
Chameleon

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Data Protection Key

Customer Presentation (Rev6)

October 29, 2012

Objectives

- A general purpose data protection device with strong encryption can be used in anywhere,
 - supporting multiple computers
 - storage devices including external flash drive and hard disk
 - Cloud computing
 - Chameleon secures up to 2TB on each drive, Chameleon secures unlimited numbers of storage devices
- Easy to use
- Secure



Chameleon--

Chameleon secures 2TB space for each device

- Unlike flash drives, the encrypted data is not stored on the Chameleon. It remains in your storage device. In the event of a lost Chameleon, your data is still recoverable and remains safe in your computer, external hard drive, or flash drive. The optional Recovery Passphrase that is created at initial setup can be used to access your encrypted data in such cases. The Chameleon is a physical key that locks away your sensitive information when you are away and easily accesses it when you need it.

Compared to Thumb drives

■ Encrypted Thumb drive

- ❑ Data stored on device lost, if Thumb drive is stolen or damaged
- ❑ Requires another password
- ❑ Unencrypted backups, requires Thumb drive plugged in and unlocked
- ❑ Limited memory space
- ❑ Traces of private files still on PC's hard drive

■ Chameleon

- ❑ Data secured on PC is safe, if Chameleon Key is lost
- ❑ Chameleon key Password is optional
- ❑ Encrypted backups, no Chameleon connection required
- ❑ Encrypted memory space not limited by the Chameleon
- ❑ The Chameleon's Secure Paste function removes all traces of your files from the unencrypted partition
- ❑ Cloud storage functions

Security Made Easy for the Whole Company

- The Chameleon is created to manage data security for organizations. The Chameleon PRO system consists of a PRO Master Key and multiple PRO User keys. The Chameleon PRO has all the full AES-256 encryption, USB plug and play functionality features, and more.

Chameleon Master and User Keys

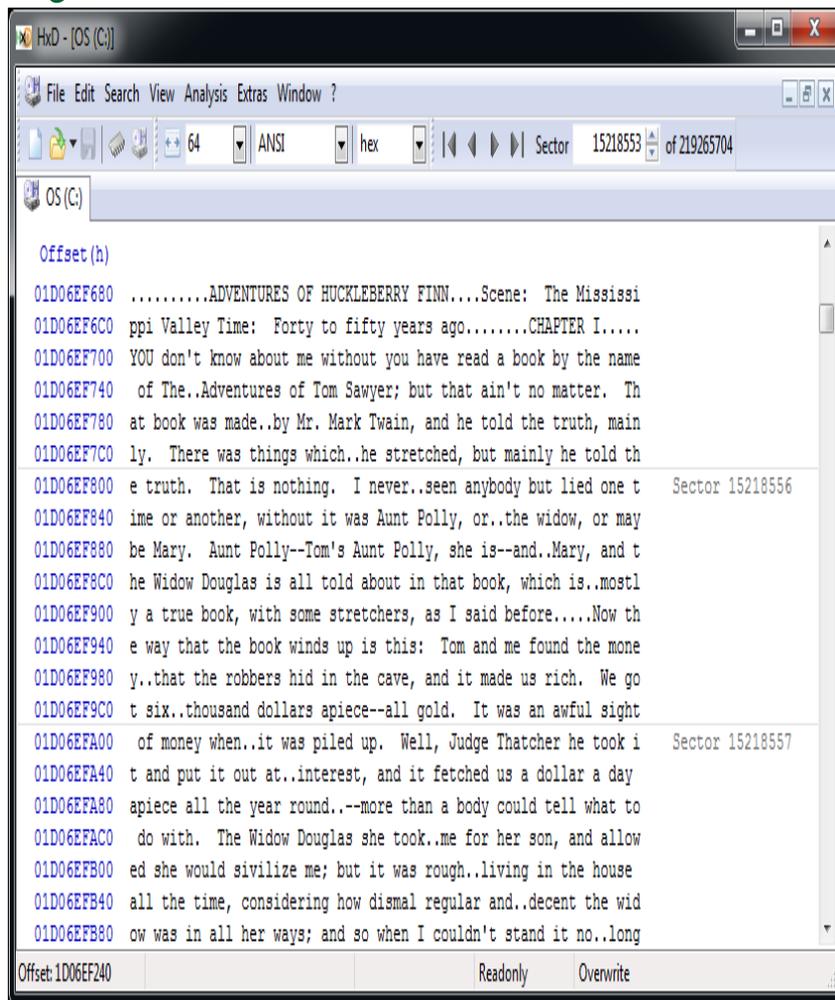
1. A Master Chameleon controls a collection of User Chameleon similar to a master key for an apartment building
2. The Master Chameleon can open files created by any of its User Chameleon user Chameleon cannot open each others files.
3. User Chameleon can be duplicated, recovered, and revoked by the Master Chameleon
4. Only Chameleon Master can setup Chameleon User Key(s)



