

## Creating a Network RTK Configuration on the Hiper II using MagNET Field

From the main screen in MagNET Field.



Select the Configure Icon.

This will take you to the following page.



From here we select the Survey icon

This will display the config menu, here you will see the current configurations set for both GPS+ and Total Stations.

In this guide all we are interested in is the GPS+ configuration. It may be set to "Default". Hit the drop down arrow to expand the available predefined configurations.



From the list, select "My Network RTK"

Press the **...** icon to the right of the GPS+ configuration.



In the configurations screen, the configuration selected is still highlighted. This is the configuration we wish to edit, leave the My Network RTK

highlighted and press **Edit**

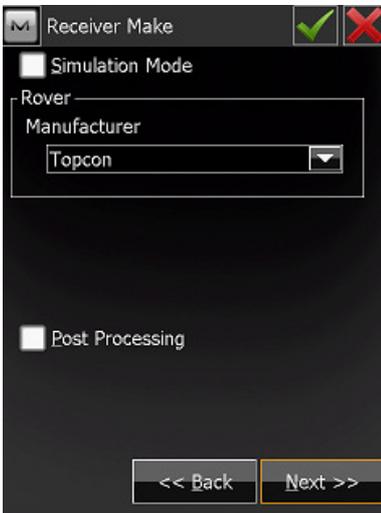


Now we start with the editable options in the configuration. The configuration name can be changed if required.

Type – should be set to Network RTK

Corrections – should be set to VRS

Press



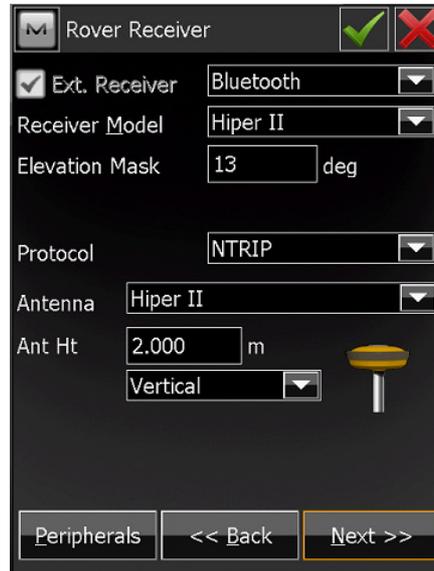
The Rover Manufacture should be set to Topcon.

Simulation Mode should be left UNCHECKED.

RAW data can be recorded on the Hiper II to run post processing exercises, if required check the Post Processing box or leave unchecked if post processing is not required.

For this guide we will leave post processing unchecked.

Press



The parameters in the Rover Receiver menu should be set as above.

Ensure Ext Receiver is checked (external receiver)

Ensure the Receiver Model is set to Hiper II

The Elevation mask can be defined as required.

Protocol should be set to NTRIP

Antenna should be Hiper II

Antenna Ht defaults to 2meters but can be set as required.

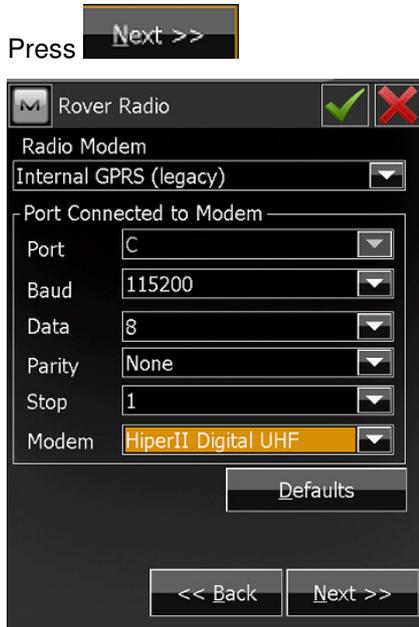
Measurement method can be vertical or slant.

Press



The Modem Connect should be set to Receiver in this case if a field controller is used which does not

contain an internal modem, the GPRS modem in the Hiper II receiver will be used in this example.



The Rover Radio in this case is the internal GPRS modem.

Network Type should be set to Internal GPRS (legacy).

The baud rate should be set to 115200

All other parameters are set by default to the correct values.



The internet info is the TopNET or NTRIP server IP address or host name.

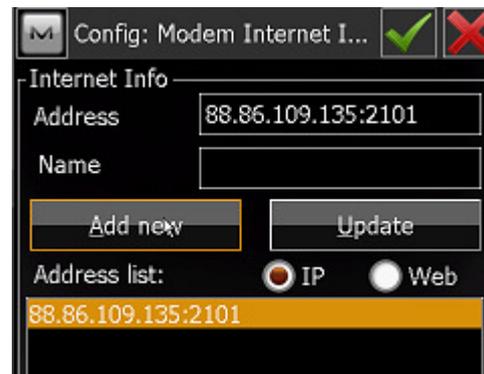
Tap in the address field to enter an IP address



Use the on screen keyboard to enter the IP address as above.

