

ISDCF Main Meeting Notes – April 17, 2019

Upcoming Meetings

ISDCF on June 26.

ISDCF July 31, 2019

(Will try for Wednesday meetings as often as possible.)

Part 1: General Reporting

Housekeeping:

- Introductions around the room
- Set next meeting dates (above). Next lunch: Inter-Society pays for lunches.
- Thank you Universal for the facilities and parking.
- Thank you Universal for support of the Chairman.
- Thank you to Inter-Society for providing the funding for travel, general expenses and admin support.
- Thank you to Universal for the coffee and treats
- Meeting notes from February '19 approved
- InterSociety requests you be a member! \$500/company. You can join from the link on the front page of ISDCF dot com.
- Legal reminder / press reminder / Antitrust Disclaimer. The official antitrust guidelines are posted on our website and are linked from the main ISDCF page. A short verbal overview of guidelines was given. The information is on the front page of isdcf(dot)com. We have added the no-social-media request for discussions held at ISDCF.

* Chatham House Rule:

- * When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed.

Note: No drive on after noon day before ISDCF meeting. If you want to attend and have not added your name to the drive on, please CALL IN.

Attendance is at end of these notes.

Action Items from April 17, 2019

1. Please Join Inter-Society! <http://isdcf.com/ISDCF/membership-status.html>
\$500 per company per year, \$100 individual membership.
2. Organized an ISDCF Immersive Audio Drafting group to discuss how best to deal with constraints for authoring. (Steve LLamb to organize)
3. NATO to share the resolution for fader levels with ISDCF.

From Last Meetings (These items are on long-term hold until the next plugfest and/or standards have been finished.)

4. Make a test package with slightly different content in the CPL Content Title Text, TKL text, etc for testing at the next plugfest or to conduct a field test of systems to see where the user displayed content is from for different TMS/ Servers.
5. Post new versions of the framing charts.
6. Get a new version of SMPTE-DCP B2.1 with fixed CPL.

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CinemaCon/NAB Review

- CinemaCon Observation: Not as much on Direct View at CinemaCon
- NAB had a number of direct view displays being promoted. Some manufacturers feel that there may be a new market - theatrical and otherwise. (There were 13 last year.) Some are targeting on-set displays.
- CinemaCon Observation: More interest in ScreenX (side screen presentations) by both exhibitors and creatives.
- CinemaCon Observation: Inter-Society presentation on brightness was interesting and reinforced the acceptance of 14ftL presentation.
- CinemaCon Observation: EDCF/ISDCF held a beer reception and it was a good opportunity to meet up and chat one-on-one (do it again next year)
- Future of Cinema at NAB: Not very much “engineering” Seemed to be the same presenters on many panels - emphasis on AI and Machine Learning and only tangentially at the cinema world.
- Future of Cinema: surprised at the size of the India and China markets.
- CinemaCon: New DLP projectors lookin’ good!
- Observation of presentation at Sony Pictures of the Spiderverse movie: thought it was too bright for a dark room, BUT at NAB saw bright clips that looks good in non-dark room.

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ISDCF Immersive Audio Plugfest

Last ISDCF we reported on the Immersive Audio Plugfest held on 26 February 2019. The carry over was to try and understand features that had not been implemented at the time of the February plugfest.

Dolby submitted a “Draft ISDCF Immersive Audio Bitstream Guideline - 04-10-2019.pdf” that was distributed to the ISDCF reflector yesterday. (It is a Dolby document and is NOT an official ISDCF at this time - although it might become one.) It is for discussion at this time.

To be supported by legacy renderers, an immersive audio bitstream should be created in compliance with SMPTE ST2098-2 and SMPTE ST429-18, with the additional constraints listed below:

1) The bitstream must contain the following fields, and they should all be set to "0":

- . SubElementCount of ObjectDefinition and BedDefinition
- . ConditionalBed
- . ConditionalObject
- . ObjectGainPrefix
- . ChannelGainPrefix
- . ChannelDecorInfoExists
- . ObjectSnapTolExists

2) The bitstream should NOT contain the following elements/values:

- . ElementID values BED_REMAP and OBJECT_ZONE_DEFINITION19
- . ChannelGain
- . ChannelDecorCoefPrefix
- . ChannelDecorCoef
- . ObjectUseCase
- . ObjectGain
- . ObjectSnapTolerance
- . ObjectSpreadX, ObjectSpreadY, and ObjectSpreadZ
- . OBJECT_SPREAD_3D value of the ObjectSpreadMode field

3) Only the following channels (and associated ChannelIDs) should be used:

- 0x0 CHANNEL_SCREEN_LEFT
- 0x2 CHANNEL_SCREEN_CENTER
- 0x4 CHANNEL_SCREEN_RIGHT
- 0x5 CHANNEL_LEFT_SIDE_SURROUND
- 0x7 CHANNEL_LEFT_REAR_SURROUND
- 0x8 CHANNEL_RIGHT_REAR_SURROUND
- 0x9 CHANNEL_RIGHT_SIDE_SURROUND
- 0xB CHANNEL_LEFT_TOP_SURROUND
- 0xC CHANNEL_RIGHT_TOP_SURROUND
- 0xD CHANNEL_LFE

4) Only a SampleRate of 48kHz should be used, and as such MaxRendered (which is the sum of objects and bed channels) should be limited as follows: 118 objects maximum, plus 10 bed channels maximum

5) Only 1 bed should be used

6) ZoneGainPrefix should only have a value of 0x0 or 0x1 - which implies that the ZoneGain field would never be present

7) The 9 ZoneGainPrefix fields should be assigned values in only certain combinations. The renderer will default to all Zones enabled unless the ZoneGainPrefix fields are assigned values in accordance with one of the following sets:

Zone	Recommended ZoneGainPrefix Settings										
	Set #1a	Set #1b	Set #2a	Set #2b	Set #3a	Set #3b	Set #4a	Set #4b	Set #5a	Set #5b	Set #6
All screen Loudspeakers left of center	1	1	1	1	0	0	1	1	0	0	1
Screen center Loudspeakers	1	1	1	1	1	1	1	1	0	0	1
All screen Loudspeakers right of center	1	1	1	1	0	0	1	1	0	0	1
All Loudspeakers on left wall	1	1	0	0	0	0	0	0	1	1	1
All Loudspeakers on right wall	1	1	0	0	0	0	0	0	1	1	1
All Loudspeakers on left half of rear wall	0	0	1	1	1	1	0	0	1	1	1
All Loudspeakers on right half of rear wall	0	0	1	1	1	1	0	0	1	1	1
All overhead Loudspeakers left of center	1	0	1	0	1	0	1	0	1	0	0
All overhead Loudspeakers right of center	1	0	1	0	1	0	1	0	1	0	0

Dolby described the motivation and reasoning for these restrictions. There are 4.5K renders deployed and the restrictions suggested would support CURRENT - non-upgraded existing decoders. This would be a restriction only until full deployment of upgrade software to existing decoders. This is a transitional restriction only. (Estimate could be as short as 6 months, maybe as long as a year.) There may be a subsequent less restrictive restriction that would follow deployment of updates to existing Dolby Atmos decoders (TBD). Dolby's goal is full compatibility with the SMPTE standard, but will provide any necessary restrictions if determined sometime in the future.

Should these set of restrictions be called "Profile 1?" This would be applied to mastering software restrictions. This would be a temporary authoring restraint

that would be in place until deployed systems have been upgraded.

One suggested that it is appropriate to publish this within ISDCF. However, ISDCF doesn't have sufficient visibility worldwide and may not have sufficient coverage. Perhaps this could be in SMPTE, but that might take too long. If it's a temporary restriction, maybe ISDCF is OK.

There is concern that this would become a new "Interop-DCP" and would make it very difficult to upgrade to the final SMPTE standard. Sort of - a different issue and it would not be as serious.

Q: What will happen when a file is delivered to Dolby Atmos rendering systems that exceeds these restrictions?

A: Dolby thinks that their rendering system will ignore the elements outside the restriction, but will not "crash" system. It may not meet artistic intent. (Items may not play back.)

Q: Should there be a flag in the file to indicate which profile has been used to create the file?

A: No enthusiasm for a flag of this type, however there is a defined field indicating version in ST2098-2.

