

Digital-Tronic Software Development

# **MD5 FILE HASHER**

## **USER MANUAL**

Dated: October 2014

# WELCOME

**MD5 File Hasher** is a simple program which allows you to create and compare checksums. This allows you to detect changes to files which could have been caused by changes made to the file by malicious software or as a consequence of other technical interference (e.g. transmission errors caused when transferring files through the internet).

The program utilizes the well-tested MD5 algorithm which provides a reliable method to create checksums. The optional upgrade to the Pro Version offers in addition user-defined timed checks which allow for sensitive files to be monitored. The results are detailed in well-structured and user-friendly reports. For more information, please visit: [Upgrade to the Pro Version](#).

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# 1 GENERAL INFORMATION

This section includes all information on how to use **MD5 File Hasher**.

## 1.1 PRODUCT FEATURES

**MD5 File Hasher** offers the following features:

- Easy creation of MD5 hash values for files of any size.
- Files can be dragged and dropped directly into the program folder.
- Hash values can be saved to a txt file or to the clipboard.
- Calculate hash values for the content of entire folders. If desired, also sub-folders can be included.
- Check and compare hash values previously created to detect any changes to files.
- Files that have been deleted or added may also be detected reliably.
- Integrated planner to create scheduled checks. This function is exclusively available in the Pro Version (see: [Upgrade to the Pro Version](#)).
- User-friendly design provides easy and fast access to all important functions.
- Easy access via the [Tray-Icon](#) in the system tray of the Taskbar.
- Compatible with 64-bit systems.

The optional Pro Version of **MD5 File Hasher** adds some additional features, such as the automated execution of tasks including the timed run of checks and support of user-defined filters. Furthermore, Checkfiles can be updated automatically and the execution of tasks is performed up to 50% faster. These features can be tested in the Freeware Version for 15 days. For more information, please visit: [Upgrade to the Pro Version](#).

## 1.2 SYSTEM REQUIREMENTS

Before installing **MD5 File Hasher** please make sure that your system meets the following minimum requirements:

- Computer: Pentium 400 MHz and up
- Operating system:
  - Windows XP
  - Windows Server 2003
  - Windows Vista (32-bit or 64-bit)
  - Windows Server 2008 (32-bit or 64-bit)
  - Windows 7 (32-bit or 64-bit)
  - Windows 8 (32-bit or 64-bit)
  - Windows Server 2012 (32-bit or 64-bit)
- Memory: minimum 256 MB
- Hard drive: available space of at least 30 MB
- Administrator privileges

## 1.3 INSTALLATION

### Before running the installation file

It is recommended that you close all programs before installing **MD5 File Hasher**.

**NOTE:**

Please make sure that your system meets the minimum requirements (see: [System requirements](#)) before installing the software.

### Installation

To install the software, please run the installation file. You will be guided through the setup options. Unless you would like to customize the setup options, you simply confirm the next step by clicking on “Continue”, “OK” or “Yes”. The program will then be installed automatically and started for the first time.

### Re-installation

Installation or de-installation of third-party software may damage files required by **MD5 File Hasher**. If **MD5 file Hasher** stops working properly, please re-install the software and make sure you choose the same installation folder as in the previous installation.

**NOTE:**

To upgrade to the Pro Version no re-installation is necessary. For more information, please visit: [Upgrade to the Pro Version](#).

## 1.4 TECHNICAL SUPPORT

Registered users of **MD5 File Hasher** receive help and support from Digital-Tronic.

Before you contact technical support, please make sure you have the correct registration code and version number ready when contacting us for support. You can find the version number by clicking on the info tab within the program.

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## 1.5 COPYRIGHT

**MD5 File Hasher** is Freeware and may be distributed freely. This does not extend to the paid-for Pro Version of **MD5 File Hasher**. Specifically, it is prohibited to pass on registration codes without express permission from Digital-Tronic. If you have purchased a business license, you may use the registration code on all computers on your company network.

