



BLU-RAY MADE EASY

FROM AVID MEDIA COMPOSER TO AVID DVD BY SONIC®

The following answer covers:

- How to export from an Avid® HD project (in Media Composer®)
- How to use Sorenson Squeeze for creating Blu-ray™ files
- How to burn to Blu-ray using Avid DVD

To burn a Blu-ray DVD you must have the following:

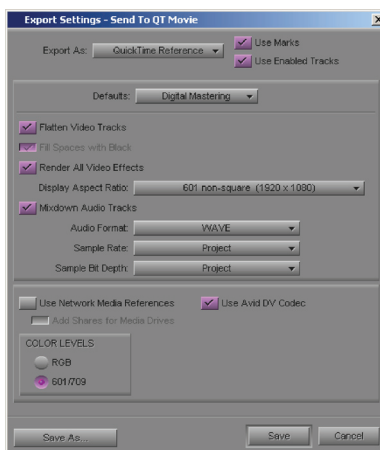
- Avid Xpress® Pro 5.6.x / Avid Media Composer 2.6.x or higher
- Avid DVD 5.6 or higher
- [optional] Sorenson Squeeze 4.3 or higher
- A Blu-ray burner (internal or external will work)

Make sure you are using compatible versions of the Avid editing system with Avid DVD (e.g. for Avid Xpress Pro 5.7.x use Avid DVD 5.7 / for Media Composer 2.6.x use Avid DVD 5.6)

If your playback device is a Playstation 3, first follow the instructions at this [link](#)

HOW TO EXPORT FROM AN AVID HD PROJECT (IN MEDIA COMPOSER)

1. Highlight your HD Sequence > right click it > choose Export As
2. In the new pop-up window, click Options (found in the lower right corner)
3. Export Settings appears. Click Export As > Choose QuickTime Reference> select the following options:



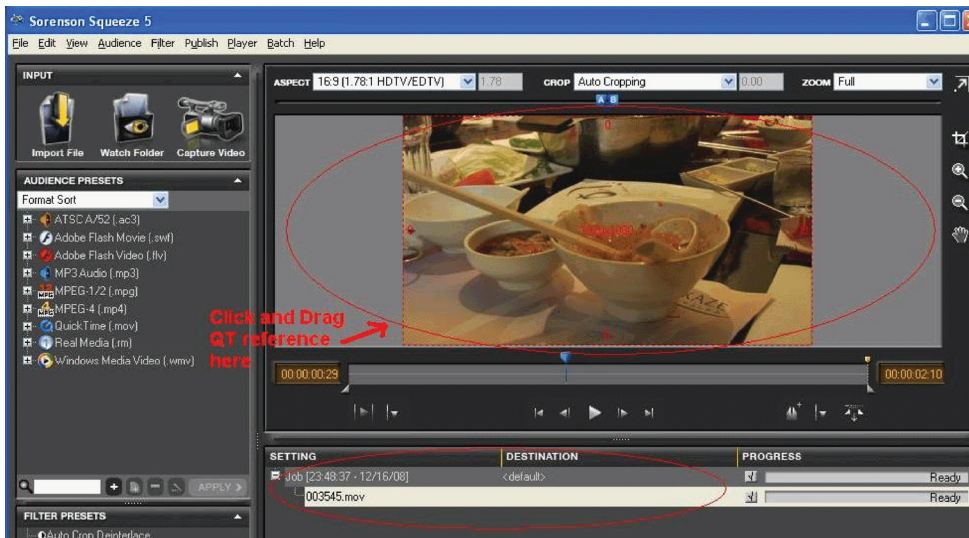
See page 7 for QuickTime Export details

Blu-ray Made Easy

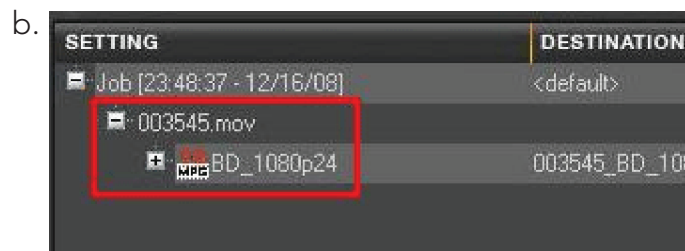
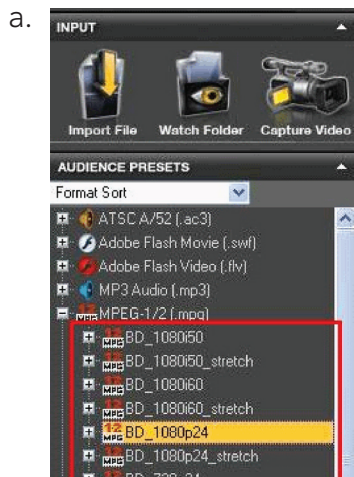
4. Hit Save > Save to your desired location
5. When export is complete, your QT reference should contain
 - a QuickTime icon (.mov)
 - an Audio file (.wav)
6. Double click the QuickTime to confirm video & audio playback.
 - * The QT player may fill the entire screen (due to its high resolution). Hold CTRL + 0 (zero) and your QT viewer will fit the screen, for playback.
7. Next, open Sorenson Squeeze
 - * If you are satisfied with the QT reference, proceed to step 13. Sorenson Squeeze is not required for Blu-ray burning, but advantageous for refining MPEG-2 compression (e.g. remove interlacing, using quality codecs not accessible in other compressors). Sorenson Squeeze allows more options (such as VBR or CBR data rates) over compression quality, which is lacked when dragging the QuickTime reference straight into Avid DVD.

HOW TO USE SORENSON SQUEEZE FOR CREATING BLU-RAY FILES

8. Click & drag the QT reference icon into Sorenson's viewer window > both video/audio should appear. A "JOB" window at the bottom will appear, with your QT reference file.



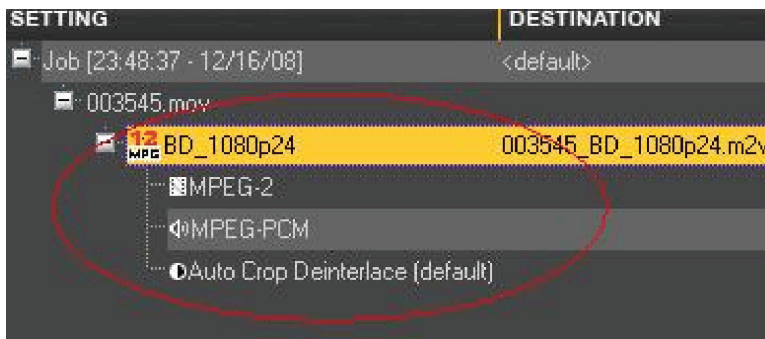
9. From the Format/Compression Settings (on left) > expand MPEG-1/2 > click & drag any Blu-ray preset (anything with BD) to the movie, under JOB. Click and drag any Blu-ray preset (anything with BD - see a.) to the movie, under JOB (see b.)
 - * "HD 1080 D Theater" can also be used (also located in MPEG-1/2).



