|  |
| --- |
|  |
| **Solution Design Document**    Robot | BOT  Process | Concern Ageing Report  Area | GME |
|  |
|  |
| *Client confidential / sensitive data should not be recorded in this document* |

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# Document Information

## Version Control

The table below lists different versions of this document along with date of creation, description and the author of the document

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Description | Author |
| 0.1 | 10-12-2018 | First Draft | Lipi Krishnan |

## Version Changes

Listed below are the changes incorporated in to different versions of this document

|  |  |
| --- | --- |
| Version | Document Changes |
| N/A | N/A |

## Document Approval

Listed below are the stakeholders who have reviewed and approved this document

| Name | Approval Details | Business Role | Project Role | Version | Approval Date |
| --- | --- | --- | --- | --- | --- |
|  |  |  | Project Manager | 0.1 |  |
| Senthil Kumar, Ramasamy |  |  | Process Owner | 0.1 |  |
|  |  |  | Engagement Partner | 0.1 |  |

## Document review

Listed below are the people who have reviewed the content of this document

| Name | Approval Details | Business Role | Review Role | Version | Review Date |
| --- | --- | --- | --- | --- | --- |
| Arunprasath, Panneer Selva |  | Seniors Professional | Process SME, | 0.1 |  |
|  |  | Senior Professional | Process SME, | 0.1 |  |
|  |  | Team Leader | Process SME | 0.1 |  |
|  |  | Project Manager | Project Manager | 0.1 |  |

# Context & Base Information

## Purpose

The Solution Design Document (SDD) describes the functional and non-functional aspects of the current and the automated process, including pre-requisites, the process flow, design constraints and other factors necessary to provide a comprehensive view of the process. This document serves as a guide for the business users, developers and test engineers on the future behavior of the robot

The document captures the details of the existing manual process of the Invoice processing Pre-handling as performed by the client and is the blueprint of the automation of the process in scope, Invoice Processing Pre-handling, including any exceptions, constraints and requisites for automated process.

Overall, the purpose of this document is to:

* Ensure process solution is in line with standards.
* Provide information on the process and object sheets involved
* Provide understanding into the RPA process flow
* Provide UAT sign-off criteria

**Note -** Changes to the underlying business process after the completion of this document, may constitute a request for change and will be subject to the agreed change procedures

## Process Owners and SMEs

The table below provides the list of people from the Line of Business (LoB) who were involved as Partial of the development and deployment of the automated solution

|  |  |  |
| --- | --- | --- |
| Process Stakeholder | Approval Details | Responsibility |
|  |  | Functional Head |
|  |  | Process Owner |
|  |  | Process SME |
|  |  | Process SME |
| Thayumanavan |  | Bot Operator 1 |
|  |  | Bot Operator 2 |

## Process Execution (Current state) Requirements

The table below provides key business metrics measured for the current process and the automated process

| Sr. # | Metric Type | Value |
| --- | --- | --- |
| 1. | Processing Frequency | Daily |
| 2. | Process time window | 08:00 – 20:00 |
| 3. | Average Processing Time (As-Is Process) | 45 minutes |
| 4. | Average Processing Time (Automated Process) | 20 minutes |
| 5. | Process Rework Rate | -NA- |
| 6. | Average Process volume | -NA- |
| 7. | Peak Process volume | -NA- |
| 8. | SLA per record | 24 hours |
| 9. | FTE required (As-Is process) | 20-25 |
| 10. | FTE required (Automated Process) | To be Captured |
| 11. | Number of robot operators | 1 |

## IT Application overview

The table below provides the list of applications that are used as Partial of the current process. This information is used to setup the application environment for the automated process and request necessary accesses

| Application Name | Application Type | Method to gain access | Detailed steps to request dev/test access | Detailed steps to request production access | Compatibility checked (Yes/No) |
| --- | --- | --- | --- | --- | --- |
| HOD | Intranet | Self-request | Raise request in the web Application | Raise request in the web application | Yes |
| Outlook | Internet | Self – request | Raise request in the web application | Raise request in the web application | Yes |
| MS Excel | Desktop | NA | NA | NA | Yes |
| WERS | Intranet | Self-request | Raise request in the web Application | Raise request in the web application | Yes |

# As-Is Process (Functional) Design

## Manual Process (Current State) Overview

Comparing the Concern Numbers Using Macros & WERS.

