

Red Cell Desktop Backup



Backup Manager For Windows

V4.7 SP1 User Manual

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PREFACE

A new version of the RED CELL Desktop Backup Manager is released:

RED CELL Desktop Backup Manager Version 4.7 SP1.

Everything you need to know about V4.7 SP1 is explained in this manual.

RED CELL Backup Technology Team

1 PRODUCT OVERVIEW

The information stored on your PC workstation (laptop, desktop), is very valuable. Most of this data is irreplaceable and can contain treasured memories such as photographs, Banking statements and Accounts information. Making regular backups is extremely important, and it is the ability to recover data if something goes wrong, that really makes the difference!

RED CELL Backup Manager, in collaboration with our secure RED CELL Backup Server, fully automates the backup process. No manual intervention is required, and your data is available 24/7.

1.1 System Requirements

Hardware:

- Disk space: 10 MB
- Connectivity: any public Internet (DSL or better) or private IP connection

Operating Systems:

- Windows XP/Vista or 2000 Pro (RED CELL Backup Manager Workstation)
- Linux: Debian, Fedora Core 5, 6, 7, SuSe, Ubuntu
- Unix: FreeBSD 5.x/6.x
- Apple Mac: OS X 10.4, 10.5

Note: As there are many varieties and versions of both Linux and Unix, we cannot guarantee compatibility of RED CELL Backup Manager with all of them. Nevertheless we have experienced that the software works very well on most recent Linux/Unix releases.

A full compatibility list is available on the RED CELL Backup Support portal.

1.2 Security

When RED CELL Backup Manager is used over public Internet connections, the issue of security becomes apparent. It is important to notice that all traffic is originated on the client side and hence your firewall only needs to allow outgoing and ingoing traffic on port **5315**.

1.3 Connectivity

With the limited speed of remote IP connections, one might wonder how it is possible to use them to transport large amounts of data to a remote backup server within a reasonable amount of time. In order to reduce the amount of time required for transporting the backup data and reducing the data volume that needs to be stored on the backup server, RED CELL deploys a proprietary technology, called Delta Blocking.

The Delta Blocking process scans all data files for changes since the previous backup on block-level and only sends the blocks that actually have changed to the backup server. While doing that, a journal is created, containing a full description of the contents of the backup set. If a data block has not changed, it is by definition already present on the backup server, and hence does not need to be sent again. In that case the journal entry refers to the 'old' block that has been sent to the backup server in an earlier backup session.

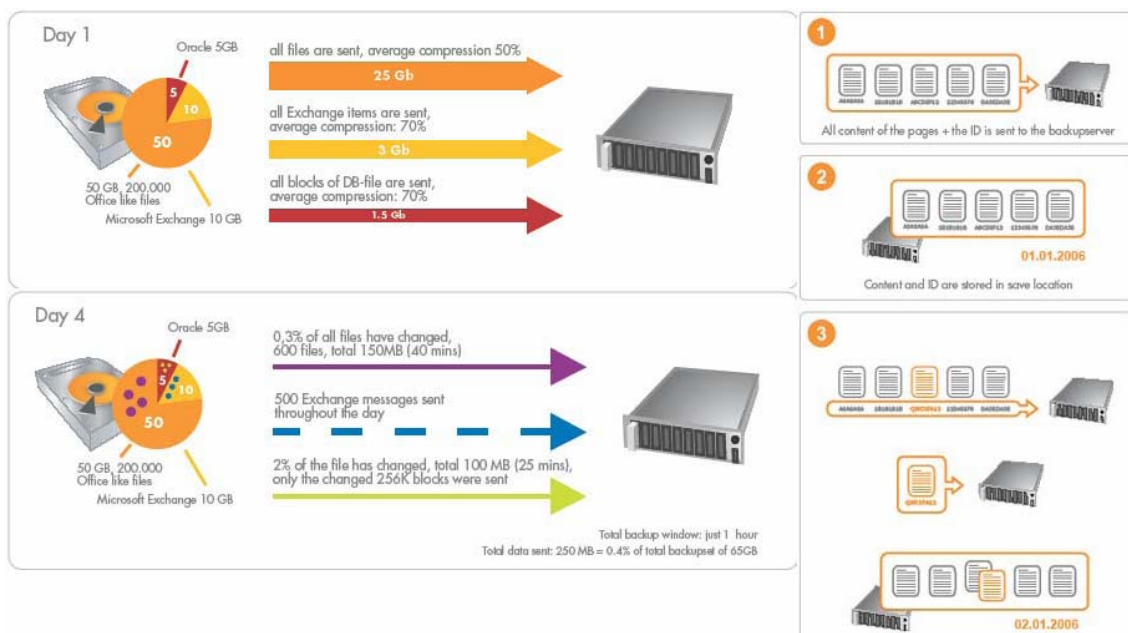


Figure 1 Delta-blocking with journaling reduces data volume dramatically

1.31 Backup Window

The Backup Window is defined as the time available to make the backup. Normally you would like to perform the backup outside of working hours, because making backups hampers the system performance and may require that certain applications have to be shut down. Backups are therefore usually scheduled during the night, when the normal application usage is at its minimum.

Although the RED CELL Backup solution does not require all data to be sent to the backup server, the question remains how much time it will take. To answer this question we have to distinguish between the first or initial backup, and every other consecutive backup.

1.32 Initial Backup

In principle all initial backups require all selected data to be sent to the backup server. This might not be true in corporate environments, where duplicate data from various systems might already be on the backup server, when an initial backup is made. But generally speaking the initial backup does require a relatively large volume of data to be sent to the backup server.

The RED CELL Backup Manager software does perform data compression to reduce the physical size of the data, before it is sent to the backup server. The amount of reduction that is achieved depends on the type of data. Text files, Office documents and database files are in most cases very compressible, but graphic data are not compressed. Of course the line speed is an important determining factor for the amount of time required to send the initial backup to the backup server.

1.33 Daily Backup

The daily delta blocking backup, which only sends the actual changes since the previous backup session to the backup server, is usually limited between 0,1% and 1,0% of the volume of the total data set. Hence a daily backup of, for instance, a 50 GB dataset requires anything between 50 MB and 500 MB to be transported and stored daily. There is probably a problem with your data set, if your daily backup is significantly larger than 1%. See the chapter on Troubleshooting for more information.

1.4 Application Support & Open Files

The RED CELL Backup Manager software supports all data file formats that are supported by your Operating System, in their native mode.

Have a look at the RED CELL Support pages on for more information.

1.41 Open Files

Running applications keep their files open in an exclusive mode, which means they cannot be opened by another application, such as RED CELL Backup Manager. In such a situation the Backup Manager software skips the file and generates an error message, which can be found in the daily Report. Microsoft has however created a possibility to access open files, using Volume Shadow-copy Services (VSS) under Windows XP/Vista and 2003. If your system has VSS configured (see Advanced Features), the most recent shadow-copy of an open file will be included in the backup.

2 INSTALLATION AND CONFIGURATION

The **RED CELL** Desktop Backup Manager software is distributed on a CD or from the portal on www.redcellsolutions.co.uk. The CD or download consists of a so-called bootstrap file, which is basically an executable containing the minimal software code required to download the most recent version of the **RED CELL** Backup Manager for your backup server, from one of RED Cell's update servers.

In order to successfully install the **RED CELL** Backup Manager software, you need three pieces of information:

- The BSP code (BSP = RCS0307)
- The User Name for your backup account
- The Password for your backup account

You have to choose your own encryption key. Without this key, you cannot access your data!

2.1 Setup Wizard

The basic installation is performed using a Setup Wizard that takes you through the installation process in just a few minutes.



Step 1 Enter BSP code and select language Red Cell BSP Code is **RCS0307**

After entering your BSP Code (RCS0307), the server specific settings and the most recent version of the **RED CELL** Backup Manager software are downloaded to your system. The default language for the application is the language of your Operating System.

Note: You can use the account information only one time on a single machine!!!
If you use the code more than once you can't make a restore.



Step 2 Choose destination folder

The software can be installed in any directory on a local drive on your machine.



Step 3 Username and password Step



2.2 Enter the encryption key.

The Encryption Key requires special attention. The key can be any word or sentence of your choosing and is used when the encryption algorithm encrypts your files to keep your data confidential. Without the key, no one can access your data. So the challenge is to use a key word that you can remember, but that no one else knows or can guess.

In case you are trying to use the encryption key that you have already used in the previous installation process, you will be notified about this and asked if you would like to override it (this can happen only if you are reinstalling the application).



Note: Keep your encryption key safe. If you lose your key, your data gets lost.

Not even the developers of the software can access your data without that key!



Email Address for Reporting

RED CELL Backup Manager sends a daily report of the backup results for your machine, to an email address of your choice. Desktop V4.7 SP1 allows sending daily reports not only to one email address but also to multiple e-mail addresses.



Schedule your backup

You can schedule the backup on a fixed time of the day, or when the system shuts down, or simply choose both.



