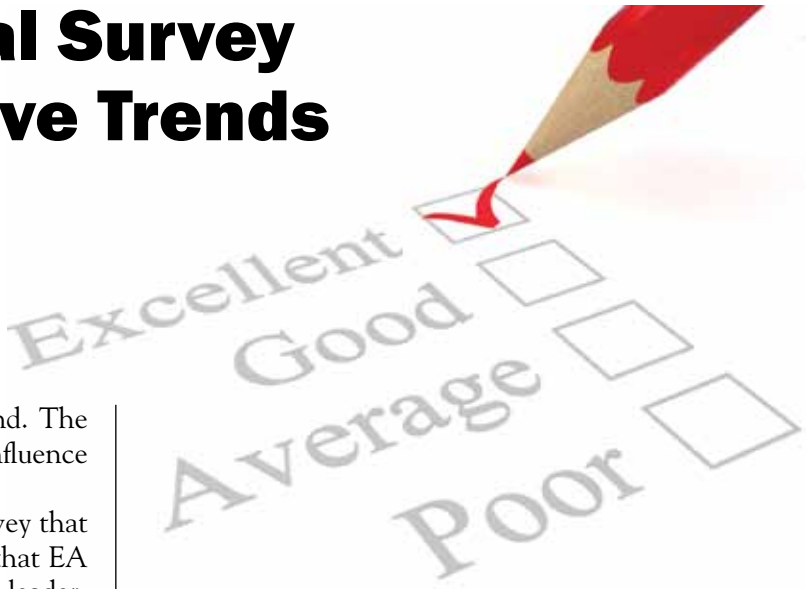
ARCHITECTURE &GOVERNANCE

magazine

VOLUME 7 ISSUE 2

A&G 2011 Annual Survey Yields Provocative Trends



By George S. Paras

A&G's recently concluded 2011 Annual Survey reveals that EA groups are actively engaged in a wide range of initiatives that will have business impact well into 2012 and beyond. The data also reveals that these groups are having influence beyond their traditional IT focus.

Those are just two observations from the survey that covered topics ranging from the key initiatives that EA groups are working on, to the level of executive leadership support, the perceptions and measures of EA success, and the future of EA in respondents' organizations.

THE SURVEY

The survey was conducted between August 10 and August 17, 2011. The results represent 203 respondents from the readership of A&G magazine. Sixty-eight percent of respondents carry the title of chief of enterprise, business or technical architecture; 80% of respondents are from commercial organizations; 20% represent federal organizations; 50% of respondents report directly to the CIO or office of the CIO; and 55% work for organizations reporting more than $1 billion in annual revenues.

A&G has conducted several surveys over the last few years. In each case, the diversity of responding organizations, as well as the fact that individual respondents are self-selecting from a passionate and engaged community, is a factor when interpreting results. Overall, though, we view the large proportion of respondents in EA-related roles to be a net positive. They reflect a community of practitioners who have had some success in their respective organizations and are in environments where success, however defined, is possible. In general, individuals with a negative or uninformed perspective on EA, or in organizations unfriendly to EA, did not represent a

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ARCHITECTURE &GOVERNANCE
magazine

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significant proportion of respondents. Results should be interpreted against that backdrop.

OVERALL FINDINGS

The overall findings of the survey suggest diversity in interpretation of the EA role by the practitioners and by their leadership. Looking broadly across the results, it appears that some respondents interpret the role of EA to be strategic and transformational, while others see it as biased to expedite the delivery of infrastructure and solutions. It is likely that some see it as both, though it is difficult to tease out that conclusion from the results. In any case, each group apparently experienced leadership acceptance and defines success in its own terms.

Many in the larger EA community hold one of two dogmatic views: that EA must be wholly strategic, or wholly delivery-oriented, to be considered "pure" EA. A&G's editorial opinion, and that of this author in my research and advisory role, believes that EA can and should be both. An EA team should lead in identifying the details of a future transformational direction for the enterprise as well as guide the organization to achieve it. The results of the survey are encouraging and suggest that respondents collectively see it that way, too. They are practical, realistic, and have balance in the work they do.

