

DEPARTMENT OF EDUCATION-FSA
FMS INTEGRATION PARTNER
PROGRAM FUNCTIONAL DESIGN



ANNUAL FORM 2000 GL INTERFACE
TO 130 – FORM 2000 ENHANCEMENTS

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Prepared by: Robert Shasserre	Date: March 17, 2003	Subject: Annual Form 2000 GL Interface
		TO 130 – Form 2000 Enhancements
		Version: 1.0

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Document Change Control

Date	Author	Version	Change Reference
03/17/03	Robert Shasserre	1.0	Initial Creation

Approval

Created By:	Robert Shasserre	312-693-5356	Creation Date: 03/17/2003
Team Lead Sign Off:	Joanna Zieba	312-693-3414	Sign Off Date: 04/11/2003
Project Lead Sign Off:	Jen Alden	202-962-0682	Sign Off Date: 04/15/2003
FSA Representative Sign Off:	Matt Fontana	202-377-3005	Sign Off Date:



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Specification

Program Name:	Annual Form 2000 GL Interface
Functional Design Document ID & Title:	ANNUAL_FORM2000_GL_INT_FD.doc
Application:	FMS Annual Form 2000
Priority:	High
Estimated Production Date:	July 2003
Other Affected Applications:	
Comments:	



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General Requirements

Business Objective

As part of TO 130, FMS has been tasked with creating the Annual Form 2000 GL Interface. The Annual Form 2000 report is used by the Guaranty Agencies (GAs) and the FSA Financial Partners (FPs) to process annual financial information regarding the GAs activities such as loan guaranties, claims paid to lenders, Federal Fund, Operating Fund, and restricted accounts. The information captured in this report corresponds with entries AR-1 through AR-57 on the Annual Form 2000. The GA submits the Annual Form 2000 report to the FPs for acceptance. The FPs can either accept or reject the report. Currently, when the FPs accept the Annual Form 2000, transactions are not created in the FMS General Ledger (GL).

There are three main Business objectives of the Annual Form 2000 GL Interface work:

- **Automate the transfer of Annual Form 2000 data to the FMS GL**
Upon acceptance of the Annual Form 2000 report by the FP's, a custom interface will be initiated automatically as a concurrent request, similar to the current process used for the Monthly/Quarterly GL Interface program. This custom interface program will select all of the new Annual Form 2000 report data and transfer it to the FMS GL, resulting in Annual Form 2000 journal entries.
- **Account for amended Annual Form 2000 data in the FMS GL**
As a result of the Amended Annual Form 2000 enhancement, this interface must include processing logic for amended Annual Form 2000 data. The interface will pass only the amended delta values to the FMS GL. The amendment date will be captured in the GL Journal Entry description field.
- **Perform historical data conversion to the FMS GL**
A separate conversion will be run to pull all of the historical data, FY02 and forward, from the custom Annual Form 2000 table into the FMS GL.

Application Extension Component: Annual Form 2000 GL Interface

Component Description:

A custom interface will be created to load Annual Form 2000 transaction data, entered by the GAs, into the FMS GL. The interface will consist of a custom PL/SQL program, which will be automatically initiated once the FP accepts the Annual Form 2000 report. The custom PL/SQL program will select the newly accepted Annual Form 2000 data from the custom Annual Form 2000 table and perform the necessary data look ups and validation before inserting it into the Oracle open interface table. As a result of the Amended Annual Form 2000 enhancement, this interface will include logic to look for amended annual data and calculate the delta value to be passed into the Oracle open interface table. The interface will then call the standard Oracle Journal Import, which will validate the data in the open interface table and insert it into the Oracle GL base tables. Once the Journal Import has completed successfully, the user can view the Annual Form 2000 GL journal entries in the FMS GL.

Concurrent Program

When to Run the Program

The Annual Form 2000 GL Interface program will run automatically when the FP accepts the GA submitted Annual Form 2000 report.



