

# ASK THE EXPERT

## Maximizing Efficiency and Budgeting with Time on Tools

As seen in Chemical Processing Magazine



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Time on Tools is a standard metric used to uncover the underlying issues that may impact the operational efficiency of plant crews. This approach specifically quantifies the adverse effects caused by these barriers and offers crucial data for more effective planning. By adopting Time on Tools, organizations can optimize the amount of actual working time available to their workforce, ultimately achieving a leaner and more efficient operational structure. As a result, site managers can expect significant improvements in their budgets and schedules.

We are guided through this concept by operations, maintenance and turnaround expert Bruce Grissom. With over 40 years of experience, Grissom shares his insights on the challenges, opportunities, and improvements that Time on Tools can make to a plant's schedule.

### Can you explain Time on Tools and describe the challenges of matching Time on Tools to the planned schedule?

**A:** Time on Tools is the actual time a person spends performing a task. This time does not include areas such as travel time to the job site, permitting time, gathering materials, or delays during the execution of the task (weather, unit upsets, etc.).

The time allotted on your schedule should be the actual time needed to perform the task. The biggest challenge is when a company tries to schedule 100% of their available resources to the number of hours in their shift. An example would be each person being scheduled exactly 10 hours on tool-time for a 10-hour day. A healthy resource loading target is 90% and a schedule completion target of 90%; this ensures full utilization of your resources and allows for activities outside of actual Time on Tools. Companies should measure the accuracy of their job plans by measuring the amount of time charged to each planned task by the craftsmen or supervisor.

All time requested, in addition to the planner's planned times, should be challenged to understand the actual utilized labor time and only changed in the original plan when justified. When you add additional hours to the task or operations in the work order for the things mentioned above, you make it impossible to measure Time on Tools accurately. To understand the actual time needed to complete the project, companies should create a non-tool-time purchase order to capture labor hours for time spent outside of performing the task(s). To clarify correctable areas of opportunity outside of Time on Tools, you can create work orders for each area, e.g., weather, permit delay, understaffed, materials not ready, support equipment not available, etc.

### What are the dangers when this non-tool-time scenario becomes a behavioral norm?

**A:** The biggest issue is when a company adds time to work order steps or operations for things they cannot control, as listed in the examples above. When you add these steps (e.g., permit, gather material, etc.), you risk inflating the time





needed to perform the task. When this happens, you cannot fully load your resources due to the inflated hours in the work orders. Also, when companies schedule 100% of the available hours in a shift, the supervisors have no choice but to confirm the time on the work order is equal to what was planned. Companies committed to improving their Time on Tools' performance should limit loading resources to no more than 90%. Capture and analyze non-tool-time data, mitigating all delays.

An example of a Time on Tools approach is to schedule crews to work in the same geographic area. This will reduce travel time to and from areas, ensure the material is pre-staged for the task, and shorten toolbox safety meetings. When possible, do not overload a permitting station by simultaneously sending too many crews to the same location.

### How can technology help prevent schedule blockages?

**A:** Some companies are embracing technology and going paperless. They are issuing tablets to their work crews, reducing the time it takes to print and issue paperwork. Also, with this technology, you can improve scheduling by eliminating morning line-up meetings while having the ability to flag specific safety issues when performing a task. Additionally, the crew(s) can provide updates throughout the day (without stopping work) by sharing pictures of the task with the planner to justify changes to the hours and materials

and confirm the completion of the task with the supervisor. When technology is used in this manner, the supervisor increases their field time, ensures safety, and looks for opportunities to increase Time on Tools.

### If I'm a plant manager, how can contractor data help my company with planning schedules and budgets in the future?

**A:** When focusing on improving Time on Tools, every percentage of improvement equals significant cost savings by allowing more work to be performed for the same spend. When this happens, organizations tend to reduce the number of contractors needed to maintain their facility.

In the area of safety, knowing and controlling the ratio of supervisors to craftsmen and the ratio of new employees to journeymen allows for a safer environment. For budgets and schedules, the first step is knowing exactly what it takes to perform every task planned, both in hours and cost. With this information, companies can build realistic schedules and budgets, knowing the better they manage their non-tool-time events, the tighter they can budget. The biggest value of contractor data for a site manager is knowing exactly where they are with current spending and accurate forecasting. Accurate and tight task planning, along with understanding and mitigating items other than Time on Tools activities and issuing realistic schedules, will allow your budget to go further.

## READY TO LEARN MORE?



Find out how to use your own contractor spend and data to improve Time on Tools performance.

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