

Kolida Skyline (PC Version)

A good helper to process your DJI drone PPK data



UAV now has been widely used in many industries beside Photography. Due to its low cost, good maneuverability, high output and high safety, DJI UAVs are used by more and more users in surveying and mapping projects, making surveying and mapping no longer rely solely on total stations, GPS, and other traditional mapping tools.

Combining GPS and UAV can greatly improve measurement efficiency and accuracy. However, the GPS single-point positioning accuracy of the UAV flight control is too poor. Previously, a large number of image control points were used to correct the distortion of the image.

However, some special terrains (high mountains, deep trenches, etc.) are difficult to lay out image control points. In order to reduce the workload, reduce most of the image control points, and even to reduce all of the control points, it is necessary to improve the POS accuracy of the UAV. We can use PPK technology to achieve centimeter accuracy.

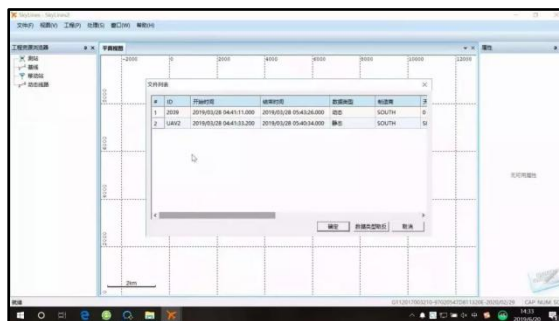
How can Kolida Skyline help?

KOLIDA Skyline UAV post processing software will not only improve the POS accuracy, but also can assist users to do 1:500 high accuracy aerial photogrammetry jobs better and without ground control point.

The software data structure is based on single-frequency, dual-frequency C/A code, P code, carrier phase and Doppler shift observations. The advanced EventMark difference algorithm is used to provide users with more reliable positioning accuracy. The data collected by the ground station and the airborne end will be imported for calculation, and finally the high-precision photo positioning data is obtained.

KOLIDA SKYLINE has powerful performance, it supports the calculation of DJI UAV format data. It allows to import maximum 10 hours observation data in 5Hz.

In addition, KOLIDA SKYLINE is easy to operate, easy to calculate, POS data can be calculated even if the observed data quality is poor. The POS result file can be directly applied to various types of aerial photogrammetry data processing software, such as Pix4D, Skyphoto, PhotoScan.



The advantages of KOLIDA Skyline:

- High precision measurement, down to 1cm + 1ppm
- Perfectly support DJI Phantom 4 RTK, as well as other brands of UAV that has GNSS PPK/ RTK module.
- Supports any KOLIDA and other brand GNSS Receiver that can output Rinex file.
- Supports processing multi-flights data.
- Reduces GCP number up to 80%, saving labor cost, improving efficiency and safety.
- Easy to learn
- Calculated data result is reliable.
- Output format is suitable to most of aerial photogrammetry data processing software in the market

Work Flow:

Preparation

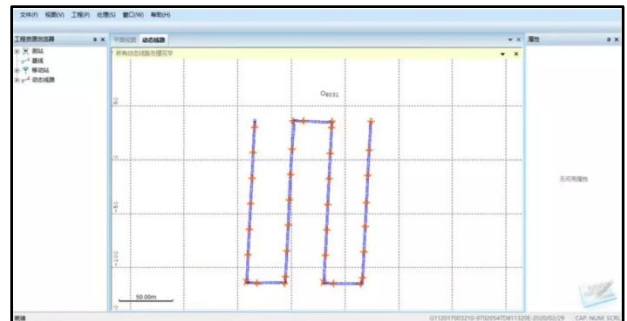
Collect observation data of the ground station and observation data of the UAV and control point coordinates.

Complete the project setting by setting the coordinate system and setting the photo storage path.



Processing

Import the observation data of the ground station and UAV to Skyline, modify antenna height and other parameters, input the control point coordinates to start processing.



Processing complete:

After the processing is completed, the flight route map can be viewed, and the project results can be exported. The results include plane coordinates, space coordinates, latitude and longitude, etc. The project result files can be applied to other aerial photogrammetry data processing software, such as Pix4D and Skyphoto.

时间	经度	纬度	高程	天线高	天线长	天线宽	天线重	天线号	天线名	天线型	天线号	天线名	天线型				
04:12:53.769	41900232.989	382875.369	1194.714	0.000	0.000	0.000	0.000	1944219	174.4654797	760	3891893	421.376	4572.112	66	1349.11	0.04	
04:13:05.546	41900206.194	382875.304	1194.760	0.000	0.000	0.000	0.000	1944223	179.4654783	630	3891872	236.377	4402.112	66	1349.11	0.04	
04:13:01.528	4190182.72	382871.771	1194.758	0.000	0.000	0.000	0.000	1944238	424.4654797	381	3891853	713.377	4620.112	66	1349.11	0.04	
04:13:05.545	4190157.288	382870.103	1194.800	0.000	0.000	0.000	0.000	1944232	382.4654813	354	3891833	723.377	4345.112	66	1349.11	0.04	
04:13:08.729	4190135.227	382868.659	1194.868	0.000	0.000	0.000	0.000	1944237	489.4654825	307	3891812	238.376	6430.112	66	1349.11	0.04	
04:13:12.127	4190111.603	382867.153	1194.804	0.000	0.000	0.000	0.000	1944241	386.4654833	093	3891793	526.376	1133.112	66	1349.11	0.04	
04:13:15.546	4190087.962	382865.617	1194.765	0.000	0.000	0.000	0.000	1944246	454.4654852	918	3891778	816.376	8988.112	66	1349.11	0.04	
04:13:17.927	4190082.551	382865.110	1194.720	0.000	0.000	0.000	0.000	1944245	447.4654856	906	3891774	486.376	8913.112	66	1349.11	0.04	
04:13:21.812	4190083.287	382865.055	1194.787	0.000	0.000	0.000	0.000	1944224	236.4654866	935	3891774	814.376	7624.112	66	1349.11	0.04	
04:13:24.347	4190084.482	382825.107	1194.655	0.000	0.000	0.000	0.000	1944233	387.4654889	154	3891753	589.376	10216.112	66	1349.11	0.04	
04:13:28.628	4190110.131	382821.136	1194.741	0.000	0.000	0.000	0.000	1944201	177.4654845	043	3891755	819.376	10344.112	66	1349.11	0.04	
04:13:32.031	4190133.563	382822.684	1194.731	0.000	0.000	0.000	0.000	1944204	730.4654840	294	3891814	435.376	4469.112	66	1349.11	0.04	
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04:14:22.006	4190111.604																



High-precision POS data can be obtained through simple operation, and data reliability and validity are guaranteed by EventMark difference algorithm.

Download Software and Manual:

<https://drive.google.com/open?id=1tydX3aVoMakpnZZLAP7cfJyuYfbHqIQg>

Video:

Search **Kolida Skyline** on youtube.com