

- SECT 31**Nature of copyright in original works**

- (1) For the purposes of this Act, unless the contrary intention appears, copyright, in relation to a work, is the exclusive right:
 - (a) in the case of a literary, dramatic or musical work, to do all or any of the following acts:
 - (i) to reproduce the work in a material form;
 - (ii) to publish the work;
 - (iii) to perform the work in public;
 - (iv) to communicate the work to the public;
 - (vi) to make an adaptation of the work;
 - (vii) to do, in relation to a work that is an adaptation of the first-mentioned work, any of the acts specified in relation to the first-mentioned work in subparagraphs (i) to (iv), inclusive; and
 - (b) in the case of an artistic work, to do all or any of the following acts:
 - (i) to reproduce the work in a material form;
 - (ii) to publish the work;
 - (iii) to communicate the work to the public; and
 - (c) in the case of a literary work (other than a computer program) or a musical or dramatic work, to enter into a commercial rental arrangement in respect of the work reproduced in a sound recording; and
 - (d) in the case of a computer program, to enter into a commercial rental arrangement in respect of the program.
- (2) The generality of subparagraph (1)(a)(i) is not affected by subparagraph (1)(a)(vi).
- (3) Paragraph (1)(d) does not extend to entry into a commercial rental arrangement in respect of a machine or device in which a computer program is embodied if the program is not able to be copied in the course of the ordinary use of the machine or device.
- (4) The reference in subsection (3) to a device does not include a device of a kind ordinarily used to store computer programs (for example, a floppy disc, a device of the kind commonly known as a CD ROM, or an integrated circuit).
- (5) Paragraph (1)(d) does not extend to entry into a commercial rental arrangement if the computer program is not the essential object of the rental.
- (6) Paragraph (1)(c) does not extend to entry into a commercial rental arrangement if:
 - (a) the copy of the sound recording concerned was purchased by a person (*the record owner*) before the commencement of Part 2 of the *Copyright (World Trade Organization Amendments) Act 1994*; and
 - (b) the commercial rental arrangement is entered into in the ordinary course of a business conducted by the record owner; and
 - (c) the record owner was conducting the same business, or another business that consisted of, or included, the making of commercial rental arrangements of the same kind, when the copy was purchased.
- (7) Paragraph (1)(d) does not extend to entry into a commercial rental arrangement in respect of a computer program if:
 - (a) the copy of the computer program was purchased by a person (*the program owner*) before the commencement of Part 2 of the *Copyright (World Trade Organization Amendments) Act 1994*; and
 - (b) the commercial rental arrangement is entered into in the ordinary course of a business conducted by the program owner; and
 - (c) the program owner was conducting the same business, or another business that consisted of, or included, the making of commercial rental arrangements in respect of computer programs, when the copy was purchased.



Federal Court of Australia

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Australian Video Retailers Association Ltd v Warner Home Video Pty Ltd [2001] FCA 1719 (7 December 2001)

Last Updated: 7 December 2001

FEDERAL COURT OF AUSTRALIA

Australian Video Retailers Association Ltd v

Warner Home Video Pty Ltd [\[2001\] FCA 1719](#)

COPYRIGHT - where respondents release cinematograph films embodied in DVD discs - where applicants rent DVD discs to public - whether copyright in cinematograph films infringed if applicants rent DVD discs which are played without licence of respondents - whether decompression of data and storage in RAM constitutes a "copy" for purposes of [s 10](#) of [Copyright Act 1968](#) - where computer programs embodied on DVD discs - whether copyright of computer programs infringed by entering into commercial rental arrangements without licence of respondents - whether copyright infringed by entering into commercial rental arrangements without licence of respondents - meaning of "essential object" of commercial rental arrangement for purposes of [s 31\(5\)](#) of [Copyright Act 1968](#)

WORDS & PHRASES - "essential object", "copy"

[Copyright Act 1968](#) (Cth) [ss 10](#), [13](#), [14](#), [21](#), [24](#), [30A](#), [31](#), [36](#), [47AB](#), [47B](#), [85](#), [86](#)

Autodesk Inc v Dyason [No.2] (1993) [176 CLR 300](#) followed

Nationwide News v Copyright Agency Limited (1996) 65 FCR 399 cited

Data Access Corporation v Powerflex Services Pty Ltd (1999) [202 CLR 1](#) followed

Microsoft Corporation v Business Boost Pty Ltd [\[2000\] FCA 1651](#) cited

Computer Edge v Apple Computer Inc (1986) [161 CLR 171](#) referred to

AUSTRALIAN VIDEO RETAILERS ASSOCIATION LTD & ORS v

WARNER HOME VIDEO PTY LTD & ORS

N 1255 OF 2001

EMMETT J

7 DECEMBER 2001

SYDNEY

**IN THE FEDERAL COURT OF AUSTRALIA
NEW SOUTH WALES DISTRICT REGISTRY N1255 OF 2001**

BETWEEN: AUSTRALIAN VIDEO RETAILERS ASSOCIATION LIMITED
FIRST APPLICANT/FIRST CROSS RESPONDENT
CIVIC VIDEO PTY LIMITED
SECOND APPLICANT/SECOND CROSS RESPONDENT
THE MOVEFINDERS AUSTRALIA PTY LIMITED
THIRD APPLICANT/THIRD CROSS RESPONDENT
MOVIELAND FRANCHISE SYSTEMS PTY LIMITED
FOURTH APPLICANT/FOURTH CROSS RESPONDENT
MOVIES & GAMES PTY LIMITED
FIFTH APPLICANT/FIFTH CROSS RESPONDENT
MOVIES 4U PTY LIMITED
SIXTH APPLICANT/SIXTH CROSS RESPONDENT
MOVIES PLUS (AUST) PTY LIMITED
SEVENTH APPLICANT/SEVENTH CROSS RESPONDENT
NETWORK VIDEO & HOME ENTERTAINMENT CENTRE PTY LTD
EIGHTH APPLICANT/EIGHTH CROSS RESPONDENT
TOP LEADING EDGE VIDEO GROUP PTY LIMITED
NINTH APPLICANT/NINTH CROSS RESPONDENT
VIDEOLAND MARKETING PTY LIMITED

AND: WARNER HOME VIDEO PTY LIMITED
FIRST RESPONDENT/FIRST CROSS CLAIMANT
TIME WARNER ENTERTAINMENT COMPANY L.P. TRADING AS WARNER BROS. AND
WARNER HOME VIDEO
SECOND RESPONDENT/SECOND CROSS CLAIMANT
CASTLE ROCK ENTERTAINMENT
THIRD RESPONDENT/THIRD CROSS CLAIMANT

URGE.

EMMETT I

JUDGE: EMMETT J
DATE OF ORDER: 7 DECEMBER 2001
WHERE MADE: SYDNEY

THE COURT ORDERS THAT:

1. The parties deliver to the Court short minutes to give effect to these reasons.
2. The proceeding be listed for directions on a date convenient to the parties.

Note: Settlement and entry of orders is dealt with in Order 36 of the Federal Court Rules.

IN THE FEDERAL COURT OF AUSTRALIA
NEW SOUTH WALES DISTRICT REGISTRY N1255 OF 2001

BETWEEN: AUSTRALIAN VIDEO RETAILERS ASSOCIATION LIMITED

FIRST APPLICANT/FIRST CROSS RESPONDENT

CIVIC VIDEO PTY LIMITED

SECOND APPLICANT/SECOND CROSS RESPONDENT

THE MOVEFINDERS AUSTRALIA PTY LIMITED

THIRD APPLICANT/THIRD CROSS RESPONDENT

MOVIELAND FRANCHISE SYSTEMS PTY LIMITED

FOURTH APPLICANT/FOURTH CROSS RESPONDENT

MOVIES & GAMES PTY LIMITED

FIFTH APPLICANT/FIFTH CROSS RESPONDENT

MOVIES 4U PTY LIMITED

SIXTH APPLICANT/SIXTH CROSS RESPONDENT

MOVIES PLUS (AUST) PTY LIMITED

SEVENTH APPLICANT/SEVENTH CROSS RESPONDENT

NETWORK VIDEO & HOME ENTERTAINMENT CENTRE PTY LTD

EIGHTH APPLICANT/EIGHTH CROSS RESPONDENT

TOP LEADING EDGE VIDEO GROUP PTY LIMITED

NINTH APPLICANT/NINTH CROSS RESPONDENT

VIDEOLAND MARKETING PTY LIMITED

TENTH APPLICANT/TENTH CROSS RESPONDENT

TENTH APPLICANT/TENTH CROSS RESPONDENT
AND: WARNER HOME VIDEO PTY LIMITED

FIRST RESPONDENT/FIRST CROSS CLAIMANT

TIME WARNER ENTERTAINMENT COMPANY L.P. TRADING AS WARNER BROS. AND WARNER HOME VIDEO

SECOND RESPONDENT/SECOND CROSS CLAIMANT

CASTLE ROCK ENTERTAINMENT

THIRD RESPONDENT/THIRD CROSS CLAIMANT

JUDGE: EMMETT J
DATE: 7 DECEMBER 2001
PLACE: SYDNEY

REASONS FOR JUDGMENT

1 The applicants claim declarations that the respondents have made unjustifiable threats of civil and criminal proceedings for infringement of copyright and that they have, in contravention of [s 52](#) of the [Trade Practices Act 1974](#), engaged in conduct, in trade or commerce, that is misleading or deceptive. The claims arise out of statements made by the respondents concerning alleged infringement of the copyright of the respondents in respect of the contents of DVD discs. The applicants also claim injunctions restraining further such conduct by the respondents.

