ChecksumHelper

Manual

English

(ChecksumHelper-package v.1.02)

Table of contents

ChecksumHelper · Introduction

For the history of this AppleScript-app resp. the complete package:

Just a small project "inspired" by a hacking attack to the download server of a software, that is heavily used by us.

Another part of the "Helper" series.

All apps included in this package are licensed under the GNU General Public License (GPLv3). This manual accordingly to the GNU Free Documentation License (FDLv1.3).

The source code, not always up-to-date, is available at:

<http://Maik-Waschfeld.de/source/s-ch.zip>

And as it´s stated in all apps, developed by me:

```
--- Just for in-house-use and by those, who know what they are doing!
--- Use at your own risk.
```

If you encounter problems or have suggestions, please contact me.

… Maik Waschfeld

Email: Maik.Waschfeld@Maik-Waschfeld.de.

Notes:
- The manual is continually corrected (formulations / errors etc.) and corresponds, in content, **always** to the current app versions.

- Not all screenshots in this manual are up-to-date with the app version. However, if the relevant function changes, I will also update the screenshots.

- The checksums visible in the screenshots are dummy checksums and do **not** correspond to the actual checksums of the selected files.

- The "Notes", which appear in various parts of this manual, should be read (and observed)!

- **If you are a natively English-speaking person, I'd be very grateful for tips or corrections on the english manual.**

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ChecksumHelper · Overview

- When **ChecksumHelper** is referred to in the following, it means the entire package. The package consists of the app and the manuals (German and English in LoRes and HiRes) in a sub folder.

- **ChecksumHelper**.app gives the user the ability to calculate or check the checksums of a selected file.

- **ChecksumHelper**.app is a "wrapper" for the corresponding shell scripts.

- The following checksums are currently supported:

  - SHA1

  - SHA256

  - MD5

  - cksum

  - CRC32.

- Additional checksums can be added as required. Just contact me.

Notes**:**

➡   I've tried to make **ChecksumHelper**.app as "**safe**" (in the meaning of operation errors) as possible.

➡   The default buttons have been selected so that the most likely "route" can be used directly by pressing the [Return/Enter] key.

➡   In the **second** dialog box of **ChecksumHelper**.app, the concrete version number is displayed in the boxes' title.

➡   Dialog boxes within an AppleScript **always** open at center screen. Unfortunately, I have no influence on this.

ChecksumHelper.app · Manual

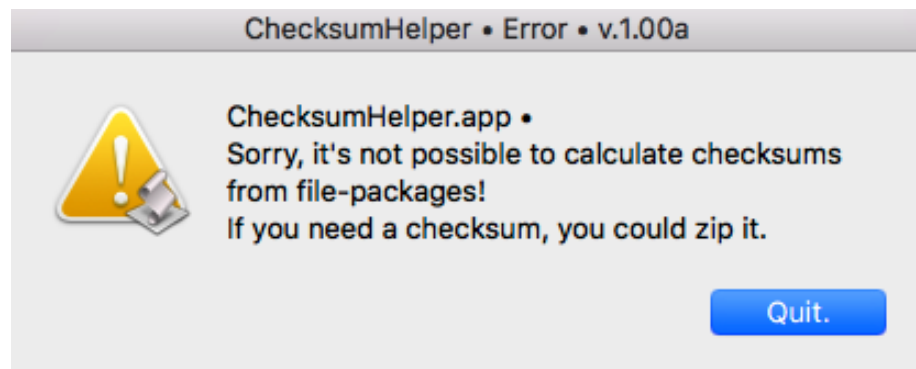**ChecksumHelper**.app gets started by double-clicking.

• 1. dialog box · Selecting the file

The first dialog box is used to select the file to be handled.

The dialog box that appears, is the default selection box of the macOS.

After selecting a file with the [Select] button, a check is made whether **ChecksumHelper**.app can calculate the checksum of the selected file.

If e.g. an application is selected, this error message appears.

ChecksumHelper • Error • v.1.00a

ChecksumHelper.app •
Sorry, it's not possible to calculate checksums from file-packages!
If you need a checksum, you could zip it.

Quit.

For clarity, the name of the selected file is displayed at the beginning of each dialog box.

• 2. dialog box · Entering a checksum / Starting the calculations

In the second dialog box, a checksum can be entered for checking and / or the actual process of calculating the checksum of the selected file can be triggered by selecting the [Check.] button.

