

THE FOCAL EASY GUIDE TO

DVD Studio Pro 3

For new users and professionals



Focal Press

THE FOCAL EASY GUIDE TO

DVD STUDIO PRO 3







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Preface

Since the beginning of time, men and women have worked to reproduce and record their surrounding environment. From cave paintings to stone carvings, papyrus, wood, paper, canvas, wax, and chemicals... every substance imaginable has been used for both artistic expression and the documentation of history and culture. Regardless of whether

one uses charcoal to draw, a crystal radio to tap into the airwaves, or a pinhole camera to capture images, the quest to document and interpret creative expression has always been an artistic and technological challenge.

DVDs represent the pinnacle in a long evolution of recording technology. The quality is unsurpassed by any other medium previously available to consumers. Not only is the quality fantastic, the ability to structure the material is far more advanced than previous formats. DVDs let the user, view and listen to recorded material in both, a sophisticated and interactive way.

To make DVDs, requires vision and planning. However, this vision and planning can be simple or complex. One does not need to be led through a maze of intricately woven material for a DVD to serve its purpose. The viewer's interest, first and foremost, is in the content which is presented. The DVD medium is simply there to facilitate a way of accessing this content.

This book cuts through much of the technical knowledge and jargon, which has traditionally been associated with DVD production. The techniques described will take you to the core of what DVD production is about. In no time at all, you will be producing professional looking DVDs in an easy, efficient, and manageable way. DVD Studio Pro is the tool. Your mind, as in all artistic endeavors, is the creative instrument.

Rick Young

Producer/Director/Editor London, UK

DVD-5 and Beyond...

The first DVDs hit the market in 1996. Back then unless you had a lot of money, there was no way in the world you would be setting up any sort of system to burn DVDs. This was strictly a professional territory.

The subject of this book is how to make DVDs using the DVD-R General format onto 4.7 GB disks. You can also use DVD-RW without problems.

Some of the newer DVD burners can also burn other formats such as DVD+R and DVD+RW. A few even do DVD-RAM as well.

By all means feel free to experiment with whatever format your DVD burner can write to.

Just be aware that the methods and workflow put forward throughout this book has been tested by myself using DVD-R general disks on an Apple Superdrive.

My prediction is that there will be no fight to the death DVD format war as there was with Beta and VHS. For the simple reason that all the competing formats are the same size and the manufacturers have developed drives capable of reading, and in many cases writing, to each of the formats.

The real area of interest is the future. The Blu-ray 27 GB disks have already been forecast well in advance and dual-layer consumer DVD writers are now available.

For the moment we stand smack-bang in the midst of a technical wave which isn't even halfway spent. Ride this wave and hold on tight. We are at the beginning of a technological leap of such magnitude; the world will never be the same again.

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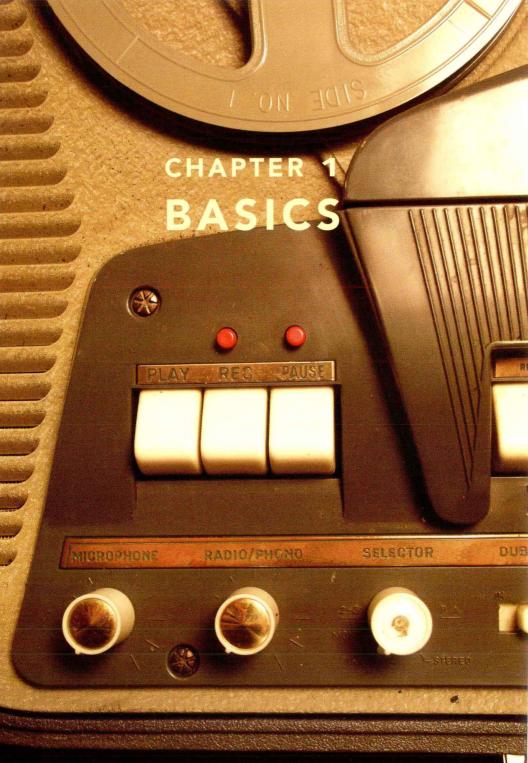
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Overview of DVD Production

There is no getting away from the fact that it is important to understand the technical processes involved with DVD production to effectively work with this medium. This does not mean you need to know every single detail about the inner workings of the technology – but a general overview is essential. Just as one can drive a car without knowing how to build an engine, one can author DVDs without knowing all the technical processes that go into the production of the shiny silver disks.

