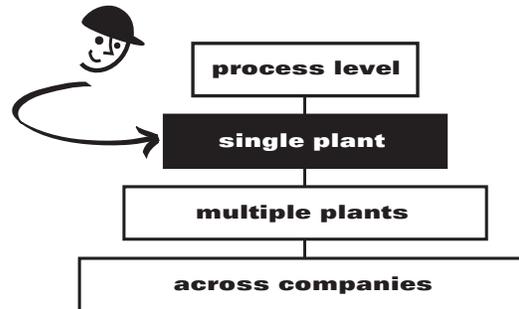


FOREWORD

When we launched *Learning to See* (LTS) in the summer of 1998, as the first publication of the Lean Enterprise Institute, we urged readers to identify their major product families and to draw maps showing the flow of information and products as it currently exists. We pointed out that mapping can be done at many levels — from a single process within a manufacturing facility to the complete path from raw material to customer — and suggested that the best place to start is with the flow of information and product within the walls of a single plant.



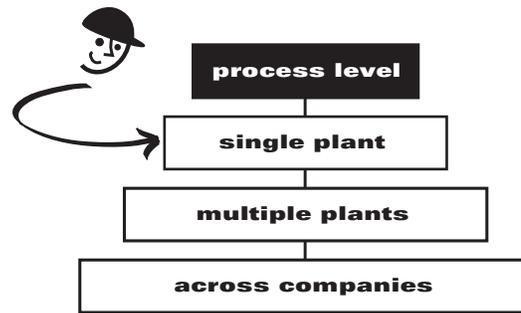
We then urged readers to envision a future state for each product family’s value stream in which information flows smoothly back from the customer and the product flows smoothly — indeed continuously — toward the customer. Finally, we suggested an implementation plan for achieving future states quickly.

We have been delighted with the response to *Learning to See*, which has now sold more than 50,000 copies in English and has been translated into Chinese, French, German, Japanese, Portuguese, Spanish, Swedish, and Turkish. However, we have also been struck by the difficulty many readers have had in actually achieving continuous flow within their facilities.

A sight we frequently encounter when touring plants is processing steps relocated from departments (‘process villages’) to product-family cells (as recommended in LTS), but with only intermittent and erratic flow through the cell. Output gyrates from hour to hour and small piles of inventory accumulate between each operation. When we see this pattern, we know immediately that half or more of the benefits of cellularization is being lost. In addition, if the cell is located upstream from the pacemaker process leading directly to the customer, none of the benefit may ever reach the customer due to stagnation and instability in downstream activities.

So how can you create truly continuous flow with the benefits reaching the customer and sustained over time? The methods are not mysterious. Indeed, Toyota and its affiliated companies perfected them years ago. However, we’ve found that to actually apply them most managers, engineers, and production associates need a friendly *sensei* (teacher) to walk them through a step-by-step process that focuses their vision and targets their actions.

To fill this need we decided to publish this sequel volume to Mike Rother and John Shook's *Learning to See*. In it we move from the plant to the process level as Mike and Rick Harris take your hand and lead the way in introducing and sustaining continuous flow to the maximum extent possible, beginning with the pacemaker process.



You already know Mike from *Learning to See*, but Rick Harris may be a new name. After fifteen years at General Motors, starting on the shop floor in Anderson, Indiana, Rick got his lean education at Toyota where he was a manager in assembly at the Georgetown, Kentucky plant. Rick and Mike now continue their lean learning by working with companies on lean implementation.

Those of you who have already read *Learning to See* and accurately drawn your current and future state maps will find the help you need in the pages ahead to achieve truly continuous flow and its many benefits. Other readers — who are just encountering lean thinking or who are process improvement veterans and think they need only a few tips on improving their existing cells — will benefit from studying the first section of this workbook to correctly identify product families and pacemaker processes. These readers will then discover many shortcuts on the path to truly continuous flow in the remainder of this workbook.

But a word of warning: Drawing maps and envisioning future states is invigorating and fun. After all, anyone can draw an attractive future state on paper. In *Creating Continuous Flow* you will be tackling the real issues of implementation, and success is only possible through intense collaboration between managers, engineers, and production associates. It's hard work and you will make mistakes. But the benefits are enormous and all the knowledge you will need is summarized here.

Given the nature of your challenge we are particularly anxious to hear about your successes and your difficulties and to connect you with the lean community at lean.org. We also need to hear your suggestions for improving *Creating Continuous Flow* at ccf@lean.org. So please take the time to study this Action Guide carefully, referring back to *Learning to See* as necessary. Then seize the opportunity to implement and sustain continuous flow. And tell us about your experiences so we can share them with the entire lean network.

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