



SAP Ariba 

# Cloud Integration Gateway Mapping Tool Session

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November 2, 2022

PUBLIC

THE BEST RUN 

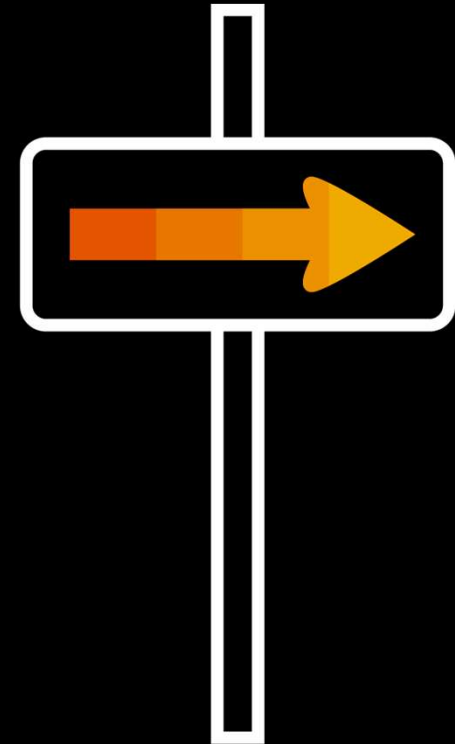
# Agenda

- 5 Introduction
- 30 Hands-on
- 10 Common Questions
- 15 Q&A



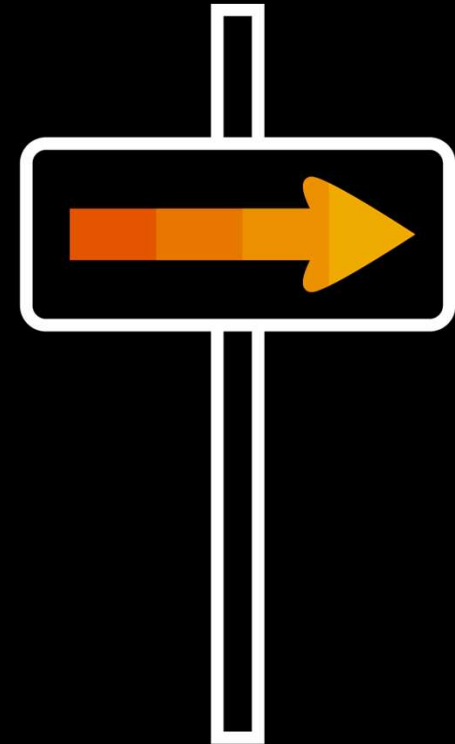
# Mapping tool webcast topics - 1

- ① Adding constant
- ① Adding Source/Target Conditions
- ① Create/Replace Node
- ① Functions
  - Add Concat Function
  - Add Substring Function
  - Add Translation Function
  - Add Normalize Function
  - Add Uppercase Function
  - Add Lowercase Function
  - Add Format Date Function
  - Add Format Number Function



