# SVN, Mantis, JUnit

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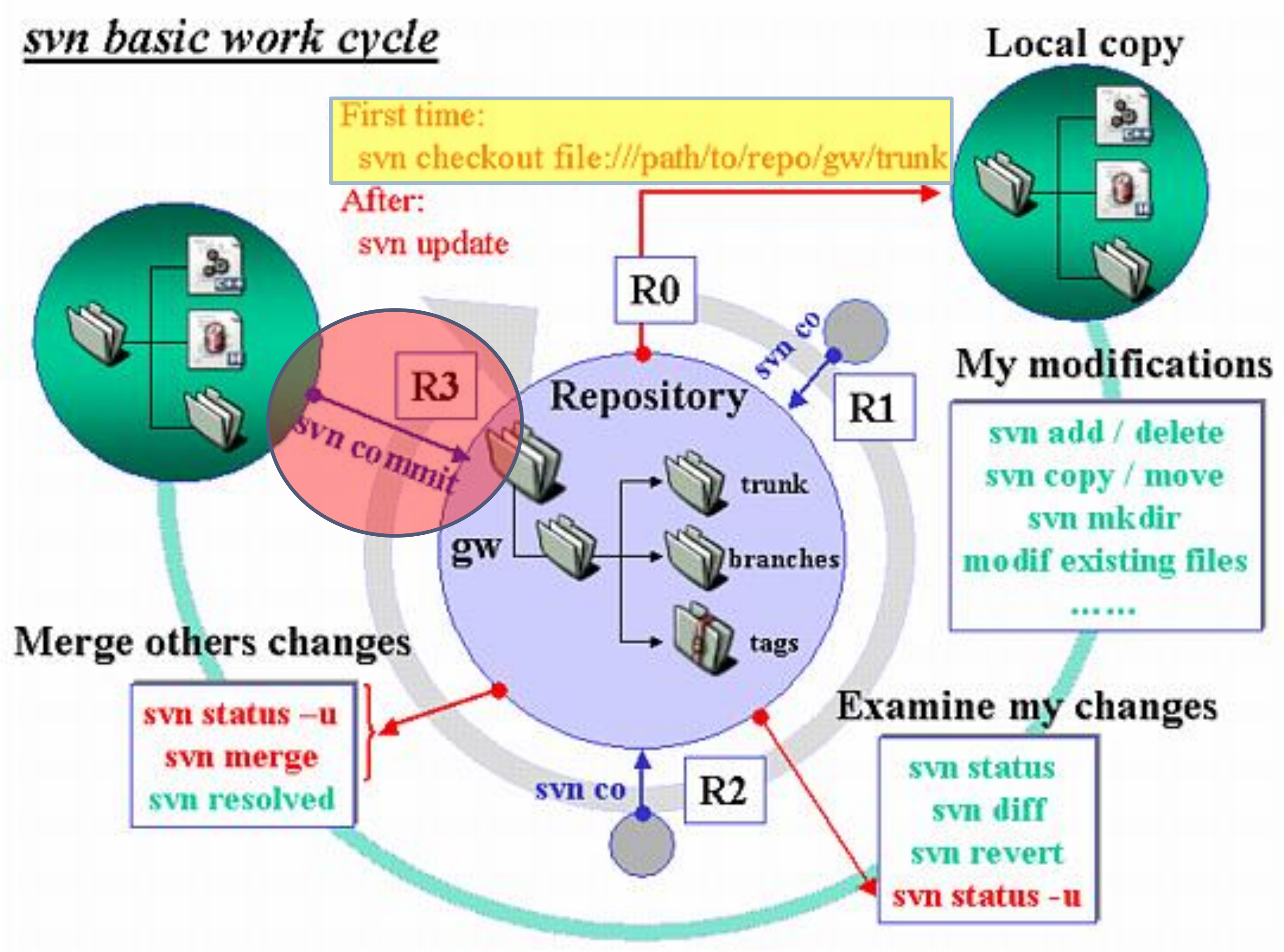
# Contents

- SVN?
- MANTIS?
- JUNIT?
- CONCLUSIONS

# SVN (Subversion) (1/5)



*svn basic work cycle*

First time:
svn checkout file:///path/to/repo/gw/trunk

After:
svn update

Local copy

My modifications

svn add / delete
svn copy / move
svn mkdir
modif existing files
......

Examine my changes

svn status
svn diff
svn revert
svn status -u

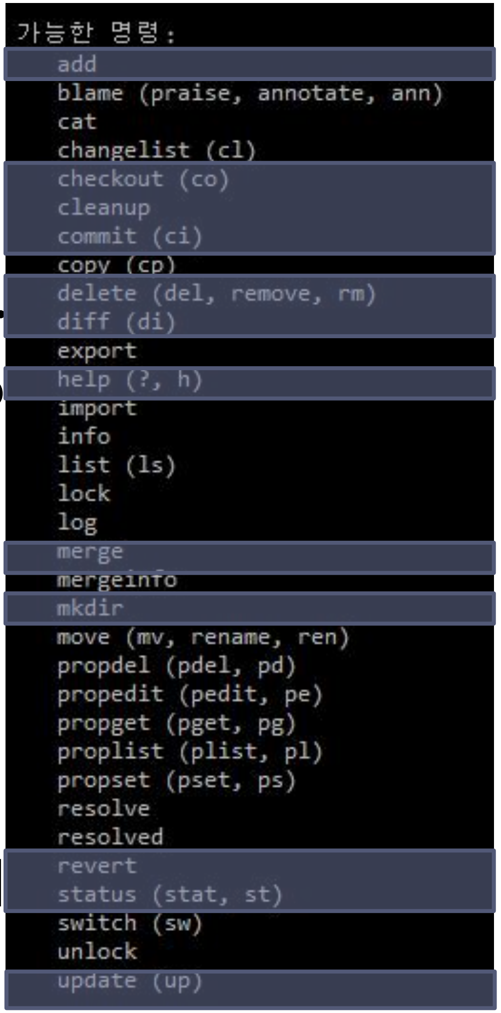
Merge others changes

svn status –u
svn merge
svn resolved

svn commit

# SVN (Subversion) (2/5)

- Add: Adding files or a file to Repository.
- Checkout (co): copy files from Repo to Local drive.
- Cleanup: If Repo files are locked, needed.
- Commit (ci): Apply changes from local to Repo.
- Revert: If Local file and Repo files are diff., apply local file to Repo file(refresh)
- Status: Show file list that are not added to Repo
- Update (up): Update local files to applied Repo files.



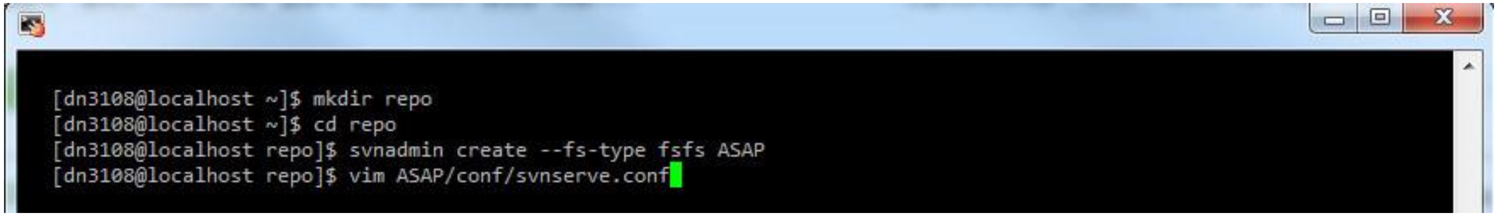
```
가능한 명령:
   add
   blame (praise, annotate, ann)
   cat
   changelist (cl)
   checkout (co)
   cleanup
   commit (ci)
   copy (cp)
   delete (del, remove, rm)
   diff (di)
   export
   help (?, h)
   import
   info
   list (ls)
   lock
   log
   merge
   mergeinfo
   mkdir
   move (mv, rename, ren)
   propdel (pdel, pd)
   propedit (pedit, pe)
   propget (pget, pg)
   proplist (plist, pl)
   propset (pset, ps)
   resolve
   resolved
   revert
   status (stat, st)
   switch (sw)
   unlock
   update (up)
```

