

DEPARTMENT OF EDUCATION-FSA  
FMS INTEGRATION PARTNER  
INTERFACE FUNCTIONAL DESIGN



FORM 2000 SAIG EMAIL NOTIFICATION  
INTERFACE  
TO 149 – FORM 2000 SYSTEM ENHANCEMENTS

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Creation Date: October 20, 2003  
Last Updated: November 13, 2003



Subject: SAIG Email Notification Interface Functional Design
TO 149 – Form 2000 System Enhancements
Version: 1.0

Prepared by: Jobe Jamerson	Date: October 20, 2003
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## Document Change Control

Date	Author	Version	Change Reference
10/20/03	Jobe Jamerson	1.0	Initial Creation

## Approval

<b>Created By:</b>	Jobe Jamerson	703-947-2864	<b>Creation Date:</b> 10/20/03
<b>Project Lead Sign Off:</b>	Joanna Zieba	312-693-3414	<b>Sign Off Date:</b> 11/17/2003
<b>FSA Representative Sign Off:</b>	Jay Hurt	202-377-3453	<b>Sign Off Date:</b>



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## Specification

<b>Program Name:</b>	FMS Form 2000 SAIG File Load Interface
<b>Functional Design Document ID &amp; Title:</b>	FORM2000_SAIG_EMAIL_NOTIF_INT_FD.doc
<b>Application:</b>	FMS Monthly Form 2000 FMS Monthly/Quarterly Form 2000 FMS Annual Form 2000
<b>Priority:</b>	High
<b>Estimated Production Date:</b>	April 4, 2004
<b>Other Affected Applications:</b>	Student Aid Internet Gateway (SAIG) Enterprise Application Integration (EAI)
<b>Comments:</b>	



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## General Requirements

### Business Objective:

As part of TO 149, FMS has been tasked with eliminating the usage of VPN as a file transfer mechanism to submit Form 2000 Monthly, Quarterly, and Annual Reports and replace it with the capability to submit the reports via SAIG.

SAIG allows GAs the ability to submit their Monthly, Monthly/Quarterly and Annual Report (Requirement 5.1) files the same way that they do for other FSA programs, thus providing consistency between programs and encouraging more GAs to submit Form 2000 reports via file transfer.

### Component Description:

The FMS Form 2000 SAIG File Load Interface will consist of the following components:

- Modify the current File Transfer script to run as a scheduled process each evening.
- Create four Temporary tables that mirror current Form 2000 Production Tables in which the Monthly, Monthly/Quarterly, Annual and Annual Items Data can be placed before it is transferred to the Form 2000 Production tables.
- Create a UNIX Script to call Oracle SQL Loader to pull files from the four different folders on the FMS server and load the data into the temporary tables.
- Create a PL/SQL procedure to run the Hard Edits on the Monthly and Monthly/Quarterly Reports.
- Create a PL/SQL procedure to transfer data to Form 2000 tables with a status of 'Submitted' for all Annual Reports and if the data passes Hard Edits for Monthly and Monthly/Quarterly Reports (Requirement 5.10).
- Create Email Notifications to be sent from Oracle Alerts using the current GET\_EMAIL\_LIST function (Requirement 5.5) and copied to the FSA\_GAR@ed.gov mailbox (Requirement 5.6) after a Monthly, Monthly/Quarterly or Annual Report file is processed (Requirements 5.2 as well as 5.7, 5.8 & 5.9 for designs). The email states whether the data in the file passed or failed (Monthly and Monthly/Quarterly only) Hard Edits (Requirement 5.3). The email also lists the Hard Edits that failed (Requirement 5.4).
- Remove notification for the GAs who submitted files via the SAIG mailbox to not receive the current File Transfer 'In Process' and 'Submitted' Email Notifications - they will receive the new notification instead (Requirement 5.11).

### Custom Component Risks:

None

### Authorization:

The program will be registered under the System Administrator Responsibility.

### Scheduling Requirements:

The program will be scheduled to run at 8:00 PM EST each evening.

### Volume:

Currently there are three GAs that submit their Monthly, Monthly/Quarterly and Annual Reports via file transfer. Monthly Reports are submitted 12 times per annum, Monthly/Quarterly Reports are submitted 12 times per annum and Annual Reports are submitted once per annum. If all three GAs submit all of the Reports via file transfer, there will be a total of 75 Reports submitted per annum.



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**Frequency:**

The interface will run nightly.

