

M-DM Download Manager - User Guide

Macpower & Tytech Technology Co., Ltd.

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Firmware: V01R88

PCB: MP-LNU27S v1.0

Model: BT-LNU2SA



The diagrams and images contained in this manual may not fully represent the product that you are using and are there for illustration purposes only.

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Chapter 1 - Introduction

The M-DM Download Manager is the perfect tool for easy downloads of your favourite BitTorrent™ files and sharing of your USB storage devices on the local network. Simple to install and configure, you can have the unit up and running in a matter of seconds. There is no need to purchase a dedicated LAN disk anymore, because you can simply use the M-DM and turn your USB drives into network attached storage including UPnP support!

Product Dimensions: 14.0cm x 8.6cm x 2.6cm
 5.5in x 3.4in x 1in

Package Contents

- M-DM Download Manager
- Power Adapter;
 Input 100-240V, Output +5V/2A
- Ethernet Cable
- Manual

Note: Package contents may vary, depending on vendor & version.

System Requirements

- Computer with internet browser and network access for setup
- Switch or Router with one free Ethernet port for the M-DM Download Manager
- At least one USB hard drive (capacity >10GB), to be re-formatted

Supported Operating Systems:

- PC running Win98SE, WinME, Win2000 or WinXP
- Mac running Mac OS 10.2 or above

Note: We recommend using self-powered USB drives. If two bus-powered USB drives are connected at the same time, at least one of them needs to be powered by an external power supply.

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Detailed View

For a detailed description on how each of these ports and buttons work, please refer to the following chapters.

Front View



- | | |
|-------------------------------|-------------------------------------|
| 1. USB-A eject button | 4. Status LEDs (see LED Indicators) |
| 2. USB port A | 5. USB port B |
| 3. USB-A to USB-B copy button | 6. USB-B eject button |

LED Indicators

1	2	3	4
1	2	3	4

1. USB-A LED

ON=USB device connected, OFF=USB device disconnected

Blinking=Data Access

2. LAN LED

ON=LAN connected, OFF=LAN disconnected

Blinking=Data Access

3. System LED

Green=System Ready, Red=Device Error

Green Blinking=Booting or Copying (when copy button is pressed)

4. USB-B LED

ON = USB device connected, OFF = USB device disconnected

Blinking = Data Access

Rear View



- | | |
|------------------|---------------------|
| 1. Ethernet port | 3. Power receptacle |
| 2. Reset button | 4. ON/OFF switch |

Quick Installation Guide

Following is a quick installation guide to get you up and running. For further details to each of the settings, please refer to Chapter 2 and later.

1. Connect the Ethernet cable from your network router or switch to the M-DM Download Manager.
2. Prepare at least one USB drive with more than 10GB of capacity and connect it to USB port A on the M-DM Download Manager.
3. When everything is connected, turn both the USB drive and the M-DM Download Manager on.
4. During boot up, the LAN and system LED will go ON, confirmed by a short beep sound.
5. Once the USB LED is ON, access the web configuration interface via your web browser. See “How to login” in Chapter 2.
6. Go to Harddisk Utility in the Tools menu, select your drive and format it using the XFS file system.
7. Go to Users and add a new user.
8. You are now ready to start sharing or downloading files.

Note: Following the steps above is only the beginning but without setting up a USB drive first, most of the functions will not be available.

Chapter 2 - System Setup

Installation

Before the device can be accessed via the local network, it has to be connected and turned on.

1. Connect the Ethernet cable from your network router or switch to the M-DM Download Manager.
2. Prepare at least one USB drive and connect it to one of the USB ports on the M-DM Download Manager.
3. When everything is connected, turn both the USB drive and the M-DM Download Manager on.
4. During boot up, the LAN LED will go ON as the network connection is detected.
5. The system LED will blink and go steady as soon as the system has finished booting, confirmed by a short beep sound.
6. Once the system is ready, it will detect the USB drive and the USB LED will light up green.
7. Done, your device is now ready for access and further setup.

Note: If the M-DM Download Manager is turned on but can not acquire an IP address, it will warn the user with a beep sound. To turn off the warning signal, make sure the Ethernet cable is connected properly and the M-DM Download Manager has access to the local network to acquire the IP address.

USB Eject Procedure

To remove a USB drive, use the eject button located next to each of the USB ports.

1. Press the corresponding eject button and release it again.
2. The system will confirm that the eject button has been pressed with a short beep sound.
3. Once the drive is ready to be removed, the system will confirm it with another two short beep sounds.
4. You can now turn off the USB drive and remove the USB cable.

Shut Down Procedure

To turn off the M-DM Download Manager, stop all current downloads, then turn off the power using the ON/OFF switch. Once the system has shut down, remember also turning off the power to your USB drives.

USB File System

To use the file and user management as well as the BitTorrent™ function, we strongly recommend formatting one drive using the XFS file system. Other drives connected to the M-DM Download Manager can either use FAT32, allowing both read and write access, or NTFS which only allows read access. For optimum performance and functionality, we recommend using XFS.

