



cine X Range of digital cinema servers

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**Dear General Manager,**

Hello again from **d-Cinema.com.au**. d-Cinema.com.au is digitAll's portal to information about digital cinema in Australia & New Zealand, including news, industry links, equipment manuals (projectors, automation equipment, etc.), eCinema clips (Classifications, Please turn off your mobile phone, Candy bar Promo, trailers, etc.) and accessing information about digitAll's range of digital cinema related products.

This letter is to provide you with an update on some of the things happening in digital cinema within Australia.

**New digital cinema servers, the "Cine X Range"**

In response to the expanding digital cinema market, we are very pleased to announce our new range of digital cinema servers. Designed to meet the requirements of a variety of digital cinema users, the new range is built from the technology of our CinePlus2K server, widely regarded as the most advanced and reliable eCinema player in use in Australia today.

The range consists of an entry level machine – the Cine X10 – (representing exceptional value), which is packed with features and upgradeable into the future. The Cine X20 is our eCinema work horse, for serious digital cinema operations, replacing the CinePlus2K. The deluxe model is the Cine X30, a truly delightful machine to use, with a huge amount of storage, catering in particular for specialty applications. The X30 is great for distributors, film schools, film festivals etc., and comes standard with 3d playback.

**Acceptance of eCinema**

Digital technology has come a long way in the last twelve months, and now represents part of the modern cinema's operating environment. More and more films are becoming available in digital form, and over the next year it is expected that some films will only be available digitally.

**New File Standard for eCinema**

In the past, eCinema distribution has required numerous formats to support the different playback servers installed in the field. This has resulted in problems with producing consistent playback quality and file management. There is a standard proposed amongst the independent distributors, and it is likely to be adopted soon. This standard will ensure quality viewing experience for patrons of the cinema.

The eCinema file standard is likely to require that films be encoded to a 2K (1920x1080) 25Mbit Mpeg2 image, with 5.1 AC3 audio.

**Future eCinema requirements**

In the future, we can expect more demands on digital playback servers. A minimum standard for projector resolution of at least 1.3K and full 5.1 audio may be required by distributors.

The world is quickly moving away from the Mpeg2 encoding, to the better format of "H264". The H264 standard offers better color definition and higher image resolutions than Mpeg2 can deliver, while also offering a far superior image quality. The problem is H264 demands twice the grunt (CPU power) compared to Mpeg2, as it is a more sophisticated and complex compression.

There are also moves to adopt encrypting of eCinema files to offer security of content, including a process that will mandate start and end dates for the film. Real-time film decrypting again increases the demand on digital servers.

Even digitAll's oldest servers will have no problem meeting these new demands, as the new 25Mbit Mpeg2 standard only requires 30% of the server's processing power.

### **DCI Update**

DCI compliance standards are still evolving and settling, and on 17th October 2007 a 474 page document entitled "Compliance Test Plan" was released. It outlines the standards required of equipment to meet the full DCI compliance. DCI is yet to authorize or license any organization to carry out the testing process, and no equipment is yet compliance tested. Note: Compliance requirements are at the discretion of studios.

### **Return on Investment**

There is a growing consensus amongst suppliers that e-cinema and DCI will each require a separate playback server to meet their individual needs. The security, encoding issues, and operational issues associated with the DCI compliance will make screening commercials, locally produced product, etc. far too cost prohibitive. Colour space, security, monitoring issues etc. will also make it likely that playback of a simple Mpeg2 file, or Apple trailer will not be possible on a DCI server.

Owners of an e-cinema server will very likely retain these even after the introduction of DCI compliant equipment. All DCI based projectors seem to support additional inputs from non-DCI playback servers to allow for co-existence. At the end of the day, it is much more likely that investment in an eCinema server will be a long term investment, and not a stop gap measure.

What cinema owners should seriously consider, is that investing in DCI equipment will do little to increase revenues. It only replaces a film print and does not add advertising revenue, alternative content revenue, and the facilitation of access to art house material. E-cinema, it would seem, is the best pathway to increased revenue generation at this stage. Most clients purchasing for the purpose of gaining easier access to films comment that they recover their investment after only one or two films. Other clients recover costs from advertising revenue within months, some increase revenues with film festivals, student screenings, events etc. Most clients are increasing revenues and reducing costs through a number and a combination of e-cinema measures.

### **Projector Recommendations**

At the moment we are running a package deal with the Mitsubishi WD2000 1.3K projector. The WD2000 represents great value for money for cinemas, handling up to a maximum screen width of around 11 meters with 2000 hrs of lamp life. Screens with width below 9 meters can achieve up to 5000 hrs of lamp life.

Larger screens require more light, and more light requires a larger, more expensive projector. For larger screens the Barco iD H500 is well worth considering – it is a 2K projector with loads more light. For Drive-ins, check-out the Barco CLM HD8, another 2K projector, with even more light.

For more information, look at [www.d-cinema.com.au/shop](http://www.d-cinema.com.au/shop), but remember when buying a projector, the important thing is to see the results for yourself, in a theater.

### **What else is new at digitAll & d-Cinema.com.au**

The last few months have been very exciting for us. Check out our web site for more information, but the highlights have been;

- the development of the new range of digital cinema servers (Cine X Range)
- the development of the 3D (dual 2K image streams) motion ride system for Rainbow's End (NZ) (referred to as the 'Spongebob Squarepants 4D Ride')
- the new features added into the player, including Apple Trailer support (H264), the Aspect Ratio Converter (ARC), built-in Audio Process, etc.
- the growing of our distribution channels, including the appointment of "AVE Ltd" as our NZ distributor
- the launch of our new website and
- our introduction of a new, online store

For further information and advice, go to our web site, or give us a call.

Yours sincerely,

A handwritten signature in blue ink that reads "Martin Gardiner".

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