

iG9 Antenna Model in SurvPC

Date: 8 October, 2021

Thesis

The default antenna model in SurvCE/PC does not include the radius or SHMP for the iG9 so it is not possible to use a Slant Height. This document shows how to add a custom antenna type to SurvCE/PC.

Solution

The default NGS Absolute Antenna calibration does not include a Radius or SHMP offset.

If you plan on using a 'Slant' measurement, you will need to edit the antenna model and enter the device radius and SHMP. On the 'Receiver' tab of the Base or Rover setup, click the antenna button: Ī

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Next click the 'Copy' button:

SurvCE C	D #	∖ × ◄	÷ 🖻 1	.2:28
Define Antenna				×
Manufacturer: CHC			Ne	W
Part Number: CHCI90	NONE			oy ete
Description:	8032	-0005	01-02	
Radius (m):	.0002	0	01 02	
SHMP Offset	(m):	0		
L1(m): 0.1053	L2(m): 0.1	064	
		-		



Change the 'Part Number' to 'IG9-USER':



Enter the Radius and SHMP Offset as shown above.

Then click the green check mark.	Then	click the	e green	check	mark.
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	<u>C</u> ancel		
L1(m): 0	.1053 L2(m):	0.1064	
L1 ar	nd L2 Offsets		

Click on 'Yes'.

A new antenna model is now available that includes the information required to use Slant antenna height measurements.

2



Enter the correct 'Antenna Height' (the distance from the Ground Mark to the receiver head.)



If the Base receiver is mounted on a fixed height pole, select 'Vertical' and enter the vertical distance from the Ground Mark to the bottom of the antenna as shown in **blue** above.

If the Base receiver is mounted on a tripod and you can't make a direct vertical measurement, select 'Slant' and enter the slanted tape distance from the ground mark to the bottom of the blue band that separates the white top from the gray bottom as shown in red above.

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GPS Base] [\checkmark		X
Current Comm	s Rec	eiv	er	R	TK 🗋
[IG9-USER] CH(Abs.					
Vertical Slant					
Antenna Height: 6.5617 ft					
Elevation Mask:	10				°
Position Rate:	1 Hz				
Use IMU					
Advanced					

If the receiver is mounted on a fixed height metric tripod or pole, you can enter the '**Antenna Height**' in meters followed by 'm' and it will be converted to the current job units.

Set the '**Position Rate**' at 1 Hz for a Base and 5 Hz for a Rover.

Uncheck the 'Use IMU' (Tilt / Heading Compensation) for a 'Base' receiver or an iG9a (without Tilt).