# SVN (Subversion) (3/5)

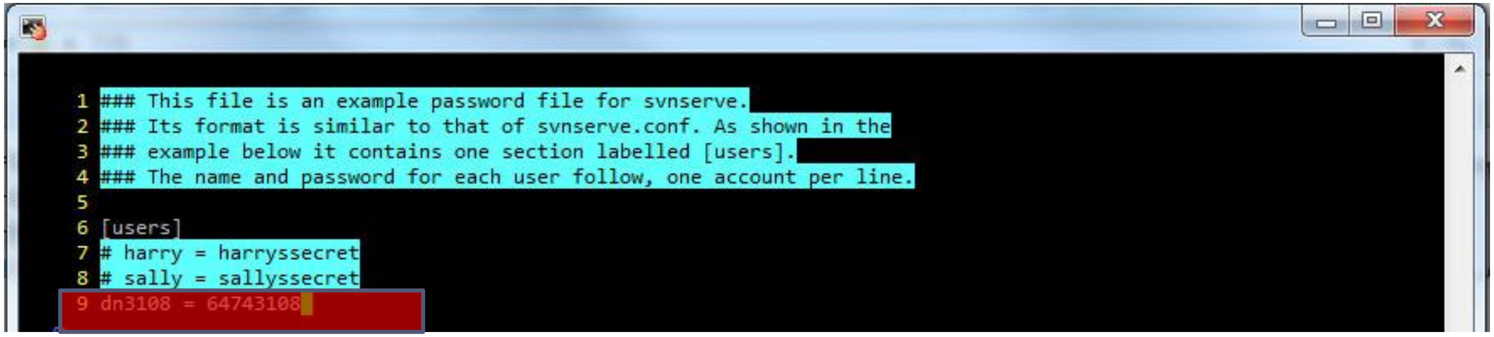
- Step 1. Repo setting.
- Step 2. **User A** Checkout from Repo.
- Step 3. **User A** Working with local files.
- Step 4. **User A** If any changed, Commit.
- Step 5. **User A** If there's file on Repo not Local, Add and Commit.
- Step 6. **User B** Updates for changed files.
- Step 7. **User B** Working with local files.
- Step 8. **User B** If any changed, Commit.

# SVN (Subversion) (4/5)

- **Step 1**. Installation
  On Linux server, apt-get, or Yum, etc. (packages)
  On Windows, Tortoise SVN
- **Step 2**. Make an REPO on Server.



```
[dn3108@localhost ~]$ mkdir repo
[dn3108@localhost ~]$ cd repo
[dn3108@localhost repo]$ svnadmin create --fs-type fsfs ASAP
[dn3108@localhost repo]$ vim ASAP/conf/svnserve.conf
```

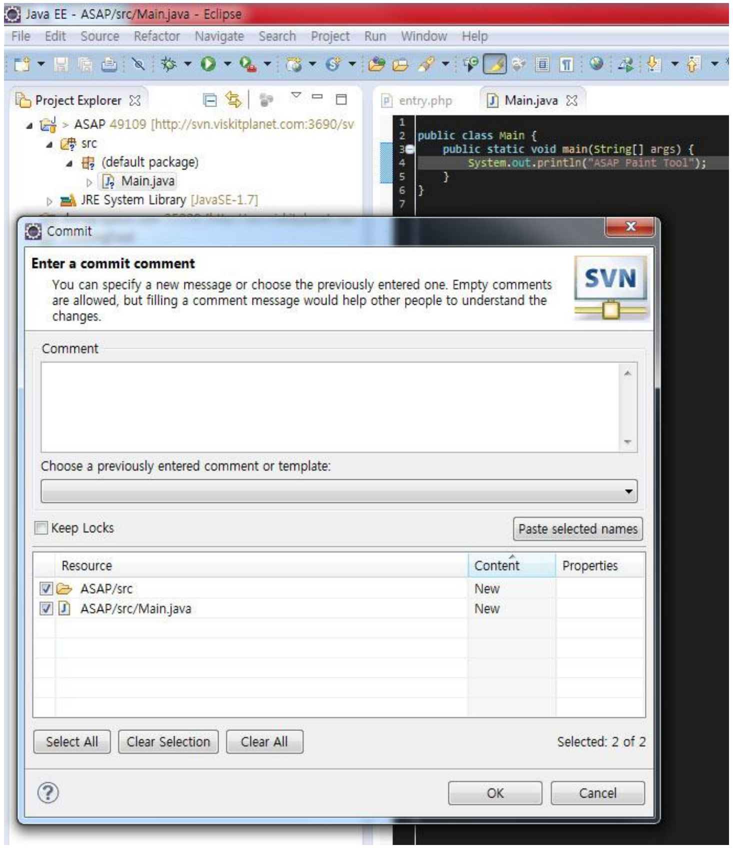


```
### This file is an example password file for svnserve.
### Its format is similar to that of svnserve.conf. As shown in the
### example below it contains one section labelled [users].
### The name and password for each user follow, one account per line.

[users]
# harry = harryssecret
# sally = sallyssecret
dn3108 = 64743108
```

# SVN (Subversion) (5/5)

- **Step 3**. Checkout Source from REPO
- **Step 4**. Change files on Local and Commit
  EX> Eclipse SVN Commit.
- **Step 5**. Updates.


Java EE - ASAP/src/Main.java - Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help
Project Explorer
> ASAP 49109 [http://svn.viskitplanet.com:3690/sv
src
(default package)
Main.java
JRE System Library [JavaSE-1.7]
entry.php
Main.java
Commit
SVN
Select All
Clear Selection
Clear All
OK
Cancel

```java
public class Main {
    public static void main(String[] args) {
        System.out.println("ASAP Paint Tool");
    }
}
```

**Enter a commit comment**

You can specify a new message or choose the previously entered one. Empty comments are allowed, but filling a comment message would help other people to understand the changes.

Comment

Choose a previously entered comment or template:

☐ Keep Locks   Paste selected names

| Resource | Content | Properties |
|---|---|---|
| ☑ ASAP/src | New | |
| ☑ ASAP/src/Main.java | New | |

