

DevOps World



Jenkins World



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Featured Speaker

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Automating Jenkins (re)installation: some thoughts, tips, and tricks



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# Automating Jenkins (re)installation:

some thoughts, tips, and tricks

Presentation available at: <https://jmMeessen.github.io/slides/jw-eu-2019>

# Hello !!

- Jean-Marc MEESEN:

Who are you?

# What is configuration Management?

# Pet vs Cattle

# Automation, automation, automation!

- Frees precious time
- Repeatable
- Best emergency/repair tool
- Best way to avoid any malicious modification

# In Source Control

- Visibility
- Peer review
- History
- Versioned  $\Rightarrow$  Revertable



Why should CI/CD systems be  
handled as a Pet ?

# Automation objectives

- Provision new CI/CD cluster (or major components)
  - efficiently
  - repeatably
  - consistant
- Update the system
  - ex: change a setting, add a plugin

# Automation objectives

- Peer-review mechanism for configuration changes
  - Keeps the audit/compliance team happy
- Easily manage very large CI/CD cluster
- Properly document the system
- support CI/CD power users
  - behind the scene warranty for creativity

# Configuration Management philosophies

# Golden Image

- in the early days
  - a lot of work to maintain
  - messy
  - "one size fits nobody"

# Configuration Scripting

- Scripts solved a lot of these problems
  - added
    - readability
    - versioning
- At first ad hoc (bash) scripting
- then Chef, Puppet, Ansible, etc.

# Golden Image revisited

- Docker/Containers
  - Golden Image new momentum
  - very short start time
    - image definition description files (dockerfiles)
    - particularly adapted to the Cloud scheduler (ex K8S)

# But no silver bullet

- reality lies between
  - generalization (general purpose images)
  - need for fine grained customizations to adapt to the local constrains



# Jenkins configuration vectors

# Direct file System manipulation

- classical way to configure a system
- copying/updating files on the file system (JENKINS\_HOME)
- Typical Ansible modules.
  - copy
  - template
  - lineinfile
  - xml

# File system vector: Pro

- easy/natural for tools like Ansible

# File system vector: Con

- lot of reverse engineering required
- stability of these undocumented configuration is not guaranteed.
  - particularly plugins configuration

# Command Line Interfaces

# Thank You !

 @jm\_meessen

 jmMeessen

Slides: <https://jmMeessen.github.io/slides/jw-eu-2019>



Source on : <https://github.com/jmMeessen/slides/tree/jw-eu-2019>