

## EXCERPT

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### **Worldwide Software Configuration Management Tools 2007–2011 Forecast Update and 2006 Vendor Shares: Managing Change in a Disruptive World (Excerpt from IDC #207582)**

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#### IN THIS EXCERPT

The content for this excerpt was taken directly from the IDC Market Analysis Report, *Worldwide Software Configuration Management Tools 2007–2011 Forecast Update and 2006 Vendor Shares: Managing Change in a Disruptive World*, by Melinda-Carol Ballou (Doc # 207582). All or part of the following sections are included in this excerpt: IDC Opinion, Situation Overview, Essential Guidance, Learn More, Methodology, and Synopsis. Also included are Tables 1 & 2 and Figures 1 & 2.

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#### IDC OPINION

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IDC's initial assessment of the worldwide software configuration management (SCM) market for 2006 resulted in a worldwide market sizing of \$1.3 billion, which is now updated at \$1.2 billion. This continues the momentum that began to build in 2004 and 2005, but at a slightly lesser growth rate. The market is now forecast to grow to \$1.9 billion, achieving an 8.6% compound annual growth rate (CAGR) for 2006–2011. Highlights remain as follows:

- ☒ The year 2006 saw strong growth continuing from 2005, marking the ongoing momentum of this market from a period of revenue decline early in the decade (2001 and 2002). Although IDC estimated stronger growth in the May 2007 forecast update of 9.5%, actual SCM market growth of 5.8% is still significant. (Lower numbers resulted from clarification from key vendors that expect stronger growth in 2007.) We expect the market to gather strength and peak at 9.0% by 2008.
- ☒ The increasing complexity and criticality of software applications and systems and the unremitting business pressures for compliance traceability, risk management, quality, productivity, and faster time to market will continue to drive demand for SCM solutions. Nonetheless, vendors must demonstrate a clear return on investment (ROI) in a cautious IT spending environment.
- ☒ The integration or acquisition of formal requirements management systems is an important contributor to SCM market growth and coordination with IT governance and IT project portfolio management. IDC research continues to show flawed requirements as a leading cause of failure in new applications. Strong requirements can help to feed prioritization for change management.
- ☒ The need to support geographically distributed teams continues as a major driver for large enterprises with distributed IT organizations.

- ☒ Emerging life-cycle needs for change management for services in the context of service oriented architecture (SOA) will increasingly drive growth moving into the forecast period. Web 2.0, security, and composite applications will drive SCM evolution through the forecast period. Indeed, IBM Rational acquired Watchfire in June 2007, and HP announced, also in June, its intent to acquire SPI Dynamics (indicating ongoing application life-cycle management [ALM] confluence with security).
- ☒ Additional acquisitions and product announcements during 2006 will feed ongoing growth of the space and drive estimates higher through 2006–2008.

## SITUATION OVERVIEW

### The Software Configuration Management Market in 2006

#### *Performance of Leading Vendors in 2006*

Table 1 displays 2004–2006 worldwide revenue and 2006 growth and market share for software configuration management vendors.

**TABLE 1**

Worldwide Software Configuration Management Tools Revenue by Vendor, 2004–2006 (\$M)

	2004	2005	2006	2006 Share (%)	2005–2006 Growth (%)
IBM	366.0	384.3	412.0	33.2	7.2
SERENA Software	206.5	224.7	221.5	17.9	-1.4
CA	137.0	138.3	139.0	11.2	0.5
Telelogic AB	88.9	100.5	106.3	8.6	5.8
Borland Software Corp.	64.1	67.2	80.1	6.5	19.2
Microsoft	41.3	46.1	53.4	4.3	15.9
Perforce Software	25.2	33.2	41.2	3.3	24.1
MKS	25.9	35.4	34.3	2.8	-3.1
Quest Software	17.0	21.2	23.2	1.9	9.5
Aldon	13.4	14.6	16.3	1.3	11.6

**TABLE 1**

Worldwide Software Configuration Management Tools Revenue by Vendor,  
2004–2006 (\$M)

	2004	2005	2006	2006 Share (%)	2005–2006 Growth (%)
CollabNet	12.6	15.1	11.5	0.9	-23.8
VA Software	6.3	6.9	7.6	0.6	9.9
AccuRev	2.4	4.9	7.6	0.6	55.1
McCabe & Associates	3.2	3.5	3.9	0.3	9.8
Visible Systems Corp.	2.7	2.9	3.2	0.3	10.1
Subtotal	1,012.4	1,098.9	1,161.1	93.6	5.7
Other	66.0	73.1	79.4	6.4	8.6
Total	1,078.4	1,172.0	1,240.5	100.0	5.8

