

Version Control dengan Subversion

Endy Muhardin <endy@artivisi.com>

<http://endy.artivisi.com>

last updated : 2006-11-29

Materi

Apa itu version control

Apa itu Subversion

Penggunaan harian

Tag, Branch, Merge

Perangkat tambahan

Version Control

File Server

Menyimpan riwayat perubahan

Tag: menandai momen penting

Branch : bekerja paralel

Merge : menggabungkan perubahan

Subversion

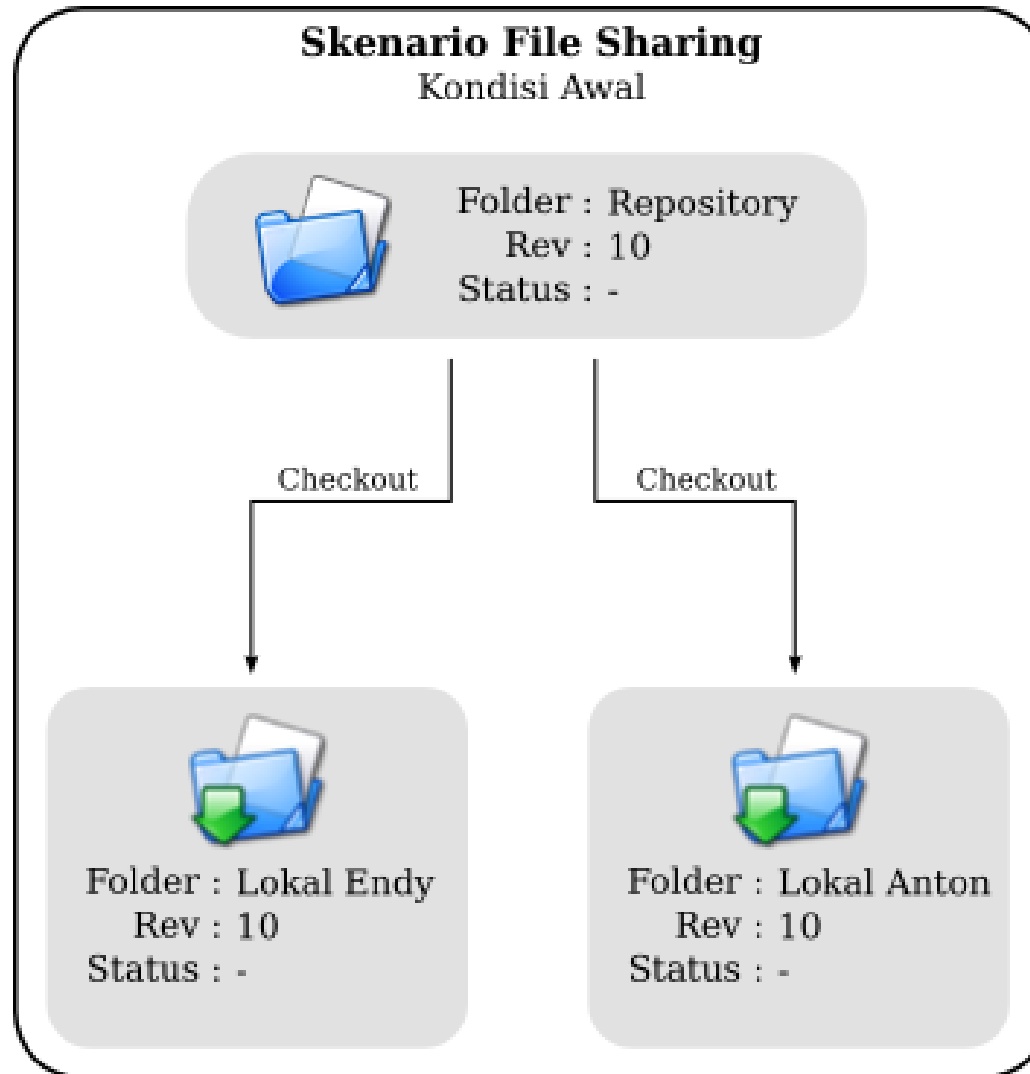
<http://subversion.tigris.org>

Tujuan : menggantikan CVS

Sponsor : CollabNet

Lisensi : Open Source & Gratis

Tanpa Subversion [1]



Tanpa Subversion [2]