Press when the address has been entered.

Press **Add new** to update the IP address to the available server list.



To enter a host name rather than an IP address, select Web rather than IP below the update button.



Then instead of entering an IP address, enter the host name of the server as below.



Press  to update the server list.



Either method works in MagNET Field although the host name is the preferred method of connecting from a user point of view. It reduces the potential need to change IP addresses should any server issues arise.

Press 



Enter your NTRIP user ID and Password, these would have been provided on an email from

[info@topnetlive.com](mailto:info@topnetlive.com)

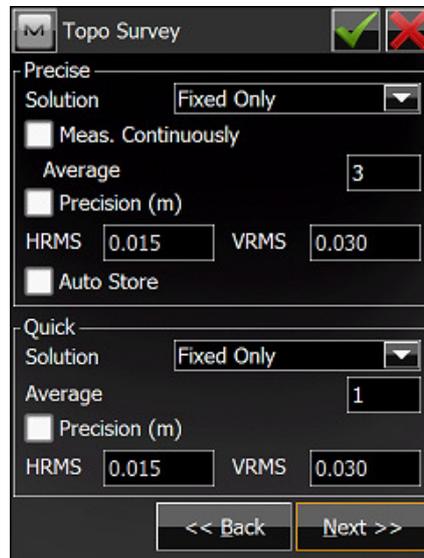
if you have lost or forgotten your NTRIP detail please email [topnetlive@topconsokkia.co.uk](mailto:topnetlive@topconsokkia.co.uk)

Press 



Select your SIM card provider from the dropdown list.

Press 



In the Topo Survey Parameters options we now move on to options that are definable by the user.

Two measurement options are available which will correspond to two record buttons in the Topo data collection screen.

A Precise observation where the epoch count may be set to >3 for example and quick observation option which allows the epoch rate to be set lower.

This essentially allows the user to have the option in the field of recording at two possible epoch rates without having to enter the settings menu each time to change the recording intervals.

Solution Type should be set to Fixed Only.

Number of measurements to Average is the number of epochs per measurement.

Precision, if checked the measurement will not be recorded until the Horiz and Vert values defined here are met.

Quick, set the epoch rate to a lower value than the precise option i.e 1, the solution type should remain set to fixed only.

Press



Auto Topo options, for automatic point collection by time or by distance. The interval and Method can be defined as required.

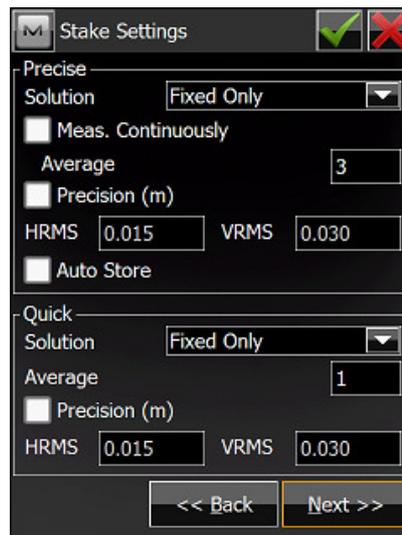
Press

Stake out or setting out parameters.



The default is 50mm for setting out, this can be defined by the user as can the reference direction.

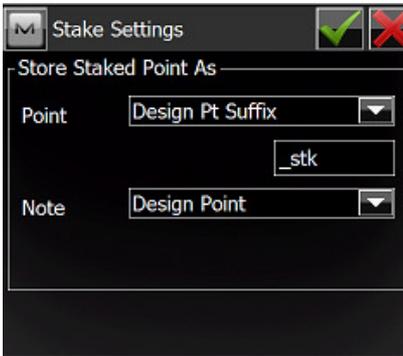
Press



Solution Type should again be left to Fixed Only.

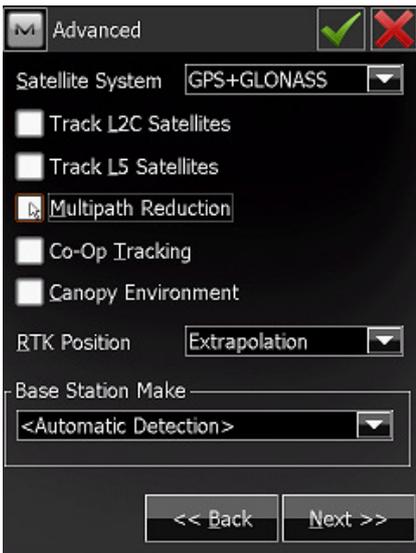
The selectable options here in the Stake Settings page are the same as previously seen on the Topo Survey screen and can be set and used in exactly the same way.

