Columbus DataBackup

User Manual

Module version 7.6

columbus

Issue: 12.18

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MinHook

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Content

General

0.1   Typographical conventions

This manual uses various formats to highlight certain terms and actions. Specific notes and tips are shown with a different background color, according to their importance.

Format	Description
Bold font	Elements in the software or in the operating system, such as menu items, buttons or elements of a selection list
Italic font	Emphases (important details) and links to other chapters or documents
Triangle symbol "➤"	Instruction step
Angle bracket ">"	Command menu sequences, e.g. **File** > **Open**
System font	Directories, code and script samples
CAPITAL LETTERS	Key names, e.g. SHIFT, CTRL, or ALT
KEY+KEY	Key combinations, i.e. the user has to hold one key and press another simultaneously, e.g. CTRL+P or ALT+F4.

Note	Used for notes or tips which facilitate the work or for additional information which enhances understanding for the product.

Important	Information which should be observed by the user, because otherwise problems or additional work may be caused in operation.

Attention	Information which should be observed by the user in order to prevent malfunctions of the system (crashes, data loss, system failure).

0.2   Help

Please visit our **Website http://www.brainwaregroup.com** for additional information and support. Here you can find all documents, a **KnowledgeBase https://kb.brainwaregroup.com/** as well as a support form if you have questions for our specialists.

Support

The support page features a link to the **KnowledgeBase https://kb.brainwaregroup.com/**, the support form and information about our customer service.

➢ Open **www.brainwaregroup.com http://www.brainwaregroup.com** in your browser and click on **Support and KnowledgeBase** on the right side.

➢ Start your search in the **KnowledgeBase** where you can find a list of the most common support cases

If nothing matches your search criteria, you may use the support form for advanced information. Please provide a detailed description of your problem so that our specialists can help you as quick as possible.

➢ Click on Support Form.

➢ Please fill in at least the fields marked with an asterisk (*) and click on **Send Question**

❙ You will receive a confirmation that your question has been received in the system.

The support page contains the telephone numbers necessary for telephone contacts.

Documentation

A separate download area is available on our web site for the currently available documentation. This area contains all manuals in PDF and CHM format in German and English language. At present, some of the technical manuals are only available in English.

➢ Navigate to **www.brainwaregroup.com http://www.brainwaregroup.com** in your browser and click on **Downloads + Licenses** on the right side.

➢ Click on **Login**, enter your **User name** and **Password** and then click on **Register**.

➢ Please select **Documentation** as download type, then select the desired product and click on **Search**

❙ An overview of all available documents will be displayed.

➢ Click on the desired format and language to download the PDF/CHM file in the desired form.

You will find the Acrobat Reader on our support page or directly under www.adobe.com.

Note	During the installation the documents are copied by default to the directory named `[C:\Program Files]\Columbus`. In order to display the Console help in German you will have to rename the file `CMC_de.chm` in the `\Console` directory to `CMC.chm`.

Training information

brainwaregroup is taking all efforts to ensure that our products and solutions will be used and operated in an appropriate, qualified and proper way. Therefore, we are offering various training courses. You can find all information about training types and dates under the **Training http://www.brainwaregroup.com/de-ch/kalender/training.html?utm_source=bwg.KC&utm_medium=referral** menu point

0.3 Licensing

Relevant for licensing is the number of managed assets based on the valid price list at the time of purchasing the license.

Managed assets are computer systems, e.g. laptops, desktops, servers, virtual servers, thin clients, mobile devices, tablets, every kind of asset for which software can be managed or for which another active management is technically available.

Such an active management can be e.g. the installation of the operating system, the inventorization or the distribution of software (no definitive list). The service desired by the customer determines the suites or modules to be licensed.

A license is basically bound to one computer, regardless whether the license is used only once or continuously.

Apart from computers, Columbus is also able to collect data from additional network devices (routers, switches, printers, etc.) which are administered as so-called *Not Managed Devices*. These devices require no Columbus license as long as they have the status *Not Managed*.

Columbus has an active license check for all Columbus modules. License limit violations are signaled both on the Console as well as in the log file.

Summary

The brainwaregroup licensing rules comprise the following:

- Each <ASS> operated by Columbus requires a license.
- The transfer of a license to another computer is limited to replacement purchases.

In case of a license violation

- you will be notified at the start or during your work with the Console,
- entries are generated in the log files.

Important	If the number of managed assets increases, the customer shall bind himself/herself to obtain a new license for the additional ones within 30 days. The Software can restrict or stop the operation after an under-licensing period of 30 days.

A license comprises the temporally unlimited, non-exclusive usage right for the current version of the Software including all hot fixes within one year from the invoice date.

C H A P T E R **1**

Product Description

Columbus DataBackup is a data backup platform for mobile users and Office PCs. Time schedules, files to be recorded and all other settings can be managed by the central Management Console and thus the data security can be monitored.

With the SQUEEZE technology developed by brainwaregroup, duplicated data blocks are eliminated and the effective data which must be transferred are compressed and encrypted - highest security with massively reduced network load and drastically reduced storage requirement.

Data transfer is based on the OTB protocol which also has been developed by brainwaregroup and which is capable of ensuring connections for computers outside of the company network.

Data are recorded in so-called Backup-Sets, computer-specific as well as user-specific. The administrator at the Console can manage several generations of backups - but he CANNOT see the data themselves. The data are stored on the server in a protected way and therefore CANNOT be seen even by an administrator.

Common backup tools on the market delegate the responsibility for the creation of backups to the user. The basic idea of Columbus DataBackup is that the company/IT is interested in the fact that the data of a user/computer are backed up regularly, since this is a relevant asset of a company. A centralized management of these backups should therefore be preferred normally to a user based operation.

CHAPTER 2

Installation

In this chapter

For a description of the requirements and steps for a successful installation of the Columbus basic system please refer to the **Installation** manual. This chapter describes on the peculiarities of the DataBackup installation.

2.1 Module installation

For the installation of the Columbus DataBackup, you have to select the *Data Backup* component during the installation of the Master Server. If this option is not displayed, it is not contained in your used license key.

