
Une CLI efficace pour administrer un troupeau de clusters Kubernetes

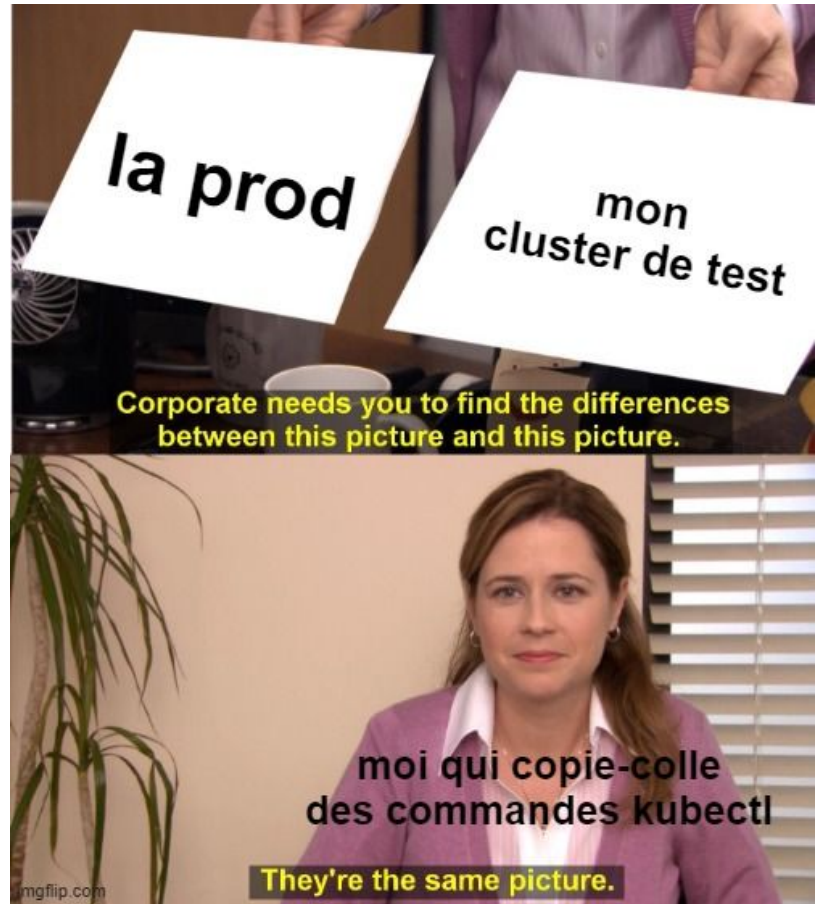
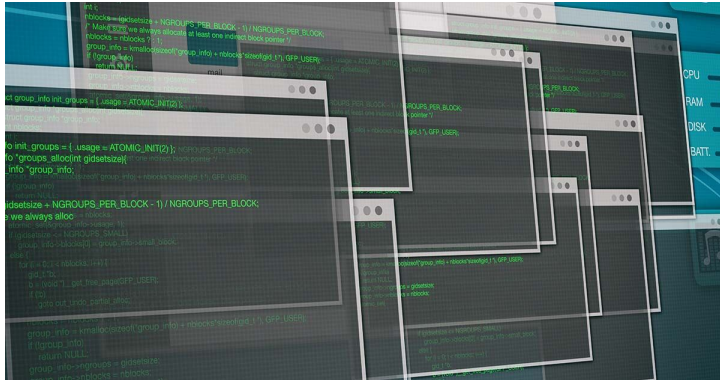
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Pet vs Cattle: le troupeau grandit vite!



Nombreux clusters Kubernetes, nombreux risques d'erreur humaine



Avec Linux et ZSH

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Ajouter le contexte Kubernetes dans le prompt zsh

Avec l'aide de:

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

Pour les installer, voir:
<https://github.com/GuillaumeBernardFGTech/supercharge-your-cli-for-kubernetes/blob/main/Linux/README.md>



The screenshot shows a terminal window titled 'guillaume@guillaume-ThinkPad-X230:~'. The terminal displays three sequential commands and their outputs, each preceded by a status bar from the Powerlevel10k theme. The status bars show the current context: 'minikube-2' (purple), 'minikube-prod/default' (red), and 'minikube-dev/default' (green). The commands and outputs are as follows:

```
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  
>
```

Aller plus loin avec Kubeswitch

- Chaque terminal a son contexte
- Possibilité de chercher dans plusieurs fichiers kubeconfig
- Peut se connecter à AKS, GKE, EKS, Rancher, Gardener

The screenshot displays three terminal windows from a user named guillaume on a ThinkPad-X230. The top-left window is in the 'minikube-prod/default' context, showing a single pod 'prod-web-server' in a 'Running' state. The top-right window is in the 'minikube-2' context, showing a single pod 'demo-web-server' in a 'Running' state. The bottom window is the K9s interface for the 'minikube-dev' context, showing a pod 'bash' in a 'CrashLoopBackOff' state. The K9s interface includes a sidebar with navigation options like 'all', 'default', 'Attach', 'Delete', 'Describe', 'Edit', 'Help', and 'Kill'. The main area shows a table of pods with columns for NAME, PF, READY, STATUS, RESTARTS, IP, NODE, and AGE.

```
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
```

| NAME | PF | READY | STATUS | RESTARTS | IP | NODE | AGE |
|------|----|-------|------------------|----------|------------|--------------|-------|
| bash | ● | 0/1 | CrashLoopBackOff | 4 | 10.244.0.4 | minikube-dev | 2m29s |

