



Sending Events to Odom MK3 Echosounder

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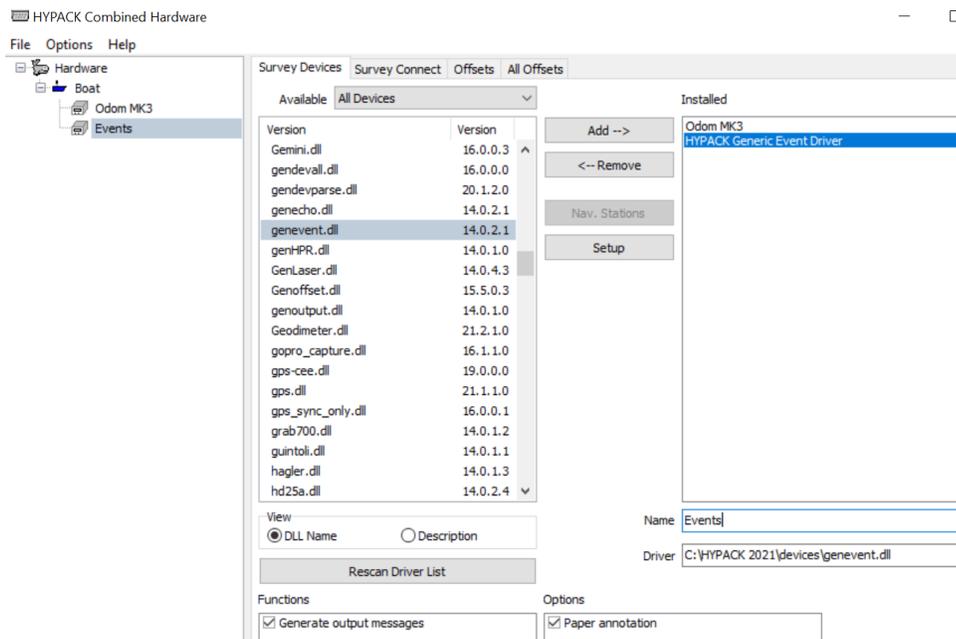
Recently I've been working on the request from one of our customers. They needed to send an annotation to the paper chart of the Odom MKIII SBE. Well, the standard Odom CV3/MKIII driver has an option to send the events with the event number, time and depth. What if custom events are required, such as Easting and Northing? How about the Line Name or something else? There is a solution as I'll describe below.

While the paper charts are not popular nowadays—most of modern sonars do not even have the paper rolls and they do all the charting electronically—there are still many users that need paper charts to prove their survey.

I have used the GENEVENT.DLL to accommodate the request to send a custom string to the sonar paper chart.

1. **Disable the 'Paper Annotation' Option for the Odom driver** as it does not send what is needed.
2. **Add the GenEvent.dll and make sure the Paper Annotation Option as well as Generate Output Messages Function are selected.** Optionally, you can change the driver name (I usually do as the default name, 'HYPACK Generic Event Driver' is too long.)

Fig.1 Adding the GenEvent.dll



Now the most important part!

3. Enter the GenEvent driver settings in a way that it sends what you need to the paper roll on the sonar.
 - a. Click [Setup].
 - b. Describe the **Start of Line Annotation (if needed)**. This event will be sent to the Paper Chart each time you start logging.
 - **Enter annotation data items.** Put your cursor in the input area then click [Field] to see available items and add them as needed.
 - **You can also add a description before the field.** (Optional) In the example below, I've added a "Date" description so that it is written in the Annotation. [Anything that is not a hex code or preceded by "%" is written as text in the output annotation.]

Look at the example following example:

- **\x06\x01** are hexadecimal codes that are required by Odom Hardware to annotate the string on the paper chart. Different sonars may need different HEX codes; please, ask the manufacturer.
 - **SOL** is Start Of Line;
 - **Date %D** is the survey date.
 - **\x04** is another HEX code to close the annotation string for Odom.
- Again, different sonars may require different closing codes.

- c. Click [Show] to preview what it will send.

Sample Start of Line Annotation

Start of line annotation

\x06\x01 SOL Date %D \x04
Field

<06><01> SOL Date 06-28-2021 <04>
Show

- d. Enter annotation at the end of line, if needed. This event will be sent to the Paper Chart each time you end logging. In the example below, the EOL stands for End Of Line and Line and File Names are included.

IMPORTANT: Remember to add HEX codes at the beginning and end of the annotation string.

Sample End of Line Annotation

End of line annotation

\x06\x01 EOL Line %L File %f \x04
Field

<06><01> EOL Line 001 File 001_1145.RAW' <04>
Show

- a. Set the annotation for the items that will be sent to the sonar.
 - **\x06\x01** are hexadecimal codes to initialize the annotation on the paper chart.
 - **Time %h** is the time of the event
 - **E %.2X** is Easting with 2 decimal place resolution.
 - **N %.2Y** is Northing with 2 decimal place resolution.
 - **HF Depth %.2Z** is High Frequency Depth with 2 decimal place resolution.

NOTE: The “.2” included in the Easting, Northing and Depth fields limits the resolution to 2 decimal places. It is not required.

You can add as many fields as you require from the Field listing. Just remember that the paper chart has very limited space.

b. **Finish the string with another HEX \x04.**

Sample Endo fo Line Annotation

Event annotation

\x06\x01 Time %h E %.2X N %.2Y HF Depth %.2Z \x04

<06><01> Time 09:10:15 E 454562.37 N 4944798.37 HF Depth 12.73 04

4. **In the Survey Connection tab set the same port that you used to get the data from the sonar.**
5. **Open the SURVEY program, go to Navigation Parameters and set the event properties** (i.e. how often you want them to be sent—based either on time or on distance). Keep in mind that a planned line is required to send events based on distance.