

# Version Control Software

# Version control systems

- Version control (or revision control, or source control)
  - managing multiple versions of documents, programs, web sites, etc.
- CVS, Subversion, Mercurial, and Git
- Mercurial and Git - newer / better
- Concurrent Versions System (CVS)
- Apache Subversion (SVN)
- Git
- Mercurial

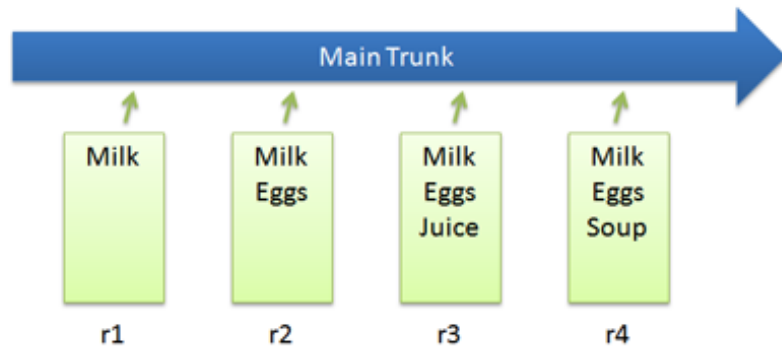
# Why version control?

Originally for software developers

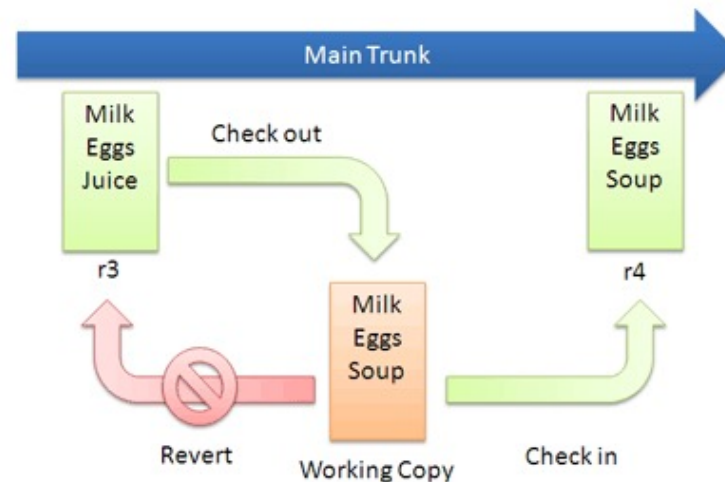
- For working by yourself
- For working with others
- For getting an internship or job

# Check-ins, Checkouts, and Branching

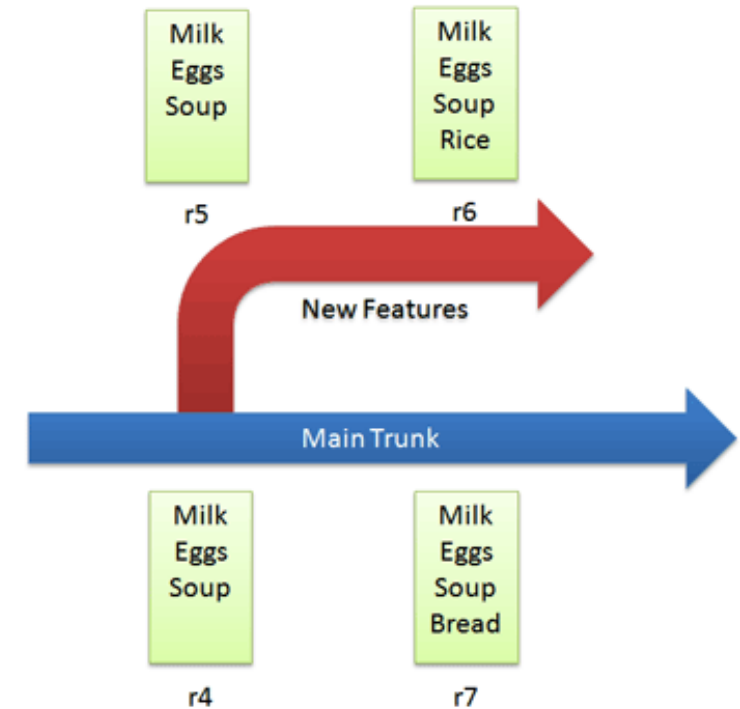
## Basic Checkins



## Checkout and Edit



## Branching



	COMMENT	DATE
○	CREATED MAIN LOOP & TIMING CONTROL	14 HOURS AGO
○	ENABLED CONFIG FILE PARSING	9 HOURS AGO
○	MISC BUGFIXES	5 HOURS AGO
○	CODE ADDITIONS/EDITS	4 HOURS AGO
○	MORE CODE	4 HOURS AGO
○	HERE HAVE CODE	4 HOURS AGO
○	AAAAAAAAAA	3 HOURS AGO
○	ADKFJSLKDFJSDKLFJ	3 HOURS AGO
○	MY HANDS ARE TYPING WORDS	2 HOURS AGO
○	HAAAAAAAAAANDS	2 HOURS AGO

AS A PROJECT DRAGS ON, MY GIT COMMIT MESSAGES GET LESS AND LESS INFORMATIVE.

# Why Git?

- Git has many advantages over earlier systems such as CVS and Subversion
  - More efficient, better workflow, etc.
  - See the literature for an extensive list of reasons
  - Of course, there are always those who disagree
- Best competitor: Mercurial
  - Same concepts, slightly simpler to use
  - The Eclipse plugin is easy to install and use
  - Much less popular than Git

# Online (hosted) Git Solutions

- Github: [github.com](https://github.com)
- Bitbucket: [bitbucket.org](https://bitbucket.org)
- Heroku: [heroku.com](https://heroku.com)