# **FLASH-DVD User's Guide**

Version 1.04 2/7/01 CID

CD-P/N: CDX33000



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### **Chapter 1: Introduction**

The Zapex FLASH-DVD Kit uses some parts found in the Gemini DVD Pro System, but only consists of a FLASH-DVD software program, a Zapex ZP-230/330 encoder PCI board and support software, and a DVD play back video card This product is a one-button operation system that can convert various video/audio sources to a DVD data format that can be written to a DVD disc.

**Chapter 2. System Installation** 

# Chapter 3: Setting Up the FLASH DVD System

3.1 Starting the Flash DVD Program.

Once the system installation has been completed power up the PC and double click on the Flash DVD icon to start the Flash DVD program. The warning dialog box and Flash DVD Welcome window shown in Figure 3.0 will appear. If I Agree is selected in Figure 3.0 then the window in Figure 3.1 will appear.

Figure 3.0







#### 3.2 Starting A New Project

The window shown in Figure 3.1 presents the option of starting a new project or producing a copy of a previous one. Make a choice and select Next to go to display Figure 3.2. Select New Recording Session.

#### 3.3 Selecting a DVD Region Code.

The window shown in Figure 3.2 provides the option of selecting a DVD region code for the DVD-R disc. Up to 6 different region codes can be specified or an ALL selection can be made to cover all regions. Select a region code and then click on next to display the window show in Figure 3.3.





#### 3.4 Defining a New Directory.

The window shown in Figure 3.3 allows you to specify a directory on the hard drive to store your DVD files. Each directory that you create will require at least 8GB. If there is not 8GB of space left, a warning message will appear. After a directory has been specified click next to move to the next window shown in Figure 3.4.

Note: The default directory D:\User\VIDEO\_TS\ is a working directory and the files in this directory will be erased at the start of each new project. If you want to keep the project files for future use such as making copies the select another directory such as job1.

Figure 3.3



#### 3.5 Initializing the Encoder

The window shown in Figure 3.4 shows that the system is being initialized and it will take about 30 seconds for this process to be completed. When the initialization process is completed, the window shown in Figure 3.5 will appear.

Figure 3.4



3.6 Setting Encoding Parameters.

Select the Options header in Figure 3.5 and the window shown in Figure 3.6 will be displayed. This window offers two choices:

- --Properties
- --Information

Select and click on the Properties tab to display the window shown in Figure 3.7. There are two choices:

- --Encoder Parameter
- --DVD Parameter

Select and click on the Encoder Parameter tab to display the window shown in Figure 3.7.

Figure 3.5

F	Flash-DVD 1.04 ile Options Help				×
	Process	Status			
	Real time encoding				New job
	Create DVD IFO file	S:			
	Create DVD Image	file:			
	Write DVD disc:				Stop
Γ	Work status				
	Encoder has been initial	ized			
	Progress bar				
			Disk D	: Free Spa	ce: 16084 MB
	Total burned discs: 0		Total ir	mage files:	0
E	ncoding time: 02:00:00	Audio mode: AC-3	Bit rate:	4.3 MPBS	Disc size: 4.7GB

Figure 3.6



Figure 3.7

🗯 Properties		×
Encoder Para	meter 📜	DVD Parameter
-Video Video Setting: Resolution:	• NTSC 720 x 480	O PAL
Bit Rate:	4.3 MPBS	
Audio		
Format:	C PCM	Dolby Digital
Encoder Board Tyr		coding Time 02 - 00 - 00 - 00 - 100
	OK	Cancel

3.6.1 Video and Audio Settings.

Select NTSC setting and PCM or Dolby Digital Audio settings in Figure 3.7.

3.6.2 Project Encoding Time.

Set an Encoding Time equal to the run time of your source data and select OK to return to the main window shown in Figure 3.5.

Note: In order to ensure optimum quality the encoding time must be set for each new project. Two hours is the maximum run time for a 4.7GB disc and a warning message is given if you exceed the disc capacity.

3.7 Setting the DVD-R Recording Parameters.

Select and click on the Options tab in the main window shown in Figure 3.5, then the Properties tab and finally the DVD Parameter tab shown in to display the window shown in Figure 3.8.

