Troubled Debt Restructure Tracking

LoanRestructureTracking.Menu.dnax
Extension ID: 8a27c577-0bfe-4aa3-bbe9-48f5e8442158

Overview:
This application is designed to assist in the fulfillment of troubled debt compliance regulations by providing an electronic means to track and update loan restructuring activities with the capability to automatically number and track each loan provision. The application provides for activity record generation for audit purposes. The application also allows for preview and printing of loan restructure activities.

Key Benefits:
- Assists in the fulfillment of troubled debt compliance regulations
- Provides for activity record generation for audit purposes

Processing:
In either the Person/Member Maintenance or Organization Maintenance, after the selected member/customer appears on the screen, the user will go to the Additional menu item and select Loan Restructure Tracking. A screen with account list will appear, if there are no accounts to display a message will show as “No Information Found.” To view the loan restructure activities on an account, double click the account. The Summary section will list loan restructure activities if available; otherwise, a message will be displayed as “No Information Found.”

To add a new activity, click the Add button, complete the entry form and click on “Process”. The modification number is incremented automatically. If the bankruptcy checkbox is checked, all 3 textboxes (Date of Notice, Bankruptcy Type and Case Number) will be enabled; otherwise, disabled. If the number of modification exceeds the number on the calculation variable NbrMod, a message will be displayed as “The maximum number of modifications is ___.” The interest rate entered must also be less than or equal to 100 or a message will be displayed as “The interest rate must be less than or equal to 100.” If a user input “;”, “&” or some SQL words, a message will be displayed as “Some special characters and SQL reserved words are not allowed.” If the Date of Notice is greater than the Post Date, a message will be displayed as “The bankruptcy date cannot be a future date.” If the user attempts to click the Process button twice, a message will be displayed as “The data has already been added.” After processing successfully, a message will be displayed as “Processed Successfully.”; otherwise, a message will be displayed as “Cannot add data, please try again later.”

To update an existing activity, double click a record in the Summary section and make the necessary changes. After processing successfully, a message will be displayed as “Processed Successfully.”; otherwise, a message will be displayed as “Cannot update data, please try again later.” If the user does not make any changes and click the Process button anyways, a message will be displayed as “No changes made.”

To delete an activity, select row(s) in the Summary section and click the Delete button. A message will be displayed as “Are you sure you want to delete the selected row(s)?” Click Yes to delete the row(s) or No to cancel. A message will be displayed as “Cannot delete data, please try again later.” if delete was unsuccessful.

To view or print an activity, select row(s) in the Summary section and click View / Print button. If the report viewer DLLs are not in the specified folder or the LocDLL calculation variable is blank, a message will be displayed as “Report viewer DLLs are missing in the ___ folder.”, where ___ is the folder path setup in the LocDLL calculation variable.

Authorization:
To grant a user access to this application, the authorization item TDR Tracking Form Auth Item (R0GD) needs to be assigned to an authorization group, such as tellers (TELL), to which the user has at least View and Inquiry access privileges. To grant users with update privilege, the TDR Tracking Update AuthItem (R0GB) needs to be assigned to the authorization group as well.

The following table lists the AuthItem that is used in the application:

Name	Code	Type	Description (how used)
TDR Tracking Form AuthItem	R0GD	AuthItem	Authorization item for screen and GUI access.
TDR Tracking Update Auth Item	R0GB	AuthItem	Authorization item for Update access through CAPIs.

Parameters:
N/A.

Variables:
Only the value of the variables 9R70 to 9R78 can be customized by the financial institution.

<u>Calculation Categories</u>:

A calculation category is required to associate the variables to the application. The following calculation category is used for that purpose.

Calculation Cat Code	Description (how used)
9RFC	Custom Category

<u>Calculation Types</u>:

A calculation type is required to associate the variables to the application. The following calculation type is used for that purpose.

Calculation Cat Code	Calculation Type Code	Description (how used)	MjMiYN
9RFC	9R0G	Loan Restructure Tracking	N

Calculation Variables:

The following calculation variables are required for the application. They are populated within the ‘9R0G’ calculation type.

