

WSDL OpenAPI/Swagger/RAML XML /

:

- 
- 
- 
- 
- 
- 
- Attachment Handler
- 
- 
- 
- MQ

HTTP MQ JMS Message Responder

API HTTP JMSWebSphere MQ/API ( ) /

**SQL Responder**  
SQL Responder SQL

.pva

VirtualAssets .pva .pva Virtualize .pva

.pva HTTP JMS Web Sphere MQ **VirtualAssets.xml**

/ ( )

1 (EDI)Request Handling

(: )

**XML Conversion Options**

Format: Fixed Length

Schema: Basic EDIFACT

Message: CSV

Schema: EDI

Message: FIX

Schema: Fixed Length

Schema: Lines

Schema: Plain Text

Response | Transport He

- : ( )

## XML

XML XML

- :
- **XML** [ ] XML : ( ) Virtualize XML Virtualize Traffic Viewer
  - Virtualize GUI UI XML ( )Virtualize XML Virtualize

XML XML

- :
- : Virtualize [ ]
- **URL**: URL WSDL URI [ ]
- : [ ]

## [ ]

JSONSOAPPlain XML Message Responder

[ ] [ ] WSDL

- : (RAMLOpenAPI/SwaggerWSDL ) XML [ ] WSDL ( ) (//) ( )
- **RAML**
  - **RAML URL**: RAML URL RAML URL
- **OpenAPI/Swagger**
  - **OpenAPI/Swagger URL**: OpenAPI/Swagger URL OpenAPI/Swagger URL
- **WSDL**
  - **WSDL URL**: WSDL URL WSDL URI [ ] WSDL
  - **WSDL** : WSDL SOAP SOAP WSDL [WSDL ]
  - **WSDL** : WSDL URI
- - **URL**: URL WSDL URI [ ]
  - : [ ]
  - **XML** : [ ] SOAP XML XML SOAP XML SOAP SOAP SOAP

## [ ]

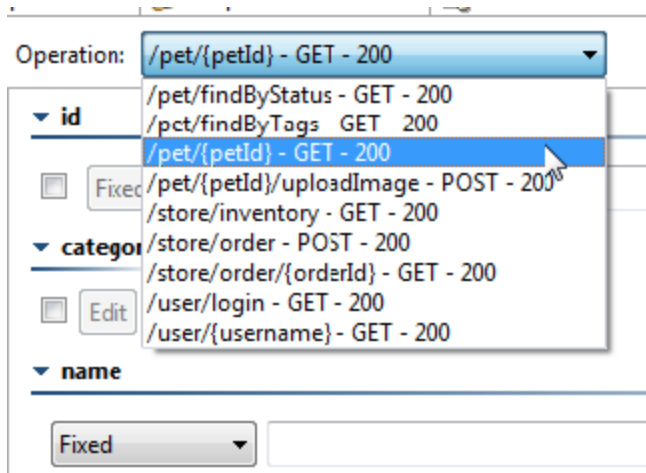
[ ]

[ ]

