Market Research Proposal

EMBEDDED SOFTWARE & TOOLS

2010 MARKET INTELLIGENCE SERVICE

Embedded Software & Tools Practice

August 2010

Embedded Software & Tools:
2010 Market Intelligence Service

The sophistication of today's embedded systems continues to contribute to increasingly complex design requirements and a growing need for the efficient development, management and test of software, hardware and system elements. In addition to these pressures are ever-present time-to-market and budget constraints, and an escalating need for collaborative development and testing throughout the project lifecycle. Within this highly competitive marketplace, both device and systems manufacturers and their embedded solution providers must address new market challenges in order maintain an edge over their competition.

The successful use of embedded software and system engineering tools is a critical requirement for companies across every market segment. Systems manufacturers will require new solutions that help them create, test and manage the designs necessary to power the next generation of embedded systems.

By addressing these and other pertinent embedded software issues and opportunities, *Embedded Software & Tools: 2010 Market Intelligence* Service will help embedded solution suppliers and their customer sharpen their focus, value propositions and solution package offerings to combat daily market pressures and constraints.

RESEARCH SUMMARY & OBJECTIVES

VDC recognizes that an in-depth market intelligence service will help suppliers and other stakeholders understand the key trends needed to sharpen their value propositions and solution development efforts in the embedded space. *Embedded Software & Tools: 2010 Market Intelligence Service* will analyze the markets for major embedded software and system engineering solutions, providing research deliverables throughout the service year. VDC delivers the most comprehensive and accurate market research and analysis of the embedded software and systems market in the industry.

These studies will address many questions, including the following:

- How will supplier consolidation affect the market overall? Who is the competition?

- How will expanding device requirements impact strategic direction, profitability, and solution purchasing decisions for device manufacturers?

- How will proprietary software coexist with the emerging open source software and development movement? To what extent is open source software able to provide the necessary capabilities and reliability required by users?

- What are the key drivers and inhibitors for software development tools? What other types of development tools are used by development teams?

- How are multi-core requirements impacting embedded software development? What are the challenges and how are both silicon and embedded software solution providers responding?

Each and every data collection, analysis and output tool will be geared to the goal of providing clients with accurate, granular market data and unique VDC Research insight throughout our program schedule:

- In-depth analysis of the global market opportunity for embedded software and tools, with detailed market definition, segmentation and trend analysis

- Market estimates and forecasts for embedded software and tools, including segmentations by geographic region, vertical market, product/services mix, and leading vendor

- Embedded system engineers' current and future requirements and preferences for various technologies, feature sets, vendors, and solution sources

- Analysis of the structure of the embedded software supplier community, including leading and emerging supplier market share, position, direction and profiles

- Discussion of key issues, forces and trends, impacted by current economic conditions and changes in vertical market business model requirements

RESEARCH SCOPE & CONTENTS

The 2010 service contains three (3) tracks focused on technologies and market statistics. As you consider your investment in VDC Research Market Intelligence Services, we invite you to consider the value of a Retainer Account as a tool to meet your consulting and research needs. For your convenience, VDC has included several options as part of the 2010 service year proposal.

The following coverage and retainer account consulting services are included with the 2010 service:

TRACK 1: EMBEDDED SOFTWARE ENGINEERING MARKET TECHNOLOGIES

This track includes detailed market definitions, estimates, forecasts, segmentations, and competitive share data across a variety of major embedded software technologies. All Track 1 volumes will be delivered as PDF PowerPoint files and include accompanying Excel files where applicable. Volumes 1, 2 and 4 will provide the following analyses for the particular technology market under study (not applicable for Volume 3):

