

# Installing EVS Server

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Documentation completed on: Tuesday, September 16 2008

Documentation describes: EVS 3.1.01.3187 created on Sep 15 2008.

## **Windows Server 2003 R2 + SP2 with SQL Server 2005 + SP1**

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## **Overview of the EVS Project:**

### **EVS**

The EVS Project was initiated in 2006 by March Hare Software and is lead by Tony Hoyle. The main project web site is <http://www.evscm.org>

The aim of the project is to deliver an advanced multiplatform version control library/API which allows software developers to write configuration management software whilst remaining compatible with industry standard protocols (including the CVS protocol) and features (such as mergepoints, commit id's changesets, atomicity, locking etc) provided under one or more Open Source / Free Software licenses.

## EVSCM

EVSCM is a proprietary/commercial configuration management platform designed to provide clearly defined business benefits and uses EVS infrastructure. In particular the objectives of the project are informed by:

- The March Hare Software "Effective CM" process and documentation
- Feedback from commercial users of CVS Professional and CVS Suite
- Research by *Instead* and *Micro Focus* on the value of IT assets published in The Financial Times UK Edition 36,501 on Monday October 1 2007
- Research notes by the *Configuration Management Institute*
- Feedback and conversations with the greater CVS, CVSNT and CM communities

## CVSNT/EVS 3.x.x

This project took over the development of code on the "trunk" of the CVSNT repository that had previously been the basis for CVSNT 2.6.x development. CVSNT/EVS is an open source version control system largely identical in functionality to CVSNT based on EVS.

## Timeline

It has taken considerably longer to get from the last beta release to this one than we expected – and *all* that has changed is that we now support SVN clients. It was always out intention that EVS should support multiple clients, and whilst we could have released "version 1" with only support for CVSNT/ CVS clients this seemed like cheating, so instead we stuck at it and are now confident that the EVS API is robust enough to support many types of client and many workflows.

The plan from here currently is:

### **Phase 1 – due 30 Sep 08**

Deliver EVSCM with a non-expiring evaluation license and CVS/ CVSNT/ SVN client support

### **Phase 2 – due 30/Nov/08**

Add TeamSystem/Visual Studio client support

### **Phase 3 – due 31/Jan/08**

Add MultiSite Support (Repository Cache Support also being considered)

### **Phase 4 – no date currently set**

Add Oracle 10/11 support

### **Phase 5 – no date currently set**

Add Solaris 10 sparc support

### **Phase 6 – no date currently set**

Add integrated build management/distributed build

## Foreword by the Product Manager:

I doubt that I would have began this project if I understood just how complex it would be – but right now on Monday, September 15 2008 it is beginning to look like it is close to completion. The majority of work remaining is to build a tool to migrate SVN and CVS/ CVSNT repositories, and do all the pretty GUI work, the EVS "server" and "repository" have been stable for quite a while now.

From the day that March Hare Software got involved in the CVSNT project we have always envisaged 're-writing' it, however we wanted to avoid the pitfalls that we'd seen other projects fall into, namely: re-writing 'from scratch' (versus taking an iterative/evolutionary approach) and failing to provide any business benefit. I think that EVSCM will provide tangible and measurable benefits for commercial software developers.

I know that there are a lot of people who are expecting EVSCM to be a 'real' SCM system, in particular: with process support and not simply a 'version of files' view of SCM. This beta release will probably disappoint those people. I believe the underlying EVS API does provide what SCM professionals have been looking for – however as a development team we also needed to solve a technological problem: clients and end users.

Today the majority of software developers use either CVS/CVSNT or SVN plugins for a Java IDE like Eclipse or NetBeans or through IDE agnostic tools like WinCVS / TortoiseCVS / TortoiseSVN or Visual Studio. Therefore we need to ensure that EVSCM can work seamlessly with those clients. Checkin and checkout do not an SCM system make, but without adoption by those who do checkin/checkout the other benefits and features cannot follow. Release 1 of EVSCM will provide CVS/CVSNT and SVN client support (and Visual Sudio support via the SCCI interface), release 2 will add TeamSystem client support.

I hope to have a beta with some of the GUI/SCM process in place in the next few weeks (before 3<sup>rd</sup> week September), and I'm also looking forward to lots of feedback about SVN client testing.

## Open Source and Licensing:

I have not found any documentation by the instigators of the Open Source Software "movement" that show it was ever intended to be a mechanism to distribute application software with no charges. The Free Software Foundation (GNU) talk about Free Software as being "Free as in Freedom – not Free as in Beer".

It has come to our attention that very few people who download our software are interested in exploiting the freedom that our software provides – so we have thought long and hard about a way to maintain the freedom for those who want and can use it whilst ensuring that the effort and risks we have taken to deliver this new software are rewarded and enable us to pay our debts and continue developing great software.

EVS API contains all of the code that a software developer requires to write a modern version control system based on open standards like the CVS, CVSNT and SVN protocols and is licensed under flexible open source terms that allow it to be used by both open source projects and closed source projects. This is FREE SOFTWARE under the terms provided by the Free Software Foundation.

For people who do not want to use the free source code, we are providing an out-of-the-box application licensed on commercial terms. We will provide *evaluation* editions of EVSCM with no limitations or expiration coded into the product – however if you are using these for commercial software development beyond any reasonable definition of the term *evaluation* then we expect you to purchase our competitively priced non-evaluation edition. Individuals and Corporations who purchase the non-evaluation editions are supporting the development of Open Source and Free Software and gain most of the advantages of Free Software (code re-use, transparency etc).

We already provide a complete open source version control application CVSNT licensed under Free and Open Source terms. In the future releases of CVSNT will be available with the existing CVSNT features but provided by the EVS API rather than the older CVSNT API and a release of EVS Manager that provides "control panel" functions (similar to what was provided in the previous EVSCM beta).

## About this Beta Release:

This is the second build of EVS that includes a preview of the EVSManager, and is the first that contains support for SVN clients. Please remember that this is a beta build and that CVS, CVSNT and SVN clients are not fully supported.

Please read this installation document carefully - it lists known limitations and the installation procedure. The testing we have performed was based on the setup shown in this document. Further copies of this document can be downloaded from the repository (cvsnt/doc/Installing EVS.rtf) or from the web site:

[http://www.evscm.org/archive/Installing\\_EVS.pdf](http://www.evscm.org/archive/Installing_EVS.pdf)

I have tested this install on a clean server and client and all works - so this build may not be stable, but you should not hit any showstopper bugs that prevent you testing it. The windows installers the server is here:

<http://www.evscm.org/archive/evs-server-win32-3.1.01.2882-beta.msi>

and the client here:

<http://www.evscm.org/archive/evs-client-win32-3.1.01.2882-beta.msi>

In particular we are looking for your assistance with:

- migrating the codebase to linux (checkout the trunk from cvs.cvsnt.org), use the postgres driver.
- CVS import/add/update/update(merge)/checkout/commit and all acl functions
- SVN checkout/commit
- CVSNT rename/move
- CVS rtag/tag (tag or branch)
- testing EVSmanager

The purpose of this milestone was to release a build that is functionally equivalent to CVSNT and (with the odd exception) SVN, plus these features:

- a fast "rtag"

- rename and move

- transactional database (atomic commit and checkout)

- a single windows service evsmanager that provides:

- o CVS/CVSNT port 2401 services
- o CVSNT Lock Service port 2402 services
- o SVN services
- o use of web folders (also known as WebDAV) to create revisions of files in a repository
- o integrated defect tracking based on the Bugzilla data model
- o integrated web browsing of the repository

EVSCM is the first SCM system with support for the open "CVS protocol" that has no file (or RCS) backend but a relational SQL database. This has not been done simply for the "cool" factor - but because it creates a platform that we can build more advanced functionality on in a very robust way.

Please post your comments and bug reports to support.evs on the news.cvsnt.org (nntp/news) server.

We will not be making any additional builds of EVS for several more weeks, but each bug posted to the newsgroup will be recorded and Tony will analyse it to make an estimate of the effort to fix. In around 4 weeks we will look at each of these and prioritise them then look at scheduling. Of course if anyone else wants to simply get in and fix stuff we'd be delighted. If you post a bug I will most likely then give you write access to our bugzilla so you can update it and post more bugs. Ditto with submitting patches for EVS.

Note: the source code to EVSManager is not available, and there is a post on the support.evs newsgroup dated 30/Sep/2007 with the subject "EvsManager" explaining this.

## About this document:

- This document has been updated with comments specifically for build 3.1.01.3187
- This document describes installing and configuring EVS Server on Windows Server 2003 R2 with Service Pack 2 and SQL Server 2005 with Service Pack 1
- Screenshots used in this installation tutorial may indicate other versions however the only "tested" version is build 3.1.01.3187 (use the earlier version of this document for information on build 2795 or build 2882).
- The computers used in the sample installation were all members of a domain (server and client), neither the EVS Server or the EVS Client is the domain controller.
- In these examples the commands performed on the server were done by the "local" administrator (not the domain administrator) and the client commands performed by a domain user.
- The server installed used was `evs-server-win32-3.1.01.3187.msi` created on 15-Sep-2008.

