

Selenium WebDriver阶段三 - (github持续集成Jenkins)

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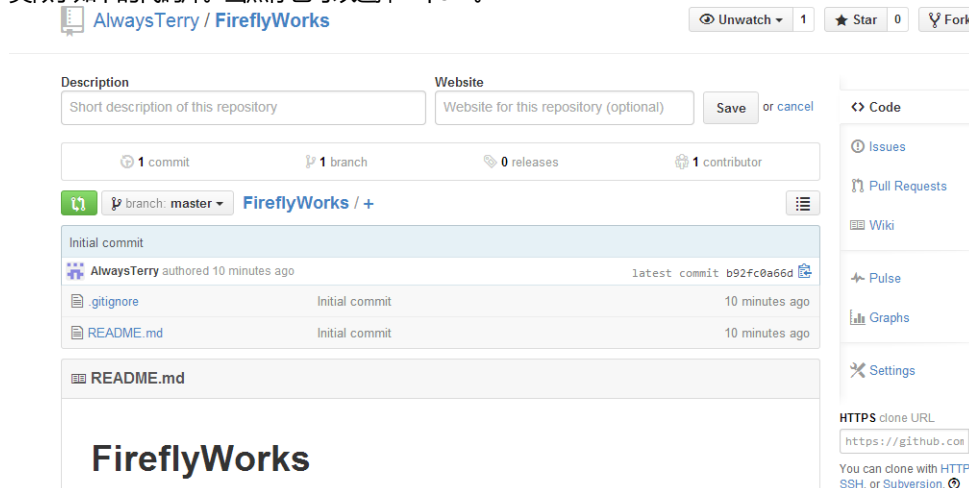
课程学习内容：

Jenkins的基本配置，maven,testng,promotion,github和testlink插件的集成。
webdriver的代码持续集成及自动build(github版)。

课前准备：所有软件以后可以通过Terry工具包 <http://pan.baidu.com/s/1kTGA2sZ>去下载。

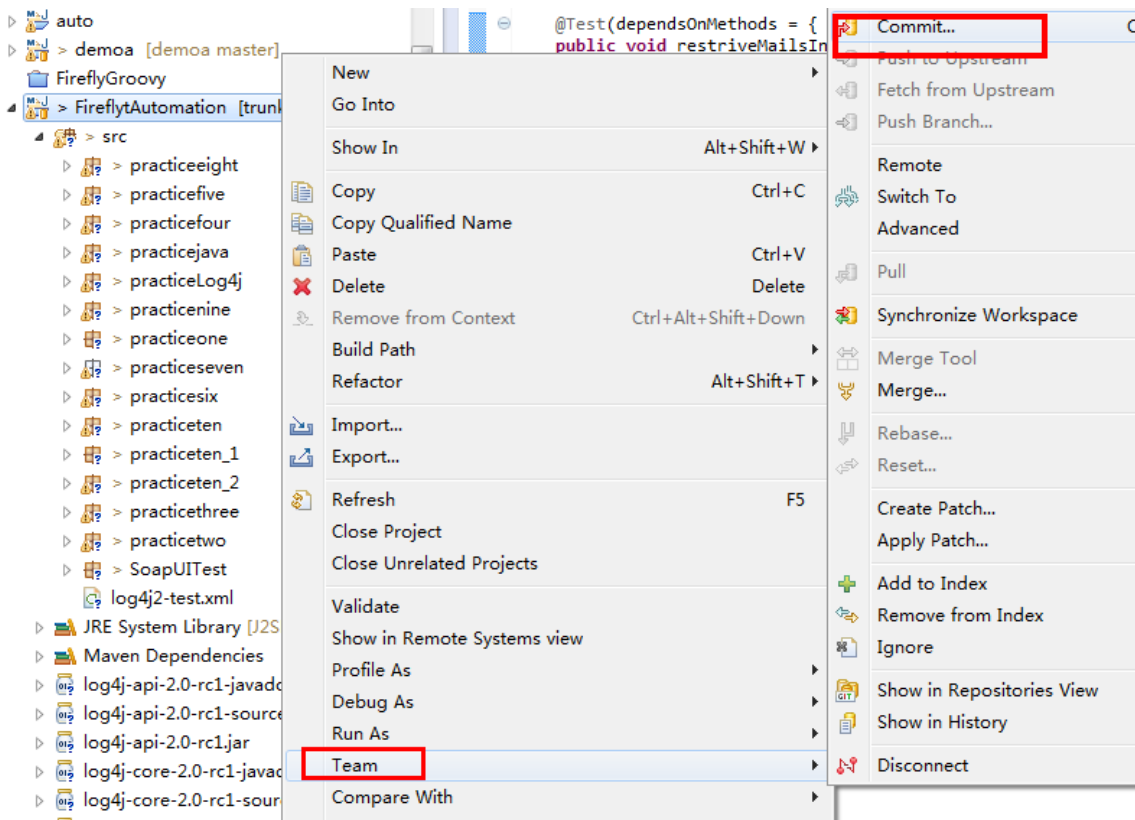
请安装jenkins安装包,github客户端，下载maven bin客户端。并到下面的网站下注册一个用户并建立自己的respository代码仓库。
<https://github.com/>

