

Mobius Terraform WSL

Version º.  
Last updated: Oct 28, 2025

Installation

Contents

[Introduction 2](#_Toc212545470)

[00\_install\_wsl.cmd 3](#_Toc212545471)

[01\_install\_docker\_wsl\_ubuntu.sh 5](#_Toc212545472)

[02\_install\_helm\_kubectl.sh 6](#_Toc212545473)

[03\_install\_k3s\_rancher\_terraform.sh 7](#_Toc212545474)

[Access to Rancher Web UI 8](#_Toc212545475)

[04\_configure\_env\_kubelocal.sh 9](#_Toc212545476)

[05\_pullimages.sh 10](#_Toc212545477)

# Introduction

The scripts should be executed in sequence, from 00\*.cmd to 06\*.sh

C:\git\kubeterraform>**dir**

Volume in drive C is Windows

Volume Serial Number is B2D3-AE1A

Directory of C:\git\kubeterraform

10/28/2025 07:34 AM <DIR> .

10/27/2025 05:57 PM <DIR> ..

10/20/2025 09:16 AM 1,556 00\_install\_wsl.cmd

10/28/2025 07:45 AM 6,919 01\_install\_docker\_wsl\_ubuntu.sh

10/28/2025 07:34 AM 902 02\_install\_helm\_kubectl.sh

10/28/2025 07:54 AM 8,922 03\_install\_k3s\_rancher\_terraform.sh

10/28/2025 07:33 AM 374 04\_configure\_env\_kubelocal.sh

10/28/2025 07:40 AM 319 05\_pullimages.sh

10/27/2025 05:08 PM 122 06\_terraform.sh

10/27/2025 05:45 PM <DIR> conf

10/27/2025 05:17 PM 612 env\_kubelocal.sh

10/28/2025 07:25 AM <DIR> lib

10/27/2025 05:51 PM <DIR> terraform

10/28/2025 07:46 AM 1,532 tools.sh

10/14/2025 03:51 PM 352,983,274 ubuntu22.04.tar.gz

10 File(s) 353,004,532 bytes

5 Dir(s) 1,701,527,334,912 bytes free

The script **00\_install\_wsl.cmd** will create the WSL distribution in **dirName,** change this folder by default in the script if needed.

@echo off

setlocal enabledelayedexpansion

set "**DEFAULT\_DISTNAME=mobius**"

set /p "DISTNAME=Enter WSL name (default: %DEFAULT\_DISTNAME%): "

if "%DISTNAME%"=="" set "DISTNAME=%DEFAULT\_DISTNAME%"

set "dirName=**C:\rocket\wsl\%DISTNAME%**"

set "CURR\_DIR=%~dp0"

# 00\_install\_wsl.cmd

Before running this script verify the existing WSL distributions to define a new one with another name.

C:\git\kubeterraform>**wsl -l -v**

NAME STATE VERSION

\* rdrs Stopped 2

This script will create an Ubuntu 22.04 WSL distribution with user “**rocket**”, password “rocket”

C:\git\kubeterraform>**00\_install\_wsl.cmd**

Enter WSL name (default: mobius): mobius

==== WSL Installation ====

Distribution Name: mobius

Directory: C:\rocket\wsl\mobius

Current Directory: C:\git\kubeterraform\

Checking if WSL distribution "mobius" exists...

Checking directory "C:\rocket\wsl\mobius"...

Directory created successfully.

Importing WSL distribution...

Command: wsl --import mobius "C:\rocket\wsl\mobius" "C:\git\kubeterraform\ubuntu22.04.tar.gz" --version 2

The operation completed successfully.

WSL import completed.

Initial User Credentials:

user=rocket password=rocket

To access the new distribution, run: wsl -d mobius

Verify the WSL distribution created, and access to it

C:\git\kubeterraform>**wsl -l -v**

NAME STATE VERSION

\* rdrs Stopped 2

mobius Stopped 2

C:\git\kubeterraform>**wsl -d mobius**

Welcome to Ubuntu 22.04.5 LTS (GNU/Linux 6.6.87.2-microsoft-standard-WSL2 x86\_64)

\* Documentation: https://help.ubuntu.com

\* Management: https://landscape.canonical.com

\* Support: https://ubuntu.com/pro

System information as of Tue Oct 28 08:19:48 -03 2025

System load: 0.0 Processes: 80

Usage of /: 0.1% of 1006.85GB Users logged in: 0

Memory usage: 3% IPv4 address for eth0: 172.24.226.241

Swap usage: 0%

This message is shown once a day. To disable it please create the

/home/rocket/.hushlogin file.

