



THE BIG PICTURE

by Bill Mead

By this spring, approximately 3,000, or three percent, of the world's estimated target screens (100,000-plus) will have been equipped with DCI-specified digital projectors and servers. Of the early adopters, approximately two-thirds are in North America, with the rest split between Europe and Asia. Significantly, most of the installation occurred in the past 12 months, making 2006 stand out as the pivotal year in the digital conversion timeframe.

Almost 50% of the world's d-cinema installed base can be attributed to one organization, Carmike Cinemas of Columbus GA, who early in 2006 made the extraordinary commitment to equip all of its 2,300 screens with digital projection. Working with Christie/AIX, North America's leading d-cinema systems provider, Carmike has already converted over 1,350 auditoriums to digital. Christie/AIX is a partnership formed in June 2005 between projector manufacturer Christie Digital and d-cinema business provider AccessIT of Morristown, New Jersey.

The United States had an astounding growth in 2006 of over 400%, from just over 500 to over 2,000 installations by year's end. The rapid pace was driven by the maturing and acceptance of digital conversion plans, the convergence of various proprietary formats into the soon-to-be-ubiquitous DCI JPEG2000 MXF format, and an ample supply of U.S. digital titles. By mid-year 2006, virtually all Hollywood studios were making their major "tentpole" titles available in the DCI format, with over 100 titles distributed in the U.S. in 2006.

As of ShoWest 2007, Christie/AIX is scheduled to complete its installation commitments with Carmike Cinemas, Rave Motion Pictures, Cinema West and Galaxy Theatres, bringing their expected total installations to over 2,300 by April 2007.

The Christie/AIX installations use servers from Doremi Cinema. Although a relative newcomer to the exhibition equipment business, Doremi has gained a foothold due to its strong background supplying JPEG2000 products for the post-production market. The combination of Doremi's DCP2000 server and Christie's CP2000 2K d-cinema projector provides Christie/AIX with a reliable and proven system, a system that can be deployed in a wide range of booth situations.

Technicolor Digital Cinema has also been busy in the U.S. with recent installations for its 120-screen pilot program with National Amusements. Technicolor has been focused on extensive product testing that will provide its customers a wider choice of equipment vendors, as well as building out its digital deliver infrastructure by adding digital capabilities to its Wilmington, Ohio 35mm print distribution facility. In Europe, Technicolor is integrating servers from Dolby Laboratories with projectors from Barco for Kinopolis Cinemas. Technicolor is also expanding its European capabilities with the acquisition of NOB Cross Media facilities in Amsterdam.

Real D, the leading provider of 3D technology, has installed over 200 3D systems worldwide and has commitments for over 850 screens for 2007. Recent agreements include 150 systems from Cinemark and another 500 systems from Carmike. Coming in Real D 3D are Walt Disney's *Meet the Robinsons* in March 2007 and Paramount's *Beowulf* in November 2007. In addition, two National Geographic films are also opening in Real D-- *Lions 3D: Roar of the Kalahari* and *Sea Monsters: A Prehistoric Adventure*.

Dolby Laboratories also has also announced its own 3D system developed in partnership with Germany's Infitec GmbH. Still in its early stages, Dolby 3D Digital Cinema promises to provide a better-quality 3D viewing experience, while offering exhibitors more flexibility and lower cost. Early in 2006, Dolby announced that its Dolby Digital Cinema server would support both DCI JPEG as well as the MPEG Interop format. Dolby has secured initial commitments in the U.S. from Megaplex Theatres, Malco Theatres and Premiere Theatres, and in Europe has announced that its servers will be included in a 130-screen project with Kinepolis in Brussels.

Kodak is also shipping their CineServer JMN3000, which handles both JPEG and MPEG formats. Kodak has expanded its business by performing worldwide integration of Real D 3D systems and performed the digital preparation and distribution for Paramount's *Mission: Impossible III*. Kodak is also working with National CineMedia to jointly develop digital content and cinema-management software. Kodak now has over 2,100 pre-show screens under its management with over 42 theatrical servers installed and has prepared and distributed 35 movies from seven studios with its post-production partner Laser Pacific.

In Hollywood, Deluxe Digital Media is strengthening its position as the studio's trusted partner by focusing on providing services with DCI mastering, delivery and content security. In the past year, Deluxe has expanded its role in Europe and has mastered over 42 studio features and provided delivery and security for over 47 features in the U.S., including four international features.

NEC, whose line of digital cinema projectors is a favorite of the Hollywood post-production facilities, has installed its new high-brightness NC2500 projector in five of the six top premiere theatres in the USA. Odeon Cinemas in Europe recently installed nine of the NC2500s (along with Kodak servers) at its Hatfield complex. Overall, NEC has shipped over 300 d-cinema projectors worldwide.