2 The respondents, in turn, by cross-claim, seek declarations that copyright in the motion pictures embodied in certain DVD discs would be infringed by a person who, without the licence of the respondents, rents and plays a DVD disc that embodies those motion pictures. They also seek declarations that copyright in certain computer programs will be infringed by entering into commercial rental arrangements in respect of DVD discs that embody those computer programs.

3 The parties have formulated a number of questions the answers to which are likely to result in resolution of the proceeding. Accordingly, I have heard evidence and submissions in relation to those questions with a view to making orders pursuant to Order 29 of the Rules of the Federal Court that those questions be determined separately from and prior to the determination of all other questions in the proceeding. The questions, which arise out of the [Copyright Act 1968](#) (Cth) ("the Act"), are set out below. The terms of the relevant provisions of [the Act](#) are set out in Schedule A to these reasons. Before dealing with the questions, however, it is convenient to say something about DVD technology in general and the particular DVD discs that are in issue in the present proceeding.

DVD TECHNOLOGY

HISTORY

4 It is said that, contrary to what might be a common perception, the term "DVD" is not an acronym. It may be that the term was originally an acronym of "*Digital Video Disc*" or "*Digital Versatile Disc*". Whether it is or is not an acronym, the term "DVD" is now applied to a system whereby material, both video and audio, is stored on a disc in digital form and is capable of being retrieved by a device such that the material can be converted either into moving images on a screen accompanied by sound or merely into

sound.

5 From the late 1980s, companies that have been referred to as "Matsushita" and "Toshiba" began to investigate improvements to the then existing technology concerning compact discs ("CDs"). The improvements that were considered included thinner substrates and double-sided discs. Toshiba and Matsushita also examined:

- * smaller data pits, which would allow discs to hold more data because a larger number of pits could fit on a disc;
- * tighter track pitch, being the distance between the centres of two adjacent tracks on a disc;
- * advanced optics;
- * advanced signal processing, e.g. error correction and modulation scheme; and
- * advanced encoders, used to compress information on a disc.

6 At the same time, companies referred to as "Sony" and "Philips" were conducting their own independent research on a competing format for a new generation of compact discs capable of carrying motion picture content. From about 1986, the second respondent, Time Warner Entertainment Company LP, trading as "Warner Brothers" and "Warner Home Video" ("Warner"), also began investigating the development of a new generation of video disc. From 1992 to 1995, Toshiba began working closely with Warner to specify desired features for such a new generation of disc. Those features included:

- * advanced audio visual quality;
- * multiple languages;
- * multiple subtitles;
- * multiple aspect ratios;
- * multi channel sound;
- * interactive menus; and
- * variable rate MPEG video.

7 In 1994, a committee comprised of representatives of the major Hollywood film studios specified and published a "*recommended feature set*" for a new generation of optical disc, suitable for distribution of digital motion pictures. In mid 1995, the Computer Industry Technical Working Group ("*TWG*"), which is comprised of representatives of many of the major United States computer companies, also published a set of requirements intended to optimise the functionality of the next generation of optical disc when played in computer systems. One of the most important design goals of TWG was that a single format should be equally suitable for use in stand alone consumer electronic players as well as in playback drives attached to a computer.

8 By late 1995 the two competing camps, the Toshiba\Matsushita\Warner camp on the one hand and the Sony\Philips camp on the other hand, agreed to propose a unified format standard, which was to be referred to as "*DVD*". The standard to be adopted was based mainly upon the Toshiba\Matsushita\Warner approach but incorporated some features initially developed by Sony\Philips. The unified DVD format was formally announced on

12 December 1995. In 1996, through collaboration among the consumer electronics, computer and Hollywood film industries, copyright security protocols were identified, specified and made available to content owners and manufacturers of products that use the DVD format.

9 Warner was the first major film studio to release DVD motion pictures to consumers, the first being launched in December 1996 in Japan. In March 1997, Warner was the first major film studio to release DVD motion pictures in the United States. In 1998, Warner was among the first of the major film studios to release DVD motion pictures in Australia and Europe.

10 DVD systems offer consumers features that are not available on other systems for recorded motion pictures, such as VHS video cassettes. The features include:

- * digital audio visual quality;
- * absence of degradation on playback;
- * multiple languages;
- * multiple subtitles;
- * multiple aspect ratios;
- * multiple angles;
- * multi channel sound;
- * interactive menus;
- * virtually instant random access within the content.

11 The key difference between DVD technology and CD technology is that CD technology was initially developed only to carry audio and not video material. DVD technology, on the other hand, has been developed for computer software and data from the outset, with video as an application in addition to the read only memory ("ROM") file system and physical design specification of the discs. DVD technology can now also be used to distribute extremely high quality and multiple channels of pure digital audio material, along with associated text, image and video material.

12 The DVD technology was designed specifically to allow DVD discs to be utilised in either consumer electronic devices or computer devices. For the first time, motion pictures, still images, text, sound recordings and games can be made available in a digital form in the one format. DVD technology was designed from the outset to bring together different forms of digital media into a single, digital format for distribution, which allows each medium to be accessed and played on the same device.

13 Dr Alan Edward Bell is Senior Vice President, Technology, in the Technical Operations Division of Warner. He has had considerable experience in research and development of recording media for video and audio content. He was a co-founder of TWG and was its chairman from 1995 to 1997. Dr Bell gave evidence that DVD technology *"delivers the highest video quality of any home video format."* In addition, *"it delivers advanced features ... such as multiple sound tracks, multiple languages, multiple subtitles, multiple angles and branching."* Neither VHS video-cassettes nor CDs are able to offer such features to users.

DVD FORMATS

14 Information in a DVD system is digitised and stored as binary code (1's and 0's) on DVD disc substrates using a modulation code that allows strings of digital bits to be represented by the length and sequence of pits moulded into the surface of the substrate. The pits are read by a laser within a DVD player or the DVD-ROM drive of a computer. The signal derived from that laser reading is processed by the electronics of the DVD player or computer to reproduce the original digital information.

15 A DVD disc is formed from two 0.6 mm substrates bonded together. Since optical distortions of the laser's read out beam, caused by the DVD substrate, are decreased as against CDs, and since DVD modulation and error correction schemes are advanced over CDs, the information density of DVD's can be several times greater than CDs. That increased pit density means that a double-sided DVD disc has a storage capacity approximately fifteen times greater than a CD.

16 There are several different DVD formats, including DVD-ROM, DVD-Video and DVD-Audio. DVD-ROM is the base format, which determines the way in which information, that is to say programming and data, is laid out on the disc, both physically and logically, ensuring that compliant readers can reliably recover the information. DVD-Audio and DVD-Video are application formats that employ DVD physical format and DVD-ROM logical formats, with the addition of specific sorts of programming and data to convey audio, video, navigation and related functions. I shall say something about each of those formats.

DVD-ROM

17 A DVD disc can carry any sort of digital information. A disc in DVD-ROM format has two parts. The first part defines the physical parameters of the disc as well as the physical layout and geometry of the information bearing pits. The second part defines the file system specifications for the logical structures of the information contained on the disc. If digital data is laid out in accordance with the DVD-ROM physical and logical specifications then any DVD-ROM drive, either in a computer or a DVD player, should, on playback, be able to recover reliably all of the data contained in the disc.

DVD-Video

18 A single frame of digital video consists of a matrix of picture elements, called "*pixels*". The total number of pixels defined for each frame of a moving picture, and the precision with which the colour values are expressed, determines the degree of fidelity and detail in the rendered image. The number of pixels in each frame depends on the format of the video signal. In DVD-video, the original film based content is first of all optically scanned to produce a digital video signal in the desired format. The digital signal is then encoded, or compressed, before it is embedded in the disc, in order to reduce the total amount of information required to be stored on the disc. The compression of information is achieved using a standardised video compression scheme developed by the Moving Picture Experts Group ("*MPEG*"). There are several different video compression schemes such as MPEG1, MPEG2 and MPEG4. Major film studios use variable bit rate MPEG2 for motion picture DVD discs.

19 The encoded (or compressed) material is formatted as part of a DVD-video bit stream, along with audio, subtitles, navigation information and related instructions. The bit stream includes information for the decompression module, to aid the image reconstruction process. The compressed video delivered on a DVD disc is decompressed on playback. The pixel information is reconstructed "*block by block*" within a frame, and successively, frame by frame, on the basis of the bits, presentation instructions and

motion prediction algorithms that convey to the decoder and display system what to represent, and where and when to represent the image information.

DVD-Audio

20 Just as in the case of DVD-Video, the DVD-Audio disc contains the digital representation of the content, the major part of which represents the pure audio content. However, the DVD-Audio specification also allows for the presence of related text, image and video content along with the audio data. The DVD-Audio specification defines file structures and the layout of the DVD-Audio content, and includes a simplified set of navigational instructions designed to provide such options as play/pause, jump to the next group of tracks and track access. In most cases the digitised audio signal is not compressed. After being read from the disc it is simply converted to analogue form suitable for output to the audio amplifiers and speaker system.