THE WORK WE DO

Enterprise architects (EAs) responding to the survey find themselves deeply involved in the key initiatives that are reshaping today's businesses: cloud computing, mobilization of the workforce and business consolidation, data center consolidation, and application portfolio rationalization. They are split almost equally (figure 1).

When asked to identify the primary EA initiative at their organization, 36% cited application portfolio management and 33% identified business consolidation and/or restructuring. Over three-fourths (76%) of respondents said these primary initiatives impact "all the facets of our business and is highly visible to top level management." These responses show that, for many EA groups, the emphasis has moved dramatically away from technology and infrastructure to a focus on business design and the portfolio of solutions. This requires a much higher emphasis on business architecture, consistent with the trend identified in last

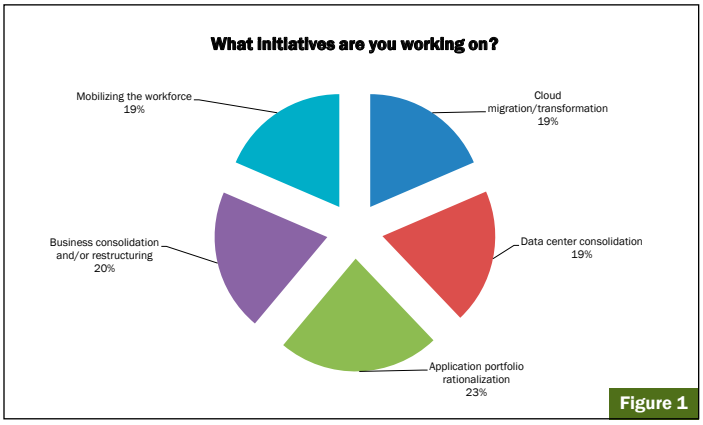

Figure 1

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year's survey.

Many EA groups find themselves now participating in application portfolio management (APM) activities, which were begun several years ago as a cost-cutting maneuver. Now, though, this participation is more from a strategic, business transformation, and restructuring perspective. When asked specifically about their plans relative to APM, nearly 60% said they either already have an APM program underway or plan to start APM in the next twelve months. An additional 27% said they plan to start APM in two years. According to the survey, there is plenty of opportunity to retire or eliminate applications within today's organizations (figure 2).

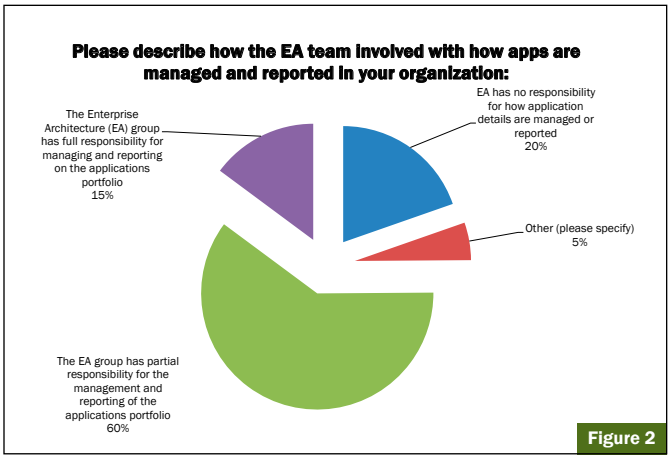

Figure 2

THE SUPPORT WE HAVE

An important element of EA success is awareness and support from enterprise leadership. One good measure of that is the executive team's involvement in EA decision making. Survey respondents indicated that 82% had leadership that is very or somewhat involved in EA activities. That degree of awareness is extraordinary in historic terms. In prior years, similar questions indicated that many, and in some surveys most, leaders had no idea what EA was (figure 3).

