STANDARDISING QUALITY IN PROJECT SCHEDULING

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For more scheduling papers see:
https://mosaicprojects.com.au/PMKI-SCH.php

Introduction

Until recently scheduling was a 'black art' with only subjective opinions as to what constituted a 'good schedule'; and any debate over schedule quality tended to be confused with arguments over personal preferences in tools and/or networking techniques. The publication by PMI of its *Practice Standard for Scheduling* in May 2007 went a long way towards resolving many of these issues.

Similarly certifications in scheduling were focused exclusively on senior schedulers and had very little effect on the profession of scheduling. Only recently have these factors started to change.

Standardising Scheduling

The PMI *Practice Standard for Scheduling* standard development team drew on expertise from around the world to deliver an authoritative document that defines 'good scheduling practice'.

The definition of 'good practise' as set out in the Standard is based on the 'Time Management' processes from the PMBOK® Guide 3rd Edition. Chapter 2 links the Practice Standard directly into the PMBOK processes. This starting point is expanded in Chapter 3 to offer guidance on 'generally accepted good practices' for the development of an effective schedule for a project; including:

- The purpose of the schedule model
- Designing the schedule model and
- Elements of developing a good schedule.

The Standard is not a text book on scheduling but does lay out the principles that underpin the development and maintenance of an effective project schedule.

From a quality perspective, the list of 'Scheduling Components' and the associated 'Conformance Index' provide a tool that for the first time allows the unambiguous assessment of the technical competence of any schedule. A 'schedule component' is a data element that should (or may) exist in a schedule model (eg 'Activity Target Duration'). Each component is defined in terms of:

- Its name
- If it is required for a minimally conforming schedule or optional
- If the data is manually entered or calculated
- The format of the data (text, numeric, date, etc)
- The behaviour of the component (how it reacts or enables a reaction within the tool)
- Good practice in the use of the component
- Additional notes and associated components
- A definition of the component

The conformance scoring system first checks to ensure all required components are present; then calculates a score based on the use of all components. Whilst this tool provides a very useful mechanism for measuring the technical competence of a schedule, it does not address the best practice guidelines outlined in Chapter 3, ie measuring the 'effectiveness' or 'usefulness' of the schedule. These subjective assessments are still to be developed.

The *Practice Standard for Scheduling* was a major improvement on anything we have had to date but explicitly acknowledges this iteration focuses on technical conformance rather than the usefulness of the schedule. The challenge for the second edition will be to focus more on

the subjective areas of relevance and usefulness. In the meantime, PMI's College of Scheduling is working on the Scheduling Excellence Initiative which is currently focused on developing and publishing the Scheduling Enhancement Series – a multi-volume reference centre for scheduling concepts methodologies and best practices.

2011 will see the publication of the 2nd Edition of the *Practice Standard for Scheduling* plus a new book focused on Time Management. **The Guide to Good Practice in the Management of Time in Complex Projects**, published by the CIOB and Wiley Blackwell has been developed as a scheduling reference document capable of wide application. It is a practical treatise on the processes to be followed and standards to be achieved in effective management of time. It can be used in any jurisdiction, under any form of contract, with any type of project and should be identified as the required standard for the preparation and updating of contract programmes, progress reporting and time management.

Scheduling Certifications

Current Certifications

The currently available certifications are, AACE's PSP™ Certification and PMI's Scheduling Credential PMI-SP.

The AACE's Planning & Scheduling Professional Certification[1] has been available for last 6 years. As at September 2010, approximately 650 certifications have been awarded. PSP:

- Is awarded on passing a 7 Hr examination
- Requires eight years scheduling experience
- Has a construction industry focus
- No tool bias (Primavera influence).

The PMI-SP credential has been available for the last 3 years. As at September 2010, approximately 360 certifications have been awarded. PMI-SP:

- Is awarded on passing a difficult 170 question examination (multiple choice – 3 Hrs)
- Requires three to five years of project scheduling experience
- A minimum of 5,000 (3,500 with a Degree) hours of project scheduling experience.
- 40 contact hours of formal education (35 with a degree).
- There is no industry or tool bias.

The AACE certification is focused on senior construction industry schedulers and is used primarily to demonstrate the 'expertise' of people giving schedule related information and opinion in the American courts.

The PMI-SP certification examination is focused on 'understanding and using schedule information'. In addition to scheduling the questions seek knowledge of; communications & stakeholders, risk and variability, scope, WBS, Earned Value and organisation structures. The credential is aimed at scheduling and PMO managers, and senior schedulers moving to management.

Conclusions

New ideas and paradigms are emerging to change the way scheduling and project 'controls' operate. Key publications include:

- CIOB's **Guide to Good Practice in the Management of Time in Complex Projects**

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[1] For more information see: http://www.aacei.org/certification/certExplained.shtml

- ***Faster Construction Projects with CPM Scheduling*** by: Murray B.Woolf, Published, McGraw-Hill.
- The PMI ***Practice Standard for Scheduling***

The future of project management is predicted to be one that focuses on the 'soft skills' including; Communications, Motivation and leadership[2]. Uncertainty will be recognised as normal and skills for managing uncertainty will become essential for successful project managers. Consequently, the revised focus on 'using' the schedule should concentrate on supporting the PM Team with useful information and emphasise:

- Collaboration & Agreement
- Coordination and timely information
- The ability to adapt to changing circumstances quickly

In this scenario, scheduling should be seen as a modelling process that helps communicate and coordinate ideas about what might happen in the future. This is achieved by providing timely and useful information, NOT masses of irrelevant data weeks after the event. This is the essence of effective Time Management and the basis for ***The Guide*** and the CIOB credentials, hopefully the others as well.

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[2] See ***Scheduling in the Age of Complexity***: http://www.mosaicprojects.com.au/Resources_Papers_089.html