



HYPACK
a xylem brand

Sounding Better!

Line Offset Driver

By Connor MacDonald

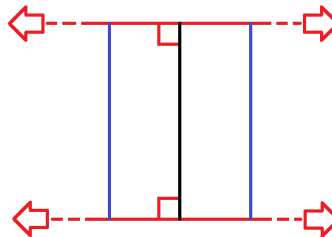
The Line Offset driver is used to generate parallel lines at a user-determined offset during a survey. The driver is similar to the AutoLines driver, but instead of the driver determining the line offset, the surveyor is allowed to make the choice.

The Line Offset driver works under specific conditions:

- It requires a planned line file (*.LNW) that contains one, single-segment line that will be used as a base line.
- This LNW must be the only LNW selected in the HYPACK® Project Items list.
- The planned line (LNW) is also loaded into SURVEY, which happens automatically as it is enabled in the Project Items.

The driver generates an offset line when a vessel successfully traverses a line or when logging is stopped. Lines are generated such that a rectangle could always be formed by connecting the offset lines. That is, if perpendicular lines were drawn on the top and bottom points of the original line, all offset lines would be parallel to the original line and end at the perpendicular lines that were just drawn. (The lines are drawn on the normal of the original line.)

FIGURE 1. Offset Lines Drawn on the Normal of the Original



The **offset distance** (in survey units) is determined in the text box in the middle of the driver window and it can be changed at any time.

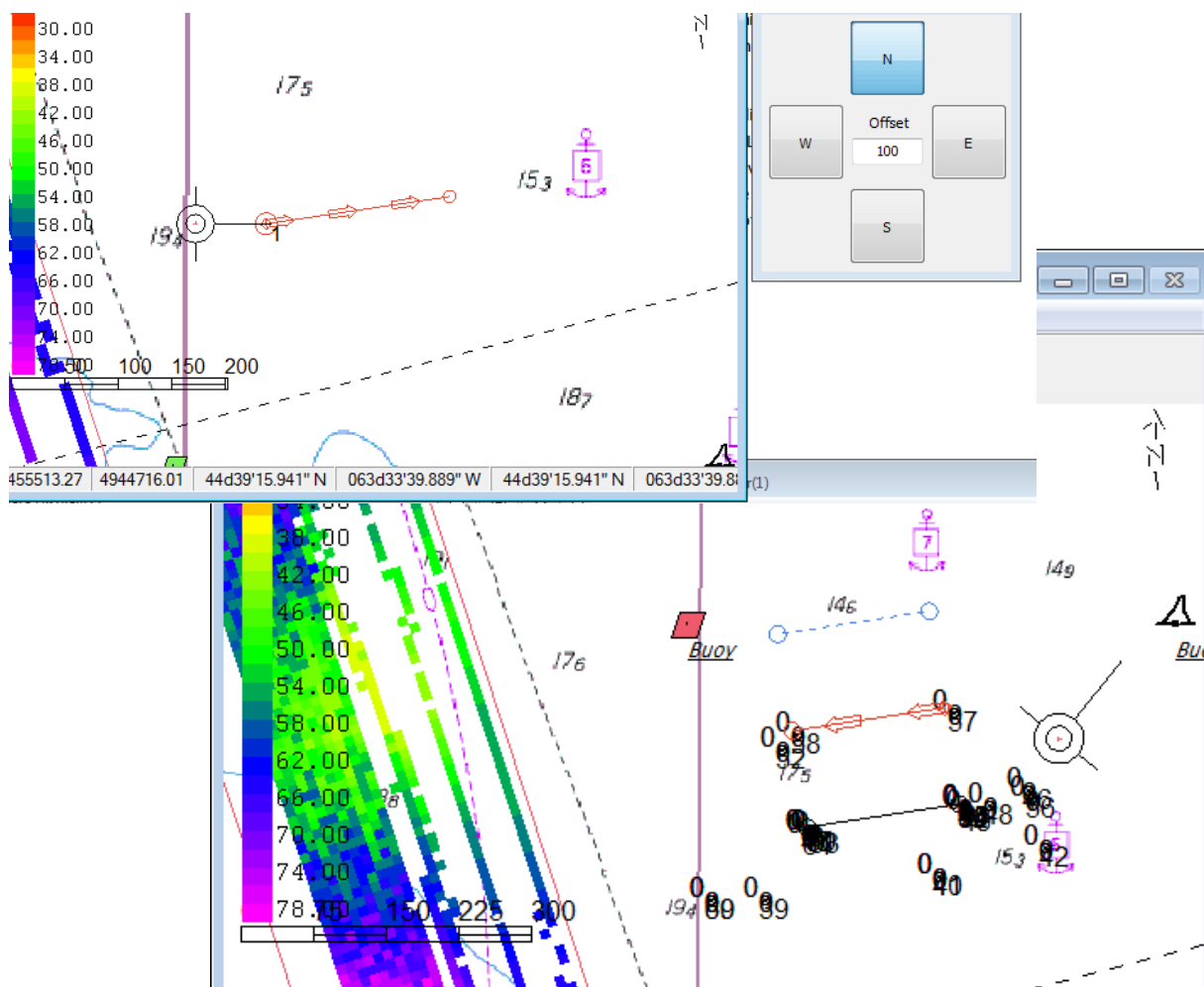
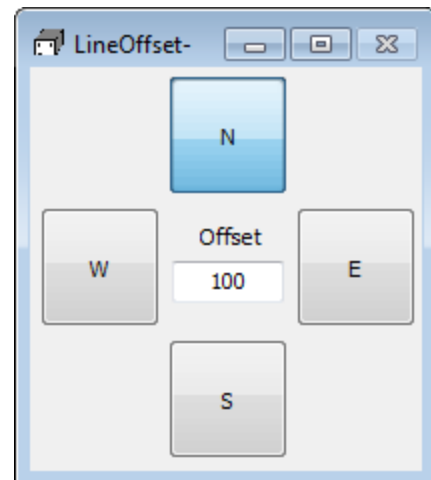
The **direction of the offset line** is determined by the direction buttons surrounding the text box. The lines are drawn parallel to the original base line (LNW); thus the line is only ever offset in one of two directions, left or right to the original line.

Because left or right could mean left or right of the vessel or left or right of the line, the Line Offset driver uses cardinal directions in the Device window to determine which way the offset line is placed:

- Either **North** or **East** would generate a line to the north-east of the original line.
- Either **South** or **West** would generate a line to the south-west of the original line.

Using the East or West buttons seems most appropriate for a base line orientation as in Figure 1, but on another line the North or South buttons may seem more appropriate (Figure 2).

FIGURE 2. Before (top) and After (bottom)



The offset distance can be changed anytime, and the lines that are generated are stored in the LNW file you've used for your base. Note that this has the consequence of making this LNW no longer usable with the Line Offset driver because it has more than one 2-point line in it.