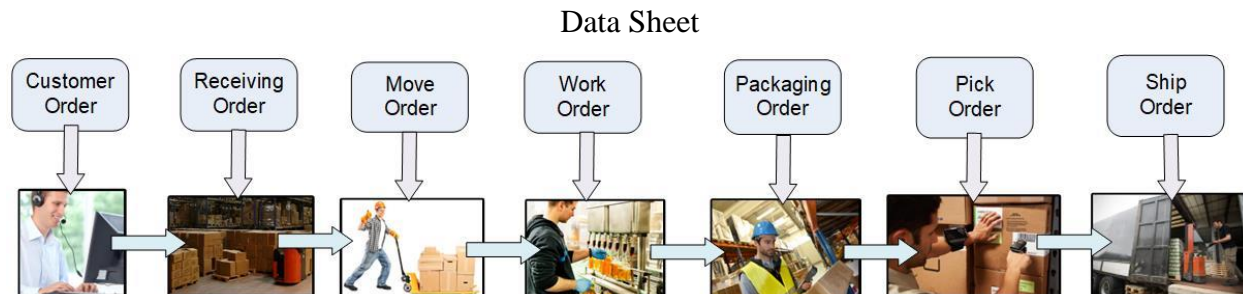




### BellHawk as a Manufacturing Execution System (MES)



A BellHawk Manufacturing Execution System (MES) is used in manufacturing plants to track, monitor, and control the production process from raw materials to finished goods or a Decision Support System, such as MilramX.

Here are the key aspects of a BellHawk MES:

#### Core Functions

**Real-time monitoring:** Tracks and documents the transformation of raw materials into finished products

**Resource management:** Allocates and tracks resources like materials, labor, and equipment.

**Quality control:** Manages product quality and ensures compliance with regulations.

**Performance analysis:** Tracks key performance metrics to optimize production.

**Production scheduling:** Manages work orders and dispatches production units.

**Data collection:** Gathers and analyzes real-time data from the production floor.

#### Benefits

- Improved efficiency and productivity
- Reduced waste and production costs
- Enhanced product quality and consistency
- Better regulatory compliance and traceability
- Increased uptime and equipment utilization
- Faster time to market for new products

## **Other Capabilities**

BellHawk also integrates comprehensive inventory tracking, warehouse management system (WMS) and materials tracking and traceability capabilities.

## **Integration with Other Systems**

A BellHawk MES serves as an intermediary between high-level planning systems like Enterprise Resource Planning (ERP) and shop floor control systems. This aligns business operations with production activities.

## **Technological Advancements**

A BellHawk MES solution can incorporate the following advanced technologies:

- Cloud connectivity: Enables real-time data sharing across the supply-chain.
- Industrial Internet of Things (IIoT): Facilitates data collection from connected devices.
- Real-Time Artificial Intelligence (AI): Prevents mistakes and improves production efficiency

By leveraging these technologies, the BellHawk MES software helps manufacturers adapt to the demands of Industry 4.0 and smart manufacturing principles, enabling more flexible, efficient, and data-driven production processes.

## **Commentary**

BellHawk enables manufacturers to start with a simple Work-in-Process tracking system and then steadily add capability until they are fully compliant with the latest Industry 4.0 methods and technologies.