**Development Complexity:**

Medium

**Security Concerns:**

1. The Interface program will not perform any validation on the user access, in regards to submitting the file; the SAIG mailbox holder will be responsible for controlling proper file submission access.
2. External GA users have already or will have to complete a paper registration and approval process to obtain a User ID to access to Form 2000 screens to query previous reports or make changes to reports.
3. External users do not have access to FMS. Once data is submitted in Form 2000 an automated processes converts data to FMS.

**Assumptions:**

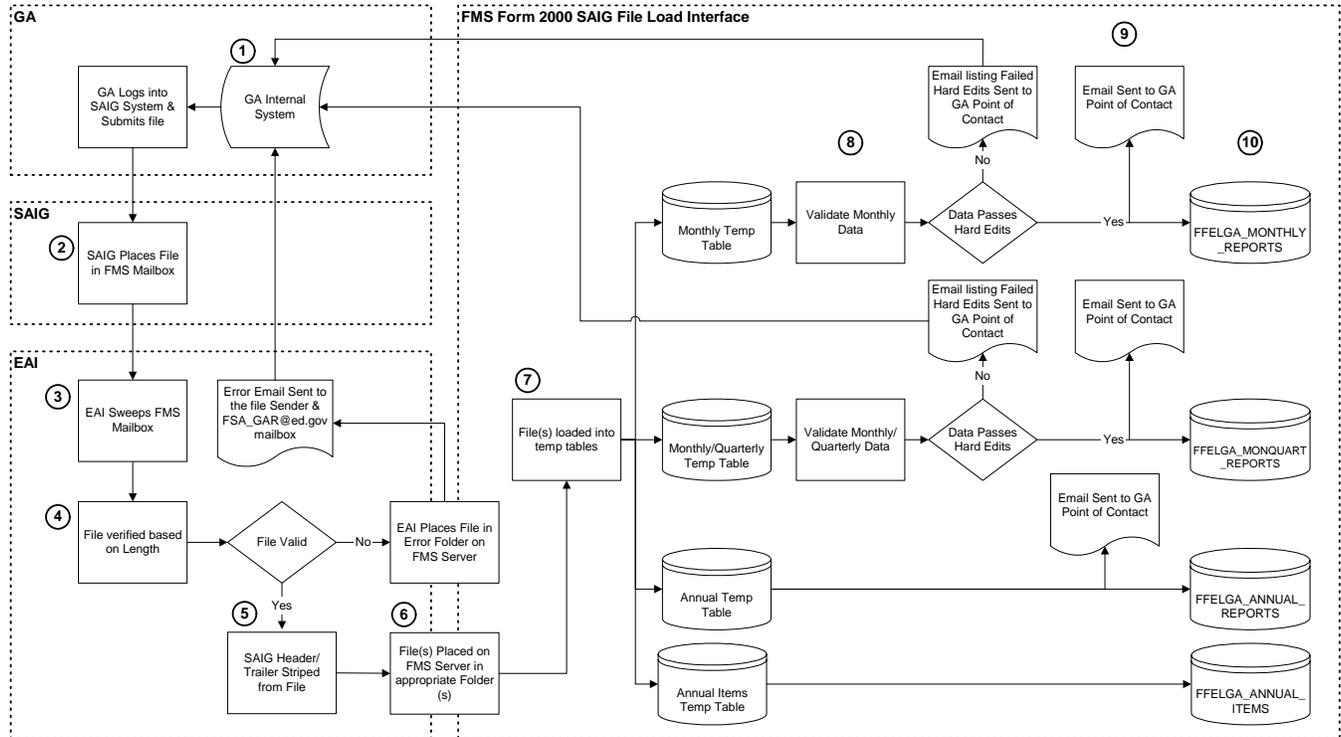
1. The GAs will be able to enroll for a TG number via the current SAIG enrollment process. If SAIG needs to institute a new enrollment process, this will incur additional costs.
2. SAIG will provide four different message classes, one for each file type.
3. SAIG and EAI will be responsible for development and unit testing of their respective steps in the FMS Form 2000 SAIG File Load Interface. The FMS Form 2000 team will work with the SAIG and EAI team to test the full process during Integration Test.
4. If an error in processing occurs in either the SAIG or EAI systems, the FMS Form 2000 Enhancements Team will work with the SAIG and EAI team to resolve the issue as soon as possible.
5. A Participation File, listing the various TG numbers that submit to a particular message class, is available from SAIG, but was not requested as part of this development because there are currently only a few participants.
6. Any process changes related to submitting files via SAIG rather than VPN, including the addition of an SAIG header and trailer will be communicated to the participating GAs through a series of notifications from the Financial Partners (FPs) and the FMS Form 2000 Enhancements Team.
7. GAs will not submit, nor will the FPs accept Reports, between Wednesday, March 24, 2004 and Sunday, April 4, 2004.
8. GAs will not be able to submit Amended Annual Reports via File Transfer. If an Annual Report needs to be amended, it will be done so through the form in Oracle Applications.
9. GAs will not submit two Monthly and/or two Monthly/Quarterly reports on the same day, for the same GA code via File Transfer.
10. GAs will be able to utilize the online form in Oracle Applications for submission of their Monthly, Monthly/Quarterly and Annual Reports if there is any difficulty with the FMS Form 2000 SAIG File Load Interface.
11. FMS Operations will monitor concurrent request status for this interface on a daily basis and will fix any problems before the next scheduled run of the interface. Data will remain in the temporary tables until the next scheduled run of the interface.
12. If no valid email address exists for a particular GA, the concurrent request will complete in warning, and the email will still be sent to the FSA\_GAR@ed.gov mailbox.
13. A GA can resubmit is file via file transfer with a Submission Code of 'R' as long as the REPORT\_STATUS in the FFELGA tables is not set to 'Approved'.
14. In order to be included in the User Acceptance Testing, test files in the modified format will be provided by the GAs transitioning to FMS Form 2000 SAIG File Load Interface by Thursday, February 24, 2004.



