

FORTUNE 100

Global technology major deploys at its India locations, a RFID-based ASSET TRACKING SYSTEM

Efficient location-wise organization and tracking of assets

Organization and matching of accessories with main
devices in a parent-child relationship

Easy asset search and efficient on-site asset management

Missing alerts and dashboard view of real-time status



INSIDE:

Key Requirements
Solution
Implementation
Working
Benefits
Links

TECHNOLOGY

Solution:

EPC Gen2 compliant asset
tracking solution

Tag Type:

Metallica™ UHF Passive
μMetallica™ UHF Passive

Reader/Antenna:

Xenna Proximity™
HandyScanna™
Porta™

Method:

Single Tracking via hand-held and
portal Reader/Antennas

Integration Platform:

RFID Middleware:

Xenna™ WebToolkit
Xenna™ Studio

Application:

Essen RFID's
Asset Tracking System

Database:

SQL Server 2005 Exp. ed.

ERP:

Oracle

Tag Manufacturer/Supplier:

Essen RFID, with US based chip inlay

Reader/Antenna Manufacturer:

Essen RFID, with US based module

Systems Integrator:

Essen RFID

For further details contact:

Essen RFID

24-B, Jolly Maker II
Nariman Point
Mumbai 400021 India
www.essenrfid.com





CASE STUDY

KEY REQUIREMENTS:

The client is a global Fortune 100 company and a major player in the communications technology sector with a significant presence in India. It has a large number of IT assets that are portable across locations, that require efficient organization of distribution as well as monitoring. Since these assets are placed in different locations within the premises, they require prompt identification regarding location and availability. The company needed to efficiently track these large quantity of high value assets to prevent misplacement, enable instant search and effective deployment.

Main challenges in implementation:

- Proper organization of assets across various locations within the premises.
- Ensuring quick search of required asset amongst different types of assets at a particular location.
- Association of assets based on parts, components or accessories to larger assets in a parent-child relationship.
- Ensuring a quick match of components/accessories to their main devices.
- Checking the availability of every asset.
- Prevention of assets being misplaced or taken out of their assigned locations through missing asset alerts to the management.

SOLUTION:

Essen RFID provided the technology to efficiently track these assets through its RFID based Asset Tracking System. This system deploys a mobile-based application built into a hand-held RFID device to scan and search each asset. SQL Server is used as the backend database, with integration to pre-existing Oracle asset data.

IMPLEMENTATION:

A METALLICA™ RFID tag is affixed at each location within the premises. A μ METALLICA™ RFID tag is attached to each asset or asset component/accessory that is to be tracked. The assets are registered into the system database using a Xtenna Proximity™ antenna-reader. A hand-held HandyScanna™ device containing a mobile-based application is used to scan the details of each asset and then search its allocation and placement. The HandyScanna™ is fully Wi-Fi enabled. Porta™ RFID portal gate readers are also installed at critical gates from where assets are moved between multiple locations within the campus.

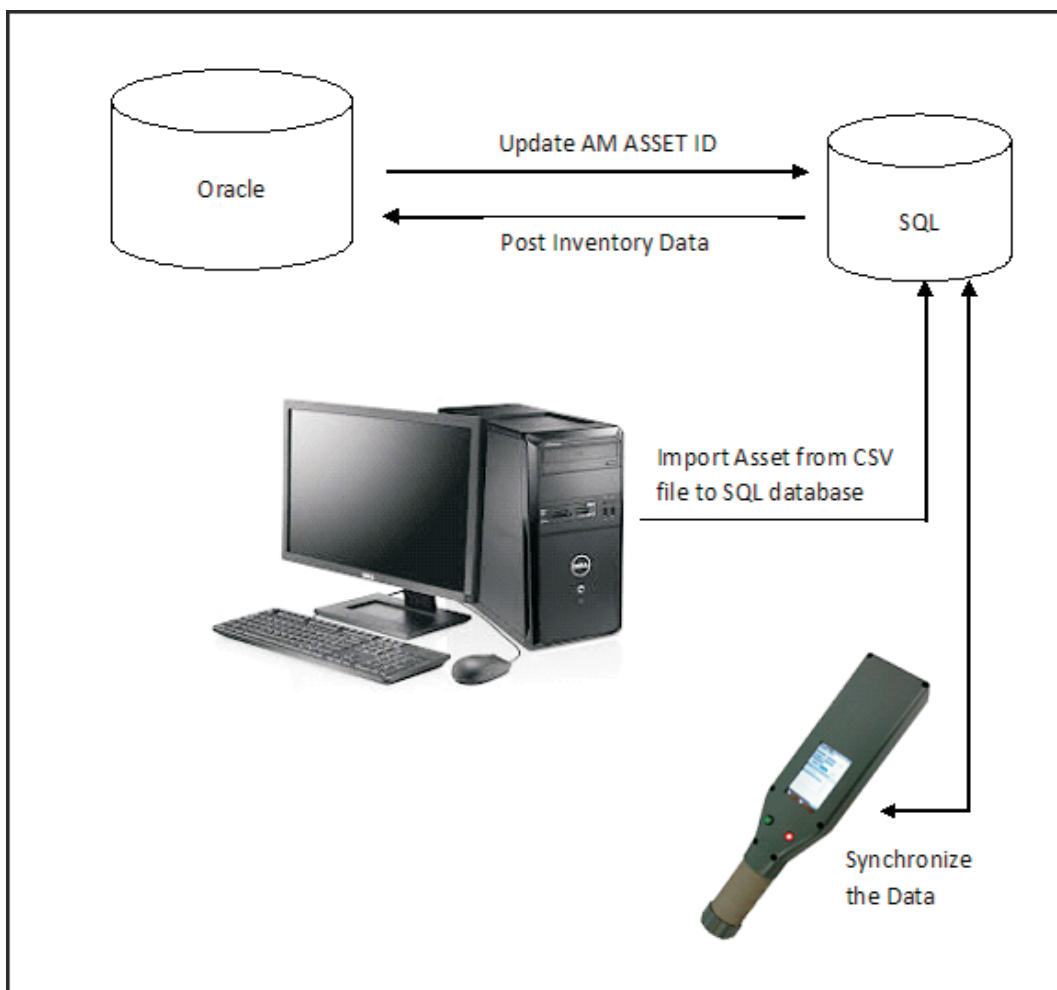




CASE STUDY

Operation Flow:

Even though the company already had an Asset Management (AM) system, RFID technology was introduced for tracking of assets in lesser time. The existing system uses Oracle, while the RFID system uses a SQL Server database. For maintaining the uniqueness of both systems, integration is done between the Oracle and SQL server database by importing AM Asset ID into the RFID system. After taking of inventory, the required inventory data is posted to the AM database.

