

# LOKKBOX

## DOCUMENTATION USING LOKKBOX OBM

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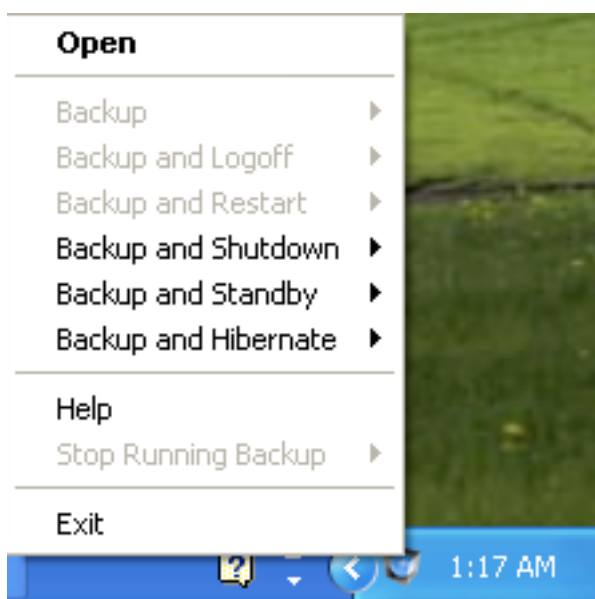
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# 1 Using Lokkbox OBM

This chapter will describe all the features available in Lokkbox OBM and outline how you can use Lokkbox OBM to meet various backup needs.

## 1.1 System Tray Launcher (Windows Only)

After you have successfully installed Lokkbox OBM onto your computer, a Lokkbox OBM icon will be added to the system tray area (next to your system clock) automatically.



This icon is the entry point to Lokkbox OBM. Right clicking the icon will show a menu that provides the following functions:

Menu Item	What it does
Open	Run Lokkbox OBM.
Backup	Runs a specific backup set (or all backup sets) chosen from the sub-menu in silent background mode.
Backup and Logoff	Runs a specific backup set (or all backup sets) chosen from the sub-menu in silent background mode and then logoff from Windows when finished.
Backup and Restart	Runs a specific backup set (or all backup sets) chosen from the sub-menu in silent background mode and restart Windows when finished.
Backup and Shutdown	Runs a specific backup set (or all backup sets) chosen from the sub-menu in silent background mode and shutdown the computer when finished.
Backup and Standby	Runs a specific backup set (or all backup sets) chosen from the sub-menu in silent background mode and enter the Standby mode of Windows.
Backup and Hibernate	Runs a specific backup set (or all backup sets) chosen from the sub-menu in silent background mode and enter the Hibernate mode of Windows.
Help	Shows a help dialog
Stop running backup	Interrupts a running backup set (or all backup sets) chosen from the sub-menu.
Exit	Close this system tray launcher application.

## Logon Dialog

Before you can use Lokkbox OBM, you have to be authenticated by the Lokkbox OBS first. The logon dialog shown below will check if you have the right to access Lokkbox OBM by submitting the username and password you provided to the backup server.

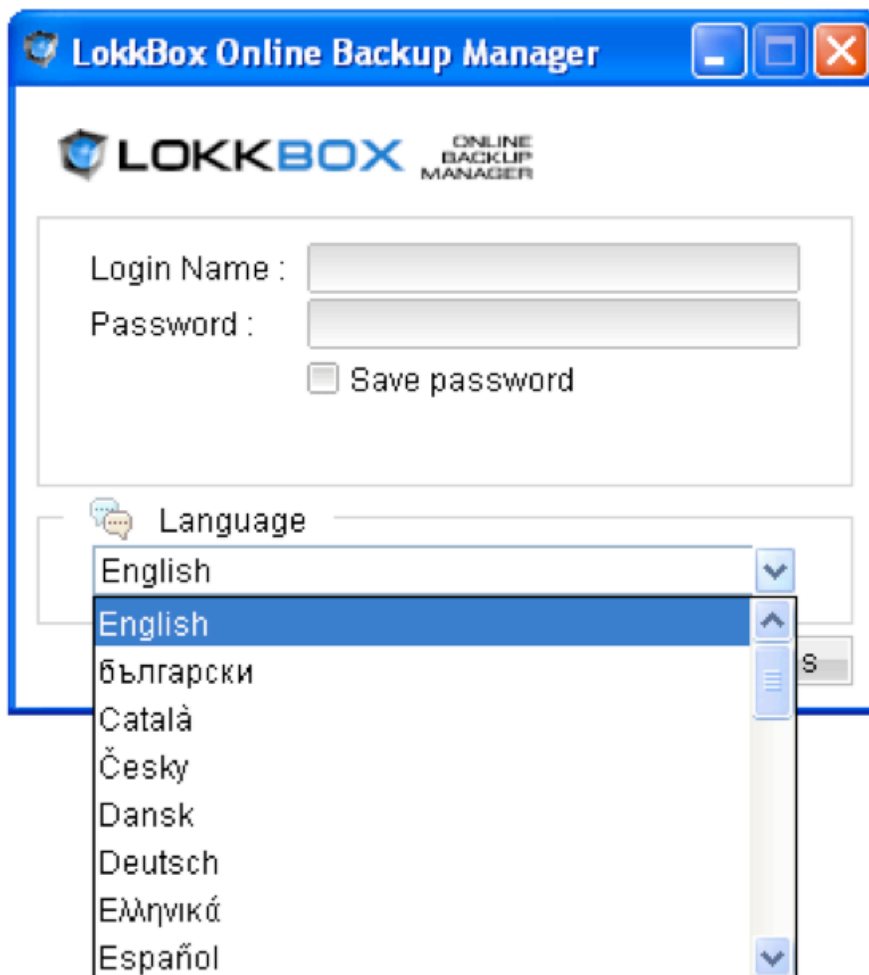


The screenshot shows a Windows-style dialog box titled "LokkBox Online Backup Manager". The dialog has a blue header bar with the title and standard window control buttons (minimize, maximize, close). Below the header, the LokkBox logo and the text "ONLINE BACKUP MANAGER" are displayed. The main area contains a "Login Name :" label followed by a text input field, a "Password :" label followed by a text input field, and a checkbox labeled "Save password". At the bottom of the dialog, there are three buttons: "OK" with a green checkmark icon, "Cancel" with a red X icon, and "Options" with a green plus sign icon.

**VERY IMPORTANT** If you use multiple computers under one account and you do NOT want the user of each computer to be able to view or restore files from other computers or servers then do NOT check 'Save Password' when logging on to the LokkBox OBM. This way, only approved administrators will be able to configure or restore from the LokkBox OBM client. If separation is required, then please contact LokkBox for separate accounts.

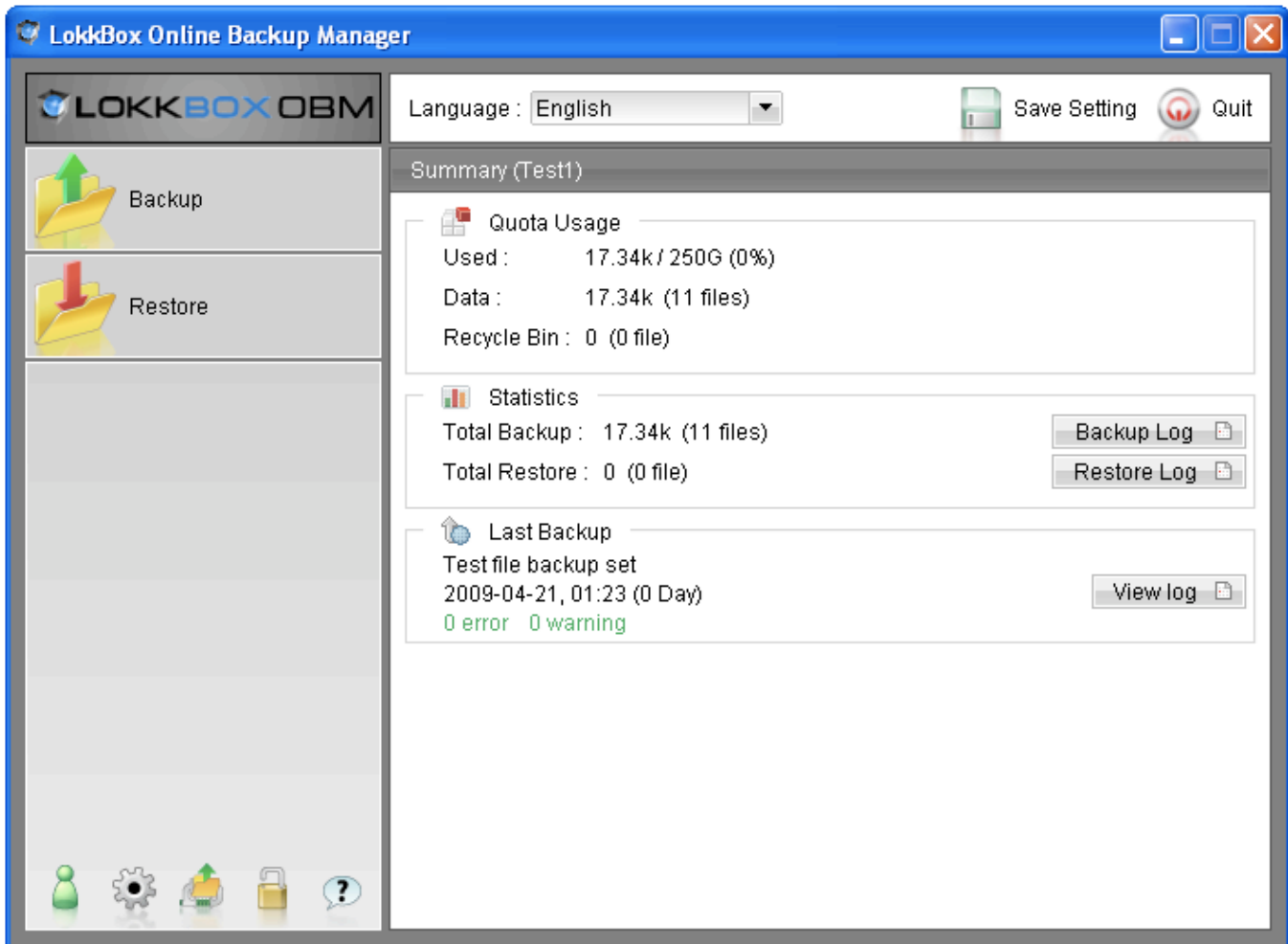
## 1.2 Language Selection

You can switch the language of the Lokkbox OBM user interface by choosing the desired language available from the [Language] drop down list under [Options]. The languages available includes English, Czech, Danish, Dutch, French, Spanish, Portuguese, Icelandic, Norwegian, Finnish, Italian, German, Swedish, Chinese (Traditional and Simplified), Japanese, Lithuanian and Slovenian and more.




