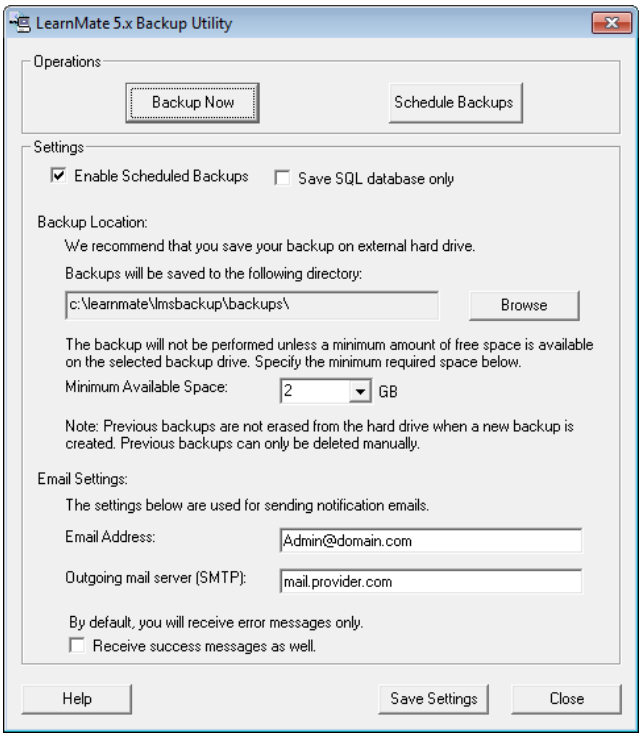
LearnMate Backup Utility



User Guide

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LearnMate Backup Utility User Guide

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Table of Contents

1. INTRODUCTION 1

1.1 FEATURES 1
1.2 BACKUP CONTENTS 1
1.3 THE LOG FILE 1
1.4 THIS MANUAL 2
1.5 IMPORTANT NOTES 2

2. INSTALLING AND LAUNCHING THE LEARNMATE BACKUP UTILITY 3

2.1 INSTALLING THE UTILITY 3
2.2 LAUNCHING THE UTILITY 3

3. BACKUP SETTINGS 4

3.1 BACKUP LOCATION SETTINGS 4
3.1.1 Backup Location Directory 4
3.1.2 Minimum Free Space Settings 6
3.2 EMAIL SETTINGS 7

4. SCHEDULED BACKUPS 8

4.1 INTRODUCTION 8
4.2 ENABLING AND DISABLING BACKUP SCHEDULING 8
4.3 CONFIGURING BACKUP SCHEDULING 8
4.4 ADJUSTING BACKUP SCHEDULING 11
4.5 NOTES ON SCHEDULED BACKUPS 11

5. ON-DEMAND BACKUPS 12

5.1 INTRODUCTION 12
5.2 PERFORMING AN ON-DEMAND BACKUP 12
5.3 NOTES ON ON-DEMAND BACKUPS 12

6. TROUBLESHOOTING 13

1. Introduction

The LearnMate Backup Utility is designed to provide a fast and easy-to-use method of backing up the LearnMate databases.

The LearnMate Backup Utility should not be used in place of the organization's standard backup procedures, such as the use of recordable CD's, tapes, etc. The Utility is intended as the starting point for such backups. The Utility creates backup files of the LearnMate databases. The backup files should then be backed up by following the organization's standard backup procedures.

1.1 Features

The LearnMate Backup Utility offers the following features:

- Scheduled and on-demand backups.
- Email notification of backup success or failure.
- Documentation of backup activity in a log file.

1.2 Backup Contents

The backup performed by the LearnMate Backup Utility backs up the following items:

- MySQL database
- User data
- Course data

1.3 The Log File

All backup activity is logged in the file lmsbackup_log.log located in the folder C:\learnmate\lmsBackup\backuputility.

1.4 This Manual

This manual consists of the following chapters:

1. Installing and Launching the LearnMate Backup Utility: Describes how to install and launch the Utility.
2. Backup Settings: Describes the various settings that must be made to configure the backup procedure.
3. Scheduled Backups: Describes how to configure scheduled backups and how to enable/disable scheduled backups.
4. On-Demand Backups: Describes how to perform a backup at any time without having to set a schedule first.
5. Troubleshooting: Describes the required user actions upon receiving an error message.

