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NSLDS II Reengineering
Reports Detailed Design:
Reasonability Annual Backup F2000
R-MBR-011

Version 1.1

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Document Control

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1.0	Initial Issue	11/08/2002	Justin M. Miller
1.1	Updated Document	11/13/2002	Jason Patton

1 Reasonability Annual Backup F 2000 Report

Description	The Reasonability Annual Backup F2000 Report provides data backup of the loan details that were used to compose the Form 2000 annual summary data (line items AR-12 and AR-13)
User Group	MBR
Data Source	Reasonability File
Output Media	Downloadable File
Frequency	On Request
Requirements Traceability	2.032
Output Media	Unformatted flat file (fixed character width)
Comments	This report corresponds to the MBR011 - Reasonability Annual Backup F2000 Report in NSLDS.

1.1 Overview

This report is a NSLDS II exception report, which has the following constraints that require the user to download the report instead of viewing it on the website.

- Result set is on average greater than 100,000 rows of data (affecting performance).
- Data must be able to be returned in formatted or unformatted flat file.
- Report must be available for download for up to 120 days.

1.2 MBR Exception Report Process Outline

Generating this MBR exception report is a multi-step process, which is initiated when a user enters the report parameters, through a custom coded ASP screen within the NSLDS II website. An Informatica stored procedure converts the contents of the reasonability file to a report database table. Informatica will convert this report table to an unformatted flat file, which the user can download.

2 Report Parameter Process

A user will navigate to the report parameter page through the NSLDS II website. Here the user will select a particular MBR exception report. The user will enter the report parameters that are stored in a table for each specific report request.

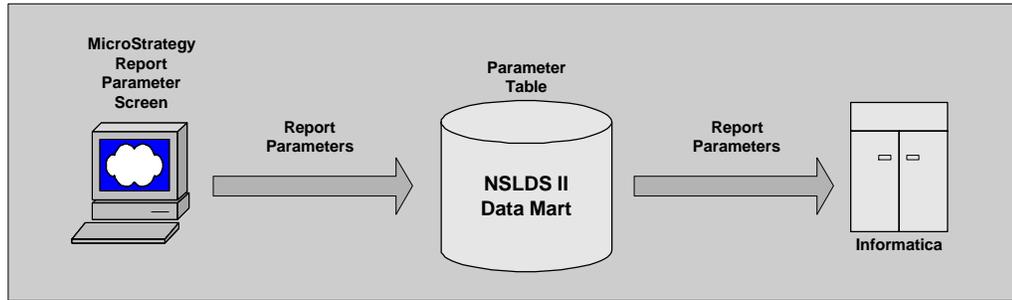


Figure 1, Report Parameter Process

2.1 Parameter Definitions

The parameter definitions for this report will be selected from a custom coded Microsoft ASP screen. Each parameter will be converted to an ASP form variable that is passed to an action page that passes each form variable to a stored procedure call statement. The stored procedure creates an ODBC connection to the DB2 server.

The following parameters are required on the Reasonability Annual Backup F2000 Report parameter screen.

Reasonability Annual Backup Report F2000 Parameters

Parameter	Description
Fiscal Year	This parameter will hold the fiscal year.
GA Code	This parameter will hold the GA Code. A user can enter in one GA code or the * symbol to designate all GAs.
Official Run	This parameter will hold the determination of an official run or analysis run. Y - Official Run, N - Analysis Run
Run Date	This parameter will hold the run date of the report it is searching for. This field is required to an official run.
Run Time	This parameter will hold the run time for the file the report is searching for.
Back Up Date to GA	This parameter holds whether the report is to be backed up to the GA. The value will be a Y or N.
Paid in Full Activity	This parameter holds whether the report will hold paid-in-full loans. The value will be a Y or N.
Interim Loan Activity	This parameter holds whether the report holds interim loans. The value will be a Y or N.

2.2 Parameter Screen

Please refer to the NSLDS II Reengineering Screens Detail Design: Reports document for further details on this parameter screen.

