

MyAdvantech

The Magazine for Global Advantechers and Partners

Autumn 2010 No.7

"Intelligent Life" Technology in **SHANGHAI WORLD EXPO**



Taiwan Pavilion:
Intelligent Platform
for Non-stop
Sky Lantern Ceremony

China Pavilione:
"One Touch" Lighting Control
Makes Life Easier

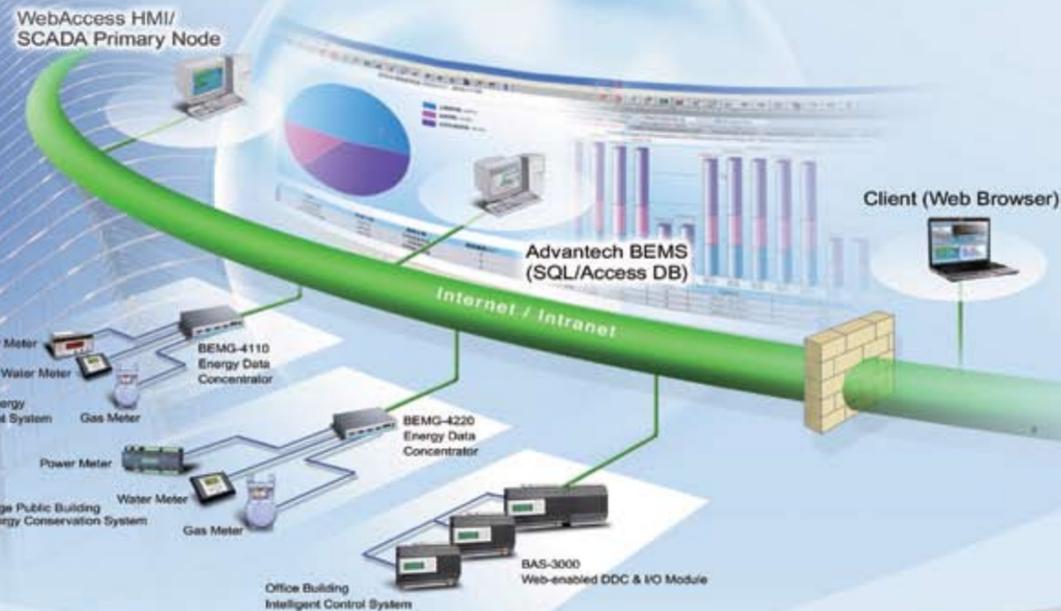


Big Future for Tablet PC Applications

The tablet PC has become the focus of public interest once again since Apple began selling iPad. Although IPC vendors have applied flat form factor products in various fields for some time already, new concepts for industrial applications have changed gradually.



Advantech's Building Energy Management Solutions



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BAS-3520
20-port Web-enabled DDC



BEMG-4220
Energy Data Concentrator with 4 COM, 2 LAN



PME-1230
3-Phase Multifunction Power Meter

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Viewpoint

Marriage Between Technology and Spiritual Life Defines Smart Living of the Future

Domotics (home automation), unmanned kiosks and shops, and the remote office, among other lifestyle and business-driven innovations are reshaping our life at warp speed. In both hardware and software applications, the only thing stopping us from doing more is our imagination. In light of this, any entrepreneur or company with enough imagination and business savvy to put these creative ideas to work will surely uncover the key to a world of many amazing business opportunities.

Life automation will define all our future lifestyles; in other words, our dietary choices, clothes, residential and transportation arrangements, education and entertainment, will all be fully automated and digitally controlled. Life automation can be looked at from two levels. One is the materialistic aspect of living that life automation brings: greater comfort, convenience, and quality of life; the other level of fulfillment lies in spiritual and cultural enrichment.

Digitally-enabled technologies and applications have grown in diversity and flexibility. For instance, in the future no waiters will be needed when diners eat out in restaurants; they can simply order from the menu on touch-screen devices such as i-Pads, and orders will automatically be sent to chefs in the kitchen for preparation. This kind of innovative application drastically cuts back on the time spent waiting for orders to arrive. Frequent business fliers can already make travel arrangements online, downloading flight ticket verification barcodes to their mobile phones, and use these barcodes for check-in and security procedures. Boarding passes will soon be a thing of the past.

Not only that, our spiritual lives will also be upgraded to via technology-enabled systems. For art aficionados who are thinking about adorning their walls with paintings, all they have to do now is to set up a HD screen at home and set it to display a wide selection of artwork. Furthermore, they can upgrade their system electronically to include music tracks that complement the paintings.

Judging from the trends in life automation, I'd say that high-tech appliances and products of the future will develop in two directions. First, advanced software will enable custom application services for just about every kind of demand. iPhone and iPad, for instance, are applications that cater to different age

groups and people of different professional positions. Secondly, products of the future will feature greater compatibility. Hardware applications will no longer be restricted to one single computer, but will become more flexibly compatible with other peripherals, such as video cameras, RFID, sensors and readers. These objects, after being equipped with computer-enabled identifying devices, will become more sensitive to changes in the environment and will react accordingly. This is the concept behind the Internet of Things (IOT) and Ambient Intelligence (Aml).

However, to reach that goal, we cannot allow our thinking to stagnate at the level of industrial computing. For Advantech, despite progress being made to reach that goal, most of the company's current products and applications remain largely passive; they are not fully intelligent or smart, and this is because most of our products have yet to be adequately supported by strong, powerful software applications. Take digital signage for example - a product very much in demand in the current market. Digital signage makers saturate the market, yet Advantech's predominance in this sector remains unrivaled precisely because the company excels in developing DS products that are versatile, custom-designed solutions with sensor-based facilities that are compatible with a diverse range of applications.

