Continuous Integration -Kom igång!

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Varför CI?

- Agilt utvecklingssätt kräver ständig transparens och leverans.

- Enklare och snabbare leverans / lansering

- Möjliggör minskad tid för nyckelpersoner

- Ökar förmågan hos "vanliga" utvecklare

- Tar bort repetitiva moment

- Höjer kvaliteten i dina projekt

Agile Manifesto Principles

1. Our highest priority is to satisfy the customer through early and **continuous delivery** of valuable software.

2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.

3. **Deliver working software frequently**, from a couple of weeks to a couple of months, with a preference to the shorter timescale.

4. Business people and developers must work together **daily** throughout the project.

5. Build projects around motivated individuals. **Give them the environment** and support they need, and trust them to get the job done.

6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

7. **Working software** is the primary measure of progress.

8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.

9. **Continuous attention** to technical excellence and good design enhances agility.

10. **Simplicity**--the art of maximizing the amount of work not done--is essential.

11. The best architectures, requirements, and designs emerge from self-organizing teams.

12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

Vad är CI?

Continuous Integration

    Kontinuerlig integration?

    Kontinuerlig leverans?

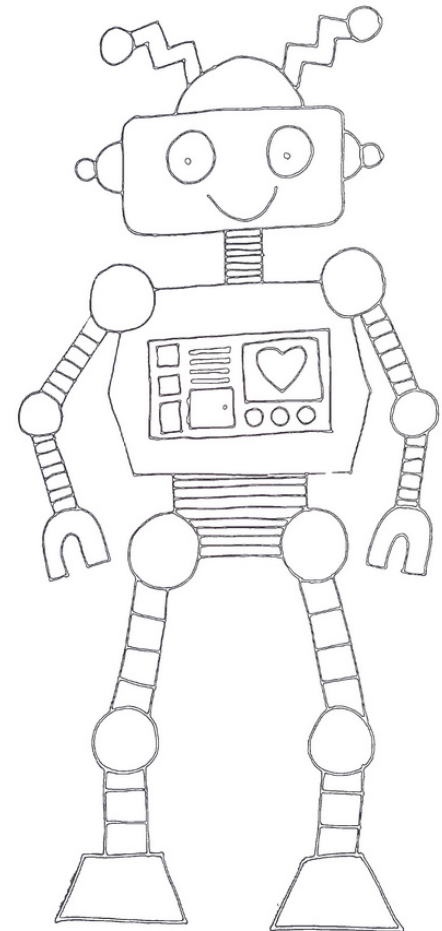   Ständig transparens?

