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Dieter Fritsch's Wrap-up (Summary)

Keynote: „Cloud Computing – The Next Revolution in IT" (F. Leymann)

- Cloud computing, a tool for photogrammetry? Yes!

- Some vendors of HW/SW have/will evolve services cloudwise

- Several layers: Infrastructure as a Service (IaaS)

                         Platform as a Service (PaaS)

                         Software as Service (SaaS)

                         Composite as a Service (CaaS)

- Virtualization, elasticity, pay-as-you-go

- This technology will widely adopted – the future is cloudy!

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1st Topic: "Image-based Data Collection"

- Digital data collection provides superb photogrammetric data

- < ½ GSD geometrical accuracy, ~ 12 bit radiometry

- DGPF test delivers comprehensive overview on High-end and medium-format systems – Spring `10: final results

- Design of digital camera systems an issue – lens optimization, absolute radiometric calibration, geometric calibration (still ongoing), Vision Map A3

- New medium-format airborne camera systems: RMK D, UltraCam Lp, RCD 100/105

- Exiting competition: medium format cameras vs high-end systems

- MidIR cameras extend photogrammetric applications

- Oblique photogrammetry in production: 200 cities in 3D end of '09

- Interesting developments in satellite photogrammetry, GSD limit 0.5 [m], HiROS

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2nd Topic: "LiDAR: Airborne, Terrestrial and Mobile Applications"

- point clouds valuable data source for mapping

- problem: modeling of knowledge

- apps: Automated building reconstruction, curbstones mapping, road markings, poles, etc.

- Sensor integration demands for inter sensor calibration

- Stabilization mount needed in aerial LiDAR (data becomes more regular & smooth)

- Static LiDAR complements 3D models, points splatting, Normal Maps

- Time-of-flight cameras – a new distance measuring device

- Mobile mapping incl. LiDAR delivers good data quality and high efficiency

- MEMS technology – the INS of the future

- Next Map Europe, Next Map USA: Radar DTM $\sigma_z < 1[m]$

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3rd Topic: "Value-Added Photogrammetry"

- Look at CV developments (OpenSource Bundle, 3D reconstruction, etc)

- Send developers to CV conferences, cooperate closely with CV

- 3D Vision very powerful, multipoint images, automated workflows

- Super resolution provides dense DSM, the world in 15 - 2 - 0,5 [cm]

- 'Internet-of-things' needs photogrammetry?

- CityGML – a standard in photogrammetric 3D modeling, can be used along the full processing chain

- Multi-ray image matching delivers high-res & precise DSMs

- 3D preservation of Cultural heritage objects is an issue – please help!

- EuroSDR - the European platform of photogrammetry & related geosciences

- Digital Globes evolve further – collaborative mapping

- Automated generation of 3D City Models