

ERP-1046: DDFS - GTS - Global Trade Services

Introduction

This Data Flow Specification (DFS) defines the end-to-end data flow required to meet the following requirements:

Customs (Import/Export)	Customs Analysis including Import and Export	This will be built using enhanced SAP Standard Business Content	
Customs Classification			
Trade Compliance	Compliance Analysis	This is entirely Custom as no Business Content nor standard CDS views Exist	
Preference Management	Preference Analysis	This is entirely Custom as no Business Content nor standard CDS views Exist	
Intrastat	Intrastat Analysis	This is entirely Custom as no Business Content nor standard CDS views Exist	

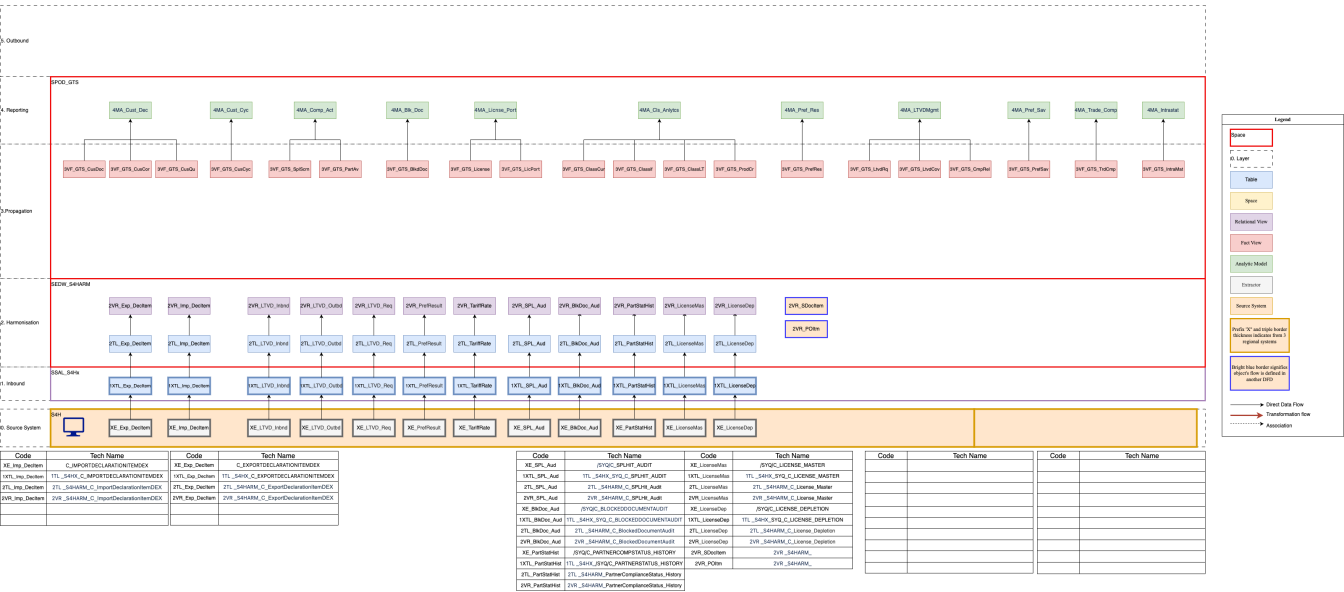
Import Declaration Items Model

The import declaration item Analytic Model contains item data enhanced with master data associations to importer, exporter, Customs product and text associations.

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Export Declaration Items Model

The export declaration item Analytic Model contains item data enhanced with master data associations to importer, exporter, Customs product and text associations.



Source System Extractors

Standard extractors do not need to be documented unless extended.

Where custom extractors / extensions are required, reference the FSD for that enhancement.

