

# Cycle Count and Physical Inventory Design and Execution

Engineering Guide Synopsis

By Jan Young

Cycle counting is a process by which portions of the inventory are selected for counting on a regular basis. People, called cycle counters, are sent into the warehouse to physically view and count the material actually on hand. The results of these cycle counts are then compared to the inventory records and used to make corrections.

The full physical inventory is, in a sense, a simultaneous cycle count of every location and every item in inventory. The scope of the full physical inventory is much greater than that of a cycle counting program. And, for a variety of reasons, the financial and auditing staff is more likely to be involved in a full physical inventory than in a cycle count. Therefore, the systems and procedures used to support full physical inventories are significantly different from those used to support cycle counting.

The discipline of cycle counting has been around for decades. It has the potential of delivering major improvements in inventory record accuracy while simultaneously paying for itself in reduced overhead cost. Although widely used in the largest and most sophisticated warehouses, the actual payback rate achieved in cycle counting programs has varied significantly, in most cases because management, supervisors and operators do not understand the principles that underlie the concept. What is the purpose of cycle counting? How should it be done and how much of it is needed?

This engineering guide is intended as an introduction to both kinds of inventory counting for senior management and process engineers in the logistics, distribution and warehousing industries.

- It explains what can and what cannot be accomplished with a program of cycle counting. It describes how cycle counting should be structured and how it should fit into the organization. It reviews the math required to determine the optimum level of cycle counting and lays out a sample cycle counting program that includes the training required, both for the workers who actually perform the counts and for the supervisors who direct them and use the results.
- It discusses the reasons why full physical inventories may be necessary, the problems associated with accuracy, and the

circumstances under which they can be eliminated. It reviews inventory-taking processes and discusses training and auditing requirements and can serve as a guide for the auditors and supervisors who specify and control the process.

Cycle Count and Physical Inventory Design and Execution  
Table of Contents

About Precision Systems

Introduction

    Purpose of this Paper

    About the Author

Cycle Counts

    Reasons for Cycle Counting

        Error Correction

        Double-Checking

        Procedure Validation

        Accuracy Measurement

    How to Measure Accuracy

        Inventory Accuracy Defined

        Why Measurement is Important

        How to Measure

        Control Charts

    Structuring a Cycle Counting Program

        How Much Cycle Counting is Necessary?

        On-Line Cycle Counting Methods

        Off-Line Cycle Counting Methods

        Basic Principles

        Cycle Count Planning

        Recommendations for a Cycle Count Program

Physical Inventories

    Planning a Physical Inventory

    Physical Inventory Methods

Conclusions

Appendix - Tables