



## Archive Manager 2.710 User Guide

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## **1) Introduction to Archive Manager:**

At its heart Archive Manger is a file archiving solution for NTFS file shares. It is unique in that it does not try to archive files into any sort of SQL database or data store. Instead it uses empty shares/folders to store archived files in (directory structures, NTFS permissions and file attributes are all maintained for archived files). This makes it incredibly fast, easy to backup, highly cost effective to deploy and very reliable.

You also get all of the features that you would expect like the ability to create shortcuts that end users can use to access archived files, without the intervention of IT Support resources.

- A) Practically unlimited archived file storage with no degradation in performance regardless of how many files are being held in an archive. Archive Managers maximum archive size is limited by nothing more than the available disk space for archive shares/folders. Archive sizes of several terabytes are common. Database centred archiving solutions are not able to reach anything like this capacity without involving huge costs and complexity.
- B) Massively reduced deployment and ongoing support costs. It's a well known fact that raw disk space is cheaper than database space by several orders of magnitude. A 100GB database centred archive solution can cost upwards of £40,000+ to implement. Archive Manager on the other hand can cost less than £1000 including hardware.
- C) Completely reliable and extremely platform tolerant. Archive Manager is incredibly simple in its operation. Due to this it is the most reliable file archiving product in the world. There is simply very little to go wrong.
- D) No client software. Unlike some products Archive Manager does not need any client software to be installed on your workstations. With other products this is sometimes necessary to allow the seamless recall of files from an archive. With Archive Manager, as long as the client is running Windows 95 or later they will be able to use this functionality without any additional components.
- E) Brick level security. Databases use a different permissions structure to NTFS volumes. This means that it is almost impossible for a database centred archiving solution to maintain your NTFS file and folder permissions on files that have been migrated into an archive. Needless to say, Archive Manager doesn't suffer from this problem. NTFS permissions are maintained through a files entire lifecycle.

Archive Manager uses the .Net framework version 2.0 which gives it brilliant performance and guaranteed compatibility with all current and upcoming windows platforms including all 64 bit variants, 2008 Server and Windows Vista. In addition, it makes extensive use of multithreading to fully utilize the potential of even 4x quad core processor systems.

PLEASE NOTE THAT WHEN SETTING UP ARCHIVE MANAGER WE RECOMMEND THAT YOU USE THE MOST PRIVILEGED ACCOUNT POSSIBLE. IDEALLY THE DOMAIN ADMINISTRATOR ACCOUNT, OR AT A MINIMUM AN ACCOUNT THAT IS A MEMBER OF THE DOMAIN ADMINS GROUP.

## **Regional Settings and non-English Environments**

If you operate in a Non-English environment then it is crucial that you follow these recommendations.

Archive Manager itself is fully Unicode compliant, and will have no problems running in any environment. However, CMD.exe, the Windows command prompt does not support Unicode. This can cause problems as depending on the options chosen; Archive Manager can use .bat files to hold file recall scripts that are executed by CMD.exe.

Unless you get the regional settings correct, certain localised characters may not be handled properly by client machines.

The Machine Archive Manager is installed on must have all of its regional settings set to the same as your workstations, and all of the workstations that will be accessing your file system should have their regional settings set to the same.

### **1a) Manual Archive Utility**

Archive Manager itself is extremely powerful and flexible. It excels at ensuring compliance with legal regulations and saving space on file servers.

However, sometimes all that is needed is a one off removal of old and outdated files, then a manual backup of those files to tape before they are deleted.

To accomplish this Archive Manager comes with the 'Manual Archive Utility'. It can be accessed from the Archive Manager program folder on the start menu.

This utility is separate from the main Archive Manager solution and is completely standalone. It is designed for those scenarios where you want to do a one off clean up of old and unused files.

It will move any files that meet the criteria you choose to the destination you select, maintaining the original folder structure, file attributes and file/folder permissions.

To use it just open it and:-

- a) Select the location you want to remove files from, then select the destination you want to move qualifying files to.
- b) Choose how long it should be since files have been used for them to qualify for removal, then select if you want to measure this against their last accessed or last modified dates.
- c) Select the other options you want and then click 'Run'.

Files that meet the criteria you selected in the location you chose will be migrated to the destination you entered as above.

