ISDCF Main Meeting Notes – July 18, 2018

<u>Upcoming Meetings</u>

Wednesday, September 5, 2018 at Universal
Wednesday, October 17, 2018 Universal
December 12, 2018 Universal
Possible Audio Immersive Plugfest February 25/26, 2019
ISDCF Meeting Feb 27, 2019

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

Part 1: General Reporting

Housekeeping:
- 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.
- InterSociety is providing lunches!! Please become a member!!
- Thank you to Universal for the facilities and parking.
- Thank you to Universal for support of the Chairman.
- Thank you to Inter-Society for providing the funding for notes, travel, general expenses, LUNCHES! and admin support.
- Thank you to Universal/Intersociety/Susie for the coffee and treats
- Meeting notes from May '18 approved - with addition of note from Harold
- InterSociety request to be a member! $500/company. Please Join Inter-Society! www.intersociety dot org / become-a-member / $500 per company per year, $100 individual membership.
- Legal reminder / press reminder. A verbal description was provided at the meeting. The information is on the front page of isdcf(dot)com.
  * 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.

Attendance is at end of these notes.

Action Items from July 18, 2018

1. Please Join Inter-Society! http://www.intersociety.org/become-a-member/ $500 per company per year, $100 individual membership.
2. Radford/Hanniball to provide an updated Doc13 that includes the link to GitHub for comments.
3. Create webpage with details of framing reference chart details - what to expect and how to read it.
4. Get more examples for the digital cinema naming convention from other studios.
5. Create a license-free immersive audio file for creating immersive bit stream content to test - Mike R? Pete L (Fraunhofer)?

From Earlier Meetings:

6. Update test content (B2.1) to include breadcrumb features for a general update and include the framing charts (multiple CPLs) and include IAB content. (Pierre/Eikon/Deluxe)
7. New ISDCF Document in process: "Delivery of non standard extension content for Digital Cinema" (Dean/Jerry)
8. Need for an ISDCF recommended practice for what to expect in the CPL metadata. It will point to the appropriate SMPTE documents for the true authority, but it is targeted at general users (exhibitors) for layman language on what is in the metadata. (Steve/Jerry will revisit)
9. Subgroup to edit / recommend changes for Document 12 - RP for Ingest Behavior - Steve L to lead, Dean B, John H, Mike R, Jim W, Chris W, Bill E "volunteered" to participate.

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Trailer Level adventures - report from the field.

Background: NATO conducted a survey of theater operators and the report was that only 6% of theaters played trailers at fader level 7.0 or higher, 40% between 5.0 and 6.9 and a whopping 54% played trailers below fader level

5.0 (Features were 18% at 7.0+, 56% at 5.0 to 6.9, 26% below 5.0).

Specifically the following Conditions have been asserted:

1. Some trailers, when reproduced at the standard -20dB FS * "7" = 85 db SPL C Avg., are not comfortable for many patrons and result in customers complaining and management turns it down,

2. Because of (1), many theaters are running trailers (and maybe the feature) with system volume below "7", often "5.5" (-5 dB),

3. Sound system volume, when set for comfortable listening with current trailers, is often inadequate for the feature, leading to competing claims to raise and lower the system volume.

To follow up on these anecdotes, NATO and ISDCF assembled an informal group of cinema professionals to determine what activities, if any, NATO and/or ISDCF might pursue to address the issue.

The ad-hoc group of exhibitors, studios, equipment manufacturers, and service providers gathered for one afternoon and one morning (mid-July 2018) to listen to some trailers in a variety of conditions. We decided to use a subset of the current set of trailers that are running (the Test Set.) It is asserted, but not audited, that all of these have passed the TASA LEQm target.

Test Set:
        Bohemian Rhapsody
        Creed II
        Fantastic Beasts - 2
        Mamma Mia - 2
        Alpha
        Slenderman
        Preditor

Boy Erased

We first listened to each of the Test Set items at each of the two Deluxe ITC stages that are used for QC of theatrical product. Then we went to 10 local screens at 3 locations around LA including 3 PLF theaters.

The group reports informally the following observations:

A. Condition (1) was true for many of the trailers screened. The group screened some of these trailers at lower system volume levels and found some basis for the belief that some trailers are mixed to be played at system volume "5.5",

B. It was observed (via consensus of uncalibrated but not grossly inaccurate SPL meters) that sustained SPL of 100 dB "C" Avg. occurred for at least 20 seconds in at least one of the trailers. It was the impression of the observers that this particular occurrence was not quantitatively different than many other occurrences in that trailer or other trailers of similar volume,

C. It was observed that the average volume of a given trailer (typically determined by the announcer voice level) may vary from another trailer by 15 dB or more.