➢ Select the **Data Backup** component and click on **Next**.
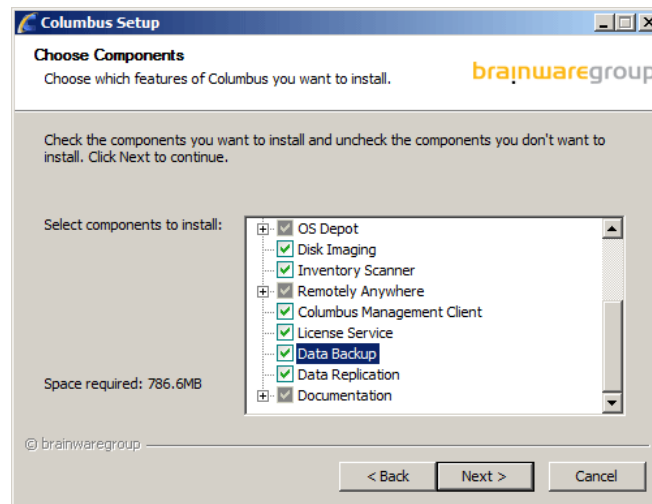
The module DataBackup is based on the following components:

- Database Server
- Master Server
- Management Console
- License Server

The Management Client must be installed on the Clients.

During the module installation, the setup will configure the Infrastructure Service with the default settings for the Indexing Agent so that a working infrastructure will be available. Possible adaptations will be described in the section Configuration.

C H A P T E R 3

Configuration

In this chapter

This section describes the configuration steps required for the activation of DataBackup. The configuration consists of the following steps:

- Understand the functional principle

- **Activate and assign** Indexing Agent (see page 12)

- Configure Indexing Agent

- Making images available

3.1   Function

The function of the Data Backup module is based on the following principle:

- The administrator configures the Columbus Data Backup Server once to determine the location where the files are saved, how much space is to be used, how many generations may be saved and which ports shall be communicated with. Any media which can be addressed by Windows via UNC can be used as memory - i.e. not necessarily local disks of the server, but alternatively also NAS, SAN, etc.

- The configuration of the clients is controlled by the administrator via Management Client Configuration Templates - these can be different for various groups of computers and users.

- The Management Client executes the actions at a scheduled time or, if allowed in the configuration, the user can trigger these himself.
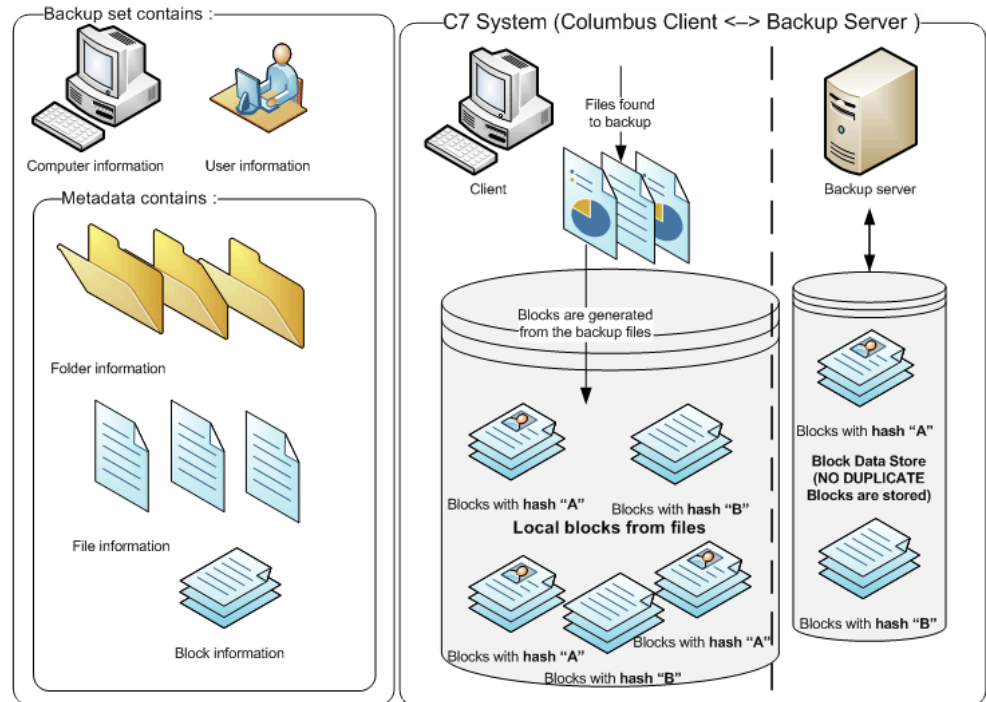
3.2 Depot structure

The setup creates a directory on the Infrastructure Service under \BackupServer. This directory contains the actual data as well as also the related meta data (some kind of index how to read the data).

Note | If required (e.g. space problems), the structure can be moved to another drive or a NAS, SAN, but must be moved in whole. After such a move, the configuration of Data Backup Server Agent must be adapted.

| Object	Description
BackupServer	Standard directory for data storage and meta files. Created by Setup.
Blocks	This directory is used to save the generated data blocks.
MetaDataFiles	Index data which describe the usage of the data blocks.

Important | In order to save the consistency of the environment in the case of a restore, an external backup of the data storage under \BackupServer must be carried out always synchronized with the backup of the Columbus Database.

3.3 Activate and assign Data Backup Server Agent

The agent can only be used if it has been assigned to a company and has been activated. At the time of activation, an agent is loaded from the corresponding Infrastructure Service and its function is turned on. After that, the agent loads the standard configuration and starts working.

How to activate the agent

➢ Navigate to the **Infrastructure** screen in the <CMC_C> and highlight the Infrastructure Service.

❘ The list below shows all agents which are available on this server.

➢ Highlight Data Backup Server Agent.

❘ The menu ribbon shows all available functions.

➢ Select the function **Assign** in the **General** menu field.
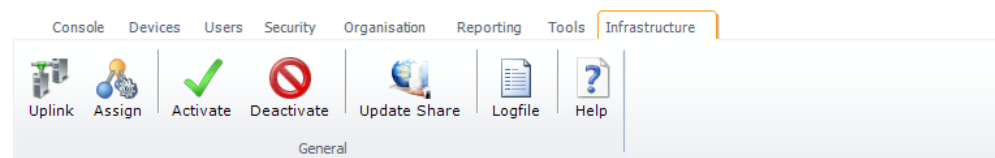
➢ Select the company from the list box and click on **Apply**.

❘ The related company will appear in the list under the **Company** column before the Data Backup Server Agent.

➢ Select the **Activate** function in the menu ribbon.

❘ The ✔ symbol in the first column of the table summary changes and indicates that the agent has been activated.

❘ Date and of time of the last connection are logged in the **Last Contact** column.

In order to determine for which part of the organization shall the agent offer its services, a functional assignment to the structure tree via drag & drop is required.

How to assign the agent to a company or site

➢ Highlight Data Backup Server Agent.

➢ Drag the agent per drag & drop on a **company** or **site** in the structure tree.

After this action, the agent will offer its function to the corresponding site and all the sites under it (inheritance) Such an inheritance can be interrupted by assigning a different agent on a lower level. The currently responsible agent for a site is shown in the Console on the **Site Management** tab.

