

Standardising Quality in Project Scheduling

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1

Standardising Schedule Quality



Agenda

- Problems with current Scheduling Practice
- The Value of Scheduling & Emerging Trends
- Standardising the Scheduling Process
- Certifying Schedulers
- Conclusions

2

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This Section Problems with Scheduling

- Damaging Influences
- Promising the Impossible

3

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Damaging Influence #1

- Making a detailed schedule into a 'contract document'
 - This distorts the schedule as parties manipulate data to 'political' ends
 - Adding links to 'lock in' anticipated delays
 - Manipulating the location of the 'Critical Path'
 - Prevents sensible changes as 'reality' unfolds
 - Changes de-value the 'credibility' of the unaltered schedule jeopardising 'claims'

4

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Damaging Influence #1

- Many contracts prohibit or restrict changes to the schedule
- Making the 'best of a bad job':
 - See the 'Delay and Disruption Protocol'¹
 - Separate the 'real' schedule from the contract version
 - Recognise 'float' is an artificial construct of CPM²

1. See: <http://www.eotprotocol.com> (Free download)

2. See 'Float – Is It Real?': http://www.mosaicprojects.com.au/Resources_Papers_043.html

5

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Damaging Influence #2

- Excessive detail - Schedules may have:
- Adequate detail for a collaborative 'coordinated' approach to scheduling **OR**
- Finite detail to 'control' the work? **BUT**
- 'Project Control Systems cannot control anything' (they can only provide guidance)³

3. See 'A Simple View of Complexity': http://www.mosaicprojects.com.au/Resources_Papers_070.html

6

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Damaging Influence #2

- Excessive detail
 - Hides useful information and slows information flows
 - Prevents the easy testing of ideas by 'what if' changes
 - At best shows where people are 'failing' to meet the program (even if it is wrong)
 - Does not improve 'accuracy'⁴

4. See 'The cost of Time': http://www.mosaicprojects.com.au/Resources_Papers_009.html

7

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Damaging Influence #2

- The human brain can manage around 7 pieces of data at one time (typically between 5 and 9)
- Command and Control is an outdated philosophy (McGregor 1960)
 - The only purpose for excessive detail is to attempt to control the uncontrollable⁵

5. See 'A Simple View of Complexity': http://www.mosaicprojects.com.au/Resources_Papers_070.html

8

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Promising the Impossible

- Scheduling has been sold as:
 - ‘A control tool’ – nothing written on paper will ‘control the future’
 - A precise statement of fact ‘the contract program’
 - As having accurately calculated durations⁶

6. See 'The Cost of Time - or who's duration is it anyway?': http://www.mosaicprojects.com.au/Resources_Papers_009.html

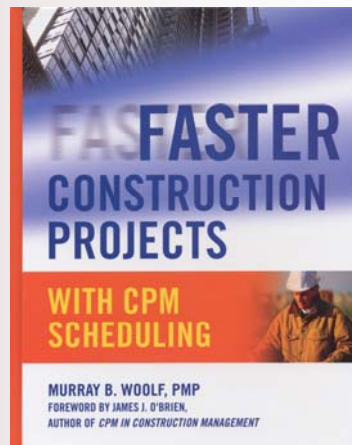
9

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Promising the Impossible

- For more on this read:
Faster Construction
Projects with CPM
Scheduling
By: Murray B. Woolf⁷
- He has a whole new set
of ideas to play with



7. Follow the link from: <http://www.mosaicprojects.com.au/Books.html#books>

10

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Summary - Problems

- The credibility of 'scheduling' has been severely tarnished by:
 - Over promising on the 'control' aspect
 - Under performing on the quality of information provided
 - Under performing on the skill sets of many people 'doing scheduling'
(anyone can drive MSP and be a 'planner')

11

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This Section The Value of Scheduling

- Schedules: define / underpin / support
 - Most project management functions
- Primary uses of a schedule

“Schedule is king” – Stephen Gumley, DMO

12

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Schedules are 'good for'

- OR at least
'good schedules are good for...'
- Developing and testing the optimum delivery strategy for a project
 - Sequencing the WBS 'work packages'
 - Coordinating & optimising the flow of work

13

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Schedules are 'good for'

- Providing a valid time baseline for
 - Earned Value
 - Earned Schedule
- Assisting in day-to-day decision making
 - Resolving dilemmas
 - Evaluating the consequences of change
 - Testing ideas
 - Communicating strategy & setting objectives

14

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Schedules are 'not good for'

- Accurately predicting end dates
 - Schedules do not 'scale' remaining durations based on performance to date
 - Earned Schedule solves this problem
- Controlling work at the 'coal face'
 - You need people to do this
- Measuring productive efficiency
 - Earned Value does this

15

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Scheduling's 'Client'

