

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
2.00	Jan. 18, 2023	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)

The screenshot shows a desktop application window titled "LOGIN". The window has a teal header bar with the word "LOGIN" in white and a red close button in the top right corner. The main content area is light gray. On the left, there is a large logo for "UKB ENERGIZING CONNECTIONS". To the right of the logo, there are three input fields: the first is labeled "Msg" with a user icon, the second is a password field with a key icon, and the third is a dropdown menu labeled "Plant". Below these fields is a blue "Login" button. Under the button is a link that says "Change Password". At the bottom of the window, there is a footer area with orange text that reads "Developed By Sato Argox India Pvt Ltd." and blue text that reads "Version : 1.0.0.0".

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 and select plant</p> <p>→User will click on Login Button</p> <p>→Application will validate user id, Password and plant into database. If ok Application will move to main screen.</p>	

Password Change Screen (Desktop App)

Action available: Change Password

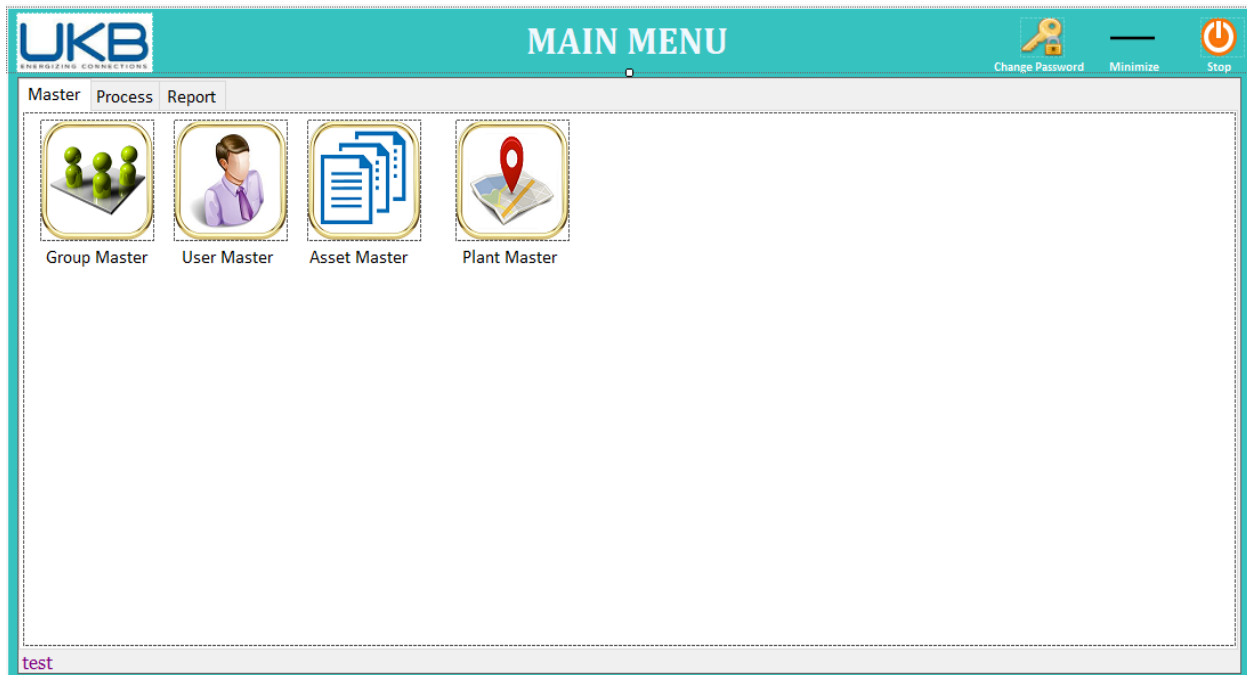
Brief Description: This screen will use for changing the password purpose. User will enter User ID & current password; system will validate entered user ID & password. User will enter the New Password and Confirm the New password, system will validate the password and user can save the new password.