ChecksumHelper • comparison? • v.1.00a

ChecksumHelper.zip •
Is there a checksum to compare to?
Please paste it here and\or select "Check." to continue,
or "No, quit." to cancel completely.
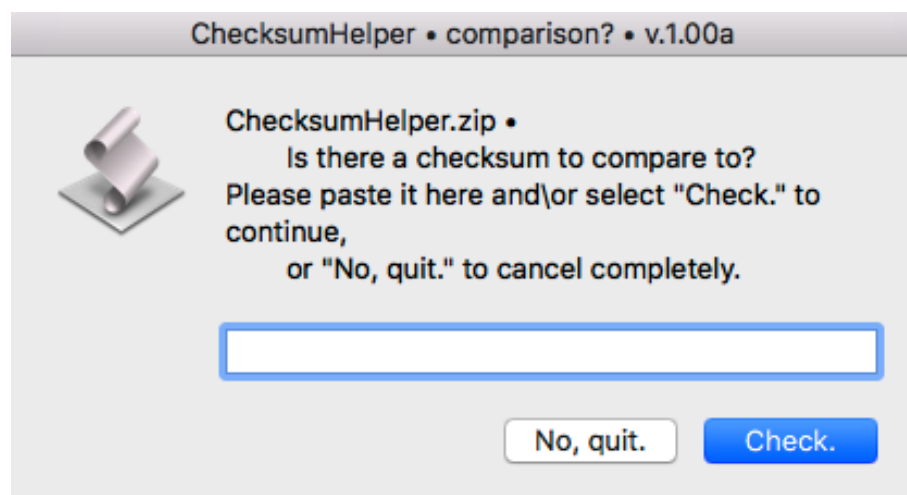
No, quit.   Check.

With the [No, quit.] button, **ChecksumHelper**.app can immediately be terminated without any further actions.

• 3. dialog box • Displaying the results

If **no** checksum has been entered in the second dialog box, the **calculated** checksums are displayed here.

ChecksumHelper • Checksums

ChecksumHelper.zip •
SHA1:
25b331e39c4b4de9cb61915105275cc6c82369bd

SHA256:
b5e9f403a5455d8400e4a7ae1a5ab5359e31cbc2abb83222b2e7a50e170a9bc1

md5:
b4f6d6b6ef13ea7b45a762b51fc695a9

cksum:
2594144470 (CRC)
70066 (Octet)

crc32:
5a280b59

Thanks. | Copy to clipboard.
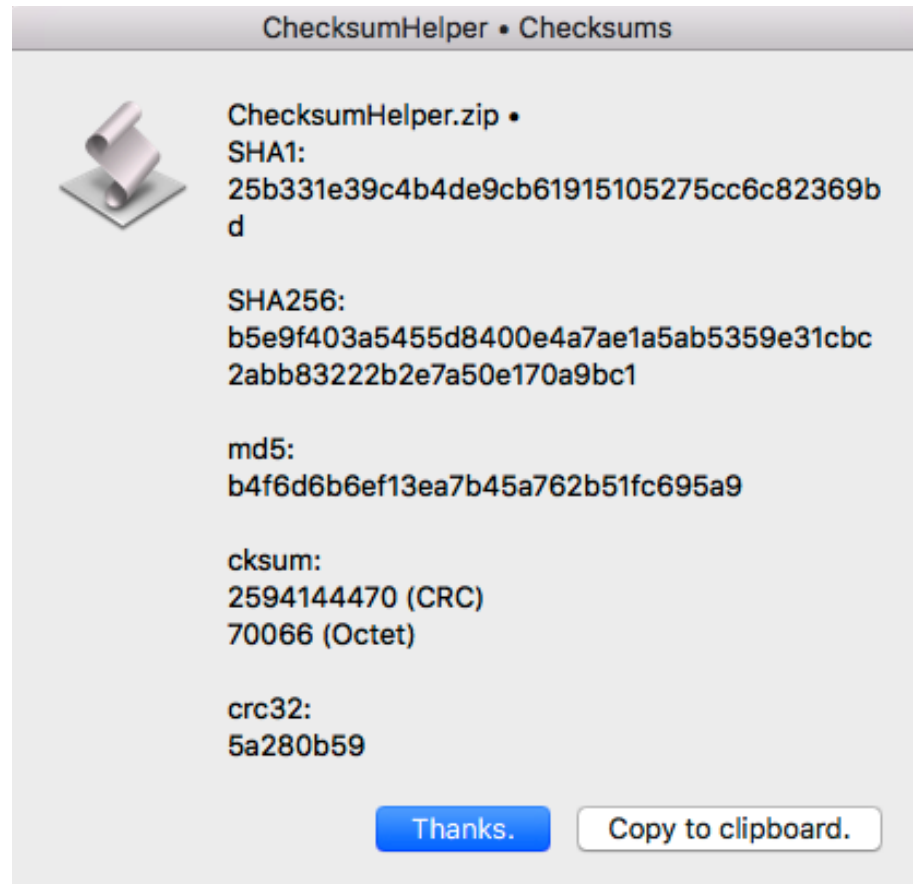
If one of the checksums are needed for further reference, it can be selected by a double-click and copied to the clipboard via [⌘ + C].