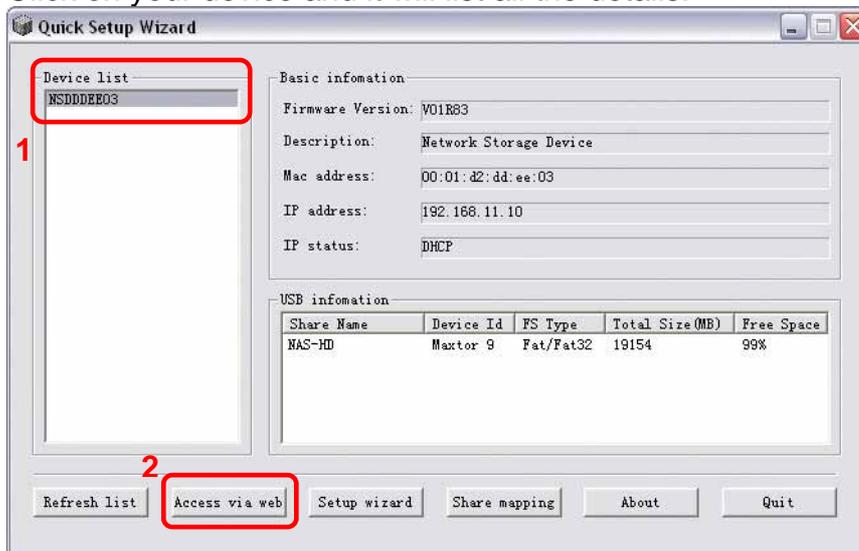
How to login

To configure your M-DM Download Manager, you will need to use the web browser, enter the IP address and then use the web configuration for further setup. To find out the IP address of your device once it is connected to the network, there are several different ways as described on the following pages.

Login on a PC

Use the NetTool utility included on the CD. This will list the device automatically and allow you to access the web configuration interface with a simple click of your mouse. You may also use the same utility at a later point to map the network drive after you setup your shares.

1. Turn on your M-DM Download Manager and make sure it is connected to the same network as your computer.
2. Start the NetTool utility by double clicking on the EXE file.
3. Your M-DM Download Manager will automatically show up in the device list but if not, make sure the NetTool has access to the network. You might have to configure your firewall or even temporarily turn it off.
4. Click on your device and it will list all the details.



5. Previously greyed out commands will now be available and you can click on "Access via web".

Note: Alternatively, you could use the Setup Wizard to configure the basic settings and view the IP address. Open your web browser and then manually input the IP address to access the web configuration interface.

Login on a Mac

First, you will have to find out the IP address of your M-DM Download Manager and then use the web browser to access the web configuration interface.

1. Turn on your M-DM Download Manager and make sure it is connected to the same network as your computer.
2. Start the Terminal utility, which is usually located in your Applications folder under Utilities.

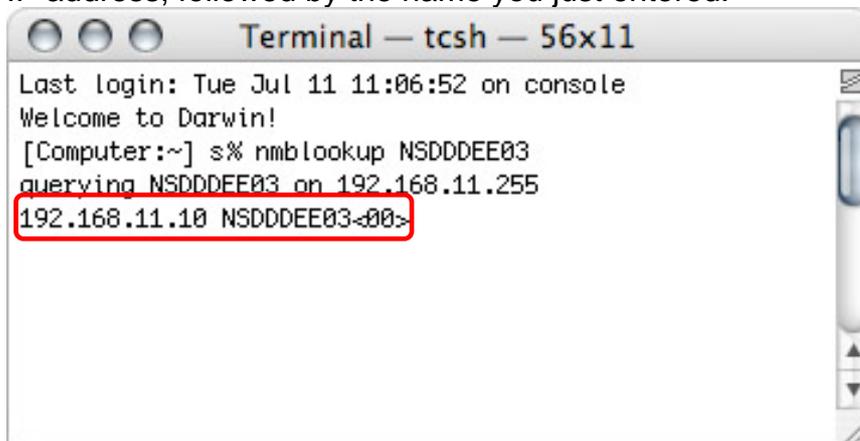


Terminal

3. Type `nmblookup NSD***`, where the star marks represent the last 6 digits of your Mac address. This number can be found on a sticker either on the outside of your device or on the bridge board itself.

The command would therefore look something like this:
`nmblookup NSDDDEE03`

4. After entering the previous command and hitting the Enter key, it should return an IP address, followed by the name you just entered.

A screenshot of a Mac OS X Terminal window. The title bar reads "Terminal — tcsh — 56x11". The terminal text shows a login session: "Last login: Tue Jul 11 11:06:52 on console", "Welcome to Darwin!", and "[Computer:~] s% nmblookup NSDDDEE03". The next line shows the command's output: "querying NSDDDEE03 on 192.168.11.255" followed by "192.168.11.10 NSDDDEE03<00>". The output line is highlighted with a red rectangular box.

```
Terminal — tcsh — 56x11
Last login: Tue Jul 11 11:06:52 on console
Welcome to Darwin!
[Computer:~] s% nmblookup NSDDDEE03
querying NSDDDEE03 on 192.168.11.255
192.168.11.10 NSDDDEE03<00>
```

5. Open your web browser and enter the IP address from the previous step to access the web configuration interface.

Peer to Peer

If you connect the M-DM Download Manager directly to your computer via Ethernet cable, you can access it using its default IP 192.168.16.1. Open the web browser and enter 192.168.16.1 to access the web configuration interface.

