**DA DIS User Verification**

**Design Specifications**



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# Introduction

Data Analytics Data Import System (DIS) User Verification screen is the interface through which the user manages to correct and update the failed data before it is finally imported into the RMA database.

* This enhancement will be implemented in RMA 15.1.

# Functionality

The DA DIS Optionset window will contain a User Verification checkbox which indicates if User Verification is to occur during the scheduled DA DIS job. The DA DIS job will read the import file, assign global variables and validate the data. After the Validation data flows are completed, a user diary will be sent to the user who scheduled the DA DIS job when the User Verification checkbox is selected. At this point the job stage will remain at Stage 2(Unique Code stage). When the User Verification checkbox is not selected the DA DIS job will continue to the Import Data workflow and the job stage will change to Stage 4(Import Stage).

The user diary will contain a link to the User Verification screen. The user will open the diary and select the link to launch the User Verification screen. The User Verification screen will display all the records by default. Selecting the View All Data radio button will display all DA DIS records for the particular job. When the Edit Failed Rows button is selected, the user can modify the failed records. The user can select a row to modify and correct the data on the screen. When the Edit Failed Rows button is selected, the columns on the selected record will be enabled. The user will be able to modify any of the columns. After modifications are complete, the user will click on the Resume Task button. The data is stored in the DA\_RMX\_STAGING database.

The Resume Task button when selected will resume the DA DIS job. The job will continue with Stage 2(Unique Code workflow). The Unique code workflow will generate new code ids from the temporary tables in the DA\_RMX\_STAGING database which contain the modified short codes. The Validation workflow will then execute and validate the failed records in the DA\_RMX\_STAGING database including the records modified on the User Verification screen. If there are records that are still not valid, a user diary will be created and sent to the user. This process will continue until all records are valid or the Stop Verification checkbox is selected.

The Stop Verification checkbox on the User Verification screen indicates if the user wants to stop the verification process. By default the checkbox will not be selected. When the Stop Verification checkbox is not selected, the DA DIS job will validate the modified data from the User Verification screen. If invalid records exist after the Validation workflow is complete, then a user diary will be created and sent to the user. The job Stage will remain as Stage 2. The user must verify the data prior to the job continuing. This process will continue as long as there are invalid records or the Stop Verification checkbox is selected.

When the Stop Verification checkbox is selected, the DA DIS job will immediately continue processing to Stage 4 (import workflow) after the Validation Stage (stage 3) and import the valid records. The invalid records will be written to the DA DIS Error Log. A user diary will not be sent to the user when the Stop Verification checkbox is selected. The user needs to schedule a new DIS job to process the remaining invalid records.

# Solution

The DA DIS Optionset window will contain a User Verification checkbox which indicates if User Verification is to occur during the scheduled DA DIS job. The DA DIS job will read the import file, assign global variables and validate the data. After the Validation data flows are completed, a user diary will be sent to the user who scheduled the DA DIS job when the User Verification checkbox is selected.

Solution: Add a new checkbox on the DIS optionset screen which allows users to perform the validation through User Verification screen. The User Verification screen will be invoked through a link from the User diary. An additional case needs to be added in RMA to open the User Verification screen through a link from the diary sent to the user.

The User Verification screen will consist of:

1. A radio button to view all the records.
2. A radio button to view all the failed records.
3. A drop down list showing the list of all the DIS Import areas.
4. A drop down list showing the list of all tables in DA\_RMX\_STAGING database. This list will be filtered on the basis of import area selected.
5. A grid to display and edit the records.
6. A richtextbox to display the row error summary.
7. A label to display the number of records in the grid. The label displays the number of rows in the table selected from the dropdown list.
8. A Stop Verification checkbox to stop sending diary to the user and processing to continue to the Import Stage.
9. A Resume Task button to resume the DA DIS job. The button will always be enabled. The user does not need to make modifications to the data to resume the task. The validation workflow will always be processed when the Resume Task button is selected.

The User Verification screen will display all therecords by default. Selecting the View All Data radio button will display all DA DIS records for the particular job. When the Edit Failed Rows button is selected, the user can modify the failed records. The user can select a row to modify and correct the data on the screen. When the Edit Failed Rows button is selected, the columns on the selected record will be enabled. The user will be able to modify any of the columns. After modifications are complete, the user will click on the Resume Task button. The data is stored in the DA\_RMX\_STAGING database.

In order to allow the user to view the data as provided in the import file, the short code values for the code fields need to be added in the temporary tables whereas the code ids will remain in the original staging tables. The User Verification code needs to be modified to load the short code columns from the temporary tables and the rest from the original staging tables. For this, the columns that needs to be displayed from the respective tables on the basis of the selected import area on the User Verification screen needs to be hard coded. When a short code value is changed on the User Verification screen, it will be saved to the Temp(T) tables.

The Resume Task button when selected will resume the DA DIS job. The job will continue with Stage 2(Unique Code workflow). The Unique code workflow will generate new code ids from the temporary tables in the DA\_RMX\_STAGING database which contain the modified short codes. The Validation workflow will then execute and validate the failed records in the DA\_RMX\_STAGING database including the records modified on the User Verification screen. If there are records that are still not valid, a user diary will be created and sent to the user. This process will continue until all records are valid or the Stop Verification checkbox is selected.

