CHAPTER 1: WAREHOUSE MANAGEMENT SYSTEMS OVERVIEW

Objectives

The objectives are:

- Getting acquainted with Warehouse Management Systems.
- Understanding the Warehouse workflow.

Introduction

This chapter is an introduction to the Warehouse Management Systems (WMS) course. It provides an overview of what WMS is and what it is aimed to. The chapter describes the features available in WMS and explains how to work with them.
WMS Overview

The process of physical handling of goods in and out of the warehouse is an extensive and costly operation. To keep costs as low as possible, it is essential that quantity and placement of the items are accurate. To have efficient warehouse processes, the company must define the warehouse in terms of layout, put-away and pick logic, as well as internal replenishment information.

Warehouse Management Systems is aimed at companies that need to receive and ship products, while maintaining an optimum space usage and knowing specifically where all products are stored at any given time. Goods can either be stored in predefined (fixed) bins or in random (floating) bins, depending on the need for optimization and the expertise of the warehouse personnel.

The WMS granules provide functionality for executing more advanced warehouse processes such as handling items within a warehouse by zone and bin level, handling directed put-away and pick, and the development of an automated data capture system (ADCS).

The flow of inventory through the warehouse can be divided into three basic processes:

- Receiving items at the warehouse and making them available.
- Handling items for internal distribution/movement/production.
- Picking and shipping items to customers or other locations.

Each process can consist of a series of warehouse handling activities. Receiving items involves the physical receiving of items when they arrive at a warehouse and then putting them away (from the receiving area into the stocking/handling area).

WMS also provides the cross-docking functionality as part of the receiving process. Cross-docking is a means of saving time and effort by directing items on orders awaiting shipment from the receive zone directly to the ship zone without placing them into storage.

Handling items involves repacking or completing items for sale, inventory counting, supplying production, or simply moving for optimization of space.

Shipping items involves picking items from inventory and handing them to the shipping agent whom delivers them to customers.

To have an efficient operation, warehouse managers must know which items are to be shipped or are to be used in production and which are expected to arrive. In this way they can estimate the expected workload and allocate warehouse resources accordingly.

Employees in sales and purchase departments need to be able to see what stage in the warehousing process a particular order has reached.
WMS for Microsoft Dynamic® NAV 2009 helps companies to manage all these activities in the most efficient way.

The NAV granules that deal with WMS provide companies with the necessary functionality to organize the receiving and shipping processes and to assist warehouse employees in recording the receipt of goods, picking items for shipping or production, and making shipments.

The granules are used for communication between the sales, purchase, production, and warehousing functions. In particular, the release function ensures that only released inbound and outbound orders can be viewed and processed by the warehouse employees. That means that if a sales or purchase order is released, items are available for further processing by WMS.

The list and description of the granules required to have the WMS functionality can be found in Appendix B of this course.

**Warehouse Workflow**

The WMS is designed to work with the inbound, outbound and internal flow of items through the warehouse. The following illustration depicts the WMS overall workflow.

![Warehouse Workflow Diagram](image-url)
Summary

This chapter provides an overview of the Warehouse Management Systems. The Warehouse Management System is used to:

- Easily receive the items.
- Handle the items. This includes repacking, inventory counting, supplying production, or just moving an item for optimum warehouse space utilization.
- Pick the items.
- Ship the items.
Quick Interaction: Lessons Learned

Take a moment and write down three Key Points you have learned from this chapter

1. 

2. 

3. 

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