Folder and File setting

The Hot Folder option enables you to quickly select Favorites and My Documents folders from the Backup file-tree, as well as your Outlook or Outlook Express email boxes.

With the File Exclusion Filters you can limit the amount of backup data by automatically filtering certain types of data, such as multi-media files and temporary files.

RED CELL Backup Manager is now being installed and the installation process is completed.



2.3 Configuration

The most important step that needs to be executed now is the selection of the data that needs to be included in the backup.

At this place we would like to emphasize the importance of making the right choices. Selecting too much, unnecessary data, wastes space on the backup server and extends the backup window more than necessary. However, not selecting enough data is even more damaging. After all, one cannot restore what has not been backed up!

The right backup selection is dependent on your applications. If you are not sure which files to select, we highly recommend you to contact The Red Cell Support Team.

3 USER INTERFACE

The RED CELL Backup Manager User interface consists of three areas:

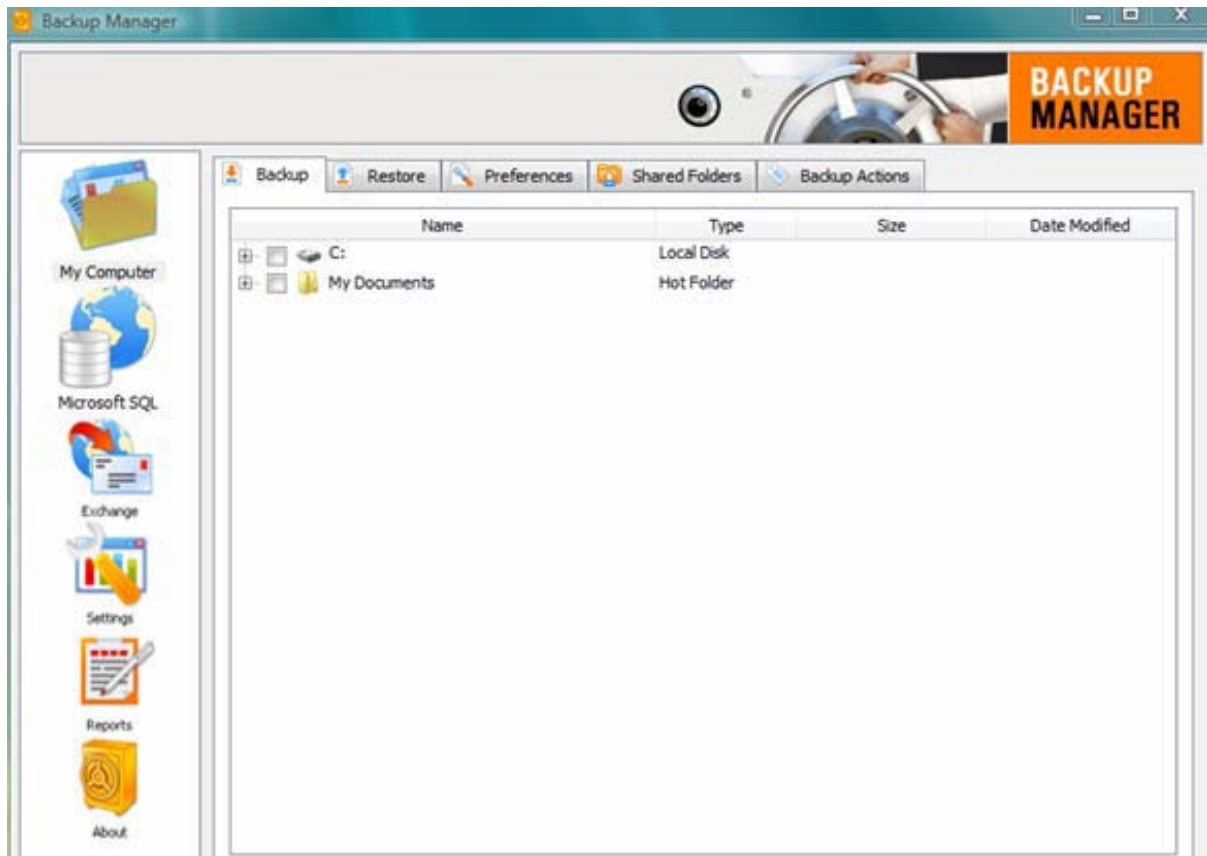


Figure 3 User Interface (NOTE – Exchange and SQL plug-in available on Server version only)

1. **The logo area**; the looks of this section depends on the settings of the backup server you are connected to.
2. **The application icons**; these icons enable you to navigate to the different parts of the application. The availability of icons here is depending on the licenses you have purchased.
3. **The main workspace**; the area where the actual program operations take place.

As you can see at the icons area, this specific installation of the RED CELL Backup Manager has the Application Support Module for the Microsoft SQL Server database server and Exchange Mail store Backup installed (Server

Version Only). When the module is not installed, the icon will not appear. Depending on the icon you select, the main workspace changes.

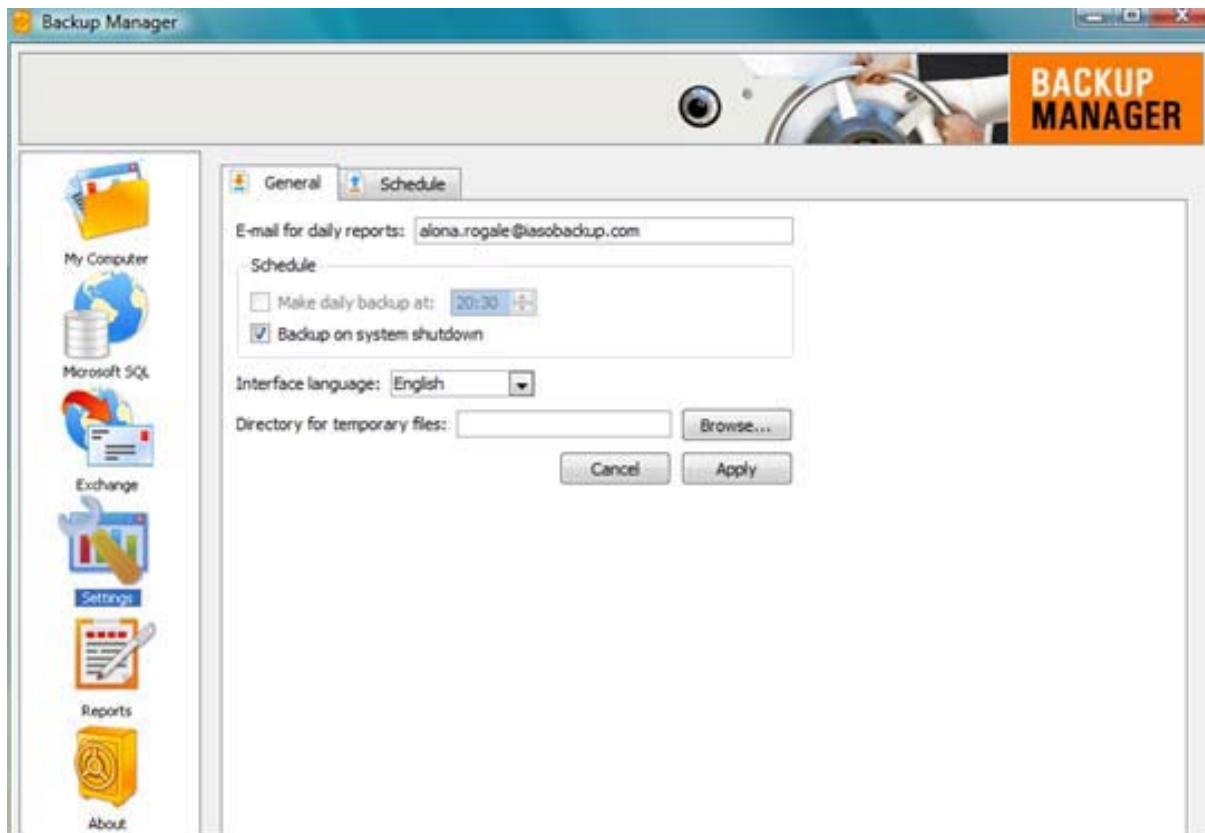


Figure 4 Workspace changes with selected icon

In this screen you will recognize some of the settings you made while running the Setup Wizard. Each part of the application, represented by its own icon, will be discussed in further details in the next chapters.

4 MY COMPUTER – FILE BACKUP AND RESTORE

The My Computer icon gives you access to the File Backup and Restore functionality of the application.

