# Software Verification
# #2. Build Environmnet

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Green Kim

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- Jenkins

# CI

# CI



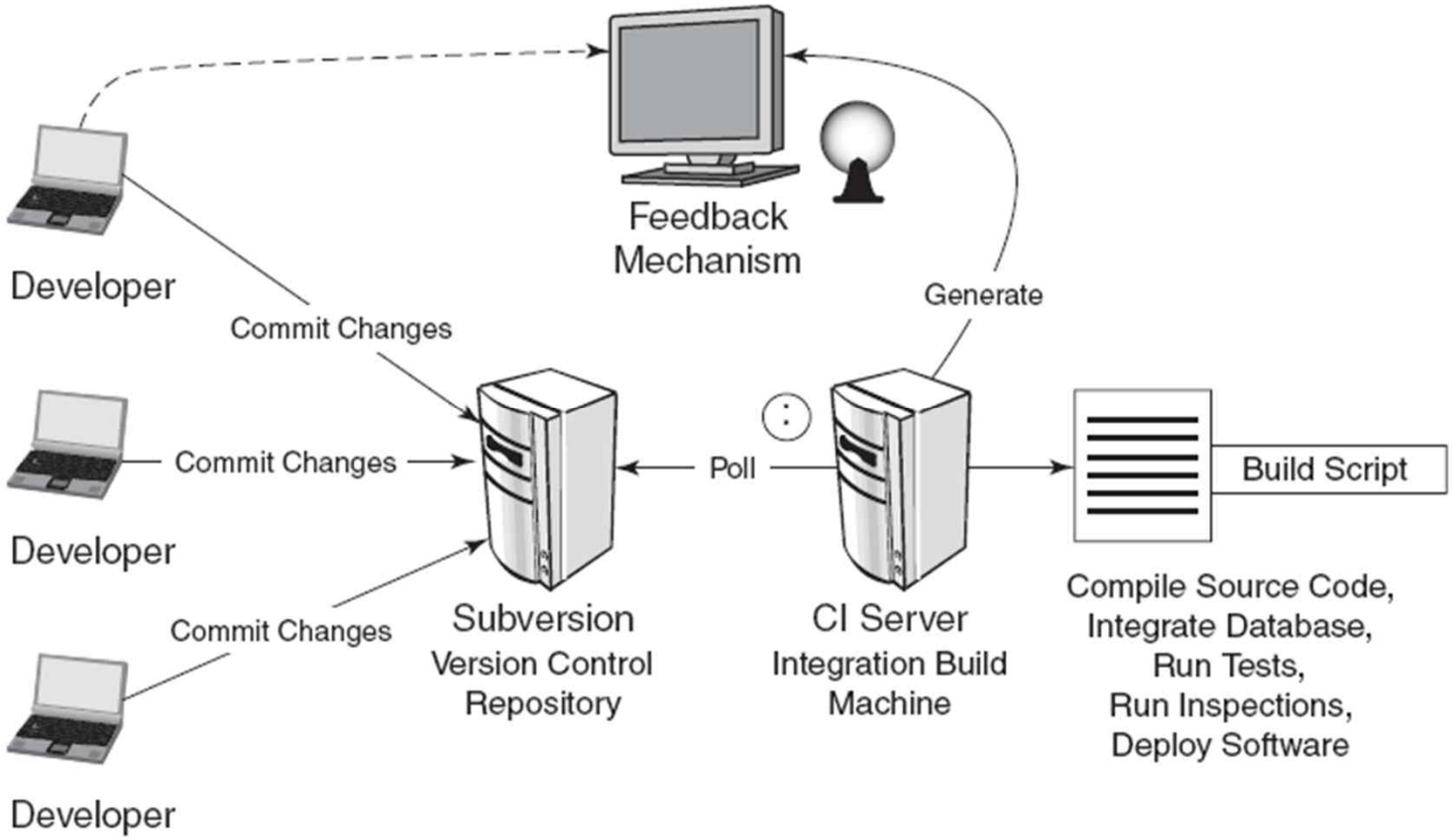
1. What is CI?
2. Why we need CI?
3. What can we do with CI?
4. Which Consist CI?

# 1. What is CI?

# Continus Integration



# 1. What is CI?


Feedback
Mechanism
Developer
Commit Changes
Generate
Commit Changes
Developer
Poll
Build Script
Commit Changes
Subversion
Version Control
Repository
CI Server
Integration Build
Machine
Compile Source Code,
Integrate Database,
Run Tests,
Run Inspections,
Deploy Software
Developer

# 2. Why we need CI?

- 자동화의 필요성
- 프로젝트의 생산성과 안전성



# 3. What can we do with CI?

- Keep the build fast
- Test in a clone of the production environment
- Make it easy to get the latest deliverables
- Everyone can see the results of the latest build
- Automate deployment

# CI



- Maintain a code repository
- Automate the build
- Make the build Self-Testing
- Everyone commits to the baseline every day
- Everyone commit to baseline should be built



# Vanilla vs CI tool

1. 프로그램 설치 한 번으로 모든 것을 해결 가능하다.
2. 개발환경과 구동환경의 격차를 최소화 할 수 있다.
3. 가볍다.