Skenario File Sharing

Kedua programmer mengedit file yang sama



Folder : Repository
Rev : 10
Status : -

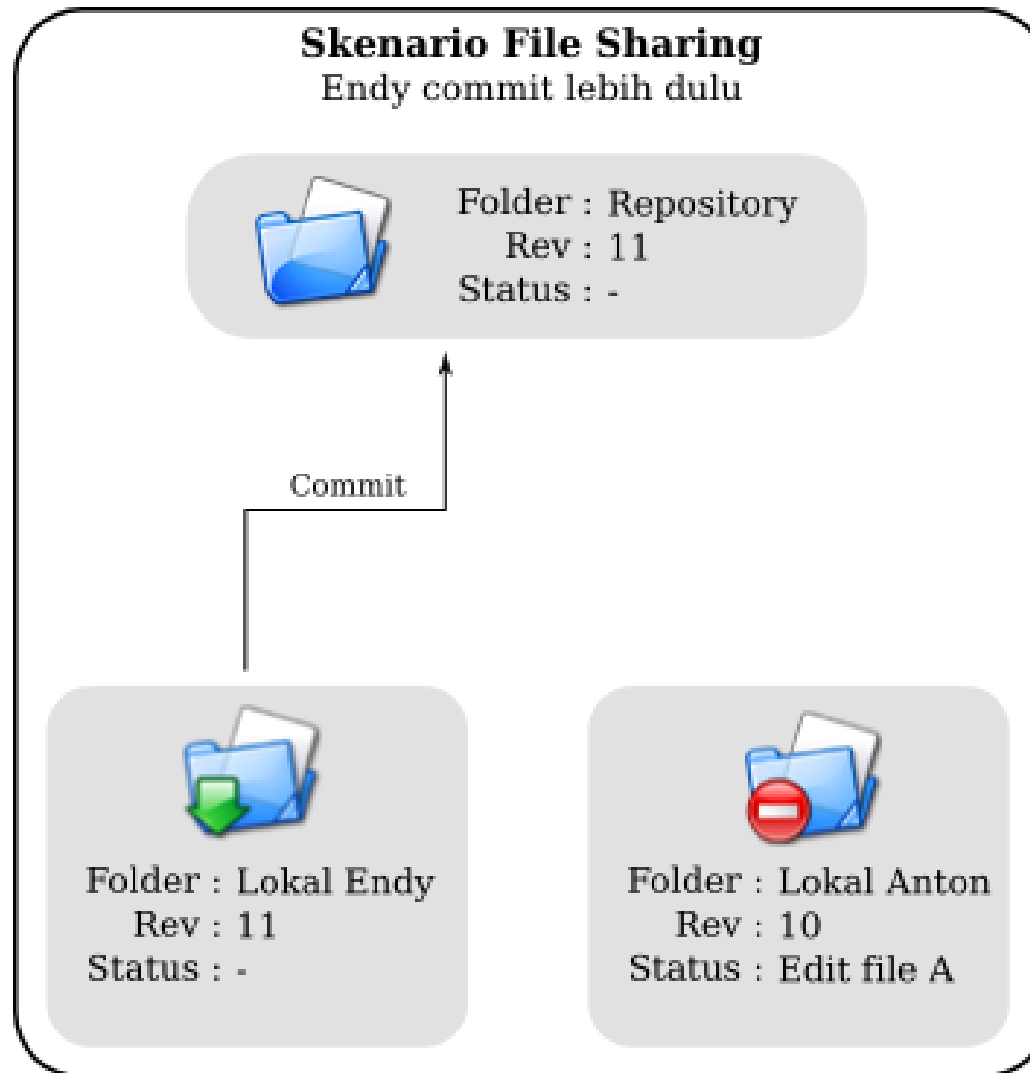


Folder : Lokal Endy
Rev : 10
