



Interface Documentation in Solution Documentation

SAP Solution Manager 7.2, SP05

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Agenda

Introduction

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Interface Documentation Application

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Introduction



Motivation for Interface Documentation

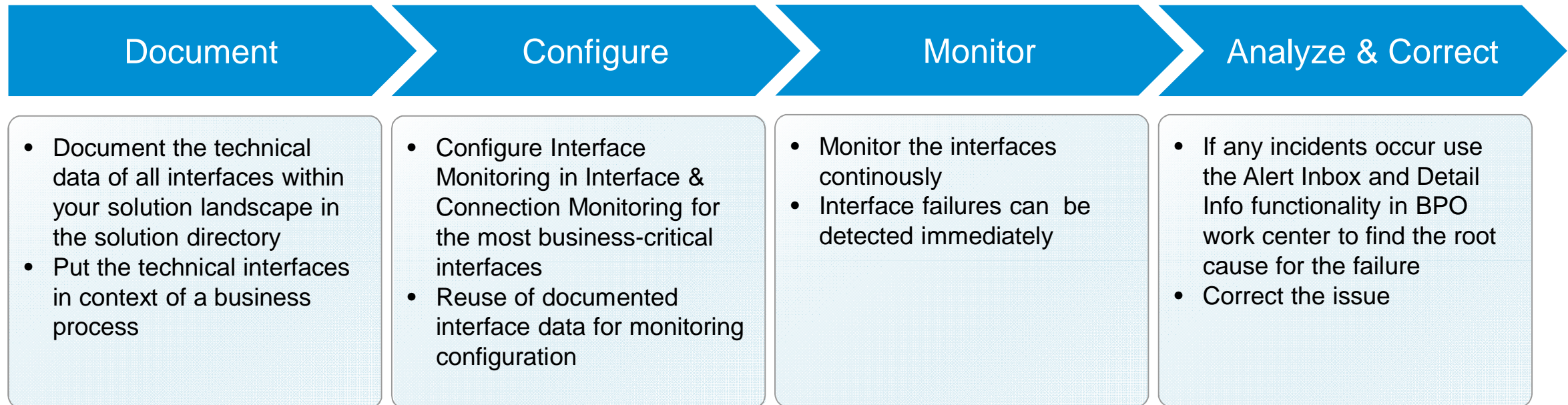
- SAP Solution Manager as the central component to document and view all interface information throughout the complete solution landscape.
- Interface operations can be managed centrally (e.g. which business processes are affected once an interface is down, which interfaces are affected if a system is to be shut down for maintenance).
- Interface data can be re-used for different tools in SAP Solution Manager (e.g. Interface & Connection Monitoring), which avoids double maintenance effort.

Interface Management in SAP Solution Manager

Main Solution Manager functions to handle interface operations:

- Interface Documentation
- Interface & Connection Monitoring

Guideline on how Interface Management can be realized in SAP Solution Manager:

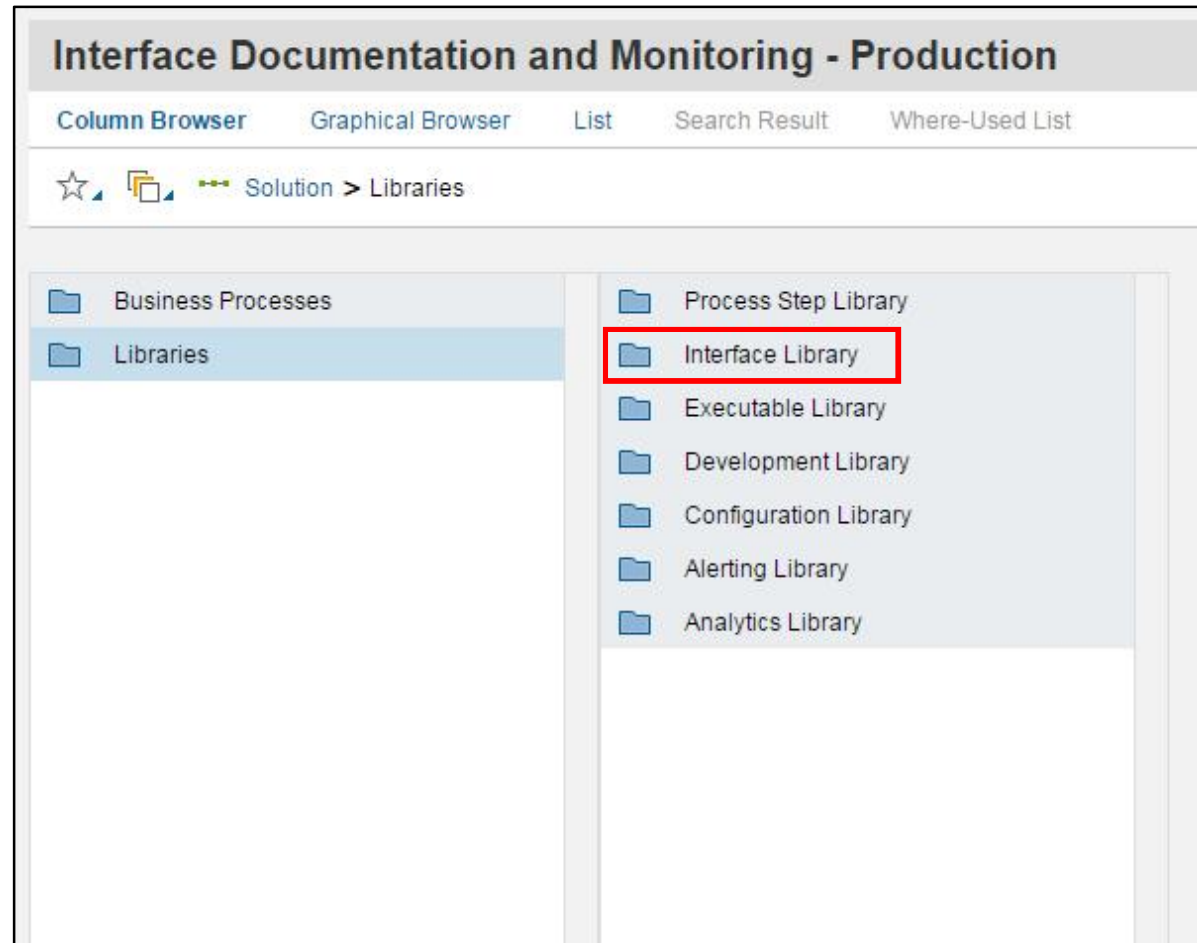


Interfaces in Solution Documentation



Interface Library in Solution Documentation

- In SAP Solution Manager 7.2, Solution Documentation replaces project and solution maintenance as available before.
- Data can be maintained in the Business Process section and in Libraries.
- For Interfaces, a dedicated Interface Library exists.



Interfaces in Interface Library

- Main use-case: point-to-point connections.
- Defined by sender and receiver system and interface technology.
- Can be detailed by providing interface attributes in Interface Documentation application.
- No interface graphics.

The screenshot displays the SAP Interface Library configuration for the 'Send Delivery' interface. The left sidebar lists several interfaces, with 'Send Delivery' selected and highlighted by a red box. The main panel shows the configuration details for 'Send Delivery', including its title, description, and type. The description field is highlighted with a red box and contains the following entries:

Field	Value
Sending Log. Compon...	Z_IF_DOCU_ERP
Receiving Log. Compon...	Z_IF_DOCU_WM
Middleware Log.Compo...	

Below the description, the 'Classifications' section is expanded, showing the 'Interface Technology' set to 'Application Link Enabling / IDoc (ALE)', which is also highlighted with a red box.

Simple 3-Component Interfaces

- Simple interface flows which include a single middleware component can be represented by an Interface, too.
- In that case the optional middleware component has to be provided in Solution Documentation.
- For interface flows including more than 3 components, or with additional logic like interface steps, Composite Interfaces have to be used instead.