# 4. Which consist CI?

# Build Automation

# +

# Build Self-Testing

# Ant

# Another Neat Tool

# Ant



1. Why we need Build Automation?
2. Why we choose Ant?
3. What is Ant?
4. How to Use Ant?
5. Ant is the Best Tool?



# 1.Why we need Build Automation?

- 라이브러리의 부족
- 파일이 없을 경우
- 파일에 오류가 있을 경우
- 서로 다른 개발환경에서 차이가 있을 경우

서버에서 자동으로 최신파일을 가져와 빌드 하고 통보 - 오류를 신속히 확인가능, 자동화 처리



# 2.Why we choose Ant?

1. 우리나라에서 정보를 구하기 가장 쉬운 툴
   - 업계 표준으로 정착
2. JUnit과 밀접하게 통합
3. JAVA를 사용하여 손쉽게 확장 가능
4. 문법이 간단하여 쉽게 배울 수 있다.
5. 쉽게 사용할 수 있다.



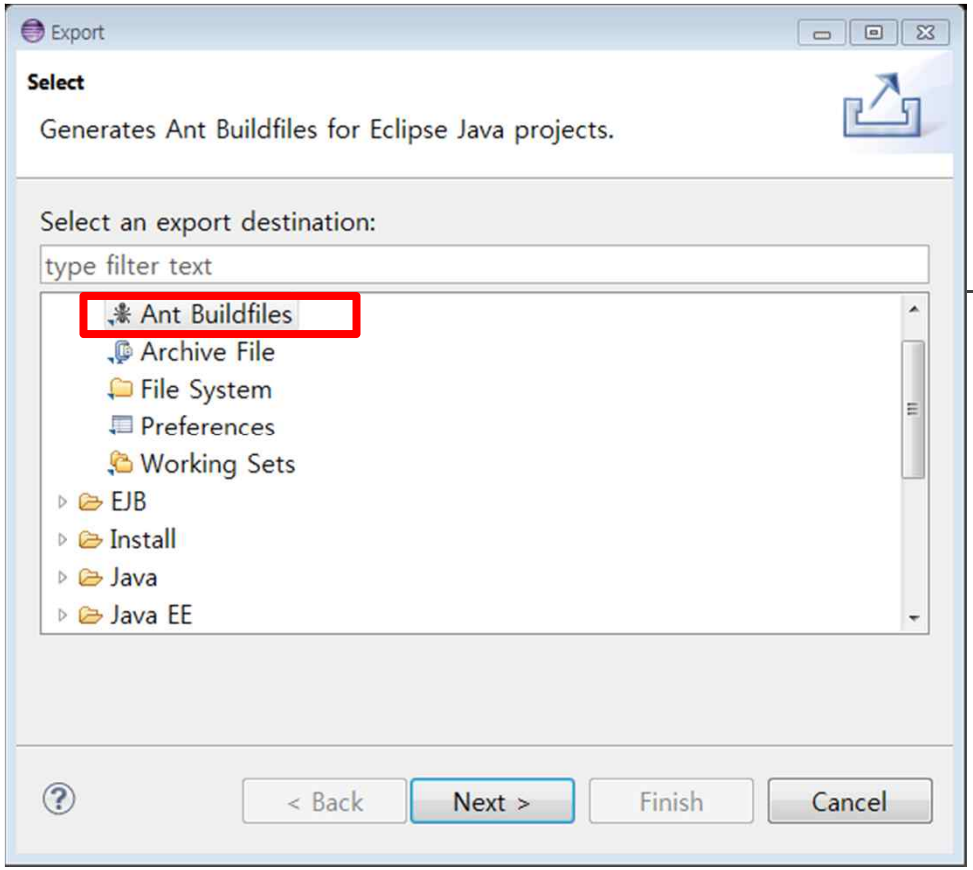
# Is different from Makefile?

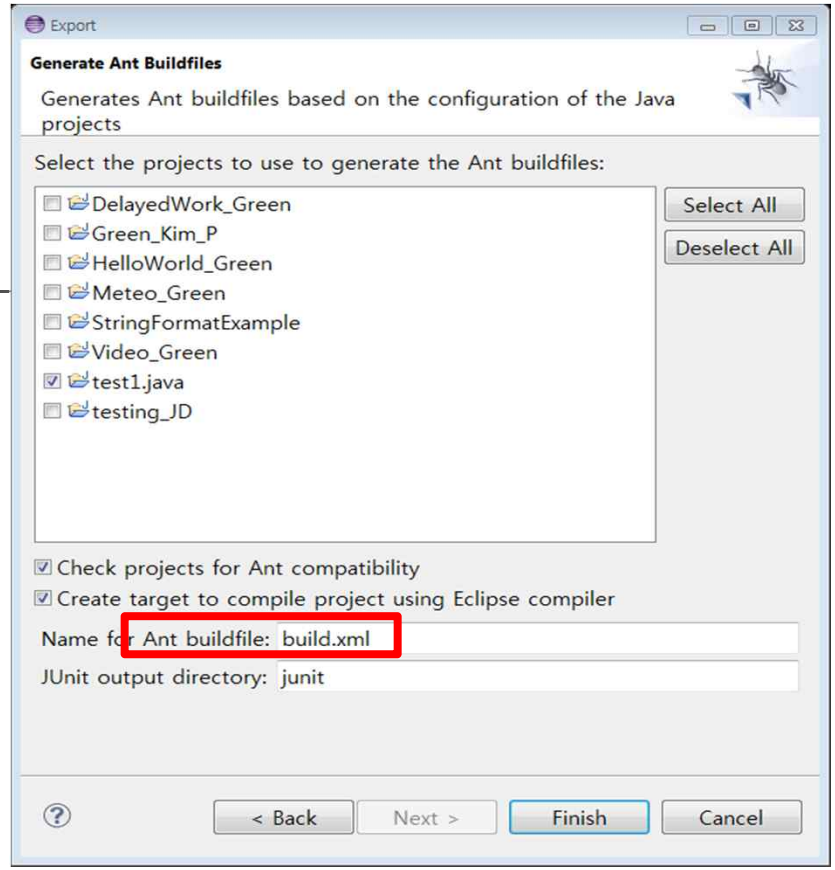
- Makefile이 가지고 있는 문제점을 해결한 Makefile?
- 셸 기반이 아닌 XML기반
- 자바클래스들의 사용성을 확장

