

Kroll Ontrack kann bei einer Software-Löschung folgende 20 Algorithmen abdecken.

No.	Available software erasure standards	Overwriting rounds
A	Air Force System Security Instruction 5020	4
B	Aperiodic random overwrite	1
C	Blancco SSD Erasure	2+ *
D	Bruce Schneier's Algorithm	7
E	BSI-GS	1-2 *
F	BSI-GSE	2-3 *
G	DoD 5220.22-M	3
H	DoD 5220.22-M ECE	7
I	NIST 800-88 Clear	1
J	NIST 800-88 Purge - ATA	0 *
K	Firmware Based Erasure	0 *
L	Extended Firmware Based Erasure	1 *
M	HMG Infosec Standard 5, Higher Standard	3
N	HMG Infosec Standard 5, Lower Standard	1
O	National Computer Security Center (NCSC-TG-025)	4
P	Navy Staff Office Publication (NAVSO P-5239-26)	3
Q	NSA 130-1	3
R	OPNAVINST 5239.1A	3
S	Peter Gutmann's Algorithm	35
T	U.S. Army AR380-19	3

Die jeweiligen Standards im Detail erklärt:

A:

Step # Air Force System Security Instructions 5020

1. Overwrite with 0x00
2. Overwrite with 0xFA
3. Overwrite with 0x00
4. Overwrite with 0xAA
5. Verify Data

B:

Step # Aperiodic random overwrite

1. Overwrite with aperiodic random data
2. Verify data

C:

Step # Blancco SSD Erasure

1. Proprietary process – please contact Kroll for more Information

D:**Step # Bruce Schneier's Algorithm**

1. Overwrite with 0xFF
2. Overwrite with 0x00
3. Overwrite with aperiodic random data
4. Overwrite with aperiodic random data
5. Overwrite with aperiodic random data
6. Overwrite with aperiodic random data
7. Overwrite with aperiodic random data
8. Verify data

E:**Step # BSI-GS**

1. Remove HPA/DCO (if existing)
2. Overwrite with aperiodic random data
3. -For ATA drive: ESE → SE → Overwrite with 0x00
3. -For SCSI drive: FU → Overwrite with 0x00
4. Verify data (pattern verification)

F:**Step # BSI-GSE**

1. Remove HPA/DCO (if existing)
2. Overwrite with aperiodic random data
3. Overwrite with aperiodic random data
4. -For ATA drive: ESE → SE → Overwrite with 0x00
4. -For SCSI drive: FU → Overwrite with 0x00
5. Verify data (pattern verification)

G:**Step # DoD 5220.22-M**

1. Overwrite with 0x55
2. Overwrite with 0xAA
3. Overwrite with random byte
4. Verify data

H:**Step # DoD 5220.22-M ECE**

1. Overwrite with 0x55
2. Overwrite with 0xAA
3. Overwrite with random byte
4. Overwrite with aperiodic random data
5. Overwrite with 0x55
6. Overwrite with 0xAA
7. Overwrite with random byte
8. Verify data

I:**Step # NIST 800-88 Clear**

1. Remove HPA/DCO (if existing)
2. Overwrite with 0x00
3. Verify data (100%)

J:**Step # NIST 800-88 Purge – ATA HDD**

1. Remove HPA/DCO (if existing)
2. -For ATA drive: ESE → SE
3. -For other type of drive: erasure standard not compatible (erasure won't start)
4. Verify data (pattern verification, 100%)

K:**Step # Firmware Based Erasure**

1. -For ATA drive: ESE → SE
1. -For SCSI drive: FU
2. Verify data* (pattern verification)

L:**Step # Extended Firmware Based Erasure**

1. Overwrite with 0xCB
2. -For ATA drive: ESE → SE
2. -For SCSI drive: FU
3. Verify data* (pattern verification)

M:**Step # HMG Infosec Standard 5, Higher Standard**

1. Overwrite with 0xAA
2. Overwrite with 0x55
3. Overwrite with random byte
4. Verify data*

N:**Step # HMG Infosec Standard 5, Lower Standard**

1. Overwrite with 0x00
2. Verify data*

O:**Step # National Computer Security Center (NCSC-TG-025)**

1. Overwrite with 0x35
2. Overwrite with 0xCA
3. Overwrite with 0x97
4. Overwrite with aperiodic random data
5. Verify data

P:**Step # Navy Staff Office Publication (NAVSO P-5239-26)**

1. Overwrite with 0xFFFFFFFF
2. Overwrite with 0xFFFFFFFFE4
3. Overwrite with aperiodic random data
4. Verify data

Q:**Step # NSA 130-1**

1. Overwrite with aperiodic random data
2. Overwrite with aperiodic random data

R:**Step # OPNAVINST 5239.1A**

1. Overwrite with 0xFF
2. Overwrite with 0x00
3. Overwrite with random byte
4. Verify data*

S:

Step #	Peter Gutmann's Algorithm
1.	Overwrite with aperiodic random data
2.	Overwrite with aperiodic random data
3.	Overwrite with aperiodic random data
4.	Overwrite with aperiodic random data
5.	Overwrite with 0x555555
6.	Overwrite with 0xAAAAAA
7.	Overwrite with 0x924924
8.	Overwrite with 0x492492
9.	Overwrite with 0x249249
10.	Overwrite with 0x00
11.	Overwrite with 0x11
12.	Overwrite with 0x22
13.	Overwrite with 0x33
14.	Overwrite with 0x44
15.	Overwrite with 0x55
16.	Overwrite with 0x66
17.	Overwrite with 0x77
18.	Overwrite with 0x88
19.	Overwrite with 0x99
20.	Overwrite with 0xAA
21.	Overwrite with 0xBB
22.	Overwrite with 0xCC
23.	Overwrite with 0xDD
24.	Overwrite with 0xEE
25.	Overwrite with 0xFF
26.	Overwrite with 0x924924
27.	Overwrite with 0x492492
28.	Overwrite with 0x249249
29.	Overwrite with 0x6DB6DB
30.	Overwrite with 0xB6DB6D
31.	Overwrite with 0xDB6DB6
32.	Overwrite with aperiodic random data
33.	Overwrite with aperiodic random data
34.	Overwrite with aperiodic random data
35.	Overwrite with aperiodic random data
36.	Verify data

T:

Step #	U.S. Army AR380-19
1.	Overwrite with random byte
2.	Overwrite with 0xAA
3.	Overwrite with 0x55
4.	Verify data