

Set RTX – RTK Offset

RTX broadcasts in ITRF 2008 (current epoch) and receiver transforms to 2005 epoch

- If customer wants to work in a Trimble Access project using the state plane NAD83 datum, they have 2 options:
 - Use the RTX to RTK offset
 - Requires you to shoot in a point with RTK and RTX before you can shoot in and apply the offset
 - This may not be the best option for some customers since they may not be using RTK in this particular setup
 - o Use a Site calibration
 - You must have control data (in terms of NAD83(some epoch)) loaded in your project beforehand
 - Perform a site calibration
- A 3rd option would be to work in the same datum as the RTX corrections
 - Work will need to be performed before going out into the field.
 - Convert the project data to ITRF2008 before loading onto a data collector, then when you use RTX there would be no transformation.
 - Use the HTDP tool from NGS to transform the coordinates
 - http://www.ngs.noaa.gov/TOOLS/program_descriptions.html#HTDP

In this paper we will be describing RTX to RTK offset in easy steps

Click on Settings



Click on Survey Styles



Create new Style and name it RTX

MyMobil	er	- • ×
<u>F</u> ile <u>E</u> dit	t View <u>T</u> ools	
] 🗒 🚜 [<u>ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا</u>	
۵	Style details 🔹 🔊 😲	? — ×
Style n	ame:	
RTX		
Style ty	ype:	
GNS	5 🗸	
	No survey PDOP:1.5	
Esc		Accept
	2 W	

Rover option



Change Broadcast format RTX (SV)

MyMobile	OP LS	-	
<u>Eile</u> dit	View <u>I</u> ools		
] 🖩 🛛 🚜 📭) 🗈 🖥 🖏 🖷 🤉 🏷		
🖗 R	over options	→ •	? — X
Survey	type:	Broadcast format:	
RTK	▼	RTX (SV)	▼
Elevatio	n mask:		
10°	•		
PDOP m	nask:		
6.0	•		
1			
Ante	nna		
Type:			
R10	Internal	▼	1/3
		,	•
	No survey	PDOP:1.5	
Esc		<u>>>)</u>	Accept

Select your antenna type, accept and store

MyMobil	er				
<u>Eile</u> dir	t View <u>T</u> ools				
	b 🗈 🖥 🖫 I	h 🦻 🏷			
<u>ک</u>	Survey S	ityles		- >] ? — X
Nam	e		Size	Modified	Locatio
FF	PRN		2kb	4/28/2015	\Trimble
Or	nniSTAR		2kb	4/28/2015	\Trimble
RE	ES RTK 8	εL	2kb	4/28/2015	\Trimble 📟
R1	ſĸ		2kb	7/13/2015	\Trimble
R1	IK & LOG	G	2kb	10/22/2015	\Trimble
R1	INFILL	-	2kb	4/28/2015	\Trimble
R1	「Kbridge		2kb	4/28/2015	\Trimble
R1	ΓX		2kb	2/20/2011	\Trimble
< h2	en?enek	ot	0kh	110010015	\Trimble
		No surv	ey PDO	P:1.5	
Esc	New	Сору	Delet	e Options	Edit



General Survey



Start new job

- - X MyMobiler <u>File Edit View Tools</u> 🖩 🖌 🗅 🛍 🖥 🖷 의 🏷 💩 Jobs \to 🕛 ? 🗕 🗙 <u>N</u>ew job <u>M</u>ap Open job Copy between jobs Properties of job Import / Export <u>R</u>eview job Point manager QC Graph No survey PDOP:1.5 Back Next

Give it a name and select parameters



Measure



neigps.com

Select RTX survey style



Measure points



Select tectonic plate



Click on Satellite to check status



After 30 minutes it will converge



Start Measuring





Store RTX point

MyMobiler	
Eile Edit View Iools	
📎 Measure points 🛛 🔊 🕛	? — ×
Point name: Code:	97%
RTX 🕨 👔 🕨	73%
Method:	<i>🍂</i> 13
Topo point	h 💥
Antenna height (Uncorrected):	
6.562sft	9 0.302
Measured to:	Map
Bottom of quick release	Menu
Time so far: Epochs re	
0m57s 0	Favorites
R10	Switch to
RTX H:0.07sft V:0.13sft 🗸 🗸	
Esc eBubble Options	Store

Start measuring an RTK point



Store the RTK point



Once you have at least one RTX point and One RTK shot you can do RTX – RTK offset or Site Calibration.

