Deltek

Mastering Resource Planning

Proven Best Practices for Architecture,
Engineering & Consulting Firms

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Introduction

Many architecture, engineering (A&E) and consulting firms don't have effective resource planning processes and systems in place - and those that do are often relying on outdated methods. It's time all that changed.

For years, many leaders, project managers and planners have been relying on gut feeling and a retrospective view to work out how to allocate resources. Drawing on experience to make plans is hugely beneficial, but it needs to be supported by accurate, up-to-date information to ensure resource plans support successful project delivery.

Finding the resources for individual projects is only half the challenge – firms need to know whether available resources and capacity match up to the pipeline, and what to do about it if they don't.

The way A&E and consulting workforces are made and managed is changing, too. Shifts towards contract work, freelancing and other working models mean it will become rarer to have one large, consistent internal workforce. To respond to talent shortages and potential difficulties in attracting and retaining talent, companies will consider bringing in subcontracted resources to support specific projects and skill-set requirements. This makes understanding the resources and capacity already available to you all the more important.

And as permanent employees are becoming increasingly more likely to work from different locations or on a more flexible basis, it's getting harder to maintain transparency and oversight of who's working on what – and where that resource should be allocated next.

Now is the time to reassess how you handle resource planning and how it connects to other key processes, such as revenue forecasting and hiring decisions. This paper will offer practical guidance for implementing a reliable, connected resource planning process – whether you're updating traditional methods or adopting a more technology-led approach.
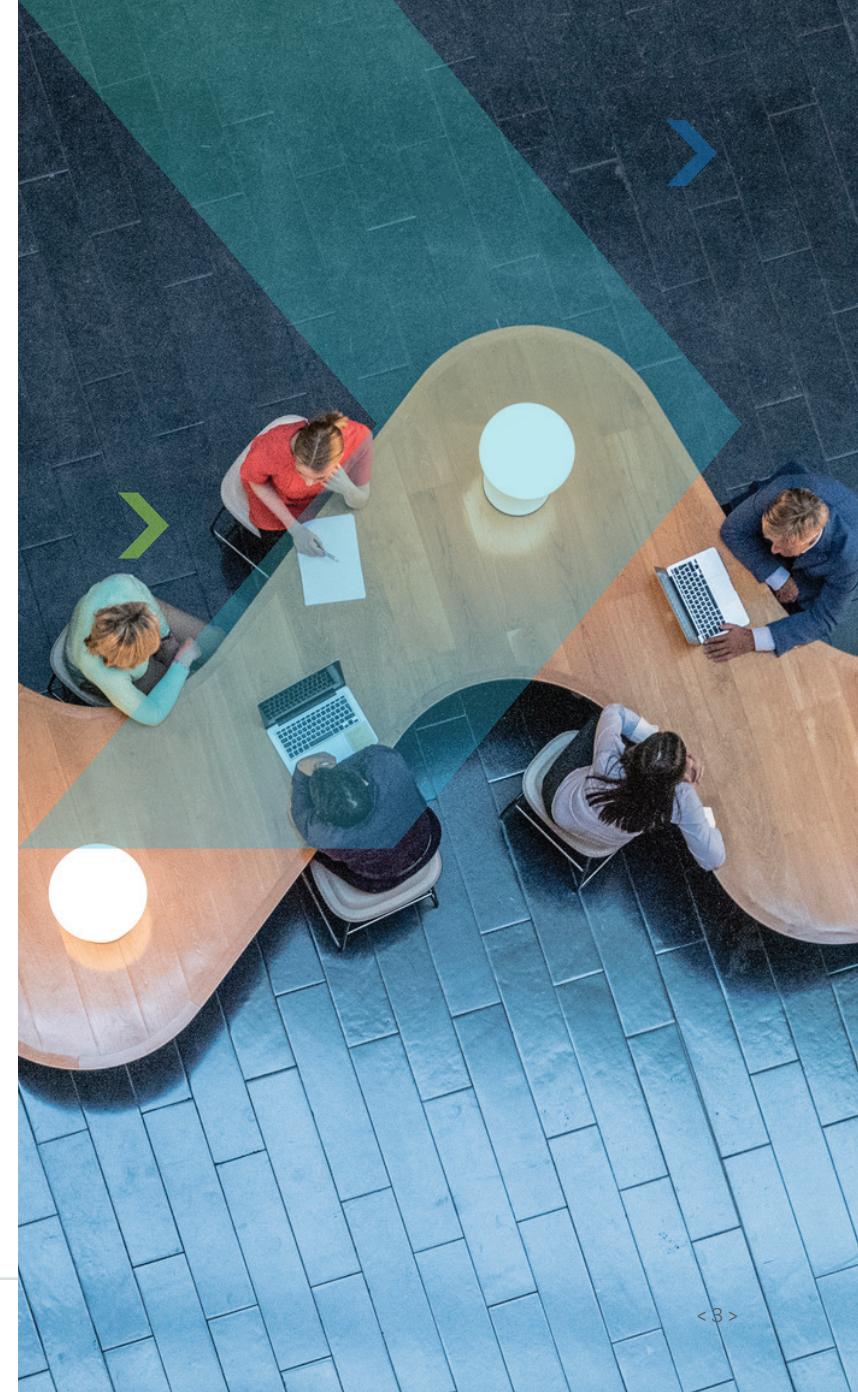
The challenges of effective resource planning

