

2.0 Appendix A – Project Aspire Conversion/Interface Functional Design

ADML ID	1783
ADML Description	Customer Interface
ADML Tech #	

2.1 Description Functionality

The Customer interface specification is for Agencies that desire to routinely add customers into Aspire. The interface to add customers will likely be used in conjunction with interfacing bills or accounts receivable data into Aspire through ADML 173 Billing Interface or ADML 1297 Pending Item Interface, respectively. Customer records need to be established prior to processing ADML 173 Billing Interface and ADML 1297 Pending Item Interface. Customer records may be entered into Aspire manually, as an alternative, but again they must be entered prior to interfacing accounts receivable data into Aspire. It is at the Agencies discretion to either enter Customers on-line or use the Customer Interface.

The file layout for interfacing customer records in Aspire is in section 1.7. Each agency is responsible for taking the layout provided and mapping their customer file to the Aspire customer record layout. Any and all required data elements in the file layout that are not contained in the agency's legacy system will need to be provided in the customer interface file.

The Aspire Receivables data model contains a set of tables for customer information to enable customer-related processing. The customer information – address, contact information, credit information, and processing options – is stored on tables that are keyed by setID. It is not required to populate all customer tables, but only the ones necessary for the Aspire Receivables components being used. Of the tables that are listed below for Billing, Receivables, and Grants/Contracts processing, which are keyed by setID, five are required, six are conditionally required, and the rest are optional. Required means you must place a row in the table with valid values, even if you do not use any of the fields on these tables. The system uses rows in the required tables to access information online and for background processing.

Table Name	Required/Optional	Type of Information
PS_CUSTOMER	Required.	Customer header.
PS_CUST_ADDR_SEQ	Required.	Customer address header.
PS_CUST_ADDRESS	Required.	Customer address detail.
PS_CUST_OPTION	Required.	Bill to customer options.
PS_CUST_TEAM	Required.	Customer Support Team.
PS_CUST_BILLTO	Required for Billing	Valid bill to relationships.
PS_CUST_CRSPD	Required for Billing	Customer correspondence.
GM_SPONSOR_LOC	Required for Grants	Grants Sponsor Letter of Credit
CONTACT	Required for Grants	Grants Sponsor Contact Information
CONTACT_CUST	Required for Grants	Grants/Customer cross reference
CONTACT_PHN	Required for Grants	Grants/Customer Telephone Information

Note: Required means that you must place a row in the table with valid values, even if you won't use any of the fields on these tables. The system uses rows in the required tables to access information online as well as for background processing.

This table lists customer control information and the required records (X) for each application:

Table	Description	Billing	Receivables	Grants / Contracts
CUSTOMER	Customer header	X	X	X
CUST_ADDR_SEQ	Customer address header	X	X	X
CUST_ADDRESS	Customer address detail	X	X	X
CUST_OPTION	Bill to customer options	X	X	X

Table	Description	Billing	Receivables	Grants / Contracts
CUST_TEAM	Customer support teams	X	X	X
CUST_CRSPD	Customer correspondence information	X	X	X
CUST_BILLTO	Valid bill to relationships	X	X (Optional)	X
CUST_SOLDTO_OPT	Valid bill to relationships	X	X (Optional)	X
CUST_CRSPD_REM	Customer correspondence remit to		X (Optional)	
CUST_NOTE	Customer notes Note. Only needed if using notes.			
CUST_NOTE_DOC	Documents that notes are printed on. Note. Only needed if using notes.			
CUST_NOTE_KEYWD	Customer notes key words for searching Note. Only needed if using notes.			
CUST_CREDIT	Customer credit information		X (Optional)	
CUST_MSG	Customer messages			
GM_SPNSR_LOC	Grants Sponsor Letter of Credit			X

Table	Description	Billing	Receivables	Grants / Contracts
CONTACT	Grants Sponsor Contact Information			X
CONTACT_CUST	Grants Sponsor Customer ID cross reference			X
CONTACT_PHN	Grants Sponsor Phone			X

Note: Aspire Grants Management requires the Sponsor Attribute Date (GM_SP_ATTRDT) and the Sponsor Attributes (GM_SP_ATTRIB) tables for Grants Processing also.