## [ ] [ XML] [ ] [ ] [ JSON]

Parasoft

- 
- XML
- 
- 
- 
- JSON
- ISO 8583
- 
- [ ] [ JSON]/JSON UI ( )
  - 1) XML 2) XML
  - JSON 1) JSON 2) JSON



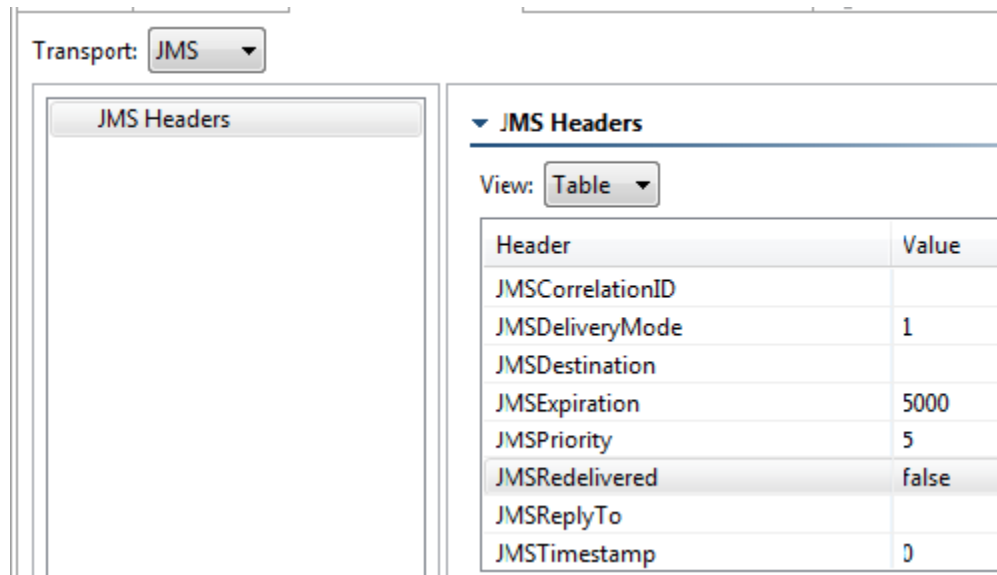
• [] ()

[]

[] HTTP JMS MQ [] []

HTTP HTTP JMS String (: JMSCorrelationID)WebSphere MQ RFH2

JMS javax.jms.Message JMSPriority JMSDeliveryMode JMSExpiration



[]

[] URL () 1

[]

- : HTTP JMS MQ [Transport Correlation](#)
- : XPath
- **URL (RESTful)**: URL ()URL ()[URL Parameter Correlation](#)
- **URL** : URL [URL Path Correlation](#)
- **HTTP** : HTTP [HTTP Method Correlation](#)
- : Java [Custom Correlation](#)
- **ISO 8583** : ISO 8583 [ISO 8583](#) [SOAP Message Responder](#) [XML Message Responder](#) [Message Responder](#)

1.
2.
3.
4.
  - :
  - :

1.
2.  [XPath]
3.  [OK]
4.
  - 
  - /XPath Virtualize XPath W3C XPath 1.0
5. XPath Virtualize

## URL

URL HTTP/HTTPS

URL

1.
2. URL [

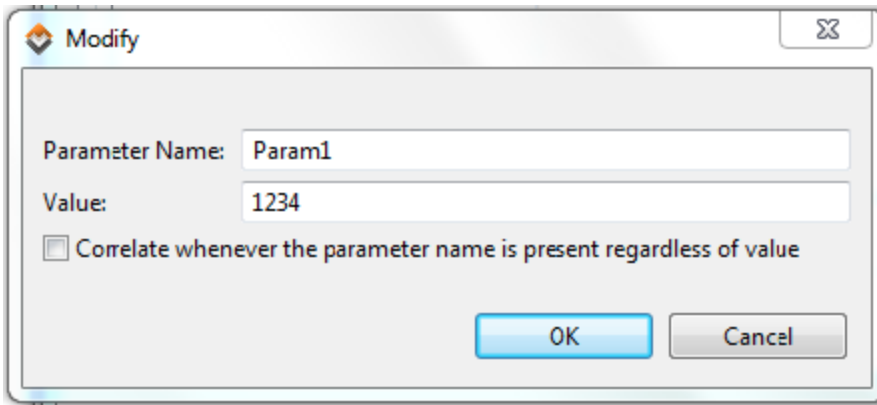
Enable correlation

**HTTP URL Parameters**

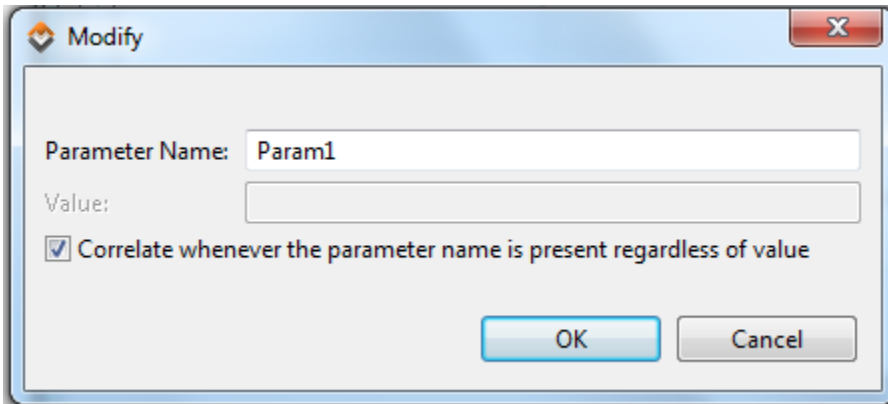
Correlate only when the list of parameters matches exactly