## About EVS Client and EVS Server:

EVS Server does not create any RCS files - the repository is stored in a database of your choice. Despite not creating any RCS files, EVS Server does require a folder on the server to store the "checked out" CVSROOT files for configuration and trigger scripts (e.g.: loginfo). When using the `:local:` protocol this "path" is not used – use the "logial" path (the alias) instead.

It is a limitation of sqlite that it can only support one active connection at a time, limiting your EVS server to a single user/process, therefore Microsoft SQL Server 2005 Standard Edition is the current tested and recommended choice of database and the only examples provided in this document, it should also be possible to use SQL Server 2005 Express (or even MSDE).

## About EVS Manager:

EVS Manager is an add on component for EVS Server that provides web/http services and will be supplied without charge with the "free" EVS Server, however the specification of the supplied EVS Manager may be different from the one in this release and may include additional features and/or may not provide features in this release. The functions in this release include:

- EVS Control Panel and Setup
- A "ViewCVS"/ "ViewVC" style web browser of the repository
- Defect Tracking / Trouble tickets (using a data model compatible with Bugzilla)
- WebDAV / Web Folders
- SVN 1.4/1.5
- CVSNT/CVS
- CVSNT Lock Service
- *More*

## Upgrading to 3.1.01.3187:

Please note the following:

- Upgrades from CVSNT are not currently supported (there is no migration available)
- Upgrades from previous builds of EVS are not currently supported (there are database table differences in each build which require that you delete your EVS database and start again).
- We do not intend to finalise an EVS schema/database model until "release 1", therefore each release until then will require that you delete your EVS database and begin again.

To upgrade:

- If CVSNT is installed – it must be uninstalled.
- If an earlier build of EVS is installed then open the EVS Control Panel and remove the repository, then uninstall EVS
- Delete the EVS database (e.g.: Using SQL Server 2005 Studio)
- Delete the EVS repository (the directory containing CVSROOT from the file system)
- Follow "The Server installation process" described below

## Known EVS Client and EVS Server limitations:

The current version of EVS has many limitations that are not intended to be limitations of the final product, including but not limited to:

- The "Control Panel" is a part of the EVSManager web service, from an Administrator account connect to the localhost with your web browser.
- You cannot configure any server settings in this release (such as web server or CVSNT ports or database prefix)
- Only one repository per database (or database prefix)
- Support for windows only, use cvsnt, cvs or svn clients for non-windows support
- Support for :local: and :sspi: protocols only (no working pserver in this release)
- Users and Groups (even SSPI users) must exist in the EVS data dictionary before they can be used (e.g.: explicitly by a "chacl" command, or implicitly using any command like "rls"). Users can be added manually or they are automatically added the first time they use any command.
- Many (if not all) server trigger scripts (e.g.: loginfo) will not be called, will not be called with the correct parameters or will not be called at the correct stage of processing. Use the 3GL triggers interface instead,
- There is little or no optimisation for performance (however evs rtag is very quick by design)
- English/Western European and Chinese usernames have been tested to work ok
- English/Western European and Chinese filenames have been tested to work OK
- EVS Sandboxes for a branch do not contain a CVS/Tag file
- SVN support uses the HTTP protocol not SVN protocol
- No SVN Annotate support
- SVNKit (The pure Java implementation of SVN) does not authenticate with EVS/SVN
- EVSCM Studio (Trial Version) the "New Directory" function does not work and tags and branches are shown both as branches.
- EVS/CVS command line client cannot checkout a branch, use WebDAV or SVN client instead
- No SSPI support for SVN (you can use a windows username/password "manual" – but it is not automatically detected)
- cvs -H log causes the client to crash
- Browsing the repository with a web browser – the browser may cache pages and not reflect the most recent data available on the server
- A checkout using a date ("evs co -D yesterday" or "evs co -D "2007-11-01 05:09:15") will now work and return a -1 result
- The log command ("evs log" or "evs rlog") displays the tags however the tag revision will not correspond to the revision number of any of the files (all tags in EVS have revision numbers like branches with .0.). To determine the sticky tag of a revision you should use 'cvs status'
- The tag command requires the link permission
- The -kb option has been disabled and will be automatically be reinterpreted as -kB
- EVS Server SSPI protocol requires a Windows 2003 or Windows 2000 Domain Controller (Active Directory Primary Domain Controller). Therefore:
  - EVS Server SSPI protocol does not support authentication against NT4 domains
  - EVS Server SSPI protocol may not support authentication against a "Mixed Mode" domain that was upgraded from a Windows NT 4.0 Domain Controller (in our tests one server matching this description failed, one passed)
  - EVS Server SSPI protocol does not support authentication against a windows workgroup or "local" user account(s)

## Known EVS Manager Limitations:

The current version of EVSMANAGER has many limitations that are not intended to be limitations of the final product, including but not limited to:

- Windows Only
- Plain text authentication and SSPI/NTLM authentication (note: to enable SSPI/NTLM authentication do NOT specify a fully qualified domain name when connecting to the EVS Server in either WebDAV or a web browser).
- Unencrypted HTTP only
- Authentication MUST include the domain name, i.e.: "user" will fail but "domain\user" will succeed.

## About Testing and Reporting Bugs

March Hare Software have tested the installation process described by this document, and also performed some "scripted" testing for import/checkout/commit/diff/add/remove (all in :local: mode) and some ad-hoc testing in client/server mode.

If during testing you find a feature that fails when using client/server mode – please retest with :local: mode and post the results of both tests to the *support.evs* newsgroup.

Report each bug with a clear subject line to the *support.evs* newsgroup on the *news.cvsnt.org* nntp (news) server.

## The server installation process

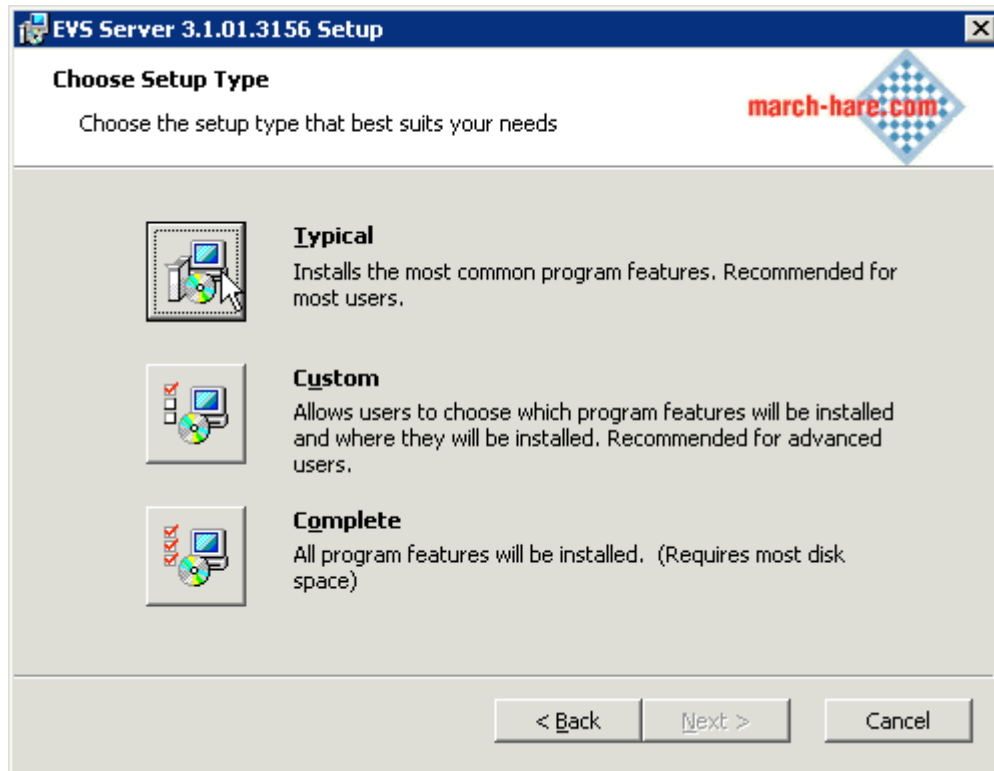
Download the latest EVS Server from  
<http://www.evscm.org/archive/>

If you are using SQL Server as your database please ensure it is installed and operational before continuing.

