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Process Definition

Document

Process Design Document for ACME Systems Inc., to compare the transactions of system 1 and system 3

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# INTRODUCTION



## Purpose

The Process Definition Document outlines the business process chosen for automation. The document describes the sequence of actions performed as part of the business process, the conditions and rules of the process prior to automation (**AS IS**) as well as the new sequence of actions that the process will follow as a result of preparation for automation (**TO BE**).

**The PDD is a communication document between:**

* The RPA Business Analyst and the SME/Process Owner. The goal is to ensure that the RPA Business Analyst has the correct understanding of the process and has represented it accurately.
* The RPA Business Analyst and the Development team (represented by the Solution Architect and RPA Development Lead). The goal is to ensure that the process is documented appropriately and to a sufficient level of detail so that the Solution Architect can then create the solution based on the PDD content.

## Objectives

The business objectives and benefits expected by the Business Process Owner after automation of the selected business process are:

* Reduce processing time per item by 80%.
* Leverage automation to improve the department`s overall performance and reliability.
* Better Monitoring of the overall activity by using the logs provided by the robots

## Key Contacts

|  |  |  |  |
| --- | --- | --- | --- |
| Role | Name | Contact Details (email, phone number) | Notes |
| Process SME | Ahmed Allam | ahmed.allam@gmail.com | Point of contact for questions related to  business exceptions and passwords |
| Reviewer/ Owner | Ahmed Eldesoqy | a.desoqy@gmail.com | Point of contact for process exceptions. |
| RPA Analyst | Haidy Eldiasty | haidy.eldiasty@gmail.com | Identify, design and implement automation solutions to enhance operational efficiency. |

## Minimum Pre-requisites for the Automation

1. Filled in Process Definition Document
2. Test Data to support development
3. User access and user accounts creations (licenses, permissions, restrictions to create accounts for robots)
4. Credentials (user ID and password) required to login to machines and applications

# AS IS Process description

In this section the Business Analyst will document the process. This section will serve as the starting point for the re-engineering and automation effort.



## Process Overview

Section contains general information about the process before automation.

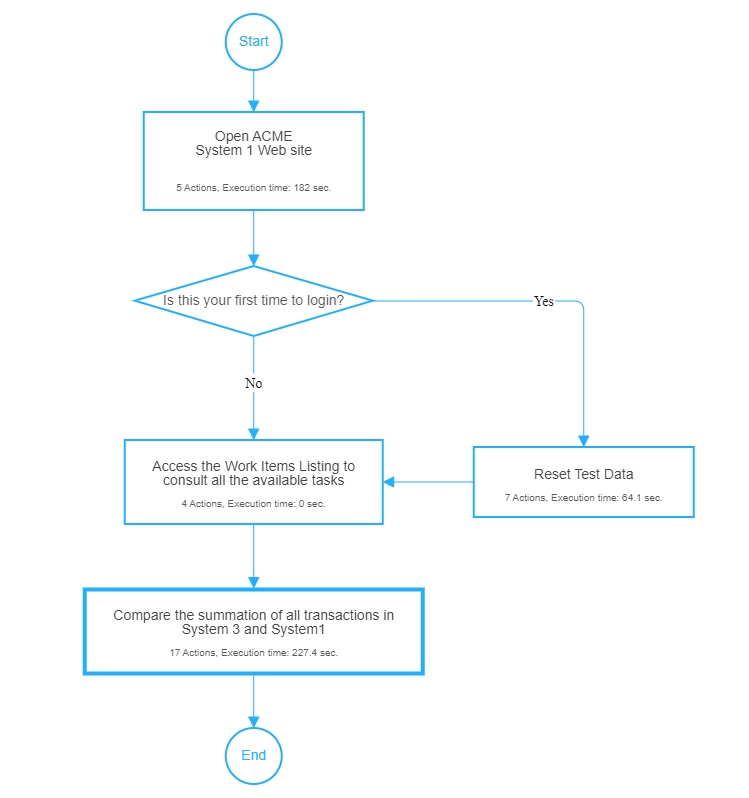
|  |  |
| --- | --- |
| Item | Description/Answer |
| Process Full Name | Verify Account Positions |
| Process Area |  |
| Department | Finance and Accounting department |
| Short Description (operation, activity, outcome) | Process Design Document for ACME Systems Inc., to compare the transactions of system 1 and system 3 |
| Role(s) required in applications to perform the process | ACME System 1 and 3 - Microsoft Excel |
| Process schedule and frequency | Daily, Sunday to Thursday, 9 am – 6 pm |
| Number of times the process is ran by selected frequency | ~22,500 |
| Process execution time | 7 min. 53 sec. |
| Process Restrictions | **e.g**. *This is necessary for the Solution Architect to decide how they will need to split the Master Project into smaller projects (the scheduling of the robots will depend on this)*  ***Example:*** *The applications can be used only between 7 AM-8PM during work days and not allowed to be used during weekend.* |
| Peak Period (s) | ***e.g.*** *It is important to understand peaks in order to design a robust and scalable solution.*  *Example:  Beginning of month, usually from 28th to 30th day of each month* |
| Peak Volume Approximate increase | ***E.g.*** *It is important to understand peaks in order to design a robust and scalable solution.*  *Example: 600* |
| Number of persons performing the process | 1 |
| Expected Volume increase during next periods | ***e.g.*** *It is important to understand peaks in order to design a robust and scalable solution.*  *Example: 10-20%* |
| Percentage Un-handled exceptions | 5% |
| Input data description | ***e.g.:*** *pdf invoices from ~100 suppliers* |
| Output Data description | **e.g.** *posted invoices report in SAP* |