Suggestion to have a meeting of an ISDCF immersive audio drafting group to discuss these issues. Steve LLamb is taking the lead to call for a meeting. The results of this discussion can be posted (temporarily) on the ISDCF website and immediately be forwarded to SMPTE for formalization (if needed).

Jerry drafted a possible entry for the website following the meeting:

ISDCF (Future) Document 15 - Immersive Audio Constraints (Temporary)
Following the Immersive Audio Plugfest held in February 2019 it was suggested to have a TEMPORARY constraint document for AUTHORIZING of immersive audio streams (restricting SMPTE ST2098-2 and SMPTE ST429-18) due to the current non-upgraded rendering systems in the field. We anticipate this restriction to be lifted within a year (By February 2020). The submitted draft document can be retrieved [HERE](#).

We are not ready to discuss items that should be removed ENTIRELY from the immersive audio standard - certainly not within ISDCF.

Should we schedule a follow-on immersive audio plugfest? Not at this time. Should the next plugfest be critical listening or just interoperability? Probably just interoperability.

It was pointed out that a package that is a current ATMOS SMPTE-DCP package is compliant with SMPTE ST2098-2 and SMPTE ST429-18.

Trailer Levels

NATO issued a resolution asking for trailer mixes to be reduced by 3db. A change from Leq_m85 to Leq_m82 . NATO plans to share the document with TASA. It was shared with ISDCF.

There were no discussions in NATO for feature levels. It was confirmed that there are no "standards" for feature levels, although current practice is to monitor at fader level 7 for playback.