Chapter 3 - Web Configuration

Open your web browser, enter the IP address of your M-DM Download Manager and login. The default login is as follows:

Username: **admin**
Password: **root**

For more information about the initial setup and finding your IP address, please refer to Chapter 2.

Home

This menu will show you the basic system information and details regarding your M-DM Download Manager. Under USB devices, you can see how many USB drives are connected at the present time. Under System Info, you will see the firmware version and other network related information.

USB Devices	
USB Port A:	Status: 1 storage device installed.
USB Port B:	Status: No device installed.

System Info	
Firmware version:	V01R88
Device name:	NSDDDEE03
Description:	Network Storage Device
MAC address:	00:01:d2:dd:ee:03
IP address:	192.168.11.17
Protocol:	DHCP
HTTP server port:	80

Note: If there is no USB device connected or it is not recognised under USB devices, you will not be able to use any of the FTP, SMB or BitTorrent™ functions. Make sure at least one drive is connected and if necessary, format it using the Harddisk Utility in the Tools menu.

Administration

This is where you will configure your system, setup FTP accounts, SMB shares and add BitTorrent™ jobs.

LAN

This section contains the LAN settings for your M-DM Download Manager. By default, this will be set to acquire the IP address automatically with no need for you to change anything. However, if you do change the settings, press the Apply button to save your new configuration.

Field	Value
Work Group:	workgroup
Protocol:	DHCP
IP Address:	192 . 168 . 11 . 17
Subnet Mask:	255 . 255 . 255 . 0
Default Gateway:	192 . 168 . 11 . 1
Primary DNS:	192 . 168 . 11 . 1
Secondary DNS:	

- **Workgroup:** If your computer is part of a workgroup, you can change the default workgroup and customise this field.
- **Protocol:** If set to DHCP, it will obtain the IP address automatically. If set to Static IP, you can enter the address manually.
- **IP Address:** If you need assistance in manually filling out these fields, please contact your network administrator for help.

Note: If the protocol is set to DHCP but there is no DHCP server available to distribute an IP address, the device will automatically use its default IP address 192.168.16.1.

System

Change your device name and description in this section and set the time. After changing the settings, press the Apply button to save your new configuration.

Device Settings

Device Name: NSDDDEE03

Description: Network Storage Device

Date: Dec 13 2006 (month, day, year)

Time: 2 : 14 PM

Time Zone: (GMT+08:00) Taipei

NTP: Enabled

NTP Server: time.windows.com

HTTP Port: 80

Apply Cancel

- **Device Name:** By default, this name starts with the letters NSD, followed by the last 6 digits of your Mac address. You may change this manually if required.
- **Date & Time:** Select the current date from the drop down list and enter the time.
- **NTP:** Enable this function to synchronise the time automatically with a NTP server such as time.windows.com as an example.

Note: To use the NTP function, you need to enter a valid NTP server. If the default address at time.windows.com does not work, find a new one and then try again or turn off the NTP server and set the time manually.

FTP Server

In this section, you can enable and setup the FTP server. After changing the settings, press the Apply button to save your new configuration.

FTP Server Setting

Enable FTP server

Port: (Default value is 21)

Enable anonymous login(as guest)

Enable download

Enable upload

Client Language: ▼

- **FTP:** We recommend leaving the port set at its default on 21. Enable the anonymous login for users to access the drive without a password or disable it and setup individual accounts with passwords instead.
- **Language:** Select your language from the drop down list or leave it set as Unicode.

USB

This page will list details related to your USB storage devices. For those using Internet Explorer (IE) on a PC, clicking on the share name link will open the Explorer window and connect you to the storage device.

