

Agile Tool Market Growing with the Philosophy

Greg Goth

The market for *application life-cycle management* (ALM) tools for agile development is booming. However, tool vendors and analysts are far too busy jockeying for position to spend too long appreciating the irony of the matter.

The first principle of the Agile Manifesto, after all, is “Individuals and interactions over processes and tools” (<http://agilemanifesto.org>). But Pete Behrens, owner of agile consulting firm Trail Ridge Consulting, says he’s seen continued growth of both agile methodologies and tool sets since he released a seminal 2006 survey on the subject (www.trailridgeconsulting.com/files/2006AgileToolingSurveyResults.pdf).

“I think we’re a self-fulfilling type of industry,” Behrens says. “We like to create things to help ourselves be more efficient. Adoption of tools is increasing, the number of options has increased, and all the tools continue to grow in their capabilities.”

Fast Growth for Top Tools

The industry’s best-known dedicated agile-tool vendors are reaching decidedly enterprise levels of financing and employee growth. For instance, Rally Software employed about 40 people in early 2007, according to Richard Leavitt, Rally’s vice president of product marketing. Currently, Rally employs 120 people; Leavitt says the number should increase to 220 in the next year. The company also just received US\$17 million in venture-capital funding.

VersionOne, another of the best-known agile-tool vendors, is growing 25 to 30 percent per quarter, according to chief executive officer Robert Holler. So, although industry analysts and even some vendor executives themselves believe the market will soon enter a consolidation period, Leavitt and

Holler both say they’re hardly waiting for one of the technology industry’s giants to come calling with checkbook in hand.

“It’s kind of tough to expect a check when you’re going to double or triple in sales in another year,” Holler says. “We see it as one heck of an opportunity over the next five years.”

If the Agile Manifesto places individuals over processes and tools, why would so much sweat and treasure end up in that particular spot? And how should the development community assess this new trend in trying to decide how or whether to adopt agile tools?

Embracing the Rebellion, Sort Of

Gartner Group analyst Matt Light says the latest agile-development trends are a continuation of rapid-application-development (RAD) methods first employed in the early ’90s.

“The agile guys aren’t that fond of it when I say this,” Light says. “They’ll focus on the differences from the previous RAD approaches to development, but what teenager ever likes being compared to their parent? I think it’s the next generation of RAD. Look at the key principles, and I think it’s pretty self-evident.”

Erik Gottesman, director of delivery capabilities at consulting services firm Sapient, says nomenclature differences aren’t relevant now. “Whether you call it agile or RAD or lean, it’s all the same language. ... Everything in the social technological fabric is driving people in that direction. The focus now is not on ‘Is agile a good idea?’ but ‘How best to do it with the constraints we’re dealing with?’ And as that question is being asked more regularly, there is a recognition that not one size fits all.”

What does seem to be affecting the entire software industry, however, is the rise of Web-driven architectures demanding much quicker release cycles. These architectures provide far more feedback from people far removed from the core development process, whether they're senior managers responsible for overall deadlines and budgets or end users who want a new feature in an application. These overriding trends and agile development go hand in glove. The burgeoning agile-ALM-tool landscape reflects the software market's need to scale agile from small applications and teams to cross-enterprise architectures and back.

This process is still in flux, Behrens says. In addition to the new dedicated agile-ALM tools, developers and project managers are using legacy ALM tools not originally marketed to agile teams, old-school manual methods such as whiteboards and sticky notes, and nondedicated ALM technology such as Excel spreadsheets and wikis.

Productivity-suite-based tools were the most popular among the companies that responded to Trail Ridge's 2006 survey. More than 60 percent of large development organizations (with more than 100 employed developers) and 50 percent of smaller organizations that use agile methodologies reported using office-application-based tools for ALM purposes.

However, management and distributed-development-coordination concerns are exposing the weaknesses in home-brewed office-based solutions. Organizations using a distributed-development model are discovering they need something that scales beyond one team or even a handful of teams. In some cases, those companies are replacing existing tools with integrated ALM solutions such as Rally's. Other vendors are banking on customers looking for a project management tool that can serve as an overlay to their ALM tool set. In September 2008, for example, Borland unveiled its Borland Management Solutions (BMS) package, a three-product management suite intended to work with agile as well as other iterative and even waterfall development models.

"The enterprise doesn't want to throw everything away and start from square one with no tools, nothing except the Agile Manifesto, and build from there," says Matt Klassen, BMS director of product marketing. "For CIOs and VPs of appli-

cation development, including those at organizations that have gone agile—such as BT, which now says it has 11,000 agilists in its organization of 30,000 engineers—throwing everything away just doesn't make sense."

What Tool Fits?

There are more ironies in the agile-ALM market than the seeming discrepancy with the Agile Manifesto. For instance, the self-contained ethos of small agile teams might seem incompatible with enterprise-level management requirements. However, more than one vendor used the same word—visibility—when describing one of the underlying drivers for their product.

