

Software Engineering Configuration Management (1)

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Adapted from materials provided by Byron DeVries, Jagadeesh Nandigam

Outline

Classic view of configuration management (Part 1)

- Development Configuration Management
- Release Configuration Management

Modern configuration management (i.e., Git) (Part 2)

- Comparison
- (More) Git Demo

Quick Demo!

I've been talking about *a lot* about **project boards**, let's take a brief look at GitHub Projects.

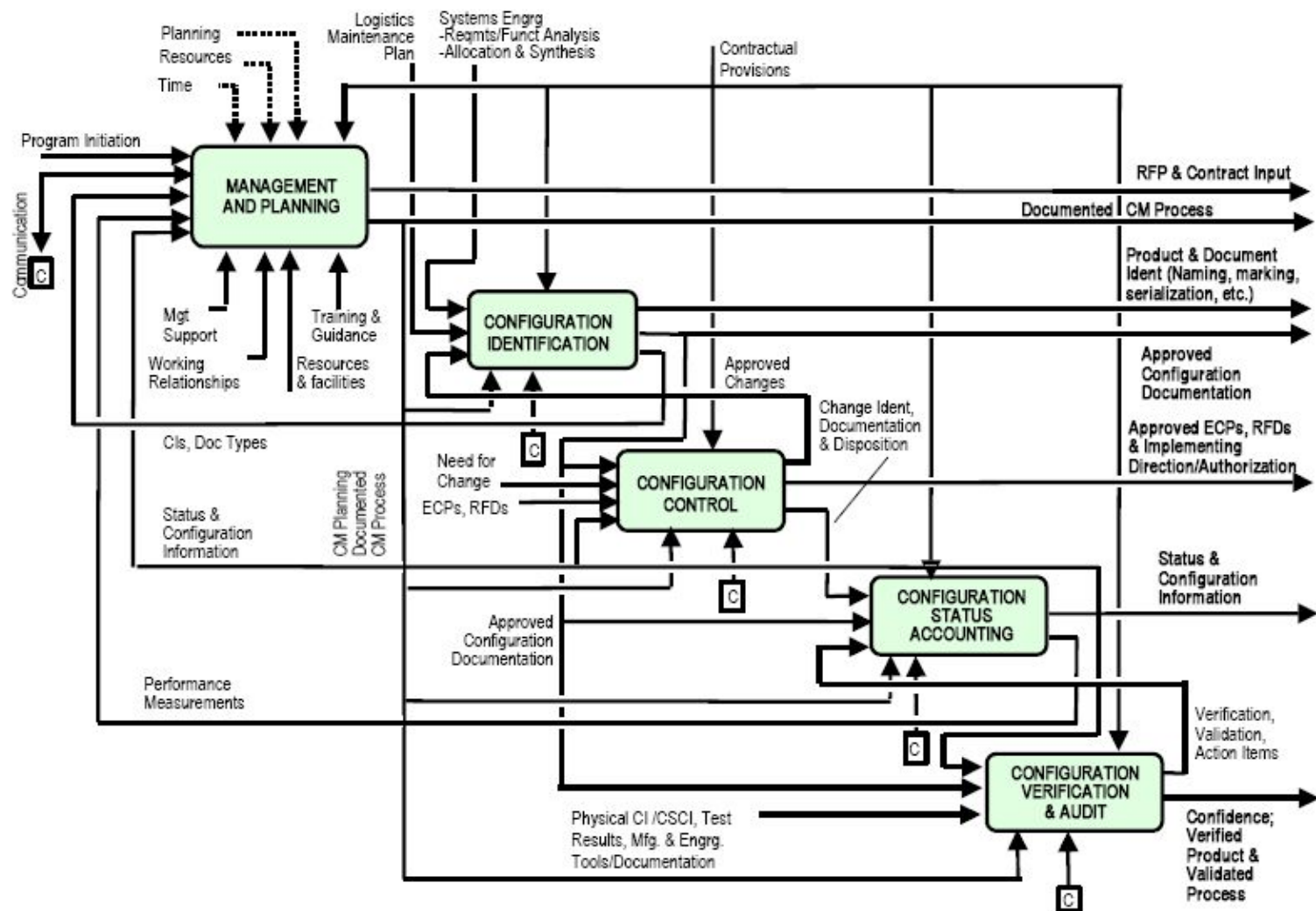
- 1) Create a Project
- 2) Add an Issue
- 3) Create a Milestone (and link)
- 4) Close them all!
- 5) ...
- 6) SUCCESS!

