

# UPGRADING FROM MYSQL 4.1 TO 5.0

FOR MASSTRANSIT SERVERS ON MAC OS X

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**Version 1.1**

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## 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. Login into your Mac OS X system with a user account that has administrator privileges.
2. Shut down the MassTransit Engine if it is running.
3. Open *Terminal* from the *Utilities* folder inside *Applications* on your Mac OS X system.
4. Make a copy of the *data* folder in the */usr/local/mysql* folder by entering the following commands:

```
mkdir ~/mysql4backup
```

```
sudo cp -R /usr/local/mysql/data ~/mysql4backup
```

**NOTE:** This step is imperative. The *mysql4backup* folder is used in a later section to restore your database information and fix the GRANTS table if problems occur during the updating process. The backup folder can be found inside the home directory of the logged in user.

5. Make backups of the MTDATABASE and MYSQL schemas with the *MySQL Administrator* application. When backing up, ensure that *Lock All Tables* under the *Advanced Options* tab in the *Backup* dialog is selected.
6. Stop the MySQL 4.1 Server using the *Stop Server* button on the *Services* tab of the MySQL Administrator.

## INSTALL MYSQL 5.0

7. Mount and run the respective MySQL 5.0 disk image for your Mac by double-clicking the disk image file.

For Intel-based Macs, mount *mysql-classic-5.0.42-osx10.4-i686.dmg* and then run *mysql-classic-5.0.42-osx10.4-i686.pkg*. Use default values to complete the installation.

For PowerPC-based Macs, mount *mysql-classic-5.0.42-osx10.4-powerpc.dmg* and then run *mysql-classic-5.0.42-osx10.4-powerpc.pkg*. Use default values to complete the installation.

**NOTE:** The disk images are located on the Group Logic MassTransit 5.1 CD in the *MySQL* folder.

## INSTALL AUXILIARY TOOLS

8. Run *MySQLStartupItem.pkg*. This installation package is located in the MySQL disk image and will automatically start the MySQL Service when your Mac boots. Use default values to complete the installer.
9. Double-click on *MySQL.prefPane* from the disk image to install the MySQL preference pane. Alternatively, you can copy it directly to the */System/Library/PreferencePanes/* folder.
10. Install the updated versions of the MySQL Administrator and MySQL Query Browser. The tools are available in the *mysql-gui-tools-5.0-r12-osx10.4-universal.dmg* disk image in the *MySQL* folder of your MassTransit 5.1 CD.

## MIGRATE 4.1 DATA TO 5.0

MySQL 5.0 has now been installed. Prior to continuing, your existing MassTransit data must be restored. To restore the 4.1 data, complete the following steps:

11. Open *Terminal* from the *Utilities* folder inside *Applications* on your Mac OS X system.

12. Overwrite the data folder in the `/usr/local/mysql/` folder with the `mysql4` backup folder you created in step 2 of the upgrade process and fix the ownership of the folder by entering the following commands:

```
sudo cp -R ~/mysql4backup/data /usr/local/mysql/  
sudo chown -Rv mysql:mysql /usr/local/mysql/data/
```

13. Start the MySQL Service by entering the following command:

```
sudo /Library/StartupItems/MySQLCOM/MySQLCOM start
```

**Note:** This step requires that you installed the startup item as specified in step 8.

14. Now it is necessary to make your 4.1 database compatible with MySQL 5.0 by entering the following commands. Replace “ROOTPASSWORD” with the root password for the MySQL 5 server.

```
sudo /usr/local/mysql/bin/mysqlcheck --check-upgrade --all-databases --auto-  
repair --user=root --password=ROOTPASSWORD
```

**NOTE:** You may see a few warnings about table repairs that are required. These should be handled automatically by the above command, but you can re-run the command to confirm that the repairs occurred successfully.

```
sudo /usr/local/mysql/bin/mysql_fix_privilege_tables
```

Your 4.1 databases are now successfully migrated to MySQL 5.0.

## UPGRADE COMPLETE

The MySQL 5.0 upgrade is now complete. You may now restart the MassTransit Engine. 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.