Backup tab

Whitepaper

Contents

1. Introduction

The Backup tab provides access to a set of powerful backup tools, which are used to protect both data and applications, including Exchange, SQL, SharePoint, Active Directory and Hyper-V environments.

Documentation

This whitepaper covers all aspects of the BackupAssist Backup tab, and can be used in conjunction with other BackupAssist guides, which provide a comprehensive documentation set.

- For information on the BackupAssist Restore tab, see the BackupAssist Restore Tab Whitepaper.
- For information on the BackupAssist Recover tab, see the BackupAssist Recover Tab Whitepaper.
- For information on BackupAssist Remote Access, see the Central Administration Whitepaper.

Licensing

BackupAssist requires a license once the initial trial period has expired. Please contact your local BackupAssist reseller or distributor for pricing information, or visit www.BackupAssist.com.

Not sure which licenses you need? See the BackupAssist Licensing Guidelines for help.

Overview

The Backup tab has four menu items used to *create*, *manage*, *monitor* and *report* on backups.

The **New** option is used to access the five types of backup jobs that can be run. These backup jobs are documented in their own whitepapers and a summary of each is provided below. The **Manage**, **Monitor** and **Reports** options are documented in detail in this whitepaper.
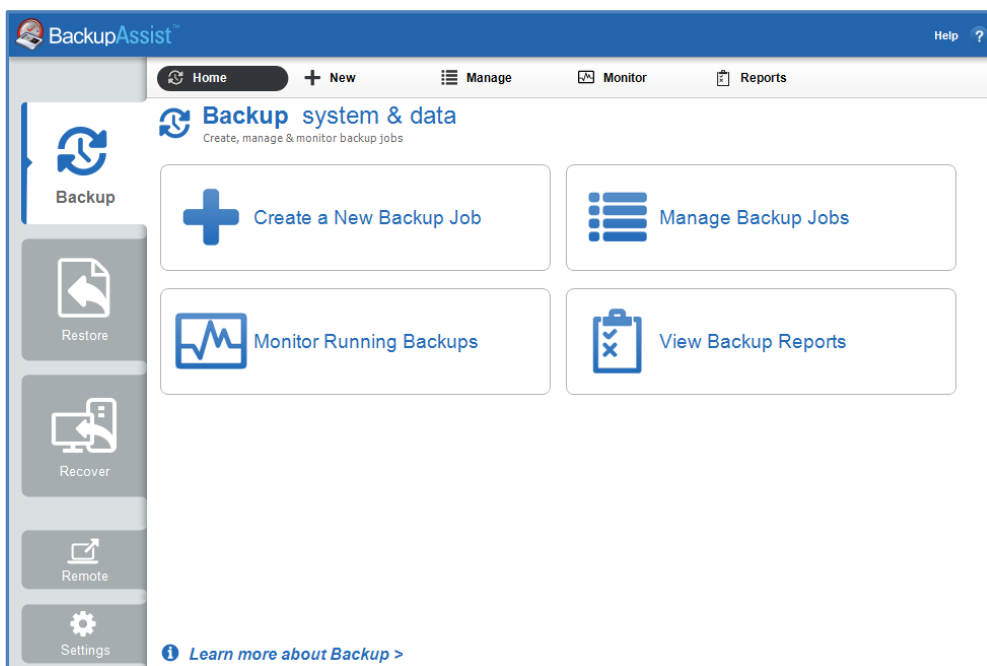

Figure 1: BackupAssist Backup tab

2. Create a New Backup

The *New* menu will open the *Create a new backup job* screen. There are 5 types of backups to choose from, and a description of each type is provided below. All of these backup types are administered using the *Manage*, *Monitor* and *Reports* menus.

BackupAssist is VSS-aware, so File Protection, File Archiving and System Protection backups can detect and backup Volume Snapshot Service (VSS) applications such as Exchange, SQL and SharePoint.

- **System Protection**

  This feature creates an image backup that can be used to restore files and applications. Depending on the data selection made, it can also be used to perform a bare-metal recovery, when used with a bootable media created using RecoverAssist. System Protection backups apply to installations of BackupAssist on Windows 2008 or later machines. Older versions of Windows will use NTBackup.

- **File Protection**

  This feature backs up data using file replication and includes support for Rsync, a technology that can back up data to a host across the internet. Rsync requires the *BackupAssist for Rsync Add-on*.