A DVD does nothing but hold information. This information is embedded in the pits and grooves which make up the structure of the disk. This information is what you, the "author", arranges and orders for the viewer to access. The term author is used to describe the role of the person who puts the content together which is recorded onto the DVD.

The DVD authoring process can be broken up into five distinct processes:

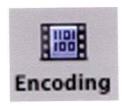
Content creation – As already mentioned the person watching the DVD is primarily interested in the content which has been recorded onto the disk. This content is made up of video clips, audio, and graphics. The content is produced inside of an editing program such as Final Cut Pro and possibly other software specific to audio creation, video compositing, and/or graphic creation.

Planning – A DVD needs to be planned in advance before it is produced. The plan can be a rough sketch or a detailed outline, however, before you begin you need to have an idea of what you are trying to achieve. A basic DVD could have the sole requirement of playing immediately once inserted into a player; alternatively a DVD could be made up of many clips, stills, and audio tracks – each which link to each other according to the options chosen by the person in charge of the remote



control. Regardless of how simple or complex the DVD may be, you, as the author, must decide in advance what options will be made available to the viewer once the disk is inside the DVD player.

tion – This is where the technical knowledge of duction comes into play. For a DVD to work, the ion recorded onto the disk needs to be sed into a form known as MPG-2. MPG-2 provides encoding video into a file which is small in size yet quality. As the author of the DVD you have many



about how the encoding process will take place. You can choose to before you author the disk or you can let the encoding take place in the und while you work. You can also choose to work with QuickTime files are been exported from Final Cut Pro, or another editing system, and encoding process until the disk has been authored. There are advantages advantages to each of these choices and these will be covered later on.

Ing – Think of the authoring process as ne creative and technically challenging parting the DVD together. Here the look of the determined, how the various components lisk will be made accessible to the viewer, overall way in which the disk is laid out. the DVD author, must decide the way the tion the disk can be accessed. The ns you make during the authoring process termine the choices available to the viewer hout the viewing experience.



lexing – This is the final stage in the production of the This is where all the elements which make up the DVD ended together in such a way to enable set-top players of the disk. It is similar to rendering video files inside of Cut Pro or burning a CD inside of an application such as Multiplexing is the last phase of producing a DVD prior ribution.



rief overview outlines the essential processes required to make DVDs. Not oned is the phase beyond authoring and multiplexing which is taking the to a plant for mass replication. However, this process takes place outside

DVD Studio Pro once all the hard work of producing the DVD has taken place. Your job as the DVD author is get all the elements which make up the DVD working in a way which is simple, accessible and interesting for the intended audience. Beyond this you need to make the DVD look good – in other words, it needs to be visually appealing. There are many tools and work methods available within DVD Studio Pro to help you achieve this.

System Setup

Loading the software for DVD Studio Pro is easy to achieve and is virtually as simple as putting the supplied DVD into the DVD drive of your Mac and following the on-screen instructions. Once the software has been installed you will need to enter the serial number before you can use it.

A total of four applications are installed onto your computer:

DVD Studio Pro - for authoring DVDs.



A.Pack – used to compress audio files to AC-3 which is a compressed audio format which yields high quality files while using up very little space on the DVD.



QuickTime MPEG Encoder – this is the engine which enables you to convert your files into a form which can be read by a DVD Player.



Compressor – used for batch encoding files to MPG-2 which is the file format required for DVD production.



It is useful to locate the applications, once installed, and to place them onto the dock for convenient easy access.

DVD Studio Pro is the most important of these applications. If you wish you can comfortably ignore the others until you are experienced with DVD Studio Pro itself.

You will need a minimum of a G4 733 Mac with 256 megabytes (MB) of RAM. It is recommended you have 20 gigabytes (GB) of hard-drive space free to install the software and store the files created during the authoring process. In reality, you

will need more hard-drive space than this, particularly when considering that DVD Studio Pro will most likely share your computer with Final Cut Pro which, as of version 4, is made up of five separate applications. These being: Final Cut Pro, Soundtrack, LiveType, Compressor, and Cinema tools.

At the time of writing, the most basic G4 configuration available is a G4 eMac with a 40-GB hard drive. I would suggest this would be the absolute minimum hard-drive space one should have available to effectively work with DVD Studio Pro in combination with Final Cut Pro.

It is also desirable to have more than one hard drive available. This could be in the form of an internal drive inside your Mac and an external Firewire drive. Some experts recommend that DVD Studio Pro works the best when the source files are run separate to the drive which is the home to DVD Studio Pro itself. If you only have one hard drive available then by all means work with this. Just be aware that your system may not work as efficiently as it would if two or more hard drives are available.

