



Subversion – SVN

Feb 2016

Ground Rules for Face-to-face Classrooms



Ground Rules for Virtual Classrooms

Participate actively in each session

Share experiences and best practices

Bring up challenges, ask questions

Discuss successes

Respond to whiteboards, polls, quizzes, chat boxes

Hang up if you need to take an urgent phone call, don't put this call on hold

Communicate professionally with others

Mute when you're not speaking

Wait for others to finish speaking before you speak

Each time you speak, state your name

Build on others' ideas and thoughts

Disagreeing is OK –with respect and courtesy

Be on time for each virtual session

As a best practice...be just a few minutes early!

Module at a Glance

SME to provide the details required in the table.

| | |
|--------------------------|--------------------------------|
| Target Audience: | |
| Course Level: | <i>Basic</i> |
| Duration (in hours): | 30 mins |
| Pre-requisites, if any: | NA |
| Post-requisites, if any: | <i>Submit Session Feedback</i> |
| Relevant Certifications: | None |

Introductions (for Virtual Classrooms)

SME to provide the
photos and names of
the facilitators.

Business Photo

Facilitator
Name
Role

Business Photo

Moderator
Name
Role

Agenda

- 1 Introduction to SVN
- 2 Setting up SVN
- 3 Basic Commands
- 4 Branching and Merging
- 5 Best Practices

Module Objectives

Note to the SME : Please provide the module Objectives or validate the partially updated content



What you will learn

At the end of this module, you will learn:

- What is Subversion (SVN)

What you will be able to do

At the end of this module, you be able to:

- Understand what is Subversion (SVN)
- Describe Windows based with Tortoise SVN
- Differentiate between working knowledge and details
- List the Basic Commands of SVN
- State the best practices



What is Source Control?

Code storage

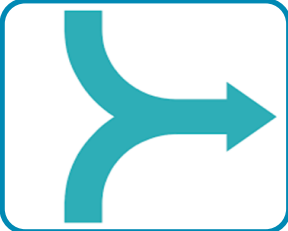
Versioned

Facilitates multiple developers

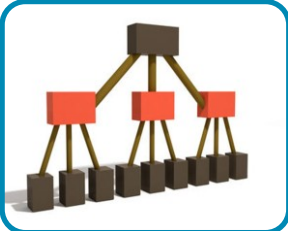
Types of Source Control



Locking



Merging



Distributed

History of SVN



Created by CollabNet in 2000.

Designed to be like CVS but better.

Became a top-level Apache project in Feb 2010.

About SVN

Merge based

- Developers check out local copies of code
- Changes to the same file are 'merged'

