

Building an adaptable work plan

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When I first became a manager many years ago, I didn't have any training that prepared me for how to manage other people's time. So when I needed to assign staff to projects, I did it on an ad hoc basis. I tried my best, but often resorted to asking who was interested in working on a project—then went with whoever volunteered.

The problem with ad hoc planning is that you aren't really planning. There's very little thinking ahead involved.

Later in my career, I worked with someone who was a professional planner. As a former project management consultant, this person really understood how to do project and resource planning. I learned from him that there are many ways to do thoughtful resource planning, and from him I derived a method of resource planning that has served me well these many years later. It's especially useful for managing an open team, and I'd like to share it with you.

This method of resource planning doesn't require fancy equipment or resources, although there are professional tools that can do much of the work for you. A spreadsheet works well enough, especially if you are just getting started in resource planning. So, in this chapter, let's examine how to plan time with a spreadsheet.

Facilitation steps

STEP 1. Begin by thinking about a time frame. In your organization, how far into the future can you plan? If you're like me, one month is too short and six months is too long. Things change more quickly than a six month time frame can accommodate, but not fast enough for a one month window. I use a three month time frame. This gives me a quarterly work plan.

Each year has 52 weeks, so 26 weeks in half a year and 13 weeks in a quarter. Start your quarterly work plan by creating 13 columns, one column for each week. I also recommend you include the date of each week as a separate row—although for this example, I'll leave that out. Leave a few columns to the left; we will fill these in later. Your spreadsheet will look like Figure 1.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1																
2				1	2	3	4	5	6	7	8	9	10	11	12	13
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
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14																
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20																
21																
22																

Figure 1

STEP 2. Now think about the work that you will need to accomplish over the next quarter. What goals do you need to accomplish? What are the top priorities from your leadership? What are your major projects? Put these on separate rows in the first column.

Don't forget that support activities also count here. For example, your systems administrators need to keep servers running. Include these as work items on your quarterly work plan.

Once you've laid out all the major projects, determine how the projects break down into discrete tasks. A project consists of many steps. What are the components to complete the project? List the steps in the second column.

Also identify the resources you have available. For which projects are they best suited? Where can you best direct their energies? Who would be the best contributor for each project? Don't forget that only very small projects require just one person; most projects will require more than one contributor. List the people for each task in the third column.

For this example, let's assume two infrastructure team members (John and Jane) and two developers (Jill and Jack). As we start the quarter, the developers are starting a new project (Project1) while they prepare to deploy a previous one (Project2). Your spreadsheet should now look something like Figure 2.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1																
2				1	2	3	4	5	6	7	8	9	10	11	12	13
3	Support															
4		Network	John													
5		Server	Jane													
6		Database	Jane													
7	Project1															
8		Analysis	Jill													
9		Design	Jack													
10		Dev	Jill													
11		Dev	Jack													
12	Project2															
13		Test	Jill													
14		Test	Jack													
15		Rollout	Jill													
16		Rollout	Jack													
17																
18																
19																
20																
21																
22																

Figure 2

STEP 3. As you identify new projects and tasks, keep the spreadsheet organized. In this example, note how separate

projects start on their own row. Match tasks with a resource. I've kept my example somewhat simple by not providing much detail. If you were writing your own resource plan, you would likely need to fill in more information about the project and tasks.

Look ahead by weeks and consider how long each task will take. If this is your first time building a resource plan, you might "block out" some time by filling in each week with a color that you can go back to later. Let's do that for the example. I'll block out some time (see Figure 3). Note that the support tasks should be blocked out for the whole quarter, but other tasks in other projects might require different amounts of time.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
2				1	2	3	4	5	6	7	8	9	10	11	12	13
3	Support															
4		Network	John													
5		Server	Jane													
6		Database	Jane													
7	Project1															
8		Analysis	Jill													
9		Design	Jack													
10		Dev	Jill													
11		Dev	Jack													
12	Project2															
13		Test	Jill													
14		Test	Jack													
15		Rollout	Jill													
16		Rollout	Jack													
17																
18																
19																
20																
21																

Figure 3

STEP 4. From here, you need to assign weekly time or "effort" to every person working on every task in each project. Don't forget to include time spent outside of projects, as well. For example, developers may need to attend meetings for project planning and coordination. Let's assign time to each project in the example work plan with the assumption that John and Jane attend fewer meetings than Jill and Jack (see Figure 4).