The DA DIS Template will be modified to send a user diary when the Stop Verification checkbox is not selected on the User Verification screen after the Validation workflow is complete. The job will halt and wait for the user verification. The Job Status will appear as ‘Pending User Verification’. The DA DIS Template also needs to be modified to create a new dataflow to populate the Import areas and corresponding Table\_Id’s and Table\_names in User\_Verification table of DA\_RMX\_STAGING database.

In order to allow the short codes to be displayed on the User Verification screen instead of the code ids, the following changes are required to be made in the DA DIS Template.

1. Additional columns for storing the short codes need to be added in the Temp(T) tables.
2. A new workflow WF\_DIS\_POPULATE\_UV needs to be added in the workflow WF\_DIS\_READ\_DATA after WF\_DIS\_READ\_FILE and before S\_Next\_Stage script to populate the User Verification table in Staging database.
3. The READ\_DATA Conditional in the WF\_DIS\_READ\_DATA workflow needs to be updated. The workflows WF\_DIS\_GET\_DISTINCT\_CODE and WF\_DIS\_UNIQUE\_CODE needs to be removed.
4. The WF\_DIS\_READ\_FILE needs to be updated. The code id lookups in each WF\_READ<import\_area> data flow needs to be removed. Code ids will not be added to the record in these data flows. The short code values will be moved to the temporary tables in this workflow.
5. a) A new workflow WF\_DIS\_CODES needs to be created at the job level after the WF\_DIS\_READ\_FILE workflow. This workflow will become Stage 2. The WF\_DIS\_GET\_DISTINCT\_CODE workflow needs to be added to this workflow and the import area dataflows needs to be modified to get the short code values from the Temp(T) tables. The existing WF\_DIS\_UNIQUE\_CODE workflow needs to be added to this workflow. A new import area dataflow needs to be created to look-up the code from the UNIQUE\_CODES table.

b) In the WF\_DIS\_GET\_DISTINCT\_CODE workflow, the import area data flows needs to be modified to get the short code values from the Temp(T) tables instead of the Access Staging database.

c) The WF\_DIS\_UPDATE\_CODES workflow will be used to look-up the codes from the Temp(T) tables and update in the Base tables(eg. Look-up the code-id of the updated short code in the Temp(T\_DIS\_ENTITY) table and update the base ENTITY table) . The code-id lookup logic previously written in WF\_DIS\_READ\_FILE workflow will be moved here.

d) The workflow WF\_DIS\_UNIQUE\_CODE needs to be modified: The DF\_UPDATE\_EXISTING\_CODE dataflow needs to be removed as the existing codes will not be updated in the DA DIS project.5. WF\_DIS\_VALIDATE\_DATA now becomes STAGE 3.

1. S\_CONTINUE script will be modified to set the STAGE to STAGE 2 if the User Verification Flag is turned on.
2. The workflow WF\_WRITE\_VERIFY\_DIARY needs to be modified to send the diary to the user when the User Verification Flag is ON and the Stop Verification Flag is Off.
3. C\_DIS\_IMPORT\_DATA now becomes STAGE 4.
4. A new script S\_UPDATE\_STATS needs to be added in the workflow WF\_DIS\_WRITE\_ERROR\_LOG after the dataflow DF\_WRITE\_ERROR\_LOG to update the column STAGE in DA\_STATISTICS table with the value of the global variable.

DA DIS EXE needs to be modified to check if the user verification option is selected on the DA DIS Optionset window. The EXE needs to be modified to read the Job Stage from Statistics table of Staging database. On the basis of the job stage, the job status will be changed from 2 to 4 in the DA Template when the User Verification option is not selected or the Stop Verification option is selected on resuming the task from User Verification screen.

The EXE also needs to be modified to set a new Job Status ‘Pending User Verification’. An additional status code needs to be added which will then be read by the Taskmanager exe and update the status accordingly.

The DA DIS Template will continue processing to Stage 4, the Import Workflow, when the Validation workflow is complete and all the records are valid. When the Stop Verification checkbox is selected, the DA DIS Template will continue processing to Stage 4, the Import Workflow, when the Validation Workflow is complete. Valid records will be imported. Invalid records will be written to the DA DIS Error Log. A user diary will be sent to the user indicating the status “The job is complete”.

# Description of Screen Form or Page

DA DIS Optionset window:

Add a new checkbox on the DIS optionset screen which allows users to perform the validation through User Verification screen.

User Verification screen:

The User Verification screen will be invoked through a link from the User diary.