## **1b) Basic Concepts:**

Archive manager works by migrating old and unused files from your live network shares into an 'archive' that you have created. And 'archive' is simply an empty share or empty folder in a share normally located on second line disk space. This could be an old server, a pc with a suitable configuration (enough disk space), or even a share on the same partition as your live files (files can be compressed as they are archived so this would still result in a net saving of disk space).

When you create your archives you need to ensure that both the NTFS permissions AND the share permissions on each of them allow 'Full Control' to both the account that you set the Archive Manager Job Service to run under and also the account you will set jobs to use. End User accounts (e.g. 'Domain Users') needs to have 'Modify' rights to each archive as well so your end users can recall files themselves.

Each job is capable of archiving the content from multiple locations. Each of those locations will have their own sub folder created under the location that you set as the destination for the job.

When archiving files Archive Manager can either just copy suitable files (useful for testing a job before having it make any changes to your live file system) or it can move files from your live system into your archive.

When a job is set to move files you also choose to either :-

- A) leave no shortcuts behind
- B) leave 'Soft' per file recall shortcuts behind
- C) leave 'Soft' folder based shortcuts behind

Once files have been in an archive for a period of time set by you, without being accessed/recalled by end users, then you can have them automatically removed with a 'Graveyard Job' and then either:-

- A) Automatically backed up (via the pre/post jobs tasks function) using your existing backup solution and then deleted
- B) Manually burnt directly to CD/DVD/Blue Ray and then deleted
- C) (In addition to B ) If you used per file 'Soft' links then you can have the recall shortcuts updated for each graveyarded file with a message saying that the file has been migrated to long term storage along with the unique ID of the media set it was burnt to.

PLEASE TAKE SOME TIME TO READ THROUGH THE EXAMPLE SCENARIOS IN THE SCENARIOS GUIDE TO GET A BETTER UNDERSTANDING OF THESE FEATURES.

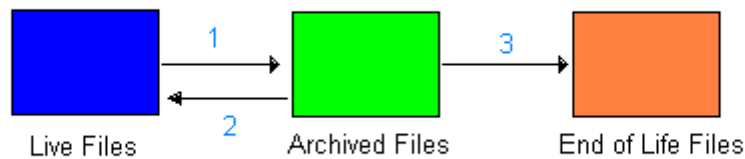
Before installing you have to decide is where you would like to put your configuration database. We recommend that you download SQL 2005 Express from <http://msdn.microsoft.com/vstudio/express/sql/register/default.aspx> and install it on the same machine you are going to install Archive Manager on. This is not essential however, as the configuration database is set up by a fully scripted install as part of the Archive Manager install routine and can be deployed to any SQL 2000 or SQL 2005 server.

Once you have decided on the above you are ready to install Archive Manager.

Now you need to install Archive Manager on to the machine that will execute your archive and Graveyard jobs.

Please see the dedicated section on installing Archive Manager for detailed instructions covering the Installation itself.

Please see below a highly simplified diagram showing the steps involved in a files life cycle with Archive Manager.



1) Files meeting your criteria, and that have not been used in the period of time you specify, are moved into an archive where they are compressed with NTFS compression.

2) They remain there for the period of time you specify, with any that are accessed by users being returned to the live file system.

3) After they have been in an archive for the period of time chosen by you, they are removed with a graveyard job to another location and backed up/written to WORM media before being deleted.

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### **1c) Versions:**

30 day Trial: - same features as the standard version.

Standard version: - maximum of 5 scheduled jobs.

Datacenter version: - no maximum number of scheduled jobs.

### **2) Upgrading from a previous version:**

If upgrading from a previous version we advise that you uninstall the old version choosing to keep your existing configuration database. When you re-install with the new version select 'Use existing connection'.

### **3) Installing:**

IT IS HIGHLY RECOMMENDED THAT YOU READ THE 'BASIC CONCEPTS' SECTION BEFORE READING THIS SECTION OR TRYING TO INSTALL ARCHIVE MANAGER.

#### **Setup a Service Account:**

Before you run the install you need to create a user account that the Archive Manager Service will use. The user account must:-

- Have 'Full Control' permissions over all the files you will be archiving.
- Have 'Full Control' permissions over the location(s) you will be archiving too.
- Have the 'Manage Auditing and Security Log' right on the machine Archive Manager is installed on, any machines it will archive content from and any machines it will archive content too (only if you have Windows 2008 or later Servers).