Status : Edit file A

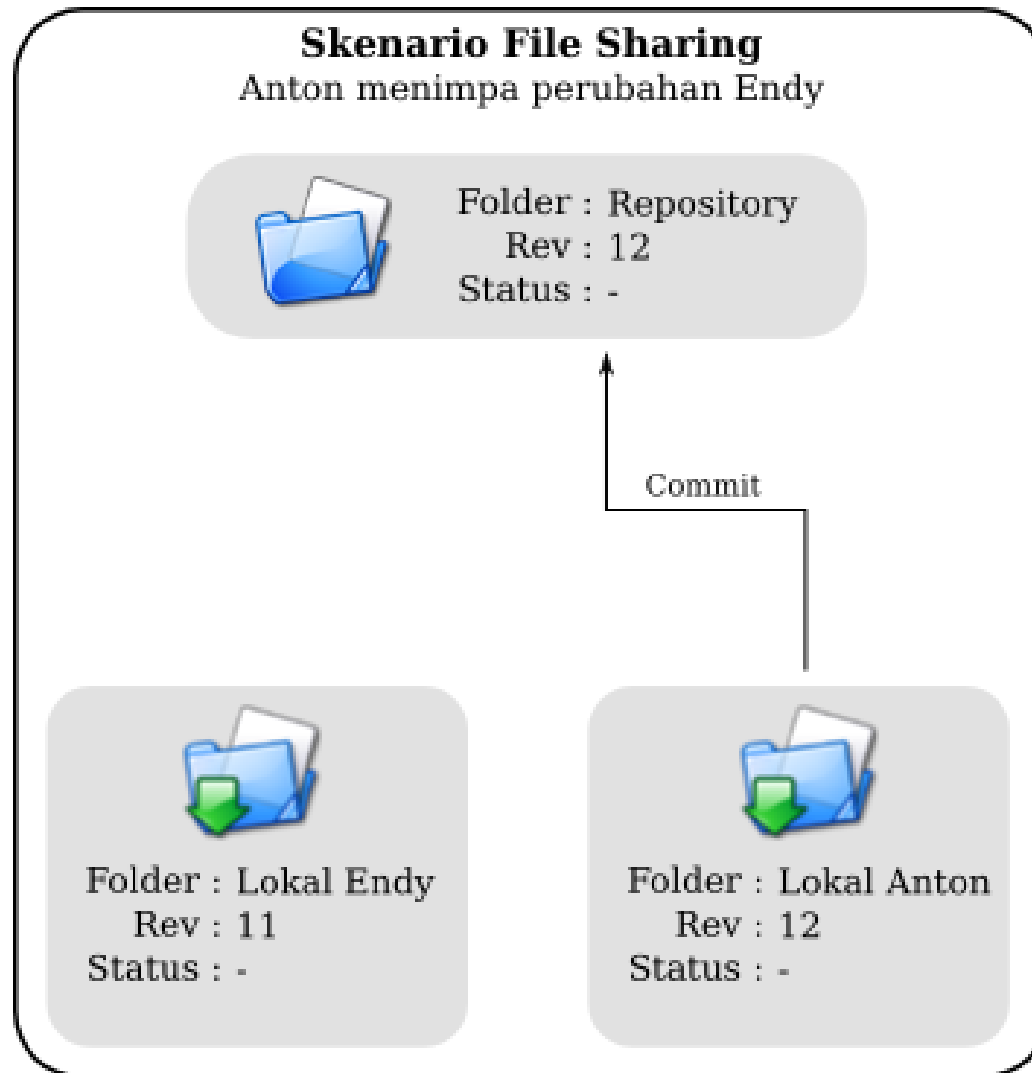


Folder : Lokal Anton
Rev : 10
Status : Edit file A

Tanpa Subversion [3]



Tanpa Subversion [4]



Dengan Subversion [1]