Other factors which will affect performance include whether your Mac is a G4 or G5 – obviously a G5 machine is better; whether you are working with a single or dual processor machine; and the amount of installed RAM.

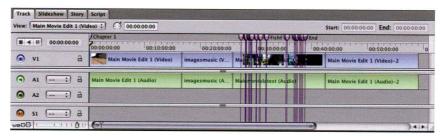
The same rule which applies to hard disk space also applies to RAM – the more the better....

Final Cut Pro and DVD Studio Pro

Final Cut Pro and DVD Studio Pro have been designed to work together. This is obvious from the look of various parts of each of the programs.



Final Cut Pro Timeline



DVD Studio Pro Track Editor

Aside from the similarities with the interface the two programs compliment each other. Final Cut Pro is designed as an editing application and is well suited to producing and exporting the content which will be used inside of DVD Studio Pro. Furthermore, there is a certain level of compatibility between the two programs which has been deliberately inbuilt to make your life easier. Without jumping too far ahead, it is sufficient to say that Final Cut Pro, or even Final Cut Express, both provide ideal companion programs to assist you in producing the content needed to work with DVD Studio Pro. While it is possible to use other editing applications in combination with DVD Studio Pro, Final Cut Pro and Express are both proven and recommended.

Throughout this book I will regularly refer to Final Cut and how it can be used in combination with DVD Studio Pro

Anatomy of a DVD

In basic terms a DVD is made up of two major components: a menu and a track. Other components which make up a DVD menu include buttons (which link to tracks or other content) a title and background image.

A track is your video that plays and a menu is a screen that lets you choose things.

Therefore, in the example titled Mountain Rescue, one can choose from two buttons. These, along with the background image and title, make up the menu.

A menu is essentially an area where you choose what you will view. Think of it like going into a restaurant and using the menu to choose your food; the difference being with a DVD you choose what you will watch. It is as simple as that!



All the components you see make up the DVD menu

Each and every menu will have a background image and at least one button. The background can be a still image or moving video. A background image which does not move is referred to as a **Still menu** while one made up of moving video is a **Motion menu**.

Buttons, as the term suggests, are areas which when pressed will activate a particular function. The "function" is determined by you – the DVD Author. Pressing a button, for example, could result in a track being played; alternatively it could link to a series of stills. A button may link from one menu to another, or perhaps take you to a clip which in turn will link to another clip.

Describing the potential of a DVD is a bit like trying to describe an emotion to a statue or colors to a blind man. The only way to get a clear understanding of these functions is to get a DVD, put it into a DVD player, and explore. You will quickly come to understand the potential and power of this medium once you have looked at several DVDs.

When creating DVDs the potential is limited by your creativity, your technical ability, and the content you have to work with. It should be clear that DVDs give you, the author, the means to present video, audio, and graphics in a flexible and creative way. How you achieve this is dependent on your ability to master the tools which DVD Studio provides you with.

As a DVD author, you will work with content made up of video, audio, graphics, and subtitles. These are referred to as **Assets**. Assets are the components you use to build the DVD.

The assets can be put together in various ways. You can independently access video and audio, thus you could, for example, instruct the DVD to play specific audio to the video clip which make up the menu background.

Stills can be ordered together in the form of Slideshows, with or without audio.

Subtitles can be added, optionally, at the flick of a switch on the remote control should the viewer wish to access these.

Tracks can be made to loop, thus creating a self-running DVD which will play indefinitely.

Chapter Markers can be added to tracks which effectively creates predefined markers which the viewer can jump between; very similar to jumping between chapters in a book or skipping from track to track on a record or CD.

A **Title Bar** will most often be added to each of the menus which make up the DVD; thus defining what it is the viewer is looking at before they have even touched the remote control.

Video can be added to shapes in the form of **Drop Zones** to sections within the DVD menu. This will add dimension to what would otherwise be a bland section of moving video or a still image. Just as television news and sport programs are jazzed up with fancy graphics you too can enhance your DVD with the visual techniques offered by Backgrounds, Buttons, Title Bars, and Drop Zones.

Transitions can be used when going from one menu to another, to link between a button connecting to a track, Slideshow, or another menu, or to transition from the first menu of the DVD into the main movie, for example.

Don't feel "on the outside", if these terms confuse you at this stage. If you are new to DVD authoring it will take a while to come to grips with the potential which this medium offers. You are fighting a battle on two fronts. First, you need to understand terminology which is new and unfamiliar; and you also need to understand concepts which you have likely never come across before.