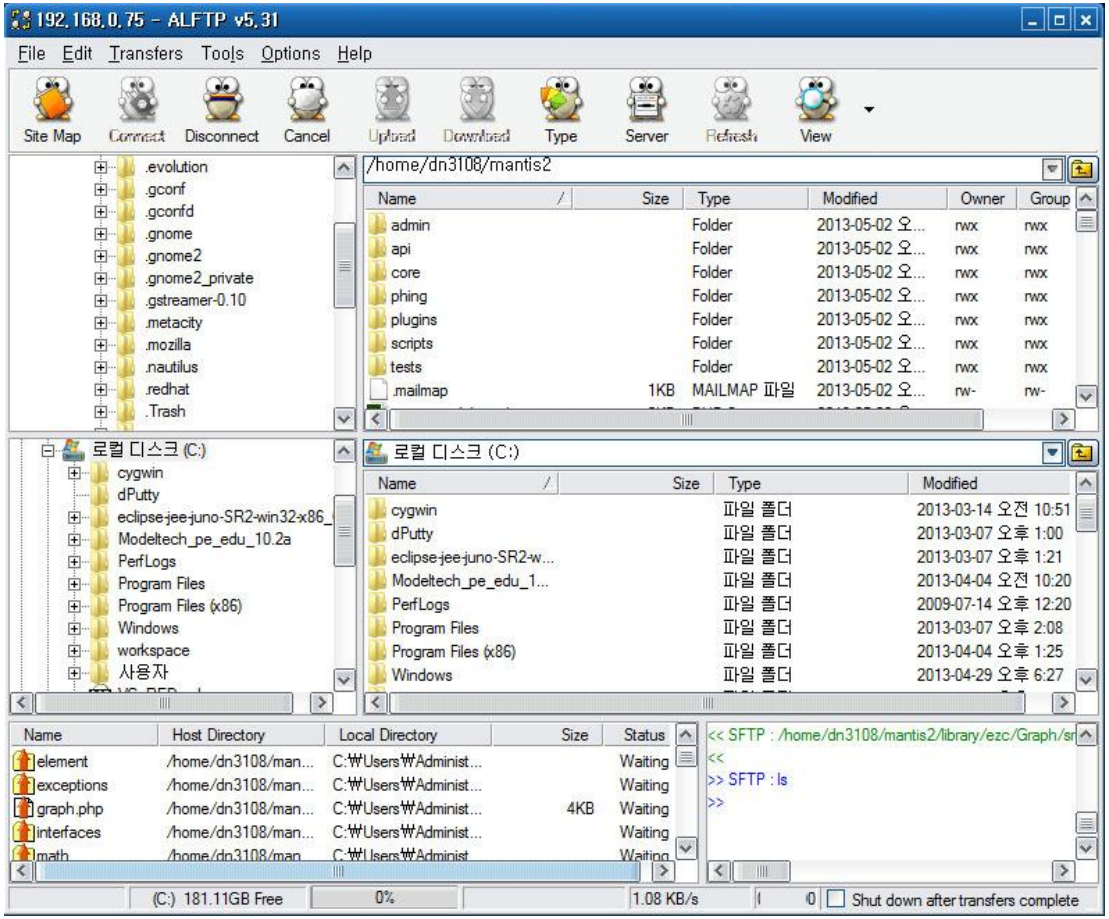
Selected: 2 of 2

# Mantis (1/8)

- Issue / Bug Tracker
- Install on WEB Server
- Many Comp. work on a project together.
  A lot of issues occur during the intercommunications
- Comfortable UI and System.
- Issue assigning & management of project.

# Mantis (2/8)

- Installation – **Step 1.** Upload Mantis files to WEB SERVER
- Uses PHP
- On Apache, etc



.evolution
.gconf
.gconfd
.gnome
.gnome2
.gnome2_private
.gstreamer-0.10
.metacity
.mozilla
.nautilus
.redhat
.Trash

/home/dn3108/mantis2

| Name | Size | Type | Modified | Owner | Group |
|---|---|---|---|---|---|
| admin | | Folder | 2013-05-02 오... | rwx | rwx |
| api | | Folder | 2013-05-02 오... | rwx | rwx |
| core | | Folder | 2013-05-02 오... | rwx | rwx |
| phing | | Folder | 2013-05-02 오... | rwx | rwx |
| plugins | | Folder | 2013-05-02 오... | rwx | rwx |
| scripts | | Folder | 2013-05-02 오... | rwx | rwx |
| tests | | Folder | 2013-05-02 오... | rwx | rwx |
| .mailmap | 1KB | MAILMAP 파일 | 2013-05-02 오... | rw- | rw- |

로컬 디스크 (C:)
cygwin
dPutty
eclipse-jee-juno-SR2-win32-x86_
Modeltech_pe_edu_10.2a
PerfLogs
Program Files
Program Files (x86)
Windows
workspace
사용자

로컬 디스크 (C:)

| Name | Size | Type | Modified |
|---|---|---|---|
| cygwin | | 파일 폴더 | 2013-03-14 오전 10:51 |
| dPutty | | 파일 폴더 | 2013-03-07 오후 1:00 |
| eclipse-jee-juno-SR2-w... | | 파일 폴더 | 2013-03-07 오후 1:21 |
| Modeltech_pe_edu_1... | | 파일 폴더 | 2013-04-04 오전 10:20 |
| PerfLogs | | 파일 폴더 | 2009-07-14 오후 12:20 |
| Program Files | | 파일 폴더 | 2013-03-07 오후 2:08 |
| Program Files (x86) | | 파일 폴더 | 2013-04-04 오후 1:25 |
| Windows | | 파일 폴더 | 2013-04-29 오후 6:27 |

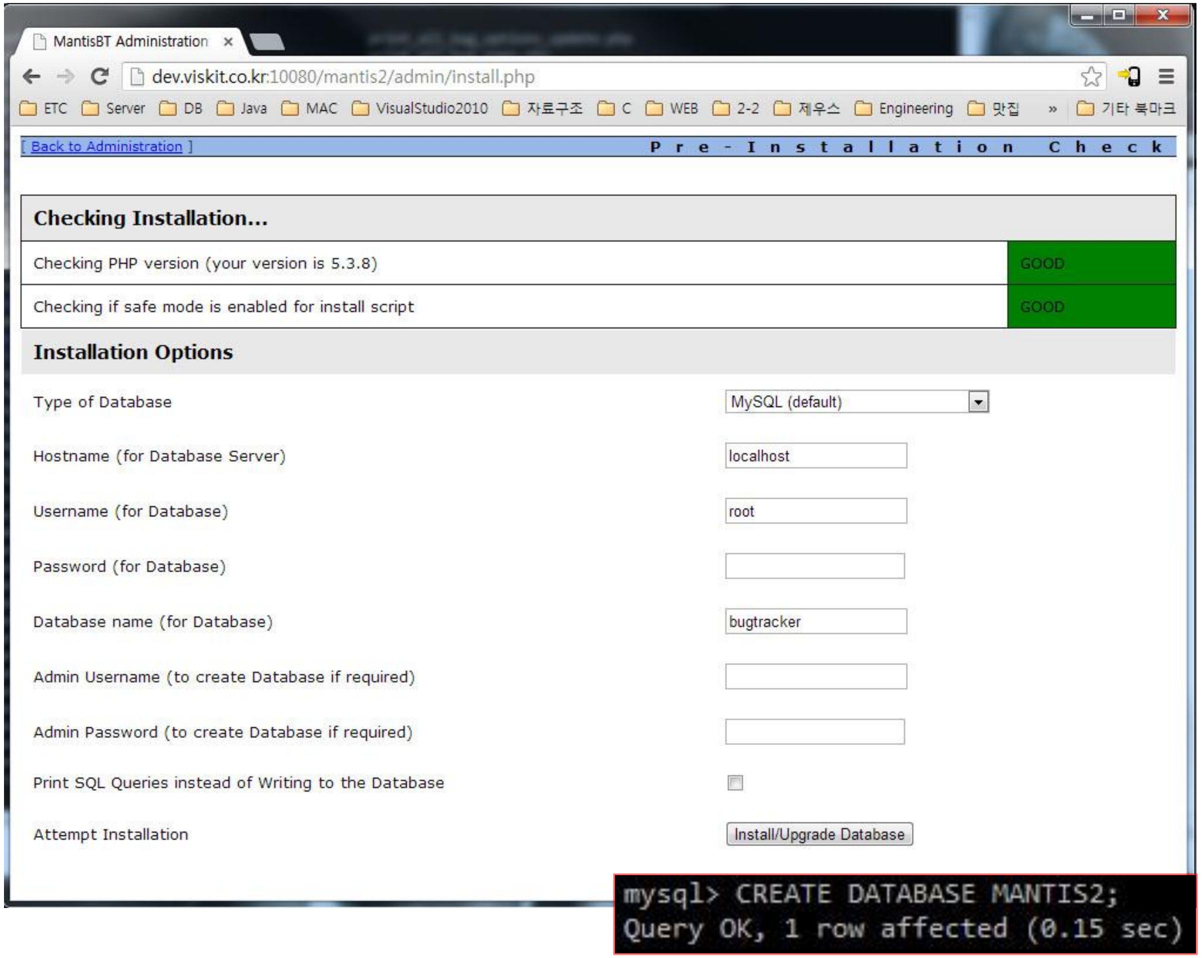
| Name | Host Directory | Local Directory | Size | Status |
|---|---|---|---|---|
| element | /home/dn3108/man... | C:₩Users₩Administ... | | Waiting |
| exceptions | /home/dn3108/man... | C:₩Users₩Administ... | | Waiting |
| graph.php | /home/dn3108/man... | C:₩Users₩Administ... | 4KB | Waiting |
| interfaces | /home/dn3108/man... | C:₩Users₩Administ... | | Waiting |
| math | /home/dn3108/man... | C:₩Users₩Administ... | | Waiting |

```
<< SFTP : /home/dn3108/mantis2/library/ezc/Graph/sr
<<
>> SFTP : ls
>>
```