3.4 Configure Data Backup Server Agent

The Data Backup Server Agent manages the stored data blocks, communicates with the Clients and saves the corresponding information in the database.

| Note	If you adapt directory structures, you should always check the configuration of the related agents.

After the agent has been activated and assigned to a functional unit, it may be configured.

How to configure the agent

➢ Highlight the agent on the Infrastructure screen.

➢ Click **Configure** in the menu ribbon.
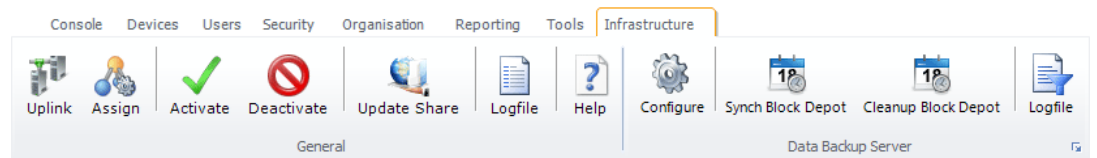
Use this dialog window to define how the agent communicates with the clients and where to store data.
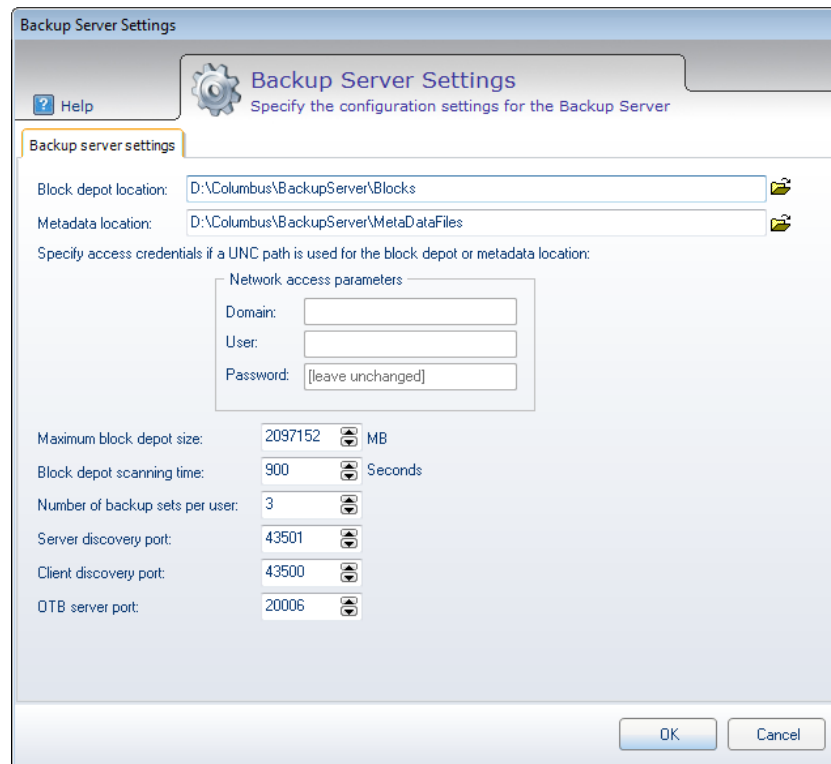
Field	Description
Block depot location	Directory in which the data blocks to be recorded are stored. Directories on other servers, NAS, SAN, etc. require the UNC notation (`\\server-name\sharename\directory`). The necessary connection parameters are acquired via Network Access Parameters.
Meta data location	Directory in which the meta data to the recorded data blocks are stored.
Network Access Parameters	Must only be entered if you have used a UNC path above.
Maximum block depot size	Space limits in MB which the server may offer for data storage. This can limit the total space of the backup area.

| Field	Description
Block depot scanning time	Interval (in seconds) which controls how often the server will check the usage limit (Maximum block depot size). Default setting is 900 sec. (= 15 minutes).
	Note A short time interval can have a negative impact on the performance of the server, since the file information of all data blocks must be read for the space check.
Number of backup sets per user	Number of backup sets which will be saved per user. If exceeded, the oldest backup set will be deleted. Increasing the values means an automatic increase of the required storage space. The default setting is 3.
Server discovery port	Normally you would specify the backup server to be used in the client configuration. However, Clients are able to automatically search for the server. This makes it possible that several backup servers can be operated in different locations while the client is always served by the nearest server. If this function shall be activated, this port must be released on the routers. The default setting is port 43501
Client discovery port	Analog to the server discovery port, this is the port used by the client. If the server is entered in the client configuration, this port is not required. The default setting is port 43500
OTB Server port	Due to performance reasons, the data backup server will need its own OTB server. Here, you enter the port used by the server. In order for the data backup to work, clients must be able to communicate with the server via this port (routers must be able to establish a connection via this port). If you want to ensure, that clients can establish a connection to the backup also from outside the company network (without VPN), you will have to place a backup server in the DMZ and allow traffic on this port through the firewall. The default setting is port 20006

3.5 Synchronizing the block depot on the backup server

In order to support the roaming of Management Clients and to keep the block depots of the data backup server synchronized, an action can be scheduled to synchronize the data of a target backup server with those of the selected backup server. All data blocks on the target server that are not yet in the selected server are synchronized.
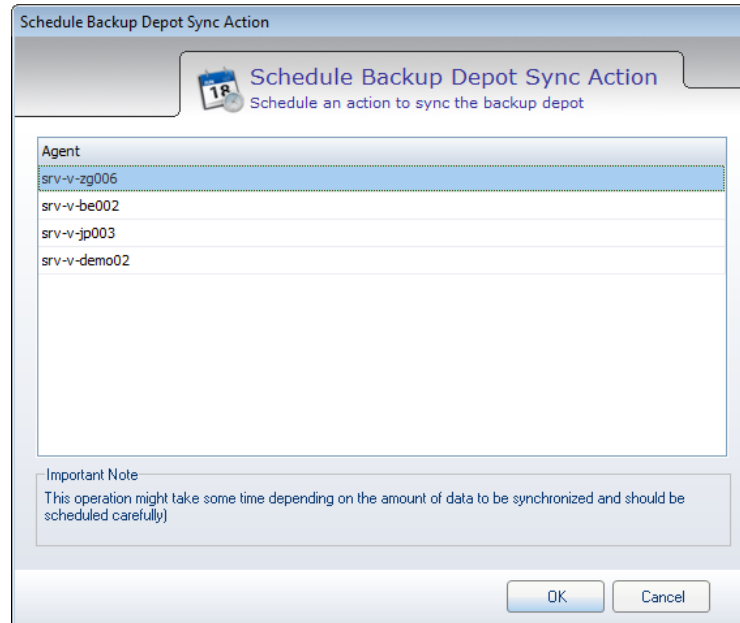
| Note | This action should be scheduled for the evening or the weekend, since it requires some time depending on the size of the block depot on the server. |