With the growing prevalence of smarter living and lifestyles, inter-operability and software support will bolster the value of any product and give it a competitive edge. In the past, Advantech's industrial computers were sold mostly to engineers, but when eyeing the future, we at Advantech should aim higher, diversifying our products' versatility to secure their presence in hospitals, supermarkets, and even the lives of humble housewives. Right now, we have a pretty good grasp of what technology can do for us, but in the future we should go to even greater lengths to meet our clients, put ourselves in their shoes, and help paint for them a picture of advanced technological applications. By marrying these two elements, I believe that Advantech can design products with the "wow" factor, and open up a new promised land.

Chaney Ho
President, Advantech

"Intelligent Life" Technology in Shanghai World Expo

Based on the "Better City, Better Life" slogan, 2010 Shanghai World Expo is a combination of cultures, arts, architecture, and technologies. It is a fascinating exhibition because it makes use of information technology in new ways. Visitors to the Expo will experience a new world, built with a variety of technologies that will power the future of the intelligent planet.

Script by By Leo Chen, with Pictures from TPG

2010 EXPO

Shanghai China



“Better City, Better Life” is the theme of Shanghai Expo; the exhibition is concerned about our living environment and the rapid development of urban challenges. All of the pavilions attempt to break from traditional thinking, and do everything they can to present their creative ideas.

The pavilions not only showcase amazing architecture but have also adopted a wide variety of IT technologies so that visitors can experience the city of the future.

IT Technology Builds a Fascinating Expo

The World Expo is an international festival which provides a stage for demonstrating new technological achievements and showcasing new global trends. Starting in May of 2010, Shanghai

Expo has been presenting various facets of better city life through advanced technology, and there are many multimedia and IT technology applications throughout the park.

In order to provide visitors with up-to-date information, China Telecom established 74 digital info-kiosks in the park. Through touch-screens in self-service kiosks, visitors can easily find information on nearby restaurants, transport routes, instant notices about the Expo Park, hotels, hospitals, shopping malls and other information. The info-kiosks use Advantech’s digital signage media players to deliver the latest multimedia information.

Through a conjunction of creativity and technology, the national pavilions have used technology extensively to design their exhibition

spaces. One example is the Taiwan Pavilion, which is based on the theme of “Mountain, Water, & Lantern of the Heart - Nature, Spirit, City”. The pavilion stadium hosts an ongoing virtual sky lantern ceremony where visitors operate “human machine interfaces” to send out blessings for everyone. A myriad of LCD touch panels accurately control and transmit the instructions so that the ceremony runs smoothly, even with input from many participants.

The Metal Sphere is the most exciting feature in the German Pavilion. When the audience shouts or claps, the sound enables a computer program and the ball starts to rotate and light up the picture on the surface. The main purpose of the design is for audience participation in the exhibition, and by doing so to realize that everyone has the power to create a harmonious and better city.

Expo is a New Model for the Intelligent City

Specific simulations of future lifestyles will surprise viewers in this Expo. The future city has to provide abundant features to meet its residents’ needs and at the same time protect the environment. Therefore, eco-friendly and energy-saving technologies will become the key features of future designs.

For example, “Oriental Crown, Splendid China, Ample Barn, and Rich People” is the theme of the China Pavilion, where a scenario control system manages the complex lighting and audio in the lounge and banquet room. Through “one touch” operation, one of more than forty scenarios can be set to create a comfortable and relaxed zone for the visitors.

The Korea Pavilion used many intelligent control technologies to present its theme of “Communication and Integration”. To fully demonstrate their intelligent applications, the pavilion adopted many of Advantech’s products, including the web-enabled Direct Digital Controller - BAS-3520, the expansion I/O module - BAS-3050, and the browser-based software - WebAccess.

Furthermore, the London Pavilion achieved zero carbon emissions through their application of high-tech solar, wind and biotic energy. The windows with solar cells can transfer 80% of incoming light into electric energy. The twenty two colorful wind caps installed on the roof rotate flexibly with the wind, continuously sending fresh air to each room. Remaining requirements for electricity and thermal energy are generated through a bio-energy system, whereby products can be used as bio-fertilizer.

There is an abundance of IT and energy-efficient applications at this Expo. With the rapid development of technology, all of this brilliant future innovation will be gradually implemented into our lives. As the Nobel Prize winner, Barry Marshall said in the forum, “Shanghai Expo presents many scientific and technological innovations. Through these new technologies, human life will be more environment-friendly.” ■



EXPO KIOSK

Script by Anita, with pictures from TPG

Multimedia Kiosks Tell You about the Fun Places at World Expo

Don't worry if you don't have time to study information about the World Expo before you visit Shanghai. Multimedia kiosks are ready prepared with the most exciting exhibition information so that you can make the most of your Expo trip.

A couple from Europe exited the Shanghai subway in front of the huge Expo Park. They wanted to visit Shanghai World Expo, but as they stood there with a lack of adequate information, they were totally at a loss.

Then the wife heard a male voice say "Welcome to Shanghai World Expo" and they found the voice was coming from a small kiosk at the side of the road. The digital info-kiosk was provided by China Telecom and boasted rich content information including pictures of all pavilions, transport routes, nearby restaurants, shopping malls, etc. The couple had a quick browse and decided to go and visit the Taiwan Pavilion.

Guidance Is Everywhere via Digital Technology

Within the 5.28 square kilometers of the Expo Park, hundreds of thousands of visitors every day need to find out about pavilion locations, details of spectacular performances, park location maps, and other information. In order to serve all the daily visitors, China Telecom has established 74 digital info-kiosks using Advantech's DSA-3010 network signage platform.

DSA-3010 is a digital signage platform for outdoor advertising, live shows, and other applications in harsh outdoor environments. For this Expo, the system integrators - Wafer Systems, integrated a variety of messages from China Telecom onto a media content server and released the information to outdoor and indoor kiosks through the multimedia information distribution system.

There were many excellent competitors in the bidding for the China Telecom contract. Advantech won the bid because of the specifications and stability of the DSA-3010, and because Advantech already had the expertise and much experience in digital signage solutions.

