FAPL

Falcon AutoTech PVT LTD

Works: Plot No 308 & 309, Ecotech-1 Extension Greater Noida

FAL-SORT

Customer: Armstrong

Manufactured by:
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1) Introduction

This document covers all the touch points and API details regarding the proposed Falcon PTL solution.

a) **Basic Components**
b) **Process Flow**
c) **API Details**

2) Basic Components: -

a) **PTL** – Put to Light. The basic unit of system which has following components: -
i) 3 letter Seven Segment Display – for showing the count
ii) LED Light – can glow in different colors (red, blue, green) for marking different operations.
iii) Confirm Button – To confirm the put operation.

b) **Barcode Scanners** – To control PTL operation and bagging process of the shipments.
c) **FAL-SORT**– This Windows service will handle all the communication with the barcode scanners, PTLs and Armstrong APIs. It will be installed on the Armstrong Server.

3) Process Flow: -

All the communication between the Falcon PTL units, barcode scanners and Armstrong peripherals will be handled by API. Broadly, the process flow will have following steps: -

1) **Barcode Scan** – Whenever any barcode is scanned by the barcode scanner attached to PTL control panel, data send API will be called to convey the data received along with the location from where the barcode was scanned.
For example: - If the operator scans barcode – 123456789 from Sorting Location – 10 then the API will be called with these two data points.

2) **PTL Button Press –** If a button is pressed on any PTL, data send API will be called with the information of PTL-id on which button has been pressed.

3) **PTL Blinking –** In reply to the above information, the API will respond back with the details of PTLs that have to be turned on.
The response should contain following parameters: -
a) Display – 3 digit display that has to be shown on the PTL

b) Light – Red/Blue/Green that has to be turned on.
c) Mode of Light – Static/Blinking
d) Reset Previous PTL – True/False, if the previous PTL has to be turned off before turning the current PTL on.

This API is mentioned in detail in the next section.

4) API Details: -

Following API will act as touch point between FAL-SORT and Armstrong peripherals.

DataSendAPI: -

This API will be hosted by Armstrong which will be called to communicate the data scanned by barcode scanners or PTL buttons. Armstrong API will respond with the information containing the PTL details which has to be turned on.

Data Sending Format – HTTP POST

POST Parameters – JSON string containing details of type of data, barcode scanned/button pressed, location/ptl id. A sample request string for barcode scanned would be as follows: -

```
{
    "Data_Type": "Barcode"
    "Data": "123456789"
    "Location": "10"
}
```

A sample request string for PTL button press would be as follows: -

```
{
    "Data_type": "PTL Button"
    "Data": "Confirm"
    "Location": "1004"
}
```

Sample Response – Response will be a JSON string sharing the details of PTL display and light.

{

```
        1004: {
                "Display": "004",
                "Light": "Green",
                "Mode": "Blinking",
                "Reset": true
                }
}
```

In case multiple PTLs have to be turned on, same can be sent in JSON response like below: -

```
{
        1004: {
                "Display": "004",
                "Light": "Green",
                "Mode": "Blinking",
                "Reset": false
                },

        1003: {
                "Display": "002",
                "Light": "Green",
                "Mode": "Blinking",
                "Reset": false
                }
}
```

In such cases reset value should be false as more than 1 light has to be turned on.