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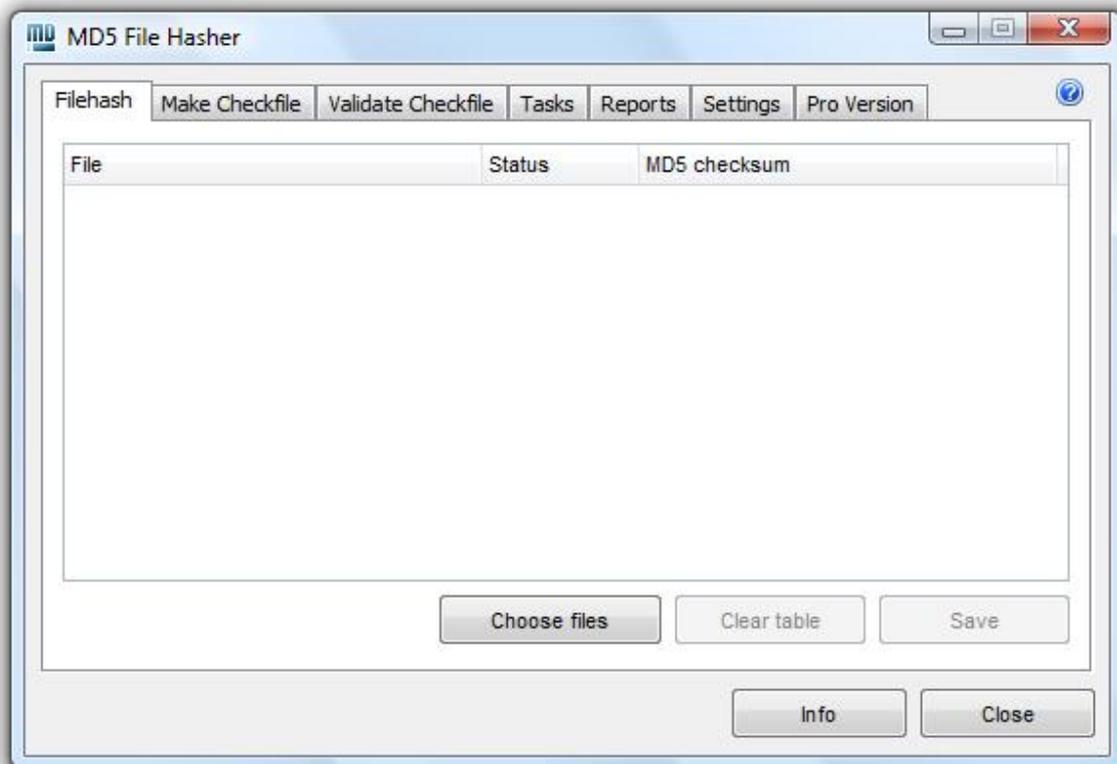
## 2 USING MD5 FILE HASHER

In this section you will find an overview of the operation and functions of **MD5 File Hasher**.

### 2.1 USER INTERFACE

#### 2.1.1 Main window

The main window is the operating central of the software.



The main window is separated into two parts: **tabs** and **task pane**.

- **Tabs:** The tabs allow you to switch between the different categories of **MD5 File Hasher**.
- **Task pane:** The task pane is below the tabs and includes further functions and configuration options.

## Open and close the main window

You have several options to open the main window:

- Double-click the program icon on your Desktop.
- Click Start > Programs > MD5 File Hasher.
- Double-click the [Tray-Icon](#).

The main window can be closed by clicking the close button or “X” in the top corner of the window.

### NOTE:

If you close the main window and uncheck the box “Settings” > “Show program in Sys-tray”, programmed tasks will not be executed automatically.

### 2.1.2 Tray-Icon

The Tray-Icon appears after installing in the Systray of the taskbar. It will indicate the status of **MD5 File Hasher**:

Icon	Description
	<b>MD5 File Hasher</b> is active
	<b>MD5 File Hasher</b> runs a task

In addition, the Tray-Icon offers easy access to the key functions of **MD5 File Hasher** via the context menu. To open the context menu, please right-click on the Tray-Icon.

### The context menu

The context menu of the Tray-Icon contains the following entries:

- **Show MD5 File Hasher**: Opens the [Main window](#).
- **Execute task [...]**: Executes the programmed task [...]. The placeholder [...] stands for the name of the task which was selected in the section “Tasks” of the [Main window](#). To select a task for the context menu, please right click on the desired task and select “Show

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<sup>1</sup> This symbol appears animated in reality: the white rectangle moves to the right.

this task in task menu”. Please note that tasks can only be executed in the Pro Version (see: [Upgrade to the Pro Version](#)).

