Test Management Part 2

Test Tracking

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Objective

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Utilize various measures to track testing progress.

System Test Tracking

- **During system test information must be collected and tracked to assess:**
  - Product quality (previously discussed under "system test exit criteria")
  - Testing progress
- **Numerous measures exist for tracking test progress against a plan including:**
  - Percentage of tests developed
  - Percentage of tests executed
  - Percentage of requirements tested
- **Testing schedule and effort progress can also be assessed via earned values**

Earned Values

- **Earned values are a technique for tracking both schedule and cost progress**
- **Earned value approach establishes a relative value for every task and credits that value when the task is completed**
- **Progress is then tracked in terms of:**
  - BCWS (Budgeted Cost of Work Scheduled)
  - BCWP (Budgeted Cost of Work Performed)
  - ACWP (Actual Cost of Work Performed)

Earned Value Example

Assume that we are concerned with testing two concurrently developed increments of a product labeled "1" and "2" and for each increment there are features labeled "A" - "F". Thus, task "1A" corresponds to the activity of testing feature "A" in increment "1". Associated with each testing task is an earned value corresponding to the estimated effort to complete the task.

Tasks	EV	Tasks	EV
1A	50	2A	30
1B	40	2B	40
1C	30	2C	30
1D	20	2D	50
1E	50	2E	40
1F	30		

Earned Values Example
(continued)

Assume the following schedule:

Week 1	Week 2	Week 3	Week 4
1A, 1B	1C, 1D	1E, 1F	
	2A, 2B	2C, 2D	2E

Earned Values Example
(continued)

Week	Work Completed	Cost
1	1A, 1B, 1C	100
2	1D, 2A, 1E	70

Earned Values Example
(continued)

	Week 1	Week 2	Week 3	Week 4
BCWS	90	210	370	410
BCWP	120	220		
ACWP	100	170		

Earned Values Example
(continued)

- **Based on earned values the project is ahead of schedule at the end of week 2**

BCWS	=	210
BCWP	=	220

- **Based on earned values the project is below budget at the end of week 2**

BCWP	=	220
ACWP	=	170

Summary