"What Rally really has done, and what our vision has been from the very first, has been to tool the entire life cycle to operate at this new pace," Leavitt says. "So things are different. It's not lots of documents and sign-off. It's lots of visibility and communication."

"If you look at BMS, it's not all agile, but it brings visibility to a heterogeneous set of tools and methodologies," Borland's Klassen says. "For companies that are in some kind of transformation, this gives them the visibility to measure, independent of methodology, across ALMs."

How to incorporate that added visibility into development is proving to be one of the fault lines in the agile-ALM market. Most organizations just beginning the transformation to agile will require some sort of management-accessible application that helps them measure how new develop-

ment methodologies measure up to established practices. And some organizations, notably those in industries such as financial services that require extensive auditing redundancy, will be looking for tools that allow extensive code traceability.

"Management concerns play a big role," Sapient's Gottesman says. "If you're using agile practices on back-office systems with financial data, a plain-Jane wiki will probably not give you the level of auditability required."

Currently, there are clear delineations in what vendors offer and the market segment to which they appeal. Here are a few examples of the tools.

Full Life-Cycle Management

Exemplified by industry leaders Rally and VersionOne, this category comprises fully integrated ALM tools that give developers, project managers, senior executives, and users visibility into the development process.

Leavitt says the full Rally Enterprise platform includes several products (www.rallydev.com/products/lifecycle_management). Rally Quality Manager handles test management. Rally Product Manager provides data to help plan a project's business case and priorities, and it reports release and feature status to nondevelopers on the project team. The Rally Enterprise ALM application manages all iteration planning and release planning and status, and Rally Support Manager opens up customer feature requests similarly to a shipping company's tracking system. Leavitt says this eliminates the black-box paradigm and support-desk nightmare of not knowing the progress of a customer's requested modifications.

VersionOne CEO Holler says the company is "building concentric circles" around the core components of agile development on its V1 platform (www.versionone.com/V1Platform.asp), first tracking features and tasks, then evolving and capturing issues and defects, then helping solve how to align all that activity with a development organization's goals. One reflection of the company's philosophy was its decision to provide its integration APIs as open source code so that customers can freely integrate popular development tools such as Bugzilla, Eclipse, and Visual Studio in their V1 implementations.

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VersionOne also places a premium on improved customer-developer feedback. “One thing we capture and manage is customer requests, and from that you can generate features and stories,” Holler says. He adds that automating that loop will be part of the industry’s strategic transition to ever-quicker release cycles of code that’s significantly affected by customer requests.

“We’re not in a situation where you wait three years for delivery anymore,” he says. “We want to wait a quarter for delivery and then a quarter to get the fixes we want completed. An automated solution provides an aggregated point of reference and then allows a much greater degree of nuance in feedback than ‘this one guy said this one thing.’ And it allows crowd-based or aggregated input into your product development lifecycle.”

However, Behrens says the drive to make agile-ALM tools comprehensive enough to serve both developers and managers has hit a slight speed bump. “I think every tool has the trap of the innovator’s dilemma, the sentiment that ‘We’re going to satisfy our largest client,’” he says. “Every product has that tendency towards supporting scale and distribution, which is also why we’re seeing a group of smaller ones come out.

Targeted Planning Applications

Exemplified by the ProjectCards tool (www.projectcards.com), this category targets the agile team or project that has neither the time nor expertise to create an Excel- or wiki-based tool but that doesn’t want a comprehensive integrated ALM platform.

“You don’t want to have all your project management team working in their planning software all day,” says ProjectCards CEO Benoit Ouellet. “You want them to be effective, to coach the team into moving forward with the project. You want to have the planning tool be as simple as possible, to do that task as quickly as possible, and get it over with.

“We have a lot of customers who tell us they appreciate ProjectCards due to this simplicity. They don’t want to get bogged down in going to classes and learning curves. They don’t want to use a product that is too far ahead of them in their process. Then they would have to adapt their process to the tool instead of making the

tool flexible enough to adapt it to their process.”

ProjectCards’ tagline is “Do you REALLY Need More?” and Ouellet says the four-person company is sticking with its minimalist approach. Although the application also allows visibility into project status for developers, managers, testers, and customers, Ouellet says the company has no plans to integrate it with a wide range of development tools. There’s an existing plug-in for Eclipse, through which developers can run ProjectCards right in the IDE. Ouellet says the most common customer request for additional integration capabilities centers on test applications, and the ProjectCards team is considering those requests.

Agile ALM as a Consulting Component

Services firm Sapient released its agile-ALM product, ResultSpace (www.resultspace.com), in December 2007 but isn’t emphasizing it as a discrete piece of software, according to Gottesman.

“As of now, we’re not really going full throttle with ResultSpace as a standalone product,” he says. “It’s a solution accelerator for clients when they are engaging with us on projects. Maybe that will change, maybe not. But in terms of adoption, with a very few exceptions, like where we have a set methodology and connected tools, ResultSpace is used across the company. It comes as part of the engagement.

