



Dolby Digital Plus Online Delivery Content Creation

Interactive Test Help

Notices

Copyright

© 2015-2026 Dolby Laboratories. All rights reserved.

Dolby Laboratories, Inc.

1275 Market Street
San Francisco, CA 94103-1410 USA
Telephone 415-558-0200
Fax 415-645-4000
<https://www.dolby.com>

Trademarks

Dolby and the double-D symbol are registered trademarks of Dolby Laboratories.

The following are trademarks of Dolby Laboratories:

Dialogue Intelligence™	Dolby Theatre®
Dolby®	Dolby Vision®
Dolby Advanced Audio™	Dolby Vision IQ™
Dolby Atmos®	Dolby Voice®
Dolby Audio™	Feel Every Dimension™
Dolby Cinema®	Feel Every Dimension in Dolby™
Dolby Digital Plus™	Feel Every Dimension in Dolby Atmos™
Dolby Digital Plus Advanced Audio™	MLP Lossless™
Dolby Digital Plus Home Theater™	Pro Logic®
Dolby Home Theater®	Surround EX™

All other trademarks remain the property of their respective owners.

Contents

1	Introduction.....	4
1.1	Using this test procedure.....	5
1.2	New in this version.....	5
1.3	Approval process.....	5
1.3.1	Submitting test results to Dolby Laboratories	5
1.3.2	Self-test evaluation.....	5
1.4	Contacting Dolby.....	6
2	Test overview.....	7
2.1	Testing a content creation product.....	8
2.2	Product features and testing.....	8
2.2.1	Online delivery formats.....	8
2.2.2	Input stream formats.....	8
2.2.3	Video encoding formats.....	8
2.2.4	Maximum audio channel configuration.....	9
2.2.5	Multiple video and audio tracks.....	9
2.2.6	Dolby Atmos.....	9
2.3	Test signals.....	9
2.3.1	Test vectors.....	10
3	The interactive test procedure.....	11
3.1	Testing with the interactive procedure.....	12
4	Testing tools.....	13
4.1	StreamDemuxer.....	14
4.1.1	Command-line options.....	14
4.1.2	Examples of verification process.....	15
4.2	StreamValidator.....	16
4.2.1	Using the web-based StreamValidator.....	17
4.2.2	Error messages reported by the StreamValidator.....	18
4.3	mp4_inspector.....	19
4.3.1	Using the web-based mp4_inspector.....	19
	Glossary.....	21

Introduction

This documentation provides complementary information for the interactive test procedures used to verify that a product can properly multiplex Dolby Digital Plus into online delivery formats, including MPEG-DASH and HTTP Live Streaming.

- [Using this test procedure](#)
- [New in this version](#)
- [Approval process](#)
- [Contacting Dolby](#)

1.1 Using this test procedure

To perform tests on a content creation product, follow the detailed instructions generated from the interactive test procedure in conjunction with using this documentation.

This information set and the interactive test procedure are major parts of the Dolby Digital Plus Online Delivery Kit, which contains all materials (such as test signals, testing tools, web-based interactive test instructions, and so on) necessary for evaluating a content creation product.

The Dolby Digital Plus Online Delivery Kit are available from the <https://ott.dolby.com>. To perform content creation tests, you must access the Dolby Digital Plus Online Delivery Kit to download test signals and to generate test instructions applicable for your product by using the interactive test procedure.

1.2 New in this version

Changes have been made to the latest version of this documentation.

The changes include:

- The StreamVaLidator is now available at https://ott.dolby.com/OnDel_tools/validator2/Start_Here.html.
- The test tool MP4Drop has been renamed to mp4_inspector and is available at https://ott.dolby.com/OnDel_tools/mp4_inspector/index.html.

1.3 Approval process

To gain approval for your product, you must perform all required tests to ensure that all stated requirements for the product have been met.

Licensees are required to meet all stated requirements and perform all required tests as part of the approval process.

1.3.1 Submitting test results to Dolby Laboratories

Procedure

1. Record all test results in the *Test results* form, exported from the interactive test procedure.
2. When the test procedure is completed and all test results appear to be accurate, send these items to Dolby:
 - The completed questionnaire and test-case list exported as .json files from the interactive test procedure
 - The completed *Test results* form
 - Any test scripts written or modified for automated testing of your Implementation
 - All log files generated by test scripts or other testing tools

Submission of these items allows Dolby to complete the testing process without undue delays. It also ensures correlation of submitted data with that taken during the evaluation.