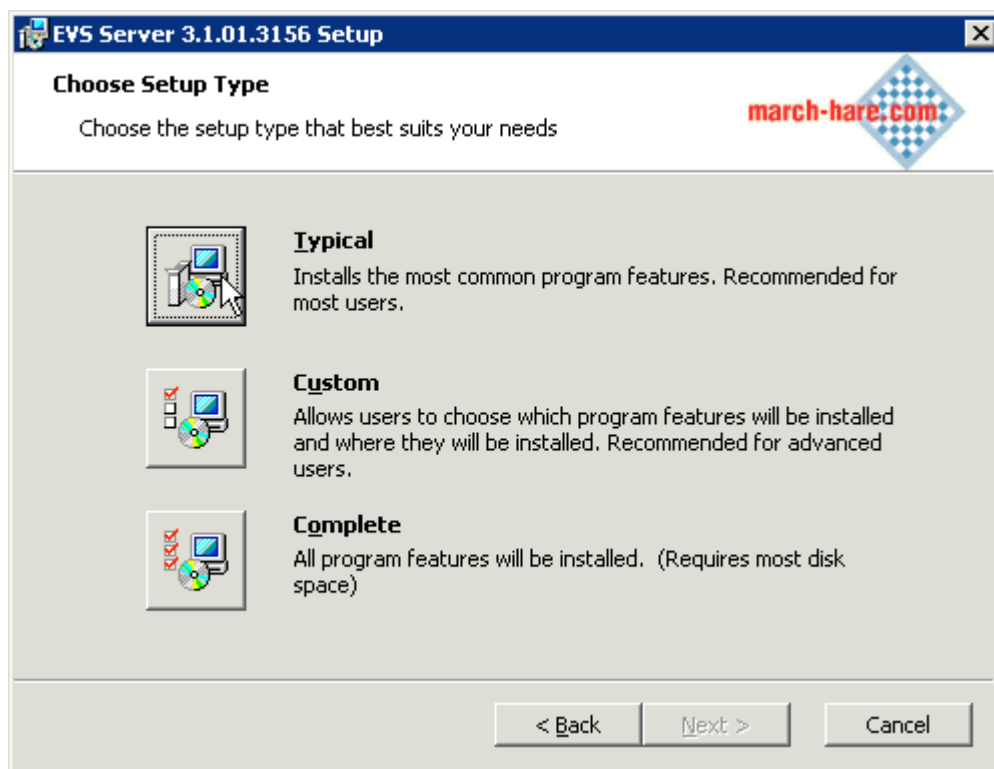
EVS has separate installers for the client and the server components. Ensure you are installing the EVS Server:



EVS and EVS Manager have difference licenses, be sure you agree and accept both before pressing the Next button.

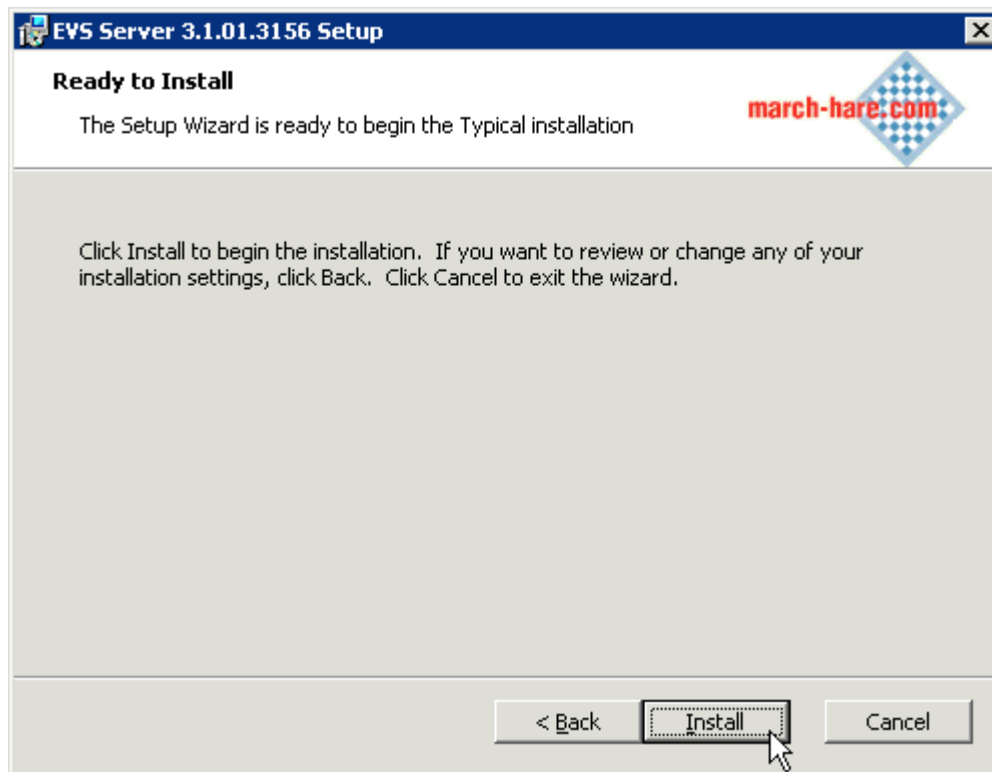


Unless you are instructed otherwise by March Hare Software support use the Typical install option:

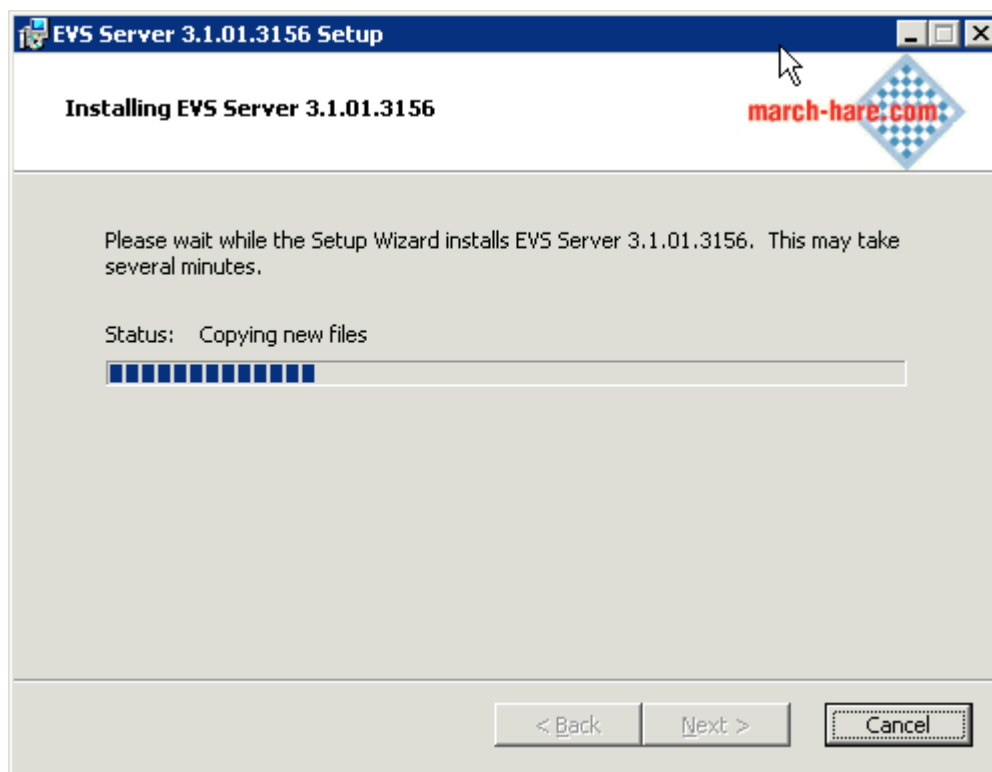




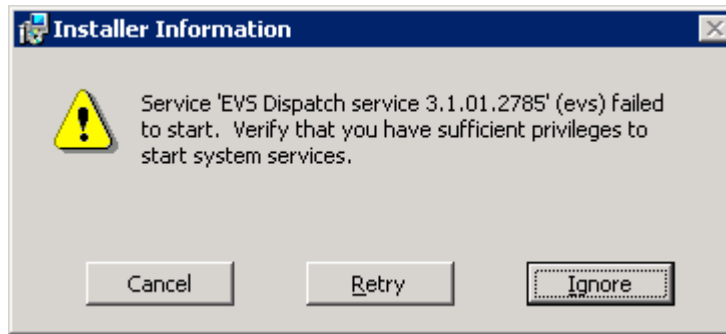
Pressing the Install button on this screen will install EVS Server:



The installer displays this message while EVS Server is being installed:



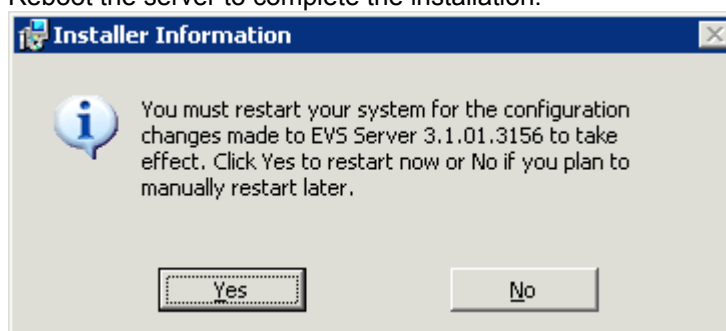
If the following error appears then the build is invalid and the installer must be replaced - please contact [evscm.org](http://evscm.org)



When this screen appears the installation is complete:



Reboot the server to complete the installation:



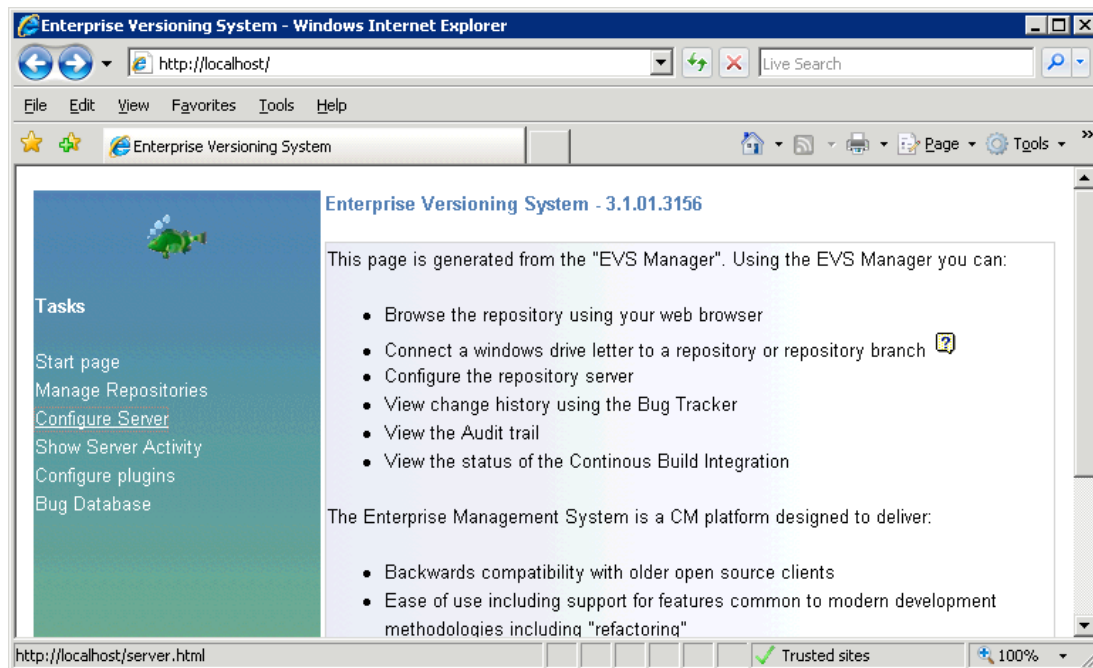
## Configuring the Server

Firstly test that the server is installed by opening a command window and changing to the installation directory:

```
C:\Program Files\Enterprise Versioning System>evs ver
Enterprise Version System (EVS) Windermere (b2) Build 3187 (Beta 2
Sep 15 2008, x86-ms-windows)
```

```
C:\Program Files\Enterprise Versioning System>
```

Start the EVS Manager "Control Panel" by opening your web browser to localhost while logged in as Administrator (either Domain Administrator or Local Administrator or a member of the Domain or Local Administrators group):



The Configure Server option is unavailable in this beta. Therefore you must use the default values for the server configuration, these include:

### Server Options

(defaults in *italic*)

Encryption: Yes/*No*  
 Allow unencrypted clients: Yes/*No*  
 Compression: Yes/*No*  
 Zeroconf publication: None/*Internal*/*Apple*  
 Anonymous User:  
 CVS Server Port: *2401*  
 Web Server Port: *80*  
 Allow MIME based diff plugins: Yes/*No*  
 Location (Multi-Site):

### Advanced Options

(defaults in *italic*)

Temporary Directory:  
 Don't resolve client names: Yes/*No*  
 Allow clients to trace server: Yes/*No*  
 Server is read only: Yes/*No*

### Legacy cvs client options

(defaults in *italic*)

Respond as cvs 1.11.2 to version request: Yes/*No*  
 Hide extended log/status information: Yes/*No*  
 Ignore client-side force -k options: Yes/*No*

### Clients allowed to connect:

(defaults in *italic*)

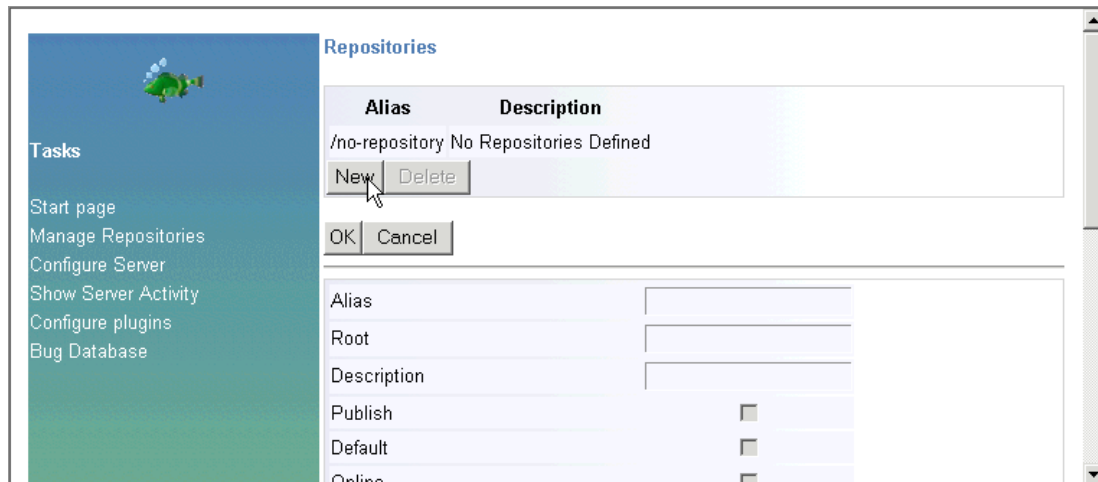
Legacy cvs: Yes/*No*  
 cvsnt: Yes/*No*  
 evs: Yes/*No*  
 dav: Yes/*No*  
 svn: Yes/*No*  
 TeamSystem: Yes/*No*

### Promption Levels

(defaults in *italic*)

Promotion Level 1:  
 Promotion Level 2:  
 Promotion Level 3:  
 Promotion Level 4:  
 Promotion Level 5:  
 Use promotion levels: Yes/*No*

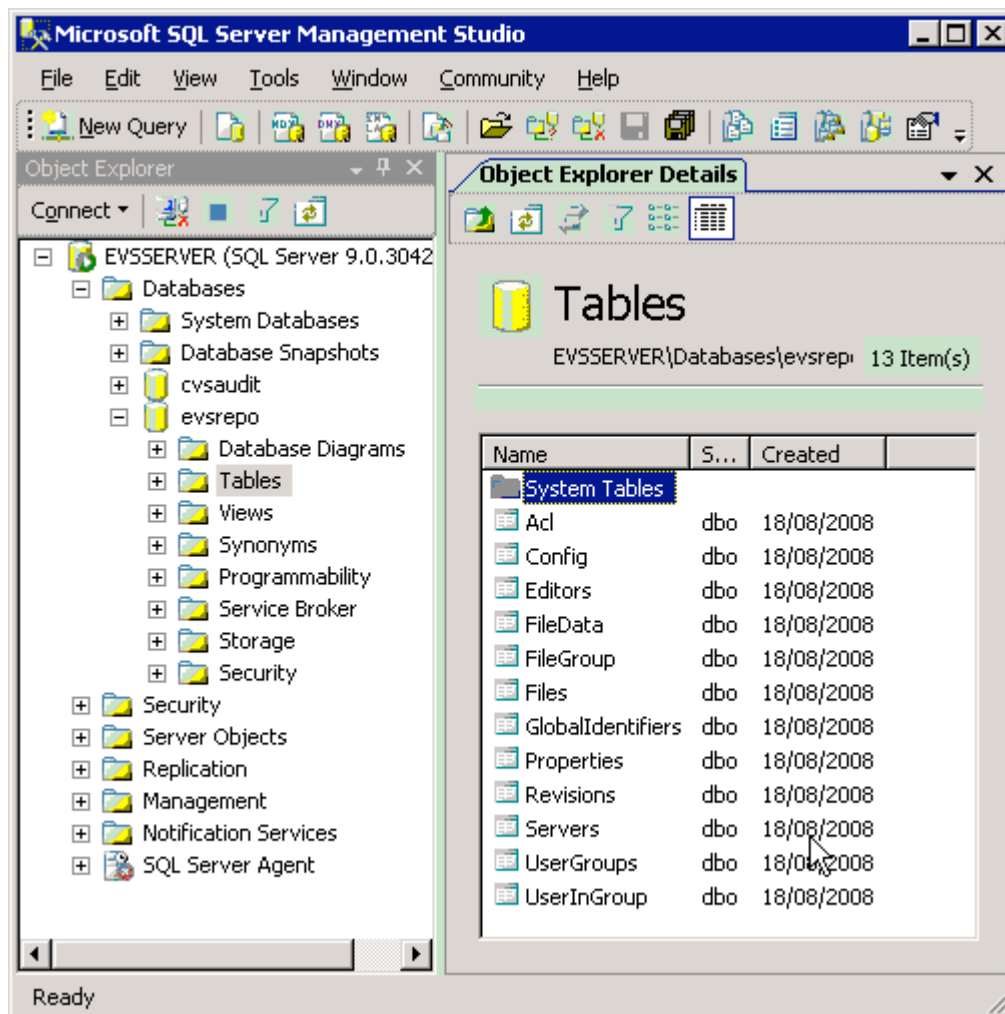
Go to the Manage Repositories page:



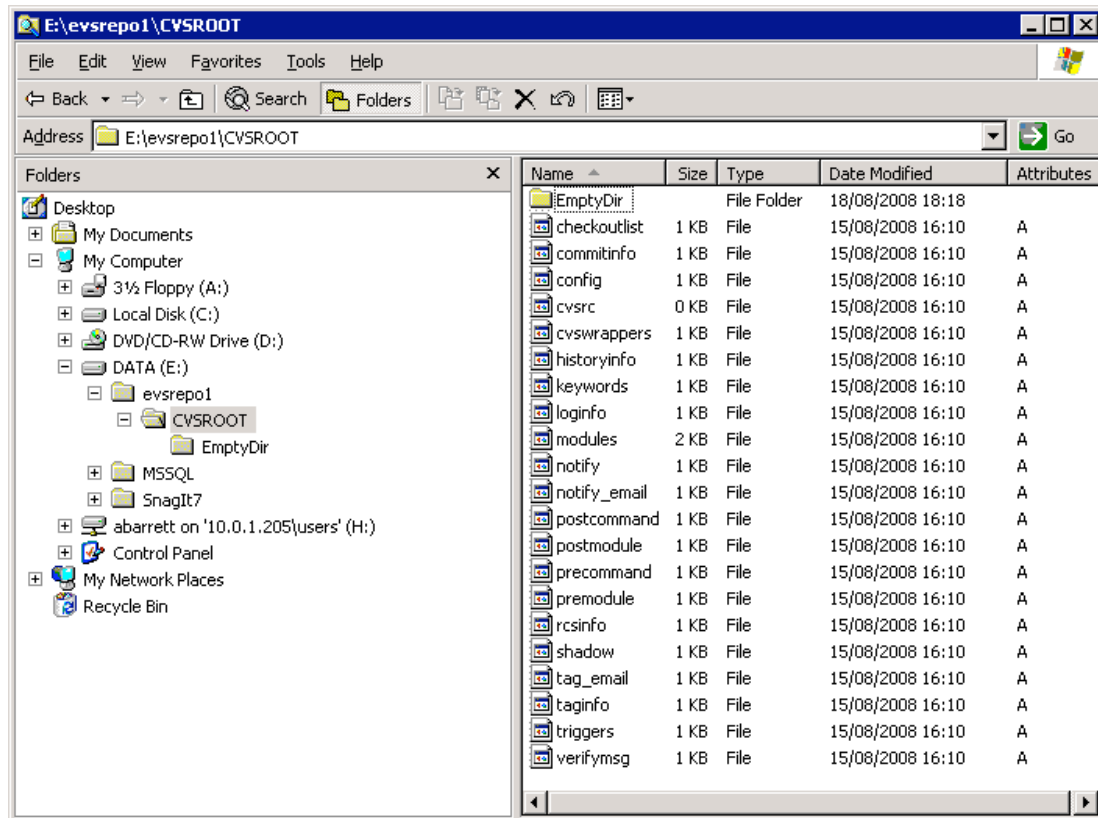
If you specify a database that does not exist and a username/password that has “create database” privilege then it will be created for you (the user / password must be a native SQL Server user/password not a windows auth based user) when you press the Create Database button.

You cannot test the connection on a database that does not exist.

You can view the table(s) using MS SQL Server Management Studio:



The repository initialisation creates a CVSROOT directory (checked out configuration and script files for execution/read)



## Importing files to the repository using the server

You can import source code on the server using the local mode or remote mode:

local mode import

```
evs -d :local:/evscmm import -n -m "Initial Import" cvsnt
```

local mode (assigning rights)

```
evs -d :local:/evscmm rchacl -a read,write,link,create -u DOMAIN\user .  
setting ACL for directory .
```

remote mode (with access error)

```
evs -d :sspi:evsserver.march-hare.local:/evscmm import -n -m "Import" module  
evs server: User DOMAIN\user is unable to create module - ignoring
```

No conflicts created by this import

Note: If this error occurs then for a remote import to work you must be logged in as the same user who created the repository or you must have used the *cvs chacl* command on the server to assign an access control list to the top level directory on Trunk (see *local mode (assigning rights)* above).

remote mode import

```
evs -d :sspi:evsserver.march-hare.local:/evscmm import -n -m "Import" module  
A acinclude.m4  
A aclocal.m4  
A AUTHORS  
A build.h  
A ca.pem  
A ChangeLog  
I ChangeLog.old  
A ChangeLog.zoo  
A compile  
A CompileOnWindows.txt  
A config.guess  
.  
.  
.  
A zlib/win32/Makefile.msc  
A zlib/win32/VisualC.txt  
A zlib/win32/zlib.def  
A zlib/win32/zlib.vcproj  
A zlib/win32/zlib1.rc
```

No conflicts created by this import

## Default permissions (ACL)

By default the Access Control Lists are enabled (similar to the CVSNT ACLMode=normal), however “all users” by default have read privileges to imported modules that do not have any other ACL.

You can view the “effective” permissions by using the -i switch on the rlsacl command (using a single period character (.) for *module* will list the effective permissions of the root):

```
evs -d :sspi:evsserver.march-hare.local:/evscmm rlsacl -i module
```

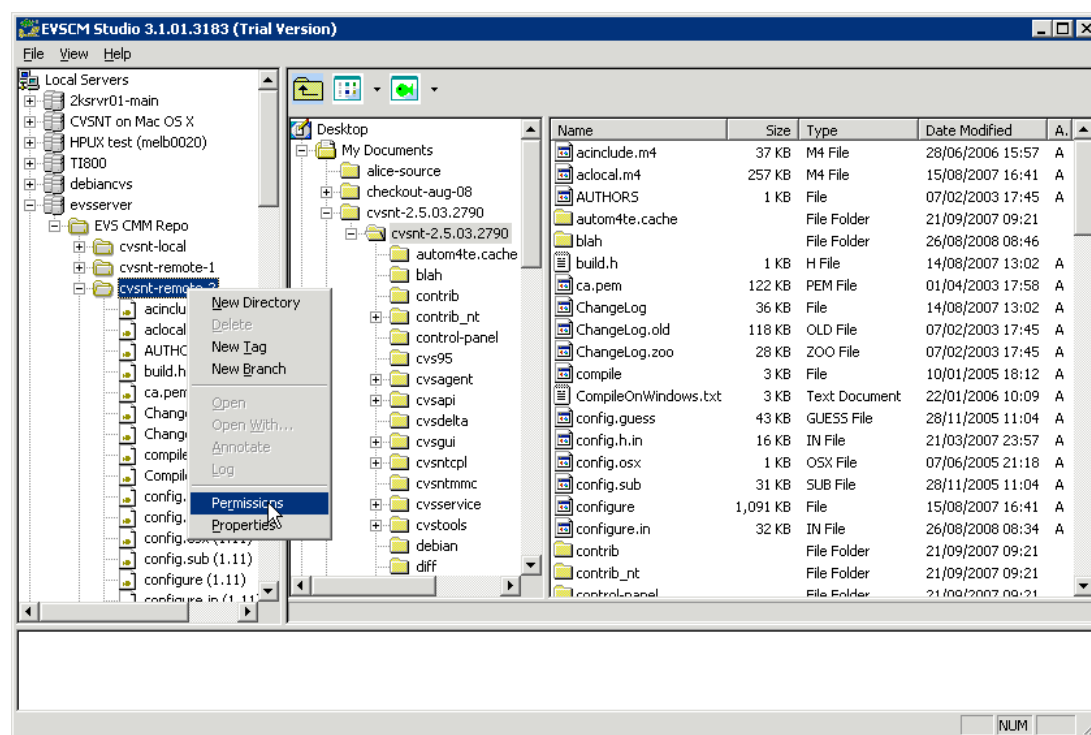
```
Directory: module
```

```
! user=Admin
      all
user=DOMAIN\user
      owner
! user=*
      read
```

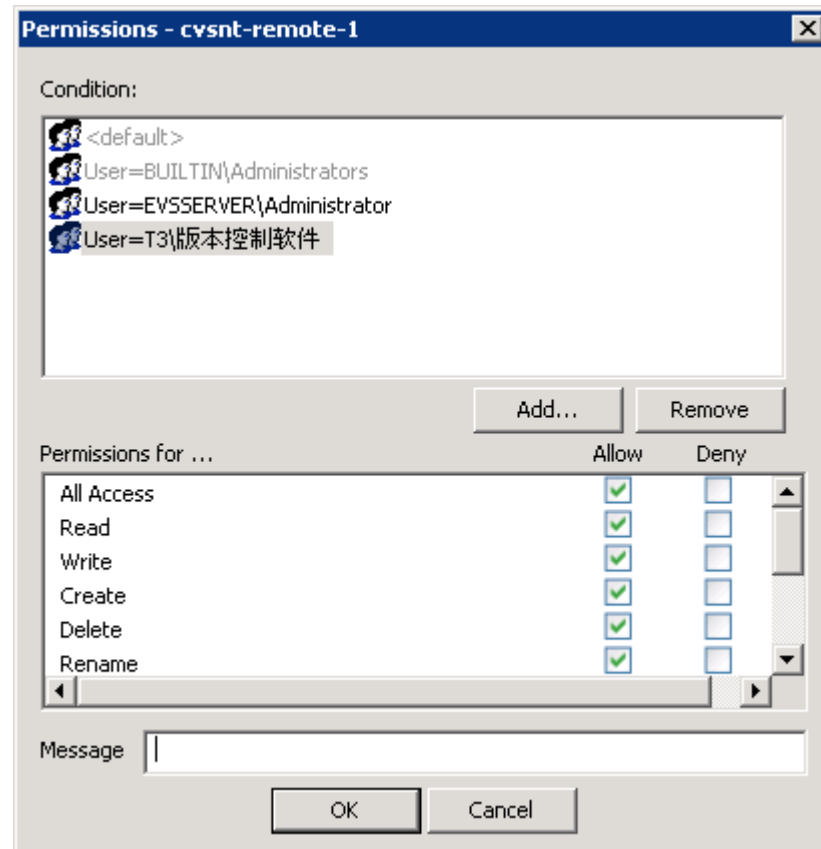
The command line should be used for setting ACL's so that any errors can be reported to the support team.