Parameter Name	Value
channelType	[*]
unknownShopperId	[*]

3.
4.
5.
  - :



- : [ 0 ]



http://myvirtserver:9080/MyAsset/MyPath URL

param1	value1
param2	value2

URL

- http://myvirtserver:9080/MyAsset/MyPath?param1=value1&m2=value2
- http://myvirtserver:9080/MyAsset/MyPath?param1=value1&m2=value2&m3=value3
- http://myvirtserver:9080/MyAsset/MyPath?param2=value2&m1=value1&m3=value3

URL

- http://myvirtserver:9080/MyAsset/MyPath?param1=value1&param2=someothervalue&param3=value3
- http://myvirtserver:9080/MyAsset/MyPath?param1=value1&m3=value3

## URL

URL HTTP/HTTPS : *Virtualize 9.7*

URL

1. □
- 2.

http://myvirtserver:9080/MyAsset/MyPath /segment1/segment2/\*\*

URL

- http://myvirtserver:9080/MyAsset/MyPath/segment1/segment2
- http://myvirtserver:9080/MyAsset/MyPath/segment1/segment2/
- http://myvirtserver:9080/MyAsset/MyPath/segment1/segment2/segment3?param1=value1&m2=value2

URL

- http://myvirtserver:9080/MyAsset/MyPath/segment1/
- http://myvirtserver:9080/MyAsset/MyPath/segment3/segment1/segment2

Ant \*\*\* :

- /\*\*/abc /abc /this/that/abc
- /abc/\*\* /abc /abc/this/that/theother
- /ab\*\* /abc/d (1 /ab\*)/absolutely
- /\*\*bc /0/abc (1 /\*bc)/abc

1: \*\*/service/\*

service/Repository org/web/service/Entries org/something/else/tools/stiff/service/Entries	org/web/service/foo/bar/Entries
---	---------------------------------

2: org/parasoft/virtualize/\*\*

org/parasoft/virtualize/tools /service org/parasoft/virtualize/stuff	org/parasoft/somethingelse
--	----------------------------

3: org/parasoft/\*\*/EM/\*

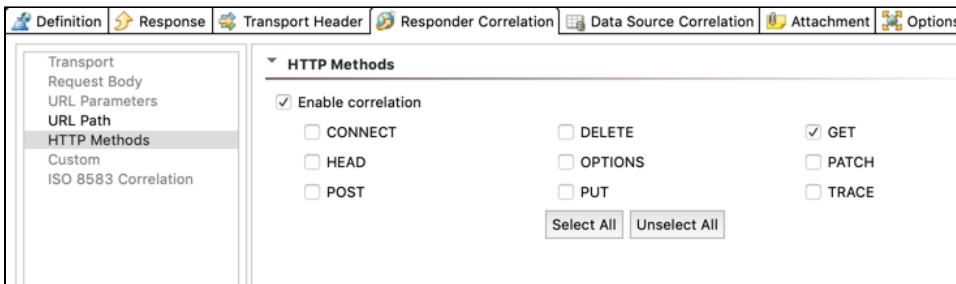
org/parasoft/EM/Entries org/parasoft/virtualize/soatest/tools/EM/Entries	org/parasoft/EM/foo/bar/Entries
---	---------------------------------

HTTP

HTTP HTTP/HTTPS

HTTP

1. []
2. HTTP



GETPOSTPUT GETPOST PUT HTTP CONNECTDELETEHEAD HTTP

Java

- 0 1
- com.parasoft.api.ScriptingContext

- ScriptingContext URL

[Parasoft] > [] > [Extensibility API] > [CorrelationScriptingHookConstants]

```
from com.parasoft.api import CorrelationScriptingHookConstants
from java.lang import *
def match(context):
    strMessage = context.get(CorrelationScriptingHookConstants.MESSAGE_STR)
    return String(strMessage).matches("myRegularExpression")
```

