

# **MySQL<sup>®</sup> Client-Server Applications with Visual FoxPro<sup>®</sup>**

***Whil Hentzen***

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MySQL Client-Server Applications with Visual FoxPro

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# Chapter 7

## Configuring MySQL

MySQL's operation is controlled by a configuration file. You can use a graphical front-end, called the MySQL Administrator, to change this file, or you can edit this file directly. In this chapter, I'll first show you how to install and use the Administrator. Once you're comfortable with this tool, I'll cover the essential configuration items you'll want to look at and possibly tweak yourself, and then briefly cover the rest of the settings. Finally, I'll discuss how to edit the configuration file directly.

The MySQL configuration file is a plain text file that is referenced during the startup of the MySQL server as well as MySQL client applications. The documentation inside the file is outstanding, and I urge you to read through it even if you're not planning on ever editing it directly yourself.

But first, you need to know where to find it.

### The MySQL configuration file

The configuration files used by MySQL are structured in a very flexible manner.

Unfortunately, in this situation, 'flexible' is marketing-speak for 'confusing', because different platforms use different, but also overlapping, files.

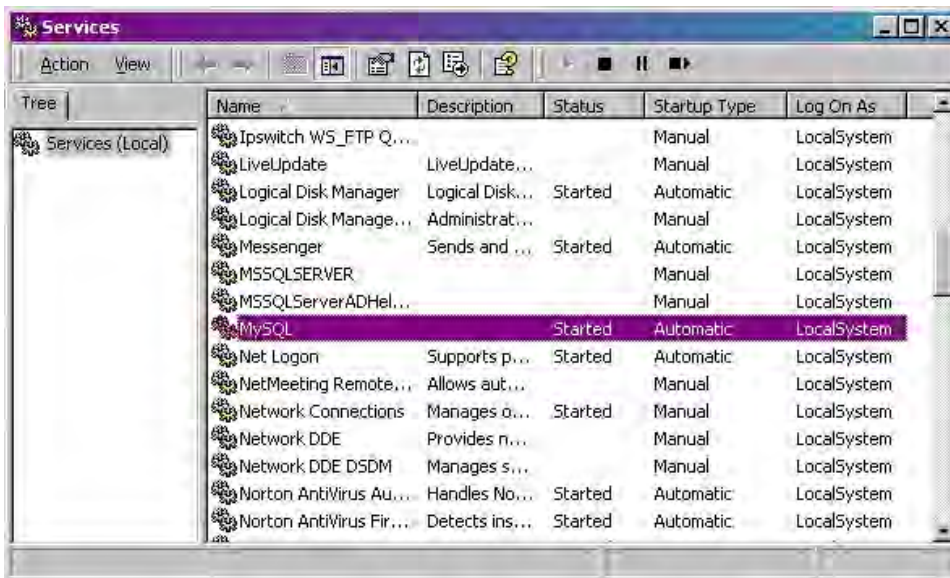
### my.ini in Windows

On Windows, MySQL server looks for a file named "my.ini." While the my.ini file is typically in the same directory as the mysql executable, an argument is passed to the MySQL service command that explicitly identifies where this file is.

On Windows, the syntax looks like this:

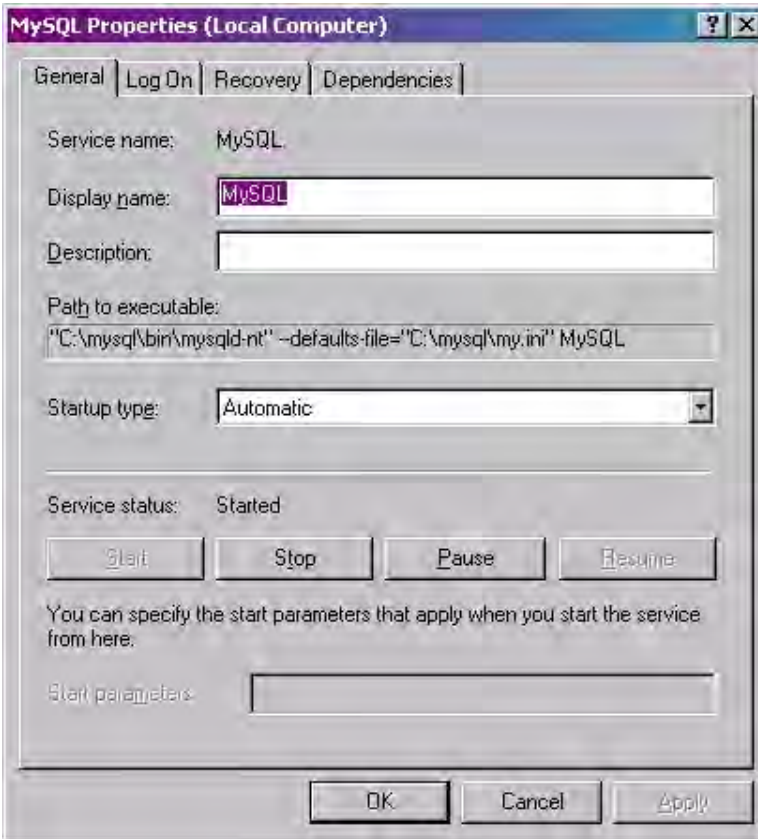
```
"C:\mysql\bin\mysqld-nt" --defaults-file="C:\mysql\my.ini" MySQL
```