Customer records that represent grants sponsors must be denoted on the interface file provided by the agency. The profiles for grants sponsors must be configured by the agencies in Aspire for them to be loaded.

Customer Set Controls establish rules that apply to every customer. Customer Set Controls are keyed by SETID and/or Customer ID.

The system can be set to enable Auto-numbering for customer IDs. If this approach is taken, the system automatically assigns a customer ID to each customer that is unique within the SETID as customers are entered online. The interface follows the same process, if the customer ID is blank in the interface file, the next Auto-number customer ID is assigned for that customer. Before the next Auto-number customer ID is assigned, the interface program compares the street address and the city to verify if the customer exists under an existing Customer ID. If the street address and the city match an existing Customer street address and city, it is considered a duplicate, the customer is not loaded, and it is recorded on the error log. If a Customer ID is provided in the interface file, it is looked up in the Customer file, if the Customer ID is found, the customer is not loaded, and it is recorded on the error log.

Customers intended to receive invoices are marked as Bill-to customers. When a customer is assigned the bill to customer role, there are fields to establish values and processing options that the system uses to generate invoices. For bill to customers, fields that values may be assigned include:

- Roles for billing and accounts receivables specialists, collections, and credit analysis.
- Direct Invoicing and other billing options

- Payment options and payment terms.
- Write-off options.

The values assigned for these fields in the interface file should match the values in the Aspire edit tables established through Enterprise configuration or Agency Configuration. Below is a list of fields and the respective field name found in the record layout in section 1.7. You will also find the edit table name in section 1.7 to be used to validate the field value in the interface file. If the value is not found in the edit table, the interface program should record an error on the error log and reject the customer.

Field Name	Technical Field Name
Customer Agency Location Code	CUSTOMER_ALC
Customer Type	CUSTOMER_TYPE
Customer Level	CUST_LEVEL
SubCustomer 1	SUBCUST_QUAL1
SubCustomer 2	SUBCUST_QUAL2
AR Specialist (accounts receivable specialist)	AR_SPECIALIST
Billing Authority	BILLING_AUTHORITY
Billing Specialist	BILLING_SPECIALIST
Bill By Identifier	BILL_BY_ID
Billing Cycle Identifier	BILL_CYCLE_ID
Bill Type Identifier	BILL_TYPE_ID
Collector	COLLECTOR
Credit Analyst	CR_ANALYST
AR Distribution Code (accounts receivable distribution code)	DST_ID_AR
Invoice Form	INVOICE_FORM_ID
Aging Category	AGING_CATEGORY

Field Name	Technical Field Name
Aging ID	AGING_ID
Support Team Code	SUPPORT_TEAM_CD

The following tables identify default values for fields not in the interface file but requiring a specific value for a row to be inserted into each respective table. Any other fields should be populated with blank for CHAR fields and 0 for NBR fields.

Customer Table	Field Description	Sample Data	Conversion Rule
CORPORATE_SETID	SetID	AG1FL	Set to Setid of Customer
CORPORATE_CUST_ID	Corporate	AG10000001	Set to Customer ID
REMIT_FROM_SETID	SetID	AG1FL	Set to Setid of Customer
REMIT_FROM_CUST_ID	Remit From	AG10000001	Set to Customer ID
CRSPD_SETID	SetID	AG1FL	Set to Setid of Customer
CRSPD_CUST_ID	Correspond	AG10000001	Set to Customer ID
CUR_RT_TYPE	Rate Type	CRRNT	Default 'CRRNT'
CURRENCY_CD	Currency	USD	Default 'USD'
SHIP_TO_FLG	Ship To Flg	N	Default 'N'
BILL_TO_FLG	Bill To Flg	Y	Default 'Y'
SOLD_TO_FLG	Sold To Flg	N	Default 'N'
BROKER_FLG	Broker Flg	N	Default 'N'
INDIRECT_CUST_FLG	Indirect Cust Flg	N	Default 'N'
CUST_LEVEL	Level	R	Default 'R'
ADDRESS_SEQ_SOLD	Address Seq Sold	0	Default '0'
CNTCT_SEQ_SOLD	Contact Seq Sold	0	Default '0'
ADDRESS_SEQ_SHIP	Address Seq Ship	0	Default '0'
CNTCT_SEQ_SHIP	Contact Seq Ship	0	Default '0'
ADDRESS_SEQ_BRK	Address Seq Brk	0	Default '0'
ADDRESS_SEQ_IND	Address Seq Ind	0	Default '0'
HOLD_UPDATE_SW	Hold SW	Y	Default 'Y'
LAST_MAINT_OPRID	Last OPRID	77000	Default Business Unit Value

