

# Developing a Project Management Methodology for State Government

**Jonathan Blake, Senior Principal Consultant, Keane Inc.**

## Overview

The New York State Project Management Guidebook (*The Guidebook*) was developed to document a standardized methodology for managing projects in New York State (NYS) government organizations and to provide guidance and advice to Project Managers throughout the life of a project.

A standardized methodology encourages individual Project Managers to approach each project endeavor with the same discipline and tools; state Project Managers moving to new opportunities within and among state agencies should have virtually no learning curve for project management.

Under the direction of the New York State Office for Technology's Project Management Office, a team of experienced Project Managers developed *The Guidebook* collaboratively. The team, made up of state Project Managers and Project Managers from Keane Inc., collected and analyzed best practices from New York State agencies as well as practices from the Keane Guide to Project Management®.

Generally accepted principles of project management were refined and incorporated into a project life cycle consistent with NYS policies and practices. The team aligned the methodology developed for NYS with the Project Management Institute's (PMI®) *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)*. Due to the participation of one team member as a reviewer of the Government Extension to the *PMBOK® Guide*, and the timing of that document's Exposure Draft, *The Guidebook* is also aligned with that document.

The team developed and refined a methodology for creating and reviewing content. A committee of 18 agencies, consisting of Information Technology Directors, Project Officers, and Project Managers, participated in the guidance, review, and critique of the methodology.

The effort was completed on time and within budget, and the resulting Guidebook was distributed as a hard copy document to all NYS agencies and made available on the Office for Technology website ([www.oft.state.ny.us](http://www.oft.state.ny.us)).

## What is the New York State Project Management Guidebook?

The New York State Project Management Guidebook is intended to be both a "what to do" and a "how to do it" guidebook for New York State Project Managers. It consists of four sections:

1. **Project Management Life Cycle** is intended to guide a Project Manager through the complete life of a project, from the first formal documentation of the project's concept to its formal termination, detailing the phases of the project management life cycle and the specific processes to be performed within each phase, and defining the tasks that comprise each process. Specific templates are provided to supplement the tasks and processes. Tips and techniques for successfully performing the tasks/processes are offered, as are answers to "frequently asked questions." At the end of each phase, common pitfalls faced by Project Managers are described, along with solutions that could be used to successfully deal with those challenges.

2. **Project Management Topics** provide in-depth advice and direction on selected topics of importance to New York State Project Managers. This section is a repository for shared lessons learned from the experience and expertise of the state's Project Managers, including Project Triage, Leadership, and Procurement and Contractor Management.

3. **Line of Business Examples** are designed to provide guidelines for methodologies associated with specific products (application software, roads, buildings, etc.).

4. **Appendices** provide a glossary of project management terms, a repository of all templates used throughout *The Guidebook*, suggested additional readings, and a list of resources used in the compilation of this Guidebook.

## What is the Project Management Life Cycle?

There are two distinct efforts going on during the course of a project: an effort to build the product (or service) requested, and an effort to manage that construction. Each has its own deliverables, and each follows its own life cycle. The project (product or service) life cycle is different depending on the type of product being produced: Software Development Life Cycle for an IT organization, or Design and Construction Life Cycle for the highway or bridge construction crew, to cite but two examples.

On the other hand, the project management life cycle is the same for every line of business, and can be used to manage creation of a consolidated data center as well as an effort to update an organization's policy and procedures manual. While no two projects are alike, all projects should progress through the same five phases:

**Project Origination.** A proposal is developed to create a product or develop a service that can solve a problem or address a need in the Performing Organization. It is submitted to an evaluation and selection process. If selected, a budget and/or further management commitment for the project is required to progress to Project Initiation.

**Project Initiation.** The Project Manager, assigned by the beginning of this phase, works with the Project Sponsor to identify the necessary resources and team members needed to develop the Project Charter and define key project parameters—Cost, Scope, Schedule, and Quality (CSSQ). The initial Project Plan is produced, at a level sufficient to acquire any additional resources needed to progress to the next phase. At the conclusion of Project Initiation, a decision is made either to halt the project, or proceed to Project Planning.

**Project Planning.** Project Planning builds on the work done in Project Initiation, refining CSSQ and adding to Project Plan deliverables such project-specific items as change control, acceptance management and issue management, and such externally-focused items as organizational change management and project transition. The initial list of project risks is augmented, and detailed mitigation plans are developed. The completed Project Plan leaves no work uncovered, and a decision is again made to either halt the project, or to commit the resources necessary for Project Execution.