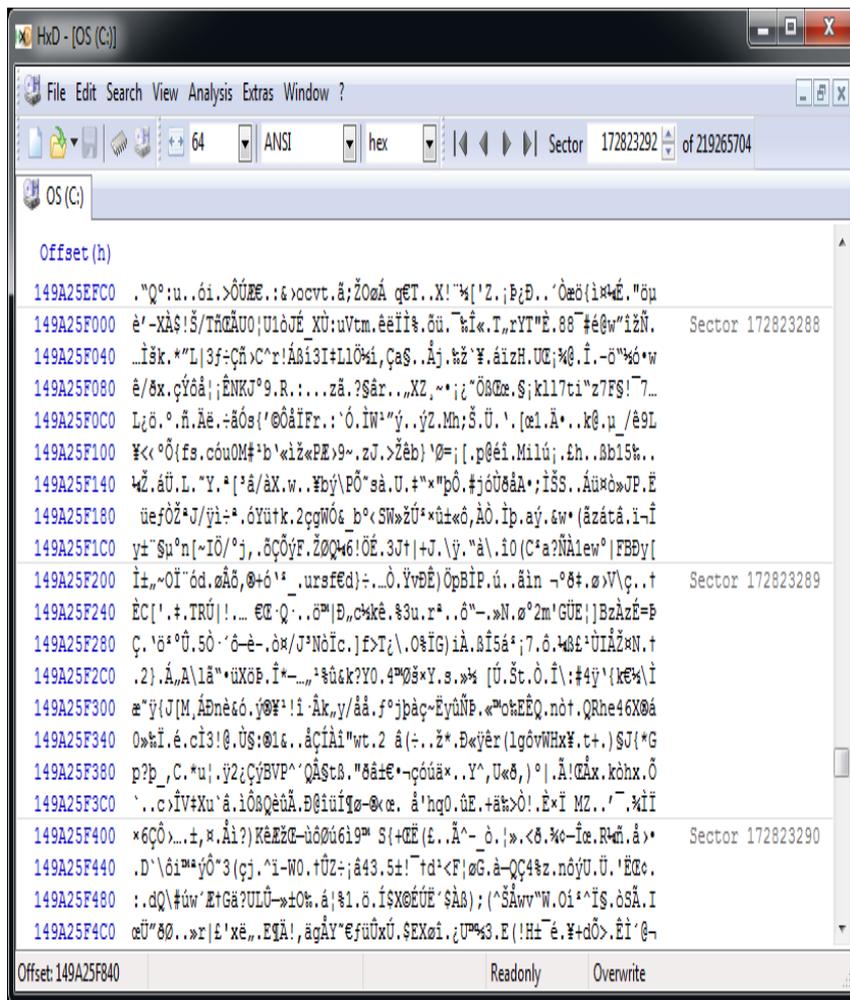
Applications

- Transfer and store sensitive information, such as bank account information, driver license numbers, social security numbers, employee records, customers, patient information or IP.
- Encrypt internal or external drives (Hard drives or USB drives).
- Encrypt E-mail attachments
- Store data to cloud storage
- Store you email, web login links' passwords, such as, Social networks accounts(facebook, twitter, linkdln, youtube)

