

**INCENTIVES**

**Solution Design Document:** MI Compilation

*24/03/2020*



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**SUBMISSION DETAILS**

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| **Project Name** | **Incentives** | | |
| **Submission by** | Revathee Sabapathee | Co | Anglo African Limited |
| **Submission to** |  | Co | MI Compilation |
| **Project Completion date** |  | | |

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| --- | --- |
| **Project Team Members** | |
| **Business Analyst** | Uma Pookhun |
| **Team Lead** | Yudish Ramdhayan |
| **RPA Developer(s)** | Logueswari Revathee Sabapathee |



# Automation Objective

Objective of the automation is to automate MI Compilation process. The high-level steps involved in the process is described below.

1. Bot will create a folder MMYYYY for the compilation of MI for the current month in the Retail Credit – Compilation of MI folder.
2. Bot to Copy the **100% Provisioned List-MMMYY-FROM CENTRE**(current month – 1), **MU\_IFRS9\_WD3\_template MMM'YY**(current month – 1), **i9\_mauritius\_File Formating Template-MMMYY**(current month – 1), **DRU Impairment for MMMYY Workings**(current month – 2), **MU\_MMMYY-Acct-level Impairment WORKINGS**(current month – 1) to MI folder for the month.
3. In the following sheet; 1) **DRU Imp (Bkt 2&3) Bal NOV19**, 2) **DRU Imp (Bkt4) Bal NOV19**, 3) **DRU FCY-Def Bkt-NOV19**, 4) **DRU CONSO2,3,4 Excl Nil NPV&GSD,** 5) **Impairment Summary DEC19**, 6) **Impairment WD3 DEC19**, 7) **Impairment Input DEC19,** 8) **100%ProvOn+Offshre+FRAUD Nov19,** 9) **Centre Acct-level Imp-MU\_Dec19** ; bot to remove all data from cells.
4. From **DRU FCY lending-Bkt Def ONLY** sheet**(DRU Impairment for MMMYY Workings)** copy rows of data(without header) and paste in sheet **DRU FCY-Def Bkt-NOV19(MU\_MMMYY-Acct-level Impairment WORKINGS)**
5. From sheet **Final-DRU Impairment**,copy data from Columns A - AS Values and paste in sheet **DRU Imp (Bkt4) Bal** NOV19 asfrom columns I1(last row of data)
6. From sheet **Final-Bucket 3+2**, copy data from Columns A - X and paste in **DRU Imp (Bkt 2&3) Bal NOV19** sheet as from columns I1(last row of data)
7. From sheet **DRU Imp (Bkt 2&3) Bal NOV19** copy data from Columns A - G and paste in sheet **DRU CONSO2,3,4 Excl Nil NPV&GSD.**
8. From sheet **DRU Imp (Bkt4) Bal NOV19** copy data from Columns A - G and paste in sheet **DRU CONSO2,3,4 Excl Nil NPV&GSD. In sheet DRU CONSO2,3,4 Excl Nil NPV&GSD** delete all rows where Column NPV is 0 or Error.
9. From sheet **DRU FCY lending-Bkt Def ONLY** copy data from Columns A - G and paste in sheet **DRU CONSO2,3,4 Excl Nil NPV&GSD.**
10. From sheet **SUMMARY** copy all data and paste in sheet **Impairment Summary Dec19**. Note:- Copy values and formats.
11. From sheet **MU\_CALC** copy all data and paste in **Impairment WD3 DEC19** sheet. Delete all where the local balance (revised) and Exp\_Loss\_End\_Rep\_Per\_Local are zero(not necessary)
12. From sheet **input** copy all data and paste in **sheet Impairment Input Dec 19**. Note:- Copy Values with formats
13. From **MU** copy all data and paste in sheet **100%ProvOn+Offshre+FRAUD Dec19** in G1 cell
14. From **sheet 19\_mauritius\_DEC19** copy data in column C-AS and paste in sheet **Centre Acct-level Imp-MU\_Dec19** as from column Y.
15. Clear sheet **Group Fx Rate-MMMYY**(file MU\_workings). Then from sheet **Group Fx Rate-MMMYY** (file i9 mauritius) copy data and paste in sheet **Group Fx Rate-MMMYY**(file MU\_workings).
16. Verify if sheet **PVT**(file i9 mauritius) cell **F19(Exposure Diff WD3 vs i9)** and sheet **Pivot check**(file MU\_workings) cell **K37** is matched else highlight cell K37 sheet **Pivot check**(file MU\_workings) in red.
17. Verify if sheet **Pivot check**(file MU\_workings) cell **K34** and cell **N34** is **> than 50 000 or < -50 000** highlight the cell in orange and display comment box with the given message, **“Kindly investigate the difference”.**
18. Delete all where the local balance (revised) and Exp\_Loss\_End\_Rep\_Per\_Local are zero or Error(**sheet 19\_mauritius\_DEC19**)
19. From file **MU\_Dec19-Acct-level Impairment WORKINGS,** sheet **i9 PVT** update pivot table. If the difference obtained in cell exposure and Impairment is > 500000 then highlight the cell in Red.
20. From file **MU\_Dec19-Acct-level Impairment WORKINGS,** sheet **i9 PVT** sheet **Impairment Rates,** sheet **Pivot check,** sheet **NPL Pivot ,**sheet **Stagewise PVT** update all pivot tables.



