Agenda

- Magellan Professional Corporation Overview
- Magellan Professional GIS solutions in today’s Mobile Mapping world:
  - MobileMapper 6
  - MobileMapper CX
  - ProMark 3 RTK
  - MobileMapper CX with ProMark 500
Company Overview

- Originally founded in 1985
- Privately owned (SCP)
- 3 Key Market segments:
  - Survey (Land and Marine)
  - GIS
  - OEM Boards and sensors
- More than 200 key patents in GPS technology
- Previously including Magellan consumer devices
  - Fastest growing GPS brand in the world
  - Now sold to MiTAC (NAVMAN, MIO brands)
Global Operations

Magellan
- Headquarters
- Research & Development
- Sales Offices

Partners
- Manufacturing & Logistics
- ODM Partners

145 people in total
Strong R&D: History of Innovation

**Z-12** First Z-Tracking GPS receiver (1992)

**NR 103**: First European integrated differential GPS receiver: (1988)

**LOCUS**: First cable-less survey system (1997)

**ICGRS**: First Internet-enabled reference station (2002)

**PROMARK 2**: First survey system for less than $6,000 (2000)

**PROMARK 3**: First combined survey and GIS handheld (2005)

**PROMARK 500**: First Multi-constellation RTK surveying (2008)

**MOBILEMAPPER PRO**: First full-color handheld GIS Data Collector (2003)
## INNOVATION SOLUTIONS

**Innovative solutions marked by**
- Easy-to-own ProMark and MobileMapper
- Ease of Use
- Ease of Deployment
- Development platform for Business partners applications as ESRI, Digiterra and others

**Key Applications:**
- Land survey
- GIS for city planning, forestry, law enforcement, agriculture, utilities, governments etc.
- GNSS technology and boards

## KEY CUSTOMERS

- U.S. Coast Guard
- 3M
- Boskalis bv
- Universal Avionics
- Hydrography Society Of Chile
- U.S. Navy

## PRODUCTS

Product line ranges from 1000€ reaching broad range of segments
- ProMark survey range
- MobileMapper CX and MobileMapper 6 – fully featured GIS solution or open platform for Mobile Mapping integrators
- MB 500 and DG14 – leading edge L1 L2 boards technology for GNSS integrators
2009 Product Range

Best technology serving:

Portability: easy-to-handle
Ergonomics: easy-to-use
Affordability: easy-to-own
**Magellan Professional GIS solutions**

**Addressing ALL customer needs**

- Magellan Professional proposes a complete family of GIS solutions ranging from entry-level GPS receivers to very precise high-end GIS configuration
  - Entry level MobileMapper 6
  - Mid-range MobileMapper CX
  - High-end ProMark 3 RTK for GIS
  - High-precision GIS (MobileMapper CX with ProMark 500)

- These solutions differentiate through their accuracy performance and thus related applications and end-user needs

- Typical market segments addressed with these solutions
  - Forestry
  - Agriculture
  - Natural resources
  - Utilities
  - Oil & gas
  - Public Safety
GIS solutions family

Accuracy at a RIGHT price

Price [k€]

15k€

8k€

3k€

1k€

High-end GIS

Mid-range GIS

Entry-level GIS

Accuracy

Centimeter level

Sub-foot RT
Sub-decimeter PP

Sub-meter RT
Sub-foot PP

Meter level

Number of users

Accuracy at a RIGHT price

- High-end GIS
  - Accuracy: Sub-meter RT Sub-decimeter PP
  - Price: 15k€

- Mid-range GIS
  - Accuracy: Sub-foot RT Sub-foot PP
  - Price: 8k€

- Entry-level GIS
  - Accuracy: Meter level
  - Price: 3k€

- Price: 1k€

- Number of users: High-end GIS, Mid-range GIS, Entry-level GIS
Affordable GIS/GPS with nothing missing

- Extremely rugged and waterproof, and easy-to-use, yet professional GPS/GIS handheld receiver for entry-level and mid-range markets
  - Open platform Windows Mobile 6 based
  - Integrated 2-megapixel digital camera and e-compass
  - Bluetooth technology for wireless connectivity

- With the unique GPS performance in this range
  - 2-5 meters in real-time
  - Sub-meter (< 1 m) in post-processing

- Price range
  - From 700€ for a device alone
  - Up to 1200-1500€ for a complete solution with Mobile Mapping SW or ArcPad 8 and post-processing option

- Typical applications
  - Ideal for natural resources, or forestry data collection, relocating assets or mobile workforce management where accuracy is less important
High level specifications

Key features

- High-sensitivity and accuracy GPS
  - Sirf III Star with fast GPS position acquisition
  - 2-5 meter real time (SBAS)
  - Sub meter in post-processing

- Professional design
  - Rugged and waterproof (IPX7)
  - Compact form factors & lightweight

- Windows Mobile 6 based platform
  - 400 MHz processor
  - 128 MB flash / 64 MB RAM

- Integrated 2 Mpix digital camera
  - Tagging pictures with the GPS and e-compass data

- Bluetooth technology
- SD card (up to 4 GB, SDHC compatible)
- Field replaceable AA type batteries
MobileMapper 6 and Post-processing option

Sub-Meter performance

- Post-processing accuracy
  - Improving real-time data positioning to a sub-meter post-processing accuracy level (see below)

  Unique performance in the market place!

  - BLADE technology – Magellan Professional processing algorithm and know-how
  - Tests results, conditions and methodology describes on our White Paper
  - Option currently available with Magellan Professional Mobile Mapping SW

And now:

post-processing extension for ArcPad 8

<table>
<thead>
<tr>
<th></th>
<th>RT</th>
<th>PP</th>
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<tbody>
<tr>
<td></td>
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<td>3D</td>
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</tr>
<tr>
<td>Tree Canopy</td>
<td>2,08</td>
<td>4,08</td>
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</table>

50 m to 45 km baseline, 30 to 60 sec occupation time
MobileMapper CX

Map anything. Anywhere. In any way.

- Highly flexible and rugged GPS receiver for a universal GIS use in mid-range markets
  - Truly rugged device with outstanding shock/drop resistance
  - Best form factors for easy and comfortable field use
  - All-day, field replaceable battery
- Typical and standard GPS performance in this range
  - Sub-meter (< 1 m) in real-time
  - Sub-foot (< 30 cm) in post-processing
- Price range
  - From 2000€ for a device alone
  - Up to 3000€ for a complete solution with post-processing (based on MobileMapping or ArcPad software)
- Typical applications
  - Ideal for utility companies, local government organizations, federal agencies, or anyone managing assets or mapping infrastructure
MobileMapper CX Key Benefits

- **Universal GIS open platform**
  - Up-to-date standard operating system
  - Ready for a wide range of GIS mobile applications
  - Turn-key solution with Magellan Professional Mobile Mapping software
  - Car navigation capabilities

- **Advanced high performance GPS**
  - Sub-meter real-time positioning
  - Sub-foot (< 30 cm) in post-processing
  - Large support of DGPS modes: SBAS, Beacon, VRS, RTCM
  - Enhanced PVT technology

- **Extremely rugged and waterproof**
- **Wireless Bluetooth and WLAN technologies**
- **Extended memory capacity**
- **Long lasting battery life**
- **Built-in alphanumeric keyboard**
ProMark 3 RTK for GIS

**High-precision mapping**

- **ProMark 3 RTK platform**
  - GIS turn-key solution (with Mobile Mapping software)
  - Operating within any Real-Time Network (RTN) via UHF, NTRIP or Direct IP network connectivity for RTCM corrections for high-end GIS markets

- **High-end GPS performance**
  - Sub-foot (< 30 cm) in real-time
  - Sub-decimeter (< 10 cm) in post-processing

- **Price range**
  - From 5000€ for a ProMark 3 RTK rover
  - Up to almost 9000€ for a system with UHF radio

- **Typical applications**
  - Ideal for electric and gas utilities, water and wastewater services, land reform projects, and other applications where on-the-spot positioning is important
High-precision GIS: ProMark 500

**Centimeter GIS**

- ProMark 500 based solution
  - Together with MobileMapper CX field terminal
  - Based on market-standard ESRI ArcPad field software
  - And Fast Survey tool for ProMark 500 configuration

- Unique and very high-end GPS performance
  - Centimeter level accuracy

- Price range
  - From 12500€ for a MobileMapper CX terminal together with a ProMark 500 rover
  - Up to 15000€ for a solution with UHF radio

- Typical applications
  - Ideal for buried pipes and cables relocation, underground assets or critical infrastructure accurate mapping where the confidence to know the job was done right while still on site
## GIS solutions matrix

### Performance and price differentiation

<table>
<thead>
<tr>
<th>Solution</th>
<th>Real-time performance</th>
<th>Post-processed performance</th>
<th>Price range [K€]</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-precision GIS</td>
<td>centimeter ~ 1 cm</td>
<td>centimeter ~ 1 cm</td>
<td>12-15</td>
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<tr>
<td>ProMark 3 RTK for GIS</td>
<td>sub-foot &lt; 30 cm</td>
<td>sub-decimeter &lt; 10 cm</td>
<td>5-9</td>
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<tr>
<td>MobileMapper CX</td>
<td>sub-meter &lt; 1 m</td>
<td>sub-foot &lt; 30 cm</td>
<td>2-3</td>
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<tr>
<td>MobileMapper 6</td>
<td>2-5 m</td>
<td>sub-meter &lt; 1 m</td>
<td>1-1.5</td>
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</table>
Magellan Professional GIS solutions

- Magellan Professional proposes a **full range of GIS solutions** covering all GIS market segments and all customer needs
- All these solutions provide **best-in-class GPS performance** varying from meters level down to centimeter level
- A common key competitive advantage of all these GIS solutions is their price-to-performance ratio providing our users with the **best cost-effective solution** for a given performance range
Thank you

www.promagellangps.com