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FlightPlanner: flight planning for aerial photography

FlightPlanner is an easy to use application that makes the process of flight planning for aerial photography quick and efficient. It has been specifically designed to automatically calculate the ideal layout of photo frames to ensure complete coverage with the minimum amount of flying.

Features

FlightPlanner has all the functionality expected of any advanced flight planning application:

- Plan polygon or linear flight plans
- Support for almost any type of camera or linescanner
- Wide range of user-specified imaging parameters (flying height, pixel size, forward/side overlap etc.)
- Automatically calculate area, distance, flight runs, trigger points, number of turns and more
- Auto-calculate the optimal flight plan: either minimize number of runs, number of frames, or total flight length
- Use terrain models to adjust spacing between lines or points to give complete coverage in mountainous areas
- Use terrain models to create flight plans with flight lines at different heights, to minimize the number of frames
- Complete integration with our award-winning Aviatrix
 flight management and camera control system



The simplest form of flight plan is a closed polygon. Once the user has drawn the polygon on the streaming background maps, it is a simple process to choose the correct camera and imaging parameters, and calculate the optimal flight plan. If necessary, in addition to the flight lines (shown in yellow) the user can add cross runs, sometimes known as key runs (shown in red). The imaging parameters can be continually changed until the perfect flight plan has been created.

💀 Camera, imaging & miscellaneous par — 🛛 🛛 🛛						
Camera parameters						
Phase One iXA 180	✓ Delete					
Landscape Portrait FRAME CAMERA						
Focal length:	55.00	mm				
Side pixels:	10328	width				
Forward pixels:	7760	height				
Side FOV:	52.05	degrees				
Forward FOV:	40.29	degrees				
Pixel size:	5.2	microns				
Local/Global:	Global camera	database				
Imaging parameters						
Altitude:	2602.6	feet (AGL)				
Ground speed:	90.0	knots				
Ground sample:	0.075	metres				
Forward overlap:	80.0	%				
Side overlap:	50.0	%				
Swath width:	774.6	metres				
Run separation:	387.3	metres				
Frame rate:	2.514	seconds b/n frames				
Miscellaneous parameters						
Add key runs	2 ~	DEMe				
Buffer around input:	250	metres				
Close	Add new camera	Accept:				

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FlightPlanner: Three versions, to support all types of users

Classic

Designed for entry level users, but with sufficient features to enable the creation of accurate flight plans quickly and efficiently. Competitively priced and easy to use.

Pro

Extra features include the use of terrain models to create more efficient flight plans over varying terrain, linear flight plans, and support for background maps and images.

Ultimate

All of the features of Classic and Pro, but with further tools, including import and export of many different file types, and import of unlimited background maps.

Feature	Classic	Pro	Ultimate
Create linear flight plans	×	\checkmark	\checkmark
Free draw mode	×	\checkmark	\checkmark
Use terrain height when flight planning	×	\checkmark	\checkmark
Display information of selected entities	×	\checkmark	\checkmark
Import KML/KMZ background data	×	\checkmark	\checkmark
Import background maps	×	1	Unlimited
Make flight plans with lines of different height	×	×	\checkmark
Import shape files, TopoFlight files, Track'Air files, ASCII text files	×	×	\checkmark
Export Garmin compatible flight plans for use with G3X, Aera, GTN devices	×	×	\checkmark

About AeroScientific

AeroScientific (a business unit of Spatial Scientific Pty. Ltd.) creates software and hardware for aerial surveyors. The focus of our aerial imaging technology is the awardwinning Aviatrix flight management and aerial camera control system. This is supported by our flight planning software: FlightPlanner. AeroScientific draws on many years of practical aerial survey experience, which has enabled us to create imaging systems that make aerial data capture significantly easier, cheaper, and more efficient than any other flight management system available today.

About Spatial Scientific

Spatial Scientific Pty. Ltd. (established in 2005) is an Australian developer of custom-built imaging systems, as well as an airborne data provider. The company has an established track record in building fully integrated systems thermal, multispectral using and hiah resolution imaging technologies for both airborne and ground-based applications. Spatial Scientific uses those systems in its own aircraft to acquire airborne data for a range of clients. The solution, whether it is an imaging system or a data product, is always targeted to the needs of the client.