How to Make a Resource Breakdown Structure (RBS)

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8–10 minutes
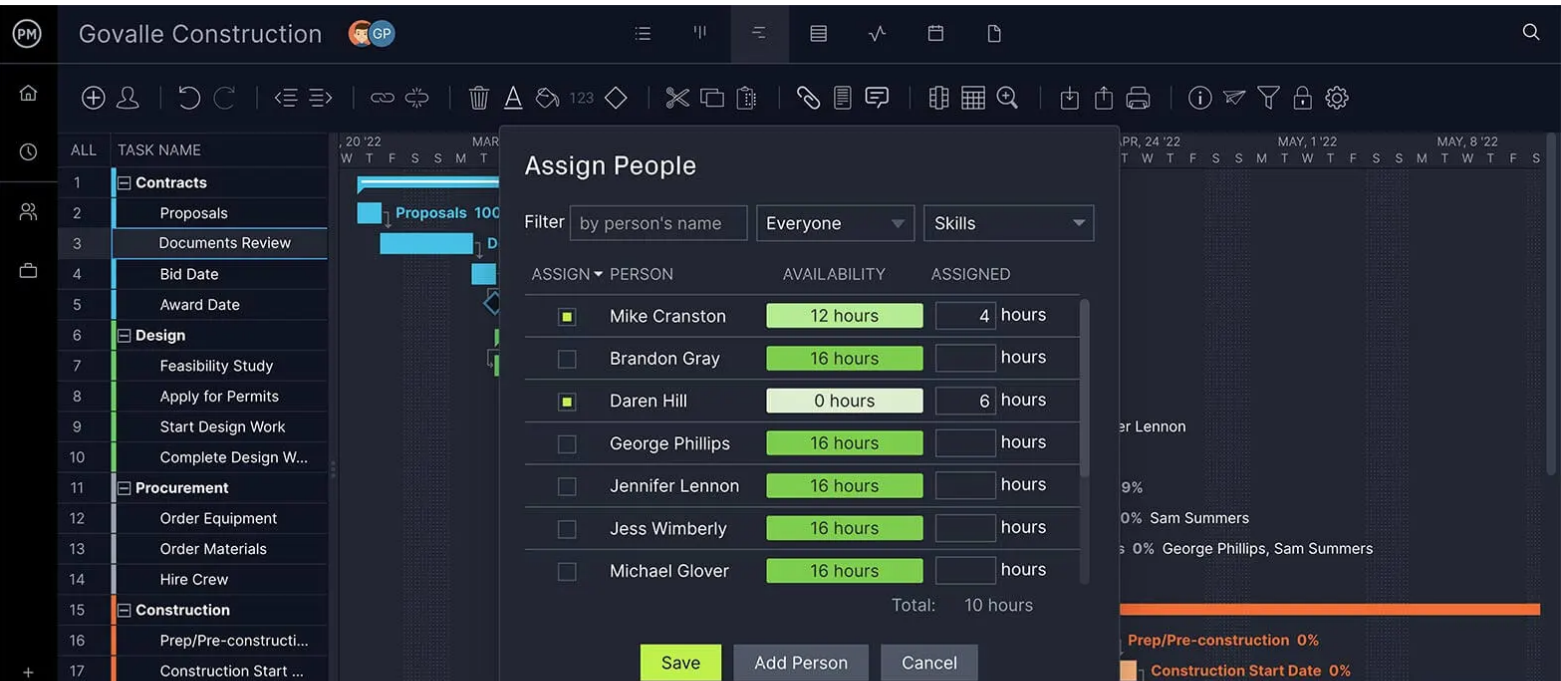

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ProjectManager

There are many aspects to planning a project. They tend to revolve around the triple constraint of time, cost and scope. One such orbit is resources. Resources can be impacted by all three of those constraints and therefore require a method to control them—sometimes even a resource management software.

"Resources" is a broad term, of course, and speaks to not only materials and equipment used in a project, but the human resources. In fact, those people who make up your project team are in many ways the most important resource. They are, after all, the ones who will execute the project and chaperon it from start to finish.

In project management, the resource breakdown structure (RBS) is a tool to help with planning and controlling project work. Think of it as a work breakdown structure (WBS) for your resources, because that's what it is, and it's just as valuable. Using resource planning software can help you organize, schedule and manage your resources after you've made your RBS.