See page 8 for BD Preset details

Blu-ray Made Easy

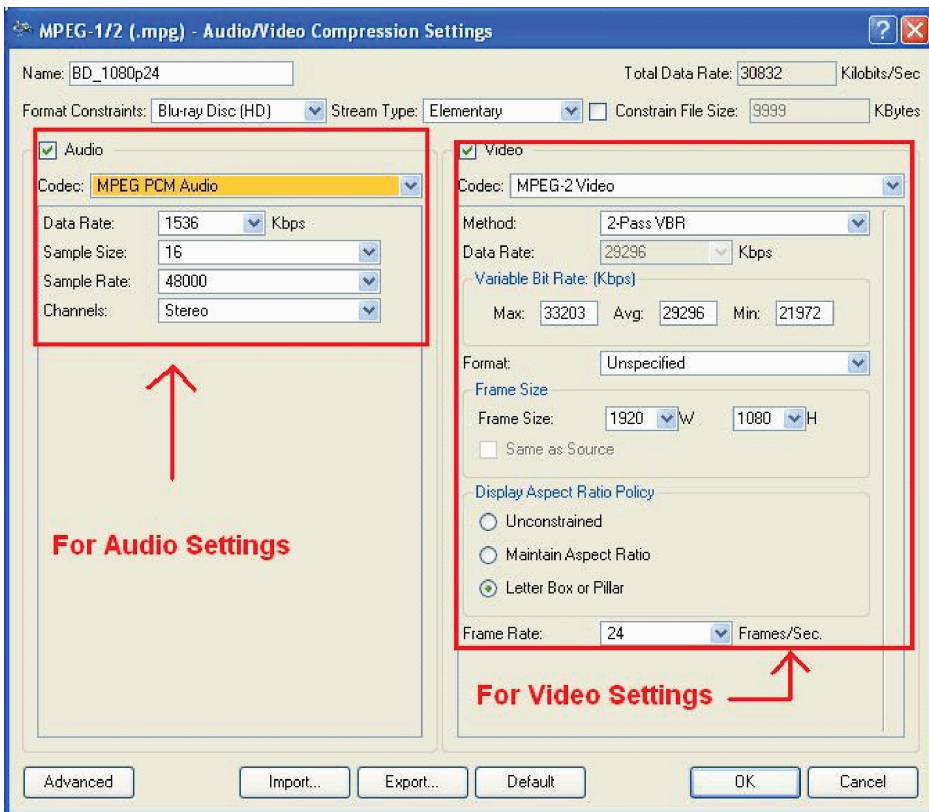
10. To change the BD settings, click the + sign next to BD preset > double-click any of the MPEG icons



See page 9 for MPEG Compression details

The MPEG-1/2 window will appear (picture below) > change these settings, to suit your needs (the bottom picture is one example, read Sorenson Squeeze Help for more info) > hit OK when finished

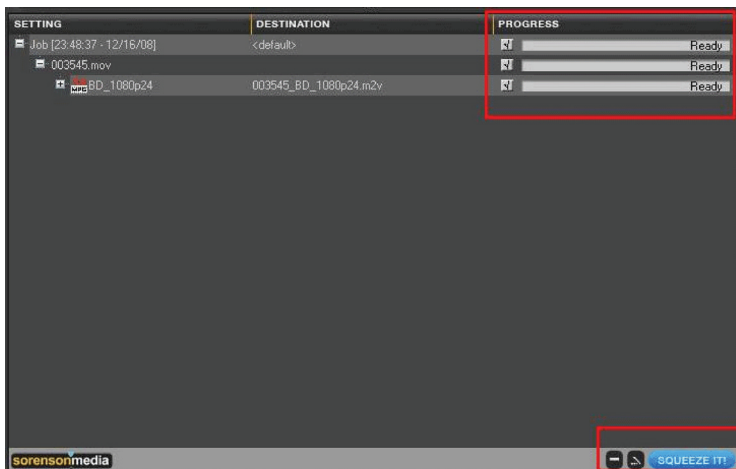
*For the Audio Codec settings, make sure MPEG PCM Audio is selected. This will generate a .wav file, which is compatible with Avid DVD. Changing this may produce other audio formats (such as .m2a), that will not import into Avid DVD.



11. To choose export destination, right click the QT movie (under JOB) > select Modify Output Directory > choose your folder > click OK

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12. Click Squeeze IT! (bottom-right corner) to export. Depending on movie length, this may take some hours.



