



**Synopsis:** This document describes implementation of BECS ALIM connector.

Number: B000xxxxx

Updated: 22<sup>nd</sup> February 2022

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State: Draft

Scope: **BECS connector 5.5x**

# BECS ALIM Connector Documentation

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# 1 BECS (Bentley Enterprise Connection Services)

Bentley Enterprise Connection Services (BECS) is visual integration platform enabling trusted and certified integration between Bentley software and mission critical enterprise applications such as enterprise resource planning (ERP and its flavors such as SAP®, Maximo, Oracle eAM, ...), Document Management systems (DMS), GeoSpatial Systems (GIS), IoT, SCADA or Telemetry systems only by using visual modeling of integration projects. Bentley Enterprise Connection Services orchestrates and automates the flow of data between Bentley applications, such as AssetWise, iTwin, etc. and enterprise applications to provide two-way communications for data creation, updates, and modifications, keeping the data in both systems accurate and up to date.

More info about BECS Connectors at:

<https://bentley.sharepoint.com/sites/BentleyBratislavaTeam/SitePages/BECS-Connectors.aspx>

## 2 BECS ALIM Connector Installation

### 2.1 BECS ALIM Connector prerequisites

BECS ALIM Connector requires:

- BECS Server version 5.5 or higher
- BECS Visual Architect version 5.5 or higher

### 2.2 BECS ALIM Connector Installation Procedure

The whole process of connector installation consists of the following steps:

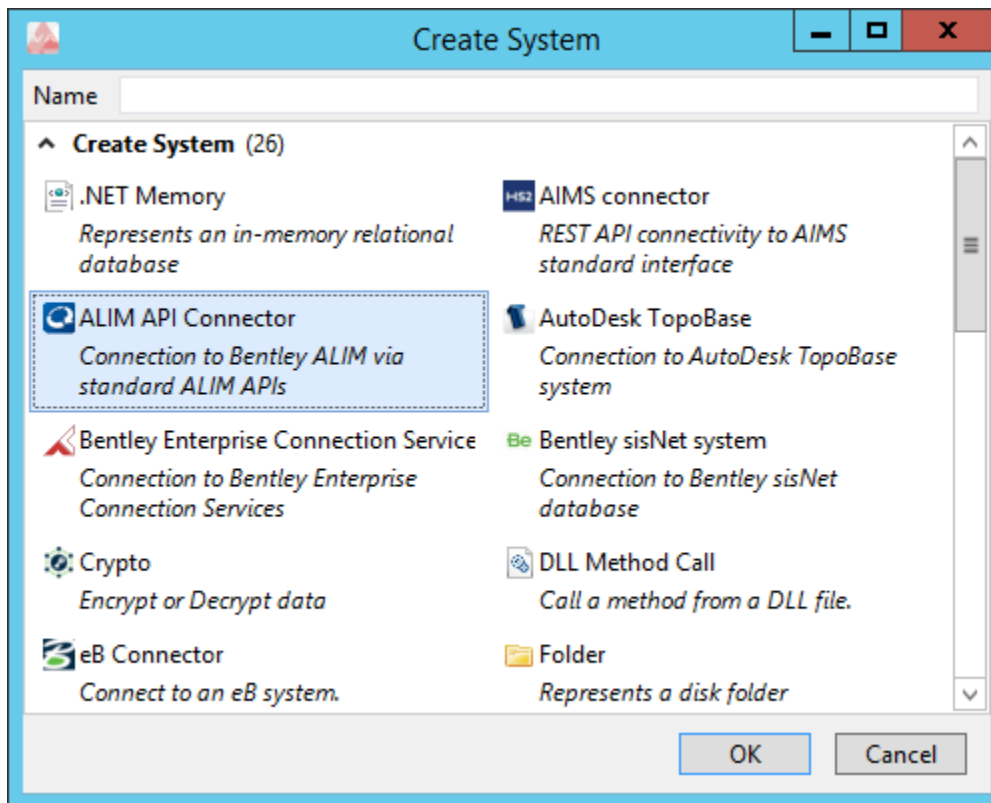
1. Installation of standard BECS package
2. After installation (if standard package does not include ALIM Connector), is necessary copy dll files "Ace.Integrator.ALIM.dll"
3. After installation (if standard package does not include ALIM Connector), is necessary copy dll files "Ace.Integrator.ALIM.dll" to BECS Visual Architect installation path (Architect\Extensions\Application).
4. Product will be after Activation ready to use.

### 2.3 BECS ALIM Connector objects

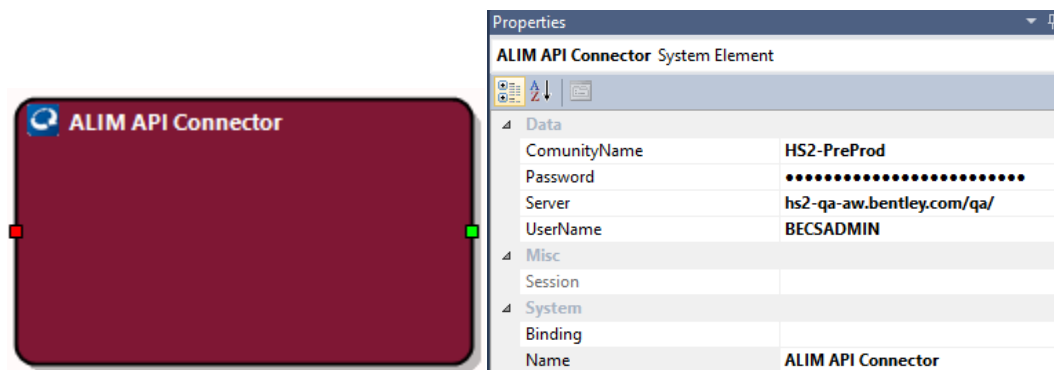
BECS ALIM Connector is from "BECS Connectors family". In a vision to allow same kind of work independent of concrete connector we keep similar object structure for any of BECS Connectors.

Connector consists of:

### 2.3.1 ALIM Connector system object



BECS ALIM Connector has dark red color.

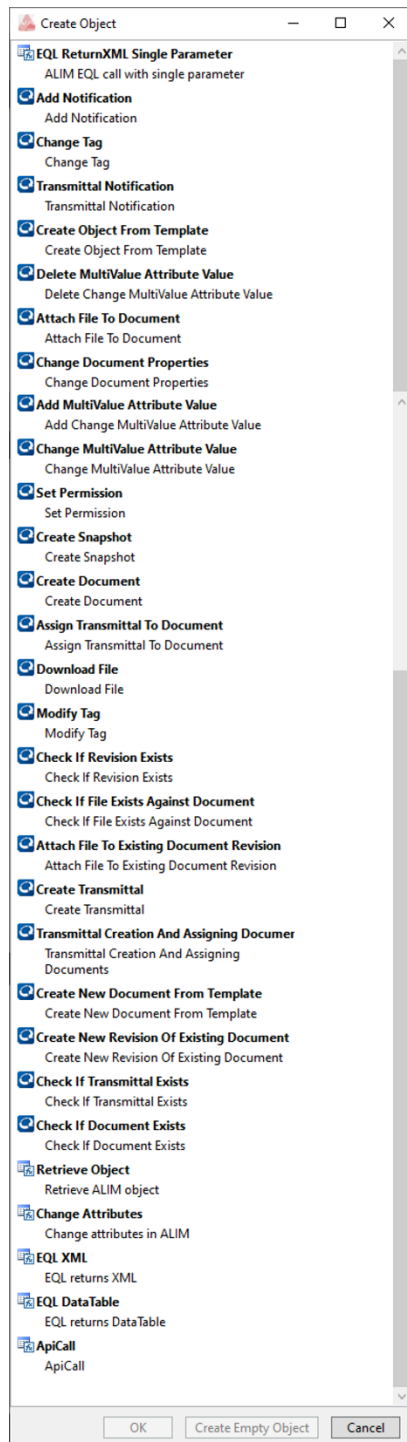


Properties for connection to ALIM system:

- CommunityName
- Password
- Server
- UserName

### 2.3.2 BECS ALIM connector data objects

With BECS ALIM connector it is possible to perform these different operations:



1. EQL ReturnXML Single Parameter
2. Attach File To Document
3. Change Document Properties
4. Create Document
5. Assign Transmittal To Document
6. Modify Tag
7. Check If Revision Exists

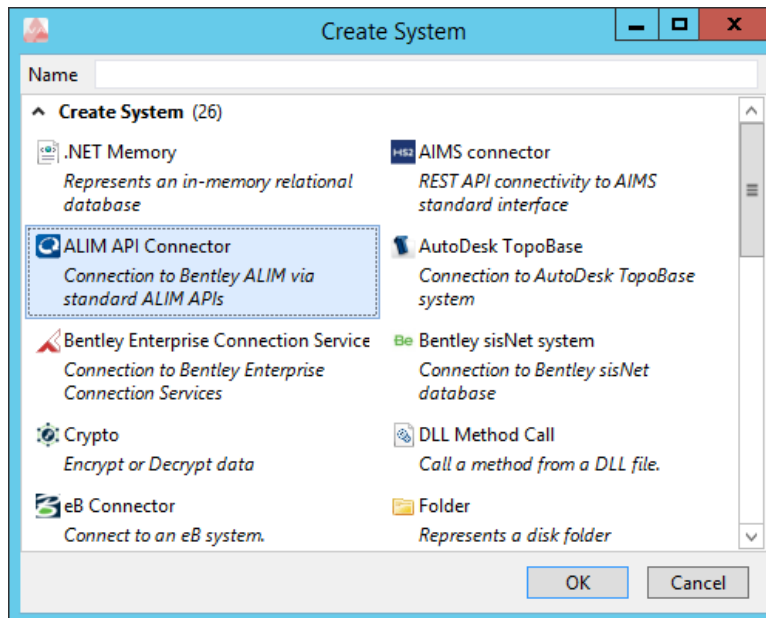
8. Check If File Exists Against Document
9. Attach File To Existing Document Revision
10. Create Transmittal
11. Transmittal Creation And Assigning Document
12. Create New Document From Template
13. Create New Revision Of Existing Document
14. Check If Transmittal Exists
15. Check if Document Exists
16. Retrieve Object
17. Change Attributes
18. EQL XML
19. EQL DataTable
20. ApiCall
21. Create Object From Template
22. Change Tag

## 2.4 BECS ALIM Connector usage

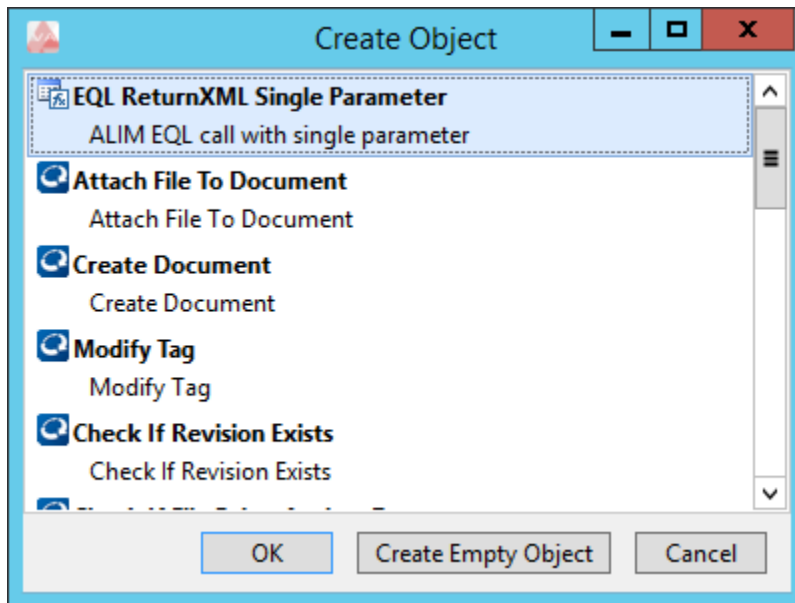
### 2.4.1 Short intro

#### 2.4.1.1 Step by step procedure – EQL ReturnXML Single Parameter

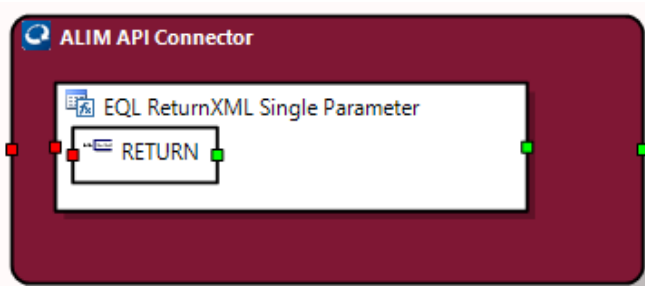
1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:



4. Select ALIM API Connector
5. Drag and drop object
6. Select EQL ReturnXML Single Parameter



7. Read Structure
  - a. Press right mouse button on object and select Read Structure
  - b. After read structure



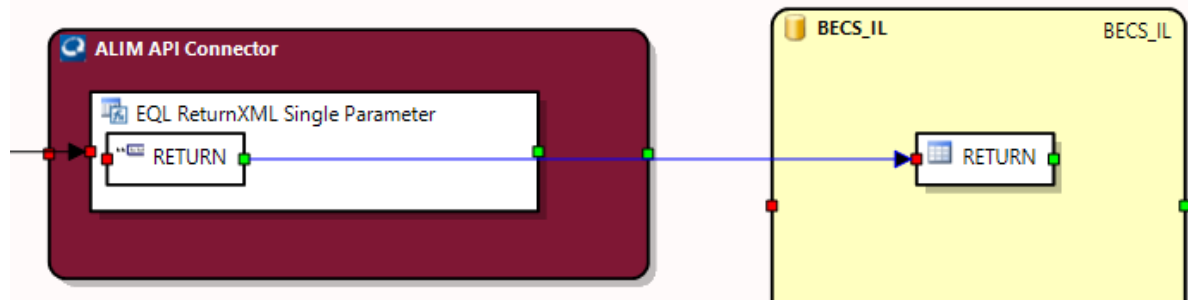
8. Right click to EQL ReturnXML Single Parameter and select Edit Structure. Object has one field for input parameter: EQL, and two for output parameters: XML and HasError

Structure Editor EQL ReturnXML Single Parameter				
Add Add Field type Delete Save Check All Uncheck All Copy Paste Refresh				
Name	DataType	IsIdentity	Name	
<input checked="" type="checkbox"/> EQL	string	<input type="checkbox"/>	EQL	
<input checked="" type="checkbox"/> RETURN	TABLE(Table)	<input type="checkbox"/>	RETURN	
<input checked="" type="checkbox"/> XML	string	<input type="checkbox"/>	XML	
<input checked="" type="checkbox"/> HasError	string	<input type="checkbox"/>	HasError	

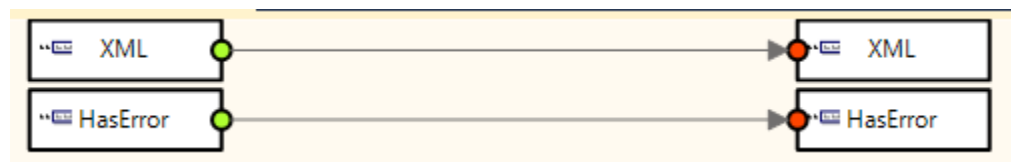
9. Map data from source object in Transformation Page



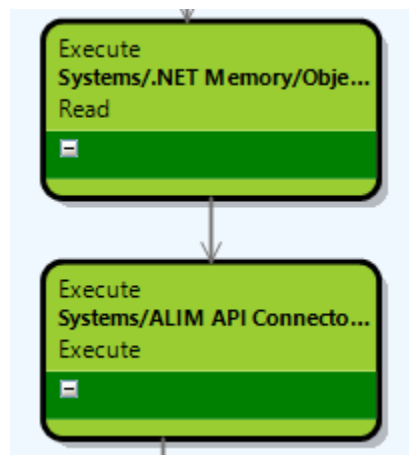
- Set up the destination object to store return of EQL ReturnXML Single Parameter – in this example is used MS SQL DB Connector



- Mapping to SQL object in Transformation Page



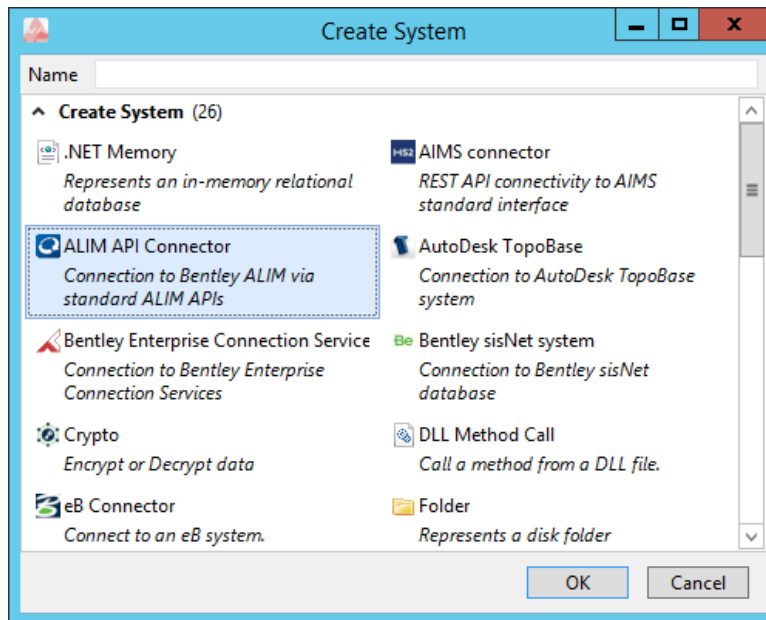
- Set the execution steps to execute EQL ReturnXML Single Parameter in Execution Page



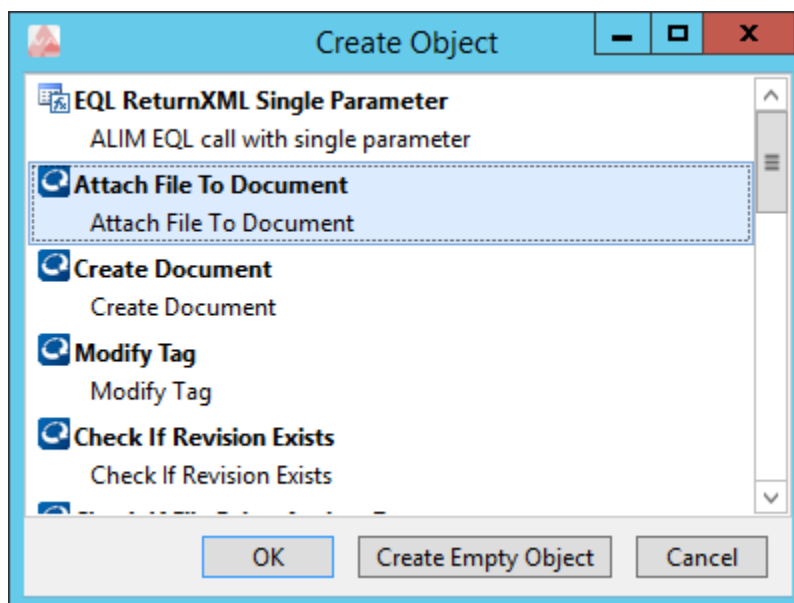
#### 2.4.1.2 Step by step procedure – Attach File To Document

- Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
- Drag and drop System from Toolbox on Data Page
- After dropping the System at the Data Page BECS VA shows following dialog:

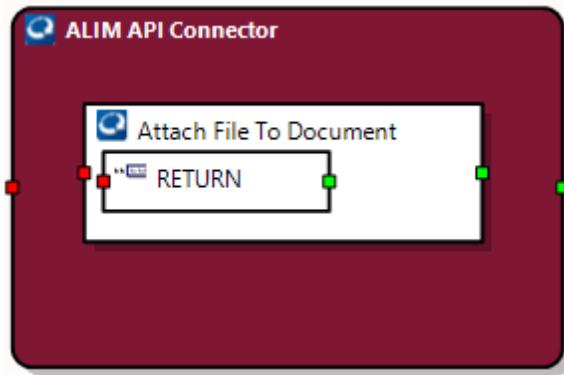




4. Select ALIM Connector
5. Drag and Drop object
6. Select Attach File To Document



7. Read Structure
  - a. Press right mouse button and select Read Structure
  - b. After read structure



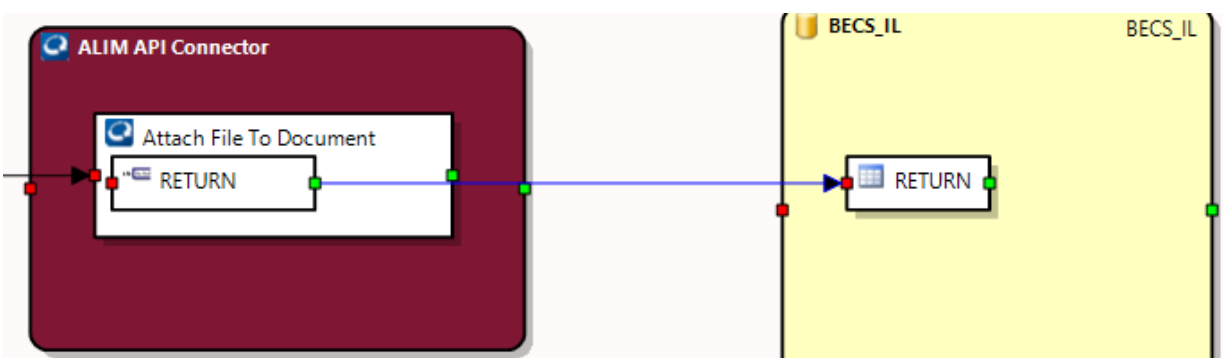
8. Right click to Attach File To Document object and click Edit Structure. Object has two input parameters: Document Id, File Path and two output parameters: Has Error, Message

Structure Editor Attach File To Document				
Add Add Field type Delete Save Check All Uncheck All Copy Paste Refresh				
Name	DataType	IsIdentity	Name	
<input checked="" type="checkbox"/> Document Id	int	<input type="checkbox"/>	Document Id	
<input checked="" type="checkbox"/> File Path	string	<input type="checkbox"/>	File Path	
<input checked="" type="checkbox"/> RETURN	TABLE(Table)	<input type="checkbox"/>	RETURN	
<input checked="" type="checkbox"/> Has Error	string	<input type="checkbox"/>	Has Error	
<input checked="" type="checkbox"/> Message	string	<input type="checkbox"/>	Message	

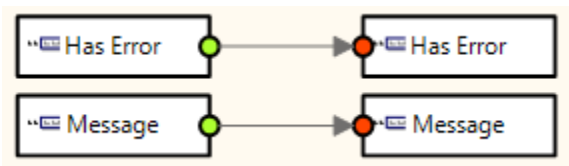
9. Map data from source object in Transformation Page



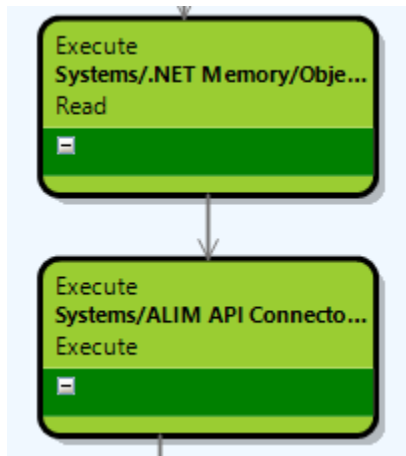
10. Set up the destination object to store return of Attach File To Document – in this example is used MS SQL DB Connector



## 11. Mapping to SQL object in Transformation Page

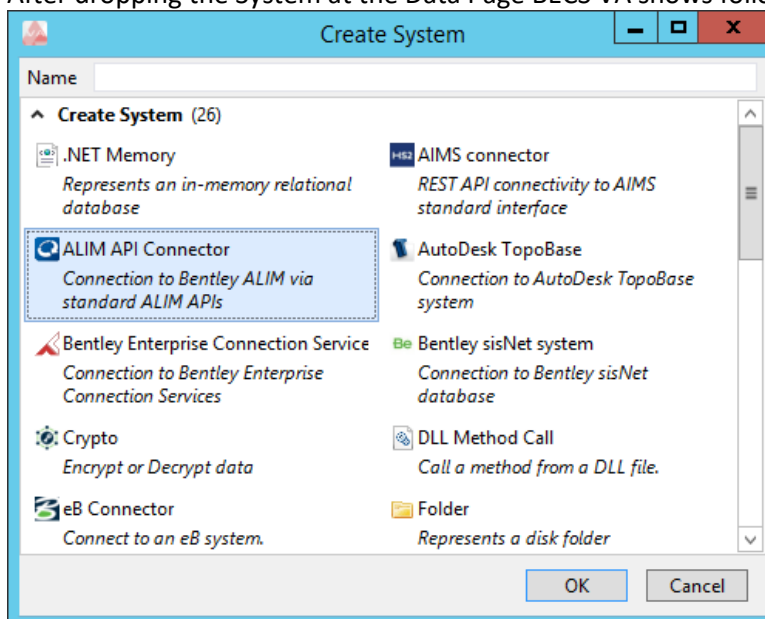


## 12. Set the execution steps to execute Attach File To Document in Execution Page

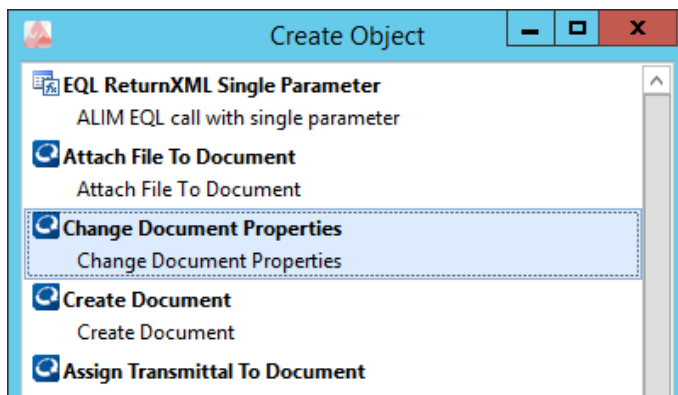


## 2.4.1.3 Step by step procedure – Change Document Properties

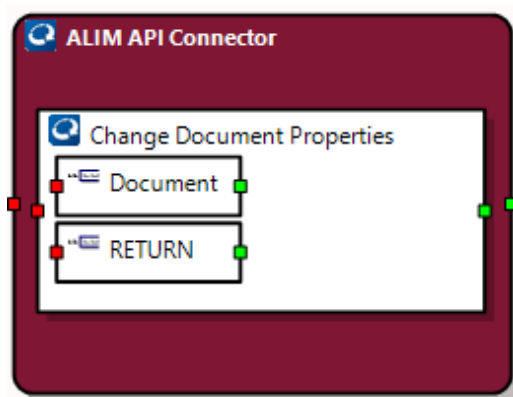
1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:



4. Select ALIM Connector
5. Drag and drop object
6. Select Change Document Properties



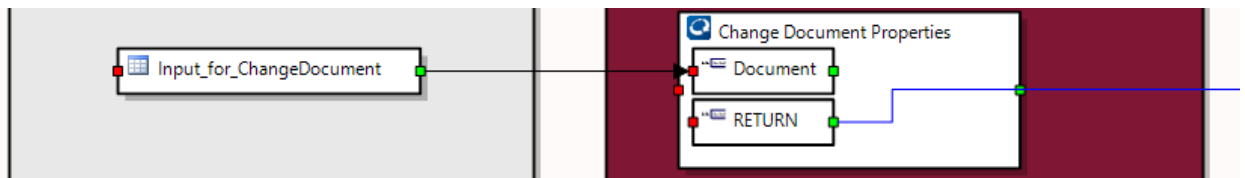
7. Read Structure
  - a. Press right mouse button and select Read Structure
  - b. After read structure



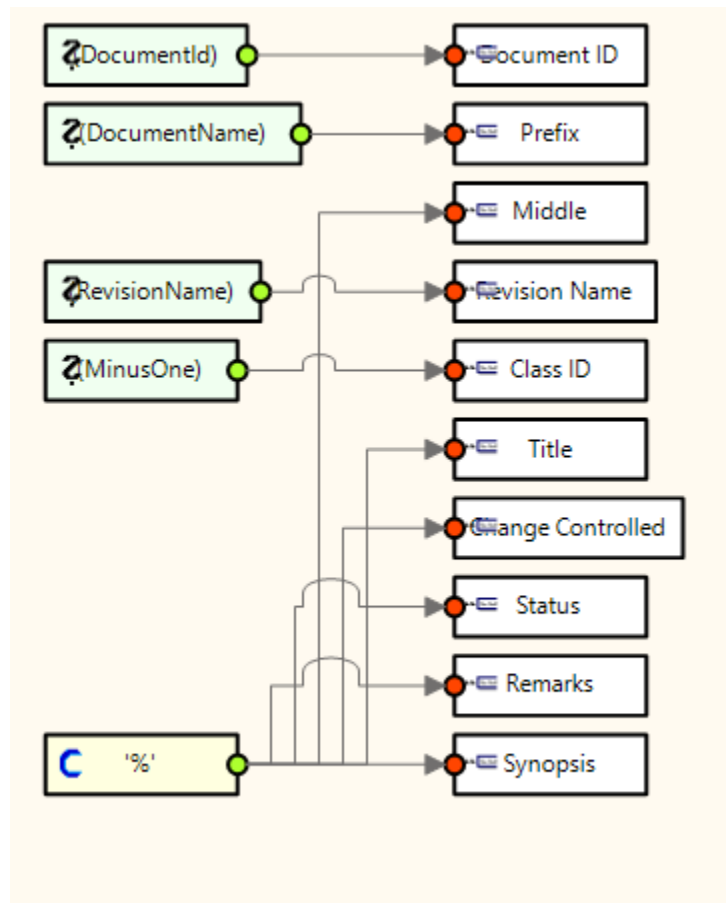
8. Right click to Change Document Properties object and click Edit Structure. Object has ten input parameters and two output parameters: Has Error, Message

Structure Editor Change Document Properties				
Add Add Field type Delete Save Check All Uncheck All Copy				
Name	DataType	IsIdentity	Name	
<input checked="" type="checkbox"/> Document	TABLE(Table)	<input type="checkbox"/>	Document	
<input checked="" type="checkbox"/> Document ID	int	<input type="checkbox"/>	Document ID	
<input checked="" type="checkbox"/> Prefix	string	<input type="checkbox"/>	Prefix	
<input checked="" type="checkbox"/> Middle	string	<input type="checkbox"/>	Middle	
<input checked="" type="checkbox"/> Revision Name	string	<input type="checkbox"/>	Revision Name	
<input checked="" type="checkbox"/> Class ID	int	<input type="checkbox"/>	Class ID	
<input checked="" type="checkbox"/> Title	string	<input type="checkbox"/>	Title	
<input checked="" type="checkbox"/> Change Controlled	string	<input type="checkbox"/>	Change Control	
<input checked="" type="checkbox"/> Status	string	<input type="checkbox"/>	Status	
<input checked="" type="checkbox"/> Remarks	string	<input type="checkbox"/>	Remarks	
<input checked="" type="checkbox"/> Synopsis	string	<input type="checkbox"/>	Synopsis	
<input checked="" type="checkbox"/> RETURN	TABLE(Table)	<input type="checkbox"/>	RETURN	
<input checked="" type="checkbox"/> Has Error	string	<input type="checkbox"/>	Has Error	
<input checked="" type="checkbox"/> Message	string	<input type="checkbox"/>	Message	

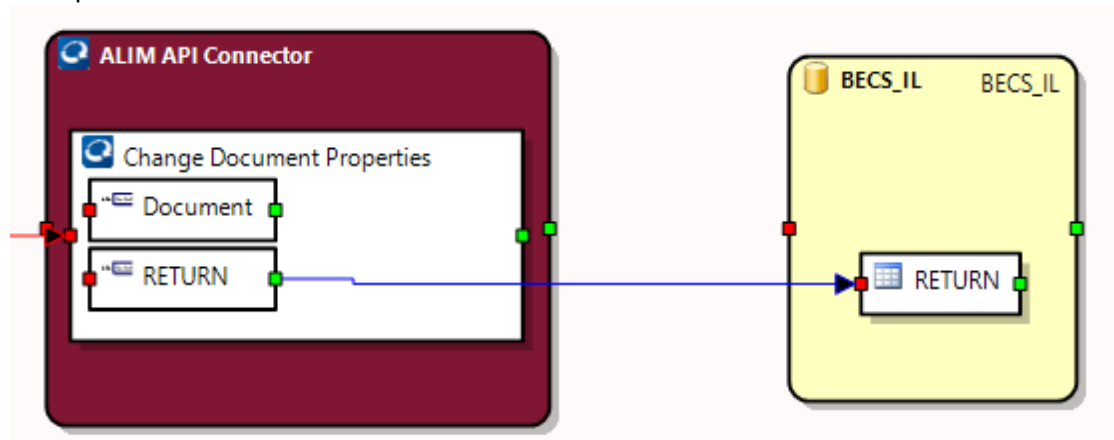
9. Map data from source object in Transformation Page



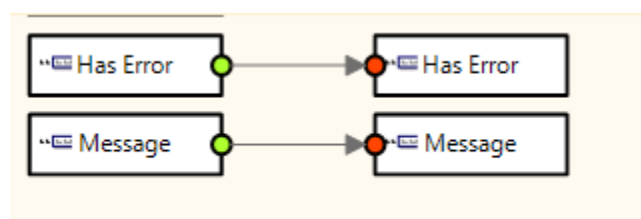
a. Transformation to "Document"



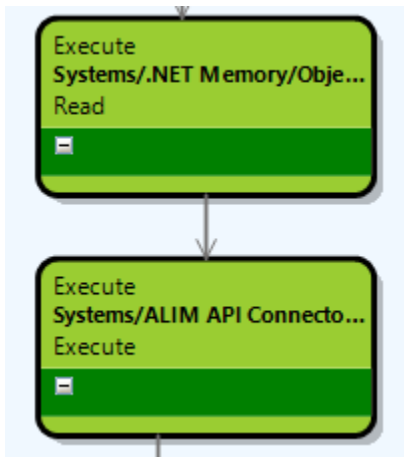
10. Set up also the destination object to store return of Change Document Properties – in this example is used MS SQL DB Connector



11. Mapping to SQL object in Transformation Page

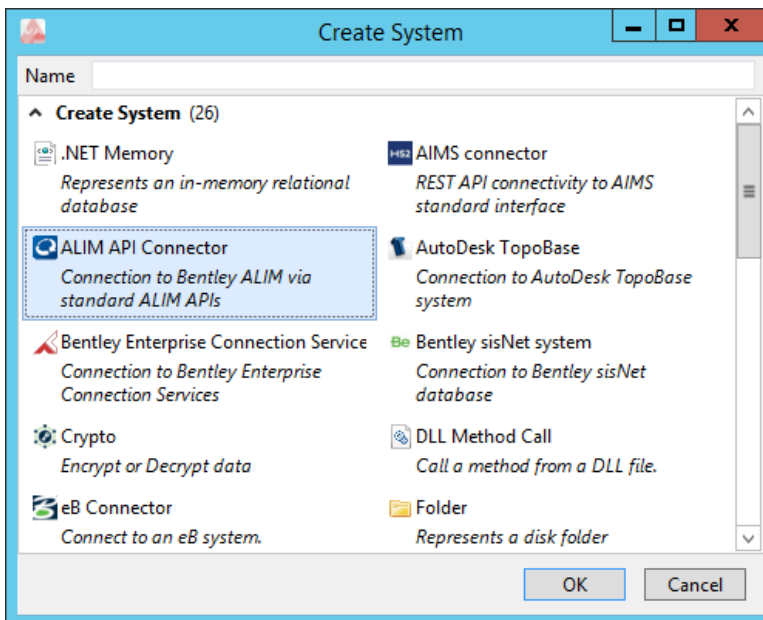


12. Set the execution steps to execute Change Document Properties in Execution Page

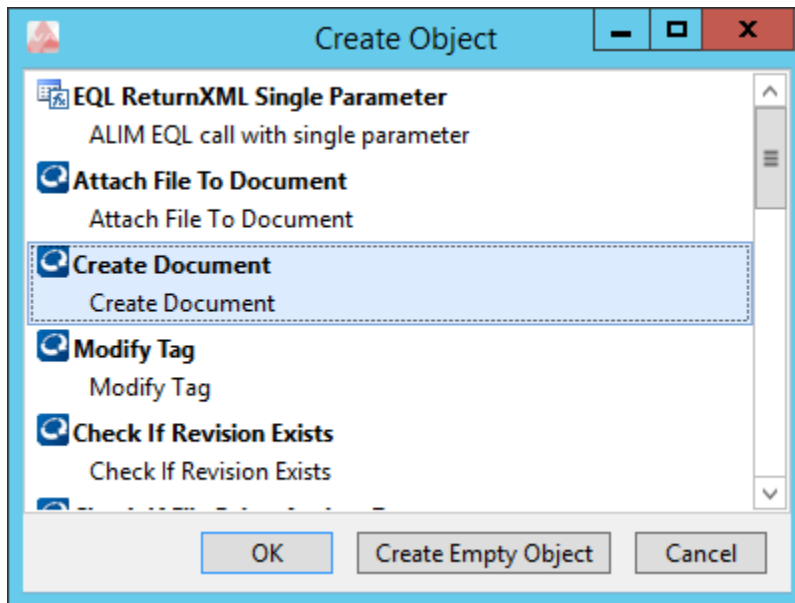


#### 2.4.1.4 Step by step procedure – Create Document

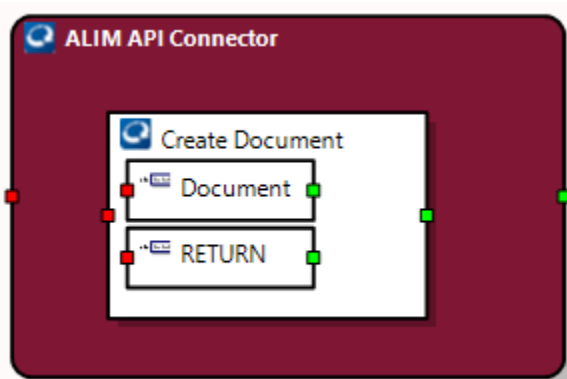
1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:



4. Select ALIM Connector
5. Drag and drop object
6. Select Create Document



7. Read Structure
  - a. Press right mouse button on object and select Read Structure
  - b. After read structure

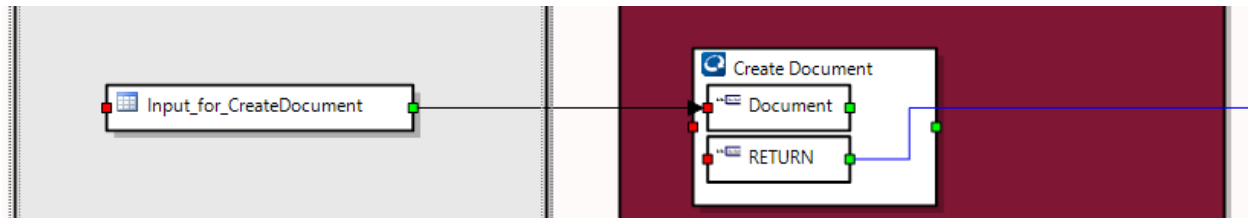


8. Right click to Create Document object and click Edit Structure. Object has three input parameters: Name, Status, Model Type, and three output parameters Has Error, Message and Document Id

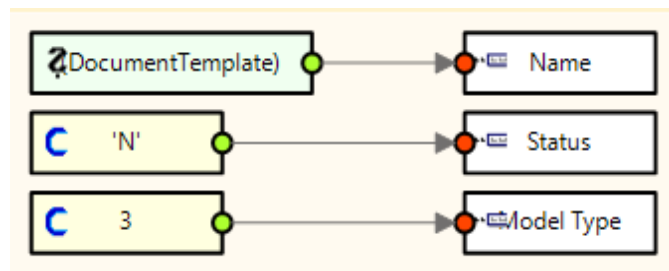
Structure Editor Create Document					
Add Add Field type Delete Save Check All Uncheck All Copy Paste Refresh					
Name	DataType	IsIdentity	Name		
<input checked="" type="checkbox"/> Document	TABLE(Table)	<input type="checkbox"/>	Document		
<input checked="" type="checkbox"/> Name	string	<input type="checkbox"/>	Name		
<input checked="" type="checkbox"/> Status	string	<input type="checkbox"/>	Status		
<input checked="" type="checkbox"/> Model Type	int	<input type="checkbox"/>	Model Type		
<input checked="" type="checkbox"/> RETURN	TABLE(Table)	<input type="checkbox"/>	RETURN		
<input checked="" type="checkbox"/> Has Error	string	<input type="checkbox"/>	Has Error		
<input checked="" type="checkbox"/> Message	string	<input type="checkbox"/>	Message		
<input checked="" type="checkbox"/> Document Id	int	<input type="checkbox"/>	Document Id		



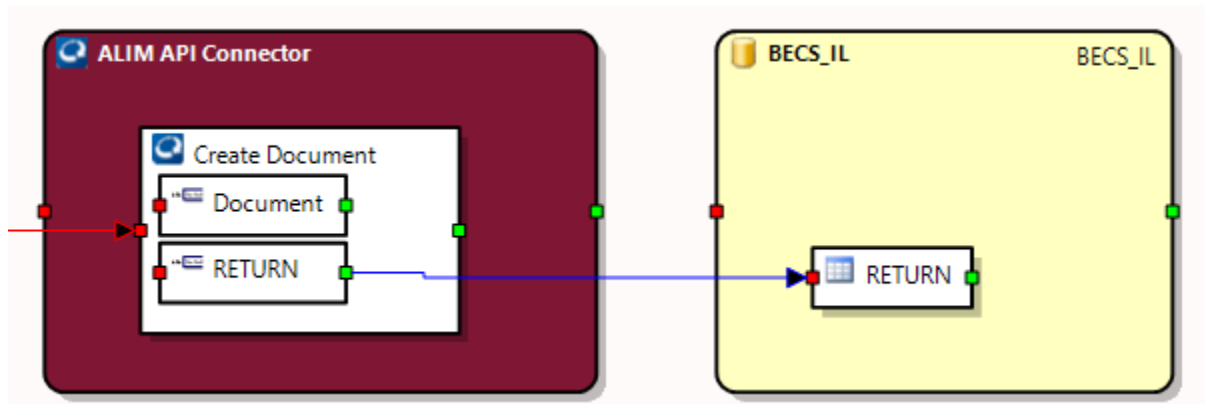
## 9. Map data from source object in Transformation Page



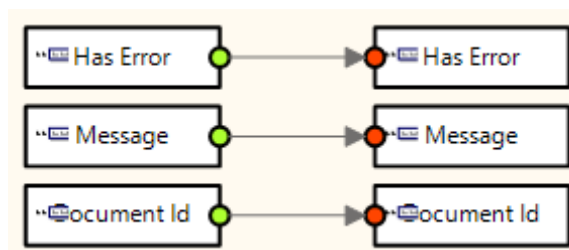
## a. Transformation to "Document"



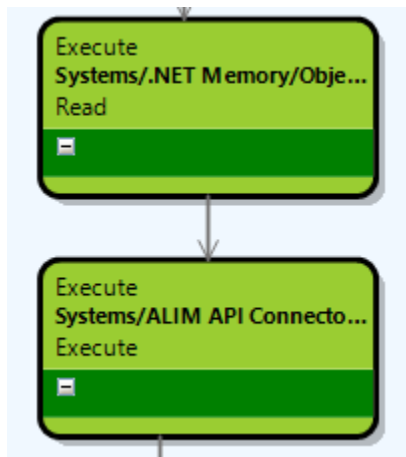
## 10. Set up also the destination object to store return of Create Document – in this example is used MS SQL DB Connector



## 11. Mapping to SQL object in Transformation Page

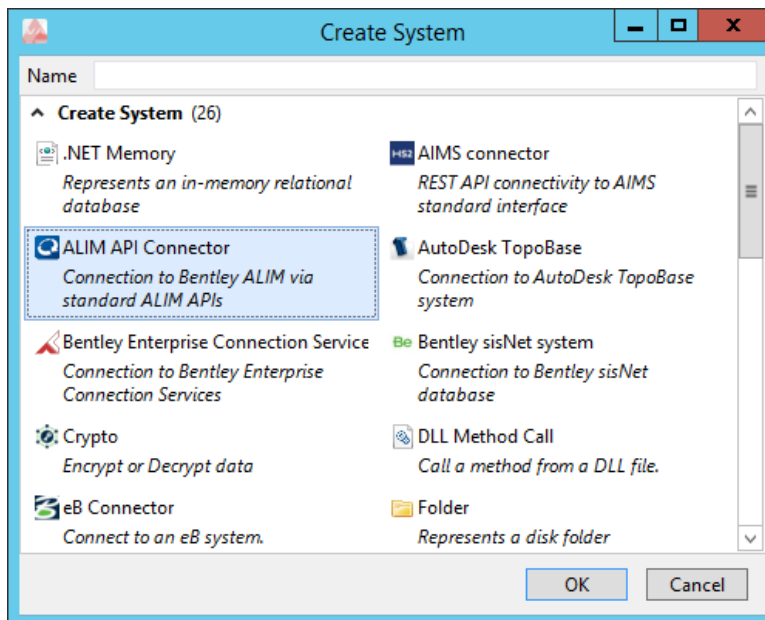


## 12. Set the execution steps to execute Create Document in Execution Page

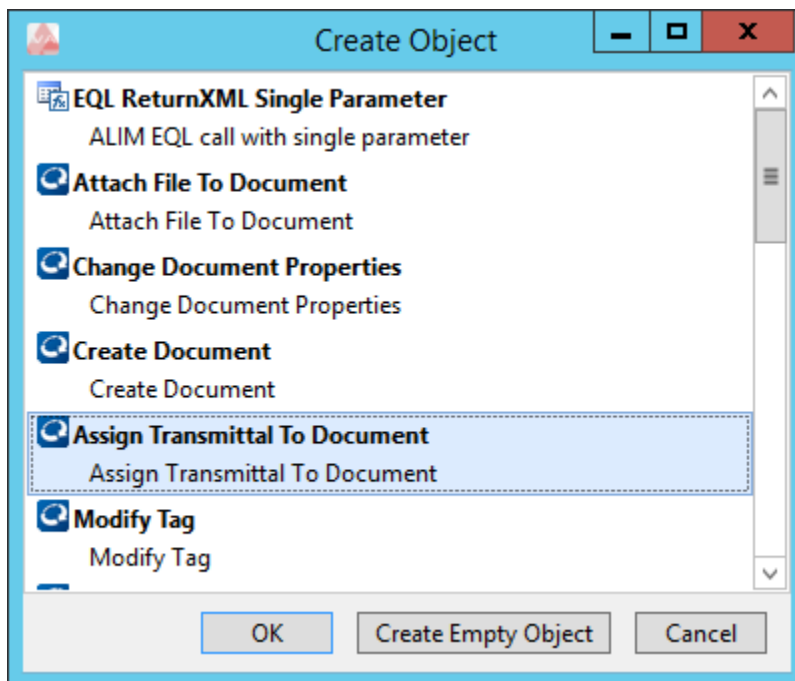


#### 2.4.1.5 Step by step procedure – Assign Transmittal To Document

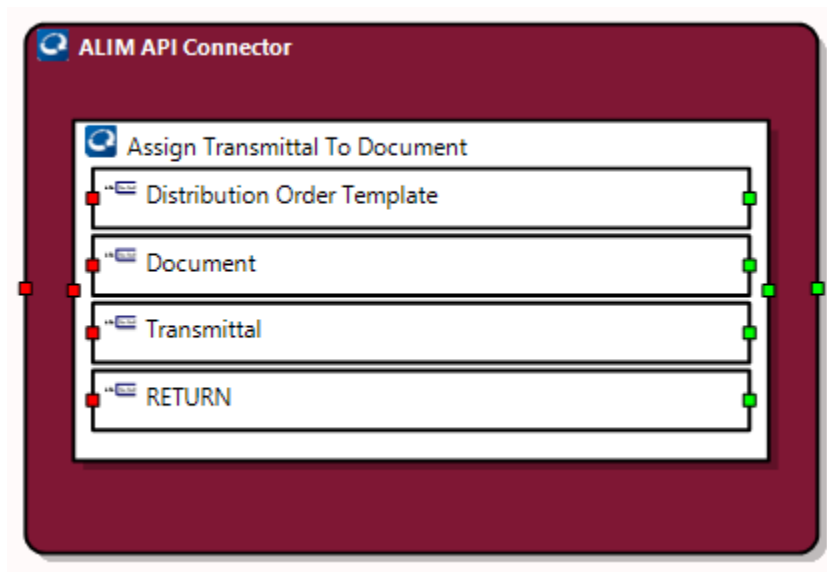
1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:



4. Select ALIM Connector
5. Drag and drop object
6. Select Assign Transmittal To Document



7. Read Structure
  - a. Press right mouse button on object and select Read Structure
  - b. After read structure

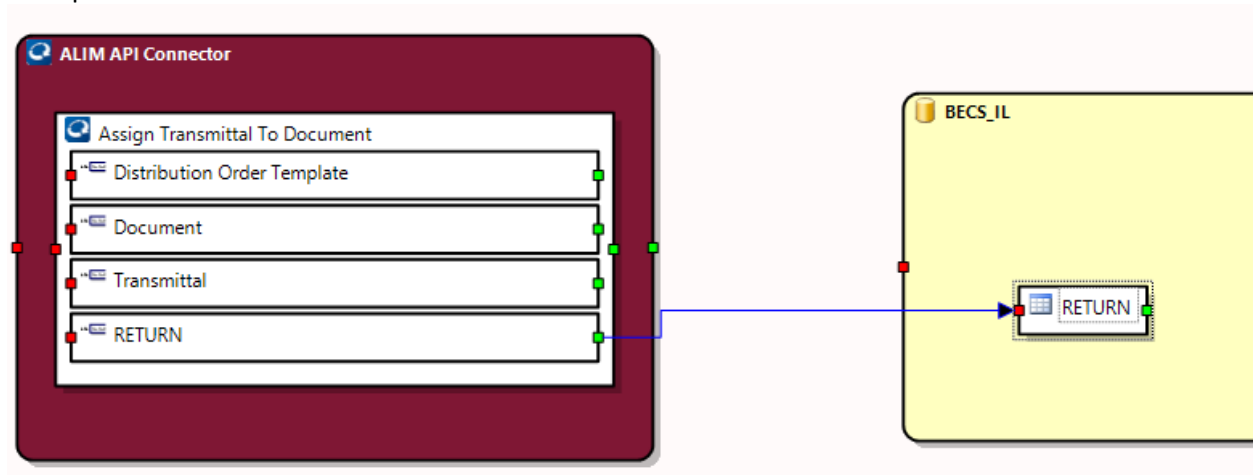


8. Right click to Assign Transmittal To Document object and click Edit Structure

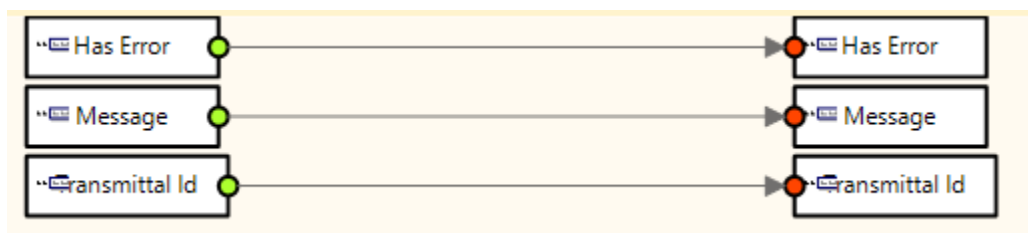
Structure Editor Assign Transmittal To Document			
Add Add Field type Delete Save Check All Uncheck All Copy Paste Refresh			
Name	DataType	IsIdentity	Name
<input checked="" type="checkbox"/> Should Create Distribution Order From Template	bool	<input type="checkbox"/>	Should Create Distribution Order From Template
<input checked="" type="checkbox"/> Distribution Order Template	TABLE(Table)	<input type="checkbox"/>	Distribution Order Template
<input checked="" type="checkbox"/> Name	string	<input type="checkbox"/>	Name
<input checked="" type="checkbox"/> Status	string	<input type="checkbox"/>	Status
<input checked="" type="checkbox"/> Model Type	int	<input type="checkbox"/>	Model Type
<input checked="" type="checkbox"/> Document	TABLE(Table)	<input type="checkbox"/>	Document
<input checked="" type="checkbox"/> ID	int	<input type="checkbox"/>	ID
<input checked="" type="checkbox"/> Transmittal	TABLE(Table)	<input type="checkbox"/>	Transmittal
<input checked="" type="checkbox"/> Name	string	<input type="checkbox"/>	Name
<input checked="" type="checkbox"/> RETURN	TABLE(Table)	<input type="checkbox"/>	RETURN
<input checked="" type="checkbox"/> Has Error	string	<input type="checkbox"/>	Has Error
<input checked="" type="checkbox"/> Message	string	<input type="checkbox"/>	Message
<input checked="" type="checkbox"/> Transmittal Id	int	<input type="checkbox"/>	Transmittal Id

