



Comodo **BackUp**

Software Version 4.0

User Guide

Guide Version 4.0.111511

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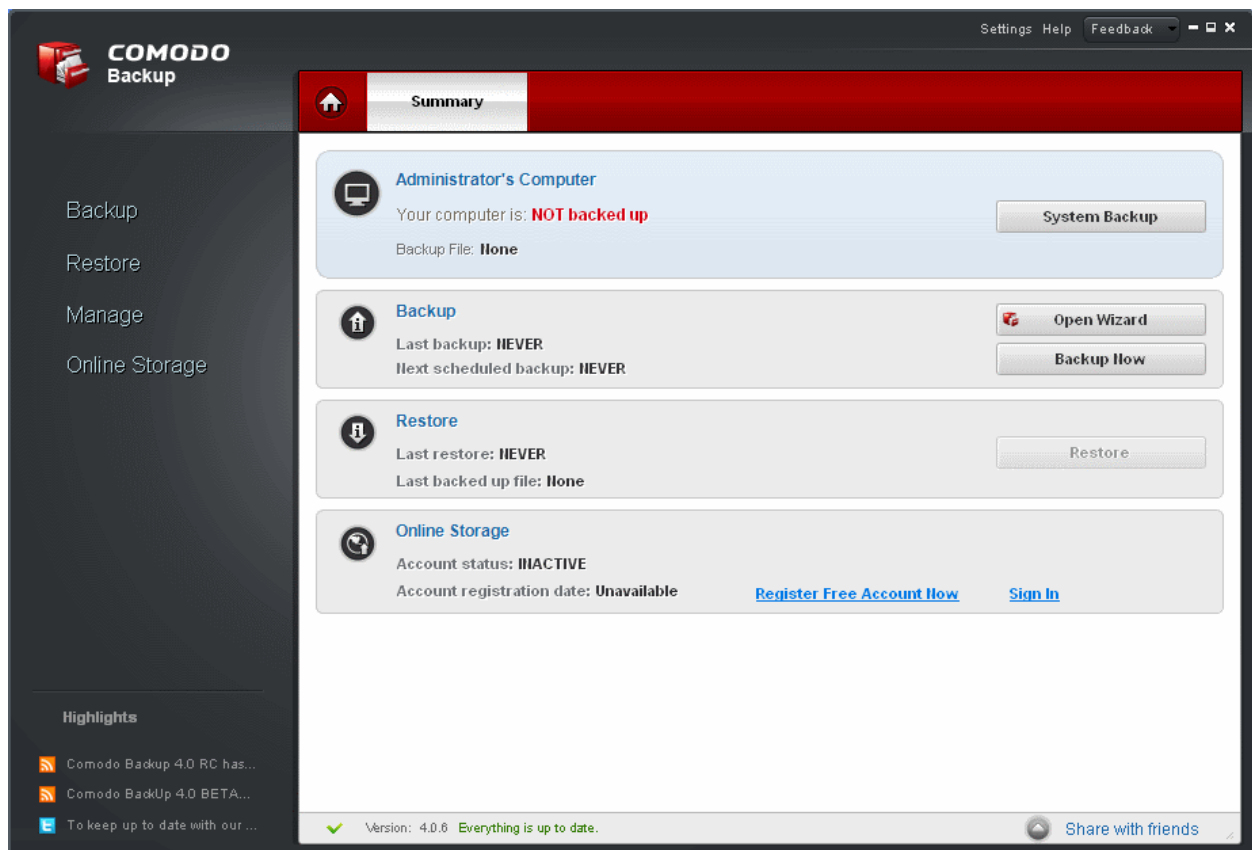
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1. Comodo BackUp - Introduction

Comodo BackUp is the powerful and easy to use desktop application that helps home and business users protect their valuable data against damage or loss.

The application's streamlined design and task orientated architecture means even novice users can learn how to create, run and restore their first backup job in a matter of minutes. Other features include full scheduling, password protection, a backup integrity checker and a range of preset backup jobs that allow you to quickly create copies of important data sets such as the Windows Registry, mail accounts and user settings.

Comodo BackUp is also seamlessly integrated to Windows Explorer so that you can just select the folders or files you want to back up, right click on them and quick start the Back Up wizard.



Features and Benefits:

- **Quick backup** of entire drives or individual files or folders to your local computer, network drive, FTP server or Comodo's online server
- **Step by step wizards** to guide even novice users through the entire backup, restore and scheduling procedures
- **Flexible storage options** allow you to specify full, incremental or differential backups
- **Protection** of invaluable personal and business data from loss or corruption
- **Quick recovery** of files with a few clicks of the mouse
- **Granular scheduling options** to take automatic backups at a time that suits you
- **Real-time backups** synchronization feature to get your files copied over as soon as you save them
- **Built in checker** to confirm the integrity of your backup files before committing to a restore
- **Backup presets** including mail folders, windows registry, messenger archives and master boot records
- **Powerful encryption options** to protect your files so that it cannot be accessed by anyone but you
- **Online Storage** facility to store your backup files in highly secured online storage space, which can be also be mounted as a virtual drive in your system

- **Command line and scripting support** to automate the online backup and restore operations

Comodo Online Storage Client

Comodo Online Storage (COS) client, optionally installed along with Comodo BackUp, provides easy access to your online storage space. Comodo Online Storage (COS) is a fast, secure online storage service that provides essential disaster recovery for mission critical or otherwise important files in the event of damage, deletion or theft.

Once you have signed up for COS, the client:

- Mounts your online storage space as a virtual drive and allows you to access it like a normal physical drive, i.e., you can backup/restore files to/from your online storage space through Windows Explorer.
- Displays a drop-zone whenever you drag a file/folder to easily drop them into your online storage space, the drop-zone also accepts text snippets, web links and bookmarks.
- Stores your print screen images automatically as date/time stamped jpeg images in your online storage space.
- Enables automatic synchronization of backed-up files and folders between your system and the online storage - meaning any change you make in the file or folder in your system will be immediately reflected in its backup in the online storage space.
- Provides quick links for you to upgrade your account to get additional online storage space.

For more details on using the Comodo online Storage client, refer to the online user guide at <http://help.comodo.com/topic-154-1-280-2592-Comodo-Online-Storage---Introduction.html>.

Guide Structure

This guide is intended to take the user through the installation, configuration and use of Comodo BackUp.

- **Comodo BackUp - Introduction** - An overview of the application.
 - **System Requirements** - Minimum required Hardware and Software for the installation
 - **Installing Comodo BackUp** - A brief outline of the installation procedure
 - **Starting Comodo BackUp** - How to start the application
 - **The Main Interface** - Description of Menus and Options in the main interface.
 - **The Quick Run Wizard** - How to perform a quick backup of your important files through the first run wizard.
- **Backup** - Guidance on creating Backups
 - **The Backup Area** - How to backup your predefined profiles
 - **The Custom Backup Area** - Describes how to backup different kinds types of files/folders
 - **New Backup** - Detailed explanation on how to execute a backup job
 - **Other Profiles**
- **Restore Your Files and Settings** - Detailed help on every stage of restoring your files and settings from the backup files.
 - **The Restore Process**
 - **Finalization / Restoring Backup**
 - **Restoring Self Extracting Backups**
- **Managing Your Backups** - Description and guidance on usage of the history details maintained by Comodo BackUp, editing pre-configured backup schedules and mounting backups as virtual drives
 - **Events Area**
 - **Mounting Backups as Virtual Drives/ Mounted Drives**
- **Configuring Your Comodo Online Storage Account** - Details on creating and viewing your online account in Comodo Server
 - **Creating a New Online Storage Account**
 - **Logging-in to Your Account**
 - **Quick Start - Schedule Regular Backups to Online Storage**
 - **Managing Files on Online Storage**
 - **Managing Your Account**
 - **Troubleshooting Login Problems**
- **Comodo BackUp Settings** - Details on configuration of overall behavior of the application.

- **Comodo BackUp Feedback** - The feedback feature allows users bi-directional communication with the Comodo BackUp development community.
 - **How to leave Feedback**
- **Using Live Help** - Guidance on configuration and usage of GeekBuddy.
 - **Installing GeekBuddy Client**
 - **Launching and Using the Service**
- **Using the Command Line Interface and Script Files** - Details on Using the Command Line Interface and Script Files used by backup, restore and scheduling functionality from the Windows command line interface.
- **Uninstalling Comodo Backup** - A brief outline on uninstalling the application.
- **Getting Support** - Guidance on how to get technical support for Comodo BackUp.
- **Appendix 1 Encryption Algorithms** - Details on Encryption Algorithms used by Comodo BackUp for encrypting and storing your backup files.
- **Appendix 2 Creating a Rescue Disk with WinPE / BartPE** - Explain how to use Comodo BackUP for restore operations with bartPE/winPE rescue disks
- **Appendix 3 Comodo Backup Error Codes** - Brief description of error codes
- **About Comodo**

1.1. System Requirements

To ensure optimal performance of Comodo BackUp, please ensure that your PC complies with the minimum system requirements:

Supported Operating Systems

Windows 7 (32bit and 64bit)

Windows Vista (Home/Business/Ultimate) (32bit and 64bit)

Windows XP SP2 (Home/Professional) (32bit and 64 bit)

Windows 2003 Server (32bit and 64 bit)

Windows 2008 Server (32bit and 64bit)

Minimum Hardware

Intel Pentium III Processor or higher

256 MB RAM

23 MB Disk Space

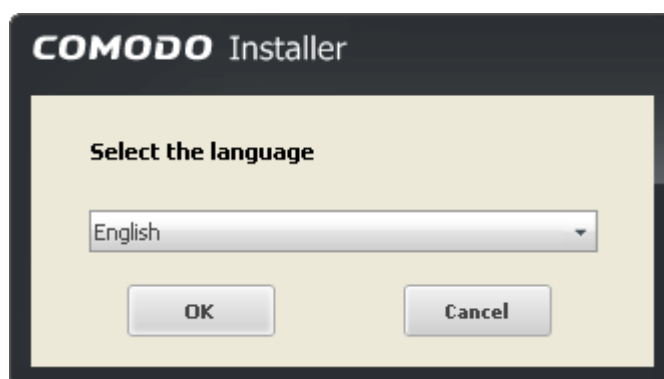
1.2. Installing Comodo BackUp

Before you install Comodo Backup, read the installation instructions carefully and also review the system requirements listed in this chapter. Quit all other Windows programs before installing Comodo BackUp as other active programs may interfere with the installation.

After downloading the Comodo BackUp setup file to your local hard drive, double click on Setup.exe to start the installation wizard.

Step 1 - Choosing the Interface Language

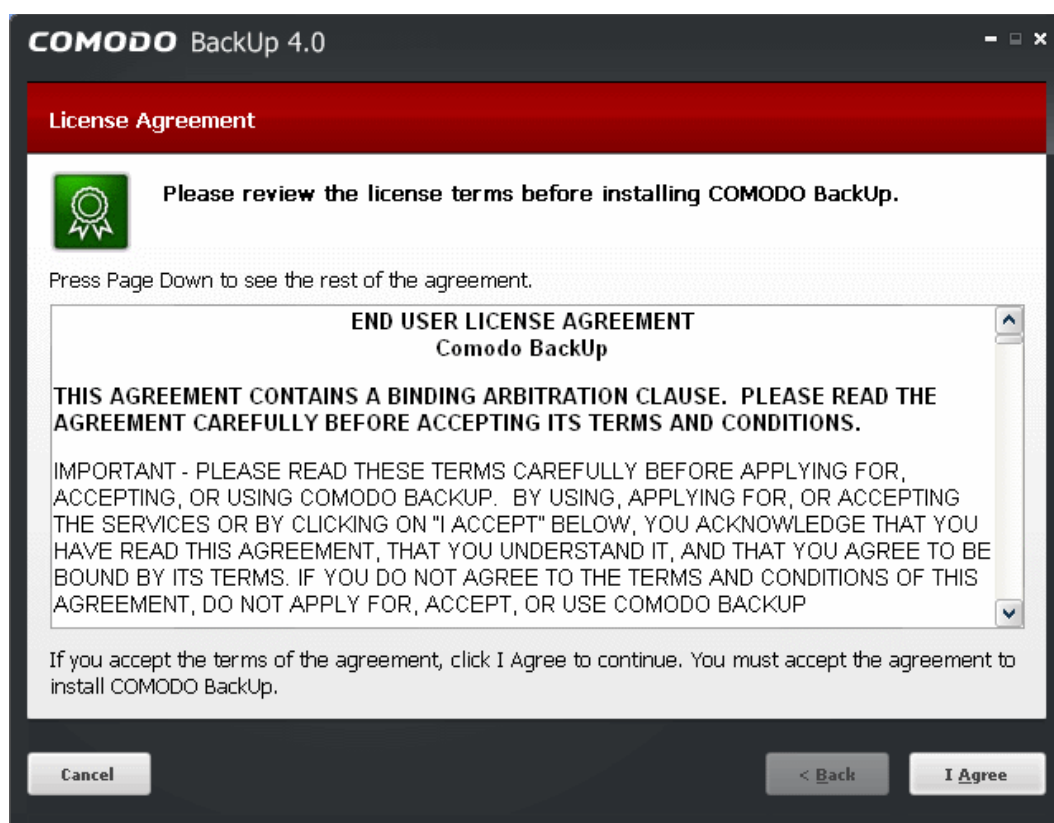
The set up program starts automatically and the Select Setup language dialog is displayed. Comodo BackUp is available in several languages.



- Select the language in which you want Comodo BackUp to be installed from the drop-down menu and click 'OK'.

Step 2 - End User License Agreement

Complete the initialization phase by reading and accepting the End User License Agreement (EULA).

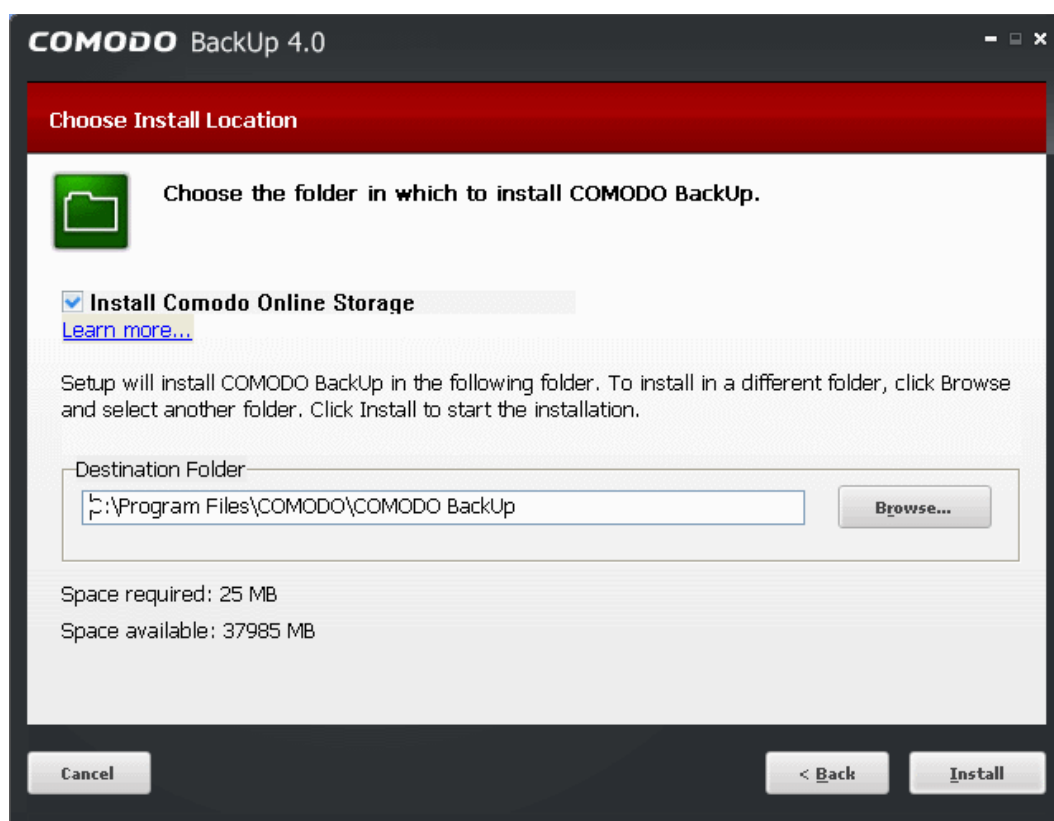


- Click 'I Agree' to continue installation. If you want to cancel the installation, click 'Cancel'.

Step 3 – Selecting Components and Installation Folder

The next screen allows you to select:

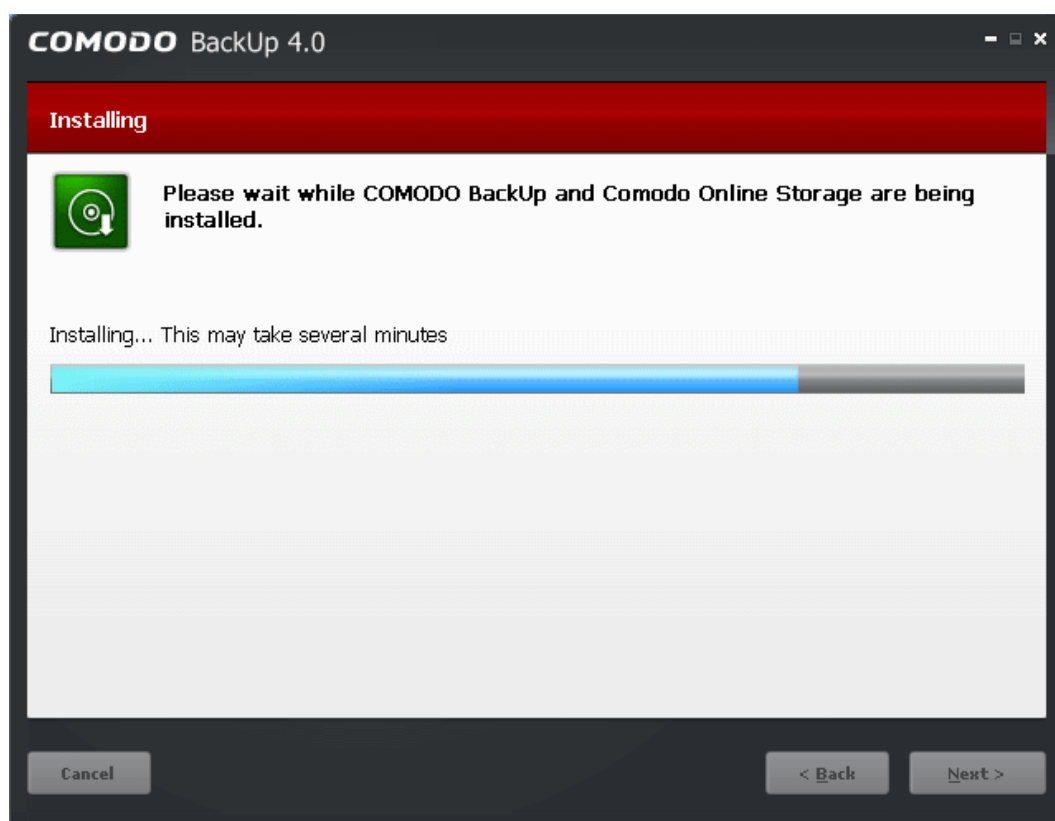
- Whether you wish to install Comodo Online Storage (COS) client;
- The folder in your hard drive for installing Comodo BackUp.



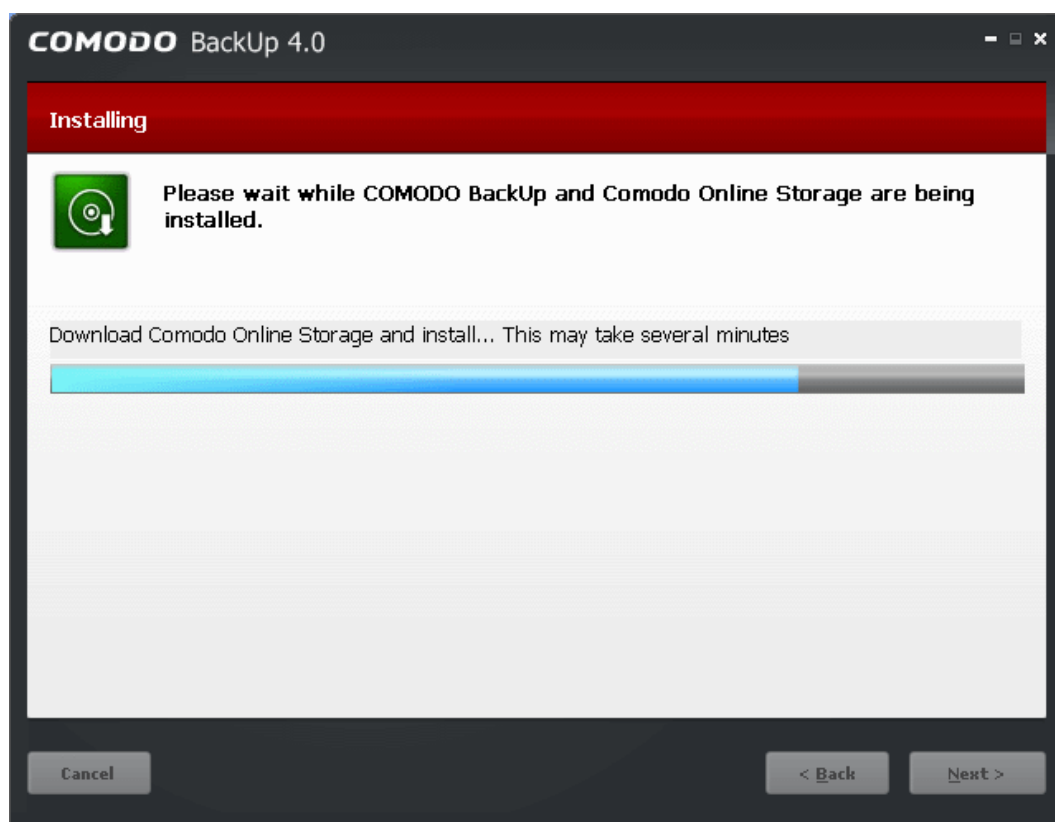
- If you want to install COS client, leave the checkbox 'Install Comodo Online Storage' selected. The installer will download the COS client setup file and install it along it with CBU. If you do not wish to install COS client at this moment, unselect the check box. To learn more on COS, visit <https://os.comodo.com/>. For more details on using COS client, refer to the online user guide at <http://help.comodo.com/topic-154-1-280-2592-Comodo-Online-Storage---Introduction.html>.
- By default CBU (and COS if selected) is/are installed at C:\Program Files\Comodo\Comodo BackUp. If you want to install the application in a location other than the default,, click 'Browse' to choose a different location.
Click the 'Back' button to review / change any of settings you specified before or press 'Install' to continue with installation process.

Step 4 - Setup Progress

A setup status dialog box is displayed. You can see a progress bar indicating that the files are being installed.



On completion of CBU setup, COS client will be downloaded and installed.

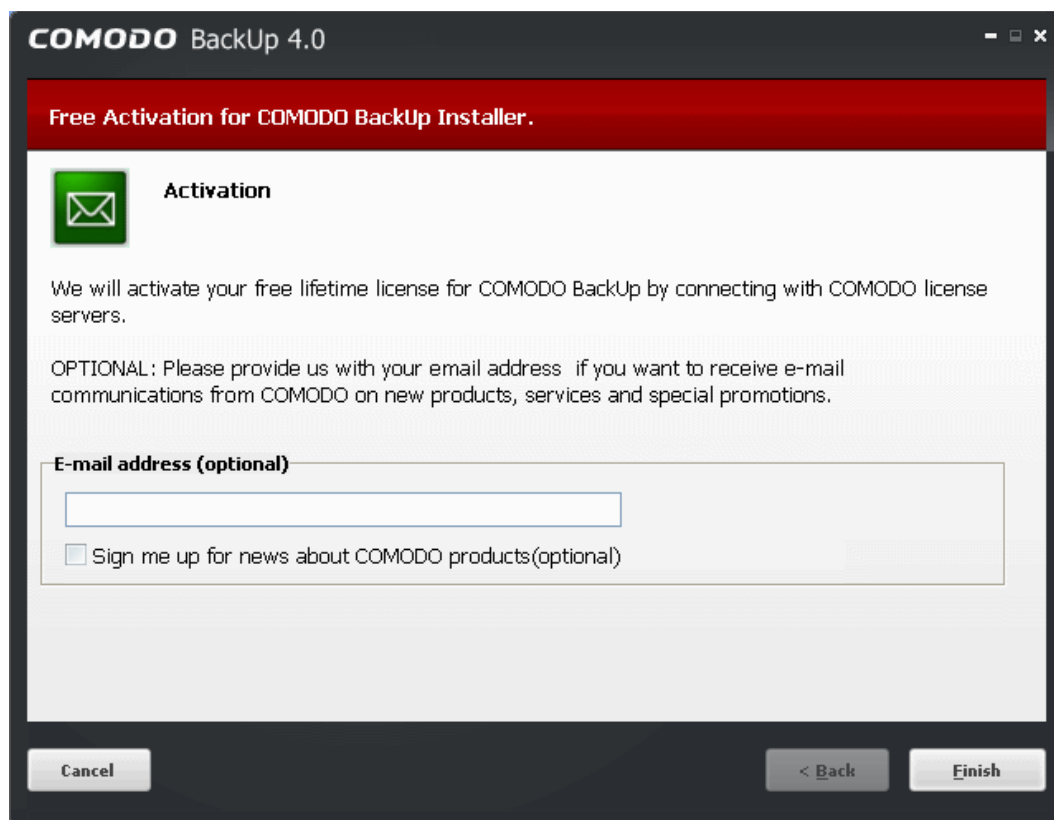


Note: You should have been connected to Internet for downloading COS client setup.

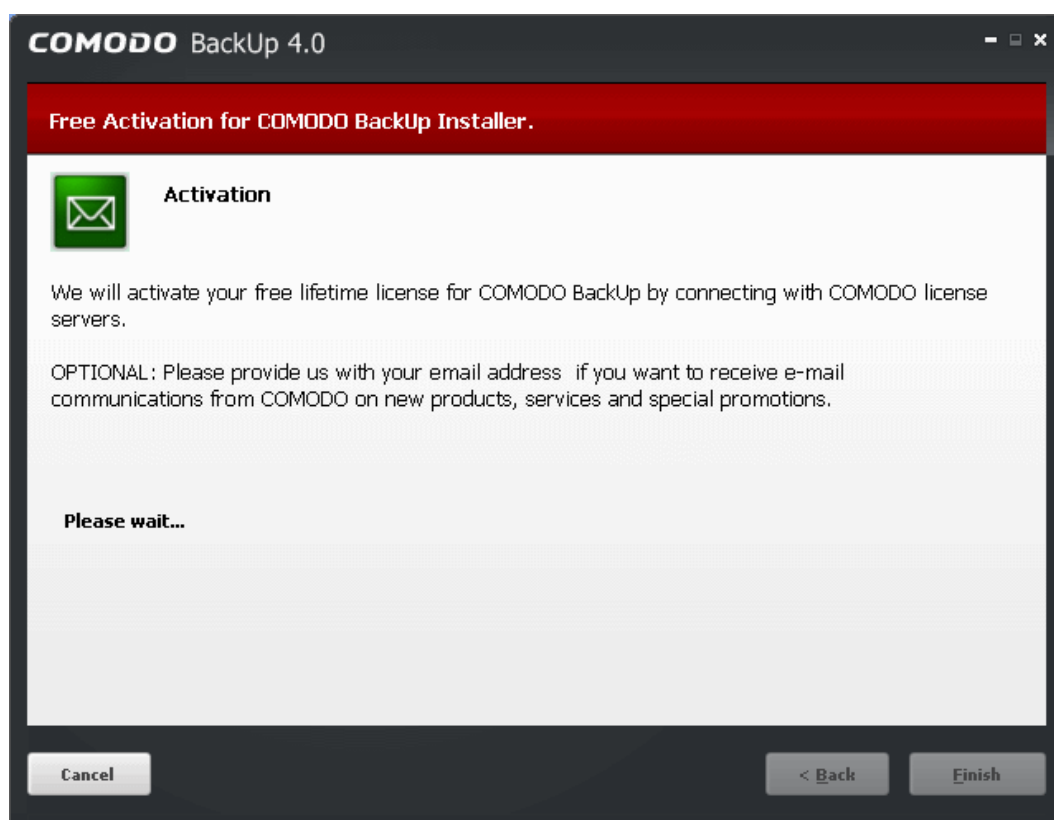
On completion, click 'Next' to continue.

Step 5 – Product Activation

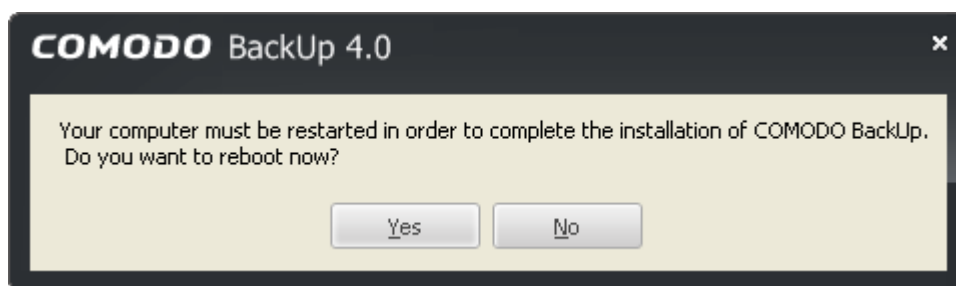
On completion of Installation, the product Activation dialog is displayed. Comodo BackUp and Comodo online Storage client are activated at free of cost for lifetime usage. If you wish to sign up for news about Comodo products then enter your email address in the space provided and select **Sign me up for news about Comodo products**.



This is optional. Click 'Finish'. Your license will be activated.



In order to finalize the installation, your system has to be restarted.



Please save any unsaved data, and click Yes to restart the system immediately. If you want to restart the system at a later click 'No'.

Note: The installation will take effect only after restarting the computer.

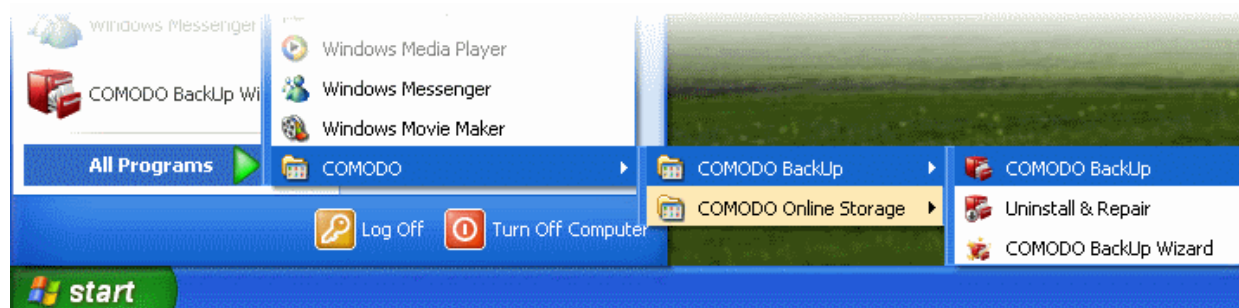
After restarting the system you can start the Comodo Backup application by any of the methods explained in the section Starting Comodo Backup. On the first start-up of the application, a Quick Run wizard will start along with the application, that enables to backup all your documents, picture and music files stored in your system quickly and easily. Refer to **The Quick Run Wizard** for more details.

1.3. Starting Comodo BackUp

You can access Comodo BackUp through the Windows Start Menu, through the desktop shortcut or through the system tray icon.

1. Start Menu

After downloading and installing Comodo BackUp, the setup procedure creates an entry in the 'Programs' section of Windows Start Menu. You can start Comodo BackUp by hitting the 'Start' button and navigating to: Start > All Programs > Comodo > Comodo BackUp > Comodo BackUp.



2. Desktop Shortcut

You can also start Comodo BackUp by double-clicking on the desktop shortcut created during installation.

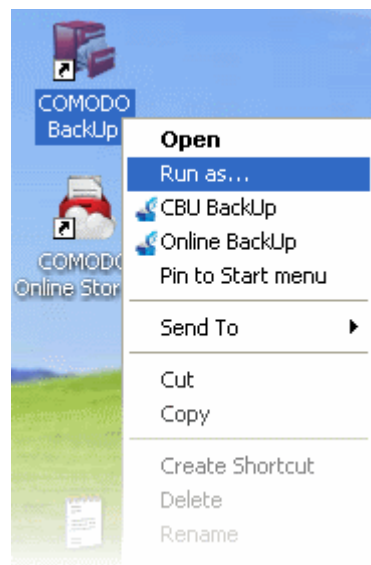


Note: In order to create backups for items like Disk, Partition and registry files that require administrative privileges, Comodo Backup has to be run under administrative privileges. You can use 'Run as...' option to run it with administrative privileges. For more details refer to **Limited Access Privileges**.

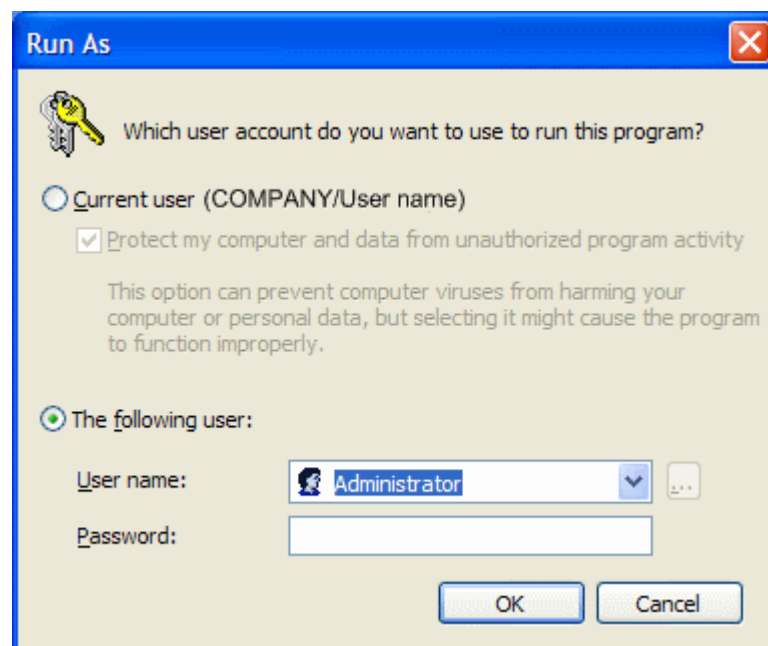
To run Comodo BackUp under an administrator's account

- Right click on the Comodo BackUp Desktop icon

- Select the 'Run as...' option



- In the 'Run as' dialog that appears, select 'Administrator' from User Name drop-down menu.



- Enter the Administrator Password in the 'Password' text box and click 'OK'.

Limited Access Privileges

Comodo BackUp can be run by users with limited account privileges but has certain restrictions for what he/she can do because of limited access. The details of what the user can do and cannot do are given below:

What the user can do

- Backup his/her documents, media, user folder and other files that he/she has access to
- Backup his/her mail clients and IM conversations
- Backup registry keys that he/she has access to
- Backup his/her browser data
- Restore files and directories, email clients and IM conversations that are not used by other applications

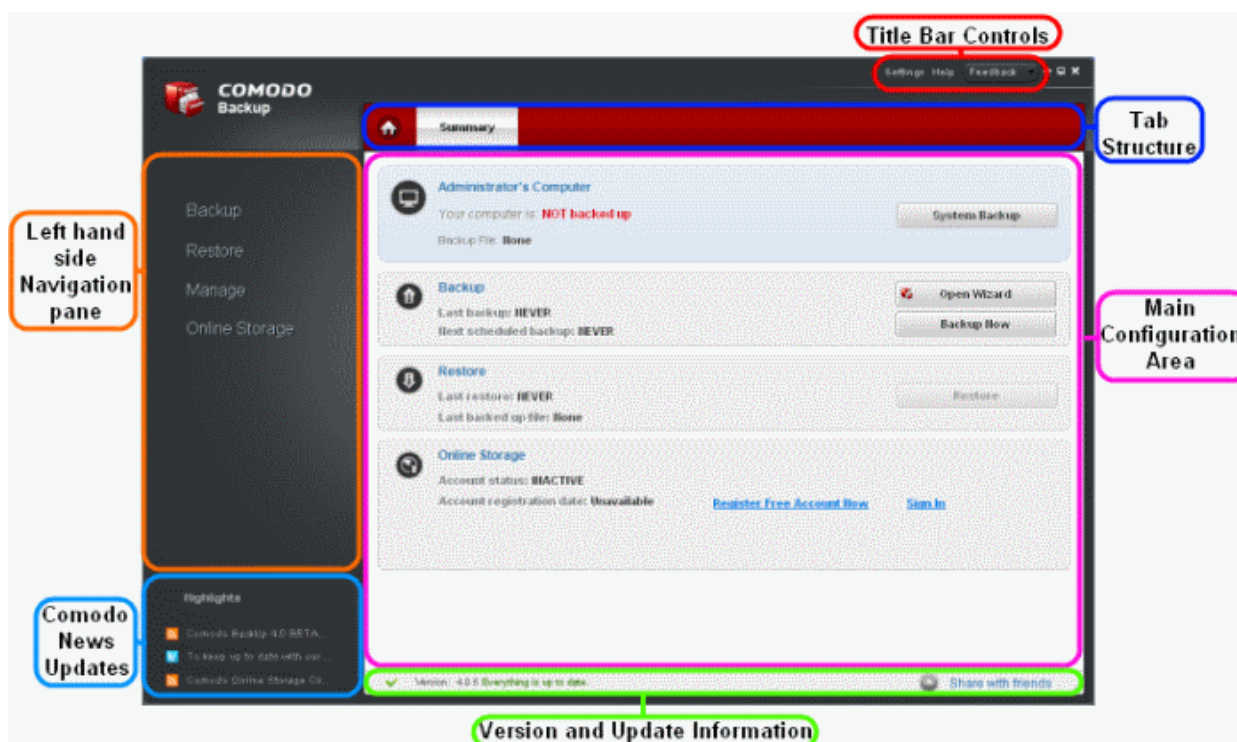
- Schedule backups
- Synchronize backups

What the user cannot do

- Backup disks and partitions
- Store the backup files in some folders on system drives due to limited access
- Mount backup as virtual drives
- Restore backup files that need restart
- Mount Online Storage space as virtual drive

1.4. The Main Interface

Comodo BackUp's streamlined interface provides fingertip access and control over all functional areas of the software. The tab structure allows you to quickly initiate a new backup or restore task, specify new schedules and configure overall settings such as password protection. The left-hand pane contains shortcut buttons for common tasks whilst the progress bar makes it easy for new users to track their progress through the backup or restoration processes.



1. The Summary Area

The Summary area displays a snapshot summary of the computer backup status, last backup operation and schedule information, last restore operation and restored items and Comodo Online Storage (COS) account status.

The Summary Area is displayed by default whenever the application is started. It can also be accessed by clicking the Home tab



in the Tab Structure area.

- **<User name>'s Computer** - Clicking the **System Backup** button will immediately begin an incremental backup of the current state of your entire computer system. This means sector-by-sector backup of your system drive to default location you set in settings. This is useful should your system become unusable or refuse to start and allows you to quickly implement your previous settings. Selecting this option backups all your data on the system drive.

This section describes your status of your computers and you can see a recommendation regarding your status.

- **Backup** - This section displays an at-a-glance summary of the last backup operation and next scheduled backup job. Clicking the 'Backup Now' button opens the interface for creating a new backup job. Read more here [Creating a New](#)

Backup Job. Clicking 'Open Wizard' starts the Comodo Backup Quick Run wizard that enables quick backup of your important documents, pictures and music files. Refer to **The Quick Run Wizard** for more details.

- **Restore** - The 'Restore' section displays an at-a-glance summary of the last restore operation and the last backed-up item. Clicking 'Restore' button starts the process of restoring the latest backup file.
- **Online Storage** - This section displays an at-a-glance summary of your Comodo Online Storage account status. You can also Register a new account by clicking the **Register Free Account Now** link and log-in to your account by clicking **Sign In** link. Refer to the section **Configuring Your Comodo Online Storage Account** for more details.


2. The Left Hand Side Navigation Pane

The Left Hand Side Navigation pane four tabs:

- **Backup** - Opens the interface for the backup creation and execution wizard
- **Restore** - Opens the interface for the restoration wizard
- **Manage** - Opens the interface for managing stored backups, managing schedules, viewing history of events, and accessing backups mounted as virtual drives.
- **Online Storage** - Opens the interface registering an account with Comodo Online Storage (COS) and for a new user and signing-in to COS account for existing user.

3. The Tab Structure

The tab structure contains two persistent tabs:

-  **Home Tab** - Opens the **Summary** area at any time;

Depending on the operation selected from the Left Hand side navigation pane, the tab structure area displays additional tabs for accessing different functionality of the selected operation.

4. The Title Bar Controls

The title bar contains controls for:

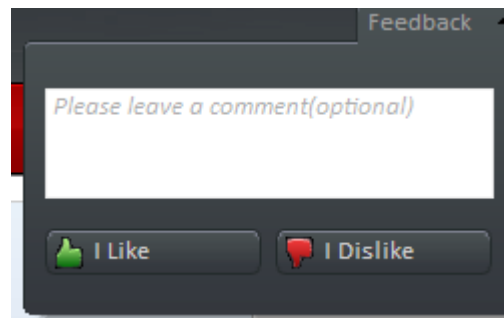
- **Settings** - Opens the interface for performing miscellaneous configuration settings for Comodo BackUp.
- **Help** - Opens the About dialog of Comodo BackUp as well links to online help guide and live support from GeekBuddy. The About dialog contains the version number and the copyright information.



Help Online - Opens the online help guide of Comodo BackUp. The Comodo BackUp help guide contains detailed explanations of the functionality and usage of the application. The Support page near the end of this guide explains other resources and options that are open to users who require further assistance.

Get Help from a GeekBuddy - Launches the GeekBuddy Support client and connects for remote assistance service offered by Security Experts in Comodo who can access your computer through their Remote Desktop. Refer to the chapter **Using Live Help** for more details.

- **Feedback** - Allow users to post their views, comments and suggestions about Comodo products. Submit support request posted to forums.comodo.com



5. The Version and Update Information

The bottom pane provides a summary of backup information and update information.

- **Version Info** - Indicates the version of Comodo BackUp currently installed in your system.
- **Update Info** - Indicates whether the version you have installed is the latest one or it needs to be updated.
- **Share with friends** - Click this link and share your experience about CBU with your friends or log into your Facebook account to see which friends are using Comodo.

6. Comodo News Updates

The Comodo News Updates area contains links to view the updated RSS News feeds as well as you can access [Facebook](#), [Twitter](#) and Videos from Comodo.

1.5. The Quick Run Wizard

The Quick Run Wizard enables you to quickly and easily backup the document, picture and/or music files and videos to your choice of backup location.

Comodo Backup will scan your system to discover and categorize the different types of file on your computer. The wizard then allows you to then select pre-defined profiles of these specific file types and quickly back them up to your chosen destination. The wizard allows you to backup files to your local system, to external storage devices like pen drives or external hard drives or to your online storage space. You must be logged-in to your Comodo Online Storage account in order to backup your files online.

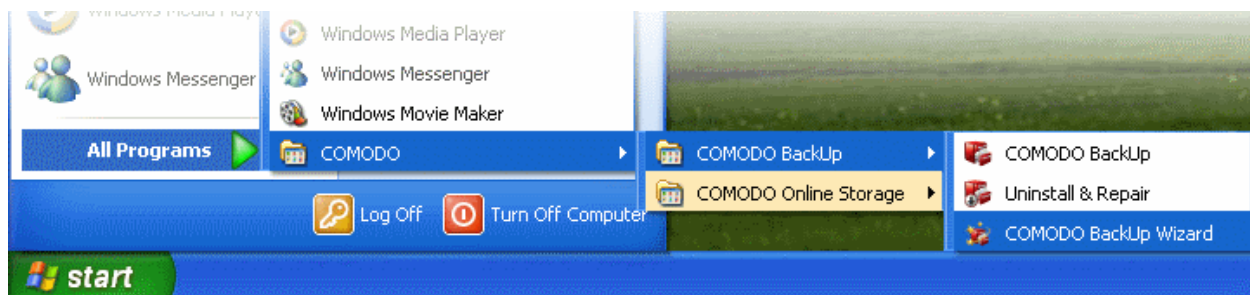
The backup files will be stored in comodo backup (.cbu) format. You can restore the file by using the Comodo Backup application. See [Restoring Your Files and Settings](#) for more details

Starting the Wizard

The wizard starts automatically during the first run of Comodo Backup after the installation and restarting your system. It can also started by the following methods:

From the Start Menu

Click Start > All Programs > Comodo > Comodo Backup > Comodo Backup Wizard.



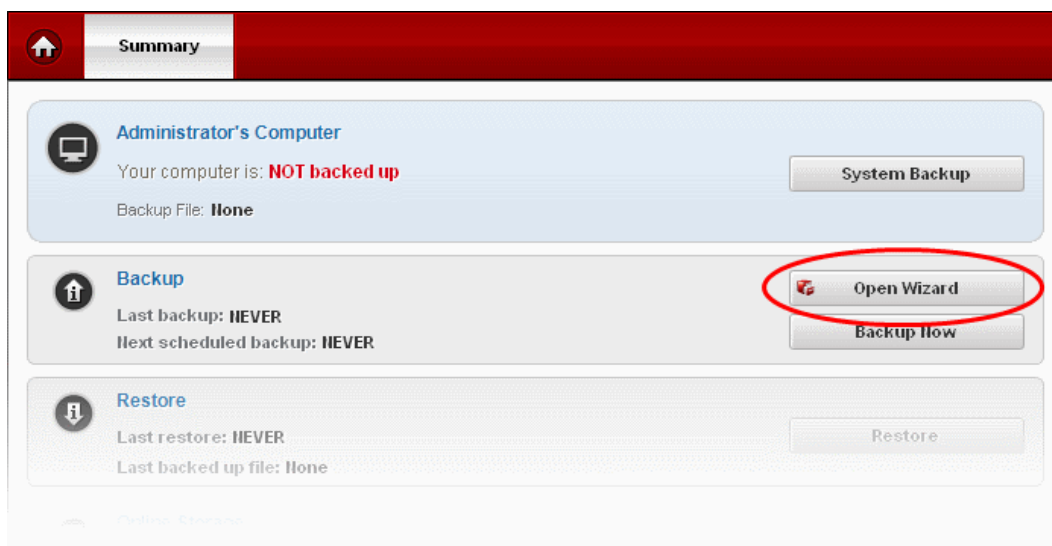
The Desktop icon

You can also start the Quick Start Wizard by double-clicking on the desktop shortcut created during installation.



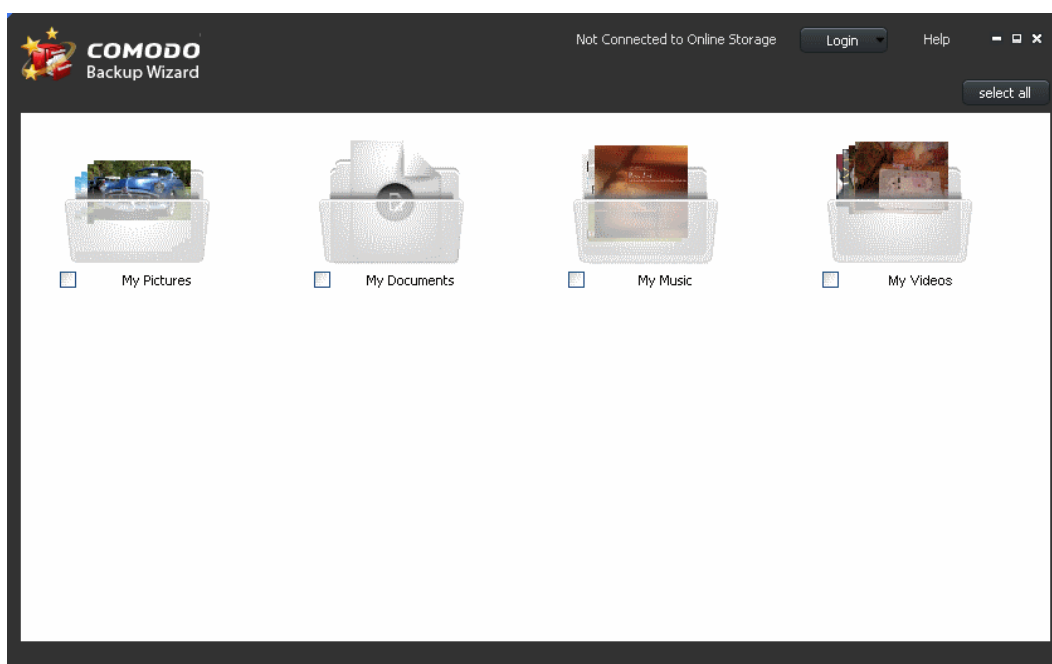
From the Comodo Backup Summary Screen

The **Summary screen** of the Comodo Backup application provides a shortcut to start the wizard. Just click the 'Open Wizard' button in the Backup section of the Summary screen to start the wizard.



Backing-up Your Files

1. To quickly backup your valuable files, start the wizard by any of the methods explained above.
2. Select the predefined profile(s), so that all the files of relevant types stored in your computer (all the drive partitions of your hard disk drive) will be backed-up.

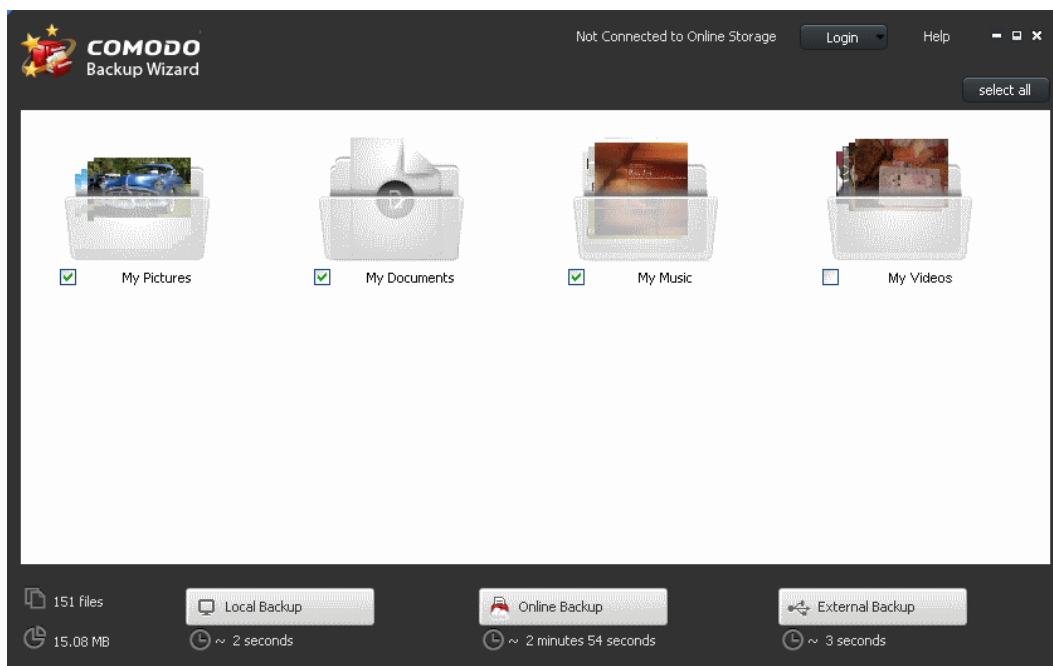


- **My Pictures** - All the pictures, image files, photographs, screen captures etc., stored in image file formats like .jpg, .png, .gif.

- **My Documents** - All the notepad files, text files, documents, spreadsheet files, presentation files etc., stored in document file formats like .txt, .rtf, .doc, .xls, .ppt, .odt, .ods, .odp, .wpd.
- **My Music** - All the sound, audio and music files stored in audio file formats like .mp3, .wma, .wav, .aac.
- **My Videos** - All the video files stored in file formats like .mp4, .wmv, .avi, .flv, .swf.

Tip: To select all the pre-defined profiles at once, click 'Select all' at the top right corner of the interface.

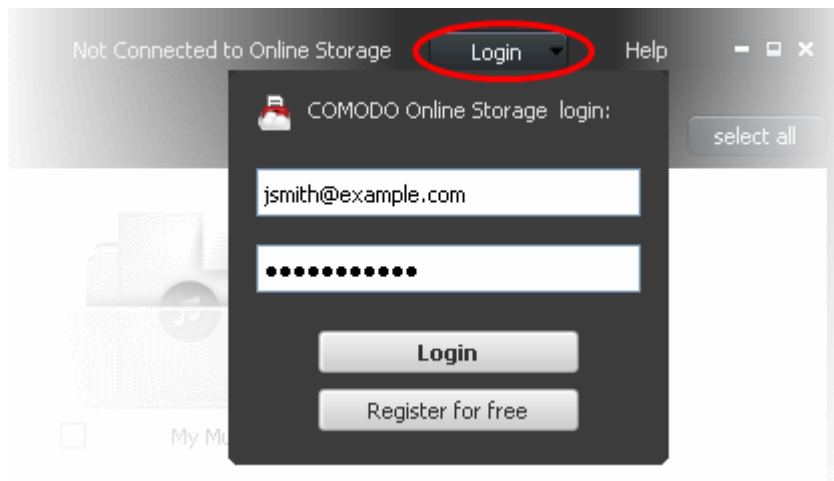
The lower pane will display the number of files identified in the selected category(ies), the total size and the options for selecting the backup destination. The approximate time calculated for the completion of the backup job is displayed beneath each of the destination option.



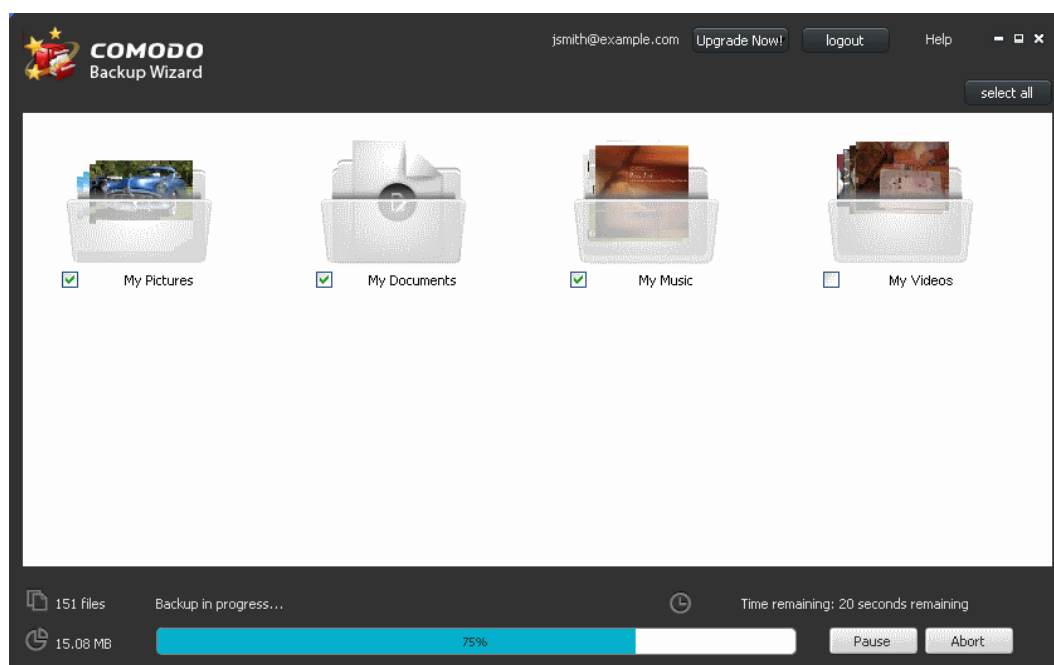
- **Local Backup** - The backup file for the selected items will be stored in the local computer. The default storage location is C:\Documents and Settings\<User Name>\My Backups. You can change the backup location by accessing the Settings interface of Comodo Backup application. Refer to **Comodo Backup Settings** for more details on changing the default location.
- **Online Backup** - If you have signed-up for Comodo Online Storage, you can choose this option to store the backup files in your online storage space. Refer to **Configuring Your Comodo Online Storage Account** for more details on creating a new account and managing your files online storage space. If you have already signed-up. You must first login to your account before choosing the 'Online Backup' option.

To login to your account

- Click 'Login' from the top-right corner and enter your username (your email address) and password as entered during Sign-Up.

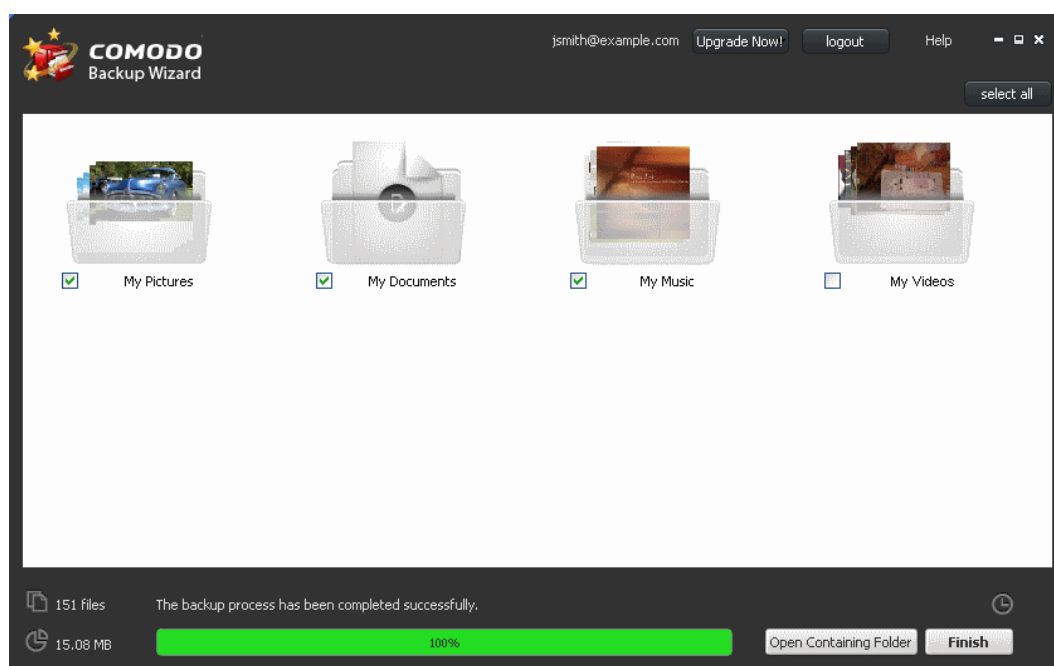


- Click 'Login'.
 - **External Backup** – The backup file for the selected items will be stored in external storage device like pen drive or external hard drive. You must have the device connected to your USB port before selecting this option.
3. Select the backup destination. The backup process will be started and the progress will be displayed.



- If you want to temporarily stop the backup process, press 'Pause'. You can restart the process by clicking the 'Resume' button.
- If you want to cancel the backup process, click 'Abort'.

On completion of the backup process, the following screen will be displayed.



- Clicking 'Open Containing Folder' opens the folder containing the backup file in Windows Explorer window.
4. Click 'Finish' to complete the backup operation.

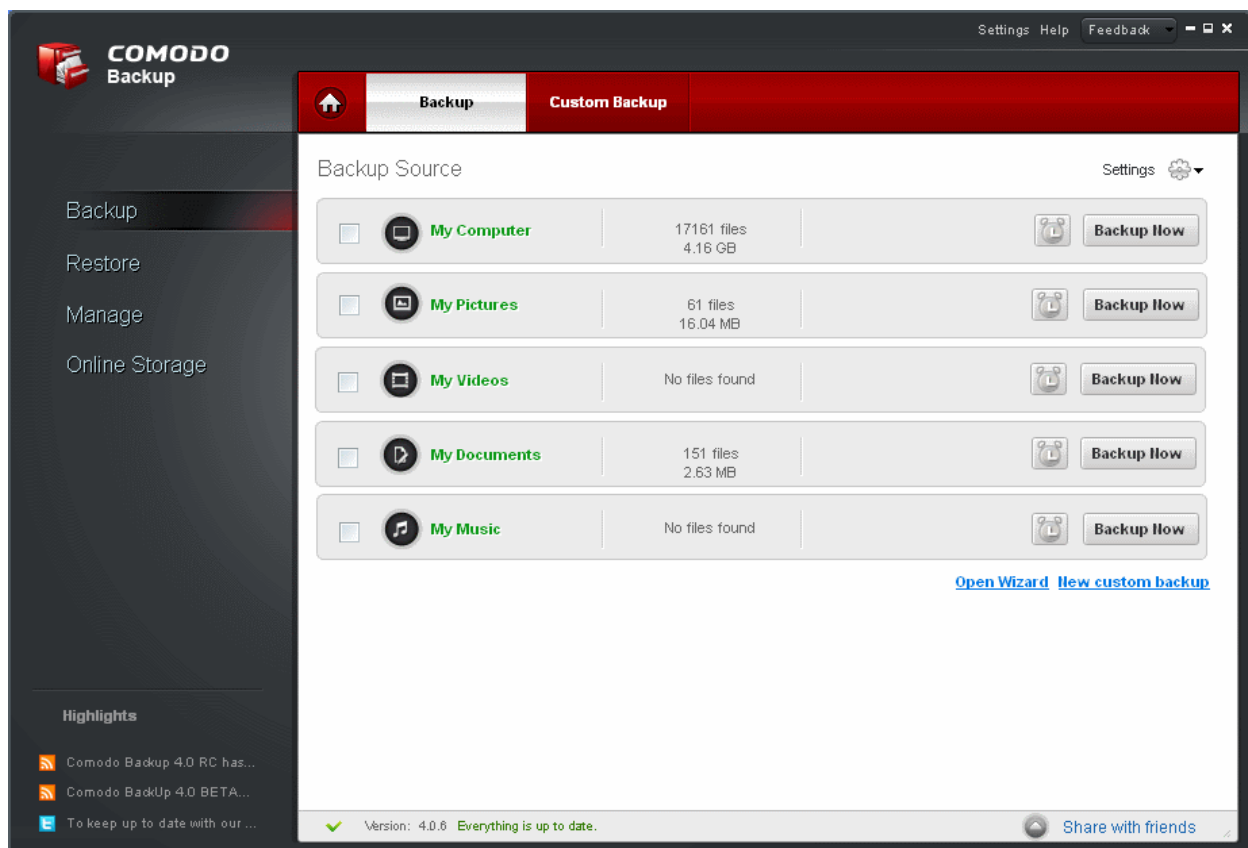
2.Backup

In order to create copies of your data you have to create one or more backup jobs as backup profiles. During the creation of a backup job you can choose which type of data you wish to backup (source), how to backup (backup settings), where you want your backed up files to be stored (destination) and when to backup (schedule the job). Refer to **The Custom Backup Area** for more details.

Apart from creating custom backup profiles, Comodo BackUp ships with a set of predefined backup profiles that allows you to backup your important files and valuable collections stored in standard folders like 'My Documents', 'My Music', 'My Pictures', 'My Videos' etc. with a single mouse click. Refer to **The Backup Area** for more details.

Comodo backup is capable of executing backup jobs in many formats such as Simple Copy, ZIP file, ISO file, CBU file etc. However, the application can restore the files/folders that are saved in .cbu format only. Wherever the application allows you the option to choose the format for the backup job, please bear this fact in mind. That is, to restore a backup job you should save only in .cbu format.

To access the Backup interface, click on the 'Backup' tab from the Left Hand Side Navigation pane.



For more details, click the following links:

The Backup Area - Allows you to backup the entire or selected files from selected locations as per predefined profiles.

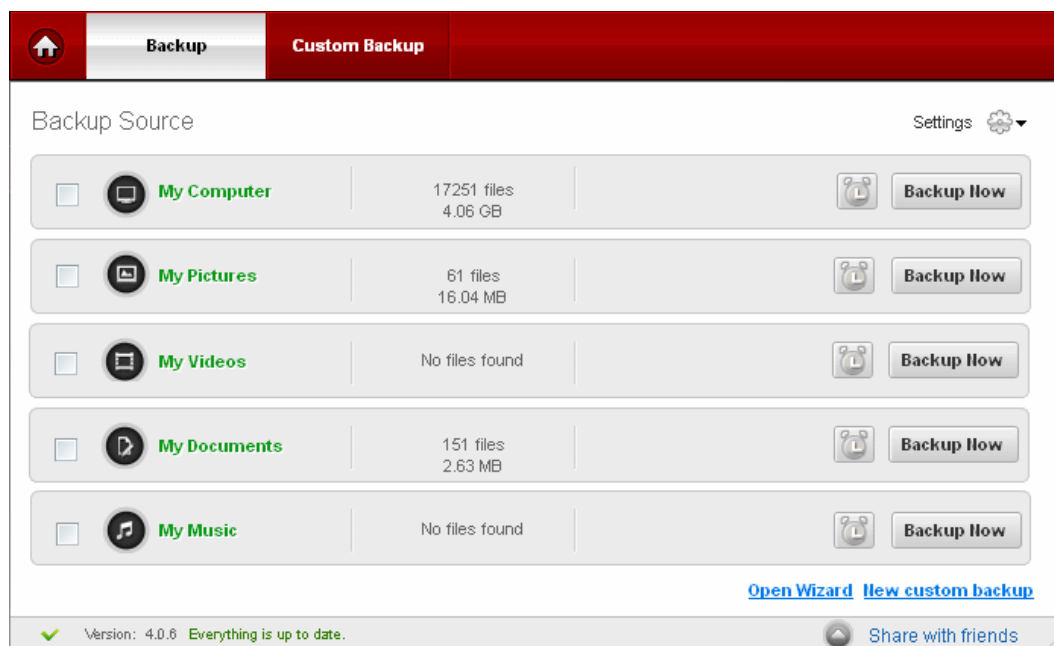
The Custom Backup Area - Allows you to create new backup profiles.

2.1. The Backup Area

Comodo BackUp ships with a set of predefined profiles that allow you instantly backup commonly used and important areas of your computer. Profiles include 'My Computer', 'My Documents', 'My Music', 'My Pictures', 'My Videos'.

If you wish instead to choose specific files, folders or drives to backup, then you should click the 'Custom Backup' button instead (see **2.2 The Custom Backup Area**).

To access the Backup interface, click on the 'Backup' tab from the Left Hand Side Navigation pane and click 'Backup' button in the top pane.

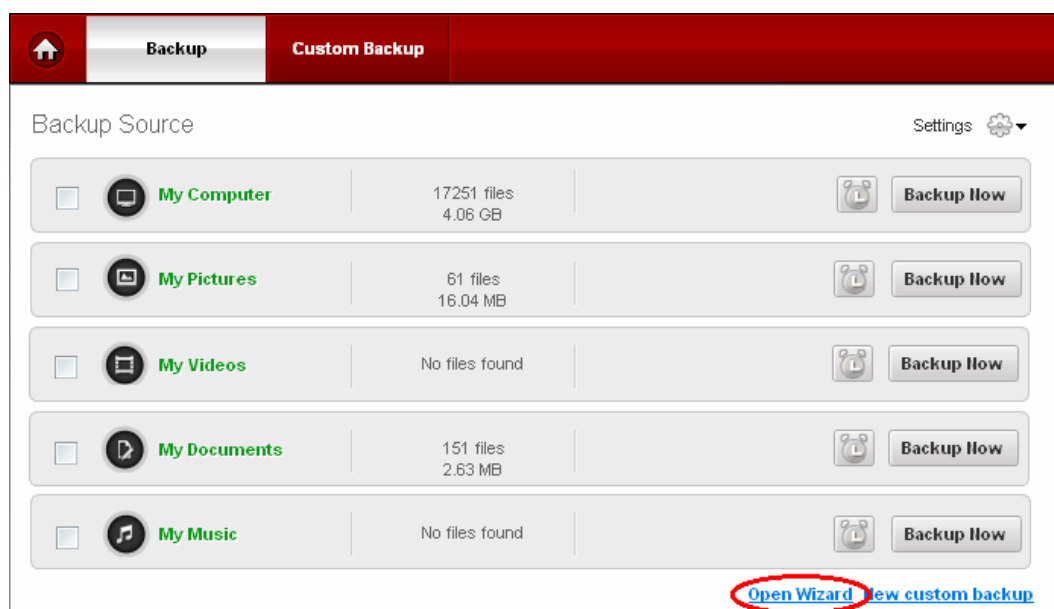


2.1.1. Using Predefined Profiles

You can backup all the files/folders in a predefined profile or selected items in a predefined profile . Click the following links to know more:

- **Backup all files/folder in a predefined profile**
- **Backup selected items from a predefined profile**

Quick Run Wizard



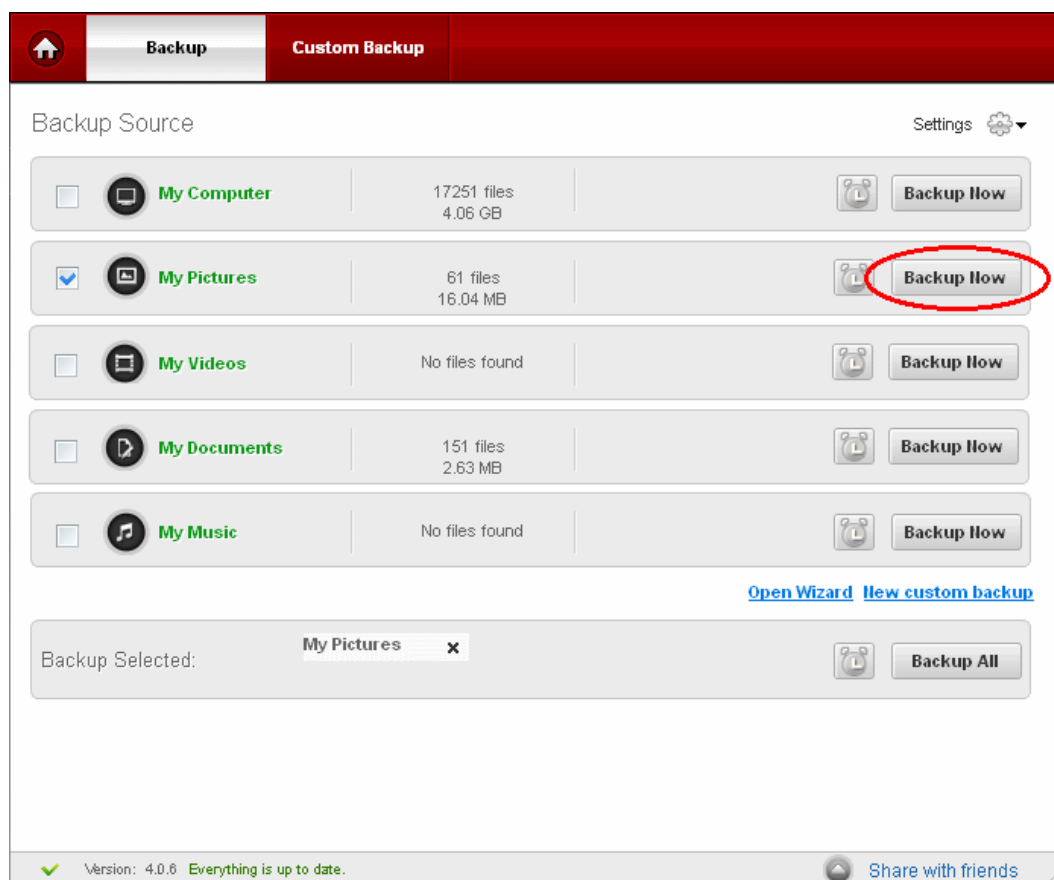
The Quick Run Wizard allows you to instantly backup all the files in a predefined profile. The wizard can be started by clicking 'Open Wizard' link in the Backup interface. For more details on using the wizard, refer to **The Quick Run Wizard**.

2.1.1.1. Backup all Files/Folders in a Predefined Profile

Comodo Backup allows you to create a backup of all files/folder in a predefined profile with few mouse clicks.

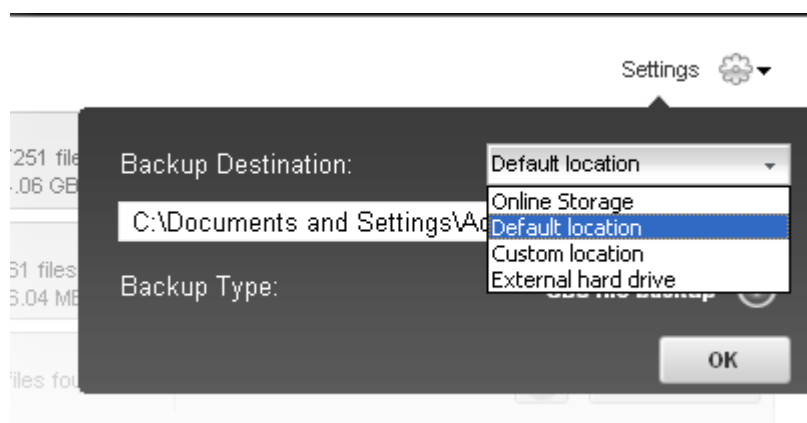
To backup all files/folders in a predefined profile

- Select the checkbox beside a predefined profile that you want to backup



The profile that you selected to backup will be displayed at the bottom of the interface.

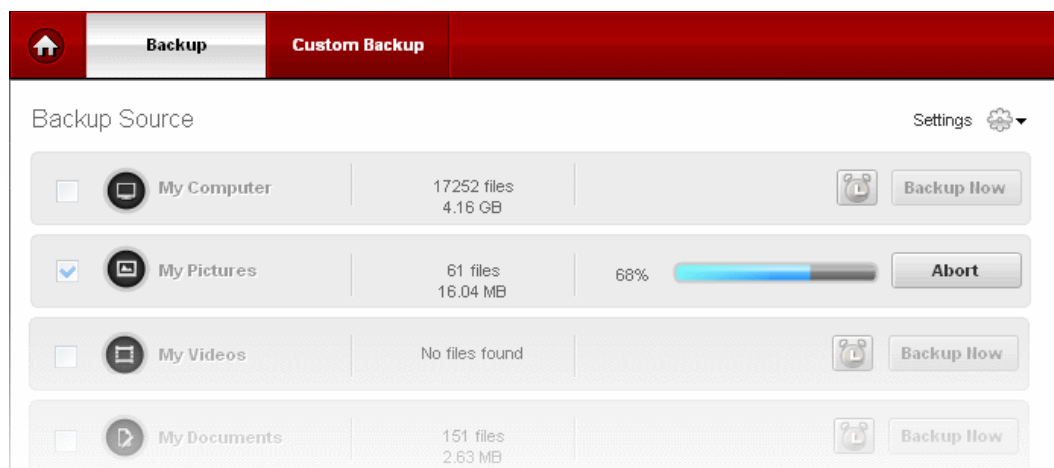
The default location of the backup files is C:\Documents and Settings\ <user name> \ My Backups. To store the backup files to another location, click the 'Browse...' button at the right side of the Backup Destination field at the top of the interface



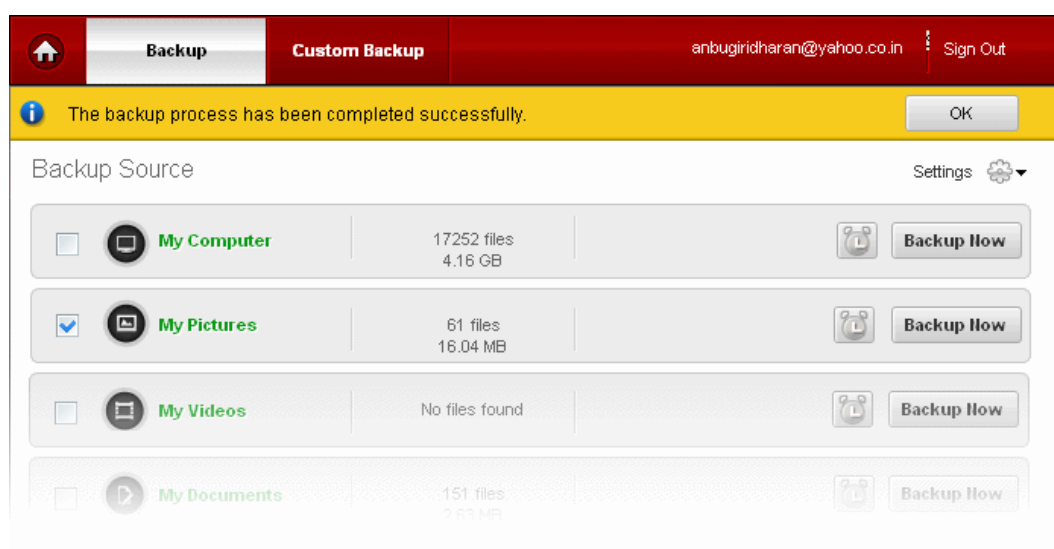
If you want to store the backup to Online Storage, Custom location or an external hard drive, click the drop-down button beside 'Default location' and select your option.

Click the 'Backup Now' or 'Backup All' button at the right side of the selected profile

The progress of the backup will be displayed...



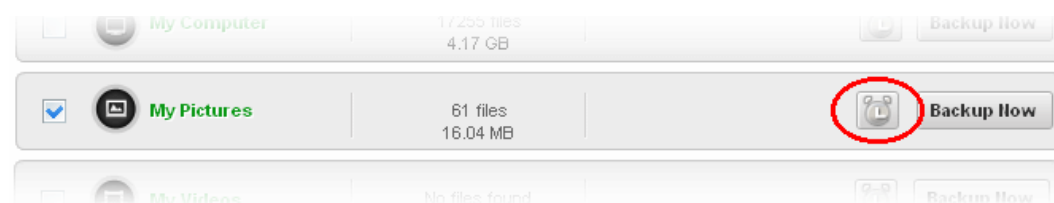
...and on completion of the task, a message indicating the successful completion of the backup process will be displayed at the top of the interface.



- Click 'OK'

The backed up files will be saved with .cbu extension in the default location or your selected location.

You can also schedule your backup jobs by selecting the alarm icon in the respective predefined profile tab.



[Click here](#) to know more about scheduling your backup jobs.

2.1.1.2. Backup Selected Items from a Predefined Profile

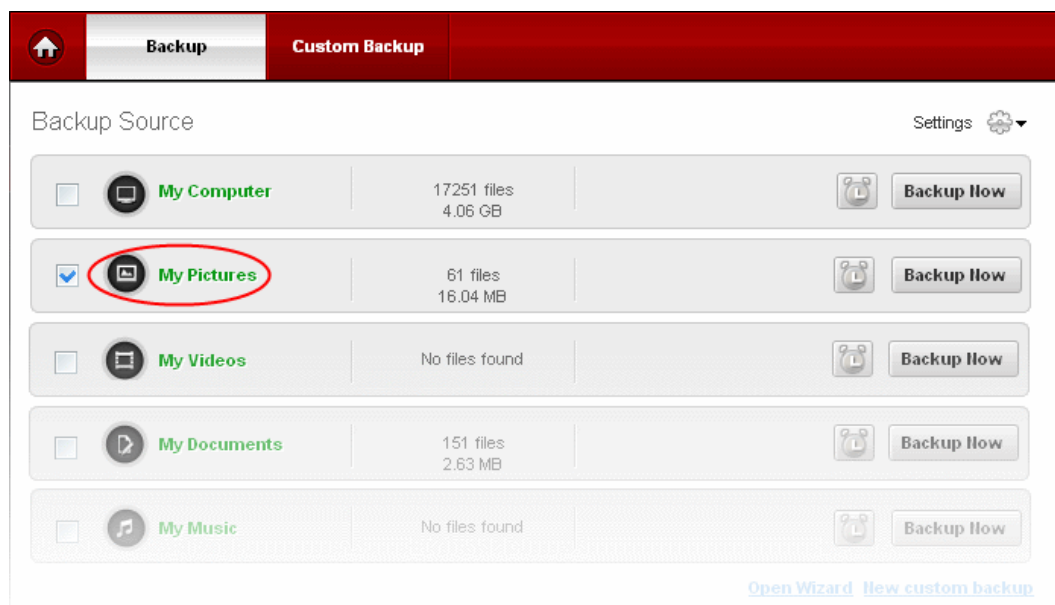
Comodo Backup allows you to backup selected items from a predefined profile with a few mouse clicks.

Important Note: You have the option to save the selected files from the predefined profile as simple copy or in .cbu format.. However, please bear in mind that Comodo Backup is capable of restoring backup files that are in .cbu format only. To restore

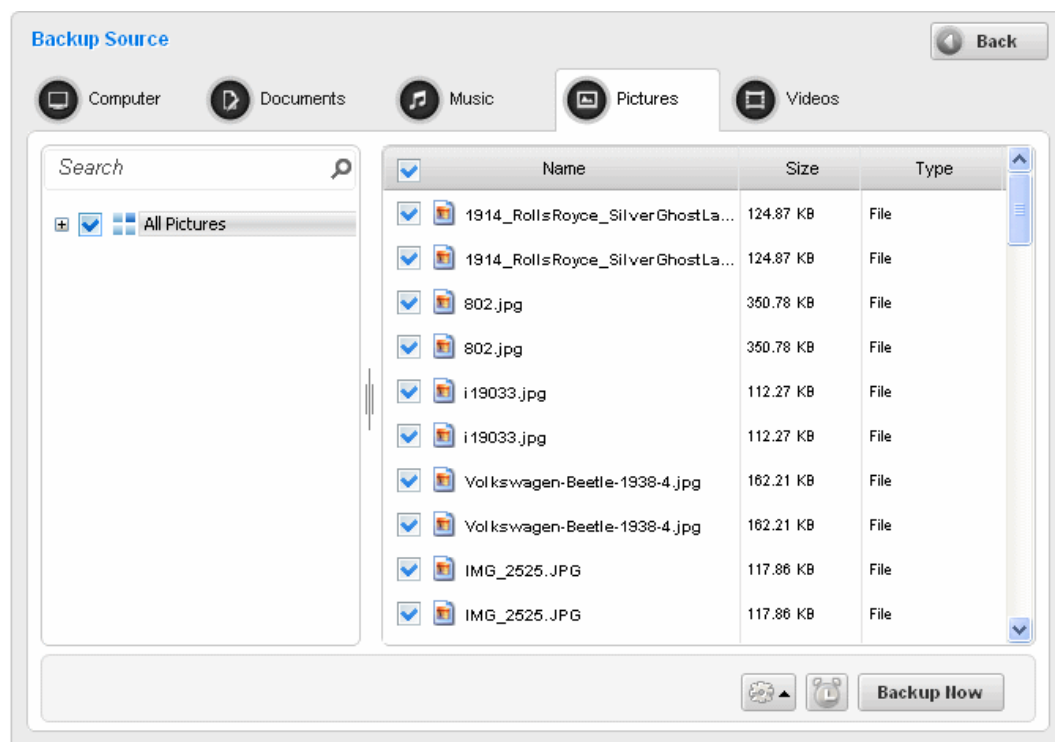
items that are saved in simple copy format, just copy the backup files from the backed up location and paste it in the original location or simply drag and drop in Windows Explorer.

To backup selected items from a predefined profile

- Click on the 'Backup' tab from the Left Hand Side Navigation pane and click 'Backup' button in the top pane
- Click on the name of the predefined profile (for eg. My Pictures) from which you want to backup selected items

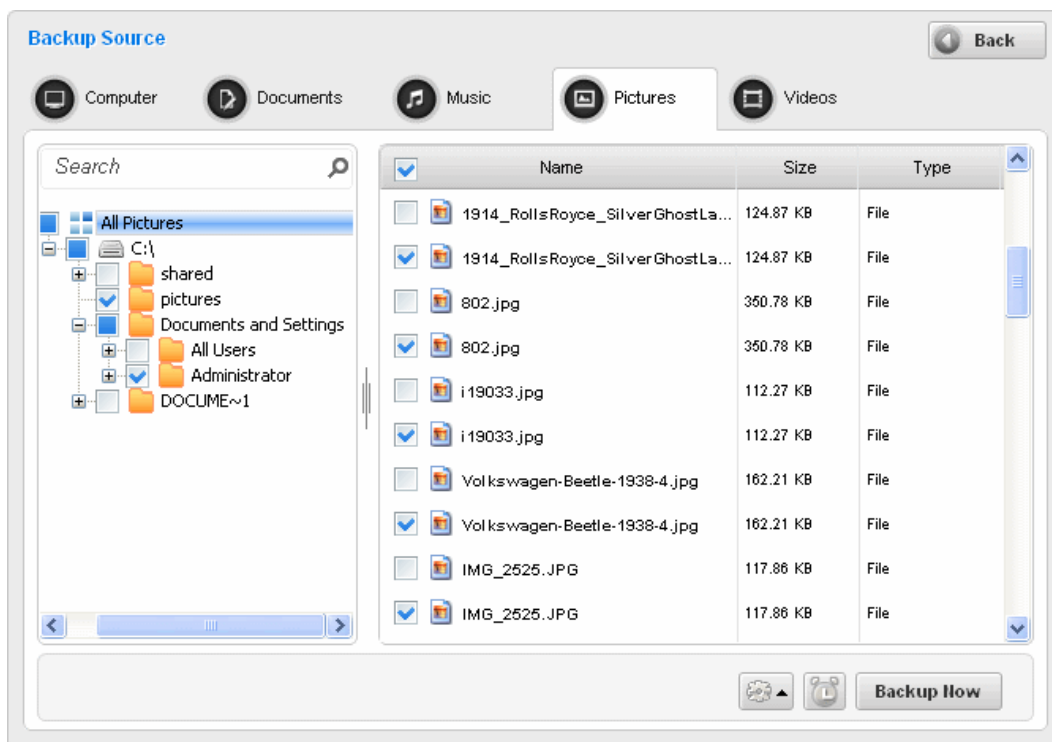


The files/folders in the selected predefined profile will be displayed in the right side of the main interface with details such as name, size and type of the file. You can easily decide what files to backup by looking at the details.

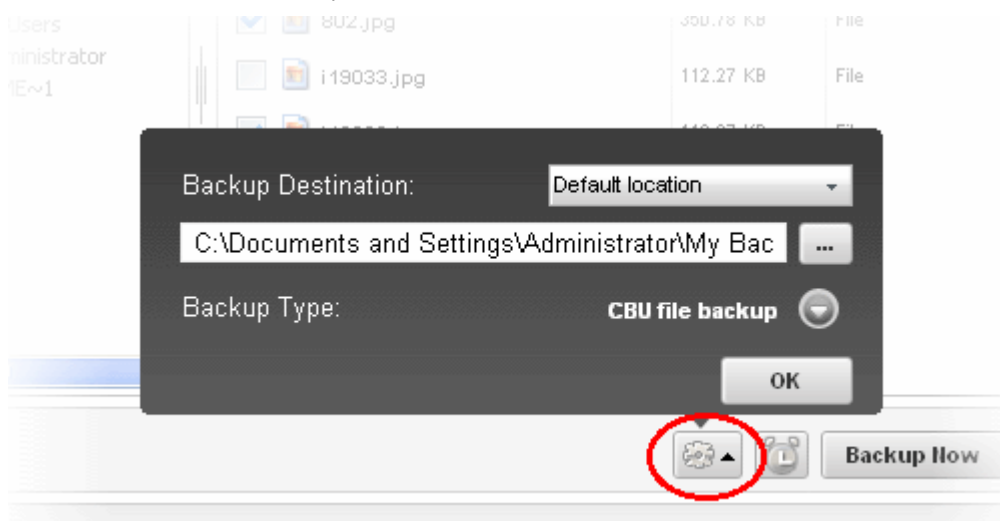



- Deselect the checkbox beside 'Name' and select the items that you want to backup
- Type the name of the file in the 'Search' field to search for particular file or folder
- If you wish to backup the files only from selected folders, expand the predefined profile by clicking on the '+' button in

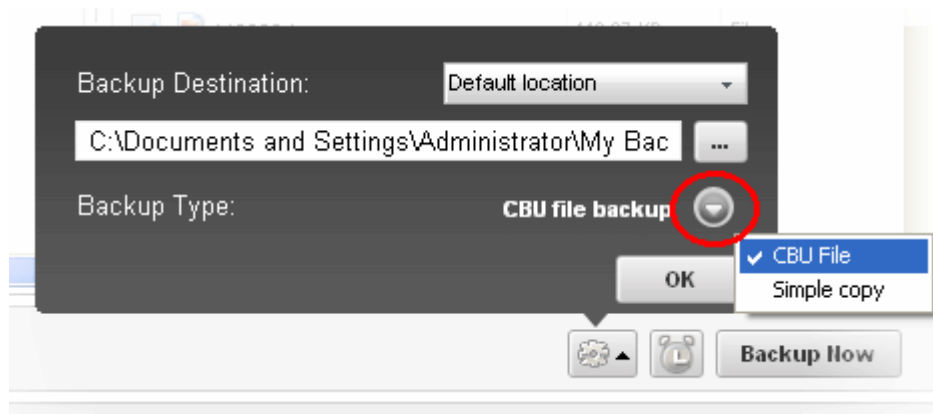
the left side and select particular folder(s) that you want to back up.



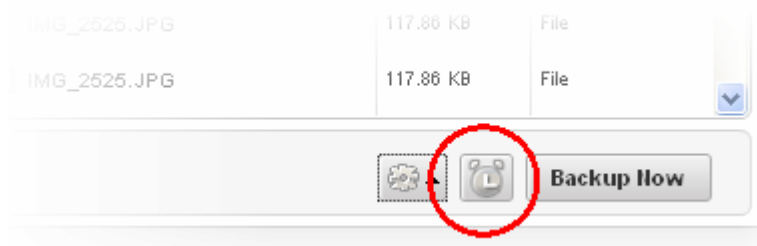
- Select the location where the backup should be stored...



- ...or click the  button and navigate to another location for the backup to be stored
- Choose the format that you want to save the backup from the drop-down button. You can choose between CBU File or Simple copy



- **CBU File** - Native file format of the Comodo BackUp application. The backup file will be stored in the selected destination with a .cbu extension. This type of backup can be restored only with the CBU application.
- **Simple copy** - Preserves a copy of the file in original format. The backup file is an exact copy of the selected file / folder in the current state. This format is not supported by CBU for restoring. You can restore the files by copying and pasting it to another location.
- To schedule a backup to run at a later time or at periodic intervals, click the alarm clock button and create a schedule. [Click here](#) to know more about Scheduling options.



- Click the 'Backup Now' button to instantly backup the selected files.

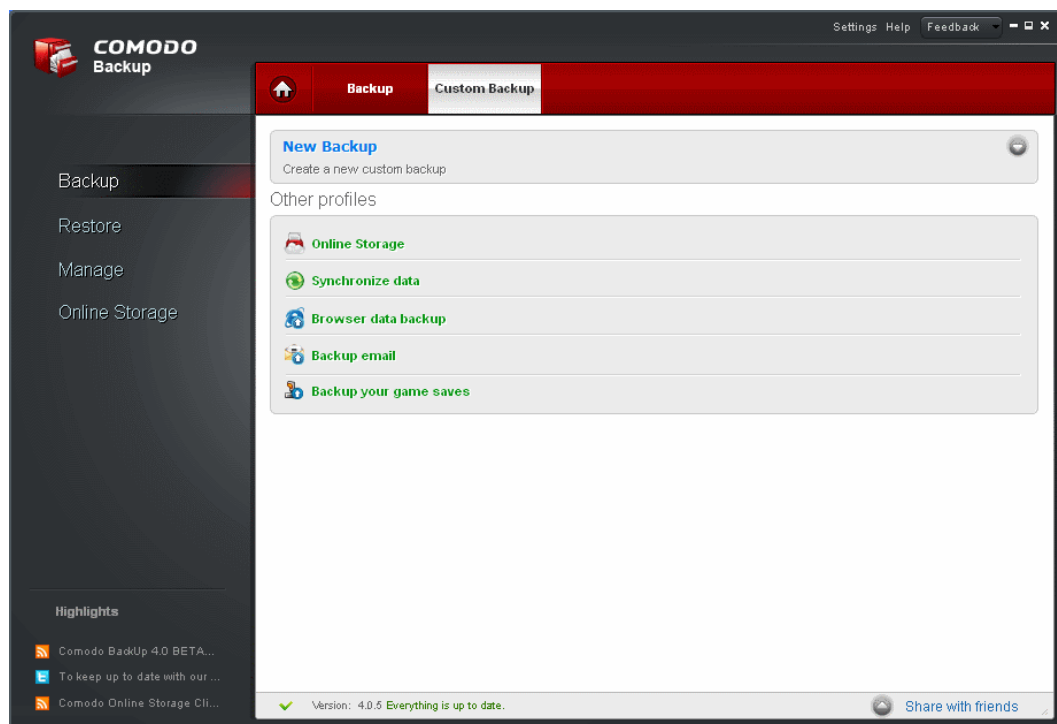
The backup files will be saved in the chosen format in the selected location.

Similarly, you can backup the files/folders available in other predefined profiles.

2.2. The Custom Backup Area

The Custom Backup area contains two sections:

- **New Backup** - Opens the interface for creating and executing a custom backup job/profile. The created backup job can be added as a custom profile and made to be listed in the Other profiles area for instant access and execution.
- **Other Profiles** - Displays a list of options for instant access of your Comodo Online Storage account, Synchronizing data between a backup source and a stored backup, instant backup of your browser settings, mails and Game saves.



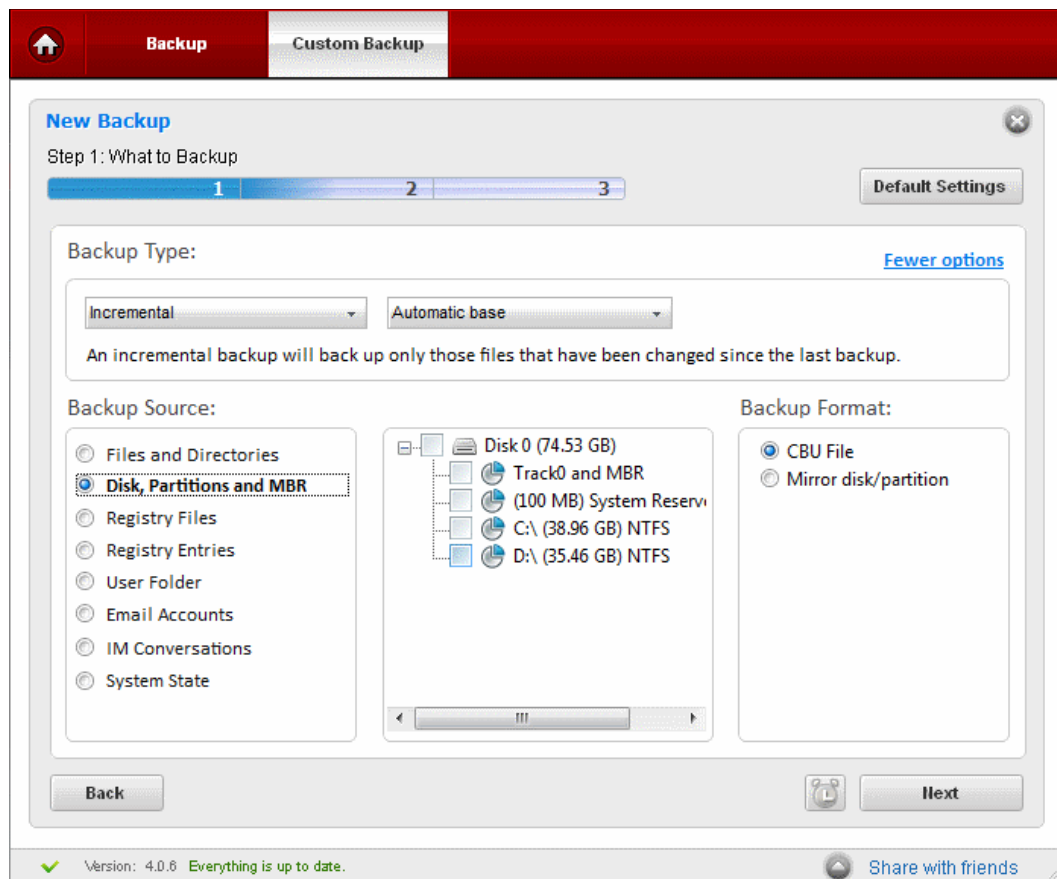
2.2.1. New Backup

Creating a custom backup job/profile allows you to select or hand pick items to be backed-up, like the entire disk, a partition, required folders/files, entire registry or custom registry entries, mail accounts, Instant Messenger (IM) conversations, system state etc. and to select the destination as you wish. Also, you can schedule the backup job to be executed at set intervals.

To create a custom backup job/profile, click the 'New Backup' tab from the main configuration area:



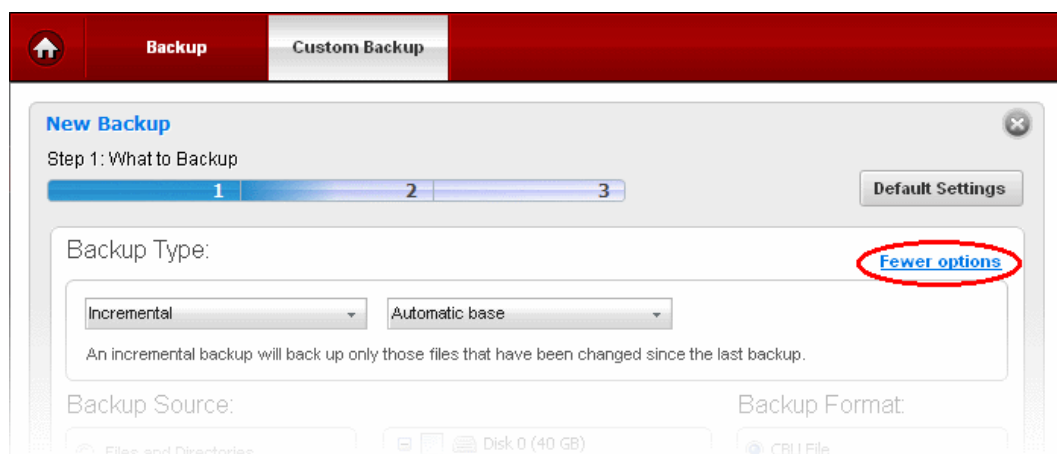
The 'New Backup' interface will open.



Creating and executing a backup job can be done in two modes:

- **Fewer Options Mode** - Enables to backup your selected item with just a few mouse clicks. Suitable for beginners.
- **More Options Mode** - Enables to configure granular backup settings for your backup job such as incremental, differential and full backup. In this mode, various options of backup format is available such as zip file, ISO file, synchronize data etc. This mode is useful for advanced users.

To switch between these modes, click the link 'More options' or 'Fewer options' at the top right corner.



2.2.1.1. Step 1 - Selecting the Backup Source

The first stage of the process is to choose which item you want to backup. Comodo BackUp allows the user to backup entire drives; select multiple or individual files and folders to backup; take complete or partial backups of the Windows registry and backup important system settings. The program also allows the user to make copies of their emails, IM messages and personal Windows user settings. In some cases, after selecting the type (or 'Source') of backup you want from the left panel you need to make a further selection from the right panel.

There are two options available in Step 1:

- **Fewer Options Mode** - Enables to backup your selected item with just a few mouse clicks. Suitable for beginners.
- **More Options Mode** - Enables to configure granular backup settings for your backup job such as incremental, differential and full backup. In this mode, various options of backup format is available such as zip file, ISO file, synchronize data etc. This mode is useful for advanced users.

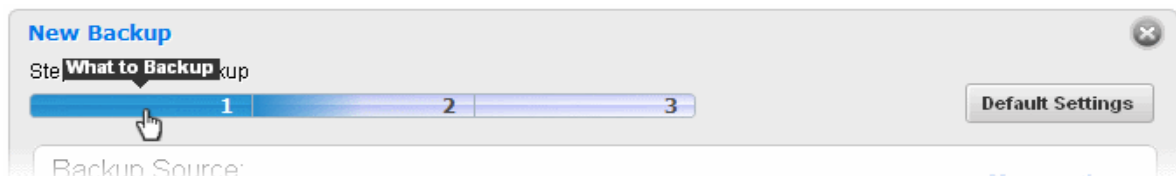
2.2.1.1.1. Fewer Options Mode

In the 'Fewer Options' mode you can configure and execute your backup operation in three simple steps, and enables you to complete the backup operation quickly with just a few mouse clicks.

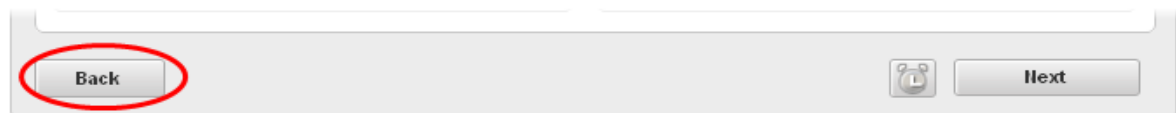
The three steps are:

- Step 1: **Select the source of backup (Choose which kind of data you wish to backup)**
- Step 2: **Choose the destination of your backup**
- Step 3: **Configuring your backup settings**

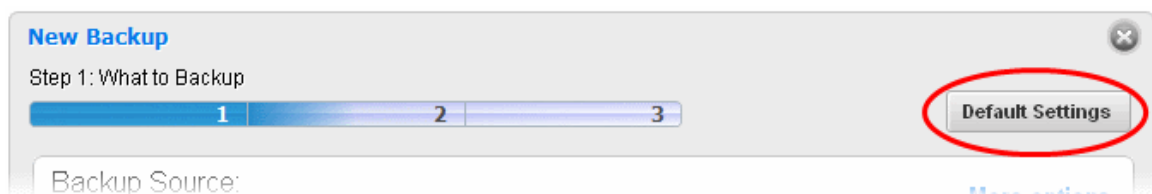
The progress bar on the top indicates the configuration progress with step numbers. Placing the mouse cursor on a step displays a tool tip with a brief description of the step.



To return to a previous step to review/redo the configuration made, just click the respective step number. You can also return to the previous step by clicking the 'Back' button.



Clicking Default Settings clears the selections made in the respective step and allows you to reconfigure the options in that step.



On completion of the backup job configuration, you need to **finalize** the backup operation by executing it instantly or schedule the job to be executed at a later time or at recurrent intervals.

2.2.1.1.1.1 Source Types

Details on each of the Backup sources can be found by clicking the links below.

- **Disk, Partitions and Master Boot Record (MBR);**
- **Files and Directories;**
- **Registry Files;**
- **Registry Entries;**
- **User Folder;**
- **Email Accounts;**
- **IM Conversations;**
- **System State.**

Disk, Partition and Master Boot Record

You can backup the contents of the entire hard disk drive or specific partition in your computer and / or the Master Boot Record (MBR) of that drive.

Background Note: Track0 is the area located at the start of your hard disk containing the first 63 sectors. It stores the information regarding the layout of the disk like the partition table. Also Track0 stores the licensing information for software because it is an area of the disk outside the OS file system and not seen or used by most computer users (and therefore cannot be easily modified or replicated).

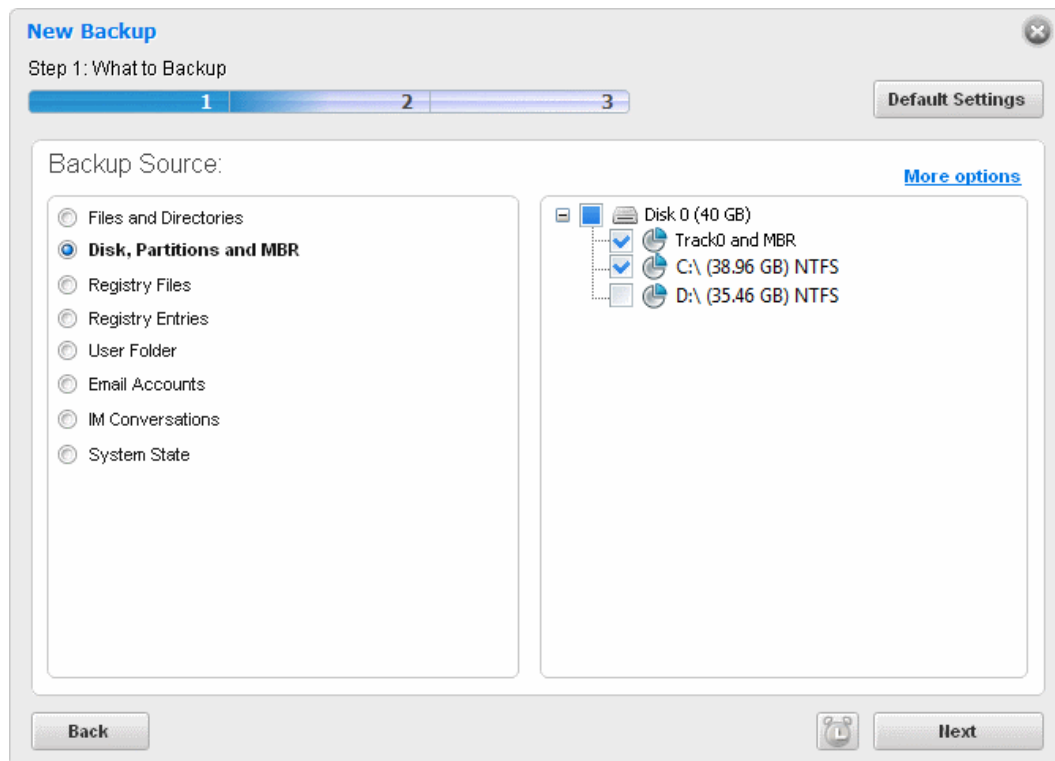
The MBR is the very first sector on Track0 and contains the instructions necessary for a computer to start up. It is also known as the 'Boot Sector'.

Backing up the Track0 and MBR (preferably to a separate physical drive or removable media) helps to recover a drive should the original Track0 and MBR become corrupted and the machine un-bootable.

Important Note: In order to create a backup for Disk Partitions and MBR, Comodo BackUp has to be run under administrative privileges. Refer to the **note** in the chapter **Starting Comodo BackUp** for more details.

To backup the whole Disk drive, drive partition(s) and / or the MBR

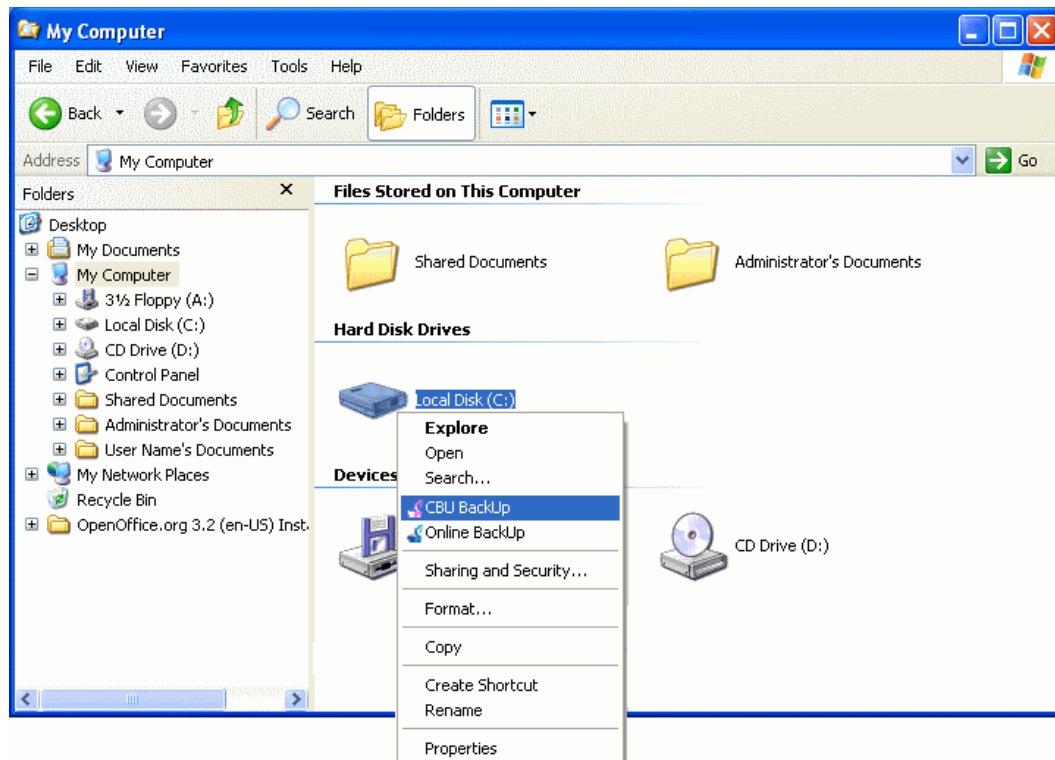
- Select the 'Disk, Partitions and MBR' radio button.



The right hand side pane displays the options for selecting the item to be backed up.

- To backup the whole hard disk in your system, select the 'Disk0' checkbox. This includes the boot partition and all the other individual partitions.
- To backup the **Track0 and MBR**, select the 'Track0 and MBR' checkbox.
- To select the individual drive partitions, CD / DVD or the USB memory, select the checkbox of the respective partition drive letter.
- Click 'Next'.

Alternatively, you can also select a desired drive partition to be backed up, from the Windows Explorer window, Right click on the desired drive and select 'CBU BackUp'



Background Note: The backup of the selected disk / partition is performed in sector-by-sector method and the resulting backup file is an image of the selected drive or partition.

The process moves to **Step 2**.

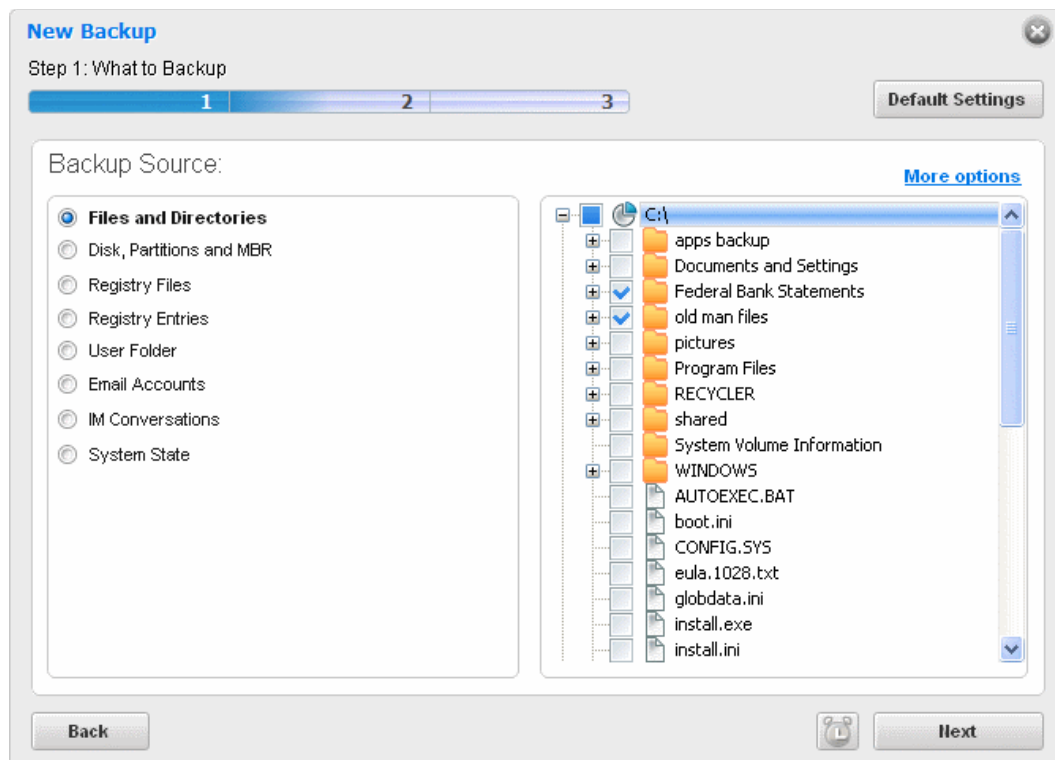
Files and Folders

This option allows you to manually browse your local or network file structure and select specific files or folders for backup. Selecting only the files and folders you require gives you the flexibility to create precise, custom jobs that encompass files scattered across multiple locations into a single, consolidated, backup routine. Handpicking files and folders in this manner may also help to save time and disk space (especially important to users with limited resources or if the application is to be used in a networked environment on multiple workstations).

To backup only selected folders or files

- Select the 'Files and Directories' radio button.

The right hand side pane displays the disk partitions and folders in a tree structure.

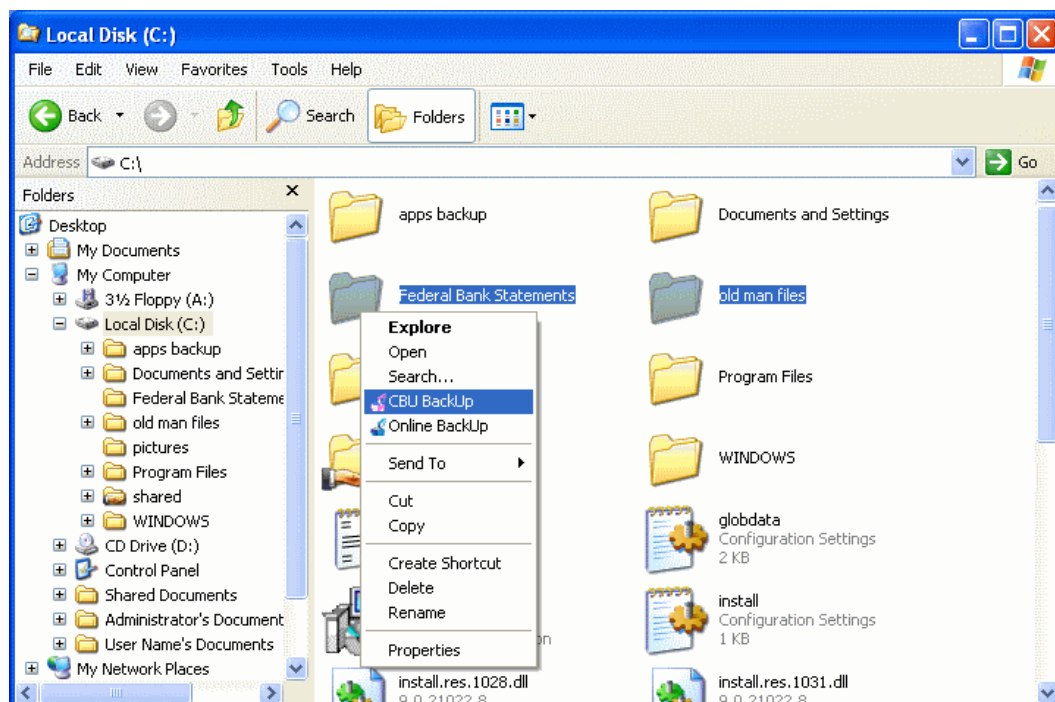


- Navigate to the file(s) or the folder(s) you want to backup and select the checkbox(s) beside the required item(s).

Note: Selecting a folder helps to backup all the sub-folders and the files in it.

- Click 'Next'.

Alternatively, you can also select a desired file / folder to be backed up, from the Windows Explorer window. Right click on the desired item and select 'CBU BackUp'.



The process moves to **Step 2**.

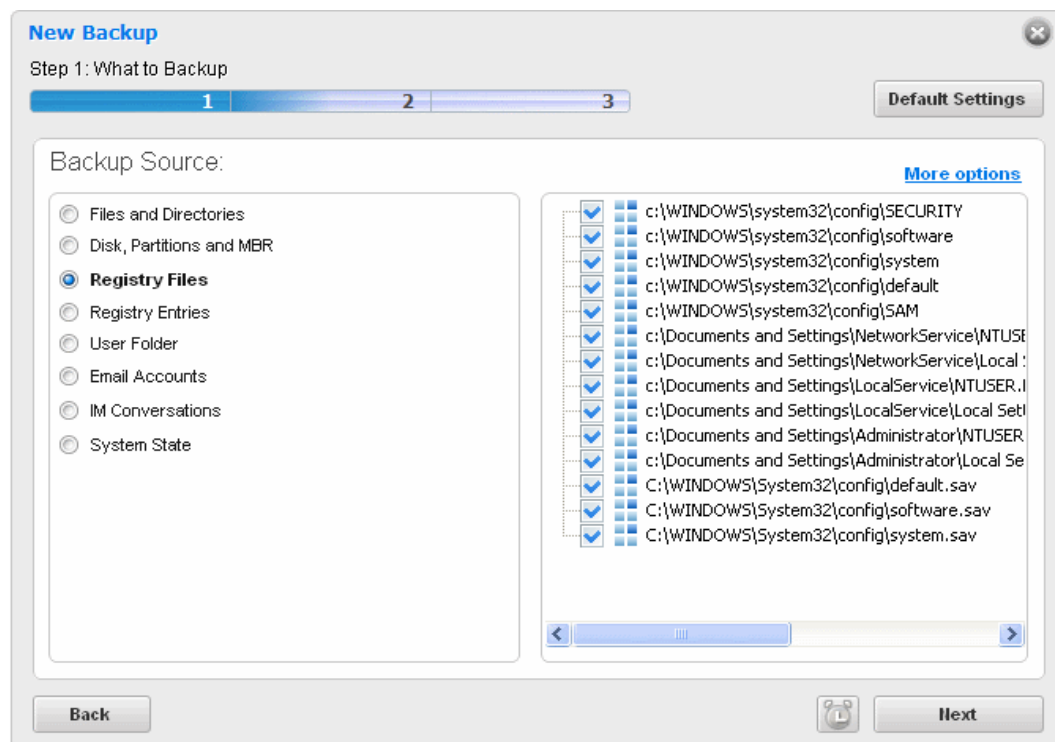
Registry Files

The Windows registry is a huge, constantly referenced, archive for collecting and storing configuration settings of Windows components and installed software and hardware. Whenever you perform a task such as installing or removing a program or modifying a file on your computer, Windows creates an entry in the Windows Registry to reflect this change. It is difficult to over-estimate the importance of the registry to Windows users because the entire operating system is so heavily reliant upon it. One corrupted or deleted registry key could bring your system crashing to a standstill. It is therefore a highly recommended practice to take regular backups of your registry so that, in the event of catastrophe, you can quickly roll back your system to its last working state. For the same reason, it is also a good idea to backup your registry before you install new software or hardware drivers.

Important Note: In order to create a backup for the Registry files, Comodo BackUp has to be run under administrative privileges. Refer to the **note** in the chapter **Starting Comodo BackUp** for more details.

To backup entire Windows Registry Files

Select the 'Registry Files' radio button.



- By default, all the Registry files are selected. If you want to backup the registry files selectively, uncheck the files which you do not need to back up.

The process moves to **Step 2**.

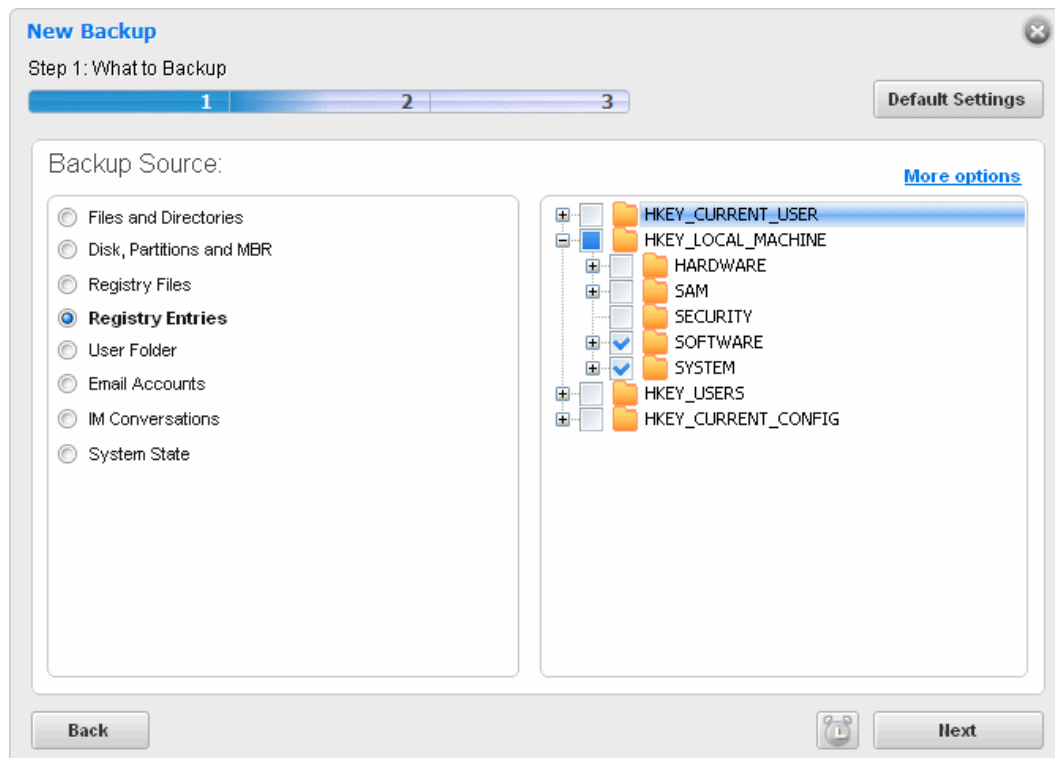
Registry Entries

Individual registry keys and / or 'hives' can be backed up selectively (for example, the registry entries corresponding to specific Windows components / installed hardware / software / applications etc). You may want to do this because you are about to install a new device, driver or piece of software and wish to be able to revert very important areas of the the registry to their previous state or because you would rather back up very important areas of the registry instead of a taking complete backup. Because of its somewhat complex nature, this option is suitable for advanced users. Users who do not have a working knowledge of the Windows registry are advised to backup the entire registry rather than selecting individual registry items.

Important Note: In order to create a backup for selected Registry entries, Comodo BackUp has to be run under administrative privileges. Refer to the **note** in the chapter **Starting Comodo BackUp** for more details.

To backup the Windows Registry hives selectively

- Select the 'Registry Entries' radio button.



The right hand side pane displays the Registry Hives in a tree structure.

- Navigate to the registry hive(s) you want to backup and select the checkbox beside the required item(s).
- Click 'Next'.

The process moves to **Step 2**.

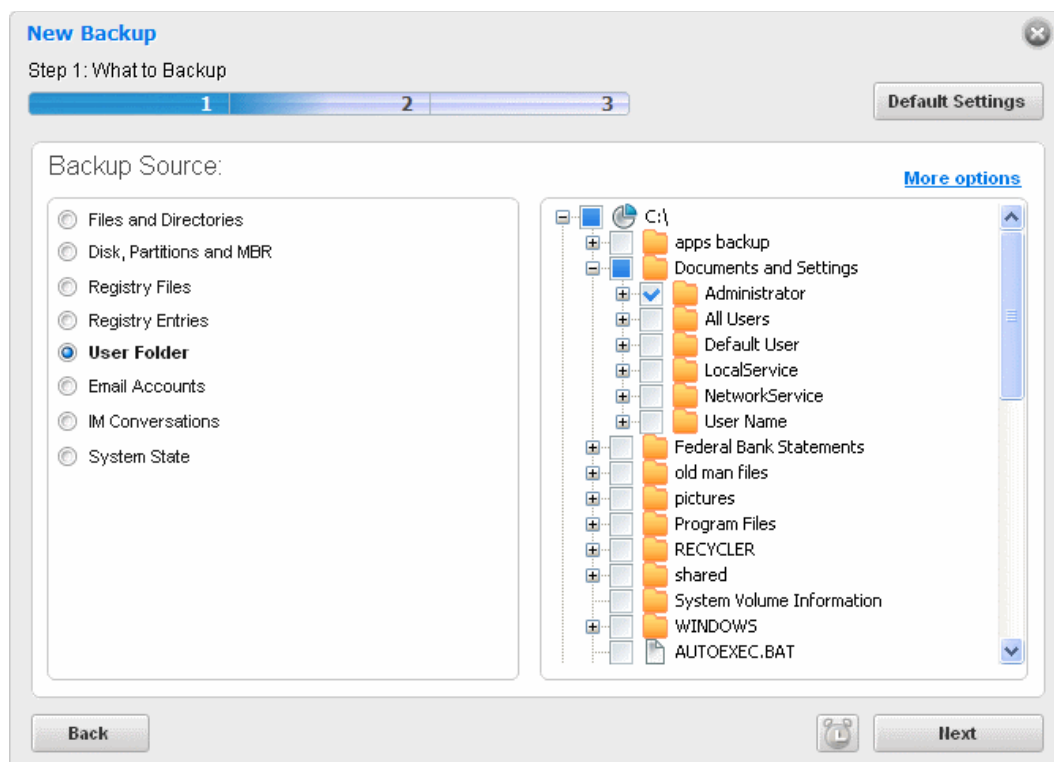
User Folder

The Windows system settings configured by the user and all user related files like files in 'My Documents', 'My Pictures' etc. can be stored as a backup. E.g. On Windows XP or Vista, for a user named 'John Smith' it creates a backup of the folder 'C:\Documents and Settings\John Smith'. This means it can backup the user's desktop, documents, pictures, user registry settings, etc. This is useful, when you are reinstalling the same version of Windows and you wish to regain the settings you made in the previous installation in a single step.

This is useful when you want to revert to your old Windows settings, in case you have modified the windows settings.

To backup the Windows Settings configured by the user

- Select the 'User Folder' radio button.



The tree structure of your hard disk drive will be displayed in the right hand side pane with the user folder pre-selected. If you want to add more folders/files, select them by clicking the respective checkboxes.

- Click 'Next'.

The process moves to **Step 2**.

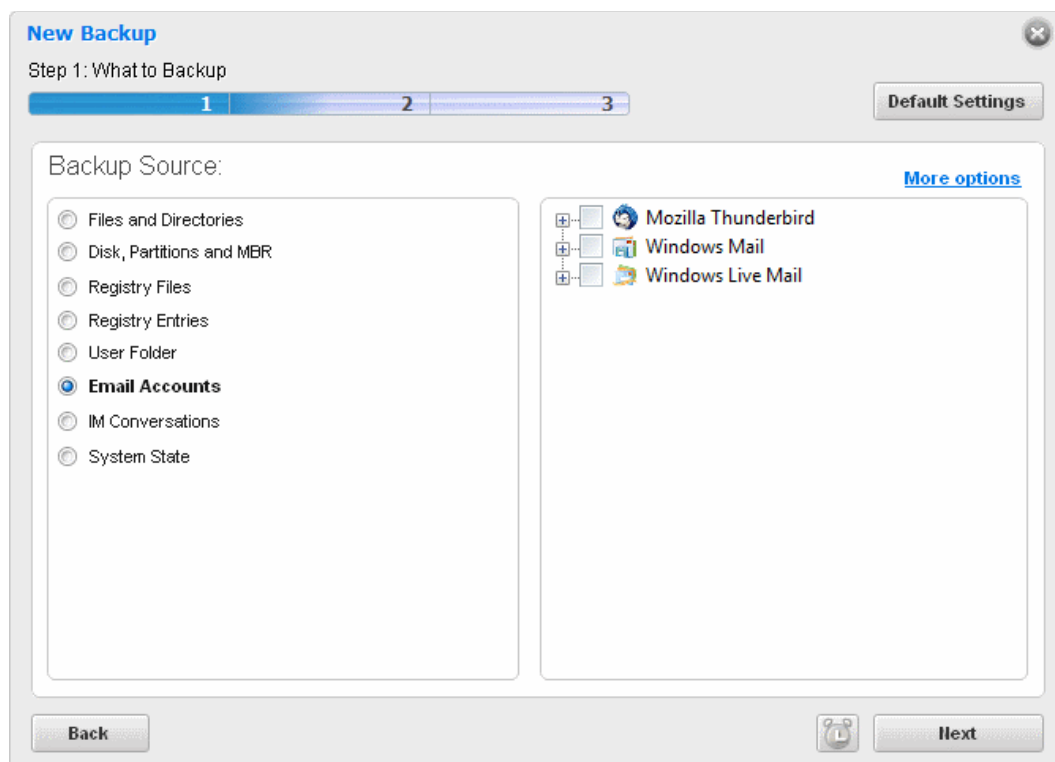
Mail Accounts

You can backup the emails in the inbox of your mail clients like Mozilla Thunderbird, Eudora, Microsoft Outlook 2003, Microsoft Outlook 2007, Microsoft Outlook 2010, Windows Live Mail, Windows Mail and Outlook Express. This can also backup address books and email client settings (such as incoming server, outgoing server, if the email is downloaded or remains on server, etc). This is helpful to restore your mails and settings when you reinstall your operating system or configuring your mail settings on a new computer system. Please note that the mails and settings of the currently logged user only can be backed up.

To backup of all the emails in your inbox and the settings configured for your mail clients

- Select the 'Mail Accounts' radio button.

The right hand side pane displays a list of all the installed mail clients. The supported clients are Mozilla Thunderbird, Eudora, Microsoft Outlook 2003, Microsoft Outlook 2007, Windows Live Mail and Outlook Express.



- Select the client(s) for which you wish to backup the emails stored (Inbox, Outbox, Unsent Items etc.) and their configuration settings by selecting the checkbox(s) beside the respective client(s).
- Click 'Next'.

The process moves to **Step 2**.

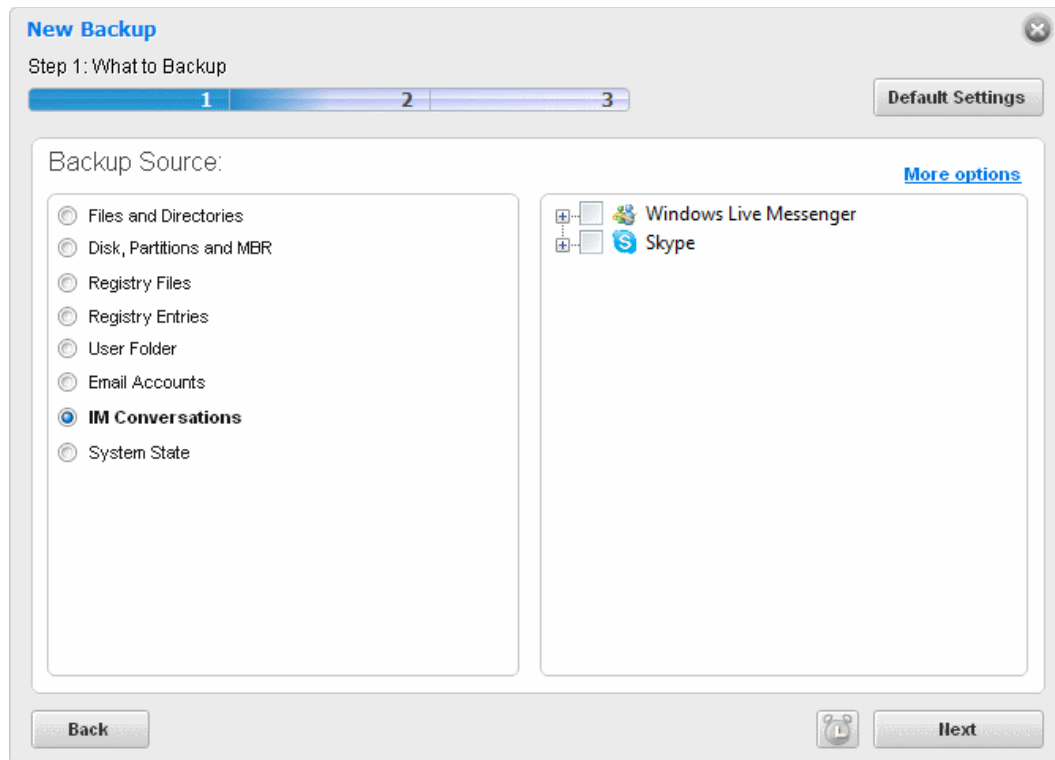
Instant Messenger Archive and Settings

You can backup the messenger archive like the history of all conversations, conferences, calls etc. of Instant Messenger (IM) clients like Windows Live Messenger, Skype, Yahoo! Messenger and Pidgin. This can also backup settings that are stored on the local machine (e.g. Skin used, Privacy settings such as idle time, Connection settings and proxy used, etc). This is helpful to restore your IM archives, profile settings etc. when you reinstall your operating system or configuring your IM settings on a new computer system.

To backup messenger archive and their configuration settings

- Select the 'IM Conversations' radio button.

The right hand side lower pane displays a list of all the installed messenger clients. The supported clients are Windows Live Messenger, Skype, Yahoo! Messenger and Pidgin.



- Select the client(s) for which you wish to backup the profiles related data (archives, profile settings etc.) by selecting the checkbox(s) beside the respective client(s).
- Click 'Next'.

The process moves to **Step 2**.

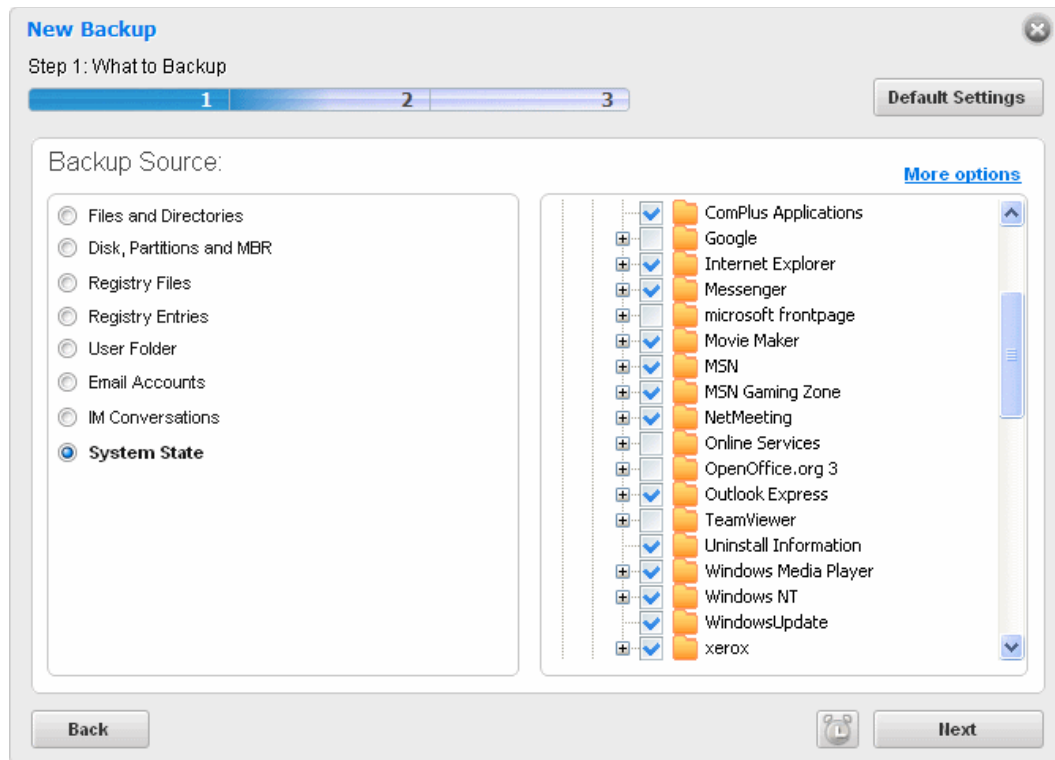
System State

This option allows you to perform a System state backup. All the folders and files that are installed with the version of Windows currently in-use are copied. This includes all the user settings, registry, all user accounts, etc. For example, If Windows is installed on drive C:\ then this can backup 'C:\WINDOWS', 'C:\Documents and Settings', 'C:\Program Files' and all files on 'C:\' that are necessary for Windows to boot.

This is useful should your system become unusable or refuse to start and allows you to quickly implement your previous settings. Selecting this option enables all files and folders that were installed with a fresh copy of windows to be backed up.

To perform a System State backup

- Select the 'System State' radio button.



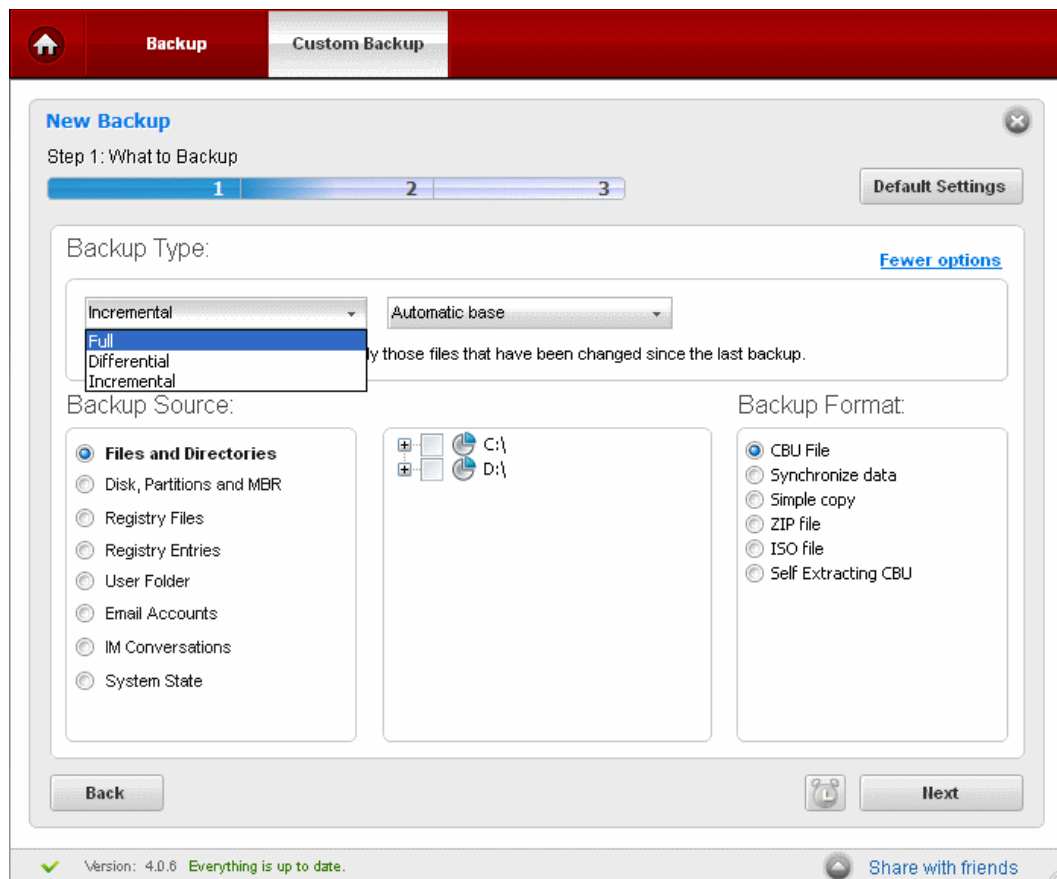
The tree structure of your hard disk drive will be displayed in the right hand side pane with the folders/files necessary for the computer to reboot, pre-selected. If you want to add more folders/files, select them by clicking the respective checkboxes.

- Click 'Next'.

The process moves to **Step 2**.

2.2.1.1.2. More Options Mode

Clicking 'More Options' allows you to specify 'Backup Type' and 'Backup Format' in addition to 'Backup Source'. The remainder of this section explains 'Backup Type' and 'Backup Format'. If you wish to see explanations of the various types of Backup Source, please refer to the preceding section, '**Source Types**'.



The first stage of the process is to choose the type of backup (full, differential or incremental), which item you want to backup and the format of the backup file. Comodo BackUp allows the user to backup entire drives; select multiple or individual files and folders to backup; take complete or partial backups of the Windows registry and backup important system settings. The program also allows the user to make copies of their emails, IM messages and personal Windows user settings.

Note: The default backup type in More Options mode is incremental and Automatic base for a backup job.

2.2.1.1.2.1 Selecting the Backup Type

Comodo BackUp allows you to generate different types of backups:

Full Backup;

Differential Backup;

Incremental Backup.

Full Backup

As the name suggests, a full backup is a complete copy of every source file and folder specified by the user. The suggested file name of a full backup will have a suffix FULL_files in it. e.g. filename_full_files.cbu. Once a full backup has been taken it will serve as the baseline upon which future incremental and differential backups are based.

If backup runs as full and a valid backup file with same name already exists, the new backup will overwrite the existing backup file and all backups linked to that backup file will be deleted.

Differential Backup

The backup will contain only those files which are modified after the last full backup operation. Because of this, the entirety of your data set is backed up across only two containers rather than spread across multiple containers as is the case with incremental backups. This means that restore operations are quicker but, if you take and keep a lot of differential backups, then you may duplicate data. The suggested file name of a differential backup will have a suffix dif_files in it. e.g. filename_dif_files.cbu. Advantages of differential backup - faster restore operations than incremental backups because your data is spread across few containers. Disadvantages - Slower backups than incremental backups because you are saving all data that has changed since the last full backup. Can take up more disk space if you retain multiple, differential backups.

While running a differential backup:

- a) If a backup base is specified by user and it still exists, it will be used as a base
- b) If Automatic Base is selected and the destination file exists and if it contains one or more backups, the last backup that is incremental or full will be used as base
- c) If base is not found, the backup job will run as full and it will be base for further runs

If backup runs as incremental / differential and a valid backup file with same name already exists, the new backup is appended to existing backup file.

This version of CBU is capable of creating a differential backup with all the three types, that is, full backup, incremental backup and differential backup as a base.

Tip: Use a combination of full, differential and incremental backups to achieve a good balance. For example, schedule daily incremental backups, a weekly differential backup and a monthly full backup.

Example:

Let us take for example that you are taking a full backup of a folder 'Test Folder' containing Four files File A, File B, File C and File D on day 1 and have scheduled to take differential backups of the folder on a daily basis. The following table explains what would be the contents of successive differential backups, if you modify the files as given in column two.

Day	Files Edited	Type of Backup taken	Files contained in the full backup (Test Folder_full_files.cbu)	Files contained in the differential backup (Test Folder_dif_files.cbu)
Day 1		Full	File A, File B, File C and File D	
Day 2	File A	Differential	File A, File B, File C and File D (original versions)	File A (modified version)
Day 3	File B	Differential	File A, File B, File C and File D (original versions)	File A (version modified on Day 2) and File B (version modified on Day 3)
Day 4	File B and File C	Differential	File A, File B, File C and File D (original versions)	File A (version modified on Day 2), File B (version modified on Day 4) and File C (version modified on Day 4)

Also, restoring the files to the latest version is easy, as the files are to be restored from the last full backup location and the differential backup location.

To perform a differential backup

1. Select Differential from the 'Backup Type' drop-down menu. Another drop-down menu will be displayed to select whether you want to create a new backup or choose existing backup as base line.

Backup Type: [Fewer options](#)

Differential

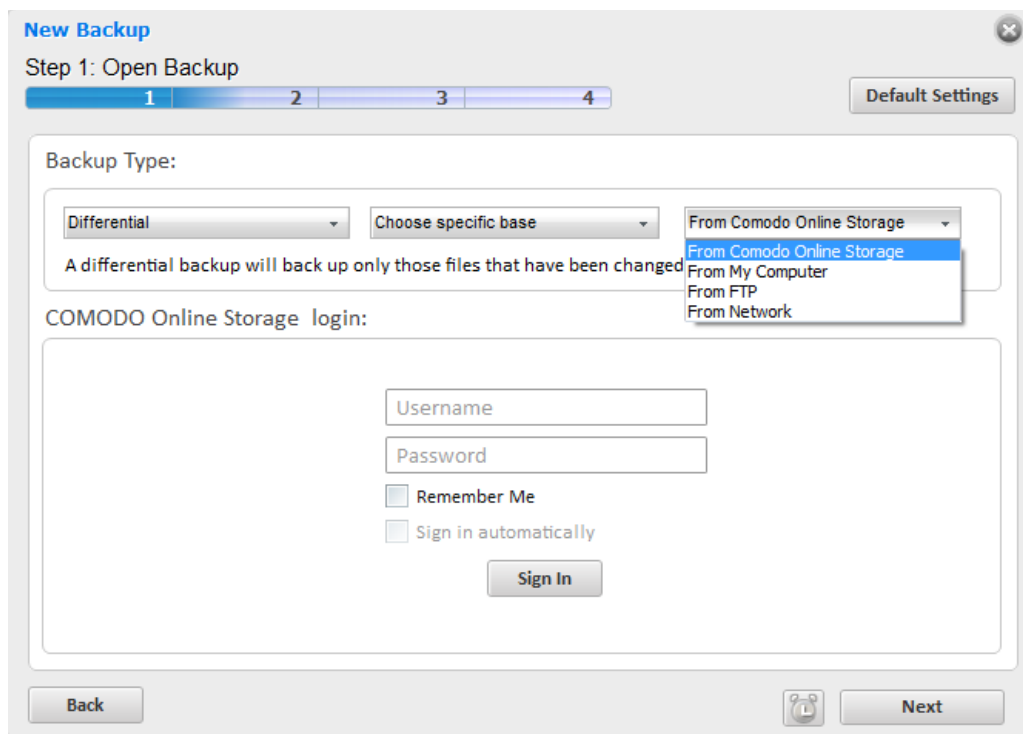
Automatic base

A differential backup will back up only the Automatic base the last full backup.

Choose specific base

- If you want to manually select the backup source for the differential backup yourself, select 'Automatic base' and then select the **backup source**.

- If you want the application to automatically choose the backup source for which a full backup has been taken previously, select 'Choose specific base'. Another drop-down will appear to choose the previous full backup of the same source as the baseline.



- From Comodo Online Storage** - Enables to select a full backup stored in Comodo Online Storage.
 - Enter your username and password for accessing your online storage space and click Sign-in.

After signing-in, your online space will be visible/accessible as regular Windows tree structure.

Navigate to the folder where you have stored the backup, select the backup file and click 'Open'.

- From My Computer** - Enables to select a full backup stored in your hard disk. On selecting this option, the disk drives and folders are displayed as a tree structure in the lower panel.

Navigate to the folder where you have stored the backup, select the backup file and click 'Open'.

- From FTP** - Enables to select a full backup stored on a FTP server.

Type the name of your FTP server in the 'Server' text box (The prefix ftp:// is optional).

Enter the port number of the server for connection (default = 21).

Type your user name for the FTP server in the 'Username' text box.

Type your password for accessing the FTP server.

Click 'Sign In'.

On successful login, the folder tree structure of the server will be displayed.

Navigate to the folder where you have stored the backup, select the backup file and click 'Open'.

- From Network** - Enables to select a full backup stored on a computer in your network. On selecting this option, all the computers connected in your network are displayed. (It may take a few seconds to list all the computers. Please wait).

Select the computer in which you have saved your backup. You will be prompted to enter the user name and password if the computer you selected is protected by user access control.

Enter the login User name and password for the computer you selected in the respective fields and click 'OK'.

You can navigate through the folder tree structure of the selected computer.

Navigate to the folder where you have stored the backup, select the backup file and click 'Open'.

On selecting a previous full backup, the corresponding backup source will be automatically selected in the 'Backup Source' area and you can directly move to the **Step 2 - Selecting a Destination to Backup** by clicking 'Next'.

Tip: The full backup and incremental/differential backups for a same source, can be stored in the same destination backup file in .cbu format

Note for Advanced Users: The differential backup is performed at 64KB block level - meaning the file will be divided into blocks of 64KB size and the differential backup will store only those 64KB blocks, in which the data is changed and not the other blocks. For example, if only one byte of data has been changed in a 4GB file, only that 64KB block in which the data has changed will be backed-up.

Incremental Backup

The backup will contain only those files which are modified after any the last full, differential or incremental backup operation. The incremental backup consumes less disk space than taking successive scheduled or manual full or differential backups as only the files which are modified after the last backup of any type, are stored in the backup location. In contrast to a differential backup, where the whole data set is covered by just two containers, taking regular incremental backups means that your data can be spread across multiple, smaller containers. The suggested file name of a incremental backup will have a suffix inc_files in it. e.g. filename_inc_files.cbu. Advantages of incremental backup - faster than differential backups because you are typically saving less files per operation; can consume less space than differential as you are saving only the data that has been modified since the last operation. Disadvantages - slower restore operations that must draw data from several containers.

Incremental Backup supports simple copy format for files and folders. While backing up for the first time, all the selected files and folders are copied to the destination and during subsequent executions, whether scheduled or custom profile backup job, only files that are altered are copied to the destination thus saving bandwidth if the backup destination is in the network, FTP or Comodo Online Storage.

While running an incremental backup for the first time:

- a) If a backup base is specified by user and it still exists, it will be used as a base
- b) If Automatic Base is selected and the destination file exists and if it contains one or more backups, the last backup that is incremental or full will be used as base
- c) If base is not found, the backup job will run as full and it will be base for the next run

For an incremental backup at second or further runs:

- a) If a backup created at the previous run still exists, it will be used as a base
- b) If not (a) and the destination file exists and if it contains one or more backups, the last backup that is incremental or full will be used as base
- c) If base is not found, the backup job will run as full and it will be base for the next run

If backup runs as incremental / differential and a valid backup file with same name already exists, the new backup is appended to existing backup file.

Tip: Use a combination of full, differential and incremental backups to achieve a good balance. For example, schedule daily incremental backups, a weekly differential backup and a monthly full backup.

Example:

Let us take for example that you are taking a full backup of a folder 'Test Folder' containing Four files File A, File B, File C and File D on day 1 and have scheduled to take incremental backups of the folder on a daily basis. The following table explains what would be the contents of successive incremental backups, if you modify the files as given in column two.

Day	Files Edited	Type of Backup taken	Files contained in the full backup (Test Folder_full_files.cbu)	Files contained in the incremental backup (Test Folder_inc_files.cbu)
Day 1		Full	File A, File B, File C and File D	
Day 2	File A	Incremental	File A, File B, File C and File D (original versions)	File A (modified version)
Day 3	File B	Incremental	File A, File B, File C and File D (original versions)	File B (modified version)

Day 4	File B and File C	Incremental	File A, File B, File C and File D (original versions)	File B (version modified on Day 4) and File C (version modified on Day 4)
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The main difference between the differential backup and incremental backup is that the differential backup duplicates the files which are modified after the last full backup and not modified after another differential or incremental backup and stores along with the last modified files, whereas an incremental backup stores only the files modified after the last backup of any type.

While restoring, the files are to be restored from the last full backup location and all the incremental backup locations to have all the files restored.

Tip: To have the files which are not modified intact during restoration, Comodo recommends to select 'Append files' while choosing the restoration method for incremental file in **Restore Method**.

To perform an Incremental Backup

1. Select 'Incremental' from the 'Backup Type' drop-down menu. Another drop-down menu will be displayed to select whether you want to create a new backup or choose existing backup as base line.

Backup Type: [Fewer options](#)

Incremental Automatic base

An incremental backup will back up only those files that have been changed since the last backup.

Automatic base
Choose specific base

- If you want to manually select the backup source for the incremental backup yourself, select 'Automatic base' and then select the **backup source**.
- If you want the application to automatically choose the backup source for which a full backup has been taken previously, select 'Choose specific base'. Another drop-down will appear to choose the previous full backup of the same source as the baseline.

New Backup

Step 1: Open Backup

1 2 3 4

Default Settings

Backup Type:

Incremental Choose specific base

An incremental backup will back up only those files that have been changed since the last backup.

COMODO Online Storage login:

From Comodo Online Storage
From Comodo Online Storage
From My Computer
From FTP
From Network

Username

Password

☐ Remember Me

☐ Sign in automatically

Sign In

Back Next

- **From Comodo Online Storage** - Enables to select a full backup stored in Comodo Online Storage.
 - Enter your username and password for accessing your online storage space and click Sign-in.

After signing-in, your online space will be visible/accessible as regular Windows tree structure.

- Navigate to the folder where you have stored the backup, select the backup file and click 'Open'.
- **From My Computer** - Enables to select a full backup stored in your hard disk. On selecting this option, the disk drives and folders are displayed as a tree structure in the lower panel.
 - Navigate to the folder where you have stored the backup, select the backup file and click 'Open'.
- **From FTP** - Enables to select a full backup stored on a FTP server.
 - Type the name of your FTP server in the 'Server' text box (The prefix ftp:// is optional).
 - Enter the port number of the server for connection (default = 21).
 - Type your user name for the FTP server in the 'Username' text box.
 - Type your password for accessing the FTP server.
 - Click 'Sign In'.

On successful login, the folder tree structure of the server will be displayed.

- Navigate to the folder where you have stored the backup, select the backup file and click 'Open'.
- **From Network** - Enables to select a full backup stored on a computer in your network. On selecting this option, all the computers connected in your network are displayed. (It may take a few seconds to list all the computers. Please wait).
 - Select the computer in which you have saved your backup. You will be prompted to enter the user name and password if the computer you selected is protected by user access control.
 - Enter the login User name and password for the computer you selected in the respective fields and click 'OK'.

You can navigate through the folder tree structure of the selected computer.

- Navigate to the folder where you have stored the backup, select the backup file and click 'Open'.

On selecting a previous full backup, the corresponding backup source will be automatically selected in the 'Backup Source' area and you can directly move to the **Step 2 - Selecting a Destination to Backup by** clicking 'Next'.

Tip: The full backup and incremental/differential backups for a same source, can be stored in the same destination backup file in .cbu format.

Note for Advanced Users - The incremental backup is performed at 64KB block level - meaning the file will be divided into blocks of 64KB size and the incremental backup will store only those 64KB blocks, in which the data are changed and the MD5 checksum values for the other blocks. For example, if only one byte of data has been changed in a 4GB file, the backup file will contain only that 64KB block in which the data has changed and the checksum values of the other blocks.

2.2.1.1.2.2 Selecting the Backup Format

Comodo BackUp can generate the backup files in different formats. The availability of the backup formats differ according to the backup source that you have selected. The backup sources and the formats available for them are given below:

Backup Type:

Differential

Automatic base

A differential backup will back up only those files that have been changed since the last full backup.

Backup Source:

☐ Disk, Partitions and MBR
☒ **Files and Directories**
☐ Registry Files
☐ Registry Entries
☐ User Folder
☐ Mail Accounts
☐ IM Conversations
☐ System State

C:\

D:\

Backup Format:

☒ CBU File
☐ Synchronize data
☐ Simple copy
☐ ZIP file
☐ ISO file
☐ Self Extracting CBU

Backup Source	Available Backup Formats
Disk, Partitions and MBR	<ul style="list-style-type: none"> CBU File Mirror disk/partition
Files and Directories	<ul style="list-style-type: none"> CBU File Synchronize data Simple copy ZIP file ISO file Self Extracting CBU
Registry Files	<ul style="list-style-type: none"> CBU File
Registry Entries	<ul style="list-style-type: none"> CBU File REG File Self Extracting CBU
User Folder	<ul style="list-style-type: none"> CBU File
Mail Accounts	<ul style="list-style-type: none"> CBU File Simple copy
IM Conversations	<ul style="list-style-type: none"> CBU File Simple copy
System State	<ul style="list-style-type: none"> CBU File

The available backup format types and their descriptions are given below.

Format	Description
CBU File	Native file format of the Comodo BackUp application. The backup file will be stored in the selected destination with a .cbu extension. This type of backup can be restored only with the CBU application.

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Mirror disk/partition	Available only when selecting Disk, Partitions and MBR as the backup source. Mirroring is the process of copying the entire content of one disk/partition to another disk, so that the destination disk is an exact copy of the source disk. For example, if you are mirroring a bootable disk/partition with a working operating system, the destination disk can be used to boot the system alone without the need of the source disk. This is very much useful when moving to a larger capacity disk or to restore to a virgin installation. Note: Disk signature is also mirrored during the mirroring process and for the disk to be visible on Windows Vista and Windows 7 operating systems, go to Control Panel > Administrative Tools > Computer Management > Disk Management.
Simple Copy	Preserves a copy of files / folders in original format. The backup files / folders are an exact copy of the selected files / folders in the current state.
Synchronize data	The synchronize operation keeps two folders (in source and destination) up to date with each other. If the sync operation is saved as a custom profile or scheduled, a delete operation in one folder will be automatically reflected in the other folder, otherwise the two folders will be merged. If there is a conflict in two files, the latest one is automatically is used (date last written).
ZIP File	Stores the backup as a zip file in the selected destination. The original files can be restored by simply extracting the zip file using programs like WinZip, WinRar, etc.
ISO File	Stores the backup as an ISO image. This is suitable if you wish to store the backup on a CD or DVD. You can directly write the image on to a CD or a DVD using a third party disk burning application.
Self Extracting CBU	Stores the backup file as a executable file (with the extension .exe). The backup can be restored by directly double clicking on the file from the Windows Explorer, without the need of CBU application. For more details on restoring a self extracting backup package, refer to the section Restoring Self Extracting Backups .
REG File	Available only when selecting 'Registry Entries' as the backup source. The selected Registry entries are stored in the same format (with the .reg extension).

- Select the backup format by clicking on the respective radio button and click Next.

The process moves to **Step 2 - Selecting a Destination to Backup**.

2.2.1.2. Step 2 - Selecting a Destination to Backup

The second stage of the process is to choose the destination for storing your backup files / folders. All the items you chose in **Step 1** are stored with the selected format (e.g. filename.cbu) in the destination you select in this step. Depending on the requirement you can choose the destinations from:

- **Comodo Online Storage** - Saves your backup file on the Comodo online server.
- **My Computer** - Saves your backup file on your local hard drive, removable drives connected to your computer or a network drive.
- **CD/DVD** - Writes the backup file onto a compact disk (CD) or digital versatile disk (DVD).
- **Network Location** - Saves your backup file on another computer in the network.
- **FTP server** - Saves your backup file on a FTP server.
- **Email** - Sends the backup file through email to you or to the address specified by you.

After selecting the Destination for backup you want from the left panel, you need to make a further selection from the right panel.

Comodo Online Storage

If you want to have a online backup of your content, Comodo BackUp allows you to save files on Comodo's highly secure servers and this can be accessed over the Internet from anywhere in the world. With this feature, you can be sure your backed-up data is not only highly secure, but is always updated. In the event something goes wrong with your hard drive, or you lose your system in a disaster or to burglary, you can retrieve your precious files instantly.

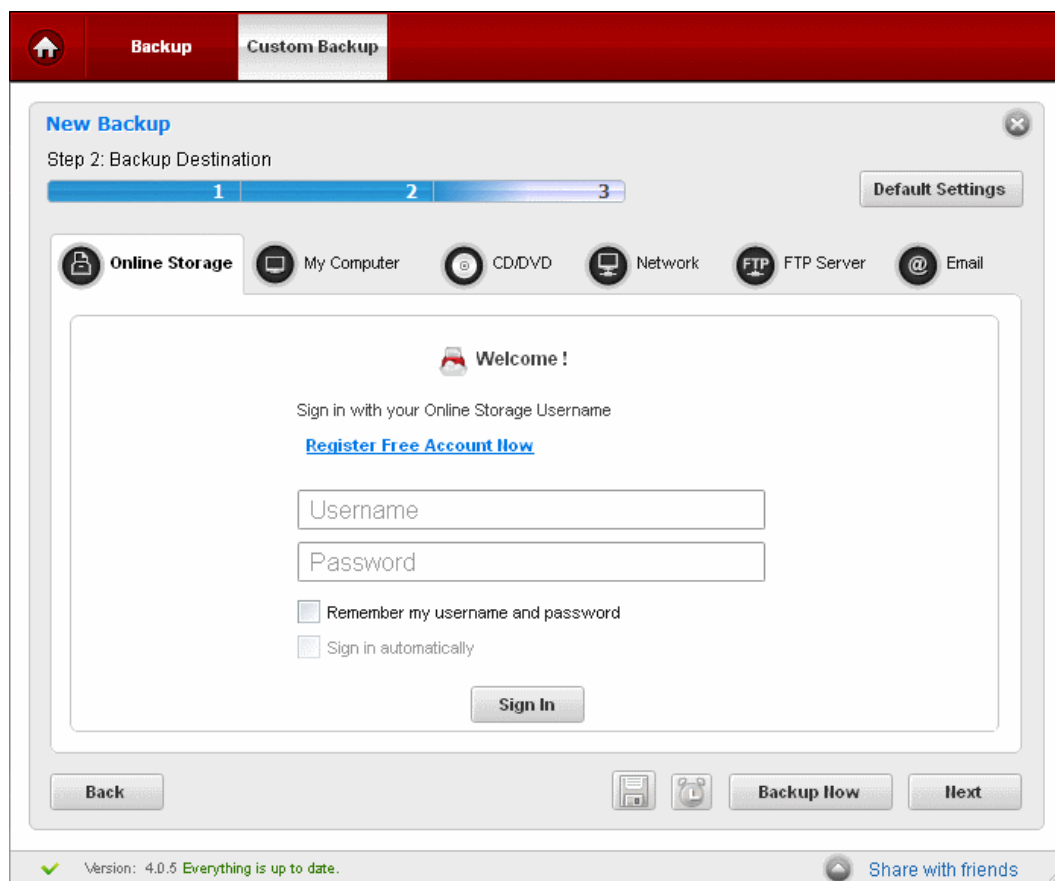
Note: In order to back up your content to Comodo Online Storage servers, you need to have a Comodo Online Storage

account. **To create an online account** click the '**Register Now**' button in the Right hand Side pane. Comodo Online Storage accounts are available in a range of competitively priced packages suitable for businesses and home users alike. **Click here** to know the details about Comodo Online Storage accounts. For more detailed information on Comodo Online Accounts refer to the chapter **Comodo Online Storage**.

To save your backup in Comodo's online server

- Select 'Comodo Online Storage' tab.

The right pane displays the login page for your Comodo Online Storage Account.



If you are a new user and do not have an account with Comodo Online Storage, click '**Register Now**' link. The signup page will be displayed in the main configuration area. You need to sign-up for a new account with COS. For more detailed information on creating a new Comodo Online Accounts refer to the chapter **Configuring Your Comodo Online Storage Account**.

If you are an existing user, enter your username and password and Sign-in.

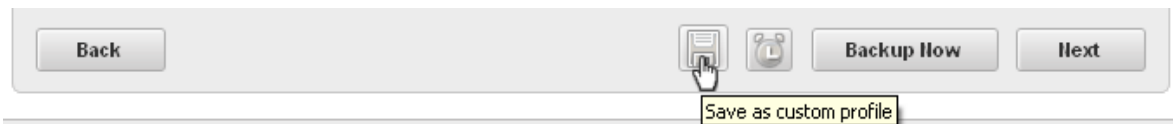
- Selecting **Remember my username and password** instructs the application to memorize your credentials and enables auto-fill on successive sign-ins.
- Selecting **Sign-in automatically** instructs the application to login to your COS account automatically whenever the application is started.

After login, your online space will be visible/accessible as regular Windows tree structure.

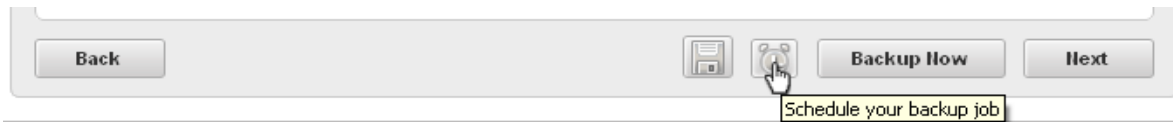
Select the folder to which you want to store the current backup.

A suggested file name for the current backup with an extension .cbu will be automatically populated in the Backup Name text box. If you want to alter the name, enter the new name in the text box.

Click the 'Save as Custom Profile' button to save the selected backup job as a custom profile. **Click here** for more details on creating custom profiles.



Click the alarm clock button to create a schedule schedule for the backup job. [Click here](#) to know more about Scheduling options.



Click the 'Backup Now' button to create a backup of the selected item(s) with default backup settings. [Click here](#) for more details on Backup Settings'.

Click 'Next'.

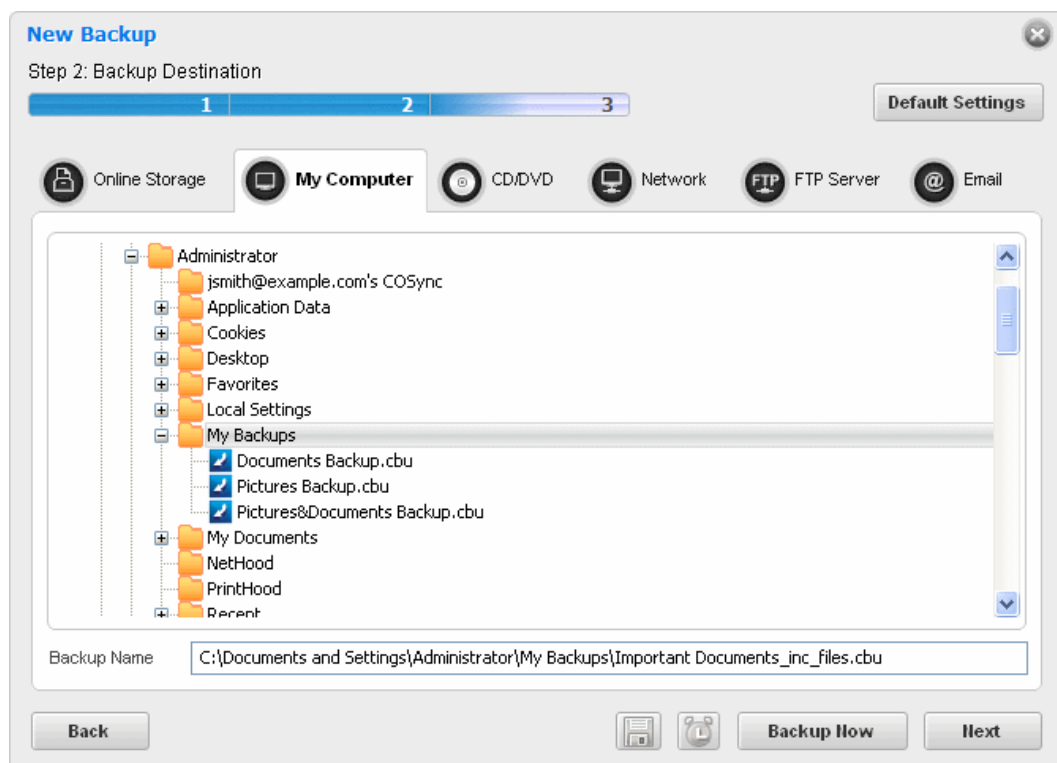
The process moves to **Step 3**.

My Computer

If you wish to store the backup file in your local hard disk drive itself, a removable storage device like USB memory or a network drive, select the radio button beside 'My Computer'. You can select even a virtual disk mounted in your system.

To save the backup on your computer

- Select 'My Computer' tab.



By default, the destination location will be given as C:\Documents and Settings\Username\Backup\.. You can change the default location by accessing the Settings interface. Refer to [Comodo BackUp Settings > Default Backup Location](#) for more details.

You can select a location of your choice from the disk drives and folders displayed as a tree structure in the right panel. You can select from:

- **Local Drives** - The hard drive partitions residing locally in your system.
- **Network Drives** - The drive in the file server connected in your network and mapped by your computer. This is a good practice so that you can restore your original files and settings even if your computer crashes and you have to reinstall

Windows again.

- **Virtual Drives** - The disk images mounted in your system using a disk emulator software, to resemble a physical disk drive partitions. This suits for the backup of your confidential documents as virtual drives are encrypted by default and require a password set during encryption, while restoring the files.
- **USB Drives** - The USB memories or a removable hard disk drive plugged in to an USB port of your system.
- Navigate to the drive and the folder where you wish to save the backup file.
- A suggested file name for the current backup with an extension .cbu will be automatically populated in the Backup Name text box. If you want to alter the name, enter the new name in the text box.
- Click the 'Save as Custom Profile' button to save the selected backup job as a custom profile. [Click here](#) for more details on creating custom profiles.



- Click the alarm clock button to create a schedule schedule for the backup job. [Click here](#) to know more about Scheduling options.



- Click the 'Backup Now' button to create a backup of the selected item(s) with default backup settings. [Click here](#) for more details on Backup Settings'.
- Click 'Next'.

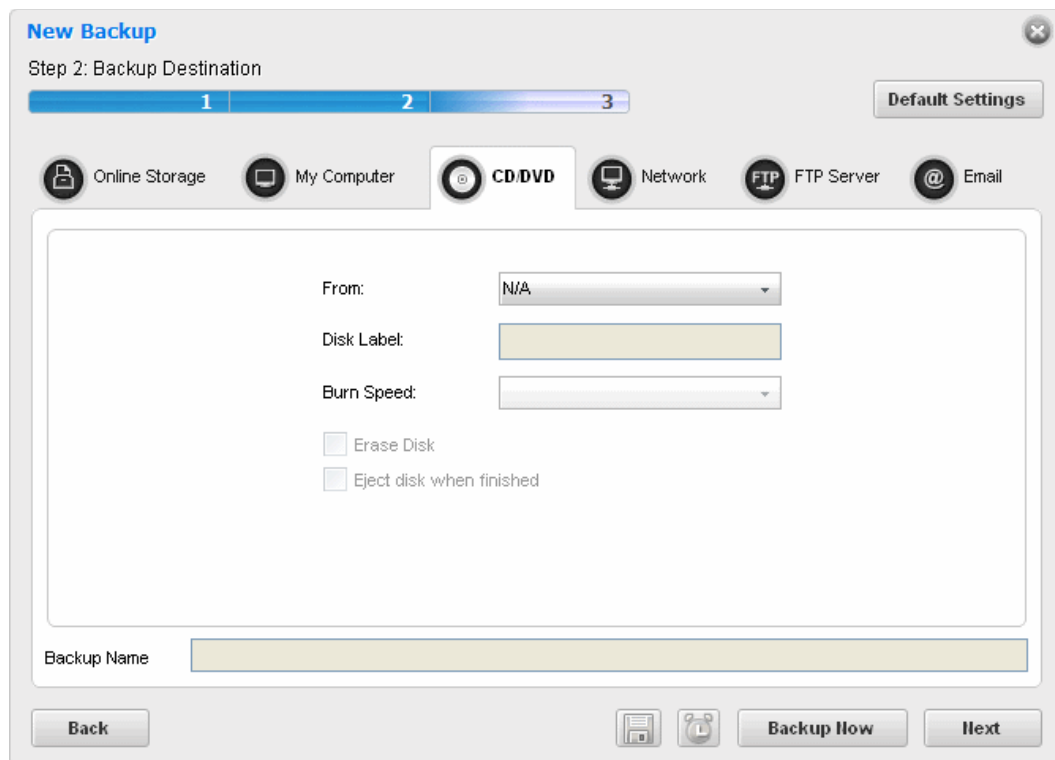
The process moves to **Step 3**.

CD/DVD

If you wish to have a permanent copy of the backup, storing it on an optical disk like compact disk (CD) or digital versatile disk (DVD) will be the best choice. Comodo BackUp has a built-in disk burner feature, which can directly write the backup file onto your CD/DVD.

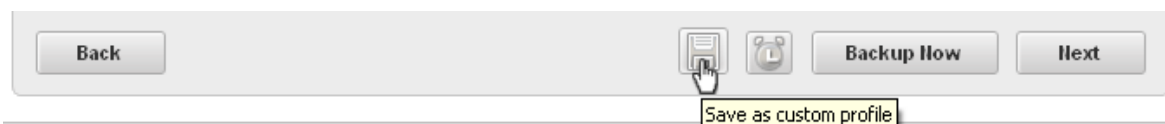
To save the backup on a CD/DVD

- Select 'CD/DVD' tab.



A configuration interface for disk writing task will be displayed in the right hand side pane.

- **From** - Allows you to select the CD/DVD drive (if you have more than one optical disk drive) to write the backup file on to the disk.
- **Disk Label** - Allows you to set the Disk label for the disk to be written. By default:
 - If a blank or a new disk (without a pre-configured label) is inserted, this field is auto-populated with the date of creating the back-up. If you want to set the label of your choice, you can edit the text in this field;
 - If a disk with a pre-configured label is inserted, this field is auto-populated with the disk label of the inserted disk.
- **Burn Speed** - Allows you to specify the speed at which the CD or DVD will be burned. The exact options listed in the drop-down reflect the speeds that your device is capable of. Slower speeds take longer but are less prone to write errors. Comodo recommends you first select the fastest speed available for your device and try stepping down only if you experience write errors.
- **Erase Disk** - Instructs CBU to erase the contents of the disk prior to writing the backup file onto it (Applies only for Rewritable (RW) disks)
- **Eject disk when finished** - Instructs CBU to eject the disk on completion of writing operation.
- Click the 'Save as Custom Profile' button to save the selected backup job as a custom profile. [Click here](#) for more details on creating custom profiles.



- Click the alarm clock button to create a schedule schedule for the backup job. [Click here](#) to know more about Scheduling options.



- Click the 'Backup Now' button to create a backup of the selected item(s) with default backup settings. [Click here](#) for more details on Backup Settings'.
- Click 'Next'.

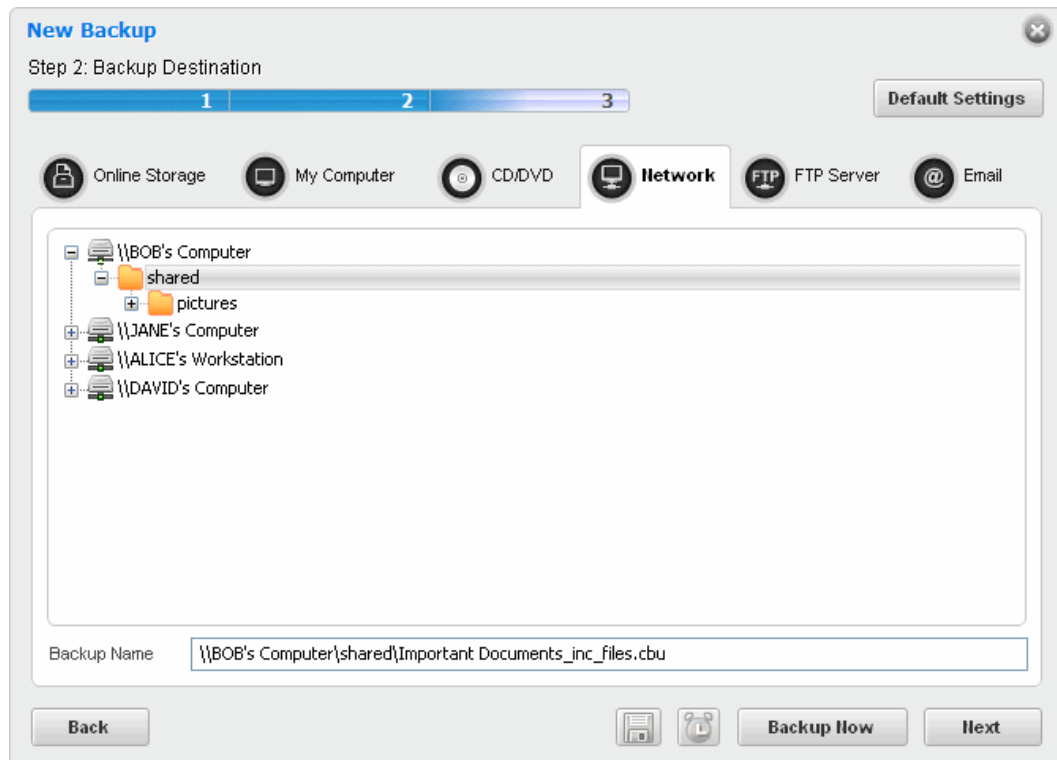
The process moves to **Step 3**.

Network Computer

If you are connected to a network, you can also choose to save your backup on an another computer in your network. This is a good practice so that you can restore your original files and settings even if your computer crashes and you have to reinstall Windows again.

To save your backup on another computer on your network

- Select 'Network' tab.



All the computers connected in your network are displayed. (It may take a few seconds to list all the computers. Please wait)

Select the computer in which you want to save the backup. You will be prompted to enter the user name and password if the computer you selected is protected by user access control.

- Enter the login User name and password for the computer you selected in the respective fields and click 'OK'.

You can navigate through the folder tree structure of the selected computer.

- Select the destination folder you want to save the backup.
- A suggested file name for the current backup with an extension .cbu will be automatically populated in the Backup Name text box. If you want to alter the name, enter the new name in the text box.
- Click the 'Save as Custom Profile' button to save the selected backup job as a custom profile. [Click here](#) for more details on creating custom profiles.



- Click the alarm clock button to create a schedule schedule for the backup job. [Click here](#) to know more about Scheduling options.



- Click the 'Backup Now' button to create a backup of the selected item(s) with default backup settings. [Click here](#) for more details on Backup Settings'.
- Click 'Next'.

The process moves to **Step 3**.

FTP Server

If you are having an access to an FTP site, Comodo BackUp allows you to save your backup files in the FTP server. This provides an additional layer of safety that you can restore your backup even your total network crashes. Also this does not need a dedicated disk space in your computer or network to save your backup files.

To save your backup in an FTP server

Select 'FTP Server' tab.

New Backup

Step 2: Backup Destination

1 2 3

Default Settings

Online Storage My Computer CD/DVD Network **FTP Server** Email

Welcome !

Sign in with your FTP Username

Account : New ...

Server:

Port:

Username:

Password:

Sign In

☐ Remember my username and password

Back Backup Now Next

The right pane displays the login page for your FTP server.

- If you are using an FTP account for the first time, Select 'New' from the Account: drop-down.
- Type the name of your FTP server in the 'Server' text box (The prefix ftp:// is optional).
- Enter the port number of the server for connection (default = 21).
- Type your user name for the FTP server in the 'Username' text box.
- Type your password for accessing the FTP server.
- Click 'Sign In'.

Note: The 'Account:' drop-down can display all the FTP accounts you might be using as Backup destinations. New FTP accounts can be added to this drop-down, by selecting the 'Remember my username and password' checkbox whenever you use an FTP account for the first time. When using a previously added FTP account in future, you just need to select the account from the Account: drop-down, and need not enter the Server name, username and password.

Welcome !

Sign in with your FTP Username

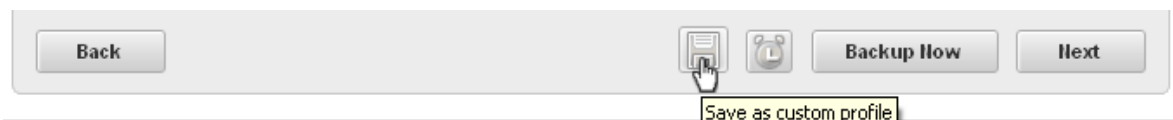
Account :	<input type="text" value="New ..."/>
Server:	<input type="text" value="ftp://ftp.server_name"/>
Port:	<input type="text" value="21"/>
Username:	<input type="text" value="yourusername"/>
Password:	<input type="password" value="....."/>

☒ Remember my username and password

On successful login, the folder tree structure of the server will be displayed.

Browse through the folders and select the location for storing your backup.

- A suggested file name for the current backup with an extension .cbu will be automatically populated in the Backup Name text box. If you want to alter the name, enter the new name in the text box.
- Click the 'Save as Custom Profile' button to save the selected backup job as a custom profile. [Click here](#) for more details on creating custom profiles.



- Click the alarm clock button to create a schedule schedule for the backup job. [Click here](#) to know more about Scheduling options.



- Click the 'Backup Now' button to create a backup of the selected item(s) with default backup settings. [Click here](#) for more details on Backup Settings'.
- Click 'Next'.

The process moves to **Step 3**.

Email

Comodo BackUp is capable of creating a backup file and send it through email to the address you specify as an attachment. This is very much useful if you want to send some files or folders to some one, instantly and relieves you from the chores of composing a new mail and adding attachments every time you send files to your friend/colleague. If a file in .cbu format is used, backup is split automatically when the size exceeds the maximum email attachment size. If simple copy is used, only files that are smaller or equal in size will be emailed and the recipient may receive more than one email if the files exceed maximum permitted mail attachment size.

To send your backup file through email

- Select 'Email' tab.

New Backup
Step 2: Backup Destination

1 2 3

Default Settings

Online Storage My Computer CD/DVD Network FTP FTP Server @ Email

Account: New ...
SMTP:
Port:
Subject:
From:
To:
Username:
Password:
☐ Use SSL Connection
☐ Remember Me
Send test message

Backup Name: Important Documents_inc_files.cbu

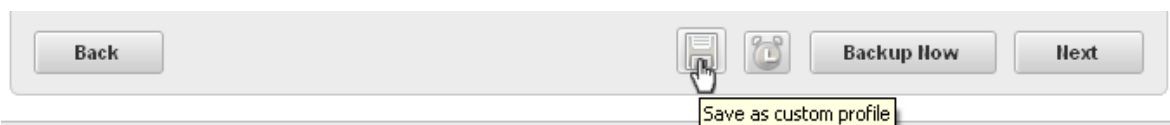
Back Backup Now Next

The right hand side pane displays the email account configuration interface.

- If you are using your email account for the first time, Select 'New' from the 'Account:' drop-down.
- Enter the name of the SMTP server, the address of the outgoing mail server that the notification emails are sent through, in the 'SMTP Server' text box.
- Enter the port number of the server to be used. (default = 25 for non-SSL connection and 465 for SSL connection)
- Type the subject for the backup email in the 'Subject' text box. This is to indicate that the email is auto-generated by Comodo BackUp application (e.g. Comodo BackUp file).
- Enter the address on behalf of whom the backup file should be sent. (e.g. your email address) in the 'From' text box. Note: This address should be supported by SMTP server you defined.
- Enter the email address of the person to whom the backup should be sent in the 'To' text box. If you want the backup file to be sent to yourself, enter your email address here.
- Type the username of your email account in the 'Username' text box.
- Type your email account password in the 'Password' text box.
- If you want to use the secure SSL connection for the email, select the 'Use SSL Connection' checkbox.

Note: The 'Account:' drop-down can display all the email accounts you might be using for sending Backup files. New email accounts can be added to this drop-down, by selecting the 'Remember me' checkbox whenever you use an email account for the first time. When using a previously added email account in future, you just need to select the account from the Account: drop-down, and need not enter the other details.

- To check whether you have made the configurations correctly, click 'Send test message' button. A success or failure dialog is displayed. If a failure dialog is displayed, recheck your specifications and try again. On success message, check your email inbox to see the test message.
- Click the 'Save as Custom Profile' button to save the selected backup job as a custom profile. [Click here](#) for more details on creating custom profiles.



- Click the alarm clock button to create a schedule for the backup job. [Click here](#) to know more about Scheduling options.



- Click the 'Backup Now' button to create a backup of the selected item(s) with default backup settings. [Click here](#) for more details on Backup Settings'.
- Click 'Next'.

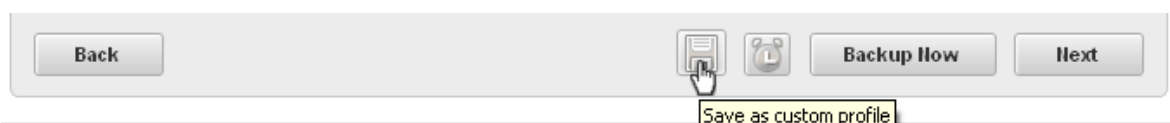
The process moves to **Step 3**.

2.2.1.2.1. Saving a Backup Job as a Custom Profile (optional)

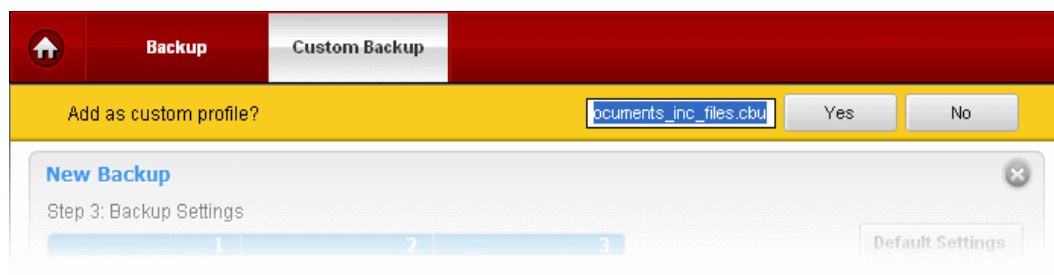
Adding the backup job as a custom profile displays the configured job as a custom profile in the list of Other Profiles in the Custom Backup main interface, enabling easy access to the job and to execute repeatedly with a single mouse click. If you wish to execute the currently configured job often, so that all the updates done to the source files are reflected in the backup, you can opt for adding this job as a custom profile. Refer to the chapter **Other Profiles** for more details.

To save a backup job as a custom profile

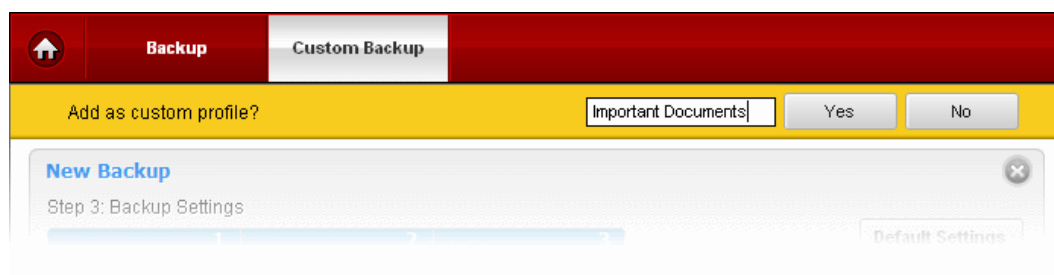
- Click the 'Save as custom profile' button



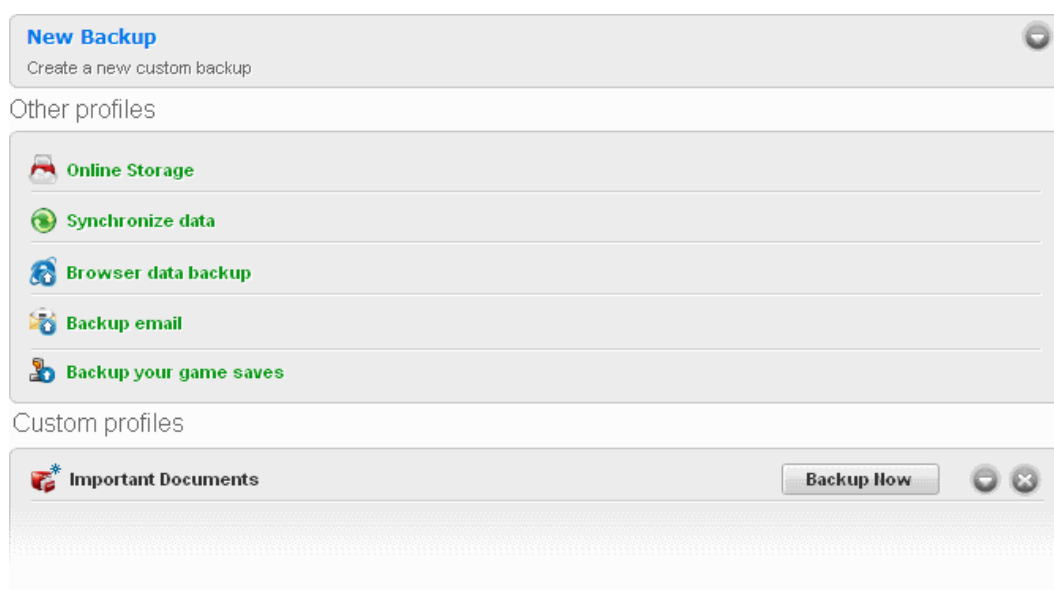
- The text box in this area allows you to enter a name for the profile. By default, the file name of the current backup is displayed.



- Enter a name to easily identify the backup job and click 'Yes' to add the backup job as a custom profile...

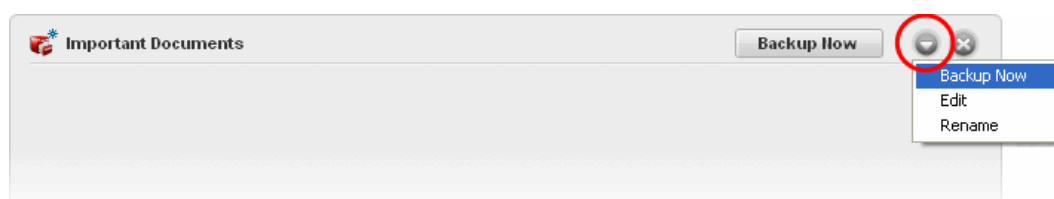


...so that the current backup job is added as a custom profile and listed in the 'Other Profiles' area in the Custom Backup interface.



Clicking the down button you have three options:

- Backup Now - Allows you to backup the custom backup profile instantly
- Edit - Allows you to edit the custom backup profile
- Rename - Allows you to rename the custom backup profile



- Click the X button to delete the custom profile.

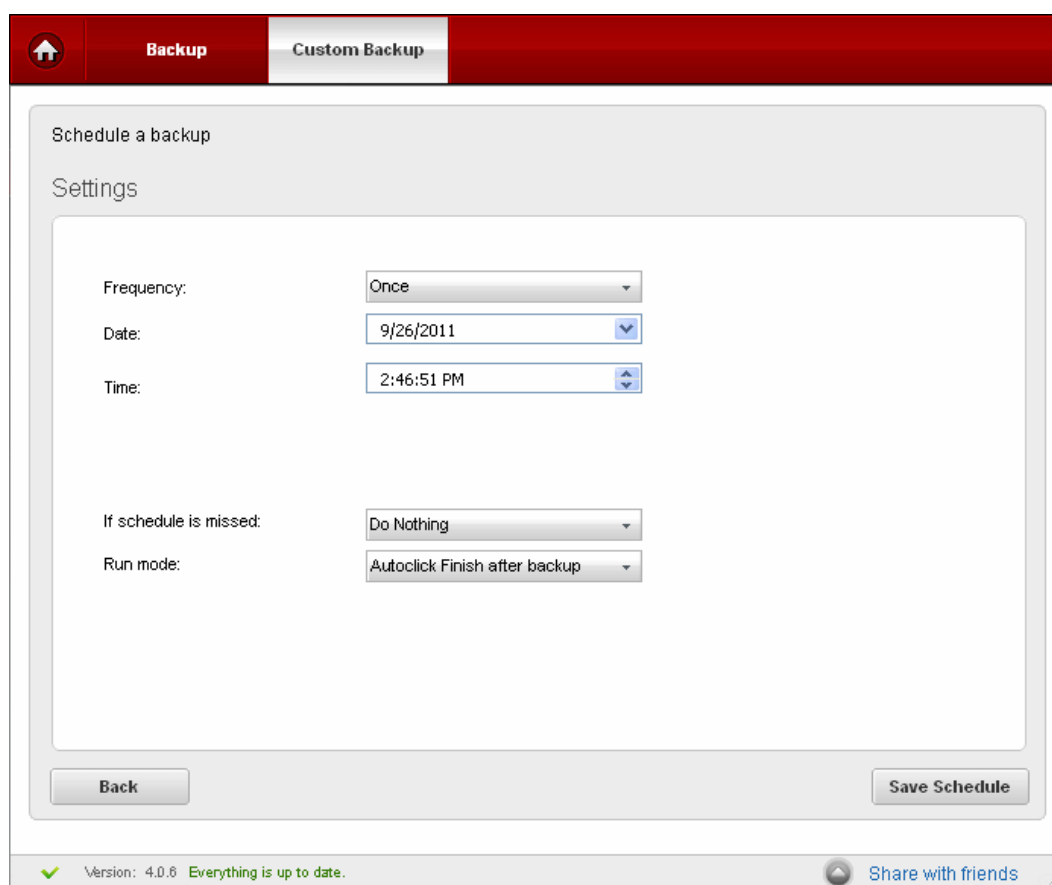
2.2.1.2.2. Schedule the Backup (optional)

The scheduling option in Comodo Backup enables you to run the configured backup job periodically. Once you scheduled, the backup job will be executed at the set intervals with the chosen **run mode** without your intervention and will ensure that the latest version of the source selected in **Step 1** is backed-up in the destination selected in **Step 2**.

If you need the configured backup job to be run at recurring intervals or upon occurrence of a certain event, click the alarm clock button at the bottom right corner.



Schedule Settings interface will open.



Schedule Options

The available scheduling options are:

- **Manual**
- **At Logon**
- **Once**
- **Daily**
- **Weekly**
- **Monthly**
- **When Idle**
- **Every x minutes**

To schedule the created backup job

- Click the drop-down button in the Frequency: drop-down menu to select the period option. The lower two options vary depending on the selection made in the topmost menu.

Manual

Allows you to execute the backup job at any time you wish.

To schedule the created backup job to be executed manually

1. Select the option 'Manual' from the Frequency: drop-down menu.
2. Select the run mode of the scheduled backup job. See [Selecting Run Mode for Scheduled Backup Job](#) for more details.
3. Click 'Save Schedule'.

At Logon

Executes the created backup job every time when the user logs on to the computer.

To schedule the created backup job to be executed at logon

1. Select the option 'At Logon' from the Frequency: drop-down menu.

The screenshot shows a window titled "Schedule a backup". Inside, there's a "Settings" section. Under "Frequency:", a dropdown menu is set to "At Logon". Below that, "Wait before starting ta..." is followed by a text input field containing "10" and the word "seconds". Under "Run mode:", a dropdown menu is set to "Autoclick Finish after backup". At the bottom of the window, there are two buttons: "Back" on the left and "Save Schedule" on the right.

2. Select the time delay for the backup job to start from the logon time (in seconds) in the 'Wait before starting task' text box that appears after selecting 'At Logon'.

Note: The system resources are utilized by the startup services and programs during logon. You have to set enough time delay for the Comodo BackUp to start so that your system resources are not over loaded during start-up and adequate resources are available for the application to execute the backup job.

3. Select the 'Run mode' of the scheduled backup job. See [Selecting Run Mode for Scheduled Backup Job](#) for more details.
4. Click 'Save Schedule'.

Once

Executes the created backup job only once at a scheduled day / time.

To schedule a backup job to run once

1. Select the option 'Once' from the Frequency: drop-down menu. The drop-down options for selecting the day and time are displayed below.

2. Click the drop-down button from the day menu and select the day at which the backup job to be executed from the calendar displayed.

Schedule a backup

Settings

Frequency: Once

Date: 5/12/2011

Time: 1:11:07 PM

If schedule is missed: Do Nothing

Run mode: Autoclick Finish after backup

Back Save Schedule

3. Select the time at which the backup job is to be executed from the time combo box.
4. Select how the application should react if the schedule fails to execute from the 'If schedule is missed' drop-down menu. See **Missed Schedule Options** for more details.
5. Select the 'Run mode' of the scheduled backup job. See **Selecting Run Mode for Scheduled Backup Job** for more details.
6. Click 'Save Schedule'.

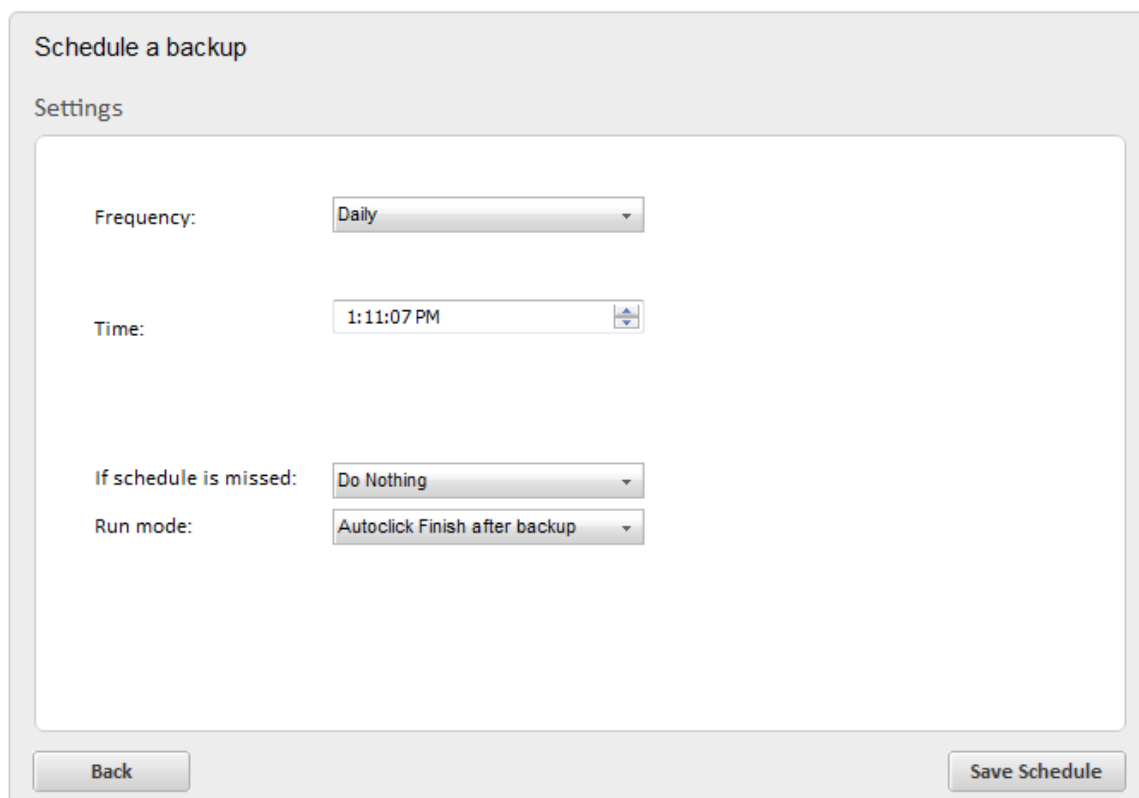
Note: The backup job scheduled to run 'once' will be deleted after the successful completion of backup.

Daily

Executes the created backup job every day at the set time.

To schedule a backup job to be executed daily

1. Select the option 'Daily' from the Frequency: drop-down menu. The drop-down option for selecting the time is displayed below the topmost drop-down menu.



2. Select the time at which the backup job is to be executed from the time combo box.
3. Select how the application should react if the schedule fails to execute from the 'If schedule is missed' drop-down menu. See [Missed Schedule Options](#) for more details.
4. Select the 'Run mode' of the scheduled backup job. See [Selecting Run Mode for Scheduled Backup Job](#) for more details.
5. Click 'Save Schedule'.

Weekly

Executes the created backup job on selected day(s) of every week at the set time.

To schedule a backup job to be executed weekly

1. Select the option 'Weekly' from the Frequency: drop-down menu

The check-boxes for selecting the day(s) of the week (Monday through Sunday) and a combo box for selecting the time are displayed.

2. Select the day(s) of the week for scheduling the backup job by selecting the checkboxes beside the respective day(s). You can choose any number of days.
3. Select the time at which the backup job is to be executed from the time combo box.

Schedule a backup

Settings

Frequency: Weekly

Time: 1:11:07 PM

If schedule is missed: Do Nothing

Run mode: Autoclick Finish after backup

☒ Monday
☐ Tuesday
☒ Wednesday
☐ Thursday
☒ Friday
☐ Saturday
☐ Sunday

Back Save Schedule

4. Select how the application should react if the schedule fails to execute from the 'If schedule is missed' drop-down menu. See [Missed Schedule Options](#) for more details.
5. Select the 'Run mode' of the scheduled backup job. See [Selecting Run Mode for Scheduled Backup Job](#) for more details.
6. Click 'Save Schedule'.

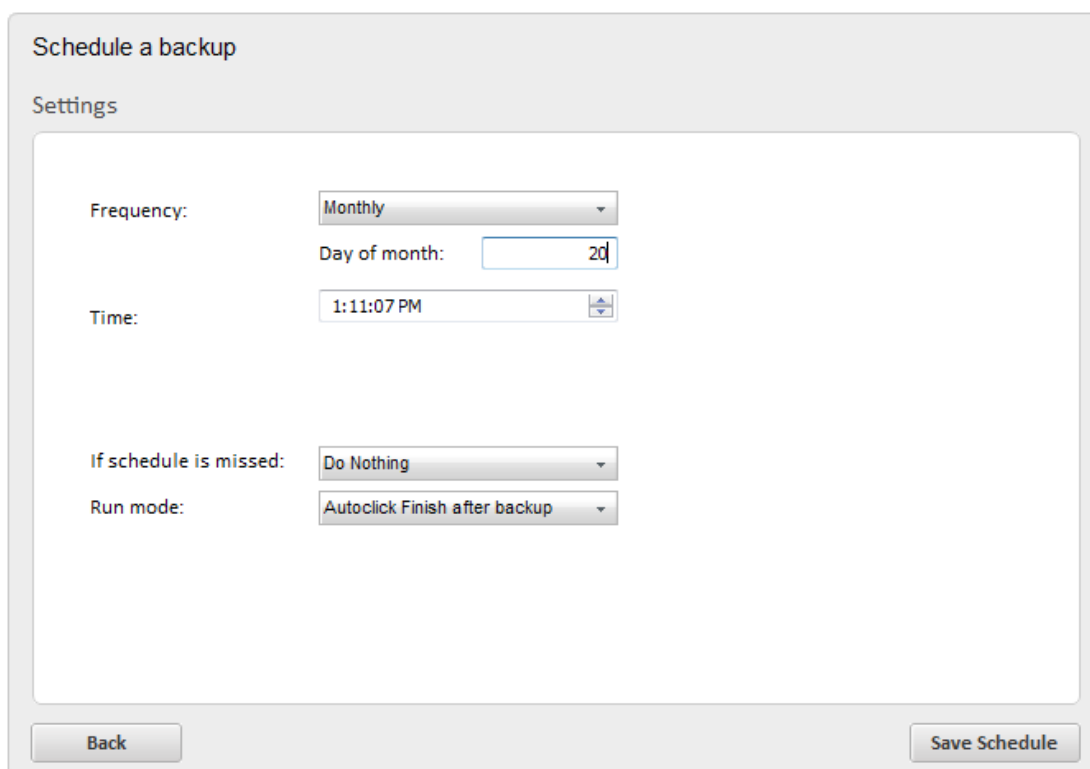
Monthly

Executes the created backup job on selected date of every month at the set time.

To schedule a backup job to be executed Monthly

1. Select the option 'Monthly' from the Frequency: drop-down menu.

A text box for entering the date and a combo box for selecting the time are displayed.



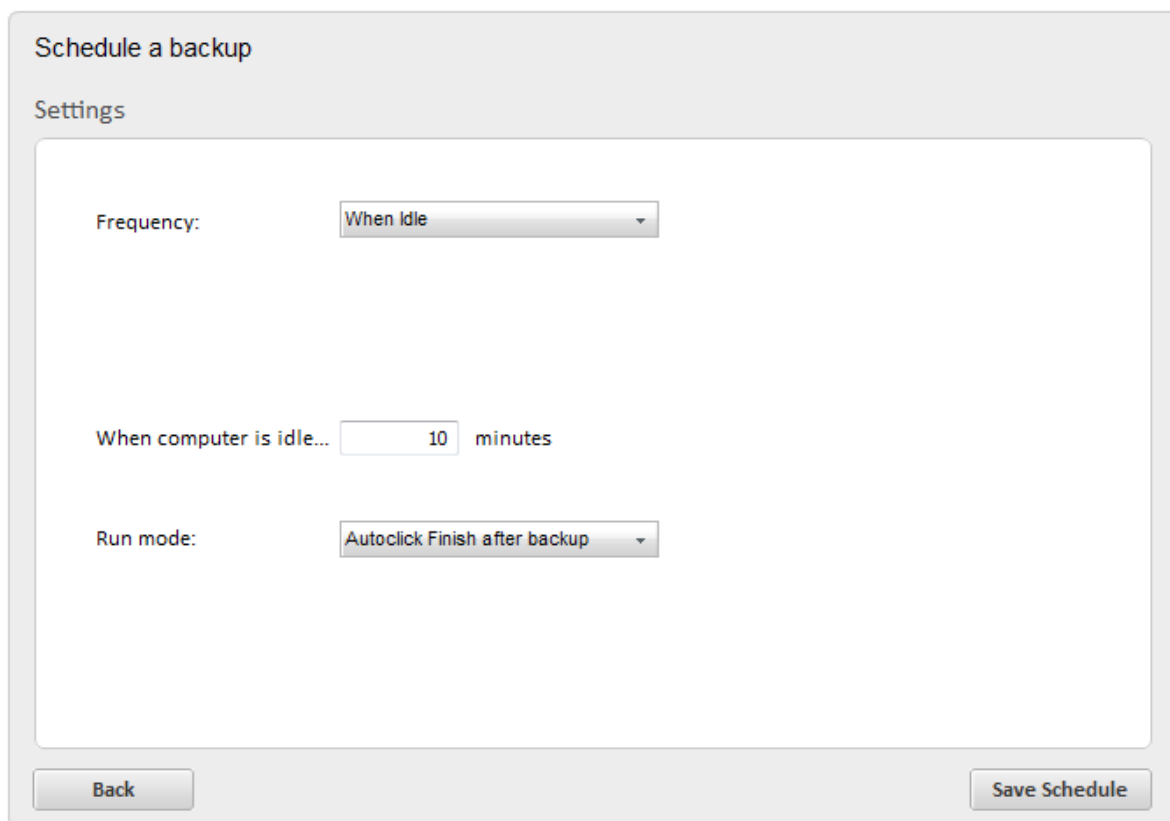
2. Enter the date at which the backup job has to be executed every month (between 1 and 31. If you have entered 31, the back up is executed only on the months with 31 days e.g. January, March, May.. and is not executed on the months with 30,29 or 28 days, e.g. February, April, June etc.)
3. Select the time at which the backup job to be executed from the time combo box.
4. Select how the application should react if the schedule fails to execute from the 'If schedule is missed' drop-down menu. See **Missed Schedule Options** for more details.
5. Select the 'Run mode' of the scheduled backup job. See **Selecting Run Mode for Scheduled Backup Job** for more details.
6. Click 'Save Schedule'.

When Idle

Executes the created backup job whenever the system goes idle with a set delay.

To set the backup job to be executed whenever the system goes idle

1. Select the option 'When Idle' from the Frequency: drop-down menu.
2. Enter time delay (in minutes) for the backup job to start from the instant the system goes idle in the 'When computer is idle for:' text box.



Schedule a backup

Settings

Frequency: When Idle

When computer is idle... 10 minutes

Run mode: Autoclick Finish after backup

Back Save Schedule

3. Select the 'Run mode' of the scheduled backup job. See [Selecting Run Mode for Scheduled Backup Job](#) for more details.
4. Click 'Save Schedule'.

Every x minutes

Executes the created backup job on selected x minutes at the set time.

To set the backup job to be executed on selected intervals

1. Select the option 'Every x minutes' from the Frequency: drop-down menu.
2. Enter in the Interval field your option (in minutes) for the backup job to start.

Schedule a backup

Settings

Frequency: Every x minutes

Interval: 20 minutes

Run mode: Autoclick Finish after backup

Back Save Schedule

3. Select the 'Run mode' of the scheduled backup job. See [Selecting Run Mode for Scheduled Backup Job](#) for more details.
4. Click 'Save Schedule'.

Additional Notes:

- If you want to run the backup job immediately (apart from the schedule), click 'Backup Now' button.
- An additional checkbox 'Remember connection information (unsafe)' is displayed if you have chosen to save the backup on a password protected location like a network computer, FTP server or online server in [Step 2](#). If you select this option the connection credentials like the username and password is stored by the application in encrypted manner. You are not prompted every time to enter the username and password on execution of the backup job.

Missed Schedule options - You can configure how Comodo BackUp should react if a scheduled backup job does not run on time (for example, because the machine was powered off). The options available are:

- **Do nothing** - The missed scheduled backup job is ignored
- **Prompt user** - The user is prompted to run the missed backup job the next time that they open the application

If schedule is missed:

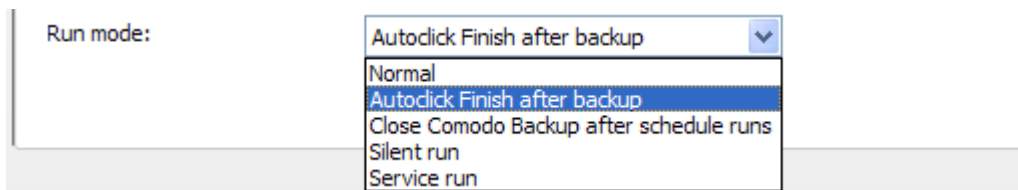
Run mode:

Do Nothing
Prompt User
Run it at first chance

- **Run it at first chance** - The scheduled backup job is run immediately when the user opens Comodo BackUp for the next time.
- Select the required option from the drop-down menu.

Selecting the Run Mode of the Scheduled Backup Job - You can configure how the scheduled backup job is to be executed at the scheduled time from the Run mode drop-down menu. The options available are:

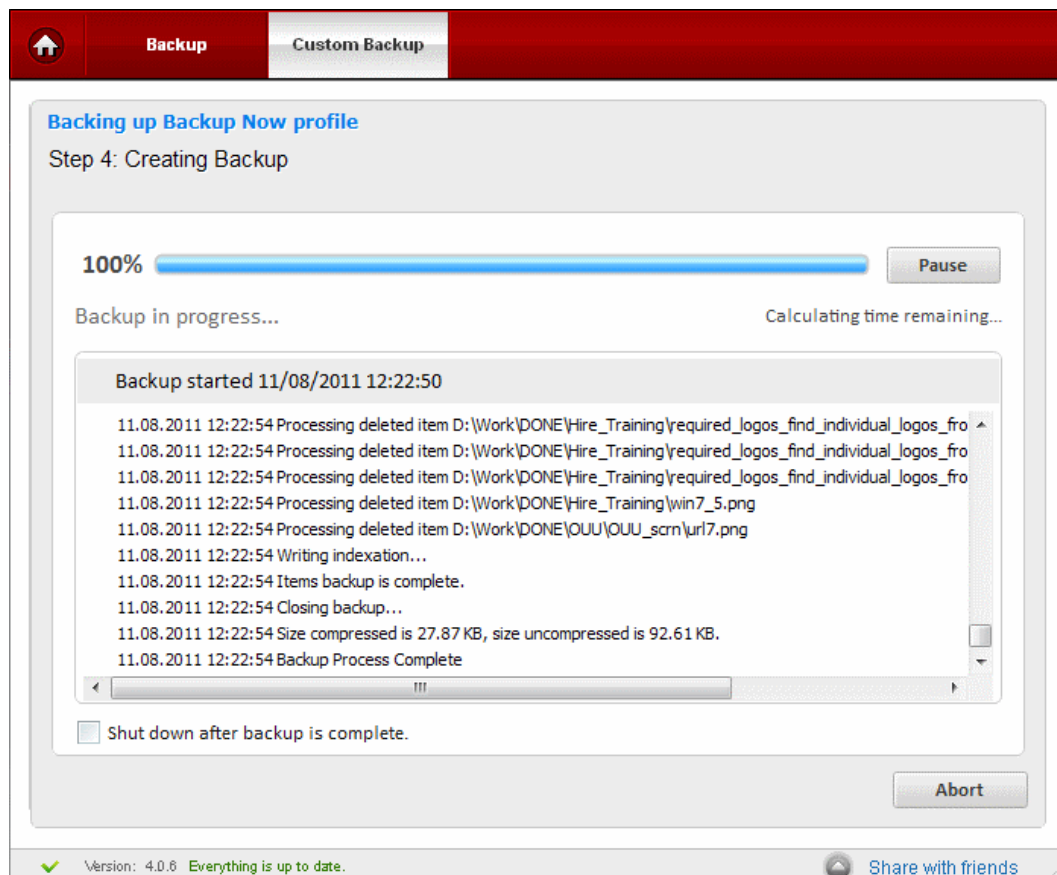
- **Normal** - Comodo BackUp is invoked at the scheduled time and the backup process is executed. On completion of the backup process, you have to click the 'Finish' button. You can even abort the backup process if you want during the backup progress. The application is not closed until you click the close button from the Windows controls.
- **Autoclick Finish after backup** - The backup is run at the scheduled time and the backup process is executed. You can even abort the backup process if you want, during the backup progress. On successful completion of the backup process, the 'Finish' button is effectively clicked automatically so that the application returns with its main interface. The application is not closed until you click the close button from the Windows controls.
- **Close Comodo Backup after schedule runs** - On successful completion of the backup job, the application is closed automatically. You can even abort the backup process if you want, during the backup progress.
- **Silent run** - Comodo BackUp is run at the background at the scheduled time to execute your backup job.
- **Service run** - Comodo BackUp is run as a Windows Service so that the backup job is executed at the background automatically even if you are not logged in.
- Select the required option from the drop-down menu.



Note: The Run mode options will not be available if you have chosen the '**Manual**' schedule option.

2.2.1.2.3. Run the Backup

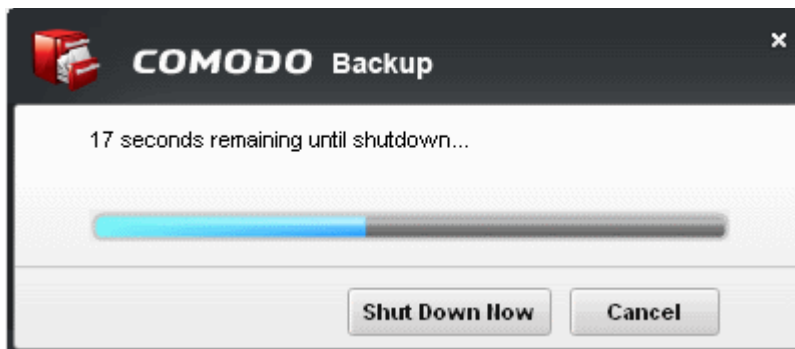
To execute the configured backup job instantly, just click the Backup Now button at the bottom right corner. The source files selected in the **Step 1** are backed-up at the location you specified in **Step 2**. The progress bar indicates the backup progress. You can Pause, Resume or Abort the backup operation at this stage.



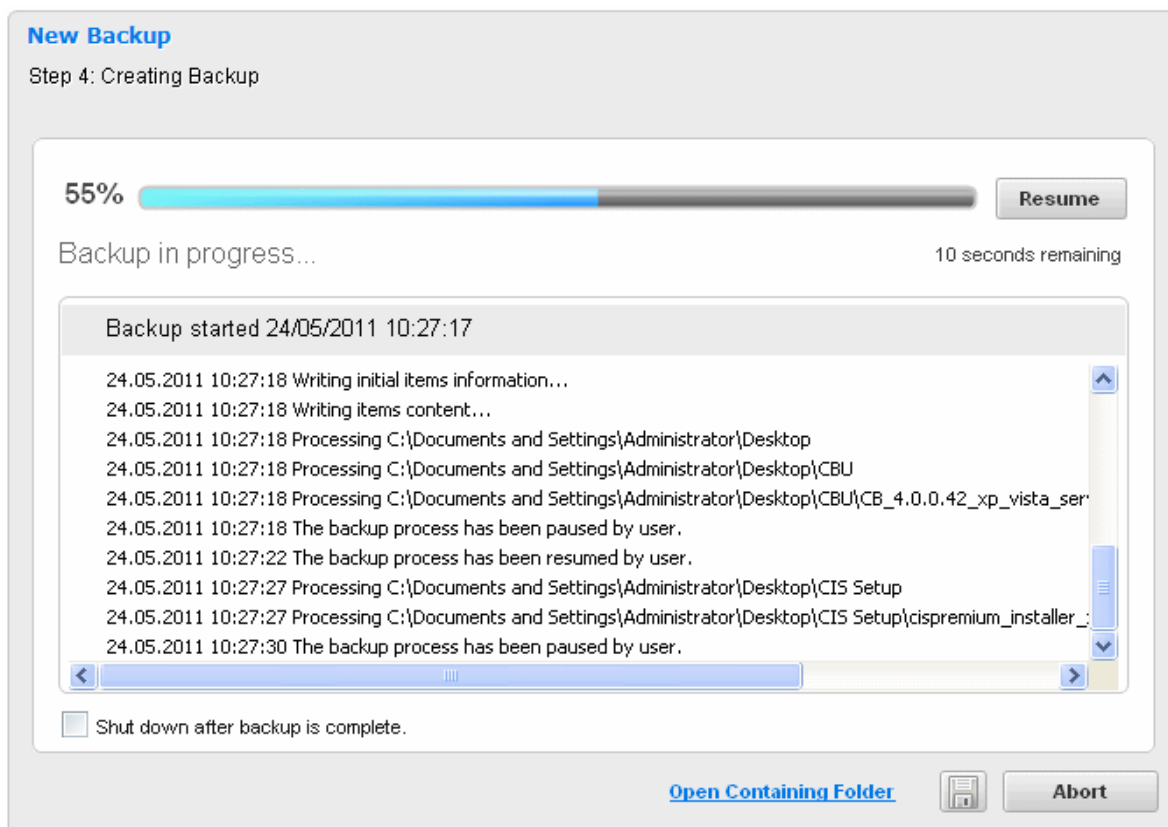
The lower pane displays the log information and shows the details about the files currently being backed up and error reports, if any.

Note: The log will be displayed only if the option **Log to Screen** in **Backup Settings** is left checked.

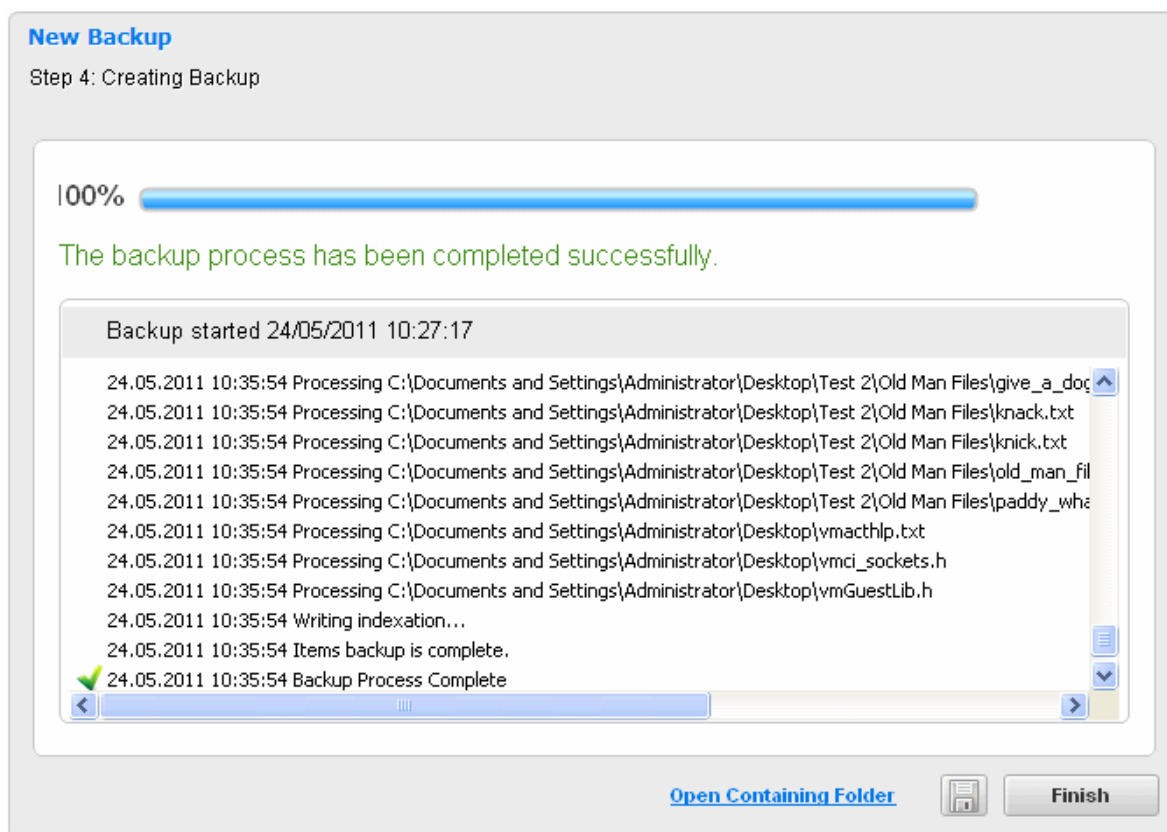
- If you want your system to be shutdown on completion of the backup operation, select the checkbox 'Shut down after backup is complete'. On successful completion, the system will automatically shutdown with a delay of 30 seconds and a countdown timer will be displayed.



- To shutdown the system immediately, click 'Shutdown'.
- To cancel the shutdown operation, click 'Cancel'.
- If you want to stop the backup job under progress, click 'Abort' button.
- If you want to temporarily stop the backup operation, click the 'Pause' button. The backup progress is withheld.



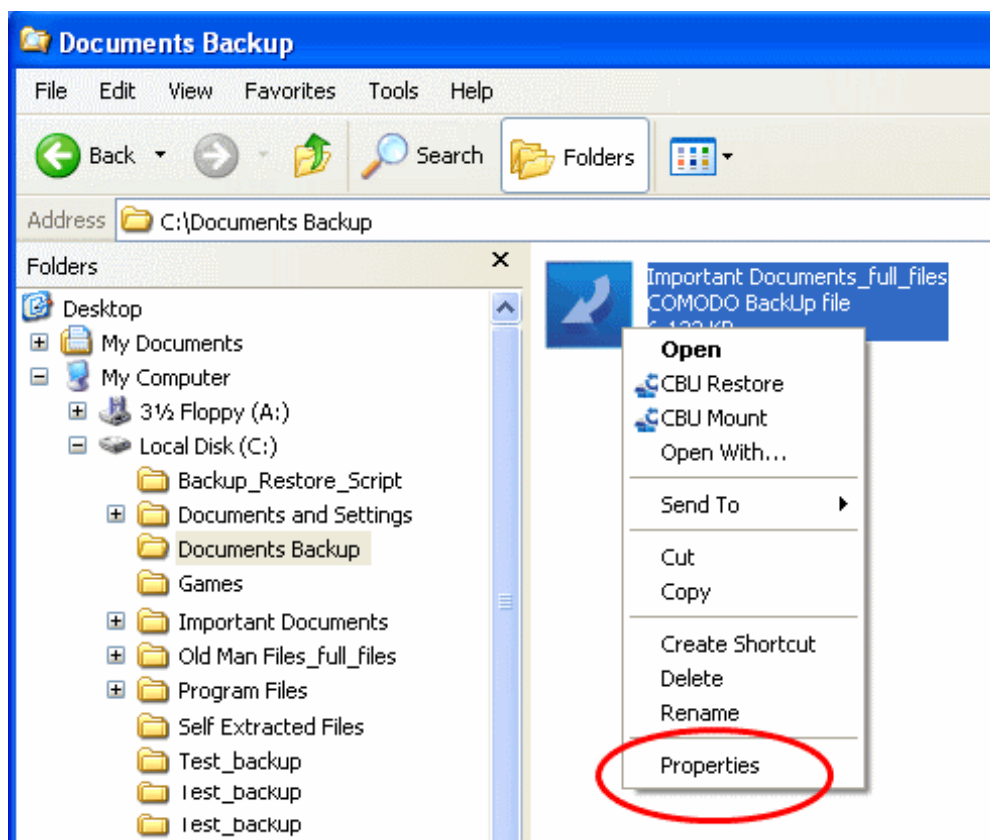
- To restart the backup operation, click 'Resume' button. The process is restarted and the backup job is completed.



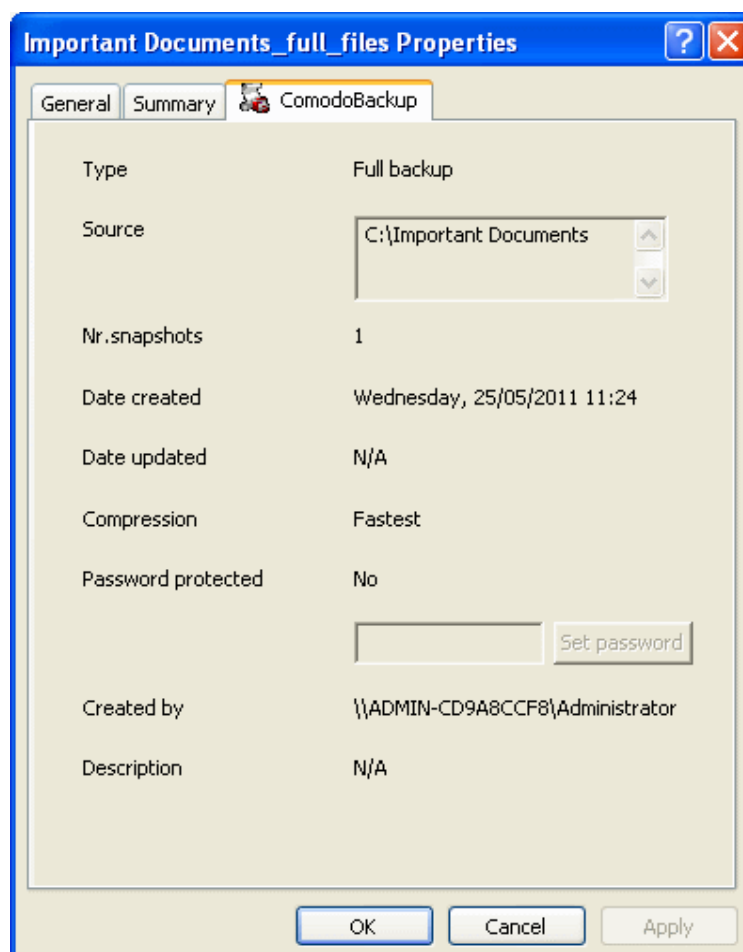
- Click the 'Open Containing Folder' link to open the folder containing the backup.
- Click the 'Save as Custom Profile' button to save the selected backup job as a custom profile. [Click here](#) for more details on creating custom profiles.
- Click 'Finish' to return to the 'Custom Backup' interface.

Note: If you have chosen Comodo Online Storage, Network location or FTP server in **Step 2 - Selecting a Destination to Backup** and the if the internet/network is disconnected during a backup, the process will resume as soon as the connection is restored.

If you had chosen the **backup format** as a CBU file, you can see the file properties by right-clicking on it in Windows Explorer and selecting file properties from the context sensitive menu.




Click on the Comodo Backup tab to view details of the CBU file.

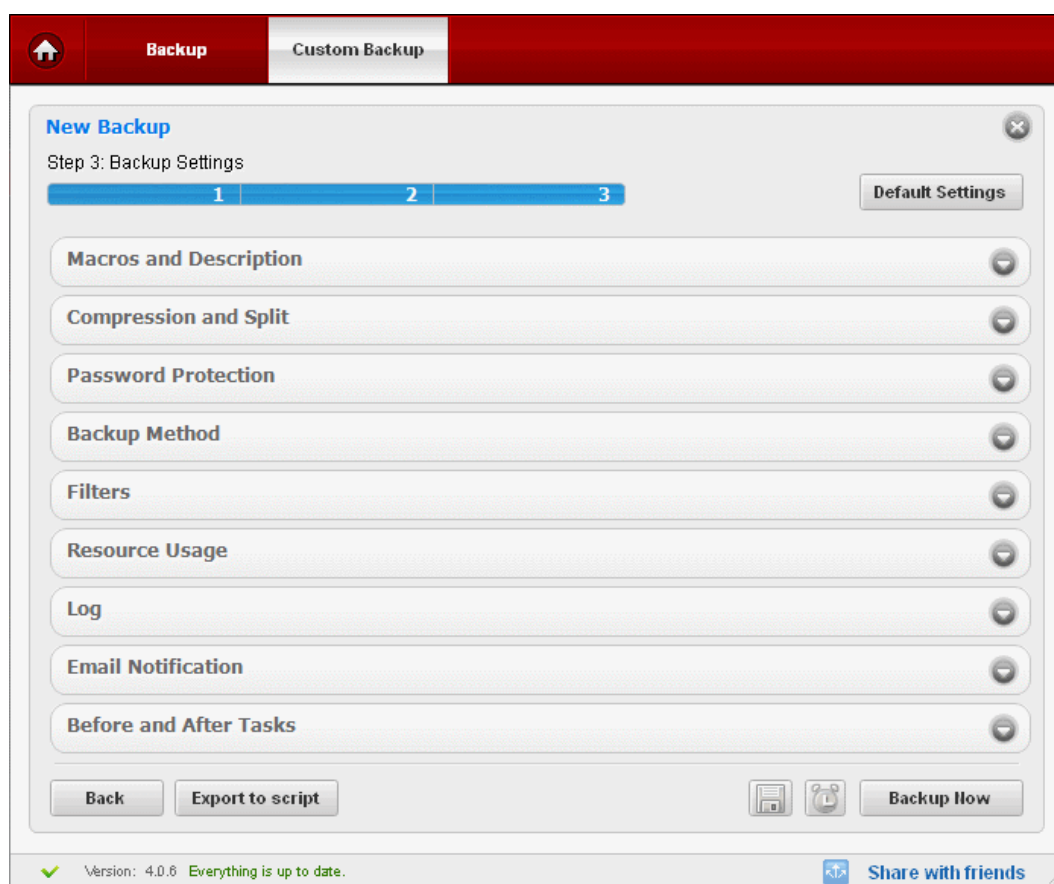


2.2.1.3. Step 3 - Backup Settings

The next stage is to configure for archiving the backup files, set encryption and password protection for the backup. The settings available are:

- **Macros and Description**
- **Compression and Split**
- **Password Protection**
- **Backup Method**
- **Filters**
- **Resource Usage**
- **Log**
- **Email Notification**
- **Before and After Tasks**
- **Export to Script**

Click on the drop-down arrow button  on the right side of any of the settings menu to open its settings area.

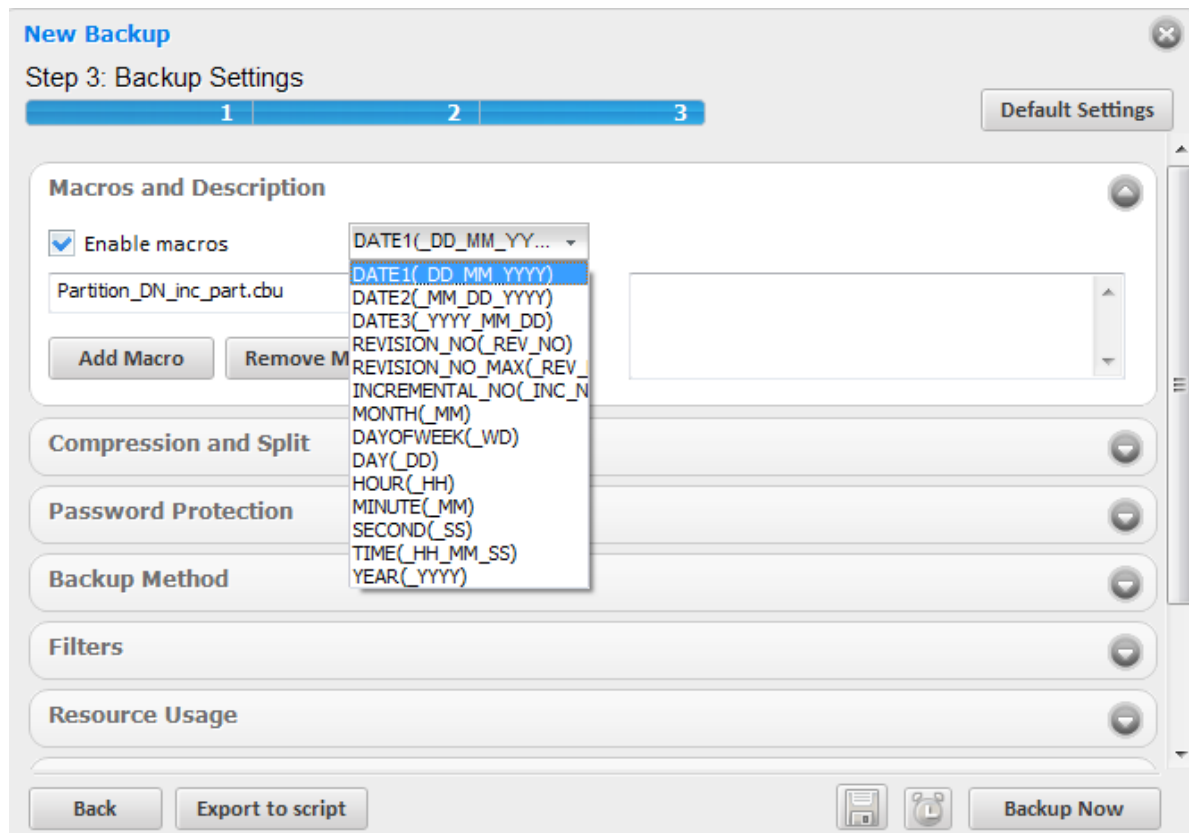


2.2.1.3.1. Macros and Description

The file names of the backup files can be named in chronological order, by adding suffixes to the file names indicating the date, time etc. This is useful when setting a single source (disk, file folder, etc) to be backed up periodically by setting scheduled backups or synchronized backups. You can even add the revision numbers as suffix. The suffix enables you to identify the backups of different versions of the same file and helps you in case you want to restore an earlier version of the file.

To set the Macros for naming the files

1. Select the 'Enable Macros' checkbox.



2. From the drop-down menu containing the Macros, which are the building blocks for the suffixes to be added to the file name, select the Macros you want.
3. Click the 'Add Macros' button. The selected Macro appears as a suffix to the file name in the file name text box. You can add any number of macros to the file name by adding them one by one in the order you want.

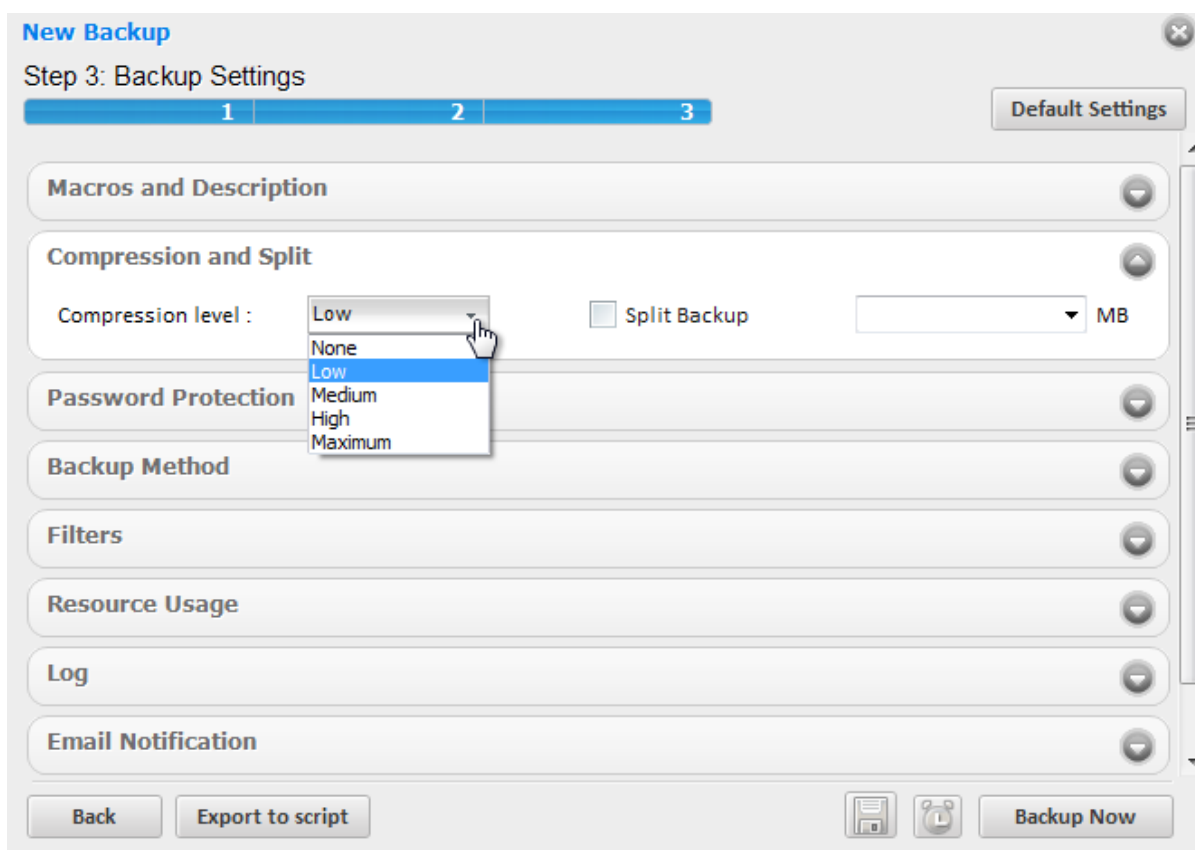
Note: Selecting the option 'REVISION_NO_MAX(_REV_NO_MAX)' from the drop-down displays the 'Reset Revision Number at' field. Select the checkbox if you want to reset the revision number and enter the revision number in the adjacent field. When you use this option, backup will run as full each time the revision number is reset.

- To remove the macros added, simply click the 'Remove Macros' button.

2.2.1.3.2. Compression and Split

Comodo BackUp compresses all the data into one file and stores with the file name having extension .cbu (e.g. filename.cbu), in the destination you choose in **Step 2**. You can choose the compression level in this stage of the process. You can choose from the levels 'None' through 'Maximum'. Higher the compression level, lower the backup disk space requirement. Select the compression level you want to use from the drop-down menu.

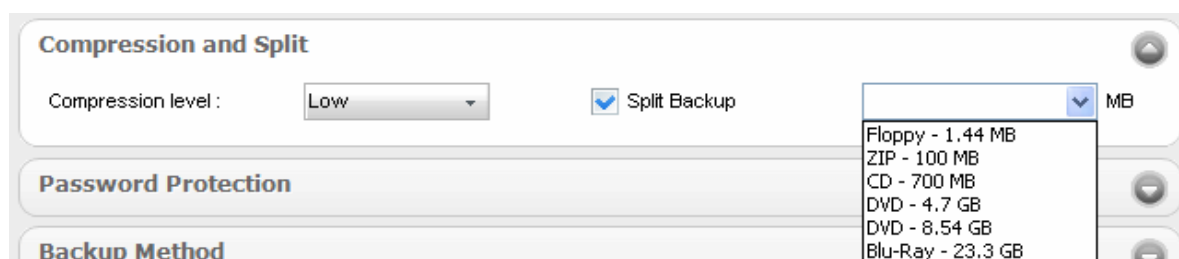
You can split the backup file into segment sizes of your choice. This is useful when you are taking backups of very large sizes, in removable media like **CD's, DVD's, ZIP drives, USB drives** etc. You can set the maximum files sizes of the segments to fit to the media you choose. The files can be rejoined while restoring the backup.



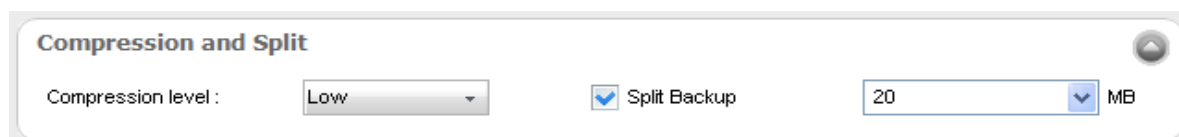
Note For the backup files created without selecting the compression level, e.g., the backup files created right after **Step 2 - Selecting a Destination to Backup** by skipping the further steps, the compression level is set as 'Low' by default.

To split the Backup

1. Select the checkbox beside 'Split Backup'
2. Select the size you want from the preset sizes (set corresponding to different types of removable storage media like Floppy disk, CD, DVD etc.) from the drop-down combo-box.



3. Alternatively, If you want the backup to be split into custom sizes, enter the maximum size (in MB) for each segment in the backup in the drop-down combo-box.



2.2.1.3.3. Password Protection

Providing a password protection requires the password to be entered while restoring the backup and also encrypts the backup with an encryption algorithm you choose.

To provide a password protection and encrypting the backup

1. Select the checkbox beside 'Password Protection'
2. Select the Encryption Algorithm you want to use for encrypting the backup from the drop-down menu.

Encryption Algorithms:

- 3DES - 168-bit/ strong
- AES - 128bit / strongest
- Blowfish - 64-bit block / strong
- DES
- Serpent - 128,192 or 256 bit / very strong
- Twofish - 128-bit block/ strong
- Xor - Variable block size / weak

For more details on the Encryption Algorithms, see [Appendix 1 Encryption Algorithms](#).

3. Type the password (of minimum four characters) in the 'Password' Text box.
4. Retype the password in the 'Confirm password' text box.

CBU generates a 32 byte key by applying a SHA256 hash algorithm to the password entered by you. If the encryption algorithm chosen by you requires a key of smaller bit length, the 32 byte key is truncated to the required length. CBU encrypts the backup file with the chosen algorithm using this key. During the restoration the backup file, CBU receives the password entered by you, generates a key by applying the same hash algorithm and uses this key to decrypt the backup file. If a wrong password is entered by someone maliciously, the key required to decrypt the backup could not be generated and the backup could not be restored, ensuring additional level of safety to the backup of your confidential information.

2.2.1.3.4. Backup Method

When encountering locked files - The drop-down menu allows you to instruct how Comodo BackUp should react on the situation where one or more files to be backed-up are locked for reasons like they are in use by other programs or other users.

- **Volume Shadow Copy** - Uses Volume Snapshot Service (VSS) offered by the Windows Operating System. The service creates read-only copy or snapshot of the volume or the file system where the file in question is

stored, at the specific point of time when the backup was initiated. The file is read from the read-only copy of the volume for inclusion in the backup.

- **Raw Read** - The locked files will be read directly from disk in the state they are, when they are processed for backup. This enables to have latest version of the file in the backup than the volume shadow copy.
- **Skip files** - Ignores the locked files.

Backup all sectors including free space - This option is visible only when 'Disk, Partitions and MBR' is selected as Backup Source in **Step 1**. Comodo BackUp backs up only the contents in the occupied space of the selected drive partition. If you want to backup the free space in the drive, select this checkbox. Including the free space in the backup enables you to recover files that were deleted from the drive upon using advanced, 3rd party, file recovery software.

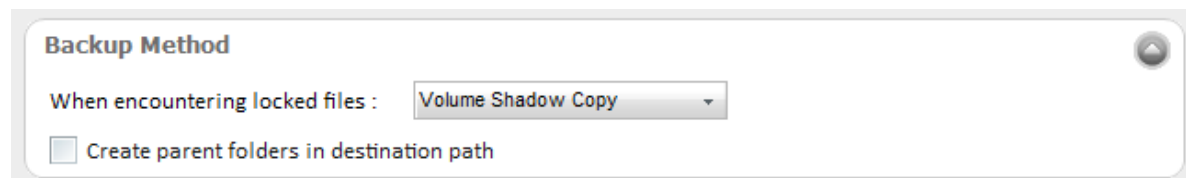


Backup Method *

When encountering locked files : Volume Shadow Copy

☐ Backup all sectors including free space

Create parent folders in destination path - This option is visible only when Simple Copy or Sync copy is chosen as Backup Format in **Step 1**. Selecting this option creates separate folder at the destination when you are creating simple copy of Sync copy backup for individual files and stores the files in the folders.



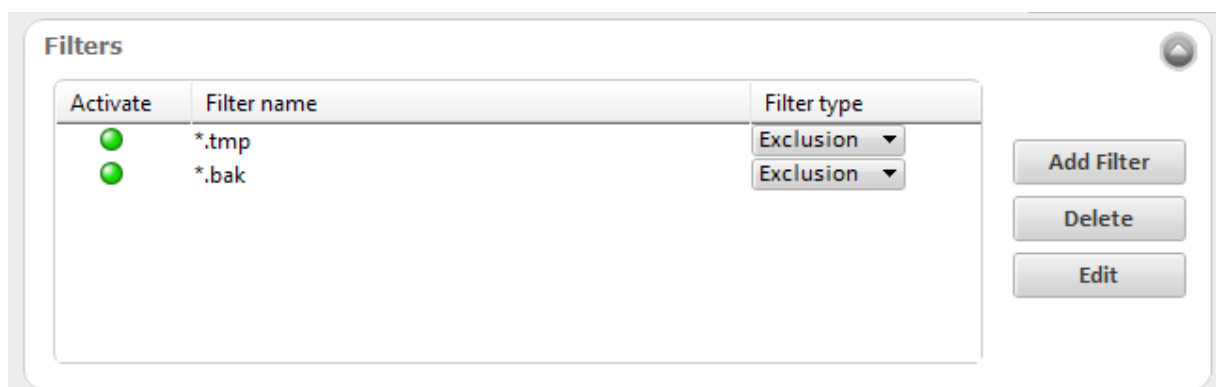
Backup Method

When encountering locked files : Volume Shadow Copy

☐ Create parent folders in destination path

2.2.1.3.5. Filters

Comodo Backup allows you to set filters for including or excluding the files to the backup from the source Files / Folders selected in **Step 1**. This is useful, when you want to exclude or only include files of selected type or files having a selected string in their file name in the backup. For example, you may want to exclude all the temporary files in the selected folder from being backed up, include only the files with a specific string in the file name of a selected set of files or folder into the backup etc. You can set the exclusion and inclusion filters accordingly in this step.



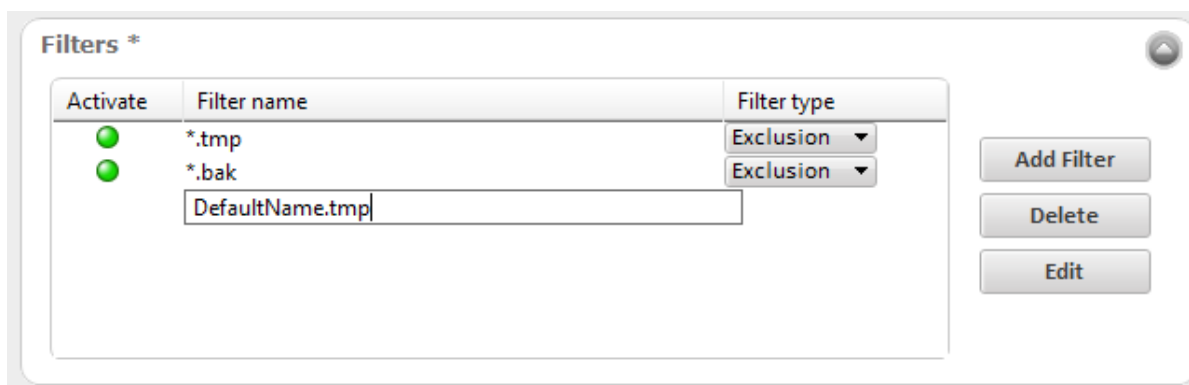
Activate	Filter name	Filter type
<input checked="" type="radio"/>	*.tmp	Exclusion
<input checked="" type="radio"/>	*.bak	Exclusion

Add Filter
Delete
Edit

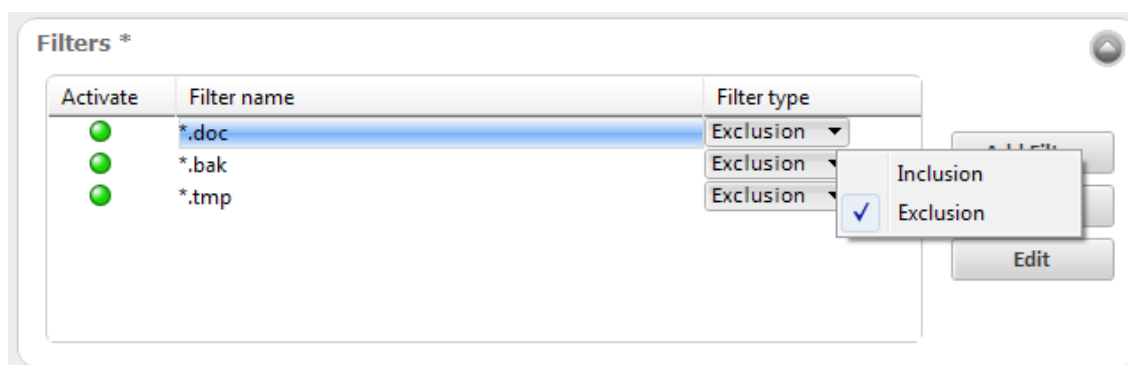
Important Note: The Filter Settings is active only if you have chosen **Files and Folders** as your backup source in **Step 1**. Inclusion filters apply only to files, while exclusion filters apply to both files and folders.

To set the filters

1. Click 'Add Filter' button. A new filter is created with a default name.



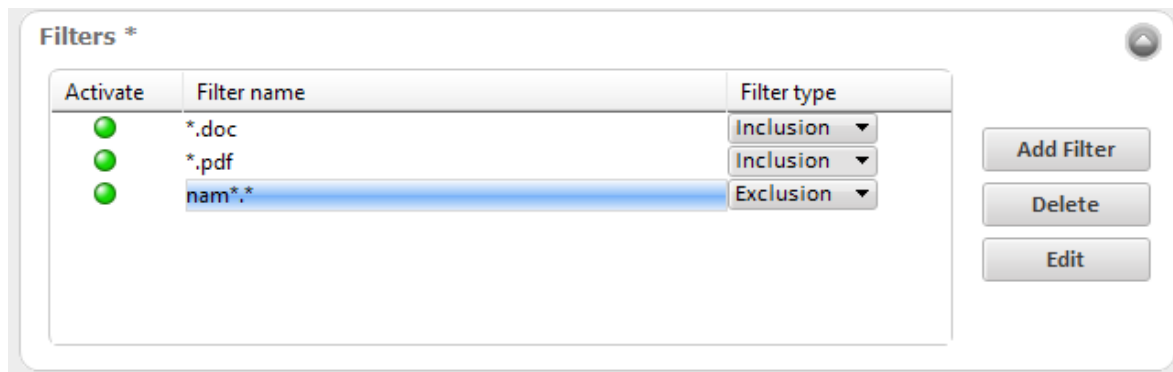
- Rename the filter with wildcard characters suffixed with the file extension if you want certain file types to be excluded or to be only-included (e.g. *.tmp, *.txt) or rename the filter with the string having wildcard characters if you want to exclude files include only the files with the selected string in their filenames (e.g. nam*.*)).
- Select whether you want to set the filter as inclusion (only the files having the specified extension or the file name will be included in the backup from the source and the other files will be omitted) or exclusion (the files having specified extension or the file name, contained in the source, will be omitted during the backup process) from drop-down in the 'Filter type' column.



- The filter will be added. Repeat the procedure for adding more number of filters.
- Activate the filters by clicking on the green buttons in the 'Activate' column.

Example 1 - If you have added an exclusion filter with the name '*.tmp', all the files with the extension .tmp in the set of files or folders you chose in step 1, are omitted and only the other files in the set of files or folders are included in the backup. If you added an exclusion filter with the name ?a*.*, all the files / folders having 'a' as second letter in their file / folder names are omitted.

Example 2 - If you have added an Inclusion filter with the name '*.doc', only the files with the extension .doc in the set of files or folders you chose in step 1, are included in the backup and the other files are omitted. If you added an exclusion filter with the name ?a*.*, only the files / folders having 'a' as second letter in their file / folder names is included.



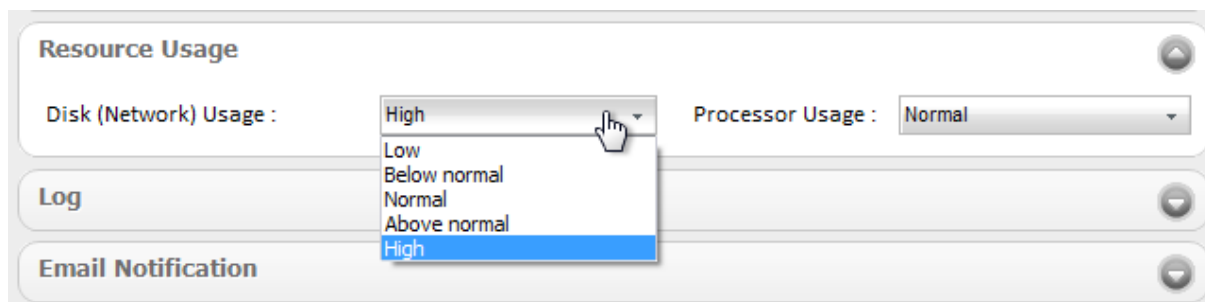
In the example shown above, Comodo Backup can include only the files with the extensions .doc and .pdf from the selected folders into the backup. The .doc or .pdf files having 'nam' at the start of their file names is not included in the backup.

To edit a filter, select the filter from list and click 'Edit'.

To remove a filter, select the filter from list and click 'Delete Filter'.

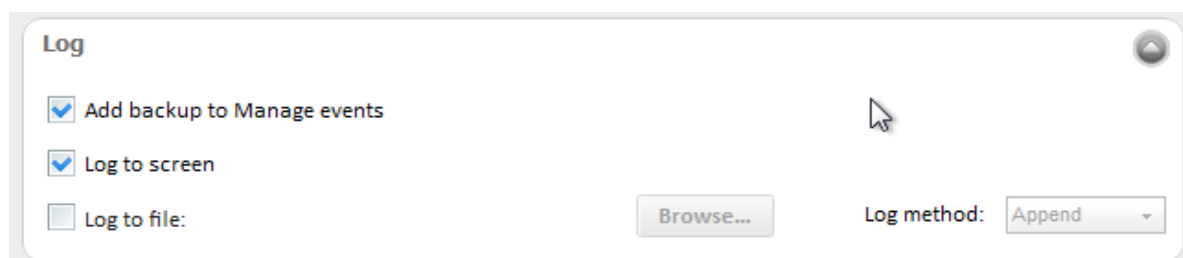
2.2.1.3.6. Resource Usage

Disk (Network) Usage - You can choose the usage of the disk and network resources for the created backup job in this stage of the process. The available options are from 'Low' through 'High'. Higher the disk and network resources usage level, higher the speed of the backup process. Select the disk usage level you want to use from the drop-down menu.



Processor Usage - You can choose the usage of the processor resources for the created backup job in this stage of the process. The available options are from 'Low' through 'High'. Higher the processor usage level, higher the speed of the backup process. Select the processor usage level you want to use from the drop-down menu.

2.2.1.3.7. Log



Add backup to Manage events - Instructs the application to add this backup event to History so that the details of this backup operation is viewable through the '**Manage**' interface.

- **Log to screen** - The log of events (for example, details on each file or folder being backed up, error reports, size of the backup when compressed and uncompressed etc.) is created and displayed at the final stage of the backup operation in the interface, only if this checkbox is left selected. By default, this option is selected. If you do not want to

log the backup events, deselect this checkbox.

- **Log to file** - Enables you to save the log of events (for example, details on each file or folder being backed up / restored, error reports etc.) generated during the backup progress, as a text file for later reference or analysis.

To save the log of events

- Select the 'Log to file' checkbox.



Log *

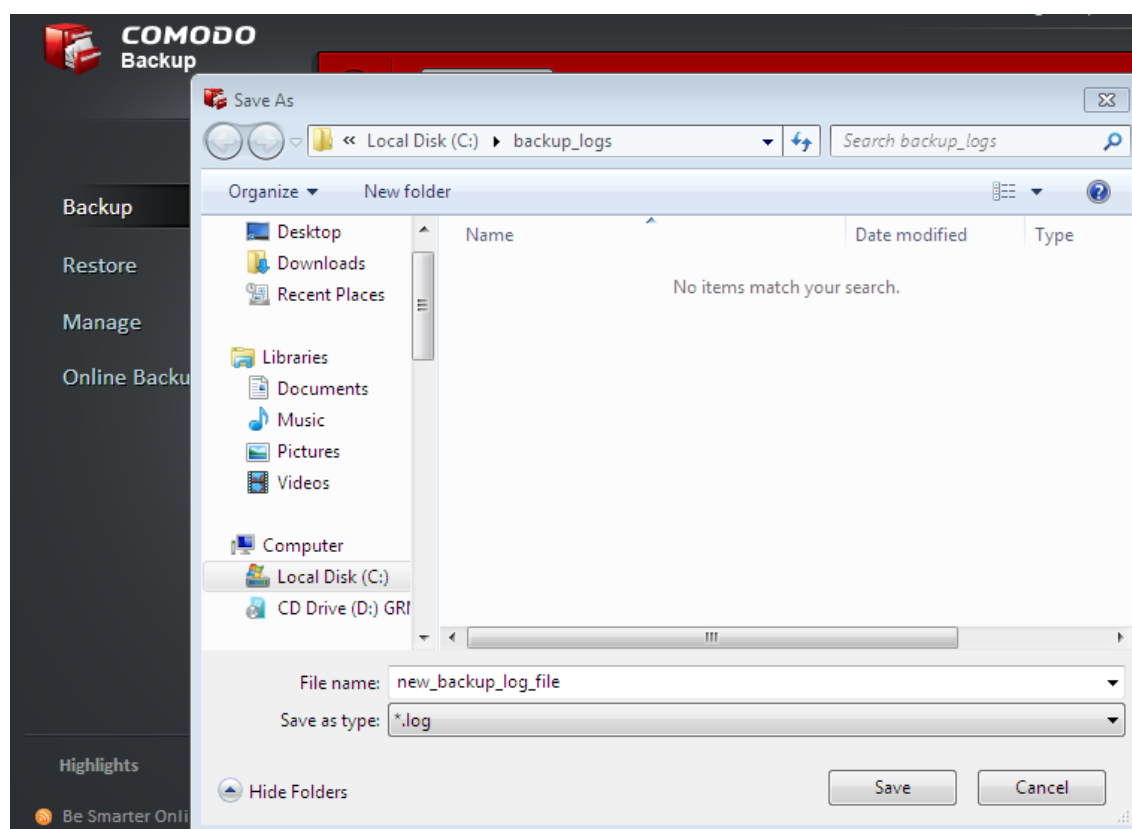
☒ Add backup to Manage events

☒ Log to screen

☒ Log to file: Browse... Log method: Append

A 'Browse...' button will appear enabling you to navigate to the folder/file where you want to save the log.

Click the Browse button and navigate to the folder.



- If you want to store the log as a new file, type the new file name in the File Name text box. If you want to add the log information to an existing log file, select the file. Click 'Save'.

The new file name will appear in the interface.



Log *

☒ Add backup to Manage events

☒ Log to screen

☒ Log to file: the file name.log Browse... Log method: Append

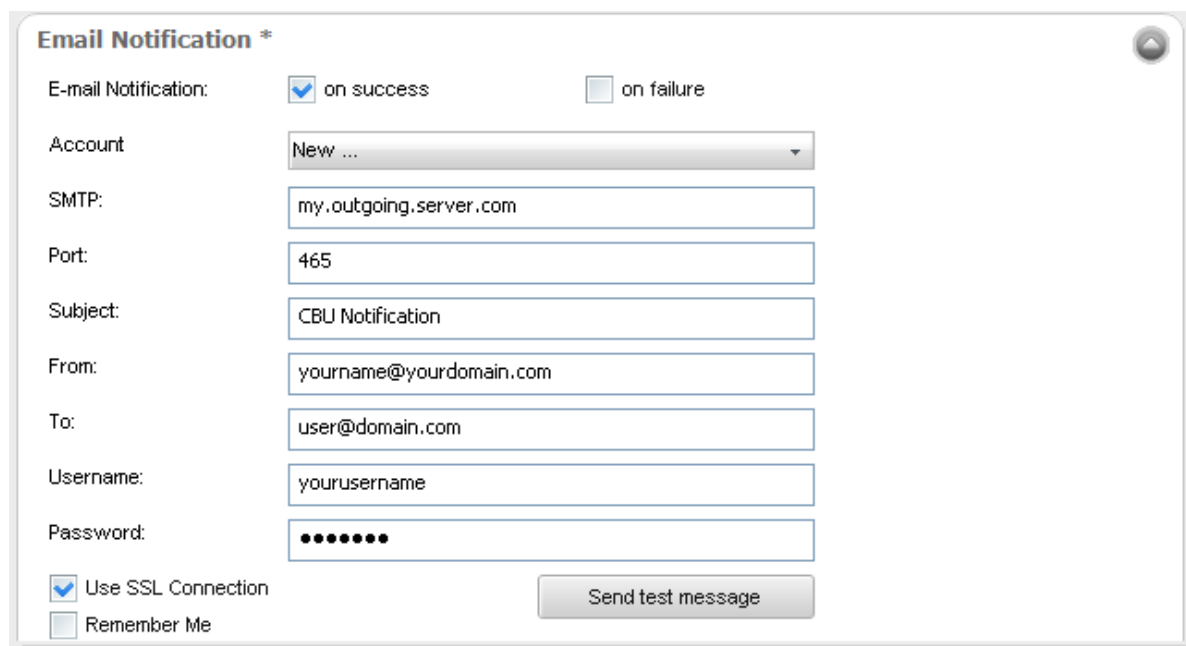
- Select 'Create' from the 'Log method' drop-down menu, if you want to create a log file at each run. Select 'Append' if you want to add the log information to the existing file. If 'Append' is used and the log file doesn't exist, it will be created when backup job runs.

2.2.1.3.8. Email Notification

Comodo BackUp can send email notifications on execution of each backup job. You can configure CBU to send notifications to yourself or other people like your team members, to be informed of the backup. You can also configure whether the email notifications are to be sent only on successful creation of backup, only on failure or both.

To configure email notification

1. Select the check boxes beside 'on success' and / or 'on failure' depending on your requirement on when you and others are to be informed of the backup job.



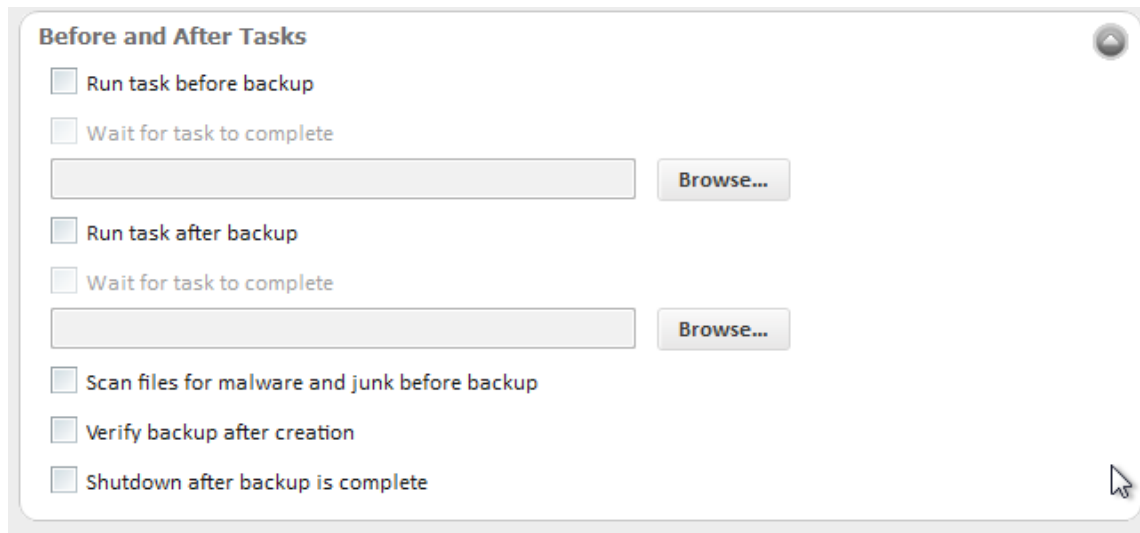
2. If you are using your email account for the first time, Select 'New' from the 'Account:' drop-down.
3. Enter the name of the SMTP server, the address of the outgoing mail server that the notification emails are sent through, in the 'SMTP Server' text box.
4. Enter the port number of the server to be used. (default = 25 for non-SSL connection and 465 for SSL connection)
5. Type the subject for the backup email in the 'Subject' text box. This is to indicate that the email is autogenerated by Comodo BackUp application (e.g. CBU Notification).
6. Enter the address on behalf of whom the notification should be sent. (e.g. your email address) in the 'From' text box. Note: This address should be supported by SMTP server you defined.
7. Enter the email address of the person to whom the notification should be sent in the 'To' text box. If you want the notification file to be sent to yourself, enter your email address here.
8. Type the username of your email account in the 'Username' text box.
9. Type your email account password in the 'Password' text box.
10. If you want to use the secure SSL connection for the email, select the 'Use SSL Connection' checkbox.

Note: The 'Account:' drop-down can display all the email accounts you might be using for sending Backup files. New email accounts can be added to this drop-down, by selecting the 'Remember me' checkbox whenever you use an email account for the first time. When using a previously added email account in future, you just need to select the account from the Account: drop-down, and need not enter the other details.

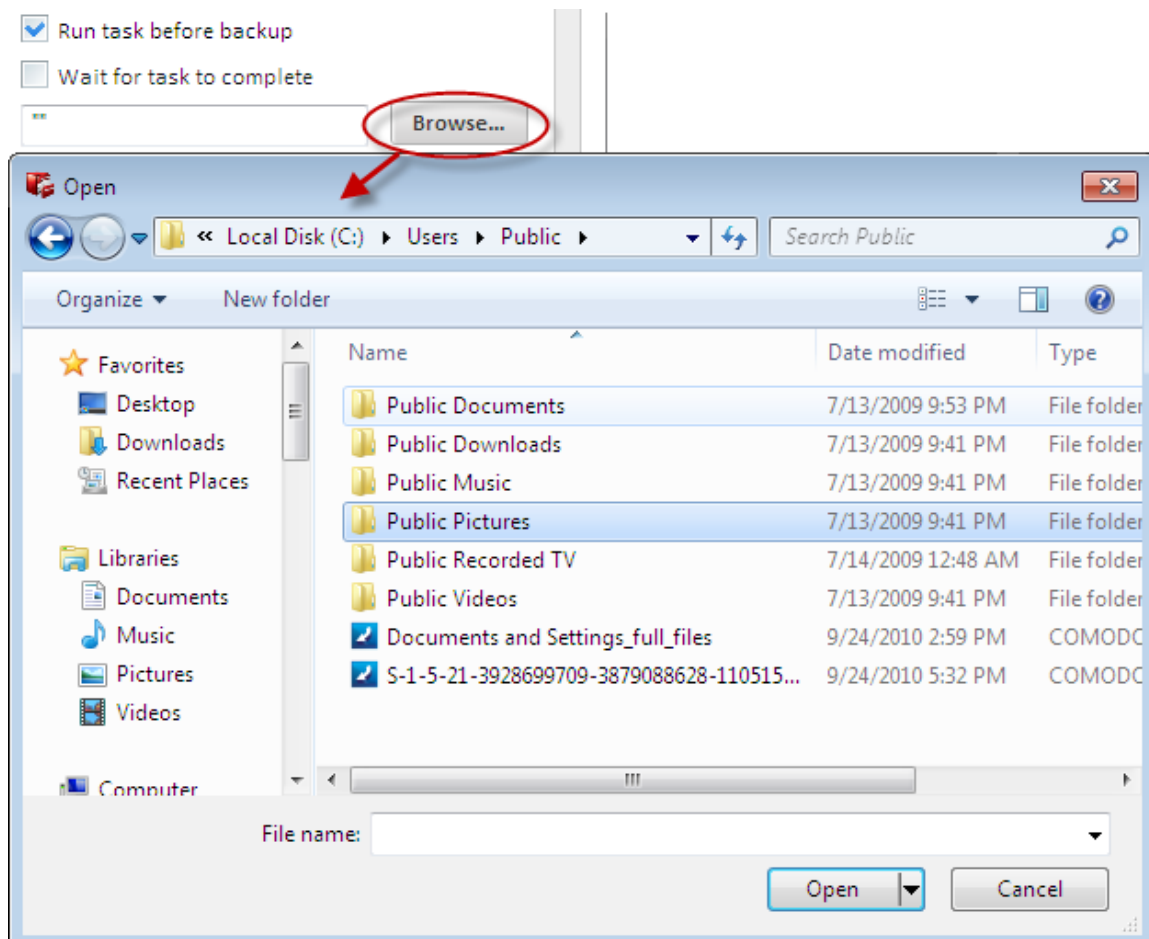
To check whether you have made the configurations correctly, click 'Send test message' button. A success or failure dialog is displayed. If a failure dialog is displayed, recheck your specifications and try again. On success message, check your email inbox to see the test message.

2.2.1.3.9. Before and After Tasks

Run Tasks before and/or after Backup - Comodo Backup allows you to run specific tasks before and / or after every manual or scheduled backup. For example, you may want to run your virus scanner before backing up to avoid potential infection of the destination folder. You can even mount an unmounted drive partition before backup to enable storing the backup file in the partition and unmount the partition on completion of the backup process by running a batch file with a list of corresponding Windows commands, play music files to indicate start and / or completion of the backup operation etc. You can also verify the backup job after it is created and choose to shut down after the backup job is completed.

**To run a task before a backup operation**

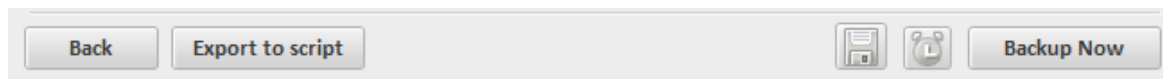
1. Select the 'Run task before backup' checkbox and click 'Browse'.



2. Navigate to the location of the file to be executed and click 'OK'.
 3. Select the checkbox 'Wait for task to complete' if you want CBU to wait until the selected task is to be completed before executing the backup job. Leaving this box unchecked makes CBU to start the backup operation before completion of the selected task.
- Repeat the same procedure for running a task after backup.

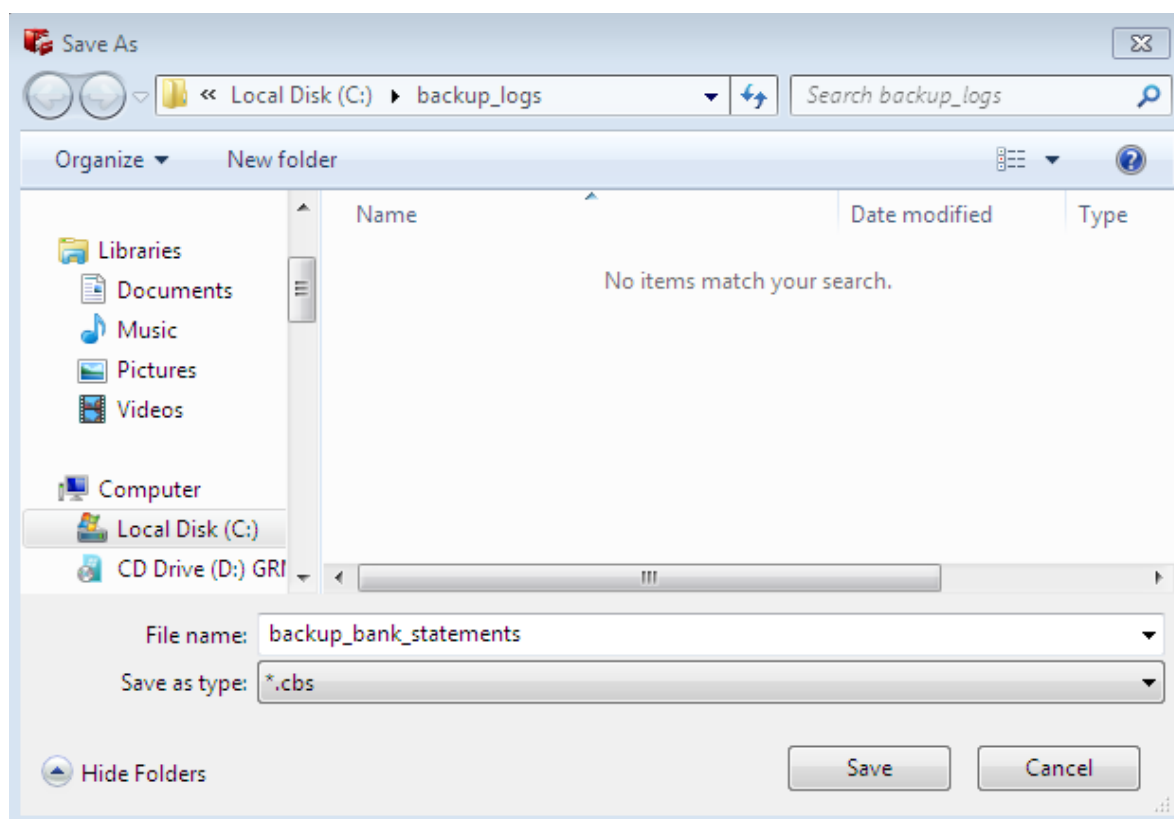
2.2.1.3.10. Export to script

Clicking the 'Export to script' button enables you to store the backup job as a script file in any desired location in your system and to run the saved job from that location when ever needed. This is useful for the backup jobs you want to execute often, without scheduling.



To store the created backup job as a script file

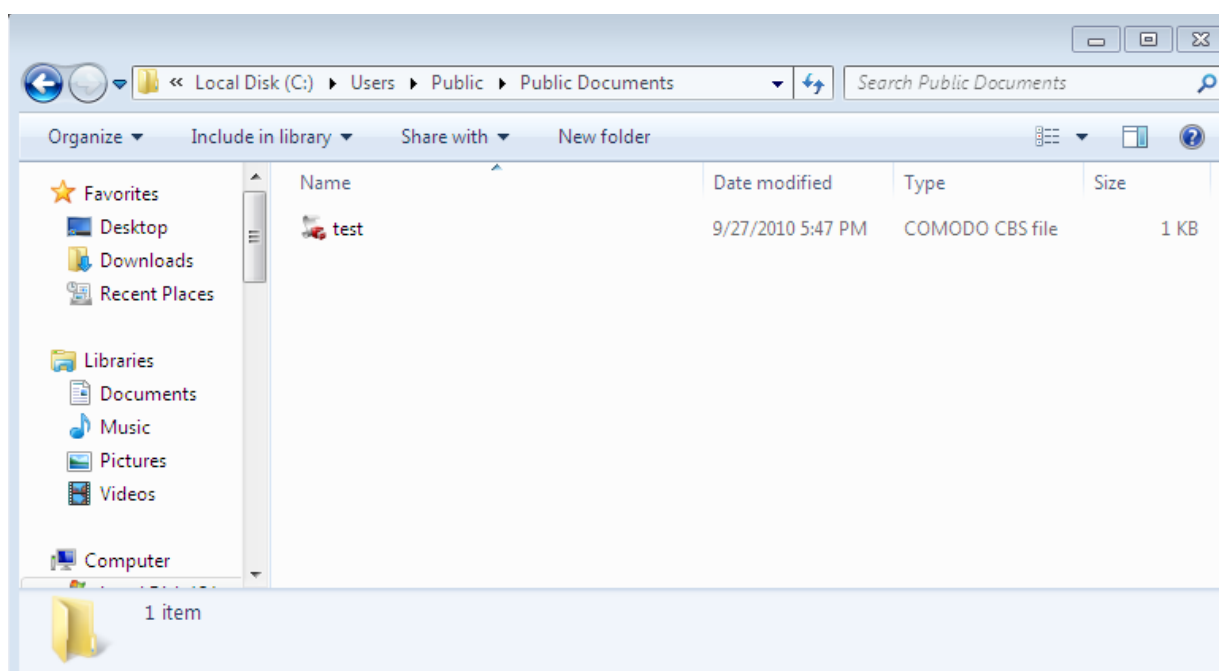
1. Click 'Export to script' button. A 'Save As' dialog opens.
2. Browse to the location where you want to store the script file of the created backup job.



3. Enter the 'File name' as you want and click 'Save'. The script is stored as a file with .cbs extension.

To run the script from the saved location

1. Navigate to the location where the Backup Job script is saved with the .cbs extension, from Windows Explorer.



2. Double click the saved file or right click on the file and select the 'Open' option.

The selected backup job is executed as explained in the section Finalization > Instant Execution.

The final stage is the execution of the configured backup job. You can:

- **Schedule the backup to run at recurring time intervals or upon the occurrence of an certain event (optional).**
 - **Save as custom profile**
- and/or
- **Execute the backup job instantly**

2.2.1.4. Backup Now

To execute the configured backup job instantly, just click the 'Backup Now' button at the bottom right corner. Please refer to **Run the Backup** for detailed explanation of the process.

2.2.2. Other Profiles

The Other Profiles area displays shortcuts for accessing your Comodo Online Storage Account, synchronize data between source and backup files, predefined backup configuration profiles for Browser data, mails, game saves and custom profiles.



Click the following links for more details on each of the profile:

- [Online Storage](#)
- [Synchronize data](#)
- [Browser data backup](#)
- [Backup mail](#)
- [Backup your game saves](#)

2.2.2.1. Online Storage

Clicking the shortcut 'Online Storage' opens an interface for logging-in to your Comodo Online Storage account.

This interface is similar to the Online Backup interface appearing on clicking Online Backup tab from the Left Hand Side Navigation panel. Refer to the section [Configuring Your Comodo Online Storage Account](#) for more details.

2.2.2.2. Synchronize Data

The 'Synchronize data' feature allows you to synchronize data between two files / folders having the same name and any changes made to one are reflected in the other. Once configured, Comodo Backup will periodically check both synchronized files / folders and automatically update any items that have been modified. Users have the option to specify the frequency of the synchronization checks. Configuring an effective synchronization schedule is a very important part of ensuring your backups are kept up-to-date.

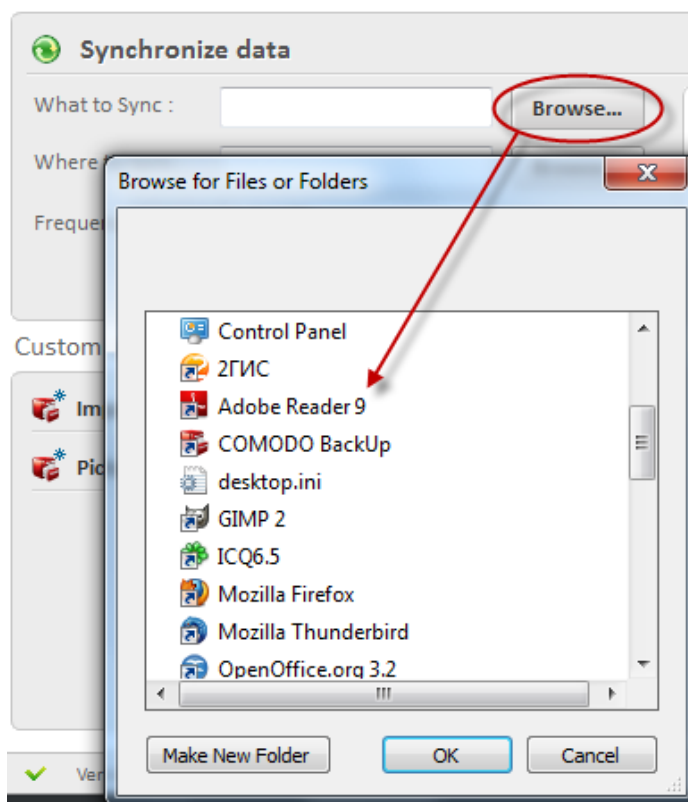
Please note that synchronization is a two-way operation. If you update a synced file in one location then this change will be reflected in the other - and vice versa.

Important Note: In Comodo BackUp v 4.0, items deleted from one location will not be automatically removed from the other location. This means that the user must delete the item from both synced folders (otherwise they will be copied back upon the next you may want to run your virus scanner before backing up to avoid potential infection of the destination folder. You can even mount an unmounted drive partition before backup to enable storing the backup file in the partition and unmount the partition on completion of the backup process by running a batch file with a list of corresponding Windows commands, play music files to indicate start and / or completion of the backup operation etc. You can also verify the backup job after it is created and choose to shut down after the backup job is completed.sync operation). Delete propagation will be available from version 3.1 onwards.

To synchronize data between a source file and its backup stored in your system

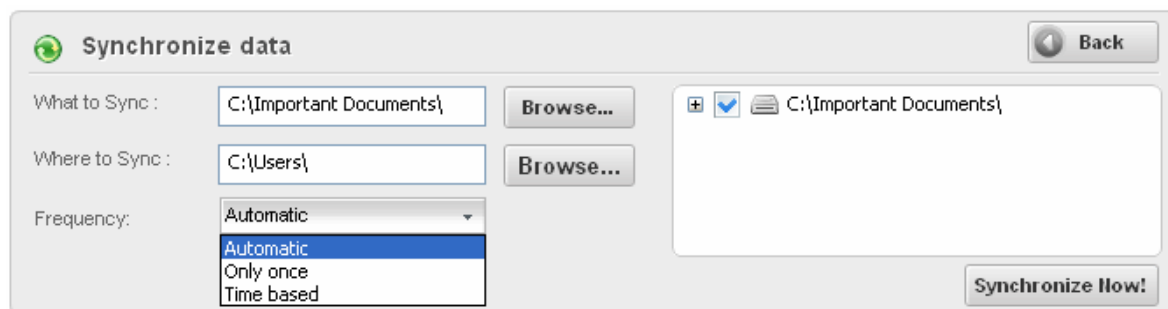
1. Click the shortcut 'Synchronize data' from the 'Other profiles' area.

2. Click 'Browse...' beside 'What to sync' text box and navigate to the source item.



3. Click 'Browse...' beside 'Where to sync' text box and navigate to the location where the selected file should be synced.

4. Set the frequency at which you wish the data to be synchronized between the synchronized files. There are three options for you to select the frequency.

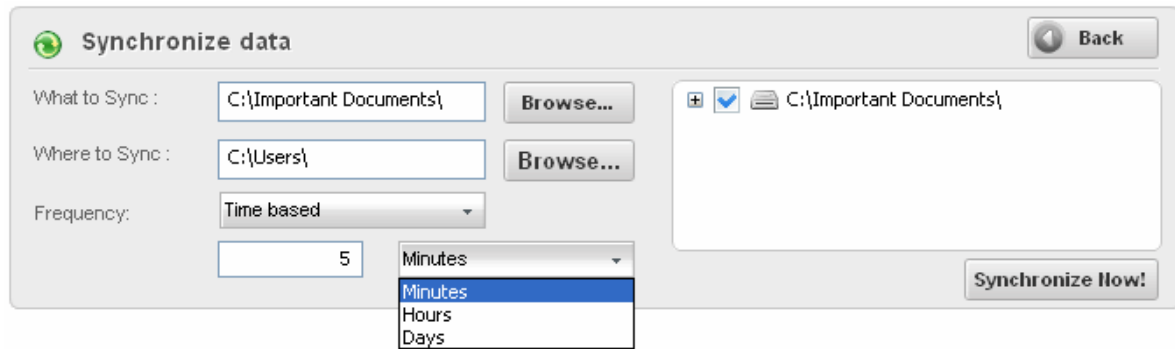


Automatic - Updates the synced files automatically whenever there is a change in either one of them.

Only once - When you select this option and press the 'Synchronize Now' button, the files will be synchronized only once and any subsequent changes in either of the file will not be synchronized.

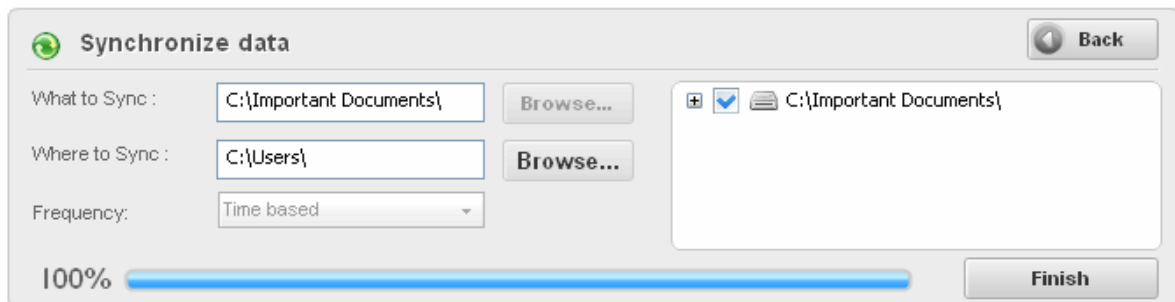
Time based - This option allows you to set the intervals at which you wish the data to be synchronized between the synced files.

Enter the time period in the 'Frequency' text box



Select the units from Minutes, Hours and Days from the drop-down beside the text box.

5. Click 'Synchronize Now'. The synchronization progress will be displayed.



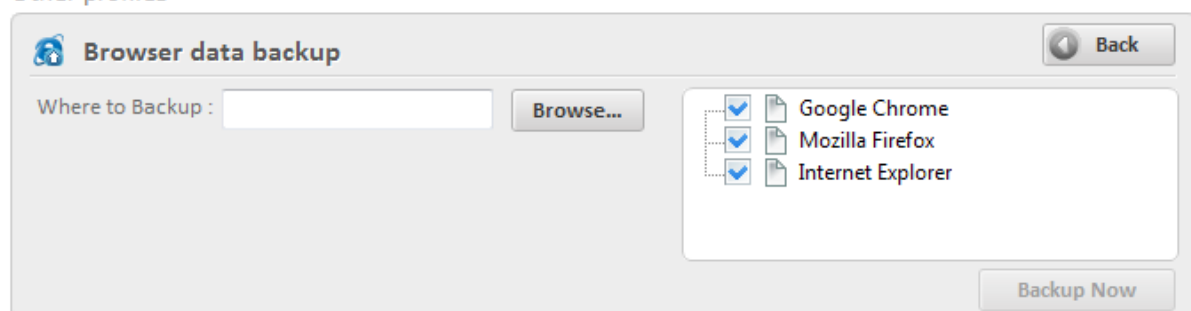
6. Click 'Finish' on completion. The synced files will be updated with the latest data.

From this moment, the synced files will be updated at periodic intervals as set in the Frequency field.

2.2.2.3. Browser data backup

Clicking the shortcut Browser data backup enables to backup your Browser settings such as Home page, Favorites, Security Settings, stored passwords with a few mouse clicks.

Other profiles



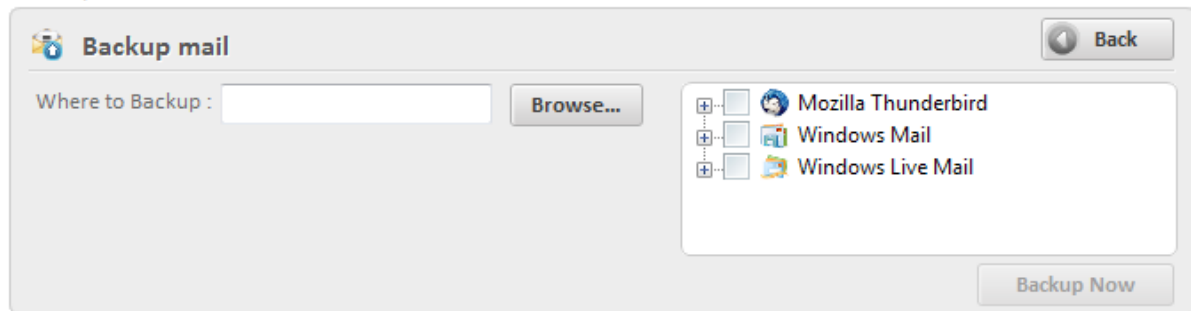
- The web browsers installed in your system are listed in the right hand side pane. Select the browsers whose data are to be backed-up.
- Click 'Browse...' beside 'Where to sync' text box and navigate to the backup file.
- Click 'Backup Now'.

2.2.2.4. Backup mail

The shortcut Backup mail allows you to backup the emails in the inbox of your mail clients like Mozilla Thunderbird, Eudora, Microsoft Outlook 2003, Microsoft Outlook 2007, Windows Live Mail, Outlook Express etc. with a single click. This will also backup settings (such as incoming server, outgoing server, if the email is downloaded or remains on server, etc). This is helpful to restore your mails and settings when you reinstall your operating system or configuring your mail settings on a new computer

system.

Other profiles

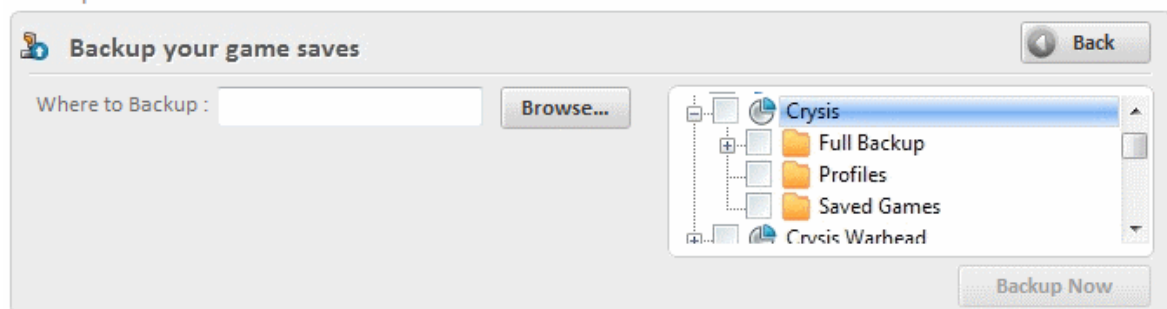


- The mail clients installed and configured in your system are listed in the right hand side pane. Select the mail client(s) whose data are to be backed-up.
- Click 'Browse...' beside 'Where to Backup' text box and navigate to the destination for the backup file
- Click 'Backup Now'.

2.2.2.5. Backup your game saves

Clicking the shortcut 'Backup your game saves' enables to backup your half-finished game states so that you can resume a game from the last game status even if the original game installed in your system is lost and you have reinstalled it in your system.

Other profiles



To backup your saves

Click the shortcut Backup your game saves from the 'Other profiles' area.

Select the game state file from the right hand side pane

Click 'Browse...' beside 'Where to Backup' text box and navigate to the destination for the backup file

Click 'Backup Now'.

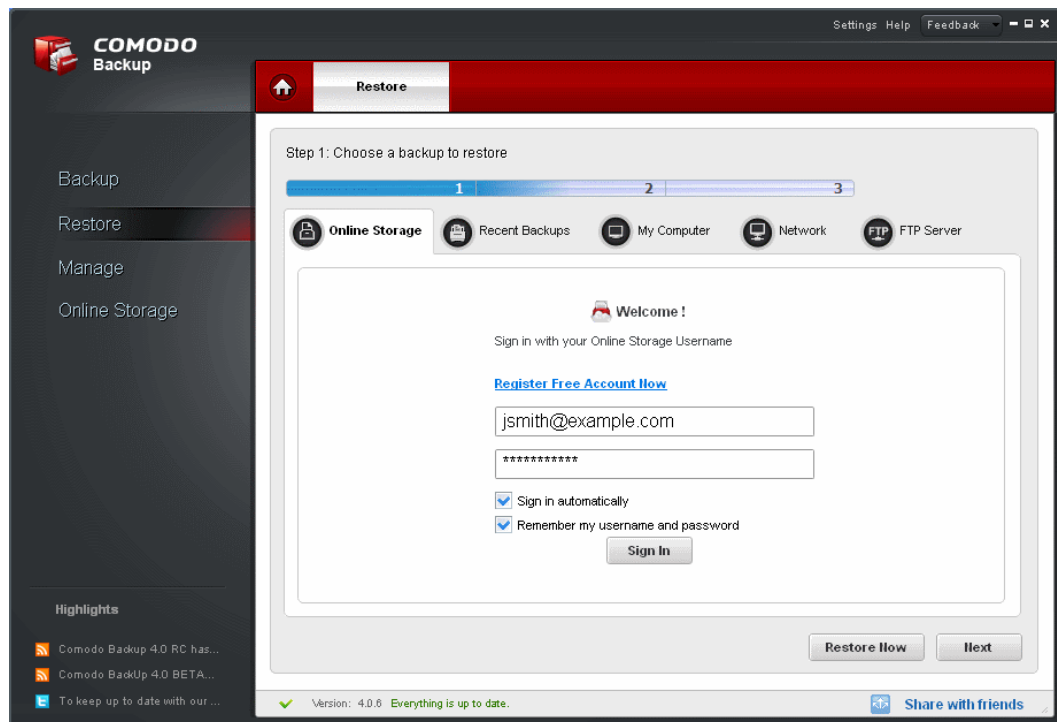
3. Restoring Your Files and Settings

Once you have successfully created a backup (.cbu) file you can 'restore' these files at any time and to any location. The restore wizard quickly guides you through this process and allows you to choose the specific file from which you want to restore; the mode of restoration; the precise files within from the .cbu that you wish to copy over and finally the folder or drive that you wish to restore to.

Note: Comodo BackUp can perform a restore operation only from a valid Comodo backup file .cbu.

Tip: If you have created a self extracting backup by selecting the backup format as 'Self extracting CBU' in Step 1 **selecting the backup format**, you can restore it just by double clicking on the file from Windows Explorer window. For more details,

please refer to the section **Restoring Self Extracting Backups**.



3.1. The Restore Process

To access the Restore interface, click on the 'Restore' tab from the Left Hand Side Navigation pane.

Note: For best results, we highly recommend that you close all other programs and save any unsaved documents before beginning the restore process.

Restoring the files from the backup consists of four simple steps:

Step 1: Choose Source

Step 2: Restore Destination

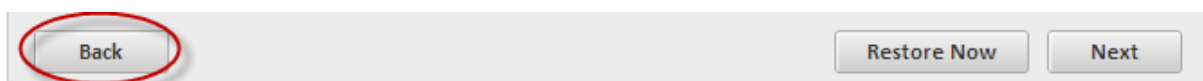
Step 3: Restore Options

Step 4: Finalization / Restoring Backup

The progress bar on the top indicates the restoration configuration progress with step numbers. Placing the mouse cursor on a step displays a tool tip with a brief description of the step.



To return to a previous step to review/redo the configuration made, just click the respective step number. You can also return to the previous step by clicking the 'Back' button.



On completion of the above steps, you need to **finalize** the restoration operation by executing it instantly.

3.1.1. Step 1 - Choose Source

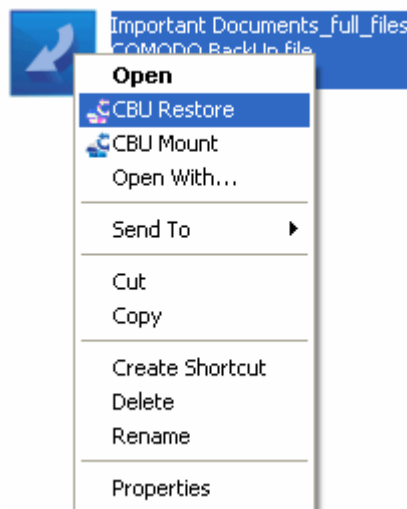
The first stage of the process is to specify the path where the backup file is located. You can choose to restore from your local machine, from another computer in your network, or from a FTP server, where you have saved your backup of the files you require to restore.

Click on the links below to get more information on each destination type.

- **Comodo Online Storage** - Restores your backup file located on the Comodo Online Storage.
- **Recent Backups** - Restores your recent backups
- **My Computer** - Restores your backup file located on your local hard drive.
- **Network** - Restores your backup file located on another computer in the network.
- **FTP Server** - Restores your backup file located on a FTP server.

After selecting the restore path from the left hand side panel, you need to make a further selection from the right hand side panel.

Alternatively, right-click on a CBU file in Windows Explorer and select CBU Restore from the context sensitive menu.

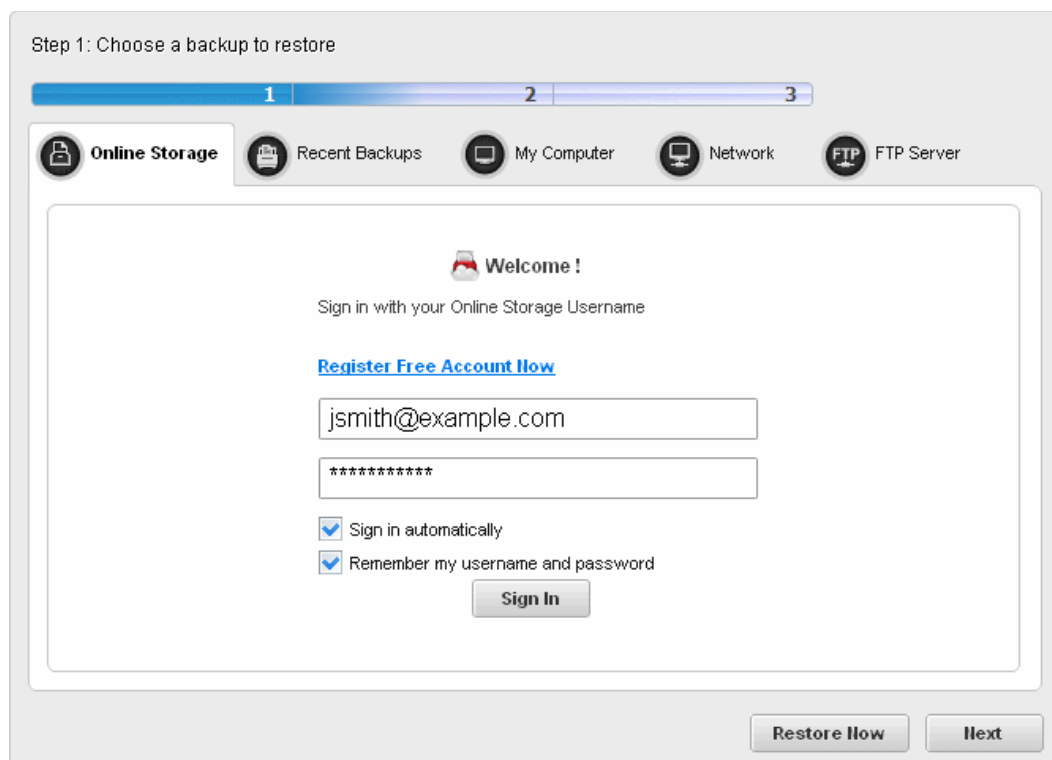


Comodo Online Storage

To restore a backup of your content stored on Comodo Online Storage

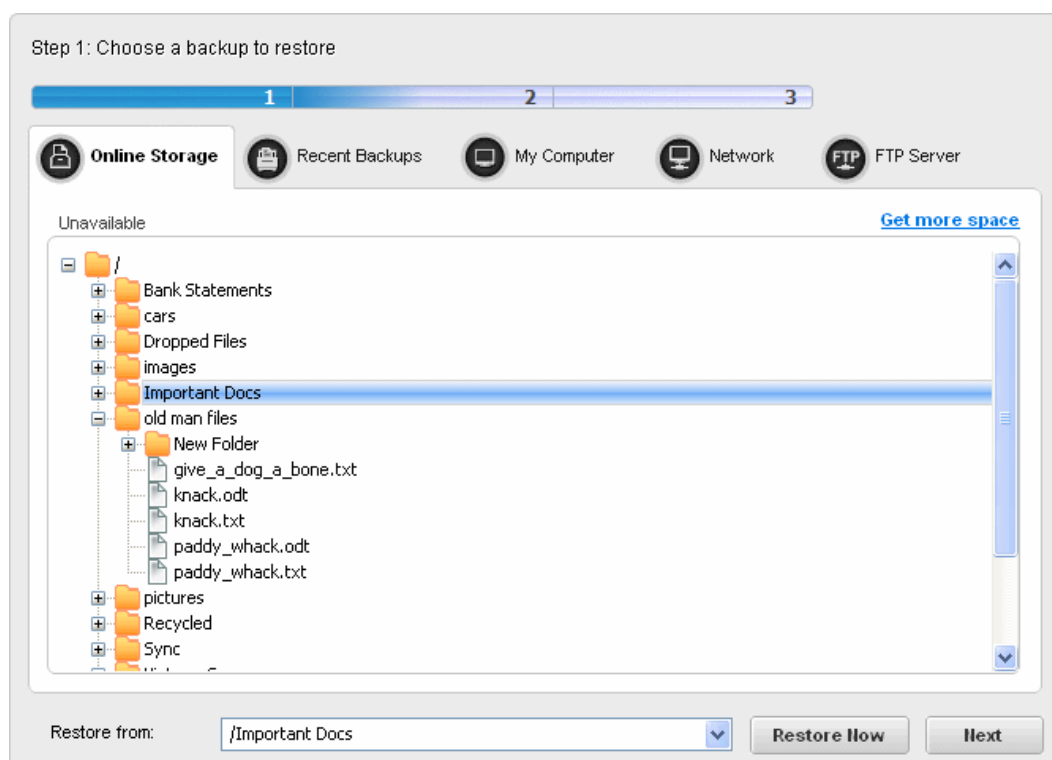
1. Select 'Online Storage' tab.

The login page for your Comodo Online Storage Account will be displayed.



2. Enter your Username and Password and click '**Sign In**'

Your online storage space will be visible/accessible as regular Windows tree structure.



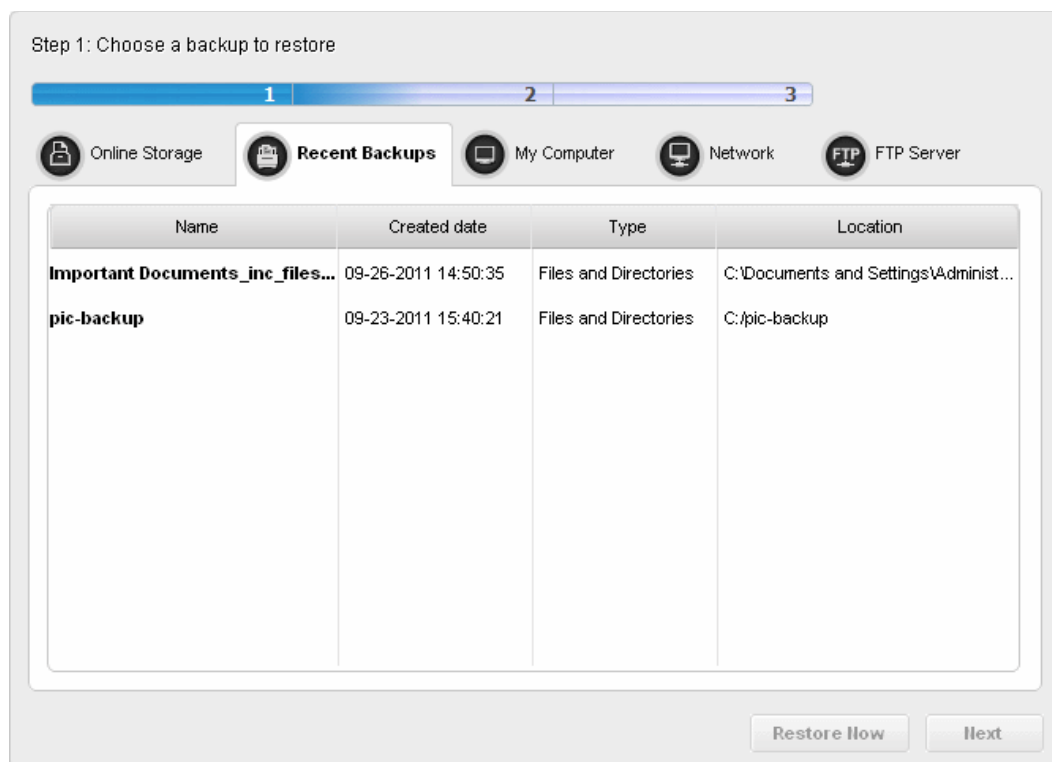
3. Navigate to and select the .cbu file that you wish to restore and click 'Next'.

This takes you to **Step 2 - Restore Destination**.

Recent Backups

To restore any recent backup file that stored in the local drive etc.

1. Select 'Recent Backups' tab.



The recent backups list will be displayed.

2. Select the file for restoring and click 'Next'.

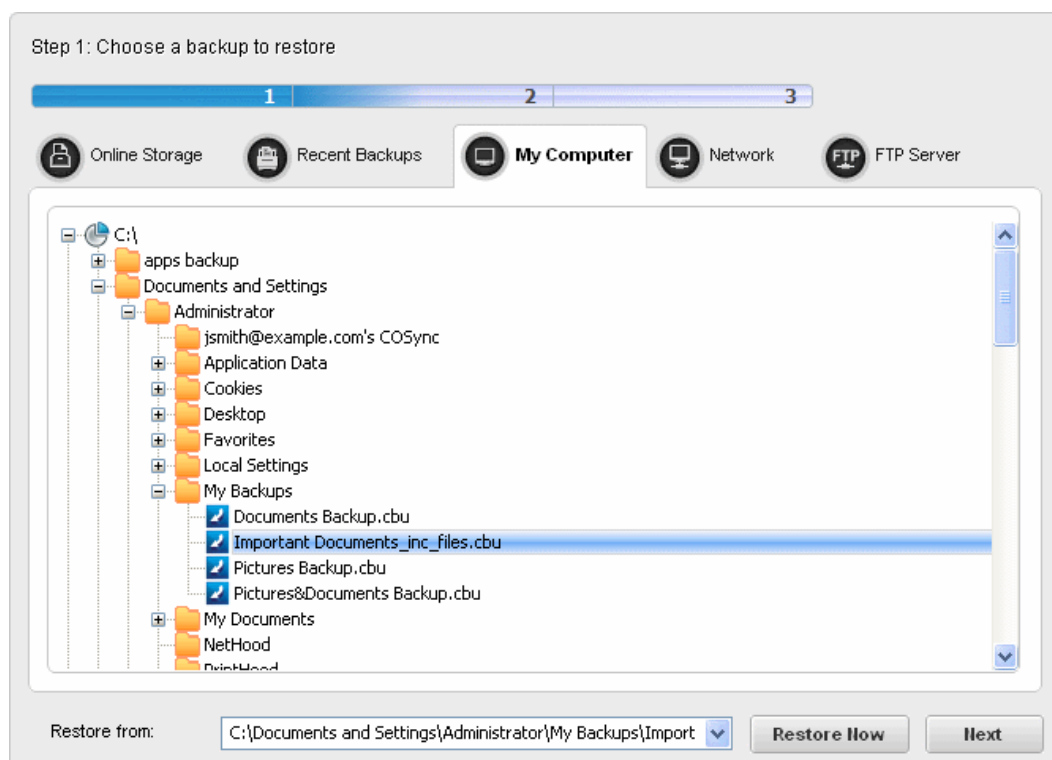
This takes you to **Step 2 - Restore Destination**.

My Computer

To restore a backup stored in your local hard disk drive, a mapped network drive, a USB memory plugged to your computer, a mounted virtual drive or a CD/DVD inserted into the respective drive.

1. Select 'My Computer' tab.

The disk drives and folders in your computer are displayed as a tree structure.



2. Navigate to and select the .cbu file that you wish to restore and click 'Next'.

Alternatively

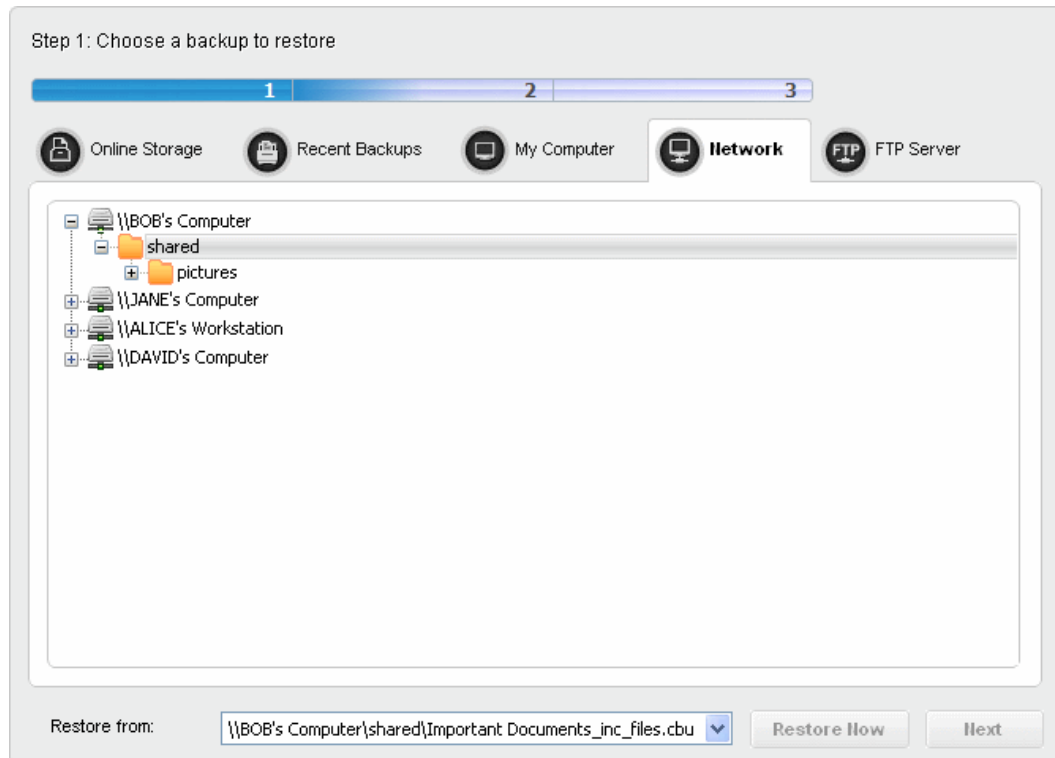
- Navigate to the backup file through Windows Explorer, right click on the .cbu file and select 'CBU Restore'.

This takes you to **Step 2 - Restore Destination**.

Network Location

To restore a backup stored in another computer on your network

1. Select 'Network Location' tab.



All the computers connected in your network are displayed. (It may take a few seconds to list all the computers. Please wait).

2. Select the computer in which you have saved the backup. You will be prompted to enter the user name and password if the computer you selected is protected by user access control.
3. Enter the login User name and password for the computer you selected in the respective fields and click 'OK'.

You can navigate through the folder tree structure of the selected computer.

- Navigate to the backup file you wish to restore.

This takes you to **Step 2 - Restore Destination**.

FTP Server

To restore a backup stored in an FTP server

1. Select 'FTP Server' tab.

The login page for your FTP server will be displayed.

Step 1: Choose a backup to restore

1 2 3

Online Storage Recent Backups My Computer Network **FTP Server**

Welcome !

Sign in with your FTP Username

Account: New ...

Server: 192.168.111.111

Port: 21

Username: jsmith

Password:

☐ Remember my username and password

Sign In

Restore Now Next

2. Type the name of your FTP server in the 'Server' text box (The prefix ftp:// is optional).
3. Enter the port number of the server for connection (default = 21).
4. Type your user name for the FTP server in the 'Username' text box.
5. Type your password for accessing the FTP server.
6. Click 'Sign In'.

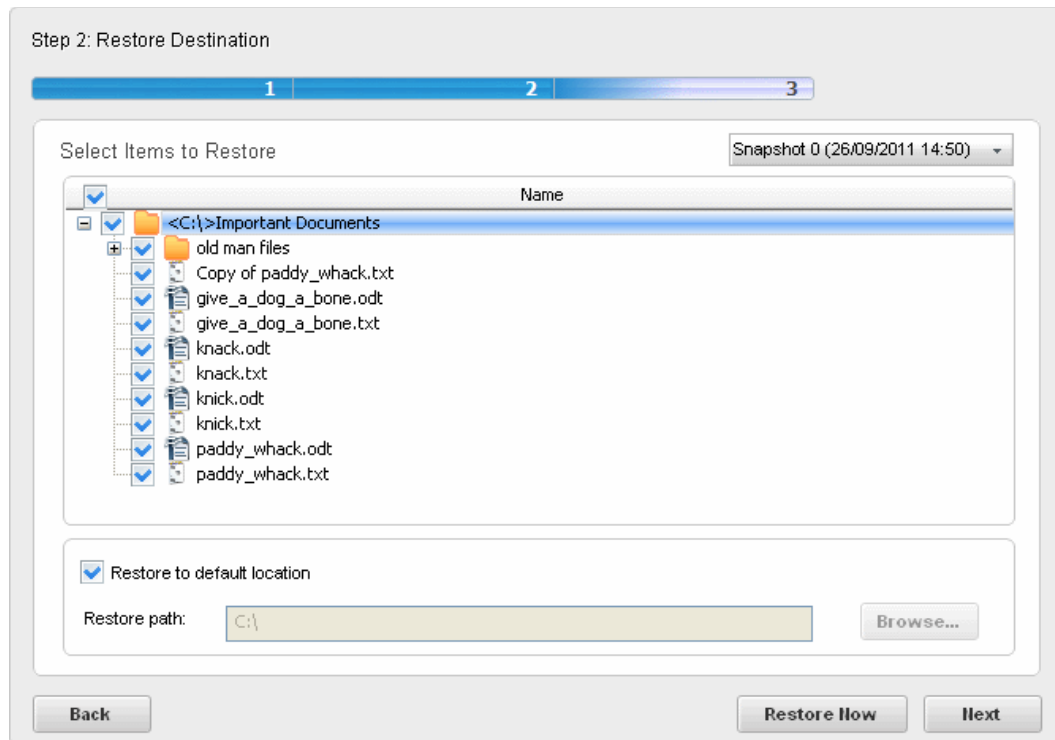
Note: The 'Account:' drop-down can display all the FTP accounts you might be using as Backup destinations. New FTP accounts can be added to this drop-down, by selecting the 'Remember my username and password' checkbox whenever you use an FTP account for the first time. When using a previously added FTP account in future, you just need to select the account from the Account: drop-down, and need not enter the Server name, username and password.

On successful login, the folder tree structure of the server will be displayed.

7. Navigate to the file you wish to backup.
8. Click 'Next' to move to **Step 2 - Restore Destination**.
- To skip the further steps and to restore the items to their original location instantly, click 'Restore Now'. The files will be appended to the original location - meaning only those files having the same file names in the original location, as those in the backup are replaced from the backup. Files having different file names from those in the backup, are kept intact.

3.1.2. Step 2 - Restore Destination

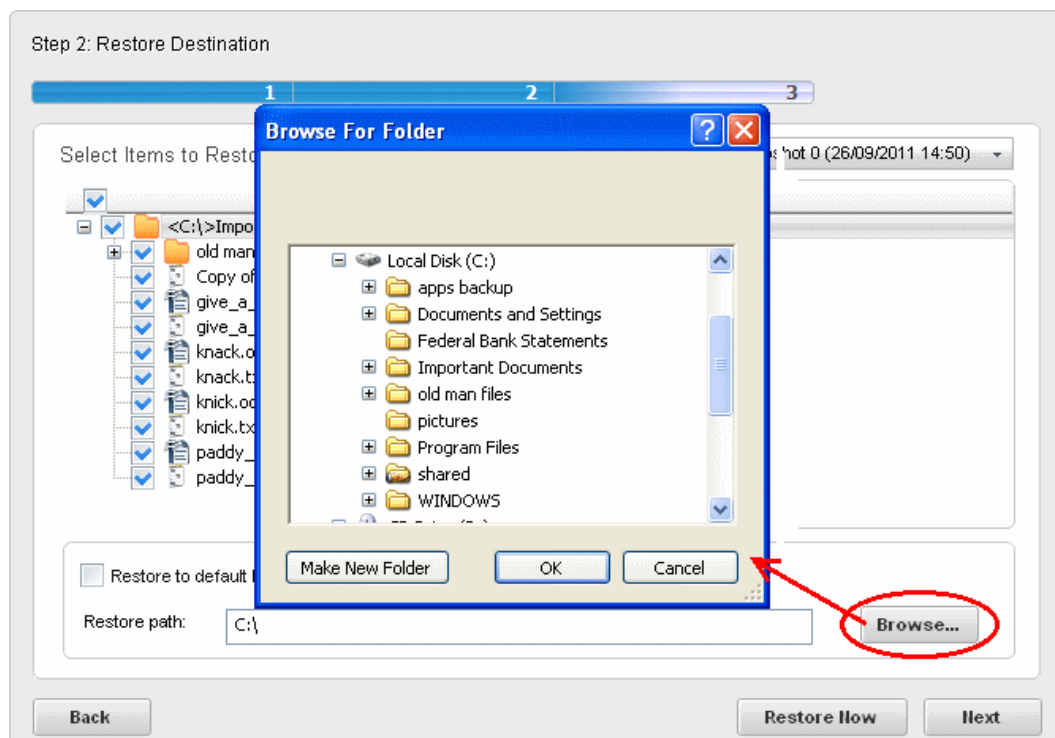
The second stage of the process is to select the files you wish to backup from the backup image (.cbu file) and the restoration location - the drive / folder in your hard drive where the files are to be copied.



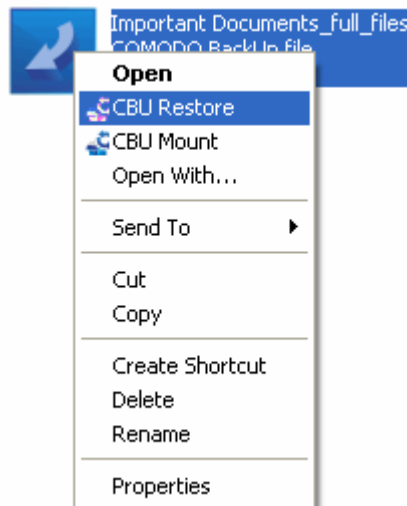
The upper pane shows a list of the files that you specified in the backup job. To select the files to be restored, select the check-boxes beside the respective file names and leave the rest unchecked. The Snapshot list in the upper right corner allows you to select which backup you want to restore since a cbu backup file may contain multiple backups. Click on the down arrow in the 'Snapshot' and select the backup file from the list.

The lower pane allows you to select the folder to which the files are to be restored.

- If you wish to restore the files to their original location, leave the check box 'Restore to default location' checked. This restores the files to original locations from where those were backed up. If your backup consists of files or folder from multiple locations then all files are restored to their respective original locations.
- If you wish to restore the files to a different location from the original location, uncheck 'Restore to default location' and type the path in the 'Restore path' text box. You can also click 'Browse' button and navigate to the required folder.



Alternatively, right-click on a CBU file in Windows Explorer and select CBU Restore from the context sensitive menu.



Restoring Registry and User Settings

You can restore the Registry, User, Mail and Messenger settings and / or system files when you want to 'rollback' part of a system to a previous configuration. In order for this 'rollback' to work correctly, the backup copy of the registry and / or the user settings MUST be restored back to their original locations. For this reason, Comodo recommends that users leave 'Restore to default location' checked. If you wish to export the backed up registry and / or user settings to an alternative location (for example, troubleshooting or other analysis) then uncheck 'Restore to default location' and select a different restore destination by clicking the 'Browse' button.

- Click 'Next' to move to **Step 3 - Restore Options**
- To skip the further step and to restore the items to their original location, click 'Restore Now'. The files will be appended to the original location - meaning only those files having the same file names in the original location, as those in the backup are replaced from the backup. Files having different file names from those in the backup, are kept intact.

3.1.3. Step 3 - Restore Options

In the third stage of restore process, you have the option to check the details of backup job, verify image, selecting the restore method and configuring log options.

Step 3: Restore Options

1 2 3

Backup Info

Image Options

Restore Method

Log

Back Export to script Restore Now

Click on the drop-down arrow at the right side of any of the options to expand its settings area.

Click the following links for more details:

- [Backup Info](#)
- [Image Options](#)
- [Restore Method](#)
- [Log](#)

3.1.3.1. Backup Information

Click on the drop-down arrow on the right side of the Backup Info tab. The tab will expand and display the details of the backup information related to the selected backup job. This allows you to verify whether you have chosen the correct backup and check whether the backup file is valid and consistent.

Step 3: Restore Options

1 2 3

Backup Info

Date performed:	2011/08/11 12:22:52	Password:	No
Created by:	\\USER-PC\user	Size compressed:	27.87 KB
Version:	4.0.4.1	Size uncompressed:	92.61 KB
Backup Type:	Files and Directories		

Backup description:

Image Options

Restore Method

Log

Back Export to script Restore Now

- Date Performed - The date and time at which the backup file was created.
- Created by - Details of the user who created the backup job.
- Version - The version of Comodo Backup application used for creating the backup file.
- Backup Type - The type or source of data you chose in **step 1** during the creation of the backup job.
- Backup Description - The description about the backup you entered in **step 2** during the creation of the backup job.
- Size - Details of the size of the backup job when compressed and uncompressed.

The left hand pane allows you to confirm the file and to verify its consistency and the lower right hand side pane allows you to mount the backup as a virtual drive.

3.1.3.2. Image Options

You can check whether the backup file has the specific file / folder that you wish to restore and to confirm that you are restoring the correct backup you wanted, you can search the backup file for a keyword / phrase specific to the contained file / folder you wanted to restore. For example, if you want to restore a backup containing your bank statements, you can search the backup file for keywords like bank name, month, available balance etc. You can even enter the file name of a content file of a backup as your search keyword.

To search the backup file for a specific keyword

Enter the keyword in the text box and click the 'Find' button.

Step 3: Restore Options

1 2 3

Backup Info

Image Options

Find text ... Find

☐ Verify image before restore

Verify Image

Restore Method

Log

Back Export to script Restore Now

The contents of the backup file is searched for the input keyword. If the input keyword is found in the backup file, the message 'Search text found in the backup file' will be displayed. If the input keyword does not exist in any of the content files in the backup, then the message 'No match found' will be displayed.

Image Options

bank Find

☐ Verify image before restore

Verify Image

Search text found in backup file

Verify Image - The integrity of the back up file that you choose to restore can be checked by clicking the 'Verify' button.

To verify the integrity of the backup file

1. Select the snapshot of the backup from the list of snapshots.
2. Click the 'Verify Image' button.

Image Options

Find text ... Find

☒ Verify image before restore

Verify Image

The backup image has been verified successfully.

All the split segments in the backup file are checked and on completion of verification and if the backup file is found to be intact, the message 'The backup image has been verified 'successfully' is displayed. If the backup file is found corrupted, then the

message 'The backup image is corrupted' is displayed.

3.1.3.3. Restore Method

The next of the process is to specify the restoration mode (whether to replace all the files in the restoration folder with the restored files or to replace only the files with the same file names as those of the restored files and leave the other files in the restoration folder undisturbed).

- **Clean restore** - Selecting this option deletes all the files in the folder you specify as restoration location in step 2 and copies the files from the backup in the folder. For example if you want to restore a backup file to folder D:\Data, the folder D:\Data is deleted, then recreated with all files and folders in the backup.

Note: If you have selected the entire folder for backup in **step 1** while creating a new backup job, then all the files are replaced in the destination folder during the restoring operation as said above. If you have selected only individual files from a folder for backup, only those files are replaced in the same folder during restoration operation and the other files in the same folder are not affected.

- **Append files** - Selecting this option deletes only those files having same file name as those in the backup and replaces them in the restoration folder. Files having different file names from those in the backup, is kept intact.
- **Skip locked items to avoid restart**- If checked, files in the default location that are currently being used by the system will be omitted from the restore operation. By default this option is unchecked so if Comodo Backup detects that certain files are in use, then a restart will be required to complete the restoration process.
- **Restore directory structure** - Selecting this option will maintain the directory structure of the selected restore item in the restore location.
- **After restore take following action** - There are three options for you to select what your system should do after a restore operation.
 - **Nothing** - Your system will neither shut down or restart after the restore operation.
 - **Shut down** - Your system will shut down after the restore operation.
 - **Restart** - Your system will restart after the restore operation.

Restore Method

☐ Clean restore
 ☒ Append files

☐ Skip locked items to avoid restart
☐ Restore directory structure

After restore take following action:

Nothing

Nothing
Shut down
Restart

Log

3.1.3.4. Log Options

You can configure the log options such as how to save the log file, to save in a new location, log to screen and log to file.

Step 3: Restore Options

1 2 3

Backup Info

Image Options

Restore Method

Log

☒ Log to screen
☒ Log to file: Browse...
☒ Add restore to Manage events

Log method: Create

Create
Append

Back Export to script Restore Now

- **Log to screen** - The log of events (for example, details on each file or folder being restored, error reports etc.) is created and displayed at the final stage of the restoration operation in the right pane of the interface, only if this checkbox is left selected. By default, this option is selected. If you do not want to log the restoration events, deselect this checkbox.
- **Log to file** - Enables you to save the log of events (for example, details on each file or folder being restored, error reports etc.) generated during the restoration progress, as a text file for later reference or analysis.

To save the log of events

- Select the 'Log to file' checkbox.

The 'Browse...' button will be enabled allowing you to navigate to the folder/file where you want to save the log.

- Click the 'Browse' button and navigate to the folder.
- If you want to store the log as a new file, type the new file name in the File Name text box. If you want to add the log information to an existing log file, select the file. Click 'Save'.

The new file name will appear in the interface.



Log

☒ Log to screen

☒ Log to file: **important_documents_restore_...** **Browse...**

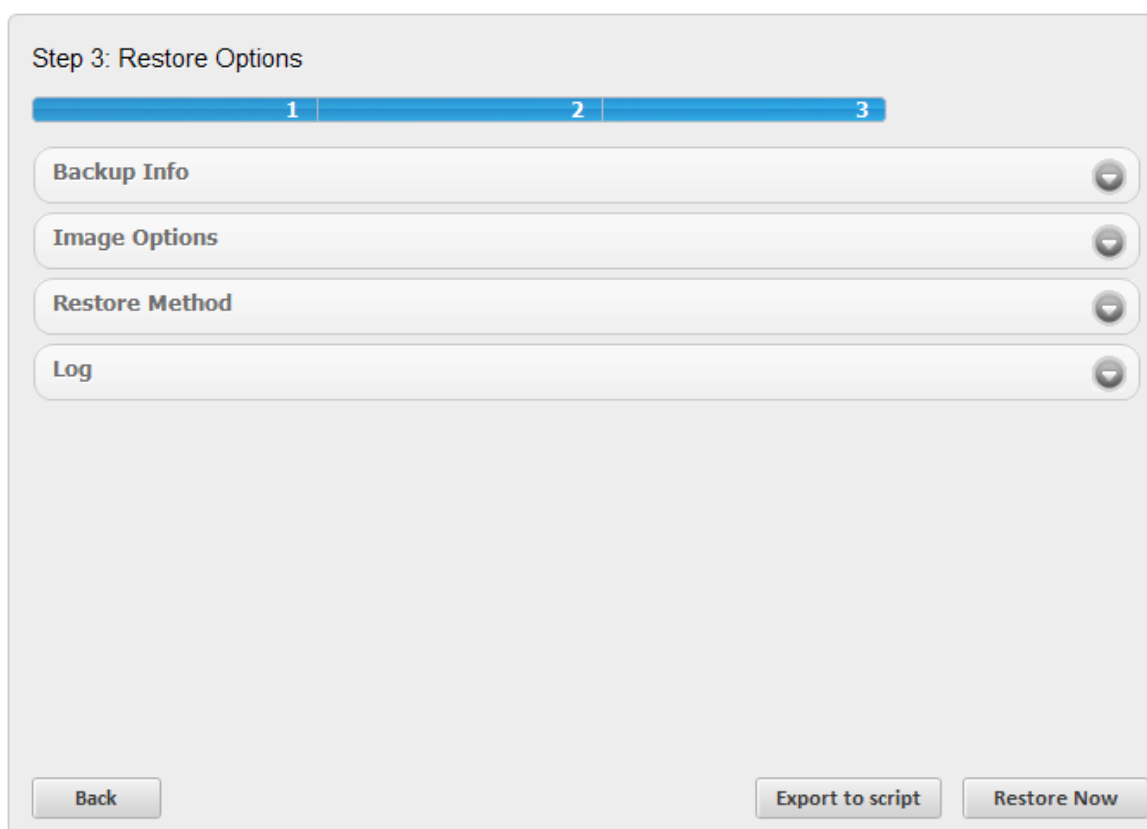
☒ Add restore to Manage events

Log method: **Create**

- Select 'Create' from the 'Log method' drop-down if you want to create a log file at each run. Select 'Append' if you want to add the log information to the existing file. If 'Append' is used and the log file doesn't exist, it will be created when the backup job runs..
- Add restore to Manage events - Instructs the application to add this restoration event to history so that the details of this restoration operation is viewable through the 'Manage' interface.

3.1.3.5. Export to Script

Clicking the 'Export to script' button enables you to store the restore job as a script file in any desired location in your system and to run the saved job from that location when ever needed. This is useful for the restore job you want to execute often.



Step 3: Restore Options

1 | 2 | 3

Backup Info

Image Options

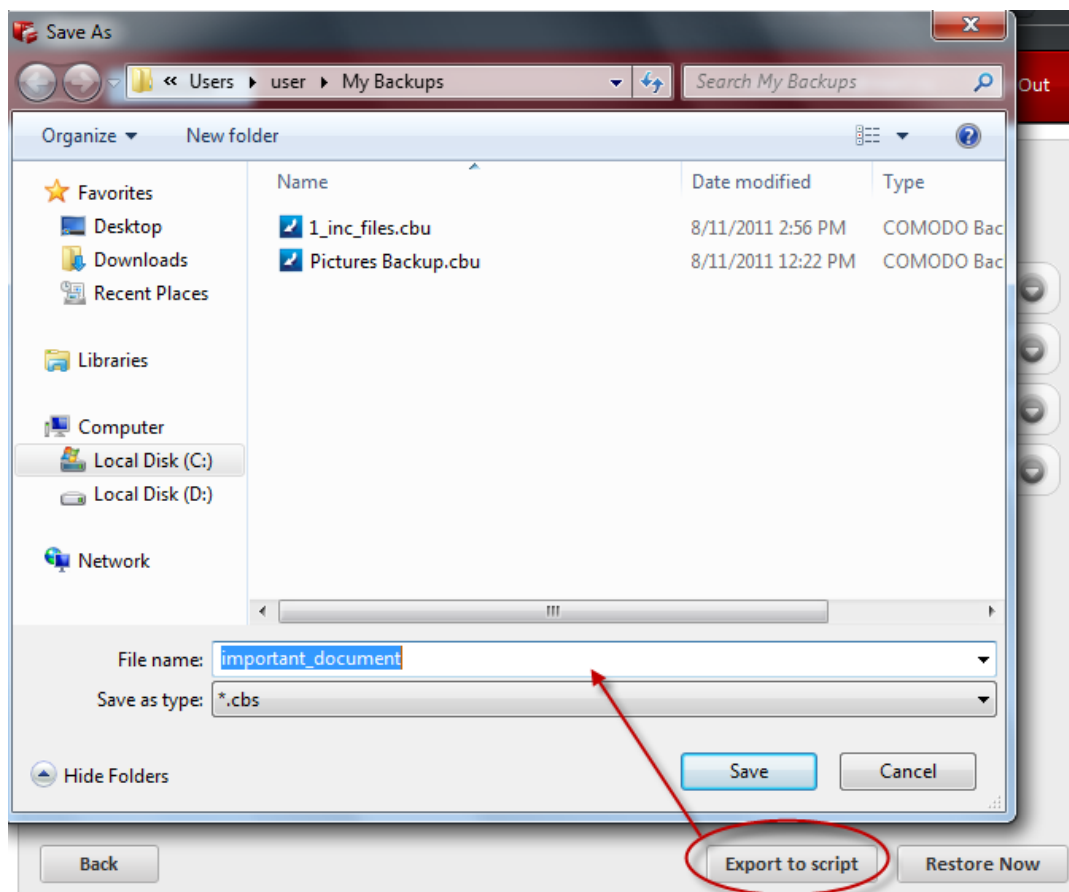
Restore Method

Log

Back **Export to script** **Restore Now**

To store the created Restore job as a script file

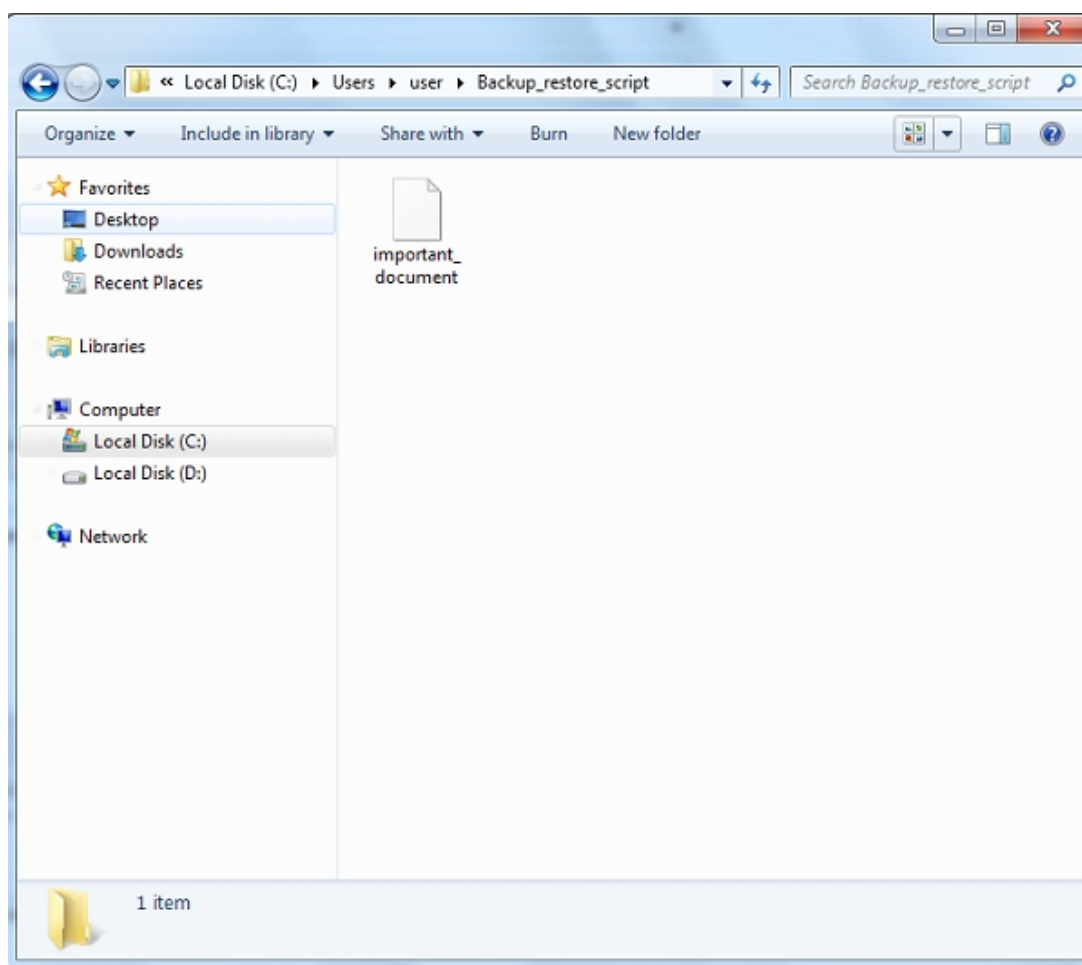
1. Click 'Export to script' button. A 'Save As' dialog opens.



2. Browse to the location where you want to store the script file of the created restore job.
3. Enter the 'File name' as you want and click 'Save'. The script is stored as a file with .cbs extension.

To run the script from the saved location

1. Browse to the location where the Restore Job script is saved with the .cbs extension through the Windows Explorer.

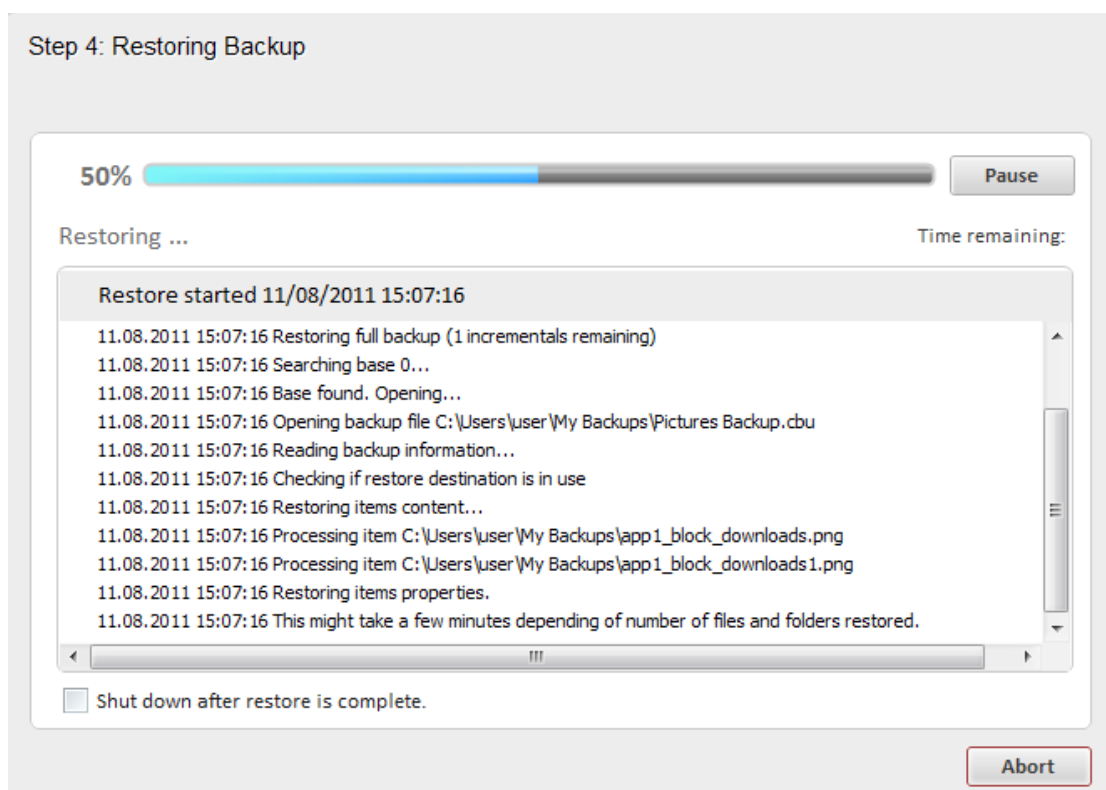


2. Double click the saved file or right click on the file and select the 'Open' option.

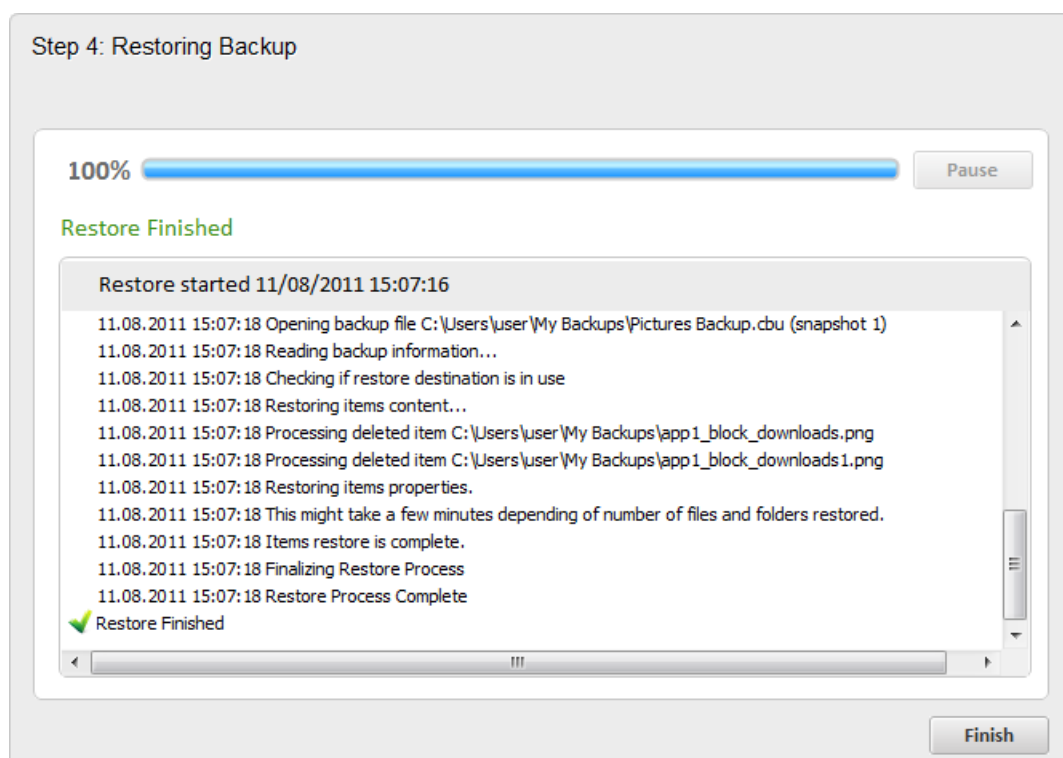
The selected Restore job is executed as explained in the section **Finalization**.

3.1.4. Finalization / Restoring Backup

In order to finalize the restoration operation, click the 'Restore Now' button. The progress bar indicates the restoration progress.



The lower pane displays the log information and shows the details about the files currently being restored and error reports, if any.



Note: The log is displayed only if 'Log to Screen' is left selected in **Log Options**. You can also **save the log** as a text file for later reference or analysis.

Also you can pause/resume the progress if you wish.

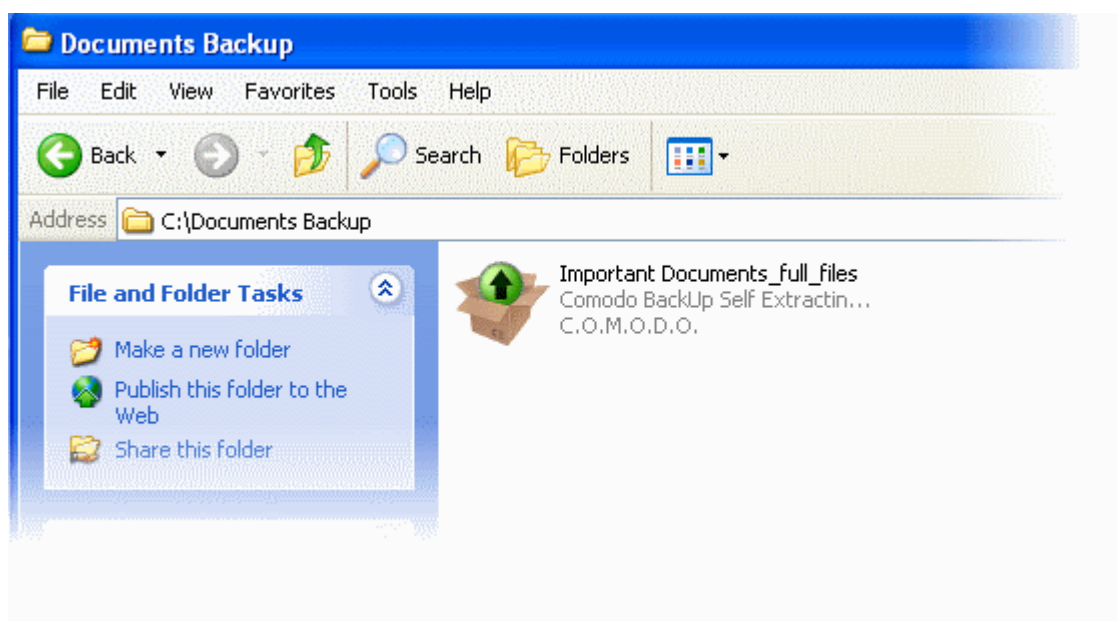
To complete the restoration process, click 'Finish'

3.2. Restoring Self Extracting Backups

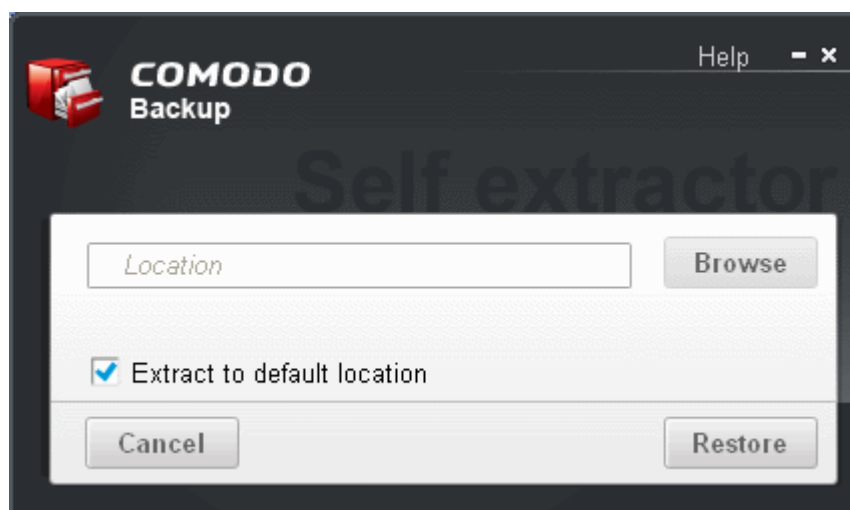
If you have created self extracting backup packages of your files/folders or registry entries by selecting the backup format as Self extracting CBU in **step 1** while creating the backup jobs, the backup files are stored as executable files (with the extension .exe). They can be restored without starting the Comodo BackUp application, just double clicking on the file from the Windows Explorer window.

To restore a self extracting backup package

1. Open the folder containing the backup file in Windows Explorer and double click on the file.

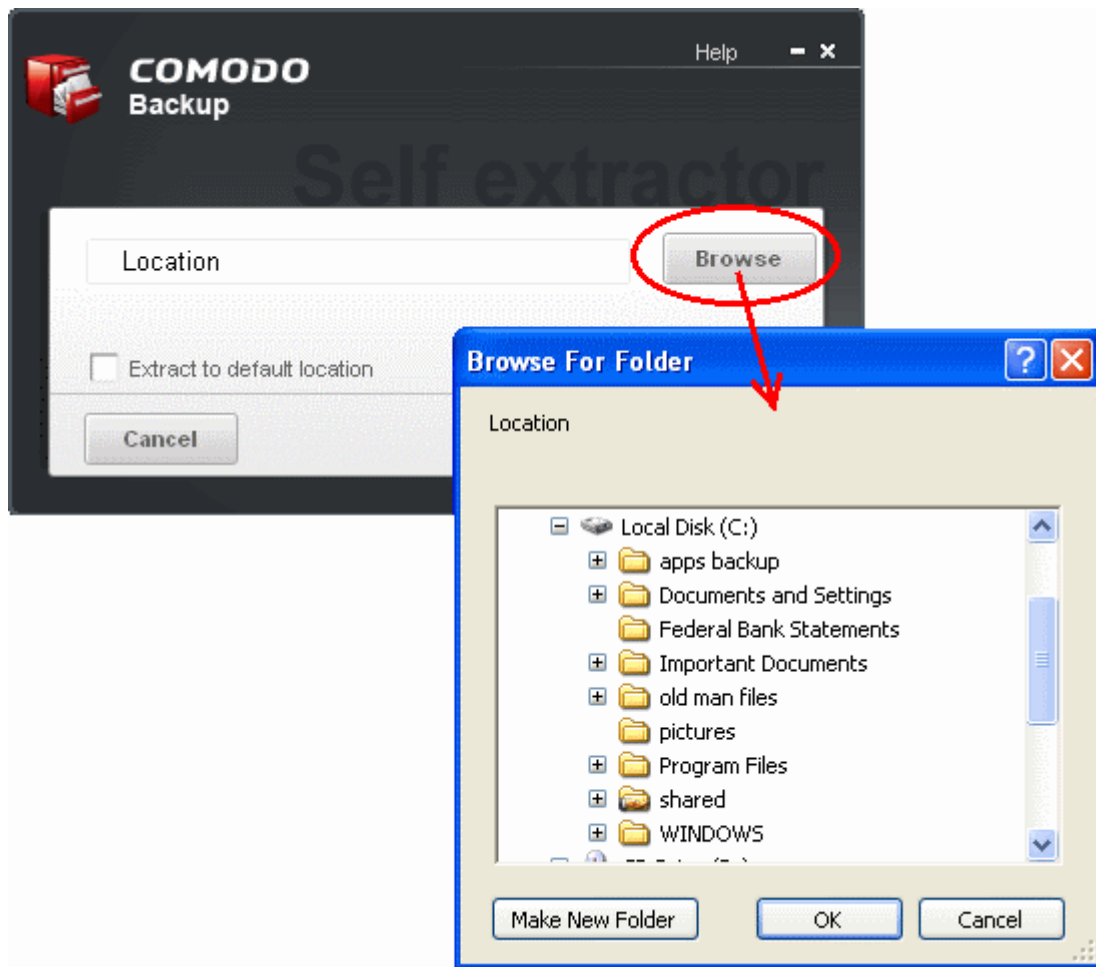


The Self Extractor wizard will start.



2. Select the restore location:

- If you wish to restore the files to their original location, leave the check box 'Extract to default location' checked and click 'OK'. This restores the files to original locations from where those were backed up. If your backup consists of files or folder from multiple locations then all files are restored to their respective original locations;
- If you wish to restore the files to a different location from the original location, uncheck 'Extract to default location', click 'Browse' and navigate to the required folder and click 'OK'.



Tip: You can also create a new sub folder inside the selected folder by clicking the Make New Folder button.

3. Click 'Restore'.

The folders/files will be restored to the selected location and the completion dialog will be displayed.

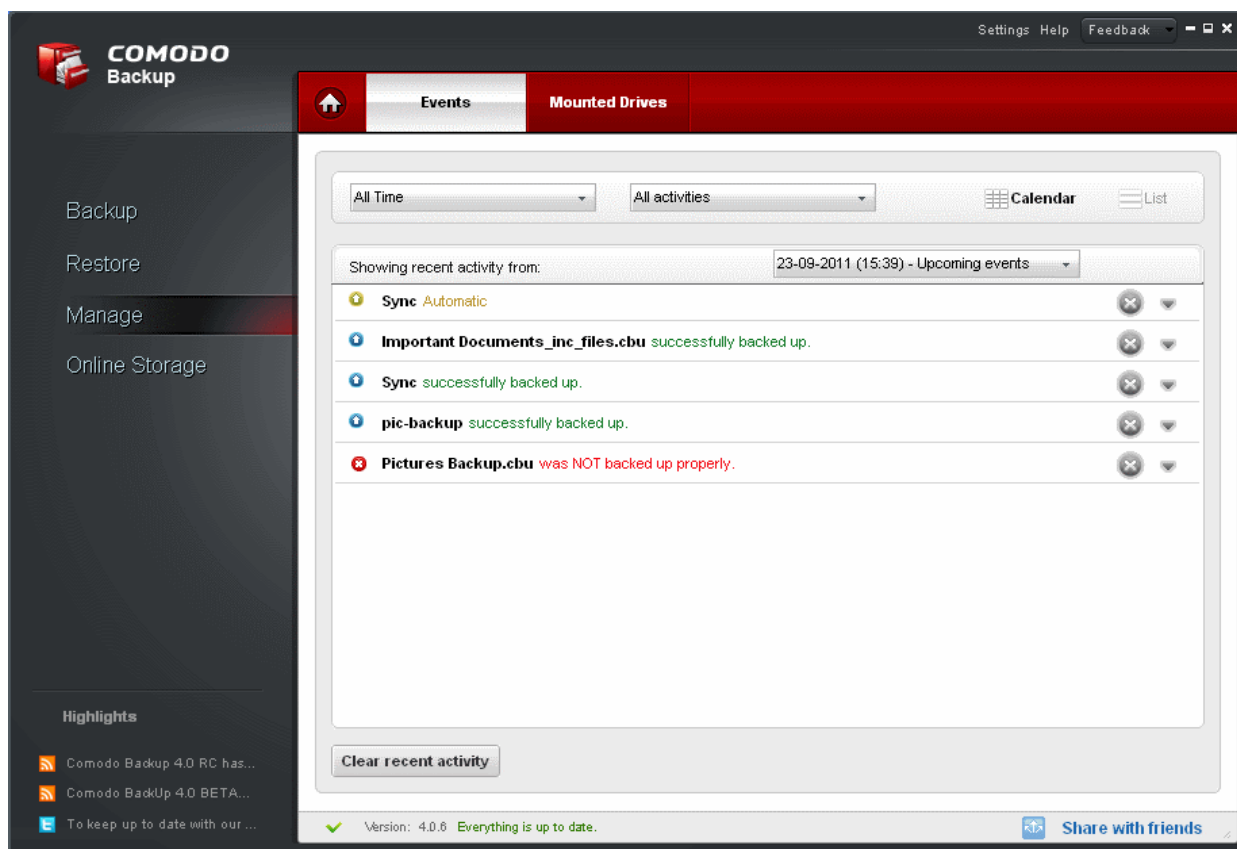
Tip: If you have restored the files to a different location other than the original location, you can view the files immediately by clicking the 'Open containing folder' link.

4. Click 'Finish' to close the wizard.

4. Managing Your Backups

The Manage area in Comodo BackUp allows you to view the history of backup and restore events, scheduled backup jobs that are due to be executed and to edit and instantly run the scheduled backup jobs. Also, it allows you to mount the stored backups as virtual drives.

To access the manage interface, simply click the Manage tab from the Left Hand Side Navigation pane.



The Manage Area contains two tabs namely:

- **Events** - Displays the history of backup and restore events and scheduled backups which are due to run. You can switch between:
 - **Calendar view** - Displays a calendar with the restore/backup events indicated on each date
 - **List view** - Displays the events as a list.
- **Mounted Drives** - Enables you to view a list of backups mounted as virtual disks in your system and allows you to mount new virtual disks from the stored backups.

4.1. Events Area

The Events area in the Manage Interface allows you to view the history of backup and restore events. It is displayed by default whenever you click the 'Manage' tab. You can also access the area by clicking the Events tab from the tab structure of the 'Manage' interface.

The history of the events can be viewed in **calendar view** or **list view**.

4.1.1. Calendar view

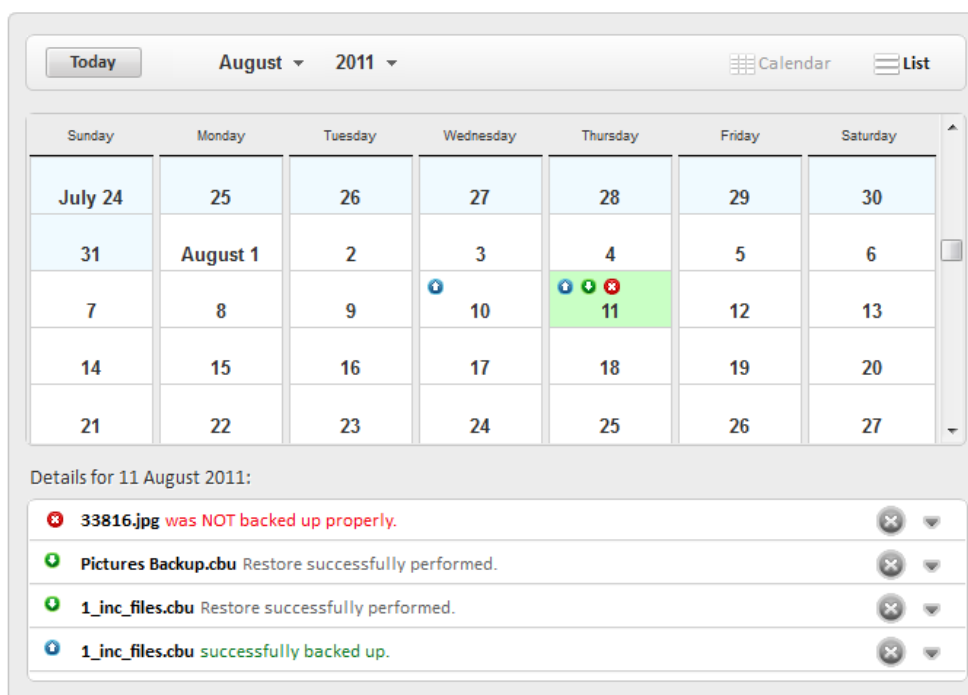
The calendar view is displayed by default. You can also switch to calendar view from list view by clicking the Calendar button in the interface.



The calendar view displays icons indicating the successful backup, restore and scheduled backup events occurred in the respective dates and a list of events occurred on the selected date in the lower pane.

- 📅 - Indicates the backup events
- 🔄 - Indicates the restore events

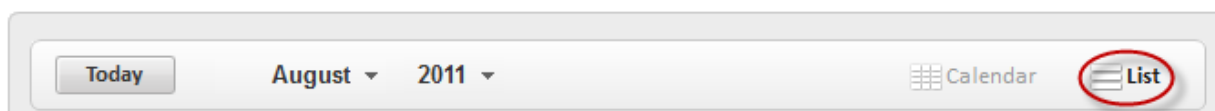
- ↑ - Indicates the scheduled backup jobs and synchronization events
- ⊘ - Indicates an unsuccessful operation



- To switch the selection to the current date in the calendar click the 'Today' button.
- To view backup and restore events on a specific date in the current month, click on the specific date in the calendar.
- To view the backup and restore events in the previous months, the month and year from the month and year drop-down menus at the top.

4.1.2. List View

- To switch to list view, click the List button in the interface.

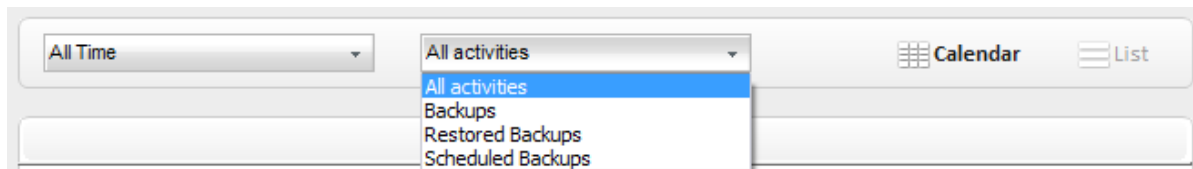


The list view displays the list of events in chronological order.

- To filter the entries based on time, select the period from the first drop-down menu.



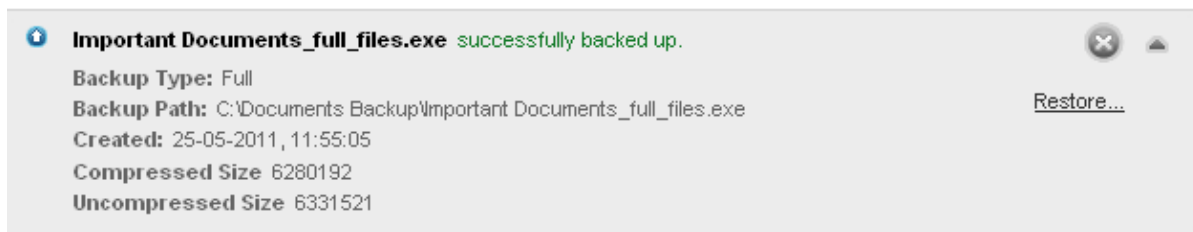
- To filter the entries based on activities, select the activity from the second drop-down menu.



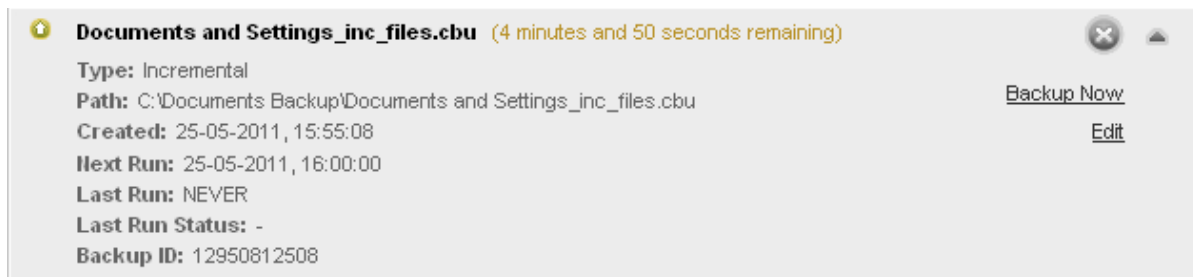
- To delete all the entries and clear the list, click the 'Clear recent activity' button.

4.1.3. Viewing Details of Backup/Restore Events and Editing Scheduled Backup Jobs

- To view the details of a backup/restore event, click the down button ▼ alongside the corresponding entry.



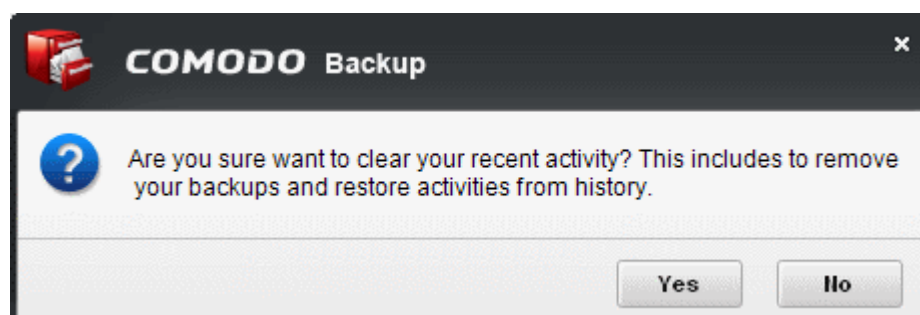
- To delete entry from the list of events, click the 'Delete' button ✕.
- To edit/reschedule a scheduled backup job, select the down arrow ▼ button alongside scheduled backup entry.



- To run the scheduled backup job instantly, click the Backup Now link.
- To modify the time and date that the backup should run, click the Edit link. The schedule interface will open. Refer to the section **Schedule the Backup** for more details.
- To cancel/remove the backup job click the 'Delete' button ✕.
- To clear the recent activity from history, click the 'Clear recent activity' button



The application will ask your confirmation for clearing the recent activities.



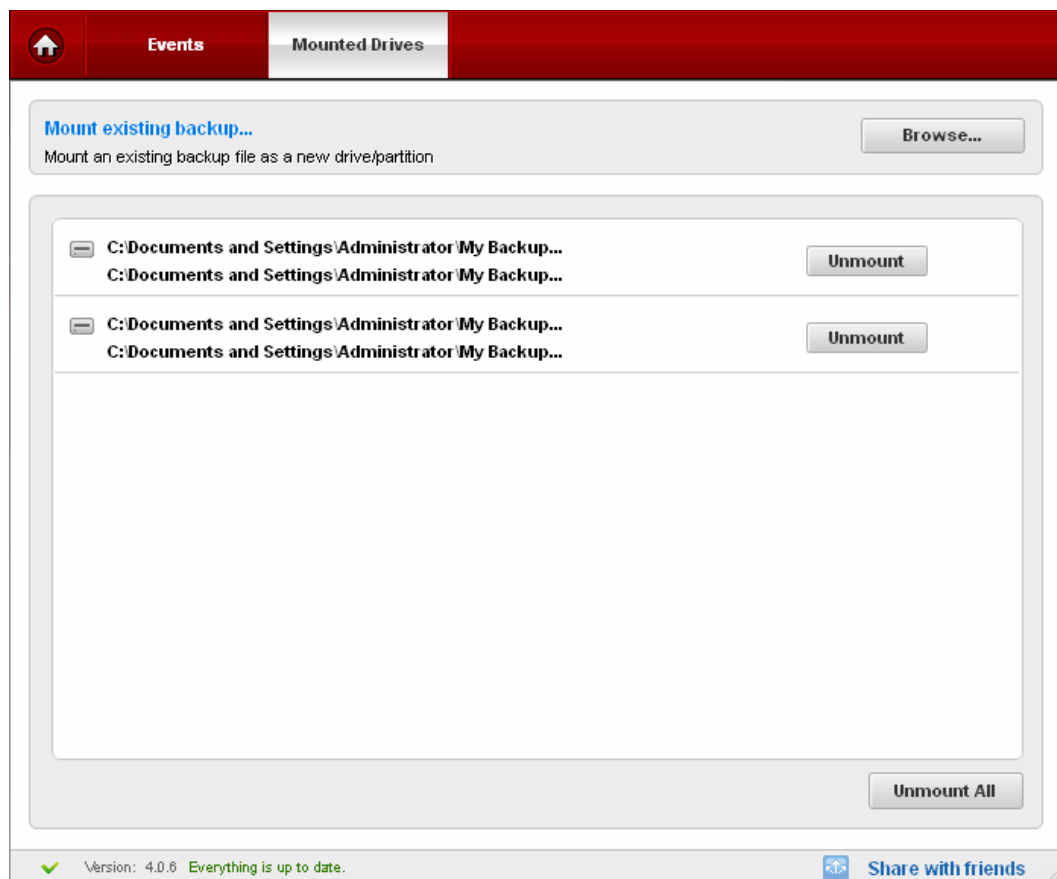
- Click 'Yes' to clear.

4.2. Mounting Backups as Virtual Drives / Partitions

The 'Mounted Drives' area in the Manage Interface allows you to view the list of virtual drives mounted in your system from the stored backup files and also to mount new virtual drives.

Background Note: The backup file mounted as a virtual disk is displayed as a separate drive partition with a new drive letter in Windows Explorer and actually serves as a drive in its own right. You can browse through the Folders and Files in the disk as you normally browse a physical disk partition and search/edit files in comparably less time.

To access the Mounted drives area, click the Mounted Drives tab from the 'Manage' interface.

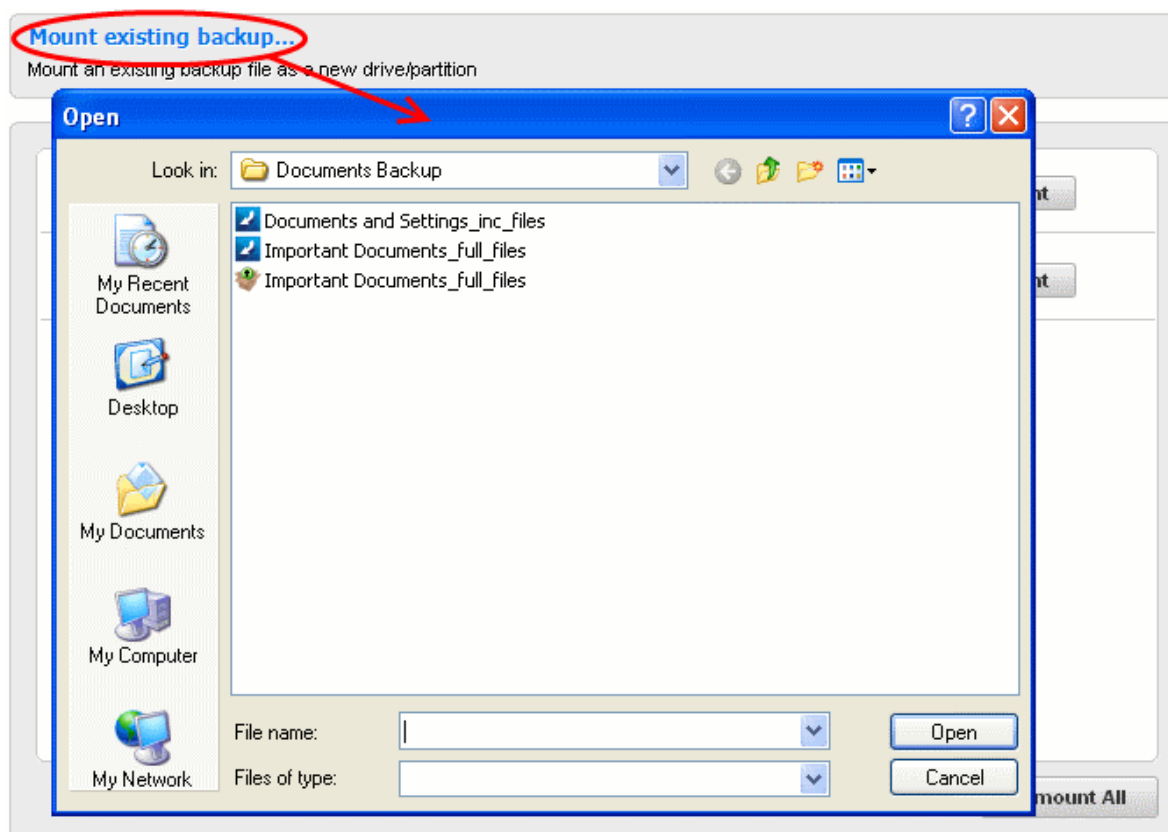


A list of mounted virtual drives are displayed.

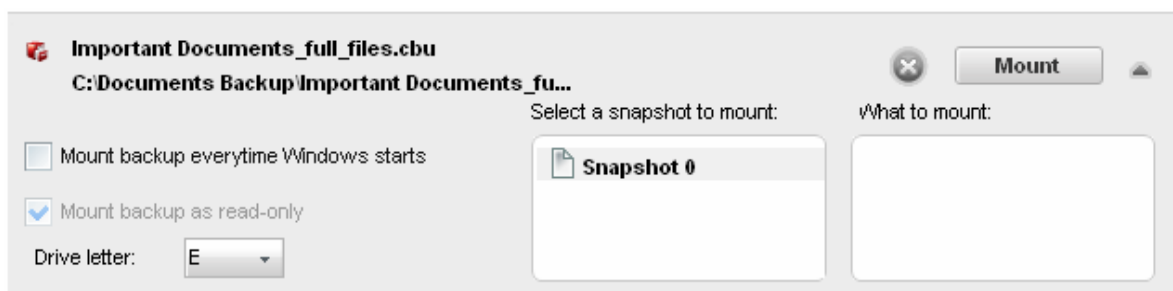
Note: Only disk/partition backups can be mounted in read / write mode, and when unmounting them a new incremental backup will be created which will be appended to backup file containing only the changes.

To mount a backup as a new virtual drive

- Click on the 'Mount existing backup...' link and add the backup file into the 'Mounted Drives' area.



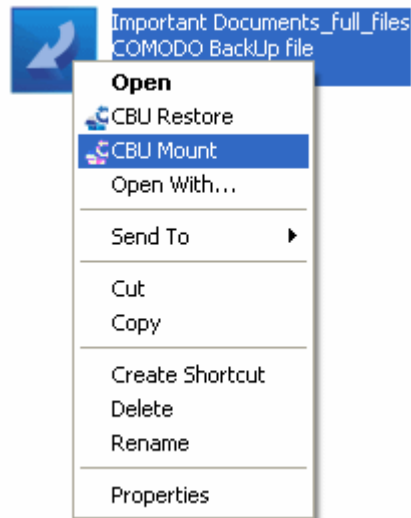
- Navigate to the backup file and clicking the 'Add' button. The backup will be added to the 'Mounted Drives' area.
- To mount the backup with the next available drive letter, click 'Mount'
- If you want to configure advanced options for mounting the virtual drive, click the down arrow ▼ beside the backup file name.



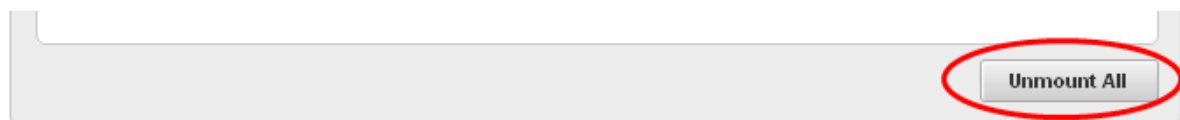
Make your selections from:

- **Mount backup everytime Windows starts** - Instructs the application to repeatedly mount the backup as virtual drive with the selected drive letter, every time windows is started. Select this option if the backup is scheduled once and going to be updated periodically.
- **Mount backup as read-only** - By default, the backup is mounted as a Read-Only drive, so that you can view the folders and files but cannot edit the files. If you want to mount the virtual drives enabling editing the files, uncheck this checkbox.
- **Select a snapshot to mount** - Creating a full backup and multiple differential and incremental backups for the same source creates several snapshots for the same backup file (in .cbu format). The 'Select a snapshot to mount' box displays a list of all the snapshots of the backup file and allows you to select which backup in the .cbu file you want to mount as the virtual drive.
- **What to mount** - If you have chosen to mount the backup of a disk/partition as a virtual drive, the partitions in the backup are listed in the 'What to mount' box. You can select which partition you want to mount as the virtual drive.
- Select a drive letter from the Drive letter drop-down menu
- Click 'Mount'.

Alternatively, right-click on a CBU file in Windows Explorer and select CBU Mount from the context sensitive menu. The file will be mounted as a virtual drive.



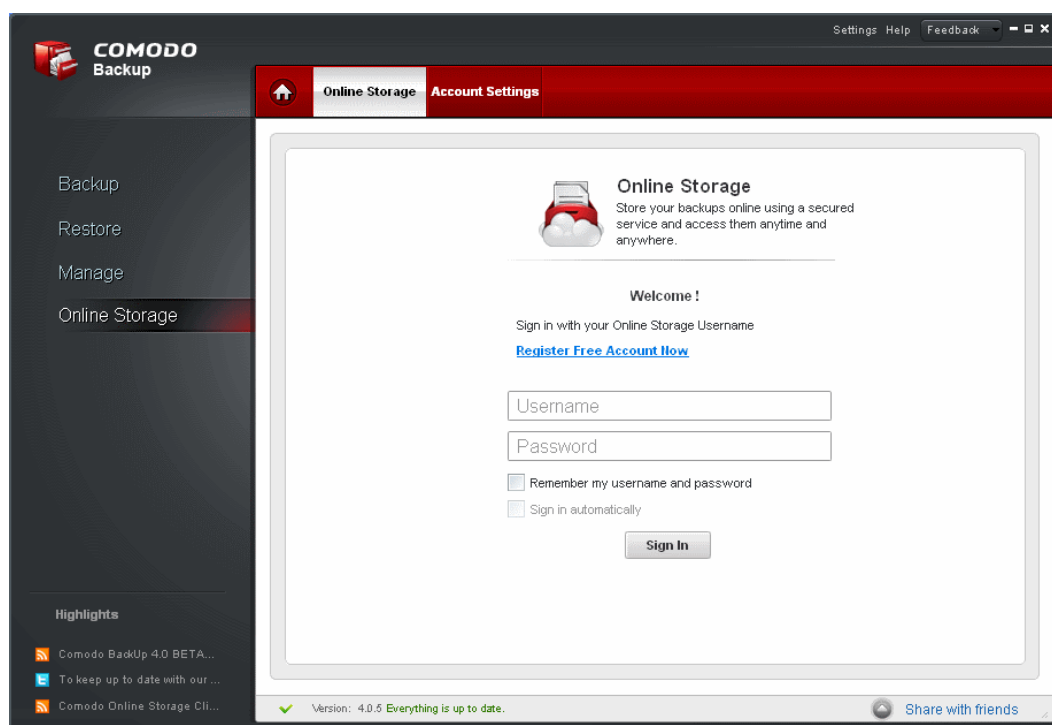
- Click the 'Unmount All' button to remove all the mounted virtual drives.



5. Configuring Your Comodo Online Storage Account

Comodo Online Storage (COS) is a secure online storage space that provides essential disaster recovery for mission critical or otherwise important files in the event of damage, deletion or theft. Files and data of all types are stored on Comodo's highly secure servers and can be accessed over the Internet from anywhere in the world. You can mount your online storage space as a virtual drive simultaneously on multiple systems and browse/manage files with Windows Explorer as you do with your normal drive partition. COS can be accessed using Comodo Backup, via a web interface or by using a lightweight COS client. If you have already created a Comodo Online Storage account, then you can login and begin using your free storage space right away. If not just click the 'Register Now' button to sign up for a free, 5GB account.

To access the online storage space, click the 'Online Storage' tab from the Left Hand Side Navigation pane.



From here, you can:

- **Create a new online storage account;**
- **Log-in into your account;**
- **Quick Start - Schedule Regular Backups to Online Storage**
- **Manage your files on the online storage;**
- **Manage Your Account.**

5.1. Creating a New Online Storage Account

- Comodo Backup users – if you have already created a Comodo Online Storage account, you can login to your 5 GB storage by clicking the Online Storage button. See section **5.2 - Logging in to your account**
- Comodo Backup users - if you have not yet created a Comodo Online Storage Account then you need to do so before you can access your space. Do this by clicking 'Register Free Account Now' link from the Online Storage interface or by visiting <https://os.comodo.com/> and clicking the 'Register' button. Refer to the section **To create a new online account** for more details.

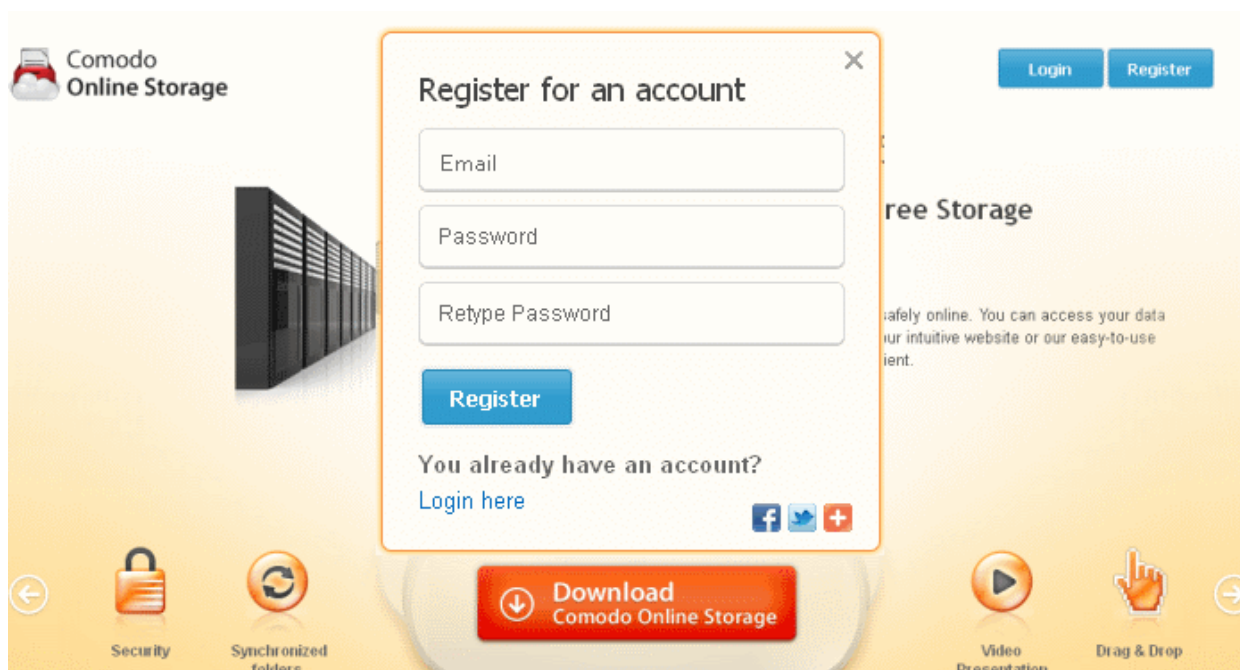
You can upgrade your account to get more storage space at any time. See '**Upgrading Your Online Storage Space**' for more details.

- If you wish to purchase 250 GB of online storage space @ \$99.99 per year / \$9.99 per month, then please visit <https://os.comodo.com/online-storage-plans.php> and select a plan. See '**Upgrading Your Online Storage Space**' for more details.

To create an new online account

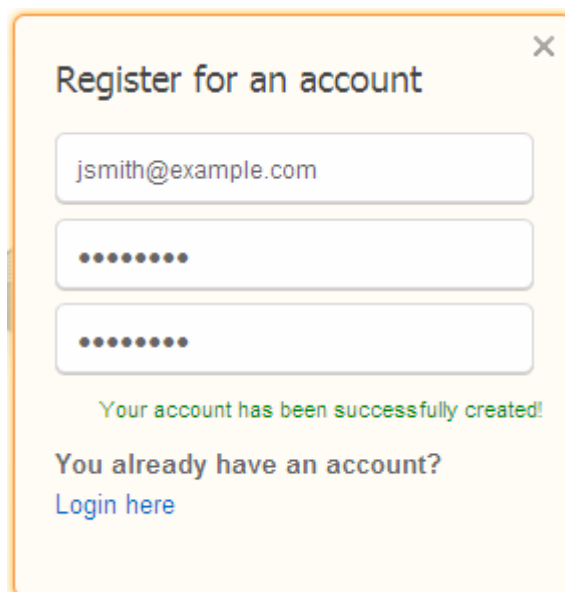
1. Click the 'Register Free Account Now' link from the Online Storage interface. You will be taken to <https://os.comodo.com/> with the 'Register for an account' dialog opened.

Alternatively, visit <https://os.comodo.com/> and click 'Register' at the top right corner.



2. Enter your email address in the first field.
3. Enter a password of your choice in the second field and re-enter the password for confirmation in the third field. Your password should contain minimum eight characters

4. Click 'Register'. Your account will be created.



Register for an account

jsmith@example.com

.....

.....

Your account has been successfully created!

You already have an account?

[Login here](#)

You can now login to your online storage account using your email address as username and the password you entered during your account creation.

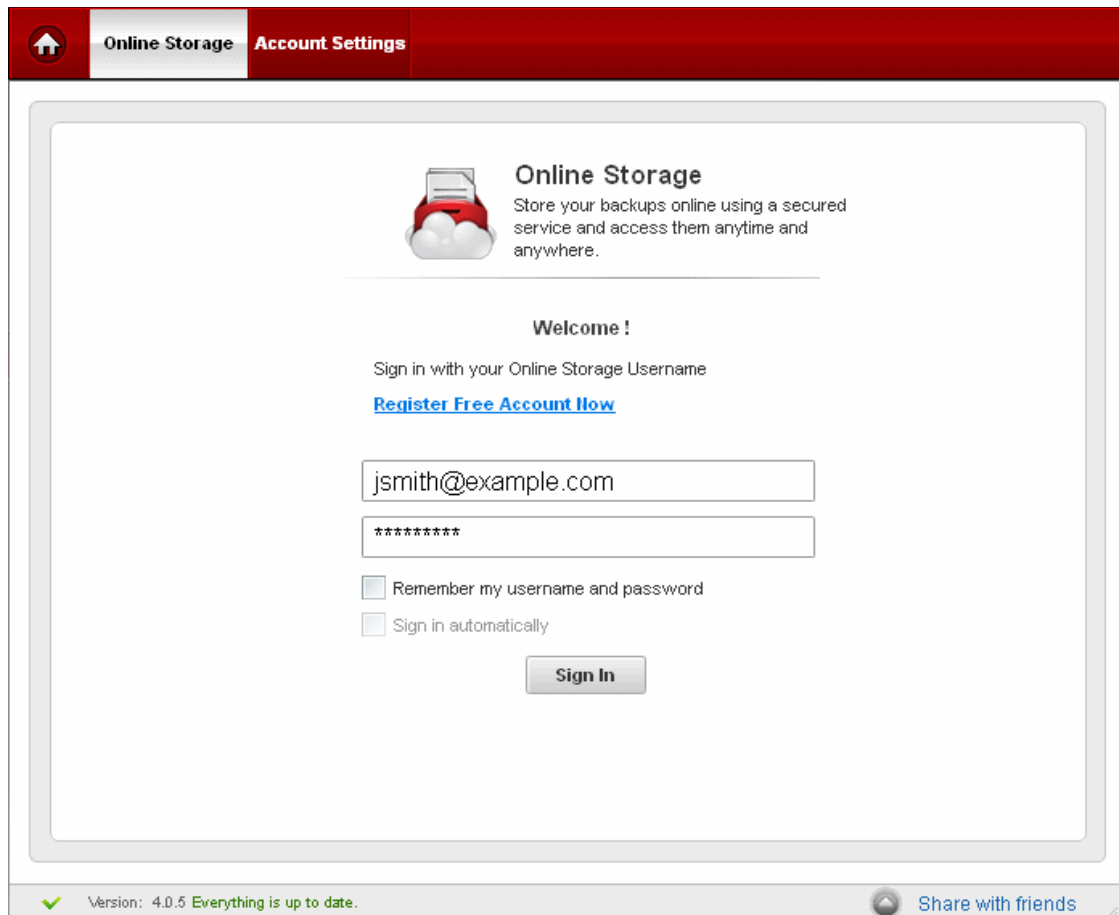
Tip: You can use the same username and password to login to Comodo Online Storage (COS) client installed in your computer and to the COS web interface hosted at <https://os.comodo.com>.

5.2. Logging-in to Your Account

Once you have successfully created an online account, you can login to your online storage area, by entering your username (your email address) and password that you specified during **account creation**.

To log-in to your account

- Click 'Online Storage' from the Left Hand Side Navigation pane.



The screenshot shows the 'Online Storage' section of the Comodo BackUp application. At the top, there is a navigation bar with 'Online Storage' and 'Account Settings' tabs. The main content area features a 'Welcome!' message and a sign-in form. The form includes a text input for the username (displayed as 'jsmith@example.com'), a password input (displayed as '*****'), and two checkboxes: 'Remember my username and password' and 'Sign in automatically'. A 'Sign In' button is located below the form. A status bar at the bottom indicates the version is 4.0.5 and everything is up to date, along with a 'Share with friends' link.

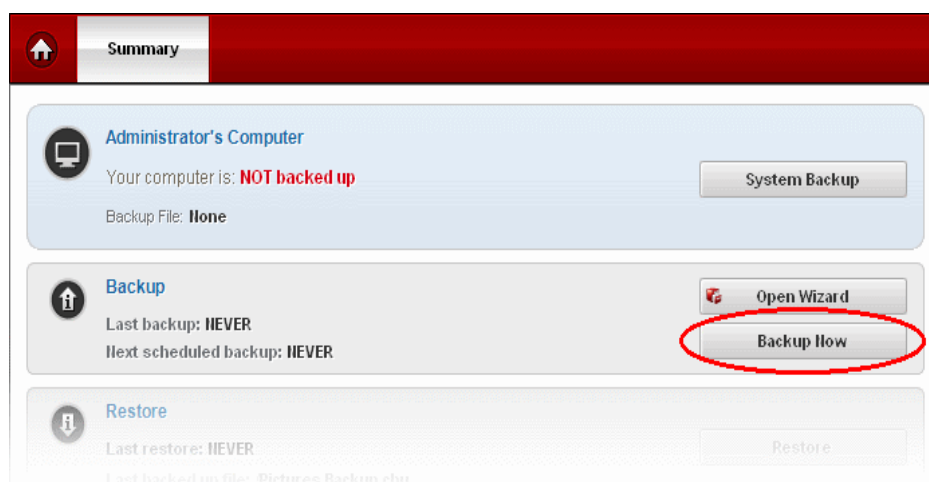
- Enter your Username (your email address) and Password that you specified during **account creation**.
- Selecting 'Remember my username and password' instructs the application to store your username and password. This saves you from entering your login credentials every time you login.
- Selecting 'Sign in automatically' instructs the application to login automatically every time the application is started.
- Click 'Sign In'.

Tip: You can also sign-in to your account by entering your username and password from the 'Online Storage' area in the Summary screen.

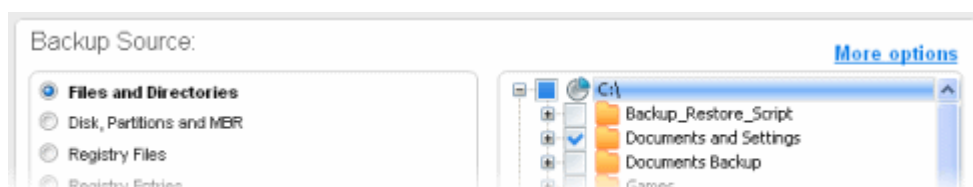
5.3. Quick Start - Schedule Regular Backups to Online Storage

Now that you have signed up for a Comodo Online Storage (COS) account, the next step is to back up your files to the online storage space. Follow the steps given below:

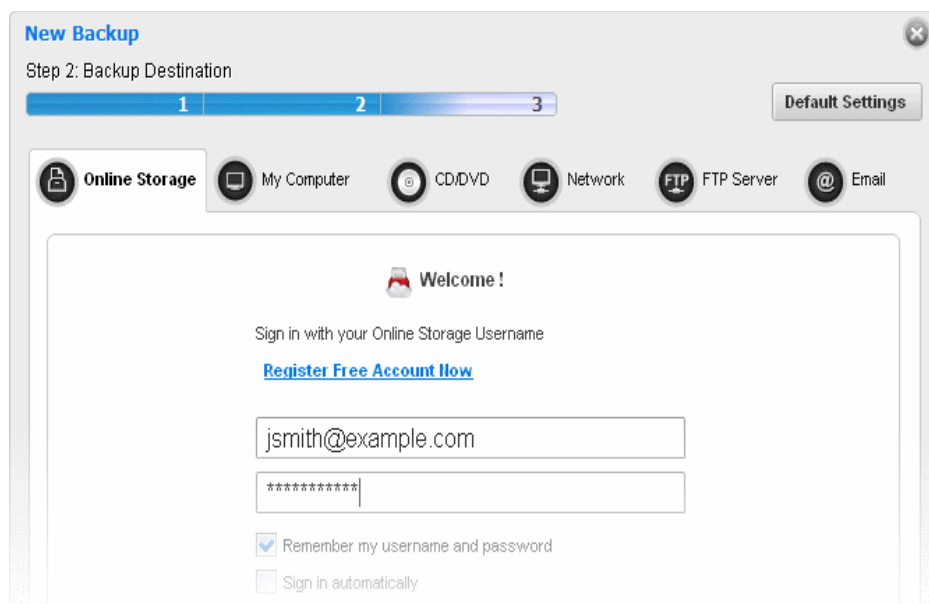
1. Start the application and click 'Backup Now' on the summary screen.



2. Select 'Fewer options' mode or 'More options' mode to create your backup job. 'More options' mode allows granular configuration of your backup job and is suitable for advanced users. 'Fewer options' mode is suitable for most users and allows you to create a backup job in the least number of steps.
3. Select the files, folders and other important areas that you want to back up from the 'Backup Source' area and click 'Next'.



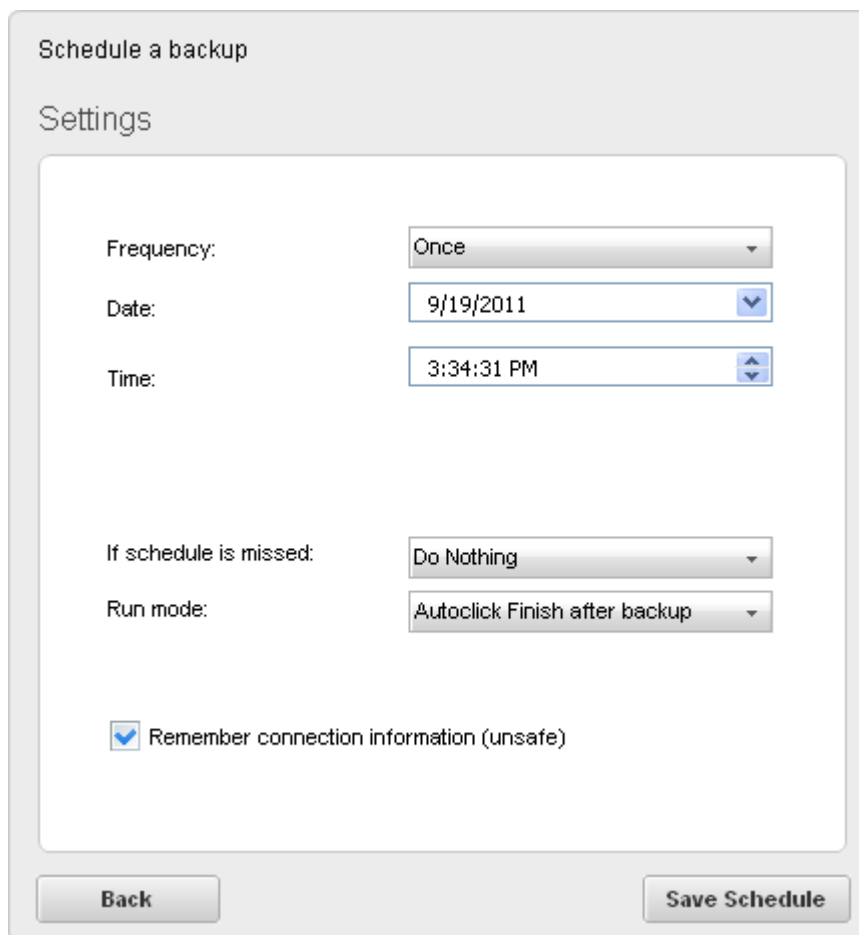
4. Select 'COMODO Online Storage' as the 'Backup Destination'.



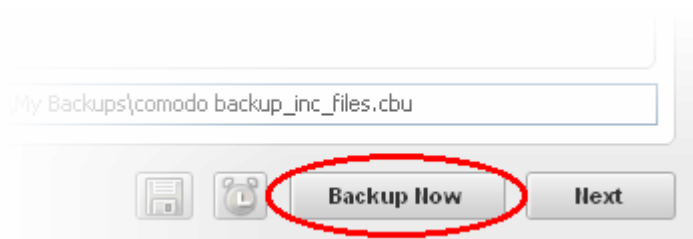
5. Enter your username and password and click 'Sign In'. If you are already logged into the Online Storage account, the status will be displayed at the top of the interface.



6. Click the alarm clock icon  to configure a backup schedule.



7. Click 'Next' if you wish to configure advanced backup settings.
8. Click 'Backup Now' when you are ready to start copying the selected items to online storage.



That's it. Comodo Backup will begin copying your files over to your online storage immediately. Future backups will run according to the schedule you specified.

Refer the section **Managing Files on Online Storage** for more details on utilizing your online storage space to its full potential.

5.4. Managing Files on Online Storage

Your online storage space can be managed in 3 ways:

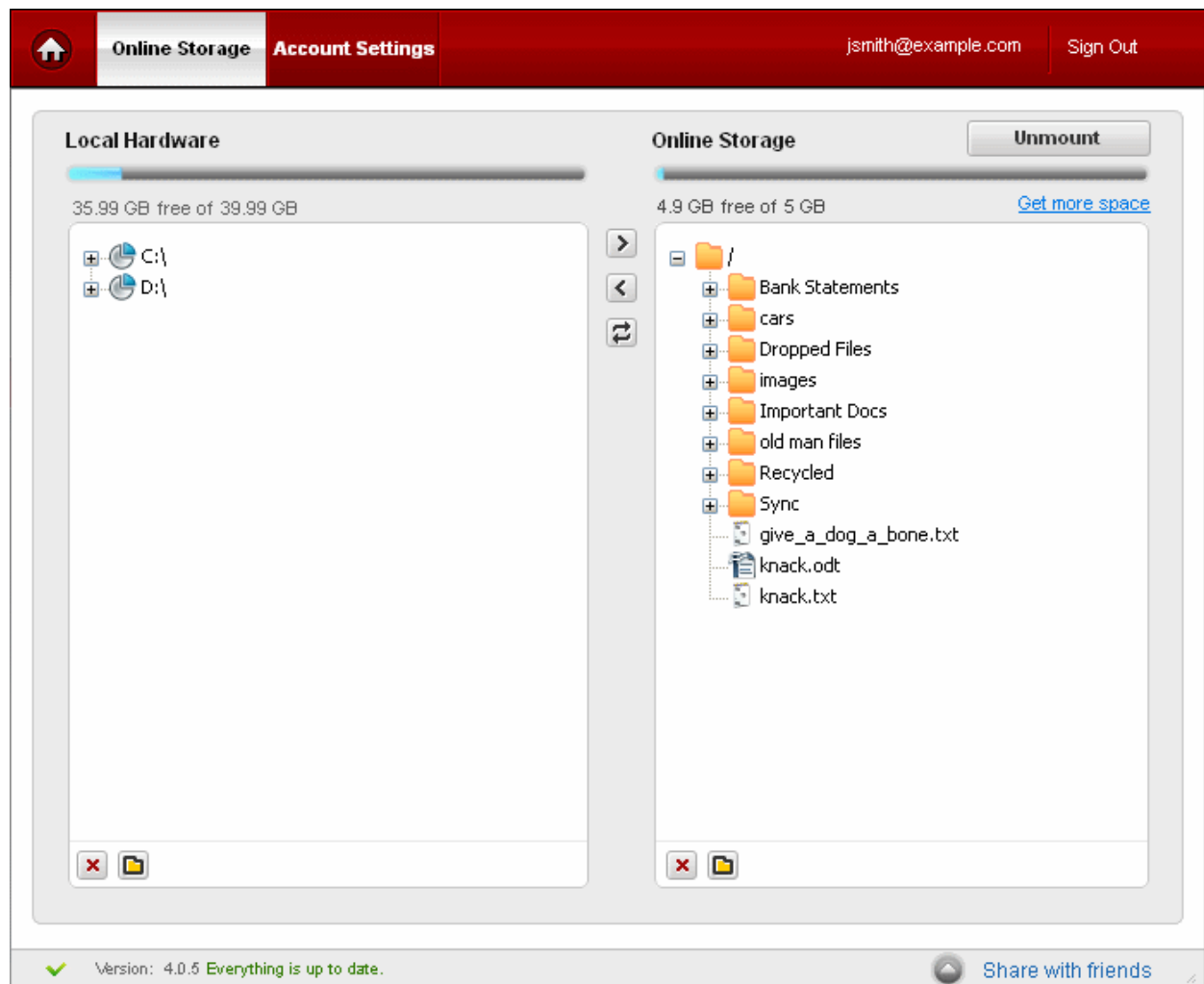
1. Via the Comodo Backup interface - Click the 'Online Storage' tab to login and manage files using a Windows Explorer style interface.
2. Using the web interface - Click the 'login' button at <https://os.comodo.com/> to open the web interface.
3. Using the Comodo Online Storage (COS) client - Optionally installed along with Comodo BackUp. The client can also

be downloaded from <https://os.comodo.com/>.

The remainder of this section deals with managing files using option 1. Options 2 and 3 are explained in more detail in the dedicated COS user guide available at <http://help.comodo.com/topic-154-1-280-2592-Comodo-Online-Storage---Introduction.html>.

After successful login, your username is displayed in the tab structure area and the disk partitions and folders of your system are displayed as a tree structure in the left hand side pane and the folders and files in your online storage space are displayed as a tree structure in the right hand side pane.

The status bars above the panes display the usage state of your local hard disk and your online storage space.



You can:

- **Copy folders/files between your local system and the online storage**
- **Synchronize the contents of a folder/file in your system with the copy of the same in the online storage**
- **Create new folders on your local system and the online storage**
- **Delete folders/files in your local system and the online storage**
- **Mount your online storage space as a virtual drive in your system**
- **Rename folders/files in your local system and the online storage**
- **Upgrade your account for additional storage space.**

5.4.1. Copying Folders / Files Between Your Local System and the Online Storage

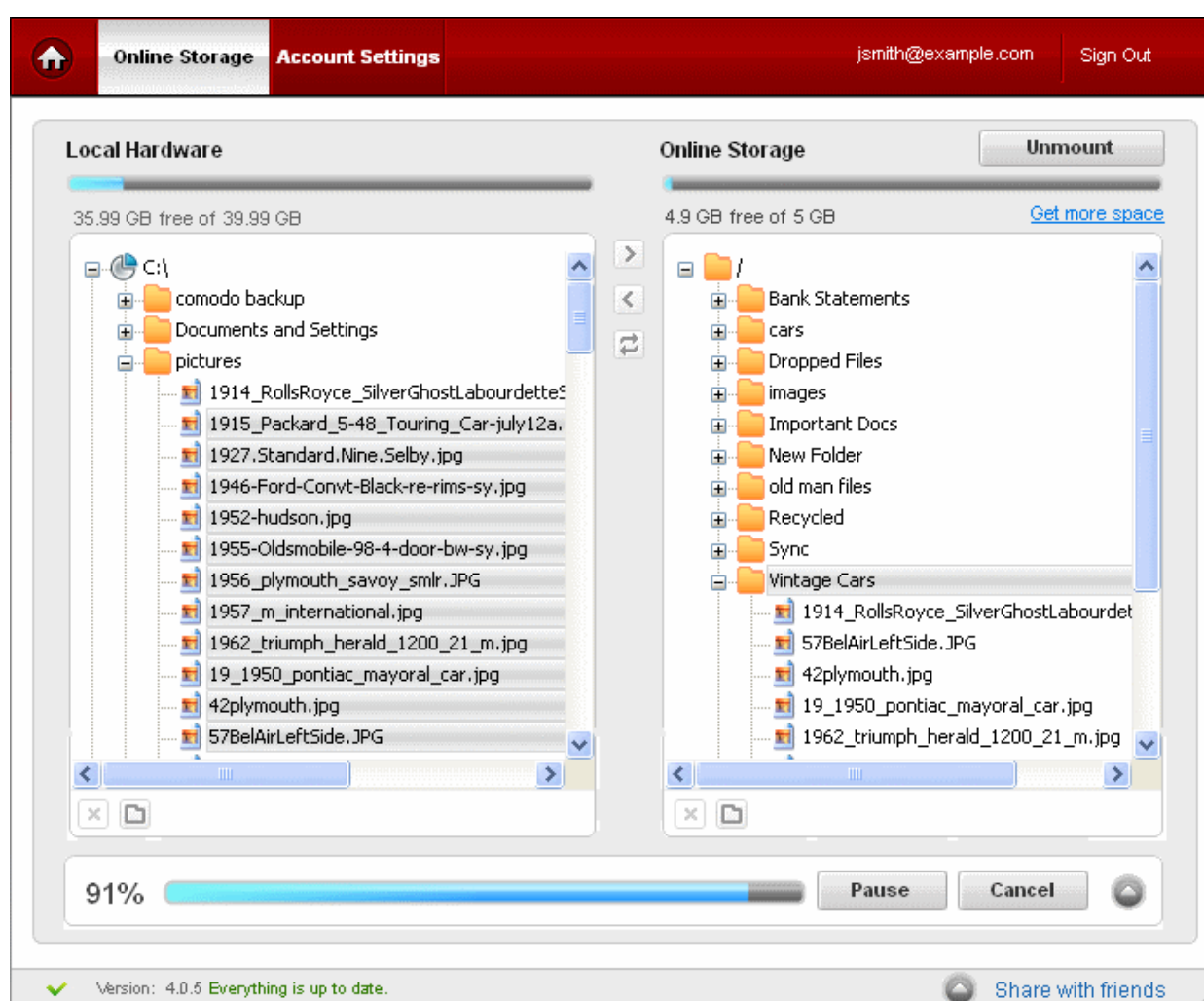
1. First select the destination folder in the destination location (online storage or the local system)
2. Select the folder/file to be copied from the source location (local system or the online storage)

Tip: Use Control/Shift keys to select multiple folders/files at once.

3. Click the right arrow to copy the selected folders/files to the online storage or Click the left arrow to copy the selected folders/files to your computer

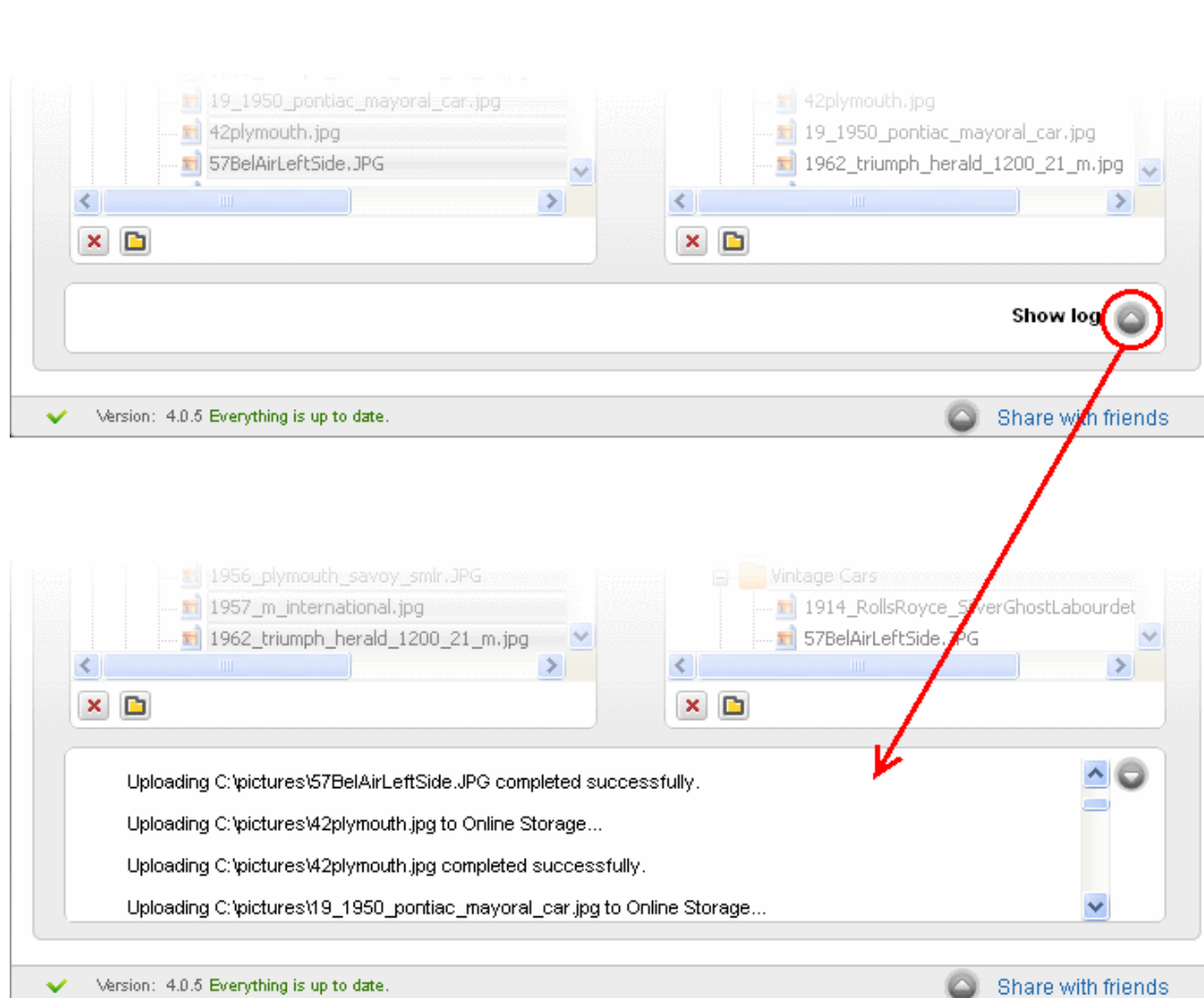
Tip: Alternatively you can select the folders/files to be copied, drag and drop to the destination folder.

The transfer progress will be indicated in the lower pane and...




- If you want to temporarily stop the copying process, press 'Pause'. You can restart the process by clicking the 'Resume' button.
- If you want to terminate the process, click 'Cancel'.
- To view the details of the files being currently copied, click the down arrow.

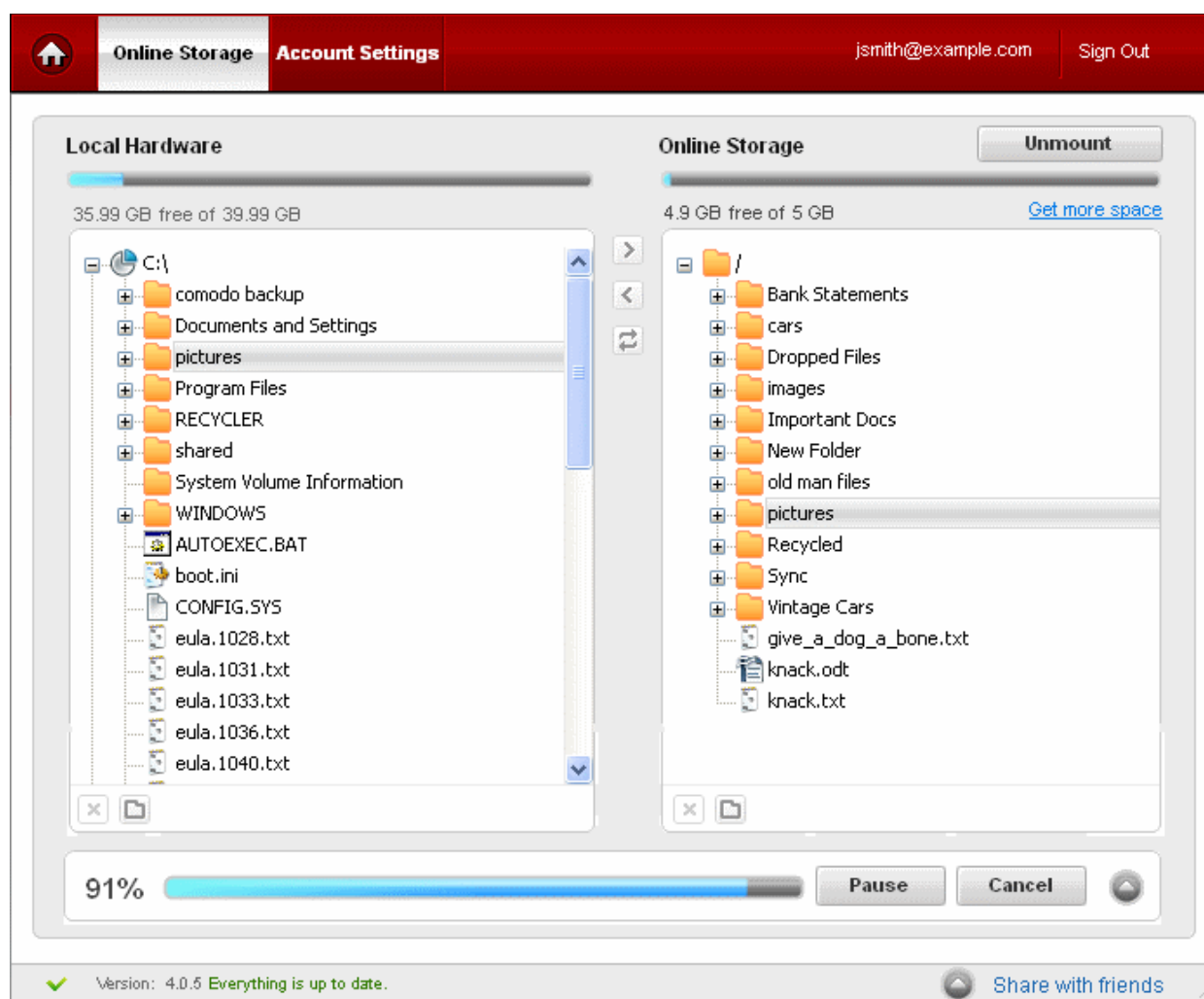
...on completion, clicking the down arrow will display the log of the copying process.



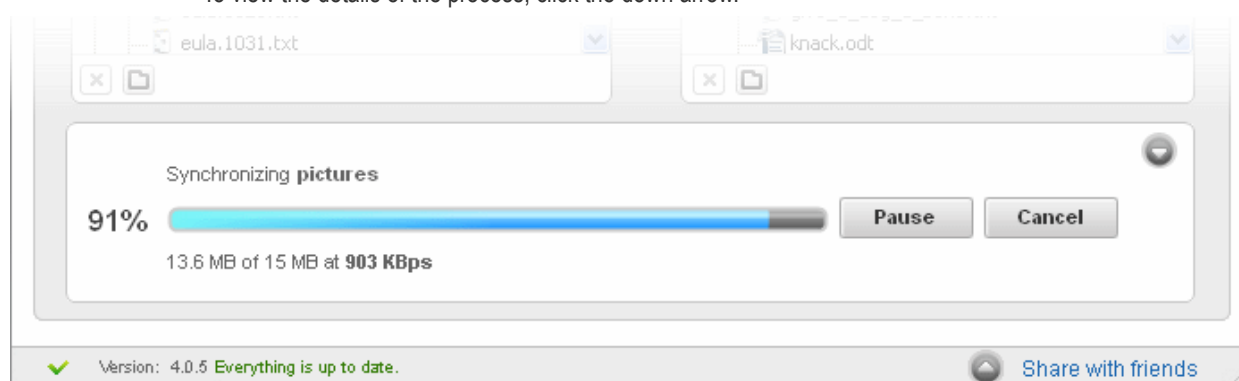
5.4.2. Synchronizing the Contents of Folders / Files in Your System with the Same Copy in Online Storage

1. First select the copy of the folder in the destination location (online storage or the local system)
2. Select the source folder from the source location (online storage or the local system)
3. Click the 'Sync'  button

The synchronization progress will be indicated.




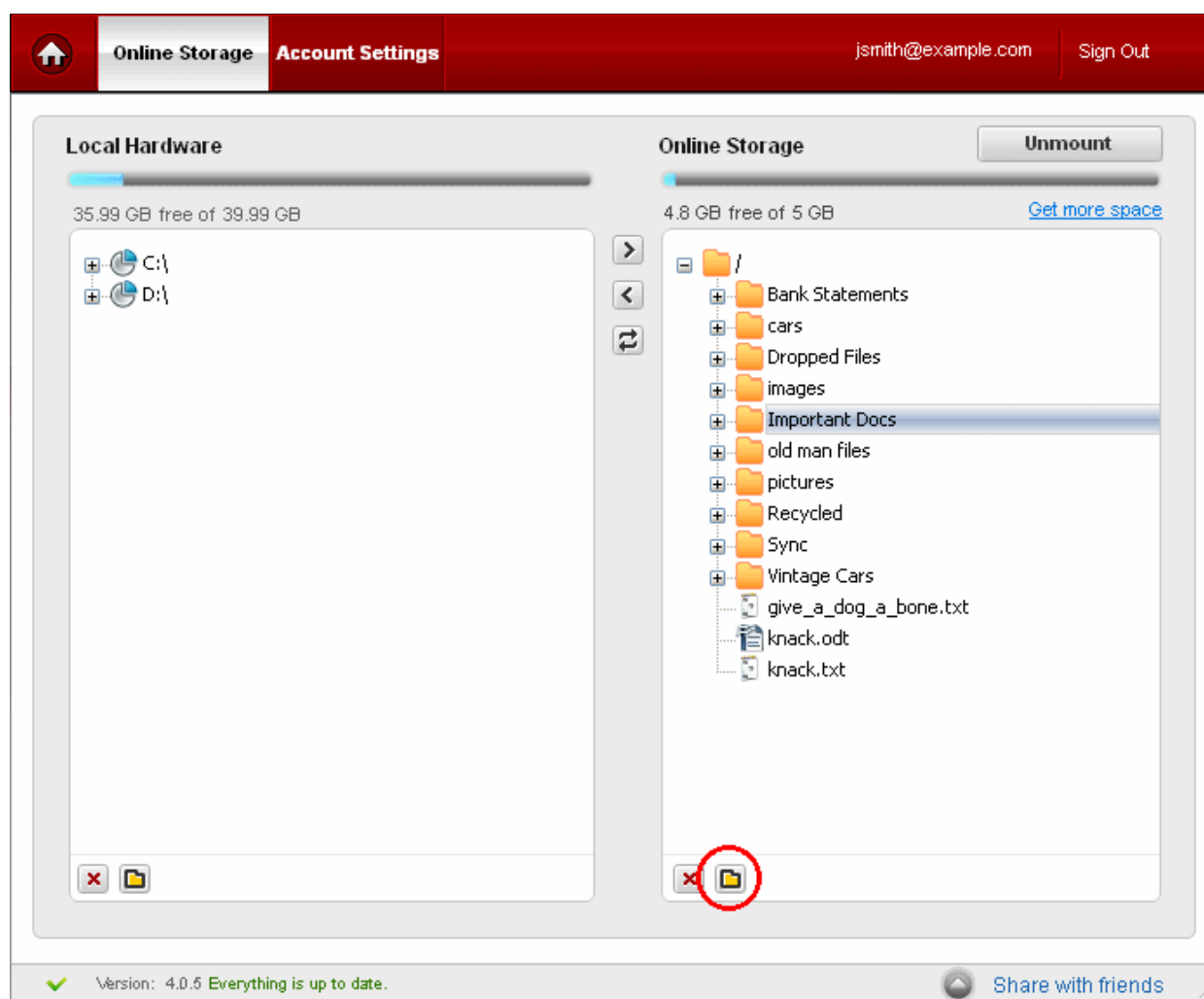
- If you want to temporarily stop the synchronization process, press 'Pause'. You can restart the process by clicking the 'Resume' button.
- If you want to cancel the process, click 'Abort'.
- To view the details of the process, click the down arrow.



On successful completion, the two folders will be having the same content.


5.4.3. Creating New Folders in Your Local System or Online Storage

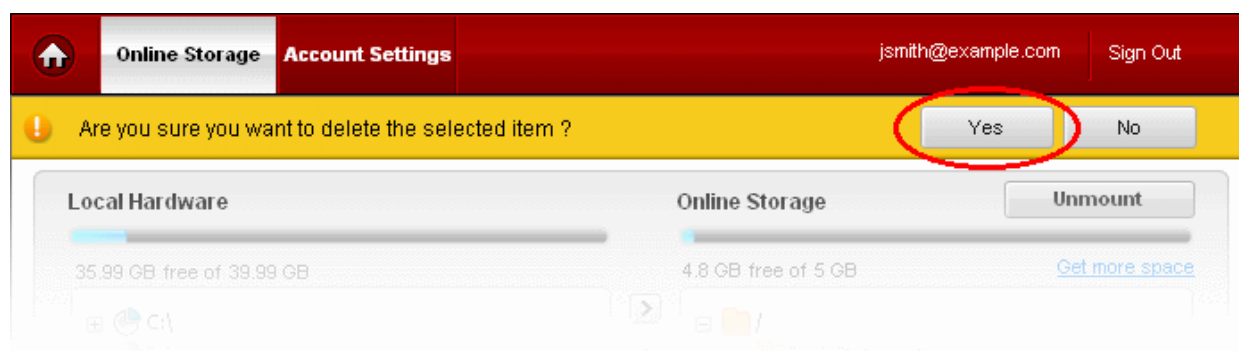
- To create new folders in your local system or online storage space, simply select the parent folder and click 'New Folder' or the new folder icon .



A new folder will be immediately created in the parent folder. Browse to the new folder and **rename** it as you require.

5.4.4. Deleting Folders / Files in Your Local System or Online Storage

- To delete folders/files in your local system or online storage, simply select the folder/file and click the delete icon . A confirmation message will be displayed.



- Click 'Yes' in the confirmation message

The selected folder / file will be deleted.

Tip: Use Control/Shift keys to select multiple folders/files at once.

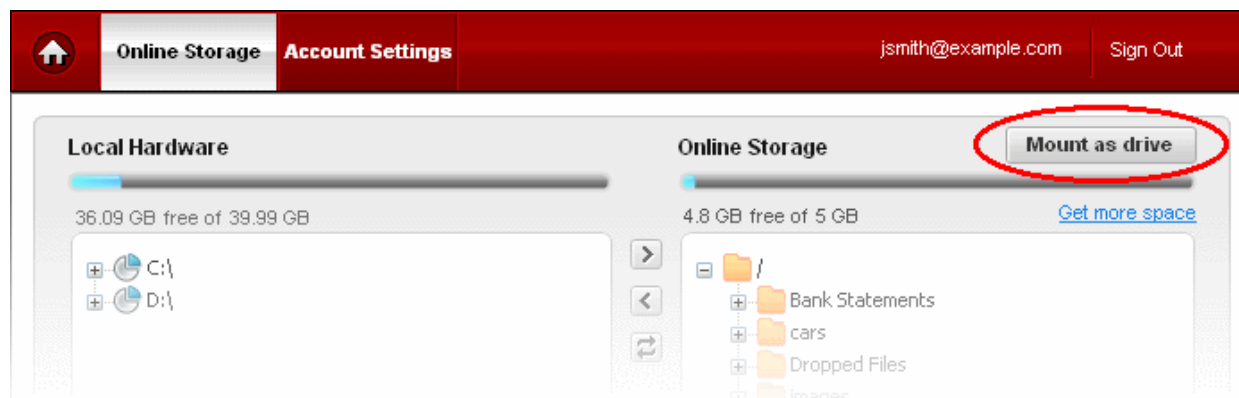
5.4.5. Mounting your Online Storage Space as a Virtual Drive

Comodo Backup mounts your online storage space as a virtual drive in your computer system and enables you to access the files and folders in it like physical drives in your system, once you login to your online storage account through it.

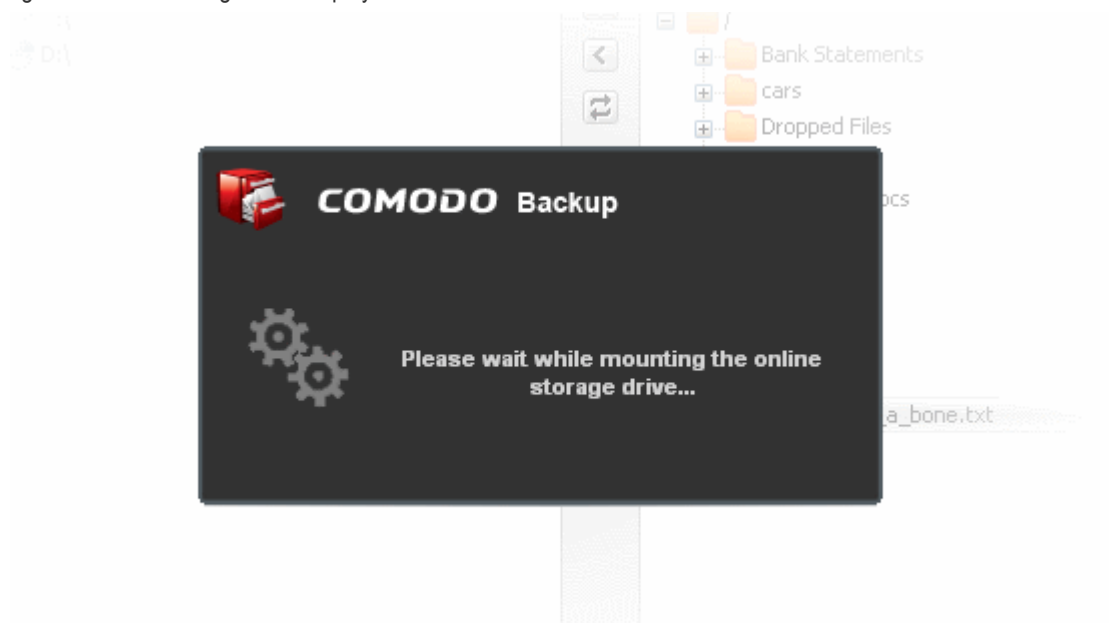
If it is unmounted, you can mount it from the Online Storage interface of the application.

To mount your Online Storage space as a virtual drive

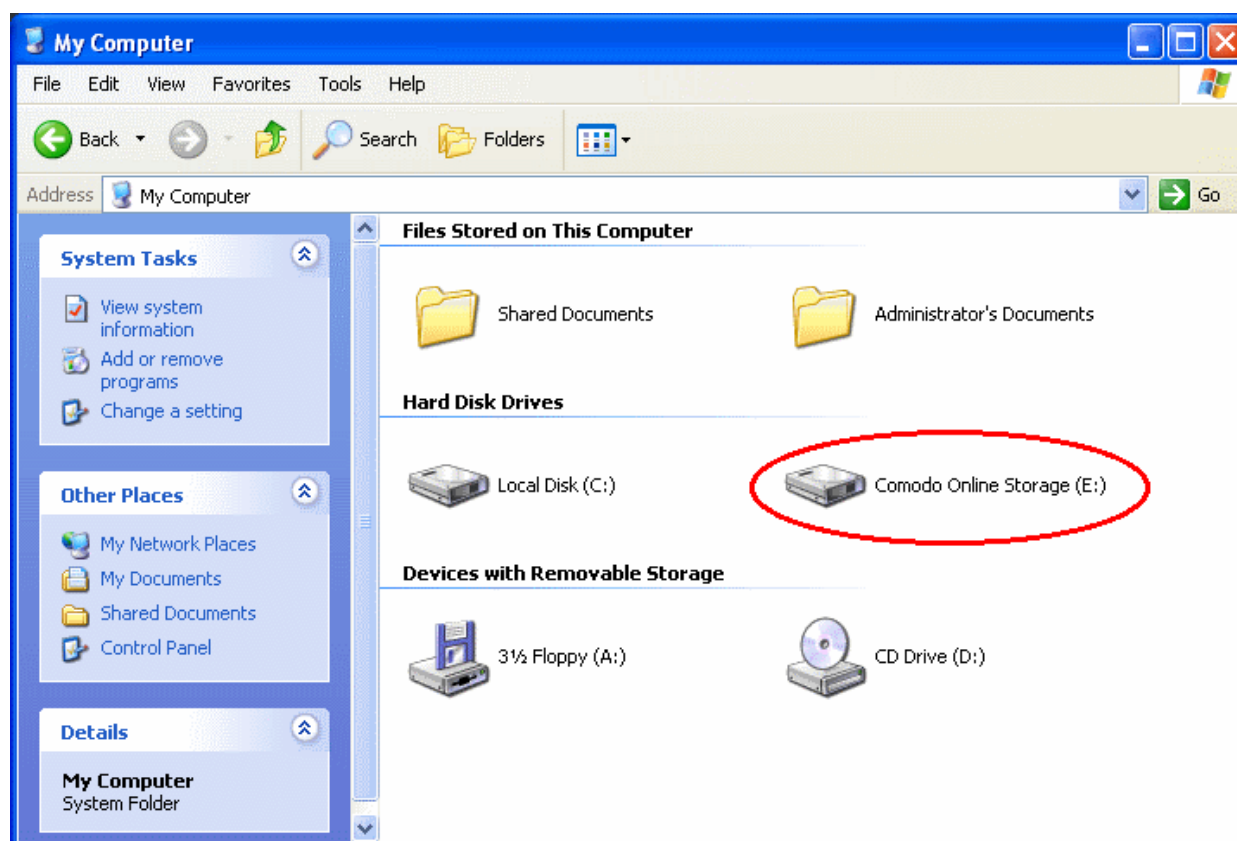
- Click the 'Mount as drive' button at the top right side of the interface.



The progress of the mounting will be displayed.



On completion, the Online Storage space will be mounted with the drive letter next to the drive letter of your last hard disk partition. You can see the drive in 'My Computer' window.

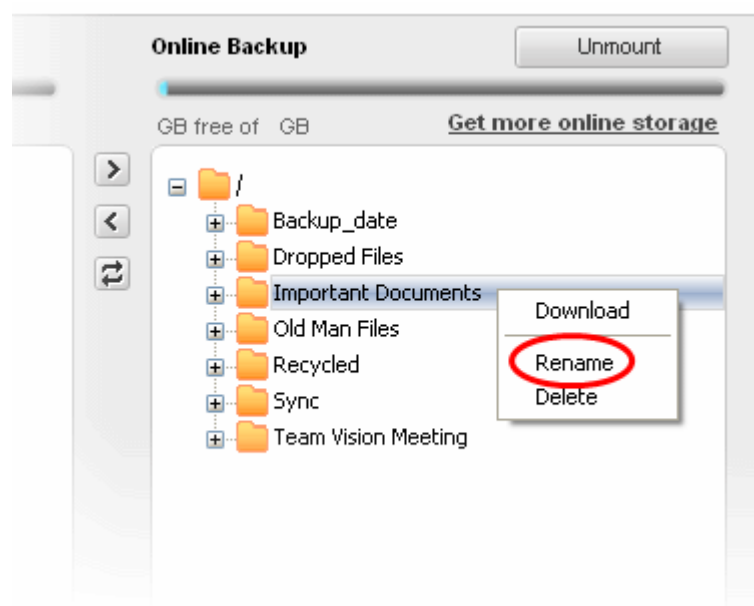


You can browse and manage folders and files in the online storage through Windows Explorer.

- To unmount the virtual drive, click the 'Unmount' button.

5.4.6. Renaming Folders / Files in Your Local System or Online Storage

- Right-click on the item that you wish to rename and select 'Rename' from the context sensitive menu.



- Type the new name for the file or folder.

Or

- Select the folder / file to be renamed in Windows Explorer and click 'Rename' in the File menu.

5.4.7. Upgrading Your Online Storage Space

- Click the 'Get more online storage' link. You will be taken to the Comodo Online Storage Signup page at <https://os.comodo.com/online-storage-plans.php>.

Comodo Online Storage

Comodo Online Storage is available in the following plans:

Plan	Price	Sign up NOW	Details
250 GB	\$9.99/month	Sign up NOW	Enough space for 6 computers Highly secure, encrypted storage Best value backup solution around
250 GB	\$99.99/year	Sign up NOW	Same features as paid account Ideal for testing the service Seamless upgrade to full service
5 GB	Free Account	Try Now	

The page allows you to select the package that meets your requirements.

- Click the 'Sign up Now' button beneath the package you choose. You will be taken to the order placement form.

COMODO
Creating Trust Online®

Telesales phone number
1-866-272-9804

Chat Now

Buy Now

☒ **Comodo Online Storage**
Store and access your Photos, Music and Files from any computer up to 250GB.

1-Year Plan - \$99.99

Total: \$99.99

- The subscription pack you chose will be displayed pre-selected in the Package drop-down. Select the subscription package you want to use from the drop down list if you want to change it.
- Select 'returning user' in the Sign-up Information area and enter your email address and your existing Comodo Online Storage account password.

Sign-up Information

New user:

☐ new user

☐ returning user

E-mail Address *

Password *

- Select your payment mode in the Payment Options section.
- Enter your Credit Card Details in the respective fields.

Enter Billing Information

Payment Method



Name on Card *

Billing Address

City

Country

Select Country

State / Province

Select State

Zip Code

Card Number *

Expiration Date *

Select Month Select Year

Security Code *

[Where is this?](#)

- Read the 'End User License and Subscriber Agreement' and accept to it by selecting 'I accept the Terms and Conditions' checkbox.

Terms & Conditions

END USER LICENSE AND SUBSCRIBER AGREEMENT
Comodo Online Storage

IMPORTANT - PLEASE READ THESE TERMS CAREFULLY BEFORE DOWNLOADING, INSTALLING OR USING COMODO'S SECURITY SOFTWARE OR USING COMODO'S SECURITY SUITE SERVICES ("PRODUCTS"). BY DOWNLOADING, INSTALLING, OR USING THE PRODUCTS, CLICKING ON "I ACCEPT" BELOW, YOU ACKNOWLEDGE THAT YOU HAVE READ THIS AGREEMENT, THAT YOU UNDERSTAND IT, AND THAT YOU AGREE TO BE BOUND BY ITS TERMS. IF YOU DO NOT AGREE TO THE TERMS HEREIN, DO NOT DOWNLOAD OR USE THE SOFTWARE, DO NOT SUBSCRIBE TO OR USE THE SERVICES, OR CLICK ON "I ACCEPT".

I accept the Terms and Conditions: ☐

Place Order

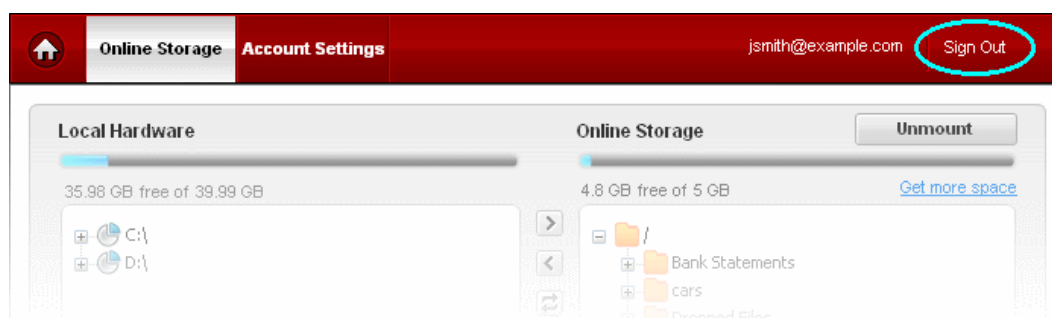
- Click 'Place Order'.

Your order will be processed, your online storage space will be upgraded and a confirmation email will be sent from Comodo.

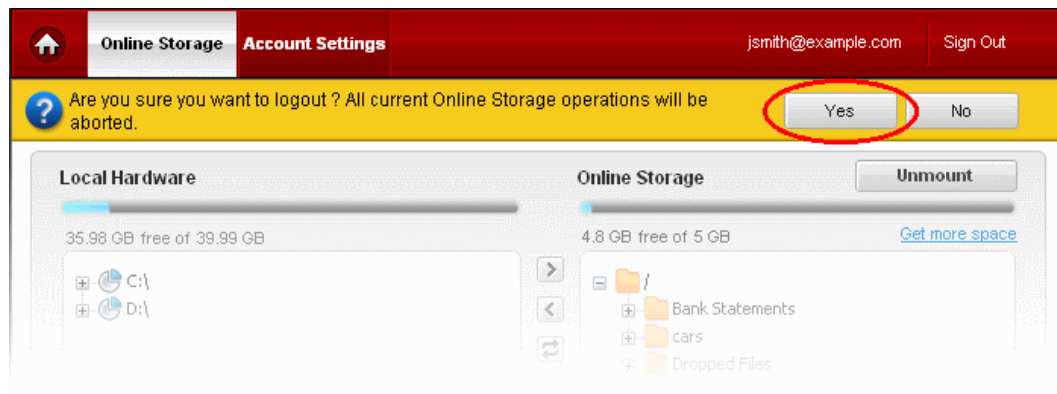
Tip: You can also upgrade your account from the 'Account Settings' area. Refer to [Upgrading your Account](#) for more details.

5.4.8. Logging-out from Online Storage Account

To logout, simply click the 'Sign Out' tab at the tab structure area.



A Confirmation message will be displayed.

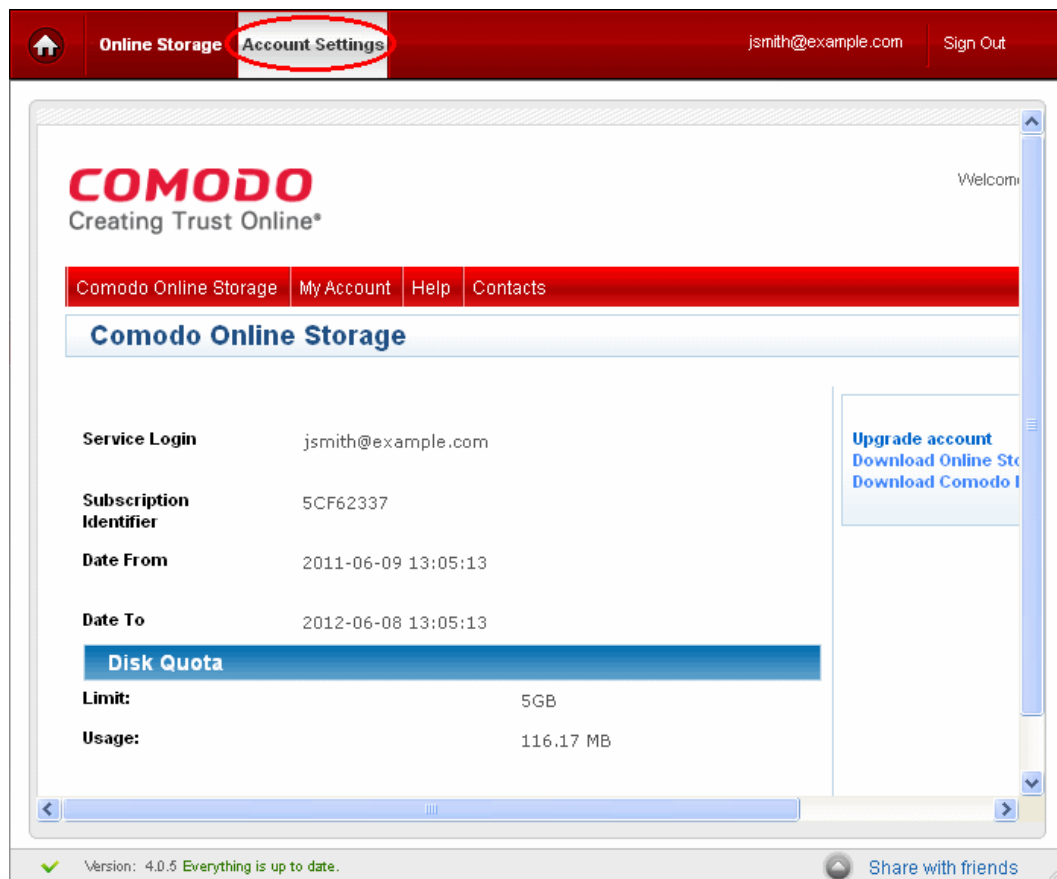


Click 'Yes'.

5.5. Managing Your Account

The Account Settings area enables you to view your account details and change your Login username and password at anytime.

To access the Account Settings area, click the 'Account Settings' tab from the Online Storage interface.



The Accounts Settings contains four tabs:

Comodo Online Storage;

My Account;

Help;

Contacts.

By default, the Comodo Online Storage area will be opened, which displays your Comodo Online Storage account details like your validity period and the usage status of your online space. This area also allows you to upgrade your account for additional space and change your login password.

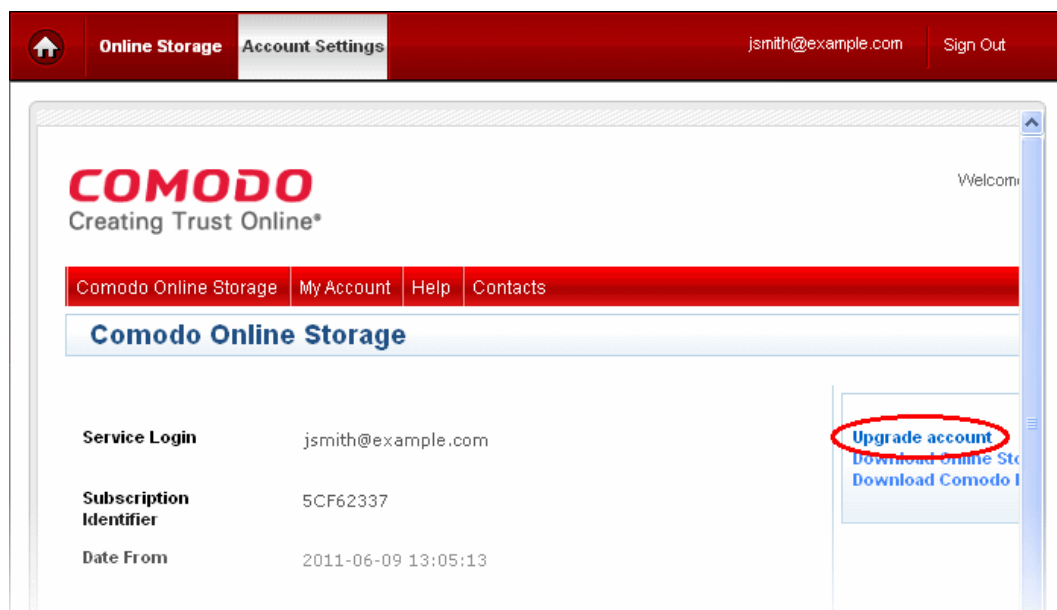
From this area, you can:

- **Upgrade Your Account**

5.5.1. Upgrading Your Account

You can upgrade your account for purchasing additional online storage space on Comodo Online Storage from the 'Comodo Online Storage' area. To do so:

1. Click 'Online Storage' from the Left Hand Side Navigation pane.
2. Login to your account by entering your Username and Password.
3. Click 'Account Settings' > 'Comodo Online Storage'
4. Click the 'Upgrade account' link in the right hand side pane.



You will be taken to the Comodo Online Storage Sign-up page.

Online Storage Account Settings jsmith@example.com Sign Out

COMODO Online Storage

Comodo Sign-Up Page

Choose how much space you would like to purchase.

Comodo Online Storage 1024GB at \$19.99 for 1 month

Customer Information

When paying by credit card, the billing information should be exactly as it appears on your credit card statement. For credit card verification, please ensure that your first and last name are entered as they appear on your card.

User Details

Are you an existing Comodo customer? ☒ Yes ☐ No

Login*
(4 character min.)

Version: 4.0.5 Everything is up to date. Share with friends

5. Choose the subscription package as per your requirement from the drop-down
6. Select 'Yes' for 'Are you an existing Comodo customer?' under 'User Details' and enter your current login user name (your email address) and your existing Comodo Online Storage account password.

User Details

Are you an existing Comodo customer? ☒ Yes ☐ No

Login*
(4 character min.) jsmith@example.com

Password*
(8 characters min.)

Password Confirmation*

First Name*

Last Name*

Email*

Telephone Number

7. Enter your contact details in the 'Contact Information' area.

Contact Information

Company Name

Street Address*

Address2

City*

Country*

State or Province

Postal Code*

Billing Information





Note: Fields marked with * are mandatory.

8. If your Billing address is same as the contact information, leave the checkbox The same as Contact Information under Billing Information selected. Else, uncheck the option and enter your billing address.
9. Select your payment mode in the Payment Options section.
10. Enter your Credit Card Details in the respective fields.

Billing Information

The same as Contact Information ☒

Payment Options

When paying by credit card, the billing information should be exactly as it appears on your credit card statement. For credit card verification, please ensure that your first and last name are entered as they appear on your card.

Credit Card Details

Credit Card Number* [Select my Credit Card](#)

Security Code* [What is it?](#)

11. Read the 'End User License and Subscriber Agreement' and accept to it by selecting 'I accept the Terms and Conditions' checkbox.

Terms and Conditions

END USER LICENSE AGREEMENT
Comodo Online Storage

THIS AGREEMENT CONTAINS A BINDING ARBITRATION CLAUSE. PLEASE READ THE AGREEMENT CAREFULLY BEFORE ACCEPTING ITS TERMS AND CONDITIONS.

IMPORTANT - PLEASE READ THESE TERMS CAREFULLY BEFORE APPLYING FOR, ACCEPTING, OR USING A COMODO ONLINE STORAGE ACCOUNT OR THE COMODO ONLINE STORAGE SERVICES. BY USING, APPLYING FOR, OR ACCEPTING THE SERVICES OR BY CLICKING ON "I ACCEPT" BELOW, YOU ACKNOWLEDGE THAT YOU HAVE READ THIS AGREEMENT, THAT YOU UNDERSTAND IT, AND THAT YOU AGREE TO BE BOUND BY ITS TERMS. IF YOU DO NOT AGREE TO THE TERMS AND CONDITIONS OF THIS AGREEMENT, DO NOT APPLY FOR, ACCEPT, OR USE A COMODO ONLINE STORAGE ACCOUNT OR THE COMODO ONLINE STORAGE SERVICES.

This Subscriber Agreement ("Agreement") constitutes the final binding agreement between you and Comodo Security Solutions, Inc. ("Comodo") which has its principal place of business at 525 Washington Blvd, Suite 1400, Jersey City, New Jersey 07310.

☒ I accept the Terms and Conditions

SIGN UP

[Terms & Conditions](#) [Comodo Security Solutions, Inc.'s privacy policy](#) [Contact Us](#)

©Comodo Security Solutions, Inc.

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12. Click 'SIGN UP'

Your order will be processed, your online storage space will be upgraded and a confirmation email will be sent from Comodo.

5.5.2. My Account

The 'My Account' tab displays the full details of your account with Comodo Accounts Manager.



This area allows you to change your account settings and information and also to **sign-up for other Comodo Products and Services**. The right hand side pane contains the shortcuts for the following:

- Viewing your account details
- **Changing your account password**
- **Changing your contact details**
- **Changing your email address**
- **Managing your credit card details**

User Details
Change Password
Change Contact Information
Change Email Address
Credit Cards Management


Changing Your Comodo Account Password

The 'Change Password' option in the right hand side pane allows you to change the password to access your Comodo Online Storage (COS) account and the Comodo Accounts Manager (CAM).

To change your password

1. Click 'Change Password' from the right hand side pane in the 'My Account' interface

Please enter New Password



Old Password	<input type="password"/>
New Password	<input type="password"/>
Reenter New Password	<input type="password"/>

2. Enter your existing password on Old Password text box.
3. Enter your new password in the New Password text box and re-enter for confirmation in the Reenter New Password text box.
4. Click 'Submit'.

Your access password is now changed. You need to enter your new password to access your online storage space from next login onwards.

Changing Contact Information

The 'Change Contact Information' option in the right hand side pane enables you to change your contact details from those provided during your account sign-up.

To change your contact details

1. Click 'Change Contact Information' from the right hand side pane in the 'My Account' interface

Change Contact Information

Company Name	ACME Corp.
Street Address*	ABC Road
Address2	XYZ Area
City*	City
Country*	United States
State or Province	Alabama
Postal Code*	123456

Submit

The 'Change Contact Information' form will appear, pre-populated with the details entered while signing-up the account.

2. Modify the details as required.

Note: Fields marked with * are mandatory.

3. Click 'Submit'.


Your contact information attached with the account are now changed.

Changing Your Email Address

The 'Change Contact Information' option in the right hand side pane enables you to change your email address that is associated with your account.

To change your contact email address

1. Click 'Change Email Address' from the right hand side pane in the 'My Account' interface

Change Email Address


Old Email Address	jsmith@example.com
New Email Address	<input type="text" value="johnsmith@somemail.com"/>
Reenter New Email Address	<input type="text" value="johnsmith@somemail.com"/>
<input type="button" value="Submit"/> <input type="button" value="Cancel"/>	

The Change Email Address form appears, pre-populated with the email entered while signing-up the account.

2. Enter the new email address in the New Email Address text box and re-enter the same in the Reenter New Email Address text box for confirmation.
3. Click 'Submit'.

The email address attached to your account is now changed. You will receive email notifications related to your Comodo Online Storage account only in your new email address. But your login email address remains the same, as signed-up with.

Managing Your Credit Cards Information

The 'Credit Cards Management' option in the right hand side pane enables you to change the details of the credit card(s) associated with your account. The details of the credit card you used earlier will be displayed.

To add a new card, click 'Add Credit Card' and fill-in the form with the details of the new card. This will help in pre-populating your credit card details when you are renewing your subscription, purchasing additional online storage space or subscribing for other Comodo Products or Services.

Subscribing for Other Comodo Products and Services

The 'User Details' page under 'My Account' tab displays the currently enabled services for your account and a list of other products and services available from Comodo at its bottom.

Enabled Services:

- [Comodo Online Storage](#)
- [Sign Up to Affiliate System](#)
- [Sign Up to Comodo Web Application Firewall](#)
- [Sign Up to Comodo EasyVPN](#)
- [Sign Up to UserTrust](#)
- [Sign Up to SiteInspector](#)
- [Sign Up to TrustConnect](#)
- [Sign Up to Comodo Internet Security](#)
- [Sign Up to Endpoint Security Manager](#)
- [Sign Up to SpamGateway](#)
- [Sign Up to Comodo System-Cleaner](#)

Last Ten Orders:

Orders						
Order Number	Description	Date	Payment type	Amount	Order State	
691966-1	Comodo Online Storage 5 GB Access Fee [2011-06-09/2012-06-08]	Thu, 09 Jun 2011 13:05:13 +0100	CC-NOT DEFINED	\$0.00	Processed	Details

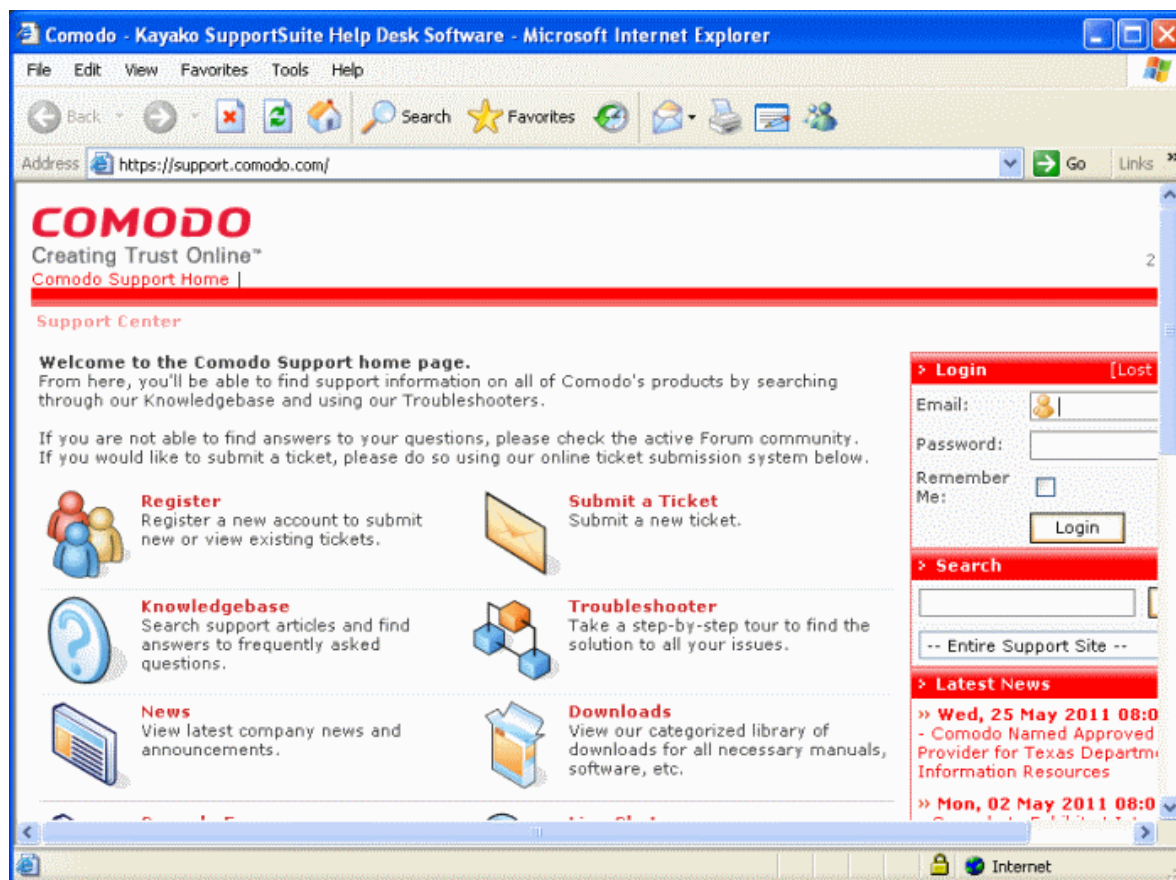
1 Found

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- To subscribe for other Comodo products or Services, simply click the corresponding link and follow the enrollment procedure.

5.5.3. Help

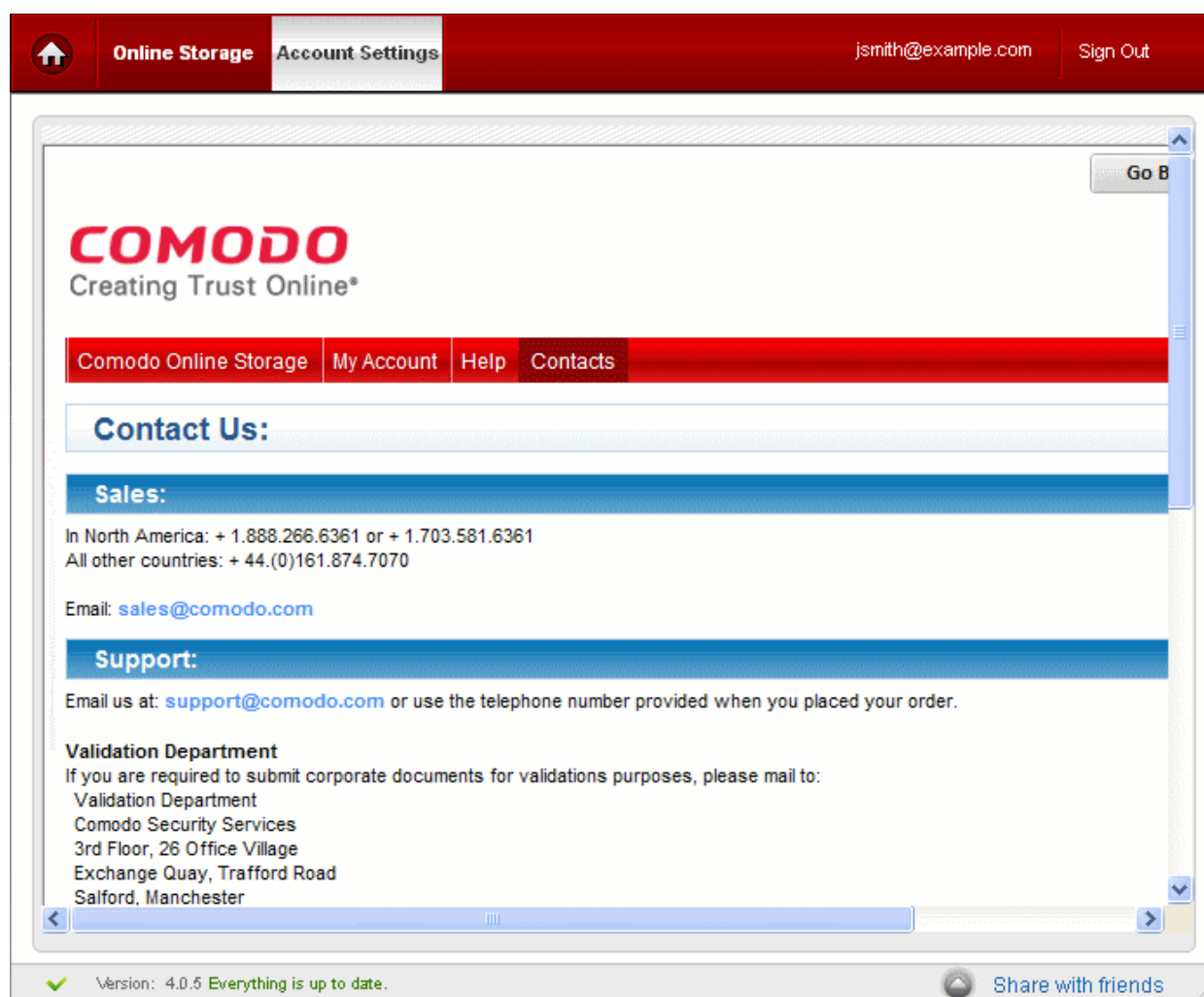
Clicking the Help tab takes you to Comodo's searchable knowledgebase and troubleshooter at <http://support.comodo.com>.



If you do not find a solution in our Knowledgebase or Troubleshooter, you can submit a support ticket after registering an account. Registration is free.

5.5.4. Contacts

Clicking the 'Contacts' tab takes you to the 'Contact Us' page.



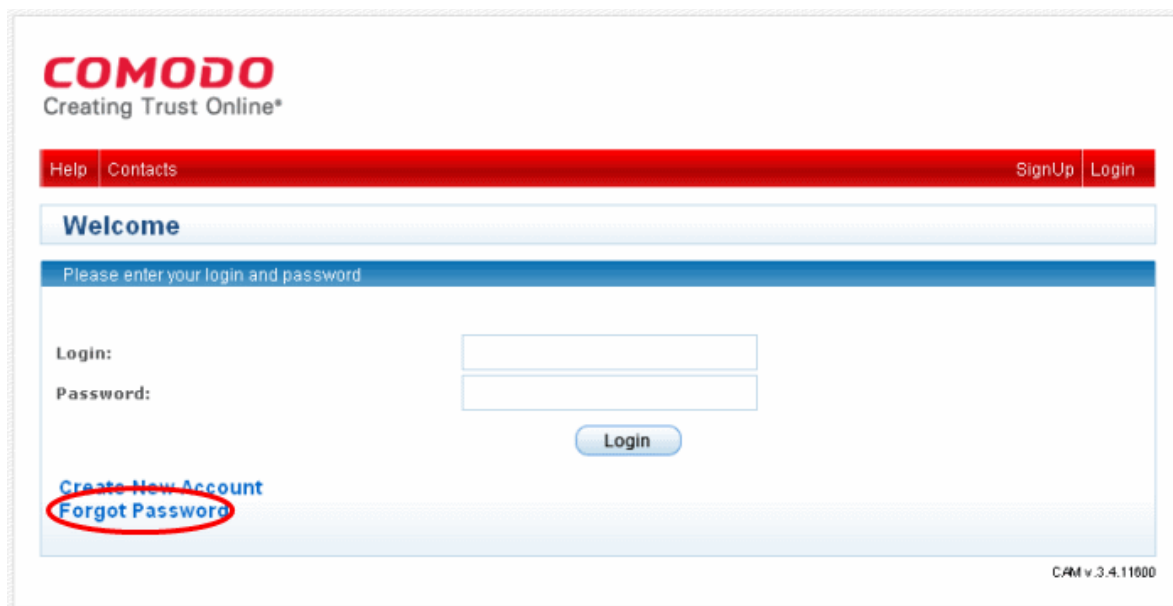
The 'Contact Us' page contains telephone numbers and email addresses for contacting Comodo for purchasing Comodo Products and Services and to get Product Support.

5.6. Troubleshooting Login Problems

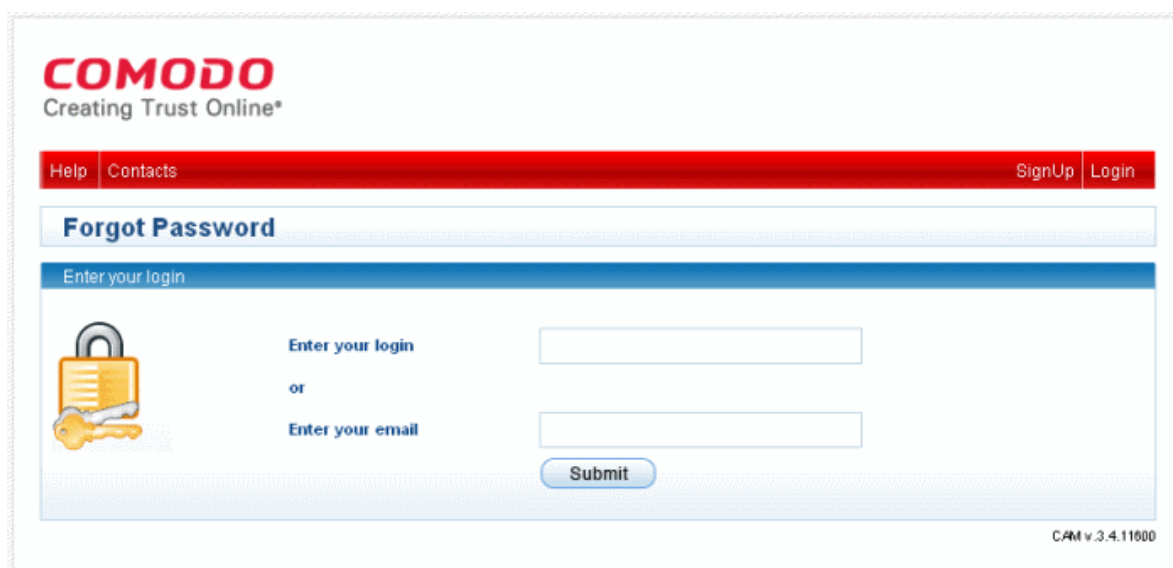
Problems logging into your Comodo Online Storage (COS) account via the Comodo Backup 4.0 interface could be because you have forgotten your COS password or the password may be wrong.

Retrieving a Forgotten Password

If you have forgotten your password, please use the 'Forgot Password' link at <https://accounts.comodo.com/login>.



- Enter your username or your valid email address (registered with your account) and click 'Submit'.

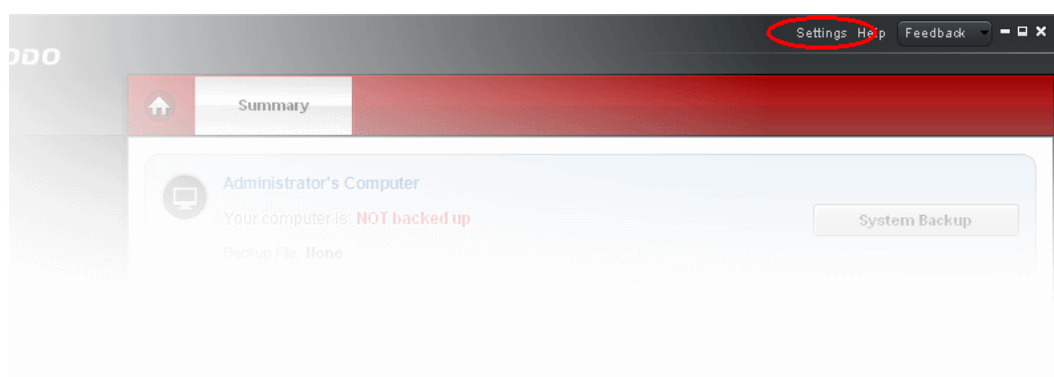


An email will be sent to the specified email address. Follow the instructions in the email to change your password. You will be able to login to your account with your new password.

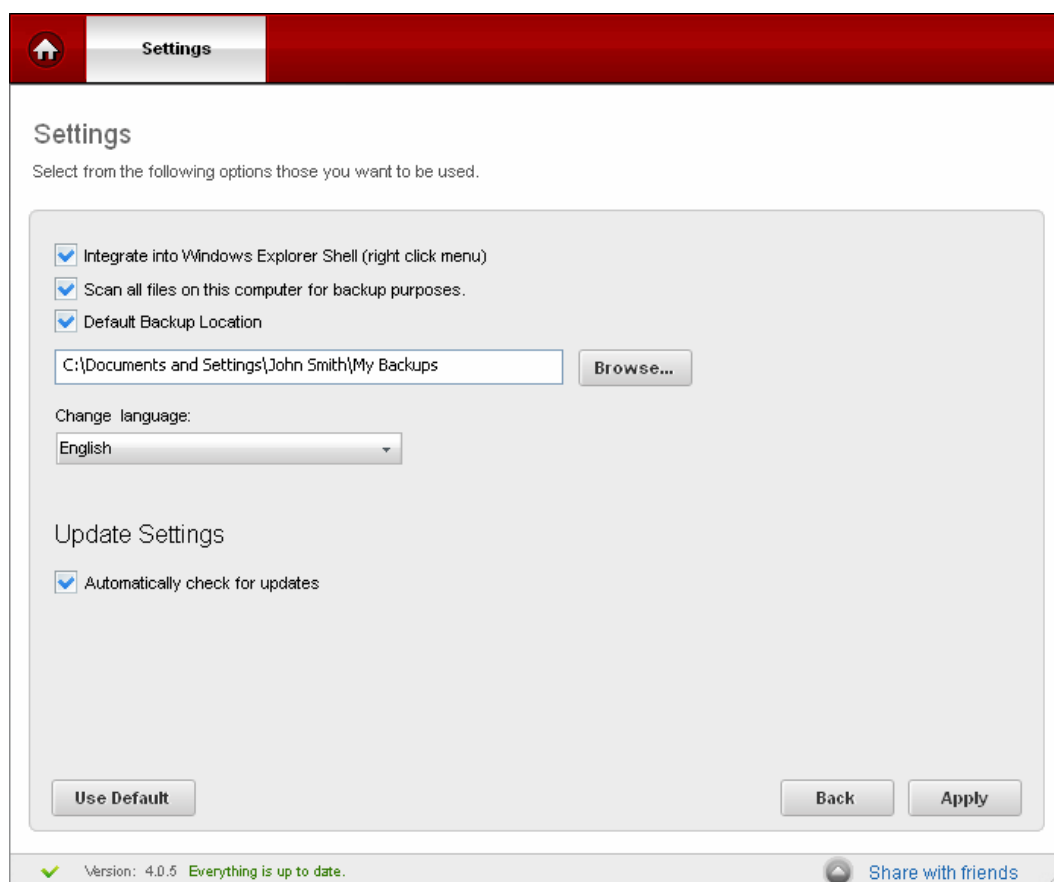
6. Comodo BackUp Settings

The 'Settings' area in Comodo BackUp allows you to configure the miscellaneous settings concerning the overall behavior of the application.

To access the settings area, simply click the Settings tab from the title bar.



The 'Settings' panel will open.



You can configure for the following in the Settings panel:

- Integration to Windows Explorer**
- Scan all files on this computer for backup purposes**
- Default Backup Location**
- Change Language**
- Update Settings**

Integration to Windows Explorer

By default, Comodo BackUp application is integrated to Windows Explorer Shell, so that:

- You can directly start the backup operation of a drive partition, folder or file onto any desired location by right clicking on the item from Windows Explorer window and selecting 'CBU Backup' from the context sensitive menu;
- You can directly start the backup operation of a drive partition, folder or file onto Comodo Online Storage by right clicking on the item Windows Explorer window and selecting 'Online Backup' from the context sensitive menu;

- You can directly start the restore operation of a backup file (file with .cbu extension) by right clicking on the item and selecting 'CBU Restore' from the context sensitive menu;
- You can directly mount a backup file as a virtual drive in your system by right clicking on the item and selecting 'CBU Mount' from the context sensitive menu;

If you do not want to have CBU integrated to your Windows Explorer, uncheck the 'Integrate into Windows Explorer Shell (right click menu)' check box.

Scan all files on this computer for backup proposes

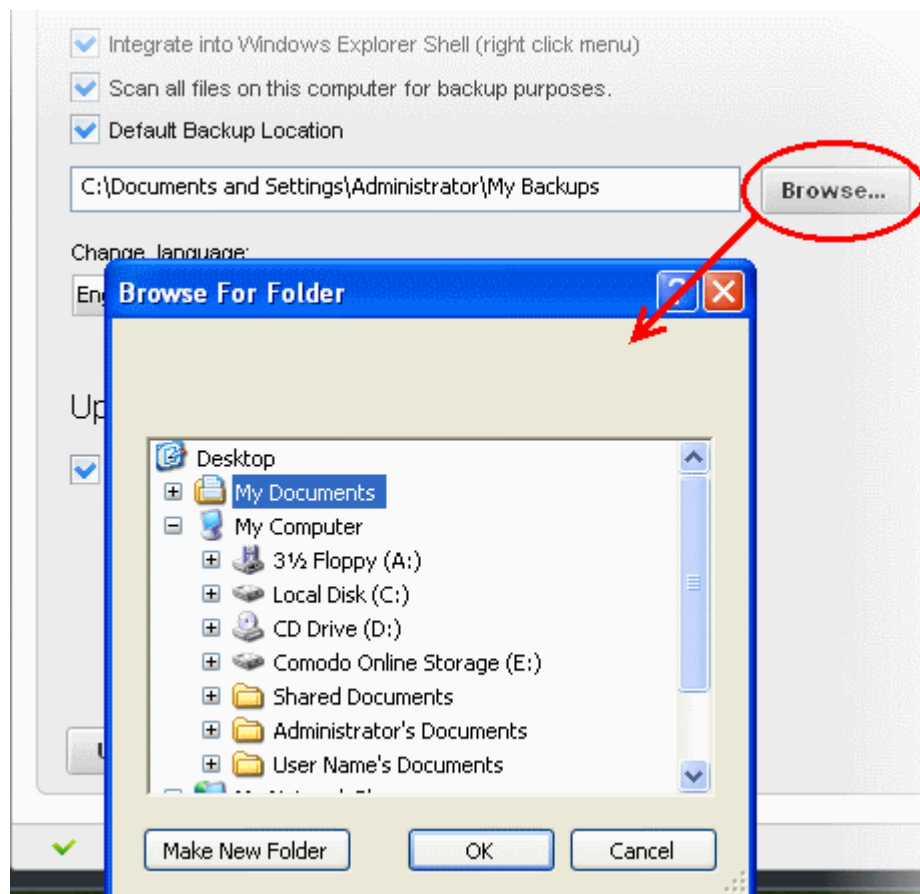
By default, Comodo Backup scans your system in real time to identify new files added and the files modified for backup operations under relevant **pre-defined profiles**. If you do not need this option deselect the 'Scan all files on this computer for backup purposes' checkbox.

Default Backup Location

Comodo BackUp allows you to define a default location for storing the backup files when using the predefined backup profiles. The application is shipped with a default location C:\Documents and Settings\<User name>\My Backups\filename.cbu.

To set a default location of your choice

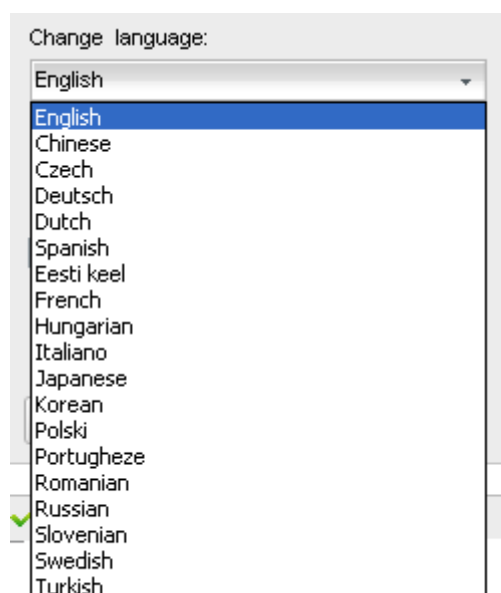
1. Ensure that the 'Default Backup Location' checkbox is selected.
2. If you want to change the default location, select the 'Browse' button...



...and navigate to the location of your choice.

Change Language

Comodo Backup is available in several languages. You can select the language in which you want the application by choosing it from the 'Language' drop-down menu. (**Default = English**).



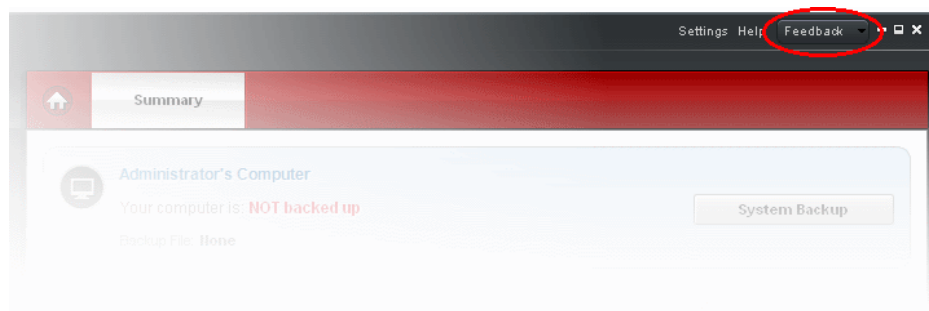
Update Settings

Automatically check for updates - Starts the process of searching for latest updates for Comodo BackUp from the Comodo servers whenever the application is started and prompts you to download and install the updates, if available.

- Click 'Apply' for your settings to take effect.
- Click 'Use Default' to clear your selections and rollback the applications to default settings.
- Click 'Back' to return to your previous window.

7. Comodo BackUp Feedback

The feedback feature allows users bi-directional communication with the Comodo BackUp development community and can be used to quickly offer feedback, comments and suggestions about the software. The feedback feature is present throughout the application and allows you to simply register a Like/Dislike comment by clicking the appropriate button and (optionally) to send us a comment about your impressions of the software. If you do choose to leave a comment then any replies from the developers will be displayed within in the Comodo BackUp interface itself. Every message reaches our developers and Comodo makes great efforts to take every comment into consideration and to reply to our users. Developers and testers will interact directly with you though the application interface and suggestions for new features may well be implemented in future versions of the product.

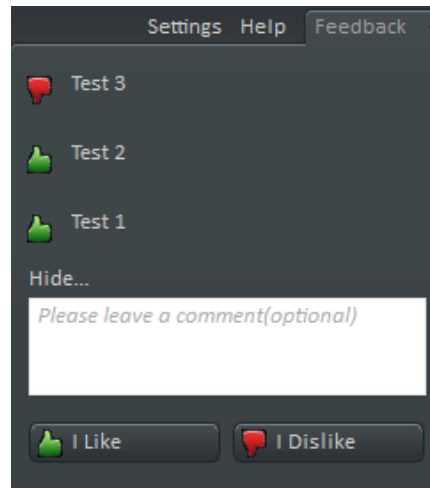
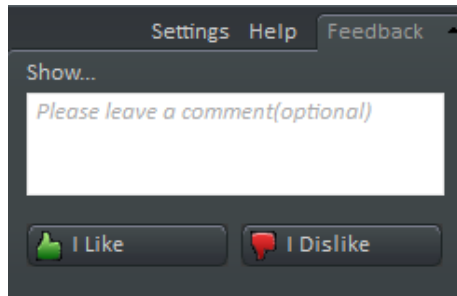


Integrating the ability to provide software feedback in such a direct fashion allows our users to raise issues and suggestions more quickly, improves our ability resolve problems faster and ultimately allows us to produce a product that truly reflects the requests of our users.

Refer the next topic '[How to leave Feedback](#)' to provide your comments and feedbacks.

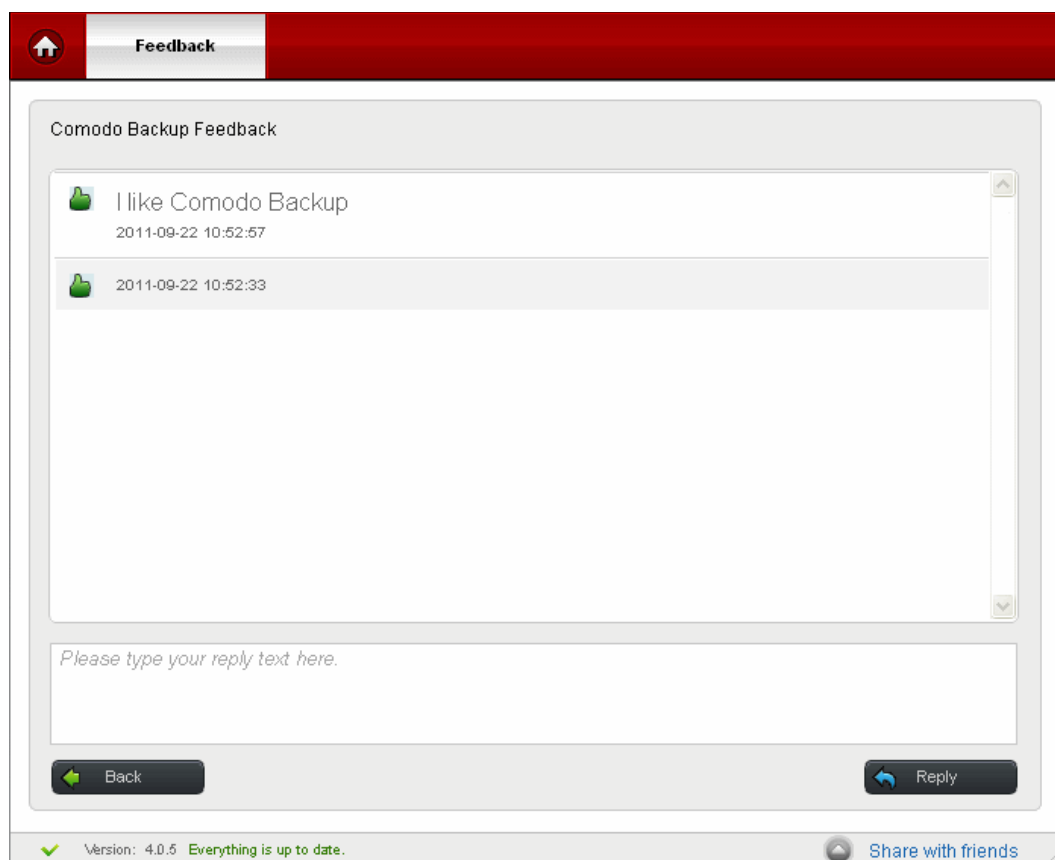
7.1. How to leave Feedback

To open the feedback interface, simply click the 'Feedback' menu item at the top right of the Comodo BackUp interface (see screenshots below).



Click the 'I Like' or 'I Dislike' buttons to send a quick notice of your approval or disapproval with the application in general. If you would like to be more specific then please type a comment in the field provided before clicking the 'I Like' or 'I Dislike' button. Your message will be immediately sent to our developers.

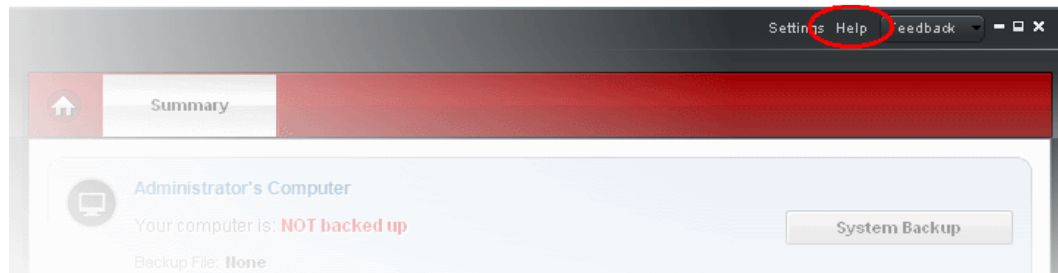
- Click on any of the feedback in the list to view all the feedbacks and responses, including your own as shown below:



- Enter your response or comments in the text box in the lower part of the pane and click 'Reply'
- Click the 'Back' button to return to the main interface.

8. Using Live Help

Comodo GeekBuddy is a remote assistance service offered by Security Experts in Comodo who can access your computer through their Remote Desktop. Should you need any assistance or encounter a problem with your system, you can get an immediate solution from our computer experts by clicking the Help link from the Main interface of Comodo BackUp.



Click on Help link from menu bar and then click on the second button 'Get help from a Geek Buddy' and you will automatically install the GeekBuddy in your system.



GeekBuddy includes the following services:

- **Virus Diagnosis / Removal** - Scanning your PC to check for viruses and spyware. Automatic/manual removal of the detected viruses.
- **PC Tune Up** - Running full scans to evaluate issues affecting your computer's performance. Fine Tuning key areas and improving speed and stability.
- **Internet Login Protection** - Activating your computer's basic security settings to prevent loss of sensitive data and identity theft.
- **Email Account Set Up** - Setting up your Internet-based email account - any provider, any account. Great for new computers and novice email users.
- **Software Installation** - Installing your Comodo products and customizing configuration for maximum security protection and efficiency.
- **Printer Set Up and Troubleshooting** - Installing or updating software and printer drivers, checking ink levels and configuring your printer to work on a wireless or wired network.

- **Green PC** - Optimizing your power management setting based on how you use your computer. Go green and save money on your electric bill.
- **Computer Troubleshooting** - Checking basic hardware conflicts in Windows.

For more details, refer to:

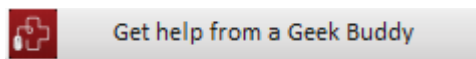
- [Installing GeekBuddy Client](#)
- [Launching and Using the Service](#)

8.1. Installing GeekBuddy Client

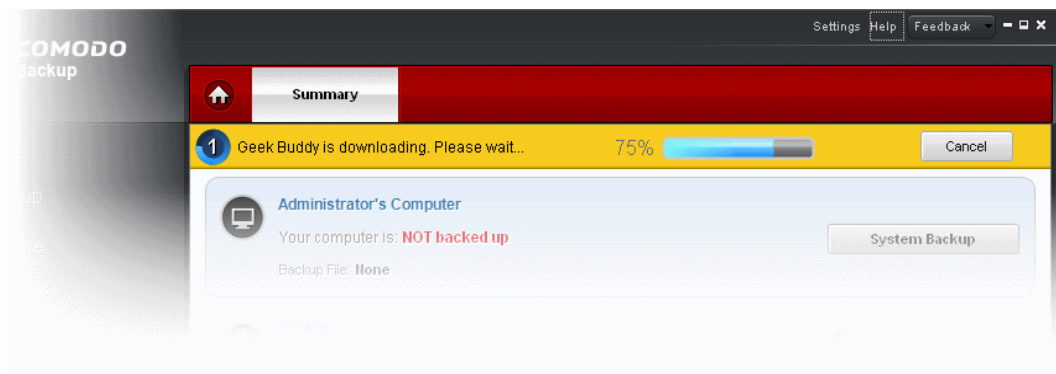
Getting support from a Geek Buddy needs a GeekBuddy Client installed in your system.

To install the GeekBuddy Client

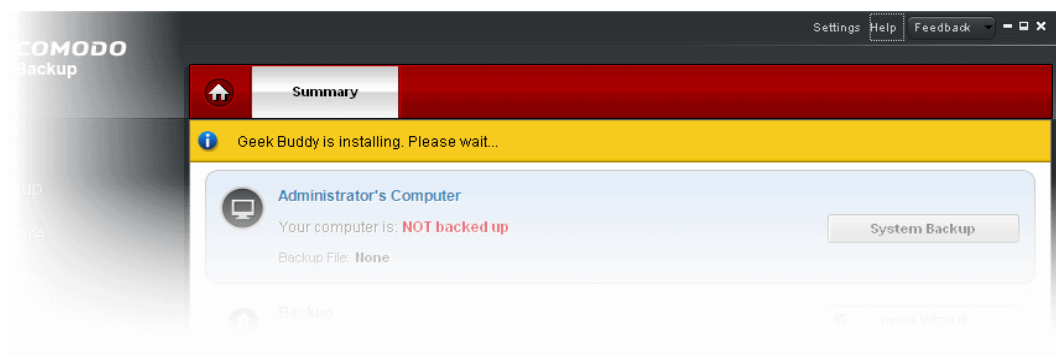
- Click the Help link from Comodo Backup main Interface.
- Click the second button from Help window.



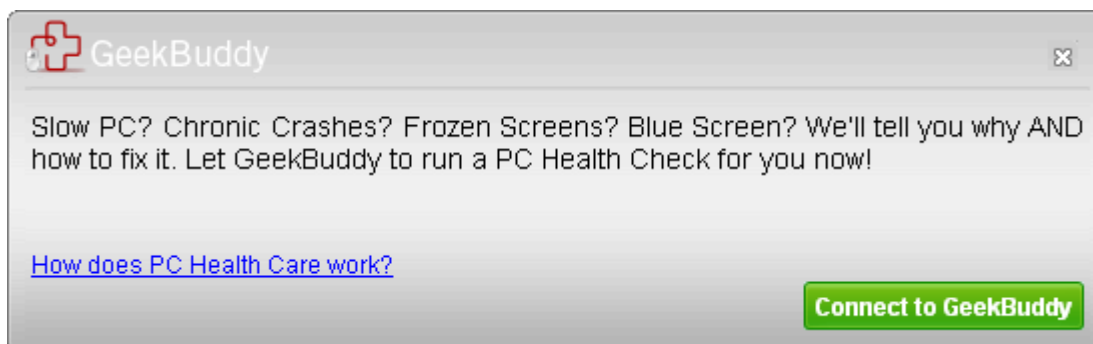
- The application will detect whether the client is installed in your system. If not, the application will download the GeekBuddy client.



- After the download, the software will be installed automatically.



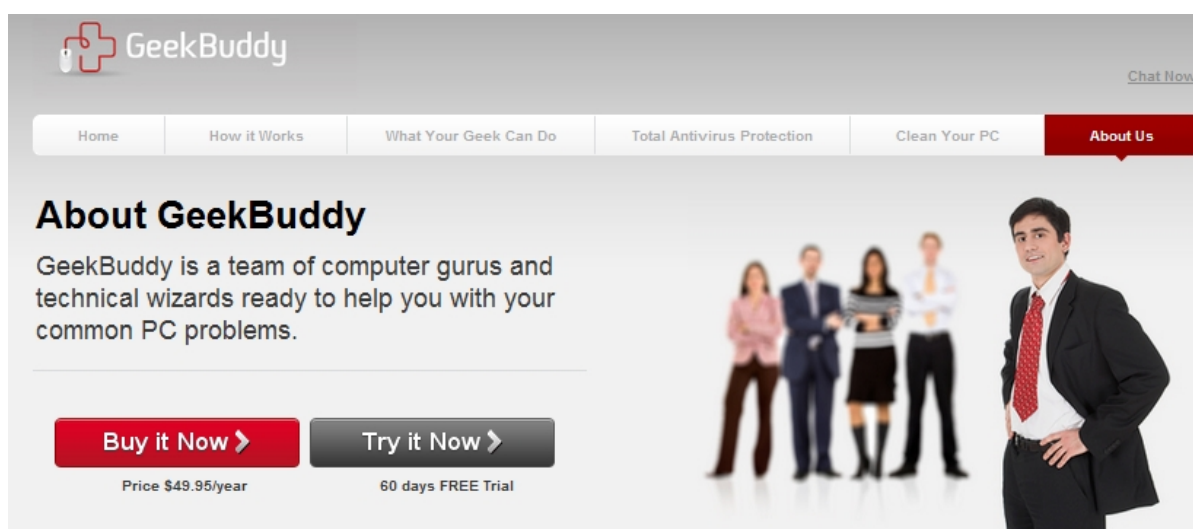
- GeekBuddy will be launched immediately and a message will appear in the right corner of your monitor.



After installation, you can launch the Geek Buddy from your desktop shortcut icon or from the start menu and chat with a Comodo Computer Support Technician any time.



You can also download the GeekBuddy client from <http://www.GeekBuddy.com/about.php> and purchase it or try it for free for a period of 60 days.



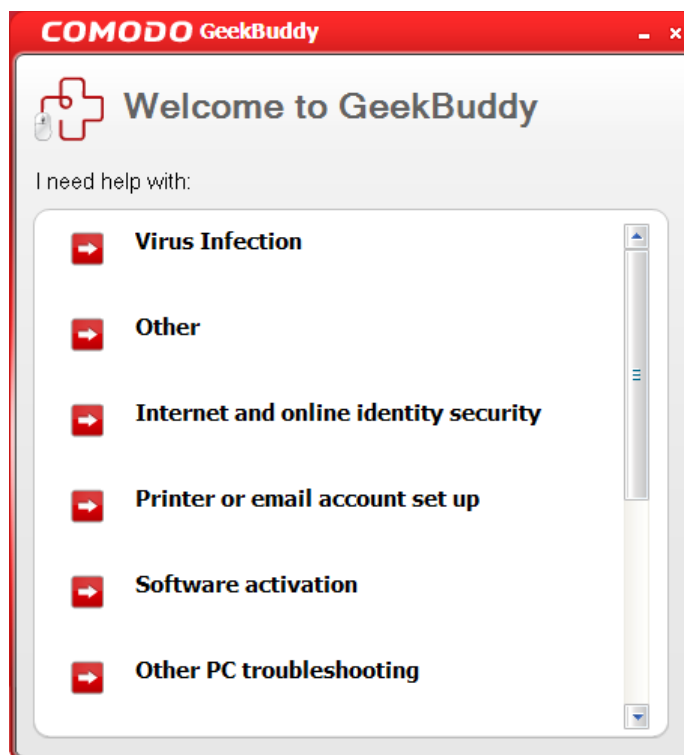
Click on **Try it Now** button to start the free download Comodo GeekBuddy client.

8.2. Launching and Using the Service

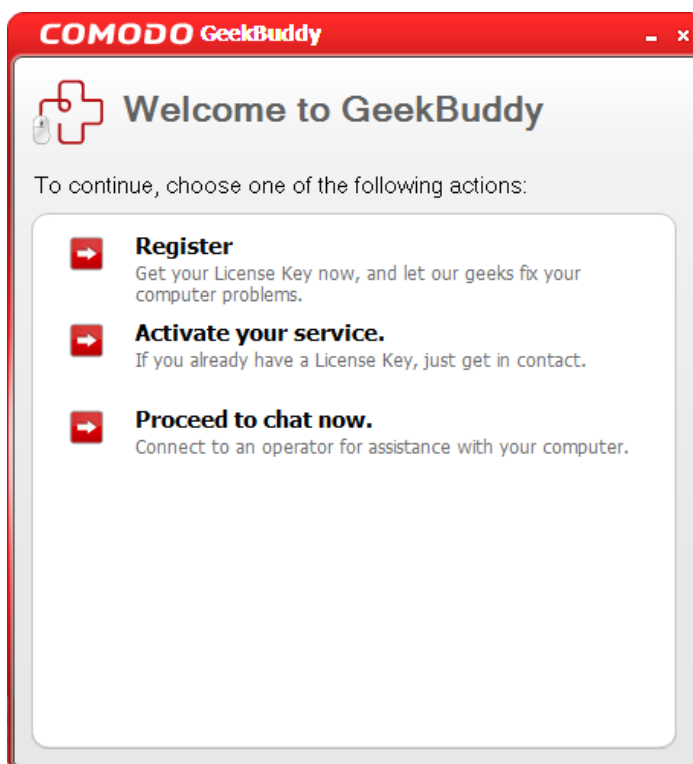
You can open the GeekBuddy client in one of the following methods:

- From Comodo Backup interface - > Help Option - > 'Get help from a Geek Buddy' button
- You can access the GeekBuddy by double clicking on the shortcut icon to GeekBuddy from the desktop;
- Click on the 'GeekBuddy' system tray icon or launch GeekBuddy from the Start Menu. Click 'All Programs > COMODO > GeekBuddy > Comodo GeekBuddy'.

The GeekBuddy options dialog will be displayed:



Select the type of service you need, so that you will be connected to a technician trained to provide the support that you have requested. Clicking any of the options will open the registration screen. Please take a moment to register (if you downloaded GeekBuddy) and activate your license.



You will be connected to a technician trained to provide the precise support you have requested. Clicking any of the options will open the registration screen.

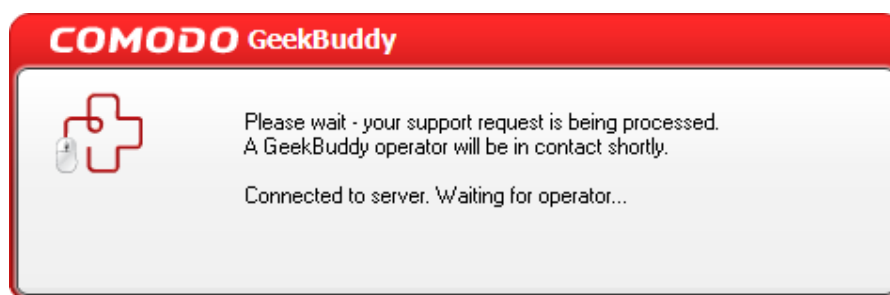
Register - Click the 'Register' link from the Registration screen. You will be taken to the GeekBuddy sign up page. After you complete the sign up steps, your license key will be sent to you by email. Once you have registered, you have to activate your services.

Activate your service - Start the GeekBuddy client and click the service of your choice from the Welcome screen. The Registration screen will appear.



The image shows a window titled "COMODO GeekBuddy" with a red header bar. Inside the window, there is a logo on the left consisting of a red cross with a mouse cursor icon. To the right of the logo, the text "GeekBuddy" is displayed. Below this, a message reads: "Please enter your License Key to connect to a PC expert. Your License Key is included in your order confirmation." Underneath, there is a label "Please enter your License Key:" followed by a text input field containing the value "A1BC234D". At the bottom of the window, there is a small note: "If you can't find your License Key, please send an email to: geekbuddysupport@comodo.com". Two buttons, "Next" and "Cancel", are located at the bottom right of the window.

Proceed to chat now - The easiest and fast way to get the services is by clicking the 'Proceed to chat now' link. Within seconds, a Comodo Support Technician will respond in a chat window and ask you to describe the problem.



The image shows a window titled "COMODO GeekBuddy" with a red header bar. Inside the window, there is a logo on the left consisting of a red cross with a mouse cursor icon. To the right of the logo, the text reads: "Please wait - your support request is being processed. A GeekBuddy operator will be in contact shortly." Below this, it says: "Connected to server. Waiting for operator...".



Explain your problem. The technician will access your computer through a remote desktop and fix any problems. GeekBuddy is free for 60 days.

9. Using the Command Line Interface and Script Files

Comodo Backup allows users to operate its backup, restore and scheduling functionality from the Windows command line interface. Command lines (and sequences of command lines) for backup and restore tasks can also be saved as a script file (.txt format) which can be called to execute the task from the command line interface.

To access the Windows command line interface

- Click Start > All Programs > Accessories > Command Prompt.

or

- Click Start > Run, type 'cmd' in the Run interface and click 'OK'.

Click the links below for more details on the tasks executed from the Command Line Interface:

- **Running a Backup Task from the Command Line Interface**
- **Running a Restore Task from the Command Line Interface**
- **Running a Scheduled Backup Job Instantly from the Command Line Interface**
- **Running Backup/Restore Tasks using Script Files**

Note: The command lines that has more than 260 characters including path to CBU.exe will not work, so use script files to avoid this limitation.

9.1. Running a Backup Task from the Command Line Interface

- Open the Windows command line interface
- Commands are specified in the format

<installation path>/ <executable>/ <command #1> <command #2>

So the path to the executable is followed by commands for the configuration of the backup task in sequence with space between each switch command. For example, if Comodo Backup has been installed to the default directory, the format would be:

C:\Program Files\COMODO\COMODO BackUp\CBU.exe /command#1 /command#2.

Note: The Commands and the arguments are not case sensitive and can be arranged in any order.

Table of backup commands and arguments

Backup Commands and Arguments	
Command / Argument	Description
/backup_operation	Standard backup operation command.
/backup_type <backup type>	Specifies the type of backup. Can be full , incremental or differential backup.
/parent_backup_backup_type <destination type>	Specifies the destination type of the parent backup if any. (Use for incremental and differential type backups). Parameters same as for /destinationType command.
/parent_backup_path <full path>	Specifies the full path for the parent backup file if any. (Use for incremental and differential type backups). Encapsulate in quotes.
/parent_incremental_snapshot_no <number>	Specifies the incremental snapshot number from the parent backup (for backup containing multiple snapshots). This command is optional.
/parent_backup_connection_password <password> and /parent_backup_connection_username <username>	Specifies for incremental and differential backups that have parent backups on destinations like Ftp or Comodo Online Storage. Encapsulate the parameters in quotes.
/type <backup source type>	Specify the backup source type. It can be one of the following: "disk" - To backup an entire disk. "partition" - To backup a disk partition.

Backup Commands and Arguments	
	<p>“filesandfolders” - To backup selected files or folders.</p> <p>“regkeys” - To backup selected registry keys and values.</p> <p>“entirereg” - To backup the entire registry.</p> <p>“user” - To backup Windows system settings configured by the user and all user related files like files in 'My Documents', 'My Pictures' etc.</p> <p>“email” - To backup emails in your inbox and client settings of your email clients like Mozilla Thunderbird, Eudora, Microsoft Outlook 2003, Microsoft Outlook 2007, Windows Live Mail, Outlook Express etc.</p> <p>“messenger” - To backup messenger archive like the history of all conversations, conferences, calls, etc. of Instant Messenger (IM) clients like Windows Live Messenger, Skype, Yahoo! Messenger and Pidgin.</p> <p>“system” - To perform a system state backup. All the folders and files that are installed with the version of Windows currently in-use, are copied. This includes all the user settings, registry, all user accounts, etc. For example, If the Windows is installed on drive C:\ then this can backup 'C:\WINDOWS', 'C:\Users', 'C:\Program Files' and all files on 'C:\' that are necessary for Windows to boot.</p>
/source <actual source>	<p>Specify the actual source data to be backed up. Depending on the source type selected the <actual source> can be one of the following:</p> <p>disk backup - “diskN” where N is an integer number representing the disk number. (E.g. /source disk3)</p> <p>partition(s) backup - A list of the partition(s)'s drive letters separated by commas “,”. (E.g. /source E, F)</p> <p>files and folders backup - A list of paths of the files or folders separated by “ ” (within the the quotation marks). (E.g. /source “C:\folder D:\123.txt ”)</p> <p>custom registry keys backup - A list of the keys to be backed up with in the quotation marks. (E.g. /source “HKEY_LOCAL_MACHINE\SYSTEM\123 ”) If one of the path represents a value rather than a key , prefix “V” before the path (E.g. “\HKEY_LOCAL_MACHINE\Software\value2”).</p> <p>entire registry backup - No need for specifying because there can only be one source.</p> <p>user settings backup - No need for specifying because there can only be one source.</p> <p>email backup - A list of email clients using the predefined macro's : THUNDERBIRD (for Mozilla Thunderbird), EUDORA(for Eudora), WL_MAIL(for Windows Live Mail), OUTLOOK2003 (for Microsoft Outlook 2003), OUTLOOK2007 (for Microsoft Outlook 2007), OUTEXP (for Outlook Express), W_MAIL(for Windows Mail). (E.g. /source OUTLOOK2003)</p> <p>instant messenger backup. A list of instant messengers using the predefined macro's : YAHOO_MESS (for Yahoo Messenger), SKYPE (for Skype) , WL_MESS (for Windows Live Messenger), PIDGIN (for Pidgin). (E.g. /source SKYPE, WL_MESS)</p> <p>system backup. No need for specifying because there can only be one source.</p>
/backupStepSize <backup step size>	<p>Specify this only for disk or partition backup. (Eg. /backupStepSize 65536).(valid values are: 65536, 131072, 262144, 524288 and 1048576). This command is optional. Default value is 65536;</p>
/backupFreeSpace	<p>Specify this only for disk or partition backup, if you want to backup the free space in the selected disk or partition. Including the free space in the backup enables to recover even deleted files from the drive upon restoring the backup, using your preferred file recovery software. This command is optional.</p>
/simpleCopy	<p>Specify this for files and folders if you want to preserve the backup copy of the file in the</p>

Backup Commands and Arguments	
	original file format. This command is optional.
/simpleCopyToZip	Specify this if you want the files and folders type backup to be saved in zip format. Optional. Default value is FALSE(cbu format).
/syncSimpleCopy <updateInterval>	Specify this only for files and folders if you want to preserve the backup copy of the file in the original file format and to update it along with the source. Set the update interval in minutes so that Comodo BackUp checks the source file for updates at the set interval and update the copy if any update is found. (E.g. /syncSimpleCopy 5) This command is optional. If this option is enabled /scheduleTask is not available.
/selfExtracting	Specify this if you want the backup to be stored as a self extracting .cbu file. Available for files and folders and registry entries type backup. Optional(default backup type is .cbu format).
/regFile	Specify this for only for custom registry backup, if you want to preserve the backup in .reg format.
/backupRegAttributes	Specify this for only for custom registry backup, if you want to the backup security attributes too. This command is optional.
/exclusionFilter <filters>	Specify this only for files and folders if you want to exclude certain file types from being backed up. Provide a list of file types using wildcard characters separated by " " within the quotation marks. (E.g. /exclusionFilter "*.bak *a* ..."). This command is optional.
/inclusionFilter <filters>	Specify this only for files and folders if you want to include only certain file types to the backup. Provide a list of file types using wildcard characters separated by " " within the quotation marks. (E.g. /inclusionFilter "*.txt *a* ..."). This command is optional.
/compressionLevel <level>.	Specify this to set the compression level for the backup file. The options available are low, medium, high and maximum. Higher the compression level, lower the disk space requirement. This command is optional. Default value is no compression. (E.g. /compressionLevel medium) Note - This option is not available for /simpleCopy and /syncSimpleCopy commands.
/encryptionPassword <actual password>	Specify a password, if you want to encrypt your backup. Include the password within quotation marks. (E.g. /encryptionPassword "password"). This command is optional. The file is not encrypted by default. Note - Providing a password protection requires the password to be entered while restoring the backup and also encrypts the backup with an encryption algorithm you choose. This is useful when you are creating a backup job for your confidential files/folders.
/encryptionAlgorithm <encryption algorithm>	Select an algorithm to be used for encrypting your backup. The options available are AES, Serpent, XOR, Blowfish, DES, 3DES, Twofish. Include the selected algorithm within quotation marks. (E.g. /encryptionAlgorithm "Serpent"). If this command is not specified but /encryptionPassword is specified, then the default algorithm is AES. For more details on the Encryption Algorithms, see Appendix 1 Encryption Algorithms .
/reCheckPassword	If this command is set, the encryption password is asked every time when the scheduled backup is executed. This is equivalent to un-checking the "Remember backup password (unsafe)" check box in the Schedule Settings GUI of Step 3 - Backup Settings during creation of a backup job.

Backup Commands and Arguments	
/split <split size>	Specify this command if you want to split the backup into smaller segments. This is useful when you are taking backups of very large sizes , in removable media like CD's, DVD's, ZIP drives, USB drives etc. You can set the maximum files sizes of the segments to fit to the media you choose. The files can be rejoined while restoring the backup. Minimum size is 5 MB. This command is optional. The backup file is not split by default.
/locked_files_treatment <treatment>	Specifies the handling type of locked files(in use etc.) . Can be vss, rawread or skip. This parameter is optional. Default value is vss.
/description <description>	You can provide a description for the backup like the purpose of the backup etc. This description is displayed on the 'History' panel of Comodo BackUp interface to remind you on the purpose of backup etc. Include the description within the quotation marks. (E.g. /description "this is my first backup").
/destinationType	Specify the type of destination. The options available are: /destinationType Disk File or /destinationType1 (for storing the backup in your hard drive locally); /destinationType Ftp or /destinationType 3 (for storing the backup in a FTP location); /destinationType Network or /destinationType 7 (for storing the backup in a network computer).
/destinationPath <backup destination>	Specify the destination for the backup file within quotation marks .(E.g. /destinationPath "D:\backup\file.cbu" (local backup), /destinationPath "\\user1\upload\backup.cbu" (network destination), /destinationPath "ftp://ftp.funet.fi/pub/standards/folder/backup.cbu" (ftp server destination))
/remote_username <user name>	Specify the user name for a network or ftp backup destination. Include the user name within quotation marks. This command is required only if the remote computer / ftp server requires a username. (E.g. /remote_username "user1")
/remote_password <password>	Specify the password for a network or ftp backup destination. Use in conjunction with /remote_username. This command is only required if the remote computer / ftp server requires a password. (E.g. /remote_password "password")
/emailNotification	Set email notification to be sent. The Command is optional. No notification is sent by default. Comodo BackUp can send email notifications on execution of each backup job. You can configure CBU to send notifications to yourself, or create a mailing list of other people like your team members, to be informed of the backup. You can also configure whether the email notifications are to be sent only on successful creation of backup, only on failure or both.
/onSuccess	Specify to Send email on successful backup operation. Used in conjunction with /emailNotification.
/onFailure	Specify to Send email if the backup operation fails. Used in conjunction with /emailNotification.
/smtpServer <smtp server>	Specify smtp server for email notification. (E.g. /smtpServer my.outgoing.server.com)
/subject <email subject>	Specify the subject of the email to be sent on success or failure. Used in conjunction with /emailnotification. (E.g. /subject "CBU Notification")

Backup Commands and Arguments	
/sender <email address of sender>	Specify the email address of the sender of the email notification. Used in conjunction with /emailnotification. (E.g. /sender "yourname@yourdomain.com")
/recipient <email address of recipient>	Specify the email address(es) of the recipient(s) of the email notification. Used in conjunction with /emailnotification. (E.g. /recipient "user1@domain.com, user2@somemail.com")
/emailUsername <user name>	Specify the user name for email notification. Include within quotation marks. Used in conjunction with /emailnotification. (E.g. /emailUsername "yourusername")
/emailPassword <password>.	Specify the password for email notification. Include the password within quotation marks. Used in conjunction with /emailnotification. (E.g. /emailPassword "password")
/runTaskBefore <path>	<p>Set a task to be executed before the execution of the backup job. Specify the path of the file to be executed within quotation marks.</p> <p>Note: Comodo Backup allows you to run specific tasks before and/or after every manual or scheduled backup. For example you may want to run a virus scanner before backing up to avoid potentially infecting the destination folder. You can even mount an unmounted drive partition before backup to enable storing the backup file in the partition and unmount the partition on completion of the backup process by running a batch file with a list of corresponding Windows commands, play music files to indicate start and/or completion of the backup operation etc.</p>
/runTaskAfter <path>	Set a task to be executed after the execution of the backup job. Specify the path of the file to be executed within quotation marks.
/shutdown	Specify this option only if you want your system to be shutdown on completion of the backup job. This command is optional. The computer is not shut down by default.
/scheduleTask	Specify a schedule for the backup.
/schedule_mode <mode>	<p>Specify the schedule mode. Used in conjunction with /scheduleTask. The schedule mode can be one of the following:</p> <p>Once - The backup job is executed once at the set date and time.</p> <p>Manual - Allows you to execute the backup job at any time you wish.</p> <p>Atlogon - Executes the created backup job every time when the user logs on to the computer.</p> <p>Daily - Executes the created backup job every day at the set time.</p> <p>Weekly - Executes the created backup job on selected day(s) of every week at the set time.</p> <p>Monthly - Executes the created backup job on selected date of every month at the set time.</p> <p>WhenIdle - Executes the created backup job whenever the system goes idle with a set delay.</p>
/rememberPassword	Specify this command if the password should be remembered (only for network or ftp type destination) for the scheduled backup. Used in conjunction with /scheduleTask. This command is optional.
/rememberUser	Specify if the user name should be remembered (only for network or ftp type destination) for the scheduled backup. Used in conjunction with /scheduleTask and /rememberPassword. This command is optional.

Backup Commands and Arguments	
/scheduleSettings <settings>	<p>Specify the schedule settings (interval, date, time, day, etc.). Used in conjunction with /scheduleTask. Depending on the schedule mode the options are:</p> <p>for "once" the format is : "DAY\MONTH\YEAR_HOUR:MINUTE".</p> <p>for "daily" the format is : "HOUR:MINUTE".</p> <p>for "weekly" the format is : "WEEKDAY[WEEKDAY]...[_]_HOUR:MINUTE".</p> <p>for "monthly" the format is : "DAYOFMONTH_HOUR:MINUTE".</p> <p>For "whenIdle" the format is : "NUMBEROFSECONDSWAITBEFOREIDLE".</p> <p>/scheduleSettings is optional for whenIdle mode. Default value is 0.</p> <p>for the rest there are no settings to be set.</p> <p>Time format is 24 hours style.</p>
/backupNow	<p>Specify if the scheduled backup should also be run at the moment. Use in conjunction with /scheduleTask. This command is optional. The default behavior is only to create the schedule and finish.</p>
/handleMissedSchedule <no of option>	<p>Specifies in what way a missed scheduled backup should be treated. Options available are:</p> <p>NO_ACTION = 1 (no action is taken),</p> <p>RUN_TASK = 2 (the scheduled task is run when the user opens the Comodo BackUp application for the next time),</p> <p>NOTIFY = 3 (notifies the user that a scheduled task has been missed).</p> <p>(E.g. /handleMissedSchedule 1) Use in conjunction with /scheduleTask . This Command optional. Default value is no_action.</p>
/guiRunMode	<p>Specifies the way the user interface should behave on completion of a scheduled backup. Options available are:</p> <p>/guiRunMode Normal or /guiRunMode 1 (for normal run mode),</p> <p>/guiRunMode AutoClickFinish or /guiRunMode 2 (On successful completion of the backup process, the 'Finish' button is effectively be clicked automatically so that the application returns with its main interface. The application is not closed until you click the close button from the Windows controls.),</p> <p>/guiRunMode AutocloseGUI or /guiRunMode 3 (On successful completion of the backup job, the application is closed automatically)</p> <p>/guiRunModeSilentRun or /guiRunMode 4 (Comodo BackUp is run at the background at the scheduled time to execute your backup job),</p> <p>/guiRunModeServiceModeRun or /guiRunMode 5 (Comodo BackUp is run as a Windows Service so that the backup job is executed at the background automatically even if you are not logged in)</p> <p>/guiRunModeMinimizeToTray or /guiRunMode 6 (On successful completion of the backup job, the application GUI is minimized to system tray)</p> <p>Used in conjunction with /scheduleTask. Command is optional. Default value is /guiRunModeAutoClickFinish.</p>
/secondsToWait <number of seconds>	<p>Specify number of seconds to wait before a logon type scheduled backup. Use in conjunction with /scheduleTask /Atlogon. This command is optional. The default value is 0.</p>
/log <log file path>	<p>Specify the log file path if you want the log of the events to be stored in a text file. Include the log file path within quotation marks. (E.g. /log "C:\Documents and Settings\username\My Documents\cbulog.txt"). If no parameter(<log file path>) is set, the log file is created in the</p>

Backup Commands and Arguments	
	default COMODO Backup folder. Note - It is recommended to setup a log file when running a backup job from the command line interface as it enables you to check the success or failure of the backup job at a later time.
/disc_label	Specifies the optical disc label if the user has chosen an optical disc as a backup destination. This command is optional.
/burn_speed	Specifies the burning speed for the optical drive where the user has select to store the backup. This command is optional.
/eject_disc	Specifies if the optical disc should be ejected after the backup is complete. This command is optional.
/silentRun	Specify this command if you want the backup operation to be performed silently. Otherwise the GUI will open directly at step 6 and the operation will start.
/waitBeforeTask	To be used in conjunction with /runTaskBefore parameter. If present, it specifies that the task to run before backup should be waited to complete.
/waitAfterTask	To be used in conjunction with /runTaskAfter parameter. If present, it specifies that the task to run after backup should be waited to complete.

Examples:

To backup the emails and settings of your Outlook 2003 mail client in another computer in your network every Monday at 6:00 pm, you can enter the command line as follows:

```
"C:\Program Files\COMODO\COMODO BackUp\CBU.exe /backup_operation /type email /source OUTLOOK2003 /destinationType 7 /destinationPath "\\user1\myusername\emailbackup.cbu" /remote_username "user1" /remote_password "password"/scheduleTask /schedule_Mode weekly /scheduleSettings Monday_18:00 /guiRunMode 1"
```

To backup your files in My Documents folder, excluding the .bak files, in encrypted form and in your F: drive daily at 7:00 pm, you can enter the command line as follows:

```
"C:\Program Files\COMODO\COMODO BackUp\CBU.exe /backup_operation /type filesandfolders /source "C:\Documents and Settings\username\My Documents" /destinationtype 1 /exclusionfilter "*.bak" /destinationpath "f:\mydocumentsbackup.cbu" /encryptionPassword "password" /encryptionalgorithm "AES" /scheduleTask /schedule_mode daily /scheduleSettings 19:00 /runmode 1"
```

Note: The command lines that has more than 260 characters including path to CBU.exe will not work, so use script files to avoid this limitation.

9.2. Running a Restore Task from the Command Line Interface

- Open the Windows command line interface
- Commands are specified in the format

```
<installation path>/<executable>/ <command #1> <command #2>
```

So the path to the executable is followed by commands for the configuration of the restore task in sequence with space between each switch command. For example, if Comodo Backup has been installed to the default directory, the format would be:

C:\Program Files\COMODO\COMODO BackUp\CBU.exe /command#1 /command#2

Note: The Commands and the arguments are not case sensitive and can be arranged in any order.

Table of Restore Commands and Arguments

Restore Commands and Arguments	
Command / Argument	Description
/restore_operation	Standard restore operation command.
/destinationType <type>	Specify the type of destination. The options available are: <ul style="list-style-type: none"> /destinationType Disk File or /destinationType1 (for restoring a backup from your local hard drive); /destinationType Ftp or /destinationType 3 (for restoring a backup from a FTP location); /destinationType Network or /destinationType 7 (for restoring a backup from a network computer).
/backupFileDestination <destinationPath>	Specify the destination path from which the backup file has to be restored, within quotation marks .(E.g. /destinationPath "D:\backup\file.cbu" (local backup), /destinationPath "\user1\upload\backup.cbu" (network destination), /destinationPath "ftp://ftp.funet.fi/pub/standards/folder/backup.cbu" (ftp server destination))
/snapshot_to_restore <snapshot number>	Specifies the snapshot number to be restored (for multiple shapshot backups). This parameter is optional. By default the last snapshot will be restored.
/remote_username <username>	Specify the account user name for a network or ftp backup destination. Include the user name within quotation marks. This command is required only if the remote computer / ftp server requires a username. (E.g. /remote_username "user1")
/remote_password<password>	Specify the account password for a network or ftp backup destination. Use in conjunction with /remote_username. This command is only required if the remote computer / ftp server requires a password. (E.g. /remote_password "password")
/backupFile_password<password>	If the backup file is encrypted, specify the encryption password within quotation marks.
/verify	Specify this command if you want to check the integrity of the backup file before restoration. Can also be used in stand-alone mode without /restore command. When used in conjunction with /restore_operation, the backup file is first verified; if the verification is not successful the restore process does not continue. In stand-alone mode the following commands must be supplied: /destinationType, /backupFileDestination, /backupFile_password if file is encrypted, /remote_username and /remote_password if needed. This command is optional.

Restore Commands and Arguments	
/cleanRestore	<p>Specifying this command chooses the Clean Restore method in which all the files in the folder you specify as restoration location are deleted and the files from the backup are copied to the folder. For example if you want to restore a backup file to folder D:\Data, the folder D:\Data is deleted, then recreated with all files and folders in the backup.</p> <p>Note: The default method is Append Files, in which only those files having same file name as those in the backup are deleted and replaced with those in the restoration folder. Files having different file names from those in the backup, is kept intact.</p>
/selectiveRestore <selected paths>	<p>Specify which files from the backup to be restored. Can be used for files and folders, custom registry, email and instant messengers type backups. For files, folders and registry keys the paths must be included in quotation marks and separated by " ". For files and folders, the full path must be specified for the file/folder selected, as it was during the backup operation. For email clients and IM's use the predefined macros presented in /source command for "/backup_operation". This Command is optional. By default a full restore is performed. For partitions the selective restoration is performed through the /restoreLocation command. While specifying the restore location, specify only the partitions you want to be restored.</p>
/restoreLocation <location path>.	<p>Specify the restore location. For files and folders type backup specify the full path. For partitions and the format is: "C->Y D->X" where C, D are partitions that are to be restored and Y and X are the partitions where C and D are restored on. For disk backup specify only the disk where the backup is restored(Ex. "disk7"). If this command is not specified a restore is attempted on the default location. For file and folders restore location include the <location path> within quotation marks.</p>
/setNativeModeRestore	<p>Specifying this command schedules for a native mode restoration if it cannot be performed in plain Windows (user mode) due to files that are opened etc. The command is optional.</p>
/diskUsage	<p>Specifies the usage degree of the disk(network) for the backup operation. Options are: low, below_normal, normal, above_normal and high. This command is optional. Default value is high.</p>
/processorUsage	<p>Specifies the usage of the processor for the backup operation.</p> <p>Options are:</p> <p>low, below_normal, normal, above_normal and high.</p> <p>This command is optional. Default value is normal.</p>
/log <log file path>	<p>Specify the log file path if you want the log of the events to be stored in a text file. Include the log file path within quotation marks. (E.g. /log "C:\Documents and Settings\username\My Documents\cbulog.txt"). If no parameter(<log file path>) is set, the log file is created in the default COMODO Backup folder.</p> <p>Note: It is recommended to setup a log file when running a restoration job from the command line interface as it enables you to check the success or failure of the restore job at a later time.</p>
/silentRun	<p>Specify this command if you want the restore operation to be performed silently. Otherwise the GUI will open directly at Step 3 - Backup Settings and the operation will start.</p>

Example:

To restore a folder importantbackup.cbu to its original location with clean restore method,

```
C:\Program Files\COMODO\COMODO BackUp\cbu.exe /restore_operation /destinationtype 1 /backupfiledestination  
"F:\backups\importantbackup.cbu" /cleanrestore.
```

Note: The command lines that has more than 260 characters including path to CBU.exe will not work, so use script files to avoid this limitation.

9.3. Running a Scheduled Backup Job Instantly from the Command Line Interface

Scheduled backup jobs can be immediately run from the command line interface by using the /runbackup command followed by the ID number of the target job.

- Open the Windows command line interface
<installation path>\<executable> /runbackup <backupID>

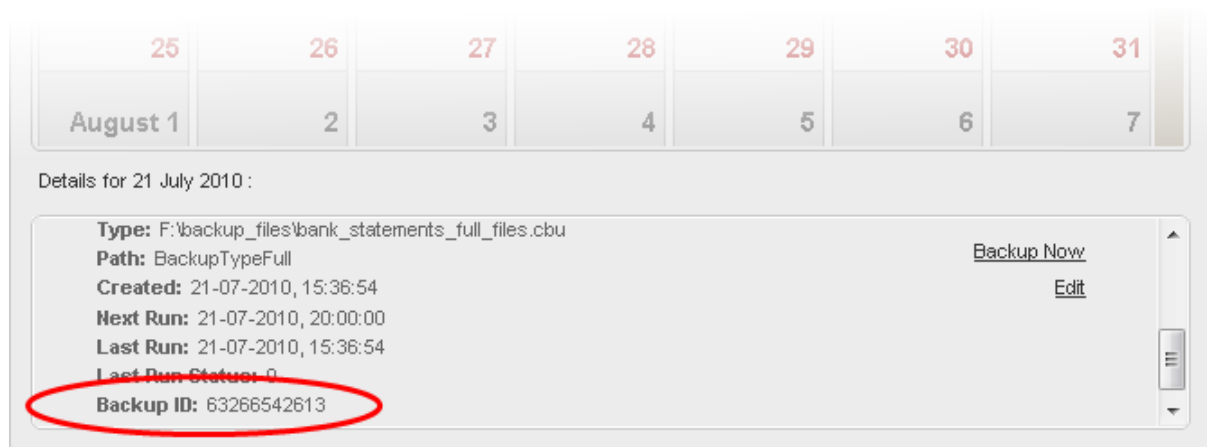
Take care to place a space between the command and the ID. For example, if Comodo Backup has been installed to the default directory, the full command would be:

Example:

`C:\Program Files\COMODO\COMODO BackUp\CBU.exe /runbackup 63241739864.`

The backup ID for a scheduled backup job can be found from the 'Manage' > 'Events Area' interface of Comodo BackUp.

To find the Backup ID of a Scheduled Backup job, click the down arrow alongside the corresponding entry in the list of backup events and scheduled backup jobs displayed in the lower pane. The backup ID will be given in the list of attributes of the scheduled backup job.



Note: The command lines that has more than 260 characters including path to CBU.exe will not work, so use script files to avoid this limitation.

9.4. Running Backup and Restore Tasks from Script Files

You can create script files (in .txt format) for the Backup and Restore jobs executed often and call the script file to execute the task from the command line interface instead of typing the commands repeatedly. Each script file should contain the command line to execute the specific backup or restore task.

You can also export the configured backup and restore jobs as script files if you want to execute. For more details, refer to the sections:

Configuring Email Notification and Miscellaneous Settings > Export to Script for creating a script file for a backup job;

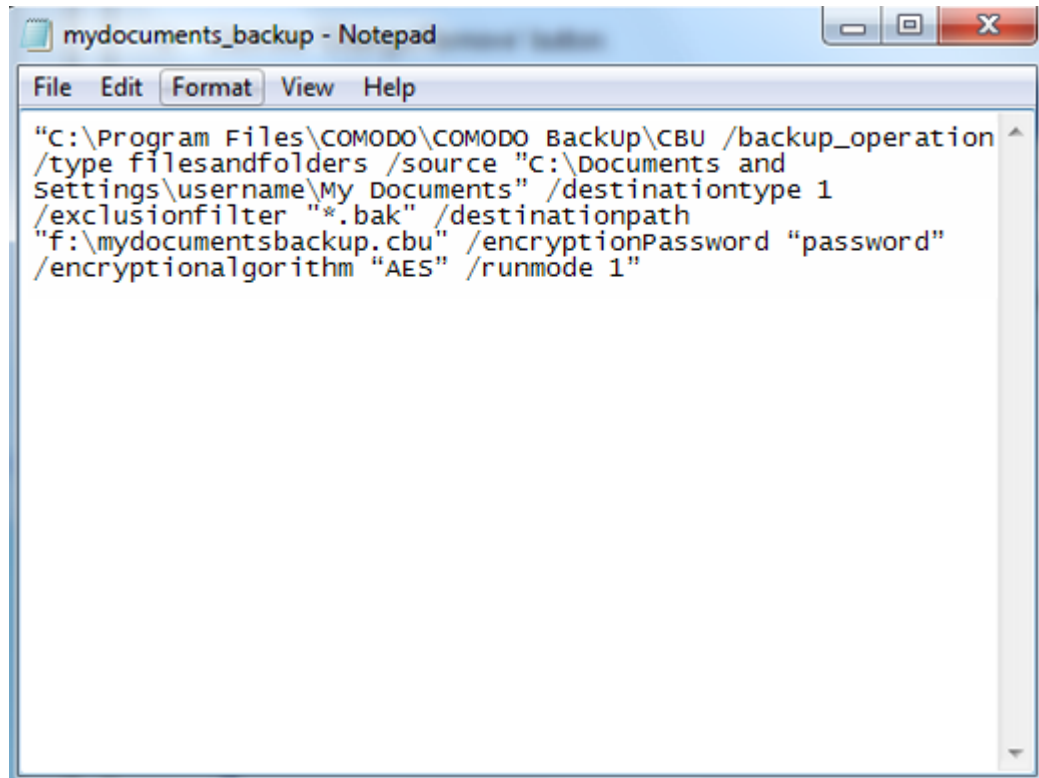
and

Selecting Restore Method > **Export to Script** for creating a script file for a restore job.

To generate a script file manually

- Open a new notepad file by clicking Start > All Programs > Accessories > Notepad.
- Type the command line in the file.
- Save the file at desired location.

For example, to backup your My Documents folder, generate the script as given below.



To execute the task from the command line interface using the script file, type the command as follows:

C:\Program Files\COMODO\COMODO BackUp\CBU.exe /script "<script file path>"

- Include the file path within quotes.

Example:

C:\Program Files\COMODO\COMODO BackUp\CBU.exe /script "D:\backup_script_files\mydocuments_backup.txt".

The backup/restore task is executed as per the command line in the script file.

Note: If a scrip file syntax is wrong, the application will assume that the scrip file is encrypted and will ask for a password from the user.

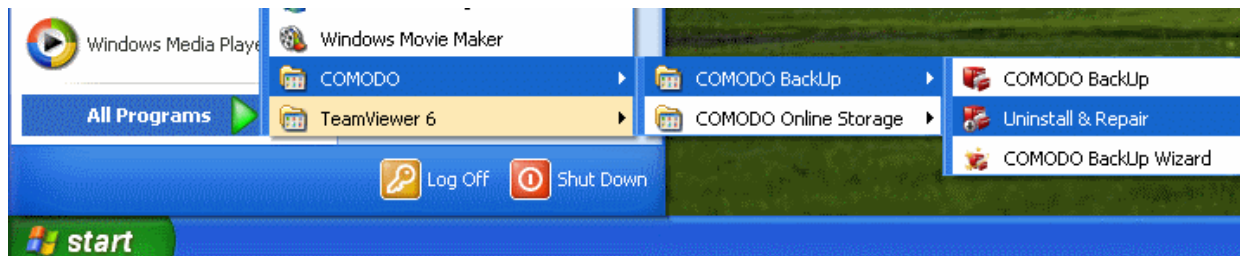
10. Uninstalling Comodo Backup

To uninstall Comodo BackUp:

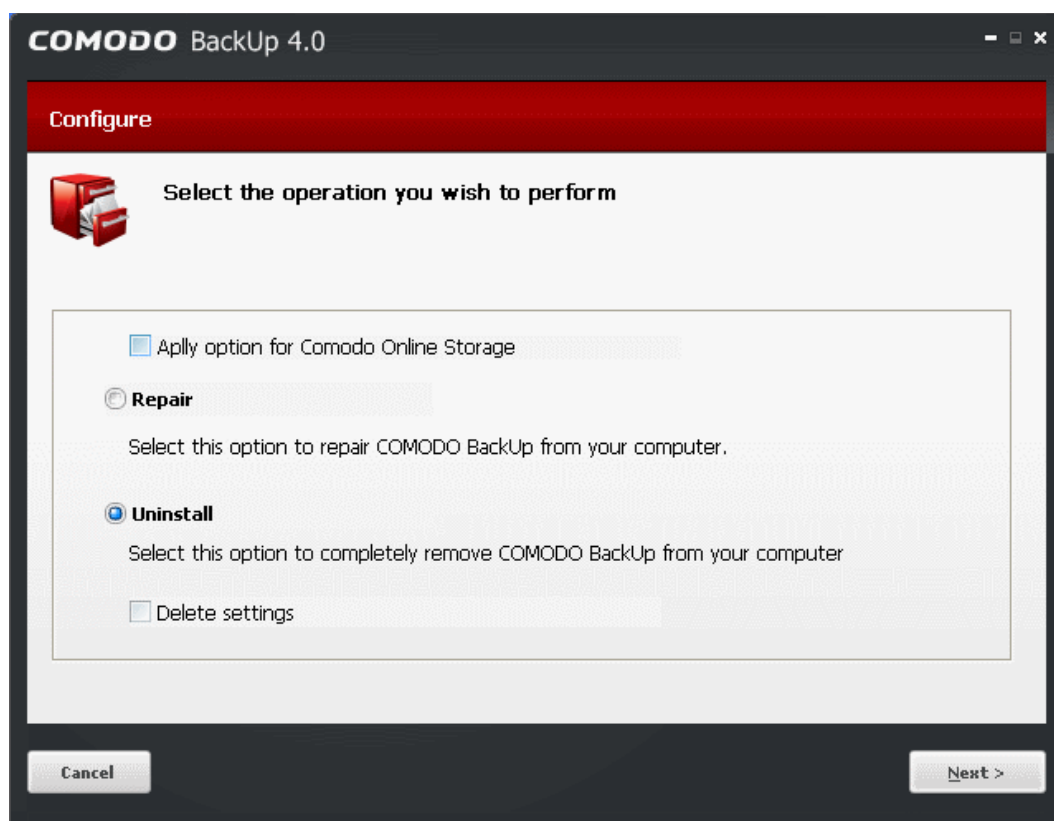
1. Click Start > Settings > Control Panel
2. In the Control Panel, double-click Add/Remove Programs
3. In the list of currently installed programs, click Comodo BackUp
4. Click the 'Change/Remove' button.

Or

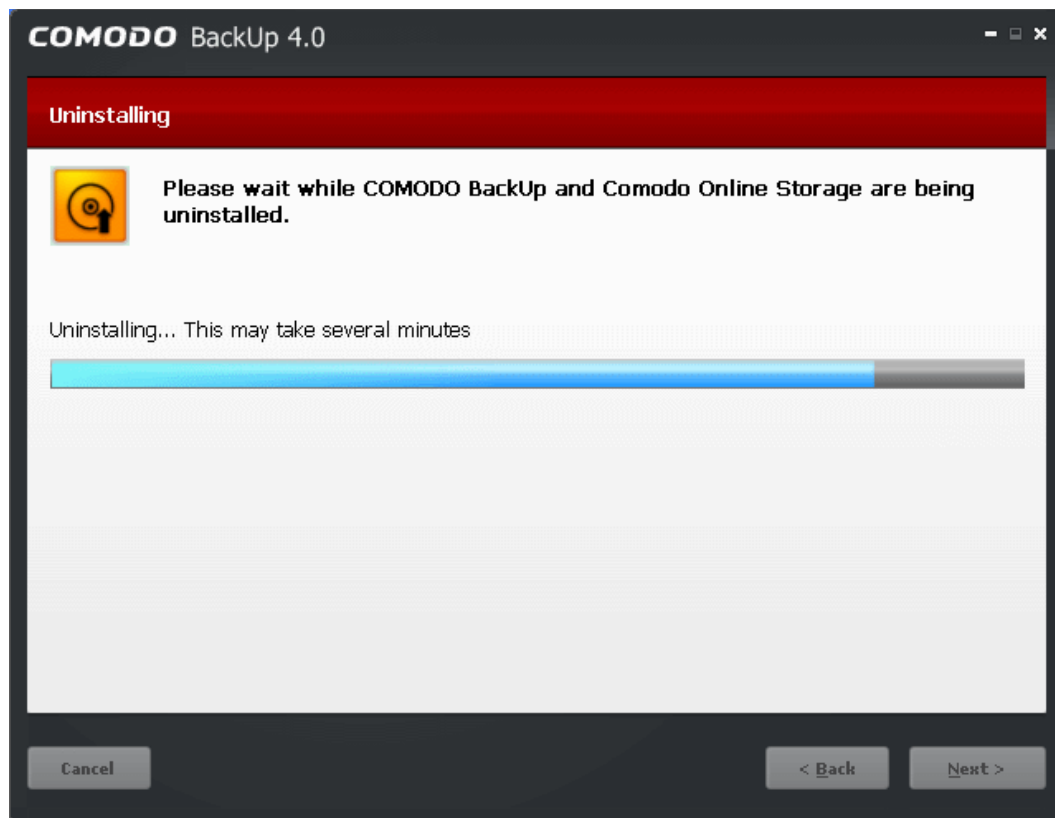
1. Click Start > All Programs > Comodo > Comodo BackUp > Uninstall & Repair.



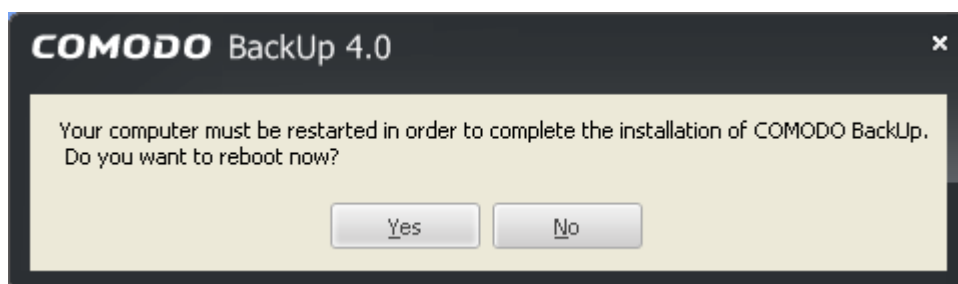
The configuration wizard will be started.



- Select Uninstall.
- If you want to uninstall Comodo Online Storage (COS) client along with Comodo Backup, select 'Apply option for Comodo Online Storage' checkbox.
- If you want reinstall Comodo Backup and wish to retain the application configuration including schedules and history events to be carried over to the new installation, leave 'Delete Settings' checkbox unselected. Else, select Delete Settings. All the traces of the application will be removed from your computer.
- Click 'Next'. The Uninstallation progress will be displayed...



Your system has to be restarted to complete the uninstallation.



Click 'Yes' to restart your system and to complete the uninstallation. If you want to restart your system at a later time. Click 'No'.

Note: The uninstallation will take effect only on the restart of your computer.

11. Getting Support

Comodo is committed to provide the best support for its products. If you need technical assistance, we offer the following convenient support services:

Comodo Forums

Find the answers to your questions online at <http://forums.comodo.com>

Register at Comodo Forums and join thousands of other users discussing all aspects of our products.

You'll benefit from the expert contributions of developers and fellow users alike and can find answers to any questions you may have. **Join the forums now.**

Email Support

If you are unable to find a solution in either the help guide or the forums, then please email support at support@comodo.com

Note: We do not offer phone support for any of our Free products.

Before reporting problems, please visit our searchable knowledgebase and troubleshooter at <http://support.comodo.com> If you do not find a solution in our knowledgebase or troubleshooter, please submit a support ticket at <http://support.comodo.com>.

Appendix 1 - Encryption Algorithms

Encryption Algorithms			
Algorithm	Block Size / Encryption level / Speed	Brief Description	Recommendation
AES (Advanced Encryption Standard)	128 bits/Strongest	Also known as Rijndael. This cipher is used for encryption by default.	Ideal for both domestic and exportable use.
Serpent	128, 192 or 256 / very strong / fast	128, 192, 256-bit block cipher. Designed by Ross Anderson, Eli Biham and Lars Knudsen as a candidate for the Advanced Encryption Standard.	Ideal for both domestic and exportable use.
3DES	168 bits/strong/Slow	Applies Data Encryption Standard (DES) cipher three consecutive times to the message to form the message digest. Offers protection against meet-in-the-middle attacks.	Suitable for domestic use.
XOR	Variable block size /very weak / very fast	160 bit key. XOR encryption is a trivially simple symmetric cipher which is used in many applications where security is not a defined requirement	Not recommended
Blowfish	64-bit block / variable key length: 32 bits to 448 bits/strong/fast	Symmetric block cipher. It is a Feistel network, iterating a simple encryption function 16 times. The block size is 64 bits, and the key can be any length up to 448 bits. Designed by Bruce Schneier.	Ideal for both domestic and exportable use. Much faster than DES and IDEA.
Twofish	128-bit block/ 28-, 192-, or 256-bit key/ strong/ very fast	Symmetric key block cipher with a block size of 128 bits and key sizes up to 256 bits.	A widely used and recommended choice for most cases.

Appendix 2 - Creating a Rescue Disk with WinPE / BartPE

Using a Rescue Disk with WinPE (Windows Preinstallation Environment) / BartPE (Bart's Preinstalled Environment) allows a user to boot Windows, even if a hardware or software fault has disabled the installed operating systems on the internal hard drive — for instance, to recover files. It can also be used to scan for and remove rootkits, viruses and spyware (that have infected boot files), or to reset a lost administrator password.

This section explains how to create a rescue disk using either WinPE or Bart PE. Please click on the links below to go to the section that you require help with:

Technical Differences Between Windows PE and Bart PE - Compares Windows PE and Bart's PE

Windows PE Overview - An overview Windows PE and explains creating Vista, Windows 7 and Windows 2008 server image

Creating a Vista image with Windows PE

Creating Windows 2008 server image with Windows PE

Creating a Windows 7 image with Windows PE

- **Booting from a Windows PE disk** - Guidance on creating a bootable CD-ROM, UFD and launching Comodo BackUP using Windows PE

Creating a bootable CD-ROM

Creating a bootable UFD

Launching Comodo BackUp using Windows PE

Bart's PE (Bart's Preinstalled Environment) - An overview Bart's PE

Features and Benefits - Shows features and benefits using Windows PE and Bart's PE

The technical difference between WindowsPE and Bart'sPE :

- **Target** - Microsoft sees Windows PE as an installation platform. Bart sees Windows PE as the next generation rescue platform.
- **Start-menu** - Bart's builder gives you a simple, dynamic and powerful start-menu (Nu2Menu, see screenshots). Microsoft's builder does not give you a start-menu, it uses a command prompt.
- **Build from** - Bart's builder can also build from Windows XP Home Edition or from a preinstalled Windows XP version (without CD).
- **Plugins** - With PE Builder you can easily add applications, ivers or tools using plugins. This makes PE Builder extremely powerful. The end user can even combine plugins from different software vendors into one CD image.
- **Network support** - PE Builder includes its own network support tools (bartpe/penetcfg) to start TCP/IP and Microsoft Client. The TCP/IP settings like: dynamic/static ip-address, subnet-mask, default gateway, dns-servers computer-name, workgroup can be changed on-the-fly. You can create pre-defined profiles, that you can select. Microsoft Windows PE only supports DHCP or fixed settings using winbom.ini. Also there is a plugin (NwDskPe) created by Erwin Veermans that loads the Netware Client on BartPE (IP/IPX).
- **Fileshare** - BartPE can start File Sharing support so you can connect to the system through a share.
- **VNC** - Because of the File Sharing support you can also run UltraVNC.
- **Dos support** - Bart's builder has a plugin called "dospe".
- **License** - Microsoft Windows PE is only for Enterprise/OEM customers (see previous), BartPE is for everybody.
- **64-Bit** - Bart's builder does not support Windows 64-bit editions.

Windows PE Overview

Windows Preinstallation Environment (Windows PE, WinPE) is a lightweight version of Windows XP, Windows Server 2003, Windows Vista, Windows 7, or Windows Server 2008 R2 that is used for the deployment of workstations and servers. It is intended as a 32-bit or 64-bit replacement for MS-DOS during the installation phase of Windows, and can be booted via PXE, CD-ROM, USB flash drive or hard disk.

Creating a Vista image with Windows PE

Windows PE is built from Windows Vista components, providing a robust, flexible, and familiar environment. In fact, Windows PE can run many Windows Vista applications, detect and enable most modern hardware, and communicate across Internet Protocol (IP) networks. Windows PE typically consumes less than 100 MB of disk space and can run entirely from Random Access Memory (RAM), enabling you to insert a second CD that contains drivers or software.

Note: In order to launch Comodo BackUp using Vista, you must copy C:\Windows\System32\oledlg.dll to your Comodo BackUp installation directory (default = C:\Program Files\COMODO\COMODO Backup\)

Step 1: Downloading and Installing WinBuilder

Step 2: Running WinBuilder for the First Time

Step 3: Configure WinBuilder's Options

Step 4: Creating your VistaPE Build

The processes for creating a WindowsPE boot disk are similar for Windows 7 and Vista. For both operating systems, you have the choice to use a command or the user interface.

Customized Windows Vista Installations

Enterprises will appreciate Windows PE, however, because IT departments will be able to create scripts and applications to automate deployment. For example, using the process below, an IT department could configure a Windows Deployment Services remote deployment infrastructure, create a configuration script, and build a custom Windows PE image to enable a highly automated deployment process:

1. When a new computer is connected to the network, the built-in Pre-boot eXecution Environment (PXE) client connects to the Windows Deployment Service server and downloads the customized Windows PE image across the network.
2. The new computer loads Windows PE into memory and launches the configuration script. The script verifies that the computer's configuration meets the IT department's hardware requirements.

Note: Windows Deployment Server (Windows DS) is a replacement for Remote Installation Services (RIS).

3. If necessary, the script backs up the user's data to a shared folder on another computer.
4. The script runs the Diskpart tool to partition and format the disk.
5. The script connects to a shared folder containing the Windows Vista Setup files and runs the Windows Vista Setup program to install the operating system fully unattended.


General functionality:

- Possibility to fully or partially loading VistaPE at startup into memory (boot.wim)
- Support for a big number of SATA/RAID/SCSI/NIC drivers
- Capable to read and write on NTFS/FAT32/FAT/Ext2/Ext3 partitions
- Full networking support
- Automatic hardware detection (PnP)
- Bootling from CD/HDD/UFD/Network
- Compatibility with Microsoft Windows Vista

- A wide range of programs and shells (Explorer, LiteStep, BS Explorer ...)
- No limits regarding the maximum number of open processes
- Automatic creation shortcuts for programs
- Ability to remove VistaPE boot media while VistaPE is running (using boot.wim)
- Full multilanguage support


Step 1: Downloading and Installing WinBuilder

Download the latest version of WinBuilder from the [link](#) below and save to to a folder on your computer.



WinBuilder is a free application designed to build and customize boot disks (Live CDs) based on Microsoft Windows (WinPE)

More details - <http://en.wikipedia.org/wiki/WinBuilder>

DOWNLOAD 

In case you need help, you're welcome to ask questions or read more about WinBuilder projects on the forum sections below.

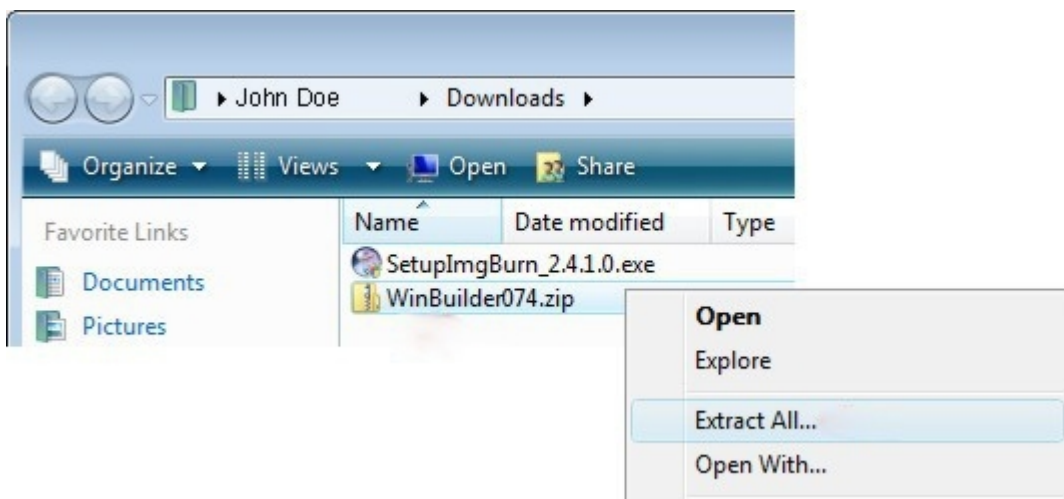
Click on the latest version of WinBuilder.

Click the Save button.

Browse to where you want to save the file (Downloads, for example) and then click the Save button.

When the download is complete, click the Open Folder button. If you use a download manager or want to manually browse to the download location. In that case, click the Close button.

You should see the downloaded WinBuilder ZIP file in the new window. To extract the files and install WinBuilder, right-click on the WinBuilder ZIP file and select Extract All... from the pop-up menu.



Type in the extraction folder: `C:\WinBuilder074`

Note: Do not use any folder that uses User Permissions. This includes any folder on the Desktop, My Documents, etc. Using a folder that has User Permissions will result in VistaPE booting to a black desktop and not working properly. A folder created in the root directory is recommended.

Note: Do not include any spaces in the folder path or name. Examples: `C:\WinBuilder`, `D:\WinBuilder`, `C:\WB-Setups\WB074`,

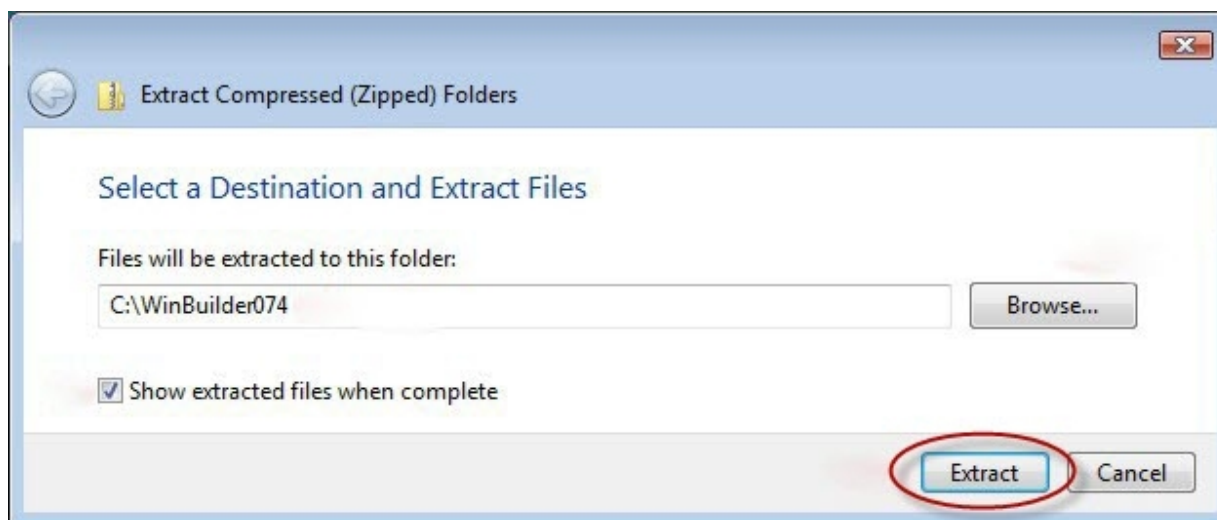
etc.

Browse to the extraction folder and you can see the executable file WinBuilder.exe now exists in the folder and is ready to be run.

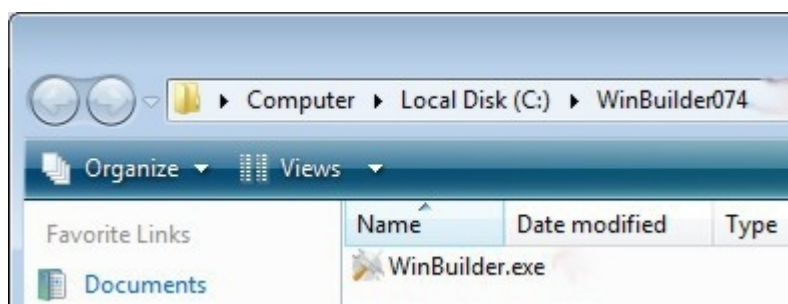
Tip: If you have a compression program you like to use (WinZip, StuffIt, PkZip, WinRAR, etc.), feel free to use it to extract the file contents.

Type in the extraction folder: *C:\WinBuilder074*

- If you leave the Show extracted files when complete checkbox checked, a new window will open and display the results after the extraction has finished. Click the Extract button to install WinBuilder.



- Once viewing the extraction folder, you can see the executable file WinBuilder.exe now exists in the folder and is ready to be run.



Browse to the extraction folder and you can see the executable file WinBuilder.exe now exists in the folder and is ready to be run.

Step 2: Running WinBuilder for the First Time

For XP, just double-click on the WinBuilder program to run it (or right-click on it and select Open from the pop-up menu).

Starting WinBuilder in Vista

When running WinBuilder in Vista, you'll need to run it in Administrator Mode.

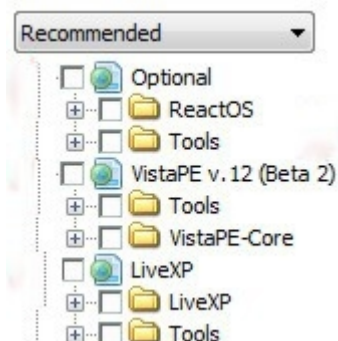
- Right-click on the WinBuilder.exe file and select Run as administrator from the pop-up menu.
- If you get a security warning, click the Run button to allow the program to run.

If you don't want to see this warning again for this program, uncheck the Always ask before opening this file checkbox.

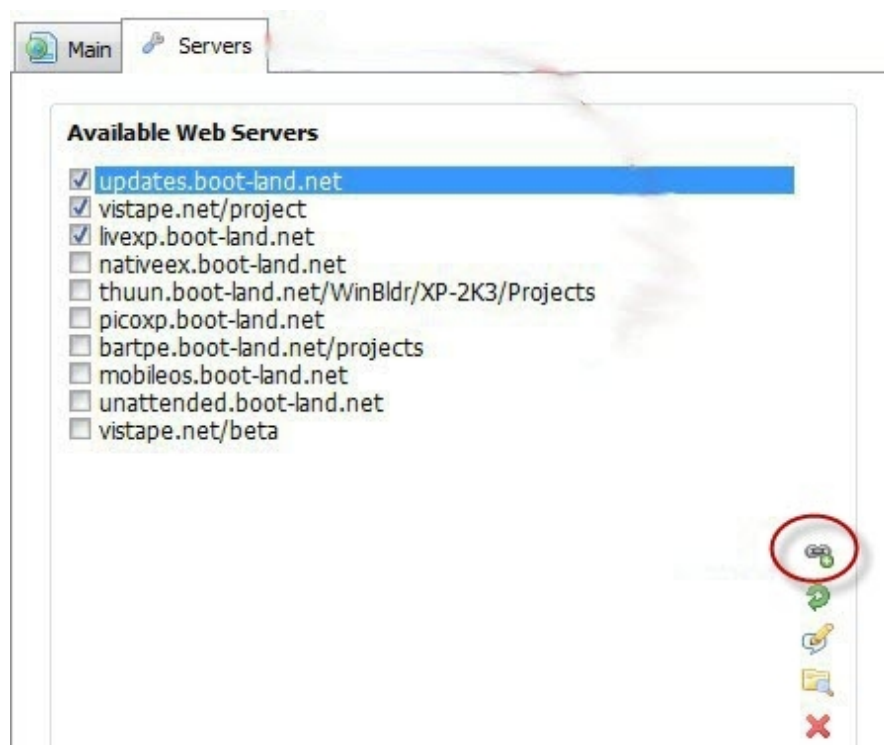
- If Vista's UAC is turned on, click Allow to let the program run.
- WinBuilder will start and display the "Welcome" page. Click on the Download tab.

Wait while WinBuilder updates the projects list and displays them in the tree on the left side of the screen.

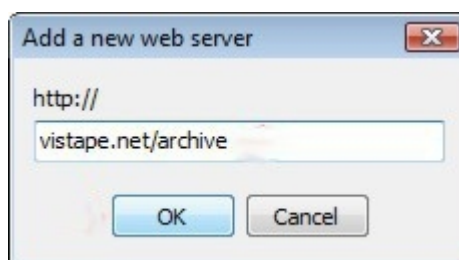
- Uncheck the VistaPE 12 script as well as all the other project scripts. Below, unchecked Optional, VistaPE v.12 (Beta 2) and Live XP.



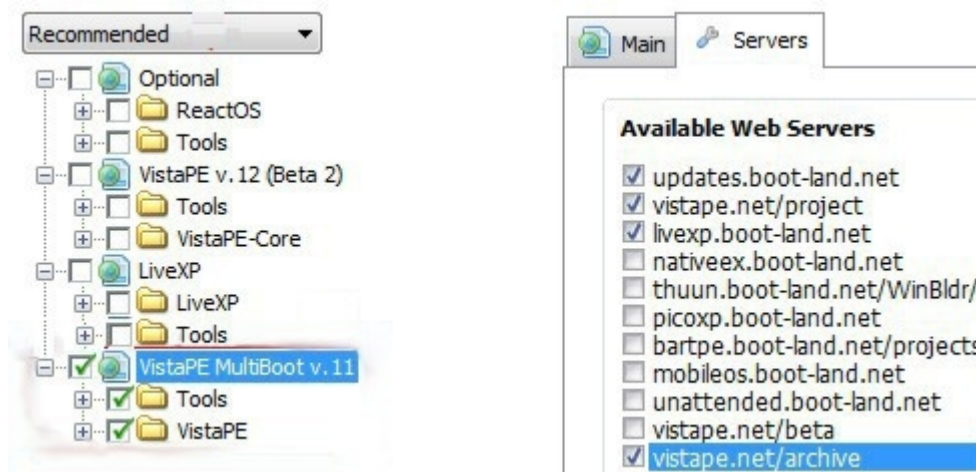
- Add the VistaPE 11 server so you can download VistaPE 11. Click the Servers tab and then the Add a new web server button.



- Type in vistape.net/archive and click the OK button.



- The new server will be display in the list on the right and VistaPE 11 will now be a project option in the tree on the left. Leave the drop-down box set at Recommended.

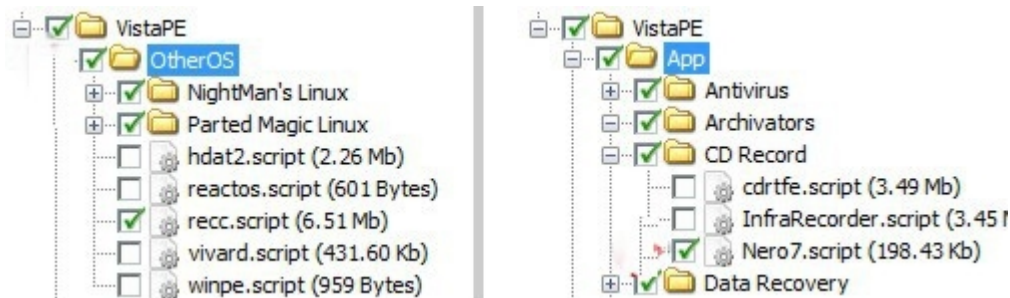


Note: Do not check or uncheck any of the main VistaPE 11 checkboxes (shown in Figure 2.5). Leave them just as they are. This will keep them at their default values. If you uncheck one and then recheck it, it will select every script in that tree.

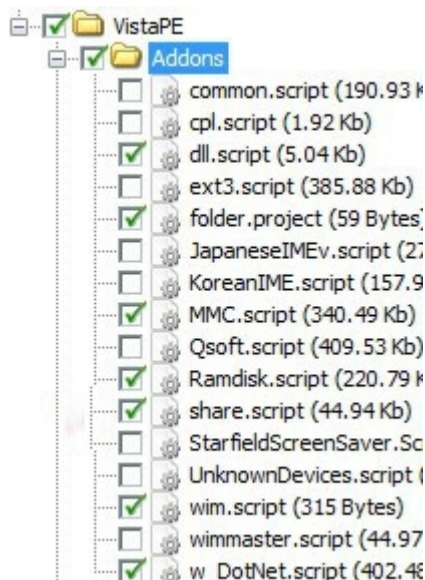
- Uncheck the following scripts which are not needed for your first build:

OtherOS

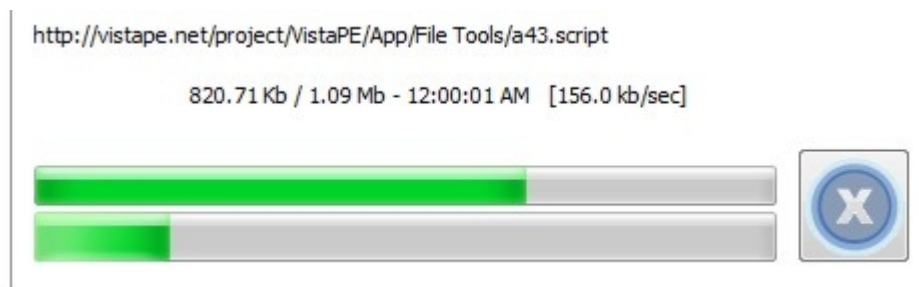
App >> CD Record >> Nero7



- If you are using the Windows AIK as the source for your VistaPE build, also uncheck the Addons >> share script to avoid build errors.



- Once you have the script selections correct, click the Download button to begin downloading the scripts. This may take a while depending on your internet connection speed and the size of the scripts you've selected.
- WinBuilder will display the download progress. Wait until the downloading is finished before proceeding.



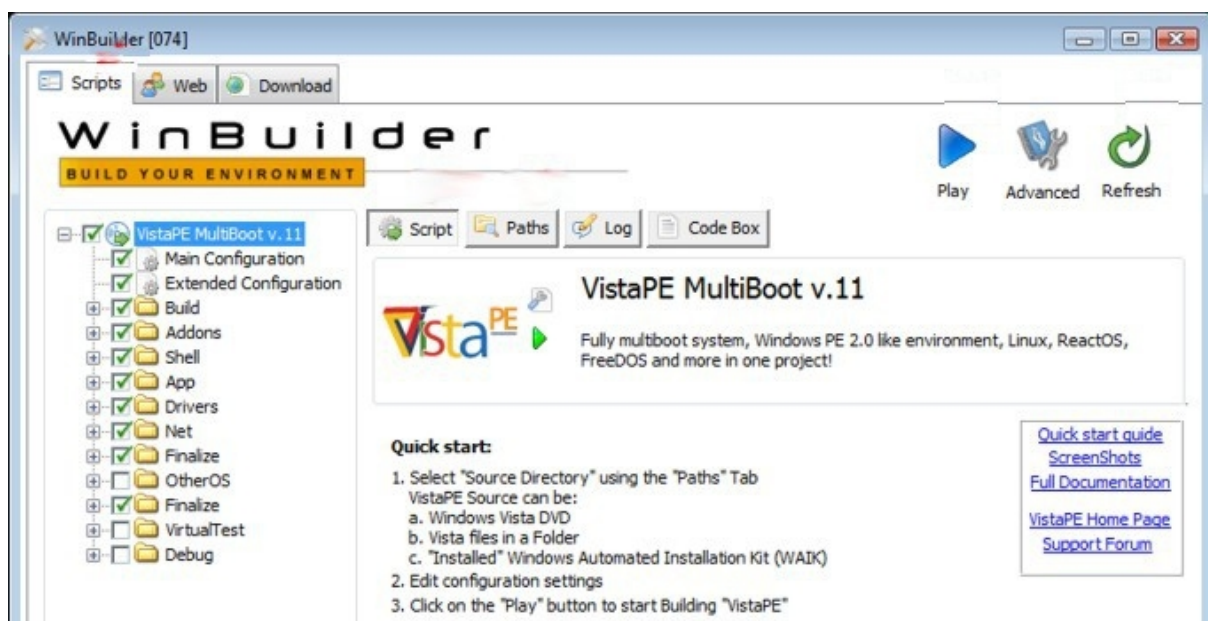
After the downloading is finished, WinBuilder may restart and you may get another security warning. Select the option to run the program.

Step 3: Configure WinBuilder's Options

When WinBuilder is run after the scripts are downloaded, the main screen will be shown.

Notice the locations of the following controls: The Scripts tab, the Play button, the Refresh button, the Script button, and the Paths button.

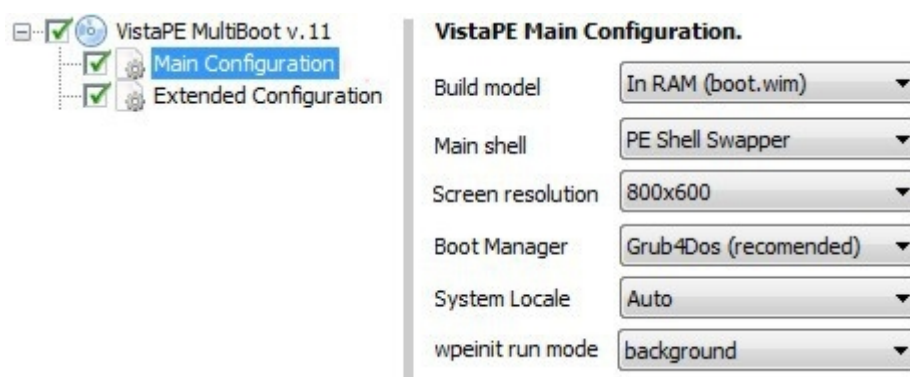
- The Scripts tab should be selected by default. If it's not, click on it.



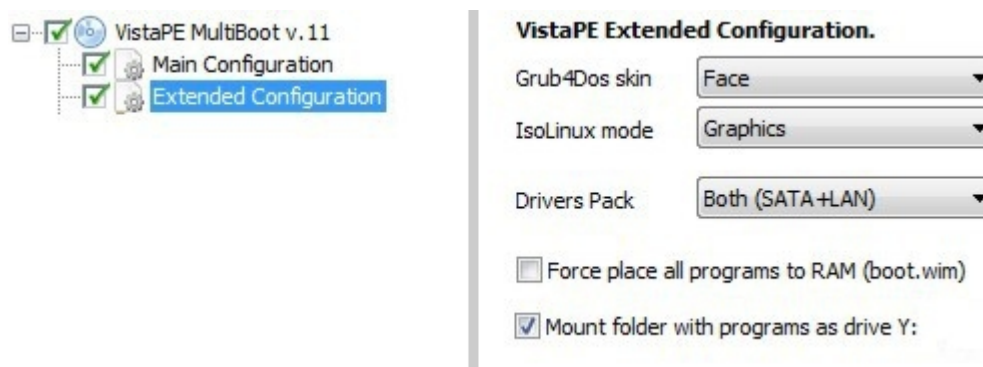
- Change several settings.

Select the Main Configuration script by clicking on it in the VistaPE tree on the left. The options for the selected script will be displayed on the right.

Change the default Screen resolution setting to at least 1024x768 if you know your monitor can handle it (most can). If you are unsure, leave it at 800x600.



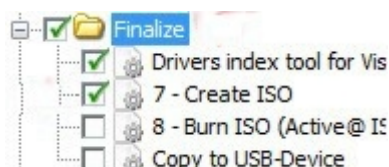
- Select the Extended Configuration script. Then check the Mount folder with programs as drive Y: option.



- Expand the Build section and select the 0 - PreConfig script.

This is where the path to the Windows AIK (WAIK) is saved. The default installation folder is already entered. If you are not using the WAIK or you have installed it into its default location (recommended), leave the settings as they are. Otherwise, click the "Open Folder" button to find the installation folder for the WAIK.

- Expand the Finalize section and check the 7 - Create ISO option.



- To set the path to the source of the VistaPE build. The source can be a standard Vista DVD or the WAIK. Click the Paths button. Make sure the VistaPE project is selected and then click the "Open Folder" button.

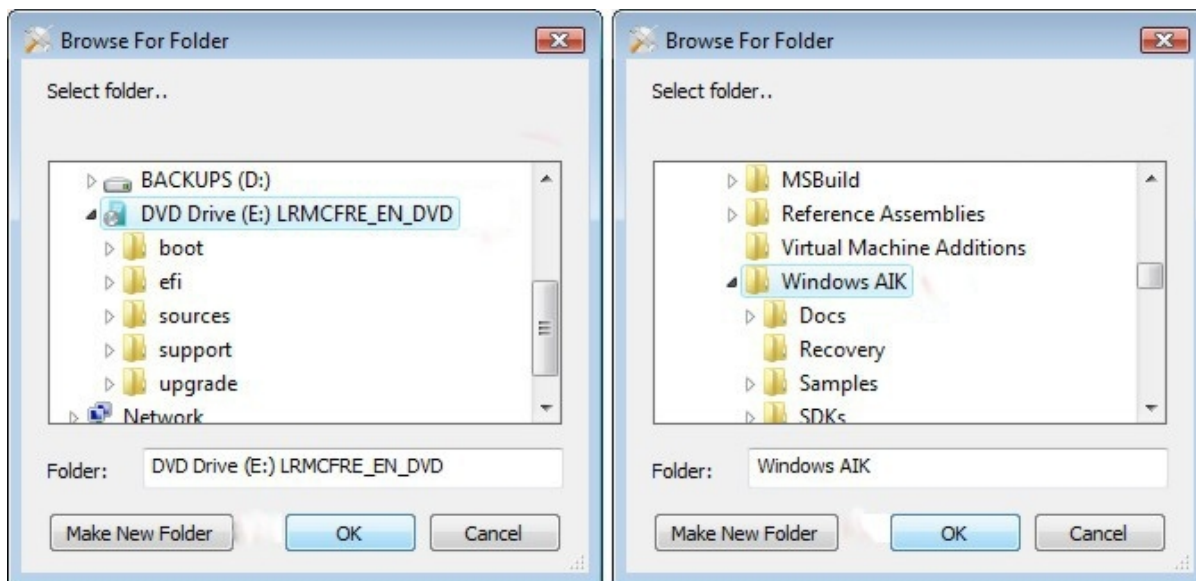


Paths

Please note that these settings only apply to the currently selected project. Read carefully the instructions inside each project to better understand which source is required. %BaseDir% is a variable which represents the same folder from where this program is executed.




- Browse to the location of the source and click the OK button. (if you are using the WAIK as the source, browse to the WAIK installation folder).



- The Source directory will update to the folder you selected.



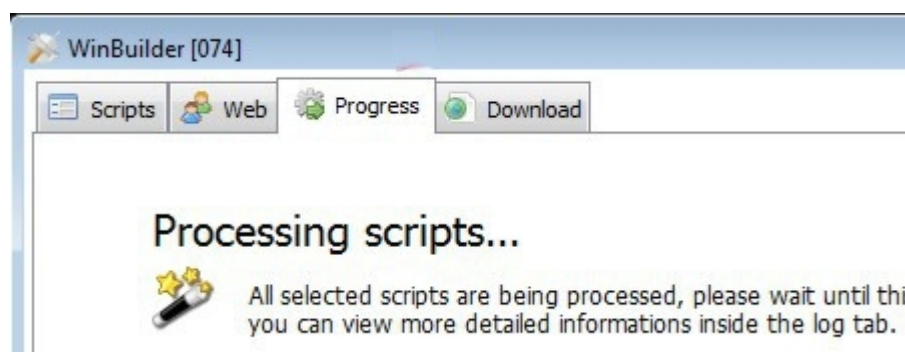
Step 4: Creating your VistaPE Build

- Click the Play  button to begin the build process.
Play
- The first time you run the VistaPE script, you will most likely get an error message stating that wimfltr.sys driver is not installed. Click the OK button to install the driver.

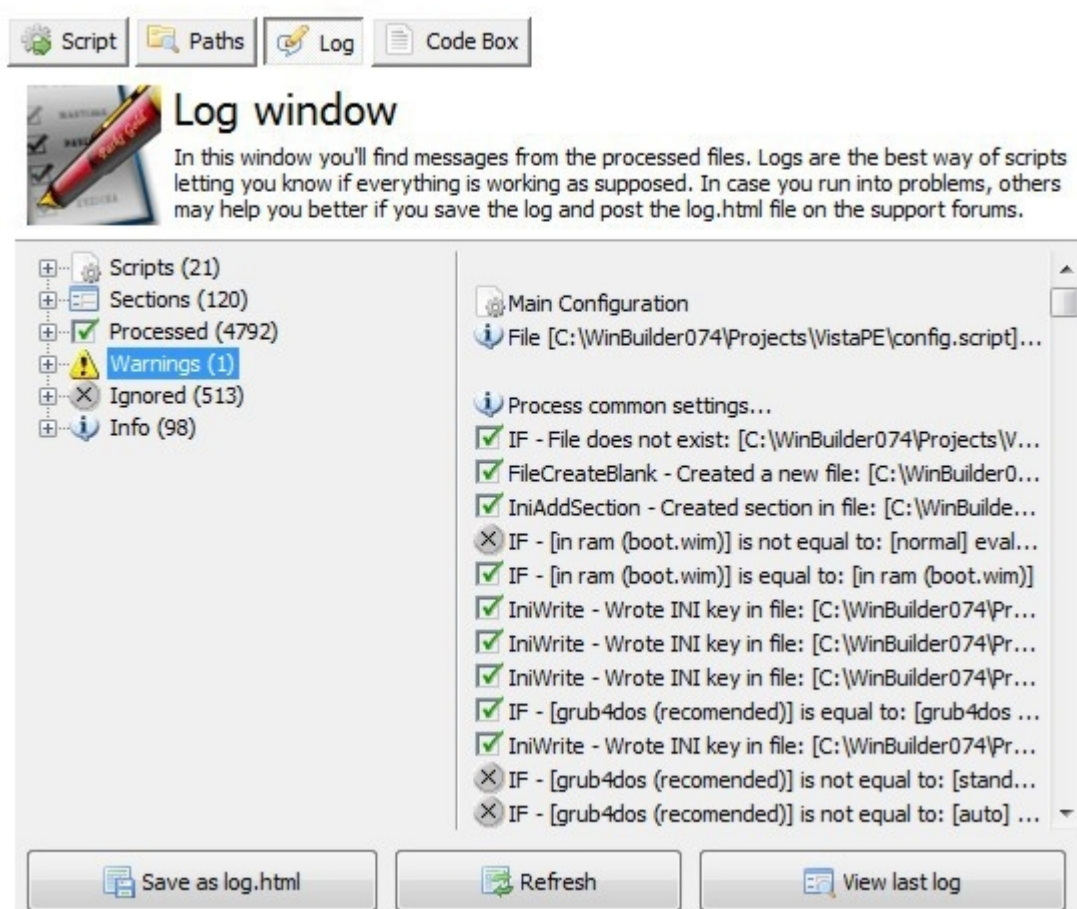
Note: If you see an error about bcdedit.exe not being found, copy bcdedit.exe to the location shown in the error message. Do a search for bcdedit.exe on your hard drive and your Vista source. You should find it.

Tip: Either of these error messages should only show up the first time you run the VistaPE script.

- WinBuilder will open a new tab, the Progress tab, and display the progress of the build. When finished, it will return to the main screen.

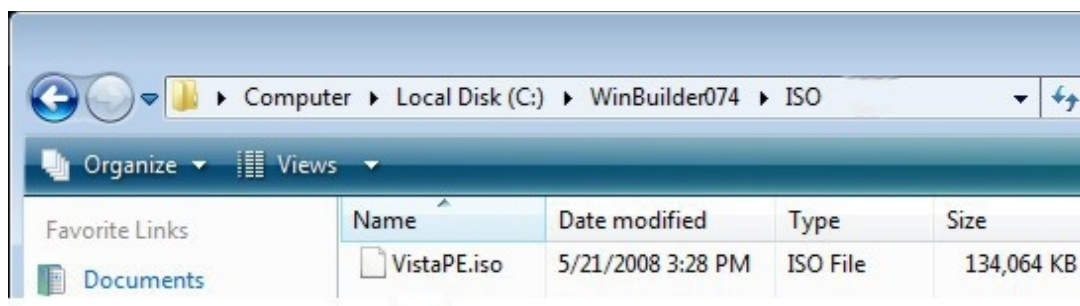


- You can view the build log by clicking on the Log button.



Note: It is not uncommon to have one or more warnings in a build. If there are any errors, you can browse the log and see what is causing the problem.

- The created VistaPE CD ISO file can be found the ISO sub-folder in the folder in which WinBuilder was installed. In this example, it is in the C:\WinBuilder074\ISO folder.



This ISO file can be burned to a CD using any ISO capable burning program . You'll just be burning the VistaPE.iso file to a CD instead of the WAIK img file to a DVD).

You may consider using CD-RW media for burning your VistaPE CD. This will allow you to reuse the CD as you go through the process of finalizing your VistaPE build.

You have completed building a plain VistaPE CD. Make sure the computer is set to boot first from the CD/DVD drive, insert the VistaPE CD and reboot the computer.

Creating Windows 2008 server image with Windows PE

Windows Server 2008 boot process is almost the same as Windows Vista. If you want to use the install.wim from the installation media, you can change the following steps a bit according to your requirement.

There are brief steps (note the step 3 will be a little different):

Step 1: Copy the Windows product DVD source files to a network share.

Step 2: Create a master installation.

Step 3: Capture an image of the installation.

- Boot the master computer by using your bootable Windows PE media.
- At a command prompt, capture an image of the installation. You can use ImageX command-line utility like this

```
imagex /compress <type> /capture c:\image_directory d:\imaging\data.wim "new_image_file"
```

For more details, please refer to the "Windows Preinstallation Environment (Windows PE) User's Guide" document included in Windows AIK.

- Replace the default Install.wim on the network share with your custom image. The image must be called Install.wim.

Step 4: Create a custom answer file.

Step 5: Deploy the image by using Windows Setup.

Creating a Windows 7 image with Windows PE

The primary tool for customizing Windows PE 2.0 is PEimg, a Windows PE command-line tool. After creating a customized image, you can deploy the image to a hard disk or create a bootable Windows PE RAM disk on a CD-ROM, a USB flash drive (UFD) or a hard disk.

A Windows PE RAM disk boots directly into memory and is assigned the drive letter X, which does not correspond to the media (for example, a UFD or a CD-ROM) from which you booted. Ensure that you have sufficient memory to support the size of your Windows PE image plus any additional memory requirements, for example, if you plan on running any customized applications that need additional working memory.

Step 1: Set up a Windows PE Build Environment

Step 2: Mount the Base Windows PE Image

Step 3: Add Additional Package

Step 4: Add Additional Customizations

Step 5: Prepare the Image

Step 6: Commit Changes to the Image

Step 7: Replace the Default Boot.wim File

System Requirements:

To build a technician computer, you will need:

- An x86- or x64-based computer running Windows XP, Windows Vista, or a Windows Server 2003 operating system.
- Windows OPK or Windows AIK.
- A CD or DVD burner to create portable media.
- Image-burning software.
- .NET Framework 2.0 (provided with the tools during setup).
- Network access, to download the latest updates (if you plan to use the technician computer as a network share).

Default Installation Directories

By default, the Setup creates the following directory structure

C:\Program Files\<version>\Docs\

C:\Program Files\<version>\Recovery\

C:\Program Files\<version>\Samples\

C:\Program Files\<version>\SDKs\

C:\Program Files\<version>\Tools\

Step 1: Set up a Windows PE Build Environment

Create a required directory structure that supports building a Windows PE image.

- On your technician computer, click Start, point to All Programs, point to Windows OPK or Windows AIK, and then click Windows PE Tools Command Prompt. The menu shortcut opens a Command Prompt window and automatically sets environment variables to point to all the necessary tools. By default, all tools are installed at C:\Program Files\version\Tools, where version can be Windows OPK or Windows AIK.

- At the command prompt, run the Copype.cmd script. The script requires two arguments: hardware architecture and destination location. For example,

```
copype.cmd <architecture> <destination>
```

where <architecture> can be x86, amd64, or ia64 and <destination> is a path to the local directory. For example,

```
copype.cmd x86 c:\winpe_x86
```

The script creates the following directory structure and copies all the necessary files for that architecture. For example,

```
\winpe_x86
```

```
\winpe_x86\ISO
```

```
\winpe_x86\mount
```

This command copies all of the X86 files into a folder called c:\WinPE

Step 2: Mount the Base Windows PE Image

Mount the base image to a local directory so that you can add or remove packages.

At the command prompt, change to the directory where imagex is installed using the "cd" command then mount the base Windows PE image (winpe.wim) by running the command:

```
imagex /mountw c:\winpe_x86\winpe.wim 1 c:\winpe_x86\mount
```

Step 3: Add Additional Package (this step is optional)

By using the Peimg tool, install Windows features by using the /install option. Windows features are included with the base image (Winpe.wim) but are not installed. You can also import packages and add drivers and language packs.

Add a Windows feature to the base image by using the peimg /install command. For example,

```
peimg /install=<pkg> c:\winpe_x86\mount\Windows
```

where <pkg> denotes the package name. A list of available packages and their names can be obtained by using the /list command. You can use wildcards to specify a package name. Any packages with matching names will be installed. For example,

```
peimg /install=WinPE-HTA-Package c:\winpe_x86\mount\Windows
```

or

```
peimg /install=*HTA* c:\winpe_x86\mount\Windows
```

where wildcards denote any package with HTA in the package name.

A list of the available packages and their functions

Package Name	Description
WinPE-FONTSupport-<region>-Packages	Additional font support for ja-jp, ko-kr, zh-cn, zh-hk, and zh-tw.
WinPE-HTA-Package	HTML application support
WinPE-MDAC-Package	Microsoft Data Access Component support
WinPE-Scripting-Package	Windows Script Host support
WinPE-SRT-Package	Windows Recovery Environment component (available only on the Windows OPK)
WinPE-WMI-Packages	Windows Management Instrumentation (WMI) support
WinPE-XML-Package	Microsoft XML (MSXML) parser support

- Repeat Step 1 for each package.
- Verify that the packages were installed by using the peimg /list command to view all packages in the current image. For example,

```
peimg /list c:\winpe_x86\mount\Windows
```

In the INS column, (+) denotes installed packages and (-) denotes not installed.

Step 4: Add Additional Customizations

This step is optional but recommended. You can add applications and scripts to your Windows PE image that you might need while working in Windows PE. The following is a list of common tools to include in your Windows PE image.

- **ImageX**
A command-line tool for capturing and applying images during deployment scenarios. For example, at a command prompt,

```
copy "c:\program files\<version>\Tools\x86\imagex.exe" c:\winpe_x86\iso\
```

Package Manager (Pkgmgr.exe)

A tool for servicing Windows image (.wim) files offline. You must copy the entire \Servicing folder and MSXML6 binaries. Offline servicing requires ImageX. For example,

```
xcopy "c:\program files\<version>\Tools\<architecture>\Servicing" c:\winpe_x86\iso\Servicing /s
copy %windir%\system32\msxml6*.dll c:\winpe_x86\iso\Servicing
```

where <version> can be Windows OPK or Windows AIK and <architecture> can be x86, amd64 or ia64. In both previous examples, the tools are not loaded into memory during a Windows PE RAM boot. The media must be available to access the tools.

To load the tools into memory along with Windows PE, copy the source files into the mounted \Windows directory. For example, c:\winpe_x86\mount\Windows

Important: Adding files to the \Windows directory will increase the size of your Windows PE RAM image. Ensure that your computer has sufficient memory to boot Windows PE and to run various applications.

Step 5: Prepare the Image

Prepare the image by using the peimg /prep command. This operation removes any non-installed packages from the final image. This operation reduces the overall image size. For example,

```
peimg /prep c:\winpe_x86\mount\Windows
```

The /prep option cannot be reverted, and after the /prep option is run, the /install, /uninstall, /import, and /list options will not function, while the /lang and /inf options will continue to function. The Peimg tool prompts you to confirm the command. To suppress this prompt for scripting, add the /f option.

Step 6: Commit Changes to the Image

Commit the changes to the original image file (Winpe.wim) by using the ImageX /unmount option with the /commit option. For example,

```
imagex /unmount c:\winpe_x86\mount /commit
```

Step 7: Replace the Default Boot.wim File

Replace the default Boot.wim in the \ISO directory with your new customized image. The image must be called Boot.wim. For example,

```
copy c:\winpe_x86\winpe.wim c:\winpe_x86\ISO\sources\boot.wim
```

You have a customized Windows PE RAM disk image that you can place on bootable media, like a CD-ROM or a UFD.

Booting Windows PE

After creating a custom Windows PE image, you must decide how the image will boot up and where it will run from. The first method is booting from a removable media into random access memory (RAM) and then running directly from a RAM disk. The second method is booting and running directly from a CD or the hard disk.

Tip: A USB flash drive consists of a flash memory data backup device integrated with a USB (Universal Serial Bus). USB flash drives are typically removable and rewritable, and physically much smaller than a floppy disk.

There are methods of starting Windows PE by using a RAM disk. You can create bootable Windows PE RAM disk images on:

- CD-ROM.
- A USB flash drive (UFD).

Normally, when you start a computer from a hard disk drive, a CD-ROM, or a Windows DS (PXE) server, Windows keeps operating system file handles open and dedicated to that instance of Windows. Therefore, you cannot remove the CD that you used to start the computer and insert another CD. You cannot delete the hard disk partition from which you started the computer. The Windows DS (PXE) server that is used to start the computer must keep those file handles open, and Windows PE client computers cannot be detached from the network without causing Windows PE to become unstable.

The size of Windows PE enables the entire Windows PE operating system image to load into random access memory (RAM) and to start the computer from a RAM disk. The RAM disk boot feature provides a virtual CD file system in memory.

The Windows operating system Setup Loader now supports loading Windows PE from a RAM disk. The RAM disk driver supports loading an ISO-9660 (CD) image as a RAM disk.

Booting Windows PE from a RAM disk enables you to:

- Swap the CD that is used to start the computer and insert another CD to add drivers, utilities, applications, or a Windows operating system image.
- Start the computer from a Windows DS (PXE) server with the ability to disconnect from the network once Windows PE has loaded. After the initial download of the Windows PE image, there is no longer any dependency on network resources, such as file handles, which normally must remain loaded until the Windows PE client computer restarts.
- Delete and repartition the hard disk from which Windows PE has just started.
- Decrease total boot time.

Creating a bootable CD-ROM

- At the command prompt, create a .iso file by using `oscdimg`. For example,
`oscdimg -n -bc:\winpe_x86\etfsboot.com c:\winpe_x86\ISO c:\winpe_x86\winpe_x86.iso`
For IA-64 architecture, replace `Etfboot.com` with `Efisys.bin`.

- Burn the image (`Winpe_x86.iso`) to a CD-ROM.

Creating a bootable UFD

- Login to your Operation system. Insert your UFD device.
- At a command prompt, use `Diskpart` to format the device as FAT32 spanning the entire device, setting the partition to active. For example,

```
diskpart
select disk 1
clean
create partition primary size=<size of device>
select partition 1
active
format fs=fat32
assign
exit
```

where the value of disk 1 is equal to UFD.

- On your technician computer, copy all the content in the `\ISO` directory to your UFD device. You can manually create the directory structure or use the `xcopy` command to automatically build and copy the appropriate files from your technician computer to your UFD device. For example,

```
xcopy c:\winpe_x86\iso\*.* /s /e /f f:\
```

where `c` is the letter of your technician computer hard disk and `f` is the letter of your UFD device.

Launching Comodo BackUP using Windows PE

Note: In order to launch Comodo BackUp using Vista, you must copy `C:\Windows\System32\oledlg.dll` to your Comodo BackUp installation directory (default = `C:\Program Files\COMODO\COMODO Backup\`).

1. Boot your system using the Windows PE CD/DVD or USB that you have created. Open the command prompt and switch to the drive upon which you have installed. (for example,

```
X:\windows\system32> D:
```

where '`x`' is the boot drive and '`D`:' is the installation drive.

2. Use the CD command to point to the Comodo BackUp installation directory. For example,
D:\CD Program Files\COMODO\Comodo Backup\
3. Open cbu.exe. For example,
D:\Program Files\Comodo\Comodo Backup\cbu.exe.

```

Administrator: X:\Windows\system32\cmd.exe
[\\computername [/CACHE] : [/ALL] : /DOMAIN[:domainname]]
The syntax of this command is:
NET VIEW
[\\computername [/CACHE] : [/ALL] : /DOMAIN[:domainname]]
The syntax of this command is:
NET VIEW
[\\computername [/CACHE] : [/ALL] : /DOMAIN[:domainname]]
Load vdbus driver
DrvLoad: Successfully loaded x:\Program Files\Comodo\Comodo Backup\vdbus.inf.
X:\Windows\system32>d:
D:\>cd "Program Files"
D:\Program Files>cd COMODO
D:\Program Files\COMODO>cd "COMODO Backup"
D:\Program Files\COMODO\COMODO Backup>cbu
D:\Program Files\COMODO\COMODO Backup>
    
```

Bart's PE (Bart's Preinstalled Environment)

This is a lightweight variant of Microsoft Windows XP or Windows Server 2003 32bit operating systems, similar to a Windows Preinstallation Environment, which can be run from a Live CD or Live USB drive.

A BartPE system image is created using PE Builder. It requires a legal copy of Windows XP or Windows Server 2003. Additional applications can be included in the image using plugins. It complete Win32 environment with network support, a graphical user interface (800x600) and FAT/NTFS/CDFS filesystem support.

Requirements to build
Supported Windows version: <ul style="list-style-type: none"> Windows XP Home Edition (slip streamed with Service Pack 1 or higher) Windows XP Professional (slip streamed with Service Pack 1 or higher) Windows Server 2003, Web Edition Windows Server 2003, Standard Edition Windows Server 2003, Enterprise Edition
PE Builder runs on Windows 2000/XP/2003/BartPE systems
CD/DVD writer to creat a bootable CD/DVD

To create BartPE CD:

1. Make sure that your system has about 500MB of free disk space.
2. Download the latest PE Builder version (self-installing package) and install it.
3. Start PE Builder (*pebuilder.exe*). When you start PE Builder for the first time it will ask if you agree with the license agreement.

4. PE Builder will ask to search for windows installation files. If you don't have your windows XP setup/installation files on your system you must insert the original Microsoft Windows XP installation/setup CD at this point. The files you have at `c:\windows` are not installation files. They are your already installed files. Click "yes" to start searching. PE Builder will now search all fixed- and CD-Rom drives for Windows installation files. This will take some time. When more than one valid location is found, a dialog will appear where you can select which location you want to use.

5. At the main PE Builder dialog, select the "Burn to CD/DVD" option. When you are using an erasable medium, make sure that the "AutoErase RW" option is enabled. The "burn using" option should be set to "StarBurn". Select your CD writer device from the Device list.

6. Hit the "build" button. PE Builder will now ask you to create a BartPE directory, answer with "yes".

7. The license for your Microsoft Windows XP product is shown. Read it and agree to it to continue.

8. PE Builder will now start building BartPE. This will take a few minutes.

You will see a lot of files getting copied and/or decompressed, the ISO image build and the data recorded to your CD/DVD writer.

If the data verify was correct and there where no errors reported you can boot the CD/DVD.

Features and Benefits:

- BartPE is not supported by Microsoft. Windows PE is an official Microsoft product.
- BartPE has a graphical user interface. Windows PE has a command line interface.
- The tools needed to make a BartPE installation are free software. Windows PE is available only to Microsoft OEM users.
- BartPE allows unlimited custom plugins. Windows PE has a limited range of plugins options.
- Accessing very large (>2TB) NTFS volumes or accessing volumes that are not seen by the BIOS, like some fibre channel disks.
- Very reliable scanning and cleaning of viruses on NTFS volumes using a "clean boot".
- Active Directory support.
- Have remote control over other machines, using vnc or remote desktop.

Appendix 3 - Comodo BackUp Error Codes

The most common error codes for Comodo BackUp are given below:

Error Code	Description
4	Generic error code
5	Required object was not found
8	Invalid password
10	Invalid device
15	The object/device is busy
29	Read error
30	Write error
46	Path is invalid
47	The request is not yet implemented
49	Device not ready

53	A connection error occurred
54	Operation cannot be completed because disk is full
55	Access denied
59	Corrupted backup
64	File / folder in use
67	Specified file was not found
84	Invalid "split" file found
89	Insufficient resources
90	A file/folder is used by another program
92	No content
97	The function call is invalid
108	Invalid http request to the server
111	File too big
147	Temporarily unavailable
177	Resource locked (the item is used by another program)
> 100000	For error codes greater than 100000 (except those got when restoring at system start-up), subtract 100000 from the error and then look here: System error codes . For example 100023 minus 100000 = 23, which is Data error (cyclic redundancy check).

If you encounter error codes other than those mentioned in the above table, contacts us at support@comodo.com or visit <http://www.comodo.com/support/comodo-support.php> to resolve the issue.

About Comodo

The Comodo companies are leading global providers of Security, Identity and Trust Assurance services on the Internet. Comodo CA offers a comprehensive array of PKI Digital Certificates and Management Services, Identity and Content Authentication (Two-Factor - Multi-Factor) software, and Network Vulnerability Scanning and PCI compliance solutions. In addition, with over 10,000,000 installations of its threat prevention products, Comodo Security Solutions maintains an extensive suite of endpoint security software and services for businesses and consumers.

Continual innovation, a core competence in PKI and a commitment to reversing the growth of Internet-crime distinguish the Comodo companies as vital players in the Internet's ongoing development. Comodo, with offices in the US, UK, China, India, Romania and the Ukraine, secures and authenticates the online transactions and communications for over 200,000 business customers and millions of consumers, providing the intelligent security, authentication and assurance services necessary for trust in on-line transactions.

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