



Data Backup

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DATA BACKUP

It is extremely important to keep up to date backup copies of your data!!

Backups are a librarian's lifeline. Backups are a copy of all the valuable data.

Backups contain all the hours, days, months and years of work.

If a computer breaks down, is damaged or stolen, the Bookmark program can always be downloaded from the Internet and a backup restored.

It is vital to keep up-to-date backups!

Bookmark contains its own easy to use and reliable backup system. It does not rely on other backup systems so does not require special IT knowledge.

Important: The Bookmark backup system should be used even if another backup system is in place such as a server-based backups. Do not only rely on server backups.

How Bookmark Backups Work

Because the database can be very large, backups compress the data files into a single smaller file. The compressed backup file is often one-quarter to one-third the size of the original data.

- The compression is the first step. It produces a file called "Backup.lzh" or "Backup.zip" or "Backup.lzm" depending on the format (see the Backup Formats section at the end).
- A *copy* of that backup file is then made and a value added to the filename to denote the day of the week – e.g. Monday, Tuesday, etc.
- The two backup files are copied to the destination, such as a USB flashdrive or formatted rewritable CD or an external drive.
- *This means a backup to Bookmark's location is always made even though the destination is external.* As a result, it is not necessary to do both an external backup and a backup to Bookmark's location.

In addition to this, Bookmark always makes a backup to its own location at the beginning of each day.

How to Backup Data

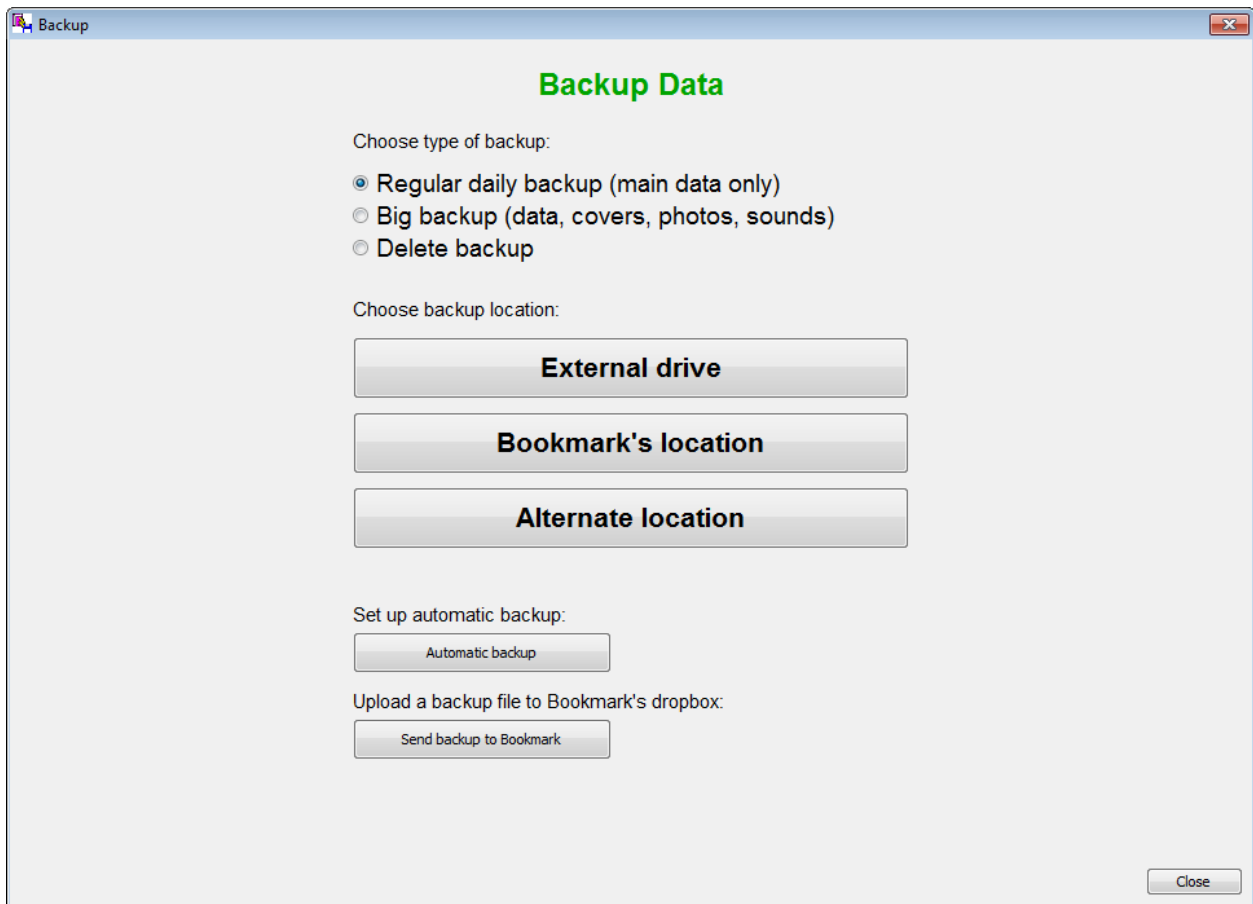
From the Main Menu, select Utilities.



On the Utilities menu, click on Backup.



The Backup Data window is presented.



