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) are in **METERS** and XY coordinates are 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. For HYPACK, the project into which the data will be imported must be set up with the correct UTM zone grid with meters as the units of measure. 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. For Hydromagic, any CEE data may be imported directly into a project with any selected geodesy as Hydromagic performs a data conversion upon import.

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.
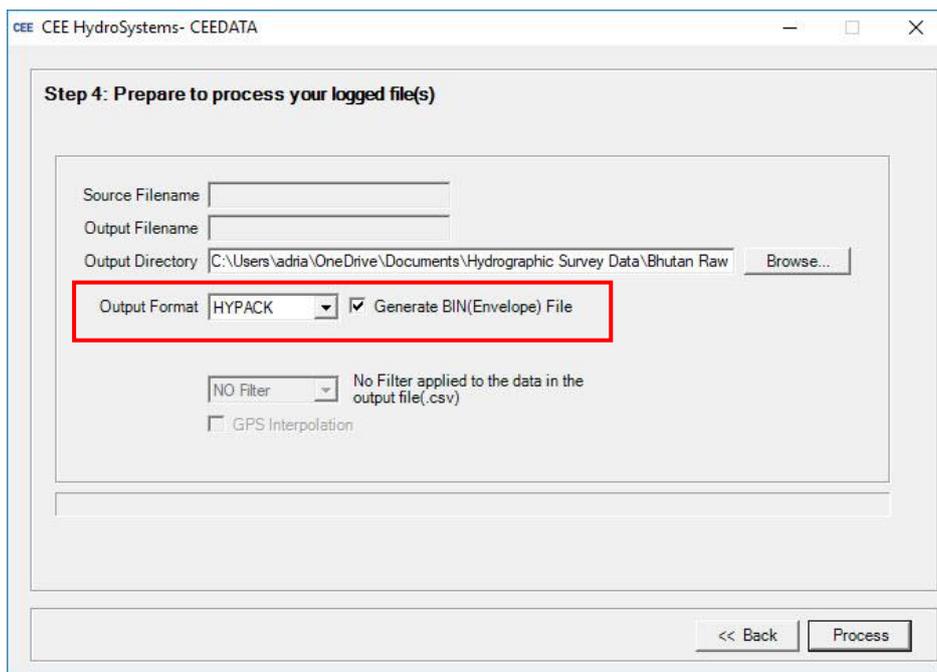
Stage 1: Importing RAW Data to HYPACK UTM Project

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.

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.

Stage 2: Modifying the Project Geodesy

Now, the HYPACK project is complete with all the survey data but might be on an incorrect grid and may also have undesired units. Next, we can convert from UTM to an alternate geodesy – for example NAD83 US State Plane with 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.
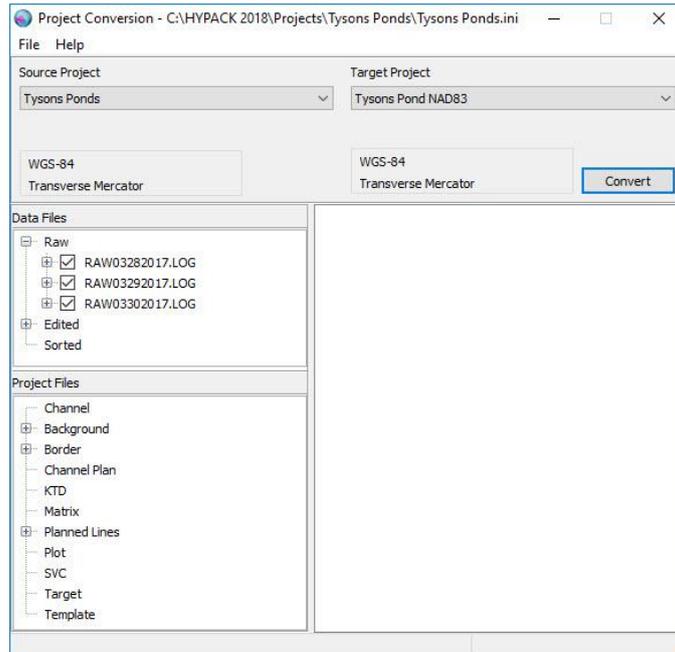
The depth units in the new project are still in meters, even though the grid XY is now transformed to survey feet. One cannot change depth units in the project conversion tool for RAW data. In order to convert the project depth units, EDITED data is required. You must choose "Convert Meters to Feet" when processing data with SBMax.
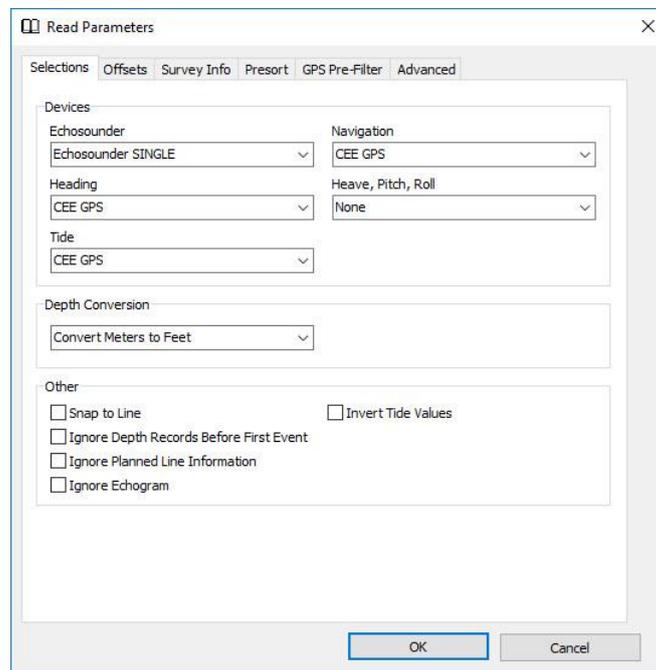
Now, the original UTM projects may be deleted and all data are in the final project geodesy.

If using Hydromagic:

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

Right click on the Raw Data heading in the Project Explorer and open the "Import Data Wizard". Then select the directory containing the *.csc files to import. The raw data and echogram files will automatically be added to the project and the units and coordinates will be automatically modified to match the project.