

# Mercurial & Nautilus Integration

Part of my work as  
Summer of Code student  
(Mercurial)

**Motivation:**

third party developers  
of our platform

deserves to be first class  
“users”

Integration:

# Python API (Nautilus & Mercurial)

PyGTK



cross-plaftorm

native integration with  
Explorer

Nautilus

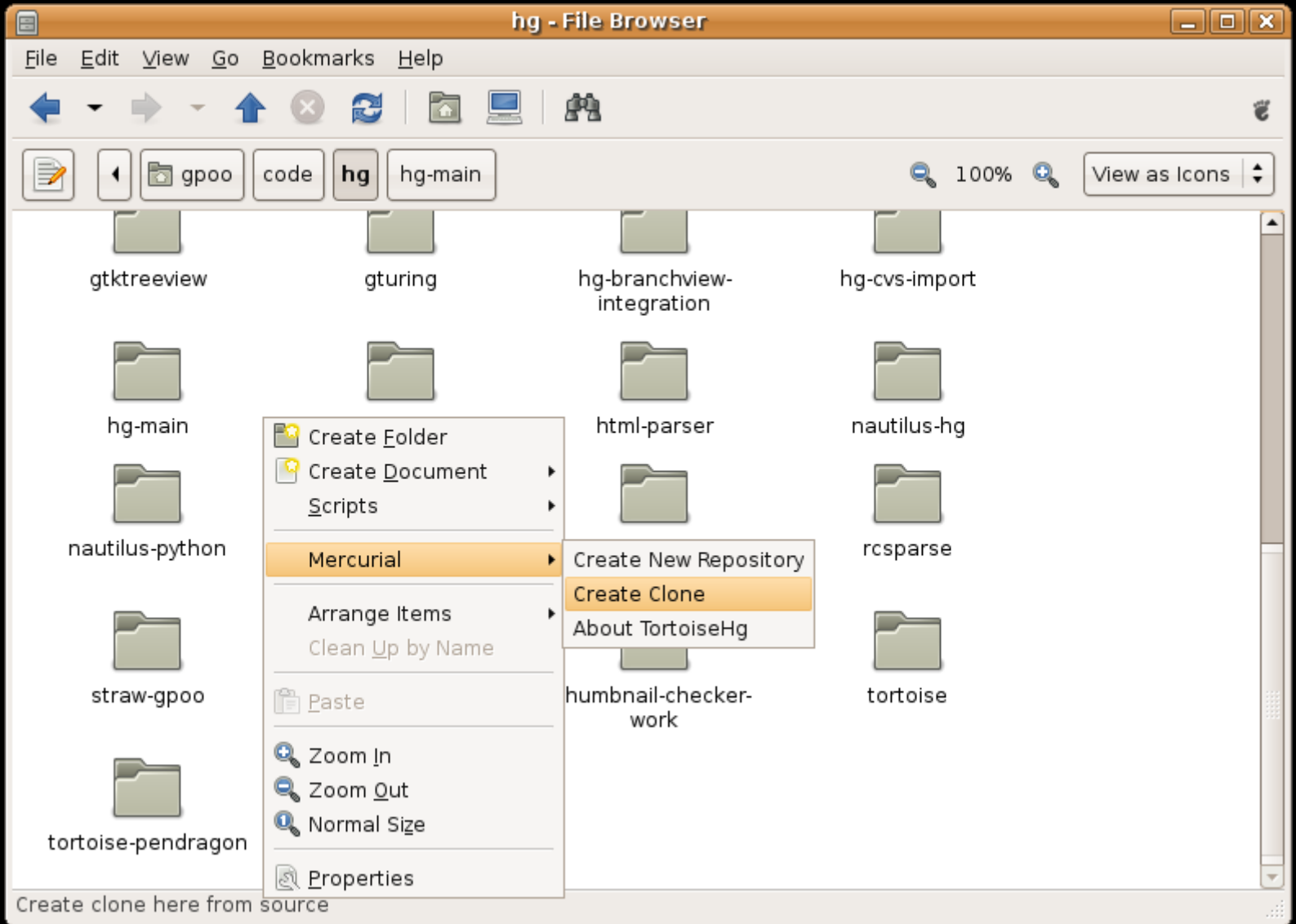
Nautilus

& shell

\$ *hgtk action*

also it *will* provide a  
standalone application

How it looks like:





hg clone - /home/gpoo/code/hg

Source Path: /home/gpoo/code/hg

Destination Path: foobar

Clone To Revision:   Clone all revisions

do not update the new working directory

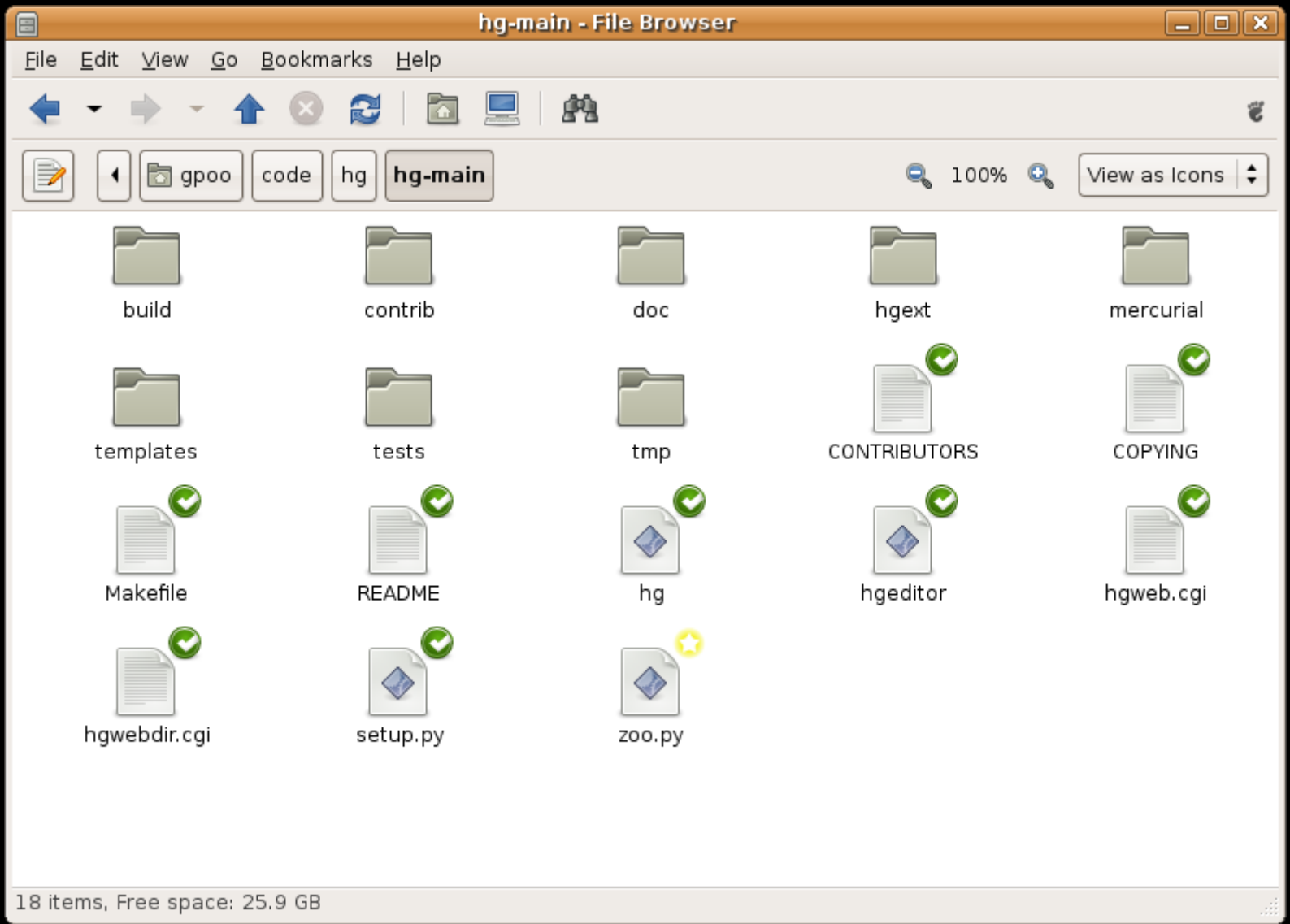
use pull protocol to copy metadata

use uncompressed transfer

use proxy server

Remote Cmd:

**Multiples views**



hg-main - File Browser

File Edit View Go Bookmarks Help

← ◀ ▶ → ↶ ✕ ↷ 🏠 🖥️ 👤

📄 ◀ gpoo code hg **hg-main** 🔍 50% 🔍 View as List

Name	Size	Type	Date Modified	HG Status
▶ mercurial	97 items	folder	Fri 11 Jul 2008 12:48:04 PM EEST	unknown
▶ templates	31 items	folder	Fri 11 Jul 2008 12:48:04 PM EEST	unknown
▶ tests	535 items	folder	Fri 11 Jul 2008 12:48:05 PM EEST	unknown
▶ tmp	7 items	folder	Fri 28 Mar 2008 05:37:41 PM EET	unknown
✔ CONTRIBUTORS	1.6 KB	plain text document	Fri 28 Mar 2008 04:45:24 PM EET	clean
✔ COPYING	17.6 KB	license terms	Thu 21 Sep 2006 11:42:48 PM EEST	clean
✔ Makefile	2.2 KB	Makefile	Fri 14 Sep 2007 09:44:26 PM EEST	clean
✔ README	310 bytes	README document	Sun 14 Jan 2007 02:00:06 AM EET	clean
✔ hg	537 bytes	Python script	Fri 28 Mar 2008 04:45:24 PM EET	clean
✔ hgeditor	1.2 KB	shell script	Fri 14 Sep 2007 09:44:27 PM EEST	clean
✔ hgweb.cgi	886 bytes	CGI script	Fri 28 Mar 2008 04:45:25 PM EET	clean
✔ hgwebdir.cgi	1.5 KB	CGI script	Fri 28 Mar 2008 04:45:25 PM EET	clean
📄 setup.py	4.4 KB	Python script	Fri 11 Jul 2008 01:43:08 PM EEST	modified
🌟 zoo.py	0 bytes	Python script	Fri 11 Jul 2008 01:41:53 PM EEST	unrevised

"zoo.py" selected (0 bytes)

