Digital Ortho Mosaics

The image world goes digital! The analogue technique is rapidly being substituted by digital cameras. More and more data users are deciding to choose digital acquisition and processing for their data needs.
We were among the first to work with digital camera projects and are proud of our unique experience. We were the first company to use this technology for acquisition, beginning by scanning different Dutch cities in 1998, going on to finalise projects in the range of several 1000 km^2. Diverse geographical areas such as rivers in Italy, cities in France, highways in the UK and municipalities in the Netherlands were among our project areas. The resolutions achieved range from 3.5 cm to 40 cm.

We use a unique variety of camera systems. We scanned the earth using the:

- Rollei AIC modular
- Vexcel UltraCam-D and UltraCam-X
- ADS 40
- Z/I DMC

We always choose the most suitable camera system depending on the requirements of the project. For the combined acquisition of high-resolution elevation data we most often use our 'working horse' Rollei, which can be utilised for a very broad range of projects.

The following examples give an overview of the various fields of applications where the different camera systems are used:
The ADS 40 camera was used for data acquisition for almost the whole of the River Elbe after the big flood in 2002. This data set (multi-band imagery with a resolution of x, y = 32 cm and an elevation model with a resolution of z = 100 cm) is now used as a base for mapping the river and further planning, with the simultaneously acquired infrared band being used for vegetation detection and monitoring.

The Z/I DMC has been used in 2006/2007 to recapture the Elbe river for change detection between the 2002 dataset and the newly captured dataset.

The Vexcel Ultracam-D was chosen for a pilot project for map updating in the Netherlands. We also captured an area of more than 8000 km^2 of Saxony (Germany) in true color (RGB) and colorinfrared (CIR).

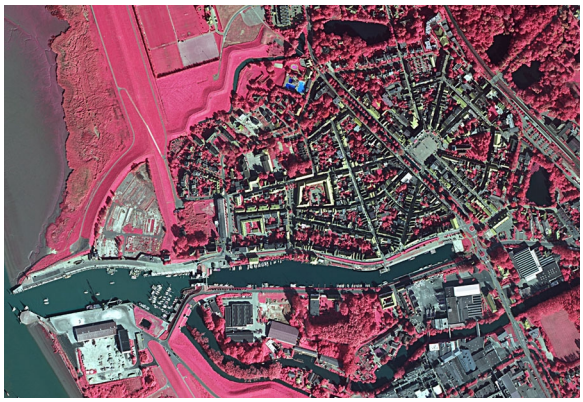
Extremely high resolutions (3.5 cm) were achieved using our Rollei camera in a helicopter. The RGB-imagery shows details such as single bricks on the streets or very small marks on the roads, the detailed elevation data allowing us to detect even small height changes in the area.

In contrast to using previous, non-digital technology, we are now able to both acquire and process data far more quickly. The delivery time after image acquisition shortens and processing results in an image mosaic showing the whole project area. This means we can deliver quicker and cost-effective results.

Apart from the data acquisition we also offer data processing services. With our in-house-developed processing chain we can process all digital camera (and Lidar) data and help you to optimise your project realisation. We will turn your raw data into highly accurate image products.

Elbe river 2006, Z/I DMC, resolution 25 cm, panchromatic

True color RGB



Colorinfrared (CIR)

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