



## Wiping Schemes

Schemes Supported in BCWipe

Protection made perfect.

- > Wiping is a term used to describe the process of shredding contents of a file or disk space beyond recovery.
- > Standard wiping schemes exist to securely erase all 'Data Remanence'. The standards to be complied with are issued by various institutes including US Department of Defense, US Army, as well other institutes and agencies.
- > Data recovery infeasibility is believed to rely on the number of passes specified by the standard.
- > In the presentation below every scheme description is provided with security level grade based on the number of passes: the higher the slider is, the more secure the scheme is considered.



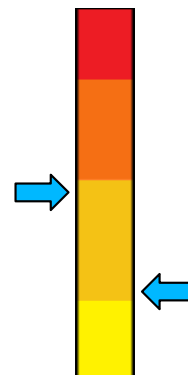
| Wiping scheme                    | BCWipe | BCWipe Total WipeOut |
|----------------------------------|--------|----------------------|
| U.S. DoD 5220.22-M(ECE)          | ✓      | ✓                    |
| U.S. DoD 5220.22-M(E) - 3 passes | ✓      | ✓                    |
| DoE M 205.1-2                    | ✓      | ✓                    |
| German VSITR                     | ✓      | ✓                    |
| Bruce Schneier's scheme          | ✓      | ✓                    |
| Peter Gutmann method             | ✓      | ✓                    |
| British HMG IS5                  | ✓      | ✓                    |
| Canadian RCMP TSSIT OPS-II       | ✓      | ✓                    |
| NAVSO-P5239-26 (MFM,RLL)         | ✓      | ✓                    |
| Russian GOST R 50739-95          | ✓      | ✓                    |
| US Army AR380-19                 | ✓      | ✓                    |
| One random pass                  | ✓      | ✓                    |
| 1-pass zero                      | ✓      | ✓                    |
| 1-pass test mode                 | ✓      | ✓                    |
| Create your own wiping scheme:   |        |                      |
| - Wiping Scheme Editor           | ✓      |                      |
| - Read custom scheme from a file | ✓      |                      |

## US DoD 5220.22-M(ECE)

| Pass | Pattern Hex notation | Pattern Binary notation |
|------|----------------------|-------------------------|
| 1    | D3                   | 11010011                |
| 2    | 2C                   | 101100                  |
| 3    | Random               | Random                  |
| 4    | Random               | Random                  |
| 5    | 95                   | 10010101                |
| 6    | 6A                   | 1101010                 |
| 7    | Random               | Random                  |

## US DoD 5220.22-M (E)

| Pass | Pattern       |
|------|---------------|
| 1    | Random        |
| 2    | Complementary |
| 3    | Random        |



## German BCI/VSITR

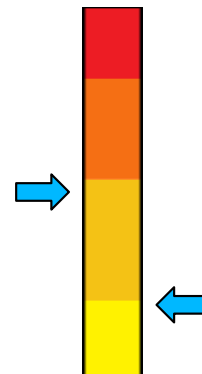
| Pass | Pattern       |
|------|---------------|
| 1    | 0             |
| 2    | Complementary |
| 3    | Complementary |
| 4    | Complementary |
| 5    | Complementary |
| 6    | Complementary |
| 7    | AA            |

## US DoE M-205.1-2

| Pass | Pattern |
|------|---------|
| 1    | Random  |
| 2    | Random  |
| 3    | 00      |

**Note:**

The last pass of US DoE M-2052.1-2 is assigned by user.  
Default value 00.



### British HMG IS5 (Baseline)

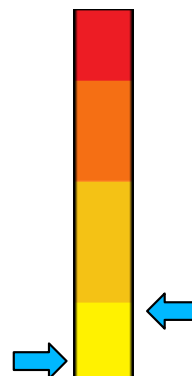
| Pass | Pattern |
|------|---------|
| 1    | 00      |

### British HMG IS5 (Enhanced)

| Pass | Pattern |
|------|---------|
| 1    | 00      |
| 2    | FF      |
| 3    | Random  |

### Russian GOST R 50739-95

| Pass | Pattern |
|------|---------|
| 1    | 00      |
| 2    | random  |



## NAVSO-P5239-26 (MFM)

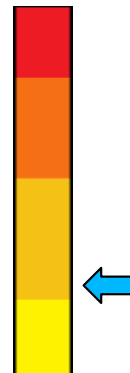
| Pass | Pattern     |
|------|-------------|
| 1    | FF          |
| 2    | FF, +511 FF |
| 3    | Random      |

## NAVSO-P5239-26 (RLL)

| Pass | Pattern     |
|------|-------------|
| 1    | FF          |
| 2    | E8,FF,FF,FF |
| 3    | Random      |

## US Army AR380-19

| Pass | Pattern       |
|------|---------------|
| 1    | Random        |
| 2    | 0 0           |
| 3    | Complementary |

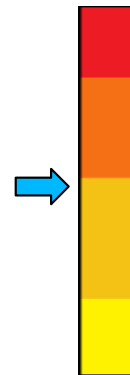


**Bruce Schneier**

| Pass | Pattern |
|------|---------|
| 1    | 00      |
| 2    | FF      |
| 3    | Random  |
| 4    | Random  |
| 5    | Random  |
| 6    | Random  |
| 7    | Random  |

