

SOFTWARE REQUIREMENT SPECIFICATION DOCUMENT

Project

RFID Asset management System

UKB Electronics Noida

Customer: UKB Electronics

Submitted By:



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Document Revision History

REVISION NUMBER	DATE	PREPARED BY	COMMENT
1.00	July. 07, 2022	Akhilesh Kumar	Original Document

Acronym

Customer: UKB Electronics henceforth will be referred as UKB.

Vendor: Sato Argox India Pvt. Ltd. henceforth will be referred as SATO.

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PROJECT SCOPE

The scope of the solution is to equip users with a RFID Asset management System Solution along with Data scheduler Application through which users can dispatch and receive the product for verification based on several logics to avoid duplicity and ok product get dispatch. This would require the development of the HHT Application for scanning of product, Data scheduler Application & PC Application for Managing Master, process and Reports. The document lays down the specifications of the middleware Application, its architecture and infrastructure requirements.

System Requirements

This section provides the necessary details about the hardware components required by the solution.

Desktop Computers OR Server

The desktop Application would require the computer with following specifications: -

- Intel Core 8th Gen Intel i5 or better CPU
- Operating system - Microsoft Windows 7 or 10
- 4 GB RAM
- 500 GB Hard disk Or above
- Dot net Framework 4.5 Preinstalled or above
- SQL 2014 or above Express or Std. Edition
- MS Access (pre- installed)
- IIS Pre Installed

Introduction

The scope of this document is to provide the understanding of this solution to all members of UKB Team & Sato Argox Team associated with the solution development & implementation. This document major emphasize on solution processes & user operations, where the data will be capture and afterwards will be use.

This solution major comprises of followings:

PC Application

- Master Managements
- Process Managements
- Reports

HHT Android Application

- Login
- Connection Settings
- Product Dispatch
- Product Receiving
- Asset Locator

This Document will help the end client to understand the Application and its implementation in various places with the help of screen shots and brief description supporting the images. In addition, these images carries the idea how the Application GUI will look like, the product can have slight visual differences.

PC - Application

Login Screen (Desktop App)

Action available: Login

Brief Description: This screen will use for login purpose. User will enter User ID & Password; system will validate entered user ID & password. Then according to user rights assigned to user, menus of Main Menu screen will be enable.

Function Description in Detail:

Sr No.	Function	Description	Remarks
1.	Login	<p>→User will enter User ID & password</p> <p>→User will click on Login Button</p> <p>→Application will validate user id & Password into database. If ok Application will move to main screen.</p>	

Password Change Screen (Desktop App)

Action available: Change Password

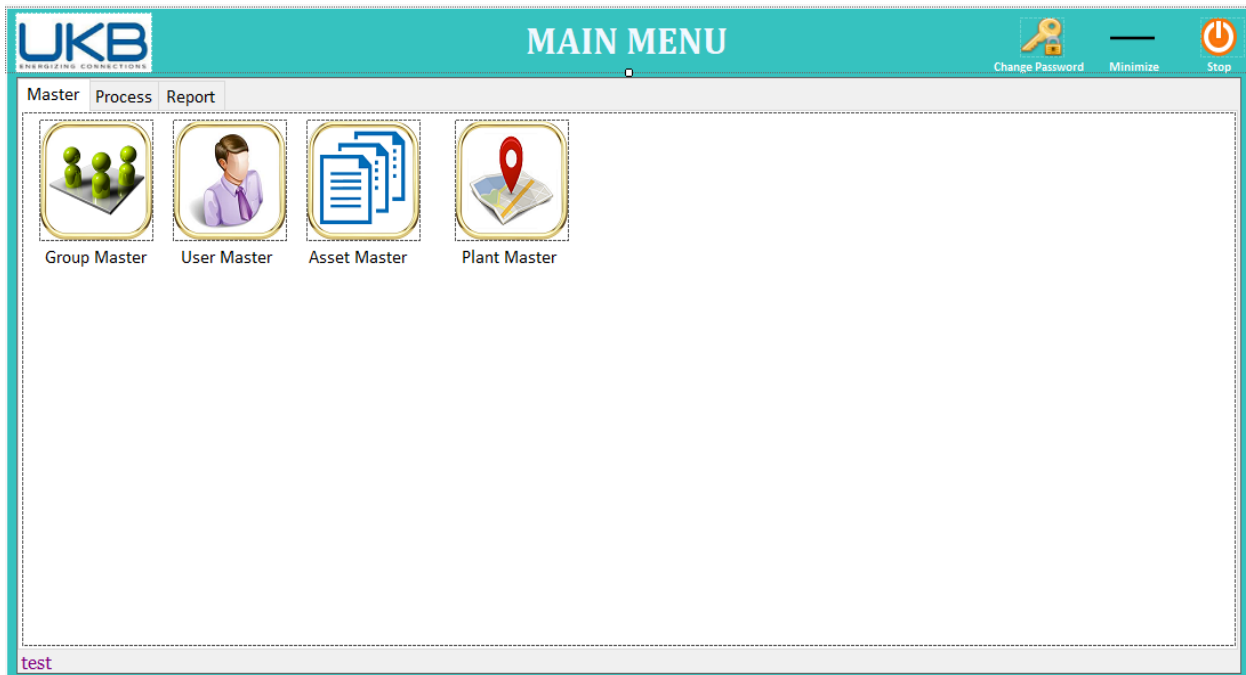
Brief Description: This screen will use for changing the password purpose. User will enter User ID & current password; system will validate entered user ID & password. User will enter the New Password and Confirm the New password, system will validate the password and user can save the new password.