This increase can most likely be attributed to the emphasis on business architecture mentioned earlier in this article. Business architecture requires EA to engage in more strategic and transformational conversations with business-side personnel. Eventually, we expect to see business architecture fully owned and executed by business personnel in partnership with IT personnel. When achieved, this will complete the evolution from the "IT-centric" architecture variant practiced today to true enterprise architecture.

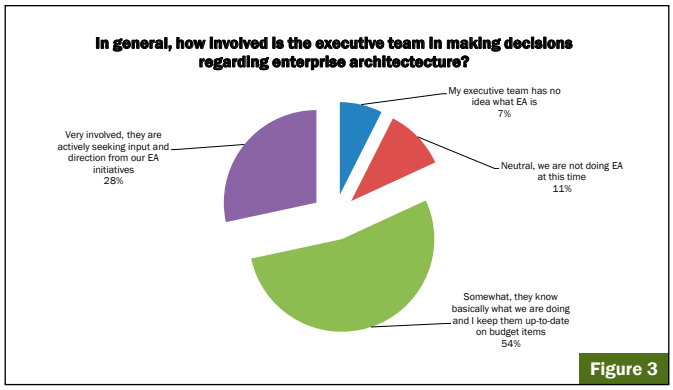

Figure 3

PERCEPTIONS AND MEASUREMENTS OF SUCCESS

When asking what is important for EA success in your organization, respondents were consistent with the previous question; 27% identified that executive sponsorship is critical. When actually measuring success, the respondents identified several key performance indicators (KPIs) as critical. These were split evenly between process, programmatic, and financial measures, as expected. Unexpectedly, 32% did not have any measures at all, and it isn't clear how to interpret that result. In today's typical IT environment, it is unusual to find any functional unit that isn't managed against a set of measures. Does it mean that the EA group is somehow operating under the radar, or that leadership isn't sure how to measure them, or something else? In a future survey, we hope to explore that question in more detail (figure 4).

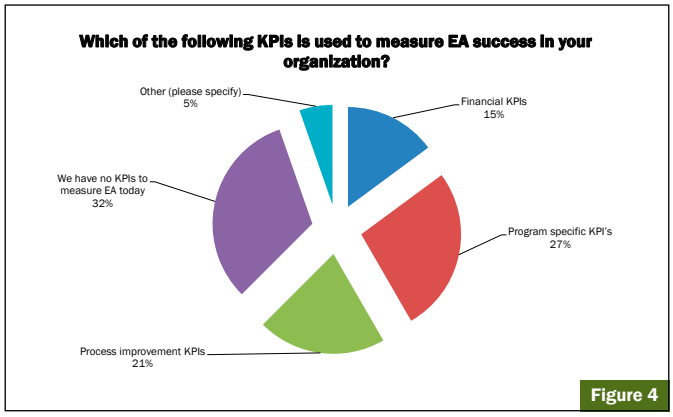

Figure 4

THE FUTURE OF EA

This question is a perennial entry in A&G surveys. We usually expect positive results, mainly from the factor identified earlier, that the people who respond to this

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survey are self-selecting, are generally fans of EA, and are practitioners that have a vested interest in EA success. Plus success breeds success. Once a certain amount of EA momentum is attained in an organization, it can sustain itself barring any extenuating circumstances such as business downturn and leadership changes. It can even grow through incremental and maturity-leaping improvements such as business architecture adoption. This year proved to yield very positive results, with EA momentum sustaining or growing in fully 94% or respondent organizations. Whatever the reason, as fans of EA ourselves, we can't help but want to take the most optimistic view possible—that EA is here to stay (figure 5). **A&G**

