



## More Functionality Additions for the Inclinometer Driver

By John Marinuzzi

In an article for the July 2015 *Sounding Better!*, Bob Glover wrote about a few updates made for the inclinometer.dll device driver ([Functionality Additions for the Inclinometer Driver](#)). We continue to improve the driver. The latest round of updates include better graphics and better support for articulating arm cutter suction dredges.

### USING THE INCLINOMETER.DLL FOR AN ARTICULATING ARM CUTTER SUCTION DREDGE

Below is an image of the most basic setup of the inclinometer.dll for this purpose. This will require using two instances of inclinometer.dll on the same mobile.

#### ARM 1

FIGURE 1. Arm 1 Device Configuration

HYPACK Combined Hardware

File Options Help

Hardware

- Boat
- GPS
- Cutter
  - Arm 1
  - Arm 2

Survey Devices Survey Connect Offsets

Available All Devices

Version	Version
ais.dll	17.1.2.6
AnchorManager.dll	13.0.1.2
Bechtolt.dll	16.1.3.0
bucket.dll	16.1.1.0
CEESCOPE.dll	17.1.1.0
cutfill.dll	14.0.0.2
CutterDQMSender.dll	17.0.0.0
CutterDredge.dll	17.1.0.0

Installed

- Arm 1
- Arm 2

Add -->

<-- Remove

Nav. Stations

Setup

View

DLL Name  Description

Rescan Driver List

Functions

- Position
- Depth
- Heading
- Heave
- Draft
- Generate output messages

Options

- Use for matrix update

Name

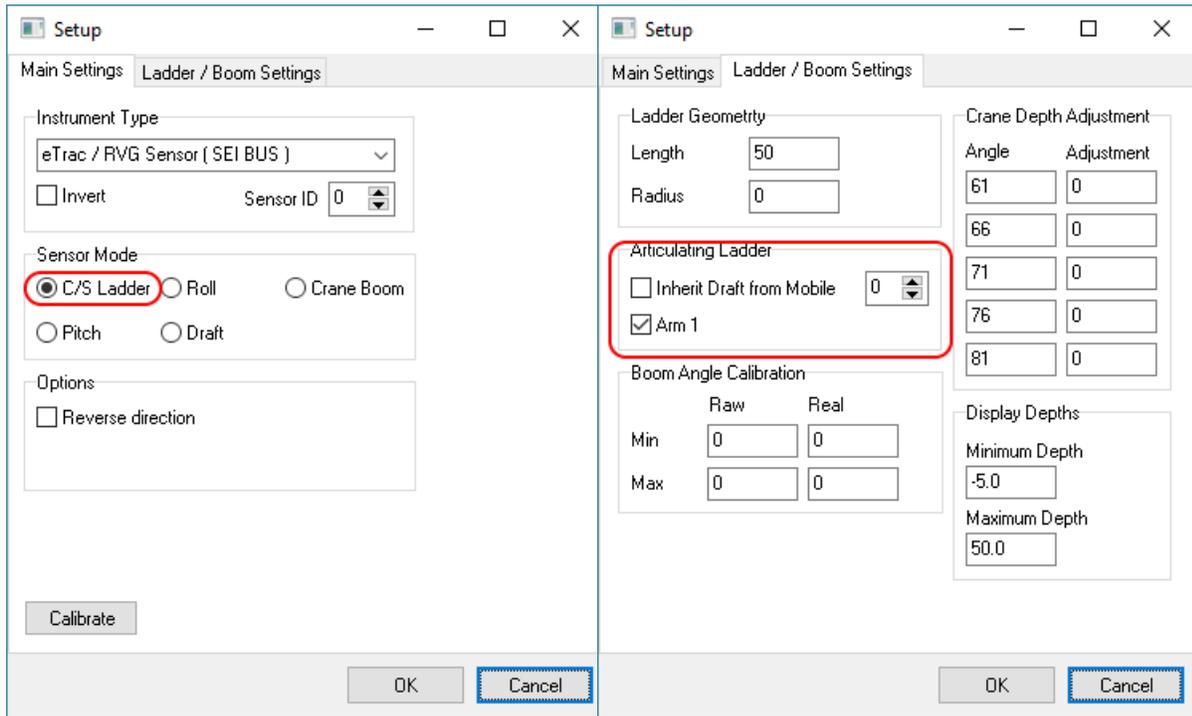
Arm 1

Driver C:\HYPACK 2017\devices\Inclinometer.dll

For Arm 1 Functions, you should select “Draft” and “Generate output messages.” The latter is only used for certain inclinometer types, but selecting it will not affect the functionality if unnecessary.

