

Department of Education - FSA
FMS Integration Partner
Report Functional Design



FMS to FMSS Interface Notification
TO 128 – FMS to FMSS Data Transformation and
Transfer

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Subject: Notification Functional Design
Phase: TO 128 – FMS to FMSS Data Transformation and Transfer
Version: 6.0

Prepared by: Dave Stuart	Date: March 20, 2003
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Document Change Control

Date	Author	Version	Change Reference
02/11/03	Dave Stuart	1.0	Initial Draft
02/25/03	Dave Stuart	2.0	Revised based on review
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Approval

Created By:	Dave Stuart	202-962-0685	Creation Date: 02/11/03
Team Lead Sign Off:	John Kim	202-962-0702	Sign Off Date: 03/21/2003
Project Lead Sign Off:	Jennifer Alden	202-962-0682	Sign Off Date: 03/24/2003
FSA Representative Sign Off:	Shirley Pratt	202-377-3491	Sign Off Date:



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Specification

Program Name:	FMS to FMSS Interface Notification
Functional Design Document ID & Title:	FMS_TO_FMSS_INTERFACE_NOTIFICATION_FD
Application:	FMS Oracle GL Module
Priority:	High
Estimated Production Date:	June 2003
Other Affected Applications:	N/A
Comments:	N/A



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General Requirements

Business Objective:

As part of TO 128, FMS has been tasked to generate a reconciliation notification to identify differences between the data stored in FMS G/L and the data transferred to FMSS. The reconciliation notification will be initiated by the FMS to FMSS Interface Program. The notification will include a report that will allow FSA CFO Accounting to determine which FMS G/L journal batches have been successfully sent to FMSS. The report will help identify differences between the FMS G/L journal batches table and the FMSS temporary interface table. The report will detail whether or not a batch has been sent to FMSS, not whether or not FMSS has processed the batch. The report will be emailed to designated users for review.

This report will be a stand alone report for use by FSA CFO Accounting and FSA AD OPS Team. This report is not intended to complement existing reports. The data on the report will be pulled from FMS tables.

Component Description:

The purpose of this document is to provide the functionality of the FMS to FMSS Interface Notification that will be developed in FMS and the business requirements.

The FMS G/L data will be sent in batches that contain multiple funds and multiple lines per fund. The data will be temporarily stored in the FMS temporary interface table (SFALIB_FMS_TO_FMSS_INTERFACE), written to a file, and sent to FMSS.

The FMS to FMSS Interface Notification will show the results of the FMS to FMSS Interface Program at a batch level of detail, per Requirement 4.1.1. The data on the report will be pulled from the FMS temp table. The status field of the FMS temporary interface table (SFALIB_FMS_TO_FMSS_INTERFACE) will indicate whether the batch has been transferred successfully. A separate field in the FMS temporary interface table (SFALIB_FMS_TO_FMSS_INTERFACE) will include error messages with explanations.

The report will display details for all summarized journal batches in the FMS temporary interface table. Specifically, the report will display the Batch ID, Batch Name, Batch Credit Amount, Batch Debit Amount, Batch Send Date, Accounting Period, Batch Record Count, Report Credit Amount, and Report Debit Amount per Requirement 4.1.2. In addition, the report will display the status of the FMS G/L Batch after the transfer to FMSS. The status will indicate whether or not the transfer has been successfully completed as well as provide an error code if the transfer fails, per Requirement 4.1.2. A key of all the error codes will be provided at the end of the report.

A PL/SQL function, which calls the report and shell script, will be registered as a concurrent program in Oracle applications. The function will be bundled within the FMS to FMSS Interface Program. The interface program will call the PL/SQL function (notification) after it has transmitted its file to FMSS. The notification will kick off a request for the report as well as a request for the shell script that is responsible for sending an email with the report attached, per Requirement 4.1.3. If the notification runs successfully, then the FMS temporary interface table (SFALIB_FMS_TO_FMSS_INTERFACE) will be purged. If the notification does not run successfully, the data will remain in the temporary interface table. In addition, the notification will contain a shell script that will store the report as a file to a historical directory on the FMS server for a period of 15 months. After 15 months, the file will be deleted, per Requirement 4.1.4.

Component Risks:

- Report will be run nightly to avoid use of system resources during peak processing times.
- Future changes to the FMS to FMSS Interface program may impact this notification. Impact analysis should be performed on the notification whenever changes are made to the FMS to FMSS Interface program.



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- If historical data is needed, the user must retrieve the old report from the FMS server or from the user who received the report via email. The user will not be able to manually run the report to get historical data.

Authorization:

The report cannot be manually generated. The report will be generated from the FMS to FMSS Interface program.

Scheduling Requirements:

The FMS to FMSS Interface Notification will be bundled into the FMS to FMSS Interface program. The interface will call the notification within its PL/SQL package after it has transmitted its file to FMSS.

Report Characteristics:

Legacy Report Name:	N/A
Distribution:	FSA CFO Accounting, FSA AD OPS Team
Summary Level:	Batch
Output:	Online/Print
Volume:	N/A
Frequency:	Daily

Development Complexity:

High

Assumptions:

- The report will be emailed to designated users. The email addresses will be supplied by FSA.
- The FMS to FMSS Interface Program will run daily.
- FMS to FMSS Interface Program completes successfully.
- UNIX mail functionality is configured properly.