The easiest way to accomplish this is to make the account a member of the 'Domain Administrator's' group.

If the account you are using to run the Archive Manager Service is not a member of the Domain Administrators group then in addition to requiring suitable NTFS rights to be set up so it can access the required shares with Full Control permissions, it needs to have the extra right granted to it.

It must have these specified on a) the machine it is running on b) any machines it will archive files from c) and machines it will archive files too.

You can grant this right by either adjusting the Local Security Policy on the relevant machines, or by using Active Directory Group policies and specifying the settings in the Default Domain Policy

'Manage Auditing and Security Log' (2008 Server) = When Archive Manger archives a file it makes a copy of it in an archive, copies all attributes and security access options to it and then compares the copy to the original file before deleting the original file.

The security access options not only include the NTFS Access Control Lists, but also the auditing options as well. To replicate the auditing settings the chosen account needs the 'Manage Auditing and Security Log' right

The relevant setting can be found under 'Local Policies' -> 'User Rights Assignment'. Edit the 'Manage Auditing and Security Log' entry and add the account you created in step 3.

Alternatively you can set the settings using Default Domain Group policy in Active directory. 'Computer Configuration' -> 'Policies' -> 'Windows Settings' -> 'Security Settings' -> 'Local Policies' -> 'Manage Auditing and Security Log'.

Disable User Account Control on the machine Archive Manager is installed on (2008 Server or later).

The user right that you granted to your new account in the step above counts as an elevated privilege.

With User Account Control enabled Windows will prompt you before you use an elevated privilege, asking you to confirm if you want to perform the action in question.

Unfortunately there is a bug in User Account Control. If a service wants to use an elevated privilege, there is no way for User Account Control to prompt for confirmation in the same way it would do for a user. Instead of letting the action go through, it blocks it.

The only way around this is to disable User Account Control on the Machine in question.

Click on the Windows 'Start' button, then click on 'Run'. Type 'MSCONFIG' and press return. MSCONFIG will now open.

Click on the 'Tools' tab, then click on 'Disable UAC', click on the 'Launch' button, then once the command has executed reboot the machine when it is convenient.

Once the install is underway you will be presented with the 'Service Setup' screen asking you to specify the Account that you would like the Archive Manager job engine service to run as.

Enter the details of the account you created in the above step.

After you have completed the service setup screen you will be presented with the configuration database install screen. The configuration database is where Archive Manager stores its configuration settings and options (all stored user account passwords are heavily encrypted). It can be installed to any SQL instance.

If needed SQL Express 2008 can be downloaded from the link below. When installing just choose the default options.

<http://msdn.microsoft.com/vstudio/express/sql/register/default.aspx>

If you have any issues then please review the 'error. log' file in the Archive Manager installation folder. The database install and uninstall routines can be launched manually by running 'dbinstall.exe' and 'dbuninstall.exe'.

The install is a fully scripted database creation and does not require you to copy any files to your SQL server or run any scripts manually. Installation to a named instance (e.g. 'server1\sql2000' instead of just 'server1') is supported.

The account that you are logged in with **MUST** have sysadmin rights over the SQL instance you are installing to or the install will fail. Alternatively, Un-tick the 'use integrated authentication' box and enter the details of the SQL Admin login.

#### **4) Getting started:**

Once the install has completed you will be presented with the welcome screen the first time you launch Archive Manager.

Click on 'Get Started'

#### **5) Basic Concepts**

Archiving is the process of moving unused files into your archive; graveyarding is the process of removing files from an archive after they have been there for a period of time.

There are several different ways of archiving your files available in Archive Manager:

Soft links utilise .lnk files to make archived content held on one central server available to end users. While the shortcuts are just Windows shortcuts, Archive Manager uses some unique approaches to get the most from them.

For example, when a user clicks on a file based Soft Link the file they are requesting will be recalled from the archive, returned to the live file system and then opened for them using a script.

If a folder based soft link is used then when a user clicks on the link they will be able to browse the archived items in that location. Any files they access will be automatically returned to the live file system over night.

Please see the section 'Creating a new archive job – Soft Links' below for more information.

