



## In this issue

Project quality reviews 1  
 Sweet success 2  
 SEPG update 3  
 Changepoint 4

### SUITE teams

Systems Engineering  
 Process Group  
 Purpose: SUITE process  
 improvement  
 Team Lead: Rock Rakowski

### Process and Product Quality Assurance

Purpose: Conduct project  
 quality assessments to  
 promote SUITE usage and  
 identify best practices  
 Team Lead: Virginia Hambric

### SUITE Support Team Leaders

Purpose: Promote SUITE  
 implementation  
 Team Lead: Scott Wager

### New team members

Sharon Bouyer, AS/MICSES  
 John Carey, AS/CEPI  
 John Deiters, AS/MDOS  
 Foster Joseph, AS/DHS  
 Onye Okey, AS/DCH  
 Wayne Tagg, IS/PMO

### Want to get involved?

Contact Virginia Hambric  
 at 517-241-9617 or  
[hambricv@michigan.gov](mailto:hambricv@michigan.gov).

## Team presents preliminary findings from project quality assessment reviews

The Process and Product Quality Assurance (PPQA) team recently presented preliminary findings from the project quality assessment reviews conducted over the past year and a half. PPQA is a maturity-level 2 process area that is vital to SUITE success. It provides staff and management with objective insight into processes and associated work products. These reviews identify and share best practices, ensure consistent use of SUITE processes, guide process changes and identify gaps in SUITE processes. PPQA acts as the “eyes and ears” of SUITE.

This team began reviews in 2009. Typically, a large project that uses all seven systems engineering methodology (SEM) stages undergoes three PPQA reviews. Reviews take place after initiation and planning, after system design and after implementation. SEM Express projects typically have two reviews. The three-member review teams rely on checklists to determine the existence and completeness of work products. They calculate a compliance score, which equals the number of completed artifacts divided by the total number of artifacts reviewed. The table at the bottom left shows the range of projects reviewed and compliance scores.

Six reviews have been completed through implementation. Twelve reviews are active with at least one mid-project review completed. Preliminary trends and findings show that:

- high compliance scores correlate with on-time and on-budget delivery.
- variation in project manager experience exists.
- high compliance scores correlate with project management experience.
- projects managed by contractor project managers have high compliance scores, which may be an indicator of project manager experience.
- variation exists in the roles and expectations of project managers. Some are dedicated to a single project, some play multiple roles, and some “do everything.”
- project definitions vary. The Project Management Institute defines a project as a temporary endeavor undertaken to accomplish a unique product or service with a defined start and end point and specific objectives that, when attained, signify completion.
- managerial support for SUITE and PPQA reviews varies.
- life cycle tools vary.

The PPQA team intends to build on its experience and expand reviews to include existence and completeness as well as the quality of work products.

<b>Effort</b>	450 to 35,000 hours
<b>Cost</b>	\$37,000 to \$3,400,000
<b>Duration</b>	3 months to 4 years
<b>Complete</b>	2 = compliance score > 97%
<b>Reviews</b>	1 = compliance score ~ 50%
	3 = compliance score < 33%
<b>Active</b>	7 = compliance score > 75%
<b>Reviews</b>	5 = compliance score < 35%

## SUITE websites

On the Internet

<http://michigan.gov/suite>

On Inside DTMB

<http://inside.michigan.gov/dtmb/wr/epm/Pages/default.aspx>

SUITE Team Room

<http://inside.michigan.gov/site/s/dtmb/epmo-pmo/suite/default.aspx>

## SUITE calendar of events

SUITE meeting information can be found at the EPMO calendar:

<http://inside.michigan.gov/dtmb/wr/epm/Pages/default.aspx>

The site includes information for:

- Systems Engineering Process Group (SEPG)
- Process and Product Quality Assurance (PPOA)
- SUITE Support Team (SST) leaders
- SST Community
- PM Networking

# Sweet Success

The two highly successful projects featured in this issue were identified during PPQA reviews. The first project received a SUITE compliance score of 98.5 percent, and the second one scored 100 percent. More important than any score, however, was the fact that both projects delivered quality systems for the Department of Environment Quality (DEQ) on time and under budget. Both projects were awarded using the request-for-proposal process and were led by the same contract project manager with oversight by DTMB. Particularly noteworthy were the best practices identified in the first project that were incorporated in the second project and then expanded through the Program Management Office to all projects for the Departments of Treasury, Environmental Quality, Natural Resources, and Agriculture and Rural Development.