Volume Contents (for Volumes 1, 2 and 4 only)
Executive Summary Market overview, strategic issues, trends, market drivers, market estimates, competitive landscape, and summary and observations
Scope & Methodology Definitions, industry segmentation, product category segmentation and regional segmentation
Market Overview Brief description of current and future market status
Strategic Issues, Drivers & Trends Key market issues and trends affecting the market, as well as key drivers and inhibitors to growth
Market Estimates & Forecasts Base year actual (2009) and forecasts (2010-2012) by geography (Americas, EMEA, Asia-Pacific), vertical market (automotive/transmission, consumer electronics, industrial automation, medical devices, military/aerospace, mobile phones, office/business automation, retail automation, telecom/datacom), product/services mix (product licensing, maintenance and support, professional services), and leading vendor
Competitive Analysis Share, position, and direction of leading vendors
Vendor Profiles Corporate overview, key facts and products, regional, vertical and channel structure, key channel and technology partners and key customers
Summaries & Observations Recommendations for market participants

- **Volume 1: Embedded / Real-Time Operating Systems** – Analysis of the global market for commercially available real-time and non-real-time operating systems and other related bundled products and related services used in embedded systems.

- **Volume 2: Software Development Tools** – Analysis of the global market for commercially available software development tools and related services used in the development of embedded devices/systems including compilers, debuggers, editors and corresponding integrated development environments, and JTAG debuggers, in-circuit emulators and debugging devices that enable debugging activity to the hardware platform and support the use of software development tools.

- **Volume 3: Mobile Operating Systems** – Analysis of the global market for commercially available real-time and non-real-time operating systems, bundled products, and related services used in the development and deployment of non-tethered mobile devices. The study is also expanded to include estimates of unit shipments for consortia-based operating systems (i.e., Symbian Foundation, LiMo Foundation, and the Open Handset Alliance/Android, etc.) as well as analysis of the forces driving adoption of each platform type.

- **Volume 4: Multi-Core Components and Tools** – Analysis of the global market for software solutions for device/system development incorporating multi-core processors including operating systems, software development tools, software/system modeling tools, and related services.

TRACK 2: EMBEDDED SYSTEM ENGINEERING SURVEY DATA

This track includes in-depth, table-driven statistics of embedded system engineering requirements, preferences, and trends across a variety of market segments, based on VDC Research's 2010 Embedded System Engineering Survey. Track 2 volumes will be delivered as PDF PowerPoint files with accompanying Excel files. All volumes within Track 2 will include but is not limited to the following types of data:

Volume Contents
Project Data Including analysis of survey data related to project type, project length, number of engineers per project, outsourcing habits, engineering project costs, processor architecture, software use, language use, design methodologies, and other project related questions
Experiences, Preferences, and Trends Data Including analysis of survey data related to software acquisition habits, selection criteria, solution satisfaction, spend on tools, as well as opinions and expectations about emerging technology trends such as virtualization, multi-core, and others
Engineer Data Including analysis of survey data related to respondents geographic location, age, years developing embedded systems, length of time at current company, different types of work environments, average salary, and other data
Company Data Including analysis of survey data related to number of embedded engineers within company, average number of projects started per year, analysis of completed and cancelled projects, average annual unit shipments, and other company-specific data

- **Volume 1: Operating Systems** – Segmented data based on respondents citing the use of commercial operating systems, in-house developed operating systems, open source operating systems, no formal operating systems, and Linux operating systems within the target embedded system on the current project
- **Volume 2: Development Tools** – Segmented data based on respondents citing the use of compilers, debuggers, IDEs, editors, JTAG debuggers/In-circuit emulator (ICE) tools on the current project
- **Volume 3: Vertical Markets** – Segmented data based on respondents citing projects within the automotive/transportation, consumer electronics, industrial automation, medical, military/aerospace, mobile phones, and telecom/datacom markets
- **Volume 4: Regional** – Segmented data based on respondents located within the Americas, EMEA, and Asia-Pacific regions
- **Volume 5: Processor Architecture** – Segmented data based on respondents citing the use of 8-bit, 16-bit, and 32-bit MCU/MPU, DSP, FPGA, SoC, X86, ARM, PPC, Single Processor, and Multi-processor/core on the current project
- **Volume 6: Embedded System Engineer Type** – Segmented data based on respondents citing their primary roles project managers, software engineers, hardware engineers, system architect/engineers, algorithm developers/functional experts, and test/verification/validation engineers