By selecting the [Copy to clipboard.] button, you can also copy the entire list of results to the clipboard. Immediately after this, **ChecksumHelper**.app is terminated.

With the [Thanks.] button, **ChecksumHelper**.app can be terminated without further actions.

• 4. dialog box • Verification of a checksum

If a checksum has been entered in the second dialog box, the results are displayed here.

• If the checksums match, this dialog box appears:

In addition, the **calculated** checksum and its **algorithm** are displayed.

• If the checksums do **not** match, the following dialog box appears:

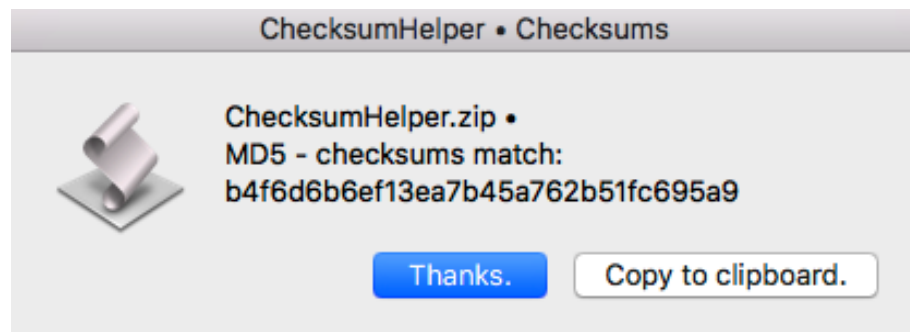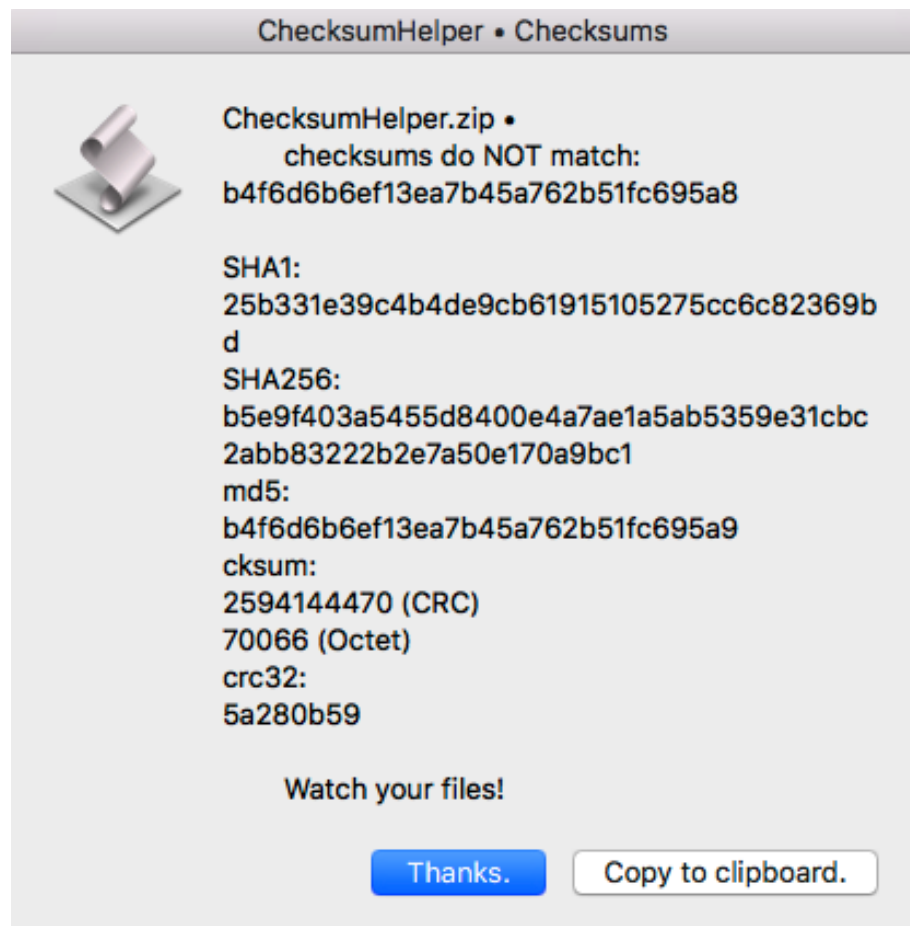Additionally, the **entered** and **all calculated** checksums are displayed.