Types of Backups

Choose type of backup:

- Regular daily backup (main data only)
- Big backup (data, covers, photos, sounds)
- Delete backup

Bookmark offers two types of backup:

- Regular daily backup
- Big backup

Regular daily Backup

This is the normal day-to-day backup. It should be done at the end of every day. The regular backup backs up the main database which contains all text data: cataloging, borrowers, loans, transaction history, etc. It does not include book covers, borrower photos, other images, icons or sounds.

Big Backup

This is a good once-a-year backup or made whenever you feel necessary. It not only backs up the text data but also all book covers, other images, sounds, etc. It adds the year to the backup filename. If done during the same year, it overwrites an existing backup done the same year.

Note: Bookmark automatically performs a "monthly" big backup at the start of every month to its location (not external).

Delete Backup

This allows deleting old backup files.

Choose the type of backup to produce by setting the dot.

Remember: **BACKUP! BACKUP!! BACKUP!!!**

Backup Location

Choose backup location:

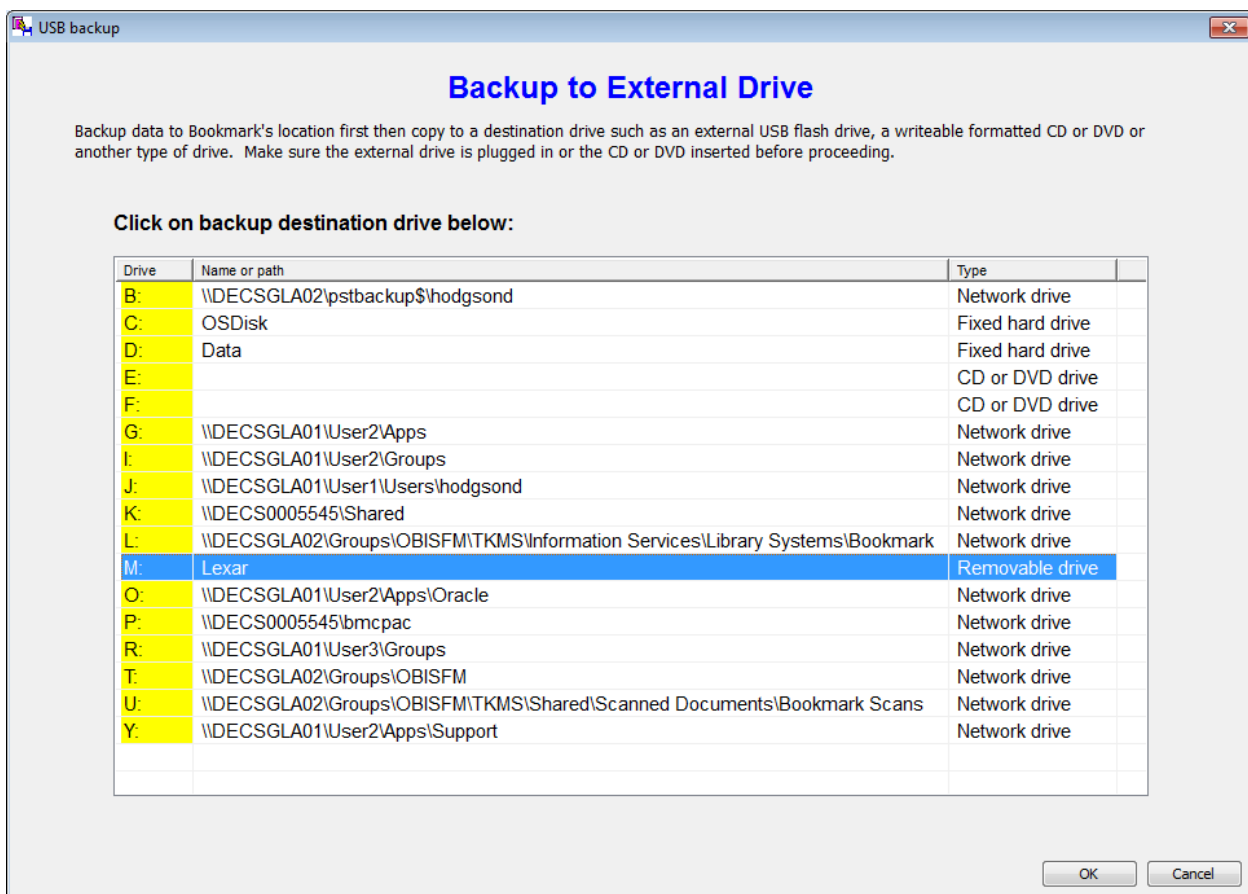
External drive

Bookmark's location

Alternate location

After selecting the type of backup, click on a button to indicate the backup destination.

Backup to External Drive



This is the normal day-to-day backup.

All the available drives are displayed.

Note: floppy drives, which cannot be used, may appear as a "removable drive".

CD / DVD drives always appear in the list even if a disc has not been inserted.

Backups can be made to any drive listed apart from floppy discs. It is best to normally back up to an external drive such as a USB flash drive, a formatted CD or DVD disc or an external hard drive.

To indicate the destination drive, click *once* to highlight.

Note: Bookmark allows backing up to several drives at the same time. To back up to two or more drives, hold down the Ctrl key and click on the other drive(s). Each is highlighted.

Click OK to begin the backup. Bookmark will remember these drives and automatically highlight them next time.

Note: If you forget to insert the flash drive or external drive, just plug it in and it will appear in the list in a few seconds.

