

ISDCF Main Meeting Notes – February 27, 2019

Upcoming Meetings

InterSociety - Wednesday April 3 - 7:30am CinemaCon (Palermo Room)
CinemaCon Meet Up? EDCF/ISDCF? Wednesday at 4pm? Beer? Looking for venue...

ISDCF on April 17, 2019

ISDCF on ~~June 12, 2019~~ Will need to be rescheduled - AGAIN! Probably 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 January '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 February 27, 2019

1. Please Join Inter-Society! <http://isdcf.com/ISDCF/membership-status.html> \$500 per company per year, \$100 individual membership.
2. Provide language for John Fithian to consider for his opening comments to CinemaCon.
3. Add "OV" into the naming convention for region code.
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. Set up a TDL discussion list as part of ISDCF for conversations on TDL.

From Last Meetings:

6. Post new versions of the framing charts.
7. Pierce will send the next "nastygram" to exhibitors that need to be upgraded in March 2019.
8. Get a new version of SMPTE-DCP B2.1 with fixed CPL.

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ISDCF Immersive Audio Plugfest



20190225 setup and 20190226 plugfest

Photos by Steve LLamb: <https://www.lluxoperon.com/ISDCF-IA-Plugfest-20190226/>

SPECIAL THANKS TO:

Deluxe (especially Justin and Steve)

Mike Radford / Fox

Fraunhofer

Barco

Dolby

Xperi/DTS

OVERALL:

FANTASTIC! Accomplished what we were hoping for!

Great discussions. Good feedback. Helping the industry move forward.

Jerry generated a document that summarized his observations and results. This has been posted to <https://isdcf.com/ISDCF/ewExternalFiles/20190226-ISDCF-IAB-Plugfest-Results.pdf> This is mostly repeated in this report.

Summary:

- Two playback systems - All “Basic” playback of current Atmos spec worked well (Great News!)
- Development underway for other parts of the SMPTE Spec
- Great Test Content and better understanding of the SMPTE IAB Spec
- D-Box Compatible
- DTS Content played on Dolby renderer!
- Ingestion worked well, almost everywhere.
- Many SMPTE Advanced features not yet implemented - not sure if all can be implemented - will know more at April ISDCF meeting
- Request to prioritize list of TBD features

Discussion:

Jerry focused on two main playback systems: Barco and the updated software version of the 850. While the legacy 850 was used during the plugfest, Jerry felt that the installed base of 850s would be upgraded by the time the full roll out occurred. Others wanted to pay more attention to the performance of the legacy 850.

Comment that 850s in Atmos installations anticipate upgrades, the installed base of 850s in non-Atmos sites may or may not be upgraded, but ALL 850 sites are given option to upgrade. (But are they driving a full immersive audio systems?)

Note that current Atmos delivered content played fine on all systems (including the non-upgraded 850).

Backward compatibility with DBox was shown.

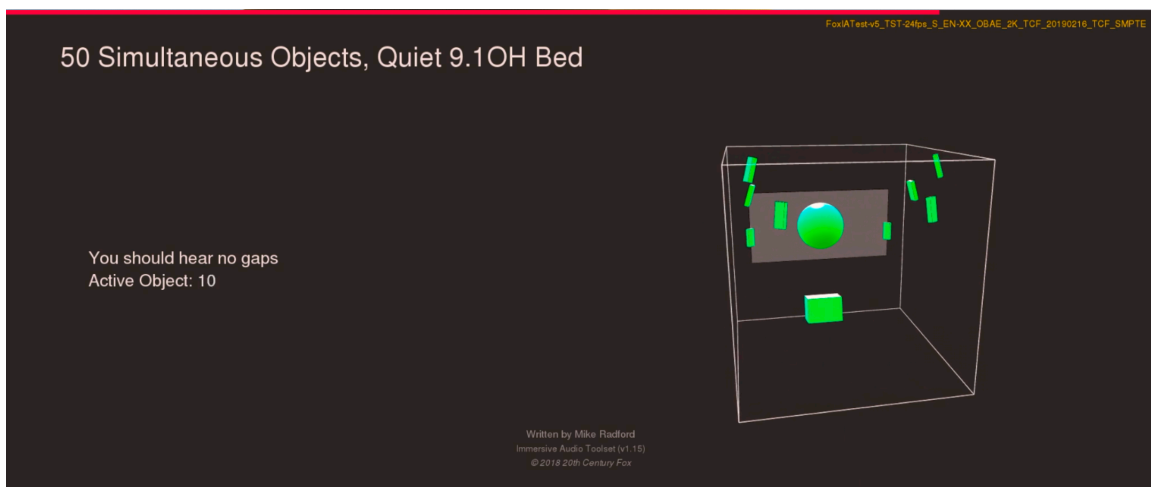
NOTE: DTS authored content played on all devices.