### 1.3 Main Window

Press [OK] to logon. After the backup server authenticates you successfully, the Lokkbox OBM main window appears.



## 1.4 User Profile

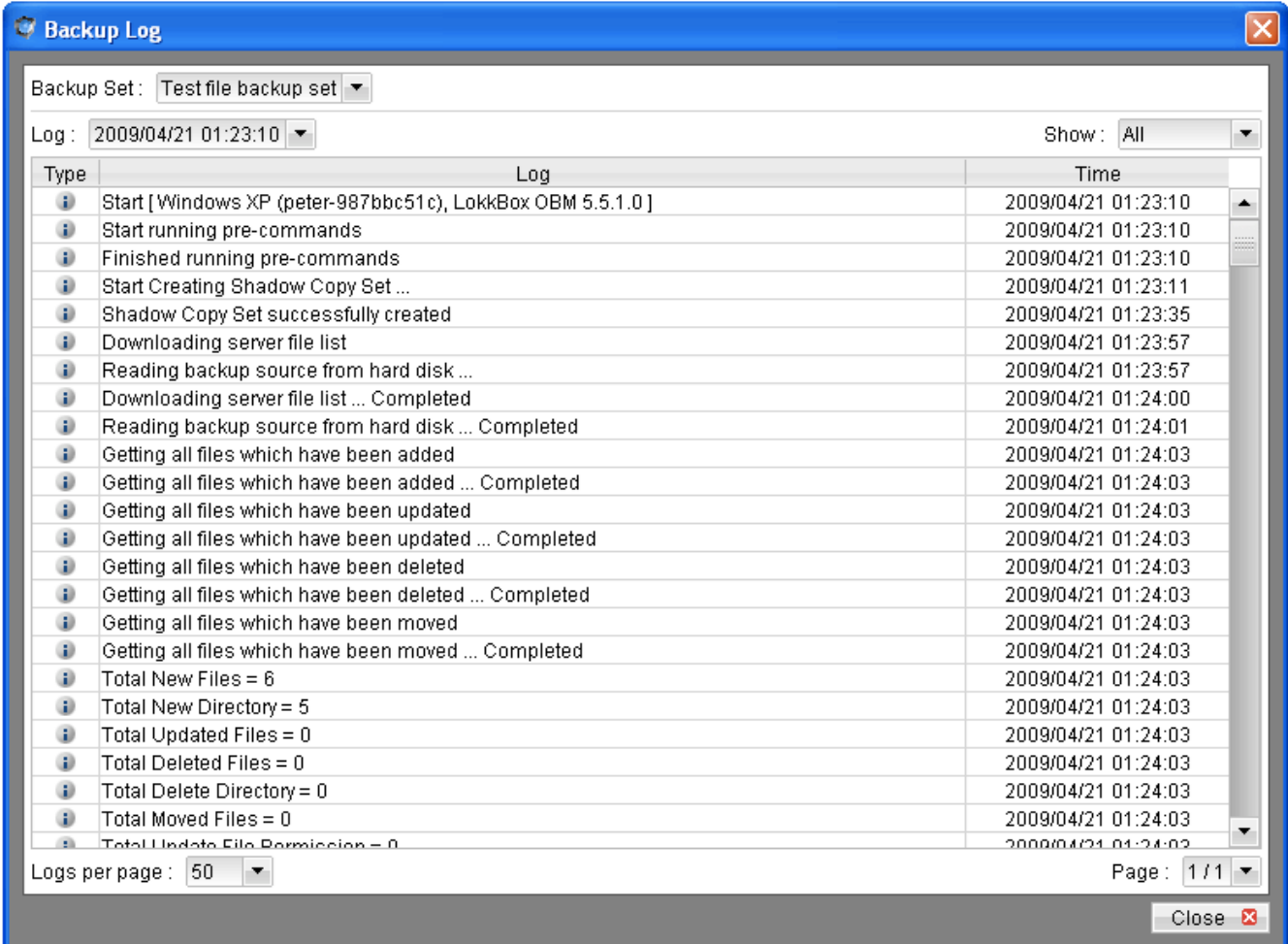
You can then use Lokkbox OBM to view your user profile. Press the  button to open the [User Profile] dialog. All updates to your User Profile must be made using 'My Account' available at [www.lokkbox.com](http://www.lokkbox.com)

## 1.5 Backup Logs

All backup activities are logged to backup activity log files. They are available for reviewing from Lokkbox OBM.

You can review all your backup jobs by:

1. Press the [Backup Log] button on the Lokkbox OBM main window.
2. Select the Backup Set you want to review from the [Backup Set] drop down list.
3. Select the Backup Job you want to review from the [Log] drop down list.



Backup Set: Test file backup set

Log: 2009/04/21 01:23:10 Show: All


Type	Log	Time
Start	[Windows XP (peter-987bbc51c), LokkBox OBM 5.5.1.0]	2009/04/21 01:23:10
Start running pre-commands		2009/04/21 01:23:10
Finished running pre-commands		2009/04/21 01:23:10
Start Creating Shadow Copy Set ...		2009/04/21 01:23:11
Shadow Copy Set successfully created		2009/04/21 01:23:35
Downloading server file list		2009/04/21 01:23:57
Reading backup source from hard disk ...		2009/04/21 01:23:57
Downloading server file list ... Completed		2009/04/21 01:24:00
Reading backup source from hard disk ... Completed		2009/04/21 01:24:01
Getting all files which have been added		2009/04/21 01:24:03
Getting all files which have been added ... Completed		2009/04/21 01:24:03
Getting all files which have been updated		2009/04/21 01:24:03
Getting all files which have been updated ... Completed		2009/04/21 01:24:03
Getting all files which have been deleted		2009/04/21 01:24:03
Getting all files which have been deleted ... Completed		2009/04/21 01:24:03
Getting all files which have been moved		2009/04/21 01:24:03
Getting all files which have been moved ... Completed		2009/04/21 01:24:03
Total New Files = 6		2009/04/21 01:24:03
Total New Directory = 5		2009/04/21 01:24:03
Total Updated Files = 0		2009/04/21 01:24:03
Total Deleted Files = 0		2009/04/21 01:24:03
Total Delete Directory = 0		2009/04/21 01:24:03
Total Moved Files = 0		2009/04/21 01:24:03
Total Update File Permission = 0		2009/04/21 01:24:03

