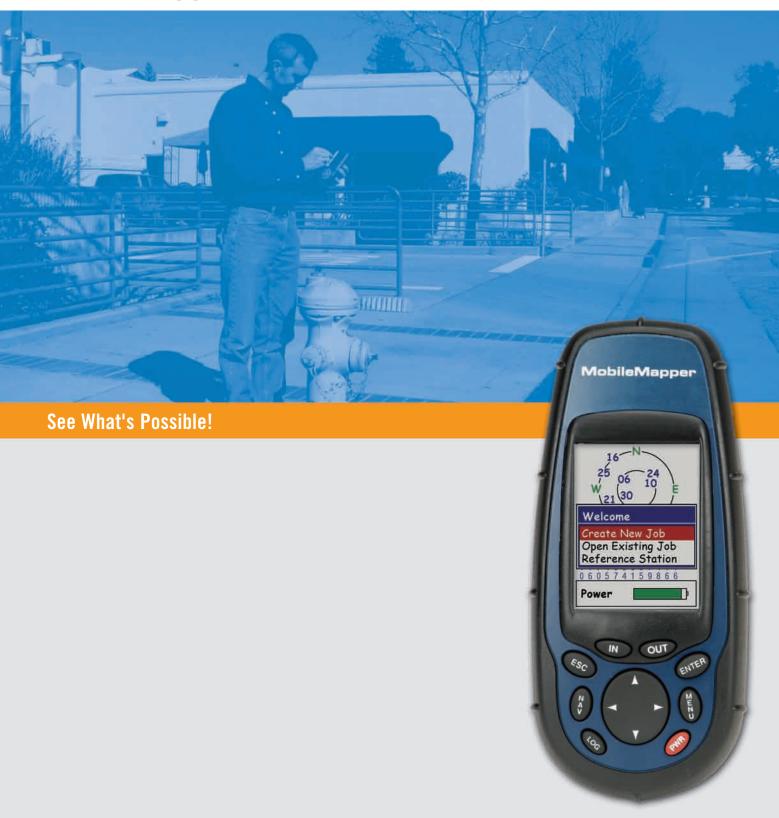


# **MobileMapper**<sup>™</sup>**Pro**



# **Mobile Mapping Made Easy**



## **MobileMapper Pro**

### Industrial Strength Mapping Solution

MobileMapper™ Pro combines professional GIS data collection and navigation software in a compact handheld GPS receiver. Enhanced by WAAS and EGNOS Satellite-Based Augmentation Systems, MobileMapper Pro provides real-time accuracy to within 3 meters. With Post-Processed Differential Correction, the MobileMapper Pro delivers sub-meter accuracy for half the cost of comparable solutions.

Driven by the powerful office support software, MobileMapper Office, MobileMapper Pro provides clear and simple data display, editing and export capabilities. MobileMapper Pro is the ideal solution for public safety personnel, utility workers, foresters, farmers, resource managers and anyone who manages positioning assets in the field. Use MobileMapper Pro to create or update maps for analysis and storage in a Geographic Information System.



### Easy-to-use

MobileMapper Pro includes the GPS features you really need without the burden of overly complicated, rarely used functions. The software is intuitive, making proficient use quick and easy with minimum training. The MobileMapper Pro displays GIS files in full-color maps, making it easy to work with complicated and unfamiliar GIS data sets.

### Easy-to-own

The MobileMapper Pro offers the highest value on the market. With post-processed sub-meter accuracy, superior GIS data management, mapping and navigation capabilities, you can't own a more powerful GPS solution for less.

Two AA batteries provide over eight hours of continuous use. There are no expensive battery packs and recharging units to purchase. Maps and data can be easily transferred between your MobileMapper Pro and your PC using a serial or USB cable. The removable SD (Secure Digital) memory card provides unlimited expandability and versatility in the field.



MobileMapper Pro is rubber-armored, highly shock resistant and waterproof to IPX7 standard, making it ready to perform in even the harshest work environments. It can withstand the hazards of your professional fieldwork while your investment is protected by its high durability.

MobileMapper Pro's cost-efficient value and user-friendly features make it easier to deploy and easier to use than any other mobile mapping solution.

# **Key Features and Accessories**

### **Features**

MobileMapper Pro continues to offer powerful yet easy-to-use features such as:

- Point, line and area mapping from an easy to learn and use menu structure.
- Area calculation in the field for real-time area determination.
  Area data can be post-processed in the office to enhance accuracy.
- Expandable, removable SD card memory for reliable data transfer to and from the office.
- Standard, off-the-shelf AA battery power for maximum convenience.
- Sub-meter post-processing allows for differential corrections of 70 cm accuracy on baselines up to 50 km.
- Offset measurement for all feature types including point, line and area. This function eliminates the need to physically occupy a feature; you simply need to input the distance and bearing to the feature.
- Nesting increases data collection efficiency by allowing the collection of additional features while mapping a line or area. For example, you can map all of the street infrastructure while collecting a road centerline.
- Grid mapping functionality create a virtual grid in the MobileMapper for sampling evenly throughout an area, such as measuring the degree of weed infestation throughout a field.

