Optimizing Work Through Effective Task Management

With

CHAMPS TaskView™

Every plant manager strives to maximize uptime and minimize the maintenance and outage costs. During outage, the focus is on completing all planned work in the shortest amount of time. This is accomplished by having the work planners develop comprehensive task schedules that lead to effective execution of work. However, even after the tasks have been identified, defined and scheduled, the plan is often derailed because the workers in the plant are not provided accurate and timely feedback on the work status. CHAMPS TaskView resolves this critical lack of real time information by displaying the status of tasks on large monitors placed through out the plants. The system has proven extremely effective in minimizing the impact of delays, reducing wait time between assignments and eliminating bottlenecks in getting the work done.

The Problem:

Based on current market and economic conditions, it is important for organizations to strive and attain competitive advantage in all aspects of operations, including availability and costs. One major operational area which directly influences availability and costs is shutdowns / turnarounds / outages (STO). Specifically, durations and resource management related to STO in some industries can equate to as much as $1-2 million dollars of lost revenue per day of down time.

Many STO optimization strategies have been introduced to control the overall outage durations. However, day to day outage scheduling and the communication related to affect it pose a great challenge for many organizations. The ability to visually communicate to everyone, in real time, which tasks are currently underway or awaiting predecessor tasks to be completed is a key to getting control of the STO schedules and minimize their durations.

Most organizations utilize some form of Computerized Maintenance Management System (CMMS) that manages the work load and resource assignments. Others, in conjunction with a CMMS, will deploy a scheduling tool such as Primavera, that takes the information that has been planned or scheduled within a CMMS and develops overall schedules that take advantage of all the pre-planning related to the work tasks, resources assigned, durations, start date / time criticality etc. Where the schedule begins to breakdown is when the STO is well underway and the information that is critical to updating the details of each of the tasks is either unknown, lagging in timely response or not effectively communicated to those responsible for keeping the schedule updated and current. This puts an organization at risk of not having the accuracy to determine

which tasks are really affecting the overall schedule and limits the information available for managers to use to make critical decisions to manage the schedule and minimize the duration.

Additional problems are created in some industries when hundreds of supplemental resources are brought in during STO to accomplish thousands of tasks with critical schedule, budget and safety constraints. Many of these resources' skill sets are unknown, which add to the complexity of planning and managing task durations / schedule for the execution of work. The need to pinpoint any critical bottle necks or barriers to success accurately and in real time has never been greater.

The Solution:

CHAMPS TaskView visually displays, in real-time, an accurate schedule of work assignments and visual cues that quickly summarize and highlight the current status of individual tasks, hierarchy of related tasks and potential issues affecting the schedule. The solution gives an organization the ability to drill down into a specific task and review its current status, assignments, and tasks that share common dependencies.

Fig. 1 Auto Scrolling Task Display

CHAMPS TaskView leverages the STO scheduling data in existing CMMS and scheduling applications and delivers that information through an analytics tool that offers a accurate, easy to read & understand visual display of STO schedules This tool processes through the database of work tasks and highlights through visual color cues whether a task is on target, or needing attention. The system is user definable to allow an organization to determine the business rules that define key attributes related to a task i.e. start / end dates and times, durations, criticality etc. and how that data should be sorted, auto-scrolled and displayed.

In addition to providing a visual display that can be broadcast on large monitors spread across the enterprise (Fig. 1), the solution also offers an administration console. The administrative console gives the schedule administrator the ability to drill down into any given task and any associated tasks that share dependencies (Fig 2). This gives managers real time information from one source that can provide data that can be easily acted upon. The system is user definable and gives an organization the flexibility to:

- Determine the source scheduling data origin (CMMS, ERP, Scheduling application etc.)
- Support any leading database (MS SQL, Oracle etc.)
- Determine how the schedule should be sorted (start date, crew, asset etc.)
- Determine how often to refresh the schedule (once per day, every 5 seconds etc.)
- Determine how fast to auto scroll the data
- Determine the color legend associated to the status of your tasks

Fig. 2 Administrative Console