Press



The stake parameters, if a point staked out is recorded in the field the point will be stored as the same point ID but with Suffix \_stk for example 100\_STK to indicate that point was recorded in stake out mode. This test can be changed as per the user's requirements.

Press Next >>



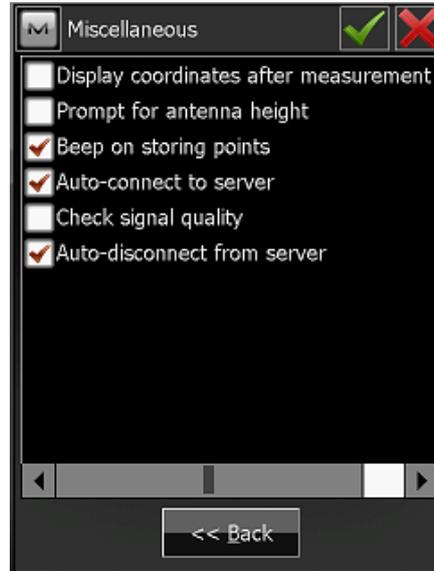
In the Advanced Tab for standard Network RTK operation all options should be UNCHECKED.

The satellite system set to GPS+GLONASS.

RTK Position set to Extrapolation.

Base Station Make set to Automatic Detection.

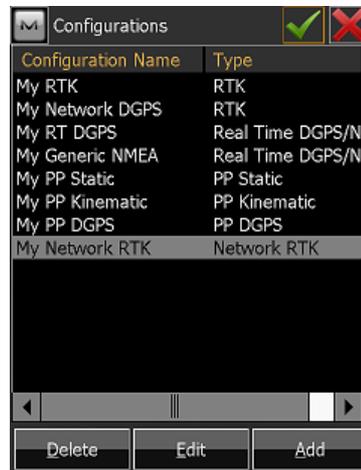
Press Next >>



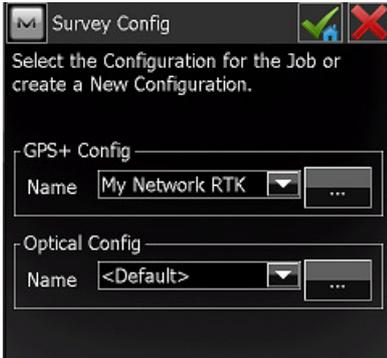
In the Miscellaneous menu select any prompts and alarms that you may wish to use. The screen shot above shows the default options checked.

Press the to confirm and complete the configuration.

This will take you back to the configuration list.



Press the icon to return to the main configuration screen.



Press the  icon to go to the connection page.

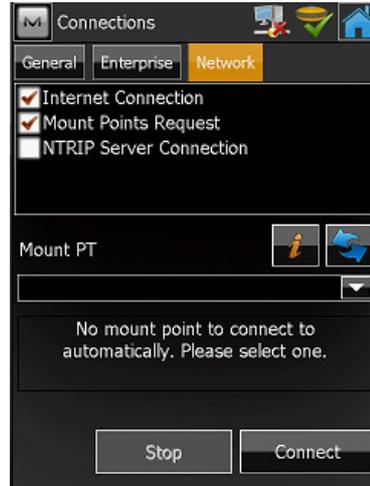


At this point we are ready to initiate the connection to the internet and NTRIP server to start our field work.

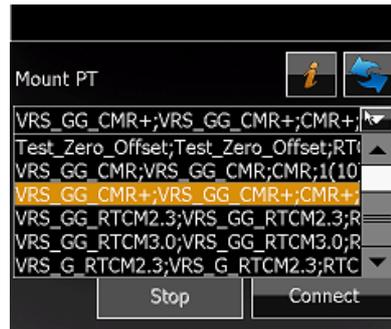
If we do not wish to connect at this time, press the

 icon to return to the MagNET home page.

To initiate the connection press



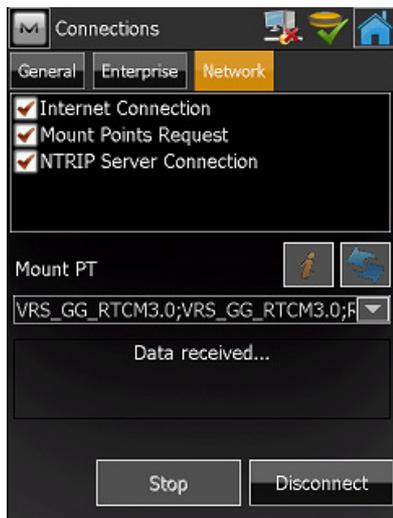
The connection will be established. If the message "no mount point to connect to automatically, please select one" is displayed. Press the drop down arrow above.



Select the required mount point. For standard Network RTK this should be:

NRTK\_GG\_RTCM3.0

Press 



Once the connection to the server has been established, user name and password verified the message Data received.... will be displayed.

Press the  icon to return to the MagNET Field home screen.

We are now ready to work.