You can find out what my.ini file is being used in your Windows installation via the Services applet. Click on the Services applet in the Administrative Tools window in Control Panel to open the Services list, as shown in **Figure 1**.



**Figure 1.** Locating the MySQL service in the Services applet.

Right click on the MySQL service and select Properties to bring forward the Properties dialog as shown in **Figure 2**.



**Figure 2.** The location of the *my.ini* configuration file is in the executable path.

You'll see the configuration file being used by the current MySQL service displayed in the read-only text box under "Path to executable:" – the text box is read-only because it is normally modified via manual MySQL commands or through the GUI tool.

## my.cnf in Linux

On Linux, MySQL looks for a configuration file named "my.cnf" located in the /etc directory:

```
/etc/my.cnf
```

This file controls global options. Because you can have multiple MySQL databases running on a single physical machine, you might think it would be convenient to be able to specify specific configuration settings, and you can. You can specify server-specific options by placing a copy of this file in the data directory for the server, like so:

```
/var/lib/mysql/my.cnf
```

and modifying the file accordingly. Even further fine-tuning is available on a user-by-user case by placing a copy of this file in the user's home directory, like so:

```
/home/<username>/my.cnf
```

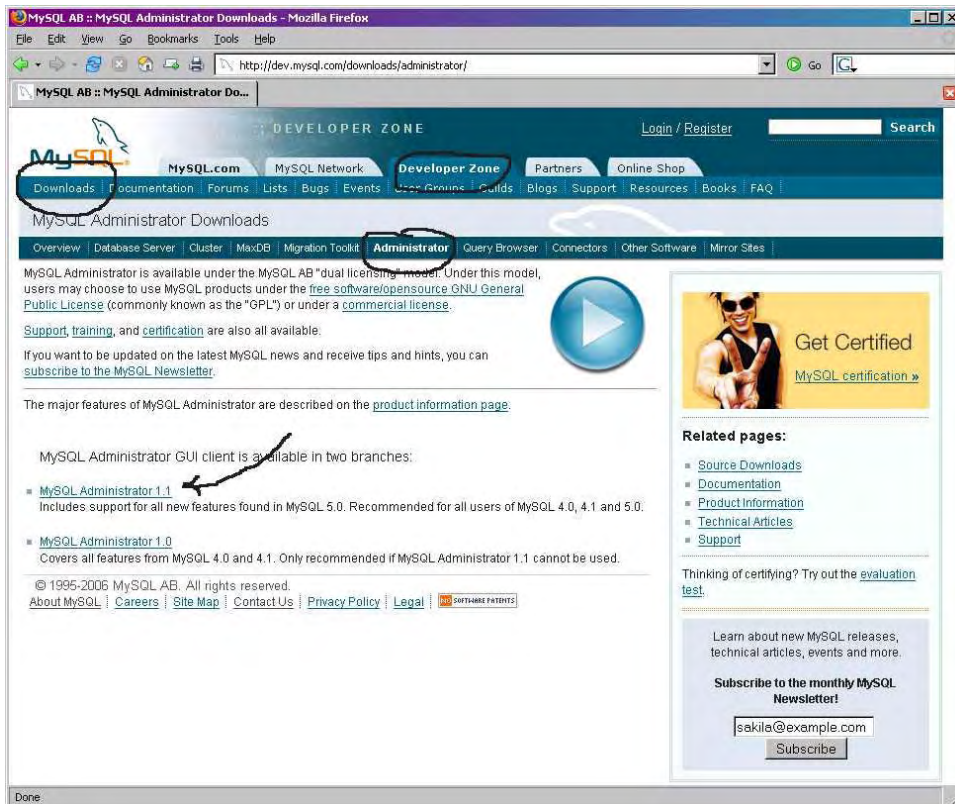
and setting user-specific options.

To further complicate matters, you can also use my.cnf files on Windows, but at this point, we're venturing into complexities unnecessary for our current purposes. Let's move along and get into the MySQL Administrator, a GUI tool used to make changes to the configuration file graphically.

