

Earned Value Management Blueprint – Web Module Script

In the latest breakthrough from the IBM Cognos Innovation Center for Performance Management, IBM Cognos® 8 Planning and IBM Cognos 8 Business Intelligence are combined into *Performance Blueprints* that will accelerate your implementation of performance management capabilities. In this brief demonstration, we introduce the *IBM Cognos Earned Value Management Performance Blueprint*, a Web-based planning and reporting process for managing and measuring public sector project costs using IBM Cognos 8 Planning and IBM Cognos 8 Business Intelligence. The rules employed in this *Blueprint* follow the U.S. Government required standard for Earned Value Management.

IBM Cognos performance management solutions help organizations in the public and private sector align strategic objectives with operating plans so they can operate more profitably and efficiently. IBM Cognos 8 Planning effectively and efficiently coordinates plans, budgets and forecasts so everyone accountable for business results has visibility into how their role supports the organization's strategic initiatives and financial goals. IBM Cognos 8 Business Intelligence provides world-class reporting and analysis so that you can track your progress against forecasts and plans and access critical information easily.

With IBM Cognos software, organizations can turn the typically brutal project planning, management and measurement process into a dynamic, responsive and reliable process by which to guide and coordinate decision making and corrective action. IBM Cognos 8 Business Intelligence helps organizations make those decisions—whether strategic or tactical—responsive and in line with the strategic goals and objectives. By providing the right information to the right people at the right time, organizations are using performance management as a strategic differentiator.

For many agencies and companies, project measurement looks at actual versus planned costs. EVM is a best business practice that puts a dollar value on project status to help companies measure the health of a project throughout its life cycle. It is a required process for all federal agencies, including the Department of Defense and Intelligence Agencies.

The EVM approach measures the value of work completed at any given time compared to the value of work planned. EVM does this by looking at a combination of planned versus actual cost and planned versus actual performance at a given point in time. In this way, EVM provides a view into the true value of work performed. There are three critical components used to measure performance:

- **Activity:** Also known as work breakdown structure or WBS, activity refers to a series of tasks that are hierarchical and contain interdependencies
- **Schedule:** Actual and plan
- **Actual and plan,** including detailed breakdowns for material, labor, and overhead and allocation of these resources

The *IBM Cognos Earned Value Management Blueprint*, together with IBM Cognos performance management software, provides a reliable, consistent modeling tool for analyzing current project costs and activity. You can use the *Blueprint* in its current form or as a repository for other project planning applications to obtain a consolidated view of all projects in a responsible area, agency or department.

The *Blueprint* features 10 input tabs and can accommodate users of other project management software. The data for these users should be captured and consolidated so that it is readily available. The reports in this *Blueprint* display a combination of schedule and cost performance indexes and are updated whenever there is a change in either the projected or actual data. You can also track workflow, obtain project information, compare and analyze variances, monitor project deliverables and more—all within the framework of meeting EVM requirements.

Now we will give a brief demonstration of how the *IBM Cognos Earned Value Management Blueprint* can help you comply with Federal requirements.

As a senior project manager, I logon with my specific credentials and am presented with a dashboard that contains relevant information about the projects that I manage in their earned value management context.

I have a metric watch list on project one based on my EVM metrics. As I hover over a link it tells me that I am tracking under budget and can most likely move my deliverables ahead to get my project back on schedule. I have a scorecard which contains project divisional information in the same context, as well as specific deliverable details about each one of the projects that I manage.

The Earned Value Management report is a very nice graphical display of critical earned value management metrics for my project. Bringing together of all these metrics in one nice, easy to visualize graph is critical for me in managing my projects.

The EVM planning application marries ‘the ability to plan for projects and reports’ and ‘the business intelligence for projects’ all in a single dashboard.

Below that I have more EVM reports that are specific to each metric or project. I’ll drill into one of these reports for more detailed information of what I spent and the percentage complete.

This is a prompted report. After selecting the time period and project, a line chart is rendered which tells me percent of what I plan to spend over what I have actually spent. I notice they are somewhat diverging in May which means I am not spending what I have planned.

The Project Info Summarization chart displays project information in summary form. This is another prompted report, providing detailed information about projects that I can either drill into or look at the details in a chart format. Drilling into Project1 Details I see

eight deliverables. I can keep this version of the report in HTML, PDF, XML or even Excel. I can add this report to my folder with bookmarks for future reference. Having all this information at my fingertips is crucial for managing my projects. Now it's time for me to get started rearranging Project 1.

