

2.0 Appendix A – Project Aspire Conversion/Interface Functional Design

ADML ID	1795
ADML Description	Development of Transaction History
ADML Tech #	

2.1 Description Functionality

Executive Summary

The agencies have requested that a transaction history file be provided from Aspire that provides access to the detailed transactions that support balances in the system. The uses of this information are as varied as the agencies that will use it. Some use the data to build their own Information Warehouses. Others use it to drive internal business systems. The ultimate uses of the information are inconsequential, since the requirement was adopted by DFS and included in the system requirements.

All components of FLAIR are built under a concept where transactions are entered into the system and stored in detail at that level. Nightly, the individual transactions are posted to the month-to-date, year-to-date, and life-to-date balances on the master file to facilitate reporting. Substantial care is taken to ensure that the detailed transaction history files, when summarized, balance with the related master files. Agencies are able to research the composition of any master balance using the transaction history file. Separate history/master files are maintained for both the Central Accounting and Departmental Accounting components of FLAIR.

In Aspire, detailed transactions are created in any of several component modules. Examples of those modules are the Accounts Payable, Accounts Receivable, and Asset Management modules. Transactions created in the individual modules are maintained in the respective modules and are ultimately posted to the Commitment Control (KK) and ACTUALS ledgers. These two ledgers roughly correspond to the FLAIR master files in that they represent summarized balances to facilitate end-user reporting.

The system provides a mechanism to readily obtain history transactions from each of the individual modules. However, these transactions may or may not post to the KK and ACTUALS ledgers due to edits, user errors, or other integration problems. Further, transactions are combined and summarized at the chartfield level prior to posting to the ACTUALS ledger, which clouds the audit trail to the supporting detailed transactions.

Our goal for the Aspire transaction history file is to build a file of all original transactions that have posted to or otherwise updated either the KK or ACTUALS ledgers. This will allow the user agencies to readily obtain all detailed transactions that make up any balance that may be obtained from these ledgers, which will represent the two primary sources for end user management information. The current plan is to build this as a single table with flags or other information to show if the transactions have updated the KK ledger, the ACTUALS ledger, or both ledgers. Multiple files from the individual modules is not preferred because it would negate the ability to query the transaction history file a single time and reasonably identify all transactions that updated the selected chartfield balances. If a single file is not feasible, separate transaction history files for the KK and ACTUALS ledgers will have to suffice.

Transactions will be taken from the individual modules by newly created Transaction History data extraction programs, and no attempts will be made to massage, append, link or otherwise modify the data other than for transaction identification purposes, if necessary. Using the TR History extraction programs, data will be stacked onto a universal file layout from the components. As a result, all columns on the file will not be filled for all transactions.

The file must be created in time to make the nightly batch window for distribution to the user agencies.

Business Need

The State of Florida's current accounting system, FLAIR, creates records of its processing regardless of whether the input is from on-line input or from batch input. In addition, as the existing system has been designed with an automation process to create the offsetting accounting entries from a single input entry and an automated process to create periodic closing and opening entries, records of these system-generated entries are created as well. All of these history records are stored within two ADABAS files, Departmental Accounting's ITRF02 (TR2) file and Central Accounting's CTRF01 (TR1) file. As the names imply, the TR2 file stores all the information related to the Departmental transactions that affect the agency's set of books and agency management level balances while the TR1 file stores the information related to the Central transactions that affect the statewide level set of books and the statewide ledgers.

Agencies have the option of receiving copies of their transaction history data in flat file format. For those agencies requesting this information, during the course of the FLAIR nightly processes, both Central Accounting and Departmental Accounting create flat files of agency data from the TR1 and the TR2 ADABAS files that are then transmitted to the agencies via a variety of media, mostly by EFT processes. Depending upon the progress of the nightly processing, these flat files are normally transmitted from FLAIR to the respective agencies prior to 2:00 AM to 3:00 AM thus permitting the agencies to have the needed time for their internal processing and updating of their business systems prior to the staff arriving at work in the morning expecting to meet their constitutional and/or statutory responsibilities. Agencies also use this uploaded data are for purposes of auditing, verification, research, and error processing.

In order to allow agencies to maintain the systems and meet their informational needs, Aspire needs to develop a method of providing similar data in a reasonably workable format. If this

need is not met, these agency business systems will not be able to properly reflect their accounting information and the agencies may not be able to fulfill their business functions.

Event processing in Aspire

Processing in Aspire is based upon the actions related to events that can be derived from multiple sources. As an example, purchase orders have multiple entry points for their creation: (1) On-line data entry, (2) batch data entry, (3) MyFloridaMarketPlace, (4) PO Recurring Voucher contracts, (5) sub-grant releases, (6) Procurement contracts, (7) the conversion of a requisition to a purchase order, and (8) from the processing of Purchasing Cards. A second example are Vouchers which can be created by a variety of sources: (1) from Purchase Orders after the goods/services that have been ordered have been received according to the PO schedule; (2) from entries from MyFloridaMarketPlace; (3) from Voucher Contracts at their designated points of release for non-PO, non-encumbered contract lines; (4) from immediate processing where a supplier invoice has been received and no purchase was previously existing; (5) Purchasing Card interfaces, and; (6) Agency Batch pay interfaces. And a third example is Payments which can have entry points from: (1) vouchers selected for payment; (2) Express payment vouchers, and; (3) Confidential Vendor payment processing.

