Last updated: 2013-02-18

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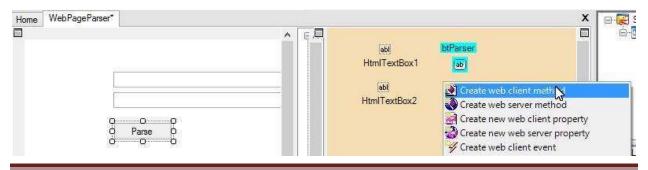
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The Sample Problem

In many situations, we may want to do string parsing on a web page. Here we use an example to show some techniques.

Suppose on a web page we want to parse user input, which is a list of words separated by spaces, into a comma delimited string with each word enclosed by single quotes. For example, parse value1 value2 ... into 'value1','value2'...

Create a web client web. Use a text box to collect user input and use another text box to show parse result. Use a button to execute string parse.

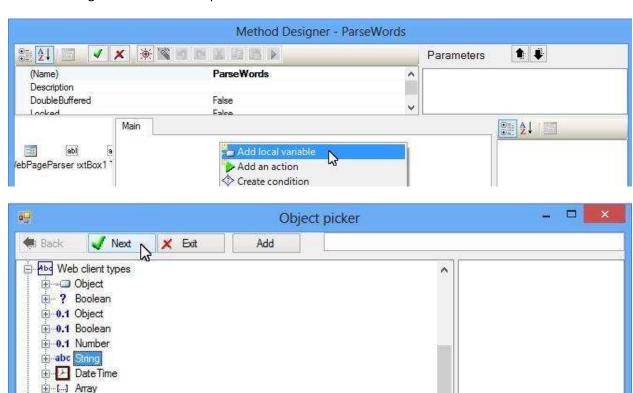


Create a Parse Method

Create a web client method and name it ParseWords.

Use String Variable

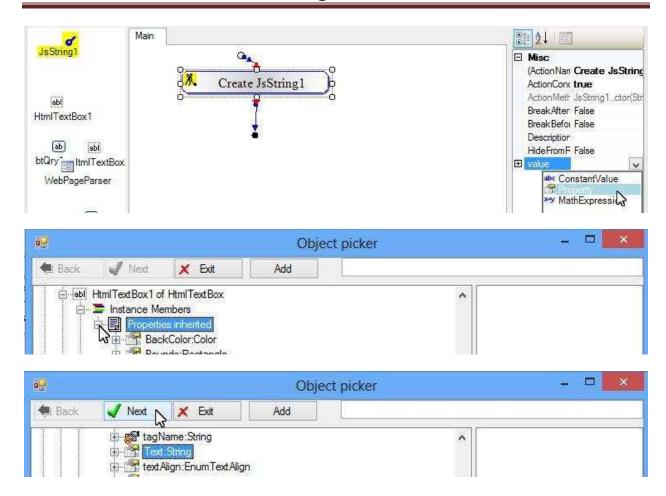
Create a string variable for user input:





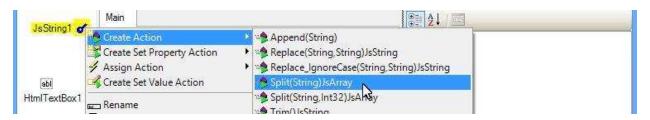


Use the text box to initialize the string variable:

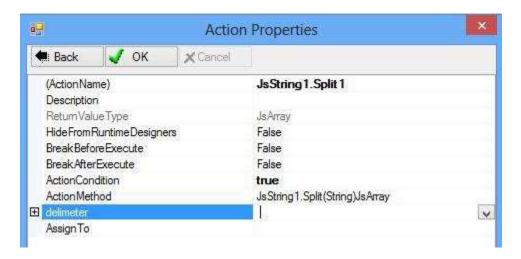


Split user input

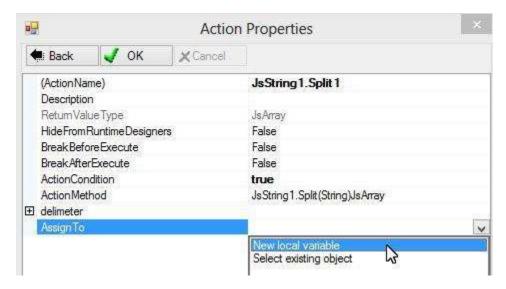
Create a Split action:

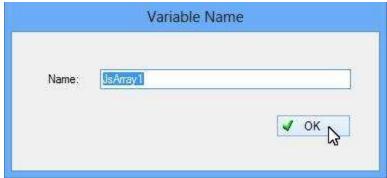


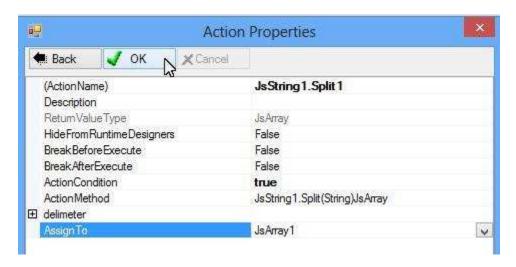
Use a space as the delimiter; this is tricky because it is not easy to see a space:



Assign the result to a new variable:

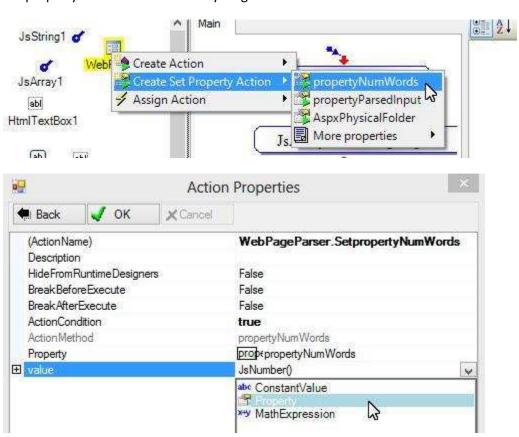




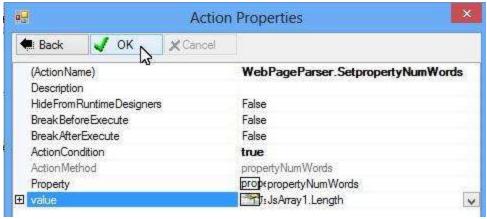


Get Number of Words

Set propertyNumWords to the array length:

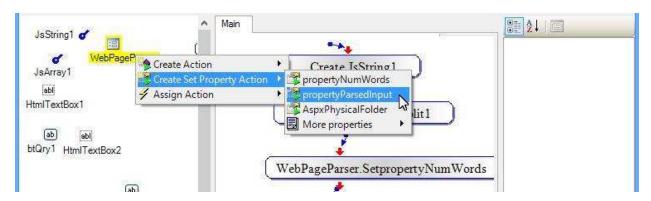


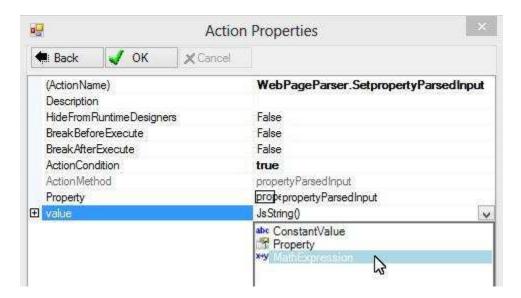




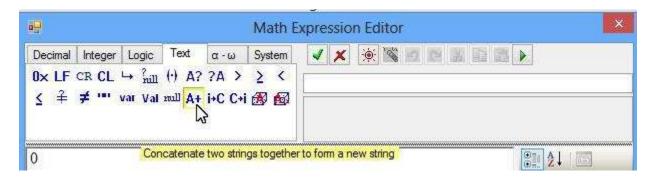
Merge Array into String

Set propertyParsedInput by merging the array items:

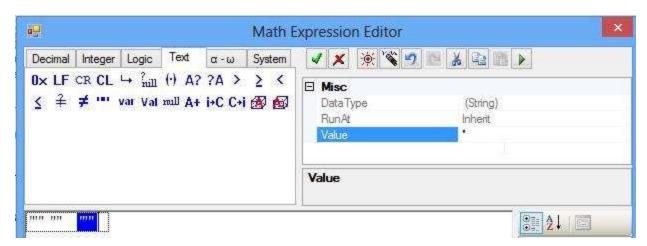




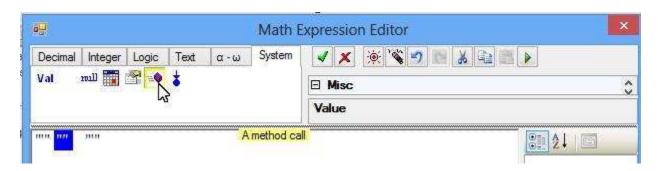
Click A+ twice to get 3 string parts:

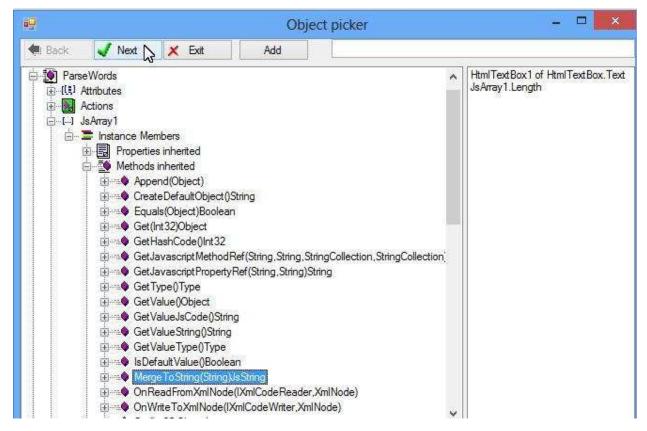


The first and the last part are single quotes:

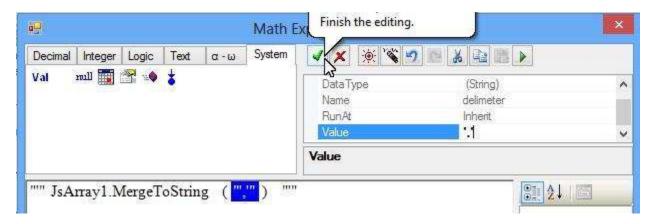


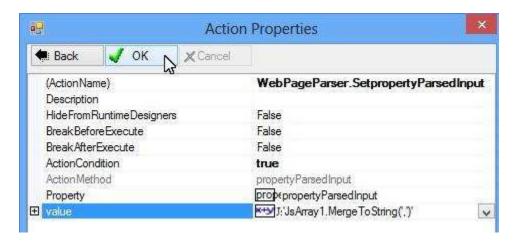
The middle part is an array merge method:



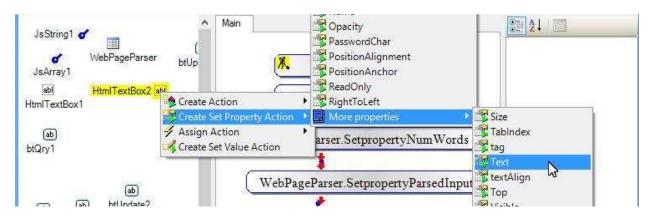


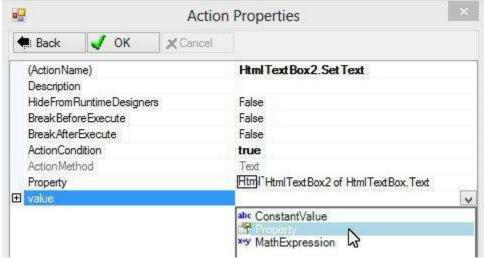
The Merge method needs a parameter as the string delimiter. We need to use ',' as the delimiter:

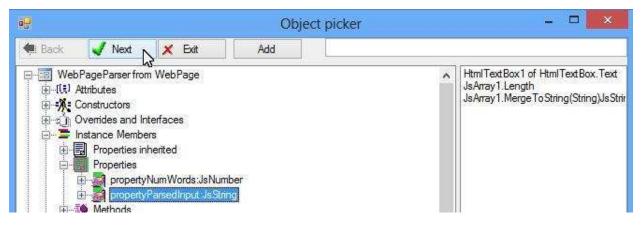


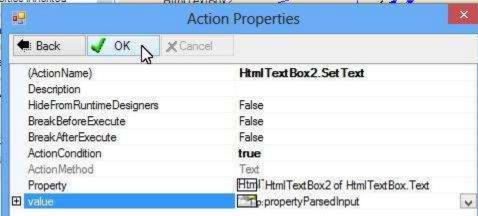


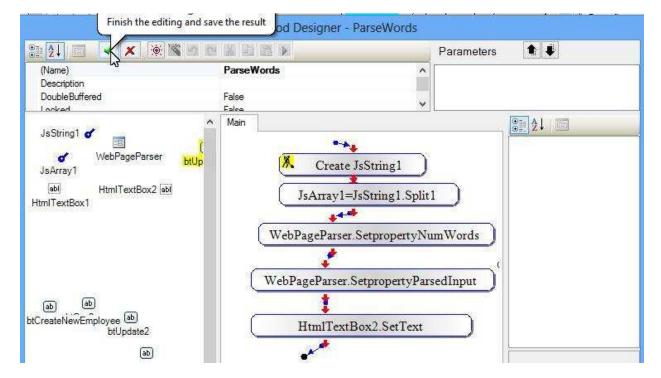
Show the result to a text box so that we can see what we get:





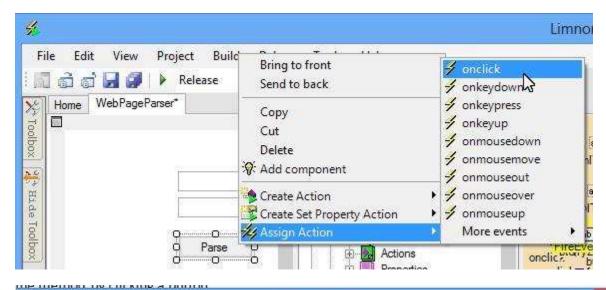


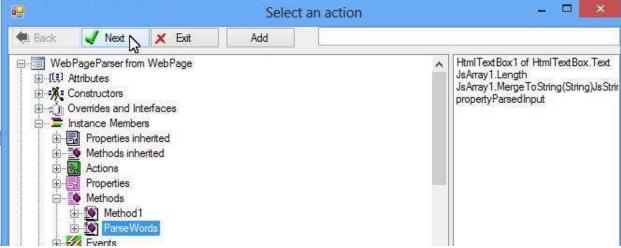


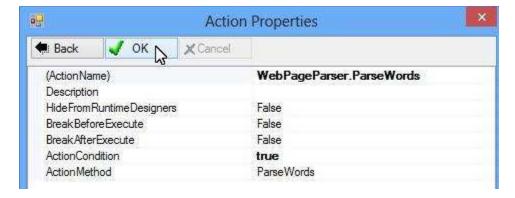


Execute Parse

Call the method by clicking a button:

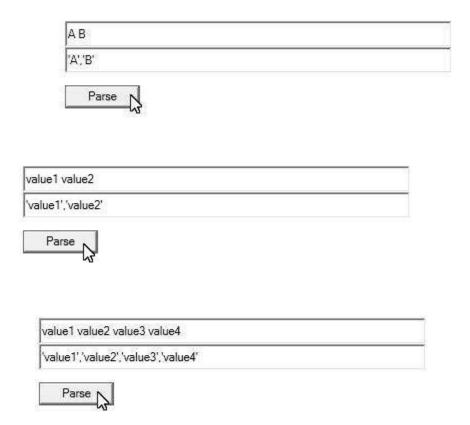






Test

Enter some words and click the button:



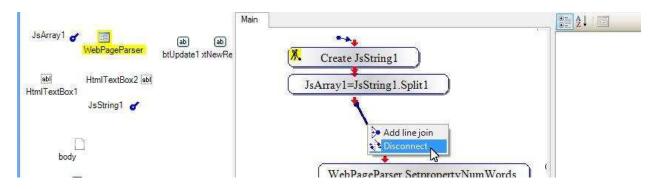
The above programming has a problem when the user enters more than one space between words:



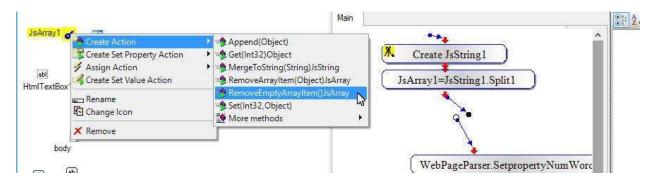
Remove Empty Elements

The problem can be solved by removing empty array items. Let's modify the method and add an action to remove empty array items.