Figure 3.8

🟂 Properties	×		
Encoder Parameter	DVD Parameter		
Region Code: ALL	Add Logo Logo		
Play Mode: 💽 Sir	igle play C Loop		
DVD-R Media: 🔿 3.9	IGB 💿 4.7GB		
Disc copies: 1	♥ Preview before writing st ■ Write ♥ Verify		
	OK Cancel		

#### 3.7.1 Logo Header Option.

The option of having a Logo Header is enabled by checking the Add Logo box in Figure 3.8. There can be up to 10 canned logos. To select the logo you want click on the Logo tab in Figure 3.8 to display the window shown in Figure 3.9.

A new logo can be added by clicking on the Add Logo File tab in Figure 3.9 to open the window shown in Figure 3.10. Insert the CD with the new logo and open the Flash-DVD folder to show Figure 3.11. Open the Logo Files folder in Figure 3.11 and open the Logo sample you want in Figure 3.12. Select the Vts\_01\_vob file click on open and the logo is automatically loaded and ready for use.

Figure 3.9



Figure 3.10

Select your	Logo file !				? ×
Look jn:	🙆 (E:)	•	£	۲	8-8- 5-5- 8-6-
Flash-DVD	1.03				
File <u>n</u> ame:	[				<u>O</u> pen
Files of <u>t</u> ype:	Logo file File (VTS_01_0.VOB)		•		Cancel
	C Open as <u>r</u> ead-only				

Figure 3.11

Select your	Logo file !
Look jn:	🔁 Flash-DVD1.03 💽 🖻 🖮 🏢
Logo_files	
Support	
File <u>n</u> ame:	<u>O</u> pen
Files of <u>type</u> :	Logo file File (VTS_01_0.VOB) Cancel
	Open as read-only

Figure 3.12

Select your	Logo file !				? ×
Look jn:	🔄 Logo_files	•	£	۲	8-8- 8-8- 8-8-
Sample1					
Sample3					
File <u>n</u> ame:					<u>O</u> pen
Files of type:	Logo file File (VTS_01_0.VOB)		-		Cancel
	Open as read-only				

Figure 3.13

Select your	Logo file !				? ×
Look jn:	🔄 Sample1	•	<b>E</b>	<u>e</u> ř:	8-8- 8-8- 8-8- 8-8-
Vts_01_0.	vob				
File <u>n</u> ame:	Vts_01_0.vob				<u>O</u> pen
Files of <u>type</u> :	Logo file File (VTS_01_0.V0B)		•		Cancel
	C Open as read-only				

#### 3.7.2 Region Code.

Set the DVD-R region code. There can be up to 6 region codes or select All to cover all regions.

3.7.3 Play Mode. Set the Play Mode to either Single play or Loop.

3.7.4 DVD-R Capacity.

Set the capacity of the DVD-R media to either 3.9GB or 4.7GB.

#### Note: Check the DVD-R label to get the correct capacity number.

3.7.5 Selecting DVD-R Recording Mode.

The modes of operation that can be selected are shown in Figure 3.8 and discussed below.

• Preview Before Writing:

This mode allows you to preview your job before committing to writing it to a DVD-R.

• Write

If this mode is selected the DVD-R disc will be written automatically with no interruption for preview.

• Test

This mode will allow you to test the image file, DVD-R writer, and cable connections. During the Test process all steps are completed except the actual writing of the DVD-R.

• Verify

This mode will check the accuracy of the written DVD-R. This process will occur immediately and automatically after the DVD disc is written.

3.7.6 Selecting Number of Copies.

The number of multiple copies can be selected at the beginning of the project by entering the copy count in Figure 3.8. The number of copies can also be selected after the Image File is created using the Copy mode discussed in section 4.7.

# Note: The total number of DVD-R discs burned and number of Image Files created are displayed on the main window as shown in Figure 3.5.

When all the DVD-R recording parameters have been set select OK to display the main menu shown in Figure 3.5.