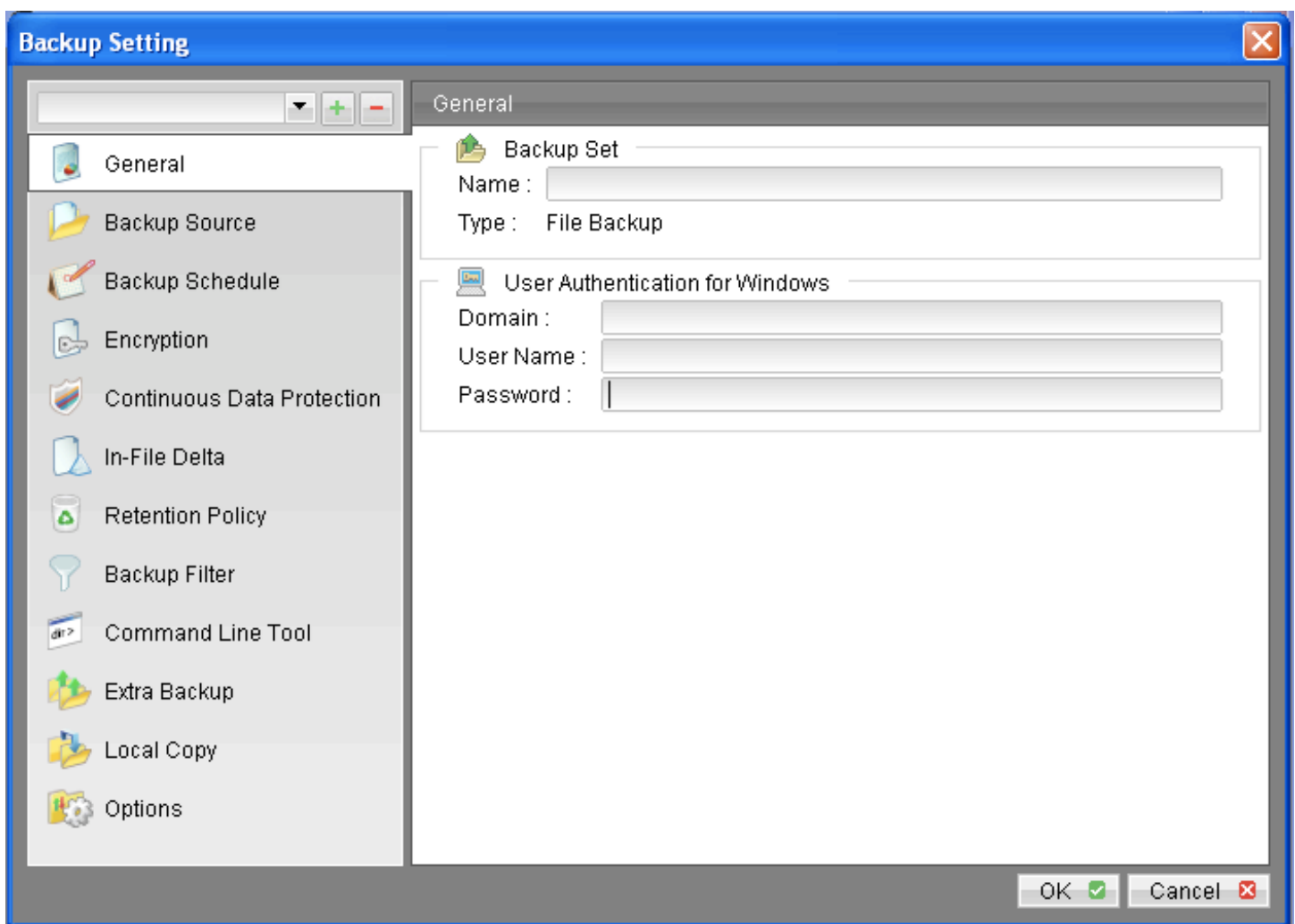
Logs per page: 50 Page: 1 / 1

Close

## 2 Setting Up Backup Sets

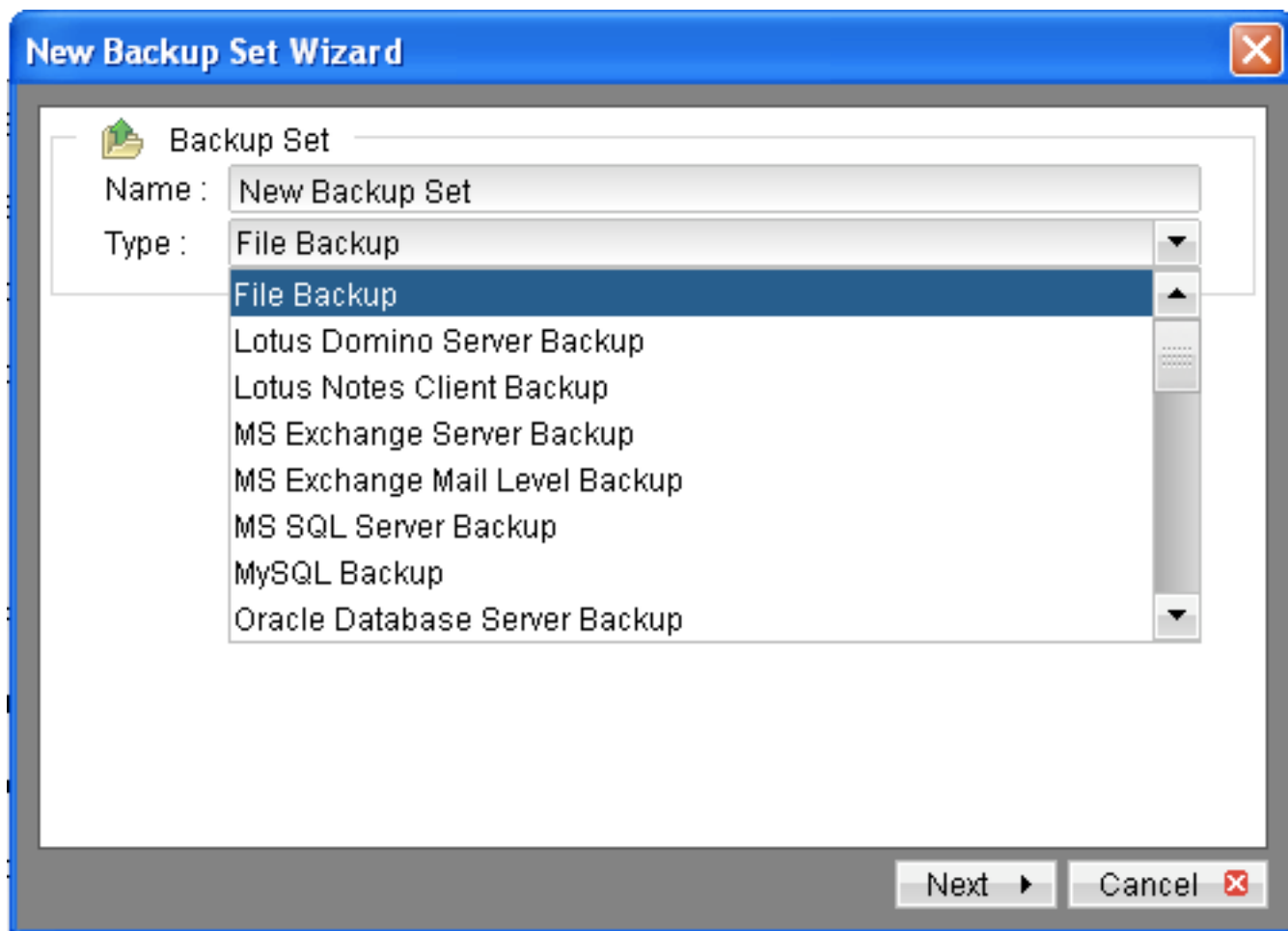
A backup set contains all backup settings of a backup operation. This section will describe all features available within a backup set and explain how you can use each of them to achieve various tasks. Each backup account can have multiple backup sets. Each backup set is an individual and independent entity. For example, if you want one directory to be backed up during the day and another directory to be backed up during the night, you can create two backup sets, each with a different backup schedule and backup source, to serve this need.

To start setting up backup sets, click the  button to open the [Backup Setting] dialog. As an example, let's create a "File Backup Set" for the rest of this chapter.



On the left panel, press the  button to create a new backup set.

## 2.1 Backup Set Type



A backup set can be of one of the following types:

Backup Type	Description
File	Backup set type to backup common files/directories
Lotus Domino Server	Backup set type to backup Lotus Domino
Lotus Notes Client	Backup set type to backup Lotus Notes
MS Exchange Server	Backup set type to backup Microsoft Exchange Server 2000 / 2003 / 2007
MS Exchange Mail Level	Backup set type to backup individual emails, contacts, calendars, tasks etceteras from Microsoft Exchange Server 2000 / 2003 /2007
MS SQL Server	Backup set type to backup Microsoft SQL Server 7.0 / 2000 / 2005
MySQL Server	Backup set type to backup MySQL Server
Oracle Database Server	Backup set type to backup Oracle 8i/9i/10g database
System State	Backup set type to backup Microsoft Window's System State

Backup set type is defined at backup set creation and cannot be modified. If you want to change the backup set type, you have to create another backup set in the new backup set type.

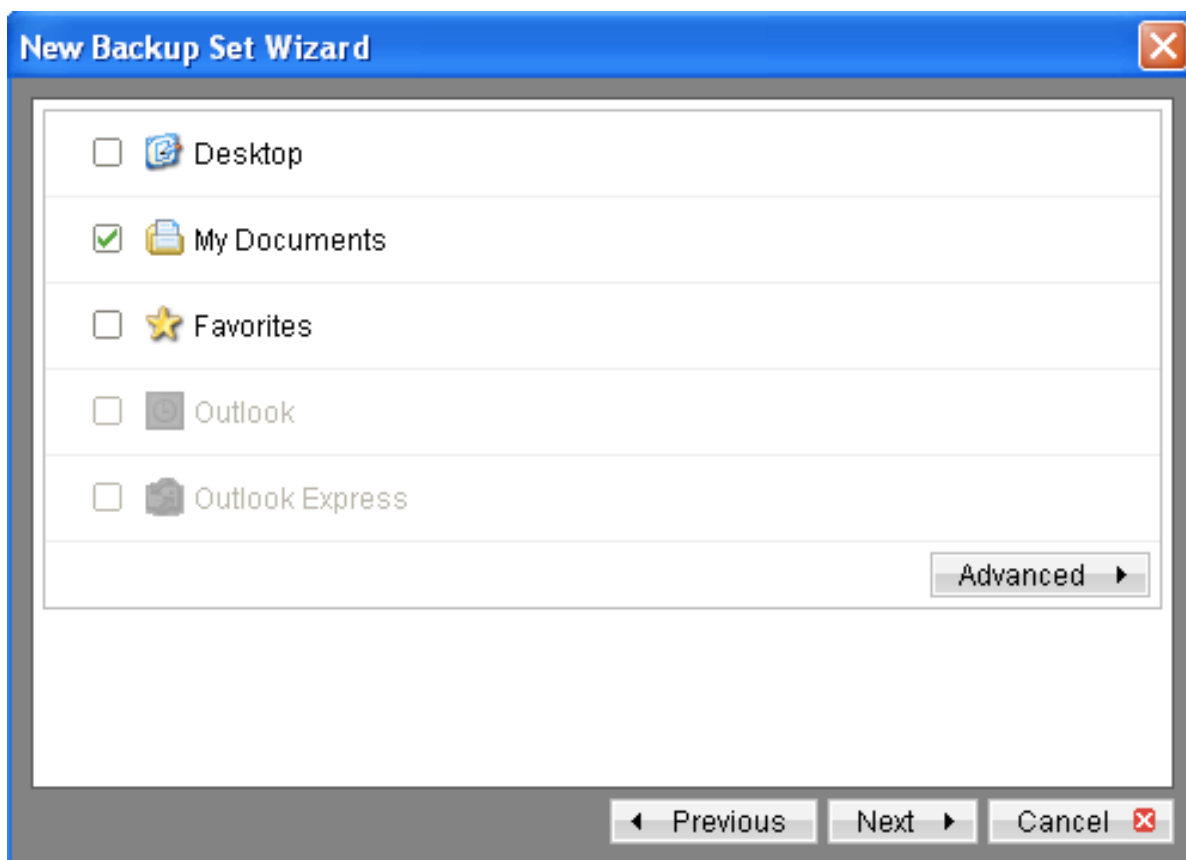
## 2.2 Backup Source

A “Backup Source” defines the files/directories that are to be included in a backup set. There are two types of backup source: Selected and Deselected. Selected backup source defines files/directories that are to be included in a backup set while deselected backup source defines files/directories that are to be excluded from a backup set. Lokkbox OBM will generate appropriate backup source setting for you automatically when you make your backup source selection.

