

ISDCF Main Meeting Notes – June 25, 2024
In person - Harman and Zoom

ISDCF Sponsoring Companies



2024 Sponsoring Companies: AMC, Christie, Barco, Deluxe, Dolby, EIKON, GDC Technologies, Harkins Theatres, Marcus Theatres, Paramount, Pixelogic, Qube, Samsung/Harman, Sharp/NEC, Sony Pictures, Texas Instruments, Universal Pictures, Village Cinemas Australia, Walt Disney Pictures, Warner Bros., Xperi/DTS

Upcoming Meetings

Tuesday August 6, 2024 In Person 3pm - Location: Probably Deluxe (near BUR) and Zoom

We may hold in-person demonstrations at Deluxe for the audio test material and smart phone devices prior to the meeting. We may have a cocktail hour following the meeting.

Wednesday October 2, 2024 10am - Location probably Harman/Zoom 10am

Part 1: General Reporting

Housekeeping:

- Zoom meeting (provided by ISDCF)
- Set next meeting dates (above).
- Thank you ISDCF for support of the Chairman.
- Thank you to Dean Bullock for providing general expenses and admin support.
- Meeting notes from April 18, 2024 approved and to post to open website
- 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. Please no-social-media for discussions held at ISDCF.

Organizational Issues:

InterSociety Board:

President: Steve LLamb

VP: Reiner Doetzki

Secretary / Treasurer: Dean Bullock

Executive Director: Jerry Pierce - and chairman ISDCF

Members: Susie Beiersdorf, Mark Collins, Sean Romano, Don Tannenbaum, Mark Waterston

There was a request for a Asia-Friendly meeting time. Perhaps a second meeting following our normal meeting. But the group felt it would be better to shift the time for alternating meetings - with start times of 10am and 3pm. We decided to arrange to have the next (August 6) meeting at 3pm. We will probably have earlier in the day demonstrations / plug fest-ish for the audio test material ISDCF is creating. We might have a cocktail party following the meeting locally. We will have the location close to BUR so those that want to leave early can easily get to the airport.

If your company has not funded ISDCF, you will be removed from the sponsoring company list and removed from the discussion list.

InterSociety financial status (about \$40K in the bank). Everything is normal.

Attendance is at end of these notes.

Action Items from June 25, 2024

1. Revisit the IAB Naming convention. Consider how to 'fix' the naming issue.
2. Encourage the move to find a common approach for audio correlation matching for smart phone use. (Not necessarily a common technology.)
3. Provide marketing data to ISO TC36 for their strategic plan
4. Request for help in planning a "Cinema Technology" conference or webinar. Respond to Jerry or Steve.

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IAB Naming Discussion

It seems that there are differences in naming immersive audio content in the field and it seems to be causing confusion. There are some distribution companies using the IAB name, some IAB-ATMOS and others ATMOS only and some with ATMOS-71 others with 51-ATMOS-.... There is no functional agreement on naming at this point. It seems to be a bit chaotic. It is causing confusion in the field.

Some distribution companies feel it is important to include a clear indicator that the content was **mastered** in ATMOS, even though all the DCP that have all the different IAB names play on any rendering devices that has a valid KDM for the immersive rendering.

There are some that want to include the 7.1 track and indicator.

A suggestion was to include a content type modifier, similar to DVIs, something like DAtm so the audio could be marked for how it was created.

It could be included in the metadata.

We seem to have some distributors that have not embraced the use of IAB since they only master in ATMOS.

Clearly there is a problem in the field of distribution of Immersive Audio content (IAB/ ATMOS) that is not being embraced so it's very confusing in the field.

We will have discussions off-line and at the next meeting to see if we can have proposals going forward.

We did not complete the discussion on the issues we see in the field.

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Smart Phones

We have been talking about Smart Phone use in theaters for years. There are many companies building incompatible solutions requiring distributors to provide source material and different deliverables. Isn't there some way we can all get along?

We asked Howard Kiedaisch (DCDC/Cinema Foundation) to share what the CF is considering then one company that is providing solutions for Japan (Hello!Movie) to share technical details on their solution.

The Cinema Foundation Accessibility Approach June 2024

Center for Innovation and Technology (CIT) under the Cinema Foundation. This subgroup had an initiative for smart phone use.

High Level: Cloud based delivery, App uses sound in room to synchronize with playback (Sound correlation). Need for location specific playback, security covered.

This is an incremental solution - it is not a displacement for current ADA compliance.