**Project Execution and Control.** Most of the resources are applied/expended in this phase, as most team members join the project at this juncture. The primary task of the Project Manager during Project Execution and Control is to enable the Project Team to execute the tasks on the defined Project Schedule and develop the product or service the project is expected to deliver. The Project Manager uses the Project Plan components to manage the project, while preparing the organization for the implementation of the product/service and for transitioning support responsibilities to the Performing Organization.

**Project Closeout.** In Project Closeout, the Project Team assesses the outcome of the project through soliciting and evaluating feedback from Customers, Project Team members, Consumers and other Stakeholders, and documenting best practices and lessons learned for use on future projects. Key project metrics are captured to enable the Performing Organization to compare and evaluate success measures across projects.

## How is *The Guidebook* Structured?

Within each project management phase, *The Guidebook* identifies specific processes and detailed tasks for the Project Manager to follow, and provides descriptions and templates of all project management deliverables. Additional practical advice to the Project Managers is provided via tips and techniques interspersed throughout the text of *The Guidebook*, and via pitfalls and frequently asked questions associated with each phase.

Each project management phase follows the same chapter structure:

**1. Phase Purpose**—An overview of the phase stressing the importance of key processes.

**List of Processes**—A brief listing of processes comprising the phase, followed by a flowchart of processes, tasks and deliverables of the phase, showing how the deliverables flow from an immediately preceding phase to an immediately following phase.

**List or Roles**—A brief enumeration of roles carrying out the processes of this phase.

**List of Deliverables**—A table listing processes, tasks, and associated deliverables (or outcomes).

**1.1. Process Purpose**—A description of key elements of the process.

**Process Roles**—A brief enumeration of roles carrying out the tasks of this process.

**Process Tasks**—A list of tasks comprising the process.

**1.1.1. Task Description**—A detailed description of task objectives, actions, and outcomes; includes figures illustrating techniques or forms.

**Task Deliverables**—A detailed description of each deliverable, accompanied by an annotated template.

**End-of-Phase Checklist**—A table summarizing all actions described in the preceding text, with columns for Completion Date, Comments, and Reason for NOT completing.

**Measurements of Success**—A table of questions that a Project Manager can ask to assess how successfully the project is proceeding through each process.

**Phase Risks/Ways to Avoid Pitfalls**—Practical (and humorous) advice on how to avoid some of the common pitfalls while performing phase processes.

**Frequently Asked Questions**—Practical answers to common questions associated with the each project management life-cycle phase.

## Who Was on the Team?

The following groups of people were involved in the creation of the NYS Project Management Guidebook:

**Core Team:** Keane consultants (three Project Managers and one Technical Writer), who produced most of the material in Section 1—Project Life Cycle and Section 4—Appendices.

**Extended Team:** NYS OFT PMO (PMO Director, Nancy Mulholland, who acted as a Project Sponsor, and four Project Managers), who produced Section 2—Project Management Topics and the Origination phase in Section 1, and reviewed and edited material produced by the Core team. Nancy Mulholland wrote the Preface for *The Guidebook*.

**Additional Authors:** consultants from Canal Bridge Consulting who produced materials for Section 3—Line of Business Examples, and were the authors of the Project Management Methodology Program curriculum (one of the source documents for *The Guidebook*).

**Guidebook Review Committee:** representatives from 18 NYS agencies who reviewed and critiqued sections of *The Guidebook*.

**Guidebook Designer**—TDB Publishing Services was contracted to design and layout *The Guidebook*, and publish it in QuarkXPress.

**Guidebook Publisher**—NYS Office of Mental Health publishing facility printed and assembled *The Guidebook*.

## How Was *The Guidebook* Developed?

The effort to develop Release 1 of the NYS Project Management Guidebook commenced on January 21, 2001 (first meeting with the Project Sponsor) and concluded on September 7, 2001 with *The Guidebook's* publication.

## Conduct Best Practices Survey

The best project management practices employed by New York State agencies became the basis for *The Guidebook*. Every NYS agency was invited to participate and to share best practices.

