

## Enhance Six Sigma Results with Quality Management Applications

By Solutions Hosting, Inc. - November 2005

### Introduction to Quality Management Applications

Since Six Sigma's beginnings at Motorola and GE, many companies have achieved huge results from Six Sigma projects in the form of profitability and productivity gains.

Manufacturing, especially, has benefited tremendously from Six Sigma, while Service organizations, although not as prolifically, have also realized tremendous results from their Six Sigma efforts.

Companies are now learning that *the combined application of Quality Programs such as Balanced Scorecard, Malcolm Baldrige and Six Sigma can deliver even better results, than Six Sigma alone.*

Quality Programs can help Engineers and Black Belts select the projects most likely to deliver superior business benefits, and monitor results more effectively.

As Quality Practitioners have long known, results can be greatly improved with the use of computerized systems designed to deliver better organizational visibility, monitoring and collaboration.

Consider the point that many Engineers implementing Six Sigma do their process designs and analyses on their laptop computers.

With only stand-alone tools for process mapping and design, these Engineers are working in the proverbial corporate silo. This limits their ability to choose projects wisely and to optimize results, simply because they lack access to information necessary for improved decision-making.

These tools are also used to build mathematical business models that represent the strategic goals of the organization.

The wider availability of these tools for all users, coupled with their ability to align Quality Initiatives with Strategic Goals, results in better visibility, communication and collaboration on Six Sigma projects.

Consequently, Six Sigma Projects can now be chosen and executed with the information, and the participation of users, that are driving the organization's future direction. *Six Sigma is now directly linked to Corporate Strategy.*

To better understand how to apply Quality Management Systems to Six Sigma projects, consider the DMAIC illustrated in the diagram.

For each phase of a Six Sigma project, specific tools are indicated.

Six Sigma DMAIC Define, Measure, Analyze, Improve, Control		Tools			
		Process Guide	Workflow	ScoreCard	Web Portal
Process Steps	<b>Define the Problem</b> Identify Needs, Success Factors and Define Defects and Measurements	✓			✓
	<b>Measure the Defects</b> Map the Process, Develop Cause and Effect Matrix, Measure the Defects.	✓		✓	
	<b>Analyze the Process</b> Identify Improvement Opportunities, Causes of Variability	✓	✓	✓	✓
	<b>Improve the Process</b> Design New Processes and Controls to Limit Defects and Variability	✓	✓	✓	✓
	<b>Control the Improvements</b> Develop Scorecards, Monitor Regularly, Take Corrective Actions	✓	✓	✓	✓

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### Introducing Collaboration Tools

Enter Collaboration-based tools, long used for Balanced Scorecard, which overcome the silo effect. They share a common database and are ubiquitous on the network because of their web-based architecture.

These tools provide seamless integration from Process Design through Process Execution to Performance Monitoring and, as noted, Business Strategy.

Here is how they can work for your organization.

### Process Guide Design

More than a stand-alone process mapping tool, Process Guide is a web-based application, available via a browser, that can be used to map processes, simulate changes to processes, then implement the redesigned processes.

PG also links to Scorecard for tracking process improvement metrics.

### Workflow Execution

Workflow reinforces new processes by routing process steps to the appropriate process owners ensuring tasks are completed in sequence and user touchpoints between process steps are properly managed.

All process steps in a Workflow must be completed as defined by the redesign before the business transaction can complete.

Workflow integrates to Scorecard for tracking actual process improvement performance.

### Scorecard Monitoring

One of the significant issues in Six Sigma is how to Control the Improvements, or put another way, protect the benefits.

As we've all experienced, employees are prone to revert back to the old process causing the loss of benefits achieved through the Six Sigma effort.

Scorecard, the ultimate Quality Management tool, ensures benefits are realized and sustained through continuous monitoring of results.

Scorecard collects and reports an organization's performance results against plan in the form of Scorecards, Strategy Maps, and Process Maps. Scorecard also provides a collaborative portal wherein users can set alert triggers that notify them of performance conditions.

Within the Scorecard Portal, Users and Management can recognize users for exceptional performance against plan or take corrective actions against poor performing metrics as necessary.

objectives and progress against those objectives.

### Drive Process Improvements Through Six Sigma

Controlling costs, improving quality, increasing efficiency and productivity are some of the reasons companies focus significant quality improvement efforts on process.

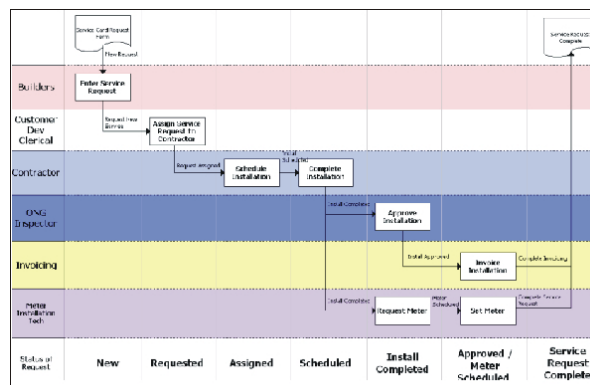
No wonder. *Process improvement is one of the few factors totally in control of a company.* Pricing can't always be controlled, neither can supply and demand. But, process can be controlled and good processes deliver huge benefits to any company.

However, companies implementing Six Sigma, or other Quality programs, have learned that applying advanced process analysis techniques to a bad process is money wasted.

Good processes, on the other hand, actively monitored for performance, can help companies target their Six Sigma resources to areas most likely to yield benefits.

And, by combining process improvement with other Quality Programs, such as Balanced Scorecard, companies can achieve more benefits than with either option by itself.