When finished, visit your Output folder, and the following should be generated:

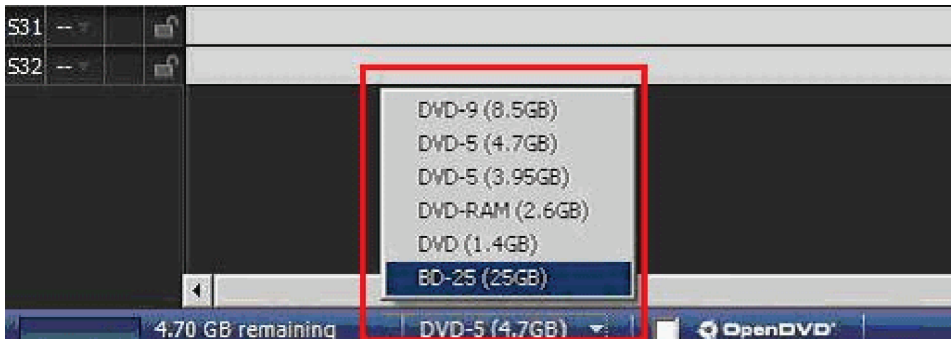
- a Video file (.m2v or .mpv)
- an Audio file (.mpa or .wav)

You can open each file with Windows Media Player, to check quality. If an error appears while opening, click Continue Anyways.

HOW TO BURN TO BLU-RAY USING AVID DVD

13. Insert a Blu-ray disc > open Avid DVD > choose Widescreen

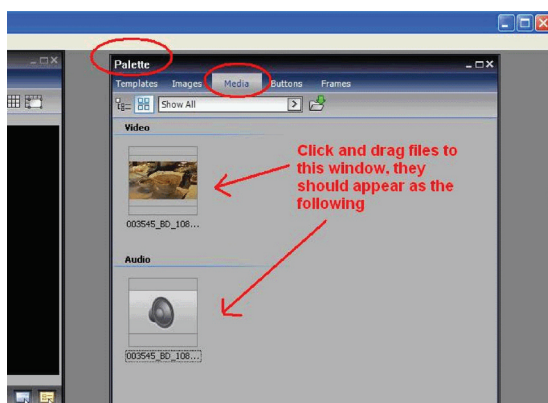
14. The bottom left will show DVD-5 (4.7GB) > click this > choose any BD option (which signifies Blu-ray)



15. In the Palette window, click Media > click & drag the Blu-ray files here

*If you skipped Sorenson, click & drag the QT reference (.mov only) instead

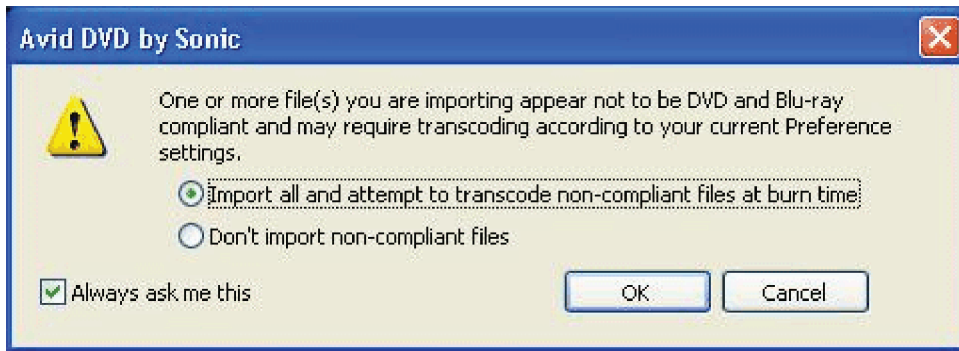
** If Palette does not appear, click Window (top toolbar) > select Palette



