

DevOps



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@mru



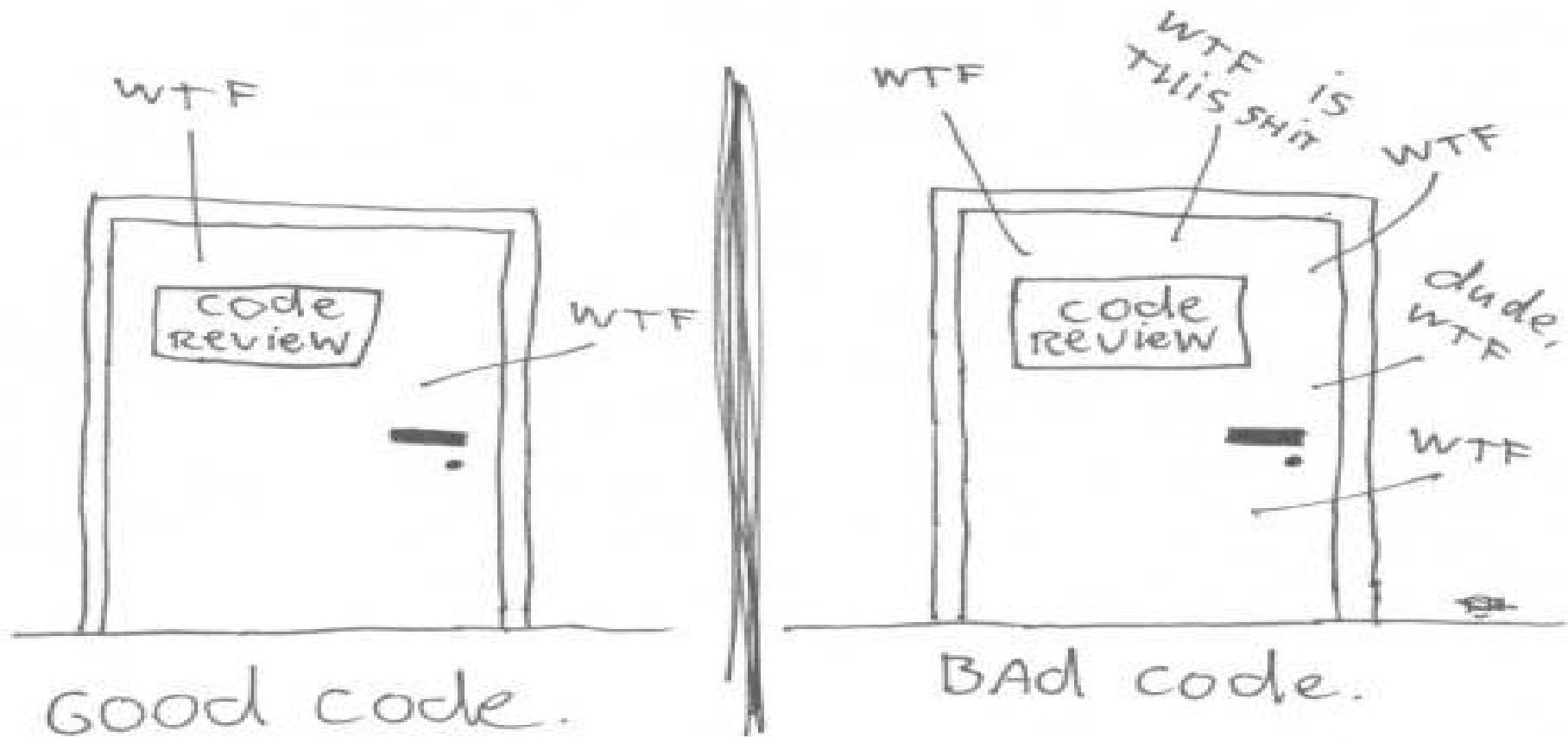
@mr_ud





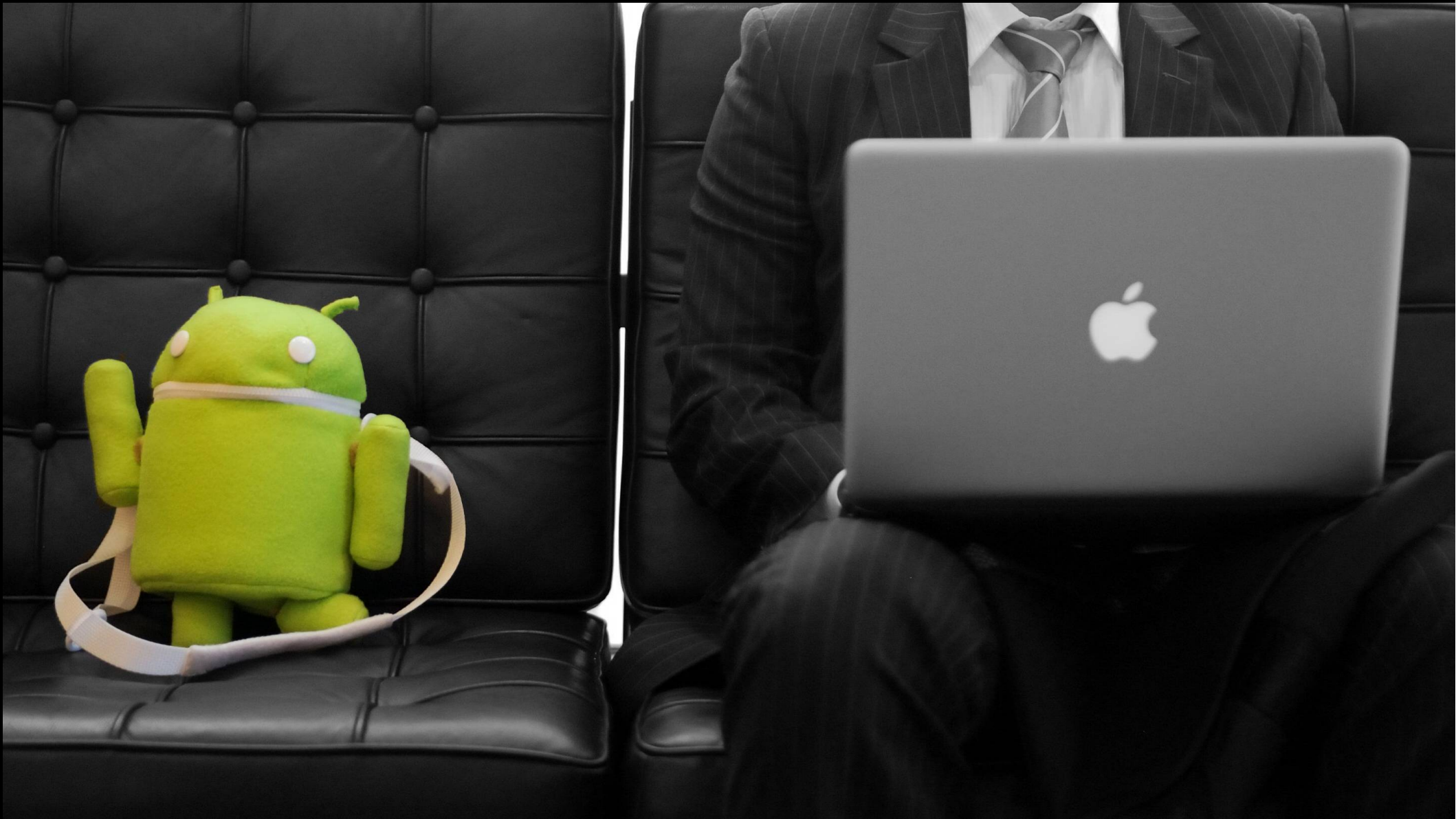
DevOps?