## XML

XML

```
from com.parasoft.api import CorrelationScriptingHookConstants
from org.w3c.dom import *
from javax.xml.parsers import *
from javax.xml.xpath import *
from java.io import *
from java.lang import *
def match(context):
    xmlDocument = context.get(CorrelationScriptingHookConstants.MESSAGE_DOM)
    if xmlDocument != None:
        xpathFactory = XPathFactory.newInstance();
        xpath = xpathFactory.newXPath()
        expression = xpath.compile("//*[local-name()='someElement' and namespace-uri()='someNamespace']")
    /text()")
    elementValue = expression.evaluate(xmlDocument)
    return String(elementValue).matches("myRegularExpression")
    return 0
```

## HTTP

HTTP

```
from com.parasoft.api import *
def correlateHTTPMethod(context):
    method = context.get(CorrelationScriptingHookConstants.REQUEST_METHOD)
    return "GET" == method
```

CorrelationScriptingHookConstants.ATTACHMENTS attachment getContents MIME

- text/plain
- text/xml javax.xml.transform.stream.StreamSource.StreamSource
- java.io.InputStream

("Attachment")

```

from com.parasoft.api import CorrelationScriptingHookConstants
from org.python.core.util import FileUtil
from org.python.core.util import StringUtil

def correlateOperation(context):
    # List<com.parasoft.api.ICorrelationAttachment>
    attachments = context.get(CorrelationScriptingHookConstants.ATTACHMENTS)
    # java.io.InputStream
    instream = attachments.get(0).getContents()
    bytes = FileUtil.readBytes(instream)
    return "Attachment" == StringUtil.fromBytes(bytes)

```

[ ]

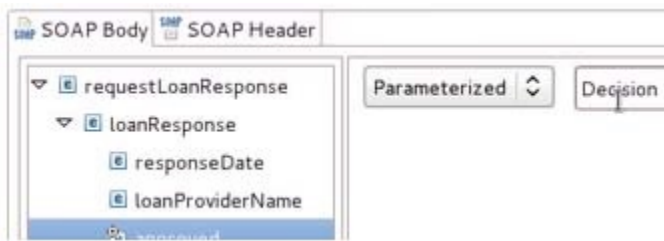
[ ] Virtualize ([ ])

XML loanAmount Approvallists Amount

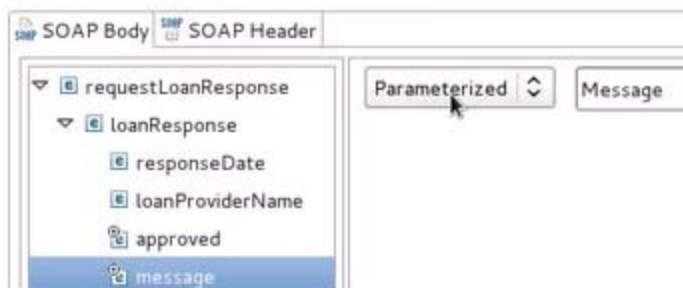
XPath	Data Source Column Name
..loanAmount	Amount

loanAmount Amount

[ ] Decision



Message



Virtualize Virtualize 1



<pre>parasoft.correlation.value.case.insensitive</pre>	<pre>/  • true - / • false - /  :  virtualize -Dparasoft.correlation.value.case.insensitive=true</pre>
<pre>parasoft.correlation.field.name.case.insensitive</pre>	<pre>/  • true - / • false - /  :  virtualize -Dparasoft.correlation.field.name.case.insensitive=true</pre>
<pre>parasoft.correlation.url.path.case.insensitive</pre>	<pre>URL/ URL  • true - / • false - /  :  virtualize -Dparasoft.correlation.url.path.case.insensitive=true</pre>

1

1 (Excel) () ( )

()/ ()

/ 4

\* ? \* ? 1

"title keyword" Linux "[like \*Linux]"

