



# GRAU DATA

YOUR DATA. YOUR CONTROL

## Blocky4Backup Administration Guide

GRAU DATA GmbH

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# 1. Product Information

## 1.1. Overview

Blocky4Backup is designed to protect data on Windows NTFS and ReFS volumes from unauthorized manipulation by viruses, ransomware and other malicious software by continuously monitoring file operations in real-time on protected file system locations.

Any application can write new data to a protected file system. When a file is closed, no application (not even the creating application) is allowed to modify, rename, move or overwrite the file except the request is initiated by a trusted application. The feature works on a „block everything by default“ approach. The integrity of a trusted, [whitelisted application](#) is ensured by a unique fingerprint calculated from several binary checksums and other hashes from dependent components. Therefore unwanted modifications on a trusted application can also be detected and reported to the user. Unauthorized attempts are logged and notifications can be sent to security administrators.

## 1.2. Key Features

### Access Control:

Access control can be enabled on a complete NTFS or ReFS volume or on folders on the 1st directory level of such a volume.

### Whitelist:

Blocky4Backup allows unrestricted file access to trusted whitelisted applications.

### Monitoring:

If an untrusted, non-whitelisted application tries to modify a file on a protected folder or volume, this write access is denied by default. However, if the Blocky GUI is running, the write access is set on hold first and request will be displayed on the [Request Table](#), so you can choose to allow or deny access. Blocky4Backup writes all access requests and responses to the log file `C:\ProgramData\GrauData\Blocky\AccessControl.log`. The content is also displayed in the “Monitoring” window in the tab “Logging”. The current status is displayed in the “Monitoring” window in the tab „Status“. To check for notifications select the tab “Notifications” from the “Monitoring” window.

### Notification:

Blocky4Backup can send alert notifications to the Windows application event log, to email recipients and to the Status Area of the Blocky4Backup GUI depending on certain rules.

## 1.3. Restrictions

1. Blocky4Backup supports local disks.
2. Microsoft fail-over cluster is not supported.  
Running on Active Directory Domain Controllers is not supported.
3. NTFS and ReFS file systems are supported.
4. Basic support for build-in deduplication on NTFS file systems.  
On ReFS dedup is not supported. Use block cloning feature instead.
5. System volumes can not be protected.
6. Only simple volumes on MBR and GPT disks are supported.  
Dynamic disks (e.g. striped, mirrored or RAID-5) are not supported.
7. Each protected volume must have a single drive letter assigned or must be mounted in a folder of a parent volume (junctions) which is not under access control.
8. Restrictions apply for volumes mounted in folders of parent volumes. AccessControl for folder-mounted volumes and their parent volumes are mutually exclusive.
9. Running the Blocky GUI requires certain security privileges which are granted by default to admin users. See chapter [Diagnostics](#) for details.

## 1.4. Deduplication

Blocky4Backup has basic support for build-in deduplication on NTFS file systems. Deduplication on ReFS file systems is not supported.

Deduplication is performed by the Windows components `fsdmhost.exe` and `svchost.exe`. To allow deduplication on Blocky protected Volumes you must add both binaries to the list of trusted applications. Please whitelist both components either manually or during automatic whitelisting.



The Windows component `svchost.exe` is responsible for various internal tasks. However only the deduplication task is allowed when this component is added to the whitelist.

## 2. Password protection

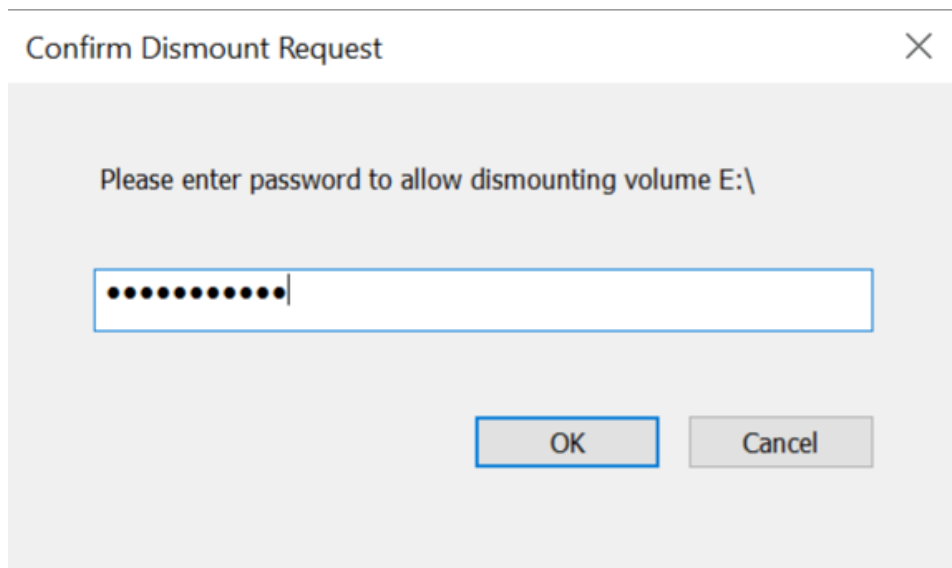
To protect the software against unauthorized configuration changes an additional password has to be supplied for the GUI to launch. When starting the GUI for the first time, a self-defined password is requested. See [Set initial password](#).



To prevent brute force password attacks, a delay is used in GUI and CLI startup if too many incorrect passwords have been entered.

### A password is required for:

- [Start of the GUI](#)
- [Update of Blocky4Backup](#)
- [Uninstallation of Blocky4Backup](#)
- Ejection and detachment of the volume



Any eject or detach request of a volume must be confirmed with the password while the GUI is running. After confirming the volume will be detached/ejected.

# 3. Installation

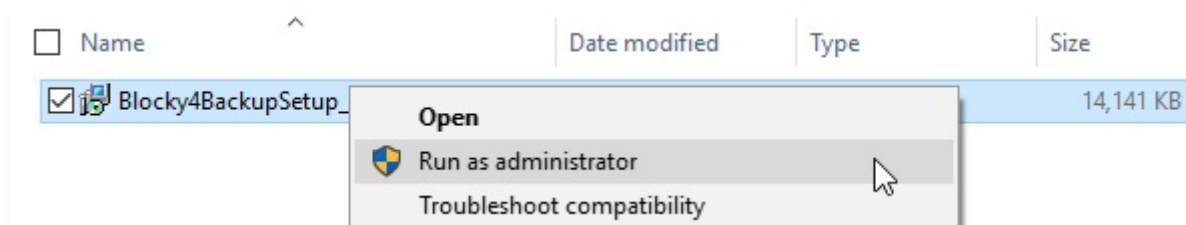
## 3.1. Installing

### 3.1.1. Launch the Installation

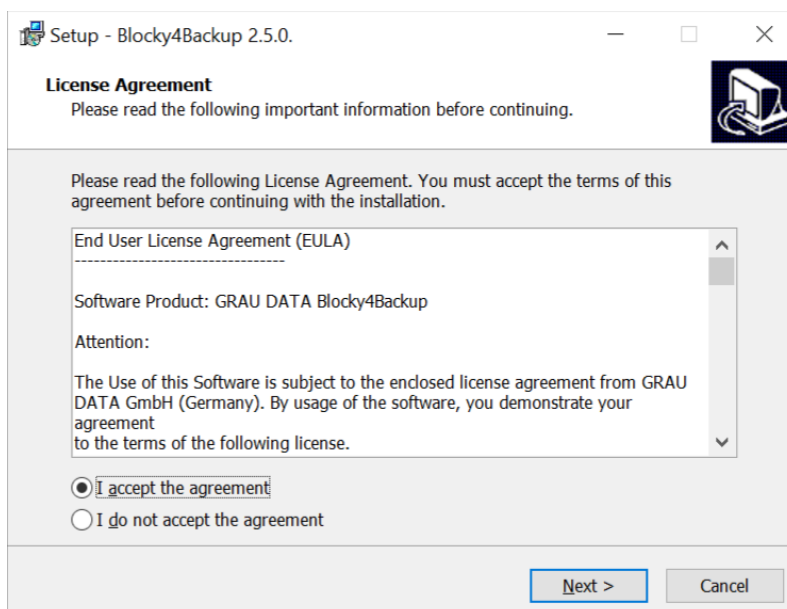
- Close all applications running on the system.
- Run the setup program **Blocky4BackupSetup\_2\_5\_0\_52.exe** to start the installation wizard.



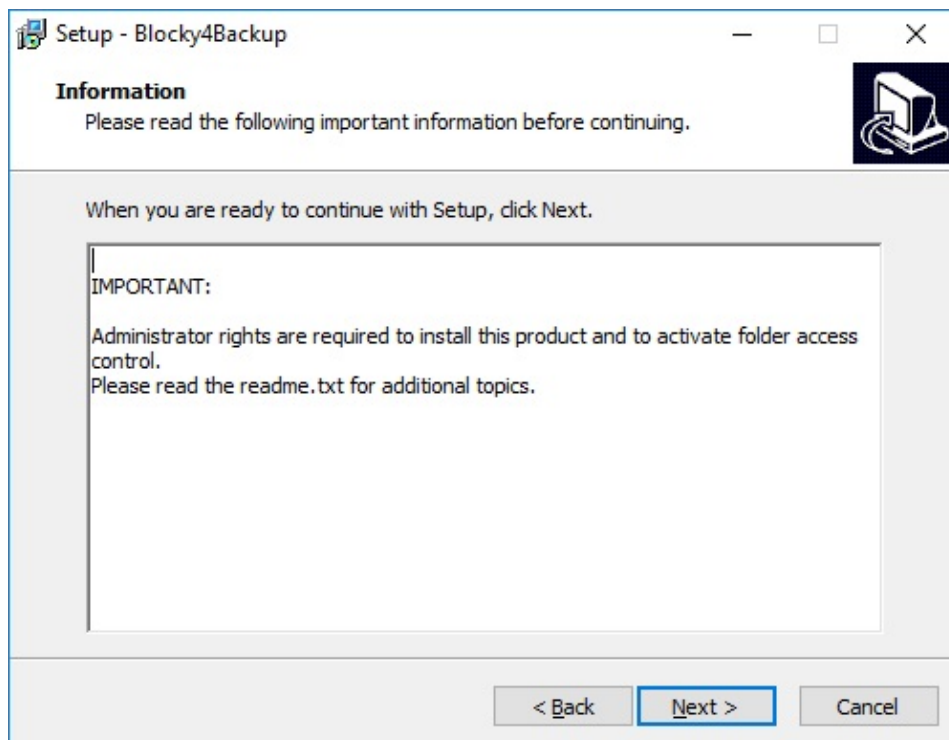
Administrative rights are required to install, configure, license or update Blocky4Backup. When installing, you need to be logged in as Administrator or you need to run the installation program using the context menu option “Run as administrator”. (Right-click the Blocky4Backup setup file)



