

## Questions Regarding Digital Cinema Finance and Installation Plans

### (1) Does the Plan Provide for a Beta Market?

In the resolution adopted by the NATO Board last November, NATO members stated that “Complete digital cinema systems, based on specifications and standards, must be installed and tested for a reasonable time in a beta market prior to the initiation of a wide-scale roll out.” The purpose of a beta market is obvious. Digital cinema represents the most significant technological transition in our industry’s history, perhaps with the exception of the advent of sound. Exhibitors will be changing from a technology – celluloid film – that has existed in basically the same standardized format for a hundred years. Digital cinema relies on new, complex, computerized equipment and systems.

The specifications announced by DCI in July (and to be supplemented by NATO), have never been implemented in the real world. The specifications include more than 170 pages of highly technical, untested requirements. A beta market is essential to test various equipment components and systems against the specifications. This test will reveal the functionality and reliability of the systems, and will provide a test bed for the additional interoperable features that exhibitors will require. The NATO resolution calls for system hardware that meets reliability requirements that equal or exceed the reliability of 35 mm film hardware. (Today’s film technology has a reliability rate of 99.98%). The results of the beta market should be open to the world, and not held as proprietary data.

Without a beta market, it is highly likely that the exhibition companies with the earliest converted cinemas will experience multiple glitches, delays and dark screens. For the benefit of our industry’s patrons, digital cinema must represent an improved movie-going experience. Nothing will irritate and alienate our patrons more than wide-scale problems and dark screens.

### (2) Is the Financing Plan Supported by All Major Studios?

The NATO resolution specifically called for a financing plan supported by all major studios. The resolution also calls for a commitment from the studios to provide digital content where digital equipment is available. Several factors drive these fundamentally important requirements. First, without the support of all studios, development of a sound financing scheme will be very difficult. Given the cost of the equipment, a financing scheme supported by only a few studios is likely to fail. If a financing plan is not supported by a particular studio, learn the reasons why. Perhaps the plan doesn’t support the upgrades they expect you will need. Perhaps the prescribed system isn’t as secure as they expect it to be.

Third-party financing and installation companies will depend on the supply of movies from studios in digital format, and the payment of “virtual print cost fees” (VPF) from the studios to the third party for each copy of a movie supplied in digital format. Fewer studios supporting the system mean fewer VPF payments. What will happen to exhibitors who have installed equipment from third parties who go out of business because their payments model fails for lack of sufficient support from the studios?

Moreover, exhibitors must rely on all studios to supply movies to the equipment as a matter of operations. The digital sound fiasco of our industry's recent past cannot be repeated in the world of very expensive digital projection equipment. Without universal support, will exhibitors be forced to install multiple digital cinema systems in each auditorium? Will exhibitors designate some auditoriums for the participating studios, and other auditoriums for the non-supporting studios? Will they have to operate dual inventory digital and film systems indefinitely? If all movies cannot be played on all systems in all auditoriums, how will exhibitors be able to properly serve their patrons? With a transition of this magnitude, "build it and they will come" is a profoundly unwise strategy.

**(3) How are Operation, Maintenance, and Upgrade Costs Treated Under the Plan?**

In the NATO resolution, the Board called on the studios to support a finance plan "pursuant to which the motion picture studios will be responsible for paying all costs related to the purchase and installation of digital cinema equipment as part of the initial roll-out, and operation, maintenance and upgrades of the equipment to the extent that those costs exceed ordinary operation, maintenance and upgrade costs of 35 mm film projectors."

Members of the NATO Technology Committee have studied the issue of maintenance. They estimate that film projector maintenance, on average, runs between \$1000 and \$2000 per auditorium per year. They estimate that digital cinema costs, however, will range between \$5,000 and \$10,000 per auditorium per year. Under any financing and installation plan being contemplated, exhibitors must consider these costs.

Beyond maintenance costs, how does the plan address upgrades? Within the digital cinema system, for example, the projector constitutes the most expensive component. The DCI specifications accommodate systems at either 2k or 4k resolution. Today, digital projectors capable of 2k resolution are in the market. Any financing and installation plans that begin rolling out systems in the near future likely will install 2k projectors. But 4k projectors are being developed and may come to the market in the near future. Does the plan contemplate an upgrade path to the 4k projectors should the exhibitor desire to pursue that path? If so, who will absorb the cost of that upgrade?

