Terrestrial 3D Mobile Mapping

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IP-S2 Mobile Mapping Video Link

Overview

• **Total Mapping Solution**
  - Rapid non invasive method of capturing 3D positioning and video log data

• **Easy to Use**
  - Complete Solutions Out-of-the-Box
    - Hardware / Software
  - Compact; highly integrated design

• **Scalable**
  - Add new sensors, as needed
Mobile Mapping Advantages

✓ **Safe**: Map from a vehicle
  – Not from the roadway

✓ **Complete**: Get all information
  – In one operation

✓ **Fast**: Reduce weeks of data collection
  – Too a few hours

✓ **Efficient**: High accuracy at roadway speeds

✓ **Obsolete-proof**: Easily adapts to new sensors
Simple to use: Factory calibrated works out-of-the-box

Data Exchange
DBF and Shape Files
How does it work?

**GNSS Receiver:** position information
Latitude, Longitude and Altitude

**IMU (Inertial Measurement Unit):** vehicle attitude
Roll, Pitch and Heading

**Wheel encoders, CAN bus:** Vehicle Odometry
Estimate the velocity and position based on known location
Accurate Navigation When GNSS is Obstructed
Mobile Mapping Technology

- GNSS Antenna
- IMU
- Laser Scanners
- 360° Camera
- IP-S2
- Cube Mount
IP-S2 Applications

- Accurate geospatial system maps
- Expansion studies
- Risk management
- Environmental reporting
- Local condition assessment for repair operations
IP-S2 Applications

- Power Utility Mapping
  - ROW
  - Pole inventory / Joint Use Audit
  - Risk Management
  - QC
  - Vegetation Management

- Infrastructure and Asset Management
  - Utility structure location
  - Condition
  - Compliance
    - Regulatory/Safety/Environmental
IP-S2 Applications

- Roads / Streets / Highway Mapping
  - 3D Surface Conditions
  - Inventory Pavement conditions
  - Change Detection over time
- Disaster response planning
  - FEMA
- Railway Corridor Mapping
View Map of Data Collection Run
Use 360° Images & Point Cloud to Locate Features
Take Measurements use Point Cloud and the Image
✓ Import GIS Shapefiles or DBF
✓ Capture Accurate Feature Positions from Point Cloud
✓ Add / Edit Point, Line & Area Features / Attributes
✓ Export updated Shapefiles or DBF
Mobile Mapping Deliverables

✓ Dynamic colorized 3D Point clouds
Mobile Mapping Deliverables

✓ 360° Images
Mobile Mapping Deliverables

✓ GIS Compatible
360° Images

Point Cloud

ESRI Data Tables

Attributes + Measurements + DBF
Questions?
Contact Information

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