

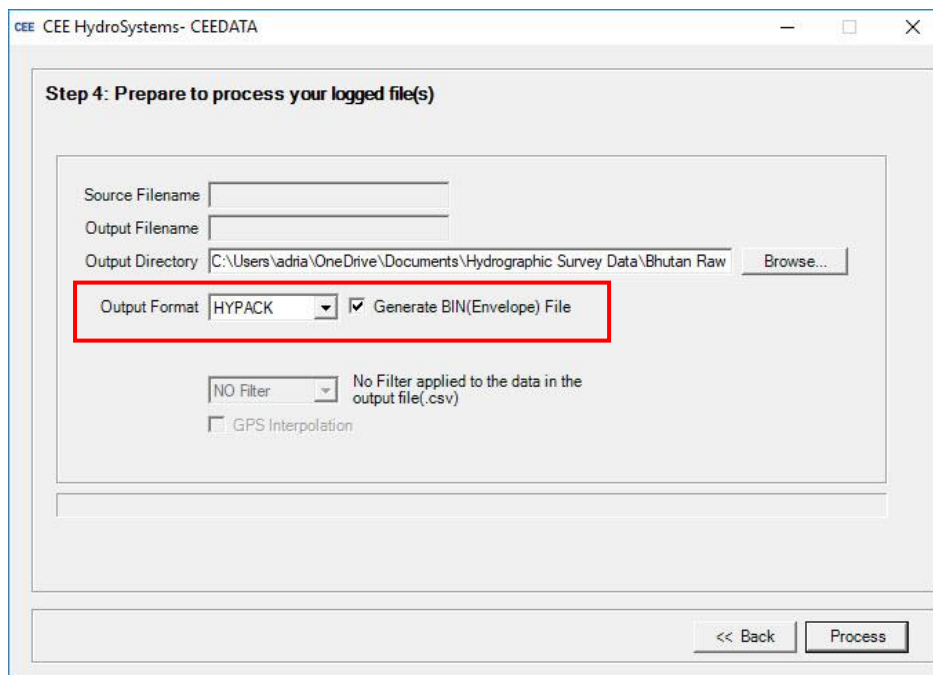
## Importing Saved CEESCOPE Data into HYPACK and Hydromagic

The CEE HydroSystems CEESCOPE™ and CEE ECHO™ can record all survey data on internal memory and a connected USB flash drive. These data may be easily imported into a HYPACK or Hydromagic project for editing, however it is important to follow the appropriate procedure to ensure the desired project geodesy and measurement units are properly set up in the final data file.

The critical point to note is that all survey data **recorded** by the CEESCOPE (which also applies to the CEESCOPE-LITE and CEE ECHO) is in **METERS** and XY coordinates in the appropriate **UTM ZONE**. The CEESCOPE will determine the correct UTM zone on startup and the XY coordinates generated by the GPS receiver are displayed on the home screen. Alternatively, WGS84 lat / long may be displayed. Note that the LCD display units for position and depth data (feet or meters) has no effect on the data recorded. Therefore, unless the geodesy of the final HYPACK or Hydromagic project is UTM, with meters as the units of measure, any CEESCOPE recorded data cannot be directly imported in one step. To properly process recorded data, the CEESCOPE files are first imported into a UTM project. This project is then converted to the desired Geodesy by software tools.

If using HYPACK:

- First use the CEE DATA utility to generate the HYPACK .RAW and .BIN files from the compressed CEESCOPE .csc files. The CEESCOPE .csc files cannot be imported directly into a HYPACK project. Ensure that the BIN (envelope) echogram is generated and the drop-down output format is set to HYPACK or HYPACK RTK. The CEESCOPE output format will result in a .csv spreadsheet and should not be selected.



If using Hydromagic:

- CEE DATA is not required; Hydromagic is able to import CEESCOPE .csc files directly into its proprietary data format without CEE DATA, through the "Import Data Wizard".

## Stage 1: Importing RAW Data to UTM Project

Create a new project with the appropriate UTM zone selected, with METER units. This project is where the recorded data will be first imported, but it will not be the final project. If in doubt, the recorded UTM zone is shown in the CEE DATA screen below.

