N71 APPLICATIONS





The workflow of Set N71 as Reference station



N71 can perform as a Internet Ntrip Reference Station.

Preparations: Apply the static IP from your internet provider; open the TCP and HTTP protocol for some Ports.

Also you need some construction to fix the antenna, after this you have to using static survey to calculation the coordinates

1. INSTALLATION N71 RECEIVER

Connect N71 with PC using data +power cable like the figure. And Power on.



Figure of N71 Cable Connection

2. SETTING STATIC IP BY WINFLASH.

Run Winflash on PC. And follow the steps below.

The latest version of Winflash can be found in Trimble Website: http://www.trimble.com/gpsinfra_ts.asp?Nav=Collection-70648.

For example: we apply static IP: 222.44.183.12 from the network provider, and we do the port hard set on the Router 192.168.0.132(local area network IP), for this IP we set 9906 port as TCP service (NTRIP caster port), so the NTRIP server IP: 222.44.183.12:9906; 9908 is for HTTP service (Remote control), we can using the <u>http://222.44.183.12:9908</u> to log on N71 to do remote control.

WinFlash v1.212 - Device Config	uration	×
WinFlash	The devices which WinFlash can communicate with are listed below.	
	Select a device and PC serial port to use, and press 'Next' to continue. Device Configuration	
	Device ope: BD9xx Receiver	
():Trimble.	PC serial port: COM1	
< <u>F</u>	ack. Next > Cancel Help	

BD9xx v4.40b3 - Operation Selec	ction	×
WinFlash	The operations supported by the BD9xx Receiver are listed below. Select an operation to perform and press 'Next' to continue. Configure element settings Load GPS software Update receiver options Verify GPS software version Verify GPS software version	
() Trimble	Configure the ethernet settings	e 2
	ack Next > Cancel Help	

Choose the right COM Port



Finish

Co	onfigure ethernet settings	X
	Status Establishing communication with the BD9xx. Please wait	
	0%	
	(Cancel)	



	Ethe	ernet Configurati	on	×
1		– Ethernet settings-		
		IP Setup:	Static IP address	
		IP Address:	192 . 168 . 0 . 132	
		Netmask:	255 . 255 . 255 . 0	
ł		Broadcast:	192 . 168 . 0 . 255	
1		Gateway:	192 . 168 . 0 . 1	
		DNS Address:	211 . 167 . 97 . 67	
1		-HTTP settings-		
ł		Server Port:	9908	
		OK	Cancel	

Choose **Static IP address** in **IP Setup** option, fill the following IP information and **Port**

0	Configure ethernet settings					
	_ Status					
5	The ethernet settings were configured successfully!					
ç	Press 'Menu' to select another operation, or 'Exit' to quit WinFlash.					
,	100%					
_						
-	Menu					

When 100% was shown, Exit

3. SET N71 AS A NTRIP REFERENCE STATION ON THE WEBSITE

Log on the IP address and particular port in IE Brower like the format: HTTP://222.44.183.12:9908, Key in user name: admin and password: password to log in as an administrator.



Website Main Interface

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🔆 Favorites 🛛 🐘 Trimble	
Trimble	e .
	Reference Station
Receiver Status	CMR ID: 0
Satellites	RTCM 2.x ID: 0
Receiver Configuration	RTCM 3.x ID: 0
Summary	Station Name: CREF0001
Reference Station	Station Code:
Position Correction Controls General Application Files Reset Default Language	Reference Latitude: 0 ° 0 ' 0 00000 "
I/O Configuration	OK Cancel
Network Configuration	
Security	

In Receiver Configuration —Reference Station: Input Known position , key in the Reference station coordinates, or click here to read the current position(unknown coordinates)



Click **OK** to accept the setting

3.1. SET BASE INFORMATION

3.2. SET NTRIP INFORMATION

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Trimble	e .			BD97 SN: 1321018	0 557
	I/O Configura	ation		0)
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Satellites	TCP/IP	5018	-	•	
Receiver Configuration	TCP/IP	28001	-	-	
I/O Configuration	TCP/IP	28002	-	-	
Port Summary	NTRIP Client	-	-	-	
	HTTNF Correr		-		
Network Configuration	NTRIP Caster 1	2101	-	-	
Security	NTRIP Caster 2	2102	-	-	
Firmware	NTRIP Caster 3	2103	-	-	
Help	Serial	COM1 (38.4K-8N1)	-		
	Serial	COM2 (38.4K-8N1)	-	RT27(1Hz), NMEA-GGA(2 Sec.), GSOF(1Hz)	
	Serial	COM3 (38.4K-8N1)	-	-	
	USB	-	-	-	
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In I/O Configuration — Port Summary: Click one of the NTRIP Caster name.



Enable this port first by **tick the box of Enable** and distribute a valid **port** for Ntrip visit. Add some station information like Country or description. Most important is to give a **Mount Point Name** which will shows as a source list when Ntrip client log in. Also you need activate a correction message type like **CMR** or **RTCM** by choosing the corresponding name in the following drop-down list box.

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** 🛄 🛨 💵 💳	RTCM:	Disabled Version: 2.1 Type: RTK		
Receiver Status Satellites Receiver Configuration VO Configuration Port Summary Port Configuration Network Configuration	BINEX:	Measurements Off ■Interval □ Smooth Pseudorange □ With L1 Doppler □ With Clock Offsets - Always □ Use record type 7F03 instead of 7F0 MetaData Off ■Interval □ Marker Name □ Paceiver Type	Delay: Delay: Marker Number Serial Number	Station ID
Security		Antenna Configuration	Antenna XY7	Antenna Offset
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Click OK to confirm the setting

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Satellites	TCP/IP	5018	-	-	
Receiver Configuration	TCP/IP	28001	-	-	
I/O Configuration	TCP/IP	28002	-	-	
Port Summary Port Configuration	NTRIP Client	-	-	-	
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Network Configuration	NTRIP Caster 1	9906	-	CMR	
Security	NTRIP Caster 2	2102	•		
Firmware	NTRIP Caster 3	2103	-		
Help	Serial	COM1 (38.4K-8N1)			
	Serial	COM2 (38.4K-8N1)	-	RT27(1Hz), NMEA-GGA(2 Sec.), 0	GSOF(1Hz)
	Serial	COM3 (38.4K-8N1)	•		
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In Port Summary, check the selected message type has successfully set in the certain port

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Receiver Configuration TCP/IP	28001	-		
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Firmware NTRIP Caster	3 2103	-	-	
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Serial	COM2 (38.4K-8N1)	-	RT27(1Hz), NMEA-GGA(2 Sec.),	GSOF(1Hz)
Serial	COM3 (38.4K-8N1)	-		
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When this IP and port was used by client, the background will turn green.

4. CREATE USERS AND THEIR AUTHORITY

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This is the function to define the user name, password and their authority to log in this new N71 CORS.

In Security—Configuration—define the username password and the authority by tick the relative box, if only used to log in CORS, NTripCaster will be enough

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Receiver Status	Securit	y: Enable					
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Receiver Configuration	Username	Edit Users	File Download	File Delete	Receiver Config	NTripCaster	
I/O Configuration	admin						
Network Configuration	1						
Security Summary Configuration Change Password Firmware							
							[[*][*

The existing Account and Authority can be seen at Security--Summary

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