

# AISBackup

## Manual

### Part 3

### The Tools

### Help

### Restore Examples

### Disaster Recovery

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## 5 Tools Menu Options.

The Tools menu options are used for general program functionality, additional backup and restore features or are actions related to more than one backup job.

- **Open Job From Backup Media:** Used to load a Job / Backup Contents File that was either created on another PC or has been deleted from the PC. See section 5.1.
- **Open Job from FTP Server:** Use this option to access a backup that has been uploaded to an FTP server. See section 5.2.
- **Backup Registry:** Backup the registry files. This option may be used just prior to editing the Registry using RegEdit or Regedt32.

This method of backing up the registry is in addition to normal backup jobs which back up complete system drives or the Windows operating system. See section 5.3.

- **Restore Registry:** This option is used to restore a registry created by **Backup Registry**. See section 5.4.
- **Disk to Disk Copy:** Used to make an exact copy of files and folders from one drive to another. See section 5.5.
- **Erase CD-RW:** Use this option to erase a number of CD-RW or DVD-RW discs.
- **Default Excluded Files and Folders List:** This option is used to edit the default list of files and folders that are excluded from new backup jobs. See section 5.6.
- **Do not Compress File List.** Maintains a list of file types that AISBackup should not attempt to compress. See section 5.7.
- **Archive Management:** Gives access to old inactive backups for restore purposes. See section 5.8.
- **Find a File:** Find a file by using its name or partial name. Current and Archived backups may be searched. See section 5.9.
- **Auto Running AISBackup:** Set-up Microsoft Task Scheduler, Desktop or Start-up shortcuts to automatically run AISBackup jobs. See section 5.10.
- **Show MS Task Scheduler:** Use this option to display the Microsoft Task Scheduler so that Scheduled AISBackup jobs may be fine tuned.
- **Edit Windows Boot Menu:** If one or more of the operating systems Windows NT, 2000 or XP are present on PC this option allows the boot menu to be edited. See section 5.11.
- **Copy Boot Files to Bootable Diskette:** If one or more of the operating systems Windows NT, 2000 or XP are present on PC use this option to create a bootable diskette containing the normal boot menu. This diskette may be used if the PC's boot drive becomes corrupt. The diskette also serves as a backup of the boot menu files. See section 5.12.
- **Create an AISBackup restore diskette:** This option is only available in Windows 95, 98 & ME and is used to customise the standard AISBackup start-up diskette with AISBackup menu items. See section 5.12.

- **Skin:** Change the colour or look of AISBackup. See section 5.13.
- **Program Settings and Options:** Set-up AISBackup. This option is explained in Section 1.6.

### 5.1 Open Job From Backup Media.

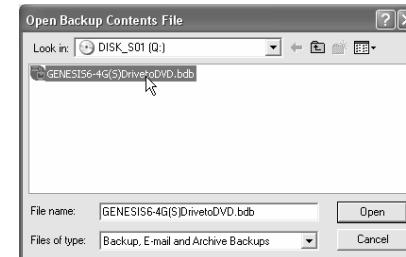


Figure 1: Open Backup Contents File.

AISBackup can easily load a backup created on another PC, or from the current PC where the job no longer exists. This is done by selecting the menu option **Tools / Load Job From Backup Media**.

- Insert the last used CD or media from the backup job that is to be restored.
- Select the menu option **Tools / Load Job From Backup Media**.
- Using the Open Files dialogue locate and open the file <Job Name>.bdb, in the example shown in Figure 1 the file is called OLD\_ME\_CD.bdb



Figure 2: Reinstat Backup.

- If the backup job is to be set-up as a new backup job choose **Yes** to the *Do you want to re-instate the backup job?* prompt. If the job is been used for a one-off restore choose **No**.
- If a backup job with the same name already exists the re-instate prompt is not shown and the job is opened for restore only.



Figure 3: Make Read Only.

- The actual files selected for backup can be excluded from the restored job if the backup is from another computer. The job can then only be used for restoring unless files are added using the **Manage Backup / Modify Files and Folders List**.

## 5.2 Open Job from FTP Server.

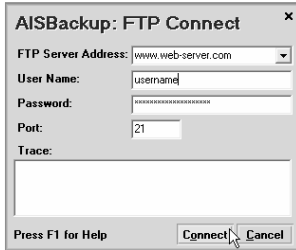


Figure 4: FTP Connect.

The **Tools / Load Job from FTP Server** option is used to access a backup from a remote FTP Server. The first form requests a login to the FTP Server.

Contact the FTP Server administrator for the following information:

- **FTP Server Address:** In the format *www.server.com* or *server.com*. Addresses that have been pre-defined in **Tools / Program Options** may be selected from the drop-down list. See section 1.6.5.
- **FTP Username:** As supplied by the FTP Server administrator.
- **FTP Password:** As supplied by the FTP Server administrator.
- **Port:** Usually 21.

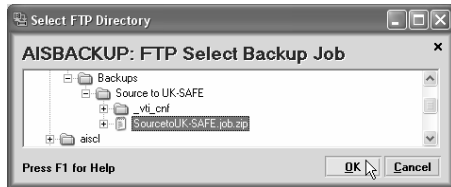


Figure 5: Select the FTP Backup Job.

Once a login on to the FTP server has been established the AISBackup job must be located. Navigate through the folders on the remote server until the <jobname>.job.zip object has been found as shown in Figure 5. Select the <Job Name>.job.zip file then click **OK**.



Figure 6: Re-instate FTP Backup?

After the job file has downloaded the *Do you want to re-instate the backup job?* Prompt is displayed. Answer **Yes** to install the backup job, **No** to load the job for restore only.

If an FTP backup already exists on the PC it is opened for restore only, this is indicated by the job name been displayed in red.

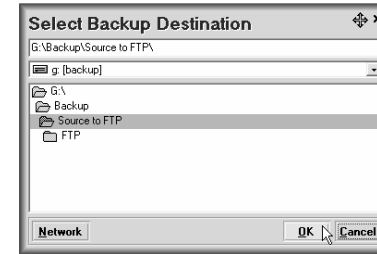


Figure 7: Select disk destination for the FTP Backup.

Select the local disk destination of the FTP Backup, the default destination is taken from the FTP backup job. If the disk does not exist the *Default Location for Disk Backups* is used instead.

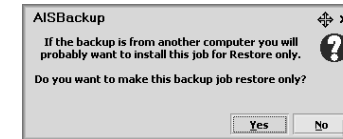


Figure 8: Make Backup Read Only?

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 are actually needed are physically downloaded. The menu option **Manage Backup / Edit Backup Job Parameters / FTP Settings / Remove Local Backup after upload** may be checked to prevent downloaded files from been deleted after a restore. Any files on the FTP server that are newer than a local backup file are automatically downloaded and replaced. AISBackup only downloads what is new or what has changed.



Figure 9: FTP Backup is ready.

One the FTP Backup has been set-up click **OK** to return to the AISBackup main form options.

### 5.3 Backup Registry.

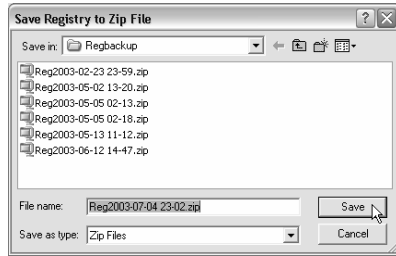


Figure 10: Backup Registry.