By selecting the [Copy to clipboard.] button, you can also copy the entire list of results to the clipboard. Immediately after this, **ChecksumHelper**.app is terminated.

With the [Thanks.] button, **ChecksumHelper**.app can be terminated without further actions.

Additional Notes

- **Minimum requirements**

    for **ChecksumHelper** are AppleScript v.2.4 resp. macOS from v.10.10.x. Therefore, for all macOS versions before v.10.10.x: no support!

- **GateKeeper**

    - Depending on the GateKeeper setting, the installed app **has** to be started once by double-clicking or ^-clicking + „Open" **by an administrator** so that non-**administrator** users can use the app without the hassle of macOS requests because GateKeeper may otherwise block this app, The app does not have to run through completely, but can be terminated immediately after the start:

        - **ChecksumHelper**.app: press [ESC].

    - Apple decided to hide the option [Anywhere] in macOS v.10.12.x Sierra in GateKeeper settings in [System Preferences<Security<General<Allow apps downloaded from:]. This also affects **ChecksumHelper**.app because I am not a **certified** developer. As a result, the error message "ChecksumHelper.app is **damaged and can not be opened. It is recommended to move the object to the Trash.**" (or something similar) is displayed. Unfortunately, no ^-click + "**open**" can help under these circumstances.

    - Instead, the following approach helps:

        - start **Terminal**.app, type [sudo spctl --master-disable] (without the square brackets!) and enter the **administrator** password.

        - then select in the aforementioned System Preferences the option [Anywhere].

        - confirm the security demand.

        - start **ChecksumHelper**.app.

        - then in the aforementioned System Preferences the option [Anywhere] can be deselected.

        - according to the Security demand, the option [Anywhere] disappears again automatically from the System Preferences after 30 days,.

    - if you need the option [Anywhere] to disappear earlier:

        - start **Terminal**.app, type [sudo spctl --master-enable] (without the square brackets!) and enter the **administrator** password.

Installation

The **installation** of the **ChecksumHelper** package works as follows:

- log-in as an Administrator:

- double-clicking on the downloaded installation package opens a new window of the installation volume.

- I recommend to copy the **included** directory <ChecksumHelper/> to <Macintosh HD/Programs/Utilities/>.

- The administrator password is requested during the copying process.

- After the installation completed, the installation volume can be ejected.

- Please regard the notes on <u>GateKeeper</u> in the "**Additional Notes**" section!

Installation files

The following files are included in the package:

- directory <ChecksumHelper/> with:
  - **ChecksumHelper**.app,
  - **ChecksumHelper** *Manual de.pdf* as *Alias* to **ChecksumHelper Manual de**.pdf (see below),
  - **ChecksumHelper** *Manual en.pdf* as *Alias* to **ChecksumHelper Manual en**.pdf (see below),
  - GNU license information on the software and the manual.
- within: directory <_Manuals/> with:
  - **ChecksumHelper Manual de**.pdf (german)
  - **ChecksumHelper Manual en**.pdf (english translation)

    (LoRes without local links in the Table of contents for **Preview**.app),
  - **ChecksumHelper Manual Hi de**.pdf (german)
  - **ChecksumHelper Manual Hi en**.pdf (english translation)

    (HiRes with local links in the Table of contents;

    works with **Adobe Acrobat Reader DC**.app).

ToDo - List

- Permanently: work on the „Manual" and the translation.

ChecksumHelper · History (English)

v.1.02 · 13.05.2017

- New: The checksums are now calculated using AS handlers.

v.1.01 · 09.05.2017

- Bugfix: inserted some „activate" commands at the appropriate positions.

- Bugfix: corrected user and group privileges on the installation volume.

- New: integrated tips on macOS Sierras <u>GateKeeper</u> into the "**Additional Notes**" section of the manual.

v.1.00 · 08.05.2017

- First published non-"beta" version.

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