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What Is a Resource Breakdown Structure?

A resource breakdown structure is a list of the resources that will be required to execute your project. The list is broken down by function and type, and at the very least will cover the people needed to complete a project successfully. However, at its most thorough, it will include anything you spend money on for the project, such as people, [project management tools](#), equipment, materials, even fees and licenses.

A resource breakdown structure is more than just a list, however: it's a hierarchical chart that is used to help project managers organize resources and create a resource plan. A RBS will inform the budget, as a thorough listing of resources will make it easier to estimate what a project will cost. It's a means to stay within budget rather than spend erratically.

Who Makes a Resource Breakdown Structure?

A project manager is the person on the project team who is responsible for using the resource breakdown structure, though they will usually seek input from others on the team. It allows them to [identify how many resources](#) they need, breaking the project down to the task level and the resources needed for each one. This will create an understanding of the scope of the project.

When Is It Made?

It is during [the planning stage of a project](#) that the project manager will use an RBS. It can be used for any number of resource types, such as customer support, when determining the kind of customer for the project, what facilities are needed, equipment, software tools, etc.

What Are Its Benefits?

One of the benefits of using an RBS is that it helps better organize resources and clearly aligns those resources with the overall goals and objectives of the organization. It also provides a quick visual reference on resource allocation and workload, as well as individual resources and

assignments.
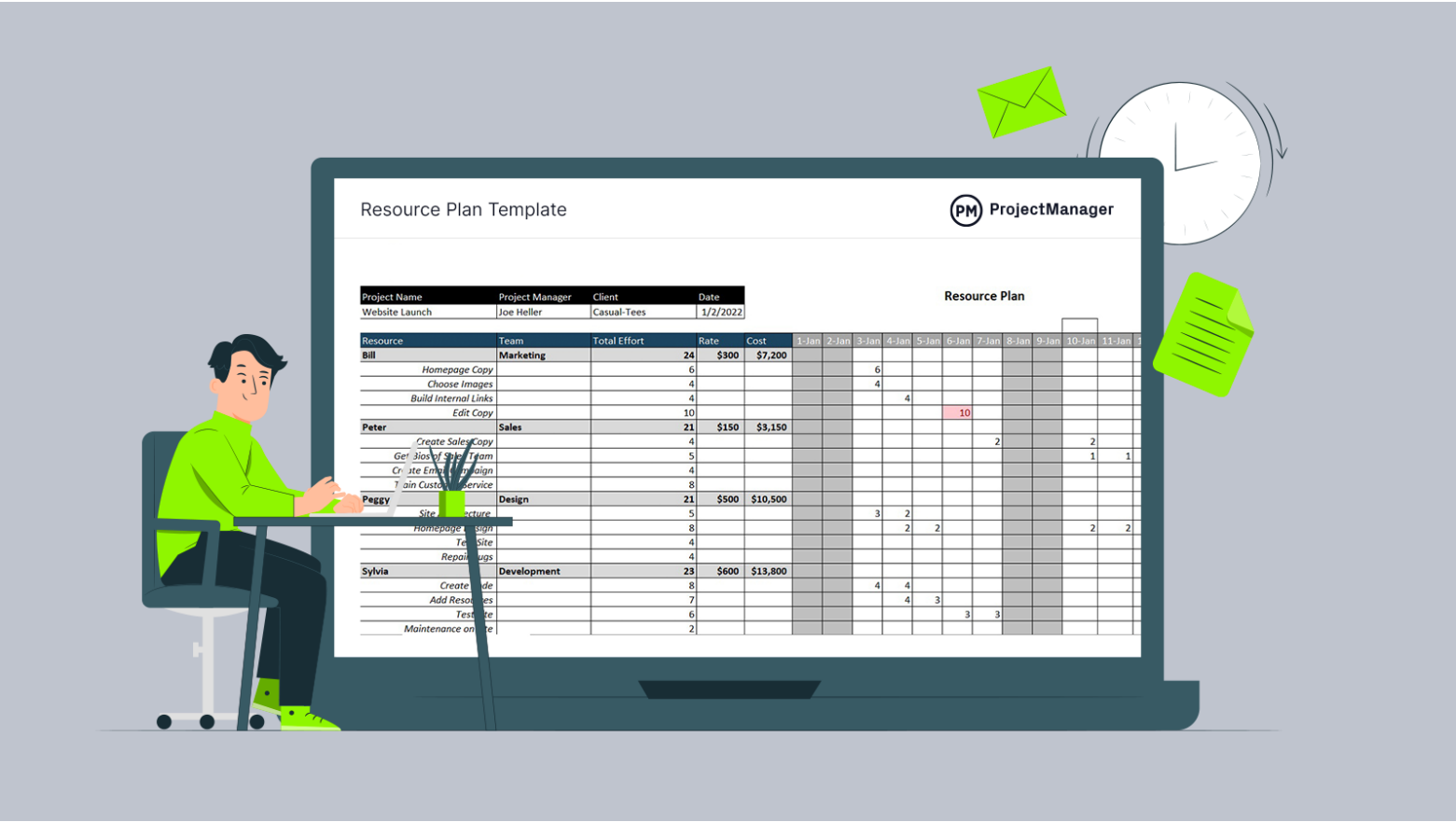
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Resource Planning Template

