

WHITEPAPER

Why Scheduling is Vital to Your Maintenance Strategy



PROMETHEUS GROUP



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Industrial maintenance organizations are charged with ensuring optimal asset reliability and uptime. Equipment, components, facilities, and fleets are counted on to be in peak working condition when needed. The availability of these physical assets is critical for organizations to meet their production demands. Organizations employ an asset management strategy to ensure these physical assets are ready to go when needed.

An asset management strategy guides an organization's overall asset management activities. It should explore long term issues and ensure that the overarching plan is linked to key strategic challenges and goals for the organization. Asset management strategies often consist of tightly coordinated and often complex workflows for work planning, scheduling, inventory, and procurement which ensure maintenance and inspection tasks are completed without a hitch.

Maintenance organizations are responsible for ensuring assets are up and running when they are needed. Traditionally, maintenance has been completed in a reactive manner. When an asset failed, the maintenance team would rush in, fix the problem, and production would resume. This method solved the immediate issue at hand but was not always the most effective.

In his book, "Maintenance Planning and Scheduling Handbook," Richard "Doc" Palmer discusses how in an 8-hour workday, after lunches, breaks, etc., the absolute most maintenance time possible is only 6.5 to 7 hours. If an organization is not doing any planning or scheduling, Doc's studies show they get roughly two to three hours of

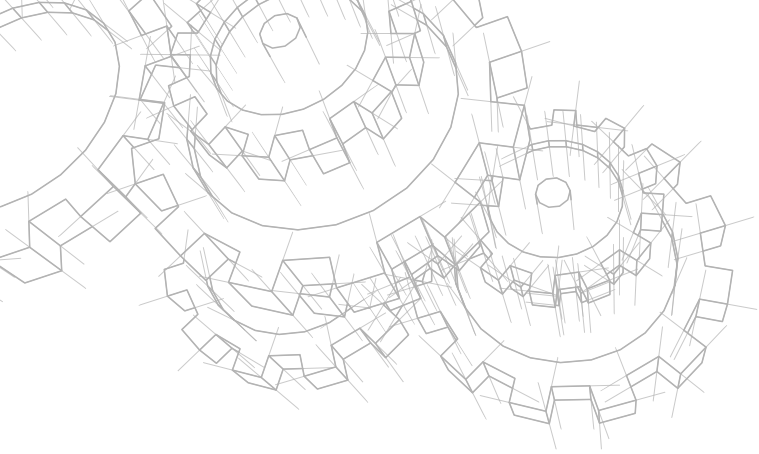
useful wrench time from their maintenance team. He also shows that when a maintenance organization implements a basic scheduling method, wrench time almost doubles. Going further and implementing a comprehensive planning and scheduling strategy gives organizations both high utilization and the additional benefits of ensuring that the right work is being done on the right equipment.

It has become apparent to maintenance organizations that they need a tool, like Prometheus Planning & Scheduling, to take them beyond reactive maintenance practices and to optimize their asset uptime and costs savings.

Maintenance Strategy & How Scheduling Fits In

Few people have as much influence on the outcome of an asset management strategy as planners and schedulers. They are responsible for establishing work priorities and ensuring maintenance workflow is controlled so that asset utilization and uptime can be improved. Managing and controlling workflow with the right resources will reduce maintenance costs and optimize asset utilization/uptime by mitigating risk. In other words, planning and scheduling can make or break a maintenance organization

Prometheus Planning & Scheduling was designed from the ground up to arm planners and schedulers with better tools to conduct their job. The solution delivers an unprecedented level of flexibility and intelligence that focuses on assets, urgency, and PM compliance to maximize production uptime and to increase production through out.



How Scheduling Benefits Your Maintenance Strategy



Control Maintenance Costs

Maintenance had traditionally been viewed as a cost center. A critical piece of equipment breaks, and organizations will spend whatever it takes to get that equipment back up and running. To keep maintenance spending on budget, work plans and schedules must be carefully established, and adapted as circumstances change.

