kubectx & kubens Switch context and namespace

CONCEPTS

Both tools only edit your kubeconfig: context picks the cluster and user, namespace is the default for kubectl in that context.

kubeconfig ~/.kube/config or $KUBECONFIG
- **Context (kubectx)** cluster + user
  - **Namespace (kubens)** default for kubectl

What each tool changes

With fzf installed, running either tool with no argument opens a fuzzy menu instead of printing a list.

CONTEXTS (KUBECTX)

kubectx
List contexts, or pick with fzf

kubectx *<name>*
Switch to a context

kubectx -
Switch to the previous context

kubectx -c
Show the current context

kubectx *<new>=<name>*
Rename a context

CONTEXTS (KUBECTX) (cont.)

kubectx *<new>=.*
Rename the current context

kubectx -d *<name>* **[***<name>***...]**
Delete one or more contexts

kubectx -u
Unset the current context

kubectx --version
Print the version

NAMESPACES (KUBENS)

kubens
List namespaces, or pick with fzf

kubens *<name>*
Switch the active namespace

kubens -
Switch to the previous namespace

kubens -c
Show the current namespace

kubens *<name>* **-f**
Switch even if it does not exist yet

kubens -u
Unset namespace, back to default

kubens --version
Print the version

ISOLATED SHELLS

kubectx -s *<name>*
Shell scoped to one context

kubectx -s
Pick the context for a scoped shell

kubectx -r *<name>*
Read-only shell for a context

kubectx -r
Pick the context for a read-only shell

Plain kubectx changes the kubeconfig for every terminal at once. Use -s when you work on two clusters side by side.

INTERACTIVE MODE

kubectx | cat
Plain list even with fzf installed

export KUBECTX_IGNORE_FZF=1
Turn off the fzf menu

export NO_COLOR=1
Turn off coloured output

export KUBECTX_CURRENT_FGCOLOR=$(tput setaf 6)
Text colour of the current item

INTERACTIVE MODE (cont.)

export KUBECTX_CURRENT_BGCOLOR=$(tput setab 7)
Background colour of the current item

INSTALL AND SETUP

brew install kubectx
Install with Homebrew

sudo apt install kubectx
Install on Debian or Ubuntu

kubectl krew install ctx ns
Install as kubectl plugins

sudo pacman -S kubectx
Install on Arch

alias kx=kubectx kn=kubens
Shorter names

Completion for bash, zsh and fish ships in the repo's completion/ directory: symlink the files into your completion path.

MULTIPLE KUBECONFIGS

export KUBECONFIG=~/.kube/a.yaml:~/.kube/b.yaml
Merge several files into one view

MULTIPLE KUBECONFIGS (cont.)

KUBECONFIG=*file* **kubectx**
Use one file for a single call

kubectl config view --flatten
Merge all files into one document

RECIPES

Hop between two clusters

```
kubectx prod-eu
kubens payments
kubectx -   # back to the previous cluster
kubectx -   # and forth again
```

Short context names

```
kubectx -c
kubectx prod=gke_acme_europe-west1_prod-cluster
kubectx prod
```

Safe look at production

```
kubectx -r prod
kubectl get pods -A   # reads work
kubectl delete pod <name>
# blocked
```

Two clusters in two terminals

```
# terminal 1
kubectx -s staging
# terminal 2
kubectx -s prod
```