

LDTS
@ L.EIC

 @rmaranhao

Today

- System Build
- Continuous Integration

System Build

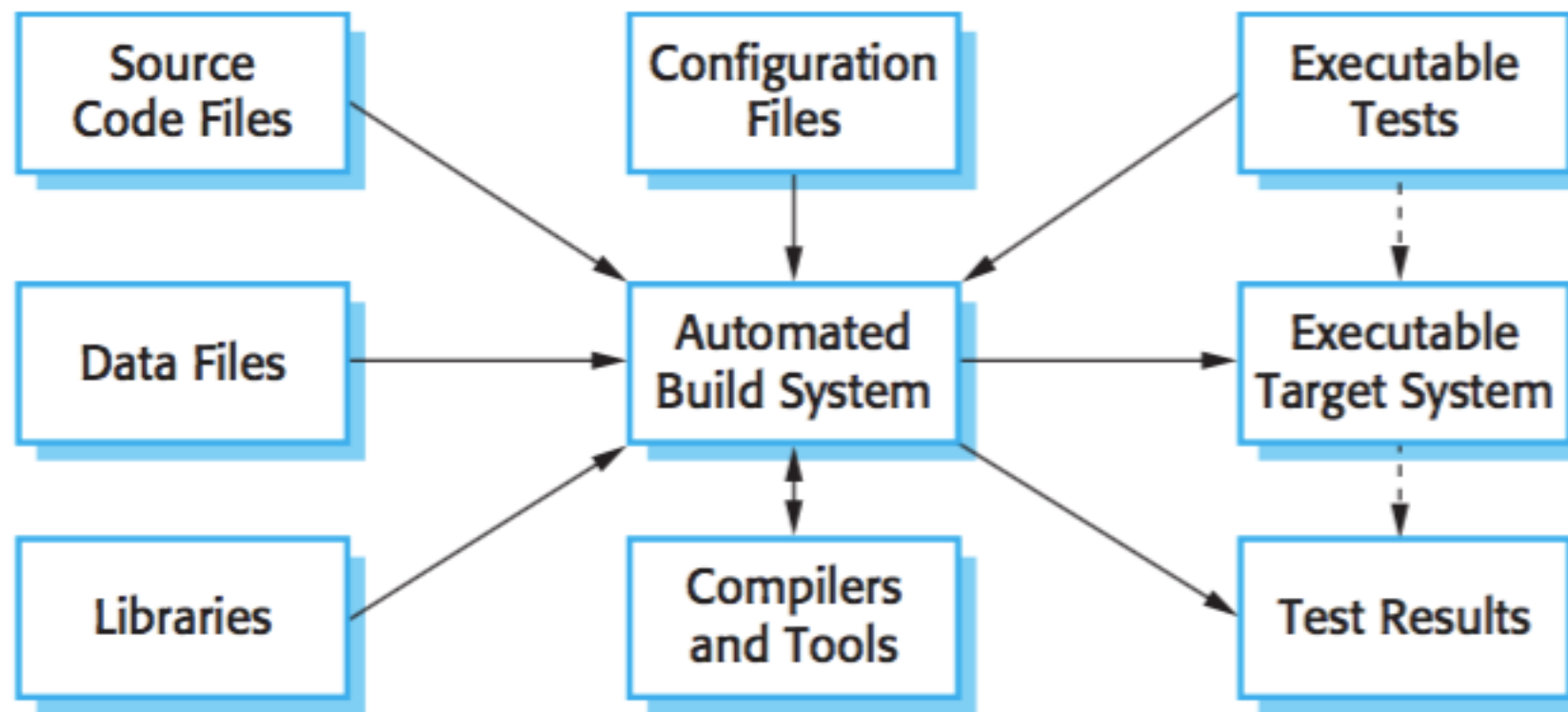
Building a system is
a complex activity

Repetitive with
variations

=>

It is error prone

From source files to
executable files for
test and/or deploy



(Sommerville, Fig 25.10)

Features of a build system

- Build script generation
- Version control system integration
- Minimal recompilation
- Executable system creation
- Test automation
- Reporting
- Documentation generation

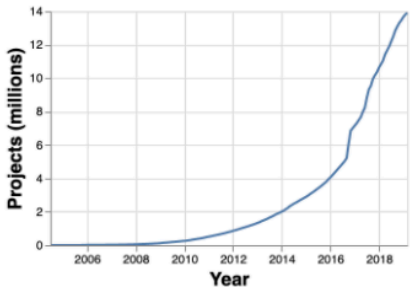
Conflicts between versions

compatible library versions

External repositories

contributors maven-ify their libraries

Indexed Artifacts (24.3M)



Popular Categories

- Aspect Oriented
- Actor Frameworks
- Application Metrics
- Build Tools
- Bytecode Libraries
- Command Line Parsers
- Cache Implementations
- Cloud Computing
- Code Analyzers
- Collections
- Configuration Libraries
- Core Utilities
- Date and Time Utilities
- Dependency Injection

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JUnit » 4.13.2

JUnit is a unit testing framework for Java, created by Erich Gamma and Kent Beck.