Note: Make sure to provide your product sequence number.

1.3.2 Self-test evaluation

Products implementing Dolby Digital Plus online delivery system are eligible for self testing. An approval can be issued based on the test results data submitted.

Certain restrictions may apply. For more details, please contact prolicensing support@dolby.com.

1.4 Contacting Dolby

Support services are available to address any questions and to provide advice about integrating Dolby technology into your product.

For product design or testing, contact prolicensing support@dolby.com. By utilizing Dolby expertise, especially during the design process, many problems that might require design revisions before a product is approved can be prevented.

Dolby is also available to review product plans, including preliminary design information, markings, displays, and control and menu layouts, with the goal of preventing problems early in the product development cycle.

If you have comments or feedback about this documentation, send us an email at documentation@dolby.com.

Test overview

General information relevant to the content creation system test is provided to assist you in managing the tests within the interactive test framework.

- [Testing a content creation product](#)
- [Product features and testing](#)
- [Test signals](#)

2.1 Testing a content creation product

This topic provides an overview of how to test a content creation product by using the Dolby Digital Plus Online Delivery Kit.

Procedure

1. Access the Dolby Digital Plus Online Delivery Kit at <https://ott.dolby.com>.
2. Download all test streams supplied in the Dolby Digital Plus Online Delivery Kit to your local disk.
3. Complete the interactive test procedure questionnaire.
This generates a test-case list with detailed test instruction for each test case.
4. Generate test signals for each test case by using the product under test.
5. Analyze the resulting test signals using the specified method and tools described in this test help.
6. Submit the test results to Dolby for approval.

2.2 Product features and testing

Many feature-set variations are possible in a product that includes Dolby Digital Plus technology. Test the features that your product supports.

The interactive test procedure uses the form of a questionnaire to request information about which features are supported by a product, and then uses this information to provide test instructions for all applicable test cases. Unless otherwise stated in the individual test instructions, running each test case for each supported feature is generally recommended.

Factors influencing product features are described in this section.

2.2.1 Online delivery formats

A product may support encoding and multiplexing of media content into one or more online delivery formats and profiles.

Online delivery formats include:

- MPEG Dynamic Adaptive Streaming over HTTP format (DASH)
 - MPEG-DASH Live profile
 - MPEG-DASH On Demand profile
- Apple HTTP Live Streaming format
- Progressive download (MP4)

2.2.2 Input stream formats

Input media content can be supplied in one or more formats for encoding, multiplexing, or transcoding.

Input stream formats include:

- Elementary stream
- MPEG-2 transport stream
- MP4 files

2.2.3 Video encoding formats

A product may support one or more video encoding formats and profiles. Dolby Digital Plus Online Delivery Kit provides test streams that are used in the test cases.

It is possible to create a Licensed Product that does not support all of these video coding formats.

Unless otherwise stated in the individual test instructions, run each test case for each supported video encoding format.

This table lists all video profiles of the test streams.

Table 1: Video encoding formats and profiles of test streams

Encoding	Video profiles	Resolutions	Frame rates	Bit rates
H.264	Main profile at level 4.0	1280 × 720p	25 and 29.97 fps	2 Mbps ^[a]
			50 and 59.94 fps	3 Mbps
H.265	Main 10 profile at level 4.0	1280 × 720p	25 and 29.97 fps	1 Mbps
			50 and 59.94 fps	1.5 Mbps
		1920 × 1080 (for audio video synchronization only)	25 and 29.97 fps	3 Mbps

[a] For audio video synchronization content, the bit rate is 3 Mbps.

2.2.4 Maximum audio channel configuration

A product with a Dolby Digital Plus encoder may support audio channel configurations up to a certain maximum output channel configuration.

The maximum output channel configuration can be up to:

- Two channels
- 5.1 channels
- 5.1.4 channels

2.2.5 Multiple video and audio tracks

A product may support multiplexing of multiple audio and video tracks of different encodings into one online stream in order to provide advanced service.

A multiplexed online stream may contain one or more of these items:

- Multiple audio tracks containing different languages
- Multiple audio tracks encoded with different codecs (for example, AAC)
- Multiple audio tracks containing different audio channel configurations

2.2.6 Dolby Atmos

A product may support multiplexing Dolby Digital Plus with Dolby Atmos content into online delivery formats.