Checkout-Edit-Merge

Kedua programmer mengedit file yang sama



Folder : Repository

Rev : 10

Status : -



Folder : Lokal Endy

Rev : 10

Status : Edit file A

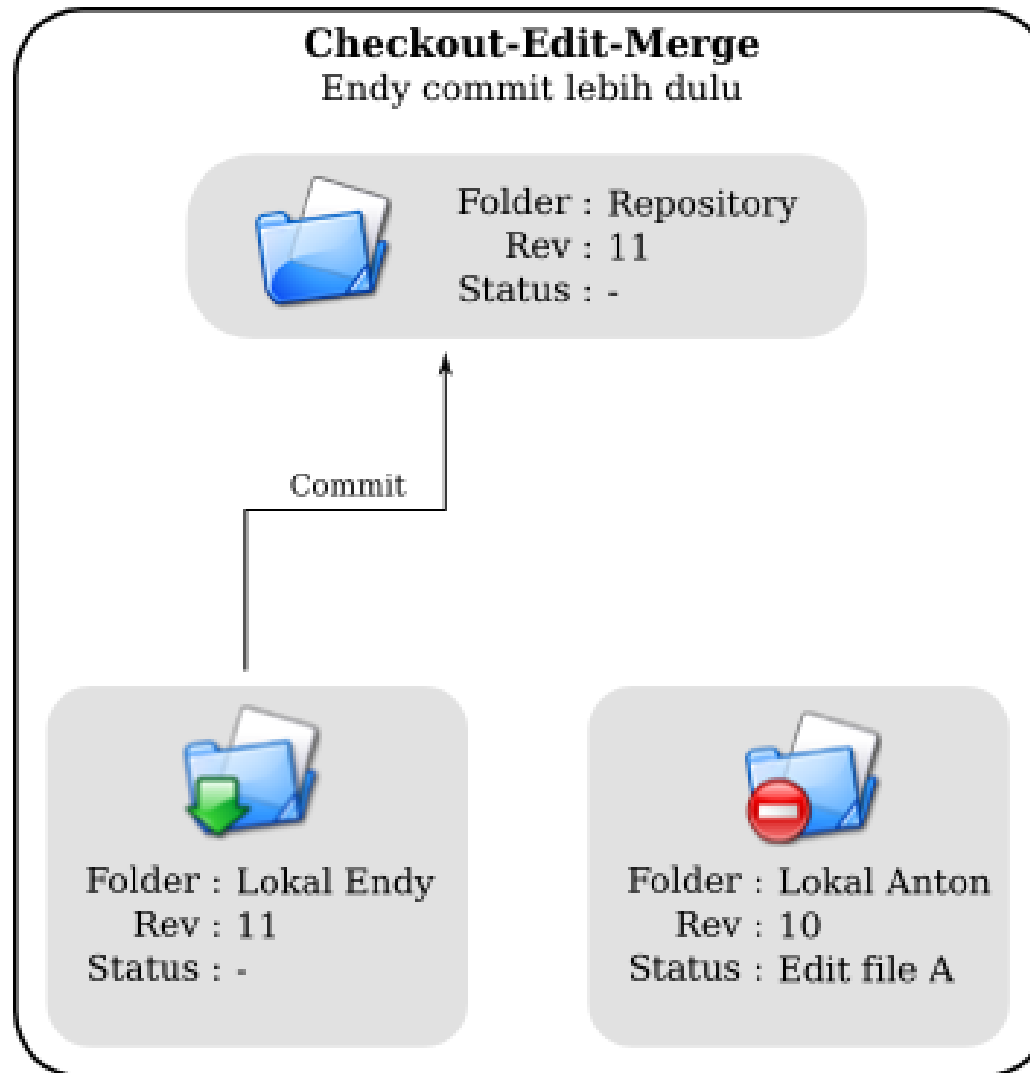


Folder : Lokal Anton

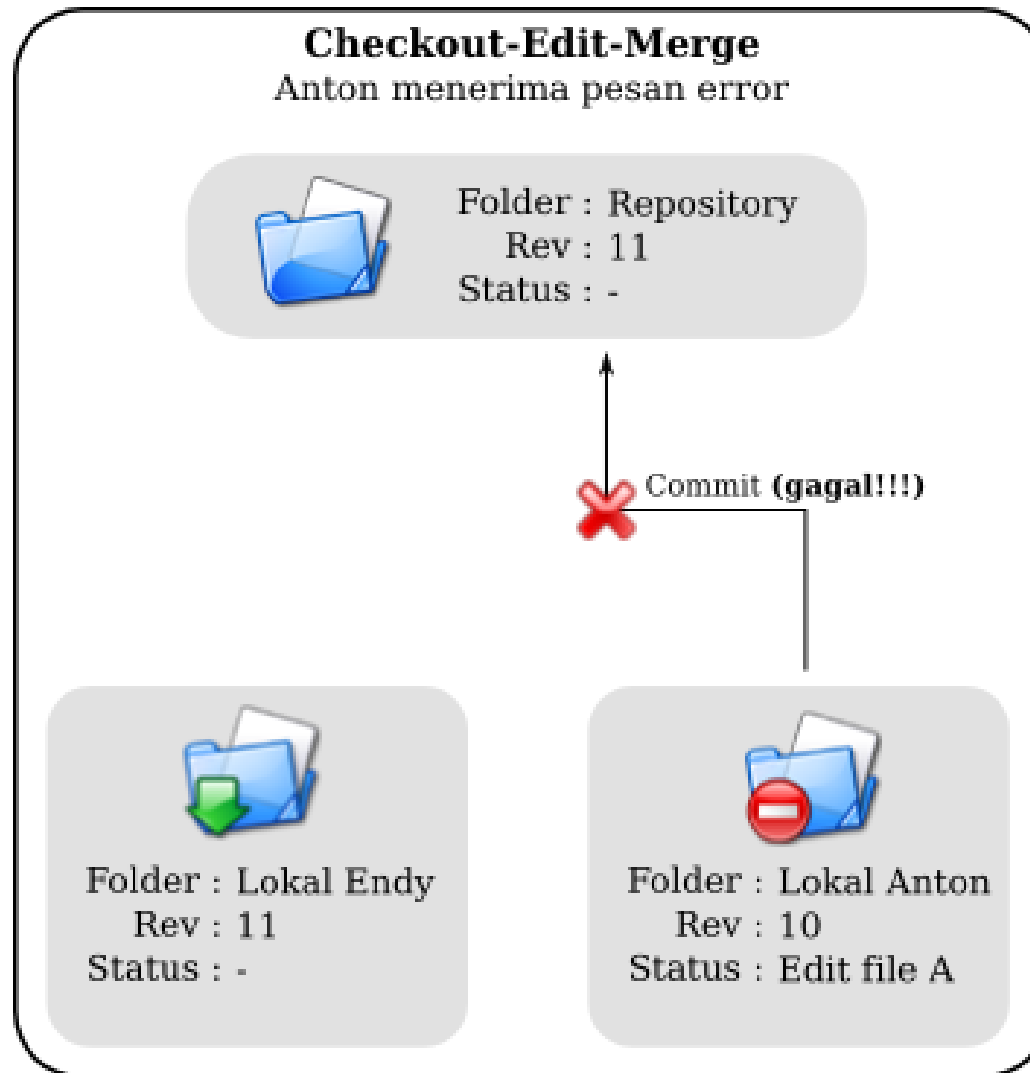
Rev : 10

Status : Edit file A

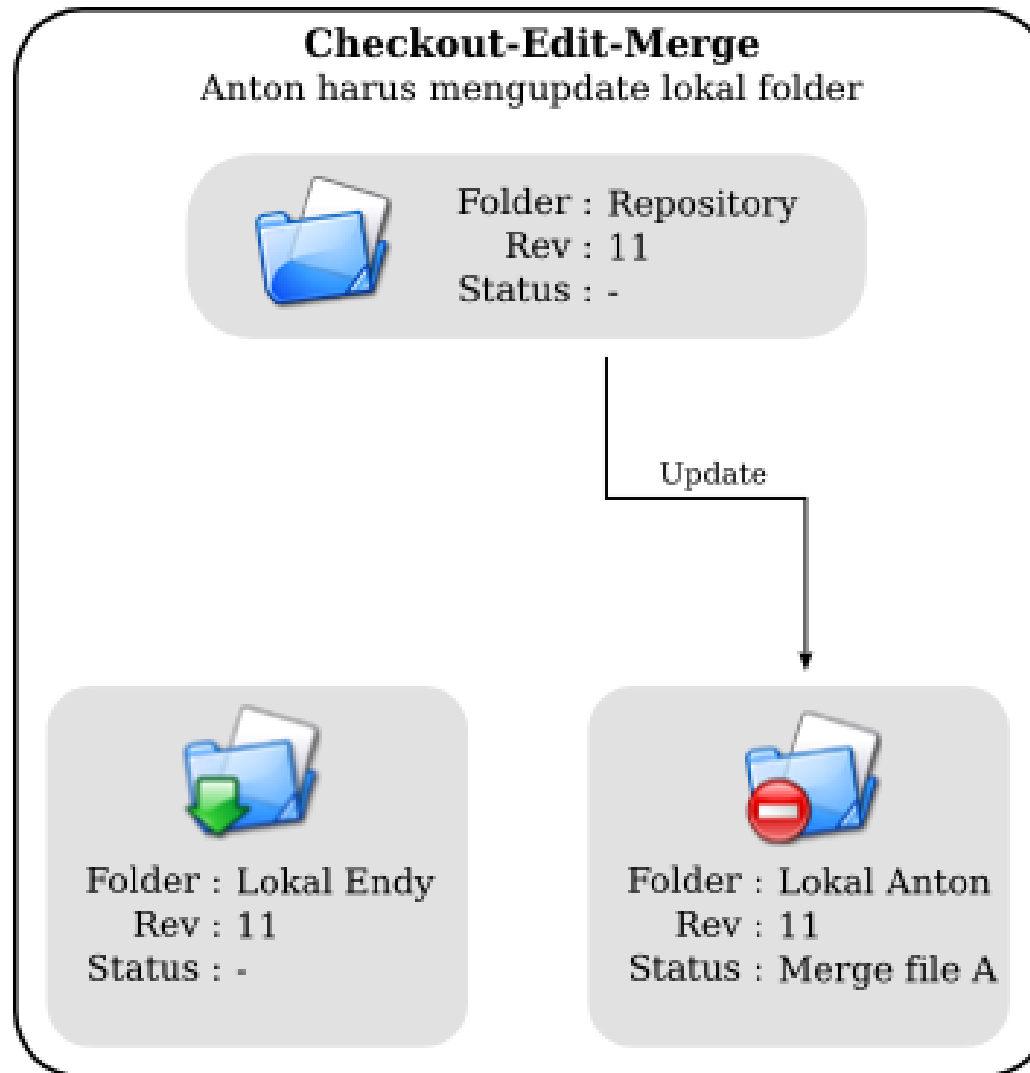
Dengan Subversion [2]