Advantech's solution not only communicates with a number of kiosks, but also plays dynamic video and still pictures on a single screen. Through RSS and Web Services, more functions were added such as allowing users to see news,

information about flights, stocks, exchange rates, and other real-time data.

Remote Control Ensures Smooth Operation

Before the Shanghai World Expo device installation, Advantech's technical team spent two months on product testing. Active equipment tests ran continuously during this period and any unexpected problems were solved via remote control.

Qin Ting, Advantech AIS Sales, Shanghai, said that all Expo equipment installation had to be completed in a very short period of time. The Advantech crew spent only two days to complete the delivery, installation and testing of Expo equipment, and cooperated seamlessly with Wafer Systems to ensure a smooth operation.

The size of the China Telecom kiosks is only 3 to 5 square meters, and their main features include information services, visitors' services, and mobile services. After choosing the language, the system displays many other options. Through these options, visitors can easily get information on weather, food, transportation, hotels, and washroom facilities etc.

At the same time information kiosks provide virtual 3D maps where visitors can get the most efficient tour guide and download any pavilion's video introduction through their cell phones. To resolve long queuing problems, the kiosks offer reservations for designated pavilions and the system will send reminders and navigation routes to the registrant. The kiosks also provide charge, recharge, and emergency services for China Telecom's mobile phone users.

When the Expo first opened, the reliability of Advantech products won much praise because the information kiosks had to operate for 16 hours and longer, continuously every day. "This is only the beginning," Qin Ting said with a smile, "as the seasons change and we face more weather challenges, we will strengthen our operational management to resolve whatever situations arise in support of the information kiosks." ■

TAIWAN PAVILION

Script By Leo, with pictures from Kate
Based on an interview with Sannie Lee, Advantech Intelligent Services Sales Specialist

Intelligent Platform for Nonstop Sky Lantern Ceremony

The Lantern Festival is a shining annual event in Pinghsi, where each year thousands of lanterns are simultaneously released into the night sky, each carrying a few written lines that express its participant's hopes and dreams. And at the opening of the Shanghai World Expo, lanterns flew in the Taiwan Pavilion, with prayers and blessings for each visitor. With the help of Advantech's interactive UTC-W101 platform, this dream of a beautiful, virtual lantern release came true.

“Look! What beautiful sky lanterns!” the crowds in the square exclaimed with excitement, but they were not at the traditional home of the sky lantern festival, which is in Pinghsi. The Taiwan Pavilion at the Shanghai World Expo adapted information technology to create a virtual sky lantern ceremony without the traditional 24-hour time limit. With these virtual sky lanterns, visitors can send their wishes to heaven at any time.

Technology Creates an Impressive Scene

Upon receiving the invitation to attend the 2010 Shanghai World Expo, the Taipei World Trade Center (TWTC) took immediate action and began planning the exhibit. Although the Taiwan Pavilion was to be located in the most popular area, the actual site only covered an area of 650 square meters, so designing the pavilion to present interesting and exciting exhibits was a big challenge.

Following the theme of “Mountain, Water, & Lantern of the Heart” the Taiwan Pavilion became a 20-meter-high lantern with glass

walls surrounded by beautiful Taiwan scenery. Therefore, even when visitors have to wait in line, they can enjoy the beauty of Taiwan.

The lantern-flying ceremony represents the belief that the flying lanterns deliver their prayers and wishes to heaven. In order to allow visitors to share in lantern launching, TWTC installed forty lighting control tables with Advantech's UTC-W101 eService touch computers on the second floor. They also invited famous calligraphers to write twelve beautiful prayers that visitors can select from to adorn their own virtual lanterns.

A visitor stands in front of the lighting control table, chooses a prayer, and presses a button that shoots a laser light to the south side of the LED ball, which then releases the virtual lantern into the sky.

UTC-W101 Controls Lantern Ceremony with Precision

The sky lantern ceremony allows visitors to participate directly, so equipment control is very important. UTC-W101 accurately controls and



transmits instructions via a touch screen display interface. Sannie Lee, Advantech Intelligent Services sales specialist, pointed out that the key factors for those devices are reliability, waterproofing, and high temperature resistance.

According to the TWTC's estimation, the exhibit should attract at least a million visitors. This means that the equipment has to survive more than a million activations. Based on such heavy usage over an extended period, device stability and durability are obviously very important; no one wants a machine crash to impact the image of the pavilion.

As the average summer temperature in Shanghai is above 30° C, and the lighting tables are partially exposed to the sky, the devices have to be both waterproof and highly temperature resistant.

Backup Services Support Nonstop Operation

UTC-W101 features a low-power, fanless industrial design. This not only met the TWTC's technical needs but was also attractive because of its light weight and easy installation. Lee said that Advantech conducted various assessments on this project including vent design, maintenance convenience, waterproofing, touch control, and installation. UTC-W101 emerged as the obvious choice for the TWTC lighting control equipment.

