

# Cell phone design operation management

[Technology](#), [Mobile Phone](#)



Shortening the duration of the project As the duration of the project is directly dependent on the duration of critical path, we should make the critical path shorter; in this case we need to re-plan the project. Manager should shorten the duration or work on a task on the critical path, this can have a significant impact on the overall duration of the project, or they should change a task constraint to allow for more scheduling flexibility.

We have a number of options and we should assess the impact of each on the project's cost, quality and time required to complete it. For example, we should increase resource available for each project activity to bring down time spent on each but the impact of some of this would be insignificant and a more efficient way of doing this would be to look only at activities on the critical path. Adding more resources to a project to shorten its duration is called crashing. We should do the crash action to shorten the critical path but In some situations.

Shortening the original critical path of a project can lead to a different series of activities becoming the critical path, so the management should be aware of this. As our information is limited in this case we can't analysis the cost of putting more resources on some activities to speed it up by analyzing the original cost, crash cost we can estimate the crash cost per week we can compute the crash result and have enough information for cost analysis and make decision. We can use the pert analysis and crash action to shorten the project's duration by shortening the factors of critical path.

Some possible ideas for shortening the duration of subproject of the critical path are completing the software supplier specification in 4 weeks rather than 6 weeks, this would shorten the project by two weeks by putting

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additional input on this section but it will raise the project cost, the other one is D7, if we put more resources on this project and finish it in 2 weeks as it is a constraint for D1 and both of them are in critical path it will reduce the duration of project significantly, by combination of these two we will reduce the duration by 4 weeks, from 36 weeks to 32 weeks, but as it was mentioned before the cost analysis is still important in making decision.

The other change that I recommend is they should break a critical task into smaller tasks that can be worked on simultaneously by different resources, for example the functionality can be divided in to two tasks which one of them is relevant to camera and the other one relevant to user interface, in this case not only the duration of the task will change but the constraints of this task will also I change relatively so this also will reduce the duration of the project. In general they should revise task dependencies to allow more scheduling flexibility, and for additional resources they can schedule overtime to assign additional resources to work on critical path tasks, because by bringing new staff in the project the alignment and interrelationship between teams will be another problem that should be solved. By Microsoft project management we can have more detail analysis of cost such as crash, perk analysis, milestones and the overall of project running, attached are the same analysis from MS project.