Avec MacOS et ZSH

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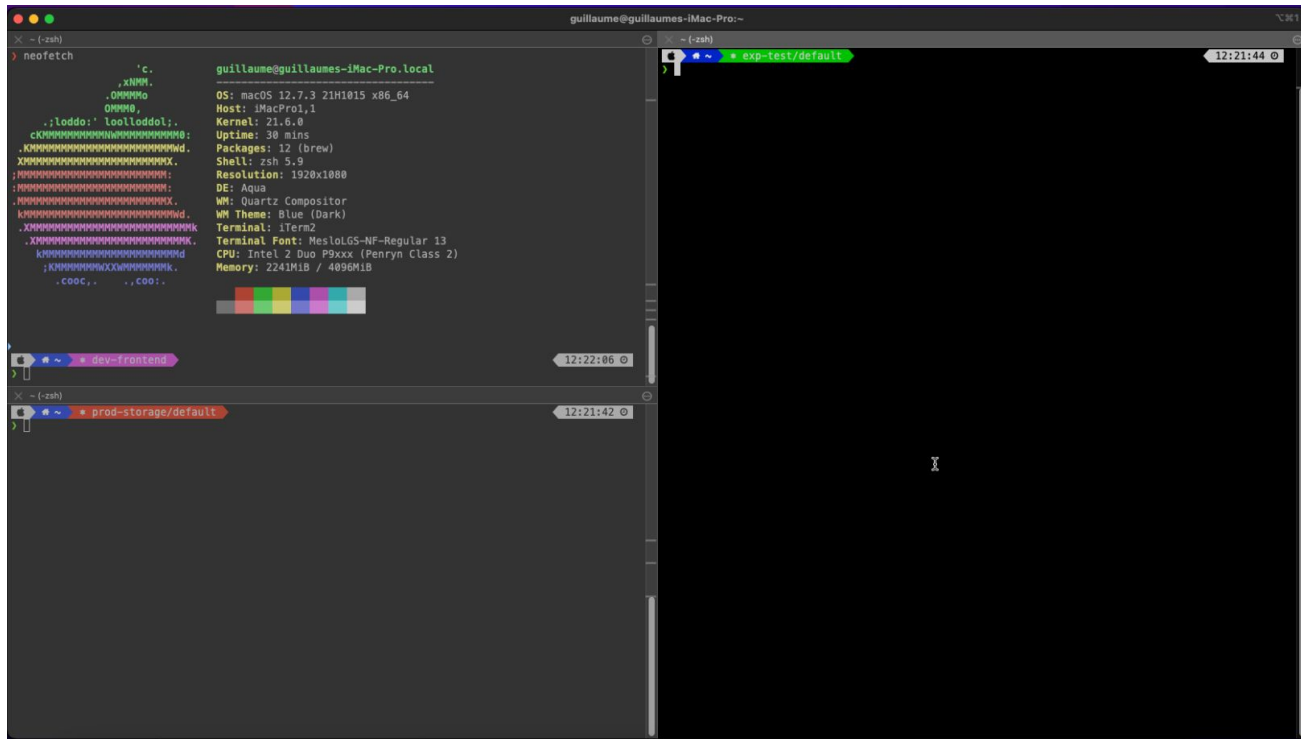
MacOS utilise aussi zsh!

Les outils et la configuration sont très proches de Linux:

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

Pour les installer, voir:

<https://github.com/GuillaumeBernardFGTech/supercargo-your-cli-for-kubernetes/blob/main/Macos/README.md>



Et même avec Windows et Powershell!

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Ajouter le contexte Kubernetes dans le prompt Powershell

Avec l'aide de:

- windows terminal
- Powershell 7
- Ho-My-Posh
- les Nerd Fonts
- et quelques customisations perso de theme pour Ho-My-Posh

Pour les installer, voir:

<https://github.com/GuillaumeBernardFGTech/supercharge-your-cli-for-kubernetes/blob/main/windows/README.md>



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

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

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

Aller plus loin avec Kubeswitch

Problème

- L'outil n'est pas dispo pour Windows!

Solution

- L'outil étant écrit en go, il est facile de le compiler pour Windows
- Ecrire le script powershell qui va remplacer le script bash/zsh
- Ecrire la doc d'installation
- Tester
- Faire une pull request sur le projet pour proposer d'ajouter la version Windows aux versions officielles

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 | ClusterIP |
| kube-system | service/kube-dns | ClusterIP |

| 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/GuillaumeBernardFGTech/supercharge-your-cli-for-kubernetes>

Les issues et Pull Requests sont les bienvenues



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 kubect! 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.

Avez vous des question?

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