### **MobileMapper Pro Accessories**

Add Even More Flexibility and Convenience to your MobileMapper Pro

### MapSend® DirectRoute™

Turn-by-turn navigation made easy with MobileMapper Pro and MapSend DirectRoute software. Stop wasting time reading paper maps! Easily navigate to street addresses and points of interest to increase your efficiency and start collecting GIS data faster.

MapSend DirectRoute provides detailed street maps, automated routing, turn-by-turn visual guidance and audio prompts for fast, convenient navigation to your next job site. Field crews have never been this efficient!



### MobileMapper Beacon

MobileMapper Beacon is an extremely compact, all-in-one beacon differential correction receiver. It easily connects to MobileMapper Pro via the optional serial cable, offering you unlimited access to free, real-time DGPS corrections from beacon networks around the world.

MobileMapper Pro and MobileMapper Beacon make a tremendously powerful combination for users that demand convenient and reliable real-time, differential corrections. Powered by 4 AA batteries and designed for maximum portability under rigorous conditions, MobileMapper Beacon provides RTCM SC-104 DGPS corrections via cabled connection to the MobileMapper Pro receiver.

Featuring auto-tune capabilities, MobileMapper Beacon offers extreme convenience and requires no set-up with nearly any RTCM compatible GPS receiver. Turn-it-on, connect and go – it's that easy.

### **Vehicle Accessories**

Conveniently mount MobileMapper Pro in your truck, car or virtually any vehicle with our full line of easy to install mounting brackets. From dashboard to handlebars, we have a bracket that meets your needs for optimal screen viewing, even under rugged off-road conditions.

Improve positional accuracy and signal availability in your vehicle with the MobileMapper Pro external GPS antenna. Our antenna magnetically mounts to metallic surfaces such as vehicle roofs making navigation or collection of field data from a vehicle more reliable and accurate.

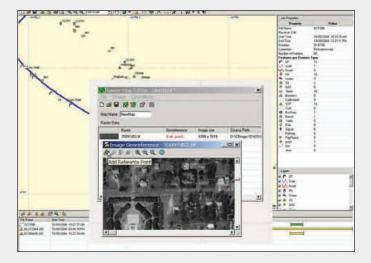
## **MobileMapper Office**

# Connecting Field Assets with Geographic Information Systems

Using data collected with MobileMapper Pro; MobileMapper Office makes post processing easy and accurate. MobileMapper Office software automatically identifies the field and base station files and can even search the internet for suitable base station data. Advanced algorithms in the MobileMapper Office software assures that sub-meter accuracy is delivered at the click of a button.

A powerful, easy-to-use software tool, MobileMapper Office provides convenient features such as:

- Full feature library generation with the touch of a button.
- Uploading of base maps to MobileMapper Pro or directly onto an SD card.
- Quick and easy editing and exporting of data to MobileMapper Pro or your GIS.
- Supports ESRI shapefile, MapInfo .MIF and Autodesk .DXF import/export and .CSV export
- Creation of vector background maps for use in the field.
- Maps in GIS formats can be used as background maps both in MobileMapper Office and in the MobileMapper Pro receiver
- Raster image support use georeferenced images or create background maps from raw image files.



### **Feature Library Editor**

- Creates and edits lists of GIS features and attributes for describing features in the field
- Supports numeric, text and menu-style attribute values
- Supports creation of MobileMapper Pro grids for collecting data at a pre-defined network of waypoints in the field
- Automatically converts GIS files into feature libraries so you can maintain your database using the same description codes

### **Background Map Creation**

- Creates background maps from GIS files for display in both MobileMapper Office and the MobileMapper Pro receiver
- Supports the use of Magellan MapSend maps as background maps in the MobileMapper Pro receiver
- Allows the selection of GIS themes/layers and map extents to minimize the size of the maps uploaded to the receiver

### Job Creation and Editing

- Prepares job files for field data collection
- Supports importing of features from GIS files
- Creates job regions to minimize the size of jobs uploaded to the receiver
- Selects feature libraries for inclusion in job files
- Associates background maps with job files

### **Differential Correction**

- Provides sub-meter accuracy with baselines up to 50 km
- Processes code and carrier phase data recorded with MobileMapper Pro receiver software
- Compatible with reference station data from Magellan Professional survey receivers, Reliance™ and MobileMapper Pro receivers, community base station files, or any source of RINEX code and carrier data
- Supports automatic download of reference data from CORS stations or community base stations

### GIS Data Display and Editing

- Displays job files, imported GIS files, background maps and waypoints
- Displays coordinates and grid lines using a large variety of geodetic systems, grids and datums
- Displays geo-referenced raster images
- Supports user-defined grid systems and datums
- Displays GPS metadata: time spent on point features, length of line features, perimeter and area of area features, # of satellites, min/max PDOP, etc.
- Displays all feature descriptions collected in the field and supports the easy editing of all attribute values

### **Applications**

### Get GIS Sub-Meter Accuracy Without Compromise

### **Agriculture**

Ideally suited for agricultural applications, MobileMapper Pro gives you the power to make accurate area and boundary measurements on native, fallow or cultivated parcels of land. MobileMapper Pro is an excellent tool for mapping fields that may be eligible for subsidies such as European Commission aid payments or US crop insurance.

