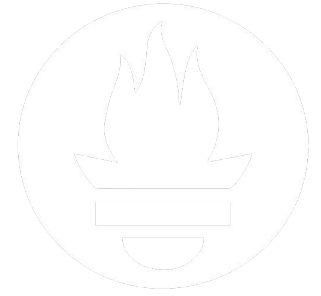




An industry-standard container runtime

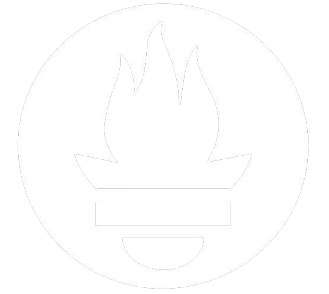


PromCon

North America 2021

- CNCF Graduated since 2019
- Adopted by well-known enterprise Kubernetes services and distributions
- Designed to be pluggable to support cutting-edge features (remote snapshotters, WASM runtimes, ...)

Snapshotter plugins



Regular snapshotters: **overlayfs**, **btrfs**, **zfs**, **devmapper**, ...

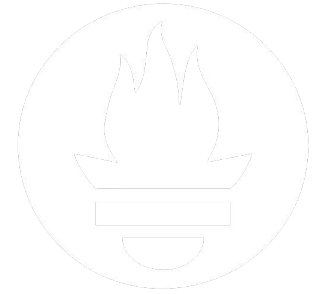
DockerCon
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“Remote” snapshotters support pulling image contents on demand to shorten the container startup time

- **stargz**: Forward compatible with OCI v1 tar.gz images
- **nydus**: Uses an alternate image format
- **overlaybd**: Uses block devices as container images

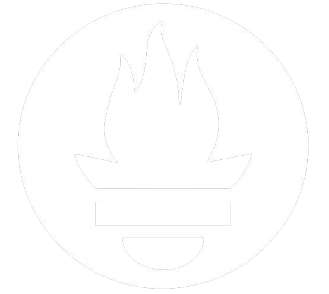
Runtime plugins

- **runc**: the regular runtime for Linux
- **runhcs**: Windows
- **runj**: FreeBSD jail
- **runwasi**: WASM
- **kata**: VM
- **runsc (gvisor)**: ptrace sandbox, etc.



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nerdctl: contaiNERD CTL

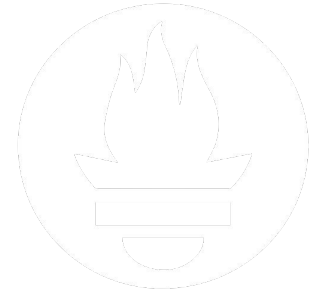


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- <https://github.com/containerd/nerdctl>
- Same UI/UX as the docker CLI (including Compose)
- Made for facilitating new experiments in the containerd platform (e.g., stargz, fast rootless)
- Useful for debugging Kubernetes nodes too

```
$ nerdctl run hello-world  
$ nerdctl compose up
```

Updates in v1.7 (March 2023)

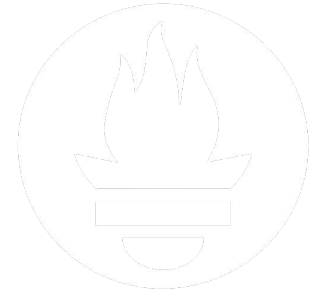


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- Sandbox API for “pauseless” pods
- Transfer API for pulling/pushing images on the daemon side
- Extended NRI API for plugging extensions into OCI runtimes
(NRI = Node Resource Interface)
- User namespace support for Kubernetes
 - Pods running as root can run as non-root

Roadmap to v2.0

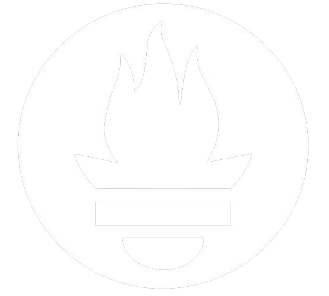


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- The focus is on cleaning up deprecated features
(runtime v1 API, aufs snapshotter, non-sandboxed pods...)
- Huge improvements on the support for User Namespaces
 - Overhead for chowning is now eliminated
- Highly compatible with v1.x

Join the community!



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- **GitHub:** <https://github.com/containerd>
- **Slack:** <https://slack.cncf.io/>
(Channels: `#containerd` `#containerd-dev`)
- **X (former Twitter):** [@containerd](https://twitter.com/containerd)