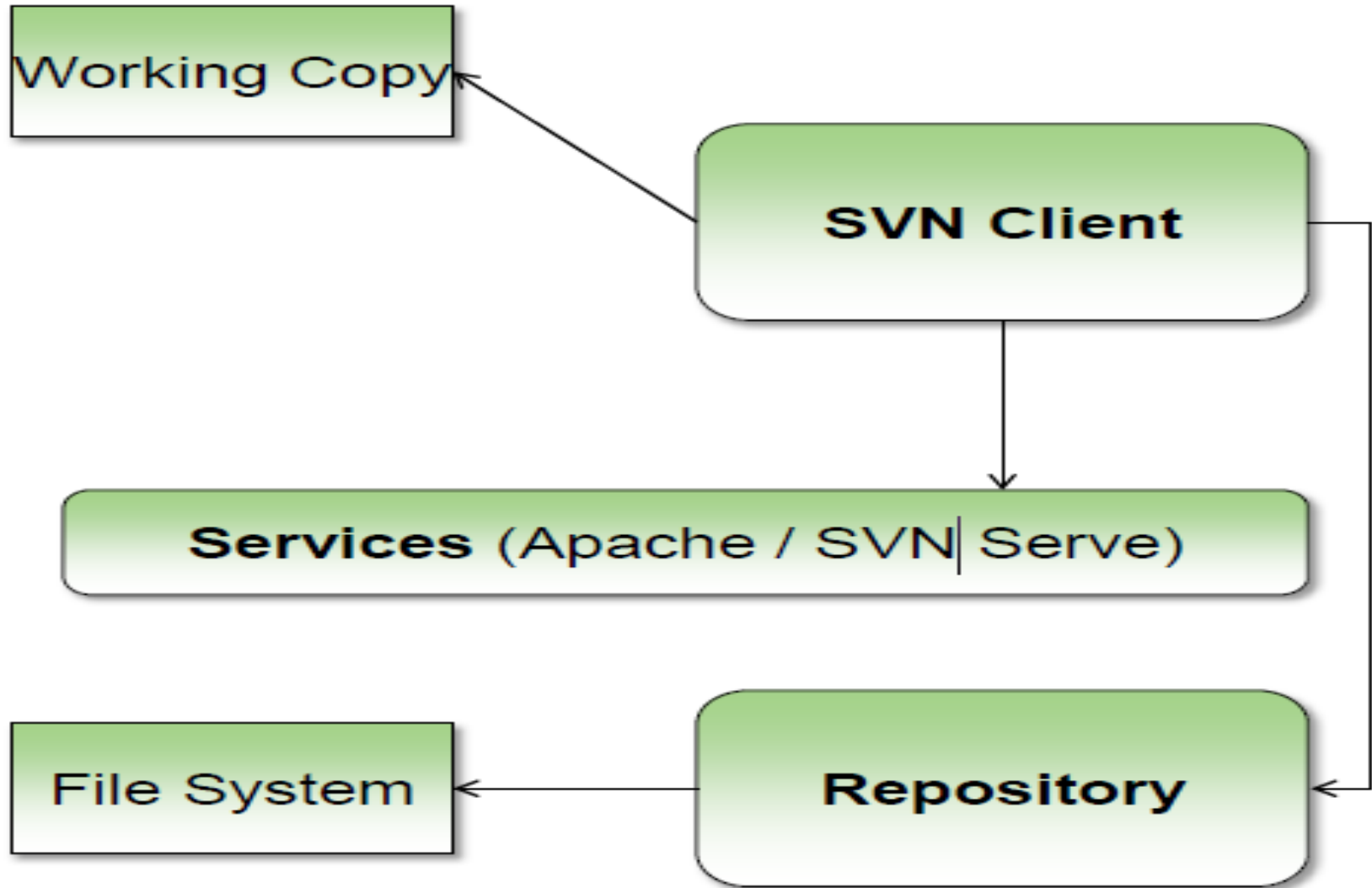
Commits are atomic

Uses properties for metadata

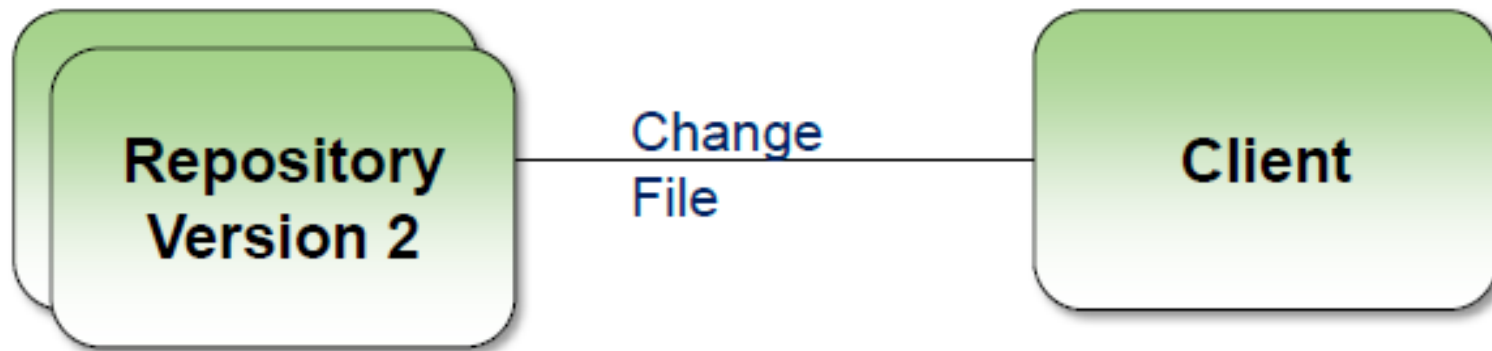