- **File Archiving**

  This feature compresses data as it is backed up and saves it as a ZIP file. This saves space and allows for the use of encryption and password protection on the archive file. The feature includes the ability to back up to tape media, which requires an add-on license.

- **Exchange Mailbox Protection**

  This feature backs up Exchange Mailboxes and public folders. It can detect Exchanges Servers in VSS environments and restore mailboxes, folders and individual mail items.

- **SQL Server Protection**

  This feature backs up SQL Server databases. These backups can be used to restore individual databases to a specific point in time, or an entire SQL server (including the Master Database). SQL Server Protection requires the *BackupAssist SQL Add-on*.
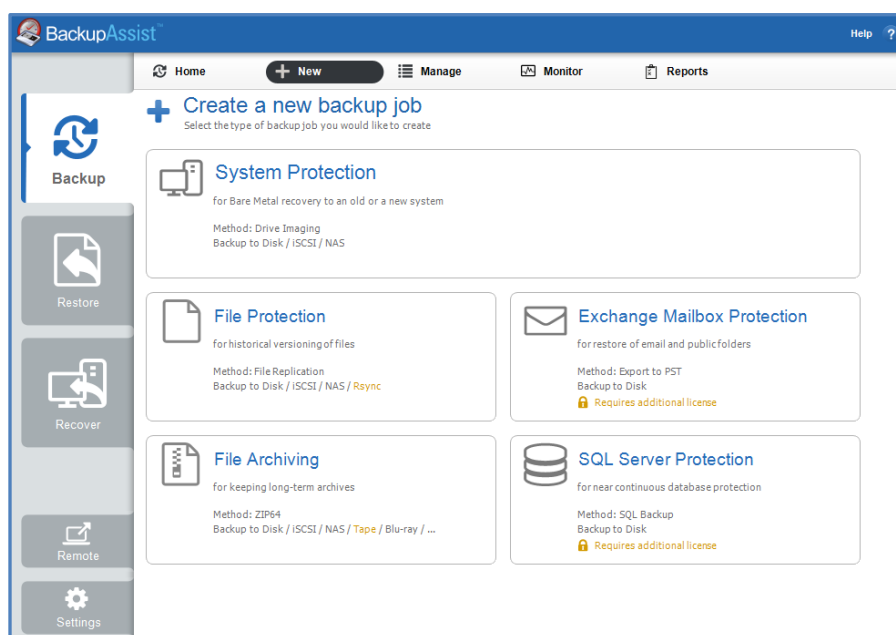

Figure 2: BackupAssist Backup tab – Create a new backup job screen

3. Manage backup jobs

The **Manage** menu is used to run and administer your backups. The options include configurations that are not available during the creation of the backup job.

When the **Manage** menu is selected, a list of all backup jobs will be displayed, along with the results of the last backup, when the backup started, its duration and if the backup job is currently active or disabled.

Figure 3: BackupAssist Backup tab – Manage screen

The **Manage** menu can be used to *Report*, *Run*, *Enable / Disable*, *Edit*, *Clone* and *Delete* the selected backup job. Below is a description of the main menu items:

- **Report** will open the most recent backup report for the selected backup job.

- **Run** will start the backup job. You will be prompted to *Rerun a past backup* or to *Run a future backup now*. If you select a future backup, you will be asked to provide the date. Once the backup has started, the screen will change to the *Monitor* view.

- **Clone** will create a copy of the backup job, and provide a field to enter a new name.

- **Edit** is used to change the backup job's configurations. The selections made during the creation of the backup job can be changed here.

    The *Manage* menu's *Edit* option is examined in detail in the next section, on page 5.

Manage jobs Edit screen

The *Edit* option gives you access to the backup configurations that were set during the creation of the backup job. It also gives access to additional configurations that were not available during the creation of the backup job.