The suggestion was to evaluation the viability of companies/apps that want to be "approved." It includes commercial, functional and security requirements. [The lists/powerpoint was shared with the group, but due to issues with the sponsoring organization, it was not possible to include the powerpoint with these notes.]

The general approach was to create a central repository to store content and licensing agreements to accept content and provide content resources (audio/video, text) to the approved App Providers. This has not been formalized, but has been proposed. Contacted App Providers were encouraged by this approach.

Observation: What about encrypted content on consumer devices? Since the caption content is considered high value, it is important that the content on the device remains secure.

Discussion: Yep, that's important and will need to be addressed by the App Providers. Part of the evaluation of Apps.

This might be an alternative to the current system of DCP delivery of these assets and in-theater use of mandated devices. But that's a long term evolution. It might be a lowering of the current government regulations, but in general, changing policy is not a good start to the process. It takes too long and a viable alternative must be defined.

It's important to enable the alternative languages for additional in-theater experiences which is separate from the closed caption/hard of hearing application of these devices.

One concern is that all the current App systems use different audio correlation for synching of playback. These are probably all covered under different intellectual property licenses. The hope is for a single correlation technology or an approach for some intermediate to create the masters for each of the solutions.

This may require an RFP from some forum to see if we can find a solution. This may be a good subject for SMPTE since there is a lot of IP in this field. Could be DCI, but SMPTE seems like a good place.

Hello!Movie

(Attached are the slides shown during the presentation.)

Accessibility app in Japan. Using personal smartphones and smart glasses. In market from 2020.

History is Japanese Government funded a proof of concept in 2015 for accessibility devices. Criteria for Japanese government included:

- Must use personal devices (smart phones)
- Must work properly in any movie theatre environment across the nation “as is” (i.e. without investment in any additional infrastructure, equipment, staffing, etc.)
- Must function properly when the smartphones are in airplane mode, with all signal transmissions disabled (not capable to receive calls or text messages)

In 2024, the Accessibility Act in Japan was amended, making it mandatory for general businesses to provide reasonable accommodation for the community. The Hello!Movie (H!M) application offers smart glasses for subtitles/captions and the smartphone app for audio description and language dubbing. (H!M is not a hardware company, but uses other devices for it’s provided solution.)

(A short introduction video was shown.)

In terms of hardware, they showed a pair of XREAL AR Glasses ([Amazon](#)) that work with their solution on an Android and an iPhone.

They provided some statistics for 2023 and it included over 25K smart glass rentals (free) by consumers (720K downloads) in Japan. (Estimate of 5% increase in attendance due to this offering.)

They are currently in process of analyzing and expanding to the global market.

They are planning an in-person demo in LA in October.

Discussion:

- H!M is using a proprietary audio correlation technology
- The approach presented by DCDC / The CinemaFoundation was worth discussion. Not fully embraced, but would like to participate in the discussion.
- The H!M uses the existing movie sound track and does not need a special soundtrack.
- This could be a SMPTE study group.
- We think the presentation of captions / languages will be very appealing and will become a desired feature for the theater.
- Some Studios endorsed the approach of CinemaFoundation / DCDC.

- Some expressed the desire for a “standardized” audio correlation technology. This is probably the first desire for a single solution, BUT some expressed an approach that would allow a trusted service provider to create multiple correlation files.
- It is important for a geolocation for playback. (Some felt that just audio correlation is not enough for security - think a camcorder playback outside the theater.)
- It seems we have a plethora of solutions coming to market. Each requiring different evaluation and this seems problematic for long term international solutions. Much like early days of Digital Cinema, a structured approach may be needed.

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20 Minute Break

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Global SMPTE Roll Out

EDCF has not been pushing the information on SMPTE roll out. The goal by studios is to be fully SMPTE by end of year. ISDCF can help nudge, especially in Japan. (Japan is an issue for the subtitling since transition from the working Interop subtitling to the not-as-well understood SMPTE subtitling is scary / problematic.) Brazil / India / Taiwan / Japan are all regions of problems. Taiwan due to old equipment that has not been updated.

ISDCF will continue to discuss at upcoming meetings.

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ISO TC36 Request for Information

ISO TC36 subcommittee is one of the older standard committees in ISO. All ISO committees need a publicly available strategic plan and TC36's is way out of date. (<https://www.iso.org/committee/48090.html>). Some International organizations rely on ISO for the standards (generally taken from SMPTE).