“I think our approach is distinguishable from VersionOne or Rally. They have capable products and there is a user seg-

ment where those are the right products; they are product companies. They are not a consulting firm. We’re coming at it a little differently. What I believe will distinguish ResultSpace going forward is two things. The first is that it is not just about the tool but how to apply the tool, weaving it into the fabric of how you do business. The other key differentiator is usability, and that’s a huge issue for the ALM market.”

Gottesman says other consulting/software packages, such as Danube Technologies’ Scrumworks and Thoughtworks Mingle, will vie for position. “The market is still in its infancy,” he says. “It’s not a small pond, but not a big one—yet. But it is going to get bigger. There is a lot of opportunity.”

Gartner analyst Light says those vendors who are the best at smoothing software vendor and consultant relationships might emerge strongest in the future landscape of agile-ALM tools. “If you’re a vendor, and you have very strong consulting around it, and the tool is part of it, that’s an important dimension,” Light says. “Even if you are focusing on trying to be a software provider, customers are inexperienced with agile in a lot of cases. They’re still in RAD mode, and the next-gen stuff has not really been internalized.”

ALM Plug-ins

This category spans a wide range, from small open source charting helpers to the commercial fruits of veteran agilists’ experiences in developing and training. One example of the latter is Pyxis Technologies (www.pyxis-tech.com/fr/index2.php [in French]). Pyxis started as a services company, emphasizing agile training and consulting. However, company founder and president Francois Beauregard says the Pyxis team saw an opening for lightweight agile tools about two years ago and decided to develop some solutions. GreenHopper, the company’s agile project management tool, is a plug-in for Atlassian’s popular Jira issue-tracking software and Microsoft’s Team Foundation Server (TFS).

“We know Microsoft is betting hard on agile, and they’re going to sell a lot of these Team Foundation Servers,” Beauregard says. “And people will not want to buy a big tool that synchronizes with TFS, which is different. We’re not synchronizing; we’re

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storing our data in TFS, which makes the user experience much better.”

Pyxis isn't alone in targeting the Jira community. Adaptavist (www.adaptavist.com) offers plug-ins for Atlassian's enterprise wiki application Confluence. The company says on its Web site, “We're also big fans of Jira and Crowd and have recently started developing plug-ins, customisations and integrations for those products.”

Delivery Models, Other Players, and Market Trends

Although software as a service (SaaS) might be a major driver of agile development industry-wide, agile-ALM vendors' delivery models are mixed. Rally emphasizes its SaaS deployment, although it does offer an on-premise version of its platform.

VersionOne's Holler says the company's deployment of its platform is typically one-third SaaS and two-thirds electronic distribution and local installations. His reasons why customers opt for one or the other seem to resonate with other vendors, too.

“Small teams look at that data as part of their intellectual property and are kind

of uncomfortable with that outside the firewall,” he says. “Or, there might be, in larger organizations, either IP [intellectual property] issues or corporate policy against outside-the-firewall activity. On the other hand, where we see significant SaaS inroads are midmarket IT departments, which are becoming much more comfortable with the SaaS model.”

ProjectCards' Ouellet says the company seriously weighed whether to provide SaaS or on-premise versions of the product. They opted for the on-premise version because customers wanted their data to remain confidential and accessible to their teams at all times.

A plethora of tools is emerging for agile project management, but several vendors and Behrens say that consolidation and acquisition of top-performing agile-ALM technology by industry giants is highly likely. IBM Rational's Jazz platform is still in its nascent stages; Behrens and Sapient's Gottesman say Microsoft's Visual Studio Team System and Team Foundation Server have experienced growing pains that have affected market acceptance. On the other end of the scale, Behrens says use of the

open source tool XPlanner seems to have stagnated.

“I see consolidation of the market,” Behrens says. “The big companies are struggling to develop these tools internally, so acquisitions are likely, and I think the best players for them to soak up would be a VersionOne or Rally. But there will always be a place for a small tool vendor in the agile world.”

VersionOne's Holler compares the industry transformation to agile to the boom of customer-relationship-management (CRM) applications in the '90s. However, he says this transformation will last longer and demand more reflection on how to best adopt the practices and tools of the new era.

“CRM matured over a five- or six-year period, where the transformation was fundamentally more of an automation question,” Holler says. “The slight difference with our environment is that this is not only an automation challenge but a process challenge, a fundamentally different way of doing business, and I see it as a 10- to 15-year evolution, and we're only in year five or six. So we have another five to 10 years ahead of us.”



CSDA CERTIFICATION ENDORSED BY TWO PRESTIGIOUS UNIVERSITIES

The Certified Software Development Associate (CSDA) certification, the IEEE CS's entry-level certification, recently picked up the endorsement of two prestigious software colleges; Rose-Hulman Institute of Technology in Terra Haute, Indiana, and Vellore Institute of Technology in Tamil Nadu, India. Both schools have endorsed and are supporting the CSDA as a tool for their software engineering graduates. Attaining the CSDA gives entry-level software practitioners an internationally accepted credential as they begin their careers as software development practitioners and offers a growth path to the Certified Software Development (CSDP) credential.

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