Dengan Subversion [3]



Dengan Subversion [4]



Membuat Repository

```
svnadmin create --fs-type fsfs folder
```

Protokol svnservice

```
svnservice -d -r nama-folder
```

svnserve.conf

[general]

#anon-access = read

auth-access = write

password-db = passwd

realm = Repo Saya

passwd

[users]

endy = latihan

anton = belajar

mkdir

```
svn mkdir svn://localhost/trunk
```

import

```
svn import . svn://localhost/trunk
```

checkout

```
svn checkout svn://localhost/trunk
```

status

```
svn status
```

commit

```
svn commit -m "keterangan perubahan"
```

history

```
svn log nama-file
```

Diff / Delta

Subversion tidak menyimpan seluruh file
Hanya menyimpan selisih antar revision

```
svn diff -r10:13 nama-file
```

rev 1

```
public class Kalkulator{  
  
}
```

rev 2

```
public class Kalkulator{  
    public int tambah(int x, int y){  
        return x + y;  
    }  
}
```

rev 3

```
public class Calculator{  
    public int add(int x, int y){  
        return x + y;  
    }  
    public int subtract(int x,int y){  
        return x - y;  
    }  
}
```

Isi database Subversion

<i>Rev</i>	<i>Isi</i>	<i>Tindakan</i>
1	<pre>public class Kalkulator { }</pre>	tambah ke repository
2	<pre>public int tambah (int a, int b) { return a + b ; }</pre>	selipkan di bawah baris 1
3	<pre>public class Calculator</pre>	ganti baris 1
	<pre>public int add (int a, int b) {</pre>	ganti baris 2
	<pre>public int subtract (int a, int b) { return a - b ; }</pre>	selipkan di bawah baris 4

Branch & Tag

Tag : menandai titik penting

rilis ke QC

rilis ke pelanggan

sebelum/sesudah refactoring

sebelum/sesudah merge

Branch : memungkinkan kerja paralel

persiapan rilis & penambahan fitur

refactoring besar

Branch & Tag Subversion

Berbeda dengan branch/tag CVS

Operasi copy folder biasa

Bisa commit ke tag

Cheap copy, tidak boros space

tag

```
svn cp trunk tags/nama-tag
```

branch

```
svn cp trunk branches/nama-branch
```

Konsep Merge

Menggabungkan perubahan di folder lain

Butuh tiga parameter:

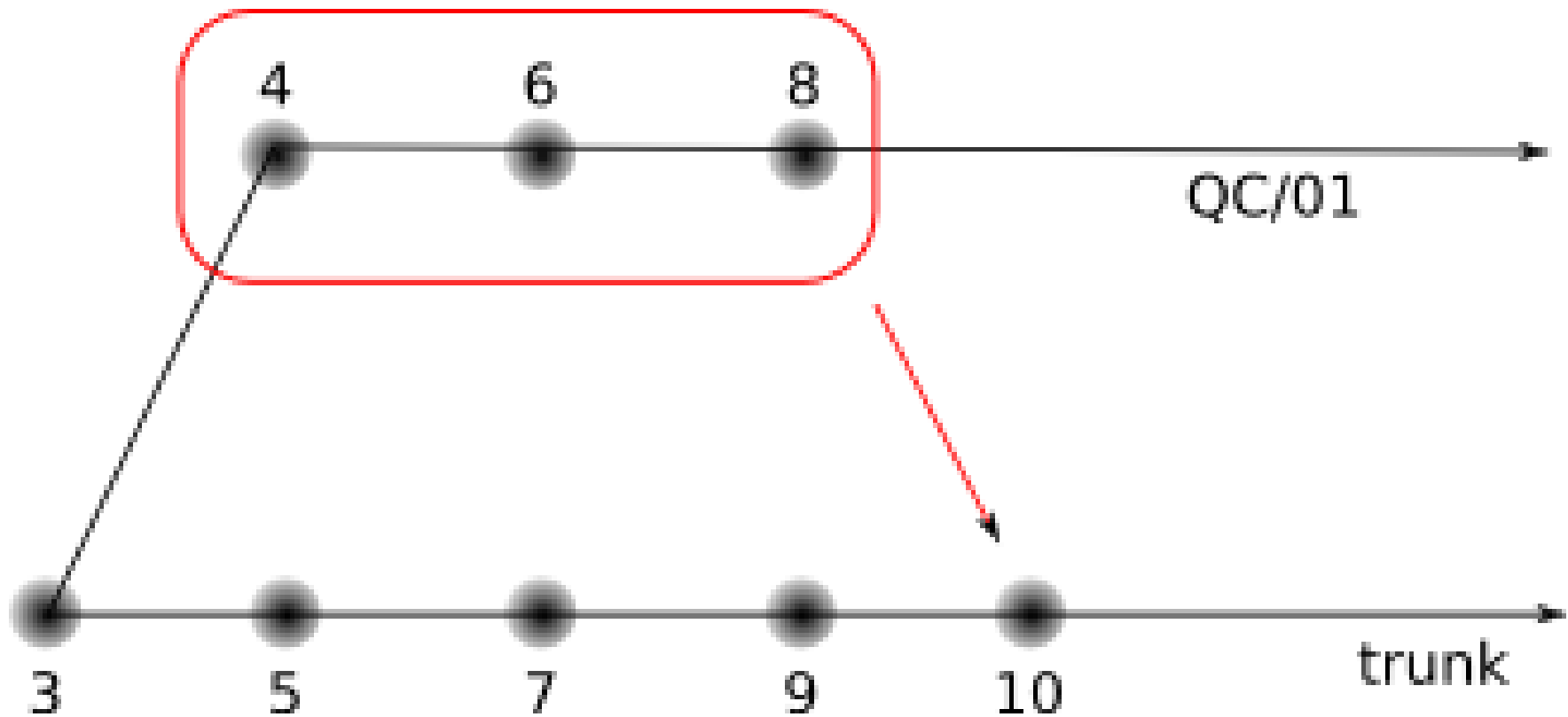
- folder asal

- titik awal

- titik akhir

Dijalankan di folder tujuan

Parameter Merge



merge

```
svn merge -r4:8 svn://localhost/QC/01
```

Aplikasi Client

Command Line

TortoiseSVN

RapidSVN

IDE (Eclipse, Netbeans, IDEA)

Cadaver (WebDAV client)

Macromedia Dreamweaver (WebDAV)

Ant

Aplikasi Tambahan

WebSVN

open source

dibuat dengan PHP

Fisheye

komersial

dibuat dengan Java

Menampilkan informasi isi repository

diff

blame

WebSVN

WebSVN - Repository Latihan - Diff - Rev 12 and 11 - /trunk/build.xml - Firefox

File Edit View Go Bookmarks Tools Help del.icio.us

http://localhost/~endy/web... repository Latihan

Repository Latihan

[/] [trunk/] [build.xml] -

Diff between revs 11 and 12

[Show entire file](#)

Rev 11	Rev 12
<p>Line 1...</p> <pre><project name="belajar-subversion"> <property name="src.dir" value="src/java"/> <property name="compile.dir" value="build/bin"> <target name="compile"> <javac srcdir="\${src.dir}" destdir="\${compile.dir}" /> </target> </project> No newline at end of file</pre>	<p>Line 1...</p> <pre><project name="belajar-subversion"> <property name="src.dir" value="src/java"/> <property name="compile.dir" value="build/bin"> <target name="init"> <mkdir dir="build/bin" /> </target> <target name="compile"> <javac srcdir="\${src.dir}" destdir="\${compile.dir}" /> </target> </project> No newline at end of file</pre>

