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## Multiple People on Multiple Projects

### *Tracking Workloads of Split-time Staff*

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The spreadsheet *MultPeopleMultPjctsV2* (the MM spreadsheet) is designed to help a council of project managers balance the workload of their joint staffs on multiple projects over the next three months. The spreadsheet displays an easy-to-grasp view of the allocated work along with two handy summaries.

#### The Basic Display

Figure 1 below shows the main display of the MM spreadsheet. The rows are arranged by project and then by task within the project. A blank row separates each project.

The columns of the table display the next 12 work weeks. The body of the display contains the number of hours or days a person will be working during that week. The table displays work in units of staff-hours for the next four weeks. After that, the table displays the work in units of staff-days.

*Figure 1. The main display of the MM spreadsheet*

| 1/1/07 10:08 |                         |         |             | Week Number     |    |    |    |                      |   |   |   |   |    |    |    |  |
|--------------|-------------------------|---------|-------------|-----------------|----|----|----|----------------------|---|---|---|---|----|----|----|--|
| Task Number  | Task                    | Project | Person      | 1               | 2  | 3  | 4  | 5                    | 6 | 7 | 8 | 9 | 10 | 11 | 12 |  |
|              |                         |         |             | (Hours of work) |    |    |    | (Staff-days of work) |   |   |   |   |    |    |    |  |
|              | 1 Start Milestone       |         |             |                 |    |    |    |                      |   |   |   |   |    |    |    |  |
|              | 2 Analyse field data    | Blue    | Grumpy      | 21              | 21 | 14 |    |                      |   |   |   |   |    |    |    |  |
|              | 3 Write report          | Blue    | Grumpy      |                 |    | 21 | 35 | 1                    |   |   |   |   |    |    |    |  |
| 3.5          |                         |         |             |                 |    |    |    |                      |   |   |   |   |    |    |    |  |
|              | 4 Refine scope def.     | Green   | Bashful     |                 |    |    | 35 | 3                    |   |   |   |   |    |    |    |  |
|              | 5 Design structure      | Green   | Grumpy      |                 |    |    |    |                      | 4 | 5 |   |   |    |    |    |  |
|              | 6 Permits filed         | Green   | Doc         |                 |    |    |    |                      | 5 | 4 |   |   |    |    |    |  |
|              | 7 Build structure       | Green   | Doc         |                 |    |    |    |                      |   |   | 5 | 3 |    |    |    |  |
| 7.5          |                         |         |             |                 |    |    |    |                      |   |   |   |   |    |    |    |  |
|              | 8 Develop photos        |         | Red Grumpy  |                 |    |    |    |                      |   |   |   | 4 | 4  |    |    |  |
|              | 9 Plan posters          |         | Red Bashful |                 |    |    |    |                      |   |   |   | 2 | 5  |    |    |  |
| 9.5          |                         |         |             |                 |    |    |    |                      |   |   |   |   |    |    |    |  |
|              | 10 Get data             | White   | Grumpy      | 14              | 14 |    |    |                      |   |   |   |   |    |    |    |  |
|              | 11 Refine scope         | White   | Doc         | 35              | 35 |    |    |                      |   |   |   |   |    |    |    |  |
|              | 12 Exterior landscaping | White   | Bashful     | 35              | 35 | 35 |    |                      |   |   |   |   |    |    |    |  |
|              | 13 Interior work        | White   | Sleepy      |                 |    | 21 | 35 |                      |   |   |   |   |    |    |    |  |
|              | 14 Clean up site        | White   | Bashful     |                 |    |    |    |                      | 3 | 5 | 1 |   |    |    |    |  |
| 14.5         |                         |         |             |                 |    |    |    |                      |   |   |   |   |    |    |    |  |
|              | 15 End Milestone        |         |             |                 |    |    |    |                      |   |   |   |   |    |    |    |  |

The display allows the reader to see how each task's work spreads out over several weeks. To the reader's eye, the rows of numbers form an implicit "bar" chart of the task. The groupings of task-rows show how the whole project's work develops over time.

Figure 2 below shows how the basic table's results can be added up. Because each task-row is labeled with both a project name and a person name, the columns can be summarized by both project and by person. The consensus allocation can avoid overworking any one person at the same time it achieves the most possible work on each project.

