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Planned Line Offset Methods

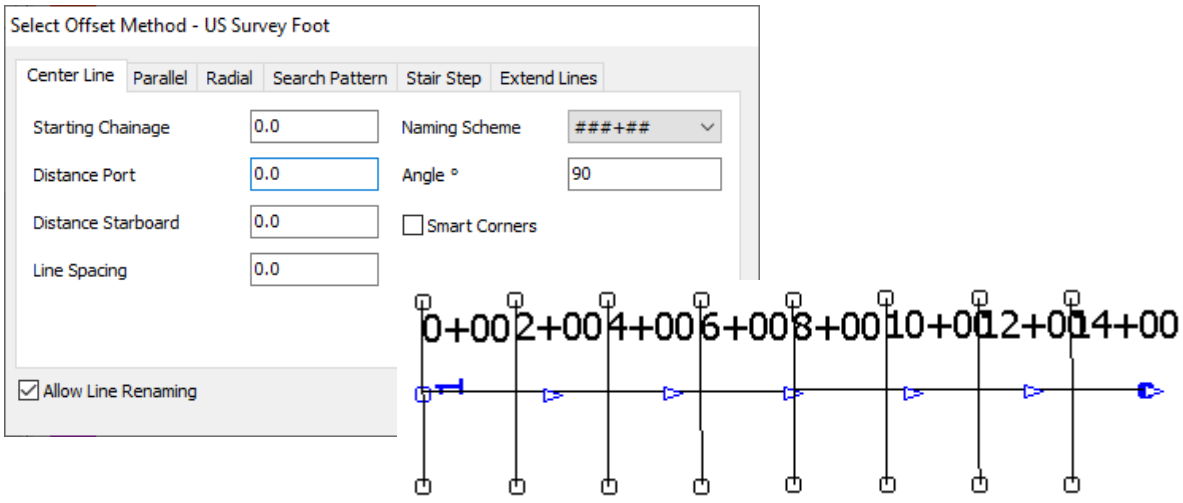
By Joseph Adamski

At the HYPACK 2019 Training Event, I presented the Introduction to HYPACK® and Surveying session which involved diving into the many preparation programs in HYPACK®. Doing so made me realize that I had taken the creation of planned line files for granted, as they have always been provided by someone else on the boats I've visited. For this article, I will focus on the LINE EDITOR program, available through the HYPACK® Preparation menu, and its ability to generate patterns of lines through "offset" methods.

CENTER LINE METHOD

The first method available is the center line offset method which is capable of generating lines across a center line. The input configuration for this offset method is shown in Figure 1. **Chainage** affects the naming convention and can be thought of as the linear distance along the center line. **Distance Port** and **Distance Starboard** determines the total length of the lines generated, while **Line Spacing** determines how many lines are created. For instance, in Figure 1, the lines are 200 feet apart on a 1600 foot line. **Angle** determines the angle to the center line of the generated lines and **Smart Corners** makes sure no planned lines overlap, which is bad for volumes applications.

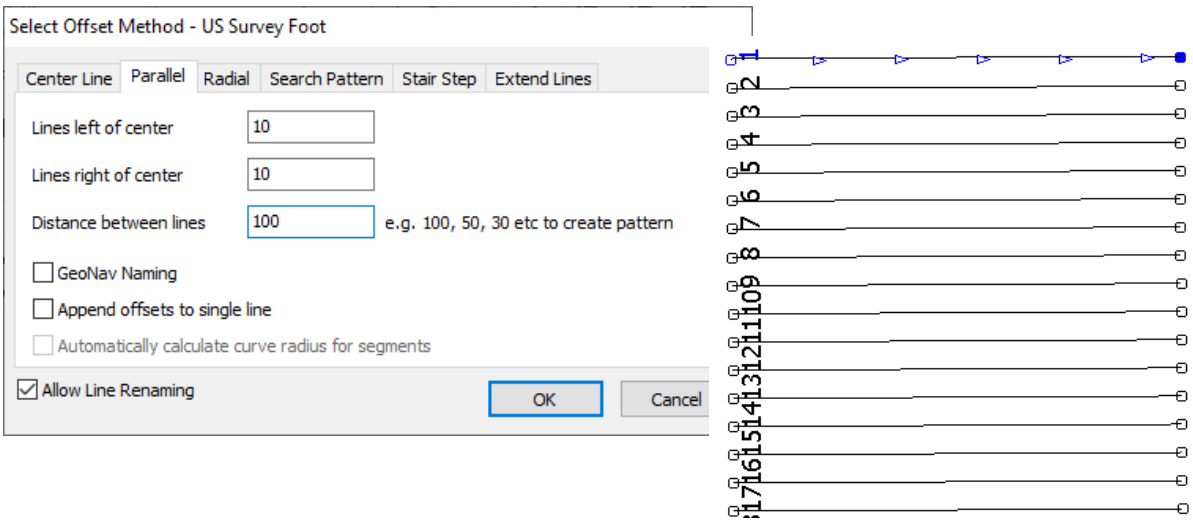
FIGURE 1. *Center Line Method—Configuration (left) and Results (right)*



PARALLEL LINES METHOD

This second offset method lives up to its name and generates parallel lines to a user-created line in either direction as seen in Figure 2. **Lines Left of Center** and **Lines Right of Center** are simply the count of lines to be generated on either side of the selected line. The **Distance Between Lines** is the feet or meter spacing between each generated line. If **Append Offsets to a Single Line** is checked, the editor connects each of the lines at the end to start points.

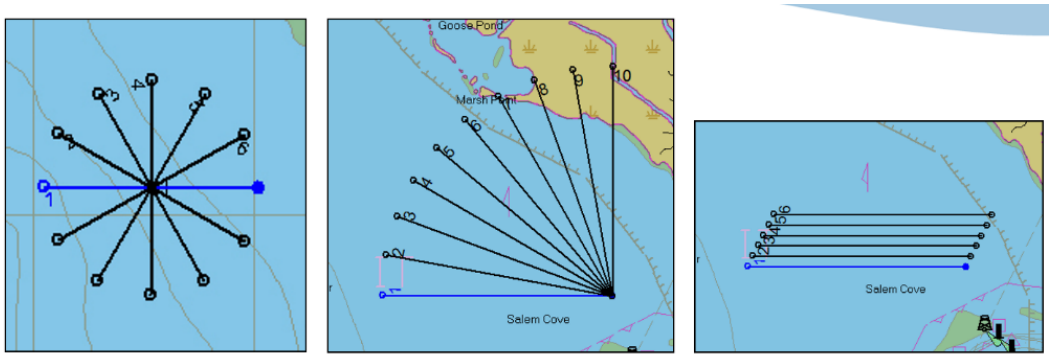
FIGURE 2. *Parallel Method—Configuration (left) and Result (right)*



OTHER OFFSET METHODS

After exploring the Center Line and Parallel methods, it should be straightforward to utilize the other offset methods as they utilize similar inputs. Figure 3 illustrates some of the other offset methods in the LINE EDITOR.

FIGURE 3. *Other Offset Patterns*



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