Given below is a step-by-step flow chart for the AS-IS process (L0 view).

As-Is Process for Concern Ageing Report

**Access the WERS WebApp.**

**Login as Guest**

**Login to WERS by using credentials**

**Select the required model years & Report classes**

**Enter the required Model Codes**

**Close all the Applications**

**If required update the concern numbers data in outlook & send to respective user**

**Compare the input files with previous input files**

**Get the status of the concern numbers**

**Get the input files from it**

I/P

Excel

Outlook

O/P

The high level process description (at L0 activity) has been provided in below table

|  |  |  |
| --- | --- | --- |
| Sr. # | Process Step | Description |
| 1 | **Access the WERS WebApp.** | The process involves accessing the website of WERS. |
| 2. | **Login as Guest** | The process involves to login as guest. |
| 3. | **Login to WERS by using credentials** | The process Involves to to login to WERS webapp |
| 4. | **Enter the required Model Codes** | The process involves to enter all the required Model Codes. |
| 5. | **Select the required model years & Report classes** | Process involves to select the required model years & Report classes. |
| 6. | **Get the input files from it** | This process involves to get the input files from it. |
| 7. | **Compare the input files with previous input files** | Process involves to Compare the input files with previous input files . |
| 8. | **Get the status of the concern numbers** | Process involves to get the status of the concern numbers. |
| 9. | **If required update the concern numbers data in outlook & send to respective user** | Process involves if required update the concern numbers data in outlook & send to respective user. |
| 10. | **Close all the Applications** | After Sending the mails. Close all the Applications. |

For more details about the AS-IS process, please refer the AS- IS process map at section Reference Documents, Links and Templates

## Process Triggers

The table below provides the trigger for the current process

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sr. # | Process Trigger | Application Used | Start Time | Frequency |
| 1. | The Process has to be started at the specified time by the SME. | WERS, Excel and HOD |  | Multiple |

## Process Risks and Dependencies

The following section lists the key risks and dependencies of specific to manual process

|  |  |  |
| --- | --- | --- |
| Sr. # | Description | Current controls in place |
| 1 | Create a shortcut to open excel by making changes in properties | As by Default, it doesn’t have any shortcut . |
|  |  |  |

To-Be Process (Functional) Design

## Automated Process Overview

The automated process for WERS is to get the required data from WERS Application with the macro files & send the mails.

Given below is a step by step flow chart for the To-Be process (L0 view).

Automated Process for Concern Ageing Report

Click on ADFS

Open ctracker url

If its not first time login, Close the Application

4.

If its first time login into WERS Application by using WERS Credentials

7.

Click on Done

WERS credentials are taken from input file

6.

Enter all the model codes

5.

Click on Search

2.

Access the WERS WebApp

1.

Access the WERS Input File

3.

Click on ADFS

13.

Repeat Step 10, 11 & 12 for Rejected Activities & Closed Activities.

15.

Click on Asia Pacific

14.

Open HOD Application

12.

Make open activities text box empty & click outside of it.

10.

Type zfnl in Open Activities text box & click outside of it

9.

Click on SubmitSearch

8.

Select Required Model Codes & Report Classes

11.

Click on Export to Excel

23.

Send the list of mails from the saved file using HOD application

17.

Click on Generate Report & Click OK

18.

Copy all the Data from mail to excel in different sheets & Save

20.

Give the path of old file & new file

21.

Give the path in Save file where we’ll get information to send the mails to the users regarding the new concern number which is > 2

22.

Copy the data from macro & replace in its respective mails & send it

16.

Open Macro File & Load the required files

19.