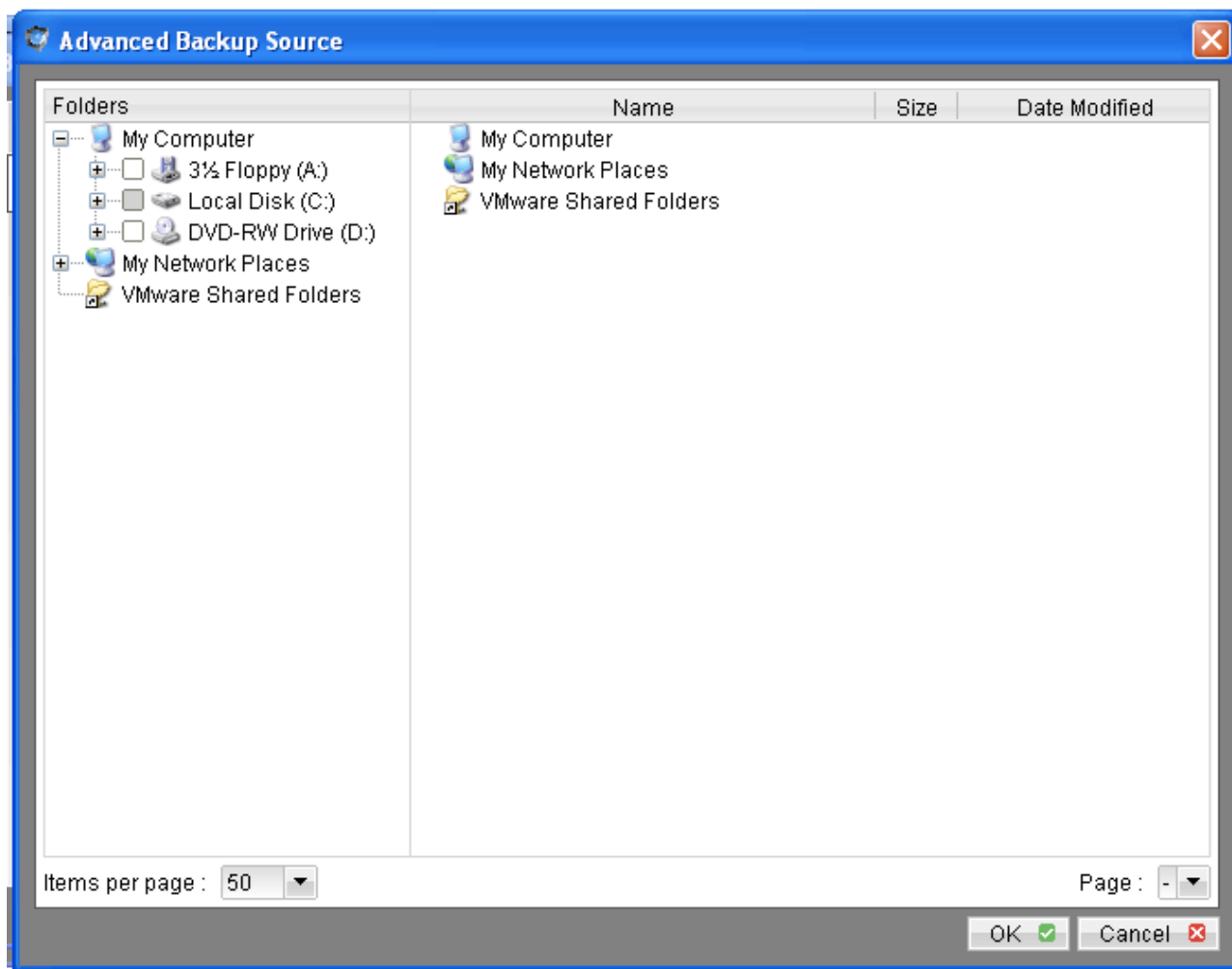
Please note that for Windows operating systems, if the “Hide protected operating files (Recommended)” setting is enabled for the file explorer, system folders/files will not be shown in the backup source. By selecting the parent folders however, all subfolders (including system folders/files) will be included in the backup set. Thus if you want to exclude system folders (e.g. recycle bin) from the backup, please select the desired folders/files directly rather than selecting the parent folder. Alternatively, you can enter the corresponding system path to the [Exclude List] of the backup set using My Lokkbox.

On the first screen of the dialog, you can easily select the following common folders to be backed up:

1. “Desktop” folder
2. “My Documents” folder
3. “Favorites” folder
4. “Outlook” and “Outlook Express” mail store folder



On clicking the [Advanced] button, you can easily select other common folders to be backed up as well.



The checkbox next to the files/directories shown above can be in one of the following mode:

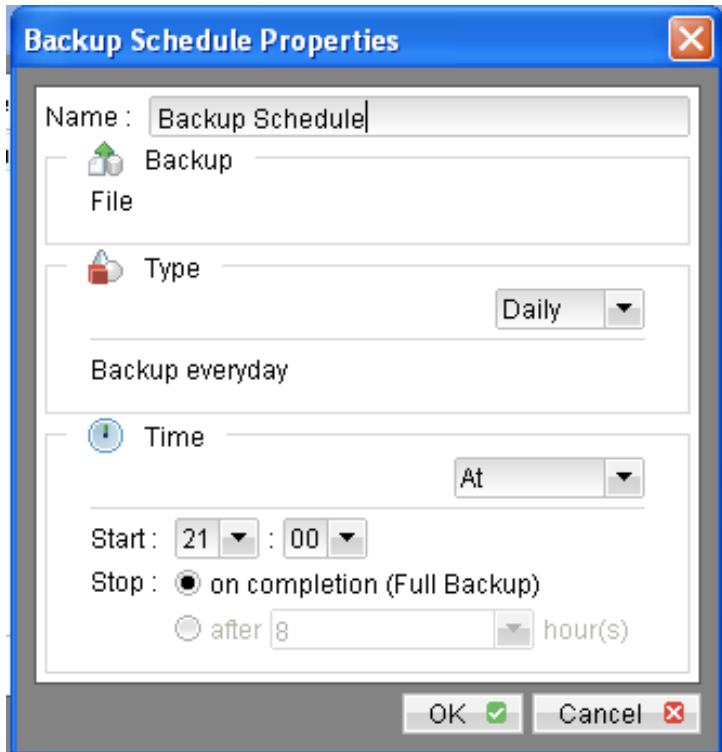
Mode	Description
<input checked="" type="checkbox"/>	All files/directories (recursively) under this directory will be backed up
<input checked="" type="checkbox"/>	All files/directories (recursively), except those explicitly excluded, under this directory will be backed up. If you add files/directories to this directory in the future, they will be backed up as well.
<input type="checkbox"/>	Only the checked files/directories under this directory will be backed up. If you add files/directories to this directory in the future, they will NOT be backed up.
<input type="checkbox"/>	Nothing under this directory will be backed up.

By clicking on the boxes, you can change the modes of each file/directory, in order to create a set of files to be backed up.

You can change the backup source anytime after creating the backup set, by clicking the [Backup Source] node of the left panel on the [Backup Setting] dialog.

## 2.3 Backup Schedule

A “Backup Schedule” defines the frequency and the time that backups should run automatically.



Backup schedule can be in one of the following types:

Type	Description
Daily	Backup Jobs will run everyday
Weekly	Backup Jobs will run on the specified day(s) of every week
Monthly	Backup Jobs will run on the specified day or on a day with a given criteria (e.g. first weekend, last weekday) of every month
Custom	Backup job will run once on any particular date

For each schedule type above, backup will run at the scheduled time for a maximum of the duration specified (or until all data are backed up if [Stop on backup completion] option is chosen). If a backup job does not finish within the maximum duration specified, it will be interrupted.

Please note that you can have more than one schedule within a backup set. For example, you can have a daily backup schedule that runs at 13:00 at noon and another daily backup schedule that runs at 00:00 at midnight. The combination of these schedules effectively creates a backup schedule that runs daily at 00:00 and 13:00 everyday.

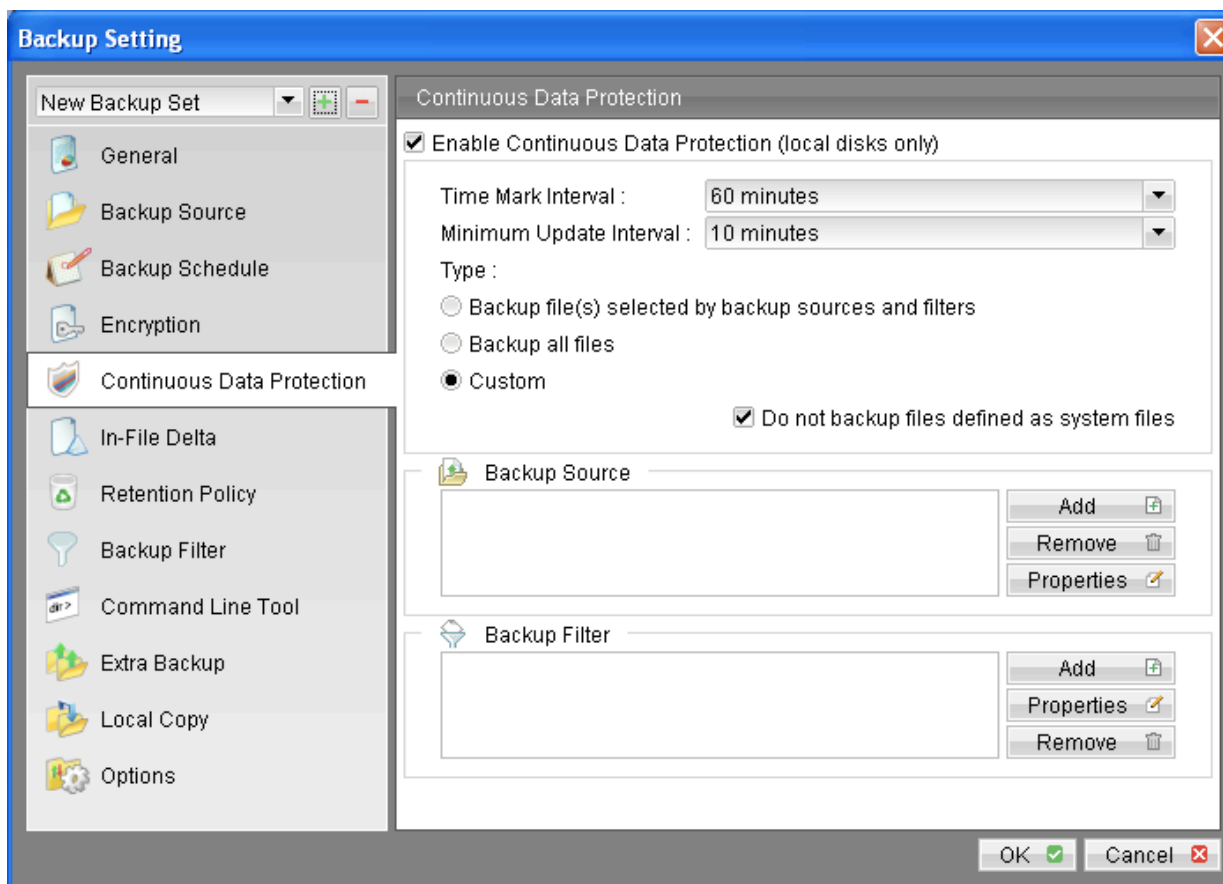
You can change the backup schedules anytime after creating the backup set, by clicking the [Backup Schedule] node of the left panel on the [Backup Setting] dialog.

