

INSIGHT INTELLIGENCE



**2013/2014 Data Recovery Project for National
Association for Information Destruction**

insight intelligence

Data Recovery & Security Report

Executive Summary

The purpose of this document is to report on information recovered from a cross section of computer hard drives supplied from various locations around Australia.

52 Hard drives were reviewed at the hard drives block level, each drive was scanned for data and even though a drive owner may have formatted the hard disk, deleted the contents or used a third party tool, it is clear that not all attempts are successful in scrubbing data so a hard drive can be reused, sold or scrapped to a third party with the belief the original data is secure and safe from prying eyes, data recovery experts or auditors.

A summary list of recovered data from a high level perspective is displayed on the second page of this document through to the end, the report does not provide copies of the pieces of data recovered but provides an insight as to what a data recovery expert could expect to find and report to a potential investigator from the drives supplied for analysis.

It is apparent that in 90% of cases each drive has at least had a partition deleted and or been formatted in an attempt to sanitize the data however there are a number of hard drives listed in the report that have been successfully sanitized and do not have data available for recovery.

Copies of data recovered to an external medium for analysis have been destroyed to the standards listed in AS/NZ ISO 9001 and ISO 27001 since the report was completed on the 20th January 2014.

Definition of terms used in this document

- BIOS (Basic Input Output System), a set of computer instructions in firmware which controls input and output operations
- S.M.A.R.T (Self monitoring, Analysis and Reporting Technology) monitoring is used by each hard drive to obtain self diagnostic information that can be extracted and analysed to determine the hardware status of a hard drive

Data Recovery report from drive with serial number 4LR1KZT2 (Sanitization attempted)

Subject drive appears to have belonged to Law Firm Qld- this finding is based on the contained documents recovered.

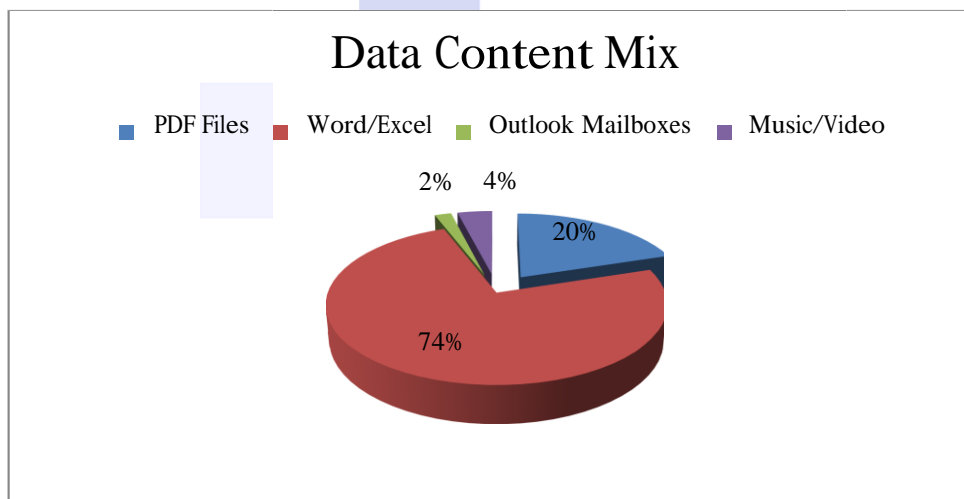
The drive contains a mix of hundreds of Word, Excel, PDF, Email and financial system data.

A summary of info relating to data recovered from drive is below.

- Contains conveyancing information for dozens of clients, including records from the national personal insolvency index of Australia which contains specific information about an individual's solvency status as well as specific information that can be used to locate and identify an individual
- Property title search information with specific information regarding a property, being its address, current owner, information regarding the financial institution currently financing the loan and other private information.
- Over a dozen email data (PST) files containing hundreds of email correspondence with internal and external stakeholders.
- Meeting minutes from the business's local community council

Statistics for this drive;

1. Documents on this drive were created between 2004 and 2010
2. The drive was initially reviewed and did not contain an active system partition so it is plausible an operator attempted to sanitize the drive by deleting the partition – a block level scan showed all available documents that remained on the drive and documents that had been deleted over a period of 12-18 months.
3. The hard drives SMART health status is OK with a powered on count of 1443 and a total used or "powered on" hours of 11,361.



Data Recovery report from drive with serial number 5JV41ENR (Sanitization attempted) – Related to drive 5JV41D8G

Subject drive appears to have belonged to various Law Firms VIC- this finding is based on the contained documents recovered.

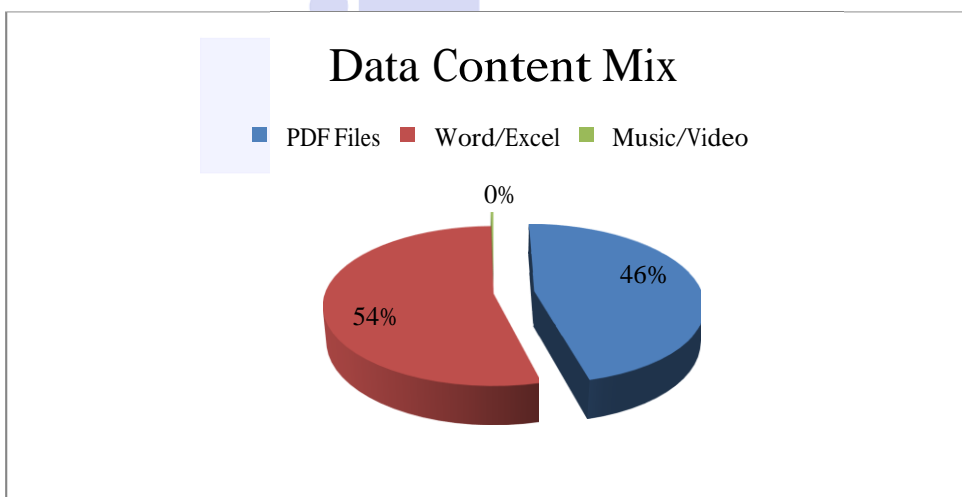
The drive contains a mix of tens of thousands of Word, Excel, Access Database, PDF and MYOB financial data.