Open Ageing Macro file

**NOTE : In Workflow, The input file is having any value in Operation like “running flow for the first time” then the flow will just download the files because there will be no previous day file to compare concern numbers or do any manupilations. If operation column is empty, Then the flow will make all the operations to be performed.**

The high level process description (at L0 activity) has been provided in below table

|  |  |  |
| --- | --- | --- |
| Sr. # | Process Step | Description |
| 1. | **Access the WERS Input File** | The process involves fetching all the required data from the Input Excel file. |
| 2. | **Access the WERS WebApp** | The process involves launching the WERS website. |
| 3. | **Click on ADFS** | The process involves to Click on ADFS To login as Guest. |
| 4. | **If its first time login in PC then Login into WERS App by using WERS Credentials** | The process involves If its first time login in PC then Login into WERS App by using WERS Credentials, If its not first time login, Skip this step. |
| 5. | **Click on Search** | The process involves to click on Search. |
| 6. | **Enter all the model codes** | Process involves to enter all the model codes. |
| 6. | **Click on Done** | This process involves to click on Done. |
| 7. | **Select Required Model Codes & Report Classes** | Process involves to select Required Model Codes & Report Classes |
| 8. | **Click on SubmitSearch** | Process involves to click on SubmitSearch. |
| 9. | **Type zfnl in Open Activities text box & click outside of it** | This process involves to Type zfnl in Open Activities text box & click outside of it. |
| 10. | **Click on Export to Excel** | Process involves to Click on Export to Excel . |
| 11. | **Make open activities text box empty & click outside of it** | Process involves to make open activities text box empty & click outside of it. |
| 12. | **Repeat Step 9,10 & 11 for Rejected Activities & Closed Activities.** | Process involves to repeat Step 9,10 & 11 for Rejected Activities & Closed Activities. |
| 13. | **Open HOD Application** | Process involves to open HOD Application |
| 14. | **Click on Asia Pacific** | Process involves to click on Asia Pacific |
| 15. | **Open Macro File & Load the required files** | Process involves to Open Macro File & Load the required files |
| 16. | **Click on Generate Report & Click OK** | Process involves to click on Generate Report & Click OK |
| 17. | **Copy all the Data from mail to excel in different sheets & Save** | Process involves to copy all the Data from mail to excel in different sheets & Save |
| 18. | **Open Macro** | Process involves to open macro |
| 19 | **Open Ageing Macro file** | Process involves to open Ageing Macro file |
| 20 | **Enter the path of old file & new file** | The process involves to enter the path of old file & new file in its respective place |
| 21 | **Enter the path in save file text field** | The process involves to enter the path in save file as when macro runs, the list of data will save in new excel in that path. (by using that data we have to send mails to the respective user that the new concern number came into existence which is not present in old file & it is >2 days) |
| 22 | **Run the macro** | The macro will run |
| 23 | **Copy the data from excel & paste it to its respective mails** | The process involves to copy the data from Ageing macro & paste it to its respective mails |
| 24 | **Send the mails** | The process involves to send the mails |
| 25 | **Send the mails to its respective user by using data from saved file (21)** | The process involves to send the mails to its respective user by using data from saved file |

For more details about the TO-BE process, please refer the To – Be process map at section [Reference Documents, Links and Templates](#_Reference_Documents,_Links)

The high level process description (at L1 activity) has been provided in below table

|  |  |  |
| --- | --- | --- |
| Sr. # | Process Step | Description |
| 1. | **Open Macro File** | Process involves to Open Macro File. |
| 2. | **Go to Dashboard Page** | The process involves to Go to Dashboard sheet. |
| 3. | **Click on Clear** | The process involves to click on Clear button. |
| 4. | **Click on Open Activity input** | The process involves to click on Open Activity input. |
| 5. | **Type the path of the open activity input file** | The process involves to type the path of the open activity input file. |
| 6. | **Click on Open** | The process involves to click on open |
| 7. | **Repeat 4,5 & 6 Steps for Closed activity input & Rejected Activity Input** | The process involves to Repeat 4,5 & 6 Steps for Closed activity input & Rejected Activity Input. |
| 8. | **Click on Submit** | The process involves to click on Submit. |
| 9. | **Click on OK** | The process involves to click on OK. |
| 10. | **Click on Generate Report** | The process involves to click on Generate Report. |
| 11. | **Enter UserName** | The process involves to enter the UserName. |
| 12. | **Enter Password** | The process involves to enter the Password. |
| 13. | **Click on Submit** | The process involves to click on Submit. |

