# *Inspired* Blended Learning™ Case Study

## Distribution Facility

## Planner / Scheduler Improvement Project

**Version 1.0**

Where Education Meets Application.

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## STRATEGIC ALIGNMENT OF PLANNING & SCHEDULING

Within the "Company X Facilities" organization, there has been a paradigm shift as it pertains to maintenance practices. Moving towards a reliability-centered ideology maintenance planning and scheduling, as well as predictive technologies were implemented. At a local level, the need was obvious: Our technicians were wasting hours of what could have been valuable wrench time; reactive maintenance was at an all-time high; and most importantly, there was a substantial disconnect between operations management and facilities. Our facility runs 22 hours per day, with only two hours of downtime per day, or 14 hours per week. The implementation of maintenance planning and scheduling best practices would be critical to our success and add value to our business by getting the most out of our skilled craftspeople with limited wrench time available.

The Maintenance Planner/Scheduler is a new position within Company X and was communicated to me through management, as only a select number of buildings would have this role. Previously, I had been doing similar work within the maintenance organization as an EAM Administrator, assisting the facilities management with weekly scheduling. With this experience, it made sense to apply for the open position, which subsequently, I was offered and accepted. I was more than thrilled to receive formal training from SMRP certified professionals such as Eruditio, so I could also add value to our business.

Although there were some great successes during the implementation of planning and scheduling at my company, there were also a few bumps in the road. As with any change, it was met with great skepticism – Especially by those who had been in the industrial maintenance field for 20+ years. I could foresee this and identified it in my initial SWOT analysis. I worked throughout the project, to earn the trust of these individuals and to show them how beneficial and effective the methods in the Eruditio Planner-Scheduler curriculum could be, when done correctly.

## THE IMPROVEMENT PROCESS

Key milestones in the planning and scheduling implementation were as follows:

1. Creation of detailed job plans for all of the routine maintenance tasks/jobs associated with our 20 most critical assets.
2. Implementation of Parts Kitting
3. Establish an open line of communication with operations management by hosting a weekly maintenance scheduling meeting. Changing priorities can be communicated to/from both parties, therein.
4. Implementation of Root Cause Analysis process on every priority 1 breakdown to identify changes that need to occur within job plans or PM process.

The position in the facility that most closely supported the planning and scheduling process, was the Facility Area Manager (FAM). The facility area manager is responsible for the execution of the plan. They often re-allocate work orders and communicate changing priorities on the production floor. Without the dedication of buy-in from the FAM's, the planning/scheduling process would not succeed.

The facilities management did a good job of "selling" the concept of planning and scheduling by reinforcing procedures put in place by the Planner/Scheduler, and also communicating the significance of the new procedures, to the operations management. In turn, this made planning and scheduling much more effective by including production managers "on the fringe," of buying into the process. An all-inclusive partnership has resulted from these efforts.

## RESULTS

After the first couple of milestones were reached, the morale among the technicians improved dramatically. I could see this in their quality of work, but most notably in my interactions with them. Prior to P&S, technicians were often assigned a "pool" of work orders, often with no job plans or time estimates. While this might sound like a "dream" scenario for a technician, it was the opposite – The lack of structure made them feel like they hadn't really accomplished anything. This of course, led to lots of low quality, subjective work. Planning & scheduling provided structure for the technician's work day and established clear, attainable objectives.

In many ways, planning and scheduling delivered on the business case. Some indicators of this can be seen in the amount of our maintenance hours that are proactive vs. reactive: Especially towards the end of the implementation phase, proactive labor went up 20% from 50% to 70% and reactive labor declined from 20% to 12% of our total labor hours (over a period of 8 months). Technician turnover has decreased, which is at least, indirectly affected by the implementation of planning and scheduling.

With the creation of detailed job plans and the addition of structure, we were able to increase the amount of work that could be performed in the 2-hour downtime window, from an average of 2 jobs, to 6, depending on the job/scope. Furthermore, after kitting parts consistently for 2 weeks, technicians were able to complete more preventive maintenance jobs during their work day.

Of all milestones, the establishing of a weekly scheduling meeting was one of the most profound areas of improvement. Asset availability increased substantially, by simply communicating the maintenance plan with operations, a couple weeks in advance of the scheduled maintenance.

Using formal tree-based root-cause analysis helped us identify a sensor issue that had been ongoing for years in one of our cardboard balers. We were able to re-visit the PM job plan and add a more qualitative check for the sensors and limit switches.



 

## SUSTAINABILITY

One of the challenges with sustaining our planning and scheduling efforts, will be keeping the line of communication open. It is common for operations managers to move around a lot in our company, so we should continue to make efforts for build rapport with each new manager and foster those relationships built on trust.

I believe a key factor in maintaining the planning / scheduling process is the open line of communication between the planners and schedulers around the company. One way we are attempting to do this, is to conduct a weekly "Best Demonstrated Practices" conference call in which we all discuss challenges and solutions to common issues that are unique to our company. This allows us to use each other as resources in continuous improvement efforts.

The next step for our company is more than likely to expand planning/scheduling practices beyond a few facilities and into all of our distribution centers that have a complex maintenance environment.

## LEARNING FROM THIS COMPANY'S JOURNEY

There are many things that I would have done differently in the rollout of planning and scheduling. First and foremost, I would have made sure that all parties within the facilities organization were "in the know" and understood the scope of such a project. Although I would consider the implementation of planning and scheduling at my building a success, I had initial issues getting some of the most influential managers on my team to buy in. Culture change is crucial when trying to make any kind of strategic improvement in an organization. At the root, people need to know they are cared for and that their voices are being heard. This was a major component that I would do differently… Instead of trying to force some of the changes, I would try a more gradual or diplomatic approach. Unfortunately, due to the "urgency of now" in our society and in business, this isn't always possible.

Education is a critical component of planning and scheduling. The best practices demonstrated in the iBL curriculum have been tested and are proven to work. When trying to make an improvement such as implementing planning/scheduling, it is essential to explain why and how this is the best way. Specifically, in this course, I learned everything from work prioritization methods to evaluating maintenance effectiveness, which helps me add more value to my company as a planner/scheduler, and be most effective. Conversely, everyone from management, facilities management, to the skilled craftspeople benefit from this.



 