Project Management Methodologies
By Jason Charvat, published by Wiley, NJ, 2003
(A book review by R. Max Wideman)

Introduction

Jason Charvat published this book in 2003 and in it he discusses "Selecting, Implementing and Supporting Methodologies and Processes for Projects". That's really part of the title but was too long to put in our header! As Jason notes in his introduction, and we agree, there are not many publications that address project methodologies and templates. So we approached this book with considerable interest.

Jason's background is in the information technology (IT) sector so this book is heavily oriented towards that industry even though he does try to include the traditional industries, such as construction. Notwithstanding, Jason has a number of important messages to deliver to project management practitioners generally as we shall see. For example, he observes:
> ". . . irrespective of the industry type or size[, e]very project undertaken today requires a common structure or framework in which to start . . ."[1]

In his Foreword, Robert D. Simplot, President/CEO of RCG Information Technology, Inc., goes even further:
> "When all projects in the enterprise follow a standardized template, then and only then will project management evolve gradually into an everyday way of life."[2]

While we believe this statement to be quite true, it must be born in mind that the more diverse the range of projects being managed in a project portfolio, the more general that "standardized" template must be.

Book Structure

Project Management Methodologies has eight chapters as follows:
1. Understanding Project Methodologies
2. Project Methodologies Explained
3. Project Management Frameworks
4. Development Methodology – Selection and Utilization
5. Implementing Project Methodologies
6. Supporting the Methodology
7. Project Templates and Techniques
8. Project Processes and Trends

Of the chapters, chapter 4 is by far the longest and provides an interesting perspective on a variety of methodologies as viewed by Jason. He says: "I present various methodologies that can be used by virtually every industry using project management – not just IT – as the way to achieve business goals."[3] However, the eighteen methodologies described in this chapter mostly focus on IT and only two or three of the four in Chapter 3 are really "generic".

The book sports a large number of bulleted checklists and tables for ease of reference. It also includes a number of figures to illustrate the text. Each chapter concludes with a summary or lessons learned, a set of discussion questions relating to the chapter and references where applicable.

The book also includes an Appendix of Questions and Answers. A CD-ROM that includes "more than

120 tried-and-true project management templates that can be utilized immediately" is purported to be available separately but we were unable to track down Jason's web site to verify this.

What we liked – the important lessons

There is an important lesson that may be inferred from Jason's book. From his descriptions of project management methodologies it is clear that what Jason has in mind is the "project life cycle" or, as we prefer to call it, the "project life span". After all, the project life span is defined as: "The complete set of time periods through which a project passes sequentially in a logical and orderly manner". Further, a project may be defined as: "A process or undertaking that encompasses an entire set of activities having . . . well defined objectives" and a process is defined as: "A set of partially ordered steps intended to reach a goal".[4]

Moreover, as Jason observes, a methodology can also be defined as "A process that documents a series of steps and procedures to bring about the successful completion of a project". So, broadly speaking what we have (as happens so often) is a variety of labels that essentially mean the same thing. Just that some terms are more comprehensive than others. In other words, in the project management context a methodology is another word for project life span!

To be fair, Jason advocates the following definition of a methodology:
> "A *methodology* is a set of guidelines or principles that can be tailored and applied to a specific situation. In a project environment, these guidelines might be a list of things to do. A methodology could also be a specific approach, templates, forms, and even checklists used over the project life cycle."

And he adds:
> "A formal project methodology should lead the work of all team members throughout the life cycle of a project [but i]t may be useful to think about what a project management methodology is *not*: A quick fix; A silver bullet; A temporary solution; [or] A cookbook approach for project success."[5]

But there is an even more important lesson to be learned from this book. In it, Jason draws a distinction between managing the project and managing the technology. As he says:
> "By applying the appropriate methodology, project managers are likely to deliver the solutions the clients want. I introduce and clarify two types of methodologies. Although they go hand in hand, there is a difference.
> - Project management methodologies (this lays the high-level project framework).
> - Development methodologies (this provides the detail on system design and development)."[6]