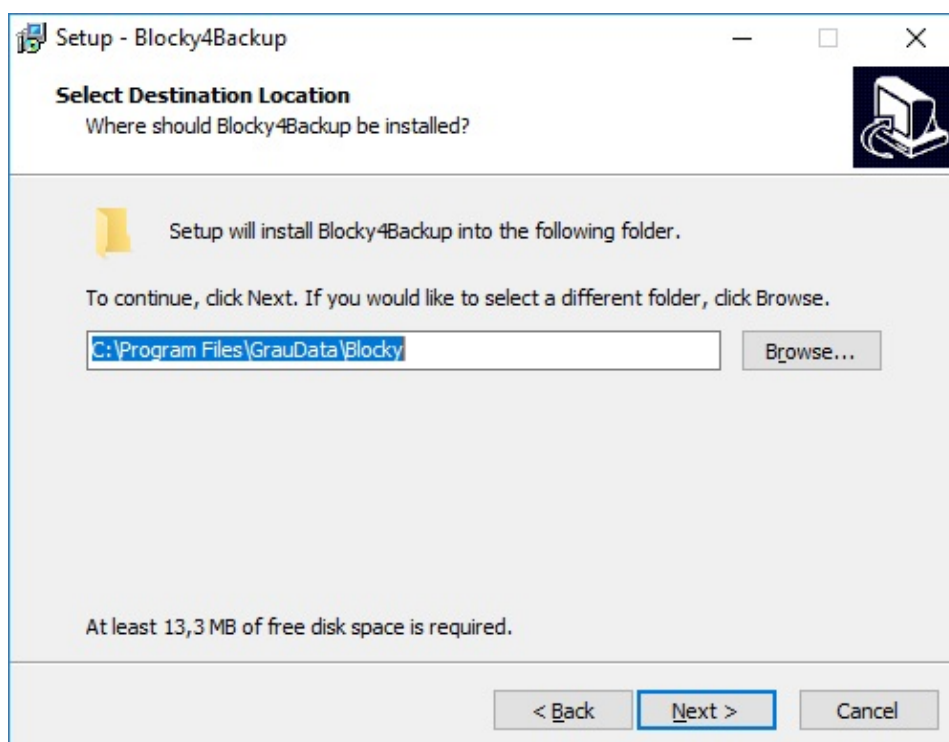
### 3.1.2. License Agreement

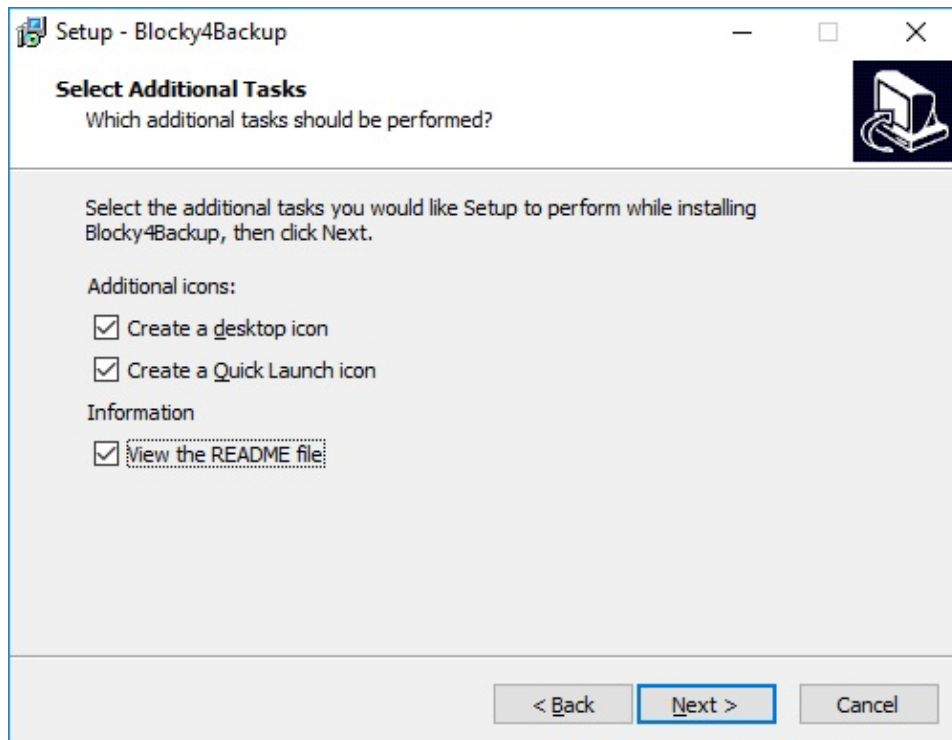


You have to accept the „License Agreement“ in order to continue with the Blocky4Backup installation procedure.

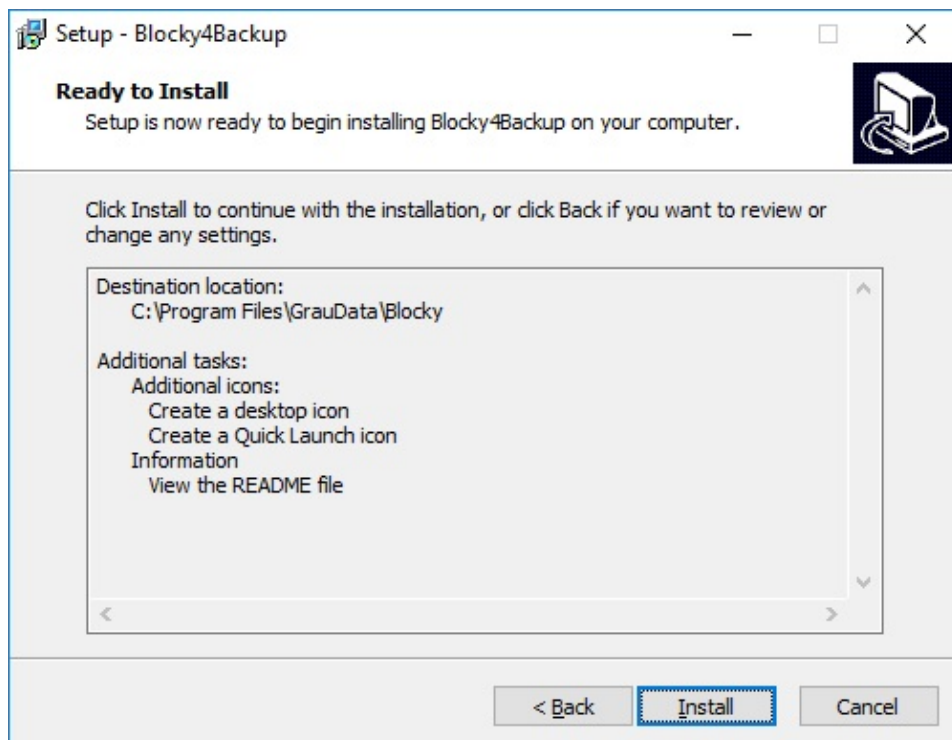


### 3.1.3. Select the installation path and additional tasks



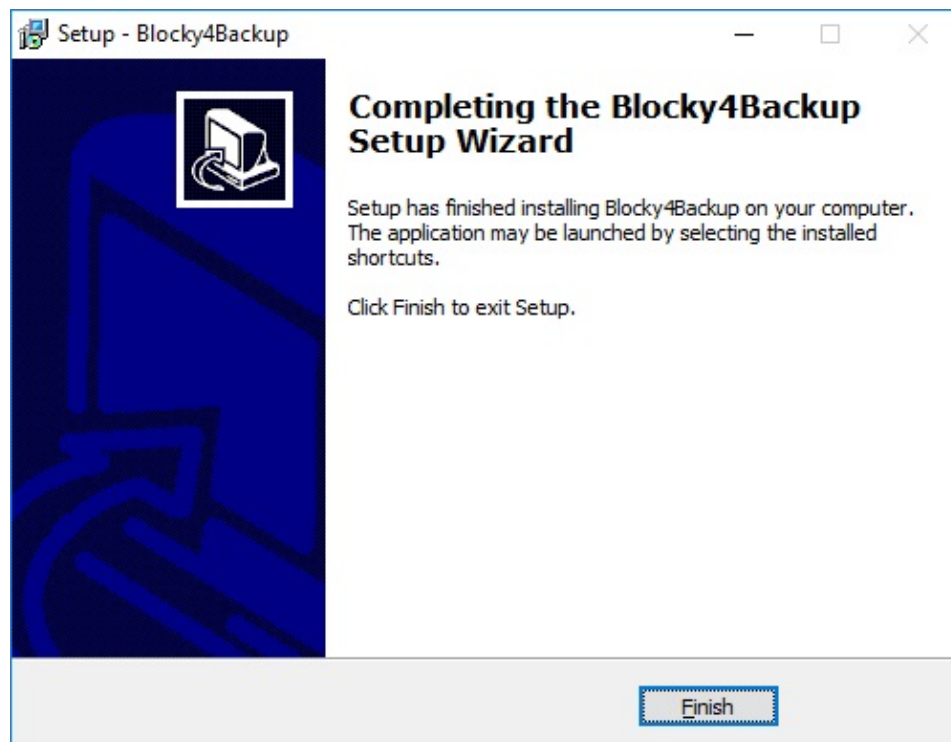


### 3.1.4. Start the Installation



After clicking the Install button, Blocky4Backup will be installed to the selected destination folder.

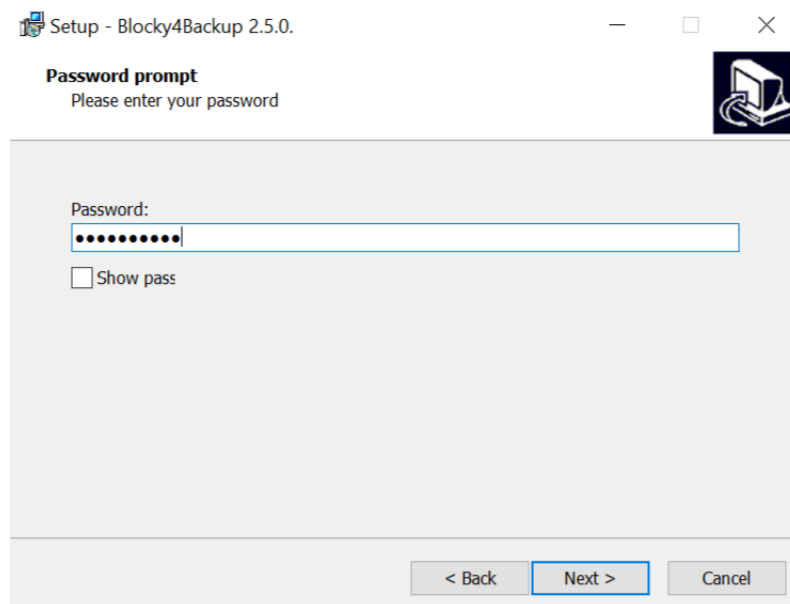
### 3.1.5. Completing the Installation



After clicking „Finish“ the installation is completed.

## 3.2. Updating

The update process from an earlier 2.5 version is similar to the installation described in [Installation](#). Additionally the self defined password must be supplied.



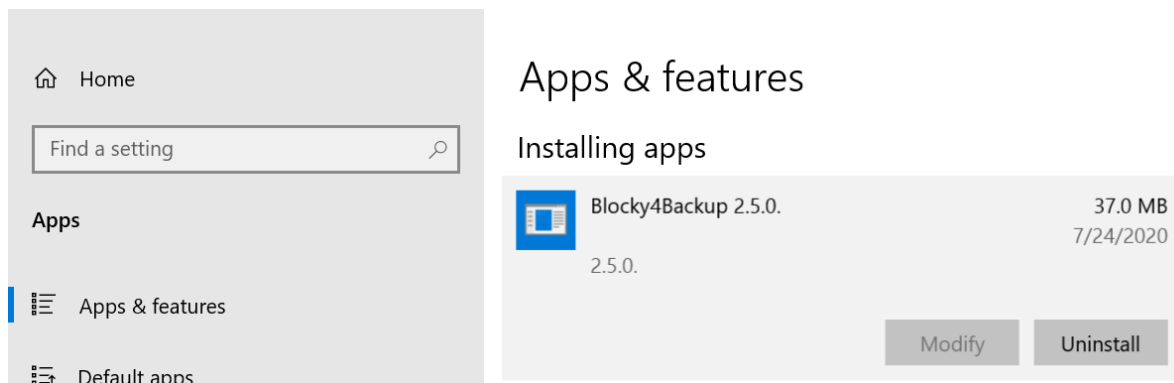
## 3.3. Upgrading from Version 2.4

Volumes under access control of Blocky4Backup version 2.4 require a configuration and license upgrade to run under version 2.5. This volume upgrade is performed automatically by the installer during the software upgrade on all volumes that are online and accessible.

