

Earthmate PN-40 GPS Receiver with XMap

Professional grade mapping and GIS data collection on a handheld GPS receiver

The Earthmate PN-40 GPS is a remarkably versatile handheld GPS receiver that is equally well suited for serious work or serious fun. Rugged and waterproof, the PN-40 boasts an array of features and functions that truly set it apart from comparably priced GPS receivers.

Used in conjunction with XMap 7, the PN-40 extends the reach of your GIS by offering convenient field access to your GIS layers, aerial imagery, and other data, wherever the location of your jobsite. The PN-40 has been reengineered to support XMap's all new form-based data collection system, which allows GIS points and any accompanying attributes to be recorded or edited in the field and easily transferred into an XMap GIS.



Supported Map Formats

Virtually any map or data layer created by, or imported into XMap can be copied and transferred to the PN-40 for use in the field. Data formats supported by the PN-40 include:

- Shapefiles, CAD files, and other vector data layers imported into XMap's Openspace format
- Seamless USGS 1:24,000 quad sheets and NOAA navigational charts
- XMap USA Topographic maps combining contours and elevation with updated roads and streets
- Satellite and aerial imagery downloaded through XMap's Map Library service
- Third party imagery and other raster layers in MrSID and GeoTIFF format
- Images and maps layers created using XMap's image registration process

PN-40 Performance

The PN-40 is built around a high-sensitivity 32-channel STMicroelectronics Cartesio GPS chipset and a blazing fast dual-core processor that provide rapid signal acquisition, accurate location determination, and virtually instantaneous map rendering, even when displaying high-resolution aerial imagery and GIS layers. With the included WAAS support, positional precision is typically within 3 meters or 9 feet ensuring that collected data points are recorded within the range of acceptable accuracy.

Use the PN-40 with your ESRI software

The Earthmate PN-40 Extension extends the compatibility of the PN-40 to ESRI software users by allowing maps to be easily copied and exported from ArcMap to the device as a base map dataset for field reference. Collected waypoints can be downloaded from the device and saved in shapefile format using the extension.

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Using XMap Forms on the PN-40

An XMap Form provides a straightforward way for PN-40 users to collect or edit GIS point data on a dedicated screen on the device. Depending on how it has been established, a form may display the attribute data as a read-only list, it can provide the means to edit the data attributed to each record, or it can allow new records to be collected.

How is a Form Created?

A Form is associated with an Openspace GIS layer in an XMap Enterprise database. Using either the Editor or Enterprise version of the desktop software, the form is generated by selecting the required attributes from the layer and establishing the necessary data editing or adding parameters.

A PN-compatible form can be transferred directly to a connected PN-40 or saved locally and manually sent to one or more PN-40 users for remote data collection.

Collecting or Editing Data on the PN-40 using a Form

After loading the form and any existing points into the internal memory of the PN-40, a new point is created at the current location by simply clicking the Waypoint button on the device and using the form to assign the appropriate attributes. Existing points are edited by selecting the point on the map screen or from the Waypoint list. Field collected data is then saved to the SD card and appended to the original GIS layer from a connected PN-40 using XMap's merge tool.

PN-40 Specifications

Physical

- IPX-7 waterproof standard, impact-resistant rubberized housing
- Device dimensions: 2.43" W x 5.25" H x 1.5" D
- Display: High-resolution 2.2" 65K-color Transflective TFT color display (220 x 176 pixels)

Memory & Storage

- 500 MB available internal Flash memory
- 2 GB SD card included; supports SDHC high-capacity SD-cards – up to 32 GB

GPS accuracy

- Position: < 15 meters, 95% typical (with WAAS: < 3 meters, 95% typical)

Sensors

- 3-axis electronic compass; performs when held in any position – while in motion or standing still
- Sensitive barometric altimeter for accurate altitude readings

Powerful enough to meet the demands of today's mobile workforce, flexible enough to be equally at home in your vehicle or in the wilderness, intuitive enough to be easily learned by anyone, and affordable enough to fit the budget constraints of any company, agency or organization, the Earthmate PN-40 combined with XMap 7 provides the ideal mapping, GIS and GPS solution.