Emerald
A S S O C I A T E S

Announcing Emerald Associates' new Turnaround Implementation Methodology, specifically for Shutdown and Turnaround clients
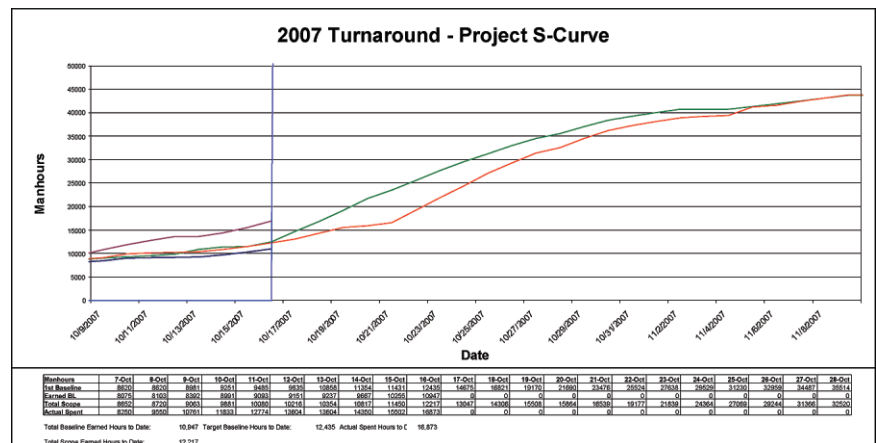
Turnaround Methodology

THE CHALLENGE

Shutdowns and Turnarounds are very specialized types of projects. A typical oil refinery Turnaround results in lost production in excess of 100,000 barrels per day. Naturally, managing such projects to get the refinery back into production and on schedule is of paramount importance to an organization, and project visibility is subsequently very high.

Turnaround planners and schedulers have increasingly difficult jobs to undertake. They are faced with shorter or larger Turnarounds, major project tie-ins, lack of trade resources and aging refineries. Contract planners need to be trained quickly and effectively. The only way to manage these challenges efficiently is through the use of a proven Turnaround methodology which uses world class tools and processes.

In order to provide the necessary detailed level of planning, large amounts of data need to be managed and entered. Once this is completed, budgets can be established, resource leveling conducted, and histograms analyzed for resource over/under utilization, while further understanding the best way to conduct the work in a safe and cost effective manner.

EXPERIENCE

Emerald understands the demands of the Turnaround management process. We have implemented Turnaround management systems for clients across North America. Our staff has experience on the computer and on the tools. We have developed and now offer an implementation methodology to get clients up and running quickly, along with a support system to make them successful.

2007 Turnaround - Project S-Curve

Manhours	7-Oct	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct	22-Oct	23-Oct	24-Oct	25-Oct	26-Oct	27-Oct	28-Oct
1st Baseline	8620	8620	8881	9251	9485	9835	10858	11354	11431	12435	14675	16821	19170	21680	23476	25924	27638	29529	31230	32956	34487	35514
Earned BL	8075	8103	8392	8991	9093	9151	9237	9667	10255	10947	0	0	0	0	0	0	0	0	0	0	0	0
Total Scope	8652	8720	9063	9881	10080	10216	10354	10817	11450	12217	13047	14306	15508	15864	16539	19177	21839	24364	27069	29244	31366	32520
Actual Spent	8260	9550	10761	11833	12774	13804	13604	14350	15502	16873	0	0	0	0	0	0	0	0	0	0	0	0

Total Baseline Earned Hours to Date: 10,947 Target Baseline Hours to Date: 12,435 Actual Spent Hours to D: 16,873