CUST_ADDR_SEQ			
Field Name	Field Description	Sample Data	Conversion Rule
BILL_TO_ADDR	Bill To	Y	Default 'Y'
SHIP_TO_ADDR	Ship To	N	Default 'N'
SOLD_TO_ADDR	Sold To	N	Default 'N'
CRSPD_TO_ADDR	Crspd To	N	Default 'N'
BROKER_ADDR	Broker	N	Default 'N'
INDIRECT_ADDR	Indirect	N	Default 'N'
LAST_MAINT_OPRID	Last OPRID	77000	Default Business Unit Value

CUST_ADDRESS			
Field Name	Field Description	Sample Data	Conversion Rule
LANGUAGE_CD	Lang Cd	ENG	Default 'ENG'
TAX_CD	Code		Default ' '
PHYSICAL_NATURE	Nature	G	Default 'G'
LAST_MAINT_OPRID	Last OPRID	77000	Default Business Unit Value

CUST_OPTION			
Field Name	Field Description	Sample Data	Conversion Rule
PP_HOLD	PP Hold	N	Default 'N'
PARTIAL_PY_SW	Partial Pay SW	Y	Default 'Y'
PO_REQUIRED	Require PO	N	Default 'N'
PAYMENT_METHOD	Pay Method	CHK	Default 'CHK'
DIRECT_INVOICING	Direct Inv	N	Default 'N'
INTERUNIT_FLG	InterUnit	N	Default TBD
BUSINESS_UNIT_GL	GL Unit		Default Business Unit Value
MAX_WRITE_OFF_AMT	Max W/O	999999999	Default 0

MAX_WRITE_OFF_DAYS	Write-off Days	0	Default 0
MAX_WRITE_OFF_PCT	Max WO Percent	100	Default 0
FREIGHT_BILL_TYPE	Freight Bill Type	SH	Default 'SH'
HOL_PROC_OPT	Holiday Options	N	Default 'N'
HOL_PROC_OVERFL	Allow next mo	Y	Default 'Y'
REBATE_METHOD	Rebate Method	N	Default 'N'
BI_PROMPT_CURR	Prompt Bill Cur	N	Default 'N'
LAST_MAINT_OPRID	Last OPRID	77000	Default Business Unit Value

2.2 Scheduling

The customer interface program should be run daily. It should be run before ADML 1297 Pending Item Interface and ADML 173 Billing Interface.

2.3 Run Control Parameters

Conversion Parameters	
<i>Parameters (Required)</i>	<i>Possible Values (Prompt Table)</i>
Business Unit	
Input File Name	
<i>Parameters (Optional)</i>	<i>Possible Values</i>
N/A	N/A

2.4 Unit Test Considerations

The following conditions should be tested for the interfaced data:

- Load customer from interface file that does not exist
- Load customer from interface file whose customer ID already exists
- Load customer from interface file whose street and city address already exists
- Verify that the customer data being interfaced is correct.
 - Field mappings (Legacy fields to Aspire fields)
 - Values (including any translate values)
- Process accounts receivable transactions for interfaced customers.
 - Create new invoices for interface customers.
 - Receive deposits for interface customers
 - Apply payments for open items of interface customers.
 - Update customer data for interface customers.

2.5 Miscellaneous

ADML Dependencies

ADML 181, renamed two customer table fields to a) identify (one character field) when a security deposit is required, and b) to describe (text field) the deposit. This enhancement should be incorporated prior to publishing this interface to correctly label the affected fields.