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

If the Registry is about to be edited using Regedit or Regedt32 it is a good idea to backup the registry in case of error.

#### 5.3.1 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

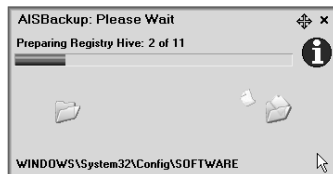


Figure 11: Registry Backup Progress.

A comment may be added to the Registry Backup.

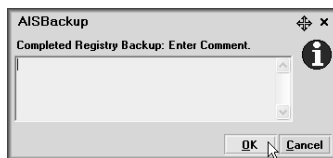


Figure 12: Registry Backup Optional Comment.

### 5.4 Restore Registry.

To restore a Registry that was backed up using **Tools / Backup Registry** use the **Tools / Restore Registry** option. This option may be used after an abortive Registry edit or after some other Registry corruption e.g. after running an over enthusiastic 'Registry Clean' program.

This Restore Registry option may also be used to delete un-wanted Registry backups.

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

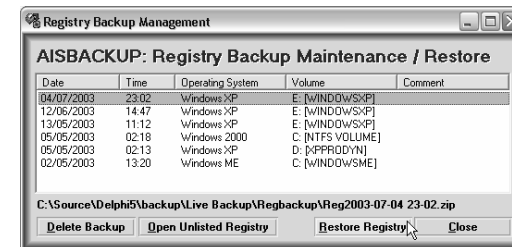


Figure 13: Restore Registry.

#### 5.4.1 Restoring the Registry.

- Select the menu Option **Tools / Restore Registry**.
- Select the Registry backup to restore.
- Click **Restore Registry**.
- Once the Registry has been restored the PC must be restarted.

If the Registry has been backed up to a different place and it is not in the list of Registry backups use the **Restore Unlisted Registry** option instead.

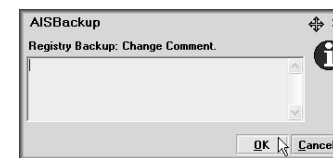


Figure 14: Change Comment.

To change the comment assigned to a Registry backup double click the backup entry.

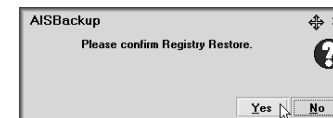


Figure 15: Restore Registry Confirmation.

Prior to restoring the registry a confirmation display must be answered by clicking **Yes**.

## 5.5 Disk to Disk Copy.

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 and not necessarily the root of a disk drive.

To set-up a disk to disk copy job use the **New Job** option and choose the destination **isk to Disk Copy**. Backup jobs support task management and job scheduling.

### 5.5.1 Copying the Operating System.

The copy option is ideal for copying the Windows operating system to a new disk. Ensure that the destination disk is formatted appropriate to the operating system, for example, it is not possible to boot the Windows 95, 98 or ME from an NTFS drive. If the copy destination is to be bootable ensure that the boot files are copied from the existing system drive, this is normally the C: drive, Windows NT, 2000 & XP users may check the system drive by using the Windows Disk Management option:

- Right Click *My Computer*.
- Choose **Manage**.
- Select **Disk Management**.
- Look for *System Drive*.
- The following files should be copied:
  - Boot.ini
  - Ntldr
  - NTDETECT.COM
  - Bootsect.Dos (95, 98 & ME Dual boot systems)
  - Ntbootdd.sys (SCSI adapters)

### Dual or Multi-boot Systems.

### 5.5.2 Constraints.

Do not copy the Windows 2000 or XP operating system while running under Windows 95, 98 or ME or the system may not be able to boot into the destination system.

Windows 95, 98 and ME must be copied to an *Active* disk partition if it is to be booted. There cannot be more than one active partition on a physical disk and the PC must be able to boot from different physical disks to enable booting from a copy of these operating systems.

### 5.5.3 Copying to CD

This option only supports a third party packet writing system, the AISBackup integrated CD writer is not supported.

If the destination is a CD-R all files on the destination CD will have the *Read Only* attribute set. When the files are copied back to the hard drive the read only file attributes will have to be

manually removed. If the Attributes issue is of concern use a CD-RW, DVD-RW or DVD+RW instead.

This option does not support CD Spanning.

### 5.5.4 Copying Windows 2000 and XP

Always check that the copy of an Operating System is bootable and works prior to re-formatting the old source disk. Windows 2000 and Windows XP users should check that the new disk is running from the same drive letter as the previous version of the operating system, this requirement is enabled by AISBackup. The drive letters can be checked using the Disk Manager, see 5.5.1. above.

#### Options:

- Select the disk, files and folders to copy from using the select files form described in section 2.1.8.2.
- Click **Next**.
- Select the destination disk, or folder.
- Click **OK**.

AISBackup calculates which files should be copied. Identical pre-existing files are not copied, modified files are copied.

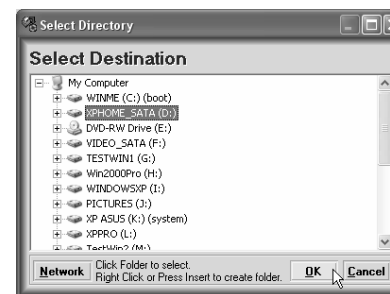


Figure 16: Disk to Disk Copy Destination.

The select destination for is used to select the destination of a disk to disk copy, the destination may be the root of a disk drive or any folder on the disk.



Figure 17: Copy Confirmation.

The destination of the copied files may be changed by using the **Change** option.

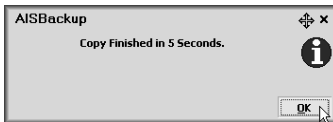


Figure 18: Copy Finished Save Option.

## 5.6 Default Exclude Files and Folders List.

This option is used to select a list of files and folders that should be excluded from 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.



Figure 19: Default Exclude Files and Folders list.

### Options:

- Enter the file pattern in the input box then click **Add**.
- Double click an entry to remove it from the list.
- Click **Clear** to remove all entries from the list.
- Click **Folder** to select a folder to exclude.
- Click **Close** to finish.

### 5.6.1 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 should probably be included in a 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 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**.

## 5.7 Do not Compress File List.

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.

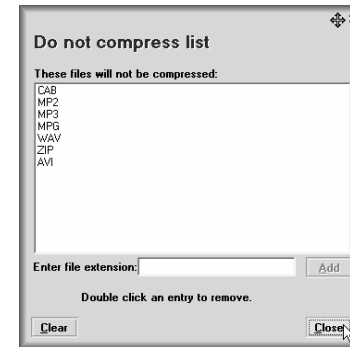


Figure 20: Do not Compress File List.

### Options:

- Enter the file extension in the input box then click **Add**.
- Double click a file to remove it from the list.
- Click **Clear** to remove all entries from the list.
- Click **Close** to finish.

## 5.8 Archive Management.

The Archive Management option is used to:

- Select a backup 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.