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1																
2				1	2	3	4	5	6	7	8	9	10	11	12	13
3	Support															
4		Network	John	4	4	4	4	4	4	4	4	4	4	4	4	4
5		Server	Jane	3	3	3	3	3	3	3	3	3	3	3	3	3
6		Database	Jane	1	1	1	1	1	1	1	1	1	1	1	1	1
7	Project1															
8		Analysis	Jill	2	2	2	2									
9		Design	Jack					2	2	2	2					
10		Dev	Jill									3	3	3	3	3
11		Deploy	Jack									3	3	3	3	3
12	Project2															
13		Test	Jill	2	2	2	2	2	2							
14		Test	Jack	2	2	2	2	2	2							
15		Rollout	Jill							1	1					
16		Rollout	Jack							1	1					
17	Meetings															
18			John	1	1	1	1	1	1	1	1	1	1	1	1	1
19			Jane	1	1	1	1	1	1	1	1	1	1	1	1	1
20			Jill	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
21			Jack	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
22																
23																
24																

Figure 4

STEP 5. Review every column. Make sure the total time for any one person adds up to exactly 5.0 every week. There are only five days in each week; you can't expect your team members to work more than five days. In the above example (Figure 4), Jane is over-committed on "server" and "database." Similarly, Jill and Jack are over-committed across "Project1" and "Project2."

When considering the balance of time, I prefer to set the smallest increment of time to 0.5 days per week. That's four hours of work time, and I find you cannot accurately plan for time less than four hours per week.

As you balance the time committed to each project, consider the time distribution. For example, Jane's dual responsibilities as server administrator and database administrator may not require equal time. Perhaps she spends most of her time maintaining the server.

And don't forget about vacations and holidays. Everyone needs time off, and you need to plan for that too. Build your holidays into your work plan from the beginning. Ask staff to estimate their upcoming vacation time. While folks might take

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an unplanned day off here and there, you can still plan in advance for extended absences such as vacations (see Figure 5).

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1																
2				1	2	3	4	5	6	7	8	9	10	11	12	13
3	Support															
4	Network	John		4	4	4	4	4	4	4	4	4	4	4	4	4
5	Server	Jane		3	3	3	3	3	3	3	3	3	3	3	3	3
6	Database	Jane		1	1	1	1	1	1	1	1	1	1	1	1	1
7	Project1															
8	Analysis	Jill		1.5	1.5	1.5	1.5									
9	Design	Jack						2	2	2	2					
10	Dev	Jill										3.5	3.5	3.5	3.5	3.5
11	Dev	Jack										3.5	3.5	3.5	3.5	3.5
12	Project2															
13	Test	Jill		2	2	2	2	3.5	3.5							
14	Test	Jack		3.5	3.5	3.5	3.5	1.5	1.5							
15	Rollout	Jill								3.5	3.5					
16	Rollout	Jack								1.5	1.5					
17	Meetings															
18		John		1	0	1	1	1	1	1	1	1	1	1	1	1
19		Jane		1	0	1	1	1	1	1	1	1	1	1	1	1
20		Jill		1.5	0.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
21		Jack		1.5	0.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
22	Vacations & Holidays															
23		John		1												
24		Jane		1												
25		Jill		1												
26		Jack		1												
27	Total Time															
28		John		5	5	5	5	5	5	5	5	5	5	5	5	5
29		Jane		5	5	5	5	5	5	5	5	5	5	5	5	5
30		Jill		5	5	5	5	5	5	5	5	5	5	5	5	5
31		Jack		5	5	5	5	5	5	5	5	5	5	5	5	5
32																

Figure 5

STEP 6. As you can see in the example, Jane divides her time between "server" and "database" tasks. For the first eight weeks of the quarter, Jill and Jack will spend some time on analysis and design for "Project1," and the remainder of this time doing testing for "Project2." Note that on "Project2" Jack "ramps down" on testing at the same time Jill "ramps up," because of his balance of responsibilities.

Also, Jack gets to turn a holiday during week 2 into a four-day weekend in week 3, while Jill takes an extended vacation during weeks 9 and 10. John takes the whole of week 8 as vacation, and Jane takes all of week 11. When each person is out, notice that their time on other projects also needs to be redistributed.