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## Design

### Process Flow Diagram:



### Detailed Description of New/Changes to Existing Program:

- GA logs into the SAIG System and submits file with additional SAIG Header/Trailer. The SAIG Header/Trailer will be added by the GAs respective internal systems which create the data file. The internal systems may be one of the following: ED Connect, TD Client, ED Express or a mainframe system.
- SAIG sweep mailboxes, and place files in FMS Mailbox. This will be an automatic process that will occur every few minutes.
- EAI sweeps the FMS Mailbox every 15 minutes and picks up any files with a Form 2000 message class.
- EAI verifies validity of files based on file length.
  - If the file is not valid, it will be placed in an Error Folder on the FMS server. Also, an email will be sent to both the file sender (based on contact for sending TG number) and the FSA\_GAR@ed.gov mailbox stating that an invalid file was submitted and not processed. The GA must then resubmit a valid file for processing.
- EAI runs a program to automatically strip the SAIG Header/Trailer from file.
- EAI places the file in the appropriate folder on the FMS server. There will be a folder for each of the file types – Monthly, Monthly/Quarterly, Annual and Annual Detail.
- A concurrent program runs nightly and will begin with a UNIX Script, which will call Oracle SQL Loader to pull files from the four different folders in on the FMS server and load the data into temporary tables. All files that are



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on the server at 8:00 PM EST will be loaded at this time. Any files sent from a GA after 7:00 PM EST will be processed the next evening.

8. A PL/SQL procedure, also registered within the concurrent program and includes code to validate Hard Edits, runs against the Monthly and Monthly/Quarterly data.
9. Email Notifications are sent from Oracle Alerts after a Monthly, Monthly/Quarterly or Annual Report file is processed (see Appendix A for Notification design). The GET\_EMAIL\_LIST function that is currently in place will be used to determine the GA contact email addresses.
10. A PL/SQL Procedure transfers data to the appropriate FFELGA reports tables with a status of 'Submitted' if the data passes Hard Edits (Monthly and Monthly/Quarterly only). Reports will be ready for FP Acceptance. Any Soft Edits will trigger as always when the FP Accepts the Report. If the FP rejects the Report, the GA can resubmit via File Transfer using the Submission Code 'R'.