Branching and tagging are copies

Different implementations

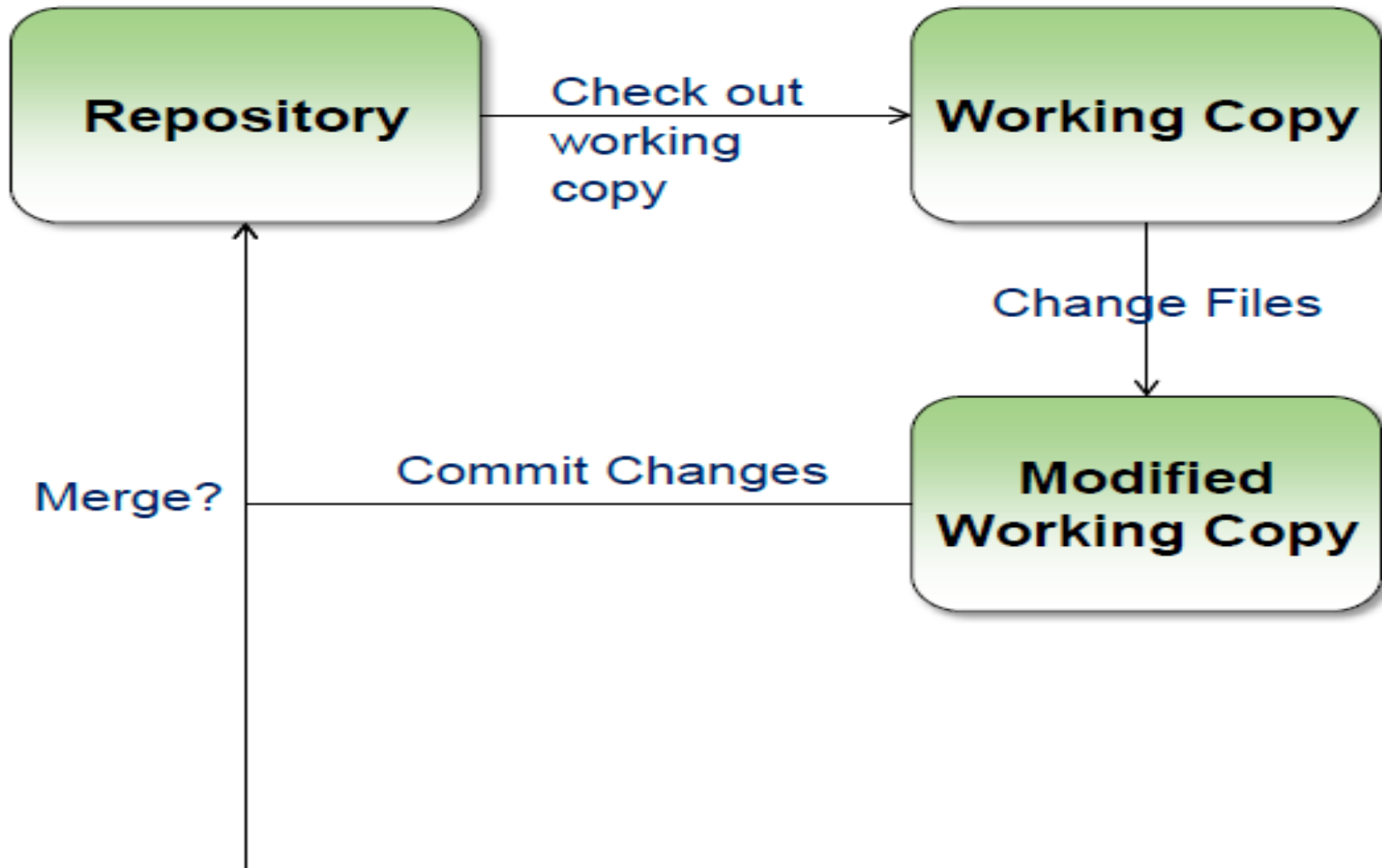
Basic Architecture



Basic Architecture (contd.)