1. Select the BackupAssist **Backup tab.**

2. Select **Manage** from the top menu.

3. Select the backup job, and click **Edit.** A list of configuration types will be displayed on the left pane.

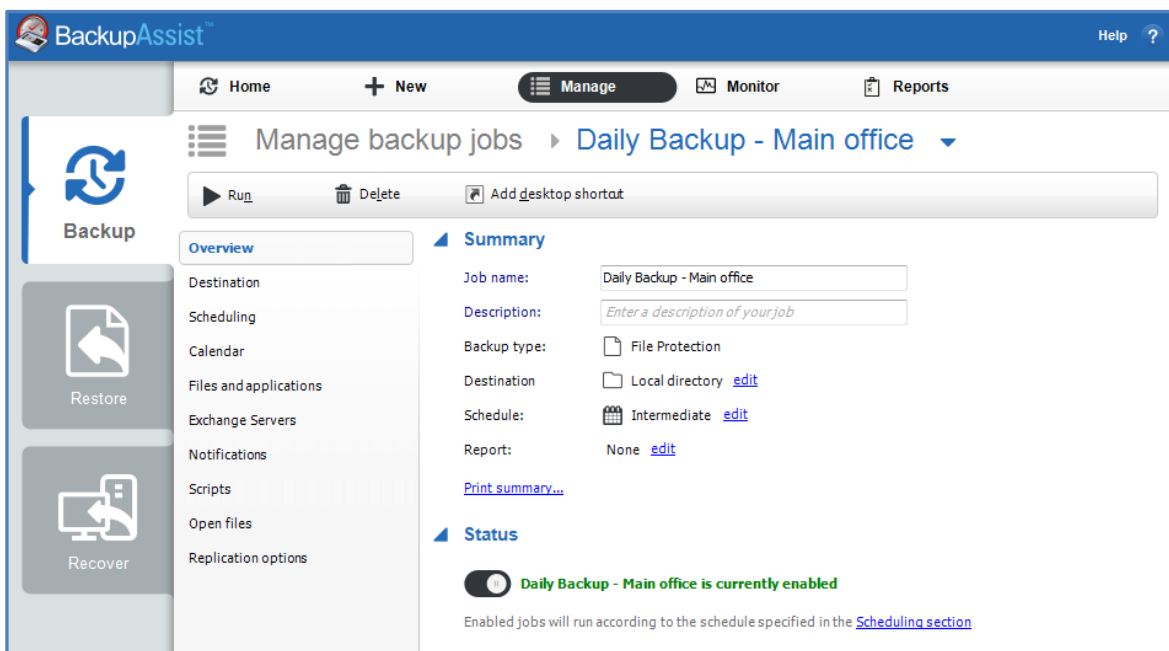4. Select the required configuration option, and the details of that selection will be displayed.

Figure 4: BackupAssist Manage menu – Edit option

Some configuration options are common to all backup jobs. Some configuration options are unique to the backup type (e.g. SQL Server Protection), and these are explained under the **Manage** section of each backup type's whitepaper. Below is a description of each standard configuration option:

Overview

This screen displays a summary of the backup job's settings, and the status of the job.

Destination

This screen displays the destination configurations that were defined during the destination stage of the backup job's creation. For SQL and Exchange Servers, it can be used to configure how the data is saved. For Rsync, it can be used to change the connection settings.

Calendar

This screen gives a month-by-month view of your current schedule, and it can be used to verify that the schedule is configured correctly. Different icons will appear on the calendar next to each back up day to indicate the back up method scheduled.

Scheduling

Scheduling will display the schedule that was selected during the creation of the backup job. At the top, the current scheme is shown, along with options to *Select a new schedule*. Some backup types also have a *Customize schedule* option.

Select a new schedule. This will display the list popular, pre-configured backup schemes you chose from during the creation of your backup. You can select a different scheme using this option.

Customize schedule. This menu can be used to modify each job in your backup schedule. The customizations available will depend on the type of backup.

The steps below explain how to customize a schedule.

a. Select **Customize schedule** to open the customization window.