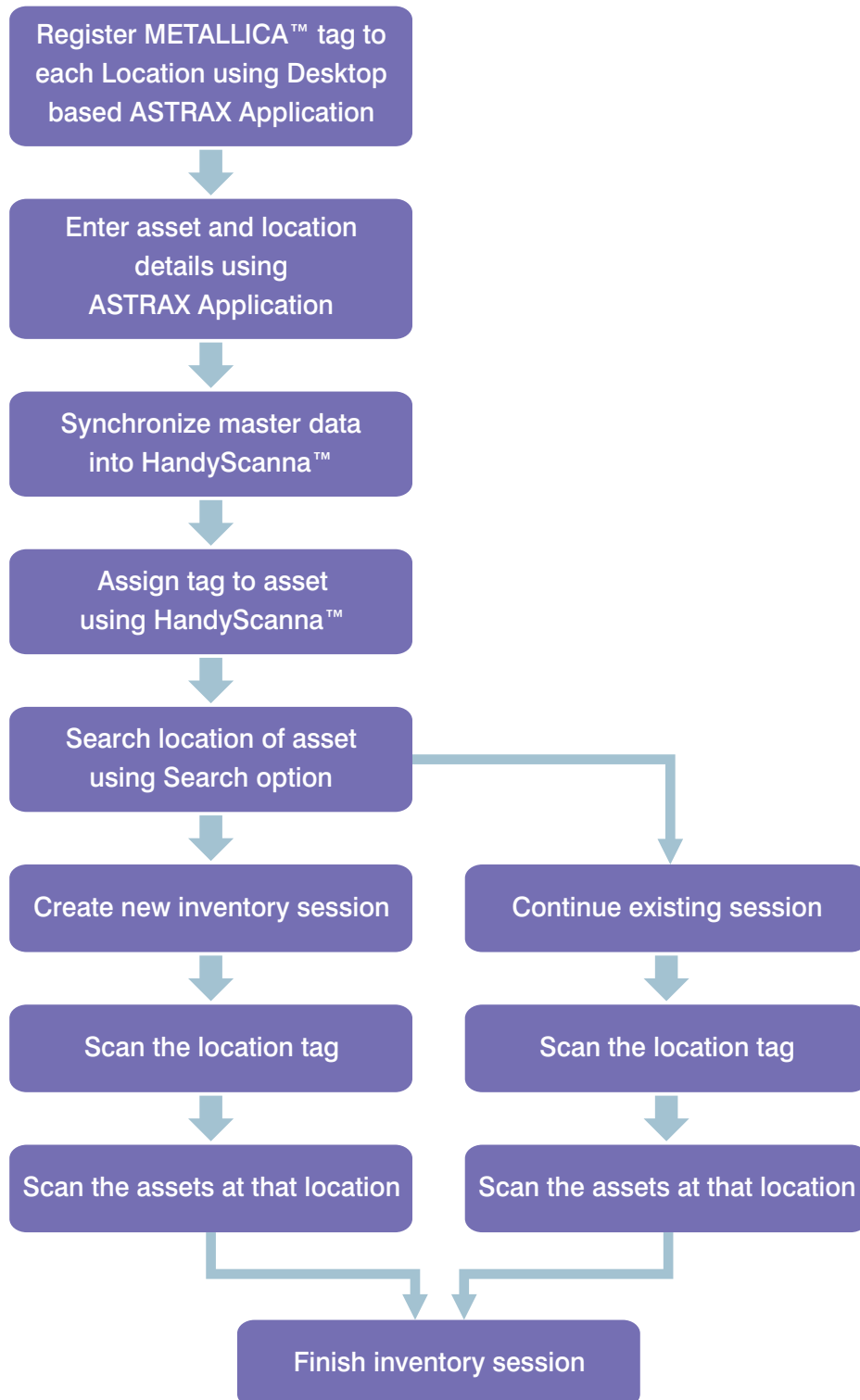




CASE STUDY

Flowchart:

The following diagram shows the asset tracking operational flow:





CASE STUDY

WORKING:

Essen RFID's Asset Tracking software Astrax™ is used for searching and tracking hardware and equipment within the company. The company has high value assets scattered in various locations, hence if any asset is tampered or misplaced then it is very difficult to locate. Therefore it is firstly needed to accurately register all assets and location and then scan the asset locations using the HandyScanna™ hand-held device.

After scanning the all assets, the scanned asset data is sent to the server using the synchronization application. After synchronizing the data, the user can export the scanned inventory data.

ASTRAX has the following main functionality for asset tracking:

If any asset remains outside any location without permission, then an Alert will be generated for that asset.

The application emails weekly missing asset details with their last known locations to authorized persons, thus helping in further search of the assets.

Working Process:

The complete Astrax™ application consists of the Desktop application, the HandyScanna™ application and the Synchronization application.

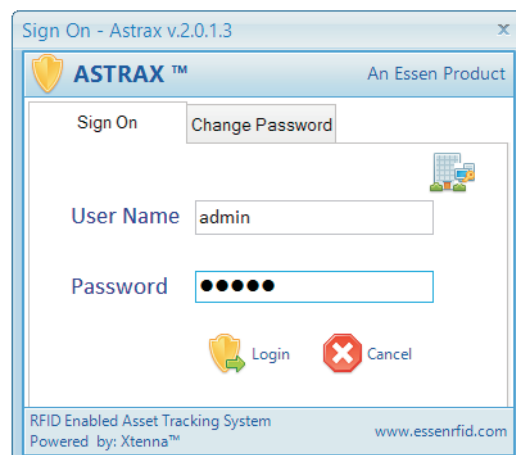
Desktop Application:

This is further divided into different modules. These are:

- RFID Settings
- Masters
- Dashboards
- Admin Tasks
- Alerts/Exception Management

Only an authorized user can log in to the Astrax™ application.

The application has a left panel tree structure which has the menus that perform different tasks.



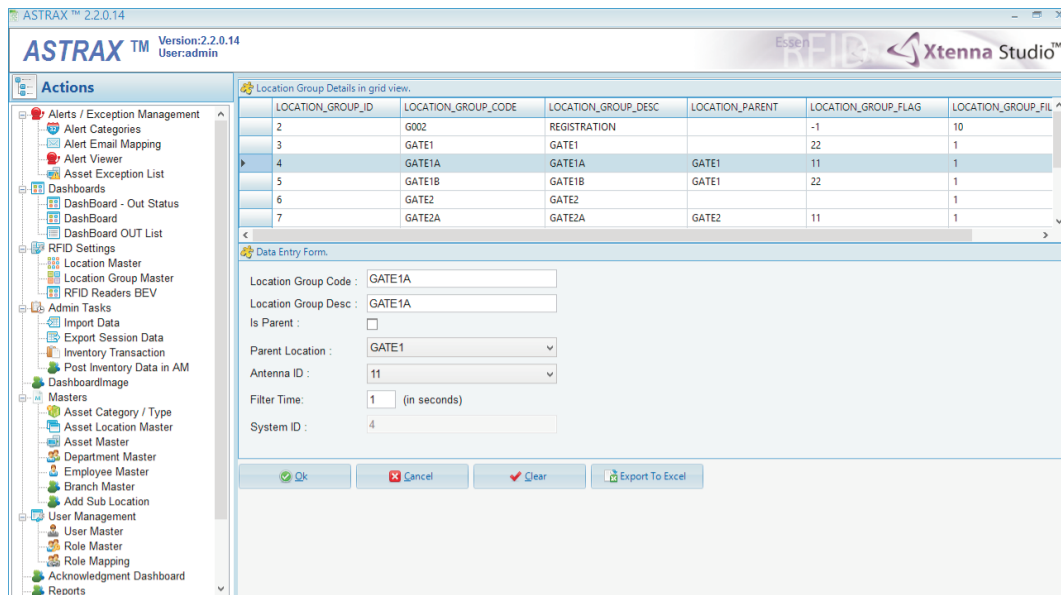


CASE STUDY

RFID Settings:

Essen RFID's Porta™ readers are used as the fixed readers for tracking assets. They are physically installed at various locations within the premises.

Location Group Master: Each location where the Porta™ device is to be placed is defined here.



ASTRAX™ 2.2.0.14
Version: 2.2.0.14
User: admin

Actions

- Alerts / Exception Management
 - Alert Categories
 - Alert Email Mapping
 - Alert Viewer
- Asset Exception List
- Dashboards
 - DashBoard - Out Status
 - DashBoard
 - DashBoard OUT List
- RFID Settings
 - Location Master
 - Location Group Master
 - RFID Readers BEV
- Admin Tasks
 - Import Data
 - Export Session Data
 - Inventory Transaction
 - Post Inventory Data in AM
- DashBoardImage
- Masters
 - Asset Category / Type
 - Asset Location Master
 - Asset Master
 - Department Master
 - Employee Master
 - Branch Master
 - Add Sub Location
- User Management
 - User Master
 - Role Master
 - Role Mapping
- Acknowledgment Dashboard
- Reports

Location Group Details in grid view.

