RFID BASED ASSET MANAGEMENT SYSTEM

We take this opportunity to propose you ***The RFID based Asset Management System,*** that is highly demanding solution by many organizations, which automate the manual/traditional way of management, & tracking of assets using RFID Technology. It eliminates the problems of manual system and human error by automation of process that makes the information & reports available online that is accessible from anywhere in entire organization network.

Daphne Systems Private Limited an ISO 9001:2015 Certified Company, based in New Delhi, leading provider of solutions utilizing RFID based technologies here proposing our ***RFID- AsseTrack Software Solution:-***

The Concern:

Locating, Managing and Auditing of critical assets is one of the greatest problems in organizations today

- Old/traditional way of Inventory and search of assets.
- Automation of assets tracking remains in the stone age
- Miss-location of assets, poor inventory accuracy
- Inefficient use of trained staff
- Increased record handling time/costs

The dilemma – How can employee spend more time in valuable work, spend most of their day coping with the avalanche of assets. We need a solution, where technology actually buys time and profit.

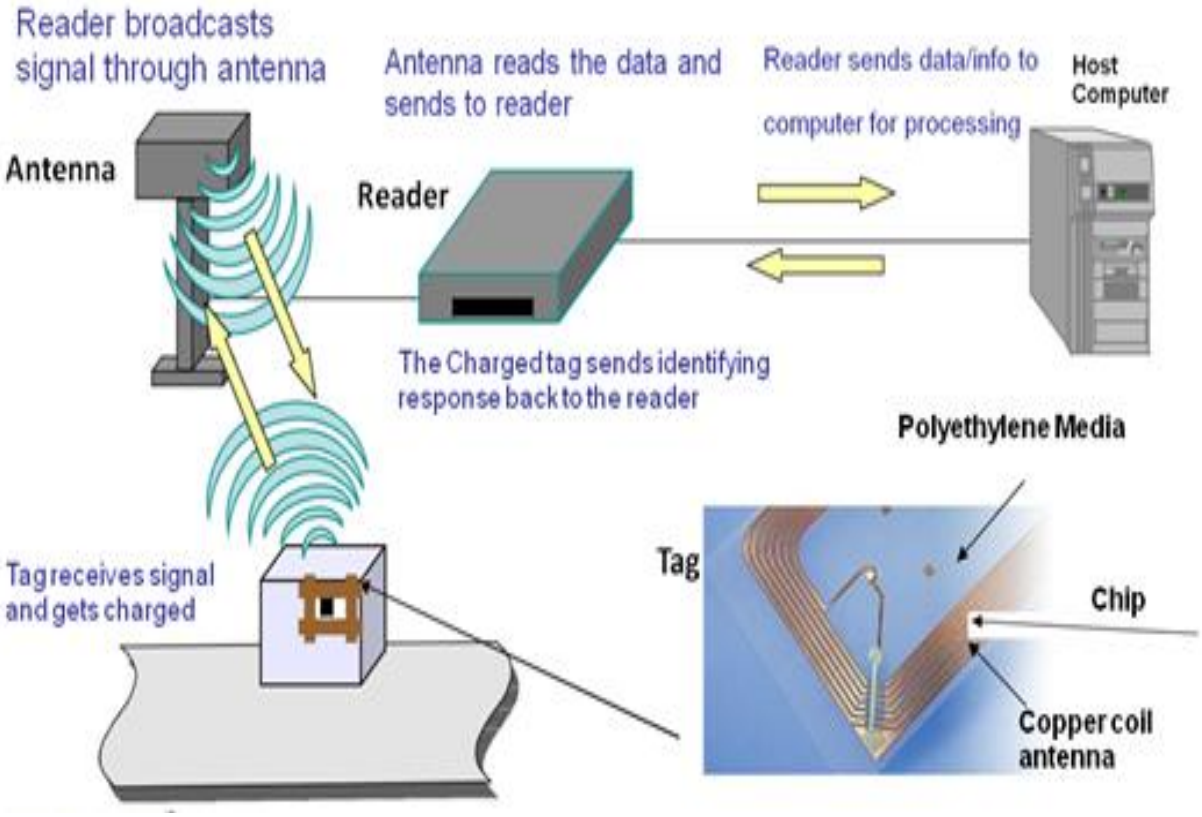
The RFID Technology

We need a technology that …

- ✓ It is more efficient than traditional way
- ✓ Reduces manual handling time
- ✓ Improve assets management process
- ✓ Provide security to assets

RFID (Radio Frequency Identification)

How RFID Work?



