Continuous Integration 2

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POLYTECH NICE-SOPHIA

As Part of the Build

Code complexity

- Lines of code
  - With/without comments
- # methods per class, #lines per file
- Cyclomatic complexity

Static code analysis

- Detection of specific patterns
- On source or bytecode
- Useful for
  - Vulnerabilities
  - Copyright infringement
  - Defect prevention

Coverage

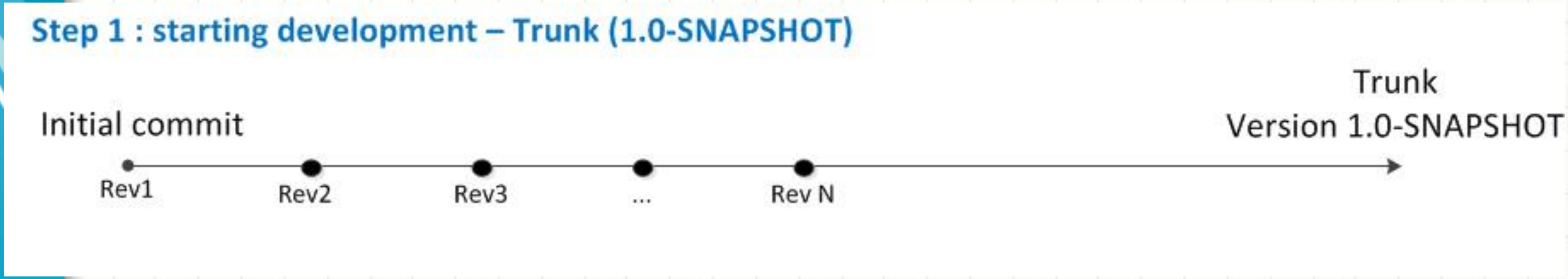
- Code exercised by tests
- Drives
  - testing strategy
  - dataset selection
- But… easy to trick

Multitools

- Eg: SonarQube
- Defects, code smells
- Security vulnerability
- General code “health”

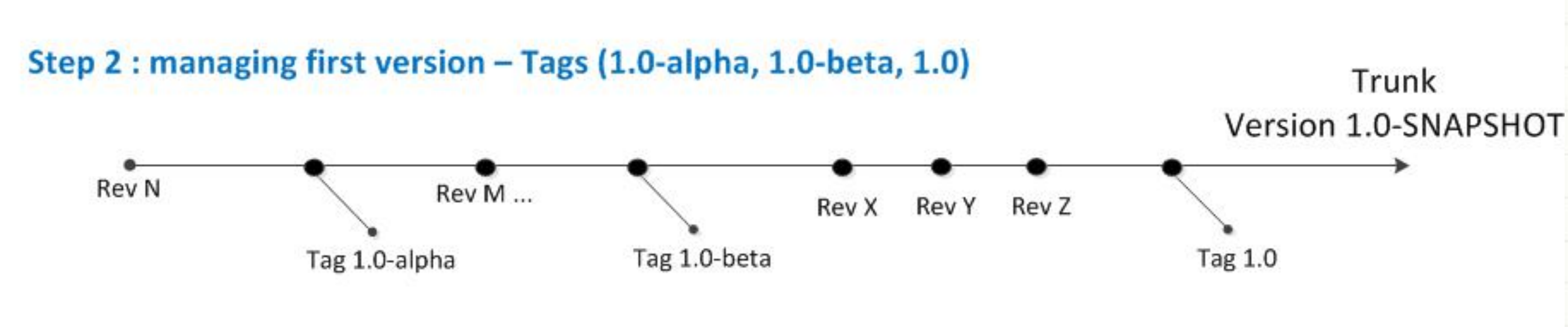
Branching

Start a project



Step 1 : starting development – Trunk (1.0-SNAPSHOT)