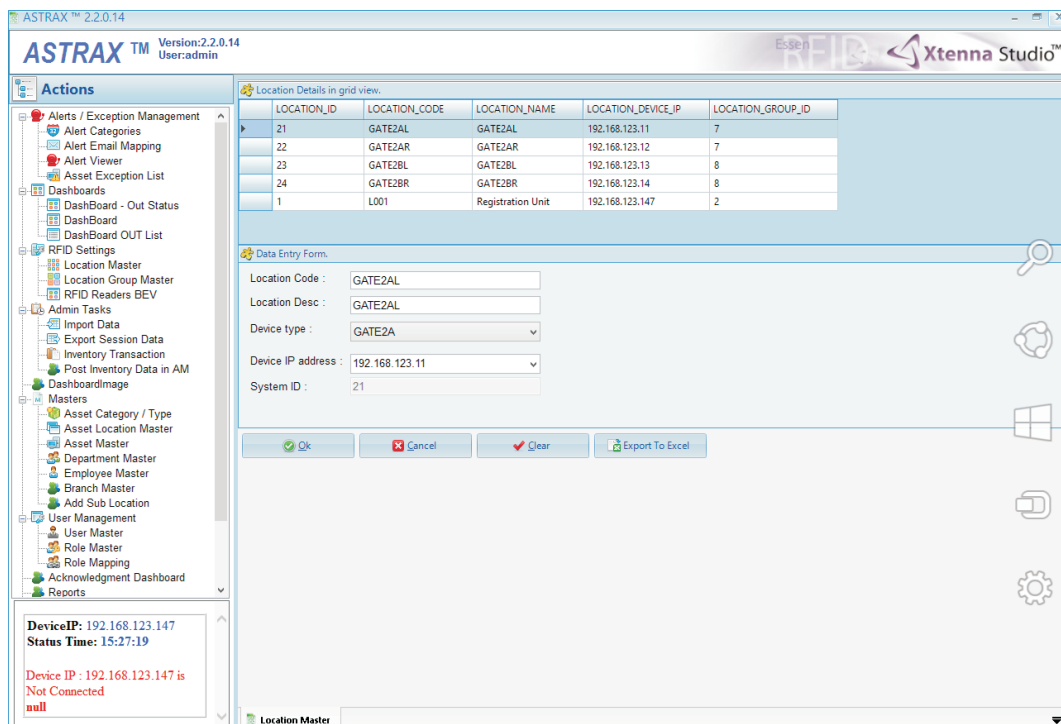
LOCATION_GROUP_ID	LOCATION_GROUP_CODE	LOCATION_GROUP_DESC	LOCATION_PARENT	LOCATION_GROUP_FLAG	LOCATION_GROUP_FL
2	G002	REGISTRATION		-1	10
3	GATE1	GATE1		22	1
4	GATE1A	GATE1A	GATE1	11	1
5	GATE1B	GATE1B	GATE1	22	1
6	GATE2	GATE2			1
7	GATE2A	GATE2A	GATE2	11	1

Data Entry Form.

Location Group Code : GATE1A
Location Group Desc : GATE1A
Is Parent : ☐
Parent Location : GATE1
Antenna ID : 11
Filter Time : 1 (in seconds)
System ID : 4

Ok Cancel Clear Export To Excel

Location Master: Here the IP address of each Porta™ device with its location code and description is entered.



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Location Details in grid view.

LOCATION_ID	LOCATION_CODE	LOCATION_NAME	LOCATION_DEVICE_IP	LOCATION_GROUP_ID
21	GATE2AL	GATE2AL	192.168.123.11	7
22	GATE2AR	GATE2AR	192.168.123.12	7
23	GATE2BL	GATE2BL	192.168.123.13	8
24	GATE2BR	GATE2BR	192.168.123.14	8
1	L001	Registration Unit	192.168.123.147	2

Data Entry Form.

Location Code : GATE2AL
Location Desc : GATE2AL
Device type : GATE2A
Device IP address : 192.168.123.11
System ID : 21

Ok Cancel Clear Export To Excel

**DeviceIP: 192.168.123.147
Status Time: 15:27:19**

Device IP : 192.168.123.147 is Not Connected
null

Location Master



CASE STUDY

RFID Readers BEV: RFID Readers Bird's Eye View displays an overview of all readers and their locations, providing instant information regarding a particular reader's location and purpose.

ASTRAX™ 2.2.0.14 Version:2.2.0.14 User:admin

Summary

Birds Eye View of RFID Readers Placement

MAIN LOCATION	SUB LOCATION	READER NAME	READER IP	READER POSITION	DUPPLICATE ELIMINATION FILTER IN SECS
GATE2	GATE2A	GATE2AL	192.168.123.11	INSIDE	1
GATE2	GATE2A	GATE2AR	192.168.123.12	INSIDE	1
GATE2	GATE2B	GATE2BL	192.168.123.13	OUTSIDE	1
GATE2	GATE2B	GATE2BR	192.168.123.14	OUTSIDE	1
GATE1	GATE1A	GATE1AL	192.168.123.91	INSIDE	1
GATE1	GATE1A	GATE1AR	192.168.123.92	INSIDE	1
GATE1	GATE1B	GATE1BR	192.168.123.93	OUTSIDE	1
GATE1	GATE1B	GATE1BL	192.168.123.94	OUTSIDE	1
G001	HANDYSCANNA	HANDYSCANNA1	911126050018721	INSIDE	10

Masters:

These are as follows:

Asset Category/Type: The various asset categories are created here and entered in the database, e.g. laptops, and whether the asset type is moveable or immovable.

ASTRAX™ 2.2.0.14 Version:2.2.0.14 User:admin

Device Details in grid view.

DEVICEID	DEVICETYPE	DEVICEMOVABLE	DEVIDESC	CREATED_BY	CREATED_ON	MODIFIED_BY	MODIFIED_ON
1	Laptop - IBM	YES	Laptop - IBM	admin	05-09-2012 12:53 PM	admin	18-09-2012 3:...
2	Mobile - Samsung	YES	Mobile - Samsung	admin	06-09-2012 12:37 PM	admin	18-09-2012 3:...
3	iPad - WiFi	YES	iPad - WiFi	admin	18-09-2012 3:03 PM	admin	18-09-2012 3:...
4	iPad - WiFi + 3G	YES	iPad - WiFi + 3G	admin	18-09-2012 3:03 PM	admin	07-12-2013 5:...
5	Samsung Net Book 10" A35	YES	Samsung Net Book 10" A35	admin	18-09-2012 3:04 PM	b	07-12-2013 5:...
6	Laptop - HP	YES	Laptop - HP	admin	18-09-2012 3:04 PM	admin	18-09-2012 3:...

Data Entry Form.

Device Type: Mobile - Samsung

Device Description: Mobile - Samsung

Device Moveable: YES

System ID: 2

Buttons: Ok, Cancel, Clear, Export To Excel

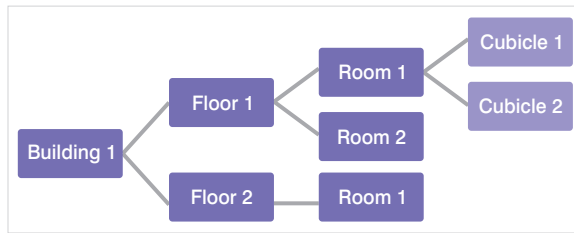
Device Master

DeviceIP: 192.168.123.147
Status Time: 15:29:38
Device IP : 192.168.123.147 is
Not Connected
null



CASE STUDY

Asset Location Master: Here the user creates a hierarchical logical representation for asset locations. He then affixes METALLICA™ tags at each of those locations and assigns them to their respective locations in the database.



ASTRAX™ 2.2.0.14 Version:2.2.0.14 User:admin

Actions

- Dashboards
 - DashBoard - Out Status
 - DashBoard
 - DashBoard OUT List
- RFID Settings
 - Location Master
 - Location Group Master
 - RFID Readers BEV
- Admin Tasks
 - Import Data
 - Export Session Data
 - Inventory Transaction
 - Post Inventory Data in AM
- DashBoardImage
- Masters
 - Asset Category / Type
 - Asset Location Master
 - Asset Master
 - Department Master
 - Employee Master
 - Branch Master
 - Add Sub Location
- User Management
 - User Master
 - Role Master
 - Role Mapping
- Acknowledgment Dashboard
- Reports
 - Search Asset List
 - Trace Asset Locations
 - Oracle Import
 - Clean Data

Asset Location Details in grid view.

ASSET_LOCATION_ID	ASSET_LOCATION_NAME	ASSET_LOCATION_IS_TAG	ASSET_LOCATION_TAG_ID	ASSET_LOCATION_CODE	ASSET_LOC
1	INDIA.J	0		J	/India/INDI
2	INDIA.J-005	1	0B03001C4C4F430000000000	J-005	/India/INDI
3	INDIA.J-005A	1	0B054142343541000000000000	J-005A	/India/INDI
4	INDIA.J-005B	1	0B0443313233000021200000	J-005B	/India/INDI
5	INDIA.J-030	1	0B0300464C4F43000000000000	J-030	/India/INDI
6	INDIA.J-030A	1	0B0300314C4F43000000000000	J-030A	/India/INDI

Data Entry Form.

Asset Location Name: INDIA.J-005
Asset Location Code: J-005
Asset Location Full Name: /India/INDIA.J/INDIA.J-005/
IS ASSET LOCATION HAVE TAG: ☒
Sub Location of: /India/INDIA.J/
Asset Location Type: OTHER
Device IP: 192.168.123.147
Tag ID: 0B03001C4C4F43000000000000
System ID: 2

Asset Master: A μ METALLICA™ tag is affixed to each asset and registered to that particular asset in the database.

ASTRAX™ 2.2.0.14 Version:2.2.0.14 User:admin

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Asset Details in grid view.

