

- By how much, is it over/ under budget?

Under budget by 700 k\$

- By how many days, is it ahead/ behind the schedule?

Behind the schedule by 1 month

Because task C starts in the 5<sup>th</sup> month and should end in 7<sup>th</sup> month so it behind the schedule by 1 month

Also, task D should be 66.6% not 33.3% so it is behind the schedule by 1 month

As task C and D is parallel tasks the project behind the schedule by 1 month

- By the end of the project, by how much will it be over/under budget?

Task C may be the actual cost of it 400 k\$

Task D may be the actual cost of it 1500 k\$

Task E may be 300 k\$ as estimated

So, the cost will be over budget by 500 k\$

- CV

$$CV = (\text{Earned value (EV)}) - (\text{Actual cost (AC)})$$

$$EV = (\% \text{ of work completed}) \times (\text{Budget})$$

$$EV = (100+100+50+33.3/500) * 3700 = 2096.42$$

$$AC = 600 + 1400 + 200 + 500 = 2700$$

$$CV = 2096.42 - 2700 = -603.59 \text{ (OVER BUDGET)}$$

- SV

$$SV = BCWP - BCWS$$

$$BCWP = (\text{Total Project Budget}) \times (\text{The Percentage of Work That Has Been Completed}) = 3700 * 0.5666 = 2096.42$$

$$BCWS = (\text{Total Project Budget}) \times (\text{The Percentage of Work That Should Be Done by Now, Based on Time Elapsed}) = 3700 * (100+100+100+66.6)/500 = 2712.84$$

$$SV = 2096.42 - 2712.84 = -616.42 \text{ ( -22 .7% BEHIND THE SCHEDULE)}$$

- CPI

$$CPI = EV / AC = 2096.42 / 2700 = 0.7764 \text{ (OVER BUDGET)}$$

- SPI

$$SPI = EV / PV = 2096.42 / 2712.84 = 0.772(\text{behind schedule})$$

- EAC

$$EAC = AC + (BAC - EV) = 2700 + (3700 - 2096.42) = 4303.58$$