Source: IDC, June 2007

IBM remained the clear market leader, posting 7.2% growth, which is up from 5% in 2005 in revenue to \$412 million, for a 33.2% share of the overall SCM market. With IBM Rational's announced intent to acquire Telelogic, the fourth-leading vendor in the SCM space, IBM's position in this space will expand significantly (although the majority of revenue for Telelogic is in requirements rather than SCM, and IBM must address product overlaps with Telelogic's SCM tools). Serena, whose 2004 acquisition of rival Merant made it the second-largest SCM vendor, was mostly flat in revenue, with a very slight decline of 1.4%, for a 17.9% share (down slightly from its 19.3% share in 2005). With effective execution on its combined portfolio, we expect an uptick for Serena in 2007 as the company pulls together its coordinated suite of products. CA continued in third place, with an 11.2% share, and was also mostly flat in revenue, up a mere 0.5% from 2004 to \$139 million. Telelogic posted 5.8% growth to \$106 million for an 8.6% share of the market as the fourth-largest SCM vendor. Borland increased 19.2% to \$80 million and grew its share to 6.5% from 5.7% in 2006. This was because of better execution (in conjunction with process and consulting support from the acquired TeraQuest division and leveraging capabilities from other acquisitions).

Some of the visible "losses" (refer back to Table 1) are misleading. CollabNet incorporated all of its revenue in prior years and broke out the product revenue for SCM and other areas only for 2006. Therefore, the 23.8% loss for SCM revenue alone is misleading; SCM revenue year over year from 2005 to 2006 is actually flat. This is also impacted by CollabNet's revenue model with software as a service (SaaS), which will improve revenue growth for the company over time (along with the

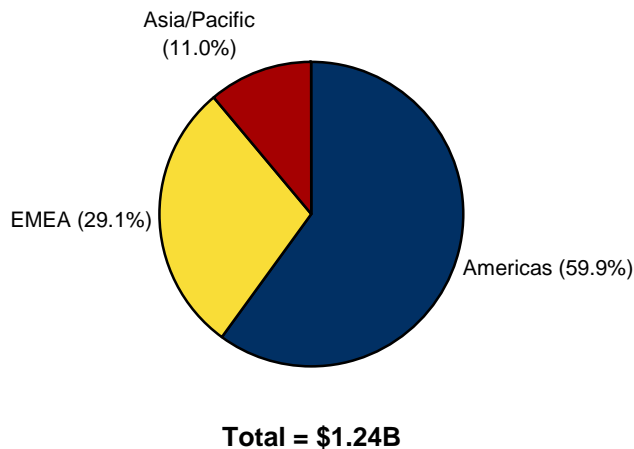
combined revenue and increased footprint expected with CollabNet's acquisition of the SourceForge technology). We also expect MKS' relatively minor losses for 2006 over 2005 to be offset by growth which we are already beginning to see with stronger execution during the first half of 2007. We see investments continuing for SCM over the course of the forecast period, both with acquisitions by the SCM vendors themselves and via investments by the financial community (e.g., Aldon).

### ***Performance by Geographic Region in 2006***

Figure 1 shows North America continuing as the dominant consumer of SCM tools, with 58.5% share, down slightly from 60.1% revenue share in 2005, and down from a 59% share in 2004. Western Europe was second, with 31.6% share, up slightly from 30.5% market share for both 2005 and 2004. Asia/Pacific grew very slightly to a 9.9% share, up from a 9.4% share in 2005 and from an 8.2% share in 2004. We expect to see ongoing growth in Asia/Pacific and in EMEA, particularly throughout the forecast period because of increased strength in the offshore and distributed outsourcing movement.

## **FIGURE 1**

Worldwide Software Configuration Management Tools Revenue Share by Region, 2006



Source: IDC, June 2007

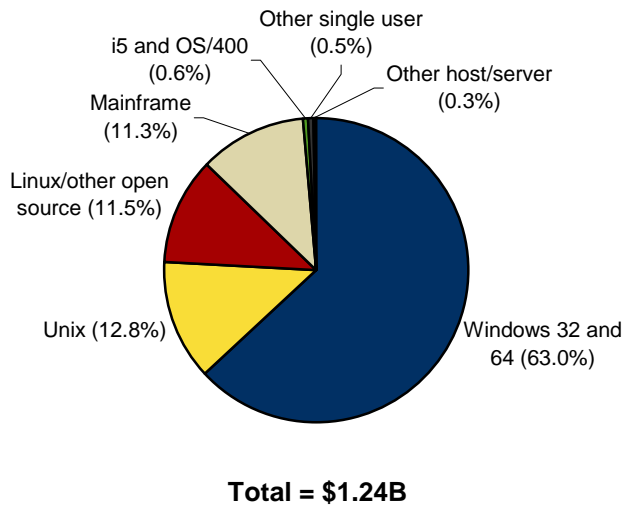
### ***Performance by Operating Environment in 2006***