Our Solution:

- ***AsseTrack:*** It automat the entire system of tracking and management and auditing with integration of RFID components that allows users to view, track and manage enterprise assets located across multiple locations in your entire organization.
  Leveraging RFID Tags, Reader & Antenna along with customise application (AsseTrack) with the integration of RFID technologies; AsseTrack gives you real-time visibility of your assets and allows you to automate the business processes associated with asset life-cycles. Automating the management of physical assets saves your organization labour, time and money.
- ***AsseTrack*** Solution enable the uses that can find assets effortlessly.
- ***AsseTrack*** is a fully automated local positioning system, a system for finding, identifying, managing assets and other items of your entire organization.
- The use of ***AsseTrack*** make your realize the benefits in context of time, cost, stress minimization and more contentment at the organizations.

System components:

RFID UHF Fixed Reader:

The UHF Reader received the data/information automatically as tag come in range and sends the data /information to PC or Server.

- Frequency: 860-960MHz
- Protocol-ISO 18000 6C EPC Class 1 Gen 2
- Operation: -30°C to +75°C
- Support : RS232, RS485, TCP/IP
- Support auto-running, interactive and trigger-activating work mode

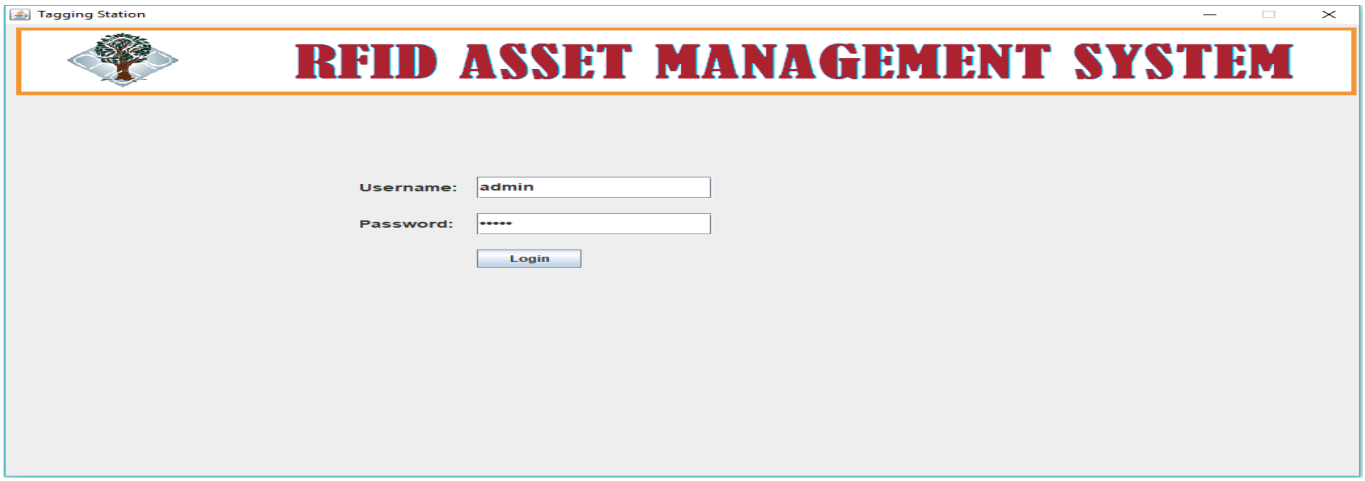
RFID UHF Desktop Reader:

The UHF Desktop Reader is used for tagging, in which mapping of the RFID Tags with Assets Ids is being done.

- Frequency: 860-960MHz
- Protocol-ISO 18000 6C EPC Class 1 Gen 2
- Operation: -30°C to +75°C
- Support : RS232, RS485, TCP/IP

Tagging Application Software:

The ***Tagging Station*** is a stand along desktop application software. It is used for mapping of tags with Assets Id that will past on assets for their tracking with RFID Device.



RFID Security Gate:

The UHF Security Gate is used for track/detect the RFID Tagged Assets movement through the entry & exit.

- Single Lane consist of two pedestals
- Protocol-ISO 18000 6C EPC Class 1 Gen 2
- Operation: -30°C to -+70°C
- Frequency support: 865-868 MHz
- Inbuilt anti-collision algorithm.
- Audio visual alert facility.
- Controllable volume for alarm.

RFID Tags:

Non-metallic Tag:

- Paper thin label.
- Placed inside the cover of each file/document.
- Consists of an etched antenna and a tiny chip which stores vital item information.
- Including a unique ID number.
- Password protected anti-theft security bit.

