# stern Multi-pod Kubernetes logs

**Pod query** regex or kind/name `-n -l --node` → **Pods** namespaces, labels `-c -E --container-state` → **Containers** init, ephemeral `-i -e --since` → **Log lines** merged stream `-o --template` → **Output** colour, JSON, custom

## CONCEPTS

stern tails many pods and containers at once, one colour per pod, and picks up new or restarted pods automatically. The query is a regular expression on the pod name, not a glob.

Default is all pods you can see in the current namespace and context; --since defaults to 48h and --tail to all lines, so busy pods print a lot at start.

## SELECTING PODS

**stern** *<query>*
Tail pods whose name matches regex

**stern .**
Tail every pod in the namespace

**stern** *<kind>/<name>*
Exact resource, e.g. deployment/nginx

**-n** *<ns>* **/ --namespace** *<ns>*
Namespace, repeat or comma-separate

**-A / --all-namespaces**
Every namespace

## SELECTING PODS (cont.)

**-l** *<selector>* **/ --selector**
Filter by label selector

**--field-selector** *<expr>*
Filter by field, e.g. spec.nodeName=<node>

**--node** *<name>*
Pods on one node

**--exclude-pod** *<regex>*
Skip pods matching regex

**--condition** *<name[=value]>*
Pods by condition, e.g. ready=false

**-p / --prompt**
Pick app.kubernetes.io/instance interactively

## CONTAINERS

**-c** *<regex>* **/ --container**
Only containers matching regex

**-E** *<regex>* **/ --exclude-container**
Skip containers, e.g. istio-proxy

**--container-state** *<state>*
running, waiting, terminated or all

## CONTAINERS (cont.)

**--init-containers=false**
Leave out init containers

## TIME AND VOLUME

**--tail** *<n>*
Last n lines per container

**-s** *<dur>* **/ --since** *<dur>*
Logs newer than e.g. 15m or 2h

**--no-follow**
Print and exit, do not stream

**-t / --timestamps**
Prefix timestamps

**--timestamps=short**
Shorter timestamp format

**--max-log-requests** *<n>*
Limit concurrent log streams

## FILTERING LINES

**-i** *<regex>* **/ --include**
Show only matching lines

**-e** *<regex>* **/ --exclude**
Hide matching lines

**-H** *<regex>* **/ --highlight**
Highlight matches, keep all lines

**--only-log-lines**
Drop the pod/container prefix noise

## OUTPUT AND COLOUR

**-o raw**
Message text only, no prefix

**-o json**
One JSON object per line

**--template '***<go-template>***'**
Custom line format

**-T** *<file>* **/ --template-file**
Template read from a file

**--color auto|always|never**
Force or disable colour

**-d / --diff-container**
Separate colour per container

## CLUSTER AND CONFIG

**--context** *<name>*
Use another kubeconfig context

**--kubeconfig** *<path>*
Use another kubeconfig file

**--config** *<path>*
Config file, default ~/.config/stern/config.yaml

**--completion bash|zsh|fish**
Print shell completion code

## CLUSTER AND CONFIG (cont.)

**-v / --version**
Print version

**kubectl krew install stern**
Install as kubectl plugin

Put defaults such as tail: 10 or timestamps: short into the config file as flag-name: value pairs.

## RECIPES

**Errors across a deployment, recent**

```
stern deployment/api -n prod
--since 15m -i 'error|panic'
-e healthcheck
```

**Pretty JSON logs through jq**

```
stern api -n prod -o raw --
tail 0 | jq -R 'fromjson? |
select(.level=="error")'
```

**Debug a rollout, new lines only**

```
kubectl rollout restart
deploy/api -n prod
stern api -n prod --tail 0 -
t=short -E istio-proxy
```

**Custom line with namespace and pod**

```
stern . -A -l app=web --
template '{{.Namespace}}/
{{.PodName}} {{.Message}}
{{"\n"}}'
```