Following are the project characteristics.

Project Name	Description	Contract Value	Duration	Number of Stakeholders
Michigan Air Emissions Reporting System (MAERS)	Rewrote legacy application to Web-based tool used by the regulated community to report emissions and by the DEQ Air Quality Division to generate an inventory of air pollutants and report data to the EPA.	\$1,038,780	21 months	37
Michigan Air Compliance and Enforcement System (MACES)	Initial focus was to upgrade and enhance existing application, but analysis resulted in rewriting the application to create a framework that was significantly easier to maintain.	\$500,000	17 months	26

Lessons learned during the MAERS project were subsequently applied as best practices to the MACES project and others. These include the following:

- The contract resulting from competitive procurement should base vendor payments on deliverables submitted to and approved by DTMB and the customer.
- A DTMB technical architect should be identified early in the process to review technical approach and designs.
- Effective and thorough application testing that uses a collaborative approach between DTMB and the customer should be implemented.
- A standard folder structure and file names should be established.
- Hybrid teams with vendor and DTMB members should be used to transfer knowledge for both project management and development.
- A lessons-learned session should be conducted for each project, and resulting information should be applied at each stage to improve the next project.

Baskar Rajamani, DTMB Program Management Office (PMO) director, and Ralph Beckon, DTMB project manager, emphasized the value of truly applying lessons learned. The PMO supporting Treasury, DEQ, DNR, and MDARD is now able to leverage standard, consistent processes across all projects to promote the delivery of on-time, on-budget quality systems that meet customer expectations. The MAERS and MACES projects were highly successful on their own, but they also laid the foundation for subsequent projects.

# SEPG update

The Systems Engineering Process Group (SEPG) was formed to improve SUITE processes. The primary source of improvement suggestions is email messages that users send to [suite@michigan.gov](mailto:suite@michigan.gov). The SEPG maintains a log of improvement suggestions, available on the SUITE intranet site, and meets monthly to prioritize and assign work to Process Action Teams (PAT). The teams and their accomplishments follow.

- **Maintenance.** Published an updated Systems Maintenance Guidebook version 1.2 in April 2011
- **Use Case/Functional Design.** Wrapping up work on a Use Case template and SUITE 101 workshop. Also incorporating Use Cases into an improved Functional Design template
- **COTS.** Working on a COTS Guidebook to use SUITE with commercial off-the-shelf software
- **Agile.** Newly established team to develop an Agile Guidebook for tailoring SUITE processes and templates for use with Agile development
- **PMM.** Reviewing and updating PM processes and templates
- **Templates.** This team is currently dormant regarding WORD 2003 templates, but will be re-named and become very active with the migration to Infopath
- **Process Development.** Reviewing and analyzing SUITE processes to ensure CMMI compliance and preparation for our next appraisal
- **Changepoint.** identify processes and/or templates that should be modified or eliminated as we implement the PPM tool

The speed at which the SEPG is able to analyze and implement improvement suggestions depends on availability of team members. On average, Process Action Team members spend two to three hours per week revising or creating SUITE guidance.



## Preliminary findings of PPQA reviews

Continued from page 1

The team attempts to spread reviews across all client service director areas. In the past, the team selected projects from the monthly SEM Implementation Progress Report. Going forward, Changepoint will be the source for project selection. More information about Changepoint can be found on page 4.

