Grafana-as-Code

Fully reproducible Grafana dashboards with Grafonnet

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Why

do I need it?
Grafana has rich UI

Leading to Too many dashboards
maintenance becomes a **nightmare**

Conflicts  Confusion

Inconsistency
A difficult issue

Getting everyone to see the same things
What to do about this?
Grafana Provisioning

- Browser UI
- REST API
- Grafana Database
- Grafana Terraform Provider
- Grafana file provisioning
Grafana dashboards are JSON

But …
Templating JSON is no fun
How
do can we solve this?
// Line comment
/* Block comment */

// a local variable (not exported)
local greeting = "hello world!";

// the exported/returned object
{
  foo: "bar", // string
  bar: 5, // int
  baz: false, // bool
  list: [1,2,3], // array
  // object
  dict: {
    nested: greeting, // using the local
  }
  hidden:: "incognito!" // an unexported field
}
Functions

dashboard: new(title, uid):: {
  title: title,
  [if uid != '' then 'uid']: uid,
  panels: [],
  schemaVersion:20,
},

dashboard.new('super dash', 'my-dash');

{
  "title": "super dash",
  "uid": "my-dash",
  "Panels": [],
  "schemaVersion":20
}
Patches

dashboard: {
  new(title, uid): {...}
}

dashboard.new(...) + {
  schemaVersion: 22,
}
// dashboard.libsonnet
{
    new(title, uid):: {
        title: title,
        [if uid != '' then 'uid']: uid,
        panels: [],
        schemaVersion: 20,
    },
}

// main.jsonnet
local dashboard = import 'dashboard.libsonnet';
deployment.new(...) + {
    schemaVersion: 22,
}
Ready to use libraries

https://github.com/grafana/grafonnet-lib
https://github.com/grafana/jsonnet-libs
https://github.com/search?q=filename:jsonnetfile.json
See it
the future
An open source project

Go to https://github.com/grafana/grafonnet-lib
Thank you! Questions?