

# Customizing Grouping Criteria

This topic explains how to customize grouping criteria from the Message Grouping Review page in the "Generate Parameterized Messages from Traffic" wizard.

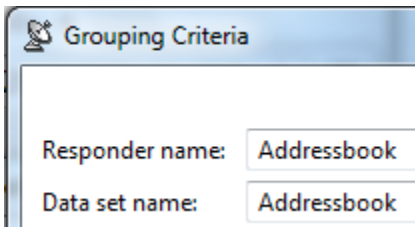
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## Customizing Grouping: Overview

To customize grouping criteria:

1. Open the Grouping Criteria dialog (e.g., by clicking **Add** or **Duplicate**, or by double-clicking) an existing grouping criteria entry.
2. If desired, customize the name of the responder/test client and/or data set that will be generated.



3. In the Grouping Criteria tab, modify the grouping criteria as desired. Each grouping criteria entry can specify grouping by any combination of the following: HTTP Methods, URL Paths, URL Parameters, and/or Request Body.

Grouping Strategy	Description
<a href="#">HTTP Methods Grouping Configuration</a>	<b>Virtualize:</b> Specifies HTTP methods that will determine whether or not the message is processed. <b>SOAtest:</b> Groups messages by HTTP methods. Customization of HTTP methods grouping criteria is automatically disabled to prevent the creation of groups with mixed methods (e.g., both POST and GET).
<a href="#">URL Paths Grouping Configuration</a>	<b>Virtualize:</b> Specifies URL paths that will determine whether or not the message is processed. <b>SOAtest:</b> Groups messages by URL paths.
<a href="#">URL Parameters Grouping Configuration</a>	<b>Virtualize:</b> Specifies URL parameters that will determine whether or not the message is processed. You can configure the correlation to match all messages that include specific parameters (no matter what value they are set to), or only match messages where specific parameters are set to specific values. You can also indicate whether a correlation should be applied if the request has the <i>exact</i> URL parameters present—no more and no less. <b>SOAtest:</b> Groups messages by URL parameters that will determine whether or not the message is processed. You can configure the criteria to include all messages that include specific parameters (no matter what value they are set to), or only include messages where specific parameters are set to specific values. You can also indicate whether a message should be included if the request has the <i>exact</i> URL parameters present—no more and no less.
<a href="#">Request Body Grouping Configuration</a>	<b>Virtualize:</b> Specifies XPath expressions within the message that will determine whether or not the message is processed. <b>SOAtest:</b> Groups messages using XPath expressions.

To see the details of the detected messages, open the Message Details tab and select the related message block.

Grouping Criteria

Test name: Addressbook

Data set name: Addressbook

Grouping Criteria | Message Details

▼ HTTP Methods

Use for grouping

CONNECT       DELETE       GET

HEAD       OPTIONS       PATCH

POST       PUT       TRACE

▼ URL Path

Use for grouping

Path: /ProfileProvider/resources/customer/\*/addressbook/\*

▼ HTTP URL Parameters

Use for grouping

Include in group only when the list of parameters matches exactly

Parameter Name	Value
channelType	[*]
countryCode	[*]

## HTTP Methods Grouping Configuration

HTTP methods grouping criteria apply to assets that will be accessed over HTTP/HTTPS. Customization of HTTP methods grouping criteria is automatically disabled to prevent the creation of groups with mixed methods (e.g., both POST and GET).

## URL Paths Grouping Configuration

URL path grouping criteria apply to assets that will be accessed over HTTP/HTTPS.

To configure the URL path correlation or grouping:

1. Enable the **Enable correlation** or **Use for grouping** option.
2. Specify the path and endpoint you want to use for correlation or grouping.

For example, assume that an endpoint or virtual asset is deployed under the path `http://myserver:9080/MyAsset/MyPath`. The path `/segment1/segment2/**` is also specified in the responder correlation.

The following URLs will match this correlation criteria:

`http://myserver:9080/MyAsset/MyPath/segment1/segment2`

`http://myserver:9080/MyAsset/MyPath/segment1/segment2/`

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

The following URLs will NOT match:

`http://myserver:9080/MyAsset/MyPath/segment1/`

`http://myserver:9080/MyAsset/MyPath/segment3/segment1/segment2`

Ant-style wildcards can be used, where \* matches zero or more characters and \*\* matches zero or more directories. Using this format:

`**/abc` matches `/abc` or `/this/that/abc`

`/abc/**` matches `/abc` or `/abc/this/that/theother`

`/ab**` DOES NOT match `/abc/d` (it is interpreted as if you used a single asterisk `/ab*`); it does match `/absolutely`