1.5 Important Notes

Take note of the following:

- When performing a backup, the My SQL server is temporarily stopped. The duration of the backup varies according to the sizes of the LearnMate databases. During this time period, users may notice that the server is not available. It is therefore advisable to perform backups when the LMS is not in use.
- It is strongly recommended that you change the default backup archive location and save your backup on an external hard drive.
- It is strongly recommended that you do not choose to save only the SQL database.
- The backup scheduling is recorded within the Scheduled Tasks list in Windows. The backup scheduling should not be adjusted within the Scheduled Tasks list, but through the Utility only.
- The backup utility creates two files per backup. Previously created backups are not automatically deleted. It is important to back up to a drive with sufficient disk space and to occasionally delete older backup files. A typical backup plan maintains backups for:
    - The last seven days
    - One copy per week for each of the previous six weeks
    - One copy per month for each of the previous twelve months

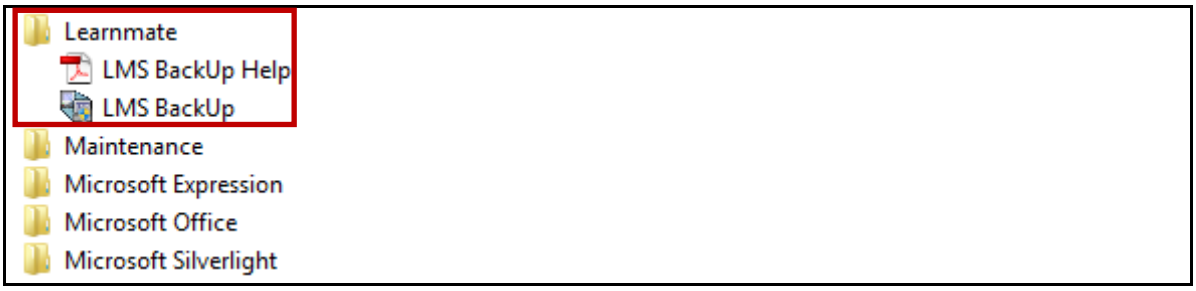
2. Installing and Launching the LearnMate Backup Utility

2.1 Installing the Utility

The LearnMate Backup Utility is installed automatically as part of the Server 5 setup.

2.2 Launching the Utility

During the installation process, shortcuts to the LearnMate Backup Utility and this manual are added to the Programs menu, which is accessed by clicking Start | Programs.



In addition, a shortcut icon to the LearnMate Backup Utility is added to the Desktop.

3. Backup Settings

The settings listed below are set from within the LearnMate Backup Utility. These settings apply for both scheduled and on-demand backups.

- Backup Location Directory
- Minimum Free Space Settings
- Email Settings

These settings are explained in detail below.

All settings are saved by clicking the Save Settings button at the bottom of the Utility window.

3.1 Backup Location Settings

3.1.1 Backup Location Directory

The backup files are saved within two 7z files, in a folder specified by the user. 7z is a compressed archive file format with a high compression ratio. A subfolder is created for each date on which backups are performed. The subfolder is named in the format: BACKUP_MM_DD_*YYYY*

The 7z files created for each backup are named in the format:

LMS_SQL_BACKUP_MM_DD_YYYY_HHMMSS.7z

and

LMS_DATA_BACKUP_MM_DD_YYYY_HHMMSS.7z

- ***Note**: After the backup has been created, the 7z file must not be renamed.*

By default, the backup location directory is set to C:\LMS\lmsbackup\BackUps. (If the LMS is installed on drive D instead of drive C, the default directory is set to D:\LMS\lmsbackup\BackUps.)

- ***Note**: It is strongly recommended that the backup location be changed from the default one, ideally to an external location.*

Follow the instructions below to select a different directory, if required.

To specify the backup directory:

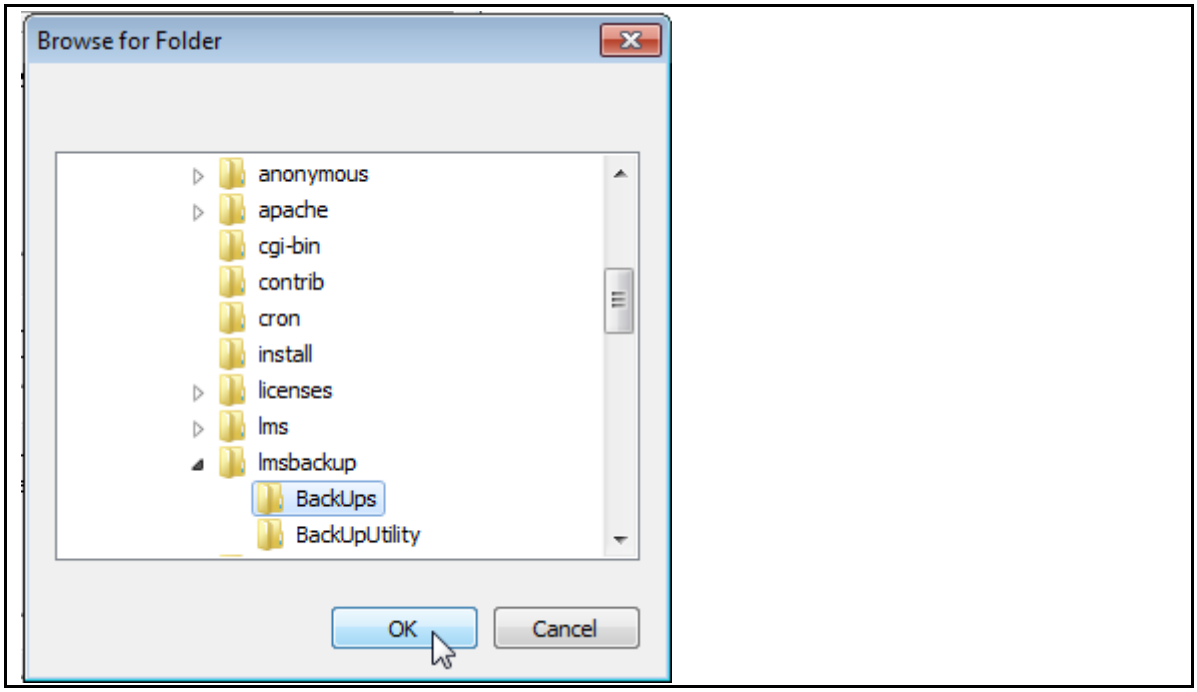
1. Click Browse under Backup Location.

The Browse for Folder window is displayed.

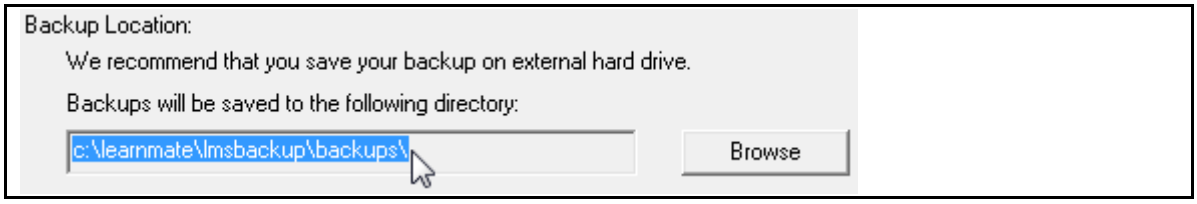
2. Select the directory in which the backup files should be stored.

   ❖ ***Note**: The backup location must be a subdirectory. In other words, the root directories C:\ and D:\ may not be specified as backup locations.*

3. Click OK.



The newly selected directory is now displayed.



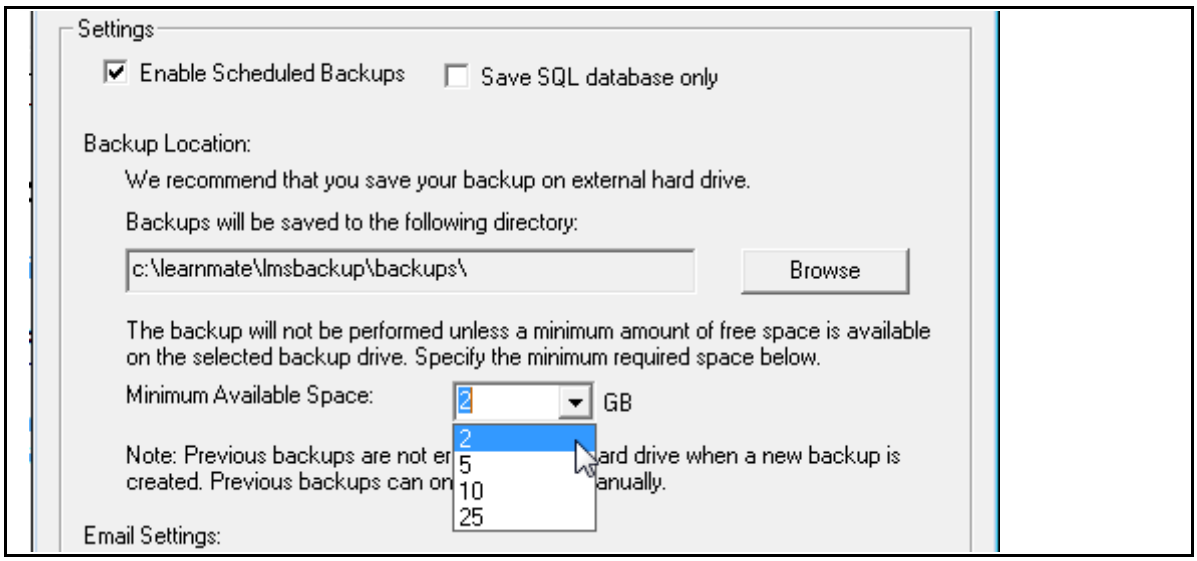
3.1.2 Minimum Free Space Settings

The Utility checks to ensure that a user-specified amount of free space is available on the target drive before beginning the backup. If the available free space is less than the specified minimum, the backup is not performed and the user will receive an email informing him or her of backup failure, together with the reason for failure. The failure will also be recorded in the log file.