# 3. What is Ant?

JAVA기반으로 크로스 플랫폼과 사용의 용이성, 확장성, 범위성을 고려하여 설계된 빌드 도구

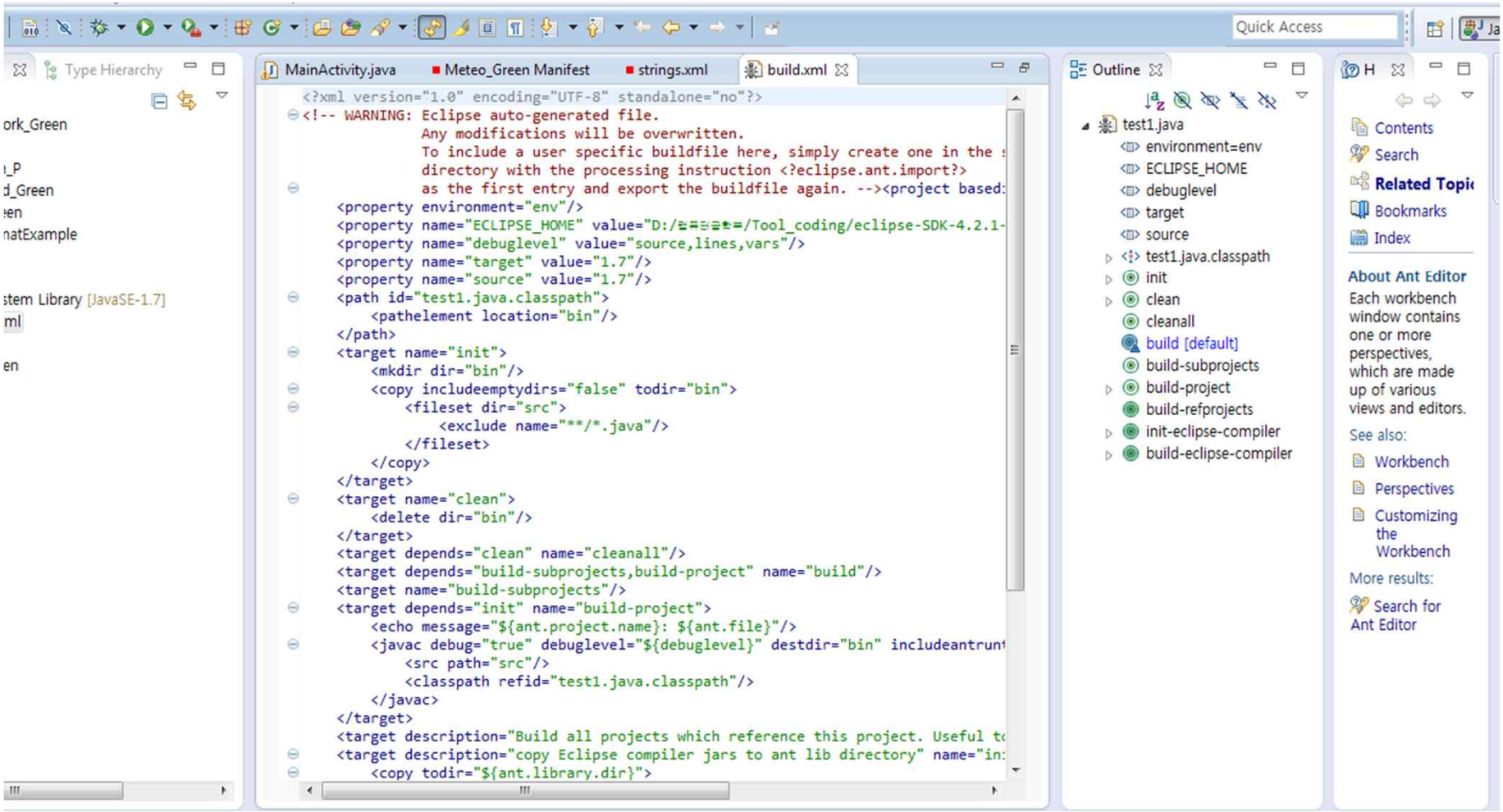
# 4.How to use Ant?