**Figure 2.** The workload summaries of the MM spreadsheet

|                        |                       |         |    |    |    |    |   |   |   |   |   |
|------------------------|-----------------------|---------|----|----|----|----|---|---|---|---|---|
| <b>Workload Totals</b> | <b>Person's Load</b>  | Grumpy  | 35 | 35 | 35 | 35 | 1 | 4 | 5 | 4 | 4 |
|                        |                       | Bashful | 35 | 35 | 35 | 35 | 3 | 3 | 5 | 3 | 5 |
|                        |                       | Doc     | 35 | 35 |    |    |   | 5 | 4 | 5 | 3 |
|                        |                       | Sleepy  |    |    | 21 | 35 |   |   |   |   |   |
|                        | <b>Project's Load</b> | Red     |    |    |    |    |   |   |   | 6 | 9 |
|                        |                       | White   | 84 | 84 | 56 | 35 |   | 3 | 5 | 1 |   |
|                        |                       | Blue    | 21 | 21 | 35 | 35 | 1 |   |   |   |   |
|                        |                       | Green   |    |    |    | 35 | 3 | 9 | 9 | 5 | 3 |

In the example in Figure 2, Grumpy, Bashful, and Doc are at their maximum of 35 hours of scheduled work in the near term while Sleepy is unassigned. The two projects being worked on are White and Blue. Green will start in four weeks and Red will start in eight.

If the council of project managers wishes to rearrange the work, it can change work allocations in the basic table and check to see how the workload totals change.

### **Sorting the Basic Table.**

After the project managers agree on the near-term work allocations, they can publish a copy of the basic table for all to see. By re-sorting the basic table by person, the managers can create a second table that focuses each person on their own work for the next few weeks. (See Figure 3 on the next page.)

Figure 3. The basic table sorted by person

| 1/1/07 10:13           |                         |         |                       | Week Number     |    |    |    |                      |   |   |   |   |    |    |    |  |  |  |  |
|------------------------|-------------------------|---------|-----------------------|-----------------|----|----|----|----------------------|---|---|---|---|----|----|----|--|--|--|--|
|                        |                         |         |                       | 1               | 2  | 3  | 4  | 5                    | 6 | 7 | 8 | 9 | 10 | 11 | 12 |  |  |  |  |
| Task Number            | Task                    | Project | Person                | (Hours of work) |    |    |    | (Staff-days of work) |   |   |   |   |    |    |    |  |  |  |  |
|                        | 1 Start Milestone       |         |                       |                 |    |    |    |                      |   |   |   |   |    |    |    |  |  |  |  |
|                        | 12 Exterior landscaping | White   | Bashful               | 35              | 35 | 35 |    |                      |   |   |   |   |    |    |    |  |  |  |  |
|                        | 4 Refine scope def.     | Green   | Bashful               |                 |    |    | 35 | 3                    |   |   |   |   |    |    |    |  |  |  |  |
|                        | 9 Plan posters          |         | Red Bashful           |                 |    |    |    |                      |   |   |   |   | 2  | 5  |    |  |  |  |  |
|                        | 14 Clean up site        | White   | Bashful               |                 |    |    |    |                      |   | 3 | 5 | 1 |    |    |    |  |  |  |  |
|                        | 11 Refine scope         | White   | Doc                   | 35              | 35 |    |    |                      |   |   |   |   |    |    |    |  |  |  |  |
|                        | 6 Permits filed         | Green   | Doc                   |                 |    |    |    |                      |   | 5 | 4 |   |    |    |    |  |  |  |  |
|                        | 7 Build structure       | Green   | Doc                   |                 |    |    |    |                      |   |   |   |   | 5  | 3  |    |  |  |  |  |
|                        | 10 Get data             | White   | Grumpy                | 14              | 14 |    |    |                      |   |   |   |   |    |    |    |  |  |  |  |
|                        | 2 Analyse field data    |         | Blue Grumpy           | 21              | 21 | 14 |    |                      |   |   |   |   |    |    |    |  |  |  |  |
|                        | 3 Write report          |         | Blue Grumpy           |                 |    |    | 21 | 35                   | 1 |   |   |   |    |    |    |  |  |  |  |
|                        | 5 Design structure      | Green   | Grumpy                |                 |    |    |    |                      |   | 4 | 5 |   |    |    |    |  |  |  |  |
|                        | 8 Develop photos        |         | Red Grumpy            |                 |    |    |    |                      |   |   |   |   | 4  | 4  |    |  |  |  |  |
|                        | 13 Interior work        | White   | Sleepy                |                 |    | 21 | 35 |                      |   |   |   |   |    |    |    |  |  |  |  |
| 3.5                    |                         |         |                       |                 |    |    |    |                      |   |   |   |   |    |    |    |  |  |  |  |
| 7.5                    |                         |         |                       |                 |    |    |    |                      |   |   |   |   |    |    |    |  |  |  |  |
| 9.5                    |                         |         |                       |                 |    |    |    |                      |   |   |   |   |    |    |    |  |  |  |  |
| 14.5                   |                         |         |                       |                 |    |    |    |                      |   |   |   |   |    |    |    |  |  |  |  |
|                        | 15 End Milestone        |         |                       |                 |    |    |    |                      |   |   |   |   |    |    |    |  |  |  |  |
| <b>Workload Totals</b> |                         |         | <b>Person's Load</b>  | Grumpy          | 35 | 35 | 35 | 35                   | 1 | 4 | 5 | 4 | 4  |    |    |  |  |  |  |
|                        |                         |         | Bashful               | 35              | 35 | 35 | 35 | 3                    | 3 | 5 | 3 | 5 |    |    |    |  |  |  |  |
|                        |                         |         | Doc                   | 35              | 35 |    |    |                      | 5 | 4 | 5 | 3 |    |    |    |  |  |  |  |
|                        |                         |         | Sleepy                |                 |    | 21 | 35 |                      |   |   |   |   |    |    |    |  |  |  |  |
|                        |                         |         | <b>Project's Load</b> | Red             |    |    |    |                      |   |   |   |   | 6  | 9  |    |  |  |  |  |
| White                  | 84                      | 84      | 56                    | 35              |    | 3  | 5  | 1                    |   |   |   |   |    |    |    |  |  |  |  |
| Blue                   | 21                      | 21      | 35                    | 35              | 1  |    |    |                      |   |   |   |   |    |    |    |  |  |  |  |
| Green                  |                         |         |                       | 35              | 3  | 9  | 9  | 5                    | 3 |   |   |   |    |    |    |  |  |  |  |

