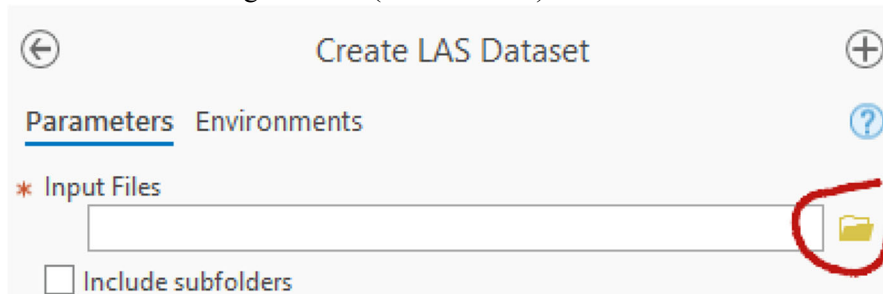


Create a LAS Dataset

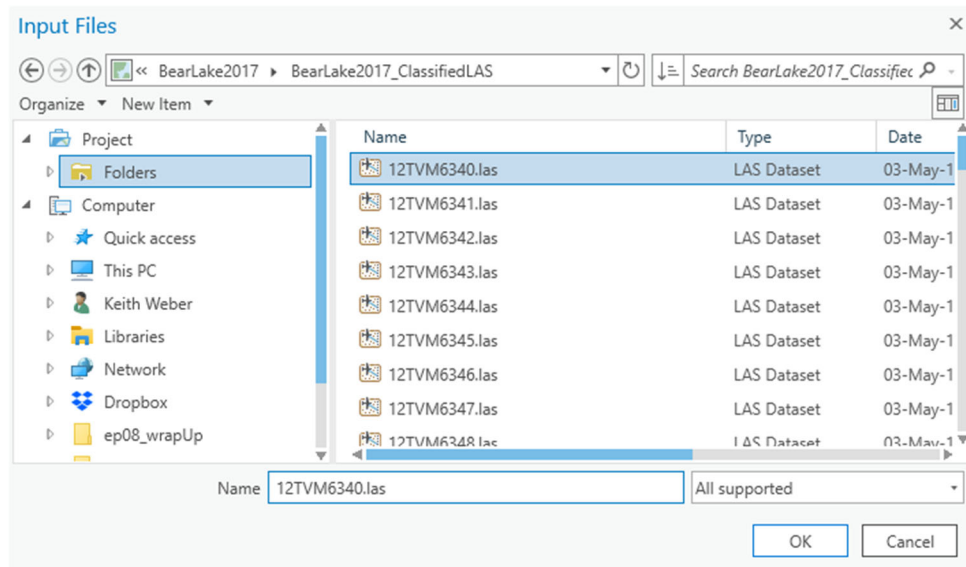
To complete this workflow, you will need a lidar project's raw LAS files folder, its vector folder, and its reports folder.

Be sure all these files/folders have been extracted and are not stored within a ZIP file (NOTE: Once this process is completed, you should delete the ZIP file as it is no longer needed and normally quite large).

1. Open ArcGIS Pro
2. Launch the Create LAS Dataset geoprocessing tool.
 - a. Click the file manager button (shown below).



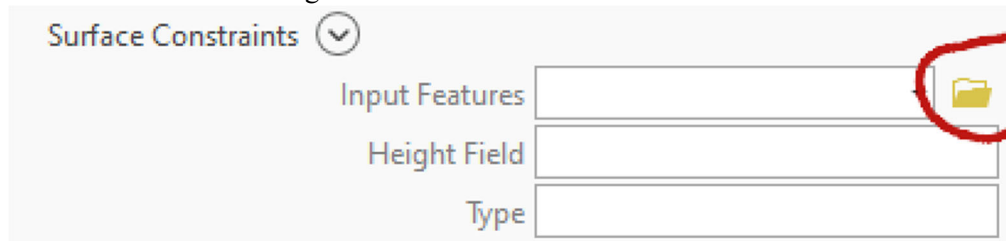
- b. Navigate to the folder containing the raw LAS files.
- c. You will see an input files screen similar to the one shown below. Select one of the files and then press CTRL-A from your keyboard to select all the LAS files found in this folder.

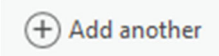


- d. Once the dialog has made the selection (it can take up to a minute depending on the number of files selected), click OK.
3. A very long list of input files will be added to the Create LAS Dataset tool. Scroll down to see the remainder of the tool's settings.
 4. Provide a good name for the output LAS dataset. The LASD file should be saved in the Lidar project folder but cannot be saved inside a Geodatabase and should not be saved inside an LAS folder.
 5. Next, look at the Surface Constraints section. If this project contains vector breaklines be sure to apply them here. To determine this, recall the VECTOR folder downloaded earlier. This folder

may have contained a geodatabase or set of shapefiles named breaklines (or something similar). Breaklines are either line or polygon layers. If breakline data exists, here is how to add these data as surface constraints.

- a. Click the file manager button as shown below.



- b. Navigate to the location of the breakline layer(s).
 - c. Select one of the layers.
 - d. Click OK
 - e. If additional breakline layers exist, click the Add Another  button and repeat the process.
6. We need to carefully and correctly set the Coordinate System of the LAS files. Normally, this will be automatically detected. However, for quality control purposes compare the coordinate system identified by ArcGIS to the coordinate system listed in the project's report document. If there are discrepancies between these data, discuss this with Keith before proceeding.
NOTE: the vertical datum is very important when we are working with elevation data. The EPSG code for NAVD88 (Z-data is expressed in meter), the state standard in Idaho and a very common system used across the US is 5703 (**NAVD88 = 5703**)
7. Lastly, be sure to turn on (check) both the Compute Statistics and Store Relative Paths checkboxes. The latter is helpful when we move data folders from one workstation to another.
8. Click Run (NOTE: This process can take quite a while to process).

END