How to Align ELBs to Expected Application Path

There are three methods to center your application path to the ELB design:
1. **Entering coordinates from a saved guidance line**
2. **Using previous as-applieds/planting as an overlay**
3. **Measuring from the edge of the field when drawing your line/placing your marker**

Some of these methods are more precise than others - each is detailed below.

Entering coordinates from a guidance line

The most accurate way to properly align your ELB to your planned application is to use the 'Coordinates' option when entering your guidance line in the creation tool.

You will see this option when you get to the 'Applicator Guidance Line' section of creation:

Here you can enter coordinates from prior year planting or from a saved guidance line you intend to use (this will only work if your guidance line is to be used as a center line for path of travel).
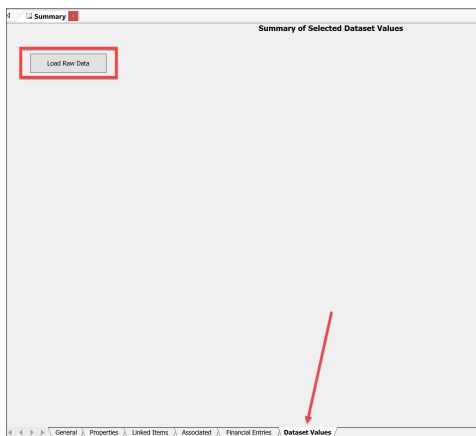
Note: be sure not to mix up your latitude and longitude values (latitude will always be positive and longitude negative in the U.S.)!

To access guidance line coordinates in SMS

I.   Select 'Guidance' in the tree:
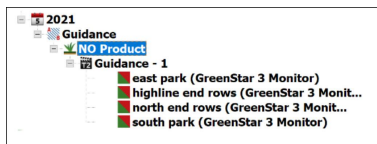
II.   Select the 'DataSet Values' tab at the bottom of the Summary page. Then click 'Load Raw Data':

III.   The Summary table then loads with lat/long info.

Feature ID	Guidance Details		
1	Type=AB ; Ref Points=A:	-97.973974770000,41.104154670000 | B: -97.973974650000,41.104127220000 ;	Passes=1 ; AB Heading=179.81 deg
1	Type=AB ; Ref Points=A	-97.982094670000,41.095369940000 | B: -97.982066280000,41.095387040000	Passes=1 ; AB Heading=51.37 deg ;
1	Type=AB ; Ref Points=A:	-97.970194340000,41.104367100000 | B: -97.970230640000,41.104366920000 ;	Passes=1 ; AB Heading=269.62 deg
1	Type=AB ; Ref Points=A:	-97.975325270000,41.100741430000 | B: -97.975361560000,41.100741790000 ;	Passes=1 ; AB Heading=270.75 deg

Though this option is a bit more of a hassle than the other methods, it provides the highest likelihood of centering your application to the ELB.

Using previous planting/as-applied files

If you find obtaining and entering coordinates to be cumbersome, using application data from previous years as an overlay can be just as effective if properly implemented.

I.   Begin creating an ELB as you normally would. When you get to the 'Equipment Setup' part of creation, select the 'Draw Line' option.

II.   Then pull in the as-applied by clicking the "Add an Overlay" button.

III.   Select the year you want and 'Premier Decision'.

Year

2016

Product

○ Premier Precision   ● Premier Decision

IV.   Then select the layer you'd like to use (planting in this case). It doesn't
       really matter what column(s) you choose. We've chosen Crop for this
       example.

Layers

Hybrid Splits (Points)

☑ Optimize Points

✔ Loading an optimized points layer will show you a subset of the points. You will get
better control over the visibility of the points and be able to use the tool faster.

