Configuring ZMax.NET for "The Utah Reference Network" (TURN)

By: Mark Silver Date: May 2, 2007

0. Get TURN credentials from:

http://www.turngps.utah.gov/

1. Start FAST Survey. From the "Equip" menu click on "3 Configure Rover"



2. Configure the "Parameters" tab. Check "Fast CPD" if you have doubts about correction latency.

Thales Setup	<u>O</u> K	<u>C</u> ancel
Parameters Re	eceiver	Ports
Multipath Type: High: Buildings 🔻		
Rod Hgt: 4.022		● <u>V</u> ertical ● <u>S</u> lant
Elevation Mask:	9	
Ambiguity Fixing F	Parameter	
99.9=Highest Cor	fidence	•
Fast CPD		
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3. Configure the 'Receiver' tab.



Only check "Log OBEN Data for Averaged RTK Readings" if you plan to use the vectors

in GNSS Solutions. Logging OBEN data slows down averaged readings significantly.

Choose [ZMax GPS UHF] because you have a VORTEX antenna or blank attached between the ZMax receiver and the antenna.

Click on the "List" button and verify that the antenna calibration values match those shown below:

Define Antenna	
<u> </u>	<u>C</u> ancel
Manufacturer:	New
Magellan 🔹	Sava
Part Number:	
ZMax GPS UHF 🛛 🔻	
Description:	Delete
MagPro Z-MAX + GPS + UH	IF
Radius (m): 0.09	
SHMP Offset (m): 0	
L1 Offset (m): 0.811	8
L2 Offset (m): 0.806	8
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4. Configure the 'Ports' tab:

Thales Setup	<u>C</u> ancel
Parameters Receiver Po	rts
[Data Port]	
Ѻ▵Ѻ◷◉ёѺ▫	
Radio Port Type	
	IP 🔻
Message Type	
CMR/CMR+ (Trimble) 💿 🔻	🗹 VRS
Radio Baud Rate: 19200	~
Base Config:	
TURN 🔻	
Edit Delete	
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Press "Edit" and confirm these settings (for Cingular service):

Thales/Ashtech Rover		
	<u>0</u> K	<u>C</u> ancel
Name:	TURN	
Band:	850/1900) 🔻
PIN:	***	
APN Server:	wap.cing	ular
APN User Name:	WAP@CI	NGULAR
APN Password:	CINGULA	R1
	NTRIP S	Settings
🐉 🎯 FAST S 🕲 🎐 8:17 PM 🏴 🖷		

Press "NTRIP Settings" and confirm these settings. Enter your "User Name:" and "Password:" in the "Login Information" boxes:

NTRIP Caster Settings		
	<u> </u>	<u>C</u> ancel
IP Address:	168.179.231.	6
Port:	2101	
Login Informa	tion ———]
User Name:	j€	
Password:	ję	
💦 🐝 FAST S.	🔁 🎐 8:18	рм 🏓 🔁

5. Finally press "OK" then "OK" and "OK". FAST Survey will setup the receiver. After some wait the GSM Connect screen will be shown:

Thales/Ashtech Rover		
	Close	
Band:	850/1900 🔻	
PIN:	***	
APN Server:	wap.cingular	
APN User	WAP@CINGULARG	
APN Password:	CINGULAR1	
	NTRIP Settings	
GSM STATUS: RE	ADY	
Connect	<u>T</u> urn On	
Disconnect	<u>T</u> urn Off	
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Press the "Connect" button ONCE and wait.

The "NTRIP Mount Point" screen will be shown:

NTRIP Mount Point	
<u> </u>	
Mount Point: AGRC_CMR_PLUS 🔻	
Name: AGRC_CMR_PLUS	
Format: CMR+/1(:Use: CMR/CM 🔻	
Network: AGRC	
Carrier: L1 & L2	
System: GPS	
Accepts NMEA: Yes	
Latitude: 0.00	
Longitude: 0.00	
Country: USA	
Solution: Network	
Trimble GPSNet	
🐉 췋 FAST 🚷 🌫 9:03 РМ ጆ 😤	

Select the "Mount Point" you want to use. In the example above, the "VRS Network" mount point AGRC has been selected with CMR+ format.

Press "OK", the GSM Connect screen will be shown again:

Thales/Ashtech Rover		
	<u>C</u> lose	
Band:	850/1900 🔻	
PIN:	***	
APN Server:	wap.cingular	
APN User	WAP@CINGULARG	
APN Password:	CINGULAR1	
	NTRIP Settings	
GSM STATUS: ON	LINE	
Connect	<u>T</u> urn On	
Disconnect	<u>T</u> urn Off	
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After a few moments, the GSM STATUS will change to ONLINE.

When it does, press the "Close" button. Within 1 minute, the left most LED on the receiver should change from RED to YELLOW.

Wait for the left-most LED to change to blinking GREEN and begin surveying.