

Keeping Score Using Automated Charts for Performance Improvement -11311

Bob Trivett

Savannah River Nuclear Solutions, Aiken, SC

Abstract:

SRS is managed by several contractors with multiple missions. Savannah River Nuclear Solutions assumed responsibility for the management and operations of the SRS in 2008 and the need for a centralized performance metric reporting tool quickly became apparent. Early on, senior management became frustrated with the timeliness, consistency and disparity of how performance was being measured and reported. There were existing performance metrics for safety, security, etc. however each independent division and department were gathering the information and reporting in some cases using varying criteria. Also, specific departments were measuring and reporting to line management what was important to their specific facility goals. Management needed to see the big picture.

Data was retrieved from several sources and then re-entered into an Excel spreadsheet for chart generation that were reviewed at monthly leadership meetings with multiple subject matter experts presenting. Each topical area would be scored with a red, yellow, green indicator based on a group consensus of performance in that area. A web-based solution was needed.

An underlying database was developed to mine the raw data from multiple sources and present the charts to the users in an automated fashion. Scoring criteria was also automated so that the score (red, yellow, green, blue) was determined using a consistent, repeatable formula. This effort has expanded into all areas of the site and is being used for any and all performance metrics, including project performance, cost performance, conduct of operations, assessments, etc. With the addition of management dashboards for project and PBI reporting, a one-stop shop approach for reporting using a web-based portal has been achieved at SRS. This presentation will demonstrate this success.

Introduction:

SRS is a relatively large site encompassing approximately 310 square miles. SRS is tasked to perform missions for both the Department Of Energy (Environmental Management) as well as the National Nuclear Security Administration. SRS is managed by multiple contractors: Savannah River Nuclear Solutions, Savannah River Remediation, Wackenhut, Parsons, Shaw-Areva, etc. There are approximately 14,000 site employees. SRS is also home the Savannah River National Laboratory. In fall of 2008 a request was made to include a report within the "SPLT" (Single Point Lockout/Tagout" application to chart showing which days of the week SPLTs were being completed and show performance of the SPLT process. This was the first use of .Net charting as a tool

to enhance the reporting capabilities of web-based applications. Once management saw the ability to mine data as present in a visible performance based chart, several additional requests were made. The “Leadership Package” which had been a culmination of many excel spreadsheets generated by various personnel was requested to be presented in a web-based format. This allowed the data driving the performance charting to be pulled directly from the source and removed the potential for human errors during data gathering and excel spreadsheet generation. This new all purpose performance reporting tool became known as the “Scorecard” system. It allowed for not only graphical representation of the data but line management was allowed to set goals and based on performance toward those goals would visible see color (green, yellow, red) indicators. The color indicators were later expanded to 5 colors (blue, violet, green, yellow, red) with blue and violet showing excellence in performance over time.

What is a Scorecard:

A scorecard is a “stoplight” type performance view and areas defined as critical by SRNS management. These performance views can be a multiple levels with the management structure, anywhere from a corporate look to a drill down into a specific facility on site. The scores or goals are based on stretch goals and a red indicator doesn’t necessarily spell disaster. It is simple a means to identify where improvement is needed and achievable.

How does a Scorecard work:

Defining a scorecard is first a process by management to identify those critical areas which need to be monitored. Management then sets performance expectations for each area in the form of a goal. The scorecard system extracts the data from existing SRNS systems and can refresh the details either on a weekly, monthly or near-realtime basis. The scorecard system will perform computations against the gathered data resulting in a value which when compared to a pre-defined goal can be scored and color assigned. Scorecards quickly and easily communicate performance at a glance. At SRNS the system is available to users via the intranet so no special software is required. In addition to communicating performance at a glance, when users drill down into the charts they can request the details that made up the values thus seeing in detail what specific event may have adversely affected the performance goal. The scorecard system drastically reduces the administrative time spent data mining, analyzing and reporting. By being available for all users it clearly defines the performance objectives of management to those responsible.

What is a Project Portal:

A project portal is again a web-based application which allows all levels of management to monitor and track progress of PBIs (Performance Based Incentives) and Projects. It allows for entry of milestones and dates much like any project management system might. It also uses a color system that is assigned by the specific project manager at various stages of the project and again communicates quickly the performance of PBIs and projects to all users. Projects and PBIs can be assigned a roll-up so that the same project is visible from additional defined portals. Example: DOE portal as some but not

all of the projects visible. This way only projects of high concern need be communicated upward while still allowing management at the line management level.

What is a SRNS VP Home Page:

Lastly, a culmination of all these working performance monitoring applications along with whatever else management wants to communicate to its employees can be concisely presented using the VP Home Page application. It is basically a central place that users can navigate to see the latest Safety Stats, recent employee communications, memos, news, etc.

Technical Details:

These web-based applications were developed using homegrown software development. It uses the ASP .Net development framework and uses the SQL Server database backend for data storage.

Next Steps:

The response from DOE has been positive and is encouraging its use among all contractors on site and at all levels and facilities.