Columns

Crop

Classifier

Unique Value

V.   Once you've made your selections, go ahead and click 'Add Overlay Layer'
      in the bottom right of the window.

Cancel   **Add Overlay Layer**

VI.   Next, zoom in to the center of the field (or, if you know where your ELB will be placed, zoom into that area). Draw a line from one point to the next by clicking on your first point to start and double-clicking on the second one to finish (your selections must be at the very center of each point if you want the grids to line up properly).
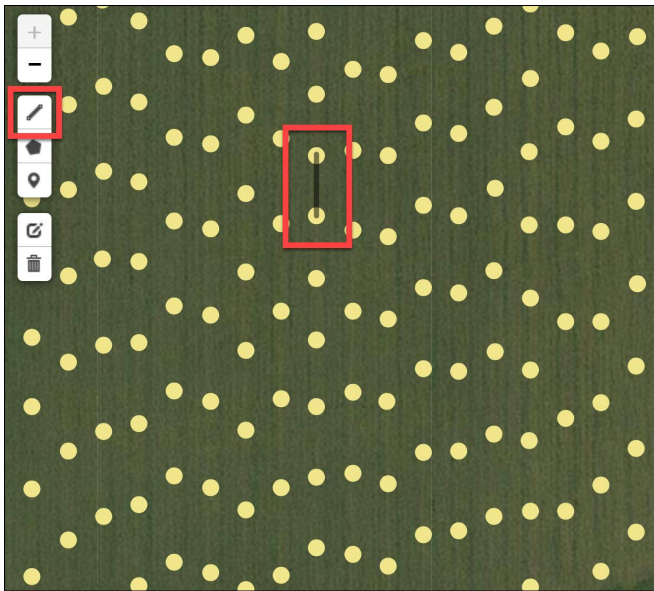
VII.   Once you've drawn your line, click 'Use the Line Drawn on Map' in the Equipment setup section.
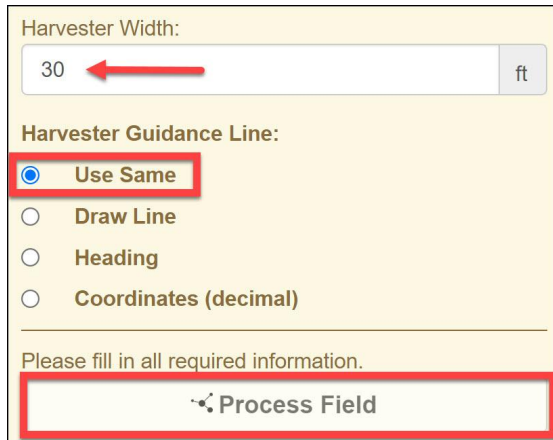
VIII.   Proceed to choose 'Use Same' for harvester if applicable. If your guidance line will be different, you can repeat the steps using harvest data or choose another option.

IX.   When finished processing, your overlaying points should be centered to the grids and line up relatively well across the field - similar to this example:
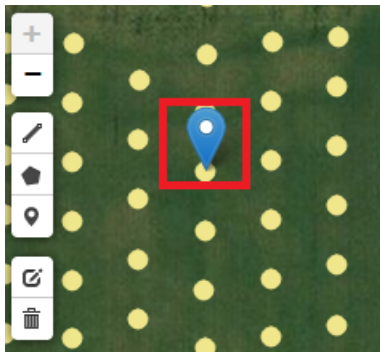
The same thing can be accomplished if you want to use a marker and heading instead of a line:

You just need to follow the same principles, placing the marker at the center of the historic as-applied:

Instructions on how to find heading in SMS (this could be done for planting harvesting, spraying, fertilizing, or any application file):
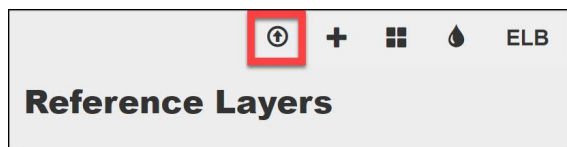https://processes.premiercrop.com/knowledge/how-to-find-the-heading-in-aglead er-sms

If the layer you want to use as an overlay is not in the system, you can import a shapefile as well.

To do this click on the "Upload an Overlay Layer to add to the map" button.

Keep in mind, however, that imported shapefiles must be less than 4 MB in size. If they are any larger, you will have to use a trimmed down copy.
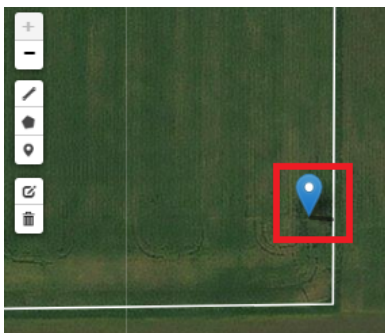
Measuring from the edge of the field

If you do not have a guidance line stored or historic as-applied data, there is still one way to improve your chances of lining up to an ELB. To use this method, you will need to know where the application will begin in the field.

I.   Zoom in to the part of the boundary where you will be starting your application. Then select the 'draw a line' tool to measure half the implement width from the edge of the field (so it is at the center of the applicator) - for this example, we're planning for a 60' planter. Double click to finish when you are at the appropriate length:

II.   Then place a marker at the end of the line:

III.   Now you can enter your heading OR you can draw another line for your guidance if you prefer. Either way, **you will need to delete the original line used to measure from the edge of the field before clicking 'Process Field'**. Otherwise, an error will prevent you from going any further.

IV.   Be sure to click 'Save' when finished deleting:

V.   You can now proceed as you normally would and select 'Process Field':