## **6) Creating a new archive job – Links\No Links:**

Before you create a new job of this type you need to create a new location that will hold your archived files. This needs to be an empty share (or empty folder in a share) on your network. You will also need to set up the permissions on the shared out folder so that BOTH the share permissions AND the folders NTFS permissions allow:-

- 1) Full control to the account that you are going to set your job to run as
- 2) Modify rights for your users.

To create a new archive job based on links (or one that doesn't use links), click on 'New Scheduled Job' on the Archive Manager main screen.

Then pick "New job to archive files (No Links / Soft Links)"

Once you have selected the locations you wish to archive content from, chosen the location on your network that you would like to archive your files too and given the job a name you will be presented with several further options.

Copy Files - When you first set up a new archive job we recommend that you accept the default choices on the 'options' screen. This will set up your new job to just copy the qualifying files into their respective locations in your archive.

For example, if you archive [\\server1\files](#) and your archive share is located at [\\server2\archive](#), then the files for [\\server1\files](#) will be copied to [\\server2\archive\server1-files](#) .

Once the job has completed you should go and check the archive folder for each selected location and ensure that the files that have been archived are the ones you would expect.

If all is ok then you will need to delete these archived files from your archive manually. Once the relevant folders have been emptied you will be then be able to edit the scheduled job and choose the options that you would like to implement for your proper file archiving policy.

Move – This option functions just like the copy files set up above, except that files are actually moved from your live file system into your archive. If you choose not to use shortcuts (see below) then after each run of a job set up with this option, you should backup the archived files from your archive and then delete them. This can be automated with the Pre/Post job tasks function.

Shortcuts - If you select to move files you then have the choice of leaving shortcuts behind after files are moved to archive storage. Selecting the 'Create Stubs' checkbox enables the choice of shortcut type.

(Folder shortcuts) – With folder based shortcuts, when a file is archived from the live system, a shortcut is left behind that users can click on. This will take them to the folder containing the archived file. Any files users access can be returned to the live file system by the Maintenance job overnight.

(File based scripted recall shortcuts) – Similar to the folder shortcuts option, except that instead of shortcuts being created on a folder by folder basis, a recall shortcut is left behind for each archived file. Users can seamlessly recall files from the archive just by double clicking on the file's recall shortcut. Archived files open up just like they had never been moved.

(File based direct shortcuts) – Just like the scripted recall shortcuts option, except shortcuts are created directly to archived files and scripts aren't used to recall files. Any files users access can be returned to the live file system by the Maintenance job overnight.

Delete temp files = While archiving archive manager is capable of tidying up redundant temporary files left on your system as it comes across them. Enable this option to turn on this feature for this job.

Auto-avoid programs = Software is often installed to a central network folder and then a 'workstation' installation is performed down to each terminal. These central installations can pose a problem as they will often contain files that haven't changed in a long time but are vital for the proper running of the software in question.

This feature will enable archive manager to detect these folders and auto-avoid them in most cases. That said, it is still no substitute for manually excluding these folders with the exclusion feature.

#### File Extensions:

The file types that will be archived by Archive Manager jobs can be controlled via either a central list of file extensions ('General' on the toolbar, then 'File Types') or on a per job basis.

On the file types screen you can choose to archive all files regardless of their extension, to archive files with no extension and even to create a list of file types just for the job in question.

## **7) Creating a new archive job – common options:**

Both types of job do share some configuration options.

These are :-

#### User Account :

Any user accounts that you have entered will now be available for you to assign to the job. Select a suitable one and click next.

#### Job utilization :

Next you should choose a suitable utilization level for your job.

High = flat out. The job will run as fast as the local infrastructure allows.

Normal = throttled back to allow the running of the job during business hours in most cases.

Low = further throttling in case 'Normal' will not allow running during business hours.

Trickle = normally suitable for running over a WAN, features very low resource utilization in terms of processing power, network traffic and disk I/O.

#### Set schedule :

Using this screen you can set up a schedule for your new job. Times should be entered as per a 24 hour clock, e.g. 16:00:00 is 4pm.

#### File age :

This screen lets you specify how long files should have been unused for before they are moved into your archive.

Once done click next. Now you will be taken to the final screen where you can click 'create' to create and schedule your job.

### **8) Creating a new graveyard job:**

'Graveyarding' is the process of removing files from one of your archives once they have been in the archive for the period of time you specify. This is typically 6 months.