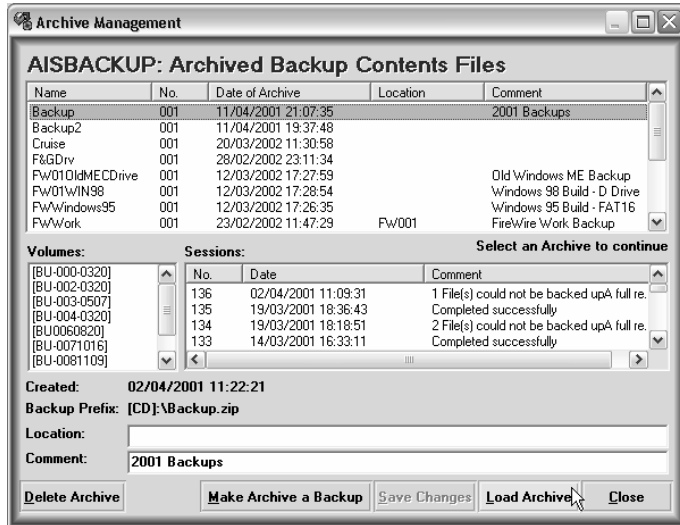


Figure 21: Archived Backup Management.

### Options

- Click **Delete Archive** to remove the archived Backup Contents File.
- Enter a new comment or location, then click **Save Changes**.
- To restore from an archive click **Load Archive** (Double clicking an archive will also load it for restoring).
- The **Location** field may be used as an aid-memoir to the physical location of the backup if it is off-site.
- 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 the archive may be re-instated as a backup job.

## 5.9 Find a File.

The Find a File option is used to search the selected Backup jobs 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 the actual file that is to be restored is selected. After selecting the file a choice of whether to launch the *Restore* option with the file you have chosen selected or just restore the file.

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

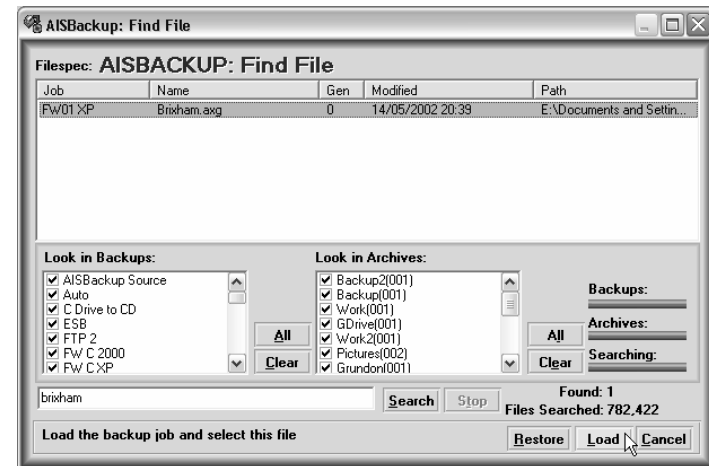


Figure 22: Find a File

### Options

- Choose the backup database files to search.
- Choose the archived backup database files to search.
- Enter the full or partial name of the file to find.
- Click **Search**
- Select the file actual to restore from the search results.
- Click **Restore** to restore the selected file.
- Click **Load** to launch the restore option with the chosen file selected.
- Click **Cancel** to abort.

The filename field does not support pattern matching using the \* character.

## 5.10 Auto Running AISBackup.

AISBackup can be set-up to run a backup job, or a number of jobs automatically via command line parameters. Jobs may also be set-up directly in Microsoft Task Scheduler or the Start-up folder so that they run each time the PC is booted.

Only one version of AISBackup can run at a time, so multiple backup jobs must not be added to the Start-up folder.

Completion messages are displayed using notepad when all of the selected backup jobs have finished. No message is displayed if AISBackup is not running interactively, i.e. a Windows NT, 2000 or XP User Account that is not logged on.

The main auto run options are accessible by the **Auto Run Options** tab, see section 5.10.1.

There is an option to e-mail the results of a backup. See section 5.10.2.

There is an option to execute a User supplied program when AISBackup has finished, this option may be used for custom post-backup procedures. See section 5.10.3.

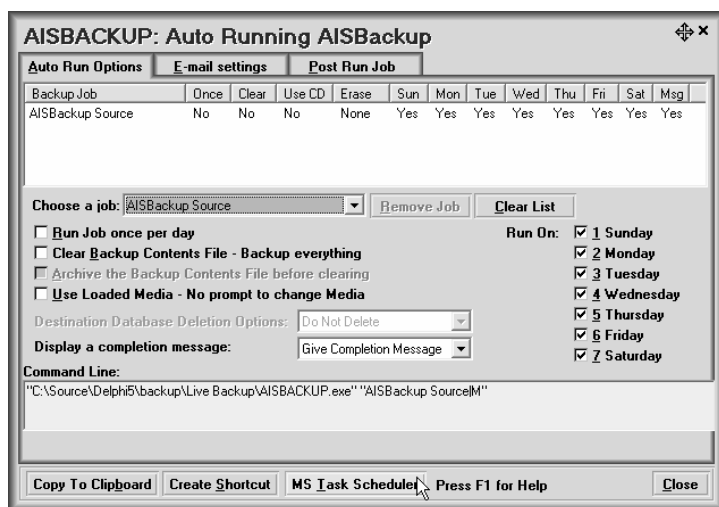


Figure 23: Auto Running AISBackup – Auto Run Options.

### 5.10.1 Auto Run Options.

- AISBackup remembers the last job(s) that were selected to work with, Click **Clear List** to remove these jobs from the list.
- Select the backup job to auto-run from the **Choose a Job** drop down list.
- **Remove Job** may be used to remove a job that was selected in error.
- Select **Run Job Once per Day** if the job is only to be run once per day. This option is useful for backups that are to be executed the first time a PC is booted each day.

- **Clear Backup Contents File – Backup Everything:** this option is used to force AISBackup to create a full backup, not the normal incremental backup.
- **Use Loaded Media – No prompt to change 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. 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.
- **Delete Destination files options:**
  - **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 the days of the week the job should run on.

#### Button Options:

- **Copy to clipboard:** Used to copy the program name and parameters to the Windows clipboard, from where they may be pasted into a third party Task Scheduler.
- **Create Shortcut:** Used to create a desktop or start-up shortcut for the backup. See section 3.6.
- **MS Task Scheduler:** Used to set-up a Microsoft Task Schedule for the selected backup jobs. See section 3.7.
- **Close:** To close the Auto Running AISBackup form.

## 5.10.2 E-mail options.

**NOTE: THESE E-MAIL SETTINGS HAVE BEEN SUPERSEDED BY JOB BASED E-MAIL OPTIONS. SEE SECTION 3.12. TO DISABLE THIS OPTION REMOVE THE E-MAIL ADDRESS. THE OPTION HAS BEEN RETAINED FOR BACKWARD COMPATIBILITY.**

### The e-mail message.

AISBackup prepares a report that may be e-mailed to somebody after a failure or the completion of all backup jobs. A mobile phone (cell phone) that accepts e-mails may also be used and there is an option to send a shorter message to these devices.