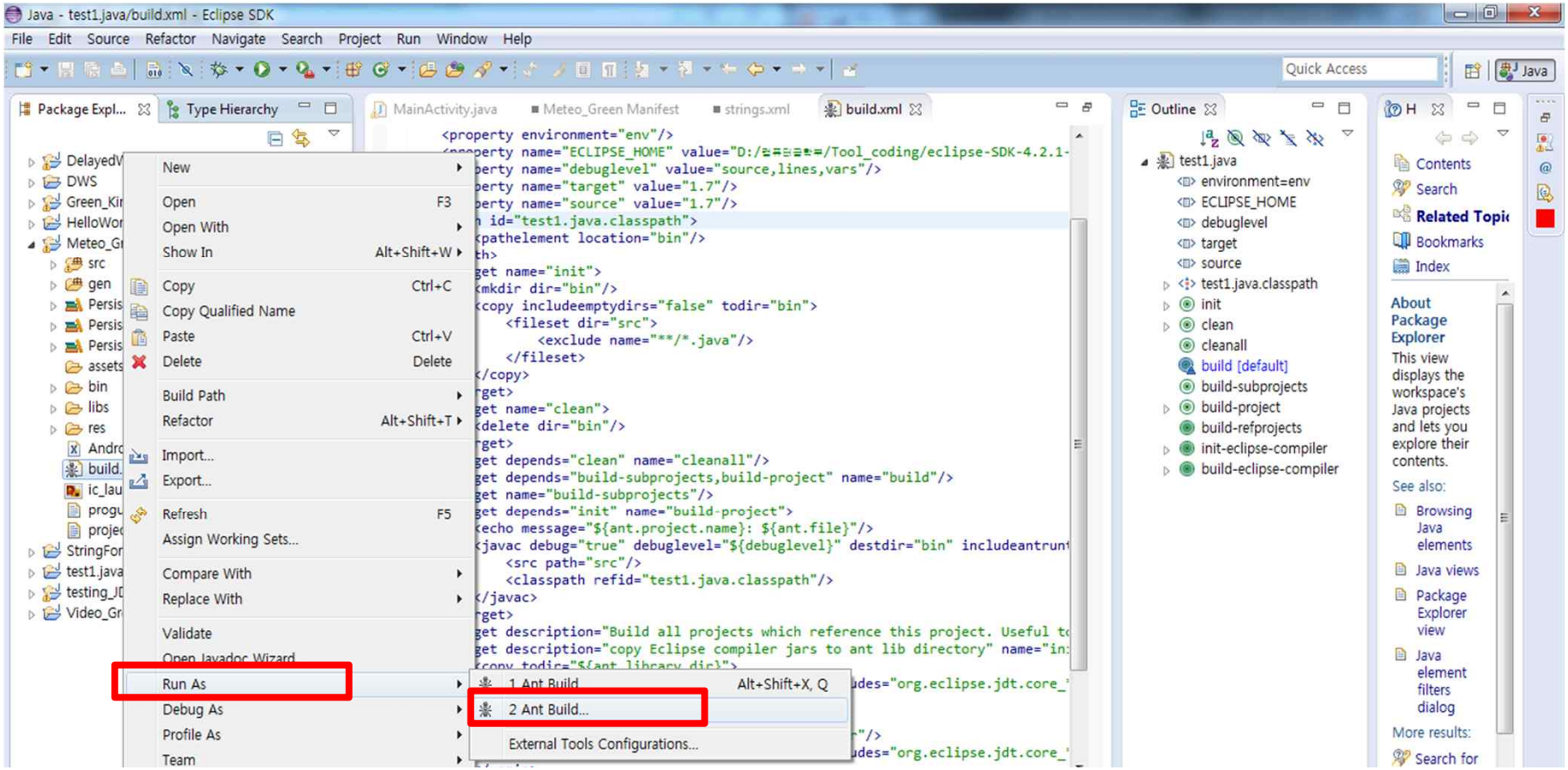
# Ant

CI | Ant | Jenkins



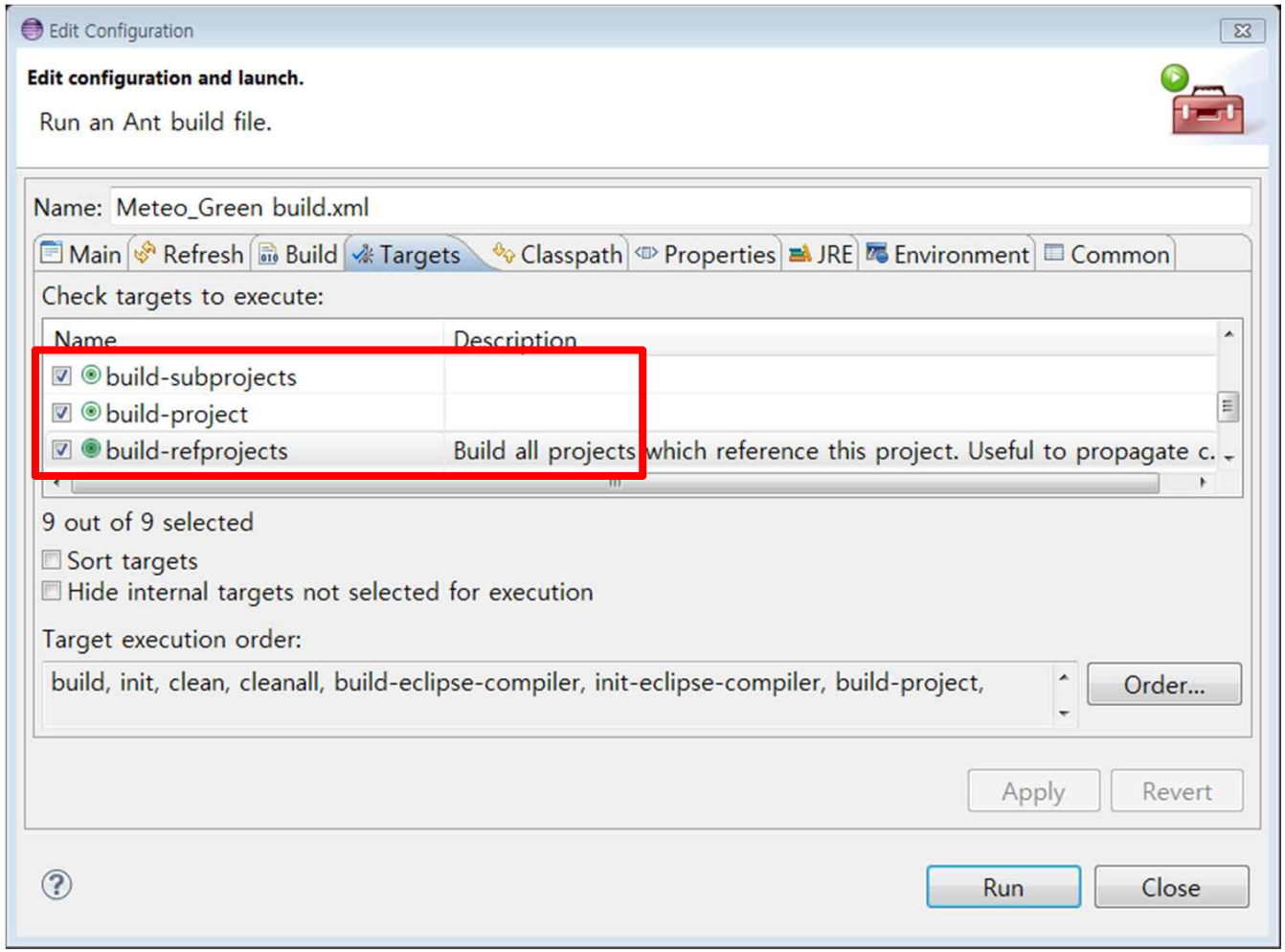
# Ant

CI | Ant | Jenkins



# Ant

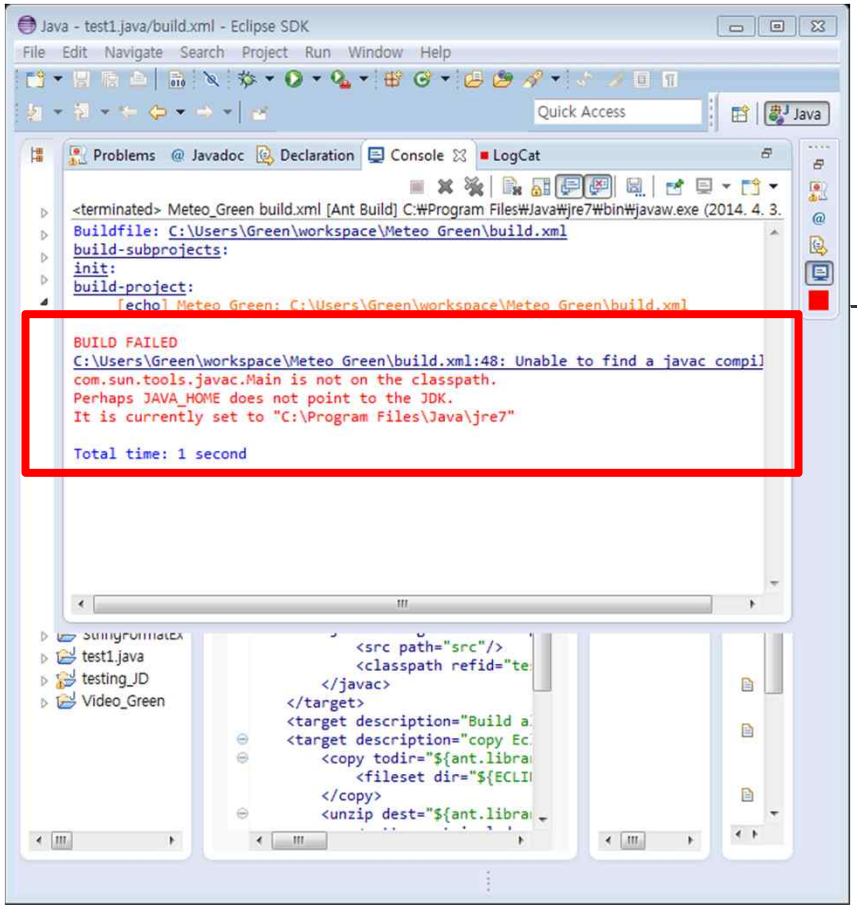


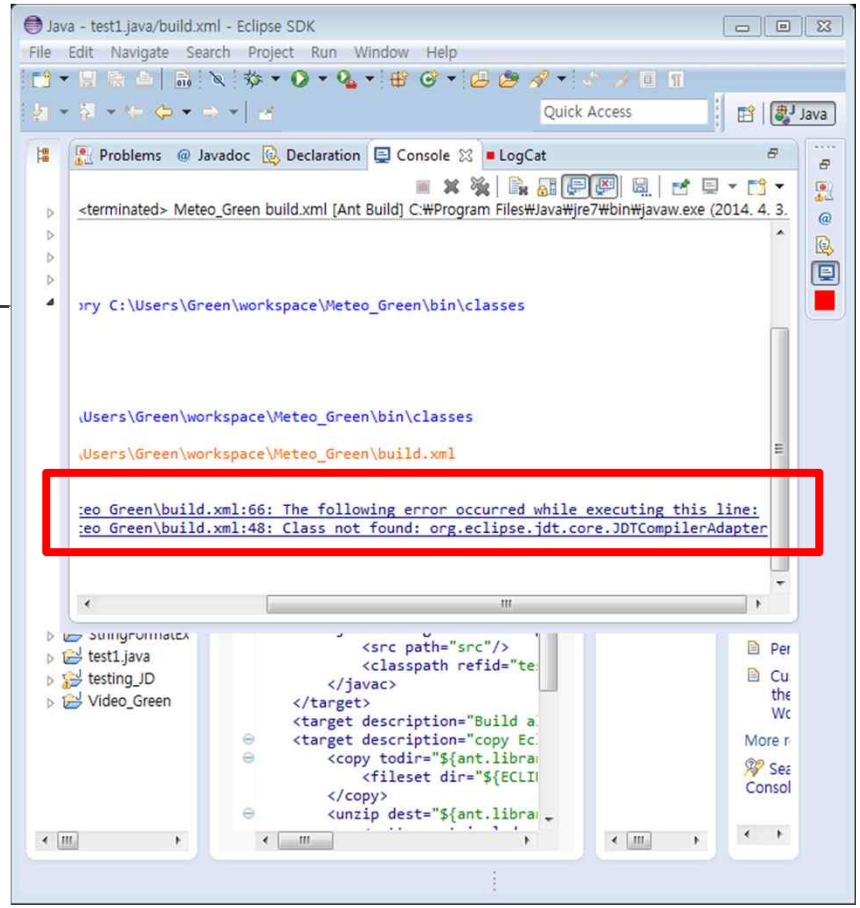

Edit Configuration
Edit configuration and launch.
Run an Ant build file.
Name: Meteo_Green build.xml
Main
Refresh
Build
Targets
Classpath
Properties
JRE
Environment
Common
Check targets to execute:
Name
Description
build-subprojects
build-project
build-refprojects
Build all projects which reference this project. Useful to propagate c.
9 out of 9 selected
Sort targets
Hide internal targets not selected for execution
Target execution order:
build, init, clean, cleanall, build-eclipse-compiler, init-eclipse-compiler, build-project,
Order...
Apply
Revert
Run
Close