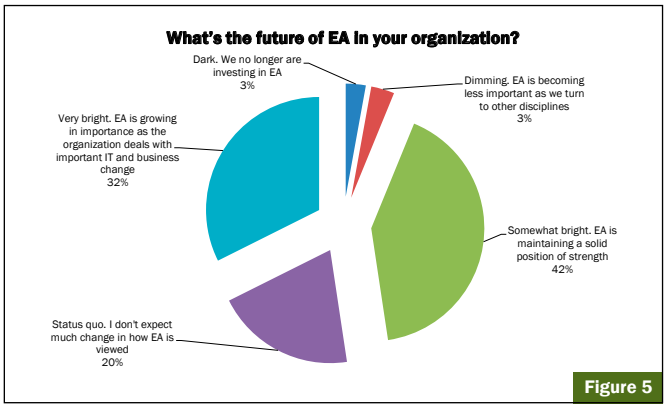

Figure 5

Note: *The results of the 2011 A&G Annual Survey were recently covered in a webinar led by George Paras. To watch the replay, please visit: http://architectureandgovernance.com/content/trends-ea-2012-ag-survey-says.*

GEORGE S. PARAS is editor-in-chief of Architecture & Governance. Paras is also managing director of EAdirections, a relationship-based research and advisory company focused on improving the effectiveness of EA teams, IT leaders, and business executives.

CREATING A BALANCED SCORECARD FOR SOURCING

How Companies Can Effectively Manage Multiple Service and Procurement Engagements in the Enterprise

By Cynthia Batty

Today most companies do not do a good job of managing multiple service provider engagements. This can be troublesome as service providers have become more adept at providing multiple IT and BPO services to companies, which often include vendor-type relationships for hardware and software sales as well. When a company's procurement organization, outsourcing governance office, vendor management organization, and enterprise outsourcing center of excellence each have contact with a service provider for different purchasing and services, there will always be a chance that one organization will not know what the other is experiencing from a services and cost perspective. The result is poor management that can mean fragmented contact with the provider and missed opportunities to leverage and coordinate these relationships.

Companies often have trouble managing vendor/provider engagements for the following reasons: internal politics, conflicting department and employee roles and incentives, lack of consistent governance process, or lack of awareness of the value of a common view. Another layer of complexity is added for global companies that must determine whether the operations (and contracts) are managed in a centralized or decentralized manner. To ensure that engagements with service providers are effectively managed to prevent value leakage, companies must have a strategy. This article outlines the steps for creating such a strategy and the internal organization required to ensure success.

There have been significant changes to the service provider landscape over the last few years, particularly as sourcing engagements and the process of outsourcing has matured. Prior to the M&A activity among service providers in recent years, IBM was the only provider that a company could source hardware, software, and services. The recent mergers of HP with EDS, Perot Systems with Dell, and Xerox with ACS, for example, have now made it possible to make vendor purchases of hardware and software from the same company that is providing managed services and consulting

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DEFINITIONS:

Procurement organization: The enterprise function that executes most purchasing functions on behalf of an organization, often containing category management and contracting systems.

Outsourcing governance office: The business office inside a business unit, functional area, or shared services that performs governance functions for sourced services.

Vendor management: The function in the business that manages indirect spend other than services (hardware, software, supplies).

Enterprise outsourcing center of excellence: The enterprise organization that provides outsourcing lifecycle structure, process, policy, strategy, and enterprise reporting (often called an enterprise sourcing office or global sourcing office).

services. In this new world, we see even more potential interfaces with a single company, which involve significant expenditures. What if these provider relationships fall outside information technology? It is common to have managed services and staff augmentation in IT with a service provider that also offers services in the business process outsourcing (BPO) space for services such as finance and accounting or engineering (as is the case with India-heritage providers and those previously mentioned).

THE MANAGEMENT OF SERVICE PROVIDERS

How should enterprise service provider management work in today's market and how can it be undertaken tomorrow?

It is generally more effective to integrate the contracts for managed services and staff augmentation when working with a single provider under one master services agreement (MSA). Staff augmentation as a working method, especially in application development and maintenance, never fully goes away in our experience. However, integrating the contracts for both types of support ensures common pricing for resources and a single set of terms for working with the provider. In an arrangement where consulting is anticipated, the consulting fees can be negotiated in the rate card. That way all services can be handled as work orders or statements of work, rather than separate engagements covered by different terms. Regardless of the common MSA, it will still likely fall to different entities within the enterprise to manage different elements of the relationship.

