Home directories in CVS

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9 March 2004

What is CVS

- Source control system
  - CVS, Subversion, etc...
  - Versioned files
  - Collaborative changes
  - Remote access
- Useful for configuration files as well

Problems

- Copying files into new home directories
- Changes don't propogate
- Backups don't happen

Challenges

- Portable configuration files
  - Host-specific issues
  - Auto-detection
- CVS ubiquity
  - Available on student.math, student.cs, engage
  - Need a CVS server

Syntax

- Root
  ```
  export CVSROOT='/var/lib/cvs'
  export CVSROOT='peri:/var/lib/cvs'
  ```

- RSH
  ```
  export CVS_RSH='ssh'
  ```

- Create a repository
  ```
  cvs --import sfllaw sfllaw start
  ```

- Checkout
  ```
  cvs checkout sfllaw
  ```

Editing

- Editing files
  `vi .bashrc`

- Adding files
  `cvs add .bashrc`

- Submitting files
  `cvs checkin .bashrc`

- Differences
  `cvs diff .bashrc`

Managing

- Differences
  ```
  cvs diff -r 1.3 .bashrc
  ```

- Logs
  ```
  cvs log .bashrc
  ```

- Reverting
  ```
  cvs update -j 1.4 -j 1.3 .bashrc
  ```

Portability

- Choose portable programs

- Configuration files
  - Turing completeness
  - Host-specific

- Software available:
  http://www.law.yi.org/cgi-bin/viewcvs.cgi/sfllaw/

Example

- Used on various versions of POSIX
    - Debian GNU/Linux
    - Sun Solaris

- Portable startup scripts
    - case `hostname` in laurent*) … ;; esac
    - if (type vim 2>/dev/null >/dev/null); then …; fi

Things you can do

- Migrate your startup files

- Setup all your configuration files

- Manage your entire home directory
http://www.kitenet.net/~joey/cvshome.html

- Use a better source control system

Questions