Integration Framework for SAP Business One

Calling B1 (SAP Business One) Object

PUBLIC

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Note: The example templates in this document are not officially supported by SAP.

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In the process flow, use the Call B1 Object atom to call an object in SAP Business One (B1) using the SAP Business One DI API.

1. PREREQUISITES

1.1. Create a Scenario Package

To create a scenario package in the integration framework for SAP Business One, please refer to the openSAP course In Action - Integration Framework for SAP Business One.

1.2. Create a Scenario Step

To create a scenario step in the integration framework for SAP Business One, please refer to the openSAP course In Action - Integration Framework for SAP Business One.

2. CONFIGURE THE COMPANY SLD CONNECTION

The integration framework for SAP Business One uses company SLD entries to define the connection information used to send and receive data from SAP Business One company databases. To configure the company SLD entry and establish the connection from the integration framework to SAP Business One, please refer to the document Company SLD Configuration.

3. INSERT – ADD AN ITEM MASTER DATA RECORD

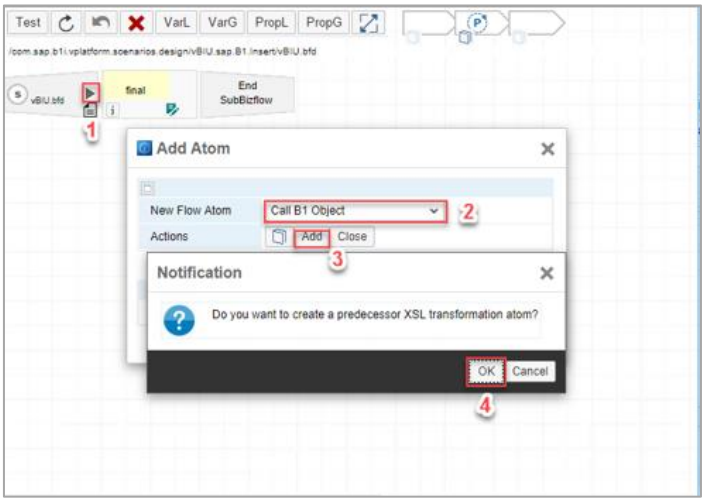
The chapter guides you through the procedure to insert item master data into SAP Business One using the SAP Business One DI API.

Please refer to the sample **sap.B1.Add** scenario step available in the sap.B1Object scenario package.

3.1. Add an Atom to Scenario Step Processing

To add the call B1 object atom to the process flow:

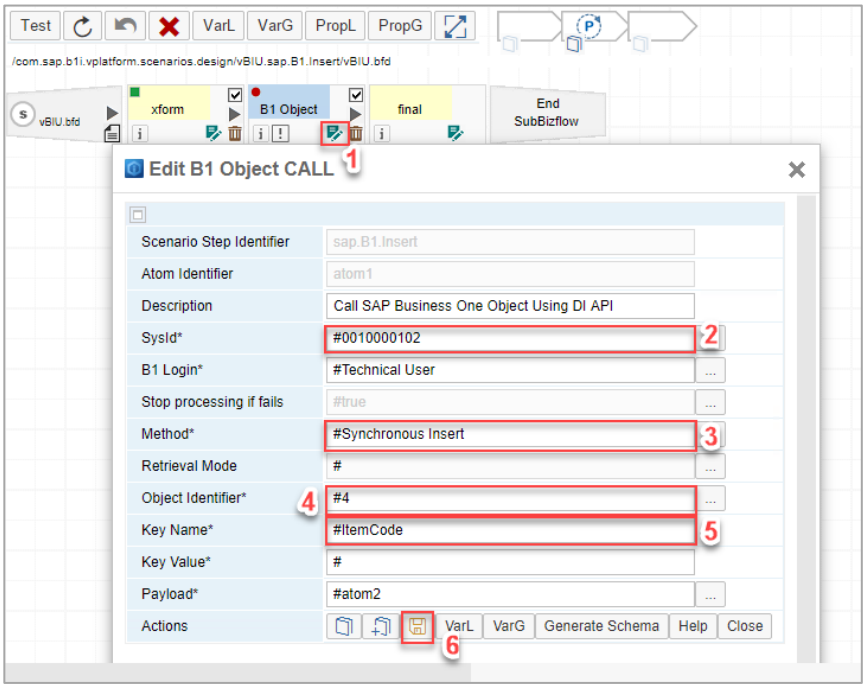
- (1) Press the ▶ [Add] button on the *Start* atom to insert a new functional processing atom.
- (2) In the *New Flow Atom* field, select the **Call B1 Object** value.
- (3) Click **Add**.
- (4) Finally, press **OK** to generate the *predecessor XSL transformation* atom.



3.2. Configure the Functional Processing Atom

To configure the processing atom:

- (1) Press the [Change Configuration] button.
- (2) In the *SysId* field, select the SAP Business One system entry.
- (3) In the *Method* field, select the **Synchronous Insert** value.
  There is another method named Synchronous Insert with fallback to Update. Use this method, if you do not know whether the record already exists in the SAP Business One system. The function first tries to insert the record. If it fails, the function tries to update an already existing record.
- (4) In the *Object Identifier* field, select **4 - Items**.
- (5) The *Key Name* property is filled automatically based on the *Object Identifier*.
- (6) Finally, press the [Save] button.



