



## Case Study

# San Jose, California Based Client Gets Warehouse Management Enhancement in Business Central

### Technology Worked On:

- **Automation Systems:** Implemented for streamlined purchase order creation, quality check requests, transfer orders, and picking processes.
- **Barcode Technology:** Integrated at key stages such as material receiving, transferring, and picking to improve accuracy and efficiency in inventory management.
- **Microsoft Dynamics 365 Business Central:** Utilized to enhance overall operational efficiency from material receipt through to shipment, ensuring seamless integration with existing systems and processes.
- **Power BI:** Used to create dynamic dashboards and reports, providing real-time visibility into warehouse operations and inventory status.
- **Azure Cloud Services:** Employed for scalable and secure data storage and processing, enabling seamless integration with on-premises systems.
- **ERP Integration:** Utilized to enhance overall operational efficiency from material receipt through to shipment, ensuring seamless integration with existing systems and processes.

### Client Overview

Our client specializes in providing warehouse management services, focusing on the storage and distribution needs of various businesses.

### Problem Statement

The client faces several challenges across different stages of their warehouse operations:

The process of material receiving poses several issues:

- Difficulty in tracking detailed information about received materials.
- Lack of visibility into existing purchase orders and received quantities.
- Uncertainty regarding pending quantities of purchase orders.
- Challenges in monitoring the inventory status of received materials.
- Issues with load details and whether received materials require pre-checking.
- Complications in allocating materials to specific receiving locations.
- Need for generating license plate labels for each received batch.

Quality checks present additional challenges:

- Lack of clarity on whether materials pass or fail quality checks.
- Inefficiencies in tracking who approved or rejected materials.
- Inability to track the timeline from submission for quality check to inspection.

Storage and tracing of materials are also problematic:

- Challenges in tracking materials using license plates.
- Difficulties in tracing materials within the warehouse environment.

Lastly, the shipment process encounters issues with:

- Inefficient picking of materials for proposed shipments.

## Resolution

1. **Customization and Automation:** Tailoring processes such as purchase order creation, quality check requests, transfer orders, and picking to suit the specific needs of the client's warehouse operations. Automation of these processes reduces manual effort and increases efficiency.
2. **Integration of Barcode Technology:** Implementing barcode readers at critical stages like material receiving, transferring, and picking to enhance accuracy in inventory tracking and management. This integration improves traceability and reduces errors.
3. **Enhanced Tracking and Tracing:** Developing and implementing customized software solutions to enable precise tracking of materials using license plates within the warehouse. This capability enhances visibility and facilitates better inventory control.
4. **Optimization of Workflow:** Streamlining workflows from material receipt through to shipment to improve overall operational efficiency. This optimization includes seamless integration with existing ERP systems and processes, ensuring smooth and coordinated operations.

By implementing these resolutions, the project aims to overcome challenges faced by the client in warehouse management, leading to improved efficiency, accuracy, and overall performance of their warehouse operations.

## Business Central's Role in Warehouse Management

[Microsoft Dynamics 365 Business Central consultants](#) plays a central role in this project, offering a scalable and cost-effective solution for small to medium-sized enterprises. While it may not offer the same advanced features as Dynamics 365 Finance & Operations, Business Central is well-suited for handling the client's warehouse management needs with the following capabilities:

- **Inventory Management:** Business Central effectively manages inventory levels, tracking stock, locations, and item transfers within the warehouse.
- **Order Management:** It supports automation of purchase and sales orders, which streamlines order processing.
- **Warehouse Processes:** It covers key operations like receiving, picking, and shipping, with the ability to integrate bar code scanning through third-party add-on.
- **Customization:** The platform allows for extensions and customization, enabling the tailoring of the system to meet specific warehouse requirements.
- **Integration:** [Seamless integration with Microsoft products](#), such as Power BI and Azure, provides comprehensive reporting and data management solutions.

## Client Benefits

The client experiences several significant advantages from the enhancements made to their warehouse management system:

1. **Enhanced Visibility and Control:** The implemented solutions provide real-time visibility into material movements and inventory status across the warehouse. This visibility allows for better decision-making and improved control over stock levels and allocations.

2. **Improved Efficiency and Accuracy:** Automation of key processes such as purchase order creation, quality check requests, and picking operations reduces manual errors and accelerates task completion. Barcode integration enhances accuracy in inventory tracking and reduces the likelihood of discrepancies.
3. **Faster Processing Times:** Streamlined workflows from material receiving through to shipment ensure faster processing times. These efficiency gains are particularly beneficial during peak periods or when handling large volumes of orders.
4. **Optimized Resource Utilization:** By automating routine tasks and optimizing workflows, the client can allocate resources more effectively. This includes manpower, equipment, and warehouse space, leading to cost savings and improved resource utilization.
5. **Improved Customer Satisfaction:** Faster and more accurate order processing, coupled with enhanced inventory visibility, enables the client to meet customer demands more efficiently. This improvement in service delivery contributes to higher customer satisfaction levels.
6. **Scalability and Adaptability:** The customized solutions and integrated technologies are designed to scale with the client's business growth. They can easily adapt to evolving warehouse needs and operational changes, ensuring long-term sustainability and flexibility.
7. **Compliance and Traceability:** Enhanced tracking and tracing capabilities ensure compliance with regulatory requirements and internal quality standards. The ability to trace materials using license plates enhances traceability, facilitating audits and improving overall compliance.

## Conclusion

In summary, the client's adoption of customized warehouse management solutions and advanced technologies has led to improved efficiency, accuracy, and customer satisfaction. These enhancements not only streamline operations but also enhance compliance and scalability, positioning the client for sustained growth and competitiveness in their industry.