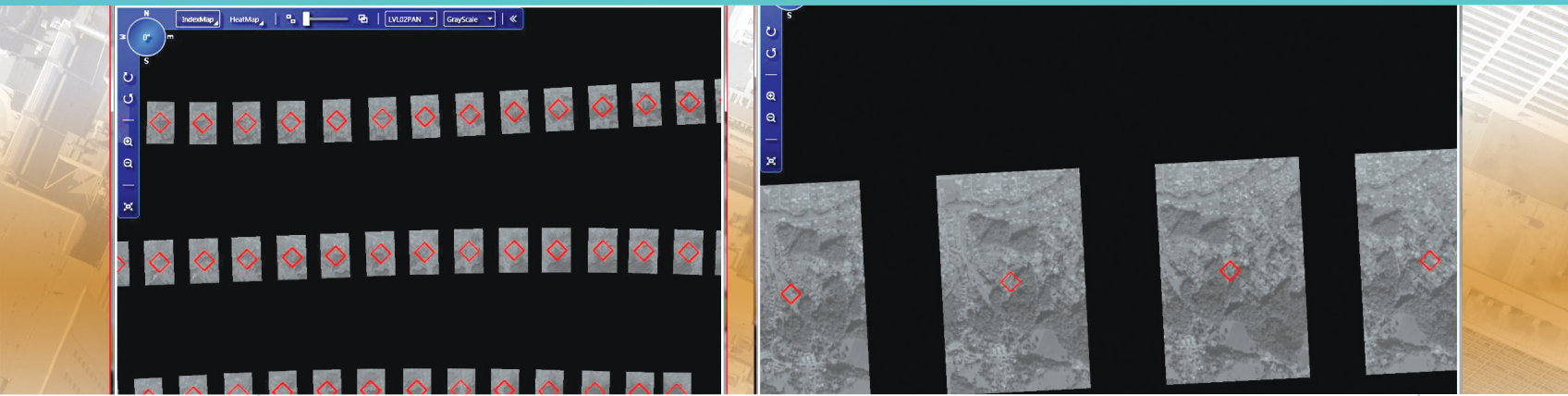


Microsoft's new UltraMap Software provides a flexible and scalable distributed system for managing and processing vast amounts of UltraCam data.

UltraMap Software

Completed & Integrated Photogrammetric Workflow



UltraMap AT Interactive Visualization

Overview

The UltraMap software system provides UltraCam customers with a complete and integrated photogrammetric workflow for UltraCam images. A flexible and scalable distributed system for managing and processing vast amounts of UltraCam data, UltraMap fully integrates UltraCam-specific hardware such as the DX data units, the DKS docking station and the mobile storage unit to support field and office environments.

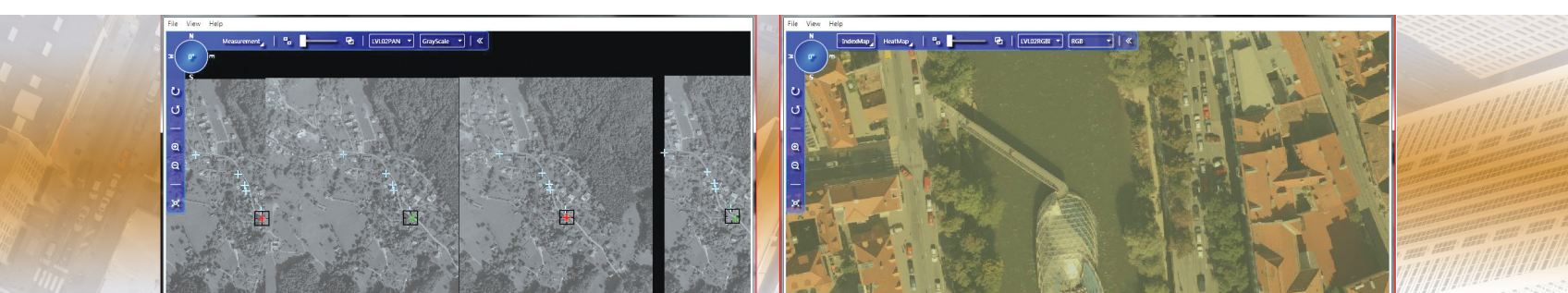
The system begins with the UltraMap Framework that provides a common foundation for the UltraMap Platform and UltraMap AT modules. The UltraMap Framework is responsible for the handling of the central system management (setup, configuration and calibrations) as well as the central workflow and load balancing.

