

# Intro to Helm



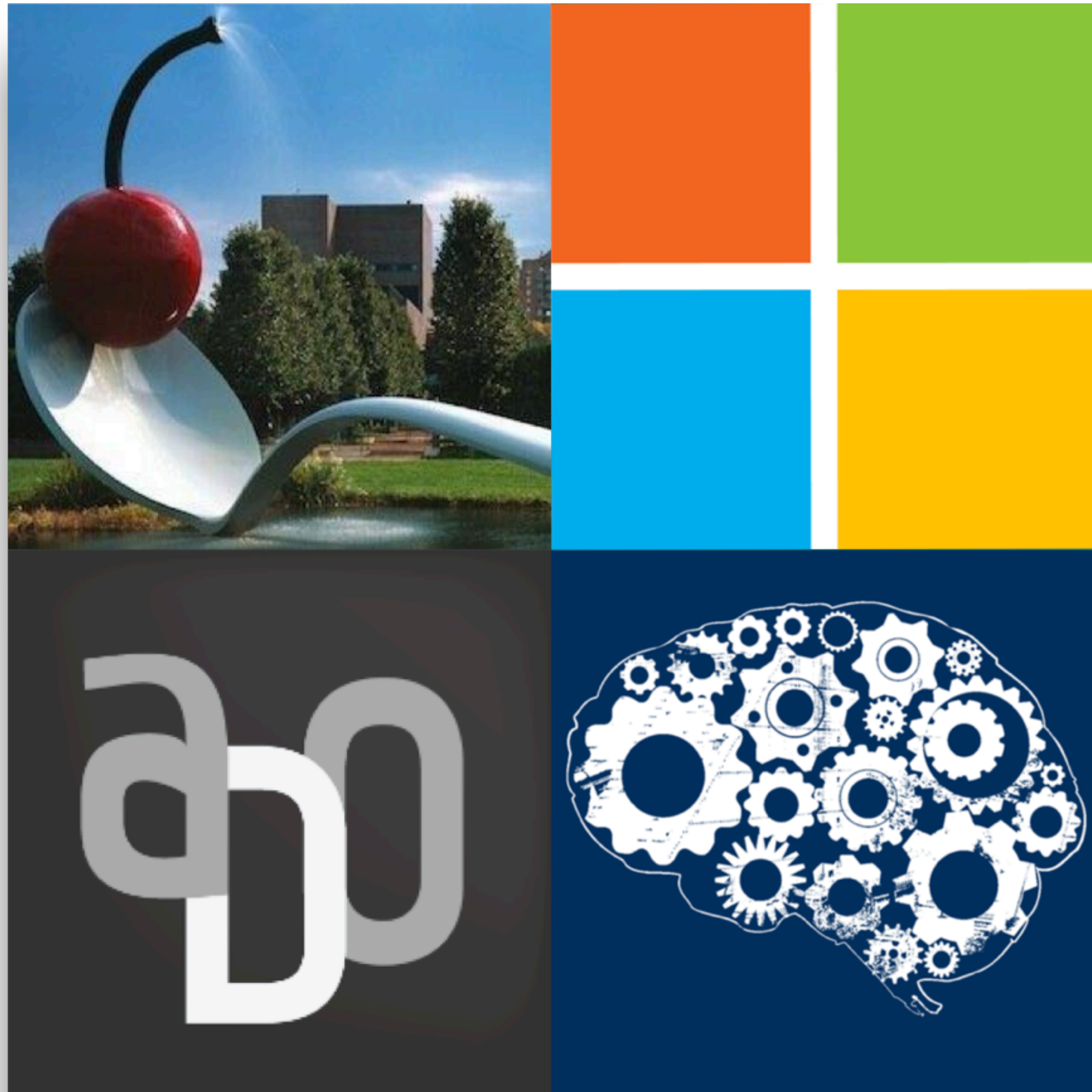
@bridgetkromhout

#kubekon

@marckhouzam

# Bridget Kromhout

# Marc Khouzam



```
Users > marckhouzam > git > helm > cmd > helm > completion.go
73
74 zsh := cobra.Command{
75     Uses:           "zsh",
76     Short:          "generate auto completions script for zsh",
77     Long:           zshCompDesc,
78     Args:           require.NoArgs,
79     DisableFlagsInUseLine: true,
80     Run: func(cmd *cobra.Command, args []string) error {
81         return runCompletionZsh(out, cmd)
82     },
83 }
84
85 cmd.AddCommand(bash, zsh)
86
87 return cmd
88 }
89
90 func runCompletionBash(out io.Writer, cmd *cobra.Command) error {
91     err := cmd.Root().GenBashCompletionV2(out, false)
92
93     // In case the user renamed the helm binary (e.g., to be able to run
94     // both helm2 and helm3), we hook the new binary name to the completion function
95     if binary := filepath.Base(os.Args[0]); binary != "helm" {
96         renamedBinaryHook :=
97     # Hook the command used to generate the completion script
98     # to the helm completion function to handle the case where
99     # the user renamed the helm binary
100     if [[ $(type -t compopt) = "builtin" ]]; then
101         complete -o default -F __start_helm %*%
102     else
```



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1. Overview: fundamental concepts
2. Getting started with charts
3. Migrating from v2 to v3
4. Community





# The package manager for Kubernetes

Helm is the best way to find, share, and use software built for Kubernetes.