- **Recent reports:** Opens a sub-menu which displays the five most recent reports.
- **Start program with Windows:** Determines whether program will be started automatically when Windows is started (default setting). You can choose this option also in the section “Settings” of the [Main window](#). For the automatic execution of tasks, it is recommended to choose the default setting.
- **Help:** Opens help window of **MD5 File Hasher**.
- **Quit:** Shuts down program and removes Tray-Icon. Automatic tasks will no longer be executed.

## Deactivate Tray-Icon

You may deactivate the Tray-Icon in the section “Settings” of the [Main window](#). Please remove the check mark on “Show program in Systray”.

### *NOTE:*

If you close the [Main window](#) and if the Tray-Icon is deactivated, automatic tasks will no longer be executed.

If you want to re-activate the Tray-Icon, please simply tick the box next to “Show program in Systray”.

## 2.2 CALCULATE MD5-HASH VALUES OF FILES

The calculation of a MD5-Hash value of one or more files takes place as follows:

- Please select the section “Filehash” in the [Main window](#).
- Click “Choose files” and select the file names required. The hash values will be displayed in the table. Alternatively, you may drag and drop the files directly to the table.

### Share hash values

Often it is necessary to share hash values (e.g. by email). **MD5 File Hasher** allows you to save hash values in a txt file or copy it directly to the clipboard.

- **Save hash values to txt file:** Please click on "Save" and select file name.
- **Copy hash values to clipboard:** Right-click on the table and select "Copy to clipboard".

## 2.3 CREATE CHECKFILE

A Checkfile is a text file, which contains checksums from a folder. This file allows you to check the integrity of the directory (see: [Validate Checkfile](#)). A Checkfile may be created as follows:

- Select the section “Make Checkfile” from the [Main window](#).
- Select the desired directory by clicking on “...”. You may also drag and drop the folder or input it manually.
- You may also select to include subdirectories or hidden files.
- The button “Make Checkfile” allows you to create the Checkfile. This file will be saved in the folder selected by you under the name “checksum.md5”.

## 2.4 VALIDATE CHECKFILE

To check whether the directory has been compromised, it is necessary to validate the previously created Checkfile (see: [Create Checkfile](#)). This can be done as follows:

- Select “Validate Checkfile” in the [Main window](#).
- You can either select the Checkfile by clicking on “...” or drag and drop the Checkfile to the text field.
- You may also check for new files and deleted files by ticking the corresponding boxes.

- By clicking “Validate Checkfile”, the check will be started and detailed results will be displayed.
- If **MD5 File Hasher** detects any changes, in the Pro Version you will be prompted whether or not to update the Checkfile. Please click “Yes”, and the hash values of the changed files are automatically added to the Checkfile.

*NOTE:*

The Checkfile will normally be placed in the same folder where the files are located which have been selected. Unless the file name is changed by the user, the default file name is: “checksum.md5”.

## 2.5 CREATE TASKS

**MD5 File Hasher** offers the opportunity to create scheduled tasks and edit or delete existing tasks. Each task is based on a Checkfile, which includes MD5 checksums and additional information, e.g. the start time.

To create tasks, please select the section “Tasks” in the [Main window](#). There, you will find a table and, above, the following buttons:

Button	Function
	Create new task with assistant
	Edit selected task
	Delete selected task
	Run selected task. This function is only available in the Pro Version (see: <a href="#">Upgrade to the Pro Version</a> ).

These functions may also be reached by right-clicking on the table. The menu contains some further functions:

- **Show this task in task menu:** Places a reference to the selected task in the context menu of the [Tray-Icon](#).
- **Export task:** Saves the Checkfile in a separate file.
- **Export all tasks:** Saves the Checkfiles of all tasks to a custom directory.

In the table you will see all tasks. You may activate or deactivate tasks for automated checks by placing or removing a check mark in the column “Active”.

