

## Keeping Data Safe and Secure with Encryption and Online Services

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## Introduction

This session will look at two aspects of protecting your TRIO program's data through the use of data encryption and online backup services.

Title of Presentation

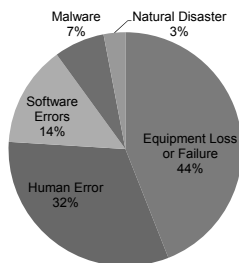
## Topics of Interest

- How is Data Lost or Stolen?
- What About Laptops?
- Protecting Your Data with Encryption
- Installing TrueCrypt
- Data Backup Plans
- Online Backup Services
- Questions and Discussion

## Disclaimer

Any references to software or products in this presentation are for illustration purposes only and not an endorsement of any particular product.

## How Is Data Lost In General?



## Reasons for Data Loss by 3<sup>rd</sup> Parties

- Stolen Laptop 19%
- Hacking 16%
- Infected Web Site 12%
- Fraud 9%
- Stolen Computer 7%
- Stolen eMail 4%
- Stolen Media 2%

[http://datalossdb.org/yearly\\_reports/dataloss-2010.pdf](http://datalossdb.org/yearly_reports/dataloss-2010.pdf)

## What About Laptops?

- 10% of All Laptops are lost or stolen in the first year
- 25% or more of laptops are stolen or suffer hard drive failures within the first two years
- The FBI's August 2010 report says that less than 2% of all stolen laptops are recovered

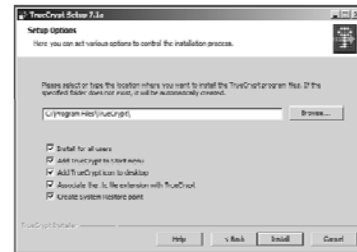
## Data Encryption

- Encryption is the process of transforming information using an algorithm (called a cipher) to make it unreadable to anyone except those possessing a key
- Basic approaches:
  - Creates an encrypted container (folder)
  - Encrypts an entire drive
  - Encrypts individual files
  - Encrypts “on the fly” when turned on

## Encryption Considerations

- Think about how you pass and share data
  - USB drives
  - CDs
- Find a solution that works for you
  - TrueCrypt – a free multi-platform open source solution that is highly rated.
  - AxCrypt – encrypts a file or folder by just right clicking it and selecting “Encrypt”. Windows only.