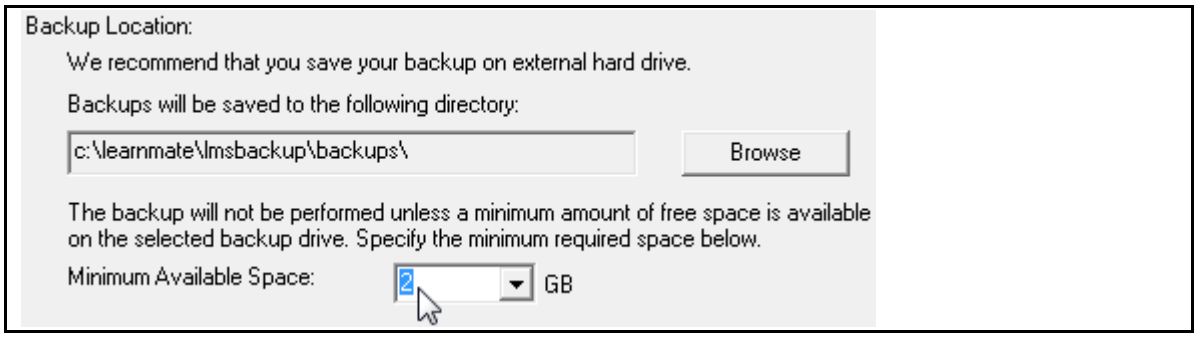
By default, the minimum free space requirement is set to 2GB. The user can select any of the following values: 2GB, 5GB, 10GB and 25GB, or insert a user defined value.

To specify the minimum free space:

1. Select one of the values from the Minimum Available Space pull-down menu.



The selected value is displayed.



2. Click Save Settings to save your change.

3.2 Email Settings

In addition to on-screen messages, the LearnMate Backup Utility sends the results of backups to the administrator via email messages. This is particularly useful for scheduled backups, as the user will often not be at the computer while the backup is performed.

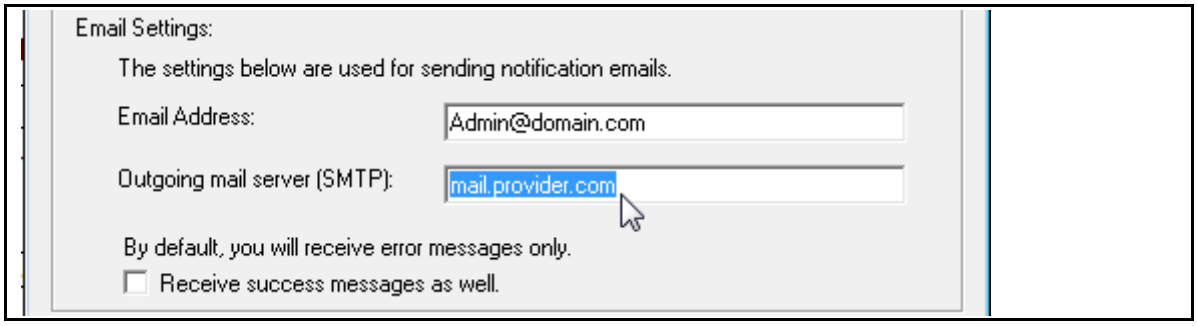
By default, the Utility only sends email messages to inform the user of backup failures. All error messages include a reason for failure. The Utility can also be set to send email messages to confirm that a backup was performed successfully.

If email settings are not specified, backup operations will still be performed. The Backup Utility takes the default email setting from the LearnMate Server 5 setup screen (SMTP Setting and Email Setting).

To specify email settings:

Enter the email address to which messages should be sent in the *Email Address* field.

1. Enter the outgoing mail server (SMTP) details in the *Outgoing mail server (SMTP)* field.



2. Click Save Settings to save your change.

To receive success messages:

1. Check the Receive success messages as well checkbox to receive success messages as well as error messages.

   Deselecting this checkbox will result in only error messages being sent via email.

