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Solution Design

Document

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1. Version Control

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Version | Description | Prepared By | Role | Date |
| 1.0 | Initial SDD Draft | Raja Kumaravel | Developer | 3/30/2022 |
| 1.1 | Added the hybrid model related information. | Raja Kumaravel | Developer | 06/29/2022 |

1. Approval Matrix

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Version | Description | Reviewed By | Approved By | Date |
| 1.0 | Initial SDD Draft |  |  |  |
|  |  |  |  |  |

1. Purpose

Outlines the major components of the Master Project (the overall output of the development, containing one or multiple projects that together cover the scope of the robotic process automation) taking into account all the business restrictions (scheduling, peaks, future increases in volume etc.). The focus of the Solution Architect will be on:

* Robustness.
* Scalability.
* Efficiency.
* Replicability.
* Reusability of component

The information herein is targeted primarily at the developers that will initially implement the solution and subsequently at the support developers in case of change requests.

# 4.Automated process details

Details filled in need to reflect the actual information for the Master Project released for production. The following table will be populated:

|  |  |
| --- | --- |
| Item | Description |
| Master Project Name | Load Match |
| Robot Type | Unattended |
| Orchestrator used? | Yes |
| Scalable | Yes |
| UiPath version used | 2021.4.3 |

# 5. Runtime guide

## 5.1 Architectural structure of the Master Project

Post Load

Start Milo (Java Program) LoadMatch Queue

End

## 5.2Master Project Runtime Details

Outlines the details of the automated process by filling in the table below.

|  |  |
| --- | --- |
| ITEM NAME | DESCRIPTION  *Fill in each bolded section - empty fields are not allowed. If the section does not apply to your automation then mark as n/a.* |
| Production environment details | RDS Windows server  10.105.0.254 [OREC2WPA-UIPATH]  10.105.1.171 [OREC2WPA-UIPATH2] |
| Prerequisites to run | Microsoft Excel, Google Chrome |
| Input Data | LoadMatchQueue with Load Number, Pickup City, Pickup State, Pickup Zip, Equipment, CSR Phone, CSR Email, Ramp, Contact Name |
| Expected output | Post load match data in the customer website. |
| How to start the automated process | Through Scheduling from Orchestrator |
| Reporting | Orchestrator Logs, Custom Logs |
| (queues reporting, Kibana or another platform) | Orchestrator Queue (LoadMatchQueue) |
| How is Orchestrator used? | Orchestrator is used for assets, queues, credentials & to trigger the Jobs. |
| Password policies | Password stored in Orchestrator assets as credential |
| Stored credentials | Stored as Credentials asset in orchestrator |
| (Never use hardcoded credentials in the workflow!) | NA |
| List of queues names | 1 |
| (Naming convention: ProcessName\_QueueName) | LoadMatchQueue |
| Schedule Details | Load Match (Queue Type) Triggers |
| Multiple Resolutions Supported?  (in case of image automation / Citrix and VDI) | NA |
| Recommended Resolution | 1920x1080 (Recommended) |

## 5.3Project name

|  |  |
| --- | --- |
| ITEM NAME | DESCRIPTION  *Fill in each section - empty fields are not allowed. If the section does not apply to your automation then mark as n/a.* |
| Environment used for development  (name, location, configuration details etc) | Development Environment  Computer name: OREC2WPA-UIPATH  IP Address: 10.105.0.254 |
| Environment prerequisites  (OS details, libraries, required apps) | Windows Server 2019, BackOffice, Front office &Studio license, Microsoft Excel, Microsoft UiPath Activities. |
| Repository for project  (where is the developed project stored) | GitHub - <https://github.com/MatsonInc>  Repository name - [uipath-dev](https://github.com/MatsonInc/uipath-dev) |
| Configuration method  (assets, excel file, Json file) | Excel, Assets |
| List of reused components | NA |
| List of new reusable components | NA |

## 5.4 File/Folder Structure

Below mentioned paths will be configurable and folders will be created by BOT if not exists.

|  |  |
| --- | --- |
| File/Folder | File/Folder Location |
| Temporary Folder | N/A |

<\*Will be updated again once development and testing are completed>

# Project(s) workflows

Workflows specific to: Specify Project Name from section above

For the workflow files defined below please specify the input and output parameters.

**Milo:**

|  |  |
| --- | --- |
| Workflow Name | Description |
| Millo\_Login | To login into Millo Application |
| Intermodal | Move the cursor to Intermodal tab |
| Order Search | Click on the Order Search image |
| Office | Change the list box default value to All. |
| Status | Select status in ‘Created’ and ‘Dispatched’. |
| Search | Click on the Search button |
| Order ID | Click on the Order ID hyperlink |
| Load Match | Click on the ‘Load Match’ which will send the load details to ‘Ui Path Queue’ |
|  | If the data is successfully stored in ‘UiPath Queue’, user will get successfully posted alert. |

