



EECE443: Software Project Management Assignment #6 - Progress; practice analysis

1) Assessing progress: Earned value

Suppose you are making cookies for a large party to be held tomorrow for your software team. Here's your plan at the very beginning:

- 40 cookies per batch
- 5 batches per hour (for a total of 200 cookies)
- Schedule: 5 hours to make a total of 1000 cookies
- Budgeted cost per cookie is \$0.05, therefore ...
- ...Total budget is \$50.00 for cookie ingredients.

Progress Report at the end of the first hour:

- 150 edible cookies have been made (some were burnt and had to be thrown away)
- Total actual cost of ingredients used so far is \$9.00

Now, the questions are:

- Expand and explain in one sentence the meaning of each acronym:
BCWS, ACWP and BCWP.
Compute for this example BCWS, ACWP and BCWP at the end of the first hour.
- Define the progress at the end of the 1st hour; compute the following indices:
 $SV = BCWP - BCWS$ (schedule variance)
 $SPI = BCWP / BCWS$ (schedule performance index)
 $CV = BCWP - ACWP$ (cost variance)
 $CPI = BCWP / ACWP$ (cost performance index)
and explain what these numbers actually mean for the cookie project manager.
- Looking ahead now, assuming you continue on this cooking trajectory, what is your...
EAC Estimate at Completion (i.e., final cost)
SAC Schedule at Completion (i.e., final delivery time)
VAC Variance at Completion (i.e., budget minus actual expenditure)
- Explain why this earned value approach is difficult to apply to *software* development projects?
- What alternative solutions or techniques have we found to assess progress of software projects?

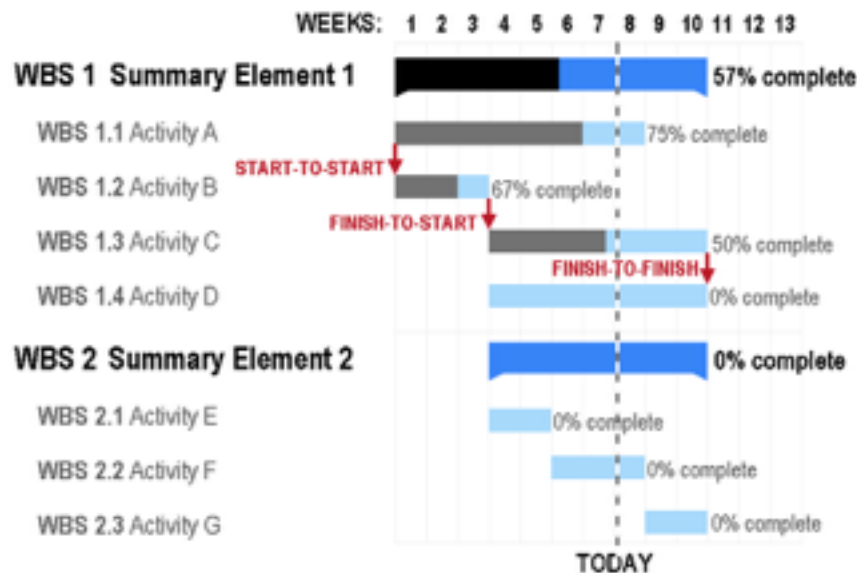
Answers in a page maximum.

Source: Dennis Frailey



2) Analyzing a practice or method: Gantt chart

A *Gantt chart* (named after Laurence Gantt) is a project management technique using a type of bar chart to visualize a project schedule. Gantt charts show the start and finish dates of tasks or activities of a project. These activities comprise the work breakdown structure of the project. Some Gantt charts also show the dependency (i.e., precedence network) relationships between activities. Gantt charts can be used to show current schedule status using percent-complete shadings and a vertical "today" line as shown here. (Source: Wikipedia)



Analyze the Gantt chart technique from 2 perspectives:

- explain what it is, in terms of the concepts that are involved: people, intent, product, work, time, uncertainty, cost, value, risk, quality, etc.
- how well does it support a software development project **or not**, and for what reasons.

No more than a half a page, please.

Submit your assignment in Microsoft Word or PDF via Vista by Wednesday March 12th at 1:00pm *and* place a printed copy in the mailbox located in McLeod 4th floor, between rooms MCLD422 and 426. This is an individual assignment.