EDCF Updates

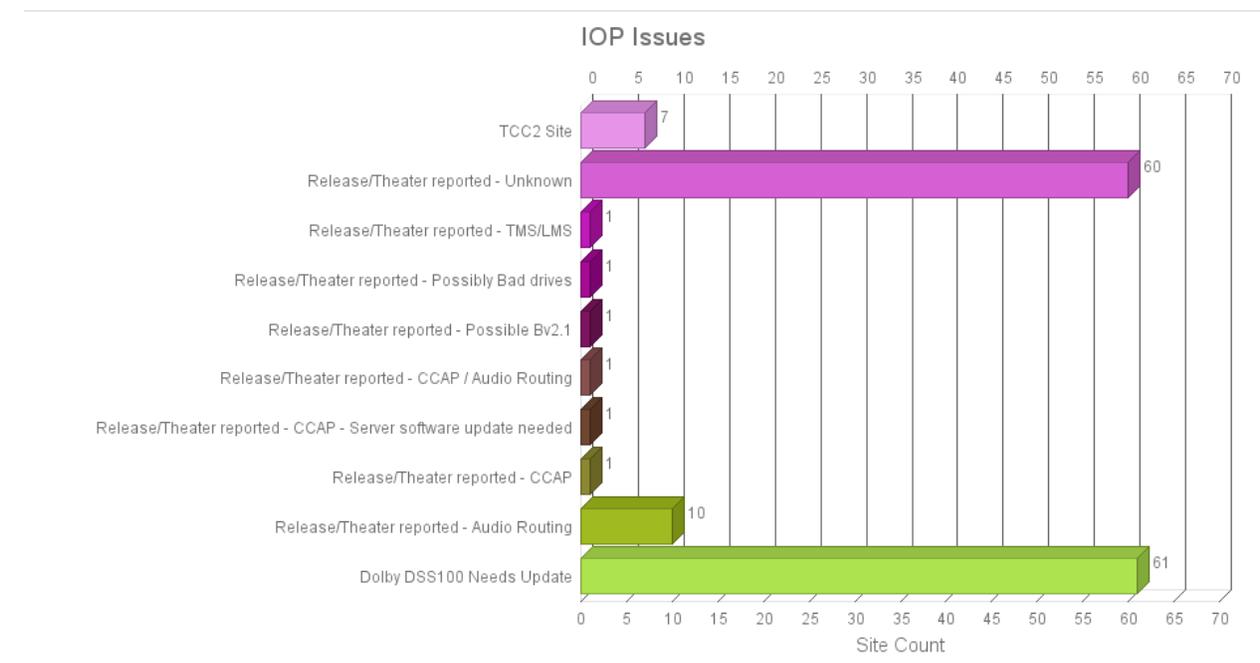
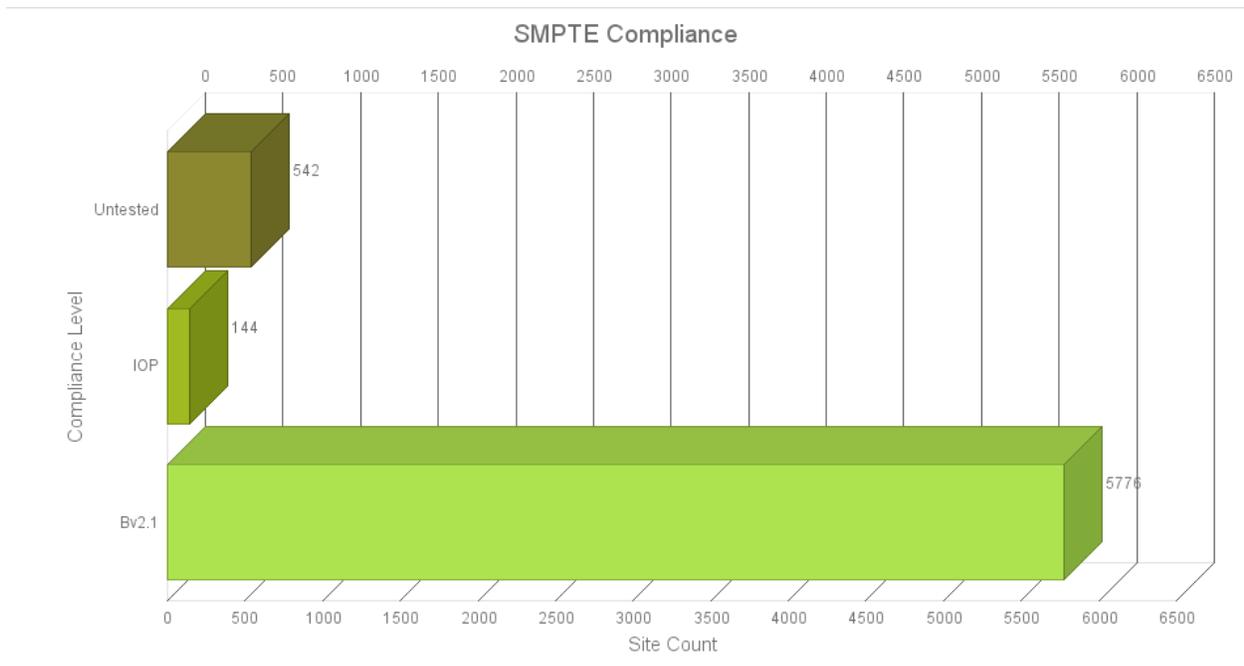
SMPTE-DCP update meeting (number 34) held. Many countries are "done." See the list on <https://www.smptedcp.com/status/europe> or other regions. The group is considering how to help other regions - such as middle east. At this time the focus will stay on Europe at this time.

SMPTE-DCP Updates

Last weekend was after the NATO date certain for domestic market releases in SMPTE-DCP. Universal stepped up and made lots of calls to sites that are not listed as updated.

Important milestone!!!! US is now over 90% (90.24% to be exact) SMPTE!

Yes, this is only counting Exhibition/ Active sites (as are all other totals). 140 of the 144 IOP sites are getting content. 82 of those 140, getting first run content quite regularly.



Globally, [SMPTEDCP.com](http://www.smptedcp.com) is being updated regularly. I added sortable, filterable, downloadable sheets to each page and (per region and country) to the main summary page at:

<https://www.smptedcp.com/status>

April Summary

Country	Total Sites	Sites Tested	Sites Untested	% of Sites Tested	Total Compliant Sites	% of Compliant Sites from Total Sites	% of Compliant Sites from Tested Sites	Comments
Poland	500	316	184	63.20%	282	56.40%	89.24%	120/122 commercial screens now compliant.
Belgium	143	127	16	88.81%	120	83.92%	94.49%	
Switzerland	333	71	262	21.32%	69	20.72%	97.18%	
Italy	1474	147	1327	9.97%	147	9.97%	100.00%	Meeting set to accelerate the test program (April 17th). They want to complete by end of May.
France	2100	1541	559	73.38%	1541	73.38%	100.00%	No update received
Germany	1326	949	377	71.57%	949	71.57%	100.00%	
Austria	155	112	43	72.26%	112	72.26%	100.00%	