Some Dolby Digital Plus test streams contain Dolby Atmos content in them. These test streams can be used to verify that a content creation product can properly multiplex Dolby Atmos streams into online delivery formats, and as a result, the multiplexed streams are able to correctly signal the presence of Dolby Atmos content.

2.3 Test signals

Generally, test signals are created by multiplexing one or more audio elementary streams and one or more H.264 (or H.265) video elementary streams.

Streams in various formats are supplied in the Dolby Digital Plus Online Delivery Kit. They are meant to be used as input streams to be multiplexed or transcoded into online delivery formats. Multiplexing combinations for a specific test case are detailed in the test instructions generated by the *interactive test procedure for content creation*.

2.3.1 Test vectors

A test vector is a set of test signals that are involved in running a test case.

For the MPEG-DASH test cases, a test vector is composed of the test files as listed in the table.

MPEG-DASH profiles	Files in a test vector
MPEG-DASH Live	One Media Presentation Description (MPD) manifest file (.mpd file) A sequence of .mp4 files for each video stream A sequence of .mp4 files for each audio stream
MPEG-DASH On Demand	One MPD manifest file (.mpd file) One .mp4 file for each video stream One .mp4 file for each audio stream

For the HTTP Live Streaming test cases, a test vector is composed of these test files:

- Playlist files (.m3u8 files)
- A sequence of media segment files (.mp4 files)
- A sequence of ID3 format files (.ec3 or .aac files)

Each manifest (or playlist) file uses relative paths to the media files. The relative file locations between the media files and the manifest file must be kept while a test vector being copied or moved. This enables the manifest file to locate the media files for playback after you move the test vectors from one directory to another directory, including to a server location, to simulate a server/client media streaming process.

3

The interactive test procedure

This development kit includes a browser-based interactive test procedure to assist you through the testing process for the content creation Implementation.

- [Testing with the interactive procedure](#)

3.1 Testing with the interactive procedure

Follow these instructions to generate and complete the interactive test procedure.

Prerequisites

- Before you start, make sure you are familiar with product variations.
- The interactive test procedure does not support Internet Explorer. We recommend using recent versions of Mozilla Firefox.
- JavaScript support must be enabled in your browser.

Procedure

1. Open the Dolby online delivery website at <https://ott.dolby.com>.
2. Navigate to the **Dolby Digital Plus Online Delivery Kit > View > Interactive test procedure > Interactive test procedure for content creation**.

If this is the first time you run the interactive test procedure, an empty product configuration questionnaire appears. If you have run the procedure before, you may need to clear the settings by clicking **Settings** , and then **New session**.

3. Fill in the product configuration questionnaire.

To obtain the list of relevant test cases for your system, you must answer some questions regarding system capabilities. The questionnaire may have multiple pages. In a completed questionnaire, every required question must have a  sign.

As you fill in the questionnaire, certain questions and answers automatically become inactive, because they are incompatible with the feature you are selecting.

If you wish to send a question or comment to the Dolby team, you can use the **Add a comment** function.

4. Click **Next** when you have completed each page, then click **Done** when you have completed the entire questionnaire.

A test-case list is generated and appears in a new page with the required and recommended tests for your system. You must complete all required tests listed for your system capabilities.

5. **Optional:** Sort, filter, and save the test-case list for better orientation and for future reference:

- You can show or hide columns using the check boxes on the side panel (for example, **Approach** or **Standard**). By default, the list shows **Test Case**, **Purpose**, **Test Case Type**, **Online Delivery Format**, **Video Codec**, **Frame Rate**, and **Status**.
- You can sort the list by clicking the column headers.
- You can apply filtering criteria on a relevant column in the list using the filtering check boxes on the side panel.
- You can save or load a session under **Settings > Session management**. The settings you filled in for your system are saved in a `.json` log file.

6. For each test case:

- a. Click the test case in the list, and read the test-case description and procedure.
- b. Generate test signals by multiplexing the streams listed in the **Test Signal** section by using the content creation product under test.
- c. Follow the step-by-step instructions on the page to complete the tests.
- d. Compare the test results with the expected results shown on the page, and select **Pass** or **Fail**.
- e. To go to the next test case in the list, click **Next**.

If you want to see the entire list again and check the tests' status, click **Up one level** or **Tests Overview**.

A **Test suite progress** of 100 percent indicates that you have completed all of the required tests.

