Model Driven Development Environment

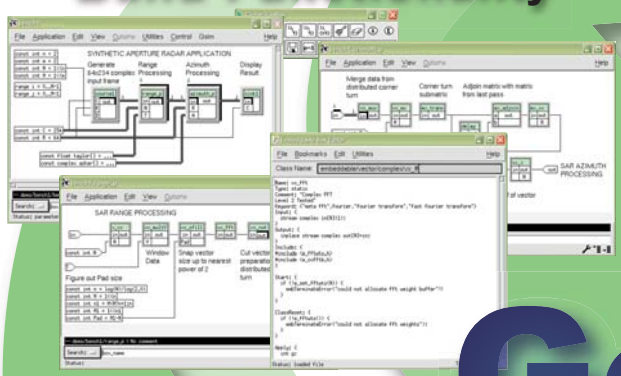
Gedae

Develop, Demonstrate and Deliver High Quality Products

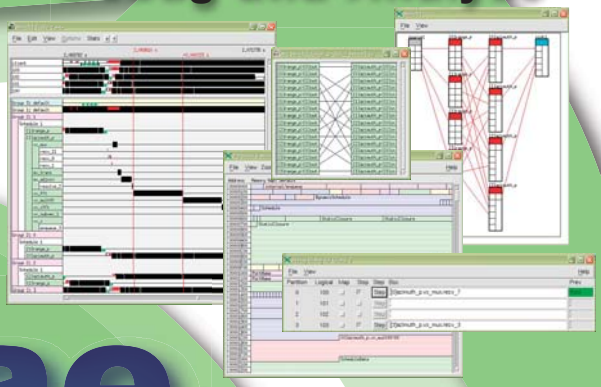
Rapidly Address Issues

Make Changes and Have a Deployable System Running Again in Minutes

Build Functionality

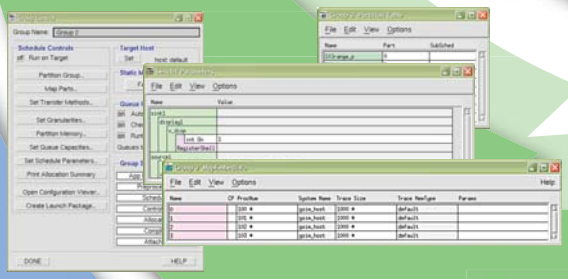


Debug and Analyze



Gedae

Control Implementation



Run Application on Multiprocessor Hardware

Compile Application

Gedae Combines and Compiles the Implementation and Functional Specification

Work with Real Hardware Throughout the Development Process

Development Environment Hosts

PC, PowerPC and SPARC workstations with Windows, Linux or Solaris

Target Processors

PowerPC Altivec, TigerSHARC, DSPs, Pentium, Xeon, Cell, AMD, FPGAs, and I/O Devices

Supported Vendors

IBM, Mercury Computers, Curtiss-Wright, BittWare, Thales Hardware, VMetro, Pentland, Linux Blades and Windows Blades with Sockets and Custom Hardware using Gedae BSP Development Kit

How can Gedae help you?

Read the following case studies for two long term Gedae customers to find out how Gedae has helped them develop, demonstrate and deliver high quality products.

Case Study #1: Large US Defense Contractor

Business Situation

- 5 engineers doing conceptual development of algorithms
- Promising new technology needed transition to deployed systems
- Frequent technology demonstrations in the field
- Building a fieldable demonstrator using conventional development techniques and custom hardware required many man years of effort

Project Description

- A team of sensor and software experts worked together to develop the technology using the Gedae Algorithm Development environment. The customer maintains their intellectual property as a functional model in Gedae. As the need arises to evaluate or demonstrate the technology in the field, the customer uses Gedae to automatically implement a version targeted to the available hardware.

Results/Benefits Realized

- Time for deployment from tens of man years to several man weeks of effort.
- Technology team able to maintain a consistent focus on improving the technology while at the same time demonstrating the technology in fielded real time demonstrations
- Completed several field tests requiring only 2 to 4 weeks using Gedae to implement on COTS or custom hardware

Case Study #2: Large European Defense Contractor

Business Situation

- 25 project engineers
- Digital system is a complex signal processor
- Targeted 7 board system; 250 production units
- First version of this product constructed with handcrafted hardware and software. Follow on program to replace the first generation system with a version that can be maintained over a 25+ year life-cycle

Project Description

- The first phase of developing this new generation product was to convert the entire set of signal processing modes into Gedae and verify performance on a COTS processor. The second phase was to insert the signal processing modes into a mode control framework that included all the external interfaces. The application runs in real time on a newly developed custom hardware platform. The resulting system is a direct replacement of the signal processing sub-system into the existing weapons system.
- The future technology enhancements - both in terms of hardware and functional upgrades - must be feasible and meet reduced schedule and cost requirements.

Results/Benefits Realized

- 4.5x improvement in productivity over first generation development
- 261 man years of effort saved
- More efficient implementation decreased required processing power saving 1 board per system
- Gedae allowed users to develop a version of the signal processor that can be easily ported to new hardware as product evolution occurs
- Total cost savings of $10M+; Customers ROI ~7000%

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