



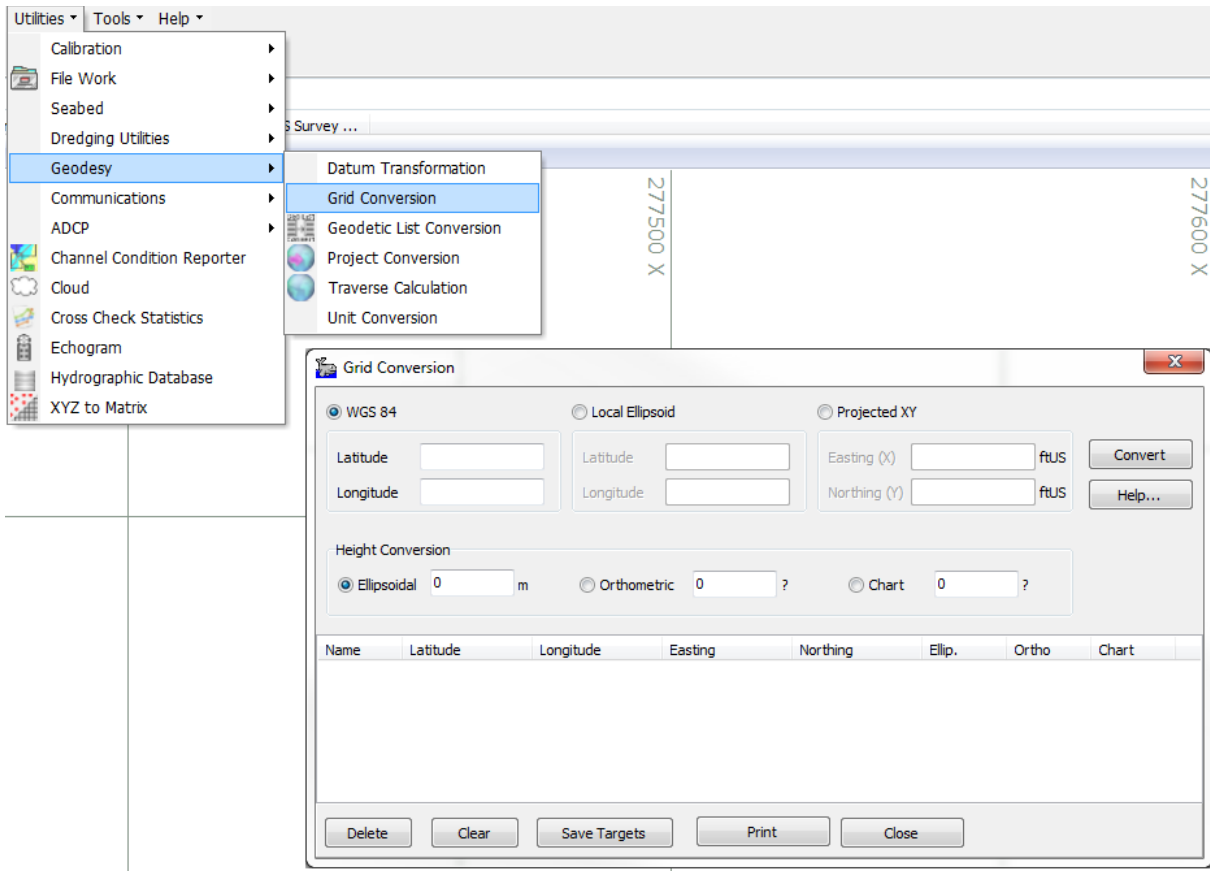
## Grid Conversion Update

By John Lindbergh

HYPACK recently updated the Grid Conversion program to allow more flexibility. As most users know, the Grid Conversion allows you to convert between WGS84 latitude/longitude and the XY grid specified in the GEODETIC PARAMETERS program. Whereas the Grid Conversion program was a standalone executable (geoconv.exe), it is now built into the HYPACK Shell.

You can access the GRID CONVERSION program under UTILITIES – GEODESY – GRID CONVERSION.

**FIGURE 1. GRID CONVERSION**



One nice feature is that GRID CONVERSION accepts any latitude/longitude convention you can throw at it. If you have any of the RTK options selected in GEODETIC PARAMETERS, the elevation is calculated, too.