Area	Extractor Code	Extractor Name	Check if Transactional	Notes	Purpose	Build Jira Ref For Extension Information
Customs	XE_Exp_Dec Item	C_EXPORTDECLARATIONITEMDEX	Yes	Delta	The export declaration item Analytic Model contains item data enhanced with master data associations to importer, exporter, Customs product and text associations.	
Customs	XE_Imp_Dec Item	C_IMPORTDECLARATIONITEMDEX	Yes	Delta	The import declaration item Analytic Model contains item data enhanced with master data associations to importer, exporter, Customs product and text associations.	
Customs	XE_CusDoc_Com	/SYQ/C_CUSTOMSDOC_COMPLETENESS	Derived Master		Declaration data quality assessment	
Customs	XE_CusDoc_Cor	/SYQ/C_CUSTOMSDOC_CORRECTIONS	Yes		Declaration correction events	
Customs	XE_TariffRate	/SYQ/C_TARIFF_RATE	Master - Transactionally sourced		MFN and preferential rates from GTS-loaded tariff data	
Intrastat	XE_Intra_Mat	/SYQ/C_INTRASTAT_MATERIALREQUEST	Transactional		Material request events	
Intrastat	XE_Intra_Mov	/SYQ/C_INTRASTAT_MOVEMENT	Transactional	Check if required	Movement details if needed	
Preference	XE_LTVD_Comb	/SYQ/C_LTVD_COMBINED	Master - Transactionally sourced	Needs direction Indicator	Inbound and outbound LTSDs unified with direction attribute	
Preference	XE_LTVD_Req	/SYQ/C_LTVD_REQUEST_ACTIVITY	Transactional		Request lifecycle events with campaign attribute	
Preference	XE_PrefResult	/SYQ/C_PREFERENCE_RESULT	Master - Transactionally sourced		Determination results including all status codes (positive, negative, affected by-price)	
Preference	XE_VendDec_Cv	/SYQ/C_VENDOREDECLARATION_COVERAGE	Derived Master		Coverage at product level across BOM	
Compliance	XE_SPL_Aud	/SYQ/C_SPLHIT_AUDIT	Yes		SPL screening events and decisions	
Compliance	XE_BlkdDoc_Aud	/SYQ/C_BLOCKEDDOCUMENTAUDIT	Yes		Document block/release events with block reason granularity	
Compliance	XE_PartStatHist	/SYQ/C_PARTNERCOMPSTATUS_HISTORY	Yes		Partner status change events for SCD-2 build	
Compliance		/SYQ/C_BusinessPartner_SPLRelevant	Master		Active SPL-screenable partner master	
License	XE_LicenseMas	/SYQ/C_LICENSE_MASTER	Master		License headers with validity, capacity, regulation	
License	XE_LicenseDep	/SYQ/C_LICENSE_DEPLETION	Yes		License depletion events	
License	XE_License_Val	/SYQ/C_LICENSEUSAGE_WITHVALUE	Yes		Depletion joined to commercial value (single-domain composite)	
Classification		/SYQ/C_CLASSIFICATION_CURRENT	Master - Transactionally sourced		Current classification state with expiry flags, filtered from event history	
Classification		/SYQ/C_CLASSIFICATIONCHANGE_HISTORY	Transactional		Change events from change documents (covers user activity through grouping)	
Classification		/SYQ/C_PRODUCTCREATION_EVENTS	Transactional		Product creation and country extension events	
Classification		/SYQ/C_CLASSIFICATIONLEADTIME	Derived Transactional	Check what this means	Joins creation to first classification with working-day duration	

Inbound Layer

Inbound layer objects only need documentation if some field adjustment is made (over and above the standard load date / time and source system stamp).

1TL_S4Hx_C_PURCHASEORDERDEX

Field XYZ converted to date.

Field ABC converted from BIGINT to...

Harmonisation Layer

Every table will have it's own harmonization view. This only needs to be documented if field adjustments are required. E.g. Conversion of data field / type.

Where actions are performed to improve reusability, e.g. joining header and item tables, details of the join (left outer, which is left, which is right, fields to join with, cardinality etc) should listed.

Each node inside the view will appear as a heading 3 in this document detailing what it does and, if not obvious, why.

2VR_S4HARM_C_PurchaseOrderDex

Calculation

Calculated dimension CD_PLANT to change length of field 'Plant' from 4 to 5 to align with WHM plant. (Ubiquitously true, reusable change made at lowest level possible).

2VR_S4HARM_C_PurchaseOrderItemDex

Calculation

Calculated measure: CM_PRICE = Value / Quantity. (Ubiquitously true, reusable change made at lowest level possible).

2VR_S4HARM_POHdrltm

Join

Purpose: Join PO header and item to create reusable view at item level that contains all fields from PO header

LHS: 2VR_S4H_C_PurchaseOrderDex

RHS: 2VR_S4H_C_PurchaseOrderItemDex

Join Field: POHeader to POHeader

Join type: Left outer join

Cardinality: 1: Many

Projection

Remove fields that occur in both PO Header and Item views leaving fields from PO Header side.