Using the grid function, field surveys for weed control or soil sampling can be accurately and efficiently completed without the need for manually setting out a grid.

### **Environment**

The exceptionally sensitive GPS receiver at the core of the MobileMapper Pro means that it performs well in difficult signal environments such as under dense foliage. Applications include monitoring wetland delineation, environmental protection or vegetation mapping.

### **Utilities and Local Government**

The MobileMapper Pro is able to take any supported GIS file into the field, update it and transfer it back to the office GIS. This enables any utility or local government worker to navigate to field infrastructure, update the GIS data with any modifications made and easily transfer this file back to the office.

### **Public Safety**

The rugged exterior and versatility of software applications make the MobileMapper Pro the first choice for Public Safety planning. Creation of first-response plans, mapping fire boundaries, crime location, disease incidence and storm damage mapping are conveniently done on-site with one simple tool.



# MobileMapper Pro Field Software

MobileMapper Pro field software combines GIS data collection functions with full navigation features. Key GIS data logging capabilities include:

- GIS feature libraries for logging feature descriptions
- Support for logging point, line and area features
- Offset function for logging hard to reach features
- Nesting function for logging features without closing other features already being logged, e.g., inserting a telephone pole while mapping a road
- Repeat feature function for rapid logging of features with identical descriptions, e.g. poles along a road
- Grid mapping utility for collecting evenly distributed measurements (water depth, chemical concentration, etc.) required for contour map generation
- Software feature for collecting data for post-processed differential correction

- Language Support:
  - English
  - French
  - German
  - Lithuanian
  - Polish
- Spanish
- Italian
- Portuguese
- Swedish
- Chinese
- Japanese



# **MobileMapper Pro Technical Specifications**

### **System Components**

- MobileMapper Pro receiver and data collection software
- MobileMapper Office software
- Receiver-to-PC serial data cable
- 128 MB SD card
- Getting Started Guide and User Manual
- 2 AA Li-ion batteries

### GPS Accuracy (Horizontal, 95%)

- Real-Time Autonomous: 7-10 m
- Real-Time with SBAS or MobileMapper Beacon < 3m
- Post-Processed: < 1 m
- All accuracies assume an open sky environment, #SVs > 5 and PDOP < 4

### **Receiver Components**

- 12 independent GPS (L1 code and carrierphase) and SBAS channels
- RS232 port for outputting GIS/GPS data and NMEA messages and inputting RTCM corrections and external power
- Quadrifilar helix antenna with multipath rejection

### **Internal Memory Capacity**

- 4 MB RAM
- 128 MB internal, removable SD card; upgradable to higher memory cards

### **Physical Characteristics**

### Weight

■ 0.22 kg (.48 lb)

#### Size

■ 16.5 cm H x 7.3 cm W x 3 cm D (6.5 in H x 2.9 in W x 1.2 in D)

### **User Interface**

- Color display with backlight: 5.6 cm H x 3.9 cm W (2.2 in H x 1.6 in W)
- Display resolution: 120 x 160
- Keyboard with backlight: 12 buttons

### **Power Characteristics**

- Battery type: 2 AA-cell internal
- Battery life: 8 hours with backlight and Li-ionbatteries @ 25°C (77°F); 16 hours with backlight off
- External power port for extended operation time

#### **Characteristics**

### **Operating Temp**

■ -10°C to 60°C (14°F to 140°F)

#### Storage Temp

■ -20°C to 70°C (-4°F to 158°F)

### Weather

■ IEC-529 IPX7 Standard (withstands water immersion for < 30 min. at depth of 1 m)

#### Shock

■ 1.5 meter (4.9 ft) drop to concrete

### **Emissions Certification**

- Immunity (EN 55022 Class B)
- Susceptibility (EN 50082-1)
- FCC and CE certified

### MobileMapper Office Software

Key software functions include:

- Feature Library Editor
- Background Map Creation
- Job Creation and Editing
- Differential Correction
- GIS Data Display and Editing
- GIS Import/Export: ESRI .SHP, MapInfo .MIF and AutoDesk .DXF import/export and .CSV export

### **On-line User Manual**

- Technical reference for all MobileMapper Office and receiver features and functions
- Easy-to-use index
- Online Help files

### **System Requirements**

- Windows® 98 / NT 4.0 or later / 2000 / XP
- Pentium®, 133 MHz or better
- 32 MB RAM
- 90 MB disk space required for installation

### Language Support

### MobileMapper Pro

- English
- French
- German
- Lithuanian
- Polish
- Spanish
- Italian
- Portuguese
- Swedish
- Chinese
- Japanese

### MobileMapper Office

- Chinese
- English
- French
- German
- Japanese
- RussianSpanish

### **Optional Accessories**

- MobileMapper Beacon DGPS receiver
- MobileMapper Beacon serial data cable
- Power/data cable
- Serial-to-USB cable
- External antenna
- Swivel mount for boat or vehicle dashboard
- Vehicle mounting bracket for windshields
- Bicycle mounting bracket
- Carrying case
- PC cable with cigarette lighter adapter

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