



Case Study: Synergis Technologies Group

The Power of Creative Engineering and Multi-Project Management

Imagine a system capable of concurrently managing over 200 complex projects. Imagine a system providing on-time delivery in an industry where lead times are being significantly slashed, and where a new key measurement of a company's performance is on-time delivery.

Two years ago, Synergis Technologies Group was only imagining this. They didn't have the solution. They were trying everything they knew and used the best of their skills to do what they could to make this dream reality.

Synergis was a very successful company. It had excellent engineering, excellent manufacturing, excellent try out - everything needed for a tool and die shop to be successful. That success brought a lot of new work and growth through acquisition, but the project management techniques and the ability to manage the system did not change with the company's growth. Synergis struggled.

Synergis is a group of nine companies. Because of the nine locations and the nature of the tool and die industry, theirs is a very complex environment. As in many industries, they are forced on a daily basis to make quick decisions on what must be done to keep the projects moving, keep them on time. Synergis has about 500 employees and is currently doing more than \$60 million in sales per year. They concurrently manage over 200 projects, with each project having over 150 tasks. The strategy of the company is to be a single source solution, being a global supplier, taking projects from concept to reality.

Typically, projects at Synergis start in Capital Engineering, move to Pattern Building, then to Casting, to Machining and Assembly, to Try-Out, and finally to Quality Control.

In this environment they deal with a lot of uncertainty. For example, it is usually hoped that the Try-Out phase of a project lasts only six weeks. But Murphy can strike, dragging it out to three or four or five months. It not only delays that project, it also creates for the die shop the inability to turn over, an inability to meet the customer's needs, and kills the budget.

Synergis' TOC journey began with the book *The Goal* followed by *Critical Chain*. A 2-Day Project Management Workshop was held for all Project Managers, Resource Managers, and the Executive Management Team.

Prior to TOC and Critical Chain the Synergis project environment had:

- No strong project management system
- Low visibility of problems
- Clouded view of priorities
- Difficulty co-ordinating between facilities
- Travelling bottlenecks
- Late deliveries
- Local versus global focus

During the 2-Day Project Management Workshop all accepted that Synergis had a problem. They now had to decide where to go from there.

Their goal/ambitious target was stated:

“A successful implementation of the Critical Chain solution in a multi-project environment in order to increase throughput, meet due dates, and decrease lead time to improve the overall profitability of Synergis.”

They had to develop a roadmap on how to get there. Using the TOC Thinking Processes, they built their PreRequisite Tree, identifying all of the obstacles to reaching their goal, and the intermediate objectives necessary to overcome these obstacles.

Synergis managed the implementation like a project and came up with a detailed implementation plan which integrated the project management software implementation requirements with the business processes, as well as the cultural issues of the company. The core team then identified representatives from all departments. This team attended the Project Management Program to develop a thorough knowledge/understanding of TOC and Critical Chain. The team next had to be trained in the Project Management software that was going to be used. Following this training phase, these team members had to then train the users of the system in the conceptual and technical issues specific to each department's needs. Once this was complete, putting Synergis' 200+ projects into the system was next.

Throughout the implementation, addressing cultural change issues was important. A “Critical Chain Action Plan” meeting was called during which old priority lists were deemed obsolete, and the executive team showed that “being late” would no longer be acceptable. Actions taken to support the new philosophy included outsourcing some work done by overloaded areas, as well as moving projects to less loaded resource centres within Synergis. These actions have shown both employees and customers that Synergis is firmly committed to contract dates and deliveries.

Some of the results seen at Synergis since implementing Critical Chain include:

- Global rather than local view of all projects
- Clear identification of bottlenecks in the system
- Ability to predict problems and issues ahead of time – avoiding fire-fighting with proactive behaviour
- Customers' new found confidence in Synergis' commitment to them

Synergis no longer has to imagine a system capable of managing over 200 complex projects concurrently. It no longer has to imagine a system in an industry where lead times are being slashed, and being capable of delivering jobs on time. The company has made these dreams a reality with TOC and Critical Chain.