Rig Positioning with HYPACK© SURVEY

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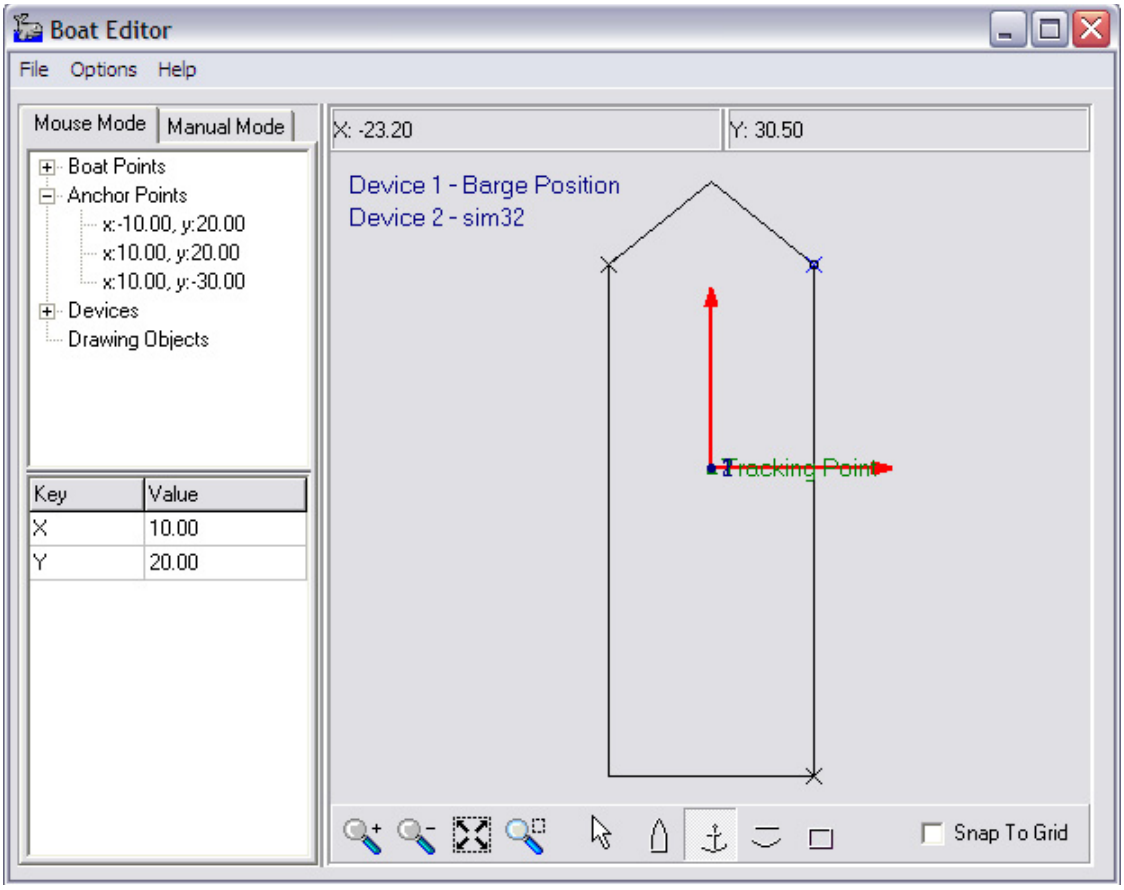
To facilitate rig positioning operations we have begun development of a specialized module inside SURVEY. This is a brief description of the beta stage of this development. As we continue the internal validation process (sometimes known as getting the green light from Pat) and gain experience with these operations, you can expect some of the details to change.

OVERVIEW

To position a rig you need to know the intended positions of two points on the rig or the position of one point and the orientation of the rig. These key points are identified as anchors on the rig shape.