THE CONTENTS OF A COMMERCIAL DVD DISC

21 A DVD disc contains the entirety of the information required to present and play its contents. The information carried by the disc consists of the content, such as the motion picture and audio, together with the program instructions that control the presentation of that content, and without which the content could not be played as intended by the content owner. The program instructions present the consumer with a set of viewing options and choices that are determined by the creator of the DVD disc during the creative design phase. The options and choices are presented to the consumer as a direct result of the program instructions embedded, along with the content, on the DVD disc. Thus, the consumer is able to choose his or her viewing experience according to the options made available by the creator of the DVD disc, from which the consumer may select. The consumer choices are transmitted to the player by way of a remote control (if the DVD is played on a DVD player) or by way of a computer mouse (if the DVD is played using a computer).

22 All the information on a DVD disc is arranged into a specific logical structure that is called the DVD file system. The file system of a DVD disc organises the information into files and subdirectories, which in turn are organised, for the purpose of accessing, into a tree-like structure.

23 A motion picture DVD disc contains a number of computer instructions used to control the playing of the motion picture and associated content. The instructions are interspersed among the motion picture content on the DVD disc. As a DVD disc is played, the instructions are transferred to the random access memory ("RAM") of the player to render the menus and selection buttons on the screen. In order to call up and select from options displayed in the menus, the consumer interacts with a DVD player by use of the remote control or, if the DVD disc is played on a personal computer, by the use of the computer mouse. The result of the user selection is determined by sets of instructions that are carried on the DVD disc, and transferred into the RAM of the player. Those instructions direct the player how to respond to user initiated commands.

24 Other instructions, which are also read from the DVD disc and transferred into the RAM of the player, have the effect of setting the playback parameters that are required for proper playback of the motion picture and associated information, for example, the picture aspect ratio - 16:9 for wide screen televisions or 4:3 for standard television screens.

25 Still other instructions are read from the DVD disc into the player memory and have the effect of causing the player or computer to skip amongst the prerecorded signal

tracks in order to play particular sequences. For example, parental control limits have the effect of causing the player or computer to read only those sections of the motion picture content that the content owner has determined conform to a particular rating. Camera angle preferences allow the user to view a scene from a particular camera angle. The DVD disc contains content corresponding to the same scene shot from multiple different camera angles. The consumer can select a particular camera angle, which might, for example, correspond to the scene as seen through the eyes of one or more of the characters involved in a motion picture.

26 In addition to the instructions interspersed amongst the content information, the DVD format also allows for computer programs to be included within the DVD-ROM logic or subdirectory of the DVD file system's principal directory. Some DVD discs have special programs included wholly within the DVD-ROM subdirectory. Such programs provide a much greater degree of interactivity for those users who play back the DVD disc on a computer with a connection to the Internet. The playing experience of such a DVD disc can be considerably enhanced by the apparently seamless navigation between the original invariable data pressed into the DVD disc and data retrieved from the Internet, which can be changed and updated on a continuing basis.

THE PROCESS OF CREATING DVD DISCS

27 The production of a DVD disc by Warner involves a number of steps. The first step is the decision by the Marketing Department of Warner to release a particular motion picture. The Marketing Department instructs the Creative Department, which is responsible for the identification, creation or procurement of the content elements necessary to achieve the marketing goals. In addition, the Creative Department will design the logical flow chart that will ultimately determine the interactive choices presented to the consumer, by means of which the consumer can interact with and navigate amongst the contents of the DVD disc.

28 Once the Warner Creative Department has identified the content elements for the proposed DVD disc and developed an overall design, it issues a work sheet to the Authoring Department of the California Video Centre ("CVC"), a division of Warner, responsible for, *inter alia*, DVD "authoring" and compression. The Authoring Department is then responsible for assembling the digital files corresponding to the content and other elements referred to in the work sheet.

29 When all of the digital elements have been assembled, a specialised "authoring" tool is used by CVC to lay out those elements according to the relationships determined by the work sheet. The authoring tool is a software tool. The elements of a proposed DVD disc are put into the authoring tool by CVC. Using the authoring tool, the operator is able to "*drag and drop*" the elements in order to establish the required sequences and menu linkages. In each case, the output of the authoring tool is a computer program, specific to the title and presentation options defined by the work sheet, as implemented by the user of the authoring tool.

30 The output of the authoring tool is, in turn, entered into the DVD formatter software program, which is also owned and operated by CVC. The formatter program processes the information and produces, as output, the digital file, which contains **the original content plus the program instructions** that must be contained on the DVD disc in order to bring about the consumer experience intended by Warner. That digital file is then installed on a DVD simulator system, which allows a primary check on the quality of the audio and visual content, and confirmation that all of the menus, buttons and links are correct and functional. Once the simulations have proved successful, the digital file, which is actually a collection of files, is recorded onto a digital linear tape ("DLT"), which is then dispatched to a disc replication facility.

31 When the replication facility receives the DLT, the DLT is read into the mastering system, which produces a master disc through the use of a laser master cutting tool. The master disc can then be used to create metal stampers, which are in turn used to generate replica discs through the process of injection moulding. Before the injection moulding presses are activated into production, a few check discs are fabricated from the master and returned to CVC for further verification of quality and correct functionality of menu and button selection flow. Once the master is confirmed by CVC, the mass production process begins. The final stage consists of inserting the finished DVD disc into a package and shipping the finished product to the distribution and retail chain.

PLAYING A DVD

32 A DVD disc can be played either with a personal computer contained a DVD-ROM drive or on a stand alone DVD player that is connected to a television screen or monitor. In both cases, the optical head assembly of the DVD drive or DVD player causes the read out laser beam to be focussed onto the pits moulded into the surface of the DVD disc. By detecting the intensity of light reflected from those pits, the optical head produces an electronic signal that is processed by the electronics of the player to result in a stream of binary data. The stream of binary data includes, amongst other items, commands that set the playback parameters of the DVD disc, navigational commands, the compressed video, the compressed multi channel audio and subtitle text.

33 When a DVD disc is played on a DVD player, the processing of the commands and the decoding and rendering of the video, audio and caption information are performed by the combination of the specialised hardware and firmware that is built into the DVD player in accordance with the DVD specifications. When a DVD is played on a DVD drive in a computer, the processing of the bit stream received from the DVD drive is implemented in the form of a software application program running on the central processing unit, supported by the operating system and the resources of the overall computer system. The commands and the information are first transferred, as required, to the memory of the host computer. The software processes the commands and instructs the DVD drive to access the content on the DVD disc accordingly. The DVD player software running on the central processing unit also processes the content information in order to decompress the various content elements required to create the desired audio and visual effect.

34 By virtue of the commands navigating the computer through the DVD disc, setting the playback parameters and managing the decompression of the video content, the content is rendered to the output display device, which is either a computer monitor or a television screen. The details of the operation of the DVD playback software program must be in accordance with the DVD specifications for correct and complete playback function to be achieved. Once decoded, whether in a DVD player or a personal computer, the digital video and audio information is converted to a form of analogue signal that is transmitted to the monitor or television screen for display. The combination of the commands embedded in the DVD disc and the interaction of the consumer, by means of a remote control or computer mouse, determine which of the options presented to the consumer are actually displayed.

35 The instructions contained on the DVD discs are interpreted by the player to:

- (a) access and play both the motion picture and special features;
- (b) set up certain parameters in the player's registers according to the nature of the content of the DVD disc;

(c) construct menu screens complete with interactive buttons, moving and still images, sound and text, which present the consumer with the options made available for language, subtitle language and special features;

(d) create interactive links, which allow the content author to set up predefined navigation to submenus or elements of the special content.

36 All of those instructions are necessary if the consumer is to experience completely the content and special features as defined and presented by the "authoring" of the material on the DVD disc - see paragraph [29]. The computer commands are not only essential to accessing and interacting with the motion picture. They are also essential to the options and extra material provided on the DVD disc. That is a key distinction between a DVD system and a VHS video cassette recorder.

37 If a DVD disc is inserted into a DVD player or personal computer, playback occurs by passing the computer instructions to the RAM in the DVD player or computer, on a temporary basis. When the consumer's session is completed, and the program terminated, all instructions associated with that program are no longer protected against overwrite within the RAM. When the DVD player or computer is turned off, all the contents of the RAM are lost. That characteristic is usually referred to as "volatility".

38 All commands, along with the audio, video and caption content embodied in a DVD disc are copied, as required, and stored, temporarily, in the RAM of the DVD player or personal computer as the case may be. At any given moment, a tiny fraction of that audio, video and caption content of the DVD disc is stored in RAM. No part of that content can be viewed unless it has first been temporarily stored in RAM. Accordingly, if the entire motion picture is viewed, the entire motion picture will have been sequentially copied into the RAM of the DVD player or computer. However, at any given moment, only that tiny fraction of the total content will remain in RAM. This is explained in a little more detail below - see paragraphs [49] and [52] - [53].

COMPUTER PROGRAMS

39 DVD players are special purpose computers. Computers are designed to process material in the form of binary numbers, that is to say, numbers made up of 0s and 1s only. A computer receives material by means of an input device. The material is placed in the storage capacity of the computer. The material is then modified by the processor of the computer and can be transferred, in its modified form, by way of an output device. The computer keeps in its storage capacity instructions that tell the processor what to do with the material. The instructions are also in the form of binary numbers that can be received by the computer, kept in its storage capacity and, in turn, transferred by the computer.

40 The material, being binary numbers, that makes up the subject matter of the processing and the instructions for the processing is often referred to generally as "data". The material, being binary numbers, that makes up the instructions is referred to as "programs". Thus, in that sense, all programs are data but not all data is programs. In many contexts, however, the term "data" is reserved for the material that is the subject of the processing in order to distinguish it from programs.

