



In Front of the Curve.™

AskTDG.com

## "I Saw the Future of Digital Cinema...and it was Good." Thoughts on What UltraHD Could Mean for Movie Theaters

Hervé Utheza, Senior Analyst

October 5, 2006

There have been only a few moments in my technology career when I saw something that truly excited me - that is, made shivers run up the back of my neck and goose bumps appear, letting me know I was witnessing was a truly breakthrough technology, not just some repackaging, re-integration, or re-combination of the existing, but something capable of really changing the digital technology landscape.

I have had only three such moments in my fifteen year career in television, CE, and broadband: the first time was in France in the R&D labs of Thomson, where 14 years ago I first gazed at a plasma screen. The second such occasion was in Indianapolis, still at Thomson, where 12 years ago I laid eyes on my first HDTV image.

The third time was a couple of weeks ago at the IBC Conference in Amsterdam, when I attended a NHK-NTT demonstration and witnessed **UltraHD**. UltraHD has a definition of 7,680 pixels by 4,320, or just about 16 times the resolution of HDTV 1080p, or 3.75 times that of Digital Cinema 4K.

			Compared to	
			HDTV 720i	HDTV 1080p
Ultra HD	7,680	4,320	36	16
Digital Cinema 4K	4,096	2,160	9.6	4.3
Digital Cinema 2K	2,048	1,080	2.4	1.1
HDTV 1080p	1,920	1,080	2.25	1
HDTV 720i	1,280	720	1	

TDG Opinions - Analytical Viewpoints Straightforward and Unfiltered

9555 Lebanon Road | Suite 701 | Frisco, Texas 75035 | [www.asktdg.com](http://www.asktdg.com) | 469.287.8050

## **A Surreal Experience**

Given that this was a demo, it was not surprise that the images were presented in the best of environments - the theater featured an immense screen (about 16 meters by 9), 22 channels of surround sound, and took place in a dark, comfortable setting.

The images themselves involved a combination of day and nighttime landscapes, both urban and countryside. Still images and computer-generated animations.both indoors and outdoors, some with sharp, saturated colors, others with grandiose gradients of pastel colors that often prove inordinately difficult to capture on film or digital (the image of Mount Fujiyama at dawn will always stay in my memory). Some sequences were shot at regular speed, others at accelerated speed. Some were of scenes with little movement, others with fast moving objects.

Never did I notice any blurring, any pixelization, any of those artifacts so easily noticeable in Digital Cinema sequence, especially those objects moving at high speed where suddenly blurriness obfuscates the focus and makes your brain lose the train of the story telling.

It was more than an image; it was like being there (here's to you, Peter Sellers).

## **Should We Scrap Digital Cinema Altogether?**

While to many this may seem like a radical question, what I saw in the UltraHD demo at IBC makes me strongly believe that the query is valid.

If Digital Cinema offers a viewing experience only marginally better than HD, will this qualitative enhancement be enough to bring consumers back to the theaters? I believe the answer is 'no' - when we compare the pure definition of digital image quality (measured as the ratio of the image pixel size), it is obvious that only UltraHD is capable of leaping far beyond the HD image quality that consumers are increasingly accustomed to viewing at home on PayTV and on the next generation HD-DVD and BlueRay DVDs.

The difference of experience between Digital Cinema and digital TV or DVD is simply not enough to justify the high costs of theater attendance - not with so many other less expensive options available. And this is one of the key challenges facing movie theaters today: that is, how to create a cinema experience that cannot be duplicated in the home; that is so much better than in-home video experiences that it is worth the price of admission and the exorbitant cost of popcorn and soft drinks. Building a coffee bar in the theater lobby won't cut it! Instead, theater owners should focus on creating a cinematic experience that transcends anything that's possible in the home. That will bring consumers back to the theater, not a \$4 latte or a \$6 panini.

So will the "Wow!" factor of Digital Cinema be sufficient to bring consumers back to the theater, or will they simply wait for it to show up at their local video store, on pay-per-view, or on a movie download service? I'm afraid to say it will have little effect on theater attendance, and that's why a more dramatic solution - the quantum leap to UltraHD - is needed.

## **Go West, Young Man!**

To the Hollywood studio executive and the theater owners, I offer this piece of advice: take the

flight from Los Angeles to Tokyo and visit the offices of the NHK or NTT - or better yet, ask them to set up a demonstration theater in Los Angeles . I'm sure they'd be happy to oblige.

Then stand back and watch how real people react to this technology. Invite a few of your fellow executives and join the crowd so you can see for yourself what an UltraHD experience is really like. And for your own sake, do this very soon ( now is advisable) before the Digital Cinema machine starts really rolling and theater owners have invested millions in projection technologies that offer little improvement over what consumers can already enjoy in the comfort of their home living room.

Instead of pouring time and money into a solution which will be at most one to three times better than HDTV, strive for the quantum leap: help NHK and NTT accelerate the productization of UltraHD.partner to bring this technology to other vendors to enable cost reduction...force standardization - but do it fast!

And above all, please bring the magic back to the movie theater! That's the only thing that will stem the tide of poor attendance and lost revenue. And maybe UltraHD could help capture some element of this magic and once again make the movie-going experience something unique and special, something you just can't get on your home TV.

---

#### **About TDG:**

TDG is an intelligence innovator focused on the digital video ecosystem, offering market planning and research services to keep our clients *In Front of the Curve*.™ Since 2004, TDG has helped more than 250 technology leaders, media companies, and service providers to master the quantum shifts impacting how consumers access, navigate, distribute, and consume broadband media - whenever and wherever they may be.

#### **Media Contact:**

Wendy Stockard | 469.287.8061 | [ws@asktdg.com](mailto:ws@asktdg.com)

TDG Opinions - Analytical Viewpoints Straightforward and Unfiltered

9555 Lebanon Road | Suite 701 | Frisco, Texas 75035 | [www.asktdg.com](http://www.asktdg.com) | 469.287.8050