b. Use the drop-down list in the **Method** column to change the backup method for a single media.
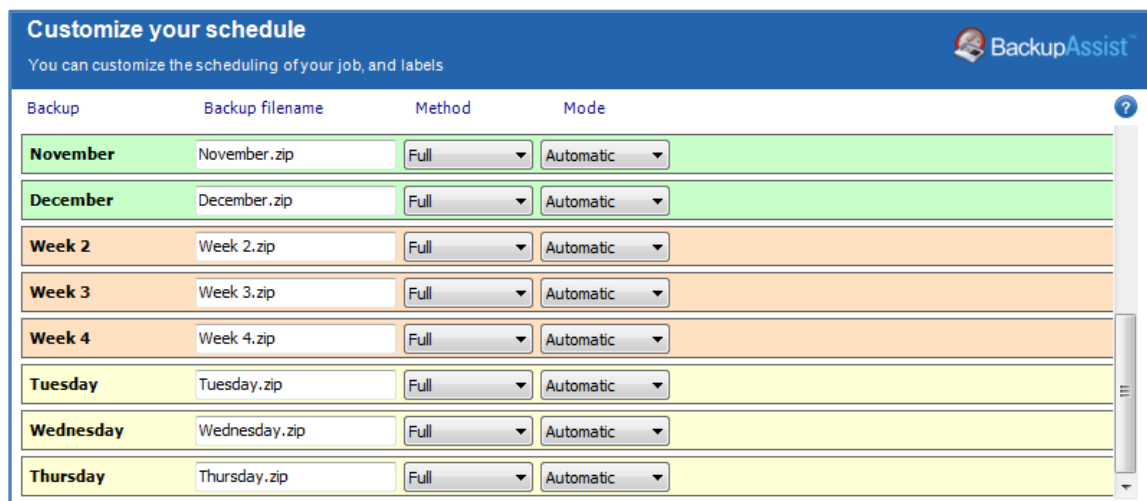

Figure 5: BackupAssist Manage menu – Edit Schedule screen

The following methodologies are available for some of the schedules:

- **Full** means all data selected is backed up and each file is marked as having been backed up (the archive bit is cleared). To restore all your data you only need the most recent *Full* backup.

- **Differential** means only data that has changed since the last full backup is copied to the backup device. Files are not marked as having been backed up. You will require the last *Full* backup as well as the last *Differential* backup to restore your data.

- **Incremental** means only data that has changed since the last backup is copied to the backup device. Files are marked as having been backed up. You will require the last *Full* backup as well as the **all** *Incremental* backups since the last *full* backup to perform a complete restore.

    Copy is the same as a *Full* backup except that files are not marked as having been backed up. Copy backups are useful if you have multiple jobs and need to back up certain files between *Full* and *Incremental* backup runs.

    Note: for File Protection backups, both method and mode will be fixed to automatic as it is configured by BackupAssist due to the technology used.

c. Once you have customized your schedule, click **OK** and then click **Apply changes**.

d. Select **Calendar** from the left menu to verify that your schedule is configured correctly.

Notifications

There are two types of notifications that can be configured for a backup job:

- **Report notifications**

  Once a backup has finished, BackupAssist can inform you of the result. You can receive reports for all backups that have completed or only for backups that have failed. Report notifications can be emails, printed reports or saved files.

- **Maintenance notifications**

  Some devices need regular maintenance, like tape cleaning and drive defragmentation. Maintenance notifications can remind you to perform these tasks. Maintenance notifications can only be sent as emails.

Before emails can be used for notifications, some configurations need to be made using the BackupAssist *Settings* tab. There are two items on this tab that apply to email notifications:

- **Email server settings**

  To send emails, BackupAssist needs an SMTP server. Use this menu item to enter the details of the SMTP mail server to be used for the email notifications.

- **Email address list**

  This option is used to define and store email addresses. This list will be used to populate the recipient list when configuring an email notification. Email addresses can also be added using the notification configuration wizard, and these addresses are automatically added to the *Email address list*.

The following steps describe how to set up and configure a notification.

1. Select **Notifications,** from the left pane.

2. Click **Add notification** for either:

   Report notifications, which will display the Email, Printing and File notification options.

   Maintenance notifications, which will display the Email notification option.
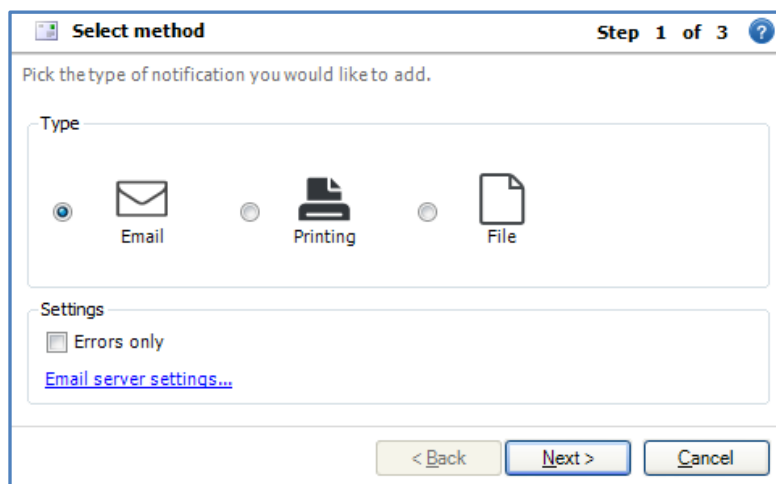
Figure 6: Notification method selection – Report notifications