Specification :

- Surface material: paper or PET
- IC: NXP
- Frequency: 860-960MHz
- Protocol-ISO 18000 6C EPC Class 1 Gen 2

Metallic Tag:

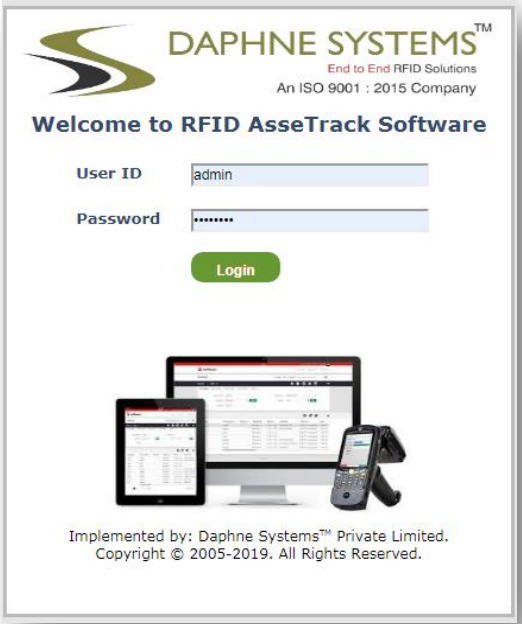
- Placed on the each assets.
- Consists of an etched antenna and chip which stores vital item information.
- Including a unique ID number.
- Password protected anti-theft security bit.

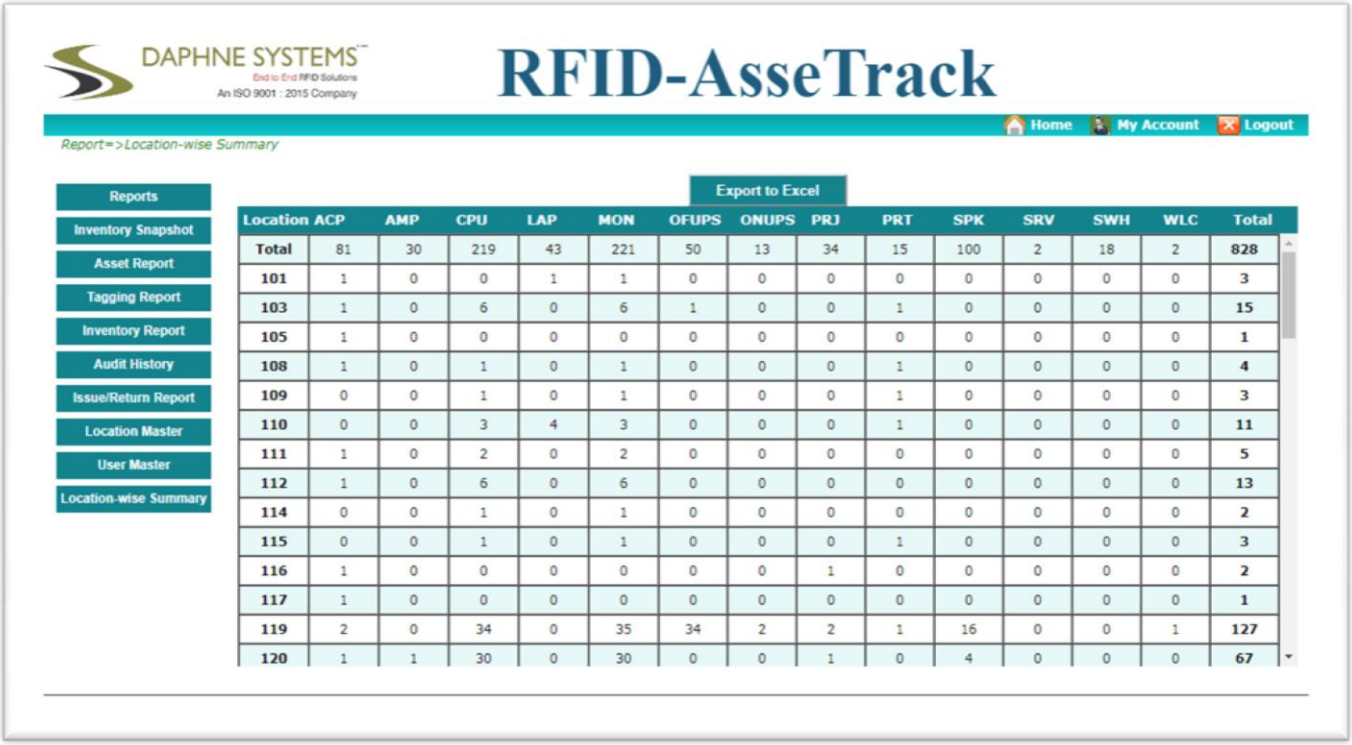
Specification:

- Operating Frequency 860 – 960 MHz
- Protocol-ISO 18000 6C EPC Class 1 Gen 2
- EPC Memory 96 bit
- Material : ABS
- Data retention of 10 years
- Write endurance 100,000 cycles

Web Application Software:

The ***AsseTrack*** application software forms the backbone of the whole RFID System. It performs end to end functionality i.e. Add, Edit, Search and Reports from programming the RFID tags, which is to query the system for locating the position of particular assets along with detailed information.