D. Commercial theaters exhibited HF rolloff compared to the review rooms. This tended, for some, to reduce the discomfort at higher SPL.

E. Material reproduced at reduced system volume may exhibit apparent imbalances that several observers found objectionable. Key among the complaints was reduced dialogue intelligibility. Reduced surround impression and LFE impact were also cited.

Based on these observations, the ad-hoc group members agree that there is a basis for further study and perhaps technical

action to address any systemic deficiencies that may be identified.

Because there is an already an established industry process for observing trailer sound modulation levels, **the ad-hoc group members further agreed that the group's observations should be reported to TASA.** A face-to-face meeting is also offered to allow TASA technical management to explore the group's observations.

Now to some background random questions and observations:

The mix sounded very much the same in theaters as in the mixing rooms. Some exceptions (high end roll off making it easier to listen at full volume), but generally the issue is the mix itself, not theatrical playback systems.

Below are the observations made during the ISDCF meeting:

1) One of the theaters had the fader set to under 4.0 - management indicated this theaters was commonly attended by "little old folks that are coming for a low cost theater experience and they don't like it loud."
2) We didn't have any creatives in the review room to see if it was as they expected. Final approval for some distributors is head of marketing.
3) Some think that mixers target LEQm for their mix, not with attention to the peak and/or section SPL levels.
4) So a question: is it that the LEQm level needing adjustment OR are other criteria needed for "TASA" approval. Probably should be part of the TASA discussion. BUT the general feeling is that current level is about 6db too loud and a change of 6db in LEQm would be too much.
5) One observation was that in one of the trailers the SPL "C" Average level was 110db in parts of the trailer.
6) When trailers are played back at lower volume (5.5 fader setting) the mix is MISSING some of the content. It just is not hearable. If you don't know what you are missing, not a big deal, but the creatives should know that the some subtlety is missing.
7) How do we fix this so audiences experience a good mix for both the trailers and feature? Especially how do we do the transition to not disadvantage those that make changes?
8) One PLF theater we played a non-optimized trailer and it didn't sound right. Their optimized trailers, sounded fine (Jerry's opinion.)

9) How does TASA compare to the measurement system for broadcast? Broadcast does not use LEQm system and TASA is a volunteer standard. They are different standards with different goals.
10)   Most theaters automatically change levels between trailers and features.
11)   Do the TASA approval organizations have historical information on the LEQm measurements of trailers? This would be a TASA effort for looking forward.

Why does it need to be fixed? The current practice of turning down the trailer fader setting to 5.5 results in a sub-optimum experience for our patrons. In some cases this setting ripples into the feature so it's not at an appropriate level, again resulting in a sub-optimum experience. Theaters are well matched to the professional mixing stages, we should provide a better experience in the theater.

Possible approaches to correcting this:

I. **Develop a new TASA-like requirement so all mixes could be played back at 7.0. May require a new set of measurement standard (we are talking a change of about 5db).**
II. Make 5.5 the new standard for trailer playback and develop new guidelines (TASA at 7.0 would still apply)
III. Provide metadata to control in-theater playback levels
IV. Pre-compensate prior to release by service providers (similar to IMAX approach)

Perhaps LEQm has too long an integration time so the TASA requirement might be changed that allows the LEQm measurement to remain unchanged, but if the change shifts to make trailers less annoying.
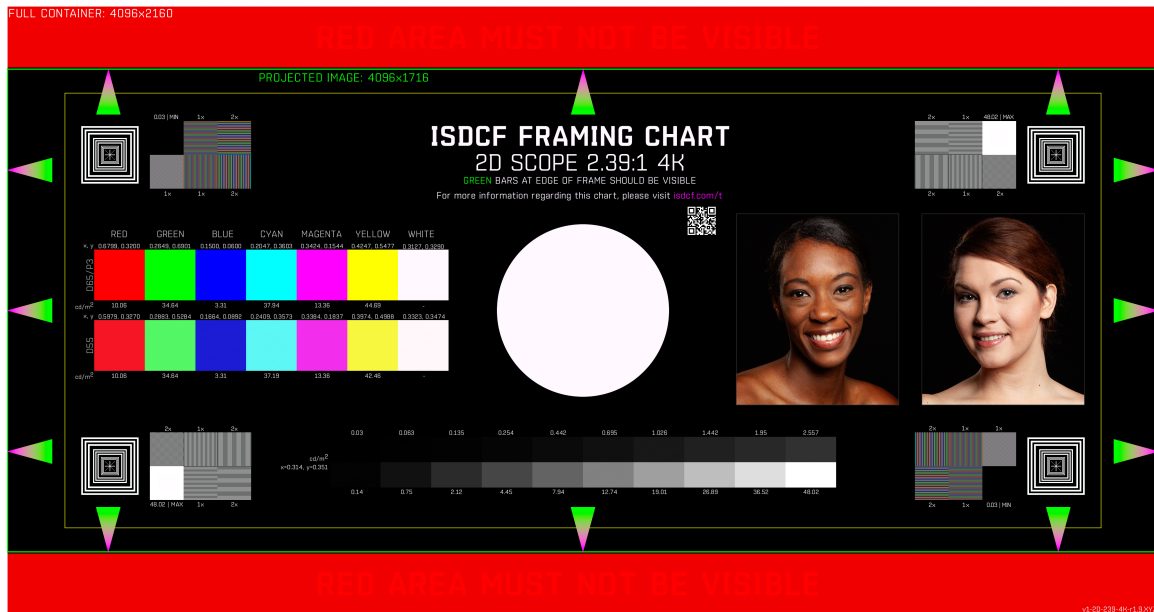
Suggested approach: Contact the Chair of TASA and describe the situation. Ask TASA to revisit the standard in light of how trailers are being created today.