1. Message Responder Virtualize
2. [ ] [ ] XPath URL Virtualize
  - (URL URL) 1
  - WSDL [ ] XPath XPath
  - [ ] XPath XPath / XPath
  - 
  - (: [ > "55" ] [like "alpha?beta\*"] [like "\*"b\*" or like "\*"a\*" and like "\*"z\*"])
  - [Data Source Correlation Options](#)
3. (XML) Message Responder [ ] XPath URL

Virtualize

[ ] () Virtualize :

- 
- 

[ ] Virtualize

[] ()

1 XPath 1

## HTTP URL

HTTP/HTTPS URL 1 URL

“%20”

:

Borrower 1	Borrower 2
John Smith	Jane Doe
John+Smith	Jane+Doe
John%20Smith	Jane%20Doe

Virtualize Borrower1=John+Smith&Borrower2=Jane+Doe URL

:

Borrower 1	Borrower 2
John Smith	Jane+Doe
John+Smith	Jane%20Doe
John%20Smith	Jane Doe



/

XML XML XPath XML XML URL ISO 8583

URL ():

- URL
- URL []

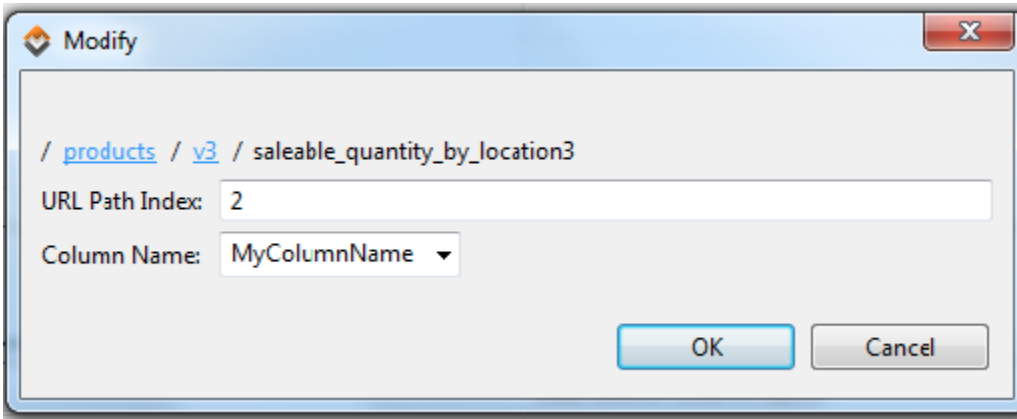
## URL

HTTP/HTTPS

- `http://myvirtserver:9080/MyAsset/MyPath`
- `http://myvirtserver:9080/MyAsset/MyPath/[somedynamicvalue]/B/C`

[somedynamicvalue] URL 2 0

URL `http://myvirtserver:9080/MyAsset/MyPath/A/[somedynamicvalue]/C` 3



"%20"

:

Borrower 1	Borrower 2
John Smith	Jane Doe
John+Smith	Jane+Doe
John%20Smith	Jane%20Doe

Virtualize Borrower1=John+Smith&Borrower2=Jane+Doe URL

:

Borrower 1	Borrower 2
John Smith	Jane+Doe
John+Smith	Jane%20Doe
John%20Smith	Jane Doe

### ISO 8583

ISO 8583 ID ISO 8583

*SOAP Message Responder XML Message Responder Message Responder*

XPath /URL ()

XML HTTP

MTOM MTOM () SOAP xsd:base64Binary MIME\_boundary MIME/DIME

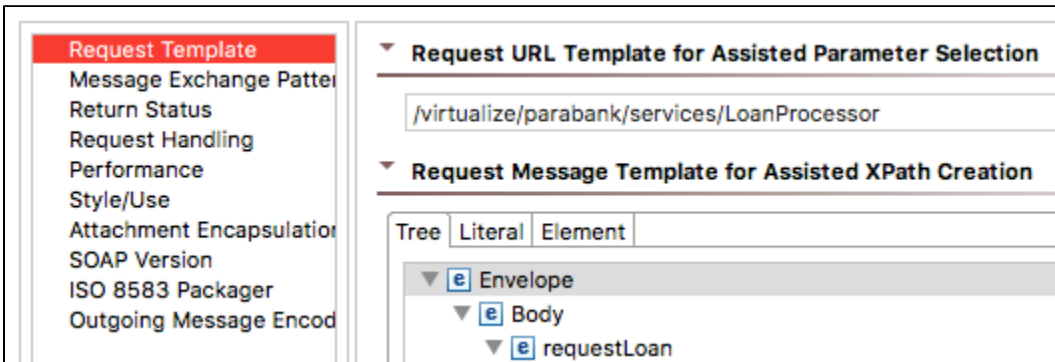
1. XML
2. XML
3. XML
- 4.