(C:) 181.11GB Free | 0% | 1.08 KB/s | 0 | □ Shut down after transfers complete

# Mantis (3/8)

- **Step 2.** Access {Web Path}/index.php on Web browser
- Requisites chk.
- Needs DBMS
  Oracle | MySQL



**Checking Installation...**

| | |
|---|---|
| Checking PHP version (your version is 5.3.8) | GOOD |
| Checking if safe mode is enabled for install script | GOOD |

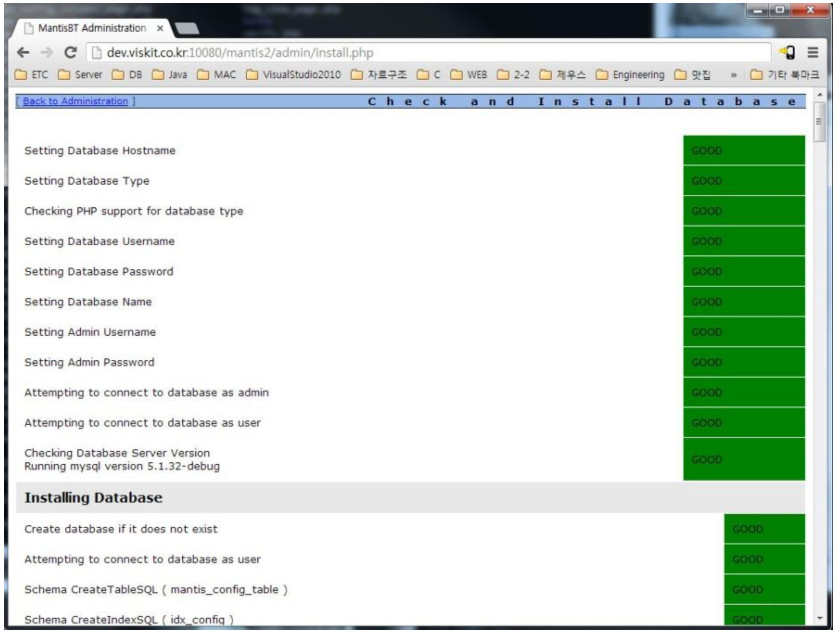
**Installation Options**

| | |
|---|---|
| Type of Database | MySQL (default) |
| Hostname (for Database Server) | localhost |
| Username (for Database) | root |
| Password (for Database) | |
| Database name (for Database) | bugtracker |
| Admin Username (to create Database if required) | |
| Admin Password (to create Database if required) | |
| Print SQL Queries instead of Writing to the Database | □ |
| Attempt Installation | Install/Upgrade Database |

```
mysql> CREATE DATABASE MANTIS2;
Query OK, 1 row affected (0.15 sec)
```

# Mantis (4/8)

- **Step 3.** Install completed
  Signup for Mantis &
  Log into Mantis {Path}/



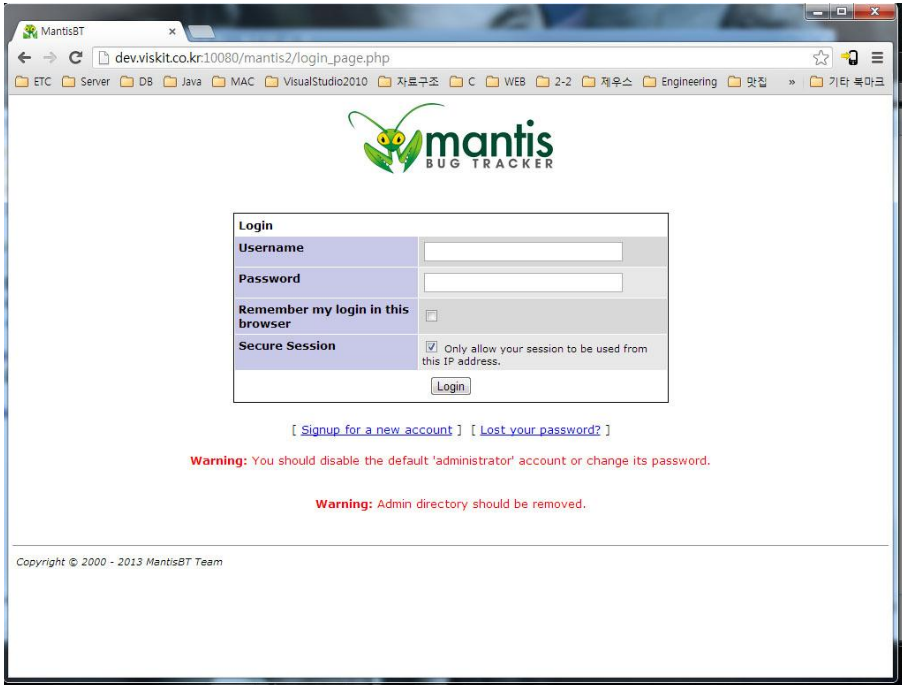
dev.viskit.co.kr:10080/mantis2/admin/install.php

[ Back to Administration ] Check and Install Database

| | |
|---|---|
| Setting Database Hostname | GOOD |
| Setting Database Type | GOOD |
| Checking PHP support for database type | GOOD |
| Setting Database Username | GOOD |
| Setting Database Password | GOOD |
| Setting Database Name | GOOD |
| Setting Admin Username | GOOD |
| Setting Admin Password | GOOD |
| Attempting to connect to database as admin | GOOD |
| Attempting to connect to database as user | GOOD |
| Checking Database Server Version<br>Running mysql version 5.1.32-debug | GOOD |

**Installing Database**

| | |
|---|---|
| Create database if it does not exist | GOOD |
| Attempting to connect to database as user | GOOD |
| Schema CreateTableSQL ( mantis_config_table ) | GOOD |
| Schema CreateIndexSQL ( idx_config ) | GOOD |



dev.viskit.co.kr:10080/mantis2/login_page.php

| Login | |
|---|---|
| **Username** | |
| **Password** | |
| **Remember my login in this browser** | □ |
| **Secure Session** | ☑ Only allow your session to be used from this IP address. |
| | Login |

[ Signup for a new account ] [ Lost your password? ]

