

# RFID System Integration

## Applications

- **Tote/Pallet Systems**  
Product Routing  
Product Progress  
Product History
- **Inventory Systems**  
Tracking and Locating  
Shipping Verification
- **Maintenance Systems**  
Maintenance History  
Preventative Maintenance
- **Assembly Lines**  
Part Build Information  
Work-in-Process  
Inventory changes  
Product Routing
- **Billing Systems**  
Shipping Verification  
Services Performed  
Product History

## RFID Description

CONTROL DYNAMICS, INC. (CDI) understands that tracking production information in a production environment is critical. Although there have been several methods developed in the past, one of the most innovative and versatile methods is Radio Frequency Identification (RFID). It collects accurate information quickly and efficiently in ways that other systems can not.

RFID uses radio frequency communications to track products. Before RFID, companies used barcodes for tracking. Although barcodes worked in many situations, there were times when they could not fulfill the tracking need. With the development of RFID, companies are able to increase their tracking efficiency and capabilities. Because RFID uses radio frequencies it has many advantages over a normal barcode system. These advantages include:

- Sustainable read accuracy of 99.5% to 100% on the first read.
- Low maintenance—there are no moving or optical parts.
- Operation in adverse conditions. RFID tags can be read while immersed in fluids; covered in dirt, grease, or other substances; or in high temperatures (up to 410°F).

- No line-of-sight requirements — RFID does not require the scanner to be directly in front of the tag. This allows a tag to be embedded inside of a product.
- Many tags have read/write capabilities. This means that a system can store information in the tag for later recall and potentially eliminate the need for computer tracking.
- Tags can be read in groups. For example, a scanner can read each item on a pallet as it passes by the antenna. This ability can greatly increase production speed.
- A wide variety of tags, both reusable or disposable, are available.

Although there are many RFID manufacturers, CDI has chosen to use Escort Memory Systems (EMS), A Datalogic Group company. EMS is a global leader in the RFID industry. They have a wide range of experience in implementing RFID in a variety of applications.

As a true systems integrator, RFID is another component in our arsenal, enabling CDI to offer you solutions to meet your specific needs. CDI's engineers have training in RFID systems and would be glad to evaluate your company's needs.

## Our Goal

CONTROL DYNAMICS INC. will design and implement every project with a strong commitment to quality, value, performance, communication, and service. This guiding principle will ensure customer satisfaction and build long term relationships through repeat business. We strive to maintain a corporate environment that supports this goal.