

RhodeCode

VCS on NAS IDM via LDAP

Seminarvortrag in der
Arbeitsgemeinschaft Rechnerbetrieb
Universität Bielefeld



Worüber möchte ich hier erzählen?

- Installation und Betrieb von RhodeCode auf Kleinstserver
 - Hier Synology NAS DS 1010+ (x86 Prozessor)
- Voraussetzung: Installation von ipkg/optware
 - Benötigte Pakete:
 - Python27 (Bug in global config: 2.5 → 2.7)
 - sudo (empfohlen)
 - OpenLdap 2.4 oder gcc/buildtools
 - Empfehlung:
 - Einen User ≠ („root“ | „admin“) zum Ausführen
 - Benötigte Verzeichnisse
 - Ein Repository-Verzeichnis
 - Ein runtime Verzeichnis (logs, DBs, config)
 - /opt/local Verzeichnis für nachinstallierte Python-Pakete

Ersteinrichtung

- RhodeCode ist Python!
 - `sudo easy_install pip`
 - `sudo pip install python-ldap`
 - → das ist nicht gar so einfach: Siehe LDAP-Folie
 - `sudo pip install rhodecode`
- Dann nach Doku auf Webseite:
 - „production.ini“
 - erzeugen lassen
 - nach Bedarf editieren
 - Minimal bleiben, das ist ein Kleinstserver!
 - kein „celery“ und Messaging-Middleware
 - keine großen DBs: Sqlight3 ist hinreichend (sowieso nur für config)
 - „paster“ ist gut genug, da sonst Konflikte mit Apache conf. möglich
- Hinweis:
 - wir benutzen eine /opt-ware
 - Finger/Editor weg von allem, was nicht unter /opt oder den user volumes liegt!

Was ist nun RhodeCode?

- Frontend auf Mercurial (hg) und Git

The screenshot shows the RhodeCode web interface. At the top, there's a navigation bar with 'RhodeCode' and several utility buttons: Summary, Changelog, Switch to, Files, Options, a heart icon with '1', a green checkmark with '0', and a user profile icon. Below this is a breadcrumb trail: 'HOME » ASN.1-TEST » FILES @ R5:312E83BC5EEB' and 'BRANCH: DEFAULT'. The main content area is titled 'Location: ASN.1-Test'. It features a 'view@rev' section with a dropdown menu set to '5' and a checkbox for 'follow current branch'. Below this is a search input field labeled 'search file list'. The core of the interface is a table listing files and directories. The table has columns for Name, Size, Mimetype, Last Revision, Last modified, and Last commiter. The files listed include directories like 'm4' and 'src', and various text files such as '.hgignore', 'AUTHORS', 'COPYING', 'ChangeLog', 'INSTALL', 'Makefile.am', 'NEWS', 'README', 'adlocal.m4', 'configure', 'configure.ac', 'gen_mk.sh', and 'reconf.sh'. Each file entry shows its size, mimetype, the revision hash, the time since it was last modified, and the name of the committer, 'MartinF'. At the bottom of the interface, there is a 'Submit a bug' button on the left and the version information 'RhodeCode 1.3.6 © 2010-2012 by Marcin Kuzminski' on the right.

Name	Size	Mimetype	Last Revision	Last modified	Last commiter
m4					
src					
.hgignore	630 B	text/plain	r0:3a14dae0c790	1 day and 17 hours ago	MartinF
AUTHORS	0 B	text/plain	r0:3a14dae0c790	1 day and 17 hours ago	MartinF
COPYING	34.3 KiB	text/plain	r0:3a14dae0c790	1 day and 17 hours ago	MartinF
ChangeLog	0 B	text/plain	r0:3a14dae0c790	1 day and 17 hours ago	MartinF
INSTALL	15.4 KiB	text/plain	r0:3a14dae0c790	1 day and 17 hours ago	MartinF
Makefile.am	995 B	text/plain	r2:bb94d2f354fd	1 day and 15 hours ago	MartinF
NEWS	0 B	text/plain	r0:3a14dae0c790	1 day and 17 hours ago	MartinF
README	117 B	text/plain	r0:3a14dae0c790	1 day and 17 hours ago	MartinF
adlocal.m4	36.7 KiB	text/plain	r0:3a14dae0c790	1 day and 17 hours ago	MartinF
configure	620.9 KiB	text/plain	r0:3a14dae0c790	1 day and 17 hours ago	MartinF
configure.ac	5.2 KiB	text/plain	r5:312e83bc5eeb	3 hours and 53 minutes ago	MartinF
gen_mk.sh	7.2 KiB	application/x-sh	r2:bb94d2f354fd	1 day and 15 hours ago	MartinF
reconf.sh	1.3 KiB	application/x-sh	r0:3a14dae0c790	1 day and 17 hours ago	MartinF