# Chapter 4: Writing a DVD-R Disc.

4.1 Starting the Encoding Process.

Once the parameters have been set for a new job the process is started by clicking the New Job button shown on the main window shown in Figure 3.5. After the New Job button has been selected a window will appear to alert the operator to check settings for critical Encoding and DVD parameters. The New Job button will change to a yellow Start button as shown in Figure 4.1 when the system is ready. To start the encoding process select the yellow start button and encoding will start as shown in Figure 4.2.

Flash-DVD 1.04			×
File Options Help			
Process	Status		
Real time encoding:	Stand by		Start
Create DVD IFO files:			
Create DVD Image file:			
Write DVD disc:			Stop
Work status			
The State of ZP-controller: Sta	nd by		
Progress bar			
		Disk D: Free Spac	ce: 18197 MB
Total burned discs: 0		Total image files:	0
Encoding time: 02:00:00 Audio	o mode: AC-3	Bit rate: 4.3 MPBS	Disc size: 4.7GB

Figure 4.1

4.2 Stopping the Encoding Process.

The real time encoding process can be stopped at any time by selecting the stop button shown in Figure 4.2. Once the encoding process is stopped the image file will be generated for the encoded data.

Figure 4.2

Flash-DVD 1.04			×
Process	Status		
Real time encoding:	Processin	ig	Start
Create DVD IFO files:			
Create DVD Image file:			[
Write DVD disc:			Stop
Work status			
Real time encoding			
Progress bar			
Elapsed Time: 00:00:03		Disk D: Free Sp	ace: 18195 MB
Total burned discs: 0		Total image files	: 2
Encoding time: 02:00:00 Audio	) mode: AC-3	Bit rate: 4.3 MPB	S Disc size: 4.7GB

4.3 Creating the DVD IFO File.

Once the encoding process has been completed or stopped a Video Object Block (VOB) file is created and stored in the work directory located on the hard drive. The next step in the process is creating an IFO file. This process will start automatically as shown in Figure 4.3 and the Stop button will be inactive during this process. **Generation of the IFO file cannot be stopped**.

Figure 4.3

Process Real time encoding:	Status Finished	Start
Create DVD IFO files:	Processing	<u></u>
Create DVD Image file:		
Write DVD disc:		Stop
Work status		
Work status Creating DVD IFO files		
Creating DVD IFO files		
Work status Creating DVD IFO files Progress bar File Name: DVD_pro.vob 3482	3203 Disk D: Free	Space: 18162 MB

#### 4.4 Creating the DVD Image (UDF) File.

Once the IFO file is created the process to generate the Image File starts automatically. During this process the Stop button is active (see Figure 4.4) and the process can be stopped at any time. **The unfinished Image File cannot be written to a DVD-R disc.** 

4.5 Previewing the DVD Image File.

If the at the beginning of the project the Preview Only mode was selected (Section 3.7.4), the process will stop here and the Start button will change to a Record button as shown in Figure 4.5. The procedure for previewing the image file is given in Chapter 5.

F	Figure 4.4	-	
🚰 Flash-DVD 1.04			×
File Options Help			
Process	Status		1
Real time encoding:	Finished		Start
Create DVD IFO files:	Finished	1	
Create DVD Image file:	Processi	ng	
Write DVD disc:			Stop
Work status			
Creating DVD image file			
Progress bar			
Time remaining: 1 Min		Disk D: Free Space	: 18179 MB
Total burned discs: 0		Total image files: 4	
Encoding time: 02:00:00 Audio	mode: AC-3	Bit rate: 4.3 MPBS	Disc size: 4.7GB

Figure 4.5



#### 4.6 Writing the DVD-R.

4.6.1 Writing the Image File After Preview. If the Preview Only mode has been selected, the image can be previewed and either stored on the hard drive or written immediately on a DVD-R after the preview by selecting the Record shown in Figure 4.5. Once the Record button is selected a blue writing button will appear to indicate the writing process is underway. This is illustrated in Figure 4.6.