Location	ACP	AMP	CPU	LAP	MON	OFUPS	ONUPS	PRJ	PRT	SPK	SRV	SWH	WLC	Total
Total	81	30	219	43	221	50	13	34	15	100	2	18	2	828
101	1	0	0	1	1	0	0	0	0	0	0	0	0	3
103	1	0	6	0	6	1	0	0	1	0	0	0	0	15
105	1	0	0	0	0	0	0	0	0	0	0	0	0	1
108	1	0	1	0	1	0	0	0	1	0	0	0	0	4
109	0	0	1	0	1	0	0	0	1	0	0	0	0	3
110	0	0	3	4	3	0	0	0	1	0	0	0	0	11
111	1	0	2	0	2	0	0	0	0	0	0	0	0	5
112	1	0	6	0	6	0	0	0	0	0	0	0	0	13
114	0	0	1	0	1	0	0	0	0	0	0	0	0	2
115	0	0	1	0	1	0	0	0	1	0	0	0	0	3
116	1	0	0	0	0	0	0	1	0	0	0	0	0	2
117	1	0	0	0	0	0	0	0	0	0	0	0	0	1
119	2	0	34	0	35	34	2	2	1	16	0	0	1	127
120	1	1	30	0	30	0	0	1	0	4	0	0	0	67

RFID Handheld Reader:

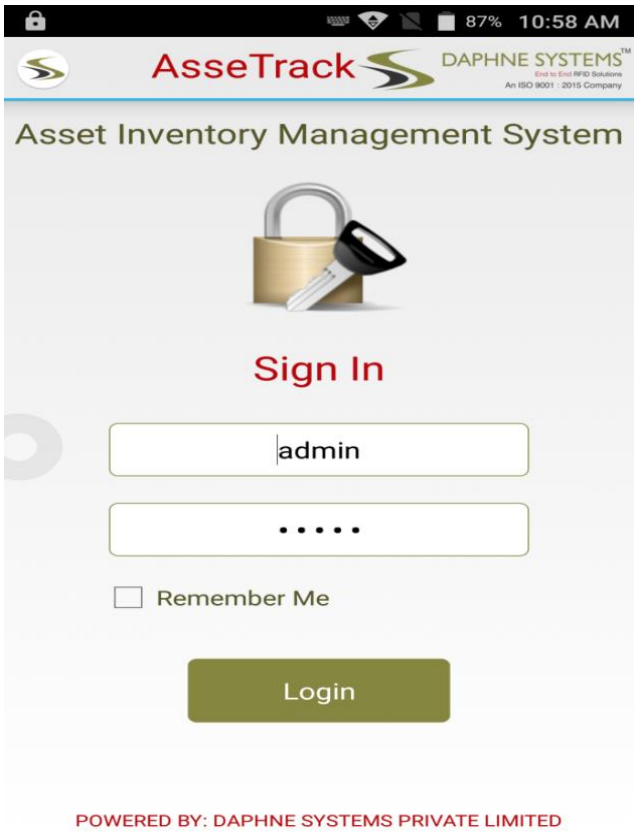
- The Handheld RFID reader is a movable RFID component that provides mobility and gives ability to make inventory and tracking the location of assets in the entire building, floor and organization easily with comprehensive range of data from RFID tags to application software.
- With this flexible multi-function handheld RFID reader, which reads data in remote areas where fixed RFID readers can't reach.

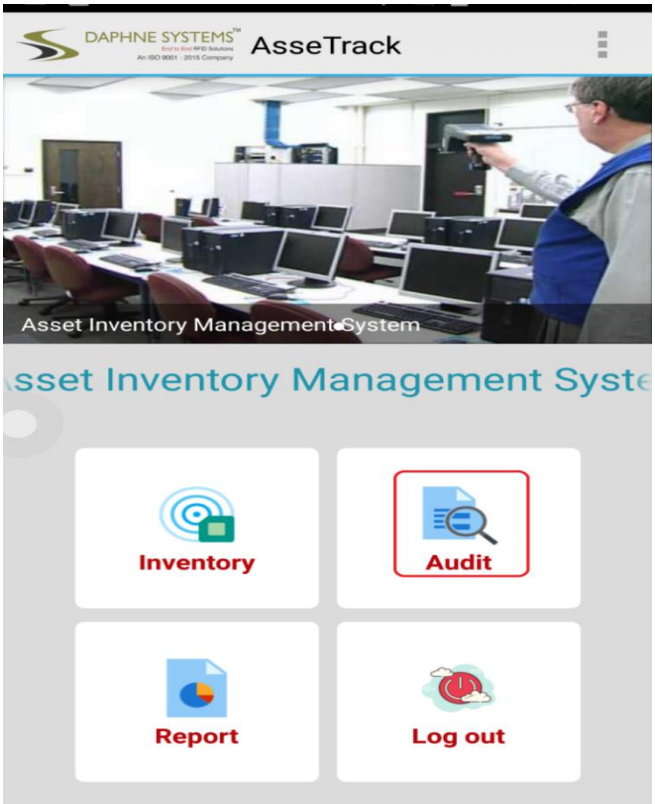
Specification:

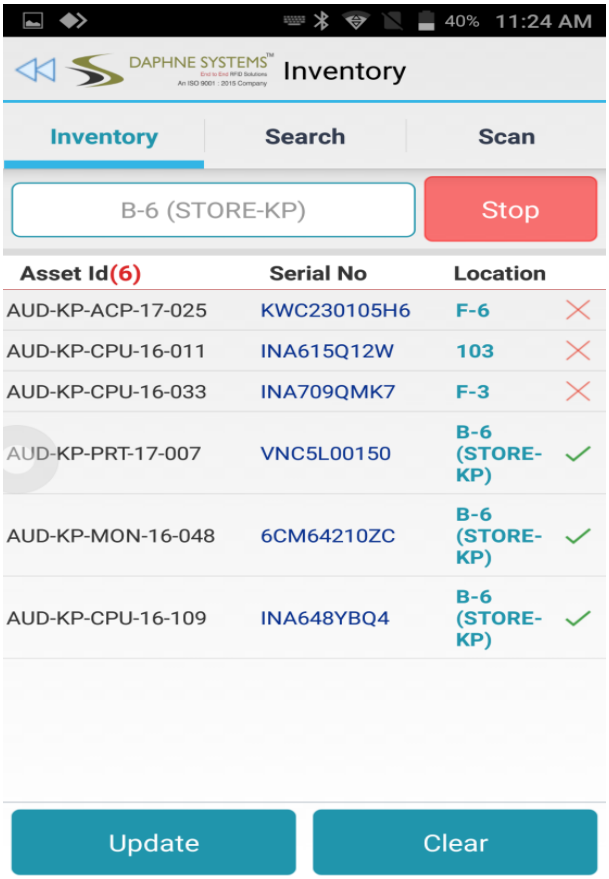
- Read Range: 0.2ft to 8 ft.
- Antenna: Integrated, linearly polarized
- Frequency: 860-960MHz
- Protocol-ISO 18000 6C EPC Class 1 Gen 2

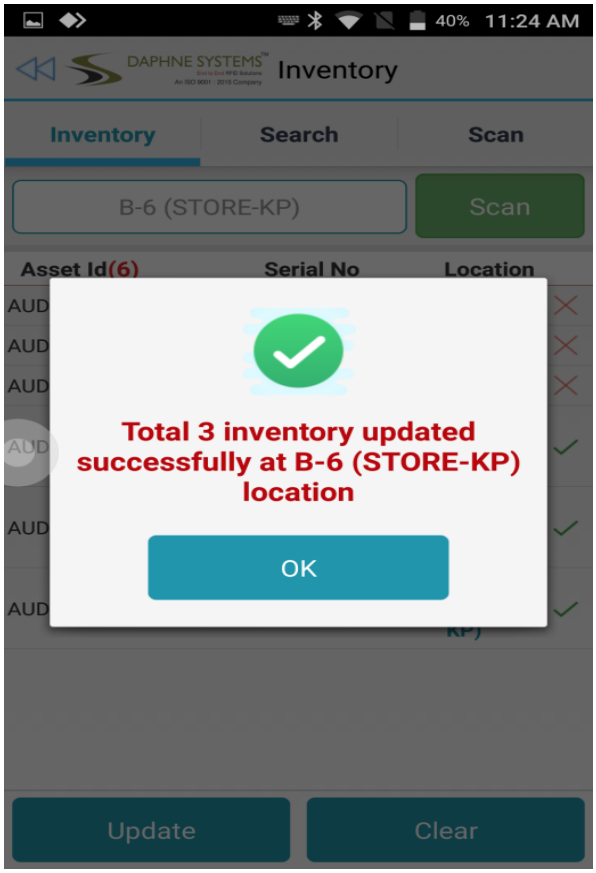
Android Based Application Software:

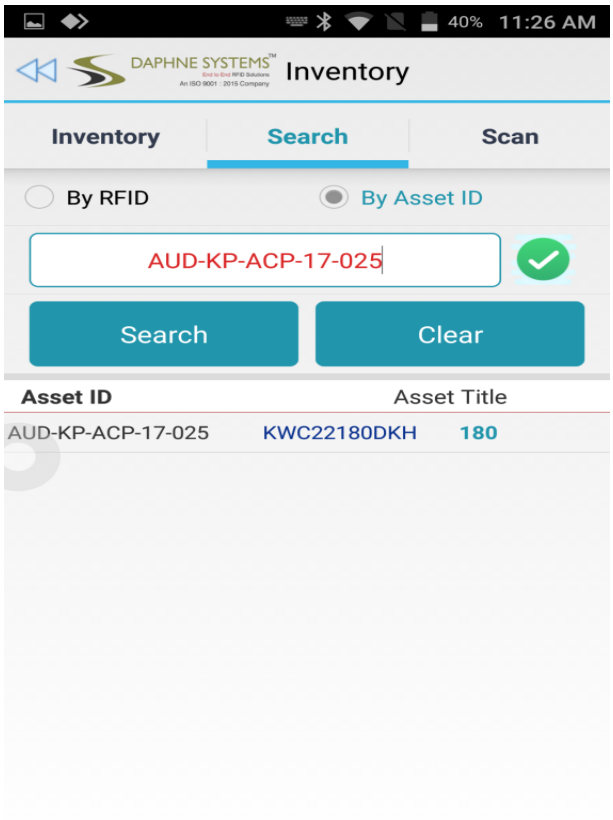
- The ***Android Based Application Software*** forms the backbone of the Handheld RFID reader. It performs end to end functionality i.e. Inventory, Searching, Audit, Report etc.

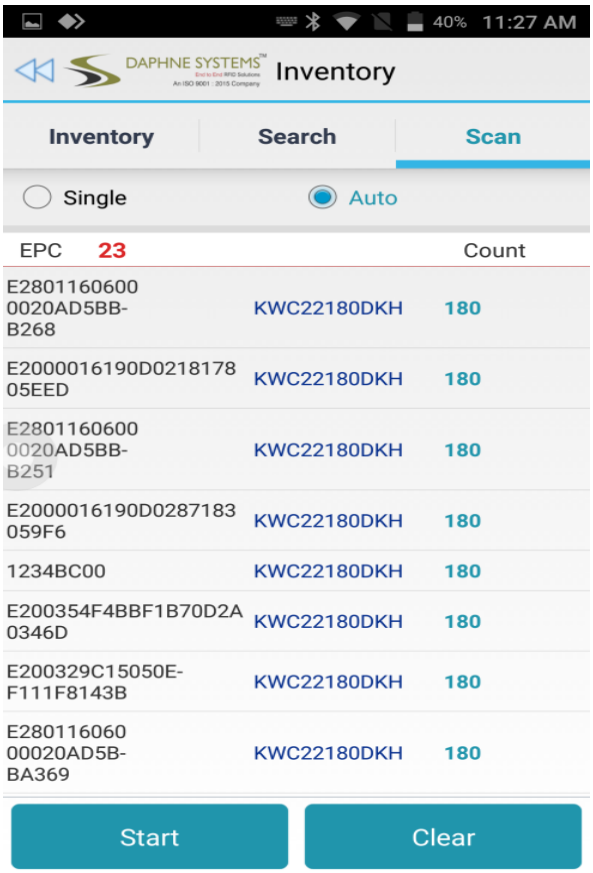





40% 11:24 AM
DAPHNE SYSTEMS
Inventory
Inventory
Search
Scan
B-6 (STORE-KP)
Stop
Asset Id(6)
Serial No
Location
AUD-KP-ACP-17-025
KWC230105H6
F-6
AUD-KP-CPU-16-011
INA615Q12W
103
AUD-KP-CPU-16-033
INA709QMK7
F-3
AUD-KP-PRT-17-007
VNC5L00150
B-6 (STORE-KP)
AUD-KP-MON-16-048
6CM64210ZC
B-6 (STORE-KP)
AUD-KP-CPU-16-109
INA648YBQ4
B-6 (STORE-KP)
Update
Clear


40% 11:24 AM
DAPHNE SYSTEMS
Inventory
Inventory
Search
Scan
B-6 (STORE-KP)
Scan
Asset Id(6)
Serial No
Location
Total 3 inventory updated successfully at B-6 (STORE-KP) location
OK
Update
Clear