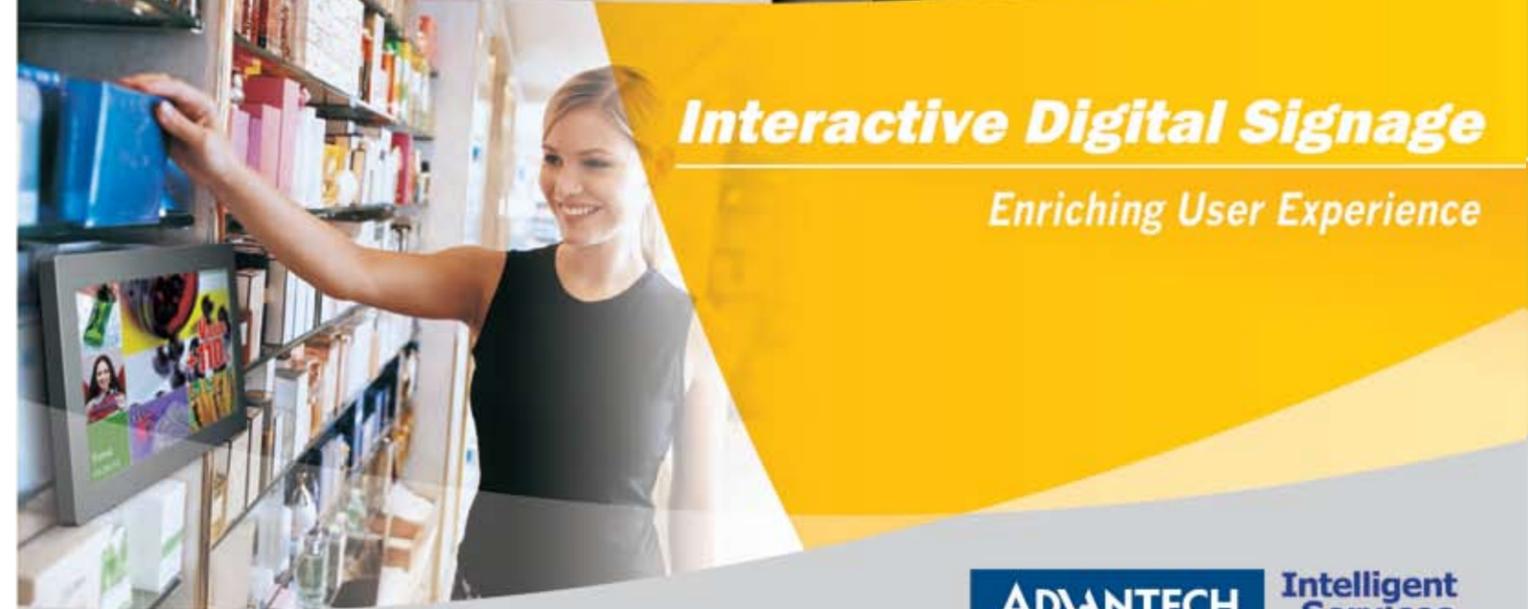
Advantech's hardware backup services were established to solve any real-time problems. A parallel set of lighting

equipment was first set up in Advantech's laboratory. By simulating the eventual World Expo installation, any potential equipment problems were identified and solved in advance by the technical team in Taiwan.

Advantech also prepared ten UTC-W101 units as backup devices to be held in reserve at the Expo. In the event of an on-site device breakdown, the local staff could replace it quickly, ensuring uninterrupted operation of the sky lantern ceremony.

In addition, the Taiwan Pavilion also uses Advantech's interactive digital signage station to provide the latest exhibition information. Lee said that a DSS-7042 with a 42-inch, high definition (full-HD) screen is placed at the exhibition entrance to display internal navigation and stadium information. The welcome message and instant news serve to entertain guests as they wait in the checkout lines.

The Taiwan Pavilion sky lantern display has gained widespread attention and many favorable comments since opening. Behind this success lies comprehensive hardware support and innovative applications. Advantech provided a full range of high quality products with reliable support services that guarantee uninterrupted operation. Advantech is proud to play a role in supporting the Taiwan Pavilion at this year's Expo. ■



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Enriching User Experience

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Advantech Interactive Signage Solutions will enable you to meet customer needs in retail, hospitality, commercial and public transportation sectors. Whether in a mall, at the airport, or in a stadium, Advantech Interactive Signage Solutions will keep you deliver powerful messaging.



Interactive Signage Station



Interactive Signage Display



Digital Signage Player



CHINA PAVILION

Script by Leo Liao and photo by Kate Lee
Based on an interview with Yan Xiao-Liang, Sales Director,
LDS Intelligent Technology (Shanghai) Co., Ltd.

“One Touch” Lighting Control Makes Life Easier

In addition to the main exhibitions on display in the China Pavilion, there are also a number of side displays at the reception hall. The facilities for these displays are controlled by Advantech's UBIQ-230T intelligent lighting control system. With its user-friendly control interface, visitors can control all the independent systems from a “one touch” interface.

“One touch” control is all about convenience; by gently touching a control panel, you can change the interior ambience to your liking, from anywhere in the room. For example, when you are ready to fall asleep after watching a movie, touching sleep mode on the panel will turn off the TV, ceiling lamp and DVD player automatically, leaving only a night light's glimmer to accompany you. Today, all visitors to World Expo 2010 in Shanghai can see these technologies in operation at the China Pavilion.

China's Multi-Style

The China Pavilion, the “Crown of the East”, is located in the heart of the World Expo in Shanghai. The building is a bright rosy red color, with four vertical columns topped by a cascading series of levels forming an inverted pyramid in a fusion of modern urban sculpture and classical Asian style. It is very impressive to see.

The interior of the China Pavilion is divided into halls representing different countries and regions. The regions hall is a rectangular building with a total area of about 30,000 square meters. It hosts exhibition facilities for China's 31 provinces, municipalities and autonomous regions. People can catch a glimpse of China's pluralistic nation, as well as many of the achievements that have come from its major cities.

One special feature at the China Pavilion is a rooftop garden called the “New Jiuzhou Scenic Area”. The inspiration for this comes from the Jiuzhou Scenic Area of Yuanmingyuan. Visitors to the Shanghai Expo can enjoy these rooftop gardens at the China Pavilion.

The hall looks like a red crown rising into the clouds. Inside, it is divided into three floors, with the theme “Chinese Intelligence in Urban Development”. In the hall are three specific areas: “Exploring the Oriental Footprint”, “The Experience Trip” and “A Low-Carbon Future”. Here, visitors can experience both ancient and modern Chinese culture at the same time.

As the host country, the China Pavilion, in addition to its exhibitions, also contains a banquet hall, twenty-two VIP rooms, and a three-lounge area (also known as the “Red Room”). The “New Jiuzhou Scenic Area” roof garden contains thirteen glass houses, all of which use Advantech's UbiQ-230T light control systems. With a “one touch” interface, visitors can easily control lighting, curtains, air conditioning, and more than forty lighting situations; the system is designed to be very user-friendly.

