

3.0 Appendix B – Project Aspire Enhancement Functional Design

ADML ID	017
ADML Description	FLAIR to Aspire General Ledger Bridge
ADML Tech#	017

3.1 Background

3.1.1 Functional Requirement

Currently a requirement exists to map legacy FLAIR chartfields to the new Aspire chartfields. The results of the chartfield mapping will be leveraged by conversion programs for FLAIR to Aspire data conversions. The mapping exercise will also provide data that agencies can leverage when interfacing unremediated business systems into Aspire.

The FLAIR to Aspire chartfield data mapping exercise will be done in two major efforts. The first effort enables each agency to map GL Code, Object Code, and Category charging patterns to Alternate Account and Account values. The second effort enables each agency to map other desired FLAIR fields to Aspire's agency chartfields. Agency chartfields are specifically maintained and mapped by each State agency. The following Aspire chartfields are considered agency chartfields: Organization, Location, Project ID, Activity Issue, Chartfield 1, and Chartfield 2. Note that the values for Activity Issue will be designated by LAS/PBS. The following Aspire chartfields are maintained at the enterprise level and require no agency data mapping: Fund/CC, Budget Entity, Category, Appropriation Year, and Program Component.

The desired result of this ADML is to create a process that will map enterprise and agency chartfields from FLAIR to Aspire values. The process for mapping will allow an input of FLAIR chartfield combinations and generate an output of the resultant Aspire chartfield combinations. The mapping process will incorporate enterprise mapping rules with agency mapped chartfield values to produce the Aspire chartfield combination. The mapping process will leverage the results of the account and alternate account data mapping exercise as well as the agency chartfield mapping exercise performed by the agencies.

3.1.2 Gap Description

The FLAIR chartfield structure and values do not match the Aspire chartfield structure and values one for one. A translation is necessary for the two systems to be able to communicate.

3.2 Description of New Functionality

The GL Bridge will receive an input of FLAIR chartfield combinations and return an output of the corresponding Aspire chartfield combinations. Certain FLAIR fields will be required in the input to derive all of the required enterprise chartfields. At a minimum, to derive the Business Unit, Account, Alternate Account, Fund/CC, and Org the following FLAIR fields must be provided: OLO, BE, GL Code, Object Code, Category, GF, SF, FID, and ORG.

The GL Bridge will be an Application Engine process that will utilize enterprise mapping rules, enterprise field mappings, and agency field mappings to derive an Aspire compatible chart of account combination. The GL Bridge will be constructed of multiple tables that will house the necessary FLAIR to Aspire, old to new chartfield relationships. Specifically the following tables will need to exist for field mapping:

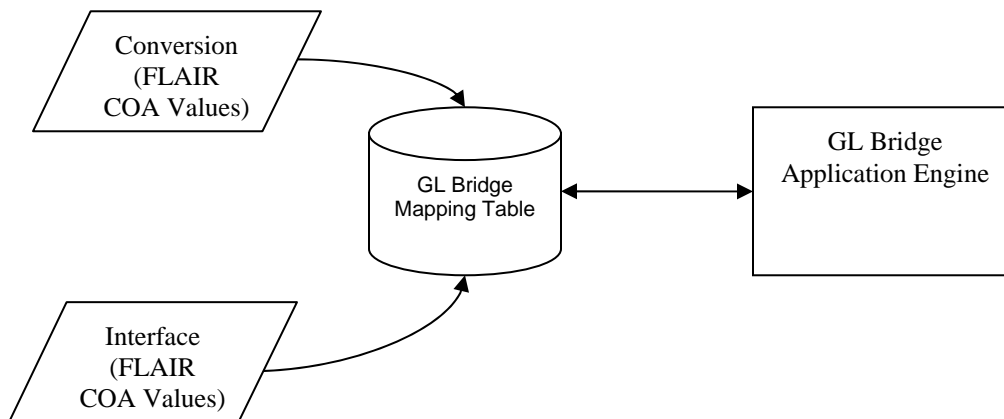
- BE to BU mapping table – This table is part of ADML 25 and is maintained by the LAS/PBS interface with some DFS manual intervention.
- Alternate Account mapping table – The Alternate Account field is mapped by combinations of the FLAIR OLO, GL Code, Object, and Category fields. Once the alternate account value is determined the account value can be derived based on the alternate account to account link.
- Fund/CC mapping table – The Fund/CC value will be derived directly from the OLO, GF, SF, and FID fields from FLAIR.
- Agency Chartfield mapping table – The Agency chartfields (Organization, Location, Project ID, Activity Issue, Chartfield 1, and Chartfield 2) will be mapped in an Agency Chartfield mapping table. This table will be keyed by OLO, FLAIR source field, and FLAIR source field value. The suggested design will give the agencies the ability to map many different FLAIR chartfields to any combination of the 6 agency chartfields.