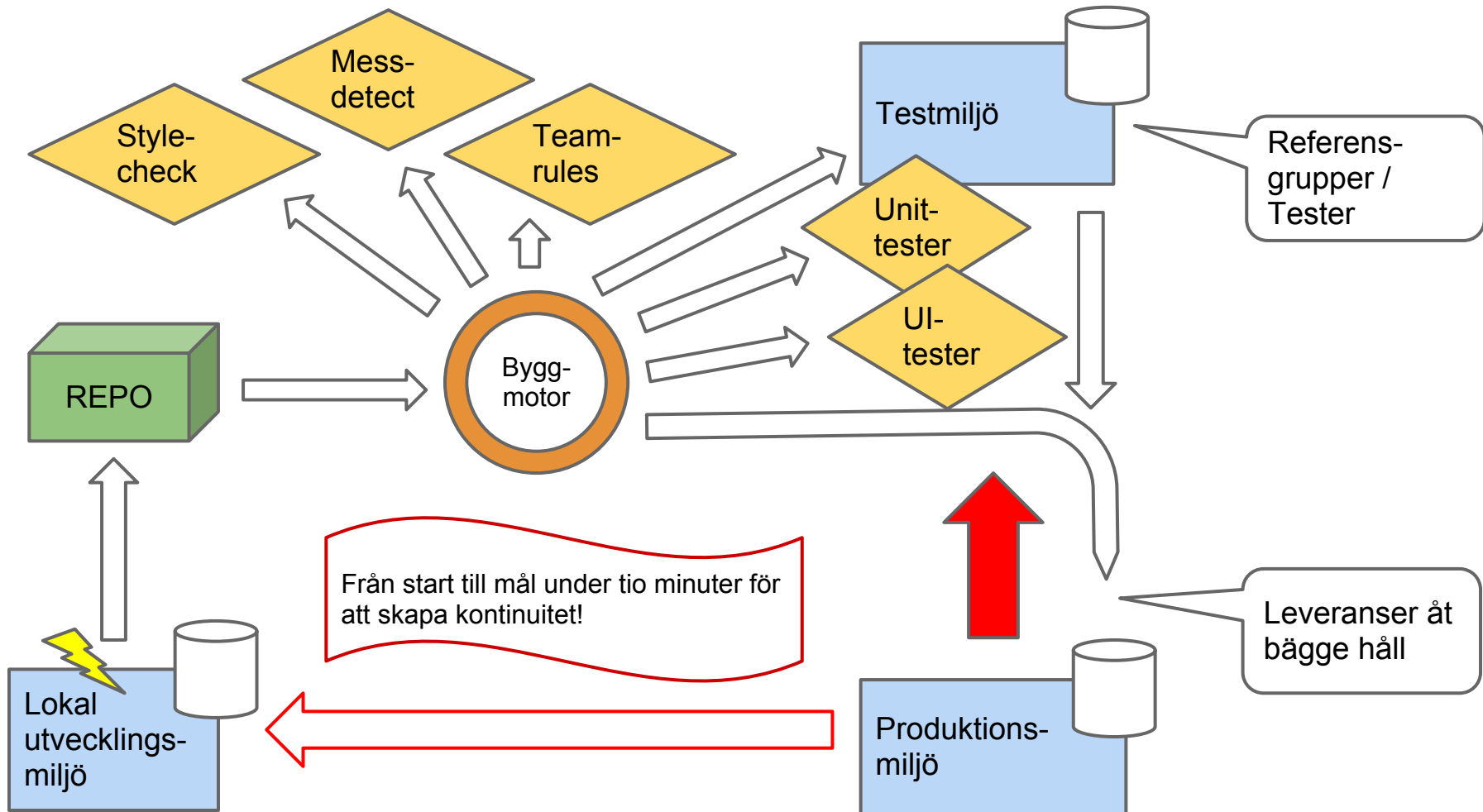   Automatiska produktinkrement?

    Byggscript?

    Testautomatik?

    UI-testning?

    Verktyg för TDD?

Namn på svenska?!

Blueprint

Utmaningar

Tar tid att bygga upp

Normal CI-uppsättning > 40h

Projekt på 200h? 20%? No way!

Hur kan vi komma igång med CI på kortare tid?
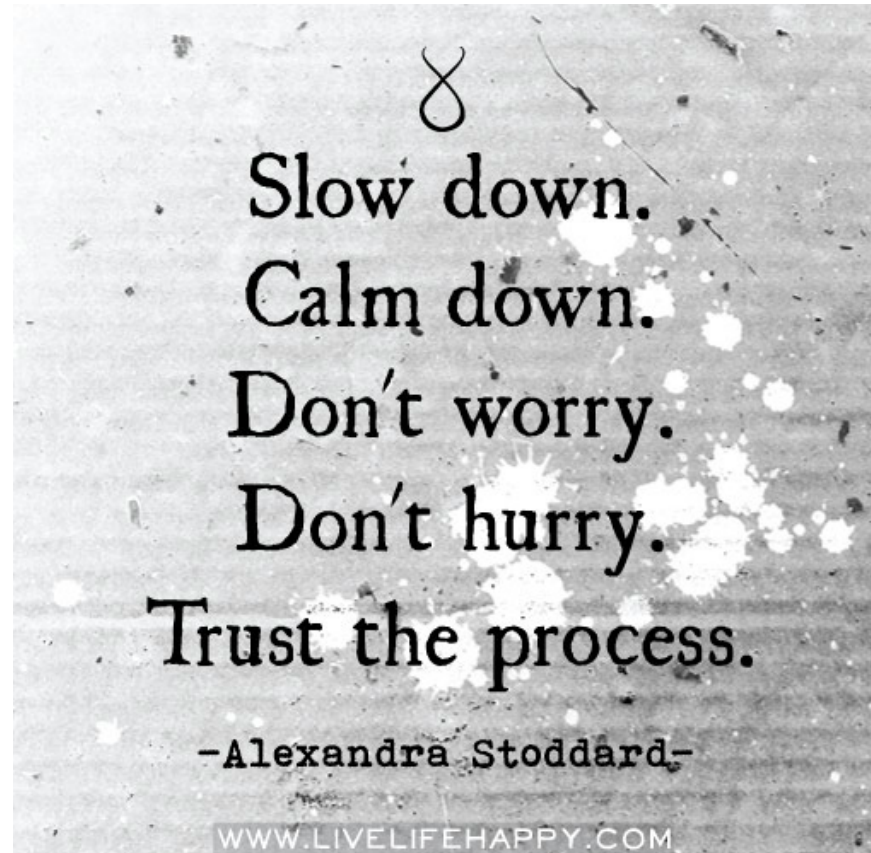
Börja men med en sak i taget!