2. Click Save Settings to save your change.

4. Scheduled Backups

4.1 Introduction

The user can schedule backups to be performed automatically on either a daily or weekly basis.

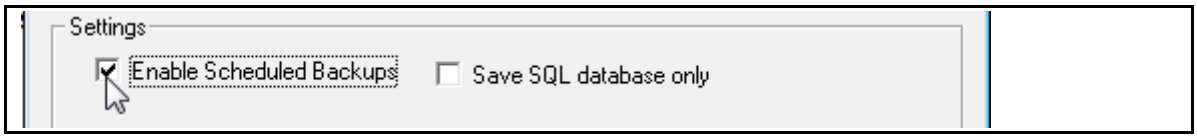
4.2 Enabling and Disabling Backup Scheduling

Scheduled backups can be enabled or disabled:

- When scheduled backups are enabled, backups will be performed according to the schedule set in the Scheduled Backup Settings window, see 4.3 Configuring Backup Scheduling on page 8.
- When scheduled backups are disabled, scheduled backups will not be performed, although the schedule is saved for later use.

To enable backup scheduling:

1. Select the Enable Scheduled Backups checkbox in the Settings area of the main window.



2. Click Save Settings to save the change.

The user can also disable backup scheduling. Scheduled backups will then not be performed, but the configured backup schedule is saved for later use.

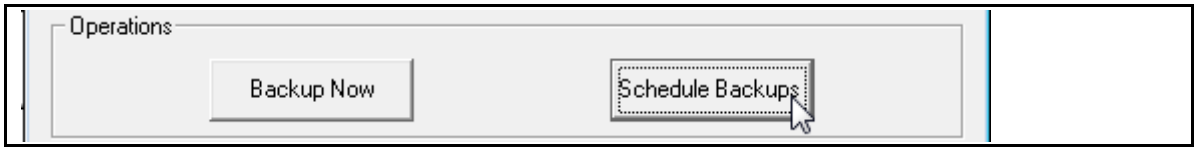
To disable backup scheduling:

1. Deselect the Enable Scheduled Backups checkbox in the Settings area of the main window.
2. Click Save Settings to save the change.

4.3 Configuring Backup Scheduling

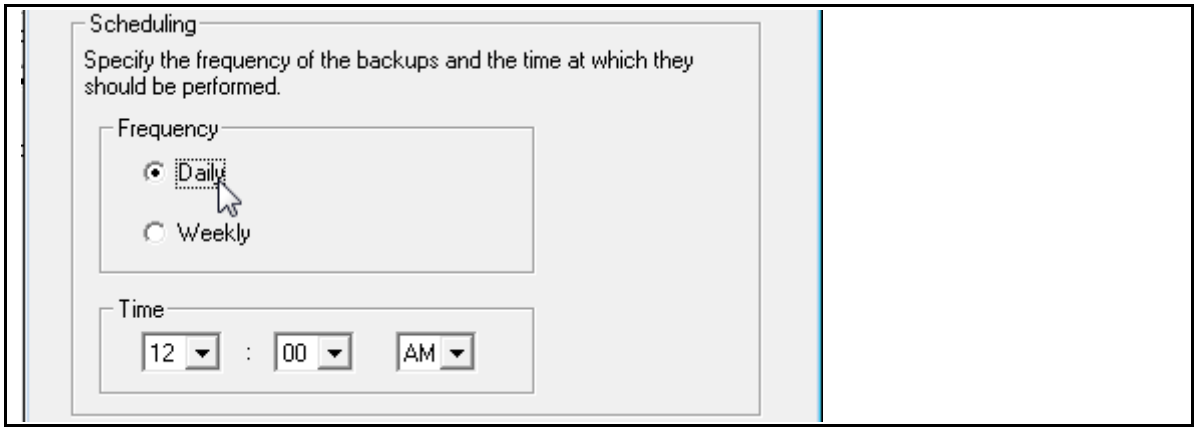
To specify an automatic backup schedule:

1. Click Schedule Backups in the Operations area. This button will be inactive if the Enable Scheduled Backups checkbox is not selected.