Function Description in Detail:

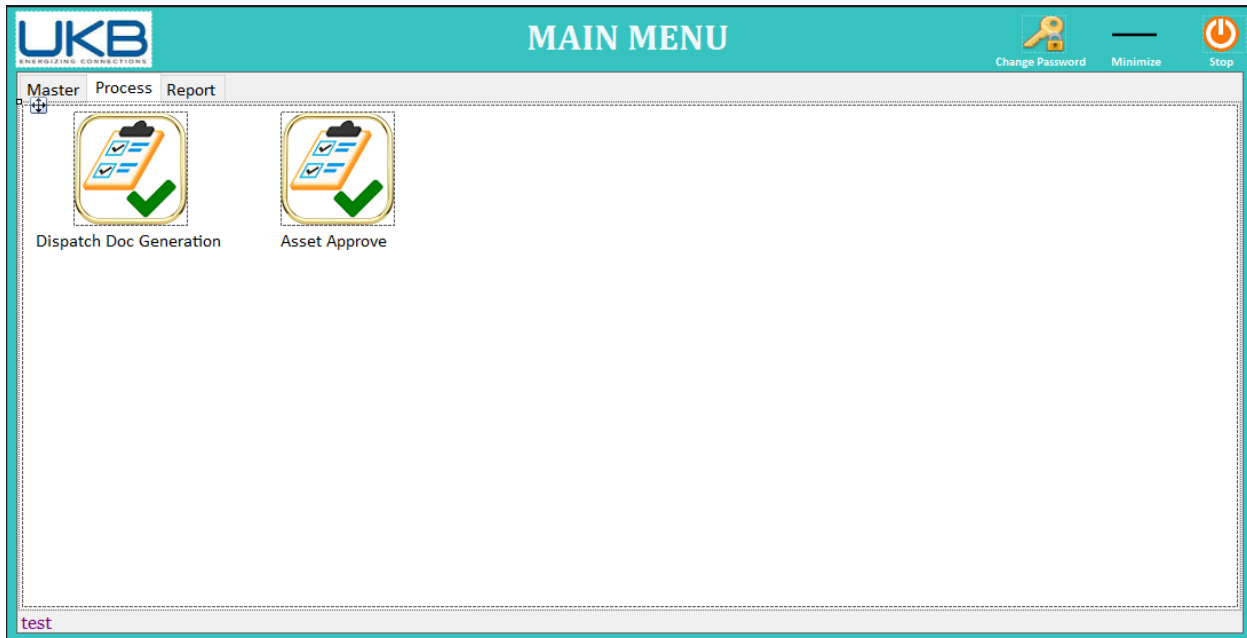
Sr No.	Function	Description	Remarks
1.	Password Change	<p>→User will enter User ID & password; New Password & Confirm Password.</p> <p>→User will click on Save Button</p> <p>→Application will validate user id & Password into database. If ok Application will update the New password.</p>	

PC - Application Menu

Master Menu (Desktop App)



Process Menu (Desktop App)



Report Menu (Desktop App)



Master Management**Group Master (Desktop App)**

Action available: Save, Delete, Reset, Close

Brief Description: This User Group Master where user can create multiple Groups like Admin, User etc.

User can provide the rights/access as per their requirement.

Function Description in Detail:

Sr No.	Function	Description	Remarks
1.	SAVE	<p>→User will enter new User Group information.</p> <p>→On click of <i>SAVE</i> 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	→Double Click on the view record and click on delete button.	
3.	RESET	→Resets the current screen controls.	

User Master (Desktop App)

UKB **USER MASTER** Minimize

Enter New User Details:

Name *: User Id *: Password *:

Group *: Line *: Email Id:

Rows Count : 0 Search User Id /Name :

UserId	UserName	Group Name	Line	Email Id	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 <i>SAVE</i> 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)

UKB **Plant Master** Minimize

Details

Plant *: Flower *:

Selection *: Description :

+ Add

Save Reset Close

Rows Count :0

Plant	Flower	Section	Description	Created By	Created On
-------	--------	---------	-------------	------------	------------

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.	Add	<p>→Users need to enter the Plant Code, flower, selection, and description</p> <p>→On click of <i>Add</i> button, application will validate Plant Code, flower, selection and show in grid.</p> <p>This process will repeat, and data added in grid.</p>	
2.	SAVE	<p>→On click of <i>SAVE</i> button, system will save Plant Code, flower, selection details into the database.</p> <p>→Application checks for duplicate records while uploading/save against plant and flower, selection</p> <p>→All fields get cleared.</p>	
3.	Delete	→ Double Click on saved record on view and click on delete button.	
4.	RESET	→Resets the current screen controls.	