Versionshantering
Byggmotor
Analys / Style
Unit/last/stress-test
UI-Test
Leverans
Pipeline
Support

Slow down.
Calm down.
Don't worry.
Don't hurry.
Trust the process.

—Alexandra Stoddard—

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Demonstration

Miljöer för denna demo
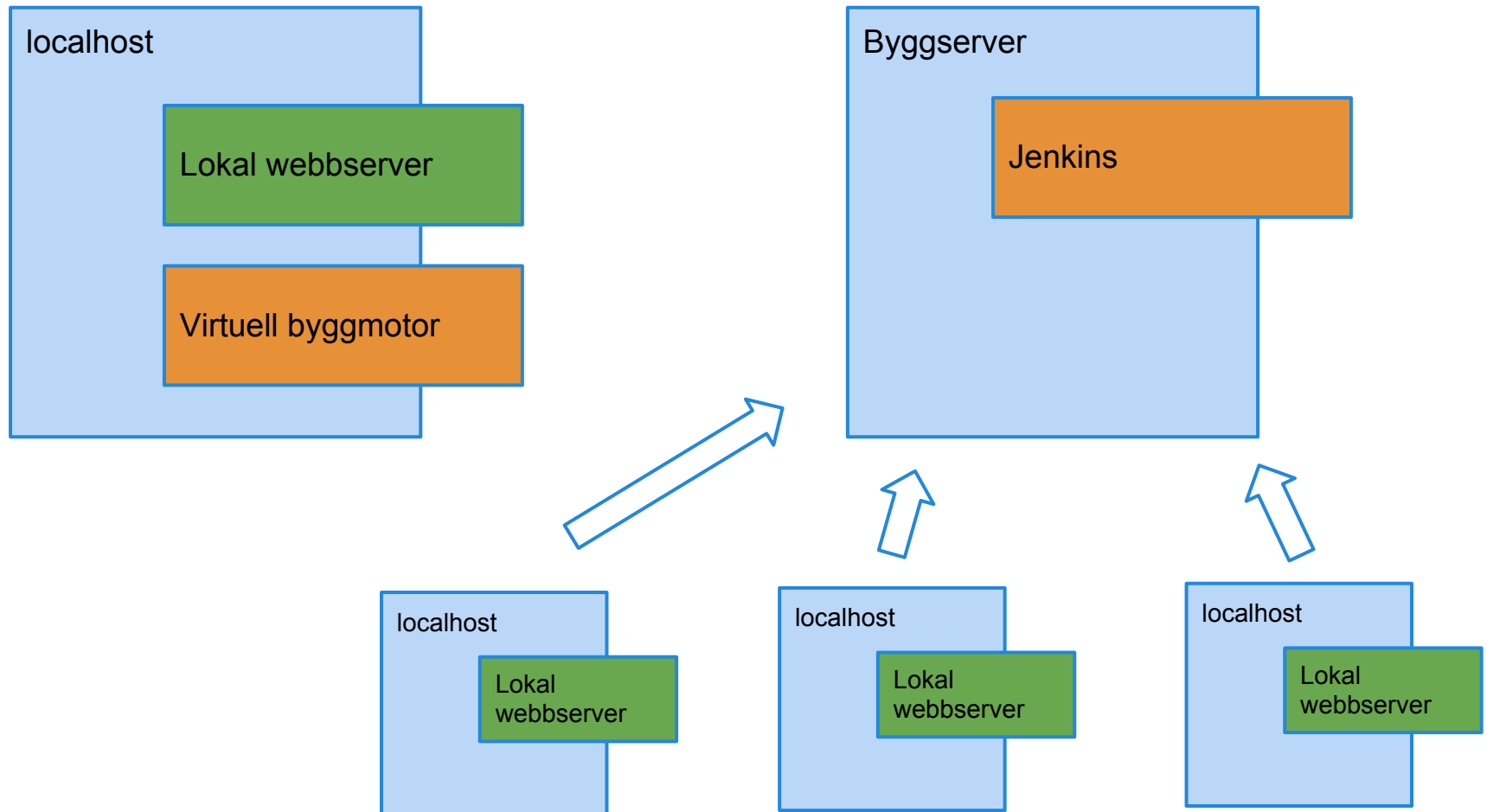
Lokal utvecklingsmiljö