Step 3: Set your grid parameters and spheroidal transformation settings  
Note: If not working to WGS-84 Spheroid and/or UTM Grid apply transformation here to fit final projection. Refer to CEEDATA manual for further information

Click file to view details :  
cee\_07122016\_161318.csc

File Date: 07/12/2016  
Data Points: N/A  
Echounder(s): (HF + LF)  
E/S Draft A: 0.15  
E/S Draft B: 0.00  
S/V: 1447.0

Grid Parameters  
Zone Width: 6  
False Easting: 500000  
False Northing: 0  
CM Scale: 0.9996  
Lat 0: 0  
Lon 0: 87  
Central Meridian: 87  
Zone Number: 45

Spheroidal Transformations  
Dx: 0  
Dy: 0  
Dz: 0  
Rx: 0  
Ry: 0  
Rz: 0  
Scale: 0  
A: 6378137  
1/F: 298.257223563  
WGS-84  
Settings

<< Back Next >>

If using HYPACK, simply cut and paste the .RAW, .BIN and LOG files generated by CEE DATA into the RAW DATA folder of the project. Then right-click on the RAW data folder in the project explorer and “add files” to bring the new files into the project manager.

If using Hydromagic, right click on Raw Data and open the “Import Data Wizard”. Then select the \*.csc files to import. The raw data and echogram files will automatically be added to the project.

Select File Format  
Select the format of the file(s) to import

Select File Format  
CEE HydroSystems Project Files (\*.csc)

Use the 'CEE HydroSystems Project Files' option to import time tagged depth, position and water column (echogram) data recorded by CEE echosounders.

< Back Next > Cancel

Select Files  
Select the file(s) to import

Input folder  
Input Folder: C:\Users\adria\OneDrive\Documents\Hydrographic Survey Data\B\ Browse...

FileName	Size
<input checked="" type="checkbox"/> cee_07122016_161318.csc	436 KB
<input checked="" type="checkbox"/> cee_07122016_161836.csc	424 KB
<input checked="" type="checkbox"/> cee_08122016_104039.csc	2,130 KB
<input checked="" type="checkbox"/> cee_08122016_113429.csc	2,315 KB
<input checked="" type="checkbox"/> cee_08122016_122550.csc	20 KB
<input checked="" type="checkbox"/> cee_08122016_122824.csc	1,675 KB
<input type="checkbox"/> cee_08122016_144013.csc	1,955 KB
<input type="checkbox"/> cee_08122016_152316.csc	2,843 KB
<input type="checkbox"/> cee_10122016_102257.csc	261 KB
<input type="checkbox"/> cee_10122016_102719.csc	3,605 KB