**Warning:** You should disable the default 'administrator' account or change its password.

**Warning:** Admin directory should be removed.

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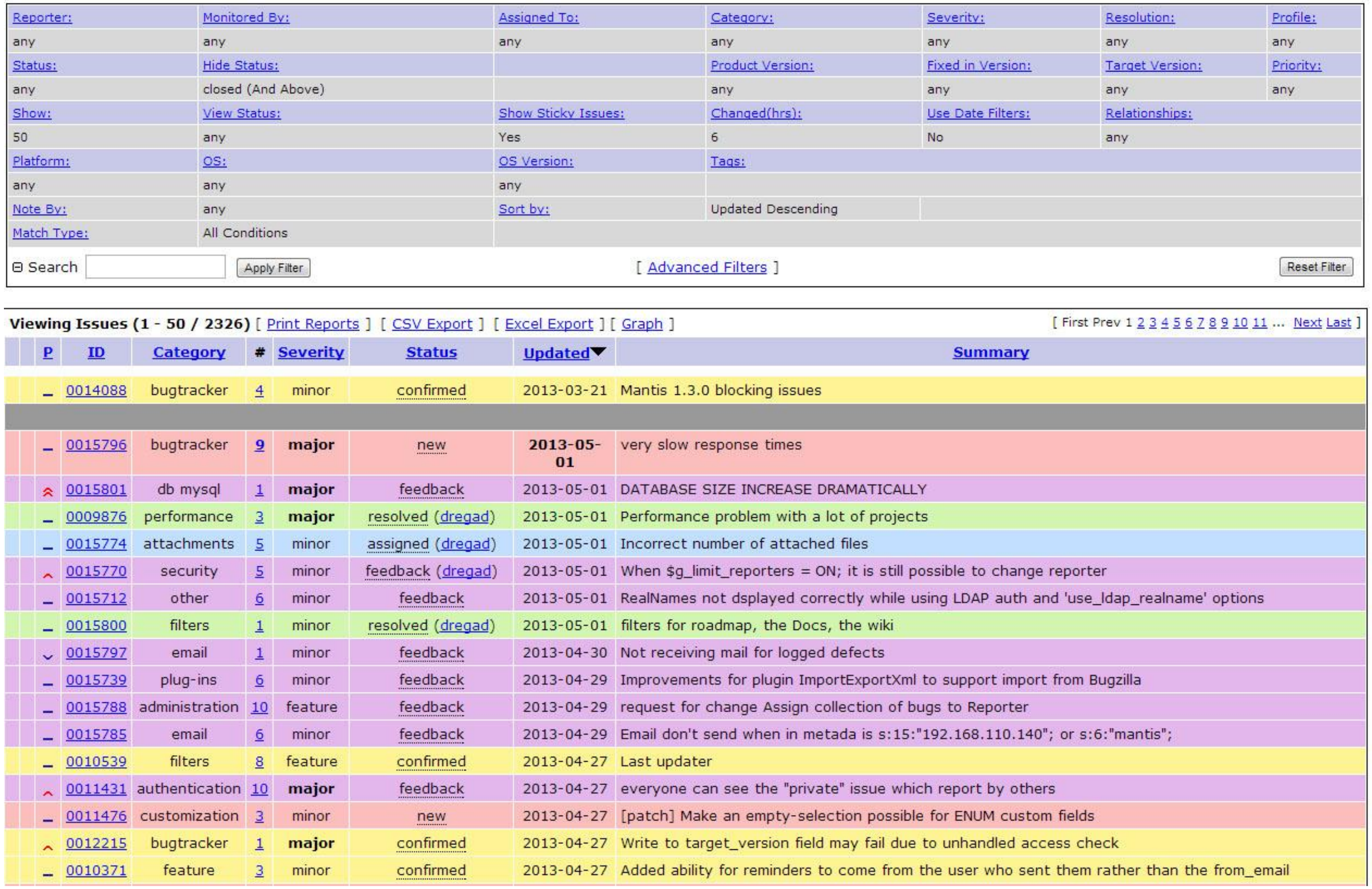
# Mantis (5/8)

- Issues



| | | | | | | |
|---|---|---|---|---|---|---|
| Reporter: | Monitored By: | Assigned To: | Category: | Severity: | Resolution: | Profile: |
| any | any | any | any | any | any | any |
| Status: | Hide Status: | | Product Version: | Fixed in Version: | Target Version: | Priority: |
| any | closed (And Above) | | any | any | any | any |
| Show: | View Status: | Show Sticky Issues: | Changed(hrs): | Use Date Filters: | Relationships: | |
| 50 | any | Yes | 6 | No | any | |
| Platform: | OS: | OS Version: | Tags: | | | |
| any | any | any | | | | |
| Note By: | any | Sort by: | Updated Descending | | | |
| Match Type: | All Conditions | | | | | |

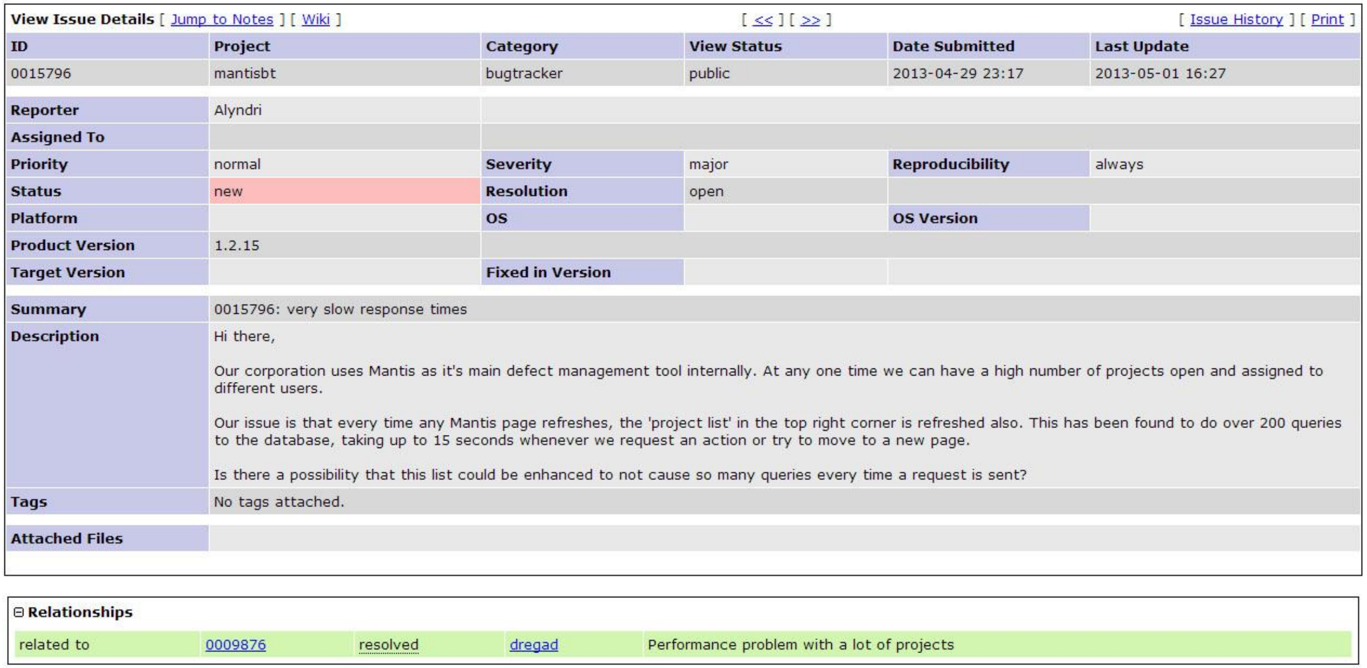
⊟ Search [ Advanced Filters ]

