**Arrakis XSS Option Guide**

1. Setting Option Description

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| <config>  Top use | A set of filter information to use for filtering. You can define multiple <filter> s..  **Element**   |  |  | | --- | --- | | <filters> | The distinguished name of the filter. Used to refer to filter information elsewhere. | | <appliers> | A set of condition definition information for filtering. You can define multiple appliers in the child.. | |

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| <filters> | The distinguished name of the filter. Used to refer to filter information elsewhere.  **Element**   |  |  | | --- | --- | | <filter> | Information about the filter to use for filtering.  Basically, we provide a DefaultFilter (simple replace with regular expressions) | |
| <appliers> | A set of condition definition information for filtering. You can define multiple appliers in the child..  **Element**   |  |  | | --- | --- | | <applier> | Define the settings to determine the filtering target condition | |

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| <filter> | Information about the filter to use for filtering.  Basically, we provide a DefaultFilter (simple replace with regular expressions)  **Element**   |  |  | | --- | --- | | <name> | The distinguished name of the filter. Used to refer to filter information elsewhere. | | <classPath> | The location of the class that implements the filter. Describe in package format. | | <configPath> | The configuration information file of the corresponding filter | | <config> | Defines the transformation rule to be processed by the filter.  The above configPath setting allows you to separate files and describe their contents. |   **Attribute**   |  |  | | --- | --- | | default | Declare the default filter list when you do not specify a filter to use in the inspect settings below. | |

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| <config>  Use under “flter” | Define settings to perform filtering  The child elements are defined and used to receive additional options from the Filter. (Custom tag)  In the manual, the default options provided for DefaultFilter are described.  **Element**   |  |  | | --- | --- | | <rules> | Define a filtering rule | |

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| <applier> | Define the settings to determine the filtering target condition  **Element**   |  |  | | --- | --- | | <conditions> | Defines the conditions of filtering object judgment. | | <inspect> | Settings for actual processing when filtering target |   **Attribute**   |  |  | | --- | --- | | break | If you do not want to run the applier afterwards, put that option. It is usually used when processing an exception at the top of the declaration of a specific exception condition.  ex)  break=”true” | |

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| <conditions> | Condition A set of conditions to be executed when matching. You can have multiple conditions and match them in order. If there is a match first, ignore the following. (Each contidion is an OR condition)  **Attribute**   |  |  | | --- | --- | | ref-type | In the match condition, select the values / values to be compared.  Basically, the following options are provided.  ref-type=”SimpleKeyMatch”  > It tries matching with the key value of the filtering target. (Parameter key)  ref-type=”SimpleValueMatch”  > Attempt to match the actual value of the filtering target. (Parameter value)  This type is customizable and provides the following additional functions for Web XSS processing.  ref-type=”RequestMap”  > Used to compare and retrieve information about the parameter key and actual value of request.  ref-type=”RequestMetaMap”  > Used to compare meta information of request.  Currently, URIs can be imported and compared. |   **Element**   |  |  | | --- | --- | | <condition> | Filtering Matching conditions are defined. | |

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| <inspact> | Condition to be executed when matching condition. Declare a default filter on the property to make it work with that filter.  Alternatively, you can ignore the filter in the above condition.  **Attribute**   |  |  | | --- | --- | | exclude | Exceptions are processed so that they are not handled separately when condition conditions are met.  ex)  exclude=”false” (Basic / No description)  exclude=”true” (Apply exclusions) | | filter | Declare a specific filter to use by default. Multiple definitions are defined using a comma (,), and the filter is processed in order.  ex)  filter=”DefaultFilter,XSSFilter” | | name | The distinguished name of the corresponding inspect. It is used for log recording. Not required. |   **Element**   |  |  | | --- | --- | | rule | Describe conversion conditions after filtering. | |

