CT SYSTEMS

Quick Guide
Viking Single Beam RTK

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Startup & Preparation

Start by setting up the transducer and GNSS antenna, and connecting them to the GeoSounder. Connect the GeoSounder to the PC, power up all systems and start the Viking software.

Check that Viking is configured properly by checking the following:

- Go to *Settings → Ship → Ship Layout → Edit → Fix Points* and check that the height difference (Z Column) between the transducer and GNSS is correct.

- Check that the transducer and GNSS have the appropriate *Fix Point* set in the Position column in: *Settings → Equipment Manager*. Also make sure that the GPS has the correct *datums* selected in the Calibration screen in the settings of the GPS device.

- Check the proper ship setup in *Settings → Ship → Ship Control*, in this case it should be set to RTK Fixed, Use GPS Height, No Draft, GPS Course, No Motion. GPS Device should have the GPS selected.

- Go to *Settings → Environment → Water Parameters* and set and check the correct values for *Salinity* and *Temperature.*

- In *Settings → Single Beam Settings* check that it is set to *Circle Update* and the radius is for example set to 0.5 metre. Also check that the min/max range matches your work area.

- Check in the bottom right of the Viking screen that the *Projection* is set to the correct system

- In *Tools → Colour Gradients* you can create a custom colour scheme for the matrix values, and in *Settings → Matrix → Colour Gradients* you can choose the active colour scheme.

- Create a new empty matrix from *Managers → Matrix Manager → Create* and create a new file for your survey, recommended is 1 or 0.5 for cell size. After this file is made set it to active by selecting it in the bottom left as the active *Survey Matrix*. Then close the right hand sidebar, and set *View → Matrix* to *Survey*.

System Check

A very important next step is a full and independent check. First, in the bottom bar, on the right set the Mode to Height. Then do the following; using an independent source determine the height of the water level, and using a measuring tape measure the water depth directly next to the transducer. Subtract the value from the water level and check that it matches the height coming from the transducer.

Good practice is to repeat this procedure various times at deeper water levels.

Surveying

To start the survey press F5 to start logging data and colouring the matrix. Using F9 you can temporarily hide the bottom bar. After the survey is finished press F5 to stop logging.

The logged survey data can be found from Help → Viking Files → Projects → [project name] → Logging → SingleBeam. Using Viking Process these files can be loaded, edited, and converted to an interpolated model.