<b>Flash-DVD 1.04</b> File Options Help			×
Process Real time encoding: Create DVD IFO files: Create DVD Image file: Write DVD disc:	Status Finished Finished Finished Processi		Writing Stop
Work status Writing Progress bar			
		Disk D: Free Space	e: 18170 MB
Total burned discs: 0		Total image files: 7	
Encoding time: 02:00:00 Audio	mode: AC-3	Bit rate: 4.3 MPBS	Disc size: 4.7GB

Figure 4.6

4.6.2 Writing the Image File Without Preview.

If the Write mode was selected at the beginning of the project the Image file will automatically be written to the DVD-R. In this mode the process from encoding to writing the disc is one continuous process. When the DVD-R writing process is completed, the window shown in Figure 4.7 will be displayed.

Figure 4.7

Flash-DVD 1.04 File Options Help			×
Process	Status		
Real time encoding:	Finished		Writing
Create DVD IFO files:	Finished		
Create DVD Image file:	Finished		(
Write DVD disc:	Finished		Stop
Work status DVD-R disc has been written su	ccessfully! an	d DVD-R drive is runn	ing, Please wait
Progress bar			
1		Disk D: Free Space	e: 18170 MB
Total burned discs: 1		Total image files: 7	
Encoding time: 02:00:00 Audio	mode: AC-3	Bit rate: 4.3 MPBS	Disc size: 4.7GB

# 4.7 Making Copies of the Image File.

The copy option allows the user to choose the ability to make multiple copies of a completed project without spending time creating the VOB, IFO, and Image files. Copies can be made anytime.

4.7.1 Selecting Number of Copies

Click on the Copy tab shown in Figure 4.8 to display the window shown in Figure 4.9 and enter the number of copies.

4.7.2 Enter Copy Job File.

After setting the number of copies, enter the job file that you want to copy in Figure 4.9.

Figure 4.8

🗯 Flash-DVD 1.04			×
File Options Help	1		
Work Directory Virtual drive Copy Exit	<b>Status</b> ding:		New job
Create DVD IFC	) files:		
Create DVD Ima	age file:		
Write DVD disc	:		Stop
Work status			
Encoder has been	initialized		
Progress bar			
		Disk D: Free Spac	e: 18183 MB
Total burned discs	: 1	Total image files: 7	7
Encoding time: 02:00:	00 Audio mode: AC-3	Bit rate: 4.3 MPBS	Disc size: 4.7GB

Figure 4.9

🚰 Copy DVD image file	×
Disc copies: 1	
- DVD Image information:	
File name: DVD_pro.dvi	Browse
File path: D:\user\VIDE0_TS	
File size: 32 MB	
	OK Cancel

4.7.3 Writing Multiple Copies.

Once the number of copies and file to be copied are set in Figure 4.9 click OK and the main window shown in Figure 4.10 will appear. Select the Copy button to start writing the DVD-R. The writing process will be indicated as shown in Figure 4.11.

Figure 4.10

<b>Z Flash-DVD 1.04</b> File Options Help			×
Process	Status		[]
Real time encoding	j:		Сору
Create DVD IFO file	98:		
Create DVD Image	file:		1
Write DVD disc:			Stop
Work status			
Encoder has been initia	lized		
Progress bar			
		Disk D: Free Space	e: 18183 MB
Total burned discs: 1		Total image files: 7	
Encoding time: 02:00:00	Audio mode: AC-3	Bit rate: 4.3 MPBS	Disc size: 4.7GB

Figure 4.11

Ź	Flash-DVD 1.04			×
F	ile Options Help			
[	Process	Status	(	·····
	Real time encoding:			Сору
	Create DVD IFO file:			
	Create DVD Image f	ile:		
	Write DVD disc:			Stop
Г	Work status			
	Encoder has been initialia	zed		
	Progress bar			
			Disk D: Free Space	: 18183 MB
	Total burned discs: 1		Total image files: 7	
E	nooding time: 02:00:00	Audio mode: AC-3	Bit rate: 4.3 MPBS	Disc size: 4.7GB

# **Chapter 5: Preview of Image File.**

A preview of the image before it is written to a DVD-R disc can be viewed on the PC monitor using a Hollywood Plus decoder card and REALmagic software.

5.1 Starting the REALmagic Playback Program.

To start the playback process click on the DVD Station icon located on the PC desktop and the window shown in Figure 5.1 will be displayed.