2.3 Parameter Table Stored Procedure

A stored procedure populates the parameter table with the report parameters from the ASP action page. This parameter table, called MBR011_PARM, is a specifically created table for the Reasonability Annual Backup Report's parameters. A UNIX script will be triggered to call an Informatica procedure that will extract the date elements from the parameter table. The UNIX script will also pass the values for the user ID, report ID, and the report timestamp value within the parameter table. These three values are needed by Informatica to identify the correct record.

MBR011_PARM Table

Column	Type	Length	Description
ID	N	6	This column is the primary key of the table. This number uniquely identifies each row. This ID creases incrementally by 1 with each new row. This column is system generated.
USER_ID	C	8	This column records the user ID of the individual requesting the report.
RPT_ID	C	6	This column stores the report ID. Example value of this column would be 'MBR011. Each MBR report has a unique ID.
TIMESTAMP	D	8	This column holds the time stamp when the report request is generated.
FISCAL_YEAR	D	4	This column stores the fiscal year of the report request.
GA_CODE	C	3	This column stores the GA Code. If the user enters in the * symbol, to designate all GAs, a separate report file will be generated for each GA.
OFF_RUN	C	1	This column stores whether the user wants to retrieve an official run or an analysis run.
RUN_DT	D	8	This column holds the run date of the file to search for.
RUN_TIME	D	8	This column holds the run time of the file to search for.
BACK_GA	C	1	This column designates whether to run a backup to a GA. Will hold a Y or N.
PAID_ACT	C	1	This column holds whether the report will hold paid-in-full loans. The value will be a Y or N.
INTERIM_ACT	C	1	This column holds whether the report holds interim loans. The value will be a Y or N.

3 Informatica Report Table Generation

Informatica extracts the parameter requirements stored in the parameter table. Informatica will then take these parameters and extract the report data from the reasonability data file and send it to a report table.

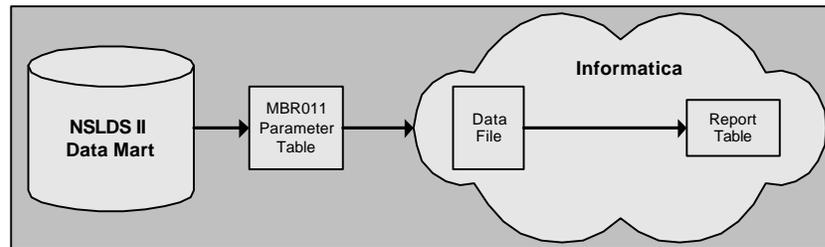


Figure 2, Flat File Process

3.1 Reasonability Data File Retrieval

Before Informatica can extract the relevant loan detail records from the reasonability data file it must find the appropriate file. Numerous files are stored on the DB2 database server. There are two types of files and each are uniquely named according to fiscal year, and the timestamp.

Official Run

Data from an official run will be populated with cumulative data. These files will contain naming conventions in the following format:

- Cumulative Data - NSLPOIFFIC +User ID +RSNY + Fiscal Year End Date + Time Stamp

Unofficial Run

Data from an unofficial run will be populated with cumulative data. These files will contain naming conventions in the following format:

- Cumulative Data - NSLPUN +User ID +RSNY + Fiscal Year End Date + Time Stamp

The logic to find the correct reasonability file is as follows:

```
If Official Run parameter = Y
    Pull the Official Run file
Else
    Pull the Unofficial Run file
End
```

Informatica will extract data from the flat file. This extracted data will also be filtered according to those parameters that were chosen on the parameter screen. If the user entered in the * symbol on the GA Code parameter input then a separate report will be generated for each specific GA.