The User Verification screen will consist of:

1. A radio button to view all the records. By default, this option is checked.
2. A radio button to view all the failed records.
3. A drop down list showing the list of all the DIS Import areas. The DIS Import areas will be populated from User\_Verification table of DA\_RMX\_STAGING database.
4. A drop down list showing the list of all tables in DA\_RMX\_STAGING database. This list will be filtered on the basis of import area selected. The tables associated with a particular import area will be populated from User\_Verification table of DA\_RMX\_STAGING database.
5. A label to display the number of errorneous rows in the table selected.
6. A grid to display and edit the records. The grid displays the records of a particular table selected from the drop-down list. It fetches all the rows of the table. When the ‘Edit Failed Rows’ button is selected, it displays all the rows of that particular table whose INVALID\_ROW is greater than 1. Each row will have an option of Update and Cancel. The name of the columns containing the error and its description is read from the Error\_Log table. All the columns of the row are available for edit except DA\_ROW\_ID, JOBID, INPUT\_ROW\_ID, INVALID\_ROW, UPDATE\_ROW columns. Once the columns are edited, the user can select the Update option and the row gets updated in the DA\_RMX\_STAGING database or the Cancel option to cancel the edit operation.
7. A richtextbox to display the row error summary. When a column is selected for edit, it displays the Error\_Description from the Error\_Log table in the textbox for that particular column only.
8. A label to display the number of records in the grid. The label displays the number of rows in the table selected from the dropdown list. When Edit Failed Rows button is selected, it display the number of rows containing the error in the form ‘Error Rows in th Table:x’.
9. A Stop Verification checkbox to stop sending diary to the user and processing to continue to the Import Stage. By default, this option is not checked.
10. A Resume Task button to resume the DA DIS job. The button will always be enabled. The user does not need to make modifications to the data to resume the task. On clicking the Resume Task button, an entry is made in the TM\_Schedule table of Task Manager database and the button is disabled so that the user cannot schedule the task more than once The page is then redirected to the TM\_JOBS\_VIEW screen. The DA DIS EXE again hits the DA DIS Template with the same job id and processes the Unique code workflow followed by validation workflow. The validation workflow will always be processed when the Resume Task button is selected. The job status on TM\_JOBS\_VIEW is set to ‘Pending User Verification’ until the editions are being made on the User Verification screen. When the Resume Task button is clicked, it changes to ‘Running’.

The User Verification screen will display all records by default. Selecting the View All Data radio button will display all DA DIS records for the particular job. When the Edit Failed Rows button is selected, the user can modify the failed records. The user can select a row to modify and correct the data on the screen. After modifications are complete, the user must select the Resume Task button to resume the DA DIS job. Data does not have to be modified to resume the task.

The Stop Verification checkbox indicates if the user wants to stop verification. When the checkbox is not seleted, a diary will be sent to the user when invalid records exist after the Validation Stage. At this point the DA DIS job status will be set to ‘Pending User Verification’ and the user must verify the data prior to the job continuing. This process will continue as long as there are invalid records. Code modifications need to be made in the DiaryList.cs page in order to invoke the User Verification screen from the link of the diary. Code modifications need to be made in the MDINavigationTreeProcess.cs and MDITreeNodeHint.cs to redirect the page from User Verification screen to the TM\_JOBS\_VIEW screen.

When the Stop Verification checkbox is selected, the DA DIS job will immediately continue processing to the Import Stage (Stage 4) after the Validation Stage (Stage 3). Valid records will be imported and invalid records will be written to the DA DIS Error Log.

## Image

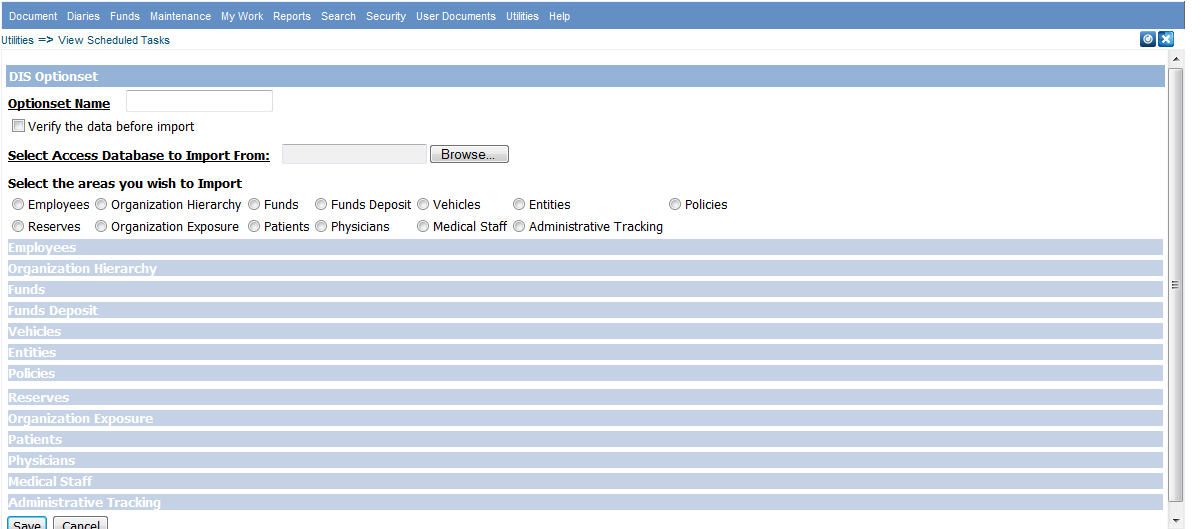


Figure 1: The DA DIS Optionset window

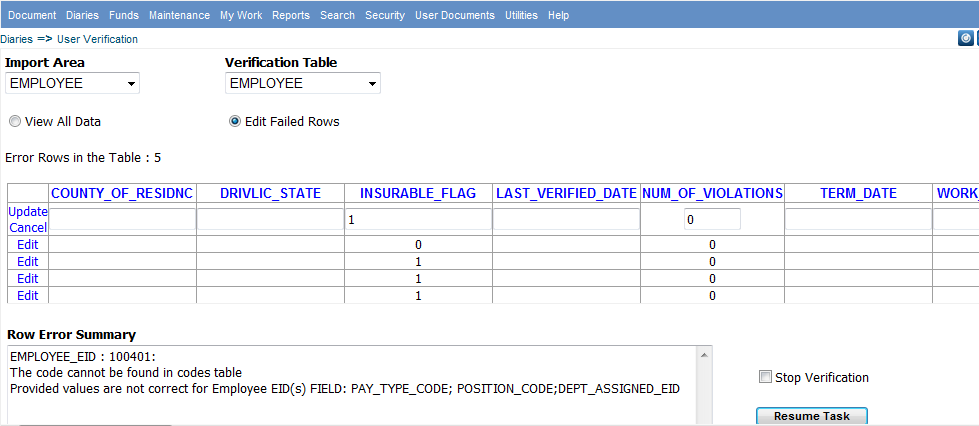


Figure 2: The User Verification window

## Use Cases

|  |  |
| --- | --- |
| **Use Case:** | User schedules a DA DIS job without selecting the User Verification checkbox. |
| **Context of use:** | This Use Case describes the steps which will take place when User Verification option is not selected on DA DIS optionset window. |
| **End User Goal:** | User will not be able to edit the failed records before importing the data to the RMA database. |
| **Primary Actor:** | User |
| **Precondition:** | User should have the essential login credentials to use the application.  The User Verification checkbox must not be selected on the DA DIS Optionset window. |
| **Minimal**  **Guarantees:** | End User Goal as mentioned above is achieved. |
| **Success**  **Guarantees:** | End User Goal as mentioned above is achieved. |
| **Trigger:** | User schedules the DA DIS Template task with User Verification checkbox unchecked. |
| **Success Scenario:** | 1. From the ‘Utilities’ menu, select ‘Tools and Designers/Task Manager/View Scheduled Tasks’. 2. On the View Schedule Tasks window select the following: 3. Select the ‘Schedule a New Task’ button 4. Task Type = DIS 5. Task Name = DIS User Verification 6. Schedule Type = One Time 7. Date = Today’s Date 8. Time = user preference 9. Select the ‘Optionset’ button 10. On the DIS Optionset window select the following options: 11. Optionset Name = DIS Optionsetname 12. Select the Access database to Import From. For example, select ‘DIS\_TEST\_FILE.mdb’ : 13. Select the Browse button adjacent to the ‘Select the Access database to Import From’ and search for the mdb file. 14. Do Not select the User Verification checkbox ‘Verify the data before import’. 15. Select the areasyou wish to import. 16. Select any area from the list of options and select the options corresponding to that area. For example, Select Employee option. 17. A list of options appear:  * Import Supplemental Data * Update Even if Blank or Zero * Allow Creation of New Codes * Update Address Even if Blank or Zero * Match Only on Employee ID * Match by Enitity ID   Only one option out of the last two can be selected.   1. Select the options of your choice. For example  * Allow Creation of New Codes * Update Address Even if Blank or Zero * Match Only on Employee ID   have been selected.   1. Select the ‘Save’ button. 2. From the ‘Utilities’ menu, select ‘Tools and Designers/Task Manager/TM Jobs View’ 3. On the TM Jobs View window, confirm the scheduled ‘DIS User Verification’ task completed with a job state of ‘Completed’ or ‘Completed with Validation Errors’. 4. A diary will be sent to the user who scheduled the DIS job indicating the status “The job is done”. Verify that a diary for the User Verification is not sent. 5. On the TM Jobs View window, open the Job Files by selecting the attached zip file. 6. Open the Zip file 7. Open the Error Log file 8. If the Log file contains validation errors that kept a diary from being created, the errors need to be resolved and the DIS job needs to be scheduled again. 9. Verify that the data gets imported according to the options selected in the RMA database. |

