Development Specifications Document (DSD)

*Process Name: Top Box Office Movies (US)*

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Version Control

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Date | Version | Role | Name | Organization Department | Function | Comments |
| 18/5/2021 | 1.0 | Author | Abdelrahman Abdelgawad |  |  |  |



# Document Overview

The Development Specifications Document (DSD) is created for every business process automated using RPA. The DSD needs to be reviewed and updated for every change requested and applied to the automated process. This document provides a technical snapshot and must always reflect the latest design and key features of the automated workflow.

The document naming convention will follow the naming convention and the version of the automated process. This can be “business process name version” or it can be defined, case by case, as part of the larger RPA project design.

This document is completed by the RPA Solution architect and RPA developer who automates the business process. It is reviewed by the business process owner, application owner, and CoE design authority.

This document is meant to assist the RPA COE, IT operations and process owners by providing a snapshot of the automated process details and components. It can also serve developers to have a quick glance at the setup, before diving into the code, to troubleshoot or update changes. The purpose of the document is to record the outcome specific to the automated master project and its subcomponents: projects, workflows, sequences etc.

# Automated Master Project Details

Details filled in by the developer reflect the actual information for the master project released for production.

|  |  |  |
| --- | --- | --- |
| # | Item | Details  Fill in with free text. If not applicable, mark the filed as "N/A". No empty fields. |
| 1 | Master Project Name and Version | Top Box Office Movies (US) |
| 2 | Robot Type (attended/unattended/mix) | Unattended |
| 3 | Is Orchestrator used? (Yes/No) | Yes |
| 4 | Scalable? (Yes/No)  Can the process be run by multiple robots in parallel? | No |

# Runtime Guide

## Runtime Diagram

**Architectural Structure of the Master Project** Display the interaction between components (package / robots, Orchestrator queues, and running order).

Diagram

Description automatically generated

## List of Packages

Include **the list of packages and the high level description** for each of them, to explain each one's purpose:

|  |  |  |
| --- | --- | --- |
| # | Package Name | High-Level Description |
| 1 | Top Box Office Movies (US) | Gets top box office movies' information in US and mails it to the user account. |

\*Add more rows to the table to include all the project names and versions. No fields should be left empty. Use “N/A” for the items that don't apply to your project.

## Master Project Runtime Details

Details of the automated process:

|  |  |  |
| --- | --- | --- |
| # | Item | Details  (Fill in with free text. If the section does not apply to your automation, mark the field as “N/A”. No empty fields. ) |
| 1 | Production Environment Details | Machine Name: “desktop-0cgujkh\dell”  Path of the Project: “E:\MyProjects\UiPath” |
| 2 | Prerequisites to run | Internet connection, Microsoft Edge installed, Installing the UiPath Extension for Microsoft Edge, Microsoft Excel installed, Microsoft Outlook installed and the mail is signed in. |
| 3 | Input Data | Top Box Office Movies from IMDb Website. |
| 4 | Expected Output (output data) | Top box office movies’ data in US sent to the user mail in an excel file. |
| 5 | How to start the automated process? | The process is scheduled to automatically run every Tuesday at 12 AM. |
| 6 | Resuming the process from a particular step | N/A |
| 7 | Reporting  queues reporting, Kibana or another platform | Through logging. |
| 8 | Manual Error Handling  roll back or manually complete failed transactions. Procedures to reset the item. Ex “set status as investigating” | N/A |
| 1. How to resume the process in case of error | N/A |
| 1. How to manually fix transactions with error | N/A |
| 9 | Use of Orchestrator | Yes |
| 1. Password Policies   specific compliance requests? | No |
| 1. Stored Credentials   Never hard code credentials in the workflow | No credentials in the process. |
| 1. List of Asset Names | 1 - TopBoxOfficeMoviesUS\_ExceptionEmailAddress  2 - TopBoxOfficeMoviesUS\_IMDbWebsiteLink  3 - TopBoxOfficeMoviesUS\_UserEmailAddress |
| 1. List of Queues Name | IMDbTopMovies |
| 1. Schedule Details | Weekly, Every Tuesday at 12 AM (UTC Time) |
| 10 | Recommended Resolution | N/A |

# Project Details

In this section describe all the projects that compose the automated process.

For each project, describe the workflow(s) in the logical order that they are called in.

If the workflow is a flowchart, also include the exported image from Studio.