Figure 5.1

5.2 Playback of Image Written on the DVD-R disc.

The next step is to click on the Options Dialog folder icon just to the right of the clock. This will open up the window shown in Figure 5.2. Select the Virtual Drive that was specified in Section 6.3 from the Play List shown in Figure 5.2 and click OK to start the playback process.



Figure 5.2

# **Chapter 6: File Management**

6.1 File List.

Select the File tab in the main Flash DVD window to pull down four items: Work Directory, Virtual Drive, Copy, and Exit. as shown in Figure 6.1



Figure 6.1

#### 6.2 Work Directory

The Work Directory is where all project files are stored. These are the VOB (.vob), DVD IFO (.ifo), and DVD Image (.dvi) files. The default work directory is \User\VIDEO\_TS. Note: The files stored in this directory are temporary and are erased when a new project is started.

The project files can be saved if the Work Directory is changed to a directory different than the default directory. This can be done by clicking the Work Directory tab shown in Figure 6.1 to display the window in Figure 6.2 A new work directory can be selected or created here. Note: The window shown in Figure 6.2 can also be opened by selecting the Change Directory button in Figure 3.3.

Change Directory	
Enter or select a destination directory	
d:\user\VIDEO_TS	
land t∖	ок
Series Se	
	Cancel
🖃 d:	

Figure 6.2

#### 6.3 The Virtual Drive

Select the Virtual Drive tab shown in Figure 6.1 to open the Virtual Drive window shown in Figure 6.3. Define a virtual drive using a letter that is not included in the first line of the window. Defining a virtual drive is required in order to playback the finished project on a video monitor. Playback is discussed in chapter 5. Note the virtual drive can be defined after a new project has been completed or it can be defined for an old project at anytime.

6.4 Exit Flash DVD Program.

Click on the Exit tab shown in Figure 6.1 to quit the Flash DVD application.

Figure 6.3

A, C, E, F, G, H, J, W, Z, Automatically define destination drive Default drive: K Apping Directory: W:\DVD_pro_test11111\Flash-DVD4.10\User\VIDE0_T Brows	here are drives in t	your system as follow:		
fapping Directory:         W:\DVD_pro_test11111\Flash-DVD4.10\User\VIDE0_T				
W:\DVD_pro_test11111\Flash-DVD4.10\User\VIDEO_T Brows	<ul> <li>Automatically</li> </ul>	v define destination drive	e Default dri	ve: K
Entry drive letter: Define Remo	Mapping Directory:			
		1111\Flash-DVD4.10\	User\VIDEO_T	Brows
Exit	W:\DVD_pro_test1	1111\Flash-DVD4.10\		Brows Remov

6.5 Information on VOB File.

Select the information tab shown in Figure 6.4 to open the window shown in Figure 6.5 which gives specific information about the VOB file.



🚰 Flash-DVD 1.04			×
File Options Help			
Properties Information	Status	r	()
Real time encoding:			New job
Create DVD IFO files:			
Create DVD Image file:			1
Write DVD disc:			Stop
Work status			
Encoder has been initialized			
Progress bar			
		Disk D: Free Space	» 18183 MB
Total burned discs: 1		Total image files: 7	
Encoding time: 02:00:00 Audio n	node: AC-3	Bit rate: 4.3 MPBS	Disc size: 4.7GB

6.6 Help and About Window.

6.6.1 Help Topics

The help topics that are available can be displayed by clicking the Help tab in the main menu. These topics are shown in Figure 6.6.

OB File Information:	
TV system:	NTSC
Resolution:	720 x 480
Aspect ratio:	4:3
Frame rate:	29.97
Chroma:	4:2:0
Audio Coding Mode:	Linear PCM

Figure 6.5

#### 6.6.2 About Flash DVD

The information on the Flash DVD program can be found by clicking on the About tab to display the window shown in Figure 6.7.

# Figure 6.6

Help Topics: IFO_Creator	? X
Contents Index Find	
1 1	Ĩ
Click a book, and then click Open. Or click another tab, such as Index.	
Number of the second se	_
Setting Started	
Create IFO Files	
Create Virtual Drive	
Create DVD Image File	
VOB Files Information	
	ancel

Figure 6.7