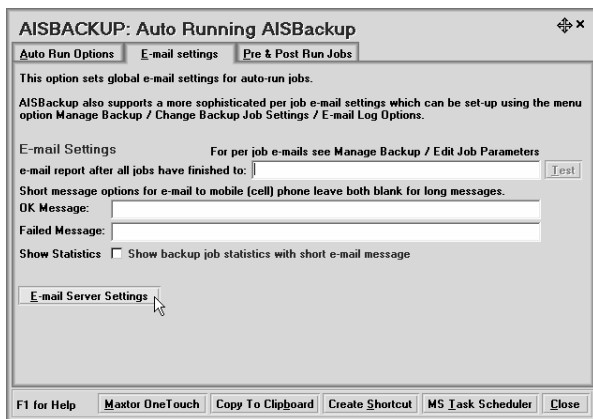


Figure 24: Auto Running AISBackup - email options.

### 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.
- A short e-mail message option may be used if the e-mail is to be sent to a mobile (cell) phone. A separate short user defined **OK** and **Failed** message may be entered. The name of the backup job is automatically added to the message and additionally job statistics may be added to the message if the **Show Statistics** option has been checked. If both messages are left blank a more comprehensive message is sent.
- The mail system can either be a MAPI compliant e-mail system or use the AISBackup SMTP interface.

By default AISBackup uses 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 messages sent by a third party program must be manually acknowledged before the e-mail is sent. An optional SMTP e-mail system may be used to bypass this behaviour of Outlook.

- To set-up or change the e-mail server settings click **E-mail Server Settings**.
- To test the e-mail settings click the **Test** button next to the *to e-mail address* text box.

## 5.10.3 Pre & Post Run Options.

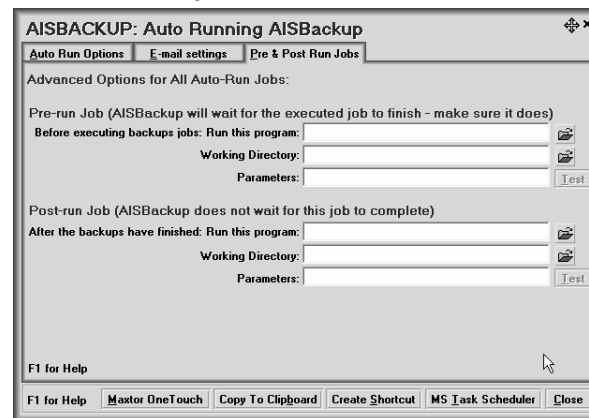


Figure 25: Auto Running AISBackup - Post Run Options.

A user created program may be set to run automatically before or after the Auto-run jobs have finished. 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.

Pre Run Jobs must finish before AISBackup resumes.

It is advised to place the job in the AISBackup program folder. Please note that any program name or parameter that contains spaces must be enclosed in double quotation marks. To test that the program starts and runs correctly use the **Test** button.

Only one program name can be supplied and this program will be run after each Auto-Run job.

If AISBackup does not run a backup job, because for example the job or jobs are a 'run once per day' and they have already been executed, the Post Run job will not be executed.

### Post Run Option Parameter File.

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.

