

# Azure CLI Plugin

## Plugin Information

View Azure CLI on the plugin site for more information.

A Jenkins plugin to use Azure CLI for managing Azure resources.

The advantage of this plugin that it let's you export the CLI result from each command to environment variables and to the next command.

## How to Install

You can install/update this plugin in Jenkins update center (Manage Jenkins -> Manage Plugins, search Azure CLI Plugin).

You can also manually install the plugin if you want to try the latest feature before it's officially released. To manually install the plugin:

1. Clone the repo and build:

```
mvn package
```

2. Open your Jenkins dashboard, go to Manage Jenkins -> Manage Plugins.
3. Go to Advanced tab, under Upload Plugin section, click Choose File.
4. Select `azure-cli.hpi` in `target` folder of your repo, click Upload.
5. Restart your Jenkins instance after install is completed.

## Deploy & Manage Azure Resources

### Prerequisites

To use this plugin, first you need to have an Azure Service Principal in your Jenkins instance.

1. Create an Azure Service Principal through [Azure CLI](#) or [Azure portal](#).
2. Open Jenkins dashboard, go to Credentials, add a new Microsoft Azure Service Principal with the credential information you just created.
3. Install [Azure CLI](#) in the Jenkins Host

### How to use

1. Select Azure CLI Plugin in the Build Steps.
2. Select the Azure Service Principal
3. Type a command such as `az vm create -n MyLinuxVM -g MyResourceGroup --image UbuntuLTS --data-disk-sizes-gb 10 20`
4. You can also use environment variables: `az vm create -n ${VM_NAME} -g MyResourceGroup --image UbuntuLTS --data-disk-sizes-gb 10 20`

### Export output as environment variables

The CLI command output is JSON based:

Output:

```
{
  "fqdns": "",
  "id": "/subscriptions/some-guid/resourceGroups/MyResourceGroup/providers/Microsoft.Compute/virtualMachines/MyLinuxVM",
  "location": "northeurope",
  "macAddress": "00-0D-AA-AA-AA-AA",
  "powerState": "VM running",
  "privateIpAddress": "10.0.0.4",
  "publicIpAddress": "52.178.0.0",
  "properties": {
    "provisioningState": "Succeeded"
  },
  "resourceGroup": "MyResourceGroup"
}
```

If you want to export a property to an environment variable that you can use in other build steps, define the parameters in the "advanced" section:

1. `/publicIpAddress|PUBLIC_IP` The `/publicIpAddress` is the path in the JSON and the `'PUBLIC_IP'` is the environment variable that will be created.
2. Nested property: `/properties/provisioningState|STATE`
3. Multiple environment variables: `/publicIpAddress|PUBLIC_IP` , `/properties/provisioningState|STATE`

The screenshot shows the Azure CLI interface. At the top, there is a 'Command' field with the text: `#Deploy the app` and `sudo waagent -deprovision+user --force`. Below this, there is a 'Login to Azure' section with a 'Service Principal' field containing the ID `666adaa2-7815-4882-ae13-b53834d500b5`. The main section is titled 'Commands' and contains five command boxes, each with an 'Advanced...' button and a red 'X' icon in the top right corner. The commands are:
 

- `az vm deallocate --resource-group $(base_vm_resource_group) --name $(base_vm_name)`
- `az vm generalize --resource-group $(base_vm_resource_group) --name $(base_vm_name)`
- `az image create --resource-group $(base_image_resource_group) --name $(base_image_name) --source $(base_image_source)`
- `az group delete -n $(base_vm_resource_group) --yes`
- `az vmss create -n $(vmss_name) -g $(vmss_resource_group) --image $(vmss_image) --vnet-name $(vmss_vnet_name) --subnet $(vmss_subnet_name) --storage-sku P`

## Deploy using Pipeline

You can also use this plugin in pipeline (Jenkinsfile). Here are some samples to use the plugin in pipeline script:

To create a new resource group and provision a new VM:

```
azureCLI commands: [[exportVariablesString: '', script: 'az group create -n MyResourceGroup --location northeurope'], [exportVariablesString: '/publicIpAddress|PUBLIC_IP', script: 'az vm create -n MyLinuxVM -g MyResourceGroup --image UbuntuLTS --data-disk-sizes-gb 10 20']], principalCredentialId: '<credential_id>'
```

For advanced options, you can use Jenkins Pipeline Syntax tool to generate a sample script.

## Deploy using Job DSL

You can also use this plugin with using the Jobs DSL. For example:

To create a linux VM using the CLI:

```
job('AzCommand') {
  steps {
    azCommands('servicePrincipalId',
      ['az vm create -n MyLinuxVM -g MyResourceGroup --image UbuntuLTS --data-disk-sizes-gb 10 20 && /publicIpAddress|PUBLIC_IP'])
  }
}
```

## Changelog

### Version 0.9 (2018-6-28)

- Fixed runtime exec in Linux

## **Version 0.8 (2018-6-19)**

- Fixed run in Windows bug

## **Version 0.7 (2018-6-4)**

- Disabled print login command

## **Version 0.6 (2017-11-3)**

- Fixed pipeline with exported environment variables support

## **Version 0.5 (2017-9-8)**

- Added sort commands

## **Version 0.4 (2017-8-20)**

- Change env var to \${..}

## **Version 0.2 (2017-8-17)**

- Added pipeline support

## **Version 0.1 (2017-8-16)**

- Initial release
- Support Azure CLI 2.0
- Support export environment variable from each command output
- Deploy using Job DSL