## AS IS Process Map

This section contains various process maps contributing to a better understanding of how the process is performed pre-automation.

### High Level Process Map

This section is useful for the Business Analyst in presentations and discussions with management to underline areas of weakness, inefficiency or to demonstrate which actions could be in scope for automation.



## Process Statistics

**High Level statistics**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Processes | Windows | Actions | Mouse clicks | Keys pressed | Text entries | Hotkeys used | Time |
| 3 | 10 | 33 | 28 | 1 | 1 | 1 | 7 min. 53 sec. |

## Detailed As Is Process Actions

|  |  |
| --- | --- |
| 1. Open ACME System 1 Web site | |
|  | **Est. time: 3 min. 2 sec.** |

|  |  |
| --- | --- |
| * 1. Open ACME System 1 |  |
| URL: https://acme-test.uipath.com/login | Est. time: 10.2 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Register a new account |  |
| Click on "Register" | Est. time: 10.2 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Fill in your "Credentials" |  |
| Tick the marked boxes and then click "Register" | Est. time: 2 min. 24 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Go to "Login" page |  |
| Fill in your "Credentials" and click "Login" | Est. time: 3.8 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Access the ACME System 1 "Dashboard" |  |
|  | Est. time: 13.3 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| 1. Is this your first time to login? | |
| If 'Yes' then go to '3. Reset Test Data'  If 'No' then go to '6. Access the Work Items Listing to consult all the available tasks' | **Est. time: 0.0 sec.** |

|  |  |
| --- | --- |
| 1. Reset Test Data | |
|  | **Est. time: 1 min. 4 sec.** |

|  |  |
| --- | --- |
| * 1. Reset test Data |  |
| Click on "User options" then click on "Reset test data" | Est. time: 24.8 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Reset test Data |  |
| Click on " Reset Test Data" | Est. time: 4.5 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Reset test Data |  |
| Click on "OK" in the pop-up menu | Est. time: 8.0 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Go to the "Home" page |  |
| Click on "Home" | Est. time: 2.7 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Access the "Dashboard" page |  |
| Click on "Work Items" | Est. time: 4.9 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Access the Work Items Listing |  |
| Click on the search icon besides "WI 1" | Est. time: 12.0 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Open the Details page for the selected activity |  |
| Copy "Client ID, Account  Number and  Account Amount" | Est. time: 7.2 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Go to: Access the Work Items Listing to consult all the available tasks |  |
|  | Est. time: 0.0 sec. |

|  |  |
| --- | --- |
| 1. Compare the summation of all transactions in System 3 and System1 | |
|  | **Est. time: 3 min. 47 sec.** |

|  |  |
| --- | --- |
| * 1. Open ACME System 3 Desktop Application |  |
|  | Est. time: 44.3 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Fill in the "Credentials" |  |
| Type the same "Credentials" of System 1 and click on "Login" | Est. time: 2.1 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Access the "Main Menu" |  |
| Click on "Clients" then "Search for Client", finally, "By Client ID" | Est. time: 6.5 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Access the "Search Window" |  |
|  | Est. time: 2.1 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Go to "ACME System 1" |  |
| Copy the "Client ID" | Est. time: 2.6 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Access the "Search for Client by ID" |  |
| Paste the "Client ID" in the "Search Form" and Tick the box to"Include inactive clients", then click on the "Search" button | Est. time: 0.9 sec. |
| image | Action: Hotkey |