A survey of such practices was conducted in selected representative agencies that volunteered to participate in the effort. Members of the Core Team conducted on-site facilitated sessions with agency project managers, rating each practice as Standard (practiced consistently across projects) or Informal (practiced selectively for some projects). A methodology prescribing the practice was rated as Standard (documented, accessible), Informal (either variably documented or derived from common understanding) or Absent (not documented and not commonly agreed-upon). For practices resulting in a written project management deliverable, the survey asked whether there was a Standard (commonly used) or Informal (varied or not documented) template for such deliverable.

The respondents were also asked to think of recent successful projects, and identify practices or critical success factors that were most contributive to the success. Any materials that the participants were willing to share were collected and analyzed. Best practices were identified in the following debrief and analysis.

## Conduct Research

Core Team members conducted extensive research into existing sources of information regarding Project Management Methodology. The team read PMI's *PMBOK® Guide*, Keane's Guide to Project Management, and other project management books and textbooks (see *The Guidebook Bibliography*). Project management methodologies published on California and Michigan state government websites were examined as well.

## Set Up Review Committees

While survey activities and research were going on, the PMO Director organized a statewide Guidebook Review Committee to guide and review the development of *The Guidebook*. Setting up this external entity was a critical success factor for Guidebook development, because it brought in extensive additional talent and expertise to the effort, and because it created a broad natural community of support for methodology implementation and Guidebook acceptance.

## Determine Format and Content

Before Guidebook development could commence, it was necessary to layout the framework of the project management methodology, and to determine both format and content of *The Guidebook*. A series of facilitated sessions was conducted with all members of the Core and Extended teams, and with additional participants from Keane and Canal Bridge consulting firms. The sessions answered a series of key questions:

What is the purpose of *The Guidebook*? This also included determining the target audience, establishing expectations, and describing desired outcome.

What is *The Guidebook* framework? This included deciding on the overall approach (procedural, topical, etc.) and usage (textbook, reference, etc.).

What should *The Guidebook* contain? This including coming up with the Table of Contents, settling on phase/process names, determining level of detail, and agreeing on chapter structure.

What is *The Guidebook* development strategy? This included determining how to integrate information from all sources, creating review procedures, and deciding on layout/design approach (build vs. buy).

What is *The Guidebook* release strategy? This included deciding on phased or total release approach, planning the initial presentation and rollout to the agencies.

## Document Key Assumptions

The results of *The Guidebook* design sessions were documented, distributed to all session participants, and reviewed for accuracy and consensus.

Some of the key assumptions that emerged were:

The purpose of *The Guidebook* was to provide guidance and direction to Project Managers, providing instructions and examples of what needs to be done, when, and how, to successfully manage a project.

The primary target audience of *The Guidebook* was Project Managers; the secondary audience was Project Sponsors and Project Team members; the tertiary audience was any other parties involved in the project, and aspiring Project Managers.

*The Guidebook* was NOT designed to be a tutorial or a textbook; it would NOT be mandated for use; it would NOT be static; it was NOT just for Information Technology; and by itself, it would NOT guarantee project success.

Special care would be taken to correctly align *The Guidebook* structure with PMBOK® processes.

*The Guidebook* would be professionally designed, and published in full color.

Release 1 of *The Guidebook* would include complete text of all the sections except Line of Business examples, and would be published all at once.

*The Guidebook* would be copyrighted, but Release 1 would be available on the NYS OFT Website as RTF and Adobe Acrobat downloads.

NYS OFT would absorb the cost of printing sufficient number of copies to send one to each NYS agency. Beyond that, agencies can purchase additional copies of *The Guidebook* (alternately, they could download it and print it off the Website).

Users of *The Guidebook* would be encouraged to register online (to receive notification of updates) and to submit feedback.

## Derive Estimates

*The Guidebook* development effort was estimated based on expected level of detail, extent of necessary research, availability of source material, and process complexity. Every Guidebook process was mapped to applicable PMBOK® processes: the more cross-references, the more complex *The Guidebook* process was assumed to be; an additional measure of complexity was the number of tasks the process was expected to contain. Assumptions were made as to the level of detail, and the length, of all descriptions, overviews, and templates. All of the estimating assumptions were carefully documented and reviewed with the Project Sponsor.

