

Amdocs Delivery Takes Project Management to the Extreme Using the Theory of Constraints

[Amdocs](#), the world's leading provider of customer experience systems for the communications, media and entertainment industry, has recently completed a transformation of its customer delivery methodology using the **Theory of Constraints** (TOC).

[Click here to see a short Video about the transformation project](#)

A global company ([NYSE: DOX](#)) with revenue of \$3.16 billion in fiscal year 2008, Amdocs serves more than 250 service providers in more than 50 countries around the world. In its more than 25 years in business, it has completed more than 2,500 successful implementations, averaging 95% of projects completed on time, on budget and with highest quality. A key enabler of such notable project success is the company's ability to integrate its core products into customers' business and technical environments, using its own delivery division, providing a "one-stop shop" from scoping to production.

Still, success can always be improved upon, and so since the establishment of Amdocs' delivery organization in 2005, special attention has been given to increasing customer benefit & project efficiency through innovation. Initially, improvements were around engineering innovations such as automation and reuse mechanisms.

Next, Amdocs turned to process innovation. It examined the very fundamentals of its project management processes and paradigms, and found that in today's world, where time to market and cost pressure is increasing continuously, it was time for a change.

How does TOC work?

The Theory of Constraints is a wide-ranging body of work from Dr. Eliyahu M. Goldratt, and provides breakthrough methods for making business decisions as well as executing on those decisions. Its underlying principle is that local optimization rules are what prevent an organization from realizing its full potential. The best way to understand TOC is to read Dr. Goldratt's bestseller, *The Goal*.

TOC execution management methods include "drum-buffer-rope" for high volume operations, "demand-pull" for supply chains, and "**critical chain**" for projects.

The Critical Chain breakthrough is that it allows organizations to manage project uncertainties and resource contentions with smaller "buffers", and thus execute projects in less time with fewer resources. The method is based on three rules:

- Limit the number of projects in execution. Concentrating resources on fewer projects at a time not only allows those projects to be executed faster, but also reveals overall capacity to undertake more projects.

- In execution, allow individual tasks to be late against the plans. That way people won't have to hide safeties inside their estimates, and tasks will get executed faster because work won't have to expand just to fill the time available (Parkinson's Law).
- Provide uniform task priorities across all departments and levels of management. When everyone knows what to do and when, and is working on the same priorities, projects get done much faster.

What were the results of the Amdocs Delivery transformation?

Since the adoption the Theory of Constraints, delivery Projects are done 25% faster than before, while

- Project quality is higher;
- Performance against project due dates is better; and
- The rate of employee burnout has been stemmed and in some cases reduced.

These results not only provide Amdocs with greater efficiency. It also provides Amdocs customers with shorter, more predictable project duration with better quality, lowering the customer's expenses and expediting the production value realization.

With this unexpected and unprecedented level of improvement, Amdocs' top management has declared the adoption of TOC implementation is one of the most significant achievements in Amdocs.

The challenge of Process Innovation

"Process Innovation is ten times harder to implement and duplicate than Products" says **Shalom Passy**, executive vice president and head of Amdocs Delivery. Changing paradigms of behavior and decision making priorities always face resistance and disbelief. This is particularly true for a distributed organization consisting of thousands of engineering, which is already very successful at what it does."

According to Passy, the main success factors for overcoming these challenges were the following:

- **Establishing a business need and management commitment:** As changing paradigms is never easy, an organization facing such a transformation must have a genuine business need and top management's personal commitment for the change, which is accepted and recognized across the organization. This will allow openness for change.
- **Employing the best implementation resources available:** The TOC methodology was implemented by a joint group of hand-picked Amdocs Delivery employees and external consultants: **Realization**, the world leading implementer of Critical Chain and its Israeli partner **CBS** accompanied Amdocs from incubation to completion and drove the company to change its paradigms.
- **Taking a risk, and assuming success:** In many improvement projects, people first "see if it works" and only then assume aggressive targets for improvements.

What Amdocs learned was that non-aggressive targets cause the organization to achieve non-aggressive results. The trick is to assure people that taking the risk of aggressive targets, and making the change happen, is more valued than meeting non-aggressive commitments.

“I am happy with the results of this transformation project,” says Passy. “I am happy with the fact that many people already changed their paradigms, and I am happy that people are also enjoying the process of changing the way we do business. I am sure we have much more room for improvement, utilizing the new paradigms we learned.”

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