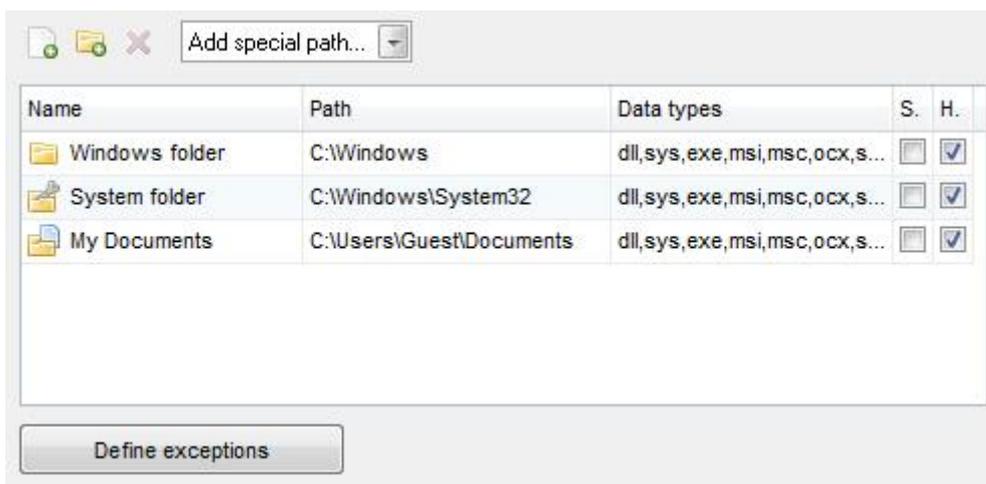
## Create new task

To create a new task, you may use the assistant which has four different parts. You will have to select:

- How the task should be named
- Where the checks should take place
- When and how often checks should take place
- What check results should be saved

## Select files to check

The second part of the assistant (“Where should the check be performed”) will ask you what files and folders should be checked. For this you may use the following table:



You can include both files and directories in the table. Please use the buttons “Add files” (📁) or “Add folders” (📁). Alternatively, you can drag and drop files and directories. With the help of the drop-down list “Add special path” you may also add security-related directories like the Windows folder.

Additionally, you may select the file types of the desired directories. This can be done by direct clicking on the file types displayed in the table. User defined file types should be separated by a comma “,”.

By setting check marks at “S.” (= Subfolders) or “H.” (= Hidden files) you can determine whether subfolders or hidden files in the selected directory should be taken into account.

Often it is necessary to exclude particular files from the check, for instance when a reliable file is located in the directory that should be checked. Therefore, **MD5 File Hasher** allows users to define exceptions. Please select “Define exceptions”.

## Define repeat interval

In the third step (“When should be checked”), you are asked to determine the execution time of the task and the repeat interval. You have the following options:

Option	Description
Once	The task is executed only once.
After system start	The task will always start with Windows.
Daily	The task will be started every day at a particular time.
Weekly	The task will be started on certain days a week at a defined time, e.g. Wednesday and Thursday at 10:30 AM.
Interval	The task will be executed in a chosen interval (e.g. every 12 hours).

With the exception of the option “After system start” you may repeat the task after the set time has expired (e.g. if the PC was turned off when the task was scheduled).

### NOTE:

Please note that tasks can only be executed at desired times if the [Tray-Icon](#) is shown in the taskbar. Therefore, it is recommended to activate “Start program with Windows” and “Show program in Systray”. These options are located in the section “Settings” of the [Main window](#).

### NOTE:

The automatic execution of tasks is only possible in the Pro Version. For more information, please visit: [Upgrade to the Pro Version](#).

## 2.6 REPORTS

After completing a check, **MD5 File Hasher** will create a report in a log file based on your preferences. You may open log files by selecting “Reports” in the [Main window](#). There you will find a table with the reports and above the following buttons:

Button	Function
	<b>Show report:</b> Opens the report in your default editor.
	Delete selected report

By right-clicking on the table, a pop-up menu will show the same options and beyond also the option “Delete all reports”.

### *NOTE:*

The last five reports may also be reached via the context menu of the [Tray-Icon](#).

### *NOTE:*

The creation of reports is only available in the Pro Version. For more information, please visit: [Upgrade to the Pro Version](#).