Graveyarding lets you split out those files that have been untouched in an archive for the length of time you say, to the location you specify, so they can be backed up one last time and then deleted.

The post job backup and deletion can be automated with the 'Pre\Post Job Tasks' function.

Setting up - Click on the 'New Scheduled job' button to start creating your new job, and when prompted choose 'new job to graveyard files'. Use the following screens to set up your graveyard job.

A graveyard job is similar to an archive job except that the 'Source' is the archive folder you would like to graveyard from, and the destination is the location you would like to write your graveyarded files out to.

The file age is also different from an archive job. With a graveyard job the file age is based on how long the file has been in the archive for without being called back to the live file system.

For archives based on 'Folder Links' the last accessed date of the archived file is used. With 'Soft Links' the date the file was archived is stored in the files recall script file. This is used to calculate how long the file has been in the archive.

### **9) Creating a new graveyard job (removable media):**

A 'Graveyard – ready for removable media' job functions for the most part like a normal graveyard job, except that:-

- 1) When you set up the job you specify the removable media that you will be writing the graveyarded files to for long term storage. Archive Manager will size the output folders to fit on the chosen media (CD, DVD, Blue Ray, DAT, Ultrium Tape etc).
- 2) The output location is fixed. It will be a folder called 'Graveyard' under the destination for the selected archive job. The properly sized output folders will be created under this location.
- 3) Each output folder that is created will be given a unique MRN (Media Reference Number). When you write each folder to the selected media, label the media with the name of the output folder (its MRN). This will make retrieval later easier.
- 4) If you are graveyarding files that were archived with the 'Soft links' option selected you will have some extra functionality available.

You can specify that:-

A) Soft links in the live file system for files that have been graveyarded should be deleted.

OR

B) The script files for files that have been graveyarded should be updated, so that when a user clicks on a soft link for one of them they are shown a message stating that 'This file has been moved to long term storage and you should contact your IT Department quoting the name of the file and MRN XXXXXX to have it recalled'.

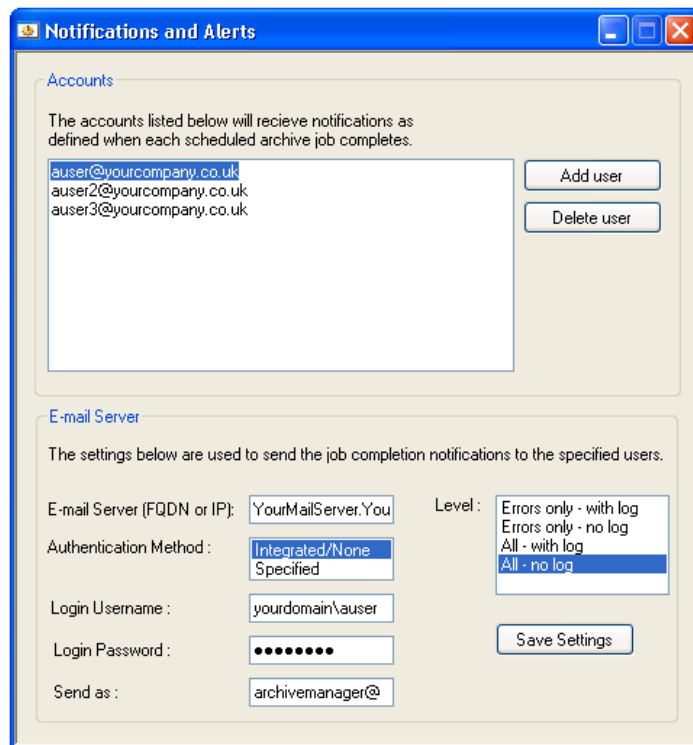
The 'MRN XXXXX' is the unique MRN of the folder that the file was outputted to, and hence should be the Label on the media it was written to. Thus with a minimum of administrative effort the file can be recovered for the end user.

*A future development that we have planned will automate the writing of the graveyarded files directly to removable media, removing the need for this last step to be a manual process.*

### **10) Notifications and Logs:**

Notifications:

Archive Manager has the ability to send job completed status notifications via email when each job completes. To access the notification settings click on 'General' on the drop down menus and then click on 'Notifications'. Mail can be sent through any SMTP enabled mail server.



Logs:

Log options can be accessed via the 'General' drop down menu. You can choose how many days that you would like to retain job log files for and also to enable detailed logging.