Ant



# Problems

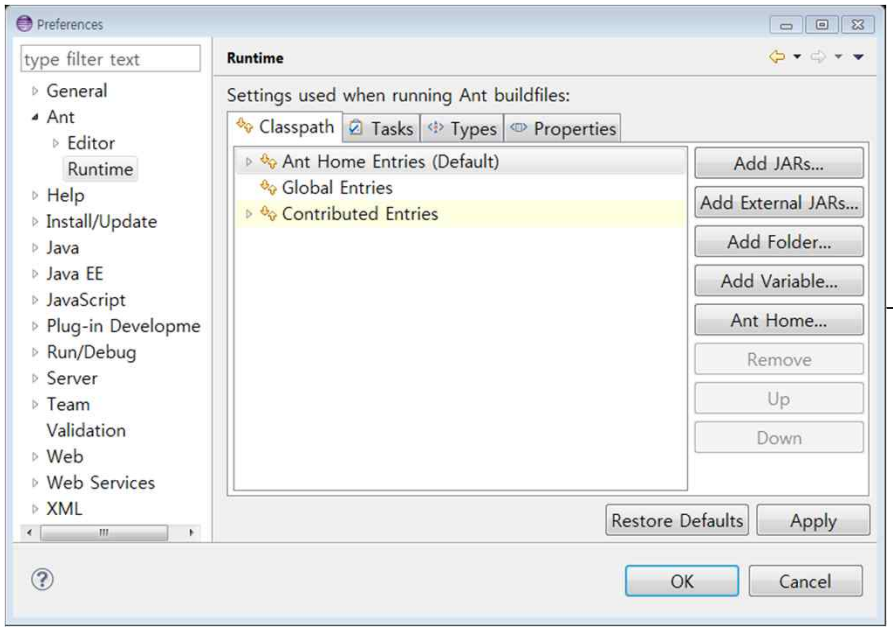


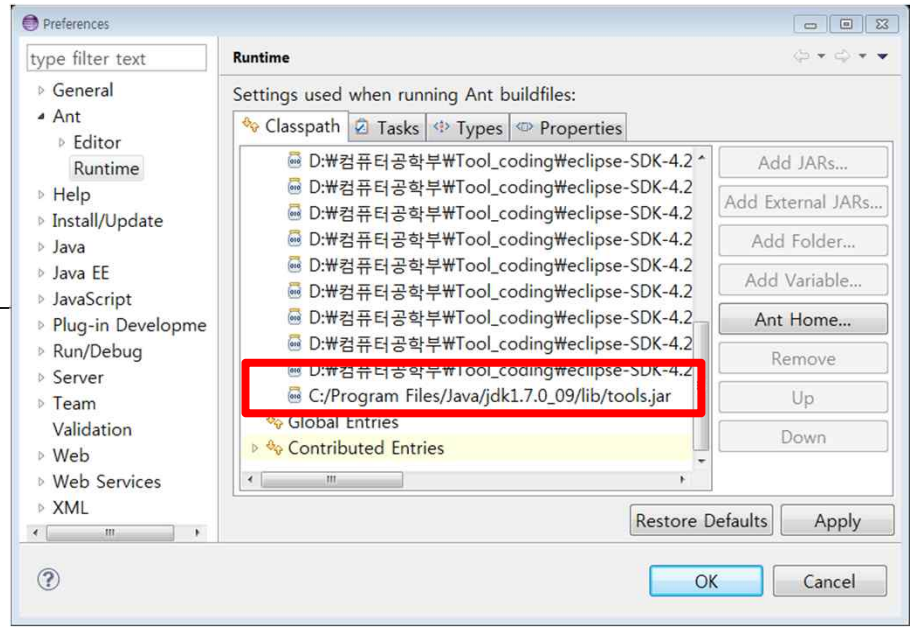



# Ant



# Solutions



# 5. Ant is The Best Tool?

- 아주 작은 규모에서부터 대규모에 이르기까지 빌드, 테스트, 배치를 수행해줄 수 있는 기반의 도구
- But, 그 자체로는 JAVA프로젝트를 성공시킬 수 없다.