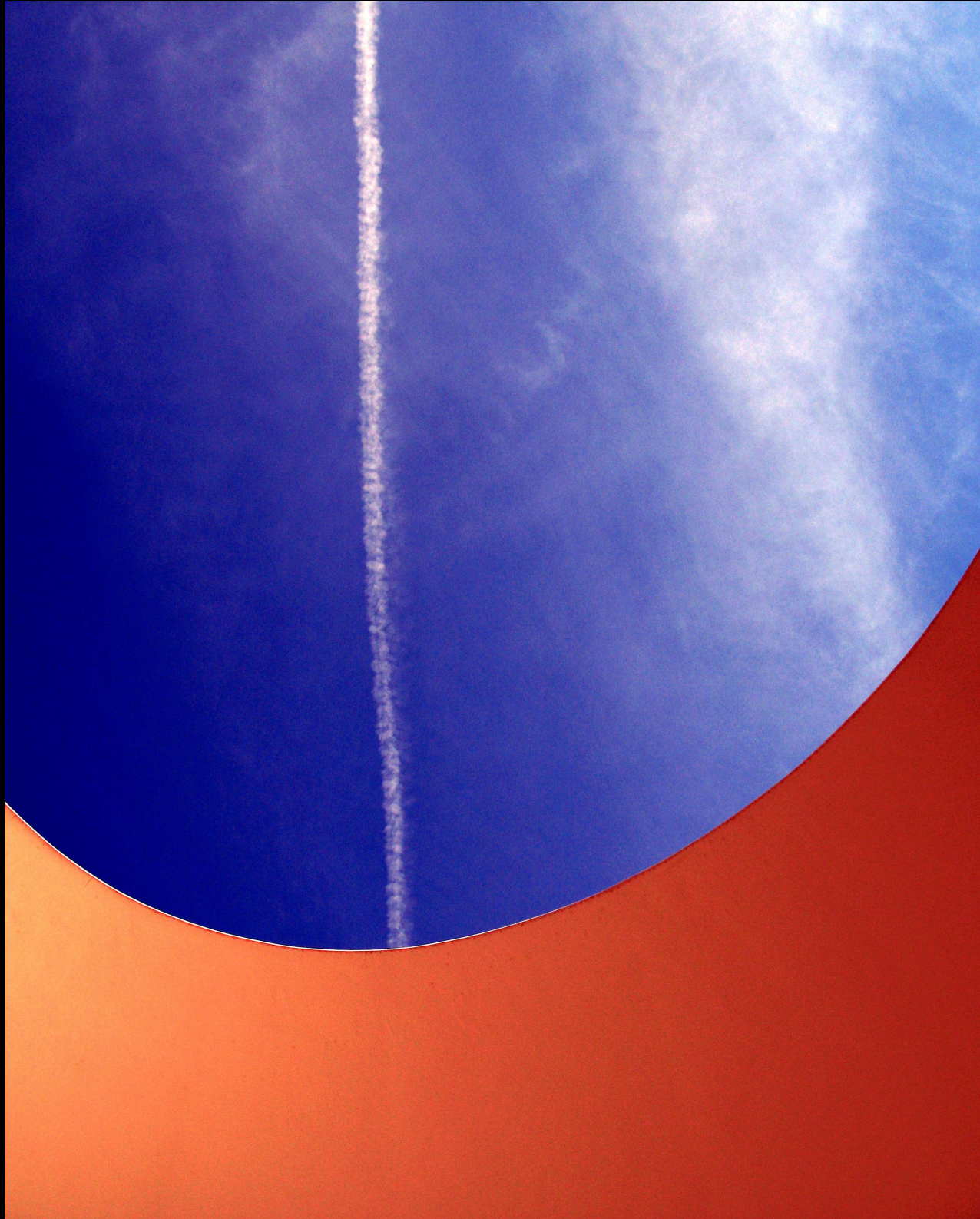
The ONLY VALID MEASUREMENT
OF CODE QUALITY: WTFs/MINUTE











Xbox Requests

17/11/09 12:30 UTC





Release early
Release often

Quality control



TACTICAL FACEPALM

Sometimes a regular facepalm just doesn't cut it

Complex Environment



Integrate



Benefit?







Fast





djanggo

```
$ django-admin.py \  
startproject devops
```

```
$ ./manage.py startapp \  
servers
```

```
$ vi servers/models.py
```

```
1  from django.db import models
2
3  DISTRI_CHOICE = (
4      ('G', 'Grml'),
5      ('S', 'Suse'),
6      ('R', 'RedHat'),
7      ('D', 'Debian')
8  )
9
10 class Server(models.Model):
11     distribution = models.CharField(max_length=1,
12                                     choices=DISTRI_CHOICE)
13     version = models.CharField(max_length=10)
14     ip_address = models.IPAddressField()
15     contact = models.EmailField()
```

```
$ vi servers/admin.py
```

```
1 from django.contrib import admin
2 from servers.models import *
3
4 class ServerAdmin(admin.ModelAdmin):
5     list_display = ('distribution', 'version', 'ip_address', 'contact')
6     list_filter = ('distribution', 'contact')
7
8 admin.site.register(Server, ServerAdmin)
```



```
$ vi urls.py
```

```
...
```

```
from django.contrib import admin
```

```
admin.autodiscover()
```

```
...
```

```
url(r'^admin/', include(admin.site.urls))
```

```
...
```

```
$ vi settings.py
```

```
...
```

```
INSTALLED_APPS = (
```

```
...
```

```
    'django.contrib.admin',
```

```
    'servers'
```

```
)
```

```
$ ./manage.py syncdb
```

```
...
```

```
$ ./manage.py runserver
```

