wwwdocshare:
A middle-weight collaboration tool

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`http://www.sourceforge.net/projects/wwwdocshare`

Requirements Outline:

- Existing tool spectrum
- wwwdocshare requirements
- Interfaces

Existing tool spectrum

- Light-weight:

Example:	emailing files back and forth
Pro:	No account maintenance, no software installed, works anywhere.
Con:	no collaboration management

- Heavy-weight:

Example:	CVS and other repository-based systems
Pro:	strict collaboration management
Con:	account maintenance, software to install

- Middle-weight?

wwwdocshare high-level requirements

- No account creation
- Partial collaboration management
- Works across institution boundaries
- Works with multi-file projects

wwwdocshare detailed requirements

- Each author keeps local repository mirror
- No central repository
- Main operation: update local files to global latest version
- Web-based user interface using CGI
- Repository-to-repository interface through CGI
- CGI-based peer-to-peer (a first?)

Design decisions

Why web-based?

- Leverage existing web servers
- Target users have web space

Why CGI?

- No reliable way to get file list from a web server
  $\Rightarrow$ Need app-to-app communication
- Use existing protocol (HTTP) for app-to-app communication

wwwdocshare interfaces

Example:

`http://www.cse.ucsc.edu/~ian/cgi-bin/wds.pl?fetch=authorList`

Public interfaces (script-to-script):

- `fetch=authorList`
- `fetch=fileList`
- `query=alive`

wwwdocshare interfaces

Private interfaces (user-to-script):

- `setupDirectory=<PATH>&externalURL=<URL>`
- `addAuthor=<URL>`
- `action=update`

wds.pl interface

wds.pl
+fetch=fileList() +fetch=authorList() +query=alive() -setupDirectory=<PATH>&externalPath=<URL>() -addAuthor=<URL>() -action=update()

wds.pl interface usage