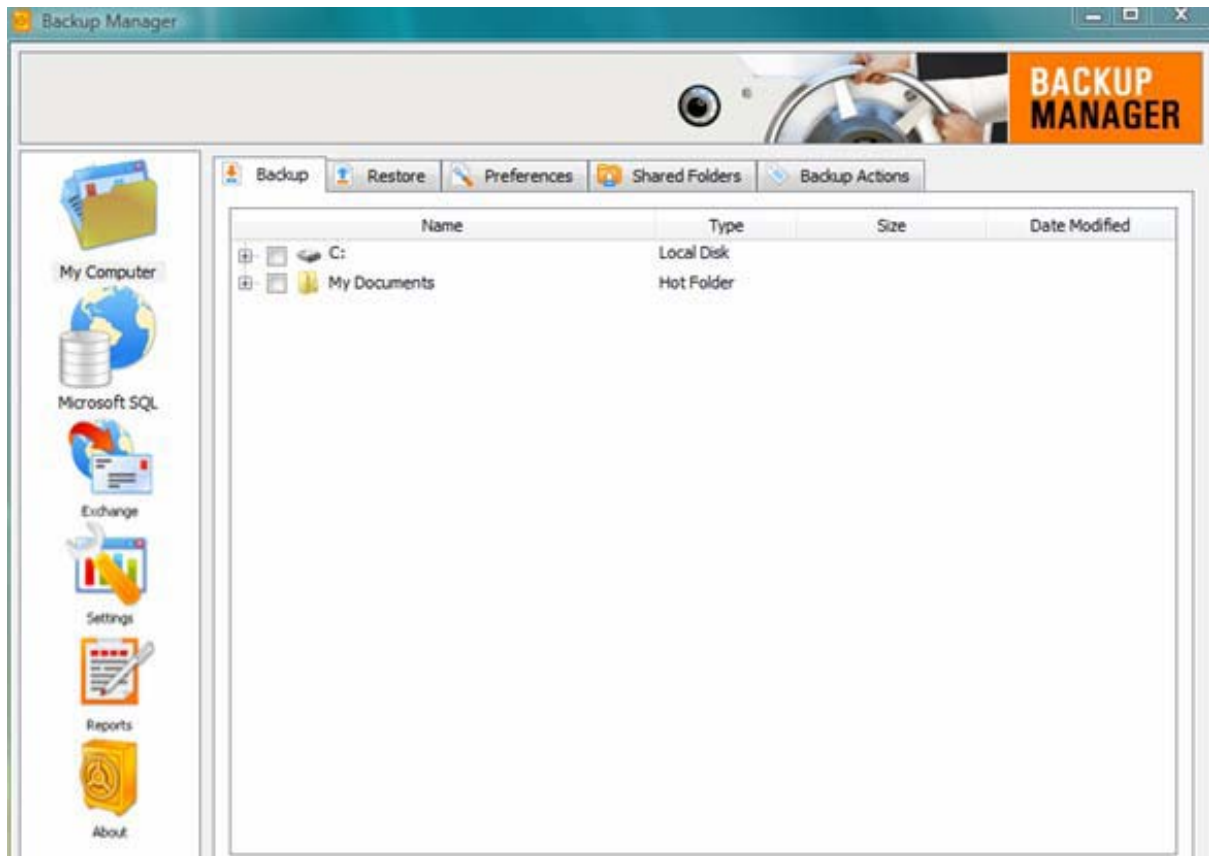


Figure 5 My Computer - File Backup & Restore

The main workspace displays five separate tabs:

- Backup
- Restore
- Preferences
- Shared Folders
- Backup Actions

4.1 Backup

In this area the backup selection is set. You should select all folders and files that need to be included in the backup.

A file tree is displayed, containing all local disk drives and hot folders. You have selected these hot folders during installation or via the Preferences tab.

You can easily expand and collapse the branches of the tree, by clicking the plus or minus signs displayed at the left. All items are displayed with their type.

For file items the size and last-modified date are specified in the Size and Date Modified columns.

To back up your data:

1. Mark the items that you want to backup by selecting the applicable check boxes next to the files, folders or whole drives in the tree.
2. Click Start Backup.

The backup will start immediately. Of course you do not need to start the backup process manually all the time or even the first time. During Installation you have already configured your backup schedule. The backup process will normally start automatically, either on a fixed time of the day, or when you shut down your system. During the backup process, the progress can be monitored:

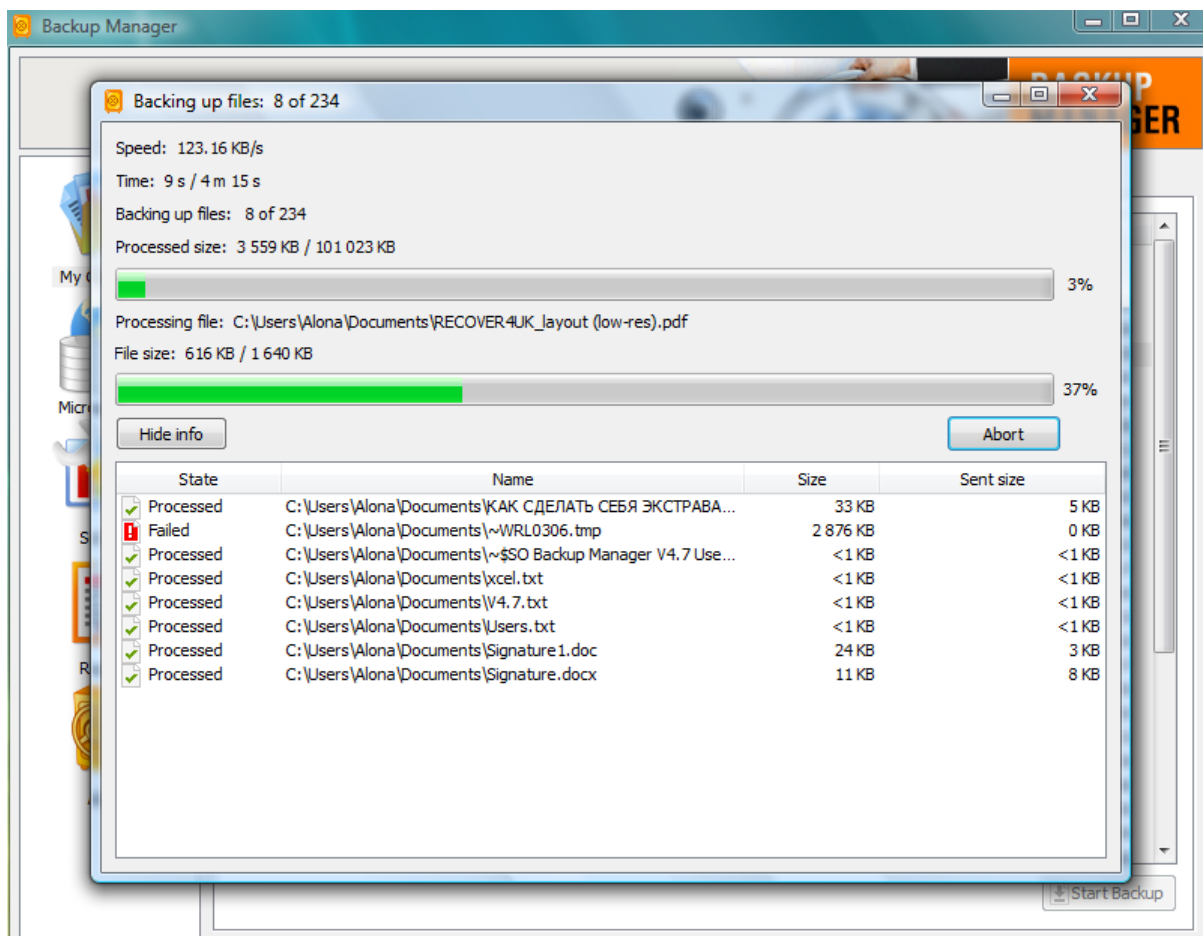


Figure 6 Running back up process

In Figure 6 you see on the second line a failed file. The details about the problem can be seen when you hover the mouse over this line. In this case the temporary file is in use, and the system gives no access to this file (VSS not installed, see above).

Clicking Abort can interrupt the running backup process. The Backup Manager Application window can be closed without interrupting the running backup; the backup will continue to operate in the background. It is not possible to reconnect with Backup Manager to see the progress again.

4.11 Selections

Clicking the selection boxes makes selections. Clicking between the plus/minus signs and the icons of the file and folder items.