3.2 Reasonability File Layout

The layout of the reasonability flat files is described below:

Date Element	Field Position	Length
NSLDS Code	1-4	4
Extract Begin Date	5-12	8
Extract End Date	13-20	8
GA Code	21-23	3
Loan Guarantor Responsibility Begin Date	24-31	8
Loan Guarantor Responsibility End Date	32-39	8
Loan Number	40-48	9
Loan ID Sequence Student Sequence Number	49-52	4
Loan Sequence Number	53-56	4
Loan Type	57-58	2
Loan Date	59-66	8
Loan Amount	67-72	6
Cancellation Date	73-80	8
Cancellation Amount	81-86	6
Net Guaranty Amount	87-88	2
Current Loan Status Date	89-96	8
Current Loan Status	97-104	8
Disbursement Date	105-110	6
Disbursement Amount	111-118	8
Loan Outstanding Principal Balance Date	119-124	6
Loan Outstanding Principal Balance	125-132	8
Loan Current Maturity Date	133-140	8
Loan Period Begin Date	141-148	8
Loan Period End Date	149-156	8
Loan Current Lender Servicer	157-162	6
Loan Current Lender Code	163-168	6
Loan Originating Lender Code	169-174	6
FFEL Duplicate ID	175	1
Bypass Cancellation Flag	176	1
OPE Code	177-184	8
External ID	185-105	21

3.3 Report Table Layout

The extracted data will be inserted into the cumulative or difference database report table based on which type of flat file that is read from. The columns user ID, report ID, report timestamp will be added to help uniquely identify each report.

The table below defines the MBR011_RPT report table with column names and lengths.

MBR011_RPT

Date Element	Column Name	Length
User ID	USER_ID	10
Report ID	RPT_ID	10
Report Timestamp	RPT_TIMESTAMP	8
NSLDS Code	NSLDS_CODE	4
Extract Begin Date	EXTR_BEG_DT	8
Extract End Date	EXTR_END_DT	8
GA Code	GA_CODE	3
Loan Guarantor Responsibility Begin Date	LOAN_GUA_RESP_BEG_DT	8
Loan Guarantor Responsibility End Date	LOAN_GUA_RESP_END_DT	8
Loan Number	LOAN_NO	9
Loan ID Sequence Student Sequence Number	LOAN_ID_STU_SEQ_NO	4
Loan Sequence Number	LOAN_SEQ_NO	4
Loan Type	LOAN_TYPE	2
Loan Date	LOAN_DT	8
Loan Amount	LOAN_AMT	6
Cancellation Date	CAN_DT	8
Cancellation Amount	CAN_AMT	6
Net Guaranty Amount	NET_AMT	2
Current Loan Status Date	CURR_LOAN_STAT_DT	8
Current Loan Status	CURR_LOAN_STAT	8
Disbursement Date	DIS_DT	6
Disbursement Amount	DIS_AMT	8
Loan Outstanding Principal Balance Date	LOAN_OUT_PRIN_BAL_DT	6
Loan Outstanding Principal Balance	LOAN_OUT_PRIN_BAL	8
Loan Current Maturity Date	LOAN_CURR_MAT_DT	8
Loan Period Begin Date	LOAN_PER_BEG_DT	8
Loan Period End Date	LOAN_PER_END_DT	8
Loan Current Lender Servicer	LOAN_CURR_LEN_SVR_CODE	6
Loan Current Lender Code	LOAN_CURR_LEN_CODE	6
Loan Originating Lender Code	LOAN_ORIG_LEN_CODE	6
FFEL Duplicate ID	FFEL_DUP_ID	1
Bypass Cancellation Flag	BYPASS_CAN_FLAG	1
OPE Code	OPE_CODE	8
External ID	EXTERNAL_ID	21

3.4 Backup to Guaranty Agency

If the user selected 'Y' on the Back up to GA input box on the parameter screen then a copy of the report will be put on tape and sent to the corresponding Guaranty Agency. A separate output distribution procedure will be developed. The details for this process are still being determined but the basic functionality will allow TIF labels to be printed and detail data to be put to tape (utilizing the dataset naming convention). The outline of the TIF label is described below.

