PandaSet Raw Data Instructions

1. Folder Structure
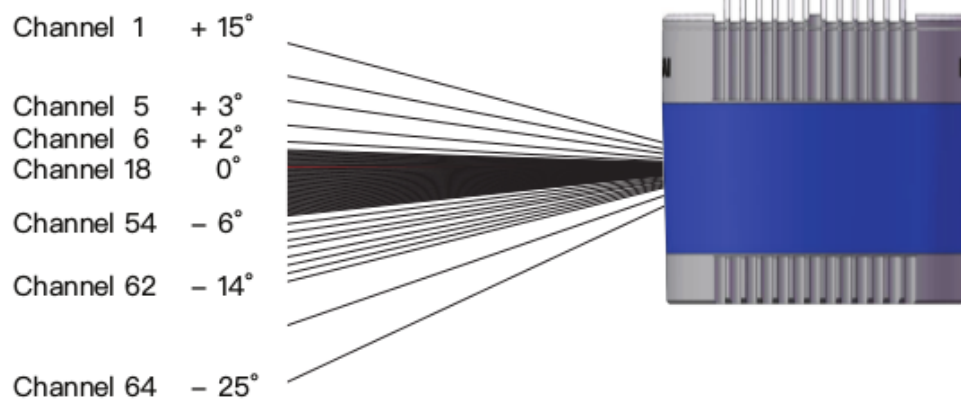
    (1)   Folder structure is the same as the **lidar folder** of PandaSet data

2. Load pkl.gz

    (1)   Use **pandas** to load pkl.gz.

3. DataFrame columns keys

    (1)   "laser_id": channel of each laser. Please note*: laser id starts from 0.   (laser_id + 1 = channel_id).

    (2)   "column_id": points with the same column id are from the same block (page 16 of Pandar64_User's_Manual), which means these points were collected at the same motor rotation angle.

    (3)   "elevation": elevation angle of laser, unit degrees.

    (4)   "azimuth_col": azimuth angle of a block (motor rotation angle), unit degrees.

    (5)   "azimuth_col_corrected": azimuth angle of a laser. azimuth_col_corrected = azimuth_col + laser_azimuth_offset (from 1. PandaSet Main LiDAR P64_pcap Calibration file), unit degrees.

    (6)   "distance": measured distance of laser, unit meters.

    (7)   "intensity": intensity of a point, value is of [0-255].

4. Calculate raw point of a laser

```
# python
```

```
xyDistance = distance * math.cos(math.radians(elev[laser]))

x = xyDistance * math.sin(math.radians(azimuth_col_corrected))

y = xyDistance * math.cos(math.radians(azimuth_col_corrected))

z = distance * math.sin(math.radians(elevation))

point = [float(x), float(y), float(z), intensity]
```