The screenshot displays the SAP Solution Manager configuration for an interface. On the left, a tree view shows 'Order to Cash Interfaces' and 'Procure to Pay Interfaces'. The 'Send Invoice to Customer (1 Step)' interface is selected. The right pane shows the configuration details for this interface, including its title, description, and logging components. The 'Middleware Log.Co...' field is highlighted with a red box, showing the value 'Z_IF_DOCU_PI'. Below this, the 'Classifications' section shows the interface technology as 'SAP Process Integration / Process Orchestration (PI)'. At the bottom, a table titled 'Elements of 'Send Invoice to Customer (1 Step)'' is visible, with columns for Group, Name, and Type.

Group	Name	Type

Composite Interfaces in Interface Library

- Main use-case: complex interface processing including several components and interface steps.
- No interface technology available, but Interfaces can be re-used.
- Interface graphics at hand.

The screenshot displays the SAP Interface Library configuration for a composite interface named "Send Invoice to Customer (2 Step)".

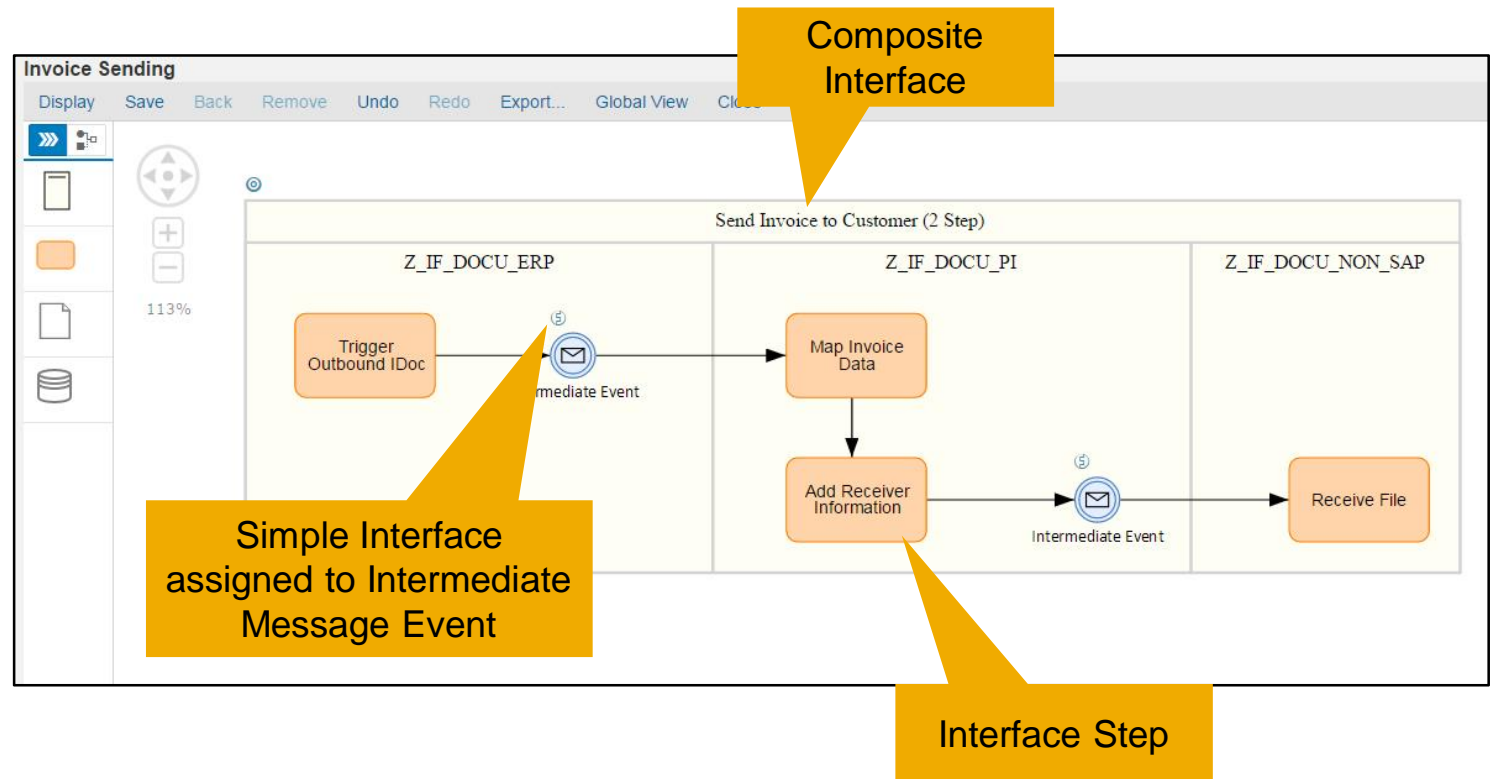
- Composite Interface:** A yellow callout points to the "Send Invoice to Customer (2 Step)" entry in the left-hand list of interfaces.
- Interface Step:** A yellow callout points to a list of steps within the composite interface, including "Trigger Outbound IDoc", "Replicate Invoice to PI", "Map Invoice Data", "Add Receiver Information", "Create XML File with Invoice Data", and "Receive File".
- Simple Interface:** A yellow callout points to the "Replicate Invoice to PI" step, which is highlighted with a red box.
- Link to Interface Diagram:** A yellow callout points to a table at the bottom of the screen.