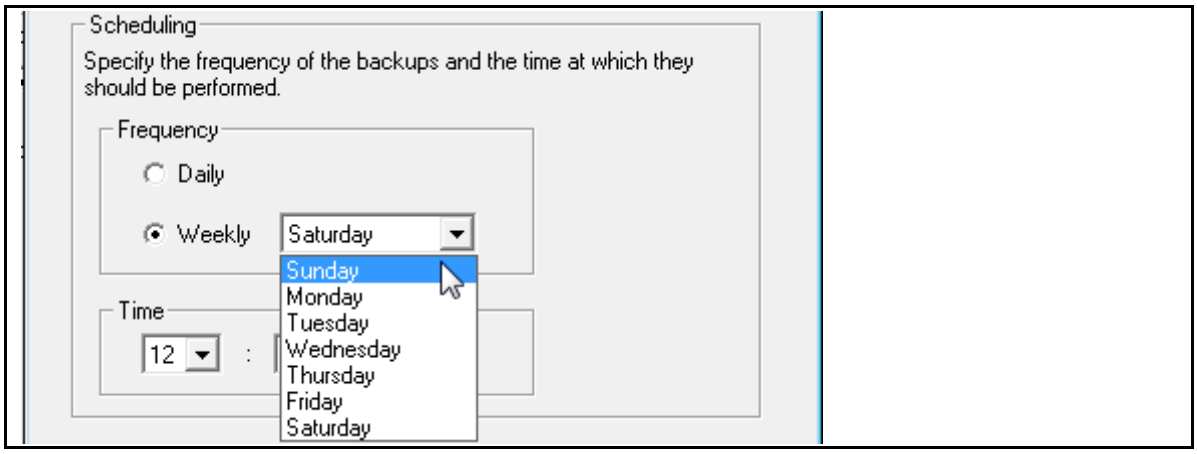


The Scheduled Backup Settings window is displayed.

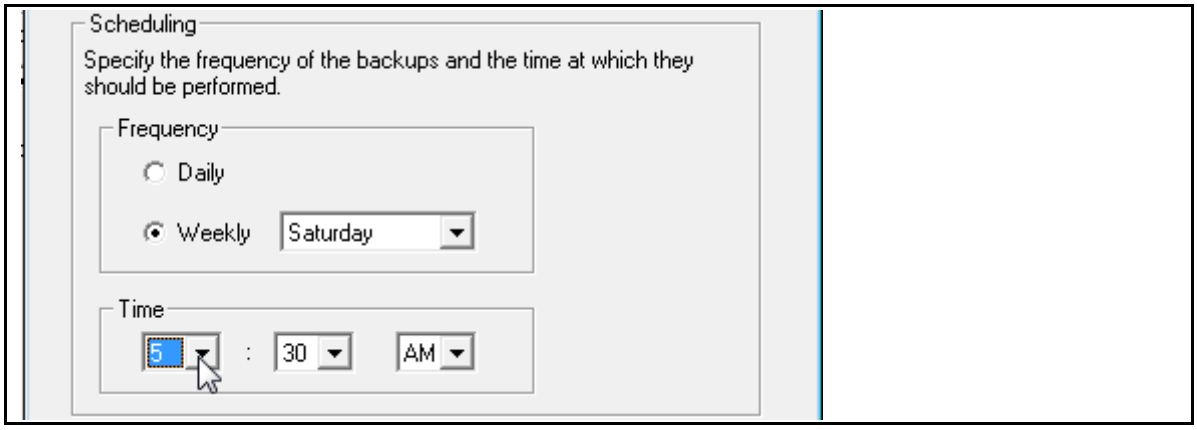
2. Select either Daily or Weekly from the Frequency area.



3. If you select Weekly, select the day of the week on which the backup is to be performed from the pull-down menu.



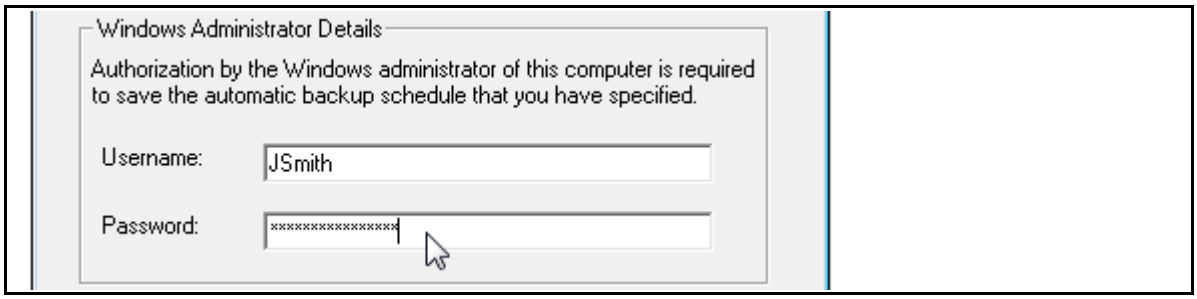
4. Set the time at which the backups should be performed. When performing a backup, the My SQL server is temporarily stopped. The duration of the backup varies according to the sizes of the LearnMate databases. During this time period, users may notice that the server is not available. It is therefore advisable to perform backups when the LMS is not in use.



