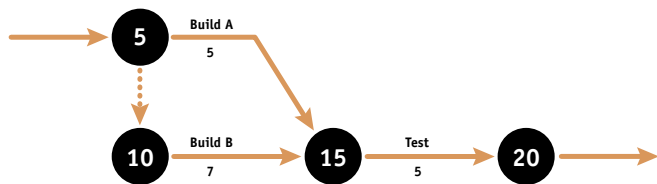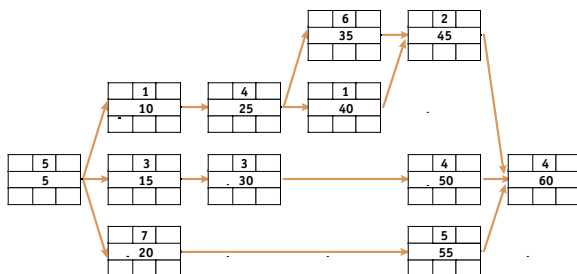LUCID
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THOUGHT

Reviving the ancient art of scheduling

Have technological advances caused the 'baby to be thrown out with the bathwater'? When an 'art' has been lost - can it ever be revived? We believe these are key questions for project planning, or should it be project scheduling because as we should all know by now a plan is more than a schedule, isn't it? For more detail and insight read on.

30-35 years ago project time planning, or project scheduling as it should really be called, relied on Project Planning Engineers hand drawing critical path networks, some using arrows and other using boxes, 'and then manually calculating early and late start dates, early and late finish dates and total float.

The pain of failing to get this 'right first time' was immense - a great motivation to define scope completely and accurately and to understand dependencies absolutely before putting together estimates. Without technology there was no choice.
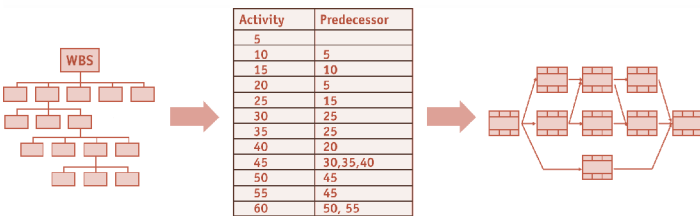

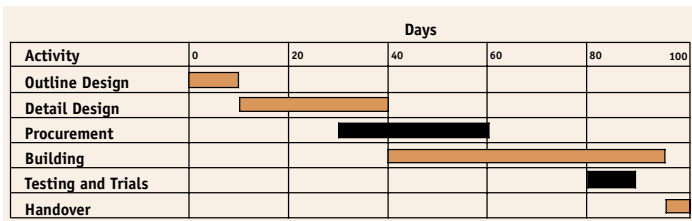Then just over 25 years ago the age of computerised project

scheduling started which enabled the electronic calculation of dates and floats as well as resourcing information. Some of us are old enough to remember when Metier Management Systems were forced to rename their new system from Apollo to Artemis as for some reason in the 1970's Apollo was a well used 'brand name'! Even in those days of the early scheduling software, getting the data into the computer system still required the skills of a Planning Engineer to create the critical path networks and then input the data. However, for at least the past 10 years it has been possible to create project time plans (schedules) without any need for a Planning Engineer or anyone with vaguely similar skills. The graphical user interface (GUI) has provided a choice that for many has been too easy to make.

Is this good for project time planning/scheduling or is it bad? It is our opinion that the ability to create project schedules in a real-time environment by 'drawing' pictures on a screen has seriously affected the project planning process. It is our belief that most **schedules produced in this manner are in some way or another incorrect with disastrous 'knock-on' effects on the successful delivery of projects. Technology in this area doesn't encourage 'right first time'.**

30 years ago in order to produce a project schedule a strict sequential process would be followed. Firstly all the work to be undertaken would be identified and then listed as tasks or activities. The logical sequence of each activity would then be determined, perhaps by using an activity dependency list; a critical path network diagram would then be drawn up. Once the 'logic' was agreed the likely elapsed time for each activity would be estimated, where appropriate taking into consideration the required effort and likely resource availability. And finally, the early and late start dates and floats would then be calculated and the duration for the project established. You know this - but do you ever do it?

Activity	Predecessor
5	
10	5
15	10
20	5
25	15
30	25
35	25
40	20
45	30,35,40
50	45
55	45
60	50, 55

done for 'exam passing' purposes - but who does it for real on the job? How many of you really do use a Product or Work Breakdown Structure to decompose the scope of the project? Or how many of you have even heard of an Activity Dependency Table? Good practice needs to be implemented! Moreover the answer lies in the development of organisational project management maturity. **Good practice will be implemented if the organisational culture does not tolerate 'pretty picture' scope and time planning.**

Today, due to the very nature of available computer software, it is no longer necessary to follow anything like the old sequential process. In the extreme case a project schedule is created by first establishing the desired end date, importing activity descriptions from a pre-determined template and then literally drawing bars to represent elapsed time ensuring that the end date is not exceeded. In truth this is nothing more than a pretty picture that was created without any thought to the project scope and without any consideration of the logical dependencies between activities. Unfortunately the final result is all too often regarded as perfectly acceptable and a realistic representation of the project schedule - something prepared by a computer can't be wrong!! Who looks behind the façade of the 'pretty' Gantt chart?

Days						
Activity	0	20	40	60	80	100
Outline Design						
Detail Design						
Procurement						
Building						
Testing and Trials						
Handover						

If today's culture of project time planning/scheduling leads to the development of incomplete and incorrect schedules what can be done to change things? No one is going to stop using modern, 'sexy', user-friendly planning/scheduling software and there is no need to if we can also somehow rejuvenate the necessary rigour of the past; the rigour that created 'proper' project schedules?

The answer lies partly in the documenting and teaching of effective project scope, time and cost planning processes. This is

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