**File Layout:**

For the purposes of the FMS Form 2000 SAIG File Load Interface, the file layouts for the SAIG process will remain the same except for the addition of an SAIG Header and Trailer that will be added by the GA system before the file is sent. The SAIG Header and Trailer will be removed by the EAI system prior to the file being placed on the FMS server. The SAIG Header and Trailer layouts are as follows:

SAIG Header Record			
Position	Length	Data Element	Field Input
1-5	5	Record Identifier	O*N05
6-12	7	Destination Mailbox ID	<TBD>
13-19	7	SPACES	
20	1	' ' (Comma)	,
21-24	4	CLS =	CLS=
25-32	8	Message Class	<TBD>
33	1	' ' (Comma)	,
34-37	4	XXX,	XXX,
38-41	4	BAT=	BAT=
42	1	' ' (Comma)	,
43-70	28	SPACES	

SAIG Trailer Record			
Position	Length	Data Element	Field Input
1-5	5	Record Identifier	O*N95
6-12	7	Destination Mailbox ID	<TBD>
13-19	7	SPACES	
20	1	' ' (Comma)	,
21-24	4	CLS =	CLS=
25-32	8	Message Class	<TBD>
33	1	' ' (Comma)	,
34-37	4	XXX,	XXX,
38-41	4	BAT=	BAT=
42	1	' ' (Comma)	,
43-70	28	SPACES	

The Monthly and Monthly/Quarterly file layouts will be changed as a result of the Form 2000 Monthly/Quarterly Form Reconfiguration. See Appendix B for complete file layouts.

**Input Parameters:**

Parameter Name	Datatype	Default Value	Required (Y/N)	Value Set	Comments



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**Database Objects:**

Database Object Name	Object Type	Oracle Application	Comments
FFELGA_MONTHLY_REPORTS_TEMP	Table	Form 2000 FFELGA	Temporary Table to be used for staging and verification of Monthly file transfer data.
FFELGA_MONQUART_REPORTS_TEMP	Table	Form 2000 FFELGA	Temporary Table to be used for staging and verification of Monthly/Quarterly file transfer data.
FFELGA_ANNUAL_REPORTS_TEMP	Table	Form 2000 FFELGA	Temporary Table to be used for staging Annual file transfer data.
FFELGA_ANNUAL_ITEMS_TEMP	Table	Form 2000 FFELGA	Temporary Table to be used for staging Annual Detail file transfer data.
FFELGA_SAIG_FILE_LOAD_PKG	PL/SQL Program	Form 2000 FFELGA	Program will consist of two procedures which will validate data in the temporary tables, perform edits against data and transfer data into the Form 2000 production tables.
FSA FFEL GA Monthly Report File Transfer Email	Oracle Alert	Form 2000 FFELGA	Email Notification to be sent to GAs after file has been loaded and verified against the hard edits.
FSA FFEL GA Monthly/Quarterly Report File Transfer Email	Oracle Alert	Form 2000 FFELGA	Email Notification to be sent to GAs after file has been loaded and verified against the hard edits.
FSA FFEL GA Annual Report File Transfer Email	Oracle Alert	Form 2000 FFELGA	Email Notification to be sent to GAs after file has been loaded.
SFA FFEL GA Annual Accepted Email	Oracle Alert	Form 2000 FFELGA	This alert needs to be set up to send for Reports submitted via the form only, not report.
SFA FFEL GA Annual Rejection Email	Oracle Alert	Form 2000 FFELGA	This alert needs to be set up to send for Reports submitted via the form only, not report.
SFA FFEL GA Annual Submission Email	Oracle Alert	Form 2000 FFELGA	This alert needs to be set up to send for Reports submitted via the form only, not report.
SFA FFEL GA Monthly Accepted Email	Oracle Alert	Form 2000 FFELGA	This alert needs to be set up to send for Reports submitted via the form only, not report.
SFA FFEL GA Monthly Rejection Email	Oracle Alert	Form 2000 FFELGA	This alert needs to be set up to send for Reports submitted via the form only, not report.
SFA FFEL GA Monthly Submission Email	Oracle Alert	Form 2000 FFELGA	This alert needs to be set up to send for Reports submitted via the form only, not report.
SFA FFEL GA Quarterly Accepted Email	Oracle Alert	Form 2000 FFELGA	This alert needs to be set up to send for Reports submitted via the form only, not report.
SFA FFEL GA Quarterly Rejection Email	Oracle Alert	Form 2000 FFELGA	This alert needs to be set up to send for Reports submitted via the form only, not report.
SFA FFEL GA Quarterly Submission Email	Oracle Alert	Form 2000 FFELGA	This alert needs to be set up to send for Reports submitted via the form only, not report.



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## Dependencies

### Dependencies on Other RICE Components:

Form 2000 Monthly/Quarterly Form Reconfiguration and Conversion must be completed successfully before this interface can be run in production.