Strong Digital, a division of Ballantyne of Omaha, has secured a distribution partnership with NEC for North America and Hong Kong. Recently, Strong acquired National Cinema Service Corp. and been working with Dolby in integrating NEC d-cinema projectors at Malco Theatres and Megaplex Theatres. Strong has also provided turnkey digital systems for other key flagship theatres including Atlanta's historic Fox Theatre.

In the U.K., Odeon Cinemas has announced that in addition to Hatfield it is equipping its nine-screen Surrey Quays multiplex with digital projection along with Doremi servers. The U.K. Film Council is moving quickly with its commitment to fund up to 240 d-cinema installations. The UKFC already has over 120 installations operational with a combination of NEC and Christie projectors, and servers from both Quvis and Doremi. Odeon's recent 18 screens along with the ongoing UKFC project bring the U.K. total to over 160 digital screens.

On the continent, Barco leads the way in partnership with XDC, Europe's leading system integrator and server manufacturer. Barco recently delivered its 1,000th projector worldwide and is supplying projectors to various d-cinema projects including those in the USA, Australia, China and Korea.

XDC, the largest European d-cinema provider, now has over 300 European screens under its management. XDC European business is built around its unique financial model providing content, service and support, along with its CineStore server. Recent achievements include remarkable progress in Germany, where over 100 XDC systems are now installed.

DTS Digital Cinema, a newly created business unit, announced they have obtained exclusive worldwide rights to market and distribute servers from Avica, an early industry pioneer. As a result, DTS along with Digital Cinema Ltd. (DCL Ireland) has begun to upgrade the existing 25 installations in Ireland to DCI compliance. In addition, DTS has established local content-mastering facilities. DTS in partnership with DCL Ireland plans to continue its expansion of its d-cinema network in Ireland and beyond.

Qube Digital Cinema, from India, has deployed servers in the U.S. with Landmark Theatres and has added DCI format capability to its multi-format d-cinema platform. Recently, Qube expanded its U.S. operations with an office in North Hollywood, CA, and also opened a European office in London. Qube plans to deploy its servers in Czechoslovakia with Xtreme Cinemas, with plans for 100 new cinemas in 2007.

GDC, Asia's leading Singapore-based server manufacturer, has announced an upgrade kit with 3D and DCI capabilities and has commissioned a network operations center for management of over 200 e-cinema servers for CinemaNet in Europe and its d-cinema servers in Korea. GDC also became the first provider in Asia to deliver Columbia Pictures' *Monster House* in 3D, followed by Disney's re-release of *Tim Burton's Nightmare Before Christmas*.

Australia has also begun to convert its estimated 1,850 screens, with 16 already equipped to DCI specifications. Most Australian cinemas to date are using a combination of Christie and Barco projectors and Kodak servers enhanced with 3D systems from Real D.

Korea, the most active d-cinema market in Asia, is now approaching 100 digital installations using combinations of Christie and Barco projectors and servers from GDC and QuVIS. Taiwan is moving slowly with six systems installed but expects growth in mid-2007. As with many other overseas markets, the supply of digital titles in Taiwan remains an issue, resulting in slower overseas adoption.

China has approximately 40 DCI-capable systems installed in first-run cinemas that cater to Western titles. In addition, China has approximately 100 1.3K technology installations and is upgrading their existing 16mm film distribution infrastructure with HD-grade e-cinema-grade projectors. India, while having only a few d-cinema projectors, also has deployed approximately 500 e-cinema projectors. Panasonic, one of the largest manufacturers of pre-show and e-cinema projectors, has installed over 2,500 projectors in cinemas worldwide.

As we move forward with the industry's conversion to digital, 2006 will be remembered as the year digital exhibition found its footing in the U.S. Progressive exhibitors with competitive strategies like Carmike, Rave, UltraStar and National Amusements, working

with d-cinema plan providers like Christie/AIX and Technicolor, have taken bold steps to bring the exhibition industry into the digital age.

Bill Mead is publisher of DCinemaToday.com. Learn more about the digital cinema rollout at www.DCinemaToday.com.

Top countries with D Cinema Installations

United States...2,142
United Kingdom...157
Germany...100
Korea...99
Italy...39
China...35
Japan...32
Belgium...31
Netherlands...30
Singapore...27
Ireland...25
France...23
Austria...21
Norway...21
Australia...16
Spain...16
Luxembourg...13
Switzerland...13
Taiwan...8
Thailand...8

Top D-Cinema exhibitors

Carmike Cinemas, Inc...1,456
Rave Motion Pictures...286
UltraStar Cinemas...79
Cine UK...52
Megabox Cinema...52
Galaxy Theatres...50
Emagine Entertainment...46
Odeon Cinemas...38
Regal Entertainment Group...35
Kinopolis Group...29
National Amusements...25
Megaplex Theatres...24
Utopia Group of Cinemas...24
China Film Group Corporation...23
Vue Entertainment Holdings...21
Eng Wah Organization Ltd....20