

RFID Fixed Asset Management System



- **RFID & barcode tracking with handheld/mobile terminals**
- **Web-based asset management platform**
- **Integration with ERP systems (e.g., Oracle) via REST APIs**
- **Asset lifecycle tracking: transfer, add-ons, depreciation, disposal**
- **Scheduled maintenance with vendor/service linkage**
- **Supports multi-building and multi-department setups**
- **Real-time data sync and label printing**
- **Detailed reporting modules and audit logs**
- **Role-based access, security protocols, data backups**

Module	Functions
Asset Register	Stores all asset data: ID, type, category, location, custodian, barcode/RFID
Transactions	Add/update assets, transfer, sale, maintenance, depreciation, disposal
Maintenance	Preventive/corrective scheduling, history logging, alerts
Depreciation	Multiple methods (SL, DB, SOYD, UOP), real-time book value tracking
Disposal	Authorized workflows, gain/loss calculation, ledger update
Reports	Audit, transfer, maintenance, depreciation, and sales reports
User & Access Control	Role-based permissions, audit logs, encryption, backups
Utilities	RFID/barcode label printing, user management, data synchronization



System Architecture Overview

- **Components:** Web application, database server, mobile terminal, barcode/RFID printer
- **Integration:** REST APIs for third-party systems
- **Mobile App:** State-of-the-art terminal application for audits and asset verification
- **Connectivity:** Supports Wi-Fi, USB, LAN, and GSM (via mobile device)

Tag Type	Frequency	Compliance	Key Use
Non-metal Tags	840–960 MHz	ISO 18000-6C, EPC Gen2v2	General purpose, long-range (up to
Metal Tags	840–960 MHz	ISO 18000-6C	Stable on metal/curved
Heat Resistant	US: 902–928 MHzEU: 860–868 MHz	ISO 18000-6C, Monza4QT	High-temp environments, compact size
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