

Web sites and Change Management Systems

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Would it help to use a client/server change management system?

What would a change management system buy me?

- A historical, annotated, archive of document versions
- A single storage system for all document types
- Different views of the document database (preview and publish)
- A web filestore writeable only by the CMS
- A mechanism to insert quality control
- Password-protected access to certain trees (if needed)

How does it do that?

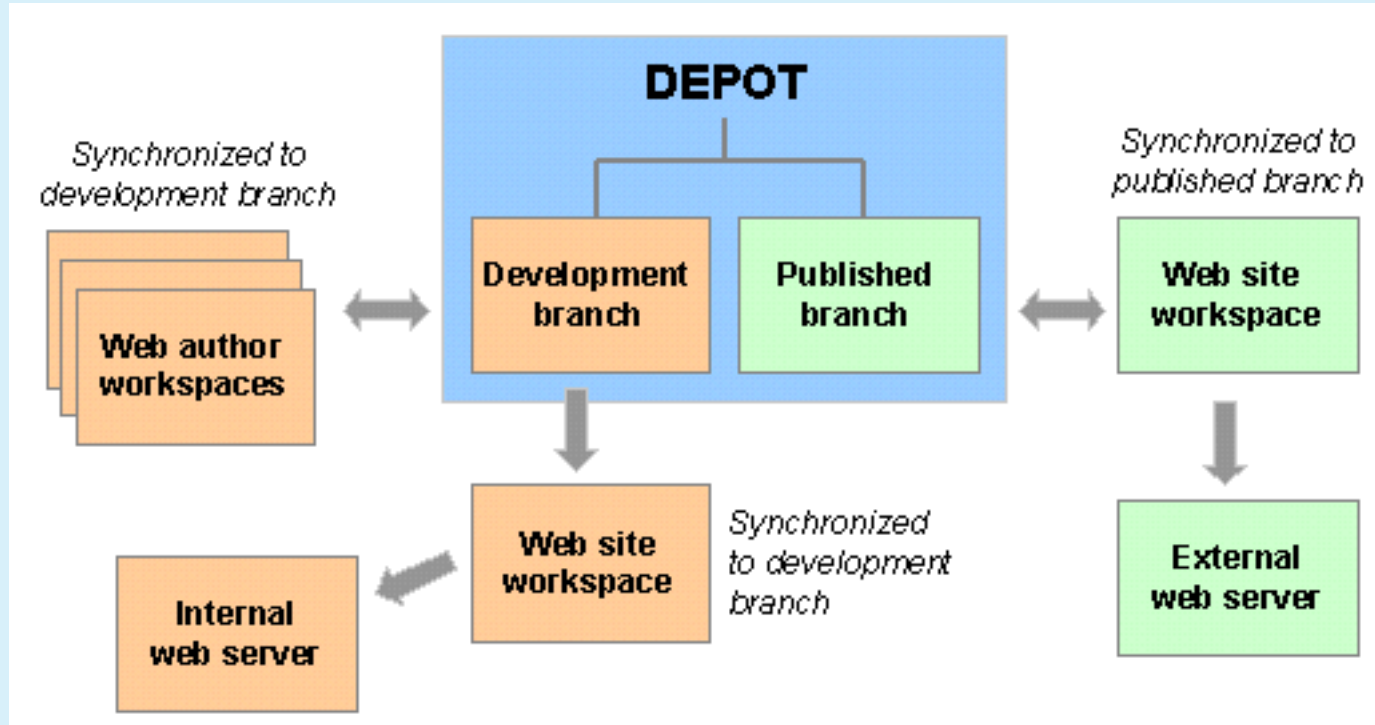
1. All documents are stored in a central server
2. The system keeps all files and all versions forever
3. When you work on a file, you take a copy out and put it back later
4. The system tracks users and their activities
5. You can *branch* a file and maintain different versions of it
6. A web server can be a client

A CMS will not provide

- Any change to writing or formatting systems
- Enforcement of document standards
- Web-specific document management features (migrating links etc)
- Enforcement of metadata
- Link or style checking
- Document content searching

It manages a collection of files, it is not a true document database.

Branching and web servers



Which CMS?

There are dozens of programs for version control, software management, project management,

- RCS, widely available on Unix systems, single user
- CVS (based on RCS), widely used in open source world, client/server
- Aegis (unix only), can support *project management*
- Clearcase, widely used commercial tool
- Visual SourceSafe, Microsoft's offering
- Perforce, the one we are looking at

Perforce

- Fast client/server system
- Client/server conversation uses special TCP/IP port
- Efficient branching
- Clients for Unix, Linux, Windows and Mac (MPW)
- 'View' client for Web
- Programmers API if needed
- Cheap educational license
- Free license for open source projects

<http://www.perforce.com/>

Some technical features

- All submissions must be accompanied by a textual comment
- Authors can examine the file history and see what others are doing
- You can get back old versions of files by revision number, date, label, etc
- Overwriting others changes is never possible; any necessary conflict resolution will be enforced
- Passwords and group protections control who can work on what files
- Web authors can work entirely inside a firewall
- Multiple files are submitted as one unit of work
- Submissions can (optionally) trigger review actions

Perforce jargon

Depot A repository of files managed by Perforce. You cannot work directly on depot files; Perforce makes local copies of them for you.

Client workspace The local directory structure that holds the files you're working on.

Changelist A set of changed files which can be – or has been – submitted to the depot.

Sync Make sure that the files on your local disk are up to date with respect to the master copy

Head revision The latest version of the files

How do we use it at OUCS?

- Separate depots for Web, paper documents, and projects (eg TEI)
- Management of `www.ox.ac.uk/it` pages
- Files in web depot have preview and published branches
- Submission of files in the web depot forces web servers to synchronize
- Internal web server looks at files in preview branch
- Currently entirely open for all OUCS staff to write into

Future plans

- Check and 'compile' web pages at synchronisation time, running a job to
 - Add in metadata from Perforce
 - Convert XML to HTML
 - Check metadata for expiry dates etc
 - Validate DTD and style
- Use CMS for production scripts