类似于如下的代码库。当然你也可以选择一个svn。

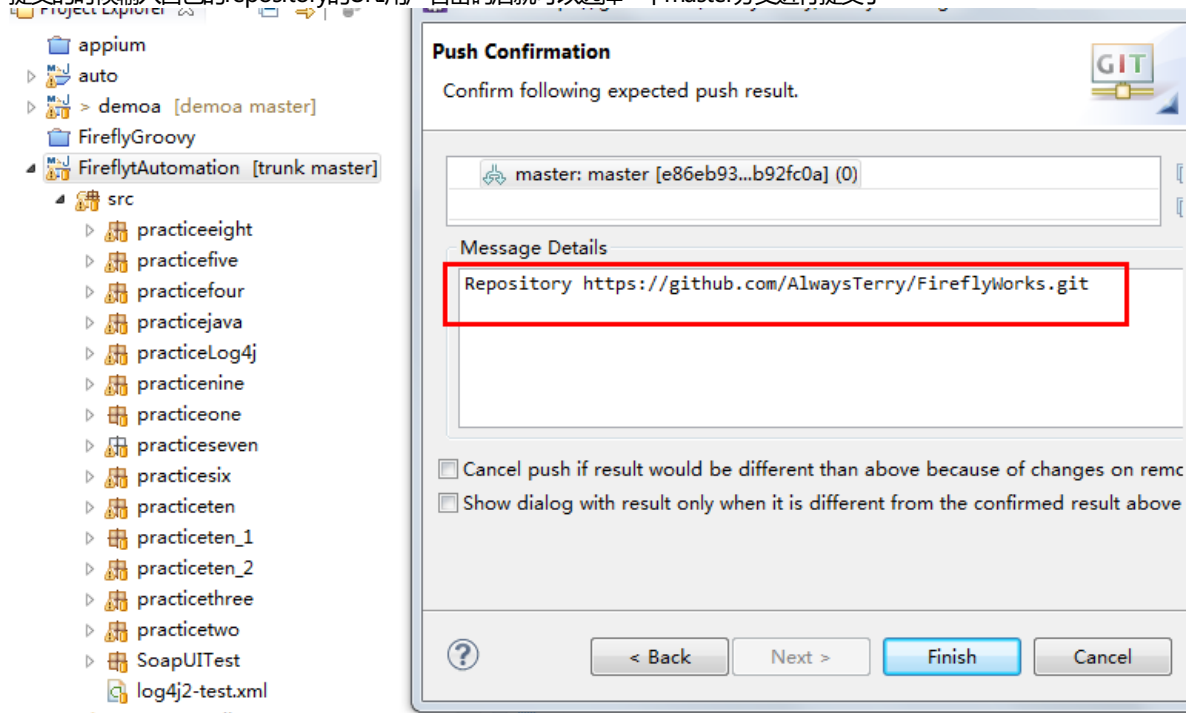


1) 将自己做好的maven的project上传到github自己的repository

安装eclipse的egit插件后，share该项目，可以选择parent中添加git文件。



提交的时候输入自己的repository的URI用户名密码后就可以选择一个master分支进行提交了



完成后需要一定的时间。

2) 我们看一下jenkins安装完后可以有如下的url的命令。

`http://[jenkins-server]/[command]`

在这里[command]可以是: exit 退出, restart 重启, reload 重载。

有时候我们的8080端口号可能被占用, 如果修改的话可以找到你的安装目录, 然后修改jenkins.xml->httpPort=8080修改一下为8089

localhost:8089/job/DemaA/11/promotion/

Jenkins

Jenkins > DemaA > #11 > Promotion Status

- [Back to Project](#)
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- [Promotion Status](#)**
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Promotions