## Process Variations

The table below provides the list of process variations and the solution incorporated in the automated process. Variations that were considered out of scope and not automated are indicated below

| Sr. # | Variation Type | Variations | Variation Description | Automated Process |
| --- | --- | --- | --- | --- |
| 1. | **Previous Concern File.** | Previous Concern File | If the Previous Days concern file doesnot exists, either we have to create it manually or we can run the bot. | If the previous concern file is not there, The bot cannot compare with the previous concern file as it can only save the concern file. From second day of Automation, The bot will do as usual process. |
|  |  |  |

## Process Re-engineering for Automated Process

The table below provides the list of process re-engineering carried out during automation. Re-engineering was done with an objective to bring in standardization in the process to increase scalability without impacting the outcome of the process

| Sr. # | Process Step | Original Process | Changed Process (Automated) | Reason for change | Impact, if any |
| --- | --- | --- | --- | --- | --- |
| 1 | **Create Shortcut to open Excel** | The Excel does not have any shortcut to open it.  Go to properties of Original Excel File, Create Shortcut | Given Alt+Shift+E to open Excel automatically | To make ease the process. |  |

## Process Triggers

The table below provides the trigger coded for the Bot to start the automated process

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sr. # | Process Trigger | Application Used | Start Time | Frequency |
| 1. | Scheduled to start automatically | WERS Website, Excel, Outlook, HOD Desktop Application | TBD | Multiple |

## Automated Process – Screen flow

This section provides the detailed (keystroke) automated process along with screenshots of various screens accessed and updated as Partial of the process. The automation of Invoice Processing Pre-Handling has been achieved by modularizing the key functions i.e. each L0 steps into modules and each table further represents the detailed steps/activities i.e. L1 and L2 activities carried out for automation of the respective module.

###### **Module Name**

Description of the L0 activity and further steps performed as Partial of the L0 activity

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Step | Sub Step | Description of functionality | Screenshot | Template Reference | Suggested feature of automation tool | Robustness (High, Medium Low) |
| Corresponds to L1 activity of the Module or L0 activity | Corresponds to **L2** activity of the respective L1 activity | Detailed description at key stroke level of the activity | Desktop screenshot of the activity performed | Template referred to as Partial of the process | Automation tool feature used to automate the activity | Robustness of the automation feature |

###### **Launch WERS Website & Login**

The process/module highlights the detailed activities performed to launch the WERS.

| Step | Sub Step | Description of functionality | Screenshot | Template Reference | Suggested tool functionality | Robustness (High, Medium Low) |
| --- | --- | --- | --- | --- | --- | --- |
| 1.1 |  | Launch WERS Website, Click on ADFS |  |  |  |  |
| 1.2 |  | Type ‘e’ at Region textfield | -NA- |  |  |  |
| 1.3 |  | Type ‘india’ at Department textfield | -NA- |  |  |  |
| 1.4 |  | Type id at Userid textfield | -NA- |  |  |  |
| 1.5 |  | Type password | -NA- |  |  |  |

###### **Selection of Model Codes & Report Classes**

The process/module highlights the detailed activities performed to Select Required Asset.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Step | Sub Step | Description of functionality | Screenshot | Template Reference | Suggested tool Functionality | | Robustness(High, Medium Low) |
| 2.1 |  | Click on Search |  |  | |  |  |
| 2.2 |  | Enter Model Codes from input excel File |  |  | |  |  |
| 2.3 |  | Select Model Years from Excel |  |  | |  |  |
| 2.4 |  | Select Report Classes from Excel |  |  | |  |  |
| 2.5 |  | Click on Submit Search |  |  | |  |  |

###### **Retrieve Input Files**

The process/module highlights the detailed activities performed to retrieve required input files