Change server

History

Distribution:

Version:

Ip address:

Contact:

 [Delete](#)

[Save and add another](#)

[Save and continue editing](#)

[Save](#)

Select server to change

[Add server](#) **+**

Action:

	Distribution	Version	Ip address	Contact
<input type="checkbox"/>	Debian	6.01	192.168.2.1	mru@spamt.net
<input type="checkbox"/>	Suse	11	192.168.1.1	mika@grml.org
<input type="checkbox"/>	Grml	2011.04	192.168.72.2	mru@spamt.net

3 servers

Filter

By distribution

All
Grml
Suse
RedHat
Debian

By contact

All
mika@grml.org
mru@spamt.net

Infrastructure as Code



```
$ cat manifests/site.pp
```

```
node default {  
  package {  
    func: ensure => "installed"  
  }  
}
```



```
user { "uli":  
    ensure => "present",  
    comment => "Ulrich Dangel",  
    home => "/home/uli",  
    shell => "/bin/zsh",  
    managehome => "true"  
}
```

```
ssh_authorized_key{"uli":  
    ensure => present,  
    user => "uli",  
    key => "AAAFFF...",  
    type => "dsa"  
}
```



git



TESTING

Because not everyone was gifted with common sense.

```
$ gem install cucumber-puppet
```

```
$ cucumber-puppet-gen world
```

```
...
```

```
$ cucumber-puppet-gen policy
```

features/catalog/policy.feature

Feature: General policy for all catalogs

....

Scenario: Verify catalog for one host

Given a node specified by "fact.yaml"