Planned work is always more cost effective than reactive, and even a marginal increase in planned work can produce massive savings. Maintenance scheduling best practices dictate that 80% of work is planned, because unplanned or corrective work is typically seven or eight times more expensive than planned work. In this scenario, a \$700 to \$800 unplanned work order would have cost only \$100 if it were properly planned. It is important to consider if the frequency of preventive maintenance tasks is optimal for your assets. Skipping one oil change day per year may save labor and material costs and prevent taking the equipment out of service, but it could eventually increase the risk of failure-induced downtime, which raises maintenance costs and reduces production. Scheduling practices also have the potential to drive revenue gains as filtering schedules to focus on critical assets increases equipment availability. Putting higher emphasis on the most critical assets may increase the output that can be sold for profit.

Resource planning can serve as an alternate costs containment strategy, as improving utilization of resources can minimize overtime and contractor costs. Best practices suggest having 80% FTE on staff and

20% contractors, although this ratio has moved in waves with the rise and ebb in outsourcing. Benefits costs are avoided with contractors, but they lack the long-term knowledge base of staff personnel, making them less effective and more costly in the long run. On the other hand, it is too expensive to rely wholly on staff labor and more difficult to make cuts in a downturn.



Optimize Asset Utilization and Uptime

It is not possible or even necessary to ensure 100% asset uptime. For example, if an organization's maximum production profitability is supported by 85% uptime, and effective planning and scheduling strategy will ensure sufficient maintenance is performed to prevent downtime from exceeding 15%, it would be a waste of resources to try for a higher uptime percentage.

As this scenario demonstrates, asset utilization and uptime optimization begins by asking if the right work is being done at the right time on the right assets. When you utilize a planning and scheduling strategy, you can prevent costly unplanned downtime. Preventive maintenance schedules can take production goals into account and ensure assets are taken down for maintenance at non-critical times and that asset disruptions during critical times are nonexistent or minimal.

Planning and scheduling strategies also ensure that the right technicians and parts are available when the asset is being taken down. Unlike in reactive maintenance, where the asset fails and the maintenance team may not have the best technician or part immediately available, when an organization employs a maintenance schedule, they can make sure all the necessary people and parts are available before the asset is taken off-line.

Furthermore, planning and scheduling helps to decrease the overall amount of time an asset is down for maintenance. Multiple preventive maintenance work orders on an asset can be scheduled for the same time. This means the asset only needs to come down once, to complete multiple preventive maintenance actions, rather than coming down several times.

Conclusion

Let's think about maintenance in terms of planning a vacation. If you do not determine when you need to leave for the airport, how you're going to get to your hotel upon arrival, and what activities you want to do on your trip, you will likely end up missing a flight, car, or activity that you had really hoped to do. Arriving at your hotel with no plan in mind also means you will be wasting time trying to figure out where your desired activity is or what you want to do that day. You'll have a better outcome if you spend some time before determining what you want to do and where to do it.

Maintenance work is the same way. Planners and schedulers are the ones who create the plan, obtain the supplies, and schedule the actions to ensure a favorable outcome. Without a planning and scheduling solution, like Prometheus Planning & Scheduling, your maintenance team will likely face high costs and lengthy and low-quality work. Without maintenance scheduling, you will always be a reactive maintenance organization and the costs to maintain your assets will be significantly higher than they should be.



Learn more about how Prometheus Group can help your organization today.

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About Prometheus Group

Prometheus Group is a leading global provider of comprehensive and intuitive enterprise asset management software solutions that work within ERP systems and span the full work management life cycle for both maintenance and operations. Developed jointly with end users, Prometheus software enhances the customer experience for planning, scheduling, and executing work for both routine maintenance and shutdowns and turnarounds, all while protecting the workforce with safety solutions and electronic permit to work. Our straight-forward functionality, graphical visualization, and simple processes enable customers to increase productivity, reduce costs, and improve reporting. For more information, please visit www.prometheusgroup.com.