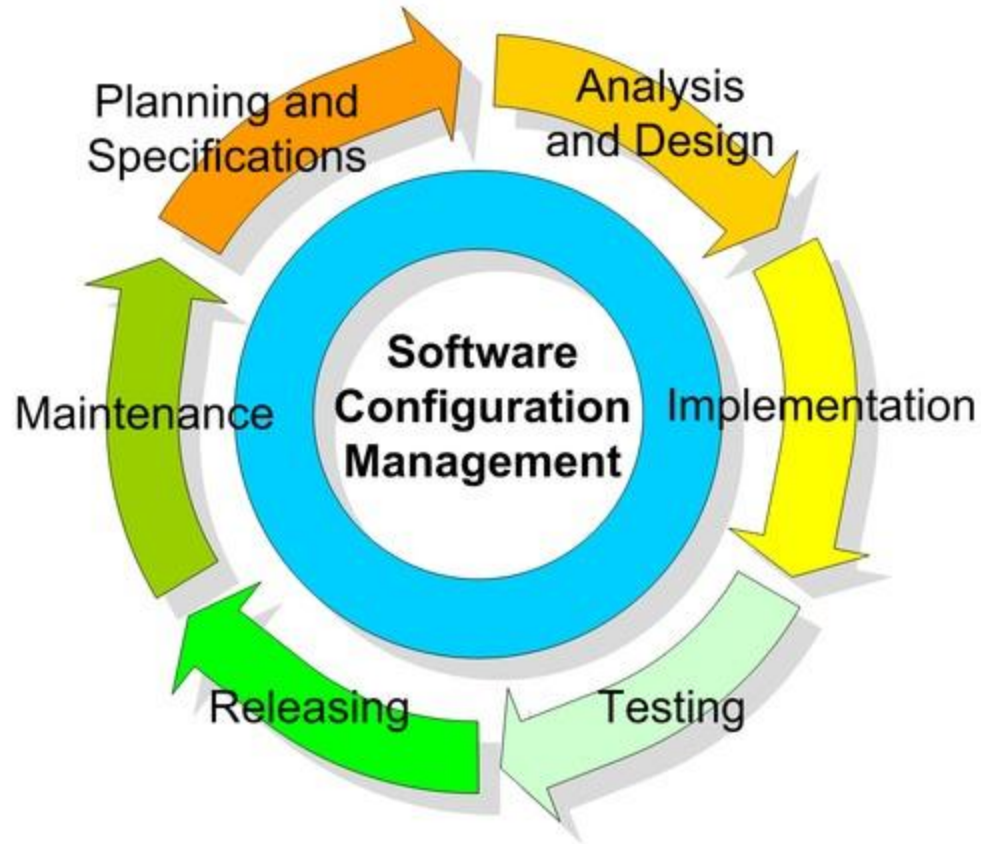


How many of you have used some kind of
source code repository or source code
control system?

Revision control

And did you know you can use it for more than just source code?





Keyword:

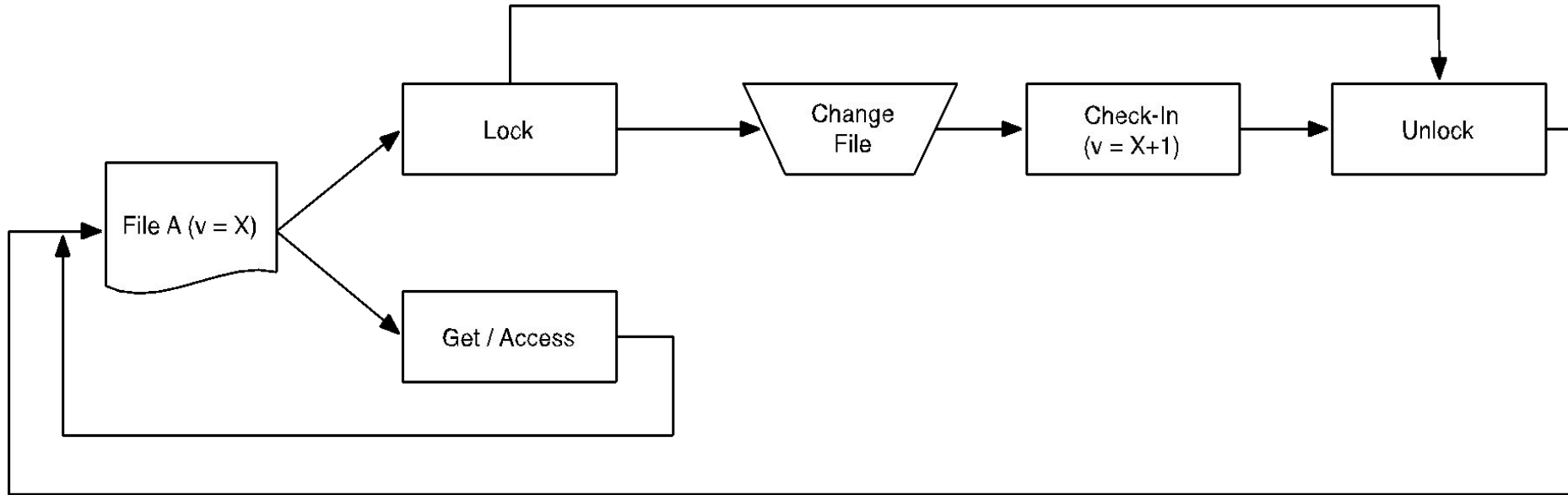
Consistency

Development configuration management

Activities include:

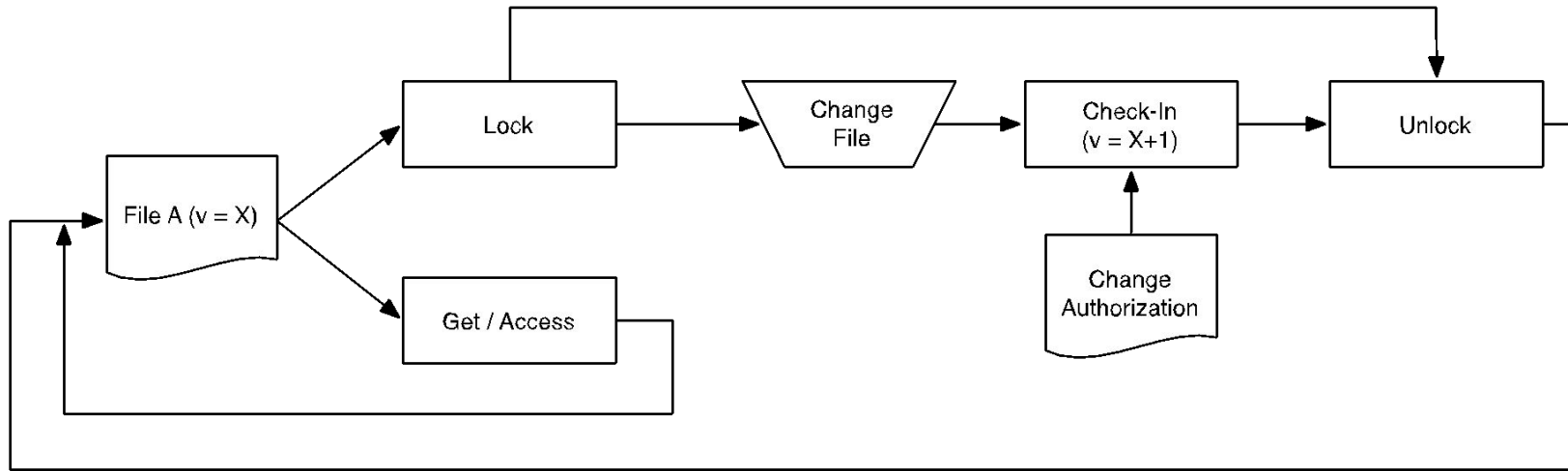
- Get files & sets of files
- Lock & unlock files
- Check-in files
- Tag / baseline sets of files
- Branch / Merge files (& sets of files)

