

Consul-KV-Builder Plugin

Plugin Information

View Consul KV Builder on the [plugin site](#) for more information.

This plugin adds a new build step and build wrapper that are used to read/write/delete Key/Value data from/to specified HashiCorp Consul servers, or clusters.

Use Case

* You have a build that needs to read data from Consul Key/Value store and use those data later in the build or even in downstream parameterized builds.

* You have a build that needs to deploy, and part of that deployment is to configure Consul Key/Value settings.

Build Wrapper Usage

The Consul K/V Builder Plugin can be used as a Build Wrapper, so it is added to the project configuration by selecting under the "Build Environment" checkboxes. As a build wrapper, it can be added multiple times to read multiple Key/Value pairs.

Build Environment

Provide Configuration files

Add Consul Read Config(s)

Consul Read Config X

ACL Token ?
Empty token, no token will be used.

Host URL ?

Key ?

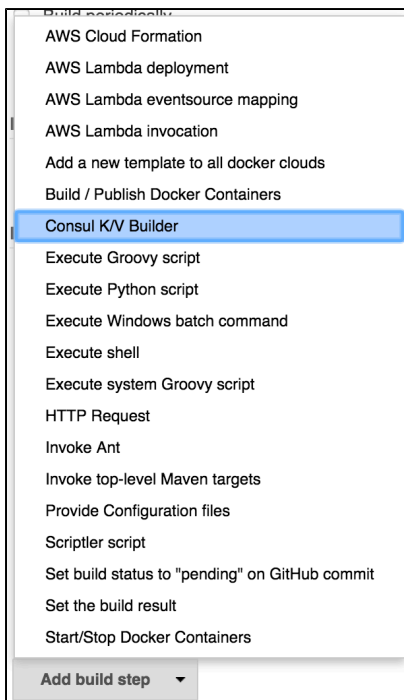
ENV Variable Key ?

Advanced...

Add another Consul read config

Build Step Usage

The Consul K/V Builder Plugin can also be used as a Build Step, so it is added to the project configuration via the "Add Build Step" button towards the bottom of the project configuration window. As a build step, it can be added multiple times to read/write/delete multiple Key /Value pairs.



To read data from Consul, you configure the build step with the following settings:

Field name	Description
ACL Token	optional, supplies the Consul ACL entry ID that is used to access data
Host URL	URL of the Consul server/cluster
Key	Key used to store and lookup data in Consul
ENV Variable Key	Key used to store the data into a Jenkins build environment variable

Build

Consul K/V Builder

ACL Token ?

⊘ No token specified. Call will be made without a token.

Host URL ?

Key ?

ENV Variable Key ?

To write Consul data, you must expose the "Advanced" settings.

Field name	Description
Request Mode	Set to write
Debug Mode	Optionally enable debug mode for additional logging
Value	Value to write to Consul with the specified key from above
API URL Override	optional, used to specify the non-default URI for the Consul server RESTful HTTP API endpoints

Connection timeout	optional, used to specify connection timeout, default is 10 seconds
Response timeout	optional, used to specify response timeout, default is 30 seconds

Build

Consul K/V Builder

ACL Token

Host URL

Key

ENV Variable Key

Please enter an ENV variable storage key that is only RegEx word characters, and hyphens.

Request Mode

Debug Mode

Value

API URL Override

Please set a URL override that begins and ends with a "/", example: /v1/kv/.

Connection timeout

Response timeout

Delete

Handy Hint

This example shows the use of a build parameter `acl_token`

To delete Consul data, you must expose the "Advanced" settings, and choose delete.

Field name	Description
Request Mode	Set to delete
Debug Mode	Optionally enable debug mode for additional logging
Value	N/A
API URL Override	optional, used to specify the non-default URI for the Consul server RESTful HTTP API endpoints
Connection timeout	optional, used to specify connection timeout, default is 10 seconds
Response timeout	optional, used to specify response timeout, default is 30 seconds

Build

Consul K/V Builder

ACL Token

No token specified. Call will be made without a token.

Host URL

Key

ENV Variable Key

Please enter an ENV variable storage key that is only RegEx word characters, and hyphens.

Request Mode

Debug Mode

Value

API URL Override

Please set a URL override that begins and ends with a "/", example: /v1/kv/.