41 In computer science, the distinction between programs and data in that sense is fundamental. Thus, Webster's New World Dictionary of Computer Terms contains the following definitions:

"Program: a list of instructions written in a programming language, that a computer can execute so that the machine acts in a predetermined way.

Synonymous with software."

"Data: factual information (such as text, numbers, sounds and images) in a form that can be processed by a computer. ..."

42 Programs cause a computer to perform arithmetic and logical operations or comparisons and to take some additional action based on the comparison or to input or output data in a desired sequence.

43 Programs are sometimes called software to distinguish them from hardware, the physical equipment used in the operation of a computer. A distinction can also be drawn between systems programs and processing programs. Systems programs are those that control the operation of the computer. Together, they constitute the operating system for the computer. Processing programs are those whose execution is controlled by the operating system.

44 There is a considerable variety of processing programs such as:

- * language translators that decode source programs;
- * service or utility programs, such as those that "dump" computer memory to external storage for safekeeping;
- * application programs, which perform business and scientific functions, such as wordprocessing.

THE "BAIT" AND "ROMEO MUST DIE" DVD DISCS

45 In this proceeding, the parties have agreed that the issues can be determined by reference to two particular DVD discs produced and marketed by the respondents. Warner has produced for release in Australia a DVD disc embodying the motion picture entitled "Bait" ("the Bait DVD Disc") and a DVD disc embodying the motion picture entitled "Romeo Must Die" ("the Romeo Must Die DVD Disc"). The "Bait" motion picture was produced by the third respondent, Castle Rock Entertainment, and the "Romeo Must Die" motion picture was produced by Warner.

46 Dr Bell gave evidence that the Bait DVD Disc contains "a series of computer programs and instructions", which are embedded amongst the motion picture content on the disc. When the Bait DVD Disc is played, those computer programs and instructions are copied, as required, into the RAM of the DVD player or computer, and cause the display of a main menu. If input is received from the person viewing the DVD disc, the computer programs and instructions control how the player or computer responds. Thus, if the viewer presses the option "play movie", the programs and instructions cause the player or computer to jump to the motion picture on the DVD disc and begin playing it.

47 Dr Bell also gave evidence that the Romeo Must Die DVD Disc contains a series of computer programs and instructions, which are embedded throughout the content on the disc. Those computer programs and instructions control, amongst other things, what occurs when the disc is placed into the computer or DVD player and how the computer or player responds when the consumer enters particular menu options.

48 Evidence was given by Dr Timothy David Lambert, a lecturer in the School of Computer Science and Engineering of the University of New South Wales. Dr Lambert's particular areas of expertise include algorithms, computational geometry, computer graphics and visualisation. Dr Lambert explained in a report verified by an affidavit sworn by him that DVD players receive input from a DVD disc and from a remote control. Their storage

depends on ROM, where the program that tells them how to process the data read from the DVD disc is stored, and RAM, where the data read from the DVD disc is stored and processed. They produce an audio and video signal so that a consumer may view and listen to a motion picture.

49 The amount of data to be input from the DVD disc and transmitted as video and audio is vastly more than can be kept in the DVD player's storage. Thus, a DVD player works by continuously reading data from the DVD disc, processing it and displaying it simultaneously. The data is temporarily stored in a variety of buffers variously described as "*track buffer*", "*video buffer*", "*audio buffer*", "*caption buffer*", and "*command buffer*". Thus, for example, the track buffer allows the DVD player to maintain seamless playback while jumping to another part of the DVD disc. It does that by storing about one-third of a second's worth of data. That data can be processed while the laser is being refocussed on another part of the DVD disc so that the motion picture plays continuously without any interruptions.

50 The stream of data read from a DVD disc is decrypted and then split into four parallel streams being:

- * MPEG video. This stream contains most of the data and the DVD player must decompress this stream to produce a video signal.
- * Audio. This stream is also compressed and contains most of the remaining data. The DVD player or computer must also decompress this stream to produce an audio signal.
- * Captions. This stream is used to produce subtitles and is also used to highlight buttons on menus.
- * Commands. The DVD player can only obey a simple set of commands in this stream, which can be used to provide interactivity with menus.

The data on a DVD disc is divided into cells. A cell usually corresponds to a scene in a motion picture. A program chain ("PGC") is a sequence of cells. For example, in the Bait DVD disc, PGC 1 has 36 cells totalling 1 hour and 59 minutes of video, containing the motion picture from the opening logos to the closing credits.

51 Each PGC can contain some pre-commands, obeyed before displaying the cells, then the cells, with each cell containing an optional command, and then some post commands, obeyed after all the cells are displayed. Each command requires eight bytes of storage and can contain, one, two or three instructions. Instructions include:

- * mathematical operations: such as add, subtract, multiply, divide;
- * logical operations: such as "AND", "OR";
- * comparisons: equal, not equal, greater than, greater than or equal to, less than, less than or equal to;
- * register operations: load, move, swap;
- * program flow control: go to, break;
- * video presentation control: link, jump, call, resume, exit.

52 Dr Lambert prepared the tables in Schedule B, which contain lists of the files on the Bait DVD disc and the Romeo Must Die DVD disc. Thus, the motion picture video and

audio content of the Romeo Must Die DVD disc is wholly contained in the files described as "VTS_01_1.VOB" to "VTS_01_5.VOB". A number of other files contain additional video and audio content. The video and audio content of the Romeo Must Die DVD disc is 99.5% of the total content. The motion picture video and audio content is 68.3% of the total content. The balance of the video and audio content is made up of special features and documentaries.

53 From Schedule B, it is apparent that the total duration of the video content of the Bait DVD disc is 1 hour 59 minutes 49 seconds made up as follows:

- * movie - 1 hour 59 minutes and 5 seconds;
- * animated Warner logo - 12 seconds;
- * copyright warning - 32 seconds.

The audio/video content is 99.84% of the total content.

54 None of the files that contain motion picture, video and audio content or the special features and documentaries content contain "*commands*" - see paragraph [51] above. Dr Lambert analysed the Bait DVD disc and the Romeo Must Die DVD disc and calculated the number of commands, as just described, on each DVD disc. Schedule B contains a summary of his conclusions in that regard. None of the commands is essential for a person to watch the motion picture embodied in the DVD disc. Even if the DVD player ignored all of the commands, the consumer watching would still be able to watch the motion picture, missing out only on the menus and the automatic language selection.

55 The motion picture, associated materials and navigational instructions are wholly contained within the VIDEO_TS subdirectory of the root directory. The root directory is the base of the logical tree-like structure referred to above - see paragraph [22] above. All subdirectories and files can be accessed only via the root directory. The motion picture is contained in the DVD disc in MPEG2 encoded form.

56 The Bait DVD Disc includes special features as follows:

- * a theatrical trailer;
- * a commentary by the lead actor;
- * cast and crew biographies;
- * scene selections;
- * multiple languages;
- * multiple language subtitles.

57 The Romeo Must Die DVD Disc contains more extensive special features including:

- * four short documentaries;
- * six featurettes;
- * a theatrical trailer intended for distribution in the United States;
- * a theatrical trailer intended for distribution internationally;

- * two music videos.

The Romeo Must Die DVD Disc also has multiple languages and multiple subtitles. Its special features also include Internet connectivity, which is accessible when the DVD disc is played on the DVD drive of a computer. That connectivity is controlled by computer programs stored in the DVD-ROM subdirectory of the DVD disc. By means of the computer programs, the computer can be connected to a web site operated by Warner, for the purpose of accessing additional information relating to the content of the disc, which is not on the disc. The web site contains a number of interactive features, including an interactive game.

58 The content of the Romeo Must Die DVD disc also includes menu interfaces in the English language, audio tracks in English, subtitles in English, Mandarin, Cantonese, Thai and Korean and closed captions for the hearing impaired in English, together with special features in the form of audio-video clips including:

- * original theatrical trailer for Romeo Must Die;
- * international trailer for Romeo Must Die;
- * eight short documentaries about the movie Romeo Must Die;
- * a fifteen minute documentary entitled "*The Making of Romeo Must Die*";
- * a music video of the song "*Try Again*" performed by Aaliyah;
- * a piece titled "*The Making of 'Try Again' Video*";
- * a music video entitled "*Come Back in One Piece*";
- * audio-video clips entitled "*Inside the Visual Effect Process*", "*Diary of a (Legal) Mad Bomber*", "*Anatomy of a Stunt*" and "*The Sound Stage*".

THE QUESTIONS

59 The questions that the parties have formulated for determination prior to the other issues raised in the proceeding are as follows:

1. Does a person who plays the Bait DVD Disc or the Romeo Must Die DVD Disc make a copy of the whole or a substantial part of the embodied cinematograph film in the course of playing the respective disc on either a DVD player or a personal computer?
2. What computer programs in which copyright subsists in Warner are embodied in the Romeo Must Die DVD Disc or the Bait DVD Disc? It is common ground that both discs embody computer programs and that, apart from the DVD-ROM program embodied in the Romeo Must Die DVD Disc, copyright in any such program subsists in Warner.
3. When a video store proprietor enters into a commercial rental arrangement involving the letting for hire of the Romeo Must Die DVD Disc or the Bait DVD Disc, does any of the computer programs referred to in the answer to question 2 constitute the essential object of the rental within the meaning of [s 31\(5\)](#) of [the Act](#)?
4. Does a person who plays the Romeo Must Die DVD Disc or the Bait DVD Disc on either a DVD player or a personal computer reproduce in a material form, the whole or a substantial part of the computer programs referred to in the answer to question 2?

