



Monthly Income/Credit Score Package

Monthly Income Package

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Overview:

This package includes the Estimated Monthly Income Processing and the Income and Credit Score Inquiry Application.

The Estimated Monthly Income Processing SQR Extension calculates estimated monthly income using the ACHFileRecordWarehouse table and RTXN table. By storing data in an external table (MonthlyIncomeHist) all credits received for a deposit to a checking or saving accounts are totaled and output to a file that may be used for analysis. The types of transactions to be included are controlled via an External Tran Code parameter. The values obtained for any given member only roughly approximates their monthly estimated income based on accounts they have at an institution. Certain individuals may be excluded from capture by this process and can be controlled via the exclude person type code parameter.

The Income and Credit Score Inquiry Application allows users to view a person's estimated monthly income and credit score information by looking at accounts at a particular financial institution making the estimated monthly income an approximation. This may be used to help determine if a person is eligible for a loan. Credit Score information is only as accurate as the information that is reported to by the Consumer Credit Reporting Agency. This application uses the external table MonthlyIncomeHist to fetch the estimated monthly income. This table is created and being populated by Estimated Monthly Income Processing SQT.

Key Benefits:

- Data can be used to invite specific customers/members to avail themselves of loan products or other services offered by the financial institution.

Processing:

Once the Estimated Monthly Income Processing SQT is installed, the SQT should be set up to run using the normal queue setup, making sure the required parameters are entered.

The Income and Credit Score Inquiry Application can be accessed through the More menu on the Relationship Profile screen and the Additional menu on the Person / Member Maintenance screen. After the user selects the Income and Credit Score Inquiry menu item, the application will display a list of income and credit score information within the selected time period in the Results section if available; otherwise, a message will be displayed as "No Information Found."

The user can choose to change the Thru Date or leave as is (default is today's date). The user can also change the From Date (default is based on the calculation variable NbrMonthsHist and Thru Date). For example, if the NbrMonthsHist is 12, that means 12 months prior to Thru Date is used for the "From Date". The Query button is disabled until both the From Date and Thru Date are populated. The **Query** button displays a list of income and credit score information in the Results section. The **Clear** button will Clear the Results, set Thru Date to today's date, and set From Date to number of months (based on the calculation variable NbrMonthsHist) prior to Thru Date.

The Thru Date must be greater than or equal to the From Date or else a message will be displayed as “The Thru Date must be greater than or equal to the From Date.” If the calculation variable CreditOrgNbrs is blank, a message will be displayed as “The calculation variable CreditOrgNbrs is not set or has empty value.” If there is no data to display, a message will be shown as “No Information Found.”

Authorization:

To grant a user access to this application, the authorization item Links Auth Item (ROCB) needs to be assigned to an authorization group, such as tellers (TELL), to which the user has at least View and Inquiry access privileges.

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

Name	Code	Type	Description (how used)
Income and Credit Score Inquiry Auth Item	ROCB	AuthItem	Authorization item for screen and GUI access. Must be included in authorization groups.

Parameters:

Parameter	Code	Description (how used)	Required	Default
Start Date	SD	This is the start date used for calculating the monthly income.	Yes	<Blank>
Thru Date	TD	This is the thru date used for calculating the monthly income.	Yes	<Blank>
Product Majors to Include	PRMJ	These are the account major type codes used for calculating the monthly income. Comma-delimited, no spaces.	Yes	SAV,CK
RTXN Type Code	RXCD	This is the transaction type code used for calculating the monthly income. Comma-delimited, no spaces.	Yes	XDEP
External Tran Code	EXTR	These are the ACH transaction codes used for calculating the monthly income. Comma-delimited, no spaces.	Yes	22,32
Exclude Last Name	9ELN	This is the last name of the persons to exclude from the report. This is only useful if the financial institution uses one last name for all persons that uses a particular service. Only one last name. If value is passed as blank, no last name will be excluded.	No	<Blank>
Exclude Person Type Code(s)	9EPT	These are the person type code(s) to exclude from the report. For this particular report, employees, directors and officers of the financial institution are	Yes	EMP,DIR,OFF

