

소프트웨어 검증

FINAL Presentation



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About CTIP

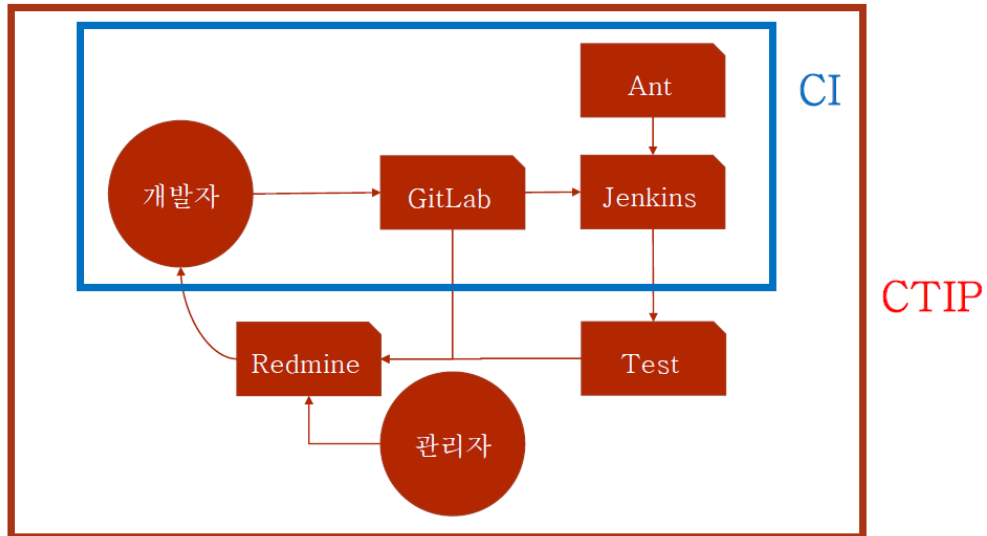


CTIP Architecture
Advantage / Disadvantage

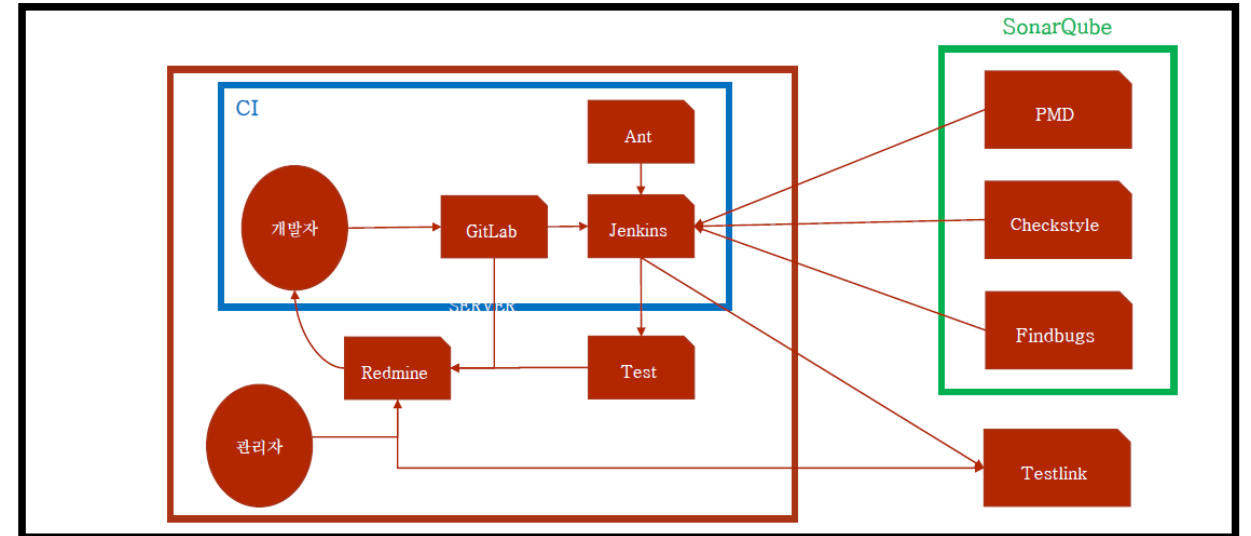
About CTIP

CTIP Architecture

CI & CTIP



CTIP 환경



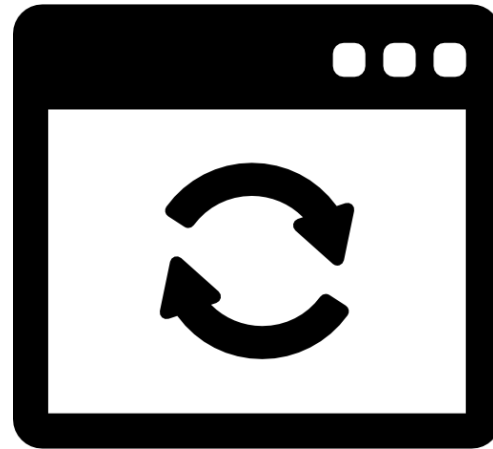
About CTIP



Advantage



Source Code Integration



Check Update



Easy Sharing

About CTIP



Advantage



Automatic Build



Maintain with the newest version

About CTIP



Advantage



Easy and safe Management



push with e-mail

About CTIP



Disadvantage

Hard

- Hard to install and use
- Tough to integrate CTIP environment



404

The page you're looking for could not be found.

Make sure the address is correct and that the page hasn't moved.
