



CVSWEB and Bugzilla Install Guide

CVS SUITE 2009 Build 5786 October 2015



Optimized for



March Hare Software Ltd

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Installing CVSWEBNT and ActivePerl on Windows

CVSWEBNT provides a mechanism for users to browse the repository using a web browser. The web access does not honor any access control settings – so if there are some files or some history comments you do not want web users to view then do not use CVSWEB.

You can download CVSWEBNT from the main March Hare Software web site:

<http://customer.march-hare.com/cvswebnt/cvsweb.cgi/>

Installing server components

To install Bugzilla you will need:

- CVS SUITE 2009 Build 5786 or higher
- ActiveState Active Perl 5.6 (or compatible, eg: 5.18.4 x64 for W2012 R2)
- CVSWEBNT 1.93.2.2 or higher

The following must already be installed:

- Windows 2000/2003/2008/2012 Server or Advanced Server
- Internet Information Services (IIS) version 5/5.1/6/7/7.5/8/8.5. This needs to be installed after windows itself is installed, using the windows component manager or add roles and features wizard. Ensure that the sub-features 'Application Development' and its sub-features 'CGI' and 'ISAPI Extensions' are installed.

The following software may optionally be installed:

- Windows SMTP service (you may not need this if you have another SMTP server is available in the same subnet)

Need to reboot

Note: If you change the SYSTEM path, it will only take effect after a reboot.

Installation

1. Install CVS Suite with CVSNT eg: to c:\Program Files\CVS Suite\CVSNT
 - CVS SUITE 2009 Build 5786 or higher
 - Use the 'complete' installation option (this is needed to install rcs.exe etc.)

IIS Configuration

2. Install IIS on the computer that has the raw CVS repository files.

These instructions assume that the IIS *wwwroot* folder is located at *c:\inetpub\wwwroot*. Change these instructions to match the actual path of your *wwwroot*.

Ensure that CVSNT program files directory is in your PATH

If you wish to allow anonymous access:

- Give the users *IUSR_* (or *IUSR*) and *IWAM_* (or *NETWORK_SERVICE* if there is no *IWAM_* account) "Full control" over *c:\windows\temp* or where ever the system TEMP and TMP environment variables are pointing
- Give the users *IUSR_* and *IWAM_* (or *NETWORK_SERVICE* if there is no *IWAM_* account) "execute" permissions to *cvs.exe*, *rcs.exe*, *diff.exe* etc and "read" permissions to the folders they are contained in
- Make sure the users *IUSR_* (or *IUSR*) and *IWAM_* (or *NETWORK_SERVICE* if there is no *IWAM_* account) have at least "read" and "list contents" (you may need to give them "Full control") for all files and folders in the CVS repository

ActivePerl

3. Install Active Perl to *c:\perl* (For example, build 617 seems to work fine on Windows 2000, and x86 version of 5.20.2 build 2002 or 5.18.5 build 1805 works on W2012R2). Note: do not install the on Windows / ActivePerl x64 editions – it is missing important software needed (the ISAPI extension). We recommend you purchase an ActiveState ActivePerl Business Edition License.

Note: the SOAP-Lite module is not available for ActivePerl 5.18, so if you absolutely need that module, you should use a different release of ActivePerl:
<https://code.activestate.com/ppm/SOAP-Lite/>

Install the *Compress::Zlib* module. This is optional (yet recommended anyway, since it avoids running an external process) unless you have *gzip.exe* in your path. If you use ActivePerl, this can be done by installing PPM and running from the command line:
`ppm install Compress::Zlib`

Alternatively use the GUI ppm to install (IO-Zlib) and/or verify it is installed.

After installation check that *c:\perl\bin\perlis.dll* exists. If it does not exist then it means that you have not correctly configured the IIS web server for ISAPI extensions. Uninstall ActiveState ActivePerl and then re-configure IIS before re-installing.

For IIS 7/8 you must also 'Enable 32 Bit Applications' in the Default Application Pool.

CVSWEBNT

4. Extract all files from the CVSWEBNT distribution to *c:\inetpub\wwwroot\cgi-bin\cvswb* (use folder names!)

Move the folder *c:\inetpub\wwwroot\cgi-bin\cvswb\icons* to *c:\inetpub\wwwroot\icons*

Copy your company logo to *c:\inetpub\wwwroot\icons\cvsbanner.gif*

Set CVSROOT folders in *c:\inetpub\wwwroot\cgi-bin\cvswb\cvswb.conf*. You must use a local path name, you can't use *:sspi:* or *:pserver:* or *:local:*. Use forward slashes instead of backslashes.

```
%CVSROOT = (
    'Development' => 'c:/cvs/na',
    'Admin' => 'c:/cvs/admin'
);
```

And also change the next line which specifies the default repository name to use.

Modify *c:\inetpub\wwwroot\cgi-bin\cvswb\cvswb.conf* and alter the line

```
#$ENV{'PATH'} = '/usr/local/bin';
```

Remove the leading # and enter a semicolon-delimited list of folders that contain *cvs.exe* and *rcs.exe* (use forward slashes instead of backslashes).

```
$ENV{'PATH'} .= 'c:/cvsbin;c:/rcsbin';
```

An alternative to this is to add the locations of *cvs.exe* and *rcs.exe* to the SYSTEM path and reboot (you must reboot for this to take effect).

Modify *c:\inetpub\wwwroot\cgi-bin\cvswb\cvswb.cgi*. Look for the line *\$config =* early on in the file and change it to (use forward slashes instead of backslashes):

```
$config = $ENV{'CVSWEB_CONFIG'} || 'c:/inetpub/wwwroot/cgi-bin/cvswb/cvswb.conf';
```

As an alternative to set the SYSTEM environment variable *CVSWEB_CONFIG* to *c:/inetpub/wwwroot/cgi-bin/cvsweb/cvsweb.conf* (use forward slashes!) and reboot (you must reboot for this to take effect).

Add ActivePerl mappings for CVSWEBSITE CGI to IIS

5. Run Internet Services Manager and add the CGI mapping for the PERLIS.DLL for the extension CGI. The exact way you do this will vary for different versions of Windows. The following are provided as a guide only, your Windows IIS Administrator should be competent with the procedures for whichever version of windows you are using.

Windows 2000 and IIS 5.0

Right-click on Default Web Site and click Properties

Click "Home Directory"

Click the Configuration.. button

Click Add:

- Executable: *C:\Perl\bin\perlis.dll*
- IExtension: *cgi*
- Check *script engine*
- Uncheck *check that file exists*

In Internet Services Manager, right-click on *cgi-bin/cvsweb* and select Properties

Under Application Settings, click the *Create* button

For "Execute Permissions", choose "Scripts and Executables"

For "Application Protection", select "Low (IIS Process)"

Windows 2012R2 and IIS 8.5

Click on the 'root node' for the web server (computer name). Open the feature 'ISAPI and CGI Restrictions'. Note: if the shortcut for this is not on the page, then you have probably not completed the IIS installation procedure, specifically the 'Application Development' sub-feature and the 'CGI' and 'ISAPI Extensions' sub-features.

Click "Edit Feature Settings..."

Tick the Allow unspecified CGI modules checkbox and press OK.

Use this command "`ap-iis-config add map --ext .cgi --type isapi`", or click on the 'root node' for the web server (computer name). Open the feature 'Handler Mappings'. Click Add Script Map:

- Executable: *C:\Perl\bin\perlis.dll*
- IExtension: *cgi*
- On 'request restrictions' 'access' tab: Check *script engine*
- Uncheck *check that file exists*

Click "Edit Feature Settings..."

For "Permissions", choose "Read and Scripts "

Testing CVSWEBNT

6. If you performed all the steps correctly, *<http://tiger/cgi-bin/cvsweb/cvsweb.cgi/>* should display the root folder of the CVS repository. If you omit the trailing slash you will get a page that says "Moved."

If you get an IIS error page with "Error Code 0x800700c1" then the cause is that you have not enabled 32-bit mode on the default application pool.