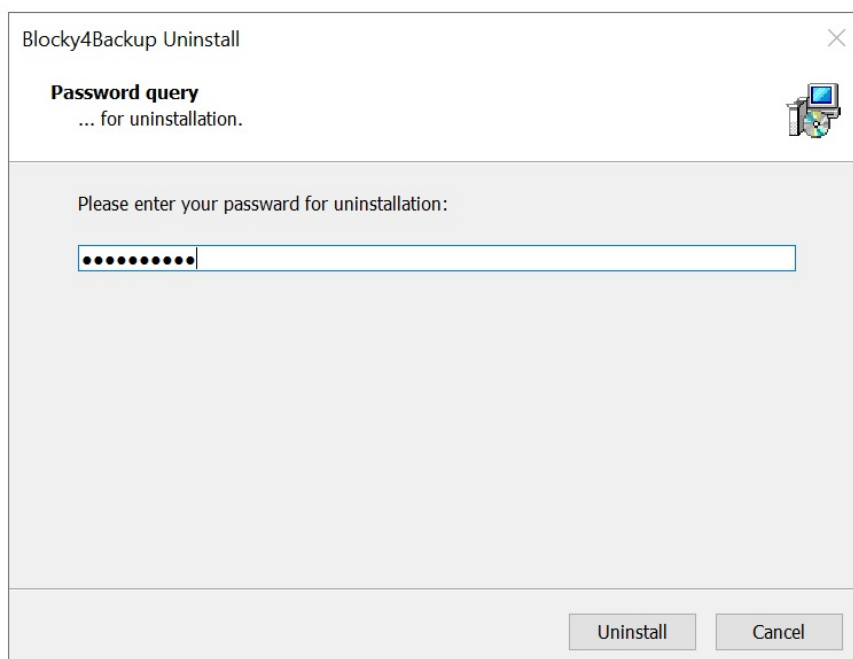
Volumes not available during this process can be upgraded manually at a later time. Please contact our GRAU DATA GmbH support ([support@graudata.com](mailto:support@graudata.com)) for assistance.

User account whitelisting is not supported anymore. Any existing whitelist entries for user accounts will be removed when upgrading from version 2.4 to version 2.5. Whitelisted applications will be migrated. Please check all whitelist entries after upgrade.

## 3.4. Uninstallation



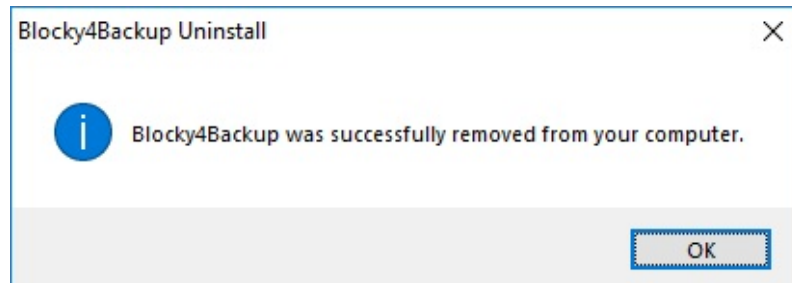
Blocky4Backup can be uninstalled by using the Windows Software Manager. Click "Start >> Control Panel >> Add or Remove Programs". Select the Blocky4Backup product and press the “Uninstall” button.



Confirm the Uninstallation of Blocky4Backup with your password. Continue by pressing “Uninstall” and Blocky4Backup will be removed.



To uninstall Blocky4Backup the self-defined password must have been set. The uninstallation will fail if the self defined password has not been set. See [Set initial password](#) for setting the password.



A pop-up message informs if Blocky4Backup was successfully removed.

## 4. Configuration

### 4.1. Start of the GUI

In order to configure Blocky4Backup run the program **Blocky GUI.exe** by clicking on its desktop icon.



Administrative rights are required to run Blocky GUI. You need to be logged in as Administrator or you need to run the program using the context menu option “Run as administrator” (Right-click the Blocky4Backup icon). In case of missing privileges, see chapter [Diagnostics](#) for details.

### 4.2. Set initial password

GRAU DATA Blocky4Backup GUI needs password protection. ✕

Define new password:

current password:

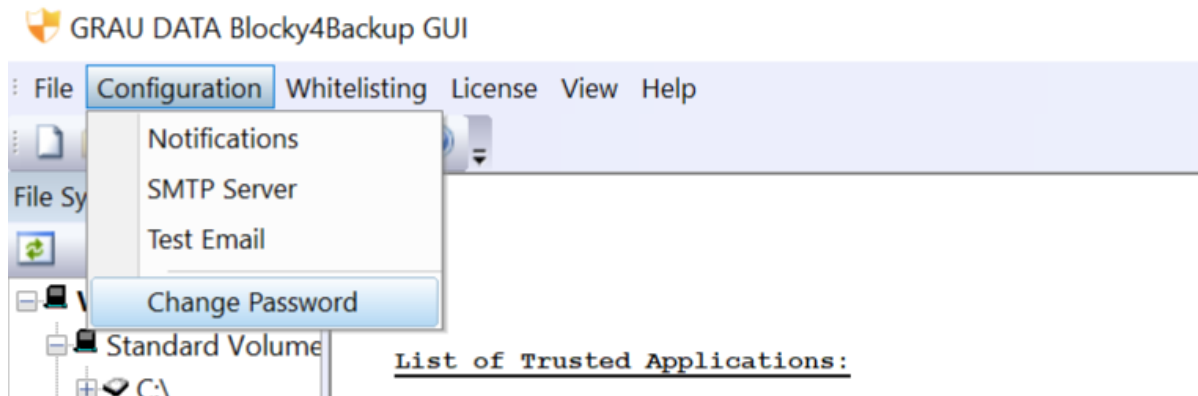
new password:

confirm password:

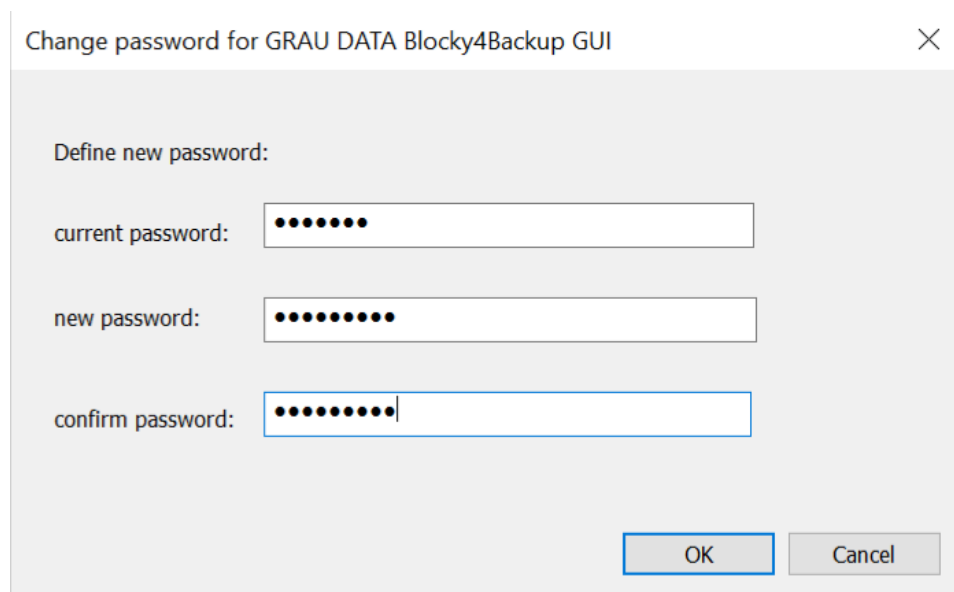
NOTE:  
Password must be at least 6 characters in length and must include at least one number.  
Single or double quotes are not allowed.

To protect the software against unauthorized configuration changes a password has to be supplied for the GUI to launch. When starting the GUI for the first time, you need to set this password. Please note that single quote (') and double quote (") characters are not allowed.

## 4.3. Change password



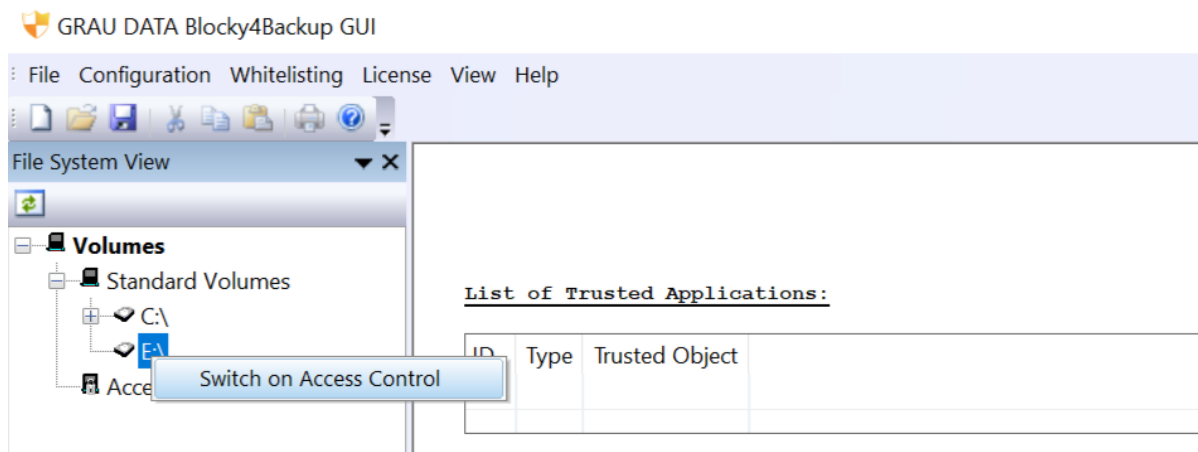
The password can be changed via the menu item "Configuration >> Change password".

The dialog box is titled 'Change password for GRAU DATA Blocky4Backup GUI' and has a close button (X) in the top right corner. It contains three input fields for password entry, each preceded by a label: 'Define new password:', 'current password:', 'new password:', and 'confirm password:'. The 'current password' and 'new password' fields are filled with ten dots. The 'confirm password' field is also filled with ten dots and has a cursor at the end. At the bottom right, there are two buttons: 'OK' and 'Cancel'.

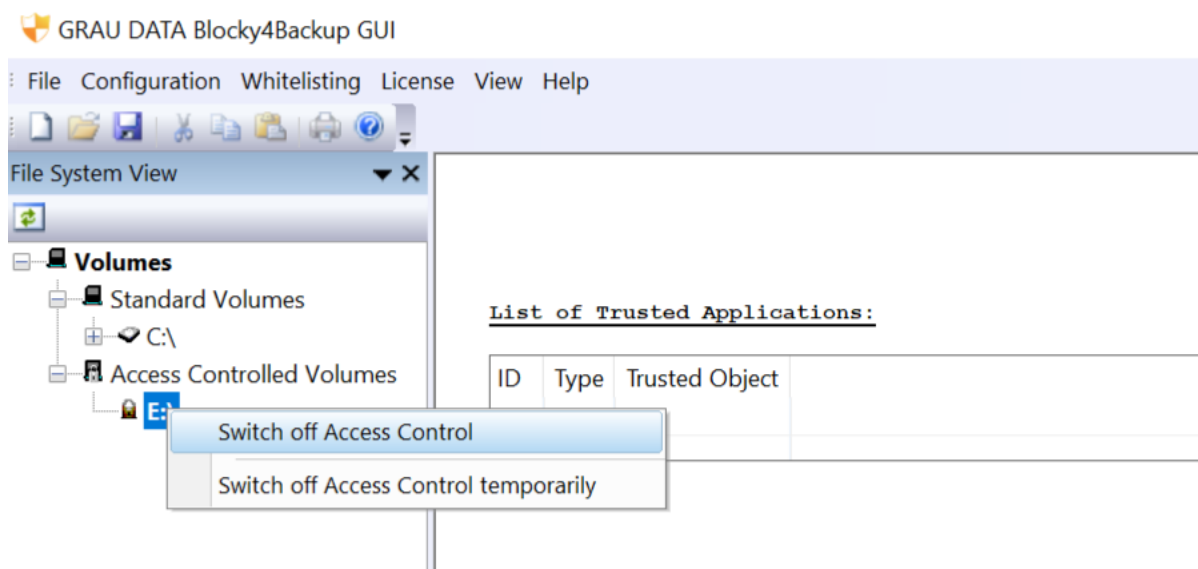
To define the new password, the current password and the new one must be provided and confirmed. The changing process will be finished after clicking "OK".

