

News from IGI

Hubert Minten, IGI mbH
Stuttgart, 5.9.2011



53rd Photogrammetric Week

News

1. Multi *DigiCAMs* (vertical and oblique)
2. Mobile LiDAR Mapping – the *RailMapper*
3. *CCNS5*



DigiCAM



User Interface: 8.5" or 15" Touchscreen

Storage Capacity (SSD): 500 GB / 5800 Images (60 Mpix, 16bit)



DigiCAM



50 or 60 Mpixel

6 μ m pixel pitch

1.6s repetition time

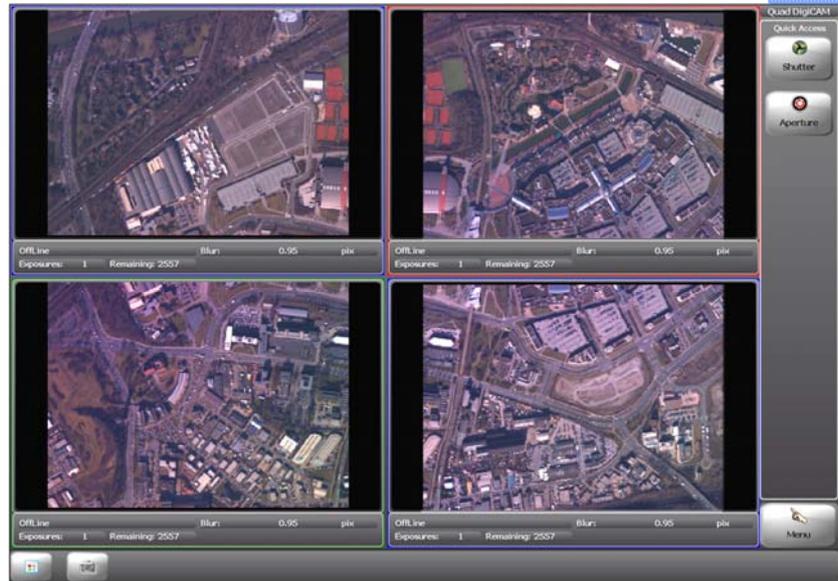
Lenses: 28mm to 300mm

Option: 1.2s @ 40 Mpixel



Quattro DigiCAM

More than just four cameras ...



Quattro DigiCAM – DigiMERGE

DigiMERGE - G:/HD_0291/QuattroDigiCam

File View Help

Project Processing Log

Image ID	FR	BR	BL	FL	AGL [m]	Pixel Size [µm]	Geo. correction	Rad. correction	Result image	Preview image	RMS Total	Red EMD Total	Green EMD Total	Blue EMD Total
<input checked="" type="checkbox"/> 000593_0005_00_0017	✓	✓	✓	✓	1650	6	<Fitting>	<Fitting>			0.28	0.82	0.90	0.76
<input checked="" type="checkbox"/> 000592_0005_00_0016	✓	✓	✓	✓	1650	6	<Fitting>	<Fitting>			0.31	0.91	0.96	0.82
<input checked="" type="checkbox"/> 000591_0005_00_0015	✓	✓	✓	✓	1650	6	<Fitting>	<Fitting>			0.31	0.80	0.97	0.84
<input checked="" type="checkbox"/> 000590_0005_00_0014	✓	✓	✓	✓	1650	6	<Fitting>	<Fitting>			0.32	0.72	0.79	0.64
<input checked="" type="checkbox"/> 000589_0005_00_0013	✓	✓	✓	✓	1650	6	<Fitting>	<Fitting>			0.43	0.48	0.65	0.40
<input checked="" type="checkbox"/> 000564_0006_00_0013	✓	✓	✓	✓	1650	6	<Fitting>	<Fitting>			0.35	0.72	0.69	0.66
<input checked="" type="checkbox"/> 000563_0006_00_0014	✓	✓	✓	✓	1650	6	<Fitting>	<Fitting>			0.35	0.91	0.94	0.84
<input checked="" type="checkbox"/> 000562_0006_00_0015	✓	✓	✓	✓	1650	6	<Fitting>	<Fitting>			0.33	0.83	0.87	0.82
<input checked="" type="checkbox"/> 000561_0006_00_0016	✓	✓	✓	✓	1650	6	<Fitting>	<Fitting>			0.30	1.04	1.07	1.02