Function Description in Detail:

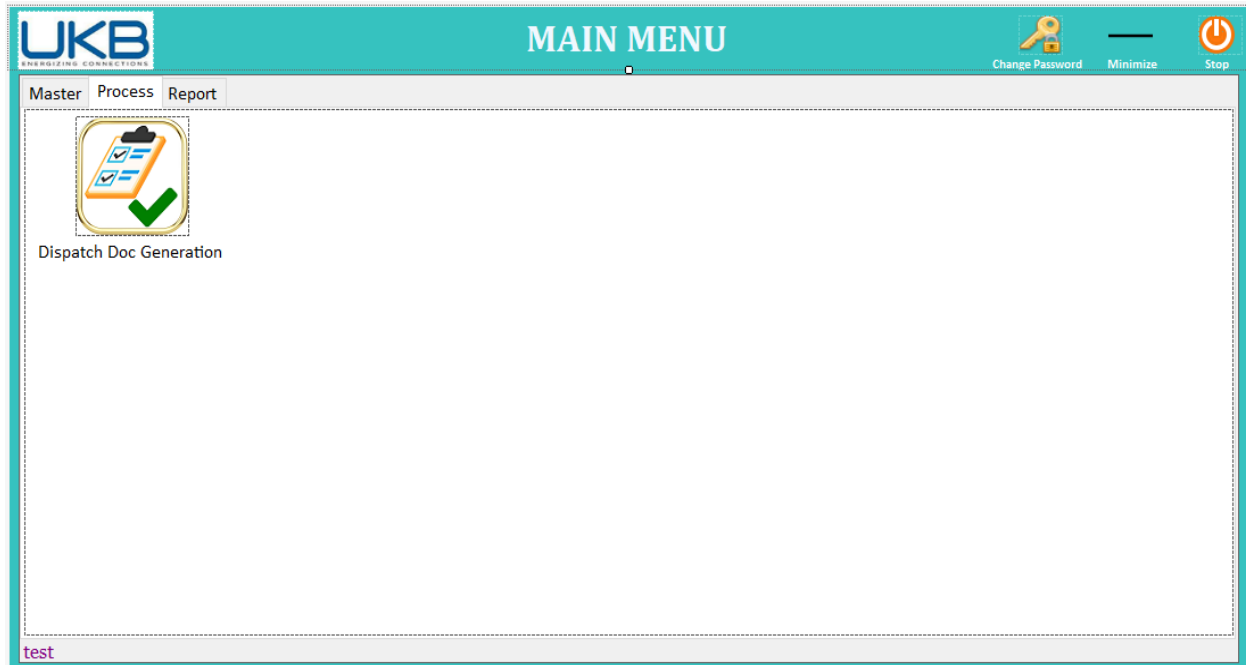
Sr No.	Function	Description	Remarks
1.	Password Change	<p>→User will enter User ID & password; New Password & Confirm Password.</p> <p>→User will click on Save Button</p> <p>→Application will validate user id & Password into database. If ok Application will update the New password.</p>	

PC - Application Menu

Master Menu (Desktop App)



Process Menu (Desktop App)



Report Menu (Desktop App)



User Master (Desktop App)

UKB **USER MASTER** Minimize

Enter New User Details:

Name *: User Id *: Password *:

Group *: Line *:

Rows Count : 0 Search User Id /Name :

UserId	UserName	Group Name	Line	Created By	Created On

Save Delete Reset Close

Action available: Save, Delete, Reset

Brief Description: This screen will use to manage User Master via Save & Cancel Operation for using the Application.