ASSETID	ASSETCODE	ASSETDESCRIPTION	ASSETGROUP	ASSET_LOCATION_NAME	DEVICETYPE	TAGID	STATUS	CREATED_BY
43414	N10FGB5JR	N10FGB5JR		B028				sjayaker
43411	N10FGH4NJ	N10FGH4NJ		B028				sjayaker
43410	N10FGH4444	N10FGH4444		B079				sjayaker
43407	N10FGH532	N10FGH532		B065				sjayaker
43406	N10FT8PJ5	N10FT8PJ5		B019				sjayaker
43405	N10FT8PM2	N10FT8PM2		B030				sjayaker

Data Entry Form.

Asset Code: N10FGB5JR
Asset Description: N10FGB5JR
Device IP: 192.168.123.147
Tag ID:
 ☐ Skip Checking (Not recommended)
Asset Current Location: B028
Asset Type: Mobile - Samsung
Remark: (HINT: User can used it to flag the record.)
Misc: Extra Field:
System ID: 43414 AM Asset Id: A1418197 (INFO: Used for Integration of AM & RFID)

DeviceIP: 192.168.123.147
Status Time: 15:33:21
Device IP : 192.168.123.147
Not Connected
null

Asset Master



CASE STUDY

Department Master: This adds company department details into the database.

ASTRAX™ 2.2.0.14
Version: 2.2.0.14
User: admin

ASTRAX™ Xtenna Studio™

Actions

- Dashboards
 - DashBoard - Out Status
 - DashBoard
 - DashBoard OUT List
- RFID Settings
 - Location Master
 - Location Group Master
 - RFID Readers BEV
- Admin Tasks
 - Import Data
 - Export Session Data
 - Inventory Transaction
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 - Add Sub Location
- User Management
 - User Master
 - Role Master
 - Role Mapping
- Acknowledgment Dashboard
- Reports
- Search Asset List
- Trace Asset Locations
- Oracle Import
- Clean Data

DeviceIP: 192.168.123.147
Status Time: 15:35:6
Device IP : 192.168.123.147 is Not Connected
null

Device Details in grid view.

DEPTID	DEPTNAME	DEPTCODE	REMARK	CREATED_BY	CREATED_ON	MODIFIED_BY
7	Target - Stability - 5323	5323	Target - Stability	admin	30-03-2013 4:22 PM	
8	Target - PL Commercialization - 5422	5422	Target - PL Commercialization	admin	30-03-2013 4:22 PM	
9	QIPL Modem SW - UIM Smart Card - 6368	6368	QIPL Modem SW - UIM Smart Card	admin	30-03-2013 4:22 PM	b
10	QIPL Target - PL Commercializa - 6403	6403	QIPL Target - PL Commercializa	admin	30-03-2013 4:22 PM	
11	QIPL MODEM SW - MULTIMODE - 6389	6389	QIPL MODEM SW - MULTIMODE	admin	30-03-2013 4:22 PM	
12	QIPL Modem System Test - 6367	6367	QIPL Modem System Test	admin	30-03-2013 4:22 PM	

Data Entry Form.

Department Name: Target - MPSS Power SW - 5321
Department Code: 5321
Remark: Target - MPSS Power SW
System ID: 6

Ok Cancel Clear Export To Excel

Person Department Master

Application Log

Log

3: Please put proper tag on device
2: Please Wait... - (Loading/Filtering... Asset)
1: Please Wait... - (Loading Asset)

Employee Master: This adds employee details into the database along with their department, manager and location information.

ASTRAX™ 2.0.1.3
Version: 2.0.1.3
User: admin

ASTRAX™ Xtenna Studio™

Actions

- Alerts / Exception Management
 - Alert Categories
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 - User Master
 - Role Master
 - Role Mapping
- Acknowledgment Dashboard
- Reports
- Search Asset List

DeviceIP: 192.168.123.147
Status Time: 13:12:6
Tags read: 1
01124c313644505f33323609

Employee Details in grid view.

EMP_ID	EMP_NAME	EMP_CODE	EMP_EMAIL	EMP_MOBILENO	DEPTNAME	MANAGER_NAME
1	Kranthi Teja A	29993	kteja		QIPL HYD ADMIN - 6365	Ravindra Adapa
2	Malikarjuna A	40990	c_malika	91-86-8806-1648	QCA Hyd Apps Eng QIPL - 7461	Raheem Baig
3	Ramanjaneya Reddy A	37559	rra	91-95-0263-7773	QIPL IPS HW - 6882	Anil Allada
4	P. Sukumar A	23147	sukumara		QIPL MODEM SW - AIR INTERFACES - 6387	Gopal (QIPL LTD) I
5	Suresh Kumar Aakula	41798	c_suresh	91-985123378	QMC CoreSP APT HYD - 6413	Manish Gang
6	Lokesh Kumar Aakula	30500	lumar	91810674653	QuC Linux SW HYD - 6419	Denesware Tataku

Data Entry Form.

Employee Name: Kranthi Teja A
Employee Code: 29993
Email Id: kteja
Mobile No:
System ID: 1

Department: QIPL HYD ADMIN - 6365
Manager Name: Ravindra Adapa
Location Name: INDIA L-910A5
Remark: redapa

Ok Cancel Clear Export To Excel

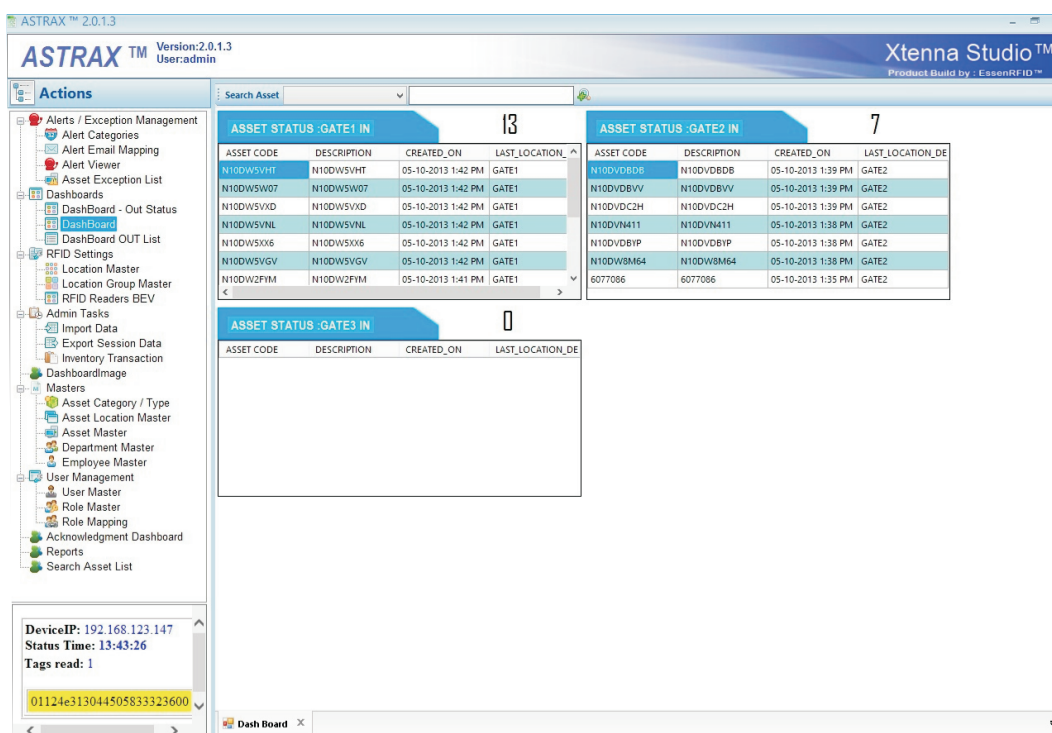


CASE STUDY

Dashboards:

These display the last location details of assets with a location-wise count.

Dashboard IN: This displays the location-wise status of assets inside the company premises.