7. Save the printable versions of the questionnaire and test cases under **Settings > Print versions**.

Click **All** to generate an `.html` file that contains the completed questionnaire and the test-case list together with test results.

4

Testing tools

Testing tools for verifying a content creation product are provided. Use these tools as specified in the interactive test procedure.

- [StreamDemuxer](#)
- [StreamValidator](#)
- [mp4_inspector](#)

4.1 StreamDemuxer

The StreamDemuxer tool can demultiplex the Dolby codec streams specified in manifest files (media presentation description (DASH media presentation description) for MPEG-DASH, playlist for HTTP Live Streaming (HLS)) or included in media files (MP4, fragmented MP4).

This tool is provided in Microsoft Windows 64-bit binary form, Linux 64-bit binary form, Community Enterprise Operating System (CentOS) 64-bit binary form, and macOS binary form.

4.1.1 Command-line options

Command-line options are entered after the command `streamdemuxer` to specify various startup options for StreamDemuxer. Some options are mandatory. Options are separated by spaces.

-i

This mandatory option and argument identify the source test files (including location). The test files can be a manifest file or a media file.

The syntax is shown in the following pseudocode:

```
streamdemuxer -i <test_file_path> -o <path>
```

In this syntax, `<test_file_path>` is the file path of the test file. You can use the absolute or relative path to the test file.

-o

This option is mandatory. The option specifies a temporary workspace for resulting files of the demultiplexing process. During the demultiplexing process, the StreamDemuxer reserves manifest files, dumps segment files, and outputs elementary streams. All of these files are placed in the folder specified by the `-o` option. It supports absolute and relative paths.

The syntax is shown in the following pseudocode:

```
streamdemuxer -i <test_file_path> -o <path>
```

--track-id

This option is not required. It is used to specify the track that needs to be demultiplexed.

The syntax is shown in the following pseudocode:

```
streamdemuxer -i <test_file_path> [--track-id <id>] -o <path>
```

-v

This option is not required. It is used to display the version information of the StreamDemuxer.

The syntax is shown in the following pseudocode:

```
streamdemuxer -v
```

--decryption-keys

This option is required for encrypted content. The argument is a comma-separated list of key ID and key pairs. A key ID and a key are represented as 32 hexadecimal digits.

The syntax is shown in the following pseudocode:

```
streamdemuxer -i <input file> [-o <path>] --decryption-keys <Key_ID>:<Key> ...
```

4.1.2 Examples of verification process

Several examples are provided to demonstrate the conformance verification process.

Demultiplexing streams specified in an DASH media presentation description file

You can demultiplex test streams specified by an DASH media presentation description file using the .

Procedure

1. Copy the Test_Signals\muxed_streams\DASH folder from the kit to your local disk.
2. Locate the Audio_ID_720p_25fps_h264_6ch_256kbps_ddp.mpd DASH media presentation description file in the MPD subfolder of Test_Signals\muxed_streams\DASH on your local disk. Run this command:

```
streamdemuxer -i <mpd_file_path> -o <output_file_path>
```

These test files are referenced by the DASH media presentation description file.

Test file	Description
Audio_ID_6ch_720p_25fps_h264.mp4	Fragmented MP4 file containing an H.264 track
Audio_ID_6ch_256kbps_ddp.mp4	Fragmented MP4 file containing a Dolby Digital Plus track

3. The demultiplexing process generates the files listed in the table.

Output file	Descriptions
Audio_ID_720p_25fps_h264_6ch_256kbps_ddp_Re pID_x.out.264	H.264 file demultiplexed from Audio_ID_6ch_720p_25fps_h264.mp4. The x in the file name is the representation ID.
Audio_ID_720p_25fps_h264_6ch_256kbps_ddp_Re pID_x.out.ec3	Dolby Digital Plus file demultiplexed from Audio_ID_6ch_256kbps_ddp.mp4. The x in the file name is the representation ID.

Demultiplexing streams specified in an HLS playlist file

You can demultiplex test streams specified by a playlist file using the StreamDemuxer.

Procedure

1. Copy the Test_Signals\muxed_streams\HLS folder from the kit to your local disk.
2. Locate the main Audio_ID_720p_50fps_h264_6ch_640kbps_ddp_joc.m3u8 playlist file in the Manifest subfolder of Test_Signals\muxed_streams\HLS on your local disk. Run this command:

```
streamdemuxer -i <playlist_file_path> -o <output_file_path>
```

This table lists the playlist files referenced by the main playlist and the test streams that are specified by the playlist files.