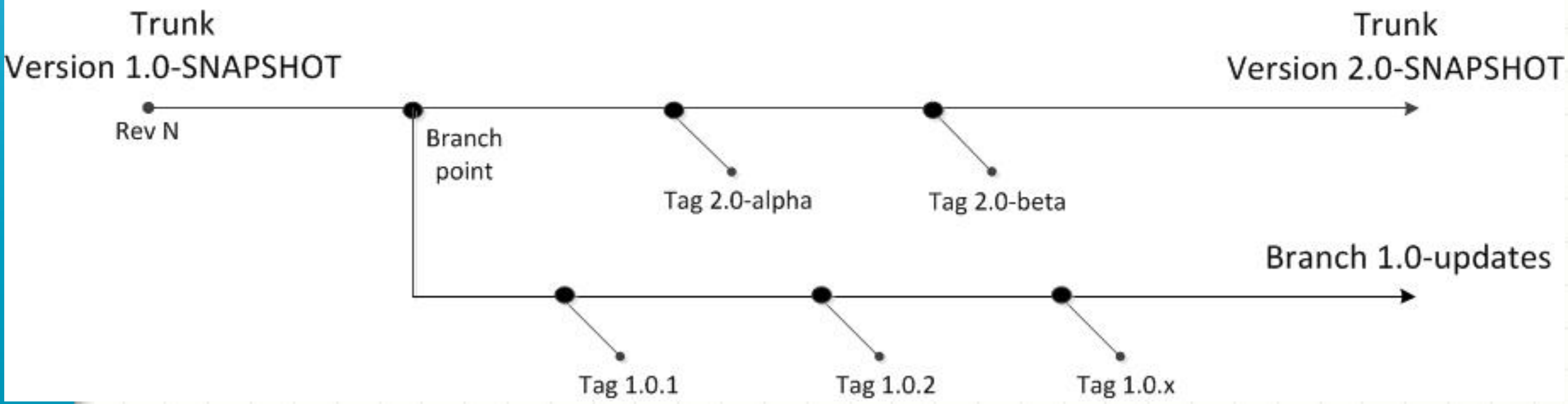
First release



Step 2 : managing first version – Tags (1.0-alpha, 1.0-beta, 1.0)

Several releases

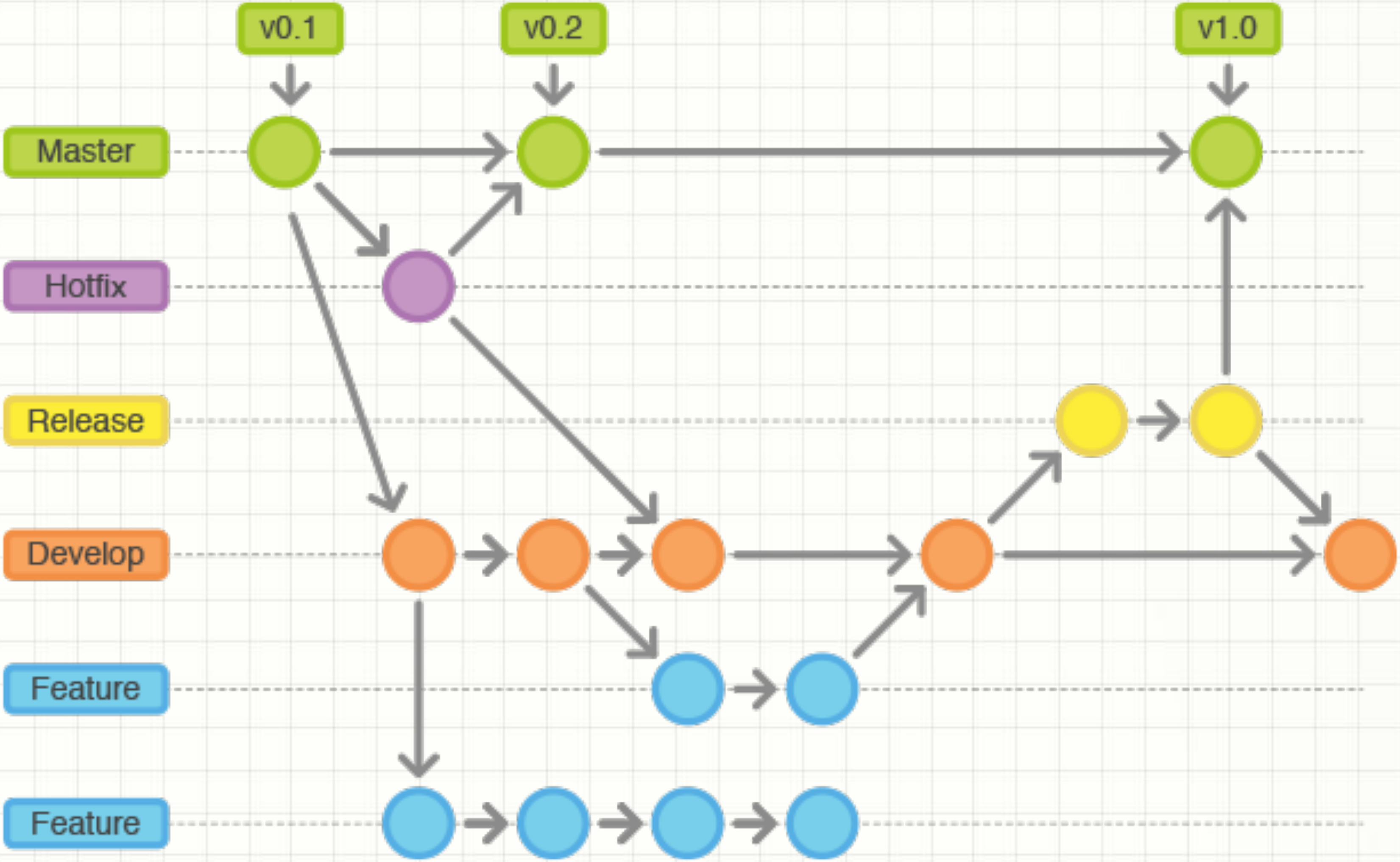
Step 3 : managing several versions – Branches (trunk = 2.0-SNAPSHOT, branch for 1.0-updates)



Strategies

- Release branch
- Feature branch
- Team branch

Git Flow



Questions?

APPENDIX