40% 11:26 AM
DAPHNE SYSTEMS
Inventory
Inventory
Search
Scan
By RFID
By Asset ID
AUD-KP-ACP-17-025
Search
Clear
Asset ID
Asset Title
AUD-KP-ACP-17-025
KWC22180DKH
180


40% 11:27 AM
DAPHNE SYSTEMS
Inventory
Inventory
Search
Scan
Single
Auto
EPC 23
Count
E2801160600 0020AD5BB-B268
KWC22180DKH
180
E2000016190D0218178 05EED
KWC22180DKH
180
E2801160600 0020AD5BB-B251
KWC22180DKH
180
E2000016190D0287183 059F6
KWC22180DKH
180
1234BC00
KWC22180DKH
180
E200354F4BBF1B70D2A 0346D
KWC22180DKH
180
E200329C15050E-F111F8143B
KWC22180DKH
180
E280116060 00020AD5B-BA369
KWC22180DKH
180
Start
Clear

40% 11:28 AM

DAPHNE SYSTEMS™ Audit

Audited | Missing | Mislocated

Asset Id(6)	Serial No	Location
AUD-KP-ACP-19-054	KWC22180DKH	Girls-Hostel
AUD-KP-ACP-19-066	KWC230507B8	CDP
AUD-KP-CPU-16-109	INA648YBQ4	B-6 (STORE-KP)
AUD-KP-MON-16-048	6CM64210ZC	B-6 (STORE-KP)
AUD-KP-MON-16-071	CN-0147F6-74261-66K-2WIM-A01-D0-120	F-5
AUD-KP-PRT-17-007	VNC5L00150	B-6 (STORE-KP)

40% 11:28 AM

DAPHNE SYSTEMS™ Audit

Audited | Missing | Mislocated

Asset Id(695)	Serial No	Location
AUD-KP-CPU-19-215	8CG8341NLG	F-6
AUD-KP-MON-19-204	3CQ8152V7H	F-6
AUD-KP-CPU-16-042	INA648YBQC	F-3
AUD-KP-MON-16-040	6CM6420YV7	F-3
AUD-KP-CPU-16-033	INA709QMK7	F-3
AUD-KP-CPU-16-018	INA615Q112	112
AUD-KP-MON-16-016	6CM6102771	112
AUD-KP-MON-16-038	6CM6420YV5	103
AUD-KP-CPU-16-036	INA709QMKJ	F-3
AUD-KP-CPU-19-218	8CG90517J4	F-6
AUD-KP-MON-19-205	CNC8382C5C	F-6
AUD-KP-CPU-16-035	INA709QMJJ	F-3
AUD-KP-MON-16-023	6CM7020X5C	F-3
AUD-KP-CPU-19-214	8CG90517HG	F-6
AUD-KP-CPU-19-219	8CG90517GG	G-3
AUD-KP-MON-19-208	3CQ8152V7Q	F-6

40% 11:28 AM

DAPHNE SYSTEMS™ Audit

Audited | Missing | Mislocated

Asset Id(1)	Serial No	Location
AUD-KP-CPU-16-011	INA615Q12W	103

40% 11:28 AM

DAPHNE SYSTEMS™ Report

Location: All Locations

Asset Id (702)	Serial No	Location
AUD-KP-ACP-17-025	KWC230105H6	F-6
AUD-KP-ACP-19-026	KWC221904A2	120
AUD-KP-ACP-19-027	KWC22180DHL	122
AUD-KP-ACP-19-028	KWC221904F7	126
AUD-KP-ACP-19-029	KWC22180DTM	125
AUD-KP-ACP-19-030	KWC22180DTA	123
AUD-KP-ACP-19-031	KWC22180DTJ	117
AUD-KP-ACP-19-032	KWC221904FG	111
AUD-KP-ACP-19-033	KWC221904B9	103
AUD-KP-ACP-19-034	KWC22180DX1	112
AUD-KP-ACP-19-035	KWC221904F8	119
AUD-KP-ACP-19-036	KWC221904GR	116
AUD-KP-ACP-19-037	KWC2124034H	206
AUD-KP-ACP-19-038	KWC22190923	204
AUD-KP-ACP-19-039	KWC22180DWU	208
AUD-KP-ACP-19-040	KWC221904FC	212

Benefits to RFID Asset Tracking:

SALES GROWTH

Retail stores have shown an 8% – 10% sales growth from knowing what they have in real time. Using RFID technology for real time stock analysis means popular items don't run out of stock.