License	EPL 1.0
Categories	Testing Frameworks
Organization	JUnit
HomePage	http://junit.org
Date	(Feb 13, 2021)
Files	jar (375 KB) View All
Repositories	Central
Used By	10,945 artifacts

[Maven](#) [Gradle](#) [Gradle \(Short\)](#) [Gradle \(Kotlin\)](#) [SBT](#) [Ivy](#) [Grape](#) [Leiningen](#) [Buildr](#)

```
// https://mvnrepository.com/artifact/junit/junit
testImplementation group: 'junit', name: 'junit', version: '4.13.2'
```

☒ Include comment with link to declaration

https://mvnrepository.com/artifact/junit/junit



JUnit

JUnit is a unit testing framework for Java, created by Erich Gamma and Kent Beck.

License	EPL 1.0
Categories	Testing Frameworks
Tags	testing junit
Used By	65,412 artifacts

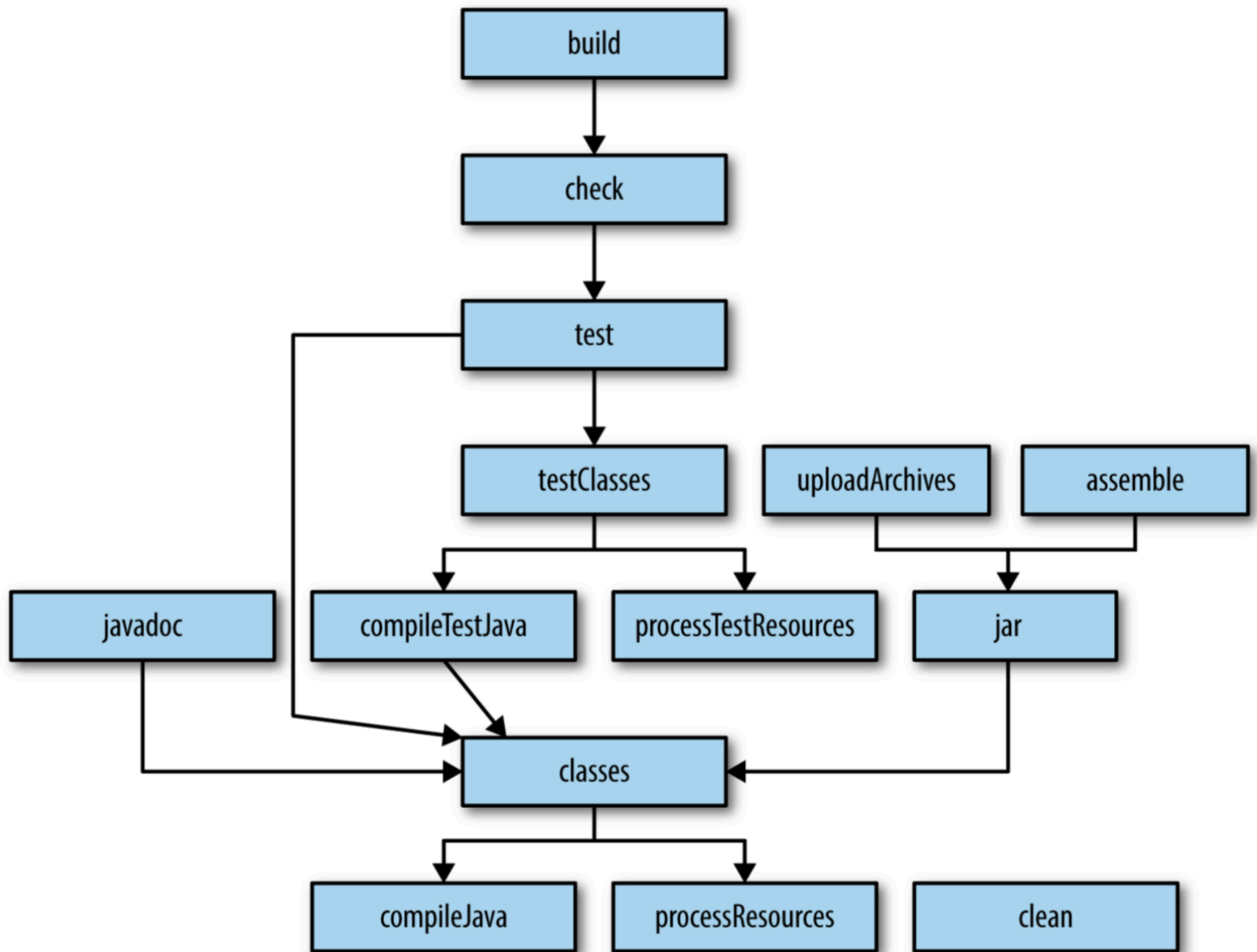
- Central (24)
- Redhat GA (3)
- JBoss 3rd-party (1)
- Alfresco Public (1)