Budget Entity, Category, and the first 10 characters of the Program Component will have the same value in Aspire as FLAIR and will be validated against Aspire's list of valid chart of account values.

The GL Bridge will function in the following way:

1. An external program will populate a centralized staging table with the FLAIR chart of account combinations that are to be mapped. This can be either a conversion or interface program.
2. The external program will schedule the GL Bridge Application Engine. The external program will have to populate a run control table and either schedule the GL Bridge as part of a job or schedule the AE through other means.

3. The GL Bridge will map the data provided by the external program.
4. The GL Bridge will return the data set that was submitted with the corresponding mapped Aspire chart of account combinations. Also, any mapping errors will be recorded with an error status.
5. The external program can retrieve the mapped data to be used immediately or for later use.
6. The GL Bridge staging table will let the mapped data live for 7 days. At which time that staging table will be purged of old data.



The benefits of the design outlined include:

- Access to real time mapped data.
- No massive static string to string to string mapping table. Otherwise, if a single field mapping is altered the entire static table would have to be re-mapped.
- Centralized mapping rule logic.
- No dependencies on the FLAIR GL Master file needing to be kept up to date in Aspire, only the mapped data.
- Conversion programs can map chart of accounts in bulk and keep a temporary repository of mapped data if desired.

Below is a field by field summary of the mapping rules:

Aspire Field Desc/ DB Field Name	Enterprise / Agency Mapped Field	Agency / SHARE Setid	Mapping Rule
Business Unit <i>BUSINESS_UNIT</i>	Enterprise	N/A	Mapped by Enterprise. The Business Unit is mapped to an OLO and BE combination. The data will come from tables populated in ADML 25.
Fund/CC <i>FUND_CODE</i>	Enterprise	Agency	Mapped by Enterprise A fund mapping table will be created to relate the old funds to new funds using the OLO, GF, SF, and FID fields.
Budget Entity <i>OPERATING_UNIT</i>	Enterprise	Agency	No mapping required. The Aspire BE is equal to the FLAIR BE. A chartfield validation should occur during the mapping process.
Alternate Account <i>ALTACCT</i>	Enterprise	Agency	Mapped by Enterprise/Agency The Alt Account will be derived from a mapping of the FLAIR OLO, GL Code, Object Code, and Category combinations.
Account <i>ACCOUNT</i>	Enterprise	SHARE	Mapped by Enterprise The Account value is derived from the Alternate Account. Each Alternate Account and setid combination is mapped to only one Account.
Organization <i>DEPTID</i>	Agency	Agency	Mapped by Agency
Appropriation Year <i>PROGRAM_CODE</i>	Enterprise	SHARE	Not Mapped

			The interface or conversion will have to either calculate or provide the Appropriation Year value at run time.
Program Component <i>CHARTFIELD3</i>	Enterprise	SHARE	The Aspire value comes from LAS/PBS and is 10 Characters long. This value will match the first 10 Characters of the 16 character field in FLAIR. (If any agency wants to map to the last 6 Characters then a separate mapping will have to occur for those Program Components to another target agency chartfield.)
Category <i>PRODUCT</i>	Enterprise	SHARE	No mapping required. The Aspire Category is equal to the FLAIR Category. A chartfield validation should occur during the mapping process.
Project <i>PROJECT_ID</i>	Agency	SHARE	Mapped by Agency
Location <i>CLASS_FLD</i>	Agency	Agency	Mapped by Agency
Chartfield 1 <i>CHARTFIELD1</i>	Agency	Agency	Mapped by Agency
Chartfield 2 <i>CHARTFIELD2</i>	Agency	Agency	Mapped by Agency
Activity Issue <i>BUDGET_REF</i>	Enterprise	Agency	Mapped by Agency

3.3 Navigation path

Home > GL Bridge

3.4 Set Up/Control Data

All Aspire chartfield tables must be populated.

