

Engineering Services

Who We Are

ITCN, Inc. designs and manufactures test products for the Embedded Systems market. These products have saved time and money developing complex embedded system applications and improved product quality. Our customers include major corporations and government organizations around the world.

Since 1991, ITCN has successfully developed System Test and Integration Tools for complex heterogeneous embedded systems. We serve both military and commercial sectors of the embedded system market. Our products are ideal for complex, real-time applications that use high performance microprocessors.

The ITCN management team is made up of a group of individuals who are pioneers in the field of embedded system development. Collectively, they have a wealth of experience in the area of systems test and integration and a proven history of managing company development from its inception to its becoming a competitive market presence.



What We Do

ITCN's technology focus is "Synchronized" monitoring of embedded computer systems. We help laboratories, OEMs, system integrators, operators, and maintainers to incorporate our technology into their products and/or services to improve their quality, reliability, maintainability & availability (RMA), and decrease their time to market. Our instrumentation can be used to support the entire life-cycle management of our customers' embedded systems.

Our Services

Product Support

ITCN engineering services include assisting with design for test issues, design and test of both software and hardware instrumentation for embedded systems, and supporting advanced prognostic and diagnostic tools.

ITCN has a comprehensive staff of hardware and software engineers consisting primarily of embedded systems designers. ITCN supports products in the field with application support and provides customer service by offering an array of options from technical support to in-house engineering services.

ITCN provides services and customized instrumentation systems for VME, DSP, PowerPC, Z8001, Z8002, MIL-STD-1553, MIL-STD-1750, AYK-14, HO09, and custom processors and buses.



Total Life Cycle Support

ITCN products support the entire system life cycle, including:

- Design and development
- Integration and test
- Production and on-board applications
- Maintenance and support



ITCN supports the product development efforts of our customers using VME, Z8001, Z8002, MIL-STD-1553, MIL-STD-1750 and custom processors and buses by providing a wide variety of engineering services that support product development.

With over 100 years of combined engineering experience in the embedded systems market, ITCN engineers can assist customers with requirements definition and upfront development through product support. The result is both time and money saved at every stage of the product life cycle.

ITCN Engineering Services

- Assisting with design for test issues
- Instrumentation and test of embedded computer systems
- Designing and testing embedded systems
- Designing and testing hardware and software
- Supporting advanced prognostic/diagnostic tools

Engineering Staff

Our engineering staff primarily consists of senior embedded systems designers. As such, we have experience on a wide range of microprocessor systems and understand the tightly coupled, complex interaction between the hardware and software in an embedded design. Our experience base includes:

System Engineering:

- Requirements elicitation/analysis
- System specifications
- Requirements tracking
- Parts selection/trade studies
- System test

Electronics Design:

- Circuit partitioning and design
- Prototyping
- Parts selection/procurement
- Circuit board layout
- Board fabrication and test
- FPGA and VHDL design



Software Design:

- OO and structured design
- Windows drivers
- Languages: C, C++, Various Assemblers, Python



A History of Helping Projects Get off the Ground

ITCN has over 16 years of experience working on military and commercial programs. Our products have helped customers save time and money developing complex embedded system applications.

A few of our customers over the years have been:

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|-----------------|---------------|------------|-------------------|---------------------|
| • Boeing | • Raytheon | • WR-ALC | • BAE Systems | • General Dynamics |
| • Honeywell | • GE Aircraft | • NAVAIR | • NASA Goddard | • Northrop-Grumman |
| • Mitsubishi | • Edwards AFB | • ITT Ind. | • Tinker AFB | • L3 Communications |
| • Allied Signal | • RAF/MOD | • CDI | • Hughes Training | • McDonnell-Douglas |

Product Overview

ITCN's technology focus is Synchronized Monitoring for embedded systems. We help laboratories, OEMs, system integrators, operators, and maintainers incorporate our technology into their products; improve quality, reliability, maintainability, and availability; and decrease time to market.

C-TAC® Plus: Combines the two most successful ITCN technologies, C-TAC® and SystemTrace®, to provide a high performance, next generation, embedded system analyzer and debugger tool.

C-TAC Plus provides simultaneous, assembly-level, Real-Time Non-Intrusive (RTNI) monitoring of processor execution and memory access activity with a console interface for easy processor controls.



C-TAC® Plus

SystemTrace®: A modular, scalable, reconfigurable platform of instrumentation for system data buses that combines unified controls, timing, and trigger features. SystemTrace provides for seamless integration of multiple data sources with an easy to use Windows interface. With SystemTrace, you can see and test all data sources on your system simultaneously and analyze test data in real time.



SystemTrace®



CMDS Tester™ Suite

CMDS: The CMDS Tester provides the components needed to measure timing intervals between firing pulses sent to Countermeasures Dispensers. It provides an interface to the firing pulses by replacing the dispenser magazines on the aircraft under test.

BCIT: The BCIT (Bus Characterization and Integrity Toolset) provides two vital cable and bus maintenance features rolled into one easy-to-use tool. The BCIT allows you to monitor bus health, do comparative analysis with data cataloging, and capture faults that impact bus protocol, such as faulty stubs or terminals.

The BCIT provides electrical analysis of cable networks via a high performance Time Domain Reflectometer. This tests twisted pair MIL-STD-1553 cabling up to 1,000 feet long, and finds opens, shorts, and faulty shields to within six inches, making troubleshooting and maintenance easier and faster.



BCIT Toolset

Contact ITCN's sales staff for detailed information about our engineering services and test equipment at 800-439-4039, or visit our website at www.itcninc.com.

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