



SAP Ariba 

Cloud Integration Gateway Mapping Tool Session - 2

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PUBLIC

THE BEST RUN 

Agenda

- 1 Introduction
- 2 Hands-on
- 3 Common Questions
- 4 Q&A

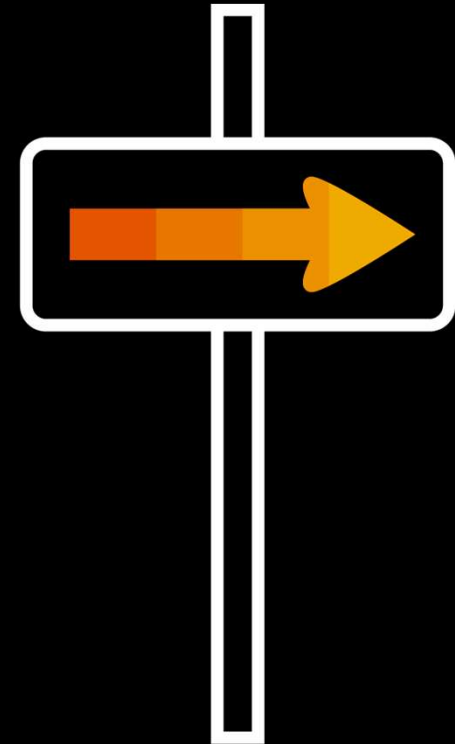


Mapping tool webcast topics - 1

- ① Adding constant
- ① Adding Source/Target Conditions
- ① Create/Replace Node
- ① Functions

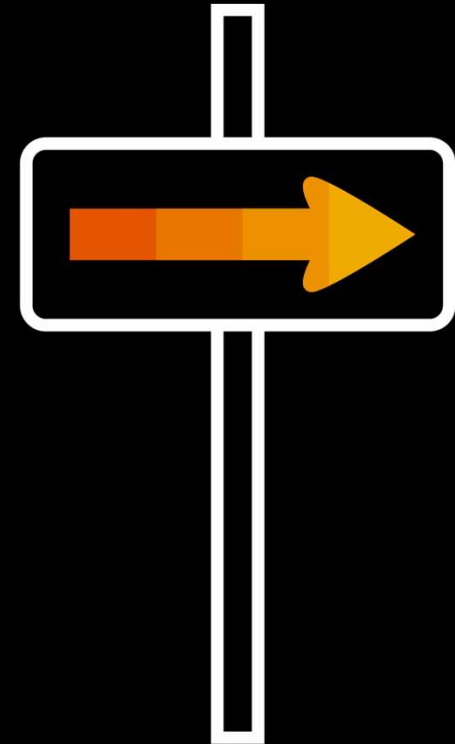
Recording link for the webcast 1 : [Mapping Tool Draft 2 without HK.mp4 \(sharepoint.com\)](#)

Presentation link for the webcast 1 : [CIG Mapping Tool.pptx \(sharepoint.com\)](#)



Mapping tool webcast topics - 2

- ① Choose-When
- ① For-Each
- ① Split Text
- ① Target Variable
 - Add Value Variable
 - Add Position Variable



How to access the CIG Mapping Tool

1. Access CIG through any of the Ariba Solutions.

Cloud Integration Gateway

The cloud integration gateway capability provides a self-service way to integrate SAP Ariba solutions with external ERP systems.