### 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 and Validations are not added to AISBackupLastRun.log.

## File 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 Post Auto Run program name is DelphiTestLog.exe and the run time parameter is "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 Post Auto Run program name is set to VBTestLog.exe and the command line 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 = GetNextKeyPair(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 = GetNextKeyPair(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
Job = GetNextKeyPair(J, JobSectionPosition)
End If
Wend
End Sub

```

## 5.11 Edit Windows Boot Menu.

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

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 of disks will have to edit the boot menu file manually using the **Edit File** option.

Refer to the Microsoft documentation for information about the boot menu.

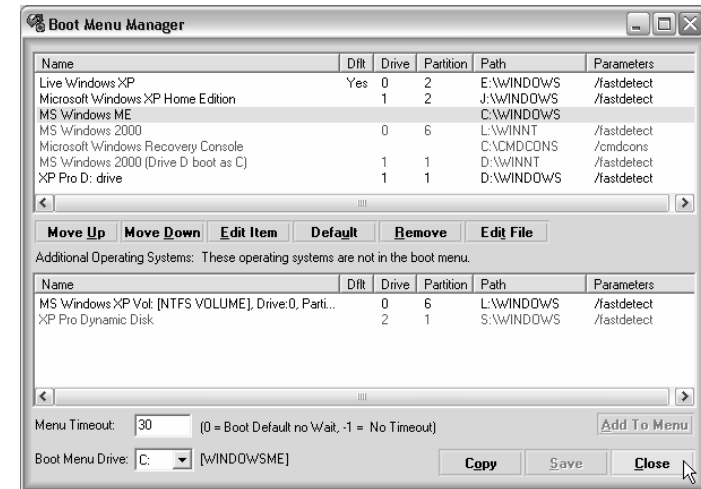


Figure 26: Boot Menu Manager.

Before editing the boot menu it is recommended that:

- A backup is made of the source boot menu file using AISBackup.
- A working boot diskette is created using the **Tools / Copy Boot Files to Bootable Diskette** option.
- The boot diskette is tested to ensure that Windows can be reloaded.

If the PC cannot be re-booted after the menu has been edited:

- 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. A description of all of these parameters is beyond the scope of this manual, please see a partial list below, or the appropriate Microsoft documentation.

For normal use:

- Windows 95,98 & ME – leave blank.
- 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 present in the boot 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:** To changed 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:** Starts an editor 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 or dynamic disks.

##### Lower List Buttons:

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

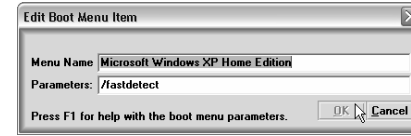


Figure 27: Edit Boot Menu Item.

#### 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 Nttdetect.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)

## 5.12 Copy Boot Files to Bootable Diskette.

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**.

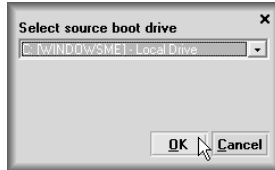


Figure 28: Boot Menu Copy to Diskette.

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.

The boot diskette enables the PC to be booted if the system disk boot files are deleted or corrupted.

It is recommended that you test the diskette soon after it is created.



Figure 29: Boot Menu Diskette Format / Confirmation.

### Options.

- Insert a diskette.
- Choose the source drive containing the boot files then click **OK**.
- Optionally format the diskette, note that the diskette must be formatted on either Windows NT, 2000 or XP.
- Click **OK** to start the copy process.

## 5.13 Skin.

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

If the first segment (blue by default) is chosen the colour of the forms may be changed by using the **Main Colour** button.

To change the colour of the information panels of the main form select the **Central Colour** button.

Scroll down the list to see more skins.

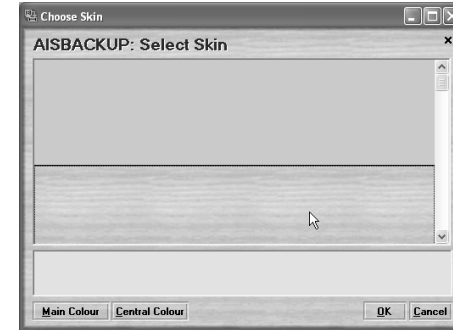


Figure 30: Select Skin and Colour.

## 6 Help Options

The help menu options are used to obtain online help for the AISBackup options. Context sensitive help is displayed by pressing F1 on the keyboard.

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 menu options are:

- **Help Contents:** Displays the help file contents page.
- **Help Description:** Displays a description of AISBackup.
- **Show / Hide Cue Card:** Toggles the cue card on and off.
- **How To:** Help with specific restore options.
  - **Restore Microsoft Outlook:** Help instructions for restoring Microsoft Outlook Personal Information files.
  - **Restore Microsoft Outlook Express:** Help instructions for restoring Microsoft Outlook Express e-mail and group files.
- **Visit Web-Site:** This option may be used to direct your web-browser to [www.aiscl.co.uk](http://www.aiscl.co.uk)
- **Bug Report:** This option may be used to send a bug report to Aquarius I.S. Consultancy. See section 6.1.
- **About:** Version information about AISBackup.

## 6.1 Bug Report.

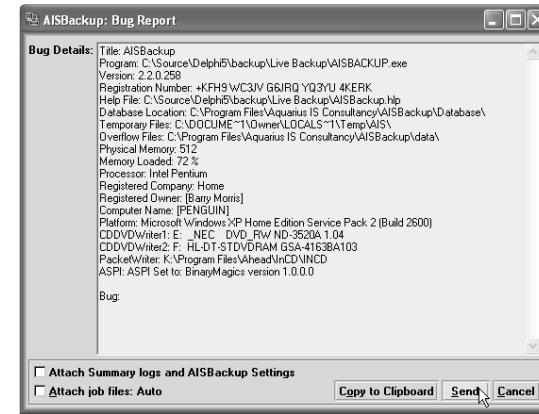


Figure 31: Bug Report.

The bug report screen is very similar to the About screen, information about AISBackup is pre-loaded to an edit box. This edit box is used to type your error report.

### Options:

- Enter a step by step description of the problem. If the problem can be repeated please give precise steps so that the problem can be duplicated.
- **Attach Summary logs and AISBackup settings:** Attach the AISBackup registry settings and summary log file.
- **Attach job files: *Jobname*:** Check this option to instruct AISBackup to attach the job files to the bug report.

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

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

# 7 Restore Examples

## 7.1 Microsoft Outlook Express

Here are the instructions for restoring one or more items from a Microsoft Outlook Express Folder file without destroying the current Microsoft Outlook Express structure.

### 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 the PC when using Windows Explorer.

All files and folders are visible from the AISBackup select file forms so as long as the Local Settings folder has been backed up the Outlook Express files can be restored.

### 7.1.1 Preparing Outlook Express.

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.



Figure 32: Preparing Outlook Express.

- Double click the new folder AISRestore, this will force Outlook Express to create the file AISRestore.dbx.

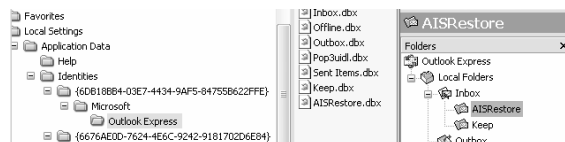


Figure 33: Double click AISRestore to create AISRestore.dbx

### 7.1.2 Restoring an Outlook Express Folder.

- Start AISBackup and Load the backup job containing the backup of the Outlook Express folders.
- Click **Restore from Backup**.
- If this is a Session based job click **Next** on the Select Session form.
- We'll assume that the location of the .dbx files is not known, and even if the location is known this option may be quicker: Click **Find**.
- Type in .dbx and then click **Search**.

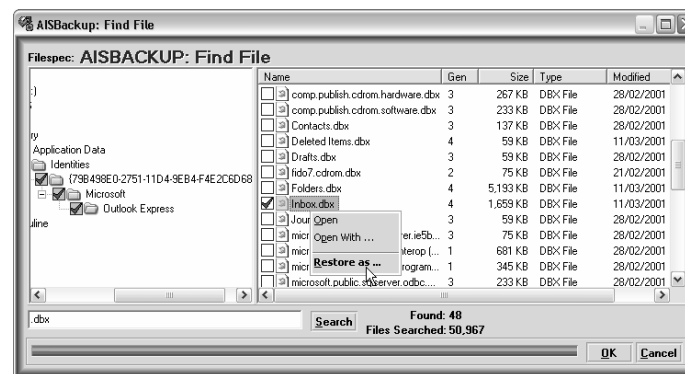


Figure 34: Using Find File to locate the .dbx files.