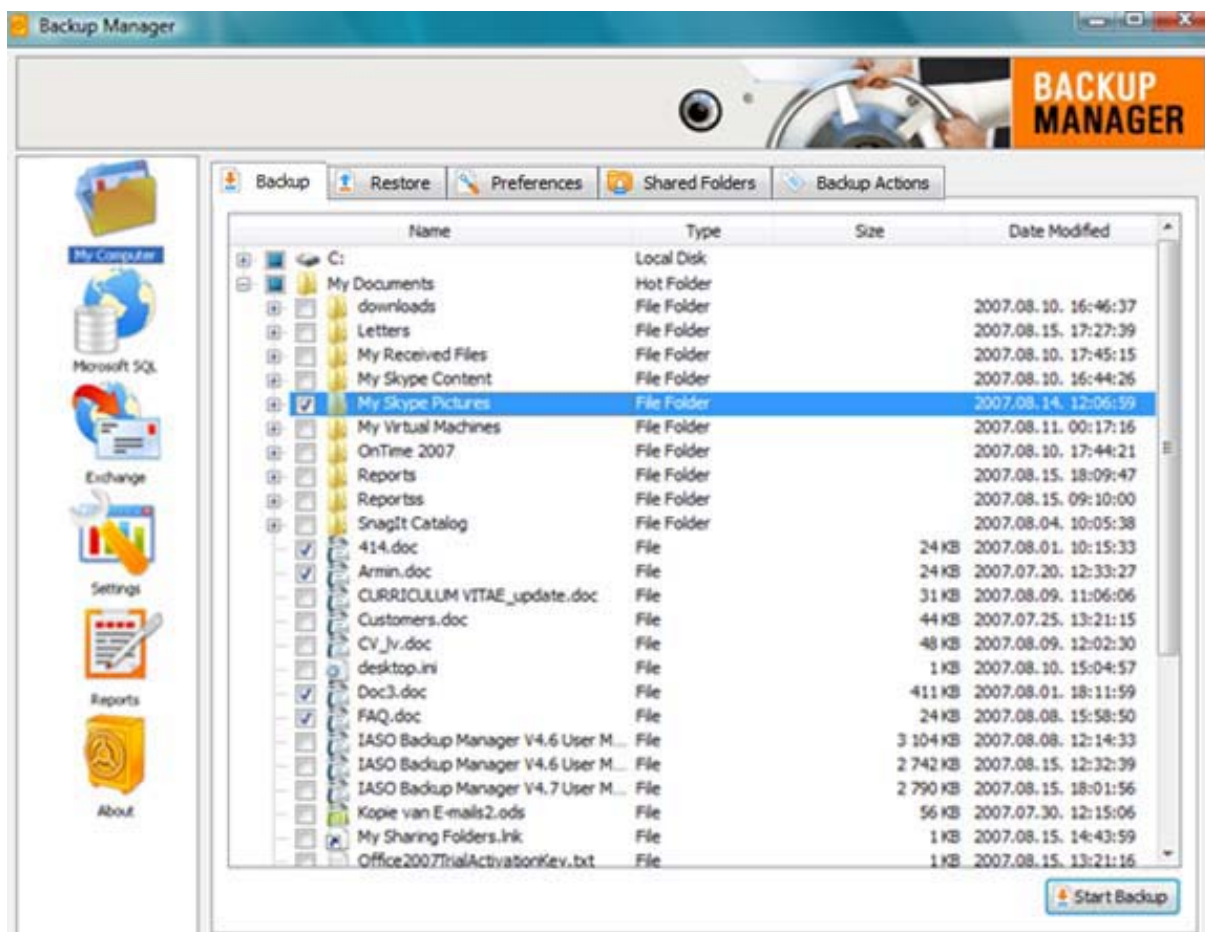


Figure 7 Selection screen

It is important to notice that there are two levels of selection:

1. An exclusive selection, indicated by the colour grey in the selection box
2. An inclusive selection, indicated by a white selection box

In an exclusive selection, underlying files and folders are not included in the selection, unless explicitly selected. For instance in the above selection, new files and folders under C: (root level) are not automatically included in the selection.

In an inclusive selection, all underlying files and folders are also selected for backup, unless they are explicitly excluded from the selection by un-checking their check box. In the above example, all files and folders under \\My Documents\\My Skype Pictures are included that way, and new files and folders under this subdirectory will be automatically included in the backup selection as well.

4.12 Hot Folders

Hot Folders, either created during the setup or on the My Computer - Preferences tab, are not automatically included in the backup selection. In order to in- or exclude the contents of the Hot Folders, check and uncheck the underlying items, in accordance with the description in the previous paragraph.

4.2 File Restore

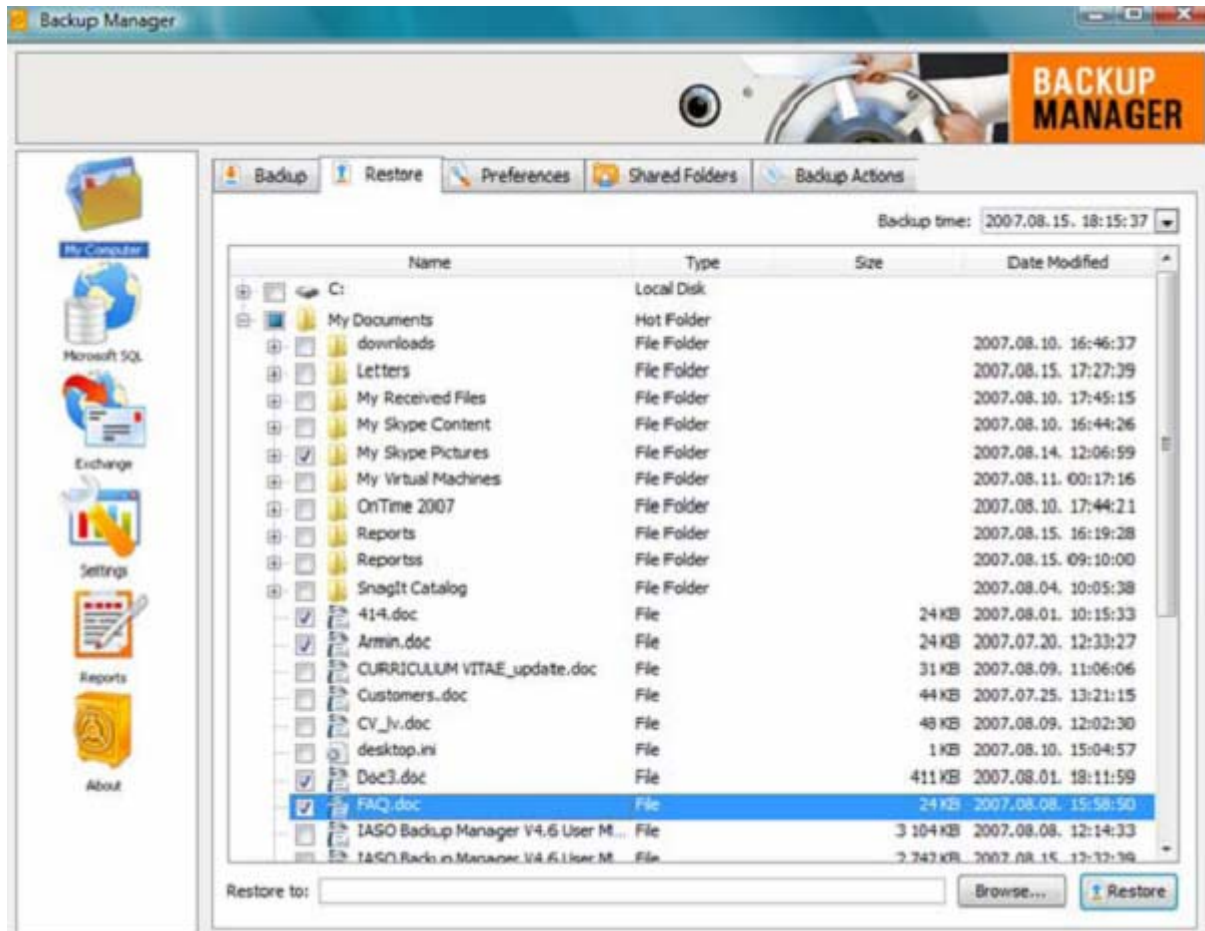


Figure 8 Restore window

After selecting the backup session from which you want to retrieve the data ("Backup time"), a file tree appears, containing all files and folders that were part of that backup session. Only successful backup sessions will be displayed in this list box. You can select the data you want to recover from this tree, by clicking in the selection boxes. If you just press Restore, all data will be restored to its original location. You need to be aware that restoring to the original location might result in newer data being overwritten by older versions. This might be what you want, but it can be quite dangerous, if you accidentally make errors with the selection of the files and folders for the restore operation. It is hence safer to select an alternative location for the restore in the "Restore to" box at the bottom of the Restore workspace. After clicking Restore, a progress window appears, until the operation is finished.