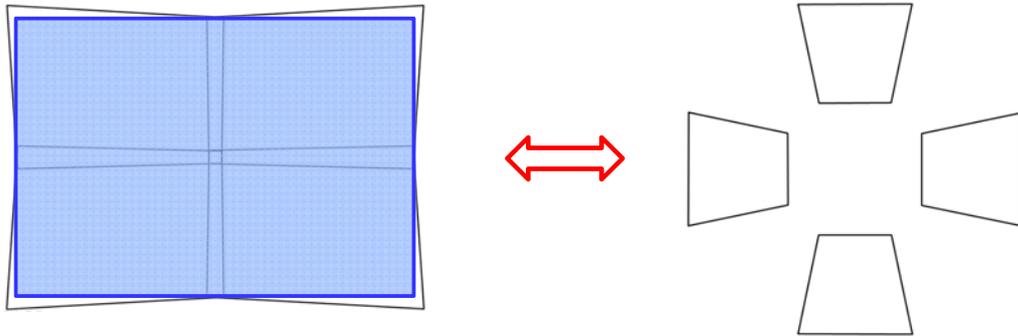
Thumbnail size Cancel Create Correction from checked rows... Process checked rows

Images 9 done | 1 left | 10 total Time 00:13:32 passed | 00:00:08 left | 00:13:40 total 90%

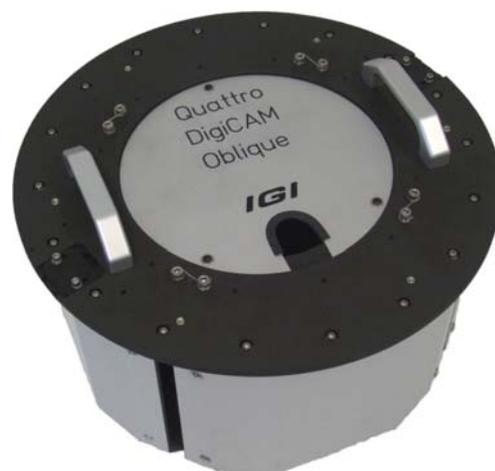


Quattro DigiCAM

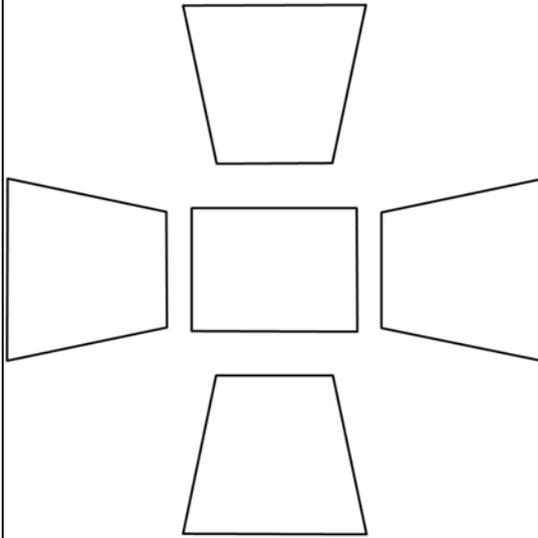
Nadir and oblique aerial images with one camera system



