Grid to Ground with Base Receiver



In this example we will set the Base receiver to broadcast Ground Coordinates. (Grid to Ground)

I have an established point I observed using an RTN Network to derive Grid Coordinates.

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🔀 Settings	
Instruments settings	
GNSS & Total stations	>
Laser disto	>
Echosounder	>
Cable detector	>
Job settings	
Units	>
Decimals	>
Coordinates	>
GNSS	>
TPS	>
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Go Job/Settings/ GNSS and Total Stations

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X	Instruments	
Rover	CHC - Smart GNSS BT: GNSS-3461055	>
Rover	UHFROVER1055 CHC - Smart GNSS BT: GNSS-3461055	>
Ease	UHFBASE1054 CHC - Smart GNSS BT: GNSS-3461054	>
Rover	NETBASE: Current CHC - Smart BT: GNSS-34 Modify	
Rover	UHFROVEI CHC - Smart BT: GNSS-34	
Base	UHFBASE CHC - Smart TOP Move on top of	the list
	NETROVEL CHC - Smart GNSS	>
Rover	Scan QR	+ \dd
	< • B	

I have selected my GNSS Base and made it current.

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Χ	Instruments			
Bover	CHC - Smart GNSS	5		>
	UHFROVER10	55		
Rover	CHC - Smart GNS BT: GNSS-346105	S 5		>
=	UHFBASE1054 CHC - Smart GNS	4 S		>
Base	BT: GNSS-346105	4		
Rover	NETBASE3990 CHC - Smart GNSS BT: GNSS-3493990			>
Rover	UHFROVER399 CHC - Smart GNSS BT: GNSS-3493993	3		>
Base	UHFBASE3990 CHC - Smart GNSS BT: GNSS-3493990			>
	NETROVER399 CHC - Smart GNSS	3		>
		n QR	+ Add	
	•	•		

My Base now has an Orange Checkmark to indicate it is indeed the current instrument.



Returning to Survey Points I now have the option to Start Base Displayed.



Having located a point previously, choose Known Position from the options listed on screen.



On the Start Base Screen you will now see Base Name. Base ID: 0 Base ID: 0000 Code: I leave Blank Antenna H. HI of Receiver Post -Processing data Log Data for Post Processing. Slider to left = Off I am choosing not to create a Static Observation File. Right Arrow

12:36 ¢ • G Start ba	ase	0 \$ LTE 🖌 🏝 🗎
Base posit	ion	
Ref.Point	3	>
[1. 👯)LLH
Latitude		N 29°31'58.6984"
Longitude		W 81°14'30.0841"
Height		-67.904ft
N		1890172.1078ft
E		579307.0849ft
Z		26.193ft
\triangleleft	Tool	s D
4	٠	

Base Position Screen

Ref. Point: Previously Surveyed Point Number

The Information will populate all fields.

Right Arrow



Local System (Ground Coordinates)

Create Local System on Base – Slider to the Right

Local Point: I choose my Base Point as my Scale Point from Grid to Ground. The Grid Coordinates will Populate the Previous SPC Coordinates.

Start Base

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🔀 Start base		
Local system	1	
Create local sy base	stem on	
Local point	3	>
Ν	1	890172.1078ft
Start base Base has bee	en started s	t successfully.
	OK	
\triangleleft		~
		Start base
•	•	

Start Base Message Dialog Box is displayed showing Base has been started successfully.

You can now connect your rover and all coordinates will be Ground values.

When the job is complete you can Export the Report as a pdf to be Shared/Stored on Device and all Scale factor information will be included in the Report.

Measurements report

Job information					
Job annotation:		MySite			
Job name:	SETTING THE BAS	SE ON			
Created:	06-01-2023 12:29:	11 PM			
Creator:					
Coordinate system	information				
Name:	FL83	- East			
Transformation type:	Cartog	graphic			
Parameters		Datum		Ellipsoid	
Projection:	TM	Name:	NAD83	Name:	GRS80
Lat. origin:	N 24°20'00.0000"	Type:	Molodensky	Major semiaxis:	20925604.474250ft
Long. origin:	W 81°00'00.0000"	Shift. X:	0.00000ft	Inv.flattening:	298.25722210
False East:	656166.6667ft	Shift. Y:	0.00000ft		
False North:	0.0000ft	Shift, Z:	0.00000ft		
Scale:	0.999941	Rotation about X:	0.00000000		
		Rotation about Y:	0.00000000		
		Rotation about Z:	0.00000000		
		Scale:	0.00000000		
System type:	Single	e point			
WG S 84		Local grid			
Point name:	3	Point name:	3		
Latitude:	N 29°31'58.6984"	E:	579307.0849ft		
Longitude:	W 81°14'30.0841"	N:	1890172.1078ft		
Height:	-67.904ft	Z:	26.193ft		
Ground to grid scale fac	tor				
Average elevation:	20	5.193ft			
To sea level:	0.9999	98748			
To cartographic plane:	0.999947946				
Combined scale:	0.9999	46694			
Grid to ground scale fac	tor				
To cartographic plane:	1.0000	52057			
Elevation:	Locals	system			