Windows continues to be the platform of choice for SCM tools, with a 51.0% share, down slightly from a 54.6% share of worldwide SCM revenue (see Figure 2). Unix claimed second place, with 25.1%, up from 19.8% in 2005. Mainframe rounded out the list of operating environments with significant market share at 15.2%, down from a

17% share in 2005. Linux continued to grow well, though it is still beginning to establish a presence in the SCM space, accounting for 6.1%, which is up slightly from 5.8% (and up significantly from 3.8% in 2004). We expect significant growth for Linux over the forecast period. Since some of the vendors supporting Linux have software-as-a-service licensing models, revenue may kick in gradually over the forecast period.

**FIGURE 2**

Worldwide Software Configuration Management Tools Revenue Share by Operating Environment, 2006



Source: IDC, June 2007

***The Software Configuration Management Forecast, 2007–2011***

**Worldwide**

IDC's estimate of the growth of the worldwide software configuration management tools market through 2011 is presented in Table 2. IDC expects the SCM market to grow 8.9% in 2007 and gather momentum during the forecast period. The market is forecast to grow to \$1.87 billion by 2011, achieving a CAGR of 8.6% from 2006 to 2011.

**TABLE 2**

Worldwide Software Configuration Management Tools Revenue by Region and Operating Environment, 2006–2011 (\$M)

	2006	2007	2008	2009	2010	2011	2006 Share (%)	2006–2011 CAGR (%)	2011 Share (%)
Geographic region									
Americas	726	796	871	950	1,036	1,129	58.5	9.2	60.3
EMEA	392	418	446	474	503	534	31.6	6.4	28.5
Asia/Pacific	122	136	155	172	191	209	9.9	11.3	11.2
<b>Total</b>	<b>1,241</b>	<b>1,351</b>	<b>1,472</b>	<b>1,595</b>	<b>1,729</b>	<b>1,872</b>	<b>100.0</b>	<b>8.6</b>	<b>100.0</b>
Operating environment									
Mainframe	189	198	199	198	196	193	15.2	0.5	10.3
i5 and OS/400	12	11	11	11	11	11	1.0	-2.9	0.6
Unix	311	221	222	222	221	218	25.1	-6.9	11.7
Linux/ other open source	76	115	139	167	199	237	6.1	25.7	12.7
Other host/ server	6	8	7	6	6	5	0.5	-4.9	0.3
Windows 32 and 64	633	786	883	982	1,089	1,201	51.0	13.7	64.1
Embedded	–	–	–	–	–	–	–	NA	–
Other single user	13	11	10	9	8	7	1.0	-11.7	0.4
Appliances	–	–	–	–	–	–	–	NA	–
<b>Total</b>	<b>1,241</b>	<b>1,351</b>	<b>1,472</b>	<b>1,595</b>	<b>1,729</b>	<b>1,872</b>	<b>100.0</b>	<b>8.6</b>	<b>100.0</b>
Growth (%)	NA	8.9	9.0	8.4	8.4	8.3			

Note: See Table 3 for key forecast assumptions.

Source: IDC, June 2007

## Market Characteristics in the Future

The SCM market continues to consolidate and mature, with the top 5 vendors accounting for around 77% of worldwide SCM revenue, as was stated previously. Nevertheless, there is opportunity for vendors that can successfully broaden the base of users that can adopt software configuration management tools to target emerging areas and can help customers increase the percentage of their applications that are tested via automation. Areas that innovative vendors are addressing include:

- ☒ **Collaborative software development environments.** Web-based collaborative development environments — whether customer hosted or vendor hosted as managed services — are an appealing proposition for geographically distributed software development organizations (whether or not they include external team members such as contractors and outsourcers, partners, suppliers, or customers) and for small to medium-sized businesses that need a cost-effective, integrated system out of the box for project, process, change, and software configuration management that facilitates team communication (via email lists with alerts/notifications, discussions, and other community-building features tied into projects). Emerging vendors in this category include CollabNet/VA Software, both of which (not coincidentally) come from the open source world and have lots of experience hosting huge ad hoc communities of open source developers collaborating worldwide on thousands of projects. Both are also leveraging software-as-a-service licensing models in conjunction with their open source roots. CollabNet announced its acquisition of SourceForge (2Q07) and also launched two key product initiatives in 4Q06, which position it well moving into 2007 — CollabNet Enterprise Edition 4.5 significantly broadens out the company's collaborative development framework and CollabNet Cubit, which integrates and provisions test and build management via a centralized Profile Library.
- ☒ **Requirements management and definition.** Requirements management systems such as those from IBM, Telelogic, Borland, and now Serena have been engines of growth for SCM vendors for several years. As IDC research confirms, flawed requirements continue to be the top reason new applications fail to satisfy users. Visual requirements definition products are available from emerging vendors such as iRise (among others, such as Steeltrace, acquired by Compuware; Sofea (now Blueprint); and Ravenflow) and from Serena, which acquired start-up Apptero and RTM; these enable business analysts to create working prototypes of new applications complete with application flow, user interface, and business logic/rules. In 2005, MKS built its own basic requirements capabilities, which leverage data metrics available from its SCM system and evolved those capabilities further in 2006 and most recently, significantly strengthened its requirements capabilities and key linkages to SCM capabilities for leverage across change management for requirements and related code and test management that is differentiating as a solution that was designed to be tightly integrated.
- ☒ **Software asset management and code analysis.** An important enabler for future reuse of components will be software asset management systems, which represent a layer on top of the versioning, storage, security, and change

management capabilities of today's SCM systems. Software asset management systems add metadata management for components to the mix. LogicLibrary and BEA/FlashLine (acquired by BEA in 2Q06), both of which are supporting OMG's Reusable Asset Specification (RAS), are examples of emerging companies in this area. Innovative vendors such as Agitar enable code analysis, and Identify (acquired by BMC) also creates better visibility into code to enable more effective management of software assets.

- ☒ **Automated build management.** Most large SCM vendors provide an integrated build management capability today, some through OEM agreements. Automating builds — that is, automating the generation of build scripts themselves, as opposed to writing and then running scripts (that quickly fall out of date and fail) — is another promising area. Innovators include Open Make (formerly Catalyst), BuildForge (acquired by IBM Rational in 2Q06), Electric Cloud, and CodeFast.
  
- ☒ **Process management/enactment.** Today's SCM products provide workflow capabilities that enable customers to define roles and authorizations as well as approval, notification, and alert processes — processes that guide change management and ensure that changes comply with compliance requirements, are auditable and traceable, and so forth. Increasingly, SCM vendors are tackling the automation of overall process management from a best practices perspective by providing customizable workflows that enact popular methodologies and/or assist with process improvement initiatives such as CMMI. IBM, whose Rational Unified Process (RUP) — renamed Rational Method Composer — is a highly popular methodology, provides process enactment. Serena offers templates with TeamTrack. Microsoft is supplying process guidance templates for CMMI and Agile with its Visual Studio Team System. Start-ups such as Osellus play in this space as well. This is an opportunity for both large vendors and emerging vendors to take a thought-leadership role with their customers and build a services business around best practices. Borland, with its acquisition of TeraQuest (a CMMI expert), is beginning to play here, for example. Other vendors could build templates on top of their general-purpose business process automation products (CA has its CleverPath AION BPM workflow product, for example). Alternatively, systems integration partners could provide these templates. Generally, this represents a move away from paper-based methodware toward incorporating best practices directly into the automation of life-cycle activities. Process change is a key barrier to adoption of more consistent, cost-saving approaches to life-cycle and also to emerging technologies (such as SOA). MKS has strong process and workflow capabilities; its focus is to coordinate across requirements and deployment, with visibility into portfolio, and to continue to target other related areas (such as test) moving into 2007.
  
- ☒ **License compliance.** As the use of open source software continues to grow, companies need a way to ensure they are in compliance with the endlessly proliferating variations of open source licenses. Software vendors themselves are one of the key target markets for emerging software license compliance vendors such as Black Duck and Palamida. Solutions from these two companies detect code snippets that have been incorporated from open source programs and provide guidance on license compliance (everything from proper copyright notation through right-to-distribute implications).



- ☒ **Differentiated, strong niche players for SCM.** Niche players such as Perforce, Accurev, Aldon, and others have differentiated their SCM offerings via ease of use, performance, and well architected offerings; functional differentiation; and more effective price points than the large suite providers. These vendors tend to be able to innovate quickly and be responsive to shifting market trends.

