

# Installing MySQL and MySQLGraphic Under Windows

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## Introduction

MySQLGraphic is an open-source Java application that provides a graphical interface for MySQL databases under Linux or Windows. MySQL is a powerful, open-source database commonly used for web applications. Getting started with MySQL can be a daunting task especially if you are not very familiar with SQL. Likewise, working from the command line can be frustrating particularly for those users who are only familiar with a Windows style interface. MySQLGraphic attempts to deal with these issues. However, we do have a "chicken and egg" kind of problem. In order to install MySQLGraphic it will be necessary to do some work from the DOS prompt, sometimes referred to as the command line.

This article attempts to provide a concise and clear explanation of how to install MySQL and MySQLGraphic under the Windows operating system. It will take you through the download process – all the necessary elements are freely available on the internet – right up to using the demo database available from the MySQLGraphic site. What follows should apply to Windows NT, 98, 2000 and XP. It may also work under Windows 95 but has not been tested on that operating system. The screen shots are taken from Windows 2000 so may vary slightly from what you will see.

## Downloading MySQL

MySQL may be downloaded from the URL, <http://www.mysql.com/>. Download the database server *version 4 Windows binary*. Currently you can get to the download page by choosing the Database server link from the home page. Scroll down the page and click on [download the source code and optimised binaries](#). Scroll down this page and choose, [MySQL 4.0](#) -- Production release (recommended). Then find:

Windows 95/98/NT/2000/XP/2003	4.0.13	18.1M	<a href="#">Download</a>   <a href="#">Pick a mirror</a>
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Click on the download link. The file is about 18 megs in size so go make some coffee if you have a dial-up connection.

## Installing MySQL

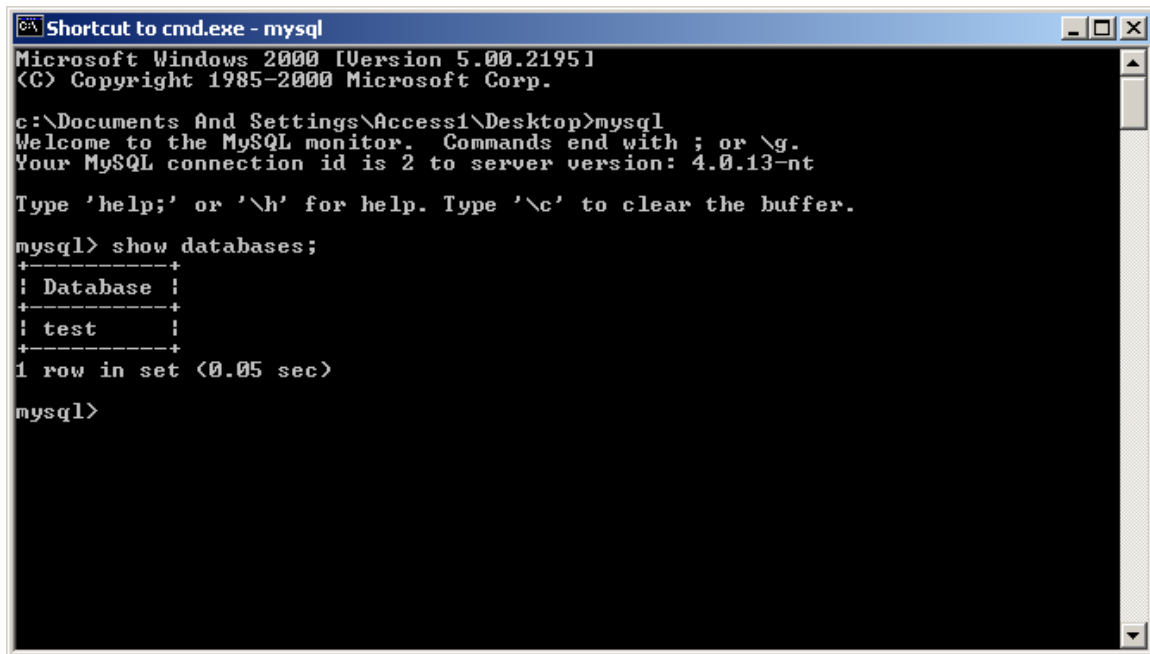
The database file is compressed and needs to be unzipped into a temporary directory. Do this and then run the *setup.exe* file. This should install mysql in the directory *C:\mysql*. When the installation is complete, you may get rid of the temporary directory and the zipped file.