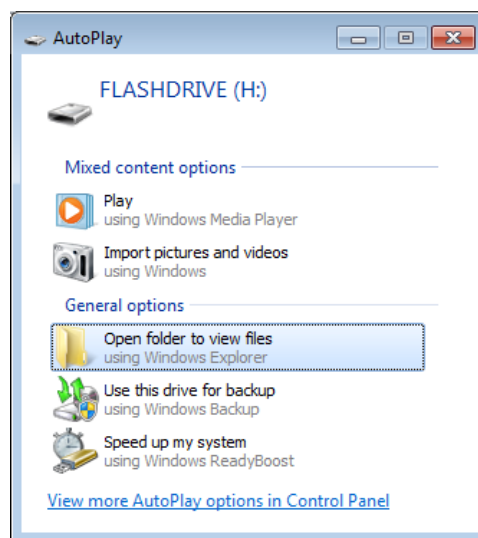
Note: CD / DVD drives always appear even without a disc inserted.

USB FlashDrive

USB flashdrives are the normal destination for backups.

They are reliable and easy to use. In the list, they appear as a "Removable drive".

After inserting the flash drive, if a window opens similar to the one below, just close it.



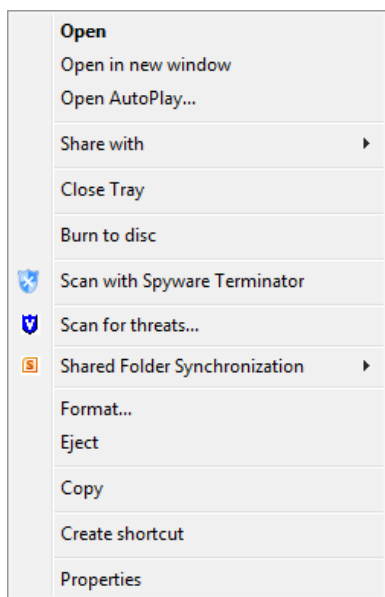
Formatted CD or DVD

Windows 7 and 8 and 10 users can back up to CDs and DVDs as well as flashdrives and external drives.

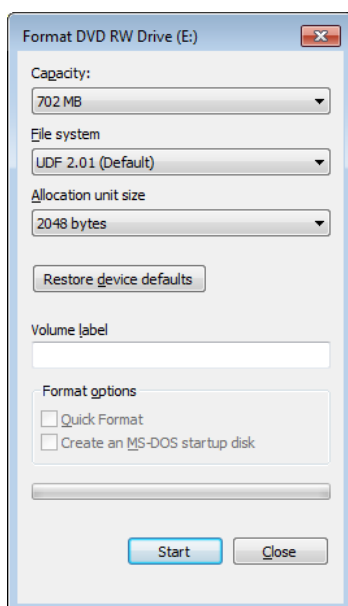
Formatting:

In order to back up to a CD or DVD, it must be first formatted. This is a one-off operation which puts tracks onto the disc. Use a normal CD-R or DVD-R disc. (Special "read-write" discs are no longer necessary.) Once formatted, the disc does not have to be re-formatted each time.

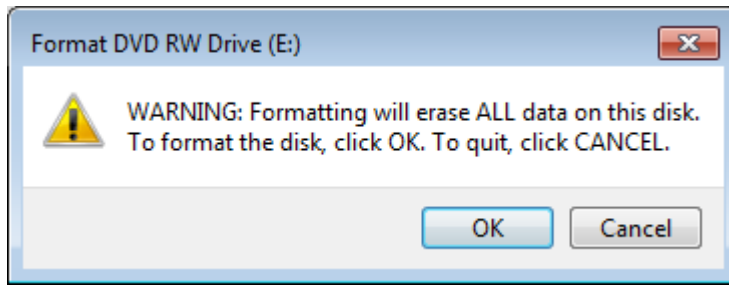
1. Insert the blank disc. If a window opens, close it regardless of what it says.
2. Click on Start then on Computer and locate the CD/DVD drive.
3. Right-click on the CD/DVD drive.



4. Left click on *Format*.

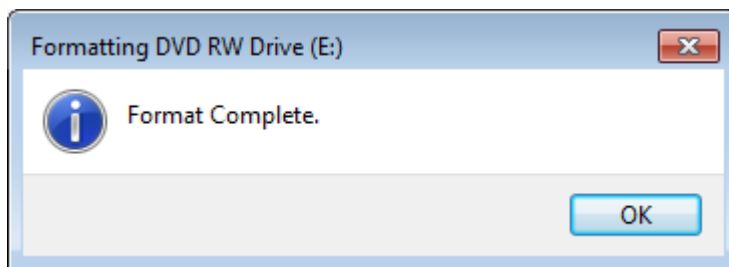


5. Left click on *Start*.



6. Left click on *OK*.

7. The disc is formatted.



8. The disc is now ready for use. It can be both written to and read and re-written do multiple times, just like a flashdrive.

If you forget to insert the CD, Windows will generate a message.



Insert the disc and click Try Again.

Multiple Drives

Backups can be made to several external drives at the same time.