2.6 Assumptions

- Grant sponsor profiles will be configured by the agencies in Aspire.

2.7 Record Layout

The following is the record layout for the interface file to load customers. The interface file should consist of two record types or three record types if grants sponsors are included in the interface. The Aspire interface program uses the data in these three record types to populate the many tables required to setup Aspire customers.

Customer Information Interface Requirements						
Sourcesys.table.field	Field Format / Length	Selection Criteria	Processing Rules Edit Table	Comments Required (Yes/No)	Targetsys.table.field	Field Format / Length
			Use this column to designate the record type. Record Type = 'C' for Customer Record	Yes		Char/1
			Current OLO translation to Aspire	Yes	CUSTOMER.SETID	Char/5
			Input from agency system or blank for auto-numbering to be used	Yes	CUSTOMER.CUST_ID	Char/15
			Input from agency system	Yes	CUSTOMER.NAME1	Char/40
			Input from agency system	No	CUSTOMER.NAME2	Char/40
			Input from agency system	Yes	CUSTOMER.NAMESHORT	Char/10
			Specified by agency from values below: 'A' – Active 'I' – Inactive	Yes	CUSTOMER.CUST_STATUS	Char/1
			Set to 1, unless the agency has determined specific use	Yes	CUSTOMER.CUSTOMER_TYPE	Char/1

Customer Information Interface Requirements						
Sourcesys.table.field	Field Format / Length	Selection Criteria	Processing Rules Edit Table	Comments Required (Yes/No)	Targetsys.table.field	Field Format / Length
			Input from agency system	Yes	CUSTOMER.SINCE_DT	Date/10
			Input from agency system	Yes	CUSTOMER.ADD_DT	Date/10
			Specified by Agency from valid values in edit table: GM_CUSTOMER_VW	No	CUSTOMER.REPORTS_TO_SPONSOR	Char/15
			Specified by Agency from valid values in edit table: GM_SPNSR_LEVEL	No	CUSTOMER.SPNSR_LEVEL	Char/4
			Specified by Agency from valid values in edit table: GM_SPNSR_TYPE	No	CUSTOMER.SPNSR_TYPE	Char/4
			Specified by Agency from valid values in edit table: GM_SP_PROG_TYPE	No	CUSTOMER.SPNSR_PROGRAM	Char/4
			Input from agency	No	CUSTOMER.CFDA_NUMBER	Nbr/2.3
			Set to 'Y' or 'N'	No	CUSTOMER.GM_FEDERAL_FLAG	Char/1
			Set to 'Y' or 'N'	No	CUSTOMER.LOC_INDICATOR	Char/1

Customer Information Interface Requirements						
Sourcesys.table.field	Field Format / Length	Selection Criteria	Processing Rules Edit Table	Comments Required (Yes/No)	Targetsys.table.field	Field Format / Length
			If LOC_INDICATOR = 'Y', Specified by Agency from valid values in edit table: GM_LOC_SP_VW	No	CUSTOMER.GM_LOC_SPONSOR_ID	Char/15
			Specified by Agency from valid values in edit table: GM_FA_BASE_DTL	No	CUSTOMER.FA_SPNSR_BASE_ID	Char/5
			Set to 'Y' or 'N'	No	CUSTOMER.GRANTS_SPONSOR_FLG	Char/1
			Set to 'Y' or 'N'	No	CUSTOMER.FEDERAL_INDICATOR	Char/1
			Ten character letter of credit number	No	GM_SPNSR_LOC.LOC_REFERENCE_ID	Char/10
			Letter of Credit number description	Yes, if LOC_REFERENCE_ID not blank	GM_SPNSR_LOC.DESCR	Char/30
			Input from agency system	No	CUSTOMER.CUST_FIELD_C1_A	Char/1
			Input from agency system	No	CUSTOMER.CUST_FIELD_C1_B	Char/1
			Input from agency system	No	CUSTOMER.CUST_FIELD_C1_C	Char/1

