



Custom Crane Device Driver

by Lazar Pevac

The Custom Crane driver is designed for the customers that want to install custom sensors to monitor crane operations.

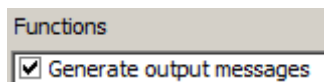
The main purpose of the driver is to integrate input from the cable counter sensor, boom inclinometer sensor and, optionally, the bucket open/close sensor.

FIGURE 1. Custom Crane Driver Setup Dialog

The setup dialog allows you to select input ports for these three sensors. Additionally, it allows you to calibrate the inclinometer. (You have to calibrate it only once unless you replace or move the sensor.)

You have to select the Generate Output Messages function because the Custom Crane driver is an output device driver.

FIGURE 2. Selecting the Driver Function



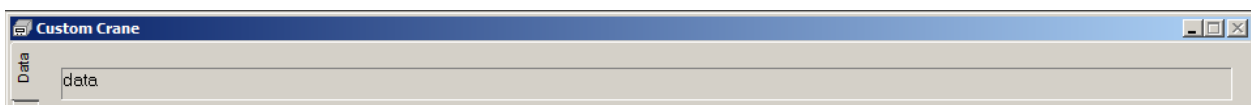
The output port must be the UDP Server with write port ID of your choice.

CRANE DRIVER CONFIGURATION

Additionally, you must install the Crane driver that interprets messages from the Custom Crane driver and displays the dredge profile. The Crane driver must be configured as the UDP Client, with the same ID for the input port as the host output port, and the host address of the host computer IP.

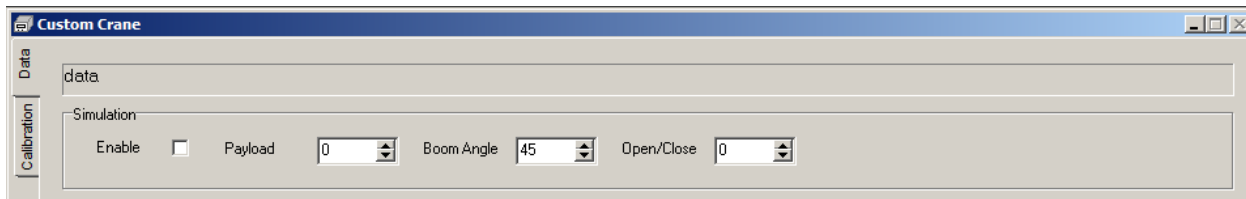
In the runtime, you do not need to watch the Custom Crane very closely. You can resize the window to display the output data string or even minimize the driver window.

FIGURE 3. Minimized Driver Window



For testing purposes you can activate simulation mode:

FIGURE 4. Simulation Mode



The cable counter sensor must be calibrated daily. This option is available during dredge operation. You have to resize the device window and open the Calibration tab. When you enter the required dimensions, drop the bucket to the water line and click the button. It completes the cable payload calibration. After that you can resize the window and continue dredging.

Note: If you do not have a segmented boom, enter values of 0 for H2 and D2. The program saves all five numbers so you do not need to enter them again.

FIGURE 5. Unsegmented Boom