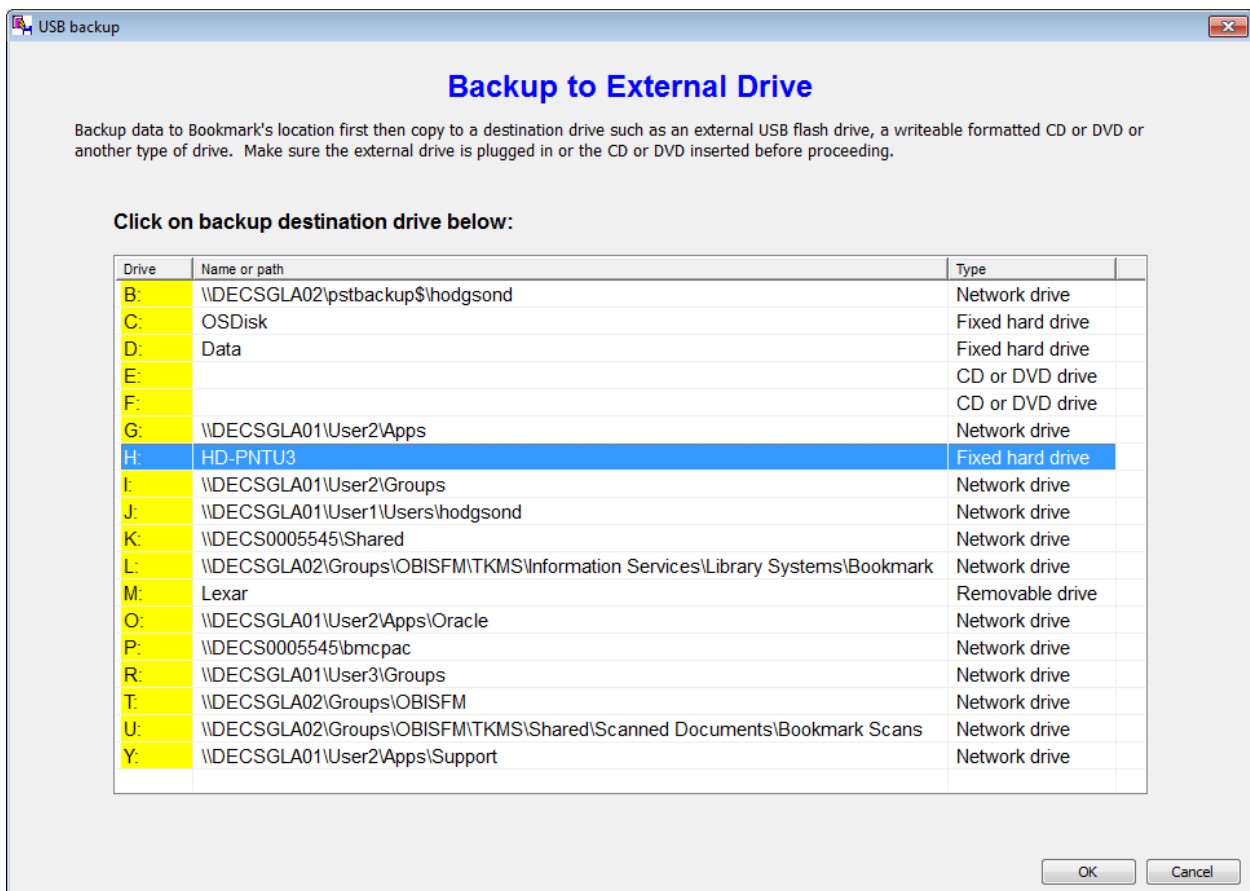
Hold down the CTRL key while clicking on drives.

All drives highlighted become backup destinations.

Drives other than FlashDrives and CD's

Backups can be made to other drives as well. These can include external hard drives and network drives. A network drive is a hard disc drive located on another computer on your network. It is included in the list of drives. A backup can be made to these drives if you have permission to create files on them.

Below is an example of an external hard drive plugged in via the USB port. It is listed as a "Fixed hard drive" even though it is removable.

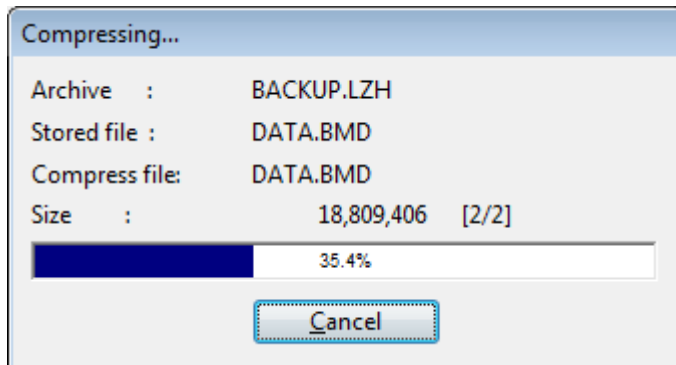


The Backup Process

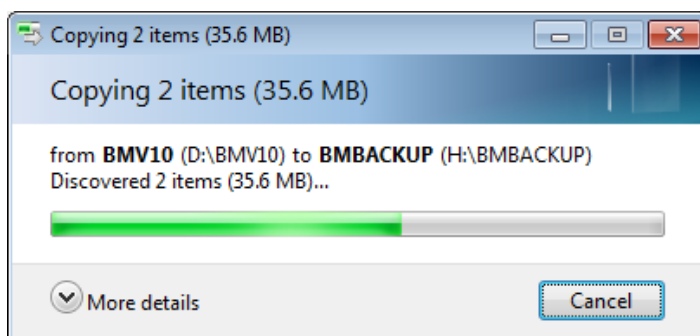
The exact display depends on the backup format. The images below are for the standard LZH format. The alternate Zip format displays a green line instead of blue and slightly different details. See the end of the manual for more information.