## Prototype

To validate estimates, the Project Initiation phase was selected for a Prototype, because it was considered average and representative

of the overall effort. The prototype allowed the team to more closely align roles (and deliverables) to team member strengths, to validate assumptions, and to allocate future work based on a better understanding of everyone's talents. Based on Extended Team review of the prototype, additional adjustments were made to the expected level of detail, content and format of certain chapters, and visual presentation of *The Guidebook*.

### **Create Development Environment**

Following the prototype, expectations for content and style of each portion of *The Guidebook* were developed for all team members. The development environment was established and documented: directory structures on the LAN, version control procedures, and review cycle methodology.

### **Develop Content**

Developing the content for *The Guidebook* was a deeply satisfying creative process. In addition to referencing the wealth of materials assembled for this purpose, each participating Project Manager reached into his or her real-world experience managing various efforts to produce a thorough yet readable, detailed yet practical document that would offer both guidance and support to the target Project Managers. It was also a lot of fun. We were blessed with a great mix of personalities on the Core Team, a wealth of experience and good will on the Extended Team, and an interested, involved and decisive Project Sponsor.

Each of the authors actually looked forward to having their text edited by the talented Technical Writer, corrected by the supportive teammates, and reviewed by the exacting and inspiring Project Sponsor. There was lots of ownership of the work, but very little ownership of the text. Comments, suggestions and corrections were offered with a great deal of frankness—and accepted with a great deal of eagerness.

### **Create Design**

Rather than relying on the (dubious) artistic proclivities of the participants, a professional graphics design company was contracted to come up with the cover, to suggest a color scheme, and to layout and decorate *The Guidebook*. Because of the “dry” nature of a lot of the material, a deliberate decision was made to use color, layout and illustrations liberally to “liven up” *The Guidebook*.

### **Reviews Results**

The review cycle that eventually emerged took more effort than was expected (even based on the prototype), but it served the team well throughout the development effort, and now serves as a model for similar initiatives.

**Initial Development and Editing:** Author completes a unit of work; Technical Writer edits it.

**Core Team review:** Members of the Core Team review the material and provide feedback within requested timeframe; Author works with the Technical Writer to apply comments.

**Extended Team review:** Members of the Extended Team review the material and provide feedback within requested time frame; Author works with the Technical Writer to apply comments.

**Guidebook Review Committee review:** At facilitated review sessions, members of the Guidebook Review Committee provide feed-

back on previously distributed Guidebook sections; prioritized corrective actions are assigned to one or more Authors and/or Technical Writer.

For the first Guidebook Review Committee meeting, in June of 2001, participants were asked to thoroughly review the content of the section to be reviewed, and to prepare some pitfalls and frequently asked questions associated with the phases being reviewed. At the meeting, the facilitator asked the participants to list at least three things they liked about the material, and at least three suggestions for improvement they would have. Both lists were prioritized by the participants. Then participants brainstormed additional ideas for *The Guidebook* (were there any topics missing?) and discussed how they could start utilizing it in their respective agencies. Copies of participants' specific written comments were collected at the end of the session.

The session was extensively documented, and the results were distributed to all participants. An extensive list of suggestions and corrections was prioritized and incorporated into the Guidebook development Project Schedule. Important decisions were made as a consequence of the meeting, and the results of the meeting were invaluable in guiding and informing the rest of the effort.

At the second Guidebook Review Committee meeting, in August of 2001, participants reviewed the remaining sections of *The Guidebook*, providing their comments and suggestions in a similar format to the first session. While many corrections to *The Guidebook* were generated as a result of that session, they were mostly stylistic, grammatical or particular in nature, not affecting the remaining project schedule to a great degree.

### **Finalize Content and Publish Guidebook**

As the sections of *The Guidebook* were finalized, they were shipped to the graphic design company. The resultant 427-page “proof” was reviewed one final time, with corrections phoned back to the designer due to press of time. After receiving a CD with a final Quark Express version of *The Guidebook*, OFT sent the material over to the OMH publishing facility, which printed the requested number of copies, assembled them into previously purchased binders and inserted previously printed color-coded tabs. The project management life-cycle flowchart was printed on 11X17 paper, folded over and inserted into the inside cover pocket of the binder. Completed Guidebooks went out to all state agencies with a cover letter from William Pelgrin, Executive Deputy Commissioner of the NYS Office for Technology.

Following publication, the members of the OFT Applications Development group expanded the official OFT Web site to include *The Guidebook*, in both RTF and Adobe Acrobat formats.

