

# Where Have All Your Resources Gone?

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How Digital Resource  
Management Can Save  
Your Company

Guidebook

cora

# Executive Summary

As the number, size and complexity of today's projects continue to increase so too does the need for significantly improved resource management capabilities to facilitate comprehensive planning and analysis in a matrix environment. Utilizing a holistic approach for effectively capitalizing on the output of an automated resource information system may well be the differentiator between projects that fail and those that succeed. Knowing your projects have resource challenges is easy. Being able to manage your way around them is PRICELESS!

This guidebook will help readers understand what the potential benefits of using a "digital" approach to plan and manage organizational and project resources information can be. Resource availability and constraints associated with a "multiple projects/shared resource" is one of the biggest conflicts. These resources over allocations can be quickly assessed and vital decisions regarding how to level the resource commitment histogram can be made in a timely way.

According to a June 2019 article in [PMproject-management.com](https://www.pmp.com/resources/articles/2019/06/01/Managing-Project-Resources) Rosanne Lim states: "The inability to manage project resources (and the associated funding) is one of the top causes of project failure." Don't let poor resource management drag your projects down. Learn how you can become more successful using an automated tool to support your resource management decision-making.



# Author Bio

Lee R. Lambert (PMP, PMI Fellow, CEO Lambert Consulting Group) has logged 50+ years of project management experience and is considered one of the world's thought leaders on project management methods and how they can be utilized to create and sustain value-added leadership and collaboration capabilities. He is one of only 70 in the world to receive the honor of PMI Fellow. He is a past president of the Central Ohio PMI and was one of the founders of the Project Management Institute's project management professional (PMP) credential. His book, *Project Management: The Common Sense Approach*, is a bestseller in the field.

As VP of Staff & Organizational Development for the Project Management Division of the largest contract research organization in the world, Lee was responsible for creating and implementing a Leadership Development program focused on improved performance for project managers and supporting functional/line managers.

During his decades of platform training Mr. Lambert has provided learning opportunities to more than 50,000 professionals in 23 countries. He is regularly called upon to provide Keynote presentations on Leadership, Communications and other Project Management topics. He has also provided consulting support to dozens of major corporations, including General Electric, IBM, Motorola, Citigroup, Sprint, AT&T, Roche, Nationwide Insurance and Westinghouse to name a few. He has earned his nickname as a "Pragmatic Evangelist".



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## CHAPTER 1

# Where Can You Go to Solve Your Project Resource Needs?

Wouldn't it be nice if you could just go to the local store to fill your project resource needs? No more worrying about whether you will get the right resource (skill set) at the right time for your project. One visit to the "resource store" and your dreams will come true. Wake up! If resource management was that easy every project would be successful. There is NO resource store.



Every organization has a fixed number of resources that must be carefully allocated to satisfy the needs of multiple projects—projects that support the accomplishment of the organization's strategic objectives.

Whether you are a senior level manager, the owner of a skill set resource pool, or a project manager, the need to develop and manage comprehensive resource utilization plans is not optional.

Every project has a scheduled completion date. Every project needs human resources to achieve the desired end result. Project tasks require specific skill sets to assure the highest quality project work is completed on time within cost targets. Seems straight forward to me! What's the big deal?

The "big deal" is that effective and timely resource management can NOT be efficiently achieved manually. The complexity of today's organizations and the diversity of the projects that are undertaken demand reality-based initial resource utilization planning and rapid response to the inevitable changes that occur during the project lifecycle.

Wouldn't it be wonderful if an automated enterprise-wide information management system to facilitate the organization's resource management efforts existed? Celebrate! Such a system is available—NOW! It's called project portfolio management (PPM) and it will seriously reduce the number of headaches that normally come with resource management.