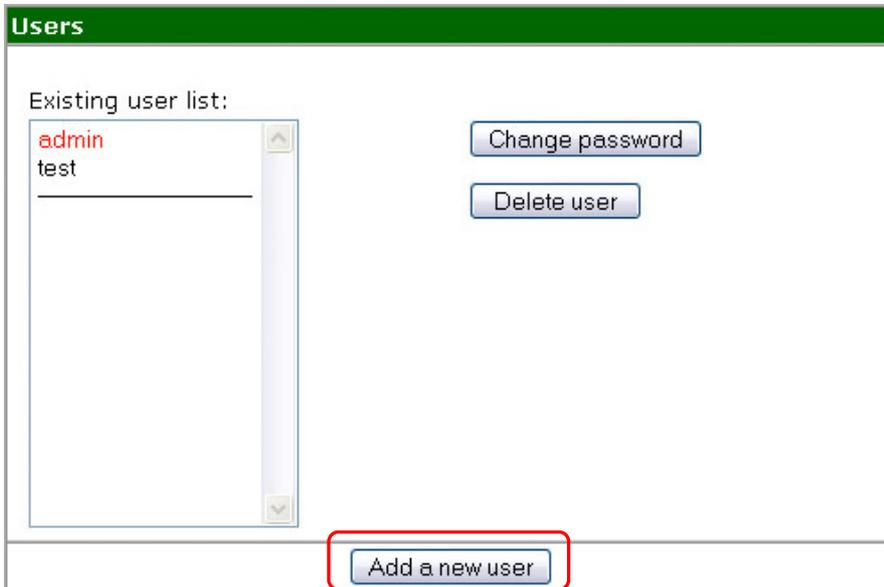
USB Storage Devices

Index	Share Name	Device ID	FS Type	Total Size(MB)	Free Space
1	PA_A_1	Maxtor 9	Fat/Fat32	19530	93%

Note: Clicking on the share name link will only work for PC users accessing the page with Internet Explorer.

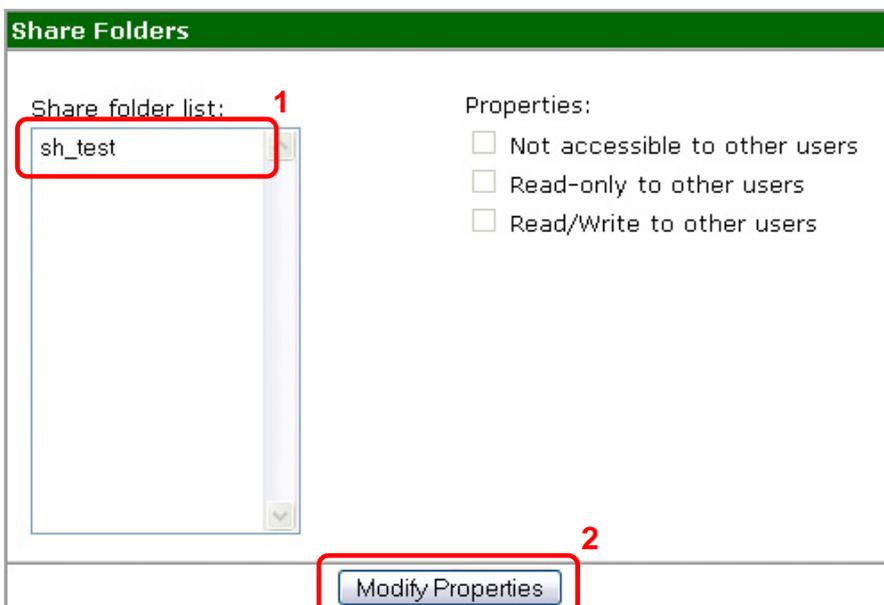
Users

In this section you can add and manage the users for the M-DM Download Manager. For each user, there will automatically be a new folder created, starting with “sh_” followed by the username. Click on “Add a new user” and follow the setup wizard to create a new user.



Share

All available and shared folders will be listed here. To modify the access rights, select the folder you want to edit and click on “Modify Properties”.



BitTorrent™

In this section you can manage your torrents and add new downloads to the queue. Before you add the first job, click on Global Setting to access further options. After changing the settings, press the Save button to apply the new configuration.

BitTorrent Global Setting

Place torrent file in "public" share folder
 Place torrent file in [] 's share folder

Max download rate per job(0 = no limit, -1 = automatic): 120 KB/s
Max upload rate per job(0 = no limit) (defaults to 0): 20 KB/s

Seed Options:

Seed infinitely
 Seed until share ratio reaches 80 %, or for 60 minutes, whichever comes first. (share ratio = Bytes uploaded / Bytes downloaded).
 Start next uncompleted job automatically.

Save Cancel Return

- **Share Folder:** By default, downloaded files will be stored in the public folder. If you set up your own folder, you can select it from the drop down list and store the files there instead.
- **Transfer Rate:** To manage the transfer rate and not use up the whole bandwidth, you can set the maximum download and upload rate here.
- **Seed Options:** You can either seed infinitely until the job is manually stopped or set up a limit and start the next job in queue automatically.

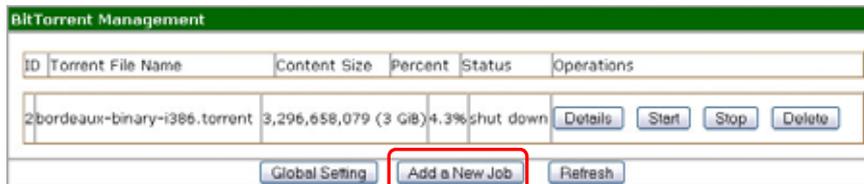
Note: If these settings are changed after a job has already started downloading, you will need to stop all running jobs and restart them again for the new settings to take effect.