The organizational roles outlined in figure 1 are likely to continue to exist for a long time in the enterprise, and, as a result, the collection of data about the provider relationships will continue to occur in various places, which means valuable performance and costly insight could be lost. Staff augmentation and arranging for consulting services may be managed by procurement, vendor management in IT will continue to manage hardware and software purchases, the outsourcing governance office will manage the service governance, and the enterprise functions will advise. This leaves significant opportunity for lost information about the provider performance.

Each organization will have to determine where various types of sourcing will be managed between the four entities described above, and there is no single right answer. With that in mind, the various stakeholder groups at the enterprise and business level should collaborate as an information coalition to agree on an approach to a "Balanced Scorecard for Sourcing." This would allow both a view into individual service provider enterprise performance and comparatively into the portfolios of various providers working within the enterprise. Each organization must determine the high-level values they want to measure; a good starting place is the example below, which is based on the Kaplan and Norton Harvard research on a balanced scorecard for enterprise. This aggregation of data is intended to be seen in several views, from the combined results of engagements with a single provider, to a comparative review across providers delivering related services, or an overall enterprise view of outsourcing management, capability, and results. The idea is to provide both reporting of past performance and predictive indicators of future performance. By thinking

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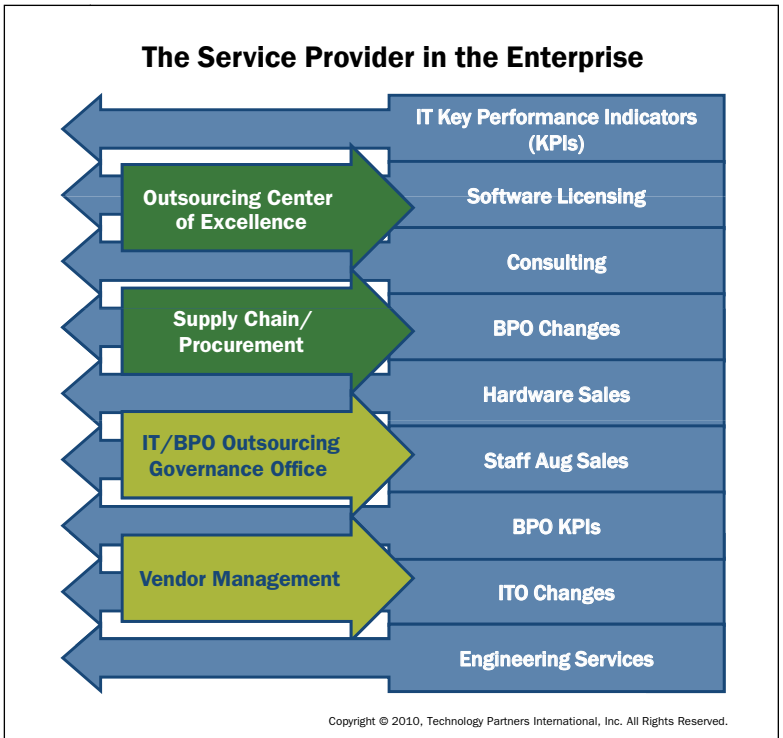

Figure 1: The service provider's pervasive presence in the organization, with as many as four "official" interface points for contracting, invoicing, and service performance data collection, can allow critical business information to slip through the cracks.

of the outsourcing relationship in this way, it is possible to have early warning of problems and clear ways to create improvement and value. (See figure 2.)