By default Archive Manager just produces a log file that gives basic summary statistics for a job and any errors that were encountered. This lowers utilization on the host machine when numerous jobs are being ran at the same time (eg 30+ at once), and can help Archive Manager run on lower spec hardware than it would do otherwise.

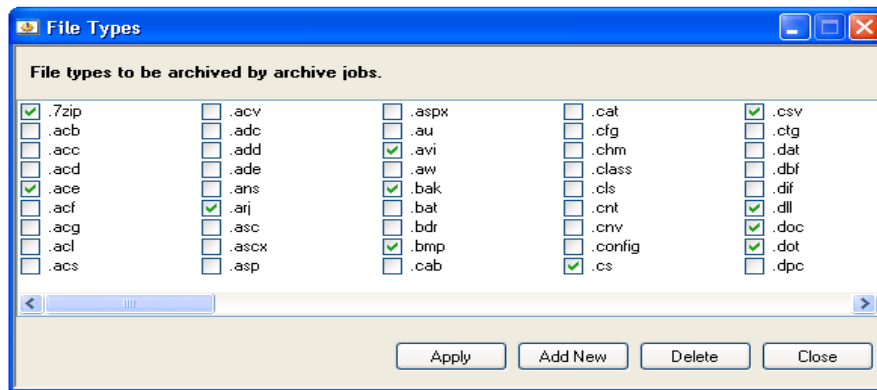
With this option turned on Archive Manager produces full log files listing every file it Archives/Graveyards.

## 11) File Types:

Archive Manager can give you complete control over not only how you archive your files, but also the types of files you archive. It does this by only archiving files with the file extensions that it has been told to. This can be set either globally through this screen, or on a job by job basis.

As standard a wide range of common (and some not so common) file extensions can be chosen from. And even if an extension you want to archive isn't listed you can always add it.

To access the file extension settings click on 'General' on the drop down menu and then 'File types'.



Selected extensions will be archived by archive manager, unselected extensions won't.

### 12) Exclusions:

If there are locations on your network that you do not want archived by any archive job then you should add them to the list of exclusions. The list of exclusions can be accessed by clicking on 'General' on the toolbar and then clicking on 'Exclusions'.

### YOU SHOULD ALWAYS EXCLUDE ANY PROGRAM FOLDERS ON YOUR NETWORK BY ADDING THEM TO THE EXCLUSION LIST.

You can enter either paths, or strings of text. So for example...

- 1) Enter '\\server1\share\folder' to exclude that folder and all subfolders
- 2) Enter 'snapshot' to exclude any folders with the word 'snapshot' in their path.

### 13) Registering:

Archive Manager comes in 3 versions, Shareware, Standard and Enterprise. The differences are listed below.

| FEATURE                                | SHAREWARE | STANDARD | ENTERPRISE |
|--|-----------|----------|------------|
| 100 file per run limit                 | Y         | N        | N          |
| Unlimited files per run                | N         | Y        | Y          |
| Number of scheduled jobs               | 2         | 5        | Unlimited  |
| Unlimited free online assisted support | N         | Y        | Y          |
| E-mail based alerts                    | N         | Y        | Y          |
| Security mirrored from file system     | Y         | Y        | Y          |
| Database free operation                | Y         | Y        | Y          |
| High performance engine                | Y         | Y        | Y          |
| Integration with other products        | N         | Y        | Y          |
| Flexible job scheduling                | Y         | Y        | Y          |

To register Archive Manager you need to obtain the unique computer ID number Archive Manager will generate for the system you have installed it on. On the toolbar in Archive Manager, click on 'Register' to open the registration wizard.

Once you have the computer ID number noted down click on the link to visit the MItek Archive Manager invoice request page. Enter you details, the computer ID's

you would like to register, and choose from the drop down menu's what you would like to register each version as.

After your order has been processed you will receive an invoice back to the e-mail address you specified when you filled in the online form.

After payment has been made you will be sent you activation details, which can then be entered into Archive Manager with the registration wizard.

#### **14) Maintenance Routine:**

The maintenance job performs a variety of tasks. It is disabled by default, but once you have your jobs set up you should enable it.

With all of its options turned on it performs the following on locations that have been archived with the 'create file (recall) shortcuts' (soft links) option selected...