| Step | Sub Step | Description of functionality | Screenshot | Template Reference | Suggested tool functionality | Robustness (High, Medium Low) |
| --- | --- | --- | --- | --- | --- | --- |
| 4.1 |  | Type zfnl in Open Activities Text box |  |  | RPA Tool Element Selector | High |
| 4.2 |  | Click outside the text box inorder to filter the data related to Open activities | ***-NA-*** |  |  |  |
| 4.3 |  | Click on Export to Excel |  |  |  |  |
| 4.4 |  | Click on DropDown icon of Save |  |  |  |  |
| 4.5 |  | Click on Save as |  |  |  |  |
| 4.6 |  | Type the path, inorder to save the Open Activities input file |  |  |  |  |
| 4.7 |  | Click on Save |  |  |  |  |
| 4.8 |  | Type zfnl in Closed Activities Text box |  |  |  |  |
| 4.9 |  | Repeat 4.2 to 4.7 | Repeat 4.2 to 4.7 |  |  |  |
| 4.10 |  | Type zfnl in Rejected Activites textbox |  |  |  |  |
| 4.11 |  | Repeat 4.2 to 4.7 | Repeat 4.2 to 4.7 |  |  |  |

###### **Open HOD Desktop Application**

The process/module highlights the detailed activities performed for Opening HOD Application.

| Step | Sub Step | Description of functionality | Screenshot | Template Reference | Suggested tool functionality | Robustness (High, Medium Low) |
| --- | --- | --- | --- | --- | --- | --- |
| 4.1 |  | Application has been opened by using UiPath Activity |  |  |  |  |
| 4.2 |  | Click on Asia Pacific |  |  |  |  |

###### **Macro Operations**

The process/module highlights the detailed activities performed on Macro.

| Step | Sub Step | Description of functionality | Screenshot | Template Reference | Suggested tool functionality | Robustness (High, Medium Low) |
| --- | --- | --- | --- | --- | --- | --- |
| 5.1 |  | Open Macro File |  |  |  |  |
| 5.2 |  | Click on Dashboard |  |  |  |  |
| 5.3 |  | Click on Clear |  |  | RPA Tool Element Selector | High |
| 5.4 |  | Click on Open Activity Input |  |  |  |  |
| 5.5 |  | Type the path of the Open Avtivities Input File |  |  |  |  |
| 5.6 |  | Click on Open |  |  |  |  |
| 5.7 |  | Click on Rejected Activity |  |  |  |  |
| 5.8 |  | Type the path of the Rejected Avtivities Input File & 5.6 | Repeat 5.5 & 5.6 |  |  |  |
| 5.9 |  | Click on Closed Activity Input |  |  |  |  |
| 5.10 |  | Type the path of the Closed Avtivities Input File & 5.6 | Repeat 5.5 & 5.6 |  |  |  |
| 5.11 |  | Click on Submit |  |  |  |  |
| 5.12 |  | Click on OK |  |  |  |  |
| 5.13 |  | Click on Generate Report |  |  |  |  |
| 5.14 |  | Enter the UserName & Password |  |  |  |  |
| 5.15 |  | Click on Submit |  |  |  |  |

###### **Copy Data in the form of Excel to save as ConcernFile**

The process/module highlights the detailed activities performed to copy the Data in the form of Excel.

| Step | Sub Step | Description of functionality | Screenshot | Template Reference | Suggested tool functionality | Robustness (High, Medium Low) |
| --- | --- | --- | --- | --- | --- | --- |
| 6.1 |  | Copy Data in the Attachment which got created |  |  |  | High |
| 6.2 |  | Open Excel & Paste |  |  | RPA Tool Element Selector | High |
| 6.3 |  | Click & change the name of the Sheet |  |  |  |  |
| 6.4 |  | Inorder to create new sheet, Click on + |  |  |  |  |
| 6.4 |  | Repeat it for all the Attachments & Save in the name of concern File | Repeat |  |  |  |

###### **Current Report is equal to Last extracted Report**

The process/module highlights the detailed activities performed if the current Report is equal to last extracted report.

| Step | Sub Step | Description of functionality | Screenshot | Template Reference | Suggested tool functionality | Robustness (High, Medium Low) |
| --- | --- | --- | --- | --- | --- | --- |
| 6.1 |  | If YES, Click on Shift in Last Generated Report Webpage |  |  | RPA Tool Element Selector | High |
| 6.2 |  | If NO, Select the Required Report or Asset. |  |  |  |  |

## Input, Working and Output Templates for Automated Process

The following section lists the templates that are being used in the automated solution

| Sr. # | Template Name | Document Type | Description | Screenshots |
| --- | --- | --- | --- | --- |
| 1. | **Input file** | Excel <.xlsx> | The Session File is used by the robot to read values, making the automated process flexible whenever there is a change in user or environment |  |

## Process/Transaction Exit Activities and Expiry Criterion

**Process/Transaction Exit Activities** – The below are the set of high level activities the robot will perform whenever it exits the process (after successful or unsuccessful completion)

1. Close all the applications

**Process/Transaction Expiry Criterion** – Events during which the process would expire and wouldn’t continue further for processing the invoice

* Path of input file is not being accessed
* Website address is not correct
* The data is not populated in the WERS website.
* The excel file not stored and cannot access the path.
* Sheet for the respective program is not available in the Session file.