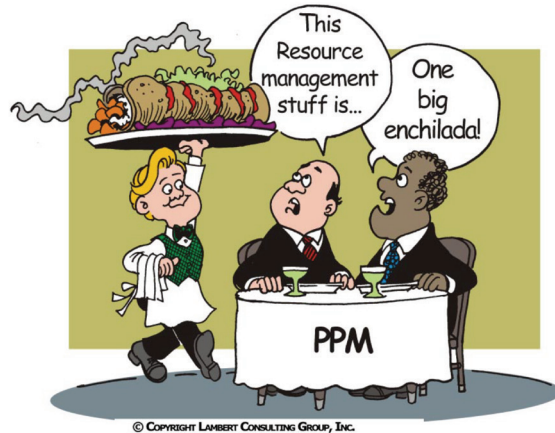




## Attributes of a Good PPM

The functionality of a PPM solution is unlimited (almost). The attributes of a well-developed and integrated PPM include (but are not limited to):

- Documenting project/task requirement definitions
- Creating time-phased resource allocation plans
- Assigning planned costs based on resource skill set rates
- Including facilities, materials and contractors in the plan
- Capturing actual costs incurred at task level
- Managing expenses at task level
- Merging multiple project plans to identify resource conflicts
- Supporting strategic capacity planning, forecasting and analysis
- Displaying variances between plan and actual
- Highlighting the potential impact of a proposed change
- Supporting "what if" risk impact analysis



It should be understood that the challenges associated with the resource management effort actually start as a result of the business planning cycle when senior level decision-makers gather together (usually in a sun and surf location) to decide what value-add projects should be undertaken in the next year(s). These decision-makers are easily distracted by "shiny objects" and they eventually choose more projects for the pipeline than the organization ultimately has the qualified resources to deliver.

Sadly, these decision-makers will not fully appreciate the resource management problem they have created until all projects (and portfolios) are planned and all skill set resource

pools have been depleted through the allocation process. Then, and only then, will the issue of project portfolio prioritization and resource utilization conflicts start to raise their ugly head.

Using the power of PPM, all time-phased, resource-loaded project plans can be merged to identify resource constraints and skill set mismatch impacts that must be resolved. This comprehensive planning and subsequent analysis must be done frequently to avoid high impact conflicts. Imagine for a minute that the only tools available to accomplish this complex planning and analysis were spreadsheets, pencils and erasers! Believe it or not, that was the case not that long ago. But no more!

## How Digital Tools Can Support Resource Planning

Today's organizations have available to them sophisticated tools that support the ability to comprehensively plan resources for each project. Project managers can compare actual accomplishment with the plan and meaningful and timely variance analysis can be accomplished. They can forecast the impact of the past into the future.

They can quickly execute “what if” analysis to optimize the plan.  
And much, much more!

The PPM delivers! This powerful approach to managing myriad project information is not optional, especially if multiple strategic projects are being managed in a shared resource environment. The visibility to determine the availability of the “right resource at the right time” across all organizational business areas and all ongoing projects is vital as input to the ongoing decision-making process.

All of the exceptional residual power for planning and executing multiple projects in the most effective and efficient way is strategically dependent on one critical activity—how project resources are planned, allocated and then tracked using the performance measurement baseline (PMB) approach.

Now that you have the good news. Here comes the BAD! No matter how powerful your PPM is if the appropriate time is not invested in planning and allocating of resources for every project your output will often only result in information that essentially allows you to make bad decisions —faster!

## How You Can Improve Project Planning and Analysis

Let's look at how organization and project planning and analysis can be significantly improved using a PPM supported approach. Once project tasks have been identified and a well-developed scope documented it is time to identify and allocate the appropriate skill set match resources. The resources estimate how long it will take them to accomplish the scope and when you link all of the tasks into an integrated schedule you have the project duration.

The problem is that once the work begins higher priority organizational work may be identified for your assigned subject matter expert (SME) resource. Therefore a resource reallocation decision is made and you have to hope the replacement resource isn't a subject matter zero (SMO) instead of a SME. The information that is captured in the PPM enables you to quickly identify the project impact driven by the existing resource reallocation and to consider any necessary corrective action.



Unless the replacement is an equal skill set capability there WILL be an impact on the work being done. This reallocation effort is called "bait & switch" and the impact needs to be analyzed. Thankfully there is a formula for use in determining the impact of the "bait & switch" decision. Two factors must be considered:

1. skill set differential (relative productivity)
2. availability (multiple commitments)

Since individual resources have a tendency to plan their work in effort hours and actually execute in duration hours, once resources are assigned this calculation needs to be completed on every task to assure that realistic estimates are being input to the PPM.