Load Match

|  |  |
| --- | --- |
| Workflow Name | Description |
| Load Match\_Login | To login into Load Match Application |
| My Load Postings | Click on that |
| Post a new Load | Click on that |
|  | “Welcome to the LoadMatch Posting Wizard”Pop up window will come. |
|  | Always click “Bring an empty from Port” |
|  | Always click “Either” |
| Continue | Click this to move next screen |
| EQUIPMENT INFO |  |
|  | Enter the first 2 digits of Equipment size selection. |
|  | Equipment Type Selection, default to Container (dry) |
| What ocean line,or equipment pool you can use? | Use 1st four characters pulled from MILO for equipment |
| Continue | Click on that button for Finalize equipment selection process. |
| SHIPPER INFO |  |
| City | Shipper location information (City), input City from Milo data |
| State/Province | Shipper location information (State/Province), input state/province from Milo data |
| Zip/Postal | Shipper location information (Zip/Postal), enter zip/postal from Milo data |
| What are shipping hours?  From | Shipper Hours for pick up |
| to | Shipper Hours for pick up, default hours – from 8AM to 5PM |
| First Available Load Date | How to get value here? |
| Last Available Load Date | Shipper Load Date window for pick up, default to 7 days after first available load date.  Shipper Load Date window for pick up (calendar), default to 7 days after first available load date |
| Other load considerations? | Driver instructions for type of pick up, Always default to driver stay with |
| Continue | Click on that |
| ROUTING INFO |  |
|  | Need to add CSR information from MILO data in Contact Name, Phone, Contact Email selection. |
| Where does the loaded equipment return to | How to get “UP” |
| In which metro area with this loaded container ingate? | Drayage Carrier Metro Routing information drop down.  How to get the value? Is this from Milo |
|  | Table being created to match Milo Ramp data to Load Match Region data for final selection |
|  | Next step in the process is to select the load. I did not click that button as it would have posted as  live/real opportunity in Load Match. |

7. Technical Components

Include the list of packages and high-level description for each of them, to explain their purpose

## 7.1Prerequisites

* + 1. Google Chrome should be installed in BOT RDP Machine.

## 7.2Access Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| Application Installation/Access | | | |
| S. No. | **Application** | **Access Profile / Role** | **Additional Comments** |
| 1 | Load Match Web application Access [Chrome] | NA | BOT credentials required |

## 7.3Assets

Following assets should be created in Orchestrator:

|  |  |  |
| --- | --- | --- |
| S. No. | Asset Name | Use |
| 1 | LoadMatch\_BusinessTeam | 1misdom\_chi@matson.com;1MISDomCon@matson.com;  1MISDOMATL@matson.com;rkumaravel@matson.com;  rrickord@matson.com;mmajewski@matson.com;  1rpadevteam@matson.com |
| 2 | LoadMatch\_Credentials | Username - matson630  Password - \*\*\*\*\*\*\*  Need to get the dedicated bot login credential from Bob |
| 3 | LoadMatch\_URL | https://www.loadmatch.com/login.cfm?alert=NoCookies&returnURL=account/index.cfm |

## 7.4 UiPath Queue

|  |  |  |
| --- | --- | --- |
| S. No. | UiPath Queue Name | Queue Transaction items |
| 1 | LoadMatchQueue | Load Number:  Pickup City:  Pickup State:  Pickup Zip:  Equipment:  CSR Phone:  CSR Email:  Ramp:  Contact Name:  Posted User: |

## 7.5 Excel Template

|  |  |  |
| --- | --- | --- |
| Excel template used to \*\*\* | | |
| S. No. | **Name** | **Excel Attachment** |
| n/a |  |  |

## 7.6 Mail Templates

Mail would be sent in below formats:

|  |
| --- |
| Email Format used by the bot for success scenario |
| From – <Business Team>  Subject – LoadMatch - xxxxxxx- Successful  Body –  Hello Team,  Bot processed the data with Load Number - xxxxxxx in our system at DD/MM/YYYY HH:MM:SS UTC  \*\*This is an autogenerated email. Please do not reply to this email\*\*  Regards,  UiPath Bot |

|  |
| --- |
| Email Format used by the bot for Rejection Case |
| N/A |

## 7.7BOT Scheduler

Load Match used the queue-based triggers.

## 7.8Business Continuity Plan

In case of system downtime by both ends, prior notifications will be circulated.

Further to this, Business should manually process the load number until system resolution is notified.

8.Exception Details



## 8.1Business Exception

|  |  |  |  |
| --- | --- | --- | --- |
| **BE #** | **Exception Details** | **BOT Responsibility** | **Business Responsibility** |
| 1 | n/a |  |  |

## 8.2System Exception



|  |  |  |  |
| --- | --- | --- | --- |
| **SE #** | **Error name** | **Parameters** | **Action to be taken** |
| 1 | N/A |  |  |

9.Packages

|  |  |
| --- | --- |
| Package Name | Description |
| Load.Match.Process.1.0.1.nupkg | Load Match Load Posting Process |

10.Dependencies

• UiPath.Excel.Activities: 2.11.4

• Matson\_EmailLibrary:: 1.1.0

• UiPath.System.Activities: 21.10.4

• UiPath.UIAutomation.Activities: 21.10.4

11.Other Details

N/A

12.UAT Specification

|  |  |  |
| --- | --- | --- |
| # | Item | Description |
|  | n/a |  |