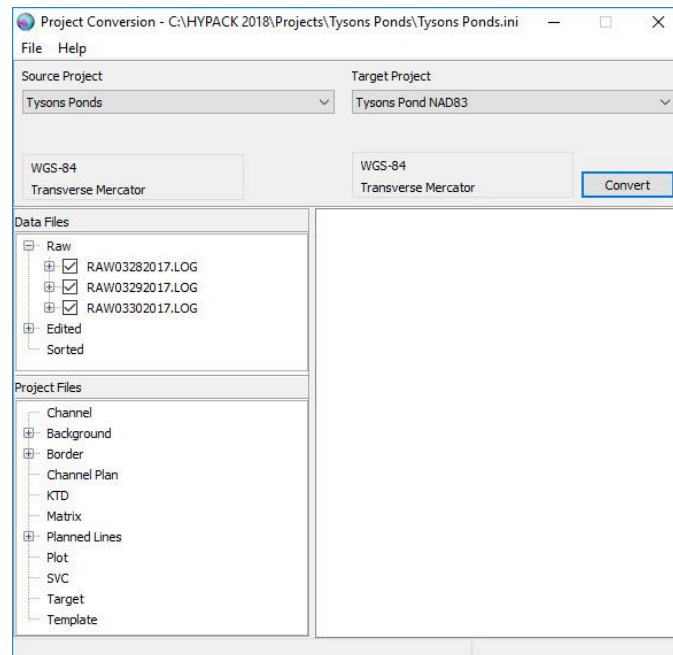
Select All Select None Refresh

< Back Next > Cancel

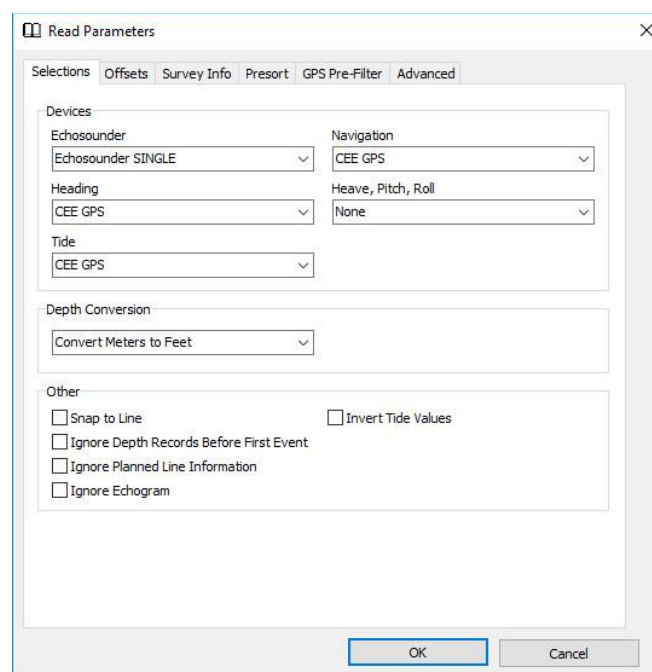
## Stage 2: Modifying the Project Geodesy

Now, the HYPACK or Hydromagic projects are complete however are likely to be on an incorrect grid and may also have undesired units. Here, we can convert from UTM to an alternate geodesy – for example NAD83 US State Plane in US Survey Feet units.

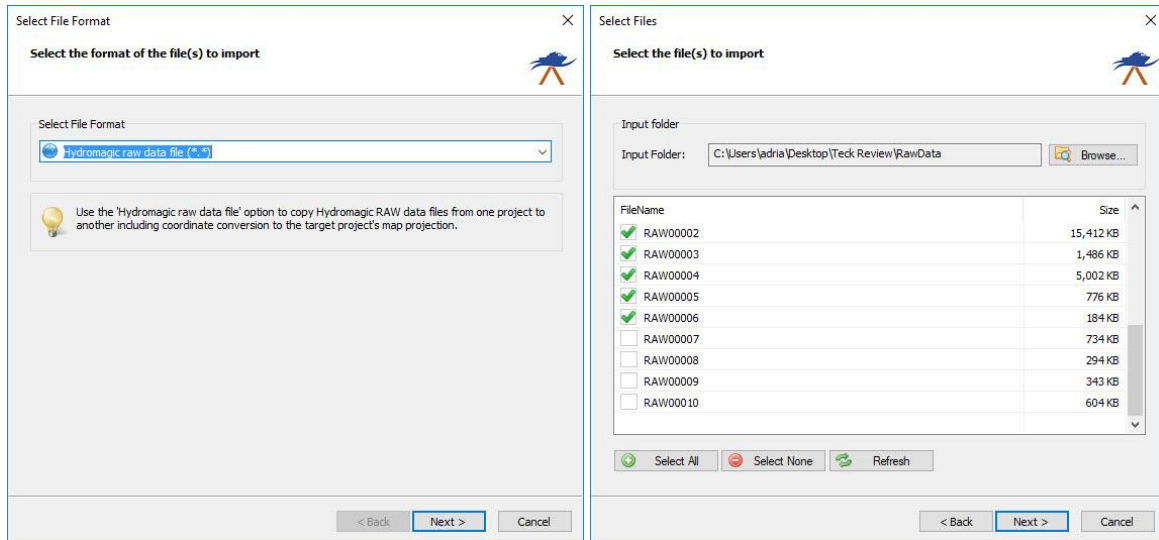
If using HYPACK, first generate a new project with the desired geodesy and save this project. This is the final project. Then, go to Utilities/Geodesy/Project Conversion and transfer and convert the RAW data from the source (UTM/Meters) project to the target (NAD83/Feet) project.



The depth units in the new project are still in meters, even though the grid XY is now transformed to survey feet. One cannot change depth units in the project conversion tool for RAW data. In order to convert the project depth units, EDITED data is required. Simply choose “Convert Meters to Feet” when processing data with SBMax.



If using Hydromagic, first generate a new project with the desired geodesy and save this project. This is the final project. Then, right click on Raw Data and open the “Raw Data Import Wizard”. Simply navigate to the RAW data in the original UTM project folder and import these files to the new project. Select the Hydromagic Raw Data format. Hydromagic will automatically convert the geodesy of the imported files to the target project and change the units of measure, as appropriate for XY and depth.



Now, the original UTM projects may be deleted and all data are in the final project geodesy.