## 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**

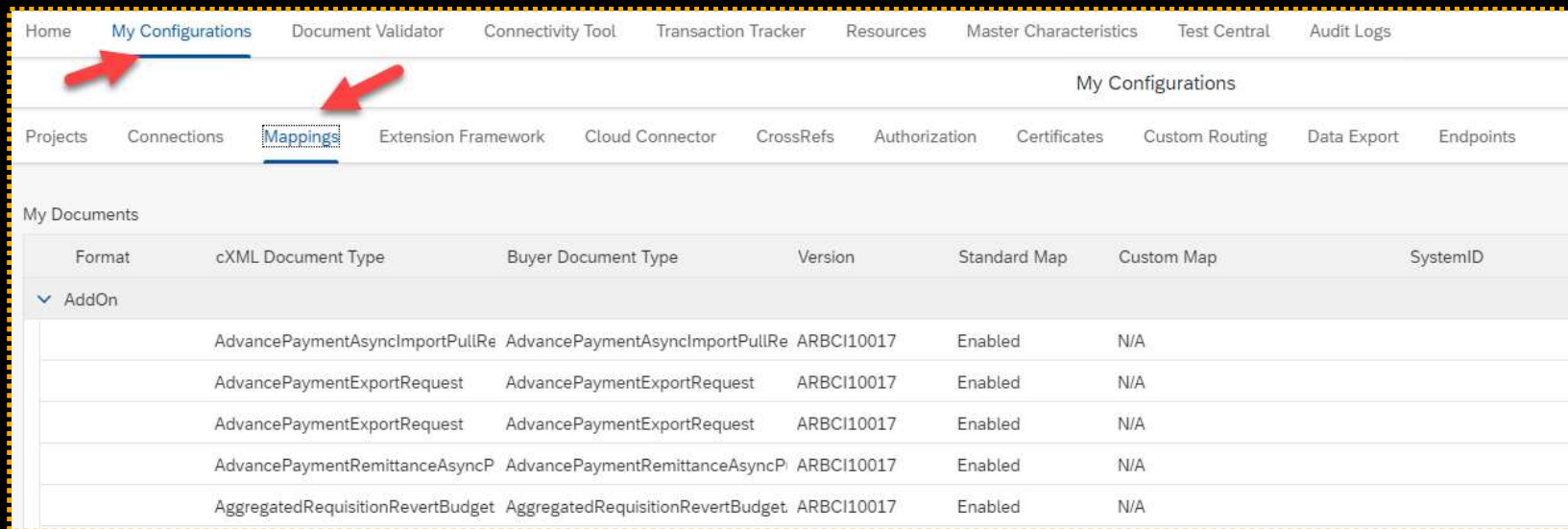
Data Center: **Europe**

[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 expanded, showing five rows of document type mappings.

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:



## Basic scenarios

- 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.





# 1:1 Mappings

## What it does?

Map a field from source payload to target payload.

**Example:** Map E1EDK01/BSART to OrderRequest/OrderRequestHeader/Extrinsic



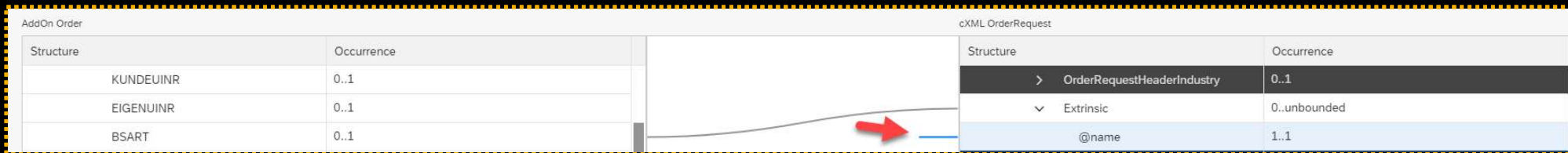
# Constants

## What it does?

Add a static value to a target field.

## Example:

Add a static value "DocumentType" to OrderRequest/OrderRequestHeader/Extrinsic/@name



## Result:



# Source and Target conditions

## What it does?

Buyers can add conditions for the mappings to be considered or not. These conditions can be applied both in Source and Target structures.

**Example:** If E1EDK02/QUALF = 012, map BELNR to OrderRequestHeader/@parentAgreementID

> E1EDK05	0..16
> E1EDKA1	0..unbounded
▼ E1EDK02	0..10
@SEGMENT	1..1
QUALF	0..1
BELNR	0..1
POSNR	0..1
DATUM	0..1
UZEIT	0..1
> E1EDK17	0..4
> E1EDK18	0..3

@orderId
@orderDate
@orderType
@releaseRequired
@type
@orderVersion
@isInternalVersion
@parentAgreementID
@parentAgreementPayloadID
@effectiveDate
@expirationDate



Set Condition

Condition Type:  
 Position  Value

XPath:  
/ARBCIG\_ORDERS/DOC/E1EDK02/QUALF

Value List

No data

Value to be applied for condition:  
012

OK Cancel

## Create/Replace Node

### What it does?

The Create/Replace Node works to force the creation of the segment. It means that if a specific segment isn't populated by standard for any reason, we can use the Create/Replace Node to make sure that it will be generated in the Outbound.