Function Description in Detail:

Sr No.	Function	Description	Remarks
1.	SAVE	<p>→User will enter the user name, user id (for login id), password and select the group.</p> <p>→On Group selection, automatically rights will Apply as per the group selection.</p> <p>→On click of SAVE button, system will check for duplicate records and respected messages of success or failure will be display to user.</p> <p>→All fields gets cleared.</p>	
2.	Delete	→ Click on saved record on view and click on delete button.	
3.	RESET	→Resets the current screen controls.	

Plant Master (Desktop App)

Action available: Save, Delete, Reset

Brief Description: This screen will use to manage the Plant master details like Plant Code and Description.

Function Description in Detail:

Sr No.	Function	Description	Remarks
1.	SAVE	<p>→ User need to enter the Plant Code and description.</p> <p>→ On click of SAVE button, system will save Location master details into the database.</p> <p>→ Application checks for duplicate records while uploading/save against Part No.</p> <p>→ All fields gets cleared.</p>	
2	Delete	→ Double Click on saved record on view and click on delete button.	
3.	RESET	→ Resets the current screen controls.	

Asset Master (Desktop App)

UKB **ASSET MASTER** Minimize

Enter Details:

Asset Code * : Asset Name :

RFID Tag * : Description:

Rows Count : 0 Search Asset :

Asset Code	Asset Name	RFID Tag	Description	Created By	Created On

< >

Action available: Save, Delete, Reset

Brief Description: This screen is use to manage the asset master details like asset code, asset name, RFID Tag etc.

Function Description in Detail:

Sr No.	Function	Description	Remarks
1.	SAVE	<p>→User need to enter the Asset master details like asset Code, asset name, RFID Tag. etc.</p> <p>→On click of <i>SAVE</i> button, system will save product master details into the database.</p> <p>→Application checks for duplicate records while uploading/save against Product Code.</p> <p>→All fields gets cleared.</p>	
2	Delete	→ Double Click on saved record on view and click on delete button.	
3.	RESET	→Resets the current screen controls.	

Process Management

Doc No. Generation for Dispatching (Desktop App)

UKB

UNIVERSITY CONNECTIONS

DISPATCH DOCUMENT

Minimize

Doc

From Plant *:

To Plant *:

Asset*:

Dispatch Qty*:

+

Add

Save

Reset

Close

Generated Doc No.: *****

Rows Count :0

Search Doc No. :

From Plant	To Plant	Asset Code.	Asset Name	Disp Qty	Delete

IsValid	Doc No.	Created By	Created On

Action available: Add and Save, Reset

Brief Description: This screen will be used to Generation Doc No. for dispatching.

- Application will generate the doc no. automatically.
 - ❖ Doc No. format will be like Doc-ddMMyy-0001
 - ❖ Eight Digit Date Month Year and last four digit will be auto increment serial no.
- User will select from plant, to plant, select the dispatch asset and enter the dispatch Quantity as per need to dispatch.
 - ❖ On click of *Add* button location, product and quantity will be added in grid
- This process will be repeating as per required product for dispatching.
- User will click on save button to save the selected file data against the doc no.

Note: After saved successfully, Application will show the doc no. User should note down the Doc no. Same doc no will be used for further dispatch for asset dispatching.

Report Management

Report (Desktop App) – Scanning Report

The screenshot shows the 'REPORT' interface of the UKB Desktop App. The header is teal with the UKB logo on the left and the word 'REPORT' in the center. A 'Report' section contains filters: 'From Date *' and 'To Date *' are both set to '07-07-2022', and 'Plant *' and 'Asset*' are dropdown menus. To the right of these filters are four buttons: 'Search' (magnifying glass icon), 'Export' (download icon), 'Reset' (refresh icon), and 'Close' (red X icon). Below the filters, it displays 'Total Count : 0'. The main content area is a large, empty light blue rectangle.