Development Configuration Management: Individual Files



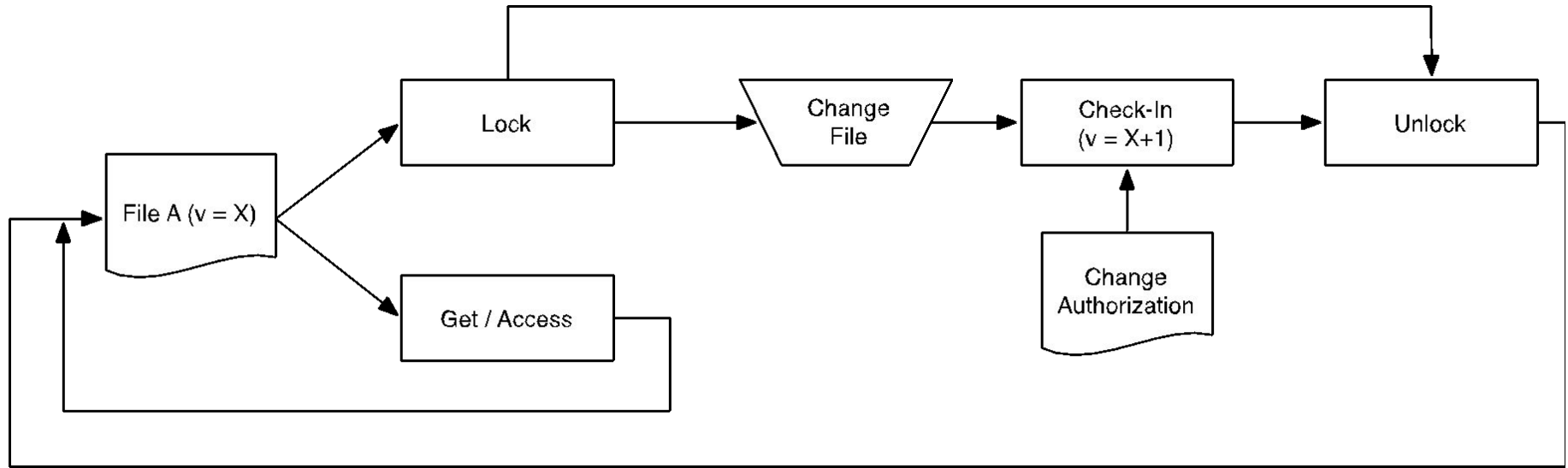
These operations can often be done on *sets* of files.