## 4.4. Access Control

Access control can be enabled on a complete volume or on folders on the 1st directory level of a volume. Volumes are shown with their assigned drive letter. Volumes mounted in folders of a parent volume are shown as separate entry in the volume tree.



To enable access control right-click on the root or 1st level folder of the volume in the left pane and select “Switch On Access Control”.



To deactivate access control right-click on the controlled folder and select “Switch Off Access Control”.



AccessControl for folder-mounted volumes and their parent volumes are mutually exclusive. Once AccessControl is enabled on a folder-mounted volume, you cannot enable AccessControl on the parent folder, and vice versa.

## 4.5. Whitelisted Applications

There are several options to whitelist trusted applications.

### 4.5.1. Automatically whitelist applications



#### Caution:

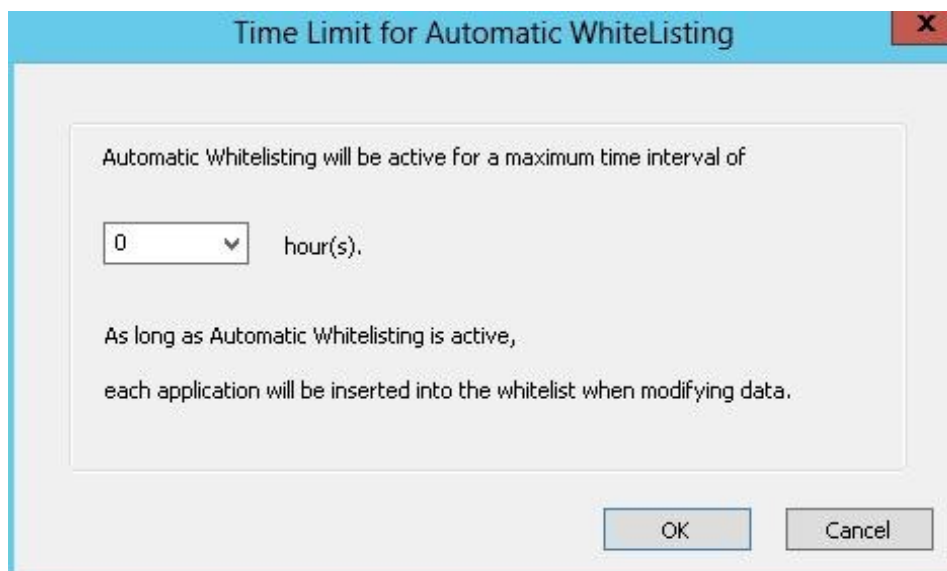
When using Automatic Whitelisting, ALL program requests are granted and they are added to the Whitelist. This can be dangerous as this does NOT protect against Viruses, Worms, Ransomware, or human error. This feature should only temporarily be used to configure systems which can be rated as clean and “secure”.

The Automatic Whitelisting feature can be accessed by selecting the menu item “WhiteListing >> Automatic WhiteListing”. At the Automatic Whitelisting Time Limit dialog, use the drop-down list and choose between 1 and 24 hours. After the countdown has ended, automatic whitelisting is turned off automatically. To manually turn off automatic whitelisting, select menu item “WhiteListing >> Automatic WhiteListing” again.

Please check the list of trusted applications after automatic whitelisting has been turned off and remove any unwanted applications from the list. It is recommended to keep only absolutely required applications!

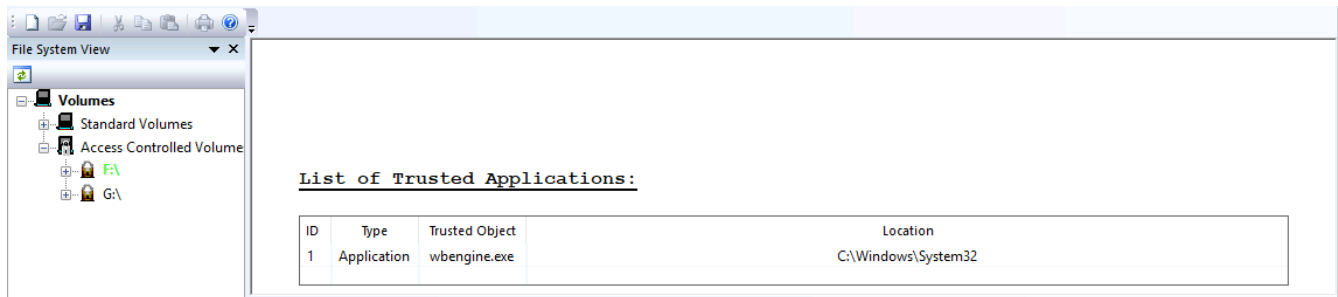


Do not close the GUI while automatic whitelisting is running. Closing the GUI will terminate automatic whitelisting in the background.



## 4.5.2. Manually whitelist applications

Select the menu item “[WhiteListing](#) >> [Whitelist Programs](#)” from the Blocky GUI main menu and pick the application you want to allow unrestricted file access in the FileBrowserDialog. If the whitelisting process was successful the application is displayed in the table “List of Trusted Applications”.

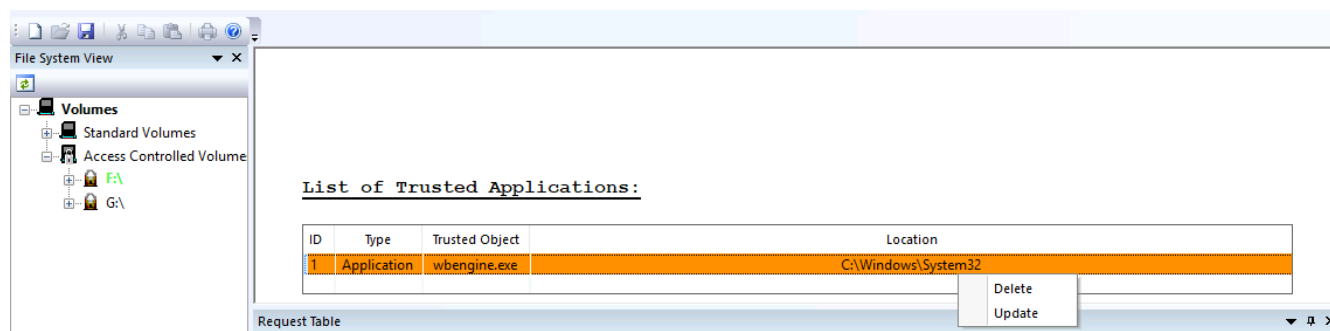


## 4.5.3. Whitelist via request table

It is also possible to whitelist an application via the request table that pops up in the GUI if a non-whitelisted application tries to modify a file under Access control. See [Request Table](#).

## 4.5.4. Invalid whitelist entry

When a whitelisted application has been modified, e.g. by updating the application or its loaded DLL's, or via malicious manipulation, the fingerprint will change and the corresponding whitelist entry is getting invalid. BlockyGUI will show this whitelist entry marked in red color. If the modification of the application is known as harmless, the whitelist entry may be updated to recalculate the fingerprint. To update, right-click on the invalid entry and select "Update". Updating a whitelist entry is also possible via BlockyCLI. See chapter [BlockyCLI](#)



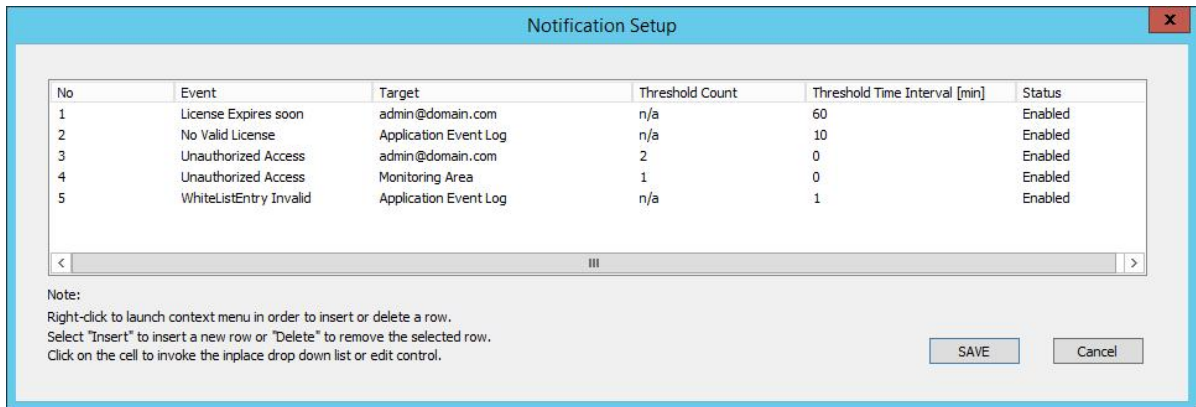
When a whitelist entry is invalid, all write access attempts of that application will be denied. You have to update this entry to grant access.



Do not update an invalid whitelist entry if you are not aware of any known changes to the system as the system may be compromised.

## 4.6. Notifications

Blocky4Backup can send alert notifications to the Windows application event log, to configured email recipients and to the Status Area of the Blocky GUI depending on certain rules. When sending email notifications, multiple recipients can be specified separated by semicolons. To configure notification delivery select the menu item “**Configuration >> Notifications**” from the main menu.



**The following stateful event types are available:**

- no valid license
- license will expire soon
- licensed capacity exceeded
- invalid whitelist entry
- filter unloaded

**The following stateless event types are available:**

- unauthorized access (m)
- authorized access (m)
- internal error (m)
- service started (o)
- service stopped (o)

Note: Stateless events may occur only once (o) or multiple (m) times.



### Check for invalid whitelist entries is performed on:

- file access via whitelisted app
- start of Blocky service

The whitelist check investigates whether the entries in the whitelist are still valid or whether the fingerprint of the binary on the disk has changed.

### Rules:

Threshold Count	ThresHold Time Interval [min]	Action
<n>	0	Stateless event: notification is sent after <n> occurrences.
<n>	<m>	Stateless event: notification is sent when the event has occurred <n> times within <m> minutes.
n/a	n/a	Stateless event: event occurs only once and notification is sent once the event has occurred.
n/a	<i>	Stateful event: notification is sent every <i> minutes when the event has occurred. When <i> is set to 0 the notification is sent only once.