# Purpose

The solution design document provides the technical specifications for the design and automation of the process as described in the process design document. This document is created as part of the initial architecture review before development starts. This document serves as a blueprint for development and upkeep of the automation and should be modified at any time to reflect approved changes made to the process and automation code.

# Scope

This solution design covers **MI Compilation** automation created in **VBA** and **Workfusion** as well as any secondary support files, scripts, bot tasks and database objects required to run the automation.

This automation utilizes reusable components (bot task) and error reporting mechanisms that are custom code modules that are not covered in this document.

# High Level Business Scope of Solution

This section highlights the scope of solution for the “**MI Compilation**” process. The process information is supported by envision document, that details the keystroke level of actions taken from start of the process to its completion stage. The scope of automation includes:

1. Automation of process steps that are rule based and supported by a definite logic for its action.
2. Automation and processing of electronic data for the “**MI Compilation**” process as defined in the Process Definition Document (PDD).
3. Automation is within the “**MI Compilation**” process and does not expand to upstream (or) downstream processes.
4. Access to the process applications where the BOT logs in by using the credentials provided by Absa Bank.
5. Development of software codes using RPA tool procured by Anglo African Limited Team.
6. Collecting the process exception list and define the exceptions while developing the BOTs to trigger a ‘warning’ or ‘error’ that shall be processed manually.



1. Testing of BOT in UAT ‘Test’ environment.
2. Migration of BOT codes from ‘Test’ environment to ‘Production’ environment.
3. Change management procedures to ensure handover of automation logistics to Absa Bank Team.

# Technical Environment and Application Details

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sr. No** | **APPLICATION** | **VERSION** | | | **REMARKS** |
| **DEVELOPMENT ENVIRONMENT** | **TEST ENVIRONMENT** | **PRODUCTION ENVIRONMENT** |
| 1 | Operating System | Windows 10 | Windows 10 | Windows 10 |  |
| 2 | Google Chrome | 80.0.3987.149 | 80.0.3987.149 | 80.0.3987.149 |  |
| 3 | Microsoft Office | Professional Plus 2016 | Professional Plus 2016 | Professional Plus 2016 | Excel |
| 4 | Workfusion | Version 8 update 171 | Version 8 update 171 | Version 8 update 171 |  |

# Basic System Checklist

|  |  |
| --- | --- |
| **System Checklist** | **Responses** |
| Project Type | Automation of processing tasks using software Robots |
| Delivery of Functionality | Functionality (automation) delivered all at once |
| System Interactions | BOT interacting with Microsoft Excel  BOT interacting with Files and Folders |
| Credentials | Applications that use ID and password for login   1. Workfusion |

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No** | **Folder Paths** | **TEST ENVIRONMENT** | **PRODUCTION ENVIRONMENT** |
| 1 | Folder Path to create folder (YYYYMM) | \\Muebcyp02fvg02\rct$\Absa\Corporate Entity\Year 2020\IMPAIRMENT\7. WD3\09. Sep2020\Workings\Account level Impairment\NANO BANK-EOM Sept20 Data\MI\ |  |
| 2 | Folder Path of macro | \\Muebcyp02fvg02\rct$\Absa\Corporate Entity\Year 2020\IMPAIRMENT\7. WD3\09. Sep2020\Workings\Account level Impairment\NANO BANK-EOM Sept20 Data\ |  |



# Assumptions

N/A

# Business Rules

1. Make sure that all the following files is placed in the MI files before running the process:

* DRU Impairment for MMMYY Workings
* MU\_IFRS9\_WD3\_template MMM'YY
* 100% Provisioned List - MMMYY-FROM CENTRE
* 19\_mauritius\_File Formatting Template-MMMYY

The following file will be placed in the MU\_workings – Template folder:

* MU\_MMMYY-Acct-level Impairment WORKINGS

1. Ensure that no excel file is opened before running process.
2. From MI/YYYYMM folder path, if files are present in the folder, delete the files before running the process.

# As-Is Process Flow

RPA Enabled Process Flow

**Process Flow from the BOT perspective:**

# Process Inputs/Configuration Data

MI\_macro\_1.xlsm

# Process Output

Retrieve the export data & store it in xxx:xxx/…../MI/YYYYMM folder path.

# Process Automation Modules

The following automation structure reflects a modular approach, focusing on re-usability of components across processes and allowing for proper unit testing throughout. Each file should include a header (comments section) that explains what arguments go in, and what the expected outcome of the module is.

For example: A Login module should receive the credentials and return a success/fail response with an optional description of the error - if applicable. The module code should include its own error handling, including check if the system is available, and return the error accordingly. Based on the PDD, the following modules were proposed, with the naming convention indicating both the task and its level of re-usability (a system module will be re-used frequently, while process specific modules are fairly specific). The terms script/module/task can be used synonymous in this section

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# Error Handling

**Error 1:**

BOT will launch the Workfusion Control Room in case of failure to launch and login.

**Solution Error 1:**

Restart the process, as the system may be delayed during the launching process.

**Error 2:**

Password and Username error.

**Solution Error 2:**

If ever there is an error with the login or any change for the login, update the Credentials in credential Vault.