The Alternate Account data mapping table will need to be populated.

The BE to BU mapping table will need to be populated.

The Fund/CC mapping table will need to be populated.

The Agency Chartfield mapping exercise must be complete with the data loaded into the data mapping tables.

3.5 Application Changes (e.g., Pages, Components, Menus, Records, App Engines, SQRs, etc.)

This modification will require that the following be developed.

- An Alternate Account mapping table to house the Alternate Account mapping. Suggested structure:
 - FLAIR OLO
 - FLAIR GL Code
 - FLAIR Object Code
 - FLAIR Category
 - FLAIR GL Code Title
 - FLAIR Object Code Title
 - FLAIR Category Title
 - Business Unit
 - Alternate Account
 - Also include auditing fields to track updates by user, date, and time.
- A mapping table to hold the old and new agency chartfield values. Suggested structure:
 - FLAIR OLO
 - FLAIR Source Field Name
 - FLAIR Value

- FLAIR Value Description
- BU
- ORG
- Location
- Project ID
- Chartfield 1
- Chartfield 2
- Also include auditing fields to track updates by user, date, and time.
- A mapping table for Fund/CC mapping. Suggested structure:
 - FLAIR OLO
 - FLAIR GF
 - FLAIR SF
 - FLAIR FID
 - BU
 - Fund/CC
 - Also include auditing fields to track updates by user, date, and time.
- New tables to hold old FLAIR strings and new Aspire strings for the Application Engine process. The structure will be dependent on the final agency mapping rules to determine which FLAIR fields will need to be included.
- An error logging table and view for mapping error lookup.
- Pages to maintain mapping tables.
- Views used to prompt Aspire values for use with the maintenance page.
- Components for mapping pages.
- A component/page/record to establish field mapping rules for the agencies. This component will allow more editing control over what fields an agency can map to.

- An Application Engine process to perform the mapping exercise once the data is in Aspire.

3.6 Unit Test Considerations

- When mapping agency mapped chartfields, ensure that when mapping FLAIR fields to Aspire fields that one OLO, FLAIR field, and FLAIR value combination can only be mapped to one combination of Aspire agency chartfields.
- Ensure that Business Unit Security is in place to police who has access to update Agency data mappings.
- Ensure that FLAIR fields can not be mapped to invalid Aspire Chartfield values.
- After running the mapping process, validate that FLAIR strings were mapped to valid Aspire strings successfully based on the mapping rules.
- Verify that if a chartfield value mapping does not exist for a required chartfield that an error is reported on the FLAIR string.

3.7 Miscellaneous

The Alternate Account and Account mapping tool will be used to manage the State's Alternate Account mapping relationship. The mapping tool will be used to provide the GL Bridge with the old to new relationship.

Agency Chartfields are to be mapped by the Agencies manually. Each agency will define a mapping strategy for agency chartfields. The mapping strategy will provide the relationship of which source FLAIR field will map to which Aspire target fields. The defined FLAIR field to Aspire field mapping relationship will be enforced in the GL Bridge at the point of agency mapping data entry.

3.8 Assumptions

- All necessary chartfield mappings between FLAIR and Aspire will be loaded into the respective mapping tables before the GL Bridge is placed into service.
- There may be a "one to many" relationship from FLAIR to Aspire when mapping certain chartfield combinations. Specifically, mapped fields from FLAIR may roll into one value into Aspire.

- The GL Bridge will be communicating from FLAIR to Aspire only.
- The initial FLAIR data mapped from each agency is from combinations in the GL Master file with a non-zero dollar amount.
- Agencies using the GL Bridge with interface files will be able to supply the Appropriation Year value for each transaction.
- Agencies needing mapped data for their business system can request mapped data by utilizing ADML 1424.