
An efficient CLI to administrate a herd of kubernetes clusters

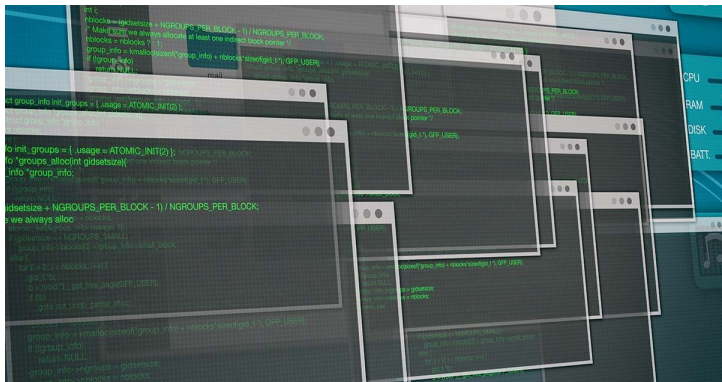
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Pet vs Cattle: le herd grows fast!



Lots of different clusters, lots of opportunities to make stupid mistakes



With Linux and ZSH

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Add the kubernetes context in the ZSH prompt

With the help of:

- Zsh
- Oh my Zsh
- les Nerd Fonts
- Powerlevel10k

To install them, see:

<https://github.com/Les-filles-et-les-garcons-de-la-tech/supercharge-your-cli-for-kubernetes/blob/main/Linux/README.md>



A terminal window titled 'guillaume@guillaume-ThinkPad-X230:~' showing the process of switching Kubernetes contexts. The prompt is a Powerlevel10k bar with icons for refresh, home, and user, followed by the context name. The first bar is purple and shows 'minikube-2'. The user enters 'kubectl minikube-prod', and the prompt switches to a red bar showing 'minikube-prod/default'. The user then enters 'kubectl minikube-dev', and the prompt switches to a green bar showing 'minikube-dev/default'. The terminal output shows 'Switched to context "minikube-prod"' and 'Switched to context "minikube-dev"'.

```
guillaume@guillaume-ThinkPad-X230:~  
minikube-2 22:11:23  
> kubectl minikube-prod  
✓ Switched to context "minikube-prod".  
minikube-prod/default 22:11:33  
> kubectl minikube-dev  
✓ Switched to context "minikube-dev".  
minikube-dev/default 22:11:40  
>
```

Go further with Kubeswitch!

- Each terminal has its own context
- You can search iun several kubeconfig files
- Yo ucan get contexts directly from AKS, GKE, EKS, Rancher, Gardener

```
guillaume@guillaume-ThinkPad-X230:~  
minikube-prod/default 22:20:41  
> kubectl get pods  
NAME          READY   STATUS    RESTARTS   AGE  
prod-web-server 1/1     Running   0           89s  
  
guillaume@guillaume-ThinkPad-X230:~  
minikube-2 22:20:48  
> kubectl get pods  
NAME          READY   STATUS    RESTARTS   AGE  
demo-web-server 1/1     Running   0           48s  
  
guillaume@guillaume-ThinkPad-X230:~  
minikube-prod/default 22:20:43  
>  
  
guillaume@guillaume-ThinkPad-X230:~  
minikube-2 22:20:49  
>
```

```
k9s  
Context: minikube-dev  
Cluster: minikube-dev  
User: minikube-dev  
K9s Rev: v0.31.8  
K8s Rev: v1.27.4  
CPU: n/a  
MEM: n/a  
  
<0> all      <a> Attach  <l> Logs  
<1> default  <ctrl-d> Delete <p> Logs Pr  
<d> Describe <shift-f> Port-Fo  
<e> Edit    <z> Sanitiz  
<?> Help   <s> Shell  
<ctrl-k> Kill <o> Show No  
  
Pods(default)[1]  
NAME# PF    READY STATUS          RESTARTS IP      NODE      AGE  
bash  ●    0/1   CrashLoopBackOff 4 10.244.0.4 minikube-dev 2m29s  
  
<pod>
```

