Extending kubectl with plugins

Standalone and Krew plugins

What Are kubectl Plugins?

kubectl plugins are CLI extensions that allow you to add custom commands to kubectl, the Kubernetes command-line tool.

They provide a way to extend kubectl's functionality without modifying its source code.

Types of Plugins

There are two main types:

Standalone Plugins - Custom executables that follow the naming convention.

Krew Plugins - Managed using the krew plugin manager, a centralized repository of useful, community-contributed plugins.

What is Krew?

Krew is the plugin manager for kubectl command-line tool.

Krew helps you:

- discover kubectl plugins,
- install them on your machine,
- and keep the installed plugins up-to-date.

As of April 2025 there are 293 kubectl plugins currently distributed on Krew.

Plugins

Krew works across all major platforms, like macOS, Linux and Windows.

Krew also helps kubectl plugin developers: You can package and distribute your plugins on multiple platforms easily and makes them discoverable through a centralized plugin repository with Krew.

Plugins

Partial list of the 290+ Krew plugins

```
Name
                  Description
                  Show an RBAC access matrix for server resources
access-matrix
                  Manage Accurate, a multi-tenancy controller
accurate
                  Suggests PodSecurityPolicies and OPA Policies for cluster.
advise-policy
                  Suggests PodSecurityPolicies for cluster.
advise-psp
                  Interact with and debug AKS clusters
aks
alfred
                  AI-powered Kubernetes assistant
allctx
                  Run commands on contexts in your kubeconfig
                  Research API resources in a tree view format.
apidocs
apparmor-manager
                  Manage AppArmor profiles for cluster.
applier
                  Apply 'go text/template' files on k8s.
                  Visualizes ArgoCD for documentation and teaching.
argo-apps-viz
armadactl
                  Command line utility to submit many jobs to armada
assert
                  Assert Kubernetes resources
auth-proxy
                  Authentication proxy to a pod or service
                  Automatic namespace detection
autons
                  Manage aws-auth ConfigMap
aws-auth
azad-proxy
                  Generate and handle authentication for azad-kube-proxy
bd-xray
                  Run Black Duck Image Scans
```

Refer to https://krew.sigs.k8s.io/ for additional information.