

Mercurial DSCM

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What is DSCM

- Distributed Source Code Management
 - > Each user get own MASTER copy
 - > All repositories are peers
- E.g.
 - > Our own SCCS
 - > Git, Bzr etc
 - > Git was used in Linux

Mercurial Information

- Home page www.selenic.com/mercurial
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- Mercurial is also represented as Hg which is the symbol for Mercury or Hydrargyrum in Greek
- Xine, Mozilla, rpm, Xen are using
- Open JDK, Open Solaris, Netbeans
- License GPL
- Model Distributed Source Code Management

Some Terms in Mercurial

- Revision – revision number
- Tag – Label/comment for a particular revision
- ChangeSet – changes on a revision
- Head – root of the tree
- Tip – latest revision on the tree
- User – the person who created the changeset
- Merge revision – 2 parents for a file
- Merge ancestor – there has been a branch in the past

Getting Mercurial

- Written mostly in Python and C
- Except few parts which are OS dependant
- So Build is simple
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- Installer for windows available
- Linux packages come with installation
- Solaris packages available on opensolaris site

What seems good about it

- It is very small in size
- Faster as compared to git
- Easy to use
- Currently very actively maintained
- Easily portable as it is in python and C
- Momentum is very high

What is not so good

- Very new and young system – currently at 0.9.5
- No partial clone
- Earlier no individual patching allowed

Typical workflow

- hg clone --time <http://hg.openjdk.java.net/jdk7/jdk7/hotspot>
- Make the changes (files are not read only)
- hg status
- hg diff <file path>
- hg commit -l <path to comments.txt>
- hg push <path to parent>
- hg pull -u
- hg update – to apply the changes to the rep

Additional Capabilities

- hg export tip – to pass on changes in form of udiff patches
- hg import – to apply the patches into the current repository
- hg merge – to merge changes in different sources
 - > 3 way inputs Local file, Other file from different branch, and the base file
- hg init – to create and setup a completely new rep
- hg log – to check the history
- hg serve -p <port number>

More

- Hg command set can be improved by using extensions
- hg rollback – roll back the last transaction in the rep
- hg mail – generates a patch to be sent by mail
- hg bisect – binary search through the changesets
 - > Useful for searching some comments or a particular bug id
- Other things like Forest extension, MQ extension

Links

- Mercurial Home page <http://www.selenic.com/mercurial>
- Opensolaris packages
<http://opensolaris.org/os/community/tools/scmdownloads/>
- Open JDK repositories <http://hg.openjdk.java.net>
- Quick reference cards <http://www.ivy.fr/mercurial/ref/v1.0>
- Netbeans Sources
<http://www.netbeans.org/communities/sources/hg.html>
- GUI Clients
<http://www.selenic.com/mercurial/wiki/index.cgi/GUIClients>

Thank you