### Dependencies on Other Business Components:

1. An Object Class must be obtained from SAIG before files can be submitted to the SAIG mailbox.
2. EAI must complete development to transfer and validate Form 2000 files.
3. GAs must modify their respective internal systems to include the SAIG Header/Trailer before their files can be processed by this interface.

### Design Constraints:

None

### Performance Considerations:

None

### Implementation Considerations:

GA submissions of files via the current VPN method must be suspended on March 24, 2004 in order to transition to the FMS Form 2000 SAIG File Load Interface.

### Other Dependencies/Special Concerns:

None

## Error Handling

Potential Errors	Possible Reasons	Solution Strategy
Email Notification Fails	-Null or invalid email address for a GA -Database is down	-Forward email from FSA_GAR@ed.gov to valid GA email. Update email address for GA. -Manually rerun program once database is back up.
SQL Loader Completes in Error	Invalid character in file.	Validate file and manually reload.
PL/SQL Program Completes in Error	Database is down.	Manually rerun program once database is back up.



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## Testing Requirements

Requirements Matrix Reference	Test Condition	Expected Results
5.10	Send multiple files for each file type (Monthly, Monthly/Quarterly, Annual and Annual Detail) at the same time.	UNIX script loads each of the files into the appropriate temp table. The PL/SQL program processes the files one at a time. Separate entries are created in the FFELGA tables for each file. Each line is marked with a status of submitted. Files are placed in the appropriate Archive folder on the FMS server.
N/A	Send files for each file type with an invalid character contained within the file. For example, an alpha character in the amount fields or an * in the header.	Concurrent request completes in Error. Error log states where the error occurred.
5.2, 5.3, 5.5, 5.6, 5.7, 5.10, 5.11	Create and process a valid Monthly file (no Failed Hard Edits).	Monthly Notification will be sent to the GA Contacts and the FSA_GAR@ed.gov mailbox with no Hard Edits listed. Email is formatted correctly and includes the appropriate Subject line and information. Current File Transfer 'In Process' and 'Submitted' Email Notifications are not sent. Data is in the FFELGA_MONTHLY_REPORTS table with a PAY_STATUS of 'Accepted'.
5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.11	Create and process a Monthly file that fails one Hard Edit. Repeat for each Hard Edit.	Monthly Notification will be sent to the GA Contacts and the FSA_GAR@ed.gov mailbox with only the appropriate Hard Edit listed. Email is formatted correctly and includes the appropriate Subject line and information. Current File Transfer 'In Process' and 'Submitted' Email Notifications are not sent.
5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.11	Create and process a Monthly file that fails several Hard Edits. Repeat for all combinations of multiple Hard Edits.	Monthly Notification will be sent to the GA Contacts and the FSA_GAR@ed.gov mailbox with only the appropriate Hard Edits listed. Email is formatted correctly and includes the appropriate Subject line and information. Current File Transfer 'In Process' and 'Submitted' Email Notifications are not sent.
5.2, 5.3, 5.5, 5.6, 5.8, 5.10, 5.11	Create and process a valid Monthly/Quarterly file (no Failed Hard Edits).	Monthly/Quarterly Notification will be sent to the GA Contacts and the FSA_GAR@ed.gov mailbox with no Hard Edits listed. Email is formatted correctly and includes the appropriate Subject line and information. Current File Transfer 'In Process' and 'Submitted' Email Notifications are not sent. Data is in the FFELGA_MONQUART_REPORTS table with a PAY_STATUS of 'Accepted'.
5.2, 5.3, 5.4, 5.5, 5.6, 5.8, 5.11	Create and process a Monthly/Quarterly file that fails one Hard Edit. Repeat for each Hard Edit.	Monthly/Quarterly Notification will be sent to the GA Contacts and the FSA_GAR@ed.gov mailbox with only the appropriate Hard Edit listed. Email is formatted correctly and includes the appropriate Subject line and information. Current File Transfer 'In Process' and 'Submitted' Email Notifications are not sent.
5.2, 5.3, 5.4, 5.5, 5.6, 5.8, 5.11	Create and process a Monthly/Quarterly file that fails several Hard Edits. Repeat for all combinations of multiple Hard Edits.	Monthly/Quarterly Notification will be sent to the GA Contacts and the FSA_GAR@ed.gov mailbox with only the appropriate Hard Edits listed. Email is formatted correctly and includes the appropriate Subject line and information. Current File Transfer 'In Process' and 'Submitted' Email Notifications are not sent.
5.2, 5.5, 5.6, 5.9, 5.10, 5.11	Create and process a valid Annual file and Annual Detail file.	Annual Notification will be sent to the GA Contacts and the FSA_GAR@ed.gov mailbox. Email is formatted correctly and includes the appropriate Subject line and information. Current File Transfer 'In Process' and 'Submitted' Email Notifications are not sent. Data is in the FFELGA_ANNAUL_REPORTS table with a PAY_STATUS of 'Accepted'. Detail data is in the FFELGA_ANNUAL_ITEMS table.
N/A	Enter an incomplete email address into the contact information for a particular GA. Process file for that GA.	Concurrent Request completes with Warning. Log states that the 'To:' email address was invalid. Email is still sent to the FSA_GASR@ed.gov mailbox.
N/A	Enter a null email address into the contact information for a particular GA. Process file for that GA.	Concurrent Request completes with Warning. Log states that the 'To:' email address was invalid. Email is still sent to the FSA_GASR@ed.gov mailbox.

