



# EPICENTRAL

A Newsletter from Epicenter Development Group highlighting ideas that improve organizations

Welcome to Epicenter Development Group's newsletter, EPICentral. The purpose of this newsletter is to highlight fundamental ideas that have helped organizations develop and maintain great manufacturing and service operations. We hope that you find our EPICentral newsletter helpful, and we would welcome your comments on its content.

## You Can't Work on Everything at Once . . . So Don't Try

Today's businesses must focus on improving those things within their operations that have the greatest impact on their bottom-line. The **Theory of Constraints (TOC)** is an operation's philosophy which can be used regularly to identify and "break" a company's current constraining factor (bottleneck). Although a constraining factor could apply to cost, flexibility and quality issues, this article focuses on how TOC is used to improve a company's operating capacity.

*The analogy of a chain is often used to describe the Theory of Constraints principles.*

**The strength of a chain is defined by the strength of its weakest link.** The slowest operation in the value-stream will dictate the system's throughput. This is often referred to as the system bottleneck.

**Strengthening any links, other than the weakest link, will not improve the overall strength of the chain.** Improving any operation, other than the bottleneck, will not improve overall throughput.

**Once the weakest link has been strengthened, a new weakest link will appear.** A new system bottleneck will emerge once the existing bottleneck has been improved, and it is no longer a system constraint. This leads to a cycle of continuous improvements as the current bottleneck is systemically identified.

### Goldratt's Five Focusing Steps

Goldratt, the founder of TOC, outlines five focusing steps for "breaking" system constraints:

1. **Identify the Constraint** - Before making improvements, identify the system bottleneck. Typically, in a manufacturing plant, this is the area where large amounts of work-in-process inventory are waiting to be processed.
2. **Decide How to Exploit the Constraint** - Make the operation as efficient as possible without additional capital investment. This could include running the operation during lunch periods, presorting incoming materials for quality problems, reducing changeover time, or performing after-hours preventative maintenance to minimize unplanned downtime. Try to eliminate any idle time during this operation.

3. **Subordinate Everything Else to the Decision in Step 2** - Let the bottleneck set the pace for all other operations. This may seem counterproductive to the current philosophy of optimizing labor efficiency and equipment utilization in all areas, but it is necessary to focus attention and "free up" resources towards improving the current bottleneck operation.
4. **Elevate the Constraint** - If, at this point, the identified bottleneck operation is still the system constraint, it will be necessary to elevate its capacity. This can be accomplished through traditional methods (purchase additional equipment, run the operation on additional shifts, add labor, etc.).
5. **Go Back to Step 1, but Avoid Inertia** - Now that the bottleneck is no longer the throughput constraint, it's necessary to re-evaluate the system and identify the new bottleneck. This is a continuous process; avoid the urge to stop efforts once a constraint is "broken."

## Next Steps

If you would like more information on this topic or other similar types of tools, please contact Bill Proctor with your request at [wproctor@epicentergroup.com](mailto:wproctor@epicentergroup.com) or 216-702-0952. You can also find previous issues of EPICentral at [Newsletters](#).

Mr. Proctor also speaks on a variety of problem-solving and system design topics that can help companies significantly increase the success and profitability of their businesses. If you are interested in having Bill speak at one of your upcoming meetings/events or would like more information on any of the speaking topics, please visit [Speaker Services](#) or you can email [sales@epicentergroup.com](mailto:sales@epicentergroup.com).

Epicenter Development Group is a unique consulting firm that seamlessly integrates the disciplines of Systems Engineering and Organizational Analysis & Development to create practical design solutions to your toughest challenges. It is on the cutting edge of problem-solving solutions and the creator of a unique process called GreenRoom Engineering. This process adds greater value and cost savings for clients as compared to traditional engineering methods.

William Proctor, Epicenter's founder and president, has provided services around the country to more than 100 companies consisting of a variety of organizations; and Epicenter continues to grow as a resource for firms of all sizes.

To learn more about Epicenter Development Group, visit our website:

[www.epicentergroup.com](http://www.epicentergroup.com)

## Epicenter News

We are happy to announce that we have opened a second office in Perrysburg, Ohio.



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