## Automated Process Risks and Dependencies (robot specific)

The following section lists key risks and dependencies specific to automated process.

| Sr. # | Description | Action | Owner | Due Date |
| --- | --- | --- | --- | --- |
| 1. | Changes in the WERS Address might result in robot not able to access the Website. | Robot to flag an exception in case it is not able to log in to the WERS Website. | Developer | To be coded before UAT |
| 2. | Changes in the Batch file location would result in robot not able to run the batch files. | Robot to flag an exception in case it is not able to access/recognize the Folder/File/Application with given details | Developer | To be coded before UAT |
| 3. | Changes in the selected fields in WERS website would result in robot not able to continue further |  |  |  |
|  |  |  |  |  |

## User Credentials Requirements

User credentials required by the automated solution to access the applications in scope are listed below.

| Application Name | Access Provided | Employee ID to mirror, if any | Storage of Credentials |
| --- | --- | --- | --- |
| MS Windows OS | -NA- |  | Windows Credential Manager |
| WERS website | No | Need to take access. |  |
| MS Outlook | Standard access | Access has been provided as required | -NA- |

# Process (Technical) Design

## RPA Solution Model

The table below lists the modules developed as Partial of RPA solution build to execute the automated process. The module name follows Camel Casing nomenclature

| Module # | SDD Ref. | Modules | Description | Purpose/Objective | Input | Output | Reusability |
| --- | --- | --- | --- | --- | --- | --- | --- |
| M1 | 1 | Open WERS Website | Open WERS Website and Login | Login to get all the input files | Website Address | Open the Website | No |
| M2 | 2 | Click on ADFS | Click on ADFS | To get all the input files | 1. ADFS | Login Window will appear | No |
| M3 | 3 | Enter Region,UserID & Password | Enter the Region, UserID & Password. | To do Login Operation | Fetch from inputFile | Login Successful | No |
| M4 | 4 | Click on Save | Click on Save |  | -NA- |  | No |
| M5 | 5 | Click on Search | Click on Search | To Search the Required Data | -NA- |  | No |
| M6 | 6 | Type ZFNl in open activities text box | Type zfnl in open activites text box |  | Fetch from the input file |  | No |
| M7 | 7 | Click outside the OPEN ACTIVITIES text box | Click outside the OPEN ACTIVITIES text box | To filter data related to open activities | -NA- | We’ll get filtered data | No |
| M8 | 8 | Click on Export to Excel | Click on Export to Excel | To Save the input file |  |  |  |
| M9 | 9 | Enter the Path & Click on Save | Enter the path where the input file should save & click on Save |  | -NA- |  | No |
| M10 | 10 | 6,7,8,9 Repeats for Rejected & Closed Activities | 6,7,8,9 Repeats for Rejected & Closed Activities | To get all the input files | -NA- |  | No |
| M11 | 11 | Open HOD Application & click on Asia Pacific | Open HOD Application & click on Asia Pacific |  | -NA- | Inorder to load the Data | No |
| M12 | 12 | Open Macro File & Go to Dashboard Sheet | Open Macro File & Go to Dashboard Sheet |  | -NA- |  | No |
| M13 | 13 | Click on Open Activity | Click on Open Activity | To load the input file of open activities |  |  |  |
| M14 | 14 | Type the path of the open activity input file & click on Open | Type the path of the open activity input file & click on Open |  |  |  |  |
| M15 | 15 | 14th Step repeats for closed & Rejected Activites | 14th Step repeats for closed & Rejected Activites |  |  |  |  |
| M16 | 16 | Click on Submit | Click on Submit | The Data will be loaded |  |  |  |
| M17 | 17 | Click on Ok | Click on Ok |  |  |  |  |
| M18 | 18 | Click on Generate Report | Click on Generate Report |  |  |  |  |
| M19 | 19 | Enter UserID & Password | Enter UserID & Password |  |  |  |  |
| M20 | 20 | Click on Submit | Click on Submit |  |  |  |  |
| M21 | 21 | Copy the Date in Mail Window | Copy the Date in Mail Window |  |  |  |  |
| M22 | 22 | Paste in New Excel & Save | Paste in New Excel & Save |  |  |  |  |

