ISDCF Main Meeting Notes – May 9, 2018

<u>Upcoming Meetings</u>

Wednesday, July 18, 2018 at Universal
Wednesday, September 5, 2018 at Universal
Wednesday, October 17, 2018 Universal

(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 March '18 approved.
- 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.
    * 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 May 9, 2017

1. Please Join Inter-Society! http://www.intersociety.org/become-a-member/ $500 per company per year, $100 individual membership.
2. M. Radford may begin gathering scaling test content for direct view imagers.
3. Start presentation for various methods of supporting next generation displays. (Pierce, Lude)
4. Create a license free immersive audio file for creating immersive bit stream content to test - Mike R? Pete L (Fraunhofer)?
5. Ask Eikon to move the "safe title" line and change the name and then ask to publish.
6. Generate a rough FLMx service proposal for going forward maintenance of TDLs.

From Earlier Meetings:

7. Steve LLamb will lead the ad-hoc group to gather immersive audio DCP/bitstreams for a virtual plugfest mid April.
8. Steve LLamb will draft documents to review then submit to SMPTE for creating a constrained profile / "application" to meet needs to create a DCP that has a better chance of working everywhere.
9. Provide updated (and finalized) reference framing charts. (Eikon)
10. Create webpage with details of framing reference chart details - what to expect and how to read it.
11. 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)
12. Documents will be drafted for possible changes to DCI specs (references to SMPTE and the CTP) (Steve). Initial version of proposal to be discussed prior to next meeting - any suggestions please send to Steve LLamb.
13. Get more examples for the digital cinema naming convention from other studios.
14. ISDCF wikipedia page! Volunteers?
15. New ISDCF Document in process: "Delivery of non standard extension

content for Digital Cinema" (Dean/Jerry)
16. 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)
17. 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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Meeting notes are now posted (without attendee list) in a folder on the web. (Minor password protection.)

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Next Generation Displays - Direct View and HDR projectors

We saw a number of new image display technologies at CinemaCon - including LED and "Beam Steering."

There was a field trip to see the Samsung LED screen showing the "Avengers: infinity war." (A regular performance, not a demo.) About 2/3 of the ISDCF members raised their hands indicating that they have seen the display.
Random Comments:
• Surprised that the audio was not awful. Not as good as a normal theater, but was not distracting from the movie.
• The audio was very distracting that the dialog was coming from above the screen and not from the screen.
• When seated in the second row, the dialog was worse and was even muffled.
• Generally, the closer to the screen, the worse the sound.
• The subwoofers seemed to be much louder than normal (almost felt like it had butt-kickers).
• Up-close there seemed to be some image-smearing going on.
• In general the image was deemed acceptable (at 14ftL).

- The didn't seem to be using normal blacks - they went too low. It probably should have been a slightly higher black than what was shown.
- The image uniformity was really good (no vignetting) - but it is not what the creatives approved.

Discussion of the Barco 2020 Beam Steering Technology demonstration at CinemaCon.

Random Comments:
- The demonstration was not open to everyone - competitors were not allowed to view the demo.
- Very interesting new technology and good to see a different projection technology
- Good to see new breakthrough in imaging

Resizing of images for future displays

Need for creation of test images for scaling testing. This might be the way to include scaling for the CTP (compliance test plan).(What do you do about a display that is 6K? Are you allowed to fill the grid?)
We also talked about other motion artifacts, color grading, black levels that might be revealed on new display types. The need was identified for new test content to explore this space.
  [M.Radford offered to start gathering test content for temporal artifacts, black levels and even scaling. Also Steve, Reiner offered to help.]

Some indicated that the continued expansion of "proprietary" standards was problematic (SDR, Dolby Vision, IMAX, Direct View, Beam Steering, EclairColor, etc.) Can't we just create a limited number of masters that would meet the overall image goals of the industry.

Are we headed to a lowest common denominator solution?

Is cinema willing to accept different images on different projection systems? The intent is to have all images to be the same as that created in the mastering suite - so today SDR masters that are created with a 14ftL peak should play at 14ftL on all displays.

Is it time to start talking about what is needed for standards for these next generation of displays?

We probably should always maintain the standard SDR master for all releases, the question is what to do for next generation displays.

We COULD move the mastering into the studio suite to create an "uber master"

Lots of approaches to deal with the new displays.

Fixed creative HDR master (fixed peak, fixed contrast) If your system doesn't achieve these, you don't get this master. If you can do more, the system is limited to these fixed goals - meeting creative intent) or

Tone Mapped master — projectors use dynamic data to make it look as good as possible. New standards may be required. Complications for QC and creative sign-off. Update standards for DCP delivery. Encourage innovation in new projection technologies. What is the reference display?