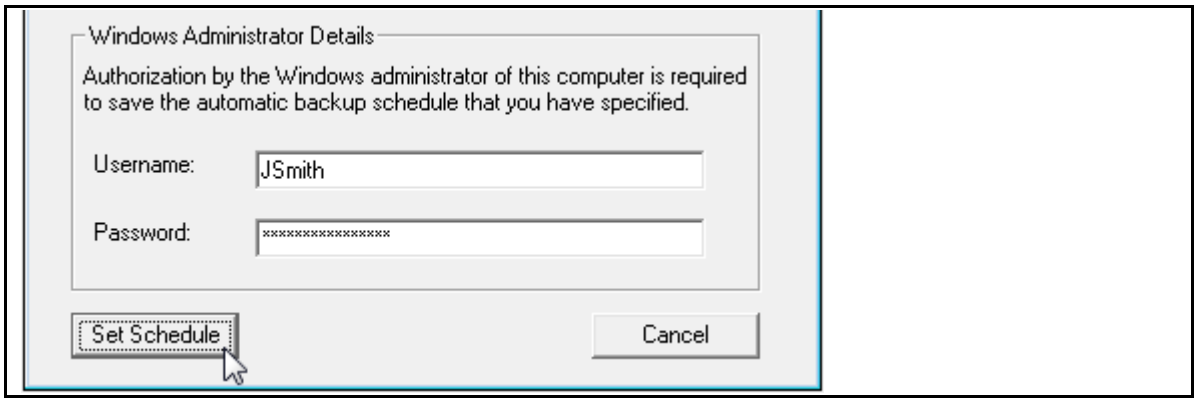
Only the Windows Administrator may set a backup schedule. Therefore, the Windows Administrator username and password must be entered. If you do not know them, you can ask your IT staff to assist.

- ***Note**: These details are not saved and must be re-entered each time the schedule is changed.*

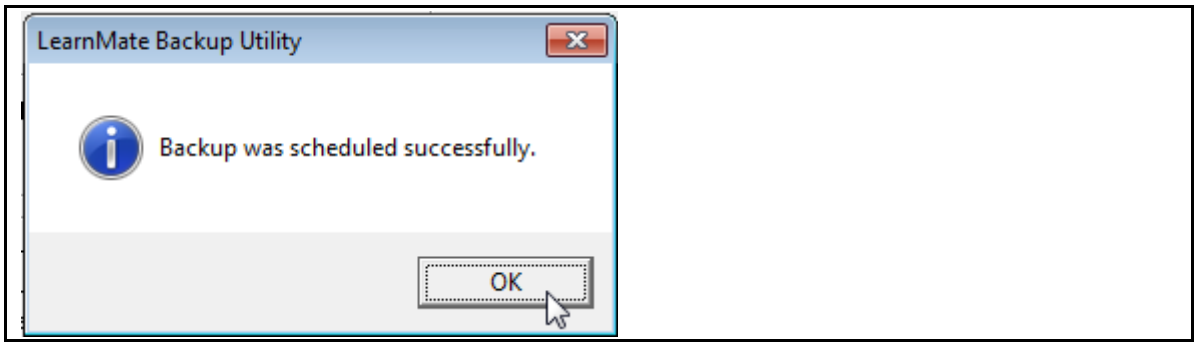
5. Enter the Windows Administrator's username in the Username field.
6. Enter the Windows Administrator's password in the Password field.



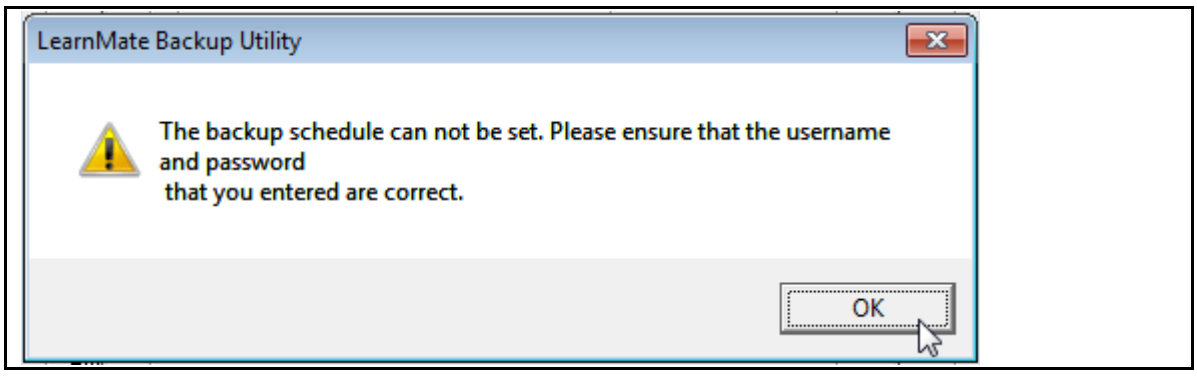
7. Click Set Schedule.