## Issues and Challenges Encountered during Solution Build

The section below lists the issues and challenges encountered during the solution build and the actions taken to resolve them

| S. No. | Issue type | Affected Application | Implication | Action Taken | Date raised | Date resolved |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | Data is not in required format in excel | .xlsx | Created Macro | BOT has been been modified to trigger the macro |  |  |

## Exception Management & Handling

The table below lists various process and system exceptions handled by the automated solution

| Ref | ID | Exception Description | Action on Exception | Exception Message |
| --- | --- | --- | --- | --- |
| 1.1 | E\_1.1 | System – Input File is not there | File has not Found | Please download the input file |
| 2.1 | E\_2.2 | System –  Logon again | 1. Macro has not runned properly | Need to check the status of concern number so that macro will run properly |

## Change Request Log

The table below lists the changes suggested during development and UAT. For detailed change request, kindly refer the document “Deloitte RPA Prod Fin Change Log” placed at section [Reference Documents, Links and Templates](#_Reference_Files). The documents provide the information of the Change Requests that has been made by the business and agreed to be incorporated as Partial of the automated solution.

| # | Change Request | Area of Change | Reason for Change | Original Step/ Logic as per SDD (V 0.1) | Change Criticality |
| --- | --- | --- | --- | --- | --- |
|  | -NA- | -NA- | -NA- | -NA- | -NA- |

# Testing / UAT Requirements

## Test Cases / Scenarios

The table below lists various scenarios tested during User Acceptance Testing (UAT). For detailed test case scenarios, kindly refer the document “Test Cases Invoice Processing” within “Ford RPA” placed at section [Reference Documents, Links and Templates](#_Reference_Files)

| S. No. | Test Scenario | Description | Expected Result |
| --- | --- | --- | --- |
| T1.1 | Triggering Macro | Macro has to be run properly | After triggering Macro, Three mails will be generated. |
| T1.2 | Login to WERS | Login to WERS sucessfully | Successful login into WERS |
| T2.1 | Launch HOD | Launch HOD application environment successfully | “Login” screen within specified environment in WERS application shall be opened in the system |

## Test Plan and Approach

The table below provides the test plan and approach adopted during the UAT

| Area | Robot | Robot ID | Scenarios Tested | Start Date | End Date | Time Slot | Operator | Status |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Accounts Payable | Concern Ageing Report |  |  |  |  |  |  | Successfully Completed |

## UAT Setup Information

The below sections lists the information where UAT has been conducted

| System | System Type | Tester | Location |
| --- | --- | --- | --- |
|  |  |  |  |

The UAT was conducted in remote server set up by the Client. The solution was run and controlled from the RPA Tool connected in the local machine. UAT has been within the given time slot of 2:00 PM (IST) till 8:00 PM (IST) from <date till<date. Any reference, input and output files has been accessed at shared folder path provided by the LoB.

## UAT Success Criteria and Sign-Off

For detailed test results, kindly refer the document “Test Results” within “Deloitte RPA Prod Fin\_UAT Test Plan and Results” placed at section [Reference Documents, Links and Templates](#_Reference_Files). The document provides the information on results of the UAT conducted for testing the automated solution.

The following documents has been signed off as Partial of the sign off process.