Variable	Code	Description (how used)	Data Type	Default
DocRef	9R70	Use document reference, Y or N	STR	Y
NbrMod	9R71	Number of allowable loan modification	STR	99
LocDLL	9R72	Report viewer folder path	STR	G:\OSI\CORE\BIN\
DocClass	9R73	Document Classification – Confidential, Proprietary or Public	STR	Confidential
LogoFile	9R74	Financial Institution Logo File Name and Path	STR	G:\OSI\CORE\IMAGES\FI_logo.jpg
AppTitle	9R75	Application Title	STR	Loan Restructure Tracking
AcctTyp	9R76	Major type code of the loans applicable for this application	STR	CNS,CML,MTG,EXT,CK,SAV
CCtyp	9R77	External id type code to get the credit card number	STR	MASK
TempFolder	9R78	Folder path to use for storing the PDF file temporarily. If left blank, C:\ is used.	STR	C:\Temp\

EXTN Schema:

This application creates 5 external tables: ModType, ModTypeDetail, ModLength, BankruptcyType and LoanRestructureTracking. ModType stores a list of loan modification type that will be used for the LoanRestructureTracking table. ModTypeDetail stores a list of loan modification type detail that will be used for the LoanRestructureTracking table. ModLength stores a list of loan modification length that will be used for the LoanRestructureTracking table. BankruptcyType stores a list of bankruptcy type that will be used for the LoanRestructureTracking table. LoanRestructureTracking contains all the loan restructure activities on loans that were modified. All five tables will not be deleted when the application is uninstalled because the data are required for audit purposes.

ModType

Name	Description (how used)	Data Type	Default
ModTypCd	Type of loan restructure modification	VARCHAR2 (4 BYTE)	Blank
Description	Description for ModTypCd	VARCHAR2 (60 BYTE)	Blank
DateLastMaint	The date when the row was most recently updated	DATE	Sysdate

ModTypeDetail

Name	Description (how used)	Data Type	Default
ModTypDtlCd	Detail type of loan restructure modification	VARCHAR2 (4 BYTE)	Blank
Description	Description for ModTypDtlCd	VARCHAR2 (60 BYTE)	Blank
DateLastMaint	The date when the row was most recently updated	DATE	Sysdate

ModLength

Name	Description (how used)	Data Type	Default
ModLengthCd	The length of loan restructure modification performed on the loan	VARCHAR2 (4 BYTE)	Blank
Description	Description for ModLengthCd	VARCHAR2 (60 BYTE)	Blank
ModDays	Number of Days based on ModLengthCd	NUMBER (22,0)	Blank
DateLastMaint	The date when the row was most recently updated	DATE	Sysdate

BankruptcyType

Name	Description (how used)	Data Type	Default
BankruptTypCd	Type of bankcruptcy	VARCHAR2 (4 BYTE)	Blank
Description	Description for BankruptTypCd	VARCHAR2 (60 BYTE)	Blank
DateLastMaint	The date when the row was most recently updated	DATE	Sysdate

LoanRestructureTracking

Name	Description (how used)	Data Type	Default
AcctNbr	System assigned number that uniquely identifies each account	NUMBER (22,0)	Blank
ModNbr	System assigned number used to identify each modification	NUMBER (22,0)	Blank
ModTypCd	Type of loan restructure modification	VARCHAR2 (4 BYTE)	Blank
ModDate	Date of modification	DATE	Blank
UpdateBy	The person who created or updated the modification	VARCHAR2 (60 BYTE)	Blank
ApproveBy	The person who approved the modification	VARCHAR2 (60 BYTE)	Blank
DocRef	Reference number of the document related to the modification	VARCHAR2 (60 BYTE)	Blank
ModTypDtlCd	Detail type of loan restructure modification	VARCHAR2 (4 BYTE)	Blank
ModLengthCd	The length of loan restructure modification performed on the loan	VARCHAR2 (4 BYTE)	Blank
DaysDelinqBefore	Number of days the loan is delinquent before modification	NUMBER (22,0)	Blank
StatBefore	The status of the loan before modification	VARCHAR2 (4 BYTE)	Blank
OrigIntRate	The original interest rate of the loan	NUMBER (8,7)	Blank
IntRateAfter	The interest rate of the loan after modification	NUMBER (8,7)	Blank
BalAmtBefore	The principal balance of the loan before modification	NUMBER (22,5)	Blank
BalAmtAfter	The principal balance of the loan after modification	NUMBER (22,5)	Blank
CollateralVal	The fair value of the collateral associated with the loan	NUMBER (22,5)	Blank
NoticeDate	The date of notice of the bankruptcy	DATE	Blank
BankruptTypCd	Type of bankruptcy	VARCHAR2 (4 BYTE)	Blank
CaseNbr	The case number associated with the bankruptcy	VARCHAR2 (60 BYTE)	Blank
DateLastMaint	The date when the row was most recently updated	DATE	Sysdate