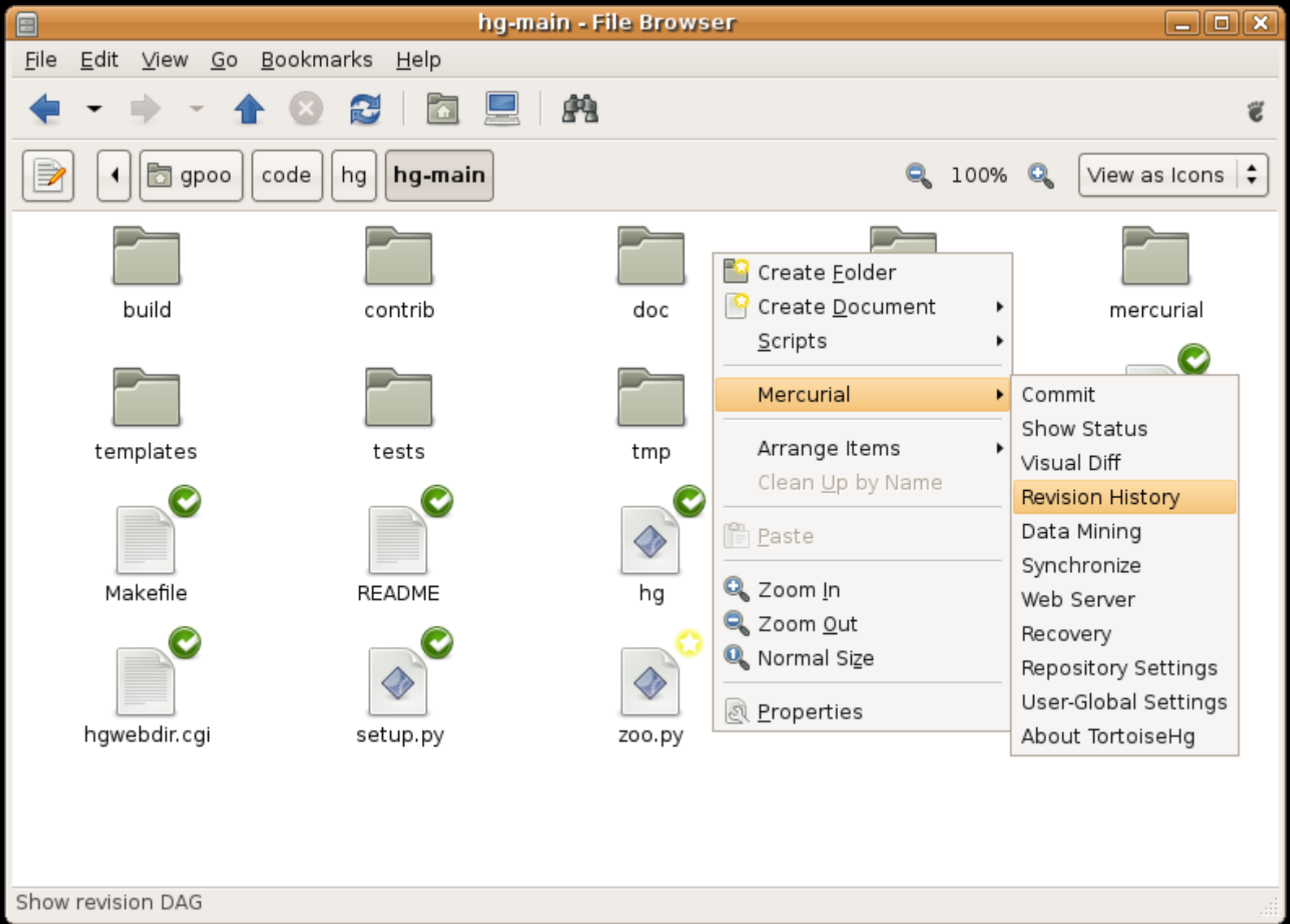
setup.py Properties

Basic Emblems Permissions Open With Notes Mercurial

**Status:** modified  
**Last-Commit-Revision:** 6513  
**Last-Commit-Description:** Add a batch file driver for Windows  
**Last-Commit-Date:** 2008-04-10 21:07:54  
**Last-Commit-User:** Paul Moore <p.f.moore@gmail.com>

 Help  Close

Operations per repository



hg-main - File Browser

File Edit View Go Bookmarks Help



gpoo code hg hg-main

100% View as Icons

- build
- contrib
- doc
- mercurial
- templates
- tests
- tmp
- Makefile
- README
- hgwebdir.cgi
- setup.py
- hg
- zoo.py

- Create Folder
- Create Document
- Scripts
- Mercurial
  - Commit
  - Show Status
  - Visual Diff
  - Revision History
  - Data Mining
  - Synchronize
  - Web Server
  - Recovery
  - Repository Settings
  - User-Global Settings
  - About TortoiseHg
- Arrange Items
- Clean Up by Name
- Paste
- Zoom In
- Zoom Out
- Normal Size
- Properties

Show revision DAG

Operations per file  
or group of files





# Common tasks

History view

hg-main log

The window displays a commit graph on the left and a list of revisions on the right. Revision 6682 is highlighted in yellow. Below the list, a detailed view of revision 6682 is shown, including its parent and child revisions, user information, date, and the commit message. The commit message is: "Fix python2.3 incompatibility introduced by a2b13cac0922." The diff shows changes to the file mercurial/commands.py.