A summary of info relating to data recovered from drive is below.

- Hundreds of client specific risk product evaluations for health, property insurance
- Dozens of life insurance application forms containing comprehensive information about the applicant
- Company invoices, such as water, electricity, internet, telephone and other misc bills e.g. Aus post etc
- Court case documents in dispute of employee termination, brokerage financial summaries,
- Company MYOB data file is present although out of date (file dated Oct 2007) as well as payroll files from 2005 and 2006
- Profit and loss statement for February 2004
- Dozens of confidential communications via PDF and Word Documents

Statistics for this drive;

1. Documents on this drive were created between 2000 and 2007
2. The drive was initially reviewed and did not contain an active system partition so it is plausible an operator attempted to sanitize the drive by deleting the partition – a block level scan showed all available documents that remained on the drive and documents that had been deleted over a period of 12-18 months.
3. The hard drives SMART health status is poor with a powered on count of 75 and a total used or “powered on” hours of 21,788.



Data Recovery report from drive with serial number 5JV41D8G (Sanitization attempted) – Related to drive 5JV41ENR

Subject drive appears to have belonged to various Law Firms VIC - this finding is based on the contained documents recovered.

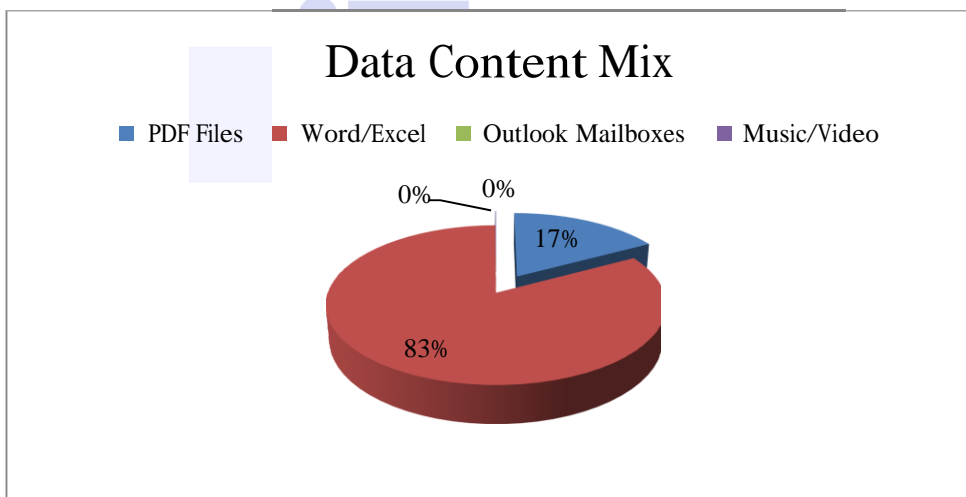
The drive contains a mix of tens of thousands of Word, Excel, Access Database and PDF documents

A summary of info relating to data recovered from drive is below.

- iiNet ISP Invoice with full billing address listed for the user
- Integra super from ING member sign-up sheet for “full name supplied” which contains a complete death and disability application (highly detailed personal info) and hundreds of client quotes for life/disability/general insurance with specific personal and confidential client information
- Various tender documents
- Outlook PST file containing confidential data relating to deposited funds and client information and correspondence
- Dozens of excel spreadsheets found containing client policy numbers, names, addresses, phone numbers, dates of birth, salary, occupation classes, premium amounts, payment transaction histories and sums insured for

Statistics for this drive;

1. Documents on this drive were created between 1997 and 2007
2. The drive was initially reviewed and did not contain an active system partition so it is plausible an operator attempted to sanitize the drive by deleting the partition – a block level scan showed all available documents that remained on the drive and documents that had been deleted over a period of 12-18 months.
3. The hard drives SMART health status is poor with a powered on count of 60 and a total used or “powered on” hours of 19,893.



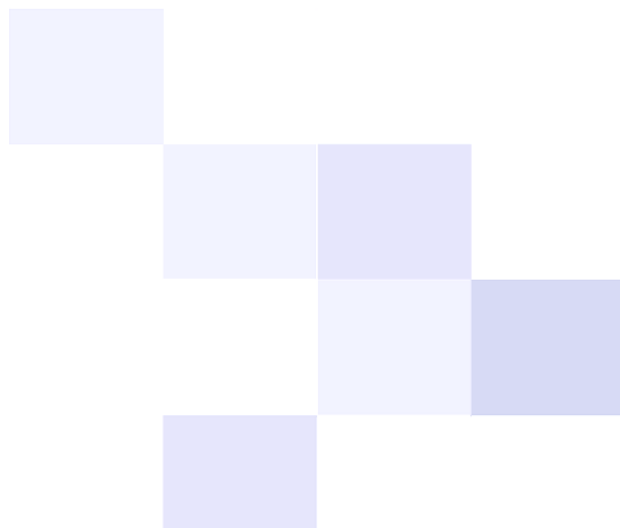
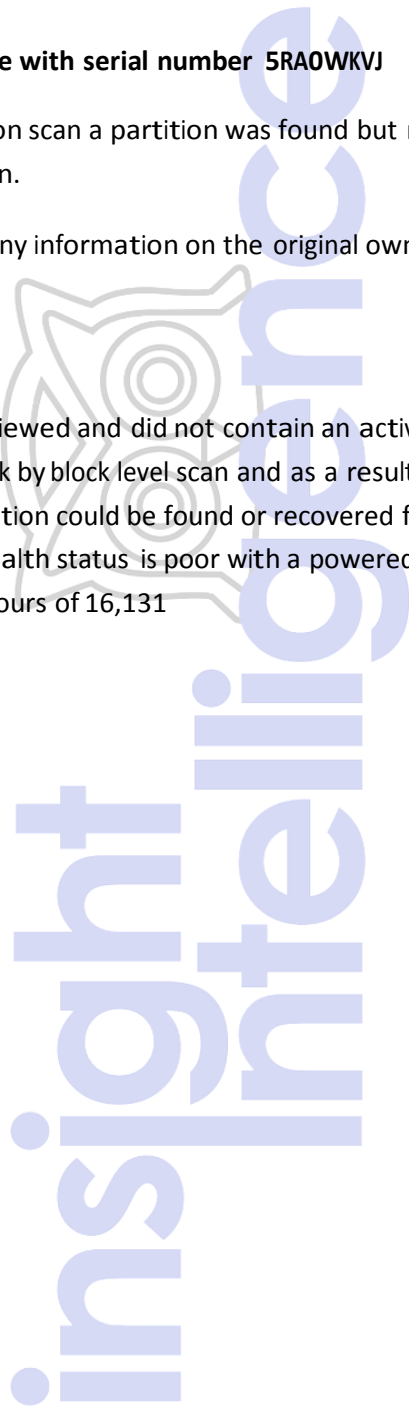
Data Recovery report from drive with serial number 5RA0WKVJ