Quattro DigiCAM Oblique



Penta DigiCAM



Quattro DigiCAM Oblique



Oblivision Software

Quattro DigiCAM Oblique



Aerial Images and 3D City Modell
from AEROWEST GmbH



Quattro DigiCAM Oblique



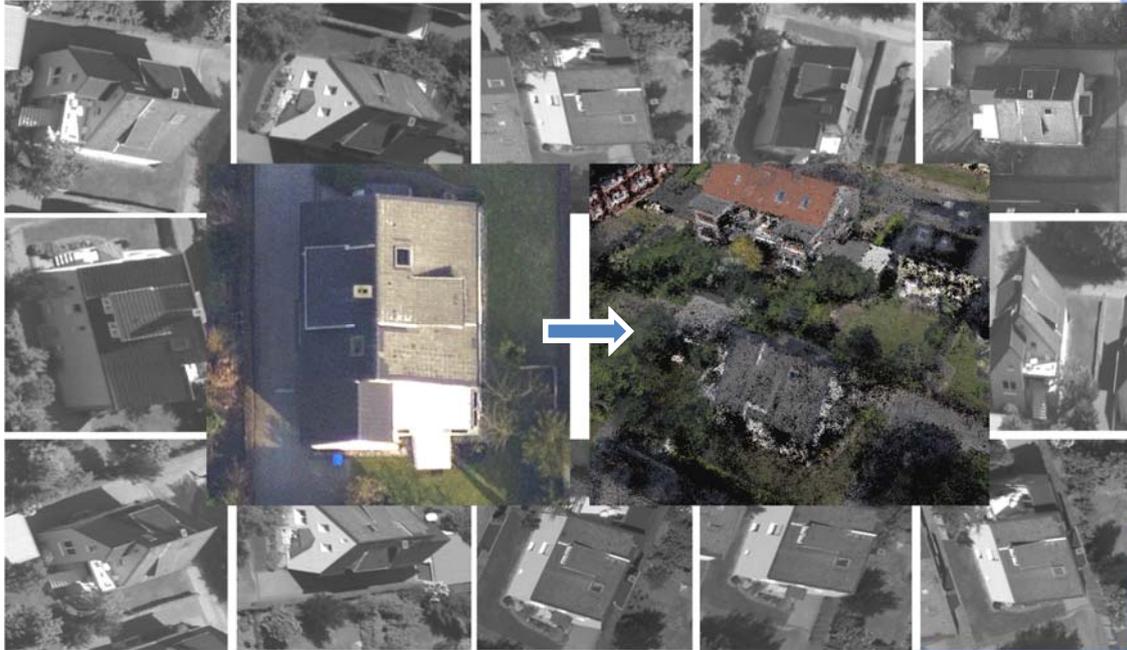
Aerial Images and 3D City Modell
from AEROWEST GmbH



Evaluation of the Potential of Dense Image Matching using Nadir and Oblique IGI DigiCAM Imagery



D. Fritsch & K. Wenzel, ifp, Univ. of Stuttgart



Evaluation of the Potential of Dense Image Matching using Nadir and Oblique IGI DigiCAM Imagery



D. Fritsch & K. Wenzel, ifp, Univ. of Stuttgart

Challenges:

- Large perspective differences between images
- Changing ground sampling distance in oblique imagery
- Outlier and noise reductions by using the high redundancy

Methods:

- Hierarchical dense matching
- Multi-view stereo



Mobile LiDAR Mapping



LITE M APPER

RAIL M APPER

STREET M APPER



Standard *LiteMapper*



LiteMapper Multi Sensor Platform



Mobile LiDAR Mapping



LITE M APPER

RAIL M APPER

STREET M APPER



Mobile LiDAR Mapping



LITE M APPER RAIL M APPER STREET M APPER

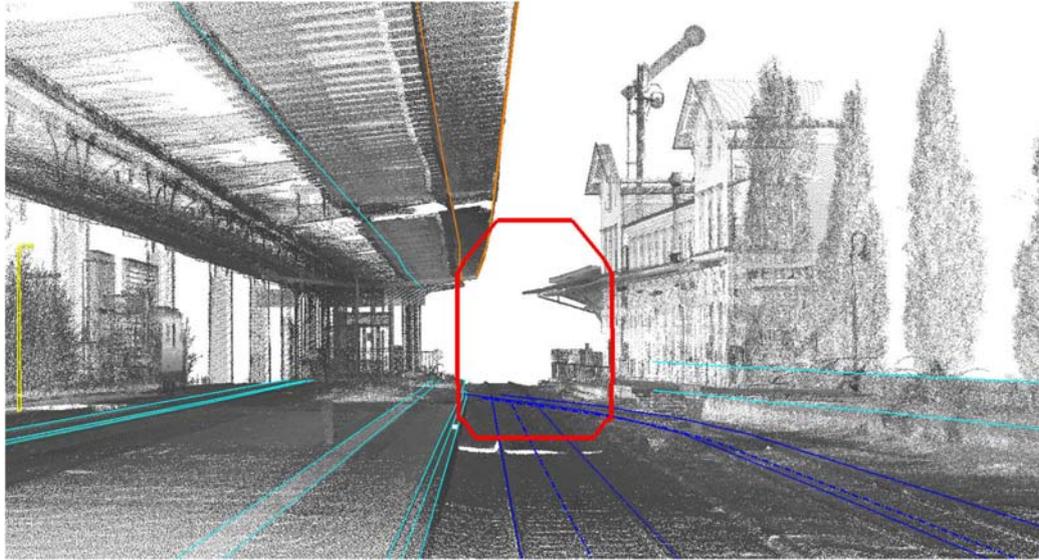


RailMapper



RailMapper

Automatic Clearance Measurement



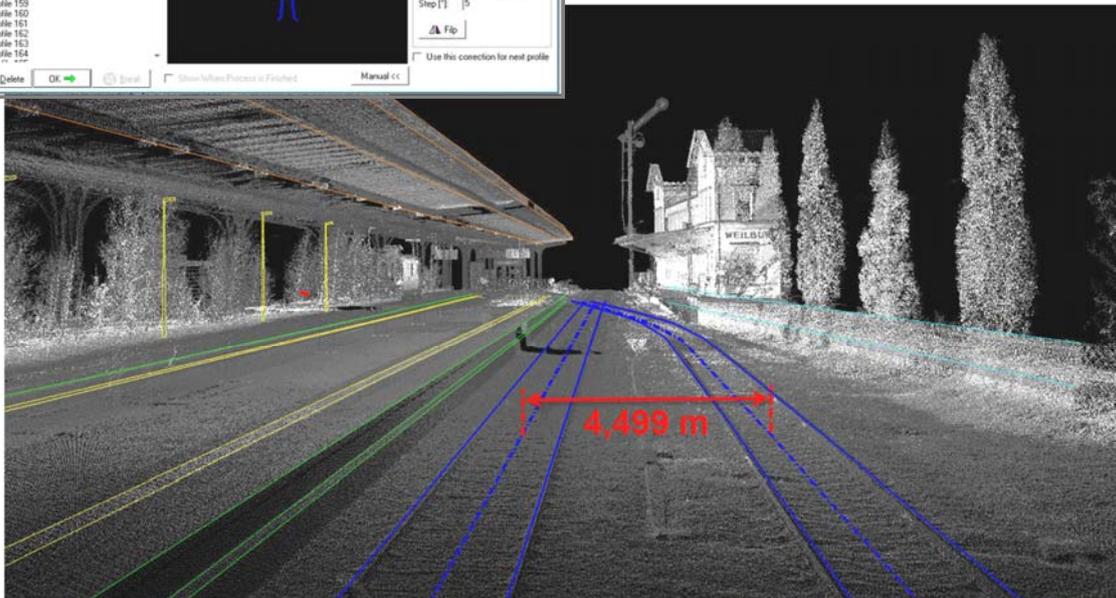
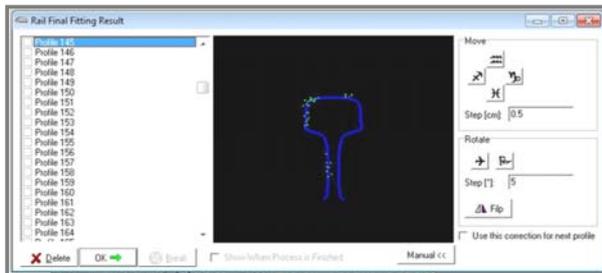
SiRailScan Software / technet-rail 2010 GmbH