★ as

Promotion History

- #6 (Sat Aug 02 12:42:31 CST 2014) by anonymous
- #5 (Sat Jul 26 19:47:54 CST 2014) by anonymous
- #4 (Sat Jul 26 19:46:54 CST 2014) by anonymous
- #3 (Sat Jul 26 19:44:51 CST 2014) by anonymous
- #2 (Sun Jul 20 19:02:00 CST 2014) by anonymous
- #1 (Sun Jul 20 19:00:03 CST 2014) by anonymous

Qualification (promoted 12 days ago — 1 min 21)

Manually qualified for a promotion

Status

- Successfully promoted ([log](#))

3) 如果是安装在windows上那么需要设置jenkins的services :

Back to Project

Status

Changes

Console Output

Edit Build

Delete Build

Git Build Data

No Tags

Promotion Status

Previous Build

Promotions

★ as

Promotion History

- #4 (Sat Jul 26 19:46:54 CST 2014) by anonymous
- #3 (Sat Jul 26 19:44:51 CST 2014) by anonymous
- #2 (Sun Jul 20 19:02:00 CST 2014) by anonymous
- #1 (Sun Jul 20 19:00:03 CST 2014) by anonymous

Qualification (promoted 6 days 0 hr ago — 1 min 21 se)

Manually qualified for a promotion

Jenkins 的属性(本地计算机)

常规 登录 恢复 依存关系

登录身份:

- ☒ 本地系统帐户(L)
- ☒ 允许服务与桌面交互(W)
- ☐ 此帐户(U): 浏览(B)...

密码(P):

确认密码(C):

[帮助我配置用户帐户登录选项。](#)

交互式服务检测

此计算机上运行的程序正在尝试显示一

程序可能需要您的信息或权限来完成任务。

[为什么会发生这种情况?](#)

[查看消息](#)

[稍后提醒我](#)

Terry:如果Jenkins安装在 windows上 请勾选该选项。然后重启服务, 你会看到右边的对话框。







4) 安装各种插件maven,testng,promotion,github和testlink。

<input checked="" type="checkbox"/>	GitHub API Plugin This plugin provides GitHub API for other plugins.
<input checked="" type="checkbox"/>	GitHub plugin This plugin integrates GitHub to Jenkins.
<input checked="" type="checkbox"/>	Javadoc Plugin This plugin adds Javadoc support to Jenkins.
<input checked="" type="checkbox"/>	LDAP Plugin Security realm based on LDAP authentication.
<input checked="" type="checkbox"/>	Mailer This plugin allows you to configure email notification based email component.
<input checked="" type="checkbox"/>	MapDB API Plugin This plugin provides a shared dependency on the MapDB library to operate when using this library.
<input checked="" type="checkbox"/>	Matrix Authorization Strategy Plugin Offers matrix-based security authorization strategy.
<input checked="" type="checkbox"/>	Matrix Project Plugin Multi-configuration (matrix) project type.
<input checked="" type="checkbox"/>	Maven Integration plugin Jenkins plugin for building Maven 2/3 jobs via a Maven project.
<input checked="" type="checkbox"/>	OWASP Markup Formatter Plugin Uses the OWASP Java HTML Sanitizer to allow safe project descriptions and the like.
<input checked="" type="checkbox"/>	PAM Authentication plugin Adds Unix Pluggable Authentication Module (PAM) support.
<input checked="" type="checkbox"/>	promoted builds plugin This plugin implements a "promoted build" feature. A build is "promoted" when it passes certain criteria.
<input checked="" type="checkbox"/>	SCM API Plugin This plugin provides a new enhanced API for interacting with SCM systems.
<input checked="" type="checkbox"/>	SSH Agent Plugin This plugin allows you to provide SSH credentials to Jenkins.
<input checked="" type="checkbox"/>	SSH Credentials Plugin This plugin allows you to store SSH credentials in Jenkins.
<input checked="" type="checkbox"/>	SSH Slaves plugin This plugin allows you to manage slaves running on remote hosts.
<input checked="" type="checkbox"/>	Subversion Plug-in This plugin adds the Subversion support (via SVNKit).