When the various stakeholding groups agree on the high-level key performance indicators (KPIs), they must then agree on a way to translate the data elements coming from the various engagements into the target Balanced Scorecard for Sourcing metrics and which group will own and share this final data. This agreement will lead to several accomplishments:

- Discipline and common practice at the engagement level to capture and manage data relevant to that project—service levels, satisfaction, risk, spend value, innovation, and so forth.
- Aggregation of key performance indicators that can be trusted, which gives an enterprise-view of a provider's overall performance.
- Ability to view providers delivering common services in context with each other.
- Highlights of areas where leverage (for both positive and negative reasons) may be possible.
- Information for the company's various governance teams about which providers rate the best (and worst), which ultimately influences future strategy development.

There are frequently some barriers to this solution that companies still must resolve for themselves:

- Where is the data aggregated?
- Can data be aggregated manually, or will a new system be required?
- Can all the stakeholders be relied upon to create timely and trustworthy data?
- Can all the stakeholders agree on who owns the data?
- Will the company take advantage of this knowledge and act on it?

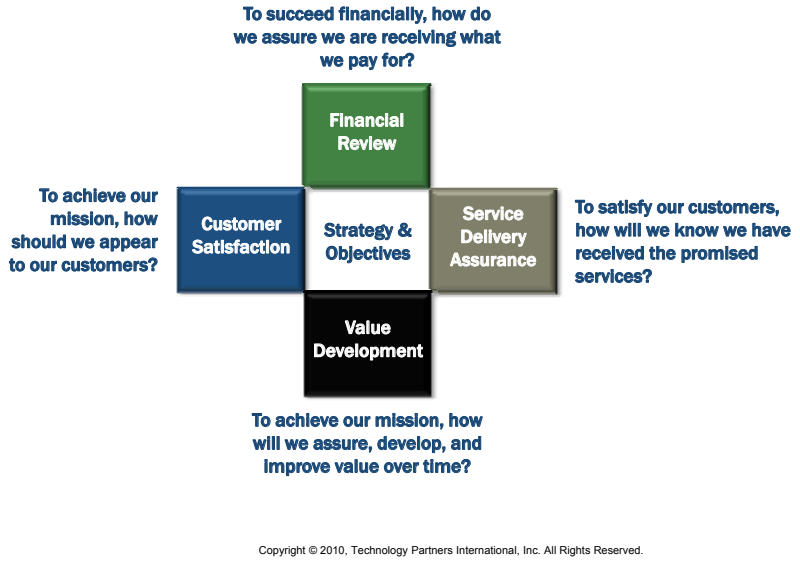

Figure 2: The TPI Balanced Scorecard for Sourcing. Each of these four elements is reviewed in four components: objectives, measures, targets, and initiatives. Companies may adjust these elements in ways that make sense for them, but the basic elements must be covered for a comprehensive view of results.

- Who has the authority to take action?
- Can a third party help with the data management process?

There is plenty of room in the future for continued development of sourcing maturity. Companies must accept that this type of collaboration is a continuous improvement process that will take time to implement, but the resulting strategic information and budget management capability is worth the effort and investment. **A&G**

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PART ONE

Managing Schedule Flaws Using Agile Methods

By Brian Button

Software projects rarely come in both on time and on budget, leading to dissatisfied end users. It's much easier to satisfy one of these conditions by working according to your original plan or adapting to the changing needs of your users. Satisfying both requires a certain amount of prescience. Tom Demarco and Timothy Lister, authors of Waltzing with Bears: Managing Risk on Software Projects, list schedule flaws as one of their five risks of software project management.

In this two-part article, we'll discuss several symptoms and causes of schedule flaws, present metrics and diagrams that can be used to track your team's progress against its schedule, and describe Agile ways to address these risks. We'll focus on the symptoms of schedule flaws in part 1 and discuss the metrics used to discover them and how the Agile methods can help mitigate these risks in part 2.

The risk of schedule flaws refers to the certainty that any schedule created at the start of a project will be hopelessly out of date by the end of that project, and should not be counted on as an accurate projection of completion date, content, or cost. With the uncertainties and intangibles of software, it does not matter how much time and effort is put into creating the schedule at the start of a project because the schedule will certainly change along the way.