Detailed Description of New/Changes to Existing Report:

N/A

Existing/Original Report Name:

N/A

Field Information:

Field Name	Field Heading	Table Name / Column Name	Field Type	Display Characteristics	Field Length	Comments (Functional Notes / Calculations / Validations)
Batch ID	Batch ID	SFALIB_fmss_interface/batch_id	Number		15	The ID number of the batch.
Batch Name	Batch Name	Gl_je_batches/name	Varchar2		30	The name of the batch.
Batch Debit Amount	Batch Debit Amount	SFALIB_fmss_interface/entered_dr	Number		15	This is the sum of all debit lines in the batch.
Batch Credit Amount	Batch Credit Amount	SFALIB_fmss_interface/entered_cr	Number		15	This is the sum of all credit lines in the batch.
Record Count	Record Count	SFALIB_fmss_interface/batch_id	Number		15	This is a count of all lines in the batch.
Transfer Status	Transfer Status	SFALIB_fmss_interface/process_flag	Varchar2		1	Field will indicate whether a batch transferred from FMS to FMSS successfully/unsuccessfully.
Error code	Error Code	SFALIB_fmss_interface/process_error	Varchar2		100	Field will store error codes delimited with commas. A key of the error codes will appear at the bottom of the report.
Batch Send Date/Attempted Send Date	Batch Send Date/Attempted Send Date	SFALIB_fmss_interface/process_date	Date			The date the batch was processed or failed.
Accounting Period	Accounting Period	Gl_periods/period_name	Varchar2		15	The accounting period the batch date is in.
Total Credit Amount	Total Credit Amount	Sum of the Batch Credit Amount report field	Number		15	The sum of the batch credit amount column for all batches. The field will total for successful and failed batches separately.
Total Debit Amount	Total Debit Amount	Sum of the Batch Debit Amount report field	Number		15	The sum of the batch debit amount column for all batches. The field will total for successful and failed batches separately.
Period	Period	Gl_periods/period_name	Varchar2	The format is MON-YY.	6	The accounting period that the batch is run during.
Report Run	Report Run	Sysdate	Date	The format is	10	The day the report is run.



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Date	Date			MM/DD/YY YY.		
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Input Parameters:

Parameter Name	Datatype	Default Value	Required (Y/N)	Value Set	Comments
None					

Database Objects:

Object Name	Object Type	Schema	Purpose/ Description
To be determined.	PL/SQL Package	SFALIB	The notification will be run inside this package.
SFALIB_FMS_FMS S_NOTIFY_PKG_S_ V401	PL/SQL Package Specification	SFALIB	The package specification for the notification.
SFALIB_FMS_FMS S_NOTIFY_PKG_B _V401	PL/SQL Package Body	SFALIB	The package body for the notification.

Main Title:

U.S. Department of Education
FMS to FMSS Interface Reconciliation Report

Subtitle:

Period: MON-YY
Run Date: MM/DD/YYYY

Breaking:

N/A

Totals/Subtotals:

All lines in a batch will be totaled by credit amount and debit amount.
All batches in the report will be totaled by credit amount and debit amount.

Sorting:

Batches will be ordered by batch send date/attempted send date in descending order.

Dependencies

Dependencies on Other RICE Components:

The report is dependent on the results of the FMS to FMSS Interface.

Dependencies on Other Business Components:

N/A



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Design Constraints:

N/A

Performance Considerations:

N/A

Implementation Considerations:

N/A

Other Dependencies/Special Concerns:

N/A

Error Handling

Potential Errors	Possible Reasons	Solution Strategy
Database fails while in process of running report.	System failure.	Contact FMS Operations. Once database is restored, the report will be initiated by the FMS to FMSS Interface the next time it runs. Because data will not have been purged the report will display the current execution and last executions detail.
Values do not appear in report.	Script error.	Rebuild code and compile.

Testing Requirements

Test Condition	Expected Results
Kick off FMS to FMSS Interface Program with successful batches.	Report is generated properly, sent to the appropriate email address and the FMS temporary interface table is cleared. "No batches failed" will be displayed in the Failed Batches section of the report.
Kick off FMS to FMSS Interface Program with failed batches.	Report is generated properly, sent to the appropriate email address and the FMS temporary interface table is cleared. "No batches were successfully transferred" will be displayed in the Successful Batches section of the report. The failed batches section will display error code(s) in the failure explanation field.
Kick off FMS to FMSS Interface Program with successful and failed batches.	Report is generated properly, sent to the appropriate email address and the FMS temporary interface table is cleared. The successful and failed batches sections will both have data displayed.



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Kick off FMS to FMSS Interface with no new batches.	Report is generated properly, sent to the appropriate email address and the FMS temporary interface table is cleared. “No batches failed” will be displayed in the Failed Batches section of the report. “No batches were successfully transferred” will be displayed in the Successful Batches section of the report.
Invalid Email Address.	The report is sent to an invalid email address.
Valid Email Address.	Report is generated properly, sent to the appropriate email address and the FMS temporary interface table is cleared.

Issues and Additional Considerations

The following Issues were defined during Functional Design:

Issue	Raised By / Date Needed	Resolution/Answer	Resolved By / Date Completed
Which attribute will be used in the gl_je_batches table to track the batch status, batch date, and error message?	Dave Stuart/February 28,2002	Attribute4	John Kim/February 27,2002