3.3. Customize the XSL Transformation

- Click the XSL Transformation Atom (xform). The integration framework opens the *Embedded XML Editor* to edit the XSL file.
- In the XSL file, change the **transform** template accordingly:

```
<xsl:template name="transform">
    <BOM>
        <BO>
            <AdmInfo>
                <Object>4</Object>
                <Version>2</Version>
            </AdmInfo>
            <Items>
                <row>
                    <ItemCode>Item02</ItemCode>
                    <ItemName>Item Master Data 02</ItemName>
```

```
                    </row>
                </Items>
            </BO>
        </BOM>
    </xsl:template>
```

4. RETRIEVE – GET AN ITEM MASTER DATA RECORD

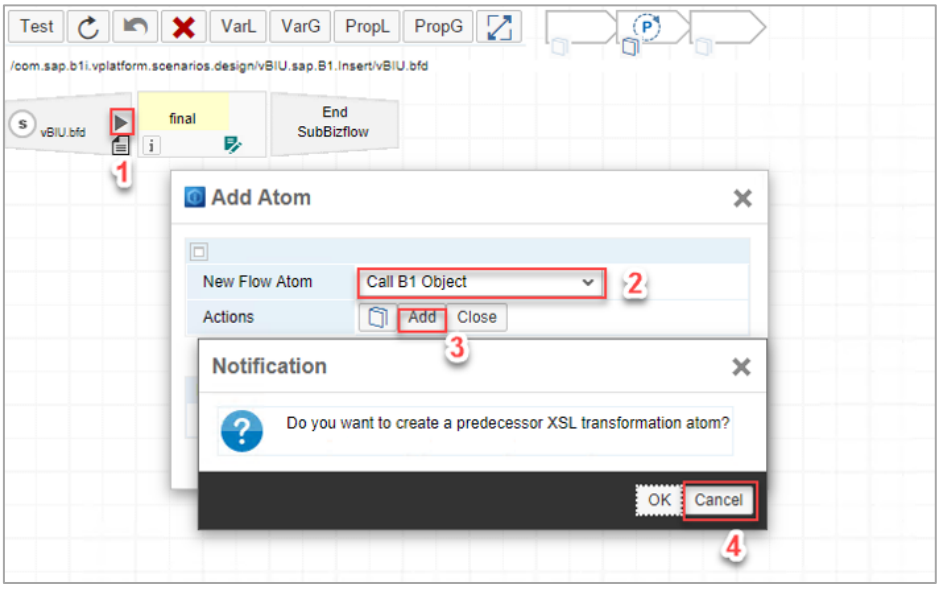
The chapter guides you through the procedure to get item master data from SAP Business One using the SAP Business One DI API.

Please refer to the sample **sap.B1.Retrieve** scenario step available in the sap.B1Object scenario package.

4.1. Add an Atom to Scenario Step Processing

To add the call B1 object atom to the process flow:

- (1) Press the ▶ [Add] button on the *Start* atom to insert a new functional processing atom.
- (2) In the *New Flow Atom* field, select the **Call B1 Object** value.
- (3) Click **Add**.
- (4) Finally, press **Cancel**, because we do not need the *predecessor XSL transformation* atom.

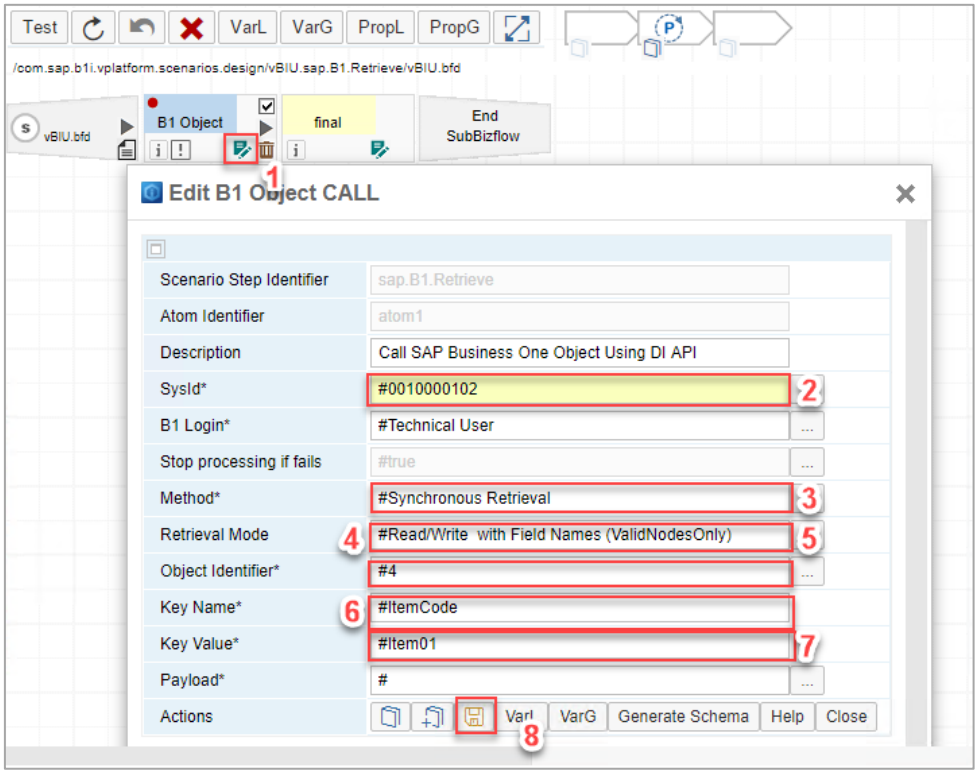


4.2. Configure the Functional Processing Atom

To configure the processing atom:

- (1) Press the [Change Configuration] button.
- (2) In the *SysId* field, select the SAP Business One system entry.
- (3) In the *Method* field, select the **Synchronous Retrieval** value.
- (4) In the *Retrieval Mode* field, select **Read/Write with Field Names (ValidNodesOnly)**, which means Exports to XML only valid fields that support XML import (read/write fields only) from the database.
- (5) In the *Object Identifier* field, select **4 - Items**.
- (6) The *Key Name* property is filled automatically based on the *Object Identifier*.
- (7) In the *Key Value* field, enter an existing ItemCode, for example, **#Item01**.

- (8) Finally, press the [Save] button.



5. UPDATE – CHANGE AN ITEM MASTER DATA RECORD

The chapter guides you through the procedure to update an Item master data in SAP Business One using the SAP Business One DI API.

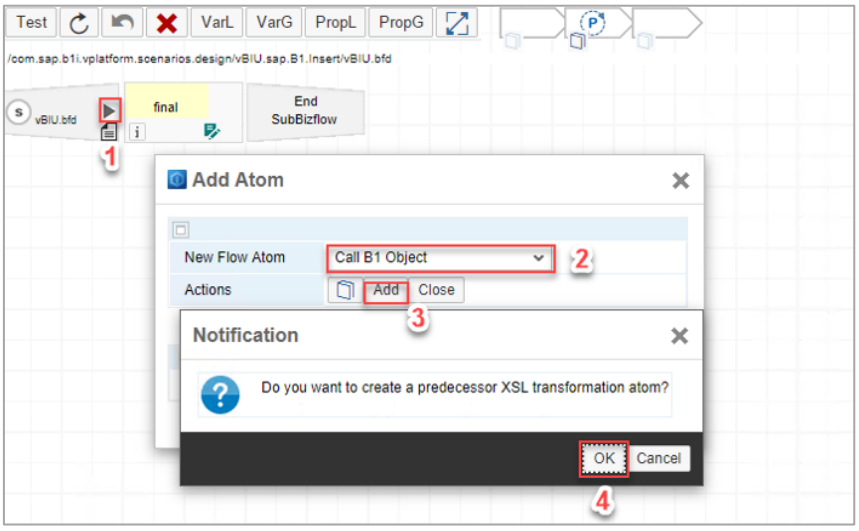
Please refer to the sample **sap.B1.Update** scenario step available in the sap.B1Object scenario package.

Synchronous Update calls wait for the result. **Asynchronous Update** calls trigger the call process without waiting for the result. The default is usually a **synchronous Update** call, because the result is important for further processing.

5.1. Add an Atom to Scenario Step Processing

To add the call B1 object atom to the process flow:

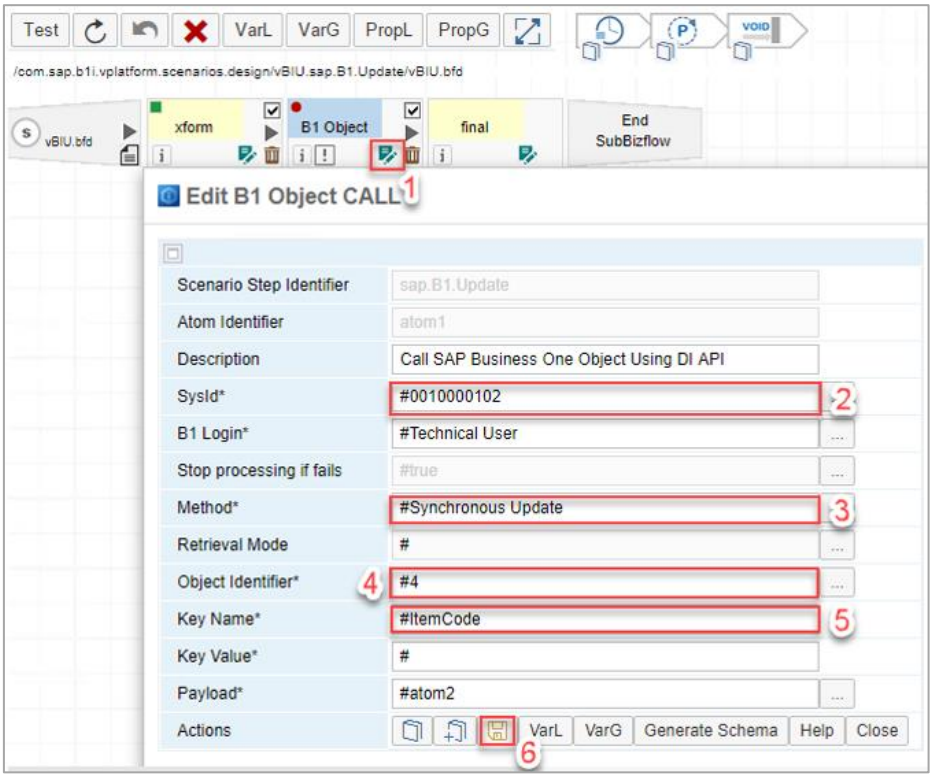
- (1) Press the ▶ [Add] button on the *Start* atom to insert a new functional processing atom.
- (2) In the *New Flow Atom* field, select the **Call B1 Object** value.
- (3) Click **Add**.
- (4) Finally, press **OK** to generate the *predecessor XSL transformation* atom.