Plain Text File on C: Drive vs. Encrypted by the Chameleon



```
File Edit Search View Analysis Extras Window ?
64 ANSI hex Sector 15218553 of 219265704
OS (C:)
Offset (h)
01D06EF680 .....ADVENTURES OF HUCKLEBERRY FINN...Scene: The Mississ
01D06EF6C0 ppi Valley Time: Forty to fifty years ago.....CHAPTER I....
01D06EF700 YOU don't know about me without you have read a book by the name
01D06EF740 of The..Adventures of Tom Sawyer; but that ain't no matter. Th
01D06EF780 at book was made..by Mr. Mark Twain, and he told the truth, main
01D06EF7C0 ly. There was things which..he stretched, but mainly he told th
01D06EF800 e truth. That is nothing. I never..seen anybody but lied one t Sector 15218556
01D06EF840 ime or another, without it was Aunt Polly, or..the widow, or may
01D06EF880 be Mary. Aunt Polly--Tom's Aunt Polly, she is--and..Mary, and t
01D06EF8C0 he Widow Douglas is all told about in that book, which is..mostl
01D06EF900 y a true book, with some stretchers, as I said before....Now th
01D06EF940 e way that the book winds up is this: Tom and me found the mone
01D06EF980 y..that the robbers hid in the cave, and it made us rich. We go
01D06EF9C0 t six..thousand dollars apiece--all gold. It was an awful sight
01D06EFA00 of money when..it was piled up. Well, Judge Thatcher he took i Sector 15218557
01D06EFA40 t and put it out at..interest, and it fetched us a dollar a day
01D06EFA80 apiece all the year round.--more than a body could tell what to
01D06EFAC0 do with. The Widow Douglas she took..me for her son, and allow
01D06EFB00 ed she would sivilize me; but it was rough..living in the house
01D06EFB40 all the time, considering how dismal regular and..decent the wid
01D06EFB80 ow was in all her ways; and so when I couldn't stand it no..long
Offset: 1D06EF240 Readonly Overwrite
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File Edit Search View Analysis Extras Window ?
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OS (C:)
Offset (h)
149A25F0C0 . "Q°:u.oi.>ÖÜÆE.:s>ocvt.ã;ZÖwÁ qET..X!'%['Z.;p;D.. 'Öæö(i)w4É."öu
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149A25F080 é/èx.çýöá;|ÉNKJ'9.R...zã.?Sár..XZ,*,;ç"Öæe.S;k117ti"z7FS!~7..
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149A25F140 WZ.áU.L.Y.*['á/áX.w..Wby\pÖ"sa.U.+*»pö.#jóÜöáA.;ÍSS.Áüö»JP.È
149A25F180 üefÖZªJ/yi+ª.öYU+k.2çgWÖs b<SW»ZÜ*ú±æö.ÁÖ.Íp.áy.çw (ázátá.i-í
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Offset: 149A25F840 Readonly Overwrite
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Protecting Your Data

■ Security

- ❑ The data on your PC is protected with AES-256 encryption
- ❑ Hardware cipher secures your files from malware, key-loggers, and hackers
- ❑ Standalone operation. Unique cryptographic keys can be generated by the Chameleon itself
- ❑ Automatically encrypt files and folders for cloud storage

■ Convenience

- ❑ USB plug and play – like a key for your hard drive
- ❑ Stop accidental lockouts and data loss with a master key
- ❑ Windows remains fully functional without the Chameleon
- ❑ Back up your encrypted files without the Chameleon plugged in
- ❑ All data stays in the PC. It is recoverable if the Chameleon is lost.

Chameleon offers more

- Chameleon encrypts(protects) user's
 - Computer's hard disks
 - External hard drives
 - Thumb drives
- No need to pay extra for encrypted external hard drives and Flash based drives (Flash Key, IronKey etc).
 - Chameleon creates up to 2TB encrypted and secured disk spaces.