### Example: (email notification)

**<Unauthorized Access> event occurred 1 times.**  
**(threshold settings: Count: 1 / TimeInterval:0 min)**  
**additional information:**

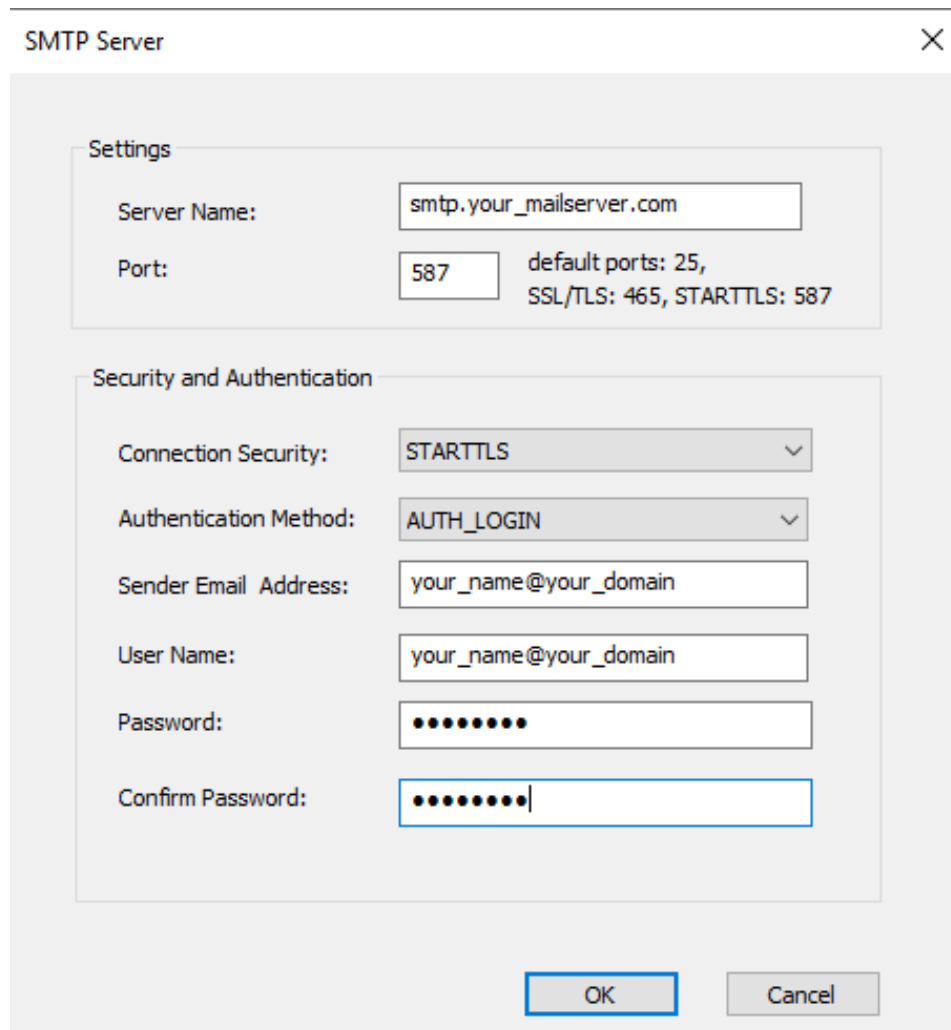
**PID: 2188, App: C:\Program Files\Windows NT\Accessories\wordpad.exe,**  
**File: \\?\E:\t1\230\_49\_e.log, User: WIN-DC65PAE604F\Administrator**

### Example: (GUI status area)



## 4.7. SMTP Server Configuration

In order to send notifications to email recipients an outgoing SMTP mail server must be configured. Several connection security options and authentication methods are available. Supply SMTP authentication data if required. Select "Configuration >> SMTP Server" to open the following configuration dialog:



The "SMTP Server" configuration dialog box is shown. It has a title bar with "SMTP Server" and a close button (X). The dialog is divided into two main sections: "Settings" and "Security and Authentication".

**Settings:**

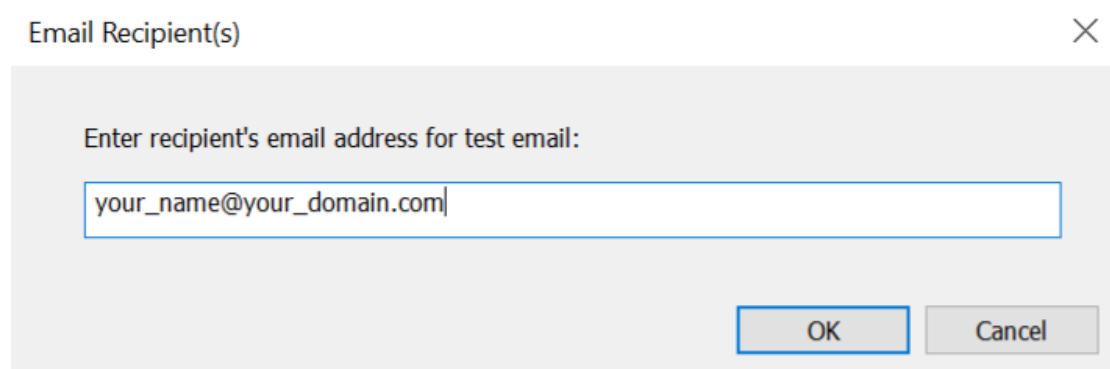
- Server Name:
- Port:  default ports: 25, SSL/TLS: 465, STARTTLS: 587

**Security and Authentication:**

- Connection Security:
- Authentication Method:
- Sender Email Address:
- User Name:
- Password:
- Confirm Password:

At the bottom right, there are "OK" and "Cancel" buttons.

Your settings can be tested by sending a test email to your user account. "Configuration >> Test Email"

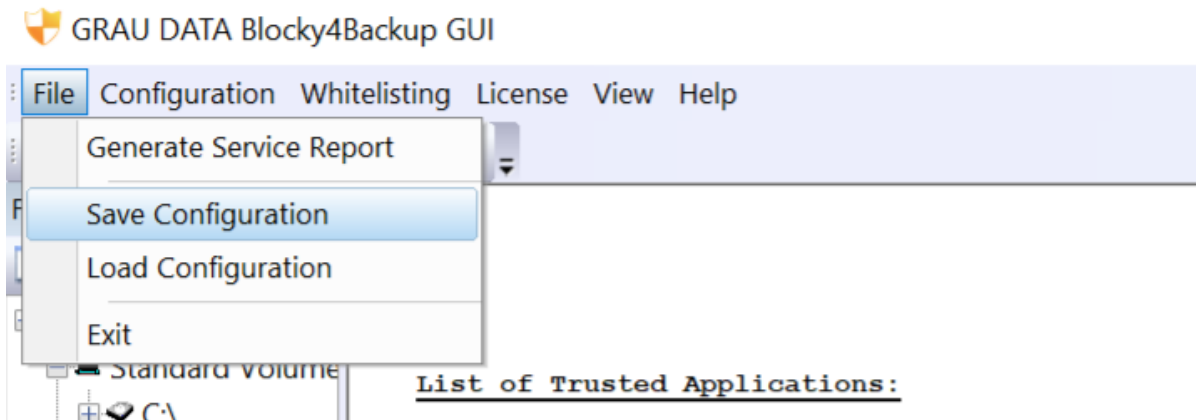


The "Email Recipient(s)" dialog box is shown. It has a title bar with "Email Recipient(s)" and a close button (X). The dialog contains a label "Enter recipient's email address for test email:" and a text input field with the value "your\_name@your\_domain.com". At the bottom right, there are "OK" and "Cancel" buttons.

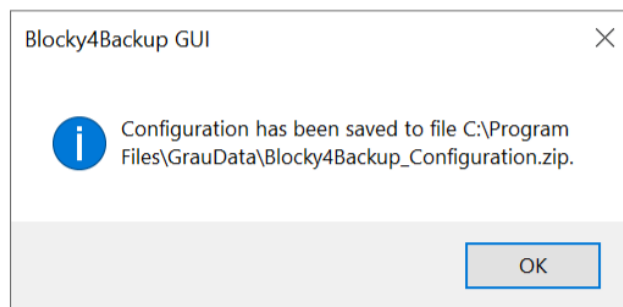
## 4.8. Save / Load Configuration

The current configuration can be stored for a later restore.

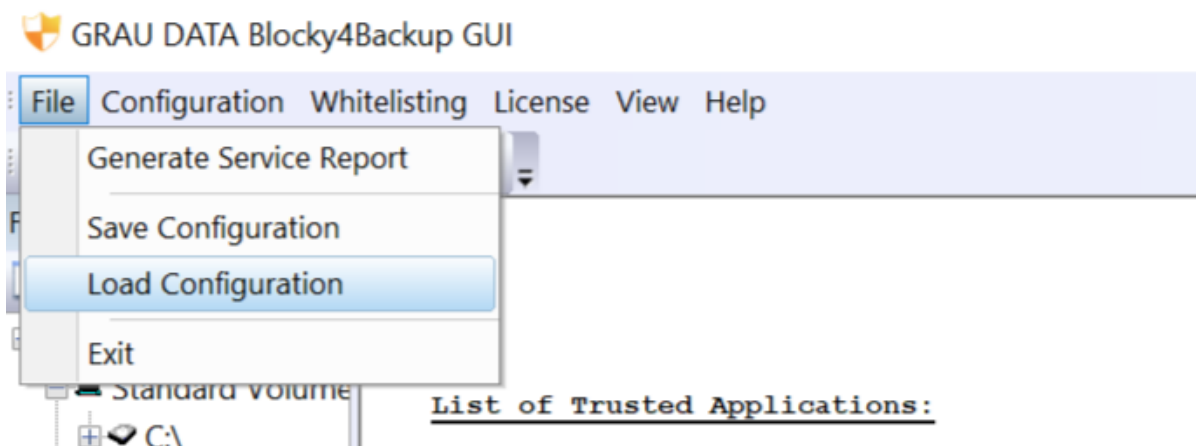
This will store the SMTP Server configuration and other settings for notification and whitelist in the file `C:\Program Files\GrauData\Blocky4Backup_Configuration.zip`.



To save all configuration settings select the menu item “File >> Save Configuration”.



To restore configuration settings use “File >> Load Configuration”.



## 4.9. Licensing

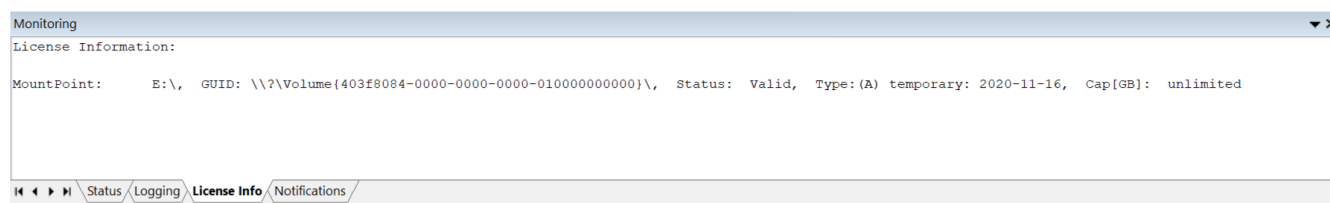
Blocky4Backup allows the use of a fresh activated Blocky volume for 60 days. The trial license has neither a capacity limit nor a limit of the number of Blocky volumes. Every volume receives this trial license when the Access control is switched on for the first time. If you want to keep a Blocky volume past the trial period, you need to register the volume while the trial license is still valid to obtain a key for a registered license.

Licensing is also possible via BlockyCLI. See chapter [BlockyCLI](#) for available CLI commands.

### 4.9.1. Initial Licensing

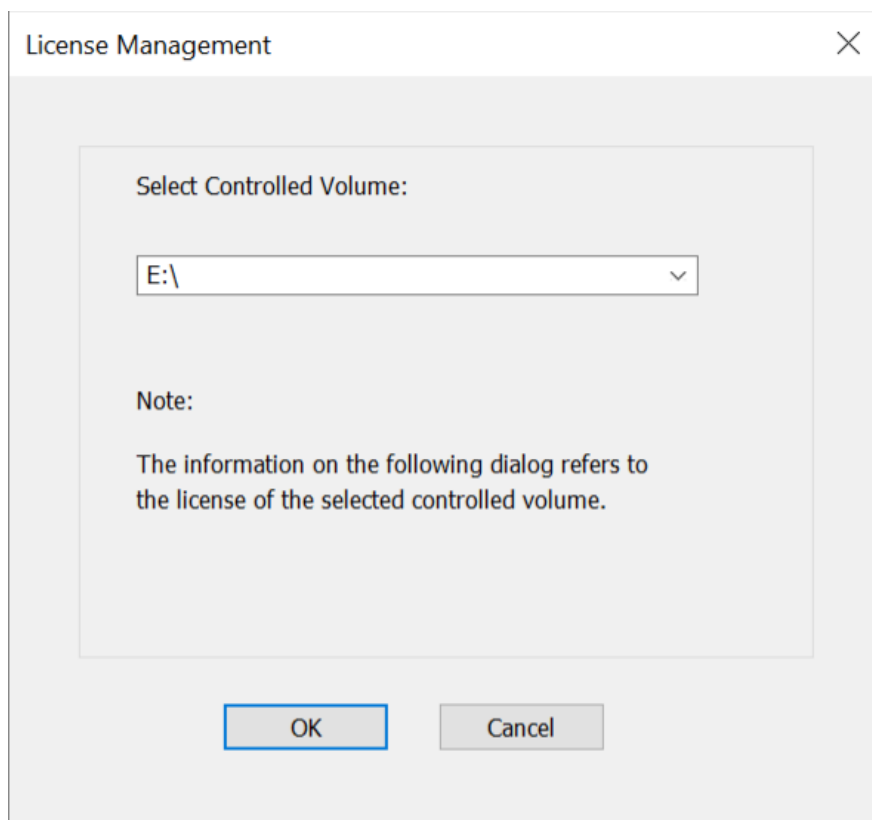
If the Access Control feature is activated on a volume, the temporary trial license for 60 days will be automatically installed on that volume. Licensing is always volume-based, which means that a license must be ordered for each volume which should be protected by Blocky4Backup.