Note: Requirement 5.1 will be tested as part of Integration Test.



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## Issues and Additional Considerations

The following Issues were defined during Functional Design:

Issue	Raised By / Date Needed	Resolution/Answer	Resolved By / Date Completed
FMS Form 2000 will need 4 message classes to distinguish between the 4 different file types.	Jobe Jamerson / 11/07/03	It will be possible to obtain 4 message classes. Message class request form was forwarded to Jobe Jamerson.	Colleen Ward / 10/30/03
FMS Form 2000 will need EAI to verify file lengths and error out incomplete files.	Jobe Jamerson / 11/07/03	EAI will be able verify file based on length (this is possible because the files are fixed length). Any files that error will be placed in an Error folder on the FMS server (there will be a separate folder for each file type). EAI will also send an email to contact registered for that particular TG number as well as the FSA_GAR@ed.gov mailbox.	Brian Whisnant / 11/05/03
In order for SAIG to be able to route files there needs to be a specific header and trailer on each file containing various items such as the message class. This header and footer is not needed by the FMS system to process the file.	Jobe Jamerson / 11/07/03	The GAs will need to add an additional header and trailer onto the existing file layout. This SAIG header and trailer will be removed by EAI once before the file is placed on the FMS Server.	Brian Whisnant / 11/05/03



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## Appendix A – Email Notifications

### Form 2000 Monthly Report File Transfer Email Notification:

To: <&EMAIL\_ADDRESS>  
Cc: fsa\_gar@ed.gov  
Subject: FFELGA Monthly Report <&GA\_CODE>, <&F\_MONTH>, <&F\_YEAR> File Transfer

Your FFEL Monthly Report for  
GA Code = <&GA\_CODE>  
Fiscal Month = <&F\_MONTH>  
Fiscal Year = <&F\_YEAR>  
Email Recipients = <&EMAIL\_ADDRESS>  
has been processed. If the file has triggered any Hard Edits they will be listed below.  
If there are errors listed below, please correct the report and resend. If no errors are  
listed below, the report was submitted and will be reviewed by the Department.

Failed Hard Edits  
<List of Hard Edit Messages>

Thank You,  
Department of Education

### Form 2000 Monthly/Quarterly Report File Transfer Email Notification:

To: <&EMAIL\_ADDRESS>  
Cc: fsa\_gar@ed.gov  
Subject: FFELGA Monthly/Quarterly Report <&GA\_CODE>, <&F\_QTR\_MON>, <&F\_YEAR> File  
Transfer

Your FFEL Monthly/Quarterly Report for  
GA Code = <&GA\_CODE>  
Fiscal Month/Quarter = <&F\_QTR\_MON>  
(Q) Quarter/(M) Month Report = <&QUARTER\_FLAG>  
Fiscal Year = <&F\_YEAR>  
Email Recipients = <&EMAIL\_ADDRESS>  
has been processed. If the file has triggered any Hard Edits they will be listed below.  
If there are errors listed below, please correct the report and resend. If no errors are  
listed below, the report was submitted and will be reviewed by the Department.

Failed Hard Edits  
<List of Hard Edit Messages>

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**Form 2000 Annual Report File Transfer Email Notification:**

To: <&EMAIL\_ADDRESS>  
Cc: fsa\_gar@ed.gov  
Subject: FFELGA Annual Report <&GA\_CODE>, <&F\_YEAR> File Transfer

Your FFEL Annual Report for  
GA Code = <&GA\_CODE>  
Fiscal Year = <&F\_YEAR>  
Email Recipients = <&EMAIL\_ADDRESS>  
has been submitted and will be reviewed by the Department.

