

Technical Security Branch IT Security Bulletin Lead Agency Publication B2-001

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Suggested DSX Replacement Products

Introduction

In May 2005, the RCMP discontinued technical support for its DSX hard drive overwrite software. Due to a continued need and client requests, the Technical Security Branch performed a paper-based evaluation of available software and hardware products that could replace DSX. This bulletin provides the results of that evaluation as well as a product list.

Current users may continue to use and/or distribute copies of the software within their respective organizations in accordance with the DSX User Agreement. However, it is important to mention that the DSX software could eventually fail to properly function on newer, larger drives. It is for this reason that we emphasize to Departments / Agencies that the use of the software is 'AT YOUR OWN RISK'. Current trends indicate the software may continue to be effective for computers slated to be recycled at 'end of life' in support of programs such as Computers for Schools for another one to two years (estimate).

The information that follows offers possible software and hardware solutions. In the case of the Digital Shredder product, it is unique in that it is a hardware solution which initiates the Secure Erase command (explained below) built into many of the newer drives. All solutions are recommended for erasure of data up to and including Protected "B" when used while adhering to the "Conditions For Use" identified at the end of the following document:
Hard Drive Secure Information Removal and Destruction Guidelines
http://www.rcmp-grc.gc.ca/tsb/pubs/it_sec/g2-003_e.pdf

Software Products

NOTE: The following currently available disk wiping software products were reviewed by the RCMP and appear, at a minimum, to meet our basic requirements. The inclusion of any product here does not indicate an endorsement by the RCMP or Technical Security Branch, and has only been provided as an aide in making a decision that best matches your specific needs.

There is currently a Request For Proposal (RFP) being established by PWGSC in conjunction with the RCMP and CSE to select products which meet the criteria established as "Mandatory". In the interim, we provide the following as possible solutions.

Departments and/or Agencies are encouraged to perform a threat and risk assessment (TRA) to ultimately determine the suitability of a commercial over-write product for their respective security needs, environment, etc.

Active@ KillDisk (*Lsoft Technologies Inc - Canada*)
Tel. 905-812-8434

<http://www.killdisk.com>

Blancco Data Cleaner + (*Blancco - Finland*)
Canadian contact: Robert Crawford, Inside The Box
Tel. 416-207-1988 rhc@insidethebox.com

<http://www.blancco.com>
<http://www.insidethebox.com>

DBAN (Darik's Boot And Nuke) (*Darik Horn*)
dajhorn-dban@vanadac.com
(‘DBAN’ must appear in the subject line of E-mail)

<http://dban.sourceforge.net>

NOTE: DBAN is an open-source program freely available under GNU public licence. As such it may be subject to more limited support than the commercial products.

Disk Wiper 7.0 Professional (*Paragon Software - Germany*)

<http://www.disk-wiper.com>

Drive Zapper Pro 9.0 (*WinCleaner - Canada*)
Tel. 905-542-2116

<http://www.wincleaner.com>

UnishredPro (*Los Altos Technologies – US*)

<http://www.lat.com>

WipeDrive PRO (*WhiteCanyon Software – US*)

<http://www.whitecanyon.com>

CMRR Secure Erase Utility

The Center for Magnetic Recording Research (CMRR) at the University of California, San Diego has been researching another method for hard drive erasure. The Secure Erase command is beginning to be incorporated into ATA hard drives as well as some enterprise-level SCSI drives. This command allows for data erasure to be done without the need for additional software as the command is built into the standard interface specifications for the drive. The command is not yet ubiquitous, but is slowly being incorporated into new drives as they are produced.

At present, the command is only available for ATA and some SCSI hard drives and not for USB hard drives or flash memory modules. The software is also subject to other caveats which other products in this document are not. This product is freely available and as a result may have limited or no support. Research and development of the product is ongoing, so this program has not been included in the product list. Please refer to the link below for further information and for the program itself.

<http://cmrr.ucsd.edu/Hughes/subpgset.htm>

A Hardware Solution that uses Secure Erase

The Secure Erase command described above is used by the **Digital Shredder** hardware product from Esconce Data Technology. Since the Secure Erase is basically a destroy command, amounting to electronic data shredding/purging, it causes a drive to internally do a complete erase of all possible user data by overwriting, including g-list records that could contain readable data in

reallocated disk sectors (sectors that the drive no longer uses because they have hard errors). In the event the drive is not compatible to the execution of the Secure Erase command, the Digital Shredder device provides the capability of doing a proprietary triple overwrite.

Digital Shredder by Esconce Data Technology (EDT)

Canadian contact: Ryk Edelstein, Converge Net Inc., Tel. 514-939-2163 x297

<http://www.deadondemand.com/>

Notes for Digital Shredder hardware/software solution:

1. Device has 3 bays for erasing up to three 3.5 inch or 2.5 inch drives.
2. Possible necessity of having 3 of each plug-in module (Personality Blocks) in order to maximize the use of all three bays.
3. Produces a label which indicates start/end, date and time, user name, drive serial number and type of erasure done (Secure Erase or triple overwrite).
4. Erasure is extremely fast with Secure Erase invoked.
5. Easy to use, secure (drives are locked while erasing), and effective.
6. Disks can be of mixed type ATA/IDE, SATA or SCSI (available in Q1 '08).

