Setting up a Shared MySQL Database for Compendium

The following instructions will assist users wishing to set up a shared MySQL database server for multiple distributed Compendium users.

WARNING

Before I begin these instructions it should be made clear that, at present, Compendium has not been specially programmed to be a client-server application. It is a possible for multiple Compendium users to log into the same MySQL database due MySQL's server features. Do not expect Compendium to reflect changes made by other users who may be accessing the same database as you.

THE MYSQL SERVER MACHINE

If you are setting up a MySQL database server for multiple Compendium users you firstly need to install MySQL on a machine that has network access, (see Compendium ReadMe or MySQL instructions on installing the software).

The computer that you select must have a fixed IP address or a host name that can then be referenced by the remote Compendium users.

MySQL uses port 3306 by default, so this port must be open. If you have any firewall software in place please check that this port is accessible.

SETTING UP MYSQL USER ACCOUNTS

Once you have installed MySQL you will then need to setup one or more MySQL user accounts. You have two options for setting up MySQL users:

1. You can set up one MySQL user account and give it to all your Compendium users and make the account open for all external hosts.
2. You can set up one MySQL user account for each Compendium user who wishes to connect to the database server, and specify their actual machine IP address as the allowed host.

Whichever option you select you need to be able to create MySQL user accounts. If you are a more experienced computer user you may be able to use the MySQL command line facilities to create these accounts. If not, you will need to install a third party piece of software to give you a more user-friendly front end onto MySQL.

MySQL have now produced their own software called 'MySQLAdministrator' which is available for the Linux and Windows platforms and can be downloaded from:

http://dev.mysql.com/downloads/administrator/1.0.html

Previously I have always recommended a piece of software for Windows users called SQLyog, which can be downloaded from:

http://www.webyog.com/sqlyog/index2.php

There is also a piece of Mac software called 'Navicat', which has a 30 free trial which can be downloaded from:
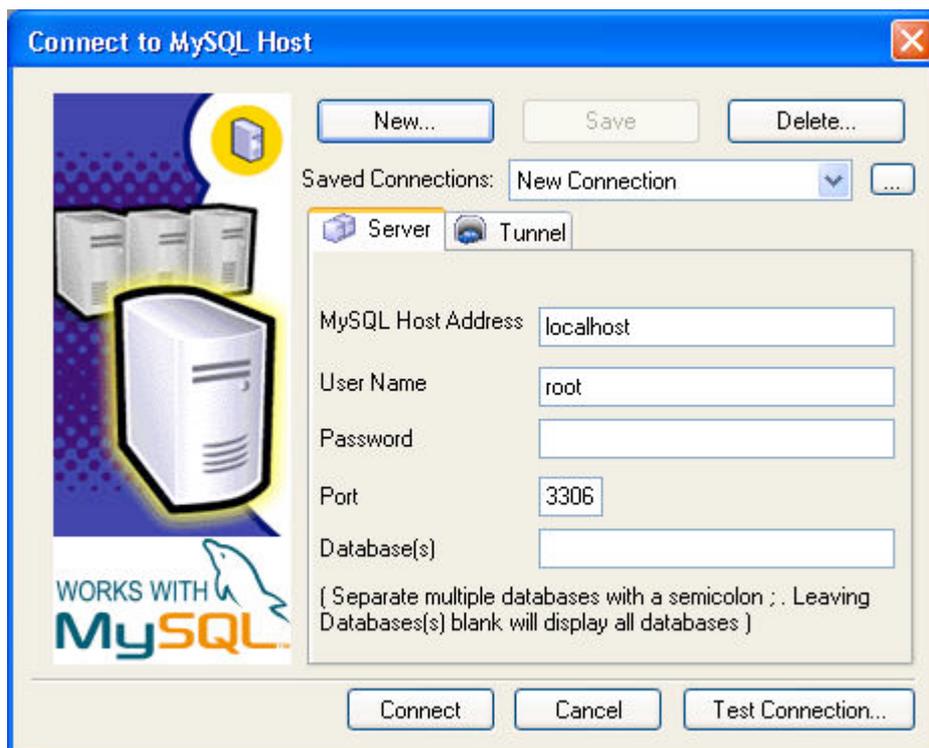
http://www.navicat.com/download.html

