



## Showcase | Hi-Res City Modeling with Small Manned Aircraft

### City Modeling

#### PROJECT

High-resolution 3D model made of the central business district in Nashville, to assess the advantages of using a small manned aircraft and the WaldoAir XCAM-B oblique camera rig for city mapping

#### KEY BENEFITS

- High resolution 3D model from a low cost camera rig and small manned aircraft
- Complete top and facade information of the buildings
- Fast processing with camera rig constrain feature



**3D Model of Nashville**  
Central Business District

### Data Acquisition

#### HARDWARE & FLIGHTPLAN

Small manned aircraft with the Waldo Air XCAM-B camera onboard  
Oblique images taken with the WaldoAir Corp. patented flight guidance software

#### FLIGHT TIME

Around 15 minutes

#### DATASET

596 images at 8 cm GSD

## Project Outcome

### DELIVERABLES

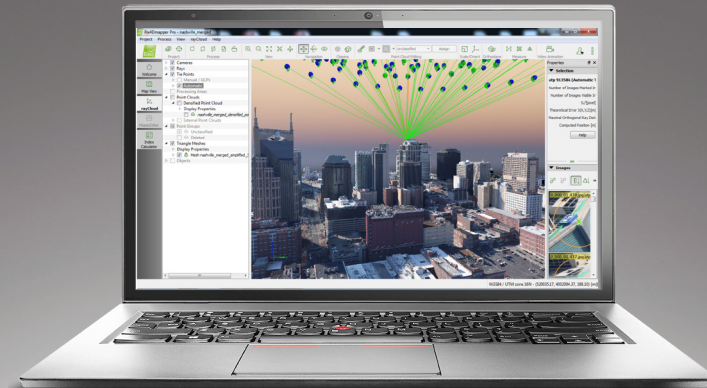
- 3D textured mesh model
- 3D point cloud

### PROCESSING TIME

Around 6 hours

### ANALYSIS

The XCAM-B camera rig was calibrated and built into Pix4Dmapper's camera database. With the known relative parameters of the rig, images can be processed more efficiently in the software. The entire city model of 155 acres was completed within a day



The rayCloud editor allowed Waldo Air to view, assess interpret and improve the quality of project results



The WaldoAir XCAM-B and tablet with Waldo KML Reader Mission Planner



The small plane used for data acquisition with the WaldoAir XCAM-B mounted underneath

## Client Reference

SHOWCASE COURTESY OF:



WALDOAIR CORP

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**Pix4D SA**  
EPFL Innovation Park  
Building D  
1015 Lausanne  
Switzerland

General inquiries: [info@pix4d.com](mailto:info@pix4d.com)  
Sales inquiries: [sales@pix4d.com](mailto:sales@pix4d.com)  
Support inquiries: [support@pix4d.com](mailto:support@pix4d.com)  
Phone: +41 21 552 05 90  
[www.pix4d.com](http://www.pix4d.com)

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