CONGRATS

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CLASS OF 2020

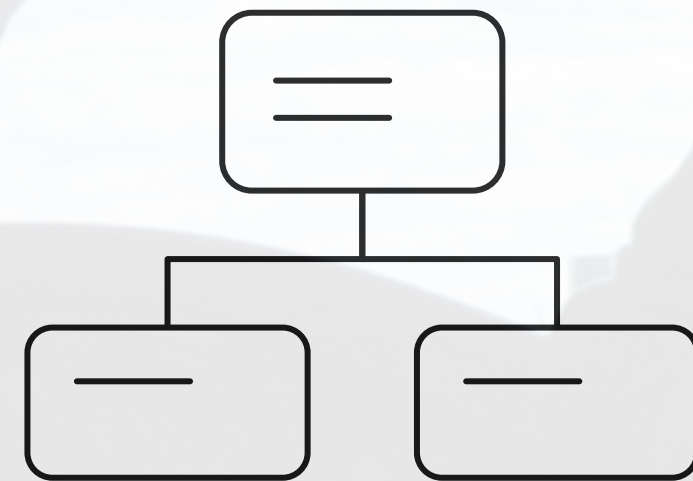
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*Love, CNCF*





Find, share, and use software built for k8s



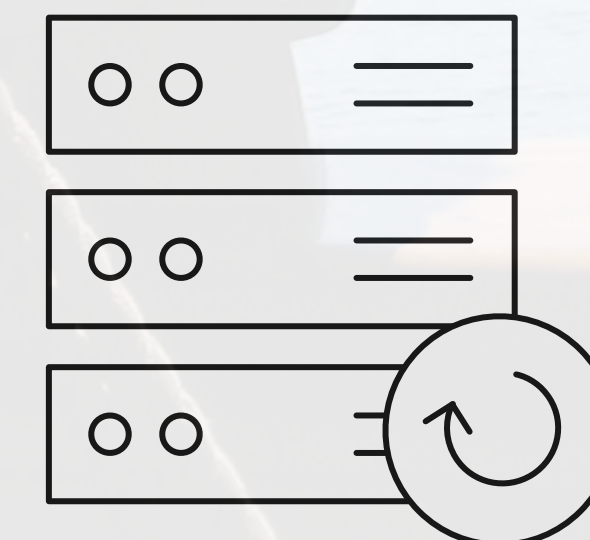
**Manage complexity**



**Easy updates**



**Simple sharing**



**Rollbacks**



# demo: getting started with Helm



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#kubecom

@marckhouzam



Finding charts  
decentralized search & repo addition

[hub.helm.sh](https://hub.helm.sh)  
[artifacthub.io](https://artifacthub.io)  
and more...





# demo: charts

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#kubicon

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Customizing and making charts:

[helm.sh/docs/chart\\_template\\_guide/getting\\_started/](https://helm.sh/docs/chart_template_guide/getting_started/)



## Why Helm v3?

- v3 based on community best practices
- dramatic simplification of architecture
- security and production use as priorities



## Helm v3 replacing v2

- bugfixes for v2 have ended
- security patches end in November 2020



what's different in Helm v3?

- using Kubernetes API server instead of Helm's own custom server (Tiller)
- making Helm more k8s-native
- inheriting security controls from kubeconfig
- using k8s RBAC to limit access & resources



**--generate-name**

- old style: auto-generated unless overridden
- new style: error unless auto-generation requested



## library chart support

- shared by other charts
- does not create any release artifacts of its own
- a library chart's templates can only declare "define" elements
- allows simpler code reuse



farewell, Tiller

- simpler & more flexible architecture, security, & upgrades
- now using Kubernetes API directly
- rendering Charts client-side; storing in release
- lowering the barrier of entry for contributors





## upgrade vs convert

- we now default to the same namespace for a release and objects (no longer using the Tiller namespace)
- can't upgrade a Helm v2 release with Helm v3 (but you can convert it with `helm-2to3`, then upgrade)



# demo: Helm 2to3



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what did we just see?

- Helm v3 cannot see Helm v2 resources
- if you just update from v2 to v3 and do nothing else, it will seem like everything is missing!
- essential to migrate and convert as applicable



tl;dr: Make sure you're using Helm 3 today.  
We're here to help!

[helm.sh/docs/faq/](https://helm.sh/docs/faq/)

[cncf.io/webinars/a-conversation-about-helm-3/](https://cncf.io/webinars/a-conversation-about-helm-3/)

[cncf.io/webinars/cncf-project-webinar-charting-your-voyage-to-helm-3/](https://cncf.io/webinars/cncf-project-webinar-charting-your-voyage-to-helm-3/)



# Community!

- [helm.sh/docs](https://helm.sh/docs) (contributions welcome!)
- [github.com/helm/helm](https://github.com/helm/helm) (issues, PRs, learning!)
- [github.com/helm/community](https://github.com/helm/community) (Twitter, Slack, mailing lists, weekly call)



# Happy Helming!

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