The schedule options for the action enable to carry out the action over the weekend, in a repetition cycle or switching off once.
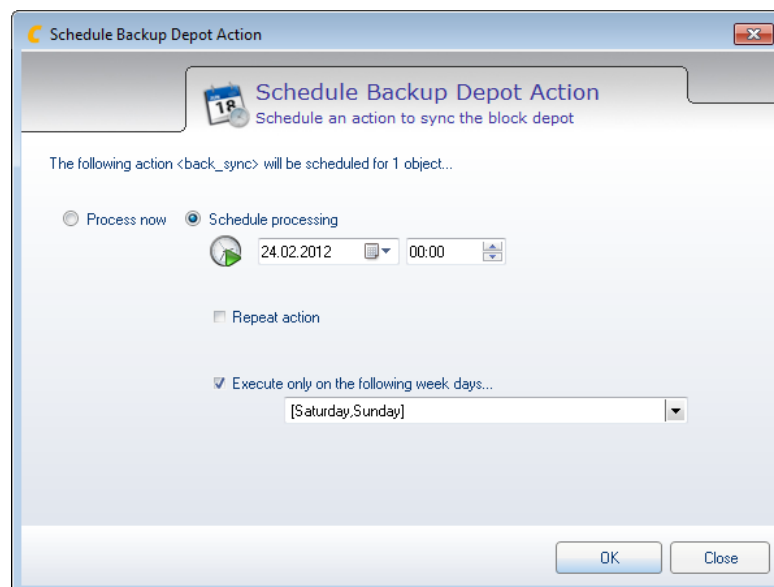
3.6 Cleaning up the block depots on the backup server

During backup and restoring of data, replication, etc. data blocks are created in the block depot of the backup server. If backup/replication sets are deleted or replaced due to restrictions, some data blocks loose their reference and can be deleted from the depot. The existence of these additional blocks in the block depot does not pose any problem, since they can be reused for referencing in meta data. However, the block depot can be optimized so that it only contains blocks being used. This reduces the hard disk space used up by the depot.

Note This action should be scheduled for the evening or the weekend, since it requires some time depending on the size of the block depot on the server.

The schedule options for the action enable to carry out the action over the weekend, in a repetition cycle or switching off once.
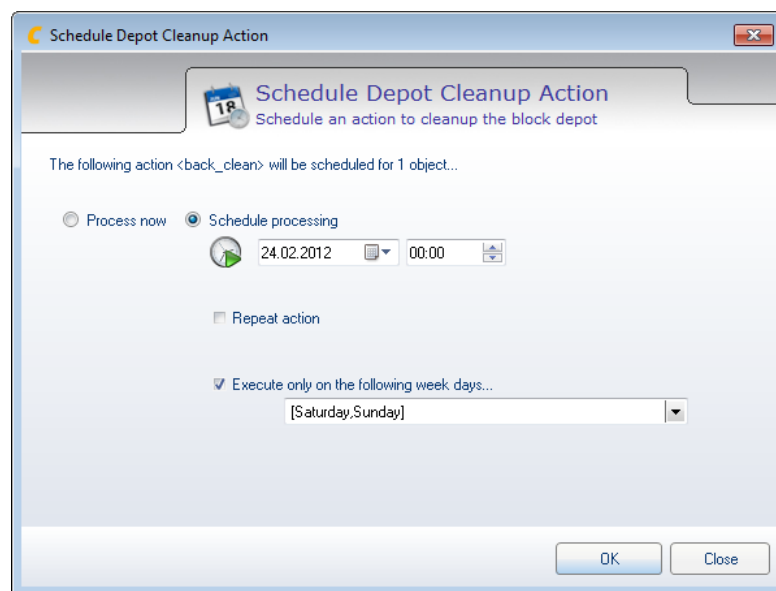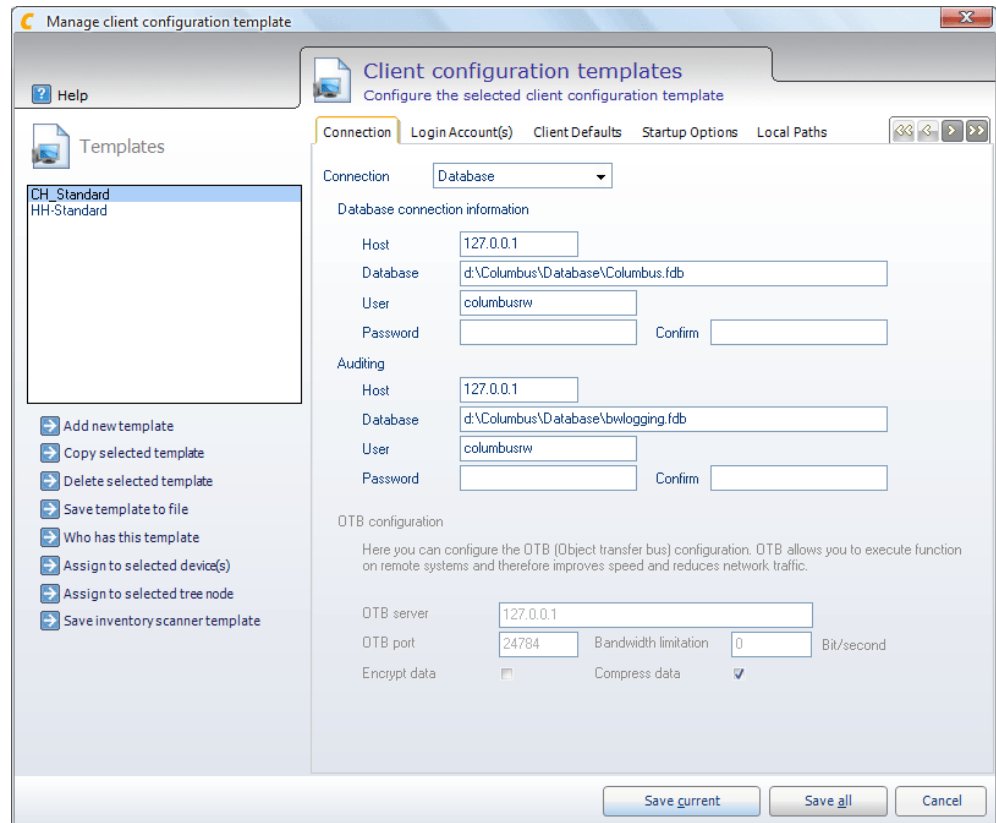
3.7 Configure Client

The configuration of the backup behavior of the clients is carried out via the client configuration templates which are implemented on the device by the Management Client. You can create various templates for different device groups and locations to meet different demands.