ASTRAX™ 2.0.1.3 Version:2.0.1.3 User:admin Xtenna Studio™ Product Build by : EssenRFID™

ASSET STATUS :GATE1 IN 13

ASSET CODE	DESCRIPTION	CREATED_ON	LAST_LOCATION_DE
N10DWSVHT	N10DWSVHT	05-10-2013 1:42 PM	GATE1
N10DWSW07	N10DWSW07	05-10-2013 1:42 PM	GATE1
N10DWSVXD	N10DWSVXD	05-10-2013 1:42 PM	GATE1
N10DWSVNL	N10DWSVNL	05-10-2013 1:42 PM	GATE1
N10DWSXK6	N10DWSXK6	05-10-2013 1:42 PM	GATE1
N10DWSVGV	N10DWSVGV	05-10-2013 1:42 PM	GATE1
N10DW2FIM	N10DW2FIM	05-10-2013 1:41 PM	GATE1

ASSET STATUS :GATE2 IN 7

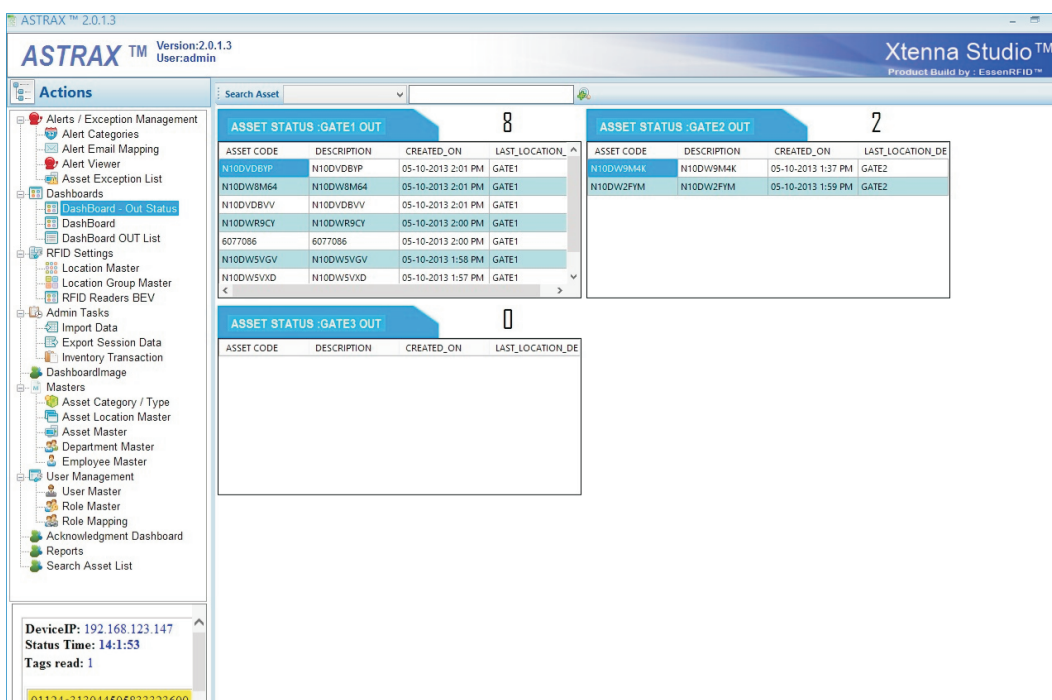
ASSET CODE	DESCRIPTION	CREATED_ON	LAST_LOCATION_DE
N10DVBDB6	N10DVBDB6	05-10-2013 1:39 PM	GATE2
N10DVBVV	N10DVBVV	05-10-2013 1:39 PM	GATE2
N10DVC2H	N10DVC2H	05-10-2013 1:39 PM	GATE2
N10DVN411	N10DVN411	05-10-2013 1:38 PM	GATE2
N10DVBIP	N10DVBIP	05-10-2013 1:38 PM	GATE2
N10DW8M64	N10DW8M64	05-10-2013 1:38 PM	GATE2
6077086	6077086	05-10-2013 1:35 PM	GATE2

ASSET STATUS :GATE3 IN 0

ASSET CODE	DESCRIPTION	CREATED_ON	LAST_LOCATION_DE
------------	-------------	------------	------------------

DeviceIP: 192.168.123.147
Status Time: 13:43:26
Tags read: 1
01124e313044505833323600

Dashboard OUT Status: This shows assets that are moved out of their assigned location. This allows the user to determine the last location of the asset.



ASTRAX™ 2.0.1.3 Version:2.0.1.3 User:admin Xtenna Studio™ Product Build by : EssenRFID™

ASSET STATUS :GATE1 OUT 8

ASSET CODE	DESCRIPTION	CREATED_ON	LAST_LOCATION_DE
N10DVBIP	N10DVBIP	05-10-2013 2:01 PM	GATE1
N10DW8M64	N10DW8M64	05-10-2013 2:01 PM	GATE1
N10DVBVV	N10DVBVV	05-10-2013 2:01 PM	GATE1
N10DWR9CY	N10DWR9CY	05-10-2013 2:00 PM	GATE1
6077086	6077086	05-10-2013 2:00 PM	GATE1
N10DWSVGV	N10DWSVGV	05-10-2013 1:58 PM	GATE1
N10DWSVXD	N10DWSVXD	05-10-2013 1:57 PM	GATE1

ASSET STATUS :GATE2 OUT 2

ASSET CODE	DESCRIPTION	CREATED_ON	LAST_LOCATION_DE
N10DW9M4K	N10DW9M4K	05-10-2013 1:37 PM	GATE2
N10DW2FIM	N10DW2FIM	05-10-2013 1:59 PM	GATE2

ASSET STATUS :GATE3 OUT 0

ASSET CODE	DESCRIPTION	CREATED_ON	LAST_LOCATION_DE
------------	-------------	------------	------------------

DeviceIP: 192.168.123.147
Status Time: 14:1:53
Tags read: 1
01124e313044505833323600



CASE STUDY

Dashboard OUT List: This displays a list of all assets which are outside their assigned locations with a location-wise count.

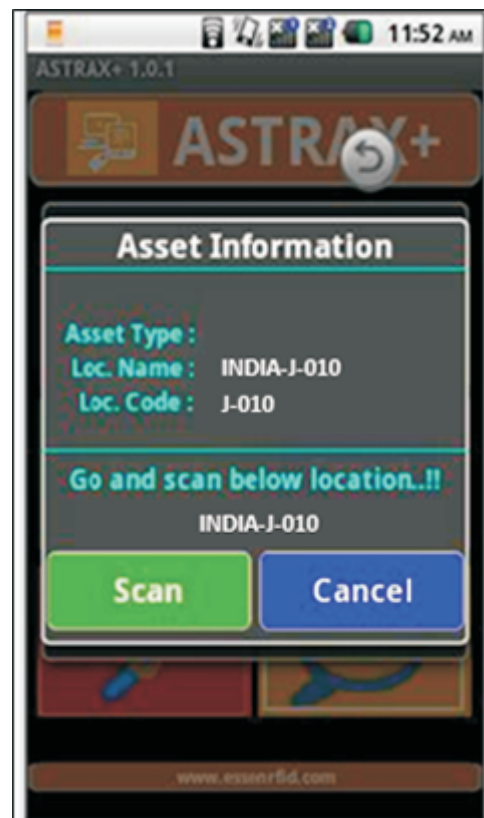
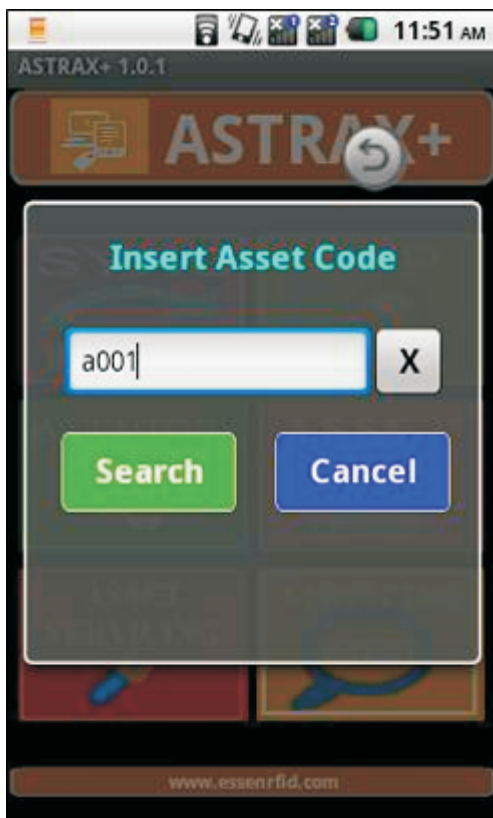
HandyScanna™ Application:

The HandyScanna™ is a hand-held wireless device with a built-in Asset Tracking application. It communicates with the SQL Server database through a Wi-Fi network. The HandyScanna™ performs the following tasks:

- Synchronization
- Find Assets
- Inventory (Stock Checking)

Synchronization: Before using HandyScanna™, the Wi-Fi network is switched on and the master data is downloaded into the HandyScanna™ device using the synchronization application. After downloading the data, the user can find assets or take the Inventory.