`**bc` DOES NOT match `/0/abc` (it is interpreted as if you used a single asterisk `/*bc`); it does match `/abc`

### Example 1: `**/service/`

Matches	Does Not Match
service/Repository org/web/service/Entries org/something/else/tools/stiff/service/Entries	org/web/service/foo/bar/Entries

### Example 2: `org/parasoft/virtualize/**`

Matches	Does Not Match
org/parasoft/virtualize/tools/service org/parasoft/virtualize/stuff	org/parasoft/somethingelse

### Example 3: `org/parasoft/**/EM/`

Matches	Does Not Match
org/parasoft/EM/Entries org/parasoft/virtualize/soatest/tools/EM/Entries	org/parasoft/EM/foo/bar/Entries

## URL Parameters Grouping Configuration

URL parameter grouping criteria apply to assets that will be accessed over HTTP/HTTPS. To configure the URL parameters correlation or grouping:

1. Enable the **Enable correlation** or **Use for grouping** option.
2. If you want the correlation or grouping to be applied only if the request has the *exact* URL parameters specified in this table—no more and no less—enable the **Correlate only when the list of parameters matches exactly** or **Include only when the list of parameters matches exactly** option. Otherwise, any request that contains listed parameters as well as other parameters will match. Whether this option is enabled or disabled, a message that lacks one of the specified parameters will not match.

**HTTP URL Parameters**

Enable correlation

Correlate only when the list of parameters matches exactly

Parameter Name	Value
channeType	[*]
unknownShopperID	[*]

**HTTP URL Parameters**

Use for grouping

Include in group only when the list of parameters matches exactly

Parameter Name	Value
channelType	[*]
countryCode	[*]

3. Click the **Add** button. A new entry row displays.
4. Enter the **Parameter Name**.

5. Do one of the following:
- a. If you want to match messages where this parameters is set a specific value: Enter that value under **Value**.
  - b. If you want to match all messages that include this parameter (no matter what value they are set to): Enable **Correlate whenever the parameter name is present (regardless of value)** or **Include in group whenever the parameter name is present (regardless of value)**.

## SOAtest Example

For an endpoint of `http://myserver:9080/MyAsset/MyPath`, the following URL Parameters are specified in the grouping criteria:

Parameter Name	Value
param1	value1
param2	value2

The following request URLs will match this correlation or grouping criteria:

- `http://myserver:9080/MyAsset/MyPath?param1=value1&param2=value2`
- `http://myserver:9080/MyAsset/MyPath?param1=value1&param2=value2&param3=value3`
- `http://myserver:9080/MyAsset/MyPath?param2=value2&param1=value1&param3=value3`

The following URLs will NOT match:

- `http://myserver:9080/MyAsset/MyPath?param1=value1&param2=someothervalue1&param3=value3`
- `http://myserver:9080/MyAsset/MyPath?param1=value1&m3=value3`

## Request Body Grouping Configuration

To configure a message correlation or grouping based on XPath function from the request body:

1. Enable the **Enable correlation** or **Use for grouping** option.
2. Click the **Edit** button. An Edit XPath Function dialog displays.
3. Do one of the following:
  - If a tree representation of the incoming request message is displayed, then select an element from the Element tree and select a function from the Function drop-down menu.
  - If a tree representation is not available—or if the tree does not fully display the elements or attributes that are if interest for extraction and evaluation—then provide an XPath expression manually. The XPath expressions supported for correlation/grouping purposes is based on the standard XPath 1.0 standard by W3C.

Note that several categories of requests are shown in the left hand panel:

- **Archetypal Requests:** A selection of messages that represent the different message structure variations that were detected when analyzing the traffic file.
- **Messages in this Group:** Messages from the message group whose grouping criteria you are currently configuring. This is not available if the group doesn't have any messages.
- **All Messages:** All the messages from the traffic file.

The screenshot shows a software interface for configuring XPath requests. On the left is a tree view of requests, with 'Request 3' selected under the 'Archetypal Requests' group. The main area is divided into two tabs: 'Literal' and 'Element'. The 'Element' tab is active, showing a tree view of XML elements: 'BillingInfo' (expanded) containing 'CreditCardEntity' (expanded) with sub-elements 'Type', 'CreditCardType', 'Number', 'ExpirationMonth', and 'ExpirationYear'. Below the tree view, there are three fields: 'Function:' with a dropdown menu showing 'local-name()', 'Value:', and 'XPath:' with a text area containing the XPath expression 'local-name(\*)="BillingInfo"'. At the bottom right are 'OK' and 'Cancel' buttons.