Action available: Search, Export, Reset

Brief Description:

- **From Date:** User will select form date.
- **To Date:** User will select to date.
- **Optional parameters:**
 1. **Select Location:** User will select plant.
 2. **Select Product:** User will select Asset.

Function Description in Detail:

Sr No.	Function	Description	Remarks
1.	SEARCH	→On click of <i>SEARCH</i> button, system will get the all details as per the selected parameters.	
2	Export	Export the Report data in CSV file.	

3.	RESET	→Resets the current screen controls.	
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HHT Screens

Login Screen (HHT)

The screenshot shows a mobile application login screen. At the top is a blue header bar with the word 'LOGIN' in white. Below the header is the UKB logo. The main area contains two input fields: 'User Id' with the text 'Admin' and 'Password' with a masked character. Below these are two blue buttons labeled 'LOGIN' and 'SETTING'. In the center is the 'SATO ARGOX' logo. At the bottom, in pink text, it says 'App Version : 1.0'.

Action available: Login

Brief Description: This screen will use for login purpose. User will enter User ID & Password; system will validate entered user ID & password. Then according to user rights assigned to user, menus of Main Menu screen will be enable.

Function Description in Detail:

Sr No.	Function	Description	Remarks
1.	Login	<p>→User will enter User ID & password</p> <p>→User will click on Login Button</p> <p>→Application will validate user id & Password into database. If ok Application will move to main screen.</p>	

Setting Screen (HHT)

The screenshot shows a mobile application interface for setting server parameters. At the top, there is a status bar with the time 2:21 PM, signal strength, 4G network, and 79% battery. Below the status bar, the screen is divided into three input sections. The first section is labeled 'Server IP' and contains the text '192.168.43.41'. The second section is labeled 'Port' and contains the text '9100'. The third section is labeled 'Plant Code' and contains the text 'N001'. Below these input fields, there are two blue buttons: 'SAVE' and 'BACK'.