TRACK 3: EMBEDDED SYSTEMS MARKET STATISTICS

The statistics delivered in Track 3 are based on detailed Web survey responses from hundreds of embedded developers and provide insight into specific embedded developer communities' current and future projects, programming and management methods, tool needs, related spending plans, and other requirements.
Each volume will focus on one of the following key vertical markets:

- Automotive/Transportation
- Consumer Electronics
- Industrial Automation
- Medical Devices
- Military/Aerospace
- Mobile Phones
- Telecom/Datacom
- Retail Automation

Through a combination of modeled estimates and end-user data analysis, each Embedded Systems Market Statistics volume will provide (but is not limited to) the following information:

Volume Contents
Hardware & Software Developer Statistics Estimate number of global engineers working for embedded systems manufactures, engineer demographics, average engineer age, years developing embedded systems, years at current company, annual salary, etc.
Embedded Device Statistics Average number of company embedded device/systems shipments, average number of embedded device/system shipments for current project, etc.
Development Project Statistics Number of project starts, project length, number of developers per project, software development costs, software design methodology, current project processor designs, operating systems, and tool use, etc.
Software Development Process Statistics Product development time, source of project delays, outsourcing development, etc.
Total Market for Embedded Software Engineering Spend on commercial solutions for embedded software development and spend on engineering labor for embedded software development

RETAINER ACCOUNT / CONSULTING SERVICES

VDC clients have helped develop the concept of a Retainer Account to secure their funding and access to our teams for future consulting and research needs. As critical projects inevitably come up during the business year, a pre-established retainer account allows both the client and VDC to focus all energies on rapidly defining and responding to those needs rather than spending time on multiple justification and approval cycles. This is especially important for unforeseen critical and time-sensitive projects. This client commitment also enables VDC to more responsively meet our client's needs by prioritizing and dedicating resources for our retainer clients.

Retainer Account Benefits

1. **Consolidated funding** – Anticipated near-term research and consulting projects can be funded in advance as part of the funding and approval process for your syndicated research needs.
2. **Rapid turn-around** – As unanticipated projects come about, clients can avoid delays (or denials) associated with individual project funding approval cycles for critical research needs.
3. **Priority access** – Retainer account clients enjoy priority access to VDC analysts and project starts are given the highest possible priority.
4. **Preferred consulting rates** – Receive pre-established preferential consulting rates for future projects.
5. **Flexibility** – Retainer account funds can be used for virtually any VDC consulting service or syndicated research product.

As you consider your investment in VDC Research Market Intelligence Services, we invite you to consider the value of a Retainer Account as a tool to meet your consulting and research needs. For your convenience, VDC has included several options as part of the 2010 service year proposal, including:

- **One-day engagement.** For clients that require VDC Research input for unforeseen critical and time-sensitive projects.

- **Five-day engagement.** For the clients that require VDC Research input for annual business planning input, or support for a special corporate development event.

- **Ten-day engagement.** For clients that value the real-time input and feedback opportunities that this service provides to tactical sales and marketing managers as well as senior executives.

- **Client defined engagement**

For more information on Retainer Accounts and how they can be used, contact your Account Executive.

RESEARCH SCHEDULE

Monthly Status Reports ....Begin February 2010

Interim findings .... One month prior to publication of each volume

Final Deliverables:

Track 1: Embedded Software Engineering Market Technologies
Volume 1: Embedded/Real-time Operating Systems .... Available Now
Volume 2: Embedded Software Development Tools .... Available Now
Volume 3: Mobile Operating Systems... Available Now
Volume 4: Multi-Core Components and Tools ....September 2010

Track 2: Embedded System Engineering Survey Data
Volume 1: Operating Systems .... August 2010
Volume 2: Development Tools .... August 2010
Volume 3: Vertical Markets .... August 2010
Volume 4: Regional.. August 2010
Volume 5: Processor Architectures.. August 2010
Volume 6: Embedded System Engineer Type .... August 2010