Using Windows Explorer, find the directory *c:\mysql\bin*. Double-click the file *winmysqladmin.exe*. The first time you run this executable you will be prompted for a username and password. Enter something appropriate. You **must** start this file in order to connect to the MySQL server. Create a shortcut to it in the *Start Menu* and then you won't have to think about it again.

For convenience sake, you should add the directory *c:\mysql\bin* to your path. This will allow you to issue the command *mysql* from any directory without having to type in the full path. This is done by adding the line *PATH=%PATH%;C:\mysql\bin* to your autoexec.bat file. Under Windows NT and 2000 you may also set an environment variable by right clicking the *My Computer* icon on the desktop and then choosing *Properties*. Under the *Advanced* tab there is an *Environment Variables* Option. You'll be able to

figure it out from there. Under XP, environment variables are set by going to the Control Panel and choosing *System* and then the *Environment variables* button. Regardless of how you set the PATH variable, reboot your machine and test that your path has been changed by opening a DOS window and typing *mysql*.

The cursor should change to *mysql/*>. Now type *show databases*; Don't forget the semi-colon. A window very similar to the following should appear:



```
Shortcut to cmd.exe - mysql
Microsoft Windows 2000 [Version 5.00.2195]
(C) Copyright 1985-2000 Microsoft Corp.

c:\Documents And Settings\Access1\Desktop>mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 2 to server version: 4.0.13-nt

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

mysql> show databases;
+-----+
| Database |
+-----+
| test     |
+-----+
1 row in set (0.05 sec)

mysql>
```

You have successfully installed and connected to MySQL. To end your session type *quit* and press the *enter* key.

At this point anyone with access to your computer can open and change any database. If security is an issue please follow the documentation provided by MySQL. Securing your databases will not be dealt with here. In fact, it is assumed throughout this document that no user name or password is required to connect to MySQL.

## Preparing to Install the Graphical Interface

The following two files are required:

*MySQLGraphic1.2.7.jar* and *mysql-connector-java-3.0.11-stable-bin.jar*

Acquiring these files will be dealt with in a moment. Right now, since both of these files are Java archive files and require Java in order to run, let's download Java. Throughout, Java is variously referred to as the Java Runtime Environment (JRE) or the Java Virtual Machine (JVM). Instructions for installing the current version follow.

### **Downloading and Installing the JRE**

To run these archive files you should have the latest version (1.4 or higher) of Java on your computer. If you already have this version installed on your system you may skip this step.

Download the Java Runtime Environment from the URL, <http://java.sun.com>. Click the *Standard edition* link on this page. This will take you to <http://java.sun.com/j2se/>. On this page click the *Java VM* link on the left. Follow the instructions and Java should be installed fairly quickly as it is not a large file. At the date of writing this should install Java in the directory, *C:\Program Files\Java\j2re1.4.0\*. Confirm that this directory has been created and then we'll move on to installing the driver.

### **Downloading and Installing the Driver**

The driver, *MySQL Connector/J*, is available from the MySQL site. Go to the URL <http://www.mysql.com/products/connector-j/index.html> and click on the link for downloading version 3.0. Find the link below and download.

Source and Binaries (tar.gz)3.0.11-stable758.8K[Pick a mirror](#)MD5:

Extract the downloaded file to a temporary directory and within this temporary directory open the folder, *mysql-connector-java-3.0.11-stable*. The folks at MySQL have kindly provided you with the source code for this driver but when you are starting out this can be rather confusing. The only file you really need is *mysql-connector-java-3.0.11-stable-bin.jar* within the current folder.

What you now must do is put this file, *mysql-connector-java-3.0.11-stable-bin.jar*, in the *ext* directory of the *lib* directory below the active Java runtime directory. That's a bit of a mouthful but if you've just installed the Java Virtual Machine as described above it will be:


C:\Program Files\Java\j2re1.4.0\lib\ext

Move the driver to this location.

