# WAREHOUSE SIMULATION

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- Warehouse simulation is the computer-based modeling of a real warehousing system.
- Simulation enables an organization to analyze and experiment with its warehousing process in a virtual setting, reducing the time and cost requirements associated with physical testing.
- Storage, docks, conveyors, forklifts and even personnel can quickly be introduced and adjusted within the simulation model, allowing companies the opportunity to determine how best to fully utilize their equipment and maximize efficiency.

## Why simulate warehousing?

• The need for efficiency in industry has never been greater, with personnel, fuel, transportation and material costs continuing to rise each year. Simulation provides a way to put a warehouse to the test in a **risk-free environment** without disturbing the existing warehouse system. It also enables users to determine minimum actual costs without sacrificing the required output.

#### You can determine and optimize:



quantity and type of transportation and material handling equipment



staff level requirements



floor space requirements and layout



warehouse operational expenses



loading and unloading gate requirements



operational timetables



freight traffic flows



performance metrics such as execution time, resource utilization rates, inventory levels, etc.

### Top 5 Reasons to Use Warehouse Simulation Software

- Proof of Concept
- Executive and Employee Buy-In
- Optimize Operational and Business Rules
- Optimize the Control System
- Revalidate the Design

<u>https://www.mhlnews.com/technology-amp-automation/top-5-reasons-use-</u> warehouse-simulation-software