

## Leica Geosystems Introduces Leica ScanStation

Leica ScanStation, a 3D laser scanner with four 'core' total station features:

- Full field-of view (FOV);
- Survey-grade dual-axis tilt compensation for traversing and re-sectioning;
- Survey-grade accuracy for each measurement;
- Excellent useful measuring range.

Leica ScanStation retains the FOV of its predecessor, the Leica HDS3000 scanner, with a maximum 360 degrees horizontal FOV and maximum 270 degrees vertical FOV. With this FOV, ScanStation can scan overhead while simultaneously using scan targets spread optimally at ground level for accurate registration/control. This type of logistical freedom is similar to that of a total station and provides valuable versatility and project savings for accurately capturing overhead structures such as ceilings, bridges, overpasses, domes, facades, pipe racks, columns and towers. Integrating the same one-second resolution, dual-axis (tilt) compensator as in Leica Geosystems total stations, Leica ScanStation can be used with traditional traverse and resection workflows for additional field and office savings.

Leica ScanStation – and its sister Leica HDS3000 scanner – achieves survey-grade accuracy for each scan point without averaging. This lets users take advantage of the ability to 'click on' individual scan points and use them directly for survey-grade coordinate and distance measurements with confidence in their accuracy.

With a maximum range of 300m (90 percent surface



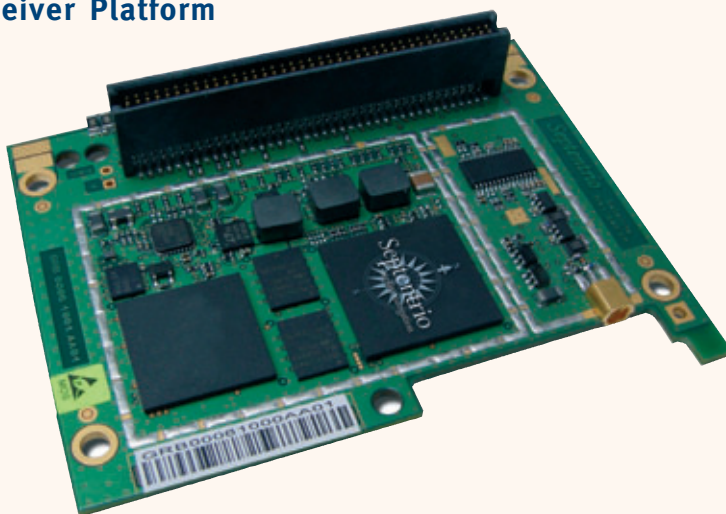
reflectivity), a narrow beam and ultra-fine scanning capability, Leica ScanStation addresses the vast majority of as-built and topographic survey projects for which users would consider the use of reflectorless instruments. Leica Geosystems will continue to offer Leica ScanStation's predecessor scanner, the Leica HDS3000 time-of-flight scanner (without dual-axis compensation), and the ultra-high speed Leica HDS4500 phase-based scanner as standard products.

Leica Cyclone v5.5 is being announced simultaneously as companion software for operating Leica ScanStation in re-section, back-sight and traverse workflows.

Source: Leica Geosystems

Internet: [www.leica-geosystems.com](http://www.leica-geosystems.com)

## Septentrio Introduces Industrial GPS/Galileo OEM Receiver Platform



Septentrio announces AsteRx1TM, a compact high-end single-frequency GNSS receiver for demanding industrial and professional applications. Besides GPS performance, AsteRx1TM incorporates capabilities for full use of the European Galileo L1 signal. The first Galileo satellite, GIOVE-A, was launched in December 2005, and Septentrio receivers have successfully been tracking all signals transmitted since January 2006 by the new navigation satellite. It is the first product in a new family of GNSS receiver boards from Septentrio. AsteRx1TM is a creditcard-sized OEM board with low power consumption and high update rates, featuring all-in-view GPS and Galileo tracking and offering good measurement quality for high-precision positioning also in challenging environments. AsteRx1TM is compatible both with the GIOVE-A signal and with the operational Galileo signal. Septentrio is involved in

the design of Galileo Test User Receivers at all stages of the Galileo program, from early testing to final deployment and in the development of commercial user receivers for precision-demanding applications. Septentrio expects to start shipping AsteRx1TM at the end of the summer of 2006. Septentrio Satellite Navigation NV designs, manufactures, markets and supports high-end OEM GNSS receivers for professional navigation, positioning and timing applications. The company has an international team of experts in all areas of satellite navigation receiver design and applications.