Also, be sure to check out the new 'Status by Region/Country' summary sheet on the web portal.
<https://sites.google.com/smptedcp.com/dcp-migration-project/status>

EDCF Summary

Further, the next EDCF SMPTE Rollout Meeting will be Monday 13th May @ Dolby, Soho Square, London. This is the day before the London IMF Plugfest so some interested persons from ISDCF may be in town and they are more than welcome to join in person if they so wish.

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Domestically, if an exhibitor requests an Interop-DCP one studio is planning on offering a minimal version - only 5.1 without all features and may not include accessibility features. They plan to encourage the exhibitor to upgrade to accept SMPTE-DCP.

A question about SMPTE KDM - that transition was completed about 10 years ago.

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Lunch Break

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ISDCF Test Content VB2.1

There is a cryptic matrix at the bottom of the page at <https://isdcf.com/t/SMPTE-DCP-Tests/> - but we need something better. Steve LLamb has a draft SMPTE recommended practice document for this. We shared the very draft document on the screen. We are aiming for a TSP SMPTE publication at this time.

This will continue moving forward outside of ISDCF and inside of SMPTE.

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Naming Convention

Updates made for OV in the region section. (Thanks Kirsten) See <https://isdcf.com/dnc/home/appendix-2-introduction-to-territory-and-rating.html> and <https://isdcf.com/dnc/home/appendix-2ab-territory-codes.html>

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TDL Follow on discussion from last meeting

Some companies are trying to create TDL in territory and need to information from exhibitors about equipment. BUT it's a catch 22 since exhibitors have not heard about these companies and ignore the request. Is this something distributors should take the lead to enable communication?

No clear direction was set for moving forward. This is seen as a distributor / vendor issue since they are experiencing the "pain".

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ISDCF has set up a discussion list for sharing on TDL information (very quiet so far). To subscribe: <http://lists.isdcf.com/listinfo.cgi/tdl-isdcf.com>

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High Frame Rate

Paramount has been doing a good job of getting ready for Gemini Man, due out in October 2019. Final decisions on the formats that will be released have not been made.

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Digital Cinema Levels

Jerry came up with naming for Digital Cinema Levels to avoid the term “HDR” in the cinema. The proposal was (briefly) described.

Digital Cinema Levels	Name	Master	Highlight Max
DCL-S	Standard	14G Standard Master	14fL
DCL-Sc	Standard High Contrast	14G Standard Master	14fL
DCL-H	High Brightness	30PQ Master	30fL
DCL-Hc	High Brightness High Contrast	30PQ Master	30fL
DCL-E	Extended Highlights	90PQ New Extended Master	90fL

Mainly for avoiding the issue of naming with the same nomenclature used in the home / consumer market.

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Updated B2.1 and Reference sizing charts

These are on hold... when immersive is final we will update the charts/ reference material.

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Laser Direct View

Not a lot of activity at CinemaCon. DCI published a background document on HDR. They are requesting input by May 31, 2019.

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Review of Action Items from last meeting.

Action Items from February 27, 2019

1. Provide language for John Fithian to consider for his opening comments to CinemaCon. Done.
2. Add "OV" into the naming convention for region code. Done.
3. Make a test package with slightly different content in the CPL Content Title Text, TKL text, etc for testing at the next plugfest or to conduct a field test of systems to see where the user displayed content is from for different TMS/ Servers. Later, for future plugfests.
4. Set up a TDL discussion list as part of ISDCF for conversations on TDL. Done.

From Last Meetings:

5. Post new versions of the framing charts. (Put on long term hold.)
6. Pierce will send the next "nastygram" to exhibitors that need to be upgraded in March 2019. Done.
7. Get a new version of SMPTE-DCP B2.1 with fixed CPL. (Put on long term hold.)

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Updates:

Eclair gave a brief update.

Dolby introduced a new audio processor at CinemaCon

CineCert introduced new software

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Attendance on next page.