**(4) How Does the Plan Handle Branding/Marketing?**

As suggested in the NATO Board resolution, does the plan help to "brand" the digital cinema experience exclusively for theatrical exhibition, or does the plan call for marketing of specific technology brands that will also be sold to the home environment?

Digital cinema should serve to enhance the theatrical experience for our patrons and differentiate the theatrical experience from home entertainment. Financing plans that require in-theatre branding for technologies that will also be sold for use at home damage the primacy of the theatrical experience, reduce choices for consumers, and force exhibitors to subsidize their competition. Simply put, exhibitors should ask themselves if the branding and marketing

strategies called for in the plan are designed to sell more movie theatre tickets, or more home entertainment systems.

**(5) Does the Plan Permit Equipment Use for Independent Movies, Advertisements and Alternative Content?**

The resolution calls for systems that “allow the exhibitor to have full discretion over . . . presentation of advertisements, trailers, features and other content.” Does the plan give exhibitors this control?

**(6) Does the Plan Preserve The Exhibitor’s Control Over Schedules and Auditorium Selection?**

The resolution also calls for exhibitor discretion over the selection of auditorium and schedules. Will the plan enable this? Will a full array of security keys be delivered to each complex such that you will be able to move complete shows among your auditoriums? Will you be able to accomplish these movements of shows in a timely manner? Exhibitors know their consumers and know how to program movie schedules and auditorium selections for optimal service to consumers and the largest number of ticket sales.

**(7) Does the Plan Provide DCI Compliant Equipment?**

The NATO resolution called for digital cinema systems that will enhance the quality of the theatrical experience and be based on open standards. DCI’s version 1.0 specification (coupled with NATO’s supplementary requirements) provides for high quality levels, a high degree of security, and interoperable distribution of content. Exhibitors should learn enough about these specifications to know if the systems and equipment being offered are truly compliant with this important specification. Do the server and projector meet DCI security specifications? Does the server utilize DCI Compliant JPEG 2000 compression? Does the server accept SMPTE Compliant MXF-packaged content? Will the system accept a 4K movie, even if you only have a 2K projector? Will it play 48 fps 2K content, such as required for 3-D movies? Does the system produce DCI Compliant security logs, and will the system allow you to filter these logs according to your business needs before sharing them with your distribution partners? Third-party financing and integration companies should also warrant that their systems meet DCI’s version 1.0 specification.

**(8) Does the Plan Give the Exhibitor a Choice of Equipment? Will the Exhibitor Own that Equipment at the End of the Financing Period?**

Many different companies have designed equipment components for digital cinema systems. In this healthy and competitive marketplace, an exhibitor may prefer certain equipment characteristics over others, given their knowledge of the operation of their theatres and the preferences of their patrons. That is why the NATO resolution provided that “Exhibitors must be able to select the equipment to be installed and to own the equipment at the end of the financing period.” Does the plan allow the exhibitor to select the equipment he or she prefers, or is the plan tied to specific and exclusive technologies?

**(9) Does the Plan Support a Limited Policy of “No Dark Screen?”**

As called for in the resolution, the digital cinema system offered must support a policy of “No Dark Screen,” such that movies will play in a non-repudiate manner unless the exhibitor attempts to play the movie in a different exhibition complex, or outside the licensed play period, with no further restrictions as to when or in which auditoriums content is played. The delivery of movie security keys for all playback systems in a complex must irrevocably enable the playback of the movie for the duration of the engagement.

**(10) Will the Exhibitor Control Audit Data?**

Digital cinema systems, as called for in the DCI specifications, will create substantial audit data regarding the functioning and operation of the systems. The NATO resolution makes it clear that audit logs should “be owned and maintained by the exhibitor.” Does the plan allow the distributor or the plan provider to gain automatic access to your business data, including security data logs? Is the plan structured to respect this important requirement?

**(11) Does the Plan Allow for Competitive Content Distribution into Your Complex?**

As digital cinema develops, more than one content fulfillment company will be used by the studios, much as with film fulfillment today. Does the plan allow multiple companies to deliver content to your theatres?

**(12) Will the System Expose Your In-House Network?**

Digital cinema equipment will reside on a data network, which may also connect to your point-of-sale system. Most if not all plan providers will connect your in-house network back to their operation centers. Preferably, this takes place through a network “gateway” that isolates your network from theirs, and imposes limitations as to what their network can do. Does the plan provider or distributor provide a “gateway” into your in-house network? Are you fully aware of the extent to which their data operations can reach into your in-house systems?