Find Assets: When an asset is to be located, its code is entered into the Search box. This will display the last location details. After this, the operator scans the location with the HandyScanna™ and if the asset is located, an Asset Found message is displayed on the device screen.





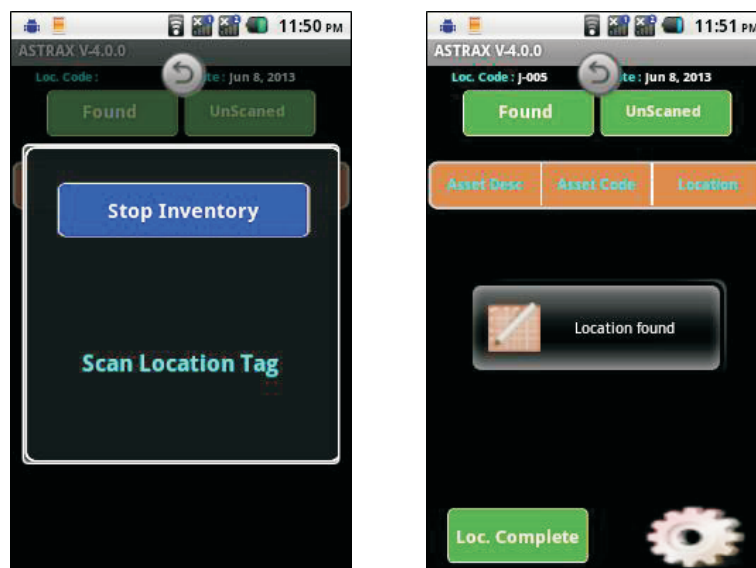
CASE STUDY

Inventory Checking:

1. Each location is scanned for assets through the Inventory option.
2. The company takes inventory on a weekly basis. To start taking inventory, the application first creates a new inventory session.



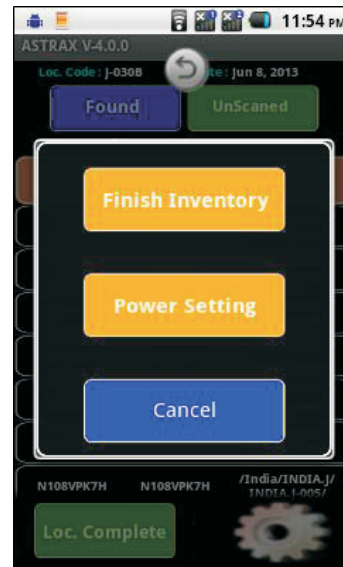
3. Firstly the METALLICA™ location tag is scanned and its details are displayed on the device screen.



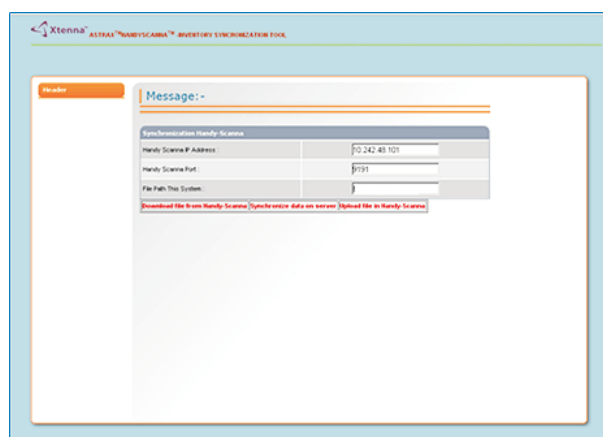


CASE STUDY

4. After the location is scanned, the asset tags at that particular location are then scanned.



5. When scanning at that location is completed, the inventory checking is moved to the next location. Similarly, the next location tag is scanned and then the asset tags at that location are scanned. When scanning of all locations is done, the inventory taking is completed.
6. When the operator wishes to complete a previous inventory session, he selects the Incomplete Inventory option instead of creating a new inventory session. He selects a previous inventory session from the session list and scans the locations and assets.
7. When inventory taking is completed, the transaction data is synchronized back into the server using the Synchronize application option. If the HandyScanna™ device is not in Wi-Fi range, it is brought back into signal range and the data is then synchronized.





CASE STUDY

Desktop Transaction Modules:

These consist of:

- Admin Tasks
- Alert/Exception Management
- User Management

Admin Tasks:

Export Session Data: The operator checks inventory using the HandyScanna™ device and then synchronizes the updated inventory data with the server. After synchronization, he can export the session data into csv file format using this functionality.

ASTRAX™ 2.2.0.14
Version:2.2.0.14
User:admin

Exporting RFID Inventory File in HP Asset Manager Format

Select Inventory Session: 20140214183128anoopa (Session Code)

From Date: 2014-05-06 To Date: 2014-05-06

TSV_EXPORT_HP_AM_FORMAT	ASSETCODE	CREATED_BY	CREATED_ON	ASSET_LOCATION_DESC	INVENTORY_S
N108W44Tanoopa02/14/2014 06:32:11 PMIndiaINDIAJINDIAJ-1000	N108W44VT	anoopa	14-02-2014 6:32 PM	/India/INDIAJ/INDIAJ-1000/	1
6054815anoopa02/14/2014 06:32:11 PMIndiaINDIAJINDIAJ-1000	6054815	anoopa	14-02-2014 6:32 PM	/India/INDIAJ/INDIAJ-1000/	1
N1097X015anoopa02/14/2014 06:32:11 PMIndiaINDIAJINDIAJ-1000	N1097X015	anoopa	14-02-2014 6:32 PM	/India/INDIAJ/INDIAJ-1000/	1
6078645anoopa02/14/2014 06:32:11 PMIndiaINDIAJINDIAJ-1000	6078645	anoopa	14-02-2014 6:32 PM	/India/INDIAJ/INDIAJ-1000/	1
N108VCYCManoopa02/14/2014 06:32:11 PMIndiaINDIAJINDIAJ-1000	N108VCYCM	anoopa	14-02-2014 6:32 PM	/India/INDIAJ/INDIAJ-1000/	1
N108XXXXTanoopa02/14/2014 06:32:11 PMIndiaINDIAJINDIAJ-1000	N108XXXXT	anoopa	14-02-2014 6:32 PM	/India/INDIAJ/INDIAJ-1000/	1
N108WCSJPanoopa02/14/2014 06:32:11 PMIndiaINDIAJINDIAJ-1000	N108WCSJP	anoopa	14-02-2014 6:32 PM	/India/INDIAJ/INDIAJ-1000/	1
N109B12F3anoopa02/14/2014 06:32:11 PMIndiaINDIAJINDIAJ-1000	N109B12F3	anoopa	14-02-2014 6:32 PM	/India/INDIAJ/INDIAJ-1000/	1
N108VPW1Wanoopa02/14/2014 06:32:11 PMIndiaINDIAJINDIAJ-1000	N108VPW1W	anoopa	14-02-2014 6:32 PM	/India/INDIAJ/INDIAJ-1000/	1
N109BCCR8anoopa02/14/2014 06:32:11 PMIndiaINDIAJINDIAJ-1000	N109BCCR8	anoopa	14-02-2014 6:32 PM	/India/INDIAJ/INDIAJ-1000/	1
N108VDYKDanoopa02/14/2014 06:32:11 PMIndiaINDIAJINDIAJ-1000	N108VDYKD	anoopa	14-02-2014 6:32 PM	/India/INDIAJ/INDIAJ-1000/	1

Export Data Cancel

Note:
To Export data in HP Asset Manager format click Export Data.
1. Select the file path
2. Enter the file Name
3. Save the File.

Record count: 41

Export Data

Application Log

Log
Please Wait... - [Loading Employee Master]

Inventory Transaction: Here the user can view session-wise scanned inventory details, along with locations and assets found/not found.