Drive scanned with deep partition scan a partition was found but no data is visible or recoverable after block level scan.

Subject drive does not provide any information on the original owner and has been sanitized to an industry standard.

Statistics for this drive;

1. The drive was initially reviewed and did not contain an active system partition, the drive was scanned with a block by block level scan and as a result no data could be retrieved
2. No residual data or partition could be found or recovered from this drive
3. The hard drives SMART health status is poor with a powered on count of 14 and a total used or "powered on" hours of 16,131



Data Recovery report from drive with serial number 9VY3RZKN (Sanitization attempted)

Subject drive appears to have belonged to Private School WA - this finding is based on the contained documents recovered.

The drive shows evidence of partial sanitization but it was not 100% successful in scouring the residual contained data.

The drive contains a mix of dozens of Word, Excel and Power Point documents belonging to students.

A summary of info relating to data recovered from drive is below.

- Student's course info with no personally identifiable info except name
- Power Point presentations with teenage style interests and school projects - such as a famous chef and a movie character

Statistics for this drive;

1. Documents on this drive were created between 2006 and 2012
2. The drive was initially reviewed and did not contain an active system partition so it is plausible an operator attempted to sanitize the drive by deleting the partition – a block level scan showed all available documents that remained on the drive and documents that had been deleted over a period of 12-18 months.
3. The hard drives SMART health status is OK with a powered on count of 1697 and a total used or “powered on” hours of 6221.

Data Recovery report from drive with serial number WD-WMAL91439816

Drive scanned with deep partition scan. A partition was found but no data is visible or recoverable after block level scan.

Subject drive does not provide any information on the original owner and has been sanitized to an industry standard.

Statistics for this drive;

1. The drive was initially reviewed and did not contain an active system partition, the drive was scanned with a block by block level scan and as a result no data could be retrieved
2. No residual data or partition could be found or recovered from this drive
3. The hard drives SMART health status is poor with a powered on count of 1171 and a total used or "powered on" hours of 25,295

Data Recovery report from drive with serial number WD-WMAM9YW55719 (Sanitization attempted) Related to WD-WCAS24301125 Related to WD-WCAS24385932 Related to WD-WCAS24361493 Related to WD WCAS24385991

Subject drive appears to have belonged to Medical Facility NSW - this finding is based on the contained documents recovered.

The drive contains a mix of hundreds of Word, Excel, Power Point, Access Database, PDF and Email data files.

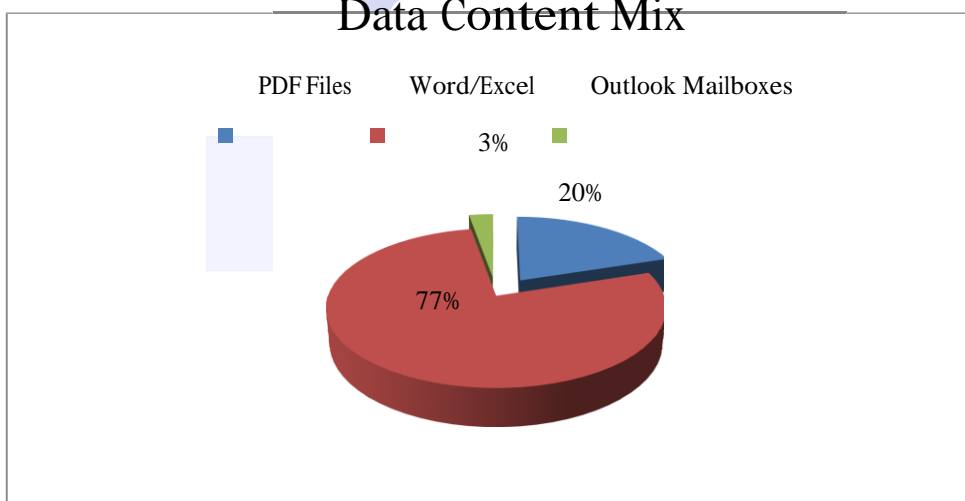
A summary of info relating to data recovered from drive is below.

- Lesson requirements documentation
- Email data containing communication between staff/admin/NSW Health/Contractors etc
- Documents related to the *name of organisation supplied*
- Correspondence documentation between doctors and Medical Facility admin
- Recruitment applications containing sensitive applicant data
- Company tax invoices

Statistics for this drive;

1. Documents on this drive were created between 2009 and 2013
2. The drive was initially reviewed and did not contain an active system partition so it is plausible an operator attempted to sanitize the drive by deleting the partition – a block level scan showed all available documents that remained on the drive and documents that had been deleted over a period of 12-18 months.
3. The hard drives SMART health status is OK with a powered on count of 1097 and a total used or “powered on” hours of 16,971.

Data Content Mix



**Data Recovery report from drive with serial number WD-WCAS24301125 (Sanitization attempted)
Related to WD-WMAM9YW55719 Related to WD-WCAS24385932 Related to WD-WCAS24361493
Related to WD-WCAS24385991**

Subject drive appears to have belonged to Medical Facility NSW - this finding is based on the contained documents recovered.