rocket@RS-PF4XAR20:/mnt/c/git/kubeterraform$

# 01\_install\_docker\_wsl\_ubuntu.sh

This script installs docker, at the end, execute “**newgrp docker**”

rocket@RS-PF4XAR20:/mnt/c/git/kubeterraform$**./01\_install\_docker\_wsl\_ubuntu.sh**

2025-10-28 08:23:00 [INFO] --- Starting Docker and Docker Compose Installation Script ---

2025-10-28 08:23:00 [INFO] 1. Configuring sudo NOPASSWD for user: rocket

2025-10-28 08:23:00 [INFO] - 'NOPASSWD' configuration added to /etc/sudoers.d/99-rocket-nopasswd.

……

…….

2025-10-28 08:23:47 [INFO] --- Script execution finished ---

2025-10-28 08:23:47 [WARN] ATTENTION: To use 'docker' and 'docker-compose' commands without 'sudo' IMMEDIATELY,

2025-10-28 08:23:47 [WARN] !!!! =====>>>>>> YOU MUST RUN: newgrp docker

2025-10-28 08:23:47 [WARN] Otherwise, the group change will only take effect after you log out and log back in.

rocket@RS-PF4XAR20:/mnt/c/git/kubeterraform$ **newgrp docker**

rocket@RS-PF4XAR20:/mnt/c/git/kubeterraform$

# 02\_install\_helm\_kubectl.sh

Install **kubectl**, **helm**, and other tools

rocket@RS-PF4XAR20:/mnt/c/git/kubeterraform$ **./02\_install\_helm\_kubectl.sh**

2025-10-28 08:37:30 [INFO] Installing kubectl

% Total % Received % Xferd Average Speed Time Time Time Current

Dload Upload Total Spent Left Speed

100 138 100 138 0 0 410 0 --:--:-- --:--:-- --:--:-- 411

100 57.3M 100 57.3M 0 0 2910k 0 0:00:20 0:00:20 --:--:-- 2571k

2025-10-28 08:37:50 [INFO] Starting Helm installation process...

2025-10-28 08:37:50 [INFO] Downloading the 'get-helm-3' script...

2025-10-28 08:37:50 [INFO] Making the script executable...

2025-10-28 08:37:50 [INFO] Executing the Helm installation. This might require 'sudo' permissions depending on the default install path.

Downloading https://get.helm.sh/helm-v3.19.0-linux-amd64.tar.gz

Verifying checksum... Done.

….

HTTP request sent, awaiting response... 200 OK

Length: 11485368 (11M) [application/octet-stream]

Saving to: ‘/usr/local/bin/yq’

/usr/local/bin/yq 100%[======================================================>] 10.95M 5.92MB/s in 1.8s

2025-10-28 08:38:05 (5.92 MB/s) - ‘/usr/local/bin/yq’ saved [11485368/11485368]

rocket@RS-PF4XAR20:/mnt/c/git/kubeterraform$

Verify tools installed

rocket@RS-PF4XAR20:/mnt/c/git/kubeterraform$ **ls -l /usr/local/bin**

total 128740

lrwxrwxrwx 1 root root 46 Oct 28 08:59 docker-compose -> /usr/libexec/docker/cli-plugins/docker-compose

-rwxr-xr-x 1 root root 60211384 Oct 28 09:04 helm

-rwxr-xr-x 1 root root 60121272 Oct 28 09:04 kubectl

-rwxr-xr-x 1 root root 11485368 Oct 12 00:35 yq

# 03\_install\_k3s\_rancher\_terraform.sh

This script installs:

* **K3s and Rancher:** Installs **K3s**. If a previous version exists, it is uninstalled first.
* **Local Docker Registry:** Sets up a **Docker Registry** on port **5000** (local IP) and adjusts Docker/K3s daemons.
* **NFS Server:** Installs and configures the **NFS Server**, exporting /home/rocket/mobius\_data.
* **Rancher WebUI:** Deploys the **Rancher WebUI** and outputs the command to get the initial password:

**kubectl get secret --namespace cattle-system bootstrap-secret -o go-template='{{.data.bootstrapPassword|base64decode}}{{n}}'**

rocket@RS-PF4XAR20:/mnt/c/git/kubeterraform$ **./03\_install\_k3s\_rancher\_terraform.sh**

2025-10-28 08:43:40 [INFO] ✅ WSL IP obtained: 172.24.226.241

2025-10-28 08:43:40 [INFO] ✅ Rancher Hostname: RS-PF4XAR20

2025-10-28 08:43:40 [INFO]2025-10-28 08:43:40 [INFO] 🚀 1. Installing K3s...