This application uses a script (EXTNinsertRows.sql) to insert 3 required modification types (LMOD, TDR and IMPR) in the ModType table, 7 required bankruptcy types (CH7, CH11, CH12, CH13, DCHG, DSMS and RAFM) in the BankruptcyType table, 3 required modification types detail (EXTN, RWRT, RNWL) in the ModTypeDetail table and 10 required length of modification (1MO, 2MO, 3MO, 4MO, 5MO, 6MO, 7MO, 8MO, 9MO, PRMT) in the ModLength table.

Scheduling and re-run information (for batch applications):
N/A

Notices:
N/A

Report (s):
N/A

File Layout(s):

N/A

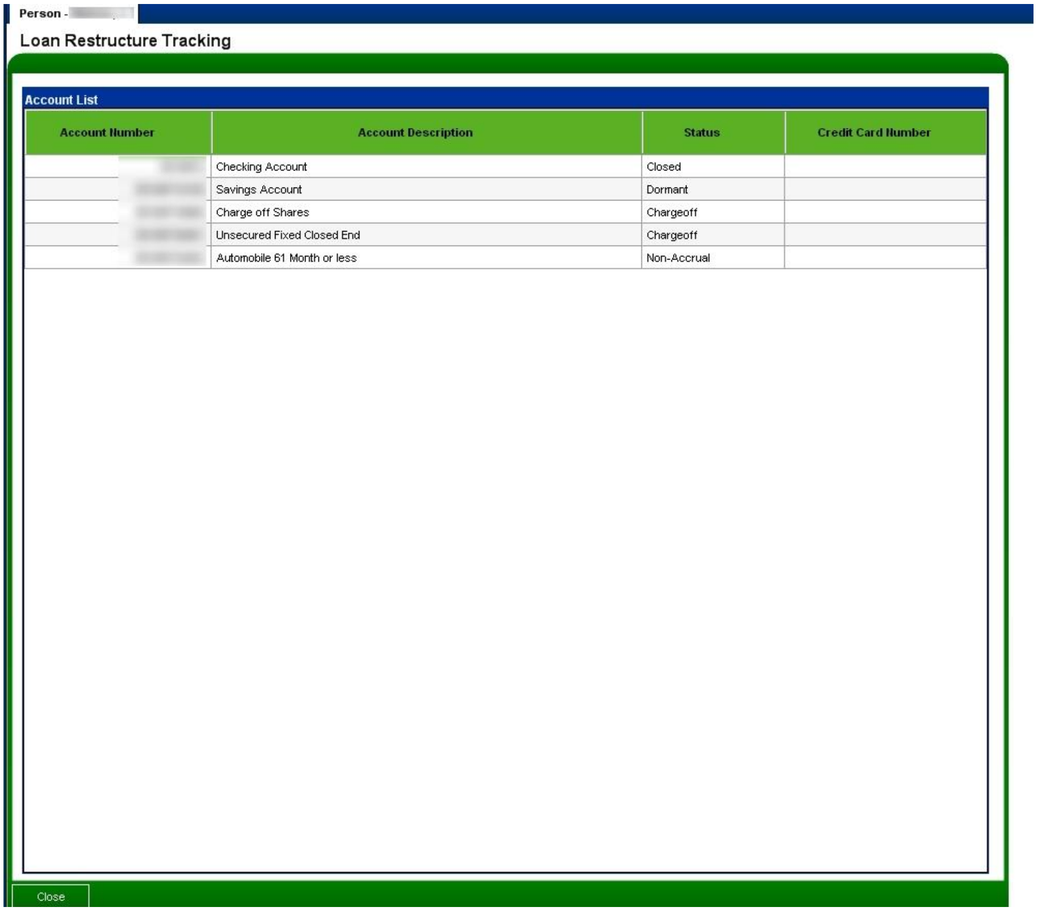
Screens:

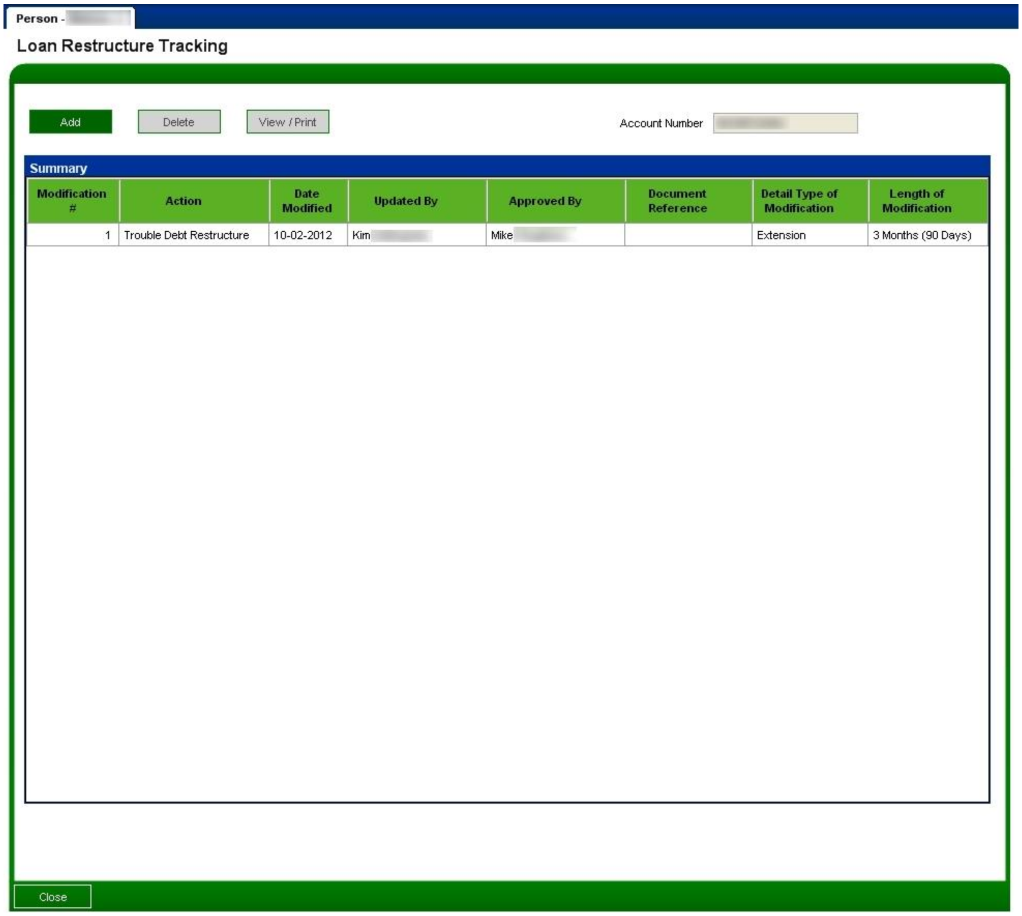
Navigation:

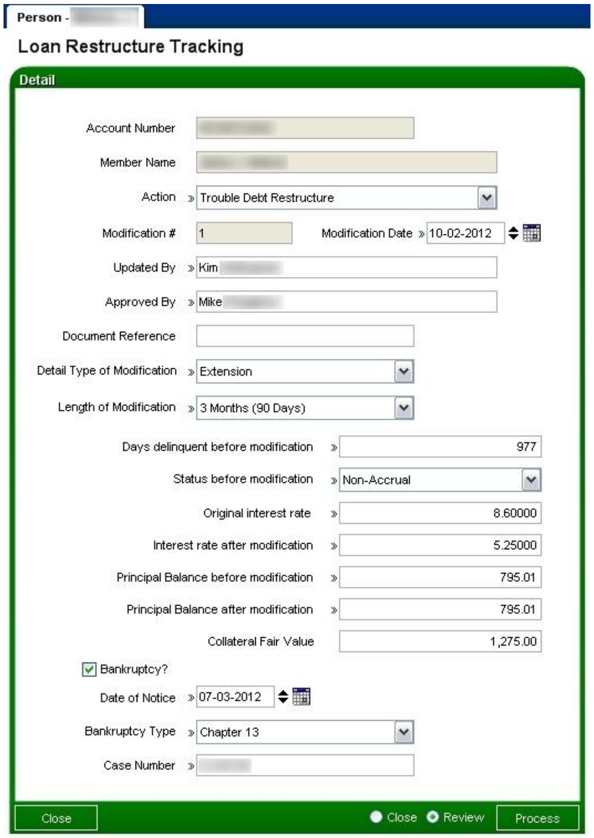
Services > Relationships (Module) > Maintenance > Person / Member > Additional > Loan Restructure Tracking

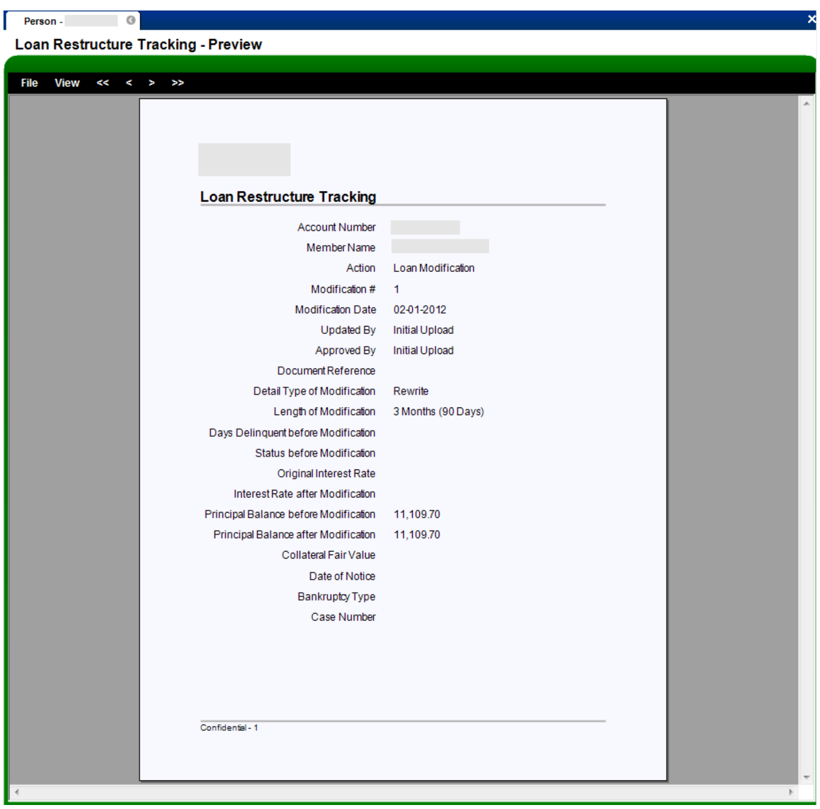
Services > Relationships (Module) > Maintenance > Organization > Additional > Loan Restructure Tracking

Screen Appearance:




Person -
Loan Restructure Tracking
Add
Delete
View / Print
Account Number
Summary
Modification #
Action
Date Modified
Updated By
Approved By
Document Reference
Detail Type of Modification
Length of Modification
1
Trouble Debt Restructure
10-02-2012
Kim
Mike
Extension
3 Months (90 Days)
Close