## Installing MySQLGraphic

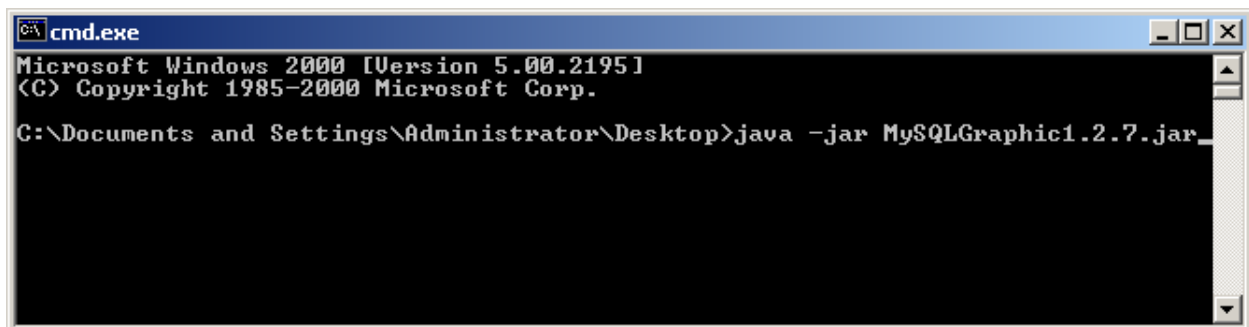
Go to the URL, <http://www.peterlavin.com/~mysqlgraphic/index.html> and click on the download link. On the page you are redirected to find:

mysqlgraphic

 <a href="#">MySQLGraphic1.2.7</a>	2004-04-09 21:00		
<a href="#">MySQLGraphic1.2.7.jar</a>	185170	0	Platform-Independent .jar

Click on the *jar* link and MySQLGraphic will be downloaded in seconds.

The MySQLGraphic jar file may be run from any directory. The simplest way to run this file is to type, at the command line, *java -jar MySQLGraphic1.2.7.jar*. In the example below the MySQLGraphic jar file must be located on the current user's desktop and the Java executable file must be set in the *PATH* variable.



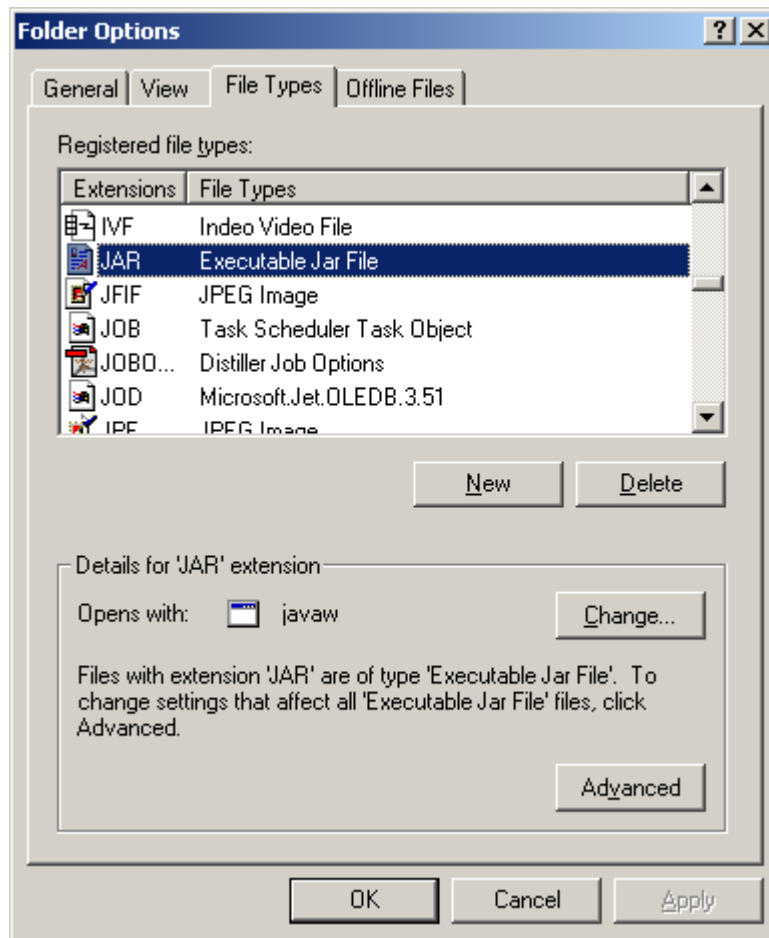
```
cmd.exe
Microsoft Windows 2000 [Version 5.00.2195]
(C) Copyright 1985-2000 Microsoft Corp.

C:\Documents and Settings\Administrator\Desktop>java -jar MySQLGraphic1.2.7.jar
```