No ingest problems for content delivery.

We expect to see in April if hardware rendering vendors expect to implement all aspects/ features of the SMTPE immersive audio spec. There was a request to prioritize the various features of the SMPTE immersive spec.

A question about the testing of “unknown user data” to see if systems appropriately ignored this (i.e. didn’t crash). Answer: yes it was part of the test.

We described the “killer reel” and the 17 minutes of content (one still frame below). We also described the other test content (see list below).



Content:

Fox Killer Reel (in 24/48/60fps):

FoxIATest-v5_TST-24fps_S_EN-XX_OBAE_2K_TCF_20190221_TCF_SMPTE

Fox Alita Trailer (with D-Box Track):

AlitaBattleAngel_TLR-D_S_EN-EN-CCAP_US-GB_ATMOS-DBOX-HI_2K_TCF_20190223_TCF_SMPTE

Fraunhofer:

FraunhoferlabTestContentV1_TST_S_EN-XX_INT_71-ATMOS_2K_20190125_SMPTE_OV

Fraunhofer Meridian:

Meridian3Beds_TST_S-178_EN-XX_71-ATMOS_2K_20190125_SMPTE_OV

DTS:

DTSOutOfTheBox_SHR_F_EN-XX_US_Atmos_4K_DTS_20190222_DTB_SMPTE_OV

Dolby:

DolbyShattered45s_POL-2D_F_EN-XX_71-ATMOS_2K_20150421_DLB_SMPTE

Note that the DTS content does a good job of demonstrating immersive audio content.

Hardware:

Barco	Dolby	Dolby	DigiCine	Comscore TCC TMS	Comscore TCC TMS
Equipment Information	Equipment Information	Equipment Information	Equipment Information	Equipment Information	Equipment Information
ICMP Alchemy	ShowVault/ IMB	ShowVault/ IMB	IMB	On Barco Setup	On Dolby Setup
1.3.5.2.2078 7	2.8.22-0	2.8.22-0			
APX Sound Processor	CP850 Sound Processor	CP850 Sound Processor	CP850 Sound Processor		
2.1.8.464	2.3.1.5-493 5429 (Beta)	2.3.0.3-459 5940 (Current)	2.3.0.3-459 5940 (Current)		
	TMS	TMS		TMS	TMS

Test and Overall Results:

These all worked...
Ingest Content
Validate Content
Playback of Content
Show that IA is playing
Sync Test
Simple Bed Channel Routing (5.1)
Simple Bed Channel Routing (7.1DS)
Simple Bed Channel Routing (9.1OH)
Object Snap Test - Off
Object Snap Test - On
Object Snap Test - On, Tolerance 0.8
Object Spread Test, Overhead, One-D
Object Spread Test, Screen, One-D
Multiple Objects (3) combined with Snap/Spread Test, Spread On
Multiple Objects (3) combined with Snap/Spread Test, Snap Off, Spread Off
Multiple Objects (3) combined with Snap/Spread Test, Snap On
Multiple Objects (3) combined with Snap/Spread Test, Snap Tolerance
10 Simultaneous Objects, No Bed
15 Simultaneous Objects, No Bed
18 Simultaneous Objects, No Bed
30 Simultaneous Objects, No Bed
50 Simultaneous Objects, No Bed
10 Simultaneous Objects, Quiet 9.1OH Bed
15 Simultaneous Objects, Quiet 9.1OH Bed
18 Simultaneous Objects, Quiet 9.1OH Bed
30 Simultaneous Objects, Quiet 9.1OH Bed
50 Simultaneous Objects, Quiet 9.1OH Bed
118 Simultaneous Objects, Quiet 9.1OH Bed
Authoring Tool Info Test, at begin of IAFrame ChildElements
Authoring Tool Info Test, at end of IAFrame ChildElements
Unknown Element Test, beginning of the IAFrame
Unknown Element Test, end of the IAFrame

User Data Test, at begin of IAFRame ChildElements
User Data Test, at end of IAFRame ChildElements

TBD if these features will work - not implemented, but didn't crash anything.	
128 Simultaneous Objects, No Bed — 118 OK	118 limit?
Mixing of Two Simultaneous Beds	
9.1OH' Bed - Gain Test	
9.1OH' Bed - Decorrelation Test	
Pink Noise 13.1HT Bed with 3 Spoken Conditional Beds.	
Bed Remap Test (Source: 13.1HT, Dest: 5.1, 7.1DS, 11.1HT, 9.1OH)	
Object Gain Test	
Object Zone Gain Test (using ZERO/ONE gain flags)	
Object Zone Gain Test (using decimal gain)	
Object Spread Test, Overhead, Low-Res	
Object Spread Test, Overhead, Three-D	
Object Spread Test, Screen, Low-Res	
Object Spread Test, Screen, Three-D	
Pan Sub-block Test	
Conditional Sub-BedDefinition elements	
Conditional Sub-ObjectDefinition elements	
Three simultaneous 9.1OH BedDefinition elements	

We went through this list to understand the meaning of the test and how it would be used.

At the end of the discussion we decided that it is too early to try and prioritize the list of “not yet implemented” items. We will revisit at the April meeting.

Detail summaries of what worked and what didn't will be sent to each of the manufacturers. The results above are blended results - at least one system had not implemented the feature to be in the not yet working list.

We were not able to prioritize the lists. We will ask at the next meeting (April 2019) to discuss in more detail.

The main goal of the plugfest was to show that current Atmos content can be played on multiple systems. This was shown at the plugfest. (This was NOT a critical listening test for rendering quality.)

What are the expectations from studios and manufacturing companies for the features that will actually be used? Especially from authoring side for immersive streams? Short answer, it remains to be seen... This is something that ISDCF should document, but not suggest solutions.

It was suggested that these plugfest results be submitted to SMPTE 25css for discussion. However, the idea was withdrawn until we had further discussion - maybe after next meeting.

Next Plugfest? August / September? We will consider dates at the April 2019 ISDCF meeting.