Process improvement, to be most effective, must be about more than simply mapping the process, however. This is why Process Guide delivers more value than other process mapping tools.



Workflow Process Map

### Web Portal Visibility

To bring all the organizational information together, our Quality Web Portals include software modules that help users read and learn more about Strategy and Corporate Performance Management.

Modules include a bookstore, discussion forums, current events, surveys and other tools useful in communicating business

Process Guide can map processes, but it can also simulate changes to a process BEFORE they are implemented. By using Process Guide's statistical transaction engine, business events can be randomly submitted to mimic the real world. Pro forma results can then be tallied.

The process design is, thus, thoroughly tested and realistic performance targets identified in advance of any physical changes to the process.

**Because our Scorecard Monitoring and our Workflow Execution systems are integrated to Process Guide, the "planned for" performance improvements are translated to performance metrics that are monitored in real-time to report against actual performance.**

With this level of business information available to your Blackbelts, you can now drive significant business benefits.

**Institutionalize Process Change Through Workflow**

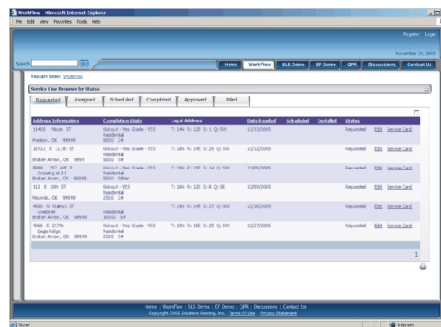
Workflow commits Users to processes by enforcing the disciplines of the new process as they were designed.

Our Workflow Solution starts with a Workflow Trigger. This is a business event, or transaction, entered to the Workflow Engine, which then manages the flow of the transaction through the process.

Once an Engineer is satisfied with the improvement potential of a process design, the Workflow Engine is configured to mirror the new process and commit

employees to the process discipline necessary to realize benefits.

As business transactions flow through the Workflow Engine, our Scorecard tool collects actual performance information and reports the improvement against plan. Any deviation from can be reported so correction action can be taken.



Workflow Common User Interface

With our Workflow Common User Interface (WCUI), users can easily transition to new roles and responsibilities in the process, thus reducing training costs.

This interface can be custom configured based on Workflow State and User Roles to display whatever information is necessary to the work activities.

**Monitor Performance Results with Scorecards**

Widely used in Strategic Planning since introduced by Harvard Business Review in 1991, Balanced Scorecard has received acclaim the world over as a framework that delivers breakthrough business benefits.

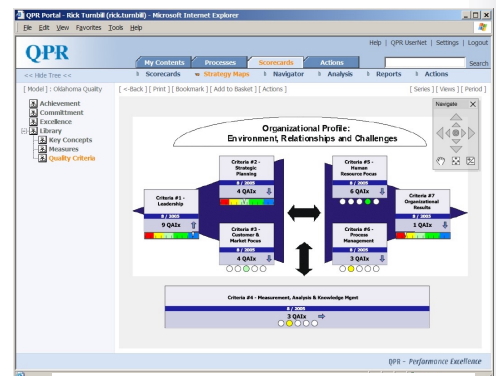
Our Scorecard tool, based upon this methodology and certified by the Balanced Scorecard Collaborative as compliant with all

functional requirements of BSC, is a powerful tool for monitoring organizational performance in many areas of Six Sigma, Quality Management, Sarbanes-Oxley and Compliance Management.

Because our Scorecard is integrated to Process Guide and Workflow, it is exceptionally well suited for end-to-end performance management needs within any organization.

**Process Guide is used to analyze and map process designs. Workflow is then used to automate the execution of the process design. Scorecard collects and reports performance results in the form of Scorecards and Digital Dashboards.** Scorecard also self-monitors performance and alerts the appropriate personnel when performance is outside established parameters.

Further, because Scorecard is compliant with the requirements of Balanced Scorecard Methodology, companies can **link strategy to individual Six Sigma efforts and ensure performance reporting at all levels in the organization are aligned with Business Strategy.**



Quality Award 7 Criteria Dashboard

## Communicate Strategy through Quality Portals

The single most overwhelming challenge in any quality initiative is Organizational Change.

Fear of the unknown, and the resulting defensive posturing, present significant barriers to success.

The keys to overcoming this challenge are:

1. company-wide communication of the reasons for change and the impact on each employee's role in the organization,
2. recognition and reward for employees who exhibit exemplary contributions, and
3. education and training in the process of change.

**Quality Portals address Organizational Change Needs through a specially configured website** that includes:

- Forums
- Links
- Surveys
- FAQs
- Bookstore
- Hall of Fame

and other topics that recognize, educate and train employees in Organizational Change matters.



Quality Portal Example

## About Solutions Hosting

Solutions Hosting, Inc. was formed in 2002 to address the Performance Management needs of companies implementing Balanced Scorecard.

In the same year, SHI became a Certified QPR Partner. Together, QPR and SHI worked to build the world's most successful Balanced Scorecard ASP Solution.

Our use of standard Quality Frameworks and Techniques, such as Malcolm Baldrige, Six Sigma and the COSO Framework as the basis for our Quality and Compliance Management Solutions is unique in our marketplace.

Today, Solutions Hosting is committed to delivering the most comprehensive Quality and Performance Management Solutions and Services available with the mission to provide end-to-end software tools that address the needs for Process Improvement, Workflow Execution, Scorecard Monitoring, Sarbanes-Oxley Compliance and Vendor Management.

We invite you to contact us today to discuss how your business can benefit from the systems and services we offer.

Sincerely,



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