Development Configuration Management: Individual Files, Issues

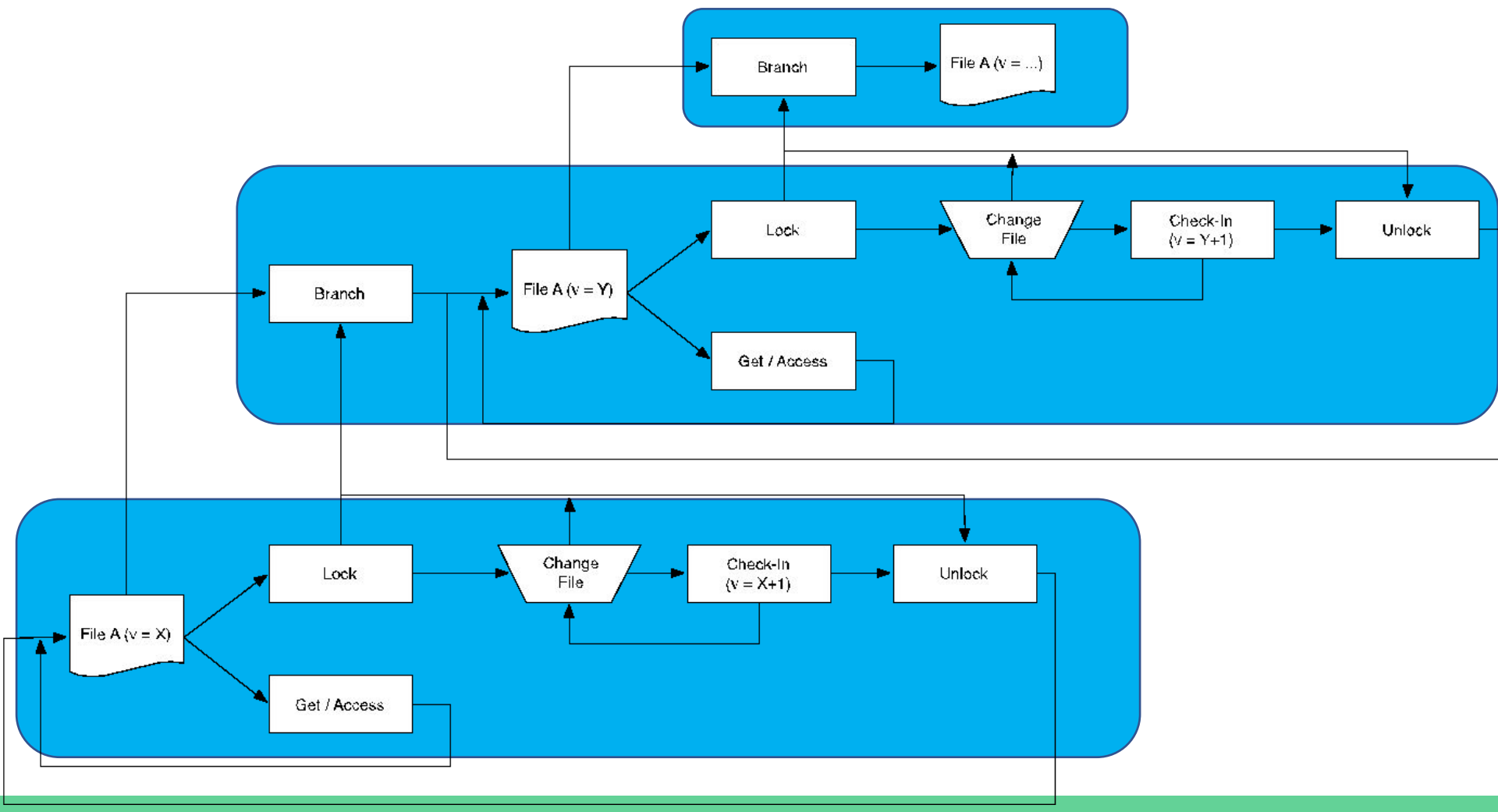


**These operations can often
be done on *sets* of files.**

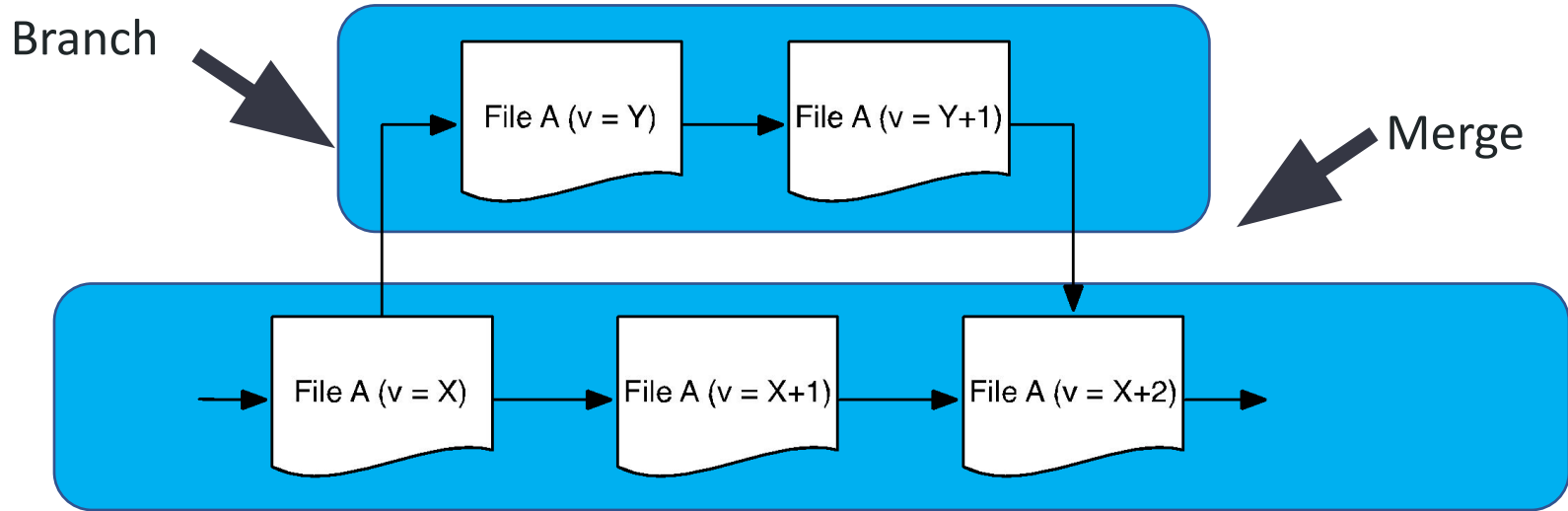
Development Configuration Management: Individual Files, Change Authorization