Installing Bugzilla and MySQL on Windows

Instructions on how to install the latest version of Bugzilla (currently Bugzilla 3.6) are available on the main Bugzilla web site:

<https://wiki.mozilla.org/Bugzilla:Win32Install>

Installing server components

To install Bugzilla you will need:

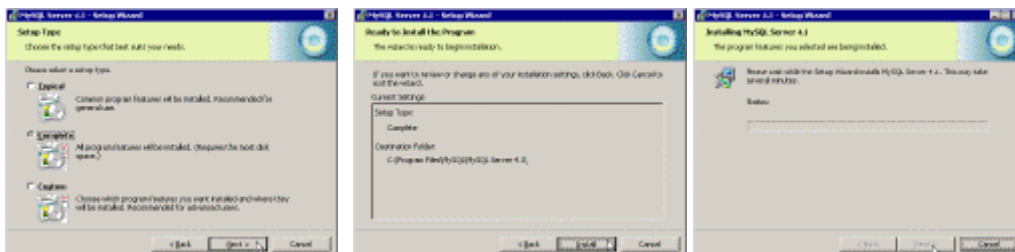
- CVS SUITE 2009 Build 5786 or higher
- ActiveState Active Perl 5.8.4.810 (or compatible)
- Bugzilla 2.18, 2.22, 3.0, 3.2, 3.4 3.6, 4.0 (or compatible, but not 4.2 or later)
note: we recommend you remove the -T from the beginning of each .cgi file, ie:
#!/usr/bin/perl -w
- MySQL 5.1.73 x86_64 (if using Windows Server 2012 or 2012R2), or
MySQL 4.1.7 (or whichever is compatible with your chosen version of Bugzilla)

The following must already be installed:

- Windows 2000/2003/2008/2012 Server or Advanced Server
- Internet Information Services (IIS), a part of the Application Server component of Windows including the SMTP service (unless another SMTP server is available in the same subnet).

Installation

1. Install CVS Suite with CVSNT eg: to c:\Program Files\CVS Suite\CVSNT
 - CVS SUITE 2009 Build 5786 or higher
2. Install MySQL 4.1.7 using “Complete” to c:\Program Files\MySQL\MySQL Server 4.1.



Do NOT run the configuration wizard.



Install MySQL Control Center (eg mysqlcc version 0.94). Delete the contents of c:\Program Files\MySQL\MySQL Server 4.1\data including all sub directories EXCEPT the directory mysql.

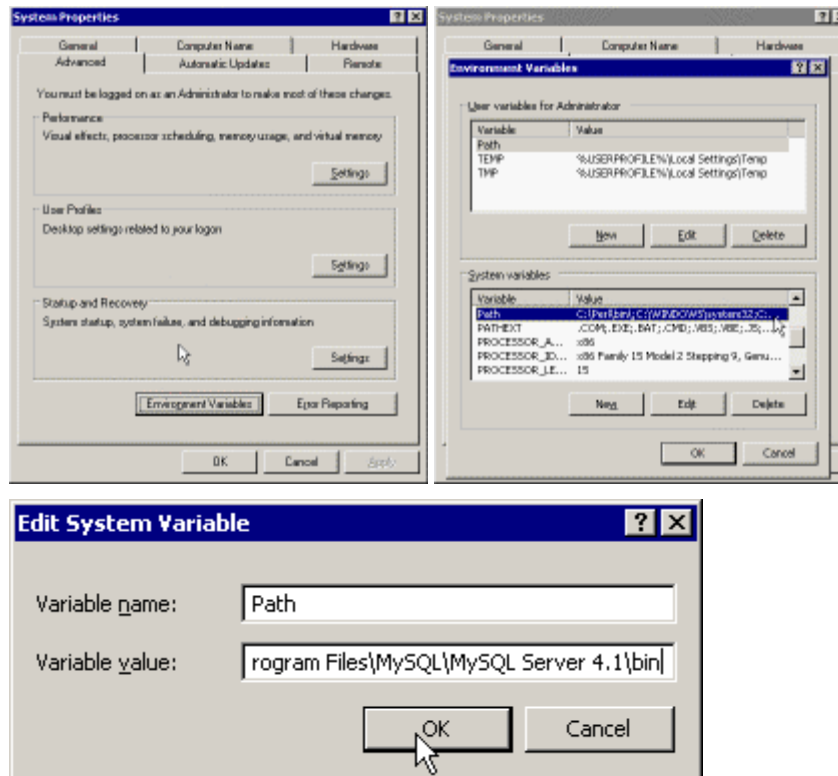
3. Run the MySQL Server Instance Config Wizard. We recommend a 'detailed' setup for a 'server' instance, transactional database only, OLTP, Enable TCP networking to port 3306, Disable Strict Mode (MySQL 5.1), Standard Character Set, Install as a Windows Service and Add the 'bin' directory to the SYSTEM PATH.



4. Optionally configure mysql to store the mysql data and log files in a different location by stopping the MySQL service and copying the contents of the `c:\Program Files\MySQL\MySQL Server 4.1\data` directory to the new location and alter the `c:\Program Files\MySQL\MySQL Server 4.1\my.ini` file `datadir` property (eg: `datadir=D:/VerCON/MySQLData/`).

5. You must check that the MySQL Server Instance Config Wizard added the MySQL “bin” directory, and the CVSROOT of the repository to the SYSTEM path and if it didn’t then add it.

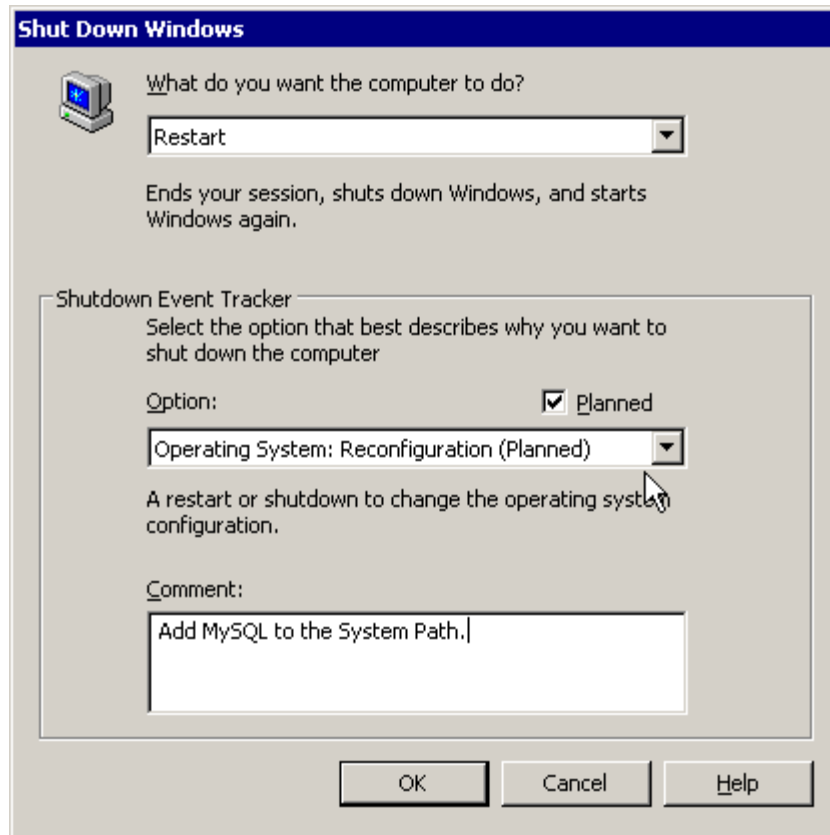
Go to the Control Panels and open the panel System. Navigate to the Advanced tab and press on button labelled “Environment Variables”. The PATH should include the complete directory name of MySQL (including BIN), and the complete directory name of the CVSROOT:



In our example the PATH is:

```
D:\VerCON\CS_FW\CVSROOT;C:\Perl\bin\;%SystemRoot%\system32;%SystemRoot%\System32\Wbem;C:\Program Files\cvsnt;C:\Program Files\MySQL\MySQL Server 4.1\bin
```

You must reboot the server for this change to take effect (even if the wizard created the environment variable). It is not necessary to do this immediately, but you **MUST** do it before the installation of the integration DLL.



7. Create the database bugs. Ensure that mysql has been added to the PATH.

```
Command Prompt
Microsoft® Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.

C:\>set PATH="C:\Program Files\MySQL\MySQL Server 4.1\bin";%PATH%
C:\>mysql --user=root --password=xxx mysql

Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 2 to server version: 4.1.7-nt

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> create database bugs;
Query OK, 1 row affected (0.00 sec)

mysql> grant all privileges on bugs.* to 'bugs'@'localhost' identified by '';
Query OK, 0 rows affected (0.00 sec)

mysql> flush privileges;
Query OK, 0 rows affected (0.00 sec)

mysql> quit
Bye

C:\>
```

8. If you want to set a password for the bugs account then you will also need to use the “set password” command to ensure the password is encoded in the old format:

```
Command Prompt
Microsoft® Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.

C:\>mysql --user=root --password=xxx mysql

Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 2 to server version: 4.1.7-nt

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> set password for bugs@'%' = old_password('password');
```

MySQL 4.x or 5.x or higher:

```
Command Prompt
Microsoft® Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.

C:\>mysql --user=root --password=xxx mysql

Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 2 to server version: 4.1.7-nt

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> set password for bugs@'localhost' = old_password('password');
```

MySQL 3.23:

```
Command Prompt
Microsoft® Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.

C:\>mysql --user=root --password=xxx mysql

Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 2 to server version: 4.1.7-nt

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> set password for bugs@'localhost' = password('password');
```

If you do not use this technique to set the password then you will get the following error message:

Client does not support authentication protocol requested by server; consider upgrading MySQL client

9. Unpack the Bugzilla TAR file or checkout Bugzilla from CVS (this is described in the following section *Installing Bugzilla on Windows* below).