## Downloading the MySQL Administrator

The MySQL Administrator is available from the same locations that the MySQL server itself is from – see Figure 3.

Go to <http://dev.mysql.com>, click on the Downloads menu (far left), and navigate down the page to “MySQL Tools.” Click on “MySQL Administrator,” which brings you to the page shown in Figure 3.



**Figure 3.** Locating the download link for the MySQL Administrator.

Clicking the link takes you to a list of files for various operating systems, as shown in **Figure 4**.

The screenshot shows the MySQL Administrator Downloads page. The browser title is "MySQL AB :: MySQL Administrator Downloads - Mozilla Firefox". The address bar shows "http://dev.mysql.com/downloads/administrator/1.1.html". The page content includes a navigation menu, a search bar, and a main section titled "MySQL Administrator Downloads". Below this, there is a table of download links for various operating systems. The "Windows (x86)" and "SUSE LINUX 9.3 (x86)" sections are circled in red.

Operating System	Version	Size	Action
Windows (x86)	1.1.8	5.0M	<a href="#">Pick a mirror</a>
Without installer (unzip in C:\)	1.1.8	4.8M	<a href="#">Pick a mirror</a>
<b>Linux (non RPM package) downloads</b>			
Linux (x86, glibc-2.2, "standard" is static, gcc)	1.1.6	5.7M	<a href="#">Pick a mirror</a>
Linux (AMD64 / Intel EM64T)	1.1.6	11.0M	<a href="#">Pick a mirror</a>
<b>Linux x86 generic RPM (statically linked against glibc 2.2.5) downloads</b>			
Linux (x86, libc6)	1.1.6-1	3.3M	<a href="#">Pick a mirror</a>
SUSE LINUX 9.3 (x86)	1.1.6-1	10.0M	<a href="#">Pick a mirror</a>

**Figure 4.** Identifying the specific MySQL Administrator downloads.

Clicking the download link in the Windows section will eventually download a file named `mysql-administrator-1.1.9-win.msi`

(or later) to your hard disk; clicking the download link in the SUSE Linux 9.3 section will download a file named

`mysql-administrator-1.1.6-1.suse93.i586.rpm`

in a similar manner.

## Installing the Administrator

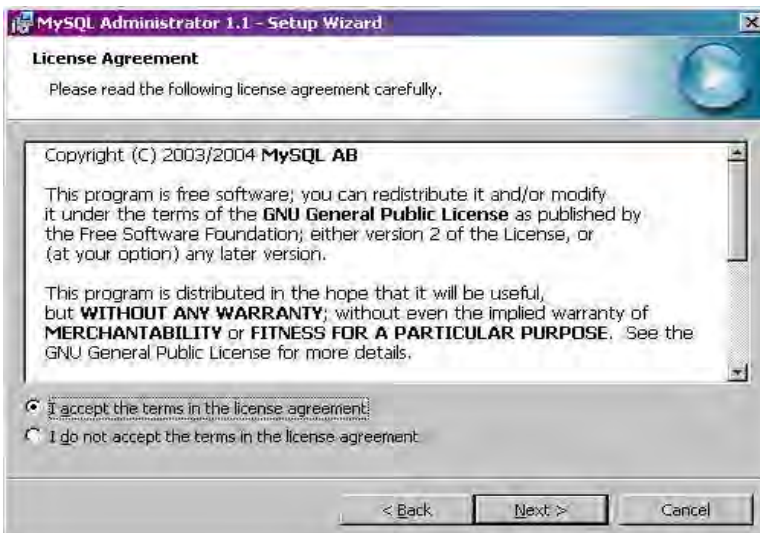
### On Windows

Right-click on the .msi file you just downloaded and select the “Install” option from the context menu. Doing so displays the starting dialog as shown in **Figure 5**.



**Figure 5.** Starting up the Administrator Wizard in Windows.

Clicking the Next button brings you to the license screen, shown in **Figure 6**.