**These operations can often
be done on *sets* of files.**



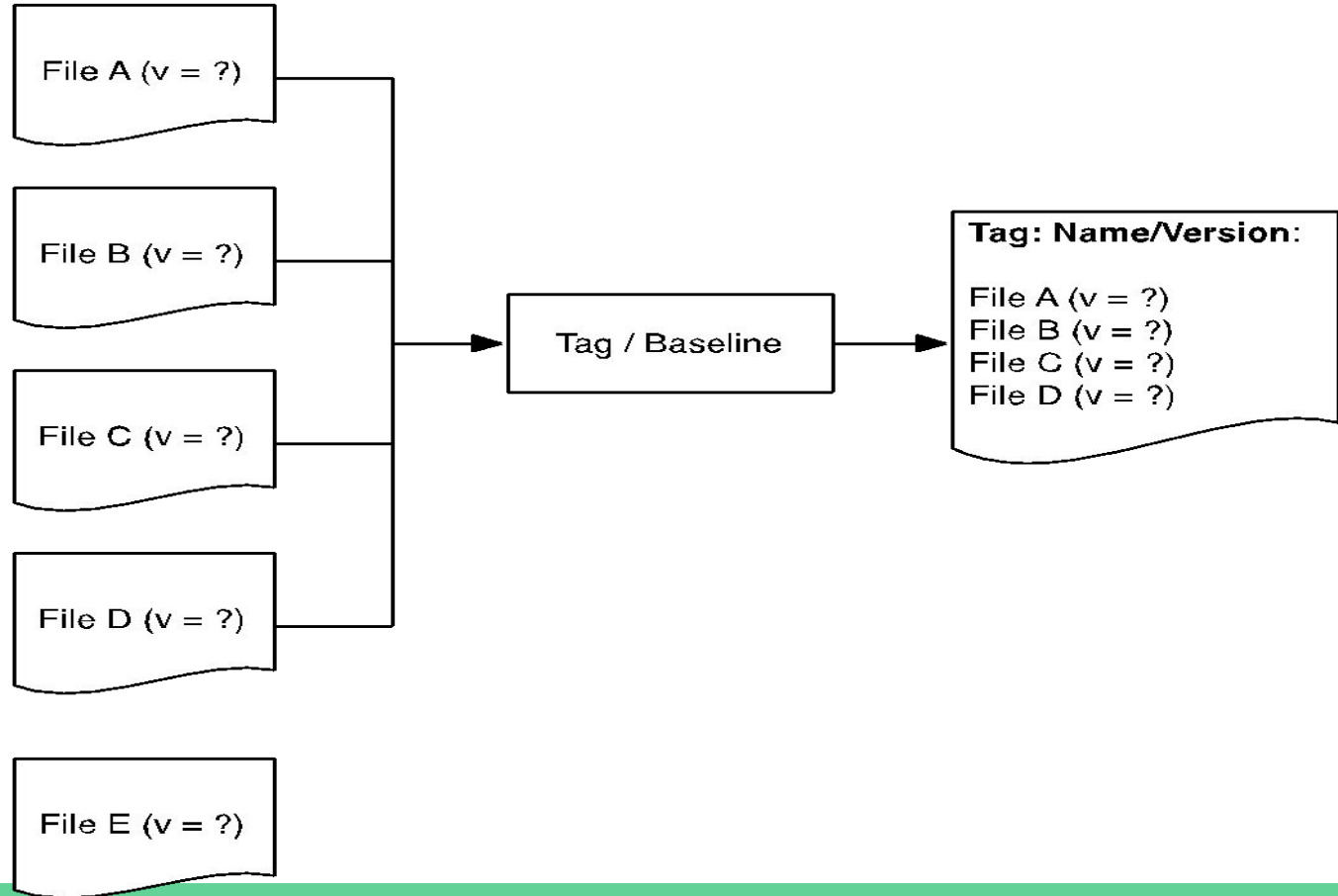
Development Configuration Management: Merge



