**FOR IMMEDIATE RELEASE**

# Code Base Growth, Safety-Critical Requirements Driving Static Analysis Market

**Natick, Massachusetts – December 29, 2008 –** Recently published research by VDC Research indicates that embedded software engineers using a static analysis tool are working on projects with significantly larger average numbers of in-house developed lines of software code than developers not using a static analysis tool. VDC considers static code analysis tools to include solutions ranging from Lint-based syntax parsers to standards' compliance checkers to tools using more formal methods for verification.

| Number of In-house Developed Lines of Software Code that Will Go into the Final Design (Average of Respondents) | | |
|---|---|---|
| | Not Using a Static | Using a Static Analysis |
| Using a Static Analysis Tool | Analysis Tool | Tool for Mil/Aero Project |
| Mean    238,898 | 130,139 | 146,125 |
| Median  45,000 | 30,000 | 22,500 |

With the overall embedded code base growing a rate near 10%, VDC expects that an increasing number of development teams may look toward static analysis tools as a means to ensure code quality and functionality.

"With this continued growth in code bases, the potential number of executable paths within the code is also increasing dramatically, often limiting the traditional dynamic testing tools' ability to achieve acceptable code coverage, both with regards to the sheer number of tests needed to be executed as well as the amount of time needed to run them," says Chris Rommel, Analyst with VDC's Embedded Software Practice. "The ability of static analysis tools to allow individual engineers to test code without executing it, earlier in the development cycle, should present vendors with additional opportunities for growth, especially in economic times when excessive backend QA effort can easily eliminate any remaining, potential profit margins."

The difference between the average code bases of these user groups can also serve to benchmark the typical code base sizes needed for a project team/company to be considered a legitimate candidate for a commercial static analysis tool. However, application classes tending to have requirements that are more safety- or security-critical in nature embrace static analysis tools at higher rate, before code base size and complexity alone would normally drive development teams to consider additional testing methodologies.

For example, surveyed static analysis tool users currently working on a project for the military/aerospace industry (which also accounted for the highest percentage of the total embedded software static analysis tools spend in 2007) reported a median of 22,500 lines of in-house developed code as compared to 45,000 by the overall static analysis tool user population.

Although VDC believes that an increasing number of development teams will look toward static analysis tools as a software development best practice, the escalating importance of software quality will generate a growing demand for comprehensive testing solutions that can also provide tight integration with dynamic testing tools as well as with other complementary application lifecycle management tools.

VDC explores these and other critical issues within this market in the recently released report, *Static Analysis Tools*, Volume 4 from Track 2 of VDC's *2008 Embedded Software Market Intelligence Service.*

**ABOUT VDC RESEARCH GROUP**

VDC Research Group (VDC) is a technology market research and strategy consulting firm that advises clients in a number of technology markets including: Automatic Identification and Data Collection, Embedded Hardware and Systems, Embedded Software and Tools, Industrial Automation and Control, Mobile and Wireless, and Power Conversion and Control. Using rigorous primary research and analysis techniques, the firm helps its clients identify, plan for, and capitalize on current and emerging market opportunities. We strive to deliver exceptional value to our clients by leveraging the considerable technical, operational, educational and professional experience of our research and consulting staff. During our nearly four decades of ongoing operation, we have had the pleasure of serving most of the world's leading technology companies, many high-profile start-ups, and numerous blue-chip early and later stage investors. Our products and services consist of research reports, annual research programs, and custom research and consulting services. Founded in 1971, the firm is located in the Boston area. Please visit our Web site at www.vdcresearch.com to learn more.

For further information about VDC's Embedded Software Practice and the *2008 Embedded Software Market Intelligence Service*, contact:

*Steve Balacco, Director, 508.653.9000 ext. 124, sbalacco@vdcresearch.com*
*Matt Volckmann, Senior Analyst/Program Manager, 508.653.9000 ext. 143, mattv@vdcresearch.com*
*Chris Rommel, Analyst, 508.653.9000 ext. 123, crommel@vdcresearch.com*

For pricing/purchasing information, contact:

*Cyril Bernard, Account Executive, 508.653.9000 ext. 142, cbernard@vdcresearch.com*

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