|  |  |
| --- | --- |
| **Use Case:** | User selects the User Verification checkbox and schedules a job. |
| **Context of use:** | This Use Case describes the steps required to perform the validation through User verification screen. |
| **End User Goal:** | User will be able to edit the failed records before importing the data to the RMA database. |
| **Primary Actor:** | User |
| **Precondition:** | User should have the essential login credentials to use the application.  The User Verification checkbox must be selected on the DA DIS Optionset window. |
| **Minimal**  **Guarantees:** | End User Goal as mentioned above is achieved. |
| **Success**  **Guarantees:** | End User Goal as mentioned above is achieved. |
| **Trigger:** | User schedules the DA DIS Template task with User Verification option checked. |
| **Success Scenario:**  - Stop Verification option OFF on User verification screen | 1. From the ‘Utilities’ menu, select ‘Tools and Designers/Task Manager/View Scheduled Tasks’ 2. On the View Schedule Tasks window select the following: 3. Select the ‘Schedule a New Task’ button 4. Task Type = DIS 5. Task Name = DIS User Verification 6. Schedule Type = One Time 7. Date = Today’s Date 8. Time = user preference 9. Select the ‘Optionset’ button 10. On the DIS Optionset window select the following options:     1. Optionset Name = DIS Optionsetname. Create a Import file DIS\_TEST\_FILE.mdb and enter invalid values or invalid short codes in the following fields in the EMPLOYEE table: 11. EMPLOYEE\_EID entered by invalid value 12. POSITION\_CODE entered but invalid short code 13. DEPT\_ASSIGNED\_EID populated but invalid Abbreviation 14. PAY\_TYPE\_CODE entered but invalid short code 15. DRIVLIC\_STATE entered but invalid short code 16. DRIVERSLICTYPECODE entered but invalid short code 17. DRIVLIC\_RSTRCTCODE entered but invalid short code 18. MARITAL\_STAT\_CODE entered but invalid short code 19. NCCI\_CLASS\_CODE entered but invalid short code   For example: EMPLOYEE\_EID – 78  POSITION\_CODE – pos  DEPT\_ASSIGNED\_EID – deptt  PAY\_TYPE\_CODE – PP  DRIVLIC\_STATE – SS  DRIVERSLICTYPECODE – 5555  DRIVLIC\_RSTRCTCODE – 6666  MARITAL\_STAT\_CODE – A  NCCI\_CLASS\_CODE - 7777   * 1. Select the Access database to Import From.      1. Select the Browse button adjacent to the ‘Select the Access database to Import From’ and search for the DIS\_TEST\_FILE.mdb file.   2. Select the User Verification checkbox ‘Verify the data before import’.   3. Select the areasyou wish to import.      1. Select any area from the list of options and select the options corresponding to that area. For example, Select Employee option.      2. A list of options appear:         1. Import Supplemental Data         2. Update Even if Blank or Zero         3. Allow Creation of New Codes         4. Update Address Even if Blank or Zero         5. Match Only on Employee ID         6. Match by Enitity ID         7. Only one option out of the last two can be selected.      3. Select the options of your choice. For example * Match Only on Employee IDhas been selected.   + 1. Select the ‘Save’ button.  1. From the ‘Utilities’ menu, select ‘Tools and Designers/Task Manager/TM Jobs View’ 2. On the TM Jobs View window, confirm the scheduled ‘DIS User Verification’ task completed with a job state of ‘Pending User Verification’. 3. On the TM Jobs View window, open the Job Files by selecting the attached zip file. 4. Open the Zip file 5. Open the Error Log file   The error log file shows the following errors:  EMPLOYEE\_EID : - Validation Error,EMPLOYEE Record Missing for ENTITY Record,ENTITY,2,ENTITY\_ID. DEPT\_ASSIGNED\_EID :-Employee department 'deptt' doesn't exist.   1. Validation Error,The code cannot be found in codes table,DRIVERSLICTYPECODE;NCCI\_CLASS\_CODE;PAY\_TYPE\_CODE; DRIVLIC\_RSTRCTCODE; MARITAL\_STAT\_CODE; POSITION\_CODE. Verify that a diary is sent to the user who scheduled the DIS job with a link to the User Verification screen. 2. Verify the link on the user diary with the name DIS opens the User Verification screen. 3. Verify the ‘View all data’ option is selected by default when the User Verification screen displays. 4. Select the Import area from the dropdown list showing all the DIS Import areas. Verify the related import area tables are listed in the dropdown list. For example for Employee, the related tables are EMPLOYEE, ENTITY, EMP\_X\_DEPENDENT and EMP\_X\_VIOLATION. 5. Select the table:Employee from the dropdown list showing the names of all the tables in RMXStaging Database. Verify the errors for the table display. 6. Verify that the label displays the number of rows in the grid correctly. 7. Verify the ‘Edit Failed Rows’ option button enables the selected row for edit. 8. Correct the record in the grid. Do not correct all records. 9. Verify that when updating a record,its corresponding error description appears in the Row Error Summary textbox. For example, when updating the POSITION\_CODE column, the error 'The code cannot be found in codes table’ shows on the Row Error Summary textbox. 10. Verify that a validation message ‘*The Column ABC is of XYZ type. Please provide valid input.’* appears if an invalid entry is made in the grid. 11. Verify the corrected data is saved to the DA\_RMX\_STAGING database. 12. Do NOT select the Stop Verification option. 13. Click on Resume Task button. The page is redirected to TM\_JOBS\_VIEW page. Verify that the job status changes back to running. 14. On the TM Jobs View window, confirm the scheduled ‘DIS User Verification’ task completed with a job status of ‘Pending User Verification’. 15. On the TM Jobs View window, open the Job Files by selecting the attached zip file. The zip file will contain error logs for each run appended with the number of runs, process logs appended with date and time and Exe Logs-Process,Trace and Error log. 16. Open the Zip file 17. Open the Error Log file 18. Verify a diary was sent to the user who scheduled the DIS job with a link to the User Verification screen. 19. Verify this process continues until all the validation errors have been corrected. |