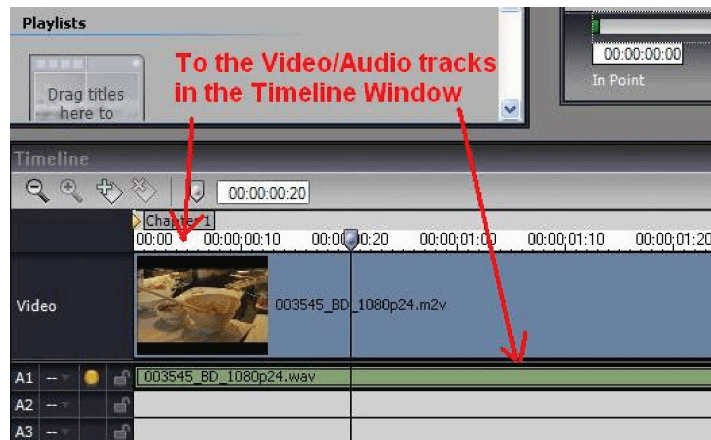
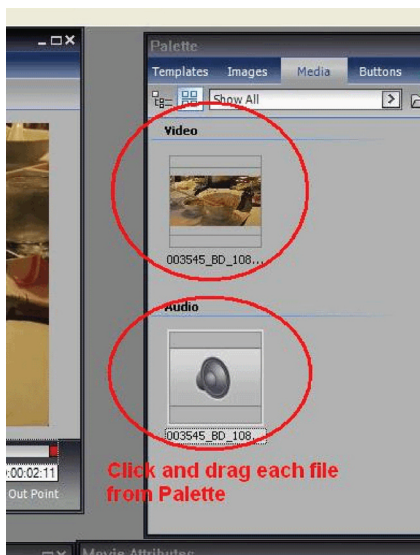
If you receive this window, select "Import All" > click OK

Blu-ray Made Easy

If you receive this window, select "Import All" > click OK



16. Click and drag your files from Palette to the Timeline box. Video should be placed on the Video Track, and audio on the A1/A2 tracks.



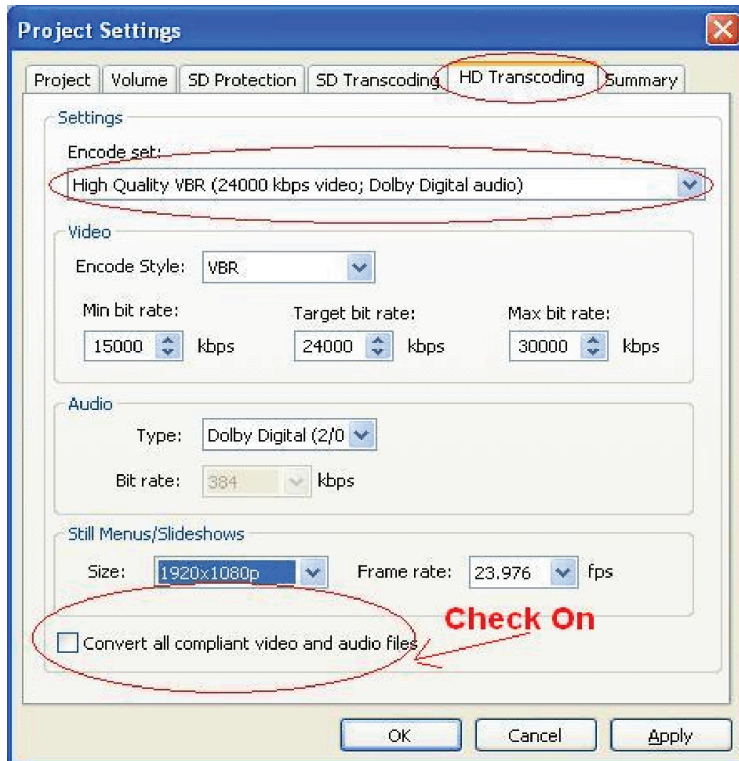
To preview your movie: Select Preview Window > Select Title



Blu-ray Made Easy

17. Before burning, click File (top toolbar) > Project Settings > select HD Transcoding > select High or Superior Quality VBR from Encode Set (leave alone other settings) > hit Apply & OK.