Tipp

Here, only the configuration steps for data backup are explained. For a general understanding of the setup of client configuration templates, please refer to the section "Configure Management Client" in the base manual.

➢ Navigate to the **Devices** screen and click the button **Client Templates** in the menu ribbon.
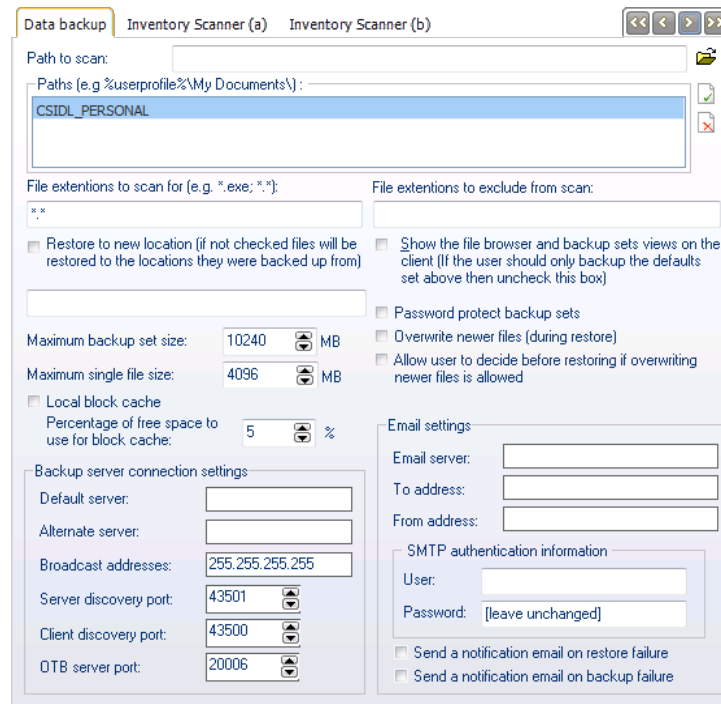

➢ Select a template to be configured or create a new one.

➢ Navigate to the tab Client Menus.
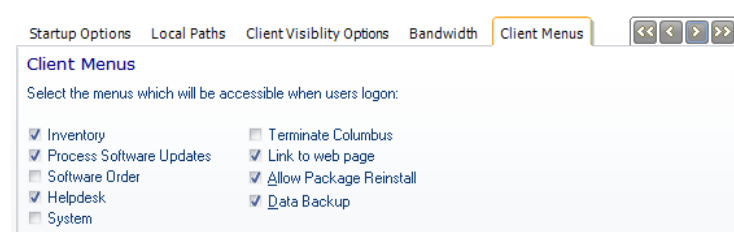
If the user should be able to create and/or load data backups by himself, you have to select Data Backup so that the corresponding menu will be displayed on the client.

➢ Navigate to the tab Data backup.

Here, you configure the basic behavior of the backup client. By default, all files in the \MyDocuments folder will be recorded.

Field	Description
• Path to Scan • Paths	Specify here the directories to be saved. The definition always contains a path with all subdirectories. You can also use Windows variables or Columbus variables in the specification. Example: "%UserProfile%\My Documents\"
File extensions to scan	Specify here in comma separated form all files to be considered. If all files shall be recorded, simply select "*.*", but be cautious - this can also mean films, executables, pictures, etc. which the user has saved. It would be better to define a company policy to determine which files should be saved from the company's point of view. For example: "*.DOC,*.XLS,*.PDF"
File extensions to exclude from scan	Files to be excluded from the backup. You can include everything by entering *.* above and then exclude here undesired files by specifying "*.EXE,*.AVI,*.MP3".
Paths to exclude	Directories (incl. subdirectories) to be excluded from the backup. You can also use Windows or Columbus variables. Example: %UserProfile%\My Documents\Videos\ This definition excludes all files and subdirectories in this directory.
Restore to new location	By default, the files will always be restored to the location where they have been recorded. Alternatively, you can specify a restore path here. This can be interesting e.g. when migrating from Windows XP to Windows 7 by backing up all data of a hard disk before the migration and offering these data to the user for selecting files he still needs after the migration.
Default Server	Backup server to be used. If this value is empty, backup tries to find a server by its integrated discovery function (see information for the server configuration)

Field	Description
Alternate Server	Specification of a 2nd backup server if the first one does not respond. This can map a typical scenario with internal and external backup server.
Broadcast Addresses	Broadcast address to be used for a discovery. If a fixed server has been entered, this value is not required. The default setting is 255.255.255.255
Maximum Backup Set Size	Size limits (in MB) of one individual backup set
Maximum Single file size	Maximum size of one individual file. This will enable you to still exclude a 2GB film if you have specified a backup of all files.
Server discovery port	Port used by client and server to execute an automatic discovery
Client discovery port	Port used by client and server to execute an automatic discovery
OTB server port	Data used by the client to communicate with the backup server via OTB
Show file browser	If selected, a user is always able to highlight paths and backup sets. If you want to ensure that the backup does only consider the data which have been defined by the company, you should not check this checkbox.
Email settings	Possibility to trigger an E-Mail notification for canceled backup or re-store operations. This can be sent for further analysis to the service desk.

The configuration of the template is then completed. Now, you can allocate this to any computer or organization.

CHAPTER 4

Using

In this chapter

This section describes the basic functions which are required to operate a DataBackup system.

4.1 Intro

4.1.1 Function and usage

Actions which are to be executed on the computers are usually triggered by the Management Console. Alternatively, you can grant the user the right to trigger such actions by himself (see configuration of the client template) - however, this is recommended only for the Power User.

In general, backup/restore actions including time schedules are assigned to a computer on the Console. It will execute them as planned.

4.1.2 Requirement

To ensure that Columbus <DBA> can be used on a Columbus System, the Management Client must be installed and configured on this system.

4.2   Administration at the Console

4.2.1   Trigger backup action

➢ Activate one or more devices in the **Devices** screen.

➢ Click the **Data Backup** button in the menu ribbon.
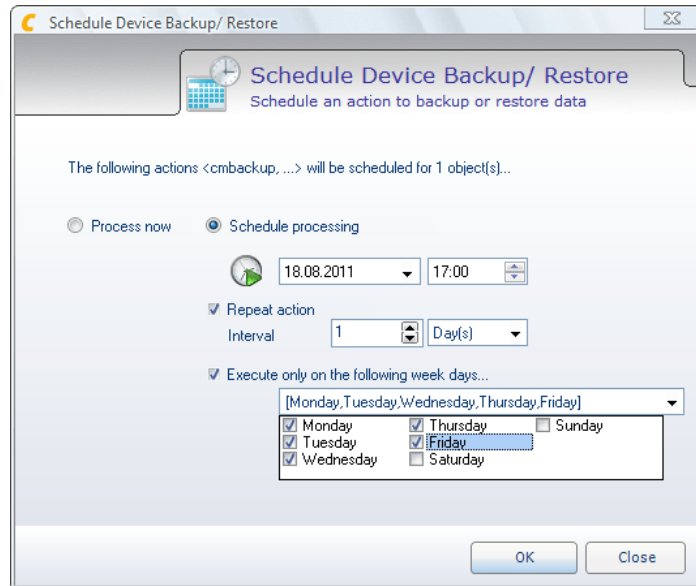
➢ Enter the time and the number of repetitions.