The drive contains a mix of thousands of Word, Excel, Power Point, Access Database, PDF and Email data files and contains data from 12 unique users - the most identifiable data belongs to *individuals' names*

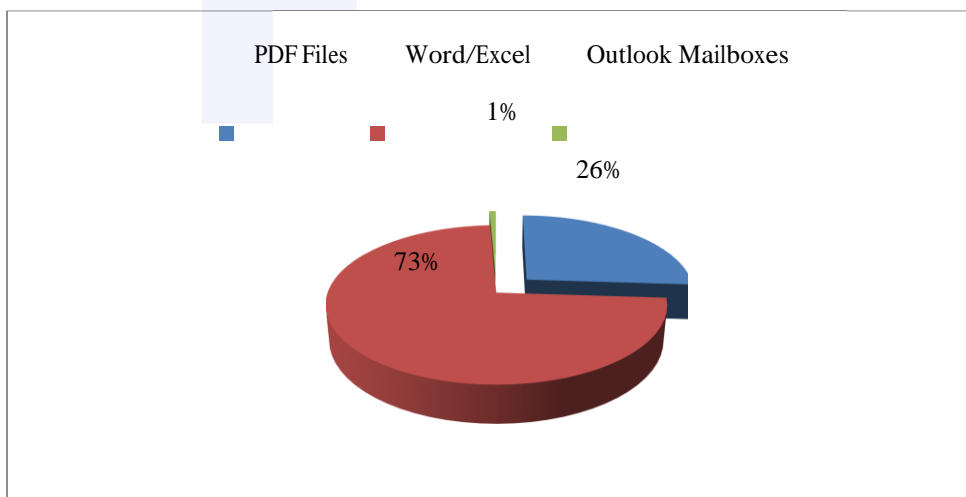
A summary of info relating to data recovered from drive is below.

- Lists of health staff email addresses, their job titles, phone numbers and places of employment
- Information on the direction and projects of Medical Facility
- Medical directorate management group meeting minutes of Medical Facility
- A copy of medical facilities entire Microsoft Exchange Global Address List (all email addresses that exist on their corporate mail server)
- Recovered entire email mailbox which was current on the 25/01/2012, a quick review shows the email contains sensitive data regarding project funding, communications to NSW health department administration and employees, department templates, invoices plus communications between dozens of other health departments

Statistics for this drive;

1. Documents on this drive were created between 2009 and 2012
2. The drive was initially reviewed and did not contain an active system partition so it is plausible an operator attempted to sanitize the drive by deleting the partition – a block level scan showed all available documents that remained on the drive and documents that had been deleted over a period of 12-18 months.
3. The hard drives SMART health status is OK with a powered on count of 545 and a total used or “powered on” hours of 19,296.

Data Content Mix



Data Recovery report from drive with serial number 4JV3CZKS (Sanitization attempted)

Subject drive appears to have belonged to "full name supplied" based in town name Qld – this finding is based on the contained documents recovered.

The drive was received with a heavily damaged PCB board that connects to a computer IDE interface which made the drive unusable, main board on hard drive temporarily swapped and data recovered

– this was possibly a user attempt to sanitize or remove access to the contained data.

The drive contains a mix of hundreds of Word, Excel and PDF documents

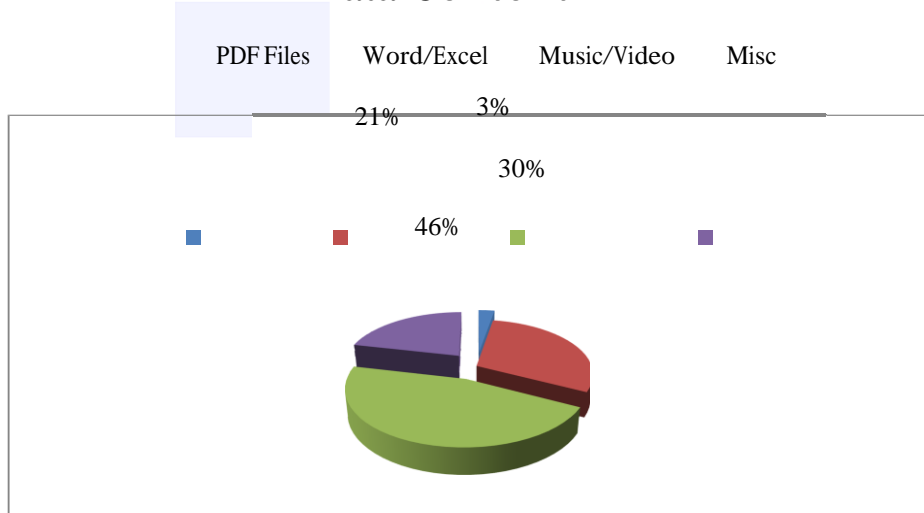
A summary of info relating to data recovered from drive is below.

- Holiday booking quote with full recipient information including the drive owners address
- Telstra bill with P.O. Box listed
- Company identified as "company name" and individual working as an accountant
- Home phone number of drive owner found
- Drive owner is a Justice of the Peace
- Energy company invoice
- Leave itinerary found with details, instructions and signed permission to access mail for personal and business from the post office
-

Statistics for this drive;

1. Documents on this drive were created between 2000 and 2009
2. The drive was initially reviewed and did not contain an active system partition so it is plausible an operator attempted to sanitize the drive by deleting the partition – a block level scan showed all available documents that remained on the drive and documents that had been deleted over a period of 6+ months.
3. The hard drives SMART health status is OK with a powered on count of 5844 and a total used or "powered on" hours of 5359.

Data Content Mix



Data Recovery report from drive with serial number 6RX4T2K4

Drive scanned with deep partition scan a partition was found but no data is visible or recoverable after block level scan.

Subject drive does not provide any information on the original owner and has been sanitized to an industry standard.

Statistics for this drive;

1. The drive was initially reviewed and did not contain an active system partition, the drive was scanned with a block by block level scan and as a result no data could be retrieved
2. No residual data or partition could be found or recovered from this drive
3. The hard drives SMART health status is OK with a powered on count of 291 and a total used or "powered on" hours of 27,688.