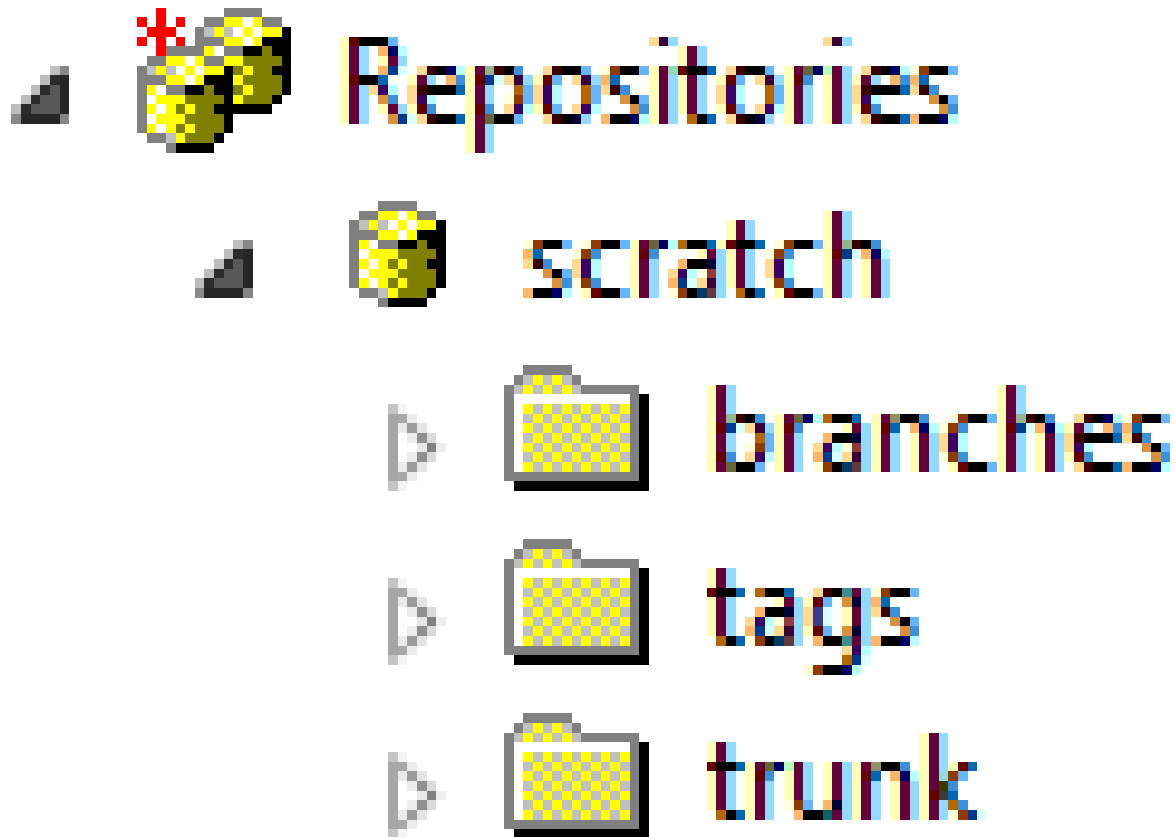


Basic Architecture (contd.)



Repository Structure

A repository is a big tree!