## 3 UPGRADE TO THE PRO VERSION

To use all functions of **MD5 File Hasher**, it is recommended to consider upgrading the Freeware Version to the paid-for Pro Version. To get an impression of the additional functions of the Pro Version, the optional functions of the Pro Version are activated for testing for 15 days. In this section you find out the advantages of the Pro version and how the upgrade takes place.

### 3.1 YOUR BENEFITS

The Pro Version of **MD5 File Hasher** offers a number of additional functions. These can also be tested in the Freeware Version for 15 days. You can upgrade the Freeware Version to the paid-for Pro Version without re-installing **MD5 File Hasher**. Please compare the two versions and added functions of the Pro Version in the following chart:

Function	Freeware Version	Pro Version
Calculate checksums	✓	✓
Create and verify Checkfiles	✓	✓
Large files bigger than 500 GB	✓	✓
Handles large data sets	✓	✓
Hidden files, subfolders	✓	✓
Drag & Drop	✓	✓
Clipboard	✓	✓
Save checksums to txt file	✓	✓
<b>Update Checkfiles automatically</b>	✗	✓
<b>Up to 50% speed boost</b>	✗	✓
<b>Create reports</b>	✗	✓
<b>Automated checks</b>	✗	✓
<b>Run tasks</b>	✗	✓
<b>Filter functions</b>	✗	✓
<b>Define exceptions</b>	✗	✓

If you would like to take advantage of the extended functionality of the Pro Version, you will need to purchase a license. You will then receive a registration code. Please enter the registration code in the Main window under the section “Pro Version”. After entering the code and confirming with “OK”, the Freeware Version will be upgraded automatically without the need for a re-installation. For more information, please visit: [Register program](#).

## 3.2 REGISTER PROGRAM

The Pro Version of **MD5 File Hasher** may be ordered easily online: Please visit

<http://www.digital-tronic.com/md5-file-hasher>

After ordering online, you will receive an email with your registration code. Please enter the registration code in the Main window under the section “Pro Version”. By entering the code and confirming with “OK”, the Freeware Version will be upgraded automatically without the need for a re-installation. Existing tasks and other settings are preserved.

## 4 FAQ

### **How can MD5 File Hasher be used for additional protection alongside anti-virus software?**

Often malware is hidden in the Windows root or system directory. Those directories can be monitored by **MD5 File Hasher** very effectively. Scheduled scans can be programmed which can scan directories for changes. Whether any changes are based on malicious manipulation or whether they are authorized must be decided by the user.

### **Can MD5 File Hasher create hash values also of large files?**

Yes, **MD5 File Hasher** can create hash values for files bigger than 4 GB.

### **Is MD5 File Hasher also compatible with 64-bit systems?**

Yes, while **MD5 File Hasher** was optimized for 32-bit systems, it also runs on 64-bit systems.

### **Why my tasks are no longer started?**

Scheduled tasks are a feature of the Pro Version. In the Freeware Version all functions can be tested for 15 days. If you want to continue to use the scheduled task feature, you may upgrade to the Pro Version. For more information, please visit: [Upgrade to the Pro Version](#).

### **Can the destination directory for storing tasks be changed?**

You can change the destination directory under the section “Settings” in the [Main window](#). Please note that tasks previously saved into a different directory cannot be copied to the new directory.

### **I have backed up two identical data sets on two hard drives. Can I create a Checkfile of the data on disk A and use it to check the integrity of the data on disk B?**

Yes. Please tick the box to “Select path for check” in the tab “Validate Checkfile”. You're now able to select the drive of hard disk B before the check begins. The check will now refer to this drive. Alternatively, you can also copy the Checkfile from disk A to disk B manually.

## How can I increase the speed of checks for large data sets?

In the Pro Version, **MD5 File Hasher** allows you to hide the progress bar of the status window. Thus, the check can be carried out significantly faster (up to 50%) for larger data sets. Let's look at an example: The update of the progress bar for example, takes 20 milliseconds, which is insignificant where the number of files is small. However, if there are a lot of files, for example 100,000, this saves you over 30 minutes! For larger data sets, that can easily occur when checking a hard drive, a bigger time saving can be expected.

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