That balances the time assigned to projects. No one gets overloaded, and everyone gets to take vacations. The staff can

be productive, while the manager is able to effectively plan their work.

With that, you have the start of a quarterly resource work plan!

Reflection

As you get more practice with this method, begin reflecting on the way you're doing it. You might consider extending it in some of the following ways.

TOTAL TIME. As you build your work plan, adding up everyone's time each week can become burdensome. To ensure every person is allocated "5.0" days per week, let the spreadsheet do the math for you. The =SUMIF() function is a standard spreadsheet function to add numbers from a column only if a key matches one in a list. In calculating total time, the key is the name of each staff person. I also use automatic formatting in my spreadsheet to highlight the total in a different color if the value is less than, equal to, or greater than "5.0." This helps me to quickly identify where staff are over-committed as we build the work plan.

STATUS UPDATES. As you progress through the quarter, how do you track the status of projects? I find it is easiest for teams to report their status using a simple color code: highlight each cell with a color to indicate when work occurred. Highlight in green if your project is progressing well, yellow if you encounter issues that might put your project behind schedule, and red if the project is at risk (see Figure 6). The manager should review the spreadsheet every week as part of staff meetings to see how things are going. For any yellow or red reported in the previous week, talk about the issues and decide how to move things forward.

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1																
2				1	2	3	4	5	6	7	8	9	10	11	12	13
3	Support															
4		Network	John	1	1	1	1	1	1	1	1	1	1	1	1	1
5		Server	Jane	2	2	2	2	2	2	2	2	2	2	2	2	2
6		Database	Jane	1	1	1	1	1	1	1	1	1	1	1	1	1
7	Project1															
8		Analysis	Jill	1.5	1.5	1.5	1.5									
9		Design	Jack					2	2	2						
10		Dev	Jill									3.5	3.5	3.5	3.5	3.5
11		Dev	Jack									3.5	3.5	3.5	3.5	3.5
12	Project2															
13		Test	Jill	2	2	2	2	3.5	3.5							
14		Test	Jack	3.5	3.5	3.5	3.5	1.5	1.5							
15		Rollout	Jill							3.5	3.5					
16		Rollout	Jack							1.5	1.5					
17	Meetings															
18			John	1	0	1	1	1	1	1	1	1	1	1	1	1
19			Jane	1	0	1	1	1	1	1	1	1	1	1	1	1
20			Jill	1.5	0.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
21			Jack	1.5	0.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
22	Vacations & Holidays															
23			John			1										
24			Jane			1										
25			Jill			1										
26			Jack			1										
27	Total Time															
28			John	5	5	5	5	5	5	5	5	5	5	5	5	5
29			Jane	5	5	5	5	5	5	5	5	5	5	5	5	5
30			Jill	5	5	5	5	5	5	5	5	5	5	5	5	5
31			Jack	5	5	5	5	5	5	5	5	5	5	5	5	5
32	Unplanned Work (log)															
33		Re-run stuck report	Jill				4 hrs									
34		Run query for Sales	Jack				4 hrs									
35		Respond to prod problem	Jack						6 hrs							
36																

Figure 6

UNPLANNED WORK. You can't really plan for unplanned work, but sometimes things just happen and staff need to drop everything to make some work item their number one priority. This is unplanned work, and it certainly has an impact on planned work time.

To account for unplanned work, I add a few rows to the bottom of the spreadsheet, one row per staff member, and track unplanned work here. If you worked on an emergency project that wasn't on your list, you record the time worked in your "unplanned work" row, and use a spreadsheet cell comment to indicate the unplanned work item. If this unplanned work impacts another planned work item, the staff member should highlight that other project's status with yellow or red to flag it for the manager. This helps you maintain a good balance of reporting time without over-burdening staff to fill out a weekly status report.

Jim Hall is an open source software developer and advocate, probably best known as the founder and project coordinator for FreeDOS. Jim is also very active in the usability of open source software, as a mentor for usability testing in GNOME Outreachy, and as an occasional adjunct professor teaching a course on the Usability of Open Source Software. From 2016 to 2017, Jim served as a director on the GNOME Foundation Board of Directors. At work, Jim is Chief Information Officer in local government.