Data Element	Field Position	Length	Type	Description	Mapping
First Name	1	12	Char.	First Name	TIF_INFO.FST_NM
Last Name	13	35	Char.	Last Name	TIF_INFO.LST_NM
Organization	48	60	Char.	Organization Name	TIF_INFO.ORG
Address line 1	108	50	Char.	Address Line 1	TIF_INFO.ADD_LN1
Address line 2	158	50	Char.	Address Line 2	TIF_INFO.ADD_LN2
City	208	20	Char.	City	TIF_INFO.CITY
State	228	2	Char.	State	TIF_INFO.STATE
Country	230	20	Char.	Country	TIF_INFO.COUNTRY
Zip	250	9	Char.	Zip Code	TIF_INFO.ZIP
Tape Format	259	3	Char.	Tape format	TIF_INFO.TAPE_FMT
Dataset Name	262	44	Char.	Dataset name for output distribution	See Section 4 of this document for proposed naming conventions.

4 Informatica Unformatted File Generation

Upon completion of the population of the report table Informatica will extract the data from the table and convert it to an unformatted flat file.

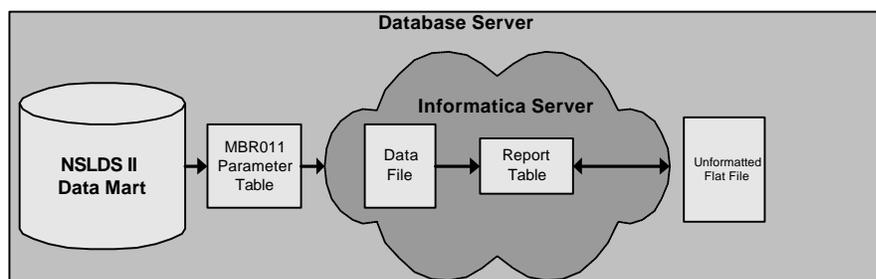


Figure 3, Flat File Generation Process

This file will have a unique naming convention based on the user ID, report ID, and report timestamp.

Naming format: User ID + Report ID + Report Timestamp

After the file is created Informatica will trigger a post-process script file that will check if a directory on the database server with the same name as the user_id parameter exist. If it does exist then the file will be stored in that directory. If the file does not exist then it will create the directory and store the file in it.

5 Exception Report Download Process

Exception Reports will be stored on the DB2 database server in a file directory specifically reserved for exception reports. This directory will have a separate folder structure for each user that requests an exception report. Users will be able to retrieve and download these reports from the NSLDS II website interface through an FTP connection to the database server. Users will have access to these reports up to 120 days after they have been created.

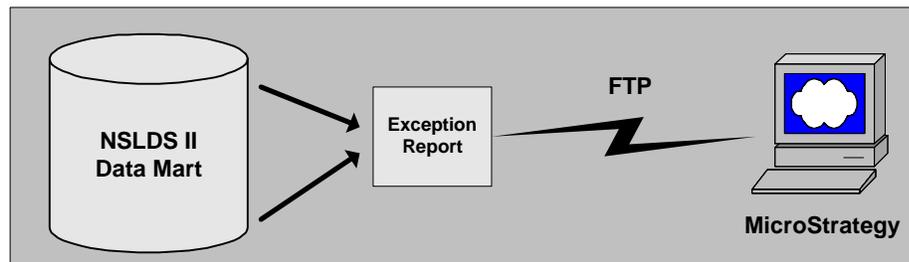


Figure 4, Report Download Process

In the MicroStrategy Web environment, there will be a specific screen where users will be able to retrieve their exception reports for download. On this screen will be an ASP code module that checks the DB2 database server file directory for any exception reports that have been generated each time the exception reports download page is accessed.

Displayed on this screen will be a dropdown box that will perform the following logic to only display those exception reports that the specific user has requested. This logic would check all files stored for the user inside their respective database file directory folder and match the user name embedded within file name to the current MicroStrategy user name:

```
If (User Name File on data set) = (MicroStrategy User Name)
    Display Exception Report Name in dropdown box
Else
    Do not display Exception Report Name in dropdown box
End
```

Once the dropdown is completely populated the user will select the requested report. The user will be prompted for their download directory on their computer where they can view the file.