Track 3: Embedded Systems Market Statistics
Volume 1: Automotive/Transportation...November 2010
Volume 2: Consumer Electronics..November 2010
Volume 3: Industrial Automation ....November 2010
Volume 4: Medical...November 2010
Volume 5: Military/Aerospace ....November 2010
Volume 6: Mobile Phones ....November 2010
Volume 7: Telecom/Datacom...November 2010
Volume 8: Retail Automation...November 2010

Retainer Account/Consulting Services
One-day engagement .... As Determined by Client
Five-day engagement .... As Determined by Client
Ten-day engagement .... As Determined by Client
Client defined engagement .... As Determined by Client

For More Information Contact:	
Director, Embedded Software and Tools	**Account Executive, Embedded Software and Tools**
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PROCESS & METHODOLOGY

VDC Research strives to create valid and accurate primary market research using a structured approach, analytic tools, and proven analytic methods reinforced by information from secondary sources when appropriate.

METHODOLOGY

The rigor of VDC's research methodology yields data we translate into information and knowledge to create insights that lead to innovation and business results for our clients. This market research service includes a number of data collection and analytic methods that are designed specifically to enable those results:

- **Market Segmentation & Definition:** Definition of market segments, target customers, and competing solutions are critical to building accurate: sizing estimates, forecasts, supplier position and shares, and customer requirements.
- **Market Sizing & Forecasts:** Models based on supplier shipments, user budget analysis, recent installations, and future purchasing plans. Other key inputs include supplier forecasts of future growth rates, historical data, and economic outlook data.
- **Data Verification:** Primary and secondary research on target communities and companies is used to validate our results and includes conducting supplemental interviews at target firms, cross checking with channel partners, estimates from competing firms and checking historical performance.
- **Supplier Share & Position:** Derived directly from structured, in-depth interviews of leading and emerging suppliers of embedded software and tools, with specific emphasis placed on current and projected shipments on combination with VDC's data repository.
- **Customer & Channel Requirements and Preferences:** Focused on customer and channel partner priorities driving consideration. Topics include a range of product and supplier selection criteria. We will explore current and future preferences for various technologies, feature sets, suppliers, and sources of supply.

STRUCTURED APPROACH AND TOOLS

- **Segmentation Models:** Detailed analysis of market segments, customer class communities, products and technologies, and channels that comprise the embedded software and tools market.
- **Technical Solution Value Chain:** Definition of the hardware, software, and services that constitute the embedded software and tools technical value-chain.
- **Commercial Value Chain:** Analysis of the relationships between suppliers, channel partners, and enterprise customers that participate in the embedded software market.
- **Data Collection Tools:** Include, but are not limited to in-depth telephone interviews, on-site interviews, and web-based interviews of manufacturers, channel participants, and customers.
- **Research Databases:** Include VDC proprietary sources, research program sponsors, and industry specific third parties (e.g. trade publications, websites, and conferences).

PRIMARY RESEARCH

	Target Communities	Projected Target Sample Size
Phone Interviews	Suppliers of run-time software and tools	Target N ~ 75
Web / Email Surveys	Embedded systems engineers and engineering managers	Target N > 500

RESEARCH TEAM

- **Stephen Balacco,** *Director, Embedded Software & Tools*

  Steve has more than nine years experience conducting market research studies and managing all of the market research programs for VDC's Embedded Software and Development Tools practice. His project-related experience is diverse and includes coverage of a number of embedded software technologies for syndicated research including embedded operating systems, software development tools, java, databases, and Linux, Windows Embedded, market statistics, and test automation tools. Steve has also conducted and managed consulting research projects focusing on market and technology assessments, product and channel development initiatives, market penetration, competitive analyses, and due diligence support for M&A activity. Steve has deep knowledge of a wide range of embedded software technologies, their applications, and related customer requirements through his years of market coverage. Prior to working for VDC, Steve worked for more than thirty years in the information technology sector developing software, sales, and business development.

  Steve holds a BSBA from Eastern Nazarene College.