FIGURE 1. *Sample Barge Boat Shape File (*.SHP) shows 3 Anchor Points in the Boat Shape Editor*

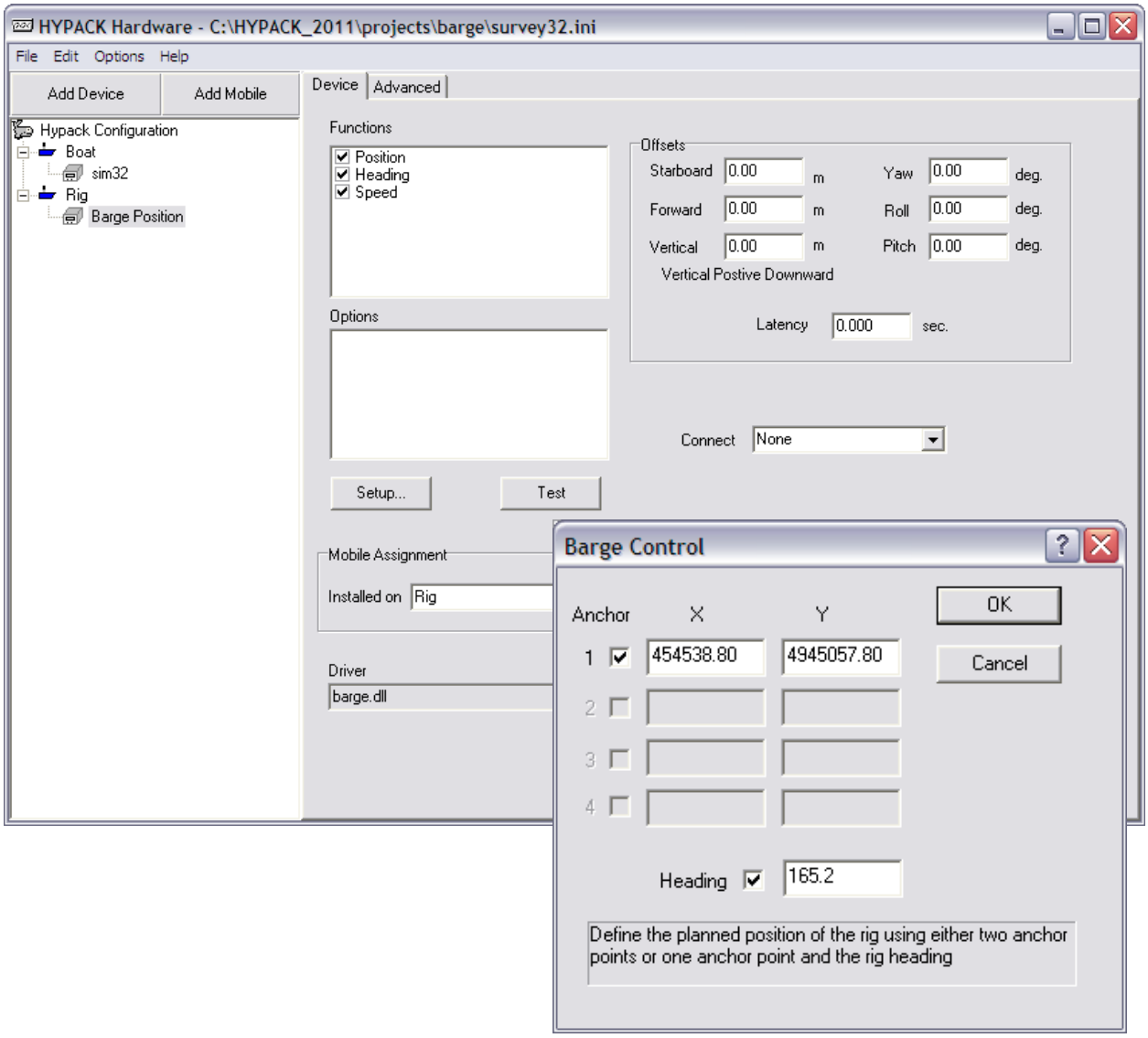


As shown in this example, you can define more than two key (anchor) points, but only two of them can be used for positioning the rig at any given time.