Grumpy can see that he will be splitting time between the White and Blue projects. Bashful and Doc will be working on the White Project in the coming week. Sleepy sees that his next bit of project work is scheduled to arrive in three weeks. If the list of people were to grow large, each person could print out a personal copy of their own set of tasks.

Notice the fractional task numbers that were used to create spaces between the rows of projects are all sorted to the bottom of the list. Notice also that the “start” and “end” milestones were *excluded* from the sort so that the formulas for calculating the workload totals would continue to work.

To reestablish the original list, the managers can resort the list by task number.

## Conclusion

With the MM spreadsheet project managers can conveniently see the consequences of their agreements as they negotiate workload allocations. The spreadsheet can make a difficult negotiation go much more quickly and, one hopes, more smoothly.

In a group where multiple people are working on multiple projects the MM spreadsheet displays the coordinated workload agreement in a way that gives everyone involved a clearer picture of who's working on which tasks.

## Further Reading (some available free at [www.newleafpm.com](http://www.newleafpm.com))

- , (May, 2001). *Advanced Project Management*, Course Notebook, Concord, MA: New Leaf Project Management.
- Brooks, Frederick P., Jr., (1995). *The Mythical Man Month: Essays on Software Engineering, 2<sup>nd</sup> Edition*, Reading, MA: Addison-Wesley Publishing Company.
- Nevison, John M., (2009). *The Responsibility Matrix (RAM)*, White Paper, Concord, MA: New Leaf Project Management.
- , (October, 2002). *Chartering the Project: Managing the Business Priorities of the Project Portfolio*, Course Notebook, Concord, MA: New Leaf Project Management.

## About the Author

**John M. (Jack) Nevison**, PMP is the author of six books and numerous articles on computing and management. During the course of his business career, Nevison has built and sold two businesses, managed projects, managed project managers, and served as both an internal and external consultant to Fortune 100 companies. He is past president of the Mass Bay Chapter of the Project Management Institute (PMI®), a past president of the Greater Boston Chapter of the Association for Computing Machinery (ACM), a certified Project Management Professional (PMP), and a Phi Beta Kappa graduate of Dartmouth.

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