

Saving Memories in a Digital Era

With family get-togethers, holiday pageants and winter vacations, it's definitely the season for taking pictures. Amateur photographers everywhere are grabbing their cameras to capture the perfect holiday memory – and now more than ever, they're using digital cameras to do the job. According to Photo Marketing Association International (PMAI), 12.8 million digital cameras will be sold in 2003, vs. 12.1 million film cameras and 33% of U.S. households will own a digital camera by years end¹.

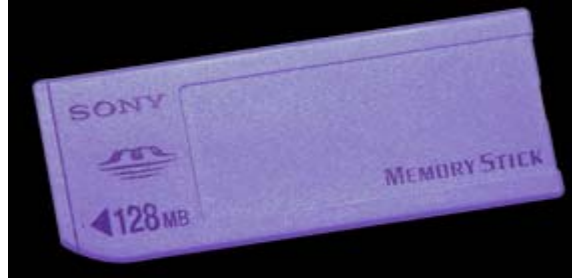
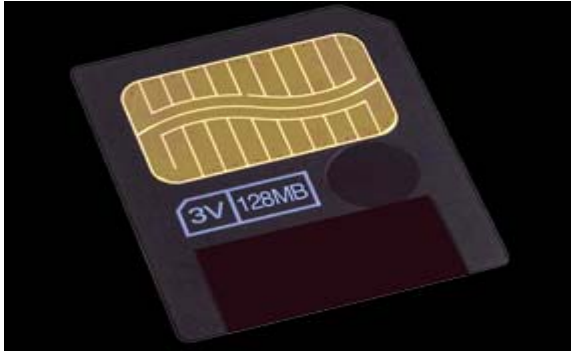
Many of these digital cameras no doubt ended up as holiday gifts – and along with them the digital media where the pictures are actually stored. Other digital toys like portable MP3 players and Personal Digital Assistants (PDAs) use digital media to store information, making memory cards, flash media and microdrives products that people should become accustomed to in the new year. However, like computers, digital media can suffer from corruption and make your information inaccessible. If you run into problems and think your precious holiday pictures are lost forever, don't panic. Ontrack Data Recovery can help.

There are many types of digital storage media available today in various capacities, ranging from tiny 8MB memory cards that come bundled with cameras to huge 2GB microdrives. The most popular format is probably CompactFlash Memory, which was first introduced in 1994 by SanDisk Corporation. CompactFlash is based on flash memory semiconductor technology that stores text, audio, video and images on flash chips. Flash is both non-volatile and solid state, meaning that no battery is required to retain data and there are no moving parts. These qualities make Flash a rugged and reliable storage format that is perfect for portable digital devices because it offers better data protection than disk drives with moving parts.



SmartMedia cards and Memory Sticks are also popular storage formats developed by Toshiba and Sony, respectively. SmartMedia cards are very thin and more fragile than other formats with a top memory capacity of 128MB. Sony's Memory Stick is the dominant memory format for Sony products. It is used widely in digital cameras, computers and the Clie' handhelds. Memory Stick is also starting to appear in the products of other manufacturers, most notably Konica. Both of these formats are also very small and have no moving parts that are subject to mechanical problems – perfect for active use and transfer between devices.

¹ [Digital cameras snap open market for Web photo services](#)



Another popular format is the Microdrive from IBM. Introduced in 1998, these mini drives started with capacities of 170MB but have grown to handle up to 2GB. Although not as resistant to impact as CompactFlash and other solid state memory cards, Microdrives have proven to be reliable, solid and one of the most economic storage devices available for digital products.



Regardless if you use these formats or one of several other that are currently available (MultiMedia Card, Secure Digital, xD Picture Card, Mini CD-R/CD-RW), the point is that people are now trusting their pictures to a different media than traditional film – and with that new media, comes new problems. Instead of overexposure or a damaged roll, you have to deal with corrupted data and hardware failures. Most digital media is formatted with the FAT file system for data storage and organization. When this file system gets corrupted, the device that uses the memory card can't find the data so whatever information you have stored is "lost." Even though it still exists on the memory card, the data is inaccessible. What could cause the file system to become corrupted? When the device becomes low on power or when the card is removed while the device is on are common situations where the file system may no longer point to the data. When hardware failure occurs, the digital media is physically damaged and cannot connect with the device that reads the data. This typically happens due to accidental breakage or rough treatment.

In either case, it is important to remember that recovery is always a possibility. Although Ontrack Data Recovery typically deals with hard drives from individual users or huge servers from large companies, they also have the technology and expertise to handle all types of digital media. With their technique of finding critical data to rebuild the file system, Ontrack engineers use special tools in their data recovery labs to find lost data and repair hardware damage. In fact, Ontrack has more than 50 developers that work specifically on data recovery tools and related software built to handle every type of recovery situation. From multi-terabyte SAN systems to tiny flash media, Ontrack Data Recovery has experience performing successful recoveries and continues to lead the industry with innovative recovery solutions.

So if you open your presents to discover a new digital camera or other digital toy that uses digital media storage this holiday, don't panic. Embrace your new technology knowing that Ontrack Data Recovery will be there if any problems occur. As a full service data recovery company, Ontrack is there to make sure your holiday memories last a lifetime.