

Program Success: Project & Program Management Success Factors

Scope, Time and Cost – Managing the Triple Constraint

MAY 2, 2011

Nearly anyone familiar with project management, even in a tangential fashion, has probably heard of the famous 'Triple Constraint'. (Also often referred to as the Project Management Triangle)

Referring to the diagram to the right, the Triple Constraint basically demonstrates in pictorial fashion, the key attributes that must be handled effectively for successful completion and closure of any project. For thoroughness, the key attributes of the Triple Constraint are itemized as follows:



Time – This refers to the actual time required to produce a deliverable. Which in this case, would be the end result of the project. Naturally, the amount of time required to produce the deliverable will be directly related to the amount of requirements that are part of the end result (scope) along with the amount of resources allocated to the project (cost).

Cost – This is the estimation of the amount of money that will be required to complete the project. Cost itself encompasses various things, such as: resources, labor rates for contractors, risk estimates, bills of materials, et cetera. All aspects of the project that have a monetary component are made part of the overall cost structure.

Scope – These are the functional elements that, when completed, make up the end deliverable for the project. The scope itself is generally identified up front so as to give the project the best chance of success. (Although scope can potentially change during the project life-cycle, a concept known as 'scope creep') Note that the common success measure for the scope aspect of a project is its inherent quality upon delivery.

The major take-away from the Triple Constraint, being that it is a triangle, is that one cannot adjust or alter one side of it without in effect, altering the other sides. So for example, if there is a request for a scope change mid-way through the execution of the project, the other two attributes (cost and time) will be affected in some manner. How much or how little is dictated by the nature and complexity of the scope change. As an added example, if the schedule appears to be tight and the project manager determines that the scoped requirements cannot be accomplished within the allotted time, both cost AND time are affected.

Based on the aforementioned definitions and examples, how does the project manager stay on top of the triple constraint? What steps can one take to ensure successful project rollout knowing how the three attributes affect each other?

Understand the Triple Constraint

For starters, the project manager MUST be fully cognizant of the fact that scope, time and cost are fully inter-related and that the triple constraint dictates any adjustment to any of those items MUST affect the other. In many cases, a project manager may be somewhat aloof about adding scope to a project or accepting a budget cut without taking the effort to determine what the consequences of that change will be. Denial of the potential repercussions of adjustments to the scope, time or cost of a project are only going to lead to issues down the road and may also cause the project to fail.

Convey the Triple Constraint

Along with recognizing how the triple constraint functions, it is imperative that the project manager convey that information to the project stakeholders. Making sure everyone who is involved with the project recognizes the importance of the constraint will make discussions regarding the scope, time and cost far easier. In many cases, the stakeholders are likely to be the main reasons for scope creep or budget adjustments in a project. Having them aware up front of what the ramifications might be for any requested or mandated changes will make dialog easier in follow-up meetings and will also make them scrutinize their change requests more thoroughly rather than assuming that any change will have no issue on the project release cycle. Note that conveyance of the triple constraint to the stakeholders is best performed at the outset, likely during the formation of the initial project plan.

Monitor the Triple Constraint

As the project manager, making sure that you stay on top of all the key attributes of the triple constraint will make the likelihood of project success that much higher. So be cognizant of any fluctuations to the key attributes, whether they be unexpected or requested. Never assume that other attributes can be left un-changed if one attribute is known to be changing or fluctuating. As noted earlier, one cannot simply dismiss a change to one without being fully aware of the fact that it WILL affect the other two.

Conclusion

The Triple Constraint is one of the most well known and well respected mechanisms for signifying the interaction of the key attributes of a project. By being fully aware of its function and implications is an important aspect of the project manager's role and responsibility. The triple constraint is meant to be a asset to the project manager's arsenal and should not be viewed as a hinderance.

Source: <https://programsucces.wordpress.com/2011/05/02/scope-time-and-cost-managing-the-triple-constraint/>