eCinema: The Possibilities

Michael Karagosian

www.mkpe.com
www.cinemagroup.com

Cinema Group, Ltd.
...a long time ago
New Technologies

• Electronic projector

• Electronic storage of the image

• Networks
Potential Benefit

- Electronic projection brings new forms of entertainment to the cinema
Benefit: Electronic Image

- “Pay per view”
  - sports
  - music
  - live entertainment

- Interactive games and movies
  - audience votes on outcome
Another Benefit

- The electronic storage format will bring new features
Benefit: New Features

- Special effects
  - controlled outputs can trigger lasers, smoke machines, etc.

- More audio channels...
...And More Benefits

- Networks brings new tricks
Benefit: Networks

- Networked equipment brings 1990’s computing into the cinema
  - PC-based scheduling using network control
  - Remote maintenance through networked monitoring and control
  - Can improve quality of the presentation
eCinema: The Potential

- To realize the full potential of eCinema, systems need to be *interoperable*
- *Interoperability* promotes product competition
- *Interoperability* requires industry standards
Audio & Video Sources

- Local-based
- Server-based
The Server

- In a server-based system, the server is the hub of the complex
  - media files
  - scheduling
  - transmission to the projector and sound system
The Server
Screen System

• Projector

• Sound system
  – speaker processor

• Effects
System View: At The Screen
Interoperability

• Common media file format

• Networks tie the elements together
Security is a Requirement

- The media file must be encoded with a security key
  - The media file can be transferred as data, but a key is required to view or listen to it

- “Video to the projector cannot be RGB”
A Word About Security

• The system itself has to be inherently secure
  – The cinema owner should not have to be concerned about media security issues
  – Media must be unreadable in the wrong hands
Network Security

- The media file will be transmitted across the network to the projector and sound system for real-time playback

- Projectors and sound systems will have the keys to unlock the files
Network and Security
The Real Key

- The key to bringing these technologies into the marketplace in a unified manner is *standards*
Where Standards Apply

• Media file
  – Encryption method
  – Security key

• Network
  – Technology type
  – How data is transported
Unified Format

- Standards = interoperability
- Interoperability = competition
- Competition = performance and value
Conclusion

• eCinema has the potential to bring new business to the cinema

• Standards are needed to ensure interoperability among components, encouraging competition and performance
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