navsys
CORPORATION

NAVSYS Corporation is a nationally-recognized small business performing Positioning, Navigation, and Timing (PNT) technology development. Since 1986, we have supported both government and commercial customers delivering innovative PNT solutions.

RESEARCH

We perform advanced technology research and development to support our customers and advance the state-of-the-art for assured PNT solutions.

PRODUCTS

We offer software products that allow our customers to leverage our research and use advanced PNT technology in their systems through software licensing or direct purchase.

SERVICES

We offer software, firmware, systems engineering, and test and analysis services to our customers to support their unique PNT requirements.

ABOUT US

NAVSYS is a respected firm providing high quality technical products and services in GPS hardware design, systems engineering, systems analysis, and software design. NAVSYS has a standing commitment to provide high quality products and services to both governmental and commercial customers. The company provides specialized GPS products and services for customers by leveraging core technologies, unique technical expertise, innovative engineering approaches, a strong work ethic, and high standards of excellence.

The NAVSYS area of technological expertise is described as "GPS innovations" – the use of advanced technology and novel system architectures to improve on conventional GPS equipment and methods for specific market applications. The technology that has been developed is broad and is protected by both patents and trade secrets. NAVSYS is leveraging its technology base through a combination of product sales, service operations, and licensing.

position

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navigation

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timing

OUR PRODUCTS

position

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navigation

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timing

InterNav®
InterNav is a navigation engine that integrates GPS with Inertial Measurement Units (IMU) and myriad other sensors for precision navigation, geo-pointing, and georegistration. When used in gimbaled imaging products on aircraft, InterNav allows the camera to remain centered on a specific geolocation as the aircraft maneuvers, as well as reduce jitter. InterNav is also used for such things as target georegistration for GPS-guided munitions and antenna alignment, and assured navigation products that address the threat of GPS disruption.

NavWarrior Android App
The NavWarrior Android app provides network assisted operation for SAASM and MGUE to speed acquisition and improve anti-jam robustness and displays military PNT solutions through Android location services. Its features include: support of IS-GPS-153 serial interface to GB-GRAM or DAGR; rapid time to first fix through network assistance, improved cold start, anti-jam performance using aided acquisition; jamming and spoofing alerts; and rapid GPS network assistance across tactical networks.

PNT Hub Software
The PNT Hub software is designed to read data out of a single DAGR or GB-GRAM output message, processes this data, and convert it to the subscriber's expected type allowing multiple subscribers from a single GPS device while maintaining full backwards compatibility for systems designed for operation with a dedicated DAGR or GB-GRAM SAASM or MGUE receiver through the standard IS-GPS-153 interface.

Signal Architect Software Suite
The NAVSYS GNSS Signal Software suite includes the GNSS Signal Architect Simulator Software and the GNSS Signal Architect Toolbox, both which provide GNSS simulation and test capability. Our software allows users to specify a trajectory and complete set of simulation parameters to create an IQ data file at baseband or IF. The data file can be used for subsequent analysis with our GNSS Signal Architect Toolbox or can be used with a GNU-capable Software Defined Radio platform to create a signal suitable for playback into a GPS or GLONASS receiver. The user has complete flexibility to manipulate the signal at various stages to simulate signal anomalies, interference, jamming, multipath, and integration with other simulations.

The GNSS Signal Simulation Software tool creates simulations of GPS or GLONASS based on static or dynamic scenarios. Users can specify a complete set of simulation parameters, including receiver/satellite profiles and delay/noise error modeling. Playing back the simulation as an RF signal provides accurate and repeatable signals for GNSS receiver testing.

Distributed Networked Opportunistic Positioning (DiNO-Pos)
The DiNO-Pos positioning approach uses collaborative RF signals collected through a network of SDRs for autonomously identifying available and qualified signals of opportunity (SoOP) that can be used for navigation. The DiNO-Pos solution was designed to leverage next generation tactical SDR capabilities being developed by DARPA that can map the RF environment (RadioMap) and collaborate through Wireless and Large Scale Distributed Operations (WALDO) networking. DiNO-Pos provides a collaborative backup PNT capability that will allow operations to continue in areas where GPS services are degraded, denied, or destroyed.

For more information about NAVSYS products, please contact: Debbie Westra
E-mail: info@navsys.com Toll free: 866.4.NAVSYS (866.462.8797 x161)