### Example:

In a PurchaseOrderExportRequest (B&I POs) we have the segment PO\_EXTENSIONIN, which isn't used by standard. In this case, if we don't add the Create/Replace Node, this segment won't be generated in the outbound.



# Create/Replace Node

## Without the Create/Replace Node

PO_EXTENSIONIN	0..1
item	0..unbounded
STRUCTURE	0..1
VALUEPART1	0..1
VALUEPART2	0..1
VALUEPART3	0..1
VALUEPART4	0..1

## Result

17	</PO_HEADER>
18	<VARIANT> </VARIANT>
19	<PO_ADDRDELIVERY/>
20	<PO_COND/>
21	<PO_CONTRACT_LIMITS/>
22	<PO_HEADER_TEXT>

## With the Create/Replace Node

PO_EXTENSIONIN	0..1
item	0..unbounded
STRUCTURE	0..1
VALUEPART1	0..1
VALUEPART2	0..1
VALUEPART3	0..1
VALUEPART4	0..1

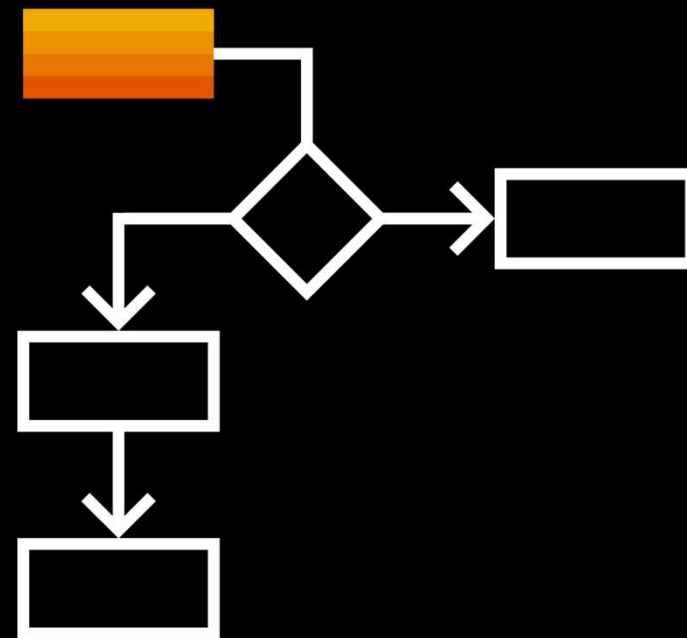
## Result

</PO_HEADER>
<VARIANT> </VARIANT>
<PO_ADDRDELIVERY/>
<PO_COND/>
<PO_CONTRACT_LIMITS/>
<PO_EXTENSIONIN>
<item>
<STRUCTURE>1</STRUCTURE>
</item>
</PO_EXTENSIONIN>

# Functions

## What are they?

There are some Functions delivered in the CIG Mapping Tool to fulfill the need to perform some specific logics. In this presentation, we will go through all the existing functions that we currently have in the CIG Mapping Tool.



# Concat

## What it does?





The Concat function works to mix until 3 source fields into the same target field. In this example, we will be concatenating 2 source fields, separated by “-”:

The image shows a sequence of steps in SAP ABAP:

- Function Selection:** A menu is open with 'Functions' selected. The 'Add Function ...' sub-menu is active, and 'Add Concat Function' is highlighted.
- Field Selection:** A table of fields is shown. A red arrow points to the 'UniqueName' field in the 'Supplier' structure.
- Concat Dialog:** A dialog box titled 'Concat' is displayed. It has two input fields: '\*Concat Position:' with the value '2' and 'Concat Connecting Character(s):' with the value '-'. 'OK' and 'Cancel' buttons are at the bottom.
- Field Structure:** The background shows two data structures: 'Supplier' and 'SupplierLocation'. The 'Supplier' structure includes fields like 'UniqueName' (1..1) and 'SupplierLocation' (0..1).

