

A WMS Implementation Case Study

At

Maruti Udyog Limited

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Maruti Udyog Limited (MUL) was established in Feb 1981 through an Act of Parliament, to meet the growing demand of a personal mode of transport caused by the lack of an efficient public transport system.

Suzuki Motor Company was chosen from seven prospective partners worldwide. This was due not only to their undisputed leadership in small cars but also to their commitment to actively bring to MUL contemporary technology and Japanese management practices (which had catapulted Japan over USA to the status of the top auto manufacturing country in the world).

A license and a Joint Venture agreement were signed between Govt. of India and Suzuki Motor Company (now Suzuki Motor Corporation of Japan) in Oct 1982.

The objectives of MUL then were:

- Modernization of the Indian Automobile Industry
- Production of fuel-efficient vehicles to conserve scarce resources
- Production of large number of motor vehicles which was necessary for economic growth



Maruti Udyog Limited is the largest passenger car manufacturer in India with an annual capacity of 470,000 cars. Turnover of \$2.2 billion and with an incredible ability to rollout a car in 45 min.

- Exporting Cars to various countries
- Single Spares Distribution Center for the entire country- Annual spares turnover of \$130 million
- Heavy Inbound and Outbound material flow
- In-house developed ERP System
- Dedicated Systems Maintenance Dept

Initial Study

- Needed a system to manage their end to end spares supply chain execution
- Highly scalable supply chain to meet the peaks in market demand



- Sub optimal Warehouse Layout
- Long Process to bin a material
- Order level Picking
- High rate of Inventory discrepancies
- One Part-one Location
- Operator Driven Processing
- Not having any systematic Process in Material Handling
- High rate of Manual errors
- Discrepancy between items ordered and items shipped to dealers
- Absence of real time data during binning and picking operations
- Packlist not available – content of shipping carton not verifiable
- Long Order execution time (5.5 days for a REG order, 2 days for a VOR order)

MUL decided to revamp its spares distribution operations and chose 7Hills to re-engineer the warehousing process and implement MARC™ Warehouse Management System

Solution Implementation

- Floor Wise Implementation
- Fast-break Approach for initial phase
- Thin Client Installation
- Barcode and Dot Matrix Printers
- Re-printing option for all the reports on a specified printer using MARC Run SQL Procedures
- One Hub and one print server for each floor
- Wedge Scanners to scan Barcodes
- MARC Global Implementation Methodology

Benefit/Value-addition

- Well organized Warehouse Layout
- Systematic Process to bin a material
- Group Picking
- Accurate Inventory Control
- One Part-one Location (Fixed Bin) along with Dynamic Location allocation and Replenishment concepts
- System Driven Processing/Material Handling/Containerization
- Quick Order execution time (6-8 hrs for a REG & 2-3 hrs for a VOR order)
- Minimal scope of Manual errors & Inventory discrepancies
- Real time inventory status visibility
- High accuracy in order shipping
- Scope for increase in sales turnover (push method of sales)