Please contact your GitLab administrator if you think this is a mistake.

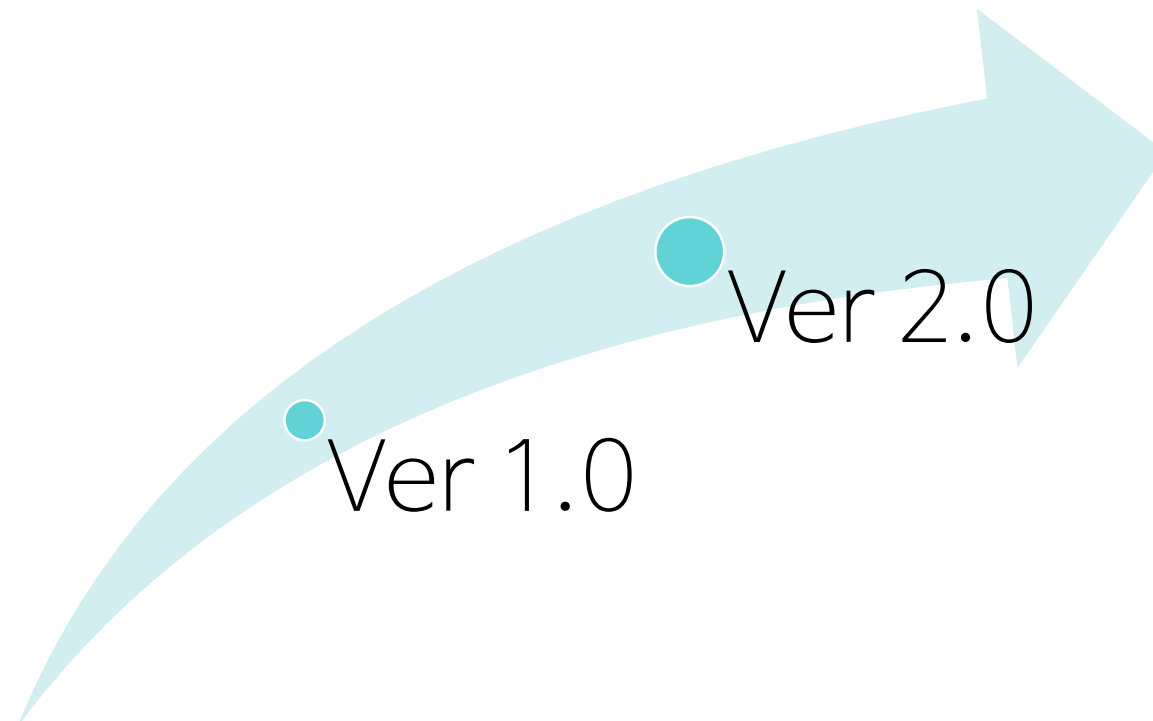
About CTIP



Disadvantage

Equivalent

➔ Tool, version, etc should be same (ex) In testing the version should be same



About CTIP



Disadvantage

Cost for maintaining server

→ We used “Naver” server, and it cost a lot



About CTIP



Disadvantage

Using Ant

- Build script
- Problems with compatibility



... Use the gradle!

About V & V



System Test
Static Analysis

About V & V



System Test

Category test → Pairwise test

- Testing is based with requirement specification
- By analyzing requirement specification, we can understand the system
- Also while testing, we can test it completely.
- Using various constraint, we can reduce the test cases.