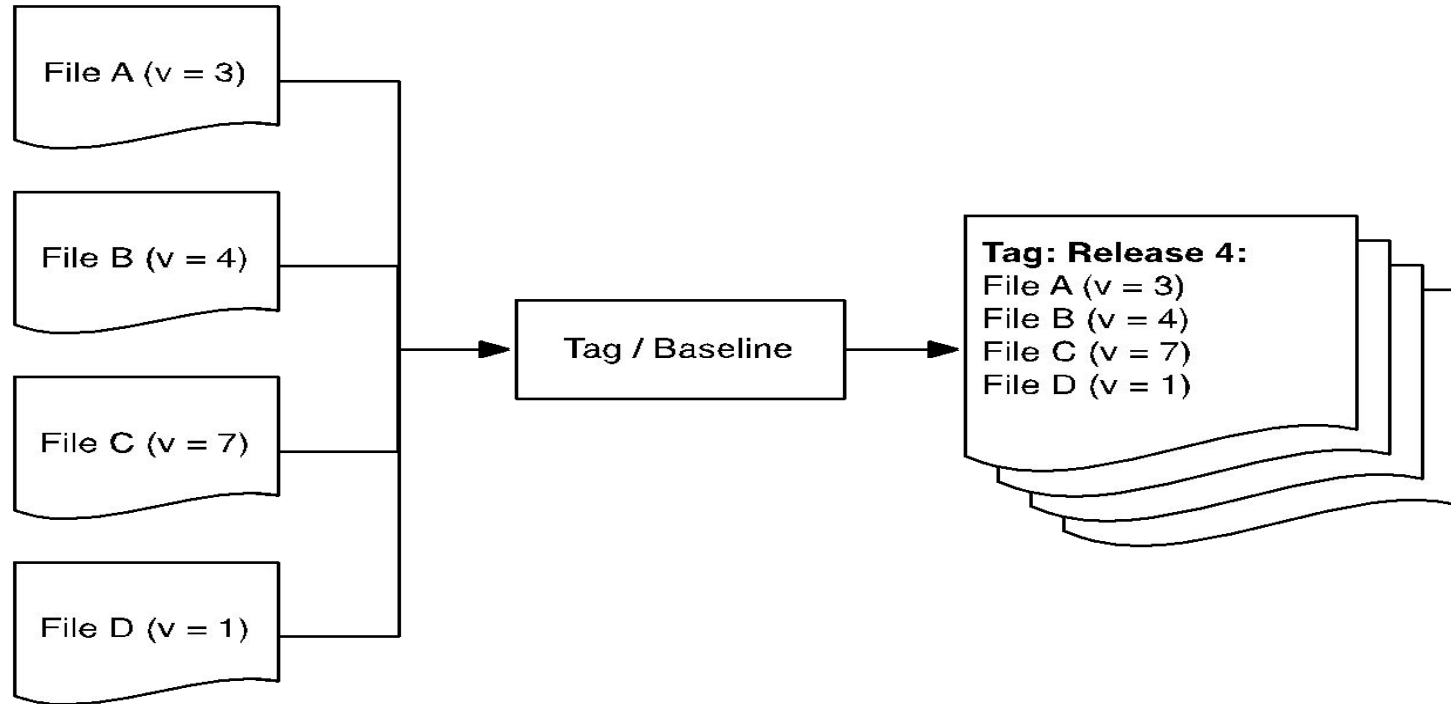
Development Configuration Management: Tag / Baseline

Baseline:

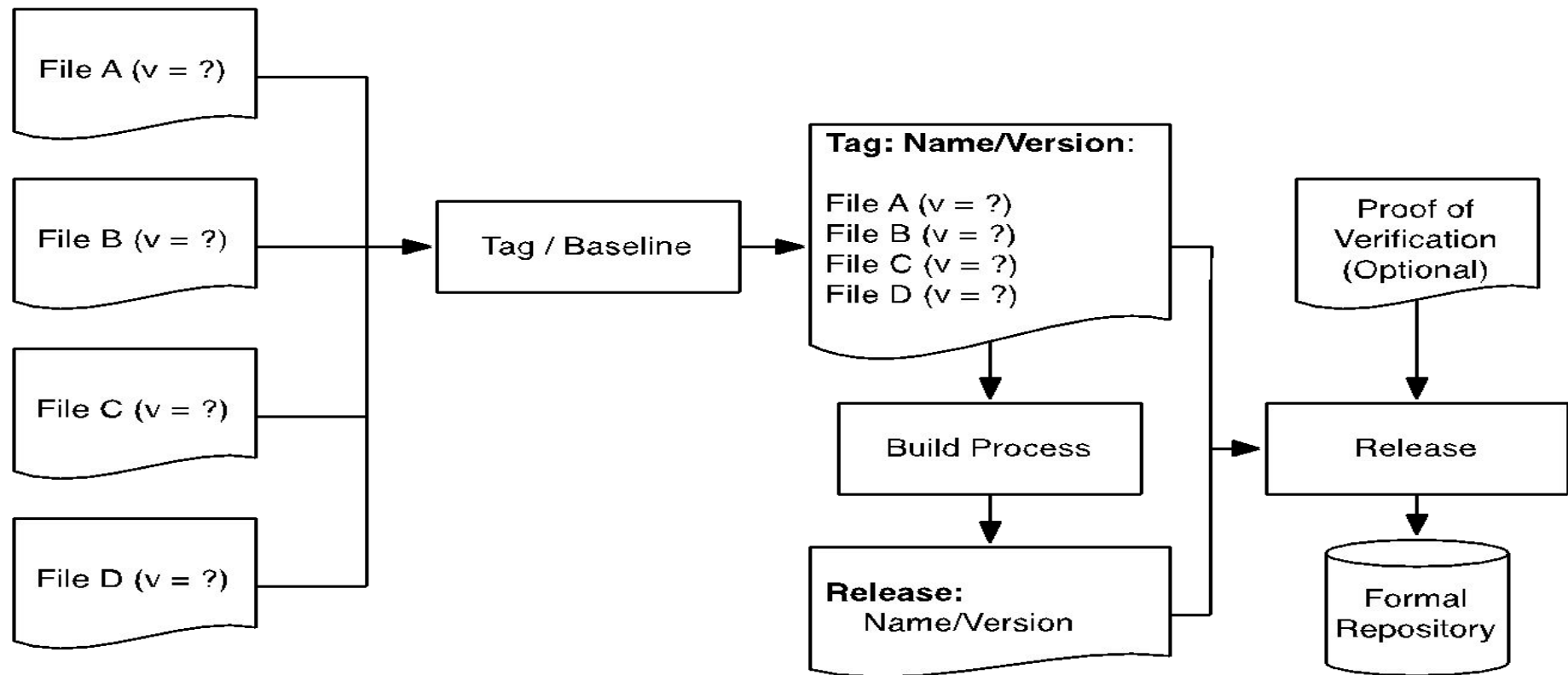
- Approved state
- Milestone
- Serves as a basis for change



Development Configuration Management: Tag / Baseline



Release Configuration Management



Development vs Release CM

What is the difference between development and release configuration management?

Development vs Release CM

How do development and release configuration management work together? How are they related?

A workflow (of sorts!)

Assume you have a **project**

- That project probably has ***milestones***

To make that project succeed, a series of tasks/issues/(word of choice) will be created to move implementation/testing/etc. along

- 1) Create a project
- 2) Create a series of tasks assigned to a project
- 3) Assign those tasks to various activities
- 4) **Complete all tasks == complete project?**

Change mgmt.

!= config mgmt!

Change generally occurs when something must ... change

- e.g., a baseline