3. Select **Email**, **Printing** or **File** for the notification type.

4. Configure the notification

The instructions below are for the configuration of each notification type:

- **Email**

  BackupAssist can use your email server to send notifications to any number of recipients. The SMTP server to be used must be entered into the BackupAssist *setting* tab item, *Email server settings*.

  a. Select **Email**, and click **Next**.

  b. Create a subject line for the report. You can use custom variables to have a dynamic subject line, such as the job name, the status of the job and the date. The window will present the format, %JOB_NAME% : %STATUS%. Custom variables can be selected from the list. Click next.

  c. Specify the recipients for the backup report.
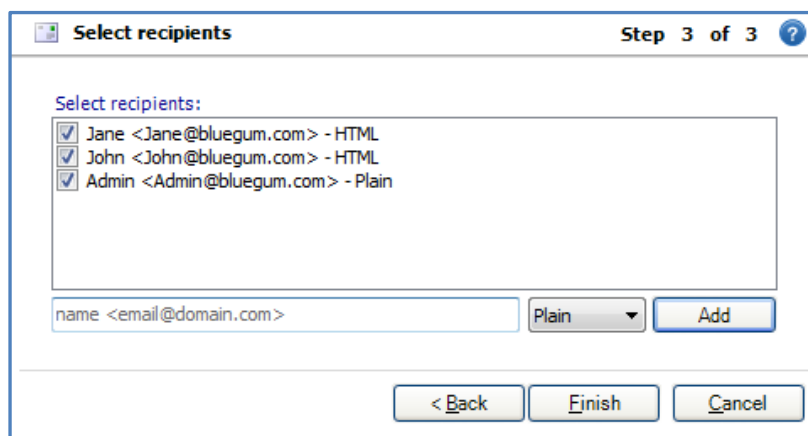
Figure 7: Backup notification configuration – email recipient selection

  You can select email recipients for this backup report, using the list provided. This list is taken from the *Email address list*, option in the BackupAssist *Settings* tab. The *Select recipients* window can also be used to add new email addresses.

- **Printing**

  Reports can be sent to a printer to provide you with a hardcopy of the backup result. The printer must be set up in Windows under Control Panel > Printers & Faxes.

  Be sure the Backup User Identity (BUI) has the printer defined and accessible. When defining a job under another user, a printer may show up but not when the job is executed under the BUI, unless it is defined.

  Select the printer(s) you want to print to.

- **File**

  BackupAssist can export the report as a file. This can be useful for servers that may not have email or printer access. You can export the file to a directory for later access or for the purpose of archiving.

  a. Set your file name. You can use custom variables to have a dynamic subject line, such as the job name, the status of the job and the date. Similar to "Email: Step b)"

  b. Specify the location for the file to be saved to. You can also specify the format the file is saved in: HTML or Text.

5. Click Finish, once the notification type has been configured.

Scripts

Most users should be able to use BackupAssist without adding custom scripts. The software was designed to include all the options needed to set up a best-practice backup strategy. Before adding custom scripts, please check the options in the console and the help files. It could be the case that the function you require is already available elsewhere in the program. Where possible, you should use inbuilt options rather than custom scripts. If you think your requirement is common enough that it should be in the program, please send us an email at support@backupassist.com.

Some users will have requirements specific to their backup strategy. For those users we have provided the ability to add custom scripts to BackupAssist. Custom scripts can be used for a number of purposes: to copy or compress backup files, to integrate with command line programs, to restart services, authenticate to remote machines and deleting files from a directory

There are four separate sections for adding scripts to BackupAssist:

- **Before each backup** - This script runs before any other step of the backup. You can add scripts here for authenticating to network resources, setting up backup folders or suspending programs that could interfere with the backup, such as anti-virus applications.