## 2.4 Continuous Data Protection (CDP)

Lokkbox OBM / Continuous Data Protection (CDP) feature enables files to be backed up automatically at the time when there are changes to files on local hard disks. The benefits of using CDP are:

1. All intra-day interim changes are backed up automatically. Even if the computer breaks down completely before users had the chance to backup their data at the end of the day in logout backup reminder, all changes within the day have been backed up safely by CDP and no data are lost.
2. Sometimes users do not save their data in the folders designated as backup source path and thus results in data not being backed up even when backup runs. Since CDP tracks all changes of files on local hard disk automatically for users, all files changed by the users are automatically backed up no matter whether the files are located in the backup source paths or not. This makes defining a backup set a much easier task for both administrators and users.

Although CDP is a very helpful feature, it does have some drawbacks. For example, a memory resident program, which tracks file changes to the file system and backs up files continuously in background, consumes both a computer's CPU and memory resources. It can potentially slow down a computer considerably. For application servers, e.g. Microsoft Exchange Server or Microsoft SQL Server, that does not require CDP features (you can use transaction log backup interval of as frequent as every 1 minute to mimic a continuous backup strategy instead), please turn off CDP by changing the startup method of [Control Panel] -> [Administrative Tools] -> [Services] -> [Continuous Data Protection (Lokkbox OBM)] -> [General] -> [Startup type] to "manual".



The following table explains all CDP parameters available within a backup set.

Parameter	Description
Enable Continuous Data Protection (local disk only)	It defines whether CDP is enabled in this backup set. Please note that CDP will only backup files on local hard disks, not files on floppy drives, removable drives and network mapped drives.
Time Mark Interval	It defines the interval of point-in-time views generated by CDP. For example, if this setting is set to "60 minutes", the point-in-time views selectable under Lokkbox OBM / restore wizard and Lokkbox OBS File Explorer will be "00:00", "01:00", "02:00" etc, for each day.
Minimum Update Interval	<p>It defines the minimum interval that repeatedly updated files are backed up again. For example, if a file is updated every minute and the [Minimum Update Interval] is set to "10 minutes", CDP backs up this file every 10 minutes instead of every minute. If you want all changes to be backed up instead, please change this setting to "Always". However, since Lokkbox OBS keeps only 1 snapshot of file within a single point-in-time view ("Time Mark Interval"), only the last backup file within each point-in-time view is restorable from Lokkbox OBS, all other interim backup files are overwritten automatically without notice.</p> <p>Please note that this applies to all full file backup only, but not for files that are backed up incrementally by in-file delta. To maintain a valid in-file delta chain for incremental delta files, Lokkbox OBS will not delete incremental delta files automatically. If you are interested in restoring any of these snapshots backed up, you can use the [Show all files] view to display all interim incremental backup files.</p>
Type	<p>[Backup file(s) selected by backup sources and filters] – when this option is selected, CDP will only back up all changed files selected by backup set sources and filters settings</p> <p>[Backup all files] – when this option is selected, CDP will only back up all changed files</p> <p>[Custom] – when this option is selected, CDP will only back up changed files selected by CDP backup sources and CDP backup filters settings</p>
Do not backup files defined as system files	<p>If this option is enabled, CDP will exclude the following files from its backup:</p> <ol style="list-style-type: none"> <li>1. '[WINDOWS_DIR]' (e.g. C:\WINDOWS\*)</li> <li>2. '[PROGRAM_DIR]' (e.g. C:\Program Files\*)</li> <li>3. '[RECYCLE_BIN_DIR]' (e.g. C:\RECYCLER, D:\\$Recycle.Bin)</li> <li>4. '[ALL_LOCAL_DRIVE]:\Pagefile.sys' (e.g. C:\Pagefile.sys, D:\Pagefile.sys)</li> <li>5. '[ALL_LOCAL_DRIVE]:\hiberfil.sys' (e.g. C:\hiberfil.sys, D:\hiberfil.sys)</li> <li>6. '[ALL_LOCAL_DRIVE]:\***\*.tmp' (e.g. C:\xxx\abc.tmp, D:\yyy\abc.tmp)</li> <li>7. '[ALL_LOCAL_DRIVE]:\System Volume Information' (e.g. C:\System Volume Information, D:\System Volume Information)</li> <li>8. '[APP_DATA]\Microsoft'</li> <li>9. '[APP_DATA]\Kaspersky Lab'</li> <li>10. '[APP_DATA]\Symantec'</li> <li>11. '[APP_DATA]\Avg7'</li> <li>12. '[APP_DATA]\Avg8'</li> <li>13. '[APP_DATA]\McAfee'</li> <li>14. '[APP_DATA]\McAfee.com'</li> <li>15. '[APP_DATA]\Sophos'</li> <li>16. '*\ntuser.dat'</li> <li>17. '*\Application Data\Mozilla\**'</li> <li>18. '*\Local Settings\Application Data\Microsoft\**'</li> <li>19. '*\Application Data\Macromedia\**'</li> <li>20. '~\\$.*(doc dot ppt xls DOC DOT PPT XLS)'</li> <li>21. '*\Local Settings\Temp\Temporary Internet Files\History\**'</li> <li>22. '*\LOCALS~1\Temp\Tempor~1\History\**'</li> </ol> <p>where  [APP_DATA] = "C:\Documents and Settings\All Users\Application Data\" (XP) or "C:\ProgramData" (Vista)</p> <p>If you are interested in contributing to the maintenance of this by adding your suggestions, please contact us.</p>
Backup Source	This option is only available when [Custom] CDP type is selected. When this option is used, CDP will only backup the files under the paths defined and all other files are ignored.
Backup Filter	This defines whether any file will be backed up by CDP. When CDP type is [Backup all files], it is only possible to exclude files from CDP backup. CDP backup filter is similar to backup set filter, please refer to Backup Filter section for more information.

## 2.5 Encryption

Before your files are sent to Lokkbox OBS, all your files are compressed and encrypted using your choice of encryption algorithm, mode and key.

The following table explains all encryption parameters available within a backup set.

### Note:

Encryption settings are set at backup set creation time and cannot be modified. You need to create a new backup set if you want to change your encryption settings for a backup set.

Parameter	Description
Encryption Algorithm	<p>It defines the encrypting algorithm used to encrypt your backup files. There are three encryption algorithms available:</p> <p>[AES]      Advanced Encryption Standard algorithm [DESede]   Triple DES algorithm [Twofish]   Twofish algorithm</p> <p>We recommend the use of AES as it has been chosen as the encryption standard for commercial use. Please refer to references on Cryptography for more information about encryption algorithms.</p>
Encryption Mode	<p>It defines the encrypting mode used to encrypt your backup files. There are two encryption modes available:</p> <p>[ECB]      Electronic Cook Book Mode [CBC]      Cipher Block Chaining Mode</p> <p>We recommend the use of CBC mode as it offers better security. Please refer to references on Cryptography for more information about encryption modes.</p>
Encrypting Key	<p>The key used to encrypt all files within a backup set. <b>Please write it down on paper and keep it in a safe place. If the key is lost, you will not be able to recover your files from the encrypted backup files.</b></p>

If you are not familiar with cryptography, it is recommended to use [Default] encryption. By selecting [Default], the encryption key will be your login password.

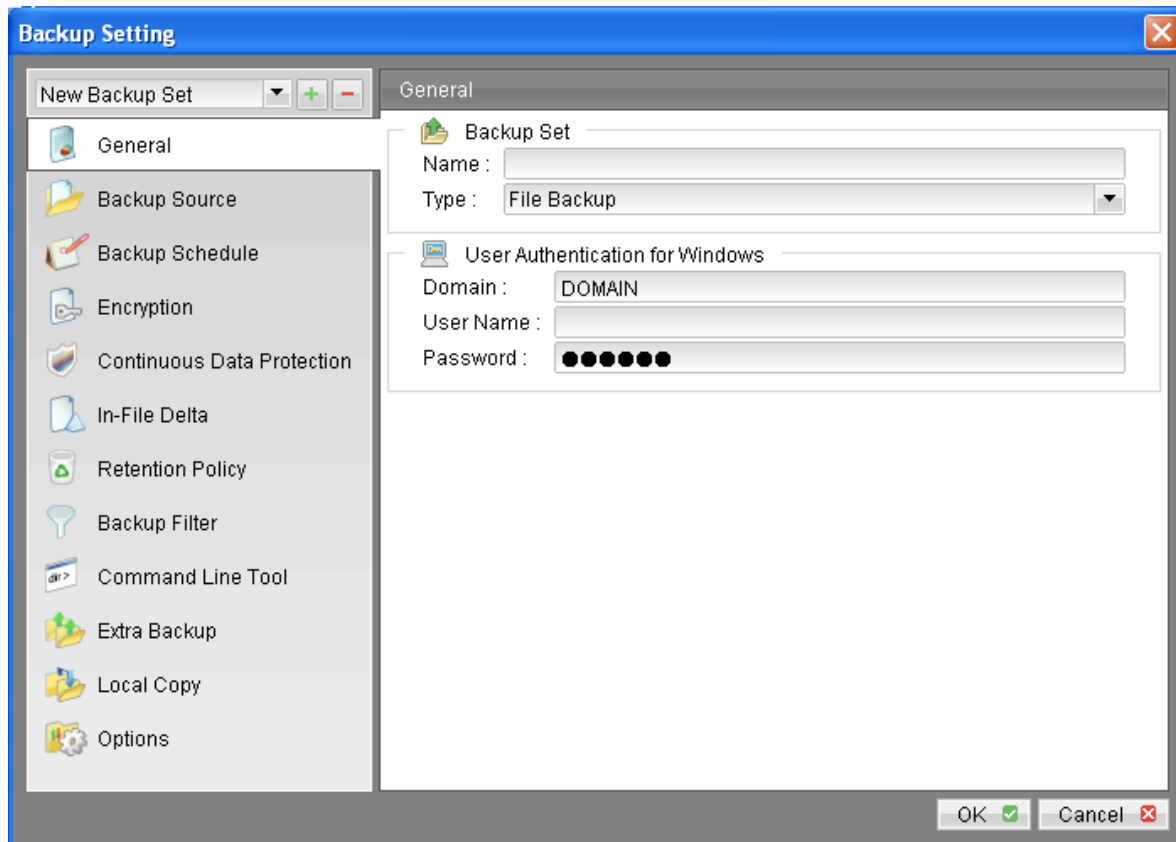
You can change the encryption key anytime after creating the backup set, by clicking the [Encryption] node of the left panel on the [Backup Setting] dialog. The algorithm and mode cannot be changed however.