PREPARATION

The next step is to configure an additional mobile for the planned rig position and assign the newly created Barge device driver as the positioning device for this mobile:

FIGURE 2. *Configuring the Barge.dll in HYPACK® HARDWARE*

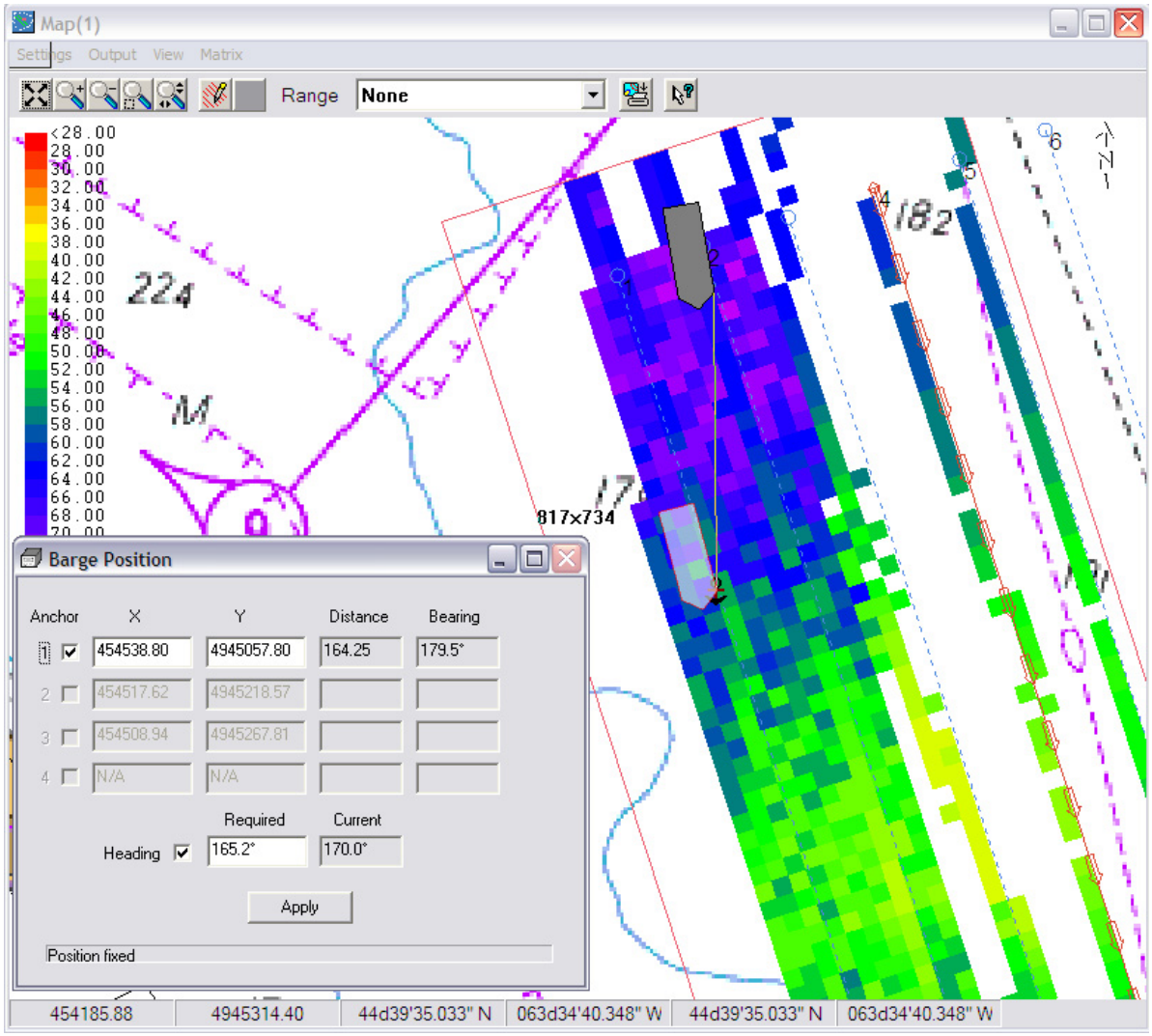


In the configuration page of this driver, you can specify the intended positions of the key points or the position of one point and the planned heading.

