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

Spatial Data Acquisition Software for Professional Surveyors and GIS Data Collectors

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

Available computations
Survey computations at your fingertips

Survey Computations
  • Free Station
  • Traverse
  • Reection
  • Tacheometry
COGO Computations
  • Basic
  • Curves
  • Intersections
  • Traverse
Integration of GPS systems
Stakeout

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.“

Together with Smart Antenna
Concept

Processing of Raw measurements

Benefits
Unrivalled and flexible methods for data collection

Survey or Enabling Network
Survey with measuring devices for the field data collection

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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.

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.

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, ...

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