Status: **Enabled**

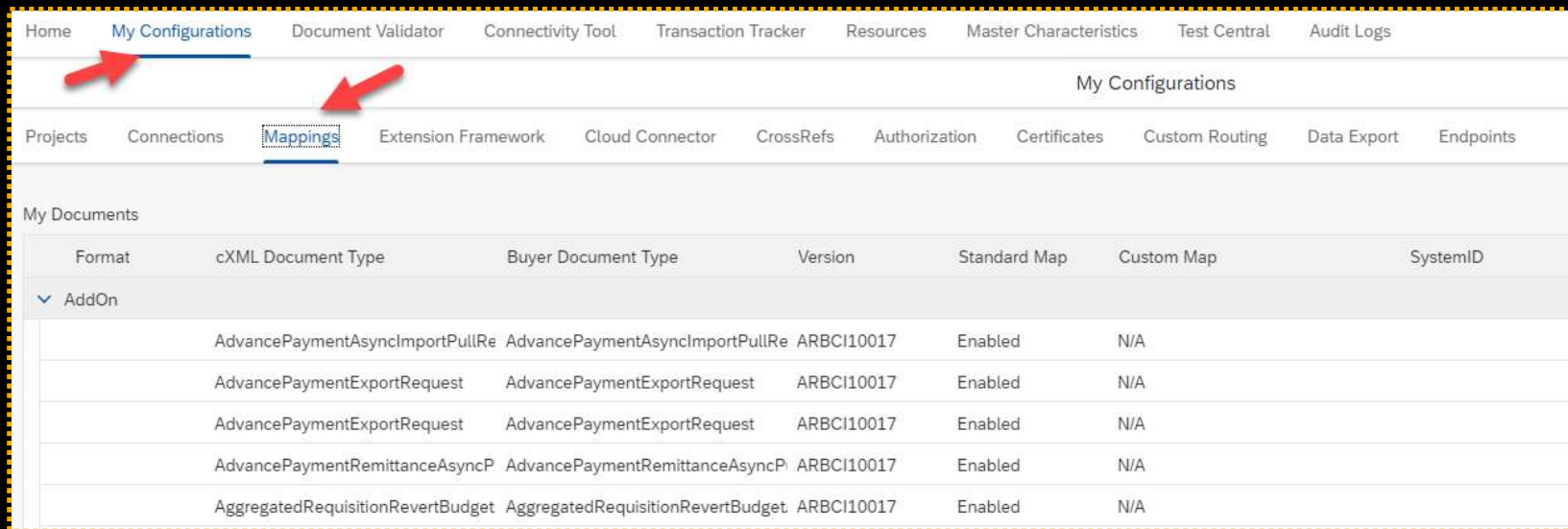
Data Center: **Europe**

[Visit the cloud integration gateway \(Europe Data Center\)](#)



How to access the CIG Mapping Tool

2. Click My Configurations > Mappings.



The screenshot shows the SAP My Configurations page. The top navigation bar includes links for Home, My Configurations, Document Validator, Connectivity Tool, Transaction Tracker, Resources, Master Characteristics, Test Central, and Audit Logs. The My Configurations section contains a sub-menu with links for Projects, Connections, Mappings, Extension Framework, Cloud Connector, CrossRefs, Authorization, Certificates, Custom Routing, Data Export, and Endpoints. The Mappings link is highlighted with a red arrow. Below the navigation is a table titled 'My Documents' with columns for Format, cXML Document Type, Buyer Document Type, Version, Standard Map, Custom Map, and SystemID. A dropdown menu 'AddOn' is visible, showing a list of document types and their configurations.

Format	cXML Document Type	Buyer Document Type	Version	Standard Map	Custom Map	SystemID
▼ AddOn						
	AdvancePaymentAsyncImportPullRe	AdvancePaymentAsyncImportPullRe	ARBCI10017	Enabled	N/A	
	AdvancePaymentExportRequest	AdvancePaymentExportRequest	ARBCI10017	Enabled	N/A	
	AdvancePaymentExportRequest	AdvancePaymentExportRequest	ARBCI10017	Enabled	N/A	
	AdvancePaymentRemittanceAsyncP	AdvancePaymentRemittanceAsyncP	ARBCI10017	Enabled	N/A	
	AggregatedRequisitionRevertBudget	AggregatedRequisitionRevertBudget	ARBCI10017	Enabled	N/A	

CIG Mappings

There are 3 level of mappings:

- **Standard Mapping:** The mappings that are delivered out of the box. These are the mapping transformation that are delivered for each and every document type available in CIG for all customers.
- **Manual Extension Mappings:** Mappings that are developed by CIG Engineering team under special circumstances.
- **Custom Mappings:** The mappings that are created by customers using the CIG Mapping Tool.

Priority of execution:



Mapping Examples

- Idoc to cXML

In the following examples, we are using as reference scenario a Purchase Order (OrderRequest) that is created in SAP ERP sent to CIG as an IDOC to be transformed to a cXML, that will be sent to Ariba Network.

- cXML to Proxy

In the following examples, we are using a reference scenario of a

Purchase Order(PurchaseOrderExportRequest) that is created in Ariba Procurement and sent to CIG as an XML to be transformed to Proxy, that will be sent to SAP ERP



Choose-When

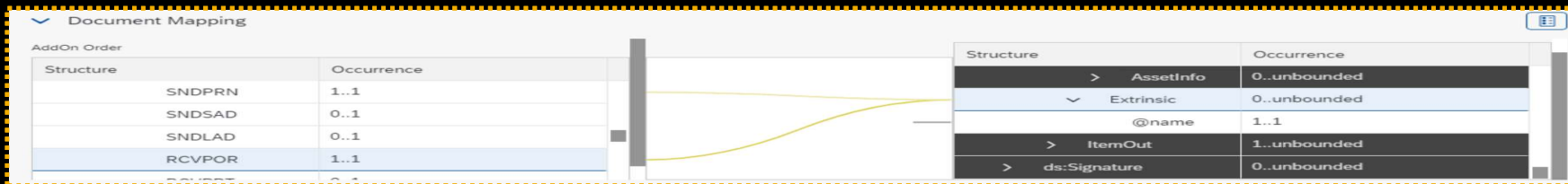
What it does?