- If there are Microsoft Outlook Express folders on the backup expand the folder list and look for the folder to restore. Right click the file and choose the menu option **Restore As...** If there are more than one user of the PC look for the folder containing a set of .dbx files that match your Outlook Express folder list, to help identify the correct folder the Username should form part of the path name.

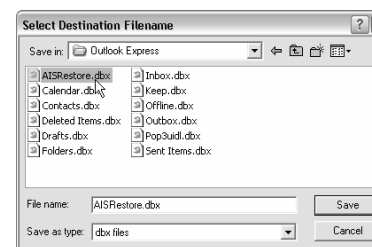


Figure 35: Save As, Locate and file AISRestore.dbx.

- Ensure that Outlook Express is not running or the next instruction will fail.
- Save the chosen folder over AISRestore.dbx, just double click AISRestore.dbx and confirm that the file should be replaced.
- Re-start Outlook Express, the folder AISRestore now contains the restored folder.

- You mail and newsgroup folders may be restored this way.
- Do not restore the folder back to the original filename unless the current file is to be permanently replaced. If in doubt run a backup prior to the restore.

### 7.1.3 Restoring Outlook Express to a new identity.

A complete set of Outlook Express folders may be restored to a new *Identity*.

- Create a new *Identity* using the Outlook Express menu options **File / Identities / Add New Identity**.

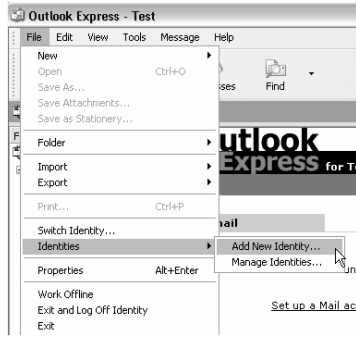


Figure 36: Create a new Outlook Identity.

- Name the identity, for example *AISRestore*.



Figure 37: Type in the name AISRestore.

- Open the new identity. There is no need to create a new e-mail account so these options may be cancelled.
- The next stage is to find the folder name of the new identity. Do this using RegEdit, **Start Menu / Run / type Regedit / click OK**.

Find **HKEY\_CURRENT\_USER/Identities**.

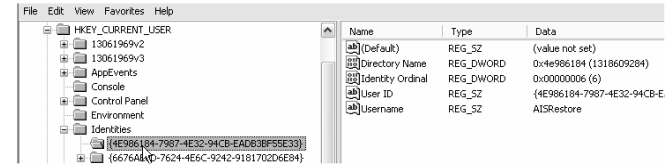


Figure 38: Locate HKEY\_CURRENT\_USER/ Identities.

- Click each identity, which looks like this {4E986184-7987-4E32-94CB-EADB3BF55E33}, until the identity name (called Username in RegEdit) used in Figure 39. Make a note of the long identity name (the first few unique letters will be okay).
- Ensure that Outlook Express is not running.
- Start AISBackup and find the Outlook Express folder to restore.

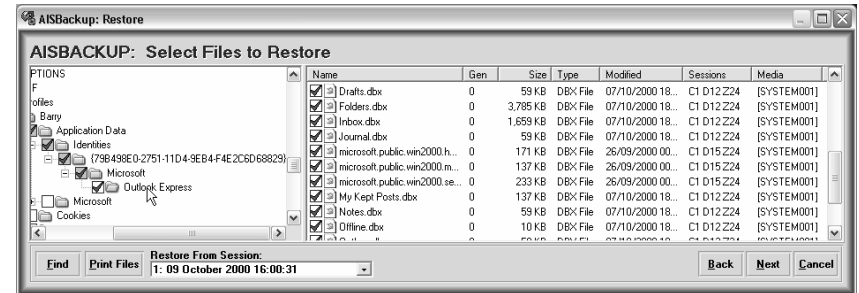


Figure 39: Find the Outlook Express folder to restore on the backup.

- The above shows an Outlook Express folder backed up on 9 October 2000 has been selected.
- Click **Next**.
- On the Restore Destination form click the symbol and locate the *Microsoft\Outlook Express* folder belonging to the Identity found in Figure 40. If the *Microsoft\Outlook Express* folders do not exist append them to the identity folder name.

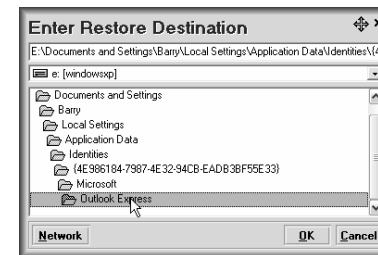


Figure 40: Locate the new Identity Folder.

- Click **To Root** to restore the folders to the root of the Outlook Express Identity folder, failure to do this will create a large folder tree starting at the folder Outlook Express.

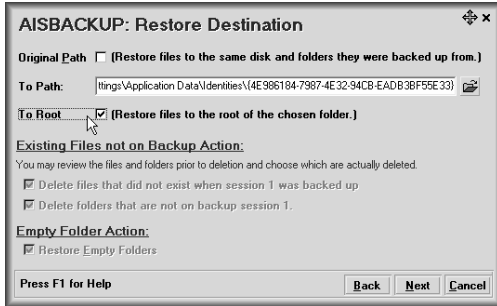


Figure 41: Select To Root.

- Click **Next**, if the restore destination is empty click **Next** otherwise select an appropriate duplicate file replace option then click **Next**.

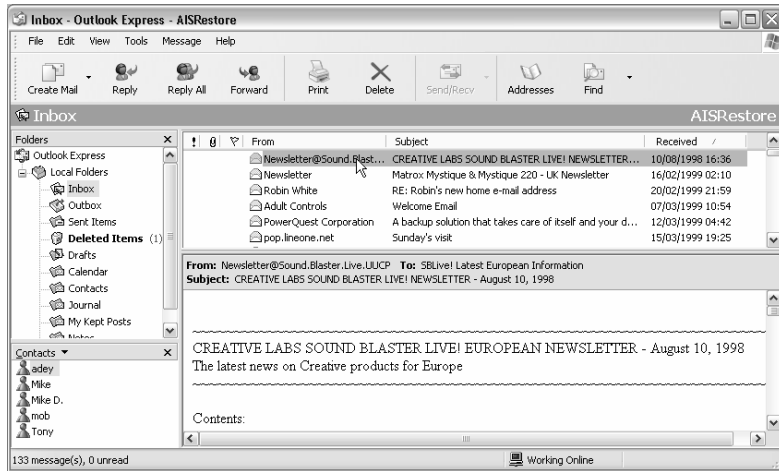


Figure 42: Outlook Express Folders restored to a new Identity.

Figure 42 shows the October 2000 Outlook Express files restored to the new Identity AISRestore.

## 7.2 Microsoft Outlook 2000 pst file.

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 list that was found.

In this procedure we will restore a Microsoft Outlook Personal Folder to a folder called *C:\RestoredOutlook*.

- Start AISBackup and Load the backup job containing the backup of the Outlook Personal Folders files.
- Click **Restore from Backup**.
- If the backup job is Session based click **Next** on the *Select Session* form.
- To save looking for the *.pst* files 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 to be restored. Right click the file and choose the menu option **Restore as...**
- As an alternative to the **Restore As** option the file may be dragged and dropped directly onto Windows explorer or the Desktop.

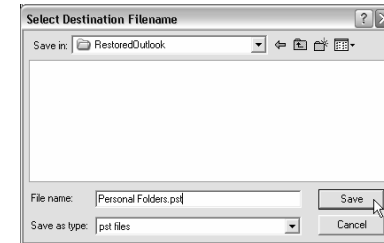


Figure 43: Save as C:\RestoredOutlook\Personal Folders.pst

- Locate or create the folder *C:\RestoredOutlook* then click **OK** to restore the file.
- Open Microsoft Outlook and choose the menu option **File / Open / Personal Folders File (.pst)** and open the file *C:\RestoredOutlook\Personal Folders.pst*.

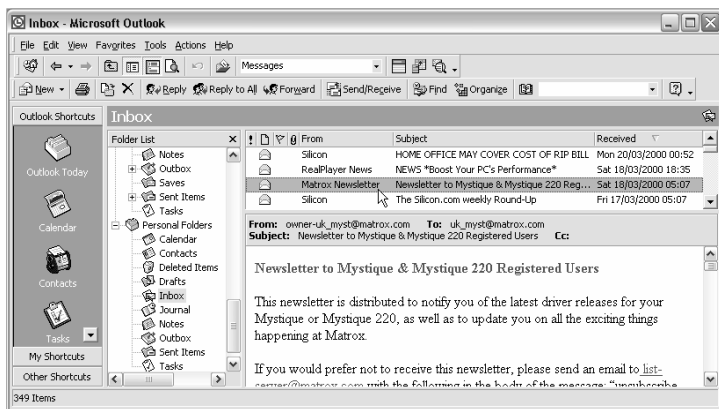


Figure 44: Restored Personal Folders File.

- Do not restore the personal folders file back to its original filename unless the current personal folders file is to be replaced, if in doubt run a backup prior to the restore.

## 8 Disaster Recovery.

The easiest way to achieve a backup suitable for disaster recovery is to backup everything on each disk. At the very least data files from each application should be backup up on a regular basis.

The procedure for recovering a complete system requires that a Windows system is pre-loaded along with a copy of AISBackup and any third party drivers that may be required to access the backup media. A reasonably quick way for Windows 95, 98 & ME users to install Windows is to create an Emergency System Backup and then restore this from a DOS session. The *Emergency System Backup* is described in section 8.1, the *Emergency System Backup* restore procedure is described in section 8.2.

Owing to the requirement to restore an *Emergency System Backup* from a DOS session it has not been provided for Windows NT, 2000 or XP users. If Users of Windows NT, 2000 & XP are likely to want to regularly restore complete systems consider creating a dual boot system from which to perform the restore, see section 8.3.

### Warnings:

It is not usually possible to restore individual applications directly to *Program Files* because of dependencies in the Registry and Windows System folders etc. To achieve this requirement install the application from the original distribution CD and then restore the data files.

However, if AISBackup is used to backup and restore everything on the disk drive the programs, data and dependencies will remain consistent.

Some program folders may be omitted from a restore but there may be some original dependencies restored to the system folders. Consider restoring everything and using the **Control Panel / Add Remove programs** option to remove redundant applications properly.

## 8.1 Windows 95, 98 & ME: Emergency System Backup.

### 8.1.1 Introduction.

An Emergency System Backup job is used to create a backup that is suitable to restore the Windows Operating system from a DOS session.

The Emergency System backup is designed to get Windows up and running on a new hard disk as quickly as possible. Once the operating system has been restored a 'proper' restore of the latest version of the operating system, programs and data should be made using the regular on-going AISBackup of the PC.