Adding a New Job

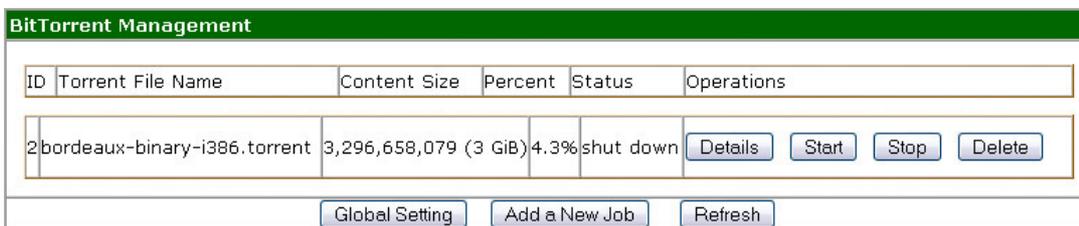
To add a new job, you will have to download a torrent file first, then upload it to the M-DM Download Manager and start the download.

1. Download a torrent file from the internet and store it on your local drive (refer to the technical terms in the Appendix for further details regarding the terms "torrent file" and "BitTorrent™").
2. Access the M-DM Download Manager via web browser and go to the BitTorrent™ menu.

- Click on “Add a New Job”, browse for the torrent file on your local disk and add it to your job list.



- Click on Start to initialise the download. It will search for peers automatically and then start downloading the file.
- For further details, click on the Details button to see the process of the current job.



- Details:** Show details and progress status of the current job. The information will be shown in a separate window and refresh automatically every few seconds.
- Start:** To start the first two jobs, click this button.
- Stop:** Used to manually stop a job.
- Delete:** Stop and delete a job to free up space after it has finished downloading or manually delete an incomplete job.

Note: A maximum of 10 jobs can be added to the list and only 2 jobs can be running at the same time! If you like the jobs in the queue to start downloading automatically when the previous job has finished, make sure you turn on the seed option under Global Settings.

Chapter 4 - Tools

This section offers tools to format the hard drive, upgrade the firmware, review the system log and various other options described below.

Restart

To restart the M-DM Download Manager manually, click on the “Restart Now” button. This can be used after a firmware upgrade or to troubleshoot the device and reboot the system.

Hard Disk Utility

This tool can be used to format the attached USB drives. To use the file and user management as well as the BitTorrent™ function, we strongly recommend formatting one drive using the XFS file system. Select the drive on the left hand side, choose your format and click on the Format button to start the process. This may take a few minutes, so wait until the formatting is finished. For this tool to work, you need a hard drive with at least 10GB of capacity.

Format a Harddisk

Note: These tools are only used for a NAS-HD, which is used for account management. You need a hard disk with at least 10GB of capacity to perform these operations.

Current attached device: Port:

Format to XFS(recommend)

Format to FAT32

- **Format:** For use with the M-DM Download Manager, we strongly recommend formatting one of the drives using XFS. If FAT32 is used, the maximum file size of a single file is limited to 2GB.
- **Scandisk:** Used to scan and repair damaged sectors on a drive. Only works for XFS formatted drives!

Note: Only one XFS formatted drive can be connected to the M-DM Download Manager at any time.

Firmware Upgrade

This section displays the current firmware revision and allows you to upgrade if required. To update a new firmware version, download it to your local drive, then browse for the file and click on “Start Upgrade” to begin the process.

Factory Default

For troubleshooting and to manually reset the device settings, click on the “Restore Default Settings” button. Alternatively, you could also use the hardware reset button.

- Pressing the reset button once will reset the IP to its default 192.168.16.1.
- Pressing the reset button for 10 seconds will reset all settings.

Login Setting

To prevent unauthorized access, we recommend changing the default login name and password as soon as possible. After changing the settings, press the Apply button to save your new configuration. Default login is admin/root.

System Log

View the system log here to see and review changes.

System Log	
Index	Log content
1	[13/12/2006 16:34:00]: Use ntp to synchronize date & time successfully.

E-Mail

Enter your e-mail address and enable this option to receive a notification of important changes to your mailbox (e.g. IP changes).

E-mail Sending	
<input checked="" type="checkbox"/>	Send E-Mail when important settings changed or severe problems occurred.
Email Address:	<input type="text"/>
Subject:	<input type="text" value="M-DM log"/>

Chapter 5 - Network Storage

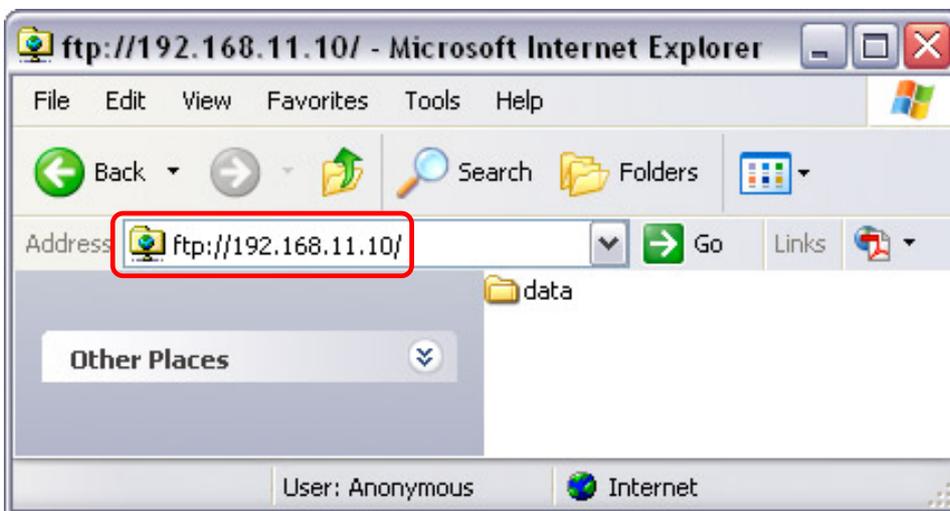
To access the USB drives attached to the M-DM Download Manager via the network connection, you may use either FTP or SMB.

