

WHAT IS DVD?

DVD3 is the next generation optical storage solution that amalgamates technologies found in Laser Disc, CD, CD-ROM, CD-i, Video CD and computer-based multimedia. It is also the first technology to address the shortcomings of existing recording media. It is beginning to replace the Laser Disc and with recordable versions available in the not too distant future, DVD will most likely replace the home videotape recorder as well.

Physically, DVDs resemble the CDs except that they have data encoded on two sides of the disc and with two layers on each side. Storage capacity of up to 4.7GB is possible on a single layer, single sided disc, while two layer, two sided discs offers a maximum of 17 GB. Many feature-film DVD Titles are released with data encoded on two sides mainly to accommodate viewing of videos in 4:3 standard or 16:9 widescreen aspect ratios. The physical architecture of DVD allows flexibility in packaging, based on the capacity as determined by the amount of video and other content.

DVD FORMATS

There are several flavours of read-only DVD: DVD-Video for DVD Video players, DVD-ROM for computer applications and data files, and Hybrid or Enhanced DVD comprising DVD-Video and DVD-PC zones. Recordable versions of DVD now exist in the forms of DVD-R and DVD-RAM. Enhanced DVDs allow the storage of PC applications, such as web connectivity, on the DVD-PC zone, integrated with elements of video, audio and images from the DVD-Video zone. Elements of the DVD-Video are compatible with the standard DVD players. The enhanced format is gaining popularity among consumers as it adds tremendous entertainment value compared to other traditional media, fueled by the exponentially growing installed- base of PCs with DVD-ROM drives.

The features of DVD-Video are:

- Interactive menu branching utilizing still or motion menus .MPEG-2 video at constant or variable bit rates
- MPEG-1 video is acceptable
- NTSC or PAL video standard
- Option of up to 9 video streams selectable on-the-fly (seamless or non-seamless)
- 48 kHz and up to 192 kHz, 24 bit PCM stereo audio .Dolby Digital and MPEG-2 stereo digital audio
- Dolby Digital, MPEG-2, and DTS multi-channel digital audio .Option of up to eight audio streams selectable on-the-fly .Option of up to 32 subtitle streams selectable on-the-fly .Slide-show with synchronized audio
- Compatible on both DVD-Video Players and DVD-ROM Readers
- Region Coding
- Parental Lock
- Built-in Copy Protection Schemes

THE MARKET POTENTIAL OF DVD

At the time of writing this article, there are some 5,000 DVD titles available in shops and internet in the United States. Last year, DVD was launched aggressively in Europe and with more titles available, consumers around the world are buying DVD. Even in China, despite a large installed-base of VCDs

and Super-VCDs, DVD is beginning to break-in the Chinese market. *The DVD Video Group of America*, an industry promotion group, predicts that three million DVD players will be shipped in calendar year 1999, making the installed-base of DVD players to hit the four million mark in the United States.

In comparison, the CD-Audio format did not pass the four million-mark until nearly four years after launch. There are nearly 120,000 DVD players installed in the Asia-Pacific region, outside Japan, and the number is expected to increase by another 50 per cent in a year's time. The growth rate is expected to accelerate with this year's launch of Sony's PlayStation II which have the ability to play DVD movies and DVD music videos.

Useful web-links:

DVD Forum hyperlinks:

<http://www.dvdforum.org>

NgeeAnn Polytechnic hyperlinks:

<http://www.np.edu.sg>

Economic Development Board hyperlinks:

<http://www.sedb.com>

Digital Media Authoring Studio hyperlinks:

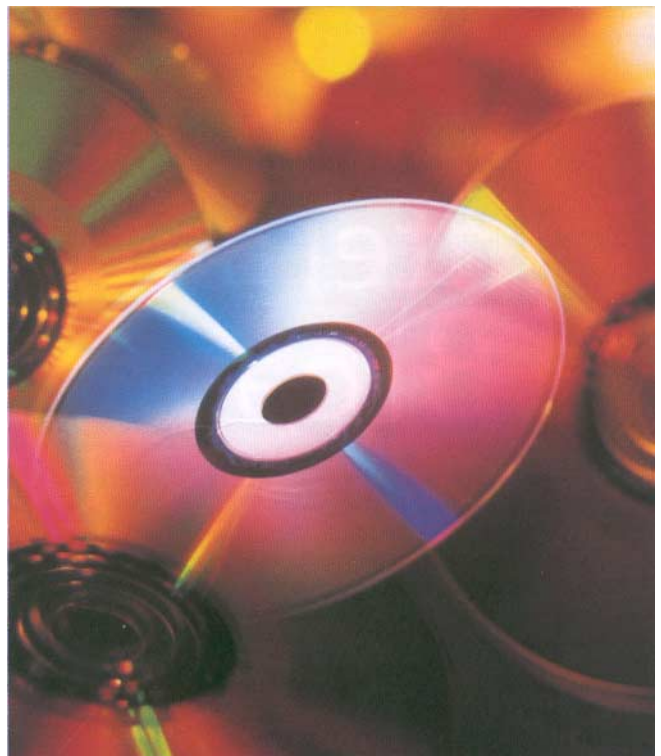
<http://www.dmastudio.com>

ACE Daikin (Singapore) Pte Ltd hyperlinks:

<http://www.dvdacedaikin.com.sg>

Born in Singapore DVD hyperlinks:

<http://www.gov.sg/born-in-singapore>



³ In 1999, to eliminate confusion among consumers, it was decided by the DVD forum (previously DVD Consortium) that the acronym DVD becomes the industry standard term.