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Launch Parameters

Launch parameters for the Annual Form 2000 GL Interface program will include the standard error code and error buffer parameters required for any concurrent manager program. There will be no additional user-imputed parameters.

Business Rules Implemented

The business rules implemented by Annual Form 2000 GL Interface state that journal entries will be created in FMS GL based on the GA submitted Annual Form 2000 report data.

Log Output

The log output for the Annual Form 2000 GL Interface will consist of messages after the custom PL/SQL program completes processing. If the program is successful, a message indicating success will be written to the concurrent manager log file. In addition, if any errors occur while processing, custom error messages and/or standard Oracle error message will be written to the concurrent manager log file as well.

Restart Procedures

If an error occurs during the Annual Form 2000 GL Interface processing:

- 1) Review concurrent manager log file to determine the cause of the processing error.
- 2) Correct error and resubmit the Annual Form 2000 GL Interface program manually from the Oracle concurrent manager.

If an error occurs during the Journal Import processing:

- 1) Correct any Journal Import specific errors in the Journal Import interface screen.
- 2) Re-submit the Journal Import manually from the Oracle concurrent manager.

Custom Component Risks:

None

Authorization:

The interface will run only when the Annual Form 2000 report is accepted by an authorized FP.

Scheduling Requirements:

None

Volume:

For a newly accepted Annual Form 2000 report, 57 records will be inserted in the GL open interface table. For each amendment of the Annual Form 2000 report, 1 to 57 rows could be inserted into GL open interface table.

Frequency:

The interface will run whenever an FP accepts an original or amended Annual Form 2000 report.

Development Complexity:

Medium

Assumptions:

1. The Annual Form 2000 interface program will be automatically initiated when a Financial Partner clicks the ACCEPT button on the Annual Form 2000.
2. The interface program will be kicked off automatically as an Oracle concurrent request, similar to the current process used for the Monthly/Quarterly GL Interface program.



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3. Amended Annual Form 2000 data will be captured in the FMS GL as the delta of the newly amended value and the corresponding value on the previously accepted form.
4. The GL batch name will contain a similar naming convention to that used currently with the Monthly and Monthly/Quarterly Form 2000 statistical batches.
5. The amendment date will be represented in the GL Journal Entry header description field for amended Annual Form 2000 submissions.
6. Prior Annual Form 2000 historical data (from FY02 and forward) will be loaded into the Oracle GL. It will be loaded into the current fiscal period at that time. A separate custom program will be created specifically for this one-time conversion process.
7. All annual transactions will be non payment and statistical data and mapped to memo accounts and the account mapping defined for the Annual Form 2000 piece will be provided and maintained under FSA Accounting. Transaction codes related to the Annual Form 2000 will be provided and maintained by FSA Accounting.
8. The Negative Number enhancement will have no affect on the Annual Form 2000 table.
9. Amended Annual Form 2000 report records will be flagged and sequence numbers will be assigned in order to determine the order of the amendments.
10. Only the destination code of 'GL' will be loaded into the GL Open Interface Table. 'N/A' account mapping will not be loaded into the GL Open Interface Table
11. The Guaranty Agency Annual Form 2000 report will be submitted to the Department of Education by the GAs within 60 days after the end of the fiscal year.
12. Concurrent request processing will be monitored by the FP accepting the form. If an error occurs, it will be identified by the FP. The FMS Operations team will work with the FP to correct the interface related error and re-submit.
13. As amended data changes in value, the delta will be calculated as such and passed in the original debit column.