Asset Master (Desktop App)

UKB **ASSET MASTER** Minimize

Enter Details:

Select Plant*: Select flower*: Select Section*:

Asset Code * : Description: RFID Tag * :

Make/Brand : Upload Asset

Rows Count : 0 Search Asset :

Plant	Flower	Section	Asset Code	Description	RFID Tag	Make/Brand	Created By

Save Delete Export Reset Close

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/select the Asset master details like Plant, flower, Section, Asset Code, Description, 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.	

Asset Approve (Desktop App)

The screenshot shows a desktop application window titled "ASSET APPROVE" with a teal header bar. In the top left corner of the header is the "UKB" logo. In the top right corner is a "Minimize" button. Below the header, the main interface has a light gray background. At the top left of this area, the text "Doc" is displayed. To its right are two dropdown menus: "Plant *:" and "Doc *:". To the right of these dropdowns is a dashed rectangular box containing three buttons: "Approve" (with a blue square icon), "Reset" (with a blue circular arrow icon), and "Close" (with a red 'X' icon). Below the dropdowns, on the left, is the text "Rows Count :0". On the right is a text input field labeled "Search Doc No. :". Below these elements is a table with a light blue background. The table has four columns with headers: "Plant", "Asset Code", "Asset Name", and "Disp Qty". The table body is currently empty.

Action available: Approve, Reset

Brief Description: This screen will be used to Approve Asset for dispatch.

- User will select Plant and Doc No. then all details will populate in grid.
- User will validate the details from grid and click on approve button for dispatch the data.

Report Management**Report (Desktop App) – Scanning Report**

UKB **REPORT** Minimize

Report

From Date *: 17-01-2023 To Date *: 17-01-2023 From Plant *: To Plant *: From Flower *: To Flower *: From Section *: To Section *: Asset *: Total Count : 0

[Search](#) [Export](#) [Reset](#) [Close](#)

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>SERACH</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.	

HHT Screens

Login Screen (HHT)

The screenshot shows a mobile application interface for the Login Screen (HHT). At the top, there is a blue header bar with a back arrow on the left and the word "Header" in the center. Below the header, the UKB logo is displayed. The main area contains three input fields: "User Id", "Password", and "Plant". Below the "Plant" field is a "Select Plant" dropdown menu. At the bottom of the input section are two buttons: "LOGIN" and "SETTING". Below these buttons is a large logo for "SATO ARGOX". At the very bottom, the text "App Version :" is displayed in pink.

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 enabled.

Function Description in Detail:

Sr No.	Function	Description	Remarks
1.	Login	<p>→User will enter User ID & password and plant</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, a teal status bar displays the time '2:21 PM', signal strength, '4G', and battery level '79'. Below this, the 'Server IP' field contains '192.168.43.41'. The 'Port' field contains '9100'. The 'Plant Code' field contains 'N001'. At the bottom, there are two blue buttons: 'SAVE' and 'BACK'.