Here is what happens once the backup is begun...

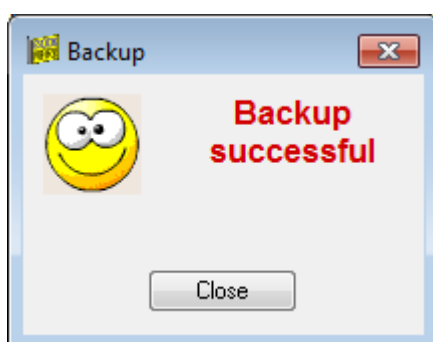
1. All the data files are first compressed together into a single file called Backup.lzh at Bookmark's location. This backup is at Bookmark's location. Tip: all backups always create a file at Bookmark's location, so making a backup to Bookmark's location then an external one is duplicating effort.



2. When finished, a copy is made of the backup file. A different copy is made for each day of the week. This is placed at Bookmark's location.
3. Both backup files are then copied to their destination – e.g. a USB flash drive, a CD, external drive, network drive, etc. (Windows 7 display below. Windows XP and 10 look different!)



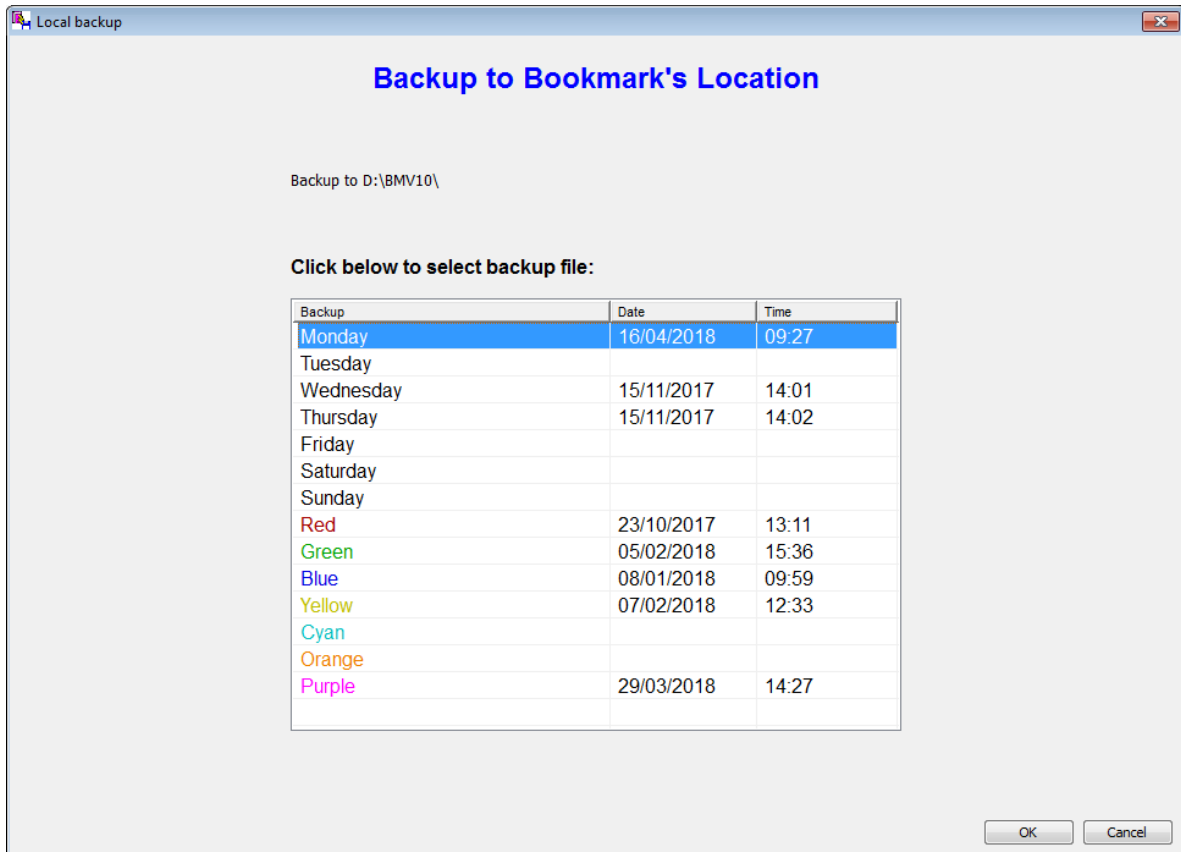
4. All done!



Important information!

Backups to another drive *always* copy the compressed backup file and its daily copy into a folder called \Bmbackup on the destination drive. If the folder is not present, it is created.

Bookmarks' Location



Many times it is useful to do a quick backup without needing to put it on a flashdrive. This can be handy, for example, when cataloguing a large number of items or during stocktaking. Backing up to Bookmark's Location is the answer.

These backups are made where Bookmark itself is located. Copies are not made elsewhere.

In addition to the day-of-the-week backup, there are also special Red, Green, Blue and Yellow backups from which you can choose.

Bookmark automatically makes a backup to its own location when it backs up to USB flashdrive or CD. It is not necessary to do both.