# Concat

We can also choose the order of the Concatenation:

Functions					
Target XPath /ARB_CIG_BAPI_PO_CREATE1/PO_EXTENSIONIN/item/VALUEPART1					
Function	Source XPath	Parameter 1	Parameter 2	Action	
CONCAT		Position	Connection Character(s)	Reorder	
	/PurchaseOrderExportRequest/ERPOrder_PurchOrdHeaderDetails_Item/item/UniqueName	1		↓	 
	• /PurchaseOrderExportRequest/ERPOrder_PurchOrdHeaderDetails_Item/item/custom/CustomString	2	-	↑	 

In our example we changed the order so that the UniqueName will show up before the CustomString text.

## Result

Standard Mapping Transformation - Custom Mapping Transformation		Navigate to previous/next difference < >
22	<PO_EXTENSIONIN>	
23	<item>	
24	<VALUEPART1>EP2009-ABCDEFGHJKLMNOPQRSTUVWXYZ</VALUEPART1>	
25	</item>	
26	</PO_EXTENSIONIN>	

## Important:

The Concat Function doesn't support more than 3 fields concatenation.

Also, it doesn't support the concatenation of the same field. For example, if we try to concatenate 2 CustomString fields, it will throw an error.

More information can be found on [What are the CIG Mapping Tool limitations?](#)

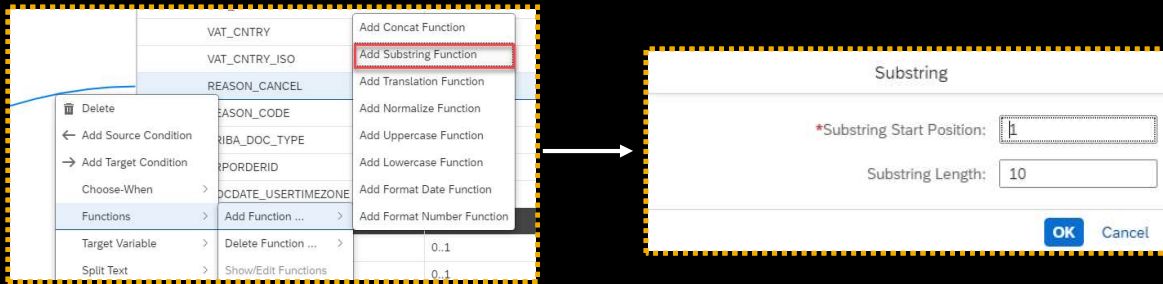
KBA for Concat Function : [How to concatenate fields on CIG using the Mapping Tool](#)



# Substring

## What it does?

This function works for us to truncate the length of the value that we are sending from a source field to a target field. For this we need to set the start position (starting from 1) and the length. In this example, we will select the value from the position 1 to 10:

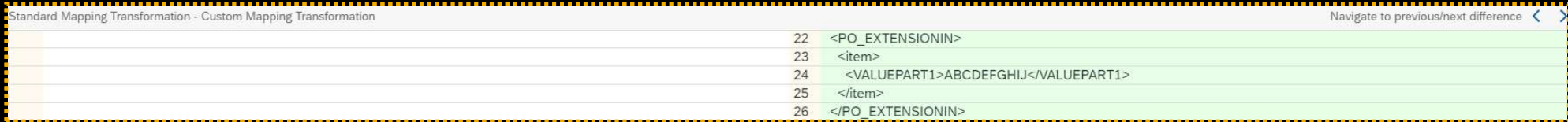


Important: It isn't mandatory for the Substring to start in the position 1. It is possible to take a piece of the value starting from any position.