5.2. Configure Functional Processing Atom

To configure the processing atom:

- (1) Press the [Change Configuration] button.
- (2) In the *SysId* field, select the SAP Business One system entry.
- (3) In the *Method* field, use the **Synchronous Update** value.
- (4) In the *Object Identifier* field, select **4 - Items**.
- (5) The *Key Name* property is filled automatically based on the *Object Identifier*.
- In the *Key Value* field, enter an existing business partner ItemCode, for example, **#Item02**.
- (6) Finally, press the [Save] button.



5.3. Customize the XSL Transformation

- Click the XSL transformation atom (xform). The integration framework opens the *Embedded XML Editor* to edit the XSL file.
- In the XSL file, change the **transform** template accordingly:

```
<xsl:template name="transform">
    <BOM>
        <BO>
            <AdmInfo>
                <Object>4</Object>
                <Version>2</Version>
            </AdmInfo>
            <QueryParams>
                <ItemCode>Item01</ItemCode>
            </QueryParams>
            <Items>
                <row>
                    <ItemCode>Item04</ItemCode>
                    <ItemName>My Item Master Data 04</ItemName>
                </row>
            </Items>
        </BO>
    </BOM>
</xsl:template>
```

6. DELETE – REMOVE AN ITEM MASTER DATA ENTRY

The chapter guides you through the procedure to update an Item master data in SAP Business One using the SAP Business One DI API.

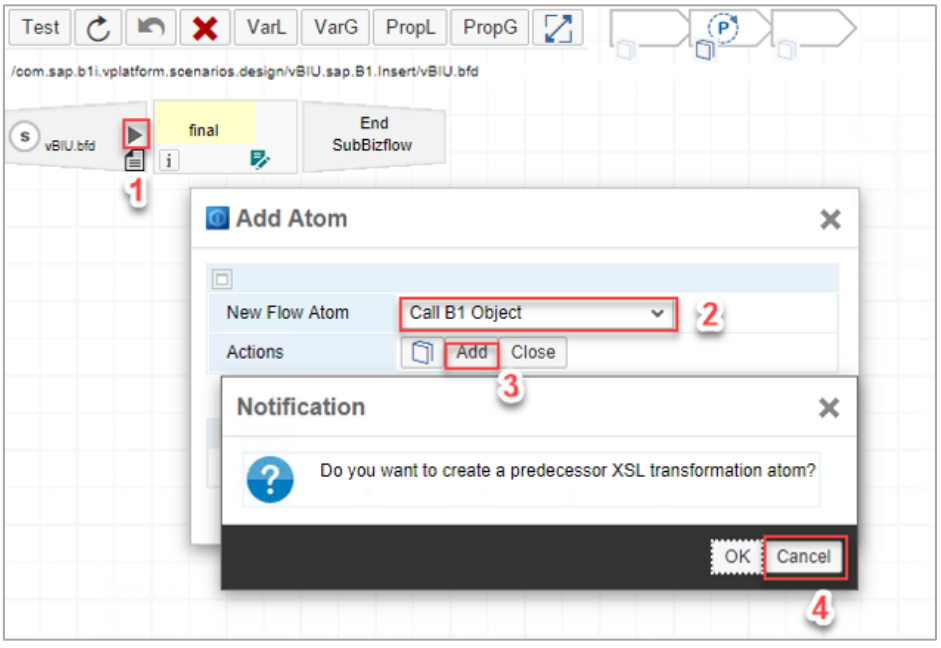
Please refer to the sample **sap.B1.Delete** scenario step available in the sap.B1Object scenario package.

Synchronous Delete calls wait for the result. **Asynchronous Delete** calls trigger the call process without waiting for the result. The default is usually a **synchronous Delete** call, because the result is important for further processing.