CAUSES OF SCHEDULE FLAWS

There are two different categories of causes for schedule flaws. The first category is directly related to *unpredictability of the environment* around a project, including the people, hardware, and network issues; vacation schedules; weather; and other causes that directly affect the rate at which work can be done. The second category is related to the difficulty in accurately *predicting the time* significant pieces of software will take to implement, test, and be ready for deployment.

- **CATEGORY 1:** Environmental issues are particularly tricky because they are unpredictable. People get sick, snow storms happen, and fiber gets cut occasionally. These usually aren't a huge drag on your project and are generally outside of your control. However, their effects should be considered and anticipated. Also related to this category, and in your control, are the quantity and lengths of

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meetings that occur which pull people away from system development. If there is one item that can kill the productivity and morale of a good team, it's the multiple meeting mania that occurs in some cultures.

- **CATEGORY 2:** The time issue is just a fact of life. Software is incredibly complex, it is not bound to obeying any laws of nature, and it is made up of lots of independent pieces that have to perfectly fit together into a coherent whole to function properly. Add to that the fact that no software plan survives its first contact with the customer, and you're left with a situation where your plan is going to need to change to keep up with what is really happening. This is the risk that we'll focus on below.

SYMPTOMS OF SCHEDULE FLAWS

Teams that suffer from schedule flaws often exhibit one or more of the following five symptoms:

1. Frequent change requests from customers and stakeholders

In theory, it seems logical to nail down what the stakeholders for a project want before anything happens on a project. The flaw in this vision is that customers rarely know what they want, especially if the system is new or revolutionary. As soon as they see some piece of the system in action, they'll start to get ideas, which lead to change requests. Some of these may be new requirements that they've just discovered, and some may be refinements on work that has already been done. In either case, this results in new work that was unknown at the start of the project.

2. Unreliable estimates

Every interesting piece of software that gets built is inherently something new. Because of this, the time to build individual pieces is difficult to accurately estimate. Even in a well-understood domain, the particular solutions chosen by teams are rarely the same twice because the context in which the project exists is rarely the same twice. There is also a higher probability that a piece of work will be completed significantly after it was estimated rather than before. Inaccurate build estimates can drive the larger project schedule to being late.

3. Large amount of "off the books" work

Teams typically have two sets of work—things that are "on the books" or part of the schedule, and "off the books" work that everyone knows about, no one talks about, and no one factors into the plan. This can include action items such as the inevitable activities that have to be done to deliver software, some specialized kinds of testing like load and scalability, or just corners that were cut in the interests of some short-term deadline that everyone knows can't be shipped but no one has planned time to correct. Every team has these, and these don't usually show up as a schedule flaw until the last days of a project.

4. Uncertain quality

Uncertain quality is a more specific kind of "off the books" work. There are lots of software projects that don't have a good grasp of the quality of their system day to day. They may not do full system builds until late in their project lifecycle; they may do only a limited amount of testing during development, put off performance or security testing until the software is "done," or several other items that delay testing until late in the process. The effect of this is that there is a potential project risk of an unknown amount of work that needs to be done at the very worst time in a project's lifecycle—at the very end, right before delivery is scheduled.

5. Matrixed team members

Every company has people who have specialized knowledge that are critical for the success of several projects. These staff members may be an architect who consults on several teams; the specialist in performance testing, usability, accessibility, or security; or just testers in general. There are also several other roles that teams need in varying degrees. Often times, the company has more work and more teams than it has developers to support them. In an attempt to maximize the utilization of these scarce resources, these people are asked to support several teams at the same time. This results in them becoming a bottleneck in the workflow of not just one team, but to all the teams with which they work.

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METRICS

Having a good set of historical metrics is key to understanding when schedule flaws are occurring and what their effects have been. The most basic metric used to illustrate schedule flaws is a simple burn-down chart. Burn-down charts are just graphs of work completed versus time, sometimes with both actual and planned work/timelines shown. A project is on-track as long as the actual progress and planned progress match. A solid metric describing your progress against your desired delivery date is the most critical measurement for a project to keep, since it is the leading indicator of whether you have a problem.

