DIGITAL DYNAMO

GDC Technology
Marks **15** Years
and eyes even bigger future

GDC CEO DR. MAN-NANG CHONG

GDC Technology is celebrating its 15th anniversary this year. In that time, the Hong Kong-based company has become a leading force in digital-cinema technology, not only in the Asia-Pacific region, but around the world. Much of that success is owed to the pioneering vision of GDC Technology's founder, chairman and CEO, Dr. Man-Nang Chong. In an exclusive interview with *Film Journal International,* Dr. Chong discusses the company's recent achievements and where it's headed in the future.

FJI: What do you see as GDC's greatest accomplishments in the past year?

Dr. Chong: The 15th anniversary of GDC Technology is a major milestone in itself. However, I would like to mention three important accomplishments. First, in addition to the current cost-effective, reliable products we offer theatres, is an innovative technology to enhance the moviegoing experience: specifically, our new immersive sound solution, the SX-2000X Immersive Sound Media Server with an XPS-1000 Cinema Sound Processor. To date, more than 100 cinemas are either equipped or in the process of completing the installation of immersive sound with our SX-2000X. Seven Hollywood feature films and four local movies were also released in the DTS:X format.

The SX-2000X is truly innovative for a number of reasons. It adopts Hollywood's latest immersive sound format, DTS:X, which can adapt to very flexible speaker configurations. This engages movie theatre audiences with a rich, multi-layered sound that improves the moviegoing experience.

Another innovative feature of the SX-2000X is that it supports multiple sound formats. Most important, it's the *only* server available that features real-time DTS:X decoding. This reduces operating costs, since an external immersive audio system is not required. Since audio decoding is done directly on the server–which eliminates the need for an Ethernet link for large data transfers between

the server and sound processor–security, reliability and efficiency are enhanced to meet the needs of today's cinemas.

In addition to those innovative features, the SX-2000X complies with the highest industry performance audio standards established for immersive cinema sound systems, including 16-channel audio watermarking. Also, it is designed to meet the imminent SMPTE 25CSS standard. Furthermore, in line with GDC's other digital-cinema servers, the SX-2000X not only meets the most stringent industry performance standards for security and reliability, but also offers the highest resolution and frame rate, as recommended by Hollywood studios.

Second, we incorporated feedback from cinema owners and launched new features on the TMS-2000, our theatre management solution that controls the theatre's operating systems from one location. We are now offering a robust, user-friendly management system with increased operational efficiency. One new feature cinema owners are raving about is the Web access: The user can now monitor all screens in the theatre remotely. In addition, we developed an iPhone app to build on the success of the iPad app we launched last year.

Another great new feature is Content Watcher. Just picture this: Any time new content arrives from a specific source—such as a remote file server or a satellite—it retrieves that new content automatically without any human intervention. The benefit of this is new content will not be missed due to the user's oversight. Basically, we designed Content Watcher to help maximize efficiency.

To date, GDC TMS solutions are the second-largest installation base in the world, covering 16,000 screens in 2,400 theatres. From the feedback we are receiving, we feel certain these new features will add to the installment base.

Last, we launched two new automation products in 2015: the ACS-2800L and the PMA-1000. Both are designed to improve efficiency in theatres by increasing the automation of the entire screening system, giving more accurate screening control, requiring less manpower, and resulting in fewer human errors. Ultimately, these products will help our customers reduce overall costs.

The ACS-2800L is an Automation Control System that possesses all the features of our ACS-2800, but with an added dimming function. It gives users automatic control over screening equipment, such as screen masking and lighting equipment, with maximum efficiency. The new dimmer

The **move** to Immersive Sound is the next Big Trend

allows for smart lighting brightness adjustment on all kinds of variable light sources. However, you can switch off the dimmer function if not required.

The PMA-1000, our new Power Management Adapter, is designed as an intelligent power supply management system to help monitor and control power across a range of theatre equipment, including projectors, servers, audio systems and lighting equipment. When used in conjunction with the TMS and our Quality Management System (QMS), users can actually operate movie projection remotely, as long as all screening components are automated equipment.

FJI: What are your goals for 2016 in terms of new GDC installations?

Dr. Chong: GDC today has 13 offices worldwide focusing on serving our customers better. In some regions, such as China, India and Southeast Asia, GDC offices provide local service teams to directly serve our customers. Our goals are to continue to grow our business worldwide by providing a one-stop solution including projectors, media servers, TMS, immersive audio solutions, NOC services, and more. Our 15 years of helping cinemas around the world convert to digital cinema have given us the experience to develop reliable, cost-effective and state-of-the-art digital-cinema solutions. With the addition of our new SX-2000X Immersive Sound Media Server, GDC is in a good position to assist exhibitors worldwide to upgrade their digital cinemas for a more immersive moviegoing experience. GDC is forecasting to install more than 500 SX-2000X Immersive Sound Media Servers in 2016.

FJI: What are the fastest areas of growth for GDC?

Dr. Chong: Definitely, our immersive sound solution is one of the fastest growth areas. We first demonstrated it in the U.S.

in April this year at CinemaCon. It was one of the highlights of the show and received lots of positive attention. In July, it was formally launched in China when the first DTS:X-ready theatre opened in Beijing and screened the first DTS:X feature film mixed in California.

In less than six months, we installed or we are in the process of installing more than 100 cinemas in the U.S., China, Hong Kong and Korea with SX-2000X Immersive Sound Media Servers. And as I mentioned, seven Hollywood feature films and more than four Chinese feature films were released in the DTS:X format.

In 2015, a record number of our Enterprise Storage solution with GDC's Stand-alone IMB will ship to customers…over 1,800 units. The Enterprise Storage, based on five swappable units of 3.5" HDD, has proven to be reliable and favorable among our customers. With the increasing number of movies to be stored at each auditorium, we are seeing more customers requiring a minimum of 6 TB RAID storage for each auditorium.

FJI: What are your predictions for the growth of DTS:X?

Dr. Chong: I feel certain DTS:X has a very positive future. From the outset, its very flexible speaker configurations allow exhibitors to equip theatres of any size. This, coupled with the fact that DTS:X conversion costs can be up to less than half of that of other immersive sound systems, means that its popularity is poised for growth.

In addition, you have to remember that moviegoers are very demanding now. Over the years, they have experienced immersive image technology in the form of 3D, so they want something innovative and exciting to fulfill their expectations. The move to immersive sound is the next big trend and will do this.

DTS:X was designed to enable the creation, delivery and playback of movie soundtracks, not only with a height dimension, but also with improved directionality among the main speakers. To achieve this amazing immersive experience, DTS:X offers direct access to each speaker in the cinema with individualized signals. Our SX-2000X Immersive Sound Media Server renders DTS:X multi-dimensional audio in a 3D space as if there were an infinite number of speakers, then precisely delivers movie soundtracks to each speaker. Thanks to this, GDC's innovative server delivers an optimal immersive experience. From my perspective, GDC featuring DTS:X is one of the best immersive sound experiences available today. ✣