Avec MacOS et ZSH

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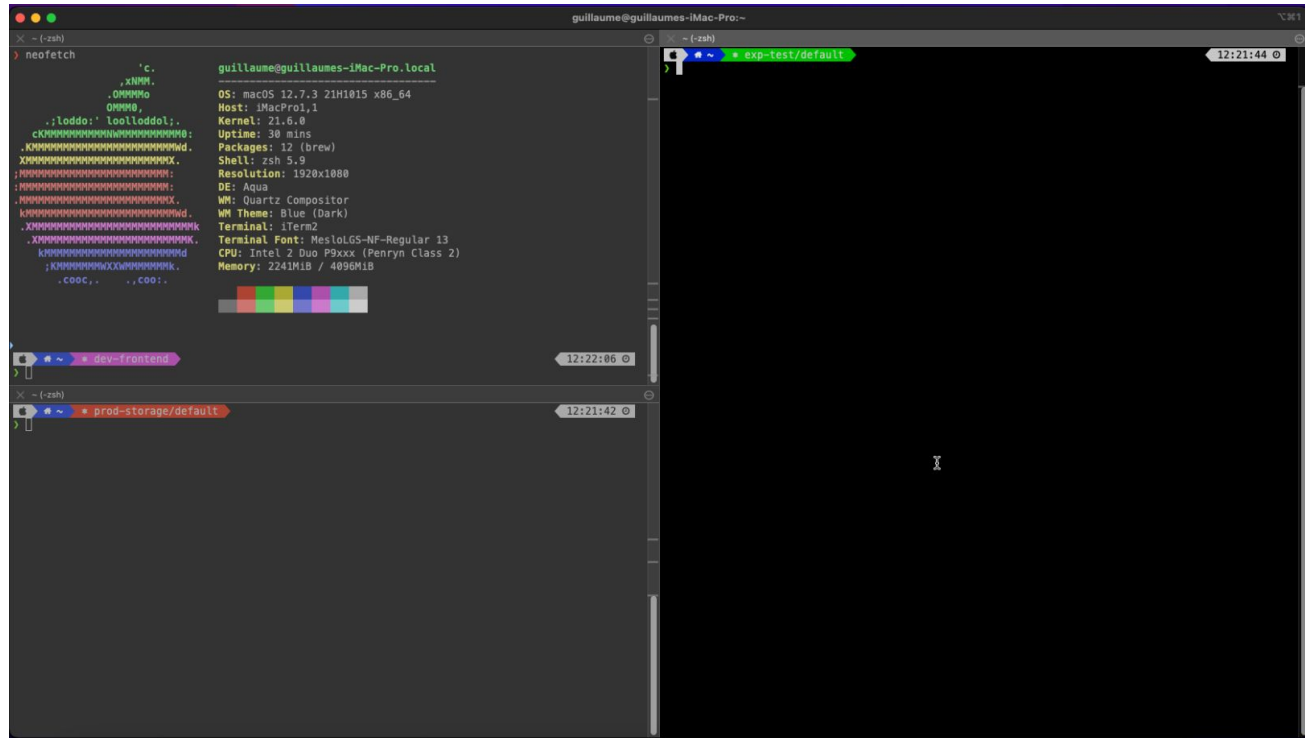
MacOS uses zsh too!

The tools and the configuration are very similar to Linux

- Zsh
- brew
- iTerm2
- Oh my Zsh
- les Nerd Fonts
- Powerlevel10k

To install them, see:

<https://github.com/Les-fill-es-et-les-garcons-de-la-tech/supercharge-your-cli-for-kubernetes/blob/main/Macos/README.md>



The screenshot shows a macOS terminal window with a dark background. The title bar indicates the user is 'guillaume@guillaumes-iMac-Pro'. The terminal displays the output of the 'neofetch' command, which shows system information including OS (macOS 12.7.3), Host (iMacPro1,1), Kernel (21.6.0), Uptime (30 mins), Packages (12), Shell (zsh 5.9), Resolution (1920x1080), DE (Aqua), WM (Quartz Compositor), WM Theme (Blue (Dark)), Terminal (iTerm2), Terminal Font (MesloLGS-NF-Regular 13), CPU (Intel 2 Duo P9xxx), and Memory (2241M / 4896M). The terminal also shows a color calibration bar. The prompt is 'guillaume@guillaumes-iMac-Pro:~'. The terminal is split into three panes: the top pane shows the neofetch output, the middle pane shows a prompt in a 'dev-frontends' directory, and the bottom pane shows a prompt in a 'prod-storage/default' directory.

And even on Windows with Powershell!

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Add the kubernetes context in the Powershell prompt

With the help of:

- windows terminal
- Powershell 7
- Ho-My-Posh
- les Nerd Fonts
- And some customisations for Ho-My-Posh

To install them, see:

<https://github.com/Les-filles-et-les-garcons-de-la-tech/supercharge-your-cli-for-kubernetes/blob/main/windows/README.md>



```
guill ~ > apps minikube :: kube-public
$ kubectlx minikube-dev
✓ Switched to context "minikube-dev".

guill ~ > apps minikube-dev :: default
$ kubectlx minikube2-prod
✓ Switched to context "minikube2-prod".

guill ~ > apps minikube2-prod :: default
$ |
```

Go further with Kubeswitch

Problem

- The tool is not available for Windows!

