AM2 Data Security

Overview

AM2 Data Security, AM2Backup.exe, is a Windows application program that provides options for the backup of AutoMate data to local media such as an external hard drive or a remote location via FTP.

The use of this application provides manual selection of backup options which are intended for use with and as a supplement to, scheduled backup strategies but not as a replacement of scheduled backup strategies. Scheduled backup strategies using commercial backup software, such as Acronis, should be maintained to provide a complete backup and images of critical systems and data.

AM2Backup should be installed on a PC which has access to AutoMate data folders and to the local/network media, and/or FTP location to which the backup file will be written.

The backup process uses compression to reduce the size of the resulting backup file.

Performance tests of the compression achieved indicated the resulting compressed file is approximately 14% of the original file size.

Actual results were performed on 2 existing AM2 data sets that contained transactions for 10 plus years:

- 104MByte of data was compressed and resulted in a 14MByte backup file (13.5%);

- 158MByte of data was compressed and resulted in a 21.8MByte backup file (13.8%).

  Compression achieved a backup file approximately 14% of the original file sizes.

Compression is performed using the 7zip command line utility. The resulting archive file is password protected with "MyBackup", and given a name constructed from the AutoMate data's company name and the date of the last transaction in the AutoMate data set. In addition, the filename extension is, by default, "bkup" in order to disassociate the file from inadvertently being decompressed by file compression programs.

AM2 Data Security provides Backup Operation, Restore Operation and Rebuild/Repair Operations. Selection is made by choosing the appropriate Backup, Restore or Rebuild/Repair tab.
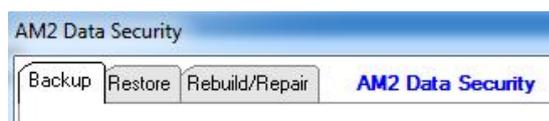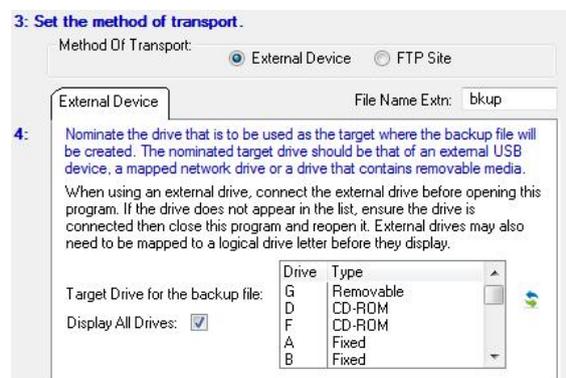
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Backup Operation

1. Close all programs that access to AutoMate data files; e.g. AutoMate Main Menu, AutoMate Reports, AutoMate POS etc. (This is not imperative but is good practice to do so.);

2. If the backup file is to be created and transferred using removable media, e.g. a USB thumb drive, an external hard drive or writeable CD/DVD; insert the drive or removable media; (If the media needs to be prepared, do this before running AM2Backup.)

3. Open the AM2Backup application and select the Backup tab;

4. Set the location of AutoMate data files listed in the window as step 1. A default local installation of AutoMate, this is C:\AM2\DATA1 but may vary from one installation to another. The location may be on the local hard drive, or the local network. UNC names are permitted for the location of AutoMate data folder;

5. Once the data location has been selected, examine the Company Name and Last Transaction date to ensure the correct data set of AutoMate Data in the location has been selected to backup. Company name and last transaction date values are listed in step 2 of the window. Company Name and Last Transaction information is read from AutoMate data files in the selected location. Setting a different AutoMate Data Location will cause the Company Name and Last Transaction entries to redisplay and reflect the values appropriate to data read from files in the selected AutoMate Data Location;

6. Set the Method of Transport option, displayed as step 3 in the window. The option reflects how the backup file will be transported. This may be either by using a removable device or removable media such as a USB thumb drive or external hard drive or, to a FTP server located on a NAS drive or in the cloud. Changing the Method of Transfer option will also change further entries in this window;

    I.   When the Method of Transport is set to External Drive, the options in the window change to display those required for the selection of the external device or a device that contains removable media.

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Initially, a list of drives display that are seen to be removable or potentially contain removable media. An external hard drive may not be displayed in the list. If an external hard drive is to be used and it has been attached, the option to Display All Drives should be checked which will display all known drives including external drives and mapped network drives. Refer Target Drive List. A selection is made by clicking on the item in the list which identifies the drive letter associated with the device to be used for copying the backup file to. NOTE: If using writeable CD/DVD media, the media must be able to except a file being directly copied. A CD/DVD may have to be prepared before files can be copied to it.