Data Recovery report from drive with serial number 6RX9133E

Drive scanned with deep partition scan a partition was found but no data is visible or recoverable after block level scan.

Subject drive does not provide any information on the original owner and has been sanitized to an industry standard.

Statistics for this drive;

1. The drive was initially reviewed and did not contain an active system partition, the drive was scanned with a block by block level scan and as a result no data could be retrieved
2. No residual data or partition could be found or recovered from this drive
3. The hard drives SMART health status is OK with a powered on count of 133 and a total used or "powered on" hours of 18,268.

Data Recovery report from drive with serial number 652030545188 (Sanitization attempted)

Subject drive appears to have belonged to “*individual name*”, location unknown.

The drive contains a mix of hundreds of Word, Excel, PDF documents and hundreds of personal images

A summary of info relating to data recovered from drive is below.

- Large amount personal images and videos
- Uni schedules, credit application forms (blank) and other misc data files

Statistics for this drive;

1. Files on this drive were created between 2001 and 2006
2. The drive was initially reviewed and did not contain an active system partition so it is plausible an operator attempted to sanitize the drive by deleting the partition – a block level scan showed all available files
3. The hard drives SMART health status is OK with a powered on count of 908 and a total used or “powered on” hours of 315.

Data Recovery report from drive with serial number K96LT9A28CVH

Drive scanned with deep partition scan a partition was found and portions of data recovered although no user identifiable data is available.

Subject drive does not provide any information on the original owner and has been sanitized to an industry standard however trace elements remain and are listed below.

- Contents appear to have been corrupted or encrypted
- Owner appears to have been a heavy user of the Adobe family of products
- Drive was originally part of an Apple Mac laptop

Statistics for this drive;

1. Files on this drive were created between 2006 and 2012
2. The drive was initially reviewed and did not contain an active system partition, the drive was scanned with a block by block level scan and portions of information have been recovered
3. The hard drives SMART health status is OK with a powered on count of 3692 and a total used or "powered on" hours of 3215.

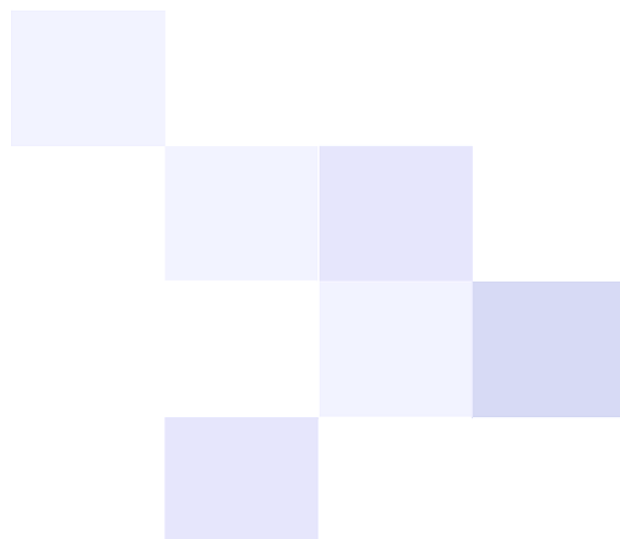
Data Recovery report from drive with serial number MAAZXCVE

Drive beeps when powered on indicating it has failed.

No further information is available for this device.

Statistics for this drive;

1. Drives serial number is not apparently visible until you look on the underside of the drive and look for the SN near the power connector



Data Recovery report from drive with serial number PVF704ZDSD5B4N (Sanitization not attempted)

Drive scanned with deep partition scan a partition was found and portions of data recovered although no specific user identifiable information can be recovered – the owner is believed to have resided in the Chadstone area of QLD.

Subject drive does not provide any information on the original owner and has been sanitized to an industry standard however trace elements remain and are listed below.

- Pornographic Material
- Evidence of pirated material downloads via “Morpheus” a file sharing client
- Job application questionnaire, no ID on employer except for their location is at the Chadstone Mall

Statistics for this drive;

1. Files on this drive were created between 2002 and 2004
2. The drive was initially reviewed and did not contain an active system partition, the drive was scanned with a block by block level scan and portions of information have been recovered
3. The hard drives SMART health status is poor with a powered on count of 1773, the total used or “powered on” hours is unknown due to the SMART data being corrupted.

Data Recovery report from drive with serial number TH-0X0308-12561-3BL-BW4F

Drive has failed, will not spin up as disk head is stuck in the parked position indicated by loud clicking noise.

In addition, drive is not in good physical condition as it has damage to power connector and drive has loose IC on joint R57.

No further information is available for this device.

Statistics for this drive;

1. N/A



Data Recovery report from drive with serial number WCAL98356841

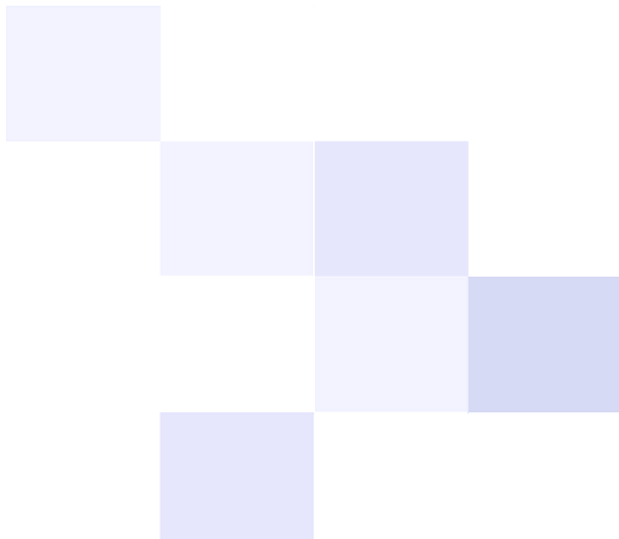
Drive has failed, will not spin up as disk head is stuck indicated by loud clicking noise.

In addition, drive is in fair physical condition with marks and scratches around body of drive indicating damage from being dropped or used in a heavy handed fashion.

No further information is available for this device.