CASE STUDY

ASTRAX™ 2.2.0.14
Version:2.2.0.14
User:admin

Essen RFID Xtenna Studio™

Actions

- Alerts / Exception Management
 - Alert Categories
 - Alert Email Mapping
 - Alert Viewer
 - Asset Exception List
- Dashboards
 - DashBoard - Out Status
 - DashBoard
 - DashBoard OUT List
- RFID Settings
 - Location Master
 - Location Group Master
 - RFID Readers BEV
- Admin Tasks
 - Import Data
 - Export Session Data
 - Inventory Transaction
 - Post Inventory Data in AM
- DashboardImage
- Masters
 - Asset Category / Type
 - Asset Location Master
 - Asset Master
 - Department Master
 - Employee Master
 - Branch Master
 - Add Sub Location
- User Management
 - User Master
 - Role Master
 - Role Mapping
- Acknowledgment Dashboard
- Reports

DeviceIP: 192.168.123.147
Status Time: 15:48:1

Device IP : 192.168.123.147 is
Not Connected
null

Select Session Code

Session Code: 20140214183128anoopa Multiple

Select Session Header row and click on Complete Inventory button

INVENTORY_SESSION_ID	INVENTORY_SESSION_CODE	INVENTORY_TAKEN_BY	INVENTORY_STARTED_AT	INVENTORY_COMPLETED_AT	INVENTORY_SESSION_STATUS
1	20140214183128anoopa	anoopa	14-02-2014 6:31 PM		3

Scanned Location Details

ASSET_LOCATION_NAME	INVENTORY_TRN_ID	INVENTORY_LOCATION_ID
INDIAJ-100D	1	13
INDIAJ-030C	2	8
INDIAJ-005A	3	3
INDIAJ-005	4	2
B002	5	375
B001	6	374
INDIAJ-030	7	5
INDIAJ-005B	8	4
INDIAJ-030A	9	6

Summary of selected Inventory session

Total Location Scanned: 10

Total Asset Scanned: 41

Total asset not found: 1

Total Asset: 42

Complete Inventory Cancel

Inventory Transaction

Application Log

Log

Please Wait... - (Loading Employee Master)

Post Inventory Data in AM: Through this functionality, the user posts the Astrax™ inventory session data to the company's pre-existing Oracle-based Asset Management.

ASTRAX™ 2.2.0.14
Version:2.2.0.14
User:admin

Essen RFID Xtenna Studio™

Actions

- Alerts / Exception Management
 - Alert Categories
 - Alert Email Mapping
 - Alert Viewer
 - Asset Exception List
- Dashboards
 - DashBoard - Out Status
 - DashBoard
 - DashBoard OUT List
- RFID Settings
 - Location Master
 - Location Group Master
 - RFID Readers BEV
- Admin Tasks
 - Import Data
 - Export Session Data
 - Inventory Transaction
 - Post Inventory Data in AM
- DashboardImage
- Masters
 - Asset Category / Type
 - Asset Location Master
 - Asset Master
 - Department Master
 - Employee Master
 - Branch Master
 - Add Sub Location
- User Management
 - User Master
 - Role Master
 - Role Mapping
- Acknowledgment Dashboard
- Reports

DeviceIP: 192.168.123.147
Status Time: 15:48:50

Device IP : 192.168.123.147 is
Not Connected
null

Open Inventory Sessions - (Pending for Posting in AM)

Confirmation	INVENTORY_S...	INVENTORY_S...	INVENTORY_TA...	INVENTORY_S...	INVENTORY_C...	INVENTORY_S...	CREATED_BY	CREATED_ON	MODIFIED
<input checked="" type="checkbox"/>	5	2014021815211...	sjayaker	18-02-2014 3:2...	1			05-04-2014 1:0...	
<input checked="" type="checkbox"/>	4	2014040512442...	sjayaker	05-04-2014 12:...	1	sjayaker		05-04-2014 1:0...	
<input type="checkbox"/>	3	2014021420195...	anoopa	14-02-2014 8:2...	1			14-02-2014 8:2...	
<input checked="" type="checkbox"/>	2	2014021420130...	anoopa	14-02-2014 8:1...	2	anoopa		14-02-2014 8:2...	anoopa
<input type="checkbox"/>	1	2014021418312...	anoopa	14-02-2014 6:3...	3	anoopa		14-02-2014 6:4...	anoopa

Post Inventory Cancel Refresh

Select All Select None Select Inverse

Post Inventory Data in AM



CASE STUDY

Alert/Exception Management:

Alert Email Mapping: When an alert is generated, a notification email is sent to the concerned authorized person. Through this screen, the person to whom the alert has to be sent is mapped in the database for that particular alert, along with his email id and mobile number.

ASTRAX™ 2.2.0.14 Version:2.2.0.14 User:admin

Alert Email Mapping in grid view.

ALERT_EMAIL_MAP_ID	EMAIL_ID	EMAIL_DOMAIN_ADDRESS	ALERT_CAT_CODE	ALERT_MAP_DESC	EMAIL_ADDRESS	CREATED_BY	CREATED_ON
8	--Select--	@gmail.com	A002	147	--Select--@gmail.com	admin	13-03-2013 2
9	jaiengineer	@gmail.com	A001	fdgdf	jaiengineer@gmail.com	admin	13-03-2013 2
10	darshanb.vyas	@gmail.com	A001	fgfhgh	darshanb.vyas@gmail.com	admin	13-03-2013 2
11	shashim97	@gmail.com	A003	147	shashim97@gmail.com	admin	15-03-2013 2
12	kkiran	@gmail.com	A003	985643366566	kkiran@gmail.com	admin	15-03-2013 2
13	abhi	@gmail.com	A004	456	abhi@gmail.com	admin	30-03-2013 2

Data Entry Form.

Email ID:

Email Domain Address:

Alert Category:

Mobile No:

Email Address:

System ID:

Device IP: 192.168.123.147
Status Time: 15:53:35
Device IP: 192.168.123.147 is

Alert Viewer: Here the user can view all alerts generated by the system and select those that need his acknowledgment.

ASTRAX™ 2.2.0.14 Version:2.2.0.14 User:admin

Alerts - Unscanned Inventory

Select To Acknowledge	ALERT_MSG_ID	EXP_ASSET_ID	ALERT_TYPE	ALERT_DESC	ALERT_MSG	ASSETCODE	ASSETDESCRIPTION	CREATED_ON	ALERT_IS_S
<input checked="" type="checkbox"/>	14	4	MISSING ASSETS LIST	Assets which are ...	MISSING ASSETS LIST	Q00197	SD197	31-10-2013 1:05 ...	N
<input checked="" type="checkbox"/>	15	2	MISSING ASSETS LIST	Assets which are ...	MISSING ASSETS LIST	Q00042	SD042	31-10-2013 1:06 ...	N
<input type="checkbox"/>	16	1	MISSING ASSETS LIST	Assets which are ...	MISSING ASSETS LIST	P74767	BC2710	31-10-2013 1:06 ...	N
<input type="checkbox"/>	17	3	MISSING ASSETS LIST	Assets which are ...	MISSING ASSETS LIST	Q00190	SD190	17-01-2014 3:16 ...	N



CASE STUDY

Asset Exception List: When assets are officially out of the company premises for a particular time period, they should not trigger off missing asset alerts. For this purpose an exception list is created with 'from' and 'to' dates. During this period an alert is not generated for that particular asset. Once the exception period is exceeded, a missing asset alert will be sent to the authorized person.

EXP_ID	ASSETCODE	IS_EXCEPTION	EXP_FROM_DATE	EXP_TO_DATE	CREATED_BY	CREATED_ON	MODIFIED_BY	MODIFIED_ON
1	P74767	C	22-03-2013	22-03-2013	admin	22-03-2013	SYSTEM	24-02-2014 4:02 PM
2	Q00042	C	22-03-2013	23-03-2013	admin	13-03-2013 4:58 PM	SYSTEM	24-02-2014 4:02 PM
3	N10800VW2	C	13-03-2013	13-03-2013	admin	13-03-2013 6:54 PM	SYSTEM	24-02-2014 4:01 PM
4	Q00197	C	22-03-2013	23-03-2013	admin	13-03-2013 6:54 PM	SYSTEM	24-02-2014 4:02 PM
5	Q00190	C	15-04-2013	15-04-2013	admin	15-04-2013 4:14 PM	SYSTEM	24-02-2014 4:02 PM
6	Q00219	C	25-05-2013	25-05-2013	2013-05-25	25-05-2013 12:48 PM	SYSTEM	24-02-2014 4:02 PM
7	Q00247	C	25-05-2013 12:45 PM	25-05-2013 12:45 PM	2013-05-25	25-05-2013 12:48 PM	SYSTEM	24-02-2014 4:02 PM

Data Entry Form:

Asset Code: Q00190
Is Exception: ☐
From Date: 15-04-2013
To Date: 15-04-2013
System ID: 5
Add Multiple Asset List: ☐

ASSET LIST (Max. 500 characters including comma and space)

Info:
1. Data can be provided in the Command separated value (E.g. P1234567.P7654321)
2. Data can be provided in the 1 PTAG code in one E.g. P1234567.P7654321

Q00190,
Q00219,
Q00247,

3/3

Buttons: Ok, Cancel, Clear, Export To Excel

Acknowledgment Dashboard: This shows the list of alerts that have been acknowledged. The user takes personal responsibility for physically locating missing assets and then updates the status as either 'Resolved' or 'Pending'.