Test file	Description
Audio_ID_6ch_720p_50fps_h264_sub.mp4	Fragmented MP4 file containing an H.264 track
Audio_ID_6ch_640kbps_ddp_joc_sub.mp4	Fragmented MP4 file containing a Dolby Digital Plus joint object coding track
- Audio_ID_6ch_720p_50fps_h264_sub.m3u8 - Audio_ID_6ch_640kbps_ddp_joc_sub.m3u8	_sub playlist files

3. The demultiplexing process generates the files listed in the following table.

Output file	Descriptions
Audio_ID_6ch_720p_50fps_h264_sub_Codec_avc1_4D4028_Bitrate_963796bps.out.264	H.264 file demultiplexed from the .mp4 files
Audio_ID_6ch_640kbps_ddp_joc_sub_GroupID_audio_ec-3_16-JOC_Lang_en_Channel_16JOC.out.ec3	Dolby Digital Plus file demultiplexed from the .mp4 files

Demultiplexing an MP4 file on a local disk

You can demultiplex an MP4 file on a local disk. You can also demultiplex a fragmented MP4 file in the same way.

Procedure

1. Copy the Audio_ID_720p_25fps_h264_6ch_256kbps_ddp.mp4 file from the Test_Signals \muxed_streams\MP4\Example kit folder to your local disk.

The MP4 file contains one H.264 track and one Dolby Digital Plus track.

2. Run this command:

```
streamdemuxer -i <mp4_file_path> -o <output_file_path>
```

3. The demultiplexing process generates the files listed in the following table.

Output files	Descriptions
Audio_ID_720p_25fps_h264_6ch_256kbps_ddp_track_id_2.out.264	H.264 file demultiplexed from the MP4 file
Audio_ID_720p_25fps_h264_6ch_256kbps_ddp_track_id_1.out.ec3	Dolby Digital Plus file demultiplexed from the MP4 file

4.2 StreamValidator

The StreamValidator verifies that the Dolby codec streams specified in manifest files (DASH media presentation description for MPEG-DASH, playlist for HLS), Dolby codec streams included in media files (MP4, fragmented MP4), or elementary streams conform to corresponding requirements from Dolby.

The StreamValidator is available as a web-based tool at https://ott.dolby.com/OnDel_tools/validator/Start_Here.html. The StreamValidator checks only information related to Dolby AC-4, Dolby Digital Plus, and Dolby Vision, and ignores all other information. For elementary streams, Dolby AC-4 and Dolby Digital Plus elementary streams are supported. Only information related to Dolby AC-4 is provided here.



Note: The StreamValidator does not verify the general constraints for DASH media presentation description, playlist, MP4, fragmented MP4, and MPEG-2 transport streams, such as the constraints for DASH media presentation description as defined in ISO/IEC 23009-1, *Information Technology—Dynamic Adaptive Streaming over HTTP (DASH)—Part 1: Media Presentation Description and Segment Formats*.

4.2.1 Using the web-based StreamValidator

Several steps must be followed to use the web-based StreamValidator.

Procedure

1. Open the online StreamValidator page at https://ott.dolby.com/OnDel_tools/validator/Start_Here.html.
2. Specify the input files. For encrypted content, select the **Decryption** check box to add decryption keys:
 - To verify an online media file:
 - a. Select the first radio button and paste the URL of the file. Use the **Record ON/OFF** switch to indicate whether to save the media segments specified by the URL.
 - b. Optionally, to verify specific streams within one manifest, use **SELECT STREAMS** after entering URL.
 - c. Click **Start** to start verification.
 - To verify a local file, select the second radio button and click **Choose File** to select the file. The option supports selecting a media file or a .zip package containing multiple manifest and media files.



Note:

The StreamValidator does not upload your local files anywhere. The entire validation process is performed using your web browser to avoid copyright issues. You must clean the cache of your browser before using the StreamValidator.

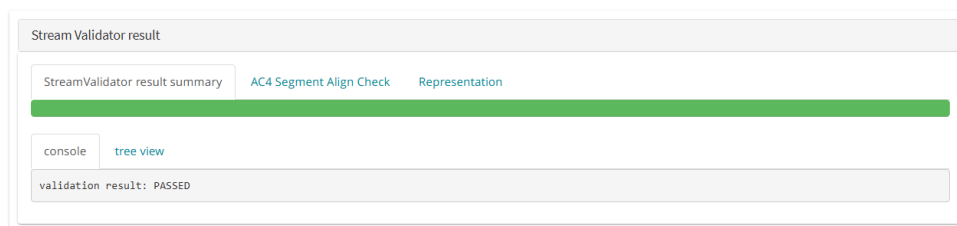
3. **Optional:** If errors are reported, you can check your input file on the **tree view** tab. The errors are highlighted.