**Viewing Issues (1 - 50 / 2326)** [ Print Reports ] [ CSV Export ] [ Excel Export ] [ Graph ] [ First Prev 1 2 3 4 5 6 7 8 9 10 11 ... Next Last ]

| P | ID | Category | # | Severity | Status | Updated▼ | Summary |
|---|---|---|---|---|---|---|---|
| – | 0014088 | bugtracker | 4 | minor | confirmed | 2013-03-21 | Mantis 1.3.0 blocking issues |
| – | 0015796 | bugtracker | 9 | **major** | new | **2013-05-01** | very slow response times |
| ⌃⌃ | 0015801 | db mysql | 1 | **major** | feedback | 2013-05-01 | DATABASE SIZE INCREASE DRAMATICALLY |
| – | 0009876 | performance | 3 | **major** | resolved (dregad) | 2013-05-01 | Performance problem with a lot of projects |
| – | 0015774 | attachments | 5 | minor | assigned (dregad) | 2013-05-01 | Incorrect number of attached files |
| ⌃ | 0015770 | security | 5 | minor | feedback (dregad) | 2013-05-01 | When $g_limit_reporters = ON; it is still possible to change reporter |
| – | 0015712 | other | 6 | minor | feedback | 2013-05-01 | RealNames not dsplayed correctly while using LDAP auth and 'use_ldap_realname' options |
| – | 0015800 | filters | 1 | minor | resolved (dregad) | 2013-05-01 | filters for roadmap, the Docs, the wiki |
| ⌄ | 0015797 | email | 1 | minor | feedback | 2013-04-30 | Not receiving mail for logged defects |
| – | 0015739 | plug-ins | 6 | minor | feedback | 2013-04-29 | Improvements for plugin ImportExportXml to support import from Bugzilla |
| – | 0015788 | administration | 10 | feature | feedback | 2013-04-29 | request for change Assign collection of bugs to Reporter |
| – | 0015785 | email | 6 | minor | feedback | 2013-04-29 | Email don't send when in metada is s:15:"192.168.110.140"; or s:6:"mantis"; |
| – | 0010539 | filters | 8 | feature | confirmed | 2013-04-27 | Last updater |
| ⌃ | 0011431 | authentication | 10 | **major** | feedback | 2013-04-27 | everyone can see the "private" issue which report by others |
| – | 0011476 | customization | 3 | minor | new | 2013-04-27 | [patch] Make an empty-selection possible for ENUM custom fields |
| ⌃ | 0012215 | bugtracker | 1 | **major** | confirmed | 2013-04-27 | Write to target_version field may fail due to unhandled access check |
| – | 0010371 | feature | 3 | minor | confirmed | 2013-04-27 | Added ability for reminders to come from the user who sent them rather than the from_email |

# Mantis (6/8)

- Issues Details



**View Issue Details** [ Jump to Notes ] [ Wiki ] [ << ] [ >> ] [ Issue History ] [ Print ]

| ID | Project | Category | View Status | Date Submitted | Last Update |
|---|---|---|---|---|---|
| 0015796 | mantisbt | bugtracker | public | 2013-04-29 23:17 | 2013-05-01 16:27 |

| | | | | | |
|---|---|---|---|---|---|
| **Reporter** | Alyndri | | | | |
| **Assigned To** | | | | | |
| **Priority** | normal | **Severity** | major | **Reproducibility** | always |
| **Status** | new | **Resolution** | open | | |
| **Platform** | | **OS** | | **OS Version** | |
| **Product Version** | 1.2.15 | | | | |
| **Target Version** | | **Fixed in Version** | | | |

| | |
|---|---|
| **Summary** | 0015796: very slow response times |
| **Description** | Hi there,<br>Our corporation uses Mantis as it's main defect management tool internally. At any one time we can have a high number of projects open and assigned to different users.<br>Our issue is that every time any Mantis page refreshes, the 'project list' in the top right corner is refreshed also. This has been found to do over 200 queries to the database, taking up to 15 seconds whenever we request an action or try to move to a new page.<br>Is there a possibility that this list could be enhanced to not cause so many queries every time a request is sent? |
| **Tags** | No tags attached. |
| **Attached Files** | |

⊟ **Relationships**

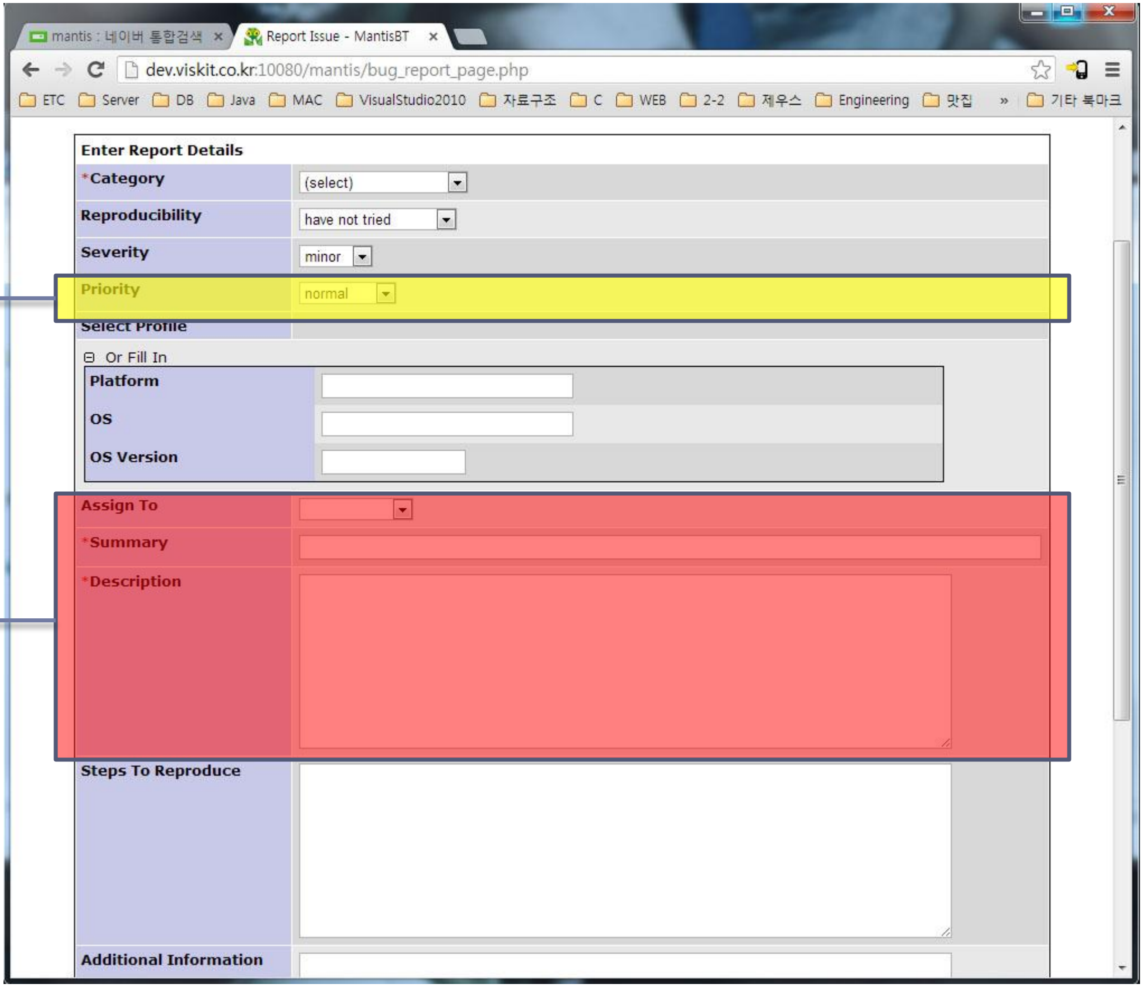
| | | | | |
|---|---|---|---|---|
| related to | 0009876 | resolved | dregad | Performance problem with a lot of projects |

# Mantis (7/8)

- Issues Report

***Priority***!
None, Low, Normal,
High, Urgent, Immediate

***Assign to sb***!
Assign to User's accounts



Enter Report Details

| | |
|---|---|
| *Category | (select) |
| Reproducibility | have not tried |
| Severity | minor |
| Priority | normal |
| Select Profile | |

⊟ Or Fill In

| | |
|---|---|
| Platform | |
| OS | |
| OS Version | |

| | |
|---|---|
| Assign To | |
| *Summary | |
| *Description | |
| Steps To Reproduce | |
| Additional Information | |