9. Map data from source object

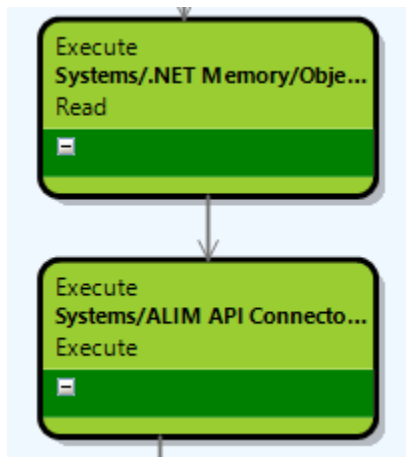
10. Set up also the destination object to store return of Assign Transmittal To Document – in this example is used MS SQL DB Connector



11. Mapping to SQL object in Transformation Page

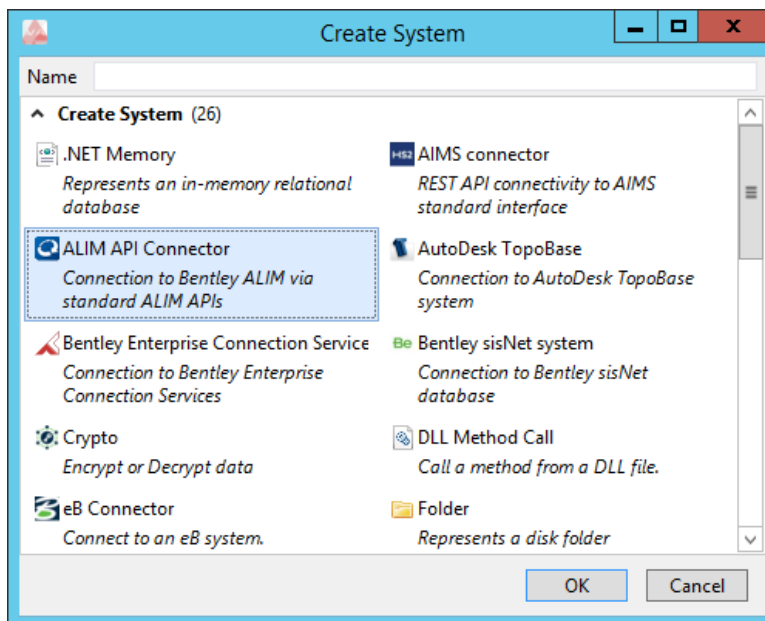


12. Set the execution steps to execute Assign Transmittal To Document in Execution Page

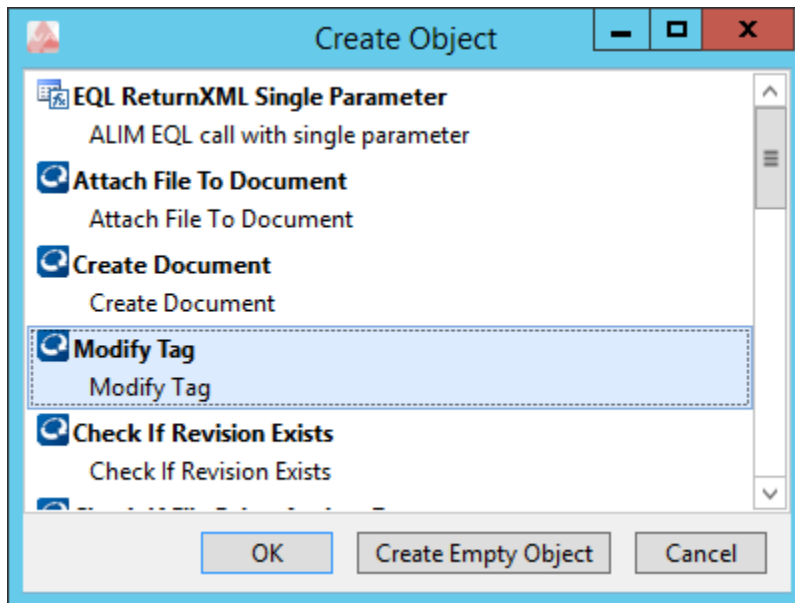


#### 2.4.1.6 Step by step procedure – Modify Tag

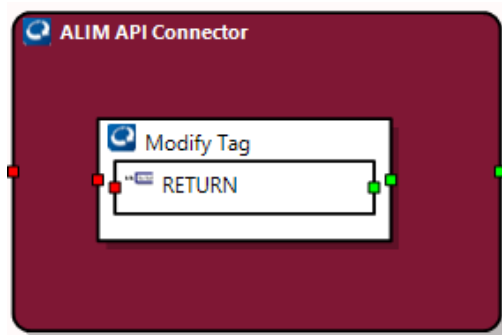
1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:



4. Select ALIM Connector
5. Drag and drop object
6. Select Modify Tag



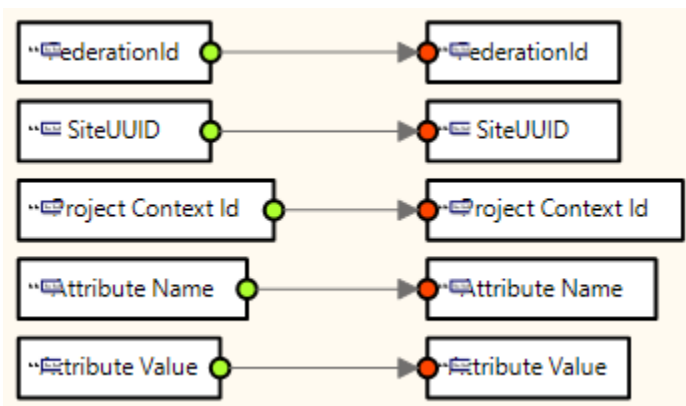
7. Read Structure
  - a. Press right mouse button on object and select Read Structure
  - b. After read structure



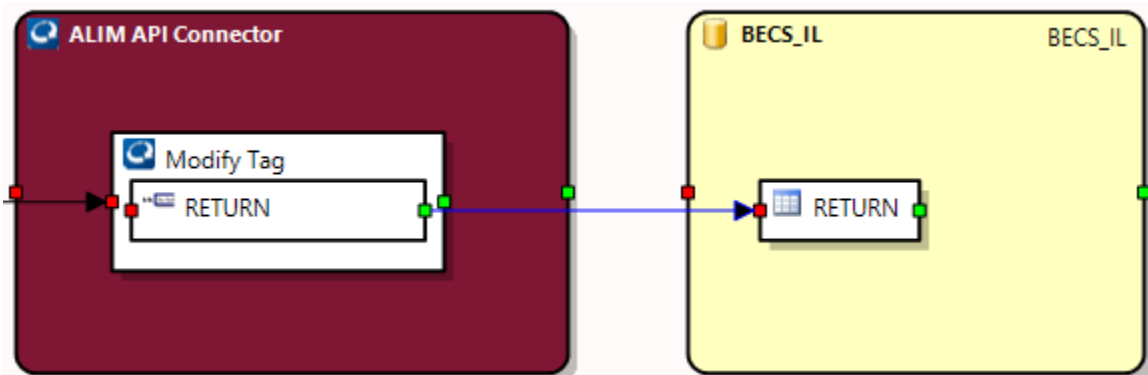
8. Right click to Modify Tag object and click Edit Structure. Object has five parameters: FederationId, SiteUUID, Project Context Id, Attribute Name and Attribute Value, and two output parameters: Has Error, Message

Structure Editor Modify Tag				
Add Add Field type Delete Save Check All Uncheck All Copy Paste Refresh				
Name	DataType	IsIdentity	Name	
<input checked="" type="checkbox"/> FederationId	string	<input type="checkbox"/>	FederationId	
<input checked="" type="checkbox"/> SiteUUID	string	<input type="checkbox"/>	SiteUUID	
<input checked="" type="checkbox"/> Project Context Id	string	<input type="checkbox"/>	Project Context Id	
<input checked="" type="checkbox"/> Attribute Name	string	<input type="checkbox"/>	Attribute Name	
<input checked="" type="checkbox"/> Attribute Value	string	<input type="checkbox"/>	Attribute Value	
<input checked="" type="checkbox"/> RETURN	TABLE(Table)	<input type="checkbox"/>	RETURN	
<input checked="" type="checkbox"/> Has Error	string	<input type="checkbox"/>	Has Error	
<input checked="" type="checkbox"/> Message	string	<input type="checkbox"/>	Message	

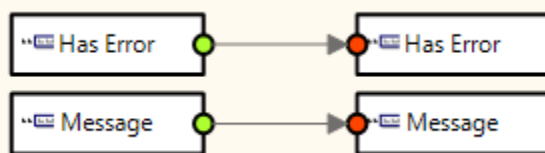
## 9. Map data from source object in Transformation Page



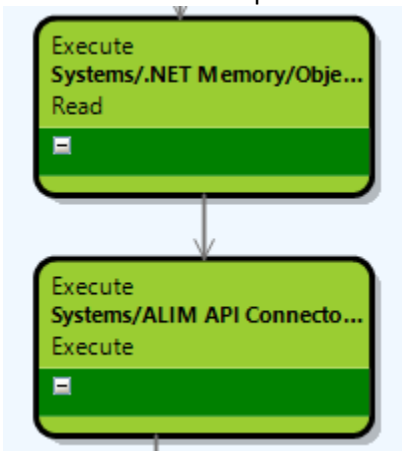
## 10. Set up also the destination object to store return of Modify Tag – in this example is used MS SQL DB Connector



## 11. Mapping to SQL object in Transformation Page

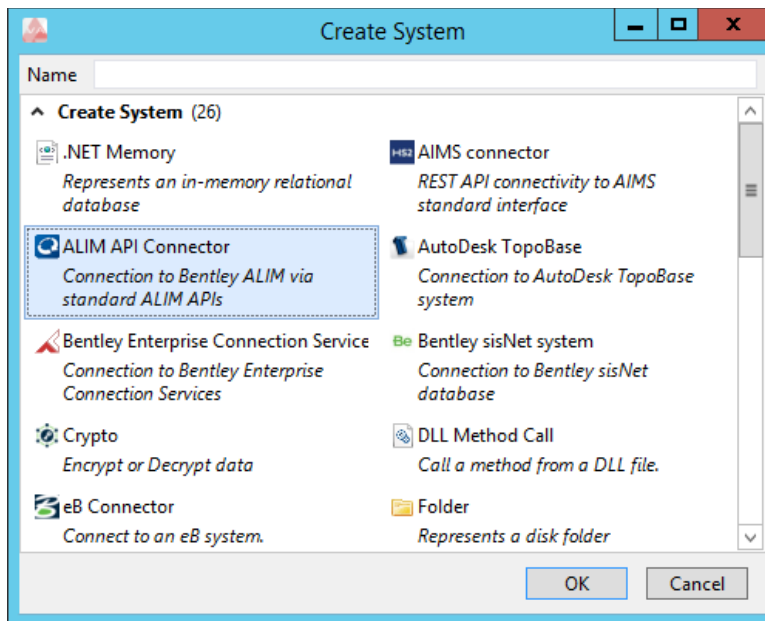


## 12. Set the execution steps to execute Modify Tag in Execution Page

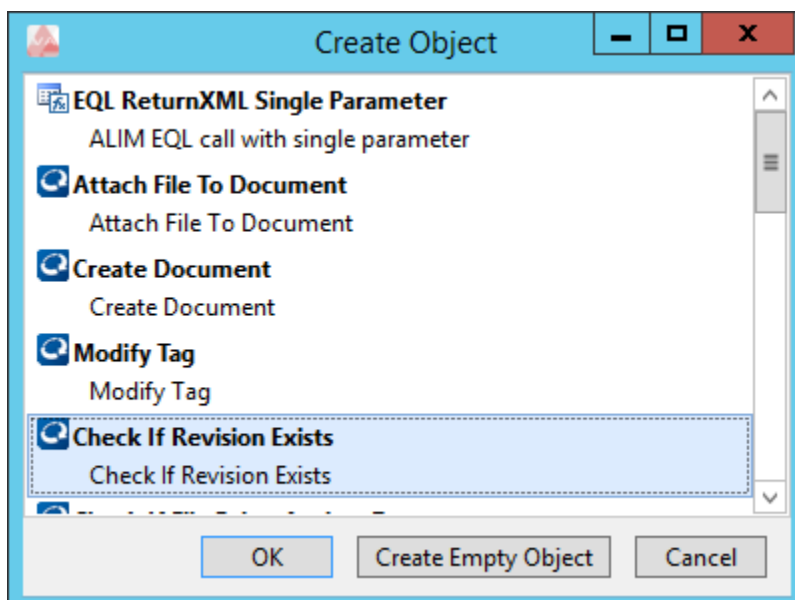


### 2.4.1.7 Step by step procedure – Check If Revision Exists

1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:

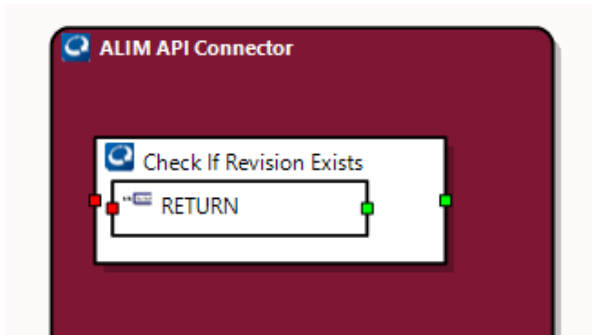


4. Select ALIM Connector
5. Drag and drop object
6. Select Check If Revision Exists





7. Read Structure
  - a. Press right mouse button on object and select Read Structure
  - b. After read structure



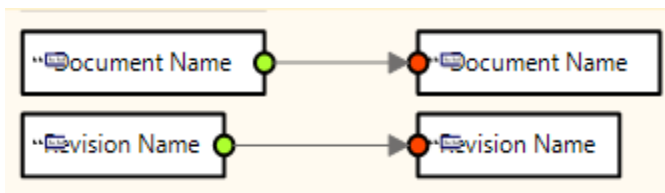
8. Right click to Check If Revision Exists object and click Edit Structure. Object has two input parameters: Document Name, Revision Name and two output parameters: Exist, ID

Structure Editor Check If Revision Exists

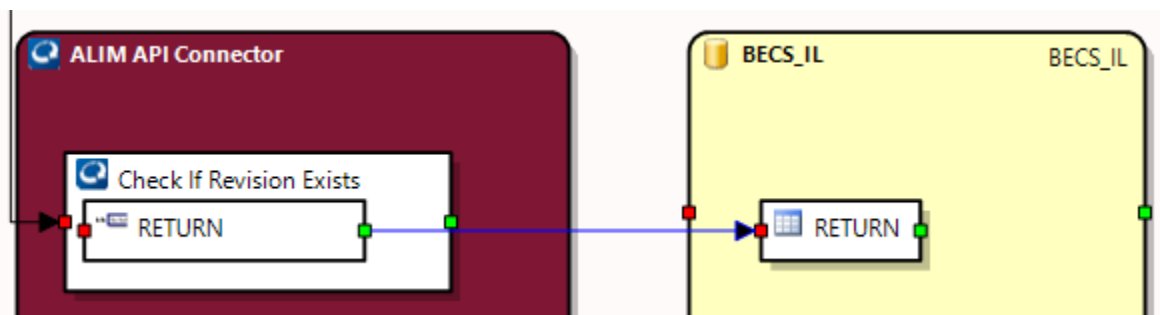
Add Add Field type Delete Save Check All Uncheck All Copy

Name	DataType	IsIdentity	Name
<input checked="" type="checkbox"/> Document Name	string	<input type="checkbox"/>	Document Name
<input checked="" type="checkbox"/> Revision Name	string	<input type="checkbox"/>	Revision Name
<input checked="" type="checkbox"/> RETURN	TABLE(Table)	<input type="checkbox"/>	RETURN
<input checked="" type="checkbox"/> Exist	string	<input type="checkbox"/>	Exist
<input checked="" type="checkbox"/> ID	string	<input type="checkbox"/>	ID

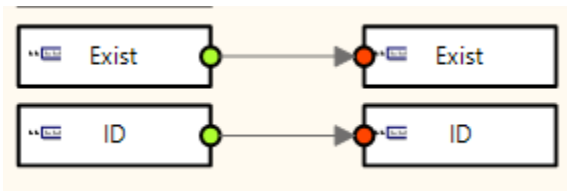
9. Map data from source object in Transformation Page



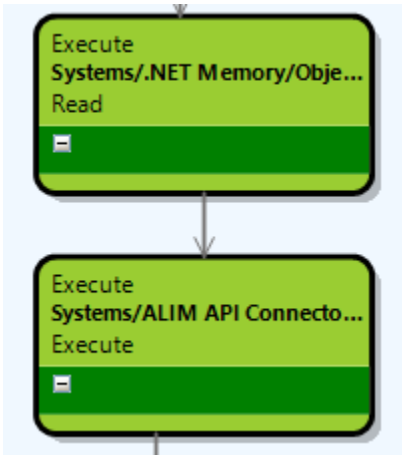
10. Set up also the destination object to store return of Check If Revision Exists – in this example is used MS SQL DB Connector



## 11. Mapping to SQL object in Transformation Page

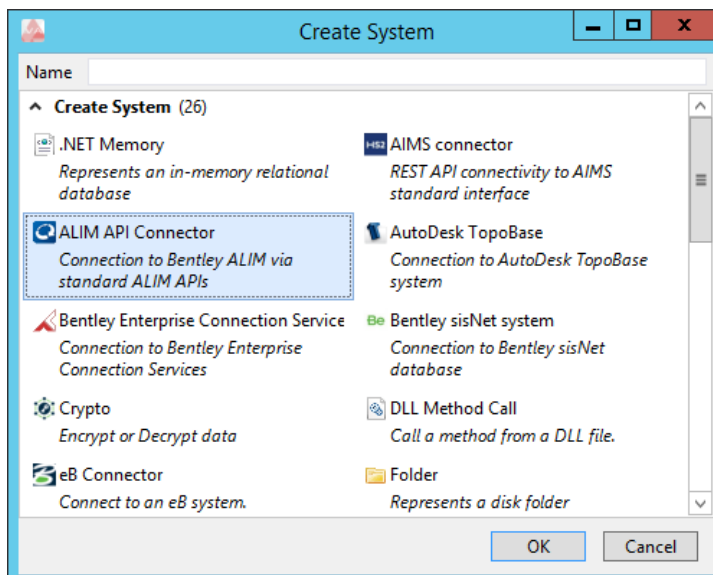


## 12. Set the execution steps to execute Check If Revision Exists in Execution Page

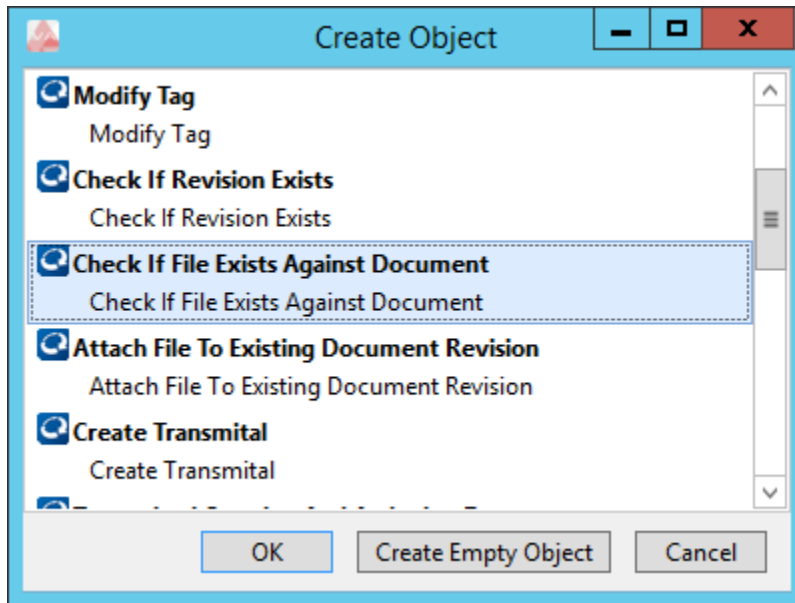


## 2.4.1.8 Step by step procedure – Check If File Exists Against Document

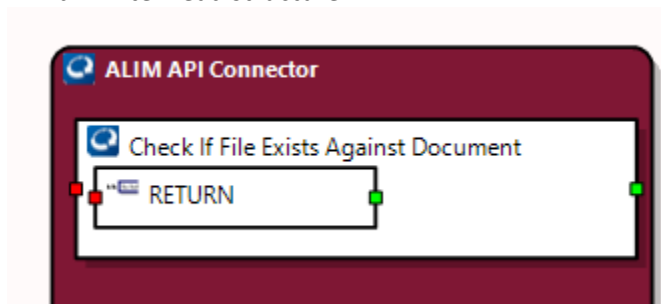
1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:



4. Select ALIM Connector
5. Drag and drop object
6. Select Check If File Exists Against Document



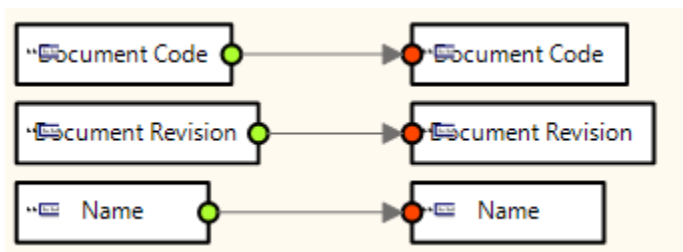
7. Read Structure
  - a. Press right mouse button on object and select Read Structure
  - b. After read structure



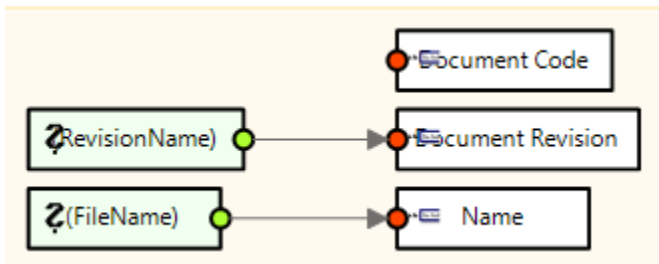
8. Right click on Check If File Exists Against Document object and click Edit Structure. Object has three input parameters: Document Code, Document Revision, Name, and two output parameters: Exist, ID

Structure Editor Check If File Exists Against Document				
Add Add Field type Delete Save Check All Uncheck All Copy				
Name	DataType	IsIdentity	Name	
<input checked="" type="checkbox"/> Document Code	string	<input type="checkbox"/>	Document Code	
<input checked="" type="checkbox"/> Document Revision	string	<input type="checkbox"/>	Document Revisor	
<input checked="" type="checkbox"/> Name	string	<input type="checkbox"/>	Name	
<input checked="" type="checkbox"/> RETURN	TABLE(Table)	<input type="checkbox"/>	RETURN	
<input checked="" type="checkbox"/> Exist	string	<input type="checkbox"/>	Exist	
<input checked="" type="checkbox"/> ID	string	<input type="checkbox"/>	ID	

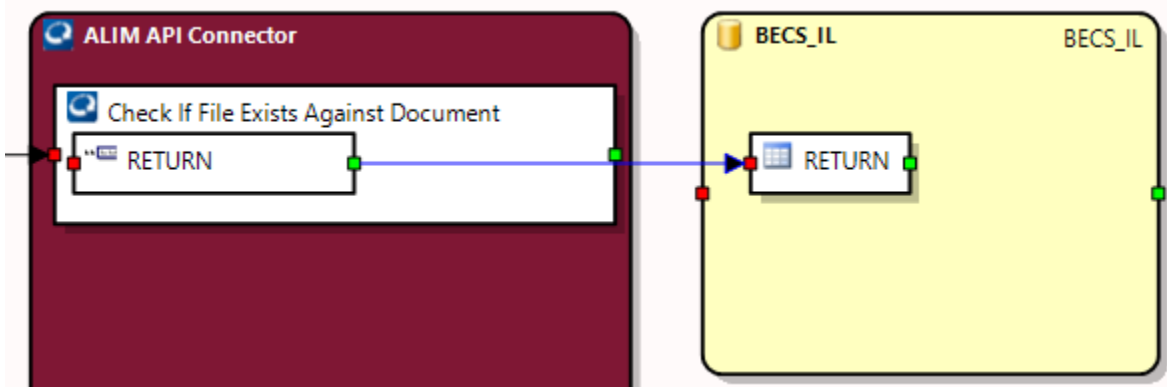
## 9. Map data from source object in Transformation Page



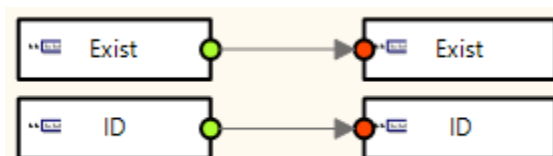
OR



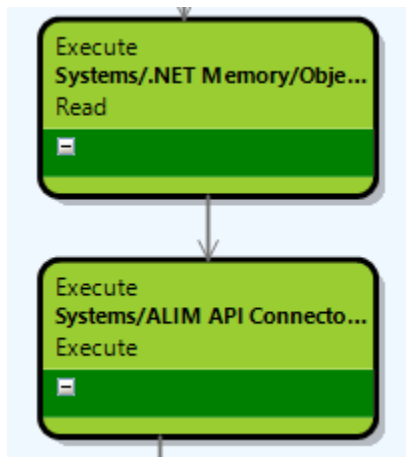
## 10. Set up also the destination object to store return Check If File Exists Against Document – in this example is used MS SQL DB Connector