# Jenkins

# Jenkins

1. Why we choose Jenkins?
2. What is Jenkins?
3. How to install Jenkins?
4. How to use Jenkins?

# 1. Why we choose Jenkins?

1. Easy installation
2. Easy configuration
3. Change set support
4. Permanent links
5. RSS/E-mail/IM integration

# 1. Why we choose Jenkins?

6. After-the-fact tagging
7. Junit/TestNG test reporting
8. Distributed builds
9. File fingerprinting
10. Plugin Support

# Jenkins vs Cruise Control

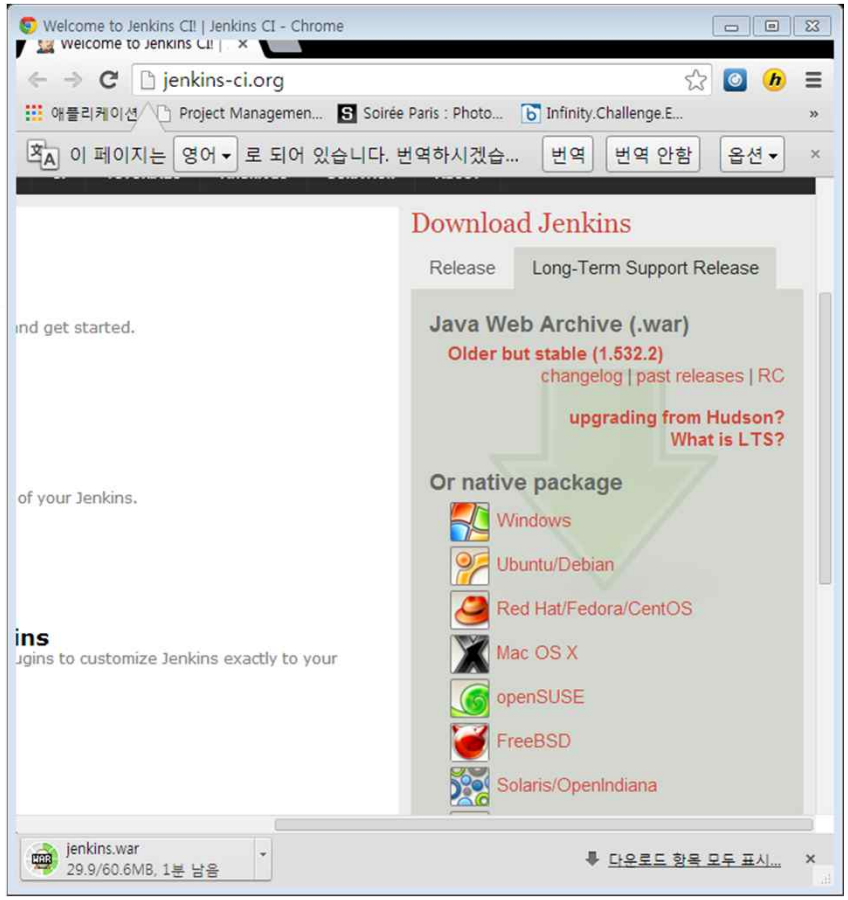
1. Easy GUI vs XML
2. Fast
3. Easy

# 2.What is Jenkins?

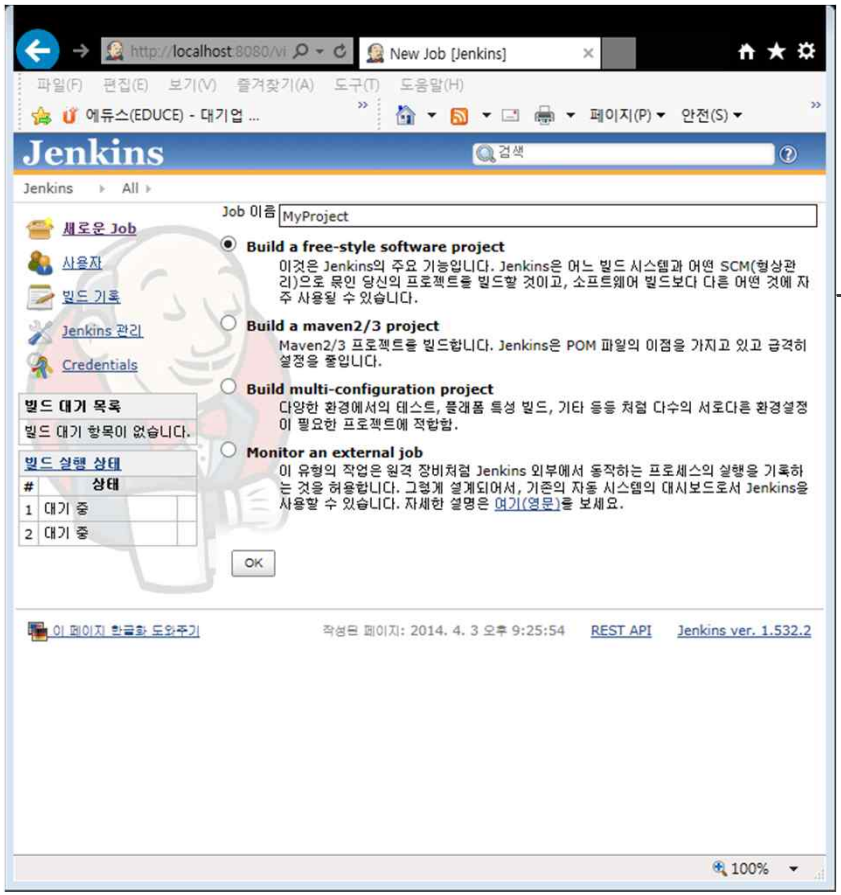