You can see your current status in the "Monitoring" window.

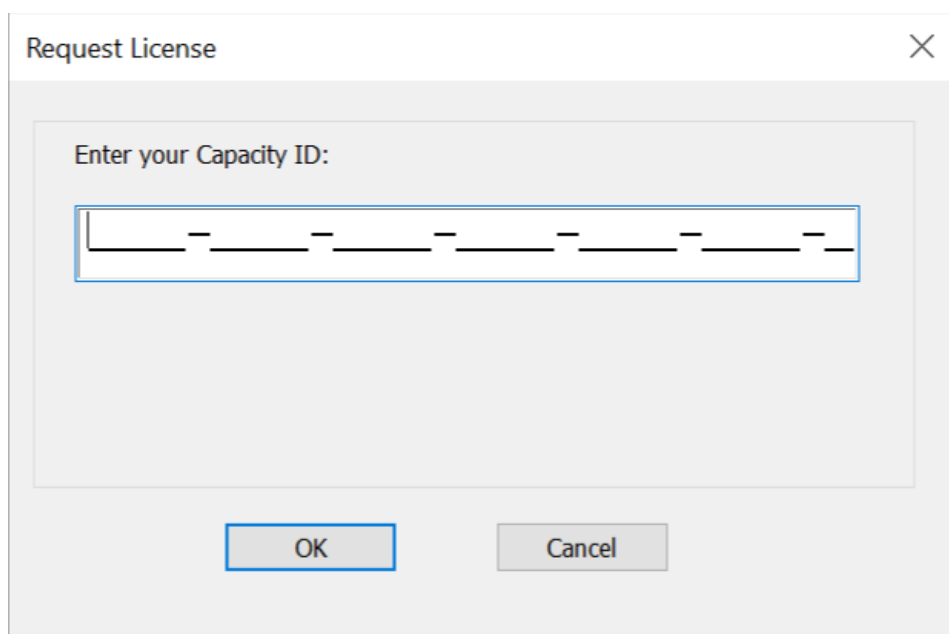


Each Blocky volume is registered separately and therefore has its own Blocky4Backup generated Capacity-ID, which is needed when requesting a registered license key for a Blocky volume.

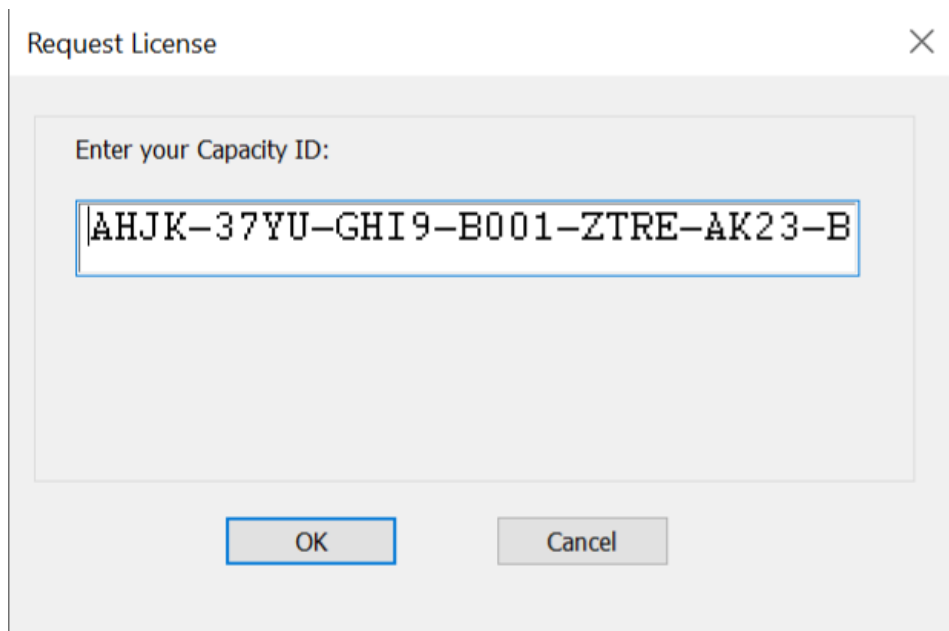
Select the menu item “License >> Request License” from the main menu.



Use the drop-down list and choose the volume for which you want to request a license key.



Enter the Capacity-ID, which you have received from your Blocky4Backup sales representative. Characters are automatically converted to upper case when entering lower case.

A dialog box titled "Request License" with a close button (X) in the top right corner. Inside the dialog, there is a text input field with the label "Enter your Capacity ID:". The field contains the text "AHJK-37YU-GHI9-B001-ZTRE-AK23-B". Below the input field, there are two buttons: "OK" and "Cancel".

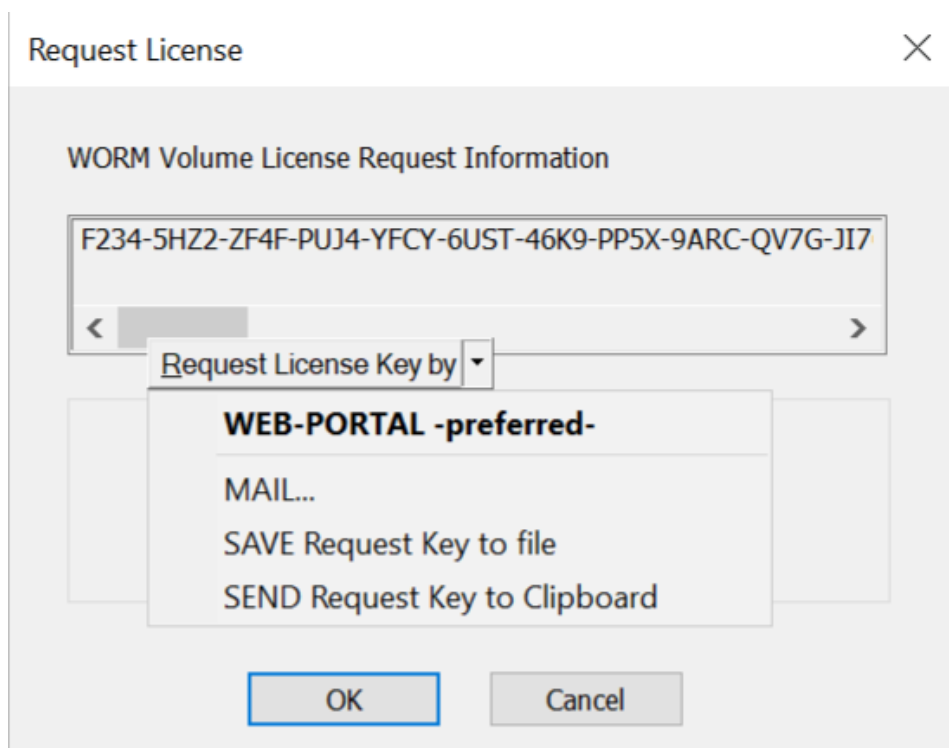
Request License

Enter your Capacity ID:

AHJK-37YU-GHI9-B001-ZTRE-AK23-B

OK Cancel

After pressing the “OK” button Blocky4Backup generates the license request key, which must be sent to the licensing service by using either the on-line WEB-PORTAL or sending the information via email.

A dialog box titled "Request License" with a close button (X) in the top right corner. The main title is "WORM Volume License Request Information". Below this, there is a text input field containing the license key "F234-5HZ2-ZF4F-PUJ4-YFCY-6UST-46K9-PP5X-9ARC-QV7G-JI7". Below the input field, there is a dropdown menu labeled "Request License Key by". A context menu is open over the dropdown, showing four options: "WEB-PORTAL -preferred-", "MAIL...", "SAVE Request Key to file", and "SEND Request Key to Clipboard". At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

Request License

WORM Volume License Request Information

F234-5HZ2-ZF4F-PUJ4-YFCY-6UST-46K9-PP5X-9ARC-QV7G-JI7

< >

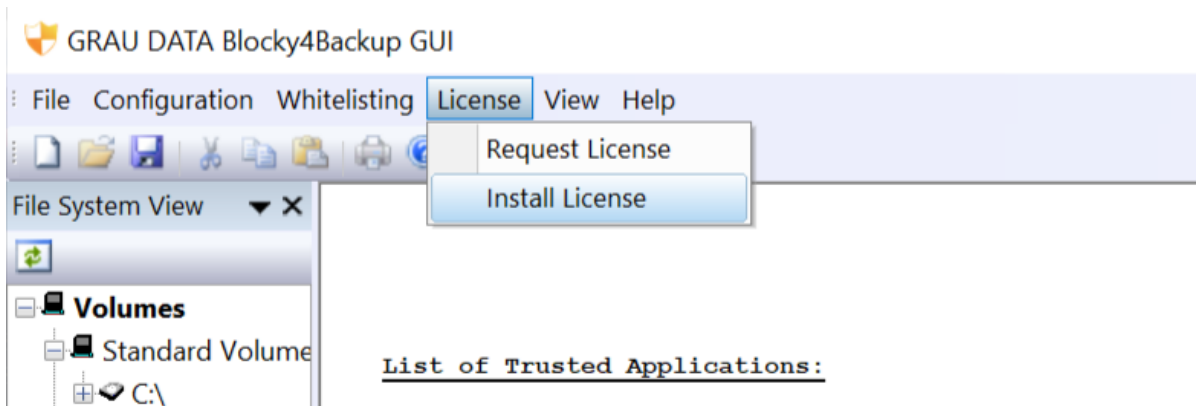
Request License Key by

- WEB-PORTAL -preferred-
- MAIL...
- SAVE Request Key to file
- SEND Request Key to Clipboard

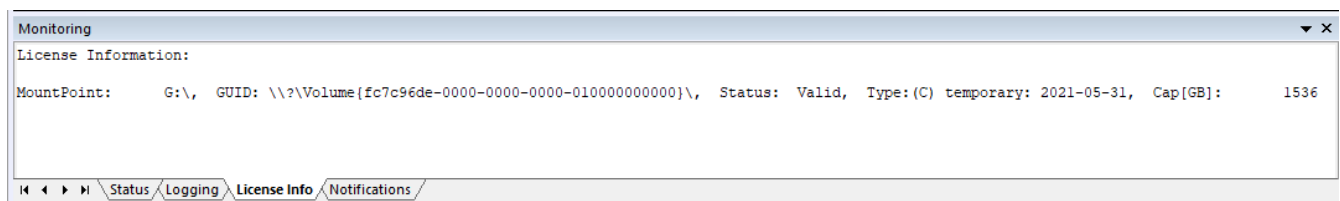
OK Cancel

Please ensure that your server is connected to the internet, when choosing the "WEB-PORTAL" for requesting the license key. To access the licensing service you have to log in to the WEB-PORTAL. If you do not yet have log-in credentials, please register and provide a valid email address, which is used by the licensing service to respond back to you.

