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DIGITEX GUIDE TO DVD FORMATS

Foreword - Many of our clients choose to have the final format of their project as a DVD and may choose to duplicate the DVD themselves using their own equipment.

For low runs of duplications, this can certainly keep the initial costs down and in those particular cases we would provide a couple of 'masters' from which they could duplicate, however, there is a lot of confusion for clients when it comes to the various DVD formats and which to use!

We therefore provide you with some of the most frequently asked questions about DVD formats. Whilst the list is not definitive or conclusive, it gives our clients a better understanding of what is available and what to look for. Please note that this is a 'guide' only and we will always discuss our client's specific requirements at the pre-production stage.

1) What does DVD stand for?

Digital Versatile Disc – many people refer to it as Digital Video Disc which is not strictly its proper name as it can be used to store numerous sorts of media / data.

2) Why do people use DVD's instead of video for their projects?

1) The picture quality is good quality.
2) Duplication of discs is very cheap
3) They provide instant access to selected clips (via chapters)
4) They are very cheap to post (important now with the postal rates now being based on volume as well as weight)

3) When I go to an electrical store to buy some blank discs for duplication, it has the 2 different formats! What's the difference between DVD + and DVD - ?

The 2 different formats (+ and -) are due to various electronics manufacturers producing and favouring either one or the other format (Similar to years ago when the VHS and Beta max scenario cropped up on the introduction of videotape and video recorders). With DVD's, major electronics companies developed their equipment to either favour one format or the other, but initially not both.

4) Which manufacturers favoured which format?

As a guide only – see below.

Examples
DVD+ is supported by Philips, Sony, Hewlett-Packard, Dell, Ricoh, Yamaha
DVD – is supported by Panasonic, Toshiba, Apple Computer, Hitachi, NEC, Pioneer, Samsung and Sharp

5) Can you play both types (DVD + and -) on any 'normal' DVD player?

Not necessarily. The earlier (older) DVD players that were sold only played one particular type, however DVD players produced and sold over the last couple of years by virtually all the main manufacturers now allow playing of either format.

6) I have produced a DVD disc for a client and they say it won't play on their DVD player or their computer!

This could be down to the fact that they are playing it on an older, single format type machine – see above. Also check to see if there computer drive is a DVD player. Many customers assume that as their machine plays CD's then it would play DVD's – this is not always the case, especially in older machines.

7) What do you mean by 'older' machines?

It is important to remember that when we say 'older' machines we may be referring to machines that may be only be 3-4 years old. In technology terms that is 'old' as constant technological developments are happening at a very fast pace.

8) OK, so if some of the 'older' machines only play either one format sort or the other, how come I can play <u>any</u> feature film on DVD that I buy or rent from the shops?

True, this is yet another DVD format. These discs have been produced using a glass mastered process in a professional duplication facility. This format is has a different reference such as DVD 5 or DVD 9 and the higher number refers to the amount of capacity that the disc can handle.

9) Can I have my DVD's produced in that format?

Yes, Digitex can carry this out for you; however for low runs of duplication it wouldn't be that economic. The initial glass mastering process costs in the region of £200. This produces a 'master' from which all other copies are made. The duplicates are then relatively very cheap to produce.

10) Why can't I buy the equipment to do this process myself?

You can, but it's very expensive and it is not as user friendly a process as duplicating your own in the other formats.
If you intend a fairly high run of DVD's, then we would recommend this process.

11) What's dual layer on a disc mean?

Duel layer is exactly that. The disc has two parallel layers of coatings on it. A duel layer will allow up to twice the amount of information to be recorded on it.

12) How does duel layer it work?

The DVD laser reads the first layer by moving across the surface, picking up the recorded information during playback (just like a needle on an old vinyl record). When it gets to the end of the information on that layer it 'refocuses' on the 2nd layer

and then continues with the same process. That is why sometimes when you watch a Hollywood style feature film, you can get a split second 'jump' in the picture – that is when the laser is 'refocusing' on the next layer.

13) Can I record / duplicate a duel layer DVD on my system?

That depends on if your DVD recording system is a duel layer type.

14) Do I really need a duel layer disc?

No. Not normally. The only reason that people use duel layer discs for video is that their video production is so long that they can't get it on a single layer version. As most of our clients are not producing an epic that is the length of the 'Titanic' film, they wouldn't normally need this.

15) How much video time can you get on a 'normal' (single layer) DVD.

It depends on how much the picture quality is compressed and what format of audio is used etc (These are items we handle during production)
As a rough guide, you can get approx 60 – 90 minutes of standard definition video on a DVD with good quality picture and audio. You can get more (or less) and what you have to remember is that there is a 'trade off' with video / audio that, the higher the quality the more disc space it will take. Again we can advise you on this.

16) What about High Definition video?

High definition is still relatively new to the general public and this technology is only just now starting to take effect on the consumer. Digitex have been using High Definition video cameras since early 2005 and all our camera systems are now HDV compatible. On a lot of projects we may film in a high definition but then reduce the picture back down to SD (Standard definition) as most clients haven't yet got the equipment or technology to playback the projects in High definition..

17) Can you produce HD DVD?

Yes, we can produce projects in the latest Blu-Ray format.

18) What do PAL / NTSC mean?

You may see this on some TV / video productions.
PAL is the TV format that is used in the United Kingdom and selected European countries. It stands for Phase Alternation Line.
Other areas of the world, such as the USA use a format called NTSC which stands for *National Television Standards Committee.*

PAL TV / video system has 625 horizontal lines on the screen and a 50 Hz field frequency (50 times a second refresh rate)
NTSC TV / video system has 525 horizontal lines on the screen and a 60 Hz filed frequency. (60 times a second refresh rate)

We can film and produce video in both formats.

Unless otherwise specified produce our projects in PAL format.
For clients that wish to sell / distribute to other countries, we will gladly discuss your requirements and advise you accordingly.

19) I want a DVD producing that can have the 'option' of subtitles for the viewer but so that they can be selected to be turned either 'on or off'. Can you produce this and would it be on a normal DVD that I could duplicate thereafter?

YES - We will gladly provide you with a cost for this service and YES it would be produced on a 'normal' DVD.

20) What does multi-region mean?

Have you ever brought a DVD in another country and then it wouldn't play on your player at home? Different countries come into different 'region' categories when it comes to items such as DVD production.
For example: - the UK, Europe, Japan, Middle East, Egypt, South Africa are in region number 2 and the USA and Canada are region number 1. One of the reasons for the world being 'electronically divided' into regions is to eliminate early release of material from other countries and illegal duplication etc. These region numbers refer to specific codes written into the DVD data by the producer which then can only be read by the relevant DVD players in that selected geographical location.

A good example of this is 'region' number 8.
This is for 'in flight' movies / promotions and cruise ships. This code only plays in these code specific machines and helps protect film copyright and distribution rights.
For virtually all of our productions, (unless specifically requested) we produce the DVD's to play in 'All regions'.

21) What about copyright protection on my discs?

This is another electronic code that can be written into the DVD to minimise the possibility of duplication. It is not totally 'fool proof' as with all technology nowadays, there is usually a system that can get around it.
Obviously if we produce a 'master' DVD for you that you will duplicate thereafter – it will not contain electronic copy protection.
For your own duplication uses, there are numerous professional cost effective software packages on the market that will allow the copyright protection system to be encoded into your discs at the time of duplication.

Please contact us if you require any further details

www.DigitexVideo.co.uk