From the RTK measure menu you will see the options below



neigps.com

From the RTX measure menu select

MyMobiler	
<u>File Edit View Tools</u>	
🛛 🖩 🖌 💫 🌔 🗳 🦉 🦉 🖓	
Measure	- > ● ? - ×
Measure points	
Measure codes	
Site calibration	_
<u>R</u> TX - RTK Offset	
No survey PD0	DP:2.1
Back	Next

RTX – RTK Offset



Hit Calc to select the RTX and RTK shots

MyMobil	ler			
<u> </u>	t View <u>T</u> ools			
] 🖳 🚜 (D D B 5 7 8 9	>		
1 @~ F	RTX Offset		→ !	? – X
RTK pc	pint:	Code:		95%
?	•	?		
RTX po	pint:	Code:		<i></i> 13
?		?		
_Γ Prec	ision———			P ?
Horiz	ontal precision:	Vertical pre	cision:	Man
?	F	?		<u> </u>
		•		Menu
			1/2	F <u>a</u> vorites
			↓	Switch to
	Nos	urvey PDOP:	2.1	
Esc	Nono			
	None			

Select your RTK shot (Labeled RTK)

MyMobil	ler						X
Eile Edi	t View <u>T</u> ools						
	li 🛍 🖌 🖬 🖬	li 🔁 🏷					
	Select a	point		-)	? –	- ×
F K N	lame		Code				95%
	RTK						43
<u>F TX</u>						42	13
						7	
						9	2
Prec	ision—					1 T	
Horiz	ontal precis	sion:	Vertical pre	ecision:		Ma	ар
?			?			Me	nu
<u> </u>							
					1/2	r <u>a</u> vo	rites
						Swite	ch to
_		No surve	y PDOP:	2.1			
Esc	Filter	Review	Page 🛉	Page	• 🕈	Acc	ept

Select RTX shot (Labeled RTX)

MyMobile	er					
<u>F</u> ile <u>E</u> dit	: View <u>T</u> ools					
] 🖩 🚜 🕻	b 🛍 🖥 🖫 I	🎚 🔁 🏷 👘				
۵ 🔌	Select a	point			→ 🔒	? — ×
I IK N	lame		Code			
	RTX					42
FTX						13
						🛒
Precision						ן ד ור
Horizontal precision: Vertical precision:						Man
2			?			<u>— —</u>
Ľ						<u>Me</u> nu
	1/2					F <u>a</u> vorites
					Switch to	
_		No surve	ey PDOP	:2.1		
Esc	Filter	Review	Page	e Pag	je 🖊	Accept

You will see that the H and V precision has been calculated

MyMobiler			
Eile Edit View Tools			
📃 🖬 🖞 🛍 🗳 😓 😓 😓			
😰 RTX Offset		→ 🕛	? — ×
RTK point:	Code:		95%
RTK 🕨	?		67%
RTX point:	Code:		🍂 13
RTX	?		
Precision			₩ ?
Harizantal procision	Vartical presision	.	
	o 440 off		<u>M</u> ap
0.05951	0.119Sft		M <u>e</u> nu
		4/2	F <u>a</u> vorites
			Switch to
No surv	vey PDOP:2.1		
Esc None			Apply



And your offset has been measured

MyMobile	er		_	- 0 - X -
<u>File</u> Edit	View <u>T</u> ools			
🗏 🛛 🚜	ò 🛍 🖥 🖷 🖌) 🏷		
🖗 R	RTX Offset		→	? — X
				95%
_∫ Offse	ət			6/%
Slope	dist:	ΔΧ:		<i></i> 14
5.35	5sft	2.050sft		
ΔΥ:		ΔΖ:		
-4.9	16sft	0.555sft		Y (
Data	:I_			<u>М</u> ар
				M <u>e</u> nu
Base	point:		0/2	F <u>a</u> vorites
Ľ			Z^*	Switch to
	No	survey PDOP:1.9		
Esc	None			Apply

Click apply to apply the offset then hit enter to confirm the changes



neigps.com