Ultimately we want to get the faders back to 7.0 in the theaters.

NATO and ISDCF will write a letter to TASA to help them call a meeting and revisit the standards.

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Reference sizing charts

An updated version was provided by Eikon at the Trailer Audio session at Deluxe. We made a number of comments at that time and a new version is below (not shown during the ISDCF meeting, but after changes suggested).

Currently there are six charts being designed.
(2K scope, 2K flat, {2K flat/left eye, 2K flat/right eye}, {2K scope/left eye, 2K scope/right eye}, 4K scope, 4K flat)

Note that the outside line is Green (good) and the internal line is yellow (sort of safe title, but we are not calling it that - in fact the name has been removed. It is a 10% safe title line that will be described on the ISDCF(dot)com/t website).

We will also post the TIFF of each of these frames (8 frames).

The final DCP's of these framing charts be posted on ISDCF(dot)com/t and a request that the DCP's be included in the distribution of trailers so anyone has easy access. There is also a desire to update the current ISDCF

SMPTE-DCPvB2.1 test packages. Hopefully these will be prepared at about the same time as the framing chart.

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Next Generation Displays - Direct View and HDR projectors

DCI Requirements issued "DCI Memorandum Regarding Direct View Displays, Approved 27 June 2018"

An email was sent to the DCI reflector (if you didn't get this notice and want future notices, go to www(dot)dcimovies(dot)com/subscribe.html) If you want a copy of this memo go to www(dot)dcimovies(dot)com/ announcements/DCI-Memo-On-Direct-View-Displays_2108-0627.pdf

ISDCF Chairman's read is:

DCI's document seems to be good! We want to discuss with manufacturers to understand some nuances of the requirements, but from a high level it appears to be a pragmatic approach to providing a uniform image experience for our patrons.

A few highlights:

1. Minimum pixel count of a direct view is defined as a 4K display - BUT (and this is really good) if more pixels are used then non-integer scaling would be permissible - as long as there are no perceived artifacts.
2. It seems to be setting the peak luminance at 500 nits (146 ftL) - but I'm not 100% positive about this one. It doesn't limit higher values, but a new DCP would probably be restricted to 500 nits.
3. The issue of sound says that the sound must accurately reflect the filmmakers intent.

Most at the meeting felt that it was too early to give comments on the memo.

But there were a few comments:
• The black luminance requirement of 0.001 nits and it seems that this will be challenging.
• Are studios contemplating making new DCP's that meet these

requirements?
- Who will verify that scaling doesn't have artifacts? Test labs. (Maybe there will be a new test procedure with an artifact-o-meter.)
- Question about uniformity comparing projectors to direct view. Should direct view match the non-uniformity of traditional projectors?

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Make ISDCF Doc 13 Video sign language official

There is a request to update the ISDCF Technical Document website to make the video sign language document not a draft document. A new document was submitted and has been posted. The group agreed.

There was a request to include the link to the GitHub site IN THE DOCUMENT.

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Getting ADA movie capabilities information

Most distributors say that ALL officially released movies will have all forms of ADA requirements. (Does not apply to pre-release movies.)

This also applies to run time. Sometimes the actual run time is not known (or changes) just before release.

Deluxe stated that they will post the information asap, but they need to wait for distributors to finalize and allow them to release the info.

Where should exhibitors go for movie information? This is probably a NATO issue, if at all.

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ISDCF Registry page updates

There have been updates to the isdcf(dot)com/register/ and a few updates have been made.

It probably is not complete, but we welcome folks to send info to privateurls@isdcf.com for changes.

ISDCF Register

This page collects URIs and Universal Labels that are found in D-Cinema Packages in general, and in Composition Playlist Metadata (SMPTE ST 429-16) in particular, but are not otherwise specified by SMPTE engineering.