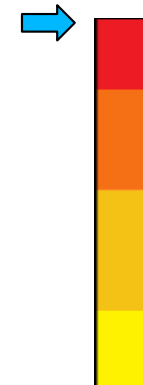
**Canadian RCMP TSSIT OPS-II**

| Pass | Pattern       |
|------|---------------|
| 1    | 00            |
| 2    | Complementary |
| 3    | Complementary |
| 4    | Complementary |
| 5    | Complementary |
| 6    | Complementary |
| 7    | Random        |

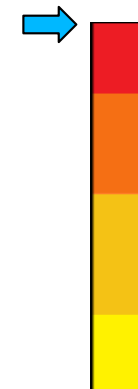




| Pass | Pattern  | Pattern Binary notation    |
|------|----------|----------------------------|
| 1    | Random   | Random                     |
| 2    | Random   | Random                     |
| 3    | Random   | Random                     |
| 4    | Random   | Random                     |
| 5    | 55       | 01010101 01010101 01010101 |
| 6    | AA       | 10101010 10101010 10101010 |
| 7    | 92,49,24 | 10010010 01001001 00100100 |
| 8    | 49,24,92 | 01001001 00100100 10010010 |
| 9    | 24,92,49 | 00100100 10010010 01001001 |
| 10   | 0 0      | 00000000 00000000 00000000 |
| 11   | 11       | 00010001 00010001 00010001 |
| 12   | 22       | 00100010 00100010 00100010 |
| 13   | 33       | 00110011 00110011 00110011 |
| 14   | 44       | 01000100 01000100 01000100 |
| 15   | 55       | 01010101 01010101 01010101 |
| 16   | 66       | 01100110 01100110 01100110 |
| 17   | 77       | 01110111 01110111 01110111 |
| 18   | 88       | 10001000 10001000 10001000 |



| Pass | Pattern  | Pattern Binary notation    |
|------|----------|----------------------------|
| 19   | 99       | 10011001 10011001 10011001 |
| 20   | AA       | 10101010 10101010 10101010 |
| 21   | BB       | 10111011 10111011 10111011 |
| 22   | CC       | 11001100 11001100 11001100 |
| 23   | DD       | 11011101 11011101 11011101 |
| 24   | EE       | 11101110 11101110 11101110 |
| 25   | FF       | 11111111 11111111 11111111 |
| 26   | 92,49,24 | 10010010 01001001 00100100 |
| 27   | 49,24,92 | 01001001 00100100 10010010 |
| 28   | 24,92,49 | 00100100 10010010 01001001 |
| 29   | 6D,B6,DB | 01101101 10110110 11011011 |
| 30   | B6,DB,6D | 10110110 11011011 01101101 |
| 31   | DB,6D,B6 | 11011011 01101101 10110110 |
| 32   | Random   | Random                     |
| 33   | Random   | Random                     |
| 34   | Random   | Random                     |
| 35   | Random   | Random                     |



## One-Pass Random

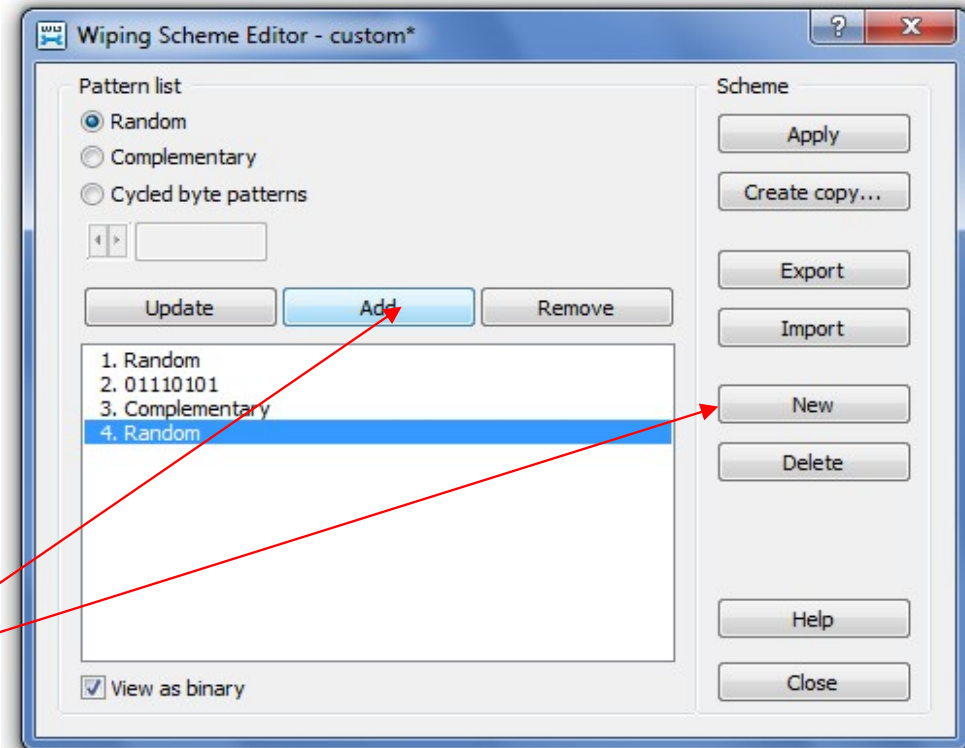
| Pass | Pattern |
|------|---------|
| 1    | Random  |

**Note:**

Custom scheme is available in BCWipe only; BCWipe Total WipeOut doesn't include this option

Click 'New' and use 'Add' to create your scheme

## Custom Scheme





For More Information

[support@jetico.com](mailto:support@jetico.com)

[www.jetico.com](http://www.jetico.com)

Protection made perfect.