Powered by [WebSVN](#) v2.1 alpha 1

Done

Fisheye – Front Page

fisheye Help BROWSE CHANGELOG SEARCH

mysql-server-setup/ Quick Search:

Line History

hide

12K
10K
8K
6K
4K
2K
0
40
20
0
Jul-2005 Jan-2006 Jul-2006 Jan-2007

Recent Changelog

Full Changelog | Customize Feeds RSS

- 66** by **mysqldev** 23 November 2006, 21:45:11 +0100 (40 hours ago)
Added "event", "plugin", "general_log" and "slow_log"
source/wix/mysql_server_fragment_5.1.xml 66 (+9 -0) diffs
source/wix/mysql_server_fragment_5.1_x64.xml 66 (+12 -0) diffs
- 65** by **mzinner** 23 November 2006, 19:20:59 +0100 (42 hours ago)
added missing event files to wix installer for 5.1
source/wix/mysql_server_fragment_5.1.xml 65 (+3 -0) diffs
- 64** by **mysqldev** 17 November 2006, 20:17:29 +0100 (7 days ago)
New license file
PrepareIMImage.bat 64 (+1 -1) diffs
- 63** by **mysqldev** 17 November 2006, 20:12:37 +0100 (7 days ago)
New license file
source/wix/mysql_im_fragment_1.0.xml 63 (+1 -1) diffs
source/wix/mysql_server_fragment_4.1.xml 63 (+1 -1) diffs
source/wix/mysql_server_fragment_5.0.xml 63 (+1 -1) diffs
source/wix/mysql_server_fragment_5.0_x64.xml 63 (+1 -1) diffs
source/wix/mysql_server_fragment_5.1.xml 63 (+1 -1) diffs
... 1 more file in changeset.

Constraint

Branch:
Author:
Tag:
Date:

Sub Directories

Sort: path | last-commit | first-commit

- resources/binary/
- source/
- utils/wixcomparer/

Files

NAME<<	REV	AGE	AUTHOR
MakeClean.bat <i>no comment</i>	3 (+) (-) (root:)	18 months	mzinner
Makefile.mak <i>no comment</i>	3 (+) (-) (root:)	18 months	mzinner
MakefileClassic.mak <i>no comment</i>	3 (+) (-) (root:)	18 months	mzinner

Fisheye - Blame

Annotated File View

thomas	1647	1	<?php
		2	
		3	/**
		4	* Zend Framework
		5	*
		6	* LICENSE
		7	*
		8	* This source file is subject to the new BSD license that is bundled
		9	* with this package in the file LICENSE.txt.
		10	* It is also available through the world-wide-web at this URL:
		11	* http://framework.zend.com/license/new-bsd
		12	* If you did not receive a copy of the license and are unable to
		13	* obtain it through the world-wide-web, please send an email
		14	* to license@zend.com so we can send you a copy immediately.
		15	*
		16	* @category Zend
		17	* @package Zend_TimeSync
andries	1649	18	* @copyright Copyright (c) 2006 Zend Technologies USA Inc. (http://www.zend.com)
thomas	1647	19	* @version \$Id: TimeSync.php 1861 2006-11-25 01:48:42Z andries \$
		20	* @license http://framework.zend.com/license/new-bsd New BSD License
		21	*/
		22	
andries	1778	23	/**
andries	1850	24	* Zend
thomas	1647	25	*/
thomas	1842	26	require_once 'Zend.php';
		27	
andries	1850	28	/**
		29	* Zend_Date
		30	*/
		31	require_once 'Zend/Date.php';
thomas	1647	32	
		33	/**
		34	* @category Zend

Keterbatasan Subversion

Repository terdistribusi

repository tidak bisa direplikasi

Pencatatan merge otomatis

```
svn merge -r10:13 nama-branch
```

Aplikasi tambahan

```
statcvs
```

Pesaing

CVS (open source)

SVK (open source)

Visual Source Safe (komersial)

Vault (komersial)

Perforce (komersial)

BitKeeper (komersial)

What's next ?

Integrasi

Ant

Maven

Continuous Integration

Cruise Control

Lunbuild

Anthill

???

Pertanyaan dan Diskusi

Terima Kasih

endy@artivisi.com

<http://endy.artivisi.com>

Y!: endymuhardin