Statistics for this drive;

1. N/A



Data Recovery report from drive with serial number WD-WCAV37659768

Drive scanned with deep partition scan a partition was found and portions of data recovered although no user identifiable data is available.

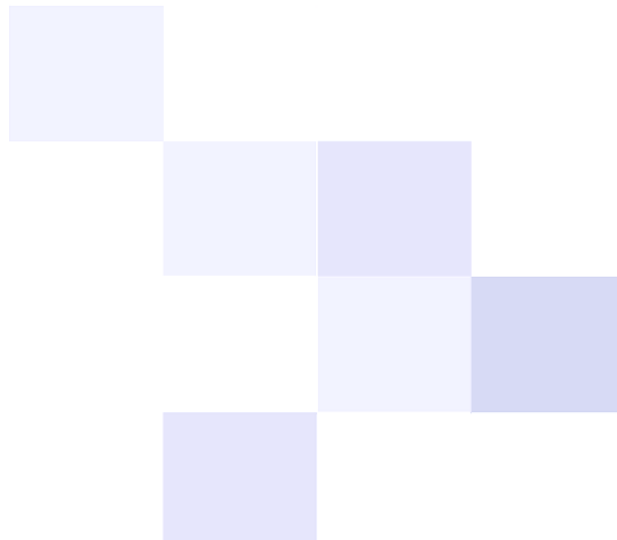
Subject drive does not provide any information on the original owner and has been sanitized to an industry standard however trace elements remain and are listed below.

- Windows 7 home premium factory installation created using a automated installer

Statistics for this drive;

1. Files on this drive were created between 2009 and 2013
2. The drive was initially reviewed and did not contain an active system partition, the drive was scanned with a block by block level scan and only commonly available data could be retrieved
3. The hard drives SMART health status is OK with a powered on count of 666 and a total used or "powered on" hours of 6443.

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Data Recovery report from drive with serial number WD-WCAV37674650

Drive scanned with deep partition scan a partition was found and portions of data recovered although no user identifiable data is available.

Subject drive does not provide any information on the original owner and has been sanitized to an industry standard however trace elements remain and are listed below.

- Windows 7 home premium factory installation created using a automated installer

Statistics for this drive;

1. Files on this drive were created between 2009 and 2013
2. The drive was initially reviewed and did not contain an active system partition, the drive was scanned with a block by block level scan and only commonly available data could be retrieved
3. The hard drives SMART health status is OK with a powered on count of 942 and a total used or "powered on" hours of 11,957.

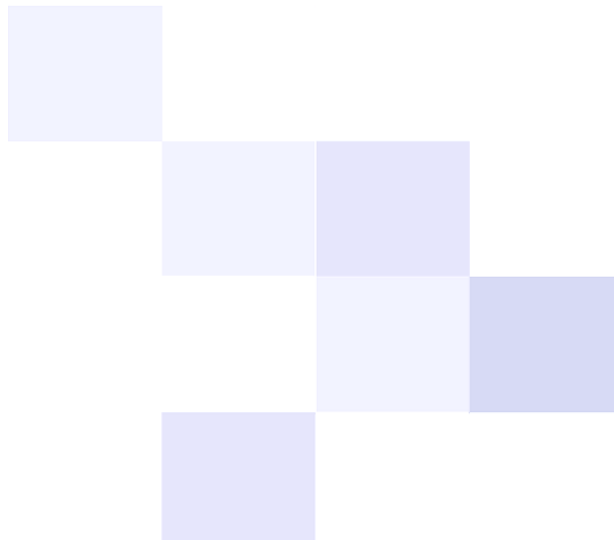
Data Recovery report from drive with serial number WD-WCAWF1955131

Drive does not currently have an active partition and drive appears to have completely failed during block level scan.

No further information is available for this device.

Statistics for this drive;

1. Drive has large numbers of bad unreadable sectors
2. Drive has failed and is will no longer connect to the SATA interface
3. The hard drives SMART health status is poor with a powered on count of 208 and a total used or "powered on" hours of 20,487



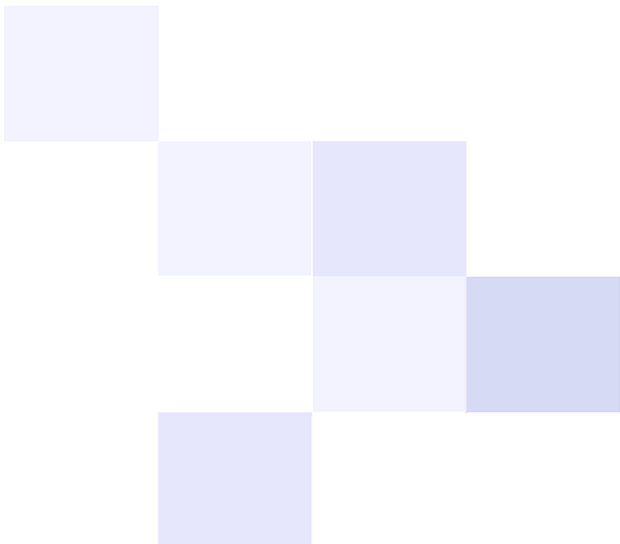
Data Recovery report from drive with serial number WD-WX61C1066756

Drive contains no active partition and a block level scan shows no available data, to note this drive is almost brand new which is apparent by the low power on count and hours.

No further information is available for this device.

Statistics for this drive;

1. This drive can be classed as brand new
2. The hard drives SMART health status is OK with a powered on count of 4 and a total used or "powered on" hours of 1



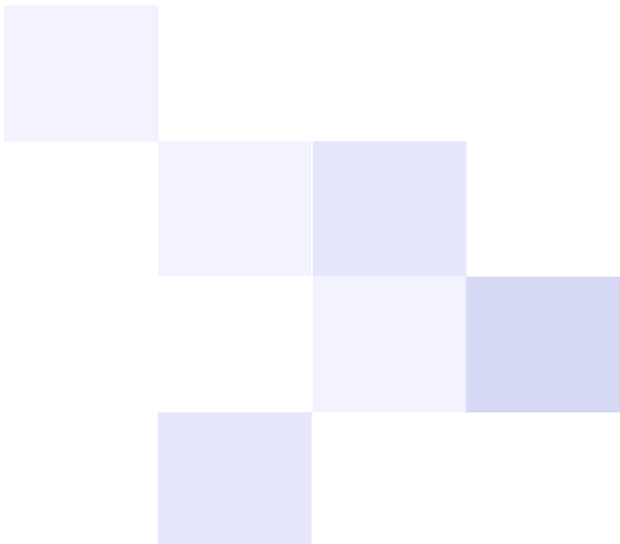
Data Recovery report from drive with serial number WD-WXF1E10SN557

Drive contains no active partition and a block level scan shows no available data, to note this drive is brand new.