- The Project Manager should be the primary user of schedule information
 - To decide on the project's strategy
 - To coordinate workflows and balance resource demands
 - To test decisions and resolve dilemmas
- Uses that distract from this primary purposes damage the project

16

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Summary Value of Scheduling

- Offering an agreed 'vision' for the future of the project for the 'team' to use
- Allowing variations to the plan to be quantified as they occur
- Assisting in re-planning to deal with variance and optimise outcomes
- Keeping the progress of the project works coordinated and aligned

17

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Emerging Trends

- The great scheduling debate:
 - Command and control or
 - Collaboration
- Murray Woolf's new book:
 - The ideas around 'momentology'
 - The primary source of delays
- A recognition of the 'scheduling problem'

18

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This Section Standardising Process

- PMI's Practice Standard for Scheduling
- The Scheduling Excellence Initiative

19

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Standardising Process

- The 'Practice Standard for Scheduling'⁸
 - Places scheduling in the context of the PMBOK Guide 3rd Edition
 - Describes 'good scheduling practice' (Ch. 3)
 - Defines the components needed for any schedule (Ch. 4)
 - Offers a 'conformance scoring' system for evaluating schedules (Ch. 5)

8. To order: <http://www.mosaicprojects.com.au/Books.html>

20

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Standardising Process

- Good scheduling practice (Ch. 3) offers guidance on:
 - The purpose of the ‘schedule model’
 - Designing the ‘schedule model’
 - Developing the ‘scheduling framework’
 - Developing the baseline schedule
 - Maintaining the schedule

21

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Standardising Process

- Schedule Components and Conformance Scoring (Ch. 4 & 5)
 - Component list describes the ‘building blocks’ of the schedule model:
 - Project Calendar
 - Activity target finish date
 - Critical path, Etc
 - Components may be data entered by the scheduler or calculations

22

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Standardising Process

- Schedule Component characteristics
 - A name (unique)
 - If it's 'Required' or 'Optional' (see conformance)
 - If it's entered manually or calculated
 - Its data format (eg, 'date' / 'numeric' / etc)
 - Its 'behaviour' (how it 'works' within the tool)
 - Good practices in its use
 - Conditional notes / associated components
 - Definition

23

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Standardising Process

- Conformance Assessment Process
 - Validate all 'Required' components are present for the status of the model
 - Validate all 'must' good practices are followed for the 'required components'
 - **The schedule model is assessed as minimally conforming and can be 'scored'**
 - Non conforming schedules are not scored

24

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Standardising Process

- Conformance Assessment Scoring
 - ‘Points’ are earned for all correctly used components (both Required and Optional)
 - The score is divided by the maximum possible score for the model as developed
 - The conformance level is described as a percentage %
- The values vary depending on the schedule model (eg, if there is no progress recorded these components are not considered)

25

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Standardising Process

- Requirements for a ‘conforming schedule’ can now be specified by clients
- And measured!
- BUT – the system does not subjectively measure how ‘useful’ the schedule is - this is to be developed in future versions
- Mosaic will be offering a conformance assessment tool and service in 2008

26

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Standardising Process

- College of Scheduling and the Scheduling Excellence Initiative (SEI)⁹
- SEI is working on the 'Scheduling Enhancement Series' (SES)
 - A multi-volume reference for scheduling:
 - Concepts
 - Methodologies
 - Best Practices

9. See: <http://www.pmicos.org>

27

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Certifications

- AACE's 'Planning & Scheduling Professional Certification'¹⁰
 - 7 Hr examination
 - 8 Years scheduling experience
- PMI's Scheduling Credential
 - Announced for 2008¹¹
 - Courses to be available mid 2008

10. See: <http://www.aacei.org/certification/certExplained.shtml>

11. See: <http://www.mosaicprojects.com.au/Planning.html>

28

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Conclusions

- **The trends are positive:**
- The new Practice Standard for Scheduling
- SEI and SES developing best practices and guidelines
- Practical 'Scheduling Certifications' are coming
- We can now rate the technical competence of a schedule

29

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Conclusions

- Still to come:
 - Rating the 'usefulness' of the schedule
- The challenge:
Recognising scheduling is a modelling process to aid decision making
(not a controls process) and

30

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Conclusions

- Accepting “Every model is wrong, but some models are useful” G. Box 1979
 - Scheduling is a modelling process that helps communicate and coordinate ideas about what might happen in the future
 - It is not a cartographic process mapping what already exists
- After 50 Years⁹ we still have a long way to go

9. See 'A Brief History of Scheduling' : http://www.mosaicprojects.com.au/Resources_Papers_042.html

31

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Questions Please



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Download this paper from the '**Breaking News**' section of the Mosaic site

The '**Papers & Resources**' section of the Mosaic site has:

- Direct links to all of the project management associations
- A large number of free PM papers and useful scheduling references

The '**Planning**' section of the Mosaic site has the latest information on the PMI Standards, SEI and the proposed Scheduling Credential

32

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