## 2.6 Mapped Network Drive

If you need to backup a mapped network drive on Windows (it will only work in Windows NT/2000/XP/2003/Vista), you must enter your Window's domain, username and password into the [Network Resources Authentication for Windows] section as shown below. It is required because scheduled backups will always run under the context of Window's "Local System" account (which does not have the privileges required to access network resources) by default. Lokkbox OBM needs to collect your Windows username, password and domain name to authenticate itself to the windows domain controller to acquire the required access privileges to the network files to be backed up. If you don't supply a username and password, Lokkbox OBM will have problems accessing network resources in its scheduled backup Jobs.

If you need to backup network mapped drive in scheduled backup, please do this:

- i. Select the backup set from the drop down list at the top of the left panel



- ii. Enter your Windows domain, username and password into the right panel and press [OK]
- iii. Press the [OK] button to save.

The steps above apply only to computers running in a Windows domain. If you don't have a windows domain with your network and you are using a workgroup or using a NetWare server, please use the

“net use” command to authenticate the running backup process against the computer hosting the mapped drive. Otherwise, you will get “Access Denied” error from the backup report.

For example, if you want to backup \\SERVER\SHARE that is located on a NetWare server (or another computer in a windows workgroup) and you are getting "Network drive is not accessible" error message, please try adding the following command as a [Pre-backup command]  
net use \\SERVER\SHARE [PASSWORD] /USER:[DOMAIN | MACHINE\_NAME]\[USERNAME]

Enter one of the following commands directly into the Pre-Backup Command:

```
net use \\Netware\Data password /USER:john  
net use \\WorkgroupComputer1\Data password /USER:WorkgroupComputer1\john
```

This will authenticate the current process with the NetWare server (or another computer in a windows workgroup) and backup will then run correctly.

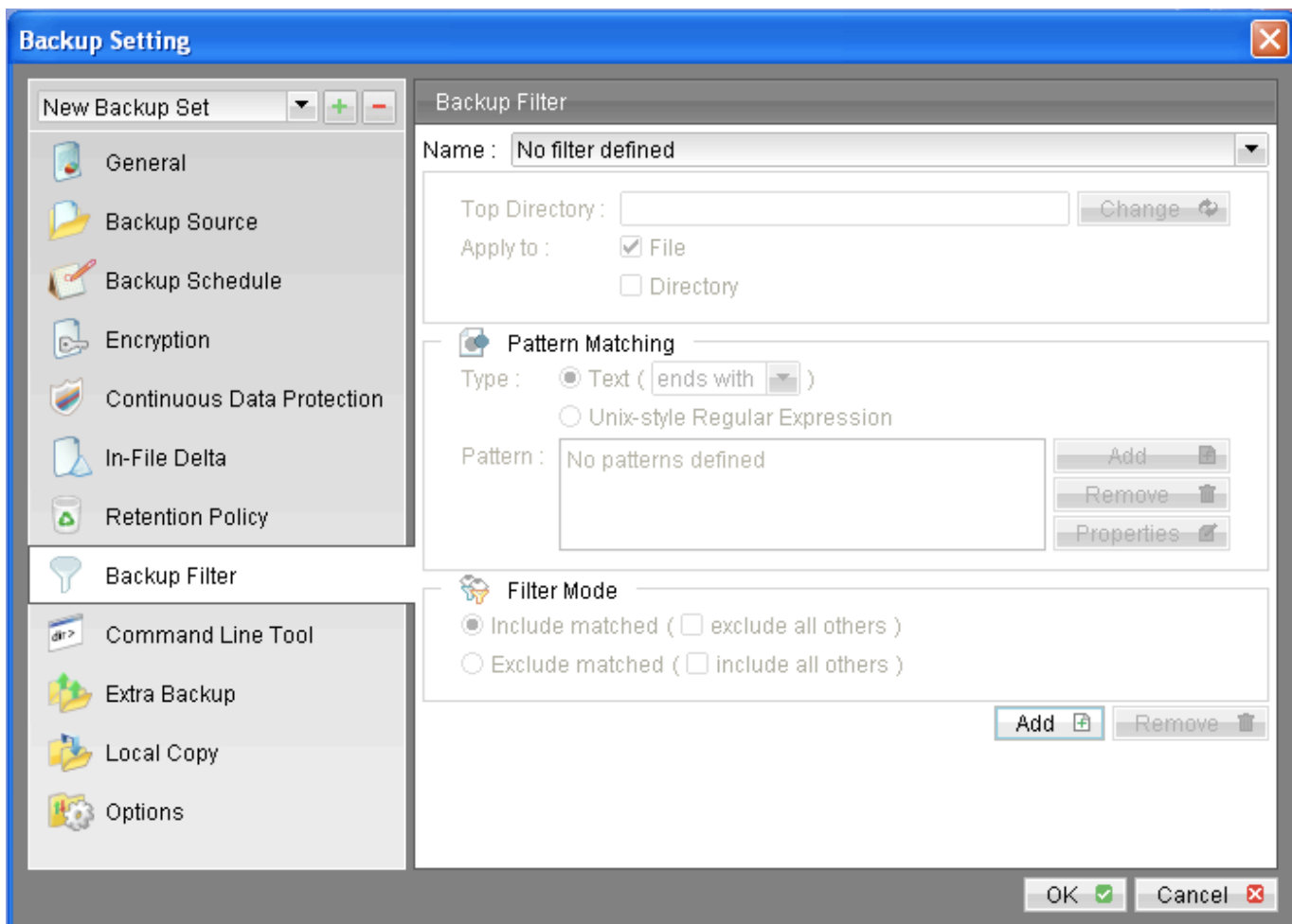
## 2.7 Backup Filter

A “Backup Filter” defines the file selection rules that allow user to easily include/exclude files into/from the backup set by applying user defined criteria(s) to the file names or directory names.

There are some basic rules regarding backup filters:

- i. Filters are checked in creation order. Once inclusion/exclusion has been identified, the remaining filters won't be checked.
- ii. Inclusion/Exclusion made by filter always takes precedence over backup source selections
- iii. If all filters do not apply to a particular file, this file is then checked for inclusion/exclusion backup source selections

To add a new filter, press the [Add] button at the bottom of the right panel.



Key	Description
Name	The name of a filter
Top Directory	The top directory to which this filter is applied. Filtering rules will be applied to all files and/or directories under this directory.
Apply To	Define whether to apply the filtering rule to files and/or directories
Pattern Matching	<p>It defines the filtering rules of a filter. A filtering rule can be of one of the following types:</p> <p>[Starts With]            Include/Exclude all files/directories with name starting with a certain pattern.  <u>For example:</u> You can use B* to match all files with name starting with a 'B' character</p> <p>[Contains]                Include/Exclude all files/directories with name containing a certain pattern.  <u>For example:</u> You can use *B* to match all files with name containing with a 'B' character</p> <p>[Ends With]                Include/Exclude all files/directories with name ending with a certain pattern.  <u>For example:</u> You can use *.doc to match all files with name ending with '.doc' (all Word documents)</p> <p>[Regular Expression]    Include/Exclude all files/directories with name matching a regular expression.</p> <p>To add a new pattern, press the [Add] button in the [Pattern Matching] area.</p>
Filter Mode	Defines whether you want to include or exclude matched files into/from the backup set. Also, for those unmatched files, you can choose to exclude (if include filter type) or include (if exclude filter type) them into/from the backup set.

### Example 1:

If you want to backup only Word, Excel and PowerPoint documents in your document directory (e.g. C:\My Documents), you should setup your backup filter as follows.

Top Directory        = C:\My Documents  
 Apply To             = File (true)  
 Matching Type       = End With  
 Matching Patterns   = \*.doc, \*.xls, \*.ppt  
 Filter Mode         = Include  
 Exclude all others   = True

### Example 2:

If you want to backup all files, excluding all \*.exe, \*.dll and \*.tmp, in C:\Applications, you should setup your backup filter as follows.

Top Directory        = C:\Applications  
 Apply To             = File (true)  
 Matching Type       = End With  
 Matching Patterns   = \*.exe,\*.dll, \*.tmp  
 Filter Mode         = Exclude  
 Include all others   = True

### Example 3:

If you have made your selection of files (all under C:\) from the backup source setting but you want exclude all images (e.g. \*.jpg and \*.gif) from your selection, you should setup your backup filter as follows.

Top Directory = C:\  
Apply To = File (true)  
Matching Type = End With  
Matching Patterns = \*.jpg, \*.gif  
Filter Mode = Exclude  
Include all others = false

Please note that the [Include all others] setting is not enabled because you don't want to include all other files (NOT \*.jpg, \*.gif) under C:\ into the backup set.

### Example 4: (advanced)

If you want to include everything, except the "log" directory, under C:\Applications into a backup set, you should setup your backup filter as follows.

Top Directory = C:\Applications  
Apply To = Directory (true)  
Matching Type = Regular Expression  
Matching Patterns = ^log\$  
Filter Mode = Exclude  
Include all others = True

### Example 5: (advanced)

If you want to include all directories named "log" from the backup set files with file name starting with "B" and ending with "\*.doc" under C:\My Documents into the backup set, you can use a regular expression of "^B.\*\.\doc\$" to do your selection. The filter backup can then be setup as follows.

Top Directory = C:\My Documents  
Apply To = File (true)  
Matching Type = Regular Expression  
Matching Patterns = ^B.\*\.\doc\$  
Filter Mode = Include  
Exclude all others = True

## 2.8 Pre/Post-Backup Command

The [Command Line Tool] feature has two major components, the [Pre-Backup] command and the [Post-Backup] command. You can use the [Pre-Backup] or [Post-Backup] commands to run any native OS (operating system) commands before or after running a backup job.

Both [Pre-Backup] and [Post-Backup] commands comprise of the following parameters:

Key	Description
Name	Name of this Command
Command	The command to be run (e.g. C:\My Documents\Application.exe or C:\My Documents\BatchJob.bat)
Working Directory	The directory at which this command will run

The backup set type affects the time at which [Pre-Backup] and [Post-Backup] commands run. The following table outlines when [Pre-Backup] and [Post-Backup] commands will run in different types of backup set.

Backup Set Type	When Pre-Backup Commands run?	When Post-Commands run?
File	Before uploading backup files	After uploading all backup files
Non-File Backup Sets (e.g. Microsoft SQL Server)	Before spooling backup files to temporary directory	After spooling backup files to temporary directory (i.e. before the first backup file is uploaded)

**Note:** You should never backup an application while it is running as this can result in inconsistent and unusable files getting backed up. Please use the “Volume Shadow Copy” feature if you’re running Windows XP/2003/Vista or make use of the Pre-Backup Command feature to shutdown your application before running a backup job and use the Post-Backup Command feature to restart your application after the backup job has completed.

### For Example:

You want to stop Microsoft Outlook using the Pre-Backup Command and restart it after backup using the Post-Backup Command, create the two following text files and assigned the files to Pre-Backup and Post-Backup Command.

1. Create a text file named “OutlookClose.vbs” using notepad with the following two lines:  
 Set objOLK = createObject("Outlook.Application")  
 objOLK.quit
2. Create a text file named “OutlookStart.bat” using notepad with the following line:  
 "C:\Program Files\Microsoft Office\OFFICE11\OUTLOOK.EXE"

## 2.9 Temporary directory

If you are running a file backup job with in-file delta enabled or a database type backup job, Lokkbox OBM will generate temporary files and the directory that will be used to store all these files are defined by [Options] -> [Temporary directory for storing backup files]. Please set this to a non-system disk partition that has enough free space to avoid problems.

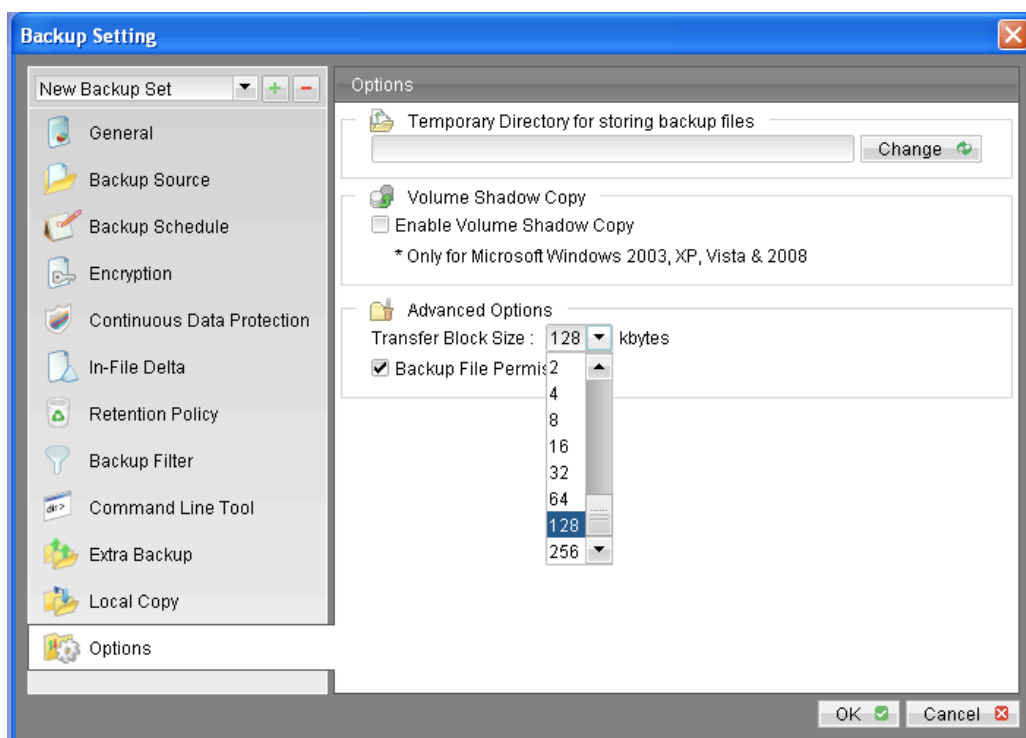
You can set the [Temporary directory for storing backup files] to a mapped network drive. If you choose to do this, please use a UNC path (e.g. \\SERVER\SHARE) and don't forget to configure the [Backup Set] -> [Network Resources Authentication for Windows] setting.

## 2.10 Transfer Block Size

Transfer block size defines the block size Lokkbox OBM will use to transfer your backup blocks. Generally, backup jobs using a larger block size will have better performance, because of the smaller number of connections involved.

However, some firewalls or proxy servers may block out-going network traffic (HTTP/HTTPS POST method) with large block size for security reasons. If you are in a network with this type of restriction, please lower the transfer size value and try again.

To change the transfer block size of any backup set, please select the [Options] node on the left panel and then you can make changes to the [Transfer Block Size] under [Advanced Options]. After you have made your changes, just press the [OK] button to save.



## 2.11 Follow Symbolic Link (Linux/Unix/Mac only)

Under Unix/Linux/Mac, users can create a symbolic link to link a file/directory from another directory. This setting defines whether you want Lokkbox OBM to traverse any symbolic links encountered on your backup path.

To change the follow symbolic link of any backup set, please select the [Options] node on the left panel. You can then make changes to the [Follow Symbolic Link] by checking or un-checking the box. After you have made your changes, just press the [OK] button to save.

## 2.12 Microsoft's Volume Shadow Copy Service (VSS)

Microsoft Volume Shadow Copy Service (VSS) allows you to backup files that are exclusively opened. Without VSS, you will get the error message "The process cannot access the file because another process has locked a portion of the file" if you are trying to backup a file that is exclusively opened (e.g. Outlook PST file).

Please note that VSS is only available on Windows XP / 2003 / Vista and you must have administrative privileges to start the VSS service on a computer. Also VSS will only work if at least one of your partitions is formatted using NTFS.

If you are running Windows 2003, please install the Windows 2003 VSS hot fix available in <http://support.microsoft.com/default.aspx?scid=kb;en-us;887827> before running VSS.

If you are running into problems with VSS running on Windows XP / 2003, Microsoft's recommendation is to try re-registering the Volume Shadow Copy Service again. Simply run the script [OBM Home]\bin\RegisterVSS.bat to do so.

For more information, please take a look at the following page for a technical introduction to Volume Shadow Copy Services (VSS):

<http://technet2.microsoft.com/windowsserver/en/library/2b0d2457-b7d8-42c3-b6c9-59c145b7765f1033.msp>

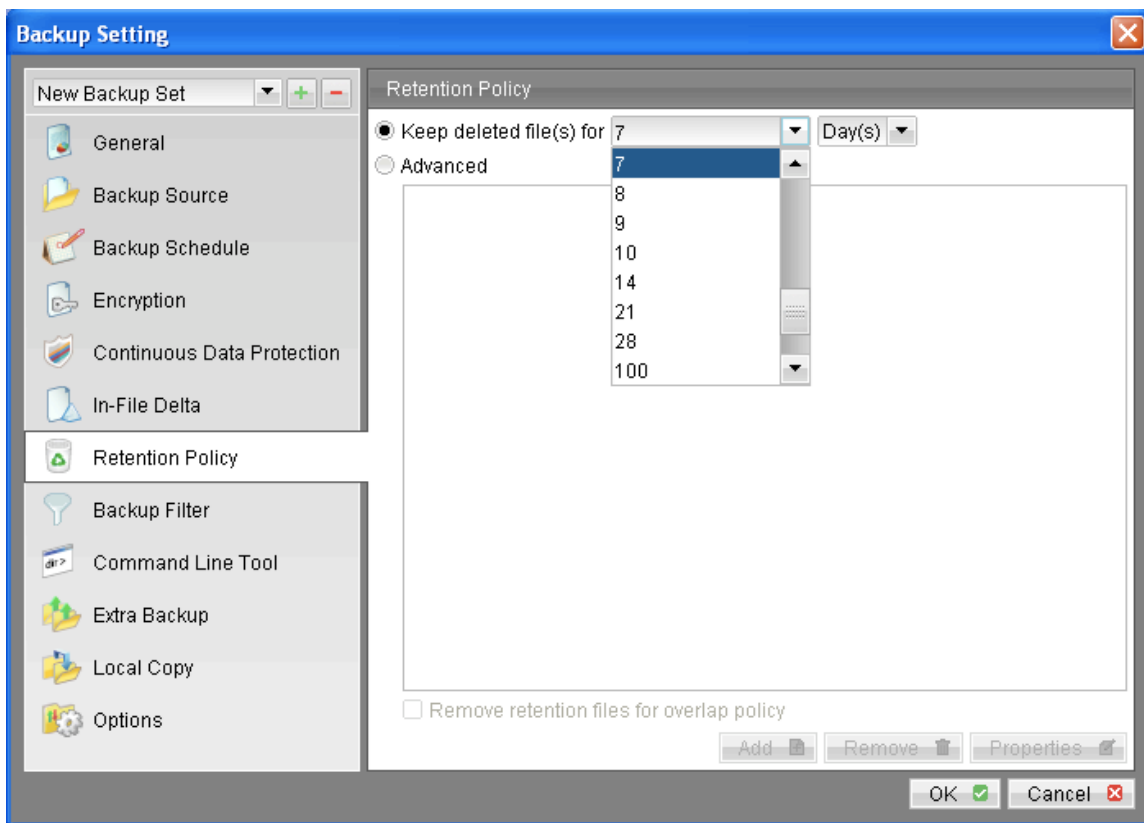
## 2.13 Retention Policy

During backup, if Lokkbox OBM finds that you have deleted a file (or updated a file) on your computer, it will put the corresponding deleted (or updated) file already backed up on the backup server into a retention area. The retention policy setting defines how long files inside the retention area will be kept on the backup server before they are deleted automatically from the server.

Retention policy will only affect “retained” file (i.e. files that have already been deleted or updated on your computer and thus are moved to the retention area of the backup server). For those files that have not been updated on your computer, the backup of these files is kept in the data area on the backup server and won't be affected by the setting of retention policy. These backup files of unchanged files will stay on the backup server forever until the original files are removed (or updated) from your computer.

### Standard Retention Policy

The standard retention policy allows you to delete retained files automatically after a user defined number of days or after a user defined number of backup Jobs. To change the retention policy setting of any backup set, please select the [Retention Policy] node on the left panel. You can then make changes to your retention policy under the [Retention Policy] section. After you have made your changes, just press the [OK] button to save.



## Advanced Retention Policy

The [Advanced] retention policy allows you to configure a more flexible retention policy. It allows you to keep a set of snapshots of all backup files based on the time of the backup Jobs. For example, you can configure the advanced retention policy to keep the following sets of backup files to mimic the retention policy of the old days when you were still doing tape rotations:

- All files available within the last 7 days
- All files available on the last 4 Saturdays within the last 28 days
- All files available on the 1<sup>st</sup> day of each month within the last 3 months
- All files available on the 1<sup>st</sup> day of each quarter within the last 12 months
- All files available on the 1<sup>st</sup> day of each year within the last 7 years

To do so, you need to setup your advanced retention policy as follows:

- Type = Daily; Number of copy to keep = 7
- Type = Weekly; Frequency = Saturday; Number of copy to keep = 4
- Type = Monthly; Frequency = Day 1; Number of copy to keep = 3
- Type = Quarterly; Frequency = Day 1 of Jan, Apr, Jul, Oct; Number of copy to keep = 4
- Type = Yearly; Frequency = Date 01-01; Number of copy to keep = 7

Assuming today is 17-Jan-2006, if [Remove retention files for overlap policy] is NOT enabled, a total of 22 snapshots (provided you have run backups daily for more than 7 years) will be kept on the server accordingly, i.e.:

Daily	Weekly	Monthly	Quarterly	Yearly
16-Jan-2006	14-Jan-2006	01-Jan-2006	01-Jan-2006	01-Jan-2006
15-Jan-2006	07-Jan-2006	01-Dec-2005	01-Oct-2005	01-Jan-2005
14-Jan-2006	31-Dec-2005	01-Nov-2005	01-Jul-2005	01-Jan-2004
13-Jan-2006	24-Dec-2005		01-Apr-2005	01-Jan-2003
12-Jan-2006				01-Jan-2002
11-Jan-2006				01-Jan-2001
10-Jan-2006				01-Jan-2000

If [Remove retention files for overlap policy] is enabled, only the following snapshots are kept:

Daily	Weekly	Monthly	Quarterly	Yearly
16-Jan-2006	14-Jan-2006	<del>01-Jan-2006</del>	<del>01-Jan-2006</del>	01-Jan-2006
15-Jan-2006	07-Jan-2006	<del>01-Dec-2005</del>	<del>01-Oct-2005</del>	01-Jan-2005
<del>14-Jan-2006</del>	<del>31-Dec-2005</del>	<del>01-Nov-2005</del>	<del>01-Jul-2005</del>	01-Jan-2004
<del>13-Jan-2006</del>	<del>24-Dec-2005</del>		<del>01-Apr-2005</del>	01-Jan-2003
<del>12-Jan-2006</del>				01-Jan-2002
<del>11-Jan-2006</del>				01-Jan-2001
<del>10-Jan-2006</del>				01-Jan-2000

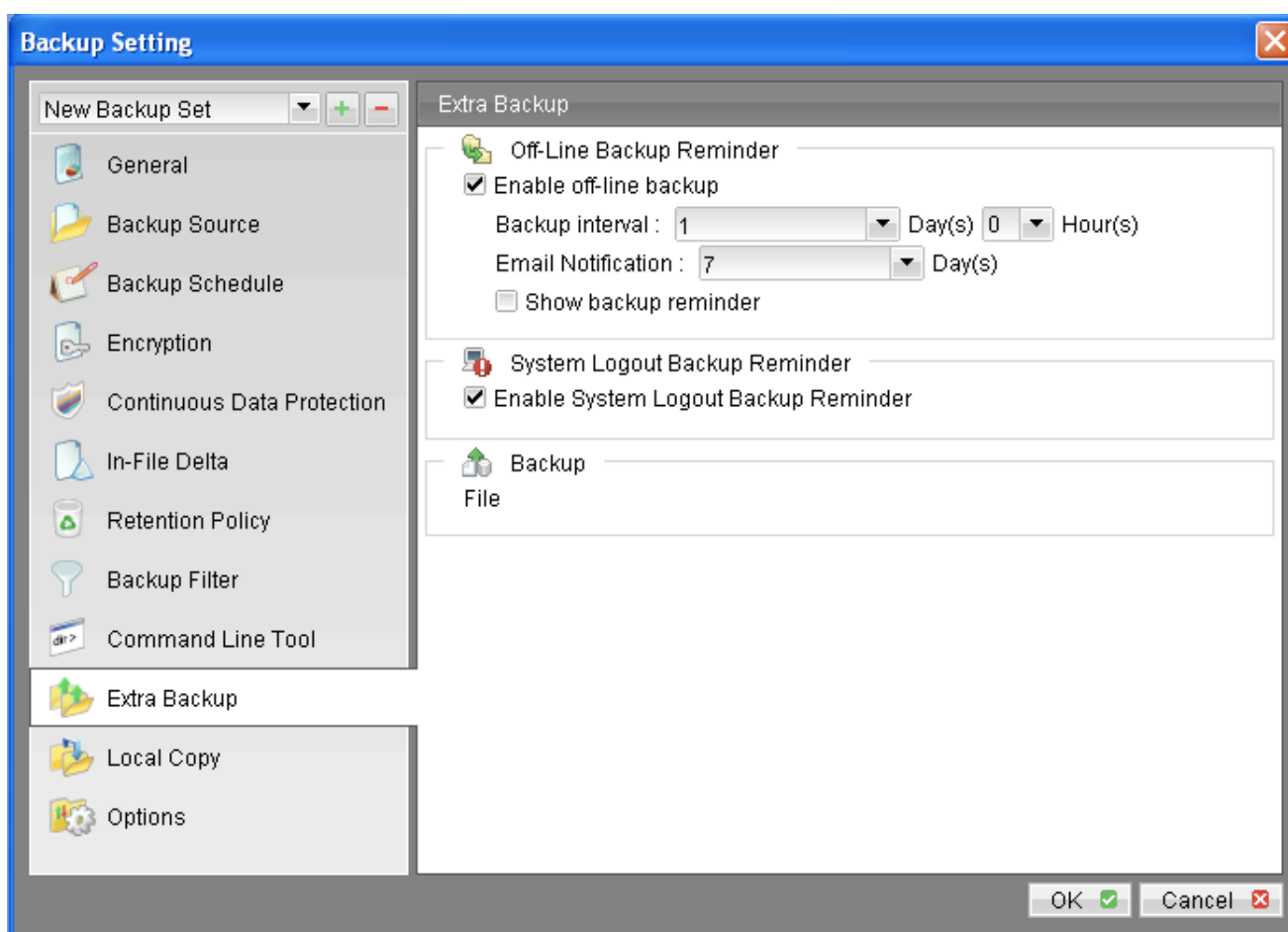
The weekly policy overrides the daily policy so the snapshots of 10-Jan-2006, 11-Jan-2006, 12-Jan-2006, 13-Jan-2006 and 14-Jan-2006 are removed. The monthly policy overrides the weekly policy so the snapshots of 24-Dec-2005 and 31-Dec-2005 are removed. The same applies to the monthly, quarterly and yearly policy giving a total of 11 snapshots.

## 2.14 Extra Backup (Off-Line backup, Logout Reminder)

Off-line backup is basically designed for notebook users who are off-line most of the time and cannot rely on the backup schedule to backup regularly. The "Backup Interval" allows notebook users to specify the interval that they would like their data to backup. When the machine is online and this interval has elapsed, backup will run automatically. If [Off-Line Backup Alert] is enabled, a popup message box will ask the user to confirm starting the backup.

The [Email Notification] setting is the number of days since the last backup that triggers the backup server to send email notification to the client to remind him to run an off-line backup.

When the [System Logout Backup Reminder] setting is enabled, a popup message box will ask the user to start a backup before logging out / shutting down Windows.



## 2.15 In-File Delta

Please refer to the document 'In-File Delta' in the Resources section of [www.lokkbox.com](http://www.lokkbox.com) for more information on this topic.

## 2.16 Local Copy

If you want to save an extra copy of backup data on your local hard disk (in addition to a copy of backup data stored on the backup server) to minimize file-restoring time and/or to provide an extra safety precaution, you can do the following:

- i. Open Lokkbox OBM from the System Tray (see previous sections for details)
- ii. Setup your backup set (see previous sections for details)
- iii. Select [Local Copy] under your backup set from the left panel
- iv. Check the [Copy to Local Hard Disk] checkbox
- v. Enter a directory to where you want an extra copy of your backup files to be stored in the [Copy to] field provided (preferably a directory under another hard disk)
- vi. An extra copy of backup will be saved in the [Copy to] directory when you run your backup job

If you want to make local copy to a directory located on a NetWare server (or another computer is a windows workgroup) and you are getting "Network drive is not accessible" error message, please try adding the following command as a [Pre-backup command]:

```
net use \\SERVER\SHARE [PASSWORD] /USER:[DOMAIN | MACHINE_NAME]\[USERNAME]
```

E.g.


```
C:\> net use \\Netware\Data password /USER:john
```

```
C:\> net use \\WorkgroupComputer1\Data password /USER:WorkgroupComputer1\john
```

This will authenticate the current process with the NetWare server (or another computer is a windows workgroup). Backup will then be allowed to run correctly.

### How to restore "Local Copy" files

"Local Copy" files are stored in the [Copy to] directory (under [Local Copy] setting). To restore backup files, please do the followings:

- i. Press the  button on the main page of Lokkbox OBM dialog.
- ii. Select the required [Backup Set] from the list and press [Next] to proceed.
- iii. Fill in the [Source Directory] (directory where "Local Copy" files are stored) and [Destination Directory] (directory to where you want "Local Copy" files to be restored)
- iv. Click [Start Decrypt]

## 2.17 Using One Backup Account for Multiple Computers

Lokkbox OBM allows you to backup multiple computers using a single backup account. To backup multiple computers, you need to create a different backup set to backup each individual computer and to configure the [Run scheduled backup on this computer] checkbox, which is placed under the [Backup Schedule] node.

Since the computer that created the backup set will have its computer name associated with the backup set. The backup scheduler running on each computer will only run backup sets with the same computer name as itself. Thus, you just need to make sure that all your computer names using a single backup account are unique.

**IMPORTANT** If you create a new backup set or want to backup another computer using the same backup account at a later date (this implies that you need to create an additional backup set under this backup account for the new computer), please make sure to repeat the procedure above (i.e. uncheck the [Run scheduled backup on this computer] checkbox for the added backup set) for each computer.

**VERY IMPORTANT** If you use multiple computers under one account and you do NOT want the user of each computer to be able to view or restore files from other computers or servers then do NOT check 'Save Password' when logging on to the LokkBox OBM. This way, only approved administrators will be able to configure or restore from the LokkBox OBM client. If separation is required, then please contact LokkBox for separate accounts.