You can map one or more source elements to one target element with a condition for each source element. The source elements have a specific order and the first source element that meets the condition is mapped to the target element.

Example:

Source Condition xpaths: ARBCIG_ORDERS/IDoc/EDI_DC40/SNDPRN and ARBCIG_ORDERS/IDoc/EDI_DC40/RCVPOR

Target Condition xpath: cXML/Request/OrderRequest/OrderRequestHeader/Extrinsic



We can also choose the order of the source condition:

The screenshot shows the configuration for the source condition. The target XPath is /cXML/Request/OrderRequest/OrderRequestHeader/Extrinsic. The table below shows the source XPath, order, operator, and value for each condition:

Source XPath	Order	Operator	Value	N.	L.	U.	Reorder	Action
/ARBCIG_ORDE...	1	equal	H82CLNT800	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	↓	🗑️
/ARBCIG_ORDE...	2	none		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	↑	🗑️

Choose-When

Result

When SNDPRN is H82CLNT800

195	<Extrinsic name="AribaNetwork.PaymentTermsExplanation">14 days 3%, 30/2%, 45 net</Extrinsic>	196	<Extrinsic name="AribaNetwork.PaymentTermsExplanation">14 days 3%, 30/2%, 45 net</Extrinsic>
		197	<Extrinsic name="SystemID">H82CLNT800</Extrinsic>

When SNDPRN is not H82CLNT800, the value takes from RCVPOR

195	<Extrinsic name="AribaNetwork.PaymentTermsExplanation">14 days 3%, 30/2%, 45 net</Extrinsic>	196	<Extrinsic name="AribaNetwork.PaymentTermsExplanation">14 days 3%, 30/2%, 45 net</Extrinsic>
		197	<Extrinsic name="SystemID">CIGPORT</Extrinsic>

Important:

The Value field is mandatory, except when you select the none operator. The none operator is allowed for the last source element. This mapping will be executed if no condition will be true.

If there is only one line left in the Choose-When dialog, it is not possible to delete it.

More information can be found on [How to map more than one source element to a target element | SAP Help Portal](#)

Mapping Tool Limitations found on [What are the CIG Mapping Tool limitations?](#)

For-Each

What it does?

Use the For-Each node to create a target node set by looping over a source element.

Example:

For-Each E1EDP01/E1EDP19 repeat the OrderRequest/ItemOut/Contact in Target structure

The screenshot shows the SAP Document Mapping tool interface. On the left, the source structure 'AddOn Order' is displayed with the following table:

Structure	Occurrence
IDOCTYP	1..1
CIMTYP	0..1
MESTYP	0..1
MESCOD	0..1

On the right, the target structure 'cXML OrderRequest' is displayed with the following table:

Structure	Occurrence
ItemOut	0..unbounded

A context menu is open over the 'ItemOut' node, showing options: Duplicate Node, Create/Replace Node, For-Each, and Delete Node.



The screenshot shows a dialog box titled 'Select a source looping structure'. It contains a table with the following data:

Structure	Occurrence
ARBCIG_ORDERS	1..1
IDOC	1..1

The screenshot shows the SAP Document Mapping tool interface after configuration. The source structure 'AddOn Order' is updated with the following table:

Structure	Occurrence
E1EDPA1	0..8
E1EDP19	0..5
@SEGMENT	1..1
QUALF	0..1

The target structure 'Request' is updated with the following table:

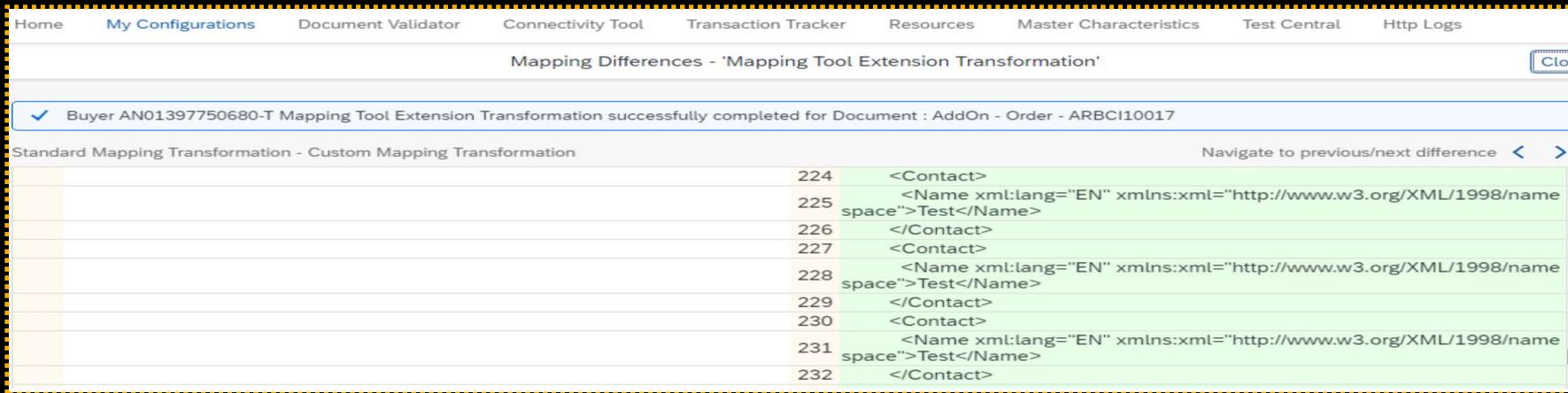
Structure	Occurrence
Distribution	0..unbounded
Contact	0..unbounded
@role	0..1
@addressID	0..1

A tooltip is displayed over the 'Contact' node with the following text: 'For-Each over element with XPath: /ARBCIG_ORDERS/IDOC/E1EDP01/E1EDP19 Full XPath: /ARBCIG_ORDERS/IDOC/E1EDP01/E1EDP19 in document AddOn Order'.

For-Each

Result

OrderRequest/ItemOut/Contact is repeated 4 times as per E1EDP01/E1EDP19



The screenshot shows the SAP Mapping Tool Extension Transformation interface. The title bar reads "Mapping Differences - 'Mapping Tool Extension Transformation'". A status bar indicates: "Buyer AN01397750680-T Mapping Tool Extension Transformation successfully completed for Document : AddOn - Order - ARBC110017". Below this, a table displays the XML output for a For-Each loop. The table has two columns: "Standard Mapping Transformation" and "Custom Mapping Transformation". The XML output is as follows:

Standard Mapping Transformation	Custom Mapping Transformation
	224 <Contact>
	225 <Name xml:lang="EN" xmlns:xml="http://www.w3.org/XML/1998/name
	226 space">Test</Name>
	227 </Contact>
	228 <Contact>
	229 <Name xml:lang="EN" xmlns:xml="http://www.w3.org/XML/1998/name
	230 space">Test</Name>
	231 </Contact>
	232 <Contact>
	233 <Name xml:lang="EN" xmlns:xml="http://www.w3.org/XML/1998/name
	234 space">Test</Name>
	235 </Contact>

Important:

To add a condition, select a node on the source table, and select Add Condition from the context menu. This condition has the same restrictions as the conditions for the regular mappings.

You can also add Target Variable for For-Each.

Mark a repeatable leaf or a mixed type element with a For-Each marker additionally to the regular mapping. This allows you to create example multiple extrinsic with the For-Each marker.

Please note that the For-Each function's purpose is to create new repeatable structures, and not to update the existing values of a looped structure. This means that the For-Each will only work for non-standardly repeated segments (e.g. PO_EXTENSIONIN/item for PurchaseOrderExportRequest). If the structure needed is already repeated by standard (e.g. PO_ITEMS/item for PurchaseOrderExportRequest), then the Position / Variable loop should be used.

More information can be found on [How to create a target node set | SAP Help Portal](#) and [How to use the For-Each function on the CIG Mapping Tool?](#)