### EVSCM Studio Trial Edition

EVSCM Studio Trial Edition is included in this release and can display and set (inherited and non-inherited) ACL's – no error messages are displayed if there is any error.



English and Chinese usernames are fully supported as well as all the native permissions of EVS server.

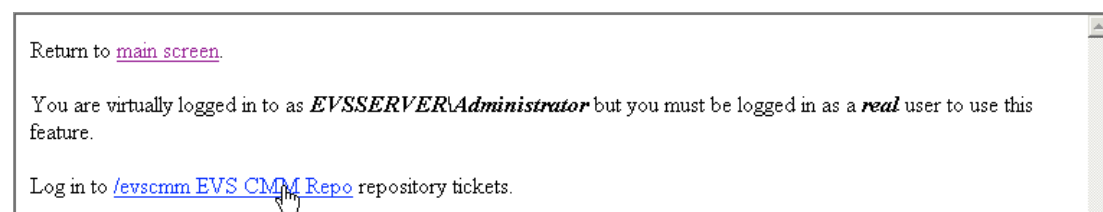


## Bug – Defect Tracking

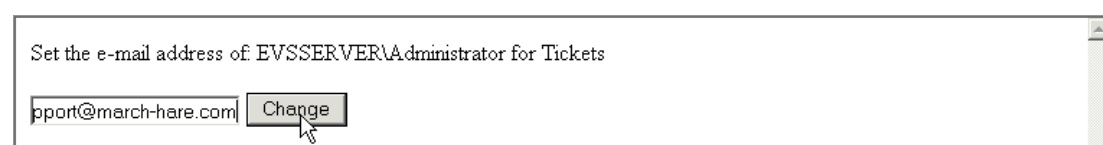
The current beta does not allow you to add or modify bugs, only to view a bugzilla 2.17/2.18/2.20 database. You will need to set the bugzilla database location in the registry on the EVSCM server then stop/start EVSManager service:

```
[HKEY_LOCAL_MACHINE\SOFTWARE\March Hare Software Ltd]
[HKEY_LOCAL_MACHINE\SOFTWARE\March Hare Software Ltd\Evs]
[HKEY_LOCAL_MACHINE\SOFTWARE\March Hare Software Ltd\Evs\plugins]
[HKEY_LOCAL_MACHINE\SOFTWARE\March Hare Software Ltd\Evs\plugins\bugz]
"enabled"=dword:00000001
"BugzDB"="bugsdB"
"BugzHost"="server.domain"
"BugzPassword"="*****"
"BugzUser"="bugs"
```

The first time you connect to Bugz you will need to “log in”, click the link when prompted:

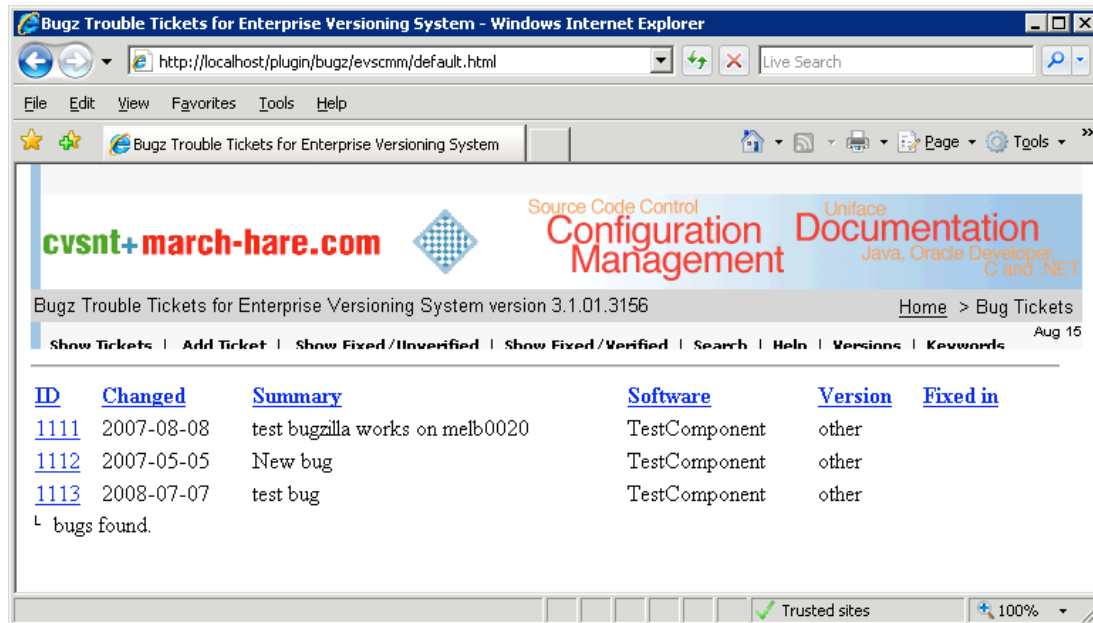


Set the e-mail address of the current user if prompted:





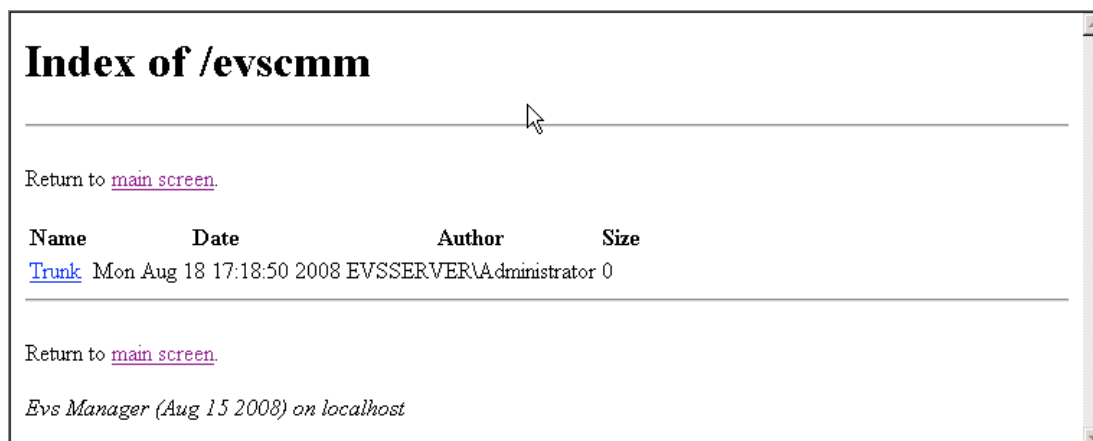
When the user is logged in and has a valid e-mail address the Bugz application should show the existing bugs in the Bugzilla database (schema 2.18/2.18/2.20):



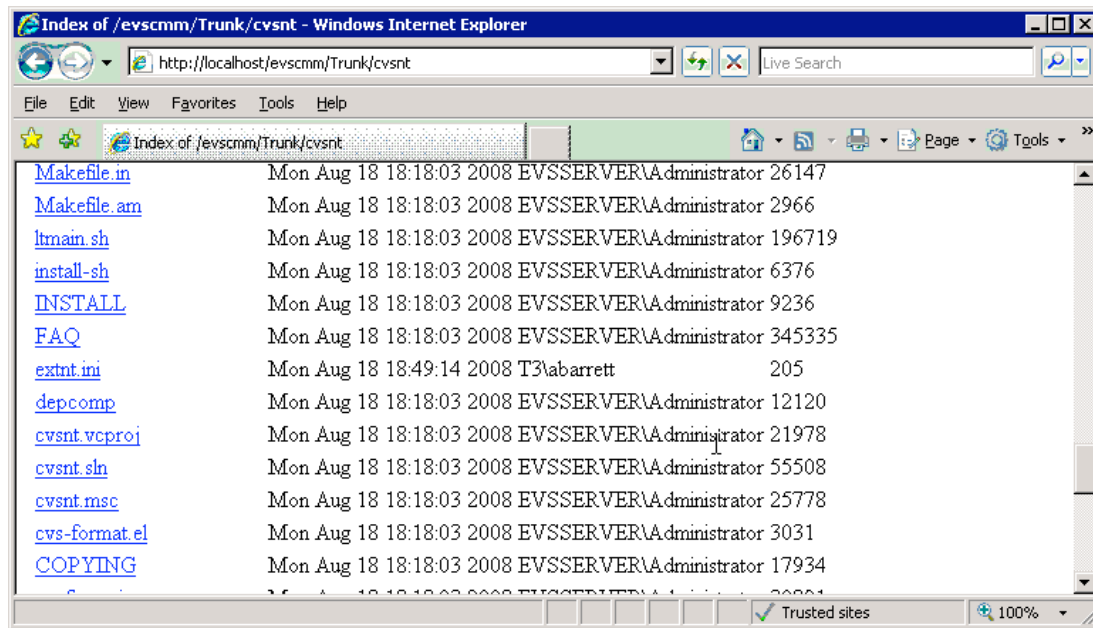
## WebView – Web Browse the repository

The current beta allows you to list files in the repository by branch (including Trunk) and view the revision at the head/tip of any branch/Trunk. For best viewing set the browser page view encoding to Unicode (UTF-8). If the page encoding is not correctly set then filenames and usernames in Chinese may not appear correctly.