No further information is available for this device.

Statistics for this drive;

1. Drive is brand new from the factory
2. The hard drives SMART health status is OK with a powered on count of 5 and a total used or "powered on" hours of 11



Data Recovery report from drive with serial number 0413J1FTB47624

Drive is missing main board and pins on bottom have been bent, user appears to have removed the main board in an attempt to limit or remove access to the data contained within.

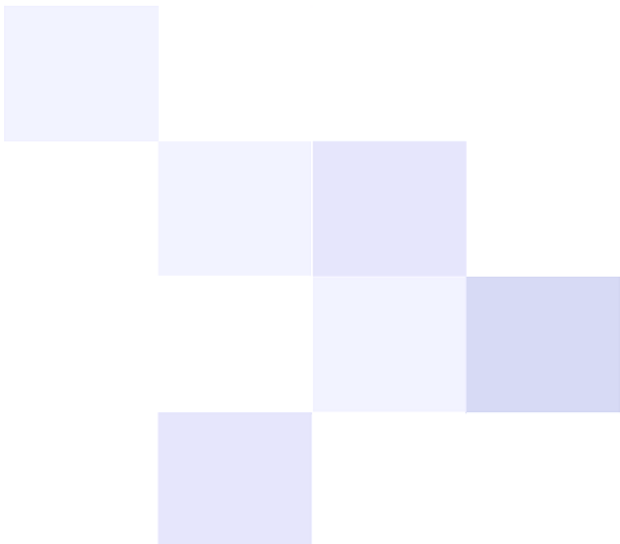
A replacement main board was not available to test this drive further.

In addition, the drive has undergone rough handling showing some nicks and dents and scratches all around the drive.

No further information is available for this device.

Statistics for this drive;

1. N/A



Data Recovery report from drive with serial number 4U2S56K

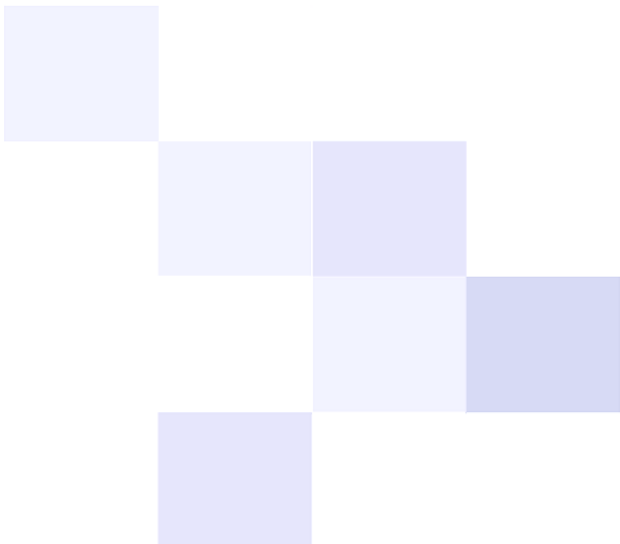
Drive does not currently have an active partition and drive continues to fail mid-way through a block level scan.

Portions of temporary internet files were found with results suggesting the previous owner was a general home user.

No further information is available for this device.

Statistics for this drive;

1. Drive has large numbers of bad unreadable sectors
2. The hard drives SMART health status is poor with a powered on count of 3282 and a total used or "powered on" hours of 10,535



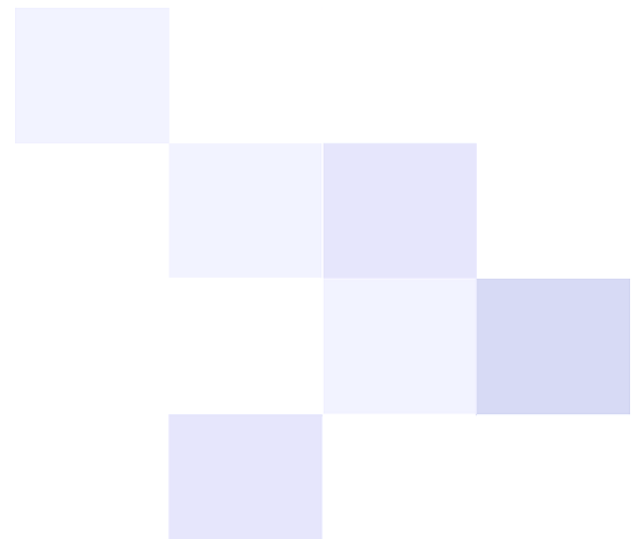
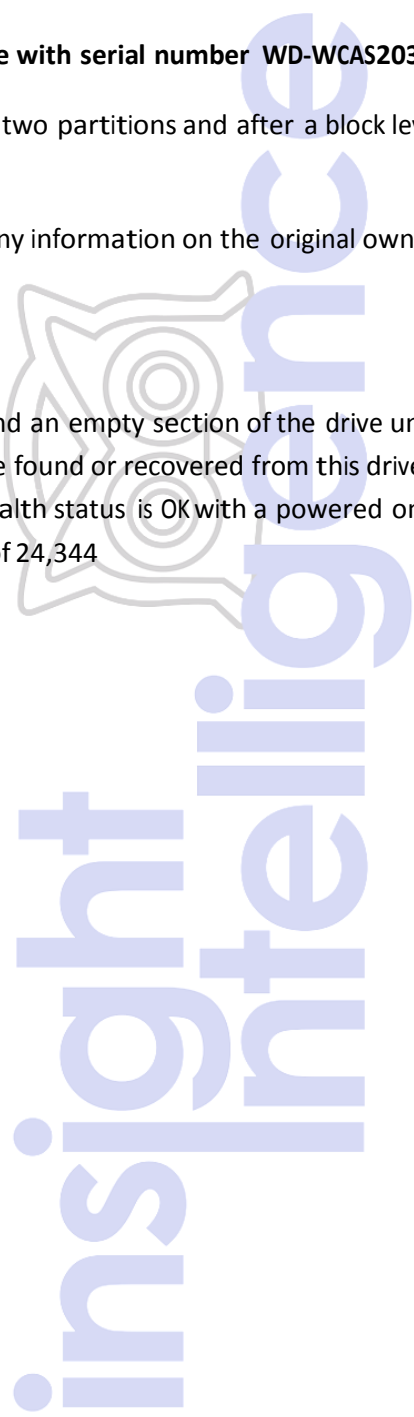
Data Recovery report from drive with serial number WD-WCAS20325689