**Duration  
Hours**

=

$$\frac{(\text{Effort Hours/Relative Productivity})}{\text{Resource Availability}}$$

Once realistic time estimates are established the new data needs to be input into the PPM in order to “recalculate” the individual project duration as well as identify impacts on other projects that are sharing the same resources. This use of the PPM may well be one of the most useful in creating a realistic resource performance measurement baseline.

In addition to accounting for the impacts of “bait and switch”, the PPM will also account for the impact of ongoing operations support assigned to resources. Remember resources are rarely 100% available (other demands on a resource’s time can be as much as 30% and this fact must be reconciled in the planning for resource allocation). Accomplishing these important analysis without the support of a PPM would be impossible. Often times (if not caught early) the schedule impacts of these factors can result in significant schedule slip and late delivery.







## CHAPTER 2

# How Resource Management Can "Save The Company"



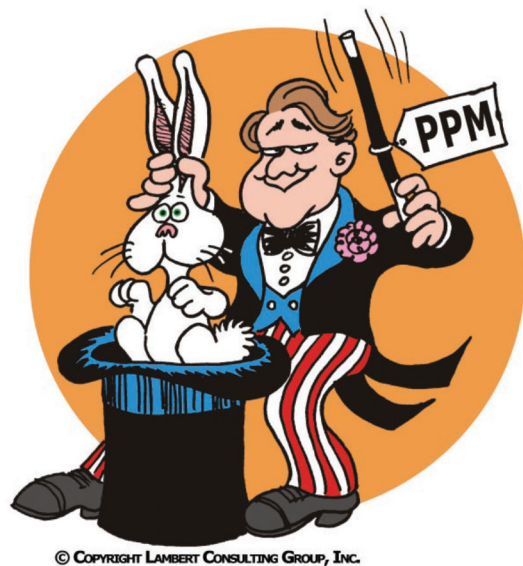
I learned this lesson when I was working with on a major “save the company” project for a \$1 billion German-owned medical diagnostic equipment company headquartered in Indianapolis, Indiana. The competition had introduced a new product that had taken the market by storm resulting in the German company losing three points in market share—every month.

I had been contracted to manage a “work in process” new product development project to stop the market share loss. The project was on a VERY tight (unrealistic) schedule. One of the key technical tasks on the project schedule had been estimated by a SME resource to be 8 days of effort. I was immediately concerned that the resource eventually assigned to the task was not as qualified (experienced) as the SME who had provided the original effort estimate and that it was far too optimistic.

I applied the “bait and switch” formula. I assumed the assigned resource was 50% as productive as the original SME and he was only available 25% of the time. The result was a new duration estimate of 64 days. This new estimated duration was input to the integrated project plan—the result was an unacceptable 56 day schedule slip. Fortunately, the resource allocation problem was discovered early and corrective action was taken. The project/product was delivered on time. Thanks PPM!

The incredible success of the project in the market led to the company being acquired several years later for \$11 billion. Could this success have been achieved without a robust information management system to support the decision making process? I don’t think so!

The benefits of using a proven PPM are only limited by the user’s imagination. If your objective is significant improvement in the availability of information needed to support project and organizational decision making—you need PPM! Remember, don’t ask what you can do for the “system” ask what the “system” can do for you?





## CHAPTER 3

# Answers You Should Get Before Tackling Resource Management

In summary, if  
you and your  
organization  
have an  
objective of  
improving  
resource  
management  
capability  
remember this:

1.

Time must be devoted to creating a time-phased resource utilization plan (with costs)

2.

Constantly assess the plan versus actual status to determine the "truth"

3.

Look for schedule/cost variances caused by "wrong" resources, "wrong" time

4.

Spend time developing strong relationships with the resource "pool" owners

5.

Provide project resource distribution information for organizational capacity planning

6.

Perform "what if" analysis to assess impact of risk events and/or resource constraint

7.

Capture and retain project resource history for learning curve purposes

8.

Don't even think about doing this manually!





## CHAPTER 4

# HOW CORA SYSTEMS POWERS ENTERPRISE PPM & TRANSFORMATION

## Key Aspects of the Cora Solution

Cora Systems is a worldwide leader in providing enterprise PPM solutions to global organizations and government agencies, such as Honeywell, Allergan, PwC, City of London and the UK's National Health Service.

