

Vector Software Announces Integration of VectorCAST with Telelogic Rhapsody

North Kingstown, RI – September 5, 2006 – Vector Software, a leading provider of software test tools for embedded systems, today announced an integration of their VectorCAST test system with the Rhapsody modeling tool from the Telelogic Systems and Software Modeling Business Unit (SSMBU). The VectorCAST integration supports the C/C++, and Ada development languages and allows unit and integration test execution from the Rhapsody generated models.

Robust, Proven Software Now Possible with Integrated Model Driven Development and Model Driven Testing Solutions

For real-time embedded software developers, especially those under regulatory constraints, there have always been an extreme time and financial costs associated with effectively testing real-time embedded software applications. Until now, developers were constantly faced with the diametrically opposed requirements of releasing the product to market on time versus releasing a robust high quality product. With these issues in mind, the Telelogic Systems and Software Modeling Business Unit (SSMBU) and Vector Software announce a new Model-Driven Development (MDD) environment that simplifies and shortens the development cycle with an automated testing and verification method. The Rhapsody/VectorCAST integration extends Model Driven Development to include Model Driven Testing, offering a higher level of quality and productivity compared to manual development and testing. The quality of the application is verified at the code level and as a result, the solution provides automated unit / integration level code testing, and code coverage analysis to ensure the highest levels of product quality.

With this integration, developers can use Rhapsody to design and generate their application, then utilize VectorCAST to automatically generate the test harnesses (stubs and drivers), define test cases, execute the generated tests, create reports, and perform dynamic code coverage analysis

How it works

- Integrated launch of the VectorCAST tool from the Rhapsody UML model
- Automated Unit and Integration testing
- Code coverage analysis
- Automated Regression Testing
- Supports C/C++/Ada
- Windows, Linux, and Unix support
- MC/DC add-on for DO-178B Level A support
- Unit tests can be run on the host, simulator, or target platforms
- Host/Target Connectivity
- Supports multiple units under test for true integration testing
- Reports are available as html or text for inclusion into project documentation

VectorCAST can be launched from the Rhapsody GUI

Board is the class we will be building a unit test environment for.

Invoke VectorCAST to create the test environment for board.cpp.

Build test cases for the functions in board.cpp.

View the code coverage for the executed tests.

Parameter	Type	Input Values	Expected Values
USER_GLOBALS_VCAST			
Board			
Board::check	enum		
Board::clear(int,int)			
Board::display			
Board::isCompleteLine			
Board::scroll			
Board::set			
Board::settsDisplay			
Board::clearLine			
Board::getColour			

```

3 14         clearLine(i);
3 15 *         break;
3 16 *     switch ( lines ) {
3 17 *         case 4 :
3 18 *             scoringEvent = FOUR_FULL_LINES; break;
3 19 *         case 3 :
3 20 *             scoringEvent = THREE_FULL_LINES; break;
3 21 *         case 2 :
3 22 *             scoringEvent = TWO_FULL_LINES; break;
3 23 *         case 1 :
3 24 *             scoringEvent = ONE_FULL_LINE; break;
3 25 *         default:
3 26 *             scoringEvent = NO_SCORE; break;
3 27 *     }
3 27 *     return scoringEvent;
//#]
void Board::clear(int aColumn, int aLine) {
//#[ operation clear(int,int)
4 1 *     square[aColumn][aLine] = NO_COLOUR;

```

(Note: this graphic needs a stronger photo caption and we will need a separate 300 dpi Tiff or Jpeg file so this can be released with optimal graphic resolution when this is sent live. PC concept: The VectorCAST and Telelogic Rhapsody integration supports C/C++, and Ada development languages, and allows unit and integration test execution from Rhapsody generated models.

About Vector Software

Vector Software, Inc. is a leading independent provider of automated test tools for software developers. Established in 1989 as a consulting and service organization, Vector's product focus is to empower software professionals to deliver the highest quality software in the least amount of time. Vector's "VectorCAST" line of products, reduce the burden placed on individual developers by automating and standardizing application component level testing. This innovative technology developed by Vector represents the "next generation" of intelligent embedded software test tools. The tools support complete C/C++ and Ada83/95.

The market focus of Vector is on companies performing embedded systems development for aerospace, military, medical, telecom, and process control related projects.

Vector Software's Product Family

VectorCAST/C++
VectorCAST/Ada
VectorCAST/RSP
VectorCAST/Cover
Modified Condition / Decision Coverage (MC/DC) module
DO-178B Qualification Packages

About Telelogic

Telelogic® is a leading global provider of solutions for automating and supporting best practices across the enterprise – from powerful modeling of business processes and enterprise architectures to requirements-driven development of advanced systems and software. Telelogic's solutions enable organizations to align product, systems, and software development lifecycles with business objectives and customer needs to dramatically improve quality and predictability, while significantly reducing time-to-market and overall costs.

To better enable our customers' drive towards an automated lifecycle process, Telelogic supports an open architecture and the use of standardized languages. As an industry leader and technology visionary, Telelogic is actively involved in shaping the future of enterprise architecture, application lifecycle management, and customer needs management by participating in industry organizations such as INCOSE, OMG, The Open Group, Eclipse, ETSI, ITU-T, the TeleManagement Forum, and AUTOSAR.

Headquartered in Malmö, Sweden, with U.S. headquarters in Irvine, California, Telelogic has operations in 20 countries worldwide. Customers include Airbus, Alcatel, BAE SYSTEMS, BMW, Boeing, DaimlerChrysler, Deutsche Bank, Ericsson, General Electric, General Motors, Lockheed Martin, Motorola, NEC, Philips, Samsung, Siemens, Sprint, Thales, and Vodafone.