1,000,000,000,000,000 Case

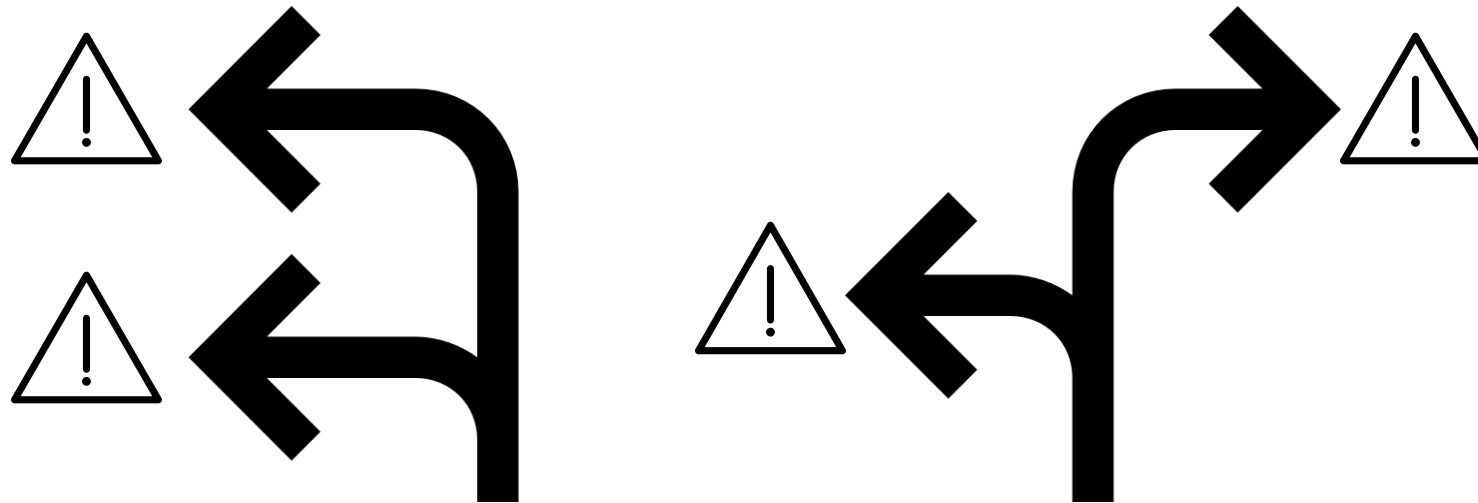
About V&V



System Test

Brute Force test

- Interesting test
- Search error with testing every cases.
- Efficiency, can find out lots of errors.



About V&V



Static Analysis

CheckStyle, Findbugs, PMD

- ➔ Mostly about the grammar about the source code
- ➔ Automatic build in Jenkins, and install plugins in Jenkins and SonarQube. We could confirm it all the times

SonarQube

- ➔ By setting quality gate, we could have a visible chart with complexity, critical issue, quality of the source codes and so on

Rank C

SV & SMA Project



Problems

How to improve

SV & SMA Project

Problems

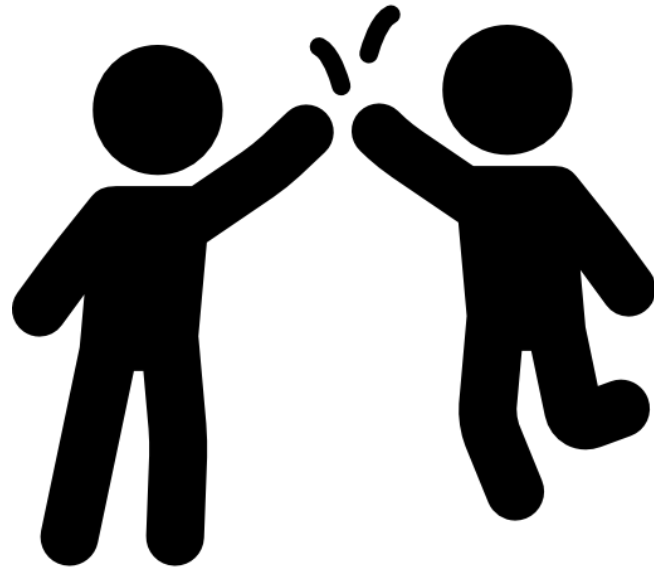
- We provided the platform but they didn't followed
- Doesn't ask a question on usual day
- Just written on the documents, but never solve the problems
- Doesn't improve the project. Just erase it or changing the operation
- Doesn't consider about the readability → hard to analysis, hard to understand the source codes.



SV & SMA Project

How to improve

- Make more time together
- Follow the provided platform and other information
- Have to check the requirement specification and source code while evaluating.
- Didn't resolved, but just saying they had solved it
- Have to reflect at the grade(score).



Improve SV Lecture



Improve SV Lecture



- If it is possible, SV team can be an audience during the sma team's presentation and vice versa
- There needs to be an unbiased evaluation where it brings no misunderstanding nor being upset to one another.

Conclusion



Software verification was a new subjects to learn

→ Quite difficult time

→ But learned about the CTIP and testing skills

Linked Class with SMA

→ New training

→ Got a knowledge and experience about the project with other teams

END



 Thank you!