

kube-ps1: Kubernetes prompt for bash and zsh

A script that lets you add the current Kubernetes context and namespace configured on `kubectl` to your Bash/Zsh prompt strings (i.e. the `$PS1`).

Inspired by several tools used to simplify usage of `kubectl`.

Installing

MacOS

Homebrew package manager:

```
$ brew update
$ brew install kube-ps1
```

From Source

1. Clone this repository
2. Source the kube-ps1.sh in your `~/.zshrc` or your `~/.bashrc`

Arch Linux

AUR Package available at <https://aur.archlinux.org/packages/kube-ps1/>.

Zsh

```
source /path/to/kube-ps1.sh
PROMPT='$ (kube_ps1) '$PROMPT
```

Bash

```
source /path/to/kube-ps1.sh
PS1='[\u@\h \W $(kube_ps1)]\$ '
```

Zsh Plugin Managers

Using [zplugin](#)

Update `.zshrc` with:

```
zplugin light jonmosco/kube-ps1
PROMPT='$ (kube_ps1) '$PROMPT
```

Requirements

The default prompt assumes you have the `kubectl` command line utility installed. Official installation instructions and binaries are available:

[Install and Set up kubectl](#)

If using this with OpenShift, the `oc` tool needs installed. It can be obtained from brew ports:

```
brew install openshift-cli
```

or the source can be downloaded:

[OC Client Tools](#)

Set the binary to `oc` with the following environment variable:

```
KUBE_PS1_BINARY=oc
```

If neither binary is available, the prompt will print the following:

```
(<symbol>|BINARY-N/A:N/A)
```

Helper utilities

There are several great tools that make using kubectl very enjoyable:

- [kubectx](#) and [kubens](#) are great for fast switching between clusters and namespaces.

Tmux port

I have begun porting kube-ps1 to tmux as a status line plugin. If you prefer tmux, and like the functionality provided by kube-ps1, checkout the [kube-tmux](#) project

Prompt Structure

The default prompt layout is:

```
(<symbol>|<context>:<namespace>)
```

If the current-context is not set, kube-ps1 will return the following:

```
(<symbol>|N/A:N/A)
```


Enabling/Disabling

If you want to stop showing Kubernetes status on your prompt string temporarily run `kubeoff`. To disable the prompt for all shell sessions, run `kubeoff -g`. You can enable it again in the current shell by running `kubeon`, and globally with `kubeon -g`.

```
kubeon      : turn on kube-ps1 status for this shell. Takes precedence over
              global setting for current session
kubeon -g   : turn on kube-ps1 status globally
kubeoff     : turn off kube-ps1 status for this shell. Takes precedence over
              global setting for current session
kubeoff -g  : turn off kube-ps1 status globally
```

Customization

The default settings can be overridden in `~/.bashrc` or `~/.zshrc` by setting the following environment variables:

Variable	Default	Meaning
KUBE_PS1_BINARY	kubectl	Default Kubernetes binary
KUBE_PS1_NS_ENABLE	true	Display the namespace. If set to <code>false</code> , this will also disable <code>KUBE_PS1_DIVIDER</code>
KUBE_PS1_PREFIX	(Prompt opening character
KUBE_PS1_SYMBOL_ENABLE	true	Display the prompt Symbol. If set to <code>false</code> , this will also disable <code>KUBE_PS1_SEPARATOR</code>
KUBE_PS1_SYMBOL_DEFAULT	*	Default prompt symbol. Unicode <code>\u2388</code>
KUBE_PS1_SYMBOL_USE_IMG	false	 , Unicode <code>\u2638</code> as the prompt symbol
KUBE_PS1_SEPARATOR		Separator between symbol and context name
KUBE_PS1_DIVIDER	:	Separator between context and namespace
KUBE_PS1_SUFFIX)	Prompt closing character
KUBE_PS1_CLUSTER_FUNCTION	No default, must be user supplied	Function to customize how cluster is displayed
KUBE_PS1_NAMESPACE_FUNCTION	No default, must be user supplied	Function to customize how namespace is displayed

For terminals that do not support UTF-8, the symbol will be replaced with the string `k8s`.

To disable a feature, set it to an empty string:

```
KUBE_PS1_SEPARATOR=''
```

Colors

The default colors are set with the following environment variables:

Variable	Default	Meaning
KUBE_PS1_SYMBOL_COLOR	blue	Set default color of the Kubernetes symbol
KUBE_PS1_CTX_COLOR	red	Set default color of the context
KUBE_PS1_NS_COLOR	cyan	Set default color of the namespace
KUBE_PS1_BG_COLOR	null	Set default color of the prompt background

Blue was used for the default symbol to match the Kubernetes color as closely as possible. Red was chosen as the context name to stand out, and cyan for the namespace.

Set the variable to an empty string if you do not want color for each prompt section:

```
KUBE_PS1_CTX_COLOR=''
```

Names are usable for the following colors:

```
black, red, green, yellow, blue, magenta, cyan
```

256 colors are available by specifying the numerical value as the variable argument.

Customize display of cluster name and namespace

You can change how the cluster name and namespace are displayed using the `KUBE_PS1_CLUSTER_FUNCTION` and `KUBE_PS1_NAMESPACE_FUNCTION` variables respectively.

For the following examples let's assume the following:

cluster name: `sandbox.k8s.example.com` namespace: `alpha`

If you're using domain style cluster names, your prompt will get quite long very quickly. Let's say you only want to display the first portion of the cluster name (`sandbox`), you could do that by adding the following:

```
function get_cluster_short() {  
    echo "$1" | cut -d . -f1  
}  
  
KUBE_PS1_CLUSTER_FUNCTION=get_cluster_short
```

The same pattern can be followed to customize the display of the namespace. Let's say you would prefer the namespace to be displayed in all uppercase (`ALPHA`), here's one way you could do that:

```
function get_namespace_upper() {  
    echo "$1" | tr '[:lower:]' '[:upper:]'  
}  
  
export KUBE_PS1_NAMESPACE_FUNCTION=get_namespace_upper
```

In both cases, the variable is set to the name of the function, and you must have defined the function in your shell configuration before `kube_ps1` is called. The function must accept a single parameter and echo out the final value.

Bug Reports and shell configuration

Due to the vast ways of customizing the shell, please try the prompt with a minimal configuration before submitting a bug report.

This can be done as follows for each shell before loading `kube-ps1`:

Bash:

```
bash --norc
```

Zsh:

```
zsh -f  
or  
zsh --no-rcs
```

Contributors

- [Ahmet Alp Balkan](#)
- Jared Yanovich