

Optimized Assembly with our MES and WMS Software Solution



Overcome Assembly Industry Challenges with Aptean MES/WMS Objective Edition

The assembly industry is currently facing numerous challenges, including increasing demand for variation and customization, smaller batch sizes, and specific components. As these custom projects become more intricate, detailed assembly instructions and manuals are essential. Additionally, the need for speed in production has made takt time operation crucial.

These challenges present hidden opportunities—opportunities to outperform competitors by continuously improving your business's critical areas. By optimizing your production, you can maintain a highly efficient production and logistics flow now and in the future. Our Manufacturing Execution System (MES) and Warehouse Management System (WMS) solutions streamline your entire production process, from the receipt of raw materials to the shipment of finished products.

By integrating Aptean MES with Aptean WMS, you gain complete traceability of goods—from raw material receipt to production, storage, and delivery. This seamless integration results in fast and accurate execution, ensuring that the right products reach the right location at the right time (JIT/JIS). Both semi-finished and finished products move efficiently to the warehouse or their next destination. Together, the MES and WMS form a comprehensive tool for managing production and logistics in the assembly industry. This is your ultimate step towards achieving Operational Excellence.



Aptean MES Objective Edition for the Assembly Industry

Our MES solution streamlines production processes and material flows in assembly, from raw material processing to the production of finished goods. It includes scalable functional modules tailored to your specific needs.

Key features include:

- › Machines & Work Centers
- › Yield, FTR, Scrap, Repair
- › BOR/BOM
- › Alarms & Interruptions
- › Plan Board
- › Indirect Hours
- › Machine Hours
- › OEE
- › Man Hours
- › Standard Operating Procedures (SOP)
- › SPC
- › Data Collection (historian)
- › WIP-Input (bulk/pallet/SN)
- › WIP-Output (bulk/pallet/SN)
- › Genealogy & Traceability
- › WIP Inventory
- › Production Logistic Engine (PLE)
- › Quality Control
- › Quality Sheets & Instructions (documents/checks/inputs/measurements/OCAP)
- › Process Monitoring
- › Energy Measurement



Our MES solution enhances machine and equipment efficiency, delivering measurable benefits:

- › **Consistent Quality:** Achieve high-quality and consistent end products through recipe management.
- › **Cost Savings:** Save on costs and adhere to the first-in-first-out principle.
- › **Real-Time Insights:** Get a real-time overview of production progress and schedule management via a graphical planning board.
- › **Rapid Problem Resolution:** Quickly identify causes in the event of product issues or recalls.
- › **Reduced Operational Costs:** Lower your operational expenses through streamlined processes.





Our Aptean MES Objective Edition offers transparent vertical integration with higher-level business systems and lower-level process control and automation systems. It includes standard interfaces for several ERP systems, enabling seamless integration with shop floor automation, SCADA systems, machines, and industrial IoT devices using standard industrial protocols.

Data, both configuration and runtime, is stored in a relational database such as SQL Server or Oracle. Historical data can be archived separately for evaluation and report generation. The application server plays a central role, processing all business logic, interfacing with the database, and connecting to other production levels. Additional services, such as planning components, can be easily integrated into the central application server based on your needs.

Aptean WMS Objective Edition for the Assembly Industry

Our WMS solution streamlines logistics and material flows in both the warehouse and production environment—from goods and raw materials receipt to order picking, inspections, kitting, repackaging, and shipment.

Our purpose-built WMS modules provide excellent control over daily operations:

- › Task Management
- › Purchase/Pick Orders
- › Inbound/Outbound Orders
- › Put-Away
- › Bin Stock
- › Mobile Racks
- › Production Logistic Engine (PLE)
- › Quality Sheets
- › Value Added Logistics (VAL)
- › Kitting
- › Re-Pack
- › Cross Dock Orders
- › Ship Orders
- › Staging
- › Cycle Count
- › Goods Inspection Rules
- › Samples
- › Quality Control (LOT or serial)
- › BOM
- › Instructions
- › Kanban/Supplement



With Aptean WMS Objective Edition, you can optimize the deployment of people, machines, and logistics resources, resulting in significant benefits:

- › **Full Traceability:** Track all transactions and movements from goods receipt to finished product dispatch.
- › **Real-Time Inventory Management:** Monitor stock levels and deliver goods to production lines just in time.
- › **Increased Efficiency:** Process larger volumes with the same resources, achieving high accuracy and punctual deliveries.
- › **Reduced Stock Levels:** Lower inventory costs while maintaining operational efficiency.
- › **Lower Operational Costs:** Optimize processes to reduce overall expenses.



Our WMS solution coordinates your logistics processes from gate to gate, offering transparent vertical integration with higher-level business systems and seamless interaction with lower-level automation systems and infrastructure. Standard interfaces for several ERP systems and self-developed management systems ensure smooth integration across all levels of your operations.

Throughout the logistics process, WMS interacts with ERP systems to provide real-time visibility into warehouse operations, enabling timely administrative actions, such as MRP runs. The WMS uses Warehouse Control Systems Interfaces to connect with various warehouse equipment, including data capture devices like touchscreens, voice-picking, and RF terminals. It also controls machines such as cranes, lifts, conveyors, AGVs, miniloads, pallet robots, and pick-to-light/put-to-light installations.

Additionally, our ASRS (Automated Storage and Retrieval System) module allows for efficient communication with automated warehouses, ensuring items are delivered to the line just in time (JIT) and just in sequence (JIS).

Contact us 