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.

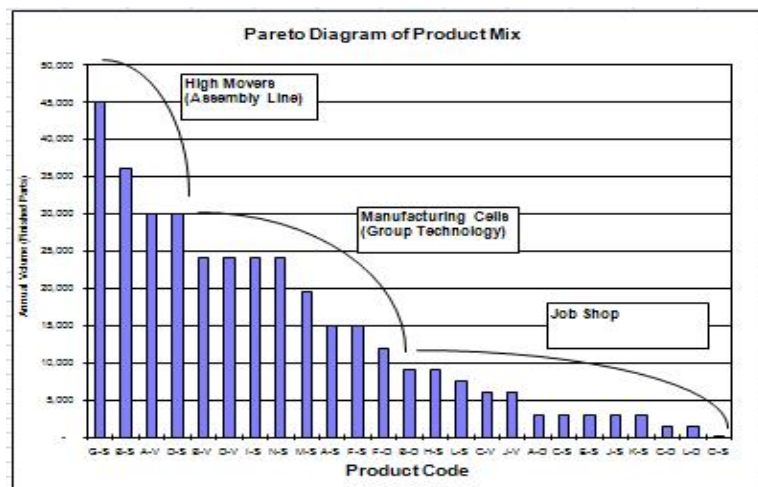## Workcells - Cutting Out the "Middleman" in Your Process Flow

If you ever follow an "order" around a traditional office or manufacturing plant, you will find that it typically sits around 90% of the time waiting for the next process. This means that, at any one time, there are typically a large number of work-in-process "orders" throughout a facility which take up space, need to be moved and tracked and, sometimes, even get lost. To counteract these wastes, many companies on a "Lean Journey" are turning to the concept of Cellular Processing to dramatically cut inventory levels and lead-times while improving space utilization, productivity and quality.

Cellular Processing involves the development of production workcells which can process an order from start to finish. In contrast to a traditional batch system, production workcells locate all of the people, information and equipment in one area so that all of the processing can be completed at one time.

Workcell Development Process

Step #1 - Pareto Analysis

- Sort the product information by volume (or cost) using a database or spreadsheet.
- Typically 80% of the overall production volume is represented by 20% of products.
- The goal is to narrow the focus to the high volume products -- this makes the analysis more manageable.

Pareto Diagram of Product Mix

Step #2 - Identify Process Groupings (Families)

- Starting with the high volume products, identify products that share common resources, have similar process flows/routings or similar characteristics.
- A spreadsheet can be used as a tool in this step of the process with each data column representing a specific process in a routing or a specific product characteristic.

Step #3 - Group Products into Workcells

- Pick one process family to start the grouping process.
- Assign one high volume "anchor" product to the workcell.
- Assign equipment required to process the anchor product from start to finish to the workcell.
- Identify and assign other products in the anchor's process family to the workcell until one of the main pieces of equipment is out of capacity. This is typically an expensive, unique piece of equipment.
- Repeat this process as you "fill up" workcells with product assignments to their capacity.

Considerations

- The development of workcells requires both physical and cultural changes to an organization. It is important to get employees and staff involved in the process as early as possible to ease the transition.
- Workcell operations balance efficiency with flexibility. If you have a high volume "order" which does not need flexibility, consider the development of an assembly line versus a workcell. Assembly lines are less flexible, but the most efficient form of processing orders.
- At times it will be necessary to purchase additional equipment so that it can be dedicated to a specific workcell. This is a trade-off when developing workcells, but it is well worth the cost in the overall savings achieved.

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 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.

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.

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