Source: Septentrio

Internet: [www.septentrio.com](http://www.septentrio.com)

## Crescent A100 smart antenna CSI's Hemisphere GPS

CSI's Hemisphere GPS division announced its new Crescent A100 'smart antenna' that combines a GPS antenna with a GPS receiver featuring Hemisphere's new high-performance Crescent OEM module.

The Crescent A100 features:

- Update rates of up to 20Hz;
- Radar-simulated pulse output to determine ground speed;
- CAN and serial communication for compatibility with many devices and Interfaces;
- A LED that indicates when the unit has power, when it is tracking GPS, and when it has a dGPS solution;
- Mounting by using fixed or magnetic options;
- Low, compact profile to avoid potential overhead obstructions.

The Crescent A100 also features Hemisphere's COAST(TM) and e-Dif(R) technologies. COAST software enables Hemisphere receivers to utilize old differential GPS (DGPS) correction data for 40 minutes or more without significantly affecting the quality of positioning. When using COAST, receivers are less likely to be affected by differential GPS signal outages due to signal blockages, weak signals or interference. The Crescent A100 will replace Hemisphere's existing GPS smart antenna products - the Seres and AgIQ - and those under the brands of Hemisphere's OEM partners, including agricultural industry partners.

Source: CSI's Hemisphere

Internet: [www.csi-wireless.com](http://www.csi-wireless.com)

## Thales Introduces Z-Max.Net GPS Receiver

Thales presents Z-Max.Net, a next-generation, network-capable GPS receiver system for boundary, topographic and construction surveys. Z-Max.Net offers surveyors expanded communications capabilities, simplicity of operation, RTK performance and flexibility to meet a wide range of surveying tasks. Z-Max.Net provides NTRIP, GPRS and RTCM V3.0 network communication. Z-Max.Net offers multiple operating modes, configurations and communication protocols. Detachable modules make configuration changes and system upgrades possible. Z-Max.Net can function in every mode of operation, RTK or post processing, as a base or rover, and also in a VRS or FKP network. As a standard feature, Z-Max.Net offers free wide data format compatibility, including RTCM V2.X, CMR, CMR+, DBEN, DSNP, RTCM V3.0 and NTRIP, and can be integrated with other equipment. Z-Max.Net can be adapted to meet of local conditions by communicating using Pacific Crest UHF, Thales UHF, GSM, or a unique combined UHF and GSM/GPRS module. For enhanced coverage in North America Z-Max.Net also features a new internal modem to provide full coverage of the GSM/GPRS bands from 850 through 1900 MHz. Z-Max.Net offers two-second initialization, extended operation up to 50 km (30 miles). The comprehensive office software package, GNSS Solutions, includes all of the tools required to successfully process GPS, GLONASS and SBAS survey data. Focusing on simplicity, the software guides surveyors through mission preparation planning, processing, quality control, reporting and data exporting.

Source: Thales

Internet: [www.thalesgroup.com/navigation](http://www.thalesgroup.com/navigation)



## Launch Leica MobileMatrix v1.51

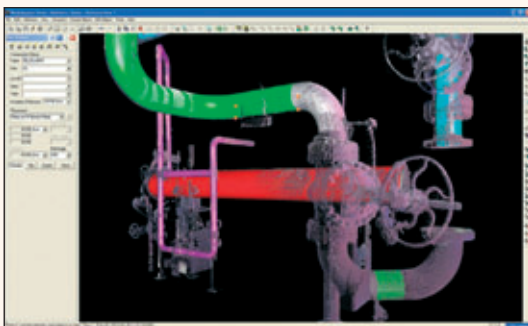


With its newly launched Version 1.51, Leica MobileMatrix now fully supports a Multi-Sensor GIS. Within a Multi-Sensor GIS field crews can attach several sensors – TPS, GPS, Levels and Laser Range Finders – at the same time and also can measure with various sensors simultaneously. By accurately synchronizing data from various independent sensors, Leica MobileMatrix manages measurement processes and storage of those in one common database directly. Leica MobileMatrix, a mobile GIS – the natural expansion of the enterprise database into the field – allows the user to add points, measurements and features either using Total Stations (TPS), Global Positioning System (GPS), Level Instruments or other sensors such as Laser Range Finder. The concept of a task-oriented implementation of geodetic measurements in a mobile GIS allows a fast, immediate and cost-effective data acquisition. Furthermore, since the software is graphically based, data quality and completeness can be checked immediately as data is acquired, which avoids expensive re-measurements when quality control activities in the office detect deficiencies. By connecting level and GPS sensors simultaneously to Leica MobileMatrix, field crews can measure accurate locations with GPS and parallel they can update the less accurate height information with a level measured height. This process is called Height Modernization and is possible by the Multi-Sensor support in Leica MobileMatrix v1.51. The Height Modernization utilizes GNSS and TPS technology together with level instruments to improve all mapping, surveying and engineering activities and establish accurate and reliable heights – all within one mobile application. All this can be done with Leica MobileMatrix v1.51.