Thank You,  
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## Appendix B – Original File Layouts

### Form 2000 Monthly Report File Layout:

Header				
Start	End	Length	Description	Valid Values
1	3	3	GA Code	Must be a valid GA Code in SFA FMS
4	33	30	Contact Username	SFA FMS Username of GA Contact. Must be a valid username with submission authority for that GA.
34	43	10	Contact Phone	GA User's Phone Number
44	68	25	Contact Email Address	GA User's Email Address
69	71	3	Record Total	Total Number of Detail Records in the file.
72	72	1	Submission Code	N = New Submission R = Resubmission of Rejected Financial Report
73	78	6	Month/Year	Month and Year of the Financial Report in MMYYYY format
79	79	1	Report Type	M = Monthly Information for items MR-1 to MR-26
80	87	8	Submission Date	Date when this file was created. In DDMMYYYY Format.
88	93	6	Submission Time	Time when this file was created. In HHMMSS Format.

File				
Start	End	Length	Description	Valid Values
1	3	3	GA Code	Same GA Code as header
4	13	10	Item Number	Identifies category on Form 2000 (e.g., MR-1-A, MR-14)
14	28	15	Principal Amount	Principal Amount
29	43	15	Interest Amount	Interest Amount
44	58	15	Other Amount	Other Amount

Trailer				
Start	End	Length	Description	Valid Values
1	3	3	GA Code	Same GA Code as header
4	6	3	Record Total	Total Number of Detail Records in the file
7	26	20	Total Principal Amount	Total Principal Amount
27	46	20	Total Interest Amount	Total Interest Amount
47	66	20	Total Other Amount	Total Other Amount
67	86	20	Total Overall Amount	Total Overall Amount (i.e., Total Principal + Total Interest + Total Other)



Subject: SAIG Email Notification Interface Functional Design
TO 149 – Form 2000 System Enhancements
Version: 1.0

Prepared by: Jobe Jamerson	Date: October 20, 2003
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**Form 2000 Monthly/Quarterly Report File Layout:**

Header				
Start	End	Length	Description	Valid Values
1	3	3	GA Code	Must be a valid GA Code in SFA FMS
4	33	30	Contact Username	SFA FMS Username of GA Contact. Must be a valid username with submission authority for that GA.
34	43	10	Contact Phone	GA User's Phone Number
44	68	25	Contact Email Address	GA User's Email Address
69	71	3	Record Total	Total Number of Detail Records in the file.
72	72	1	Submission Code	N = New Submission R = Resubmission of Rejected Financial Report
73	78	6	Month/Year	Month and Year of the Financial Report in MMYYYY format. For monthly reports, MM must represent the report month. For quarterly submissions, MM must be 03, 06, 09, or 12.
79	80	2	Report Type	QM = Monthly Information for items MR-27 to MR-42 QQ = Quarterly Information for items MR-27 to MR-42
81	88	8	Submission Date	Date when this file was created. In DDMMYYYY Format.

File				
Start	End	Length	Description	Valid Values
1	3	3	GA Code	GA Code
4	13	10	Item Number	Identifies category on Form 2000 (e.g., MR-27)
14	28	15	Principal Amount	Principal Amount
29	43	15	Interest Amount	Interest Amount
44	58	15	Other Amount	Other Amount

Trailer				
Start	End	Length	Description	Valid Values
1	3	3	GA Code	GA Code
4	6	3	Record Total	Total Number of Detail Records in the file
7	26	20	Total Principal Amount	Total Principal Amount
27	46	20	Total Interest Amount	Total Interest Amount
47	66	20	Total Other Amount	Total Other Amount
67	86	20	Total Overall Amount	Total Overall Amount (i.e. Total Principal + Total Interest + Total Other)



Subject: SAIG Email Notification Interface Functional Design
TO 149 – Form 2000 System Enhancements
Version: 1.0

Prepared by: Jobe Jamerson	Date: October 20, 2003
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**Form 2000 Annual Report File Layout:**

Header				
Start	End	Length	Description	Valid Values
1	3	3	GA Code	Must be a valid GA Code in SFA FMS
4	33	30	Contact Username	SFA FMS Username of GA Contact. Must be a valid username with submission authority for that GA.
34	43	10	Contact Phone	GA User's Phone Number
44	68	25	Contact Email Address	GA User's Email Address
69	71	3	Record Total	Total Number of Detail Records in the file.
72	72	1	Submission Code	N = New Submission R = Resubmission of Rejected Financial Report
73	76	4	Year	Year of the Financial Report in YYYY format
77	77	1	Report Type	A = Annual Information for items AR-1to AR-57
78	85	8	Submission Date	Date when this file was created. In DDMMYYYY Format.
86	91	6	Submission Time	Time when this file was created. In HHMMSS Format.