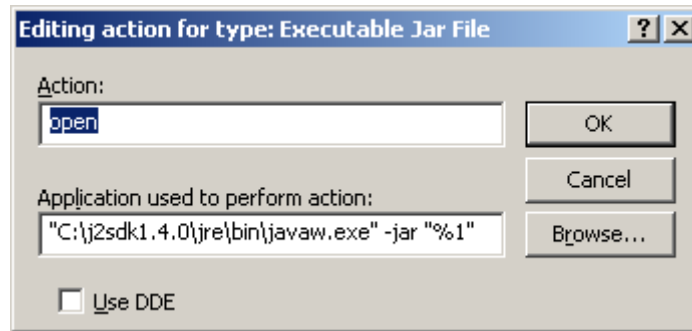
You may suppress the appearance of a DOS window by creating a shortcut that issues the command *javaw -jar MySQLGraphic1.2.7.jar*.

It is possible to run a jar file under Windows by simply double-clicking it. To do this you need to ensure that executable jar files are associated with the

right command. Double-click the MySQLGraphic file. If the splash screen appears you're all set. If not you will need to edit the properties of *Executable Jar Files* from the *Folder Options* window of the *Tools* menu item of any folder window in *Explorer*. See the picture below:



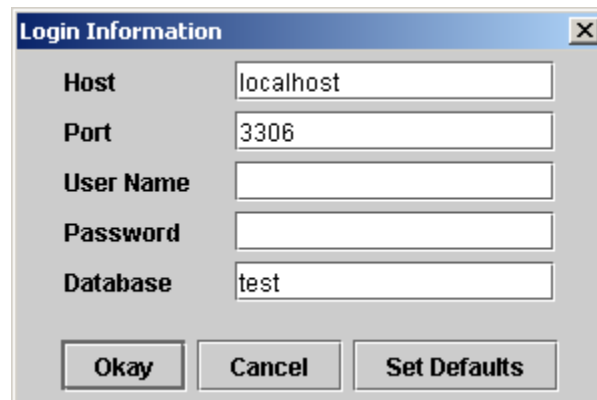
You may have to add the *jar* file type or the *open* action may need to be edited. Find below an example of how the *open* action may be set.



Set the path according to the location of the Java Runtime Environment on your computer. If you have just downloaded the version suggested above this path should be *C:\Program Files\Java\j2re1.4.0\ bin\javaw.exe*. Don't forget the quotation marks. They are essential.

## Getting Started

Now that MySQLGraphic is running, click the *Database* menu item and then choose *Open*. You should see something very similar to the screen below.



Fill in the textboxes as pictured above. No security is implemented when MySQL is first installed so neither a user name nor password is required. You will know that the database has opened when you see the database name and the MySQL version number in the title bar. The *test* database does not have any tables in it so why not get started by creating a table. Open a Query window and type, *CREATE TABLE tbltemp ( id integer )*. Check the *Tables* menu item. There should now be an entry there.



## Downloading and Installing the Demo Database

Go to the MySQLGraphic home page – that’s probably where you got this file. Click on the *Demo Database* link. Download the *demodb.sql* file. If double-clicking this link opens the file in your browser right-click instead and choose *Save Target As*. You should now have a file called *demodb.sql* in your download directory.

You now need to return to the command line for one last time. Open a DOS window in your download directory and start mysql. When the mysql prompt appears type *CREATE DATABASE demodb;* You typed the semi-colon, right? Type *quit* to return to the DOS prompt. Load the file, *demodb.sql*, into this database by typing, *mysql demodb < demodb.sql*. Start MySQLGraphic and open the *demodb* database. You’ll find numerous tables already populated with data.

Look at the contents of *demodb.sql* in a text editor. Soon you’ll be creating databases for yourself.