Note	The execution of the backup/restore of a large number of computers at the same time can cause performance problems in the network as well as on the Infrastructure Service. Thus, you should distribute the times across several groups of clients or test the limits of your infrastructure.

4.2.2   Managing backup sets

Recorded backup sets can be viewed and managed under the corresponding computer or user.
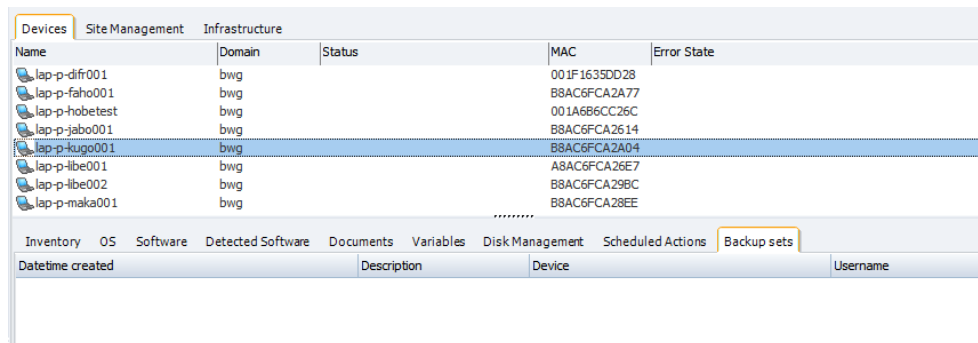
➤ Right click on an empty area and select a function in the context menu.
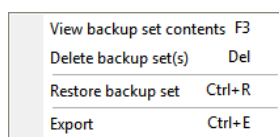
Function	Description
View backup set contents	Shows the files contained in a backup set.
Delete backup set(s)	Deletes individual backup sets
Restore Backup set	Allocates the restore of a defined backup set to a client.
Export	Creates a report of the current backup set.

4.3   User operations

If the user has been given the possibility to operate the backup on his own during the client configuration, he will see this as follows after clicking on the Backup menu on the client:
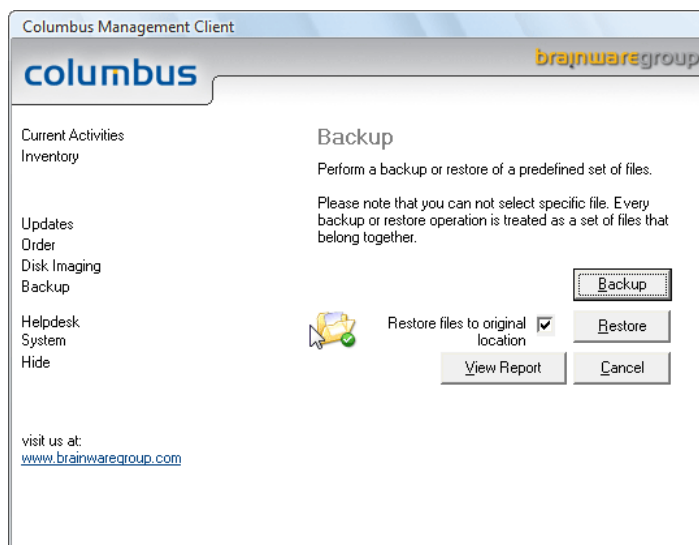
Function	Description
Backup	Starts a backup
Restore	Enables the selection of a backup set for restore

| Function	Description
Restore files to original location	Default setting activated. Stores a restore in the same location where the files have been recorded. While this makes usually sense, you should be aware of the fact that this will overwrite existing files. If you want to e.g. compare these files, it would be recommended to restore them in another place.
Export	Shows a report.

Note   Common backup tools on the market delegate the responsibility for the creation of backups to the user. The basic idea of Columbus <DBA> is that the company/IT is interested in the fact that the data of a user/computer are backed up regularly, since this is a relevant asset of a company. A centralized management of these backups should therefore be preferred normally to a user based operation.

4.3.1   Advanced backup and restore options

The users can be given access to manage the backup directories and backup sets by themselves. For this purpose, activate the option *Show the file browser and backup set views on the client* in the data backup tab during the configuration of the client template.