Parameter	Code	Description (how used)	Required	Default
		excluded from the report. Comma-delimited, no spaces.		
Minimum Amount	9MIN	This is the minimum amount of monthly income to process.	Yes	<Blank>
Maximum Amount	9MAX	This is the maximum amount of monthly income to process.	Yes	<Blank>
Output File Path	COUP	This is the folder path where the output file will be stored. (eg. G:\OS\IRPTS\ If value is passed as blank, no output file will be created.	No	<Blank>
RptOnly_YN	RPT	Y if report only ; N if update mode	Yes	<Blank>

Variables:

Only the value of the variables 9R8P to 9R8Q can be customized by the financial institution.

Calculation Categories:

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
9RFC	Custom Category

Calculation Types:

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	9R0C	Income n Credit Score Inquiry	N

Calculation Variables:

The following calculation variables are required for the application. They are populated within the '9R0C' calculation type.

Variable	Code	Description (how used)	Data Type	Default
NbrMonthsHist	9R8P	This is used to calculate the From Date. The set number of months prior to the Thru Date will be From Date.	STR	12

Variable	Code	Description (how used)	Data Type	Default
CreditOrgNbrs	9R8Q	These are the org numbers that will be used for the credit score list.	STR	<Blank>

EXTN Schema:

This application creates an external table MonthlyIncomeHist that will contain the monthly estimated income of a person. This table will not be deleted when the application is uninstalled because it will be used by other applications.

Name	Description (how used)	Data Type	Default
PersNbr	This is the system assigned number that identifies every person.	NUMBER (22,0)	<Blank>
IncomeDate	This is the thru date for the calculated estimated monthly income.	DATE	<Blank>
EstIncome	This is the estimated monthly income.	NUMBER (23,3)	<Blank>
DateLastMaint	The date when the row was most recently updated	DATE	Sysdate

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

- The Estimated Monthly Income Processing SQT will be run monthly.

Notices:

N/A

Report (s):

The image shows two screenshots of a Notepad window displaying the output of the 'ESTIMATEDMONTHLYINCOME.LIS' report. The top screenshot shows the report header and parameters, including the run date (06-13-2017) and various processing options. The bottom screenshot shows a table of records with columns for Person Number, Name, Estimated Income, and Additional Description. The table contains 12 rows of data, all with the status 'Record Exists'. Summary statistics at the bottom of the second window show 'Total Records Added' as 0 and 'Total count' as 72,278.

ESTIMATEDMONTHLYINCOME.LIS - Notepad

Bank: [REDACTED] Estimated Monthly Income Processing Run Date: 06-13-2017
Report: EstimatedMonthlyIncome Post Date: 06-13-2017

Queue Number : 9200371 Run Time: 09:56:05
Application Number: 501857 Cash Box:
Queue Sub Number : 2

SCHEMA
DATABASE NAME
RELEASE

06-13-2017 08:09:01 AM 246453 Y:\OSI\BANK\SQL\4310\BAT_EXE\EXTNS\
REPORT PARAMETERS

Exclude Last Name: www/VRU Exclude Person Type Code(s): EMP,DIR,OFF
Maximum Amount: 8000 Minimum Amount: 1000
Output File Path: Y:\OSI\EXPORTS\ESTIMATEDMONTHLYINCOME\ External Tran Code: 22,32
Product Majors To Include: SAV,CK RptOnly_YN: N
RTXN Type Code: XDEP StartDate: 02-01-2017
ThruDate: 02-28-2017

Bank: [REDACTED] Estimated Monthly Income Processing Run Date: 06-13-2017
Report: EstimatedMonthlyIncome Post Date: 06-13-2017
Page: 1 of 1418

Person Number	Name	Estimated Income	Additional Description
[REDACTED]	[REDACTED]	2,333.00	Record Exists
[REDACTED]	[REDACTED]	1,685.86	Record Exists
[REDACTED]	[REDACTED]	3,541.69	Record Exists
[REDACTED]	[REDACTED]	1,746.90	Record Exists
[REDACTED]	[REDACTED]	1,848.52	Record Exists
[REDACTED]	[REDACTED]	1,077.88	Record Exists