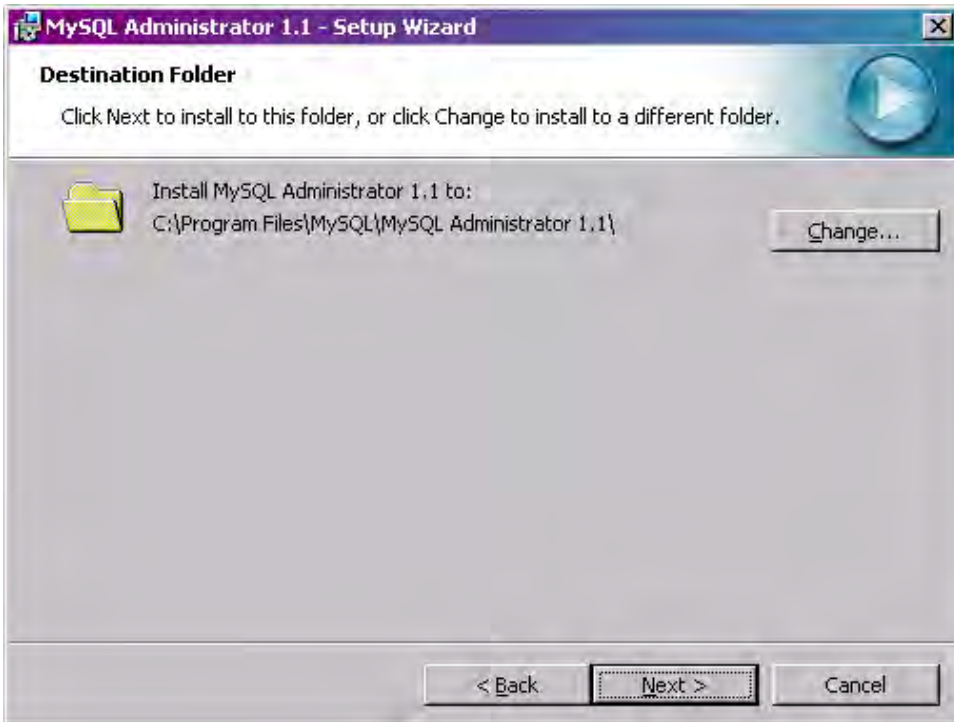


**Figure 6.** The Administrator license agreement.

Clicking the Next button takes you to the Destination Folder dialog. At this point, the default is usually under C:\Program Files – if you changed the default installation directory of MySQL to something like C:\mysql, then I suggest you change the installation directory of the administrator also so it is still under the main MySQL directory, like so:

```
c:\mysql\admin1.1
```

**Figure 7** shows the Administrator under Program Files.



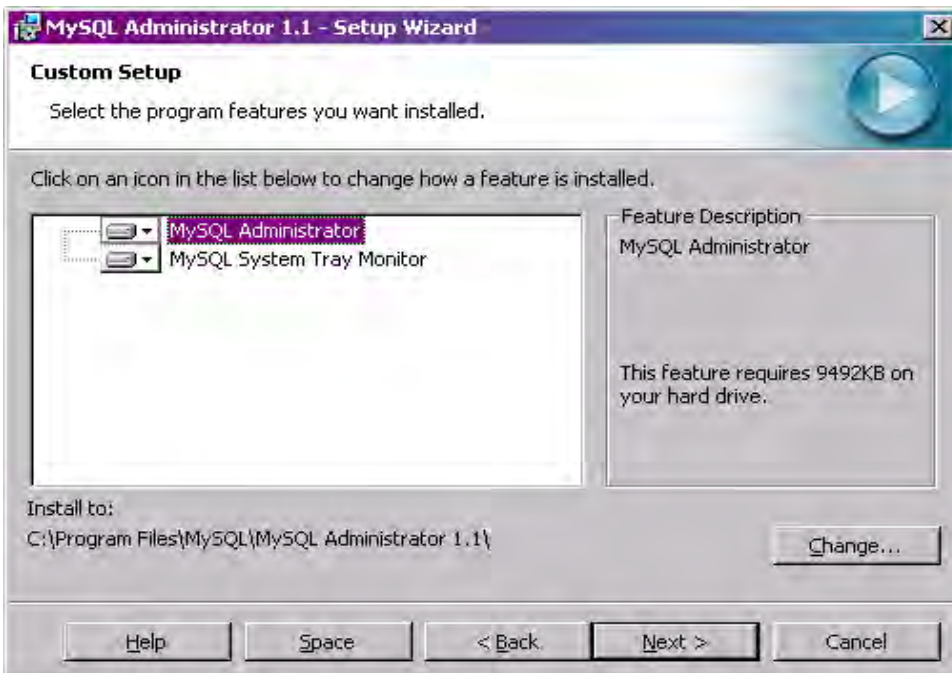
**Figure 7.** Pointing to the installation directory for the Administrator.

Choose the Custom install if you want to control which components are installed. There are only two; one of which is optional, so it's not that big a deal. Still, I usually choose Custom, as shown in **Figure 8**, so I can see what's included.



**Figure 8.** *Selecting the type of installation.*

**Figure 9** shows you the two components – the Administrator itself and a System Tray Monitor, which I recommend you include since it takes virtually no space and is darn tootin’ handy.



**Figure 9.** *Selecting the Administrator components.*