

Lean One-Touch™ Case Study

Introduction

FutureDial Inc. has been leading the market in wireless-device data clear since 1999. Our approach to increasing process automation is improving cycle time of devices. We provide seamless solutions that include automating receipt, triage and functional testing, data clearing, reporting, and business intelligence through our data analytics software.

FutureDial's latest initiative with fully integrated and highly configurable Lean One-Touch has allowed clients to consolidate process steps, thereby reducing labor requirements, floor space and WIP, while easily tailoring the solution to their exact business requirements.

This solution is recognizing savings of:

- \$15.3 million annually in reduced labor costs for a North American customer*
- Additional \$763,200.00 in reduced handling due to improved quality
- Reduction in facility space by 54%
- Reduction in operator count by 59%
- Reduction in WIP Inventory by 46%

**Customer name deliberately hidden because of non-disclosure agreement*

Logistics Customer

FutureDial was approached by a third-party logistics (3PL) company requesting a process improvement assessment. FutureDial's Lean-Sigma experts discovered numerous opportunities for improvement.

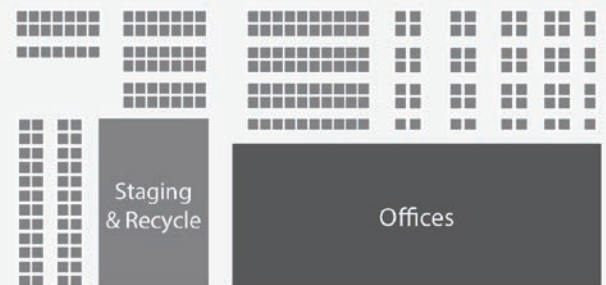
The current process was designed with many steps that were 100% dependent on operator manual labor. As a result, the process contained many de-skilled steps that segregated processing steps to a minimal level; this allowed operator variances in both productivity and quality.

Assessment

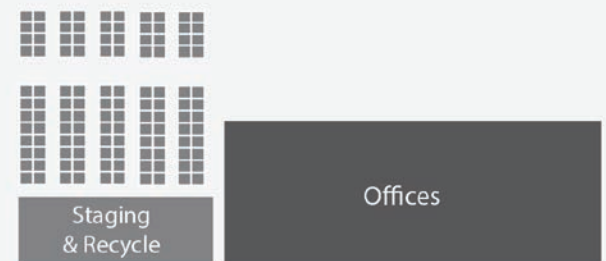
This logistics company, like many, incurred excessive, non-value-added labor costs and cycle time. This was due to repetitive tasks including picking devices up, putting devices down, powering device on/off and routing through multiple stations. Additionally, many steps were designed for operator batching, where an operator would interact with 10 or more devices at a single time. This activity incurred additional time/cost on repetitive activities as well as general cognitive impact on device variation.

Our assessment discovered that with their existing process, this company was experiencing heavy burdens on labor, floor space, and cycle times. Through the implementation of FutureDial's Lean One-Touch, we calculated a potential savings in labor by approximately 60%; floor space by approximately 50%; and cycle time by approximately 8 hrs. The layout of the production floor required devices to be moved from one process step to the next by material handlers. The labor for this activity was in non-value-added labor cost between first and last process step.

Before Lean One-Touch



After Lean One-Touch



A High Failure Rate Incurs Higher Costs

Existing manual processing is experiencing a 4.2% failure rate, which is outside of the Company's 0.2% goal. Every failed device incurs \$1.80 labor cost for double handling.

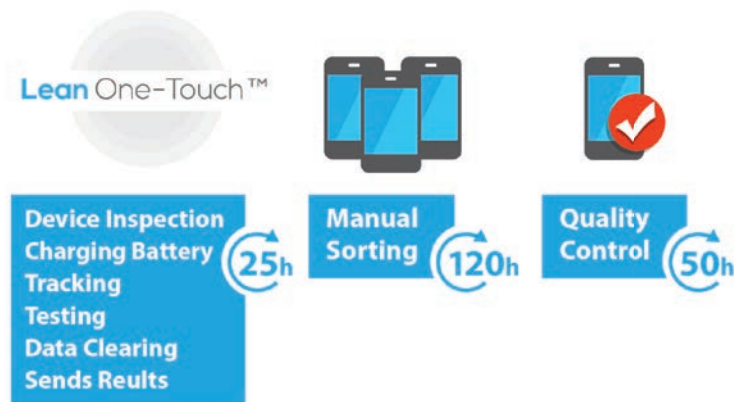
The FutureDial Solution

- Apply FutureDial's powered USB 3.0 20 port charging Hub to eliminate the need for manually [separately] charging devices
- Implement FutureDial Lean One-Touch software that combines device identification, data collection, functional testing, and data clear into a single automated one-touch process
- Engage FutureDial professional services to fully integrate Lean One-Touch into Company's WMS (warehouse management system) to eliminate operator entry
- Engage FutureDial professional services to integrate product decision points to allow system to select when to execute extended testing including cosmetic prompts and functional test scripts
- Scope professional services to automatically assign devices a "Sort Number" location to assist in like-product sorting. Allowing system to assign top 10 volume model / attribute categories would enable immediate automated sort of 30% of overall volume

Original Process Flow



Lean One-Touch Updated Process Flow



Total savings

Labor costs per device	= \$1.44
Number of benches	= 135
Total operators	= 493
Number of devices in WIP	= 11,660

Implementation

The consolidation of process steps allowed for the opportunity to reposition the warehouse layout. To take advantage of reduced transportation and routing, production benches and lines were redesigned resulting in a reduced footprint and cleaner throughput.

Operator training and work instructions needed to be revised. The previous process of multiple “partial” steps had six separate process steps with differing activities. The new Lean One-Touch process changed this so that more operators were doing the same activity with fewer “specialty” positions.

To best accommodate this rollout, a single production line was set up and operators trained. This “pilot” line ran initially allowing optimization in training and integrations. Additional lines were then built and executed one at a time, allowing one full week of execution and implementation before moving to the next.

While this soft-roll method increased the demand for system integration on both the 3PL Company and FutureDial sides, it also allowed for minimal production down time, allowing this 3PL Company to maintain their production goals without disruption.

Results



The reduction in labor requirements reduced the operator/employee headcount by 59%.

Average labor cost savings per device recognized is \$ 1.44 per unit.

Work Stations (benches) were reduced by 54%, proportionally reducing the amount of facility space required to process the Company's 10.6M annual devices.

By eliminating the manual charge area as well as consolidating the number or process steps, the device cycle time reduced by 7 hours, proportionally reducing the number of devices in open WIP by 66%.

Additionally, the client experienced an immediate quality improvement, moving them from 4.6% devices failing, down to 1% of devices failing, quickly improving based on further operator training to a 0.5% failure rate. While this margin continues to improve toward their 0.2% goal, case study figures were reported based on the 0.5% achievement.