## Submitting a X900+ .HCN file to OPUS for PPP

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1. Make sure you have a recent RINEX convertor: Click on 'About: About RINEX Converter...'

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	File(F)	Convert(	C) V	iew(V)	Abo	ut(A)			
	About RINEX Converter								
	File Name		Epoch Decoded		Epoch Convert		vert		

Expect version 2.0.6 or higher:



If you don't have the correct version you can download it from here: <u>http://x9gps.com/Tools/Utilities/HCNtoRINEX/2.06/RINEXConverter.exe</u>

## 2. Place the .HCN file in a folder, run the RINEX converter:

<b>3</b>			<b>RINEX</b> Conver		×				
File(F) Convert(	File(F) Convert(C) View(V) About(A)								
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File Name	Epoch Decoded	Epoch Convert	GPS Eph	GLO Eph	BDS Eph	Ant.Height			

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3. Click on the Settings Gear:



4. Configure the Options as shown below:

	Opti	ons		×
Output RINEX Version	2.10 💌			
RunBy/Obsv/Agency	СНС			
Comment				
Maker Name				
Rec #/Type/Vers				
Ant #/Type				
Approx Pos XYZ	0.000000	0.000000	0.000000	
Ant Delta H/E/N	0.000000	0.000000	0.000000	
INTERVAL	0.000000			
Satellite Systems	alileo 🗌 QZSS 🗍 S	BAS 🗌 BeiDou	Excluded Satellites	
		2 🗌 L5 🔲 L7	7 🔲 L 6 🔲 L 8	
Option:	Debug	<b>_</b>	OK <u>C</u> ancel	

Specifically uncheck GLO, uncheck Galileo, uncheck BeiDou; set the Output RINEX Version to 2.10. For OPUS, nothing else makes any difference.

5. Click on OK to close the Options dialog, then click on the 'Open File' button:



6. Browse to the folder where your HCN file is located:

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Organize 🔻 New folder				= •	?	
☆ Favorites	Name	Date modified	Туре	▼ Size		
E Desktop	917669221A0.HCN	8/16/2014 9:06 AM	HCN File	6,573 KB		
\rm Downloads						
🚹 Google Drive						
Recent places	4					
File <u>n</u> ame	e:		✓ Huace Ob	s. File(*.HCN)	~	
			<u>O</u> per	n Cancel		

Double-click on the .HCN file you want to convert.

7. Notice that the RINEX Converter will automatically place the output file in a 'Rinex' folder (which it will make if needed) under the input file:

RINEX Converter -									
File( <u>F</u> ) Convert( <u>C</u> ) View( <u>V</u> ) About( <u>A</u> )									
File Name	Epoch Decoded	Epoch Convert	GPS Eph	GLO Eph	BDS Eph	Ant.Height			
C:\_tmp\JohnD						0.000000			
<									
Export Path									
C:\ tmp\JohnD\Rinex\									
			_						
Ready									

8. Click on the green 'Convert' button:



- The resulting file will be ready to submit to OPUS, however it will speed up the upload process if you ZIP the navigation file. I like to use 7-Zip which you can download from this link: <a href="http://www.7-zip.org/">http://www.7-zip.org/</a>
- 10. [OPTIONAL COMPRESSION STEP] Browse to the folder where the converted RINEX files were placed:

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Right click on the observation file (the file that ends in letter "O"), then choose "Add to 'xxxxxx.zip'" option.

11. You can now submit the compressed .ZIP file to OPUS which will upload much faster.