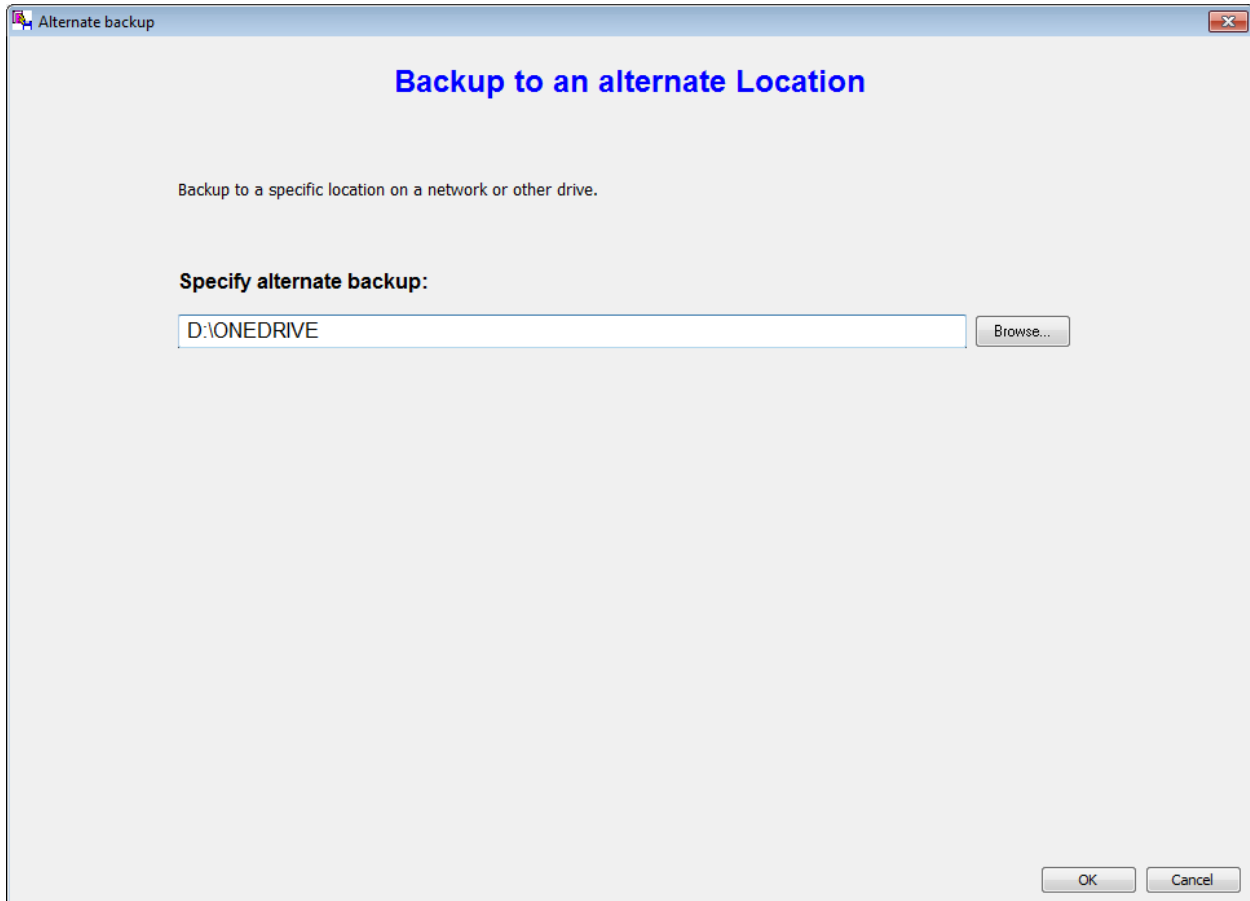
Remember: **BACKUP! BACKUP!! BACKUP!!!**

Alternate Location

The Alternate Location is any other destination for a backup, such as a folder on a network drive to which the "External Drive" backup is not possible. Alternate location is a non-standard backup.

Alternate location backups are rarely used. Where possible, use the external drive option.

The backup to External drive is preferred and the Alternate is only used where the backup must be placed within a specific folder instead of the normal Bmbackup folder at the destination.