Please submit any additions to this site to the address privateuls@isdcf.com.

Private ULs identified by ISDCF. Go HERE
MetaData Extensions by ISDCF. Go HERE
KDM flags. Go HERE.
ISDCF Class 13 UL's. Go HERE

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Immersive Audio Plugfest

Virtual Audio Plugfest is sort-of underway, but probably not until early 2019. It looks like we can begin scheduling a real plugfest in early 2019.

Dolby has content to share (with license). ISDCF continues to nudge Radford to create content that is license free. Fraunhofer may also create content.

Possible Audio Immersive Plugfest February 25/26, 2019
ISDCF Meeting Feb 27, 2019

Subgroup will write down the key goals for the plugfest in February. Some believe it's not a "critical listening" test. If you are interested in becoming a member of the subgroup, contact Steve LLamb.

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Lunch

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Asian Subtitles… Anything? Nope. They will call us, we don't need to call them.

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SMPTE-DCP Updates - Status and impact of joint letter to exhibitors

Letter send to lots of places - signed by NATO, studios, and service

providers - basically saying, please update!! It's working!

If a site is TCC2, there is a software update to allow use of current hardware to be SMPTE-DCP ready.

What's Interop:
383 sites now on interop list
  165 list "Dolby DSS100" as problem
  25 list "TCC2 Site" as problem
  141 list "unknown issue" as problem

There was a question about series one projectors that couldn't upgrade to SMPTE-DCP ready. It looks like there is a work around via software in servers.

Slow but steady progress…

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Submission to ISDCF for Digital Delivery of DCPs Recommendations Document

There was a document sent to ISDCF (and EDCF) asking for a new ISDCF Technical Document for digital delivery recommendations.

We asked the submitter to describe the problem being addressed.

Some distributors are REQUIRING sending hard drives to each location instead of allowing a single copy to be distributed via broadband. There seems to be a misunderstanding of the security issues with the DCP. There is a need for a reference guide of what works and what doesn't work - including security issues for recommended practices.

Seems that distributors don't understand that open distribution of DCP's and KDM's does not put the security of the digital cinema at risk. It may be a layman's terms of what can be safely done.

Could we create a document explaining of ways of delivering content (i.e. satellite, hard drives, VPN-net delivery, aspera, FTP, etc.)?

The proponent will create a document of ways to deliver content. Others have volunteered to help create this (short) document.

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Status of alternate audio language delivery

In the past we identified nomenclature for delivery methods:

Discussion for Alt Delivery of Content

Content Delivery Flavors

1. **Common DCP playback (existing, DBox, Auro 11.1, video in audio track, FSK sync) [inherent sync]**
2. **Special Venue DCP - Standard CPL extensions (additional playback devices - not "standard" i.e. Dolby Vision, generic aux, DTS-X, uses MXF) [inherent sync]**
3. Non-Standard Special Venue DCP - non-standard CPL extensions (Atmos, Barco Escape, Cinema Giant Screen) [inherent sync]
4. PKL content delivery - Not CPL referenced BUT referenced by packing list. [externally defined sync]
5. Out of Band Content Delivery - "sidecar" - not CPL referenced, non SMPTE formatted content, no packing list referenced (MyLingo, Some motion seats, ScreenX) [externally defined sync]

Sync of external devices for playback

A. 430/10 ethernet sync
B. AES / FSK sync 430-12
C. **AES / Digital Sync 430-14 Uses SMPTE sync signal**
D. Uses sync signal from server (LTC)
E. Audio fingerprinting sync

In Theater Communication:

i. IR link
ii. WiFi
iii. None

Some distributors are encouraging delivery (5) to personal devices for alternate language (in US and Europe). They are exploring means of delivery and looking for a common future solution.

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TDL List management - how to get updates to all TDL maintainers?

How do small exhibitors update their certs to all the various entities that maintain TDL? (It seems there will be many TDL lists maintained as new service providers come to market.)

FLM & FLMx is the technical solution. It's a business issue.

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Update to SMPTE standards to reflect the currently used profile. (i.e. ISDCF Test Content B2.1 profile) [In process.]

If there is interest in changing the DCI standard to remove some security aspects that are not used, the best way is to signal this directly to DCI. It would be best to include alternatives.

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Ghostbusting

RealD has changed their policy and their ghostbusting code is now open to all.

New policy from RealD:

"The full code has been cleaned up, and is available at: github(dot)com/realdinc/RealDGhostbusting .

"It doesn't require any license keys for end-users, so this can be used on any system (RealD or otherwise). We're not requiring end-user keys to license the code either."

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For further information: contact Tony Davis tdavis@reald.com

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Naming Convention

We still are looking for other example CPL names for the naming convention.

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Attendance on next page.