| **Alternate Scenario:**  - Stop Verification option ON on User verification screen | 1. From the ‘Utilities’ menu, select ‘Tools and Designers/Task Manager/View Scheduled Tasks’ 2. On the View Schedule Tasks window select the following:    1. Select the ‘Schedule a New Task’ button    2. Task Type = DIS    3. Task Name = DIS User Verification    4. Schedule Type = One Time    5. Date = Today’s Date    6. Time = user preference    7. Select the ‘Optionset’ button 3. On the DIS Optionset window select the following options:    1. Optionset Name = DIS Optionsetname    2. Create a Import file DIS\_TEST\_FILE.mdb and enter invalid values or invalid short codes in the following fields in the EMPLOYEE table: 4. EMPLOYEE\_EID entered by invalid value 5. POSITION\_CODE entered but invalid short code 6. DEPT\_ASSIGNED\_EID populated but invalid Abbreviation 7. PAY\_TYPE\_CODE entered but invalid short code 8. DRIVLIC\_STATE entered but invalid short code 9. DRIVERSLICTYPECODE entered but invalid short code 10. DRIVLIC\_RSTRCTCODE entered but invalid short code 11. MARITAL\_STAT\_CODE entered but invalid short code 12. NCCI\_CLASS\_CODE entered but invalid short code   For example: EMPLOYEE\_EID – 78  POSITION\_CODE – pos  DEPT\_ASSIGNED\_EID – deptt  PAY\_TYPE\_CODE – PP  DRIVLIC\_STATE – SS  DRIVERSLICTYPECODE – 5555  DRIVLIC\_RSTRCTCODE – 6666  MARITAL\_STAT\_CODE – A  NCCI\_CLASS\_CODE - 7777   * 1. Select the Access database to Import From.      1. Select the Browse button adjacent to the ‘Select the Access database to Import From’ and search for the DIS\_TEST\_FILE.mdb file.   2. Select the User Verification checkbox ‘Verify the data before import’.   3. Select the areasyou wish to import.      1. Select any area from the list of options and select the options corresponding to that area. For example, Select Employee option.      2. A list of options appear:         1. Import Supplemental Data         2. Update Even if Blank or Zero         3. Allow Creation of New Codes         4. Update Address Even if Blank or Zero         5. Match Only on Employee ID         6. Match by Enitity ID         7. Only one option out of the last two can be selected.      3. Select the options of your choice. For example * Match Only on Employee ID   have been selected.   * + 1. Select the ‘Save’ button.  1. From the ‘Utilities’ menu, select ‘Tools and Designers/Task Manager/TM Jobs View’. 2. On the TM Jobs View window, confirm the scheduled ‘DIS User Verification’ task completed with a job state of ‘Pending User Verification’. 3. On the TM Jobs View window, open the Job Files by selecting the attached zip file.    1. Open the Zip file    2. Open the Error Log file 4. Verify a diary is sent to the user who scheduled the DIS job with a link to the User Verification screen. 5. Verify the link in the user diary opens the User Verification screen. 6. Verify the ‘View all data’ option is selected by default. 7. Verify the dropdown list shows all the DIS Import areas. 8. Select the Import area from the dropdown list showing all the DIS Import areas. Verify the related import area tables are listed in the dropdown list. For example for Employee, the related tables are EMPLOYEE, ENTITY, EMP\_X\_DEPENDENT and EMP\_X\_VIOLATION. 9. Select the table:Employee from the dropdown list showing the names of all the tables in RMXStaging Database. Verify the errors for the table display. 10. Verify that the label displays the number of rows in the grid correctly. 11. Verify the ‘Edit Failed Rows’ option button enables the selected row for edit. 12. Correct the record in the grid. Do not correct all records. 13. Verify that when updating a record, its corresponding error description appears in the Row Error Summary textbox. For example, when updating the POSITION\_CODE column, the error 'The code cannot be found in codes table’ shows on the Row Error Summary textbox. 14. Verify that a validation message ‘*The Column ABC is of XYZ type. Please provide valid input.’* appears if an invalid entry is made in the grid. 15. Verify the corrected data is saved to the DA\_RMX\_STAGING database. 16. Select the Stop Verification option. 17. Click on Resume Task button. The page is redirected to TM\_JOBS\_VIEW screen. Verify that the job status changes to Running. 18. On the TM Jobs View window, confirm the scheduled ‘DIS User Verification’ task completed with a job state of ‘Completed’ or ‘Completed with Validation Errors’. 19. A diary will be sent to the user who scheduled the DIS job indicating the status “The job is done”. Verify that a diary for the User Verification is not sent. 20. On the TM Jobs View window, open the Job Files by selecting the attached zip file.     1. Open the Zip file     2. Open the Error Log file 21. If the Log file contains validation errors that kept a diary from being created, the errors need to be resolved and the DIS job needs to be scheduled again. |