6.1. Add an Atom to Scenario Step Processing

To add the call B1 Object atom to the process flow:

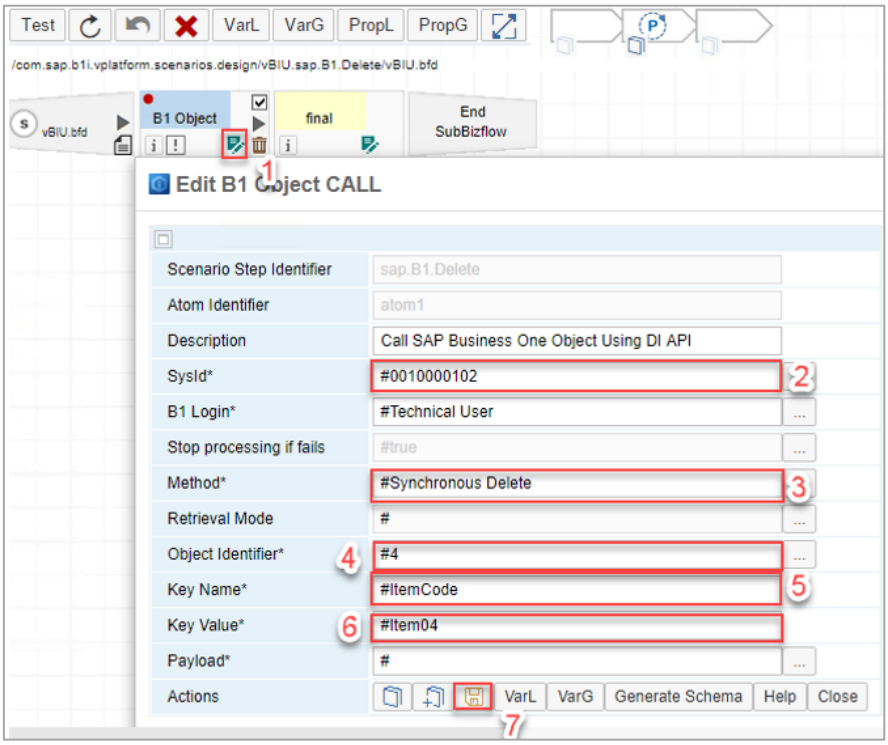
- (1) Press the ▶ [Add] button on the *Start* atom to insert a new functional processing atom.
- (2) In the *New Flow Atom* field, select the **Call B1 Object** value.
- (3) Click **Add**.
- (4) Finally, press **Cancel**, because we do not need the *predecessor XSL transformation* atom.



6.2. Configure the Functional Processing Atom

To configure the processing atom:

- (1) Press the [Change Configuration] button.
- (2) In the *SysId* field, select the SAP Business One system entry.
- (3) In the *Method* field, use the **Delete** value.
- (4) In the *Object Identifier* field, select **4 - Items**.
- (5) The *Key Name* property is filled automatically based on the *Object Identifier*.
- (6) In the *Key Value* field, enter an existing business partner ItemCode, for example, **#Item0**4.
- (7) Finally, press the [Save] button.



7. CLOSE A SALES ORDER

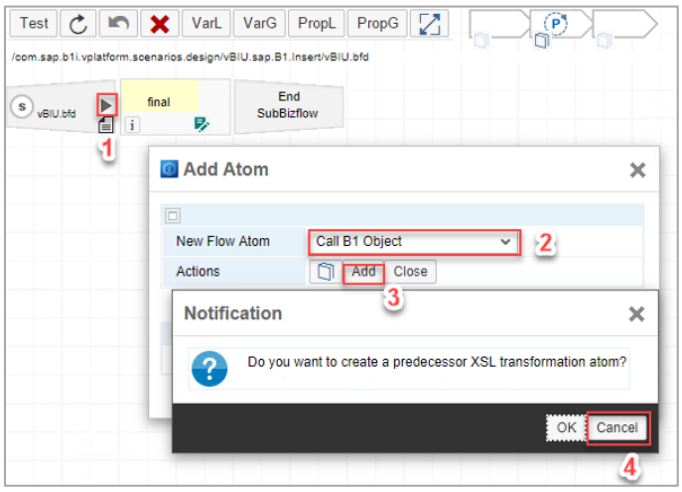
The chapter guides you through the procedure to close a sales order document in SAP Business One using the SAP Business One DI API.

Please refer to the sample **sap.B1.Close** scenario step available in the sap.B1Object scenario package.

7.1. Add an Atom to Scenario Step Processing

To add the call B1 Object atom to the process flow:

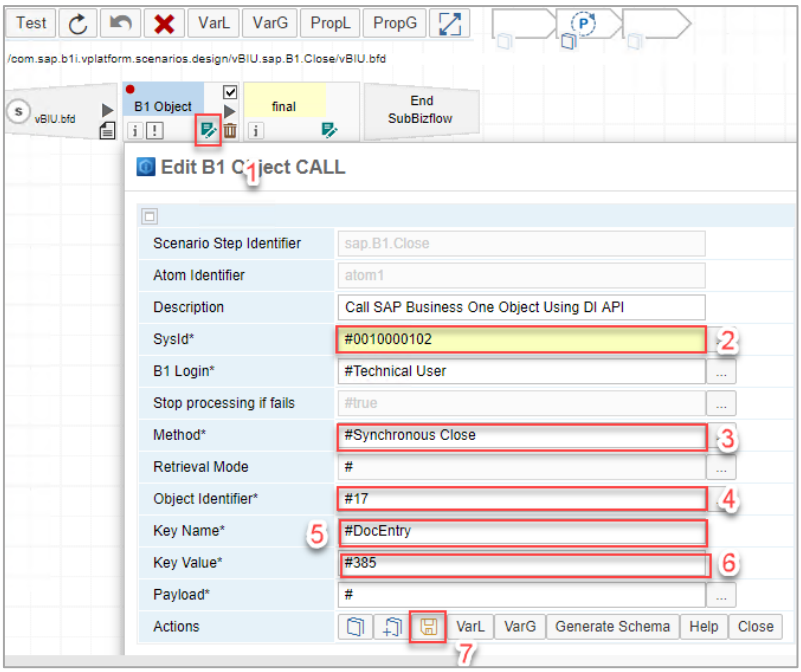
- (1) Press the ▶ [Add] button on the *Start* atom to insert a new functional processing atom.
- (2) In the *New Flow Atom* field, select the **Call B1 Object** value.
- (3) Click **Add**.
- (4) Finally press **Cancel**, because we do not need the *predecessor XSL transformation* atom.