Jason describes project management methodology as the project framework and distinguishes it from development methodology thus:
> "The framework has always meant the various segments of the project and the development methodology are the means of getting from segment to segment."[7]

With our background, we would have used the expression "from phase to phase" and, indeed, in the next chapter he does. But the point is, this is a fundamental distinction. He adds that the methodology provides a means for selecting the degree of project management attention appropriate to your particular project. This is sometimes referred to as the degree of "ceremony". And because of economics and common sense, the project management techniques (and degree of ceremony) need to be tailored to the

specific risks and opportunities of each project.[8]

The importance of the right methodology

Referring to project [management] methodologies, Jason observes that:
> "Over the years, even those involved in managing projects have observed that projects have common characteristics that can be formalized into a structural process, which allows them to manage projects more effectively. Each phase can typically be brought to closure in some logical way before the next project phase begins; and each phase results in discrete milestones or deliverables, which provide the starting point for the next phase. [And c]ost and schedule estimates, plans, requirements, and specifications should be updated and evaluated at the end of each phase, sometimes before deciding whether to continue with the project."[9]

Moreover, Jason emphasizes that:
> "Adopting an incorrect methodology or having no project framework in place can very easily cause you to have:
> - Schedule and cost slippages
> - Miscommunication within the team
> - Wasting [of] time on administrative tasks that have no purpose
> - [Reliance] on technical wizardry to get projects done [and]
> - Project management burnout"[10]

This is an important lesson that many managements seem to fail to understand. Or is it that the project management community has failed to get the message across to senior management?

In the same context, Jason briefly explains the capability maturity model (CMM) and its five levels, not as a methodology in itself but as sets of strategies for improvement. The CMM levels from 1 (low) to 5 (high) are: Initial, Repeatable, Defined, Managed and Optimized. He observes that if project management is to take a leading role in a company, it needs to be good in a few areas:[11]
- Project management philosophy is firmly entrenched
- Project management is a core competency
- The company is focused on making projects succeed
- Processes and infrastructure are in place
- Effective reporting is established
- Both project methodology and development methodologies are well documented
- Project staff is provided continuous training
- Project information is communicated continuously
- Projects are monitored against performance
- Quality and delivery excellence are built in
- Projects are routinely audited

That's a substantial list. Even so, he might have added:
- A cost collection, reporting and forecasting system is in place, and
- A project deliverables benefits measuring system is also in place

Chapter 3 is titled "Project Management Frameworks". By this, Jason means the project management methodologies referred to earlier. Interestingly, he finds only four, namely: the Rational Unified Process (arguably an IT/software development methodology); PRINCE2, a true framework developed and instituted in the UK under the Office of Government Commerce (OGC) a government agency; System

Development Life Cycle (SDLC), the classic "waterfall" approach (also arguably a software development methodology); and Solutions-based Project Methodology, a simplified approach for consultants to work with their clients. Possibly there may be hybrid combinations of these.

To this list, Jason could have added the TenStep methodology, at least that would have made five. Nevertheless, when it comes to project management frameworks, there appear to be only two or three that are generally applicable. This confirms our contention that there really are very few truly generic project management methodologies out there. And this should come as no surprise, because correctly executed the management of a project should follow a well-established and well-worn path.

Development methodologies, managing the technology

However, when it comes to discussing Development Methodologies, i.e. management of the technology including information technology and software development in particular, there are indeed numerous methodologies, and in Chapter 4 Jason discusses eighteen of them. Based on Jason's comments and sources on this web site, the suitability of each to the task at hand may be summarized as shown in Figure 1. For convenience, Figure 1 includes the project management methodologies identified in the previous section and also includes classic building construction by way of comparison.

