

Pre-Survey

- Create or Open Project
 - File -> Project Manager ->Open Existing or Create New Project
- Define Geodetic Parameters
 - Preparation -> Geodetic Parameters
- Configure Hardware
 - Preparation ->Hypack Hardware
 - Add Devices -> Select what data you want from Device
 - GPS NMEA 0183
 - Position
 - Speed
 - Use only GGA and VTG under advanced set-up tab
 - Depth Sounder: NMEA 0183
 - Depth
 - Define Connection Parameters
 - Test
 - Define Offsets
 - No Offset for NMEA 0183 if it is directly above the transducer
 - Postive Z offset for Sonarmite Echosounder (bottom of transducer to water surface)
- Plan Survey
 - Import Background File
 - Right click on Background Files ->Add File and Copy
 - Create Border
 - Preparation -> Editors -> Border Editor
 - Create Border around Survey Area
 - Right Click inside of Border
 - Create Matrix
 - Preparation -> Editors -> Matrix Editor
 - Size Matrix to encompass Survey Area
 - Change Cell Width and Height to resolution wanted
 - Create Planned Lines
 - Preparation -> Editors -> Line Editor
 - Define First Line -> Offsets -> Offset lines to cover survey area
 - Clip Lines to Border (if used)
 - Select Clip -> Load Border File
 - Mark Targets (if needed)
 - Preparation -> Editors -> Target Editor
 - You can double click on your Map while surveying to mark targets

Survey

- **Click Survey**

- Load Matrix
 - Matrix -> Load -> Select MTX File
- Load Lines
 - Line -> Select File -> Select Line File you want to run
- Use Hotkey Commands
 - Ctrl+S
 - Start Logging
 - Ctrl+E
 - End Logging (automatically goes to next line)
 - Ctrl+I
 - Increment ahead one Line
 - Ctrl+D
 - Decrement to Previous Line
 - Ctrl+W
 - Swap Travel Direction of Line
- Collect Survey Data

Post Processing

- Create Tide File
 - Processing -> Tides -> Manual Tides
 - Enter Time & Tide values
 - OR download a NOAA Tide File
- Create SV File (if SV cast was done)
 - Processing -> Sound Velocity -> Sound Velocity
 - Enter Depth
 - Enter Velocity Value
- Import RAW Files into Single Beam Editor
 - Processing -> Single Beam Editor
 - File -> Open
 - Select Log File
 - Select RAW Files you want to Process
 - Load Tide File
 - Load SV File
 - Check Device Selections and Offsets
- Clean Data
 - Click Right Arrow to Move to Next Line
 - Right click in Echogram to change display settings
 - Use eraser or delete above/below line to clean out bad points
 - Select to interpolate OR delete removed depths
- Save Each Line as EDT File when Clean
 - File -> Save
- Save XYZ Files
 - File -> Save to XYZ
- Bin (thin) Data in Mapper
 - Processing -> Sounding Selection -> Mapper
 - Open Matrix
 - File -> Open Matrix
 - Do not load soundings from Matrix
 - Select Survey Depth
 - Add Soundings to Matrix
 - Update with XYZ File (In Sort Folder)
 - Select Soundings to Use
 - Options -> Data Selection

- Need to Negate all Z Values IF going into AutoCAD
 - Save Binned Soundings to XYZ
 - File -> Save Soundings -> Save XYZ Format
- Bring XYZ into TIN Model
 - Final Products -> TIN Model
 - File -> New -> Input File -> Select XYZ
 - Change Color Band
 - Modify -> Colors
 - Generate Model
 - Either 2D or 3D
 - Export to DXF (or other file)
 - Export ->DXF
 - Choose export type
 - Check Solid Area and Contours for color coded Fill Area with contours
 - Define Contour Step and Attributes
 - Check Show Picture and Define output file
 - Export
- Create Plotting Sheet
 - Preparation -> Editors -> Plotting Sheet Editor
 - Resize Sheet around Survey Area (leave a decent buffer zone)
- Create Map in Hyplot
 - Final Products -> Hyplot -> Select Plotting Sheet
 - Select what you want to display using Folder Trees to the left
 - Add Information to your map
 - Settings -> Control Panel
- Print/Save/Export Map
 - File -> Print
 - File -> Save (for later editing)
 - File -> Export -> Select needed format