Demo (knockoutjs :-)

Exempel: varukorg

http://cart.dev

CI-miljö, virtuell server

7 steg till UI-test

- Installation virtuell miljö (steg 1-3) *

- Konfiguration (steg 4-5) *

- UI Test Case (steg 6)

- CI-Jobb (steg 7)

* Förberett i denna demo…

Installationsstegen 1-5, video

http://www.youtube.com/watch?v=dedsQ55hl7g
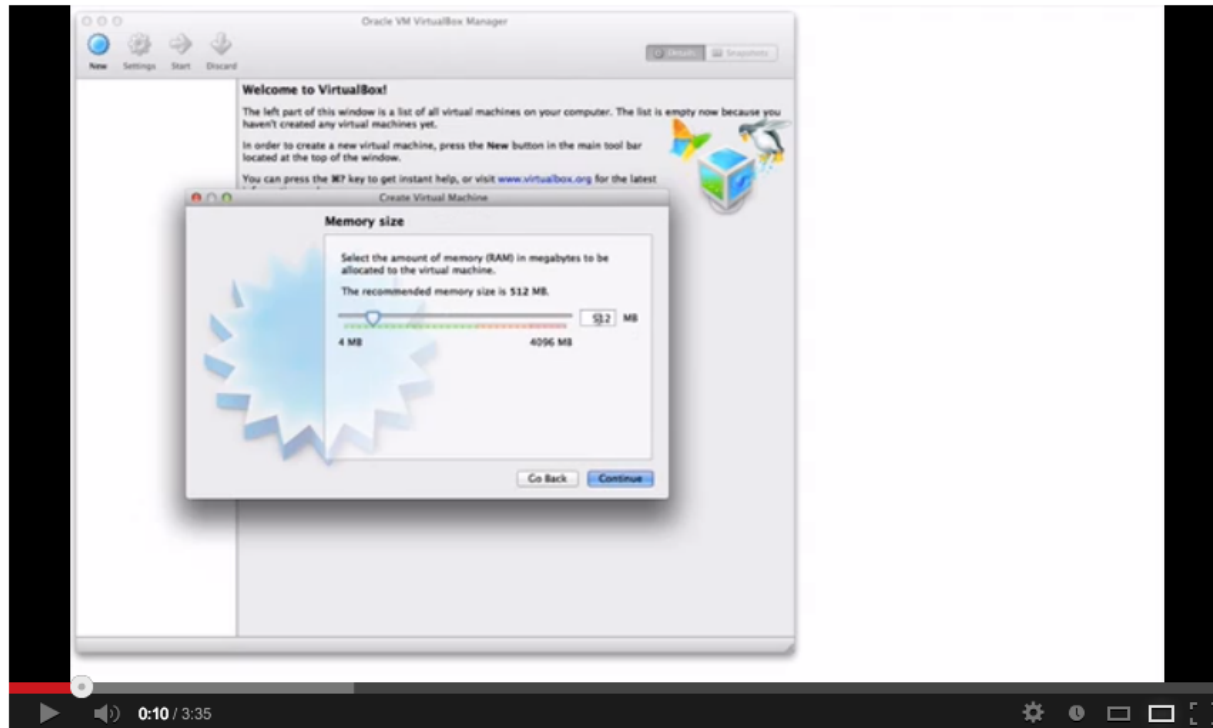
Steg 1 - Installera virtuell server
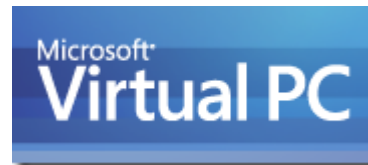
Steg 2 - Åtkomst virtuell server