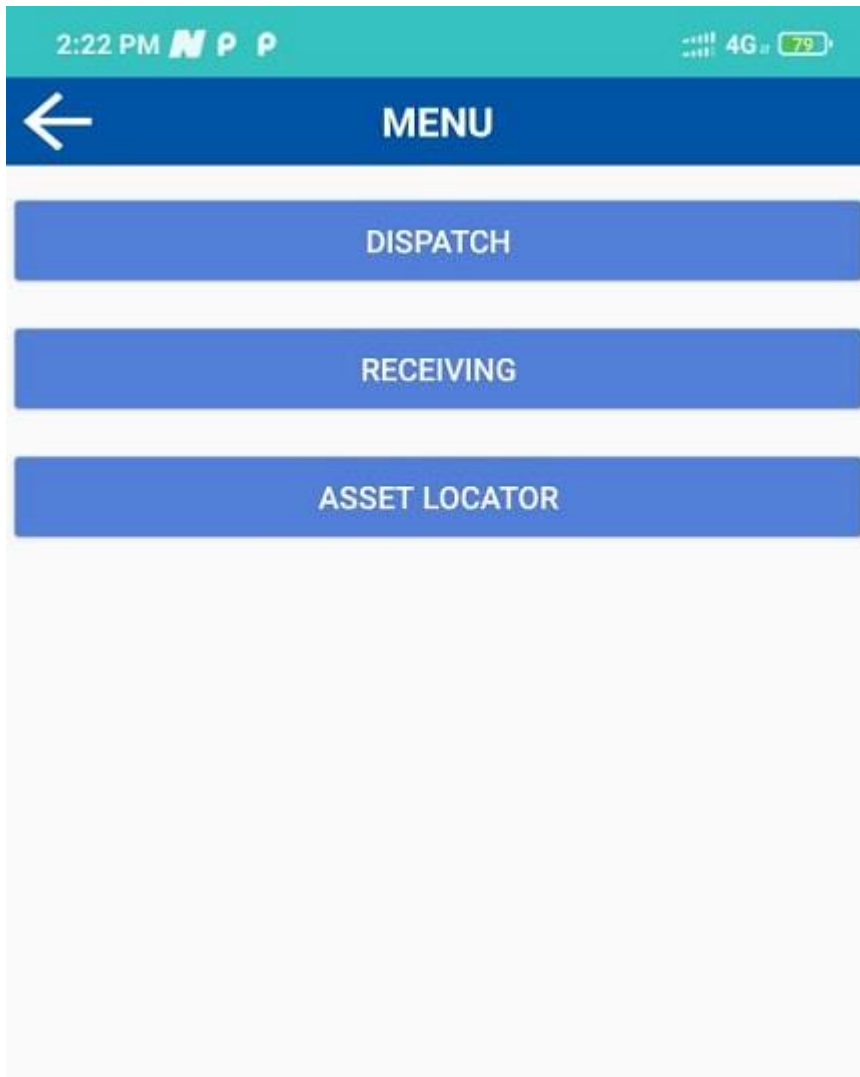
Action available: Setting

Brief Description: This screen will use for server configuration purpose. User will enter Server ID & Port No and Plant code; system will validate all field.

Function Description in Detail:

Sr No.	Function	Description	Remarks
1.	Save	<p>→ User will enter server ID & Port No. and Plant Code</p> <p>→ User will click on Save Button</p>	

Main Menu (HHT)



Brief Description: This screen will be use to select different operations in the HHT.

Asset Dispatch Scanning (HHT)

The screenshot shows a mobile application interface for 'Asset Dispatch Scanning (HHT)'. At the top, a status bar displays '5:31 PM', signal strength, '4G', and battery level. Below this is a blue header bar with a back arrow and the title 'Dispatch'. The main form area contains the following elements:

- A label 'Doc No.' followed by a dropdown menu currently showing 'Document No.'.
- A 'From Plant' label and a text input field containing 'From Plant'.
- A 'To Plant' label and a text input field containing 'To Plant'.
- A 'Read Asset' label and a text input field containing 'Asset Tag Barcode'.
- A blue 'RESET' button.
- Summary labels: 'Total Qty : 0' and 'Scan Qty : 0'.
- A table with three columns: 'Asset', 'Qty', and 'Scan Qty'.

Brief Description: User will follow the following steps.

This screen will be use to dispatch the asset from plant.

- User will select the doc no. from the drop down then from plant, to plant and asset details will be display...
- User will read the asset tag.
- If the tag barcode is valid then the App will save the details else prompt message will display on the screen with details in case of wrong barcode scanned.

Asset Receiving Scanning (HHT)

The screenshot shows a mobile application interface for 'Asset Receiving Scanning (HHT)'. At the top, a status bar displays '5:32 PM', signal strength, '4G', and a 68% battery level. Below this is a blue header bar with a white back arrow and the title 'Receiving'. The main form area contains three input fields: 'Doc No.' with a dropdown menu showing 'Select Doc No.', 'Dispatch Plant' with a text input field containing 'Dispatch Plant', and 'Read Asset' with a text input field containing 'Asset Tag Barcode'. Below these fields is a table with three columns: 'Asset', 'Qty', and 'Scan Qty'. The table has a yellow header row and one empty white data row. At the bottom of the form is a blue button labeled 'RESET'.

Brief Description: User will follow the following steps.

This screen will be use to receive the asset to other plant.

- User will select the doc no. from the drop down then dispatched asset details and dispatched plant will be display.
- User will read the tag barcode.
- If the tag barcode is valid then the App will save the details else prompt message will display on the screen with details in case of wrong barcode scanned.

Asset Locator Scanning (HHT)

The screenshot shows a mobile application interface for 'Asset Locator'. At the top, a status bar displays '5:40 PM', signal strength, '4G', and a battery level of '72%'. Below this is a blue header bar with a white back arrow on the left and the title 'Asset Locator' in white text. The main content area is light gray and contains two input sections. The first section is labeled 'Read RFID Tag' and has a text input field with the placeholder text 'Scan or input rfid tag and hit enter'. Below this is the word 'OR'. The second section is labeled 'Read Asset' and has a text input field with the placeholder text 'Enter Asset'. At the bottom of the input section are two blue buttons: 'SEARCH ASSET' and 'RESET'.

Brief Description: User will follow the following steps.

This screen will use to identify the asset against RFID Tag and asset Code.

- User will enter/scan RFID tag or asset code.
- User will click on search button if data is valid then the App will alert the location of asset.