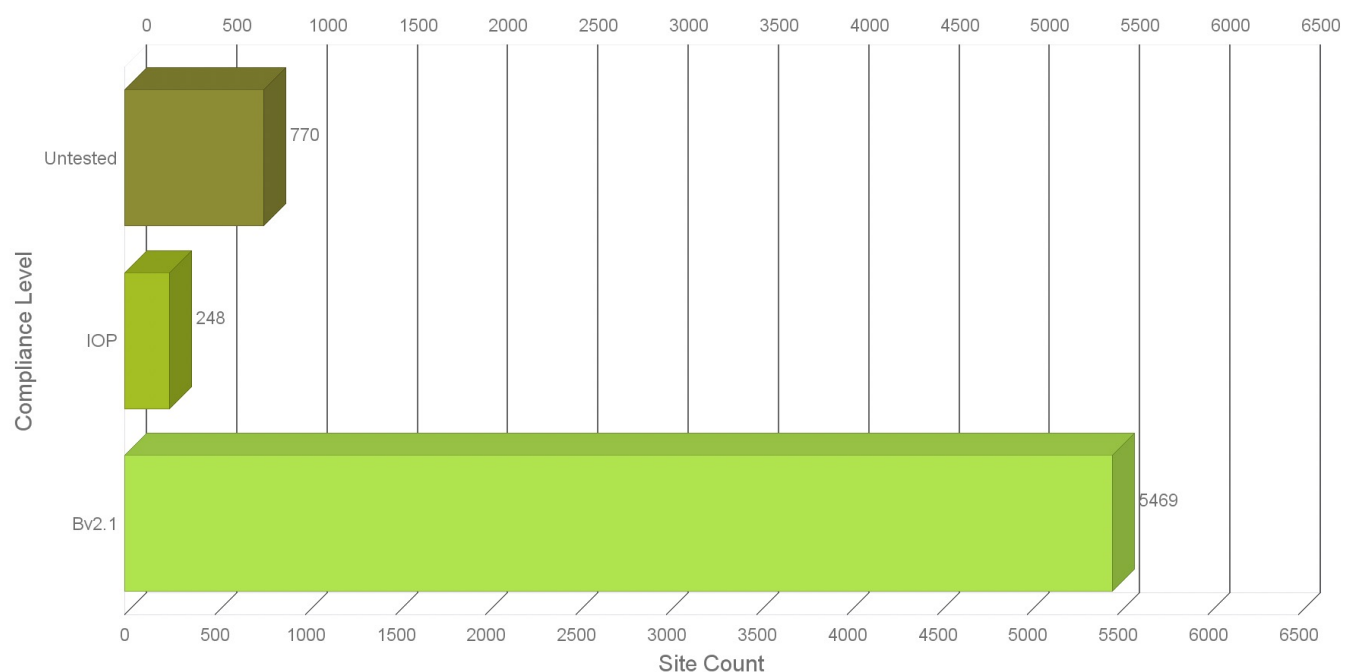
SMPTE-DCP Updates

Charts were presented for current status of compliance and unknowns. The 248 IOP sites, about half of them don't play current movies, are very hard to get feedback on what's wrong with playing SMPTE content.

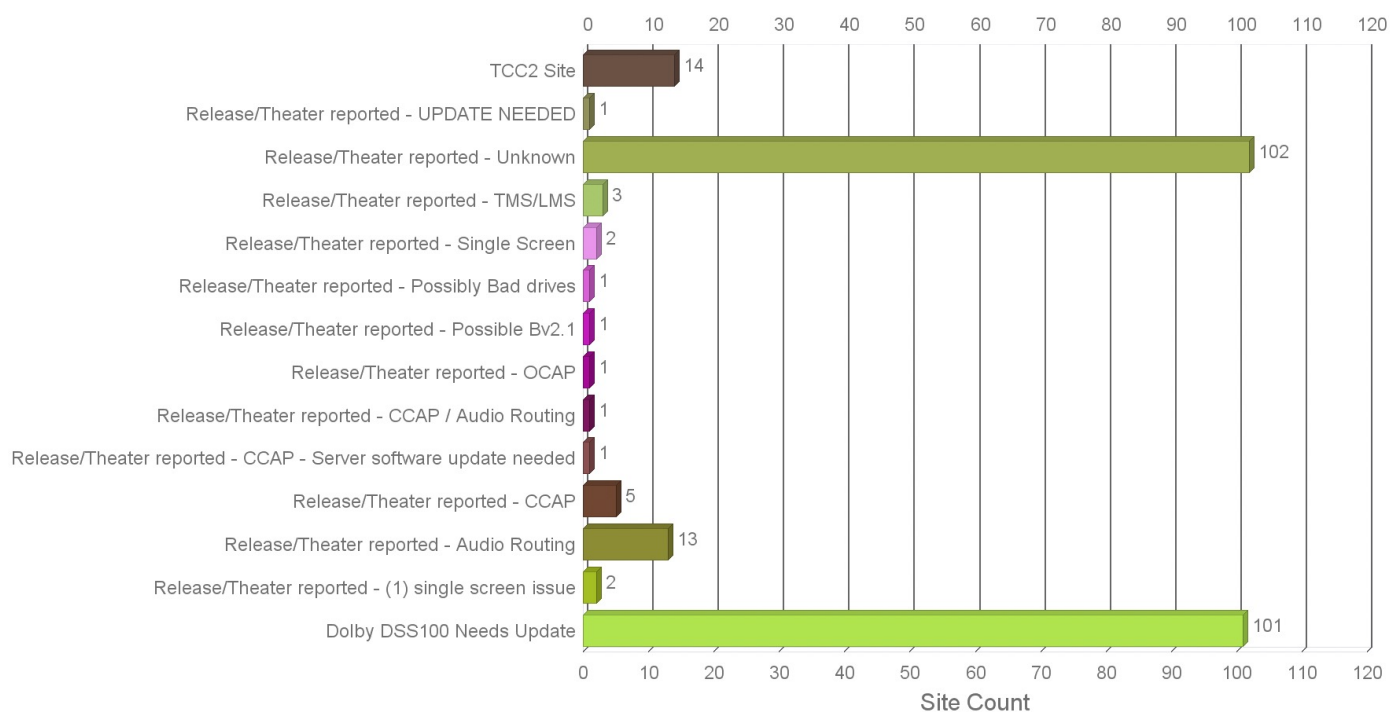
NATO plans to send another note to these sites early March, again noticing them that after April 2019 they may have problems playing current releases.