II. When the Method of Transport is set to FTP Site, the options in the window change to display those required for making a FTP connection to a FTP server. An internet or network connection
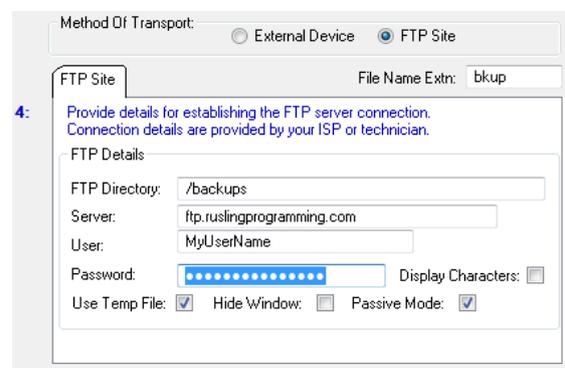
must be available to this process. The speed of the connection has no bearing on the production and transport of the backup file. However, the faster the connection, the quicker the process takes to complete the transport of the backup file. Refer FTP Site Details for correct entries. These are set and provided by your FTP site provider or technician.

7. Once sure that

I. the correct AutoMate Data Location is set and the Company Name and Last Transaction date are that of the data wanting to be backed up;

II. the Method Of Transport is selected with the correct drive selected from the list OR the FTP details have been provided and are correct;

Click the "Build and transfer the backup file" button, is displayed under step 5 in the window.

Clicking the button will begin the backup of data from AutoMate to a single compressed file. A folder named "Backup" is created below the AM2Backup program folder in which the backup file is built. The backup file name is constructed from combining the Company Name and Last Transaction date and has the default extension of ".bkup". A notification is displayed at the bottom of the application window during building of the backup file.

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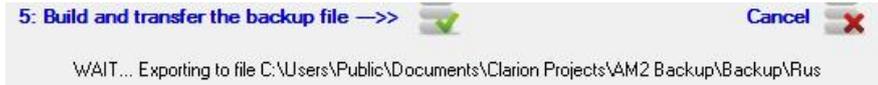*Company Name and Last Transaction date are used to build the backup file name.*

2: Check the Company name is the same as the data to be exported and the last transaction date is that of the last transaction processed in AutoMate.

| Company Name: | Rusling Programming Service | Last Transaction: | 4/11/2013 |

A folder named Backup is created below the AM2Backup folder.

	Name	Date modified	Type
AM2 Backup			
Backup	Rusling Programming Service_20131104.bkup	18/11/2013 10:46 ...	BKUP File

A notification is displayed at the bottom of the application window while the backup file is being built.

5: Build and transfer the backup file —>>   Cancel

WAIT... Exporting to file C:\Users\Public\Documents\Clarion Projects\AM2 Backup\Backup\Rus

The building of the backup file is a common process used by both methods of transport before the resulting file is copied to an external device or via FTP to a FTP server.
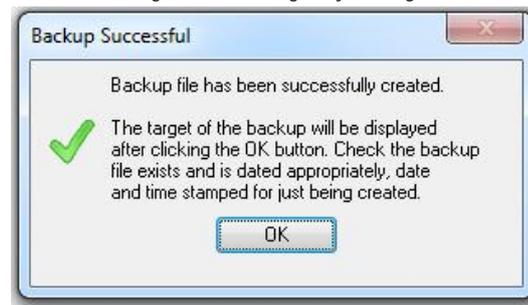
If the transport method is to an external device:

> Once the backup file is built, it is copied to the root folder of the selected external device; e.g. If the external device is drive J, the file is copied to H:\ .
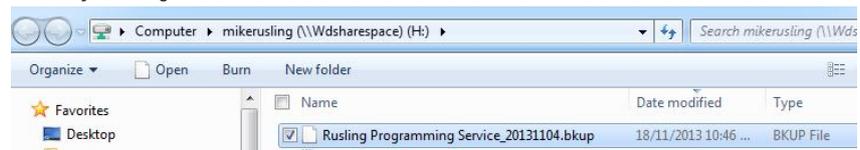
> *Notification message displayed during copy of the backup file to external device.*

> **5: Build and transfer the backup file —>>**   Cancel
>
> Copying Backup file to drive H

> *When copying has completed a message is displayed. The window and application will close when the message is acknowledged by clicking OK.*

> **Backup Successful**
>
> Backup file has been successfully created.
>
> ✓ The target of the backup will be displayed after clicking the OK button. Check the backup file exists and is dated appropriately, date and time stamped for just being created.
>
> OK

> *Folder listing of the external device showing the backup file. This particular external media was to a 6TByte storage NAS drive.*

> Computer ▸ mikerusling (\\Wdsharespace) (H:) ▸
>
> Organize ▾   Open   Burn   New folder
>
> | | Name | Date modified | Type |
> |---|---|---|---|
> | Favorites | | | |
> | Desktop | Rusling Programming Service_20131104.bkup | 18/11/2013 10:46 ... | BKUP File |

If the transport method is via FTP to a FTP server:

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Once the backup file has been built, a FTP connection is established to a FTP server using the FTP Details provided. An internet connection or network connection must be available which must also permit a connection to the FTP server endpoint.