Source: Leica Geosystems

Internet: [www.leica-geosystems.com](http://www.leica-geosystems.com)

## Leica Geosystems Launches Cyclone 5.5 for High-Definition Surveys



Leica Geosystems launched Leica Cyclone 5.5 software. The new software version lets users take advantage of traverse, back-sight, and resection capabilities of the new Leica ScanStation laser scanner for more cost-effective as-built and topographic surveys. Cyclone 5.5 also lets users create plant as-built models more efficiently from laser scans. New features in Cyclone-SCAN and -REGISTER modules pace the survey-grade, dual-axis level compensation capability of the new Leica ScanStation laser scanner. With these new features, Leica ScanStation users can take advantage of (1) resectioning – or 'free stationing' – methods for direct, field geo-referencing of scan data and (2)

traversing, including calculation of traverse closures. Standard survey-style reports, including error calculations, are generated for both resectioning and traversing. The new Leica Cyclone 5.5-supported workflows offer field and office labor savings. Savings result from placing & surveying up to two-thirds fewer scan targets and from a reduced need to execute office registration processes, as registration & geo-referencing can now be done automatically in the field. The new workflows and software features also shorten a surveyor's learning curve for this cutting-edge technology as these workflows are all standard methods used with a total station, an everyday surveying tool. Leica Cyclone 5.5 also continues to support registration and geo-referencing based on scan targets, modeled objects, and 'cloud-to-cloud' methods. Together with resectioning, back-sighting, and traversing, this set of workflow options provides users with valuable added flexibility and cross-checking aids.

Source: Leica Geosystems

Internet: [www.leica-geosystems.com](http://www.leica-geosystems.com)

## Spatial Express Application LizardTech

LizardTech announced further support of JPEG 2000 within its Spatial Express application which enables storage of MrSID and JPEG 2000 images natively in Oracle Spatial 10g. Oracle Spatial 10g provides a robust foundation for storing and retrieving geospatial data from Oracle Database 10g. In addition, because Spatial Express uses the Oracle Spatial GeoRaster API, applications will be able to retrieve and view JPEG 2000 and MrSID imagery from Oracle Spatial 10g. Organizations no longer have to wonder whether their application will support various file formats because Spatial Express allows users to choose their image format and begin work.

Source: LizardTech

Internet: [www.lizardtech.com](http://www.lizardtech.com)

## Launch Leica fieldPro



Leica fieldPro, a mobile CAD software, is an on-site and on-demand field solution for Surveying, Architecture, Engineering and Construction (AEC). fieldPro works seamlessly together with Leica Geosystems sensors, such as TPS, GPS and Leica DISTO plus, allowing users to create and visualize

2D drawings or 3D CAD models of any site in real time.

With Leica fieldPro tasks can be completed on site with no site revisits or rework. Leica fieldPro is a complete software solution that works directly in AutoCAD and other Autodesk products. fieldPro adds a set of menus and toolbars to the user's existing AutoCAD toolset and uses the familiar AutoCAD user interface. Different options of Leica fieldPro interface in real time directly from CAD to Leica Geosystems sensors, such as the Leica DISTO plus to create floor plans or any other architectural as-built. Leica Geosystems TPS and GPS sensors can be used to

create 2D drawings or 3D models on site, or to stakeout directly from the design CAD file in 2D or 3D.

Source: *Leica Geosystems*  
Internet: [www.leica-geosystems.com](http://www.leica-geosystems.com)

## eSpatial and Laser-Scan Offer SpatialTrust

Laser-Scan and eSpatial extend their existing collaboration to jointly develop and promote SpatialTrust. This combined product and services solution delivers on the need for discovery, aggregation, quality assurance and controlled dissemination of spatial data assets. Built on the combined components of iSMART5 and Radius Studio, the offering provides for an Enterprise Class architecture underpinned by Oracle Spatial and Oracle Application Server 10g.

The SpatialTrust solution enables the following key activities:

- Discovery of available data across an enterprise;
- Access to data from source and transformation as required;
- Aggregation of data sources into a usable format;
- Quality certification of the data including the process of rule generation, automated & manual fixing and ongoing conformance checks delivering data quality certification;
- Controlled dissemination of the data to users and applications.