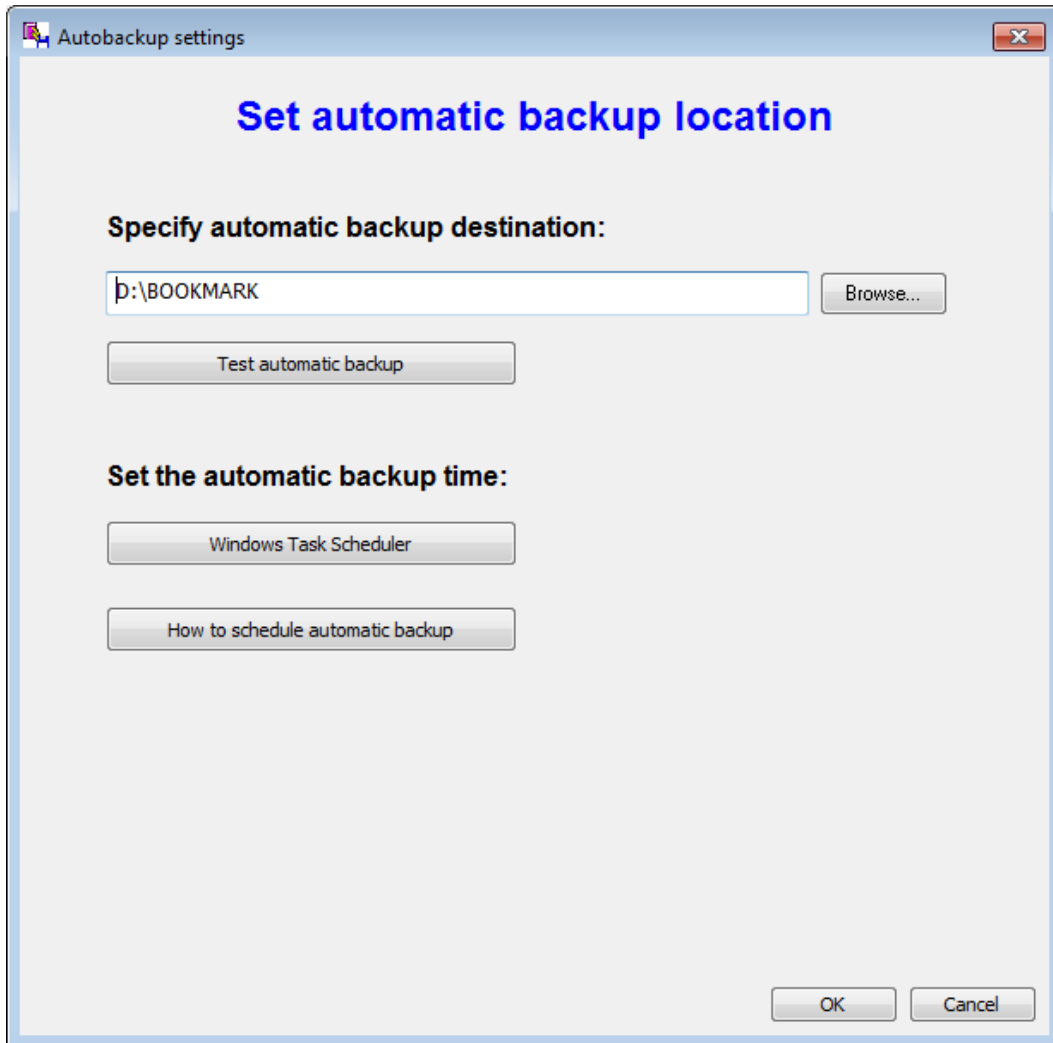
Use the Browse button to specify the location.

The \Bmbackup folder used in the Standard Backup is not used with this type of backup. Copies of the backup files are sent directly to the specified location.

The Alternate backup is useful for sending backups to a cloud storage service such as Dropbox or OneDrive or Google Drive. These services can have a special folder. Any file copied to that folder is automatically uploaded to a server on the Internet. These files can be later downloaded if necessary to restore. It is up to the user to know how to download files. OneDrive is built into Windows 10 and a special program can be downloaded and installed to Windows 7. (Note a windows live account is required to use OneDrive.) Cloud-based backups are the most reliable backup available. They can be restored to any computer able to log into the cloud backup.

Remember: **BACKUP! BACKUP!! BACKUP!!!**

Automatic Backup



Bookmark can be set to automatically perform a backup at a specific time.

This window is used to specify the automatic backup destination. It can be Bookmark's location or elsewhere.

It is best not to rely on the automatic backup as the sole backup method. The best backups are made to external devices, such as a flashdrive or rewritable CD. These survive accidents.

The "Test automatic backup" option can be used to see if this backup is working.

The "Windows Task Scheduler" is used to set up the time when the backup will be performed. The only necessity is that the computer must be turned on at that time.

