

The Triple Constraint and RSS Matrix

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Introduction

In a perfect world scenario, once you establish your project and baseline

- There are no changes
- You have plenty of time to complete the project.
- You have sufficient funds and people to complete the work.

In the real world

- There are changes
 - There client is eager to add more features
- You find that you are short of time to complete the project.
 - The due date has been changed and you have less time to complete the project
- The costs escalate and resources become an issue.
 - You inexplicably have high costs and seem to be short of staff to complete the work.

During the Project Initiation Phase

Meet with the Project Sponsor and discuss the following key topics:

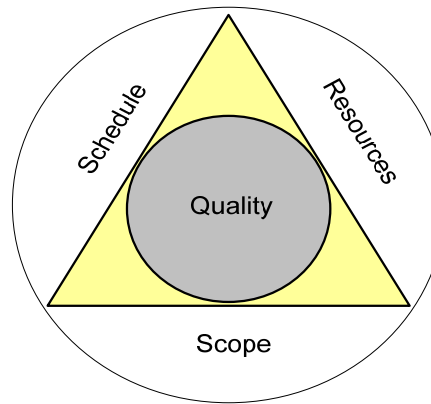
- The goals of the project
- The Project Plan
- Setting expectations
- Roles and Responsibilities
- The Triple Constraint and RSS Matrix

So how do you balance the situation where ...

- Scope, Schedule, and Resources need to be in perfect harmony so that you can deliver the project on-time and on-budget?
- The project sponsor will understand that changing one part of the equation will affect the others?
- Transfer the responsibility (and ownership) of changes to the project sponsor?

The Triple Constraint Model

Of Project Management



The Triple Constraint seeks to balance the three elements of a project – **Scope**, **Schedule**, and **Resources**.

And let's not forget **Quality**- it is an integral part of the triangle and is a force that must also remain in equilibrium with the elements.

Scope

- What are we doing?
- What is included in the project?
- What is excluded from the project?

Schedule

- When is the final project due date?
- Are there any particular milestone due dates?

Resources

- When is the final project due date?
- Who will be working on the project?
- How much time can the resources devote to the project?
- What is the budget and cost constraints?

Quality

- Meeting a minimum quality standard



As the Project Manager, you are responsible to deliver the project and assure that

- The project deliverables will be met
- The project will be completed on-time
- The cost will not exceed the budget

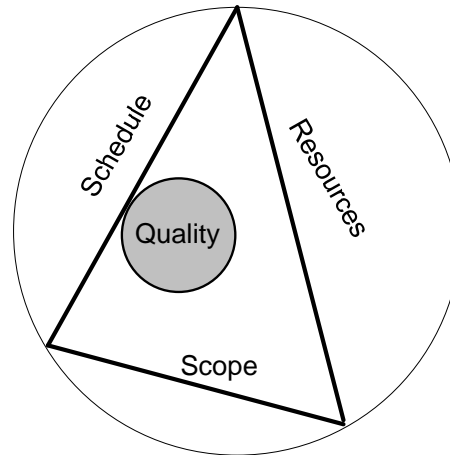
AND

- The deliverables will meet a minimum quality standard

So what happens if

- **The scope of work changes?**
 - The schedule must change and your resource requirements will most likely change too.
- **The schedule is changed (and you have less time)?**
 - You may need to decrease the project scope and/or increase the resources .
- **The resources are not available as you expected?**
 - You may need to decrease the project scope and/or change the final delivery date.

The Model Will Become Lopsided



- Changes to one element will affect the others
- The equilibrium will change
- The project will be impacted and decision need to be made

So What Do You Do ???

- **Make sure the Project Sponsor understands the situation.**

How?

- Regular status reports and meetings
- Independent project review teams

- **At the outset of the project, make sure the sponsor is aware of their role on the project. How?**

- They sign the Project Charter
- They review and approve the Roles and Responsibilities Matrix

- **The sponsor should set and reset the project priorities.**

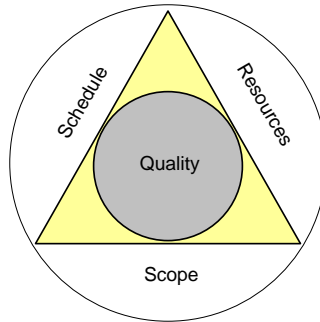
How?

