The Embedded Software Modeling Tools Market

A Report Supplement Sponsored by Sparx Systems

Venture Development Corporation (VDC)
Embedded Software and Tools Practice
Recent VDC Report Finds Low-Priced UML Tools like Sparx Systems' Enterprise Architect are a Disruptive Force within the Embedded Software Modeling Tools Market

The following information originates from previously published research and press releases produced by Venture Development Corporation (VDC):

**Embedded Software Modeling Tools Market Overview**

Embedded device manufacturers continue to face pressure to rapidly deliver more complex products with increasingly advanced capabilities to their core customers. As device complexity increases, software and systems developers continue to require additional tools that assist them in quickly and easily creating, changing, organizing, and managing the software necessary to operate these devices.

Design automation tools offer developers a method for accomplishing a number of development functions that are becoming increasingly important within the design cycle, including:

- Modeling complex software/system designs at higher levels of abstraction
- Simulating and testing existing software/system designs
- Reusing software from previous designs
- Communicating designs more clearly among engineers within a distributed project environment

As such, the use of design automation tools continues to represent a strategy for improved application development and lifecycle management. VDC expects increasing market adoption and continued commercial opportunities for software vendors within the design automation tools market as manufacturers continue to look for ways to cost-effectively manage the product development cycle and develop increasingly complex embedded software and systems.

**UML Design Tools Market Continues to Face Competitive Pressure from Low-Priced Alternatives**

The growing complexity of today's embedded software and systems has driven many developers to consider a model-driven development strategy. Recently published research by Venture Development Corporation (VDC) indicates that more developers are expecting to adopt model-driven development approaches, including UML, over the next two years to cope with this complexity and an increase in the lines of software code per device.

However, increased adoption of software modeling tools has not translated into equivalent increases in commercial market revenue to the degree that VDC had previously anticipated. VDC suspects that a number of factors, including the availability of low-priced UML modeling tools, have significantly impacted the growth of the commercial market for software-modeling tools.

Within the embedded UML market, numerous lower-priced commercial alternatives have appeared. VDC believes that providers of these lower-priced tools are offering solutions that are adequate for the needs of developers that have fewer high-end requirements. VDC expects continued adoption of model-based development tools, as the benefit of modeling complex systems helps developers to organize and manage complex software and system development. These tools currently see the most use in the early phases of the design process. However, as adoption increases and leading suppliers continue to advance their solutions to drive modeling environments to the center of the development process, VDC expects additional users to more readily acquire additional tool extensions with increasingly sophisticated capabilities. One of the keys will be to understand the requirements of new adopters in order to capture additional share. Findings in VDC's end-user research show that early adopters of design automation tools (those currently using these technologies) have quite different characteristics than the group of developers yet to adopt these types of tools.
Sparx Systems is an Australia-based company started in 1996 that offers application lifecycle management tools, including UML-based development and requirements management tools. The company's flagship product offering is Enterprise Architect, based on the UML 2.1 specification, enabling model-based development, requirements management, version control through CVS, code generation capabilities, and integration with Visual Studio.NET and Eclipse development environments.

Company Type: Private
FY End: June 30th
CY 2005 Sales (M/USD): Less than $1.5 (E)
1-Year Sales Growth: 33.3% (E)
2005 Employees: 32
(E) Estimated for Embedded Products and Services

Design Automation Tools

- Enterprise Architect
  - Corporate, Professional, & Desktop Edition
- Model Driven Generator (MDG) Suite
  - MDG Integration for Visual Studio 2005
  - MDG Integration for Eclipse
  - MDG Link for Visual Studio .NET
  - MDG Link for Eclipse
  - MDG Link for DOORS (Beta)
- MDG Technology for SysML
- MDG Technology for DDS (Beta)

Vertical Markets

- Automotive
- Consumer electronics
- Industrial automation
- Medical
- Military/aerospace
- Mobile phones
- Office/business automation
- Retail automation
- Telecom/datacom
- Other

In September 2006, Sparx Systems partnered with Real-Time Innovations (RTI) to integrate Sparx Systems Enterprise Architect and RTI's Data Distribution Service (DDS). Sparx Systems has sold over 100,000 Enterprise Architect licenses in more than 60 countries. Sparx Systems maintains relationships with over 230 partners.
Within the Volume IV: Embedded Design Automation and Simulation Tools report, VDC offers several strategies for commercial software modeling tools suppliers in the embedded market to effectively compete within this emerging UML space. In addition to software modeling tools such as UML, this report also includes analysis of other modeling and simulation technologies in current use within embedded development, many of which have seen more steady commercial revenue growth.

About Sparx Systems

Sparx Systems is a software development company specializing in high performance, highly productive and scalable visual tools for the planning, design and construction of software intensive systems. With customers in industries ranging from aerospace and automotive engineering to finance, defense, government, entertainment and telecommunications, Sparx Systems is a leading vendor of innovative solutions based on the Unified Modeling Language (UML) and its related specifications. A Contributing Member of the Object Management Group (OMG), Sparx Systems is committed to realizing the potential of model-driven development based on open standards. The company’s flagship product, Enterprise Architect, has received numerous accolades since its commercial release in August, 2000. Now at version 6.5, Enterprise Architect is the design tool of choice for over 100,000 registered users in more than 60 countries world wide.

For further information about Enterprise Architect visit http://www.sparxsystems.com or contact:

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Support Enquiries: support@sparxsystems.com
Sales and Purchase Enquiries: sales@sparxsystems.com

About VDC

Venture Development Corporation (VDC) is an independent technology market research and strategy consulting firm that specializes in a number of embedded, datacom/telecom, component, industrial, RFID, AIDC, and defense markets. VDC has been operating since 1971, when graduates of the Harvard Business School and Massachusetts Institute of Technology founded the firm. Today, we employ a talented collection of analysts and consultants who offer a rare combination of expertise in the market research process; experience in technology product and program management; and formal training in engineering and marketing. VDC's clients include thousands of the largest and fastest-growing technology suppliers in the world and the most successful investors participating in the markets we cover.

For further information about the "Volume IV: Embedded Design Automation and Simulation Tools" report or any other VDC service, contact:

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