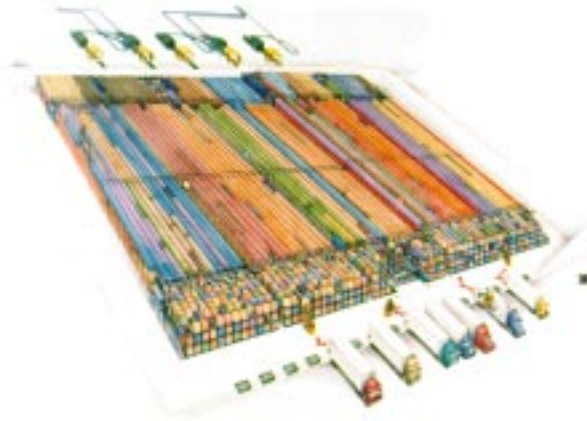


Manufacturing Distribution

Application:

**Fortune 50 Consumer Goods Client
Site Located in Southern US**



ACTIV System – Commissioned 1994

Efficient Consumer Response (ECR) and Continuous Replenishment Planning (CRP) initiatives are driving many consumer goods manufacturers to see “value added” in providing more complex distribution functions from their existing manufacturing/ warehousing operations, including multi-drop direct trailer delivery. The service aspects of these functions offer competitive advantage; in manual operations, however, the tradeoff typically is in the form of increased costs. One of the benefits of **ACTIV Systems™** is its ability to increase value-added operations and, at the same time, minimize operating costs.

Fortune 50 companies currently using ACTIV have lowered physical operating costs, reduced inventories, and increased service levels, thereby allowing them to enjoy a competitive advantage in the marketplace and experience the benefits of an excellent return on investment.

Storage Buffer for Full-Pallet Unit Loads

The manufacturing facility identified in this case study shows a two-module system. The levels are 3 and 4 high, respectively, with the 3-level high system being installed in an existing building. Because of ACTIV's high-density characteristics, the need for outside storage was eliminated and the existing building was able to be configured to achieve the client's capacity objectives with minimal expansion.

System Data

System Specifications

3 & 4 Levels
200 Lanes (approx.)
7 VTLs

Capacity

10,000+ Pallets (ACTIV System)

Throughput

Peak shipping
2X/day (average)
3X/hour (average)
Input rate
200 pallets/hour (peak)
Output rate
200 pallets/hour (peak)

ACTIV acts as a storage buffer for the manufactured product. Full pallet unit loads are buffered and continually flow through to staging lanes at the dock end of the system. The ACTIV System operates 24 hours per day, pre-stages over 40 full trailerload orders in required sequence at any given time, receives product at the shipping dock, and transfers shortages directly from the manufacturing area to the dock. With this complex flow path, ACTIV has the ability to deliver peak shipping rates of twice the average annual day and three times the average annual hour. By eliminating all manual handling between the production lines and the dock, the client dramatically improved the operating costs of their logistics operations.



Trailer Load Staging—forklift pulls loads from staging slot face and positions them directly onto their assigned trailer.

Trailer Load Staging

With ACTIV, trailerload staging takes place automatically within the system footprint. This value-added operation enables the transporter to reduce wait time between dock arrival and departure to the time required to actually load the trailer.

ACTIV pre-stages orders to multi-level “slots” directly in line with the dock door assigned to the corresponding trailer. When the trailer arrives at the dock, the forklift operator uses an RF terminal

on the forklift to sign onto the order. The sign-on signals the system to begin indexing pallets forward from the slot to the rack face position, with each level indexing independently. As each load is removed from a staging lane, the ACTIV and WMS software are updated automatically.

To assure accurate trailer loading, the forklift operator scans a bar code on the dock door. Trailer contents information is then provided to the warehouse management system, speeding the bill of lading cycle.

ACTIV Benefits Summary

Maximum space utilization . . .

- **Storage space maximized**—Storage, and staging functions operate using minimal real estate.

Personnel savings . . .

- **Personnel requirements minimized**—Labor is needed only in the loading areas.

Shrinkage reduction . . .

- **Multiple handling damage eliminated**—ACTIV's gentle handling capability virtually eliminates product damage.

Productivity improvements . . .

- **Value-added processes supported**—ACTIV's Path Management Software manages the complex flows created by value-added processes such as building mixed unit loads for creating store-ready pallets.

Maintenance improvements . . .

- **System maintenance simplified**—Normal periodic inspection and maintenance takes place outside the rack structure.

Transportation savings . . .

- **Demurrage reduced**—Back charges for wait times are eliminated.
- **Freight rates reduced**—Because arrivals and departures can be scheduled efficiently, opportunities are created to negotiate freight rate savings.

Packaging savings . . .

- **Package strengths reduced**—The need for high-strength packaging to support 3-level high floor stacking was eliminated.

In addition to the site identified in this case study, the Fortune 50 consumer goods manufacturer also installed ACTIV Systems™ in several of their other manufacturing facilities.

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