- **After each backup** - This script runs after all the other steps in the backup process have been completed. You can add scripts here to disconnect from network resources, restart any programs that were previously suspended, or to perform any number of post-backup operations.

- **After each successful backup** - This script runs before the 'After each backup' script, but only if the backup completed successfully. You can enter commands here that you only want executed if the backup succeeded, such as copying the backup file to another location, or compressing the backup file.

- **After each failed backup** - This script runs just before the 'After each backup' script, but only if the backup fails to complete. This is useful if you want to send a network broadcast alerting someone quickly to a failed backup, or to clean-up folders and quarantine failed backups.
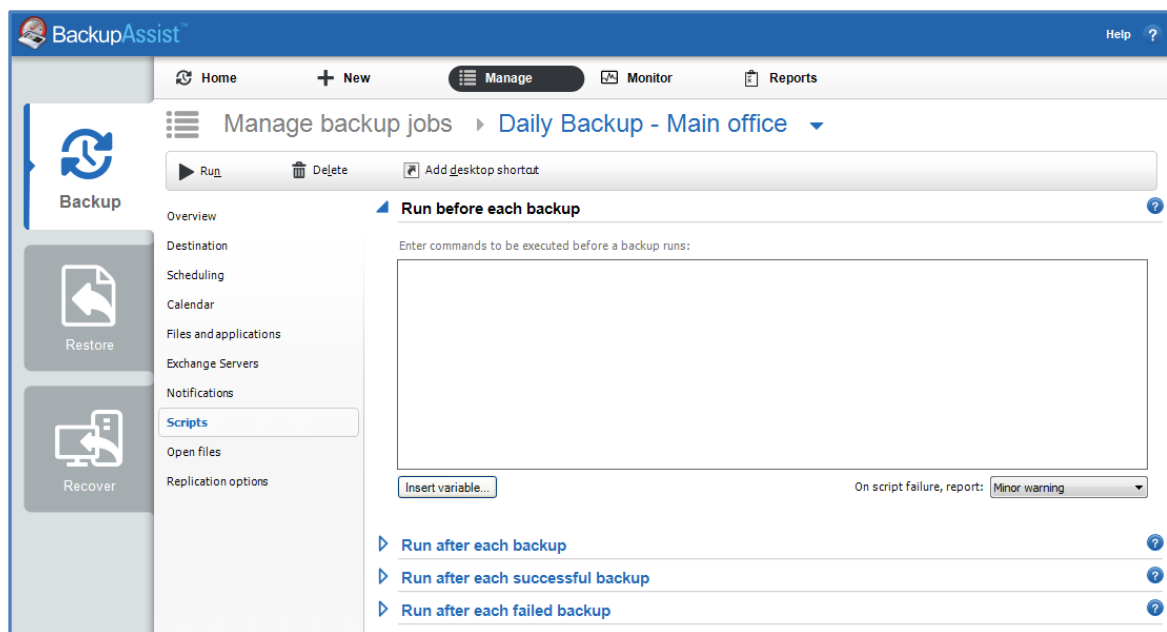

Figure 8: Manage jobs menu – scripts screen

BackupAssist also offers users a number of environment variables that can easily be incorporated into scripts. These variables help you to powerfully customize backup scripts and perform different commands depending on conditional variables.

Scripts that are run before each backup can make use of any of the following variables:

- **COMPUTER_NAME** - the name of the computer performing the backup.
- **JOB_NAME** - the name of the backup job set in the 'Overview' section.
- **TIME** - the current time, e.g. '11:30:00 AM'.
- **DAY** - the day of the month, e.g. '12' for the twelfth day of the month.
- **MONTH** - the month of the year, e.g. '5' for May.
- **YEAR** - the year e.g. '2007'
- **DATE** - the date using your system's date format, e.g. '08/24/2007' for America.
- **FILE_DATE** - a file friendly year - month - day format for the date, e.g. '2007-08-24'.
- **FILE_TIME** - a file friendly 24 hour time format e.g. '15.09' for 9 minutes past 3pm.
- **WEEKDAY** - a short description of the current day of the week e.g. 'Mon'
- **BACKUP_LABEL** - the label that BackupAssist has given this backup; this does not necessarily match tape labels or filenames. E.g. 'Week 2', 'Monday' or 'Month 1'.
- **BACKUP_METHOD** - a variable describing whether the backup's is overwrite or append.
- **FREQUENCY_TYPE** - whether this is a monthly, weekly, yearly, quarterly or daily backup.
- **IS_MEDIA_CHANGE** - whether the media was to be changed before the backup.
- **EJECT_AFTER_BACKUP** - whether the media is to be ejected after the backup ('true' or 'false').
- **MEDIA_LABEL** - same as the backup label.
- **BACKUP_FILENAME** - the filename of the backup including the full path e.g. 'D:\Backups\Monday.bkf'