OPERATION

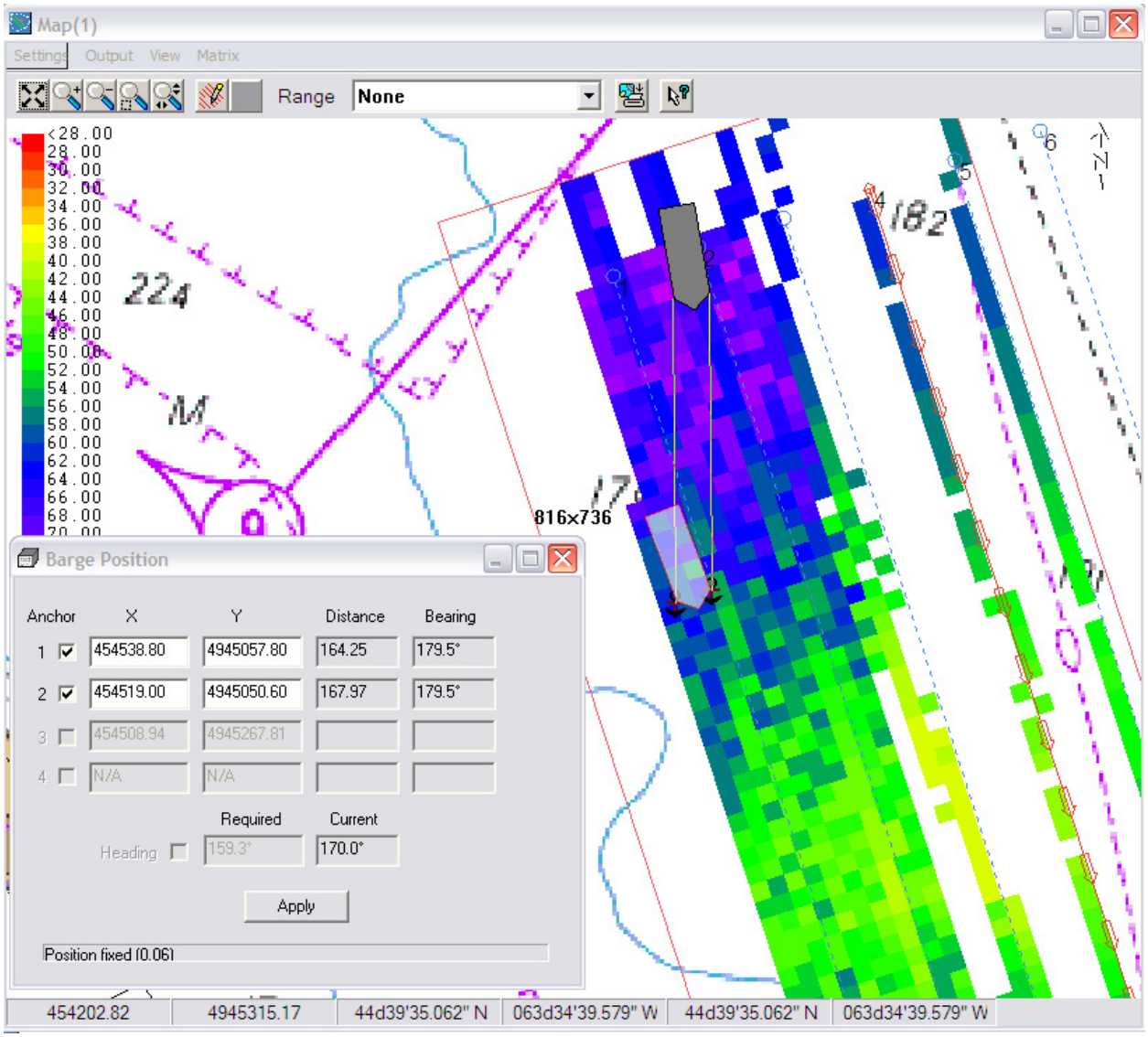
In the SURVEY program, when you assign the same boat shape to both mobiles, you end up with an area map similar to this:

FIGURE 3. *Sample SURVEY Area Map Shows Current and Planned Barge Positions*



If you change the constraints to use two anchors the image changes accordingly

FIGURE 4.



The device driver window shows distance and bearing for each selected key point to bring it in place while ‘elastic bands’ (drawn from the anchor positions in the shape at the planned position to the corresponding position on the vessel at the current position) give a visual indication of movement that has to be performed by each key point.