



### Survey Software

GART-2000<sup>®</sup> for the recording, processing and visual representation of geodata is an innovative survey software that is continually adapted to the latest standards by highly qualified software engineers. As you wish, you can use the software in its Windows<sup>®</sup> 2000/XP/Vista version on a robust field computer or in its Windows<sup>®</sup> CE version on a lightweight controller optimised for mobile data recording.

GART-2000<sup>®</sup> controls all commonly-used GNSS receivers and total stations, and provides a clear graphical display during field-work of the recorded geodata.

### Calculation functions

GART-2000<sup>®</sup> transforms measurements in the field into the user coordinate system in real time. With the new Online-Trans module



this process is now universally optimised and possible with centimetre accuracy without the time-consuming search for ground control points. Multiple

measurements are checked against the error limits defined. A wide range of geodetic calculations and stake-outs can be performed immediately in the field (area calculations, intersection and detail point calculations, transformations with residual mismatches).

### Protocols

The project results are immediately available protocolled according to official provisions. This minimises the amount of work necessary in the office.

### Applications

- Engineering and cadastral surveying
- Pipeline documentation
- Road construction/machine control

### GIS-Software

GART-2000<sup>®</sup> GIS is the pure GIS version of GART-2000<sup>®</sup> for the storage and visualisation of GIS data. It has been specially developed for users who require simple-to-use software for inexpensive and precise GNSS data recording in the field.

### NMEA GNSS interface

The NMEA format is used for the GNSS receiver interface. This format is supported by practically all GNSS receivers.

### Mobile GIS data recording

In conjunction with a DGPS receiver, points can be saved with a high degree of accuracy, visualised and later transferred into your home-version GIS.

### Platform:

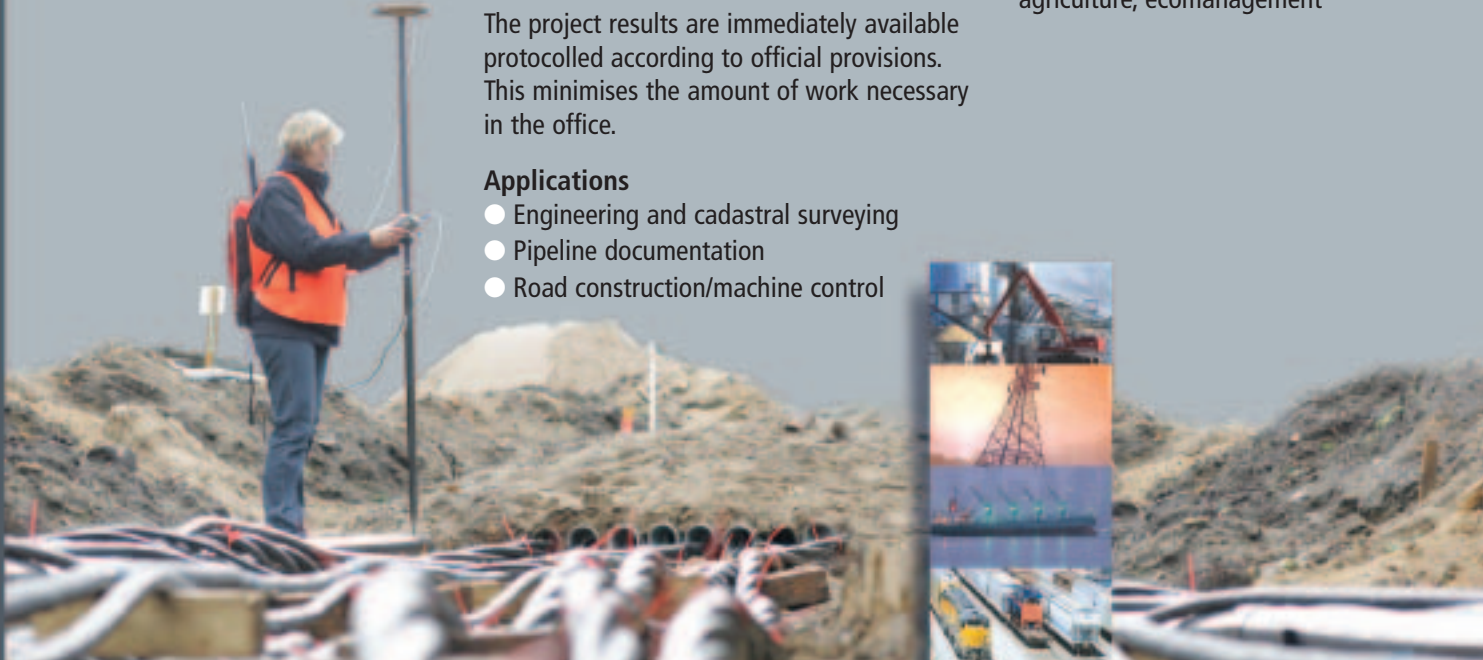
GART-2000<sup>®</sup> GIS runs on a Windows CE controllers.