If the automated process is composed of multiple projects, copy paste and fill in the table below for each project with its specific details (there are 2 here already, assuming a dispatcher and performer project)

## Project Name: Tob Box Office Movies (US)

General information about the process selected for RPA prior to automation.

|  |  |  |
| --- | --- | --- |
| # | Item Name | Details  Fill in with free text. If not applicable, mark the field as “N/A". No empty fields. |
| 1 | Environment used for development  name, location, configuration details etc | Machine Name: “desktop-0cgujkh\dell”  (Local Machine Running Windows 10).  Path of the Project: “E:\MyProjects\UiPath”. |
| 2 | Environment prerequisites  OS details, libraries, required apps | Internet connection, Microsoft Edge installed, Installing the UiPath Extension for Microsoft Edge, Microsoft Excel installed, Microsoft Outlook installed and the mail is signed in. |
| 3 | Logging level | Info, Error (in case of an exception) |
| 4 | Details about automation  if the apps were automated using UI Automation, Image & Text | The used type of automation is: UI Automation |
| 5 | In case of attended bot, can the user operate the computer while the robot is running? | N/A |
| 6 | Repository for project  where the developed project is stored | The project is stored locally at: “E:\MyProjects\UiPath”. |
| 7 | List of reused components | N/A |
| 9 | Frequent errors found in the development phase | Scrapping top office movies.  Scrapping movie’s info. |
| 10 | Workarounds used in the automation phase | N/A |
| 11 | Configuration method  assets, excel file, Json file | Assets |
| 12 | Configuration details  path for input files, configuration Orchestrator assets used | Orchestrator assets used:  1 - TopBoxOfficeMoviesUS\_ExceptionEmailAddress: Contains  the email address to send to in case of a business  exception.  2 - TopBoxOfficeMoviesUS\_IMDbWebsiteLink: Contains the link  of the IMDb Web app.  3 - TopBoxOfficeMoviesUS\_UserEmailAddress: Contains  The user email address to send to the process output. |
| 13 | Workflow File Export List  Use the project mapping tool | N/A |

### Workflow(s) specific to the Project

Define below all the workflow files (.xaml files) used in the project, with the Input and Output data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Workflow Name** | **Description** | **Arguments** | **Comments** |
| 1 | IMDb\_OpenApp | Opens the IMDb web app in a new session of edge browser. | in\_IMDbLink – String |  |
| 2 | IMDb\_GetTopMovies | Gets the top box office movies' names and links. | in\_BEMailAdd – String  out\_TopMoviesDT – Data Table |  |
| 3 | PopulateQueueItems | Populates the queue with the provided work items. | in\_QueueName – String  in\_QueueItems – Data Table | Queue Name:  TopMovies |
| 4 | IMDb\_GetMovieData | Gets data of the current movie (Storyline, Rating, Number of ratings on IMDb, Maturity Rate, Duration, Type and Date). | in\_MovieURL – String  out\_MovieData – List of strings |  |
| 5 | Excel\_WriteDataToExcel | Writes the provided data table to an excel file in the provided path (Creates the excel file if it does not exist). | in\_FilePath – String  in\_Data – Data Table | Excel file is saved in the project directory. |
| 6 | MailMoviesData | Sends all top box office movies' data to the use mail. | in\_UserMailAdd – String  in\_MovieData – Data Table  in\_NumOfTopMovies – Int32 | The outlook mail should be signed in. |

# Compliance Considerations and Reporting Requirements

* N/A

# Other Details

## Future Improvements

* Let the user input the country in which he wants to get top box office movies.
* Send the top movies’ data to a list of users’ mails.

## Debugging Tips

* Check orchestrator assets and queue name as provided.

## Other Remarks

* N/A

# Post UAT Specifications

* Average duration per transaction (varies depending on the Test environment):
* Recommended number of robots for the specified volumes:
* Specified schedule:

# Glossary

* **Master project** - the overall output of the development, containing one or multiple projects that together cover the scope of the robotic process automation.
* **Project** - a UiPath Studio project containing one or multiple workflow files. A project can be converted to a package and run independently, covering a particular scope within the master project. The project is used when defining the development and support phase of the automation.
* **Package** - the output of compiling a project. A package can be deployed on the robot machine and be executed by the robot service. Only one package can be executed at a given time by a robot. The package is used when defining the running phase of the automation
* **Workflow** - a component of the package, the workflow encapsulates a part of the project logic. The workflow can be of type: sequence, flowchart or state machine. a workflow is saved as an .xaml file inside the project folder. A workflow file can be invoked from another workflow and by default there is an initial workflow file that will run when executing the package.
* **Activity** - an action that the robot executes.
* **Sequence** - a workflow where activities are executed one after another, in a sequential order
* **Flowchart** - a workflow where activities are connected by arrows and the logic of the workflow can be easily followed in a visual manner. The flowchart can also be exported as an image from UiPath studio
* **State machine** - a more advanced way of organizing a workflow, similar to a flowchart.
* **BOR** - Back office robot
* **FOR** – Front office robot
* **Orchestrator** – Enterprise architecture server platform supporting: release management, centralized logging, reporting, auditing and monitoring tools, remote control, centralized scheduling, queue/robot workload management, assets management.