JAVA로 만들어졌으며 400여개 이상의 플러그인을 제공하는 CI를 지원하는 가장 유명한 도구

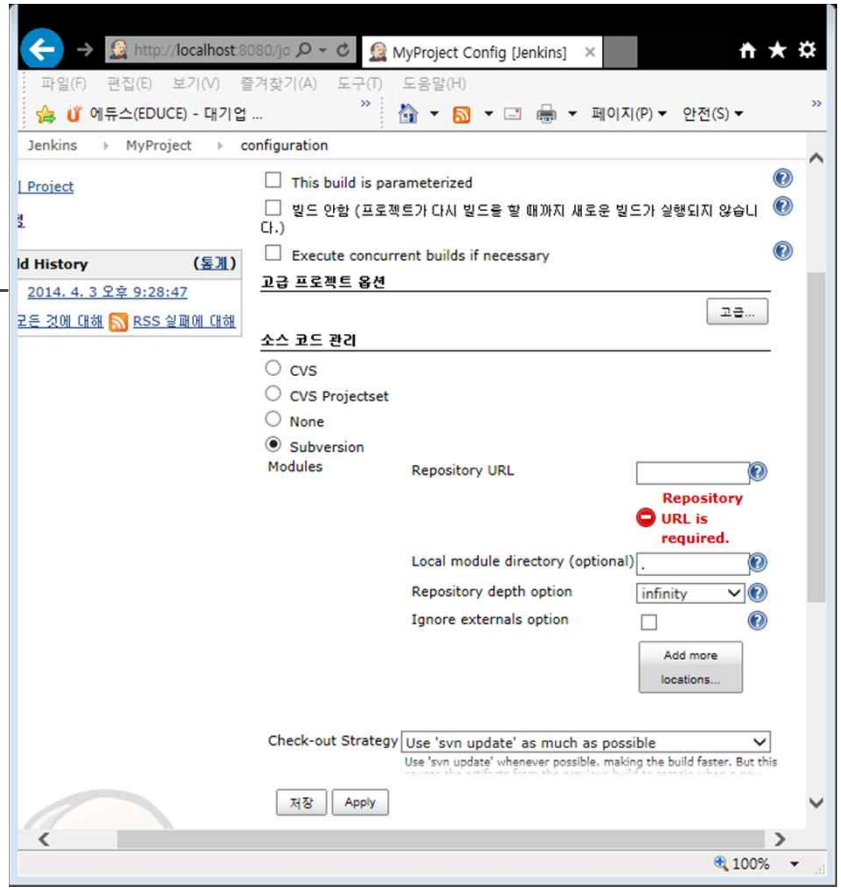
Hudson이라는 이름에서 Oracle에 흡수되면서 별도 프로젝트인 Jenkins로 분리

# 3. How to install Jenkins?



# 4. How to use Jenkins?



# Conclusion

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http://rimmomo.tistory.com/13
http://blog.naver.com/iamfreeman?Redirect=Log&logNo=50180429646
http://blog.naver.com/2000yujin?Redirect=Log&logNo=130161252153
http://blog.naver.com/rosekingdom?Redirect=Log&logNo=60001529696
http://coronasdk.tistory.com/750

# Q&A

# Thank You