The Emergency System Backup is not a requirement as re-installing Windows along with AISBackup and any drivers required to access the backup media will achieve the same effect. However, restoring an *Emergency System Backup* can be very much quicker than re-installing Windows.

If the Emergency System Backup is to be copied to CD the CD must be in a format that can be read from a DOS session, i.e. Joliet format. The AISBackup integrated CD writer creates CD's in the correct format. Third party CD mastering programs may also be used but third party packet writing systems are not suitable.

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, this is because the backup process erases the contents of the destination folders.

A DOS Windows start-up diskette should be created prior to making the Emergency System Backup, especially when using the integrated CD writer, this is because AISBackup automatically makes the CD's bootable. See section 1.12.

If the backup has been made to a network drive the network Administrator must supply suitable DOS mode network drivers in order to restore the backup.

### 8.1.2 Creating the Emergency System Backup.

As stated above the Emergency System Backup is only available from Windows 95, 98 or XP.

To create an Emergency System backup click **Quick Job**.

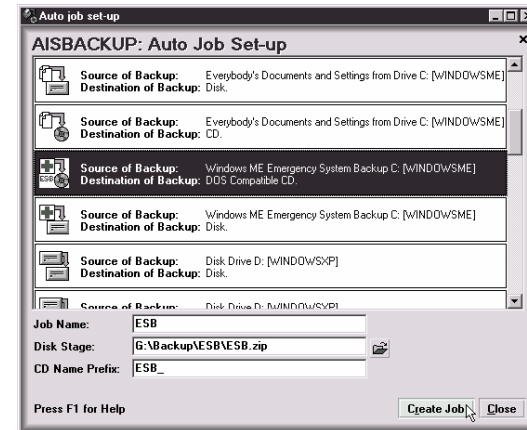


Figure 45: Select Emergency System Backup to CD.

Select *Windows xx Emergency System Backup C:* to *DOS Compatible CD* or *Disk* as appropriate. If the disk destination is chosen the backup may still be copied to CD at a later time using the **Manage Backup / Copy Backup to CD** option, see section 3.10.

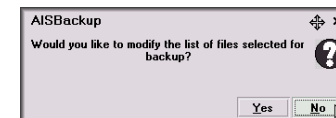


Figure 46: Optionally Modify the File Selection.

AISBackup only pre-selects the files necessary to run Windows and AISBackup, if a custom Emergency System Backup is to be created choose **Yes** to the *Would you like to modify the list of files selected for backup?* Prompt.

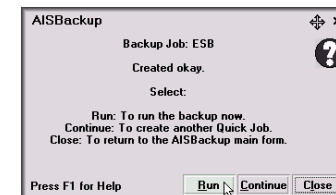


Figure 47: Run the Backup.

To run the backup now click the **Run** option.

## 8.2 Restoring an Emergency System Backup.

If the Emergency System backup has been created on a bootable CD the PC's CMOS settings may need to be adjusted to enable booting from CD. An example of a boot sequence of Floppy diskette, CD then Hard drive 0 is shown in Figure 48, refer to the PC Mainboard / Motherboard documentation for the actual settings.

Boot ROM by BIOS setting	Enabled
Boot BIOS	BIOS 1
HDD Instant Recovery	Disabled
Anti-Virus Protection	Disabled
CPU Internal Cache	Enabled
External Cache	Enabled
CPU L2 Cache ECC Checking	Enabled
Quick Power On Self Test	Enabled
First Boot Device	Floppy
Second Boot Device	CD
Third Boot Device	HDD-0
Boot Other Device	Enabled
Swap Floppy Drive	Disabled
Boot Up Floppy Seek	Enabled
Boot Up NumLock Status	On
Security Option	Setup

Figure 48: PC CMOS Settings.

If the PC cannot be booted from CD use an AISBackup enhanced Windows start-up diskette instead, see section 1.12. A standard Windows start-up diskette may also be used.

### Instructions

- Boot the PC using the bootable CD or diskette.
- If the disk is new the DOS **Fdisk** and **Format** commands may need to be run to prepare the disk to store files. Refer to PC documentation or to the documentation that is supplied with new disk drives. If the backup is to replace an existing operating system the C: drive may be formatted with the command:

#### FORMAT C:

Note that all pre-existing data will be removed from the disk with this command.

- If a standard Windows start-up diskette is used choose the *Start computer with CD ROM support* option. If the AISBackup enhanced diskette is used choose the *AIS Emergency Restore* option instead.

The AIS enhanced start-up diskette should contain a copy of *smartdrv.exe* which will reduce the time taken to run the DOS restore phase significantly. *Smartdrv.exe* is called automatically by the restore program.

- To run the restore enter the command:

**[CD]:\RESTORE [CD]: C**

Where **[CD]** is the CD drive letter, note that both the Windows start-up and AIS enhances start-up options identify the CD drive letter, the AIS enhanced start-up boot diskette / CD also displays the actual command line. If the CD drive is D: the actual command line is:

**D:\RESTORE D: C**

Note that there is a colon character after the D and not after the C.

The second parameter **C** identifies the destination drive, this is usually **C** unless the restore is been made to another drive.

- The DOS phase of the restore process restores files with short folder and file names, i.e. a maximum of 8 character filename and 3 character file extension. The DOS phase then copies the backup files that contain the long folder and filenames to a folder called C:\AISBRSTR from where they are automatically restored by phase 2 of the emergency backup restore process.
- Remove the boot diskette or bootable CD and press **Ctrl, Alt & Delete** on the keyboard to re-boot the PC, alternatively press the reset button on the PC.
- If family login or a password is normally required when logging in enter the username and password. Alternatively, if the backup is quite old and the password has been forgotten press **Esc** on the keyboard. The Windows phase of the restore will run automatically.

If for some reason the Windows phase of the restore does not run use the option:

**Start / Run** then enter the command

**C:\AISRSTR\AISBRSTR.EXE**

The folder name AISRSTR is actually set by the **Tools / Program Options / File Locations** menu option, see section 1.6.4.

Once the Emergency System backup has finished run AISBackup to bring the system up-to-date using the regular on going C: drive backup. The restore process is described in section 1.10.

## 8.3 Restoring Windows NT, 2000 & XP.

### 8.3.1 Introduction

The Windows 95, 98 & ME Emergency System Backup runs under the DOS operating system and is not suitable for restoring Windows NT, 2000 or XP. There are additional problems when restoring Windows 2000 and XP because of the improved control these systems have over their operating environments. Windows 2000 & XP use a file protection system which automatically restores system files if they are replaced by a third party program such as AISBackup. Windows 2000 & XP also know which physical disk they are installed on, changing the physical disk or partition will in most cases mean that the PC will not re-boot properly (XP may hang and 2000 goes into an infinite login loop).