Jason observes that:
> "Some project methodologies focus purely on the technology itself, while others focus more on a generic project management approach. You must carefully consider the methodology to use based on the organizational requirements."[12]

He also draws attention to what he calls "Light" and "Heavy" methodologies, meaning those with little or no ceremony and those with considerable ceremony (as noted in Figure 1 above), necessitated by the project's complexity. As he says:
> Because project size and complexity affect the type of methodology to be selected, it is crucial that project managers determine the lay of the land first. Figure [2 below] is a selection matrix, which shows the different sizes (i.e., small, medium, or large) of projects you may encounter. This matrix serves as a useful guide to the type of methodology you should employ for your project. **Selecting the wrong methodology for your project could be disastrous.**" [Emphasis added][13]

Amen to that! Hence, Figure 2 serves as a very useful chart.

Description	Suited to control of:				Phases	Project Size	Comments
	S	Q	T	$			
Project Management Frameworks Methodologies							
Rational Unified Process	Y	Y	Y	Y	Y	M, L	1, 2, 3, 4
PRINCE2	Y	Y	Y	Y	Y	M, L	4
System Development Life Cycle (SDLC)	Y	Y	N	?	Y	S, M, L	3, 4, 6
Solutions-based Project Methodology	Y	Y	N	N	Y	S, M	3, 5
TenStep	Y	Y	Y	N	N	S, M	5
Technology Development Management Methodologies							
The "Agile" Group:							
Extreme Programming (XP)	N	Y	N	N	N	S, M	5
Scrum	N	Y	N	N	N	S, M	5
Crystal	N	Y	N	N	N	S, M	5, 7
Dynamic Sys. Development (DSDM)	Y	Y	Y	?	Y	S, M	5
Rapid Applications Development (RAD)	Y	Y	Y	?	Y	M, L	5
Unicycle	Y	Y	Y	Y	Y	S, M, L	4
Code-and-fix Approach	N	N	N	N	N	S	7
V-methodology	Y	Y	Y	Y	Y	M, L	4
Waterfall	Y	Y	Y	Y	Y	M, L	4, 6
Open Source	N	N	N	N	N	S, M	5
Spiral	Y	Y	N	N	Y	M, L	4
Synchronize and Stabilize	Y	Y	N	N	Y	M, L	
Reverse Engineering Development	Y	Y	N	N	Y	M, L	4
General Publication Methodology	Y	Y	N	?	Y	M	4, 8
Structured System Analysis & Design	Y	Y	N	N	Y	M, L	4
Pramis	Y	Y	Y	Y	Y	M, L	4
Offshore Development	Y	Y	Y	Y	Y	L	4
General Drug Development	N	Y	N	N	Y	L	4
Classic Building Construction	Y	?	Y	Y	Y	M, L	4

Comments:
1. Y, N, ?: Yes, No, Undetermined
2. S, M, L: Small, Medium or Large projects
3. Arguably an IT/software development methodology, i.e. belongs under Technology Management
4. High management ceremony
5. Low management ceremony
6. Classic "waterfall" sequence
7. Not suited to virtual teams
8. For book and periodical publishing

Figure 1: Comparison of various methodologies from a project management perspective
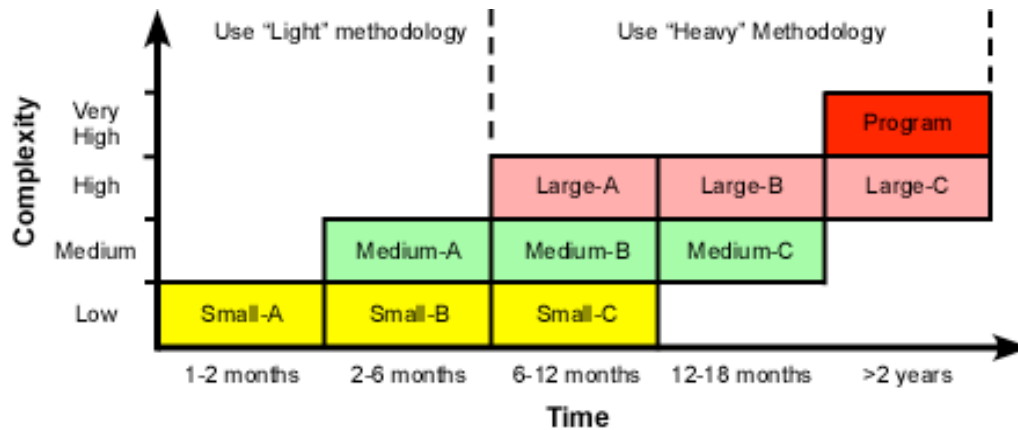
Figure 2: Charvat's matrix for selecting light or heavy methodology