In project-based industries like architecture, engineering and consulting, demand isn't always consistent or reliable – and that's what makes solid resource planning so important. Ensuring each project is properly resourced goes a long way to evening out peaks and troughs in the year, making your work more profitable and boosting utilisation. However, despite its benefits, resource planning isn't always top of the agenda.

If resource plans are incomplete or a little out of date, it makes managing projects more difficult. But it won't have the immediate negative impact of a business-critical process like billing not being completed properly. That means it's easy for resource planning to fall by the wayside at a busy A&E or consulting firm.

GREAT RESOURCE PLANNING SUPPORTS SALES

For project based businesses like A&E and consulting firms, there's no neatly defined 'product' to sell. When your sales team sits down with a potential client, they're selling your expertise and experience – the people power of the architects, engineers or consultants within your company.

Resource planning doesn't just help you manage the projects you've already won. It also helps you craft better bids and increase your win rate. With insight into the resources available – and the cost to hire that expertise– salespeople can offer realistic, accurate proposals for the work. And, with greater insight into the right resources, you can position a more competitive bid that leads to a more profitable project.

However, just because the effects of inefficient resource planning are not immediately felt, doesn't make resource planning less important. It's vital to ensure teams are being utilised properly, work is being completed efficiently, and you have the capacity available to resource upcoming projects. It needs to be an integral part of business-as-usual, just like submitting time sheets and booking in projects.

Many A&E and consulting firms struggle with effective resource planning, and the longer it goes unchecked, the more difficult it can be to corral that process back into something that's simple and fast for employees to complete. And that's a huge component of why most resource planning processes fail: it gets too complicated.

If just one or two people don't contribute their data accurately or at the right time, it has a significant impact on other teams and their ability to manage their people and projects. And when the resource plan doesn't match up to your people's reality, they'll start trusting it less or trying to resolve conflicting priorities. Eventually, it won't get updated by anyone, and its value is completely lost.

BENCH-WARMING TIME DOESN'T NEED TO BE A WASTE

Even the best resource planning won't always be able to match resource to project demands perfectly. But time spent on the bench doesn't need to be time wasted.

With visibility of incoming projects, your teams can spend bench time updating and expanding their existing skills – or even learning new ones – to ensure they can hit the ground running when the work comes in.

Moving on from spreadsheets

Many people in A&E and consulting companies are very attached to using spreadsheets for resource planning. And it's easy to understand why – over the years, people build up their own methods for using and maintaining their projects and use the tools that are familiar to them.

But as versatile as they are, spreadsheets can be limiting.

For example, the larger your company gets, the harder it is to keep track of all your resources using a spreadsheet. You might be able to handle a team of five architects or consultants using a spreadsheet, but 100 engineers spread across different offices or departments are going to be impossible to manage.

And because everyone uses spreadsheets a little differently, the information on how to use that particular spreadsheet often gets siloed in one planner or resource manager's head – and then what happens if they're on long-term sick leave, or move on from the company entirely?