## TrueCrypt Installation



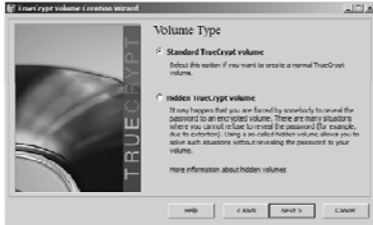
## Select Create Volume



## Select Volume Type



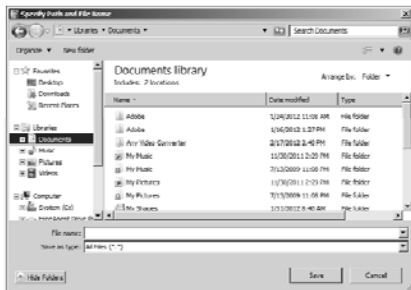
## Select Type of Volume



## Click on Select File



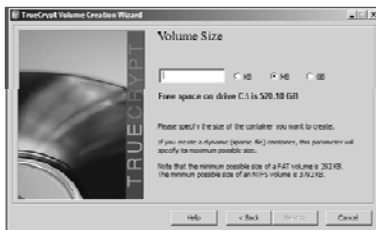
## Select Location and Volume Name



## Confirm Location and Volume Name



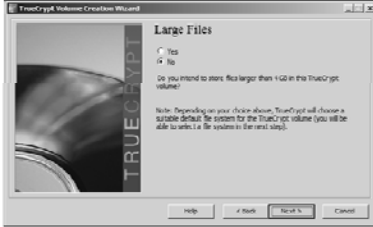
## Decide on Size of Volume



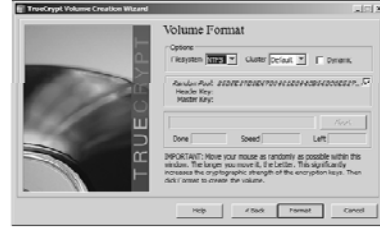
## Create a Volume Password



## Stay with the Default on File Size



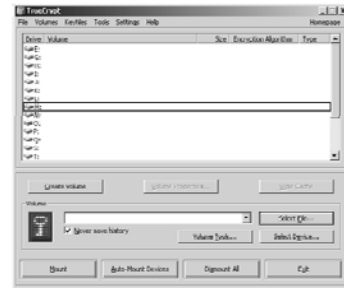
## Decide on FAT or NTFS Format



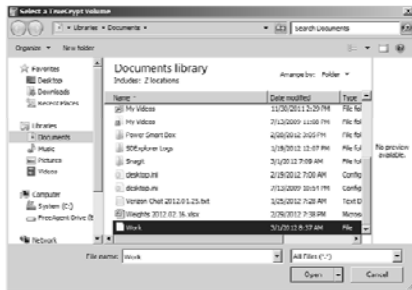
## Creation of Volume Complete



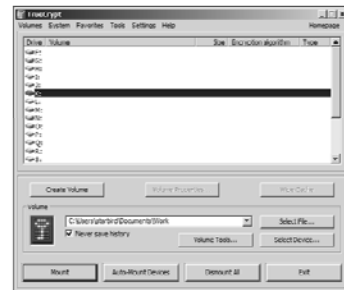
## Start TrueCrypt to Mount Drive



## Select Location and Volume



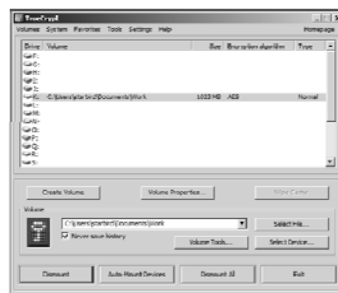
## Select Mount



## Enter Volume Password



## That's It You Are Ready to Go



## Do You Have a Backup Plan?

- What data is important to your program?
- Where does it reside?
- How much data is there really?
- What kind of backup do you do in the office and in the field?
- Who is responsible for backups?
- Have you checked your backups?

## Lots of ways to backup data

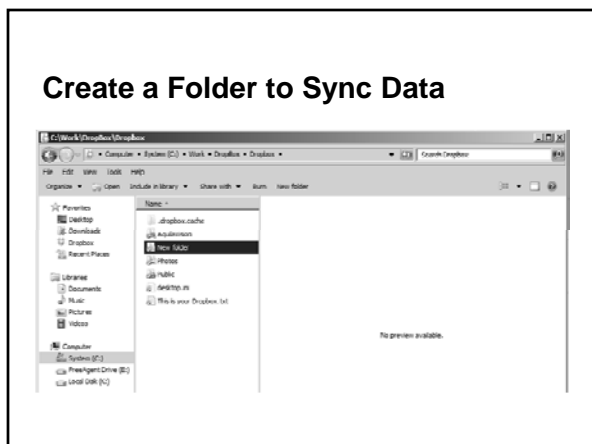
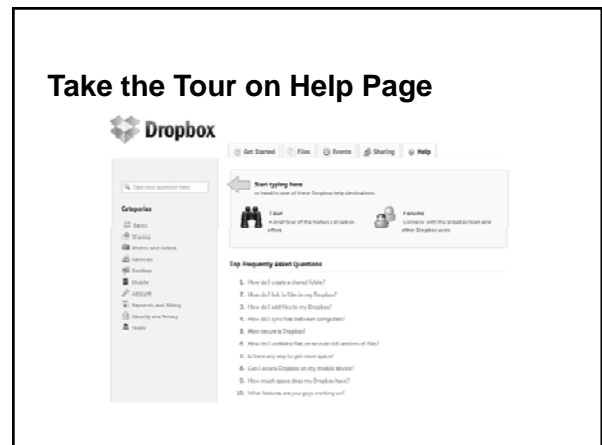
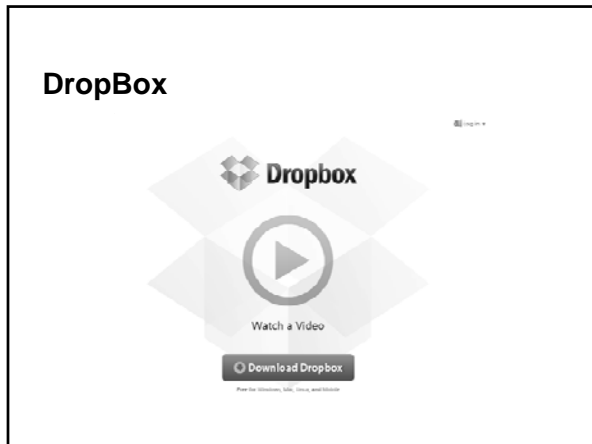
- SD Cards (Easily lost or stolen)
- USB Drives (Easily lost or stolen)
- DVD (Easily damaged, lost or stolen)
- External Hard Drives (Easily damaged)
- Central Server (Not offsite)
- Online Backup

## Consider Online Backup Services

- Online Backup services are completely automated which ensures that it gets done, and the backed up files can then be accessed by anyone with permission.
- Online Backup data storage centers are Class-A facilities equipped with fire suppression, security cameras, personnel access controls, backup generators, disaster recovery and high-end firewalls.

## Other Online Service Features

- Mac and PC compatible
- Document Versioning
- Folder Sharing
- Mobile Phone Compatible
- Sync to Another Computer
- Scheduling
- Incremental Backups



- # Folder Synchronization
- Can be created on Web
  - Can be created locally
  - Anything placed in folder is synced
  - Can attach other computers with same account to synchronize
  - Can share folder with others

## Secure Online Storage

Web Service	Cost	Space
SugarSync	\$4.99/mo.	30 GB
OpenDrive	\$15.00/mo.	500 GB
DropBox	\$9.99/mo.	50 GB
Carbonite	\$54.95/yr.	Unlimited

<http://online-data-backup-review.topfentreviews.com/>

## Conclusion

- Laptops are a serious liability
- External Drives are a serious liability
- Encrypt all important data
- Create a Data Backup Plan
- Consider Online Backup Services

Title of Presentation

## Discussion & Questions

Webinar Evaluation  
<http://uwtrio.org/webinar/mar1eval/>

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