- 1) Synchronises NTFS permissions with the live file system
- 2) Integrity checks the archive recreating missing script files etc.
- 3) Looks for archived files who's recall shortcuts have been deleted/ moved, tries to find them, and if they cant be found deletes the file from the archive.

On locations that have been archived with the 'create folder shortcuts' (soft links) option selected it...

- 1) Synchronises NTFS permissions with the live file system
- 2) Returns files to the live file system that users have accessed in the last 24 hours.

#### The 'Enable Maintenance Job' option:

This turns on the basic maintenance job. It will execute at the time you specify each day.

It is worth noting that when set to the minimum utilization setting you should be able to set the routine to run in the middle of the business day as it is very efficient. If running out of business hours then you should set the utilization option to 'Max'.

#### The 'Enable Sync Scan' option:

When a file is migrated into the archive and a recall stub is left behind (soft links - per file shortcut) , a script file gets created. The script file is executed when a user double clicks on the recall stub, and it then carries out the return of the file to its original location.

This works extremely well but does have one weakness. If a user moves a recall stub to somewhere else on the system the script file will still return the file to its original location.

When the sync scan option is enabled the maintenance job will build a list of all those archived files whose recall stubs have been moved from their original location as it runs.

At the end of the maintenance job this list of archived files will be passed within the software to a new low utilization background scanning process. This process will scan all of the locations on your live file system that you have configured archive jobs for.

It will search out the shortcuts for these files and once identified it will a) move the archived file to the correct location within the archive b) rewrite the script file to ensure it will be returned to the new location of its recall stub c) recreate the recall stub.

With this option enabled users can happily move files around knowing that at the next run of the maintenance routine everything will be updated automatically.

#### The 'Enable Delete For Non-Located Files' option:

At the end of the sync scan process it is possible that there may be some archived files left that the sync scan could not locate the recall stubs for.

If this is the case then they have probably been deleted by the end user. With this option selected archive manager will remove any of these remaining files from the archive.

#### The 'Enable Auto Return' option:

When an archived file has been archived with the 'create folder shortcuts' (soft links) option is accessed by an end user that, it can be auto returned to the live file system by the maintenance job. Enabling this option turns on this functionality.

### **15) Compressing your archive:**

Archive Manager supports file and folder compression of its archives through standard NTFS File and folder compression.

It is recommended that if you do compress your archive you compress the entire archive by compressing the root folder itself (the actual folder that is shared out to create your archive share).

Right click on the root folder through windows explorer and click on 'Properties'. Tick the 'Compressed' attribute and then click ok. Depending on the size of your archive this might take some time. It is recommended that you perform this action on the server hosting the share, not from another machine over the network.

If you have compressed your archive then new folders and files will be automatically compressed as they are migrated to it.

There is a small performance penalty for the compression as files need to be compressed and uncompressed as they are moved to and from an archive but this is minimal.

If decide that you wish to uncompress your archive after it has already been compressed then simply uncompress the root folder as above. This will uncompress all the subfolders and files underneath, and new folders and files will not be compressed when they are moved to the archive.

## 16) Pre\Post Job Tasks:

Archive Manager is capable of integrating with other solutions by starting .exe files, .bat files, executing command line functions and in general launching anything you can launch from the 'Run' prompt (e.g. 'Start' -> 'Run') including command line functions with switches.

These tasks can be run both before and after any archive or graveyard job.

To access the Pre\Post Job Tasks functionality open the user interface, click on 'General' on the toolbar and then click on 'Pre\Post Job Tasks'.

You can use the 'Add', 'Delete' and 'Edit' functions to add, remove and edit items.

You can add multiple items to a job, they will be executed in the order they are added.

For particularly complicated command line functions like the one below (that was copied from the properties of a windows backup job).....

```
C:\WINDOWS\system32\ntbackup.exe backup "@C:\Documents and Settings\Administrator\Local Settings\Application Data\Microsoft\Windows NT\NTBackup\data\BACKUP.bks" /a /d "Set created 04/02/2007 at 19:48" /v:no /r:no /rs:no /hc:off /m normal /j "Backup" /l:s /f "E:\Backup.bkf"
```

you may wish to put the command inside a batch file and launch the batch file if you encounter any problems.

A common use for this feature is to trigger a backup of an archive once a job has completed.