- Once Chameleon is removed from your computer, your computer data is safe unlike software encryption or external hard drives with encryption subject to repeated attacks.

Chameleon Example



One Chameleon
secures different
drives



Secures Internal Hard Drive



Secures USB Flash drives

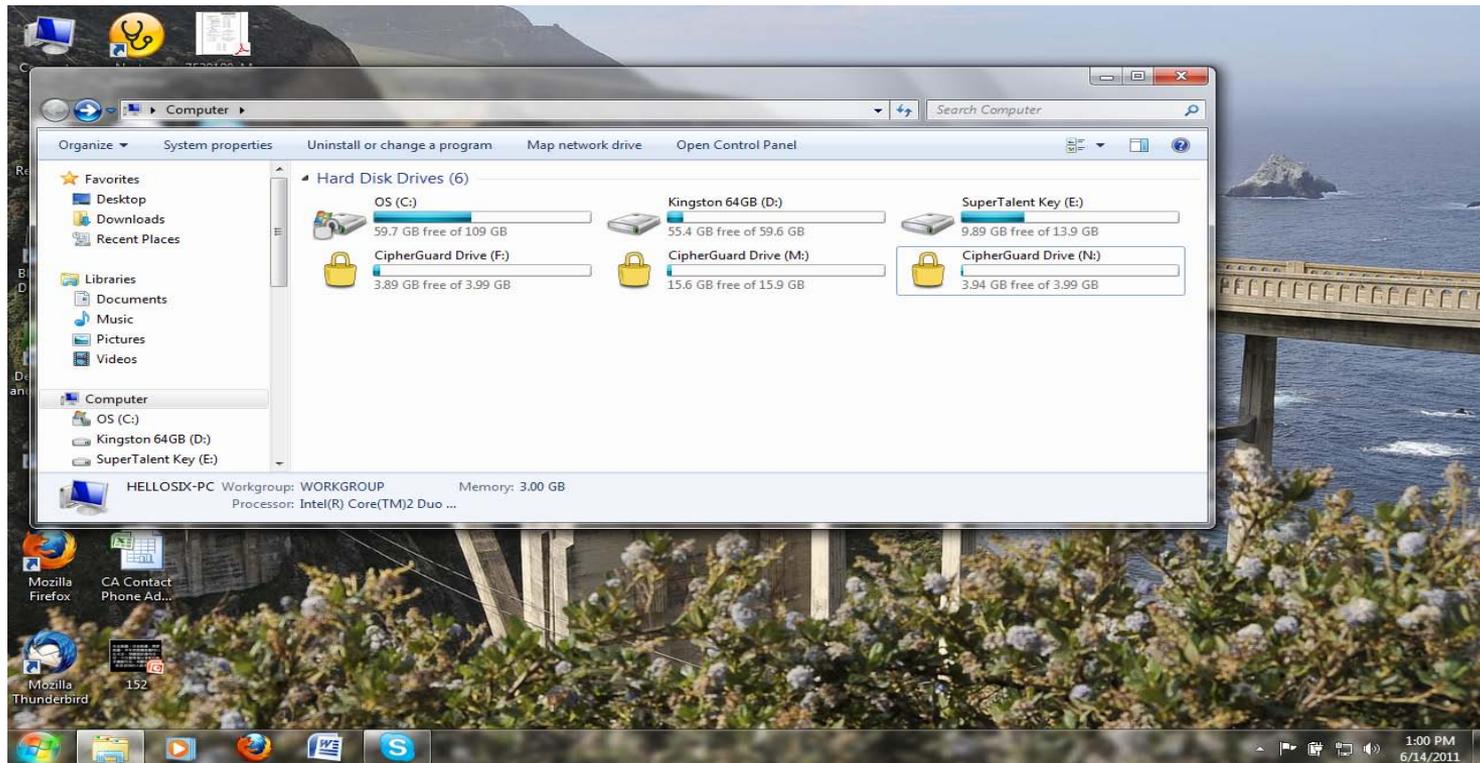


Secures external USB drives



One Chameleon protects three different drives

- ❑ Computer internal hard drive– encrypted disk space M: 16GB
- ❑ External SSD (64GB)– encrypted disk space N: 4GB
- ❑ Flash drive (16GB)– encrypted disk space F: 4GB



Chameleon vs. Chameleon PRO

	Chameleon	Chameleon Pro Master	Chameleon Pro User
Encrypted Drives			
Individually Encrypted Files			
Password Required for Use	Optional	Required	Managed
PC Lock			Managed
AutoLogin			Managed
Program/Manage Users			
Access Users' Data			

If you lose your User Chameleon

- Admin creates a duplicate User Chameleon
 - Insert the master Chameleon key.
 - Create a user key, enter the user ID, specify if a password is required
 - Unplug the master key then insert a user key
 - The user key will be programmed with the specified user ID

- Locking out the lost Chameleon
 - Insert the master Chameleon key into the PC with the Chameleon drive
 - Select “Change Encryption”
 - Assign a new user ID to the Chameleon drive
 - Chameleons with the old user ID can no longer access the drive
 - The old user keys can re-programmed with the new user ID

Individual file and folder encryption

- Create secure email attachments or encrypt files for cloud/ network storage
 - Right click on any file or folder, then select “Encrypt here”
 - Creates an encrypted file with .CGE suffix
 - Right click on any encrypted file or folder then select “Decrypt here”
 - Creates a copy of the original files and folders
 - Encrypted move, Decrypted move
 - Hold down right mouse button then drag to destination folder, select option
 - Encrypted paste, Decrypted paste
 - Cut or copy original file, then right click on the destination folder, select option
- Requires matching Chameleon for decryption

Chameleon adds security for full Disk encryption drives

- Files in full Disk encryption drives are wide open(unsecure) when password presented.
- Full disk encryption subjects,
 - Hackers attack
 - Kon-boot etc.
- To plug Chameleon in computer with full disk encryption, it provides highest level security for computer(laptop or desk top).
 - Plug Chameleon key in your computer, you can accessed files in Chameleon drives and other drives.
 - Remove Chameleon, all files are protected in your Chameleon drives, Windows remains fully function. Chameleon hides your files from Key-loggers, spyware, malware, trojans, and hackers.

Why Chameleon? Background

■ Increasing Need for Data Protection

- Using software to block and monitor data breach activities are effective but most the times are playing catch-up role
 - <http://www.itnews.com.au/News/313274,oil-giant-saudi-aramco-recovers-from-computer-virus.aspx>

■ Survey shows many files/datum on computer disk, Flash drive, external hard disk and Cloud storage are not encrypted

■ Existing Solutions

- Require complex setup
- Fixed on one computer or storage, nontransferable
- Not easy to use

Chameleon Offers...

- Easy installations, no need to call help desk
- No need to change computer current setup, no new commands and instructions to learn
 - Everyone uses Windows can use Chameleon without any extra training