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How to Make a Resource Breakdown Structure

In terms of format, the RBS is like the WBS and requires an [estimation of which resources](#) will be needed for each task in the project. Therefore, the task list is essential for collecting the necessary resources.

But a project manager will naturally seek input from a wide variety of sources; these include the schedule, [risk register](#), [cost estimates](#) and other organizational processes. This allows a project manager to fully gather all the resources that will be needed to execute the project.

The RBS is usually created as a tree diagram. At the top is the project's final deliverable, the breakdown of resources, each in an individual branch below the overall project heading. These branches are the resource types, such as the site where the project is taking place, the equipment being used and the team that's executing the project.

A spreadsheet can also be used to create a horizontal breakdown of resources. It will start with the resource number on the left and move across the spreadsheet to detail the resource categories and types, quantity and notes.

Resource Breakdown Structure Example

In order to get a different view of what an RBS is, let's take a look at a simple, real-life example. We're making a bridge. There is a site, naturally, that the bridge will traverse. But large pieces of the bridge will be built elsewhere and then assembled on site.

Therefore, we have the facility where the manufacturing is taking place, but also meeting and conference rooms. There will also be an engineering department where the plans are made out and an on-site makeshift office for the construction foreman and workers.

Next is our equipment list. That'll include heavy equipment, such as tractors, cranes, backhoes, excavators, and light equipment, such as welders, light towers, hand-held tools and wheelbarrows.

Software is another resource that will mostly be used during the design phase, but there is likely to be resource management software to facilitate the planning, monitoring and reporting on the project at large.

Finally, but perhaps most importantly, you'll want to detail your human resources. For bridge building, this will include designers, engineers and construction crew.

This is a bare-bones version of an RBS, but it serves to put some meat on the idea and bring it to life in a way that an abstract definition might not. If you're more of a visual-type learner, we've built an illustration to further

illuminate the idea.

Resource Planning Template

This [resource planning template](#) helps you gather important information about the human resources that you'll need to execute a project. List your team members, the tasks they're assigned to and the estimated time it will take to complete their work. Then, you can enter an hourly rate for each of your employees so you can estimate your project costs. This helps you turn your RBS into a resource plan or a resource schedule.


ProjectManager and Resource Management

Breaking down your resource is only the start of managing resources in your project. [ProjectManager](#) helps you further control resources in your project with our resource management software to further help manage time and money.

Map Your Resources on the Gantt Chart

The first step to making an RBS is to understand the tasks required for a successful project. [Online Gantt charts](#) map tasks into phases, create dependencies and schedule resources across a project timeline. This helps you understand exactly which resources you need to identify in your resource breakdown structure.

