

# UPGRADING FROM MYSQL 4.1 TO 5.0

FOR MASSTRANSIT ON MICROSOFT WINDOWS

**Group Logic, Inc.**

**September 6, 2007**

**Version 1.1**

## CONTENTS

Contents .....	2
Overview.....	3
Before You Begin .....	3
Upgrading MySQL.....	4
Backup Existing Data.....	4
Remove the MySQL 4.1 Service.....	4
Install MySql 5.0 .....	4
Install Auxiliary Tools.....	5
Migrate 4.1 Data to 5.0.....	5
Upgrade Complete.....	5
Troubleshooting the Upgrade Process.....	6
MySQL Service Start Issues.....	6

## OVERVIEW

MassTransit 5.1 introduces support for MySQL version 5.0, which allows for faster performance, better management, enhanced data integrity, improved security and additional replication services. MySQL 5 is the default database for MassTransit 5.1, but is NOT required. MySQL 5 will be required for MassTransit 5.2 and later releases.

## BEFORE YOU BEGIN

In order to complete the MySQL 5 upgrade, you will need:

- A MySQL 5.0.42 installation disk image. This disk image is available on the MassTransit 5.1 CD and on the MassTransit releases web page: <http://www.grouplogic.com/files/gldownload/mtreleases.cfm>
- Administrative login permissions for the machine you want to upgrade.

This upgrade procedure assumes that you do not have any other versions of MySQL 5 installed and that MassTransit is installed.

## BACKUP EXISTING DATA

1. Stop the MassTransit Service from the *Services* console (available in *Start->All Programs->Administrative Tools*).
2. Make a backup copy of the MySQL 4.1 installation folder. If space requirements are an issue, you may copy the *data* folder only. The folder can be found at the following default installation path:

```
C:\Program Files\MySQL\MySQL Server 4.1
```

**NOTE:** This step is imperative. This backup folder can be used later to restore your database information and fix the GRANTS table if problems occur during the updating process.

3. Make backups of the MTDATABASE and MYSQL schemas using *MySQL Administrator*. When backing up, ensure that the *Lock All Tables* execution method is selected under the *Advanced Options* tab.

## REMOVE THE MYSQL 4.1 SERVICE

4. Stop the MySQL Service from the *Services* console inside *Administrative Tools*.

If stopping the service fails for some reason, you may also use the following command to stop it:

```
"C:\Program Files\MySQL\MySQL Server 4.1\bin\mysqladmin" -uroot shutdown
```

**NOTE:** This is imperative, as the upgrade can be compromised if the service has not properly shut down.

5. Remove the MySQL Service by executing the following commands at a command prompt:

```
"C:\Program Files\MySQL\MySQL Server 4.1\bin\mysqld-nt" --remove
```

```
"C:\Program Files\MySQL\MySQL Server 4.1\bin\mysqld" --remove
```

Note: Depending on your existing MySQL configuration, one of these commands may fail with a “Command Not Found” error. This is acceptable behavior as long as one of the two commands successfully completes and the MySQL service is successfully removed (see step 6).

6. Confirm that the MySQL Service has been removed from your *Services* console. If you have left the *Services* window open while executing these steps, please refresh the window to ensure it is up-to-date.
7. Restart the operating system.

## INSTALL MYSQL 5.0

8. Extract the *mysql-enterprise-5.0.42-win32.zip* package to a temporary location. Double-click the *setup.exe* executable. Click through the license agreement and select the defaults in the main installation section.
9. When this is complete, you’ll be prompted to *Configure the MySQL Server Now* which runs the *MySQL Server Instance Configuration* utility.
10. Within the *MySQL Server Instance Configuration*, select *Detailed Configuration*.
  - a. Select *Server Machine* as the server type and click Next.
  - b. Select *Non-Transactional Database Only* for database usage and click Next.

- c. Select *Manual Setting* and set the *Concurrent Connections* field to 100 for concurrent connections to the server and click Next.
- d. Leave the *Networking Options* as the default values and click Next.
- e. Leave the character set selection as *Standard Character Set* and click Next.
- f. In the *Windows Options* dialog ensure *Install as Windows Service* is checked and ensure the *Service Name* field is *MySQL*. Enable the *Include Bin Directory in Windows Path* option and click Next.
- g. In the *Security Options* dialog, configure the root password and click Next.

Note: If you have been using a blank root password and wish to continue using a blank root password, uncheck “Modify Security Settings”. It is highly recommended to set a non-blank root password after you complete the upgrade to MySQL 5.1.

- h. Click the Execute button to complete the *MySQL Server Instance Configuration*.

The MySQL Installer will automatically install the service and attempt to start the MySQL Engine once complete. In the event the service doesn't start, check the `MACHINENAME.ERR` file in the `C:\Program Files\MySQL\MySQL Server 5.0\data` directory for hints as to the exact reason. See the Troubleshooting section of this document for more detail if you encounter problems.

## INSTALL AUXILIARY TOOLS

11. Install the *MySQL Administrator* and *Query Browser* using the `mysql-gui-tools-com-5.0-r12-win32.msi` installer package located on the MassTransit 5.1 CD.

## MIGRATE 4.1 DATA TO 5.0

MySQL 5.0 is now installed. Your existing MassTransit data must be restored. To restore the 4.1 data, complete the following steps:

12. Stop the MySQL Service from the *Services* console inside *Administrative Tools*.
13. Using your MySQL 4.1 backup created in step 1, copy the 4.1 backup *data* folder into `C:\Program Files\MySQL\MySQL Server 5.0`. You can replace the files that already exist in that location.
14. Start the MySQL Service from the *Services* console inside *Administrative Tools*
15. Now it is necessary to make your 4.1 databases compatible with MySQL 5.0. To do this:

- a. Open a command prompt.
- b. Execute the following commands:

```
cd "C:\Program Files\MySQL\MySQL Server 5.0\bin"  
  
mysqlcheck -gA -autorepair -uroot -ppassword
```

**NOTE:** Replace *password* with your configured MySQL root password when executing the `mysqlcheck` command.

## UPGRADE COMPLETE

The MySQL 5.0 upgrade is now complete. You can start the MassTransit Engine service. Your MassTransit installation is now running against MySQL 5.0.42. Once you have confirmed that everything is working as expected, you may delete the database backups you created.

### MYSQL SERVICE START ISSUES

**Problem: MySQL Error 1067 occurs when attempting to start the service.**

If you encounter a MySQL *Error 1067* when attempting to start the service, check the *data* directory in your MySQL 5.0 folder. The file *machinename.err* (where *machinename* is your server name) will reveal the most common problems. This link explains the issue and a possible resolution: <http://forums.mysql.com/read.php?11,11388,11456#msg-11456>

**Problem: MySQL will not start, and the machine was not restarted after uninstalling MySQL 4.**

Installing MySQL 5 immediately after uninstalling MySQL 4 without restarting Windows can cause the *Server Instance Configuration* to fail. To resolve this issue, use the following steps:

1. Uninstall MySQL 5 Server using *Add/Remove Programs* in Control Panel.
2. Delete the *MySQL 5 Server* folder. This is usually located at *C:\Program Files\MySQL*. Verify that there are still existing backups for the original MySQL 4 database.
3. Open *Registry Editor* by clicking *Start*, then *Run...*, then typing *regedit* in the Run window.
4. Navigate to *HKEY\_LOCAL\_MACHINE\SOFTWARE\MySQL AB* and delete the *MySQL Server 5.0* folder.
5. Restart Windows. Reinstall MySQL Server 5 and proceed with the installation steps from earlier in this document. The *Server Instance Configuration* should now execute successfully.