INTRODUCTION

Because continuous flow is a major objective of lean production, we have worked hard over many years to create truly continuous flow in the shop-floor activities we have managed. In the past few years, we've increasingly noted companies making progress in creating areas of continuous flow as more and more managers hear about value-stream mapping and grasp the power of continuous-flow cells.

However, as we walk through facilities and examine earnest efforts to create continuous flow, we see how hard it is to sustain steady output. And the problem frequently is the lack of a lean material-handling system to support continuous-flow cells, small-batch processing, and traditional assembly lines.

Many facilities that are lean in terms of operating their individual processes are still mass producers in supplying these processes. They lack a *Plan for Every Part* (PFEP). (Indeed, some facilities seem to lack a plan for any part!) They lack a properly located and managed *purchased-parts market*. They lack a rigorous *material-delivery route* using standard work. And they lack *pull signals* to tightly link their areas of continuous flow to the supply of materials. The consequence is starvation of processes, loss of flow, and a major waste of effort and money in keeping too much inventory and spending too much time hunting for missing items.

The objective of this workbook is to sharpen your eyesight as a manager and equip you with the skills to implement and sustain a lean material-handling system within the four walls of your facility. We'll use methods and thinking based on practices pioneered within Toyota and its affiliate companies that you can utilize in any facility making practically any type of product. It is our intent to explain the needed methods so simply — leading you through a list of 10 questions you need to answer to create your own material-handling system — that you will have the courage to go out and do it on your own, even if you have no sensei at your side.

Only you can supply the needed courage, but we believe we have provided the necessary knowledge. We are anxious to hear about your experience.

Rick Harris, Chris Harris, and Earl Wilson Murrells Inlet, SC; Murrells Inlet, SC; Georgetown, KY September 2003