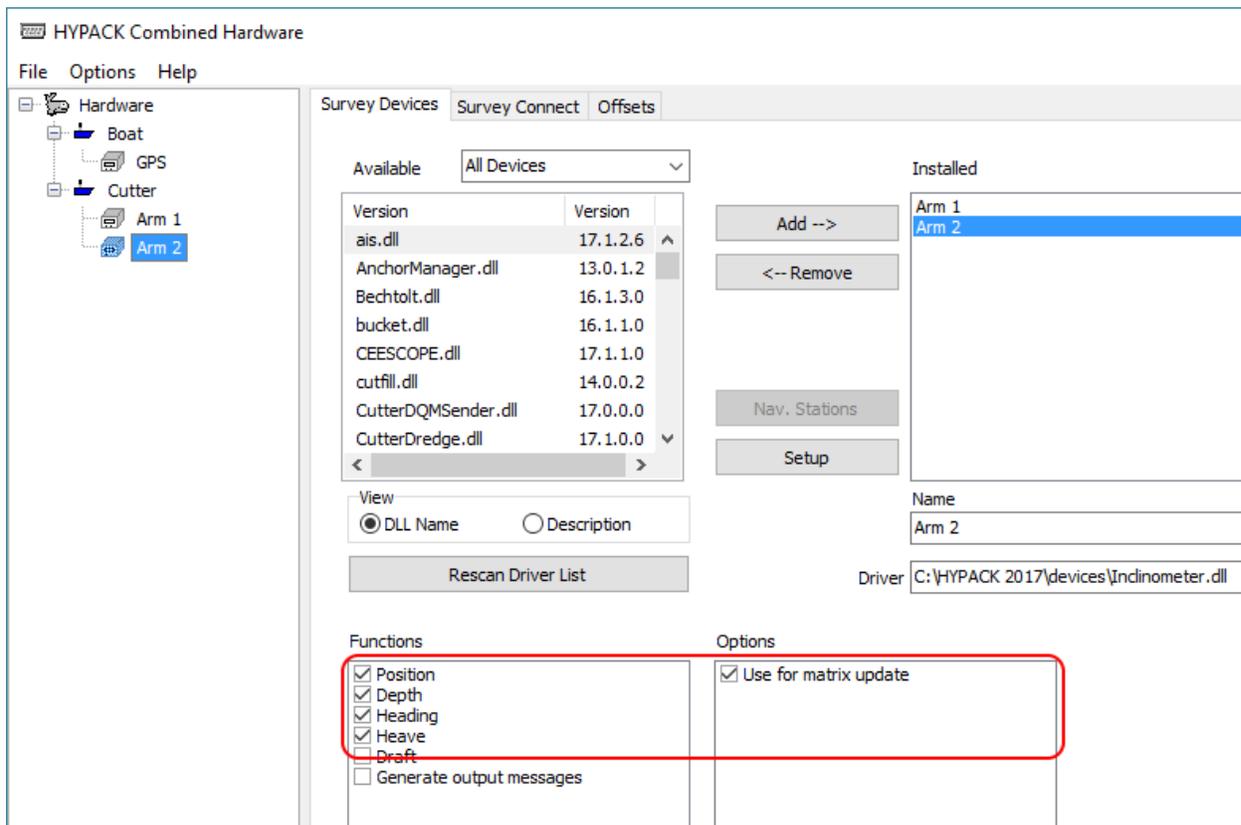
The Setup for Arm 1 should look like Figure 2. The important part is on the “Ladder / Boom” page, where you must select “Arm 1.”