Customer Information Interface Requirements						
Sourcesys.table.field	Field Format / Length	Selection Criteria	Processing Rules Edit Table	Comments Required (Yes/No)	Targetsys.table.field	Field Format / Length
			Input from agency system	No	CUSTOMER.CUST_FIE LD_C1_D	Char/1
			Input from agency system	No	CUSTOMER.CUST_FIE LD_C2	Char/2
			Input from agency system	No	CUSTOMER.CUST_FIE LD_C4	Char/4
			Input from agency system	No	CUSTOMER.CUST_FIE LD_C6	Char/6
			Input from agency system	No	CUSTOMER.CUST_FIE LD_C8	Char/8
			Input from agency system	No	CUSTOMER.CUST_FIE LD_C10_A	Char/10
			Input from agency system	No	CUSTOMER.CUST_FIE LD_C10_B	Char/10
			Input from agency system	No	CUSTOMER.CUST_FIE LD_C10_C	Char/10
			Input from agency system	No	CUSTOMER.CUST_FIE LD_C10_D	Char/10
			Input from agency system	No	CUSTOMER.CUST_FIE LD_C30_A	Char/30

Customer Information Interface Requirements						
Sourcesys.table.field	Field Format / Length	Selection Criteria	Processing Rules Edit Table	Comments Required (Yes/No)	Targetsys.table.field	Field Format / Length
			Input from agency system	No	CUSTOMER.CUST_FIE LD_C30_B	Char/30
			Input from agency system	No	CUSTOMER.CUST_FIE LD_C30_C	Char/30
			Input from agency system	No	CUSTOMER.CUST_FIE LD_C30_D	Char/30
			Input from agency system	No	CUSTOMER.CUST_FIE LD_N12_A	Nbr/12.3
			Input from agency system	No	CUSTOMER.CUST_FIE LD_N12_B	Nbr/12.3
			Input from agency system	No	CUSTOMER.CUST_FIE LD_N12_C	Nbr/12.3
			Input from agency system	No	CUSTOMER.CUST_FIE LD_N12_D	Nbr/12.3
			Input from agency system	No	CUSTOMER.CUST_FIE LD_N15_A	Nbr/15
			Input from agency system	No	CUSTOMER.CUST_FIE LD_N15_B	Nbr/15

Customer Information Interface Requirements						
Sourcesys.table.field	Field Format / Length	Selection Criteria	Processing Rules Edit Table	Comments Required (Yes/No)	Targetsys.table.field	Field Format / Length
			Input from agency system	No	CUSTOMER.CUST_FIELD_N15_C	Nbr/15
			Input from agency system	No	CUSTOMER.CUST_FIELD_N15_D	Nbr/15
			Current Date	No	CUSTOMER.DATE_LAST_MAINT	Date/10
			Specified by Agency from valid values in edit table: AR_TRMS_VW	No	CUST_OPTION.PAYMENT_TERMS_CD	Char/5
			Specified by Agency from valid values in edit table: BI_BILL_BY	No	CUST_OPTION.BILL_BUY_ID	Char/10
			Specified by Agency from valid values in edit table: BI_CYCLE_VW	No	CUST_OPTION.BILL_CYCLE_ID	Char/10
			Specified by Agency from valid values in edit table: BI_TYPE_EF_VW	No	CUST_OPTION.BILL_TYPE_ID	Char/3
			Specified by Agency from valid values in edit table: BI_SPECIALST_VW	No	CUST_OPTION.BILLING_SPECIALIST	Char/8
			Specified by Agency from valid values in edit table: BI_AUTH_EF_VW	No	CUST_OPTION.BILLING_AUTHORITY	Char/8

Customer Information Interface Requirements						
Sourcesys.table.field	Field Format / Length	Selection Criteria	Processing Rules Edit Table	Comments Required (Yes/No)	Targetsys.table.field	Field Format / Length
			Specified by Agency from valid values in edit table: COLLECTOR_VW	Yes	CUST_OPTION.COLLECTOR	Char/8
			Specified by Agency from valid values in edit table: CR_ANALYST_VW	Yes	CUST_OPTION.CR_ANALYST	Char/8
			Specified by Agency from valid values in edit table: BI_IVC_FORM	No	CUST_OPTION.INVOICE_FORM_ID	Char/10
			Specified by Agency from valid values in edit table: DST_CODE_AR_VW	No	CUST_OPTION.DST_ID_AR	Char/10
			Specified by Agency from valid values in edit table: AR_SPCLST_VW	No	CUST_OPTION.AR_SPECIALIST	Char/8
			Specified by Agency from valid values in edit table: TEAM_CODE_TBL	Yes	CUST_TEAM.SUPPORT_TEAM_CD	Char/5
			Specified by Agency "Y" or "N", if using Billing	Yes	SOLD_TO_FLG	Char/1