|  |  |
| --- | --- |
| * 1. Select the required "Client ID" |  |
| Click on the "Client ID Number" | Est. time: 57.5 sec. |
| image | Action: Double Click |

|  |  |
| --- | --- |
| * 1. Access the "Client Details" window |  |
| Click on "Clients Accounts" | Est. time: 4.4 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Access the "Client Accounts" window |  |
| Click on the "Client Account Number" resulted in "ACME System 3" | Est. time: 10.5 sec. |
| image | Action: Double Click |

|  |  |
| --- | --- |
| * 1. Access the "Account Movements" window |  |
| Adjust the "From - To dates" and then click on "Show all" | Est. time: 49.7 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Access the "Account Movements" window |  |
| Calculate the "sum" of all transactions for the specified account | Est. time: 3.2 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Go back to the "Work Item Details" in "ACME System 1" |  |
| Click on “Update Work Item” | Est. time: 3.4 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Access the “Update Work Item” window |  |
|  | Est. time: 7.9 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Update Work Item "Status" |  |
| Add a "comment" and select the work item "status" from the drop down menu  \*\* If the sum of all transactions in System 3 is 'Equal' to the Account amount in System 1 add a comment: ''Account value matches'' and Set the status to "Completed"  \*\* If the sum of all transactions in System 3 is 'Not Equal' to the Account amount in System 1 add a comment: ''Account value doesn't matches'' and Set the status to "Rejected" | Est. time: 8.4 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Finalize the update |  |
| Click on "Update Work Item" then on "OK" in the pop-up menu resulted | Est. time: 4.3 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. "Work Item Details" window |  |
| You will be re-directed to the "Work Item Details" window | Est. time: 3.4 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Go back to "Work Items" window |  |
| Click on the "Search icon" for another WI 1 item type to complete its status and repeat the process for them all | Est. time: 16.3 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| 1. Access the Work Items Listing to consult all the available tasks | |
|  | **Est. time: 0.0 sec.** |

|  |  |
| --- | --- |
| * 1. Reset Test Data |  |
| Click on "Reset Test Data" in the "Home" page | Est. time: 0.0 sec. |
| image | Action: |

|  |  |
| --- | --- |
| * 1. Access the "Work Items" |  |
| Click on "Work Items" | Est. time: 0.0 sec. |
| image | Action: |

|  |  |
| --- | --- |
| * 1. Access the "Work Items" window |  |
| Click on the "Search" icon for each activity of the type WI 1 | Est. time: 0.0 sec. |
| image | Action: |

|  |  |
| --- | --- |
| * 1. Access the "Work Item Details" window |  |
| Read the "Client ID", "Account Number" and "Account Amount" and take them into consideration | Est. time: 0.0 sec. |
| image | Action: |

## Input Data Description

The following table should contain details regarding the inputs that every action of the process takes.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| #Action | Sample | Input Type | Location | Are inputs Natively Digital\*? | Are the Inputs Structured\*? |
| Client ID | EQ75283 | Digits& Alphabets | ACME System 1 | Yes | Yes |
| Client Account Number | 171327 | Digits | ACME System 1 | Yes | Yes |
| Client Account Amount | 801,422 | Digits | ACME System 1 | Yes | Yes |

*\** ***Native Digital****: This is data that was originally created digitally e.g. excel, database or application reports etc. The non-native digital inputs are usually scanned images.*

***\* Structured Data****: has a predictable format and exists in fixed fields (e.g. an excel cell or a field in a form) and is easily detectable via search algorithms.*

# TO BE Process description

In this section the proposed improvements to the process, actions to the process will be outlined as well as the actions proposed for automation and the type of robot required. **This will be cross-checked by the Solution Architect.**

## Detailed TO BE Process Map

A detailed process map of the process as it will look like post-automation will be outlined here.  
  
*Highlight Bot interventions/ To-Be automated actions with different legend/ icon (purple).  
Mention below if process improvements were performed on the To-Be design and provide details.*

|  |  |
| --- | --- |
| Legend | Description |
|  | Action number in the process. Referred to in details or Exceptions and Errors table. |
|  | This process action is proposed for automation. |
|  | This process action remains manual (to be performed by a human agent). |

## Parallel Initiatives

The table below will capture the proposed Business, Process or Application changes to be made in the near future that would impact the process at hand (if any).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Initiative Name | Process Action(s) where it is identified | Impact on current Automation Request | Expected Completion Date | Contact Person |
|  |  |  |  |  |
|  |  |  |  |  |

## In Scope for RPA

The actions in scope for RPA should be listed below:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| # | Application name  & Version | System  Lang. | Login module | Interface | Environment/  Access  method | Comments |
| 1 | ACME System 1 | English | Web | Web | Web Browser |  |
| 2 | ACME System 3 | English | App | Client | Local desktop |  |
| 3 | Excel | English | App | Client | Local desktop |  |

## Exceptions Handling

The Business Process Owner and Business Analysts are expected to document below all the business exceptions identified in the automation process. Exceptions are of 2 types and both need to be addressed:

**Known exceptions** = previously encountered. A scenario is defined with clear actions and workarounds for each case.

**Unknown** = New situation that was not encountered before. It cannot be predicted and in case it happens it needs to be flagged and communicated to an authorized person for evaluation.

### Known Business Exceptions

Details regarding how the robot should handle the exceptions.

|  |  |  |  |
| --- | --- | --- | --- |
| Exception Name | Action | Parameters | Action to be taken |
| *e.g. Employee ID <> 6 characters* | ***e.g****. Action 1* | ***e.g.*** *Employee ID* | ***e.g.*** *send an e-mail to ahmed.allam@gmail.com with the text: “Employee ID <> 6 characters”*  *Go to the next transaction* |

### 3.5.2 Unknown Business Exceptions

An umbrella rule that includes a notification needs to be designed for all other exceptions that could happen and cannot be anticipated.

***e.g.:*** *for all other cases which do not follow the rules defined an e-mail should be sent to: ahmed.allam@gmail.com with a screen shot and robot should proceed to next transaction.*

## Applications Errors & Exceptions Handling

A comprehensive list of all errors, warnings or notifications should be consolidated here together with the action to be taken for each by the Robot. There are 2 types of exceptions/errors:

**Known** = Previously encountered and action plan or workaround available for it (e.g. SAP unresponsive during peak times)

**Unknown** = these are exceptions and errors that cannot be anticipated but for which the robot needs to have a rule so that the RPA solution is sustainable.

### Known Applications Errors and Exceptions

Details regarding how the robot should handle the exceptions.

|  |  |  |  |
| --- | --- | --- | --- |
| Error/Exception Name | Action | Parameters | Action to be taken |
| *e.g. Application Crash* | ***e.g****. Any action* | ***e.g.*** *Error message* | ***e.g.*** *recover and retry 3 times* |
|  |  |  |  |

### Unknown Applications Errors and Exceptions

An umbrella rule that includes a notification needs to be designed for all other exceptions that could happen and cannot be anticipated.

*e.g. robot should attempt to access the application 3 times then it should terminate thread.*

## Reporting

In this section all the reporting requirements of the business should be detailed so that when the RPA solution is moved to production the administrators can track the performance of the solution.

|  |  |  |  |
| --- | --- | --- | --- |
| Report Type | Update frequency | Details | Monitoring Tool to visualize the data |
| *e.g. Process logs* | ***e.g.*** *Daily* | ***e.g.*** *How many times was this process run since the beginning of the month and what was the average run duration* | ***e.g.*** *Kibana* |
| *e.g. Process logs* | ***e.g.*** *Monthly* | ***e.g.*** *How many robots worked on this process per each month?* | ***e.g.*** *Csv file posted daily on share drive* |
| *e.g. Transaction logs* | ***e.g.*** *Daily* | ***e.g.*** *How many transactions were run by this process since the beginning of the month and what was the average transaction duration?* | ***e.g.*** *Kibana* |
| *e.g. Error logs* | ***e.g.*** *Daily* | ***e.g.*** *Average number of errors by type per day* | ***e.g.*** *Kibana* |
| *e.g. Error logs* | ***e.g.*** *Daily* | ***e.g.*** *All errors per month grouped by type* | ***e.g.*** *Csv file posted daily on share drive* |

\* For complex reporting requirements, include them into a separate document and attach it to the present documentation