Installing Plugins/Upgrades

Preparation


- Checking internet connectivity
-  Failed to connect to <http://www.google.com/>. Perhaps you need to [configure HTTP proxy?](#)

GitHub API Plugin	 Downloaded Successfully. Will be activated during the next boot
Git Client Plugin	 Downloaded Successfully. Will be activated during the next boot
Git Plugin	 Downloaded Successfully. Will be activated during the next boot
SSH Agent Plugin	 Installing
GitHub Plugin	 Pending
Promoted Builds Plugin	 Pending

Terry:github和promoted builds plugin需要安装上。

 [Go back to the top page](#)

(you can start using the installed plugins right away)

 ☐ Restart Jenkins when installation is complete and no jobs are running

简单说明一下：也就是在成功build后你需要再进行一些比较综合的测试job，而且需要更快的build，这个时候就可以使用promotion了。

5) 设置jenkins system configure，我们下面的基本都会用到所以请根据你自己的环境，相应设置。

JDK

JDK installations

JDK Name	<input type="text" value="jdk"/>
JAVA_HOME	<input type="text" value="C:\Program Files\Java\jdk1.7.0_25"/>
<input type="checkbox"/> Install automatically	

Add JDK

Delete JDK

List of JDK installations on this system

到<https://windows.github.com/>下载安装本地windows的github客户端。

Git

Git installations

Git

Name

git

Path to Git executable

C:\Program Files (x86)\Git\bin\git.exe

☐ Install automatically

Delete Git

Add Git

Shell

Shell executable

C:\Windows\System32\cmd.exe

Maven

Maven installations

Maven

Name

maven

MAVEN_HOME

G:\appniumInstall\apache-maven-3.1.1-bin\apache-maven-3.1.1

☐ Install automatically

Delete Maven

Add Maven

List of Maven installations on this system

Maven Project Configuration

Global MAVEN_OPTS

Local Maven Repository

Default (~/.m2/repository)

6) 设置job的configure项。

☒ Promote builds when...

Promotion process

Name

run

Icon

Gold star

☐ Restrict where this promotion process can be run

Criteria

- ☐ Only when manually approved
- ☐ Promote immediately once the build is complete
- ☐ Promote immediately once the build is complete based on build parameters
- ☐ When the following downstream projects build successfully
- ☐ When the following upstream promotions are promoted

Actions

Execute Windows batch command

Command

call c:\maventest.bat

Terry: 当你的job build好后就可以调用这个command然后执行。

See [the list of available environment variables](#)

Delete

Source Code Management

- ☐ None
 - ☐ CVS
 - ☐ CVS Projectset
 - ☒ Git
- Repositories

Repository URL

Credentials

Add

Advanced...

Add Repository

Delete Repository

Terry:这里就是你
自己github上的
repository代码。

Builder Trigger:

选择 Build periodically, 在 Schedule 中填写 0 * * * *。

第一个参数代表的是分钟 minute, 取值 0~59;

第二个参数代表的是小时 hour, 取值 0~23;

第三个参数代表的是天 day, 取值 1~31;

第四个参数代表的是月 month, 取值 1~12;

最后一个参数代表的是星期 week, 取值 0~7, 0 和 7 都是表示星期天。

所以 0 * * * * 表示的就是每个小时的第 0 分钟执行一次构建。

Terry:build trigger中的
build periodically方式

Post-build Actions

Publish TestNG Results

TestNG XML report pattern

Advanced...

Delete

Add post-build action

Terry:注意这里的斜
杠(slash)

7) Build自定的Job。

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- [TestNG Results](#)
- [See Fingerprints](#)
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Build #26 (Jul 29, 2014 1:05:37 PM)

No changes.

Started by anonymous user

Revision: db8e1d574c9340abf803f

- origin/master

[Test Result](#) (no failures)

[TestNG Results](#)

- Total Tests: 3 (±0)
- Failed Tests: 0 (±0)
- Skipped Tests: 0 (±0)
- Failed Configurations: 0 (±0)
- Skipped Configurations: 0 (±0)

Terry:对于想知道运行结果的log日志的话, 可以打开 Console Output;

Testng的Summary如下可以看到。

Module Builds

demoa 20 sec

Package TestModule1

0 failures

All Classes

Class
TestMavenSureFirePlugin

Order of Execution by Test Method

Method
TestMavenSureFirePlugin.start

Console Output

```
Started by user anonymous
Building on master in workspace F:/jenkins/workspace/DemoA
> C:\Users\qwe_ahs_r03\AppData\Local\GitHub\cli\bin\git.exe rev-parse --is-inside-work-tree
Fetching changes from the remote Git repository
> C:\Users\qwe_ahs_r03\AppData\Local\GitHub\cli\bin\git.exe config remote.origin.url https://github.com/AlwaysTerry/Jenkins.git
Fetching changes from
```

对已经build好后如果确实没有更新内容的话为了提高效率可以，可以使用promotion进行运行操作，不过首先你需要按照如之前6) 设置job的configure项。所说的去设置。

Promotions



This promotion has not happened.