AISBackup is able to restore a working copy of Windows 2000 & XP to a different drive or partition, it can also replace system files on the running copy of Windows by restoring to a temporary folder and then replacing the existing Windows folders with the restored folders by using the Microsoft Recovery Console. The Microsoft Recovery Console can be run directly from the Windows installation CD, see section 1.13 for instructions on installing the Recovery Console onto the C: drive.

If the backup is on CD and a packet writing system was used the packet writing software or a UDF reader must be installed prior to restore. If the backup was made using the integrated AISBackup CD writer or using a third party CD Mastering program then the CD's can be restored from without using additional software. Some other backup devices may require additional drivers to be installed prior to restore.

Here are the options for restoring a backup of Windows 2000 and XP:

- The original disk is no longer available: A new disk has been acquired or the existing disk has been re-formatted, see section 8.3.2.
- The running Operating System is to be restored back to an earlier date, see section 8.3.3.
- The running Operating System is to be left alone but a backup is to be restored or the running operating system is to be copied to another drive or partition, see section 8.3.4.

### 8.3.2 Restoring to a new drive (No Operating System Installed).

The first step is to install a new copy of Windows 2000 or XP from the installation CD. Consider setting up a dual boot system (2 separate copies of Windows 2000 and / or XP on the same disk). If the dual boot option is chosen we recommend that the new install of Windows is made to the end of the disk. This is achieved by creating two partitions on the drive, the first (total size minus 2GB) and the second at least 2GB for Windows XP.

FAT32 or NTFS disk format may be chosen according to Microsoft's recommendations, if the previous installation was NTFS then choose the same or some file and folder attributes such as *compressed folders* will be lost.

If the dual-boot option is not used an additional restore step using the Microsoft Recovery Console is required, as described below.

The easiest way to install a new copy of Windows is to boot from the installation CD. If the PC has not been set-up to boot from a CD, refer to the CMOS settings in the PC documentation.

Figure 49 shows the Windows 2000 installation screen for creating and deleting partitions. The second (D: drive) partition has been selected, press **ENTER** to install Windows 2000 on this drive.

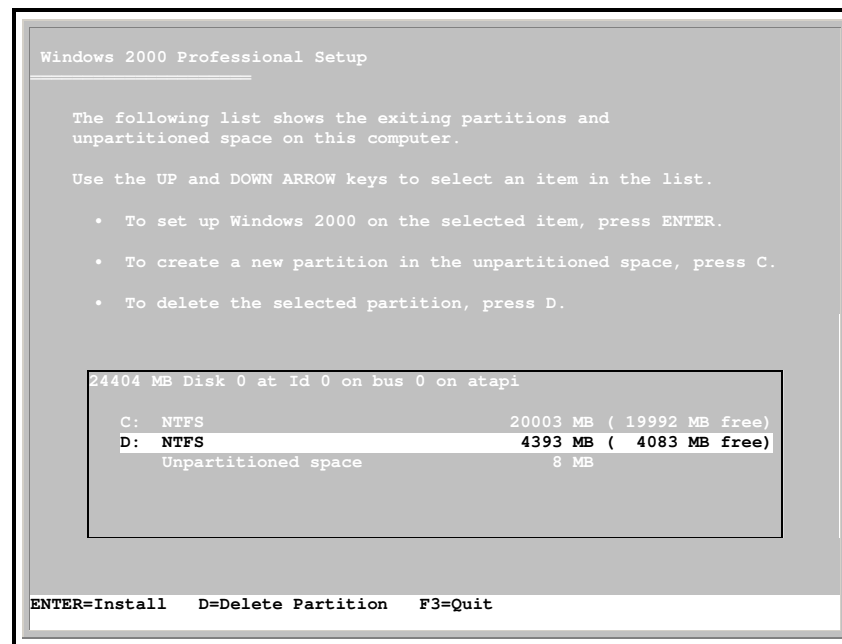


Figure 49: Windows 2000 set-up screen

Before the restore phase it is worth making a boot diskette just in case the restore is interrupted for any reason, such as a power cut, otherwise the boot menu files may have to be repaired using the Microsoft Recovery Console. To create a boot menu diskette use the menu option **Tools / Copy Boot Files to Bootable Diskette**. This diskette also serves as a backup of the boot menu files. See section 5.12.

Boot into the new Windows and install AISBackup and any required drivers. Restore to the larger drive the Windows backup:

- As the new Windows system will not know about the backup you should use the **Tools / Load Job from Backup Media** menu option.
- Choose a dated session, not *All Sessions*.
- Enter the destination drive letter if it is not the same as when the backup was made.

#### Restoring over the top of the running Windows system.

If a dual-boot system was not used the Microsoft Recovery Console must be used to complete the restore, see section 1.10.2.6.

#### Important notes

If the original Windows was from the C: drive (boot drive) then the boot menu files will have been restored from the backup, this backup does not know about the new dual boot system. To update the boot menu use the **Tools / Edit Windows Boot Menu** option and move the new menu item by selecting the menu item from the *Additional Operating Systems* list and clicking **Add to Menu**. To change the displayed name of this system double click its entry in the menu list. The menu item just moved is the current running Operating System.

#### **Not likely but.....**

If an older version of Windows is been restored from a newer version of Windows to the boot drive C: (e.g. Windows 2000 from Windows XP) it will not be possible to boot into the newer version of Windows using the older boot menu files, if this scenario is true place the boot menu diskette created earlier into the diskette drive then select the menu option **Tools / Edit Windows Boot Menu**. Select the Boot Menu Drive **A:** then click the button **Copy**. Select the destination **C:** then click **OK**. Select the newly restored diskette menu by choosing Boot Menu Drive **C:** then add the newly restored Windows 2000 boot menu to the list by using the **Add to Menu** option.

### **8.3.3 Restoring over the top of the running system.**

To restore over the top of the running Windows system select and restore all files and folders from a dated session, do not use *All Sessions*. Run the restore as normal (see section 1.10.). The restore must be finished using the Microsoft Recovery Console, see section 1.10.2.6.

It is possible to restore an operating system that runs under a different drive letter over the top of the existing operating system, however, after re-boot the drive letter will revert to the restored system's drive letter.

### **8.3.4 Restoring to a new drive or partition**

Either:

Format the new drive or partition, perform the restore of the existing operating system backup by choosing a dated session and not *All Sessions*.

Or:

To clone the running operating system choose the menu item **Tools / Copy Disk to Disk**, select the current boot drive as the source of the copy, choose the destination drive. If this process is likely to be repeated save the copy job so that it may be selected next time. Files will not be copied if they are opened exclusively, these are normally log files but may also contain some Microsoft index database files. The *skipped* files will not prevent the cloned Windows system from booting.

Once the restore or copy has completed the new Operating system should be added to the existing boot menu. The menu file may already be up-to-date if this is a repeat copy or restore, if so, skip the next step.

To update the boot menu use the **Tools / Edit Windows Boot Menu** option and select the newly copied or restored operating system from the *Additional Operating Systems* list then click **Add to Menu**. The displayed name of this system may be changed by double clicking its entry in the menu list.