

# URLPARAMS Function

Extracts the query parameters of a URL into an Object. The Object keys are the parameter's names, and its values are the parameter's values. Input values must be of URL or String type.

This function is part of a set of functions for processing URL data.

- See *DOMAIN Function*.
- See *SUBDOMAIN Function*.
- See *SUFFIX Function*.
- For more information, see *Structure of a URL*.

## Basic Usage

### URL literal examples:

```
derive type:single value: URLPARAMS('http://example.com?color=blue&shape=square' ) as: 'myURLParams'
```

**Output:** Generates the `myURLParams` column containing the following Object:

```
{"color": "blue", "shape": "square"}
```

### Column reference example:

```
derive type:single value: URLPARAMS(myURLs) as: 'myURLParams'
```

**Output:** Generates the new `myURLParams` column containing the query parameters extracted from the URLs in the `myURLs` column.

## Syntax and Arguments

```
derive type:single value: URLPARAMS(column_url)
```

Argument	Required?	Data Type	Description
column_url	Y	string	Name of column or String or URL literal containing the parameters and their values to extract

For more information on syntax standards, see *Language Documentation Syntax Notes*.

### column\_url

Name of the column or URL or String literal containing the query parameters and their values to extract.

- Missing input values generate missing results.
- Multiple columns and wildcards are not supported.

### Usage Notes:

Required?	Data Type	Example Value
Yes	String literal or column reference (URL)	<code>http://www.example.com?q1=hello&amp;q2=goodbye</code>

## Examples

**Tip:** For additional examples, see *Common Tasks*.

### Example - Domain, Subdomain, Host, and Suffix functions

This examples illustrates how you can extract component parts of a URL using the following functions:

- **DOMAIN** - extracts the domain value from a URL. See *DOMAIN Function*.
- **SUBDOMAIN** - extracts the first group after the protocol identifier and before the domain value. See *SUBDOMAIN Function*.
- **HOST** - returns the complete value of the host from an URL. See *HOST Function*.
- **SUFFIX** - extracts the suffix of a URL. See *SUFFIX Function*.
- **URLPARAMS** - extracts the query parameters and values from a URL. See *URLPARAMS Function*.
- **FILTEROBJECT** - filters an Object value to show only the elements for a specified key. See *FILTEROBJECT Function*.

#### Source:

Your dataset includes the following values for URLs:

URL
www.example.com
example.com/support
http://www.example.com/products/
http://1.2.3.4
https://www.example.com/free-download
https://www.example.com/about-us/careers
www.app.example.com
www.some.app.example.com
some.app.example.com
some.example.com
example.com
http://www.example.com?q1=broken%20record
http://www.example.com?query=khakis&app=pants
http://www.example.com?q1=broken%20record&q2=broken%20tape&q3=broken%20wrist

#### Transform:

When the above data is imported into the application, the column is recognized as a URL. All values are registered as valid, even the IPv4 address.

To extract the domain and subdomain values:

```
derive type:single value: DOMAIN(URL) as: 'domain_URL'
```

```
derive type:single value: SUBDOMAIN(URL) as: 'subdomain_URL'
```

```
derive type:single value: HOST(URL) as:host_URL'
```

```
derive type:single value: SUFFIX(URL) as:'suffix_URL'
```

You can use the Trifacta® pattern in the following transform to extract protocol identifiers, if present, into a new column:

```
extract col:URL on:`{start}%*://`
```

To clean this up, you might want to rename the column to `protocol_URL`.

To extract the path values, you can use the following regular expression:

**NOTE:** Regular expressions are considered a developer-level method for pattern matching. Please use them with caution. See *Text Matching*.

```
extract col: URL on: /^[^*:\\\/]\|\. *$/
```

The above transform grabs a little too much of the URL. If you rename the column to `path_URL`, you can use the following regular expression to clean it up:

```
extract col:path_URL on: /[^^\|]. *$/
```

Delete the `path_URL` column and rename the `path_URL1` column to the deleted one. Then:

```
derive type:single value: URLPARAMS(URL) as: 'urlParams'
```

If you wanted to just see the values for the `q1` parameter, you could add the following:

```
derive type:single value: FILTEROBJECT(urlParams,'q1') as: 'urlParam_q1'
```

## Results:

For display purposes, the results table has been broken down into separate sets of columns.

Column set 1:

URL	host_URL	path_URL
www.example.com	www.example.com	
example.com/support	example.com	/support
http://www.example.com/products/	www.example.com	/products/
http://1.2.3.4	1.2.3.4	
https://www.example.com/free-download	www.example.com	/free-download
https://www.example.com/about-us/careers	www.example.com	/about-us /careers
www.app.example.com	www.app.example.com	

www.some.app.example.com	www.some.app.example.com	
some.app.example.com	some.app.example.com	
some.example.com	some.example.com	
example.com	example.com	
http://www.example.com?q1=broken%20record	www.example.com	
http://www.example.com?query=khakis&app=pants	www.example.com	
http://www.example.com?q1=broken%20record&q2=broken%20tape&q3=broken%20wrist	www.example.com	

Column set 2:

URL	protocol_URL	subdomain_URL	domain_URL	suffix_URL
www.example.com		www	example	com
example.com/support			example	com
http://www.example.com/products/	http://	www	example	com
http://1.2.3.4	http://			
https://www.example.com/free-download	https://	www	example	com
https://www.example.com/about-us/careers	https://	www	example	com
www.app.example.com		www.app	example	com
www.some.app.example.com		www.some.app	example	com
some.app.example.com		some.app	example	com
some.example.com		some	example	com
example.com			example	com
http://www.example.com?q1=broken%20record	http://	www	example	com
http://www.example.com?query=khakis&app=pants	http://	www	example	com
http://www.example.com?q1=broken%20record&q2=broken%20tape&q3=broken%20wrist	http://	www	example	com

Column set 3:

URL	urlParams	urlParam_q1
www.example.com		
example.com/support		
http://www.example.com/products/		
http://1.2.3.4		
https://www.example.com/free-download		
https://www.example.com/about-us/careers		
www.app.example.com		
www.some.app.example.com		
some.app.example.com		
some.example.com		
example.com		

http://www.example.com?q1=broken%20record	{"q1":"broken record"}	{"q1":"broken record"}
http://www.example.com?query=khakis&app=pants	{"query":"khakis","app":"pants"}	
http://www.example.com?q1=broken%20record&q2=broken%20tape&q3=broken%20wrist	{"q1":"broken record", "q2":"broken tape", "q3":"broken wrist"}	{"q1":"broken record"}