Graph	Rev	Tag	Summary	User
	6685		Merge with crew-stable	Patr
	6684		localrepo: remove useless sort() call	Patr
	6683		merge transplanted cset back from crew-stable	Dirk
	6682		Fix python2.3 incompatibility introduced by a2b13cac0922.	Tho
	6681		run-tests.py: Make tests run with python2.3 if HGTEST_* is s...	Tho
	6680		Ignore dummy copies in dirstate and localrepo.filecommit()	Patr
	6679		context: fix workingctx.fileflags() execute bit	Patr
	6678		sshserver: Don't try to close fp if mkstemp failed	Tho
	6677		Add a normalize() method to dirstate	Paul
	6676		Add a new function, fspath	Paul

Stat	Files
*	[Description]
M	mercurial/commands.py

```

changeset: 6682:4fa7701918ed
user/date: Thomas Arendsen Hein <thomas@intevation.de> 2008-06-11
parent:    6681:6a6ef726a2b3 run-tests.py: Make tests run with p
child:    6686:bb1575f74f27 merge with crew-stable
child:    6724:2e58f1a36046 use ${PYTHON} var in doc/Makefile a
Fix python2.3 incompatibility introduced by a2b13cac0922.

=== mercurial/commands.py ===

```

Done

Diff

hg-main status /home/gpoo/code/hg/hg-main

select st path

<input type="checkbox"/>	M	setup.py
<input type="checkbox"/>	?	zoo.py

```
diff -r e81d2bd66908 setup.py
--- a/setup.py  Fri Jun 27 21:45:16 2008 -0500
+++ b/setup.py  Fri Jul 11 13:44:12 2008 +0300
@@ -18,10 +18,6 @@

import mercurial.version

-extra = {}
-scripts = ['hg']
-if os.name == 'nt':
-    scripts.append('contrib/win32/hg.bat')

# simplified version of distutils.compiler.CCompiler.has_function
# that actually removes its temporary files.
```

modified    removed    unknown    ignored  
 added    deleted    clean

Status

hg-main commit /home/gpoo/code/hg/hg-main

Recent Commit Messages:

Removed win32 dependency

select	st	path
<input checked="" type="checkbox"/>	M	setup.py
<input type="checkbox"/>	?	zoo.py

```
diff -r e81d2bd66908 setup.py
--- a/setup.py  Fri Jun 27 21:45:16 2008 -0500
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modified    removed    unknown    ignored  
 added    deleted    clean



# Annotations

DataMining - hg-main



hg@5531 Search 1

Graph	Rev	Summary	User	Date
	5531	Change standard streams mode to binary at hg startup	Patrick Mezard	2007-11-16
	5197	Enable demandimport only in scripts, not in importable mo...	Thomas Arends...	2007-08-18
	5178	dispatch: move command dispatching into its own module	Matt Mackall	2007-08-15
	4635	Updated copyright notices and add "and others" to "hg ver...	Thomas Arends...	2007-06-19
	3877	Replace demandload with new demandimport	Matt Mackall	2006-12-15
	1698	Update copyright notice	Matt Mackall	2006-02-06

Rev	Matches
5197	from mercurial import demandimport, demandimport, enable...
5197	
5531	import sys
5531	import mercurial.util
5178	import mercurial.dispatch
5531	
5531	for fp in (sys.stdin, sys.stdout, sys.stderr):
5531	mercurial.util.set_binary(fp)

Done

Compare with other  
repositories

TortoiseHg Synchronize - hg-main

Remote Path:   use proxy server

Advanced Options

Target Revision:

Force pull or push

Incoming/Outgoing

Show Patches  Show Newest First  Show No Merges