## 11. Mapping to SQL object in Transformation Page

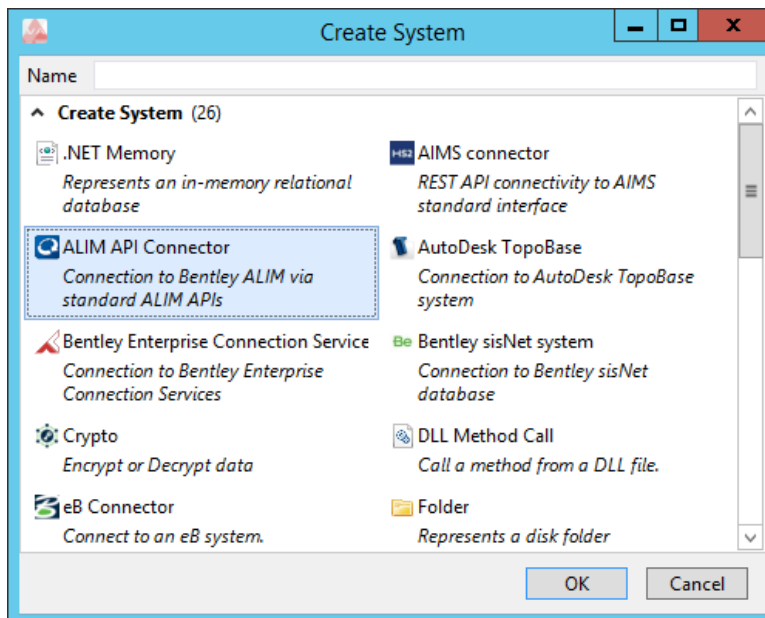


## 12. Set the execution steps to execute Check If File Exists Against Document in Execution Page

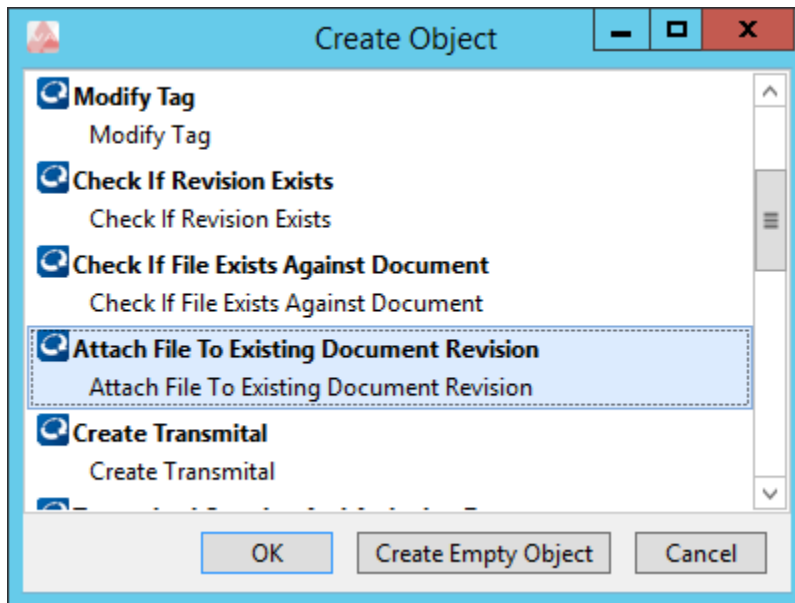


#### 2.4.1.9 Step by step procedure – Attach File To Existing Document Revision

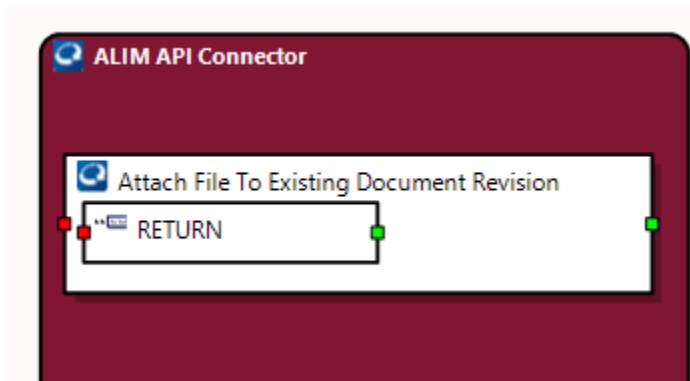
1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:



4. Select ALIM Connector
5. Drag and drop object
6. Select Attach File To Existing Document Revision



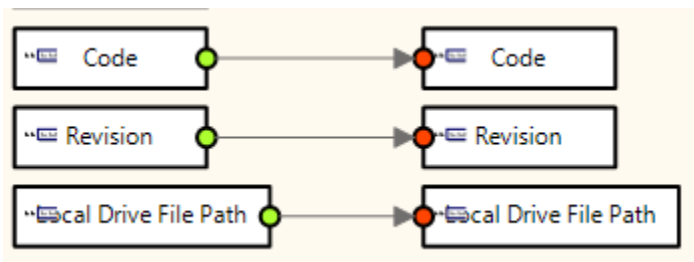
7. Read Structure
  - a. Press right mouse button on object and select Read Structure
  - b. After read structure



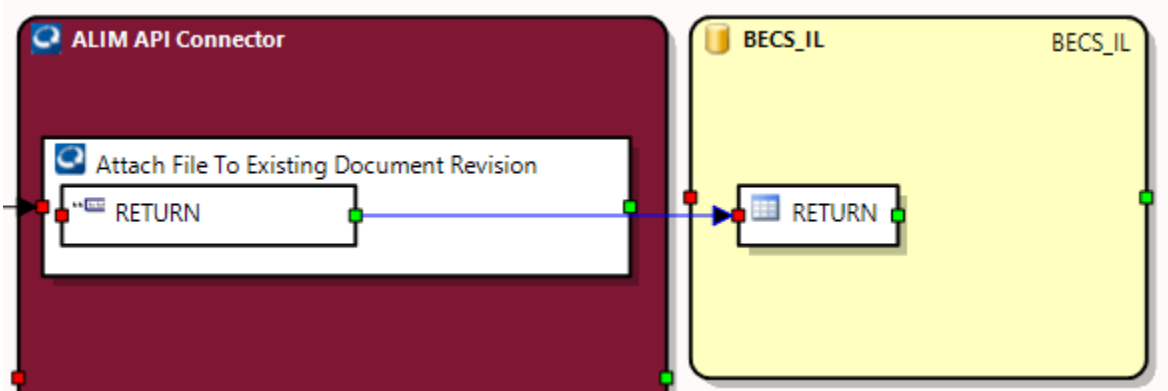
8. Right click on Attach File To Existing Document Revision object and click Edit Structure. Object has three input parameters: Code, Revision and Local Drive File Path, and one output parameter: Exist

Add Add Field type Delete Save Check All Uncheck All Copy			
Name	DataType	IsIdentity	Name
<input checked="" type="checkbox"/> Code	string	<input type="checkbox"/>	Code
<input checked="" type="checkbox"/> Revision	string	<input type="checkbox"/>	Revision
<input checked="" type="checkbox"/> Local Drive File Path	string	<input type="checkbox"/>	Local Drive File Pat
<input checked="" type="checkbox"/> RETURN	TABLE(Table)	<input type="checkbox"/>	RETURN
<input checked="" type="checkbox"/> Exist	string	<input type="checkbox"/>	Exist

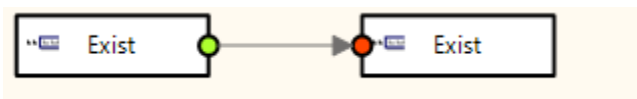
## 9. Map data from source object in Transformation Page



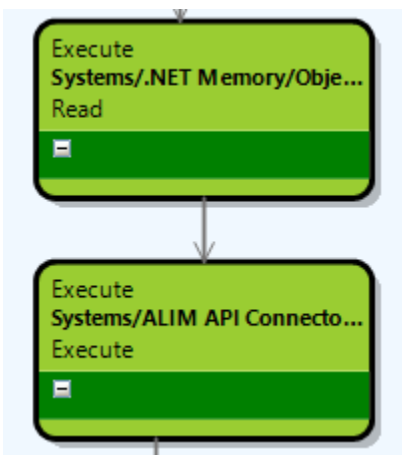
## 10. Set up also the destination object to store return Attach File To Existing Document Revision – in this example is used MS SQL DB Connector



## 11. Mapping to SQL object in Transformation Page

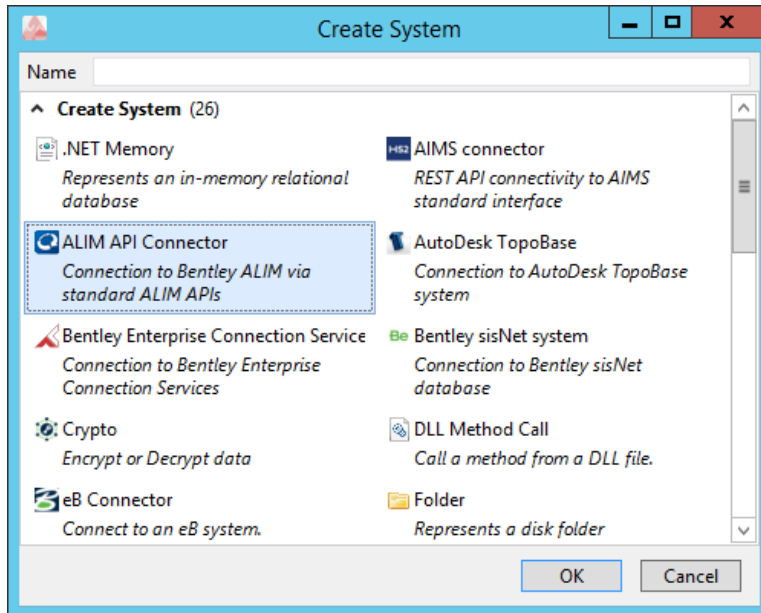


## 12. Set the execution steps to execute Attach File To Existing Document Revision in Execution Page

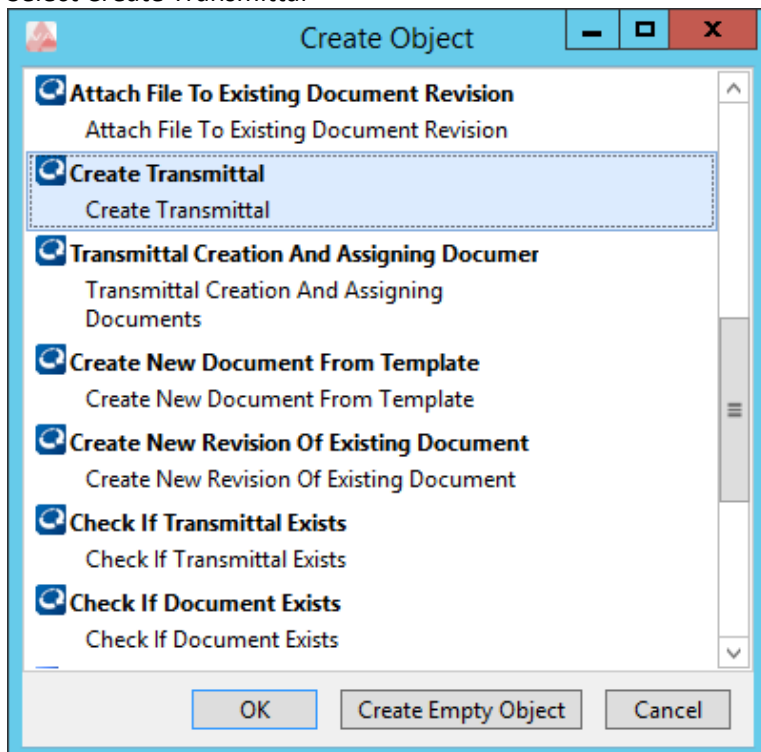


#### 2.4.1.10 Step by step procedure – Create Transmittal

1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:

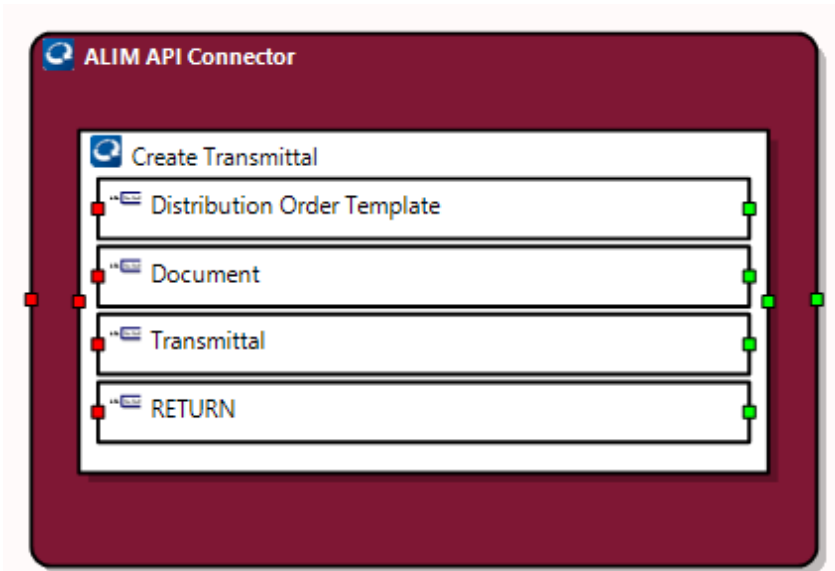


4. Select ALIM Connector
5. Drag and drop object
6. Select Create Transmittal





7. Read Structure
  - a. Press right mouse button on object and select Read Structure
  - b. After read structure



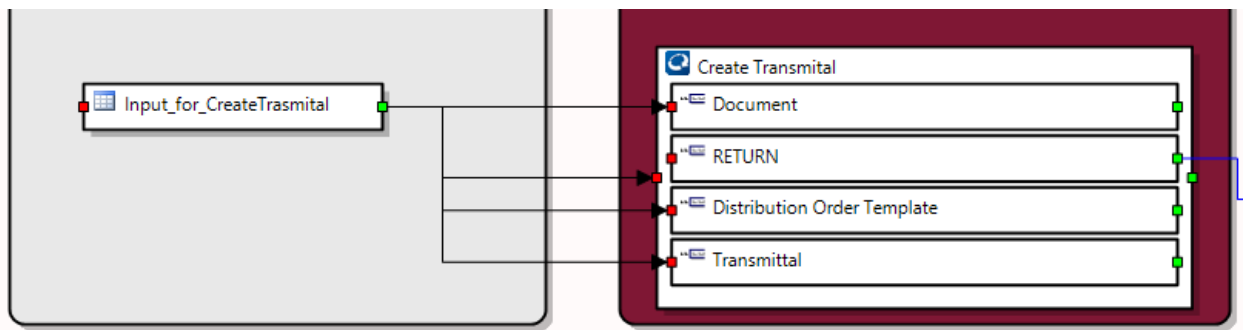
8. Right click on Create Transmittal object and click Edit Structure

Structure Editor Create Transmittal

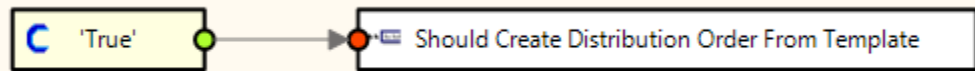
Add Add Field type Delete Save Check All Uncheck All Copy Paste Refresh

Name	DataType	IsIdentity	Name
<input checked="" type="checkbox"/> Should Create Distribution Order From Template	bool	<input type="checkbox"/>	Should Create Distribution Order From Template
<input checked="" type="checkbox"/> Distribution Order Template	TABLE(Table)	<input type="checkbox"/>	Distribution Order Template
<input checked="" type="checkbox"/> Name	string	<input type="checkbox"/>	Name
<input checked="" type="checkbox"/> Status	string	<input type="checkbox"/>	Status
<input checked="" type="checkbox"/> Model Type	int	<input type="checkbox"/>	Model Type
<input checked="" type="checkbox"/> Document	TABLE(Table)	<input type="checkbox"/>	Document
<input checked="" type="checkbox"/> ID	int	<input type="checkbox"/>	ID
<input checked="" type="checkbox"/> Transmittal	TABLE(Table)	<input type="checkbox"/>	Transmittal
<input checked="" type="checkbox"/> Name	string	<input type="checkbox"/>	Name
<input checked="" type="checkbox"/> RETURN	TABLE(Table)	<input type="checkbox"/>	RETURN
<input checked="" type="checkbox"/> Has Error	string	<input type="checkbox"/>	Has Error
<input checked="" type="checkbox"/> Message	string	<input type="checkbox"/>	Message
<input checked="" type="checkbox"/> Transmittal Id	int	<input type="checkbox"/>	Transmittal Id

9. Map data from source object in Transformation Page



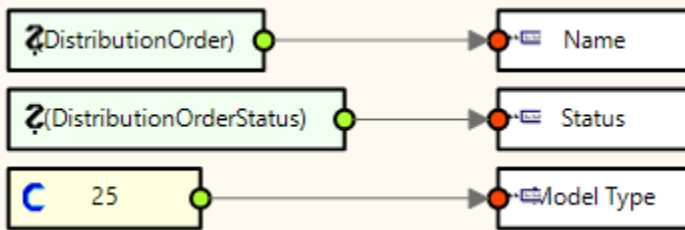
- a. Transformation to header object



- b. Transformation to "Document"



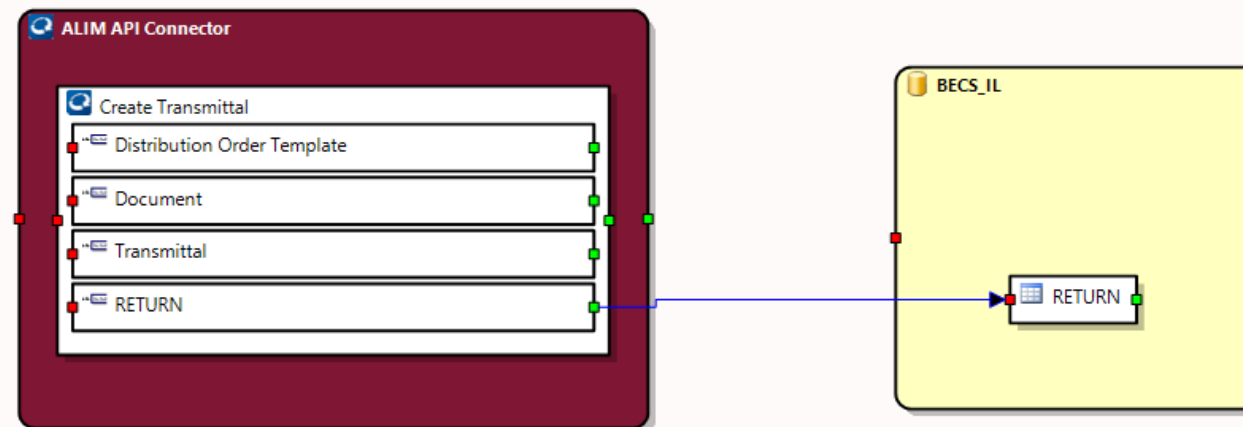
- c. Transformation to "Distribution Order Template"



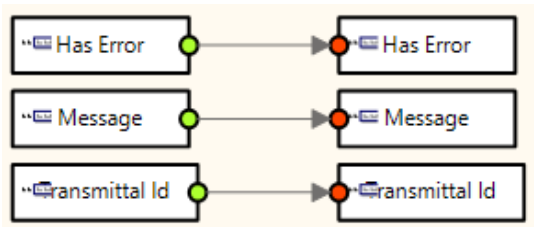
- d. Transformation to "Transmittal"



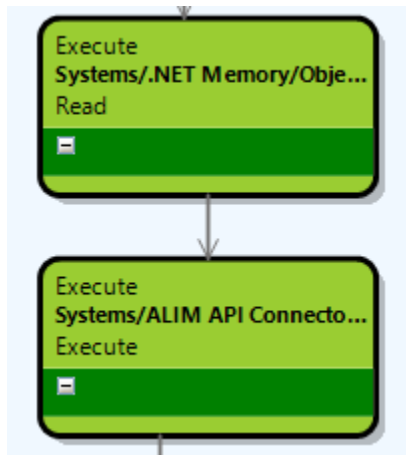
10. Set up also the destination object to store return Create Transmittal – in this example is used MS SQL DB Connector



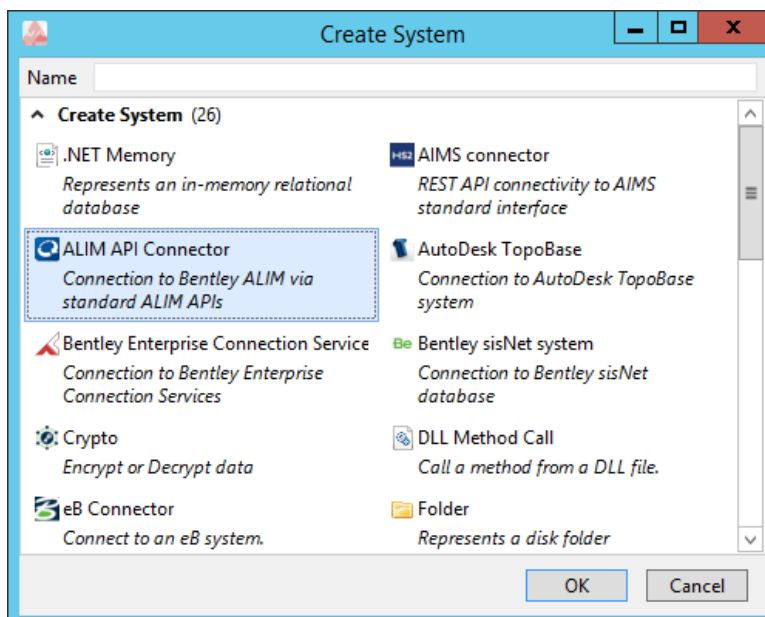
## 11. Mapping to SQL object in Transformation Page



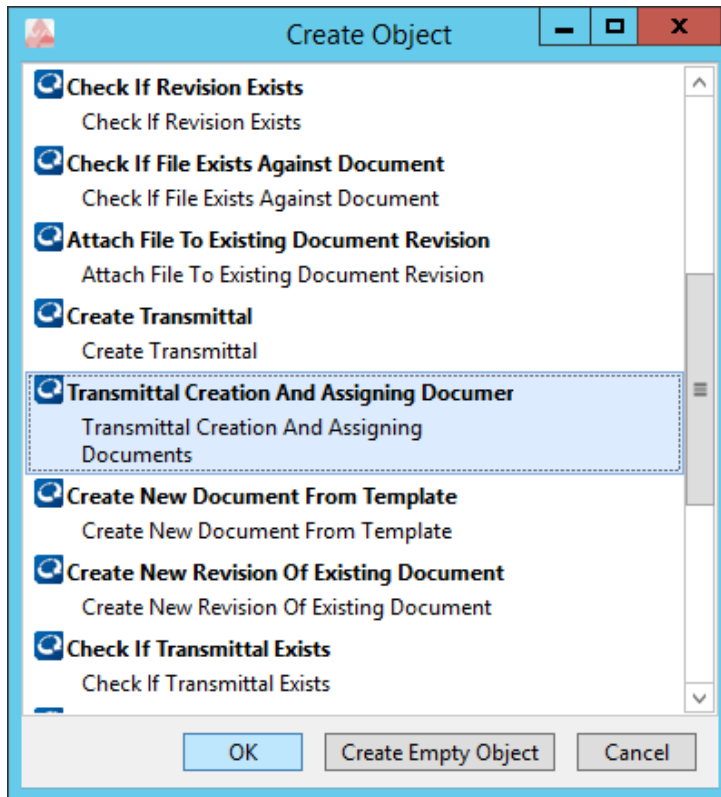
## 12. Set the execution steps to execute Create Transmittal in Execution Page

**2.4.1.11 Step by step procedure – Transmittal Creation And Assigning Document**

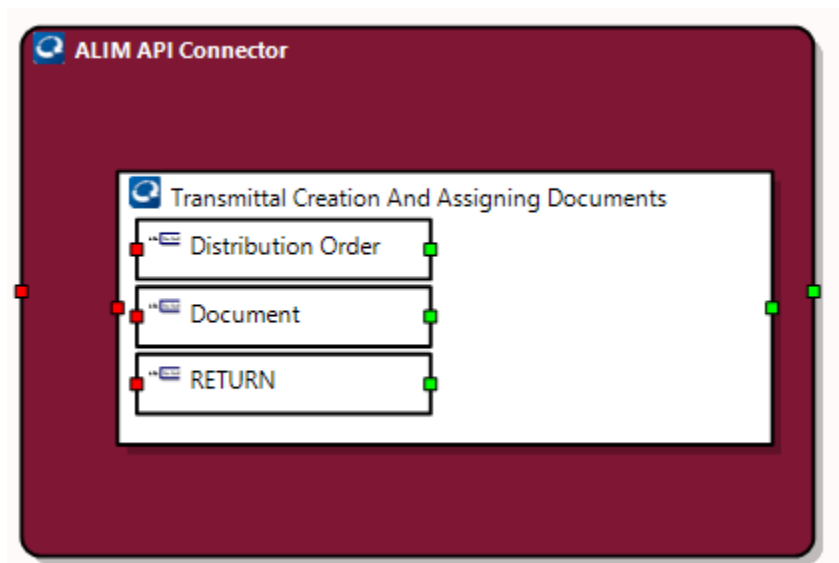
1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:



4. Select ALIM Connector
5. Drag and drop object
6. Select Transmittal Creation And Assigning Document



7. Read Structure
  - a. Press right mouse button on object and select Read Structure
  - b. After read structure



8. Right click on Transmittal Creation And Assigning Documents object and click Edit Structure

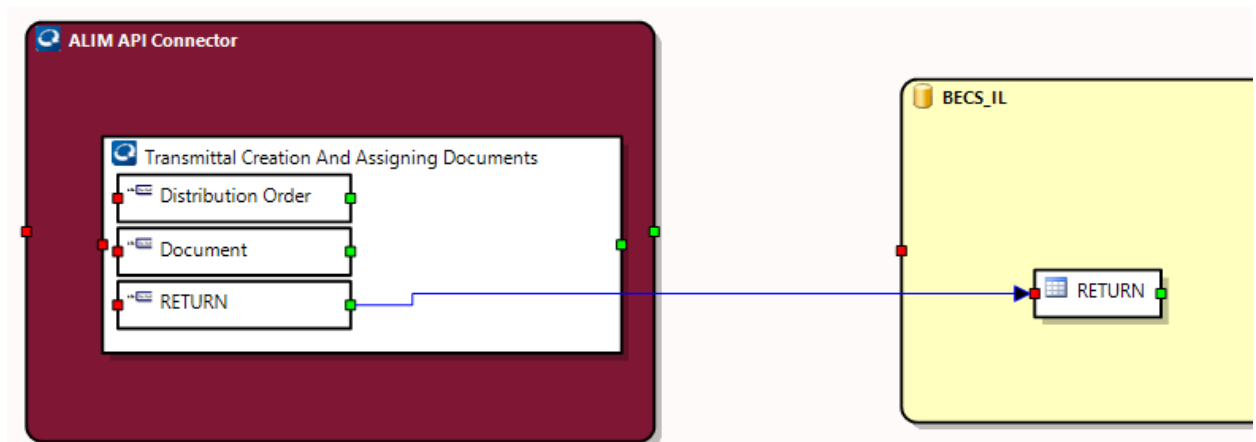
Structure Editor Transmittal Creation And Assigning Documents

Add Add Field type Delete Save Check All Uncheck All Copy Paste Refresh

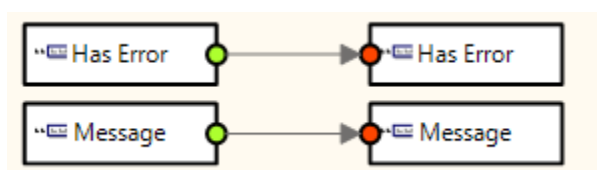
Name	DataType	IsIdentity	Name
<input checked="" type="checkbox"/> Transmittal Name	string	<input type="checkbox"/>	Transmittal Name
<input checked="" type="checkbox"/> Distribution Order	TABLE(Table)	<input type="checkbox"/>	Distribution Order
<input checked="" type="checkbox"/> Name	string	<input type="checkbox"/>	Name
<input checked="" type="checkbox"/> Status	string	<input type="checkbox"/>	Status
<input checked="" type="checkbox"/> Model Type	int	<input type="checkbox"/>	Model Type
<input checked="" type="checkbox"/> Document	TABLE(Table)	<input type="checkbox"/>	Document
<input checked="" type="checkbox"/> Name	string	<input type="checkbox"/>	Name
<input checked="" type="checkbox"/> Status	string	<input type="checkbox"/>	Status
<input checked="" type="checkbox"/> Model Type	int	<input type="checkbox"/>	Model Type
<input checked="" type="checkbox"/> RETURN	TABLE(Table)	<input type="checkbox"/>	RETURN
<input checked="" type="checkbox"/> Has Error	string	<input type="checkbox"/>	Has Error
<input checked="" type="checkbox"/> Message	string	<input type="checkbox"/>	Message

9. Map data from source object

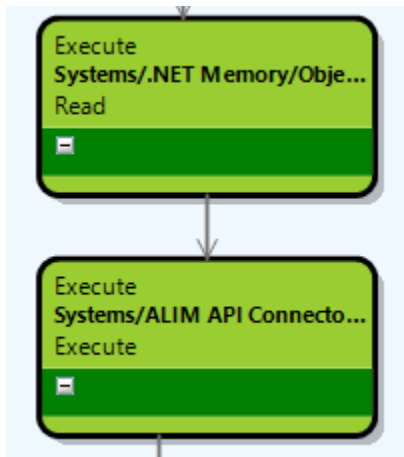
10. Set up also the destination object to store return Transmittal Creation And Assigning Documents – in this example is used MS SQL DB Connector



11. Mapping to SQL object in Trnasformation Page

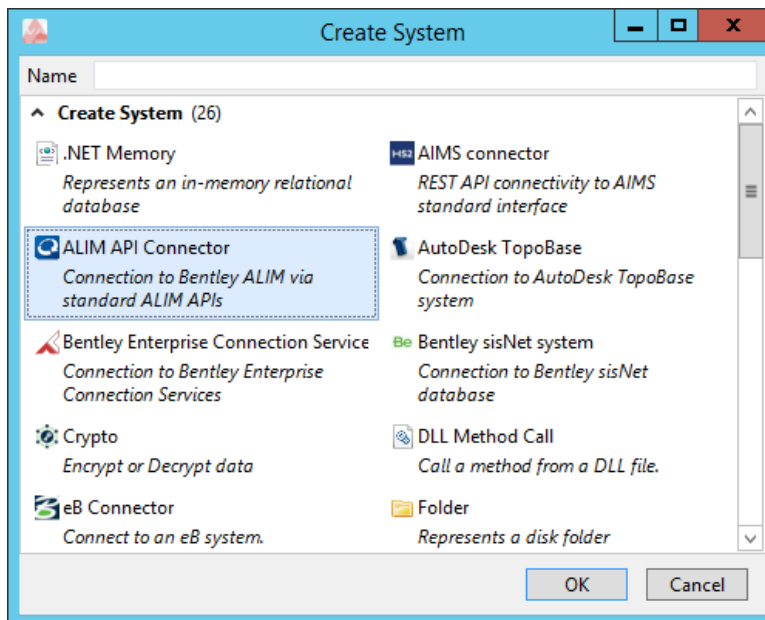


12. Set the execution steps to execute Transmittal Creation And Assigning Documents in Execution Page

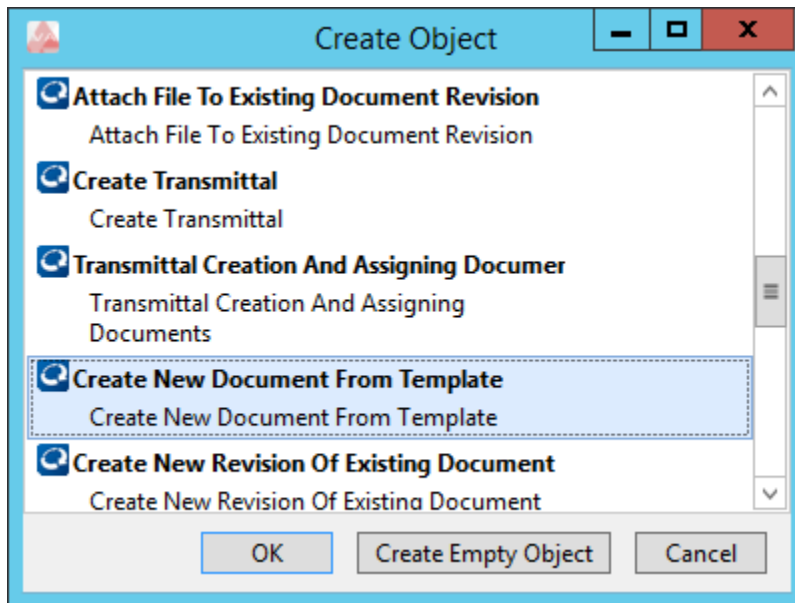


#### 2.4.1.12 Step by step procedure – Create New Document From Template

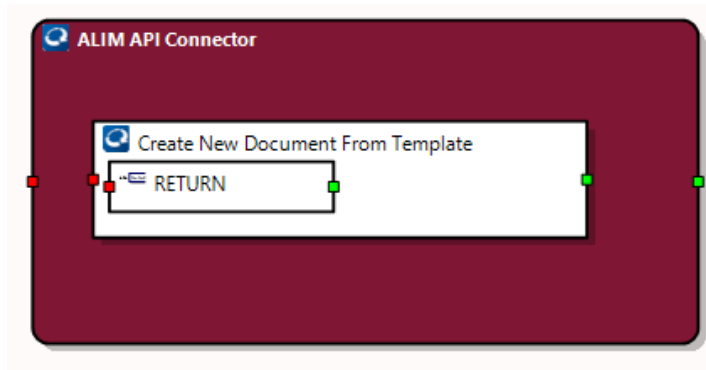
1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:



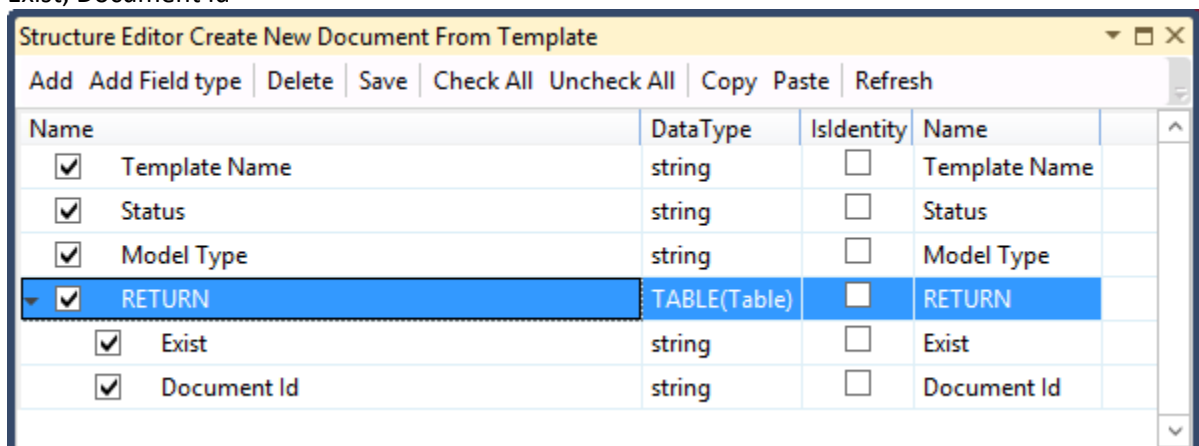
4. Select ALIM Connector
5. Drag and drop object
6. Select Create New Document From Template



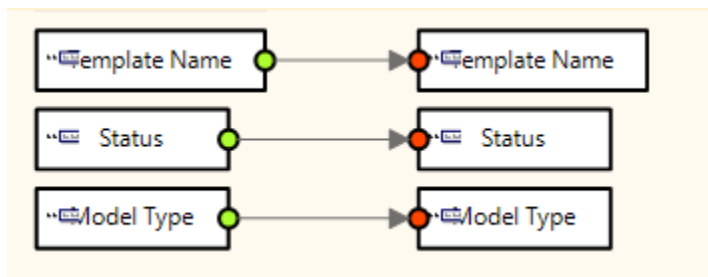
7. Read Structure
  - a. Press right mouse button on object and select Read Structure
  - b. After read structure



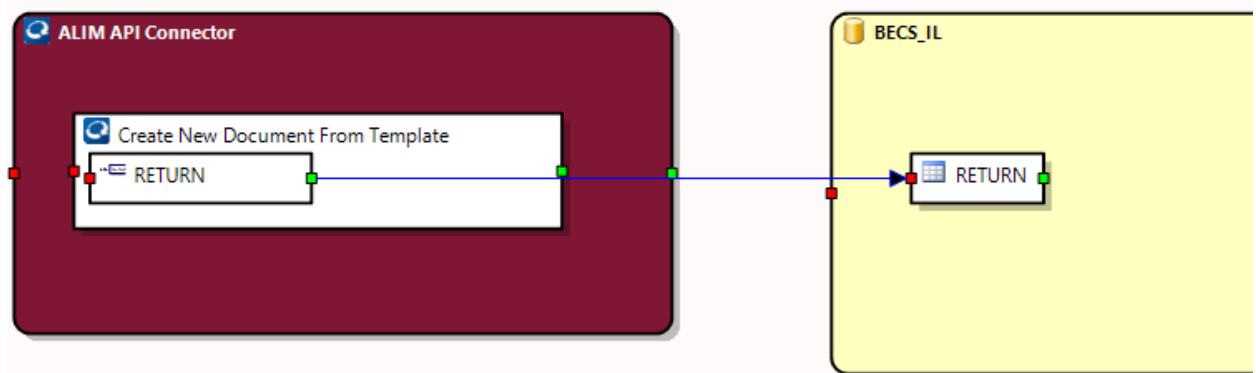
8. Right click on Create New Document From Template object and click Edit Structure. Object has three input parameters: Template Name, Status and Model Type, and two output parameters: Exist, Document Id



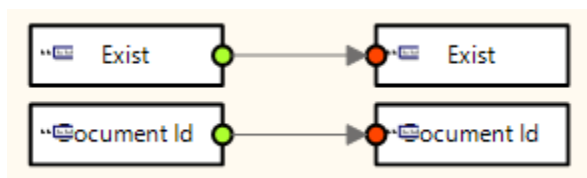
## 9. Map data from source object in Transformation Page



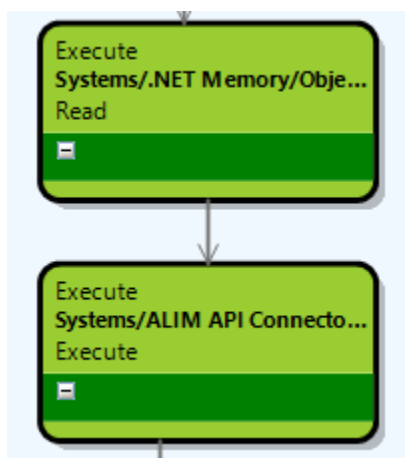
## 10. Set up also the destination object to store return Create New Document From Template – in this example is used MS SQL DB Connector



## 11. Mapping to SQL object in Transformation Page



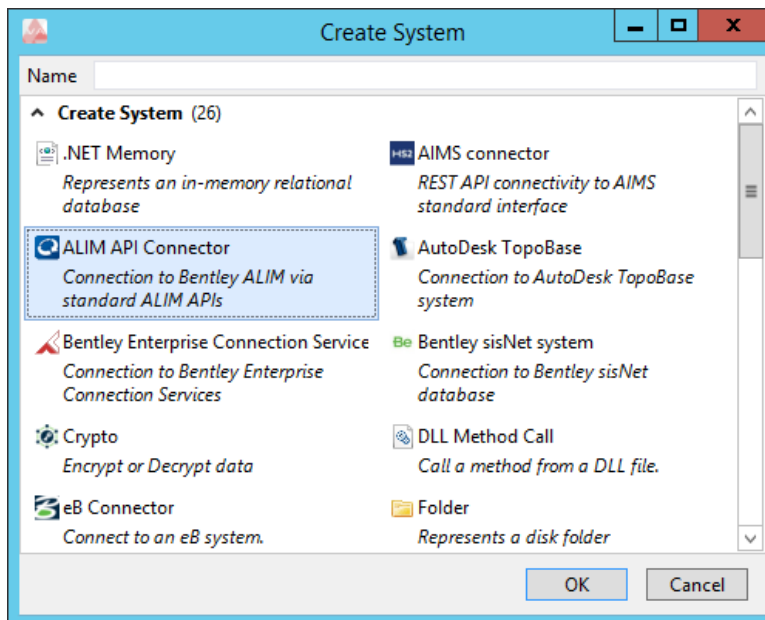
## 12. Set the execution steps to execute Create New Document From Template in Execution Page



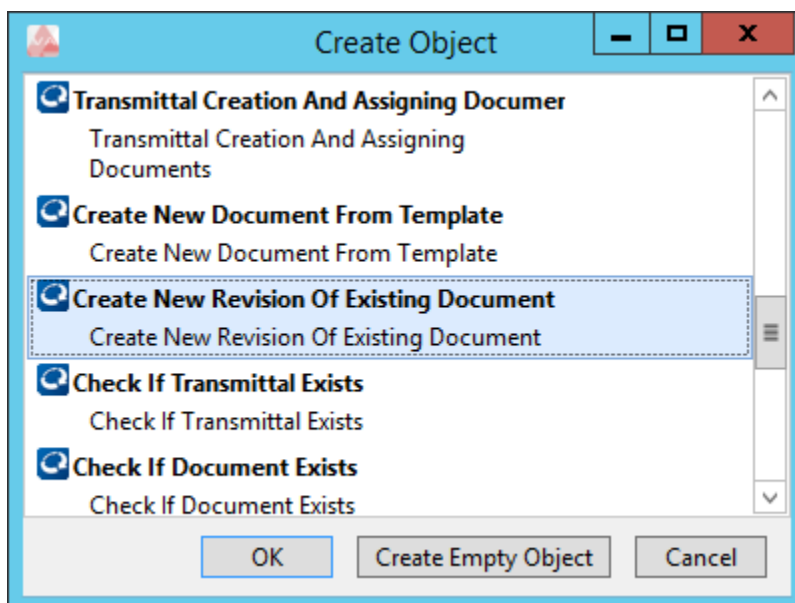


### 2.4.1.13 Step by step procedure – Create New Revision Of Existing Document

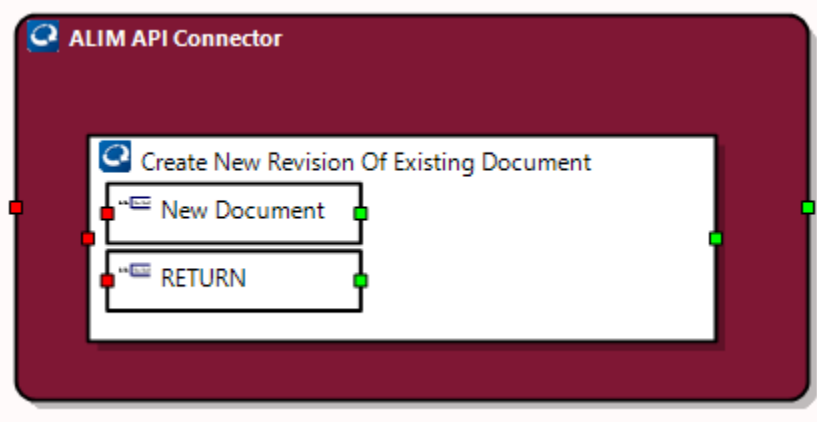
1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:



4. Select ALIM Connector
5. Drag and drop object
6. Select Create New Revision Of Existing Document



7. Read Structure
  - a. Press right mouse button on object and select Read Structure
  - b. After read structure

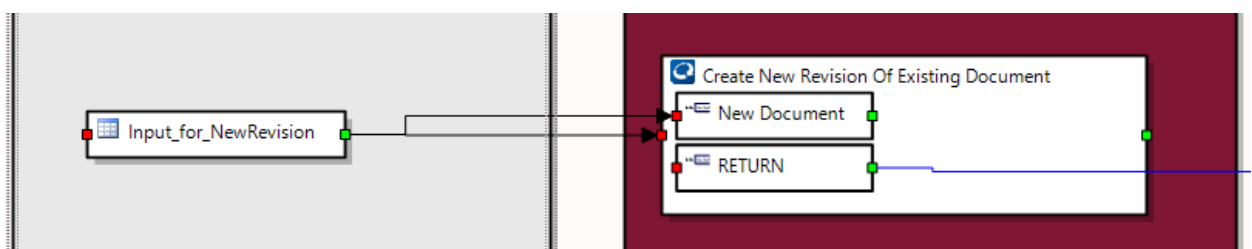


8. Right click on Create New Revision Of Existing Document object and click Edit Structure

The screenshot shows the 'Structure Editor' window for the 'Create New Revision Of Existing Document' object. It features a menu bar with options: Add, Add Field type, Delete, Save, Check All, Uncheck All, Copy, Paste, and Refresh. Below the menu is a table with columns: Name, DataType, IsIdentity, and a second Name column. The table lists the following fields:

Name	DataType	IsIdentity	Name
<input checked="" type="checkbox"/> Code	string	<input type="checkbox"/>	Code
<input checked="" type="checkbox"/> New Document	TABLE(Table)	<input type="checkbox"/>	New Document
<input checked="" type="checkbox"/> Code	string	<input type="checkbox"/>	Code
<input checked="" type="checkbox"/> Middle	string	<input type="checkbox"/>	Middle
<input checked="" type="checkbox"/> Revision Name	string	<input type="checkbox"/>	Revision Name
<input checked="" type="checkbox"/> Options	string	<input type="checkbox"/>	Options
<input checked="" type="checkbox"/> Batch Size	string	<input type="checkbox"/>	Batch Size
<input checked="" type="checkbox"/> RETURN	TABLE(Table)	<input type="checkbox"/>	RETURN
<input checked="" type="checkbox"/> Has Error	string	<input type="checkbox"/>	Has Error
<input checked="" type="checkbox"/> Message	string	<input type="checkbox"/>	Message
<input checked="" type="checkbox"/> Document Id	int	<input type="checkbox"/>	Document Id

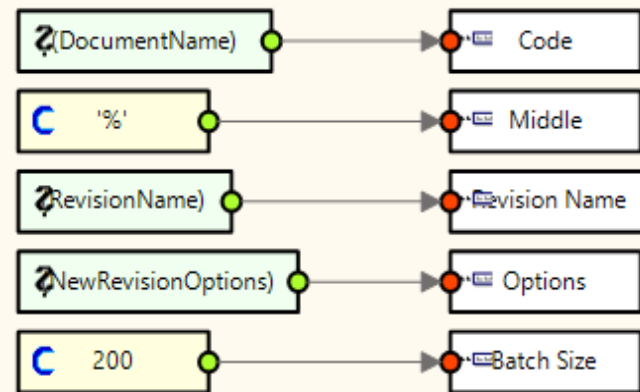
9. Map data from source object in Transformation Page



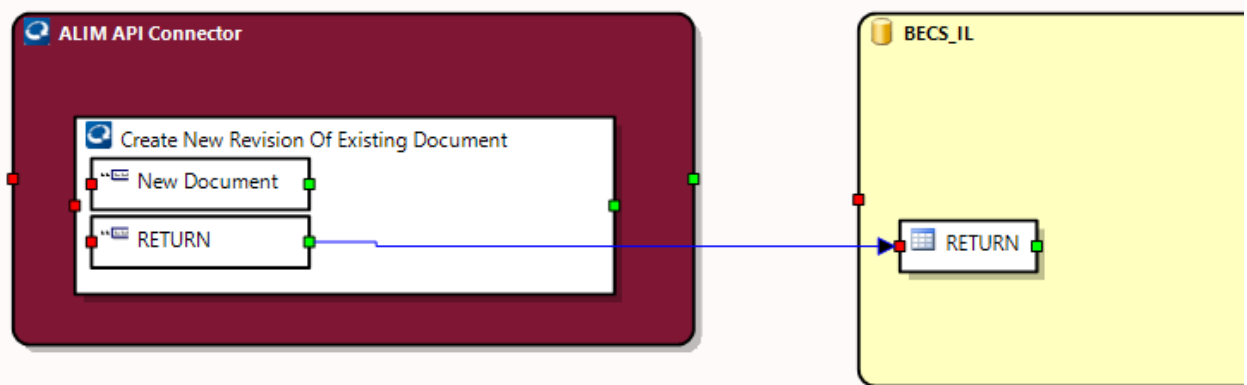
- a. Transformation to header object



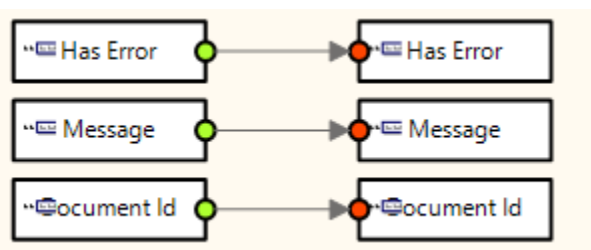
- b. Transformation to "New document"



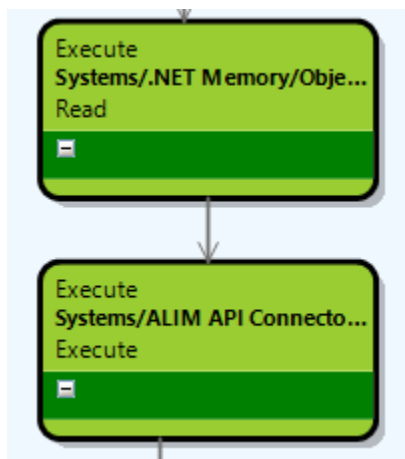
10. Set up also the destination object to store return Create New Revision Of Existing Document – in this example is used MS SQL DB Connector



11. Mapping to SQL object in Transformation Page

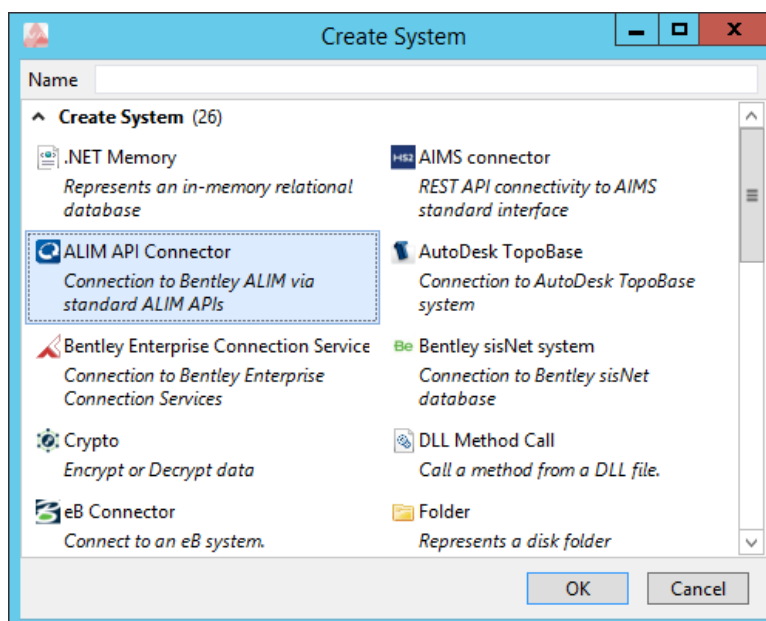


12. Set the execution steps to execute Create New Revision Of Existing Document in Execution Page

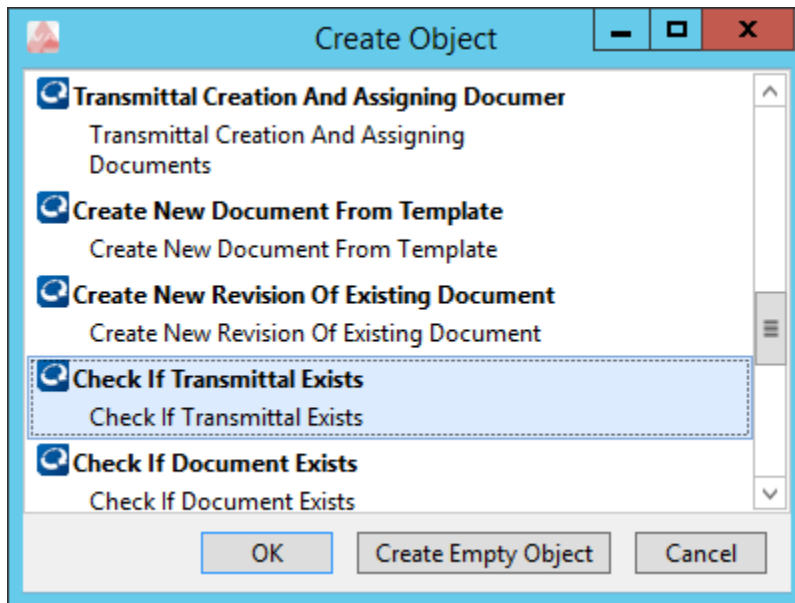


#### 2.4.1.14 Step by step procedure – Check If Transmittal Exists

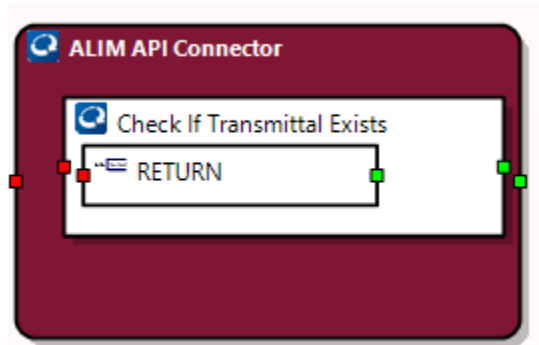
1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:



4. Select ALIM Connector
5. Drag and drop object
6. Select Check If Transmittal Exists



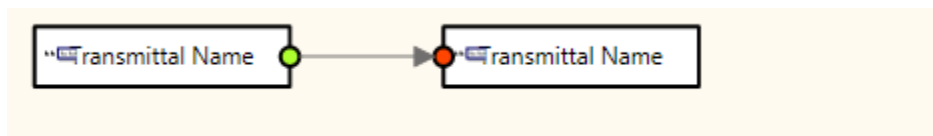
7. Read Structure
  - a. Press right mouse button on object and select Read Structure
  - b. After read structure



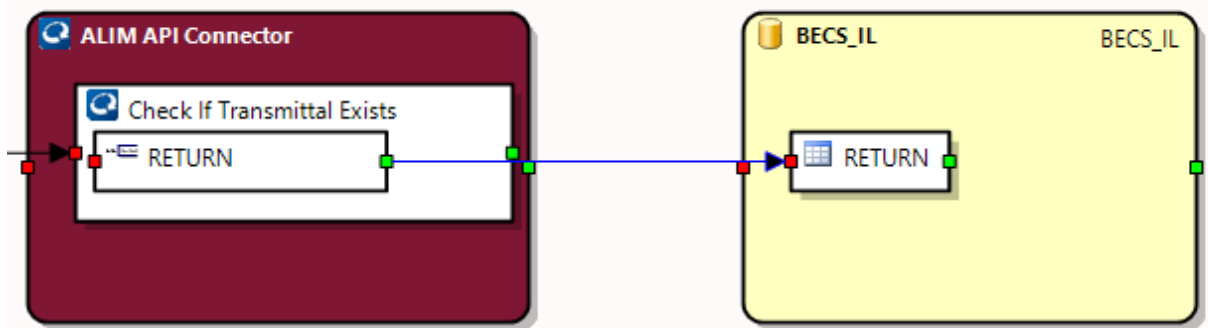
8. Right click on Check If Transmittal Exists object and click Edit Structure. Object has one input parameter: Transmittal Name, and two output parameters: Exist, ID

Structure Editor Check If Transmittal Exists					
Add Add Field type Delete Save Check All Uncheck All Copy Paste Refresh					
Name	DataType	IsIdentity	Name		
<input checked="" type="checkbox"/> Transmittal Name	string	<input type="checkbox"/>	Transmittal Name		
<input checked="" type="checkbox"/> RETURN	TABLE(Table)	<input type="checkbox"/>	RETURN		
<input checked="" type="checkbox"/> Exist	string	<input type="checkbox"/>	Exist		
<input checked="" type="checkbox"/> ID	string	<input type="checkbox"/>	ID		

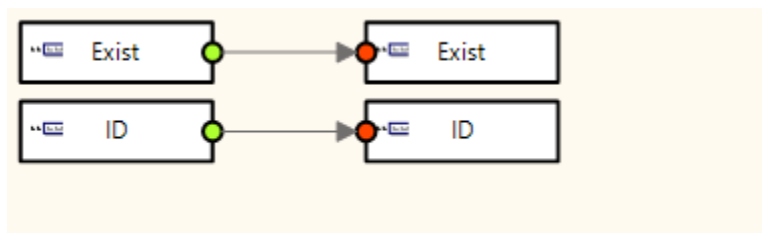
## 9. Map data from source object in Transformation Page



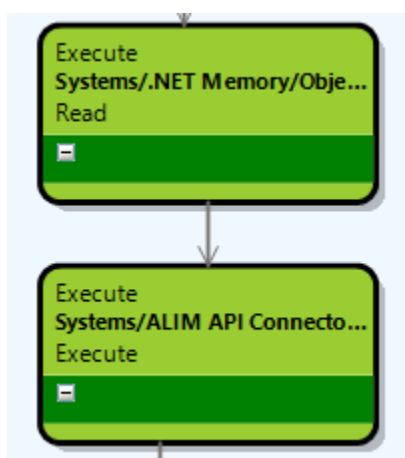
## 10. Set up also the destination object to store return Check If Transmittal Exists – in this example is used MS SQL DB Connector



## 11. Mapping to SQL object in Transformation Page

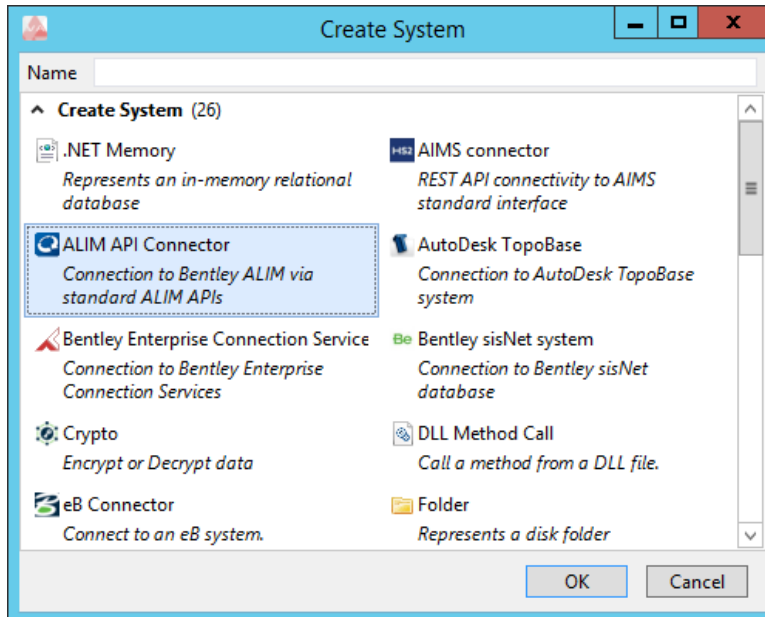


## 12. Set the execution steps to execute Check If Transmittal Exists in Execution Page

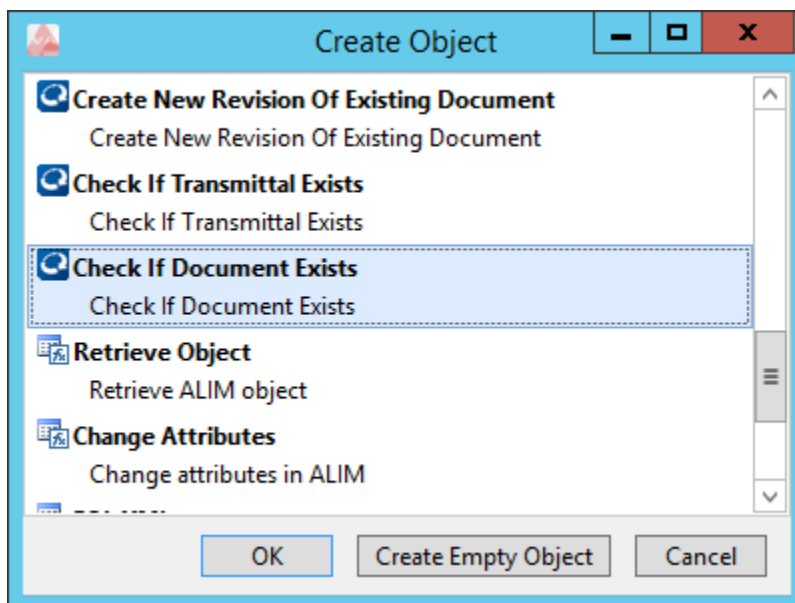


#### 2.4.1.15 Step by step procedure – Check If Document Exists

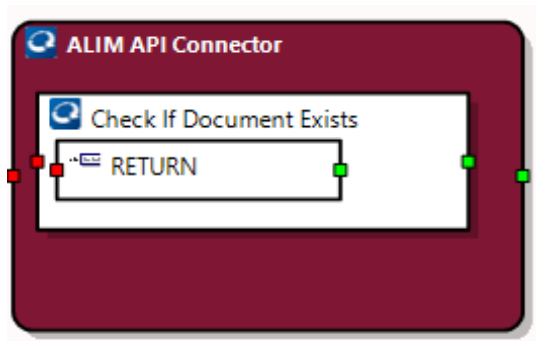
1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:



4. Select ALIM Connector
5. Drag and drop object
6. Select Check If Document Exists



7. Read Structure
  - a. Press right mouse button on object and select Read Structure
  - b. After read structure

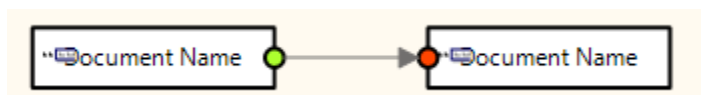


8. Right click on Check If Document Exists object and click Edit Structure. Object has one input parameter: Document Name, and two output parameters: Exist, ID

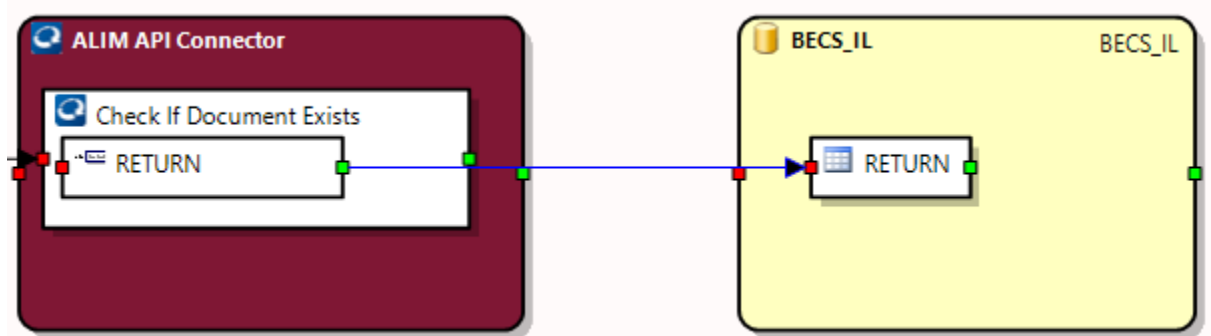
Structure Editor Check If Document Exists

Name	DataType	IsIdentity	Name
<input checked="" type="checkbox"/> Document Name	string	<input type="checkbox"/>	Document Name
<input checked="" type="checkbox"/> RETURN	TABLE(Table)	<input type="checkbox"/>	RETURN
<input checked="" type="checkbox"/> Exist	string	<input type="checkbox"/>	Exist
<input checked="" type="checkbox"/> ID	string	<input type="checkbox"/>	ID

9. Map data from source object in Transformation Page

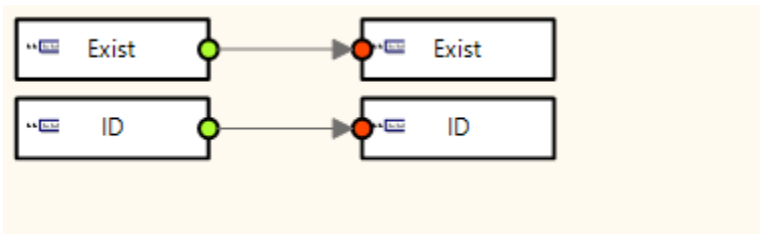


10. Set up also the destination object to store return Check If Document Exists – in this example is used MS SQL DB Connector

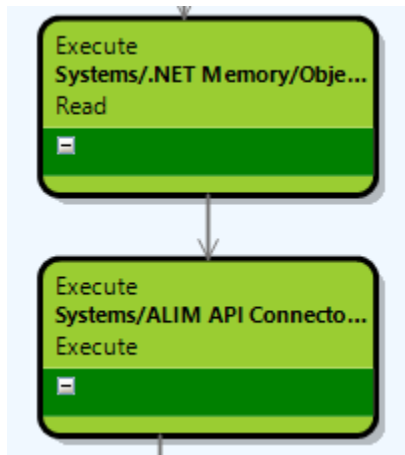


11. Mapping to SQL object in Transformation Page



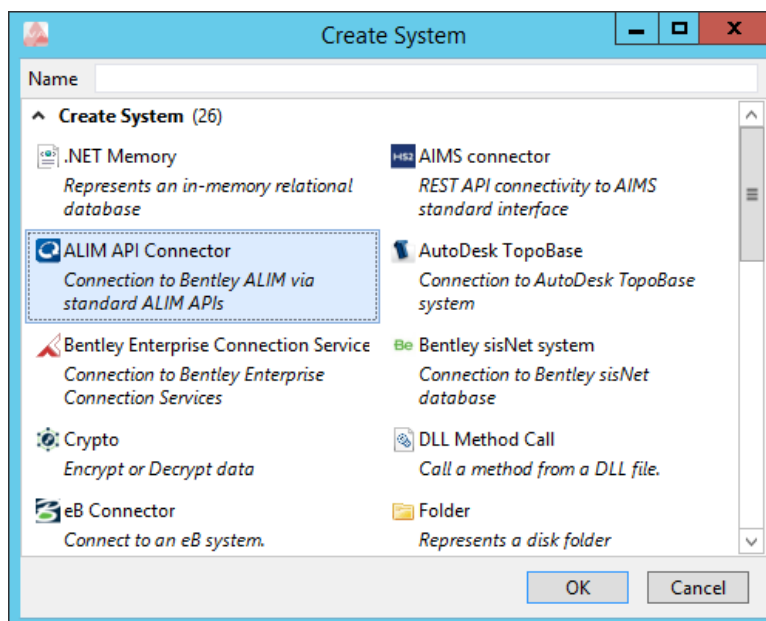


12. Set the execution steps to execute Check If Document Exists in Execution Page

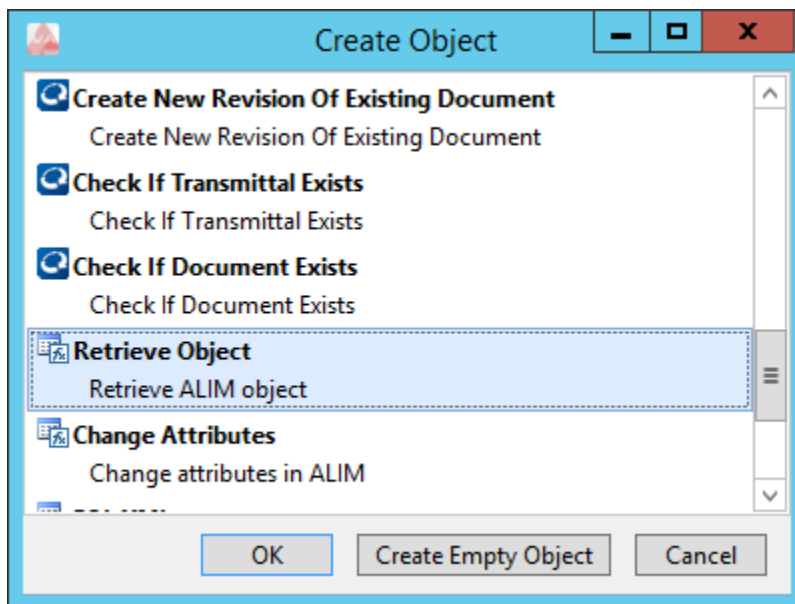


#### 2.4.1.16 Step by step procedure – Retrieve Object

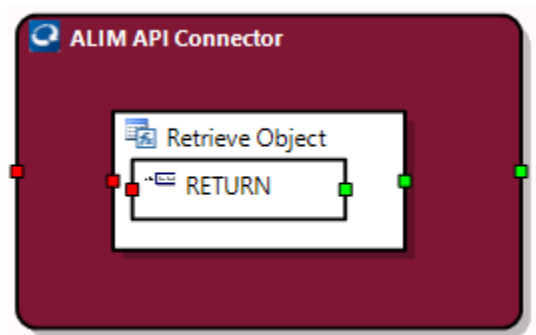
1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:



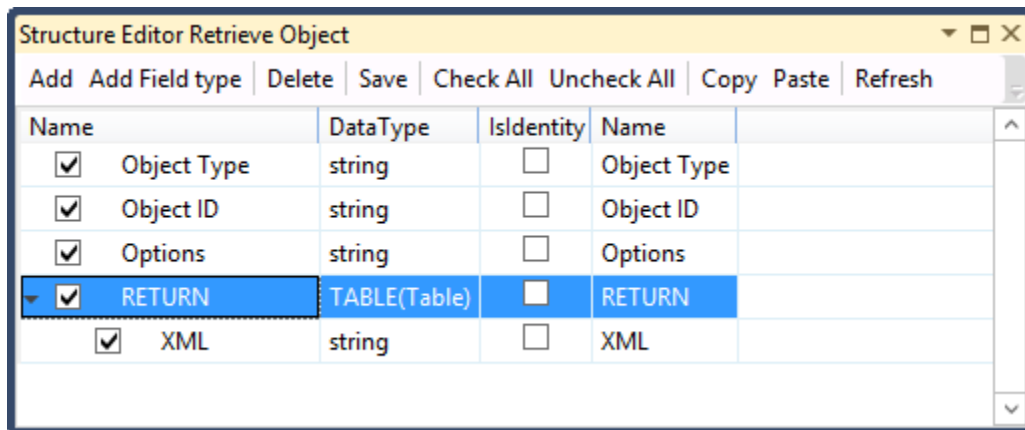
4. Select ALIM Connector
5. Drag and drop object
6. Select Retrieve Object



7. Read Structure
  - a. Press right mouse button on object and select Read Structure
  - b. After read structure



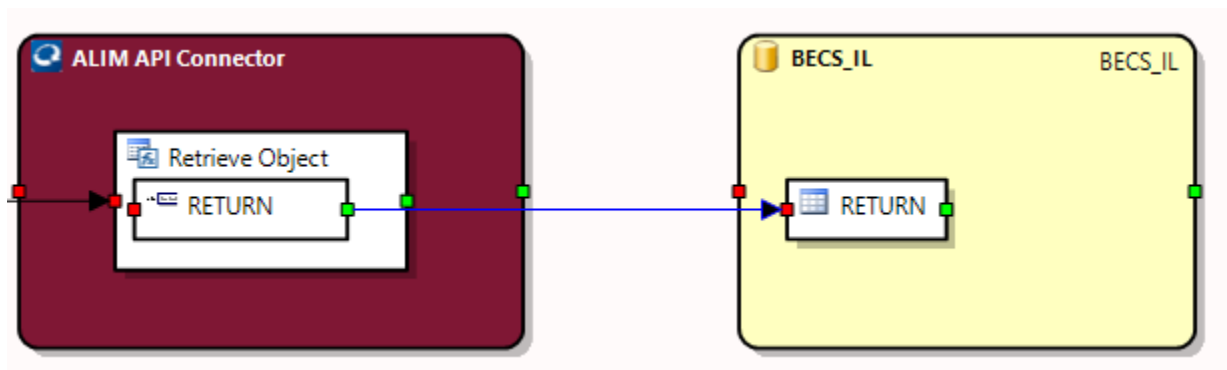
8. Right click on Retrieve Object and click Edit Structure. Object has three input parameters: Object Type, Object ID, Options, and one output parameter: XML.



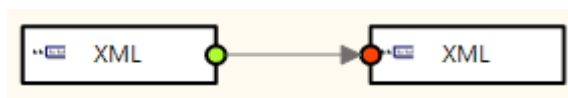
9. Map data from source object in Transformation Page



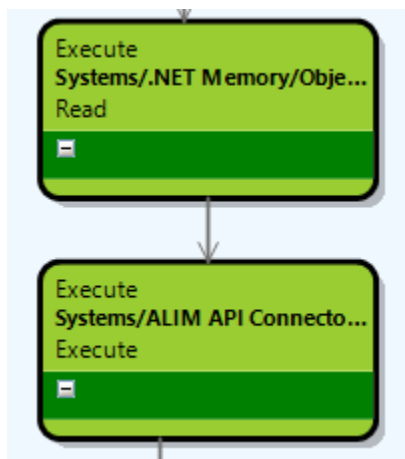
10. Set up also the destination object to store return Retrieve Object – in this example is used MS SQL DB Connector



11. Mapping to SQL object in Transformation Page

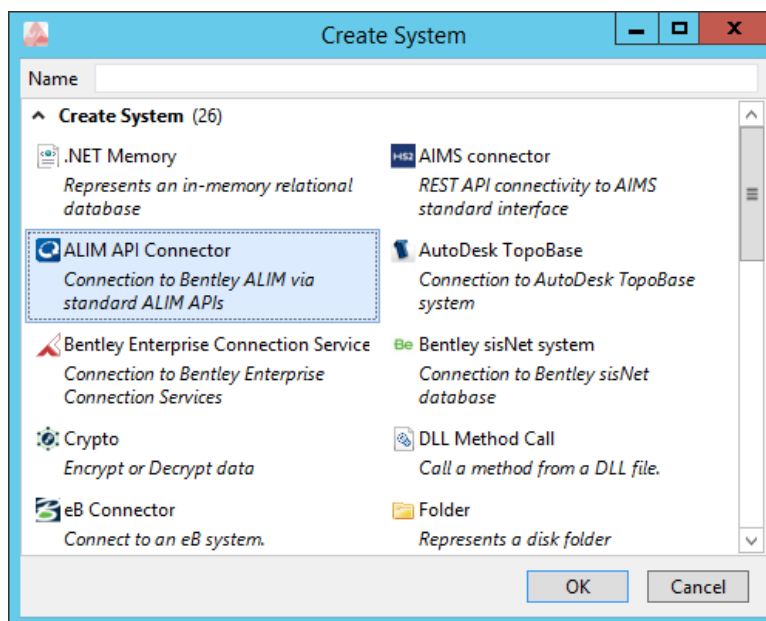


12. Set the execution steps to execute Retrieve Object in Execution Page

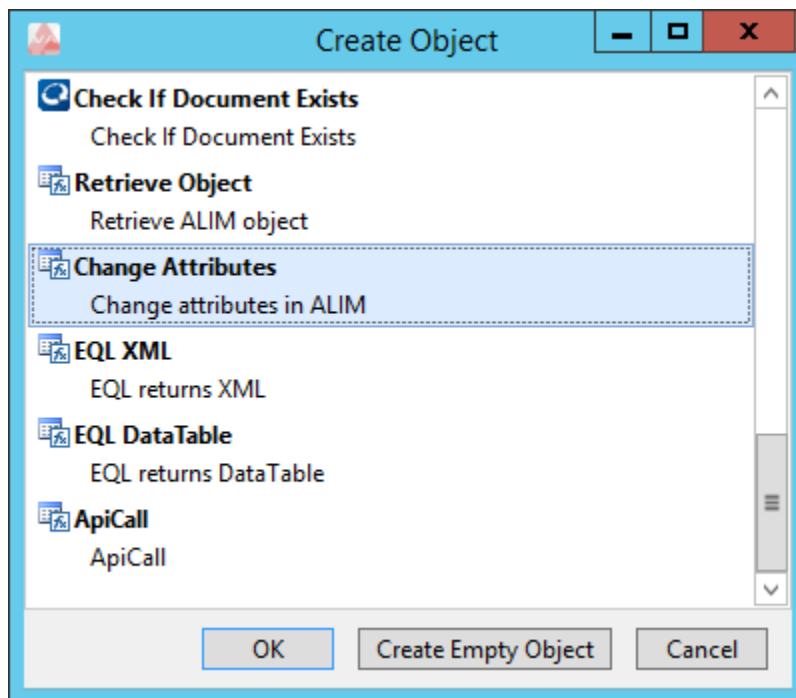


#### 2.4.1.17 Step by step procedure – Change Attributes

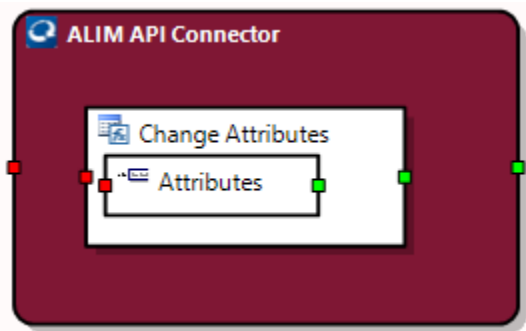
1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:



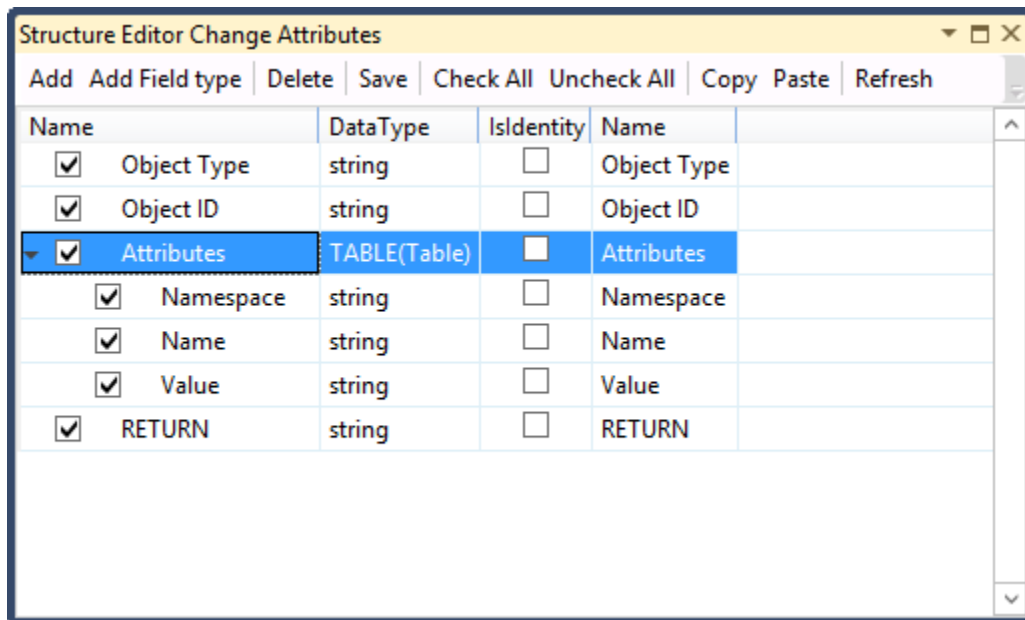
4. Select ALIM Connector
5. Drag and drop object
6. Select Change Attributes



7. Read Structure
  - a. Press right mouse button on object and select Read Structure
  - b. After read structure

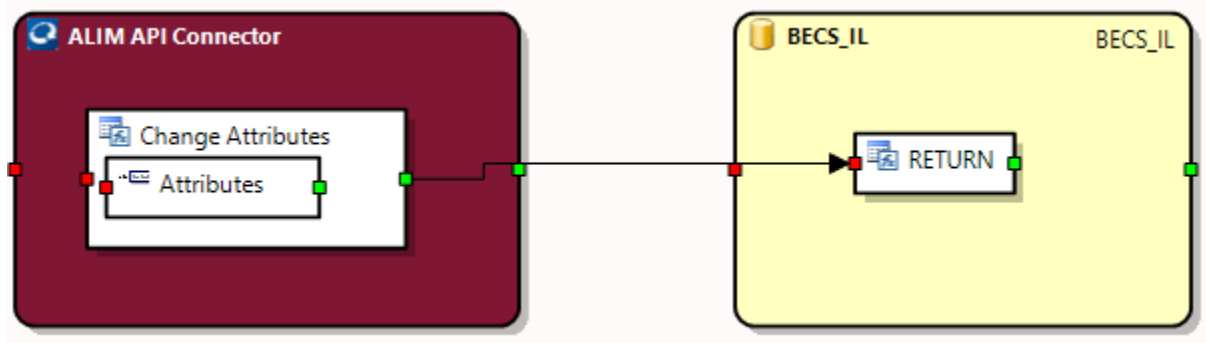


8. Right click on Change Attributes object and click Edit Structure.

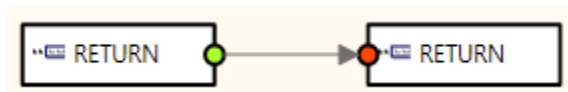


9. Map data from source object in Transformation Page

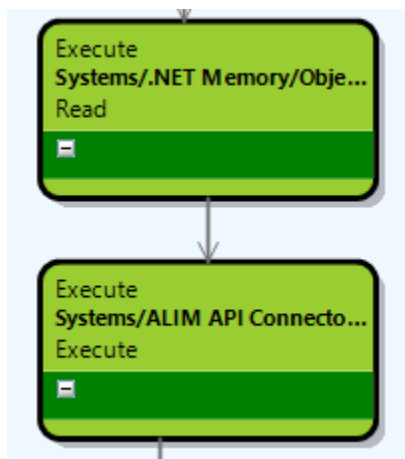
10. Set up also the destination object to store return Change Attributes – in this example is used MS SQL DB Connector



11. Mapping to SQL object in Transformation Page

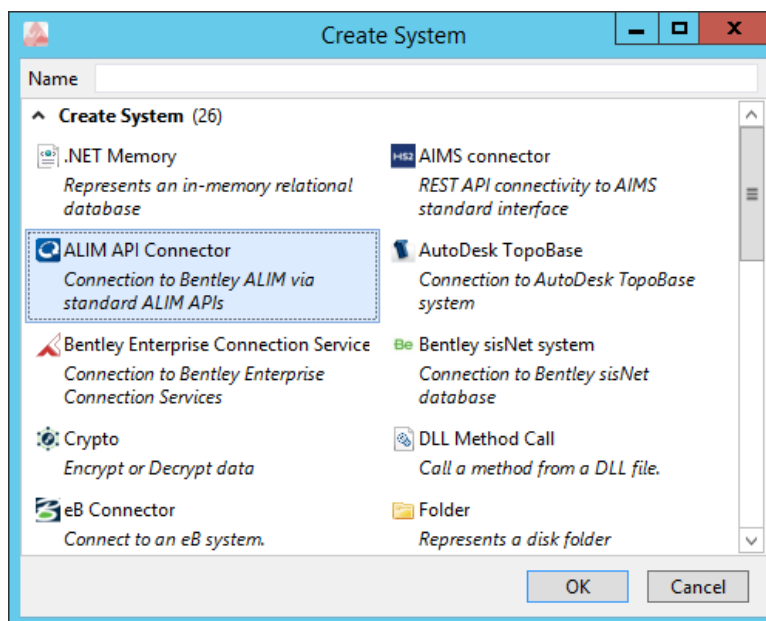


12. Set the execution steps to execute Change Attributes in Execution Page

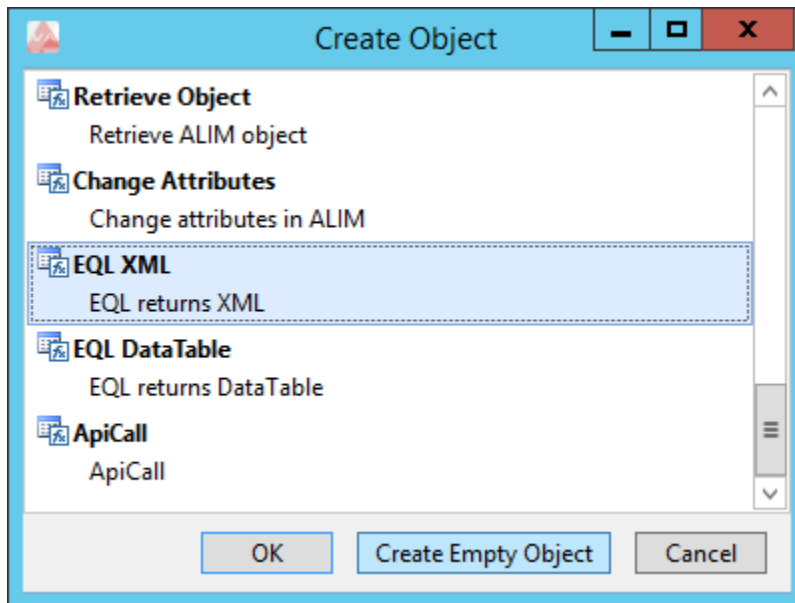


#### 2.4.1.18 Step by step procedure – EQL XML

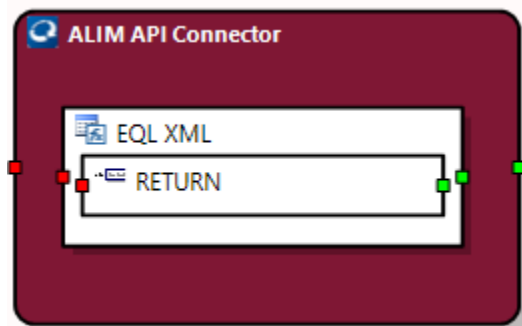
1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:



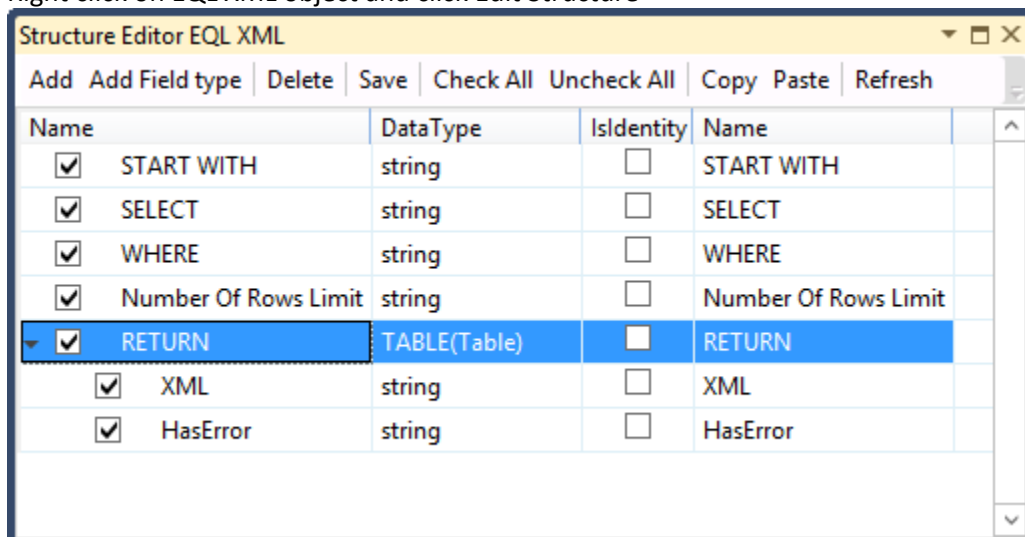
4. Select ALIM Connector
5. Drag and drop object
6. Select EQL XML



7. Read Structure
  - a. Press right mouse button on object and select Read Structure
  - b. After read structure

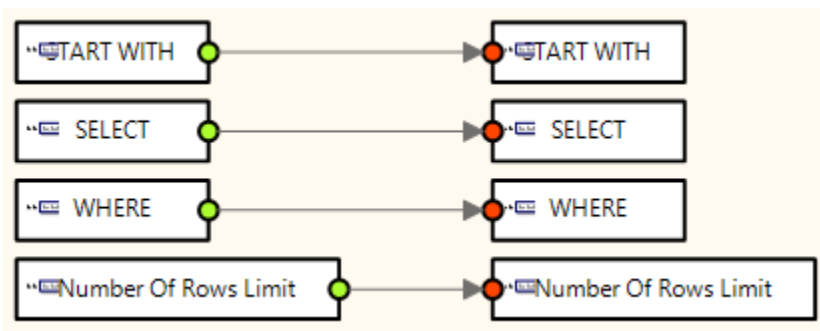


8. Right click on EQL XML object and click Edit Structure

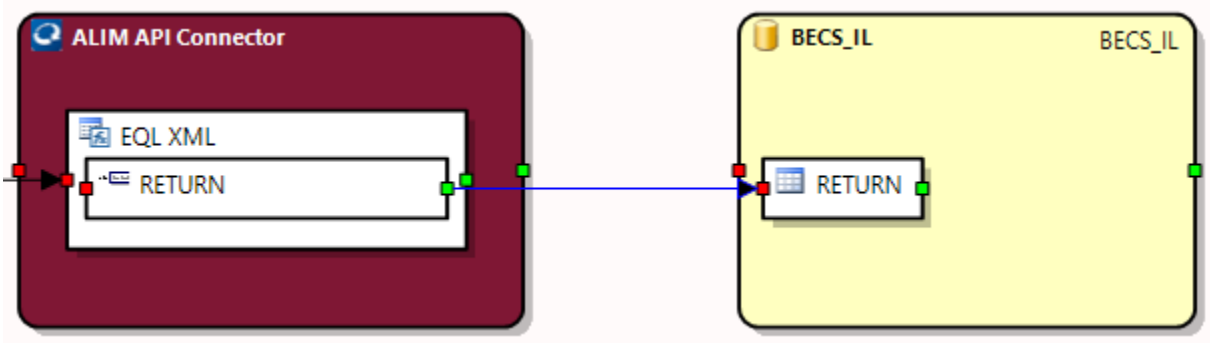




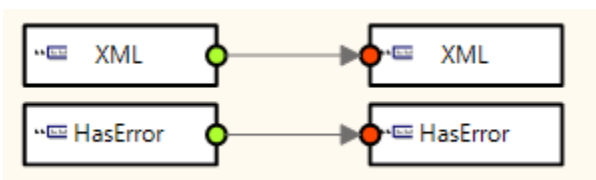
## 9. Map data from source object in Transformation Page



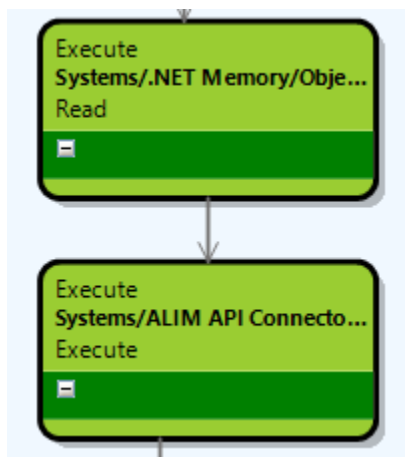
## 10. Set up also the destination object to store return EQL XML – in this example is used MS SQL DB Connector



## 11. Mapping to SQL object in Transformation Page

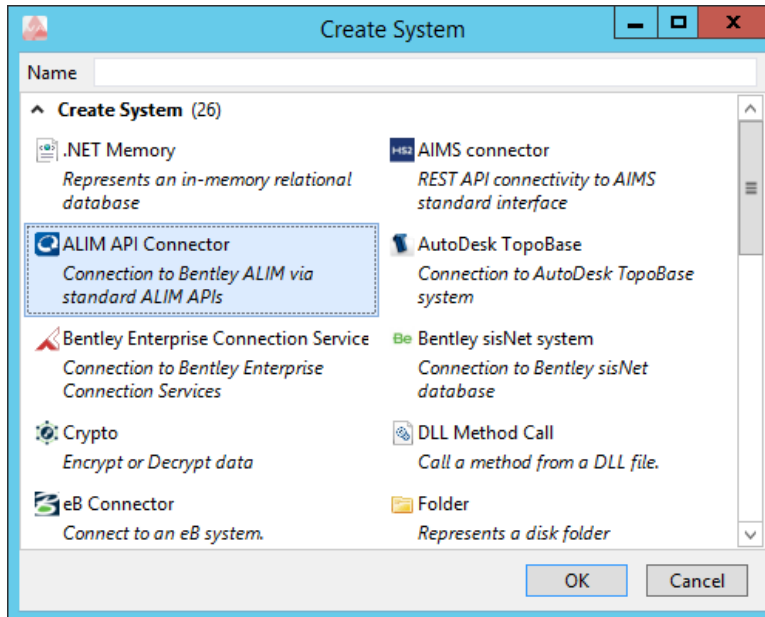


## 12. Set the execution steps to execute EQL XML in Execution Page

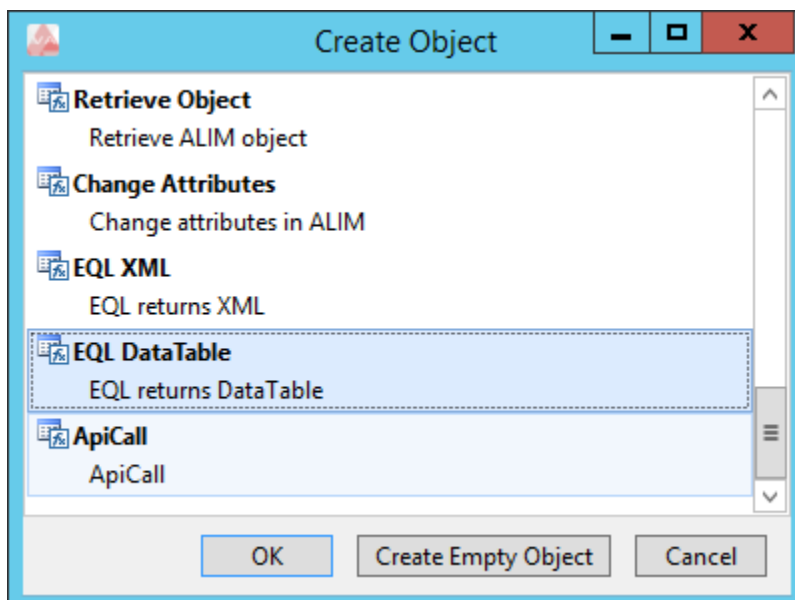


### 2.4.1.19 Step by step procedure – EQL DataTable

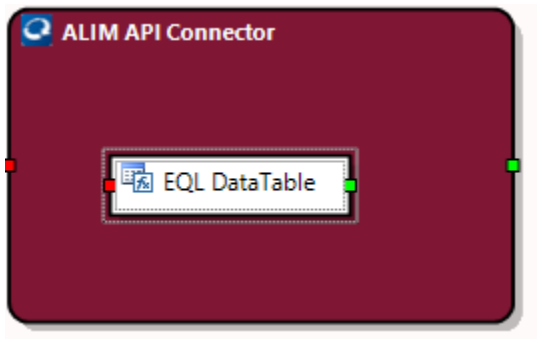
1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:



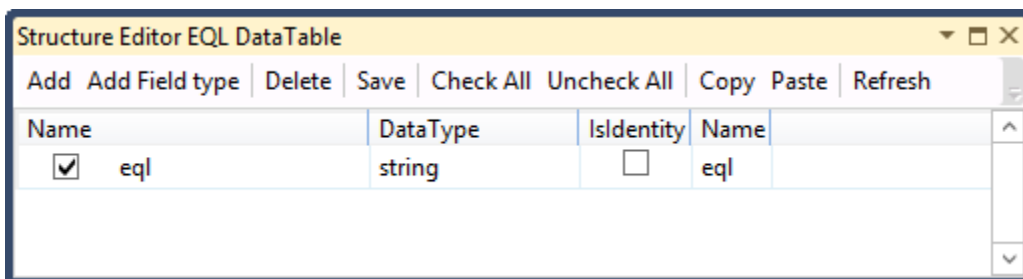
4. Select ALIM Connector
5. Drag and drop object
6. Select EQL DataTable



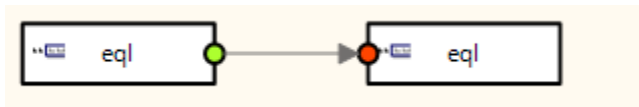
7. Read Structure
  - a. Press right mouse button on object and select Read Structure
  - b. After read structure



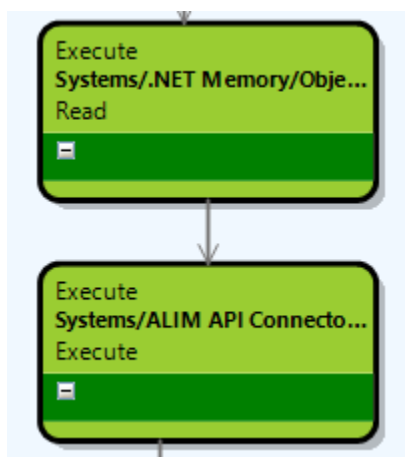
8. Right click on EQL DataTable object and click Edit Structure



9. Map data from source object in Transformation Page

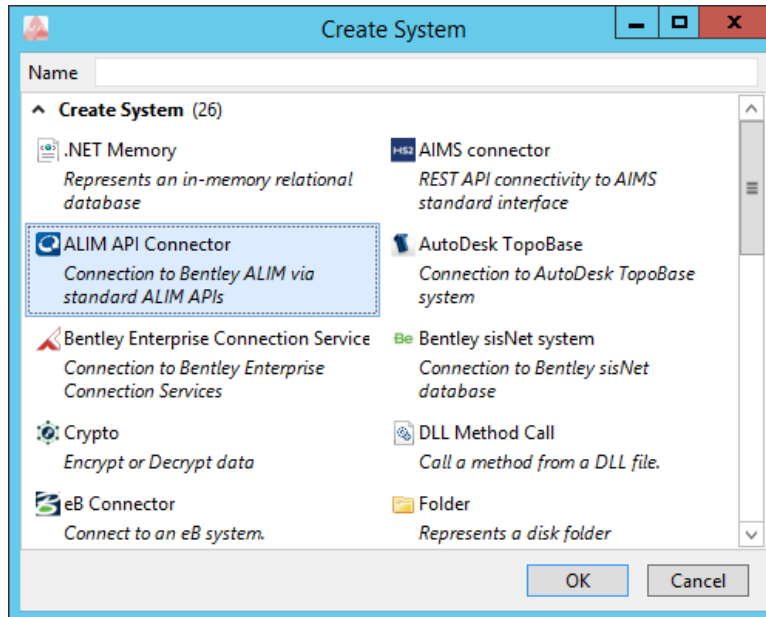


10. Set the execution steps to execute EQL DataTable in Execution Page

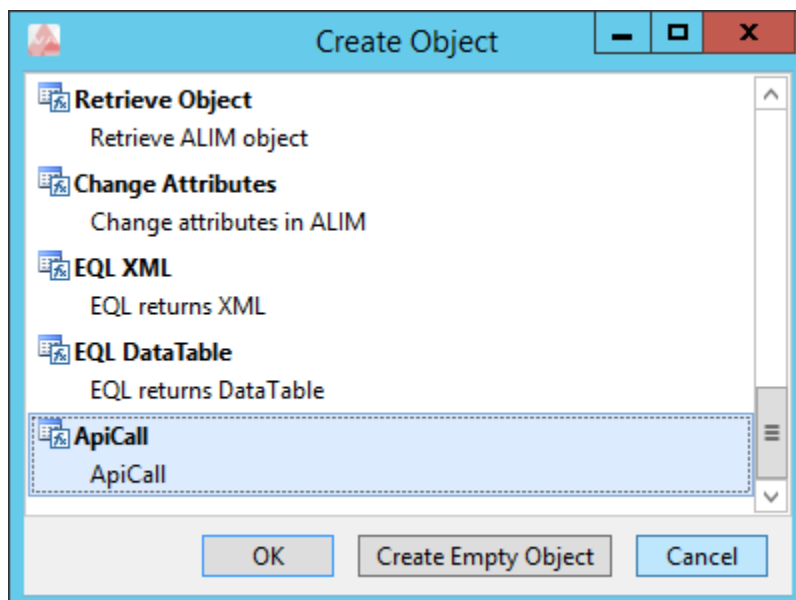


### 2.4.1.20 Step by step procedure – ApiCall

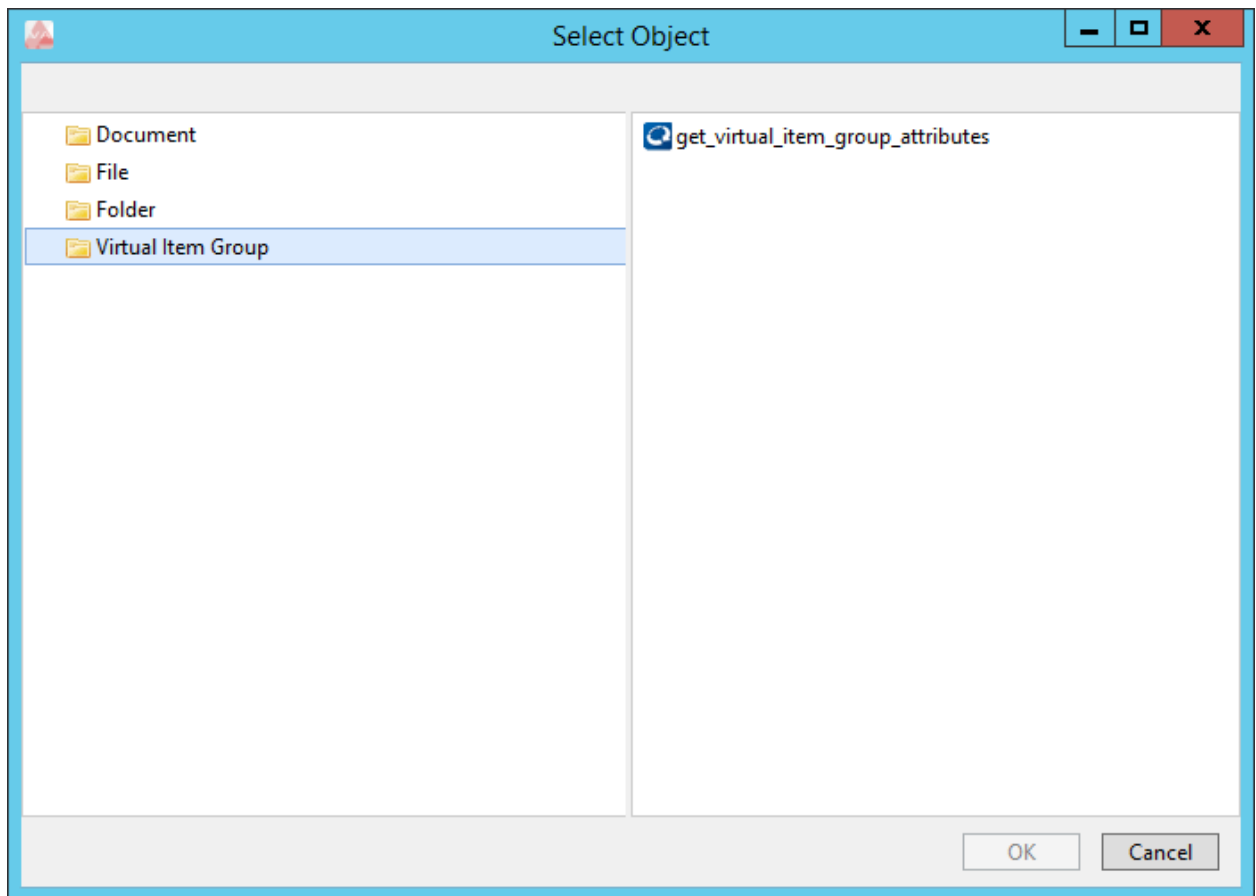
1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:



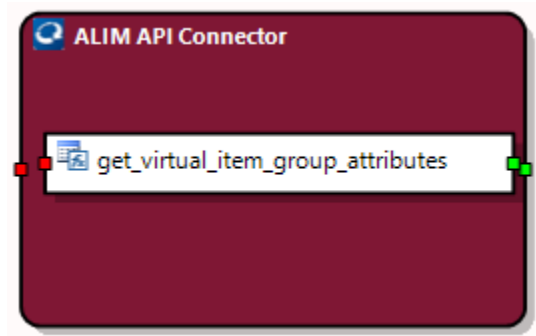
4. Select ALIM Connector
5. Drag and drop object
6. Select ApiCall



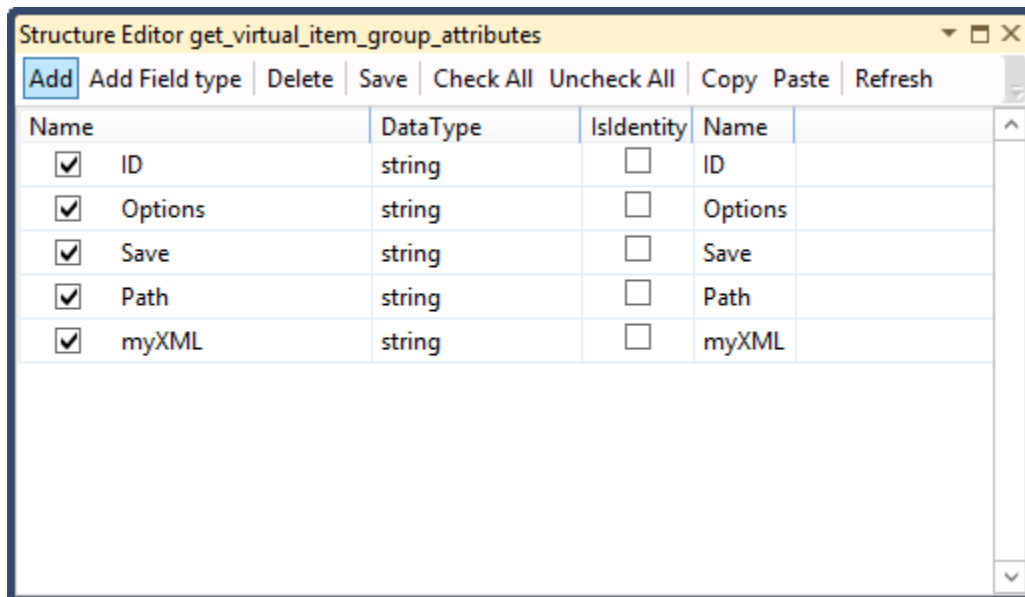
7. Select get virtual item group attributes



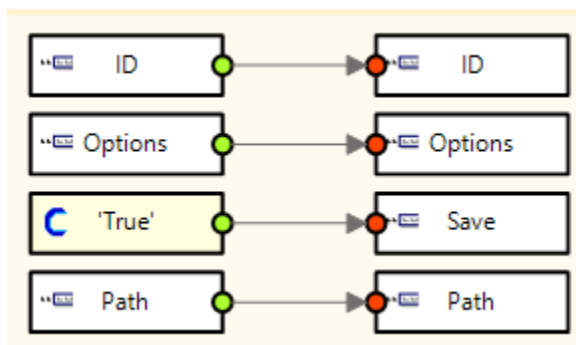
8. After select



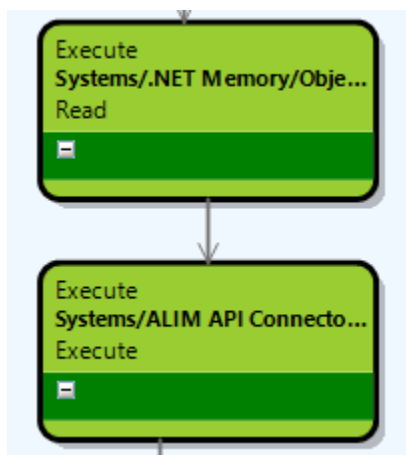
9. Right click get virtual item group attributes and click Edit Structure
  - a. ID – object ID
  - b. Options – for example:  
Header;Interfaces;ControlledObjects;Attributes;Securities;Relationships;Copies;Files;
  - c. If Save is set to “True” then XML is saved to selected Path



10. Map data from source object in Transformation Page

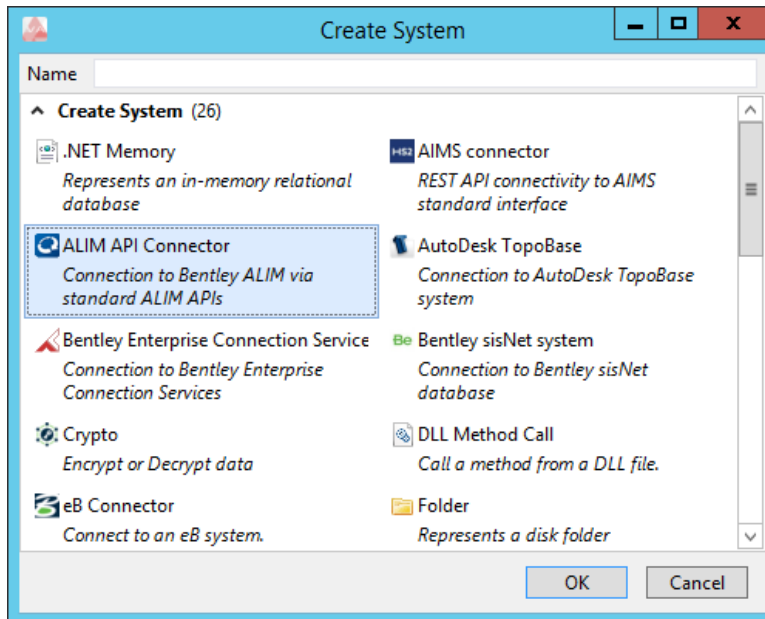


11. Set the execution steps to execute get virtual item group attributes in Execution Page

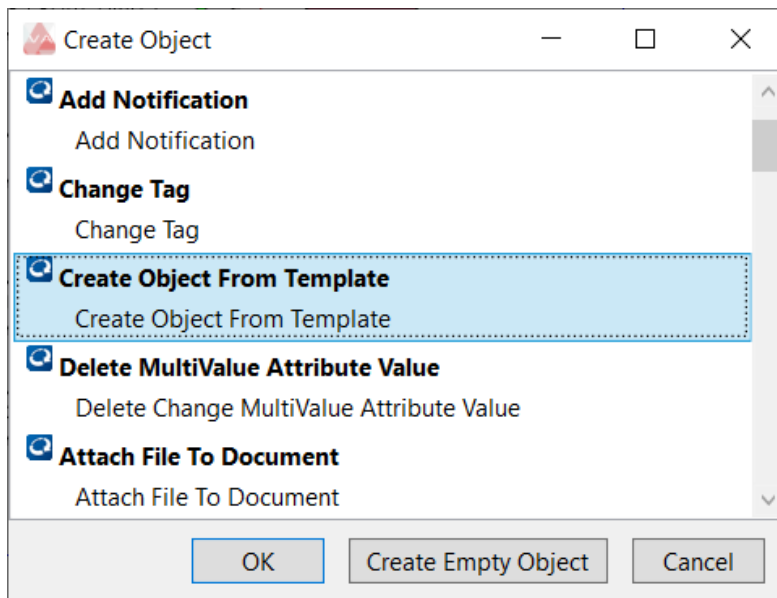


### 2.4.1.21 Step by step procedure – Create Object From Template

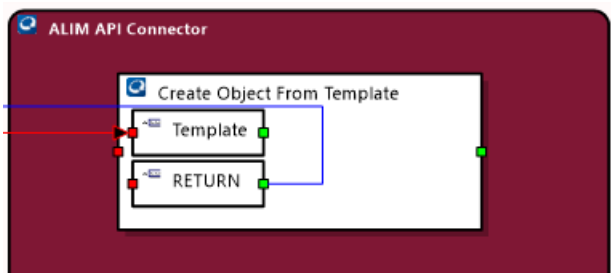
1. Via standard BECS development client tool called BECS Visual Architect open a new integration project template (Menu: File – New – Project...)
2. Drag and drop System from Toolbox on Data Page
3. After dropping the System at the Data Page BECS VA shows following dialog:



4. Select ALIM Connector
5. Drag and drop object
6. Select Create Object From Template



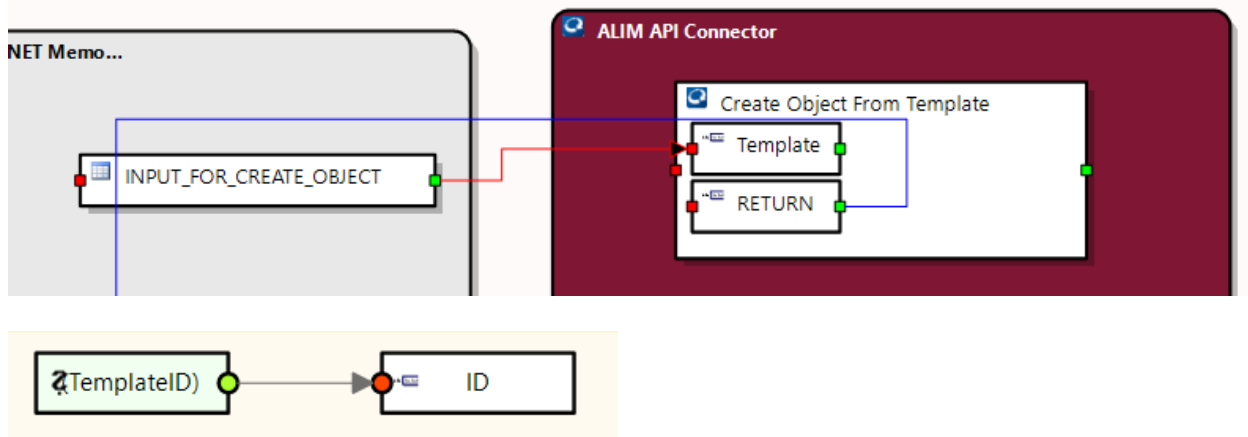
7. After select



8. Right click Create Object From Template and click Edit Structure. Object has one input parameter ID and three output parameters Has Error, Message and Object ID

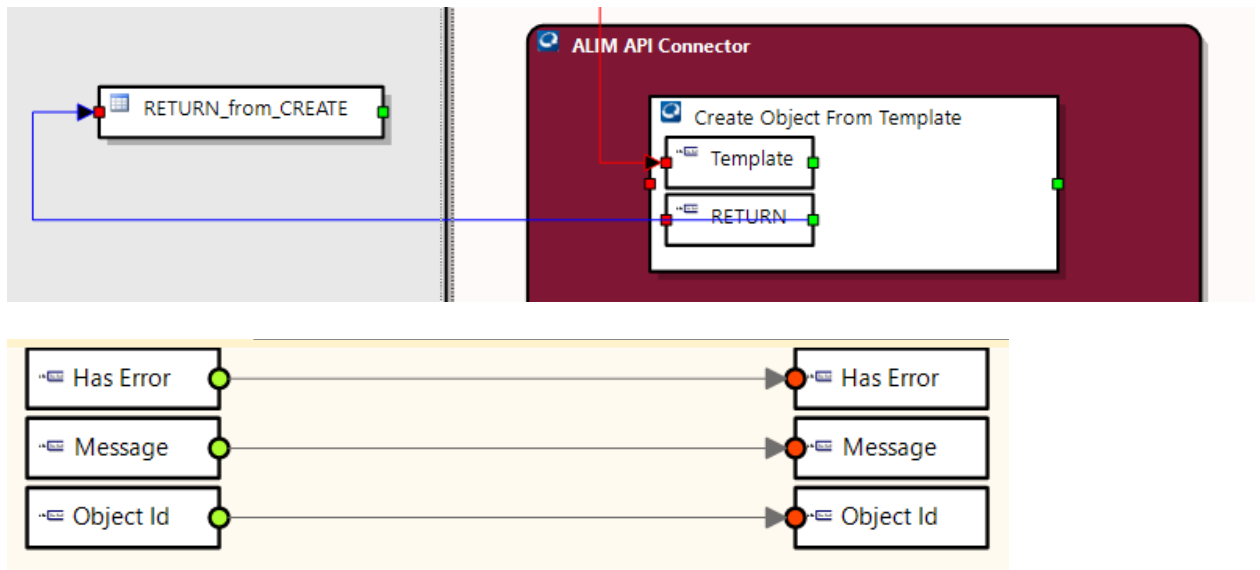
Structure Editor Create Object From Template				
Add Add Field type Delete Save Check All Uncheck All Copy Paste Refresh				
Name	DataType	IsIdentity	Name	
<input checked="" type="checkbox"/> Template	TABLE(Table)	<input type="checkbox"/>	Template	
<input checked="" type="checkbox"/> ID	string	<input type="checkbox"/>	ID	
<input checked="" type="checkbox"/> RETURN	TABLE(Table)	<input type="checkbox"/>	RETURN	
<input checked="" type="checkbox"/> Has Error	string	<input type="checkbox"/>	Has Error	
<input checked="" type="checkbox"/> Message	string	<input type="checkbox"/>	Message	
<input checked="" type="checkbox"/> Object Id	string	<input type="checkbox"/>	Object Id	

9. Map data from source object.

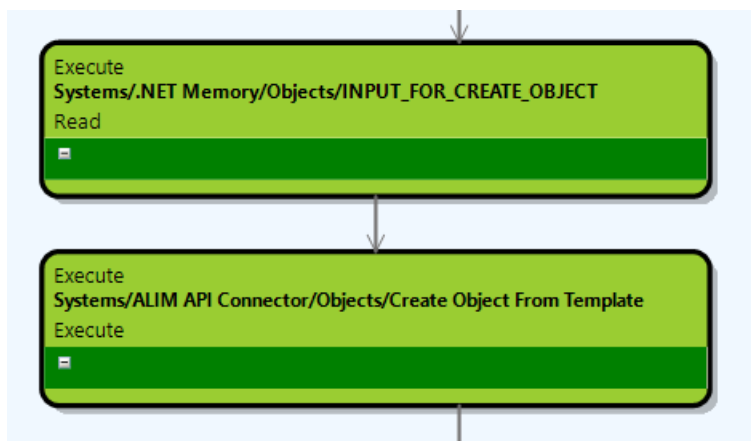


10. Map data from Return. In this example is .Net memory system



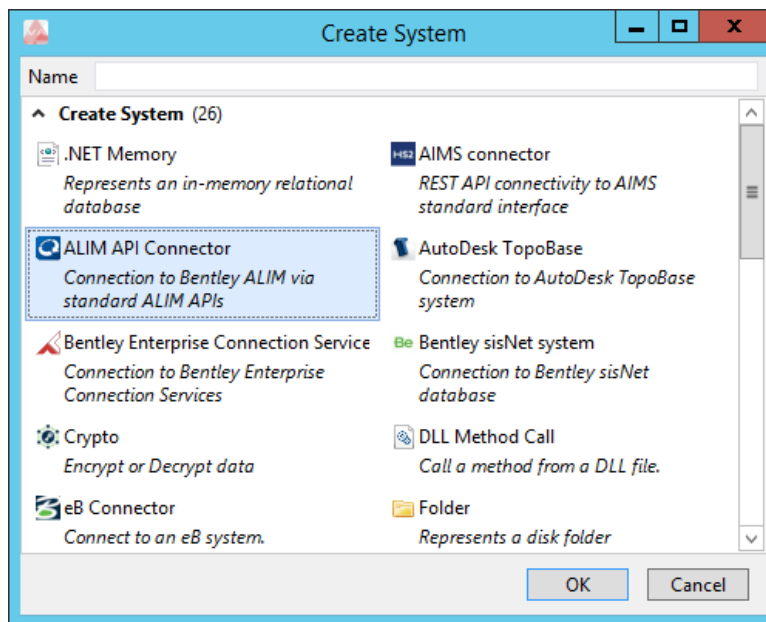


11. Set an execution step to execute Create Object From Template

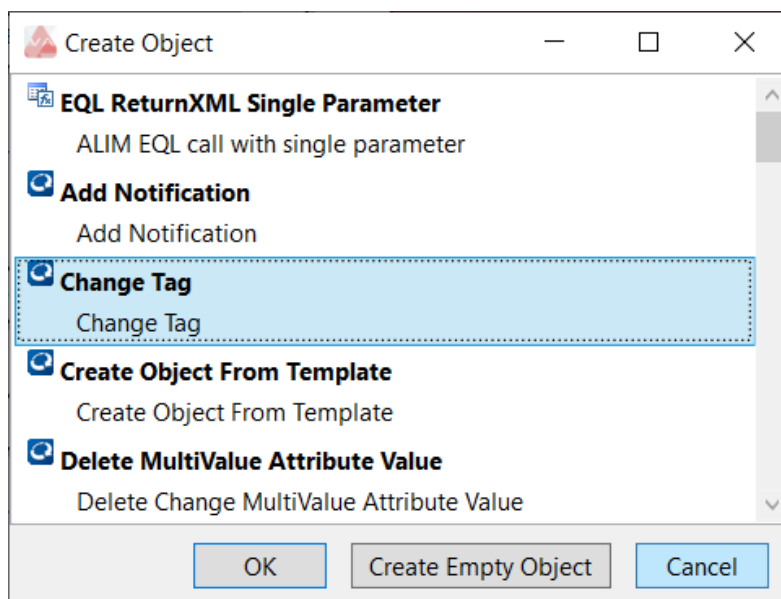


#### 2.4.1.22 Step by step procedure - Change Tag

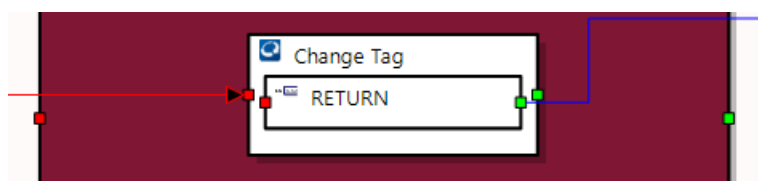
1. Via standard BECS development client tool called BECS Visual Architect will be open new template (Menu File – New)
2. Drag and drop system
3. After drop BECS VA shows following dialog:



4. Select ALIM Connector
5. Drag and Drop object
6. Select Change Tag



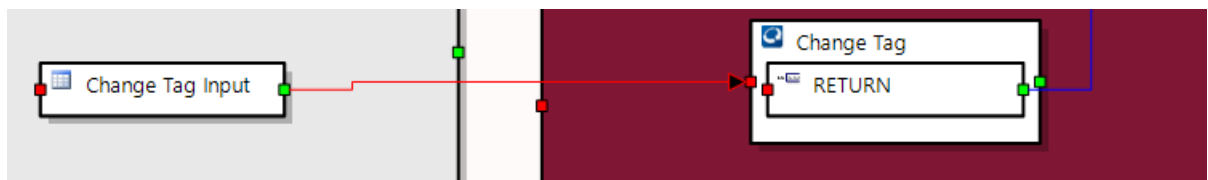
7. After select

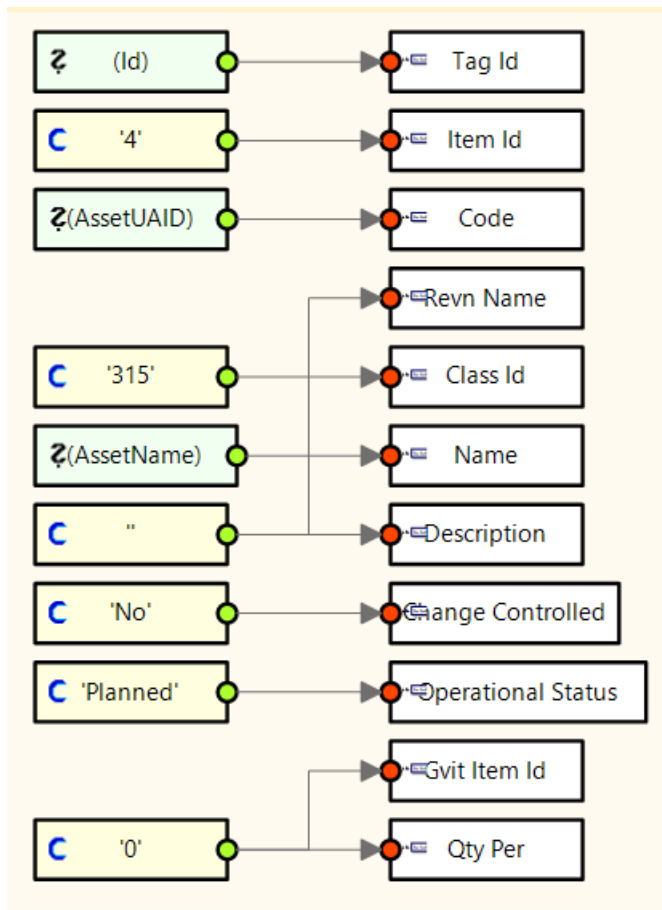


8. Right click Change Tag and click Edit Structure. Object has eleven input parameter Tag Id, Item Id, Code, Revn Name, Class ID, Name, Description, Change Controlled, Operational Status, Gvit Item Id, Qty Per and two output parameters Has Error, Message

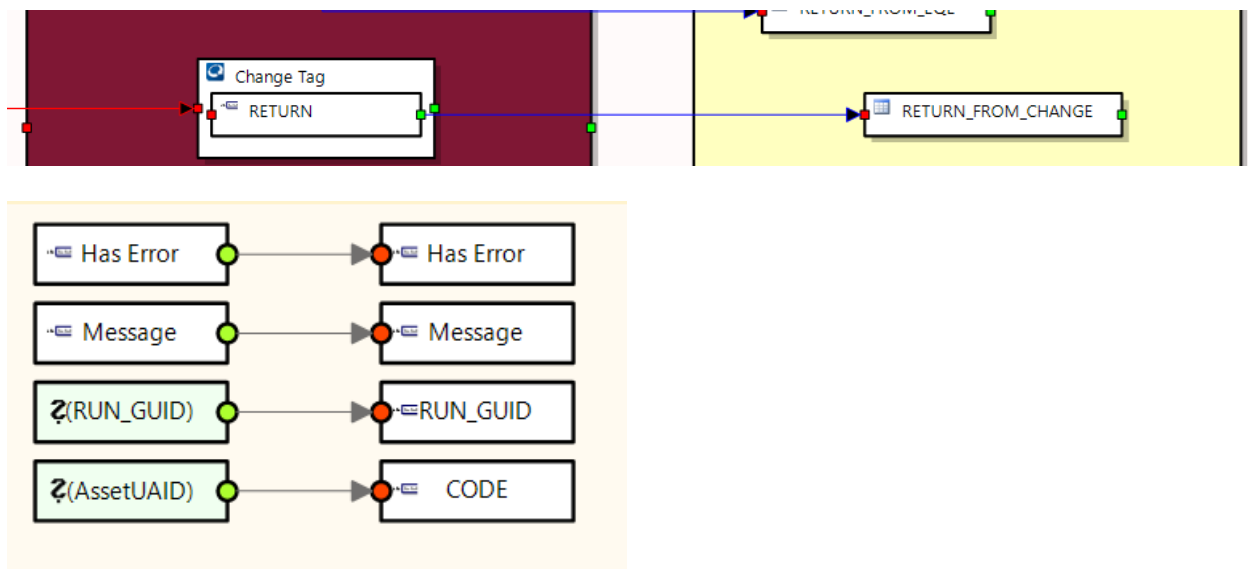
Structure Editor Change Tag				
Add Add Field type Delete Save Check All Uncheck All Copy Paste Refresh				
Name		DataType	IsIdentity	Name
<input checked="" type="checkbox"/> Tag Id		string	<input type="checkbox"/>	Tag Id
<input checked="" type="checkbox"/> Item Id		string	<input type="checkbox"/>	Item Id
<input checked="" type="checkbox"/> Code		string	<input type="checkbox"/>	Code
<input checked="" type="checkbox"/> Revn Name		string	<input type="checkbox"/>	Revn Name
<input checked="" type="checkbox"/> Class Id		string	<input type="checkbox"/>	Class Id
<input checked="" type="checkbox"/> Name		string	<input type="checkbox"/>	Name
<input checked="" type="checkbox"/> Description		string	<input type="checkbox"/>	Description
<input checked="" type="checkbox"/> Change Controlled		string	<input type="checkbox"/>	Change Controlled
<input checked="" type="checkbox"/> Operational Status		string	<input type="checkbox"/>	Operational Status
<input checked="" type="checkbox"/> Gvit Item Id		string	<input type="checkbox"/>	Gvit Item Id
<input checked="" type="checkbox"/> Qty Per		string	<input type="checkbox"/>	Qty Per
<input checked="" type="checkbox"/> RETURN		TABLE(Table)	<input type="checkbox"/>	RETURN
<input checked="" type="checkbox"/> Has Error		string	<input type="checkbox"/>	Has Error
<input checked="" type="checkbox"/> Message		string	<input type="checkbox"/>	Message

9. Map data from source object.

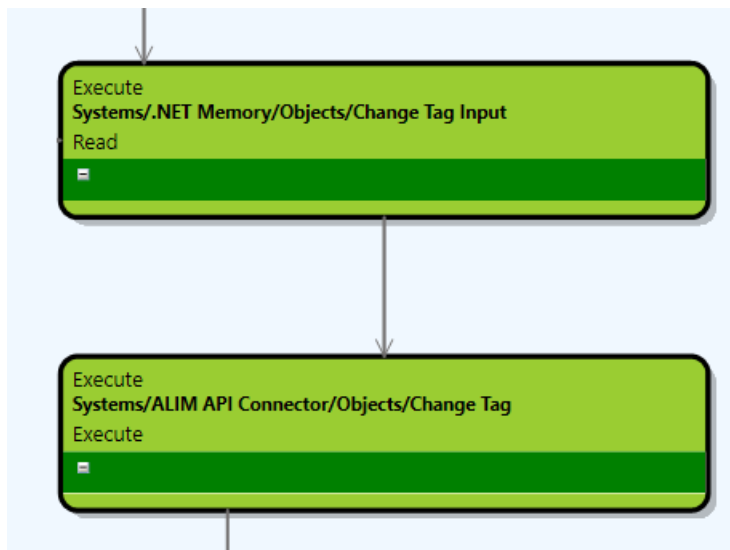




10. Map date from Return. In this example is used SQL connector as target system.



## 11. Set an execution step to execute Change tag



### 3 References

Number	Revision	Title	Status

### 4 Glossary

Term	Description

End of document