Archived:HTTP service V2 in WidSets

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The article is believed to be still valid for the original topic scope.

This is version 2 of HTTP service. To use it in non-generic calls you must specify the attribute *version*="2" in *widget.xml:/widget/services/service* or in generic calls directly in the call (see call documentation.)

The service

With the HTTP service the script can execute HTTP GET and HTTP POST methods. If the MIME type of the response is human readable text ("text/..."), the response is a string, otherwise it is binary. The output of the HTTP service can be processed with a filter. (See Archived:Advanced filters.)

The HTTP service can have the following *service parameters* that are configured in the XML configuration:

Service parameter	Function
auth	When using TOKEN authentication, the service id of the tokenauth type service must be set here. (See Archived:Integrating WidSets with Web Sites#Token authentication for an example.)
url	When using the *exec* action the URL must be specified here.
method	When using the *exec* action the METHOD can be specified here. If it is not specified, the default method will be GET.

HTTP service has *three actions* that are called from the script code:

Service action	Function
exec	*Exec* executes a pre-specified HTTP GET or POST to an URL given in the *widget.xml*. The method can be specified there also.
get	*Get* executes a HTTP GET to the URL specified.
post	*Post* executes a HTTP POST to the URL specified.

With *get*, *post*, and *exec* actions, additional request parameters can be added. In *get only* the string type parameters are appended to the querystring, and in post depending on the nature of the parameters they are either sent as:

```
Content-Type: application/x-www-form-urlencoded; charset=utf-8
```

when all parameter values are strings

OR

```
Content-Type: multipart/form-data
```

when there are also other types of parameter values than strings. The values of other types must be accompanied with the MIME type of the data.

exec action

The *exec* action maps to either HTTP GET or HTTP POST depending on its configuration. The *exec* action differs from *get* and *post* actions so that the URL **cannot** be given in the request (the call coming from the WidSets client). It has to be pre-specified in the *widget.xml*. The only input *exec* takes is the request parameters.

With the *exec* action it is possible to hide the URL to the destination. The URL can contain a token or some credentials to identify the call coming from WidSets. If the parameter in *widget.xml* is specified as *visible=false*, *editable=false* and *sendmobile=false* it will not be visible or delivered to the mobile client. A certain business-to-business API could be implemented this way.

get and *post* actions

Both *get* and *post* actions take the same kind of input. *Get* maps to HTTP GET and *post* maps to HTTP POST. The only required parameter in both actions is *url*. Other optional parameters are:

- enccharset - The charset used for URLEncoding.
- returnheaders - The result will contain the HTTP headers the remote server sent.
- returnstatus - The result will contain the HTTP status code the remote server responed with.
- headers - Custom headers can be included in this list.

Service actions

The following are the specifications for the available service actions.

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```
#!format=registry; charset=ISO-8859-1


namespace "2" is ContentHandler
{

  ActualContent = (choice (string textContent)
                          (bytes dataContent)
                          (any filteredData)
                          (null noData))

  Headers = (list (repeat (bind (string name) (string value))))

  Content = (list (bag (required (bind (const content) (use ActualContent)))
                       (optional (bind (const status) (int statusCode)))
                       (optional (bind (const headers) (use Headers)))))


  FetchInput = (list (bag (bind (const url)
                                (string urlToFetch))
                          (optional (bind (const params)
                                          (list (repeat (use RequestParameter)))))
                          (optional (bind (const enccharset)
                                          (string urlEncCharset)))
                          (optional (bind (const returnheaders)
                                          (boolean returnHeaders)))
                          (optional (bind (const returnstatus)
                                          (boolean returnStatus)))
                          (optional (bind (const headers)
                                          (use Headers)))))


  RequestParameter = (bind (string paramName)
                           (choice (string paramValue)
                                   (int paramValue)
                                   (boolean paramValue)
                                   (list (string mimeType)
                                         (bytes data))))


  namespace exec is ContentAction
  {
    input = (list (repeat (use ../RequestParameter)))
    output = (use ../Content)
    generic = false
  }


  namespace get is ContentAction
  {
    input = (use ../FetchInput)
    output = (use ../Content)
    generic = true
  }


  namespace post is ContentAction
  {
    input = (use ../FetchInput)
    output = (use ../Content)
    generic = true
  }


}
```

Example *widget.xml* configuration for the exec action

```
<services>
  <service type="http" version="2" id="docall">
    <reference from="url" to="url" />
    <reference from="method" to="method" />
  </service>
</services>

<parameters>
  <parameter name="url" visible="false" editable="false" protected="true" sendmobile="false">
    <value>http://www.widsets.com/secret_test.php?username=antti</value>
  </parameter>

  <parameter name="method" value="get" />
</parameters>
```

Changes to the previous version

- *exec* action added
- In *get* and *post* actions there is the option to receive HTTP headers and the status code.

See also

- Archived:WidSets - Getting content with Services
- Archived:Available content fetching services
  - Archived:Syndication service in WidSets
  - Archived:Webfeed service in WidSets
  - Archived:HTTP service in WidSets
- Archived:Fetcher details in WidSets
  - Archived:Feed formats in WidSets
  - Archived:HTTP authentication in WidSets
- Archived:Advanced filters
  - Archived:WidSets Filter expressions reference

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