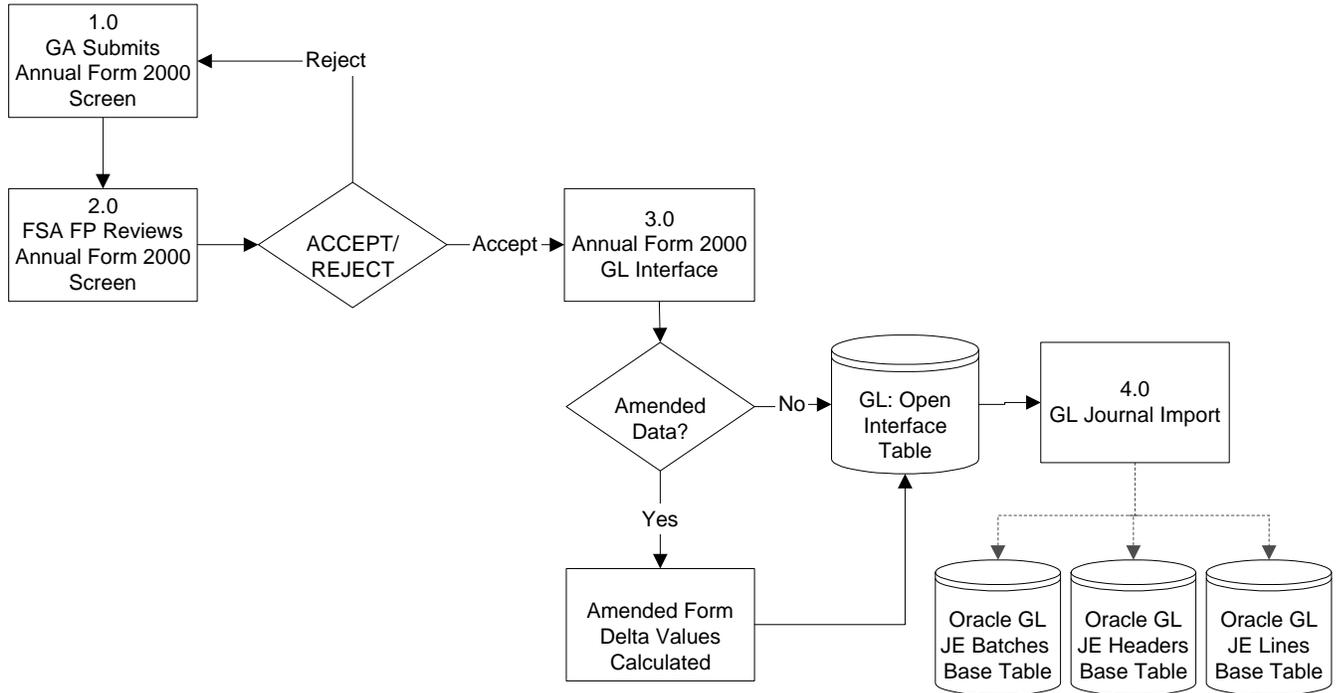


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Annual Form 2000 GL Interface

Process Flow Diagram:



Detailed Description of New/Changes to Existing Program:

- 1.0 GA Submits Annual Form 2000 – The GA manager submits the Annual Form 2000 report to be reviewed by the FP. No Changes will be made to this functionality.
- 2.0 FP Reviews Annual Form 2000 - The FP reviews the submitted Annual Form 2000 report.
 - If the report is rejected by the FP, an automatic email will be sent alerting the GA of the report’s rejection and it will be sent back to the GA for revision. The GA will submit the Annual Form 2000 report again to the FP once it has been revised.
 - If the report is accepted by the FP, an automatic email will be sent notifying the GA of the report’s acceptance. The Annual Form 2000 GL Interface will automatically be called within the Oracle concurrent manager, upon the FP clicking the ‘ACCEPT’ button on the form.
- 3.0 Annual Form 2000 GL Interface - This new custom interface will extract and validate the new Annual Form 2000 report data from the custom Annual Form 2000 table. The data extracted depends upon the Form 2000 Account Mapping Destination Code. Transactions with a destination code indicating GL will be extracted. Currently, the transactions extracted correspond with non-payment and statistical data for items AR-1 through AR-57. If there is amended data to the Annual Form 2000, the amended Annual Form 2000 delta values will be calculated. A new record will be inserted into the custom Oracle Open Interface Table with the delta value of the amendment. For example, if the original AR-12 value is 20,000 and the newly amended AR-12 value is 23,000; one record with the delta value of 3,000 will be inserted into the open interface table. The amendment date, corresponding to the amendment version number, will be inserted into the Journal Entry header description field. If the Annual Form 2000 report data is not amended, no calculations will be necessary and the data will be loaded into the open interface table upon successful validation of the interface program.