60 I shall deal with each of the questions separately.

COPYING OF CINEMATOGRAPH FILM

61 Warner contends that the means by which a DVD disc is played, which includes the sequential decompression of the audio, video and caption content and storage in RAM, constitutes a copying of the content. That contention is advanced notwithstanding the fact that, at any given time, only a tiny fraction of the audio, video and caption content is stored in RAM. The issue is whether the playing of a DVD disc constitutes the doing of the act referred to in [s 86\(a\)](#) of [the Act](#), namely, making a copy of the cinematograph film embedded in the DVD disc. Under [s 10](#), "copy" in relation to a cinematograph film means an article or thing in which the visual images or sounds comprising the cinematograph film (or motion picture) are embodied. By the operation of [s 21\(6\)](#) an article that embodies the film in an electronic machine readable form is taken to be a copy of the film. Sounds or images are to be taken to have been embodied where they are capable of being reproduced from the article or thing - [s 24](#).

62 Warner's contention raises the question of whether audio, video and caption content stored in RAM is capable of being reproduced. The storage of the motion picture is volatile in the sense that it is lost if the DVD player is switched off. In the ordinary course, a DVD player will be configured such that the whole of the contents of its RAM will be volatile. It will not be possible to reproduce its contents. In such a case, the temporary storage of the motion picture in the RAM of a DVD player will not involve a reproduction of the computer program in a material form. On the other hand, a DVD player could be modified such that it would be possible to study or use the RAM for the purpose of reproducing its contents. In that case there could be a reproduction of sounds and images.

63 The statutory scheme, as outlined in paragraph [63], requires that it be possible to identify, at the time of the act referred to in [s 86\(a\)](#), an article or thing in which the cinematograph film or motion picture, namely the visual images or sounds comprising it, **is** embodied. It is not sufficient that the visual images and sounds comprising the cinematograph film or motion picture have at some time been embodied in the article or thing. There must be a point at which an article or thing can be identified in which the visual images and sounds **are** embodied.

64 [Section 14\(1\)](#) provides that a reference to the doing of an act in relation to a work or other subject-matter, including making a copy of a cinematograph film, is to be read as including a reference to the doing of the act in relation to a substantial part of the work or subject-matter. The phrase "*substantial part*" refers to the quality of what is taken, rather than the quantity - *Autodesk Inc v Dyason* [No.2] (1993) [176 CLR 300](#) at 305. However, an inquiry should also take into account the purpose of the copying - *Nationwide News v Copyright Agency Limited* (1996) 65 FCR 399 at 418-419. It is common ground that, in the case of the storage in RAM of the audio, video and caption content of a DVD, only a tiny fraction of the motion picture is stored at any one time. The purpose of the storage is to display the motion picture. The storage is volatile.

65 I consider that the ephemeral embodiment of tiny fractions of the visual images and sounds that comprise a cinematograph film or motion picture sequentially does not constitute the act of making a copy of the motion picture or cinematograph film within the meaning of [s 86\(a\)](#). It is clear that neither the whole nor any substantial part of a cinematograph film or motion picture is ever embodied in the RAM of a DVD player or personal computer at any given time. The mere fact that, over a period of time, being the time taken to play the motion picture or cinematograph film, tiny parts are sequentially stored in the RAM of the DVD player or personal computer does not mean

that the motion picture or cinematograph film is embodied in such a device. As a result, a consumer, by playing a DVD disc, does not, for the purposes of the Act, make a copy of the whole or a substantial part of the motion picture or cinematograph film embodied in that DVD disc.

WHAT CONSTITUTE COMPUTER PROGRAMS

66 In the cross-claim, Warner asserts that the Romeo Must Die DVD disc and the Bait DVD disc each embodies one or more computer programs. Warner contends that the programs consist of the whole of the digital file that is the result of the formatting process referred to above - see paragraph [30]. The digital file comprises all of the following in digital form:

- * the original content referred to (in paragraphs [30]) above, being the respective motion picture and special features and other matter in compressed digital form; and
- * the program instructions referred to (in paragraph [30]).

In the alternative, Warner contends that the computer programs consist of the program instructions referred to in paragraphs [23]-[26].

67 In addition, Warner contends that the relevant computer programs also include the respective authored programs relating to the Romeo Must Die DVD disc and the Bait DVD disc. The authored programs comprise the respective menu highlighter programs and disc content programs that are in evidence in hard copy form.

68 The applicants, however, assert that only part of the program instructions constitute computer programs for the purposes of [the Act](#).

69 The question is whether "computer program", as that term is defined in the Act, is limited to commands in the sense described by Dr Lambert or whether it comprises the whole of the contents of the relevant DVD discs or, at least the program instructions, as described above in paragraph [30]. That is to say, what part of the material embedded in the respective DVD discs can be properly characterised as the program?

70 "Computer program" is defined in [the Act](#) as "*a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result.*" That requires that a particular result be identified. It is then necessary to identify a set of statements or a set of instructions that are to be used in a computer in order to bring about that result.

71 Warner contends that the result is the visual and aural experience that the consumer playing the DVD disc will have as a consequence of playing it either in a DVD player or personal computer. However, I consider that the "*particular result*", in terms of the current definition in [the Act](#), is playing and navigating through a cinematograph film or motion picture. That is to say, it is the conversion of the original content into a form whereby the consumer can have the video and aural experience of the cinematograph film or motion picture or other content of the DVD disc.

72 Some insight into the meaning of the definition of "*computer program*" in [the Act](#) might be gleaned from the legislative history and the case law relating to the definition of that term in earlier enactments. The term "*computer program*" was inserted by the [Copyright Amendment Act 1984](#) ("the 1984 Amendment"). The definition in its original form was as follows:

"computer program means an expression, in any language, code or notation, of

a set of instructions (whether with or without related information) intended, either directly or after either or both of the following:

(a) conversion to another language, code or notation;

(b) reproduction in a different material form;

to cause a device having digital information processing capabilities to perform a particular function."

73 The Explanatory Memorandum circulated by the Attorney-General in connection with the Bill for the [Copyright Amendment Act 1984](#) contained the following comments on the proposed new definition:

"16. The phrase 'expression ... of a set of instructions' is intended to make clear that it is not an abstract idea, algorithm or mathematical principle which is protected but rather a particular expression of that abstraction. The word 'set' indicates that the instructions are related to one another rather than being a mere collection.

17. The phrase 'in any language, code or notation' is intended to cover not only high level (generally human intelligible) but also low level (generally only machine intelligible) and intermediate level means of expression. Thus it would cover a computer language such as FORTRAN, an assembly language and compiled or assembled machine code.

18. The phrase 'whether with or without related information' is intended to make clear that the protected program may include material other than instructions for the computer (such as information for programmers or users of the program, or data to be used in connection with the execution of the program).

19. The phrase 'intended... to cause' is used in preference to words such as 'capable... of causing' to cover the situation where the program, as written, may not operate for technical reasons such as the presence of a programming error.

20. The words 'either directly... material form' are intended to make it clear that a program need not necessarily be capable of execution in its existing form but may need first to be translated into another language (e.g., compilation of a FORTRAN program) or converted into a suitable machine readable form (e.g. keying a handwritten program onto magnetic disk).

21. The phrase 'to cause a device... to perform a particular function' is intended to make clear that the device is one the performance of which is ultimately controlled by the abovementioned 'expression... of a set of instructions'.

22. The phrase 'having digital information processing capabilities' is intended to make clear that the device is not a device which merely processes information by analogue methods (e.g. a radio) but does include devices which, though considered as a whole might not be information processors, nevertheless have some such capability. Examples would be computerised telephone switching equipment and computerized ignition systems."

74 The definition of a "computer program" by reference to "an expression... of a set of

instructions" should be understood as conferring protection upon the set of instructions itself in a way that is adapted to the nature of copyright. The protection of computer programs is to conform to the dominant principle of copyright law that protection is given, not for ideas, but for the particular form of expression. It follows that a particular set of instructions in respect of which copyright is claimed must be identified with some precision - *Autodesk Inc v Dyason* [No. 2] (1993) [176 CLR 300](#) at 303.

75 An instruction operates as such only to the extent that it **conveys a command** to its recipient. What is required to achieve that result in a given case will vary according to circumstances and according to the knowledge of that recipient. In general terms, the less knowledgeable the recipient, the greater will be the need for the instruction to be accompanied by information. Thus, **the expression "set of instructions" in the original form of the definition directs attention to an entire set of instructions, and not merely those parts that consist of bare commands.** The words "*set of instructions*" direct attention to instructions in their entirety. That direction is reinforced by the parenthetical description of the instructions in the original definition as instructions "*whether with or without related information*". Further the definition is concerned with instructions that "*cause a device having digital information processing capabilities to perform the particular function*". In many cases it will be necessary for instructions to be accompanied by related information if those devices are to perform quite ordinary computer functions - *Autodesk Inc v Dyason* [No.2] at 329.

76 The 1984 Amendment departed from traditional principles by identifying for copyright purposes a species of literary work, the very subsistence of which requires an expression of a set of instructions intended to cause a device to perform a particular function. Accordingly, [the Act](#) from that time expressly required an accommodation of computer technology protection to principles of copyright law - *Data Access Corporation v Powerflex Services Pty Ltd* ("*Data Access*") (1999) [202 CLR 1](#) at paragraph [25].