# Mantis (8/8)

**My View**

***Summary*!**

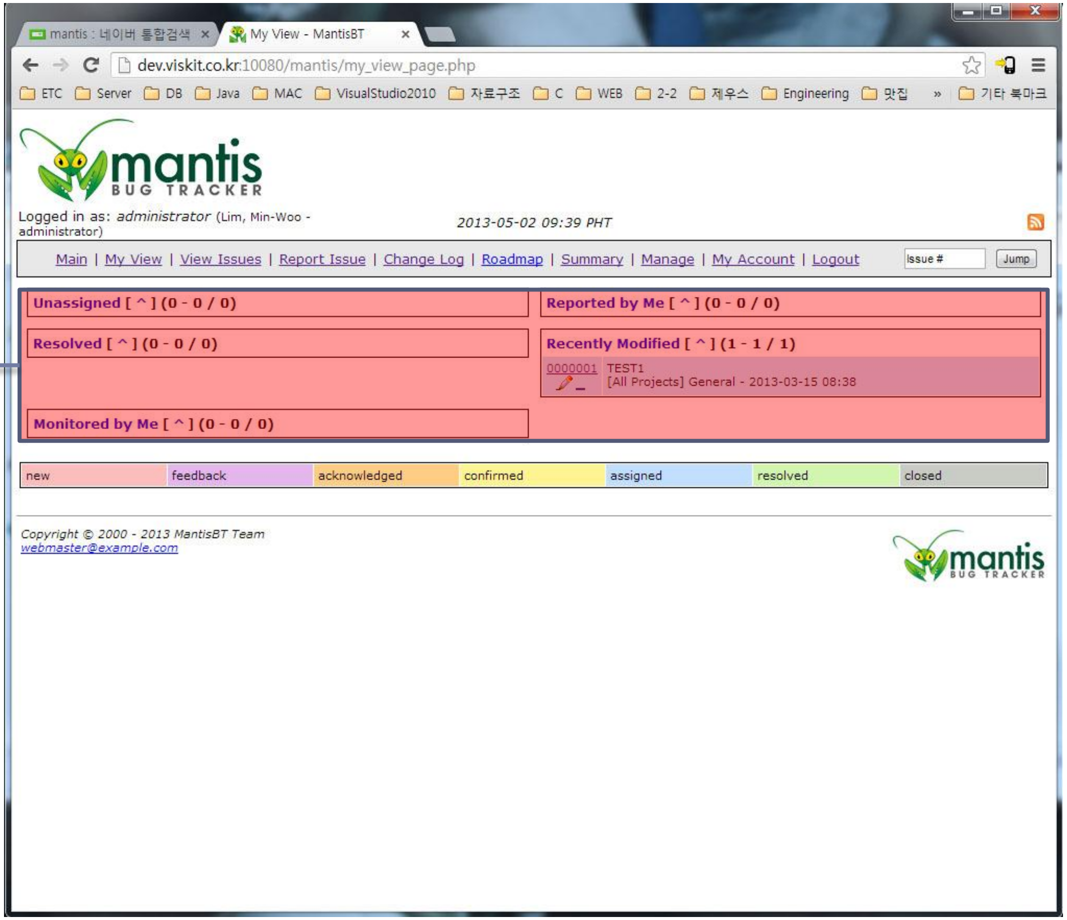
Unassigned

Resolved

Monitored by Me

Reported by Me

Recently Modified


mantis : 네이버 통합검색
My View - MantisBT
dev.viskit.co.kr:10080/mantis/my_view_page.php
ETC
Server
DB
Java
MAC
VisualStudio2010
자료구조
C
WEB
2-2
제우스
Engineering
맛집
기타 북마크
mantis BUG TRACKER
Main | My View | View Issues | Report Issue | Change Log | Roadmap | Summary | Manage | My Account | Logout
Issue #
Jump

Logged in as: *administrator* (Lim, Min-Woo - administrator)

*2013-05-02 09:39 PHT*

Unassigned [ ^ ] (0 - 0 / 0)

Reported by Me [ ^ ] (0 - 0 / 0)

Resolved [ ^ ] (0 - 0 / 0)

Recently Modified [ ^ ] (1 - 1 / 1)

0000001 TEST1
[All Projects] General - 2013-03-15 08:38

Monitored by Me [ ^ ] (0 - 0 / 0)

| new | feedback | acknowledged | confirmed | assigned | resolved | closed |
|---|---|---|---|---|---|---|

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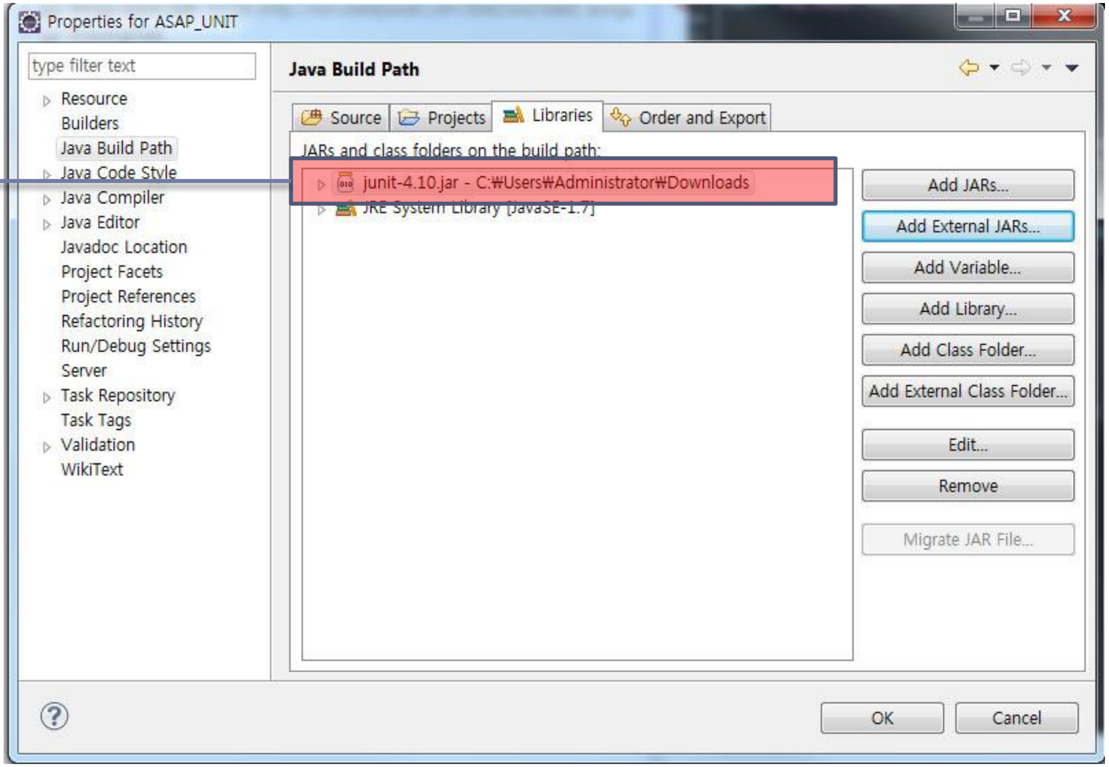
*webmaster@example.com*

# JUnit (1/5)

- A unit testing framework for the Java Programming Lang.
- Using Annotation(@) to Test unitly.
- Many functions support.
- In Development & Implementation stage, Unit Test will be together during the project working.