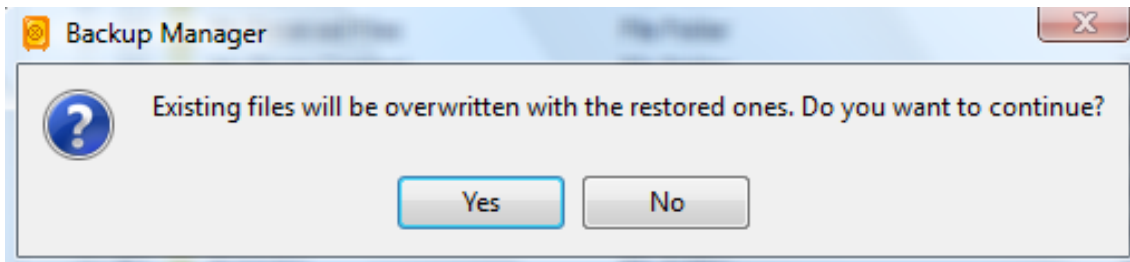


Figure 9 Restoring

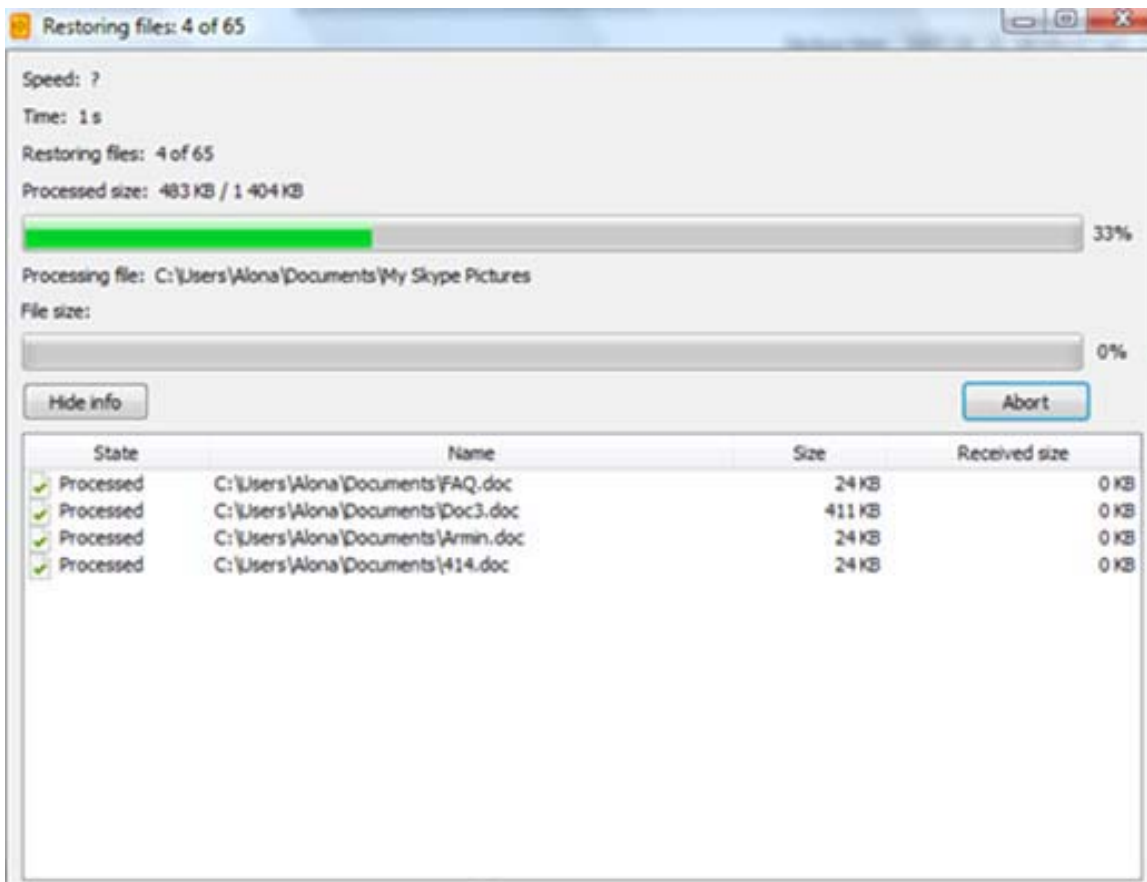


Figure 10 Restore in progress

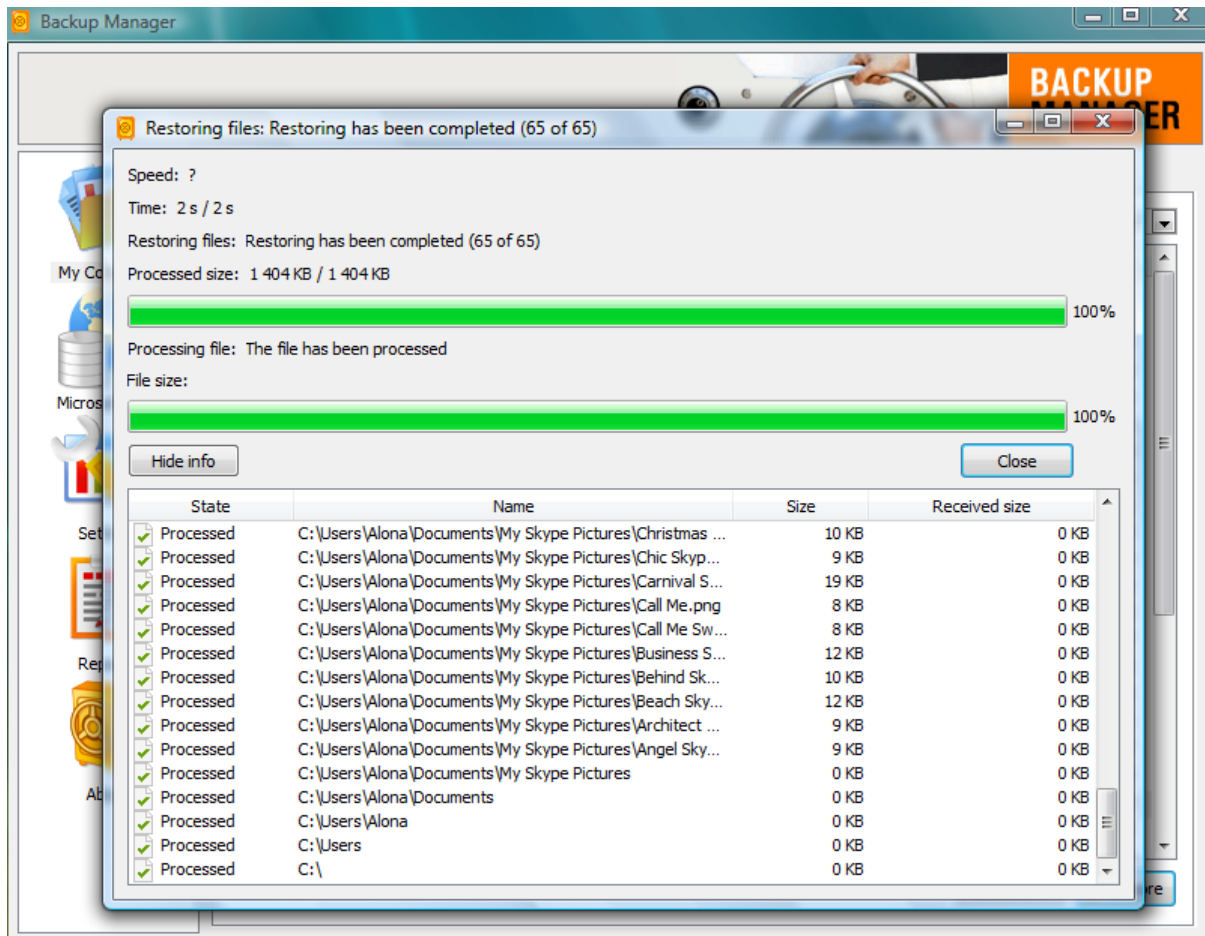


Figure 11 Restore completed

As you can see the restore is very fast. This is because RED CELL re-uses blocks if they are available on their original location. If they are not they are downloaded from the backup server at network speed. After completion of the restore process you can close the progress window and access your recovered files.

4.3 Preferences

In the My Computer – Preferences screen you can change the application setting with regards to files and folders.