Downside

In reading through the book we encountered a number of personal annoyances. For example:

Some of the paragraphs are rather long, especially in the Introduction. Similarly, some sentences are unnecessary long. This makes for heavier reading than necessary and less likelihood of getting the author's message across.

There appeared to be a lack of consistency in the use of terminology. Therefore, a Glossary of key terms and their definitions would have been helpful. As an example, Jason defines a methodology as described in our section titled "What we liked – the important lessons" earlier. That is, "A methodology is a set of guidelines or principles that can be tailored and applied to a specific situation." But, Chapter 2 opens at a much higher level with a discussion of "Key decision makers must often determine whether a universalized project life-cycle methodology is sufficient for all their projects."

Then Chapter 3 is titled "Project Management Frameworks" but the content reflects a discussion of high-level project management methodologies or otherwise the design of the phases in the project life span. Chapter 4 is titled "Development Methodology" and properly covers a variety of methodologies covering the management of the technology. Chapter 5 is titled Implementing Project Methodologies, but it is not always clear whether the text is about project management or technical management methodology.

There also appeared inconsistency in the labeling of the potential phase names of the various methodologies described. It is true that different methodology proponents use different labels, perhaps to differentiate their products, but in a book drawing comparisons this is not helpful. In all the methodologies described, we did not see any mention of what we consider to be one of the most important project phases: "Transfer of the product to the care, custody and control of the owner/users"

Some subsections are introduced with a bulleted list, followed by a detailed description of each bullet item. However, while the first several items in the list are dealt with, the remainder is absent. It is almost as though the author was interrupted in mid flight and never returned to the same spot. Similarly, some methodologies are mentioned but not described and others are described but not listed in explanatory tables. More consistency of content and descriptive format would have been welcome.

Summary

As author Jason Charvat notes in the introduction to his book, there are not many publications that address project methodologies and templates. And more's the pity because, as he also notes, every project undertaken requires a common structure or framework in which to start.[14] You would think that the issue of a suitable framework would have received much greater attention and research by the academic community. Especially considering that the design of the project life span is the single most important differentiator between projects and non-projects. Jason's book is therefore a very welcome addition to the ever-growing list of project management literature.

The book gives a good introduction and overview of a variety of different project methodologies. It stresses that it is very important to get the selection right for the given organization and the particular project circumstances. Failure to match these correctly may well result in disaster. And here, Jason makes another very important point. The methodology for managing the project, which we would call the design of the project life span, is not the same thing as a methodology for managing the technology – though obviously the two must be closely integrated.

That is no doubt why smart organizations team together project managers and project technical managers to get the job done. This is to ensure not only meeting the project goals of "on time and on budget" but also the technical goals of scope, quality and customer satisfaction as well. Together these are the marks of a truly successfully project!

This is a valuable book for the insight it provides into a variety of methodologies for those contemplating corporate project processes, or even evaluating the suitability of their existing methodologies for their current projects.

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[1] Charvat, J., *Project Management Methodologies*, John Wiley & Sons, NJ, 2003, p xiii

[2] Ibid, p x

[3] Ibid, p xiv

[4] *Wideman Comparative Glossary of Project Management Terms*, http://www.maxwideman.com/pmglossary/index.htm

[5] Charvat, J., *Project Management Methodologies*, p3-4

[6] Ibid, p64

[7] Ibid, p18

[8] Ibid, p23

[9] Ibid p33

[10] Ibid, pp18-20

[11] Ibid, abstracted from pp54-55

[12] Ibid, p166-167

[13] Ibid, p168

[14] Ibid, p xiii