# JUnit (2/5)

- **Step 1**. Junit JAR Library Including on project



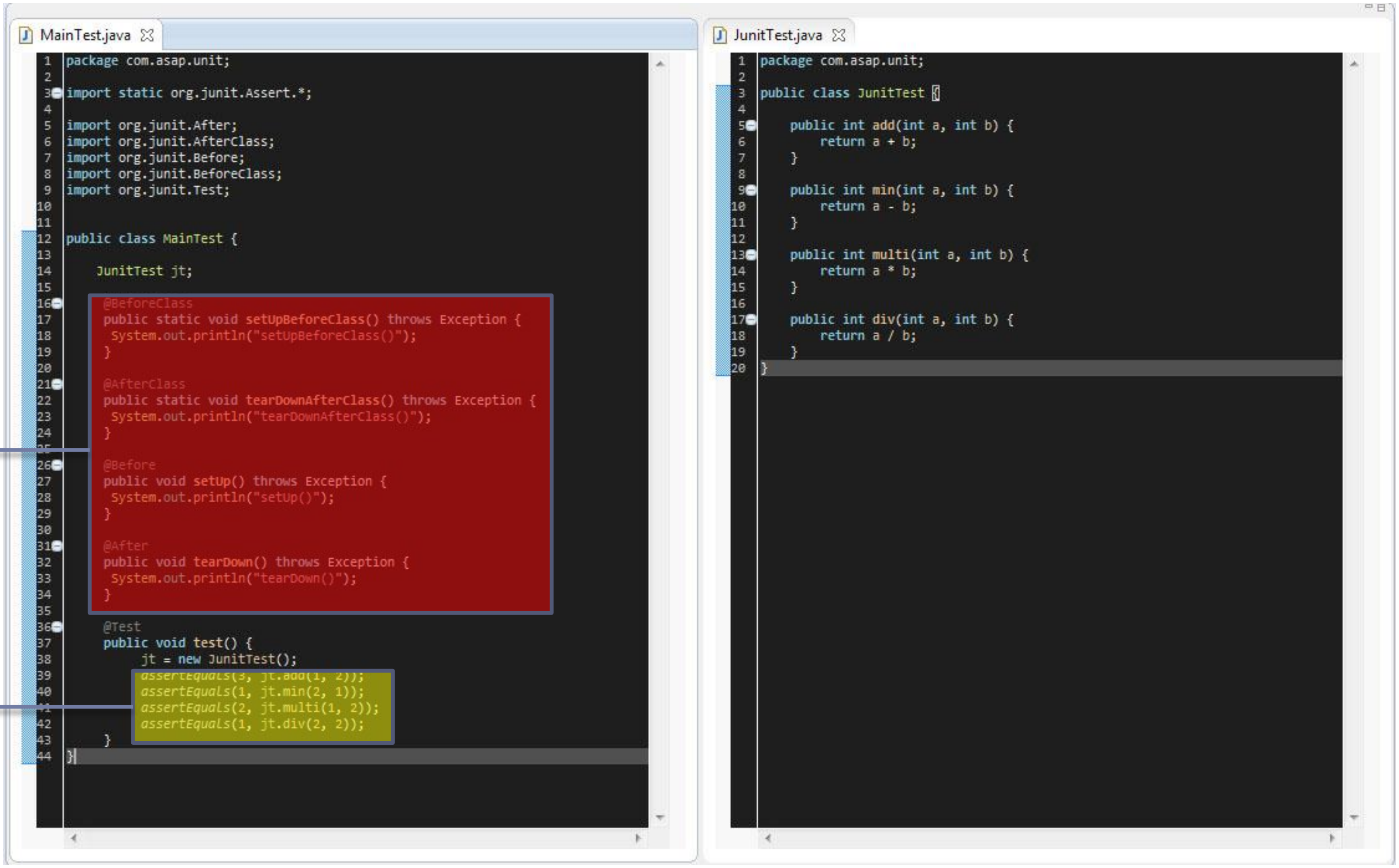
JARs and class folders on the build path:

- junit-4.10.jar - C:₩Users₩Administrator₩Downloads
- JRE System Library [JavaSE-1.7]

Downloaded from SourceForge

# JUnit (3/5)

- **Step 2**. Example Codes



```java
package com.asap.unit;

import static org.junit.Assert.*;

import org.junit.After;
import org.junit.AfterClass;
import org.junit.Before;
import org.junit.BeforeClass;
import org.junit.Test;


public class MainTest {

    JunitTest jt;

     @BeforeClass
     public static void setUpBeforeClass() throws Exception {
      System.out.println("setUpBeforeClass()");
     }

     @AfterClass
     public static void tearDownAfterClass() throws Exception {
      System.out.println("tearDownAfterClass()");
     }

     @Before
     public void setUp() throws Exception {
      System.out.println("setUp()");
     }

     @After
     public void tearDown() throws Exception {
      System.out.println("tearDown()");
     }

     @Test
     public void test() {
          jt = new JunitTest();
          assertEquals(3, jt.add(1, 2));
          assertEquals(1, jt.min(2, 1));
          assertEquals(2, jt.multi(1, 2));
          assertEquals(1, jt.div(2, 2));
     }
}
```

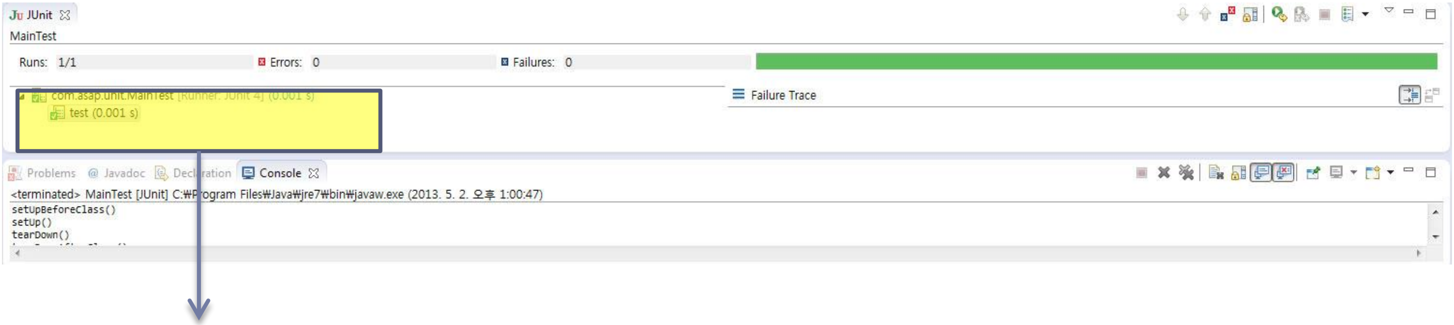
```java
package com.asap.unit;

public class JunitTest {

    public int add(int a, int b) {
        return a + b;
    }

    public int min(int a, int b) {
        return a - b;
    }

    public int multi(int a, int b) {
        return a * b;
    }

    public int div(int a, int b) {
        return a / b;
    }
}
```

Before &
After Class

Test Code
Ex. **Assert**

# JUnit (4/5)

- **Step 3.** Run as Junit TEST



MainTest

Runs: 1/1 Errors: 0 Failures: 0

com.asap.unit.MainTest [Runner: JUnit 4] (0.001 s)
test (0.001 s)

```
<terminated> MainTest [JUnit] C:₩Program Files₩Java₩jre7₩bin₩javaw.exe (2013. 5. 2. 오후 1:00:47)
setUpBeforeClass()
setUp()
tearDown()
```

Test Case

# JUnit (5/5)

- More Functions of Junit
  1. JUnit for DAO(Database Access Object)
  2. JUnit for Normal Methods(Unit)
- **Assertion** – **Overloaded assertion methods**.
  Parameter order is expected value followed by actual value.
- **Test Runners** – Netbeans, Eclipse (IDE) have native GUI.
- Aggregating – Using Suite as a runner allows you to manually **build a suite** containing tests **from may classes**.
- **Exception Testing** – Annotation(**@Test**) has an optional parameter "Expected"
- **Ignoring Testing** – Annotation(**@Ignore**)
- **Parameterized Testing** – Situations that have many parameter into a method. Annotation(**@RunWith**)
- Using with Maven
- Etc

# Conclusions

- SVN for CM(Configure Management)
- Mantis for Issue management
- JUnit for Testing without specified plan during implementation.
- Any other tools in development with above three tools.
  - Maven
  - Ant
  - Git
  - JIRA

- ***To improve effeciency during development & implementation.***

# Thank you