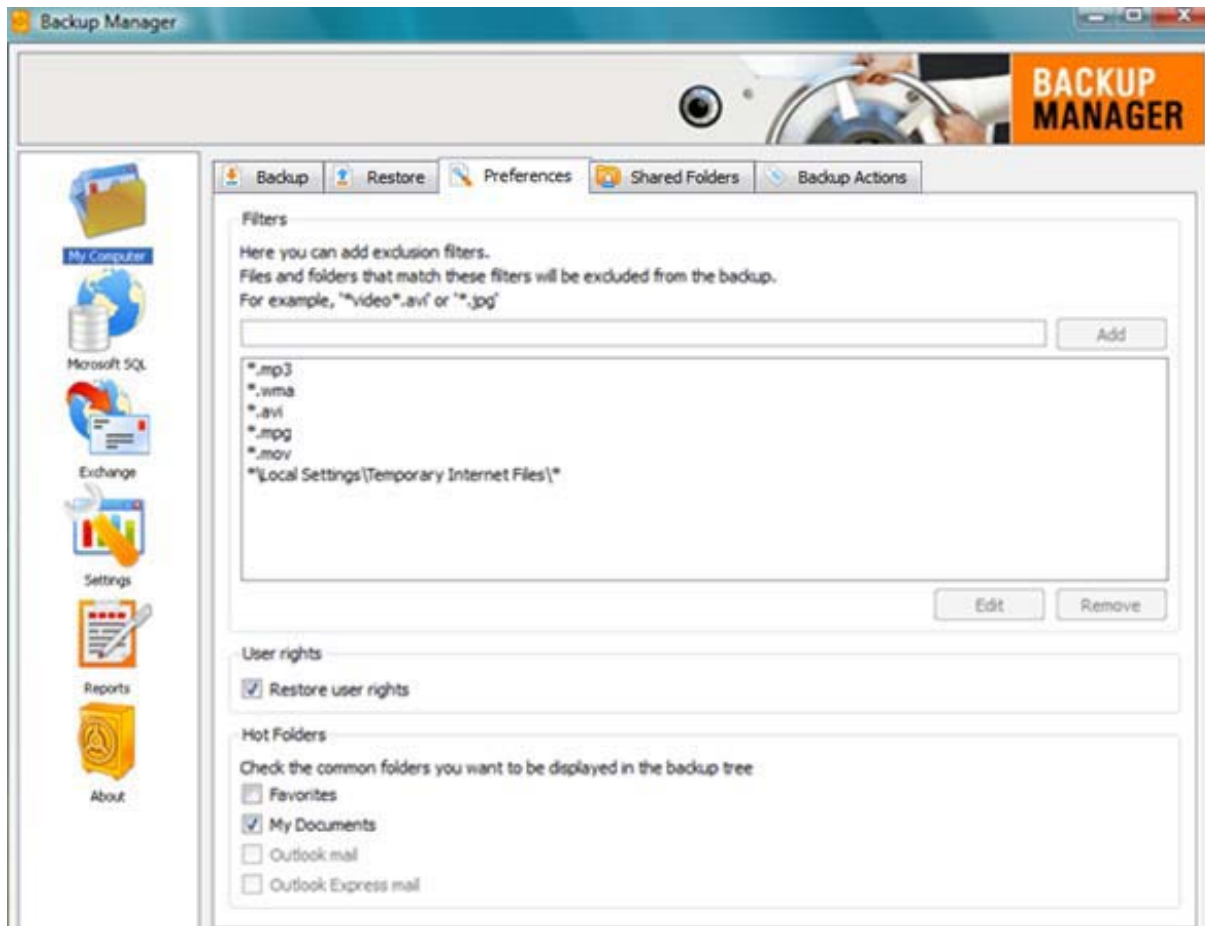


Figure 12 My Computer - Preferences screen

4.31 Filters

With the File Exclusion Filters you can limit the amount of backup data by automatically filtering certain types of data, such as multi-media files and temporary files. The Filter option under the My Computer – Preferences function enables you to create far more advanced filters than the ones you can set during installation, using the Setup Wizard.

To set an exclusion filter for a file or a group of files:

1. Enter the filter text into the field under the Filters caption
2. Select Add

The new filter will appear in the list of file exclusion filters and is applied to all future backups. To remove a filter, you just select it in the list and click Remove. Use wildcards * and ? for setting exclusion filters for files to match any string of characters or any single character in file names. See examples of the most common exclusion filters below and how to use wildcards.

Filter examples:

- c:\temp*: all files in the c:\temp folder and its subfolders will be excluded from the backup. The same result can be obtained with 'c:\temp\' or 'c:\temp*. *' filters.
- c:*.exe: all files of the EXE type (windows programs) on the c:\ drive will be excluded from the backup
- *.tmp: all files with temp extension will be excluded from the backup
- d:\photos*thumb*\: all files in any subfolders of the d:\photos folder with 'thumb' in their name, such as 'thumbnails', 'thumbs', 'thumbnail', etc. will be excluded from the backup
- d:\photos\thumb*.jpg: all files of the JPG type with names that begin with 'thumb' in the d:\photos folder and its subfolders will be excluded from the backup
- d:\photos\thumb?.jpg: all files of the JPG type with names that begin with 'thumb' and end with any character in the d:\photos folder and its subfolders will be excluded from the backup

This function is only available for Server editions of the RED CELL Backup Manager.

4.32 Hot Folders

The Hot folders area contains a list of a number of frequently used folders. Such folders (e.g. My Documents and mail folders) typically need to be included into the backup, and it is very convenient to have them on the top level of the tree presented in the Backup tab, for quick access. To ensure such quick access to the frequently used folders of your choice, select the appropriate check boxes to add them to the backup tree.

5 SETTINGS

The Settings screen enables you to change the global settings for the application.

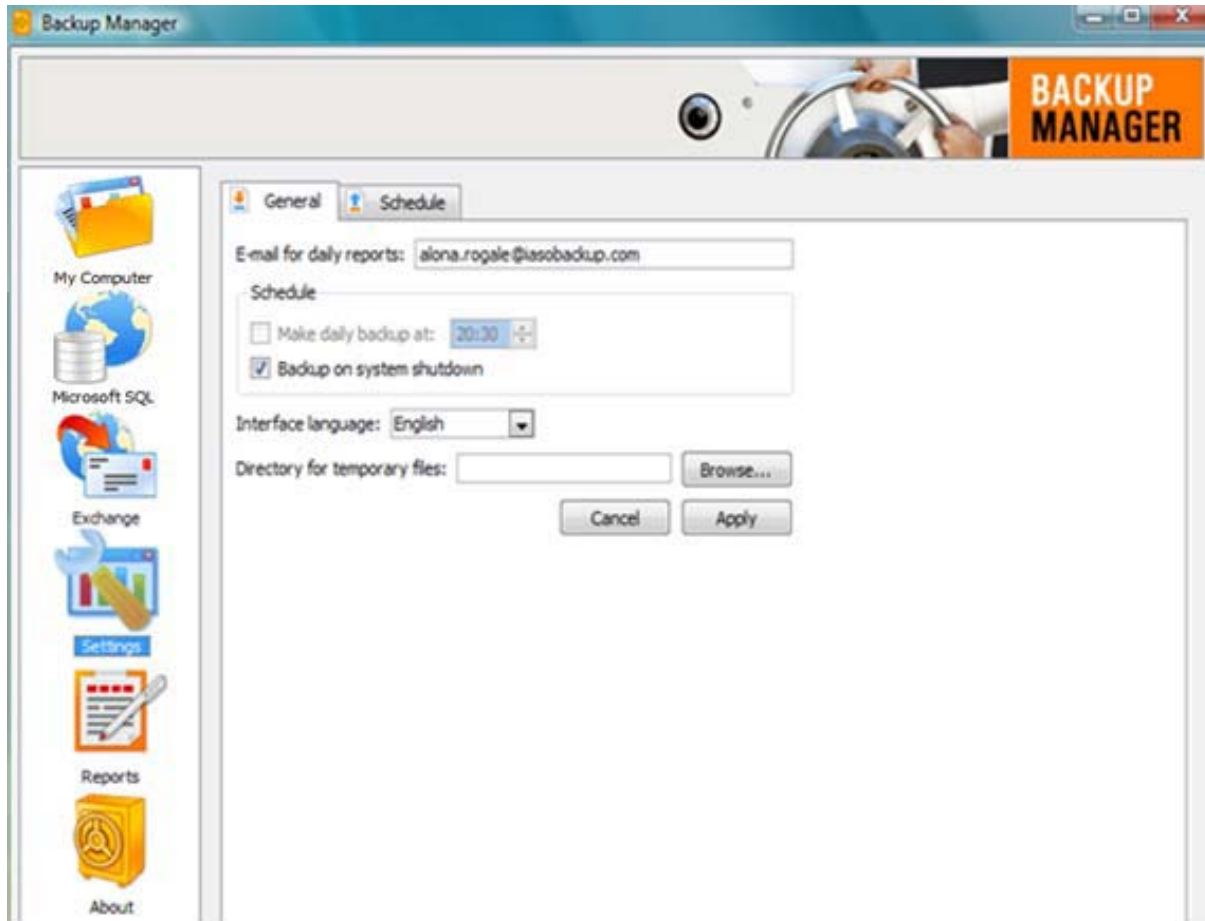


Figure 23 Settings page

5.1 Email address for daily reports

V4.7 allows entering several email addresses where the daily report for this backup client should be sent. Use the well-known format username1@domain.com; username2@domain.com; etc. email addresses should be separated with ";" sign.

5.2 Schedule

You can either schedule the backup to start on a fixed time of the day, or start the backup when you shut your system down. The last option is not possible with Windows Vista, due to changes made by Microsoft. You can also select both options, but this could mean that you would make multiple backups per day.

5.3 Interface language

You can change the language of the RED CELL Backup Manager User interface according to your preferences.

Currently the application is available in English, French, German, Dutch, Norwegian and Russian.

