

# Terraform on Windows & Linux

<https://github.com/Martin-von-Boehlen/AzTfBeginnersCourse>

## Prerequisites

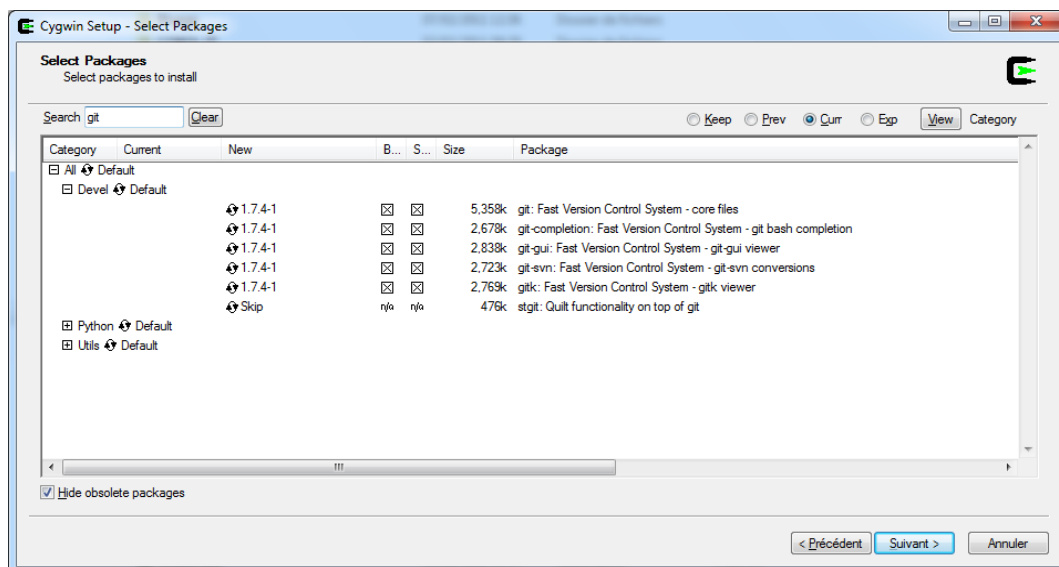
**Either** Windows 10 and above or Windows Server 2016 and above,  
**or** Ubuntu 18.04 LTS and any LTS above.

**Or** Debian Stretch and above LTS.

With **any other Linux** your mileage may vary.

## Install on Windows

1. Install cygwin by download & run [https://www.cygwin.com/setup-x86\\_64.exe](https://www.cygwin.com/setup-x86_64.exe). On first run you install newest version of **git**, **ssh** (client), **nano**, and **tree**. Bash will install automatically. Move *setup-x86\_64.exe* to a save location! You will need it for every packet you want to install. Create icons and pin cygwin to taskbar. Start it immediately after installation for test shown below.



2. Open cygwin terminal and test by calling `git --version`. It should produce something like:

```
mvp@azcli:~$ git --version
git version 2.25.1
```

3. Install az according to <https://docs.microsoft.com/en-us/cli/azure/install-azure-cli-windows>

4. Test it by

1. Open Cygwin-Terminal (bash)
2. Create a \$HOME/bin
3. If you cannot stand vi, install nano by calling *setup-x86\_64.exe*
4. Edit *~/.bash\_profile*. Add a line *export PATH=\$HOME/bin:\$PATH* as **last** line
5. For cygwin: close terminal and open it again. For Linux: Log out and log in again
6. Enter *echo \$PATH*. It should display *\$HOME/bin:* (including colon) as the first part. Like in */home/<username>/bin:*
7. Change to *~/bin* and enter *touch login.tf*. Edit *login.tf* to contain the following:

```
#!/bin/bash
az login --use-device-code --allow-no-subscriptions
az account list -o table --all --query "[].{TenantID: tenantId, Subscription: name, Default: isDefault}"
```

8. Save the file and enter *chmod 700 login.tf*. Enter *cd*.
9. You **have** to be logged into Azure with your browser before you attempt *az login*! There must be a valid and active session. Command line login will not work otherwise.

10. Enter *login.tf*. You should be logged into Azure like so:

```
az-104-318793-15@Azure:~$ login.tf
Cloud Shell is automatically authenticated under the initial account
signed-in with. Run 'az login' only if you need to use a different account
To sign in, use a web browser to open the page
https://microsoft.com/devicelogin and enter the code CFT9AG7PC to
authenticate.
A Cloud Shell credential problem occurred. When you report the issue with
the error below, please mention the hostname 'cc-972c9cba-5d7ff4dc55-
14fzl'
The following tenants don't contain accessible subscriptions. Use 'az
login --allow-no-subscriptions' to have tenant level access.
b5af1df6-13b4-4e6f-9b19-a4179b00b4c5 'Comcave College GmbH'
The following tenants require Multi-Factor Authentication (MFA). Use 'az
login --tenant TENANT_ID' to explicitly login to a tenant.
15ffb773-f6f1-457d-90bb-16d0481c4b08 'Contoso Marketing Company'
[
  {
    "cloudName": "AzureCloud",
    "homeTenantId": "0d80ae06-34dd-49cf-8558-eb713a28fe70",
    "id": "1cf77732-9afc-4948-940c-c7ecadd34140",
    "isDefault": true,
    "managedByTenants": [],
    "name": "Azure for Students",
    "state": "Enabled",
    "tenantId": "0d80ae06-34dd-49cf-8558-eb713a28fe70",
    "user": {
      "name": "AZ-104-318793-15@office.cc-student.com",
      "type": "user"
    }
  },
  {
    "cloudName": "AzureCloud",
    "id": "b5af1df6-13b4-4e6f-9b19-a4179b00b4c5",
    "isDefault": false,
    "name": "N/A(tenant level account)",
    "state": "Enabled",
    "tenantId": "b5af1df6-13b4-4e6f-9b19-a4179b00b4c5",
    "user": {
      "name": "AZ-104-318793-15@office.cc-student.com",
      "type": "user"
    }
  }
]
```

TenantID	Subscription	Default
0d80ae06-34dd-49cf-8558-eb713a28fe70	Azure for Students	True
b5af1df6-13b4-4e6f-9b19-a4179b00b4c5	N/A(tenant level account)	False

11. Most important: There must be a *subscription* where *default* is *true*

5. Download Terraform from [https://releases.hashicorp.com/terraform/1.1.0/terraform\\_1.1.0\\_windows\\_amd64.zip](https://releases.hashicorp.com/terraform/1.1.0/terraform_1.1.0_windows_amd64.zip) to C:\cygwin64\home\<your user name>
6. In cygwin terminal enter `cd`. With `ls -l` you should see the `.zip`. Do an `unzip terraform_1.1.0_windows_amd64.zip`  
This will result in a single executable called `terraform`. Enter `mv terraform bin`. Then enter `rm terraform_1.1.0_windows_amd64.zip`
7. To test it enter `terraform version`. It should produce something like

```
mvp@azcli:~$ terraform version
Terraform v1.1.0
on linux_amd64
```

**You now have az, bash, git, and terraform installed!**

(On Windows)



Next step: Go and configure the lot of them!



## Install on Linux (Debian or Ubuntu LTS)

1. Bash is pre-installed.
2. Install git and terraform with *apt -y install git && apt install terraform*
3. Test by calling *terraform version* and *git --version*
4. Install az according to **Option 2** described in <https://docs.microsoft.com/en-us/cli/azure/install-azure-cli-linux?pivots=apt>

**Do not use Option 1 under any circumstances!**

Test by doing #4, 1-10 in Windows above.



Next step: You go and configure, too!