File				
Start	End	Length	Description	Valid Values
1	3	3	GA Code	Same GA Code as header
4	13	10	Item Number	Identifies category on Form 2000 (e.g., AR-18)
14	28	15	CY Actual Amount	CY Actual Amount
29	43	15	CY + 1 Projection Amount	CY + 1 Projection Amount
44	58	15	CY + 2 Projection Amount	CY + 2 Projection Amount
59	73	15	CY + 3 Projection Amount	CY + 3 Projection Amount
74	88	15	CY + 4 Projection Amount	CY + 4 Projection Amount
89	103	15	CY + 5 Projection Amount	CY + 5 Projection Amount

Trailer				
Start	End	Length	Description	Valid Values
1	3	3	GA Code	Same GA Code as header
4	6	3	Record Total	Total Number of Detail Records in the file
7	26	20	Total CY Actual Amount	Total CY Actual Amount
27	46	20	Total CY + 1 Projection Amount	Total CY + 1 Projection Amount
47	66	20	Total CY + 2 Projection Amount	Total CY + 2 Projection Amount
67	86	20	Total CY + 3 Projection Amount	Total CY + 3 Projection Amount
87	106	20	Total CY + 4 Projection Amount	Total CY + 4 Projection Amount
107	126	20	Total CY + 5 Projection Amount	Total CY + 5 Projection Amount



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**Form 2000 Annual Detail Report File Layout:**

Header				
Start	End	Length	Description	Valid Values
1	3	3	GA Code	GA Code
4	33	30	Contact Username	SFA FMS Username of GA Contact. Must be a valid username with submission authority for that GA.
34	43	10	Contact Phone	GA User's Phone Number
44	68	25	Contact Email Address	GA User's Email Address
69	71	3	Record Total	Total Number of Detail Records in the file.
72	72	1	Submission Code	N = New Submission R = Resubmission of Rejected Financial Report
73	76	4	Year	Year of the Financial Report
77	77	1	Report Type	I = Annual Information Itemized Line Items
78	85	8	Submission Date	Date when this file was created. In DDMMYYYY Format.
86	91	6	Submission Time	Time when this file was created. In HHMMSS Format.

File				
Start	End	Length	Description	Valid Values
1	3	3	GA Code	Same GA Code as header
4	13	10	Item Number	Identifies category on Form 2000. Valid values are AR-20, AR-25, AR-36, or AR-39.
14	33	20	Subcategory Name	Subcategory Name (free-form)
34	34	1	FFEL Indicator	For AR-36 and AR-39, must itemize other revenue and expenditures by FFEL and Non FFEL. For other items, this is not applicable. F = FFEL N = Non FFEL X = Not Applicable
35	49	15	CY Actual Amount	CY Actual Amount
50	64	15	CY + 1 Projection Amount	CY + 1 Projection Amount
65	79	15	CY + 2 Projection Amount	CY + 2 Projection Amount
80	94	15	CY + 3 Projection Amount	CY + 3 Projection Amount
95	109	15	CY + 4 Projection Amount	CY + 4 Projection Amount
110	124	15	CY + 5 Projection Amount	CY + 5 Projection Amount
125	224	100	Explanation	Explanation regarding the itemized line item (free-form)

Trailer				
Start	End	Length	Description	Valid Values
1	3	3	GA Code	GA Code
4	6	3	Record Total	Total Number of Detail Records in the file.
7	26	20	Total CY Actual Amount	Total CY Actual Amount
27	46	20	Total CY + 1 Projection Amount	Total CY + 1 Projection Amount
47	66	20	Total CY + 2 Projection Amount	Total CY + 2 Projection Amount
67	86	20	Total CY + 3 Projection Amount	Total CY + 3 Projection Amount
87	106	20	Total CY + 4 Projection Amount	Total CY + 4 Projection Amount
107	126	20	Total CY + 5 Projection Amount	Total CY + 5 Projection Amount