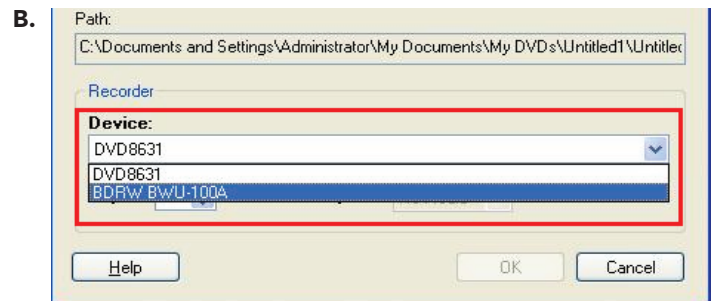
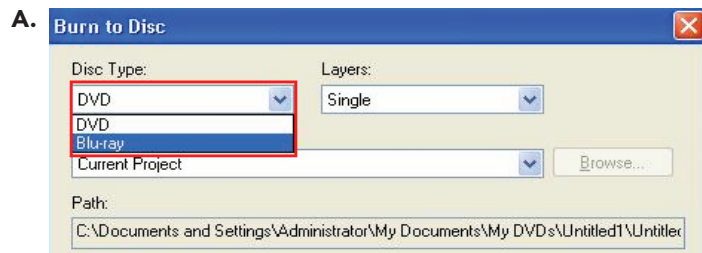
*Don't forget to check on Convert all Compliant Video/Audio Files.



See page 10 for Project Settings details

18. Save your project

19. To burn click Burn (top toolbar) > click Write DVD Volume. Choose the following options:



20. Click OK to start the burn. When finished, the following should appear:



QUICKTIME EXPORT DETAILS

Below is a brief definition of each QuickTime Reference setting:

Export As: Use to choose compression format (e.g. Quicktime, AVI, WMV)

Use Marks: Check on, to export only selection between sequence IN and OUT points

Use Enabled Tracks: Check on, to export only highlighted V1, V2, etc. A1, A2, etc. tracks

Defaults: Digital Mastering will render all video & audio tracks before exporting the file.

Flatten Video Tracks: This exports as one video track. When deselected, one QuickTime video track is generated for each video track in the composition, and you cannot select Fill Spaces with Black. Because most third-party applications do not understand multiple QuickTime video tracks, it is a good idea to select this option.

Fill Spaces with Black: When this option is selected, blank spaces in video tracks are filled with black in the QuickTime reference movie. Because QuickTime reference movies do not recognize blank spaces, it is a good idea to select this option. When this option is deselected, a QuickTime reference movie might interpret spaces in the video track as gray or as the background of the player.

Render All Video Effects: When this option is selected, all unrendered video effects, including matte keys and titles, are rendered before export. When this option is deselected, any unrendered effects are ignored.

Display Aspect Ratio: This allows you to control the display format without modifying the source file, 4:3, 16:9, or Full Raster (e.g. 601 non-square, DV). Display Aspect Ratio is useful for QuickTime reference movies because you do not modify the source files of referenced movies. For example, if your source movies are stored at the standard 720 x 486 for NTSC (720 x 576 for PAL), you can create two different QuickTime reference movies that use the same referenced source files — one that uses 4:3 and another that uses 16:9.

Mixdown Audio Tracks: When this option is selected, the audio tracks in the composition are mixed to stereo files created at the same location as the movie. When this option is deselected, the Quick Time Reference movie references the original audio media. If you select the Mixdown Audio Track option, you can also select an audio format, a sample rate, and a sample bit depth.

Audio Format: Select the format that is supported by the application into which you will be importing the QuickTime reference movie.

- WAVE: Compatible with Windows applications.
- AIFF-C: Compatible with many third-party applications, including Pro Tools.

Sample Rate: You can use this option if your sequence has a mix of sample rates and you need to create a single sample rate. You set the project rate in the Audio Project Settings dialog box. You can also use this option to change the sample rate if the application to which you are exporting does not support the current sample rate.

Sample Bit Depth: Select one of the following

- 16-bit: When this option is selected, your Avid editing application exports a 16-bit audio sample depth (currently the industry-standard bit rate for audio).
- 24-bit: When this option is selected, your Avid editing application exports a 24-bit audio sample depth for work with higher resolution audio.