These events are managed by the various modules within Aspire. With the exception of the Record to Report (GL) module, these modules interact with the General Ledger through the creation of accounting entries which in turn become the bases for journal entries which then are used to update the General Ledger and the Commitment Control Ledgers as needed. General Ledger entries can be generated by the creation of journal entries directly into the Record to Reports module. All of the modules may transmit data to other modules updating the detail module managed information.

General Design for the Transaction History

The design of the Transaction History will follow these general principles:

1. The Transaction History will cover six primary groups of information (not the same as the six Aspire modules) roughly covering the scope of current transactions as follows:
 - a. Budget and Commitment Control Transaction History that includes entries covering Legislative Appropriations, Releases, Reversions, Legislative/EOG Reserves, Agency Management Budgets, and Pre-encumbrances/Encumbrances activity.
 - b. General Ledger and Journal Activity Transaction History that include General Accounting entries directly to the general ledger as well as the changes due to processing from other Aspire modules.
 - c. Billing, Accounts Receivable and Receipts Activity related Transaction History that includes the billings and receipts for F&A Costs, Grant award revenue recognition, and direct receipt activity performed by an agency.

- d. Purchasing Related Transaction History that includes Requisitions and Purchase Orders.
- e. Accounts Payable, Vouchers, and Payment related Transaction History that includes vouchers, receipt accruals, payments by warrants and EFT/ACH, and cancellations.
- f. Property Accounting Related Transaction History including depreciation activity.

2. Transaction History records will be static in nature based upon those points at which required approval processes have been completed, field validations, budget checking, and/or cash checking processes have been completed and there will be an effect on the General Ledger and/or Commitment Control Ledgers.

3. Transaction History will be in a single, common format for all types of transactions regardless of their data sources and/or origins.

TRANSACTION HISTORY DATA STRUCTURE

The following spreadsheet identifies the fields which are to be part of the Transaction History record and correlates these functional fields to the types of Transaction History records in which they are applicable.

Display Fields	P2P	AR	KK	Projects/Grants	AM	GL
BU	X	X	X	X	X	X
Period	X	X	X	X	X	X
Ledger Group	X	X	X	X		X
Ledger	X	X	X	X		X
Fund/CC	X	X	X	X	X	X
Budget Entity	X	X	X	X	X	X
Category	X	X	X	X	X	X
Approp Year	X	X	X	X	X	X
Account	X	X	X	X	X	X
Alt Account	X	X	X	X	X	X

Display Fields	P2P	AR	KK	Projects/Grants	AM	GL
Organization	X	X	X	X	X	X
Project	X	X	X	X	X	X
Chartfield 1	X	X	X	X	X	X
Chartfield 2	X	X	X	X	X	X
Location	X	X	X	X	X	X
Prog Component	X	X	X	X	X	X
Activity Issue	X	X	X	X	X	X
Journal ID	X	X	X	X	X	X
Journal Date	X	X	X	X	X	X
Journal Line #	X	X	X	X	X	X
Voucher Number	X	X	X			
Line Number	X	X	X			
Distribution	X	X	X	X	X	X
Requisition ID			X			
Purchase Order Number	X	X	X			
Invoice Number	X	X	X			
Asset ID					X	
Resource ID				X		
Customer Number		X	X			
Customer Name		X	X			
Vendor Number	X		X			
Vendor Name	X		X			

Display Fields	P2P	AR	KK	Projects/Grants	AM	GL
Deposit ID		X	X	X		
Deposit Date		X	X	X		
Warrant Number	X	X	X			
Warrant Date	X	X	X			
Amount	X	X	X	X	X	X
KK Posting Status	X	X	X	X		X
Actuals Posting Status	X	X	X	X	X	X

The references to individual modules should not be interpreted to be ‘all inclusive.’ All requested data elements should be pulled from all modules when they are available in that module. If the data elements are not available in a particular module, a blank field should be stored on the record.

2.2 Scheduling

The table(s) populated by the Financials data extraction for the Transaction History cannot begin until after the completion of the last updates in each of the Financials modules. In addition, the loading of the extracted data into the Transaction History table(s) needs to be completed early enough that the exportation processes will have the agency data, dependent on the finalized exportation processes, either at the agencies or available for agency extraction by 4:00 A.M. in order to provide the agencies enough processing time that any necessary updates to their business systems will be completed prior to their systems becoming available for their agency use at the opening point of their business day.

2.3 Run Control Parameters

As of this writing, the details for Run Control Parameters have not been determined. This will be provided in a later version.

2.4 Unit Test Considerations

To ensure that the Transaction History will meet its goals and agency needs, two types of testing will need to be thoroughly performed:

Internal Testing – each of the extraction modules will need to be tested to ensure that the correct and useable data is being extracted. The records extracted will have to be balanced back to the related KK and Actuals ledger balances to ensure that all transactions have been selected.

External Agency testing – the Transaction History will need to be tested with agency systems to ensure that the transfer of data to the agency can be successfully performed and that the remediation the agency has made will be able to accept the data in the Transaction History format and will be useable by the agency. This will also ensure that all data elements needed by the agency systems have been fully evaluated and included, if possible, in the design of the Transaction History or, if not possible to have been included in the design, alternatives have been successfully discovered and implemented.