

# 1 General

This is the English documentation for the program CrCheck. The file CRCHECK.DOC (or .PDF) contains the German documentation this is only a short extract. If you are familiar with German then please read the CRCHECK.DOC instead!

**German Users:** Bitte den Bestellschein in CRCHECK.DOC benutzen!

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# 2 Synopsis

CrCheck is a robust file authentication program designed to detect signs of tampering in other programs. Utilizing a sophisticated 32-bit algorithm, CrCheck generates Cyclic Redundancy Checks (CRC) that users can compare against known values for validation. This 32-bit CRC checking ensures a high level of security, adhering to ANSI x3.66 and FED-STD 1003 standards. In addition to CRC validation, CrCheck verifies file length, attributes, and date/time stamps to further enhance security.

The known validation data, which can be provided by the program's author (you or ROSE SWE) as the CRCHECK.TXT file, or obtained from a trusted information database, can also be signed with a PGP key. CrCheck automatically recognizes and verifies the PGP signature, adding an additional layer of authenticity and trust to the validation process.

To confirm a program's integrity, simply run CrCheck on it. If a CRCHECK.TXT file is present, the program calculates the CRC checksum of the files and compares them to the values in the CRCHECK.TXT file. If the files are unaltered, CrCheck will display "--OK--". Otherwise, it will display both the original CRC sum and the new, modified CRC,

indicating potential tampering.

CrCheck's utility extends beyond individual users. Organizations can incorporate CrCheck into their security protocols to ensure that all software used within the enterprise remains untampered and secure. By regularly running CrCheck as part of a scheduled maintenance routine, organizations can quickly detect and address unauthorized modifications to critical software, thereby mitigating potential security threats.

Additionally, software developers can integrate CrCheck into their development and distribution processes. By generating and distributing CRCHECK.TXT files along with their software, developers can provide users with a simple yet effective means of verifying the integrity of their software. This practice not only enhances security but also builds trust with users by demonstrating a commitment to safeguarding the integrity of the software.

Furthermore, CrCheck is designed with user-friendliness in mind. The program features a straightforward interface that makes it accessible to users with varying levels of technical expertise. Detailed documentation and support resources are available to assist users in making the most of CrCheck's capabilities.

In summary, CrCheck is an essential tool for anyone concerned with software integrity and security. Its robust CRC validation, compliance with recognized standards, and additional checks for file attributes and timestamps make it a comprehensive solution for detecting tampering. Whether used by individuals, organizations, or developers, CrCheck provides a reliable and user-friendly method for ensuring that software remains in its original, untampered state.

## 3 Basics

To run CrCheck, type:

```
CrCheck
```

If the file CRCHECK.TXT exists all files will be verified, else CrCheck will display a short help.

To generate a CRC checksum, type

```
CrCheck [Drive:\] [path\] filespec
```

The calculated CRC sums will be shown on the screen.

To generate a CRCHECK.TXT file, type

```
CrCheck filespec > CRCHECK.TXT
```

Please remember: CrCheck WILL ONLY VALIDATE the programs if the file CRCHECK.TXT exists. You can rename the CRCHECK.TXT file to CRCHECK.CRC or -if you have renamed

CRCHECK.EXE- to RENAMED.CRC!

E.g. If you have renamed CRCHECK.EXE to CRC.EXE, you can use the validation file CRC.CRC!

## 4 Parameters

[none]	Validates the files against the CRCHECK.TXT entries. If the file does not exist a short help will be displayed.
/? -? ?	Display a short help
file /c	Calculates the CRC for the specified file.
file /C=CRC	Compares the CRC from "file" against the CRC specified with the /c option. If the CRC is valid CrCheck will return the error level 0 to DOS else 20
/e	Displays the exit code ("Error level") if CrCheck ends abnormal.
/q	Quiet. No output is written, just only the return code (error level) is set by CrCheck.
/s	Generates a shorter list, without any head or tail.
/h	Exclude hidden files from being displayed or to be added to the file CRCHECK.TXT
/v	Force validating crcheck.txt against files. This is e.g. useful when using option -e too.
filespec	Wildcards are supported.

### 4.1 PGP/GPG Support

CrCheck has built-in PGP and GNU PGP (GNUPG version 1.4.x and 2.1.x/2.2x) support. You can sign the checksum file CRCHECK.TXT with PGP or GNUPG. CrCheck will detect the "BEGIN" and "END" section of the PGP key, thus avoiding false alarms! Two batch files are included that will do the work for you.

### 4.2 CrcTest

The file CrcTest can be used to check one single file against a pre calculated checksum. This is useful in batch files (see CHKDOS.BAT). Just run CrcTest to get an overview of the parameters and return codes. Note: You must use CrCheck first to calculate the checksum for CrcTest!

### 4.3 Error levels

CrCheck 4.25 and higher sets the DOS Error level (Exit code) due to the following conditions:

Kind of Event/Error	Error level
Displaying the help screen	0
All validated files are identical	0
Validated file with option /c is unchanged	0
<b>Return codes from validating files</b>	
-reserved- (no missing/changed files)	10
One file is missing	11
Two (12), three (13), four or more (14) files are missing	12, 13, 14
-reserved- (missing files, unchanged files)	15
One file has been changed	16
Two (17), three (18), four or more (19) files had been changed	17, 18, 19
Other Return codes	
Validated file with option /c has changed	20
No matching files found	21
CrCheck.Txt does not exist	22
Too many command line parameters	23
Can not change to directory "xxx"	24

## 5 Legal Terms And Disclaimer

### 5.1 Disclaimer

CrCheck basically has no legal guarantee and warranty because I do not want to become sued over it, and should be used "as is."

### 5.2 Documentation

Information in the documentation is subject to change without notice and does not represent a commitment on the part of ROSE SWE.

### 5.3 License – Shareware

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You may not list any of my products in advertisements, catalogs, or other literature that describes this product as 'FREE SOFTWARE'. This is 'Try-Before-You-Buy' software, it is not free!

## 6 Closing

There is no doubt that CrCheck can save you time, effort, energy and money. There are NO "run-time fees", "royalties" or anything of the type attached to the cost of CrCheck. Please use the file REGISTER.TXT to order a registered version of CrCheck! Please send the register form to my address, even if you have transferred the money to my account, because our address will often be unreadable on checks!

### 6.1 Registration

There is almost no difference between the registered and unregistered version of CrCheck except for the "beg remark". Along with registering CrCheck you will receive the newest currently available version of CrCheck! To register your copies of CrCheck please print out the file REGISTER.TXT. Additionally you will receive as a bonus some other Shareware programs developed by ROSE SWE!

Please note, that you must buy a special license if you want to include the registered version of CrCheck.EXE to your distribution package. Contact me for quantities or read the CrCheck.DOC file.

German users: Bitte die Datei CrCheck.Doc benutzen!

## 6.2 Updates

I am sure that I will made enhancements to CRCHECK in further releases. If you have any improvements write to the address below.

If there is enough interest in CrCheck (=registrations), the following options will maybe included in a further release:

Exclude certain file specs, e.g.: -x \*.bak -x \*.swap  
Recursive file handling

So contact me if you want to see any enhancements in further versions of CrCheck!

## 6.3 My Address

ROSE SWE  
Dipl.-Ing. Ralph Roth  
<http://rose.rult.at>

Please check the files REGISTER.DOC, ROSEBBS.TXT and ADRESSE.DOC for address details!

/\*end\*/