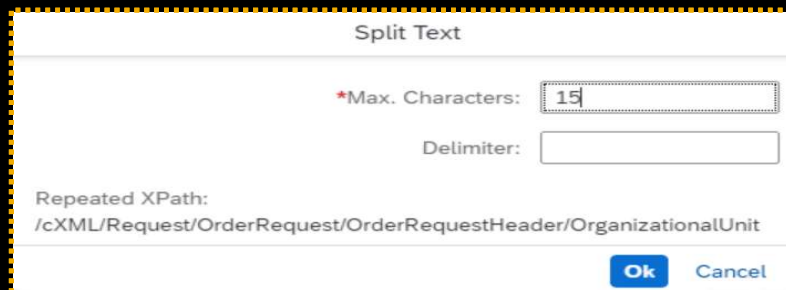
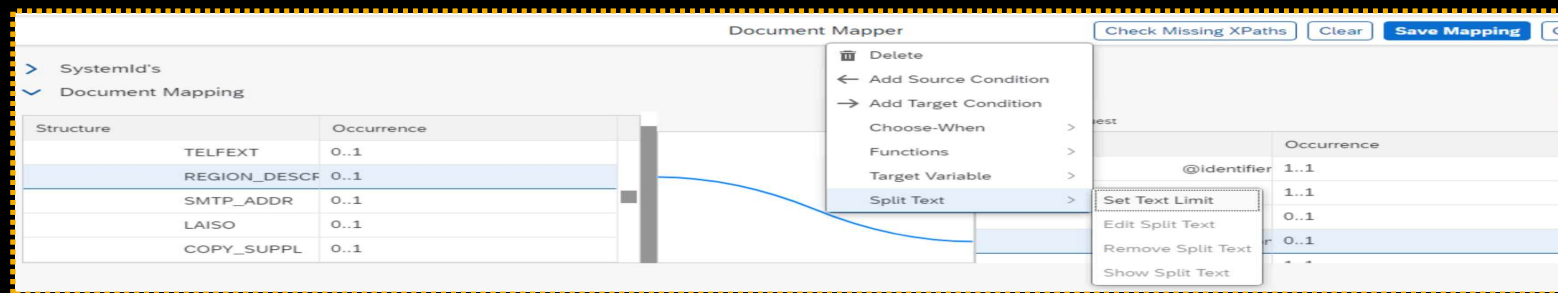
Split Text

What it does?

Specify the parameters for splitting the lines in the text descriptions into multiple lines for each transaction.

Example:

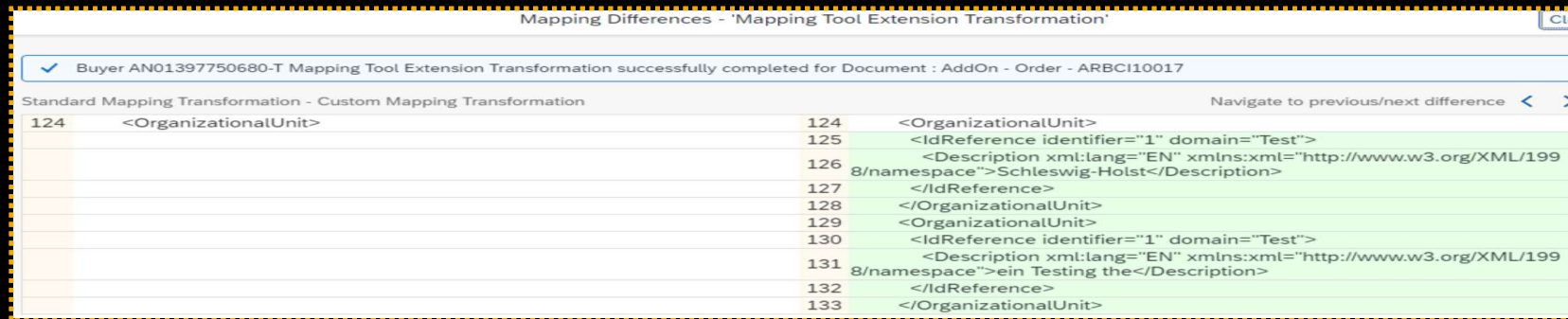
Map E1EDKA1/E1ARBCIG_PARTNER_INFO/REGION_DESCRIPTION to OrderRequest/OrderRequestHeader/OrganizationalUnit/IdReference/Description



Split Text

Result

OrganizationalUnit segment is repeated based to Set text limit as 15 for the Description field in Target structure



The screenshot displays the 'Mapping Differences - Mapping Tool Extension Transformation' window. A success message at the top indicates that the mapping tool extension transformation for document 'AddOn - Order - ARBCI10017' has been completed. Below this, a table compares the source XML (Standard Mapping Transformation) with the target XML (Custom Mapping Transformation). The source XML shows a single <OrganizationalUnit> element with a <Description> field containing the text 'Schleswig-Holst'. The target XML shows the same <OrganizationalUnit> element, but the <Description> field has been split into two lines: 'Schleswig-Holst' and 'ein Testing the'. The line numbers in the target XML (125-133) correspond to the source XML (124-133).