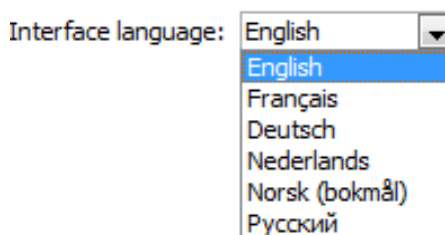


Figure 24 Language interface

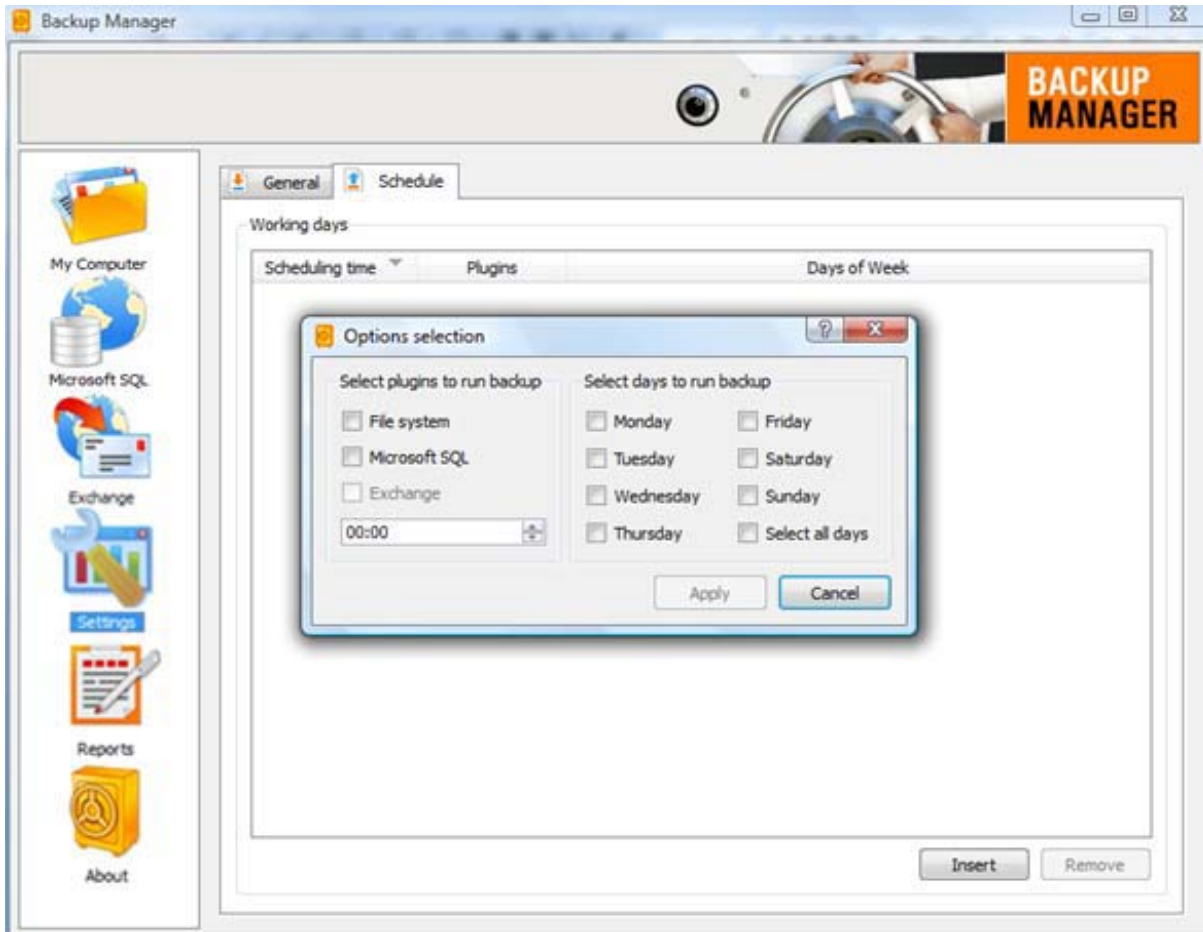
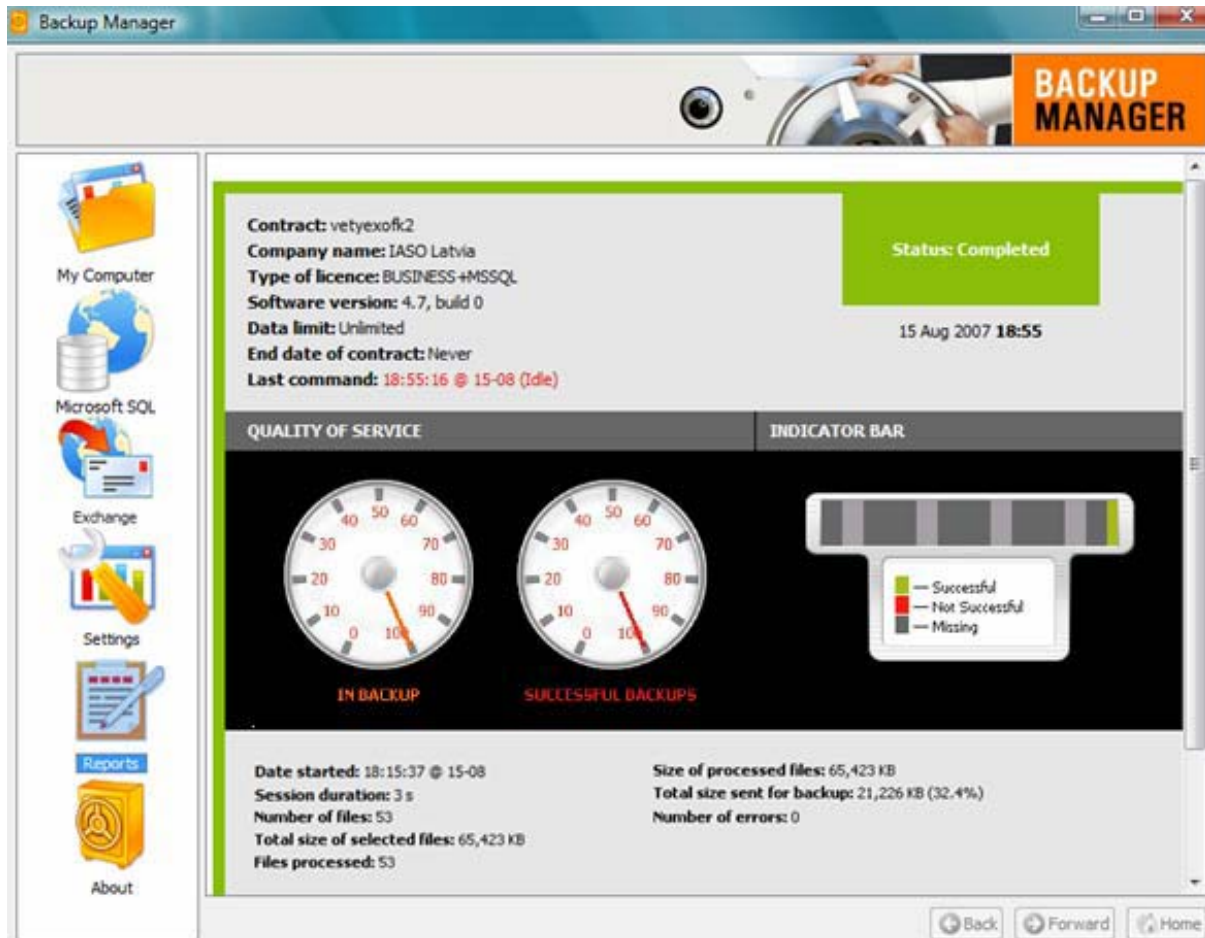


Figure 25 Settings – Advanced Scheduling page



6 REPORTING

To keep track of your backup results, the RED CELL Backup Server you are connecting to, sends a daily report to your email address, in the form of a dashboard. This dashboard is also accessible via the Reports icon in your Backup Manager application.

Note: It is important that the reporting is generated from the backup server side. If your client software for one reason or the other does not operate properly, you will still receive daily messages reporting your backup status.

This report contains a lot of information:

Contract: this is a code with reference information regarding your account on the backup server

Type of license: description of your license type

Software version: the software version you currently use

Data limit: the maximum amount of data you can select for backup purposes; this setting is recorded on the backup server side and cannot be changed by an individual user

End date of contract: if you are working with a Backup Service Provider on a subscription basis, this field indicates the end date of your contract

Last command: the last status of your backup software

Upgrade your contract: all contracts have certain expiry date. V4.7 allows to re-new your contract simply by clicking on 'Upgrade your contract' button that appears in Reports screen few days before your contract should expire. If you have signed up for our 14 day Trial you will be automatically billed or contacted by the Red Cell Backup Team so that you can continue using the software.

6.1 Quality of Service

Obviously with something as fundamental as backup, the quality of service you receive, either from RED CELL Backup Service Provider, or from your internal IT department operating your own RED CELL Backup Appliance, is essential.

The first indication of service quality is the colour of your report and the status message in the upper right corner of the dashboard.

If your report is green and the status message reads, "Completed", everything is working 'by the book'. Green means your last backup has been made no longer than 24 hours ago.

Orange means your backup is older than 24 hours but not older than 48hours. There might be several reasons why your backup is older than 24 hours, for instance because you are backing up a laptop, which is not used during the weekend.



A red dashboard and particularly a status message such as "IN PROGRESS" or "Failed" is a clear signal that something is wrong. Contact your system administrator or service provider, to clarify the situation.