When I compile its catalog

Then compilation should succeed

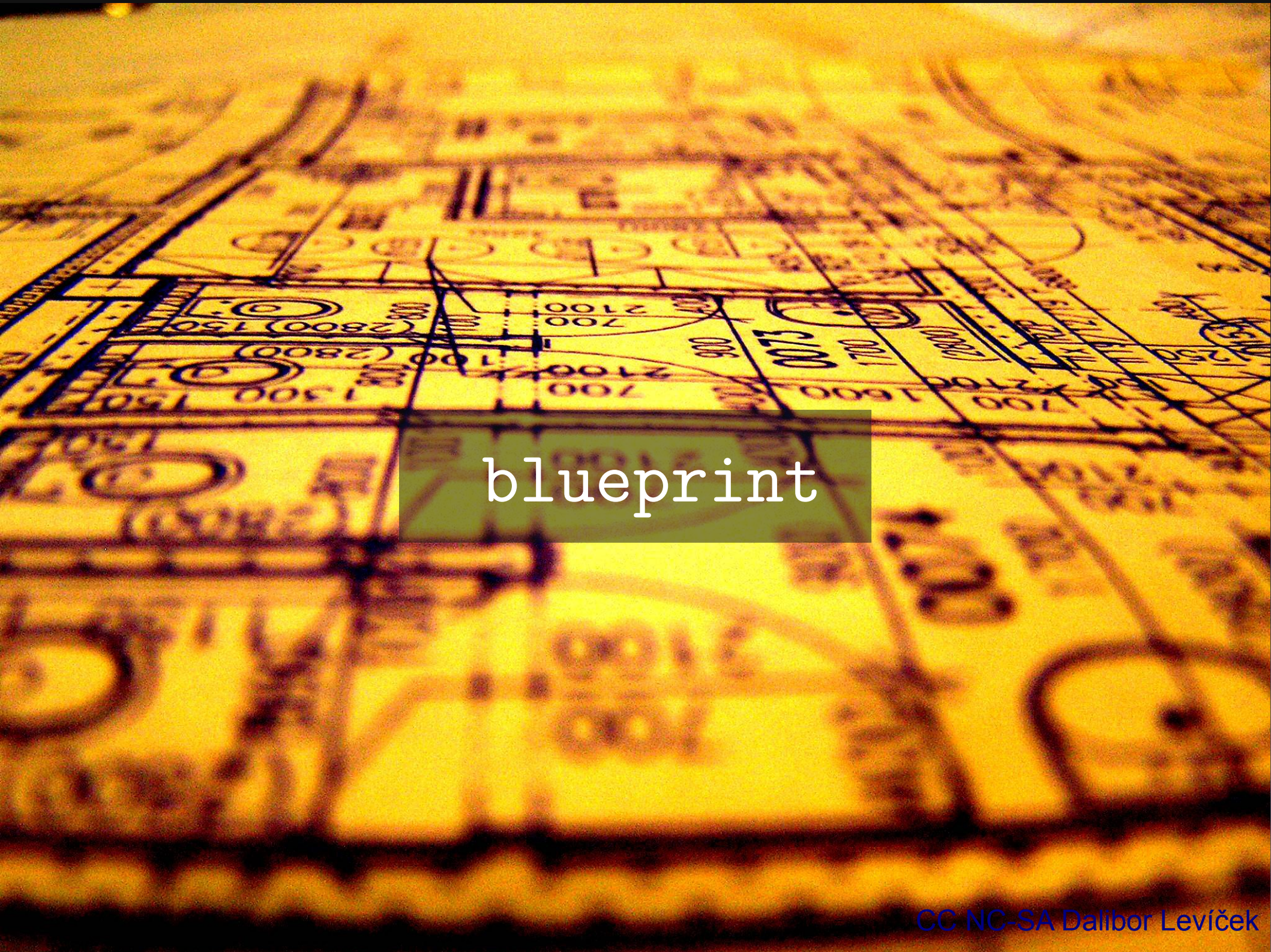
And package "func" should be "installed"

```
$ cucumber-puppet \  
features/catalog/policy.feature
```

```
...
```

```
1 scenario (1 passed)
```

```
4 steps (4 passed)
```



blueprint

```
$ blueprint create base
```

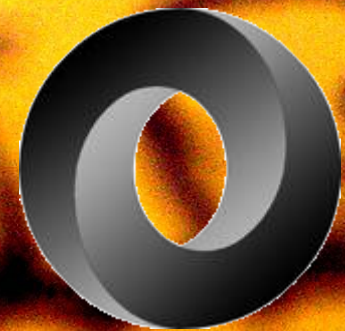


```
$ blueprint show -S base
```

```
#!/bin/sh
```



blueprint



June

```
1 import func.overlord.client as fc
2
3 results = fc.Client("*").service.status("httpd")
4 for (host, returns) in results.iteritems():
5     if returns == 0:
6         fc.Client(host).reboot.reboot()
```