Software Product Requirements and Product List

See product list on next page.

Notes for software products requirements list:

1. Requires MediaWiper, a Windows tool. Included with WipeDrive PRO.
2. Erases USB thumb / jump drives. Memory cards may not be supported.
3. By partition or block only.
4. From within Windows only.
5. By partition only.
6. Includes Firewire.
7. Requires Blancco File Shredder. This is a separate purchase.
8. By partition only.
9. Requires Blancco Pro. This is a separate purchase.
10. Requires Windows version. Included with Drive Zapper Pro 9.0.
11. By partition only. From within Windows one can erase more selectively.
12. Overwrite fails on bad sectors.
13. Includes USB 1.0, 2.0 and Firewire.



Software Product Requirements and Product List

REQUIRED FEATURES – Software	WipeDrive PRO	UniShred Pro	Active@ KillDisk	Blancco - Data Cleaner +	Drive Zapper Pro 9.0	Paragon Disk Wiper 7.0 Pro	DBAN (GPL Program)
Program runs from boot floppy or CD-ROM	X	X	X	X	X	X	X
Overwrites disk w/ single character	X	X	X	X	X	X	X
Program reports actual disk size to user	X	X	X	X	X	X	X
Program reports any bad sectors	X	X	X	X	X	X	(See Note 12)
Program can determine drive size via BIOS			X		X	X	X
Program can select single or triple overwrites	X	X	X	X	X	X	X
Program has disk viewer & reporting functionality to confirm results of overwrite	X	X	X	X	X	X	
Program capable of wiping IDE, SATA & SCSI drives	X	X	X	X	X	X	X
Program is capable of erasing external USB hard drives	(See Note 1)	X	X	(See Note 6)	(See Note 10)	(See Note 13)	
Program is capable of wiping flash memory media (SD, CompactFlash, MMC, etc)	(See Note 1)	(See Note 2)	(See Note 4)	(See Note 7)	(See Note 10)	X	
OPTIONAL FEATURES – Software							
Program can overwrite drive up to seven times	X	X	X	X	X	X	X
Program can overwrite specific files, folders, partitions, drives or free / slack space		(See Note 3)	(See Note 5)	(See Note 8)	(See Note 11)	X	(See Note 8)
Program can acquire ATA (IDE) drive identification information directly from drive, independent of BIOS	X	X		X	X		X
Program can identify information including geometry, capacity, HPA and address offset presence / use	X	X	X	X			
Program operates independent of operating system	X	X	X	X	X	X	X
Program supports and can overwrite RAID arrays	X	X		(See Note 9)		X	X
List of architectures the program will run on	x86	x86, HP-UX, AIX, IRIX, Solaris SPARC	x86	x86	x86, HP-UX, Solaris SPARC	x86	x86 (Unofficially - AIX, Solaris SPARC & Apple PPC, HP-UX & SGI)



Hardware Products

NOTE: The hardware-based drive overwrite products that follow are just some of the products currently available on the market. It should be noted that these devices do not seem to provide the same level of functionality as many of the software programs that are available.

IM WipeMASter (*Intelligent Computer Solutions – US*)

<http://www.ics-iq.com>

OmniClone Xi (*Logicube Corporation – US*)

<http://www.logicube.com>

Hardware Product Requirements and Product List

REQUIRED FEATURES – Hardware	IM WipeMASter	Logicube OmniClone Xi
Program runs from boot floppy or CD-ROM	N/A	N/A
Overwrites disk w/ single character	X	X
Program reports actual disk size to user	X	X
Program reports any bad sectors	X	(See Note 4)
Program can determine drive size via BIOS	N/A	N/A
Program can select single or triple overwrites	X	X
Program has disk viewer & reporting functionality to confirm results of overwrite		
Program capable of wiping IDE, SATA & SCSI drives	(See Note 1)	(See Note 1)
Program is capable of erasing external USB hard drives		
Program is capable of wiping flash memory media (SD, CompactFlash, MMC, etc.)	(See Note 2)	(See Note 2)



OPTIONAL FEATURES – Hardware	IM WipeMASSter	Logicube OmniClone Xi
Program can overwrite drive up to seven times	X	X
Program can overwrite specific files, folders, partitions, drives or free / slack space	(See Note 3)	(See Note 3)
Program can acquire ATA (IDE) drive identification information directly from drive, independent of BIOS	X	X
Program can identify information including geometry, capacity, HPA and address offset presence / use	X	
Program operates independent of operating system	X	X
Program supports and can overwrite RAID arrays		N/A
List of architectures the program will run on	N/A	N/A

Notes for hardware products requirements list:

1. IDE / SATA drives only. SCSI drives require separate device.
2. Can erase CompactFlash if adapter is purchased.
3. Entire drive only.
4. Fails on bad sector