Standard Mapping Transformation - Custom Mapping Transformation	
124	<OrganizationalUnit>
	<IdReference identifier="1" domain="Test">
	<Description xml:lang="EN" xmlns:xml="http://www.w3.org/XML/1998/namespace">Schleswig-Holst</Description>
	</IdReference>
	</OrganizationalUnit>
	<OrganizationalUnit>
	<IdReference identifier="1" domain="Test">
	<Description xml:lang="EN" xmlns:xml="http://www.w3.org/XML/1998/namespace">ein Testing the</Description>
	</IdReference>
	</OrganizationalUnit>

Important:

Max. Characters: Allows you to specify the maximum number of characters allowed per line in the text description. This is a mandatory parameter. Ensure that you enter only positive integer values.

Delimiter: Allows you to specify a delimiter to split the line (line breaks) in the text description. This is an optional parameter. You can specify both the Max. Characters and Delimiter parameters for the target element.

More information can be found on:

- [How to specify the parameters for splitting the lines in the text descriptions | SAP Help Portal](#)
- [Why Split Text function from CIG mapping tool does not work?](#)
- [Split Text Function in CIG Mapping Tool gives error: Creating split text loop failed, selected node is an invalid node of the split text mapping.](#)

Target Variable

What it does?

The target variable allows you to map source values to the target matching the target's occurrence position(position variable) or matching element value/content (value or content variable).

When creating the Target Variable, you have to choose between position or value. This conditions are usually used when you are mapping the fields that are line-item level and you have more than one line item

Target Position Variable

To map source values to the target matching the target's occurrence position. Use position variable when you have same number of repeated segments in source and target

Target Value Variable

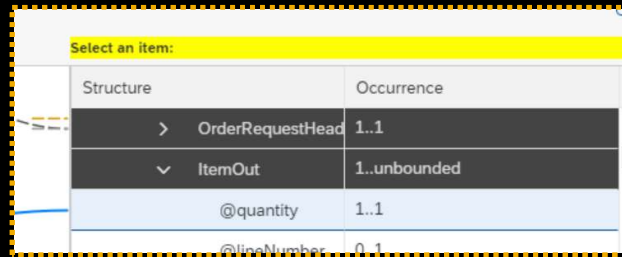
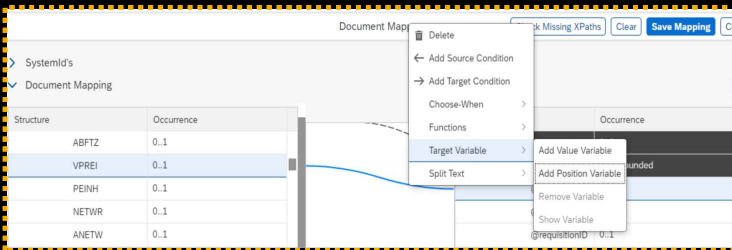
The Target Value Variable implements a conditional mapping that applies the mapping to a target matching a source condition of the Value Variable type.

Use Value variable when you have a unique field that is repeated same number of times in source and target

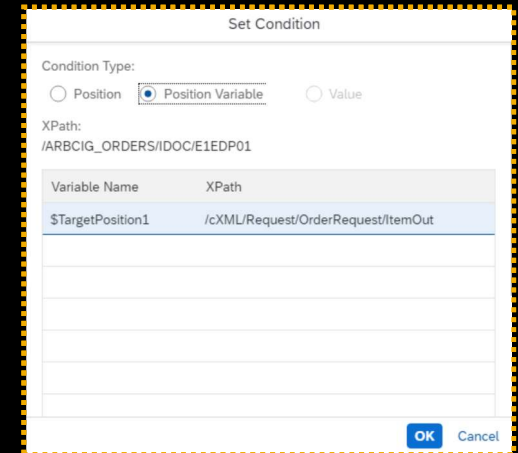
Target Position Variable

Examples Map E1EDP01/VPREI to Target ItemOut/Quantity with a PO contains 2 line items

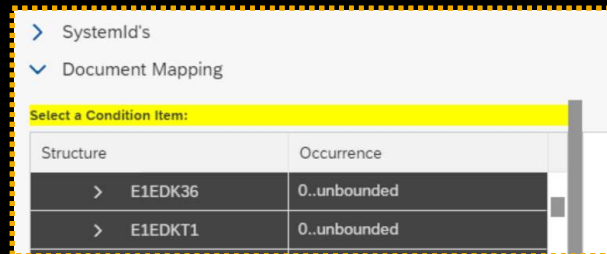
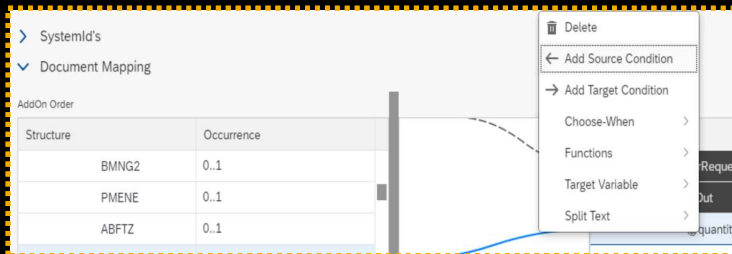
Step 1: Add Target position Variable and select ItemOut



