

# Darik's Boot and Nuke (DBAN) – Tutorial

## Summary:

This Document will explain how to use DBAN to clean a hard drive in preparation of reuse or disposal.

## Instructions:

1. Turn on the computer that you would like to clean. Verify the computer is booting to the CDROM drive before the HD, then insert the DBAN CD.
2. If you have booted correctly from the DBAN CD, then you will see the following screen.

```
Darik's Boot and Nuke
-----

Warning: This software irrecoverably destroys data.

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warranty of merchantability or fitness for a particular purpose. In no event
shall the software authors or contributors be liable for any damages arising
from the use of this software. This software is provided "as is".

http://dban.sourceforge.net/

* Press the F2 key to learn about DBAN
* Press the F3 key for a list of quick commands.
* Press the ENTER key to start DBAN in interactive mode.
* Enter autonuke at this prompt to start DBAN in automatic mode.

boot: _
```

3. At the “boot: \_” prompt, press the “ENTER” key to start DBAN in interactive mode.
4. After you press the “ENTER” key, you will see the following screen.

```

Darik's Boot and Nuke 1.0.4
----- Options -----
Entropy: Linux Kernel (urandom)
PRNG: Merseenne Twister (mt19937ar-cok)
Method: DoD Short
Verify: Last Pass
Rounds: 1
----- Statistics -----
Runtime:
CPU Time:
Load Averages:
Throughput:
Errors:

----- Disks and Partitions -----
▶ [ ] (IDE 0,0,0,-,-) VMware Virtual IDE Hard Drive

M=Method U=Verify R=Rounds, J=Up K=Down Space=Select, F10=Start

```

5. If your data is sensitive or contains important information, then please continue to Step #6. However, if your data is NOT sensitive or does NOT contain important information, then please keep ALL defaults and jump to Step #7.
6. At the above screen, click the letter “M” for method and select “Gutmann Wipe” by pressing “ENTER.” This method is recommended for sensitive data; “Gutmann’s Wipe” will perform 35 passes to the hard drive. The image below will illustrate what the screen should look like before you press the “ENTER” key.

```

Darik's Boot and Nuke 1.0.4
----- Options -----
Entropy: Linux Kernel (urandom)
PRNG: Merseenne Twister (mt19937ar-cok)
Method: Gutmann Wipe
Verify: Last Pass
Rounds: 1
----- Statistics -----
Runtime:
CPU Time:
Load Averages:
Throughput:
Errors:

----- Wipe Method -----
Quick Erase                syslinux.cfg: nuke="dwipe --method gutmann"
RCMP TSSIT OPS-II         Security Level: High (35 passes)
DoD Short
DoD 5220-22.M
▶ Gutmann Wipe
PRNG Stream

This is the method described by Peter Gutmann in the paper entitled
"Secure Deletion of Data from Magnetic and Solid-State Memory".

J=Up K=Down Space=Select

```

7. Please verify your screen looks like the image below. \*NOTE\* Your screen may show a different “Method” than below depending on if you have secure data on your machine and changed the method above.

```
Darik's Boot and Nuke 1.0.4
----- Options -----
Entropy: Linux Kernel (urandom)
PRNG: Mersenne Twister (mt19937ar-cok)
Method: Gutmann Wipe
Verify: Last Pass
Rounds: 1
----- Statistics -----
Runtime:
CPU Time:
Load Averages:
Throughput:
Errors:

----- Disks and Partitions -----
▶ [  ] (IDE 0,0,0,-,-) VMware Virtual IDE Hard Drive

M=Method U=Verify R=Rounds, J=Up K=Down Space=Select, F10=Start
```

8. At this time, press the “Space” key. This will select your IDE drive that you would like to wipe clean. If you would like to choose a different drive to clean, then use your “Arrow” keys to select the drive and press the “Space” key to select the drive. After selecting your drive, your screen should say “wipe.” Please refer to the screen below.

```

Darik's Boot and Nuke 1.0.4
----- Options -----
Entropy: Linux Kernel (urandom)
PRNG: Merseenne Twister (mt19937ar-cok)
Method: Gutmann Wipe
Verify: Last Pass
Rounds: 1
----- Statistics -----
Runtime:
CPU Time:
Load Averages:
Throughput:
Errors:

----- Disks and Partitions -----
▶ [wipe] (IDE 0,0,0,-,-) VMware Virtual IDE Hard Drive

M=Method U=Verify R=Rounds, J=Up K=Down Space=Select, F10=Start

```

9. Since you just selected the disk that you wanted to wipe clean, now it is time to start the cleaning process. At this time press the “F10” key. This will start the “cleaning” process. Now your screen should look like the following image.

```

Darik's Boot and Nuke 1.0.4
----- Options -----
Entropy: Linux Kernel (urandom)
PRNG: Merseenne Twister (mt19937ar-cok)
Method: Gutmann Wipe
Verify: Last Pass
Rounds: 1
----- Statistics -----
Runtime: 00:00:09
CPU Time: 1%
Load Averages: 0.31 0.07 0.02
Throughput: 28403 KB/s
Errors: 0

(IDE 0,0,0,-,-) VMware Virtual IDE Hard Drive
[00.16%, round 1 of 1, pass 1 of 35] [writing] [28403 KB/s]

```

10. Both “DoD Short” and “Gutmann’s” process will take a while to finish. Plan on allocating at least 12 hours for this process.

11. After the process finishes, you will need to make a win98 boot disk. Boot from the disk, and then type “fdisk /mbr” at the boot prompt. This will rewrite the MBR.
12. That’s it!