**FIGURE 2.** Arm 1 Driver Setup



## ARM 2

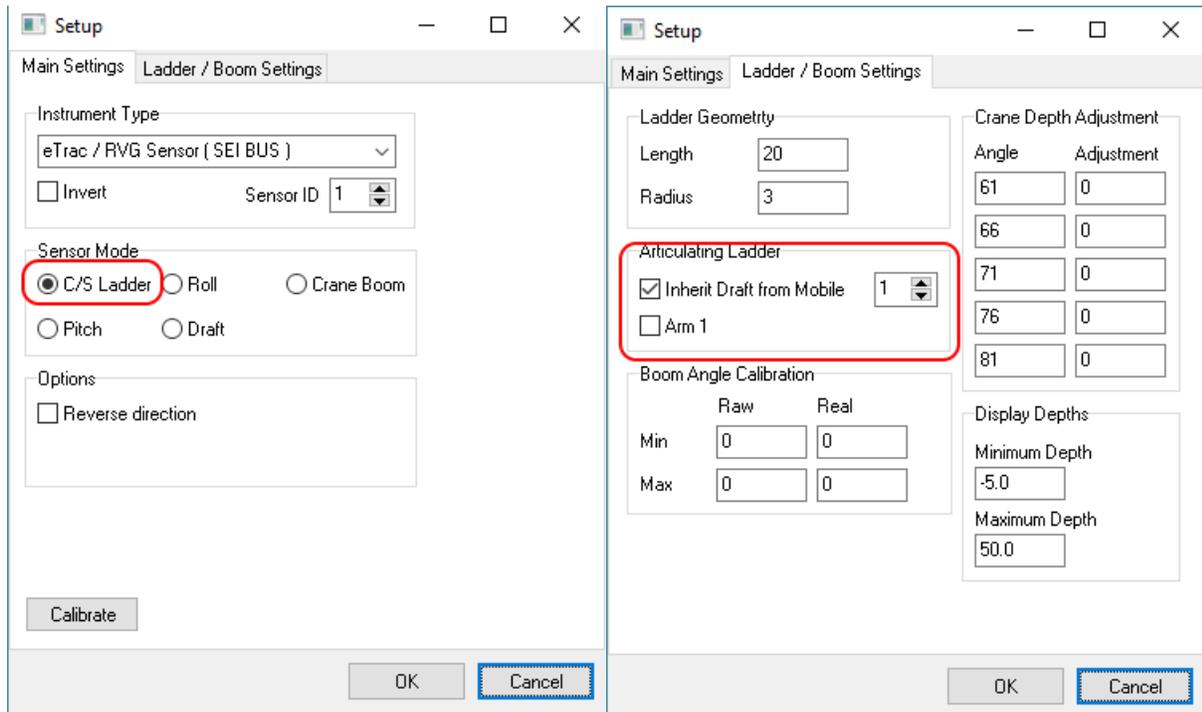
FIGURE 3. Arm 2 Device Configuration



For Arm 2 functions, you should select “Position,” “Depth,” “Heading,” and “Heave.” If you are using a matrix file for coverage, you should select “Use for matrix update” under Options.

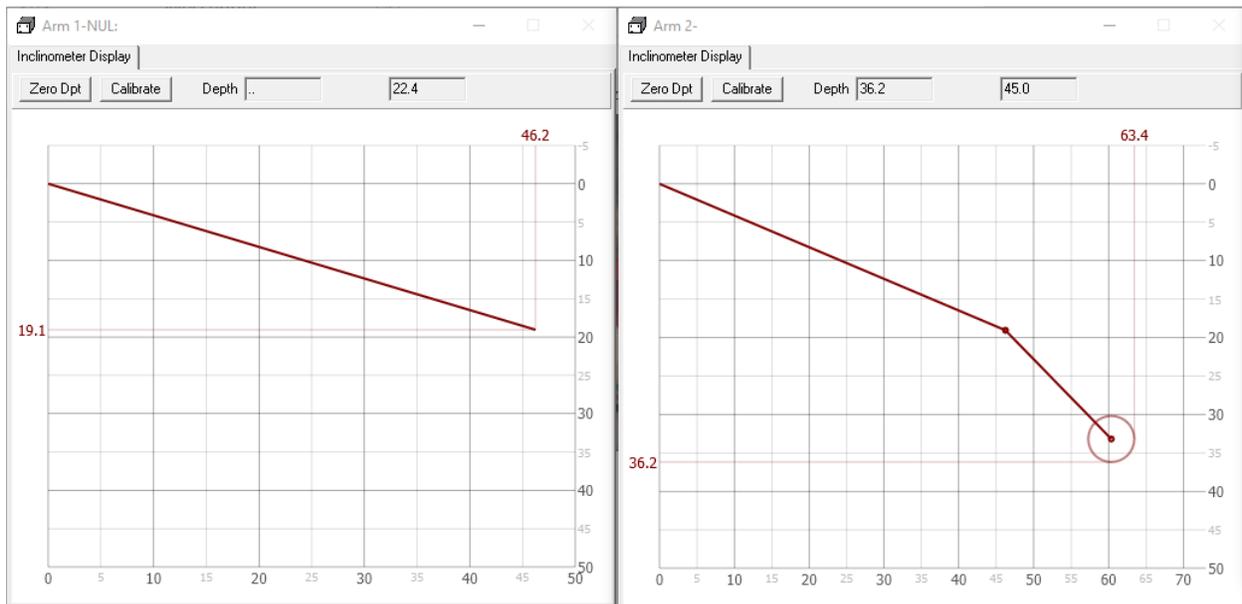
The Setup for Arm 2 should look like Figure 4. For the “Ladder / Boom Settings” here, you would select “Inherit Draft from Mobile” and select the mobile where you set up Arm 1, which should be the same mobile as Arm 2.

**FIGURE 4. Arm 2 Driver Setup**



If setup properly, you see the following two windows in DREDGEPACK®:

**FIGURE 5. DREDGEPACK® Display**



The Arm 1 will show just Arm 1, which is probably not the most useful display; however, the Arm 2 window now shows both Arm 1 and Arm 2, and the specified radius in the Arm 2 setup. It will also give you a visual guide of the reach and distance below trunnion.