

构建流水线

Build Pipeline

百味博客

1. 什么是 构建流水线
2. 如何搭建 构建流水线
3. 构建流水线的**相关实践**

什么是构建流水线



Dev
提交
代码

构建

编译
静态代码分析
构建安装包

测试

单元测试
功能测试
用户验收测试

部署

功能测试环境
用户验收测试环境
生产环境



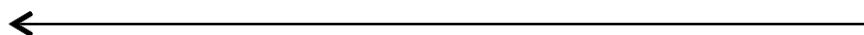
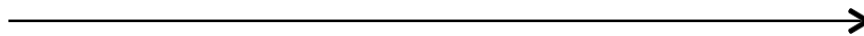
产品
最终
上线

构建流水线 就是这个过程的自动化表现形式。

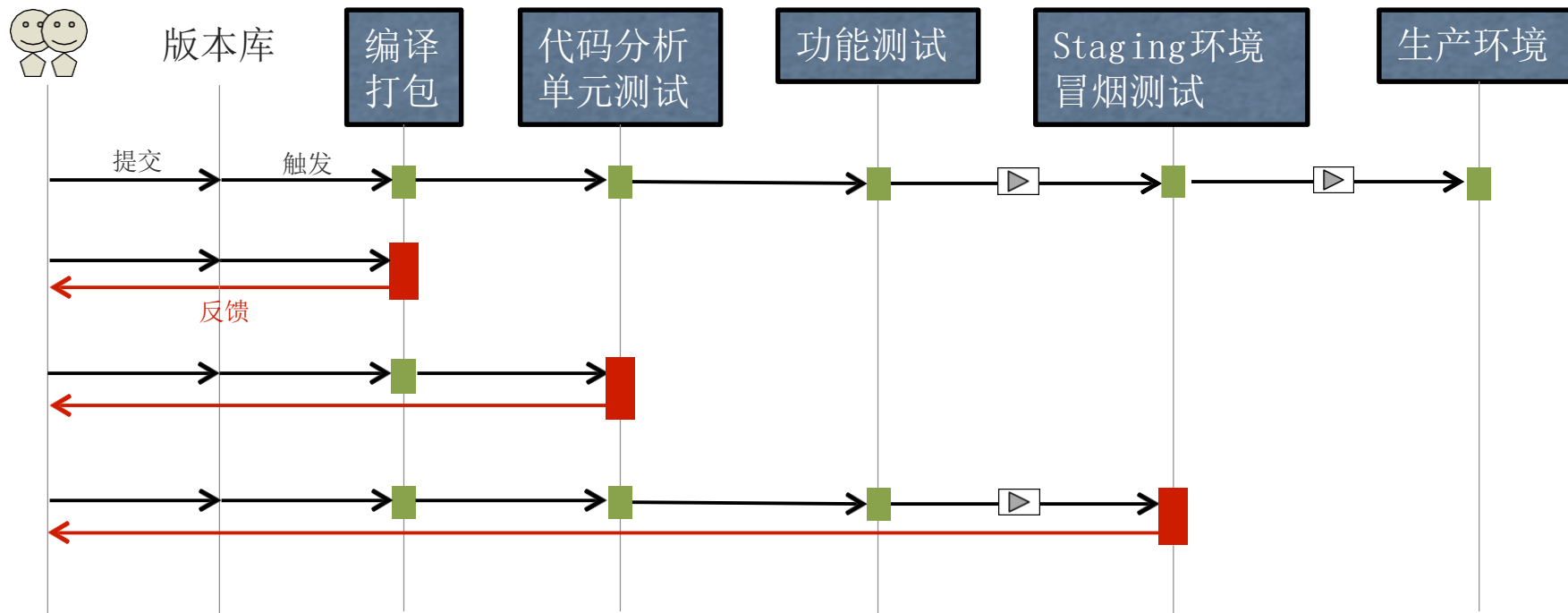
搭建构建流水线就是配置持续集成工具（如Jenkins），使它可以控制整个流程、并且可以查看每次执行的状态。

