

“Project Management Using Earned Value”
Case Study Solution 13.1

13.1

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ANALYZING

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THE SCHEDULE

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Analyzing the Schedule

1. Total Float = 4 days
- 2a. 18,000 hours forecast
- 2b. 45 days
- 2c. This will decrease the total float to -9 days, putting the effort further behind schedule and indicating a likely slippage of the final shipment date unless corrective action is taken.
- 2d. Actual to date experience must always be used to status the schedule to get valid results. Use of the estimated unit rate after it is known to be invalid will result in:
 - a. Incorrect activity durations
 - b. Incorrect total float
 - c. Incorrect staffing plans
 - d. Incorrect completion date
 - e. Incorrect cash flow forecasts
- 2e. 9,000 hours were required for completing 50% of the work and 50 people/day were used. This relates to 400 manhours/day into 9,000 actual manhours, which equals 22.5 days elapsed. So 9.5 days remain to accomplish 9,000 additional hours of work.
$$9,000 / (9.5 \text{ days} \times 8 \text{ hrs/day}) = 118.4 \text{ people}$$
- 2f. Several alternatives exist, including:
 - a. Delay shipment 9 days (i.e., revise schedule).
 - b. Allow Activity C to slip, but expedite activities D and E to recover slippage by increasing staff for those activities.
 - c. Moved the 100 assemblies with completed wiring to the installation activity, allowing 100 to go ahead of schedule while the remaining lag. This puts 100 assemblies in installation in 22.5 days rather than 32.