And a hybrid approach: Another way is to create an uber- tone mapped master (not to be delivered to theaters) and create separate derivative distribution for the other solutions. (Sort of where we are headed now.)

A lot more discussion and details needed on where to go. We need to understand the impact of new higher brightness/contrast in terms of audience impact.

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Immersive Audio Plugfest

IAB (Immersive Audio Bitstream) from SMPTE 25css.

Current Status: Shared bitstreams off-line to demonstrate interoperability

of bitstreams. No face to face plugfest is planned at this time.

Dolby provided source content that could be used to create sharable IAB streams. BUT it requires an NDA for use of the source content. Moving forward in executing NDA's, but it's taking time.

Q: Why do we need an NDA?
A: the source content has Dolby's name on it.

Q: Can't we just have simple sounds without requiring an NDA?
A: Sure, who is going to provide it?
A^2: Fox/Lude/Fraunhofer might be willing to create these simple files without NDA required.

Current plan (sort of): Create these test DCP's of IAB content and broadly share (via ISDCF website). When ready (probably in 2019) hold a face to face plugfest with at least 3 vendors to have demonstrations and discussions on the actual status of the immersive audio standard.

We need to get content that we can use to test.

It appears that the FSK sync will be used in solutions that are coming to market and not use the SMPTE sync protocol.

Note from Harold:

> This deals with "external rendering" like the CP850. I know of one external rendering system (besides the CP850) that is now available. It does use SMPTE ST 430-14 sync and transfer instead of the ST 430-12 FSK sync. The other approach (internal rendering, as done by QSC/USL, GDC, and Dolby) does not require synchronization or transfer. The immersive audio constraints document requires ST 430-12 FSK sync be present to support the installed base of CP850s.

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Lunch

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Reference sizing charts
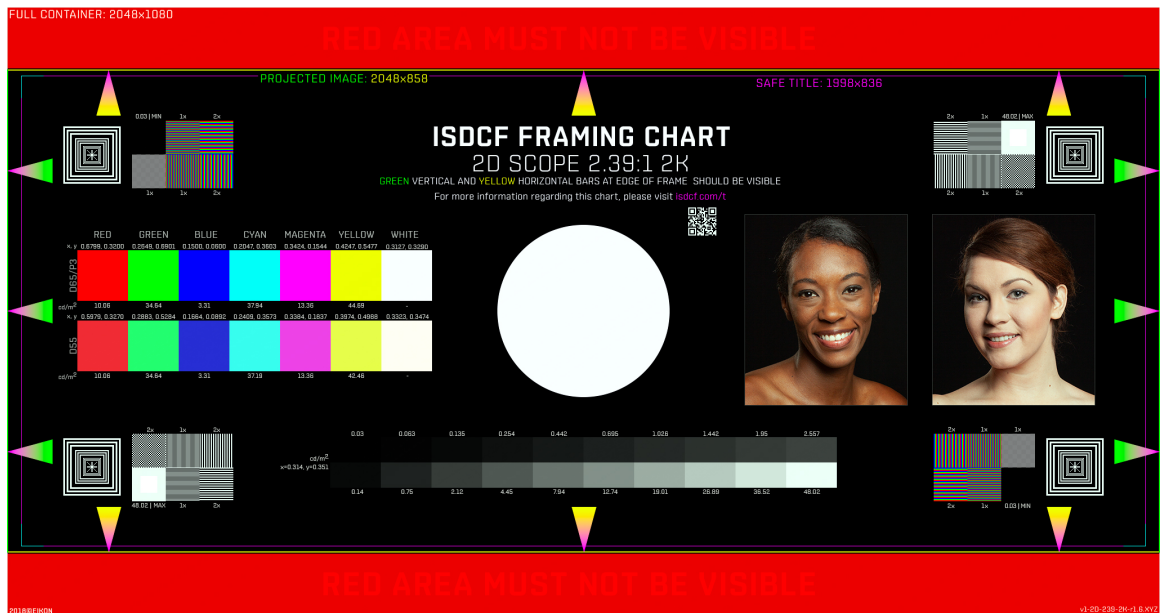
An updated version was provided by Kirsten/Eikon

Currently there are eight 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)

We commented on the new proposed charts. Lots of comments including:

Should it be a full container or a cut container. The general feeling is that for this test content it should be a full container. (The red bars are good.)
It IS clear that safe title is at the wrong place and should be re-marked as "this line should be seen." It should give at least 10% safety (5% each edge) from edge. (For 2048x858 the "this line should be seen" is at least 1843x772).
There were comments on the colors of the arrows.
There were comments on the line pairs and describe what you see. We decided that would be posted on isdcf.com/t/ site.