77 Under the definition introduced by the 1984 Amendment, whether material was a computer program depended on whether it was an "*expression... of a set of instructions... intended to cause a device... to perform a particular function*". In *Data Access* the majority reformulated that requirement as material intended to express, directly or indirectly "*an algorithmic or logical relationship between the function desired to be performed and the physical capabilities of the device*" - at paragraph [62].

78 In construing the definition of computer program, the words in the definition are to be interpreted in their statutory context. However, the Court cannot interpret the meaning of the definition without some understanding of the manner in which a computer executes computer programs. If interpreting a phrase in the definition in light of the manner in which a computer operates is to be regarded as ascribing a technical meaning to the phrase, then the phrase must be given its technical meaning - see *Data Access* (at paragraph [34]).

79 Under the 1984 definition, for an item to be a computer program, it must not only be an "*expression... of a set of instructions*", but the expression of that set of instructions must also be designed to achieve a particular purpose in that it must be "*intended... to cause a device... to perform a particular function*". The emphasis on a singular function indicates that it is necessary to identify precisely the relevant function - see *Data Access* (at paragraph [56]). Similarly, in the current definition, it is necessary to identify precisely the "*certain result that the set of statements or instructions*" is to be used to bring about.

80 The words of the current definition are different from the words of the 1984

definition. However, there is no reason to think that the underlying concept of the 1984 definition was intended to be altered by the amendment that introduced the current definition. The current definition was substituted by the *Copyright Amendment (Digital Agenda) Act 2000*. The revised Explanatory Memorandum circulated by the Attorney-General in connection with the Bill for that Act stated that the new definition was intended to implement a recommendation of the Copyright Law Review Committee ("CLRC") in its 1995 report "*Computer Software Protection*".

81 In Chapter 6 of that Report, the CLRC expressed the view that the Act as then drafted adequately protected computer programs. However, the CLRC considered that the Act should be amended to clarify some remaining uncertainties and to ensure more comprehensive protection for computer programs. That was the underlying reason for, and the essence of, the CLRC's recommendations for amendment.

82 Accordingly, I consider that the observations made above concerning the 1984 Amendment can be applied to the current definition. In particular, I do not consider that the removal of the phrase "*whether with or without related information*" narrows the scope of the current definition. The phrase "*set of statements or instructions*" will still encompass data, so long as those data possess the necessary relationship to the commands in "*bringing about a certain result*". That is to say, it will suffice if the data and commands are to be used in order to bring about an identified result.

83 As I have said, in the case of a DVD disc, the computer program is intended to cause the DVD player to play and navigate through the audio, visual and caption content of the DVD disc. The commands referred to by Dr Lambert, by themselves, do not bring about that result. On the other hand, those commands, in conjunction with the "*other material*" comprised in the program instructions referred to above, have that capability in relation to the original content identified in paragraph [30]. The result is that the original content is produced as the audio and video components of the motion picture, or other audio and video output.

84 The copyright protection of computer programs is not designed to extend to the original content that a computer program is capable of causing to be reproduced. On the other hand, the mere commands, by themselves, bring about no result at all. It follows that the material on the DVD discs in question that constitutes computer programs is limited to program instructions, as identified in paragraph [30] above, including commands as identified by Dr Lambert, (see paragraph [51] above). It does not extend to the audio, visual and caption content of the DVD discs.

ESSENTIAL OBJECT OF RENTAL

85 It is common ground that Warner is the owner of the copyright in relation to the computer programs referred to in the answer to question 2. Under s 31(1)(d) of the Act, that copyright includes the exclusive right to enter into a commercial rental arrangement in respect of those programs, except for entering into a commercial rental arrangement where the programs are not "*the essential object of the rental*" - s 31(5).

86 The first applicant, Australian Video Retailers Association Limited ("AVRA"), is a company limited by guarantee established for the purpose of, *inter alia*, promoting and fostering the development of video retailing in Australia. Each of the other applicants is and was at all material times a member of AVRA. Each of the applicants other than AVRA is engaged in the business of renting video cassettes for VHS devices and of renting out DVD discs for use in connection with DVD players or personal computers.

87 The applicants enter into arrangements with customers that involve making available copies of the Bait DVD disc and the Romeo Must Die DVD disc to customers who complete

membership applications. The terms on which DVD discs are made available by Civic Video Pty Limited are set out in its application form. Those terms are set out in Schedule C to these reasons. It is common ground that those terms are typical of the terms upon which other applicants (other than AVRA) would also enter into arrangements to make available DVD discs to customers. It is also common ground that such arrangements would constitute commercial rental arrangement within the meaning of s 30A(2) of the Act. The question, therefore, is whether the computer programs referred to in answer to question 2 constitute "*the essential object of the rental*" that would arise under such commercial rental arrangements.

88 It is clear that an arrangement such as contemplated by the terms set out in Schedule C satisfies the requirements of s 30A(2). That is to say:

- * it is an arrangement under which a copy of the computer programs is made available on terms that the copy will be returned;
- * the arrangements are made in the course of the conduct of a business;
- * the arrangements provide for the copy to be made available in return for a payment in money.

89 Section 31(5) is concerned with the "*essential object of the rental*". Warner's final contention on the point was that phrase refers to the subject matter of the rental rather than the purpose. The purpose of a rental or hiring arrangement is to obtain the use of the subject matter of the rental or hire. In the case of a DVD disc, the subject matter of the rental or hire must be the DVD disc itself. The hire or rental of the DVD disc may carry with it a licence (or *precarium*) to use the computer program embodied in the DVD disc. However, the subject matter of the rental or hire is the DVD disc that has digital information embodied in it. That digital information comprises both video and audio material as well as computer programs.

90 I consider that the phrase should be construed as meaning that s 31(1)(d) does not extend to entering into a commercial rental arrangement if the essential object of the rental is not to obtain the right or licence to make use of the computer program. Thus, where the essential object (in the sense of purpose) is to be able to experience both the video and audio aspects of a motion picture, albeit that the full benefit of the DVD technology cannot be experienced or obtained without use of the computer program embodied in the DVD disc, the essential object of the rental is not the computer program but video and audio content of the motion picture and other material consisting of special features, documentaries, etc.

91 If I hire a VHS video cassette, the cassette is the subject matter of the rental or hire. In order to be able to enjoy the motion picture that is embodied in the magnetic tape that forms part of the video cassette, it is necessary that the cassette be attached to reels that have sprockets that will fit in a standard VHS video cassette recorder. Without those, it would not be possible to play a video cassette on the recorder. Nevertheless, they are not in any sense the essential object of the rental or hire. The essential object is to obtain the capacity and right to experience the motion picture, in both its video and audio aspects. If I hire a book from a lending library, the subject matter of the hire is the paper and cardboard with markings in printers ink. The essential object of the hire, however, is to be able to read the contents of the book.

92 The scheme of s 31 of the Act conforms with that analysis. Section 31(1) specifies the exclusive rights that copyright in relation to a work entails. Section 31(1)(d) provides that, in the case of a computer program, copyright includes the exclusive

right to enter into a commercial rental arrangement in respect of the program. Section 31(2) is not presently relevant. Section 31(3) confines the scope of s 31(1)(d), by excluding a commercial rental arrangement in respect of a machine or device in which a computer program is embodied, if the program is not able to be copied in the course of the ordinary use of the machine or device. An example of such a device is a refrigerator. Section 31(4) is an exception to s 31(3), so that the reference in s 31(3) to a device does not include a device of a kind ordinarily used to store computer programs. An example of such a device is a CD ROM. Section 31(5) is a further exception to s 31(1)(d). Section 31(6) is an exception to s 31(1)(c). Section 31(7) is a further exception to s 31(1)(d), which is not presently relevant.

93 Sections 31(3) to 31(5) evince a policy intention to exclude certain devices and rental arrangements from the right protected by s 31(1)(d). It is clear that ss 31(3) and 31(4) are intended to exclude devices on the basis of their intended function. That indicates an intention that s 31(5) also be interpreted purposively. Accordingly, I consider that the phrase "*the essential object of the rental*" in s 31(5) of the Act refers to the purpose of the commercial rental arrangement, rather than the subject matter of the rental. In that sense, the essential object of the rental of the DVD discs in question is to be in a position to experience the video and audio content of the DVD discs.

94 Warner has conducted "*tracking*" research through National Research Group ("NRG"), a market research company based in Los Angeles, California, USA. NRG conducted research in Australia concerning buyers of DVD players. One of the objectives of the survey was to measure consumer satisfaction with DVD technologies since buying a DVD player. Another objective of the survey was to identify the importance to consumers of the various features on DVD discs. A report prepared by NRG reflects the attitudes of the current universe of DVD player owners. The survey indicates that a substantial majority of people are very satisfied with the picture and sound quality, the size of DVD discs and the ease of use of a DVD player.

95 The survey is of only limited relevance to the present issues. Interviewees were not asked how important the motion picture was in deciding whether to hire a DVD disc. It does not assist to answering the question "*What is the essential object of a rental arrangement in relation to a DVD disc?*" to know what is the attitude of purchasers of DVD players. True it, is that virtually all of the persons who would enter into a rental arrangement in relation to a DVD disc would have access to a DVD player or personal computer capable of playing the DVD disc. Nevertheless, the survey material does not give a great deal of assistance in determining what is the essential object of the rental arrangement.