Propagation Layer

3VR_S2PP2R_POHdrltm

Calculation

A line item level calculation which applies specific business rules that are owned by the POD would be added here.

3VR_S2PP2R_POHisAcc

Join

Purpose: etc

Join

Purpose: etc

Join

Purpose: etc

Calculation

Calculated measure: CM_DocItemValue = DocQuantity * CM_PRICE

3VF_S2PP2R_POHisAcc

Union

Purpose: To bring in values from PO level alongside lower level granularity documents

Target Field	Source1-Field	Source2-Field
PO	PO	PO
POItem	POItem	POItem
MaterialDocument	-	MaterialDocument

Associations to master data

List objects where material master associations are to be made.

Calculated Measures (Pre-Aggregation Calculations)

Tier 1 — simple event-based facts (no snapshots):

3VF_GTS_Spl_Scrng	3VF_GTS_Spl_Screening
3VF_GTS_Blkd_Doc	3VF_GTS_Blocked_Document
3VF_GTS_Lic_Usg	3VF_GTS_License_Usage
3VF_GTS_Class_Act	3VF_GTS_Classification_Activity
3VF_GTS_Prod_Crtn	3VF_GTS_Product_Creation
3VF_GTS_Ltvd_Req	3VF_GTS_Ltvd_Request
3VF_GTS_Pref_Res	3VF_GTS_Preference_Result
3VF_GTS_Cust_Doc	3VF_GTS_Customs_Doc
3VF_GTS_Cust_Corr	3VF_GTS_Customs_Corrections
3VF_GTS_Cust_Qual	3VF_GTS_Customs_Data_Quality
3VF_GTS_Cust_Cycl	3VF_GTS_Customs_Cycle_Time?
3VF_GTS_Intra_Mat	3VF_GTS_Intrastat_Material_Request

Tier 2 — periodic snapshots for state representation:

3VF_GTS_LicPort	3VF_GTS_License_Portfolio

3VF_GTS_LtvdCov	3VF_GTS_Ltvd_Coverage
3VF_GTS_Cls_Cur	3VF_GTS_Classification_Current
3VF_GTS_ClsLT	3VF_GTS_Classification_Lead_Time
3VF_GTS_PartAv	3VF_GTS_Partner_Availability
3VF_GTS_CmpRel	3VF_GTS_Campaign_Relevant_Materials
	FACT_CUSTOMS_CYCLE_TIME?

— depends on TM/broker timestamp availability??

Tier 3 — audit-grade snapshots:

- 3VF_GTS_Preference_Savings
- 3VF_GTS_Trade_Compliance_Overview

Reporting Layer

4VA_S2PP2R_POHisAcc

Type	Code	Technical Name	Logic	Functional Spec
	4MA_Cust_Dec	4MA_CustomsDeclarations		
	4MA_Cust_Cyc	4MA_CustomsCycleTime		
	4MA_Comp_Act	4MA_ComplianceActivity		
	4MA_Blkl_Doc	4MA_BlockedDocuments		
	4MA_Licnse_Port	4MA_LicensePortfolio		
	4MA_Cls_Anlytcs	4MA_ClassificationAnalytics		
	4MA_Pref_Res	4MA_PreferenceResults		
	4MA_LTVDMgmt	4MA_LTVDMangement		
	4MA_Pref_Sav	4MA_PreferenceSavings		
	4MA_Trade_Comp	4MA_TradeComplianceOverview		
	4MA_Intrastat	4MA_Intrastat		

4MA_CustomsDeclarations — duty spend, declaration volumes, data quality, corrections

4MA_CustomsCycleTime — cycle times and SLA adherence (subject to data availability)

4MA_ComplianceActivity — SPL screening and partner activity

4MA_BlockedDocuments — document blocks and releases by regulation

4MA_LicensePortfolio — license analytics and usage

4MA_ClassificationAnalytics — classification activity, coverage, lead times

4MA_PreferenceResults — eligibility analytics with all status codes

4MA_LTSDManagement — LTSD operations and campaign management

4MA_PreferenceSavings — realized savings, potential, leakage

4MA_TradeComplianceOverview — cross-module risk view

4MA_Intrastat — Intrastat material request analytics

Link to FSD (Each Analytic model should have its own FSD).

Include technical details for:

Calculated Measures (Post Aggregation Calculations / exception aggregation etc)

Restricted Measures

Detail restrictions

Currency Conversions

Detail rate type, from currency

Variables

Data access controls

Outbound Layer