The UltraMap Platform manages data download, level 0-2 and level 2-3 data processing, and data visualization and verification for quality control. At the core of the platform is Microsoft Seadragon technology, developed with the aim to change the way we use screens so that visual information can be smoothly browsed regardless of the amount of data involved or the bandwidth of the network.

Finally, the UltraMap AT allows for complete aero triangulation and provides feedback for auto calibration.

benefits

- *Central job management and control*
- *Integrated storage and calibration management*
- *Flexible management/configuration of computers within UltraMap framework*
- *Integrated version control*



UltraMap Platform

Download Manager

- Fully integrated management of data unit and ship packs
- Fast data dump from data unit
- Data copy in combination with Process-02 (pipeline)

Process-02

- Flexible and easy UI to set-up processing jobs
- Distributed processing from level 0 to level 2

UltraMap Additional Modules

Central Modules (Coordinator)

- System (Info, Status, SW-Update, Configuration, Calibration Deployment)
- Workflow / Process (Job Lists, Load Balance, ...)

Normal Modules (Workers)

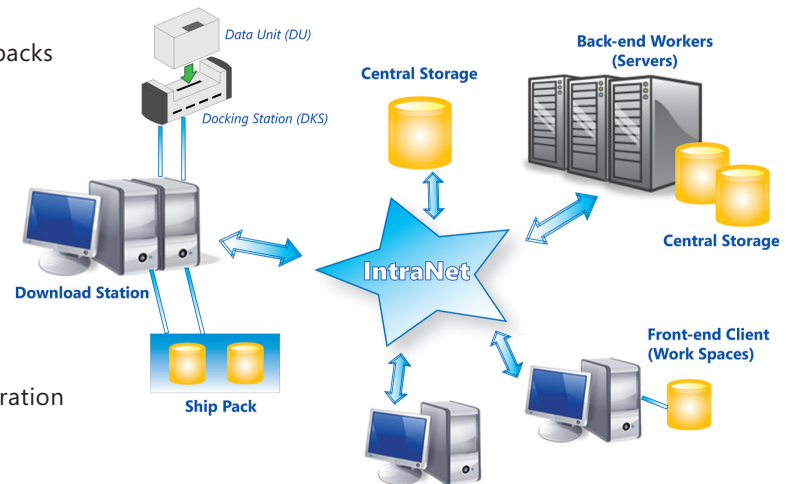
- Back-end services to do the real work

Special Modules (HW-Monitors)

- For Data Unit (DU) detect & mount + register to system
- Distributed processing from level 0 to level 2

GUI Modules (Clients)

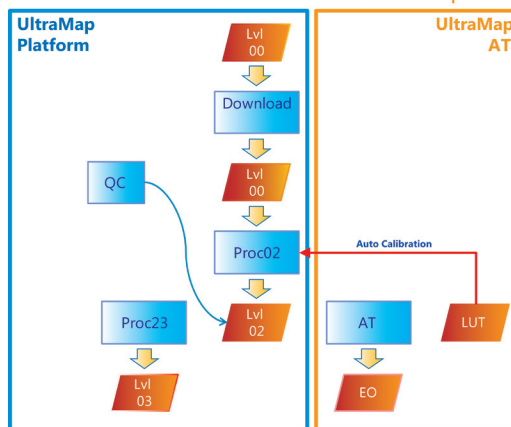
- Front-end UIs for coordinator
- All UI components to specify, prepare & edit the jobs and to visualize & verify the results.



UltraMap AT

- Interactive visualization of full-resolution level 2 images aligned as index map
 - Panchromatic
 - Color (RGB/CIR)
- Complete 16 bit image pipeline
- Overlap visualization using color-coded regions
- Vector overlay data for additional information visualization
- Single and multi-projection for ground control points
- Guided ground control point measurement
- Automated tie point collection
- Photogrammetric bundle adjustment
- Sub-block support

Product and Data Pipeline



More Information

Vexcel Imaging GmbH | a Microsoft company
 Anzengrurgasse 8
 8010 Graz, Austria
www.ultracamx.com | mpsinfo@microsoft.com

Microsoft