ESTIMATEDMONTHLYINCOME.LIS - Notepad

Bank: [REDACTED] Estimated Monthly Income Processing Run Date: 06-13-2017
Report: EstimatedMonthlyIncome Post Date: 06-13-2017
Page: 1418 of 1418

Person Number	Name	Estimated Income	Additional Description
[REDACTED]	[REDACTED]	2,175.99	Record Exists
[REDACTED]	[REDACTED]	2,400.00	Record Exists
[REDACTED]	[REDACTED]	2,337.70	Record Exists
[REDACTED]	[REDACTED]	3,088.06	Record Exists
[REDACTED]	[REDACTED]	1,822.59	Record Exists
[REDACTED]	[REDACTED]	3,332.30	Record Exists
[REDACTED]	[REDACTED]	2,884.25	Record Exists
[REDACTED]	[REDACTED]	1,111.07	Record Exists
[REDACTED]	[REDACTED]	1,921.83	Record Exists
[REDACTED]	[REDACTED]	2,076.47	Record Exists
[REDACTED]	[REDACTED]	1,318.14	Record Exists

Total Records Added 0
Total count 72,278

Fig 1: Estimated Monthly Income Processing Report

The screenshot shows an Excel spreadsheet with the following data:

Person Number	Name	Income Date	Estimated Income
		2/28/2017	2333.00
		2/28/2017	1685.86
		2/28/2017	3541.69
		2/28/2017	1746.90
		2/28/2017	1848.52
		2/28/2017	1077.88
		2/28/2017	1448.74
		2/28/2017	1285.38
		2/28/2017	2248.80
		2/28/2017	1148.03
		2/28/2017	1799.16
		2/28/2017	2101.55
		2/28/2017	2408.03
		2/28/2017	1679.29
		2/28/2017	1150.00