## 17) Archive Maintenance Utility:

The Archive Maintenance Utility can be accessed by clicking on 'Start -> Programs -> Archive Manager -> Archive Maintenance Utility'

Using the utility you can accomplish two things:-

- 1) Return files that have been archived by a job back to their original location in your live file system.
- 2) Migrate files that have been archived by a job to a new archive location, updating any links in the live file system to reflect their new location.

Before using the utility you must ensure that there are no jobs running. If there are any jobs running when the Archive Maintenance Utility opens, it will ask you to wait until they have finished before reopening the utility and then it will close.

You must also have a known good and up to date backup of both your live files system and all of your archived files.

### Migrating archived files to a new location :-

Make sure you are logged in with an account that has full administrative rights ('Full Control') over your live files and your archived files. Then check that the permissions on the new location to ensure both the share permissions and the NTFS file and folder permissions allow your users at least 'modify' rights to the files it will contain, and your admin accounts (including the account that you have set Archive Manager to use) have 'Full Control'.

Next, open the utility and select the job whose files you want to move. Then select 'Move archived files to a new location.' from the actions box and enter the location you want to move the jobs archived files to.

The location must be entered as a UNC path (e.g. [\\YourServer\Share](#)), and it must be completely empty.

Once done click on 'Go' to begin migrating your files.

Do not close the utility once it has started moving files. If you need to pause the process then click the 'Pause' button and resume when it is ok to do so.

#### Returning archived files to their original locations:-

As per the step above make sure you are logged in with an account that has 'Full Control' over all of your archived files and live file system.

Then simply pick the job whose archived files you want to return to their original locations and select 'Return archived files to the live file system.' from the actions box.

Once done click on 'Go' to begin migrating your files.

Do not close the utility once it has started moving files. If you need to pause the process then click the 'Pause' button and resume when it is ok to do so.

### **18) Owner Permissions Workaround:**

When a file is created a special property gets set on it. This property is called the 'owner' property. This is normally the account that created the file.

Some organisations use this property as part of their permissions structure.

You can grant or deny NTFS file and folder permissions to the owner of a file via the special 'Creator/Owner' object.

When a folder structure uses the creator owner property to give the owners of files read/modify rights and other accounts read access or no access to those files, archive jobs using Soft Links can run into problems.

The original file is moved into an archive and retains its owner property and NTFS permissions. However, when recall shortcuts and scripts are created their owner is set as the account that the archive job is running as.

This can prevent users from recalling archived files properly.

Archive Manager can work around this limitation.

To enable this workaround for any job that might be effected by this problem, create a folder with the same name as the job you want to enable the work around for in the 'Owner\_Security\_WorkAround\_Templates' folder.

Then set the permissions on this folder that you would like applied to shortcuts and script files. This will normally just involve setting the 'Domain Users' group or 'Everyone' group up with Modify rights.

If you would like to apply this fix to all jobs then just create a folder called 'Global\_Owner\_Sec\_Template' in the 'Owner\_Security\_WorkAround\_Templates' folder (instead of a folder for each job) and set the relevant permissions on it as above.

## 19) Adding your own icon's

When using file based soft links, Archive Manager creates .lnk files that point to scripts (.bat files) which contain the code that is used to re-call files back from archives.

This works extremely well and overcomes a multitude of problems, however it does mean that the .lnk file will appear to the end user to have the same icon as the script (.bat) file. This is less than ideal and would potentially confuse end users.

Archive Manager has the ability to redirect the icon used for each '.lnk' file to a '.ico' file held in a special folder in each archive root. This folder is simply called 'IconFiles'.

So if a job was archiving to '[\\YourServer\Archive\UserFiles](#)' the icons for that job would be held in '[\\YourServer\Archive\UserFiles\IconFiles](#)'.

'.ico' files are a special type of icon file they can be 'extracted' from most executables files, and many can be downloaded from the internet.

Try searching for 'extract .ico file' in any mainstream Internet search engine.

When you have created your new .ico file just drop it in the icon files folder following the naming convention of those already there. For example 'txt.ico' is an icon file that will be used for '.txt' files, and 'doc.ico' is an icon file that will be used for '.doc' files.

As soon as you update/replace or add an icon file to the 'iconfiles' folder, all '.lnk' files of that type and archived by that job will instantly be updated with the new graphic.