Use Network Media References: When this option is selected, the exported movie uses the machine and drive share name of the media drive in the QuickTime reference movie instead of a drive letter. Select this option when the media files referenced by the movie are accessed remotely over the network. If the media files are stored on the same drive as the QuickTime reference movie, you do not need to select this option. When this option is deselected, you cannot select Add Shares for Media Drives.

Blu-ray Made Easy

Add Shares for Media Drives: When this option is selected, your Avid editing application creates a new drive share for referenced media files stored on unshared network drives. The drive share is hidden; that is, other users do not see the shared drive when browsing your computer. You do not need to select this option when media is stored on the same drive as the QuickTime reference movie.

Use Avid DV Codec: Avid DV Codec is not a compressor. It ensures that the Quicktime Reference plays on non-Avid computers. At times, the Avid DV Codec may eliminate interlacing from video.

Color Levels: Typically RGB is used for Standard Definition exports, and 601/709 for High Definition exports.

BD PRESET DETAILS

Determine your final output resolution, before choosing the BD preset. For example, if your projection will be on a HDTV that is capable of 1080x720 at 24 fps, you may choose Bluray_720_24P. Please refer to your HDTV or Projection manual, to confirm specific projection resolutions. If the resolution is not listed, the following page will show how to adapt your BD preset for this resolution (and other settings).

MPEG COMPRESSION DETAILS

The picture below describes the MPEG compression settings:

General Settings

Feature	Description
Name	The name of the preset. To create a new preset, enter a name that you will recognize.
Format Constraints	This drop-down options acts as a filter for the video options. Depending on the selected format, only compatible options are displayed. For example, if VCD is selected as the format the only codec option available is MPEG-1.
Stream Type	The Stream Type field is only available for QuickTime, MPEG-4, and MPEG (MPEG-1, MPEG-2, VCD, SVCD, and DVD) compression. The choices for MPEG-1/2 are: <ul style="list-style-type: none"> • Program: Creates a single MPG file combining the audio and video into one stream. Mostly used when you are delivering your files using a storage application (DVD, CD, etc.). • Elementary: Separates the audio and video into two separate streams resulting in a WAV or MPA file containing audio and a MPV file containing video. • Transport: Creates a single MPG file combining the audio and video into one stream. Mostly used when delivering your files by streaming over a network or the Internet.
Total Data Rate: Kilobytes/second	Reflects the total Data Rate of the combined audio and video Data Rates. This field is display only. It changes as the video and audio options change.
Advanced Button	Opens the Advanced Audio/Video Compression Settings dialog box. Providing options for advanced users.
Export Button	Allows you to save the modifications you have made to the Compression Settings as a .xss file to reuse later.
Import Button	Allows you to open saved .xss files and use the saved settings.
Default Button	Returns the settings to their default state.
OK Button	Applies any modifications you have made to the settings and closes the dialog box.
Cancel Button	Cancels any modifications you have made to the settings and closes the dialog box.

Audio Settings

Feature	Description
Audio checkbox	Includes audio in the preset. If this is unselected, the audio options are not changeable.
Codec:	An audio codec is the software application that compresses the audio portion of your movie. MPEG PCM Audio, MPEG Layer 2 Audio, MPEG Layer 1 Audio.
Data Rate:	This drop-down menu allows you to select a Data Rate for your movie's audio content. The options are: 384, 320, 256, 224, 192, 160, 128, 112, 96, 80, 64, 56, 48, and 32 kilobytes/second.
Sample Size:	The only option is 16. The number of bits of data sampled when audio is digitized, this can be either 8-bit or 16-bit, however, Sorenson Squeeze only supports 16-bit.
Sample Rate:	This drop-down menu allows you to select a Sample Rate for your movie's audio content. The Sample Rate is the frequency, or the number of times, per second, that the audio signal is captured. The Sample Rate options is 48,000 kHz for HD DVD.
Channels:	This drop-down menu provides options of mono, stereo, joint stereo (intensity stereo or mid/side stereo), and/or dual channel (two independent channels) audio for your movie. Some formats do not offer all of the options. <p><i>Note: Unless you know your audio has significant differences between the left and right channels, it is generally best to encode to mono to save space and processing power.</i></p>

