



Matt Stoner

# Agenda

- What is version control?
- Who should use version control?
- What tools are needed to use version control?
- Version Control Exercise (using Dreamweaver CS4)

# Questions you may have

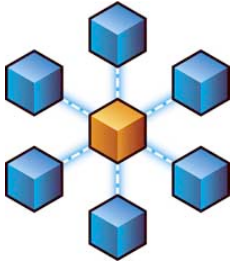


- I'm a mac person, how is this different from time machine?
- How do I setup my own server?
- I don't use cs4 how can I do this?
- I'm a designer, how does this affect me really?
- I work by myself, do I really care about version control?

# What is version control?

- Tracking files over time
- Alternative to “save as”
- Useful for team development

# Lingo



## **Repository**

The database in which files are stored

## **Subversion Server**

The computer storing & hosting the repository

# Lingo



## **Working Set/Working Copy**

Local directory where you make changes

## **Trunk/Main**

The primary location for code in the repository

# Why do I need it?

- **Backup and Restore.** Files are saved as they are edited, and you can jump to any moment in time. Need that file as it was on Feb 23, 2007? No problem.
- **Synchronization.** Lets people share files and stay up-to-date with the latest version.
- **Short-term undo.** Monkeying with a file and messed it up? (That's just like you, isn't it?). Throw away your changes and go back to the "last known good" version in the database.

<http://betterexplained.com/articles/a-visual-guide-to-version-control/>

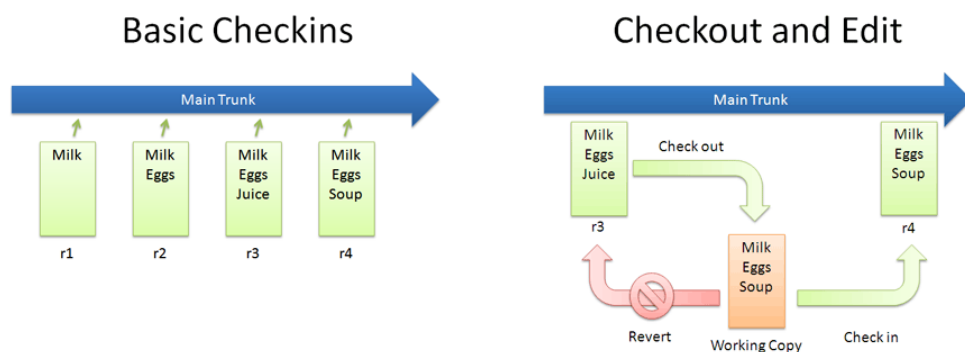
# Why do I need it?

- **Long-term undo.** Sometimes we mess up bad. Suppose you made a change a year ago, and it had a bug. Jump back to the old version, and see what change was made that day.
- **Track Changes.** As files are updated, you can leave messages explaining why the change happened (stored in the VCS, not the file). This makes it easy to see how a file is evolving over time, and why.

# Why do I need it?

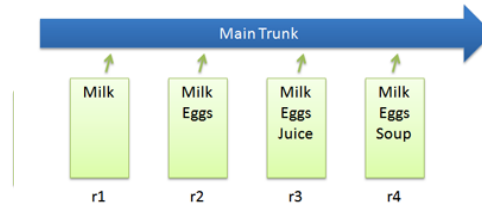
- **Track Ownership.** A VCS tags every change with the name of the person who made it. Helpful for blamestorming giving credit.
- **Sandboxing, or insurance against yourself.** Making a big change? You can make temporary changes in an isolated area, test and work out the kinks before “checking in” your changes.
- **Branching and merging.** A larger sandbox. You can branch a copy of your code into a separate area and modify it in isolation (tracking changes separately). Later, you can merge your work back into the common area.

# How it works



# Diffs

## Basic Checkins



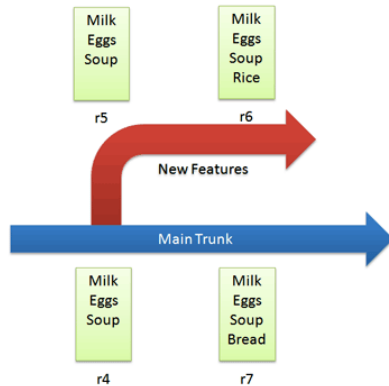
# Diffs

```
Text Compare
Local: GroupTools.cfc
16 TROUBLESHOOTING = "false"
17 UPDATE_INSERT = "insert"
18 >
19
20 <cfinclude template="../instructor_tools/_qry_roster.cfm">
21
22 <!-- loop thru group members to send -->
23
24 <cfset to_list="">
25 <cfloop list="#form.attendees#" index="thisMember">
26 <cfset thisEmail = "#students[thisMember].email#">
27 <cfset to_list = listappend(to_list,thisEmail)>
28 </cfloop>
29
30 <cfmail from="#students[form.created_by].email#" to="#to_list#" bcc="gstoner@u.arizona
31
32 <h3>Meeting Notes </h3>
33
34 <p><b>Outcomes </b></p>
35
36 #form.outcomes#
37
38 <p><b>Action Items </b></p>
39
40 #form.action_items#
41
42 <p><b>Timeline Updates </b></p>
43
44 #form.timeline_updates#
45 </cfmail>
46
47
48
49 </cffunction>
50
51 <cffunction name="postMeetingAgendas" access="remote">
52
53 <CFmodule template="../_ms/Form2DB_admin.cfm"
54 TargetDatasource = "#course_mgmt_ds#"
55 Tablename = "group_project_meeting_agendas"
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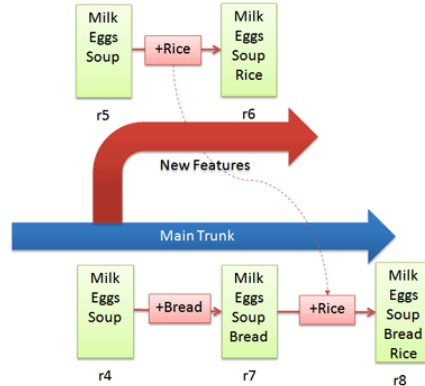
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# Advanced Concepts

## Branching

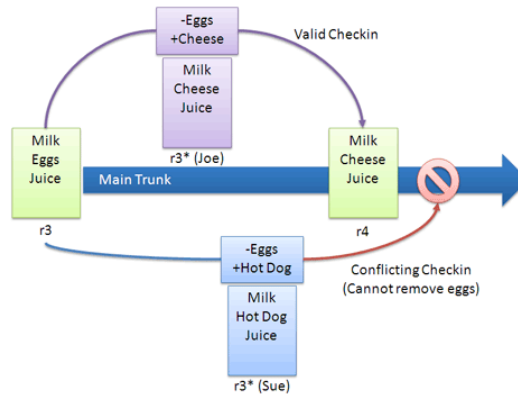


## Merging



# Conflicts

## Conflicts



# Tools

- **Subversion Server**

- Setup your own, or
- Use a service



# Tools

- **Clients**

- Windows - TortoiseSVN
- Mac - ZigZag, Versions
- Subclipse
- Dreamweaver CS4



# Exercise

## Server Resources

- **Installing a subversion server on Leopard**
  - <http://www.sonzea.com/articles/subversion-trac.html>
- **TRAC**
  - <http://trac.edgewall.org/>
- **htpasswd - Manage user files for basic authentication**
  - <http://httpd.apache.org/docs/2.0/programs/htpasswd.html>