The most effective resource plans are built on comprehensive knowledge of who's available, which projects are up next, and whether the previous plan was accurate and useful. But with spreadsheets, there's a lack of integration with other systems and data sources – you get a flat view of a project that doesn't include the level of detail you need. And if you need to create a summary of your resources, or compare your resource plan to your project plan, you'll need to manage that all separately and manually.

That lack of data integration also means you won't have a single source of truth. Without that, you can't have confidence that your planners looking at the most up-to-date information, or all the available data – and the wrong data will damage the accuracy of every plan they make.

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Three practical tips for streamlined, effective resource planning

1. Set the right ownership and choose the right team

With any new project, it's vital that you're backed up by the right team to champion the new approach and support the transition.

Effective change management starts with effective leaders. Consistency and efficiency in resource planning need to be driven from the top down, to ensure everyone embraces a new solution – because without buy-in, change management will fail.

When defining teams, the first stage for leaders is making each person's responsibilities clear – and holding them accountable if planning tasks don't get done. In A&E and consulting firms where planning has become inconsistent, or the responsibility has fallen to the wrong people, everyone will need to change their habits, from department heads and project managers to individual architects, engineers and consultants.

Project managers know who they need for each project and how long they'll need them for; they're key people who should be heavily involved in updating resource plans. Their responsibilities should centre around communicating those needs clearly, and with enough notice to let leaders make informed decisions about allocation.

With project managers submitting more accurate information about how many team members they need, department heads and other leaders should be responsible for turning those requirements into a cohesive plan. With a more structured approach, their decisions can be based on the full picture, drawing on both historical utilisation data and predictions, such as revenue forecasts and pipeline.

At the individual level, getting the right team on a project isn't just about using whoever's available. Effective resource planning is about monitoring your workforce and their availability closely enough that you can distribute them in ways that make best use of their skills – as well as their time. For example, if you have several experience architects scheduled on a straightforward project, you can swap in those with less experience. This provides a learning experience for the junior level resources and adds bandwidth for senior architects to take on more complex projects.

WHO IS YOUR RESOURCE PLANNING CHAMPION?

When it comes to transitioning to a new approach, some people are going to be difficult to convince. Even with the drawbacks of working in spreadsheets, the sense of familiarity and ownership can make some project managers unwilling to adapt.

Gaining enthusiastic buy-in will rely on you understanding what works for your people. For some A&E and Consulting firms, it's about a structured implementation that comes straight from the upper levels of the company. For others, it will be about demonstrating the value of new solutions compared to existing ways of working.

Finding a specific champion – someone in a leadership role who's enthusiastic about transforming resource planning in your business – is ideal to help encourage the rest of your people to get involved. They can help provide the structure and the communication you need.

2. Create the right schedule for key processes

Regularity and consistency is crucial for successful resource planning. Once you've identified the processes to ensure your projects have the right level of resource, you'll need to make a schedule for them.

Project managers say how much resource they need, department heads make the decisions, and your architects, engineers and consultants get on with their individual tasks. Or, you can simplify it even further and give project managers the tools to find and assign available resources themselves. By setting a consistent schedule that links up all those components, everyone gets a full picture of resourcing for the weeks and months ahead.

You need to create discrete, defined tasks that follow on from each other, giving everyone a clear idea of what they need to do. This structured approach will also help encourage people to follow your process, as there are meaningful consequences to not completing it – if they don't assign the resources they need, they may not have the skills or capacity available to complete the project.

Your resource plans and pipeline updates should be closely linked, and updated every week. Then, leadership can review forecasts and capacity plans that are timelier and more accurate to make better, more informed business decisions.

HOW TO BREAK DOWN YOUR SCHEDULE

Here's an example of an effective resource planning schedule:

- Identify potential resource requirements as early as possible

- Choose the project team based on capacity, skills and experience

- Meet regularly with project leaders to assess progress and adjust the team as necessary

By separating the tasks for project managers, team leaders and employees into separate days, you're offering a clear flow through the planning process – and making it easier to identify if any steps aren't getting done.

3. Keep it simple

Over-complicated processes are one of the most common reasons that resource planning doesn't get done the way it should. And the longer you let a complicated process continue – and get even more complex – the more difficult it is to simplify. Your people are far more likely to follow protocols when they're quick and simple.