- **Chris Rommel,** *Analyst, Embedded Software & Tools*

  At VDC, Chris is responsible for market analyses and data collection on multiple projects and topics within VDC's Embedded Software Market Intelligence Program including developer trends and requirements, market sizes, and key technical requirements. Chris's experience also includes competitive analyses, strategic marketing collateral development, and vertical market opportunity assessments. Chris has authored numerous market research studies on Linux, multi-core components and tools, embedded/real-time and mobile application operating systems, software development tools, software and system modeling tools, and test automation tools.

  Chris is a graduate of Brown University (BA, Business Economics; Public and Private Sector Organizations).

- **Jared Weiner,** *Analyst, Embedded Software & Tools*

  Jared supports all of the Embedded Software and Tools practice's major research programs and is a contributor on custom research and consulting engagements. His work includes coverage of embedded operating systems, software development tools, modeling and test tools, and more. Prior to joining VDC, Jared was a research analyst at Eduventures, Inc., where he developed and conducted custom research projects for colleges and universities nationwide in the area of enrollment management. He has additional research experience in education and financial services.

  Jared received an MBA from Babson College in 2007, and graduated from Bentley College in 2002 with a BS in Information Design and Corporate Communication.

- **Christopher J. Rezendes,** *Executive Vice President*

  Chris has 18 years experience in industrial technology market research and consulting. He has more than 13 years experience in senior management and leadership positions at a number of IT systems and professional services organizations.

  Chris has advised many of the largest and most respected companies in industrial and information technology industries worldwide. He has also worked with many of the most successful private equity and venture capital firms in the Americas and Europe. His work with the financial services community includes proprietary engagements with most of the leading investment banking firms in the world.

  Chris is a graduate of Harvard University.

EMBEDDED SOFTWARE AND TOOLS 2010 MARKET INTELLIGENCE SERVICE	STANDARD PUBLICATION TEAM LICENSING FEE (1-5 USERS)	TOTAL
Track 1: Embedded Software Engineering Market Technologies		
Volume 1: Embedded/Real-time Operating Systems	$6,450	
Volume 2: Embedded Software Development Tools	$6,450	
Volume 3: Mobile Operating Systems	$6,450	
Volume 4: Multi-Core Components and Tools	$6,450	
Track 2: Embedded System Engineering Survey Data		
Volume 1: Operating Systems	$6,450	
Volume 2: Development Tools	$6,450	
Volume 3: Vertical Markets	$6,450	
Volume 4: Regional	$6,450	
Volume 5: Processor Architecture	$6,450	
Volume 6: Embedded System Engineer Type	$6,450	
Track 3: Embedded Systems Market Statistics		
Volume 1: Automotive/Transportation	$6,450	
Volume 2: Consumer Electronics	$6,450	
Volume 3: Industrial Automation	$6,450	
Volume 4: Medical	$6,450	
Volume 5: Military/Aerospace	$6,450	
Volume 6: Mobile Phones	$6,450	
Volume 7: Telecom/Datacom	$6,450	
Volume 8: Retail Automation	$6,450	
Retainer Account/Consulting Services		
One day engagement	$2,950	
Five-day engagement (can be used throughout year in segments of ½ day or greater)	$14,025	
Ten-day engagement (can be used throughout year in segments of ½ day or greater)	$26,550	
Client defined engagement	TBD	
Note: Engagement fees do not include any travel expenses.		
Package pricing available	**Please call for details**	
Enterprise License - Provides the right to post purchased research on portal/corporate network for sharing **within** organization.	25% of total fees	
	Subtotal	
	MA Companies add 6.25% tax	
	TOTAL	

I want to order *Embedded Software and Tools: 2010 Market Intelligence Service.*

I have read the Contractual Provisions of this proposal, which can be found here and agree to its terms.

Authorized Signature: _____

Name:_____

Title:_____

Company:_____

Street:_____

City:_____State_____

Zip:_____Country:_____

E-mail:_____

Telephone:_____ Fax:_____

❑ Check Enclosed   Amount:_____

❑ Purchase Order Enclosed   PO Number:_____

❑ VISA   ❑ Master Card   ❑ American Express

Account Number:_____

Expiration Date:_____

Name on Card:_____

❑ Bill my company without a purchase order, but with my consent.

Signature:_____