File Access on a PC

FTP

Use your Internet Explorer and type ftp:// followed by the IP address of your M-DM Download Manager. It will list the available folders and you can download or upload new files.

As an example, your URL might look something like this:
ftp://192.168.11.10



Note: For FTP transfers, we recommend installing and using a dedicated FTP application, which can either be a free utility or professional shareware programs.

Windows Explorer

Use Windows Explorer and type \\ followed by the IP address of your M-DM Download Manager. It will list all available folders and shares on your M-DM Download Manager, which you then can access directly.

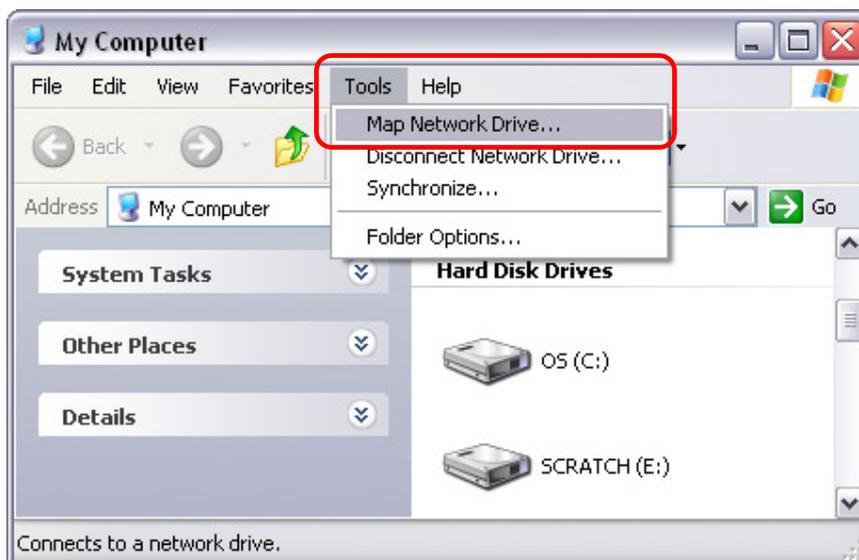
You can copy files to the network storage as if it were a folder on your local drive. Depending on the bandwidth, you can also directly play and open the files, although we recommend transferring the data to your local drive first.



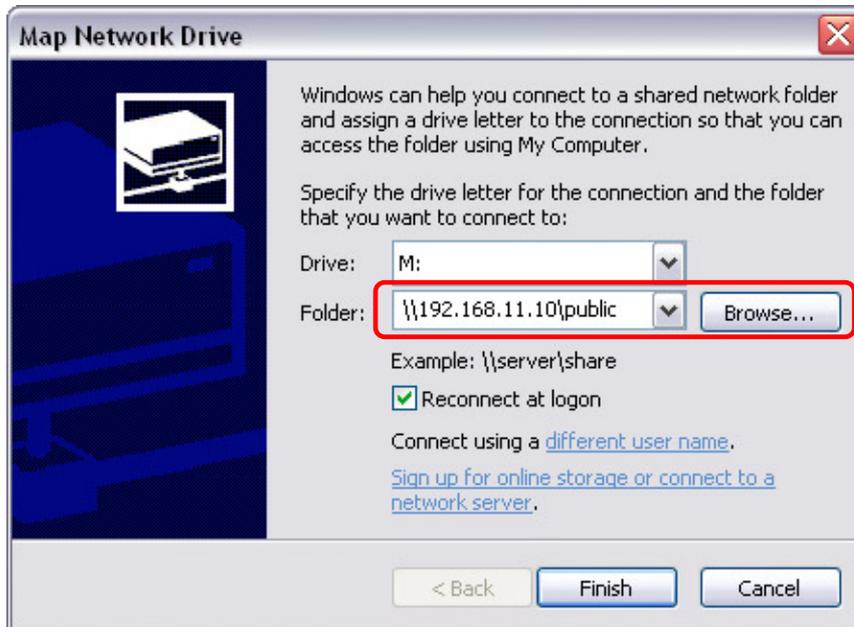
Map Network Drive

For easy access, we recommend mapping the storage as network drive.