Some of the important themes for future innovation in the area of software life-cycle process and configuration management are better integration, greater automation, better metrics, and linkages to planning and operations. Also important is change management for complex datatypes with the evolution of Web 2.0 and coordination with content management systems for business-critical information contained in that information.

By better integration, we mean that vendors will provide more plug-and-play out-of-the-box integration, saving customers the time and effort of integrating various products from multiple best-of-breed vendors in the role of amateur systems integrator. Integration is key to obtaining greater benefits in areas such as impact analysis: If we know exactly what needs to be retested, given a specific set of changes to the underlying source code, we can prioritize scarce resources and provide greater quality assurance.

By automation, we mean that information captured by one life-cycle tool will be shared/leveraged by other life-cycle tools in a more automated workflow. For example, requirements management and definition systems could automatically generate use cases for test purposes and (depending on the test tool) potentially generate test scripts as well. If tests were generated directly from requirements, flawed requirements might become less of a risk to project success than is the case today, and it might be easier to keep test scripts in sync with software revisions. (A similar opportunity exists to tie modeling tools more tightly to test generation.) Better automation is key to process improvement: Processes can be improved only when they are consistent and repeatable.

By better metrics, we mean better real-time visibility into project health and status. Most vendors already provide some sort of dashboard where they roll up the metrics their tools create into useful reports for management and development team members. Consolidating information from multiple tools into even better metrics that could act as KPIs for the development process requires that more life-cycle tasks be automated and that data be automatically captured for analysis and process improvement. IT portfolio management takes this to the next level, enabling organizations to prioritize and manage portfolios of projects and programs and facilitate resource allocation and decision making.

Finally, there are obvious linkages with operations and planning that need to be strengthened. For instance, end-to-end change management — from development through deployment into production — is important for regulatory compliance. For project and portfolio management systems to be useful as decision-support systems, they need up-to-date information about projects already under way, including performance against budgets and schedules. This is one of the reasons that large ALM vendors have been buying up IT project portfolio management vendors over the past two years. Examples include Mercury Interactive's acquisition of Kintana (and

then HP Software's 4Q06 acquisition of Mercury), Compuware's acquisition of ChangePoint, IBM's acquisition of SystemCorp, CA's acquisition of Niku, Serena's acquisition of Pacific Edge, and Microsoft's acquisition of UMT.

As the SCM market continues to mature and consolidate, smaller innovative vendors will help the large vendors build out their solution footprints to include some of the areas mentioned above. The large vendors' partner programs are the obvious vehicle for expanding their ecosystems. Improved standards for interoperability are an important facilitator for improving the integration and automation of life-cycle processes. Microsoft's ecosystem will rely on Microsoft's published APIs. The alternative for the non-Microsoft camp may come from the Application Lifecycle Integration and Interoperability Framework (ALMIIF) project recently proposed to the Eclipse Foundation.

## **ESSENTIAL GUIDANCE**

The solid rebound of the SCM market in 2003, the SCM market's very strong growth in 2004, and ongoing growth in 2005 and 2006 point the way to growth in the years to come. IDC continues to be confident that there is ample opportunity for enterprising SCM vendors that can help software development organizations improve their productivity, reduce costs, and shorten the time to market for their new applications. Customers are once again investing in new applications to drive revenue growth and market share, and application life-cycle management tools are key to the success of these new initiatives — whether they are Web services applications, legacy modernization projects, or packaged software implementations/upgrades. In an IT spending environment that will continue to be cautious, vendors that offer a compelling return on investment will enjoy the advantage.

The complexity and business criticality of software will continue to drive the need for automation in the application development life cycle. Regulatory compliance pressures, the rise of distributed development teams (including offshoring and outsourcing), and the pressure to increase the percentage of the IT budget that can be applied to investments that deliver new business value all place intensified demands on software development organizations to improve the overall software development process through automation.

Larger vendors that embrace innovative "build, buy, and partner" strategies to competitively address the continuing demand for integrated solutions will succeed in capturing a larger share of their customers' SCM spending. Smaller vendors with innovative technologies and business models will find opportunity in specialized niches, in smaller workgroup-focused development shops, and in the enterprise through partnerships with larger vendors.

G2000 end-user organizations should evaluate products based on pressing functional needs and pain points, and do so in the context of organizational maturity and best practices.