 - No conflict with existing installed security/data protection software, it adds security for existing monitor and recovery software
 - Strength End Point security
 - Upon data breach occurs Chameleon encrypted files/data are secure
- Computer's USB ports were blocked, Chameleon is still function.
 - Chameleon performs files/data encryption on computers.
 - Noted: All Mass Storage devices will not function.
- Adds extra Security for Monitor, Recovery software with negligible cost

Chameleon Offers...

- Central Control --One stop service
 - Master Key provides setup History and documentation
 - History file converters into Excel files or other formats
 - History files can be used as central control and to share History files with various departments, such HR or IT etc.
 - HR adds employee information to History files as part of Key record and store in computer server etc.

Examples of History files– Pre assigned IDs

- Pre-setup by Manufacture with customer Inputs

Information											
User ID	Date	Password Policy	AutoLock Policy	AutoLogin Policy	Page File Encryption Policy	Secondary User ID	Description	Employee ID	Department ID	Job	Manager
AA10001		Open	Open	Open	Open			1111	10	IT-PROG	
AA10002		Open	Open	Forbidden	Open			1925	20	MK_REP	
AB20001		Open	Required	Open	Open			1123	20	MK-MAN	
AC30009		Required	Open	Forbidden	Required			1566	60	AC_ASST	
AD40008		Required	Required	Forbidden	Required			1201	40	CU_SVC	
BA10220		Open	Required	Open	Open			1486	60	AC_MAN	

- Customers provides UserIDs, Master Key and setup instruction to manufacture to pre-set a number of keys. UserID is unique.
 - setup history files are provided by manufactures
- HR needs to enter employee information, date of hire, Employee ID#, Job Title etc before issuing a new key to employee.

Examples of History files (2)

- Manufacture Preset History file- UserIDs are pre-assigned by customers

User ID	Date	Password	AutoLock	AutoLogin	Page File	Secondary	Description
AA10001		Open	Open	Open	Open		
AA10002		Open	Open	Forbidder	Open		
AB20001		Open	Required	Open	Open		
AC30009		Required	Open	Forbidder	Required		
AD40008		Required	Required	Forbidder	Required		
BA10220		Open	Required	Open	Open		

- HR enters employee information

Employee	Department	Job	Location	First Name	Last Name	Title	E-mail Ad	Work Phone	Date Hired	Notes
1111	10	IT-PROG	San Jose	John	Johnone	Software E	J.B@xyz.c	4087208800	10/16/2004	
1925	20	MK_REP	San Franc	Bill	Billone	Sales Rep	B.A@xyz.	415-555-1387	8/1/2011	
1123	20	MK-MAN	Paris	Diana	Lastname	Sales Man	D.K@xyz.	08-31-55-48-79	1/15/2008	
1566	60	AC_ASST	New York	David	Davidone	Account A	D.P@xyz.	718-555-1125	7/20/2012	
1201	40	CU_SVC	San Jose	Alex	Alexone	Customer	A.A@xyz.	408-555-1687	4/9/2012	
1486	60	AC_MAN	New York	Pat	Patone	Account M	P.D@xyz.	718-555-1857	3/10/2009	

Examples of History files—customer assigns IDs and setup User Keys for each employees

■ User information

- Company Name: XYZ
- Location: Paris, France (PRFR)
- Dept#: 428
- Employee ID# : ABC1011
- Date of Hire: Oct152012

■ Chameleon Key

- User ID: XYZPRFR428ABC1011OCT1512

Examples of History files — customer assigns IDs and setup User Keys

- Assigns User ID and releases keys to employee
- User IDs are not pre-assigned

XYZ Company											
Information											
User ID	Employee ID	Department ID	Job	Location	First Name	Last Name	Title	E-mail Address	Work Phone	Date Hired	Notes
XYZSJ10SGU1111101604	SGU1111	10	IT-PROG	San Jose	John	Name	Software Engineer	J.B@xyz.com	408-720-8800	10/16/2004	