Step 3: Select Position Variable in the Set Condition screen



Step 2: Add Source condition and select E1EDP01



Target Position Variable

Result

Before using Target position variable – The Value of quantity is getting concatenated from 2 line items

245	</ItemOut>	248	</ItemOut>
246	<ItemOut quantity="3.000" lineNumber="00020" requestedDeliveryDate="2022-10-26T12:00:00-04:00">	249	<ItemOut quantity="35" lineNumber="00020" requestedDeliveryDate="2022-10-26T12:00:00-04:00">
247	<ItemID>	250	<ItemID>

After using Target position variable

196	</OrderRequestHeader>	199	</OrderRequestHeader>
197	<ItemOut quantity="3.000" lineNumber="00010" requestedDeliveryDate="2022-10-26T12:00:00-04:00">	200	<ItemOut quantity="3" lineNumber="00010" requestedDeliveryDate="2022-10-26T12:00:00-04:00">
198	<ItemID>	201	<ItemID>

Important

More Information can be found on:

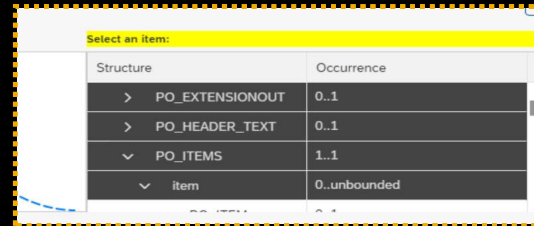
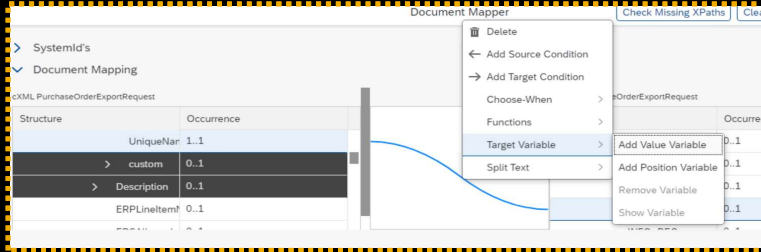
- [How to add target position variable | SAP Help Portal](#)
- [Why is the target field showing multiple values if I have more than one line item?](#)

Target Value Variable

Examples

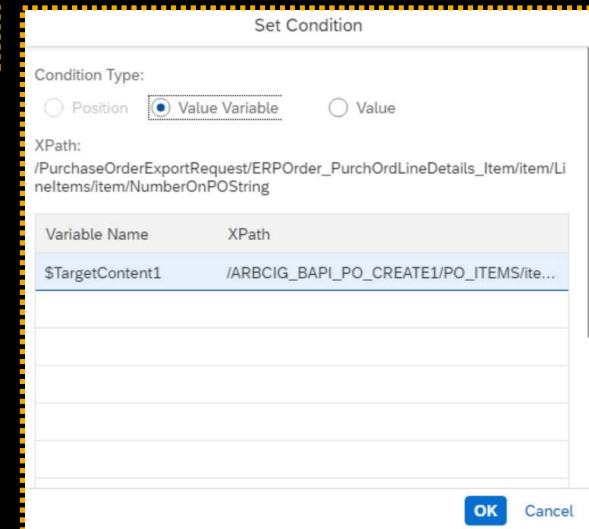
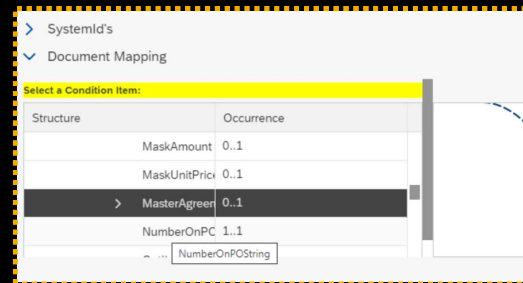
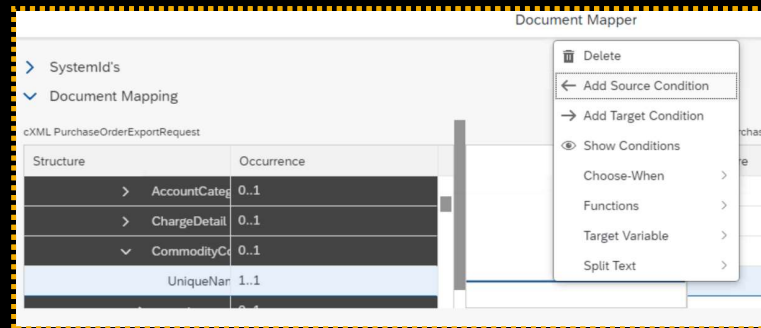
PurchaseOrderExportRequest/ERPOrder_PurchOrdLineDetails_Item/Item/LinItems/Item/CommodityCode/Unique Name to Target PO_ITEMS/item/MATL_GROUP with a PO contains 2 line items

