

SONIC SOLUTIONS

# OneClick DVD™

User Guide

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OneClick DVD User Guide - Sonic Part Number 800139 (A)

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Written and designed at Sonic Solutions, 101 Rowland Way, Novato, CA. 94945, USA

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## 2 Creating a DVD Audio Disc Image



# Welcome to OneClick DVD

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Welcome to OneClick DVD™ from Sonic Solutions! OneClick DVD is an application that creates simple DVD-Audio disc images from SonicStudio™ Version 5.4 EDLs (Edit Decision Lists) and SonicStudio HD Projects.

The Developmental Version of OneClick DVD extracts PQ and ISRC information from SonicStudio EDLs to create the necessary PCM elementary streams and a basic authoring script which are used to build a basic DVD

Audio disc image. OneClick DVD-Audio image files are compliant with current DVD Audio test discs resulting from the preliminary DVD-Audio specification. While the full DVD-Audio specification is pending completion by the WG4, the disc images resulting from the use of this Developmental Version of OneClick are suitable for purposes of evaluating the process of High Density Audio preparation and early DVD Audio player design. The disc images may be written to DVD R media recorders such as the Pioneer DVDS-101..

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## Audience

This brief preliminary manual is intended for use by disc mastering professionals who use SonicStudio 5.4 as their production tool for creating DVD Audio discs.

You should be familiar with basic computer terms, such as click, drag, highlight, etc. We also assume that you understand the basics of how to maneuver through the Macintosh interface. If not, please review the tutorials provided by Apple.

## Related User Documentation

Please refer to the following documentation for further information:

- SonicStudio Tutorial
- SonicStudio Reference Guide

## How to Reach Technical Support

OneClick DVD includes 90 days of technical support. Additional support requires current SonicCare status. If you do not have a current SonicCare account and would like to continue to professional-level support for your system(s), please contact Sonic Solutions at 415 893 7000.

Sonic Solutions' Customer Support center is available from 9:00 AM - 6:00 PM PST via phone, fax, or email:

**Telephone:** 415.893.7000 or 888.SONIC-97 (1.888.766.4297)

**Fax:** 415.893-8008

**Email:** support@desktopdvd.com

Please have the following information before contacting customer support:

- Software version (select the application icon and type COMMAND + I or look on the CD-ROM label)
- Board Serial Numbers — look on the board for the sticker and write the serial numbers below:

Main HDSP: \_\_\_\_\_

A-V Processor: \_\_\_\_\_

## Activating the Sonic Key File

In order to get you up and running with your new Sonic Solutions software as quickly as possible, we have created a new keyfile activation system. To enable your Sonic application, you must first generate a keyfile.

Your keyfile is generated by the Sonic Keyfile Activator application. You can find it in the same folder as your Sonic software. The Activator application requires an activator code that you must download from the Sonic Support web site.

*To get your activator code:*

- 1 Install your Sonic Software.
- 2 Log onto the Sonic Support web page at [www.support.sonic.com](http://www.support.sonic.com).

You should see this page:



Figure 1 Sonic Solutions Product Support Main Page

There are detailed instructions on this page that will help you to remember this procedure in the future. Be sure to bookmark this page for later use.

- 3 Follow the link to the Registration Page.

You should see this page:

The screenshot shows a dialog box titled "Welcome to the Sonic Solutions Registration and Keyfile Activator Retrieval System". The text inside reads: "Please enter your company name and one of your audio board serial numbers in the fields below and click OK. Please be sure not to include any leading zeros." There are two input fields: "Company or System Number:" followed by a long text box, and "Serial Number:" followed by a shorter text box. At the bottom, there are two buttons: "Clear Field" and "OK".

Figure 2 Product Registration Dialog

- 4 Enter your company name (even a portion of your company name will work, but it helps to be precise).
- 5 Enter one of the main board serial numbers for your system. If you have a SonicStudio HD, enter the main HDSP number here. If you have a DVD system, enter the A/V Processor board number. Hit 'OK'.
- 6 You will be provided a long string of numbers and characters which is your key activator code:

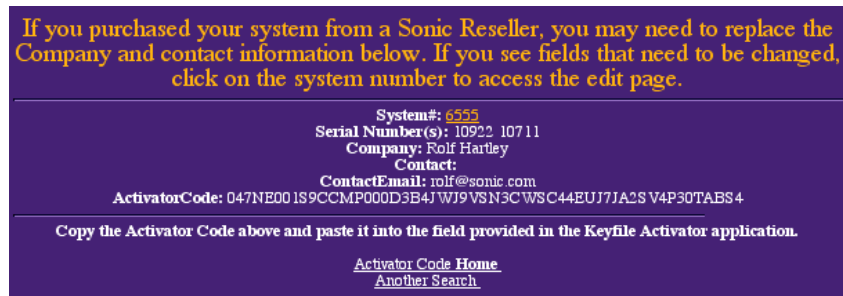


Figure 3 Activator Code Example

### ***Generating Your Keyfile:***

- 1 Open the Sonic Keyfile Activator application (automatically installed in the same folder as your Sonic applications).

