



# Keeping Content out of Harm's Way

Session 104-B

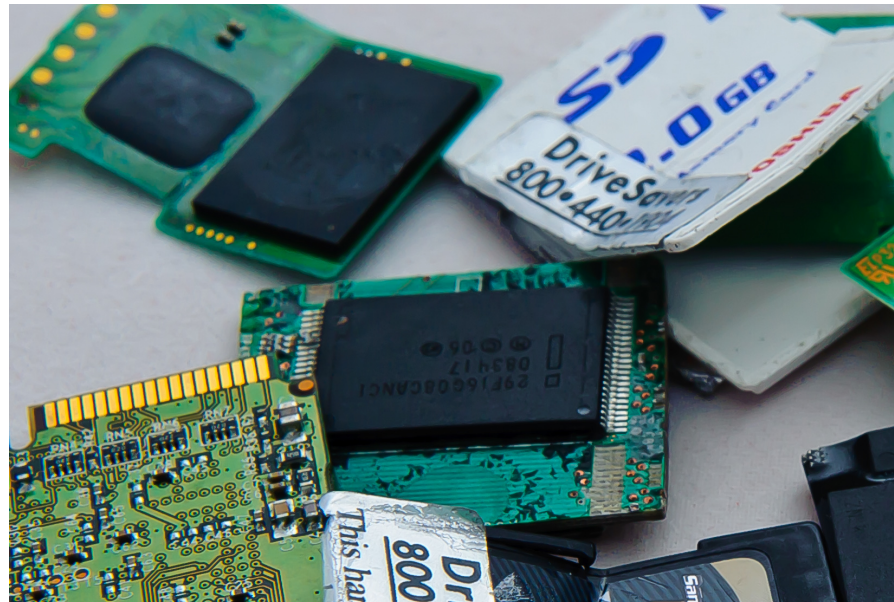
Chris Cross

DriveSavers Data Recovery,  
eDiscovery & Forensics



## The Care & Feeding of your Media

- Flash memory is typically very reliable but...



## The Care & Feeding of your Media

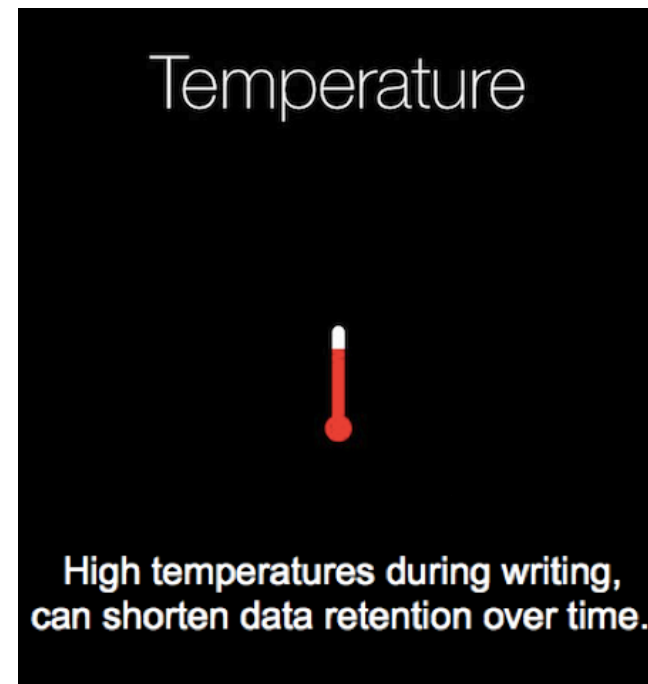
- NAND Flash devices can and do fail
  - They just fail differently in complex ways
- Physical damage
- Liquid exposure
- Flash controller or firmware
- NAND media failure
- Unknown
  - One minute it's fine and now it's unreadable





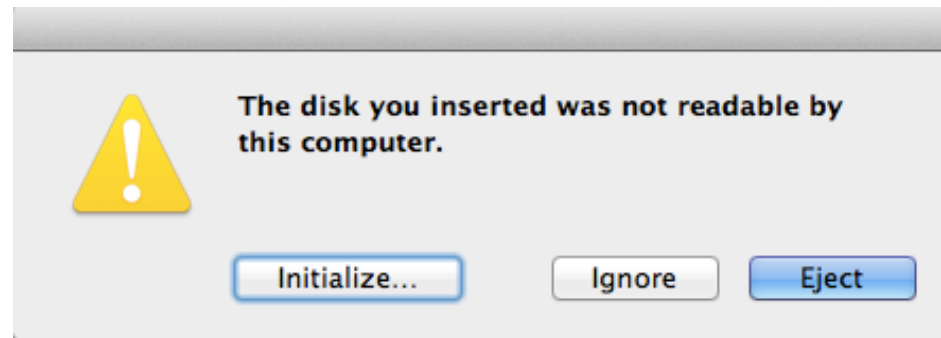
# The Care & Feeding of your Media

- Handling & Storage
  - Be nice to your media!
  - Follow manufacturer guidelines
- Data Retention
  - How long does data last on my card or drive?
  - Temperature matters
    - At recording time and during storage





# Troubleshooting Storage Problems



- I can't read my media!
  - Don't panic, stay calm and breathe...
- Disk errors during importing data
  - What can you do?



