

5.2 Modifying the Logfile for GIS import

Procedure:

1. In **Template Headings**, copy the line of headings that have boxes highlighted in blue over to the top of your **Active Data** worksheet
2. Copy the raw WinHorizon data just underneath the newly pasted headings in **Active Data**
 - a. The headings should now correspond to the raw WinHorizon output in the columns (Fig.1)
3. Delete the columns that are not needed as identified by the blue highlighted header (Fig.1)

RATTM	Target#	Target Distance from ship (km)	Bearing from ship (°)
0	0	0.34	152.58
0	0	0.33	147.66
0	0	0.33	147.66

Delete columns with blue headers

Figure 1. Copying headers over to identify WinHorizon Output

4. Insert a two rows above the headers
5. Back in **Header Templates**, copy the Active Data Headers and paste them in the rows that were just created in your **Active Data** worksheet
6. After ensuring all the columns are in order and entering *your* radar UTM's (East and North), drag the numbers under **Radar UTMN, UTME, X and Y** (Fig. 2)
 - a. This copies the values for the radar UTM and the formulas to calculate the X and Y coordinates that GIS uses to place the target
 - i. For this step to work properly, the correct heading offset must have been set in WinHorizon *before* the track was made and the radar UTM's need to be correct (remember that GPS units usually give Lat/Long)
 - i. If the position of the Radar is not in UTM's, go to www.rcn.montana.edu/resources/tools/coordinates
 - b. Double click on a few X and Y cells to ensure that the formulas are correct (see Excel formulas)
7. You can now delete the extra set of headers (Fig.2)
 - c. Make sure you also delete the hypothetical values pasted in with Active Data Headers that were used to drag down the formulas as to not create a false point for your track (Fig. 2)

Record Number (based on File name)	Acquire time (based on File name)	Radar UTME	Radar UTMN	Delta X	Delta Y	X	Y	TrialNo
878	163913.00	521623	5971222	-1113.46	815.2302	520510	5972037	
				Hypothetical values				
		521623	5971222	#VALUE!	#VALUE!	#VALUE!	#VALUE!	
693	132612.00	521623	5971222	164.5514	-342.524	521788	5970879	
694	132637.00	521623	5971222	164.5514	-342.524	521788	5970879	
694	132637.00	521623	5971222	164.5514	-342.524	521788	5970879	
694	132702.00	521623	5971222	164.5514	-342.524	521788	5970879	
695	132702.00	521623	5971222	171.1806	-293.764	521794	5970928	
696	132727.00	521623	5971222	164.5514	-342.524	521788	5970879	
696	132727.00	521623	5971222	183.3382	-274.385	521806	5970948	
696	132727.00	521623	5971222	164.5514	-342.524	521788	5970879	
696	132727.00	521623	5971222	199.9469	-249.842	521823	5970972	
697	132752.00	521623	5971222	164.5514	-342.524	521788	5970879	
697	132752.00	521623	5971222	199.9469	-249.842	521823	5970972	
698	132817.00	521623	5971222	164.5514	-342.524	521788	5970879	
698	132817.00	521623	5971222	205.5168	-218.547	521829	5971003	
699	132842.00	521623	5971222	234.7392	-202.478	521858	5971020	
700	132907.00	521623	5971222	253.4396	-178.517	521876	5971043	
701	132932.00	521623	5971222	269.7303	-152.793	521893	5971069	
701	132932.00	521623	5971222	290.9323	-133.261	521914	5971089	
702	132957.00	521623	5971222	290.9323	-133.261	521914	5971089	
703	133022.00	521623	5971222	305.0548	-96.6519	521928	5971125	
704	133047.00	521623	5971222	323.2598	-66.3557	521946	5971156	
704	133047.00	521623	5971222	337.9271	-37.4866	521961	5971185	
705	133112.00*15							
706	133137.00*14							

Figure 2. Calculating X and Y coordinates of bird tracks

8. Add two new columns in the beginning of your **Active Data** worksheet
 - a. Name the first column **Route Number** and the second **Species**
 - b. Go to your field observations for that track and find the route number and species and copy it into your **Active Data** sheet
 - i. This allows you to easily locate the same bird in your WinHorizon Output and Field Observation GIS attribute files
 - c. It is also useful to manually add in the number of birds and the time and date of the recording
9. In **Header Templates**, copy the GIS Heading (Fig. 3) into your **GIS** worksheet
 - a. Add in headings for any extra columns you placed in the **Active Data** worksheet (Time, date, extra notes etc.)
 - b. Headings must be 8 characters or fewer with no spaces or punctuation
10. Paste just values of your entire **Active Data** worksheet underneath the GIS headings and ensure that all columns are in order before deleting the old headings
 - a. Right click-Paste Special-Paste Values
11. Copy the GIS worksheet and paste it into an entirely new workbook
12. Save the new workbook in **.csv** (comma separated values) format and name the file accordingly

13. The file is now ready to bring into GIS (**WinHorizon to Arcmap Protocols**)
14. If the **Logfile Template** is not available, equations can be found in the last page of **WinHorizon Output to GIS-Ready Data**

WinHorizon Output Headers								
NEMA	Target#	Target Distance from ship (km)	Bearing from ship (°)	True or Relative	Target speed (KT)	Target course (°)	True or Relative	Distance to CPA
Active Data Headers								
Target#	Target Distance from ship (km)	Bearing from ship (°)	Target speed (KT)	Target course (°)	Target Intensity (units?)	Target Status (Q=acquiring, T=tracking)	Time of Output (units? Of processing ?)	Acquire Time of Target (units? ts&#s)
GIS Headers								
TargetN	Dist2T	BearingT	Tspeed	Tcourse	Tintensity	Tstatus	TimeoutP	TAqrTime

Delete columns in blue




Figure 1. Header template sheet