Step 1: Add Target Value Variable and select PO_ITEMS/Item/PO_ITEM



Step 3: Select Value Variable in the Set Condition screen

Step 2: Add Source condition and select ERPOrder_PurchOrdLineDetails_Item/Item/LinItems/Item/NumberOnPOString



Target Value Variable

Result

Before using Target value variable – The Value of MATL_GROUP is getting concatenated from 2 line items

33	<PLANT>3000</PLANT>	38	<PLANT>3000</PLANT>
34	<MATL_GROUP>49000000</MATL_GROUP>	39	<MATL_GROUP>490000005000000</MATL_GROUP>
35	<VEND_MAT>MainItem</VEND_MAT>	40	<VEND_MAT>MainItem</VEND_MAT>

After using Target value variable

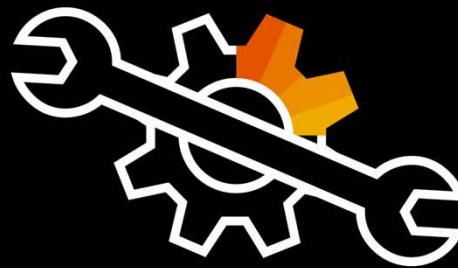
33	<PLANT>3000</PLANT>	38	<PLANT>3000</PLANT>
34	<MATL_GROUP>49000000</MATL_GROUP>	39	<MATL_GROUP>49000000</MATL_GROUP>
35	<VEND_MAT>MainItem</VEND_MAT>	40	<VEND_MAT>MainItem</VEND_MAT>

Important

More information can be found on:

- [How to add target value variable | SAP Help Portal](#)
- [How can I perform the loop function in CIG with value variable?](#)

Common Questions



How to handle complex mappings?

If the requirement is too complex to be met with the features and functions available in the mapping tool, we can handle the logic in the SAP ERP using BAdI. For inbound documents in the ERP we can map the information to extension segments and for outbound documents sent from ERP to CIG, we can perform the required transformation in the data before sending to CIG.

I need to perform a complex mapping, why should I handle this using BAdI?

- We can create complex logics using BAdI.
- Having the logic in your own environment decreases the dependency when you have to make any changes.
- EXTENSIONIN segments are available to be used to store information that will be handled in the BAdI.

FAQ Article: [How can I map extension segments in the CIG Mapping Tool?](#)

Where can we get more information?

List of available channels that we can use to get more information about the CIG Mapping tool:

- [CIG Help Portal](#): SAP official documentation about the product.
- [Ariba Knowledge Base](#): Repository of articles created in a daily basis by the team.
- [Documentation for the SAP Ariba Cloud Integration Gateway Mapping Tool](#).
- [Access SAP Ariba CIG \(CIG\) Community](#): Ask our experts a question, engage with other community members, follow latest blogs and stay up-to-date with the latest announcements and features.

Reference Documentation / Support Articles



CIG Community

- <https://community.sap.com/topics/ariba-cloud-integration-gateway>

CIG Help Portal

- https://help.sap.com/viewer/product/ARIBA_CIG/latest/en-US?task=whats_new_task

CIG Mapping Tool Master KBA:

- <https://launchpad.support.sap.com/#/notes/2835469>
- <https://support.ariba.com/item/view/183473>

Documentation for the SAP Ariba Cloud Integration Gateway Mapping Tool

- <https://support.ariba.com/item/view/184627>

BAdIs – Sap Help Portal

- <https://help.sap.com/viewer/12aa7f056c531014aa5bca7aee037e55/latest/en-US/e6d54d3c596f0b26e10000000a11402f.html>

Q&A

Bharath Balakrishnan: TSE, Cloud Integrations

Lavanya Kanatala: TSE, Cloud Integrations

Thales Nascimento: TSE, Cloud Integrations

Marcelo Daros: TSE, Cloud Integrations

Cinthia Guzman Rodrigues: Engineering, Cloud Integrations



Lavanya Kantala, TSE, Cloud Integrations
Thales Nascimento, TSE, Cloud Integrations