Data-Driven Workload Management

By Bill Martin

Project manager (PM) overload can lead to low morale, poor project oversight, scope creep, project delays, increased costs, unnecessary mistakes, communication problems, and customer dissatisfaction. At the University of Central Florida (UCF), our Facilities Planning and Construction (FP&C) team has started using data-driven metrics to tackle this challenge, prioritize projects, communicate our needs, and evolve into a more customer-service culture.

The Challenge

With an enrollment of more than 68,000 students, the University of Central Florida (UCF) is one of the largest universities in the country. As such, its facilities are constantly changing to support its academic and research programs, and to serve the needs of its students, faculty, and staff. UCF's Facilities Planning and Construction (FP&C) is charged with project delivery on the campus, and we are working hard to change our project delivery from a culture of a project machine to a customer service organization.

FP&C manages an average of 400 small and large projects at any given time, with a staff of 13 Project Managers (PMs) and a small team of support staff. Our clients request projects ranging in size and complexity from a $5,000 access control project to a $66M new classroom and office building. They have high project expectations, as the success of their operations often depends on timely project completion.

Programs like ours, with a large volume of projects, can be significantly challenged by workload capacity; the proper prioritization of projects for workload management; limited staff and funding resources; and the lack of data-driven metrics to justify additional personnel resources. Fortunately, there are software solutions and analytic reports that can help with all of these management issues.

Applying Data Driven Metrics To Workload Management

Two key factors for successful project delivery are **assigning the proper volume of projects to each PM** and **ensuring that these projects are properly prioritized**.

FP&C has implemented a project management information system (PMIS) to help manage all aspects of our projects, including scope, schedule, budget, workflow approvals, etc. A key benefit of this software is the ability to generate reports of all types, including those that help manage project priorities and PM workload capacity.

Project priority dashboards and reports have been created for both PM and campus client use. These reports help the team focus on high-priority projects that are most important to campus clients. Department leadership reviews high-priority project statuses with campus clients on a bi-weekly or monthly basis to ensure progress is being made.

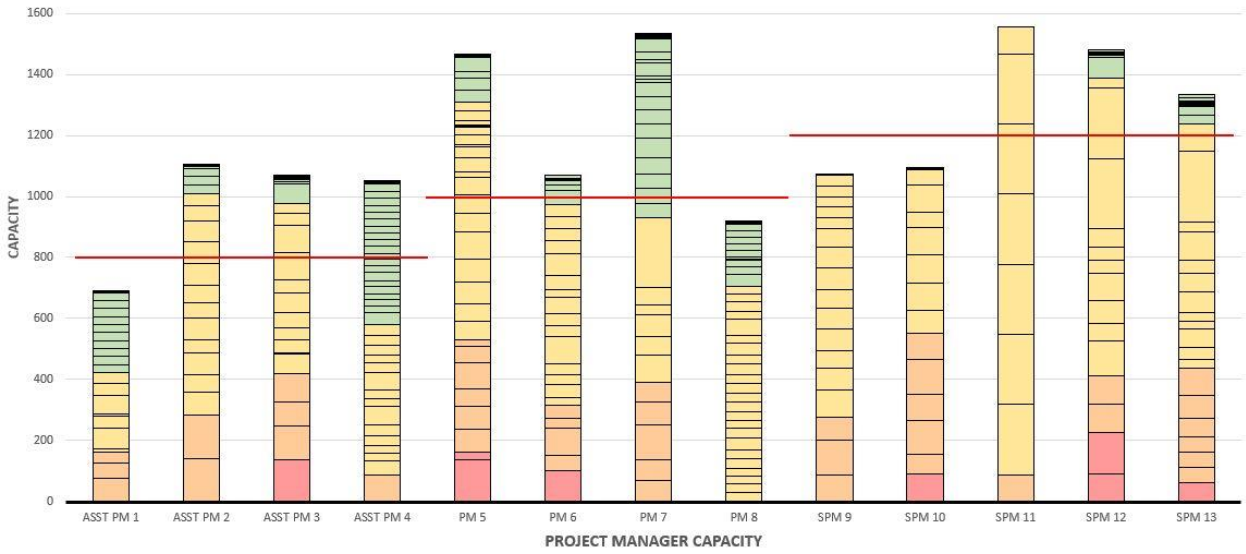
To assist with workforce management, FP&C has developed a **Project Manager Capacity Report**, which is used to assign or reassign projects to PMs to ensure workload balance; increase customer satisfaction and quality of service provided; identify project backlog; and determine if permanent PM positions must be added, or if temporary PMs should be hired on an interim basis. A crucial component of this report is the **project complexity scoring formula**, which assigns a numerical value to each project based on the following criteria:

Project complexity value = (A+B+C)*D*E*F. Points or multipliers are assigned for each value:

A = Project dollar value (points range from $0 to $2M+)
B = Delivery method (points range for minor to major projects)
C = Design required? (points range based on whether A/E is required)
D = Priority (multiplier ranges from emergency to routine/close out)
E = Phase (multiplier ranges from active to hold/close out)
F = Project Type (multiplier ranges from complicated to simple)

The **Project Manager Capacity Report** sums individual project values by PM to graphically depict each PM's workload. Projects are assigned to one of the following categories: emergency, urgent, expedite, routine, hold, and close-out (with input from clients) and color-coded from red to green, respectively, for easier visualization. Capacity-level thresholds at any given time are: 800 points for Assistant PMs, 1,000 points for PMs, and 1,200 points for Senior PMs.

On the graph below, each individual block represents a single project: the larger the height of the block, the higher the point value of the project. This graph allows management to quickly review all PM workloads in real time, to assign or reassign projects and balance workload between PMs. As reflected in the graph, some PMs have many projects with smaller point values; some have fewer projects with larger point values; and some have a mixture of both.



Right-sizing a PM's workload often requires putting projects on hold or delaying the start of projects – and to be able to sell that to the campus, we need to show that we are over capacity – this tool provides that data. This data can also help justify the hiring of permanent or temporary PMs to accommodate a spike in workload.

Because all projects are unique, and all project complexities cannot be captured in a simple formula, this method is not an exact science. However, FP&C believes that this report accurately represents project complexity and PM workload when evaluated in aggregate. By using these tools, the department has improved its project delivery to better meet the needs of its clients through workforce management, high-level customer service, and proactive communication.

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