www.igi-systems.com

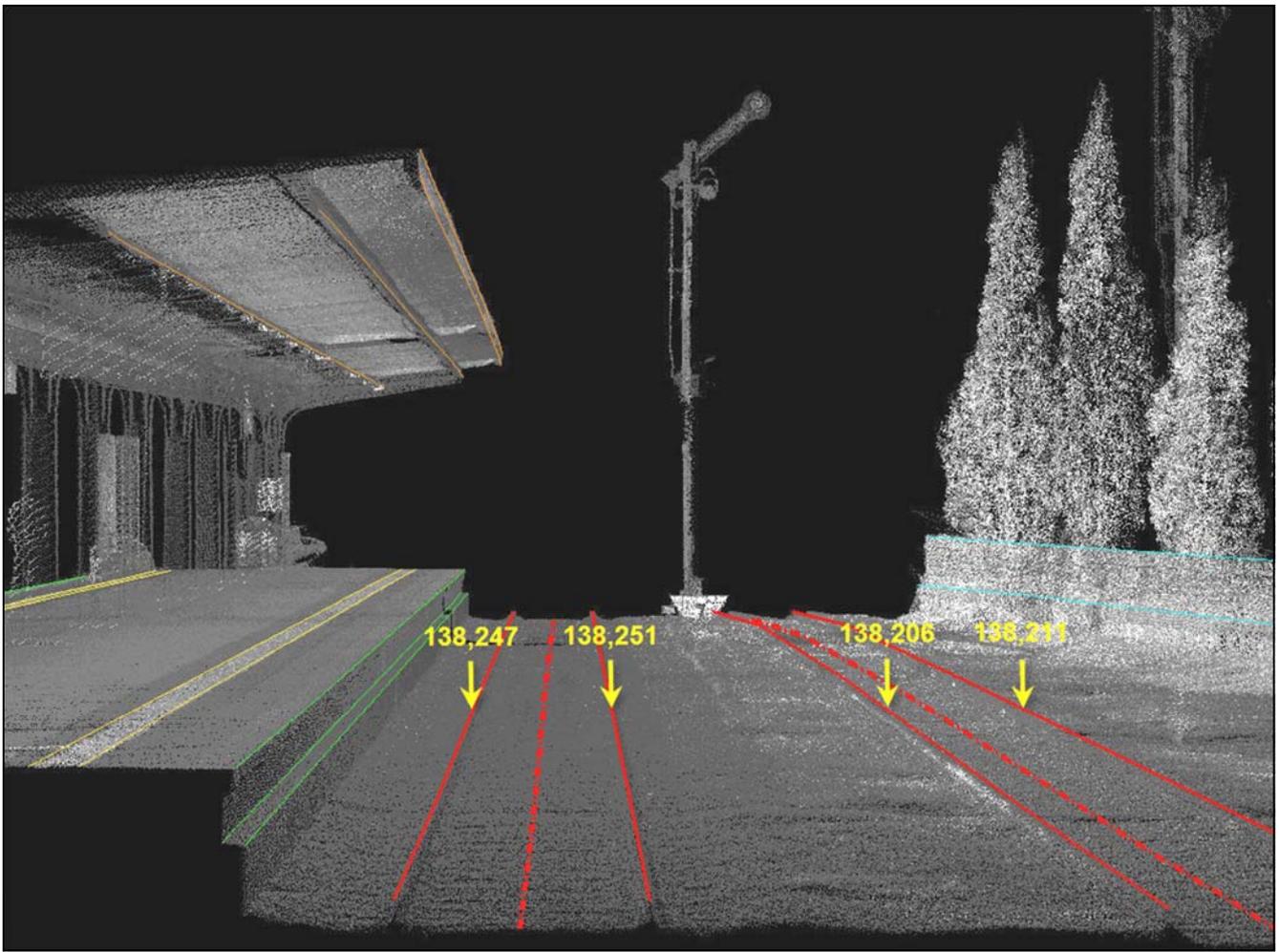


RailMapper



www.igi-systems.com





RAIL M APPER[®]

**Complete system solution
with established workflow**

RailMapper



- Easy operability and control
- Fast data analysis with existing software
- Very high data accuracy (4mm relative), incl. georeferencing
- Meta-data / tags / localization available
- Data acquisition with on-line waveform
- Automatic detection of relevant features

CCNS5



Better to choose the ORIGINAL



CCNS5 Features and Advantages



- All-in-one design, no separate computer, less cables
- 6.5 inch display with a couple of control buttons
- Extra bright, sunlight readable display
- Mobile system, can be used in different installations (aircraft)

CCNS5 Features and Advantages



- Configure your *CCNS5*:
 - User configurable screen & menus
 - Modular, selectable options to achieve an individual customized system
 - Multi-sensor management
 - *CCNS5* can operate all common sensor types (Digital & Analog Cameras, Lidar, SAR....)

CCNS5



5 reasons to choose *CCNS5*

- new industry-leading standard
- small, fits to any aircraft
- robust & reliable
- integrates to any sensor
- user configurable

CCNS5



See you at IGI Demo
K2, Keplerstr. 17
Floor 2, room no.
17.21

Better to choose the **OR**  **NAL**