WHAT'S NEW IN SUBVERSION 1.9?

wanDISCO®

wanDISCO®

A **Different** Approach to High Availability

WANdisco's products leverage our patented replication engine to achieve unmatched speed and resilience in global Hadoop, Subversion, and Git deployments.

Philip Martin

After using a variety of version control systems Philip became a Subversion developer in 2001 to contribute to the development of a new one. For the last few years he has worked for WANdisco, primarily on the development of Subversion.

Julian Foad

Julian Foad is a long-standing Subversion developer, currently focusing on move tracking and merging. He lives in Nottingham, England.

wanDISCO®

HOUSEKEEPING

- This presentation will be available for replay immediately after it concludes.

- If you are experiencing any technical difficulties, please use the "Help" link at the bottom right of the viewing screen, or email support@brighttalk.com

- Submit questions at any time, using the "ASK A QUESTION" button at the top of the viewing screen.

- Questions will be answered at the end of the session.

- Please take a moment at the end of today's webinar to rate it using the "RATE THIS" button.

Agenda

- 1.9 Client Compatibility

- Client Improvements:

    › svn auth/copy/merge/blame/info

- Locking Improvements

- FSFS Format 7

- FSX Experimental Backend

- 1.9 Server Compatibility

1.9 Client Compatibility

- Same WC format as 1.8

- 1.8 and 1.9 clients can be used together

wanDISCO®

Client Improvements

- svn auth

- svn copy --pin-externals

- merge conflict options

- prospective blame

- svn cleanup options

- svn info --show-item

SVN auth

- svn auth <pattern>

- svn auth --remove <pattern>

Pinning Externals

- svn copy --pin-externals

Merge and Conflicts

- commit out-of-date check relaxed

- external merge tool available from interactive conflict resolver

- 3-way conflict markers

Prospective Blame

- svn blame -r HEAD:3 README.txt

  › finds the *next* change to each line

SVN cleanup

- svn cleanup --remove-unversioned

- svn cleanup --remove-ignored

- svn cleanup --include-externals

SVN info – show-item

- ## Display the youngest revision of a repository:

- % svn info --show-item=revision ^/

- 1693514

- ## Find the root directory of a working copy:

- % svn info --show-item=wc-root

- /home/jrandom/src/svn/trunk

SVN admin info

- $ svnadmin info repo/

...

- Repository Format: 5

- Compatible With Version: 1.9.0

- Filesystem Format: 7

- FSFS Shards Packed: 0/0

- Configuration File: repo/db/fsfs.conf

...

Locking Improvements

- File locks for exclusive commit

- Tokens in working copy, locks in repository

- Designed for efficient checking at commit

- Lock users pay the cost

- Scaling issues adding and removing locks

wanDISCO®

HTTP Locking Problem

- WebDAV LOCK and UNLOCK requests

- Separate request per file

- HTTP pipelining

- Reduces effect of network delay

- Pipelining already used for GET requests

- Client only

FSFS Locking Problem

- Write operation for each file

- Total locks in repository matters

- Commits automatically unlock

- Unlock can dominate commit

wanDISCO®

FSFS Multiple Locks

- Multiple files per write operation

- Solves the commit problem

- Works for lock/unlock over svn://

- Server only, same on-disk format

Locking Hooks

- No change for pre-lock and pre-unlock hooks

- Multiple paths to post-lock and post-unlock

- Paths on standard input

wanDISCO®

FSFS Format 7

- New format on disk

- Logical addressing

- Complete checksum coverage

- Commit during pack

FSFS Logical Addressing

- Revision files refer to earlier files

- Reorder pack files for data locality

- Complete checksum coverage

- Dump/load required

FSX Experimental Backend

- Experimental repository backend

- Not for production

- Dump/load for upgrade

1.9 Server Compatibility

- No need to upgrade clients

- No need to upgrade repositories

- Dump/load/pack for full FSFS format 7

wanDISCO®

QUESTIONS

ase feel free to submit your questions

name
_____

TITLE

Email @wandisco.com

wandisco.co

wanDISCO®

Upcoming Webinars and Events

Running Globally Distributed Hadoop Clusters
September 24

STRATA + HADOOP WORLD
New York, NY
September 29 – October 1