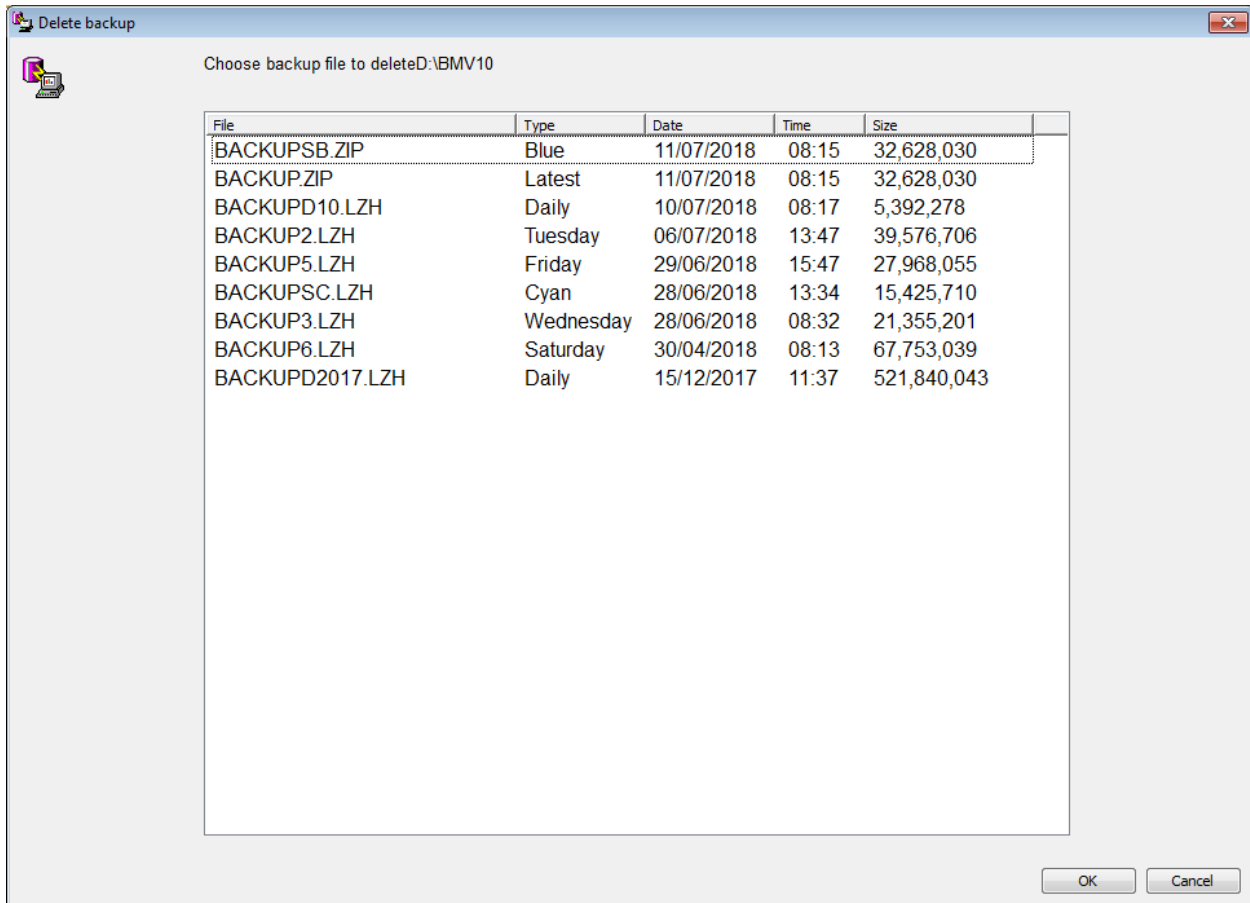
"How to schedule automatic backup" is a document which contains information on how to set up the Windows Task Scheduler to perform the backup at the correct time.

Delete Backup

Use this option to delete old backup files.

Place the dot next to "Delete Backup" then click on either External Drive or Bookmark's Location.

Click on the backup to be deleted to highlight it.



Click OK to delete.

A Backup Strategy

The purpose of a backup is to safeguard your data in case of computer failure, theft or damage. With a proper backup, it is easy to install Bookmark onto another computer and restore the data so as to quickly continue.

Bookmark's backup has been designed to store up to one week's backups onto a USB flashdrive or a writable CD or external hard drive or other destination. Each backup is labelled to match the day of the week. Therefore a week's backups can be made to a flashdrive before Bookmark would overwrite them with a newer backup.

The "two flashdrive" backup strategy is useful, although others can be followed, too.

One USB flashdrive is labelled Week A and the other Week B. All backups for an entire week are made to one flashdrive. The next week, backups are made to the other flashdrive. Then they are swapped back. A third or even fourth flashdrive can be used for even greater security.

Backups can be made to "Bookmark's Location" during the middle of the day or other times when an external backup is not required. Doing multiple backups during the same day overwrites the previous backup.

Note, though, all backups are first made to Bookmark's location then copied to the external location. There is always a copy at Bookmark's location of every backup.

In addition, an extra USB flashdrive can be used to store an end-of-year backup called an "Annual Backup". This backup includes text data as well as book cover images, borrower images, icons, sounds, etc. It can be made at other times, too, but there is only one backup file produced. A copy is left at Bookmark's location as well as the destination.

A "monthly backup" can be made every month to update the backup of images. This can be done to the same flashdrive as the daily backups. Graphics backups always overwrite the last one.

In addition to these, Bookmark automatically creates big data backup at its location at the beginning of every month. These backups include all graphics and sounds and are therefore much larger.

Remember: **BACKUP! BACKUP!! BACKUP!!!**

Backup Formats

Bookmark offers two different compression formats for the backups.

The formats are called Lzh and Zip. They are the "file extensions" used on the backup files. The extension identifies the type of backup.

How to Change the Format

To change the format, go to Controls then General Controls. In the Backup section, a dropdown list can be used to choose the different format. Closing the window saves the choice. Once this is set, all subsequent backups use the selected format. Previous backups are not changed.

Restoring

Bookmark's data restore section in Utilities can restore both formats automatically.

Technical

By default, Bookmark uses the LZH format. Backups are compressed to roughly one-third the original size. Bookmark uses the freeware LHA32 software to make and restore Lzh backups. LHA32 was developed in Japan, hence the odd references to "freezing" for compressing and "melting" for decompressing. Bookmark's update files are also in this format.

The ZIP format is a very common compression formats. It is even built into Windows itself. This means any Bookmark backup made in the ZIP format can be opened in Windows itself and the files extracted. SCISData supplies records and images in zip format files. The size of compressed ZIP files is slightly smaller than LZH. The time needed to compress is comparable. The freeware 7-zip software is used with Bookmark to handle zip format backups and restores. (While this software can also decompress LZH format backups, Bookmark still uses the original LHA32 software to do this.) The ZIP format is provided for compatibility with Windows and in situations where this format might be preferred.