A progress window is displayed at the time of establishing a FTP connection as well as during the copying (uploading) of the backup file to the FTP server.

FTP progress window displaying details and progress of the file being uploaded.

When the upload has completed a message is displayed. The window and application will close when the message is acknowledged by clicking OK.
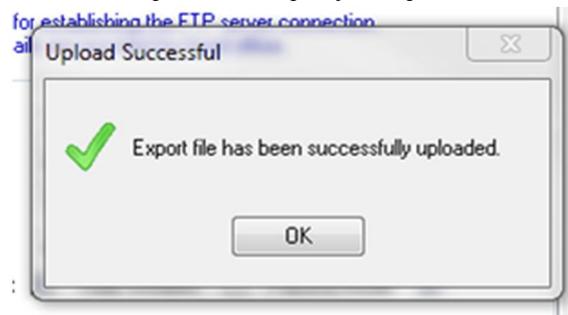
Restore Operation

Not yet implemented.

NOTE: IT IS IMPERATIVE that files in the target location of the restore are not open or in use when restoring. If a file is open or in use, the restoration of the file WILL fail, resulting in questionable integrity of AM2 data in the restore target location.

1. Close all programs that access to AutoMate data files; e.g. AutoMate Main Menu, AutoMate Reports, AutoMate POS etc. (If on a network, ensure all workstations have also closed all programs. Preferably, shutdown all workstations other than the one being used to perform the restore.)

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2. If the backup file being restored was created on removable media, e.g. a USB thumb drive, an external hard drive or writeable CD/DVD; insert the drive or removable media;

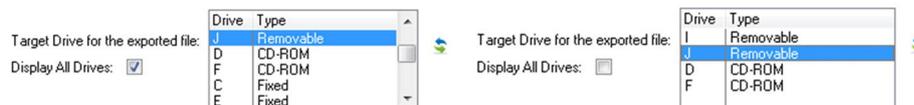3. Open the AM2Backup application and select the Restore tab;

Rebuild/Repair Operations

Not yet implemented.

References

Target Drive List

These drive types displayed when Display All Drives is:	Checked	Unchecked
Removable	✓	✓
CD-ROM	✓	✓
Fixed	✓	
Network	✓	
RAM Disk	✓	
Unknown	✓	

The list is sorted by drive type then by drive letter.

NOTE: External hard disk drives, connected via USB, register as drive type "Fixed", the same as the PC's internal hard disk drive.

FTP Site Details

NOTE: Passwords are case sensitive. User names generally are not.

An FTP site may be either provided by a NAS drive within your local network, or provided by your ISP or another internet services provider. Details of the connection to a FTP server are provided by the entity suppling the FTP service. In the case of a NAS drive, the technician should be asked to set-up FTP capabilities and provide you details of the connection, though NAS drives may generally be accessed by mapping a drive letter. Some, most, internet providers provide web space as part of a subscription package. This is generally accessed via FTP, and may be used in this case to store remote backups, in "the cloud". Details of such a connection should be sought from the provider.

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INI File

Operational settings are stored in the applications INI file after successful backup file creation and transfer to either a removable media device or to an FTP server. Excluding a removable media's device drive letter (as this may frequently change), the saved settings are then used and displayed next time the application is opened.

[Application]
Title= AM2 Data Security   Title displayed in the title bar of the application.

[AutoMateData]
Location=C:\AM2\Data1   Last location for AutoMate Data

[MethodOfTransport]
MethodOfTransport=ftp   Last successful method of transport used
DisplayAllDrives=1   Last setting use for Display All Drives; 1 = True
FileNameExtn=bkup   The backup file's file name extension; e.g. bkup
FtpDir=/   Last FTP Directory
FtpServer=*{yourFtpServer}*   Last FTP Server name
FtpUser=*{yourFtpUserName}*   Last FTP User name
FtpPassword=*{yourFtpPassword}*   Last FTP Password used. Encrypted
FtpUseTempFile=Y   Last setting used; Y= True
FtpHideWindow=N   Last setting used; Y= True
PassiveMode=Y   Last setting used; Y= True

NOTE: The FtpPassword entry will appear garbled as the password is encrypted when it is saved.