



# EPICENTRA

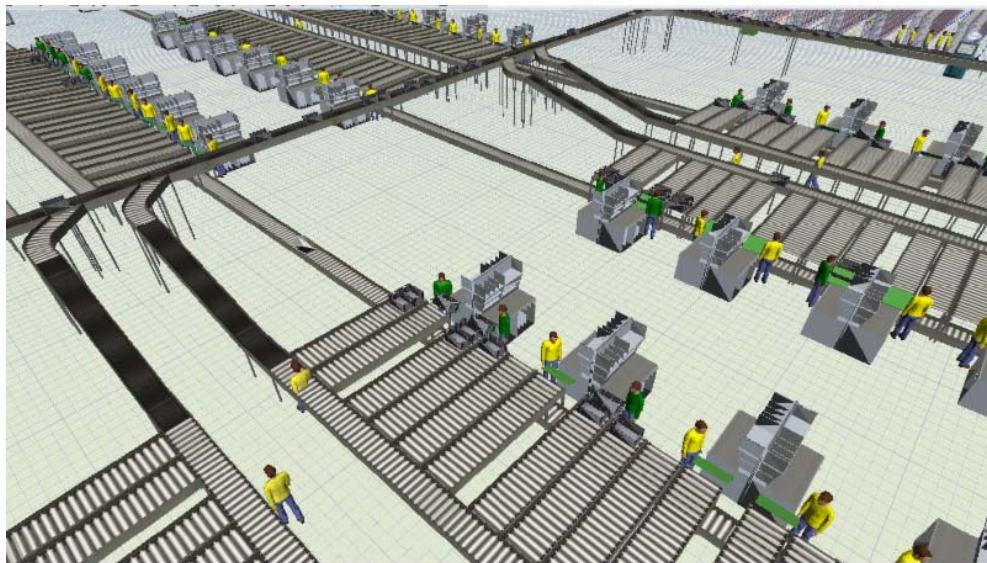
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A Newsletter from Epicenter Development Group highlighting ideas that improve organizations

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.

### The Unintended Benefits of Simulation Modeling

Epicenter has been using simulation modeling for over thirty years to help clients design new systems or improve existing operations. For every project, we develop a project objective that identifies the primary goal(s) for the model(s) to be completed. In many cases, however, we find that there are a number of **unintended benefits** that arise as part of the project. Below is a list of some of the most memorable benefits that we have encountered.



*Simulation is a powerful, visual collaborative tool*

### ***Agricultural Vehicle Paint System / Unnecessary eCoat Crane***

- A simulation model was developed for a power-and-free conveyor and crane dip tank e-coat system to validate the planned system design.
- Using the simulation model, one of the client engineers found that by modifying the crane handling sequence, we could eliminate the need for a new, planned crane (\$500,000 savings).

### ***Heavy Truck AGC System / Unexpected Bottleneck***

- A simulation of a truck assembly plant was built to evaluate the design of an automatic guided vehicle (AGC) system.
- During the simulation project, the team was surprised to find that the tire mounting operation was effectively the system bottleneck. Project resources were quickly shifted from another operation (previously thought to be the bottleneck) to a focus on this area.

### ***Paint Manufacturing / Clarifying the Design***

- A large paint manufacturing plant was modeled to evaluate its design and "ramp-up" over a 3-5 year period.
- In the initial phase of the simulation modeling project, the client recognized that many of the questions concerning the conceptual design assumptions (required to model the system) could not be answered. This led to a new effort to more fully design the conceptual facility.

### ***Construction Vehicle Paint System / The Building Column Dilemma***

- A simulation model of a paint system was generated to validate the conceptual design.
- While watching the simulation run, one of the participants noticed that parts were being routed directly through a planned building support column. This observation allowed the engineers to relocate the conveyor early in the process to fix the issue.

### **Other Thoughts:**

- As a collaborative and visual team tool, simulation is a great media for finding and fixing potential issues and identifying opportunities early in the design process.
- The process of building a simulation model almost always identifies gaps in the conceptual design that can be addressed before detailed engineering and implementation commence.
- If you are interested in learning more about the work that Epicenter has completed in the area of simulation modeling, you can visit our webpage at [Epicenter Simulation](#).
- You can also review our simulation benefits newsletter article at [Simulation Article](#).

## 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 excited to be working with Tipton Design and Engineering on process improvement projects.



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