

■ **Enginasion™ solves some of the most difficult technical problems involving process control, manufacturing automation, and product development, providing clients with electronic, mechanical and software engineering services from concept to production.** For two decades, Enginasion (formerly Industrial Automation Systems) has been an invaluable partner to companies in the Industrial, Medical Technology, Military and Pharmaceutical sectors that need a sophisticated yet affordable engineering resource to help them overcome critical hurdles related to automation, control electronics, embedded software, and/or integrated product development. Since 1991, the Company has been providing key elements of successful R&D projects, manufacturing processes, and new high-tech products at innovative companies in the Northeast U.S. Enginasion provides the following resources:

■ **Test calibration and equipment** designed with the operator in mind. Virtual instrument software using touch screens makes operator control fast and inexpensive. We integrate off-the-shelf and custom electronic and physical components with personal computers to create sophisticated test equipment at minimal cost.

■ **Product development**, from tiny watch-sized electronics to highly specialized powder dispensing devices to large networked systems, Enginasion can handle the electronic design and PCB layout, real-time software, packaging, production prototypes, low-volume production test equipment and documentation for large-scale production.

■ **Process control systems** for test or manufacture—measuring and controlling parameters such as machine movement, particle density, electrical charge, temperature, humidity, pressure, flow rate, Ph, viscosity, and droplet size, using embedded controllers and PLCs communicating via CAN, I2C Modbus, Bitbus, Ethernet, Firewire, Intellution or any other bus or network protocol.

■ **Quality control systems** that turn quality measurements into real-time or manual process feedback, using custom data-gathering electronics, bar-coding, touch memories, RFID, statistics, reports and real-time process controls.

■ **Clients of Enginasion include “big” and “little” companies—some of whom have in-house engineering resources, and some of whom do not.** Enginasion has helped clients in the Industrial, Medical Technology, Military and Pharmaceutical sectors to design and build hardware and software to monitor, measure and control mechanical and electrical systems. Enginasion specializes in solving the most difficult automation problems, applying ingenuity, in-depth understanding of physical phenomena and materials, and wide-ranging expertise in digital and analog electronics, software, user interfaces, networks, fluid controls, motion control systems and measurement techniques.

CONTACTS & KEY INFORMATION

Headquarters	32 Almanac Way West Boylston, MA 01583 +1 508 835 6353
Website	www.enginasion.com
Sectors Served	Industrial, Medical Technology, Military, Pharmaceutical
Engineering R&D Resources	Controls...Sensors...Mechanics... Networks...Software...Patents... Electronics Engineering
Some of the Select Clients Served	GE; The L.S. Starrett Company; Treadwell Corporation; Renaissance Electronics; IMA- Nova® Packaging; MannKind
Sales Contact	David Bonneau, CEO +1 508 835-6353 sales@enginasion.com
Media Contact	Ronald C. Trahan, APR Ronald Trahan Associates Inc. +1 508 359 4005, ext. 108

ENGINEERS WITH IMAGINATION

David Bonneau, BSEE

Chief Executive Officer
Skillsets: embedded development; metrology;
sensors; process controls; systems architecture

Roy Greenwood, BSEE

VP, Electronic Software & Hardware Design
Skillsets: embedded systems, networking,
electronics, systems software and architecture

John Sanford, BSEE

Senior Software Engineer
Skillsets: embedded and systems software;
networking; software architecture

Ron Smith, BSEET

Senior Electronics Engineer
Skillsets: electronic design; PCB design
manufacturing systems

EXAMPLES OF CLIENT SOLUTIONS BY ENGINEERS WITH IMAGINATION

Test Calibration and Equipment

Machine vision gauging • Multi-axis measuring machines • Spark gap analyzer, 32-channel, 1KV • Touch memory read/write probe • Watt-hour meter calibration/hipot/continuity test • Corrugation dimensional profiling • Alcohol sensor calibration • Digital caliper functional test, LCD, and calibration.

Product Development

PC board text fixtures and software • Four-button mouse controller • Millimeter wave camera • Piezoelectric fluid nozzle control • Portable pepper spray delivery system • Wristwatch alcohol sensor/data logger • electronic nose • Multi-axis helmet shock data logger • Wireless hand tools • Portable, residential electrolyzer.

Process Control Systems

Yarn tension velocity profiler • Fluid bed particle dispersion controls • Humidity chamber control • Low pressure fluid controls • Metering pump final test systems • High-power electrolyzer controls • PWM to Analog to PWM controller • Embedded software validator • Microgram powder dispenser array.

Quality Control Systems

Electrolysis control systems • Hi-speed fiber analysis equipment • 0.001" grinding wheel gage • Sub-micron particle size analyzer • Vision-based LCD quality tester • Hi-capacity tablet imaging counter • Cosmetic tube label registration gauge • Military electrolyzer training simulator • Hipot test enclosures • Lab data-logging systems.