96 A considerable quantity of marketing material relating to VHS video cassettes and DVD discs is in evidence in the proceeding. The emphasis in all of that material is on the motion picture video and audio content. Thus, VHS video cassettes and DVD discs containing the same motion picture emphasise that part of their content that comprises the motion picture. A video cassette can contain additional features such as trailers and documentaries in the same way as a DVD disc.

97 The key differences between hiring a VHS video cassette and a DVD disc is that the latter provides advanced features and superior picture quality. Thus, as I have indicated, the following features are available on a DVD disc, but not on a VHS video cassette:

" digital audio visual quality*

** no degradation of quality on playback*

- * *multiple subtitles;*
- * *multiple aspect ratios;*
- * *multiple angles;*
- * *multi channel surround sound;*
- * *interactive menus;*
- * *virtually instant random access."*

98 Thus, it is fair to say that the hirer of a DVD disc will have greater flexibility in relation to the video and audio content than will the hirer of a VHS video cassette containing the same video and audio content. Nevertheless, I do not consider that the computer programs that make that flexibility available are the essential object of a rental arrangement such as would typically be entered into by the applicants. I consider that the essential object of the rental arrangement is to obtain access to the video and audio content, both motion picture and other features.

COPYING OF COMPUTER PROGRAMS

99 It is common ground that a substantial part of the program instructions reside in the RAM of a DVD player or personal computer when the Bait DVD Disc or the Romeo Must Die DVD Disc is being played. However, while the audio, video and caption content of the motion picture is actually being played, the part of those programs that resides in RAM while the DVD disc is being played is inactive.

100 The question is whether that copying of a substantial part of such computer programs involves the reproduction of the computer program, being a literary work, in a material form within the meaning of s 31(1)(a)(i) of the Act. Under the definition of "*material form*" in s 10, there will be a reproduction in a material form if the reproduction is in a form of storage from which the computer program or a substantial part of the computer program can be reproduced.

101 The definition was inserted in the Act by the 1984 Amendment. The Explanatory Memorandum circulated in connection with the Bill for that Act contained the following:

"28. The definition of "material form" is new and makes it clear that material form includes such methods of fixation as storage or reproduction on magnetic tape, read only or random access computer memory, magnetic or laser disks, bubble memories and other forms of storage which will doubtless be developed.

It is clear enough that the definition was intended to be far reaching and to cover not only ROM and RAM but also other types of storage to be developed in the future - see *Microsoft Corporation v Business Boost Pty Ltd* [\[2000\] FCA 1651](#) at paragraph [14].

102 The contents of computer programs stored in the RAM of a DVD player or personal computer during the playing of a moving picture or cinematograph film are volatile in the sense explained at paragraph [37] above. On the other hand, the content of the ROM is different from the content of RAM in that the former is not volatile. The content of ROM is not lost when power is removed.

103 The definition inserted in 1984 makes clear that "*material form*" includes a form of

storage that is not visible, such as ROM and RAM. Whether or not there will be a reproduction of a computer program in a material form, as that concept is extended by the definition, will depend upon the particular circumstances. That will entail an examination of the particular device whose RAM is under consideration. As I have found in paragraph [37] above, ordinarily it will not be possible to reproduce the contents of RAM in a DVD player. If a DVD player has been modified, such that it is possible to study or use the RAM for the purpose of reproducing its contents, there could be a reproduction of the computer program in a material form within the meaning of s 31(1)(a)(i) of the Act. However, in the ordinary course, temporary storage of a substantial part of the computer program in the RAM of a DVD player will not involve a reproduction of the computer program **in a material form**.

104 Where a DVD disc is being played by means of a personal computer, it will be possible, where an appropriate additional program is installed in the personal computer, to reproduce the contents of RAM. However, where a computer does not have such a program installed, the use of the computer for the purpose of playing a DVD disc will not involve the reproduction of the computer programs in question **in a material form** within the meaning of s 31(1)(a)(i) of the Act.

CONCLUSION

105 The answers to the questions formulated by the parties are as follows:

(1) A person who plays the Bait DVD disc or the Romeo Must Die DVD disc does not make a copy of the whole or a substantial part of the embodied motion picture in the course of playing the respective disc on either a DVD player or on a personal computer.

(2) The computer programs, in which copyright subsists in Warner, that are embodied in the Romeo Must Die DVD disc and the Bait DVD disc comprise only so much of the material contained in those DVD discs as consists of program that result from the authoring process described in paragraphs [29] - [30].

(3) When one of the applicants enters into a commercial rental arrangement involving the letting for hire of the Romeo Must Die DVD Disc or the Bait DVD Disc, none of the computer programs referred to in the answer to question 2 constitutes the essential object of the hiring.

(4) A person who plays the Romeo Must Die DVD disc or the Bait DVD disc on either a DVD player or a personal computer does not ordinarily reproduce in a material form the whole or a substantial part of the computer programs referred to in the answer to question 2.

106 I have answered the preliminary questions that have been formulated by the parties. The appropriate course now is for parties to bring in short minutes to give effect to the conclusions that I have reached. They should include proposed orders pursuant to Order 29 if that is the course that they wish to adopt. It will then be necessary to give consideration to the further conduct of the proceeding. I shall also give the parties the opportunity of making further submissions in relation to costs if they so wish.

I certify that the preceding one hundred and six (106) numbered paragraphs are a true copy of the Reasons for Judgment herein of the Honourable Justice Emmett.

Associate:

Dated: 5 December 2001

Counsel for the Applicant: Mr J V Nicholas SC with Ms T M Catanzariti
 Solicitor for the Applicant: Gadens Lawyers
 Counsel for the Respondent: Mr D Catterns QC with Ms S J Goddard
 Solicitor for the Respondent: Freehills
 Date of Hearing: 22 - 25 October 2001, 1 November 2001
 Date of Judgment: 7 December 2001

SCHEDULE A

THE LEGISLATIVE SCHEME

[Section 10](#) of the [Copyright Act 1968](#) (Cth) contains the following relevant definitions:

"computer program means a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result.

.....

copy, in relation to a cinematograph film, means any article or thing in which the visual images or sounds comprising the film are embodied."

.....

literary work includes:

- (a) a table, or compilation, expressed in words, figures or symbols; and
- (b) a computer program or compilation of computer programs.

.....

material form, in relation to a work or an adaptation of a work, includes any form (whether visible or not) of storage from which the work or adaptation, or a substantial part of the work or adaptation, can be reproduced."

The other relevant provisions for present purposes are as follows:

"13 Acts comprised in copyright

(1) A reference in [this Act](#) to an act comprised in the copyright in a work or other subject-matter shall be read as a reference to any act that, under this Act, the owner of the copyright has the exclusive right to do so.

(2) For the purposes of [this Act](#), the exclusive right to do an act in relation to a work, an adaptation of a work or any other subject-matter includes the exclusive right to authorize a person to do that act in relation to that work, adaptation or other subject-matter.

14 Acts done in relation to substantial part of work or other subject-matter

deemed to be done in relation to the whole

(1) In [this Act](#), unless the contrary intention appears:

(a) a reference to the doing of an act in relation to a work or other subject-matter shall be read as including a reference to the doing of that act in relation to a substantial part of the work or other subject-matter; and

(b) a reference to a reproduction, adaptation or copy of a work shall be read as including a reference to a reproduction, adaptation or copy of a substantial part of the work, as the case may be.

(2) This section does not affect the interpretation of any reference in [sections 32](#), [177](#), [180](#), [187](#) and [198](#) to the publication, or absence of publication, of a work.

.....

21 Reproduction and copying of works and other subject-matter

.....

(1A) For the purposes of [this Act](#), a work is taken to have been reproduced if it is converted into or from a digital or other electronic machine-readable form, and any article embodying the work in such a form is taken to be a reproduction of the work.

.....

(6) For the purposes of [this Act](#), a sound recording or cinematograph film is taken to have been copied if it is converted into or from a digital or other electronic machine-readable form, and any article embodying the recording or film in such a form is taken to be a copy of the recording or film.

24 References to sounds and visual images embodied in an article

For the purposes of [this Act](#), sounds or visual images shall be taken to have been embodied in an article or thing if the article or thing has been so treated in relation to those sounds or visual images that those sounds or visual images are capable, with or without the aid of some other device, of being reproduced from the article or thing.

30A Commercial rental arrangement

(2) In [this Act](#), the expression **commercial rental arrangement**, in relation to a sound recording or a computer program, signifies an arrangement that has the following features:

(a) however the arrangement is expressed, it is in substance an arrangement under which a copy of the sound recording or computer program is made available by a person on terms that it will or may be returned to the person;

(b) the arrangement is made in the course of the conduct of a business;

(c) the arrangement provides for the copy to be made available:

- (i) for payment in money or money's worth; or
- (ii) as part of the provision of a service for which payment in money or money's worth is to be made.