### Optional add-on modules

- Background map
- Complex calculations
- Diverse import/export interfaces

### Applications

- Pipeline maintenance for public utility/waste disposal companies
- Urban and landscape planning
- Construction industry, forestry, agriculture, ecomanagement



## <GART-2000® Characteristics and Functionality

<p><b>General System Features and Capabilities</b></p>	<ul style="list-style-type: none"> <li>• Uses latest software techniques for Windows CE/2000/XP/Vista, runs on all common Pocket and Handheld PCs</li> <li>• Windows allows for multitasking, enabling multiple survey operations to be carried out simultaneously in different windows.</li> <li>• GART-2000 controls all common GNSS receivers and Total Stations and gives a map-aided overview of the registered geodata. All computations can be done in the field. This reduces the office work to a minimum.</li> <li>• Supports Static/RTK for Javad, Topcon, Ashtech, Thales, Sokkia, Novatel, Leica, Septentrio and Navcom GNSS receivers, other receivers can used with standard NMEA messages</li> <li>• Control of Total Stations from Leica, Topcon, Sokkia, Nikon, Trimble (Zeiss+Spectra Precision)</li> <li>• Raster- and vectordata display/import/export</li> <li>• Continuous visible monitoring of GNSS receiver, battery, satellites, and radio link for quick troubleshooting.</li> <li>• Continuous visible monitoring of GNSS solution (i.e. position standard deviation).</li> <li>• Allows for conveniently changing frequencies and communications parameters of many common radio and cell phone (GSM) solutions while in the field.</li> <li>• Allows the selection of most common data transformation and map projection from a pre-defined list.</li> <li>• Auto-Calibration feature for single site calibrations.</li> <li>• Multiple in-field least squares GNSS calibration with residuals error display at any time during project.</li> <li>• On-line help.</li> </ul>
<p><b>Surveying Capabilities</b></p>	<ul style="list-style-type: none"> <li>• Possibility to enable Stop&amp;Go surveys together with RTK surveys.</li> <li>• Recording of vector components, standard deviations and correlations allows post processed adjustment of RTK survey.</li> <li>• Quality checking through averaging of multiple observed sites.</li> <li>• Offset support for RTK surveys when observing inaccessible points (e.g. manual entry or direct connection of Handlasers).</li> <li>• Quick feature code, marker type and comment entry in user definable list</li> <li>• Ability to download raw GNSS data to datalogger from GNSS receiver and complete control of static surveys</li> <li>• Support for uploading/downloading/exchanging advanced geoid models</li> <li>• Ability to calculate/calibrate for local geoid.</li> <li>• Advanced protocol functions of all steps of the survey</li> </ul>
<p><b>Stakeout Capabilities</b></p>	<ul style="list-style-type: none"> <li>• Graphical stakeout screen with easy guidance feature.</li> <li>• Separate stakeout-plot for high accuracies, acoustic signal</li> <li>• Stakeout to a grade to the right and left of a line or curve.</li> <li>• Graphical and numerical stake out of points and lines and stake out of curves, slopes and DEMs.</li> </ul>
<p><b>COGO Capabilities</b></p>	<ul style="list-style-type: none"> <li>• COGO menu for calculating inverses, intersections, and offsets; subdividing lines and curves; calculating areas, grids.</li> <li>• Support for uploading/downloading/exchanging feature code lists.</li> <li>• Advanced protocol functions of all steps of the COGO calculations</li> </ul>

For more information about ALLSAT's GART-2000 CE software and demo versions, visit [http://www.allsat.de/en/products/software/gart2000\\_ce.html](http://www.allsat.de/en/products/software/gart2000_ce.html)



Allsat GmbH  
network+services  
Am Hohen Ufer 3A  
30159 Hannover - Germany  
Fon +49(0)511-30399-0  
Fax +49(0)511-30399-66

software@allsat.de  
www.allsat.de