Results

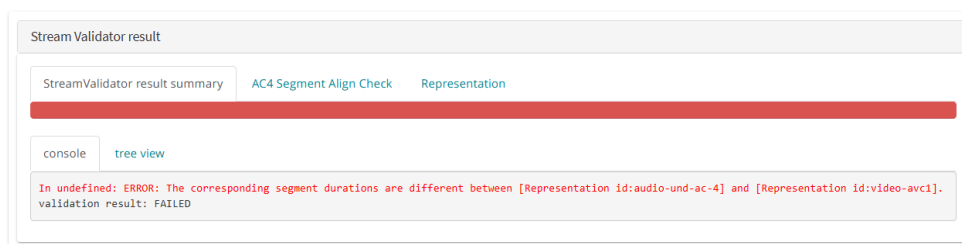
When the verification completes, the **PASSED** message or the error messages are displayed on the **console** tab.

Example

- Example 1: Validation passed



- Example 2: Validation failed



4.2.2 Error messages reported by the StreamValidator

The StreamValidator reports error messages that indicate possible errors during the verification process.

The StreamValidator displays *PASSED* if the verification completes successfully, and displays *FAILED* with error messages if errors occur.

Error classes

This table lists the error classes that can be reported by the StreamValidator.

Error class	Description
Usage errors	Incorrect use of the tool
Compliance errors	Noncompliance between the manifest files and the media files, or noncompliance between the Decoder Specific Information(DSI) and elementary stream parts of the media files
Invalid attribute errors	Invalid attributes in the manifest files or the media files

Error messages

This table lists the error messages related to Dolby Digital Plus that can be reported by the StreamValidator.

Error class	Error messages	Description
Usage error	ERROR: The input file is unsupported: <input_file>	The input file format is not supported. The tool supports .mpd, .m3u8, .m3u, .mp4, .m4a, .ts, and .trp files.
Usage error	ERROR: Fail to get segment: <file_name>.	The segment file was not found at the specified location.
Usage error	ERROR: The decryption key is needed. Use the command "--decryption-key keyID:key,..." to indicate it.	For encrypted content, decryption keys must be specified using the --decryption-keys option.
Compliance error	For an [EC3] stream, in DASH manifest, the attribute "mimeType" in the Representation or the parent AdaptationSet must be "audio/mp4".	For an MPD file, the mimeType attribute must be set to audio/MP4 for Dolby Digital Plus streams.

Error class	Error messages	Description
Compliance error	ERROR: For an [EC3] stream, in TS, the "substream<substream_index>_flag" in descriptor mismatches the corresponding description in the elementary stream. (expected substream_flag values : <expect_substream_flag_value>, actual values: <actual_substream_flag_value>)	For MPEG-2 transport stream files or an HLS playlist indicating MPEG-2 transport media containers, fields in the Dolby Digital Plus descriptor must be identical with information in Dolby Digital Plus audio data.
Invalid attribute error	For an [EC3] stream, in DASH manifest, the value of the <AudioChannelConfiguration> must be a valid hexadecimal value when the schemeIdUri is "tag:dolby.com,2014:dash:audio_channel_configuration:2011".	The value of the AudioChannelConfiguration descriptor in the manifest must be a valid hexadecimal number.
Invalid attribute error	ERROR: For an [EC3] stream, in MP4 EC3SampleEntryBox, the "SampleSize" must be set to 16.	The sample size indicated in the EC3SampleEntry box in an MP4 file must be set to 16.
Invalid attribute error	ERROR: For an [EC3] stream, the bitstream fails the validation in \ "DDPInfoLib\".	The Dolby Digital Plus parsing failed due to errors in Dolby Digital Plus audio data.

4.3 mp4_inspector

The mp4_inspector tool outputs an ISO base media file format file (such as MP4 and MPEG-DASH files) to human-readable XML format.