Group	Name	Type
Interface Diagrams	Invoice Sending	Interface Diagram

Additional details visible in the screenshot include the title "Send Invoice to Customer (2 Step)", description, sending and receiving log names (Z_IF_DOCU_ERP and Z_IF_DOCU_NON_SAP), and a "Responsibilities" section.

Interface Graphics for Composite Interfaces

- To visualize a complex interface flow, including several steps and multiple (SAP and non-SAP) components.
- Monitoring can be attached to the Interface Steps.
- Diagram can be re-used in a business process diagram, to hide the (technical) interface details from the business-oriented view on a business process.



Interface Documentation Application



Create Interface Documentation

- Interface Documentation application provides the possibility to maintain further attributes for the Interface (besides affected systems and interface technology).
- The application can be called from the 'Elements of...' box using context menu *New à Interface Details à Interface Details*.

The screenshot shows the SAP S/4HANA interface documentation configuration screen for the 'Send Delivery' interface. The interface is divided into several sections:

- Order to Cash Interfaces** and **Procure to Pay Interfaces** folders are visible on the left.
- The **Send Delivery** interface is selected, showing its details in the right pane.
- The **Elements of 'Send Delivery'** table is visible, with a context menu open over the **New** button. The menu path **New > Documentation > Interface Details > Interface Details** is highlighted with a red box.
- The right pane shows the following details for the **Send Delivery** interface:
 - Title:** Send Delivery
 - Description:**
 - Sending Log. Compo...:** Z_IF_DOCU_ERP
 - Receiving Log. Com...:** Z_IF_DOCU_WM
 - Middleware Log.Co...:**
 - Type:** Interface <Orig.>
 - Classifications:** Interface Technology: Application Link Enabling / IDoc (ALE)
 - Responsibilities:** Responsible: SAP Backoffice (131)
 - Technical Information from Migratio**
 - Responsible Person:**

Interface Documentation: Main UI

The main UI is split into several sections:

- Header data of the Interface
- Help text (hidden per default)
- Interface attributes section
- Custom attributes maintenance (hidden per default)

Value helps are available for the interface attributes where meaningful.

Maintain Interface Details

Interface

Interface Name: Send Delivery
Branch: Maintenance
System Role: Development System
Sender Logical Component: Z_IF_DOCU_ERP
Sender System: Q3A(002)
Receiver Logical Component: Z_IF_DOCU_WM
Receiver System: FBT(200)
Person Responsible: 0000000131
Person Responsible Name: SAP Backoffice

Help

Interface Attributes

Interface Technology: Application Link Enabling / IDoc

Quality of Service

Technical Attributes | Routing Attributes | Functional Attributes | Further Details

IDoc Message Type
Technology Object (IDoc Basic Type)
IDoc Type Extension
Caller Program
Package Size
Serialization Type
Is ALE Audit Used?
Transfer Mode
Trigger Mode

Create Customer Attributes | Save | Save + Close | Cancel

Interface Documentation: Interface Header Data

The interface header data is taken from Solution Documentation. It contains:

- Interface Name
- Branch and system role of the solution
- Sender and receiver system data
- System data of the optional middleware component (if maintained)
- Person responsible (as maintained for the Interface object in Solution Documentation)

Interface
Interface Name: Send Delivery
Branch: Maintenance
System Role: Development System
Sender Logical Component: Z_IF_DOCU_ERP
Sender System: Q3A(002)
Receiver Logical Component: Z_IF_DOCU_WM
Receiver System: FBT(200)
Person Responsible: 0000000131
Person Responsible Name: SAP Backoffice

Interface Documentation: Interface Attributes Header Data

- The interface attributes section shows the Interface Technology, and the Quality of Service of the interface can be selected per drop-down menu.
- Sometimes – depending on the Interface Technology – an additional subtype has to be maintained to specify the type further. Example:
 - Interface Technology: RFC
 - Interface subtype: qRFC

Interface Attributes

Interface Technology: Application Link Enabling / IDoc

Quality of Service: Exactly Once

Interface Type: Asynchronous

Technical Attributes | Routing Attributes | Functional Attributes | Further Details

IDoc Message Type:


Technology Object (IDoc Basic Type):

Interface Documentation: Interface Attribute Areas

- The actual interface attributes can be maintained in three areas: *Technical Attributes*, *Routing Attributes*, *Functional Attributes*.
- In *Further Details* additional interface information can be provided in free text format.



Interface Attributes



Interface Technology: Application Link Enabling / IDoc

Quality of Service: Exactly Once 

Interface Type: Asynchronous















Technical Attributes | Routing Attributes | Functional Attributes | Further Details

IDoc Message Type:  

Technology Object (IDoc Basic Type):  













Interface Documentation: Technical Attributes

- In *Technical Attributes* the type of interface can be classified further.
- The available attributes are different for each Interface Technology.

Technical Attributes	Routing Attributes	Functional Attributes	Further Details
IDoc Message Type:	DELORD		
Technology Object (IDoc Basic Type):	DELVRY05		
IDoc Type Extension:			
Caller Program:			
Package Size:	10		
Serialization Type:	Message Type		
Is ALE Audit Used?:	No		
Transfer Mode:	Delta		
Trigger Mode:	Background		

Interface Documentation: Routing Attributes

- In *Routing Attributes* the communication profile (like communication partners, destinations etc.) can be specified further.
- The available attributes are different for each Interface Technology.

Technical Attributes	Routing Attributes	Functional Attributes	Further Details
	Sender Partner Port:	A000000079	
	Sender Partner Number:	QPTCLNT002	
	Sender Partner Type:	LS	 
	Sender Partner Role:		
	Receiver Partner Port:	ZREFX	
	Receiver Partner Number:	Y_LOGSYS	
	Receiver Partner Type:	LS	 
	Receiver Partner Role:		
	RFC Destination:	FA7CLNT200	
	Logon/Server Group:	PUBLIC	

Interface Documentation: Functional Attributes

- In *Functional Attributes* basic business-related data can be maintained. This includes the business object, expected volumes and peak times.
- These attributes are the same for each Interface Technology.
- The peak times are maintained in a separate window and allow to provide multiple entries.

Technical Attributes | Routing Attributes | **Functional Attributes** | Further Details

Business Object: Delivery

Average Number of Interface Executions / Hour: 10

Maximum Number of Interface Executions / Hour: 30

Average Number of Interface Executions / Day: 300

Maximum Number of Interface Executions / Day: 500

Average Number of Interface Executions / Week: 2000

Maximum Number of Interface Executions / Week: 2500

Average Number of Interface Executions / Month: 10000

Maximum Number of Interface Executions / Month: 120000

Required Response Time (in ms): 300

Peak Times: [Maintain Peak Times](#)

Maintain Interface Details

Peak Times

+ Add - Remove

Peak Month	Peak Day	Peak Hour
January	Monday	08 - 09 am
January	Thursday	04 - 05 am

Done

System Roles in Solution Documentation















- Solution Documentation allows to switch between branches, sites and system roles.
- If an Interface Documentation already exists in another system role interface attribute data is partly available in the current system role, too.
- Such globally available interface attributes are called system-independent.