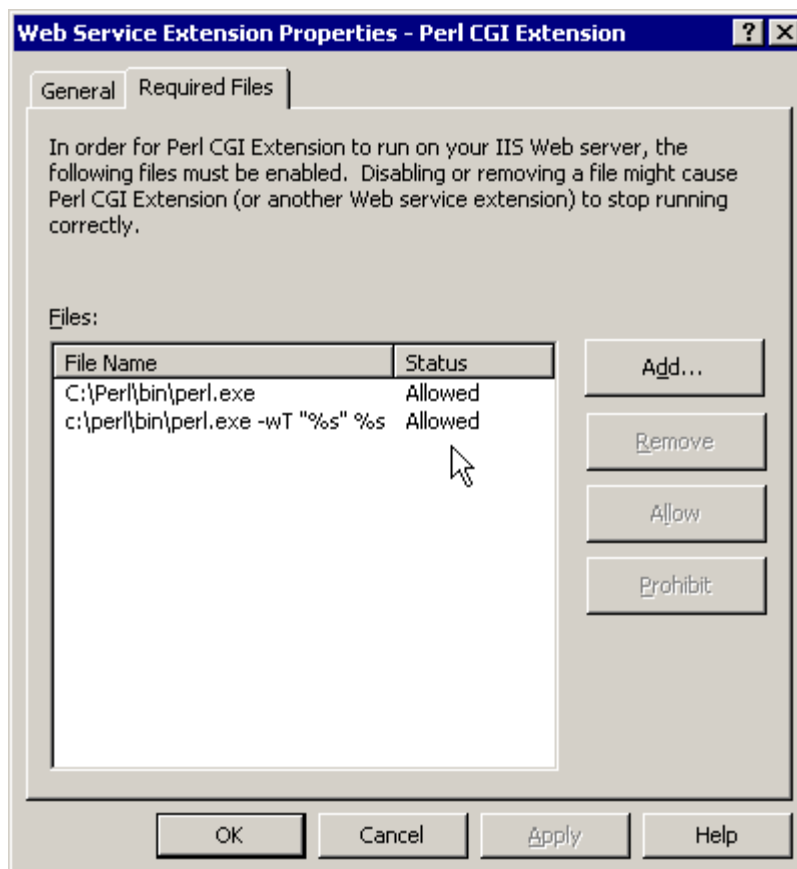
10. Create a new virtual directory named Bugzilla for the path d:\bugzilla in the default web site using IIS. Add the document `index.cgi` to the default content pages (IIS 7 and later use 'Default Document' feature). The permissions should be set as follows:

<i>IIS Windows Version</i>	<i>Permission</i>
Bugzilla	
IIS 4 – Windows NT 4	Read, Run Scripts and Execute.
IIS 5 – Windows 2000, Windows XP	Virtual Directory: Read and Execute Permissions: Scripts and Executables
IIS 6 – Windows 2003 and later	Virtual Directory: Read and Execute Permissions: Scripts and Executables
IIS 7/8/8.5 – Windows 2008 and later	Virtual Directory: Read and Execute for <i>IUSR</i> , <i>IIS IUSR</i> and <i>NETWORK_SERVICE</i> Handler Mappings 'Edit Feature Permissions': Read and Script

11. Configure ActiveState Active Perl Web Service Extension Properties

Windows 2003/2008 with ActivePerl 5.8

If using Windows 2003/2008 then set the Perl CGI and Perl ISAPI extensions to Allow.



Windows 2008R2/2012 or 2012R2 with ActivePerl 5.20

Open the feature 'ISAPI and CGI Restrictions'. Note: if the shortcut for this is not on the page, then you have probably not completed the IIS installation procedure, specifically the 'Application Development' sub-feature and the 'CGI' and 'ISAPI Extensions' sub-features.

Click "Edit Feature Settings..."

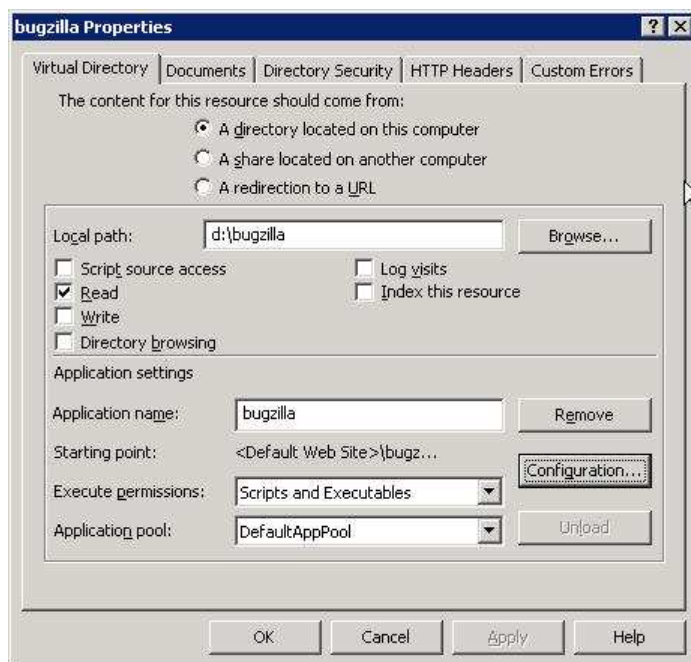
Tick the Allow unspecified CGI modules checkbox and press OK.

Set 'Enable 32 Bit Applications' in the Default Application Pool.

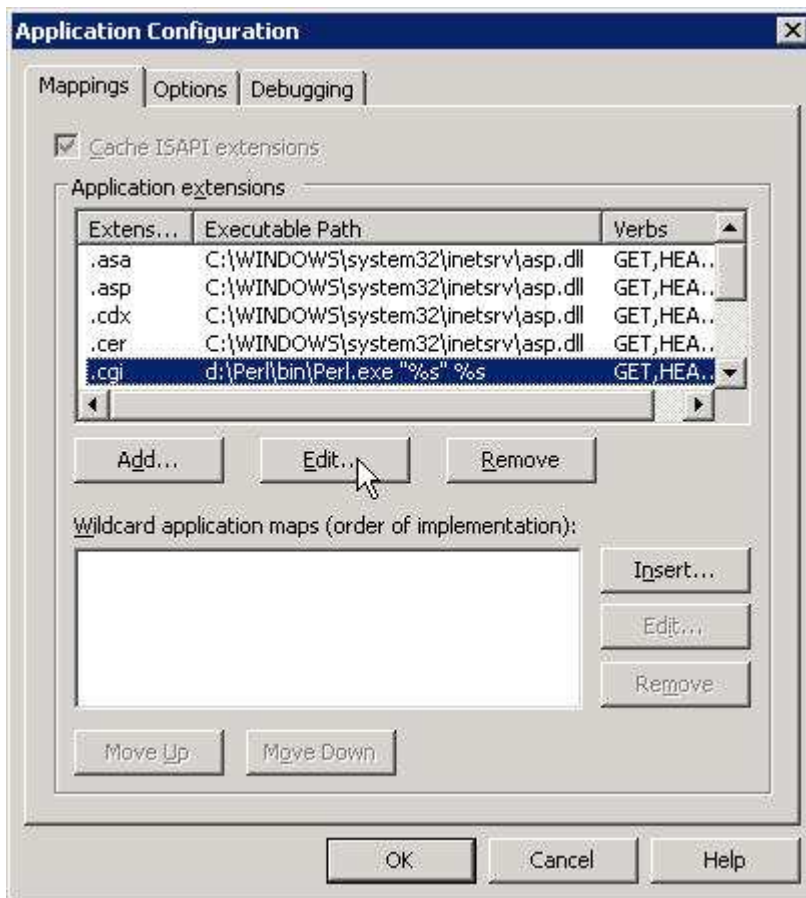
12. Create or modify the application extension mapping for .CGI for the virtual directory created in step 10 above.