You can view the repository using the web browser by using the url of the repository alias, eg: <http://localhost/evscmm/>

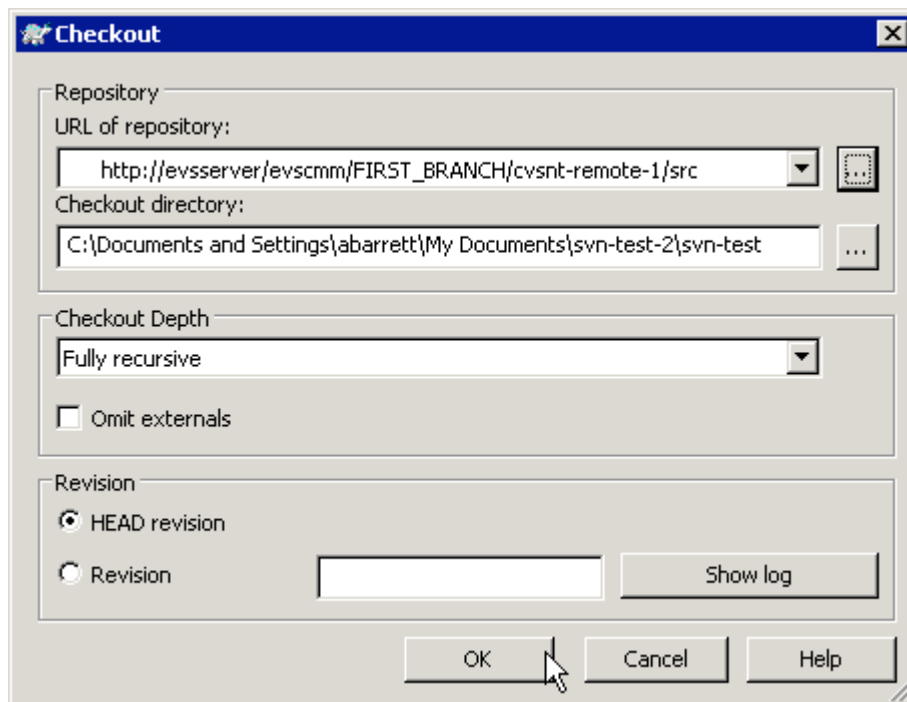


By clicking on the links for branch-name (or Trunk) and the modules and directories you can browse the entire repository. By clicking on a filename it will be sent to the browser using the MIME type defined on the server.

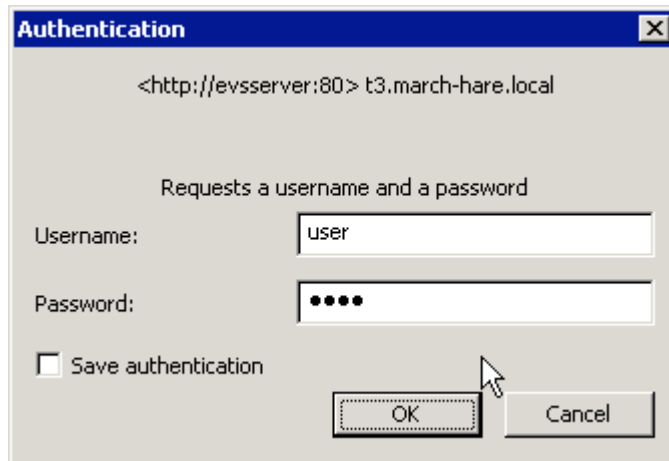


## SVN and TortoiseSVN clients

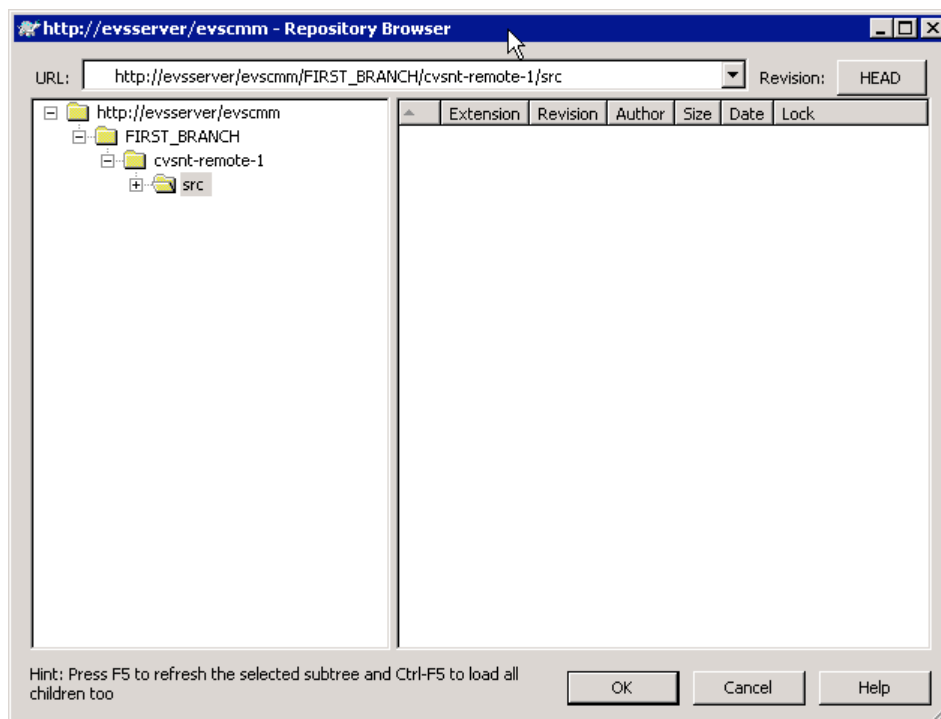
The EVSMANAGER service on the server provides a SVN interface to the repository using the HTTP protocol (not the SVN protocol), you can checkout any module or branch using the URL of the repository as shown in this screenshot of the TortoiseSVN checkout dialog:



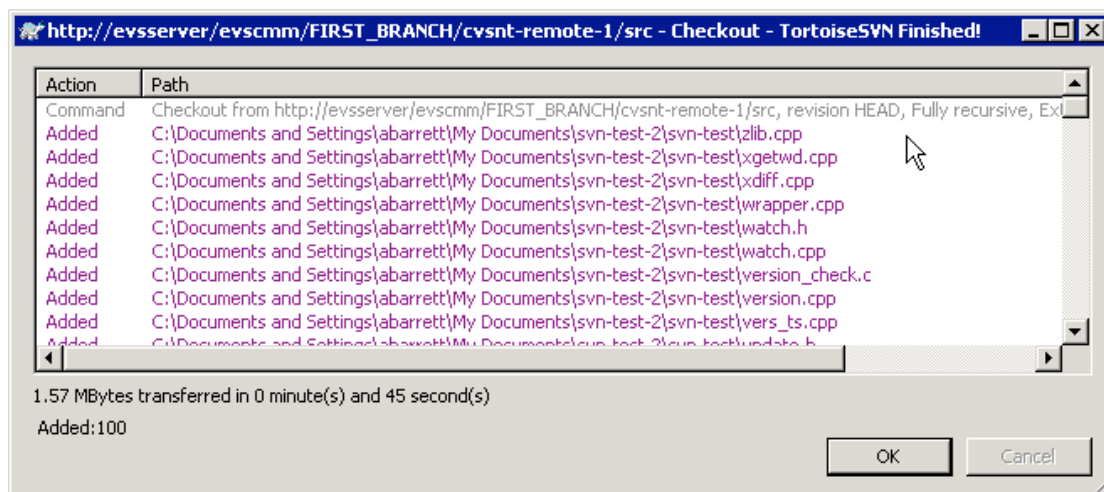
The SVN interface does not currently support automatic logging in using your windows SSPI authentication token so you must login 'manually'



The SVN interface does not currently support the annotate command so the "repository browser" will show limited information:



The SVN interface otherwise works "normally":

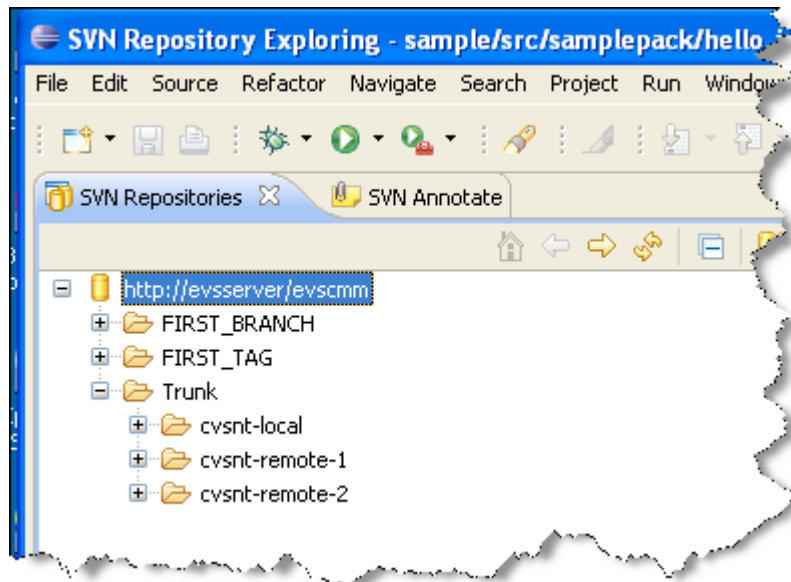


## SubEclipse – SVN and Eclipse Support

SubEclipse support is very experimental in this release – it is recommended you use TortoiseSVN instead.