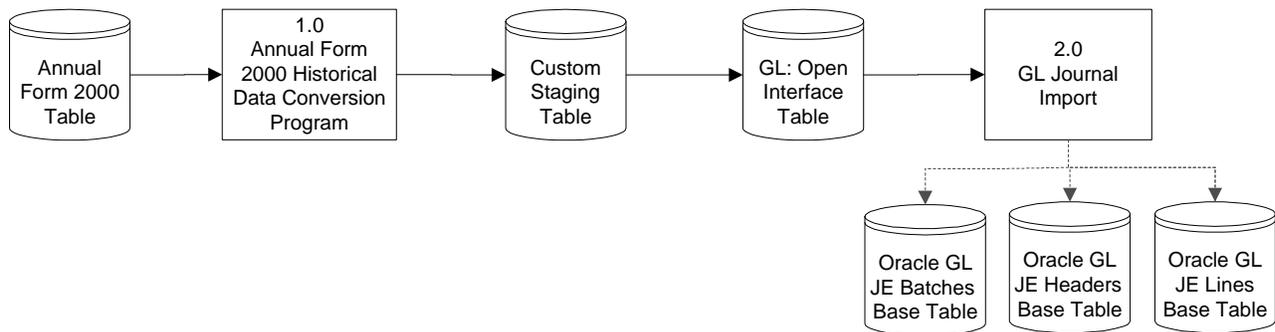
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For more detailed data mapping information, please see Appendix A.

- 4.0 GL Journal Import - Once all of the new validated Annual Form 2000 report data is loaded into the open interface table, the Annual Form 2000 GL interface will call the Oracle Standard GL Journal Import. The GL Journal Import will validate the data in the open interface table and insert new journal entry records into the Oracle GL Journal Entry Batches, GL Journal Entry Headers and GL Journal Entry Lines base tables. In addition, this program will automatically generate the Journal Import Execution Report, which will show the number of records successfully inserted into the base tables and also those records that failed validation. When the Journal Import process is complete and successful, the Annual Form 2000 journal entries may be viewed in the FMS GL.

Annual Form 2000 Historical Data Conversion

Process Flow Diagram:



Detailed Description of New/Changes to Existing Program:

- 1.0 Annual Form 2000 Historical Data Conversion Program – A custom conversion program to load historical Annual Form 2000 data into the Oracle GL will be run once, prior to the start of Annual Form 2000 GL Interface processing. This custom PL/SQL program will pull all of the historical data from the Annual Form 2000 table, FY02 and forward, and load it into a custom staging table. In addition, this custom conversion program will contain all validation, lookups, default values, and data translations necessary to transfer data from the custom staging table to the Oracle open interface table.
- 2.0 GL Journal Import - The Oracle GL Journal Import will validate the data in the open interface table and insert it into the Oracle GL Journal Entry Batches, GL Journal Entry Headers and GL Journal Entry Lines base tables. This import program will automatically generate the Journal Import Execution Report, which will show the number of records successfully inserted into the base tables and also those records that failed validation. If a record(s) fail validation during the Journal Import, the Journal Import Execution Report will be reviewed and the error will be corrected in the Oracle Apps Correct Journal Import Data window. Once the record(s) is fixed in this window, the Journal Import will need to be manually resubmitted to import the corrected record(s) into the base tables.
- For more detailed data mapping information, please see Appendix B.*



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Input Parameters:

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

Database Objects:

Database Object Name	Object Type	Oracle Application	Comments
ANNUAL_FORM2000_GL_INT_PKG	PL/SQL Package	FFEL GA	Custom package that will load Annual Form 2000 data into the FMS GL

Dependencies

Dependencies on Other RICE Components:

1. The Annual Form 2000 enhanced form must be implemented before amendment data can be passed to the FMS GL.
2. The Annual Form 2000 historical data conversion must be complete before this interface is run.