# Database Design

The DA\_RMX\_STAGING\_SQL.sql and DA\_RMX\_STAGING\_ORACLE.sql scripts will be modified to include new tables and fields for the Staging database.

## USER\_VERIFICATION

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| NAME | Data Type | Size | Null Allowed? | Description/Mapping |
| JOBID | Int |  | N |  |
| OPTIONSET\_ID | Int |  | N |  |
| MODULE\_NAME | Varchar(25) |  | Y | It contains the name of Module. Eg: DIS |
| IMPORT\_AREA | varchar(25) |  | Y | It contains a list of all the DIS Import areas. This list will get populated from the DA DIS Template. |
| TABLE\_NAME | varchar(4000) |  | Y | It contains a list of all the Table names corresponding to the list of Import area. This list will get populated from the DA DIS Template. |
| VERIFICATION\_FLAG | Int |  | N | This flag is mapped to the User Verification checkbox on the DA DIS optionset screen. If it is 1, User Verification process will take place else not. |
| STOP\_VERIFICATION | Int |  | N | This option is mapped to the Stop Verification checkbox in User Verification screen. DA DIS Template reads its value. If it is 1, the validation workflow followed by Import workflow is processed.  If it is 0, the validation workflow is processed and a user diary is sent again if validation fails. The Import workflow is not processed. |

The DA\_STATISTICS table of the DA\_RMX\_STAGING database will be modified with the following new columns:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| NAME | Data Type | Size | Null Allowed? | Description/Mapping |
| STAGE | Int |  | N | It stores the value of Stage in DA DIS Template. Its value is read by DA DIS exe code to determine the job state.  If the Stage=2 and VERIFICATION\_FLAG=1, then the job state is ‘Pending User Verification’.  If the Stage=3 and VERIFICATION\_FLAG=0, then the job state is ‘Completed’ or ‘Completed with Validation errors’.  If the Stage=2 and STOP\_VERIFICATION =0, then the job state is ‘Pending User Verification’.  If the Stage=2 and STOP\_VERIFICATION =1, then the job state is ‘Completed’ or ‘Completed with Validation errors’. |

The TM\_JOB\_STATE table of the Taskmanager database will be modified with the following new row.

|  |  |
| --- | --- |
| JOB\_STATE\_ID | JOB\_STATE |
| 9 | Pending User Verification |

# Processing Edits

User Verification screen:

1. DIS Import Area:

Selecting an Import Area will populate the Verification Table list with the related tables.

1. Selecting a Verification Table will populate the Grid with the related failed records. It will also set the Error Rows in the Table count.
2. Selecting the View All Data radio button will populate the Grid with all records from the selected Import Area and Verification Table.
3. Selecting the Edit Failed Rows radio button will enable the columns on the selected row on the Grid.
4. Selecting a row in the Grid will populate the Row Error Summary list.

DA DIS EXE:

1. Set Job Status
   1. The Job Status will be set to Pending User Verification when the Job Stage is 2 and the Verification Flag is true.
   2. The Job Status will be set to Completed, Completed with Error or Completed with Validation Error when the Job Stage is 4.
   3. The Job Status will be set to Running when the Resume Task button on the User Verification screen is selected and the Job Stage is 2.
2. Clear Tables
   1. The Staging tables will not be cleared when the Job Stage is 2 and the Verification Flag is true.
   2. The Staging tables will be cleared when the Job Stage is 4.
   3. The Staging tables will be cleared when the Job Stage is 2 and the Verification Flag is false.
   4. The Staging tables will be cleared when the Job Stage is 1 and the Verification Flag is false.
3. The job stage will also determine the clearing of Staging tables. The Staging tables will not get cleared when the job stage is 2 and the User Verification option is selected and the IS\_VALIDATION = 1. Job status will be Completed with Validation Errors. The job could complete with the IS\_VALIDATION=1, this is a valid scenario.

DA EXE Code must check the Job Stage. Job Stage needs to be passed to the exe. If Job Stage=4 then the Staging tables are to be cleared. A method CleanStagingTables() needs to be modified for this in the exe.

1. A method PurgeFolder() needs to be modified to clear the temporary file storage only when VERIFICATION\_FLAG= 0 and Job Stage = 2.
2. A method GenerateLogs() needs to be modified to check if the value of VERIFICATION\_FLAG=1. If its 0, then error log will get created otherwise appended.
3. The method CheckValidation() needs to be modified to set the new Job status ‘Pending User Verification’.
4. The ClearErrorLog function needs to be modified to clear the Error\_Log table before executing the job.
5. A new method UpdateJobId needs to be created to switch between different job ids.
6. A new method GenerateNumberOfRuns needs to be created to get the number of User Verification Job run and update the same in the log files.

DA DIS TEMPLATE:

1. Process Validation Workflow

The Validation workflow will be processed when the Resume Task button is selected on the User Verification screen.