Version		Repository	Usages	Date
4.12.x	4.12	Central	26,423	(Dec, 2014)
	4.12-beta-3	Central	28	(Nov, 2014)
	4.12-beta-2	Central	31	(Sep, 2014)
	4.12-beta-1	Central	31	(Jul, 2014)
4.11.x	4.11	Central	20,211	(Nov, 2012)
	4.11-beta-1	Central	22	(Oct, 2012)
4.10.x	4.10	Central	7,936	(Sep, 2011)
4.9.x	4.9	Central	1,099	(Aug, 2011)
4.8.x	4.8.2	Central	4,998	(Oct, 2010)
	4.8.1	Central	4,579	(Feb, 2010)
	4.8	Central	241	(Oct, 2010)
4.7.x	4.7	Central	1,920	(Aug, 2009)
4.6.x	4.6	Central	720	(May, 2009)
4.5.x	4.5	Central	1,564	(Sep, 2008)
4.4.x	4.4	Central	2,274	(Aug, 2007)

It is repetitive

every time the system is built

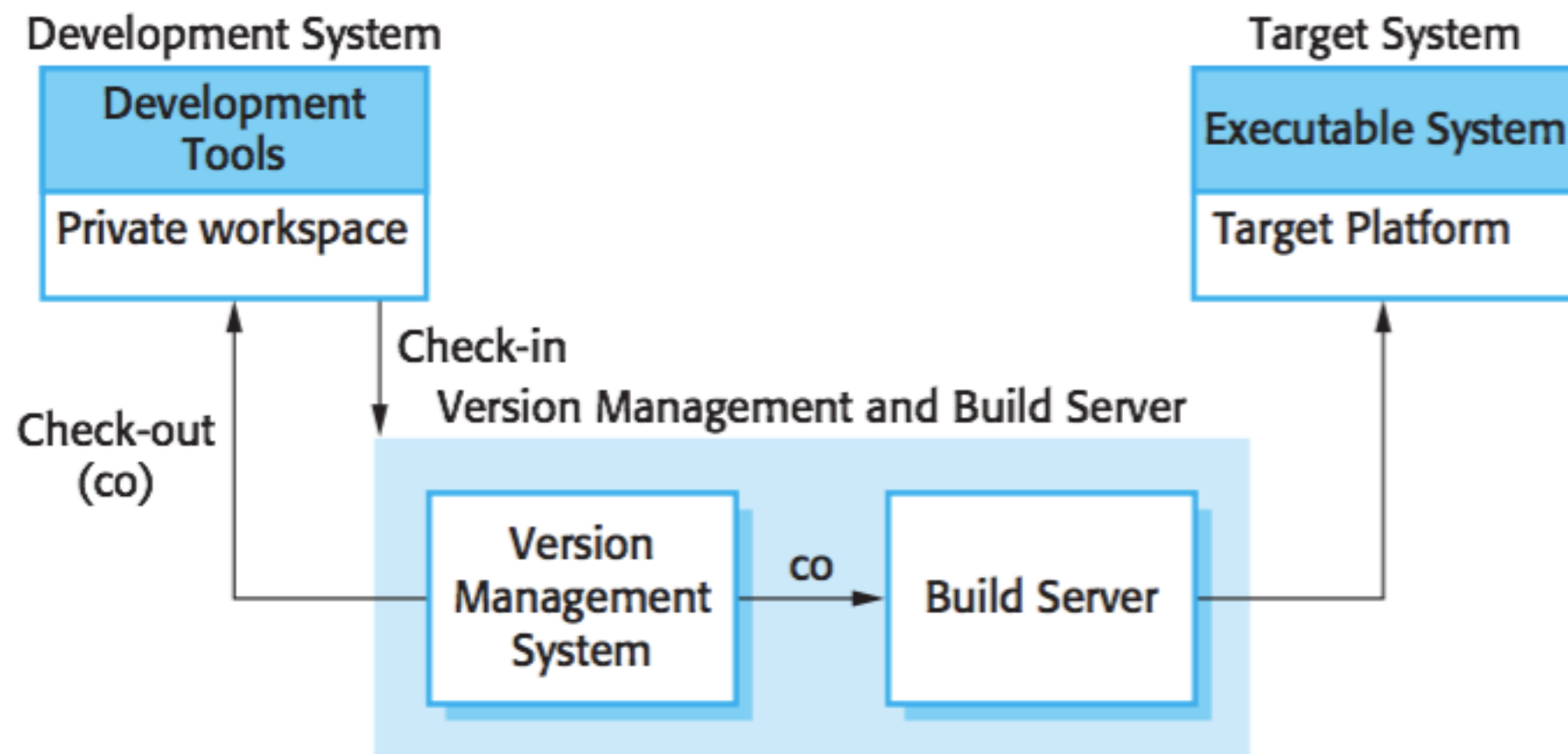
Gradle lifecycle



Can have several variations

- build to compile,
- build to run all tests,
- build to deploy,
- build the product for a client ...