7.2. Configure the Functional Processing Atom

To configure the processing atom:

- (1) Press the [Change Configuration] button.
- (2) In the *SysId* field, select the SAP Business One system entry.
- (3) In the *Method* field, use the **Close** value.
- (4) In the *Object Identifier* field, select **Orders**.
- (5) The *Key Name* property is filled automatically based on the *Object Identifier*.
- (6) In the Key Value field, enter an existing document entry for a sales order with status **open**.
- (7) Finally, press the [Save] button.



8. CANCEL A SALES ORDER

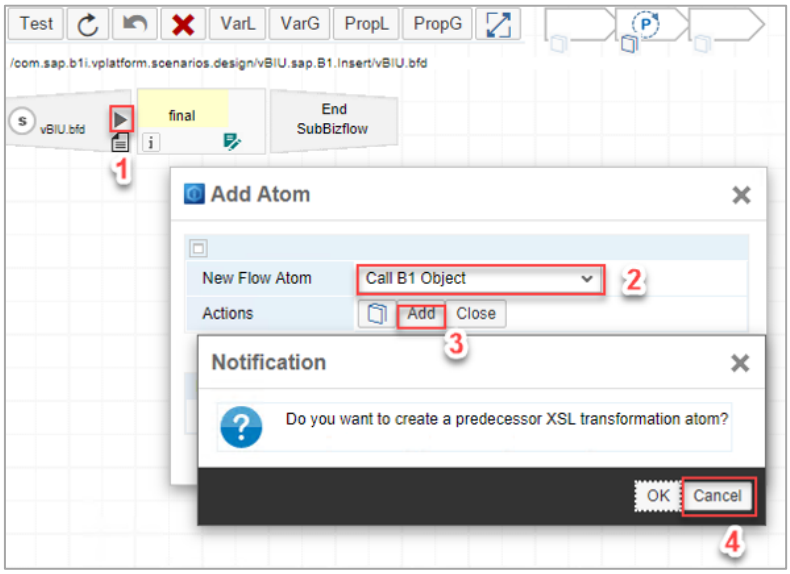
The chapter guides you through the procedure to cancel a sales order document in SAP Business One using the SAP Business One DI API.

Please refer to the sample **sap.B1.Cancel** scenario step available in the sap.B1Object scenario package.

8.1. Add an Atom to Scenario Step Processing

To add the call B1 Object atom to the process flow:

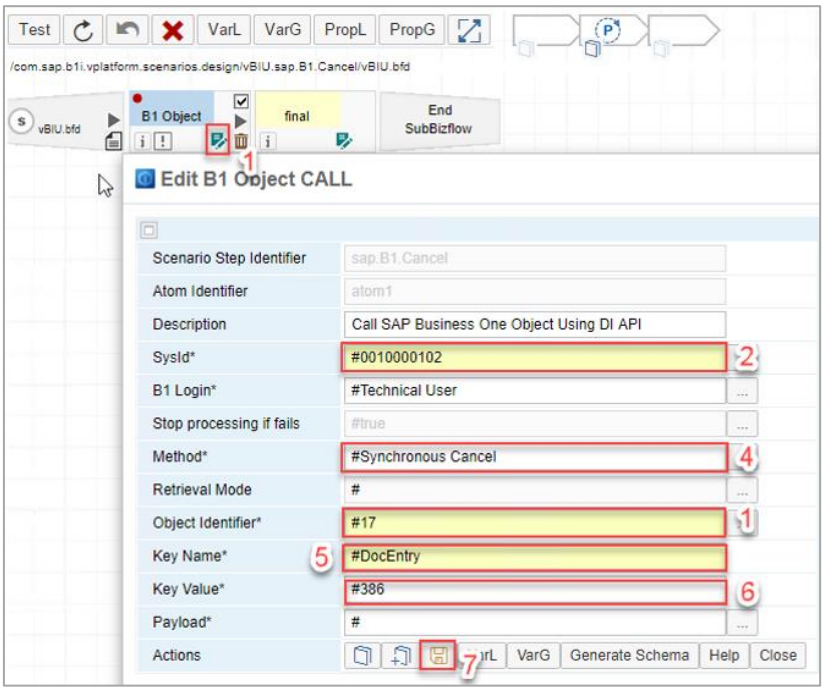
- (1) Press the [Add] button on the *Start* atom to insert a new functional processing atom.
- (2) In the *New Flow Atom* field, select the **Call B1 Object** value.
- (3) Click **Add**.
- (4) Finally, press **Cancel**, because we do not need the *predecessor XSL transformation* atom.