The screenshot displays the SAP 'Interface Documentation and Monitoring - Production' interface. At the top, there is a search bar and navigation tabs including 'Column Browser', 'Graphical Browser', 'List', 'Search Result', 'Where-Used List', and 'Production'. A dropdown menu is open, showing 'Default View', 'Development System', and 'Production System', with 'Production System' selected. The breadcrumb trail reads 'Solution > Libraries > Interface Library > Order to Cash Interfaces > Send Delivery'. The main content area shows a tree view with 'Order to Cash Interfaces' and 'Procure to Pay Interfaces'. Under 'Order to Cash Interfaces', the 'Send Delivery' interface is selected, showing a list of steps: 'Replicate PGI', 'Send Invoice to Customer (1 Step)', 'Send Invoice to Customer (2 Step)', 'Replicate Invoice to PI', and 'Create XML File with Invoice Data'. On the right, the 'Send Delivery' details are shown, including 'Title: Send Delivery' and 'Type: Interface Details'. At the bottom, a table titled 'Elements of 'Send Delivery'' is visible, with a red box highlighting the row for 'Interface Details'.

Group	Name	Type
Interface Details	Send Delivery	Interface Details

Interface Documentation: System-independent Attributes

- System-independent attributes represent interface properties which remain the same for the whole lifetime of an interface (e.g. from development, to test, to productive use).
- Thus, when changing a system-independent attribute in the current system role, the attribute value is updated in all other system roles, too.
- In Interface Documentation UI system-independent attributes are marked with the chain icon.

Technical Attributes	Routing Attributes	Functional Attributes	Further Details
IDoc Message Type:	DELORD		
Technology Object (IDoc Basic Type):	DELVR05		
IDoc Type Extension:			
Caller Program:			
Package Size:	10		
Serialization Type:	Message Type		
Is ALE Audit Used?:	No		
Transfer Mode:	Delta		
Trigger Mode:	Background		

Custom Content for Interface Documentation

- Interface Documentation application can be enhanced with custom interface attributes and custom interface technologies
- Two ways exist to maintain custom entries:
 - Built-in feature inside Interface Documentation application: maintain custom attributes for the current interface technology
 - Transaction AGS_DCM_CUST_IFDOCU: maintain custom interface technologies and attributes, assign custom and standard attributes to technologies
- Both approaches require to have authorization object S_TCODE with value AGS_DCM_CUST_IFDOCU assigned (available in standard roles SAP_SM_SL_ADMIN and SAP_SM_SL_EDIT_BPMN)
- Custom content is maintained in customer namespace (Y* and Z*)

Built-in Custom Attribute Maintenance

- Inside of Interface Documentation you can add custom attributes for the *current* Interface Technology
- Click the *Create Customer Attributes* button to open the custom attribute maintenance
- Assign an existing attribute to the current Interface Technology, or create an entirely new one
- After saving the new attribute can be directly used in the Interface Attributes section

The screenshot shows the 'Interface Attributes' maintenance screen. The selected interface technology is 'ALE' (Application Link Enabling / IDoc). The attribute group is 'Technical Attributes'. The table below shows the list of attributes, with 'Z_DEMO' highlighted in red. The 'Add Attribute' button is also highlighted in red.

Interface Attribute	Attribute Text	Domain	Attr. Cardinality	System Dependency
Z_DEMO	Demo attribute	AGS_DCM_XML_DA...	Multiple Values Al...	true
ALE_AUDITUSAGE	Is ALE Audit Used?	AGS_DCM_YESOR...	Single Value	false
ALE_EXTENSION	IDoc Type Extension		Single Value	false
ALE_MESTYP	IDoc Message Type		Single Value	false
ALE_PACKAGESIZE	Package Size		Single Value	true

Stand-alone Transaction to Maintain Custom Content

Transaction AGS_DCM_CUST_IFDOCU is split into three areas:

- Definition of custom interface attributes: add or delete custom attributes
- Definition of custom interface technologies: add or delete custom interface technologies
- Assignment of attributes to technologies: assign or un-assign (standard or custom) attributes to (standard or custom) interface technologies