Build systems
integrate with version
management systems



(Sommerville, Fig 25.11)

Collaboration and Isolation

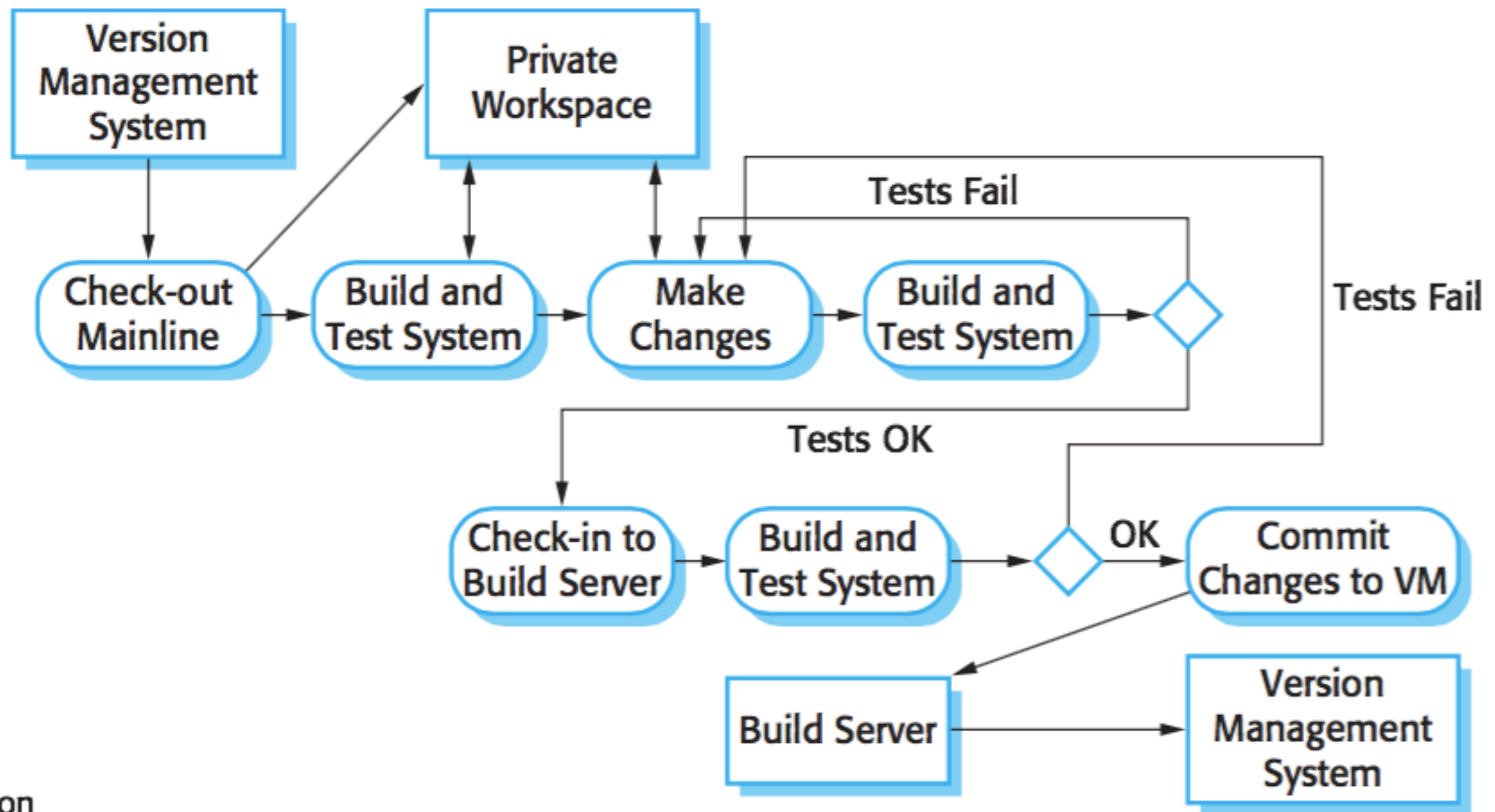
in the build process

Private build

for private development level of quality

Project build

for project development level of quality



(Sommerville, Fig 25.12)

Which steps you don't do in your project?

Continuous Integration

short cycles of isolation \leftrightarrow collaboration

- Continuous integration may not be practical
- system take a long time to build and test
- development platform is different from the target platform

daily builds!