What is the use case for the framing charts? This will be put on the ISDCF Web site.

The ONLY recommendation the chairman is making to Eikon is to change

the "safe title" name and location.

Steve/Eikon/Pierre to update the test content and include the breadcrumbs identified and also include Atmos (or IAB) content.

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

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.)

Can a portal exist that allows exhibitors to enter changes (moved equipment, updated equipment) that can feed a FLM feed to anyone maintaining a TDL list? Is there an "open" not-for-profit that could provide this service? Those that "need" the service would benefit. There are companies that have technology solutions. No one NOW has a service offering these solutions.

There are regional issues as well - China manages their own TDL and may not want help in solving this issue (they have solved it). Other countries have similar issues.

Two exhibitors in the room confirmed this is a growing problem. It's getting more complicated in who to notify when things change.

Technology is available - FLM and FLMx - other folks can help solve the problem.

There are a few organizations that gather this info and then shares (using FLMx) with TDL maintainers for groups of exhibitors (DCIP, as an example), but we don't have the equivalent for many exhibitors, especially the little guy.

Who could organized this? NATO? GCF? It's a modest software effort. The chairman asked for those that could provide the infrastructure to contact

him to bring to exhibitor organizations.

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Sound levels in the Theater

Observation: Last night at the field trip a group of experienced cinema types saw a movie and trailers. The sound fader seemed to be set to "6" (but we could be wrong) and we did not object to the sound being too loud or too quiet.

Do we know what the problem is?

Lots of anecdotal comments from the discussion. Same movie different locations dialog is too low or just right. Are the mixers adjusting their behavior in anticipation of theaters turning it down?

AES is also spending time on this? Is this an Academy issue? Is SMPTE working on it?
NATO held a summit on SMPTE-DCP a few years ago, we could repeat to discuss the loudness topic.

We don't REALLY understand what the problem is… mix? calibration?

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

In process (S LLamb)

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Highlights from CinemaCon

Sign Language delivery - a judge may have taken objection to ANCINE's delay. Something may be happening there… More to learn.
    Riole demonstrated at CinemaCon for video delivery to seat
    Dolby is releasing an avatar based in-theater sign language system

(exhibitor provided)
Universal continues to release video sign language content in Brazil.
(KDM's were not turning off selective audio.)

New form of theatrical HDR - light steering technology (article in SMPTE Journal on the technology)

3D ghosting complaints internationally? Could be related to **active Z subtitles** for international releases. Not as many Z subtitles domestically… No good understanding from discussion.

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Subtitles Asian - underway in SMPTE

Nothing for ISDCF at this time. Future plugfest? Maybe.

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Instructional Videos - ISDCF place to post them?
 - Similar to Kodak's "Film Notes for Real People"
 - Better to post on the Forum - new topic?
 - No action items - marginal interest at this time

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SMPTE-DCP Updates

The non-SMPTE DCP capable site numbers changing!! From over 700 sites to now just over 524 sites. Mainly due to AMC changing TCC2 to new equipment. 231 sites are still due to out-of-date software on Dolby systems. 45 or so still due to TCC2.

Letters are being sent out to exhibitor chains to get upgraded. Replies come to SMPTE-READY@isdcf.com - but is there an automated way of updating the TDL databases?

Early talk of sending out trailers in SMPTE? Probably not, will wait until all features are going out SMPTE.

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Digital Cinema Naming Convention

Request to add additional UL's to the appendix 4b private URI's document.

ISDCF.com/register contains information on:
Non-SMPTE KDM flags, Non-SMPTE UL's, Non-SMPTE UI's

From Harold Hallikainen:

> There's an interesting list of languages and regions at http://www.unicode.org/cldr/charts/25/supplemental/language_territory_information.html . We COULD use language-region (such as en-us) for language and the region code (such as US for the United States and LA for Laos).
>
> Looking at that page, we find:
>
> Lo for Lao language
> LA for Laos region
>
> Hy for Armenian language
> AM for Aremenia region
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> Km for Khmer language
> KH for Cambodia region
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> That list seems to be a pretty good source. Note that we recently assigned ZK to Kosovo, but the list above has it as XK in the region code list.

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Attendance on next page.