Windows 2003/2008

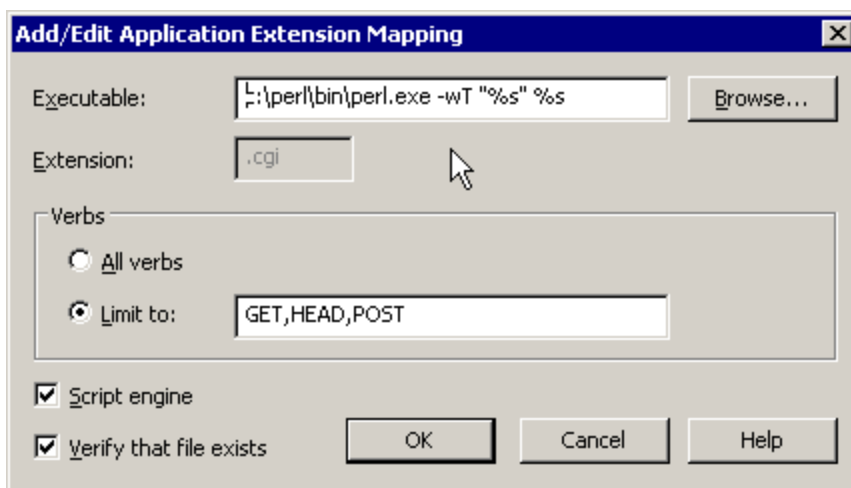
Open the properties of the virtual directory, select the Configuration... button.



A window titled Application Configuration opens.



Select the CGI extension mapping and edit it so that it appears as shown below (if the CGI extension mapping does not already exist use the Add... button to create one). Note: on Windows 2003/2008 it may be necessary to deselect the "Verify that file exists" option:



Windows 2012R2 and IIS 8.5

Click on the 'root node' for the web server (computer name). Open the feature 'ISAPI and CGI Restrictions'. Note: if the shortcut for this is not on the page, then you have probably not completed the IIS installation procedure, specifically the 'Application Development' sub-feature and the 'CGI' and 'ISAPI Extensions' sub-features.

Click "Edit Feature Settings..."

Tick the Allow unspecified CGI modules checkbox and press OK.

Use this command “ap-iis-config add map --ext .cgi --type isapi”, or click on the ‘root node’ for the web server (computer name). Open the feature ‘Handler Mappings’. Click Add Script Map:

- Executable: *C:\Perl\bin\perlis.dll*
- IExtension: *cgi*
- On ‘request restrictions’ ‘access’ tab: Check *script engine*
- Uncheck *check that file exists*

Click "Edit Feature Settings..."

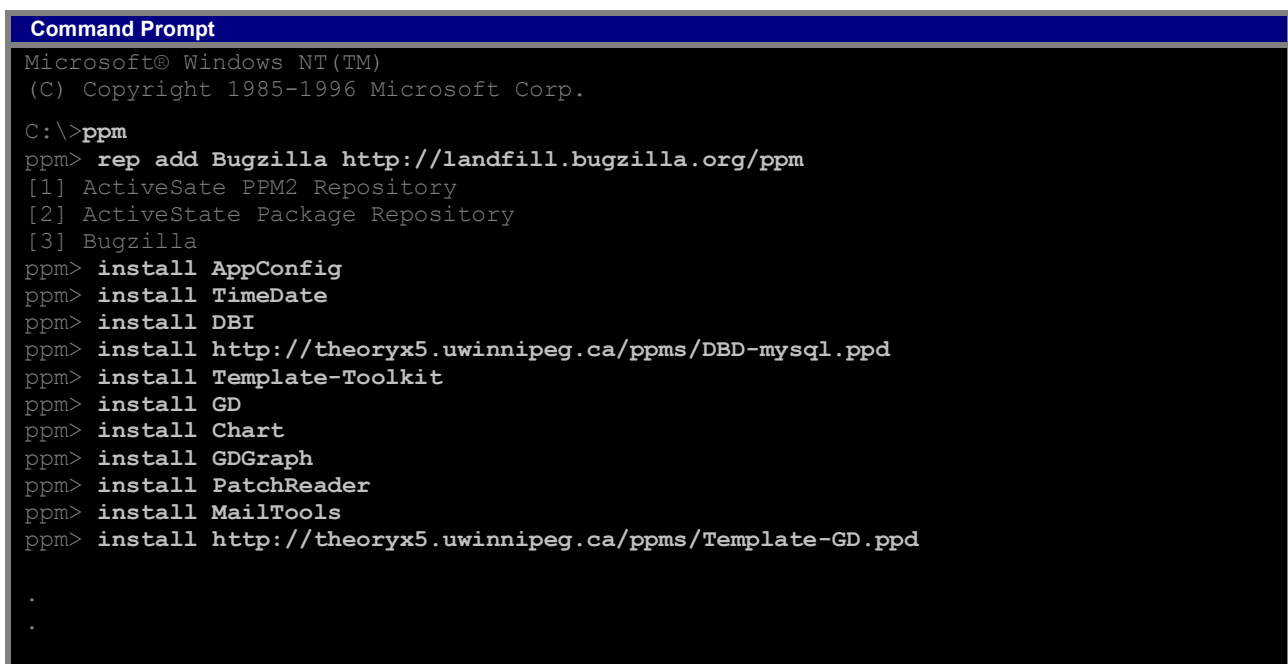
For " Permissions", choose "Read and Scripts "

13. Create *c:\temp* and ensure SYSTEM has write access.

14. Add *c:\perl\bin* to the PATH. On Windows Server 2012R2 ActiveState 5.18 or 5.20 installer may have already done this for you.

15. Use the Perl Package Manager to install the required perl modules:

Here is an example for Perl 5.8:



```
Command Prompt
Microsoft® Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.

C:\>ppm
ppm> rep add Bugzilla http://landfill.bugzilla.org/ppm
[1] ActiveState PPM2 Repository
[2] ActiveState Package Repository
[3] Bugzilla
ppm> install AppConfig
ppm> install TimeDate
ppm> install DBI
ppm> install http://theoryx5.uwinnipeg.ca/ppms/DBD-mysql.ppd
ppm> install Template-Toolkit
ppm> install GD
ppm> install Chart
ppm> install GDGraph
ppm> install PatchReader
ppm> install MailTools
ppm> install http://theoryx5.uwinnipeg.ca/ppms/Template-GD.ppd
.
.
```

Here is an example for ActivePerl 5.18 on Windows Server 2012R2:

```
Command Prompt
Microsoft® Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.

C:\>ppm install Date::Format
Downloading TimeDate-2.30...done
Unpacking TimeDate-2.30...done
Generating HTML for TimeDate-2.30...done
Updating files in site area...done
  43 files installed
C:\>ppm install CGI.pl
C:\>ppm install DateTime
C:\>ppm install DBD:mysql
C:\>ppm install Email-Sender
C:\>ppm install Email-MIME
C:\>ppm install Template-Toolkit
C:\>ppm install Chart
C:\>ppm install Template-GD
C:\>ppm install GDTextUtil
C:\>ppm install GDGraph
C:\>ppm install MIME-tools
C:\>ppm install PatchReader
C:\>ppm install DBI
C:\>ppm install JSON-RPC
C:\>ppm install Test-Taint
C:\>ppm install HTML-Scrubber
C:\>ppm install Encode-Detect
C:\>ppm install Email-Send
C:\>ppm install Math-Random-ISAAC
```

Here is an example for ActivePerl 5.20 on Windows Server 2012R2:

```
Microsoft® Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.

C:\>ppm install Date::Format
Downloading TimeDate-2.30...done
Unpacking TimeDate-2.30...done
Generating HTML for TimeDate-2.30...done
Updating files in site area...done
  43 files installed
C:\>ppm install DateTime
C:\>ppm install DBD:mysql
C:\>ppm install Email-Sender
C:\>ppm install Email-MIME
C:\>ppm install Template-Toolkit
C:\>ppm install Chart
C:\>ppm install Template-GD
C:\>ppm install GDTextUtil
C:\>ppm install GDGraph
C:\>ppm install MIME-tools
C:\>ppm install PatchReader
C:\>ppm install SOAP-Lite
C:\>ppm install XMLRPC-Lite
C:\>ppm install JSON-RPC
C:\>ppm install Test-Taint
C:\>ppm install HTML-Scrubber
C:\>ppm install Encode-Detect
C:\>ppm install Email-Send
C:\>ppm install Math-Random-ISAAC
```

If you have MySQL x64 installed on the same server as Bugzilla, then you must add this directory to the beginning of the SYSTEM path of the server and then reboot:

C:\Perl\site\lib\auto\DBD\mysql\

Here is an example for ActivePerl with your own repository:

Alternatively download the ppd files from the web to `f:\perl_modules` and use the PPM command: `rep add Bugzilla f:\perl_modules`

16. To create the initial configuration file “localconfig” run:
`perl checksetup.pl`

17. Edit `d:\Bugzilla\localconfig` to set:

- MySQL database name (`db_host`)
- MySQL username (`db_user`)
- MySQL password (`db_pass`)

18. Re-run: perl checksetup.pl

```
Command Prompt
Microsoft® Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.

D:\bugzilla>perl checksetup.pl
Checking perl modules ...
Checking for      AppConfig (v1.52)    ok: found v1.55
Checking for      CGI (v2.93)         ok: found v3.04
Checking for      Data::Dumper (any)    ok: found v2.121
Checking for      Date::Format (v2.21)  ok: found v2.22
Checking for      DBI (v1.36)          ok: found v1.48
Checking for      DBD::mysql (v2.1010)  ok: found v2.9005_3
Checking for      File::Spec (v0.82)    ok: found v0.87
Checking for      File::Temp (any)      ok: found v0.14
Checking for      Template (v2.08)     ok: found v2.13
Checking for      Text::Wrap (v2001.0131) ok: found v2001.09291

The following Perl modules are optional:
Checking for      GD (v1.20)           ok: found v2.16
Checking for      Chart::Base (v1.0)    ok: found v2.3
Checking for      XML::Parser (any)     ok: found v2.34
Checking for      GD::Graph (any)       ok: found v1.43
Checking for      GD::Text::Align (any)  ok: found v1.18
Checking for      PatchReader (v0.9.4)  ok: found v0.9.5

All the required modules are available at:
  http://landfill.bugzilla.org/ppm/
You can add the repository with the following command:
  ppm rep add bugzilla http://landfill.bugzilla.org/ppm/

Checking user setup ...
Removing existing compiled templates ...
Precompiling templates ...
Checking for      MySQL Server (v3.23.41) ok: found v4.1.7-nt

Creating table user_group_map ...
Creating table series_data ...
.
.
Creating table namedqueries ...
Creating initial dummy product 'TestProduct' ...
Populating duplicates table...
Creating duplicates directory...
Migrating old chart data into database ...
Adding group tweakparams ...
.
.
Adding group canconfirm ...

Looks like we don't have an administrator set up yet.  Either this is your
first time using Bugzilla, or your administrator's privileges might have
accidently been deleted.
Enter the e-mail address of the administrator: admin@mycompany.org
You entered 'support@march-hare.com'.  Is this correct? [Y/n] Y
Enter the real name of the administrator: Joe Bloggs
Enter a password for the administrator account: ****

Please retype the password to verify: ****

'admin@mycompany.org' is now set up as an administrator account.
```

19. Set the security on the d:\Bugzilla\data directory to permit the Internet Guest Account write access.
20. Using IIS Admin, set the default page on the Bugzilla directory to index.cgi. On Windows Server 2012R2 / IIS 8.5 use the 'default document' feature.
21. Bugzilla 4.0 requires 3 changes to run OK on Windows Server 2012R2 / IIS 8.5:

- must remove the -T from the first line of all .cgi files
- edit Bugzilla\CGI.pm – rename sub header to sub mh_header then add this code immediately below the end of 'mh_header':

```
# custom header sub for windows 2012 IIS
sub header {
    my $self = shift;
    my $is_mod_perl = defined($ENV{'MOD_PERL'});
    my %args = @_;

    my $headers = "HTTP/1.0 200 OK${CGI::CRLF}" .
        $self->mh_header(%args);

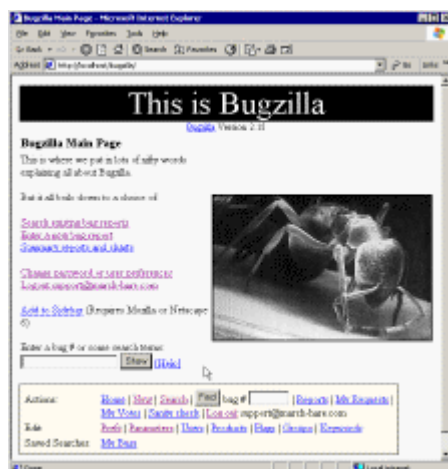
    return $headers;
}
```

- patch security bug CVE-2015-4499 in Bugzilla/Util.pm using changes to sub validate_email_syntax based on bugzilla bug #1202447:

```
sub validate_email_syntax {
    my ($addr) = @_;
    my $match = Bugzilla->params->{'emailregexp'};
    # set the max length to 127 ensures addr aren't truncated
    # when inserted into the tokens.eventdata field.
    if ($addr =~ /$match/
        && $addr !~ /[\\(\\)<>,&;:"\\[] \t\r\n\\P{ASCII}]/
        && length($addr) <= 127)
    {
        # checks to suffice to consider the address untainted.
        trick_taint($_[0]);
        return 1;
    }
    return 0;
}
```

Once those fixes are performed

22. You should now be able to view Bugzilla using a web browser:



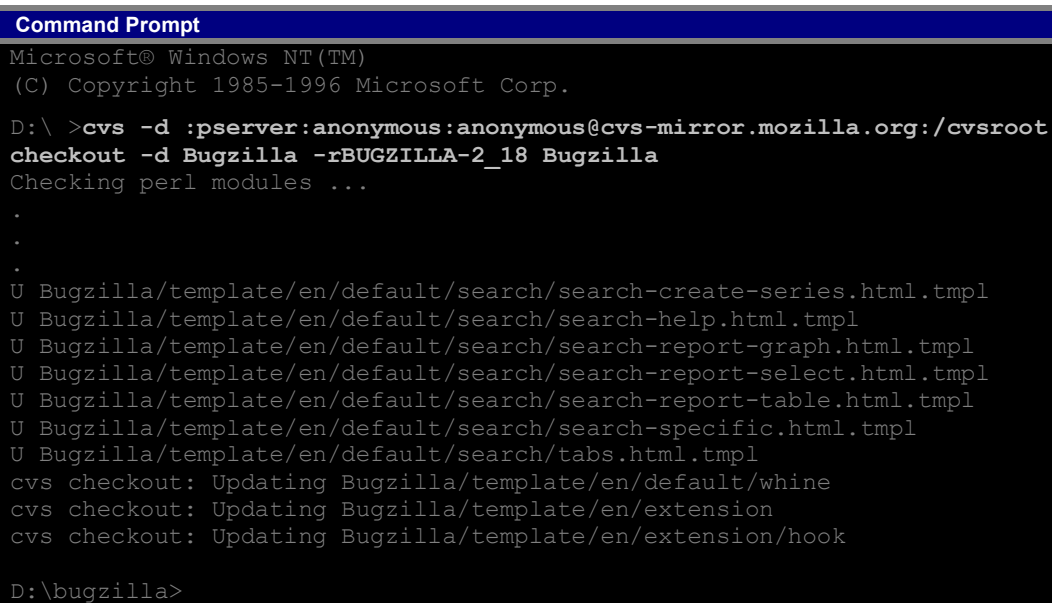
If you see a blank page, then you should check for Perl IIS errors in:

C:\Perl\bin\PerlIS-Err.txt

Installing Bugzilla on Windows

You can install Bugzilla three ways:

- Using the Bugzilla.zip supplied by March Hare consulting. If you have purchased this option with consulting then it will be available in the customer area of the march-hare.com web site
- Using a Bugzilla tarball available from the Bugzilla.org download site
- Using CVS with the following command:



```
Command Prompt
Microsoft® Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.

D:\ >cvs -d :pserver:anonymous:anonymous@cvs-mirror.mozilla.org:/cvsroot
checkout -d Bugzilla -rBUGZILLA-2_18 Bugzilla
Checking perl modules ...
.
.
.
U Bugzilla/template/en/default/search/search-create-series.html.tpl
U Bugzilla/template/en/default/search/search-help.html.tpl
U Bugzilla/template/en/default/search/search-report-graph.html.tpl
U Bugzilla/template/en/default/search/search-report-select.html.tpl
U Bugzilla/template/en/default/search/search-report-table.html.tpl
U Bugzilla/template/en/default/search/search-specific.html.tpl
U Bugzilla/template/en/default/search/tabs.html.tpl
cvs checkout: Updating Bugzilla/template/en/default/whine
cvs checkout: Updating Bugzilla/template/en/extension
cvs checkout: Updating Bugzilla/template/en/extension/hook

D:\bugzilla>
```

CVS Suite Integration with Bugzilla

CVS Suite **2009** Build 5786 is the third release of CVS Suite which March Hare supports linking CVS with Defect Tracking systems like Bugzilla, Mantis and JIRA. If you are upgrading from version 2.0.x please read this section carefully and then follow the upgrade instructions in the appendix.