Maintain interface technologies and interface attributes

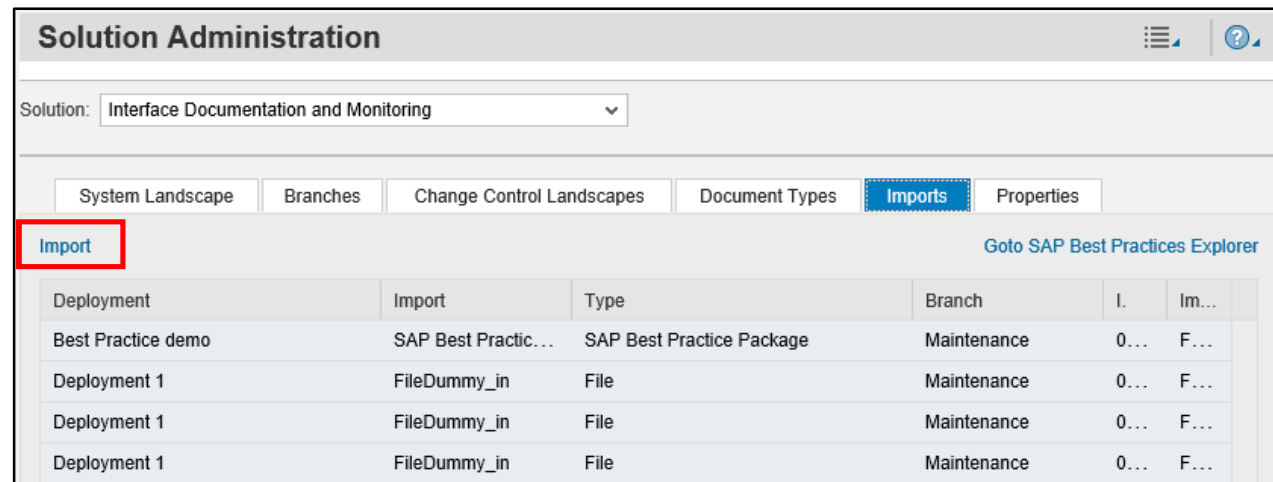
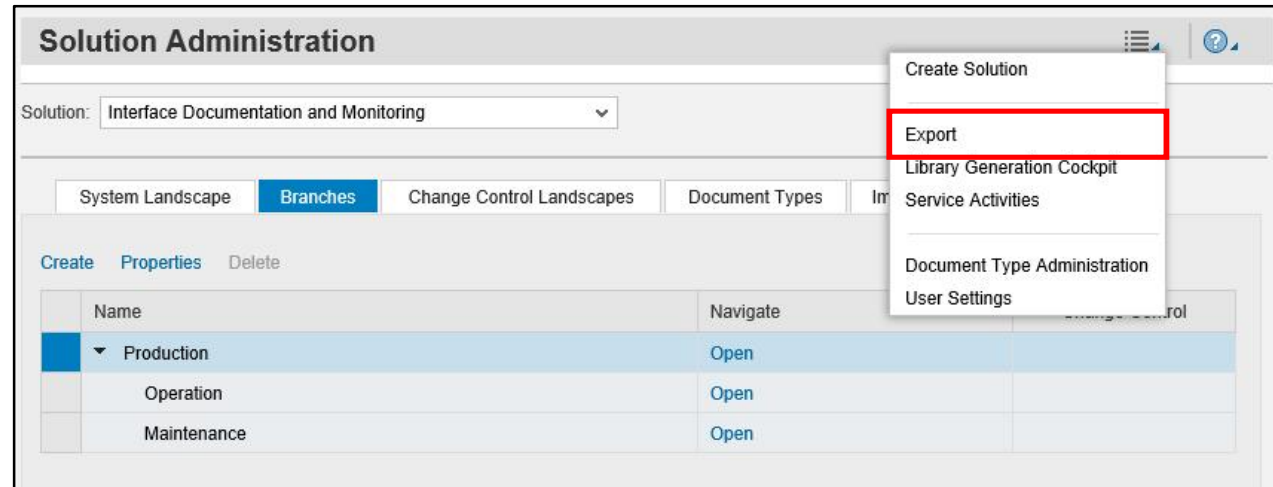
Define Attributes | Define Interface Technology | Assign Attributes to Technology