More Benefits from Power and Energy Saving Technology

The twenty-two VIP rooms are all very different in terms of their functionality, location and design, but they all use Advantech's UbiQ-230T lighting control systems. “The system is known for its powerful and stable characteristics, and it is equipped with a 3.5-inch touchscreen, which is compact and smart looking,” said Yan Xiao-Liang, Sales Director for LDS Intelligent Technology (Shanghai) Co., Ltd.

Each of the thirteen glass houses in “New Jiuzhou Scenic Area” has glass walls designed to allow light to pass while safeguarding privacy. The intelligent control panel is designed specifically to rotate the glass slats up to 360° to provide for privacy and lighting as needed.

UbiQ-230T incorporates all the switching mechanisms in a single control panel, making it easy to use and power-thrifty as well. Based on user settings, when the Pavilion is ready to close, a quick touch at the panel will shut down all lights and air conditioning units, saving even more power. The same type of control center has also been built into the twenty-two VIP rooms at the pavilion.

In addition, the UbiQ-23-T system in the Red Room is programmed with three scenarios: “venue”, “official reception” and “cleaning”. When the area is being set up by staff, the venue setting will turn on the main lighting. The reception setting slightly dims the main lights

and highlights the art hanging on the walls around the building for guest viewing. And the cleaning scenario turns all the lighting on for staff use.

High Acclaim for High Quality

“The China Pavilion is first case of using an intelligent control system in a large exhibition hall,” said Yan. In the past, intelligent control systems were often used in villas or luxury apartments. In this case, however, since the China Pavilion is a very large construction, system integration for lighting, air conditioning, and curtain control is very complex. Fortunately, Advantech provided excellent products and services with high scalability that helped the system go on line without problems.

Since lighting control is the key function of UbiQ-230T, customers must specially design their systems and user interfaces to take advantage of curtain and air

conditioning controls, which with other systems can waste a lot of engineering resources. However, thanks to the easy programmability of UbiQ-230T’s Win® CE platform, design time was significantly reduced.

“Advantech also provides complete technical support,” said Yan. “When we send mail to Advantech Taiwan for technical support, we get a rapid response—on average within one to two hours. Because of Advantech’s quick responses, we were able to complete the design for China Pavilion in a short time.”

World Expo 2010 has been open for two months. “We’ve not received any phone calls for maintenance,” said Yan. “That means the entire control system from Advantech is very stable and reliable.” Not only has Advantech’s UbiQ-230T received praise and recognition from the China Pavilion, but it has established a brand-new paradigm for intelligent control systems for exhibition hall applications. ■



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Advantech In-Vehicle Series Embedded IPCs

ARK-VH200, ARK-3202V and ARK-1388V are fanless, embedded IPCs with focus on in-vehicle computing systems, which of course have very stringent power requirements, including load-dump, cold-crank, very low power consumption at light loads, and low-noise operation. These Embedded IPCs are also equipped with an 802.11b/g WLAN card, GPS receiver, GPRS, 3.5G antenna, and support rich I/Os for special applications. ARK-VH200, ARK-3202V and ARK-1388V are ultra-compact, powerful, all-in-one, fanless embedded systems, designed for rugged and space-critical in-vehicle applications.



ARK-VH200
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• 120/100 FPS D1 resolution video recorders, optional 1 PoE port for IP Camera
• Optional add-on miniPCIe card for wireless applications, e.g., WLAN or 3.5G module



ARK-3202V
Mobile Intel® Atom™ N270 Fanless Solution with Dual Display and Multiple I/Os
• Intel® Atom™ N270 processor at 1.6 GHz
• DVI & VGA dual display and support for wide screen with high resolution
• Supports 2 GbE, 5 USB 2.0 and up to 5 COM ports



ARK-1388V
Ultra Compact, In-Vehicle Solution with Safe Start/Shutdown and Wireless Functions
• Intel® Core™ 2 Duo ULV U7500 1.06 GHz / Celeron® M ULV 423 1.06 GHz processor
• Startup and shutdown linked to car battery and ignition status
• Optional built in WLAN/GPRS/EDGE/UMTS/HSDPA module

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KOREA PAVILION

Script by Leo Liao, Photo provided by TPG
Based from an interview with Yuan Ya-Zhou, Advantech Product Manager

Building Automation Technology Offers Unprecedented User Experience

If you take a quick look around the World Expo 2010 Shanghai, one of the most striking buildings is the Korea Pavilion. The three-story Republic of Korea Pavilion is composed of the twenty basic letters of the ROK alphabet. The Korea Pavilion adopted Advantech's building automation management technology to create an inviting, comfortable environment for all visitors.

A "Korean storm" has been sweeping Asia in recent years. Korean theaters have become favorites with Asian female audiences, and Korean entertainers have become idols for a lot of Asian youth. This trend is finding expression in World Expo 2010 Shanghai as well, making the Korea Pavilion one of the most popular exhibitions in Pudong Park; so much so, that now visitors must wait an average of three hours before admission.

The Korea Pavilion occupies around 6000m²; it is South Korea's largest-ever exhibition since the first time it participated in a World Expo in 1889. The theme of the Korea Pavilion is "Friendly City, Colorful Life". From the outside, the shape of this pavilion is derived from the letters of the Korean alphabet; the exterior surfaces are covered in colorful ceramic tile, with 'convergence' as the main theme, represented by the coming together of words and spaces.

Inside, the Korea Pavilion is divided into three floors. The ground floor is a miniature representation of Seoul on a scale of 1:300. The second floor is divided into four sections: culture, humanity, technology, and nature. Here visitors are able to experience both current and future Korean urban life. The Korea Pavilion also provides an area that specifically promotes its Yeosu Expo in 2012.

The Core of a Smart Building

In order to create an appealing and comfortable environment, the Korea Pavilion selected Advantech's building automation solutions, including networking digital logic controller BAS-3520, digital I/O expansion module BAS-3050, and WebAccess, an intelligent browser based human-machine interface, to implement the central air conditioning and indoor/outdoor lighting controls of the exhibit. People who visit the Korea Pavilion experience the most advanced intelligent control technologies.

"As the main controller of the Korea Pavilion's central air conditioning system, the BAS-3520 controls two sets of air conditioners and four exhaust fans," stated Yuan Ya-Zhou, Advantech Product Manager. The key functions of the BAS-3520 include exhaust fan and water valve switching, and system temperature settings; at first glance this is the same as any normal air conditioner. However, important additional features provided by the BAS-3520 are manual and scheduled setting options, which are available through the WebAccess software.

In general, an air conditioning system starts up or shuts down automatically according to scheduled settings. For instance, it can start up every morning at 8 am, and shut off at 10 pm. In special cases, however, if there are an unexpected number of visitors, or the system needs maintenance, etc., an administrator can use the manual setting function, adjusting system load via WebAccess, or adjusting temperature according to the outdoor climate to provide the most comfortable environment for visitors.

"The Expo Hall is very different from business buildings," said Yuan. "The hall requires a very different design for its air conditioning system." For example, manual function settings are not recommended for business buildings; system loads are adjusted by water inflow. And yet in the Korea Pavilion, the number of daily visitors varies greatly; sometimes daily visits run at around a hundred thousand people, but other days the total soars to two hundred thousand. This means that there are huge differences in system load; in order to maintain a comfortable environment within the pavilion, an administrator must adjust the system manually.

Networking Architecture

Yuan believes that networking architecture is the main reason the Korea Pavilion selected Advantech's building automation solution. This solution supports Ethernet, from the low level DDC controller up to the graphical user interface, all enable easy control of the entire central air conditioning system remotely; there is no longer any need for an administrator to rush into the huge exhibition hall to manage temperature problems.

Besides Ethernet support, the DDC controller offers strong scalability. BAS-3520 has a modular design, which integrates with control equipment through its I/O expansion modules. The local unit can link with three I/O modules, and if connected by RS-485 and remote I/O modules, it can expand to fifteen I/O modules.

"Linking the main controller through remote I/O modules is the best solution for the Korea Pavilion, since this hall covers a large area and its floor is relatively high," said Yuan. Advantech's flexible and configurable DDC controller provides both local and remote expansion options, making it the ideal application for the central air conditioning system of the Korea Pavilion.

A review of customer demands for business building automation shows that hardware alone is not enough, no matter how complete; customers also need powerful, user-friendly software. The WebAccess graphical control software from Advantech utilizes today's cloud computing concept - using web-based architecture, open databases, and Ethernet control equipment - to implement remote monitoring and management.

Since the opening of World Expo 2010, the Korea Pavilion's air conditioning system has run very smoothly. "Up till now we have not received any complaints," said Yuan. For the Pavilion, exhibition content is key to attracting visitors, but a comfortable environment also enhances the quality of the experience, and leaves a good impression with all visitors who go to see the pavilion. ■



AURORA PAVILION

Photos provided by TPG and Advantech
Based on an interview with Zhang Shung-Xian, Assistant Project
Manager for the Intelligent Service business unit at Advantech.

Digital Signage Enters the Most Private of Spaces

Digital signage has been widely used in stores and amusement parks, but have you seen digital signage display embedded in a bathroom mirror or (for men) on a screen above a urinal? Nowadays, information through digital signage displays is available everywhere, offering interesting tidbits in the unlikeliest of places. One of the more special applications is the “intelligent system in public restrooms.”

Imagine you're walking through the World Expo 2010 at Shanghai. Getting tired, you head toward the women's restroom (if you are a man, imagine you are a woman!) to take a break. You are surprised when a mirror on the wall in the restroom begins to play the Expo exhibition message. One by one, each of the seven attractions of the Aurora Pavilion are presented, along with the Expo theme song. Focused on the beautiful music and the presentations, you

almost forget that you're in the restroom.

On the other side, in the gentlemen's restroom, sophisticated screens are used to show amazing video and images of the Aurora Pavilion. They are installed above each urinal. When gentlemen exit the restroom, they are greeted by a giant screen displaying information from the jade and other exhibits—in 3D stereoscopic projection.

The theme of World Expo 2010 Shanghai is: “Better

City, Better Life”. In country pavilions around the Expo, innovative ideas combining modern life and technology are everywhere. The Aurora Pavilion and Chinese Private Enterprises Pavilion restrooms are full of interesting multimedia displays. The mirrors and urinals are equipped with motion detectors; sensing people, multimedia begins to play, automatically displaying exhibition information. This intelligent system in the public restroom was planned, installed and produced by Hostan Corporation, a subsidiary of HCG. Hostan's main business is urinal sensors, energy-saving products, and green products such as solar water heaters and heat pump water heaters. Hostan has more than 20 years experience in kitchen and bathroom areas.

Singing! Magic Mirror!

Building on its experience, Hostan chose to introduce digital signage displays into public restrooms as it felt they were very suitable for information propagation. Regardless of where people are, everyone needs to use the restroom. In general, people are relaxed in the privacy of the restroom, and therefore more receptive to information. This may explain why public restrooms put posters, jokes, and lifestyle information on the walls; making information available in the restroom has become an effective approach for information delivery.

In order to implement its ideas, Hostan needed to have a partner with actual solution and product technology. Advantech proved to be a good partner for them. Back in 2008, Advantech was implementing the “Intelligent

Home” concept. Through its embedded system technology, Advantech developed a modular intelligent environmental control system – the UbiQ Scenario Control, which allowed users to control room lighting, air conditioning, A/V equipment, and even security surveillance, all from a simple touch panel. Advantech controllers can be used in living rooms, dining rooms and bedrooms, and of course, in restrooms as well. Since Advantech has a lot of experience in the industrial PC arena, its products are very robust and able to stand up to special environments, such as a wet or hot public restroom facility. That's why Hostan decided to work together with Advantech when they began planning to build an information propagation platform inside the restrooms at the 2010 Expo.