## Result

Original value:

```
<custom>
  <CustomString name="Text">ABCDEFGHIJKLMNPOQRSTUVWXYZ</CustomString>
</custom>
```



KBA for Substring Function: [How to use substring function in CIG Mapping Tool?](#)

# Translation

## What it does?

The Translation Function works literally to translate a specific value. For example, we can set it for whenever we have the value “A” in the source field, to set it as “B” in the target field.

The image shows two screenshots from the SAP CIG Mapping Tool. The left screenshot shows a menu with 'Add Translation Function' highlighted. The right screenshot shows the 'Translation Function' dialog box with 'Source Value' set to 'A' and 'Target Value' set to 'B'. The 'Otherwise / Default:' dropdown is set to 'Source'. The 'Translation Template' dropdown is also visible.

Important: in the “Otherwise / Default:” section, we can define the value that will be set in the target field if the source field has a different value than the one mentioned in the “Source Value” column. This value can be the exact value that is currently coming in the source field, an empty value or a specific value defined based on the business need.

Also, we can add multiple Source Values in the function.

## Result

Original value:

```
<custom>  
<CustomString name="Text">A</CustomString>
```

The image shows a screenshot of the SAP CIG Mapping Tool displaying the result of the translation function. The mapping transformation is shown as a sequence of XML elements:

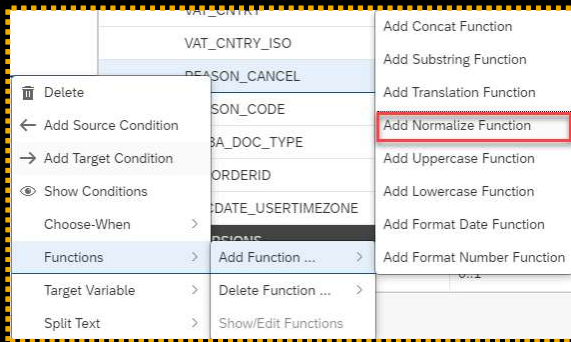
```
Standard Mapping Transformation - Custom Mapping Transformation  
22 <PO_EXTENSIONIN>  
23 <item>  
24 <VALUEPART1>B</VALUEPART1>  
25 </item>  
26 </PO_EXTENSIONIN>
```

KBA for Translation Function: [How to use Translation Function in CIG Mapping Tool?](#)

# Normalize

## What it does?

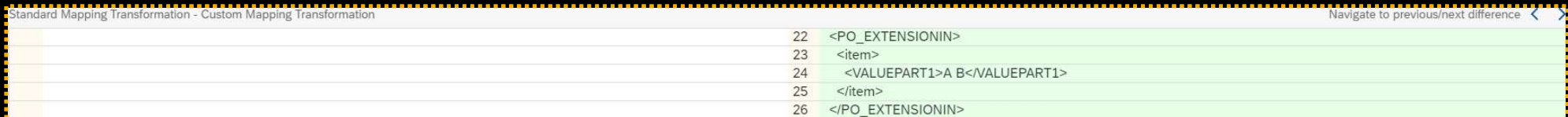
The Normalize Function works to remove the blank spaces on a specific text. For example, if the text is “A B” it will transform the value to “A B”.



Important: The normalize function will never take off all the space. So, even if the value has only 1 space, the value will remain with this 1 space even with the function.

## Result

Original value: `<custom>  
<CustomString name="Text">A B</CustomString>`

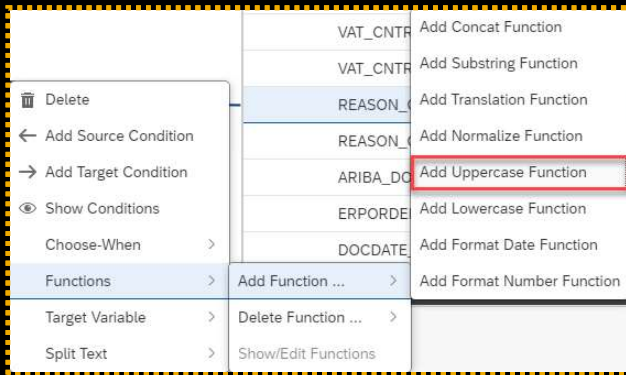


KBA for Normalize Function: [How can I remove blank spaces on CIG mapping?](#)