## LEARN MORE

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### Related Research

- ☒ *Establishing Effective Build Management for Business Adaptability* (IDC #206782, June 2007)
- ☒ *Worldwide Software Change and Configuration Management 2007–2011 Forecast* (IDC #207052, May 2007)
- ☒ *IDC's Software Taxonomy, 2007* (IDC #205437, February 2007)
- ☒ *Emerging Requirements Market Drives IT/Business Adaptability* (#206029, June, 2007)
- ☒ *Worldwide Software Configuration Management Tools 2007-2011 Forecast* (IDC #207052, May 2007)
- ☒ *Emerging Requirements Market Drives IT/Business Adaptability* (IDC #206209, June, 2007)
- ☒ *Worldwide Software Configuration Management Tools 2007-2011 Forecast Update and 2006 Vendor Shares: Managing Change in a Disruptive World* (IDC #207582, July 2007)
- ☒ *Addressing Web 2.0 Complexity – Serena Targets Mashups and Change Management* (IDCLink, Sept. 29 2007)

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### Methodology

The IDC software market sizing and forecasts are presented in terms of "packaged software revenue." IDC uses the term "packaged software" to distinguish commercially available software from "custom" software, not to imply that the software must be shrink-wrapped or otherwise provided via physical media. Packaged software is programs or codesets of any type commercially available through sale, lease, rental, or as a service. Packaged software revenue typically includes fees for initial and continued right-to-use packaged software licenses. These fees may include, as part of the license contract, access to product support and/or other services that are inseparable from the right-to-use license fee structure, or this support may be priced separately. Upgrades may be included in the continuing right of use or may be priced separately. All of the above are counted by IDC as packaged software revenue.

Packaged software revenue *excludes* service revenue derived from training, consulting, and system integration that is separate (or unbundled) from the right-to-use license but does include the implicit value of software included in a service that offers software functionality by a different pricing scheme. It is the total packaged software revenue that is further allocated to markets, geographic areas, and operating environments.

The market forecast and analysis methodology incorporates information from five different but interrelated sources, as follows:

- ☒ **Reported and observed trends and financial activity.** This study incorporates reported and observed trends and financial activity in 2006 as of the end of April 2007, including reported revenue data for public companies trading on North American stock exchanges (CY 1Q06–4Q06 in nearly all cases).
- ☒ **IDC's *Software Census* interviews.** IDC interviews all significant market participants to determine product revenue, revenue demographics, pricing, and other relevant information.
- ☒ **Product briefings, press releases, and other publicly available information.** IDC's software analysts around the world meet with hundreds of software vendors each year. These briefings provide an opportunity to review current and future business and product strategies, revenue, shipments, customer bases, target markets, and other key product and competitive information.
- ☒ **Vendor financial statements and related filings.** Although many software vendors are privately held and choose to limit financial disclosures, information from publicly held companies provides a significant benchmark for assessing informal market estimates from private companies. IDC also builds detailed information related to private companies through in-depth analyst relationships and maintains an extensive library of financial and corporate information focused on the IT industry. We further maintain detailed revenue by product area models on more than 1,000 worldwide vendors.
- ☒ **IDC demand-side research.** This includes thousands of interviews with business users of software solutions annually and provides a powerful fifth perspective for assessing competitive performance and market dynamics. IDC's user strategy databases offer a compelling and consistent time-series view of industry trends and developments. Direct conversations with technology buyers provide an invaluable complement to the broader survey-based results.

Ultimately, the data presented in this study represents IDC's best estimates based on the above data sources as well as reported and observed activity by vendors and further modeling of data that we believe to be true to fill in any information gaps.

The data in this study is derived from all the above sources and entered into the Software Market Forecaster (SMF) database, which is then updated on a continuous basis as new information regarding software vendor revenue becomes available. For this reason, the reader should note carefully the "as of" date in the Methodology discussion within the "In This Study" section, near the beginning of this study, whenever making comparisons between the data in this study and the data in any other software revenue study.

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## Synopsis

This IDC study provides vendor share sizing of the software configuration management (SCM) market from 2004 to 2006 and insight into our 2007–2011

forecast for this market. This study contains vendor-specific revenue and market shares.

"2006 built on the return of the software configuration management market to robust growth and was marked by ongoing consolidation and coordination across life-cycle phases to begin to target areas such as emerging SOA development," said Melinda Ballou, IDC program director, Application Life-Cycle Management. "We expect to see robust growth in 2007 and thereafter, throughout the forecast period, as the need for IT governance, services support, and improved software development team productivity drive ongoing demand for software configuration and change management tools."

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