Total Scope Earned Hours to Date: 12,217

S-Curve: Emerald's tools show how the Turnaround is progressing compared to the plan and the forecast to completion. This S-Curve shows a number of key performance indicators (EV, PV, SPI, CPI, ETC, EAC) all on one easy to read graph.
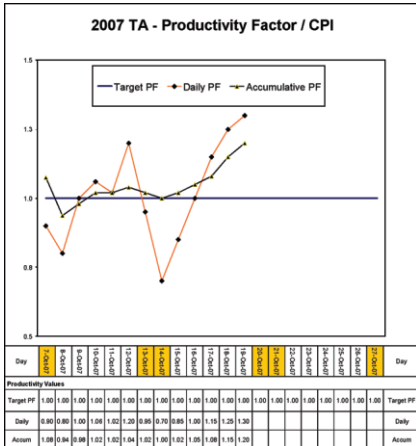
THE SOLUTION

Emerald's toolkit includes state of the art software that covers planning, scheduling, resource leveling, progressing, 4D simulation, Monte Carlo risk analysis, and Earned Value analysis. Our technical group can integrate our systems with CMMS or EAM systems and can provide data conversion from legacy systems, maintaining historical information. We also provide efficient, accurate electronic data entry to eliminate tedious and time consuming manual input.
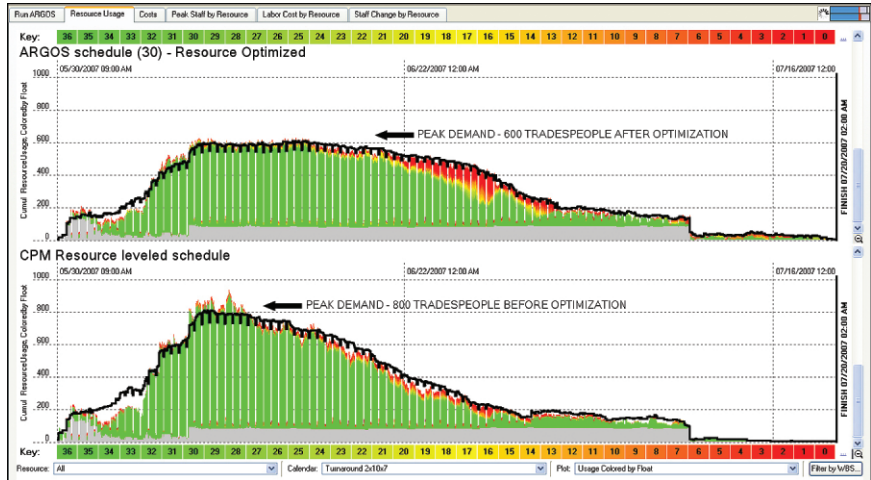
Emerald's Turnaround Progressing System (TAPS) makes progressing a schedule quick and accurate, ensuring that work plans are delivered to the field quickly, so planners and schedulers can spend less time entering data and more time analyzing and looking ahead.

SUPPORT

Our methodology contains standardized reporting processes; although planning is done at a detailed level, not all reports need to be as detailed. Providing easy, user friendly reports with interactive dashboard graphs, summary level milestone schedules, and earned value reports is a sure way to stay on track and on budget, while keeping all the stakeholders involved in the Turnaround. Drill-down pivot table reports can be instantly generated by plant, equipment type, contractor, planner, foreman or any other required coding structure.

Resource Analysis: Are you sure you have the optimal number of resources? It's a challenge to identify the critical number of resources required to finish on time, without losing productivity. ARGOS and PSOP go beyond simple single pass resource leveling to find the optimal resource numbers to complete the work on time and at minimum cost.

Productivity Tracking: Emerald's tools help manage and identify trends for proactive schedule management. In this example, labor productivity (PF or CPI) is tracked for each day and for the overall Turnaround to date.

TRAINING

For 80% of planner/schedulers, generic product training is enough. However, Turnaround management is deep in the other 20%. To take best advantage of the tools we offer, Emerald has Turnaround specific training classes which build on generic training and offer practical tips, tricks and examples. We show processes to use the software to its maximum capacity that have been proven over many Turnarounds with numerous clients.

Our trainers have worked the Turnarounds and give real life examples. We know what works and what doesn't. In many cases, we are applying out of the box approaches to systems to make them perform to their maximum capacity, and we can help you do the same.

To find out more about Emerald's Turnaround Implementation Methodology please contact your local Emerald Solutions Executive.