If you decide to send the license key request via email, you may either use the menu item “EMAIL...”, which launches your email client and automatically generates an email with the necessary information or you may copy the license request key to a text file and send it as an email attachment to [support@graudata.com](mailto:support@graudata.com). After receiving the registered license key file for the volume, select the menu item “License >> Install License” from the main menu.



Check the license status on the right-side pane of the Blocky GUI. It may take up to 4 minutes until the license status is updated.



## 4.9.2. License update and renewal

After you have installed the registered license initially, you can still add additional capacity to a Blocky volume or extend the license time limit by an updated license key file. The updated license key file must be requested via “License >> Request License” and installed via the menu item “License >> Install License” as well. The previously entered Capacity-ID is not required anymore. You may request a new license key file at any time, however the resulting license key file reflects your currently purchased license. To receive a license file with additional capacity or extended timeframe, you must purchase an additional license from GRAU DATA GmbH sales or your local distributor first before requesting an updated license.

Blocky4Backup monitors the overall physical capacity on each Blocky volume and the license time limit, and displays a warning message in the application event log when a Blocky volume exceeds the licensed capacity or time limit. If either the capacity or time limit is exceeded, the license gets invalid and access protection also denies modification requests from whitelisted applications until an updated license key is installed for the volume to cover the overall capacity or extend the time limit. As a workaround to gain write access on a Blocky volume with invalid license, an

Administrator may disable access protection for that Blocky volume manually. Access protection must be enabled again before installing a valid license.

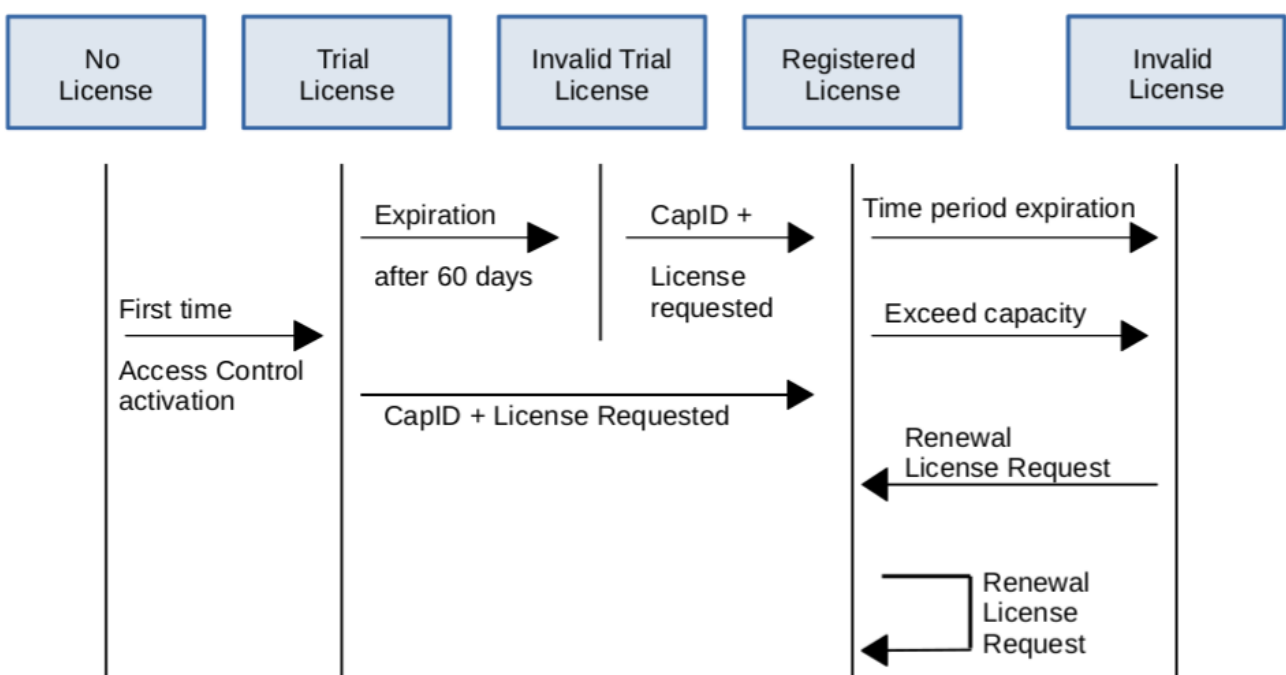
The Blocky4Backup user interface provides an overview of the installed license types, status and licensed capacity. It is recommended to request and install a new license before the installed license expires or the volume's physical capacity is extended.



During Upgrade from Blocky4Backup version 2.4 to version 2.5 or later, all valid licenses will be migrated automatically. To update or renew such migrated licenses at a later time, you must send a [Service Report](#) to GRAU DATA GmbH support ([support@graudata.com](mailto:support@graudata.com)) first before requesting an updated license key file. Invalid, e.g. expired licenses, are not migrated during upgrade. To obtain a valid license for such Blocky volumes you must follow the [initial licensing](#) workflow which requires a valid Capacity-ID.

### Summary:

- Each license is volume based.
- The trial license is valid for 60 days after activation.
- The trial license has no capacity limit.
- The registered license has a time and capacity limit (depending on the purchase).
- Capacity is the volume provisioned size not the used space.
- An invalid license denies any modification on existing files (on the affected volume).



# 5. Monitoring

## 5.1. Request Table

In case the GUI is running, if a file modification is attempted and can not be assigned to any whitelisted program, the request will be displayed in the request table and a administrator may control the file access. If there is no answer to a request within 1 minute, the access is automatically denied. Access can be manually set by clicking the <set access> drop-down list in the Access column and choosing an access option.

Request Table				
PID	Program	User	File	Access
1884	C:\Program Files\Windows NT\Accessories\wordpad.exe	Administrator	\\?\G:\t1\readme.txt	<set access>

The following options are available:

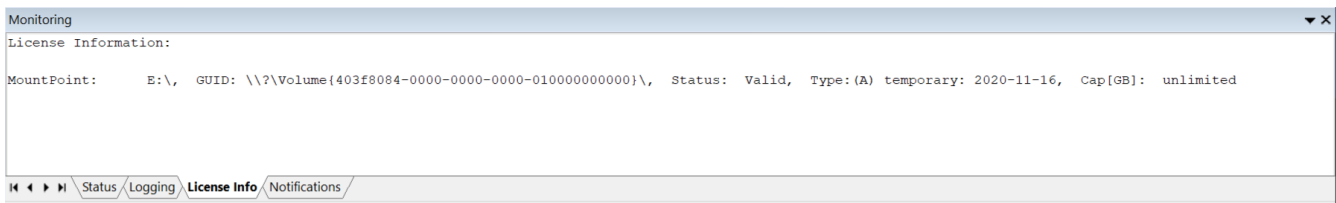
- GRANT – Allows the running process to modify the specified file object
- DENY – Denies the running process from modifying the specified file object
- AUTHORIZE PID – Write access is granted to all files for the specified process until its termination (NT kernel and system processes are excluded.)
- WHITELIST PROGRAM – The whitelisted program is permanently allowed to modify existing files.

Program	User	File	Access
C:\Program Files\Windows NT\Accessories\wordpad.exe	Administrator	\\?\G:\t1\readme.txt	<set access>
			<set access>
			GRANT
			DENY
			AUTHORIZE PID
			WHITELIST PROGRAM

## 5.2. Status Informationen

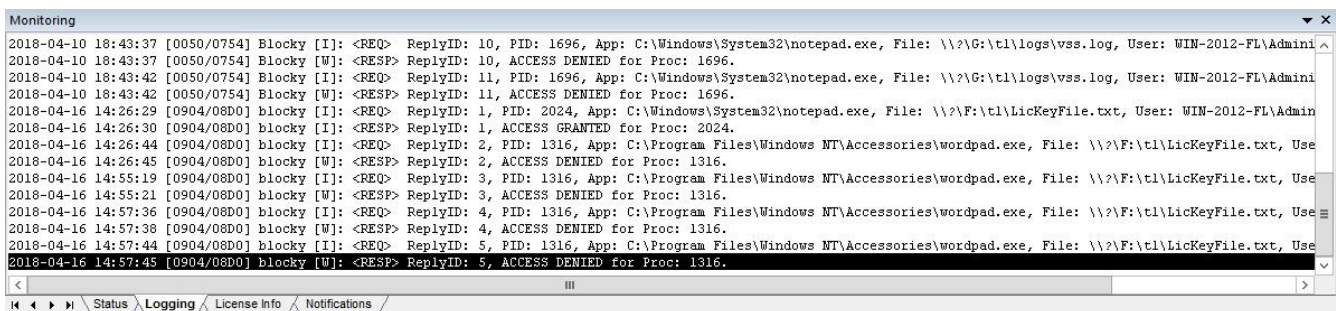
An overall status is shown in the “Monitoring” window in the tab “Status”.

Monitoring	
Blocky4Backup Status:	
Connection to Access Control Service has been established.	
Data is available.	
Automatic WhiteListing: OFF.	
File system filter is attached to all managed volumes.	
◀ ▶ 🔍 Status Logging License Info Notifications	



## 5.3. Access Log

Blocky4Backup writes all modification requests on protected files and responses to the log file `C:\ProgramData\GrauData\Blocky\AccessControl.log`. The content of the log file is also displayed in the “Monitoring” window in the tab “Logging”.



## 5.4. Alert Notifications

To check for notifications select the tab “Notifications” from the “Monitoring” window



## 5.5. Windows event logs

Further status informations are available in the Windows application and system event logs.

## 6. Diagnostics

### 6.1. Service Report

To help our service to analyze unexpected behaviour of our software you can generate a Service Report by selecting the menu item “File >> Generate Service Report”. All service information is stored to the file `C:\ProgramData\GrauData\Blocky\Blocky4Backup_Diag.zip`. Generating a service report is also available via the BlockyCli.

### 6.2. Missing privileges

The Blocky GUI requires certain privileges to run properly, so you have to make sure, the user is able to gain such privileges.

The required privileges are:

- SE\_BACKUP
- SE\_RESTORE
- SE\_TAKE\_OWNERSHIP
- SE\_LOAD\_DRIVER

In standard installations, any local or domain admin user is allowed to gain these privileges by default. However it is possible to restrict these privileges via local security policies or domain group policies. Please make sure to **not** restrict these policies for users who need to run the Blocky GUI.

### 6.3. System clock tampering

Blocky4Backup monitors the system clock and detects backward time manipulations. Once such a system clock tampering is detected, this will be reported in Windows eventlog and access control will refuse any write access, even from whitelisted applications.

# Appx A: Setup command line parameters

The Blocky4Backup setup accepts optional command line parameters. These are intended for system administrators or scripted installations.

The same goes for the uninstallation which can be invoked by the uninstallation program `unins000.exe` in the Blocky4Backup installation path.



Administrative rights are required to install, update or uninstall Blocky4Backup.

As Blocky4Backup setup is based on Inno Setup, please check for the general command line parameter description on their [website](#).

## Setup command line

### Syntax:

```
Blocky4BackupSetup_2_5_0_52.exe [optional parameters]
```

```
unins000.exe [optional parameters]
```

### Optional parameters:

**/Secret=<self-defined-password>**

- On new installation: This sets the initial self defined password.
- On update: This supplies the self defined password required for updates.
- On deinstallation: This supplies the self defined password required for deinstallation.



Silent mode (/silent or /verysilent) requires the above secret parameter.



Don't confuse it with the parameter /Password provided by Inno Setup. This is not used.

### Example:

#### *Installation/Uninstallation*

```
Blocky4BackupSetup_2_5_0_52.exe /silent /secret=MyPassword2020
```

```
unins000.exe /silent /secret=MyPassword2020
```

# Appx B: BlockyCLI parameters

BlockyCli.exe is a command-line utility for Blocky4Backup to manage the access control, licenses and password. It is located in the Blocky4Backup installation path.



Membership in the local **Administrators** group, or equivalent, is recommended to run the **BlockyCli**. For non-Admin users, several privileges must be assigned. See chapter [Missing privileges](#) for details. An elevated command prompt is required to gain these privileges.