8.2. Configure the Functional Processing Atom

To configure the processing atom:

- (1) Press the [Change Configuration] button.
- (2) In the *SysId* field, select the SAP Business One system entry.
- (4) In the *Method* field, select the **Synchronous Cancel** value.
- (1) In the *Object Identifier* field, select **Orders**.
- (5) The *Key Name* property is filled automatically based on the *Object Identifier*.
- (6) In the *Key Value* field, enter an existing document entry for a sales order with status **open**.
- (7) Finally press the [Save] button.



9. PROCESS AN SQL STATEMENT

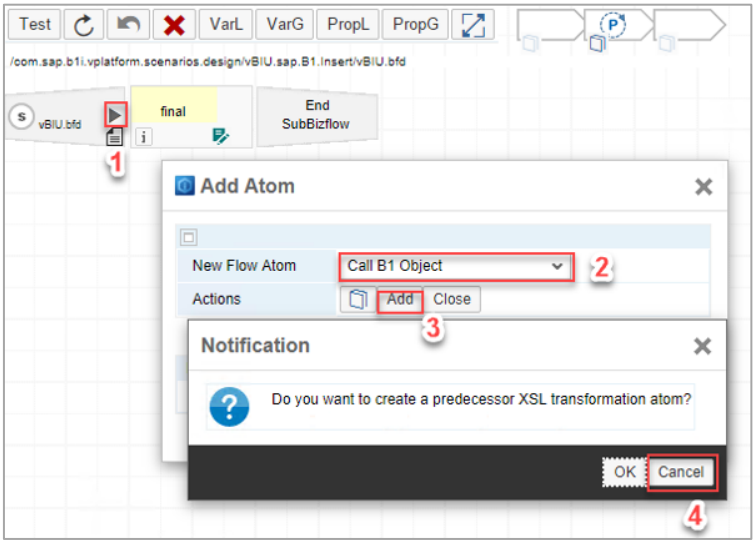
The chapter guides you through the procedure to process an SQL statement in SAP Business One using the SAP Business One DI API.

Please refer to the sample **sap.B1.RecordSet** scenario step available in the sap.B1Object scenario package.

9.1. Add an Atom to Scenario Step Processing

To add the call B1 Object atom to the process flow:

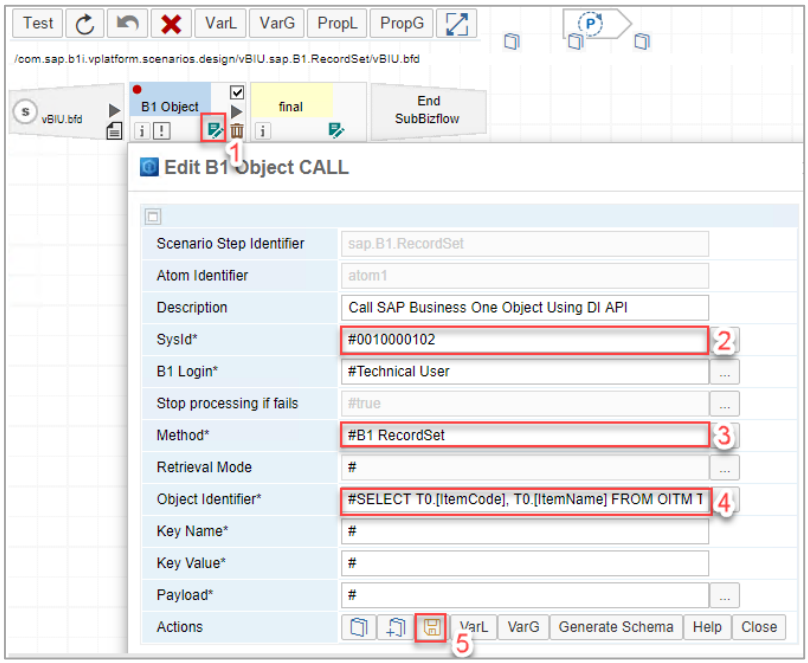
- (1) Press the ▶ [Add] button on the *Start* atom to insert a new functional processing atom.
- (2) In the *New Flow Atom* field, select the **Call B1 Object** value.
- (3) Click **Add**.
- (4) Finally, press **Cancel**, because we do not need the *predecessor XSL transformation* atom.



9.2. Configure the Functional Processing Atom

To configure the processing atom:

- (1) Press the [Change Configuration] button.
- (2) In the *SysId* field, select the SAP Business One system entry.
- (3) In the *Method* field, select the **B1 RecordSet** value.
- (4) In the *Object Identifier* field, enter the SQL statement:
  #SELECT T0.[ItemCode], T0.[ItemName] FROM OITM T0 ORDER BY T0.[CreateDate] DESC
- (5) Finally press the [Save] button.