ACLs

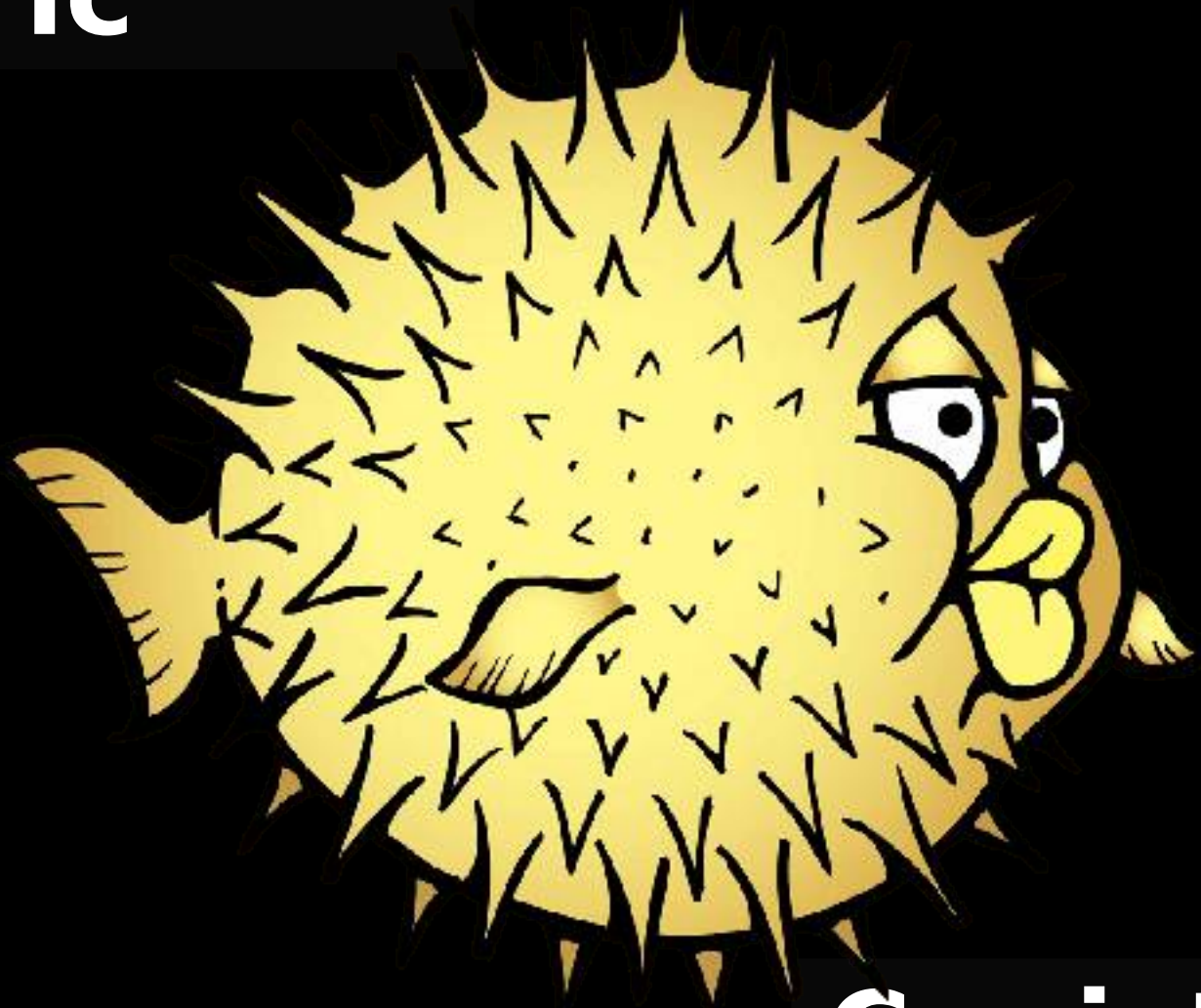
Plugins

Func

Hierarchy

SSL

Fabric



Capistrano

```
1 env.hosts = ['server1']
2
3 def deploy():
4     code_dir = '/srv/django/myapp'
5     with cd(code_dir):
6         run("git pull")
7         run("touch app.wsgi")
```

```
1 role :app_server, "server1"
2 set :code_dir, "/srv/django/myproject"
3
4 task :deploy do
5     run "cd #{code_dir} && git pull && touch app.wsgi"
6 end
```

What else?!

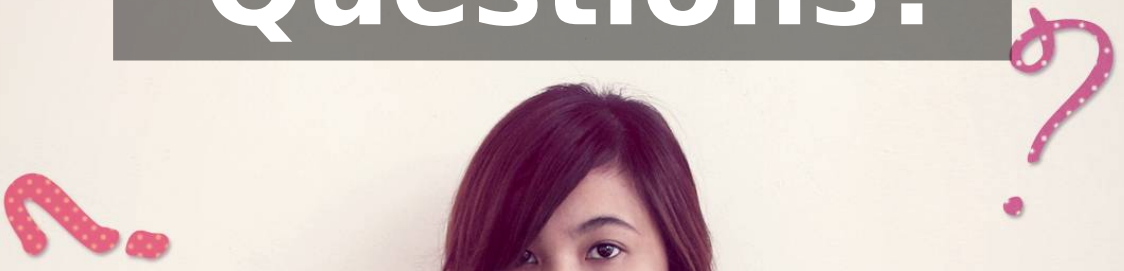
cobbler

foreman

augeas



Questions?



We Can Do It!



J. Howard Miller

POST FEB. 15 TO FEB. 28



WAR PRODUCTION CO-ORDINATING COMMITTEE

CC BY-NC-SA Brian Moore

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