In particular, it is capable of parsing boxes specific to Dolby Digital Plus (ec-3, dec3) contained in the container file and outputting readable information in XML format. By examining the output XML file manually, you can verify that a content creation product can properly multiplex Dolby Digital Plus bitstreams into MP4 files or ISO base media file format based online delivery formats.

4.3.1 Using the web-based mp4_inspector

You can use mp4_inspector to dump human-readable box information from an MP4 file and then verify that the boxes specific to Dolby Digital Plus are set correctly for each of the Dolby Digital Plus tracks in the MP4 file.

About this task

For test cases that contain multiple Dolby Digital Plus tracks (multiple .mp4 files, correspondingly), you must run mp4_inspector on each file that contains Dolby Digital Plus data.

Procedure

1. Access the web-based mp4_inspector at https://ott.dolby.com/OnDel_tools/mp4_inspector/index.html.
2. Upload the test file.



Click to upload or drop MP4/XML files here

1 file to analyze, or 2 files to compare

Maximum file size: 100MB per file

The generated XML file shows on the page.

Example

You can use mp4_inspector to verify the contents of the /moov/trak[x]/mdia/minf/stbl/stsd/ec-3 box in a test stream, where [x] is the track ID of the Dolby Digital Plus track. The following screenshot shows an example result. You can check whether the ec-3 and dec3 box information written to the XML file contains the expected values.

Analysis Result

Rtp

moov

mvhd

trak

tkhd

edts

mda

mdhd

hdlr

minf

smhd

dinf

stbl

std

ec-3

dec3

stts

stsc

stsz

stco

mdat

Detailed Section

Search for specific box in the files to analyse or compare in detail

Enter keyword to search (e.g., 'tkhd', 'ac-4', 'sinf')

Found 1 section(s)

Audio_ID_6ch_16_joc_768kbps_ddp.mp4

```
<dec3 size="?">
  <data_rate type="unsigned int(1)">768</data_rate>
  <aux_info_sub type="unsigned int(3)">0</aux_info_sub>
  <fscod type="unsigned int(2)">0</fscod>
  <bsid type="unsigned int(5)">16</bsid>
  <reserved type="unsigned int(1)">0</reserved>
  <asvc type="unsigned int(1)">0</asvc>
  <bsmod type="unsigned int(1)">0</bsmod>
  <dsmod type="unsigned int(1)">0</dsmod>
  <lfreqn type="unsigned int(1)">1</lfreqn>
  <reserved type="unsigned int(1)">0</reserved>
  <aux_info_sub type="unsigned int(6)">0</aux_info_sub>
  <reserved type="unsigned int(1)">0</reserved>
  <flag_aux_extension_type_reserved type="unsigned int(7)">0</flag_aux_extension_type_reserved>
  <flag_aux_extension_type_a type="unsigned int(1)">0</flag_aux_extension_type_a>
  <complexity_index_type_a type="unsigned int(8)">16</complexity_index_type_a>
</dec3>
```

Property

name	Audio_ID_6ch_16_joc_768kbps_ddp.mp4
size	2.94 MB
duration	32.00s
description	This is a non-fragmented file with 1 track(s).
codecs	EC-3
audio channel count	2
sample rate	48000

Glossary

CentOS

Community Enterprise Operating System.

DASH media presentation description

Media presentation description. A manifest used in MPEG Dynamic Adaptive Streaming over HTTP (MPEG-DASH) to describe the available streaming content, its various alternatives, URL addresses, and other characteristics, as well as segments that contain the actual multimedia bitstreams in the form of chunks, in single or multiple files.

H.264

An MPEG standard for video compression most commonly used for high-definition video, such as Blu-ray Disc. The standard was developed jointly by the International Telecommunication Union (ITU) and ISO/IEC MPEG. Also known as Advanced Video Coding (AVC), ISO/IEC MPEG-4 AVC, and ISO/IEC 14496-10:2012.

HLS

HTTP Live Streaming. An adaptive streaming protocol developed by Apple for delivery of media content in various software environments.

joint object coding

A parametric coding technique that embeds an object-based audio representation in a multichannel signal for transmission and outputs object audio signals.

MP4

A digital multimedia container format defined in ISO/IEC-14496 used to store, edit, download, and stream media data.



Dolby Laboratories, Inc. 1275 Market Street, San Francisco, CA 94103-1410 USA.

© 2015-2026 Dolby Laboratories. All rights reserved. Dolby and the double-D symbol are registered trademarks of Dolby Laboratories.

All other trademarks remain the property of their respective owners.