Scripts that are run after each backup can make use of the following variables:

- **BACKUP_SIZE -** the size of the backup in bytes.
- **RUN_LENGTH -** the amount of time the backup took to run.
- **STATUS -** whether the backup succeeded or failed.

You should typically test all scripts in a command prompt environment before entering them into your backup job's configuration

See the in-screen help option to scripting guidelines.

See the Custom scripting in BackupAssist QuickStart guide for examples of BackupAssist scripts.

4. Monitor live backups

The **Monitor** menu will display the details of a backup job running in real-time. It can also be used to view the progress information of completed backup jobs.

This is the default screen when a scheduled backup is run, or when a backup is run ad-hoc. The information is displayed in real-time and any checks, changes and error are displayed as they occur.
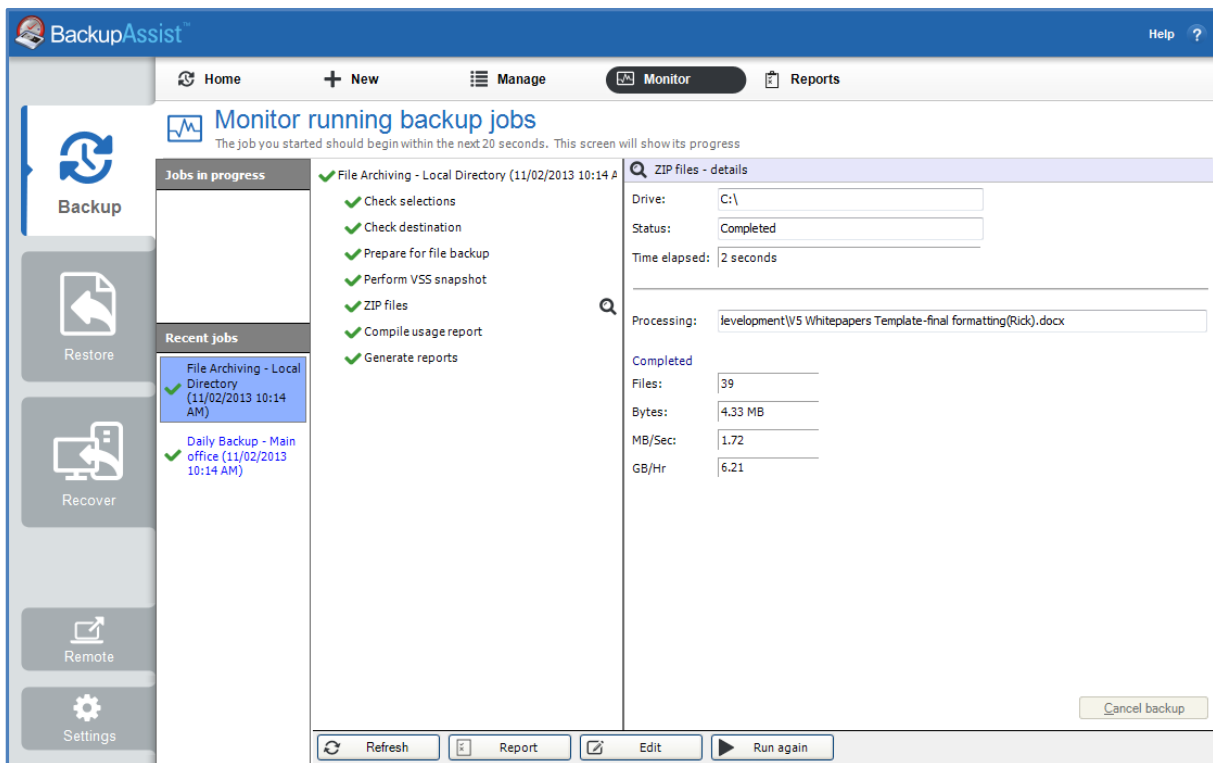
Figure 9: BackupAssist - Monitor Running Backup Jobs screen

Below is a description of each key function:

- **Jobs in Progress** will display the currently running backup. The progress of the backup will be displayed in the middle pane. If multiples jobs are scheduled to run on the same installation of BackupAssist, the jobs will be queued and run in the order they were submitted.

