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# RFID + i-Stock Implementation Guide

A Practical Playbook to Digitize Your Maintenance Inventory



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## 1. Introduction

Manual inventory tracking in complex industrial environments often leads to delays, lost assets, ghost inventory, and poor planning. This guide provides a structured approach to digitizing your maintenance inventory using RFID tagging and CODASOL's i-Stock audit tool.

## 2. Why Digitize Maintenance Inventory?

### Top pain points solved:

- Inaccurate or duplicate records
- Delayed procurement due to missing stock
- Failed audits from lack of traceability
- Non-compliance with ISO and asset lifecycle standards

### Benefits:

- Real-time visibility
- Automated tracking
- Improved uptime and preventive maintenance
- Full traceability across warehouses and plants

### 3. What is RFID?

RFID (Radio Frequency Identification) uses electromagnetic fields to identify and track tags attached to objects.

#### Types of RFID:

- Passive RFID: Cost-effective, shorter range
- Active RFID: Battery-powered, longer range.

#### Use Cases:

- Palletized goods
- Heavy equipment

### 4. What is i-Stock?

i-Stock is a mobile-based inventory physical verification tool developed by CODASOL.

#### It enables:

- Real-time cycle counting
- Barcode/QR/RFID scanning
- Image capture of materials
- Cloud sync with PROSOL and ERP systems
- Role-based access and multi-site use

**iStock**

### 5. Deployment Roadmap

#### Phase 1: Planning

- Identify warehouses, zones, and material types
- Classify critical vs. non-critical materials
- Finalize tagging strategy (RFID, QR, barcode)

#### Phase 2: Tagging & Encoding

- Procure industrial-grade tags
- Assign metadata (part code, location, condition)
- Apply tags securely with adhesives/rivets

#### Phase 3: i-Stock Implementation

- Deploy on Android devices
- Train team on scanning, uploading, verification
- Conduct initial audit to baseline data



## Phase 4: ERP Integration

- Map i-Stock data fields to ERP (SAP/Oracle/Maximo)
- Conduct data sync test
- Rollout for real-time updates

## 6. Hardware & Software Requirements

### Hardware:

- RFID/QR labels (epoxy, polycarbonate, metal)
- Handheld scanners or mobile devices
- Wi-Fi/Internet access (for sync)

### Software:

- i-Stock Android app
- Access to PROSOL dashboard
- Integration API with ERP

## 7. Integration with ERP/EAM Systems

### Supported Platforms:

- SAP (MM, PM modules)
- Oracle ERP Cloud
- IBM Maximo
- Custom-built in-house systems

### Integration Capabilities:

- Real-time inventory updates
- Audit log generation
- Sync of part master, location, and stock levels

## 8. Success Metrics & ROI

### Typical KPIs:

- Inventory accuracy rate > 98%
- Audit cycle time reduced by 60%
- Recovered value from ghost/excess inventory
- Cost savings from better planning and fewer purchases

### ROI Example:

- Mid-sized plant with \$4M in inventory
- Ghost stock reduced by 10% = \$400,000 recovered
- Full payback in 6 months

## 9. Common Challenges & Solutions

Challenge	Solution
Poor tag adhesion	Use industry-grade epoxy or rivets
Inconsistent data	Enforce SOPs for tagging and encoding
Offline environments	Enable i-Stock's offline mode
ERP sync failures	Conduct UAT with mapped data fields

## 10. Deployment Checklist

- ✓ Finalize tagging technology (RFID/QR)
- ✓ Procure and test sample tags
- ✓ Conduct warehouse mapping
- ✓ Assign tagging teams and user roles
- ✓ Install and test i-Stock on devices
- ✓ Conduct initial audit and sync with ERP
- ✓ Generate and review baseline reports
- ✓ Plan periodic audits using i-Stock
- ✓ Document SOPs and train internal teams
- ✓ Monitor performance and optimize tagging strategy quarterly



For expert support, demo requests, or onboarding training, reach out to CODASOL's deployment team at [contact@codasol.com](mailto:contact@codasol.com).