Which ever piece of software you use to create your new MySQL user account/s, you need to make sure that they have the same privileges as the MySQL root user. The Compendium software needs to be able to create, edit and delete databases, database tables and fields and user accounts. So basically, it needs full access rights.
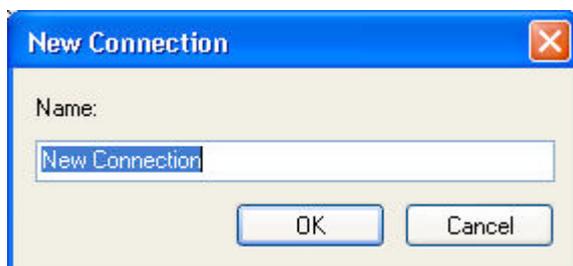
The following example uses SQLyog 4.01 for Windows as an example of how to set up a MySQL user account.

After you have downloaded and installed SQLyog the first thing you will need to do when you start the software is set up a connection profile.

When you first open SQLyog you will see the following dialog appear in the centre of the application window:
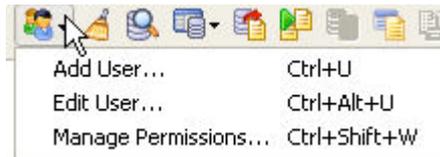

Press the button called 'New' in the top left-hand corner and you will be shown a small dialog for entering the name of your connection profile:
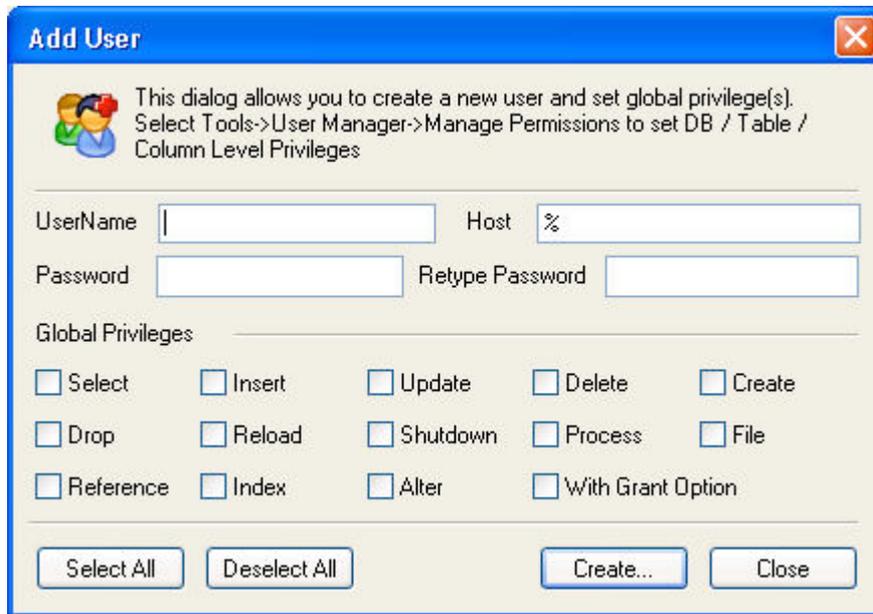

You then will be returned to the previous dialog (see above), where you need to complete the rest of the connection details. If you have installed the latest version of MySQL (4.1), and you used set up a root password you will need to enter it. If you have an older installation of MySQL and have never set up a root user password leave the password field empty.

Once the connection has succeeded, you will be into the application proper. On the toolbar you should see an icon similar to .