- XML
- Views:
  - Base 64 : Base 64
  - :
  - :[]
  - :
  - : []

### URL

() URL URL () 1 URL

URL URL



### XPath

XPath ( XPath XPath ) XML XML

- 
- ( )
- [XPath]// XML Data Bank XML Transformer

- 
- HTTP HTTP JMS WebSphere MQ

### (HTTP)

200 OK []

- :
- :


()

[ ] XML XML

[ ]

XML [XML Conversion]

- [ XML ] XML XML

 [ XML ] ([ ] XPath )/JSON JSON JSON  
[ XML ]

- [ XML ] EDI Fixed Length Message Responder EDI

**XML Conversion**

---

Convert incoming request to XML before applying responder correlation

Convert incoming request to XML using different message format than response:

Format:

**Options**

---

Treat all segments and elements as optional:

Enable validation:

Component value separator:

Line continuation character:

Decimal character:

Element separator:

- :
- : ( ) a) b) ( )

/

- : document rpc
- : encoded literal
- URI: URI
- URI: URI

:

[ ] [ ] MIME DIME MTOM Always MTOM Optional

## SOAP

SOAP 1.1 1.2

## ISO 8583

ISO 8583 [ISO 8583](#) SOAP Message Responder XML Message Responder

□ □ □

□

□ XML

- [Fixed Length Message Responder](#)
- [EDI Message Responder](#)
- [Message Responder](#)
- [Message Responder](#)
- [CSV Message Responder](#)
- [Message Responder](#)

/

1. ([Virtualize](#) )
2. ([Data Source Correlation Tab](#))

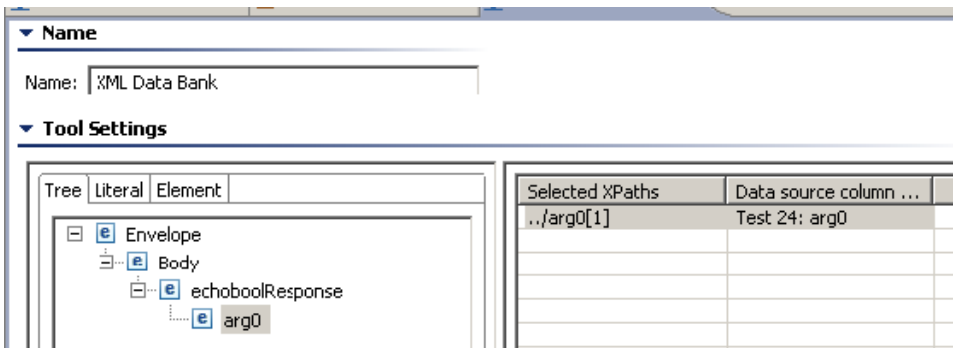
## XML

/

1. □ CSV Message Responder □
2. (ExcelOpenOffice )
3. Message Responder [Data Source Correlation Tab](#)
4. (ExcelOpenOffice )

Extension

1. [\[WSDL URL\]](#) WSDL
2. □ □
3. □ □ [\[XML Data Bank\]](#) □
4. □ > [\[XML Data Bank\]](#) GUI XML Data Bank
5. GUI XPath



