRS and NetR8/NetR9 can be configured to stream correction data in various formats over tcp/ip or serial. The transport of RTCM via tcp/ip is called NTRIP.

## NetRS

-Attach the NetRS to an antenna (you will not be able to verify the NetRS is streaming unless the antenna is attached).

- Open a web browser and log on to the web interface of the NetRS
- Select "I/O Configuration" from the side menu.
- All ports that are available/configured on the receiver will be listed.
- A NetRS with factory defaults will have serial ports 1-4 listed, but not enabled.
- You will need to create and configure a new TCP port for RTCM

-Select "Create New TCP Port."

-Fill in your desired TCP port number, this can be any number of your choosing. Examples: 6000 or 7500. Be sure to avoid choosing standard ports such as 80.

- Select "RTCM" under "Service"
- Select desired format and style options
- Click "OK"

-Back in the I/O Summary Page, the new TCP port will be listed

-Make sure the "Enable" box is checked next to the port and that RTCM is listed as the service

-Select the "Reference Station" submenu

-Where the position of the reference station is listed, select "Here." The coordinates should then be those of the receiver's location.

-Open a command prompt

-Open up a connection to the tcp port using telnet.

-Example: telnet 192.168.1.2 6000

-Users with Unix based systems can use nc 192.168.1.2 6000 to open the connection

-If the receiver is streaming properly, the output will appear on your terminal as random characters.

-Keep the terminal running

- Go back to the web interface of the NetRS and on the side menu, select "Receiver Status."
- Select the "Activity" submenu.
- Under "Input/Output," you should see "Streaming RTCM to xxx.xxx.xxx.x over Tcp Port xxxx"
- Once you close your terminal, the connection will close and the streaming message will disappear

### **NetR8/NetR9**

- Log on to the receiver
- From the side menu select "I/O Configuration"
- To create a new port select "Port Configuration" from the "I/O submenu"
  
- Select "Add TCP/IP port" from the first drop down menu (or select an existing tcp/ip port to alter)
- Select RTCM in the dropdown menu to the right
- Enter your desired port number
- In the RTCM-specific settings below:
- Ensure that RTCM is enabled, adjust the other settings as desired and click "ok"
  
- Back in the port summary page, you should see your new port listed
  
- Under "Receiver Configuration," Select the "Reference Station" submenu.
- For the reference station coordinates, select "Here."
- Click "ok"
- Go to "Receiver Status" and select the "Activity" submenu
- You should also see "Output: TCP/IP (port #) ' RTCM"
  
- Verify the receiver is streaming by using telnet to open the port, as listed in the NetRS instructions above
- Go back to the "I/O Configuration" menu. The open port should be highlighted in green.
- When you close the connection, the port listing will return to red.

Online URL:

<https://kb.unavco.org/article/how-to-set-up-a-trimble-netrs-and-netr8-netr9-for-rtcm-streaming-over-tcp-ip-ntrip-685.html>