If you drop down the menu you will see:

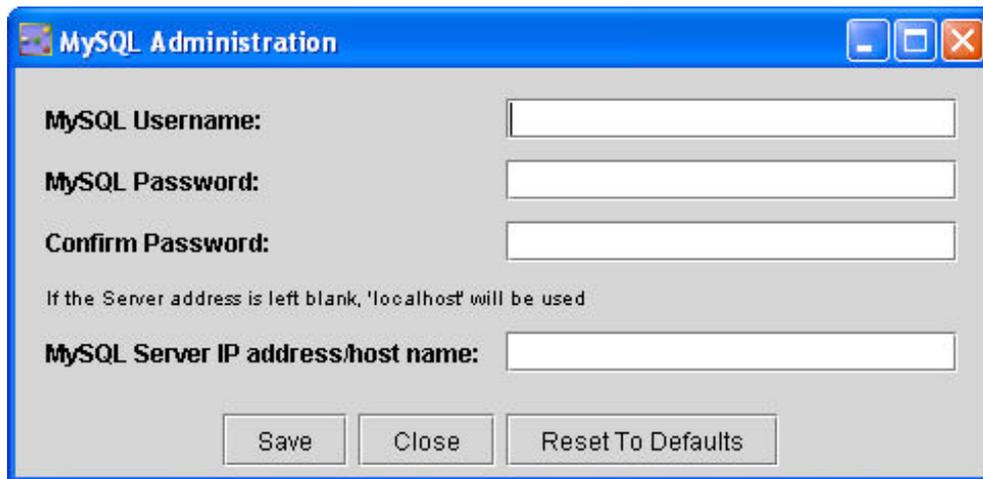Select 'Add User', and you will see the following dialog:

Enter the new user name, then, if you wish to set up one account for all external users, leave the '%' sign in the Host box, as this means 'all external hosts'. If you wish this account to be only for a specific user's computer, enter their IP address or host name of their computer in the 'Host' field. Then enter your chosen password. In the 'Global Privileges' section press the 'Select All' button, which will tick all the privilege boxes, and then press the 'Create…' button. You should now have a new MySQL user account. Repeat as many times as required.

SETTING UP COMPENDIUM

Now you have created your new MySQL user accounts you need to get your Compendium users to set up Compendium to be able to use those accounts (or account), to connect to your MySQL server.

Each of your Compendium users will need to be told the IP address or hostname of the computer running the MySQL server, and the username and password of the MySQL user account you have set up for them to use to access the database server.

They will then need to run the MySQLAdministration application, ('MySQLAdministation.bat' if on Windows; 'MySQLAdministration.sh' if on Linu; or the MySQLAdministration.app if on the Mac), which will be located in their Compendium home directory. This small application allows them to enter the MySQL server information which Compendium requires to make a connection. When they open the MySQLAdministration application they will see the following dialog window:

They must then enter the information you have given them; the MySQL user account name and password and the IP address of host name of the machine running the MySQL data base server.

This information is stored in the file called 'MySQL.properties' found in the Compendium home directory. The Compendium user should now be able to connect to the MySQL server.

Note that, while each Compendium user may connect to the same database, they each have a unique 'Home View' map which they see when they open Compendium. This is their view onto that Compendium database.

If you wish them to see the same maps, it is best to create a top level map containing all the maps and lists to be shared. You must then get each user to use the 'Find Map/List' option on the 'Map' menu, to locate that shared map and import it into their 'Home View'.

ADDITIONAL NOTES

Currently, if the Compendium user then wishes to switch connections between a remote MySQL server and a local one, they will need to edit the details in the MySQAdministration application each time before opening Compendium. It is hoped to improve on this in the future.

With individual machines and network setups their may be firewall issues to address aside from opening the appropriate port (3306). These could be various depending on the platform and exact firewall and network setup, and are beyond the scope of this document. Please consult your IT people or post queries on the Compendium institute chat group if you require further assistance.