###### Sign off from the LOB on documented Test Scenario

###### Sign off from the LOB on documented UAT Test Results

###### Sign off from the Test results uploaded in Testing tool

###### Uploading SDD in docs

# Solution Operation and Maintenance

## Initial Setting for Solution Deployment

Table highlights the system setup that is required to be done before setting up the automated solution

| System | Instruction | Screenshot |
| --- | --- | --- |
| Concern Ageing Report | Environment Configuration Ensure the environment is configured in the local instance of Concern Ageing Report |  |
| RPA Tool | RPA Tool Configuration Steps |  |
| Windows Credential Manager | Storing Bot Credentials |  |

## Reports and Audit Trail

Table highlights the instruction for reading various reports that are captured as Partial of the automated solution

| Reports | Purpose | Instruction | Screenshot |
| --- | --- | --- | --- |
| -NA- | **-NA-** | **-NA-** |  |
| -NA- | **-NA-** | **-NA-** |  |

**Note – Kindly don’t change the template structure of any document. Also, please do not change the formulae of any field in the templates and reference files.**

## Process SLAs and Metrics

Table highlights the key parameters that has been used to identify the performance of the automated solution.

| Metric Type | Starting Metrics | Target Metrics | Actual Metrics |
| --- | --- | --- | --- |
| Processing Frequency | Daily | Daily | <To be updated post Go Live> |
| Process time window | 08:00 – 20:00 | TBD | <To be updated post Go Live> |
| Average Processing Time (As-Is Process) | 4 – 8 minutes | 2 – 6 minutes | <To be updated post Go Live> |
| Process Rework Rate | 5% - 10% | 1% - 2% | <To be updated post Go Live> |
| Average Process volume | 30,000 per month | 30,000 per month | <To be updated post Go Live> |
| Peak Process volume | -NA- | -NA- | <To be updated post Go Live> |
| SLA per record | 24 hours | 24 hours | <To be updated post Go Live> |
| FTE required (As-Is process) | 20-25 | TBD | <To be updated post Go Live> |
| FTE required (Automated Process) | -NA- | TBD | <To be updated post Go Live> |
| Number of robot operators | -NA- | TBD | <To be updated post Go Live> |

## Robot Operation Scheduling Instructions

Table provides the information on scheduling instruction for triggering the automated solution.

| Parameters | Details |
| --- | --- |
| Robot Operator | TBD |
| Robot Schedule | Daily |
| Trigger (Manual, On creation of file, On logging in, etc.) | TBD |
| Robot Run time | TBD |
| Robot Stop time | TBD |

## Deployment Challenges and Resolution Adopted

The below section highlights the challenges faced for migrating the automated solution to the production and resolution adopted to meet the challenges for successful migration of the solution.

| Deployment Issue | Issue Type (Environment change, Change request, Defect) | Date Identified | Date Resolved |
| --- | --- | --- | --- |
| <To be updated post Go Live> | <To be updated post Go Live> | <To be updated post Go Live> | <To be updated post Go Live> |

## Business Continuity Guidelines

The below section highlights the business continuity for automated process as Partial of disaster management process.

* Invoice Process team to identify a human resource for each shift to take over bot load in case of a business continuity issue
* Robot operator to inform the process owner and functional lead in case of bot unavailability for an extended period
* Process owner and functional lead to initiate business continuity plan and assign bot load to the identified human employee
* Process owner and functional lead to manage work allocation among the human employees till the time bot is unavailable

# Appendixes

## Reference Documents, Links and Templates

The table below lists all the reference files

| # | Referenced Section | File Name | File |
| --- | --- | --- | --- |
| 1 | Manual Process (Current State) Overview | As Is Process Map |  |
| 2 | Automated Process (To – BE State) Overview | To Be Process Map |  |
| 3 | Test Cases/ Scenarios | Test Cases Invoice Processing |  |
| 4 | UAT Success Criteria and Sign Off | Test Results |  |
| 5 | Change Request Log | Change Log |  |

## Abbreviations

The table below lists various abbreviations and acronyms used in the document

| Abbreviation | Full form |
| --- | --- |
| RPA | Robotic Process Automation |
| CoE | Center of Excellence |
| SDD | Solution Design |
| Doc. | Document |
| UAT | User Acceptance Testing |
| LoB | Line of Business |
| VAT | Value Added Tax |
| PO | Purchase Order |
| GL | General Ledger |
| CC | Cost Center |
| Tcode | Transaction Code |
| VAT | Company VAT Registration |
| GR | Good Receipt |
| TBD | To Be Decided |