The converted coordinate listing has also been updated to reflect the height conversions as shown here:

**FIGURE 2.** Updated GRID CONVERSION Interface

The screenshot shows the 'Grid Conversion' interface with three radio buttons at the top: 'WGS 84' (selected), 'Local Ellipsoid', and 'Projected XY'. Below each radio button is a set of input fields. For 'WGS 84', the fields are Latitude (41 57 37) and Longitude (-72 43 42). For 'Local Ellipsoid', the fields are Latitude (41 57 37 N) and Longitude (072 43 42 W). For 'Projected XY', the fields are Easting (X) (1005893.148 ftUS) and Northing (Y) (910631.457 ftUS). To the right of these fields are 'Convert' and 'Help...' buttons. Below the coordinate fields is a 'Height Conversion' section with three radio buttons: 'Ellipsoidal' (selected), 'Orthometric', and 'Chart'. Each has an associated input field: '0.000 m', '95.155 ?', and '95.155 ?' respectively. At the bottom is a table with 8 columns: Name, Latitude, Longitude, Easting, Northing, Ellip., Ortho, and Chart.

Name	Latitude	Longitude	Easting	Northing	Ellip.	Ortho	Chart
0	41 57 37 N	072 43 42 W	1005893.148	910631.457	0.000	95.155	95.155

You can rename each point in the list by highlighting the point name, pressing ENTER on your keyboard, and typing in the new name.

**FIGURE 3.** Point Renamed

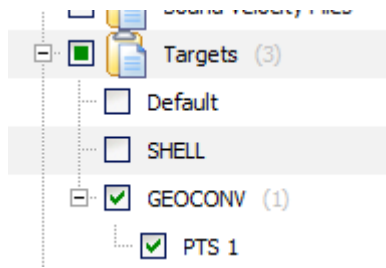
This screenshot is similar to Figure 2 but shows the point name '0' in the table replaced by 'PTS 1', which is highlighted with a blue selection box. The interface elements (radio buttons, input fields, and buttons) are identical to Figure 2. The table at the bottom is as follows:

Name	Latitude	Longitude	Easting	Northing	Ellip.	Ortho	Chart
PTS 1	41 57 37 N	072 43 42 W	1005893.148	910631.457	0.000	95.155	95.155

At the bottom of the window, there are five buttons: 'Delete', 'Clear', 'Save Targets', 'Print', and 'Close'.

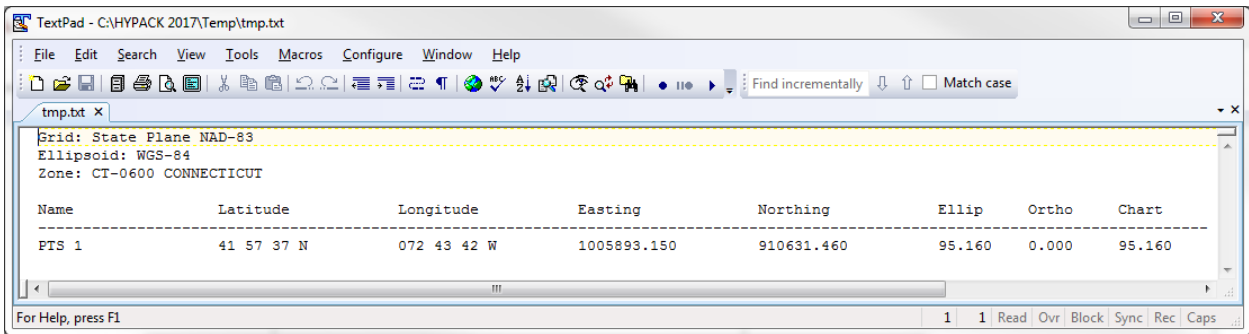
If you click [Save Targets], the point list will be saved to the project target database under a "GEOCONV" group.

**FIGURE 4.** Saving Geodetic Conversion Points to the Targets Database



If you click [Print], the point list opens in a text editor so you can print the list, add the point conversion listing to a report, etc.

**FIGURE 5.** GRID CONVERSION Points and Parameters in Text Format



The updated Shell/Grid Conversion will be able in the next HYPACK® release.