Although some individuals have left the team and new members have joined, the group still has 16 members. The number of reviews the team can conduct is determined by team size and the availability of individual members. Each member spends two to three hours per week on some aspect of a project review. Feedback indicates that reviews are a win-win for all involved. The review team benefits by taking an increased understanding of SUITE processes to their own teams. The PM of the project being reviewed can incorporate findings from the first mid-project review, increasing the likelihood of project success.

The PPQA team presented its preliminary findings at the SUITE Support Team community meeting in late April. The presentation is available at: <http://inside.michigan.gov/dtmb/wr/epm/suite/Pages/default.aspx>.

## Introduction to CMMI

Following a three-day training session, another 30 staff members learned about Capability Maturity Model Integration (CMMI) resources, which they will use in implementing and improving SUITE processes.

The Enterprise Portfolio Management Office (EPMO) funded an introductory session presented by a certified CMMI instructor. The course was open to new members of the SUITE Process and Product Quality Assurance and Systems Engineering Process Group teams, EPMO staff, representatives from each Program Management Office and members of DTMB Internal Audit.

## SUITE schedule online

The SUITE workshop schedule is available at <http://inside.michigan.gov/dtmb/wr/epm/suite/Pages/default.aspx>

Employees may sign up for the first time or as a refresher. With at least 15 participants, an instructor will provide sessions at a particular worksite.

## Changepoint update

The Enterprise Program Management Office, Infrastructure Services Program Management Office and the portfolio management offices in each Agency Services information officer area continue to expand the functionality and use of Changepoint. Changepoint, a Compuware tool, is one of six project and portfolio management (PPM) tools in the 2010 Gartner Magic Quadrant and has a 15-year history in the PPM field. To date, Changepoint implementation includes the following functionality:

### **Application Inventory** (implemented in December 2010)

The inventory includes about 2,000 applications supported by DTMB. The single repository provides the ability to query and analyze the inventory. For example, the following information offers snippets from standard reports:

- 74 percent of all applications were put into production in the decade from 2000 to 2010.
- 966 applications are browser based.
- DHS has 373 applications, the most of any agency.

### **Project Status Reporting** (implemented in February 2011)

From a SUITE perspective, using Changepoint for project status reporting is a significant step forward for consistent and repeatable processes for project management and systems development. SUITE stage exits provide the foundation for project status reports and metrics. Monthly executive reports and monthly agency dashboards are now generated through Changepoint.

### **Project Prioritization** (implemented in February 2011)

The FY2012 Call for Projects is using Changepoint to integrate and share information about proposed projects across agencies. The ability to view enterprise and multi-agency candidates facilitates resource planning and overall coordination of effort. This year's Call for Projects is smoother than previous years, partly because DTMB is more familiar with the process and partly because an automated tool streamlines a former manual process.

The next step in expanding use of Changepoint includes leveraging the tool to support project management, including interfaces to MS Project and Clarity as well as issue and risk tracking and management.

## Template best practices

SUITE is built on the best practices included in CMMI. For many people, however, their first thought of SUITE is not necessarily process and best practices, but rather "all those templates." There are 21 project management and 21 systems engineering templates. Relying on template tips, tricks, and best practices will definitely make using them easier if you've been experiencing problems.

Beverly Linderman, SUITE template expert, delivered a presentation on template best practices at the SUITE Support Team community meeting in April. Highlights of her presentation include:

- Preferred location for selecting templates
- How to properly open and save a template
- How to retain toolbars and macros
- How to unlock/re-lock a template to add sections or more signature rows
- How to get additional help

Her presentation is available on the SUITE intranet site at <http://inside.michigan.gov/dtmb/wr/epm/suite/Pages/default.aspx>.

SUITE templates are all Word 2003 templates (.dot). All SUITE templates will migrate to the new DTMB Infopath forms solution, which is tentatively scheduled to begin this summer. There is no intent to migrate the current Word 2003 templates to 2010. Hopefully, Beverly's advice on using the current Word templates will bridge the period until we move to Infopath.