

# Ohbot - Webservices

20th March 2020

The Ohbot app has a generic webservice block in the Sensing section which can be extended to call out to a webservice with a parameter passed from inside an Ohbot script and pick up a return from the webservice to assign to a variable or use in speech.

The webservices are defined in an xml file in the Ohbot sub-folder of the documents folder. The definition file is called webcalldefinitions.owd and you can edit it with any text editor.

From version 1.49.0 of the App onwards you can also call a webservice that doesn't provide a return value. This was added for using If This Then That (IFTTT)

Each entry in the file defines:

<b>Name</b>	The name that identifies the webservice to use in the Ohbot script
<b>Url</b>	The url to call for the webservice including a {0} marker which will be replaced by any parameters
<b>Format</b>	The format of the data that's returned – json or xml
<b>Property</b>	The name of the property that holds the data that's returned. Any {0} token in the Url is replaced by this when the webservice call is made. From v1.49.0 onwards this property should be set to "" if the webservice does not return anything.
<b>Title</b>	This is needed to interpret some result sets such as Wolfram Alpha where there is more than one element that has the same name as the property. For example the useful result is in a property called plaintext in a section called "pod" with a title attribute of "Result". There are other sections called pod with plaintext properties that need to be ignored
<b>IsArray (added in version 1.34.0)</b>	True if an array of strings is returned else False. Defaults to False. See example for how to process an array below
<b>Id (added in version 1.34.0)</b>	The id that's sent to the webservice. This is used to send an account id to the webservice. Any {1} token in the Url is replaced by this when the webservice call is made.
<b>GetIDFrom (added in version 1.34.0)</b>	This is the error message that's displayed if the webservice needs an id and the Id field isn't defined. It allows you to give additional instructions about how to get an Id such as the website to get one from

The first example that's provided calls wikipedia extracts with this URL:

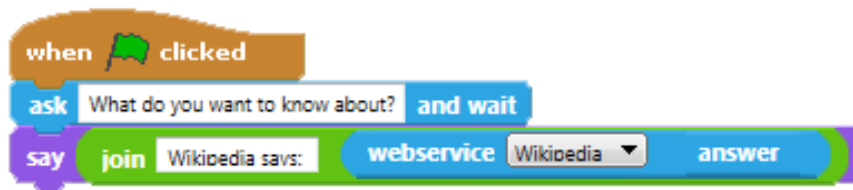
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<https://en.wikipedia.org/w/api.php?format=json&action=query&prop=extracts&exintro=&explaintext=&titles=robot>

Note that the token {0} has been replaced by “robot” in the example above. When you use it in an Ohbot script you can set the keyword in the block’s parameter box.  
Note also that each & character is expanded to &amp; in the URL.

You can put this url into a browser to see an example of the data that’s returned.

An example Ohbot script to call this is:



The second example, supplied in version 1.34 and later, calls Wolfram Alpha. You will need to get an Id from Wolfram Alpha to use this:

<https://account.wolfram.com/auth/create>

If you have an older version of the Ohbot App you can add the file entry manually:

```
<Webcall Name="WolframAlpha" Url="http://api.wolframalpha.com/v2/query?appid=<put ID here>&input={0}&format=plaintext" Format="xml" Property="plaintext" Title="Result" />
```

The {0} in the URL is replaced by your parameter in the block. This returns XML and the result that we need to read from the XML is in a property called plaintext in a section called “pod” with a title attribute of “Result”.

The file entry for version 1.34 and later is slightly different to allow the ID to be moved out to a separate entry.

Information about the API can be found on this link:

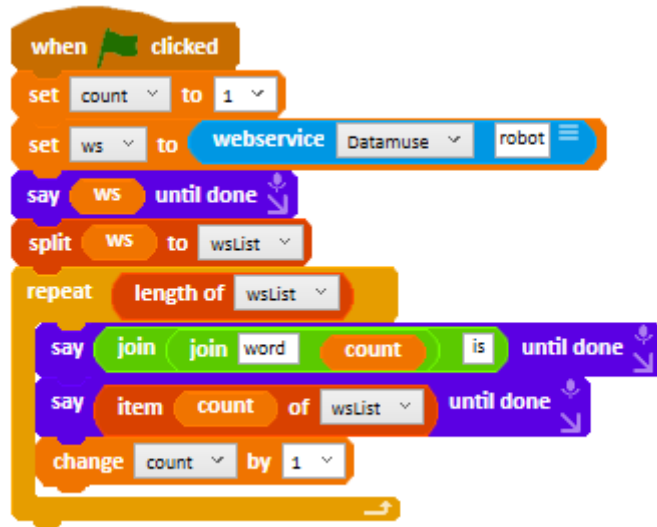
<http://products.wolframalpha.com/api/explorer.html>

The third example is only for version 1.34 and later:

```
<Webcall Name="Datamuse"
Url="https://api.datamuse.com/words?rel_rhy={0}&max=10" Format="json"
Property="word" IsArray="True" Title="" Id="" GetIDFrom="" />
```

The {0} token is replaced by your parameter in the block.  
By setting IsArray to “True” and including max=10 in the URL the webservice will return multiple words which will be concatenated into a string with words separated by the | character. This can be split into a list using the Split block in the Ohbot App. Here’s an example which gets 10 rhymes for the word “robot” and says them one at a time:

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To debug what a webservice returns assign the webservice to a variable using the set block and click the box next to the variable to display it.