1. Create User Diary

A User Diary will be created when the Verification Flag is true and the Stop Verification Flag is false.

A User Diary will not be created when the Verification Flag is False.

A User Diary will not be created when the Verification Flag is true and the Stop Verification Flag is true.

1. Set Job Stage

After the Validation workflow completes processing:

1. the Job Stage will remain as Stage 2 (Unique Code) when the Verification Flag is true and the Stop Verification Flag is false and there are invalid records.
2. the Job Stage will change to Stage 4 (Import) when the Verification Flag is true and the Stop Verification Flag is false and there are not any invalid records.
3. the Job Stage will change to Stage 4 (Import) when the Verification Flag is true and the Stop Verification Flag is true.
4. the Job Stage will change to Stage 4 (Import) when the Verification Flag is false.

TASKMANAGER EXE:

1. Set Job Status

The Job Status will be set to Pending User Verification when the Job Stage is 2, the Verification Flag is true and the User Diary is sent.

The Job Status will be set to Running when the Resume Task button is selected and the Verification Flag is true.

# Errors/Error Handling

|  |  |
| --- | --- |
| **Screen name:** | User Verification |
| **Field name:** | Update row in grid |
| **Error:** | Invalid input provided in the grid |
| **Display type:**  **(Message Box or Beep)** | Message displays in red at the top as the screen as all other UI error messages display. |
| **Message text:** | *The Column ABC is of XYZ type. Please provide valid input.* |
| **System Action:** | Display error message |
| **User Action:** | *User must enter a valid input in the grid.* |
| **Potential Causes:** |  |
| **Resolution:** |  |

|  |  |
| --- | --- |
| **Screen name:** | User Verification |
| **Field name:** | DIS Import Area |
| **Error:** | Import area not selected from the dropdown list |
| **Display type:**  **(Message Box or Beep)** | Message displays in red at the top as the screen as all other UI error messages display. |
| **Message text:** | *Please select a import area from the dropdown list* |
| **System Action:** | Display error message |
| **User Action:** |  |
| **Potential Causes:** |  |
| **Resolution:** |  |

|  |  |
| --- | --- |
| **Screen name:** | User Verification |
| **Field name:** | Verification Table |
| **Error:** | Verification table not selected from the dropdown list |
| **Display type:**  **(Message Box or Beep)** | Message displays in red at the top as the screen as all other UI error messages display. |
| **Message text:** | *Please select a Verification table from the dropdown list* |
| **System Action:** | Display error message |
| **User Action:** |  |
| **Potential Causes:** |  |
| **Resolution:** |  |

### Validations

The following validations must be in the DA DIS User Verification screen.

1. A validation message must be displayed when user does not select the DIS Import area from the DIS Import Area drop-down list.
2. A validation message must be displayed when user does not select the table name from the Verification Table drop-down list.
3. A validation message must be displayed when user makes an invalid entry in the grid.

# Interdependencies and Interactions

The DA DIS Template ATL changes and DA EXE changes are dependent on the DA DIS Optionset window changes and User Verification screen. Unit Testing and QA Testing cannot be completed until both the Template, Exe and UI changes are completed. QA Testing is dependent on rmA hot patches being created.

# Interface Information

Not Applicable.

# Application / Technical Impact

The existing DA DIS functionality needs to be modified as follows:

* New options will need to be added to the DA DIS optionset window as defined above, to perform the User Verification.
* New User Verification screen needs to be created to view/edit the valid and invalid records.
* DA DIS Template needs to be modified to perform the User Verification check and send a diary to user who scheduled the DIS job.
* DA DIS exe needs to be modified to handle the User verification functionality.
* Taskmanager exe needs to be modified to provide a new Job Status.
* DA Staging scripts needs to be modified as defined above.

# Performance

# Security

No changes to Security have been identified for this requirement.

# What to Test

All test cases to be tested against each Test Environment listed below.

**Test Environment 1:**

rmA 15.1

SQL Server

Data Services 4.2

**Test Environment 2:**

rmA 15.1

Oracle

Data Services 4.2

1. Test DA DIS with User Verification Turned OFF.
2. Test DA DIS with User Verification Turned ON and Stop Verification option turned ON.
3. Test DA DIS with User Verification Turned ON and Stop Verification option turned OFF.

# Signoff

**The signatures below represent approval and signoff of the requirements and approaches as listed above.**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Reviewer(s) Date

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Testing Lead Date

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Program Manager Date

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Development Manager Date

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Hosting Manager Date

Comments: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# References

* DA DIS Overall Process Requirement Document

# Requirement Change Log

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date | Change # | Requirement # Revised | Nature of Revision | Initials |
| 6/26/2013 | V1.0 |  | Initial version |  |
| 07/30/3013 | V1.1 |  | Modified with suggestions from review |  |
| 08/08/2013 | V1.2 |  | Modified with suggestions from review |  |
| 10/15/2013 | V1.3 |  | Modified with suggestions from Review |  |
| 09/06/2014 | V1.4 |  | Modified with suggestions from Review |  |
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