基本的构建流水线

所用环境与生产环境的相似度增加
对构建可在生产环境中运行的信心指数增加

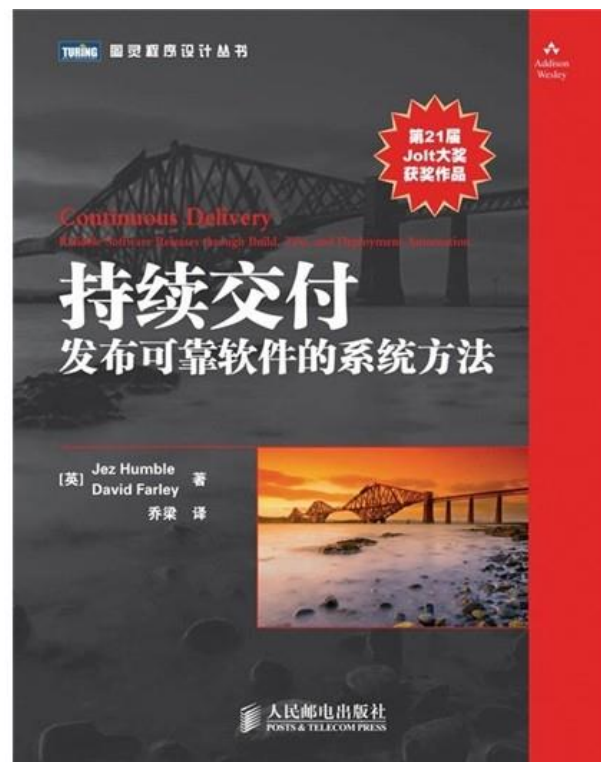


更快的反馈速度



构建流水线相关实践

1. 每次变更都要立刻在流水线中传递
2. 只要有环节失败就停止整个流水线
3. 只生成一次二进制包，
在后面所有步骤中使用同一份二进制包。
4. 对不同环境采用同一部署方式
5. 向生产环境的副本中部署
6. 对部署进行冒烟测试



The image displays two views of a Jenkins pipeline. The left view, titled 'Build Pipeline View', shows a grid of stages for Pipeline #19. The stages are UnitTests, NCover, and Package. The UnitTests stage is completed, while NCover and Package are pending. The right view, titled 'Pipeline Graph', shows a sequence of stages for Pipeline #19 and Pipeline #18. The stages are #19 d-uat-dto-comwechat-v1, #19 d-green-comwechat-war-v1, #18 d-blue-comwechat-war-v1, and #18 d-green-comwechat-war-v1. The stages are color-coded: green for completed, blue for pending, and grey for not applicable (N/A).

Revision	UnitTests	NCover	Package
No Revision	UnitTests #1813 06/05/2012 10:01:24 PM CST Duration: 1 min 28 sec	NCover #1813 06/05/2012 10:00:57 PM CST Duration: 1 min 7 sec	Package #1813 06/05/2012 10:00:59 PM CST Duration: 33 sec
No Revision	UnitTests #1812 03/09/2012 3:00:52 PM CST Duration: 5 min 22 sec	NCover #1812 03/09/2012 3:00:19 PM CST Duration: 2 min 48 sec	Pending build of project: Package
No Revision	UnitTests #1811 03/09/2012 11:27:49 AM CST Duration: 1 min 15 sec	NCover #1811 03/09/2012 11:26:19 AM CST Duration: 1 min 8 sec	Pending build of project: Package
No Revision	UnitTests #1810 03/09/2012 11:26:42 AM CST Duration: 1 min 2 sec	NCover #1810 03/09/2012 11:26:06 AM CST Duration: 1 min 15 sec	Pending build of project: Package

构建流水线把发布变成了一个拉动系统, 测试人员或者运维人员可以决定何时从哪个 pipeline 部署哪个版本到哪个环境.

也是发布过程的看板, 可以看出发布过程的瓶颈