

Chairman's Summary - August 2012 Plugfest.

These are the Chairman's opinions (with input from others). If, after reading this, you feel we need a ISDCF conference call to discuss, please let me know.

An ISDCF plugfest was held on August 7, 2012 at Technicolor in Burbank. The goal was to show seamless playback of realistic auditorium playlists that contained a wide variety of formats including 2K, 4K, 2D, 3D, and also included 24/48 frames per second in both 2D and 3D.

The short term motivation is the anticipated release of a 3D48 movie (The Hobbit) in December 2012 and trailers in October 2012.

Observations:

1) The industry is not ready for a wide release of 3D48 and 2D48 **trailers** - education and equipment upgrades will be necessary. The GOOD news is that it now appears we won't have 3D48 or 2D48 trailers released this year. We understand that the first time we will see 3D48 (and maybe 2D48) **movies** will be at "The Hobbit" release in December. (No trailers of the high frame rate are now anticipated. Of course, Warner Bros. may change their mind...) **Movies** should be OK - read on...

2) 3D48 movies that are delivered to systems that have been upgraded should do a good job of playing all trailers and the feature. Much like playing 3D24 features, the system can be placed in the 3D48 mode and all trailers in all formats can play in the 3D48 mode (2D without glasses). There may be some "glitches" between trailers - although some systems will play absolutely flawlessly. Some systems will shift to the proper projector set-up on the fly with no intervention. Assuming the 3D system can keep up - and there is some concern that mechanical wheel 3D systems may have problems - it was not tested, it can be a seamless presentation.

3) This upgrade of systems to 3D48 is not the last upgrade on the horizon! Film makers have always been pushing the envelope (think of the number of multichannel sound formats) and we can't anticipate what the film makers will be trying. We know of 3D60 and possible 3D24/4K or 2D48/4K have been contemplated. Don't be surprised if someone thinks up 2D120/2K.

In the old days we always had 35mm in the majority of theaters and some theaters upgraded to 70mm. It was a local choice and the film was provided in both formats. We have entered this era in digital cinema. Some film makers / studios will be able to test the waters for new formats will not expect an industry conversion. Test it out and let the patrons/exhibitors/studios decide if an upgrade is needed. The release of 3D48 is the first of many of these 'tests.' It is anticipated that the upgrade to 3D48 will also support 3D60, but it would not support 2D48/4K.

4) The 3D48 did look good. It was a “smoother” look than the equivalent 3D24. However for most scenes it is a minor change and those seeing 24fps will have a very good experience.

5) The variety of in-theater systems are getting very complex. From the server manufacturer to software version to firmware version to media block method to projector type and model to the 3D system means there are literally thousands of combinations to consider. Education and information specific to one system or another will be challenging. Blanket requirements are going to be hard to comply.

6) The current naming convention is bursting at the seams with all the information it carries. High Frame Rate may be the straw that breaks the camel’s back. It is going to be very important to have early playback of playlists to make sure it all works. In particular it is hard to confirm that you are playing a 48fps version vs a 24fps version - there is a difference, but under single stimuli it is hard to tell.

More highlights from the plugfest (**if you are not interested in details, you should stop reading here**. These are **not** the droids you are looking for).

A. The design of the plugfest was very good. Good opportunity to show status of mixing 24fps/48fps 2D/3D into current playlists.

B. There were too many pieces of content hanging around and no easy way to tell them apart. Next time it would be good (although not necessarily possible) to have a video slate showing what’s there - “Avatar 2D with subtitles and CC 20120807A” We also should have no more than 30 seconds of material - ideally fast action. Next time (if there is a next time) all content should have subtitles and CC.

C. The content can be played error-free -- but not all configurations performed error free. Almost all were consumer acceptable - even if not perfect. We only tested the Z-Screen 3D configuration and there was some concern for 3D systems using mechanical wheels (Dolby/Master Image) that will require time to synchronize when the projector image flash rate changes.

D. Macro-commands can work well, but no standard naming between configurations and manufacturers so it must be custom for each set-up.

E. Legacy hardware can play 2D48, but it has not been well tested and requires a special setup - easy if you know what to do. Hard to tell if you are in the wrong mode.

F. Many issues with subtitles showing up or not. This was not well designed in the test so it was really unclear if it was a problem in content or 48fps or something else. We can not draw a conclusion, but there is a concern. There was also issues of subtitle size and placement of subtitles. This would probably go away when the projector was in the right mode for a real presentation. Again, something to be tested.

G. 3D projector/server rendered subtitles with Z information was showing signs of life. Nice to see implementations beginning to appear - looks like a chance for a future plugfest.

H. We had content in both SMPTE-DCP and Interop-DCP - all systems played them without issues. All systems that supposed to play the 3D48 (500mb/sec) did play all the samples - but the encryption engines were not being used. I don't know if that matters.

I. The forensic image mark was tested on the Sony 48fps system. The marks were recovered and confirmed to have the embedded details.

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