## Access control commands:

### Syntax:

```
BlockyCli <password> <command> <parameter>
```

### Parameters:

Parameter	Description
<b>Password:</b>	The self defined password is required for all access control commands.

Management command	Parameters	Description
set_accesscontrol	<path>	Activate access control on provided path.
reset_accesscontrol	<path>	Deactivate access control on provided path.
reset_accesscontrol	<path> <n>	Deactivate access control on path temporarily for <n> minutes [1..60]
show_controlledfolders	<path>	Display if access control is in path active.
show_contolledfolders	ALL	Display all controlled folders.
add_whitelist	<program>	Add program to whitelist.
del_whitelist	<program>	Remove program from whitelist.
update_whitelist	<program>	Update program in whitelist.
show_whitelist		Show whitelisted objects.
diagnostics		generate diagnostics report.
dump		Dumps program whitelist and access table.

## Examples:

### *Access control*

```
.\BlockyCli.exe password20 show_controlledfolders ALL
```

Controlled Folders: (0)

rc:0

```
.\BlockyCli.exe password20 set_accesscontrol E:\privat
```

rc:0

```
.\BlockyCli.exe password20 show_controlledfolders ALL
```

Controlled Folders: (1)

E:\privat

rc:0

```
.\BlockyCli.exe password20 show_controlledfolders E:\privat
```

Access Control is active on E:\privat.

rc:0

```
.\BlockyCli.exe password20 show_controlledfolders E:\protect
```

Access Control is not active on E:\protect.

rc:0

```
.\BlockyCli.exe password20 reset_accesscontrol E:\privat 10
```

rc:0

### *Whitelist*

```
.\BlockyCli.exe password20 add_whitelist C:\Windows\System32\notepad.exe
```

rc:0

```
.\BlockyCli.exe password20 show_whitelist
```

WhiteListed Applications:

C:\Windows\System32\notepad.exe

rc:0

```
.\BlockyCli.exe password20 del_whitelist C:\Windows\System32\notepad.exe
```

rc:0

```
.\BlockyCli.exe password20 update_whitelist C:\Windows\System32\notepad.exe
```

rc:0

## Diagnostics

```
.\BlockyCli.exe password20 diagnostics  
Generating Diagnostics Report .....  
rc:0
```

This creates the service report file `C:\ProgramData\GrauData\Blocky\Blocky4Backup_Diag.zip`.

## Dump

```
.\BlockyCli.exe password20 dump  
rc:0
```

This creates the following files in the folder `C:\ProgramData\GrauData\Blocky\`:

- AccessTable.txt
- WhiteListDump.txt

## License handling commands:

### Syntax:

```
BlockyCli <password> <command> <parameter>
```

### Parameters:

#### Password:

The self defined password is required for all license handling commands.

Management command	Parameters	Description
<b>request_license</b>	<vol_path>   <vol_guid> [ -f license-file.txt ] [ -c CapID ]	get license request for volume.
<b>install_license</b>	{ -f license-file.txt   -k license-key-string }	install license key.
<b>show_license</b>	[-f output-file.csv]	show licenses of all controlled volumes.

### Examples:

#### *Request License*

```
.\BlockyCli.exe password20 request_license E: -c AAAA-BBBB-CCCC-3333-5555-ZZZZ-XXXX
M8SU-MJZY-R94W-WZ9V-J4MF-YMX6-A9HS-2C4V-VZXW-NW4Z-EFDJ-6W57-FVIX-E5G6-69HV-
BUDJ-FT7P-CEV5-RGDS-TUX7-4YJX-V6NS-KJR4-GVC2-P4HQ-G9CZ-8IET-S6XY-Q8KV-RJGE-UMU3-
ATD2-G5J7-8VRN-S7XF-CINP-6T2G-6RTR-AN9C-MDJX-9AHK-QYGG-ZV5X-7CCM-FT8J-7PAH-AP54-
4AJQ-W9WW-GX52-VFD4-PCDP-ASM3-S9HG-A8RA-8XFG-5Q6S-JAA
rc:0

.\BlockyCli.exe password20 request_license E: -f request-file.txt
rc:0

.\BlockyCli.exe password20 request_license "\\?\Volume{fc7c96de-0000-0000-0000-
010000011000}\\"
M7SU-MJZY-R94W-WZ9V-J4MF-YMX6-A9HS-2C4V-VZXW-NW4Z-EFDJ-6W57-FVIX-E5G6-69HV-
BUDJ-FT7P-CEV5-RGDS-TUX7-4YJX-V6NS-KJR4-GVC2-P4HQ-G9CZ-8IET-S6XY-Q8KV-RJGE-UMU3-
ATD2-G5J7-8VRN-S7XF-CINP-6T2G-6RTR-AN9C-MDJX-9AHK-QYGG-ZV5X-7CCM-FT8J-7PAH-AP54-
4AJQ-W9WW-GX52-VFD4-PCDP-ASM3-S9HG-A8RA-8XFG-5Q6S-JAA
rc:0
```



The **request\_license** command only generates a license request key. Please proceed with resulting license request by using Web-Portal or e-mail. See chapter [Licensing](#).



For initial licensing request, a valid Cap-ID must be supplied with parameter "-c". For license renewal, this parameter should be omitted.



When Volume is supplied as volume GUID, this must be enclosed in single or double quotes.

### *Install License*

```
.\BlockyCli.exe password20 install_license -f LicKey-20210713-115523.txt  
rc:0
```

```
.\BlockyCli.exe password20 install_license -k 4MXB-E8VU-Z9XS-6YCM-3ACK-QSBD-WCVH-  
QFE7-TPMM-SQUJ-7AZH-TAW9-FEBD-F3CN-CX7D-PAZA-C48Z-ZM6I-JUG4-YI4R-PKST-IIGW-  
BA5D-6MWB-RSHD-M7XG-YEWW-559C-DUR5-V7R5-3MNR-AZXT-JKFJ-7P3S-ATYN-BHNQ-6VDT-  
RMUK-PPR8-8ZWV-E43T-WB5R-7WMU-CHDW-M8ZS  
rc:0
```

### *Show License*

```
.\BlockyCli.exe password20 show_license  
VolumeGUID,MountPoint,VolumeKey,LicenseType,ExpirationDate,LicensedCapacity,TotalCapa  
city,UsedCapacity
```

```
\\?\Volume{6e65ff6d-7d86-4f90-9eb1-f3b55087b321}\,F:\,01053782,C,2023-01-  
17,10240,10220,1024  
\\?\Volume{fc7c96de-0600-0200-0300-010000000000}\,G:\,02021BCB,C,2022-01-  
02,20480,18384,2048  
rc:0
```

```
.\BlockyCli.exe password20 show_license -f output-file.csv  
rc:0
```

## Password management

Command	Description
BlockyCli <b>set_password</b> <password>	Sets the initial password.
BlockyCli <b>request_password_reset</b>	Creates a token for requesting a password reset key.
BlockyCli <b>request password</b> <reset_key>	Resets the password with the provided reset key.

### Examples:

#### *Set password*

```
.\BlockyCli.exe set_password password20  
rc:0
```

#### *Request password*

```
.\BlockyCli.exe request_password_reset
```

Send the following token to [support@graudata.com](mailto:support@graudata.com) in order receive a password reset key:

```
H9KC-CS2K-KSJR-L87T-N6ES-OX3T-U5TR-YWA4-BAN6-7ANG-26ZG-P2QD-3EX2-BB7H-J2RM-  
2VXT-7IE6-4NE8-6GY4-5K9Q-5ZZ4-QAMG-WDP9-AG87-2IVU-5K4V-X4CT-UID7-KT6E-8IXH-VTH4-  
48TS
```

#### *Reset password*

```
.\BlockyCli.exe reset_password OD9C-OUR5-KSFR-L8OT-XKLS-OX3T-U5TR-YWA4-BAN6-7ANG-  
26ZG-P2QD-3EX2-BB7H-J2RM-2VXT-7IE6-4NE8-6GY4-5K9Q-5ZZ4-QAMG-WDP9-AG87-2JUS-5K4V-  
X4CT-UID7-KT6E-8IXH-VTH4-IO0P  
rc:0
```

# Appx C: Blocky4Backup Change Log

This appendix summarizes the changes between Blocky4Backup versions. The change log only contains relevant changes and fixes.

## C.1. Version 2.5.0.52 - Fix-5

- Fix Release for 2.5.0
- (Feature) Introduce SID cache for better performance
- (Bugfix) Performance enhancement for process lookup
- (Bugfix) Performance enhancement for file name lookup
- (Bugfix) Fix BlockyCli crash when called from service account
- (Bugfix) Add performance counters to trace timing issues
- (Bugfix) Fix license notifications for disabled volumes
- (Bugfix) Fix BlockyCli config for folder mounted volumes

## C.2. Version 2.5.0.48 - Fix-4

- Fix Release for 2.5.0
- (Feature) Support for multiple email recipients
- (Feature) Restricted support for volumes mounted in folders
- (Feature) Prevent brute force password attac
- (Feature) BlockyCli enhancement for license handling
- (Bugfix) Notifications in case of filter not loaded
- (Bugfix) Invalid characters in AccessControl.log cause GUI to hang
- (Bugfix) Fix service crash on runaway GUI connects
- (Bugfix) Particular folder names may cause service to terminate silently
- (Bugfix) Improve detection of system clock tampering
- (Bugfix) Fix for binaries with invalid internal checksums
- (Bugfix) BlockyCli fix for updating whitelist
- (Bugfix) Detect certain invalid volume configurations
- (Bugfix) Include rotated logfiles in service report

## C.3. Version 2.5.0.41 - Fix-3

- Fix Release for 2.5.0
- (Feature) Start/Stop service notification
- (Bugfix) Stateful notifications
- (Bugfix) Zero notification threshold count
- (Bugfix) Prevent stopping of filter
- (Bugfix) reject single quote (') and double quote (") in password

## C.4. Version 2.5.0.36 - Fix-2

- Fix Release for 2.5.0
- (Feature) Basic support for NTFS deduplication
- (Bugfix) AccessControl request for folder rename
- (Bugfix) Proper handling of internal ADS

## C.5. Version 2.5.0.32 - Fix-1

- Fix Release for 2.5.0
- (Bugfix) Stabilize installer for update/upgrade
- (Bugfix) Fix crash of service with duplicate license keys
- (Bugfix) Notification list entries
- (Bugfix) Missing file in service report

## C.6. Version 2.5.0.30 - Release

- Initial 2.5.0 Release
- (Feature) Introduce additional password for configuration
- (Feature) Uninstall/Upgrade now password protected
- (Feature) Changed 3rd party license handling to GRAU DATA Cap-ID based model
- (Feature) Adjusted SMTP configuration
- (Feature) Volume gets locked on expired license
- (Feature) Introduce notification on invalid whitelist entry
- (Feature) Remove account whitelisting
- (Feature) Introduce command-line tool
- (Bugfix) Rework internal timer actions

# Appx D: Open Source Licenses

GRAU DATA GmbH acknowledges the redistribution of open source components under the licenses shown below with Blocky4Backup.

## OpenSSL

Copyright © 1998-2019 The OpenSSL Project, OpenSSL License  
Copyright © 1995-1998 Eric Young ([eyay@cryptsoft.com](mailto:eyay@cryptsoft.com)), Original SSLeay License  
<https://www.openssl.org/source/license-openssl-ssleay.txt>

## POCO C++ Libraries

POCO C++ Libraries project, Boost Software License - Version 1.0 - August 17th, 2003  
<https://github.com/pocoproject/poco/blob/master/LICENSE>

## JsonCpp

Copyright © 2007-2010 Baptiste Lepilleur and The JsonCpp Authors, MIT License  
<https://github.com/open-source-parsers/jsoncpp/blob/master/LICENSE>

## Crypto++ Library

Compilation Copyright (c) 1995-2019 by Wei Dai,  
Boost Software License - Version 1.0 - August 17th, 2003  
<https://cryptopp.com/License.txt>

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