

Fukushima Daiichi

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Develop Schedule

Process Purpose Summary

Schedules define a systematic approach to accomplishing a given objective. Building a house is an objective, but not a schedule. Within this objective are activities that must be performed in order to achieve the desired result. The Develop Schedule process as stated in the PMBOK is, “the process of analyzing activity sequences, durations, resource requirements, and schedule constraints to create the project schedule model” (PMBOK, 3013). This process is used best with a scheduling software to create a complete reader friendly schedule with required details such as milestones, durations, resources.

Developing the schedule is simple once all the necessary tools and techniques are outline in the Schedule Management Plan, as described in the previous section. From there the schedule network diagram produced by the critical path method will assist the project manager in systematically logging activities into the chosen software tool. If a resource is known to be scarce, the project manager can use resource optimization techniques such as resource leveling and smoothing which adjust and balance resource constraints to lower project risk. There are other options as well if the project manager is pressed for time. There is the option to crash a schedule which means decreasing the duration and adding more resources for shift work, overtime, or to expedite materials (PMBOK, 2013).

Process Differences in a Global Setting

As stated in the Plan Schedule Management section, the nuances with developing a schedule management plan are the same as developing the actual schedule. In a global setting, develop schedule inputs such as resource calendars, the risk register, staff assignments, resource

breakdown schedule, social, political, and environmental factors, and organization process assets vary due to differences in location, political climate, social norms, and differences within the global economy. It is important for the project manager to be sensitive to the culture when working with the locals and add appropriate risk to the schedule due to global setting unknowns.

Tools and techniques used to analyze schedule inputs remain pretty much intact. The use of techniques such as critical path method, critical chain method, what-if analysis, and resource optimization all have, within their own techniques, value when creating a schedule. In some cases, a combination of methods and techniques might be required in order to secure a reliable schedule. The critical path method offers a visual indication of task flow from beginning to end. In some cases, tasks may be performed concurrently as they are not reliant on each other. Those cases which require a specific task to be completed before the next may begin are known as critical task and are part of the critical path. *Figure 1*, provides an example of task flow from beginning to end. In this case, the critical path is A, B, C, D, & E. Each of these specific tasks require the accomplishment of the previous task before they may begin.

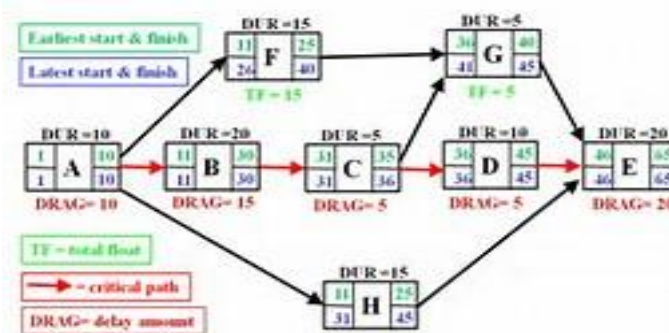


Figure 1. Sample: Critical Path

Process Differences When Taking Over a Failing Project

Taking over a failing project can be for a particular reason, or a host of reasons. When taking over a project with these difficulties, it must first be determined the reason for failure. If, for say, the reason for failure is financial, then delays along the critical path will impact the ultimate delivery of the product or service. At this point, a late delivery may or may not be inevitable. If it is possible to crash the task with additional manpower, material, or finances, then it may be possible to regain control of the path and ultimately the schedule.

If crashing is not an available option, then a reset of the critical path and schedule will be necessary and require the approval of the customer and acceptance by the stakeholders. Depending on the level of importance of the failed project, the project manager may need to adjust the schedule format to fit the needs of the customer. The manager will develop the schedule as usual per the scope, then use resource optimization techniques to level and smooth out any resources constraints. Overall, developing a schedule does not differ much from a normal schedule in the home country. Once developed, it is critical that the project be monitored to ensure tasks do not fall behind and create another potential failure.

Proposed Strategies, Tools, and Techniques Applicable to Fukushima Daiichi

Fukushima Daiichi is one of the largest disasters in the recent history of Japan. Failure to properly assess the risk associated with tsunami occurrence created an improper assessment of probability and impact that would occur if emergency power were lost to each reactor plant. Understanding the importance of emergency power and required cooling systems, it is not possible to create a schedule of required tasks and training required to recover.

Our team will meet with TEPCO management and personnel from Japan's nuclear regulatory commission in order to assess what work has been completed and what still remains.

The existing schedule and risks will be reevaluated to identify potential delays and failures, as well as the likelihood a task will fail and what impact that will have on the project as a whole. Our group is prepared to develop a schedule to the local Japanese requirements as well as the PMI format. Being that our service is temporary and is only going to be used to equip the local project team with the tools needed to recovery the Fukushima disaster, our schedule is flexible. Developing in-country activities such as training lessons are simple in the natural and our group be sure to make time for known holidays or observances within Japan.