Eclipse Europa (3.3.2) with SubEclipse 1.4.x (1.4.4) and the recommended Java HL Adapter / Subversion Native Library Adapter has been briefly tested and appears to work with the following known exceptions:

- New Directory does not work
- Open fails with md5-checksum' was not present on the resource
- Checkout fails with svn: '/evscmm/!svn/vcc/default' path not found
- Import fails if there is a need to create new directories (workaround is to import using TortoiseSVN or the SVN command line client)



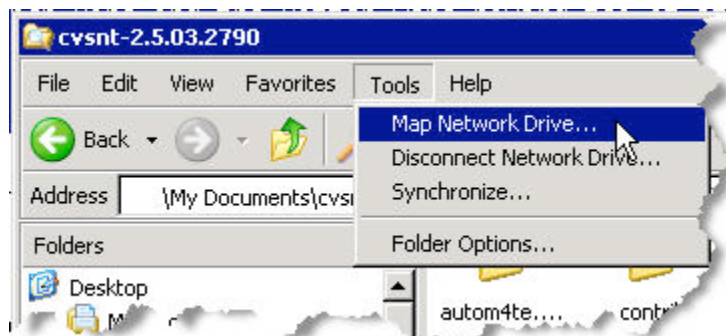
Eclipse Europa (3.3.2) with SubEclipse 1.4.x (1.4.4) and the SVNKit adapter (BETA) has been briefly tested. It fails with login errors.

## WebDAV – Web Folders

The EVSMANAGER service on the server provides a WebDAV (Web Folders) interface to the EVS repository. This allows a Windows XP/Vista/2003 (or similar) client to connect natively to the EVS Server and both browse the repository and make changes to files in the repository (automatically creating new versions).

Connect Z: drive to EVS using Windows XP

To connect a drive letter to an EVS server using Windows XP you need to use the “map network drive” feature of Windows Explorer:

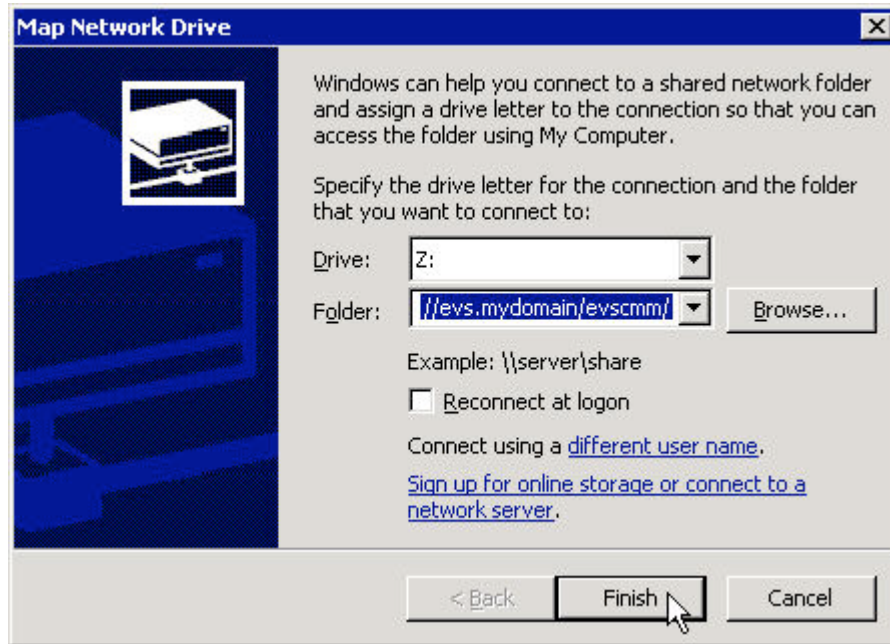


On the “Map Network Drive” wizard, enter the “Drive:” letter Z: and the “Folder:”  
<http://evs.mydomain/evscmm/>

**Note:**

evs.mydomain  
 evscmm

is the fully qualified domain name or IP address of the EVS server  
 is the repository name on the EVS server



**Comments on changes made to files using WebDAV**

Changes made to files using WebDAV automatically receive a standard comment:

```
revision 1.8
date: 2007/10/31 00:11:26; author: DOMAIN\user; state: Exp; lines: +9 -9; kopt: -
kkv; commitid: 2923be84-e16c-46ae-9290-49f1f1bbe9eb; filename: checkin.cpp;
HTTP/DAV Write Access
```

**Cache errors (incorrect file contents after a recent commit by another client type)**

If the following sequence of commands is used on a Windows XP client then the incorrect contents of a file can be displayed:

- Open a file (eg: cvsnt/src/client.cpp) using WebDAV
- Close the file without making changes (or without saving changes)
- In a checked out sandbox make a change to the file and commit it
- Open the file using WebDAV.

The file loaded may only partially load or it may load a cached copy of the file (not the latest version). If this problem occurs then press F5 (refresh) before opening a file using WebDAV. If the problem still occurs after applying the workaround then please contact the support.evs newsgroup.

**Delayed write errors**

Delayed write errors may occur when writing (changing) files over WebDAV – these errors are under investigation. The current build should NOT exhibit these problems, please report them to the evs-support newsgroup if they do occur.

If the error occurs then the message (shown below) will appear on the windows task bar and also in the system event log. We are not aware that any data is lost when this error is reported.

Initial investigations show that this error occasionally occurs when the following are all true:

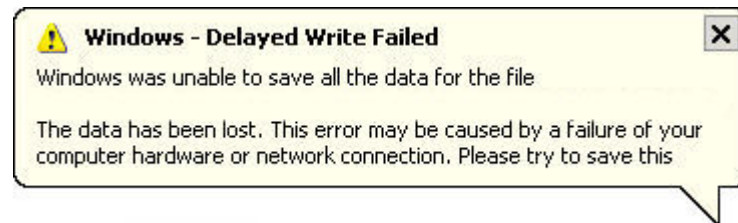
- The EVS WebDAV (Web Folder) is connected to a drive letter
- An SMB (Windows File Share) version 1 (e.g.: Windows 2000) is connected to a drive letter
- A CMD.EXE (Command Prompt) is open
- A change is made to a file on the WebDAV drive

The errors are more likely to display if you have connected using SSPI/NTLM authentication (i.e.: not manually entered a username and password when you connected the drive).

To resolve this error disable opportunistic locking. Refer to the following section *How to disable opportunistic locking on Windows XP SP2 client* for instructions. If the problem still occurs after applying the workaround then please contact the support.evs newsgroup.

#### Windows – Delayed Write Failed

Windows was unable to save all the data for the file. The data has been lost. This error may be caused by a failure of your computer hardware or network connection. Please try to save this file elsewhere.



This error is also written to the System Event Log:

Event Type: Information  
Event Source: Application Popup  
Event Category: None  
Event ID: 26  
Date: 31/10/2007  
Time: 00:11:22  
User: N/A  
Computer: COMPUTERTNAME  
Description:  
Application popup: Windows - Delayed Write Failed : Windows was unable to save all the data for the file \\evs.domain\evscmm\Path\to\file.ext. The data has been lost. This error may be caused by a failure of your computer hardware or network connection. Please try to save this file elsewhere.

#### How to disable opportunistic locking on Windows XP SP2 client

**Warning** Serious problems might occur if you modify the registry incorrectly by using Registry Editor or by using another method. These problems might require that you reinstall the operating system. March Hare Software cannot guarantee that these problems can be solved. Modify the registry at your own risk.

In Windows XP, you can disable opportunistic locking by setting the following registry entry to 1:

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\MRXSmb\Parameters\  
OplocksDisabled REG\_DWORD 0 or 1  
Default: 0 (not disabled)  
Workaround: 1 (disabled)

Note The OplocksDisabled entry configures Windows clients to request or not to request opportunistic locks on a remote file.

#### References:

Microsoft Knowledge Base article 812937 "File Lock or Access Denied Error Message When You Save Files Over the Network":  
<http://support.microsoft.com/kb/812937/EN-US/>

Microsoft Knowledge Base article 296264 "Configuring opportunistic locking in Windows":  
<http://support.microsoft.com/kb/296264/EN-US/>