When this option is active, the user sees the following screen prior to the backup process. This enables the user to select local directories for the backup. The user can also exclude certain file types for the backup.
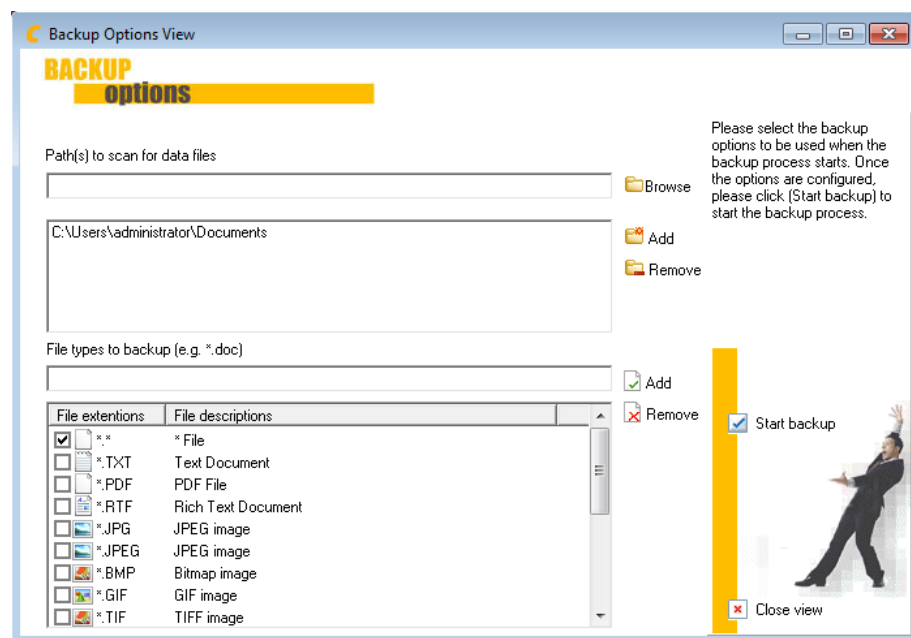
If the option *Show the file browser and backup set views on the client* has been set, the user has also additional options for restoring. They can select which backup set they wish to restore and can also edit or delete their own backup sets.
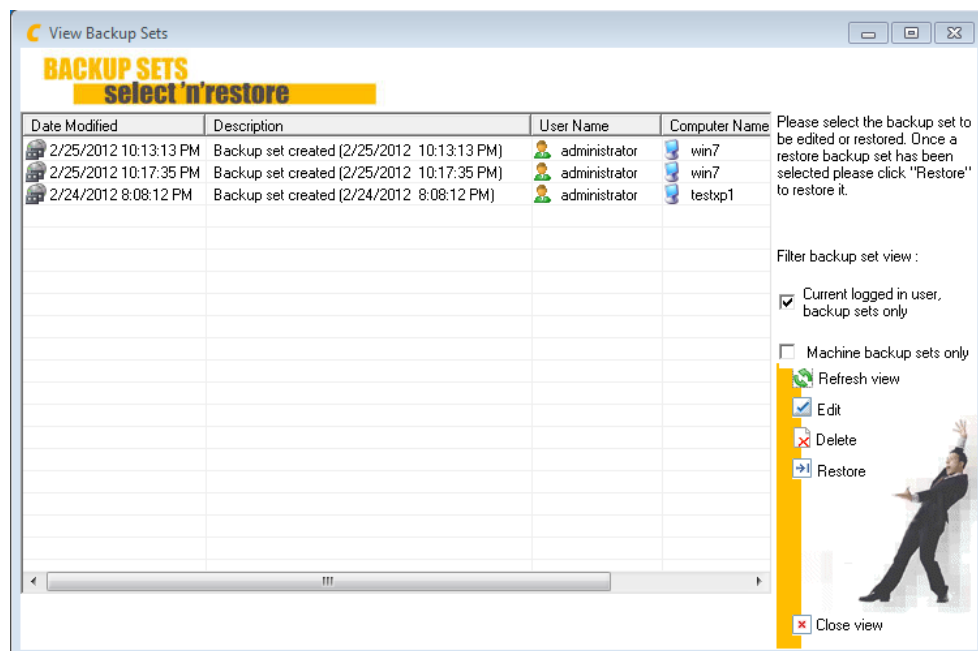
For editing a backup set, the meta data viewer is displayed. Here, the user can exclude files for restoring, or delete them from a backup set and then store the backup set with a new name.
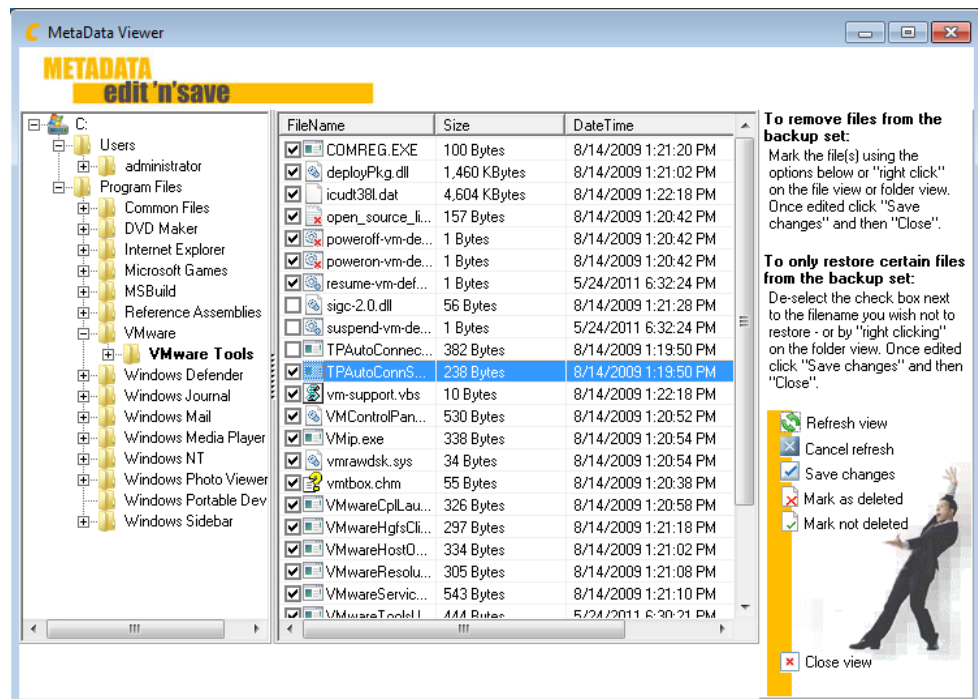
## 4.3.2 Backup with password protection

If the check box **Password protect backup sets** is ticked in the **Data backup** tab of the client configuration template, the user is requested to assign a password to the backup set to be created.

This password ensures that only users having the correct password are able to edit or restore the files in the backup set.

This protects the sensitive data of the user against manipulation. If the user does not wish to define a password, the created backup set will be able to be viewed, edited and restored without entering a password.
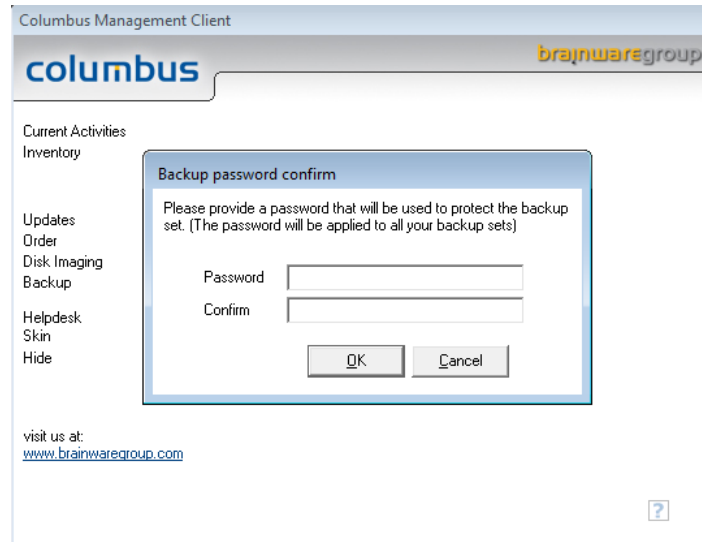