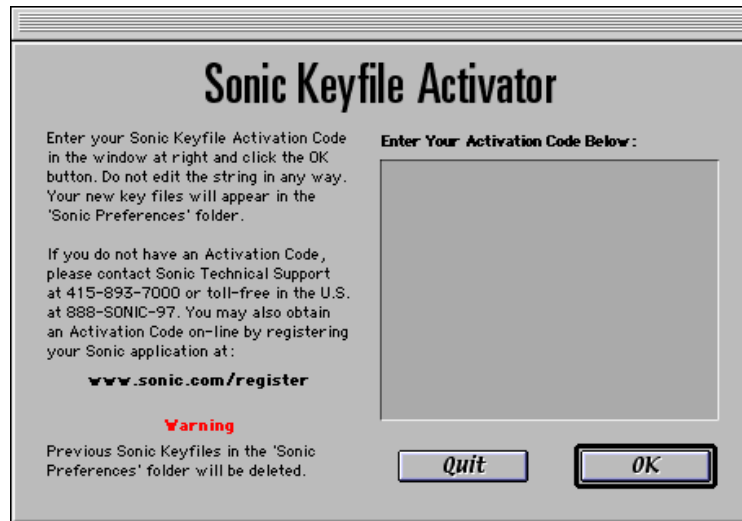


Figure 4 Sonic Keyfile Activator Dialog

- 2 Type the Activator Code into the Sonic Keyfile Activator application.



Tip: Copy and paste the activator code from your web browser window into the keyfile activator application window.

- 3 Click the OK button. Your keyfile(s) will automatically be installed in a Sonic Preferences folder inside your Macintosh System Folder.
- 4 You may now launch your Sonic application.

Please feel free to contact Sonic Solutions Customer Support with any questions regarding this procedure. They can be reached at 415.893.7000. Please be sure to have your SonicCare Number at hand when you call. Thank you for purchasing and using Sonic Solutions products.

# 1

## Introducing OneClick DVD

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This chapter contains these sections:

- Introduction to OneClick DVD
- Preparing the SonicStudio Edit Decision List

## Introduction to OneClick DVD

### What Does OneClick DVD Do?

As a proactive member of Working Group Four (WG4) of the DVD-Forum, Sonic Solutions has been in the forefront of DVD Audio development. We have worked closely with player manufacturers, producing test discs for verifying player operation, and have assisted in development of verification tools for DVD Audio disc quality assurance. Now, Sonic offers customers the opportunity to participate in the development of this exciting new delivery medium with OneClick DVD.

OneClick DVD is a simple, drag-and-drop aware software application for creating developmental DVD Audio disc images. Using Sonic's proven Format Server application for DVD mastering, OneClick DVD reads a SonicStudio EDL (Edit Decision List) and generates a disc image containing a single Group with one Title, one PGC (Program Chain) and one AOB (Audio Object)<sup>1</sup>. Discs burned from OneClick DVD files may be used to test DVD Audio players and begin exploring some of the capabilities of the medium.



Note: It is important to realize that discs created using the current, developmental version of OneClick DVD will not have SAMG (Simple Audio Manager), nor will they contain ISRC or UPC data. For this reason, they are not suitable for commercial release. They should play properly on currently available players, but users must bear in mind that, as of this writing, players and verification tools are still in a developmental state and may not be reliable.

1. For more information on the structure of DVD Audio discs, see *Premastering New Audio Formats*, a Sonic Solutions publication.

## Hardware and Software Requirements

In addition to the OneClick DVD application, you will need the following to produce preliminary DVD Audio disc images:

- SonicStudio version 5.4
- At least one USP card
- At least one Multi-Channel Digital I/O Conversion System interface box
- An Apple PowerMac 9600/266/300 or G3/300/333 with 256 MB RAM
- Mac OS 8.1 or later
- 2 GB or larger hard disk drive
- A 1024x768 resolution monitor

## Preparing the SonicStudio Edit Decision List

OneClick DVD requires a SonicStudio EDL (Edit Decision List) that contains PQ and ISRC information. The EDL designates the number of channels, bit depth, sample rate, and program information for the DVD Audio disc.

Your EDL should conform to the following requirements:

<b>SonicStudio EDL Requirements</b>	
Single Sample Rate	44.1, 48, 88.2 or 96kHz
Single Bit Depth	16, 20 or 24 bit
Number of Panels for Delivery	1, 2, 4, or 6 Destination tracks (designate the number of tracks that will be encoded by OneClick DVD)
Delivery Tracks	All tracks to be encoded must be in Destination tracks
Sync Group	All Destination Tracks must be in Sync Group A
Track ID Marks	At least one Track Start and one Track End Mark placed in the top panel of the EDL
Index Marks	Optional within the audio streams

Figure 1-1 SonicStudio EDLs for OneClick DVD



Note: DVD Audio marks for use in OneClick are the PQ equivalent marks used in SonicStudio for Red Book Preparation. Only the first track start and final track end marks are recognized by OneClick DVD; all other start and end marks within the EDL will be ignored.