 # Logga in som root:

sudo su

 # Ta reda på dina IP-adresser:

ifconfig

 # Installera openssh:

apt-get install -y openssh-server

 # Modifiera hostfilen:

nano /etc/hosts
exempel: 10.211.55.2   calc.local
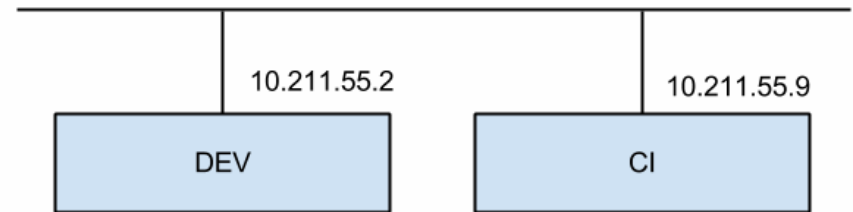
Steg 3 - Installera tjänster

Lägg till Jenkinsrepo

wget -q -O - http://pkg.jenkins-ci.org/debian/jenkins-ci.org.key | sudo apt-key add -

sh -c 'echo deb http://pkg.jenkins-ci.org/debian binary/ > /etc/apt/sources.list.d/jenkins.list'

apt-get update && apt-get upgrade -y

Installera Java, Git, Xvfb, Firefox, Jenkins
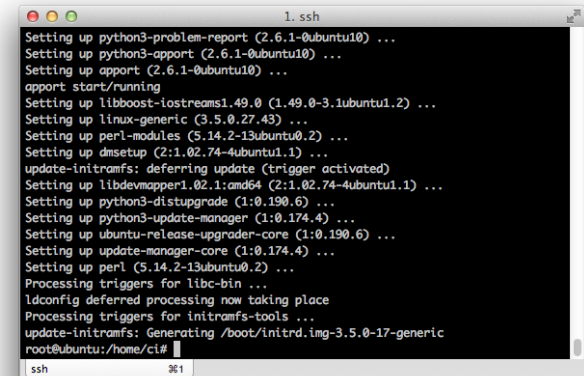
apt-get install -y default-jre git xvfb firefox jenkins