### **Perform Closeout**

Based on a Guidebook template, a Post-Implementation Survey was developed, customized for various audiences (team members, advisory committee members, etc.) and distributed to all involved parties. The survey results were collected and summarized, and a Project Assessment meeting was held, focusing on identifying best practices and lessons learned. The results were recorded in the Post-Implementation Report. All the project-related materials were archived into the Project Repository.

## Celebrate

At the end of September, the Project Sponsor took the Core and the Extended teams out to celebrate. Throughout the evening, we reflected on the magnitude of our accomplishment.

This was an extraordinarily successful and productive effort. In a period of about five months, the team developed a comprehensive project management methodology customized to the needs of the New York State. The methodology was documented in a highly readable and usable Guidebook, full of practical advice and ready-to-use templates.

The Project Sponsor was very pleased, and wrote commendation letters for all team members. Keane rewarded the Core Team members with a Special Achievement award.

The Project Sponsor was eventually promoted to the Deputy Director position.

## What Came Next?

The NYS OFT Project Management Office embarked on four related initiatives following the publishing of *The Guidebook*:

### Methodology Implementation

To facilitate dissemination and acceptance of the Project Management Methodology, the PMO developed a program to introduce Project Managers and Project Sponsors to *The Guidebook* and the Methodology it espouses.

A one-day training session, targeted at Project Managers, covering all five phases of the project management lifecycle, and advising the practitioners on how to use *The Guidebook*, was developed and rolled out.

A three-hour overview, targeted at Project Sponsors and other members of the Performing Organization Management team, was developed and rolled out.

### System Development Life Cycle (SDLC) Methodology

The first release of *The Guidebook* did not contain any examples of Line of Business methodologies for product (or service) development. Because the majority of projects that would be using the NYS Project Management Methodology were expected to be in Information Technology, it was decided to develop a generic System Development Life Cycle (SDLC) methodology for such projects, to be included into Release 2 of the NYS Project Management Guidebook.

### Project Management Methodology Maintenance

From the outset, it was understood that the methodology and the associated Guidebook would continuously be updated with new releases coming out in due course. Readers and users of *The Guidebook* are encouraged to submit corrections and suggestions for improvement. Team members themselves, using *The Guidebook* for subsequent projects, compiled a list of corrections and enhancements.

All changes were prioritized by the Guidebook Guidance Committee, and a team was assembled to update *The Guidebook* and issue Release 2 in September, 2002.

### Management's Guide to Project Success

Because *The Guidebook* is targeted at the needs of the Project Managers, it is at a different level of detail from what's needed by the

Project Sponsors and other members of the Performing Organization Management (such as Customer Decision-Makers) in order to properly supervise, support, and interact with Project Managers and Project Teams.

To provide an appropriate guidebook for that audience, Nancy Mulholland, NYS OFT Deputy Director and acting Director of NYS OFT PMO, initiated a project to develop Management's Guide to Project Success.

While following the same life-cycle approach as *The Guidebook*, the Management's Guide focuses on topics specific to Project Sponsors and other managers. For each project management life-cycle phase, it identifies (by role) management involvement in key processes, and provides guidelines on time commitments managers would be expected to make to facilitate the project. It identifies major project management deliverables produced by the Project Team, and describes both WHAT the managers should expect to see in each, and HOW they can decide whether the deliverable does justice to its stated purpose. Common pitfalls experienced by managers in each phase are documented, concentrating on those that tend to occur when the Project Manager (and the Project Team) are NOT conducting themselves in accordance with the methodology.

## Conclusion

Developing the NYS Project Management Guidebook (and a subsequent Management's Guide to Project Success) was a very exciting and successful assignment. It produced a deliverable that is changing the way the state does business. It is my sincere belief that not only government employees or consultants but also all Project Managers can benefit from learning how *The Guidebook* was developed and what it contains.

I am very excited to have an opportunity to share this experience and knowledge with other Project Managers at this PMI conference. If you have any additional questions regarding this paper, please do not hesitate to contact me at:

Jonathan\_A\_Blake@Keane.com or jonathan.blake@home-mail.com.

If you have any questions or comments about *The Guidebook*, please contact [brenda.breslin@oft.state.ny.us](mailto:brenda.breslin@oft.state.ny.us) or [nancy.mulholland@oft.state.ny.us](mailto:nancy.mulholland@oft.state.ny.us).