Person -
Loan Restructure Tracking
Detail
Account Number
Member Name
Action
Trouble Debt Restructure
Modification #
1
Modification Date
10-02-2012
Updated By
Kim
Approved By
Mike
Document Reference
Detail Type of Modification
Extension
Length of Modification
3 Months (90 Days)
Days delinquent before modification
977
Status before modification
Non-Accrual
Original interest rate
8.60000
Interest rate after modification
5.25000
Principal Balance before modification
795.01
Principal Balance after modification
795.01
Collateral Fair Value
1,275.00
Bankruptcy?
Date of Notice
07-03-2012
Bankruptcy Type
Chapter 13
Case Number
Close
Close
Review
Process


Person -
Loan Restructure Tracking - Preview
File View << < > >>
Loan Restructure Tracking
Account Number
Member Name
Action Loan Modification
Modification # 1
Modification Date 02-01-2012
Updated By Initial Upload
Approved By Initial Upload
Document Reference
Detail Type of Modification Rewrite
Length of Modification 3 Months (90 Days)
Days Delinquent before Modification
Status before Modification
Original Interest Rate
Interest Rate after Modification
Principal Balance before Modification 11,109.70
Principal Balance after Modification 11,109.70
Collateral Fair Value
Date of Notice
Bankruptcy Type
Case Number
Confidential - 1

Field Listing:

Loan Restructure Tracking Account List Screen

Field	Description
Account Number	Account number of the loans, credit cards and deposit accounts
Account Description	Minor code description of the account
Status	Account current status
Credit Card Number	Credit card number of the account. Only applies to credit cards; otherwise, blank.
Close Button	Close the form

Loan Restructure Tracking Summary Screen

Field	Description
Add Button	Add a new Loan Restructure activity
Delete Button	Delete an existing Loan Restructure activity
View / Print Button	Display and/or Print the information related to the Loan Restructure activity
Account Number	Account number of the loans, credit cards and deposit accounts
Summary	
Modification #	Modification number of the Loan Restructure Tracking, incremented automatically
Action	Type of Loan Restructure modification
Date Modified	The date the Loan Restructure activity was created or updated
Updated By	The person who created or updated the Loan Restructure activity
Approved By	The person who approved the Loan Restructure activity
Document Reference	The reference number of the document associated with the Loan Restructure activity
Detail Type of Modification	Detail type of Loan Restructure modification. Only applies to consumer loans and credit cards; otherwise, blank.
Length of Modification	The length of Loan Restructure modification performed on the loan. Only applies to consumer loans and credit cards; otherwise, blank.
Close Button	Close the form

Loan Restructure Tracking Detail Screen

Field	Description
Account Number	Account number of the loans, credit cards and deposit accounts
Member/Customer Name	Name of the account owner. Member Name or Customer Name depending on the Financial Institution.
Action	Type of Loan Restructure modification
Modification #	Modification number of the Loan Restructure Tracking, incremented automatically
Modification Date	The date the Loan Restructure activity was created or updated. Disabled if action selected is Impaired.
Updated By	The person who created or updated the Loan Restructure activity

Field	Description
Approved By	The person who approved the Loan Restructure activity. Disabled if action selected is Impaired.
Document Reference	Reference number of the document associated with the Loan Restructure activity, only visible if the DocRef calculation variable is set to Y
Detail Type of Modification	Detail type of Loan Restructure modification. Only required for consumer loans and credit cards; otherwise, disabled.
Length of Modification	The length of Loan Restructure modification performed on the loan. Only required for consumer loans and credit cards; otherwise, disabled.
Days delinquent before modification	Number of days the loan is delinquent before modification. Disabled if action selected is Impaired.
Status before modification	The status of the loan before modification. Disabled if action selected is Impaired.
Original interest rate	The original interest rate of the loan. Disabled if action selected is Impaired.
Interest rate after modification	The interest rate of the loan after modification. Disabled if action selected is Impaired.
Principal balance before modification	The principal balance of the loan before modification. Disabled if action selected is Impaired.
Principal balance after modification	The principal balance of the loan after modification. Disabled if action selected is Impaired.
Collateral Fair Value	The fair value of the collateral associated with the loan
Bankruptcy?	If checked, all 3 bankruptcy textboxes (Date of Notice, Bankruptcy Type and Case Number) will be enabled; otherwise, disabled
Date of Notice	The date of notice of the bankruptcy
Bankruptcy Type	Type of bankruptcy
Case Number	The case number associated with the bankruptcy
Close Radio Button	Close the form after the process button is clicked
Review Radio Button	Keep the data on the screen for review after the process button is clicked
Process Button	Add a Loan Restructure activity or update an existing one in the LoanRestructureTracking table
Close Button	Close the form