Supported defect tracking systems and versions

Bugzilla

The server integration is designed to support the Bugzilla schemas:

- 2.18 (which includes Bugzilla 2.17 and 2.20) and
- 2.22 (which includes Bugzilla 2.22, 3.0, 3.2, 3.4, 3.6 and 4.0)

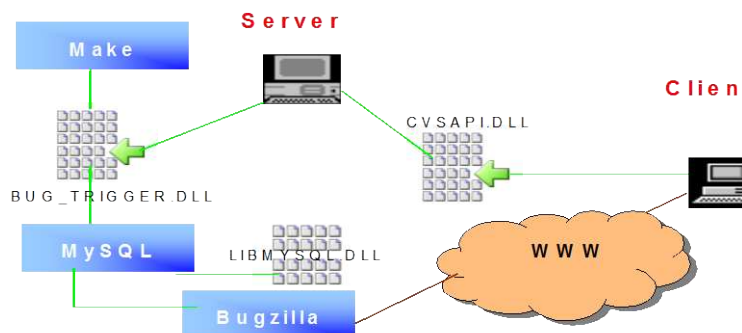
How the Bugzilla Integration Works

Version control without defect tracking may limit the benefits available to an organisation. March Hare have designed CVSNT to integrate seamlessly with defect tracking systems at the server. Furthermore this interface is designed to be transparent to the client user.

This section provides an overview of how the integration between CVSNT and Bugzilla is operated.

Communications

The triggers DLL works in conjunction with the CVSAPI to communicate between the client and server and fire the events to trigger recording of bug information.



Default Behaviour

The trigger DLL will be used if the triggers administrative file is configured to activate it. The trigger is pre programmed with the following behaviour:

- On completion of a commit with the `-B bugid` switch the bug identified with *bugid* will receive the comment.

Configuring Integration on Windows

Use the CVSNT Control Panel to configure the plugin. Navigate to the “plugins” tab and select the Bugzilla Integration plugin and press the Configure button.

Configure Defect Tracking Integration

☒ Plugin enabled Defect Tracker: Bugzilla 2.22-3.0 (2.22)

MySQL Database

☐ Remote Host:

Name:

Username:

Password:

Identity

Email domain:

Bugzilla

Location: ...

JIRA

Attachments: ...

Project Key:

Logging

☒ Private

☒ Attachments

Ignore commit message:

Validation

☒ Exists

ASSIGNED

☒ Assigned User

☒ Ignore Admins

Ignore branch:

OK Cancel

CVS Suite Defect Tracking Integration (C) 2005-2008, March Hare Software.

Installation of Integration

1. If you have not already created a repository, create one using the CVSNT Server windows control panel:

CVSNT

Repository configuration

Server Name: Vistax64

Name	Root	Description
/testrepo	C:/Users/Public/Documents	

Add Delete Edit

Change Settings OK Cancel Apply

2. Use the CVSNT Control Panel to configure the plugin. Navigate to the “plugins” tab and select the Bugzilla Integration plugin and press the Configure button.

Ensure that the plugin is enabled and enter the following additional information:

- Database Name
- Database User
- Database Password
- Default user domain (for where no translation exists in the CVSROOT/users file)
- Location of Bugzilla (to trigger automatic e-mails)

And choose which options you want enabled:

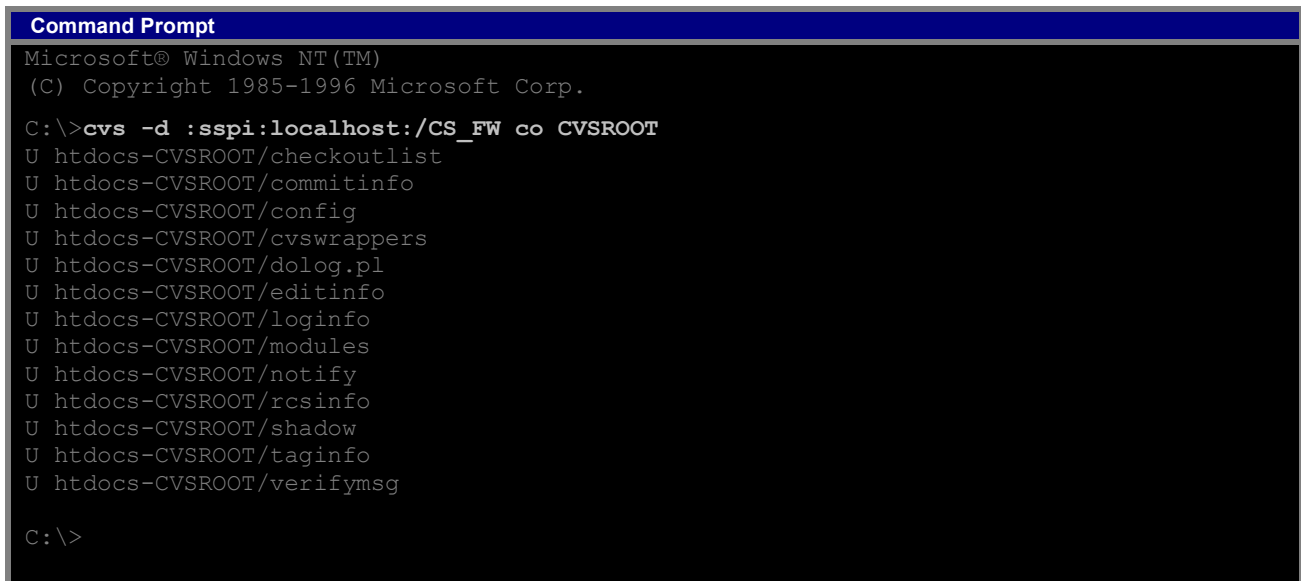
- Mark commit comments as private (note: automatic e-mails are not sent for private comments)
- Store commit deltas as attachments in patch format

You can choose validation additional options that you want enabled:

- Bug must exist
- Bug must be in the state specified
- Bug must be assigned to user

3. The administration file *users* is used to lookup the username -> email mapping. This file is a list of colon separated username/email pairs. If this file does not exist or the username is not listed the default domain name set in the global configuration is used.

Check the CVSROOT module:

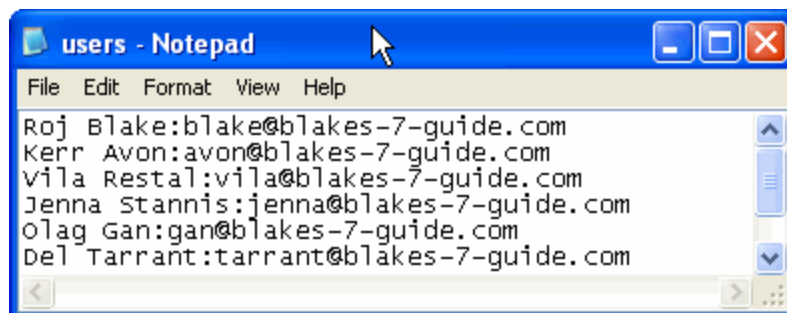


```
Command Prompt
Microsoft® Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.

C:\>cvs -d :sspi:localhost:/CS_FW co CVSROOT
U htdocs-CVSROOT/checkoutlist
U htdocs-CVSROOT/commitinfo
U htdocs-CVSROOT/config
U htdocs-CVSROOT/cvswrappers
U htdocs-CVSROOT/dolog.pl
U htdocs-CVSROOT/editinfo
U htdocs-CVSROOT/logininfo
U htdocs-CVSROOT/modules
U htdocs-CVSROOT/notify
U htdocs-CVSROOT/rcsinfo
U htdocs-CVSROOT/shadow
U htdocs-CVSROOT/taginfo
U htdocs-CVSROOT/verifymsg

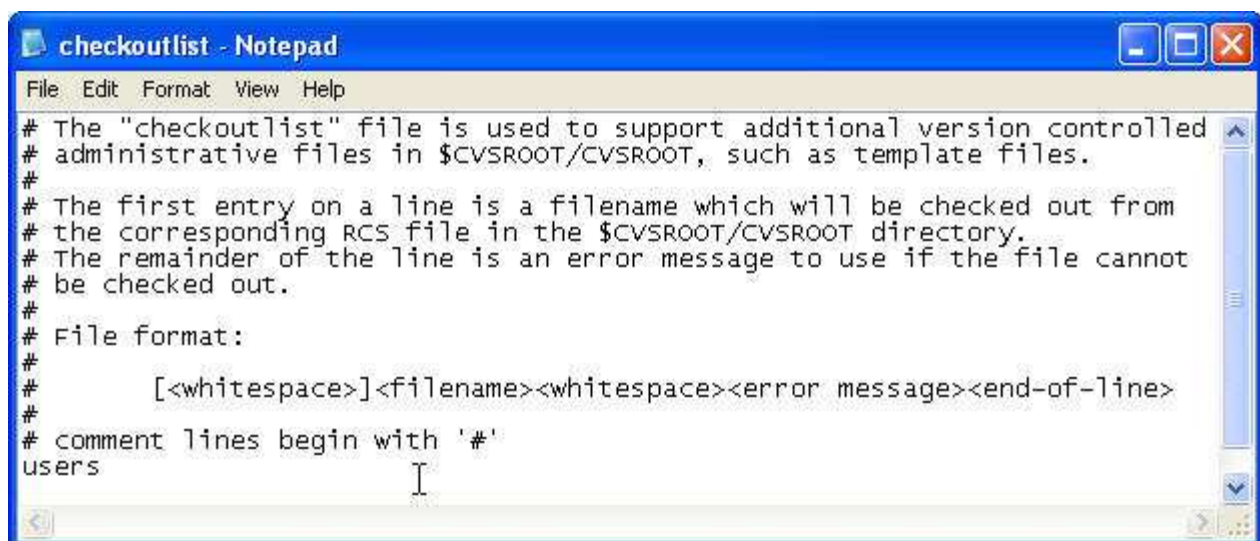
C:\>
```