Once they are identified, tasks can be assigned from the Gantt view, as well as being able to see the amount of hours each team member has spent working on that task. You can see at a glance if team members are overallocated or under-allocated to keep your resource balanced.
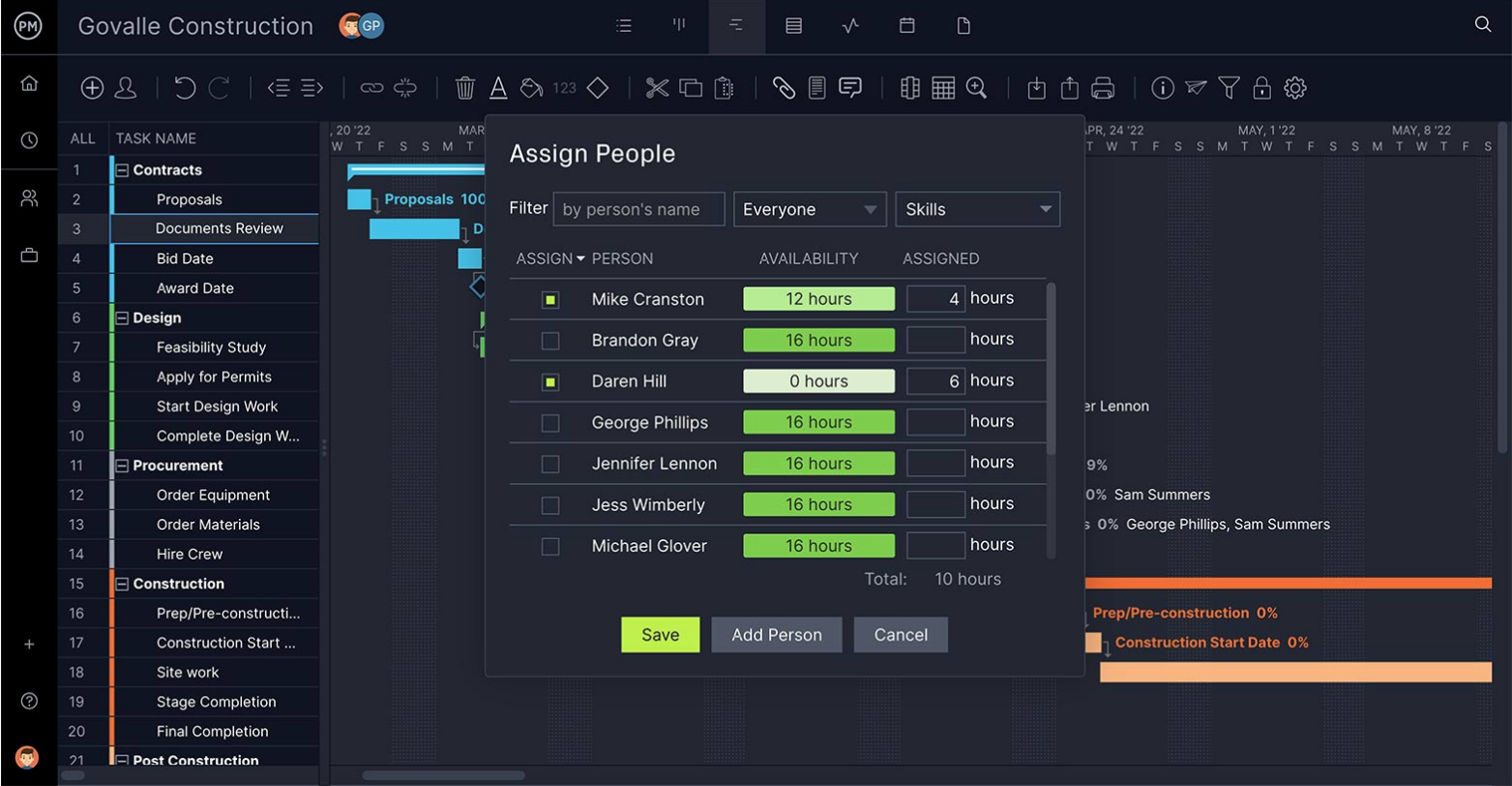
Track Your Team's Work

With our team management tools, you can identify your human resources and categorize teams as well as supplies and equipment. The hourly rates of team members are visible across the whole software and as teams log their hours, the real cost is calculated and compared against the planned cost. This keeps project managers in control of costs and in line with their budgets.

Online Software Offers Real-Time Resource Management

Because we're a cloud-based software, you get the most current data on our real-time dashboard to help you plan projects, schedule resources, balance workload and reassign tasks as needed. We provide transparency into your resources in real time during the execution of the project to help you track them with accuracy.

ProjectManager is a cloud-based project management software that controls every aspect of your resources and your projects. From planning to monitoring and reporting, we have the features that project managers want and the collaborative platform that gives teams the autonomy to get their work done more productively. See how it can help you by taking this free 30-day trial.