



The Central Resource Management Metrics and Concepts

A Project Management Article by Gus Cicala

A question we frequently find at conferences is “How are other companies implementing resource management?” This is a broad question that we could not possibly cover in a single post, but we thought a helpful starting point would be to delve into the fundamental metrics, terms and considerations used in resource management. In the interest of working from the ground up, this will serve as useful reference material for when we move into deeper theory.

The Central Pillars of Resource Management

Resource Management boils down to two questions:

1. Who/What are the resources that will be used to complete the task?
2. When are they available?

As such, the following considerations are the central pillars of Resource Management, upon which all others rest:

- **Named Resources vs. Role:** Following the Work Breakdown Structure, the manager outlines the skills that will be necessary to carry out the tasks within it, the roles are defined, and the Project Manager fits the resources to the roles based on their skills and availability. This fulfills the who and what that will be used to complete the task.
- **Percent Allocation:** This is an output of two other metrics. Divide demand (the amount one is being tasked to work) by capacity (the amount one is available to work), and you get the percentage a resource has been allocated. $(\text{demand}) / (\text{capacity}) = \text{\%allocation}$. This answers the question of when the resources are available.

If you'd like to think of it this way, Resource Management is little more than a traditional inventory where you compare what is in stock with the orders that are made against it.

Degree of Rigor and Accuracy

There are varying degrees of rigor a company can apply to their management that result in correlating accuracies for the schedule. Though naming resources for a role and determining the % Allocation get to the heart of the Resource Management process, there are important considerations regarding how in-depth these measures need to be.

Let us say, for example, that a certain resource will be available 83% of a Full-Time Equivalent (FTE) in a given quarter. A manager may assign them to 83% of a standard FTE's demand each week. Then, the manager may find that resource will have 100% of an FTE each week of the quarter, except for a two week vacation, wherein they will obviously have 0% capacity. The manager's schedule assigned the resource too lightly throughout much of the quarter, and now he or she is completely unavailable over the remaining two weeks.

The following considerations are aimed to match the level of rigor with the organization's standard for accuracy, which may avoid this problem:

- **Project vs. Phase vs. Task-level detail:** The level of granularity that will be used as the scale for estimating the demand. This is generally determined by some sort of standard that has been set forth by the organization. The project level is the broadest perspective to take, and the task level is the most rigorous with most credible outputs.
- **Time scale:** Whether you want your availability estimates to be down to the hour, day, month, quarter, year, et cetera. In the 83% FTE example, the time scale was quarterly, whereas the optimal results came at the weekly level. The Time Scale is often in sync with the overall level of granularity. For example, if you're using task-level detail, then since tasks have a specific begin date and end date, you must necessarily be measuring down to an almost daily basis.

Just those four main concepts get you to the bare bones of Resource Management.

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About the Author

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Mr. Augustus (Gus) Cicala is the President, CEO, and founder of Project Assistants, Inc. Mr. Cicala started Project Assistants in 1996 as a successful, full-service project management consulting firm that provides consulting services, custom development, education and products that form the foundation of enterprise project management solutions. He is an expert in Project & Portfolio management with extensive executive leadership and consulting experience and has worked with a broad range of clients throughout the US and Western Europe.

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Mr. Cicala is also a popular speaker and writer on Project & Portfolio Management and the use of Microsoft Project as an enterprise project management technology platform. He is a published author of many popular articles and books on the subject of project management, including contributions to several editions of Macmillan's popular Que book series: Special Edition: Using Microsoft Project. He is also a contributing author to the third edition of Expediting Drug and Biologics Development and is a member of Microsoft's product advisory council

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Note: this article reflects the viewpoint of the author, Gus Cicala, and does not necessarily represent the views of PMIWDC. If you disagree with or object to the views expressed here, [please let us know](#)

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