There is a need to include a better strategic business plan. Easy to get box office, but they are looking for some market data on equipment that complies with ISO /

SMPTE. In particular who are the beneficiaries for ISO standards. (Like number of projector manufacturers, server manufacturers, service providers, etc.)

If someone has this information or know where to gather, please contact Andy Maltz (andy@genintel.io). In fact, anyone wanting more information on TC36 or any offer of help, please contact Andy.

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ICTA/InterSociety Conference at next CinemaCon.

We are considering a one day conference on Cinema Technology (Different than NAB's "Future of the Cinema" conference or the LASS at ICTA in January.)

Topics might include (a list put together by Jerry as a start to think about it!)

- Designs of theaters to protect against cyber attacks - ALL parts - POS to advertising to Booths.
- How do LED screens in the lobby work for us?
- What makes for an upcharge by technology in the theater?
- Better butter? How can the popcorn machine make better popcorn?
- What about LED screens? Why are you not installing?
- What has been the experience for dining theaters? The good/bad? Would you recommend it to others not in your region?
- What about eSports ... is there a business model that works?
- Use of smartphones in the theater - what works and what doesn't?
- Getting the message out about upcoming films and showtimes.

Is this something we want to do? Would you be willing to help? Or is this another conference that we don't need?

These are important topics and should have a home. Maybe at LASS in January if CinemaCon doesn't want to give the time?

The biggest issue may be about CinemaCon giving us the time. CinemaCon has a very full schedule. There was general interest in doing something like this for exhibition that is just not being covered.

We should consider making this an on-line event since it covers a wider audience than a strictly an in-person event. Maybe start with a webinar, then expand to an in-person after proving concept.

(SMPTE may be a co-sponsor in addition to ICTA and ISDCF / Intersociety. Maybe even CinemaFoundation.)

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CERT Adventure

End of last year we had certs expire and a rapid fix went out. Reported at EDCF last week. It's been quiet.

This will stay on our agenda to make sure SMPTE finds a place to put this. ISDCF's role is to monitor the SMPTE process to confirm a solution is underway.

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Image Artifacts

(JPEG stuff). New form hosted by ISDCF to report issues identified. Expect an email announcing this reporting site.

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Audio Test Material

We should have DCP's prepared "soon" to test the new audio test material. When Deluxe has the project in hand, but it's a very busy time of year for making this project real.

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IAB Update

Anyone making new IAB content that would require a version 2.0 of IAB standards?
[No]

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Security subcommittee

No meeting was held.

If you want to join this discussion, please email jerry@jerrypierce.org and ask to join the security discussion.

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Website and IT updates Naming Convention: General Status

All good

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Terminology Registry

Initial terminology registry was started <https://registry-page.isdcf.com/terms/>

No update.

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DCI

No updates.

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SMPTE update

Creation of 27C-10 Study Group on Origins of Digital Cinema

One project is up for a vote, if you are a SMPTE member go vote!

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The Cinema Foundation / CIT

No update.

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Vendor updates

No report

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Action Items from April 18, 2024

1. Provide nominations for Ken Mason award to Intersociety Board (please!). **Still open.**
2. Write a note for facility/studio registry to indicate policy for an organization that changes its name. They must have a new code. The suggested changes will be circulated to the full group (email) for comments. **Still open.**
3. Get a copy of the registration list for CinemaCon TechTalk to invite them to participate in ISDCF going forward. **Still open.**
4. Explore the possibility of a one-day exhibition technology conference on Monday at CinemaCon - probably start with Mitch. **We will work with ICTA to discuss.**
5. Schedule a demonstration of the ISDCF audio test material in standard theaters. Document how we think it SHOULD sound like and begin demonstration in other venues. **Maybe at August ISDCF meeting.**
6. If you are interested in detail work on finding the root cause of image artifacts that are being discovered, contact Jerry and he will connect you with the appropriate people. **Still open.**
7. We should post a link for Note 1 artifact discussion (RDD52 GitHub) to a new ISDCF artifact page. **Still open.**
8. Add the ISDCF version of the RDD52 document to ISDCF's technical document page. **Still open.**
9. Begin posting on LinkedIn messages that need to be shared with the wider exhibition community. Items like "upgrade your software to avoid the CERT problem." **Still open.**
- 10. Prepare letter to present to exhibition (especially the smaller circuits) describing the need to upgrade hardware/software. Get signatory from studios/service providers/equipment manufacturers. Still open.**
- ~~11. Provide a requirement document for in-theater bring-your-own-device synchronization that would meet the needs of consumers, studios, and exhibitors. This might kick-start industry thinking to come up with a common solution. (This should be created by studios.)~~
12. Call another meeting of the security subcommittee. **Still open.**

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Attendance on last page.