Fig 2: Estimated Monthly Income Processing Output File

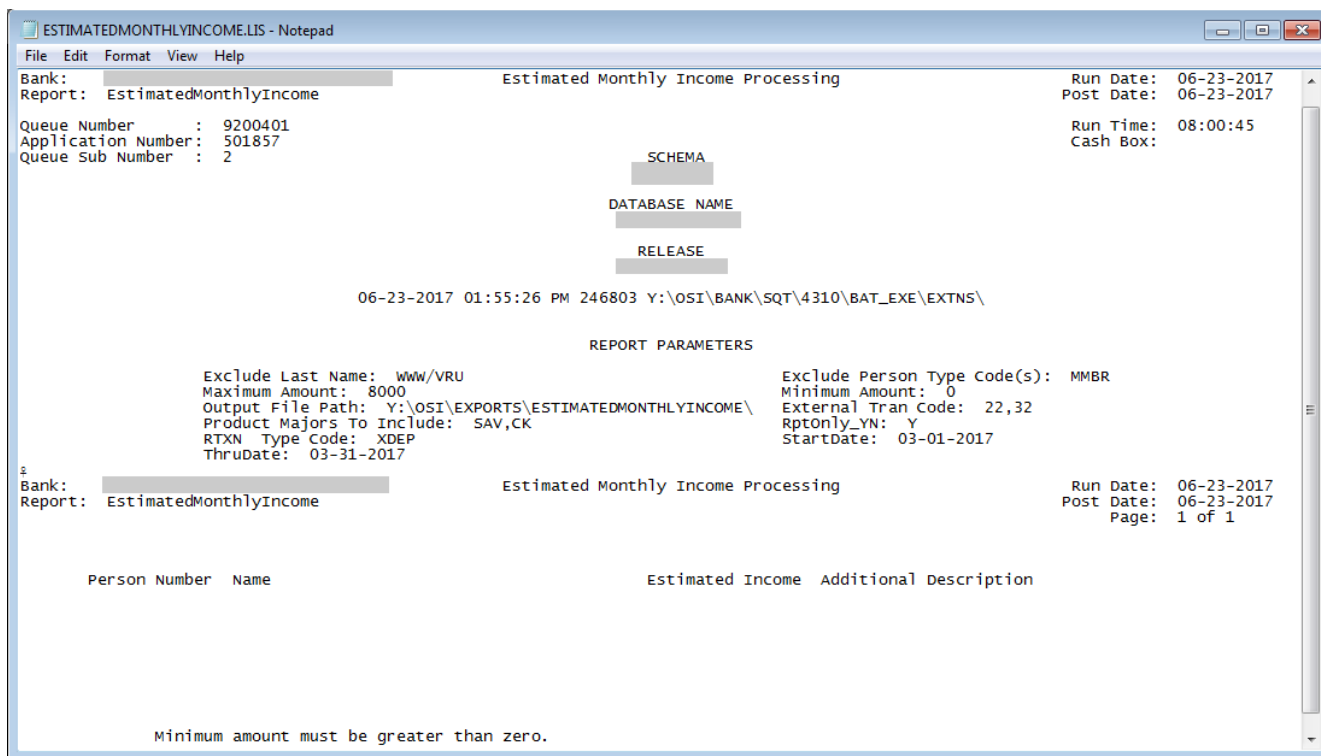


Fig 3: Display error message if parameter Minimum Amount is less than one.

File Layout(s):

Output File Layout – Comma Separated

Field	Format	Description
Person Number	99999999	Person Number
Name	STR	Person Name
Income Date	MM-DD-YYYY	Thru Date of the Estimated Monthly Income
Estimated Income	9999999V99	Estimated Monthly Income

The output file name is formatted as: MonthlyIncomeMMDDYYYY.csv; where MMDDYYYY represents the income date.

Field Listing:

Estimated Monthly Income Processing

Field	Description
Person Number	Person number
Name	Person name
Estimated Income	Estimated monthly income
Additional Description	If the record already exists in the MonthlyIncomeHist table, the message "Record Exists" will be displayed; otherwise, blank.
Total Records Added	Total number of records added to the MonthlyIncomeHist table
Total Count	Total number of records

Real-time Interaction with Other Applications:

N/A

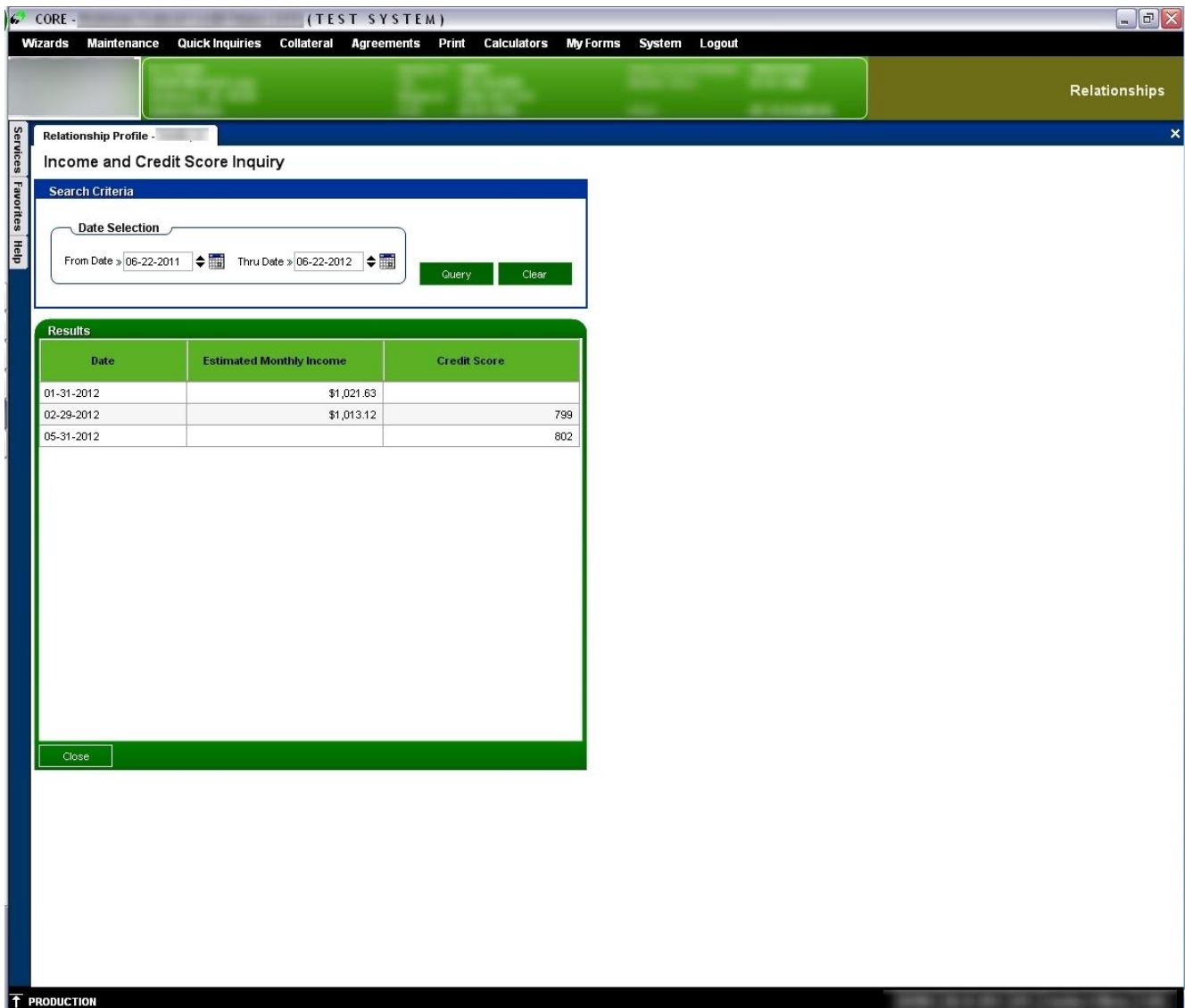
Screens:

Navigation:

Services > Relationships (Module) > Quick Inquiries > Relationship Profile > More (menu) > Income and Credit Score Inquiry

Services > Relationships (Module) > Maintenance > Person / Member > Additional > Income and Credit Score Inquiry

Screen Appearance:



Field Listing:

Income and Credit Score Inquiry Application

Field	Description
Search Criteria	
From Date	Start date for the income and credit score date to limit the records being displayed. This is being calculated based on the calculation variable NbrDaysHist and Thru Date. For example, if the NbrMonthsHist is 12, that means 12 months prior to the Thru Date is From Date.
Thru Date	Thru date for the income and credit score date to limit the records being displayed. Default is today's date.
Query Button	To display a list of income and credit score information based on the parameters entered
Clear Button	Clear the Results, set the Thru Date to today's date, set the From Date to a set number of months (based on the calculation variable NbrMonthsHist) prior to Thru Date.
Results	
Date	Date of estimated income and credit score
Estimated Income	The estimated monthly income of the person
Credit Score	The credit score of the person
Close Button	Close the form

Additional Requirements:

- Fiserv DNA 4.2.2 or higher
- .NET Framework 4.5.2
- RelationshipProfileMoreMenu.dnax must be downloaded from the DNAappstore and installed first before installing this application

Configuration Checklist:

Item	Test Environment	Production Environment
Parameters		
Variables		

Revisions:

Date	App Version #	Change
06/2017	2.0.0.0	Compiled in DNA SDK 4.2.2 and .Net Framework 4.5.2
07/2014	1.1.0.0	Updated Estimated Monthly Income Processing - included additional check for first name in the ReceiverCustName field.
07/2012	1.0.1.0	Fix case sensitive issue on Exclude Last Name parameter. Report

Date	App Version #	Change
		records with the same acctnbr, receivercustname and amt.
06/2012	1.0.0.0	Application Created.