## Troubleshooting

### MySql

*Error 2003: Can't connect to mysql server on 'localhost' (10061)*

If you have this error be sure to run *winmysqladmin.exe* before attempting to connect to the database.

*mysql is not recognized as an internal or external command*

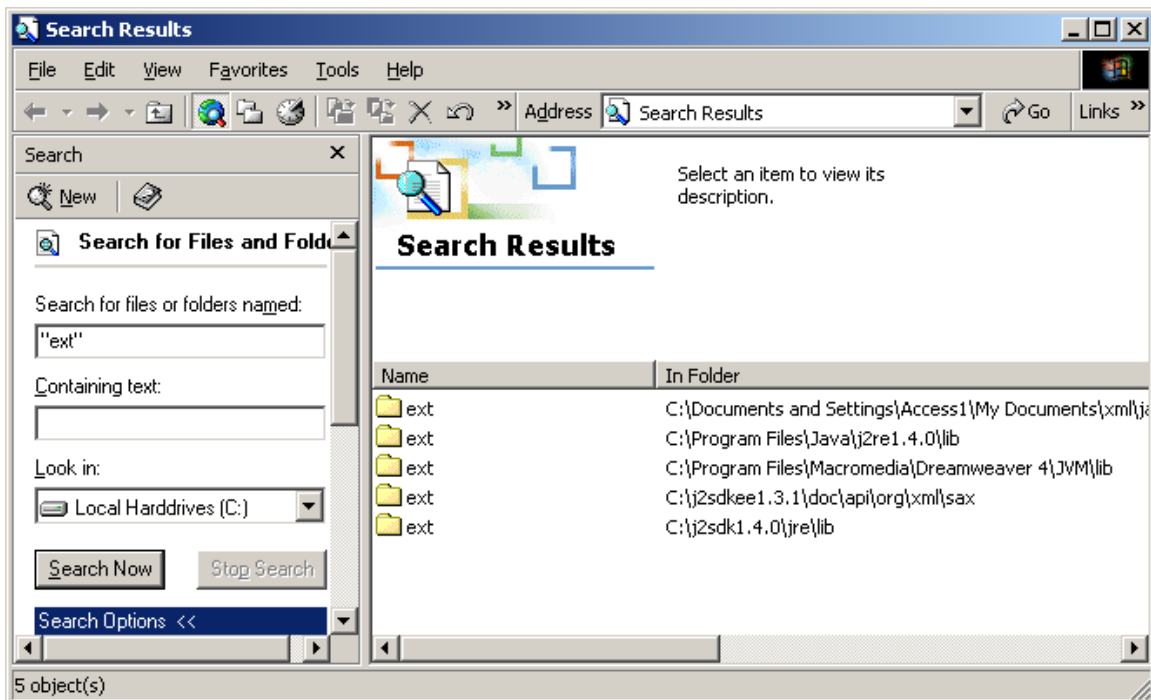
Set your PATH variable to the *bin* directory where mysql is installed. See the instructions above on setting the PATH variable.

### Driver

*MySQLGraphic starts up but you receive the error message "Error org.gjt.mm.mysql.Driver"*

This error means that Java cannot find the driver file. If you have installed the driver in the *ext* directory as described above then the problem may be that you have more than one runtime environment on your computer.

Do a search for the directory *ext* as pictured below being sure to include the quotation marks:



Place a copy of the driver file in those other *ext* directories. If this fails to solve the problem add the following line to your *autoexec.bat* file:

```
CLASSPATH=%CLASSPATH%;C:\<path to driver>\mysql-connector-java-3.0.11-stable-bin.jar
```

Replace the *<path to driver>* with the actual path. Reboot your machine and try again.

## **MysqlGraphic**

*Nothing happens when you try to run the MySQLGraphic programme.*

Perhaps there is no path to the directory that contains the Java binary files. Search for the file *java.exe*. Add the directory that contains this file to the

PATH variable. See the instructions above for altering the PATH variable. Make sure that *MySQLGraphic1.2.7.jar* is in the current directory.

*You receive the error message "Error- Server connection failure during transaction. Attempted connection 3 times. Giving up ..."*

Check the information that you typed into the log-in screen. Is it correct? If it is then make sure that *winmysqladmin* is running. Look for the stoplight icon in the start-up tray.