Additional Requirements:

- Fiserv DNA 4.2.2 or above
- .NET Framework 4.5.2
- MigraDoc Foundation – needed to preview and print the Verification of Deposit form. This is an Open Source .NET library for modeling and rendering documents. The following DLLs are needed to be copied to the folder that was setup on the variable LocDLL.
  - MigraDoc.DocumentObjectModel.dll
  - MigraDoc.Rendering.dll
  - MigraDoc.RtfRendering.dll

MigraDoc Foundation is published under the MIT License.

- MigraDoc Foundation is Open Source.
- You can copy, modify and integrate the source code of MigraDoc Foundation in your application without restrictions at all.
- This also applies to commercial products (both open source and closed source).

- PDFsharp – needed to convert the Verification of Deposit form to a PDF file. This is an Open Source library that easily creates PDF documents from any .NET language. The PdfSharp.dll is needed to be copied to the folder that was setup on the variable LocDLL.

PDFsharp is published under the MIT License.

- PDFsharp is Open Source.
- You can copy, modify and integrate the source code of PDFsharp in your application without restrictions at all.
- This also applies to commercial products (both open source and closed source).

- Authorization needs to be granted to employees who will be using the Loan Restructure Tracking App.

    1. If the app is going to be used by a small number of employees, you may elect to use the "auth" created in the script as follows:

- Go into Security module
- Search for employee
- Select Assign Authorizations tab
- Authorizations available are on left, and assigned ones are on right. The TDR Tracking Form Auth and TDR Tracking Update Auth would show up on left. They should be selected (moved to right) and processed

2. If the app is going to be used by one or more already established classes of employees (e.g., all Tellers) then there is already an existing Auth that represents the class of employees. Using this Auth, and the AuthItem code for Loan Restructure Tracking App, assign the newly created AuthItem into this Auth.

   - Go into Security module, then Authorizations menu
   - Search for the Auth that represents the class of employees
   - Select the Authorization Item Maintenance tab
   - Authorization Items available are on left, and assigned ones are on right. The CAPR 7783, TDR Tracking Form AuthItem and TDR Tracking Update AuthItem would show up on left. They should be selected (moved to right) and processed
   - Select the CAPR 7783 from the Selected list and click on the Authorization Permission Maintenance. Move all the available permission to the Selected list and processed
   - Select the TDR Tracking Form AuthItem from the Selected list and click on the Authorization Permission Maintenance. Move all the available permission to the Selected list and processed
   - Select the TDR Tracking Update AuthItem from the Selected list and click on the Authorization Permission Maintenance. Move all the available permission to the Selected list and processed

Configuration Checklist:

Item	**Test Environment**	**Production Environment**
Variables		
Associate Auth, Auth Item, corresponding Permissions		

Revisions:

Date	App Version #	Change
09/2017	2.1.0.0	Replaced the Microsoft Report Viewer so the form can be preview/print on DNA 4.2.2 and above. Added variable 9R78 - Temp Folder. Use CoreAPI Service for data update.

Date	App Version #	Change
11/2016	2.0.0.0	Compiled in DNA SDK 4.2.2 and .Net Framework 4.5.2
11/2012	1.1.1.0	Added deposit accounts to the account list screen. Added modification type detail and length of modification fields.
04/2012	1.0.4.0	Added another screen to list loans and credit cards. Fixed issue with Date of Notice.
03/2012	1.0.0.0	Application Created.