Met Qualification

Unmet Qualification

Terry:运行此 promotion就可以再次运行你的job。

Force promotion

8)启用安全：



[Configure Global Security](#)

Secure Jenkins; define who is allowed to access/use the system.



Configure Global Security

☒ Enable security

TCP port for JNLP slave agents ☐ Fixed : ☒ Random ☐ Disable

Disable remember me ☐

Access Control

Security Realm

☐ Delegate to servlet container

☒ Jenkins' own user database

☒ Allow users to sign up

☐ LDAP

Authorization

☐ Anyone can do anything

☐ Legacy mode

☐ Logged-in users can do anything

☒ Matrix-based security

User/group	Overall					Credentials				Slave			
	Administer	Read	Run	Scripts	Upload	Plugins	Configure	Update	Center	Create	Update	View	Delete
Anonymous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

User/group to add:

Add

Save

Apply

Terry:选择用户注册，认证方式为安全矩阵

保存好后就可以回到了登陆页面：点击创建一个用户，注意该用户将是一个Admin以后每次注册的话都需要该admin去审核。

User:

Password:

☐ Remember me on this computer

log in

[Create an account](#) if you are not a member yet.

[New Item](#)

[People](#)

[Build History](#)

[Project Relationship](#)

[Check File Fingerprint](#)

[Manage Jenkins](#)

[Credentials](#)

[My Views](#)



People

Includes all known "users", including login identities v

User	
	your_sky
	terry

Icon: [S](#) [M](#) [L](#)

Terry:我刚才注册了一个terry之后登陆你就会看到以前的用户了，你可以为这些用户付权限。

Build Queue

No builds in the queue.

Build Executor Status

#	Status
1	Idle
2	Idle

试试再创建一个只读用户：

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[Status](#)
[Changes](#)
[Promotion Status](#)
[TestNG Results](#)

Project DemaA

[Promotion Status](#)
 [TestNG Results](#)
 [Recent Changes](#)
 [Latest Aggregated Test Result](#) (no tests)

Permalinks

- Last build (#22), 33 min ago
- Last stable build (#22), 33 min ago
- Last successful build (#22), 33 min ago

☐ Logged-in users can do anything
☒ Matrix-based security

Build History

#	Build
#22	Aug 2, 2014 3:25:59 PM
#21	Aug 2, 2014 3:20:40 PM
#20	Aug 2, 2014 2:39:06 PM
#19	Aug 2, 2014 2:12:56 PM
#18	Aug 2, 2014 2:02:56 PM

[RSS for all](#) [RSS for failures](#)

User/group	Administer	Read	RunScripts	UploadPlugins	Configure	UpdateCenter
anonymous	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
terry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Terry:该用户没有任何build权限

选修：分布执行job计划：

[Back to Dashboard](#)
[Manage Jenkins](#)
[New Node](#)
[Configure](#)

Build Queue
 No builds in the queue.

Build Executor Status

#	Status
	master
1	Idle
2	Idle
	225
1	Idle

S	Name ↓	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	225	Linux (amd64)	🔴 12 hr ahead	370.67 GB	6.55 GB	25.40 GB	1704ms
	master	Windows 7 (x86)	In sync	98.36 GB	11.80 GB	10.89 GB	0ms
	Data obtained	32 sec	32 sec	32 sec	32 sec	32 sec	32 sec

Refresh status

Terry Jenkins的 distributed builds配置

一些常见问题：

jenkins配置权限不对导致无法登陆的重置方法

找到jenkins/config.xml文件：

替换为：

1、<authorizationStrategy class="hudson.security.AuthorizationStrategy\$Unsecured"/>

这个权限对应 “任何用户可以做任何事(没有任何限制)”

2、<authorizationStrategy class="hudson.security.FullControlOnceLoggedInAuthorizationStrategy"/>

这个权限对应 “登录用户可以做任何事”

3、<authorizationStrategy class="hudson.security.GlobalMatrixAuthorizationStrategy">

<permission>hudson.model.Hudson.Administer:test</permission>

<permission>hudson.scm.SCM.Tag:test</permission>

</authorizationStrategy>

这个权限对应 test用户可以是管理员、打标签权限。