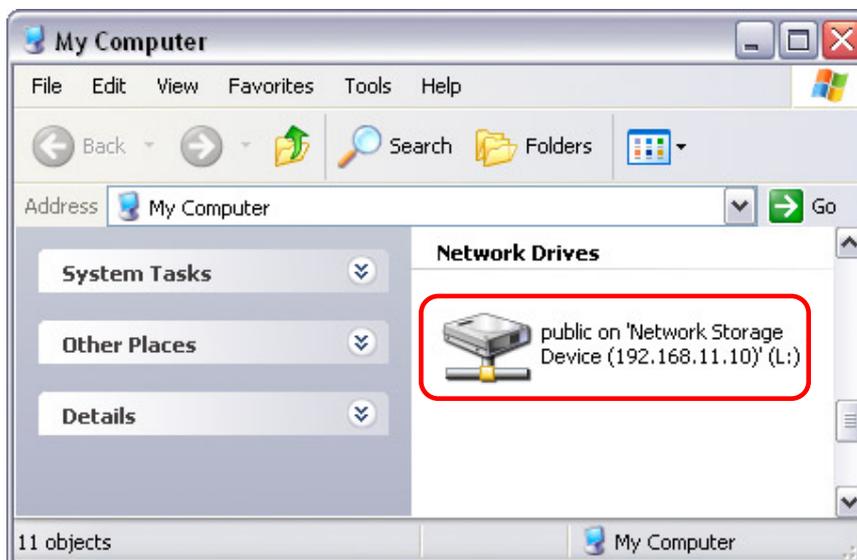
1. Double click on My Computer, go to the Tools menu and select "Map Network Drive..."



- Follow the setup wizard and fill in the path to your M-DM Download Manager. Alternatively, you can also browse for the shares by clicking on the Browse button and locating the folder that way.



- Once the drive has been mapped, you are able to find and access it under My Computer. This link will still be there even after rebooting your Operating System.



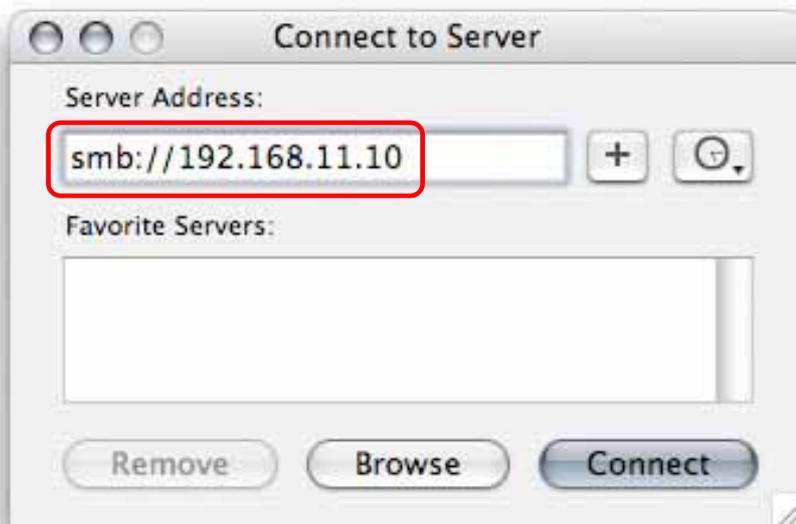
File Access on a Mac

SMB

To mount and access the network storage, open your Finder, click on “Go” and choose “Network”. Browse for your network storage and click on it to access the folder.

Alternatively, you can use the “Connect to Server” command.

1. Click on “Go” and choose “Connect to Server”.
2. Type smb:// followed by the IP address of your M-DM Download Manager or click on the Browse button to locate the folder on your network. Click on the Connect button once the server address has been filled out.



3. You will be asked to choose a folder and after entering the correct password (if passwords have been set), it will then mount the folder on your desktop.



Note: If the attached USB drive is formatted using NTFS, you will not be able to write to the drive but you may access it with read only permission.

FTP

The FTP utility on the Mac will be able to read the data on the network storage but you can not write new data to the drive. To do that, you will need to install a dedicated FTP application, which can either be a free utility or professional shareware programs.

UPnP

The M-DM Download Manager supports UPnP v1.0. If you have other devices that can access UPnP storage devices, you will be able to share your files on the attached USB drives in the local network via UPnP.

There is no need to configure anything, this function is turned ON by default and other devices will be able to recognise it automatically.

Chapter 6 - Additional Functions

USB Copy

The USB copy function can be used to copy data from one USB storage device to another. Simply connect both drives, turn them on and press the copy button to start the process. In general, the source is on port B and the destination is on port A but there are a couple of exceptions.

XFS and FAT32 drives formatted using the M-DM Download Manager will always be the destination and only one of these two drives can be connected at the same time. NTFS formatted drives are read only and can therefore not be the destination.

The copy function will copy all data stored on the source drive, create a new folder on the destination drive with the current time and then paste the files into that newly created folder.

Note: We recommend using self-powered USB drives. If two bus-powered USB drives are connected at the same time, at least one of them needs to be powered by an external power supply.

Please refer to the table on the next page for a detailed list...