A question of what is being tested - short answer we play B2.1 test material as posted on our ISDCF site and watch / listen. Most failures are due to closed caption, open caption or audio routing.

SMPTE Compliance



IOP Issues



Suggestion that the NATO letter be posted on the walls at CinemaCon.

We were given an update on what's happening in Europe and how complex it is. There was a discussion of the chart below and some information on other regions.

New Zealand and Australia getting started and being monitored from the US side (not EDCF side). Brazil and Argentina slowly moving forward. Other South America regions are moving quickly and easily?

Singapore / Taiwan is moving forward. Not fully ready. China is not known what the status is in China for SMPTE-DCP.

EDCF Summary

Country	Country Code	Total Sites	Sites Tested	Sites Untested	% of tested sites	total compliant sites	% of Compliant sites from Total Sites	% of Compliant sites from Sites Tested	Comments
Poland	PL	515	261	254	50.68%	227	44.08%	86.97%	ETA completion, end of MAY.
Switzerland	CH	333	35	298	10.51%	35	10.51%	100.00%	distribution comes from France for FR versions of French releases.
Belgium, Luxembourg	BE-LUX	143	127	16	88.81%	120	83.91%	94.48%	for distribution.
Italy	IT	994	68	926	6.84%	?	?	?	Awaiting total site listing from our Italian rep
France	FR	2100	?	?	?	?	55%	?	GLASS theatrical run.

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Update to SMPTE Standards to formalize the version of B2.1 test content is still moving forward.

A proposal is forthcoming on how best to introduce the SMPTE standard - perhaps an application or a SMPTE specification. Still being developed.

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EDCF Information Update

(early in meeting so the European folks are awake)

We are planning on a meet-up at CinemaCon on Wednesday April 3 at 4pm in the Pisa Room.

Good progress in SMPTE-DCP roll out are going well. On track. See above.

EDCF tour - two days prior to CinemaCon - visit post houses, facilities, exhibition and amusement parks - all for business. More information coming...

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Lunch Break

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NATO Remarks - John Fithian

Thank you from NATO's perspective for what ISDCF has been doing. ISDCF is one of the few places of solving problems and making things work! ISDCF's contribution is very important to our industry.

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Naming Convention

ISDCF quickly reviewed the latest version of the naming convention website (that included V9.6 of the chart). We approved the posting of the new version.