Buggfix för Selenium

ln -s /usr/lib/firefox/firefox /usr/bin/firefox-bin

Lägg in Selenium standalone

wget http://selenium.googlecode.com/files/selenium-server-standalone-2.32.0.jar

mkdir -p /var/lib/selenium

mv selenium-server-standalone-2.32.0.jar /var/lib/selenium/selenium.jar


```
1. ssh
Setting up python3-problem-report (2.6.1-0ubuntu10) ...
Setting up python3-apport (2.6.1-0ubuntu10) ...
Setting up apport (2.6.1-0ubuntu10) ...
apport start/running
Setting up libboost-iostreams1.49.0 (1.49.0-3.1ubuntu1.2) ...
Setting up linux-generic (3.5.0.27.43) ...
Setting up perl-modules (5.14.2-13ubuntu0.2) ...
Setting up dmsetup (2:1.02.74-4ubuntu1.1) ...
update-initramfs: deferring update (trigger activated)
Setting up libdevmapper1.02.1:amd64 (2:1.02.74-4ubuntu1.1) ...
Setting up python3-distupgrade (1:0.190.6) ...
Setting up python3-update-manager (1:0.174.4) ...
Setting up ubuntu-release-upgrader-core (1:0.190.6) ...
Setting up update-manager-core (1:0.174.4) ...
Setting up perl (5.14.2-13ubuntu0.2) ...
Processing triggers for libc-bin ...
ldconfig deferred processing now taking place
Processing triggers for initramfs-tools ...
update-initramfs: Generating /boot/initrd.img-3.5.0-17-generic
root@ubuntu:/home/ci#
ssh            ⌘1
```
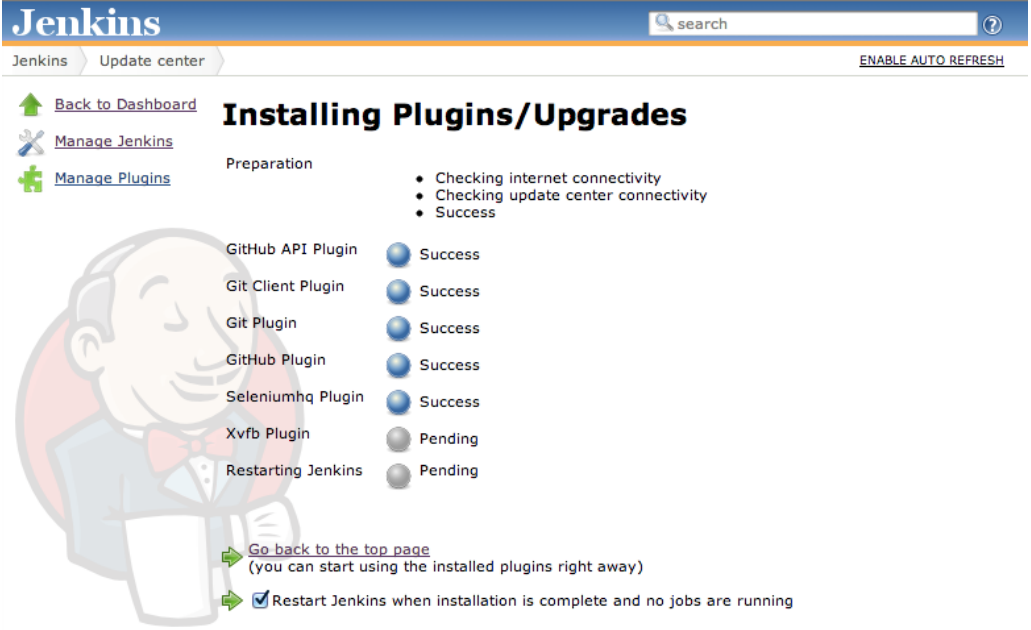
Steg 4 - Jenkins Plugins

Installera plugins på Jenkins port 8080!

Manage Jenkins -> Manage Plugins

- Github Plugin
- Xvfb Plugin
- Seleniumhq Plugin

Install + Restart

Steg 5 - Globala inställningar

Ställ in Jenkins globalt

Manage Jenkins -> Configure System

- Git, path: /usr/bin/git
- xvfb path: /usr/bin
- Git Plugin Global: Name / Email
- Selenium RC: /var/lib/selenium/selenium.jar

Spara!

Steg 6 - Testcase

Firefox!

Installera Selenium IDE

Skapa ett UI-testcase

Spara i projektet som filer
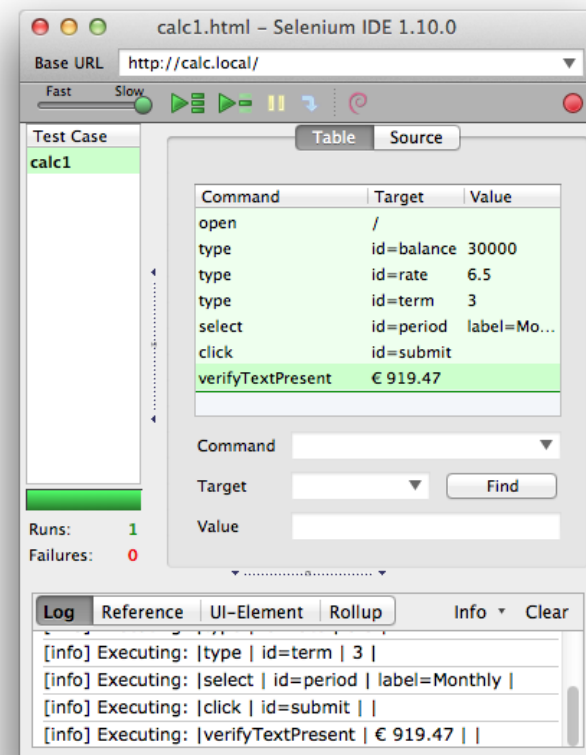
Steg 7 - Skapa ett jobb

- Koppla github
- Start xvfb
- Koppla browser, testcase, url och resultat
- Koppla post-build med Selenium Report

Spara!

Kör!

Skript, dokument, plugin

https://github.com/EkAndreas/**geekmeetvas**
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Tack!

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