Video Settings

Feature	Description
Video checkbox	Includes video in the preset. If this is unselected, the video options are not changeable.
Codec:	A video codec is the software application that compresses the video portion of your movie. MPEG-2 Video, MPEG-1 Video, are the video codec options for HD DVD.
Method:	Allows you to select from the available compression methods. 1-Pass CBR, 1-Pass VBR, and 2passVBR are the options for HD DVD.
Data Rate:	Select or enter the Preset Data Rate that meets the needs of your audience.
Variable Bit Rate	Allows you to set the Max, Min, and Avg bit rate.
Format	Select a format, either NTSC, PAL, or Unspecified. These are television broadcasting standards, NTSC is used in the USA (and countries in the Western Hemisphere) and PAL is in Europe.
Frame Size:	Specifies the Frame Size (width and height) of your movie.
Display Aspect Ratio Policy	Results in the output files maintaining the proportions of the original file with minimal or without distortion. The width and height are used as a bounding box. The video will be as large as it can be without changing the aspect ratio of the source and going outside the bounds of the width or the height. For Example: If the output size was set to 320x240 and the source was 640x200 then the width constrains it and the output would be 320x100. If the out size was set to 320x240 and the source was 320x480 then the height constrains it and the output would be 160x240. The numbers should be even, and if the height is halved then the width should be halved. <p>The options are:</p> <ul style="list-style-type: none"> • Unconstrained: Allows you to enter any number. • Maintain Aspect Ratio: constrains the video, so if you enter one side the other is populated automatically. • Letter Box or Pillar: this selection will maintain the original size of eh video, and will place black bars on the side of the vide for pillar, and on the top for letter box.
Frame Rate: Frames/Sec.	Indicates the number of frames (individual pictures of the movie) that are played each second. The higher you set the Frame Rate, the smoother the playback appears.

Please note that VBR (Variable Bit Rate) is recommended because it will refine video that contains more motion, by varying the data rates. CBR (Constant Bit Rate) applies a constant rate for all video (motion or not), which may result in dropped frames, strobing, or video lag. The advantage of CBR is that it compresses faster than VBR.

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PROJECT SETTING DETAILS

Below is a brief definition of each Project setting:

Again, please note that VBR (Variable Bit Rate) is recommended because it will refine video that contains more motion, by varying the data rates. CBR (Constant Bit Rate) applies a constant rate for all video (motion or not), which may result in dropped frames, strobing, or video lag. The advantage of CBR is that it compresses faster than VBR.

SETTINGS

- Encode Set: Avid DVD by Sonic comes with several sets of predefined transcoder settings. You can choose a predefined set or change the Video and Audio settings yourself.

VIDEO

- Encode Style: To fit a lot of video on the disc without losing too much quality, choose VBR (variable bit rate). CBR (constant bit rate) is suitable only for shorter durations.
- Min, Target, and Max Bit Rate: These set the quality level for all non-compliant video (including motion menus).

AUDIO

- Type: For Blu-ray output where disc space is less of an issue, you should choose PCM to obtain the highest quality audio. You may want to select Dolby Digital if you are outputting high bit rate video with multiple audio tracks, or if you need additional space on your Blu-ray disc for video.
- Bit Rate: The normal Dolby stereo bit rate is 192 kbps; you can choose higher or lower rates depending on the desired sound quality. The PCM audio bit rate cannot be changed.

MENUS/SLIDESHOWS

- Size: Determines the size and resolution of motion menus and slideshows when they are composited for output.
- Frame Rate: Determines the frame rate for motion menus and slideshows when they are composited for output.

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The Avid logo, featuring the word "Avid" in a bold, italicized, sans-serif font with a registered trademark symbol.

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