A red dashboard and a status message "Abort" mean that you manually aborted the backup process.



V4.7 SP1 provides a new status "Limited". If you purchase a license that has Data Limit set, you can get into situation when data selected for backup exceeds the limitations. In that case your backup session succeeds and you will get red dashboard, status "Limited" for this session and a link to expand the Data Limit size for your contract.

Note: An initial backup session may take longer than 24 hours to complete, up to several days. In that case you will receive orange or red dashboards with an IN PROGRESS message, as long as the backup session is not completed.

The quality of service is presented in more details by the two dials: IN BACKUP and SUCCESSFUL BACKUPS.

IN BACKUP indicates the percentage of the selected files and folders that are actually included in the most recent backup session. Normally this should be 100%, or else an error has occurred, causing the application to skip certain files and/or folders.

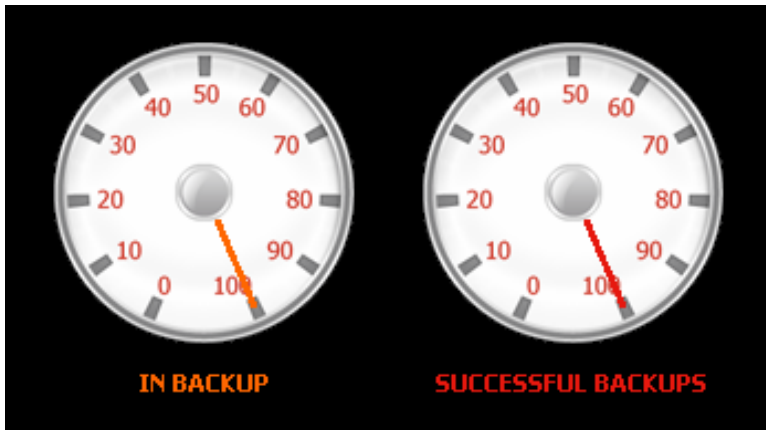


Figure 27a Part of dashboard

The percentage SUCCESSFUL BACKUPS should be 100% or at least close to that figure. This dial represents the percentage of successful backups in the past 4 weeks. If you do not run the backup on a daily basis, for instance because your laptop or desktop PC is not used during the weekend, this percentage will be lower.

The indicator bar provides a further indication of your backup service. This tool also displays the backup results of the past 4 weeks. The lighter portions of the bar are days in the weekend and the darker sections represent working days.

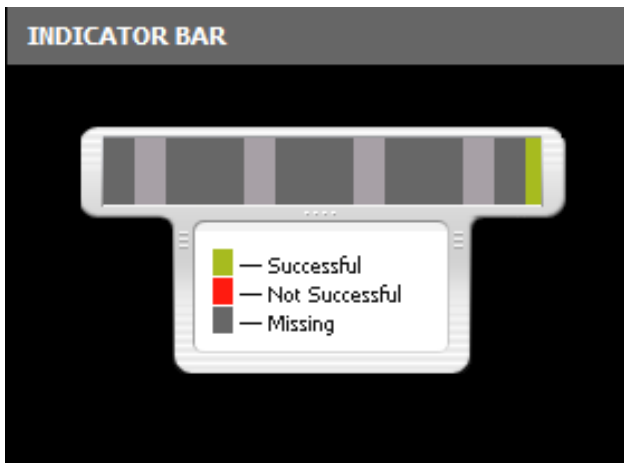


Figure 27b Part of the dashboard

The bottom part of the dashboard contains detailed information on the most recent backup session.

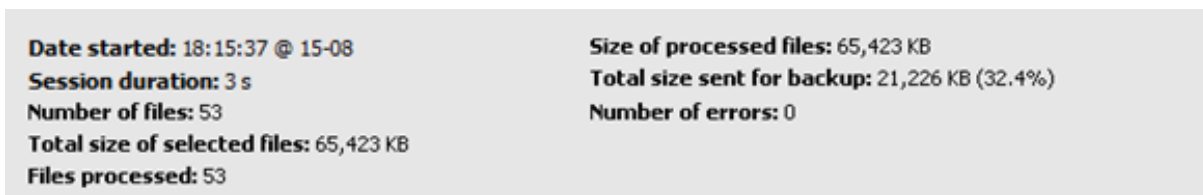


Figure 27c part of the dashboard

In this case we can see that the last backup session started at 18:15:37 on August 15th and the session took 3 seconds to complete. A total of 53 files, with a combined size of about 65 MB, were processed and 21MB or 32,4% of the selected files was sent to the backup server, with no errors. If there are errors to report, the number of errors becomes a Hyperlink to a web page, presented by the backup server, containing a description of the error(s).

Finally the Backup Summary link gives you access to an extensive overview of all your backup sessions. You can zoom in to more detailed information, by clicking the various links in the report. You can navigate through the reporting using the buttons at the right side at the bottom of the Reports screen.



Figure 28 Part of the reports screen

7 ABOUT

The about screen contains some more information about your license and subscription and enables you to manually install software updates, if available.

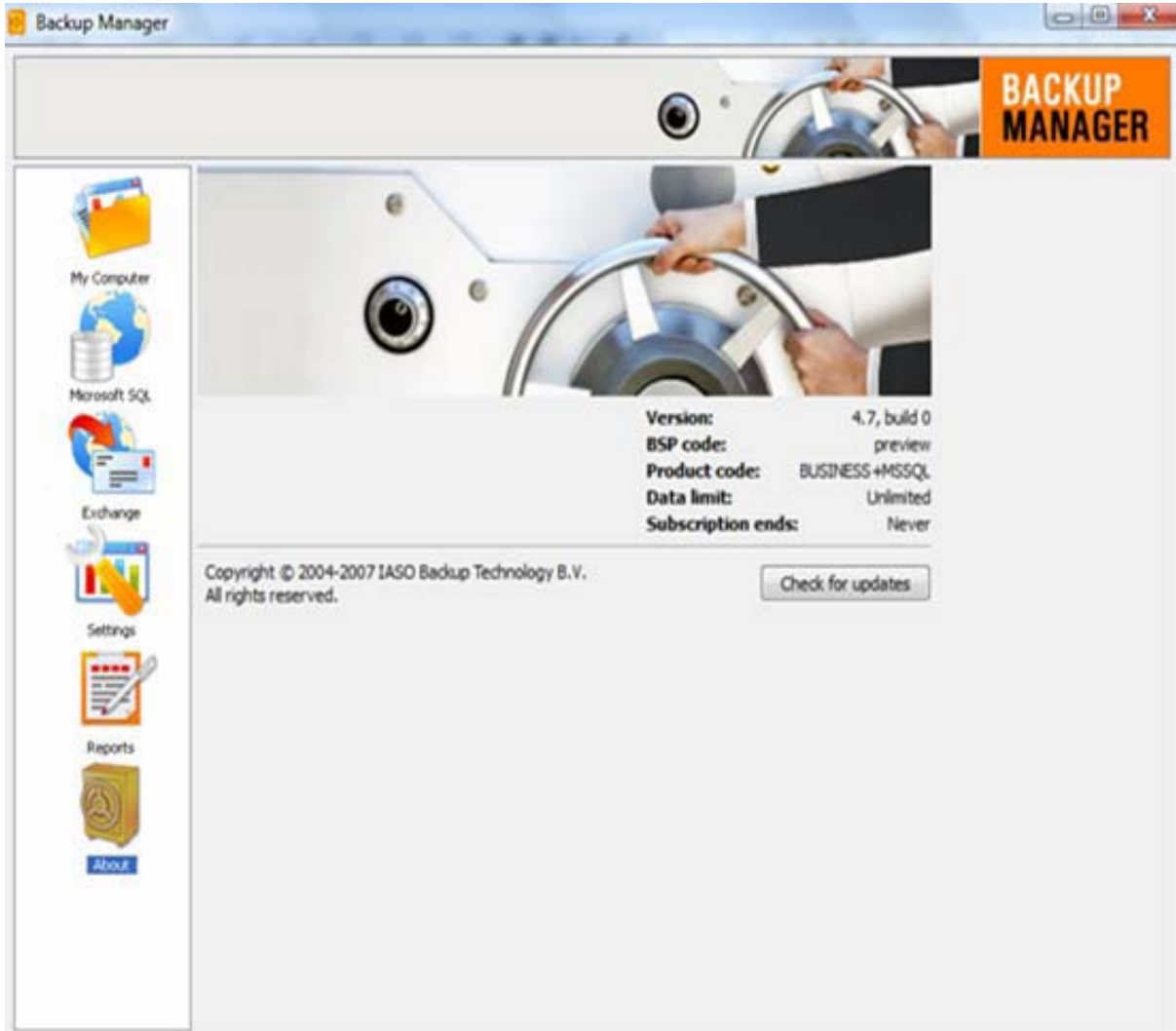


Figure 29 about screen

Click on the “Check for updates” button if you want to install an update. The update process runs completely automatic and upon completion your application will be updated to the most recent version available on your backup server.

<http://www.redcellsolutions.co.uk/>