If the user has further backup sets, they will be prompted whether the current password for the new backup set shall also apply for the other backup sets (if the entered password is different from the password entered for the other backup sets).
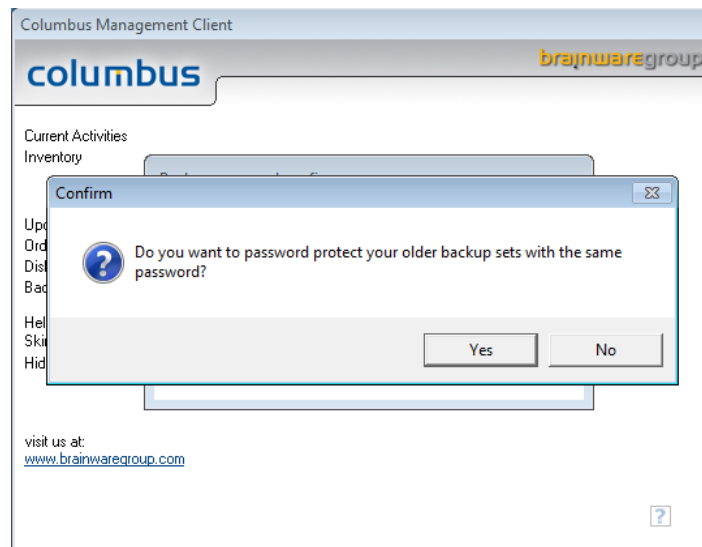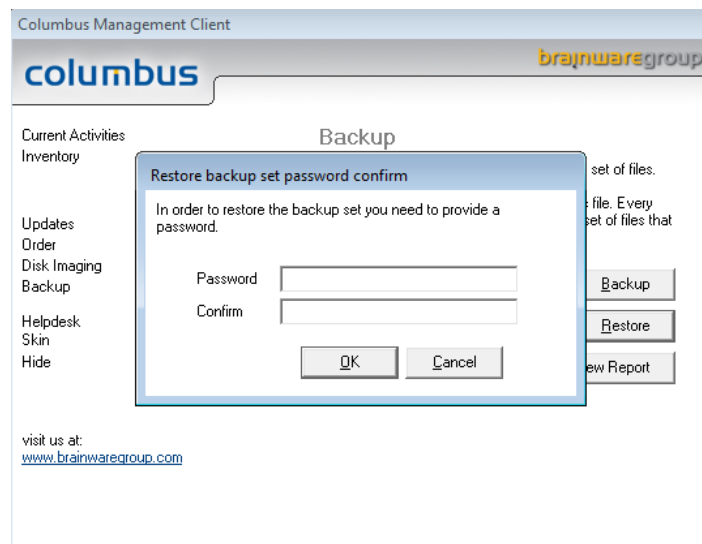

To be able to edit or restore a password-protected backup set, the user must first enter the correct password to have access to further activities.
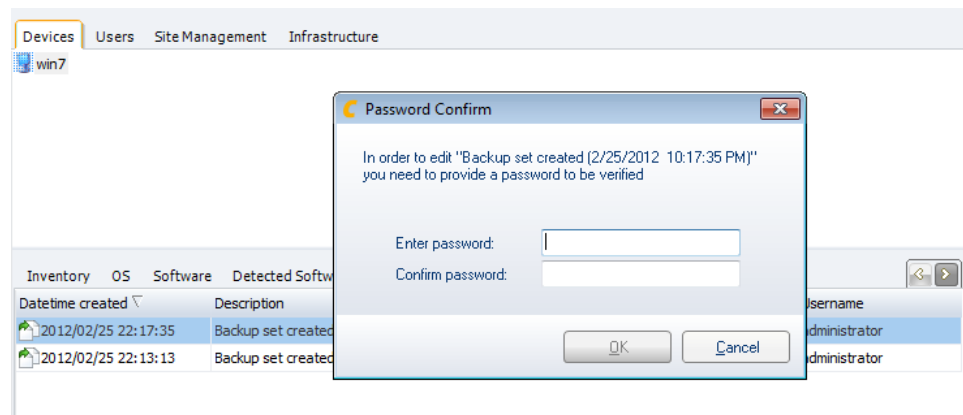
Editing:
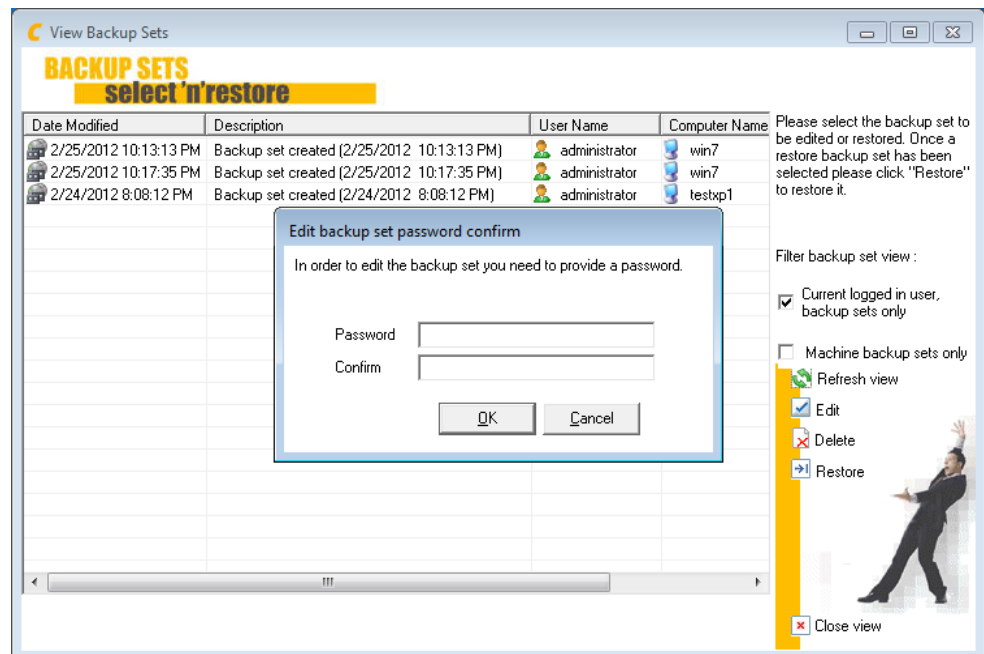
Restoring:

If a password-protected backup set is selected in the management console for editing/display, the user must enter the correct password to have access to editing or display options.

If a backup set in the CMC is copied between machines or users by drag and drop, the password originally assigned to the backup set will be valid.

4.3.3 Overwrite modified files when restoring

By default, the data restoring process of Columbus does not overwrite local files if they are newer as the files to be restored from the data backup. This behavior can be modified through a client configuration template so that either all new files that were not stored are overwritten by default or giving the user the option to overwrite newer files when restoring the last backup set. If the option to overwrite newer files and the user permission to overwrite are selected at the same time, the decision of the user prevails.