- Review and completion of the RSS Matrix

The Question of Project Ownership

- **This goes beyond the CYA method of Project Management**
 - The PM should not be put in a position to make these decisions
 - Independent project review teams
- **The Project Manager must educate and guide the sponsor**
 - Review of the Roles and Responsibilities Matrix
 - Provide briefings
- **The Project Sponsor must assume “ownership” of the project**
 - They should sign an agreement stating that they will make key decisions regarding Scope, Schedule, Resources, AND setting priorities if changes should occur.

Prioritizing The Triple Constraint



At the very outset of (and throughout) the project, you need to work with the Project Sponsor and determine how to rest the priorities of Scope, Schedule, and Resources should there be a change in the project.



So what happens if the Project Sponsor says ...

- Everything is a priority.
- Why can't we play it by ear?
- I will make that decision when the time comes.

The RSS Matrix

- During the Project Initiation Phase, consideration must be given to “priorities” of Triple Constraint elements.
- The Project Sponsor must identify how these priorities will rank in importance to each other.
- Is there a tool that I can use to manage the priorities?
- Yes

The RSS Matrix Model

RSS Matrix			
	Least	Somewhat	Most
Scope			X
Schedule		X	
Resources	X		

By using the RSS matrix, decisions can be made based on a priority level which will allow a project manager to make adjustments to a project, based on priorities. The Project Sponsor must assign one "X" per column and one "X" per row.



The RSS Matrix

Resource Considerations

- Resource Allocation- over/under commitment
- Allow for down time / slacks
- Consider streamlining tasks and optimization
- Budget and how it will be met



The RSS Matrix

Schedule Considerations

- Adjusting Due Dates
- Allow for task interdependencies
- Adjust the critical path
- Adding work days
- Adding more external resources



The RSS Matrix

Scope Considerations

- Can requirements be loosened or eliminated?
- Consider outsourcing a requirement
- Can you reduce quality controls?
- Can you reduce scope without affecting the project?

The RSS Matrix

Quality Considerations

- Make sure that changes to the project do not impact the standards set for the project.
- Continuously measure quality throughout the project
- If the quality will be impacted, use the RSS Matrix to help guide the priorities

The Almighty Dilemma(s)

- How does one prioritize?
 - The Project Sponsor must decide
- Can the Matrix priorities be changed?
 - Of course, but the Project Sponsor must do that.
 - The PM should document this change.
- Are there tradeoffs?
 - Of course, and those must be carefully considered.

Remember ...

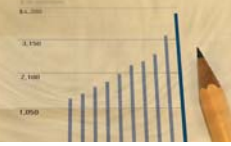
- **Create your PM documents and have them signed**
 - The Project Charter
 - Roles and Responsibilities Doc
 - RSS Matrix
- **Have ongoing status meetings**
 - Inform and educate the Project Director
- **Monitor the project carefully**
 - Employ sound Change Control processes
 - Look for changes in priority tendencies

How To Handle Discussion With The Sponsor

- Make it clear that this is a “partnership” and that everyone will benefit from a successful project.
- Make recommendations; Never present ultimatums
- Use the WBS to document “Departure Points” whenever you have a major change in scope.
- If the Sponsor cannot relate to the RSS Matrix, you can say “which would you prefer, to have a project that is “good, fast, or cheap?”

Sample Roles and Responsibility Matrix

Project Sponsor	<ul style="list-style-type: none">•Reports to the Director.•Provides written status updates as required.•Provides direction and responsible to oversee the activities of the project.•Maintains authority and responsibility for the project once it has been approved by the Steering Committee.
Project Manager	<ul style="list-style-type: none">•Reports to the Project Sponsor.•Manages daily activities of the project.•Provides weekly updates.•Oversees working groups and provides direction to team members.•Responsible for the delivery of the project.
Working Group(s)	<ul style="list-style-type: none">•Formed to support the efforts of the project.•Consists of key stakeholders, from the various divisions affected by the project, who understand how the various business units work.•Provide information and input regarding how the organizations and its processes work.•Identify and analyze problems.•Meet on weekly basis and complete tasks as needed.



About the Author

Tom Carlos has over 20 years of cumulative experience in business, technical, and training environments. He is a Certified Project Management Professional (PMP) and member of the Sacramento Valley PMI Chapter. He is also an instructor for the chapter's "PM Basics Course."

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