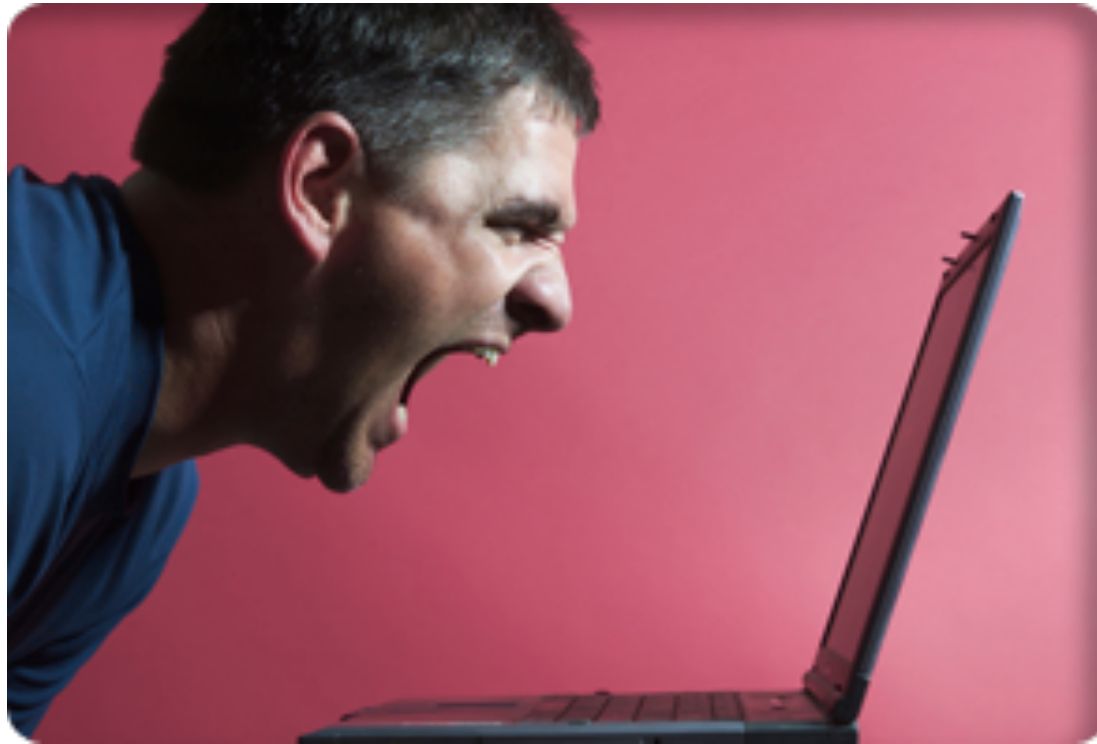
# Troubleshooting Storage Problems

- Try multiple card readers
  - You might get lucky, not all readers are equal





# Data Recovery Options



Flash Memory Summit 2016  
Santa Clara, CA

DriveSavers Confidential – Do Not Forward 7



## Do It Yourself Data Recovery

- Contact support at your media manufacturer
- Download data recovery software
- Take care not to make the problem worse
- If the data is valuable or irreplaceable, consult a professional



# Professional Lab Data Recovery



Flash Memory Summit 2016  
Santa Clara, CA

DriveSavers Confidential – Do Not Forward 9



# Professional Lab Data Recovery

- Specialized labs are like the ER for your data
  - Physical & liquid damage
  - PCB reflow & repairs
  - Controller chip replacement
  - NAND chip-off
  - Proprietary software
- Forensic, legal & security support
- Best option for critical data





# Backup...Backup...Backup!





## Backup...Backup...Backup!

- Automate or schedule your backups
- A RAID device is not backup
- The Cloud is not magic
- Your video and photos are \$\$\$





**Thank You!**  
**Please visit us at booth #832**

**Chris Bross**  
**[Chris.bross@drivesavers.com](mailto:Chris.bross@drivesavers.com)**

**DriveSavers Data Recovery,  
eDiscovery & Forensics**