Copy Direction

Port A	Direction	Port B
XFS	←	FAT32 (PC)
XFS	X	FAT32 (M-DM)
XFS	←	NTFS
XFS	X	XFS
FAT32 (M-DM)	←	FAT32 (PC)
FAT32 (M-DM)	X	FAT32 (M-DM)
FAT32 (M-DM)	←	NTFS
FAT32 (M-DM)	X	XFS
FAT32 (PC)	←	FAT32 (PC)
FAT32 (PC)	→	FAT32 (M-DM)
FAT32 (PC)	←	NTFS
FAT32 (PC)	→	XFS
NTFS	X	FAT32 (PC)
NTFS	X	FAT32 (M-DM)
NTFS	X	NTFS
NTFS	X	XFS

- XFS = USB drive formatted using the Harddisk Utility of the M-DM Download Manager set to XFS.
- FAT32 (M-DM) = USB drive formatted using the Harddisk Utility of the M-DM Download Manager set to FAT32.
- FAT32 (PC) = USB drive formatted on a computer using FAT32.
- NTFS = USB drive formatted on a computer using NTFS.

Note: The M-DM Download Manager can only use one XFS or FAT32 (M-DM) formatted drive at the same time. The second USB drive will have to be either FAT32 (PC) or NTFS formatted.

Chapter 7 - Appendix

Specifications

Internal Memory	N/A (data is accessed via USB and Ethernet)
Interfaces	<ul style="list-style-type: none"> • 2 USB 2.0 High Speed ports • 1 RJ-45 Ethernet port 10-baseT/100-baseT
Supported USB devices	Mass Storage class hard drives using XFS, FAT32 or NTFS format (NTFS read only).
UPnP	Supports UPnP v1.0
Sustained Data Transfer Rate	<ul style="list-style-type: none"> • SMB around 2.7MB/s • FTP around 3.0MB/s
Power Supply	External Power Adapter universal auto-switching Input: AC 100-240V, 0.6A, 50-60Hz Output: DC +5V/2A

Technical Terms

Description for terms and abbreviations used in this manual.

BitTorrent™

BitTorrent is the name of a peer-to-peer (P2P) file distribution client application and also of its related file sharing protocol, both of which were created by programmer Bram Cohen. BitTorrent is designed to distribute large amounts of data widely without incurring the corresponding consumption in costly server and bandwidth resources. For more details, please refer to www.bittorrent.com.

Torrent™

A torrent can mean either a .torrent metadata file or all files described by it, depending on context. The torrent file contains metadata about all the files it makes downloadable, including their names and sizes and checksums of all pieces in the torrent. It also contains the address of a tracker that coordinates communication between the peers in the swarm.

Seeder

A seeder is a peer that has a complete copy of the torrent and still offers it for upload. The more seeders there are, the better the chances are for completion of the file. The settings for seed options are available in the BitTorrent menu under Global Settings.

XFS

XFS is a high-performance journaling file system mostly found on Linux Operating Systems and Network Attached Storage devices (NAS).

FAT32

File Allocation Table (FAT) is a file system developed by Microsoft for MS-DOS. The FAT file system is considered relatively uncomplicated, and is consequently supported by virtually all existing operating systems for personal computers.

NTFS

NTFS or New Technology File System is the standard file system of Windows NT and its descendants. NTFS has several improvements over FAT but is not compatible with other Operating Systems or most like only accessible in read only mode.

LAN

A Local Area Network (LAN) is a computer network covering a small local area, like a home, office, or small group of buildings such as a home, office, or college.

FTP

FTP or file transfer protocol is a commonly used protocol for exchanging files over any network that supports the TCP/IP protocol (such as the Internet or an intranet). There are two computers involved in an FTP transfer: a server (M-DM Download Manager) and a client (user's computer).

SMB

Server Message Block (SMB) is a network application-level protocol mainly applied to share files, printers, serial ports, and miscellaneous communications between nodes on a network.

FAQ**Q: The BitTorrent functions are greyed out and not accessible!**

A: To use this function, you need to connect at least one USB drive and format it using the Harddisk Utility tool. We recommend formatting it using XFS.

Q: I lost my password, what do I do?

A: Press the reset button and hold it for 10 seconds to reset the device to its default settings.

Q: I can not access the web configuration interface, what's the correct IP?

A: See Chapter 2 about how to login. If none of these instructions help, press the reset button once to reset its IP address to 192.168.16.1, then connect it directly to your computer and access the web configuration using 192.168.16.1.

Q: FTP access on my Mac doesn't work!

A: The FTP utility on the Mac will be able to read the data on the network storage but you can not write new data to the drive. To do that, you will need to install a dedicated FTP application, which can either be a free utility or professional shareware program.

Q: No Nas hard disk installed!

A: This error message will appear when you are trying to add a user but there is no USB drive attached or the drive has not been formatted using the Harddisk Utility of the M-DM Download Manager.

About this Manual

This manual was written using the model BT-LNU2SA and the V01R88 firmware revision. Images and descriptions may therefore slightly vary between this manual and the actual product you have.

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