Executing Process Group Artifacts

4.3 Direct and Manage Project Work

4.3.3 Work Performance Data (Output)

PMGT 690, ERAU, Prof. Sherman

By: Matthew Holtan
4.3.3 Work Performance Data (Output): Another output for the Direct and Manage Project Work process would be the work performance data. This data could include observations, measurements or procedures on activities being performed to carry out work. This homework assignment was from PMGT 614. It entailed observing schedule compressing techniques and how it would save time. The example from this homework assignment would be a start and finish from scheduled activities.

Compressing Schedule

**Crashing**: crashing an activity’s along the critical path, we need to find the activities that have the cheapest crash cost. Next we can reduce that activity by one time unit, decreasing the time, however this will increase the overall direct cost for that activity. The more we crash activities the more sensitive the project becomes. To put it simply, risk goes up. This risk can relate to personnel being hired to potentially sacrificing quality.

Without the crash costs, I could not quantitatively equate crashing the AON. It was suggested that we hire additional help which would cut the duration of activities however it would increase our labor costs. If resources are not constrained then this would be a feasible solution.

**Fast tracking** (Larson and Gray) this alternative is to rearrange the logic of the project network so that critical activities are done in parallel (concurrently) rather than sequentially. Like crashing, when project durations gets decreased, the risk goes up. This can produce wasted effort and rework.

Group 2 Bike Schedule (Fig 1, Baseline AON)

1. After 1.1.3 (build frame set) we can fast track the following:
   1.2 (install crank set) .3 hrs
   1.3 (install tires) .2 hrs
2. Testing smart phone dock 1.8.1 and 1.8.3 can be done in parallel: .5

Total Time 1 hr

According to Baseline AON, the late finish is 3.9 hrs. By fast tracking these suggested items (1 hr) we reduce to duration to 2.9 hrs.

If resources are not constrained, we can hire additional help (crashing) for activities 1.1, 1.3, 1.4, 1.5 and 1.8. This would increase labor costs and potentially increase risks, however it would reduce the project duration significantly.