

# Newcastle Systems

## Focused 3P Effort Results in Big Gains at Newcastle Systems - A GBMP Client Case Study



**CASE STUDY:**  
3P Methodology

**WEBSITE:**  
[www.newcastlesys.com](http://www.newcastlesys.com)

**INDUSTRY:**  
Computer Peripheral Equipment  
Manufacturing

**EMPLOYEE COUNT:**  
< 100

### ABOUT Newcastle Systems

Newcastle Systems of Middleton, MA is a leading provider of innovative workstation solutions for a broad range of industries including retail stores, production operations, and healthcare settings. Newcastle's mobile computer workstations are designed to improve employee productivity, increase workplace flexibility, and eliminate wasted steps.

### About the Engagement

Bruce McGill, GBMP Continuous Improvement Manager, conducted a 3P event at Newcastle to help bring some of the same results to Newcastle's internal workstation production area. 3P stands for Production Preparation Process, a robust method for thinking through and experimenting with how a product's build process should be organized to promote good flow, high productivity and excellent quality. It uses the collective thinking of a team to design and "try storm" different approaches, and often includes simple cardboard mock-ups to help people better envision different layouts and related implications for people, materials, machines, equipment, etc.

After providing an introduction to lean philosophies/concepts and an overview of the 3P methodology, Bruce worked with a team of Newcastle employees to envision and experiment with ideas for a better production process. Utilizing the concept of cellular manufacturing as a guide, the team ultimately settled on a plan for a compact work cell design. They estimated it would allow them to almost double daily production output.

*According to Bruce, "the results from this 3P effort speak for themselves: in the new cellular arrangement, the cycle time to build a workstation has been reduced from 55 minutes to 32 minutes. Travel distance was reduced by over 80%. And the workstations are now being assembled complete rather than shipped in a kit, creating more value for Newcastle's customers. Overall, it was a great 3 days with this team!"*

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*Mike Olson, Newcastle's Production and Operations Manager, was also ecstatic about the work of the 3P team. "Thanks to the 3P process, fueled by the creative juices of our employees, we've saved valuable floor space, cut out lots of non-value added activity in the build process, and reduced our unit cycle time more than 40%. All that and we are shipping the finished product in a more "user ready" state. This effort left us really looking forward to having Bruce return to help us with additional improvement projects."*

### STRATEGY AND GOALS

After the initial 3P event, Coach Bruce left the team with homework to set up the new cell and begin testing it out. He returned a couple of weeks later to see the new build process in action.

**Total square footage required for assembly was reduced by 50%**

**All subassemblies were eliminated as a result of integrating them into the final assembly cellular build process**

**One full time person was freed up and assigned to deliver raw materials to the cell and build accessory kits**