Autorisierung via LDAP

- Knackpunkt:
 - python-ldap
 - Benötigt openldap 2.4
 - Syno/ipkg hat aber nur 2.3
 - Openldap z.B. nach /opt/ol24 installieren
 - es werden nur die Libs benötigt
 - in python-ldap die setup.cfg entsprechend anpassen!
- Hack
 - man kann sich das Leben stark vereinfachen, in dem man die libs und links nach /opt/lib kopiert und mit chrpath angleicht
 - includes ggf unter /opt/include/openldap2.4 ablegen

The screenshot shows the RhodeCode web interface with the following configuration sections:

- Connection settings**
 - Enable LDAP:
 - Host: 192.168.1.26
 - Port: 389
 - Account: admin
 - Password: [masked]
 - Connection security: No encryption
 - Certificate Checks: NEVER
- Search settings**
 - Base DN: cn=users,dc=diskstation,dc=fritz,dc=box
 - LDAP Filter: (&(objectClass=person)!&(objectClass=computer))
 - LDAP Search Scope: SUBTREE
- Attribute mappings**
 - Login Attribute: uid
 - First Name Attribute: firstName
 - Last Name Attribute: lastName
 - E-mail Attribute: mail

A "Save" button is located at the bottom right of the form.

- Zentrale
 - Projektübersicht
 - Benutzerverwaltung
 - gesteuerte Einsicht in die Projekte
 - Backup-Möglichkeit!
- Integration
 - mit TTS (bugs)
 - mit mail (Events)
- Statistische Info
 - für z.B. Projektleiter
 - zur Analyse der Dat'typen (Sprachen)
- Übersicht (graphisch)
 - über branches
 - über revisions
- Konsolidierung des Projektes

The screenshot displays the RhodeCode interface for a project named 'ASN.1-Test'. The main content area is divided into two columns. The left column shows project metadata: Name (ASN.1-Test), Description (Example Autotools project for the free ASN.1 Copmiler asn1c.), Contact (Martin Fröhlich), and Clone url (http://192.168.1.26:8500/ASN.1-Test). Below this is a 'Trending files' section with a bar chart showing file types and their percentages: Dtd (dtd) at 20%, Bash (sh) at 20%, Groff (man) at 10%, Cpp (cc) at 10%, Cpp (hh) at 10%, Cpp (cpp) at 10%, C (c) at 10%, and C (h) at 10%. A 'Download' section offers options like 'default', 'Download as zip', and 'with subrepos'. The right column features a 'COMMIT ACTIVITY BY DAY / AUTHOR' chart with the title 'Stats gathered: 100.00%'. The chart shows activity for MartinF across various dates from 24/10 to 16/11. Below the chart is a 'SHORTLOG' table listing recent revisions.

revision	commit message	age	author	branch	tags
r5:312e83bc5eeb	modernized and debugged	3 hours and 48 minutes ago	MartinF	DEFAULT	TIP
r4:b0d9432d1fee	adjusted to compile	17 hours and 54 minutes ago	MartinF	DEFAULT	
r3:c06705094935	adjusted to compile	17 hours and 54 minutes ago	MartinF	DEFAULT	
r2:bb94d2f354fd	Keyword handling enabled	1 day and 15 hours ago	MartinF	DEFAULT	
r1:0b2d153b2b83	Id test	1 day and 16 hours ago	MartinF	DEFAULT	
r0:3a14dae0c790	Initial checkin	1 day and 17 hours ago	MartinF	DEFAULT	

RhodeCode : Do IT ON NAS!



FRAGEN?