Source: *Laser-Scan and eSpatial*

Internet: [www.espatial.com/solutions\\_spatialtrust.html](http://www.espatial.com/solutions_spatialtrust.html) and [www.laserscan.com](http://www.laserscan.com)

## IMAGINE Easytrace by Leica Geosystems



Leica Geosystems Geospatial Imaging's IMAGINE Easytrace delivers efficient assisted feature extraction, driving efficiency throughout the vector feature capture process by minimizing the number of

mouse clicks that a user must perform. When capturing vector information from a digital source, such as satellite imagery or aerial photography, traditional 'heads-up' digitizing requires the user to place vertices frequently along a road or land cover boundary. The IMAGINE Easytrace add-on to IMAGINE Essentials expedites this process by employing interactively placed seed points and then applying an adaptive line fitting algorithm to accurately trace the feature between the seed locations, reducing the time needed to capture irregular linear and polygonal features.

Source: *Leica Geosystems*  
Internet: [www.gi.leica-geosystems.com](http://www.gi.leica-geosystems.com)

## Jupiter 30 Ultra High Sensitivity GPS Module Navman



Manufactured for embedding into any device that requires position specific information, the Jupiter 30 is an ultra-high sensitivity surface mount GPS receiver designed for rapid position fixes in low signal strength conditions. The Jupiter 30 combines TCXO, LNA, flash memory and other select high-quality components with the latest integrated SIRF GSC3 chipset into a package that is optimized for the best RF tracking capabilities possible, and delivers fast (less than one second) GPS acquisition time-to-first-fix. The Jupiter 30 is compatible with devices with wider operating voltage ranges and that require greater noise rejection than other GPS modules. The unit involves low-power operation and full use of the SIRF GSC3 power level modes. Its gain characteristics and optimized LNA and RF signal path design enable integration into products with active or passive GPS antennas. Further specifications include 20-channel mode GPS support; acquisition fix performance of <1 second (hot start), 32 seconds (warm start) and 34 seconds (cold start); ephemeris tail and bit sync for quicker time to fix in poor conditions and SiRFLOC multi-mode GPS support for improved fix availability. The physical characteristics of the device are 25.4mm x 25.4mm x 3.0mm form factor and 4.0 grams in weight based on an industry standard form factor providing an easy upgrade path. The Navman Jupiter 30 GPS module is available in sample quantities, with full production volume available in April 2006.

Source: *Navman*  
Internet: [www.navman.com/oem/products/gps\\_receivers/jupiter\\_30](http://www.navman.com/oem/products/gps_receivers/jupiter_30)

## Geo-3D Releases Trident-3D Analyst Version 3.3

Geo-3D Inc. released a new version of its Trident-3D Analyst data extraction software. Trident-3D Analyst is a soft-copy photogrammetric tool for the analysis of digital images captured with horizontally oriented camera systems. Trident-3D Analyst has the capability of working in static or temporal stereo-base mode.

The new version includes the following features:

- 3D GIS viewer based on OpenGL;
- Improved OTF Calibration tool (possibility of using control points);
- Support for Oracle ODBC linked layers.

Source: *PCI Geomatics*  
Internet: [www.pcigeomatics.com/solutions/geocapacity](http://www.pcigeomatics.com/solutions/geocapacity)

## Leica Introduces GradeSmart 3D V 5.2

Leica Geosystems announced the upcoming release of Leica GradeSmart 3D (V5.2), a smart machine automation dozer and grader solution for the construction industry. The latest generation (V5.2) also marks the introduction of the new name Leica GradeSmart 3D (formally Leica GradeStar). Leica GradeSmart 3D 5.2 includes a range of features and developments which are designed to improve the ease of use of GradeSmart 3D. To facilitate this, version 5.2 will introduce new features and improvements designed to enhance speed of operation, support and usability. Key to the enhancements within Leica GradeSmart 3D 5.2 is a streamlining of the data transformation process. This is achieved with the



introduction of the Leica SiteSmart software range, and Leica SiteSmart - Translator.

Source: *Leica Geosystems*  
Internet: [www.leica-geosystems.com](http://www.leica-geosystems.com)

## Integrated Solution PCI Geomatics and eSpatial

PCI Geomatics and eSpatial jointly announce the integration of PCI Geomatics Image Management System (GIMS) with eSpatial iSMART. GIMS is an enterprise-wide solution that can store, process, and access geospatial data using PCI Geomatics, Oracle, and eSpatial technology. GIMS enables the management of image data or metadata, or both, in a

database and provides intelligent data loading, storage and Web-based access solutions, which can help increase the practicality, integrity, and accessibility of image data.

Source: *PCI Geomatics*  
Internet: [www.pcigeomatics.com/solutions/geocapacity](http://www.pcigeomatics.com/solutions/geocapacity)