4. Create a file named *users* (no file name extension) that will map between users login names (ie: Active Directory names) and their e-mail addresses:



```
users - Notepad
File Edit Format View Help
Roj Blake:blake@blakes-7-guide.com
Kerr Avon:avon@blakes-7-guide.com
Vila Restal:vila@blakes-7-guide.com
Jenna Stannis:jenna@blakes-7-guide.com
Olag Gan:gan@blakes-7-guide.com
Del Tarrant:tarrant@blakes-7-guide.com
```

5. Add the *users* file to the *checkoutlist* file:



```
checkoutlist - Notepad
File Edit Format View Help
# The "checkoutlist" file is used to support additional version controlled
# administrative files in $CVSROOT/CVSROOT, such as template files.
#
# The first entry on a line is a filename which will be checked out from
# the corresponding RCS file in the $CVSROOT/CVSROOT directory.
# The remainder of the line is an error message to use if the file cannot
# be checked out.
#
# File format:
#
#      [<whitespace><filename><whitespace><error message><end-of-line>
#
# comment lines begin with '#'
users
```

Add the file *users* to the CVSROOT and commit both the *checkoutlist* and *users* files:

Command Prompt

```
Microsoft® Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.

C:\>cd CVSROOT
C:\CVSROOT>cvs add users
cvs server: scheduling file `users' for addition
cvs server: use 'cvs commit' to add this file permanently

C:\CVSROOT>cvs commit -m "config file changes"
cvs commit: Examining .
Checking in checkoutlist;
/myrepo/CVSROOT/checkoutlist,v <-- checkoutlist
new revision: 1.6; previous revision: 1.5
done
RCS file: /myrepo/CVSROOT/users,v
done
Checking in users;
/myrepo/CVSROOT/users,v <-- users
initial revision: 1.1
done
cvs server: Rebuilding administrative file database

C:\CVSROOT>
```

Testing of Integration (command line)

1. Check out a module:

Command Prompt

```
Microsoft® Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.

C:\>cvs -d :sspi:localhost:/CS_FW co Projekte
cvs server: Updating Projekte
cvs server: Updating Projekte/Bat
cvs server: Updating Projekte/Utils
U Projekte/Utils/hello.c

C:\>
```

2. Enable watches

Command Prompt

```
Microsoft® Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.

C:\>set CVSROOT=:sspi:myserver/CS_FW
C:\>cvs watch on

C:\>
```

3. Release then check out a module:

```
Command Prompt
Microsoft® Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.

C:\>cvs -d :sspi:localhost:/CS_FW release -d Projekte
Are you sure you want to release (and delete) directory `Projekte': y
C:\>cvs -d :sspi:localhost:/CS_FW co Projekte
cvs server: Updating Projekte
cvs server: Updating Projekte/Bat
cvs server: Updating Projekte/Utils
U Projekte/Utils/hello.c

C:\>
```

4. Create a bug using Bugzilla (use a web browser). Note down the bug number created in Bugzilla.

5. Begin work on a file using a bug number:

```
Command Prompt
Microsoft® Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.

C:\>cd Projekte\Utils

C:\Projekte\Utils>cvs edit -b 2 -m "Work on adding a message for legislation 1234xx
compliance" hello.c

C:\>
```

6. Make the changes to the source code hello.c

7. Commit all changes for this bug:

```
Command Prompt
Microsoft® Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.

C:\Projekte\Utils>cd ..

C:\Projekte>cvs commit -b 2 -m "Work on adding a message for legislation 1234xx
compliance"

C:\>
```

The comment from the commit – and the name of the file being committed is logged in the bug in Bugzilla.

Testing of Integration (CVS Suite Tortoise)

The CVS Suite version of TortoiseCVS include a “Use Bug” field on the edit dialog, and both “Use Bug” and “Mark Bug” field on the commit dialog.

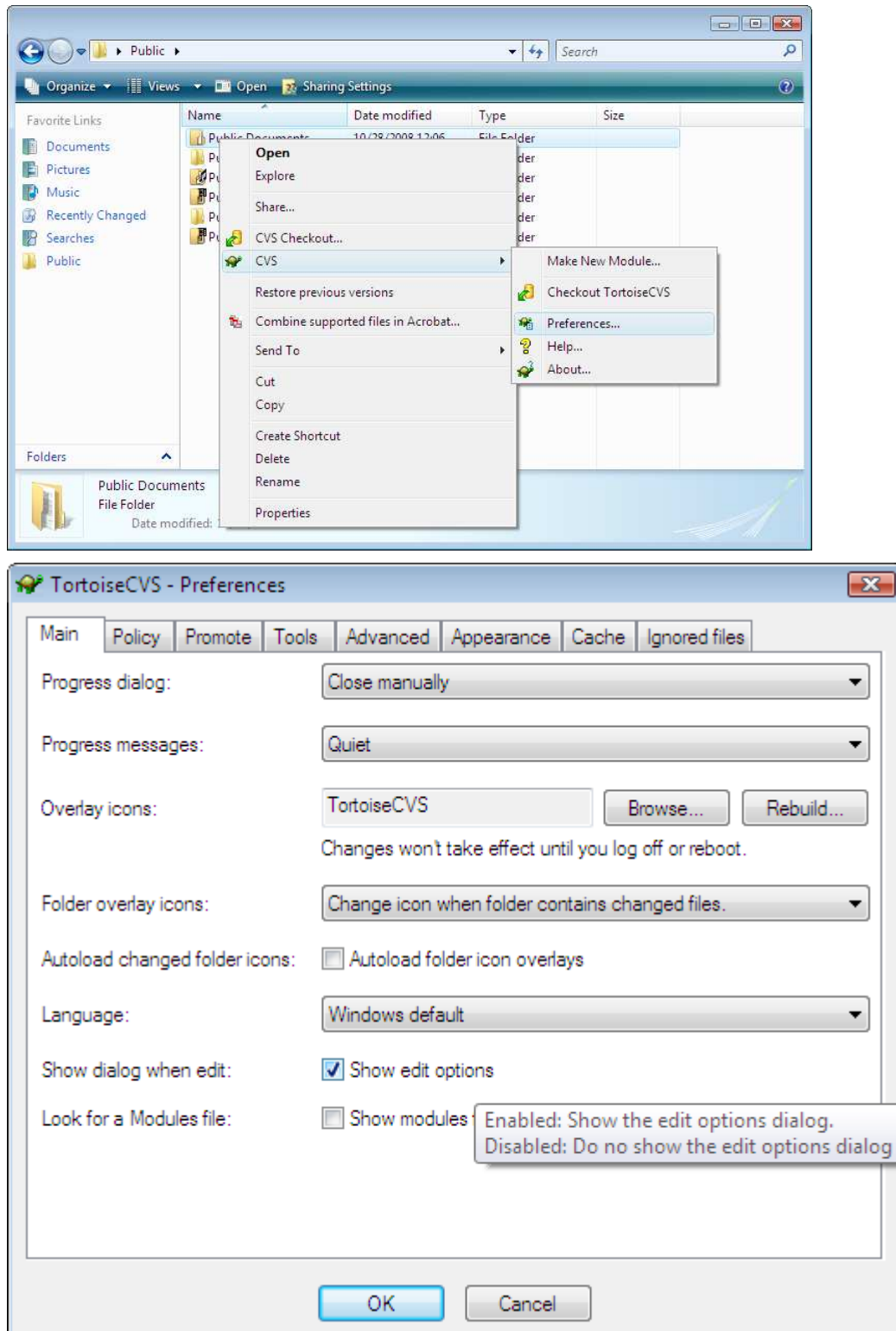
The “Use Bug” field is the most common method of working with change sets:

- Supply a bug number when you begin work on a file
- Can have several Bug numbers in use at the same time
- Can commit files selectively based on the bug number
- Patches and Checkin Comment can be attached to Bug in Defect Tracking System (Bugzilla)

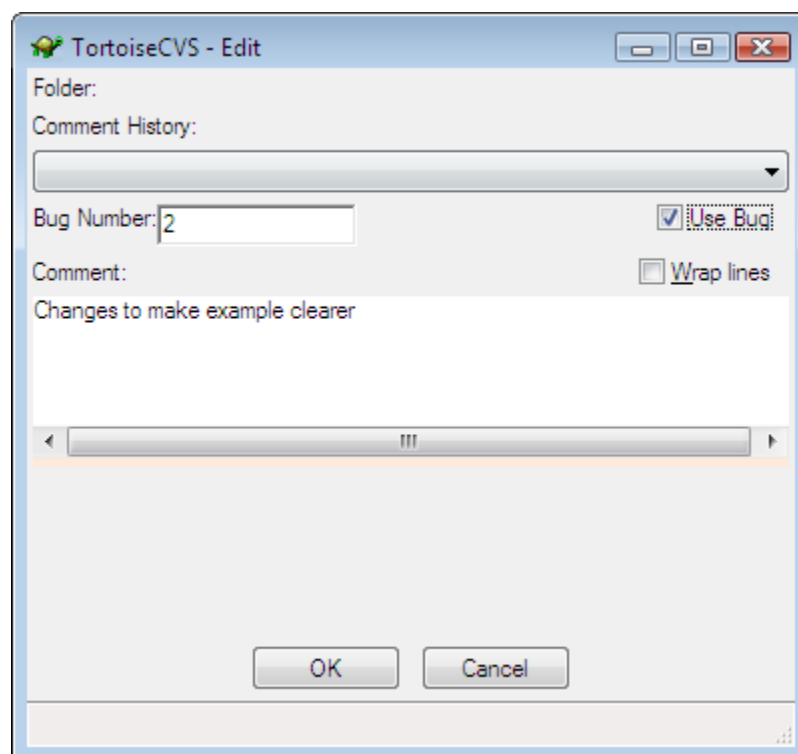
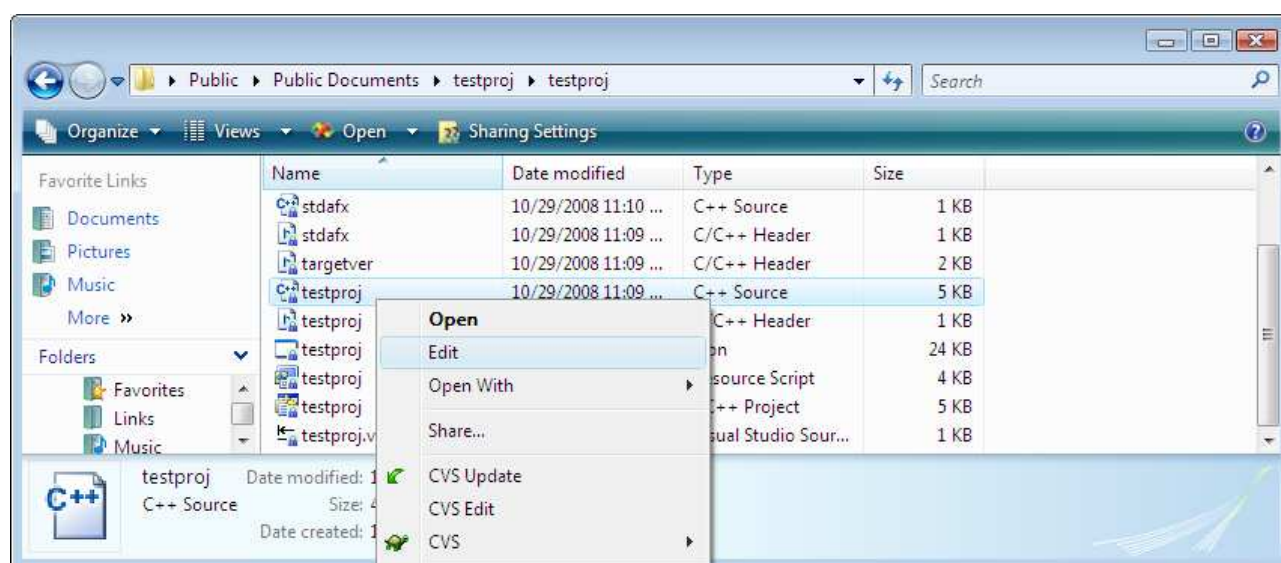
The “Mark Bug” field is an alternative method of working with change sets where the bug number (or numbers) are supplied at the time of check in / commit only. The patch and comment are still applied to the bug in the defect tracking system (Bugzilla).

Firstly perform the steps 1 to 4 of “Testing of Integration (command line)” above.

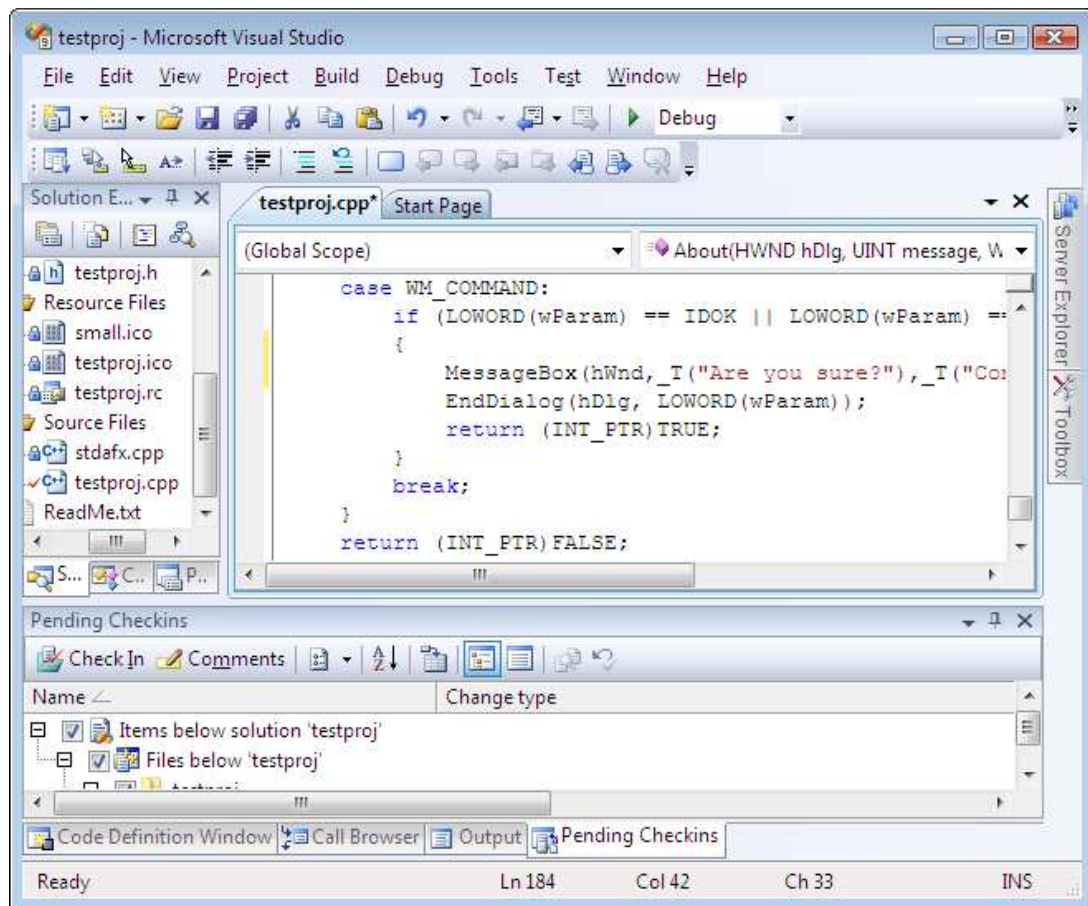
1. Set the Tortoise Preference:



2. Begin work on a file using a bug number:



3. Make the changes to the source code testproj.cpp



4. Commit all changes for this bug:

