



AISBackup: Help Contents

If this page is been displayed a file called AISBACKUP.CNT file is missing from the program folder.

For an overview of AISBackup, click [here](#).



AISBackup: Cue Card

Introduction

AISBackup provides ‘on the fly’ help by a system called *Cue Card*. The cue card can be used in one of two ways:

- 1/ Select an option from the cue cards menu by pressing one of the red buttons.
- 2/ Select an option directly from AISBackup and an appropriate cue card will be shown.

Example

To use the cue card to run the first backup tutorial:

- On the cue card click Tutorial 1 – Getting Started.
- Click the button next to ‘Create and Run...’.

Options

To permanently show or hide the cue card when AISBackup starts use the **Tools / Program Options / Program settings tab / Show Cue Cards at start up** option.

To temporarily show or hide the cue card select **Help / Show Cue Card / Now** or **Always** or **Help / Hide Cue Card / Now** or **Always**. The **Always** option is functionally the same as using the **Tools / Program, Options** method.

Cue Card Symbols



A button.



A mandatory action, this action must be taken in top to bottom order.



An optional action, you do not have to do this.



The action has been taken.



Information.



A Question.

The Order of Actions.

If AISBackup is been used without the cue card system running you can generally click buttons, enter values, and change options in pretty much the order you choose, if the cue cards are showing the order of

actions with green arrows must be performed in top to bottom order.



AISBackup: Backing up the C: Drive

Please Note.

AISBackup can backup most files on a PC, including open files. Some files, however, are *opened exclusively*, this means that the operating system will not allow any program to read these files. AISBackup uses a technique similar to that used by disk cloning programs to backup these *opened exclusive* files from FAT disk systems. AISBackup cannot, however, backup opened exclusive files from NTFS file systems or network drives.

To backup opened exclusive files from NTFS or Network drives you must close down the applications that are using the files.

Technical Notes for NT, 2000 XP and NT Server Users.

AISBackup backs up the Registry and NT Server Active Directory from NTFS drives and is also capable of backing up Microsoft Exchange using the offline method. The WINS and DNS databases may also be backed up using the offline method.

AISBackup optionally backs up NTFS file and folder security settings. This option is available when creating new backup jobs or via the **Manage Backup / Edit Job Parameters** option, but only after the job has been re-set to perform a full backup, via the menu option **Manage Backup / Reset Backup (Backup Everything)**.

AISBackup backs up encrypted files retaining their original encryption, these files can only be restored to the owner of the file. Restoring to the same username on another computer will not work. These files cannot be restored to a new installation of Windows, even to the same username.

Introduction.

Here are the instructions for creating a backup of the C: drive. The backup Job will be of a *Session* style, this gives you the opportunity to re-load your C: drive to any date that a successful backup was made. Successful backup defines that there were no files skipped because they were *opened exclusively* at the time of the backup (skipped files are listed in the log file). AISBackup has an option to attempt to back up opened exclusive files from FAT16 or FAT32 hard drive systems.

In this example you may choose your own destination for the backup.

You should consider making at least 2 backup's of your system, just in case a backup becomes unreadable for some reason.

Creating the Backup Job

1: Using Quick Job:

- From the main form click **Quick Job**.
- Select source of backup C drive
- Select the destination of backup Disk or if the option is available CD.
- Optionally adjust the name and destination of the backup.

- Optionally select backup NTFS file and folder security settings. Recommended for business users.
- Click **Create Job**.
- To the *Would you like to modify the list of files selected for backup?* Question answer **No**.
- To run the backup now click **Run**. To return to AISBackup click **Close**.

Continue.

2: Using New Job:

- From the main form click **New Job**.
- Select **Backup All Files From Disk Drive**, and choose **C:**, actually C: is the first in the list so there is no need to choose it. Click **Next**.
- Choose an appropriate destination for the backup, then click **Next**.
- Type the name of the backup job, in this example we have chosen the name **CDRV**.
- If the backup is to CD using AISBackup CD Writer or a third party CD Mastering application you must enter a prefix for the CD volume name. AISBackup will name the CDs <Prefix>01, <Prefix>02, <Prefix>03 etc.
- Although it takes longer to create the backup it is worth leaving **Test Backup** set to *Check File Integrity*. For a description of the **Test Backup** options click [here](#).
- If there are files on the C: drive that are always opened exclusively and the files system is FAT16 or FAT32 and indeed you want to back up these files, select **Backup Opened Exclusive Files**.
- Do not Check **Password Protect**.
- The other parameters may be left to their default values, click **Next**.
- Leave the backup job as **Session Based**.
- Optionally select backup NTFS file and folder security settings. Recommended for business users.
- Click **Next**.
- If you want to fine tune the file selection choose **Yes** to **Do you want to review the chosen files?** Otherwise choose **No**.
- The Select files form will be displayed if you chose Yes above. For a list of the Select Files Options, click [here](#).
- To run the backup now click **RUN** otherwise click **OK**.
- Once this backup has been made consider creating a new backup job based on the 'C' drive backup and making another backup. You may want to keep one of the backups away from your office / home.

This completes the instructions for creating a C: drive backup. You may have other drives that you wish to backup, indeed this backup need not have just contained the C: drive.

To Restore from this backup see:

- Restoring the C: drive on [Windows 95, 98 and ME](#).
- Restoring the C: drive on [Windows NT4](#).

- Restoring the C: drive on Windows 2000 & XP.



AISBackup: Restoring the C Drive: Windows 95, 98 & ME.

Introduction

Here are the instructions for restoring the C: drive when running Windows 95, 98 or ME. For the other Windows Operating systems see:

- Restoring the C: drive on Windows NT4.
- Restoring the C: drive on Windows 2000 & XP.

This procedure enables you to restore the contents of your C: drive. Often the C: drive will be restored on a PC that is running Windows from the same drive.

If you are running a dual boot system you may prefer to restore the C: drive from one of your other Windows Operating systems instead.

What you will need

Either:

The PC restored with the Emergency System Backup.

Or:

A PC with a fresh install of the Windows and a working copy of your CD packet writing system (If the backup was made using a packet writing system) and a copy of AISBackup. AISBackup need not be registered at this stage as it will effectively be re-registered when the Registry is restored from the 'C:' drive backup.

Or:

A PC that is running the current version of Windows, this too can be 'moved in time', for example: If session 1 was a backup of Windows 98, since then you have upgraded to Windows ME then restoring Session 1 by following these instructions will restore the PC from Windows ME back to Windows 98.

You will also need:

The C Drive backup CDs (or other media containing the backup), which was called CDRV in the backup created here.

For Windows 95, 98 & ME a copy of the AIS enhanced start-up diskette.

Locate or install the program AISBackup.exe, this should have been restored with the Emergency System Backup, the default location is "c:\program files\Aquarius IS Consultancy\AISBackup\AISBackup.exe " if you cannot find it, it is on your Emergency Restore CD under the folder [CD]:\Aisbkup\AISBackup.exe.


Note that shortcuts to AISBackup that are on the desktop may not work until the PC has been fully restored.

The Restore Process.

The Options dialogue may be displayed, please make any corrections before proceeding. Note, any changes made here are temporary and will be overwritten during the restore process.

AISBackup will only be aware of backup jobs created at the time that the Emergency System backup was taken. We will assume that all the backup jobs are out of date at this stage.

The instructions below assume you have either just performed an Emergency System Restore or have just installed a new copy of your operating system. If you are still running your most up-to-date version of Windows you may load the backup job directly rather than the **Tools / Open Job From Backup Media** option.

- Insert the last CD used from the backup that you want to restore.
- From AISBackup menu select **Tools** then **Open Job From Backup Media**.
- Using the Open Files dialogue locate and open the file <Job Name>.bdb, in our example this file is called cdrv.bdb
- If the last backup was run using version 1.0.3 or higher of AISBackup and the associated backup job does not exist or is older than the one on the CD you will be asked if you want to re-instate the backup data and backup job; select **Yes**.
- Click **Restore from backup**.
- On the Select session form select the latest session date, or the date that you want to restore from, do not use *All Sessions* as this option is not suitable for the type of restore we are running. The sessions coloured red were not completed successfully.
- Once you have selected a session click **Next**.
- Select the Hard Drive by selecting the icon so that it becomes .
- Click **Next**.
- On the Duplicate File Action / Destination form select **Replace Files with Different Files Only (Older or Newer)**.
- Select **Delete files that did not exist when session *n* was backed up**, where *n* = the session number.
- Click **OK**.
- Confirm the restore by clicking **Yes**.
- After the restore you will be asked to either review or delete files that exist on the PC but were not on the backup. Either delete all files, and confirm by typing **yes**, or review and select which files are to be deleted. It is recommended that files are deleted, but there may be some documents / pictures that you want to retain.
- AISBackup will not be able to replace all of the files in this phase of the restore because some are in use by Windows. These files are temporarily written to the Temporary Location For Restored Files folder and will be restored when the PC is re-started.
- When the first phase of the restore finishes you will be asked restart the PC in order to restore the Registry and other in-use files.

This concludes the restore process.



AISBackup: Restoring the C Drive on Windows NT4.

Introduction

Here are the instructions for restoring the C: drive when running Windows NT4. For the other Windows operating systems see:

- Restoring the C: drive on Windows 95, 98 and ME
- Restoring the C: drive on Windows 2000 and XP.

This procedure enables you to restore the contents of your C: drive. Often the C: drive will be restored on a PC that is running Windows from the same drive.

If you are running a dual boot system you may prefer to restore the C: drive from one of your other Windows Operating systems instead.

What you will need

Either:

A PC with a fresh install of the Windows and a working copy of your CD packet writing system (If the backup was made using a packet writing system) and a copy of AISBackup. AISBackup need not be registered at this stage as it will effectively be re-registered when the Registry is restored from the 'C:' drive backup.

Or:

A PC that is running the current version of Windows NT4, this can be 'moved in time'.

You will also need:

The C Drive backup CDs (or other media containing the backup), which was called CDRV in the backup created [here](#).

Locate or install the AISBackup.

The Restore Process.

The Options dialogue may be displayed, please make any corrections before proceeding. Note, any changes made here are temporary and will be overwritten during the restore process.

The instructions below assume you have just installed a new copy of your operating system NT4. If you are still running your most up-to-date version of Windows you may load the backup job directly rather than the **Tools / Open Job From Backup Media** option instead.

- Insert the last CD used from the backup that you want to restore.
- From AISBackup menu select **Tools** then **Open Job From Backup Media**.
- Using the Open Files dialogue locate and open the file <Job Name>.bdb, in our example this file is called cdrv.bdb

- If the last backup was run using version 1.0.3 or higher of AISBackup and the associated backup job does not exist or is older than the one on the CD you will be asked if you want to re-instate the backup and job; select **Yes**.
- Click **Restore from backup**.
- On the Select session form select the latest session date, or the date that you want to restore from, do not use *All Sessions* as this option is not suitable for the type of restore we are running. The sessions coloured red were not completed successfully.
- Once you have selected a session click **Next**.
- Select the Hard Drive by selecting the icon so that it becomes



- Click **Next**.
- On the Duplicate File Action / Destination form select **Replace Files with Different Files Only (Older or Newer)**.
- Select **Delete files that did not exist when session n was backed up**, where n = the session number.
- Click **OK**.
- Confirm that it is okay to replace the Windows Operating System by clicking **Yes**.
- Confirm the restore by clicking **Yes**.
- After the restore you will be asked to either review or delete files that exist on the PC but were not on the backup. Either delete all files, and confirm by typing **yes**, or review and select which files are to be deleted. It is recommended that files are deleted, but there may be some documents / pictures that you want to retain.
- AISBackup will not be able to replace all of the files in this phase of the restore because some are in use by Windows. These files are temporarily written to the Temporary Location For Restored Files folder and will be restored when the PC is re-started.
- When the first phase of the restore finishes you will be asked re-start the PC, click **Yes** to initiate the re-boot.
- The in-use files will be restored during the re-start, the AISBackup restore program will then restore the Registry and request another re-start.

This concludes the restore process.



AISBackup: Restoring the C Drive on Windows 2000 and XP.

Introduction

Here are the instructions for restoring the C: drive when running Windows 2000 or XP. For the other Windows operating systems see:

- Restoring the C: drive on Windows 95, 98 and ME.
- Restoring the C: drive on Windows NT4.

This procedure enables you to restore the contents of your C: drive. Often the C: drive will be restored on a PC that is running Windows from the same drive.

If you are running a dual boot system you may prefer to restore the C: drive from one of your other Windows Operating systems instead.

What you will need

Either:

A PC with a fresh install of Windows 2000 or XP and a working copy of your CD packet writing system (If the backup was made using a packet writing system) and a copy of AISBackup. AISBackup need not be registered at this stage as it will effectively be re-registered when the Registry is restored from the 'C:' drive backup.

Or:

A PC that is running the current version of Windows 2000 or XP, this can be 'moved in time' by restoring an earlier backup session.

You will also need:

The C Drive backup CDs (or other media containing the backup), an example of the backup can be found [here](#).

There are two options for restoring the Windows 2000 or XP operating system. The most secure way is to allow AISBackup to restore the Windows System files to a temporary folder which is then swapped with the current Windows System using the Microsoft Recovery Console. The other method is to restore Windows 2000 or XP 'over the top' of the running operating system. AISBackup will advise which restore method should be used at run time, this is dependent on the extent of system file changes between the current running Windows and the content of the Restore.

To use the Recovery Console method you need the Windows distribution CD. Some PC systems are not distributed with a standard Windows installation CD, but it should be possible to install the Microsoft Recovery Console, see [here](#).

If you do not have access to a Windows 2000 or XP Windows CD you may restore your backup via a dual-boot system, i.e. install a second copy of 2000 or XP onto drive D: and then restore the main Windows system to drive C:.

If you regularly restore your Windows Operating system then you may want to install the Microsoft Recovery Console onto your C: drive. Please see the Windows 2000 or Windows XP documentation and

[here](#).

Locate or install the program AISBackup.

The Restore Process.

The [Options dialogue](#) may be displayed, please make any corrections before proceeding. Note, any changes made here are temporary and will be overwritten during the restore process.

The instructions below assume you have just installed a new copy of your Windows Operating System. If you are still running your most up-to-date version of Windows you may load the job directly rather than using the **Tools / Open Job From Backup Media** option.

- Insert the last CD used from the backup that you want to restore.
- From AISBackup menu select **Tools** then **Open Job From Backup Media**.
- Using the Open Files dialogue locate and open the file <Job Name>.bdb, in our example this file is called cdrv.bdb
- If the last backup was run using version 1.0.3 or higher of AISBackup and the associated backup job does not exist or is older than the one on the CD you will be asked if you want to re-instate the backup and backup job; select **Yes**.
- Click **Restore from backup**.
- On the Select session form select the latest session date, or the date that you want to restore from, do not use *All Sessions* as this option is not suitable for the type of restore we are running. The sessions coloured red were not completed successfully.
- Once you have selected a session click **Next**.

- Select the Hard Drive by selecting the  icon so that it becomes



- Click **Next**.
- On the Duplicate File Action / Destination form select **Replace Files with Different Files Only (Older or Newer)**.
- Select **Delete files that did not exist when session n was backed up**, where n = the session number.
- Click **OK**.
- Confirm that it is okay to restore the Windows Operating system by clicking **Yes**.
- Confirm the restore by clicking **Yes**.
- After the restore you will be asked to either review or delete files that exist on the PC but were not on the backup. Either delete all files, and confirm by typing **yes**, or review and select which files are to be deleted. It is recommended that files are deleted, but there may be some documents / pictures that you want to retain.

[Dependent Restore Options.](#)

If the Microsoft Recovery Console option was chosen click [here](#).

[Non-Microsoft Recovery Restore.](#)

- AISBackup is not be able to replace all of the files in this phase of the restore because some are in use by Windows or are Protected System files. These files are temporarily written to the Temporary Location For Restored Files folder and are restored when the PC is re-started.
- When the first phase of the restore finishes you are asked restart the PC in order to restore the Registry, in-use and protected system files.
- This concludes the Restore.

This concludes the restore process.

Microsoft Recovery Console Restore.

- AISBackup restores the system files to duplicate system folders, i.e. a duplicate of *C:\Windows* is created as *C:\Windows_AIS*. Restoring this way ensures that the existing core Windows operating system is not compromised during the Restore process. Some files are moved from the 'live' Windows folders to the 'Duplicate' Windows folders during the restore process, this keeps additional disk usage to a minimum.

Alternatively you may choose to restore Windows from the other half of a dual boot system.

- When the first phase of the restore finishes you are asked to restart the PC and start the Microsoft Recovery Console, see [here](#).
- After loading the Recovery Console choose the operating system you have just Restored, e.g. *C:\Windows*. Do not choose *C:\Windows_AIS*.
- Enter the password for the *Administrator* account. For Windows XP Home users the default password is not set, so just press Enter. Some OEM versions of Windows XP set the Administrator password to the word *password*, consult your documentation. XP Home users who would like to change the Administrators password should boot in Safe Mode, from here you will have access to the Administrator's account, from where you may change the password.
- Enter the command:

BATCH AISRESTORE

There is a space between the word BATCH and AISRESTORE.

AISBackup takes about a nanosecond to switch Operating Systems, once this has finished remove the distribution CD, type **EXIT** then press <Enter>. Widows will now re-start.

- AISBackup will now check that everything has been restored and delete the remnants of the previous Windows Operating System.

This concludes the restore process.



AISBackup: Backing up Windows NT, 2000 and XP Operating System

Introduction.

Since version 1.7 of AISBackup there are no special requirements for backing up Windows NT, 2000 and XP from local FAT or NTFS drives.

See backing up the C: drive [here](#).



AISBackup: Select Job: Button

Description.

To select a job for backup or restore you may use the Select Job dropdown combo box, to display a list of all jobs you may select the **Select Job:** button.

The job list contains the name of the job, the date last run, the next time the job is scheduled to run via Microsoft Task Scheduler and a summary message of the result of the last backup.

Right click a job to perform a job specific action, for example run a Backup or Restore. The list of options is described [here](#).

Multiple jobs may be selected for deletion.

To jump to the main form options click [here](#).



AISBackup: Find Alternate ASPI DII's.

Description.

Select the drives from which AISBackup should search for suitable ASPI application extensions.

For a detailed description of trouble shooting CD and DVD writer ASPI problems click [here](#).

The file WNASPI32.DLL is a an interface between AISBackup and the physical CD/DVD writer.



AISBackup: Alternate ASPI Programs.

Description.

ASPI is an acronym for "Advanced SCSI Peripheral Interface" designed by Adaptec as a software driver for most SCSI peripherals. ASPI provides direct support for most CD and DVD writers. ASPI support is generally provided by a Dynamic Link Library called WNASPI32.DLL, generally different versions of WNASPI32.DLL are required for Windows 95 style systems and Windows NT style systems.

AISBackup has a built in ASPI interface but this may not work on all PC's and this interface is not suitable for Windows 95, 98 or ME.

Microsoft supplied Adaptec's version of WNASPI32.DLL with Windows 95, 98 and ME but this may be replaced by an ASPI interface from another manufacturer when CD burning software is installed, e.g. Nero.

ASPI software is not distributed with Windows NT, 2000 and XP but may be installed with CD and DVD burning software from Roxio (formerly Adaptec) and Nero etc. AISBackup also supplies a Windows NT, 2000 and XP version WNASPI32.DLL.

Changing the ASPI Driver.

To change the ASPI driver that AISBackup is using use the **Tools / Program Options / Troubleshoot CD/DVD writer** option.

- If the internal ASPI interface is been used this is disabled and AISBackup restarted, this is because the internal interface is exclusive and AISBackup cannot use the individual WNASPI32.DLL files.
- AISBackup tests the ASPI drivers it knows about, if you would like to search the PC for more suitable ASPI drivers select the **Find ASPI Drivers** button then select the drives to search.
- Choose a driver from the list, this will be installed into the AISBackup program folder.
- AISBackup tests the ability to fine the installed CD and DVD writers on the PC, this gives an indication of which drivers are suitable.
- AISBackup keeps different ASPI drivers separate for different operating systems to enable the AISBackup program to be shared between multiple operating systems on the same PC.
- On dual-boot systems where the AISBackup folder is shared between systems AISBackup maintains separate settings for each version of the Windows operating system.



AISBackup: Create New Job – Quick Option.

Introduction.

The **Quick Job** option may be used to quickly set-up an AISBackup backup job. The following job styles are enabled:

- The whole the selected disk drive except files excluded by the *Default Excluded Files and Folders option*.
- The basic Windows Operating System, with only the registry files from each registered User.
- Documents and settings for all users of the computer. AISBackup will only select the Microsoft *Documents and Settings* folders, some Applications store files in different folders, these you must select yourself.

The file and folder list selected for backup may be modified after job creation.


FTP backups must be created using the **New Job option**.

Option 1: The quickest way.

After just 6 clicks of the mouse a backup of your C: drive, Windows or Documents the selected backup could be running.

1. From the main form click **Quick Job**.
2. Select the source of the backup, e.g. C: drive.
3. Select the Destination of the backup, e.g. Disk, CD or DVD.
4. Click **Create Job**.
5. On the *Would you like to modify the list of files selected for backup?* form choose **No**.
6. Click **Run**.

Option 2: The slightly longer way.

1. Duplicate job names cannot be entered; the **Job Name** field turns red until you adjust the name.
2. You may refine the backup destination by choosing the  button. If the backup destination is not the C drive you are asked if the disk is a USB or FireWire drive. If the destination is a network drive the backup is automatically changed to a network backup, unless using a pre-defined remote USB / FireWire drive.
3. For CD based backups where the AISBackup integrated CD writer is active you may change the CD Volume name prefix. If only the CD Packet Writing interface is active the CD Volume name prefix option is not available.
4. Optionally select **Password Protect**.
5. After clicking **Create Job** you may modify the list of files and folders selected by choosing **Yes** to the *Would you like to modify the list of files selected for backup* prompt. See [here](#) for details.
6. To create more *quick backup jobs* click **Continue**, to run the last created job click **Run**, to finish

click **Close**.

7. Select the menu option **Manage Backup / Edit Backup Job Parameters** to change the more advanced backup parameters, See here [HLP_COMP](#) for more information.



AISBackup: Backing up the Registry.

Introduction.

The Registry is backed up along with other Operating system files as long as you select the Windows folder and additionally, when running Windows 2000 and XP, the folder *Documents and Settings*.

You may want to quickly backup the Registry, for example, just before editing the Registry using Regedit or Regedt32.

Backing up the Registry.

- Select the menu Option **Tools / Backup Registry**.
- Optionally enter the destination zip filename for the Registry backup. The default is *RegBackup* under the AISBackup program folder.
- The backup may take several minutes depending on the size of the Registry, an animation is shown but this may freeze on some PC systems.

Other Registry backup options.

If you backup the whole drive that contains the Operating System the Registry will be backed up as part of this process. See [here](#) for an example of backing up the C: drive.

You may also get AISBackup to automatically select the Registry by using the [Auto Select](#) option from the Select Files Form.



AISBackup: CD Writer Options.

CD Writer Options.

Introduction

AISBackup can use 3 methods to create a backup on CD or DVD:

- CD or DVD using the AISBackup integrated Disc writer.
- CD-ROM using a third party CD mastering application that may have already been installed, this includes the Windows XP CD Writer interface.
- UDF format CD's and DVD's using a third party interface called a *Packet Writing System*. A packet writing interface package may have been supplied with the CD/DVD writer.

A description and the advantages, disadvantages and recommendations of using each option are shown below.

Why Different types of CD?

There are two types of CD, CD-ROM (ISO 9660 file system) and Universal Disk Format (UDF). UDF CD's must be created (written) using a third party Packet Writing system, which may already be installed on the PC.

CD ROM (ISO 9660 / Joliet Encoded) style CD's.

CD ROM style CD's are compatible with most PC systems without the requirement for any third party software, unfortunately all the data that is to be written to CD-ROM CD's must exist on a hard disk beforehand, this is because the CD writing process must know the names, sizes etc of each file before the CD is created. AISBackup backs up a CD's worth of backup data to disk prior to CD creation, then creates the CD, optionally tests the CD and then erases the disk based backup data. This process is repeated until the backup has finished. AISBackup refers to the intermediate disk area as the *Disk Stage*.

AISBackup creates CD-ROM style CD's using the integrated CD writer.

AISBackup can also be instructed to pause after the disk stage of the backup phase to enable a third party CD Mastering program to be used instead of the integrated CD writer. AISBackup is then manually resumed to perform the optional test and erase phases. This interface is only recommended if the AISBackup integrated CD writer does not work correctly. To enable this option select the **Enable Third Party CD Mastering** option

AISBackup is capable of adding new backup data to a pre-used CD, this process requires pre-existing data on the CD to be *imported* to subsequent sessions. The AISBackup integrated CD writer automatically imports previous backup data to on a pre-used CD, but it is your responsibility to ensure that previous data is imported on pre-used CD's when using a third party CD creation tool, refer to the documentation that came with the CD creation software. Click [here](#) to see supported DVD options.

UDF: style CD's using a third party Packet Writing System.

UDF CD's (Universal Disc Format) are created using a third party Packet Writing interface. This method of creating CD is more akin to magnetic hard drives or diskettes. The packet writing system becomes part of the Windows Operating system so you may not be aware that this interface is present. AISBackup can auto-detect some common packet writing systems, but even if AISBackup does not know the packet writing system installed on your PC you may still enable this option.

Packet Writing systems write data to the CD or DVD on the fly (the same as a regular disk) so there is no need to pre-stage the backup to a hard disk first, in other words AISBackup writes the backup directly to CD or DVD.

There are some disadvantages with Packet Writing systems:

- The PC system where the backup is to be restored must have a compatible Packet Writing system with the source PC. If there is no CD writer installed on the PC a reader called a UDF reader must be installed.
- Some packet writing systems only work with re-writable media like CD-RW, DVD-RW, DVD+RW and not recordable media like CD-R, DVD-R, DVD+R.

If spare hard disk space is low this method backup is recommended for DVD.

This option may also work with DVD-RAM even if a third party packet writing system has not been detected by AISBackup.

Using the AISBackup integrated CD Writer.

The AISBackup integrated CD writer creates Joliet encoded read only CD-ROM style CD's. A Joliet encoded CD is a standard format where Windows and DOS style long and short filenames are preserved. The CD's can be read on most CD-ROM devices from all versions of Windows and DOS. Joliet encoded CD's are most flexible if the backup is to be shared amongst different PC's. The AISBackup CD writer can make Joliet encoded CD's on both CD-R and CD-RW media, but note that older CD-ROM devices may not be able to read CD-RW.

- **Advantages:** The CD's can be read on most CD-ROM devices.

AISBackup automatically imports the last backup session on a re-used CD.
DVD: Click [here](#) to see supported DVD options.

The Disc must not be pre-formatted (except for DVD+RW); pre-used CD-RW may be erased from the AISBackup load media form.

- **Disadvantages:** AISBackup must write the backup to disk prior to creating CD's and DVD's using the Integrated CD writer. There must be at least the capacity of a CD free disk space available, this is either 650MB or 700MB when using standard sized CD's or 4.7GB for DVD.

The AISBackup integrated Disc writer may not work with all CD Writer devices.

Click [here](#) to see supported DVD options.

- **Recommendations:** If possible use this interface for creating backups to CD-R and CD-RW, and if pre-stage disk space of 4.7 GB is available, DVD.

Using a third party CD Mastering Program.

Like the integrated AISBackup CD writer a third party CD mastering program creates Joliet encoded CD's which are most compatible with other CD-ROM devices. The differences are in the advantages and disadvantages.

Using this method of creating CD's is prone to error so is not really recommended unless you cannot use

the integrated CD writer.

- **Advantages:** The CD's can be read on most CD-ROM devices.

A third party CD mastering program was probably included with the CD Writer device when it was purchased, so is compatible, whereas the integrated CD writer may not be.

The CD must not be pre-formatted, pre-used CD-RW may be completely erased.

- **Disadvantages:** There must be at least the capacity of a CD free disk space available, this is either 650MB or 700MB when using standard size CD's.

You are responsible for preserving previous backup data on pre-used CD's. Previous sessions are not automatically imported, if the previous session is not imported all or part of the previous backup session is lost.

Click [here](#) to see supported DVD options.

- **Recommendations:** Because the *import the last session* option may be forgotten try and use the AISBackup integrated CD writer instead.

If the AISBackup CD writer cannot be used consider using a blank CD for each new backup session.

Using a third Party Packet Writing System.

A third party packet writing system writes Disc's in a format called Universal Disc Format or more commonly by its acronym UDF. UDF Disc's can only be read on devices that support the UDF system. Some CD ROM devices can read UDF CD's but these need a third party UDF reading software. UDF reading software is often included with the CD writer packet writing system's to enable the CD's to be read on a PC that has no CD writer or does not support the interface. The UDF file system enables files to be written, read and deleted from a CD or DVD just like a regular disk. Files cannot be physically removed from Recordable media but they can be logically deleted.

- **Advantages:** The CD or DVD looks and behaves like a regular disk to the operating system; files may be saved, opened, deleted just like regular files.

No additional hard disk space is needed so the 650 – 4,700 MB stage area is not required, the files are written directly to CD.

This option is recommended for DVD, especially when the PC is running Windows 95, 98, ME, NT4 and 2000.

- **Disadvantages:** Some packet writing systems only support re-writable media and not write once media, check the packet writing system documentation.

CD's and DVD's have to be pre-formatted, this can take a long time when using re-writable media.

A UDF reader may have to be installed on some PC's. UDF readers are, however, supplied free by the vendors of Packet Writing systems.

The CD's cannot be read from DOS. Windows 95, 98 & ME users must not create an Emergency System Backup using this interface.

- **Recommendations:** Try and use the AISBackup integrated CD writer if there is enough disk space available for the disc stage because these backups are compatible with most other PC's.

If the PC is running Windows 95, 98, ME, NT4 or 2000 use the a packet writing system with DVD+RW, DVD-RW and if the packet writing system supports write once media, DVD-R and DVD+R.

If disk space is low this option is recommended for DVD.

The current version of AISBackup does not support network disc spanning but if the backups will fit on the media this is the best option for backing up to networked CD or DVD writers, just share the CD or DVD writer on the network.



AISBackup: Restoring the Registry.

Introduction.

If you choose to restore the whole drive containing the Windows Operating system then the Registry is restored as part of this process. If you have backed up the Registry using the **Tools / Backup Registry** option you may choose to restore this backup using the **Tools / Restore Registry** option.

You may want to use this option following an abortive Registry edit or after some other Registry corruption e.g. after running an over enthusiastic 'Registry Clean' program.

This option also allows you to delete un-wanted Registry backups.

Different backups for different Registries on dual-boot systems are also managed by this option, this will cause AISBackup to prompt for confirmation if, for example, you are about to restore a Windows 2000 Registry on Windows XP.

Restoring the Registry.

- Select the menu Option **Tools / Restore Registry**.
- Select the Registry backup you want to restore.
- Click **Restore Registry**.
- Once the Registry has been restored you will be required to re-start your PC.

If you have made a backup of the Registry that is not in the list you may use the **Restore Unlisted Registry** instead.

To delete a Registry backup from the list (and delete the actual zip file containing the Registry) use the **Delete Backup** option.



AISBackup: Copying Files from Disk to Disk.

AISBackup Version 2.0 Notes

From version 2.0 of AISBackup it is no longer possible to save and load copy jobs via the Disk to Disk Copy option. The copy jobs are upgraded the first time the Disk to Disk option is used and added to the list of backup jobs which are accessed via the main form job list drop-down combo box.

The upgrade enables the following advantages:

- A standard approach to running all AISBackup jobs.
- The ability to auto-run disk to disk copies via the Microsoft Task Scheduler.
- Create shortcut's for disk to disk copy jobs.

To create a disk to disk copy job se the main form option **New Job** and select the destination **Disk to Disk**.

Introduction.

This option is used to copy files from one disk volume to another. All files and folder attributes are maintained. All files are copied including system, hidden and read only files.

This option may be used to copy the Windows operating system to a new formatted disk.

The destination of the copy may be a folder.

Copying the Operating System.

The copy option is ideal for copying your existing Windows operating system to a new disk. Ensure that the disk is formatted appropriate to the operating system, e.g. you will not be able to boot Windows 95, 98 or ME from an NTFS drive. If you would like to boot from the new disk please ensure that you copy the boot files from the existing system drive, this is normally the C: drive, but if you are running Windows 2000 or Windows XP check this via the Windows Disk Manager:

- Right Click *My Computer*.
- Choose **Manage**.
- Select **Disk Management**.
- Look for *System* Drive.
- If you have not already done so copy the contents of the root of this drive to the new disk.

System and Boot drives.

A PC can only be booted from the active partition of a disk drive, this is why there can only be one active partition per drive. Some PC's enable booting from different physical disks by adjusting the CMOS settings therefore it is possible to set-up Windows 95, 98 or ME on the same PC as long as the boot drive is selected via the CMOS settings at start-up. Some boot manager programs also enable this facility without the need to access the CMOS settings.

It is a lot easier with Windows NT, 2000 & XP, as many of these systems can be installed on any number of disk partitions, the actual booted system is selected via the boot menu which resides on the system drive (the active partition of the drive selected to boot from in the CMOS settings). AISBackup has a facility for editing the boot menu so that a copy of Windows NT, 2000 or XP may be booted, see [here](#).

Dual or Multi-boot Systems.

It is recommended that you do not copy Windows 2000 or Windows XP to another drive while running the Operating Systems Windows 95, 98 or **ME**, instead boot into the Windows 2000 or XP system and run the copy from there.

Copying to CD

This option does not support the AISBackup integrated CD writer but you may use a third party Packet Writing system.

If the destination is a CD-R all files on the destination CD will have the *read only* attribute set. When you copy the files back to the hard drive you will have to manually remove the *read only* file attributes. If the file attributes issue is likely to cause a problem use a CD-RW, DVD-RW or DVD+RW instead.

This option does not support CD Spanning.

Copying Windows 2000 and XP Please note:

Always check that you can boot into the copy of the operating system prior to formatting the old disk.

Follow-up options

If you have transferred an operating system to a new drive and wish to add this to a dual boot system see [Edit Windows Boot Menu](#).



AISBackup: Loading a backup that is not in the list of backup jobs.

How to get to this option

From the menu select **Tools** then **Open Job From Backup Media**.

Description.

AISBackup can easily load an backup created on another PC, or from the current PC where the job has been deleted. This is done by selecting the menu option **Tools / Open Job From Backup Media**.

In the following explanation the source of the backup can also be hard drive, network drive etc.

- Insert the last CD used of the backup that you want to restore from.
- Select the menu option **Tools / Open Job From Backup Media**.
- Using the Open Files dialogue locate and open the file <Job Name>.bdb, in our example this file is called cdrv.bdb
- If the last backup was run using version 1.0.3 or higher of AISBackup and the associated job does not exist or is older than the version on the CD you will be asked if you want to re-instate the backup and job; select **Yes**.
- Click Restore from backup.

If the backup is not re-instated it will be opened for restore only.



AISBackup: What should I backup?.

What should I backup and when?

This section describes the backups that you may choose to do and makes suggestions for when the backups should be run.

Why Backup?

Today computer hardware is very reliable, the mean time between failures of hard drives is normally quoted as 30,000 – 35,000 hours, that is about 3½ years of continuous use!

There are other considerations though:

- Accidentally deleting files.
- Accidentally saving files over versions that you wanted to keep.
- Sharing data with another PC that is not on your network.
- Archiving data that you want to remove from the PC.
- Requirement to re-install the Operating System, programs and data following a virus attack.
- Requirement to re-install the Operating System, programs and data following over enthusiastic use of the file delete option.
- Requirement to roll back the PC to an earlier date following the installation of some rogue software that thinks it has a divine right to take over your PC.
- Another family member taking up all of your 5 ‘save game’ slots with their own feeble attempts at the latest block buster.
- Accidentally deleting contacts from your e-mail address book.
- Accidentally deleting word processing documents.
- Accidental damage (dropping the PC).
- Fire.
- Theft.

What to backup and when.

The following are suggestions for a backup scheme in an attempt to provide you with enough information to devise your own.

The backups described fall into three categories:

1. Emergency System Backup.
2. Hard Drive Backup.
3. Data Files Backup.

1. Emergency System Backup.

An Emergency System Backup is a backup of the necessary components of the Windows

Operating System to enable you to get your system up and running enough to perform a 'proper' system restore.

The Emergency System Backup can span many CDs but we recommend that you keep your backup small as it is only intended to get you up and running enough to restore from your regular 'C' drive backup.

The Emergency System Backup CDs must be readable from a DOS session. To make the CDs readable from a DOS session they must be written using the AISBackup integrated CD writer or a third party CD Mastering application. A Packet Writing interface is not suitable. To save time, and if your PC boot sequence allows, the CDs should be made bootable using the AISBackup enhanced version of the Windows Start-up diskette. If you have run the **Tools / Restore Diskette** option the AISBackup integrated CD Writer automatically makes the CDs bootable.

Emergency System Backup 'Super Start CD'.

If you regularly like to re-build your PC you may consider making a 'Super Start CD'. During one of your re-builds pause after installing Windows and the hardware support software, patches etc and then make a backup of your entire boot drive. This 'Super Start CD' might contain:

- The Windows Operating System.
- Web browser.
- The latest patches of the Operating System.
- Graphics drivers.
- Graphic driver patches.
- Sound drivers and software.
- CD Writer software. (mandatory for Emergency System Backup).
- Your favourite Zip program.
- A Registered version of AISBackup!

Start-up Diskette.

In order to restore from an Emergency backup you will require a Windows Start-up diskette, this should be enhanced using the **Tools / Restore Diskette** option.

Windows 95 users should obtain a Windows ME start-up diskette as this will automatically configure most CD Writers as CD ROM drives when booting to DOS. You may be able to obtain these boot diskettes from the internet.

Note:

The Emergency System Backup is only works for Windows 95, 98 and ME but there is a work around for Windows NT and Windows 2000.

2. Hard Drive Backup.

The hard drive backup contains everything from your hard drive (or drives) accept temporary files.

It is worth splitting each different logical drive into separate backups to make each backup job easier to manage.

Remember to exclude temporary files, especially temporary internet files as these are particularly volatile - many files are created and erased while you are browsing the internet!

Do backup your internet cookies though as these may contain information that you do require when accessing the internet.

De-Select folders that contain hard drive based AISBackup's, unless you really want to backup a backup!

Use the Auto-Select OS option of the AISBackup [Select files form](#) to automatically select and de-select the appropriate files.

Consider making at least two copies of the Hard Drive backups just in case the backup media becomes un-readable.

Re-fresh the full hard drive backup on a fairly regular basis, say once a week. If you have two backups of each drive then consider alternating backups on a two week cycle rather than keeping both up to date at the same time. Also consider updating the backups immediately prior and soon after the installation of software or patches. When the backup has finished consider adding a comment such as '*Backup just prior to upgrading to Internet Explorer 6*'.

Ask yourself 'How far back can I afford to go?' and base the backup schedule on your answer.

3. Documents, Save Games, Program Source and other Data.

Your data files are the most important files that you own. The data files contain the information that has been input or created by you and this information is not on the distribution CD for Windows, Office, Quake III or whatever, so your data is totally irrecoverable if you lose your computer system.

What you should consider backing up:

- The folder My Documents (if this is where you keep your documents). Remember that if you are running Microsoft Family Login or Windows 2000 these files are not under the root of the C drive but under a folder called 'C:\Windows\Profiles\- E-mail post office files and address books.
- Save Games.
- If you are a computer developer your source files and programs.
- Pictures.
- Data from specialist programs such as a Family Tree program.
- Music files.
- Video files.
- Internet downloads.
- Any data missed from the above list.

When to backup, where to backup and how often.

The above lists the most important data on your system, after all, the rest of the information could be re-created by installing the software from the distribution CDs and downloading and re-applying

patches etc.

Here are some considerations for setting up backup jobs and schedules for your data files:

- Back up the data files to a destination somewhere else on your hard drive or preferably on another physical hard drive. This job could be run automatically each time you load your PC (or the first time you load your PC each day). Consider making this backup a 'Generation' style backup where you may just keep, say, the last 5 versions of each file – this will keep the size of the destination backup down.
- As above but to a network drive on a physically different PC, if you have two or more PCs on a LAN consider making backups of each PC to the other PCs.
- As above but if the PC is left turned on all night consider running the backup when you are absent using a task scheduler. AISBackup provides an interface to the [MS Task Scheduler](#).
- Backup regularly to CD or other removable media, ask yourself 'How far back to I want to go to re-create my data?'.
- Developers, Home office workers and owners really important data should consider archiving CD backups on a regular basis and putting the backup away from your office / home to cover the possibility of fire or theft. Remember to password protect any confidential data that you intend to move off-site.
- You can schedule a CD backup to run when you are absent from the office, if the backup overflows the CD you will be prompted for a blank (but formatted) CD when you return to the office.

Help File Links.

- [Creating an Emergency System Backup.](#)
- [Backing up your C: drive.](#)
- [Restoring an Emergency System Backup.](#)
- [Restoring the C: drive following Restoring an Emergency System Backup.](#)



AISBackup: Files created and used by AISBackup.

Description.

Here is a list of files created by AISBackup.

<Jobname>.buz	This file contains is the backup job and contains the list of files to be backed up, the backup parameters and the name of the Backup Contents File and Log file.
<Jobname>.bdb	This is the <u>Backup Contents File</u> and contains a list of files that have been backed up, the location of the file and the session the file was created and if appropriate deleted in.
<Jobname>.bdb.lfn	This file contains segment details of backed up files that are larger than the backup media (huge files).
<Jobname>.bdb.fld	NTFS folder security settings.
<Jobname>.log	This file contains the backup and restore <u>log</u> messages.
AISBackup.Log	Contains the Job Summary <u>log</u> messages.
<Jobname>.err	This file may be created during a <u>validation</u> and contains the list of files and their location that could not be read from the backup.
< Jobname>.83	This file contains the list of zip files containing the DOS style filenames and is used by the <u>Emergency System Restore</u> .
<Jobname>.lng	This file contains the list of zip files containing the long filenames and is used by the <u>Emergency System Restore</u> .
^<Jobname>.nnn	This is an archived Backup Contents File where nnn is the sequence number of the archive.
<Jobname>_nnn.zip	These files contains the actual backup where nnn is the sequence number. The extension zip may be user modified in the set-up <u>options</u> . Of all the files listed these are the most important, accidental removal of these files will make a backup irretrievable.
<jobname>_0000x_00x.AIL	Files that are designated huge files are split into 100MB segments and then copied or compressed to *.ail files. The numbers represent the internal record number and segment number. Details of the huge file segments are stored in the <Jobname>.bdb.lfn file. The size of a file before it is designated a huge file may be set using the Manage Backup / Edit Backup Job Parameters / Huge File Size parameter.
<jobname>_0000x.All	These huge file details files may be used by AISBackup to repair a damaged <Jobname>.bdb.lfn file.
AISBackupLastRun.log	This file can be found in the AISBackup program folder and contains a summary of each backup wa run during the last AISBackup session. Please see <u>here</u> for further information.



AISBackup: Recommended PC Settings

Notes:

These recommendations were originally written in 2001, since then the quality of PC's, CD / DVD writers and supporting software has improved. These recommendations may, however, be suitable for people using older computers and software.

Settings.

During CD backups AISBackup writes a constant stream of data to the CD writer. Some CD writers fail to do this task if DMA is set, if you encounter any problems permanently remove the DMA setting from your CD writer.

The non DMA mode is called PIO mode on Windows 2000 and Windows XP.

- Although removing the DMA setting should enable CD backups you may not be able to use the maximum write speeds of the drive as these rely on DMA been set. Please contact your CD Writer manufacturer for more information.
- Check the AISBackup [web-site](#) for more advice.

CD-R, CD-RW Settings.

If you are encountering excessive file failures during the *Test* phase of a backup check that you are not *burning* the CD at a rate faster than the blank CD is intended.

Some CD packet writing software detects 8 speed CD-R's as 12 speed CD's. Depending on the quality and tolerance of the CD writer this may cause subsequent excessive read errors. You should manually set the correct CD-R speed just prior to formatting the CD.

See more CD trouble shooting options [here](#).



AISBackup: View Session Details

How to get to this option.

From the main form select the menu option **View / View Sessions**.

Description.

Use this option to look at which files were backed up or deleted during each backup session. This option may be used for trouble shooting problems with your PC where you may want to track down differences between two or more backup sessions.

The option is available after loading the selected backup job.

The following views are available:

- **Backed Up:** This option displays the files that were backed up during the selected session.
- **Changed:** Displays a list of files that were backed up because there were changes since the previous version.
- **Added:** This option displays a list of files that were added to the backup for the first time.
- **Deleted:** Displays the files that were deleted between the previous session and this session. These files either do not exist on the PC any more or have not been backed up again since reinstatement.

You may print the contents of the left hand files pane using the **Print File List** option. The font and font size are set in **Tools / Program Options**.

Note.

If the selected backup job is of a generation or session variety where not all generations / sessions are retained, some sessions may be empty because the files have been removed from the Backup Contents File.



AISBackup: Map Network Drive.

How to get to this option.

This form is available from sub-forms that have the **Map Network Drive** button.

Description.

This option allows you to map drives for use in AISBackup, this form is used as an alternative to the mapping drives using Windows Explorer.

A list of network shares that have already been mapped are shown, those that are used by the current backup job are also identified by *Yes* in the *This Job* column.

AISBackup does not rely on the drive letter assigned to the share but the actual share name itself. This enables AISBackup to map and un-map network shares dynamically.

Using this option.

The easiest way to use this option is to ensure that the computer or computers containing the required network drives is connected to the network. You may have to log on to some computers in order to access their network shares.

- You may type the name of a network share in the format **\\COMPUTER\SHARENAME** and assign this to an unused drive letter.
- You may type the computer portion of the share e.g. **\\DOLPHIN** then select **Display Shares** to enable you to choose the correct share.
- You may select **Search** to search for connected computers then select one of these to display the available shares. The search option may take a long time and does not always find all connected PC's, if possible use the **//ComputerName / Display Shares** option instead.
- Click **Map** to map the drive.
- Click **Close** when you have completed mapping drives.



AISBackup: Map Drive Request

[How to get to this option.](#)

This form shows automatically if there is a missing or incorrect network share mapping.

[Description.](#)

AISBackup always attempts to re-map remote network drives when the backup is loaded. If the computer has been located but the share name is not available this form is displayed.

The Computer share may not be available for the following reasons:

- The share has been deleted.
- The share has been password protected or the password has changed.

If the name of the network share has changed, or is not available because a password is now required you may re-map the drive (via Windows Explorer) and then click **Re-Map**.

[Using this option.](#)

- **Re-try:** Make the share available (re-create it) and click re-try.
- **Remap:** Assign the share in Windows Explorer, click **Re-try** to re-populate the share drop down list, select the share from the drop-down list then click Remap.
- **Cancel:** To proceed without mapping the drive. Files on this share will not be backed up.



AISBackup: Computer Not Available

Description

This message is shown when the source of the backup or the destination of a backup is to a computer that is not connected to the network or you no longer have permission to use the computer.



AISBackup: Network Share Not Available

Description

This message is shown when the source of the backup or the destination of a backup is to a network share that is not connected to the network or you no longer have permission to use.

This message is given after AISBackup has ascertained that the remote computer **is** available.



AISBackup: Archive Management

[How to get to this option](#)

From the main form click **Tools / Archive Management**.

[Description.](#)

The Archive Management option is used to:

- Select an archive as the source of a Restore.
- Change the comment or location assigned to an archive.
- Delete an Archived Backup Contents File.
- Re-instate an archive as a backup.

To perform one of the above actions, select the archive from the list then:

- Click **Delete Archive** to remove the archived Backup Contents File.
- Enter a new comment or location, then click **Save Changes**.
- If you want to restore from the archive click **Load Archive** (Double clicking an archive will also load it for restoring).
- If there is no current backup job associated with the selected archive and the archive was created using AISBackup version 1.0.3.93 or higher then you may choose to re-instate the archive as a backup.



AISBackup: Find a File.

[How to get to this option](#)

From the main form click **Tools / Find a File**.

[Description.](#)

The Find a File option is used to look in selected Backups and / or selected Archived Backups for a file. The filename may be entered as a partial name, with or without the file extension. The search string must not contain a folder name.

The found files are added to a list. From this list you may select the file that you actually want to restore. After selecting the file you wish to restore you have the choice whether to launch the Restore option with the file you have chosen selected on the Restore form or just restore the file.

The filename does not support pattern matching; see examples below.

[Options](#)

- Choose the backup database files you wish to search.
- Choose the archived backup database files you wish to search.
- Enter the full name or partial name of the file you are looking for.
- Click **Search**
- Select the file you really want to restore from the search results.
- Click **Restore** to restore the selected file.
- Click **Load** to launch the restore option with your chosen file selected.
- Click **Cancel** to abort, the current found files will be re-displayed of the Find a File option is selected again.



AISBackup: The Backup Log

[How to get to this option](#)

Select the menu option **View / Job Summary Log** or **View / Backup Log**.

[Description.](#)

There are two types of backup log:

1. **Job Summary Log**, which displays by day, a summary of each job run during the day.
2. **Backup Log**, which displays the log for the selected backup job, this is a more detailed log of each backup / restore / validation session.

The backup log shows the history of any Backups, Restores and Validations that have been run. If you have chosen to log every message then the log is split into pages of 1000 lines. To make it easier to find errors in a 'full log' there is an **Only Show Summary** check box option.

If you want to trim the log select the earliest date that you want the log to run from then click **Empty Log Prior to Displayed Date**.

[Other Run Time information](#)

For users wishing to develop their own post-backup job, AISBackup provides a summary of backups executed during the last time AISBackup was run. Please see [here](#) for further information.



AISBackup: View Menu Items

These are the View Menu Options:

- Backup Log.
- Job Summary Log.
- View Sessions.
- View Job.
- View MS Task Scheduler Log is used to open the Microsoft Task Scheduler log file. To work directly with the Microsoft Task Scheduler use the **Tools / Show MS Task Scheduler** option.
- Read Me File: Displays the read me file that came with the version of AISBackup you are using.



AISBackup: View Job

[How to get to this option](#)

Select the menu option **View / View Job**.

[Description.](#)

This form displays the files and folders that have been selected for backup. Files that have been excluded from the backup by using the **Exclude Files of Folder**, **Exclude Files and Sub Folders** and **All But This File** options are also listed, as are the globally excluded files.

The properties list may be edited prior to printing, e.g. you may not want to print the details of each backup session.

For further information on selecting files for backup see using the [Select Files Form](#).

The **Print** option prints the list.



AISBackup: Unloading and Loading Other Programs.

How to get to this option:

From the main form click the menu option **Manage Backup / Task Manager**.

Description

The 'Tasks' option allows you to select programs or NT Services that have opened files in a way that prevent them from being backed up e.g. when Microsoft Outlook 2000 is running you cannot backup the Personal Folders File (*.pst).

You can select an action to be taken for the program for either normal running of AISBackup or 'auto running' AISBackup via command line parameters.

One of the following actions may be taken:

- A prompt is given at the time the backup is run giving the option to manually or automatically close the programs. You may choose continue without closing the programs.
- As above, but the prompt will only display on the screen for 60 seconds. This option is suitable for un-attended auto running via a task scheduler. The program(s) are not unloaded after the 60 has elapsed.
- You may elect to close the programs automatically, without displaying a prompt.
- You may elect to close the programs automatically, perform the backup and then re-start the program. This is probably the best option for unattended backups.

NT Services are always closed for the duration of the backup and then re-started.

AISBackup will not close a program that requires input from you, for example, if you left your computer unattended while part way through composing an e-mail using Outlook, AISBackup will not close Outlook; therefore the Personal Folders file will not be backed up. In other words AISBackup asks the programs to finish, it does not tell them to finish.

Setting up the Task Manager.

Although you may type all the program details in the provided input boxes, the best way to select a program for task management is by loading it's shortcut into AISBackup. Loading the details from the shortcut will ensure that the Working Directory and Command line parameters are set up correctly. Loading a program shortcut is done via the 'Either open a Program' buttons. There is a button for the Windows Desktop and one for the Start / Programs location.

The second way to select the program is via the 'Select a Program' list, just make sure the program you want to control is running on the computer, then click Refresh then select the program from the list. Using this method does not generate the correct Working Directory or Command Line Parameters, but this option is perfectly valid if you only want to use AISBackup to close the program.

NT Services

To specify NT Services enter the Program Name parameter with the service name within square brackets, e.g. [MSSQLSERVER].

AISBackup CLIENT SERVER EDITION

Remote services may be included with the computer name, for example, to close MS SQL Server on the PC called WHALE enter the service name: [\\WHALE\MSSQLSERVER]

The client server edition cannot close down remote programs, e.g. Outlook.exe.

All Versions of AISbackup

AISBackup does not validate the names of any programs via this option, so if you choose to automatically close AISBackup, it will.

Once you have selected a program select the 'AISBackup' action and 'Auto run' action. For running backups unattended (auto running), via a task scheduler such as Microsoft Task Scheduler, it is probably best to choose the *Attempt to close task then restart after backup* option.

AISBackup will only re-start programs that were running when AISBackup was started.

The Window State option is used to tell Windows how to start the program, in most cases Minimised should suffice.

The **Test Unload** and **Test Launch** buttons are used to test that the parameters have been set up correctly.

Try this:

The following actions demonstrate the 'workings' of this option by using the *Notepad* program.

Click the **Programs:** button, this will display an open file dialogue. Notepad is normally in *Accessories*, so double click this folder. Look for **Notepad** then double click it. The Input boxes on the left of the screen will now assume default parameters. Click **Test Launch** then *Notepad* should start. Press **Test Launch** again then another copy of *Notepad* will start. Press **Test Unload** then both copies (or more if *Notepad* was already running) will unload. A message saying 'Notepad unloaded Okay' should be displayed. Try launching two copies of *Notepad* again but this time type a few letters into one of the copies of *Notepad*. Click **Test Unload** You should now see a *Do you want to save* prompt. If you wait for 20 seconds without doing anything you will see the '*Notepad.exe failed to close*' prompt.

Once you are happy that the programs are unloading and loading properly click **Add**.

To remove a program from the list select the program from the list box then click **Remove**.

Saving the changes,

Once you have finished click **OK** to save the changes or **Cancel** to discard the changes.



AISBackup: How The Backup Phase Works.

How AIS Backup Works

This is an overview of how the backup phase of AISBackup works. There are command line parameters that can override or alter the behaviour of the backup phase.

The first time a backup job is run:

The following description uses a CD in the example, other removable media may be substituted.

- Once you have created a backup job and selected the files for backup AISBackup examines your hard drive and produces a list of files that it needs to back up, this list can run into many thousands of files.
- AISBackup will select the files even if a program running on the computer is accessing the file in such a way that it cannot be backed up. This may cause problems if you cannot backup opened exclusive files, either by design or if your files are on an NTFS drive. Many files can be backed up even if they are open, 'opened exclusive' files cannot normally be backed up in this way. AISBackup can backup 'opened exclusive' files that reside on a local FAT or FAT32 drive.
- If this is a Windows 95, 98 or ME 'Emergency Backup Job' the files are sorted into 8.3 filenames and long filenames files to enable restore from a DOS session.
- If the job includes folders that contain system or hidden files and folders then these will be backed up. AISBackup will remember which files and folders are system and / or hidden and the appropriate attributes will be re-set on restore.
- When the backup phase starts AISBackup checks to see if any running programs need stopping and takes the appropriate action.
- If an Emergency backup job is running, DOS batch jobs and restore data files are created to enable the recovery of the Operating system.
- If the backup is to CD the first CD is asked for, even if there is already a blank CD in the drive.
- The backup sorts the files into batches of 500 or 50mb unless the file is greater than 50mb then the batch is 1 file. Files that are larger than the selected *Huge File Size* are split into 100MB chunks, or the remaining space on the current media, whichever is smaller.

The size where a file is considered a *Huge File* may be changed in [Tools / Program Options](#).

- AISBackup incorporates routines to ensure maximum capacity of the backup media is utilised.
- Some free space is left on a CD in case you want to 'Close' the CD to enable reading from most Windows 95 and above CD-ROM drives.
- The backup proceeds until it has finished or the backup media is full.
- If a test backup option has been selected each media is tested after creation.
- The next media is asked for. AISBackup will wait for you to format a CD, DVD or other media if required.
- At the end of the backup you are requested to add a comment to the backup.
- The backup is labelled unsafe if one or more files could not be backed up for any reason, you can change this status to safe manually if you wish.

The next (and subsequent) time a job is run

- AISBackup compares the files on the hard drive with the files already backed up. If any file has a changed modified date or changed size the file is marked for backup. Files that were not backed up last time are also marked for backup.
- On clicking **Backup** the last media used is asked for if appropriate, you do not need to load the last media that was actually used, you can use blank (but formatted) media instead.
- AISBackup only backs up changed files and new.
- If the job is an Emergency Backup the backup (zip) files are updated for changed files rather than added to, the restore data files are altered to reflect the changed backup. If any files were removed from the backup destination folder, the folder is emptied and the backup started from scratch.

Aborting a backup.

If you choose to abort a backup the current file being processed must be finished first, this may take a long time if the file is large.

When the current file has been backed up the following action is taken:

- The backup is marked as 'not safe', because it wasn't finished.
- The Backup Contents File is saved with the files that have been backed up preserved in the database.
- The next time a backup with this job is run the files missed after the abort will be backed up next time, in other words the backup will be restarted.
- If you want to totally scrap the aborted backup use the **Manage Backup / Reset Backup – Backup Everything** option.

Files that failed to back up.

This section describes why some files may fail to back up and possible action that you may take to ensure smooth running of AISBackup.

After a backup has completed a message may be displayed to indicate that some files were not backed up, the backup may then be marked as un-safe. If you want to list the files that did not backup click the **Errors** button. From the Errors form you may select one or more of the files that did not get backed up to be excluded from subsequent backups.

The *Backup Errors* form is described [here](#).

Files that failed to backup fall into the following categories:

1. The file was been accessed in a way that prevented a backup, some log files on NTFS formatted disks cannot be backed up, these files should be added to the *Exclusions* list.
2. AISBackup was able to access the file but unable to read it successfully, Outlook personal folders files and some log files fall into this category.
3. The file was deleted between AISBackup selecting it and attempting to back it up. If you carry on working during the backup process this may happen, also some selected transient files used by systems such as Microsoft Office may be deleted if you close them just prior to starting the

backup.

4. The file fails a restore test, this may be caused by a problem with the backup media – do not worry too much unless many files are reported as having errors.

Here is the action you may wish to take for each type of failure:

Files that will never back up.

Files and folders that can (or should) never be backed up should be de-select permanently from your backup job, or in the case of the swap files add them to the *Exclude From Backup* list. The default *Exclude From Backup* is maintained by the **Tools / Default Exclude From Backup List**.

Files that change during backup.

For files that change during a backup (such as the Outlook Personal Folders File) you should close down the application that is accessing these files prior to running the backup. Some files, such as Modem log files, can be safely excluded from the backup. If you have selected backup opened exclusive files AISBackup will attempt to back up these files properly, but it is still advisable to use the Task Manager to close down applications such as Microsoft Outlook automatically.

Files deleted before backup.

These are files that are deleted between AISBackup calculating which files need to be backed up and the time that AISBackup actually attempts to back up the file. These files can safely be ignored.

Files that fail the restore test.

These files could not be retrieved from the backup media, they will be re-selected for backup next time.

Files that are opened for exclusive use.

AISBackup will attempt to back up files that are opened for exclusive use, but only if they are resident on local FAT16 or FAT32 drives. It is not possible to back up ‘opened exclusive’ files that reside on NTFS or Network drives.

What next?

All files that failed to backup that still exist on the PC will be re-selected for backup next time, just run another backup session. Do not forget if Session 1 was not completed but Session 2 is completed (with only one or two files backed up) Session 2 will contain ALL files not just the additions.

Override the ‘May be unsafe’ tag.

You may override the ‘May be unsafe’ tag of the backup session if the errors that were encountered are not relevant to the success of the backup.



AISBackup: Update Start-up Diskette

How to get to this option:

From the AISBackup Screen, click **Tools / Restore Diskette**.

Introduction

Early versions of AISBackup needed the restore diskette to restore the registry. The current version of AISBackup only requires the restore diskette in order to perform an Emergency System Restore.

This option updates the standard Windows 98 or Windows Me diskette to include two extra menu options for AISBackup:

- **AIS Restore Registry.** **(This option is no longer used)**
Used to restore the registry from a DOS session
- **AIS Emergency Restore.**
Used to Restore an Emergency System Backup.

Windows 95 Users should acquire a Windows 98 Start-up diskette as this is suitable for using with AISBackup and should also correctly configure most CD drives.

Please see www.aiscl.co.uk for the location of suitable boot diskettes.

To create a Windows Start-up Diskette click **Start / Settings / Control Panel** and then select **Add/Remove programs**, select the **Startup Disk** tab and follow the on-screen instructions.

After the Emergency diskette has been created you may optionally copy smartdrv.exe from your Windows CD to the diskette, smartdrv.exe is located in the folder [CD]:\win9x on the Windows Millennium CD and [CD]:\win98 on the Windows 98 CD.

Copying smartdrv.exe to the restore diskette will greatly reduce the time taken to restore from the Emergency Backup.

Once the diskette has been created click **Update Startup Diskette**.

The diskette will still function as a standard Windows Start-up diskette.

Once the start-up diskette has been created a disk image is created so that AISBackup can make a bootable Emergency Restore CD if you are using the AISBackup CD Writer Interface.



AISBackup: Program Description

Introduction

AISBackup is a backup program designed to provide backups of your PC data to the following media:

- CD-R and CD-RW.
- DVD+RW, DVD-RW, DVD-R, DVD+R and DVD-RAM. Click [here](#) to see supported DVD options.
- Local Hard Drives.
- USB or FireWire connected drives.
- Networked Hard Drives.
- Removable Media such as Zip or USB flash drives.
- An [FTP](#) Server.
- [E-mail](#) addresses, using 128bit [AES](#) encryption.

For information about disc writer options, click [here](#).

Backups to CD and DVD are done via a built in Disc Writer, a third party Disc Mastering application or a third party Packet Writing interface, see the documentation that came with your Disc writer software.

AISBackup is job based, each job contains a list of files and folders to be backed up and the media to which the backup is to be made.

Once a backup job has been created simply click **Run Backup** to start the Backup process.

Only files that are new or have changed since the last backup are physically added to a pre-used backup job, this considerably reduces the time needed to maintain a complete system backup (after the initial backup that is).

Each time a backup is run a new session is created. When files are added to the backup any previous versions remain on the backup. Each version of a backed up file is held in it's own session.

AISBackup can be set to remove redundant files from disk based backup media using an Advanced Backup Session Manager. AISBackup can also prune DVD+RW, DVD-RW and DVD-RAM that have been created using a third party packet writing system.

Backup jobs can easily be based on pre-existing jobs.

There is an option to allow an individual or a selection of AISBackup jobs to be added to the Microsoft Task scheduler. There is also an option to create desktop or start-up shortcuts for one or more backups.

Backups may be password protected to two levels.

Backups may be tested for restore capability during or at any time after the backup session.

The contents of each backup remain online to ease the process of restoring files. Simply select the file, or files that you want to restore, select the destination of the files and then click Restore. If the contents of the file(s) you wish to restore are offline you are prompted to load the appropriate media (CD, DVD or Network Drive) during the restore process.

Individual sessions may be selected during a Restore process; this enables you to restore all files that existed on a particular date, and optionally to remove the files that did not exist on that date (from the restored folders). Other restore options include:

- Right Click File / Open File
- Right Click File / Open With
- Right Click File / Save As.
- Select files then drag and drop them onto Windows Explorer.
- Windows 2000 & XP Only: Select then drag-and-drop Folders onto Windows Explorer.

AISBackup can backup and restore the following additional files without the need to purchase extra 'add-ons':

- NT, 2000 and XP Registry.
- Microsoft 2000 & 2003 Server Active Directory.
- NTFS File and Folder Security Settings and secondary file streams.

This optional setting creates AISBackup proprietary zip files that cannot be read with WinZip.

- Offline backup of Microsoft Exchange.
- Windows Server: Offline backup of WINS.
- Windows Server: Offline backup of DNS.

There is an option to attempt to back up local opened exclusive files – on FAT16 and FAT32 drives only.

The actual backup database is a series of standard zip format files, and can therefore be read by any other zip program you may own.

The program options are selected from the Main Form.



AISBackup: Setting the Program Options.

[How to get to this option:](#)

From the AISBackup Screen, click **Tools / Program Options**.

Jump to: [Backup Options Tab](#) [Program Settings Tab](#)
[File Locations Tab](#) [FTP Settings Tab](#)
[E-mail Settings Tab](#) [Advanced Settings Tab](#)

[Description:](#)


The Program Options form is used to set the global program settings and not individual backup job settings.

The first time AISBackup is run you are required to specify the location of the AISBackup database and temporary files, the default disk destination for backup's etc.

AISBackup will also set-up suitable settings for CD and DVD based backups.

These options may be changed at any time by selecting the **Tools / Program Options** menu item.



Standard Save dialogue boxes are displayed for file locations by clicking the  button.

Each set of options is chosen by selecting either of the **Backup Options, Program Settings, File Locations, FTP Settings or Advanced** tabs.

[Backup Options Tab](#)

[Select Device](#)

Specifies the drive letter of the default CD, DVD or compatible drive. If there is no suitable disc writer installed choose **None**. This option is used to specify the default drive, i.e. the drive to where AISBackup first looks for backup media.

[Disc Writer Options.](#)

For a detailed explanation of each CD option along with the advantages and disadvantages of each, click [here](#).

Check one or more of the following CD writer options to make the interface available when creating new backup jobs.

If a CD / DVD writer interface has not been automatically detected or an interface is not working correctly click **Troubleshoot CD / DVD writer faults**.

[Direct to CD, DVD or Compatible Devices](#)

This interface is used to create backups directly to CD or DVD using a third party Packet Writing system. The CD is created in a format called Universal Disk Format, which is more commonly referred to by the acronym UDF.

This interface should also be used for other direct to disc compatible devices like DVD-RAM or Iomega REV™.

Common Packet writing interfaces include Ahead INCD, Roxio DirectCD or Drag-to-Disc, B'sCliP, Drive Letter Access and PacketCD.

If AISBackup does not automatically detect the installed interface this option should be enabled manually, i.e. AISBackup does not need to recognise the interface it just needs to be able to write data directly to the CD or DVD. Refer to the manuals or help text that accompanies the software you have installed.

The Packet Writing interface is recommended for backup to DVD when there is not 4.5GB free disk space which is required by the DVD pre-disk stage area AISBackup will allow a smaller disk stage where it will write multiple sessions to DVD+RW and DVD-RW and on Windows XP DVD-R and DVD+R. To automatically enable using a smaller disk stage see **Tools / Program Options / Program Settings** [here](#).

Enabling the AISBackup Integrated CD Writer

If AISBackup does not automatically detect the installed CD / DVD writers use the **Troubleshoot CD / DVD writer faults** option to auto-detect the drives.

Click the **Find** button on the detected CD Writer summary form if one or more CD writers are not detected or if the chosen interface does not work correctly. AISBackup will look a suitable interface (called ASPI drivers) and try each in turn. A list of each interface is displayed from which you may select an alternative.

The AISBackup integrated CD writer is recommended for backup to CD and DVD but a disk based stage size of at least the capacity of the disc is required, e.g. 4.5GB for DVD.

Click [here](#) to see supported DVD options.

Enable Third Party CD Mastering

This option enables AISBackup to pause after creating each CD's worth of backup data, after which the CD may be created using a third party CD mastering application (including the Windows XP CD writer).

This option should only be enabled if the integrated AISBackup CD writer does not work correctly.

For Hard Drive Backups, Default Root Location of Backup Files

Specifies the default root location for the backup when the backup is directed to a local disk. When new jobs are created, the location of the backup database will default to *[Backup Root Folder]\Job Name*, you can of course change this setting.

Huge File Size.

Sets the file size where a file is deemed 'huge'. A huge file is backed up in 100 MB segments, or a segment less than the remaining space on the backup media. This allows files that are larger than the backup media to be backed up to two or more CDs, Zips etc. If you do not want to support Huge files

select *Do not Backup*.

Compress Huge Files.

If you have elected to backup huge files you may also select whether AISBackup should attempt to compress these files. In any event AISBackup will not attempt to compress files that are in the Do not compress file list.

Program Settings Tab

Auto Eject CDs when required.

Select this option to enable AISBackup to auto eject CDs when reading them. If a CD is being written to when it is ejected it may become unusable.

CD authoring software may write to a CD the first time a CD is used with it. If you are in the process of changing your CD authoring software disable the Eject CD option until all CDs have been used with your new software.

Show Cue Cards at start-up.

Select this option to display cue cards when AISBackup starts.

Cue cards give step-by-step instructions for most of the functions within AISBackup.

Show Hints.

Select this option to display additional hints on some controls.

Snap Mouse Pointer to Default Button.

Select to snap the mouse pointer to the default button on dialogue boxes. This option is independent of the same Control Panel / Mouse Pointer option.

Show File and Folder Attributes.

Shows file and folder attributes on the select files form using the following key:

- Normal.File : Files with no attributes are shown in black.
- **ReadOnly.File** : Read Only Files are shown in fuchsia.
- **System.file** : System files are shown in blue.
- Hidden.File : Hidden files are shown with a faded icon.
- **Bold.File** : Are split into segments of up to 100 MB segments during the backup, this enables media spanning of files larger than the backup media. These files are also known as huge files.
- **Bold.File** : Bold files shown in red are huge files that will not be backed up because Huge File Support has been disabled by selecting *Do not Backup* on the huge file size selection drop down box (Program Settings tab).

- **Green.File** Files displayed in green are encrypted.

Check for connected CD writer when AISBackup is started

This option may be used of owners of USB connected CD Writers who do not want to see the Program Options dialogue each time they start AISBackup when the drive is not connected.

Show Help Screen at Start-up.

This option hides or displays the help screen that is displayed when AISBackup is started.

Show Auto Select Files when creating a new backup job.

Use this option to set whether the Auto Select Files form is displayed when creating new backup jobs.

Automatically allow under sized CD and DVD disk stage.

Backups made using the integrated Disc Writer must be made to a media sized hard disk stage prior to burning to CD or DVD. This disk stage is up to 4.5GB, which may not be available on the PC. To get around this problem AISBackup can use a smaller disk stage at the expense of extra overhead when writing to disc, especially CD. It is recommended that at least 1GB of disk space is left free which is more than enough space for CD's.

AISBackup will reserve 100MB free disk space to avoid any possible problems with the disk been used to full capacity, so to reserve 1GB for a DVD disc stage you require 1GB+100MB free hard disk space.

Check this setting to allow under sized disc stage to be used without a warning message.

This option is not recommended for backups to DVD-R and DVD+R on Windows 95, 98, ME, NT4, 2000 because AISBackup cannot add new data to these media. Windows XP is okay.

First Destination Drive.

The drive letters A and B are normally reserved for floppy diskette drives but these may be used by other devices on some PC system's e.g. Zip drives. If the first backup destination drive is not C: then choose a new first drive letter with this option.

Show CPU Usage Setting Bar on Main Form. (Windows NT, 2000 & XP)

Select this option to display a track bar on the AISBackup interface from where the CPU usage setting may be set. Move the control bar to the right to decrease the amount of CPU AISBackup uses. To set CPU usage for Auto-Run AISBackup jobs use the Advanced tab / Auto Running CPU Usage option, see [here](#).

Printer Font and Font Size.

The printer font size and font may be changed. These are the fonts used in the prints produced by AISBackup. If there is no printer attached these options are disabled.

File Locations Tab

Database Location

This specifies the default folder for each job's backup contents file Backup Contents File. The default folder is \BackupDB under the AISBackup program folder.

Temporary location for Restored Files

This specifies the temporary folder to hold files that cannot immediately be restored, because for example, the file(s) may be in use. The directory name should be a maximum of 8 characters to facilitate easy access from a DOS session, if required.

Temporary Workfiles

This specifies the default folder for any work files created by AISBackup. The default folder is \AIS under your standard Windows Temporary folder.

Temporary Backup Location for 'Opened Exclusive' Files

If you choose to backup files that have been opened exclusively then these are temporarily copied to this folder prior to adding to the actual backup.

This setting also specifies the folder for any backup files that may cause the CD to overflow. The default folder is \Data under the AISBackup program folder.

Applying the changes

Once the options have been set click **OK** to apply them or **Cancel** to discard them.

FTP Settings Tab / FTP Set-up Form

AISBackup can transfer disk-based backups to an FTP server. The FTP Settings tab is used to set-up and optionally test these FTP settings. The **Tools / Program Options** settings define default values for the FTP settings; during backup job creation you may refine these settings and apply additional backup settings. The FTP set-up form is also displayed for FTP style backups by using the menu option **Manage Backup / Edit Backup Job Parameters / FTP Settings**.

Contact the FTP server administrator for the value of each setting. The test results box display may help with problems such as: Invalid FTP Server address, Invalid user name, Invalid password and incorrect folder name.

FTP Server Address.

Enter a server address using the format *server.com* or *server.co.uk*. Some servers may need the preceding *www*.

User Name.

Enter the user name for the server.

Password.

Enter a valid password for the user name.

Remember Password.

Check **Remember Password** to instruct AISBackup to store the password. AISBackup encrypts stored passwords. If a password is changed the password may be altered using the **Manage Backup / Edit Backup Job Parameters / FTP Settings** menu option.

If remember password is not checked an un-attended FTP backup job using the task scheduler cannot be run.

Port.


The usual FTP port value is 21, enter a value here if different.

Remote Root Folder

- This specifies the root directory for the backup on the FTP server. The directory is created if it does not exist. Multiple embedded directories may be specified in the form /Folder1/Folder2.

AISBackup creates an additional folder under the FTP root folder based on the job name.

Ensure that AISBackup has read and write permissions to the folder.

Select the  button to browse the available destination folders.

Delete.

Choose Delete to delete the selected ftp parameters from AISBackup.

Test FTP Connection.

Use the **Test FTP Connection** button to test the settings.

Additional parameters for backup jobs.

Use Passive FTP Mode.

The default FTP mode is Active, this may cause problems with some Firewalls. A possible solution is to use a Passive FTP connection.

Discussion about the pros and cons of Passive and Active FTP connections is beyond the scope of this help text, for further information try an internet search engine, for example Google (hint, click Google).

Size of pre-compressed backup in MB.

This is the maximum pre-compressed size of each backup zip file. Keeping these files small reduces .network traffic after the initial backup.

Remove local backup after upload.

This option removes the backup from the local PC after it has been uploaded.

On the fly upload.

This option causes AISBackup to upload each backup file as it is created. If the local backup is selected for removal this option may be used to decrease the amount of disk space used on the local PC at the expense of some extra processing time.

Test Before Upload. (This parameter is only used if On the fly upload is selected)

If the **Test Backup** option has been selected AISBackup will have to download from the FTP server each backup zip file, as the local file would have been deleted. To force AISBackup to test the backup before the upload check this option.

Do not show replace older backup prompt.

If you are sharing a backup created on another computer the backup is likely to be newer than the copy on the local PC. Checking this option will cause AISBackup to update the local backup with the version on the FTP server without asking.

FTP Server re-try connection (times).

The number of times AISBackup will attempt to attach to an FTP server. The default setting is 1, AISBackup will try to re-connect once.

FTP Server re-try connection (interval).

The interval in seconds between FTP connection re-tries. The default value is 60, AISBackup will attempt to re-try the FTP connection after each minute has elapsed.

E-mail Settings Tab

The e-mail settings are used to send backups via e-mail.

AISBackup E-Mail Transport.

We recommend that AISBackup's built in SMTP Sever is used but this may not be possible when internet e-mail is not available, for example Outlook is connected to Microsoft Exchange. In this case choose the MAPI interface.

AISBackup SMTP Settings.

Existing Outlook or Outlook Express e-mail settings may be used to populate the SMTP values, however, it is not possible to retrieve the password.

- **From e-mail address:** Specifies a reply e-mail address, some ISP's require that this value is set.
- **SMTP Server:** The name of your SMTP server, copy this value from your regular e-mail system account settings.
- **User Name:** Your e-mail username. Some e-mail systems do not require this.
- **Password:** Your e-mail password. Some e-mail systems do not require this.
- **Port:** Normally 25.
- **Authentication Required:** Select this value if your e-mail system requires you to log on to send e-mails.

Backup and Attachment Size Setting.

- **Attachment Size:** Set this value to the lowest of the maximum allowed source and destination e-mail size. AISBackup sends multiple 'attachment size' e-mails unless Backup Size has been exceeded. The attachment size value should be about 60% of the actual maximum allowed size because the e-mail MIME encoding process increases the size of the attachment.
- **Backup Size:** Set this value to the maximum allowed backup size, this will prevent AISBackup being used to send many megabytes of backup.

To test the e-mail settings click the **Test** button.

Advanced Settings Tab

The maximum zip file size and maximum files that are to be written to a zip file have been designed for good performance of AISBackup's many options, including speed of operation of the backup, validation, zip file pruning, minimising data loss if a zip file becomes corrupt.

Some Users of AISBackup prefer to decrease the number of zip files produced and the *Maximum pre-compressed batch size (KB)* and *Maximum number of files per backup file* enable this. Increasing the parameter values decreases the number of zip files produced.

Maximum pre-compressed batch size (KB)

This value sets the maximum pre-compressed file size. This value is automatically adjusted as free space is decreased on the backup media.

Maximum number of files per backup file

This value sets the maximum number of files that should be written to each zip file. The maximum pre-compressed batch size overrides this value. The zip file limit is 65535 files.

Set Defaults

The set defaults button re-sets the default values for *Maximum pre-compressed batch size (KB)* and *Maximum number of files per backup file*.

Default Backup File Extension.

Some anti-virus programs check zip files just after they have been created, this process can slow down AISBackup. If you do not want to disable this feature of your anti-virus program but would like to increase the speed of AISBackup you may change the file extension to something that is not checked by your anti-virus program, for example, AZP.

CD Overflow Prevention (mb).

This value is used to reserve extra space on a CD when using the AISBackup CD integrated CD Mastering option. Enter a value here if AISBackup reports that CD's failed to create because they overflowed. 1 = 1 megabyte.

Flush RAM Cache.

This option is only applicable to Windows 95, 98 and ME so is not shown when running on Windows NT, 2000 or XP.

Windows automatically places files that are been written to and read from in RAM to speed up disk access, this area is called File Cache. AISBackup by its nature reads and writes to a lot of files, this causes Windows to allocate as much RAM as possible to these files, this value fools some 'RAM Recovery' programs in to thinking that AISBackup is not releasing Memory, where in fact the File Cache RAM is available as and when it is required.

With Flush RAM enabled AISBackup will flush (remove files from) the File Cache RAM and thus go some way to performing a similar task as 'RAM Recovery' programs.

Use Standard Windows Pop-up menus.

Form reading software for the partially sighted cannot read the AISBackup menus. Check this option to enable form reading software to read the menu options.

Password Encryption Seed.

AISBackup has two levels of password:

- **Normal:** The user supplied password is assigned to the zip file.
- **AISBackup Encrypted:** AISBackup changes the user supplied password to 64 to the power of 40 characters.

AISBackup bases the encryption on a standard starting point called a *seed*. If you use the *Do not prompt for password on restore* option all copies of AISBackup with the same *seed* can restore from all backups. You may use the **Password Encryption Seed** option to create an encryption *seed* unique to your copies of AISBackup. You may enter any value, for example, your company name, your Father's Mother's maiden name. If you forget the **Password Encryption Seed** you are very unlikely to restore from a

password protected backup. Ensure that all copies of AISBackup that you want to restore from shared backups from use the same **Password Encryption Seed**.

The default **Password Encryption Seed** is no value.

Password protected backups created prior to version 1.8 of AISBackup will not use Password Encryption Seed, otherwise you would not be able to restore from them.

AISBackup Program Priority.

The priority given to AISBackup may be altered for normal running or auto-running via Microsoft Task Scheduler or shortcut.

CPU usage may only be set on PC's running Windows NT, 2000, XP and Server 2003.

The priority is split between the AISBackup application priority and maximum CPU usage, which is sometimes called CPU Throttle. The CPU usage is approximate and if AISBackup is backing up a block of very small files the CPU usage will increase.

The CPU usage should be set between 1 and 100 where 100 is maximum CPU usage and 1 causes AISBackup to run very slow indeed.

The CPU usage may be set in real time, during a backup, by enabling the CPU Usage Track Bar, see [here](#).

Troubleshooting Disc Writer Problems.

1. You do not have a Disc Writer.

Just set the CD Writer to none, and de-select the Packet Writing interface and AISBackup CD Writer enabled boxes. If you have a CD ROM drive installed you can still restore from backups created on another computer.

2. Packet Writing Interface.

You may already have a packet writing system installed that AISBackup does not recognise. You need to run a simple test to see if this interface is suitable:

1. Format a CD for your packet writing interface.
2. Using Windows Explorer; drag and drop a file from your hard drive to the CD.
3. Open Notepad, or another program that can save files. Create a file and save it directly to your CD.
4. If the above works then AISBackup should be able to write backups to this drive, if the above does not work then disable the Packet Writing interface.

3. The AISBackup CD Writer Interface.

AISBackup's Integrated CD Writer interface may not work with all CD Writer's. If your CD Writer is not detected then please send in a bug report so that we can look into fixing this, although it is unlikely that support will be added for old CD Writers.

You may disable the AISBackup integrated CD Writer interface and create Mastered CD's using an third party CD Mastering application.

4. Other Options.

Whether or not you can backup to CD you should also consider other backup media such as USB or FireWire connected hard drive. A hard drive is still one of the more reliable backup devices compared to CD or Magnetic Tape.



AISBackup: Main Screen

For an overview of AISBackup, click [here](#).

For some hints and tips on what to backup click [here](#).

Top Level Menu Options:

- The main on screen [buttons](#).
- [Manage Backup](#).
- [View](#).
- [Tools](#).
- [Help](#).
- [Exit](#).

If you are currently trialling AISBackup the [Register AISBackup](#) menu option will also be displayed. If you require to extend your trial period use the Re-Trial option of the registration form.

Backup and Restore Options:

Most of the options pertaining to each selected job are provided by the on-screen buttons. Generally once a job has been created the logical actions will be accessed by working from left to right:

1. Select a backup job either from the drop-down combo box or via the **Select Jobs:** button. For the select job button option see [here](#).
2. Then click **Run Backup**.
3. or **Restore from Backup**.
4. If you would like to preview the files selected for backup, click **Preview Files**.

Before these options can be used a backup job must be created, this is done with the **New Job** or **Quick Job** button.

Here are links to these most often used program options:

- Creating a new [Backup](#) job (Using all options).
- Creating a new [Backup](#) job (Quickly using pre-defined job types).
- Using an existing job to [run a Backup](#).
- [Restoring](#) a file, files, folders, and / or complete drives.
- [Modifying](#) the list of files and folders to be backed up.
- [Changing](#) parameters that affect the selected job.

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Other Program Options (Tools):

These options affect the general program functionality or are actions related to more than one backup job.

- Open Job From Backup Media - Loading a Job / Backup Contents File that was either created on another PC or was created then subsequently removed from this PC.
- Open Job from FTP Server – Use this option to access a backup that has been uploaded to an FTP server.
- Backup Registry
- Restore Registry
- Disk to Disk Copy to copy files and folders from one disk drive to another disk folder.
- Erase CD-RW. This option may be used to erase pre-used rewritable CD's or DVD's.
- Default Exclude Files and Folders list selects the files to be excluded from all new backup jobs.
- Archive Management - look in your old backups.
- Find a missing file that has been backed up but you cannot remember where.
- Auto Running AISBackup.
- **Show MS Task Scheduler** Use this option to work directly with the Microsoft Task Scheduler. Refer to Windows Documentation and Help for assistance.
- Edit Windows Boot Menu (Windows NT, 2000 or XP present on PC). Operating systems resident on NTFS drives cannot be seen from Windows 95, 98 or ME.
- Copy Boot Files to Bootable Diskette (Windows NT, 2000 or XP only).
- Create an AISBackup restore diskette (Windows 95, 98 & ME only).
- Change the look of AISBackup.
- Changing AISBackup Program Options.

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Help menu options.

The help menu options Help contents and Help description are used to display this help file.

The Visit web-site option is used to direct your web-browser to www.aiscl.co.uk

The Register option, if shown, may be used to either register the trial of AISBackup or inform Aquarius I.S. Consultancy Limited that you have upgraded the program.

The other menu options are:

- Show / Hide Cue Card.
- Submitting a Bug Report.
- About form.

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Creating a Backup Job

Before a backup of PC data can be run a backup job must be created. The job file contains the following information:

- A list of files and folders that are to be backed up.
- Optionally, a list of files and folders that should not be backed up.
- The destination of the backup.
- A link to the database holding the contents of the backup.

There are two ways to create a backup job, **Quick Job** to create and run a backup job based on pre-defined file selections within 5 clicks of the mouse, and **New Job** to create a custom backup job.

To create a new job click: **New Job**.

To create a quick job click: **Quick Job**.

Run a Backup

The following actions should be taken to run a backup:

- Select a backup from the drop-down list.

Select Job: AISBackup Source ▼

- Click **Run Backup**.
- If you would like to preview the files selected for backup click **Preview Files**.

If the backup destination is a CD, DVD or other removable media the following actions may be required:

- **The first time a backup job is run.**

AISBackup Integrated Disc Writer: A blank CD or DVD must be loaded; a pre-used CD-RW , DVD-RW may be erased from the [Load Media](#) form by clicking **Erase**.

Packet Writing Interface: When a CD is full you are requested to load a uniquely labelled CD. A new, blank, CD may be formatted at this stage using a third party packet writing system, e.g. DirectCD, Drag to Disc, INCD or Packet CD.

- **A pre-used backup job.**

If the backup job has already been run a request to load the last used media is displayed. If the backup is to CD or DVD a blank or another CD / DVD formatted for packet writing may be loaded instead.

To resume the backup click **OK**.

When the backup finishes

During the backup some files may fail to backup for various reasons, also some files may fail the restore test. A message is displayed showing a summary of the backup session and any errors encountered.

If there were errors during the backup the backup session will be marked as *unsafe* this tag may be overridden if you know that that failures were not important to the success of the backup, e.g. the file was an opened exclusive modem log file.

For a list of possible errors click [here](#).

Restoring Files

To restore a file or selection of files or folders:

- Select an existing job from which you want to restore a file.

Select Job: AISBackup Source ▼

- Wait for the backup job to load and then click **Restore from Backup** as soon as the restore button has been enabled.
- If this is a session based backup the Select Session form is displayed. You may choose only to view files from an individual backup session, the default is *All Sessions*. Select an actual dated session if you want to ‘move the PC in time’ i.e. restore the system to the state it was in a few days, weeks or months ago. You must also select a session date if you want to remove files from the PC that did not exist when the backup was taken. Specific instructions for restoring to a date that a backup was taken can be found [here](#) (these instructions apply whether you are restoring the ‘C’ drive or just one or two folders).
- After selecting the session date click **Next**.
- [Select the file or files](#) that you want to restore.
- Optionally, you may use [Find](#) to look for a file on the backup.
- Once the files have been selected click **Next**.
- If a dated session was selected a prompt is displayed asking whether the *Delete files that did not exist at the time of backup* options should be pre-selected, select **Yes** or **No**.
- The next form is used to select the [destination](#) of the files restored, the default setting is the original drive. If a dated session has been selected the delete files and delete folders that did not exist at the time of backup may be selected.

Files that did not exist at the time of backup is defined as those files that were not actually backed up as opposed to files that did not exist.

- The next screen displays the options for [duplicate files](#). Select the appropriate option.
If you are ‘moving the PC in time’ i.e. restoring from a session date, select the duplicate file option **Replace Duplicates with Different Files Only (Older or Newer)** and also select **Delete files that did not exist when X Session was backed up**.
- After AISBackup calculates which files are to be restored a summary message is displayed, to resume the restore click **Yes**.

Information Tabs

The central area of the AISBackup form contains four information panels that are accessible by clicking the appropriate tab.

Job.

The Job panel shows summary information about the currently selected backup Job.

Log.

The Log panel shows the current Backup / Restore activity. The upper panel shows messages that are written to the permanent log (if a log has been selected). The lower panel shows file activity.

Sessions.

The Sessions panel shows the backup history of the selected backup job. If the advanced session pruning option is used the designated period of the backup is displayed in one of the following formats:

- **Daily Backups:** Day Number / Year.
- **Weekly Backups:** Week Number / Year.
- **Monthly Backups:** Month Number / Year.
- **Dated Backups:** Local long date format.

The following right click options are available:

- **Restore from session <number>:** Select this option to display the restore files form using the selected session number.
- **Edit Comment:** This option may be used to edit the comment associated with the selected backup session. The edit session option is also available by double clicking the session entry.
- **View Session Files:** This option displays the files which were physically backed up during the selected session. Files that were deleted since the last backup session are also listed.
- **Disable Auto Prune:** This option preserves a backup session so that it is not automatically pruned by AISBackup. Use this option to retain important backups. For more information about advanced session pruning see [here](#).

Note.

A note may be added to a backup job.

Ending AISBackup (Exit)

To end AISBackup either click Exit or the standard close window button. If AISBackup cannot be closed, for example you have clicked the standard close window button while a backup or restore is in progress you will be asked if you want to abort the current process.

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AISBackup: About Screen

How to get to this option:

From the AISBackup Screen, click the **Help** menu option then select **About**.

Description:

The About screen shows the version number, registration number, database location and system resource usage.

Options

- Click **Close** to close the form.



AISBackup: Edit Windows Boot Menu

How to get to this option:

This option is only available if there are Windows NT, 2000 or XP boot files present on the local PC.

From the AISBackup Screen, click the **Tools** menu option then select **Edit Windows Boot Menu**.

Description:

This option gives access to the normally hidden Windows boot menu file boot.ini. The interface has been designed to edit the boot menu on systems using standard IDE disks.

Users of Dynamic and some other configurations disks will have to edit the boot menu file manually using the **Edit File** option.

Please refer to your Microsoft documentation for information about the boot menu.

Before editing the boot menu it is recommended that you:

- Make a backup of the source boot menu file using AISBackup.
- Make a working boot diskette using the **Tools / Copy Boot Files to Bootable Diskette** option.
- Test the diskette to ensure that you can re-load Windows.
- Edit and test the boot menu.

If you are not able to boot using your new boot menu:

- Boot from the bootable diskette.
- Restore the original boot menu.

Form Description

Upper List

Name:	Descriptive menu item name.
Dflt:	Set to Yes if this is the operating system loaded after the pre-defined time out
Drive:	The drive number, numbered from 0.
Partition:	The partition number, numbered from 1.
Path:	The path name of the Windows Operating system.
Parameters:	Parameters assigned to the boot menu. Some of the parameters are described here , for a more comprehensive list see the appropriate Microsoft documentation, or type <i>Boot.ini menu parameters</i> into you favourite internet search engine.

The Usual Defaults.

For normal use: Windows NT, 2000 & XP - [/fastdetect](#)

Microsoft Recovery Console - /cmdcons

Items are shown in **Red** when AISBackup cannot find the designated boot files, AISBackup is not able to confirm the existence of boot menu files on Dynamic Disks. Items may also show in **Red** if a USB or FireWire drive was connected when the PC was booted.

The Microsoft Recovery Console if present is shown in **Blue**.

Windows 95, 98 & ME operating systems are shown in **Green**.

Lower List

These operating systems have been found on the PC but are not in the menu.

Options

Upper List Buttons:

- **Move up:** Moves the selected menu item up the menu list.
- **Move Down:** Moves the selected menu item down the menu list.
- **Edit Item:** Allows you to change the descriptive menu name and parameters.
- **Default::** Sets the selected menu item to the operating system that is started after the pre-defined timeout has elapsed. This menu item cannot be the Microsoft Windows Recovery Console.
- **Remove:** Removes the selected menu option from the list. The item is transferred to the *Additional Operating Systems* list.
- **Edit File:** Allows you to edit the raw boot menu file, use this option if AISBackup does not correctly generate menu options on some PC configurations such as when booting from SCSI disks.

Lower List Buttons:

- **Add To Menu:** Adds the selected menu item from the *Additional Operating Systems* list to the selected boot menu.

Other Settings:

- **Timeout:** Specifies the time in seconds before the default operating system is started. -1 = wait indefinitely and 0 means start the default operating system without displaying the boot menu.
- **Copy:** May be used to copy the selected boot menu and boot files to another local disk drive.
- **Save:** Saves the appropriate boot menu or boot menu backup files to the system drive or diskette.

Edit Options

Optionally change the menu name.

Add or remove boot option parameters separated by a space. Please refer to Windows Documentation for a comprehensive parameter list.

Here are a few of the boot menu item parameters:

- /basevideo** Sets the Video mode to 640 X 480.
Use when having trouble with a new video driver.
- /bootlog** Enables boot logging to a file called *systemroot\Ntbtlog.txt*
- /debug** Loads the Windows kernel debugger.
- /fastdetect** Turns off serial and bus mouse detection in Ntdetect.com. Use if you have a component other than a mouse attached to a serial port during the start-up process. If you use **/fastdetect** without specifying a communication port, serial mouse detection is disabled on all communication ports.

safeboot:parameter

Forces a start in safe mode by using the specified parameters.

The available parameters are:

- minimal
- network
- safeboot:minimal(alternateshell)



AISBackup: Copy Boot Files to Bootable Diskette

How to get to this option:

This option is only available when running on Windows NT, 2000 or XP.

From the AISBackup Screen, click the **Tools** menu option then select **Copy Boot Files to Bootable Diskette**.

Description:

This option will copy the Windows boot.ini and associated boot files to a bootable diskette. This option can only be run from Windows NT, 2000 or XP even if you are running a dual boot system running Windows 95, 98 or ME.

The boot diskette should give access to your system in the even of deletion or corruption of the live boot files.

It is recommended that you test the diskette soon after creation.

Options

- If there is more than one drive containing boot files choose the source drive.
- Insert a diskette.
- Optionally format the diskette, note that the diskette must be formatted on either Windows NT, 2000 or XP.
- Choose **OK** to start the copy process.



AISBackup: Preview Backup.

[How to get to this option:](#)

From the AISBackup Screen, click **Run Backup** then select **Preview**.

[Description:](#)

The preview form enables you to check which files have been selected for backup prior to the actual backup. As a reverse of the normal select file forms, files and folders are selected from this form that you do not want to backup this session. If you want to permanently exclude a file you must still use the **Manage Backup / Modify Files and Folders List** option.

[Options](#)

- Click **OK** to remove files from the backup.
- Click **Cancel** to return to the backup without excluding any file (even if you have selected some).



AISBackup: File and Folder Deletion Preview.

How to get to this option:

The following conditions must be met:

- From the AISBackup Screen, click **Restore from Backup**.
- Either **Delete files that did not exist when session N was backed up** or **Delete folders that are not on backup session N** is selected on the Restore Destination form.
- There are files and folders that exist on the PC now that did not exist at the time of backup.
- **Review** is chosen from the *Okay to Delete Folders that were not on this backup?* prompt.

Description:

AISBackup is about to delete files and folders that did not exist when the restored backup session was made. There may be some files and folders on the disk that you want to keep, this option enables you to choose which files are actually deleted.

If you do not want to delete any files just click **OK** or **Cancel** without making any selection.

Important

The files and folders defined as *did not exist when the backup was made* also include files and folders that were not chosen for backup.

Options

- Select the files and folders that should be deleted then click **OK**.
- Click **Cancel** to return to the backup without deleting any file or folder (even if you have selected some).



AISBackup: Backup Errors.

How to get to this option:

After a backup has been completed and if there were one or more files that could not be backed up the Backup Comment screen will display an **Errors** button. Click the **Errors** button to display the *Backup Errors* form.

Description:

The Backup Errors form is used to display the files that could not be backed up. These files are usually opened exclusive files where the *Backup Opened Exclusive* option has not been set or the files are resident on NTFS or a network drive.

This option may be used to select one or more files that you wish to permanently exclude from the backup job. The files can be re-selected at any time using the **Manage Backup / Modify Files and Folders List** option.

Options

- Click **OK** to remove files from the backup job.
- Click **Cancel** to return to the 'finished backup' prompt without excluding any file from the backup (even if you have selected some).



AISBackup: Bug Reporting

How to get to this option:

From the AISBackup Screen, click the **Help** menu option then select **Bug Report**.

Description:

The bug report screen is very similar to the About screen, but here the entries are added to a box where you may add information yourself.

Options

- Enter the bug description
- If you want to send a failing *Backup Contents File* and *Job* to us please check the **Attach Backup Job Files** option.

The log attachments are saved in a file called *bugattachment.zip*, this file is in the AISBackup program folder.

- If your e-mail program is not MAPI compliant click **Copy to Clipboard** to copy the bug report to the clipboard from where you may paste it into your e-mail program.

AISBackup will create a zip file for any selected job file, this you may attach to your e-mail.

- Click **Send** to place the bug report in your e-mail out tray
- Click **Cancel** to abort.



AISBackup: Find File

How to get to this option:

From the Choose Files to Restore Screen, click **Find**.

Description:

The Find Files option is invoked from the Choose Files To Restore form. Here you may enter a string of characters that are included in the files you are looking for.

The found files are added to a Select Files window. From this window select the files that you actually want to restore. When you click OK these files will be transferred to the Choose Files To Restore Select Files Window.

The filename does not support matching; see examples below.

Options

- Enter the string of characters included in the filenames you are looking for, if you want to specify the filename extension precede the characters with the full stop character. Fuzzy matching with * is not supported.

Example:

To find all Outlook Express database folders on the current backup enter **.dbx**, to find all Outlook Personal Folders Files on the current backup enter **.pst**


- Click **Search**
- Using the Select Files Window select the files you really want to restore from the search results.
- Click **OK** to transfer this list to the Choose Files To Restore form.
- Click **Cancel** to abort.

Quick Open / Restore options.

Individual files may be opened or restored by one of the following methods:

- **Right Click / Open:** To open the file using its default program.
- **Right Click / Open With:** To open a file using the standard Windows *Open With* dialogue.
- **Right Click / Restore As:** To restore an individual file to another filename and / or folder. AISBackup opens the Save File dialogue at the original location of the file, if this location does not exist AISBackup opens the Save File dialogue at *My Documents*.
- **Select files then drag and drop onto Windows Explorer:** Files can be restored by dragging and dropping them directly onto Windows Explorer. The files that are restored are those selected



with  in the current list view. Folders cannot be restored using drag and drop via the Find

File form.

Example

To find a file called MYPICTURE.BMP.

- Type MYPICTURE.BMP in the Search Text box.
- Click **Search**.
- Using the Select Files Window find and select the version of MYPICTURE.BMP you want to restore.
- Click **OK**.



AISBackup: Using a third party CD Mastering Program.

Description:

Here are the instructions for using a third party CD Mastering program.

There are two options:

1. The AISBackup CD Writer has been able to detect your CD Writer, it can also detect blank and report the size of blank or partially used CD's.
2. The AISBackup CD Writer cannot detect your CD writer and therefore cannot report back the size of blank CDs, here you must manually choose the capacity of the CD.

Options

If AISBackup is able to report back the size of blank CDs then leave the CD Writer enabled in Tools / Program Options.

If the integrated CD Writer cannot detect blank CDs disable the option CD Writer option in Tools / Program Options.

Important information for appending a backup to the last CD.

AISBackup can append a backup to the last CD used but these instructions must be followed carefully if you are using a third party CD mastering program.

By design CD mastering programs create a new session without regard to existing information on the CD. You must therefore take action to ensure that pre-existing backups on the CD are *imported* to the new backup session. To import an existing session you must load the CD and use the correct option within your CD Mastering software to import the last session. Please refer to your CD Mastering Program manual or help.

As well as new files AISBackup needs to replace some files on your CD, always answer **YES** when asked if you want to replace pre-existing files on the CD.



AISBackup: Manage Backup

How to get to this option:

From the AISBackup Screen, click the menu option **Manage Backup**.

Description:

Manage Backup is used to run options on the currently selected job. This menu option is also available from the Select Job form where additionally you may select Run Backup or Restore From Backup.

Manage Backup Menu Options

- Modify Files and Folders List.
- Edit Backup Job Parameters
- Reset Backup / Backup Everything empties the Backup Contents File and will force every file to be backed up next time.
- Undo Backups(Prune Backup Sessions)) is used to remove backup sessions from the backup. This option may be used to free up some space from the backup destination.
- Import Backup Contents File.
- Change Backup Destination to change the destination of a backup and optionally copy the existing backup to the new media.
- Task Manager.
- Create a shortcut for this backup job
- Auto run this backup job (MS Task Scheduler)
- Validate Backup the contents of the Job and Backup Contents File.
- Backup Maintenance.
- Copy Backup to CD.
- E-mail Backup
- Package and Encrypt Backup.
- Make Backup an Archive.
- Remove Backup Job the Job and associated files.

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Delete a Job.

Manage Backup / Remove Backup Job

Choose this option to remove the Backup Job and Backup Contents File from the list of backups.

For disk base backups a additional question asks whether the actual backup should be deleted.

If the backup is not actually deleted it may be re-instated or opened by using the **Tools / Load Job From Backup Media** menu option.

[Back to Menu Options](#)

Validate the Job and Backup Contents File

Manage Backup / Validate Backup

Use this option to validate the contents of a backup against the files actually held on the CD or other backup media. This option is useful to remove files from a backup set that are on a damaged CD.

For further details click [here](#).

[Back to Menu Options](#)

Import a Backup Contents File.

Manage Backup / Import Backup Contents File

When a Backup is finishing the [Backup Contents File](#) is copied to the backup media. If the live copy of a backup job becomes corrupt or is accidentally deleted you may use this option to restore the backup copy.

[Back to Menu Options](#)

Reset Backup – Backup Everything.

Manage Backup / Reset Backup – Backup Everything

This option is used to clear the Backup Contents File and force every file to be backed up next time.

This option can be used to create a new set of backup CDs if the existing set is to be stored off-site. You are also given the option to archive the current Backup Contents File prior to clearing it, this allows easy access to the contents of archived backups via the **Tools / Archive Management** menu option.

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Undo Backups (Prune Backup Sessions)

Manage Backup / Undo Backups (Prune Backup Sessions)

This option is used to remove one or more backup sessions from a backup.

Select each session to be removed then click **Delete**.

Files that were created in a selected session that exist in higher sessions are moved to the next highest session number. Files that were created in earlier sessions but marked as deleted in the selected session are marked as deleted in the next highest session number.

Disk based backups are automatically pruned.

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Backup Maintenance.

Manage Backup / Backup Maintenance

The backup maintenance option is used to either move folders within the *Backup Contents File* or Remove files that have been backed up from the *Backup Contents File* and optionally from the backup destination.

Complete CDs or other removable media may also be removed from the backup, see [here](#).

Both options are invoked by right clicking the folder or file name and selecting the appropriate menu option.

Moving Files.

This option is used to move files from one drive to another within the Backup Contents File. Amongst the reasons why you may want to do this are:

- You have inserted another disc partition before the partition that has been backed up, and therefore the drive letter of your existing backed up files has changed.
- During a Validation process one or more files have being orphaned (denoted by a drive letter of ?). You may want to re-locate these files to their correct folder.
- You have moved a directory structure from one drive to another on your PC.

AISBackup will also ask whether the source files of the backup should be changed.

To check that the source files of the backup have been set-up successfully use the **Manage Backup / Add/Remove Files** .

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Removing Files from the Backup Contents File.

This option is used to remove files from the Backup Contents File and optionally the actual backup destination. The extent that files are removed from the backup destination depends on the backup media, for example, individual backup zip files are not pruned if the backup is to CD.

To remove a file or folder from the backup right click the item and select one of the following menu options:

- **Remove File:** Removes the selected file.
- **Remove Files From Folder:** This option removes all files from the selected folder.
- **Remove Files From Folder and All Sub Folders:** This option removes all files from the selected folder and all files from sub folders of the selected folder.

For each of the above options you must confirm the removal by clicking **Yes** on a confirmation prompt.

If you choose to remove all files from folders and the folder is still selected in the **Add / Remove Files** Form the folders will still be displayed in the Restore Files form and the Backup Maintenance form if re-displayed. The folders will, of course, be empty.

Once the file or folder has been removed from the Backup Contents File AISBackup calculates whether one or more backup Zip files have become redundant. If one or more zip files have become redundant a message stating *there are n backup zip files that are no longer required* is displayed and the associated **Delete** button is enabled. The message states *There are at least n.....* if the backup is to media that is offline or if the backup destination is CD or Removable Media.

If the backup is to a local hard drive, network drive or USB / FireWire connected drive you are also given the opportunity to prune zip files where one or more files have become redundant.

You do not have to delete the actual files from the backup media and if you don't you can always re-instate these removed files by using the Manage Backup / Validate Backup option.

Removing Redundant Zip files From CD or Removable Media.

If the backup is to CD or Removable media selecting the **Delete** option gives the following options:

- Select **ALL** to check all media. This option causes AISBackup to ask you to load each CD / Media in the backup and remove each zip file that is not longer required. Use this option if you have removed files in the past but then elected not to actually remove the files from the backup media.
- Select **SELECTED** to remove zip files that have been removed during this *Removal* session.
- Select **CANCEL** to abort the zip removal option, note this option does not re-instate the files back into the Backup Contents File.

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Removing CD's or Other Media.

You may remove one or more CD's or other media from the backup by using the **Remove Volumes** option. This will cause the files that still exist on the PC to be selected for backup next time.

Edit Options.

Manage Backup / Edit Backup Job Parameters

- **Backup Job Name:** The backup job name may be changed.
- **Maintain a log file:** The option to maintain a log file can be switched on or off.
- **Log Everything:** The option to log all messages can be switched on or off.
- **E-mail Log Options:** This option displays the e-mail log option form from where e-mails may be sent following the execution of a backup job. The actual session log may be attached to the e-mail in a variety of formats or sent in the message body.

If the e-mail field is left blank the backup log is displayed on the PC using the default program for the chosen format.

Owing to security features in Microsoft Outlook it is recommended that the integrated SMTP e-

mail option is used.

- **Test Backup:** There are 3 test backup options:

Do Not Test: the backup is not tested for restore capability.

Check File Integrity: Each backed up file is assigned a 32bit checksum; the data is read from the backup to re-calculate the checksum, if the checksum matches the file is okay. There is a 4, 294, 967, 295 to 1 chance of an invalid file generating a correct checksum. This is the recommended **Test Backup** option.

Compare with Source Files: This option also uses the **Check File Integrity** method but additionally compares each backed up file with the original file. If there are file differences AISBackup produces a warning rather than an error because it is conceivable that data legitimately changes within some files during the time that the backup runs. However, if there is a checksum mismatch the files are flagged as *failed to backup*.

- **Backup opened exclusive files:** The option to back up 'opened exclusive' files may be turned on or off. Opened exclusive files are those that have been opened with a switch to disallow any other program opening the file, some database files fall into this category. This option only works on FAT disk systems.
- **Huge File Size:** If you have enabled backup of Huge files, i.e. files larger than the backup media, you may choose the file size where the file is designated 'huge'. AISBackup is able to make more efficient use of free space on CD and Removable media if the backup contains a lot of reasonably large (> 25mb) uncompressible (avi, wav) files.

Huge files are not backed up as zip format files but using an AISBackup proprietary format.

- **Use Third Party CD Writer:** If shown toggles whether AISBackup uses the integrated CD Writer (un-checked) or a third party CD Mastering Application (checked).
- **Open Backup Contents from Backup Media:** This option opens the contents of the backup from the backup media rather than from the AISBackup database folder. This option is useful when sharing a backup between PC's or when backing up using the same backup job to multiple FireWire/USB drives. Check this option to ensure that any new backup data added to the backup is based on what is on the backup media.
- **Modify USB / FireWire Drives:** If the *Open Backup Contents from Backup Media* option has been selected this option allows additional drives to be added to the backup job.

If you are creating a new backup job at least one FireWire or USB drive must be selected as the backup destination. If more than one drive is selected the *Open Backup Contents from Backup Media* option must also be selected for AISBackup to function correctly.

Using multiple drives is an easy way to maintain On-Site / Off-Site backups as the next backup session is always based on what was backed up on the currently connected backup media.

To remove a USB / FireWire drive from the backup remove its name from the appropriate Drive dropdown Combo box. Removing a drive from the backup job does not physically delete the actual backup.

Network shares may also be specified for USB / FireWire drives to enable backup to multiple USB / FireWire drives over a network.

- **Compression:** The Compression Level of subsequent backed up files may be changed.
- **Type of Backup:** Change a session based backup to a Generation Number based backup, note you cannot change a generation number based backup to a session based backup.

- **Keep:** Change the number of sessions or generations to retain. If the number of sessions retained is decreased the actual Backup Contents File and Backup will be pruned when the next backup session is run.

Advanced Session Management: Select this option to set up session pruning based on today's, daily, weekly and monthly session retention. See [here](#) for more details. This option is recommended for perpetual disk based backups where it is desirable to recover disk space while still preserving backup data from key dates.

- **Files Modified within Days or Since Date:** The Default value **All** causes AISBackup to consider all files selected for backup when calculating which files should be backed up.

To restrict the backup to files modified since a specified date enter a date in the format as specified by the PC's short date format setting (this is shown on the form).

If you only want AISBackup to consider files modified within the last 7 days then enter the value 7.

The value **Ask** causes AISBackup to ask for the number of days or a date since files were last modified at run time. The **Ask** option is not suitable for non-interactive Auto-Running.

Possible values are: **All** (Suitable for the majority of backup jobs), **Ask**, or a number in the range **1** to **999** or a date which is entered in local date format.

- **Prune Zip Files:** Select this option to get AISBackup to remove individual files from backup zip files. This reduces the disk space used at the cost of a longer backup time. For all disk based backups zip files that are no longer required are deleted from the backup destination.
- **Backup NTFS Security Settings:** This option is not available if the backup job has already been run and the backup has not been re-set.

Use this option to backup NTFS security settings and secondary file streams. This option creates non-standard zip files and even though the zip files can be opened with third party zip programs it will not be possible to extract the files except by using AISBackup.

Only System and Backup Administrator user accounts are able to backup NTFS security settings.

Ensure that System and Backup Administrator permission is present before backing up NTFS security settings from networked computers.

- **E-Mail Address:** Enter an e-mail address if a disk based backup is to be e-mailed after completion. The value **ASK** is used to prompt for the e-mail address at run time. This option is only enabled on disk based backups.
- **Maximum Pre-Compressed Size (MB):** This value sets the maximum pre-compressed file size. This value is automatically adjusted as free space is decreased on the backup media.
- **Maximum number of files per backup file:** This value sets the maximum number of files that should be written to each zip file. The maximum pre-compressed batch size overrides this value. The zip file limit is 65535 files.
- **Change Password:** This option may be used to change or remove a password from a backup. The password cannot be changed on a pre-existing, removable media style backup, to enable the change password option use the **Manage Backup / Reset Backup - Backup Everything** menu option first.

The password may be changed or removed on an existing disk based backup, but the process must not be interrupted or the backup will become inaccessible. However, if the PC or AISBackup crashes during the change password process the change password process may be restarted next time AISBackup is used.

- **Pre and Post Jobs:** AISBackup can be set to run user supplied jobs before and after a backup job is executed. These jobs may be useful to instruct applications running on the computer to take some action just prior to and after the backup job is executed. See [here](#) for more information.
- **FTP Settings:** This button is shown when the backup destination is an FTP server. Use this option to change the FTP settings, see [here](#).

[Back to Menu Options](#)

[Change Compression Level](#)

Manage Backup / Edit Backup Job Parameters

Use this option to change the compression level between high and none. Some of you may be aware that the zip file standard supports a number of compression levels, AISBackup has been tuned for optimal speed vs. compression ratio. Higher compression ratio's took considerably longer to backup with negligible decrease in backup size on an average mix of file types.

It is probably best to leave the compression level set to **high**.

[Back To Edit Options](#)

[Back to Menu Options](#)

[Changing the type of Backup.](#)

Manage Backup / Edit Backup Job Parameters

The type of backup can be changed from a Session based backup to a Generation number based backup

A backup cannot be changed back from a Generation number based backup to a Session based backup.

The number of Sessions or File Generations to be retained may also be selected.

[Back To Edit Options](#)

[Back to Menu Options](#)

[Make Backup an Archive.](#)

Manage Backup / Make the Backup an Archive

This option transfers a backup job from the job list to the archived backups list. Archived backups are no longer candidates for backup but they are available for restoring from via the menu option **Tools / Archive Management**. Once a job has been transferred to an archive it can be re-instated at a later date by using the Archive Management function **Make Archive a Backup**.

For more help on Archived Backups see [here](#).

[Back to Menu Options](#)

Change Backup Destination.

Manage Backup / Change Backup Destination

This option is used to change the destination of a backup and optionally copy the existing backup to the new destination.

If you choose to copy the existing backup the following rules apply:

- If the source and new destination of a backup is a local hard drive or network drive the source is moved to the destination (i.e. deleted after copying).
- If the Source is a CD or Removable media and the new destination a local or networked drive the backup is copied, i.e. the old backup is not deleted.
- If the Source is a local or networked drive and the new destination is a CD or Removable media the backup is copied, i.e. the old backup is not deleted.
- The Source and Destination cannot be both CD or Removable media.

The new destination can be set and prepared for a full backup by choosing not to copy the existing backup to the new destination.

[Back to Menu Options](#)



AISBackup: Restoring Files

How to get to this option:

From the AISBackup Screen, click **Restore from Backup**.

Description:

Use the Restore Files option to copy files back from the backup media to your PC.

Session Selection.

If the backup type is a *Session* variety you are able to select a dated session from which to restore your backup.

Each session contains all files that were on the system at the time of the backup even though only a few files were physically backed up.

Leave the selection on *All Sessions* if you are restoring one or more individual files regardless of which session they belong to. Once you have selected a session date click **Next**.

If the backup is a *generation* style backup the Select a Session form is not displayed.

Restore Select Files Form.

An actual example of restoring the C drive using a session date can be found [here](#). For a more general overview of the restore options read on.....

Select file files to restore using the Select Files Window, for further details click [here](#).

If you have selected *All Sessions* or if this backup is a *Generation* style backup you will see every version of each file that has been backed up. If you select a whole folder for restore the latest backup up version of each file is selected. You may select another version of a file if required.


For *session* style backups you may choose a dated backup session from the Backup Session selection box, or click **Back** if you want to see these sessions with their associated comments.

Quick Open / Restore options.

Individual files may be opened or restored by one of the following methods:

- **Double Click a filename:** To open the file using its default program.
- **Right Click / Open:** To open the file using its default program.
- **Right Click / Open With:** To open a file using the standard Windows *Open With* dialogue.
- **Right Click / Restore As:** To restore an individual file to another filename and / or folder. AISBackup opens the Save File dialogue at the original location of the file, if this location does not exist AISBackup opens the Save File dialogue at *My Documents*.
- **Select files then drag and drop onto Windows Explorer:** Files may be restored by dragging and dropping them directly onto Windows Explorer. The files that are restored are those selected



with  in the current list view.

Folders may be selected, dragged and dropped when running Windows 2000 and XP.

To assist you in finding files on the backup click the **Find** button.

Once you have selected the files for restore click **Next**.

You may print the contents of the right hand file pane by clicking the **Print Files** button. The font for the print option is set in **Tools / Program Options**.

Pre-Select Delete Files Options.

This form is only displayed if a dated session has been selected and at least one complete folder has been selected for restore.

AISBackup has the ability to delete files and folders that did not exist, or were not backed up on a selected session. AISBackup does not actually delete any files and folders unless confirmation is given via the File and Folder Deletion Preview form.

The initial prompt is used to pre-select the delete file and folder check box options, the selection may be overridden on the Restore Destination / Existing Files not on Backup Action form, see here.

Restore Destination

This option selects the destination of Restored files.

- **Original Path**

This option restores the files to the original path that they were backed up from, unless this path has been altered by Manage Files.

- **To Path**

This option restores the files to the specified path name. The restored files will maintain their folder structure.

- **To Root**

This option is used in conjunction with To Path and is used to restore the files to the root of the specified path.

If this option will cause duplicate filenames to be restored an appropriate message will be given during the restore process.

Existing Files not on Backup Action:

This option is only enabled if a dated session has been selected from the Session Selection form.

- **Delete files that did not exist when session N was backup up.**

Where **N** is the session number.

Select this option to instruct AISBackup to remove files from the destination folders that did not exist when the backup was taken. This option does not remove folders that did not exist when the backup was taken.

After the restore phase you are given the opportunity to review and alter the list of files selected for deletion.

- **Delete folders that are not on backup session N.**

Where **N** is the session number.

Select this option to instruct AISBackup to remove folders from the destination folders that did not exist when the backup was taken.

After the restore phase you are given the opportunity to review and alter the list of folders selected for deletion.

No files are actually deleted unless confirmation is given.

Duplicate File Action.

The duplicate file actions are only enabled if the backup destination contains files and folders, except the system folders *System Volume Information* or *_RESTORE*.

The Duplicate File Action options are:

- Do Not Replace Duplicates.

This option will not overwrite any existing file during the restore process.

- Always Prompt.

This option displays a list of duplicate files in a Select Files Window. Select each file that you want to overwrite from here.

- Replace Duplicates.

This option always overwrites duplicate files, even if they are the same.

- Replace Duplicates with Different Files Only (Older or Newer).

This option overwrites duplicate files which are older or newer than the files being restored. This is the best option to use if you are 'Moving the PC in time', i.e. restoring from a selected session date.

- Replace Duplicates with Newer Files Only.

This option replaces files on the PC that are older than the files being restored.



AISBackup: Create a Backup Job

How to get to this option:

From the AISBackup Screen, click **New Job**.

Description:

This option is used to create a new backup job for AISBackup. The job contains a list of files and folders to be backed up and the media to which the backup is to be made.

Hover the mouse over the field captions to display further help.

On each of these forms click **Next** to move to the next option, **Back** to go back to the previous options or **Cancel** to abort the create job process.

Source of Backup:

This form enables you to select the source of the backup and includes one or more of the following:

- **Manually choose which Files, Folders and Disks should be backed up.** This option will cause AISBackup to display the Select Files form.
- **Backup All Files From Disk Drive (Drives).** This option displays all the local disks and all the connected network shares for you to choose one to backup.
- **Choose one or more local and network drives from a list.** This option displays a list of local and network drives from which you can select one or more for backup. You may find the backup is more easily manageable if you do not select too many drives.
- **Base on this job (Job List).** This option can be used to pre-load an existing backup job from which the new job is to be based.
- **Emergency System Backup.** This option is only available on Windows 95, 98 and **ME**. Use this option to create a backup of the Windows Operating system that can quickly be restored from a DOS session. For more information click here.

Destination of Backup:

This form is used to select the destination of the backup.

For a description of each of the CD backup options click here.

- **A CD using the AISBackup Disc Writer.** This option uses AISBackup's integrated CD writer interface. The backup is initially written to a disk based staging area from where it is copied to CD. If a *test backup* option has been selected the CD is tested. The disk staging area is erased prior to resuming the backup. This process is repeated until the backup is complete.

Precautions should be taken not to interrupt the CD creation process if Buffer Under Run protection (or equivalent) is not available on the drive.

The staging area must be at least the capacity of a CD (650 – 700 MB) or DVD (4.5 GB). This option is only available if the Disc Writer is made active in [program options](#). AISBackup will allow a smaller disk stage where it will write multiple sessions to DVD+RW and DVD-RW and on Windows XP DVD-R and DVD+R. To automatically enable using a smaller disk stage see **Tools / Program Options / Program Settings** [here](#). Smaller stage sizes are not recommended for CD as there is a 14MB overhead on each CD session.

This option is recommend for backup to CD.

Click [here](#) to see supported DVD options.

- **A CD using the Packet Writing System <Name>**. Uses a third party packet-writing interface that writes the backup directly to CD or DVD using Universal Disk Format (UDF). This option is only available if the **Enable Third Party Packet Writing System** option is enabled in [program options](#).

CD's and DVD's written using a packet writing system can only be read on PC systems that support the UDF interface.

This option is recommended when backing up to DVD if there is not 4.5GB DVD pre-disk stage available.

- **A CD using a third party CD Mastering Program**. This option uses a third party CD Mastering program. The backup is made to a staging area, when this is full to the capacity of a CD you are asked to copy the contents of the backup to CD using a CD Mastering program, i.e. not a packet writing system.

The CD must be given the same name as the folder name, and the contents of the folder must be written to the root of the CD and not the single sub-directory containing the backup files.

Use this option if the integrated AISBackup CD Writer does not work with your CD drive. Select the **Tools / Program Options / Enable Third Party CD Mastering** option to enable a third party CD Mastering program.

- **A hard drive on this PC or a network drive**. Use this option to direct the backup to a disk on your PC or to a network share. AISBackup will default to the *Default Root Location of Backup Files* [Program Option](#)., the actual destination of the backup may be altered on the next *New Job* form.
- **A FireWire or USB connected hard drive**. Use this option to direct the backup to a USB or FireWire connected drive. All FireWire and USB drives used with AISBackup must be given unique volume names.

Up to 3 FireWire drives may be selected for backup destination. AISBackup will backup to one of these connected drives at run time. If more than one drive is connected AISBackup will ask which drive should be used but will default to the drive without a backup or the drive containing the earliest backup. If more than one USB / FireWire drive is selected the **Open Backup Contents from Backup Media** Parameter must be checked, see [here](#).

Multiple network shares may also be specified for USB / FireWire drives to enable backup to these drives over a network. This makes it easy to maintain on-site / off-site backups of client PC's to drives connected to backup servers.

If required AISBackup will prompt for the drive to be connected at Backup / Restore time.

- **Backup Files to [Select Drive] Removable Drive**. This option is only displayed if you have removable drives connected to your system. Choose the actual drive from the drop down list. Removable drives include Iomega™ Zip, USB Drives, and some DVD-RAM systems.
- **Backup to FTP Server**. This option is used to upload a disk-based backup to an FTP Server. For

more information see [FTP Backup](#).

- **E-Mail Address** This option creates a disk based backup which is e-mailed to the supplied address, or multiple addresses separated by a semi-colon. An email address of **ASK** may be used, this will cause AISBackup to ask for the e-mail address after the backup has completed. The e-mail SMTP parameters must be set-up via **Tools / Program Options / E-mail settings**, see [here](#).

For more information about e-mail backups see [here](#).

- **Disk to Disk Copy:** Use disk to disk copy to create a copy of the chosen files and folders at the backup destination. This option may be used to clone the operating system. If you want to create bootable copied of Windows the following notes apply:

Windows 95, 98 & ME: The copy must be made to an active, primary partition. The easiest way to do this is to copy these operating systems to a second hard drive. Remember that the drive must also be set as Active, this is done using the Microsoft DOS utility FDISK or a third party disk partition manager.

Windows NT, 2000 & XP: These operating systems may be copied to any disk partition, but it is advisable to copy an NTFS partition to another NTFS partition or some information may be lost. To boot into the copy of the operating system the Windows boot menu must be updated, this may be done using the **Tools / Edit Windows Boot Menu** option, see [here](#).

Job Parameters

This form is used to name the backup job and 'fine tune' the backup destination.

- Enter a unique name for the job. The other fields will take default values.
- The **Backup Destination** field is used to name the destination backup database files, this will default to the location specified in the [Options](#) dialogue.
- If the backup is directed to a CD using the AISBackup integrated CD Writer you will be required to enter a prefix for the CD / DVD Volume names.
- Choose whether to maintain a backup activity log, and whether all messages should be logged.
- **Test backup:** There are 3 test backup options:

Do Not Test: the backup is not tested for restore capability.

Check File Integrity: Each backed up file is assigned a 32bit checksum; the data is read from the backup to re-calculate the checksum, if the checksum matches the file is okay. There is a 4, 294, 967, 295 to 1 chance of an invalid file generating a correct checksum. This is the recommended **Test Backup** option.

Compare with Source Files: This option also uses the **Check File Integrity** method but additionally compares each backed up file with the original file. If there are file differences AISBackup produces a warning rather than an error because it is conceivable that data legitimately changes within some files during the time that the backup runs. However, if there is a checksum mismatch the files are flagged as *failed to backup*.

- **Backup Opened Exclusive Files** is used to make a backup of files that could not be opened because they were opened in a way that prevented them from being backed up normally. This option only works for FAT drive systems on local drives, i.e. files on NTFS, Network or other Network drives that are opened exclusively will not be backed up.
- Compression specifies the compression level for the Backup files, this should normally be left as

High to give the best time verses compression ratio.

- If you have enabled backup of Huge files in program options, i.e. files larger than the backup media, you may choose the file size where the file is designated 'huge'. AISBackup is able to make more efficient use of free space on CD and Removable media if the backup contains a lot of reasonably large (> 25mb) uncompressible (avi, wav) files. If the backup is to removable media such as Zip™ please make sure that some media has been inserted into the drive so that AISBackup may calculate the maximum huge file size.
- If you would like to password protect the backup check **Password Protect**.

Password Protection Options (non-email backup):

- Optionally give the backup a password. If you do not want to password protect the backup click **Next**.
- Encrypt password is used to generate a 40 random character password from your supplied password to effectively make zip password cracking software take a very long time to find your password. The generated password is never displayed within program for you to use with the zip files manually.

For added security set-up a **Password Encryption Seed** these make the generated passwords unique to your copies of AISBackup, see here for details. AISBackup stores an encrypted copy of the password with the backup but it does not store the **Password Encryption Seed** with the backup. Forget the **Password Encryption Seed** and it is highly unlikely that you will be able to read the backup

- Prompt Password is used to automatically supply the password when restoring files. This option is used if you want to protect the files on the backup media but you trust the Users of AISBackup.
- **Update Job Password:** Select this option to require the password for the Manage Backup menu options. Use this option to prevent un-authorized Users from updating the backup job parameters.

Password Protection Options (non-email backup):

Additional parameters requires for backups to e-mail.

- **E-Mail Address:** Enter the destination e-mail address.
- **E-Mail Message:** An optional message to be sent with the e-mail attachments.

Type of Backup Options.

- **Session or Generation Based:** Choose between whether the backup is going to be Session Based or Generation Number based.

Session based backup's enable you to restore your system back to the same state it was in on a particular date, Generation based backup's enable you to specify how many versions of each file you want to keep.

With Generation type backups you cannot restore the system back to a specified date because the file may have been removed from the Backup Contents File. The 'Select Session' option is not available on the restore files screen when you are using a Generation based backup.

Generation based backup's are useful when you are automatically backing up files from certain directories throughout the day, you may elect to keep the last 3 versions of a file, whereas if you select 'Keep the last three sessions' you may end up with only one version of a particular file.

If the backup is to CD the deleted files are not actually removed from the CD but only from the [Backup Contents File](#). Using the Validate option would recover the 'deleted' files from the backup to the orphaned folder.

- If the backup is to a local Hard Drive or remote Network Drive old generations are deleted from the Backup Contents File and the actual backup database. Using the Validate option will not recover these deleted files.

Advanced Session Management: Select to set up session pruning based on today's daily, weekly and monthly session retention. See [here](#) for more details.

- **Files Modified within Days or Since Date:** The Default value **All** causes AISBackup to consider all files selected for backup when calculating which files should be backed up.

To restrict the backup to files modified since a specified date enter a date in the format as specified by the PC's short date format setting (this is shown on the form).

If you only want AISBackup to consider files modified within the last 7 days then enter the value **7**.

The value **Ask** causes AISBackup to ask for the number of days or a date since the files were last modified at run time. The **Ask** option is not suitable for non-interactive Auto-Running.

Possible values are: **All** (Suitable for the majority of backup jobs), **Ask**, or a number in the range **1 to 999**.

- **Prune Zip Files:** Select this option to get AISBackup to remove individual files from backup zip files. This reduces the disk space used at the cost of a longer backup time. For all disk based backups complete zip files that are no longer required are deleted from the backup destination.
- **Open Backup Contents from Backup Media:** This option is only shown when the backup is to a FireWire drive, USB drive or removable media (but not CD or DVD).

This option opens the contents of the backup from the backup media rather than from the AISBackup database folder. This option is useful when sharing a backup between PC's or when backing up using the same backup job to multiple FireWire/USB drives. Check this option to ensure that any new backup data added to the backup is based on what is on the backup media.

- **Backup NTFS Security Settings:** Use this option to backup NTFS security settings and secondary file streams. This option creates non-standard zip files and even though the zip files can be opened with third party zip programs it will not be possible to extract the files except by using AISBackup.

Only System and Backup Administrator user accounts are able to backup NTFS security settings.

Ensure that System and Backup Administrator permission is present before backing up NTFS security settings from networked computers.

Select Files Form

If you have chosen the *manual select* option the [Auto Select](#) form is displayed so that some common files and folders may be pre-selected.

If you selected *Manually choose files* the Select files form is displayed, if you chose to backup one or more complete drives you will be asked if you want to 'fine tune' the file selection. The Select Files for is

described [here](#).

Completed Job Options.

- Select **OK** to return to the AISBackup main form.
- Select **RUN** to run the backup now.

Advanced Job Options.

Once a backup job has been created you may make alterations, create a desktop or start-up shortcut and auto-run the backup by selecting the menu item **Manage Backup**.

Here are a few examples:

- **Create Shortcut for this backup job**

Create a desktop shortcut (icon) and / or a Start-up shortcut. A start-up shortcut is run each time the PC is booted. If a start-up AISBackup job already exists you will be asked whether you want to replace or add the new job to the list of jobs. For more information see [here](#).

- **Auto run this backup job (MS Task Scheduler)**

This option is used to create a Microsoft Task Scheduler task so that you may run this job at pre-defined times during each day. AISBackup provides many more options for auto running jobs, see [here](#).

- **Task Manager ...**

AISBackup has the ability to close down and re-start Applications that may prevent some files from been backed up, for example Microsoft Outlook, see [herefor](#) more information.

This completes the create backup job process. See [here](#) for running the backup.



AISBackup: Select Files For Backup

[How to get to this option:](#)

From the AISBackup Screen, click the menu option **Manage Backup / Modify Files and Folders List**. This form may also be shown via the **New Job** and **Quick Job** options.

[Description:](#)

The Select Files For Backup form is used to choose which files and folders you want to include in the backup job. The select files form is similar to Windows Explorer, and like Explorer some options are available by right clicking the files and folders.

To fine-tune the file selection you can choose to exclude some files and folders that match a specified name pattern. Files may also be excluded if they exceed a specified size. The exclusions are accessed by using the **Exclusions** tab. When a new backup job is created the excluded files and folders list is pre-loaded with the files and folders from the [Tools / Default Exclude Files & Folders List](#).

Single file and folder exclusions are achieved by right clicking the file or folder and choosing an exclude option.

AISBackup can be set to backup the files of a specified type from the selected folders. *Files of Type* is set-up using the **Files of Type** tab or by using the right click / **Files of Type** option.

AISBackup can also automatically select some common files and folders by using the **Auto Select** option.

Further exclusion options are available by right clicking files and folders.

[What do the selection symbols mean?](#)



To jump to the description of each select state click [here](#)



[Options.](#)

- [Select the files](#) you want to Backup.
- [De-Select files and folders](#) that you do not want to Backup.
- Select the [Exclusions](#) tab to edit the list of files and folders that are to be excluded from the backup.
- Select the [Files of Type](#) tab to backup files from the selected folders of the selected type (file extension). Files of type may also be selected by right clicking the filename.
- Click **Print File List** to print the contents of the right hand file pane. The font for this option is set in **Tools / Program Options**.
- Click [Map Network Drive](#) to display files from a networked computer is not shown in the list of files.
- If the backup job contains files and folders from a network drive that is not online AISBackup displays the missing shares after the main file list. If the network share is no longer available you may remove all file selections by de-selecting the share.

- Click **Cancel** to Abort.
- Click **OK** to proceed.

Selecting Files.

Choosing files and folders is achieved by clicking the  box so that it becomes .

De-selecting files and folders is done by clicking the  box so that it becomes .

Files that are displayed in bold are larger than the designated large file size (a.k.a. huge file) or the file is larger than the destination backup media. These files will be split over the backup media during backup. These files are not backed up to the standard zip file format and can only be restored using AISBackup. The large file size is set in the menu option **Manage Backup / Edit Backup Job Parameters**, see [here](#).

Files displayed in red are larger than the destination backup media and you have elected not to backup *Huge* files.

There are more options for selecting and de-selecting files to give sophisticated All But and None But selection criteria. For a detailed explanation of using the Select Files Window click [here](#).

There are other select file options available by right clicking a file or folder. See [here](#) for more information.

Excluding Files and Folders

The files in listed the 'Default Exclude Files & Folders List' are used when creating new backup jobs, additional files that should be excluded from an individual backup job should be added by using the **Exclusions** tab option. The Default file and folder exclusions list is maintained by the **Tools / Default Exclude Files & Folders List** option.

Options

To edit the exclusions click the **Exclusions** tab.

Either choose an existing exclusion to edit or type in an exclusion pattern for the file or folder. To select an absolute folder name use the **Folder** button.

A size restriction may be assigned to files, for example, if you wish to exclude all *.wav files greater or equal to 50MB enter (or select) 50MB in the *size restriction* drop down combo box.

Exclusions may be removed from the list by using the **Delete** button or by double clicking them.

To merge the existing global exclusions click **Merge**.

All exclusion modifications are discarded if you choose the **Cancel** option.

Examples.

Take care when entering folders using fuzzy matching, entering TEMP* will not only exclude files from ‘\TEMP’ and ‘\TEMPORARY INTERNET FILES’ but also ‘\TEMPLATES’, this may not be what you want.

File & Folder Exclusion Examples:

- To exclude all files and folders from folders named *Temp* enter

\TEMP then click **Add**

- To exclude all files and folders from folders starting with *\$NtUninstall* enter

\\$NtUninstall* then click **Add**

Take care when using the *Folder Starting with* option, e.g. entering the value **\TEMP*** will exclude all folders starting with *TEMP*, this includes *Temporary Internet Files*, the folders *Temp*, but also the folder *Templates* which you may want to backup.

- To exclude all folders called Mozilla but only if Mozilla is in a folder called \Application Data

\Application Data\Mozilla then click **Add**

Multiple folders may be specified.

- To exclude Mozilla cache files:

***.slt\Cache** then click **Add**

This excludes all files from a folder called cache but only if the folder cache is contained in a folder name ending with **.slt** Fuzzy matching is specified by the * character.

- **C:\System Volume Information**

Specifies an absolute folder name.

- ***:\System Volume Information**

Specifies an absolute folder name on all disk drives.

- To exclude all temporary files from the backup enter:

***.tmp** then click **Add**.

- To exclude all filenames beginning with the character ~ from the backup enter:

~*.* then click **Add**.

- To exclude all AVI files larger than 50mb

***.avi**

Enter 50mb in the size restriction box then click **Add**.

- Environment variables may be used in folder names:

%SystemRoot%\SoftwareDistribution

Excludes the SoftwareDistribution folder from the system root folder.

Entries may be removed and changed by selecting the file in the list and then clicking the button as appropriate.

Files of Type

A files of type backup is used to backup files of a specified type or types. The type is defined by the file extension, e.g. *.mdb for Access databases *.doc for Microsoft documents. A backup can either be a normal backup or a files of type backup, if you want to combine the two styles you must create two backup jobs and run them one after the other using the Auto Run facility.

To change the backup style to Files of Type either select the Files of Type tab or right click any file and choose the **File of type .xyz** menu option.

If you want to change the backup style back to a normal backup choose the **Files of Type** tab and remove all of the files from the list.

The **right click / All but this file** option can be used to exclude some files of type, e.g. all mp3 files except 'right click / this one' and 'right click / this one'.

Auto Select

This option is used to automatically select one or more of the following sets of files:

- **The Windows Operating System.**

The Operating System is selected with the minimum of Documents and Settings (Only the registry files are selected from Documents and Settings).

- **The Registry.**

This includes both the System and User portions of the Registry.

- **Everybody's Documents and Settings.**

These folders contain data for Microsoft systems such as Outlook Express, Desktop, Cookies, Start Menus etc. If you have re-located these files then you must select them manually. Files and folders of other programs must also be selected manually.

- **Everybody's My Documents.**

Just the Microsoft Document folder from the above.

- **My Documents and Settings.**

As Everybody's Documents and Settings but for the current logged on User only, you may want to select shared information manually.

- **My Documents.**

The current logged on User's Microsoft Document folder, you must select data folders belonging to other applications manually.

Services

AISBackup can backup services that traditionally run on a Microsoft Server but it uses a technique that temporarily stops and then re-starts the associated services. There may be some circumstances when it is not desirable to stop one or more of these services so AISBackup displays a list of affected services after the main Select Files form to enable one or more of these services to be excluded.

Here is a list of services that may be displayed:

- Microsoft Exchange
- File Replication Service (NTFRS)
- Windows Internet Name Service (WINS)
- DHCP Server.

De-select one or more of the displayed services to exclude from the backup.

It is recommended to periodically backup all data, especially if you want secure user data, e.g. Microsoft Exchange.

Suspend Programs During Backup

AISBackup can close down and then restart programs that may be holding files open in a way that disables the backup of those files.

Here is a list of programs that are be displayed if selected for backup:

- Microsoft Outlook.
- Google Desktop Search.

De-select one or more of the displayed programs to disable the close / restart feature.

It is recommended to periodically backup all data, especially if you want secure user data, e.g. Outlook *.pst files.

To suspend other programs use the **Manage Backup / Task Manager** option, see [here](#).



AISBackup: Select Skin

How to get to this option:

From the Main form click **Tools / Skin**.

Description:

Choosing a new 'Skin' from this dialogue box will change the appearance of AISBackup.

If the first segment (silver by default) is chosen you may change this colour with **Main Colour**.

If you want to change the colour of the information panels of the main form select **Central Colour**.

Scroll down to see more skins.



AISBackup: E-Mail Backup Options

Description

AISBackup can be set-up to e-mail a complete disk based backup to an e-mail address, or multiple e-mail addresses separated by a semi-colon. AISBackup accomplishes this task by collating all the backup files into one file, this file is then e-mailed by one of the following methods:

Choose the Menu option **Manage Backup / E-mail Backup**.

A permanent e-mail address may be added to the backup job via **Manage Backup / Edit Backup Job Parameters / e-mail address** field. The e-mail address field may also be set to the value **ASK** this will cause AISBackup to prompt for an e-mail address after the backup is complete.

A backup job of type **e-mail** may be created via **New Job**.

Before an e-mail can be sent the e-mail parameters must be set-up using then **Tools / Program Options / E-mail Settings** option, see [here](#).

The program settings include attachment size and backup size parameters. The Attachment size should be set to about 60% of the lower value of your ISP's maximum e-mail size and the maximum allowed e-mail size of the recipient. The size is set to 60% because of the overhead incurred when converting the backup file into the e-mail MIME format.

The maximum backup size should be set to an appropriate value to prevent very large backup's been sent.

How E-mail Backups are sent

1. AISBackup collates all the necessary files into one zip file.
2. If the backup is already password protected the 40 byte strong password created using the Password Encryption Seed (see [here](#)) is applied as the key to create a 128-bit **AES** encrypted file called <jobname>.aie.
3. If the backup is not password protected you are asked to supply a password, this too is converted into the 40 byte strong password created using the Password Encryption Seed. This password is then used as the key to create the 128-bit AES encrypted file.
4. If the file is larger than the attachment size value the file is split into attachment size file segments.
5. If there is no e-mail address or the value ASK has been supplied you are asked for the destination e-mail address.
6. One or more e-mails are sent to the recipient.

How the recipient opens the e-mail backup

The e-mail recipient receives either one e-mail containing the complete backup or several e-mails containing backup segment attachments.

There are several ways to open the e-mails, the easiest is to either drag and drop the attachments onto AISBackup or to double click the e-mail attachment from the e-mail and choose **Open**. Multiple e-mail backup segment files may be selected and dropped at the same time, each time backup segments are

dropped (or double clicked) AISBackup lists the missing backup file segments. Once all the segments have been processed AISBackup displays the Restore form. The collated e-mail backup file may be saved so that the backup file segment collation phase need not be repeated.

The third, and probably the slowest, method of opening the e-mail backups is to drag and drop the attachments to another folder, e.g. the desktop, and use the **Tools / Open Job From Backup Media** menu option.

You must ensure that the e-mail recipient is using the same password seed or he/she will not be able to open the backup, see [here](#).

Recommendations

It is recommended that single session backups are used for e-mailed backups to reduce the size of the backup. A single session (Session Based / Keep 1 Session) is equivalent to a full backup but only backs up new and changed files, all deleted and replaced files are removed from the backup files.

Resending the e-mail attachments.

AISBackup provides an option to save the email attachments so that selected attachments may be re-sent if necessary. To re-send an e-mail attachment use the **Manage Backup / Resend e-mail attachments** menu option.

To delete the saved e-mail attachments file use the **Manage Backup / Delete saved e-mail attachments** menu option.



AISBackup: Package and Encrypt Backup

Description

The Package and Encrypt option may be used to collate a backup and apply using 128bit AES encryption. This backup file may then be suitable for copying to devices such as flash drives for distribution via a postal service.

A password is requested If the backup is not already password protected. The extended 40 byte version of the password is used as the AES key, in other words you will not know the password and the file can only be opened by AISBackup.

The recipient of the backup simply drags and drops the file onto AISBackup, or double clicks, the file to open as in the e-mail backup scenario, see [here](#).



AISBackup: CD Writer Interface

How to get to this option

This interface is run automatically during a backup.

Description

The AISBackup CD Writer Interface may be used to copy a disk based backup to Joliet Encoded CDs. Joliet encoded CDs can be read on any Windows system.

If your CD writer supports buffer under-run technology this is automatically enabled.

If your CD writer does not support buffer under-run technology you may not be able to utilise some of the higher CD write speeds.

Windows 95, 98 and ME Emergency System backups are made on bootable CDs provided you have created the AISBackup enhanced bootable diskette.

Using the CD Writer Interface.

Erasing a CD.

Choose between **Quick Erase** or **Full Erase**. The CD Erase function is on the Load Media Form.

Writing a CD.

Click **Abort** to abort the CD write process. The backup will be rolled back to the last completed CD.

Copying a Backup to CD or DVD.

This option can only be used to copy a disk based backup to Disc.

Enter a name for the new Disc based backup job.

Enter a CD volume prefix, the CD volume names are called <Prefix>01, <Prefix>02 etc. . Not shown if copying to UDF format discs using a Packet Writing system.

Choose an appropriate *How to create the CDs* option.

- **Mastered Joliet Format Disc:** This option creates mastered CD's that can be read on nearly all CD drives. Click [here](#) to see supported DVD options.
- **Universal Disc Format:** This option creates CD's and DVD's on disc using a third party packet writing system. This option is recommended for copying backups to DVD. Some packet writing systems only support re-writable media, e.g. CDRW, DVD+RW, DVD-RW.
- **Create All Discs:** Creates CDs or DVDs for the complete backup.
- **Add to last Disc:** appends changed files to the last Disc used.
- **Add Discs:** continues the copy using a blank Disc. This option is not shown if copying to UDF

format discs using a Packet Writing system.

Validate Disc's: AISBackup will test each Disc after it has been created to ensure that the files can be restored.

Recreating a Disc.

Use this option to recreate a lost or damaged CD from a backup set created with the Copy a Backup to CD option.

Simply choose the CD that you wish to re-create and click **OK**.



AISBackup: Default Exclude Files & Folders List.

How to get to this option:

From the Main form click **Tools / Default Exclude Files & Folders List**.

Description:

This option is used to select a list of files and folders that should be excluded new backup jobs. The files in this list are usually temporary files or system files that it makes no sense to back up, for example, the Windows Swap File.

To remove a file or folder double click the entry in the list.

File & Folder Exclusion Examples:

- To exclude all files and folders from folders named *Temp* enter

\TEMP then click **Add**

- To exclude all files and folders from folders starting with *\$NtUninstall* enter

\\$NtUninstall* then click **Add**

Take care when using the *Folder Starting with* option, e.g. entering the value **\TEMP*** will exclude all folders starting with *TEMP*, this includes *Temporary Internet Files*, the folders *Temp*, but also the folder *Templates* which you may want to backup.

- **C:\System Volume Information**

Specifies an absolute folder name.

- ***:\System Volume Information**

Specifies an absolute folder name on all disk drives.

- To exclude all folders called Mozilla but only if Mozilla is in a folder called \Application Data

\Application Data\Mozilla then click **Add**

Multiple folders may be specified.

- To exclude Mozilla cache files:

***.slt\Cache** then click **Add**

This excludes all files from a folder called cache but only if the folder cache is contained in a folder name ending with **.slt** Fuzzy matching is specified by the * character.

- To exclude all temporary files from the backup enter:

***.tmp** then click **Add**.

- To exclude all filenames beginning with the character ~ from the backup enter:

~*.* then click **Add**.

- To exclude all AVI files larger than 50mb

***.avi**

Enter **50mb** in the size restriction box then click **Add**.

Entries may be removed and changed by selecting the file in the list and then clicking the button as appropriate.



AISBackup: Do not Compress Files List.

How to get to this option:

From the Main form click **Tools / Do not Compress File List.**

Description:

Some file formats such as video files (AVI, MPG) and music files (MP3, WAV) do not compress easily. If a batch of files selected for backup consists exclusively of files of this type then AISBackup will store these files without compressing them.

A batch of files will only consist of one file for files over 25MB (or 10MB if the backup media is less than 100MB), therefore all files that should not be compressed that are over 25 MB (or 10MB for Zip™ cartridges) will not be compressed.



AISBackup: Files of Type.

How to get to this option:

From the Select Files form click **Files of Type** Tab.

Description:

Use the Files of Type option to only backup files of the a specified type from the selected folders. The file type is defined by the file extension.

Examples:

AISBackup only uses the * symbol to signify 'anything' in a file pattern:

To backup Microsoft documents ***.doc**

To backup Microsoft spread sheets ***.xl***

To Backup Lotus Spreadsheets ***.wk***

Notes:

A backup job can consist of one or many file types. To revert the backup job to a normal backup job clear the list by selecting the **Clear** option.

There are far to many file types to list here but a list of registered file types may be displayed on your computer by using **Explorer / Tools / Folder Options / File Types** option. Only registered file type are listed, for example Microsoft Outlook Express files may not be registered (these are *.dbx).



AISBackup: Validate Backup

How to get to this option:

From **Manage Backup** menu option select **Validate (Test) Backup**.

Description:

The validate option may be used to verify that the contents of a backup can actually be restored.

The validate option is also used to check the Backup Contents File against the files actually held on the backup media.

A CD that becomes un-useable or lost can be removed from a backup set.

Any files that are removed from the Backup Contents File that still exist on the PC will be backed up next time a backup session is run.

The Validation form may be minimised so that you can work on something else while the CDs are being tested.

Errors are split between *Known Errors* and *New Errors*.

Known errors are when AISBackup already knows that the file could not be read and has already removed the file from the Backup Contents File.

New errors are files that AISBackup did not know it could not restore, the Backup Contents File will be updated when the files are processed, by clicking proceed.

Errors are written to a file called: **[Job name].err**, this file is used by the AISBackup validation option and should not be deleted.

Options

- If you want to verify that the files in the backup can actually be restored, select **Test read the backup files** prior to clicking **Load Backup Files** (this is the default). The test read option can be turned off at any time by re-clicking the checkbox.
- The Backup File Prefix displays the name of the Backup database files.
- The Expected Volumes list box displays the names of the CDs expected for this backup job. You do not need to process all CDs before proceeding. For hard drive or network drive backups this list box will hold a single drive name.
- Click **Load Backup Files** to display the open files dialogue, the name of the currently loaded media is displayed next to this button.
- Select the drive containing the backup files, then just one of the backup zip files (any backup zip file will do).
- If this backup is on CD, wait for the CD to be processed then load the next and then optionally repeat the process until all the CDs have been loaded.
- Once all the backup files have been identified click **Next**, click **Cancel** at any time to abort the process.

- During the actual file processing phase you may click **Abort** to cancel the processing.

Remaining CD Action

If the backup was to CD and not all the CD's were loaded a prompt will be shown to request the action to be taken for those CD's that were not examined:

Each CD that has not been examined will be shown in a Checkbox List, each CD will have been selected, this means do not process any information about files stored on these CDs.

If a CD has become damaged or lost then de-select the CD from this list, all files in the Backup Contents File that were on this CD will then be removed from the backup.

If you have replaced a CD with another that has a different Volume ID, de-select the previous CD from the list or the files on the replacement CD will be added as orphans. Orphans are files that AISBackup does not know the original drive letter, these are added as files belonging to a drive called '?' The files may be re-assigned to the proper folder by using the **Manage Backup / Backup Maintenance** option.

Click **Next** to proceed.

Click **Cancel** to Abort.

Finishing the Validation

Once the validation is complete a summary is written to the log file and is displayed on the Main Form current log screen.

Validation Summary Messages

- **Perfect matches:** Files that are accessible and known to the backup.
- **Near Matches Fixed:** Files that did not quite match the Backup Contents File but match the Date Modified and File Size. The Backup Contents File entry for these files has been fixed.
- **No Matches Removed:** These files are in the Backup Contents File but do not exist in any backup 'zip' file, these files have been removed from the Backup Contents File.

If the file still exists on the PC it will be selected for backup next time.

- **Duplicates Removed:** These files exist in more than one backup 'zip' file but just once in the Backup Contents File, the duplicate is ignored but physically remains on the backup destination media.
- **Never Backed Up, Removed:** These files are reported in the Backup Contents File as backed up but are not on the backup destination. This can happen if a backup 'zip' file has been incorrectly manually deleted or can no longer be read.
- **Orphans Added to Drive '?':** These files are in the backup 'zip' files but are not in the Backup Contents File and AISBackup cannot determine the original disk volume that the file existed on. This can happen if you are maintaining a limited number of sessions on a CD backup and previous 'zip' files have not been deleted, this can also happen if a backup was restarted and the previous backup 'zip' files were not deleted.

Orphans are assigned to the drive letter ? and may be re-assigned to their proper drive letter or removed from the Backup Contents File by using the **Manage Backup / Backup Maintenance** option.

- **Duplicate Folders Removed:** This value displays the number of duplicate folder names in the Backup Contents File, this value should always be 0.
- **Huge File Segments Checked:** The number of huge file segments checked.
- **Huge Files Failed Removed:** The number of huge files that failed the restore test and cannot be re-started because the original file no longer exists or has changed.
- **Huge Files Failed Restartable:** The number of huge files that failed the restore test, these files still exist on the PC and the backup can be restarted.

Only file segments that failed the restore test are actually backed up next time and not necessarily the whole file.

- **Files Not Checked:** The number of files that were not checked because you chose not to test all of the backup media.



AISBackup: Archived Backups.

How to get to this option

From the menu select **Manage Backup** then **Make Backup an Archive** or Choose Archive the existing backup from **Manage Backup / Reset Backup – Backup Everything**.

Description.

Scenario 1:

You may have an on-going backup, say to CD-R, that you wish to re-start. You would like to physically move the existing backup to another location for safe keeping but still be able to look at the contents of this backup using AISBackup.

Scenario 2:

You have a backup of a PC that no longer exists on the network, you do not want the backup to be in the list of jobs, but you do want to be able to look at the contents of the backup.

Options.

With scenario 1 you choose to archive the existing Backup Contents File when requested, with scenario 2 you choose the menu option: **Manage Backup** then **Make Backup an Archive**.

The backup contents file and current job file is moved to the Archive folder under the Database folder, this by default is: C:\Program Files\Aquarius IS Consultancy\AISBackup\Database\Archive.

The archive backup for has two fields:

1. Comment: Used to add a comment to the backup.
2. Location: Used to enter the physical location of the backup, this may help you locate a backup on some future date.

Archived backups may be accessed using the **Tools / Archive Management** option, see [here](#).



AISBackup: Acknowledgments

We used to use a zip interface produced by the Delphi Zip Project group but have since improved performance of AISBackup by writing our own interface. However, we would like to thank the [Delphi Zip project team](#) for enabling us to produce the earlier versions of AISBackup.

[Info-ZIP's](#) software (Zip, UnZip and related utilities) is free and can be obtained as source code or executables from various anonymous-ftp sites.

[Binary Magic](#) developed the CD Mastering interface.



AISBackup: Using The Select Files Window

How to get to this option:

This window features on various screens.

Description:

The Select Files Window contains a list of folders on the left and the first level content of the selected folder on the right.

The selection of items is done by clicking the selected state icon.

Selected States For Creating Backup Jobs:



No files or folders have been selected (this state is also known as de-selected).



All files and folders have been selected.

All new files and folders created below the selected path will also be included on the backup.



Not all the files and folders have been selected below this path.

If all the files have been selected at this path then any new files created will also be included on the backup. If one or more files have been excluded from the backup then any newly created file will not be included on the backup.

If you want to include newly created files you will have to select all files from the path and then add the files you want to exclude to the Exclude Files Of Type option or by right clicking and choosing **All but this file**.

If a new folder is created under a folder that is partially selected it will not be included in a backup. If you want to include any newly created folders you will have to select them manually with the **Manage Backup / Modify Files and Folders List** option.



This option is found by right clicking a folder and choosing **Exclude Files and Sub-Folders**.


This option is used when you want to exclude files from a folder and the sub-folders of this folder where you have chosen to backup all files and folders in a higher path selection. In other words, Backup everything except the contents of this folder. This will ensure that the contents of other newly created folders will be included in a backup without having to use the **Manage Backup / Modify Files and Folders List** option.





This option is found by right clicking a folder and choosing **Exclude Files from this Folder**.


This option is used when you want to exclude files from a folder but backup the sub-folders where you have chosen to backup all files and folders in a higher path selection. In other words, Backup everything except the files in this folder. This will ensure that the contents of other newly created folders will be included in a backup without having to use the **Manage Backup / Add/Remove files**

option.

 These files have been excluded from the backup because the file has been added to the **Excluded Files & Folders List** option.

 These files have been selected for backup from excluded files. This makes it possible to exclude all files of one type from a backup but then manually select exceptions to this rule. To list the files in a job that have been selected in this way use the **View / Job Properties** menu option.

 These Folders have been excluded from the backup because the folder has been added to the **Excluded Files & Folders List** option.


 These files have been de-selected by using the right click / **All but this file** option. Use this option if you want to invoke the All But option for the selected folder. If there were already some files in a de-selected state (




) then these will be converted to



You cannot mix de-selected files with 'All but these' files.

 This folder contains files and folders that have some files de-selected by using the right click / **All but this file** option. This makes it easier for you to track down files that have been implicitly de-selected as an 'All But this file'.

Any new files and folders created under this folder will be backed up.

 This folder contains some folders that have been de-selected by using the None But option but the files in this folder have been selected as an All But.

Any new files created directly under this folder will be backed up. Any new folders created under this folder will not be backed up unless you edit the backup job and select them.

Selected States For Restoring Files and Folders:



No files or folders have been selected.



All files and sub-folders have been selected for restore.



Not all the files and folders have been selected below this path, you have de-selected one or more files and/or folders below this node.

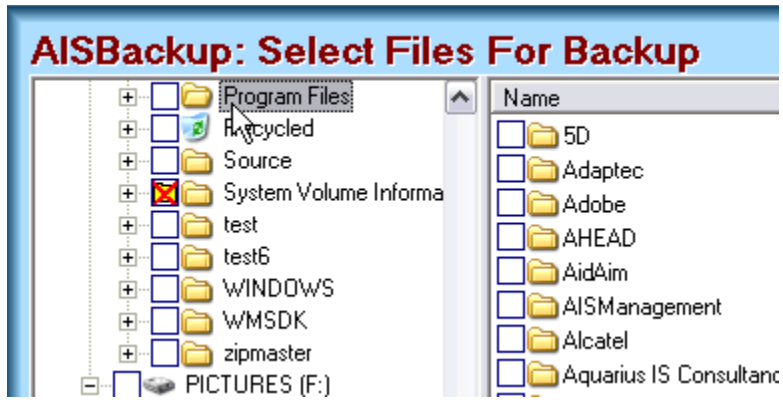
Changing the selection state clicking the left hand tree pane.

When you click the select state icon the folders toggle between selected and not-selected state except in the following circumstances:

If a tree node has been expanded as shown by the *skittles* folder below, clicking the *skittles* select icon will toggle the files between selected and not selected, and will not effect the current select state of the

folders.

If the tree node has not been expanded as shown by the *Program Files* folder below, clicking the *Program Files* select icon will toggle between selected and not-selected and will effect all sub-folders and files of *Program Files*.





AISBackup: Backup's of the Operating System.

How to get to this option:

Windows NT, 2000 & XP.

The Emergency System Backup option is not available from Windows NT, 2000 or XP.

Windows NT, 2000 or XP Users should choose to backup using the *Manually Select Files and Folders* option and then choose the *Windows Operating System* from the auto-select files form. This will simply select the Windows folder and the Registry files from *Documents and Settings*. The auto select files form is displayed automatically when creating a backup job or by clicking **Auto Select** on the Select Files form.

For more information see [Create Backup Job](#).

Windows 95, 98 & ME.

From the AISBackup Screen, click **New Job**, choose the Backup Destination **Local Hard Drive or Network Drive**, choose **Emergency System Backup** then click **Next**.

Description:

An emergency backup job is used to create a backup that is suitable to restore the Windows Operating system to a PC that has had the hard drive reformatted or replaced.

The emergency backup must be written to the hard drive initially, this is because the CD must be created as a Joliet encoded CD so that it can be read from the DOS operating system. Please refer to your CD authoring software.

The Backup need not be copied to CD but in order of preference should be written to:

- A Network Drive
- A Physically different Hard Drive
- A Different Local Drive on the Same Hard Drive

AISBackup does not restrict where any backup is located, but Emergency System Backup's cannot be written to folders that are already in-use.

Regardless of where you create the backup you will require your Windows Start-up diskette, this is especially important if you are running Windows ME, because you cannot boot Windows ME into DOS. The Windows Startup diskette should also be updated with AISBackup menu options to help with the restore process.

If you have backed up your system to a network drive you will also need DOS mode network drivers to map to this drive in order to restore your operating system. See your Network Administrator.

Cue Card.

The cue card option **Tutorial 1 – Getting Started / Create a backup of the Operating System** will guide you through Emergency Backup process.

If the cue card is not showing select **Help / Show Cue Card**.

Creating the backup job.

- From the AISBackup main form click **New Job**.
- Select **Emergency System Backup** then click **Next**.
- This backup must be written to hard drive.
- Type the job name, e.g. **ESB**.
- The backup destination filename must conform to the 8.3. naming convention, and as AISBackup adds ‘_nn’ to the filename make this a 5.3 name, The backup filename defaults to **ESB_.ZIP**.
- Click **Next**.
- AISBackup will now automatically select the Operating System files.
- If AISBackup recognises your CD packet writing system this will be selected automatically.
- Select the CD Writer program folders, these folders should be found under c:\program files e.g. c:\program files\Adaptec or c:\program files\CeQuadrat.
Please check your CD Writer documentation for further information.
- Select any other files that you may require.

Once these files have been selected run the Backup by clicking **Run Backup**. When the backup is complete you may choose to create the CDs using the AISBackup CD Writer (if this has been enabled).

This backup will also copy the following files to the backup destination:

- The DOS based UnZip.Exe files with associated help file.
- A Batch File program which is used to run the DOS portion of the Restore process.
- A program to run the Long Filename portion of the Restore.
- All the 8.3 Filenames.
- All the Long Filenames.
- An updated version of the Registry that will automatically complete the restore process.

After the backup.

Once the backup has been completed you may copy the files to a Joliet encoded CD.

If your CD mastering software allows creation of bootable CD's and your PC can boot from a CD you may create the Emergency System Backup CD as bootable, use the AISBackup enhanced version of the Windows Recovery diskette as the source of the boot files.

Mastering the CD.

For tips in Mastering the CD click [here](#).

Conclusion.

The creation of an Emergency Backup may save hours recovering your PC from a major system crash.

Without an AISBackup Emergency Backup you would normally have to:

- Install Windows.
- Install All your Hardware Drivers
- Install any patches that may have been installed (If you can remember them all).

Whereas if you maintain an Emergency Backup that was created after the installation of Windows, associated drivers and patches you could save hours in the time taken to recover your system.

To jump to the procedure for backing up your hard drive click [here](#).



AISBackup: Mastering the Emergency Backup CD.

Introduction.

The integrated CD Writer should be used to create the Emergency Backup CD's where possible.

The instructions for mastering a CD vary depending on the software package you own, here is how the Emergency Backup should be copied to the CD.

Bootable CD.

Create a bootable CD if your CD Mastering software supports this. The source of the boot files should be the AISBackup enhanced version of the Windows start-up diskette.

Some CD mastering software defaults to the last boot diskette used when creating a bootable CD, if you are not sure the origin of the boot files de-select this option and place a newly created AISBackup start-up diskette in the A: drive.

Which files to copy?

- Start your CD mastering software.
- Locate the hard drive destination of the Emergency System Backup.
- Select all of the files and folders under the backup folder.
- Drag these files and folders to the destination CD folder.
- All of the selected files and folders should be in the root of the CD drive.
- Create the CD.



AISBackup: Recovering the Operating System

You may want to print this page and keep a copy with your emergency restore diskette.

Introduction.

Windows NT, 2000 & XP.

The Emergency System Backup / Restore option is not available from Windows NT, 2000 & XP, this is not to say that you cannot create a backup that can be restored in a disaster recovery situation.

The instructions for these Operating systems are the same as restoring the 'C' drive.

- Restoring Windows NT, click [here](#).
- Restoring Windows 2000 or XP, click [here](#).

Windows 95, 98 & ME.

These instructions are for restoring the Emergency System backup which is only applicable to the Windows 95, 98 and ME Operating System's.

In the following explanation a ▽ character means type a space, <ENTER> means press the enter key on your keyboard.

Here is the procedure for performing a complete system restore using the Emergency Backup database created using an [Emergency Backup Job](#). The procedure requires you to boot the PC to the DOS Operating system.

Creating the AISBackup Recovery Diskette.

If you did not create a bootable Emergency Restore CD and you have not yet got an AISBackup enhanced Windows Start-up diskette click [here](#).

The Restore Procedure.

The following procedure assumes that the Emergency Backup database is held in the root of a CD. The CD drive has been set-up by DOS as drive H:

- Boot the PC using your Emergency restore diskette, or the Emergency Backup CD if it is bootable.
If you are going to boot the PC from a CD you will probably have to change the CMOS settings of the PC to enable this. This setting may be labelled Boot Sequence but refer to your PC's motherboard documentation.
- If you have updated the start-up diskette (or CD) with the AISBackup menus select **AIS Emergency Restore** and follow the on-screen instructions.
- If you have not included the AISBackup menu options choose boot with CD ROM support. If you copied smartdrv.exe to the diskette type **smartdrv** then press <Enter>. Remember including

smartdrv.exe considerably reduces the time taken to perform the restore.

- Optionally Format the C Drive, but only if the Emergency Backup is not on the C Drive. If you are running Windows 95 release 1 then this disk must be formatted as FAT16 and must not exceed 2gb.

Start the restore by typing **h:\restore** **H:**
C <ENTER>

Please note the ':' after the H and not after the C.

If the backup was not made to the root of the CD but a folder called *backup* the command is:

h:\backup\restore **h:\backup**
C <ENTER>

- Once the backup has completed, remove the diskette from the diskette drive and re-boot the PC by pressing Ctrl, Alt & Delete.
- After typing your Username and Password AIS Restore will finish the restore process, if you have forgotten the password that you used when the backup was taken just press the Escape key on the keyboard.
- AISBackup will now complete the long filename phase of the restore.
- When phase 2 of the restore process finishes the system will re-boot once more, this is done to initialise the CD Writer software.
- When the second phase of the restore finishes you may be presented with a number of 'cannot find' error messages, this is normal so please just acknowledge these prompts.
- In the unlikely event the second phase of the restore does not start automatically please locate and run (double click) c:\AISRSTR\AISBRSTR.EXE this will perform the 'long filename' phase of the restore.

Emergency Restore Complete, What Next?

This completes the Emergency Restore of your system, the whole process should have only taken about half an hour.

This version of Windows is pretty useless though, none of your favourite programs have been restored and the version of Windows currently running may be months out of date. What this version of Windows will allow is to restore from other AISBackup's.

Click [here](#) to jump to restoring the C Drive.



AISBackup: Auto Running AISBackup

[How to get to this option](#)

From the menu option **Tools** select **Auto Running AISBackup**.

An alternate, perhaps easier, method for creating a Microsoft Task or shortcut for the selected backup job can be found here:

- Using the Task Scheduler, [here](#).
- Creating a desktop or start-up shortcut, [here](#).

[Description](#)

AISBackup can be set-up to run a backup job, or a number of jobs automatically via command line parameters. You can therefore create jobs in Task Manager's Start-up folder to run each time the PC is loaded, alternatively you may run AISBackup via a task scheduler e.g. Microsoft Task Scheduler, the [MS Task Scheduler](#) option may be used to add an AISBackup job directly to this task scheduler. There is an optional parameter to determine whether the backup is only run once per day, i.e. the first time the PC is loaded in the day.

Only one version of AISBackup can run at a time, so multiple entries should not be added to the Start-up folder.

To provide easy access to command line parameters select the Command Line Generator the option **Tools / Auto Running AISBackup**.

Completion messages are only displayed when the backup of all jobs has been completed. This message is displayed for a maximum of 10 minutes in case you are running AISBackup from another Users (This applies to Windows NT4, 2000 and XP Systems).

There is also an option to supply the name of a [User supplied program](#) that is executed when AISBackup has been Auto-run or run via a desktop shortcut.

[Auto Running AISBackup](#)

- AISBackup remembers the last job(s) you were working with, if you would like to remove them all from the list click **Clear List**.
- Select the backup job that you wish to run automatically from 'Choose a Job' drop down list, the selected job will be added to the list. If you selected a Job by mistake remove it from the list by selecting the **Remove Job** option.
- Select Run Job Once per Day if the job is only to be run once, for example, after the PC is first booted in a day.
- Clear [Backup Contents File](#), this is used to force AISBackup to create a full backup, not the normal incremental backup.
- Use Loaded Media causes AISBackup to use the CD or other media that is in the drive at the time the backup runs, no check is made to see if it the expected media.
- Delete Destination files options:

If the backup is using the integrated CD writer AISBackup will only use a CD that is blank or previously used with the selected job.

- Do Not Delete – any files from the backup destination media.
- Delete Backup – delete any backup files belonging to the chosen job.
- Delete Everything – delete all files from the destination media.
- Completion Message: (on screen messages, see below for an e-mail option)
 - Do not give a completion message.
 - Give a completion message only if there was an error.
 - Always give a completion message.
- Run On, select which days of the week the job should run on.

Copy to clipboard is used to copy the program name and parameters to the Windows clipboard, from where they may be pasted into your Task Scheduler.

E-mailing the result of the backup.

The e-mail message.

E-mail logs may be set-up on an individual job basis or after one or more jobs have run via one of the auto-run facilities. The most flexible option is the per-job option available via the via **Manage Backup / Edit Job Parameters / E-Mail Log Options** menu option. The summary e-mail is set-up via the **Tools / Auto Running AISBackup / E-mail Settings** tab option. The per-job e-mail option supersedes the original summary e-mail option, which has been retained for users of AISBackup prior to version 2.0.

1. Per job basis: E-mails may be set-up to forward the actual backup session log in the body of the e-mail message or a text, HTML, DHTML or Rich Text Format attachment.

E-mail log options are set-up via **Manage Backup / Edit Job Parameters / E-Mail Log Options**.

AISBackup may be used with MAPI compliant e-mail systems, but, security features in Microsoft Outlook may make it un-suitable for sending e-mail messages from AISBackup. If this is true choose the **Set-up e-mail account** option and use the integrated SMTP e-mail system.

If the e-mail recipient field is left blank the log is displayed on the PC using the default program for the chosen format.

2. Summary e-mail settings may be used to send messages after completion and / or failure. No backup log is sent with this option. It is recommended that backup jobs are converted to use the more flexible 'per-job' e-mail option which was introduced with version 2.0 of AISBackup.

AISBackup prepares a report that you may e-mail to yourself after the failure or completion of all backup jobs. If your mobile phone (cell phone) accepts e-mails you may prefer to send a smaller message, this you may specify in the **OK Message** and **Failed Message** text boxes. If both of these boxes are left blank a more comprehensive message is sent, if one of the boxes is used (presumably, at least, the **Failed Messages** text) the short messages are sent. The job names are automatically added to the short message. Check **Show Statistic** to instruct AISBackup to append the backup statistics to the short e-mail message.

e-mail set-up.

Enter an e-mail address in the **e-mail report to** text box. If no value is entered no e-mail is sent.

The mail system can either be a MAPI compliant e-mail system or use the AISBackup SMTP interface.

By default AISBackup will use a MAPI compliant e-mail system e.g. Microsoft Outlook. Microsoft introduced some extra security in Outlook which renders an automated e-mail system quite useless because you must manually acknowledge that a third party program is sending an e-mail. An optional SMTP e-mail system may be used to circumvent the behaviour of Outlook.

Extra parameters required for the SMTP e-mail interface.

- **From e-mail address:** Specifies a return e-mail address, no e-mails are actually returned but you may have to specify a valid address here.
- **Use AISBackup SMTP interface to send the e-mail:** Select to use the AISBackup SMTP e-mail interface.
- **SMTP Server:** The name of your SMTP server, copy this value from your regular e-mail system.
- **User Name:** Your e-mail username. Some e-mail systems do not require this.
- **Password:** Your e-mail password. Some e-mail systems do not require this.
- **Port:** Normally 25.
- **Authentication Required:** Select this value if your e-mail system requires you to log on to send e-mails.

To test the e-mail settings click the **Test** button next to the **from e-mail address** text box.

Pre and Post Run Job Options

Running your own job before or after the Backup has finished

AISBackup has the ability to execute user supplied jobs before and / or after a backup job is run. There are two places that these job parameters may be supplied, each of which offers different functionality:

- **Jobs executed for each backup.**

Each job may have its own associated user supplied pre-run and post-run jobs, these jobs are set-up via **Manage Backup / Edit Job Parameters / Pre & Post Jobs** menu option. These jobs can be set to run when running the backup via a task scheduler or shortcut and optionally when running via the main AISBackup interface.

- **Jobs executed before and after complete auto-run backup sessions (Global pre and post run jobs).**

Pre and post run jobs may also be set-up for all auto-run (and via a shortcut) jobs but these jobs are executed before and after all selected auto-run backup jobs are run. These jobs are accessed via the **Tools / Auto Running AISBackup / Pre & Post Jobs** menu option.

Illustration of where each of these jobs are executed:

A schedule has been set-up to run 2 backup jobs called BACKUP1 and BACKUP2, there is a pre-run job that runs before BACKUP1 and BACKUP2 are executed and a post-run job that runs after both of these jobs have been executed. Each job also has a pre and post run job associated with them.

1. **Global Pre-Run Job**

2. BACKUP1's pre-run Job
3. BACKUP1 is executed
4. BACKUP1's post run job
5. BACKUP2's pre-run Job
6. BACKUP2 is executed
7. BACKUP2's post run job
8. Global Post Run Job.

The first job options are useful for running backup job specific actions and the global pre-and post run jobs for complete backup session options.

Parameters for backup and global pre and post run jobs:

The parameters are split between pre and post run jobs. AISBackup expects that pre-run jobs create dependencies for the actual backup so AISBackup waits for these jobs to complete. If the job does not complete AISBackup will continue to wait. Ensure that proper testing is carried out, especially when running the backup from a User Account that is not running interactively.

Environment variables may be used in any of the parameters, e.g. Run Program: %winpath%\notepad.exe runs notepad.exe from the current Windows directory. If an environment variable is likely to contain spaces enclose the parameters within quotation marks.

Run Program: Specifies the name of the program to run.

Working Directory: specifies the directory from which the program should run.

Parameters: Specifies job run time parameters.

For backup job specific pre and post run jobs the following options are available:

Run when job is run from task scheduler or via shortcut: Select to run the jobs when running the backup via a task scheduler or shortcut.

Run when job is run from main AISBackup interface: Select this option if the jobs should be executed when the backup is run from the main AISBackup interface.

Wait for post run job to complete: For global post run jobs AISBackup is finishing off just prior to launching the post run job so it does not make sense to wait for the post run job to finish. However, when running backup job specific post run jobs there may be additional backups queued for execution so it may be desirable to wait for post-run jobs to complete before AISBackup resumes.

Parameter File.

A file called [AISBackupLastRun.log](#) is created when AISBackup executes a backup. This file contains the name of each backup job run, the success or failure of the jobs and the names of the actual backup zip files that were created. Please see [here](#) for more information about setting up your own post backup program.

Testing the jobs.

To test that your program will start and run correctly use the **Test Launch** button. You are advised to place your job in the AISBackup program folder. Please note that any program name or parameter that contains spaces should be enclosed in double quotation marks.

If AISBackup does not run a backup, because for example the job or jobs are a 'run once per day' and they have already been executed, the user supplied pre and post run jobs will not be executed.

Also see [AISBackupLastRun.log](#) for a description of the backup run time log file.

Command Line Generator Parameter List

BackupName The name of the job to run, the parameters for the job follow the pipe character (|).

Job parameters

- O Run the job once per day.
- C Clear the Backup Contents File before, therefore backup everything, not just the changed files.
- B Used with C, above, to automatically archive the Backup Contents File before clearing it.
- U For CD backups, use the CD that is in the CD Writer drive even if it is not the expected CD. This option can be used for un-attended backups to new media.
- E Erase the job's backup files from the destination backup media. This option is used to clear the backup files from a destination CD-RW.
- A Erase every file from the destination backup media. Erasing the wrong CD can ruin a perfectly good day so this option is not enabled for AISBackup Mastered CDs.
- F Display completion message if the backup had errors.
- M Always display a completion message.

The following Y and N parameters, if present, must be in a block of 7, where the first is Sunday, the second Monday etc. If these parameters are omitted the job will run every day.

- Y Run the backup the job on this day
- N Do not backup the job on this day

Parameter List Examples

To run the job **MyDocs** every day, and **Win98 Emergency** every Friday and run each job the first time the PC is loaded on each day:

```
"C:\Program Files\Aquarius IS Consultancy\AISBackup\AISBackup.exe" MyDocs|O "Win98 Emergency|ONNNNNYN"
```

Note the quotes surrounding the program name and second job name.

Create Shortcut

Create Shortcut is used to create an AISBackup auto run shortcut in either the Desktop or Start up folders.

- Choose whether you want to create the Icon on the Windows desktop or the Start-up folder. Programs in the Start-up folder are executed each time the PC is booted.
- Type a name for the short cut.
- Choose an Icon image for the shortcut.

- Click **OK** to create the shortcut.
- Click **Cancel** to abort the creation of the shortcut.

Create or Replace an AISBackup Microsoft Scheduler Task.

AISBackup can add a task directly to the Microsoft Task Scheduler. To invoke this option create the backup criteria for each job then click **MS Task Scheduler**.

Form Options

The Schedule Job form lists all Microsoft Task Schedules that run AISBackup. Either choose an existing schedule to replace or click **<Add New Job>** to create a new task.

Enter one or more execution times and / or select **Execute when the PC is started**.

Times must be entered as Hour:minutes, with the : character in between, the time fields display in red if they are not complete or have been entered incorrectly. The time is entered in 24 hour notation where 00:00 is midnight and 12:00 is noon.

You may use the **Delete** option to remove the selected task from the schedule.

NT, 2000, Server 2000, Server 2003 and XP.

Option 1: User Job – Username and Password Required.

If you are running Windows NT4, 2000 or XP the Username and Password fields are displayed. These fields are mandatory as the tasks are run whether or not somebody has logged on. If you choose a Username other than the currently logged on User AISBackup will run invisibly. The password is mandatory and cannot be blank, this is enforced by Microsoft, not AISBackup. Please assign a password to your NT User that is to run AISBackup. The User should also be a System Administrator type account. Please ensure that you test the AISBackup jobs under the User you choose to run them in.

To submit the job click **OK**.

Option 2: “AT” Job – Runs as System Job, must be set-up by a System Administrator.

An alternative to running a standard task scheduler job is to use the Microsoft AT command. This option has the advantage that it does not require a Username or Password.

The **AT** option may only be set-up by a System Administrator, but the job will run interactively regardless of the User logged on and will run in the background if no user is logged on.

AT jobs run as a special account called SYSTEM, this may mean that some network shares may be unavailable, in other words the **AT** option is not suitable for backups to or from a network drive.

Fine tuning.

If you want to refine the schedule parameters edit the task using the Microsoft Scheduled Tasks list manually.

Trouble Shooting.

If an AISBackup job is not executed when expected then please check the following:

- Only one copy of AISBackup can run on the computer at a time. If a scheduled job is executed while another job is running AISBackup queues the new job. If AISBackup is running interactively AISBackup asks if the scheduled job can be run after any current processing has finished.
- Check the Microsoft Scheduled Tasks Log using the option **Advanced / Log** option.



AISBackup: Auto Running AISBackup

How to get to this option

From the menu option **Manage Backup** select **Auto Run This Backup Job (Microsoft Task Scheduler)**.

Description

Use this option to add the selected backup job to the Microsoft task scheduler. Only one copy of AISBackup can run at a time so if you are running multiple jobs you are given the opportunity to add the selected job to an existing scheduled job.

If a scheduled job is executed while another job is running AISBackup queues the new jobs. If AISBackup is running interactively AISBackup asks if the scheduled job can be run after any current processing has finished.

For more advanced options see the Auto Running AISBackup option.

Options

- Clear Backup Contents File, this is used to force AISBackup to create a full backup, not the normal incremental backup.
- Use Loaded Media causes AISBackup to use the CD or other media that is in the drive at the time the backup runs, no check is made to see if it the expected media.
- Delete Destination files options:

If the backup is using the integrated CD writer AISBackup will only use a CD that is blank or previously used with the selected job.

- Do Not Delete – any files from the backup destination media.
- Delete Backup – delete any backup files belonging to the chosen job.
- Delete Everything – delete all files from the destination media.
- Completion Message: (on screen messages)
 - Do not give a completion message.
 - Give a completion message only if there was an error.
 - Always give a completion message.
- Run On, select which days of the week the job should run on.

To continue click **Next**, this will display the schedule form.


The Backup Contents File contains details of the files that exist on the backup. The Backup Contents File is normally named: <Job Name>.bdb and is stored in the <Database Location> folder, see [Tools / Program Options](#).

A copy of the Backup Contents File is also copied to the backup media at the end of a Backup Session.

A Session Based backup maintains a database of which files existed and which files did not exist each time a backup session is run. From the Restore Files screen you may elect to restore files from a specified session. On the Duplicate files screen you may optionally select whether to delete files from your PC that did not exist when the selected session was backed up.

Sessions greater than the specified number are removed from the Backup Contents File. If the backup is to a local or networked hard drive the files are also removed from the backup database (zip file).

An All But selection is one where you wish to back up all files and folders in a folder including files and folders that have not been created yet. Files and folders can be excluded from this selection by right clicking and choosing the option **Exclude Files from Folder, Exclude Files and Sub Folders** or by right clicking a file and choosing **All but this file**.


An All But folder can be identified by the fact that there are no  de-selections in the files and folders list, all de-selections use the.

 symbol.

A None But selection backs up no files or folders from a folder unless they have been selected as

indicated by the  symbol.

New files or folders added to this folder will not be backed up unless you implicitly select them by using the **Modify Files and Folders List** option.

A None But folder can be identified by the fact that there is one or more  de-selections in the files and folders list.

A None But select mode is the default used by AISBackup.

Generation Number based backups maintain a selectable number of versions of each file on the backup.

Versions of files greater than the specified number are removed from the Backup Contents File. If the backup is to a local or networked hard drive the files are also removed from the backup database (zip file).

AISBackup stops the Microsoft Exchange, WINS or DNS services, backs up and then restarts the services.

Supported DVD options:

Windows XP: **Multi-Session fully supported:**
DVD-R, DVD-RW, DVD+R, DVD+RW, DVD-RAM.

Windows 95, 98, ME, NT4, 2000:

Multi-Session fully supported:
DVD-RW, DVD+RW, DVD-RAM.
One-Session Supported:
DVD-R, DVD+R.

One Session: The disc cannot be re-used for the next backup session.

Multi-Session: The same disc may be re-used for multiple backup sessions for the same backup job until the disc is full.

Backup pruning is not supported when using the integrated disc writer.

USB / FireWire Options:

Locally Connected: Up to 3 USB or FireWire disks may be assigned to each backup job. The disk is identified by a unique disk volume name.

Network Connected: Up to 3 network connected USB or FireWire disks may be assigned to each backup job. The disk is identified by network share name, this should be unique for each disk.

Connection Rules:

None of the disks are connected:

AISBackup requests that one of the disks is connected.

One of the disks is connected:

AISBackup proceeds normally using the connected disk.

More than one disk is connected:

AISBackup displays the properties of the latest backup.

Backup Clicked: AISBackup asks which disk should be used, but after 120 seconds defaults to the disk containing no backup or the containing oldest backup.

Restore Clicked: AISBackup asks which disk should be used, but after 120 seconds defaults to the disk containing the latest backup.

Exclusively Opened File Support

The option to back up Exclusively Opened (in use and locked files) only works for files located on FAT12 (floppy diskettes), FAT16 or FAT32 local drive systems.

The following are not supported:

- Local NTFS disks.
- Any Network drive.
- CD ROM drives.
- Non FAT formatted removable media drives may also fail.

Files that reside on non-supported media will be marked as 'ERRNS Could not backup <Filename>'.

Files that are on supported drives that change more than once during the backup process will be marked 'ERRF Could not backup <Filename>'.

The Test backup option causes AISBackup to read through the whole backup after the backup phase has finished. The test phase is also run just prior to a change of media request. The test phase is indicated by the *Testing backup* status message and the file progress counter changing colour to blue.

Advanced Encryption Standard (a.k.a. Rijndael): A symmetric 128-bit block data encryption technique developed by Belgian cryptographers Joan Daemen and Vincent Rijmen. The U.S government adopted the algorithm as its encryption technique, replacing the DES encryption it used.



AISBackup: Restoring The Registry and In-Use Files

How to get to this option:

This prompt is displayed when you are about to restore the Windows Registry or Windows Operating system.

Description:

The Windows Registry cannot be restored on a running Windows system, this will render the Registry corrupt. Also some files cannot be restored because Windows is using them.

This section is split by Operating system and whether in-use files, the Registry or both are been restored.

- Windows 95, 98 & ME.
- Windows NT4.
- Windows 2000 & XP.

Windows 2000 & XP User Registry

If the folder *Documents and Settings* is backed up in its entirety the User Settings part of the Registry is also backed up. Selecting the whole directory for restore also selects the Registry. This Registry contains User Specific program settings and it may not be desirable to restore the registry along with the documents and other settings such as *Favourites, History, Outlook Express* etc. If the Registry files have been selected a dialogue is displayed from which the Registry may be de-selected just prior to the restore.

Windows 95, 98 & ME.

Restoring the Registry and In-use files.

Both in-use and Registry files are restored by restarting the PC.

Windows NT4 Users.

Restoring the Registry and In-use files.

The registry is replaced during the restore process then the PC is restarted to restore the in-use files.

Windows 2000 and Windows XP Users

There are two methods of restoring Windows 2000 and XP operating system 'over the top' of the running system. Although there are two methods AISBackup will recommend which to use:

1. Normal restore, this method is usually okay and does not require any special requirements, the restore is completed simply by restarting the PC. This method is not recommended for restoring the PC back to a time, or forward from a major system change, for example a Service Pack installation. For this method it is recommended to use option 2, the Microsoft Recovery Console

method.

2. The Microsoft Recovery Console method may sound little complicated, but is quite straightforward. Using this method AISBackup restores Windows to a temporary folder which is swapped with the current Windows folder. This operation can only be done using the Microsoft Recovery console.

Restoring the Registry and In-use files (non-Microsoft Recovery Console method).

This procedure is used when not using the Microsoft Recovery console.

The PC is restarted to restore Microsoft Protected System Files, in-use files and the registry.

Restoring the Registry and In-use files (Microsoft Recovery Console Method).

This procedure is used when the Microsoft Recovery Console method is used.

Microsoft introduced the File Protection System with Windows 2000, this essentially automatically restores replaced system files on-the-fly. This is normally a good thing, but does make restoring the Windows Operating system a little awkward.

AISBackup achieves the restore by restoring the Operating System files to a temporary folder, this folder is then swapped with the current *Windows* folder following a system re-boot. Using this method also ensures that you are able to load a basic Windows system in the event of a restore failure.

This method of restoring Windows does require extra disk space as much of the Windows folder is duplicated on disk during the restore process. If you are strapped for disk space you may need to temporarily remove some files and restore them afterwards.

The Restore Procedure.

The Microsoft Recovery Console is used to swap the old Windows folders with the restored Windows folders. Here is the procedure:

- After booting into the Recovery Console select the operating system you are restoring from, this can be easily identified because the restored version this Operating System will be indicated by C:\WINDOWS_AIS. Do not log onto WINDOWS_AIS but the corresponding WINDOWS system, please note that the name of this folder may also be WINNT.
- Enter the Administrators password, for Widows XP home users this is most likely still not set, so just press <Enter>.
- Once you have entered the Administrators password enter the command:
BATCH AISRESTORE then press <Enter>
- Remove the Windows CD (If applicable) Enter the command:
EXIT then press <Enter>
- Windows will now re-boot and continue the restore.

AISBackup enables Windows 2000 and Windows XP backups to be restored to different disks or partitions, in the unlikely event that this process fails and the system hangs on re-boot use the following procedure to recover:

- Boot into the Microsoft Recovery Console.

- Select the failing Operating system.
- Enter the command:
BATCH AISRECOVER then press <Enter>
- Remove the Windows CD (if applicable) Enter the command:
EXIT then press <Enter>
- After Windows re-boots check that the disks have been assigned their correct drive letter:
 - Click **Start**
 - Right click **My Computer**
 - Choose the menu option **Manage**
 - Choose the option **Disk Management** and check the drive letters.

Refer to Windows Documentation for further help.

Microsoft Recovery Console.

The Windows 2000 and XP Operating system may be restored using the Microsoft Recovery Console. If you do not have access to the original Windows installation CD the only other alternative is to restore Windows via the other half of a dual-boot system, of course you will need the same Windows installation CD to set-up a dual boot system.

The PC did not come with an 2000 or XP installation CD.

Some PC's do not come with an original Microsoft Installation CD, but instead a proprietary Installation or Recovery CD's. In these cases there may already be a copy of the main Windows XP installation files installed on the hard drive. Search for the folder \I386 and replace [CD], below, with the drive letter.

Additional notes for XP Home Users: Some OEM versions of Windows XP set the Administrator password to the word *password*, consult your documentation. To be sure that you know the Administrator's password XP Home users should change the Administrator's password to something you know. Boot into Safe Mode, from here you will have access to the Administrator's account, from where you may change the password. (hint: Control Panel / User Accounts).

Installing the Recovery Console on the C: drive.

AISBackup may be used to automatically install the Microsoft Recovery Console by using the menu option **Tools / Install Microsoft Recovery Console** or via the *Restore Recommendation* form. The Microsoft Recovery Console only takes about 7MB of disk space so we recommend that it is installed.

To manually install the Microsoft Recovery Console load your Windows distribution CD then from the command prompt or from **Start / Run** enter the command:

```
[CD]:\I386\WINNT32.EXE /CMDCONS
```

where:

[CD] is the CD drive letter

▽ = Enter a space here.

Follow the on-screen instructions.



AISBackup: Registration

How to get to this option:

From the AISBackup Screen click **Registration**, or from Options screen click **Register Trial**.

Description:

This option is used to register AISBackup trial via e-mail, or enter details for permanent registration when you purchase AISBackup.

How To Register

For the trial the only mandatory field is your e-mail address, although we would prefer you fill in the optional information.

For full registration your Postal Address, Registered Owner and PC name are mandatory. The PC Name and Registered Owner are added automatically, the Registered Owner may be different to your name but should not be changed because this information is used when generating your password key.

AISBackup is registered by simply saving a key file to the AISBackup program folder.

Your password key will be sent to you by e-mail has been received.

Online Registration

You may choose to register via the AISCL web site.

When you have completed the registration form click **Online Registration**, this should direct your web browser to <http://www.aiscl.co.uk/OnlineRegistration.htm> if not just type the address into your web browser.

Click the Registration Details input box (as if you are about to type something into it), then while holding down the **Ctrl** key on your keyboard press **V** or select the menu option **Edit / Paste** on your web browser.

Sending the e-mail

Once you have entered your details click **Send**, this will create an e-mail in your e-mail system's outbox. If this process fails, for example you use an on-line 'hot-mail' system, please manually create an e-mail addressed to AISBackup@aiscl.co.uk . From the Registration form Click **Copy to Clipboard** and then paste the message into the body of your e-mail. The subject of the e-mail may optionally be set to 'Registration'.



AISBackup: Backup Run Time Information For Developers.

Description

AISBackup provides information about each backup job run the last time AISBackup was executed. If AISBackup did not perform a backup then this job summary file will not exist.

The job summary file is formatted as a standard Windows 'Ini' also known as a 'private profile' file to enable easy access from programming languages.

AISBackup also provides the ability to automatically run a User supplied program. This program is executed after AISBackup has run in Auto-run mode, i.e. after running from a task scheduler or from a desk-top shortcut. The User supplied job is specified to AISBackup by using an option on the [Tools / Auto Running AISBackup](#) form.

How this run time information is maintained.

When AISBackup is started, if there is a file called AISBackupLastRun.log this is copied to AISBackupLastRun.Log-1. A history of the last 5 AISBackup sessions that executed backups is kept in files named AISBackupLastRun.Log-1 to AISBackupLastRun.Log-5.

AISBackupLastRun.log is then deleted from the system.

If AISBackup runs a backup then AISBackupLastRun.log is re-created and the job summary for each backup is added to the file.

Summary information for Restores / Validations are not added to AISBackupLastRun.log.

Format of AISBackupLastRun.log.

Section: [Jobs]

This section contains a list of jobs where backups have been run. Each section key is labelled Jobnnn, where nnn is a sequential number. The value of each key is <JOB NAME>_Run000 where <JOB Name> is the name of the job and _Run000 is the same sequence number as the Job Number. These Values are used to identify the Status and Zip files relating to this backup session for the job.

Section: [<Job>_Run000_STATUS]

The status section gives summary details of the backup session. The section name is derived by adding _STATUS to the job record found in the [Jobs] section.

The following keys and values may be found in the Status section:

- **Job** Identifies the backup session number and the date and time that the backup was executed.
- **FailedToBackup** Shows the number of files that failed to be backed up.
- **ValidationFailures** Shows the number of files that failed the validation phase of AISBackup.
- **DeletedPriorToBackup** Shows the number of files that were selected for backup but then

deleted before AISBackup attempted to process them.

- **ExclusivelyOpened** Shows the number of files that were backed up even though they were opened exclusively.
- **BackedUp** Shows the number of files that were backed up successfully.
- **ENDJOB** specifies the success / failure of the backup and is set to either:
 - **No Files to Backup** There were candidates for backup.
 - **Aborted** The backup was aborted by the User or because of a media failure.
 - **Backup Finished with Failures** The backup finished but there were one or more failures.
 - **Backup Finished Okay** The backup finished successfully.

The keys **FailedToBackup**, **ValidationFailures**, **DeletedPriorToBackup** and **ExclusivelyOpened** are not written to the log if the number of files is zero.

Section: [<Job>_Run000_ZIPFILES]

This section gives the full name of each zip file created during the backup session as the key name. Each value is set to the backup volume name for CD or Removable media backups.

Example of AISBackupLastRun.log

Here is an example of an AISBackupLastRun.log file. The file shows that there were 3 jobs called AUTO, SOURCE and CDRIVE executed during the last time AISBackup was run.

```
[Jobs]
Job000=AUTO_Run000
Job001=SOURCE_Run001
Job002=CDRIVE_Run002

[AUTO_Run000_STATUS]
Job=Backup Session: 188 Started on 8 October 2001 at 12:01:31 PM
BackedUp=12
ENDJOB=Backup Finished Okay

[AUTO_Run000_ZIPFILES]
E:\Backup\Auto\auto_838.zip=E: Drive
E:\Backup\Auto\auto_839.zip=E: Drive

[SOURCE_Run001_STATUS]
Job=Backup Session: 2 Started on 8 October 2001 at 12:02:33 PM
BackedUp=13
ENDJOB=Backup Finished Okay

[SOURCE_Run001_ZIPFILES]
Y:\Source_40.zip=[SR20011007]
Y:\Source_41.zip=[SR20011007]
Y:\Source_42.zip=[SR20011007]

[CDRIVE_Run002_STATUS]
Job=Backup Session: 3 Started on 8 October 2001 at 12:04:49 PM
```



```
BackedUp=114
ENDJOB=Backup Finished Okay
```

```
[CDRIVE_Run002_ZIPFILES]
Y:\CDrive_2_321.ZIP=[CDRIVE05]
Y:\CDrive_2_322.ZIP=[CDRIVE05]
Y:\CDrive_2_323.ZIP=[CDRIVE05]
Y:\CDrive_2_324.ZIP=[CDRIVE05]
```

Programming Examples.

The following show very simple examples of extracting the names of the zip files created by each backup session. In the Delphi example the zip names are added to a String list and in the Visual Basic example a string array.

In both examples the name of the log file has been passed as a command line parameter.

Delphi Example.

In this example the Command Line Generator form program name is set to **DelphiTestLog.exe** and the parameter to **"G:\SOURCE\DELPHI5\BACKUP\LIVE BACKUP\AISBackupLastRun.log"**. The Working Directory is left blank.

The **Uses** section should include **inifiles**.

```
procedure TfrmProcessBackupLog.ProcessJobs;
var
  Ini : TInifile;
  Zips : TStringlist;
  Jobs : TStringlist;
  Job : string;
  i : integer;
begin
  if FileExists(ParamStr(1)) then
  begin
    Zips := TStringlist.Create;
    Jobs := TStringlist.Create;
    Ini := TInifile.Create(ParamStr(1));
    try
      Ini.ReadSection('Jobs',Jobs);
      For i := 0 to Jobs.Count -1 do
      begin
        Job := Ini.ReadString('Jobs',Jobs[i],'');
        Ini.ReadSection(Job+'_ZIPFILES',Zips);

        // Do something with the zip files here

        Zips.Clear; // Empty the zips list.
      end;
    finally
      Zips.Free;
      Jobs.Free;
      Ini.Free;
    end;
  end;
end;
```

Visual Basic Example.

In this example the Command Line Generator form program name is set to **VBTestLog.exe** and the parameter to **"G:\SOURCE\DELPHI5\BACKUP\LIVE BACKUP\AISBackupLastRun.log"**. The Working Directory is left blank.

A basic module must be created to contain a public declaration of GetPrivateProfileSection:

```
Public Declare Function GetPrivateProfileSection Lib "kernel32" Alias "GetPrivateProfileSectionA"  
(ByVal lpAppName As String, ByVal lpReturnedString As String, ByVal nSize As Long, ByVal  
lpFileName As String) As Long
```

The following modules are contained in the main form of the project.

```
Option Explicit
```

```
Private Function GetNextKeyValuePair(Section As String, From As Integer) As String  
Dim p%  
    From = From + 1  
    p = InStr(From, Section, Chr(0))  
    If p = 0 Then  
        GetNextKeyValuePair = ""  
    Else  
        GetNextKeyValuePair = Mid$(Section, From, p - From)  
        From = p  
    End If  
End Function
```

```
Private Sub Form_Load()  
    Dim N$ 'Full path of AISBackupLastRun.log - from command line  
    Dim J$, Z$ 'Job and Zip Section Key and Value pair  
    Dim L%, AL% 'Length of Section Buffer and Actual length read  
    Dim Job$, Zip$ 'Job name and zip name  
    ReDim Zips$(0) 'Contains each zip file name (from element 1)  
    Dim JobSectionPosition%, ZipSectionPosition% 'Position in section buffer  
    Dim i%, p% 'Index variables  
  
    N$ = Command  
    If Left$(N$, 1) = "" And Right$(N$, 1) = "" Then  
        N$ = Mid$(N$, 2, Len(N$) - 2)  
    End If  
    J$ = Space$(32767)  
    L = 32767  
    AL = GetPrivateProfileSection("Jobs", J, L, N)  
    If AL <> 0 Then  
        Job = GetNextKeyValuePair(J, JobSectionPosition)  
        While Job <> ""  
            p = InStr(1, Job, "=")  
            Job = Mid$(Job, p + 1) + "_ZIPFILES"  
            Z = Space$(32767)  
            AL = GetPrivateProfileSection(Job, Z, L, N)  
            If AL <> 0 Then  
                ZipSectionPosition = 0  
                Zip = GetNextKeyValuePair(Z, ZipSectionPosition)  
                While Zip <> ""  
                    ReDim Preserve Zips(UBound(Zips) + 1)  
                    p = InStr(1, Zip, "=")  
                    If p <> 0 Then  
                        Zips(UBound(Zips)) = Left$(Zip, p - 1)  
                    End If  
                    Zip = GetNextKeyValuePair(Z, ZipSectionPosition)  
                Wend  
                For i = 1 To UBound(Zips)  
                    List1.AddItem (Zips(i)) ' Do something with the zip files here  
                Next  
                ReDim Zips(0)  
            End If  
        End While  
    End If  
End Sub
```

```
        Job = GetNextKeyPair(J, JobSectionPosition)
    Wend
End If
End Sub
```



AISBackup: Load Media Form.

Description.

The Load Media form is displayed when AISBackup requires media to be loaded.

Only options suitable for the current load media request are shown, these are taken from the following:

During a backup to CD please pay special attention to the type of CD requested. A blank CD must not have been formatted for use with your packet writing system, and if the backup is using the packet writing system the CD must be pre-formatted before it can be used.

Options:

- **CD Write Speed:** Enables you to alter the write speed of your CD device. To get AISBackup to choose the highest write speed for the used media choose the setting **Max**.
- **Optimal Speed:** Some CD / DVD writers are able to determine the optimal write speed. Check this option to enable Optimal Speed, if the CD / DVD writer does not support this option the value is ignored and the chosen **CD Write Speed** is used instead.
- **Erase CD:** Is available if the backup media is to be opened for write access and the media is erasable.
- **Eject CD:** May be used to open the selected CD drive door. If you choose Erase CD the next form displays a choice between a Quick Erase or Full Erase.
- **Continue After Erase:** Check Auto After Erase to enable AISBackup to proceed with the backup following an Erase CD without the need to click **OK**.
- **CD Writer Selection** drop down list: This list is displayed if you have installed more than one CD/DVD writer.
- **CD Size Selection** drop down combo box: This is displayed when you are backing up to CD using a third party CD mastering program and the AISBackup CD Writer has been disabled. Choose between:
 - Blank 650MB,.
 - Blank 700MB CD.
 - Blank 4.7GB DVD.
 - The remaining space on the last CD used in this backup. This value must be entered in MB rounded down so the CD will not overflow.

To Determine the free space on the CD choose the *Session Import* option on your CD Mastering software – the CD must be in the drive before you can use this option. If your CD Writer does not have an *Import Session* option you can only use blank CDs with AISBackup.

- **Removable Media Selection:** Is used to choose an alternative removable media device.
- **Refresh (F5)** button is used to re-interrogate the selected drive for a change of media, on most PC set-ups this is done automatically. The option has been included for PC's that have been set-up without media load auto-notification.
- **Use Loaded Media:** Is used to tell AISBackup to use the loaded media rather than the requested media.
- **Skip (Damaged / Missing):** Is used to inform AISBackup, during a restore, that the requested

media is not available.

- **OK:** Informs AISBackup to proceed.
- **Abort:** Informs AISBackup to abort the Backup, Copy or Restore process.

Auto Notification

If your PC has been set-up with CD insertion auto-notification the Load Media form will react and switch drives automatically on change of backup media. During a restore process AISBackup automatically continues once the requested media has been loaded.

Note.

AISBackup does not auto-continue when requesting blank media, this is so that the selected write speed may be changed.

The integrated AISBackup CD writer remembers and re-uses the last selected write speed for CD-R and CD-RW.



AISBackup: CD-RW DVD-RW Erase Session.

How to get to this option

From the menu select **Tools** then **Erase CD-RW**.

Description.

This option is used to erase pre-used rewritable CD or DVD media. The integrated AISBackup requires blank CD's, any media that has been previously formatted for use with a third party packet writing system must be erased.

Options:

- Load The Media.
- Click **Erase**.
- Choose **Quick** or **Full Erase**. (**Quick** is usually sufficient but does not remove all the pre-existing data from the media.)
- When finished erasing CD's and DVD's click **Close**.



AISBackup: Advanced Backup Session Pruning.

How to get to this option

Choose **Advanced Session Based Backup** when creating a backup job using **New Job**.

From the menu option **Manage Backup / Edit Backup Job Parameters / Advanced Session Management**.

Description.

This option enables advanced session pruning to keep the size of the backup down while retaining backup sessions taken during key times of the week and month.

AISBackup prunes backups after a backup has completed. Data cannot be pruned from write once media, for example, CD and DVD that are in CD-ROM and DVD-ROM format.

A list of sessions that are scheduled to be pruned from the backup are displayed on the Sessions page of the main form.

Even sophisticated auto-pruning will not be suitable in some circumstances as some critical backups may need to be kept. To enable individual backup sessions to be retained, from the Sessions page of the main form, use the **Right Click / Disable Auto Prune** for the selected backup session.

Parameters.

- **Retain today's backup sessions:** Specifies how many backups made on the same day should be retained, the latest backups are retained. The excess backups may be deleted the next backup 'today' or on the next day that a backup session is run.
- **Retain Daily Backups:** Specifies how many daily backups should be retained. AISBackup retains up to the specified number of the above daily backups for each day.
- **Retain Weekly Backups:** Specifies the number of weekly to retain, this value must be set to one of these values:

None: To retain no weekly backups.

All: To retain all weekly backups.

A Number: To retain the specified number of weekly backups.

The day of the week that a backup is designated a weekly backup must also be specified. If a backup is not run on the specified date the next daily backup is designated the weekly backup instead.

- **Retain Monthly Backups:** : Specifies how many monthly backups should be retained, this value is None, All or a number, as described for Weekly Backups. The last day of the month that a backup is designated a monthly backup must also be specified; this value can be one of the following values:

The last day of the month.

The last week day of the month, e.g. Friday.

A specified day of the month, e.g. 22.

If a backup is not run on the specified date the next daily backup is designated the monthly backup instead.

- **Retain Backups made on a specified day:** : Specifies up to 5 specific days of the month for which backups should be retained. This option may be useful to retain backups made after special mid-month processing etc. If a backup session is not made on the specific day the next daily backup is used instead.

Calendar Rules.

This section specifies the default day to be used for weekly backups and to specify national rules for the first day of the week and first week of the year numbering rules.

- **First Day of the Week:** Specifies which day of the week is the first day of the week. The international standard ISO-8601 states that the first day is Monday, but hey, who are they to say?
- **Backup Day of Week:** Specifies which default end of week day to use for new backup jobs.
- **First Week of the Year Rule:** Specifies the rule for calculating the first week of the year:

First Day: Week 1 is the week with 1 January.

First Full week: Week 1 is the first week where all 7 days from the designated first day of the week fall in the same year, previous dates fall within the last week of the previous year.

First Four Day Week: If week 1 contains at least 4 days of the current year, based on the week start day, then week 1 contains 1 January other wise Week 1 starts at the designated first day of the following week. the discarded dates fall in the last month of the previous year.



AISBackup: Restore Microsoft Outlook Personal Folders.

Introduction.

Here are the instructions for restoring one or more items from a backup of Microsoft Outlook Personal Folders file without destroying the current Microsoft Outlook set-up.

Procedure.

The name of an Outlook personal folder file is by default *Outlook.pst* but of course you may have chosen another name, in any event the filename extension should be *.pst*

It is not always clear where the Outlook Personal Folders database is stored, but as long as they are on your backup you may choose to *Find* all *.pst* files from the backup and then choose from the few that are found.

In this procedure we will restore a Microsoft Outlook Personal Folder to the same folder as the live folder but using a different name.

- Start AISBackup and Load the backup job containing the backup of your Outlook Personal Folders files.
- Click **Restore**.
- If this is a *Session* based job click **Next** on the *Select Session* form.
- We'll assume that you do not know where the *.pst* files are, and even if you do this may be quicker: Click **Find**.
- Type in **.pst** and then click **Search**.
- If there are Microsoft Outlook Personal Folder files on the backup expand the Folder list and look for the file you wish to restore. Right click the file and choose the menu option **Restore as...**
- Replace the * with a new filename, i.e. do not overwrite an existing *.pst* file then click **Save**. You may choose to change the destination folder to make it easier to locate the file when you come to open it in Microsoft Outlook.
- If the backup is on media that has not been loaded please follow the on-screen instructions to restore the file.
- Go to Microsoft Outlook and choose the menu option **File / Open / Personal Folders File (.pst)** and open the file just restored. If you need to refer back to the restored filename you may find it listed in the latest AISBackup Log File: **View / Job Summary Log**.
- Do not restore the personal folders file back to the original filename unless you are sure that you want to replace the current file, if in doubt run a backup prior to the restore.



AISBackup: Restore Microsoft Outlook Express Folders.

Introduction.

Here are the instructions for restoring one or more items from a Microsoft Outlook Express Folder file without destroying the current Microsoft Outlook Express set-up.

Procedure.

The name of Outlook Express folders file is *<Folder Name>.dbx* these files are stored under a folder called *Identities*. Unfortunately the route to the identities folder may be via a hidden folder called *Local Settings*, and therefore may not be visible on your system when using Windows Explorer.

All files are visible to you from the AISBackup so as long as you have backed up the *Local Settings* folder you have backed up your Outlook Express files.

Preparing Outlook Express – do this once.

This is a one off procedure to enable Outlook Express to open restored folders.

- Start Outlook Express.
- Right click *Local Folders* choose menu option **New Folder** enter the name **AISRestore**.
- Double click the new folder AISRestore, this will force Outlook Express to create the *AISRestore.dbx* file.

Restoring an Outlook Express Folder.

- Start AISBackup and Load the backup job containing the backup of your Outlook Express Folders.
- Click **Restore**.
- If this is a *Session* based job click **Next** on the *Select Session* form.
- We'll assume that you do not know where the *.dbx* files are, and even if you do this may be quicker: Click **Find**.
- Type in **.dbx** and then click **Search**.
- If there are Microsoft Outlook Express Folders on the backup expand the Folder list and look for the file you wish to restore. Right click the file and choose the menu option **Restore As....** If there are more than one user of your PC look for the folder containing a set of *.dbx* files that match your Outlook Express folder list, to help you identify the correct folder your Username should form part of the path name.
- Ensure that Outlook Express is not running or the next instruction will fail.
- Save the chosen folder as **AISRestore.dbx**, just double click AISRestore.dbx and confirm that you want to replace the file.
- Re-start Outlook Express, the folder *AISRestore* now contains the restored folder.
- You may restore mail or newsgroup folders in this way. You can even restore the outlook control folder called *folders* but *AISRestore* will appear empty.
- Do not restore the folder back to the original filename unless you are sure that you want to replace the current file, if in doubt run a backup prior to the restore.



AISBackup: Backup to an FTP Server.

Introduction

You may choose to create a disk-based backup which is then uploaded to an FTP server. The FTP Server may be located on the internet or an intranet. The local backup may either be moved or copied to the server.

Typical uses include:

- Backing reasonably small amounts of very important data hundreds or even thousands of miles away. This data can be restored on any which has got access to the FTP Server.
- Sharing data with colleagues anywhere in the world.
- Password protect the backup using passwords unique to your copies of AISBackup.

Notes added to FTP backups are automatically downloaded to remote PC's. You could use this feature to communicate some information about the files contained in the backup.

Suggested Backup Job Parameters

AISBackup only backs up new and changed file after the initial backup, AISBackup can also automatically prune backups so that only a limited number of sessions are retained. The FTP style backup can make use of these options to create an efficient means for maintaining a backup on a remote FTP Server.

The following defaults are applied to the backup job:

- **Maximum Zip File Size:** The maximum pre-compressed zip file size is set to 1MB, this reduced the amount of data downloaded and uploaded for the prune backup phase. This value may be adjusted using the **Manage Backup / Edit Backup Job Parameters** option. File sizes greater than this parameter are backed up, ignoring the Maximum Zip File Size restriction.
- **Password Protect:** Password protect is set on by default, you are also recommended to generate a password for the zip files that is only known to AISBackup. AISBackup generates an actual password of 64 to the power of 40 characters from you given password, even if this is a single letter.

De-select the **Prompt Password** option so that remote workers do not have to remember passwords for the backup.

Set-up a **Password Encryption Seed** so that the generated passwords are unique to your copies of AISBackup, see [here](#) for details. AISBackup stores an encrypted copy of the password with the backup but it does not store the **Password Encryption Seed** with the backup. Forget the **Password Encryption Seed** and it is highly unlikely that you will be able to read the backup.

- **Session Based, 1 session:** To keep the size of the backup as small as possible AISBackup creates a session based backup where only the latest session is retained. This value may be changed using the **Manage Backup / Edit Backup Job Parameters** option.
- **Remove local backup after upload:** This defaults to no, the backup will not need to download backup files for the prune phase. This value may be changed using the **Manage Backup / Edit Backup Job Parameters / FTP Settings** option.
- **Do not show replace older backup prompt:** This defaults to false (the prompt is shown). If you are backing up for remote working colleagues you may wish to set this parameter because the

backup is always likely to be changing. This value may be changed using the **Manage Backup / Edit Backup Job Parameters / FTP Settings** option.

More FTP parameters are described [here](#).

The FTP server settings are based on default settings set using the **Tools / Program Settings / FTP Server** tab. The server settings may also be changed using the **Manage Backup / Edit Backup Job Parameters / FTP Settings** option. See [here](#) for both options.

Accessing an FTP Backup from another PC.

The **Tools / Open Job from FTP Server** option is used to access a backup from a remote FTP Server. The first form requests a logon to the FTP Server.

Contact your FTP Server administrator for the following information:

- **FTP Server Address:** In the form www.server.com or server.com.
- **FTP Username:** As supplied by your FTP Server administrator.
- **FTP Password:** As supplied by your FTP Server administrator.
- **Port:** Usually 21.

FTP Select Backup Job.

Once you have successfully logged on to the FTP server you must locate the AISBackup job parameter file. You will need to navigate through the folders on the remote server until you see the **<jobname>.job.zip** object. Select this then click **OK**.

The job file is downloaded and the backup job is either installed (re-instated option) or loaded for restore. If the backed up data is not from your PC choose **Yes** to the 'Do you want to make this backup job restore only' option.

No other files are downloaded from the FTP server as only those files that contain the files you wish to restore are physically downloaded. You may uncheck the **Manage Backup / Edit Backup Job Parameters / FTP Settings / Remove Local Backup after upload** option to prevent downloaded files from being deleted after a restore. Any file on the FTP server that is newer than a local backup file is automatically downloaded. AISBackup only downloads what you do not have or that which has changed.

If you load a backup from an FTP server that already exists on the PC it is opened for restore only, this is indicated by the job name being displayed in red.



AISBackup: Backing data from Linux Servers.

Description.

AISBackup may be used to backup and restore data from Linux Servers but AISBackup cannot provide a disaster recovery backup and restore tool file these systems.

To backup from a Linux system provide access to Windows using a Samba share or equivalent. Ensure that appropriate access is given to the share to the Windows backup User account name.

Files are selected for backup and restore as if the files are from regular network shares. You may be required to use the Map Network Drive option, or pre-map the Samba share prior to use.

Important Information.

Symbolic Link Directories.

Linux provides a facility called Directory Symbolic Links, with these a child directory may be set-up to point to a parent directory. This will cause an infinite loop within AISBackup while it compiles the list of files for backup. To avoid this problem add the following directive to the appropriate share section of *smb.conf*.

follow symlinks = no

Samba must be restarted for the change to take affect.

Duplicate case-sensitive file and directory names.

File and directory (folder) names are case-insensitive in Windows, AISBackup has been created to ensure that a file named *MyFile.txt* is the same as the filename *myfile.txt*. Linux, and some other network operating systems use case sensitive filenames so file *MyFile.txt* is not the same as file *myfile.txt*. To enable Windows to 'see' case insensitive filenames the following Samba parameters must be set:

preserve case = yes
case sensitive = yes

As a side effect of AISBackup using case in-sensitive filenames each *duplicate* filename must be restored separately. The best way to achieve this is to use the **Right Click / Restore As** option.

Symbolic Linked Files.

AISBackup sees these files as regular files so will back them up and restore them as if they are different files.

Unreadable Files.

There is a Samba directive to hide unreadable files, this may be used but makes the backup slower.

hide unreadable = yes

There are many files that AISBackup cannot backup, it is better to exclude them from the backup rather than using the *hide unreadable* directive.

Recommendation.

It is recommended that only User data and programs are backed up, there is no real benefit to attempting to backup the Linux Operating system using AISBackup, except perhaps for parameter files like the aforementioned *smb.conf*.