If the Windows Administrator's details were entered correctly, the success message shown below is displayed. Click OK.



If the Windows Administrator's details were entered incorrectly, the error message shown below is displayed. Click OK and enter the details correctly.



8. Click Cancel to return to the main window.

- ***Note**: After changing the schedule settings, Set Schedule must be clicked. Clicking Cancel without first clicking Set Schedule will result in the changes being lost.*

4.4 Adjusting Backup Scheduling

The Utility adds the scheduled tasks to the Scheduled Tasks lists, which is a feature built into all versions of Microsoft Windows currently in use.

However, all changes to the backup schedule must be performed using the LearnMate Backup Utility. Changes must not be made directly in the Scheduled Tasks list, as changes made in the Scheduled Tasks list are not reflected in the LearnMate Backup Utility.

4.5 Notes on Scheduled Backups

Note the following:

- If an error occurs while a scheduled backup is being performed, no error messages will be displayed on the screen. Error messages for scheduled backups are recorded in the log file. Error messages will be sent by email if the email settings have been specified. (The same applies for success messages.)
- When performing a backup, the My SQL server is temporarily stopped. The duration of the backup varies according to the sizes of the LearnMate databases. During this time period, users may notice that the server is not available. It is therefore advisable to perform backups when the LMS is not in use.
- If the free space on the target drive is less than the minimum required space specified in the Minimum Available Space field, or if any other failure occurs, the backup will not be performed. If the email settings are defined, the user will receive an email with an error message. The failure will be recorded in the log file.

5. On-Demand Backups

5.1 Introduction

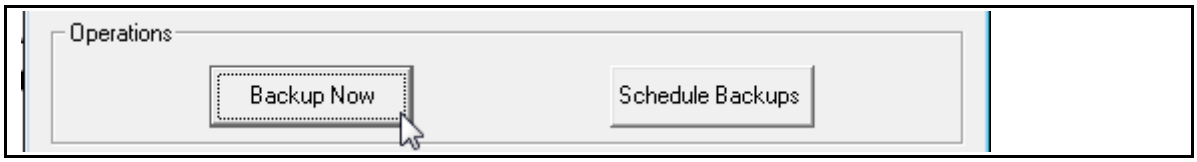
On-demand backups can be performed via the Utility at any time. A backup performed by an on-demand backup is identical to a backup performed as a scheduled backup. It is particularly advisable to perform backups on the following occasions:

- Before installing new LearnMate Content modules
- Before installing LearnMate LMS Service Packs
- Before performing any maintenance work on the LearnMate server
- Before moving your server to another location

5.2 Performing an On-Demand Backup

To perform an on-demand backup:

- Click Backup Now in the Operations area.



If the backup is performed successfully, a success message is displayed. Click OK.

If an error occurs during the backup, an appropriate error message will be displayed.

5.3 Notes on On-Demand Backups

Note the following:

- If a setting is changed and Backup Now is clicked before Save Settings is clicked, the new settings will not be enforced while performing the backup.
- When performing a backup, the My SQL server is temporarily stopped. The duration of the backup varies according to the sizes of the LearnMate databases. During this time period, users may notice that the server is not available. It is therefore advisable to perform backups when the LMS is not in use.
- If the free space on the target drive is less than the minimum required space specified in the Minimum Available Space field, or if any other failure occurs, the backup will not be performed and the user will receive an error alert. If the email settings are defined, he will also receive an email with an error message. The failure will be recorded in the log file.

6. Troubleshooting

You may encounter an error message whilst performing a backup. Below is a table with the required user action for each error message.

Error message	User action
There is not enough free space on your hard drive to perform the backup. A minimum of N GB free space is required. Please clear sufficient space and retry	Free the required space on the backup location drive.
A failure occurred during the backup process	The utility cannot copy files for backup. Check the source directories (c:\learnmate\mysql\data\lms5_db, c:\learnmate\lms_data) and the backup location directory.
The 7z archive utility - warning. The archive incomplete.	Check the 7z archive utility output file with the OUT extension for details. (For example: LMS_SQL_BACKUP_12_23_2010_102725.out)
The 7z archive utility - fatal error	Check the 7z archive utility output file with the OUT extension for details. (For example: LMS_SQL_BACKUP_12_23_2010_102725.out)
The 7z archive utility - not enough memory for operation	Close other active applications and try to backup again.