Advantech has a complete digital signage solution, including hardware and software. In terms of hardware, Advantech uses a dual output design in its host devices; to increase flexibility, the signal can be returned through an RS-232 interface and a traditional COM port. On the software side, Advantech's digital signage software has been widely applied to a lot of digital signage applications in a variety of public spaces. Advantech's combination of hardware and software allowed Hostan to develop smart products for use in their restroom project in the shortest time possible.

Unified Control System

The “Magic Mirror” in the women's restroom and the screen above the urinal in the gentlemen's restroom are controlled by Advantech's DSA-3400



Digital Signage Platform. Between ten and twenty devices can be managed by a single DSA-3400 system installed in the restroom area. All on-screen content is transmitted through the DSA-3400. In addition, all information about play times and total video play time is sent to the DSA-3400 through the high-speed 2.4 GHz wireless network deployed in the exhibition area, helping managers understand how users are accessing the content.

“Information from the screen above the urinal will be transmitted to a host device behind a mirror, and then sent back to the data center for analysis,” said Zhang Sheng-Xian, Assistant Manager of the Intelligent Service business unit at Advantech. “Since these devices deploy XP Embedded operating systems providing complete data protection, they are free from virus attacks or data theft or loss during data transmission,” he added.

In the Expo Hall, there are a lot of time- and space-constraints to overcome. Organizers are very strict in controlling and managing the exhibitions; participating vendors only have one month to set up their equipment. Therefore, operating time is extremely compressed. To prepare for the expo, Advantech and Hostan worked together simulating the software and hardware implementation many times before the actual equipment installation, working to

integrate the digital signage software (Manager Pro) with the mirror and urinal displays, sensors and power supplies. In the end, the actual equipment installation and operation was very smooth.

“Even though the devices used are waterproof, there are still several challenges faced when installing equipment in a restroom,” said Zhang. The host and monitor behind the mirror, for instance, could face a cooling problem as it plays video for long periods of time; the screens above the urinals are exposed, and it’s possible to splash them with water during cleaning. These are some of the challenges faced by equipment installation and operation in this kind of environment. Success with this installation was a tribute to the quality of Advantech Industrial PCs in harsh environments.

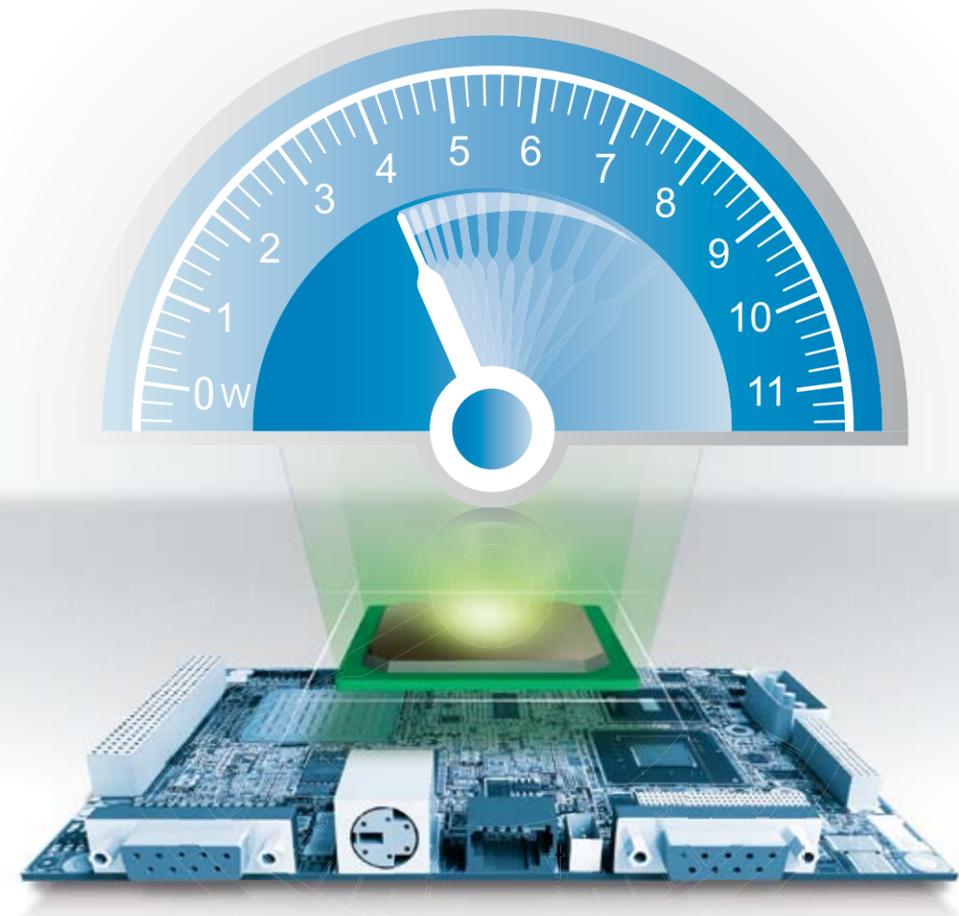
The successful experience at the Expo Hall establishes a foundation for Advantech, which can be applied to many other applications. “Department stores, shopping malls, and cinemas could easily adopt this solution, since the restrooms in these places are usually very clean. In particular, people are receptive to information while in public restrooms where they usually feel relaxed. In this situation, people are more likely to remember the marketing information they receive,” said Zhang. ■