ISDCF < > HELLO! MOVIE

Accessibility app in Japan:
Using personal smartphones and smart glasses

[HELLO! MOVIE Inc.](#)

June 25, 2024

Who We Are:

- We are the developers of the HELLO! MOVIE accessibility app, which has been in commercial use in Japan since 2020.
- Since its launch, the app has been widely adopted by content distributors and exhibitors, and has become a de facto standard for accessibility devices in Japan.
- We are also the patent holder of the acoustic communication solution called Another Track(R), an acoustic communication technology that includes audio fingerprinting technology to synchronize with the film's audio data. This technology is used in the H!M application.

History behind the H!M app:

- The technology behind the "H!M" app was one of those reviewed as part of a proof of concept initiative funded by the Japanese government in 2015 for a new generation of accessibility devices.
- Through this process, the study group discovered that our technology and prototype model met their published criteria including:
 - Must use personal devices (smart phones)
 - Must work properly in any movie theatre environment across the nation "as is" (i.e. without investment in any additional infrastructure, equipment, staffing, etc.)
 - Must function properly when the smartphones are in airplane mode, with all signal transmissions disabled (not capable to receive calls or text messages)
- In 2020, saw the commercial launch of the H!M app in Japan.
- In 2024, the Accessibility Act was amended, making it mandatory for general businesses (the private sectors including TV/Film industry) to provide reasonable accommodation for the accessibility community.

About the H!M app:

- The app offers two types of devices: (i) smart glasses that display subtitles/captions for the hearing impaired, and (ii) a smartphone app that provides audio description for the visually impaired.
- It is infrastructure-friendly, cost-effective and has a very low implementation impact on exhibitors.
- In addition, it has a multi-language functionality and can be offered in as many languages as you need.

[Tutorial video \(50"\)](#)

Devices:

Smart glasses (Closed Captions)

Smartphones (Audio Descriptions)

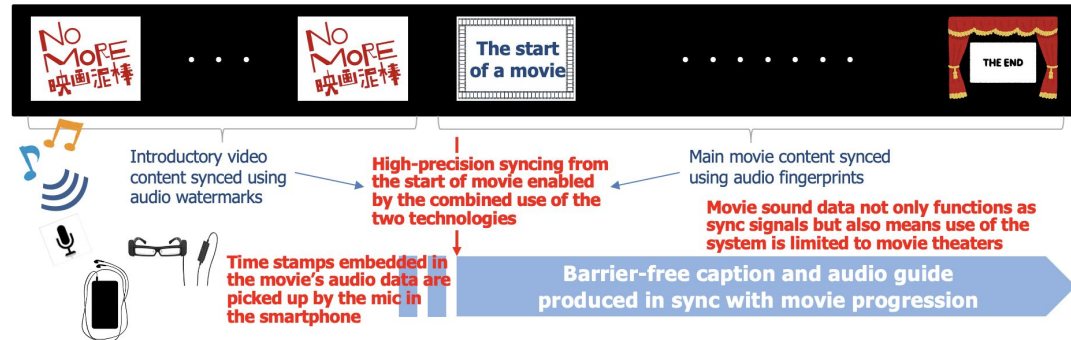
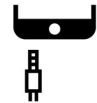


Our technology is not device specific and can be applied to any other device (e.g. closed captioning on smartphone screens, etc.), which expands our addressable audience.

How it Works in theatres:

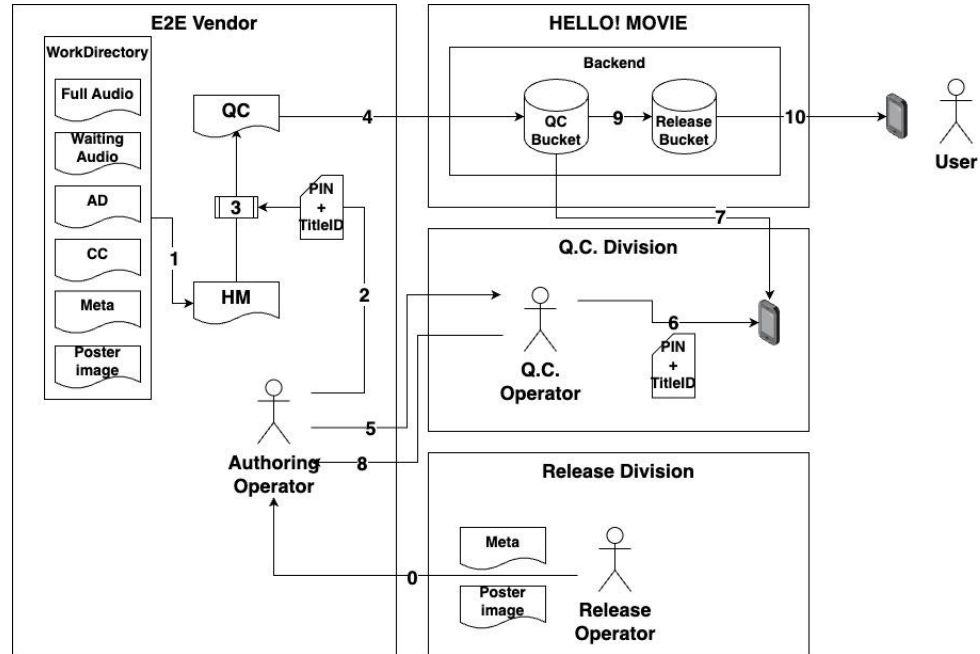
- Technology implementation in movie theaters

- **HELLO! MOVIE's proprietary audio sync system:** The combination of two technologies in this system – audio fingerprints and audio watermarks – **enables high-precision syncing from the start of a movie**, which involves embedding audio watermarks in the movie opening where there may be no sound.
 - **Patents registered related to syncing techniques** (Patent no. PCT/JP2016/081900 etc.)
- System requirements in movie theaters: No additional equipment needs to be installed. The system can be used in airplane mode (suspension of telecommunication functions) (guide data is downloaded to smartphones in advance).
- Guide function requirements: The system recognizes the audio data of the movie being played and syncs automatically (simple system operation and easy operability on smartphones). The system cannot be used if there is no recognizable movie audio being played (use limited to movie theaters).
- Smartphone/AR glasses app requirements: No screen light leakage. The guide function cannot be used unless earphones are worn (*reasonable accommodation* for the able-bodied).
- Movie production requirements: Audio and caption guide data must be produced and provided, which are entirely separate from the video and audio contents of each movie (which affects movie production schedule, budget, etc.).



Sample Workflow:

Content owner (distributor) - E2E - H!M - Consumers



Numbers in Japan:

- Since its launch in 2020, all major Japanese distributors now offer HELLO! MOVIE services for nearly 80% of their film releases.

As for the Hollywood studios, in addition to the locally acquired WB and SPE titles, we have recently added the first MPA title (Sony's "Ghostbusters: Frozen Empire") to adopt the app. Discussions are ongoing with the major Hollywood studios and are making steady progress in getting more MPA titles released with the app for the Japanese market.

- 32 out of 34 top-grossing films offered H!M services in 2023.
- 400+ films offered H!M services
- 720,000+ downloads (AD+CC files) by customers to date.
- 25,000+ smart glasses rentals by customers

These numbers show that the app has been widely tested and adopted in the Japanese market.

Potential as a universal solution:

- The app is secure, sophisticated and effective, and has great potential to become a universal system.
- The app can also provide services beyond accessibility needs, such as multilingual subtitles and audio. This can be a very attractive and welcome feature for the multilingual and multicultural communities as are found in the US, where often times extended family members don't share the same native languages. This feature will allow people to connect by sharing the same moviegoing experience.
- Our next step is to introduce the H!M app to the global market, as we believe it has great potential to become a universal system not only for visual and hearing accessibility, but also for multilingual services.

FAQs:

Q: What's the retail price of the smart glasses?

A: The current model is available from [XReal](#) and retails for \$300.00/pair.

Q: Does the app offer sign language?

A: Not at the moment, but we are looking into it.

Q: Can the CC be displayed on the smart phones?

A: Yes. The app is not device specific so it can be applied to any devices.

Q: Can you hear the audio of the feature film as well as the AD?

A: Yes. The sound of the feature is loud enough for the user to hear both the feature dialogue audio and the audio description.

Q: What happens if I leave the theatre in the middle of the show?

A: The app stops functioning as there's no film sound to activate it. The app resumes its function once the user return to the screen room of the theatre.

In-person demo in LA:

- We are planning to hold in-person demos in LA this October.
- We would love for you to join us for demo sessions in a screening room, where the viewing experience can be simulated in a theatre-like setting.
- We hope to see you in LA!

Thank you!

Questions?