Connection timeout

Response timeout

Delete

Pipeline Usage

This plugin can be used in Jenkins Pipeline scripts with "wrap" and "step" constructs:

```
1 node {
2     wrap([$class: 'ConsulKVReadWrapper',
3         reads: [
4             [debugMode: 'DISABLED', envKey: 'test_key', key: 'test/test-key', token: '',
5              url: '<CONSUL_URL>', urlOverride: ''],
6             [debugMode: 'DISABLED', envKey: 'test_key_new', key: 'test/test-key', token: '',
7              url: '<CONSUL_URL>', urlOverride: '']]]) {
8
9         print env.test_key
10        print env.test_key_new
11
12        step([$class: 'ConsulKVBuilder', debugMode: 'ENABLED', envVarKey: '',
13             hostUrl: '<CONSUL_URL>', key: 'test/test-key', keyValue: '', requestMode: 'DELETE', token: '<TOKEN_IF_NEEDED>', urlOverride: ''])
14    }
15 }
16
```

```
1 ...
2 wrap([$class: 'ConsulKVReadWrapper', reads: [[aclToken: '<SOME_TOKEN>', apiUrl: '', debugMode: 'ENABLED',
3 envKey: 'TEST_KEY', hostUrl: 'http://<SOME_HOST>:8500', ignoreGlobalSettings: true,
4 key: 'test/test-key'], [aclToken: '<SOME_TOKEN>', apiUrl: '', debugMode: 'ENABLED',
5 envKey: 'TEST_KEY2', hostUrl: '<SOME_HOST>', ignoreGlobalSettings: true,
6 key: 'test/test-key-2']]]) {
7     echo env.TEST_KEY
8     echo env.TEST_KEY2
9 }
10 ...
```

Features

Build Wrapper

* Read Key/Value data from Consul server/cluster, write to ENV variable

Build Step

- * Read Key/Value data from Consul server/cluster, write to ENV variable
- * Write Key/Value data to Consul server/cluster
- * Delete Key/Value data from Consul server/cluster
- * Optional debug mode for additional logging
- * Supports Consul ACL ids, including using build parameters for ACL ids
- * Optional override Consul RESTful HTTP API URI
- * Optional override connection timeout
- * Optional override response timeout

Global Settings

* Set global settings that can be leveraged in jobs

Global HashiCorp Consul Settings	
Host URL	<input type="text" value="http://localhost:8500"/>
ACL Token	<input type="text"/>
API URI (/v1/kv/)	<input type="text" value="/v1/kv/"/>
Connection Timeout (10000)	<input type="text" value="10000"/>
Response Timeout (30000)	<input type="text" value="30000"/>
Debug Mode (DISABLED)	<input type="text" value="ENABLED"/>
Test URI (/v1/status/leader)	<input type="text" value="/v1/status/leader"/>

Connected to http://localhost:8500/v1/status/leader Test Connection

Changelog

Version 1.0.6 (May 11 2016)

* Initial release

Version 2.0.4 (June 3 2016)

* Added Build Wrapper and Jenkins Pipeline compatibility

Version 2.0.7 (September 20 2016)

* Added build/run failure model settings
* Added listener error settings

Version 2.0.12 (October 3 2016)

* Added global Consul settings that can used/ignored at the job-config level

Version 2.0.13 (November 2 2016)

* Attempted to Fix issue: <https://github.com/jenkinsci/consul-kv-builder-plugin/issues/5>. Pipeline Steps implementing the SimpleBuildStep interface cannot write data to run-level environment variables.

The workaround may be to write a single-value custom step that returns a string, or use the wrapper to set a local var in the node.

Pipeline Wrapper Workarounds

```
node('master') {
    TEST_KEY = ''

    wrap([$class: 'ConsulKVReadWrapper', reads: [[aclToken: '', apiUri:
'', debugMode: 'ENABLED', envKey: 'test_key', hostUrl: '', key: 'test
/test-key']]]) {
        echo env.test_key
        TEST_KEY = env.test_key
    }

    echo TEST_KEY
}

//or for a global var:

import groovy.transform.Field
@Field String TEST_KEY

node('master') {

    wrap([$class: 'ConsulKVReadWrapper', reads: [[aclToken: '', apiUri:
'', debugMode: 'ENABLED', envKey: 'test_key', hostUrl: '', key: 'test
/test-key']]]) {
        echo env.test_key
        TEST_KEY = env.test_key
    }

    echo TEST_KEY
}

node ('master') {
    echo TEST_KEY
}

//Use Wrapper to get multiple key/values

node ('master') {
    wrap([$class: 'ConsulKVReadWrapper', reads: [[aclToken: '', apiUri:
'', debugMode: 'ENABLED', envKey: 'test_key', hostUrl: '', key: 'test
/test-key'], [aclToken: '', apiUri: '', debugMode: 'ENABLED', envKey:
'test_key2', hostUrl: '', key: 'test/test-key'], [aclToken: '', apiUri:
'', debugMode: 'ENABLED', envKey: 'test_key3', hostUrl: '', key: 'test
/test-key']]]) {
        echo env.test_key
        echo env.test_key2
        echo env.test_key3
    }
}
```