QUICK, PRECISE IDENTIFICATION FOR INVENTORY RFID

Allow items to be identified quickly and reliably. The speed of data capture using an RFID system is less than 5% of the time taken in a manual process

DATA SOURCE RFID

Tags have a memory chip installed allowing storage of an items; location, serial number, manufacturer, temperature throughout a journey, vibration data for fragile goods., use history and even a maintenance schedule

FASTER DISTRIBUTION

The efficiency and accuracy of the selection process created by RFID management systems means a quicker distribution time

LIVE ACCURATE DATABASE

Having an operational RFID based asset tracking / management system, means you have a live asset database that's accurate

REDUCED LABOUR IN LOGISTICS MANAGEMENT

Keeping track of your assets can be extremely labor intensive and time consuming. RFID reduces this with greater logistics control

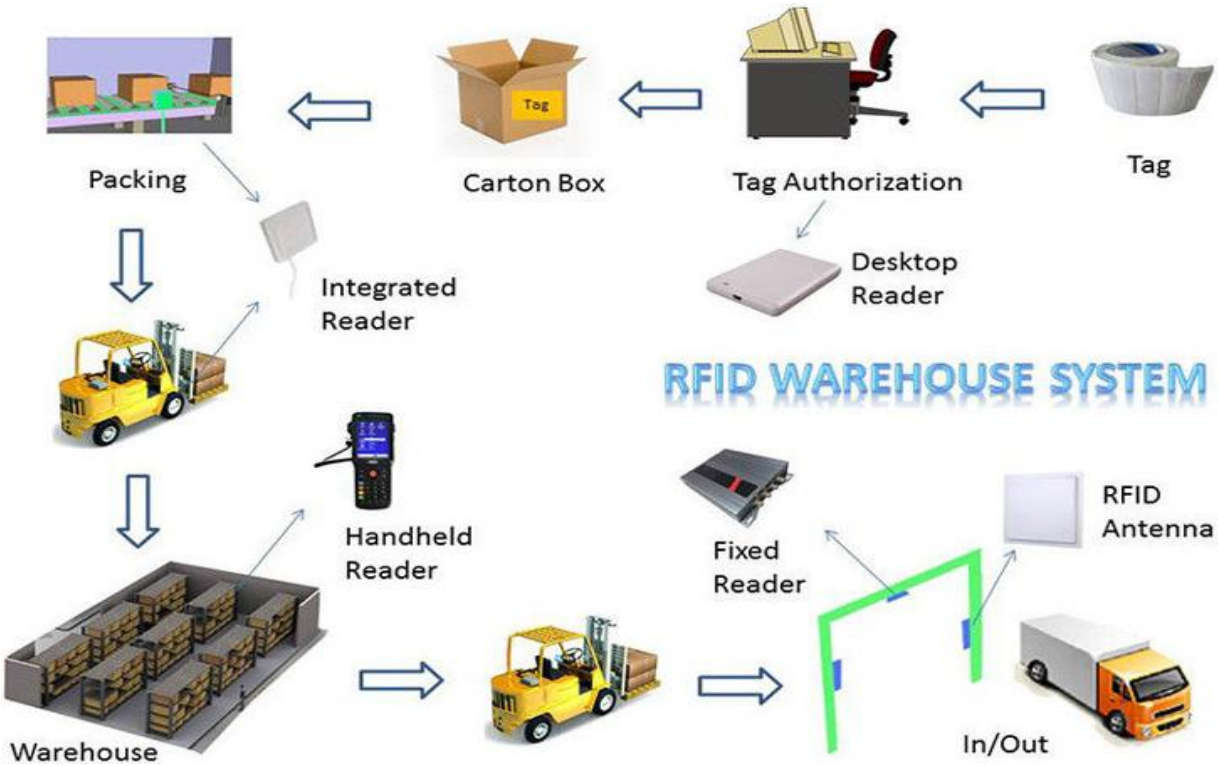
MULTIPLE ITEMS AT ONCE RFID

Tags use radio signals to identify an item so there's no need for line of sight. The ability to read multiple items quickly means a faster read is achieved than a manual barcode scan process.

IMPROVED READ ACCURACY

The read accuracy of RFID is 99%+. The speed of the process should equate to less than a couple of percent of a manual process.

Example Use Case



Our Esteemed Clients

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thsti
Translational Health Science and Technology Institute

SPECIAL PROTECTION GROUP

NATIONAL INSTITUTE OF FINANCIAL MANAGEMENT

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एनटीपीसी
NTPC
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hafed

NCCS
National Centre for Cell Science

PIMPRI CHINCHWAD MUNICIPAL CORPORATION

HCL

UPL ENVIRONMENTAL ENGINEERS LTD.

Ambedkar University Delhi

UNESCO
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RCB
क्षेत्रीय जैव प्रौद्योगिकी केन्द्र
Regional Centre for Biotechnology

...and many more

MANY THANKS!

TEAM DAPHNE