The Contributor screen shows detailed information about project status. Project 1 is a work in progress. The last change was Thursday, May 21, 2009 at 10.16 am. Project 2 is also a work in progress, but is being edited online. Project 300 is has been submitted and locked pending supervisor review. I can check owner, reviewer and change information including who made those changes. This is critical in case I need to follow up with anyone who has been working on a project.

I'll now open Project 1 and start managing that project. IBM Cognos Contributor is laid out in an easy to use, easy to understand tabular format. Think of these tabs as worksheets within a workbook. The only difference is the formulas never break, can't be overwritten, are always connected and are always live

Project Information contains relevant information about the project. Each one of these fields can be customized to fit your project structure and your organizational structure. If I change any of this information, the information on all successor tabs changes too. When I change the Funding Reserve from a 130,000 to a 150,000, that change is reflected in blue and has changed the Funding Reserve on every tab that it is connected to. Negotiated period of performance is a negotiated period of performance for the entire project. Validations are built in so if any part of my work breakdown structure for my deliverables goes outside that negotiated period of performance from my project start date, it gives me a warning and it does not validate the data. In this case all validation checks have passed successfully.

Project Deliverable Information ties back to the report viewed earlier which showed that I had eight specific deliverables. If I change the duration of the Transition Deliverable from two months to one month automatically changes the finish date from November to October, moving that piece of my deliverable up. Here I have got the ability to choose between the detailed project budget or an overview of project budget. Overview is my original budget calculations for this task, while Detail identifies the specific contractual obligations that I have with contractors, material vendors, and employees.

Project Deliverable Predecessors validates whether a task has a valid predecessor or not.

In Project Deliverable Labor, total deliverables are embedded with my labor deliverables and I can expand or contract these to get a much better visualization of all my deliverables in one, nice, easy to view format.

The same thing with project materials, which brings us to Project Deliverable Budget. In this section I have deliverables on the column side with percentage complete and other information on my row side. I can easily swap these dimensions and look at it in a

slightly different format. It might make it easier for me to go ahead and manipulate some of my deliverables. Delivery four is actually 50% complete and after changing that,

I'll go to the Project Deliverable EV Calculation tab, select Delivery 4 and see the change. As you can see, it is highlighted in blue. So, any adjustment or change that I make from one tab to the other changes my calculations on all successor tabs. Returning to Delivery 1, I notice that I don't have any information on actual cost of work performed for July. The Get Data button links to the Actual information from my ERP system and updates the plan.

Looking at my Project Earned Value Management Summary I see every change that I have made highlighted in blue. This is a nice visual view of all my earned value metrics on a month over month basis. Everything is linked, so as I enter information, it moves through each tab and gives me the appropriate summary calculation.

Now I would like to see a split screen view of Earned Value Management Calculations with earned value management summary below. Delivery 2 shows 75% complete, but is actually 100% complete and as I change that, my earned value metrics are updated immediately. The To Complete Performance Index is tracking it at 1.19. There was a migration in June. My Schedule Performance Index was drifting off schedule and I brought it back on schedule. My completion index is more and more towards the number one which means it is going back on track. So, as each change that is made within my project plan, I can go ahead and identify my tolerances, my cost indexes, my schedule ratios, all the earned value management metrics that are contained in the planning application. Now that I am done, I am ready to submit, but before I do that I want to add a commentary. I can add a commentary to a cell, tab, or model. In this case I am going to add a comment to the earned value management summary tab. I can also attach a file if needed. I submit the changes and return to my Dashboard where I see that Project 1 is locked down and ready for review.

The *IBM Cognos Earned Value Management Performance Blueprint* is built to satisfy the requirements of the federal government project management methodology. Given the large capital investments overseen by the government, the *Blueprint's* purpose is to provide immediate visibility into any problems with the project, so that corrective action can be taken quickly. IBM Cognos performance management software and the *IBM Cognos Earned Value Management Performance Blueprint* provide consistent and verifiable tools for a rigorous project planning and management process.

For a full list of IBM Cognos Performance *Blueprints* available for other functional areas in your organization please visit the IBM Cognos Innovation Center at www.ibm.com/cognos/innovationcenter.

Thank you for your interest in this *Blueprint*.