



## FIG Working Week 2005 and GSDI-8 From Pharaohs to Geoinformatics

Spatial Data Acquisition Software for  
Professional Surveyors and GIS Data Collectors

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Leica MobileMatrix

- when it has to be right



## Why a software in the field? What's Leica MobileMatrix?

GIS based system for data acquisition in the field  
Combining surveying sensors (GPS or TPS) with a field computer  
→ Controlling sensors, Editing, Collecting, Visualisation and Mapping tasks are directly performed in Leica MobileMatrix  
→ Raster and Vector data in the map background



TabletPC based (also running on laptops)



- Windows NT, 2000 or XP basis
- ESRI's ArcObjects technology used as development platform

2

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## Available computations Survey computations at your fingertips

- Survey Computations
  - Free Station
  - Traverse
  - Resection
  - Tacheometry
- COGO Computations
  - Basic
  - Curves
  - Intersections
  - Traverse
- Integration of GPS systems
- Stakeout

Floating Island Concept

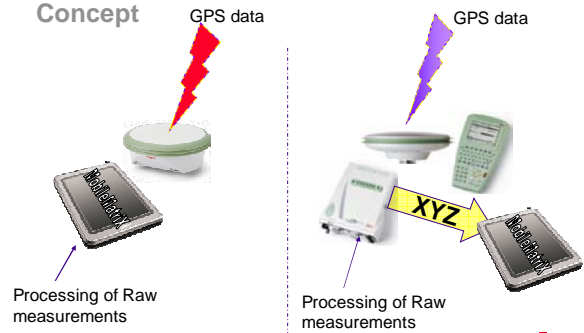


3

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## Together with Smart Antenna Concept



4

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## Benefits Seamless Dataflow

All data and feature are stored in ESRI's Geodatabase. When moving the feature back into the office system, no data conversion is needed. That means, no complex data transfer is needed for Office → Field → Office workflow.

**„No Conversion means no loss of data.“**

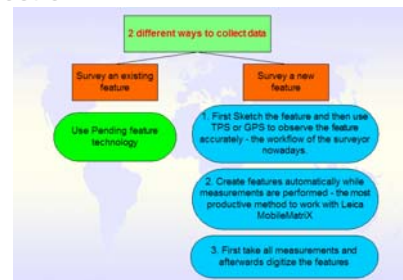


5

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## Benefits Unrivalled and flexible methods for data collection



6

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## Benefits

### Multiple Feature Editing

Creating more than one feature with just one measurement.

→ Such functionality ensures economic field practices whereby one point is measured to extend/create multiple features.

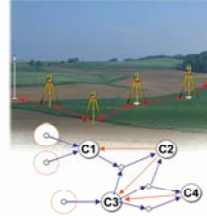


7

## Benefits

### Computation Network Analyst

The set of dependent computations is called the "Computation Network".

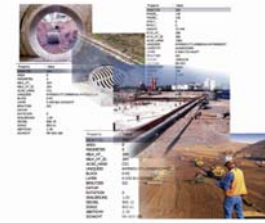


Starting points of Computation Networks are independent Datum Points. These are automatically detected by the system.

8

## Benefits

### GIS functionality – Attribute collection



- Direct editing of attributes in the field
- All collected attributes are stored with the feature in the database
- Attributes can be edited and/or newly collected
- Hyperlink the object with a sketch, picture, form, ...

9

## LEICA MobileMatrix

Thank you for your attention!  
If you have any further questions, please visit the Leica booth.

10