Drive appeared in Windows with two partitions and after a block level scan no more data is visible or recoverable.

Subject drive does not provide any information on the original owner and has been sanitized to an industry standard.

Statistics for this drive;

1. Total of two partitions and an empty section of the drive unused
2. No residual data could be found or recovered from this drive
3. The hard drives SMART health status is OK with a powered on count of 5934 and a total used or "powered on" hours of 24,344



Data Recovery report from drive with serial number JP1570FR11RTLK

Drive showed in Windows with a partition and portions of data recovered through a block level scan although no specific user identifiable information can be recovered.

Subject drive does not provide any information on the original owner and has been sanitized to an industry standard however trace elements remain and are listed below.

- Various documents related to program installation and use
- Images/Videos of games – mostly related to a computer game known as Flatout 2

Statistics for this drive;

1. Current installation is Windows 8
2. The hard drives SMART health status is poor with a powered on count of 263 and a total used or “powered on” hours of 3,675

Data Recovery report from drive with serial number WD-WMAM9LT44537

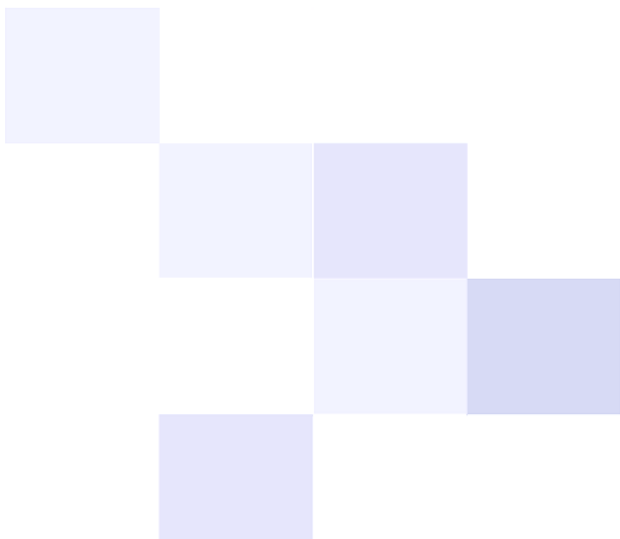
Drive will spin up, however does not appear in the BIOS and therefore is not accessible due to a possible hardware failure.

In addition, the drive has undergone rough handling showing some nicks and dents on the top of the drive.

No further information is available for this device.

Statistics for this drive;

1. Audible clicking sound can be heard when supplying power to drive



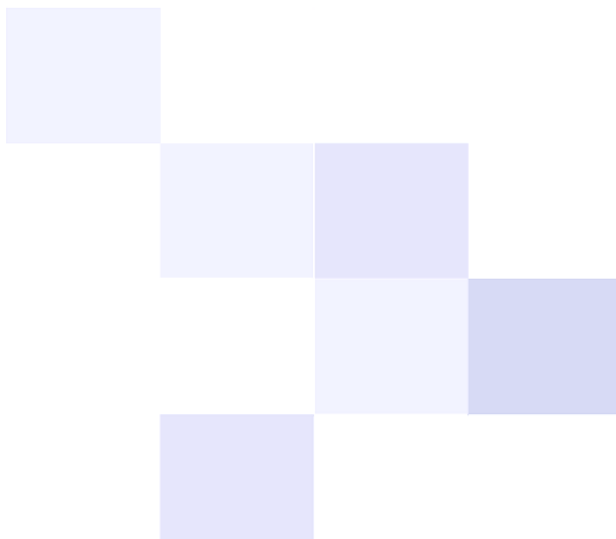
Data Recovery report from drive with serial number 9QZ0F38F

Drive scanned with deep partition scan a partition was found but no user relevant data is visible or recoverable after block level scan.

Subject drive does not provide any information on the original owner and has been sanitized to an industry standard.

Statistics for this drive;

1. This drive can be classed as brand new
2. No residual data or partition could be found or recovered from this drive
3. The hard drives SMART health status is OK with a powered on count of 10 and a total used or "powered on" hours of 3



Data Recovery report from drive with serial number FA11PHDD (Sanitization attempted)

Subject drive appears to have belonged to “individual name” – Elizabeth Road, South Australia.

The drive contains a mix of Word, Excel, TV shows, movies, PDF documents personal photos.

A summary of info relating to data recovered from drive is below.

- Large amount personal photos and videos
- Bank statements
- Court Case Documents – relating to case against a family member
- TV shows
- Movies
- Pornographic Material
- School Projects – Word/Powerpoint
- Bank Account Detail – including Netbank Username/Password

Statistics for this drive;

1. Files on this drive were created between 2007 and 2013
2. Windows 7 or later was installed on this machine
3. There were five partitions to this drive which all appeared in Windows
4. Their appears to be a small attempt at sanitation as the User directory is missing however there was considerable data on the other partitions
5. A block level scan showed all available documents that remained on the drive and documents that had been deleted over a period of 12-18 months.
6. The hard drives SMART health status is OK with a powered on count of 94 and a total used or “powered on” hours of 1970