By giving teams a structured process that fits neatly into the rest of their week's schedule, you can be more confident they'll complete each step accurately – and without leaders needing to intervene.

As well as ensuring you keep the daily tasks of resource planning as simple as possible, you need to make sure you're not adding unnecessary rigidity. You need the flexibility to schedule detailed short-term assignments while still securing resources for longer term schedules with the level of specificity needed at each stage. You also need the ability to easily modify projects as schedules shift or milestones change for longer projects to ensure you can keep them on track.

As you work through the schedule, you can add more detail – right down to the individual task level, as needed – to ensure everything has the appropriate resource assigned to it.
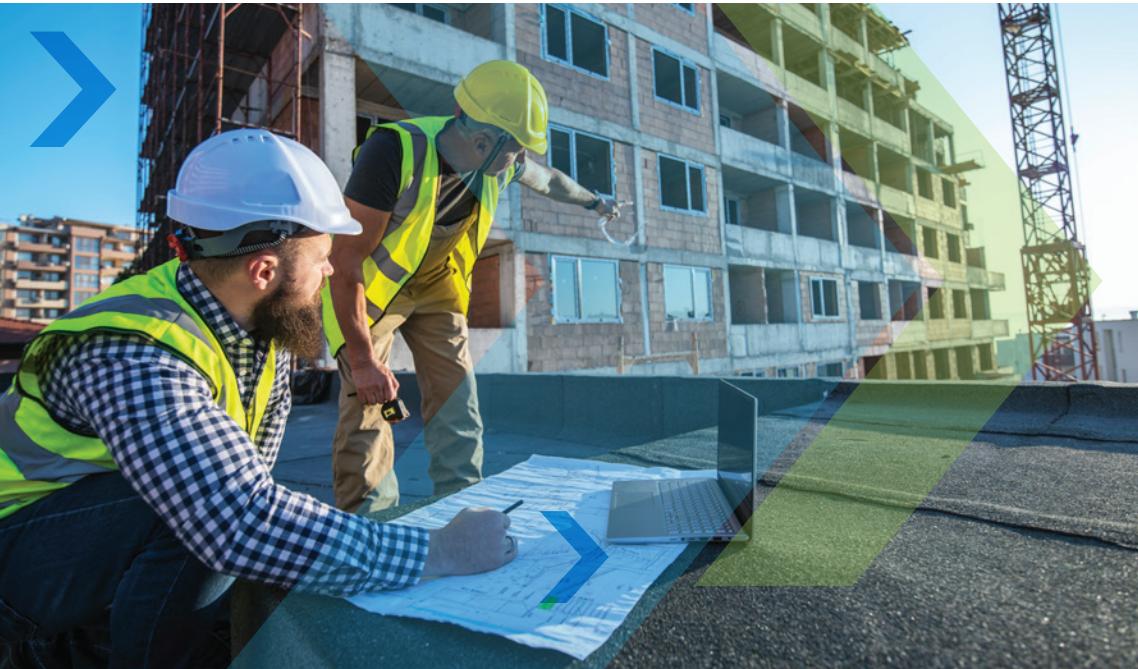
HOW FAR IN ADVANCE?

Many firms are still focusing too much on short-term resource planning. But if you're expanding your resource horizons, how far out should you go?

Consider how long it takes to onboard a new employee, and base your long-term planning on that timeframe. For example, if it takes three months to find a new architect, and a further two months to get them fully up to speed with your business, you should be planning at least five months out.

You don't want to lack the capacity you need for a project, but you also don't want to hire in extra staff if they won't be utilised. You need to know which projects are on the horizon – especially if they're resource-intensive, like a large infrastructure project – so you can hire and train any extra people required before it starts.

And sometimes, resource planning will help you realise that it's more economical to bring in subcontractors than make a formal hire. If you need several extra engineers for a two-month stint, for example, subcontracting will prevent you from being left with a chunk of extra resource that you don't need once the project is signed off.

Integrated solutions for resource planning

These practical tips can all be applied to traditional resource planning methods to make them more efficient – even if they're primarily done in spreadsheets.

But there's an easier way to make resource planning more effective.

Dedicated resource planning software can take the complexity out of the everyday tasks involved in making plans, while adding extra layers of integration and data that make each new plan more accurate. These solutions help you link your planning process more closely to your revenue forecasts, project tasks and billing processes – without adding manual processes that take managers' focus away from their core responsibilities.

