



Using NMEA Output to Output Tracking Point Position

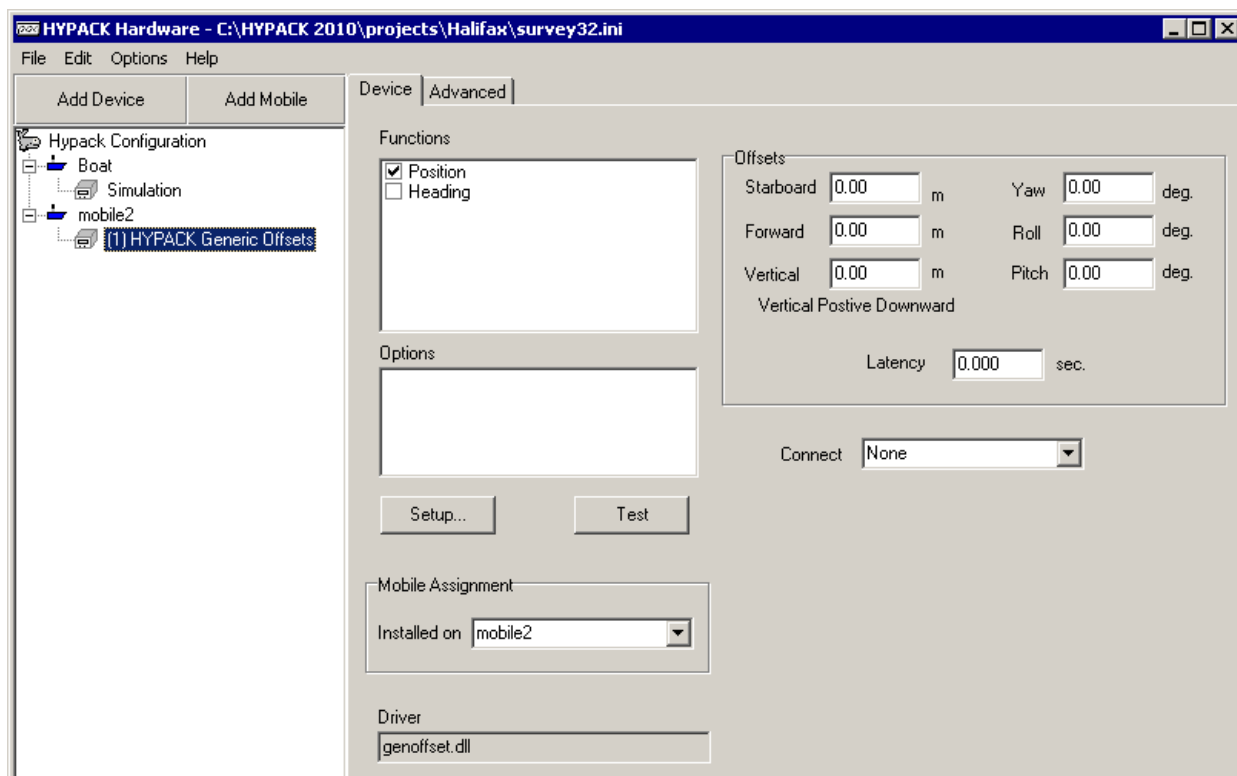
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I recently fielded a call from a customer that wanted to use the Shared Memory NMEA Output feature in SURVEY to send NMEA strings describing the position of the tracking point. The stumbling point for them was that the NMEA Output was generating positions of the boat origin, not the tracking point.

This is, in fact, how all Shared Memory programs work; none of the offsets are applied to the generated values. So, then what can these folks do to get the data they need? Create another mobile at the tracking point and use the NMEA Output program to output *its* position. Here's how it works:

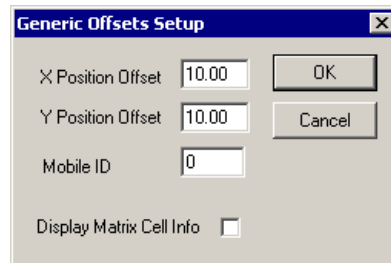
1. **Create a second mobile.** In HARDWARE, click [Add Mobile]. An additional vessel will be added to your configuration as 'Mobile 2'.
2. **Use the GenOffset driver to calculate the position of 'Mobile 2' relative to the 'Boat' origin.**
 - a. **Select Mobile 2 and click [Add Device].**
 - b. **Select the GenOffset driver.**
 - c. **In the GenOffset device setup, enter 'Mobile 2' as the Mobile Assignment and enter no offsets or connection settings.**

FIGURE 1. GenOffsets Device Setup



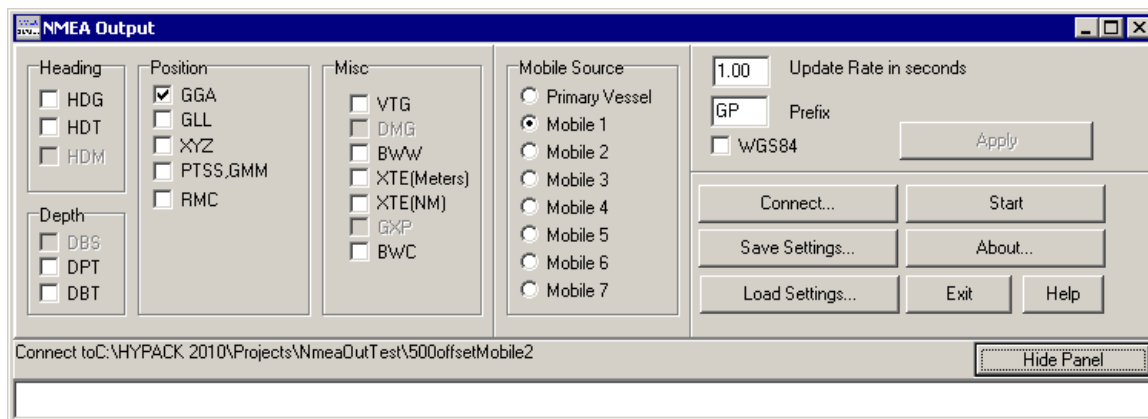
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- d. In the GenOffset driver setup, enter the same offsets as those of your tracking point on the 'Boat' (assuming your GPS is at the origin).

FIGURE 2. GenOffsets Driver Setup Dialog



3. In the Shared Memory NMEA Output program, output the positions for Mobile 1.

FIGURE 3. NMEA Output Settings



- a. **Select "Mobile 1" as the Mobile Source.** 'Mobile 1' in the NMEA Output program is the first mobile after the default boat--the same thing as 'Mobile 2' in HARDWARE.

NOTE: Even if you select the 2nd mobile as the main vessel in SURVEY, it is still Mobile 1 in the Shared Memory programs. All Shared Memory programs go by the order the mobiles are created in the hardware configuration.)

- b. **Select the NMEA position string(s)** you want to output.
- c. **Click [Connect],** enter connection information for sending the output and click [OK].
- **To send a NMEA string to another device** use a Serial connection.
 - **To record the data in an ASCII text file,** select 'File' and name your file.
- d. **Click [Start].** The output string, reflecting the position offset from the origin, should display in the bottom portion of the NMEA Output window.