Solution

- The tool is written in Go, it's easy to compile it for Windows
- We need to write the Powershell script that will replace the bash/zsh one.
- We need to write the installation documentation
- Of course we need to test it
- And then create a Pull Request on the official repository to add the Windows version as an official version

PowerShell

PowerShell

PowerShell

d

guill ~ minikube-dev :: default

213ms 11:06:03

\$ k get all -A

NAMESPACE	NAME	READY	STATUS	RESTARTS
default	pod/bash	1/1	Running	4 (55d ago) 83d
kube-system	pod/coredns-5d78c9869d-88s28	1/1	Running	3 (55d ago) 83d
kube-system	pod/etcd-minikube-dev	1/1	Running	3 (55d ago) 83d
kube-system	pod/kube-apiserver-minikube2			
kube-system	pod/kube-controller-manag			
kube-system	pod/kube-proxy-9z4bm			
kube-system	pod/kube-scheduler-miniku			
kube-system	pod/storage-provisioner			

NAMESPACE	NAME	TYPE
default	service/kubernetes	Clus
kube-system	service/kube-dns	Clus

NAMESPACE	NAME	AVAILABLE	NODE SELECTOR
kube-system	1		daemonset.apps/kube-proxy
kubernetes.io/os=linux			

NAMESPACE	NAME
kube-system	replicaset.apps/coredns-5d78c9869d-88s28

guill ~ minikube-dev :: default

165ms 11:08:40

\$

guill ~ minikube-prod :: prod-website

2ms 11:08:29

\$ k get pods

NAME	READY	STATUS	RESTARTS	AGE
mywebsite	1/1	Running	0	34s
ubuntu	1/1	Running	1 (21s ago)	26s

guill ~ minikube-prod :: prod-website

126ms 11:08:37

\$

PowerShell

Context: minikube2

Cluster: minikube2

User: minikube2

K9s Rev: v0.27.4 ↗ v0.31.4

K8s Rev: v1.27.4

CPU: n/a

MEM: n/a

<0> all

<1> default

<a> Attach

<ctrl-d> Delete

<d> Describe

<e> Edit

<?> Help

<ctrl-k> Kill

<l> ...

<p>

<shift-f>

<s>

<n>

<f>

Pods(all)[7]

NAMESPACE↑	NAME	PF	READY	RESTARTS	STATUS	IP	NODE	AGE
kube-system	coredns-5d78c9869d-rk746	●	1/1	1	Running	10.244.0.3	minikube2	55d
kube-system	etcd-minikube2	●	1/1	1	Running	192.168.59.104	minikube2	55d
kube-system	kube-apiserver-minikube2	●	1/1	1	Running	192.168.59.104	minikube2	55d
kube-system	kube-controller-manager-minikube2	●	1/1	1	Running	192.168.59.104	minikube2	55d
kube-system	kube-proxy-2xqpx	●	1/1	1	Running	192.168.59.104	minikube2	55d
kube-system	kube-scheduler-minikube2	●	1/1	1	Running	192.168.59.104	minikube2	55d
kube-system	storage-provisioner	●	1/1	2	Running	192.168.59.104	minikube2	55d

<pod>

guill ~ minikube-dev :: default

165ms 11:08:40

\$

Instructions completes disponibles sur notre Github!

<https://github.com/Les-filles-et-les-garcons-de-la-tech/supercharge-your-cli-for-kubernetes>

Issues and Pull Requests are welcome!



supercharge-your-cli-for-kubernetes (Public)

main 1 Branch 0 Tags

Go to file Add file Code

GuillaumeBernardFGTech initial commit ac29e85 · 1 minute ago 2 Commits

Linux	initial commit	1 minute ago
Macos	initial commit	1 minute ago
windows	initial commit	1 minute ago
Fully_customized_powershell.png	initial commit	1 minute ago
Fully_customized_zsh_linux.png	initial commit	1 minute ago
Fully_customized_zsh_mac.png	initial commit	1 minute ago
README.md	initial commit	1 minute ago

README

Supercharge your CLI for Kubernetes

A collection of config files and script to go with the following presentation: (add link here)

The goal is to customize our shell to work efficiently with a large number of Kubernetes clusters using [Kubeswitch](#).

Kubeswitch allows you to have a different kubectl context for each terminal windows, which is really usefull when working with a lot of different kubernetes clusters. You can open a new terminal to solve a production problem while keeping you other terminal in the context of the test you were running.

It does that by creating temp kubeconfig files and changing local environment variables to point to this config file.

It also allows you to use several kubeconfig files, organize them in folders, easily switch between context and more.

Do you have questions?

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