Automated reporting and other built-in processes mean you can achieve full visibility into your resource, capacity and pipeline in one place, and use that insight to manage and deliver better projects as well as identify opportunities to hire and train your workforce in line with revenue and demand. With these tools, what used to take hours can be completed in minutes.

In project-based industries, hugely influential factors can change at the drop of a hat. Deadlines get shorter, budgets get tighter, and requirements expand. With traditional planning methods, adjusting resources to fit new demands can be slow and high-effort at a time where you need rapid answers about redistributing personnel. With an integrated solution, all it takes is minor changes to the project parameters to get a near-instant report on how the plan needs to change, and what that means for your people.

Spreadsheets may be the traditional favourite for resource planners – but there's a better way to work. Why deal with a complex formula when you can use a bespoke tool that handles all that work for you?
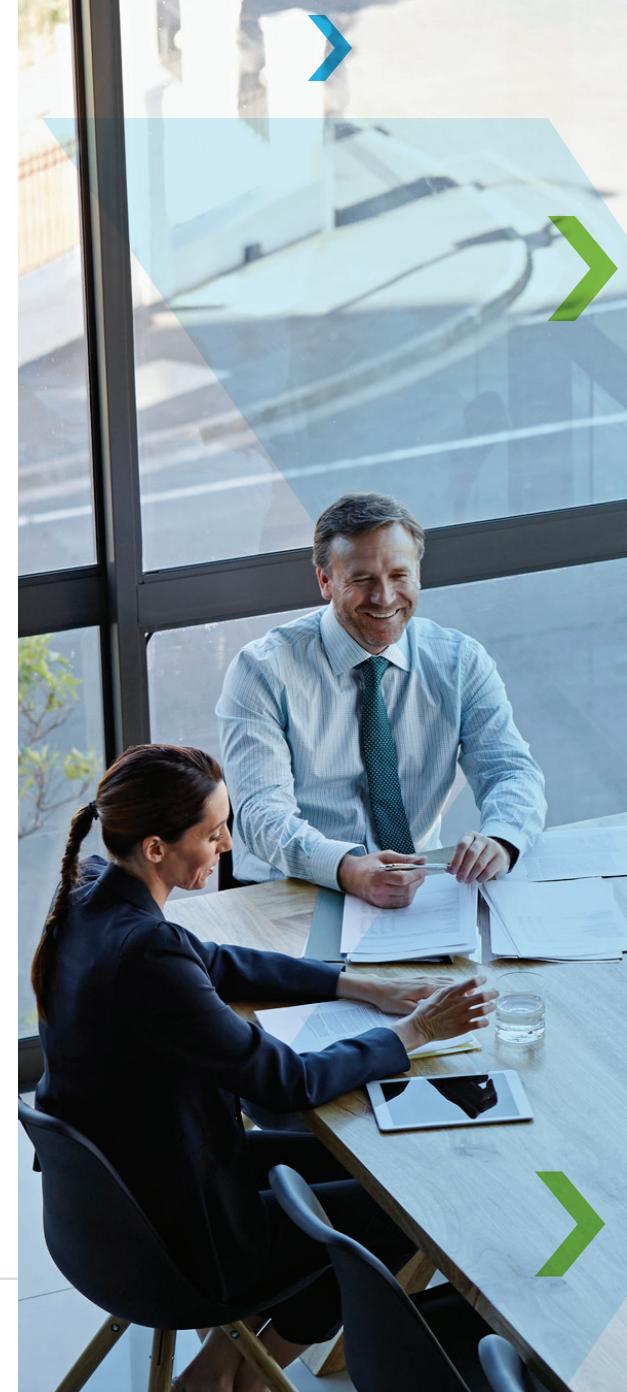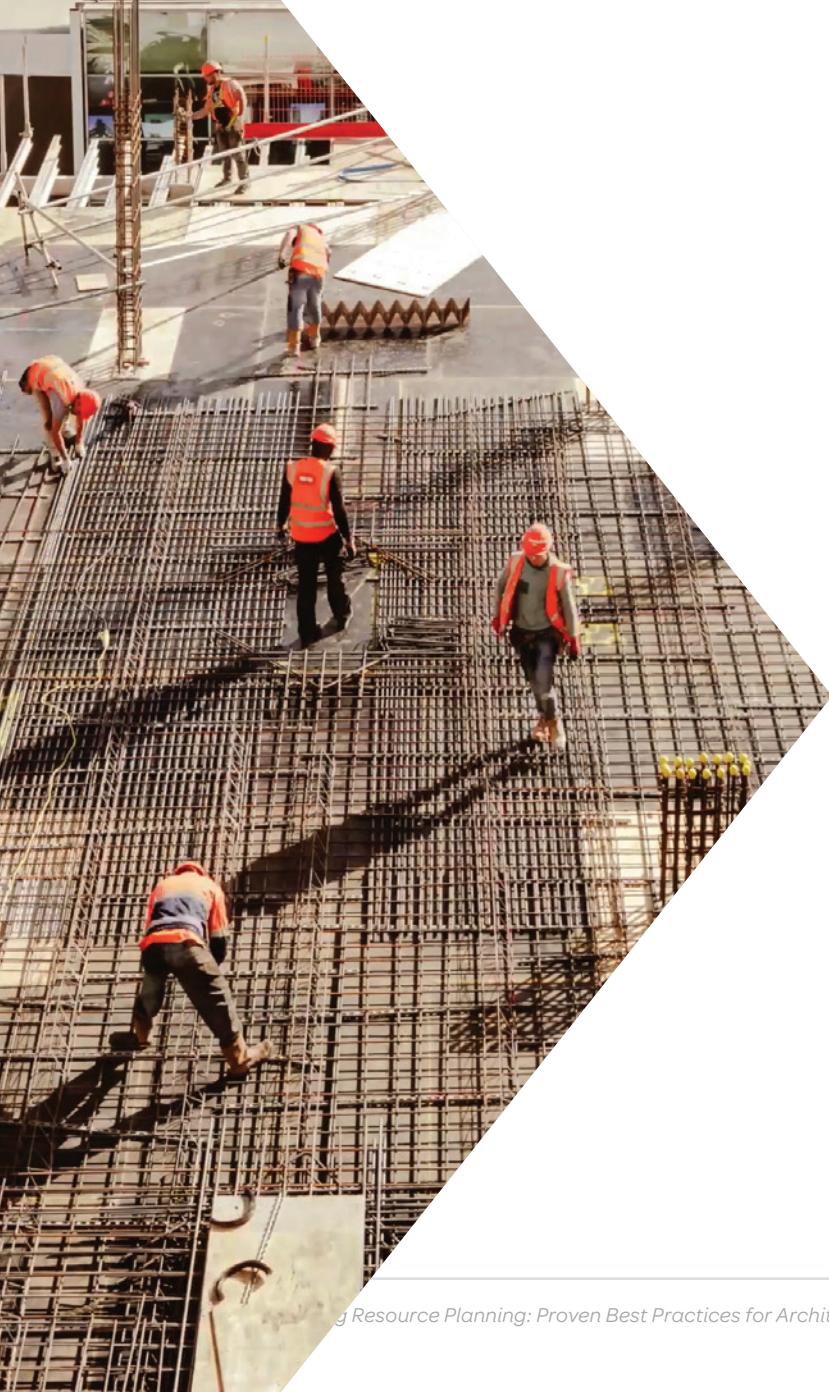
The future of A&E and consulting resource planning: the intersection of software and expertise.

It's time for project-based businesses to take their resource planning to the next level.

Moving on from spreadsheets and other manual planning methods may be a major change for project managers, but it will lead to happier, more productive employees and better project outcomes.

The next stage for business leaders is finding the right solution for resource planning. It needs to be integrated, user-friendly, and full of opportunities for automation and data-led reporting. It needs to give project managers the ability to take their experience and apply that to historical and predictive data to create the most accurate, efficient resource plans.

With more insight and foresight to work with, architecture, engineering and consulting firms can take a fresh, effective approach to maximising utilisation, productivity, and profitability.

SEE INTEGRATED RESOURCE PLANNING IN ACTION

If you're interested in learning more about how your architecture, engineering or consulting firm can move on from manual resource planning and adopt a more efficient, utilisation-friendly approach.

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