```
comparing with http://selenic.com/repo/hg-stable
searching for changes
changeset: 6766:e81d2bd66908
tag:      tip
user:     Matt Mackall <mpm@selenic.com>
date:     Fri Jun 27 21:45:16 2008 -0500
files:    hgext/acl.py tests/test-acl.out
description:
acl: refactoring

- undo class structure
- make buildmatch return None for no function
- use contexts properly
```

Done

Sharing the repository with a  
web server

hg serve - hg-main

HTTP Port:

```
listening at http://calcifer:8000/ (0.0.0.0:8000)
127.0.1.1 - - [11/Jul/2008 13:45:40] "GET / HTTP/1.1" 200 -
127.0.1.1 - - [11/Jul/2008 13:45:41] "GET /static/style.css HTTP/1.1" 200 -
127.0.1.1 - - [11/Jul/2008 13:45:41] "GET /static/hglogo.png HTTP/1.1" 200 -
127.0.1.1 - - [11/Jul/2008 13:45:58] "GET /rev/bel42cb994ff HTTP/1.1" 200 -
127.0.1.1 - - [11/Jul/2008 13:45:58] "GET /static/style.css HTTP/1.1" 200 -
127.0.1.1 - - [11/Jul/2008 13:45:58] "GET /static/hglogo.png HTTP/1.1" 200 -
127.0.1.1 - - [11/Jul/2008 13:46:41] "GET /log/6766 HTTP/1.1" 200 -
127.0.1.1 - - [11/Jul/2008 13:46:42] "GET /static/style.css HTTP/1.1" 200 -
127.0.1.1 - - [11/Jul/2008 13:46:42] "GET /static/hglogo.png HTTP/1.1" 200 -
127.0.1.1 - - [11/Jul/2008 13:46:48] "GET /diff/e81d2bd66908/hgext/acl.py HTTP/1.1" 200 -
127.0.1.1 - - [11/Jul/2008 13:46:48] "GET /static/style.css HTTP/1.1" 200 -
127.0.1.1 - - [11/Jul/2008 13:46:48] "GET /static/hglogo.png HTTP/1.1" 200 -
```

hg-main: shortlog

File Edit View Go Bookmarks Tools Tabs Help

http://calcifer:8000/

changelog tags files rss atom

## shortlog for hg-main

search:  navigate: (0) -3000 -1000 -300 -100 -60 tip

13 days	Matt Mackall	<a href="#">acl: refactoring</a>
13 days	Matt Mackall	<a href="#">manifest: make checkforbidden take a list</a>
13 days	Matt Mackall	<a href="#">context: add walk method</a>
13 days	Matt Mackall	<a href="#">context: add __int__ and hex methods</a>
13 days	Matt Mackall	<a href="#">util: add sort helper</a>
13 days	Matt Mackall	<a href="#">remove: work directly off status</a>
13 days	Matt Mackall	<a href="#">status: clean up all users for unknown files</a>
2 weeks	Matt Mackall	<a href="#">churn: major refactor</a>
2 weeks	Brendan Cully	<a href="#">Check that git patches only touch files under root</a>
2 weeks	Matt Mackall	<a href="#">purge: cleanup</a>
2 weeks	Matt Mackall	<a href="#">dirstate: improve case-folding logic</a>
2 weeks	Matt Mackall	<a href="#">dirstate: fold statwalk and walk</a>

That is



Nautilus  
&  
Mercurial

a tortoise



with steroids



Simple,

Fast,

Better





Why Gnome/Mercurial's  
developers doesn't make any  
noise?

for the same reasons  
Gnome/Python's developers  
didn't make any noise during  
the C#/Java “war”