Branches

Branched code goes here

Uses a copy to be efficient

- **Only differences**

Can branch any part of code

Branches are like new trees

Tags

Just a name for a revision

Also is a copy, but read only

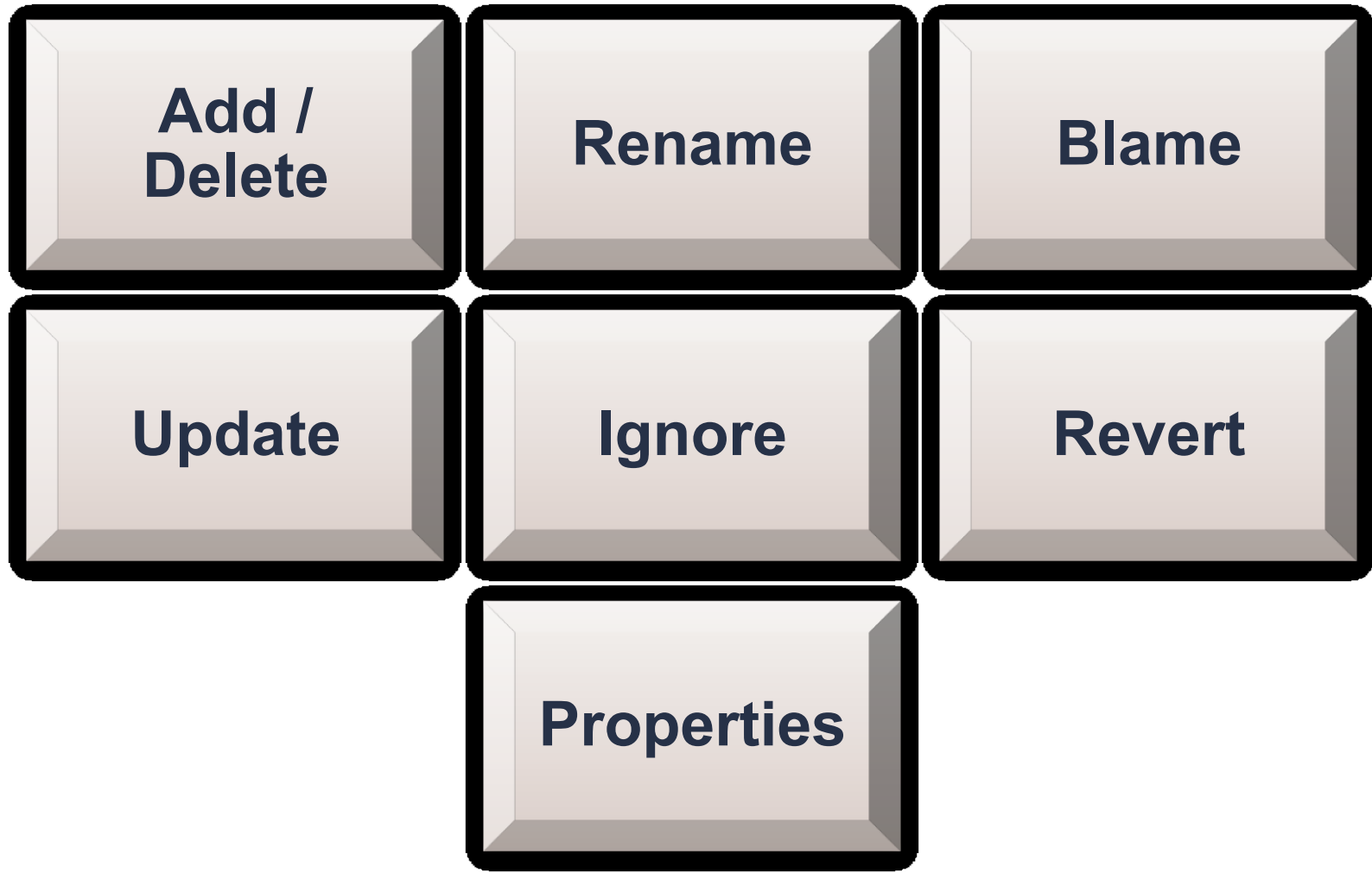