Select To Acknowledge	ACK_ID	ACK_ASSET_ID	ACK_ALERT_CAT_ID	ACK_RESOLVED_CC	ACK_PENDING_CC	ACK_LOGTIME	ACK_STATUS	CREATED_BY	CREATED_ON	MODIFIED
<input checked="" type="checkbox"/>	1	4	1			06-05-2014 4:08 ...		admin	06-05-2014 4:08 ...	

Data Entry Form:

Acknowledgement Status: RESOLVED
Acknowledgement Resolved / Pending Comment: Found

Pending Count: 0
Resolved Count: 0
Total Acknowledgment: 1

Buttons: Ok, Cancel, Export To Excel



CASE STUDY

User Management:

Search Asset List: Through this the user can create a search list for tracking particular assets. This list can then be downloaded by HandyScanna™ and searched. After scanning is complete, the HandyScanna™ is synchronized with the server, displaying as 'found' and 'not found'. The data can then be exported in csv file format.

The screenshot shows the ASTRAX 2.2.0.14 software interface. The left sidebar contains a tree view with categories like Actions, RFID Settings, Admin Tasks, Masters, and Reports. The main area is titled 'ASSET LIST (Max. 250)' and includes instructions on how to provide data in the command separated value (E.g. P1234567.P7654321). Below this, there are two columns of asset codes: Q00042, Q00190, Q00197, Q00219, Q00247, Q00248, Q00249, Q00252. To the right, there are checkboxes for 'Select All', 'Select Inverse', and 'Clear'. Below the asset codes, there are buttons for 'Found List', 'Unfound List', 'Clear List', and 'Export To Excel'. At the bottom, there is a table with columns: SRCH_ID, SRCH_ASSET_TAGI, SRCH_DEVICE_IP, SRCH_STATUS, SRCH_LOG_TIME, SRCH_ASSET_LOC, SESSION_ID, INVENTORY_TAKE, CREATED_BY, CREATED_ON, and MODIFIED.

Trace Asset Locations: This displays the movement of assets with location and date/time.

The screenshot shows the ASTRAX 2.2.0.14 software interface. The left sidebar is the same as the previous screenshot. The main area is titled 'Search Asset by Asset Code' and includes a search bar with the value 'Q00042'. Below the search bar, there are buttons for 'Filter', 'Remove Filter', and 'Export To Excel'. The main area displays two tables: 'Asset Last Location details' and 'Asset Tracing details'. The 'Asset Last Location details' table has columns: ASSETID, ASSETCODE, ASSETDESCRIPTION, TAGID, STATUS, ASSET_LOCATION_NAME, ASSET_LOCATION_CODE, and ASSET_LOCATION. The 'Asset Tracing details' table has columns: TRN_ASSETID, LOCATION_NAME, TRN_FLAG, and CREATED_ON.



CASE STUDY

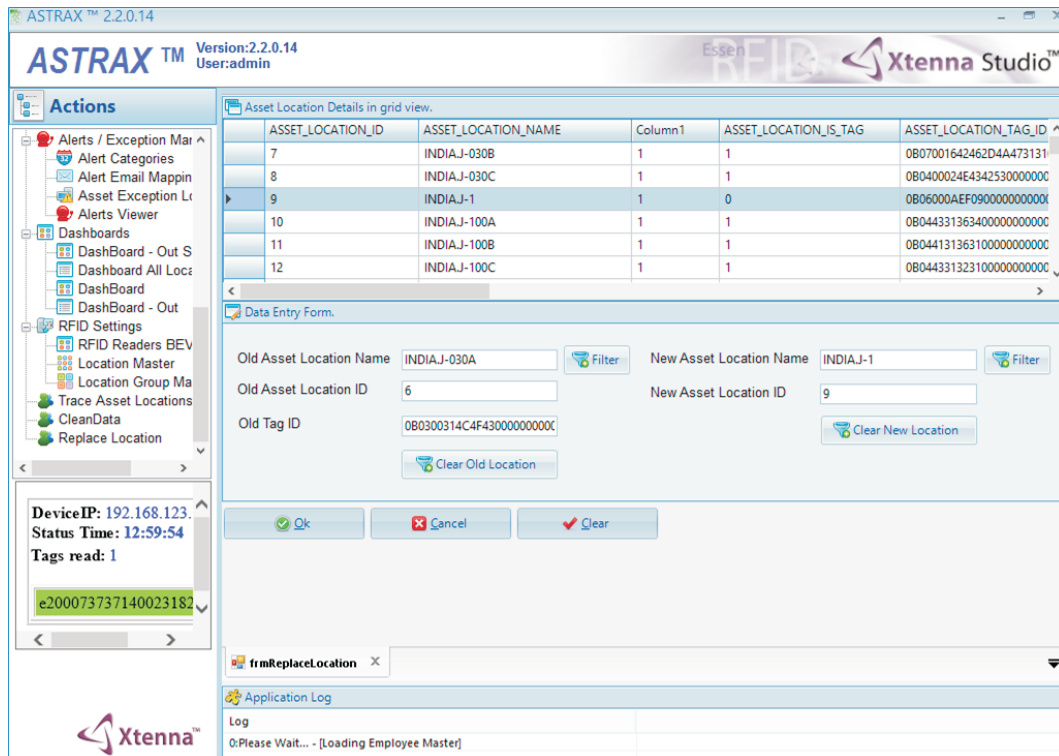
Import Data: Through this the user can bulk insert asset and location data into the system. The data can be prepared in csv file format and then imported as new assets into the Astrax™ application.

Oracle Import: Since the company has pre-existing Oracle-based Asset Management, each asset already has an Oracle asset ID. This screen allows the import of Oracle asset ID into SQL Server for the new assets.



CASE STUDY

Replace Location: This allows the administrator to transfer an existing location tag to a new location.



ASTRAX™ 2.2.0.14
Version:2.2.0.14
User:admin

Actions

- Alerts / Exception Mar
- Alert Categories
- Alert Email Mappin
- Asset Exception L
- Alerts Viewer
- Dashboards
 - Dashboard - Out S
 - Dashboard All Loc
 - Dashboard
 - Dashboard - Out
- RFID Settings
 - RFID Readers BEV
 - Location Master
 - Location Group Ma
 - Trace Asset Locations
 - CleanData
 - Replace Location

DeviceIP: 192.168.123.
Status Time: 12:59:54
Tags read: 1
e200073737140023182

Asset Location Details in grid view.

ASSET_LOCATION_ID	ASSET_LOCATION_NAME	Column1	ASSET_LOCATION_IS_TAG	ASSET_LOCATION_TAG_ID
7	INDIAJ-030B	1	1	0B07001642462D4A473131
8	INDIAJ-030C	1	1	0B0400024E43425300000000
9	INDIAJ-1	1	0	0B06000AEF09000000000000
10	INDIAJ-100A	1	1	0B0443313634000000000000
11	INDIAJ-100B	1	1	0B0441313631000000000000
12	INDIAJ-100C	1	1	0B0443313231000000000000

Data Entry Form.

Old Asset Location Name: INDIAJ-030A New Asset Location Name: INDIAJ-1

Old Asset Location ID: 6 New Asset Location ID: 9

Old Tag ID: 0B0300314C4F430000000000

frmReplaceLocation

Application Log

Log

0:Please Wait... - [Loading Employee Master]

BENEFITS:

- Efficient organization of assets at their proper location.
- Organization of accessories as sub-assets of a particular asset in a parent-child relationship.
- Quick match of accessories to their parent assets.
- Assigning asset location in database results in easy search for a particular asset within that location.
- Enables grouping of assets and asset inventory synchronization.
- Efficient data synchronisation between hand-held device and the server through Wi-Fi connectivity.
- Elimination of time wastage occurring due to visual search.
- Optimum usage of assets and streamlined functioning.
- Inventory data post to pre-existing Oracle-based system.
- Missing asset details promptly emailed to authorized management.
- Easy generation of asset reports.
- Greater transparency in entire asset tracking process.



CASE STUDY

LINKS:

Hardware:



Tags:



Software:



Reference Example:

<http://www.essenrfid.com/Mailer/Inventory-flash-demo.pdf>