Cora is a proven foundation for the delivery of projects, digital transformation and strategic objectives. Fully digitizing program and project lifecycles, providing total transparency, empowering decision-making, and streamlining governance and reporting. Every day, across more than 50 countries, over \$20 billion worth of projects are managed on the Cora platform.

## Powering Enterprise PPM & Transformation

Cora PPM contains a comprehensive suite of functionality that provides the strategic capabilities to optimize capacity, analyze scenarios, track benefits, inform all stakeholders and integrate across the enterprise. The platform acts as the bedrock for delivering major transformation programs.



### Complete Enterprise Project & Program Management

Cora PPM provides the control, governance and insight required to identify, prioritize and authorize extensive enterprise portfolios that align to strategy and deliver ROI.



### Digitize & Streamline Business Processes

Cora PPM digitizes all your portfolio, program and project processes, surfacing information when, where and how it's needed. Transform the way you manage your program lifecycle, providing the transparency, intelligence and decision-making capability to drive change across your enterprise.

*"With Cora, we're able to sit around the table at senior management level and understand where we are much better than previously."*

#### **Paul Moody**

Director of Global Engineering Projects,  
Allergan Pharmaceuticals



*"We are happily using Cora to manage the portfolio of projects that makes up our £1.7bn Superfast Program, and our £294m Local Full Fibre Networks Program. It works well at a low level for project planning, risk and issues, change logs, benefits tracking, weekly reports, etc. Then the PMO can roll up and summarize that low-level data into a full program/ portfolio view."*

#### **Justin Leese**

Program Director, Local Full Fibre Networks,  
Department for Digital, Culture, Media & Sport (UK)



Department for  
Digital, Culture,  
Media & Sport





## Integrate, Centralize & Consolidate

Cora PPM acts as a single point of entry for all project data and facilitates easy integration with any enterprise technology architecture. Providing you with an immediate, consolidated view of all your project portfolios and deliverables. Complete visibility and insight are acquired through instant information “roll-up”, linking top-down goals with bottom-up contributions of each and every initiative.



## Swift Enterprise Deployments

Accelerate time to market and improve return on investment by leveraging best-practice implementation supported by our team of experts.



## Mapped to Your Processes

Cora PPM is configured to each client’s specific business processes, and we are methodology agnostic – we’ll tailor the platform and the templates to fit your chosen project methodology be it Agile, PMBOK, PRINCE2 or other.

*“It’s great to have that cascade of information to highlight issues and risks for the right people who can then intervene. The functionality to do that in a more controlled environment, to take it through the different authorization layers, we see as really valuable.”*

**Patrick Beattie,**  
Director, PwC



*“Cora really allows us to drill down into information so we can give our senior management the key decision-making information to make informed decisions on all our schemes.”*

**Ian Thrupp**  
Head of Planning and Project Controls, WSP



*“Cora as a platform gives us that single source of truth to what’s going on in the organization and also gives us the ability to prioritize what’s really important to us. Being able to put that information in front of our board and our executive team to say, ‘Here is all of the change that’s going on. What’s the most important to you?’ and then actually allocate the resources and funding for those projects to help move us into that strategic position is invaluable.”*

**Sarah Malin**  
Head of Program Management, CityFibre

CityFibre

# The Value

Digitize your programs and lifecycles, gain greater insights, more informed decision-making, and streamline your governance and reporting.

## ✓ Strategic Insights

Roll out failsafe, strategically-aligned projects that utilize resources and deliver maximum value.

## ✓ See The Full Picture

Quickly view data dashboards that visualize the health of your portfolio and drill-down to focus in on any issues.

## ✓ Support Governance

Ensure the right people have the right oversight with multi-level access protocols.

## ✓ Easily Scale

Small to large, local to global, all in the cloud.

## ✓ Complete Control

Manage scope, financials, progress and quality of project delivery in one centralized system.

## ✓ Seamless Collaboration

No matter the team – internal or contractor, desk-based or mobile – integrations make workflows seamless.



# \$20 BILLION

Worth of projects managed on Cora PPM.



# 400,000+

Projects live on Cora at any one time.



# 50+

Countries where Cora is in use.



# 1

Platform & version of the truth.



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