- **Doesn't take up additional space**

Trunk

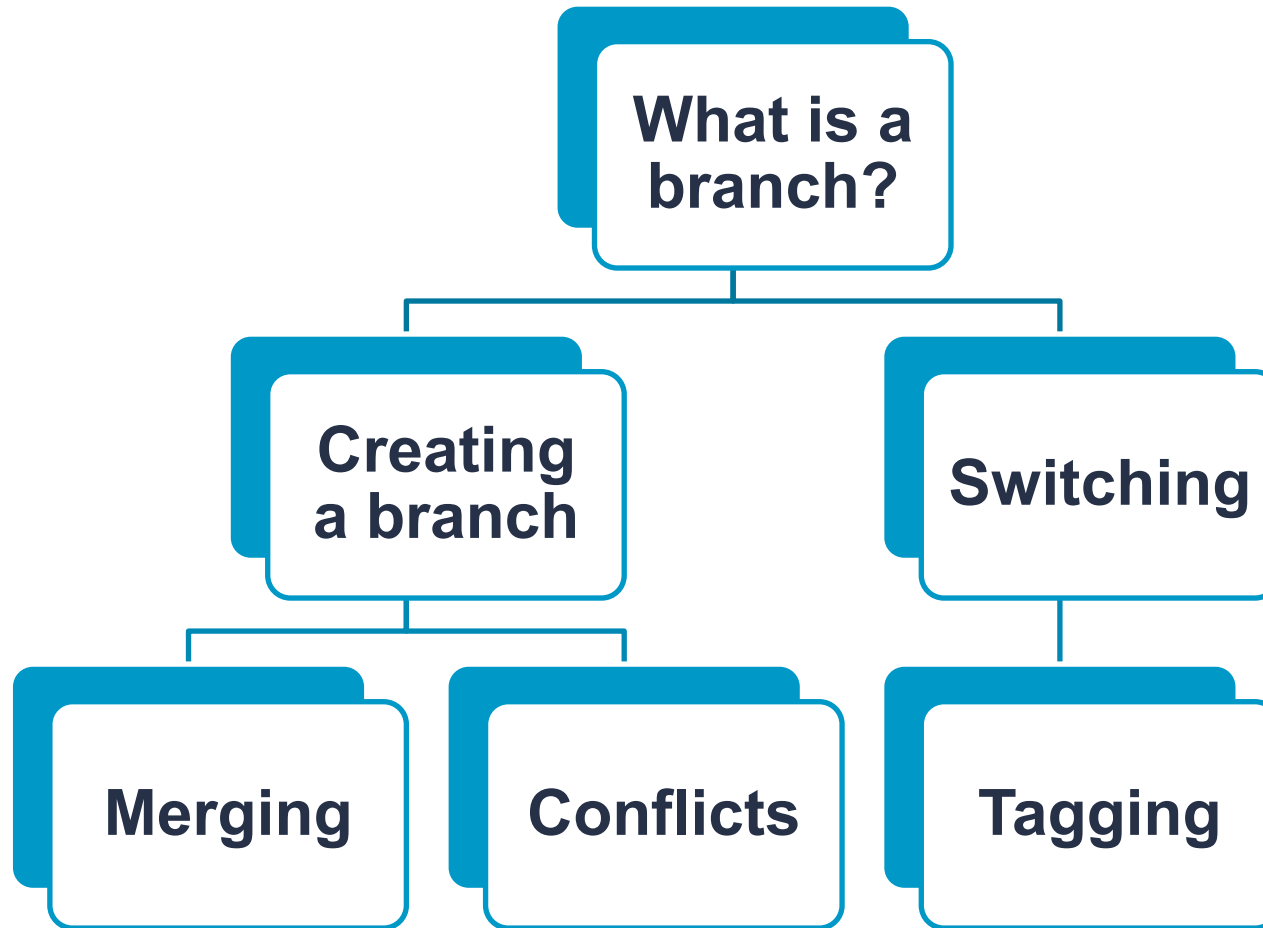
Main code line

Active development happens on trunk

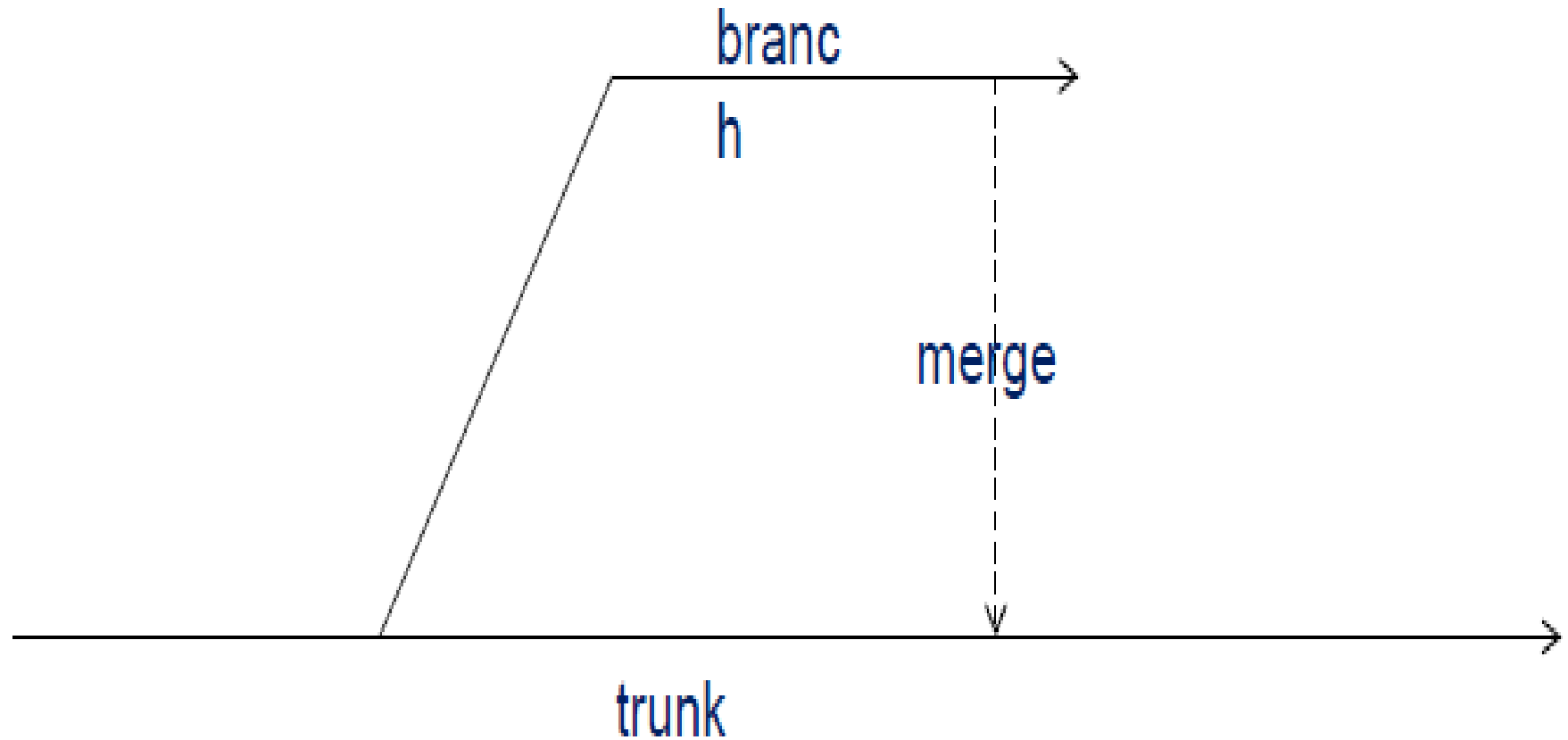
Basic Commands – Outline



Branching – Outline



What is a Branch?



Branching Basics

Can branch from any point in the code

Branches don't have to merge back

Branch = Copy (cheap copy)

Reasons for Branching

Branch for a feature

Branch for a release

Branch for different version

Rel 1 Hot Fix 1 p-1.4 Hot Fix 2

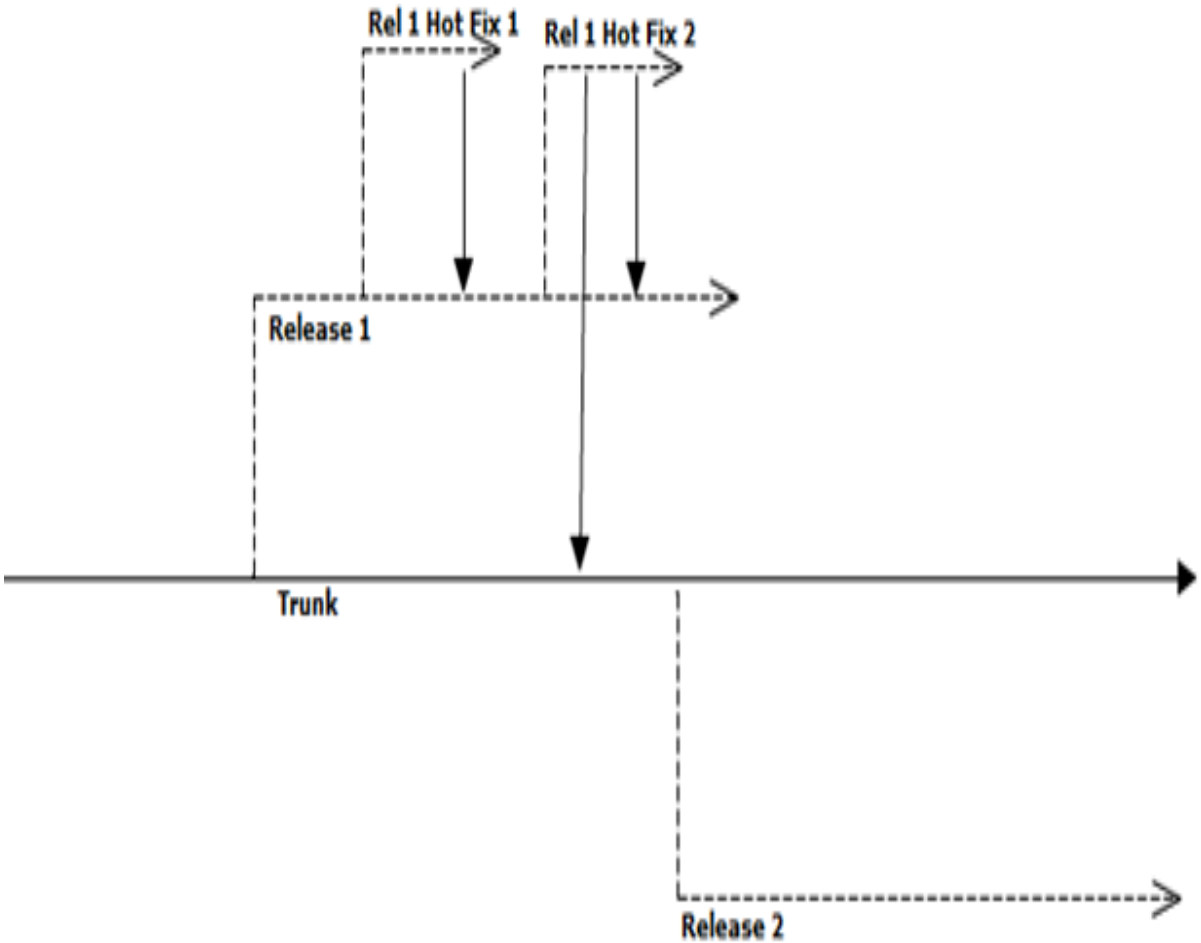
Branch Per Feature

Branch per release

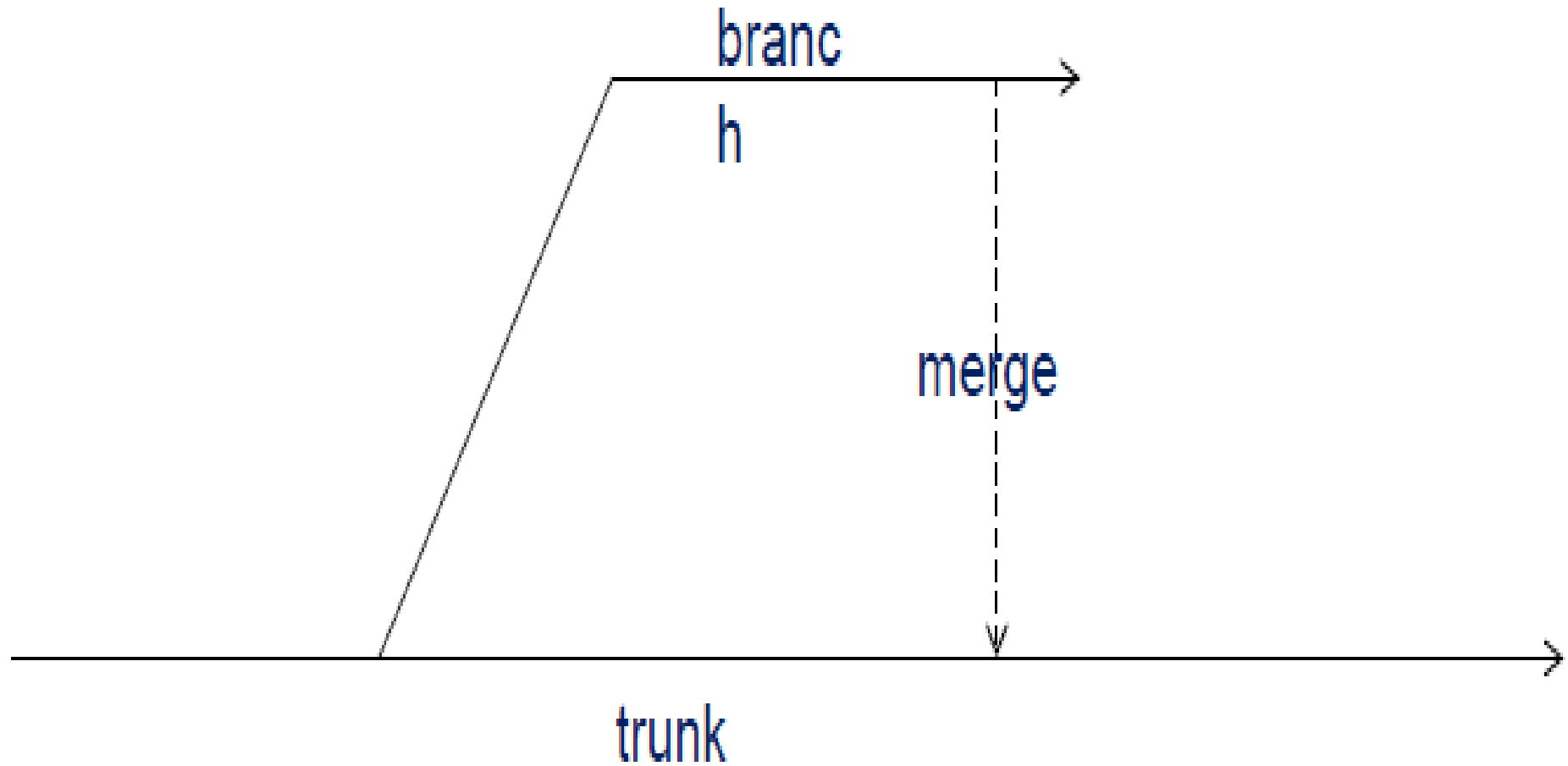
Branch per developer

Branch per team

Branch only when needed



Merge In, Merge Out



People matter, results count.

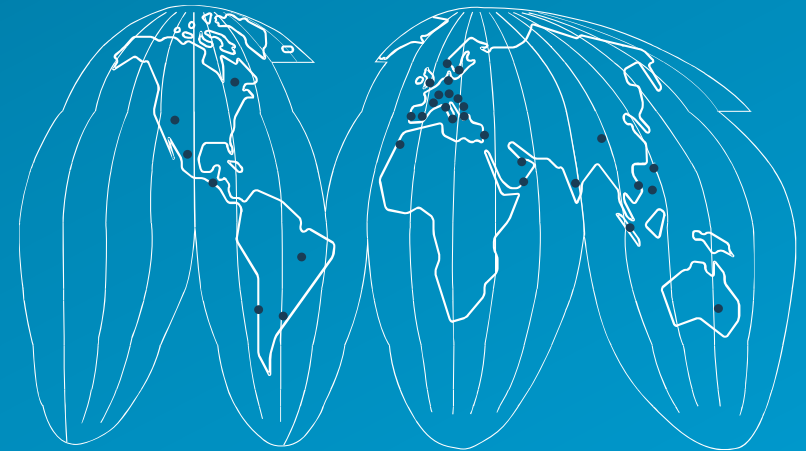


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