XYZSF20XIG1925080111	XIG1925	20	MK_REP	San Francisco	Bill	Nametwo	Sales Representative	B.A@xyz.com	415-555-1387	8/1/2011	
XYZPA20XNV1123011508	XNV1123	20	MK-MAN	Paris	Diana	Dianaone	Sales Manager	D.K@xyz.com	08-31-555-48-79-75	1/15/2008	
XYZNY60WUZ1566072012	WUZ1566	60	AC_ASST	New York	David	Davidone	Account Assistant	D.P@xyz.com	718-555-1125	7/20/2012	
XYZSJ40NWP1201040912	NWP1201	40	CU_SVC	San Jose	Alex	Alexone	Customer Service Representative	A.A@xyz.com	408-555-1687	4/9/2012	
XYZNY60POS1486031009	POS1486	60	AC_MAN	New York	Pat	Patone	Account Manager	P.D@xyz.com	718-555-1857	3/10/2009	

Case Study..

■ **Stanford University Medical Center**

Stanford, California MED STAT 2,500 (Unknown number of SSNs)

A burglary sometime around July 15 resulted in the theft of a computer from a Stanford faculty member's locked office. The computer contained patient information. No medical records or health histories were stored on the computer, but it may have held the Social security numbers of some patients. The computer was outfitted with security software that would detect when and where the computer connected to the internet.

Information Source: PHIPrivacy.net

Solution:

University is not able to locate stolen computer, if University can recovery the computer, theft already to use files and data on computer.

To use Chameleon to encrypt computer files/data. Theft is not able to access computer data and files.

The computer was outfitted with security software that would detect when and where the computer connected to the internet. Even software detects computer, the files/data are breached. Security was compromised.

Chameleon is Secure.

Case Study— USB Flash Drive

- USB flash drives will be lost and IT will never know. Losing a US\$10 flash drive can be even worse than losing a laptop. Stolen or lost laptops are reported -- \$10 flash drives are quietly replaced. Missing devices cause 42 percent of security breaches, according to the Ponemon Institute National Study of Data Loss Breaches in 2010. **Use encrypted flash drives or don't use them at all. Right now, only 35 percent of companies enforce data encryption on company-issued devices.**

Source: www.technewsworld.com

■ Solutions:

- Chameleon encrypts USB Flash drives, files or folders before storing into USB Flash drives



Case Study- Schools

Problems encountered :

- ❖ Confidential information being stolen.
- ❖ Student records being hacked and changed.
- ❖ No privacy in limited resource environment.



Solution:



Teachers should use **Chameleon** to create encrypted drives or encrypted files.

Encrypted drives can only be viewed and accessed when its associated Chameleon is physically present. Therefore, teachers' confidential materials are secured. Teacher will also have 100% privacy on their own materials while others are using the same computer.



Authentication

- Password
 - Password alone is not secure.
- Physical key
 - Convenience
 - Backup
 - Easy recovery of data
- Recovery Passphrase
 - Secure
 - Only use during setup time or key backup time, no need to type Recovery Passphrase for normal usage

**Password + Physical Key + Recovery
Passphrase = Secure, Easy to use**

Contact LucidPort

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- support@lucidport.com
- 24 hour turnaround on technical issues

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- sales@lucidport.com

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