- **Recent jobs** will show the progress summary and the details summary that were created when the backup job was run. Once a backup job has completed, it will move to the recent jobs list.

- **Cancel backup** can be used to stop a backup that has started running.

- **The refresh button** can be used to update the information displayed. Although real-time progress is shown when a backup job runs, this option can force a display update.

5. View backup reports

When the **Reports** option is selected, a list of all the backup jobs that have run will be displayed. Double clicking on a backup job, will open the backup report.

These reports can also be sent as notifications, as explain in the notifications section. The backup report should be checked after each backup has been run, to verify that your job ran as intended.

The *Date*, *Name*, *Label*, *Computer* and *Status* columns can be used to sort the reports. The filter bars at the top can be used to filter the reports by month, day, job name, computer name and backup result.

Figure 10: BackupAssist Backup tab – Reports menu

The report will provide different information for different types of backup jobs, but all the reports will provide a summary, a detailed analysis of the process, a destination check and a description of any errors that occurred.

Below are two examples of the sections contained in a backup report.

6. Support and Resources

Contacting Technical Support

Should you have any questions regarding either BackupAssist or the Backup tab, please email support@backupassist.com and we will respond to you as soon as possible.

Similarly, if you have any suggestions for additional functionality in BackupAssist, or new products or add-ons, please also forward your feedback to support@backupassist.com

Learn more – The Welcome Screen

Each tab in BackupAssist includes a "Learn More" link on the tab's **Home** page.

Selecting the ***Learn more about Backup*** link will open the **Welcome Screen** with the Backup introduction selected. This screen provides an overview of the tab's functions and features, and links to documentation and resources.
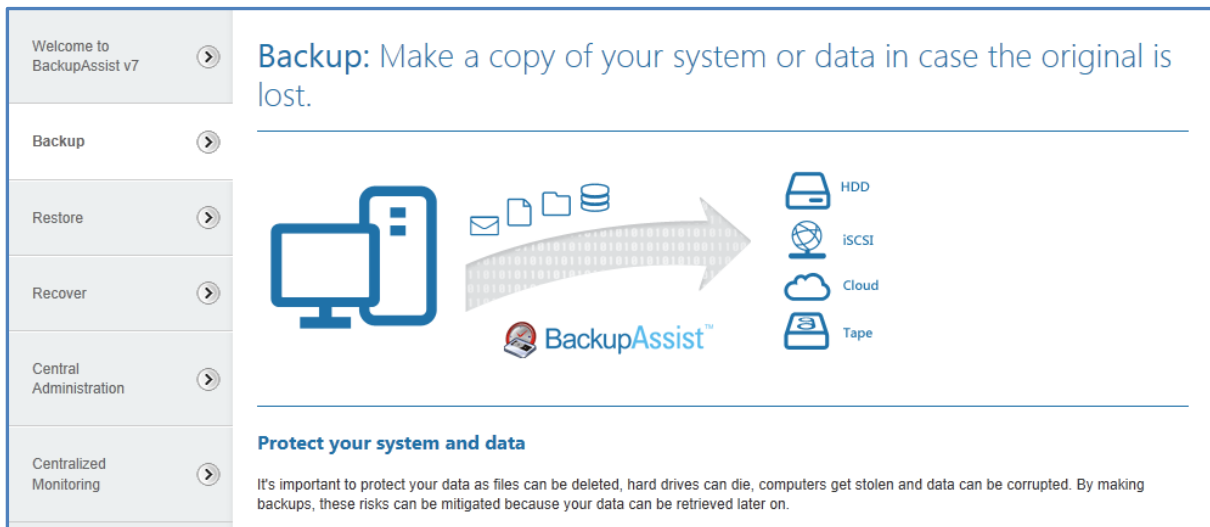
Figure 11: Backup tab – Welcome Screen