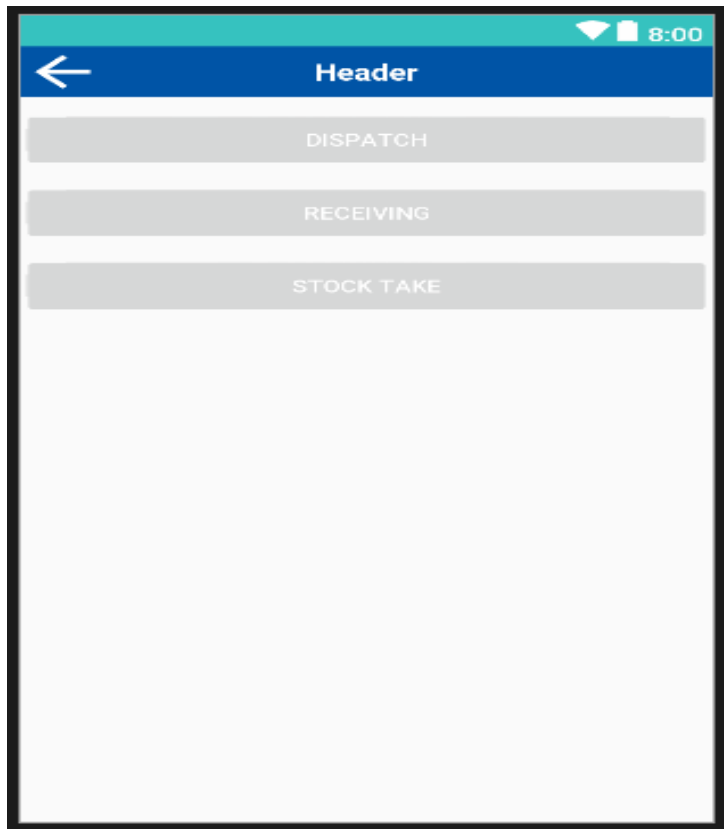
Action available: Setting

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	→ User will enter server ID & Port No. and Plant Code → User will click on Save Button	

Main Menu (HHT)



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

Asset Dispatch Scanning (HHT)

The screenshot shows a mobile application interface for Asset Dispatch Scanning. At the top, there is a status bar with a signal icon, a battery icon, and the time 8:00. Below this is a blue header bar with a back arrow on the left and the word 'Header' in the center. The main content area has a light gray background. It starts with a label 'Doc No.' followed by a text input field containing 'Document No.'. Below this is a section titled 'To Plant' with a label 'Read Asset' and a text input field containing 'Asset Tag Barcode'. Underneath is a 'Message' section with a gray button labeled 'RESET'. At the bottom, there are two labels: 'Total Qty : 0' on the left and 'Scan Qty : 0' on the right. Below these labels is a table with three columns: 'Asset', 'Qty', and 'Scan Qty'. The table has 10 rows, each labeled 'tem 0' through 'tem 9' in the first column. The table is currently empty of data.

Asset	Qty	Scan Qty
tem 0		
tem 1		
tem 2		
tem 3		
tem 4		
tem 5		
tem 6		
tem 7		
tem 8		
tem 9		

Brief Description: User will follow the following steps.

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

- User will select the doc no. from the drop down then, 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.
- **Note: Approve Doc will populate in Doc selection Drop down.**

Asset Receiving Scanning (HHT)

The screenshot shows a mobile application interface for 'Asset Receiving Scanning (HHT)'. At the top, there is a status bar with a back arrow, the word 'Header', and a battery icon with the time '8:00'. Below the header, there is a 'Doc No. Document No.' label. A 'To Plant' label is followed by a 'Read Asset' button and an 'Asset Tag Barcode' input field. A 'Message' label is positioned above a grey 'RESET' button. Below the button, there are two labels: 'Total Qty : 0' and 'Scan Qty : 0'. A table with three columns: 'Asset', 'Qty', and 'Scan Qty' is displayed. The table contains ten rows, labeled 'Item 0' through 'Item 9'. The table is currently empty.

Asset	Qty	Scan Qty
Item 0		
Item 1		
Item 2		
Item 3		
Item 4		
Item 5		
Item 6		
Item 7		
Item 8		
Item 9		

Brief Description: User will follow the following steps.

This screen will be used 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.

Stock Take Scanning (HHT)

The screenshot shows a mobile application interface for stock take scanning. At the top, there is a status bar with a back arrow, the word 'Header', and the time '8:00'. Below the header, there are four selection fields: 'Plant: Select Plant', 'Flower: Select Flower', 'Section: Select Section', and 'Read Asset: Enter Asset'. A 'Message' section contains three buttons: 'START ASSET', 'VIEW', and 'RESET'. Below these is a 'COMPLETE' button. At the bottom, there is a table with two columns: 'Asset' and 'Qty'. The table lists items from 'Item 0' to 'Item 9'.

Asset	Qty
Item 0	
Item 1	
Item 2	
Item 3	
Item 4	
Item 5	
Item 6	
Item 7	
Item 8	
Item 9	

Brief Description: User will follow the following steps.

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

- User will select Plant, Flower, Section then Asset code, Qty details will populate in grid.
- User will click on start Asset then screen will start for stock take
- User will enter/scan RFID tag or asset code.
- User will click on view button if need to check the details.
- After all stock completed user will click on complete button to complete the stock take.

Stock Take Scanning (HHT)

RFID Tague	Asset code	Qty	Scan Qty
------------	------------	-----	----------

This screen will use to populate the stock take details after click on view button from stock take screen.