## Sample Rate

OneClick DVD supports only one sample rate across the EDL in the preliminary release. EDLs must contain only one sample rate to be correctly encoded by OneClick DVD. Later releases will allow multiple sample rates and bit depths to be used in the encoding process.

The EDL sample rate is used by OneClick to determine the rate of the resulting DVD-Audio disc image. If the EDL contains sound files that have sample rates which differ from the EDL rate, the sound files will be encoded at the rate set by the EDL. The result would be program that would be either too fast or too slow, depending on the difference between the EDL rate and sound file rate.

## Bit Depth

OneClick DVD supports only one bit depth across the EDL in the preliminary release. Later releases will accommodate multiple bit depths.

OneClick DVD measures the first sound file's bit depth and then sets the program bit depth for the DVD Audio disc image to that value. If there are sound files with different bit depths in the EDL, their bit depths will be truncated (if necessary) to match the program bit depth.

## Number of Panels / Channel Assignment

The number of Destination panels in the EDL sets the type of program and channel assignment that will be encoded by OneClick. OneClick will automatically assign output channels for the EDL based upon the table on the following page.

Channel Assignments						
Channel \ Panels	1	2	3	4	5	6
	*					
Left	x					
Right	x	x				
Left Surround			x			
Right Surround				x		
Center					x	
Sub-woofer						x

- If one panel is used for mono encoding, the resulting sound will play out the left and right channels equally.

Figure 1-2 OneClick DVD Channel Assignments

## Down-mix Coefficients

OneClick will assign a set of default down-mix coefficients to a multi-channel EDL. These values are used to mix the multi-channel signal source into a stereo signal source as supported by the DVD Audio specifications. The default coefficients are shown in the following table:

Channel	Value in db
Left	-3
Right	-3
Left Surround	-9
Right Surround	-9
Center	-15

Figure 1-3 Default Down-mix Coefficients



## 2

## Creating a DVD Audio Disc Image

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To create a preliminary DVD Audio disc image from a SonicStudio Edit Decision List, follow these steps:

- 1 Drag the saved EDL onto the OneClick DVD application icon, or Open the EDL from the File Menu in OneClick DVD. If you drag the EDL onto the OneClick icon, OneClick DVD automatically launches and opens the EDL.
- 2 OneClick DVD will display a standard Macintosh 'Save' dialog. Designate a location for the OneClick DVD file structure (must be a Sonic LightSpeed Volume). OneClick DVD will create a Project folder with the name of the EDL as the title. In the folder will be three items (see Figure 2-1 on the next page):
  - a ".as" file (project name.as)
  - a Sources Folder which will contain the DVD-compliant PCM streams
  - a Builds folder, where the DVD image will be created
- 3 Once OneClick DVD has created the file structure, it launches the encode job. You will see a progress bar indicating the amount of time remaining to finish creating the elementary PCM streams and the authoring script.

- 4 When OneClick has finished creating the elementary streams and audio authoring script (audio "project name.as" file), Format Server launches automatically. Once it is running, Format Server chooses the audio ".as" script as the source, and the "Builds" folder as the destination. The image can be written to DVD-R, or to a DLT tape in DDP format for sending to a replication plant.

Note: You will need three times the amount of disc space required by the source files for OneClick to create the final image. If your SonicStudio 5.4 or HD EDL is 2GB, you will need at least 6GB of free space on the Lightspeed volume to complete the image.

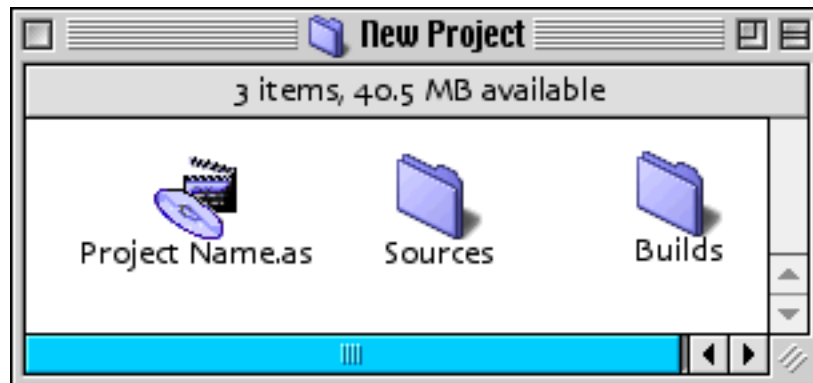


Figure 2-1 OneClick Folder Hierarchy