Slide Shows

A Modern Approach

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Why did I do This?

- An uncle was sending photos to my in-laws on CD expecting their DVD player to play them. – It didn't.
- I have been trying ever since to find a format, preferably on CD that will.
- Among other things, this is the result of my search.

Agenda

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- BD Formats To Read
- DVD Formats

CD Formats

- VCD 1.0 & 2.0
- Mini DVD

Photo CD

- Photo CD was introduced by Kodak as a means of taking a film and digitising it to CD. To make this more versatile they also introduced 'multi-session' disks. You sent back the CD with your next film until the CD was full. At the time blank CD's were several times the price of film processing.
- Photo CD format was available on high end domestic DVD players only.

VCD 1.1 & 2.0 SVCD

- This format was the first video format available, pre-dating DVD. Introduced by Philips as a cross between interactive kiosk and a games format for special players.
- The initial 1.1 was updated for interactive remote controls.
- SVCD introduced in china for improved quality etc. rarely found outside of Asia.

Mini DVD

- This is an odd format where the CD has the files added that normally go on a DVD. Some players play them as if they were a DVD. My players indicate CDROM and stop dead.
- The main problem is that the disk has to be spun faster to get the video bitrate and not many older DVD players can.

DVD Formats

- DVD-RAM
- DVD-R
- DVD-RW
- DVD+R
- DVD+RW
- DVD+ DL DVD+RW DL
- DVD- DL DVD-RW DL

DVD Formats

- HDD
- Mini HDD
- Flash (Disk)
- Blu-Ray
- HD-DVD
- HD-DVD-1
- HVD
- Software

DVD FORMATS

- The differences between the major formats are fairly small. The technical difference between formats involves the chemical processes involved in making the material writeable and the consequent ease or lack of it in reading the written disk. These days with multi-standard capable machines it is more a case of choosing a recorder which has the features that you need. The only limitation is targeting those machines who's owners do not wish to upgrade. However do always be prepared to meet unexpected compatibility problems with drives that are not 100% what they should be.

DVD FORMATS

- Should you use a direct DVD recorder (not a PC drive) then the subtle difference between + and – will be determined by the recorders preference, though +RW should in theory allow deleting and adding of programmes better than –RW.

DVD-RAM

- An 'early' format designed originally for data backup or archiving. Still supported by some manufacturers. Disc capacity is larger and it supports a higher data transfer rate, meaning that you can have simultaneous playing and recording, providing the much sort after 'pausing live TV' effect. The downside is that DVD-RAM discs can't be played by majority of other DVD hardware.

DVD-RAM

- DVD-RAM discs are edit friendly, this why they were well used in early DVD recorders. The name of RAM comes from the way the media is organised into individual sectors in a way similar to a hard disk. These sectors are written one at a time unlike the continuous write required on a CD.

DVD-RAM

- The other main advantage is that they are tested as more robust than other formats, especially when used in their caddies. That is less susceptible to dust and scratches. The media was also designed to have better than 100,000 write cycles on any sector. This compares with the 1000 write cycles of either DVD+RW or DVD-RW which were developed from the write once product to be useable.

DVD-R

- The write once version of DVD-RW. Normally DVD recorders that support DVD-RW also support DVD-R. The blank media is usually cheaper than DVD+R. The high reflectivity material makes these disks more compatible with older DVD players.

DVD-RW

- The rewritable version of DVD-R. Normally DVD recorders that support DVD-R also support DVD-RW. There are 2 modes - 'video' which has 70-80% compatibility with standard DVD players and 'VR' which is great for editing but not well supported. This format does not support efficient encoding of video using variable bit rates, thus limiting the recording speed.

DVD+R

- The write once version of DVD+RW. Normally DVD recorders that support DVD+RW also support DVD+R. Has 70% compatibility with standard DVD players. The blank media is usually more expensive than DVD-R.

DVD+RW

- The rewritable version of DVD+R. Normally DVD recorders that support DVD+R also support DVD+RW. Offers basic editing and has 70% compatibility with standard DVD players. The DVD+RW format was designed to deliver the best performance available with the best possible compatibility.

DVD+RW

- However the exact trouble with DVD+RW is its compatibility. The media has low reflectivity, which means that it's not nearly as compatible with legacy DVD-ROM drives and DVD movie players as the high-reflectivity DVD-R media. This makes sharing data or movies with friends via DVD+RW potentially problematic.

DVD+ DL DVD+RW DL

- Dual layer version of the format matching the dual layer film disks. Not quite double capacity and currently very expensive. But if you want to copy a whole film without reduction in quality, then you can use this with the correct software that figures out where to make the layer change.

DVD- DL DVD-RW DL

- Just when you thought it was safe to buy a drive this new format appears. Dual layer version of the - format also matching the dual layer film disks. Not quite double capacity and currently rarer than hens teeth. Not any drives known, but that means Aldi will probably have an 11 format multi-standard machine for £10 in a few weeks, or maybe not.

HDD

- Not actually a DVD at all, but a hard drive recorder. Offers the ability to pause live TV, but of course, recordings are rarely portable to other devices.
- So far only Topfield and Hauppauge have HDD recorders with transfer interfaces – more are bound to come.

HDD

- Combined systems of media players and media servers etc. can also be put together using HDD and here backup and transfer are easier.
- HDD's biggest advantages are capacity (up to a TERRORBYTE, yep 1Tb) and virtually unlimited re-write capacity.

Mini HDD

- Similar technology but in “PC Card” (PCMCIA) format or commonly as Compact Flash card using a 1” disk.
- Was a useful format until flash got big, but at £40 for 1Gb and about £100 to £150 for 4-6Gb it is now relatively expensive.

Flash (Disk)

- Not a DVD at all but a variety of physical formats with probably USB sticks and SD cards being the most familiar.
- At a detailed level there are technical parameters which affect performance between the formats, but the differences are small and generally are overshadowed by the interface.

Flash (Disk)

- Rapid price drops in Flash ongoing

- 1Gb USB sticks at just £12.50 Dabs
- 2Gb USB sticks at just £19 Savastore
- 4Gb USB sticks at just £40 Dabs
- 8Gb USB sticks still circa £100

Blu-Ray

- A new developmental format of optical disc format aimed at playing back and recording high definition video. Developed by Sony, it has so far, not received massive backing from film studios, unlike its rival from Toshiba HD-DVD.

HD-DVD

- A high definition format currently under development by Toshiba. It has a smaller capacity than Blu-Ray, but is similar to existing formats, meaning multi-compatibility might be easier to achieve. HD-DVD has received the backing of many major film studios (with the notable exception of Sony who support Blu-Ray).

HD-DVD-1

- An experimental format developed in Taiwan with similarities to HD-DVD. There are no commercial systems using this format at the moment.

HVD

- Holographic Versatile Disc - an experimental format currently under development that could see 1 terabyte of data on a single disc.

Software

- For Pc users (Windows Mac or Linux) the software is in the end the determining factor in being able to achieve the required result. All the formats above can be persuaded to take the files and some players will play them.

The End

- Go To The Bar
- NOW!