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| <condition> | Define the condition to actually execute when matching the condition.  Each condtion is compared in order. If there is a matched condition first, the following condition is ignored (OR condition)  **Attribute**   |  |  | | --- | --- | | ref-type | In the match condition, select the values / values to be compared.  Basically, the following options are provided.  ref-type=”SimpleKeyMatch”  > It tries matching with the key value of the filtering target. (Parameter key)  ref-type=”SimpleValueMatch”  > Attempt to match the actual value of the filtering target. (Parameter value)  This type is customizable and provides the following additional functions for Web XSS processing.  ref-type=”RequestMap”  > Used to compare and retrieve information about the parameter key and actual value of request.  ref-type=”RequestMetaMap”  > Used to compare meta information of request.  Currently, URIs can be imported and compared. | | operator | Describe or / and condition for lower match conditions.  It is basically an "and" condition. (all conditions of match must be met)  ex) operator=”or” | | name | The unique name of the condition. It is used for log recording. Not required. |   **Element**   |  |  | | --- | --- | | <match> | Matching conditions are described. | |

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| <rule> | It is used when you want to deal with specific key separately. If not defined, it applies to all values by default..  **Attribute**   |  |  | | --- | --- | | key-name | Enter a key name to filter separately..  ex)  exclude=”false” (Basic / No description)  exclude=”true” (Apply exclusions) | | match-type | Determine which rule matches the set key.  The attributes are as follows  match-type=”exactly”  > Processes when the key value and the comparison value are exactly the same  .  match-type=”startWith”  > Processes when the key value partially matches from the beginning of the comparison value.  match-type=”endWith”  > The key value is processed when the rear part of the comparison value is partially matched.  match-type=”contains”  > Processes when the key value is a part of the comparison value.  match-type=”reges”  > When the key value matches the comparison value using the regular expression, it is processed. | | filter | Used to apply a specific filter to the set key value separately.  The default filter set in the <inspect> tag is ignored. | | exclude | Used to ignore processing of set key value.  ex) exclude=”true” | |

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| <match> | It is used when you want to deal with specific key separately. If not defined, it applies to all values by default.  **Attribute**   |  |  | | --- | --- | | ref-type | In the match condition, select the values / values to be compared.  Basically, the following options are provided.  ref-type=”SimpleKeyMatch”  > It tries matching with the key value of the filtering target. (Parameter key)  ref-type=”SimpleValueMatch”  > Attempt to match the actual value of the filtering target. (Parameter value)  The type is customizable and provides the following additional functionality for Web XSS processing.  .  ref-type=”RequestMap”  > Used to compare and retrieve information about the parameter key and actual value of request.  ref-type=”RequestMetaMap”  > Used to compare meta information of request.  Currently it is possible to compare URIs. | | key-name | Enter a key name to filter separately.  ex)  exclude=”false” (Basic / No description)  exclude=”true” (Apply exclusions) | | match-type | Determine which rule matches the set key.  The attributes are as follows  match-type=”exactly”  > Processes when the key value and the comparison value are exactly the same.  match-type=”startWith”  > Processes when the key value partially matches from the beginning of the comparison value.  match-type=”endWith”  > The key value is processed when the rear part of the comparison value is partially matched  match-type=”contains”  > Processes when the key value is a part of the comparison value..  match-type=”reges”  > When the key value matches the comparison value using the regular expression, it is processed. | | operator | Defines an operator. The match tag only supports "not".  operator=”not”  > Apply something that does not correspond to the corresponding match attribute. | | name | The unique name of the match. It is used for log recording. Not required. | |

1. Built-in filter description

The types of filters currently provided are as follows.

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| net.ngom.arrakis.filter.DefaultFilter | Filter that performs replacement according to simple regular expression according to rule setting of setting file. Internally, we use the replaceAll function of java.. |
| kr.co.ensof.xss.filter.OWASPFilter | It uses a vulnerability remover library distributed by OWASP, a nonprofit open source Web application security project.  <https://www.owasp.org/index.php/OWASP_Java_Encoder_Project>  Reference. |
| kr.co.ensof.xss.filter.SQLInjectionFilter | It is a filter that removes the special character patterns frequently used in SQL Injection attack. |