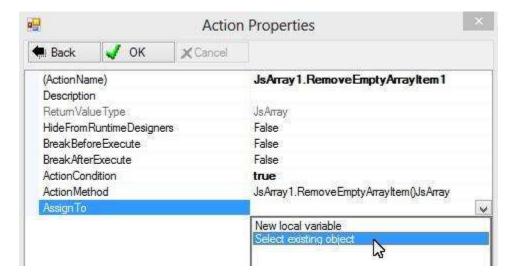
Break the action connection line:



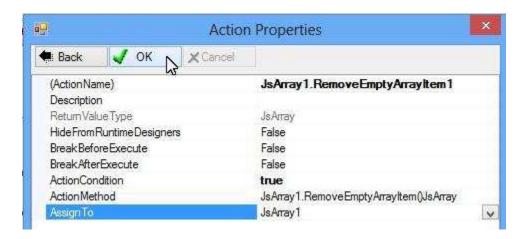
Create a RemoveEmptyArrayItem action:



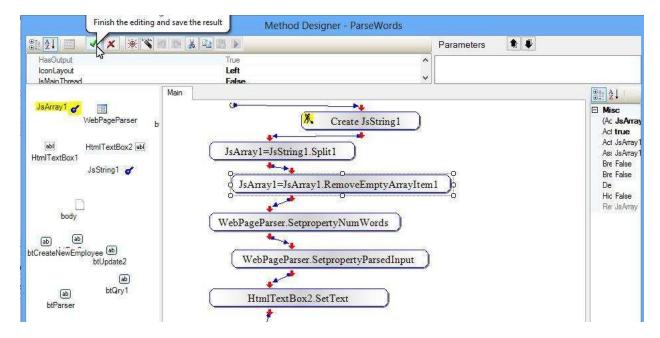
Assign the result back to the array variable:







Connect the new action:



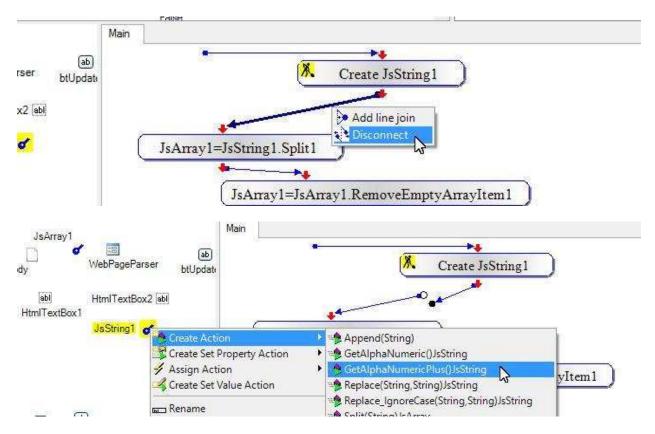
We may test the new web page. We may type many spaces between words. The result will still be what we expected:



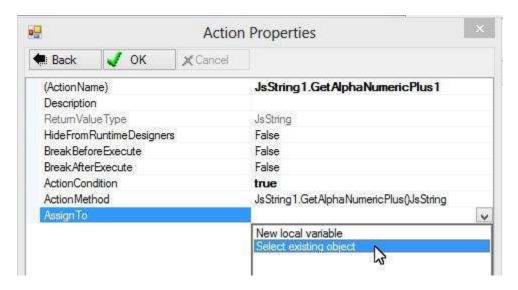
Use Only Alphanumeric Characters

Suppose you want to use the result of string parsing in a SQL query. To prevent SQL-injection attack, we may want to only use alphanumeric characters. We may use a <code>GetAlphaNumericPlus</code> action to get a string by removing all non-alphanumeric characters from a user input, allowing spaces, +, - and _. Note that a <code>GetAlphaNumeric</code> action is not right in this case because <code>GetAlphaNumeric</code> also removes spaces.

Let's modify the method to add a GetAlphaNumericPlus action after getting user input.

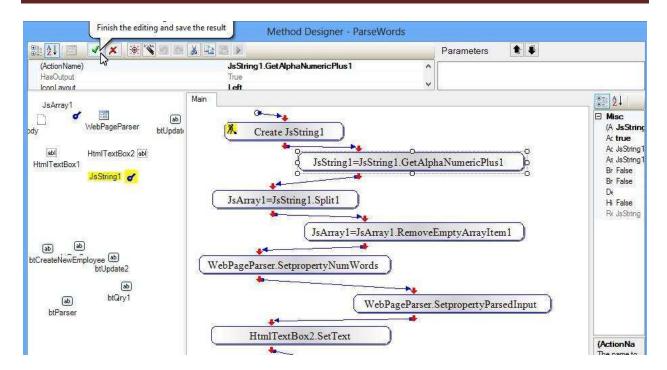


Assign the action result back to the string variable:









We may test it and enter some non-alphanumeric characters and see that those non-alphanumeric characters are removed from the parse result:

