

# Source Control Management

.NET CORE

A component of software configuration management, version control (also known as revision control or source control) is the management of changes to documents, computer programs, large web sites, and other collections of information.

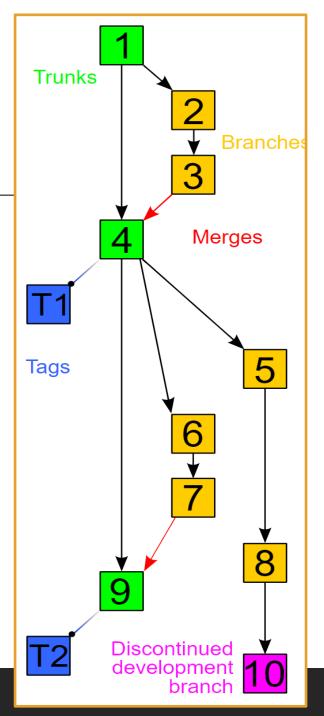
- <a href="https://en.wikipedia.org/wiki/version\_control">https://en.wikipedia.org/wiki/version\_control</a>

## VCS (Version Control Management)

https://en.wikipedia.org/wiki/Version control

Version Control Systems (VCS) have seen great improvements over the past few decades. VCS are sometimes known as SCM (Source Code Management) tools or RCS (Revision Control System).

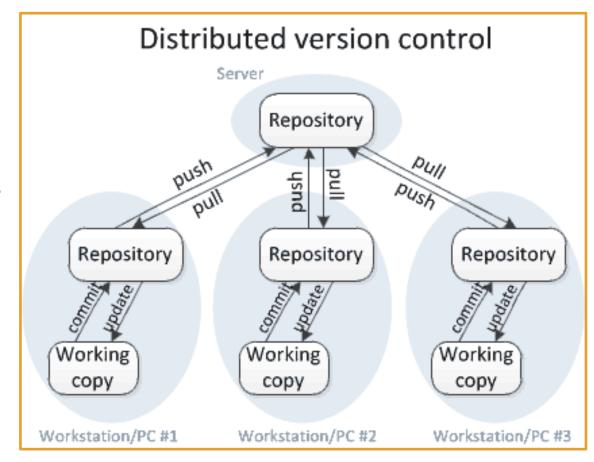
One of the most popular **VCS** tools in use today is called Git.



# DVCS (Distributed VCS)

https://www.teamstudio.com/blog/distributed-vs-centralized-version-control-systems-for-lotus-notes https://homes.cs.washington.edu/~mernst/advice/version-control.html

- Work on a peer-to-peer model.
- The code base is distributed amongst the individual developers' computers.
- The entire history of the code is mirrored on each system.
- There is still a master copy of the code base kept on a client machine rather than a server.
- There are no locking of parts of the code;
- Developers make changes in their local copy. When they're ready to integrate their changes into the master copy, they issue a request to the owner of the master copy to merge their changes into the master copy.

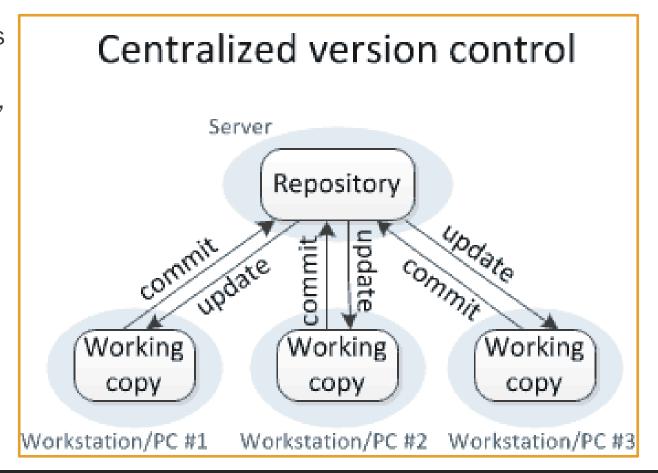


### CVCS (Centralized Version Control System)

https://www.teamstudio.com/blog/distributed-vs-centralized-version-control-systems-for-lotus-notes https://homes.cs.washington.edu/~mernst/advice/version-control.html

A Centralized Version Control system works on a client-server model. There is a single, (centralized) master copy of the code base, and pieces of the code that are being worked on are typically locked, (or "checked out") so that only one developer is allowed to work on that part of the code at any one time.

Access to the code base and locking is controlled by the server. When the developer checks their code back in, the lock is released so it's available for others to check out.



#### Simple (NO-CONFLICTS) Github Workflow Cloud Remote upstream Open Source Pull request branch App Feature Complete Push 4) git push Clone Local fb commited 1) git checkout -b [branchName] Commit 3) git commit -m "adds these changes" Master Future Branch 2) git add \* Local Copy fb fb Tracked fb Changes untracked tracked changes