

DOT 21

Real-Time Systems

About Us

Dot21 Real-Time Systems was established in 1999 to bring to industry advanced techniques for rapid development of complex, embedded, real-time signal processing systems. These advanced techniques have been well-proven at the Johns Hopkins University Applied Physics Laboratory on US Navy programs such as CEC and SSDS.

Dot21's focus is on embedded systems development, including upgrades to legacy radar systems, digital signal processing, hardware/software integration, system integration, java-based geospatial radar displays, and data analysis tools.

Dot21 is a unique small company because we have the capability to build and integrate complex, mission-critical systems from the ground up. We have an expert technical staff, with an average of 15 years experience in embedded real-time development. We also have the management skills and development processes required to successfully complete projects on time and within budget.

Dot21 Real-Time Systems: Real Solutions in Real Time



Our Services

Turn-key Embedded System Development:

We can take your project from initial requirements definition through completion. Our expertise in software, networking, middleware, device drivers, and display technology makes us a single source for your real-time development needs.

Java and Geospatial Display Development:

Using modern OO (Object Oriented) tools and techniques, Dot21 can develop dynamic Java displays to fit your requirements. We can integrate the displays with embedded real-time systems and middleware.

Radar Signal Processing: Dot21 recently upgraded the real-time coherent signal processor for the AN/SPS-48E Radar. We ported the radar signal processing software to new hardware and replaced several VME boards with two modern boards and an FPGA. The resulting system reduces maintenance costs and expands capability.

Data Analysis and Reduction Tools:

Dot21 provides a suite of data reduction and analysis products. Data recorded during system operation can be easily filtered, plotted, formatted for display, or played back to support system integration, testing, and validation. Our current tools are fully integrated with the APL Message-Oriented-Middleware used in programs like the Navy's CEC, SSDS, and SPS-48E Radar.

Our Services Continued

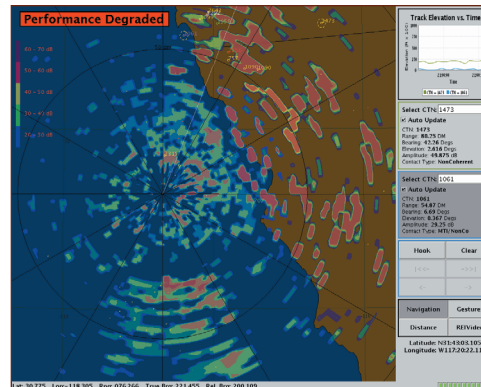
BIT (Build-In-Test) Development:

Dot21 offers MBIT (Motorola's Built-In Test) for Motorola's MVME-51XX series of boards. We also offer a convenient, web-based control interface for MBIT. This product offers point and click test selection, automatic update, and more.

Message Orient Middleware (MOM) Consulting Services:

Our MOM enables easy multiprocessing across VMEbus, Ethernet, and Compact PCI to get your

project up and running quickly and efficiently. A facility also exists for interfacing our MOM messages to Java Displays.



The Technology We Offer

- Radar Signal Processing
- Java, C, and C++ Programming Languages
- Linux, Unix and VxWorks Operating Systems
- PMC, PCI, VMEbus, and Compact PCI interfaces
- Motorola PowerPC, 68K, and Intel Pentium Architectures
- Open Architecture
- Ethernet to NTDS (Navy Tactical Data System) Converters and NTDS Interfaces
- Message Oriented Middleware

Our Clients

Dot21 has completed work for many distinguished companies across the United States, including:

- ACT Technico
- Anzus
- Motorola Computer Group
- Northrup-Grumman
- Raytheon
- Sparta

"Dot21 has proved to be one of the best software technology partners I've had during my more than 20 years in the embedded systems business. They know their business and they stand behind their work."

–Ken Grob, Vice President, ACT Technico

Contact Us

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