# Uppercase

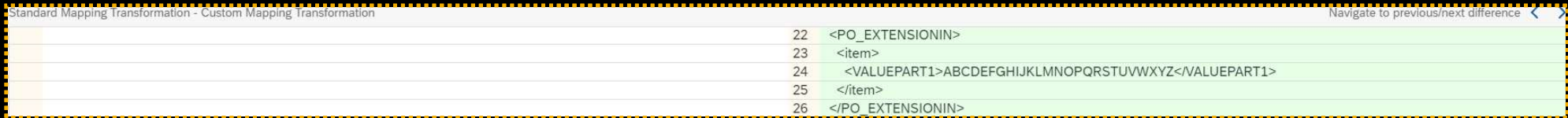
## What it does?

This function works to transform the text entirely to be sent in uppercase for the target field.



## Result

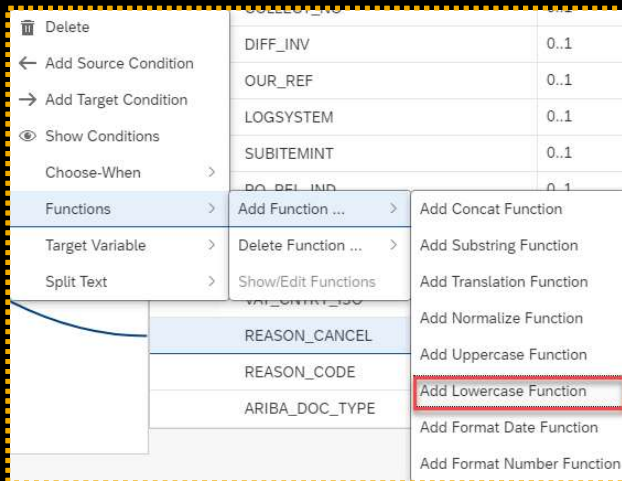
Original value: `<custom>  
<CustomString name="Text">abcdefghijklmnopqrstuvwxyz</CustomString>`



# Lowercase

## What it does?

This function works to transform the text entirely to be sent in lowercase for the target field.



## Result

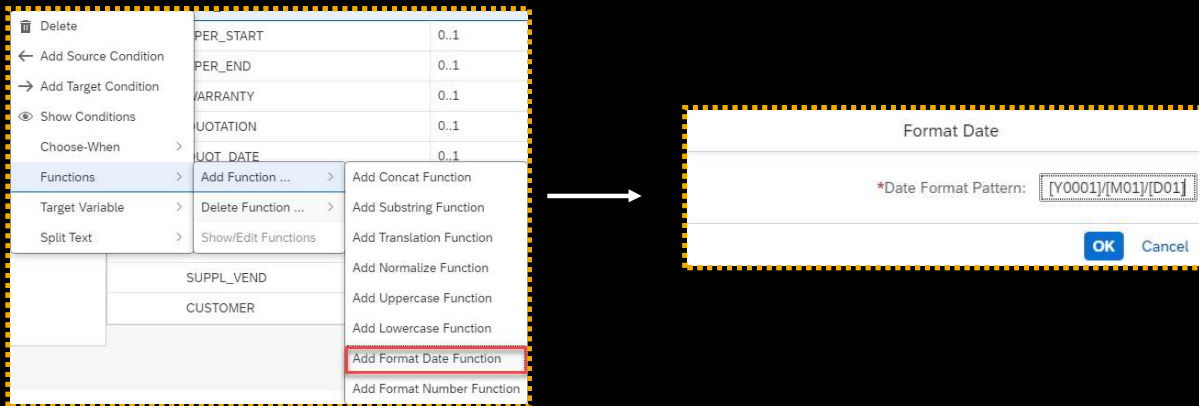
Original value: `<CustomString name="Text">ABCDEFGHIJKLMNOPQRSTUVWXYZ</CustomString>`

Standard Mapping Transformation	Custom Mapping Transformation
	22 <PO_EXTENSIONIN>
	23 <item>
	24 <VALUEPART1>abcdefghijklmnopqrstuvwxyz</VALUEPART1>
	25 </item>
	26 </PO_EXTENSIONIN>

# Date Format

## What it does?

The Date Format Function works to change the format of the date before sending this to the Target Field. For example, with this function is possible to change the Date from 2022-09-30 to 2022/09/30.