31 Nature of copyright in original works

(1) For the purposes of [this Act](#), unless the contrary intention appears, copyright, in relation to a work, is the exclusive right:

(a) in the case of a literary, dramatic or musical work, to do all or any of the following acts:

- (i) to reproduce the work in a material form;
- (ii) to publish the work;
- (iii) to perform the work in public;
- (iv) to communicate the work to the public;
- (vi) to make an adaptation of the work;
- (vii) to do, in relation to a work that is an adaptation of the first-mentioned work, any of the acts specified in relation to the first-mentioned work in subparagraphs (i) to (iv), inclusive; and

(b) in the case of an artistic work, to do all or any of the following acts:

- (i) to reproduce the work in a material form;
- (ii) to publish the work;
- (iii) to communicate the work to the public; and

(c) in the case of a literary work (other than a computer program) or a musical or dramatic work, to enter into a commercial rental arrangement in respect of the work reproduced in a sound recording; and

(d) in the case of a computer program, to enter into a commercial rental arrangement in respect of the program.

.....

(3) Paragraph (1)(d) does not extend to entry into a commercial rental arrangement in respect of a machine or device in which a computer program is embodied if the program is not able to be copied in the course of the ordinary use of the machine or device.

(4) The reference in subsection (3) to a device does not include a device of a kind ordinarily used to store computer programs (for example, a floppy disc, a device of the kind commonly known as a CD ROM, or an integrated circuit).

(5) Paragraph (1)(d) does not extend to entry into a commercial rental

arrangement if the computer program is not the essential object of the rental.

36 Infringement by doing acts comprised in the copyright

(1) Subject to [this Act](#), the copyright in a literary, dramatic, musical or artistic work is infringed by a person who, not being the owner of the copyright, and without the licence of the owner of the copyright, does in Australia, or authorizes the doing in Australia of, any act comprised in the copyright.

(1A) In determining, for the purposes of subsection (1), whether or not a person has authorized the doing in Australia of any act comprised in the copyright in a work, without the licence of the owner of the copyright, the matters that must be taken into account include the following:

- (a) the extent (if any) of the person's power to prevent the doing of the act concerned;
- (b) the nature of any relationship existing between the person and the person who did the act concerned;
- (c) whether the person took any reasonable steps to prevent or avoid the doing of the act, including whether the person complied with any relevant industry codes of practice.

(2) The next three succeeding sections do not affect the generality of this section.

.....

47AB Meaning of computer program

In this Division:

computer program includes any literary work that is:

- (a) incorporated in, or associated with, a computer program; and
- (b) essential to the effective operation of a function of that computer program.

47B Reproduction for normal use or study of computer programs

(1) Subject to subsection (2), the copyright in a literary work that is a computer program is not infringed by the making of a reproduction of the work if:

- (a) the reproduction is incidentally and automatically made as part of the technical process of running a copy of the program for the purposes for which the program was designed; and
- (b) the running of the copy is done by, or on behalf of, the owner or licensee of the copy.

(2) Subsection (1) does not apply to the making of a reproduction of a

computer program:

(a) from an infringing copy of the computer program; or

(b) contrary to an express direction or licence given by, or on behalf of, the owner of the copyright in the computer program to the owner or licensee of the copy from which the reproduction is made when the owner or licensee of that copy acquired it.

.....

85 Nature of copyright in sound recordings

(1) For the purposes of [this Act](#), unless the contrary intention appears, copyright, in relation to a sound recording, is the exclusive right to do all or any of the following acts:

(a) to make a copy of the sound recording;

(b) to cause the recording to be heard in public;

(c) to communicate the recording to the public;

(d) to enter into a commercial rental arrangement in respect of the recording.

.....

86 Nature of copyright in cinematograph films

For the purposes of [this Act](#), unless the contrary intention appears, copyright, in relation to a cinematograph film, is the exclusive right to do all or any of the following acts:

(a) to make a copy of the film;

(b) to cause the film, in so far as it consists of visual images, to be seen in public, or, in so far as it consists of sounds, to be heard in public;

(c) to communicate the film to the public."

SCHEDULE B

BAIT

Name	Size (bytes)	Number of Commands	Description
VIDEO_TS.IFO	10,240	2	Video manager information
VIDEO_TS.BUP	10,240	2	Backup copy of IFO
VTS_01_0.IFO	86,016	75	Title Set 1 information
VTS_01_0.BUP	86,016	75	Backup copy of IFO
VTS_01_0.VOB	7,022,592	158	Menu video, audio and buttons
VTS_01_1.VOB	1,073,739,776	None	Movie video and audio
VTS_01_2.VOB	1,073,739,776	None	Movie video and audio
VTS_01_3.VOB	1,073,739,776	None	Movie video and audio
VTS_01_4.VOB	1,073,739,776	None	Movie video and audio
VTS_01_5.VOB	280,459,264	None	Movie video and audio
TOTAL BYTES	4,582,633,472	(100.0%)	
TOTAL MOVIE VIDEO AND AUDIO BYTES	4,575,418,368	(99.84%)	

ROMEO MUST DIE

Name	Size (bytes)	Number of Commands	Description
VIDEO_TS.IFO	14,336	18	Video manager information
VIDEO_TS.BUP	14,336	18	Backup copy of IFO
VTS_01_0.IFO	90,112	219	Title Set 1 information
VTS_01_0.BUP	90,112	219	Backup copy of IFO
VTS_01_0.VOB	37,881,856	188	Menu video, audio and buttons
VTS_01_1.VOB	1,073,739,776	None	Movie video and audio
VTS_01_2.VOB	1,073,739,776	None	Movie video and audio
VTS_01_3.VOB	1,073,739,776	None	Movie video and audio
VTS_01_4.VOB	417,282,048	None	Movie video and audio
VTS_01_5.VOB	1,073,739,776	None	Movie video and audio
VTS_01_6.VOB	343,240,704	None	Movie and trailers video and audio
VTS_02_0.IFO	49,152	41	Title Set 2 information
VTS_02_0.BUP	49,152	41	Backup copy of IFO
VTS_02_0.VOB	0	None	Empty
VTS_02_1.VOB	1,073,739,776	None	Special features video and audio
VTS_02_2.VOB	401,514,496	None	Special features video and audio
VTS_03_0.IFO	32,768	41	Title Set 3 information
VTS_03_0.BUP	32,768	41	Backup copy of IFO
VTS_03_0.VOB	0	None	Empty
VTS_03_1.VOB	830,533,632	None	Short documentaries video

			and audio
TOTAL BYTES	7,399,524,352	(100.0%)	
TOTAL VIDEO AND AUDIO BYTES	7,361,269,760	(99.5%)	
TOTAL MOVIE VIDEO AND AUDIO BYTES (including trailers)	5,055,481,856	(68.3%)	

OTHER TOTALS

extracted from previous two tables

<i>Name</i>	<i>Size (bytes)</i>	<i>Number of Commands</i>	<i>Description</i>
VTS_01_1.VOB	1,073,739,776	None	Movie video and audio
VTS_01_2.VOB	1,073,739,776	None	Movie video and audio
VTS_01_3.VOB	1,073,739,776	None	Movie video and audio
VTS_01_4.VOB	1,073,739,776	None	Movie video and audio
VTS_01_5.VOB	280,459,264	None	Movie video and audio
TOTAL MOVIE VIDEO AND AUDIO BYTES	4,575,418,368	(99.84%)	

<i>Name</i>	<i>Size (bytes)</i>	<i>Number of Commands</i>	<i>Description</i>
VTS_01_1.VOB	1,073,739,776	None	Movie video and audio
VTS_01_2.VOB	1,073,739,776	None	Movie video and audio
VTS_01_3.VOB	1,073,739,776	None	Movie video and audio
VTS_01_4.VOB	417,282,048	None	Movie video and audio
VTS_01_5.VOB	1,073,739,776	None	Movie video and audio
VTS_01_6.VOB	343,240,704	None	Movie and trailers video and audio
VTS_02_1.VOB	1,073,739,776	None	Special features video and audio
VTS_02_2.VOB	401,514,496	None	Special features video and audio
VTS_03_1.VOB	830,533,632	None	Short documentaries video and audio
TOTAL VIDEO AND AUDIO BYTES	7,361,269,760	(99.5%)	

Name	Size (bytes)	Number of Commands	Description
VTS_01_1.VOB	1,073,739,776	None	Movie video and audio
VTS_01_2.VOB	1,073,739,776	None	Movie video and audio
VTS_01_3.VOB	1,073,739,776	None	Movie video and audio
VTS_01_4.VOB	417,282,048	None	Movie video and audio
VTS_01_5.VOB	1,073,739,776	None	Movie video and audio
VTS_01_6.VOB	343,240,704	None	Movie and trailers video and audio
TOTAL MOVIE VIDEO AND AUDIO BYTES (including trailers)	5,055,481,856	(68.3%)	

SCHEDULE C

Each item (movie, game, machine or any other item) is hired for overnightly / weekly (or the particular hire period) only, and must be returned by the specified time on the due day. I agree to pay an additional daily rate per day for each item returned after the due date inclusive of any GST charges.

I further agree any loss, damage or erasure to any item by me shall make me liable to an amount equal to replace such item. Applicant authorises Civic Video to prepare and submit card charges using any of the above listed charge cards to recover loses due to:

- a) Any failure by applicant to return rented items;
- b) damage to items;
- c) Any other unpaid charge.

Applicant understands that Civic Video may pursue remedies other than preparing and submitting card charges if the need arises under a, b, or c above. Applicant also understands that they must notify Civic Video immediately in the event of a change of address or phone number, or lost or stolen membership card.

The terms of hire may be added to or changed by Civic Video at any time.

Civic Video and its affiliates (including Civic Video Pty Ltd) accepts no responsibility and excludes all liability for damage to home entertainment equipment relating to the hire or use of any item.