Here is an example (figure 1) of a burn-down chart. In this diagram, we can see a project that spent several weeks basically tracking the ideal curve down their burn-down chart. The net amount of work remaining for this release was steadily decreasing in a way that would let the project complete at a predictable date—in fact, it was proceeding on schedule. Then, suddenly, the project went off-track. A large amount of work was added to the release, as can be seen by the upwards slope of the burn-down line, and the completion date of the project was immediately in trouble. Scope had to be cut or time added to bring the project in successfully.

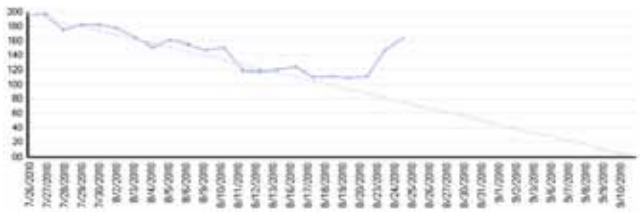

Figure 1: A burn-down chart.

The chart in figure 1 is useful for seeing the net amount of work remaining on a project and projecting a completion date, but it does not provide a picture of the amount of work added versus work completed in absolute terms. There are several other kinds of graphs that are good for illustrating this, such as a stacked bar chart showing the amount of work complete versus amount of work remaining.

In figure 2, a burn-up chart example, the total height of any bar represents the total amount of work present in the project, while the green represents work completed and the red shows work left to do. In other words, the total scope of the project is constant as long as the height of each bar remains constant in comparison to the others. If the total height grows, then the project has included additional scope. Here, you can see that work is being added as quickly as it is being finished, resulting in a finish line that is constantly moving to the right.

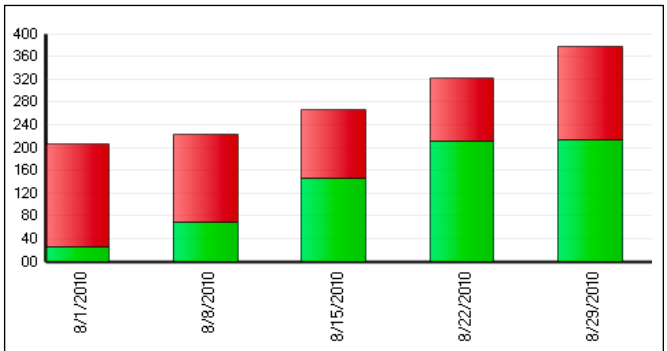

Figure 2: A burn-up chart.

These two graphs show the same backlog for the same project, but illustrate the different information available from each graph.

In the first section of this article, we discussed several reasons why projects may be late and showed how having historical data can help in discovering whether a project is on-schedule. In the next issue, we'll talk about specific metrics that can be used to find the root cause of a schedule delay and then show how Agile methods can be used to find schedule issues early and mitigate their effects on your project. **A&G**

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A&G CALENDAR

The Open Group Architecture Forum
San Francisco
January 30–February 3, 2012
www.opengroup.org/architecture/

Troux Worldwide Conference
Austin, Texas
March 28-29, 2012
www.troux.com/conference/

Master Data Management Summit Europe 2012
London
April 23–25, 2012
www.irmuk.co.uk/mdm2012/

Data Governance Conference Europe 2012
London
April 23–25, 2012
www.irmuk.co.uk/dg2012/

Forrester's Enterprise Architecture Forum
Las Vegas
May 21-22, 2012
www.forrester.com/events?cm_re=Navigation_010710-_-events_tab-_-events

Gartner Enterprise Architecture Summit
National Harbor, Maryland
May 23–24, 2012
www.gartner.com/technology/summits/na/enterprise-architecture/

Enterprise Architecture Conference Europe 2012
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June 18–20, 2012
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