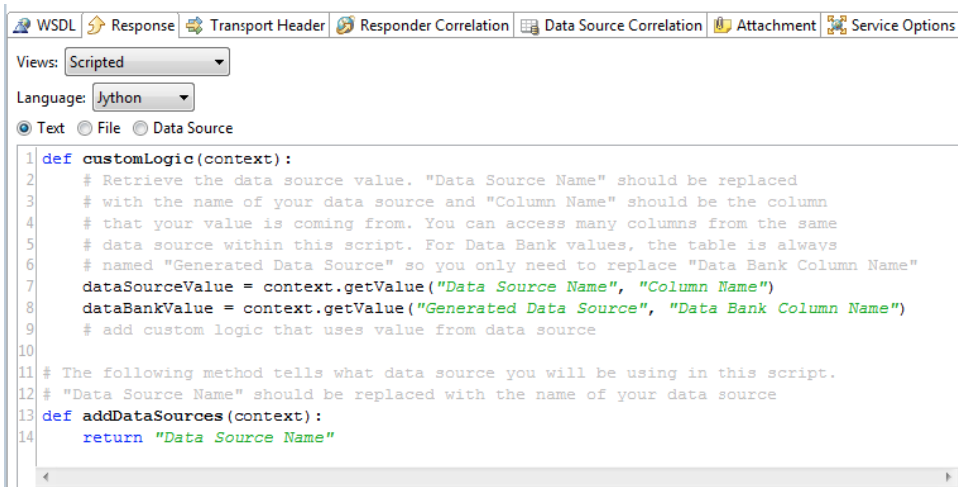
6. GUI
7. □ □
- 8.

```

def customLogic(context):
    # Retrieve the data source value. "Data Source Name" should be replaced
    # with the name of your data source and "Column Name" should be the column
    # that your value is coming from. You can access many columns from the same
    # data source within this script. For Data Bank values, the table is always
    # named "Generated Data Source" so you only need to replace "Data Bank Column Name"
    dataSourceValue = context.getValue("Data Source Name", "Column Name")
    dataBankValue = context.getValue("Generated Data Source", "Data Bank Column Name")
    # add custom logic that uses value from data source

# The following method tells what data source you will be using in this script.
# "Data Source Name" should be replaced with the name of your data source
def addDataSources(context):
    return "Data Source Name"

```



9. `[] customLogic()`

## Attachment Handler

MIME Attachment Handler Attachment Handler

1. `[] []`
2. `[] [] [Attachment Handler] []`
3. **Attachment Handler**
4. `() Attachment Handler [] [] Write File`

Message Forward (:)

[Message Forward](#)

SQL Responder Action CSV SQL Responder

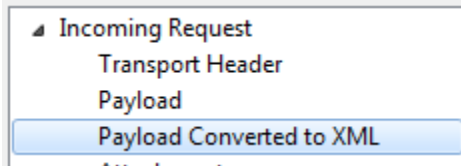
[SQL Responder Action](#)

- 1.
2. `[]`

3.

## XML

: EDI/CSV/ XML () XML ()



1.

- a.
- b.
- c. XML
- d.

2.

- a.
- b. XML
- c.

3. >

4. >

: // SELECT	DB Tool DB Tool XML XML Data Bank
: XML	DB Tool XML TransformerXSLT Tool Extension Tool [] DB Tool
	SOAP Client Messaging Client SOAP Client Messaging Client
	SOAP/Messaging Client Data Bank [] [XML] XML Data Bank SOAP/Messaging Client

## MQ

Virtualize () MQ characterSet () MQ

XML, CSV MQ MQFMT\_STRING MQSTR [] (MQ format MQSTR)



Transport: MQ

**MQ Headers**

- MQRFH2 Header
  - MQRFH2 Fields
- Message Content Descriptor
- Publish/Subscribe Command
- Application (usr) Defined Properties
- Java Messaging Service

**MQ Headers**

View: Table

Header	Value
format	MQSTR
characterSet	37

MQ "characterSet" Virtualize () characterSet () MQ [] "characterSet"

(CCSID) 1

- 850 - ASCII
- 819 - ISO standard ASCII
- 37 - American EBCDIC
- 1200 - Unicode
- 1208 - UTF-8

Transport: MQ

**MQ Headers**

- MQRFH2 Header
  - MQRFH2 Fields
- Message Content Descriptor
- Publish/Subscribe Command
- Application (usr) Defined Prop
- Java Messaging Service

**MQ Headers**

View: Table

Header	Value
format	MQSTR
characterSet	850 - ASCII