Pix4D Mapper Processing Guide

These instructions were developed to assist in the processing of drone flight data captured for conservation projects in Nez Perce County, Idaho. These instructions follow the Pix4D software version located at the Nez Perce Soil and Water Conservation District and Nez Perce County.

New Project Name (each Flight): Farmer + Plot + Date
Select Images: Add Directories (instead of selecting images)
(Pix4D only searches for images one folder deep)
Image Properties: Default
Coordinate System: Default (WGS 84/UTM Zone 11N)
Template: Ag Multispectral
(Custom Template: NPC Multispectral)

Draw the desired processing area
Map View --> Processing Area --> Draw

Go To Processing Options
DSM, Orthomosaic and Index (tab)

Index Calculator
Calibrations (Type: Camera and Sun Irradiance)
* *Template Does Not save Reflectance Values -*
Set the following levels ONLY if not detected from the picture of the Altum Panel before flight
Blue = .542
Green = .542
Red = .539
NIR = .533
Red Edge = .537
LWIR = No Correction

If using the NPC Multispectral Template,
Start Processing
If using the Default Ag Multispectral Template,
Follow the NPC Multispectral Specifications below to customize the Ag Multispectral Template.
Start Processing

Custom Template: NPC Multispectral
Specifications:

1. Initial Processing: All Default
   Keypoints Image Scale = Full
   Quality Report: Generate Orthomosaic Preview
   Calibration Method = Accurate Geolocation and Orientation
2. Point Cloud and Mesh
   Point Cloud Densification
   Image Scale = 1/2 (Default)
   Point Density = Optimal
   Minimum Number of Matches = 3
   Export = XYZ

Delimiter = Space
Merge Files into One File
Point Cloud Densification = 7x7 pixels
Image Groups = All Checked
Point Cloud Filters
Use Processing Area
Use Annotations

3. DSM, Orthomosaic and Index
   DSM and Orthomosaic (Tab)
   Resolution = Automatic (1 x GSD)
   DSM Filters: Check Noise Filtering
   Check Surface Smoothing
   Type: Sharp
   Raster DSM
   GeoTIFF
   Method: Triangulation
   Merge Tiles
   Orthomosaic
   GeoTIFF (Merge Tiles)
   Additional Outputs (tab)
   Grid DSM = None
   Raster DTM
   GeoTIFF
   Merge Tiles
   Raster DTM Resolution = Automatic (5 x GSD)
   Contour Lines
   SHP
   Contour Base = 0m
   Elevation Interval = 2m
   Resolution = 100cm
   Minimum Line Size = 20
   Index Calculator (tab)
   Calibrations (Type: Camera and Sun Irradiance)
   Blue = .542
   Green = .542
   Red = .539
   NIR = .533
   Red Edge = .537
   LWIR = No Correction
   Resolution = Automatic (1 x GSD)
   Reflectance Map = GeoTIFF (Merge Tiles)
   Indices = Check All
   Export
   Index Values as Point Shapefile
   Grid Size = 100 cm/grid
   Index Values and Rates as Polygon Shapefiles
   Grid Size = 200 cm/grid
4. Resources and Notifications = Default