[INFO] Using v1.33.5+k3s1 as release

….

[INFO] systemd: Enabling k3s unit

Created symlink /etc/systemd/system/multi-user.target.wants/k3s.service → /etc/systemd/system/k3s.service.

[INFO] systemd: Starting k3s

2025-10-28 09:20:26 [INFO] =================================================================

2025-10-28 09:20:26 [INFO] 🎉 INSTALLATION COMPLETE! 🎉

2025-10-28 09:20:26 [INFO] =================================================================

2025-10-28 09:20:26 [INFO] 🌐 WSL IP: 172.24.226.241

2025-10-28 09:46:35 [INFO] 🖥️ Rancher Manager is being installed. To access it, edit your Windows 'hosts' file

2025-10-28 09:46:35 [INFO] (C:\Windows\System32\driversc\hosts) and add the following line:

2025-10-28 09:46:35 [INFO] 172.24.226.241 rs-pf4xar20 rs-pf4xar20.rocketsoftware.com

2025-10-28 09:46:35 [INFO] Then, access https://rs-pf4xar20

2025-10-28 09:46:35 [INFO] 2025-10-28 09:46:35 [INFO]

2025-10-28 09:46:35 [INFO] ⚙️ Key Checks:

2025-10-28 09:46:35 [INFO] - Cert-Manager Pods: kubectl get pods -n cert-manager

2025-10-28 09:46:35 [INFO] - Rancher Pods: kubectl get pods -n cattle-system

2025-10-28 09:46:35 [INFO] - NFS Provisioner Pods: kubectl get pods -l app=nfs-client-provisioner

2025-10-28 09:46:35 [INFO] - Terraform: terraform -version

2025-10-28 09:46:35 [INFO] =================================================================

## Notes

* K3s Kubernetes can be restarted with:

**sudo systemctl restart k3s.service**

* Add to (C:\Windows\System32\driversc\hosts) your hostname, and WSL IP:

**172.24.226.241 rs-pf4xar20 rs-pf4xar20.rocketsoftware.com**

## Access to Rancher Web UI

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

# 04\_configure\_env\_kubelocal.sh

* The environment variables **TF\_VAR\_\*** will overwrite the variables in **terra/kube/terraform.tfvars** if they are setup before running ‘**terraform apply**’
* The variables **var\_\*\_image** in **terra/kube/terraform.tfvars** must the coincident with **conf/images.csv** used in pull/push images.

A screenshot of a computer program

AI-generated content may be incorrect.

# 05\_pullimages.sh

This script pull the images form registry.rocketsoftware.com and push into the local docker registry.

The script uses the variables:

* **TF\_VAR\_var\_docker\_username**
* **DOCKER\_USERNAME**, and
* **KUBE\_SOURCE\_REGISTRY**

in ./**env\_kubelocal.sh**

rocket@RS-PF4XAR20:/mnt/c/git/kubeterraform$ **source ./env\_kubelocal.sh**

rocket@RS-PF4XAR20:/mnt/c/git/kubeterraform$ **./05\_pullimages.sh**

2025-10-28 10:21:09 [INFO] 🚀 Executing Pull, Tag, and Push...

Do you want to pull images? Y

2025-10-28 11:54:46 [INFO] User answered 'Y' to question: Do you want to pull images?

2025-10-28 11:54:46 [INFO] Pulling images from registry.rocketsoftware.com using /mnt/c/git/kubeterraform/conf/images.csv

Docker password for gavendano@rs.com :

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

>>>>> Pulling registry.rocketsoftware.com/eventanalytics:2.0.4

>>>>> Pulling registry.rocketsoftware.com/mobius-server:12.5.0

….

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\* Using default file: /mnt/c/git/kubeterraform/conf/images.csv

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

>>>>> Tagging registry.rocketsoftware.com/eventanalytics:2.0.4 to 172.24.226.241:5000/eventanalytics:2.0.4

>>>>> Tagging registry.rocketsoftware.com/mobius-server:12.5.0 to 172.24.226.241:5000/mobius-server:12.5.0

….

Do you want to push the images? y

Login Succeeded

>>>>> Pushing 172.24.226.241:5000/eventanalytics:2.0.4

>>>>> Pushing 172.24.226.241:5000/mobius-server:12.5.0

….

This script uses ./**tools.sh** explore the other options