Save | Cancel | Add Attribute | Copy Attribute | Delete Attribute

Interface Attribute	Attribute Text	Table Name	Field Name	Domain	Search Help N...	Attr. Cardinality	System Dep...
Z_DEMO	Demo attribute	T100	ARBGB			Multiple Val...	false
ALE_PARNUM_SEN	Sender Part...				OVS_PARTNER	Single Value	true
GEN_TECHOBJ_IDOC	Technology ...				OVS_IFTECH...	Single Value	false
VOL_AVGNOD	Average Nu...					Single Value	true
ALE_AUDITUSAGE	Is ALE Audit...			AGS_DCM_Y...		Single Value	false

Generic Export / Import of Interface Documentation Data

- Export / Import in Solution Administration brings selected Solution Documentation content to another context (another solution in the same Solution Manager system, or to a different Solution Manager system)
- Interface Documentation is part of this Export / Import feature:
 - Interface Details elements in scope are automatically included into the export file
 - By importing the file into the target context the Interface Details elements are automatically created and assigned to the right interface objects



Import of SAP PI/PO Enterprise Service Repository Data

- Transaction AGS_DCM_EXT_IMPORT provides an import feature for interface data that resides in an SAP PI/PO Enterprise Service Repository (ESR)
- Data is stored in a local file in JSON format and can afterwards be imported into the target solution using Solution Administration's generic import feature
- As a result, an interface is created in Interface Library having the interface attributes as maintained in ESR

The screenshot shows the 'Import of SAP PI/PO Enterprise Service Repository Data' interface. It is divided into several sections:

- Select SAP PI from Solution:** Includes dropdowns for Solution (Interface Documentation and Monitoring), Branch (Maintenance), and PI (XI2).
- Select Interface from SAP PI ESR:** Contains three tables for selection:
 - Software Component Version:** Lists multiple instances of SAP_BASIS.
 - Namespace:** Lists various namespaces including http://sap.com/xi/BASIS, http://sap.com/xi/BASIS/Global, http://sap.com/xi/BASIS/PAF, http://sap.com/xi/ESF, and http://sap.com/xi/NWDemo (which is selected).
 - Object Name:** Lists interface objects such as BusinessPartnerByIDQueryResponseIn, EPM_CreateBusinessTaskIn, EPM_CreateBusinessTask_In, EPM_CreatePurchaseOrderFromStockIn, and EPM_CreatePurchaseOrderFromStock_In (which is selected).
- Specify Additional Interface Data:** Includes dropdowns for PI Installation Type (Dual Stack), Sender Adapter (File Adapter), and Receiver Adapter (Intermediate Document Adapter (ABAP)).
- Generate JSON:** A section with a 'Download JSON' button.

Migration Aspects



Migration of Interface Documentation – General Remarks

- Interface Documentations which were available in projects or solutions in SAP Solution Manager 7.1 are migrated into the new Interface Documentation application as part of Content Activation procedure
- In order to facilitate the new environment some slight changes are made to the content, most importantly:
 - Number of Interface Technologies is reduced – instead, interface subtypes are introduced
 - Old interface attributes are usually migrated into corresponding new attributes, but few attributes are discontinued or merged (to clean up redundant and superfluous attributes)
 - All custom attributes which were assigned to an interface in Solution Manager 7.1 are re-created in Solution Manager 7.2 (in customer namespace)

Target Landscape in Solution Documentation

- While SAP Solution Manager 7.1 projects and solutions only worked with a single leading role for the system landscape, Solution Documentation in SAP Solution Manager 7.2 operates with branches, sites and system roles.
- Since only the target branch of the old project or solution can be defined during Content Activation, it's not clear which combination of site and system role the interface attributes should be transferred to. Thus all combinations of sites and system roles in the target branch are supplied with the same source data set.
- Follow the instructions in SAP note 2343988 to bring the interface attribute data to further branches in the same solution.

Resource Material



You can find further resources here:

- [Data Consistency Management Wiki](#)