10. UPDATE ITEM MASTER DATA WITH DELETING SOME LINE ITEMS

10.1. Configure the Functional Processing Atom

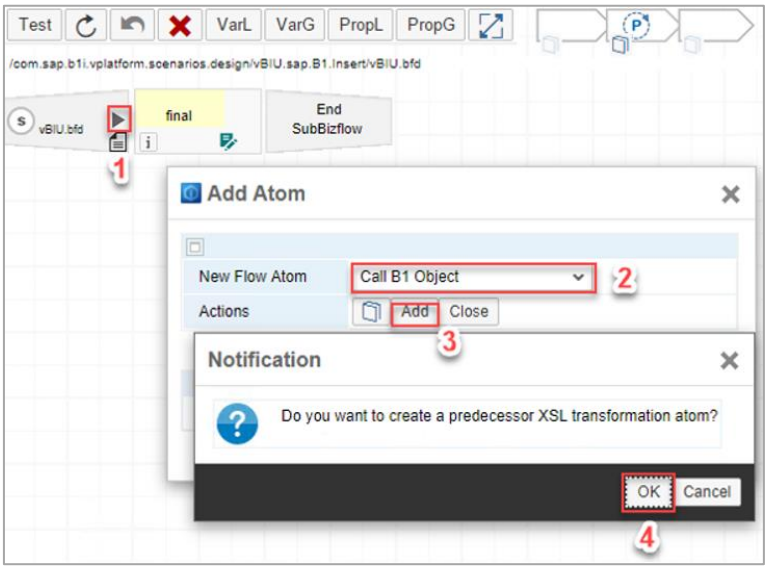
The chapter guides you through the procedure to process update an item master data with deleting some line items in SAP Business One using the SAP Business One DI API. Use the updateWithSubDeletion method only for the Business Partner objects 2, 66, and 147.

Please refer to the sample **sap.B1.UpdateWithSubDel** scenario step available in the sap.B1Object scenario package.

10.2. Add an Atom to Scenario Step Processing

To add the call B1 Object atom to the process flow:

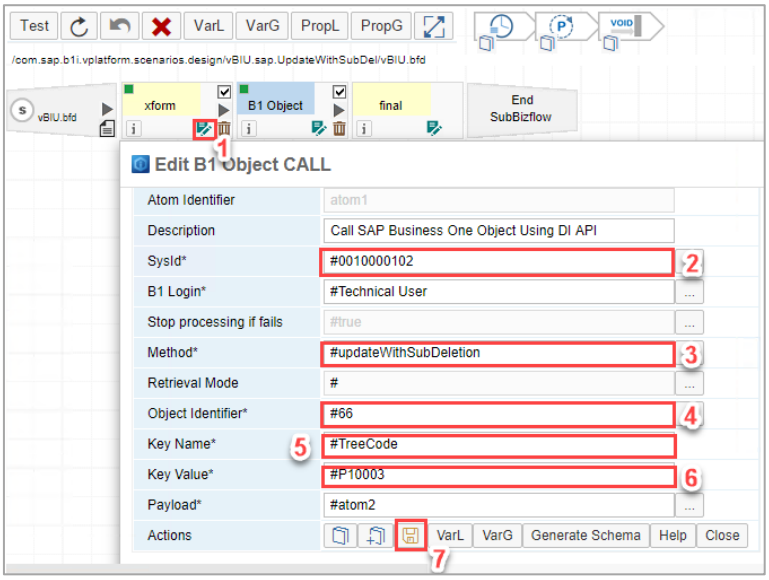
- (1) Press the ▶ [Add] button on the *Start* atom to insert a new functional processing atom.
- (2) In the *New Flow Atom* field, select the **Call B1 Object** value.
- (3) Click **Add**.
- (4) Finally, press **OK** to generate the *predecessor XSL transformation* atom.



10.3. Configure the Functional Processing Atom

To configure the processing atom:

- (1) Press the [Change Configuration] button.
- (2) In the *SysId* field, select the SAP Business One system entry.
- (3) In the *Method* field, select the **updateWithSubDeletion** value.
- (4) In the *Object Identifier* field, select **66 - ProductTrees ()**
- (5) The *Key Name* property is filled automatically based on the *Object Identifier*.
- (6) In the *Key Value* field, enter an existing TreeCode, for example, **#P10003**.
- (7) Finally, press the [Save] button.



10.4. Customize the XSL Transformation

- Click the XSL transformation atom (xform). The integration framework opens the Embedded XML Editor to edit the XSL file.
- In the XSL file, change the **transform** template accordingly:

```
<xsl:template name="transform">
	<BOM>
		<BO>
			<AdmInfo>
				<Object>66</Object>
				<Version>2</Version>
			</AdmInfo>
			<QueryParams>
				<TreeCode/>
			</QueryParams>
			<ProductTrees>
				<row>
					<TreeCode>P10003</TreeCode>
					<TreeType>iProductionTree</TreeType>
					<Quantity>1.000000</Quantity>
					<Project nil="true"/>
					<PriceList>1</PriceList>
					<Warehouse>01</Warehouse>
					<ProductDescription>PC Set 1</ProductDescription>
				</row>
			</ProductTrees>
			<ProductTrees_Lines>
				<row>
					<ItemCode>P10001</ItemCode>
					<Quantity>1.000000</Quantity>
					<Warehouse>01</Warehouse>
					<Price>730.000000</Price>
					<Currency>GBP</Currency>
					<ParentItem>P10003</ParentItem>
					<PriceList>1</PriceList>
					<ItemType>pit_Item</ItemType>
				</row>
			</ProductTrees_Lines>
		</BO>
	</BOM>
</xsl:template>
```

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