Dependencies on Other Business Components:

None

Design Constraints:

None

Performance Considerations:

None

Implementation Considerations:

None

Other Dependencies/Special Concerns:

None

Error Handling

Potential Errors	Possible Reasons	Solution Strategy
Annual Form 2000 data record fails the Journal Import.	Account mapping is not set up for a particular account or the GL period is not open.	- Contact FSA Accounting division to review account mapping - Correct record in GL Open Interface window and rerun Journal Import



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Testing Requirements

Requirements Matrix Reference	Test Condition	Expected Results
4.6	Ability to load prior Annual Form 2000 data from FY02 and forward into the GL in the current fiscal period at go-live date.	Journal Entries are created in the FMS GL for the historical data, FY02 and forward, in the Annual Form 2000 table.
4.1, 4.2	Ability to initiate transfer of Annual Form 2000 data to the FMS GL by using an automatic interface when the ACCEPT button is clicked by the FP.	The Annual Form 2000 GL Interface is automatically initiated and processes successfully once the FP clicks the ACCEPT button on the Annual Form 2000 report. Annual Form 2000 data is successfully transferred to the FMS GL and journal entries are created.
4.5	Ability to pass the AR_ID to GL for audit trail.	A new AR_ID will be created for every new Annual Form 2000 report and a subsequent unique number will be created for each Annual Form 2000 report amendment. The AR_ID will be stored in the REFERENCE21 column in the Oracle base tables.
4.4	Ability to capture the amendment version date in the GL Journal Entry description field.	The amendment date will be captured in the GL Journal Entry Header Description Field for the newly amended Annual Form 2000 report data.
4.3	Ability to account for delta values of amended Annual Form 2000 report in the FMS GL.	The Annual Form 2000 GL Interface successfully calculates the delta value of the amended Annual Form 2000 report and inserts that value into the Oracle open interface table. The Journal Import then creates a new Journal Entry in the FMS GL with that delta value.
4.7	Ability to pass NULL to the GL for the Reversal Period field for Annual Form 2000 data.	The Annual Form 2000 GL Interface only selects records that have an account mapping destination of 'GL' and therefore NULL will be passed to the FMS GL for the Reversal Period field.
4.1	Validate that all journal entries are interfaced accurately. Compare the number of transaction records in the Annual Form 2000 table (FFEL GA) to the journal entries created in FMS GL.	The number of newly accepted transaction records in the Annual Form 2000 table (FFEL GA) file match the number of newly created Annual Form 2000 journal entries created in the FMS GL.
N/A	Verify that if the interface program errors, error messages will be written to the log file.	Custom error messages are written to the concurrent manager log file.

Issues and Additional Considerations

The following Issues were defined during Functional Design:

Issue	Raised By / Date Needed	Resolution/Answer	Resolved By / Date Completed
What is the business need for periods created one year in advance of the current period's date	R. Shasserre / 3/28/2003	Pete Basso will change the account codes to GL or N/A because none should be assigned to GLREV.	Pete Basso / 3/24/2003
Where should the new amendments version date be stored in Oracle GL? In the comments section?	R. Shasserre / 3/28/2003	The amendment version date will be appended to the end of the Journal Entry Description field	Emily Plenge / 3/26/2003
Coordinate Pete Basso's changes in the account mapping with the historical data conversion. Deactivate the program while making changes to the account mapping?	R. Shasserre / 4/11/2003	Pete Basso will not make account mapping changes until the interface is ready to be implemented in production.	Joanna Zieba / 4/9/03
Should the historical data conversion only pull data from the 2002 fiscal year?	R. Shasserre / 4/11/2003	Yes. The conversion data will pull data from the 2002 fiscal year and forward.	Emily Plenge / 4/3/2003