Important: To use this function, the years, months and days must be represented as below:

Years: [Y0001]  
Months: [M01]  
Days: [D01]

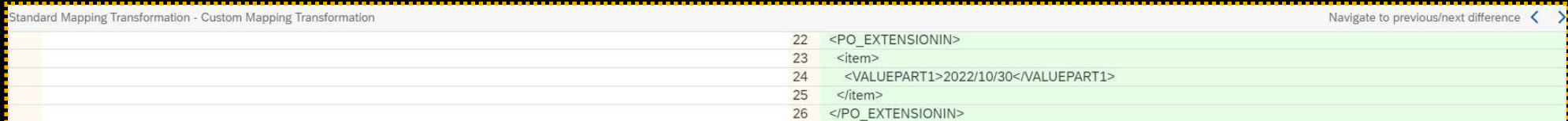
You can also modify the order of the date, for example: [D01]/[M01]/[Y0001]

This way, the date will be 30/09/2022 in the outbound.

The separator isn't mandatory, it means that the date can be transformed to 20220930 as well. However, if the Date in the Source is in this format (20220930) it won't be possible to use this function to format it. The mapping tool will throw an error.

## Result

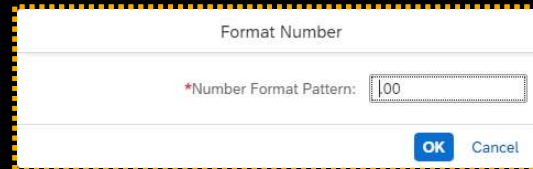
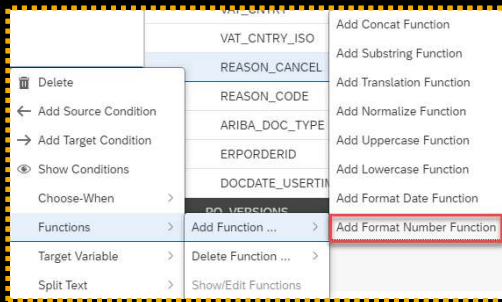
Original value: `<custom>  
<CustomDate name="Date">2022-10-30</CustomDate>`



# Number Format

## What it does?

The Number Format function can be used both to add decimal places and to add/remove leading zeros for a specific number. In this example, we will add 2 decimal places to a specific number.



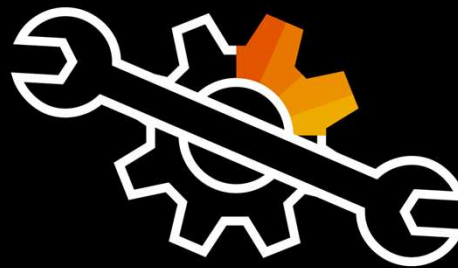
Important: To use this function to add the leading zeros, the Number Format Pattern will be 00000000 (the length will depend on the length needed in the field). For this pattern, the value 1234 will be transformed to 00001234.

## Result

Original value: `<custom>  
<CustomInteger name="Number">1234</CustomInteger>`

Standard Mapping Transformation - Custom Mapping Transformation		Navigate to previous/next difference < >
22	<PO_EXTENSIONIN>	
23	<item>	
24	<VALUEPART1>1234.00</VALUEPART1>	
25	</item>	
26	</PO_EXTENSIONIN>	

## 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.

# 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**

## 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](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/e6d54d3c596f0b26e1000000a11402f.html>



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