939 Facilities entered, 207 Studios

There was a question of the use of "IAB" for immersive audio bitstream - it that too cryptic a set of initials? Could it be "OBSND" ? Object Sound? We decided to stay with IAB for the naming convention.

An issue was identified that some distributors use the initials "OV" in the territory field and that has not been defined in the naming convention website. The use is for the "Original Version" meaning from the region of origin that first created the version. This differs from the use of "OV" in the

package type that refers to a release that contains all parts of a feature that differs from a package type of “VF” that could be a partial feature that builds on the “OV” package type. Some studios issue complete packages that do not include “OV” in the package type, they leave it blank.

+ LegoMovie2_FTR-2D_S_EN-XX-CCAP_OV_71-HI-VI-DBOX_2K_WR_20190126_DTB_SMPTE_VF (DCP)
+ LegoMovie2_FTR-2D_S_EN-XX-CCAP_OV_71-HI-VI-DBOX_2K_WR_20190126_DTB_SMPTE_VF (CPL)

Normal OV feature:

+ AlitaBattleAngel_FTR-2D_S_EN-EN-OCAP_OV_51-DBOX-HI-VI_2K_TCF_20190130_TCF_SMPTE (DCP)
+ AlitaBattleAngel_FTR-2D_S_EN-EN-OCAP_OV_51-DBOX-HI-VI_2K_TCF_20190130_TCF_SMPTE (CPL)

Normal VF file:

+ ColdPursuit_FTR-6_S_EN-EN-CCAP_US-R_71-HI-VI-DBOX_4K_LION_20190125_PXB_IOP_VF (DCP)
+ ColdPursuit_FTR-6_S_EN-EN-CCAP_US-R_71-HI-VI-DBOX_4K_LION_20190125_PXB_IOP_VF (CPL)

It seems this is common practice so it will be documented in the naming convention.

It is clear that all studios take liberties with this “recommended practice” “It’s a convention, not a standard!” So we should document in the website what is common practice.

It was also pointed out that package type is a PKL (packing list) need, not really a naming need, but many systems don’t differentiate on which one is displayed to user.

It would be worth testing this at the next plugfest to see what is displayed to the user - is it from:

- PKL annotation text?
- CPL content title text?
- CPL Annotation text?
- Asset Maps annotation text (if present)?

Will it be different if you load from TMS vs loading directly from to the server? Load from the root directory? Load from the PKL? Load from Asset Map? Load from different directory?

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TDL Follow on discussion from last meeting

Why global TDL? So there is only shared TDL for multiple vendors and for studios to monitor the list to be able to prune the list of unused devices.

There is a desire for a reflector to discuss this via reflector, ISDCF could set up one.

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High Frame Rate

Paramount showed us a new version of their test content on Monday afternoon (prior to the plugfest). They followed many of the suggestions that were made. Paramount will provide a website to distribute the content and KDMs as well as gather results.

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Trailer Sound Levels

It's a work in progress.

NATO asks a question: could / should we include the mastering level as part of the metadata so automated control be possible? Nope, that's a bad idea.

At some point all trailers will be delivered in SMPTE-DCP format, but not now.

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Brazil Sign Language

No change. Still aiming for end of year.

Actiview did a launch a hand held device for sign language. (Not using embedded video.)

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Reference sizing charts

Shorter versions are on the way...

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Laser / Direct View

New chairman for LIPA.

Still waiting for FDA to update regulations.

Looks like for non-cinema projectors there will be more laser based projectors shipped than traditional lamp based projectors.

Cinema: About 1,000 RGB projectors and about 10,000 Laser Phosphor projectors in the field.

Direct View: More manufacturers are “kicking the tires” to see if there is an opportunity here.

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Special Formats

Greenbook won the Academy Award and was released in 2.0 aspect ratio (in a flat package). 2.0 aspect ratio is called “Univisium”

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Review of Action Items from last meeting.

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Attendance on next page.