CUSTOMER ADDRESS Information Interface Requirements						
Sourcesys.tab le.field	Field Format / Length	Selection Criteria	Processing Rules Edit Table	Comments Required (Yes/No)	Targetsys.table.field	Field Format / Length
			Use this column to designate the record type. Record Type = 'A' for Customer Address Record			
			Current OLO Setid value	Yes	CUST_ADDR_SEQ.SETID	Char/5
			Same as Cust_id in Customer record	Yes	CUST_ADDR_SEQ.CUST_ID	Char/15
			If new customer, set to 1, otherwise determine highest seq nbr and add 1	Yes	CUST_ADDR_SEQ.ADDRESS_SEQ_NUM	Nbr/3
			Input from agency	No	CUST_ADDR_SEQ.DESCR	Char/30
			If new customer, set to 1901-01-01, otherwise, input from agency system	Yes	CUST_ADDRESS.EFFDT	Date/10
			'A' Active	Yes	CUST_ADDRESS.EFF_STATUS	Char/1

**CUSTOMER ADDRESS Information
Interface Requirements**

Sourcesys.tab le.field	Field Format / Length	Selection Criteria	Processing Rules Edit Table	Comments Required (Yes/No)	Targetsys.table.field	Field Format / Length
			Set to 'USA' COUNTRY_TBL	No	CUST_ADDRESS.COUNT RY	<i>Char/3</i>
			Input from agency system	No	CUST_ADDRESS.ADDRE SS1	<i>Char/55</i>
			Input from agency system	No	CUST_ADDRESS.ADDRE SS2	<i>Char/55</i>
			Input from agency system	No	CUST_ADDRESS.ADDRE SS3	<i>Char/55</i>
			Input from agency system	No	CUST_ADDRESS.CITY	<i>Char/30</i>
			Input from agency system %EDIT_STATE	No	CUST_ADDRESS.STATE	<i>Char/6</i>
			Input from agency system	No	CUST_ADDRESS.POSTAL	<i>Char/12</i>

CUSTOMER CONTACT Information Interface Requirements						
Sourcesys.tab le.field	Field Format / Length	Selection Criteria	Processing Rules Edit Table	Comments Required (Yes/No)	Targetsys.table.field	Field Format / Length
			Use this column to designate the record type. Record Type = 'G' for Grant sponsor Record			
			Current OLO Setid value	Yes	CONTACT.SETID	Char/5
			Same as Cust_id in Customer record	Yes	CONTACT.CONTACT_ID	Char/15
			If new contact, set to 1901-01-01, otherwise, input from agency system	Yes	CONTACT.EFFDT	Date/10
			'A' Active	Yes	CONTACT.EFF_STATUS	Char/1
			'E'	Yes	CONTACT.CONTACT_FLAG	Char/1
			Input from agency	No	CONTACT.NAME1	Char/40
			Input from agency	Yes	CONTACT_CUST.CUST_ID	

CUSTOMER CONTACT Information Interface Requirements						
Sourcesys.tab le.field	Field Format / Length	Selection Criteria	Processing Rules Edit Table	Comments Required (Yes/No)	Targetsys.table.field	Field Format / Length
			Input from agency, select from list below: C – Call E – e-mail F – Fax M – Standard Mail	Yes	CONTACT.COMM_METH OD	Char/1
			Input from agency, select from list below: BUSN CELL MAIN HOME FAX	Yes	CONTACT_PHN.PHONE_ TYPE	Char/4
			Input from agency	Yes	CONTACT_PHN.PHONE	Char/24
			Input from agency	Yes	CONTACT_PHN.EXTENSI ON	Char/6