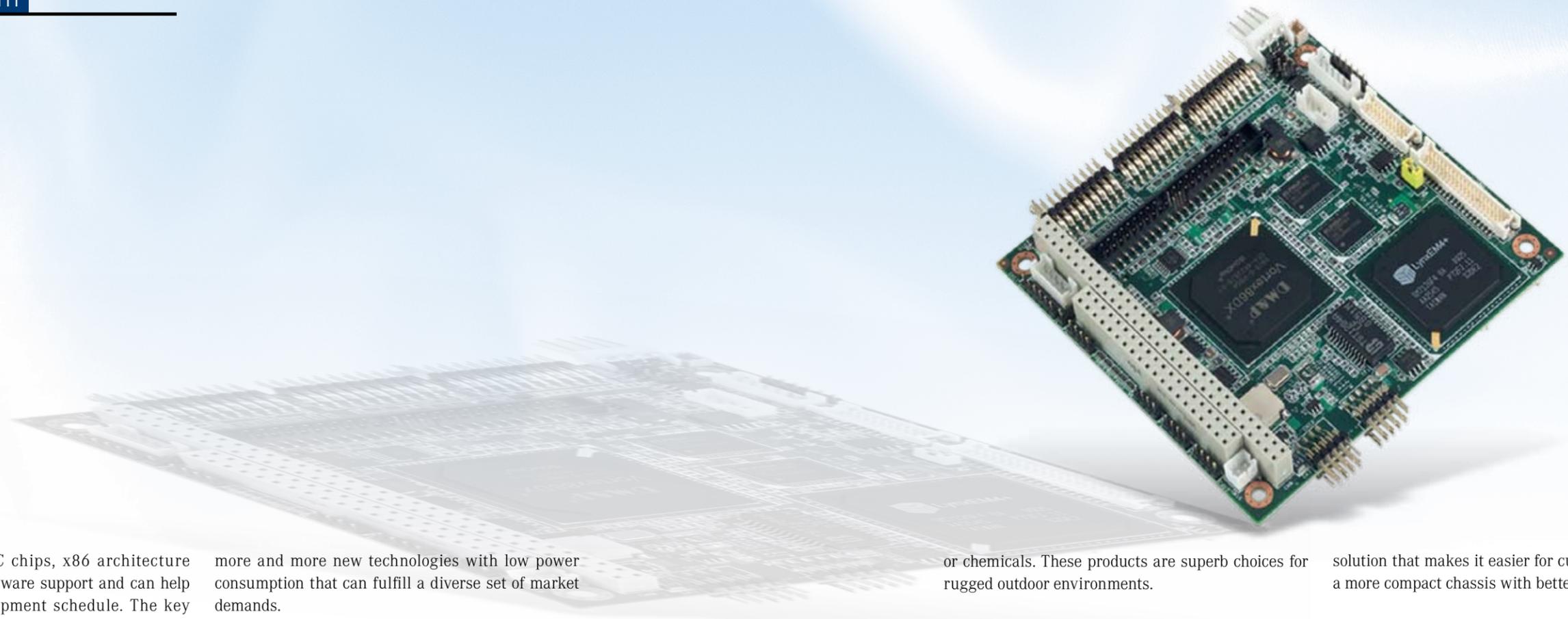
Next Generation Low Power Solutions for x86 Platforms

With a diverse range of new applications and technologies, and the emergence of customized end-to-end products, the embedded market has continued to expand in recent years. The strong demand in the embedded market is driving x86 processor manufacturers to provide products which combine efficiency with excellent performance for applications where small size, thermal efficiency and power consumption matter.

Written by Sandy Chen, Advantech Product Manager

Photos by Advantech





Compared with RISC chips, x86 architecture has much better software support and can help reduce the total development schedule. The key concern for developers of RISC-based solutions is the need to rewrite the software kernel source code and drivers to adapt to their designs. For example, with x86, developers only need to adjust the parameters of drivers and VBIOS, but RISC only provides the source code of display drivers for reference. In addition, when the device's BIOS is complete, developers can install Windows® XP OS and test the system directly.

And there are more benefits to the x86 architecture. As far as CPU performance and system benchmarks are concerned, x86 systems can run much faster, as well as process multiple instruction threads from multiple cores. Regardless of hardware or software, the eco-system support for x86 is a lot better than that for RISC, since x86 has been around for a lot longer and has many more peripheral devices and third-party applications available. Furthermore, the development effort for x86 is much less than for RISC because the bootloader, OS, and utilities are ready for x86 and users can quickly install a general OS for immediate evaluation.

Power consumption is another critical feature for embedded applications because it's necessary for them operate reliably for long periods without maintenance or supervision. Systems and components need to run cool, and batteries, if used, must last a long time. That's why there are now

more and more new technologies with low power consumption that can fulfill a diverse set of market demands.

DM&P Vortex86DX SoC

The DM&P Vortex86DX is a System-on-a-Chip (SoC) which integrates the BIOS, and the north and south bridges into a single BGA chip in an ultra low power consumption design. This particular x86 architecture supports an FPU (Floating-point Unit), various I/Os, and many other features including BIOS, WatchDog, MTBF counter, LAN on Chip, and JTAG. For energy-saving, the SoC is an ultra low power product; its non-graphics power consumption is 4W, and only 6W with graphic processing. It also supports the ISA interface and multiple I/Os to fulfill legacy application requirements.

Advantech offers PCM-3343/9343 SBCs based on the DM&P Vortex86DX SoC processor platform, which provides many additional benefits to Advantech's design. For example, if an application runs under DOS, the image can be installed inside the onboard SPI EEPROM to save space and total cost. The extended temperature range of applications can be -40 to 85° C or -20 to 80° C, making them suitable for extreme and hazardous environments. PCM-3343/ 9343 SBCs are ultra-small-form-factor, fanless designs, with onboard RAM and Flash. Furthermore, there are additional coating options that can provide even more protection from moisture, temperature extremes, mold, friction, dust

or chemicals. These products are superb choices for rugged outdoor environments.

Intel® Atom™ N450 Single Core/D510 Dual Core Solution

The Intel® Atom™ processor N450/D510 is the first Intel chip architecture to integrate the graphic and memory controller directly onto a single CPU chip. These advanced designs enable greater power reductions, smaller dimensions and performance improvements. The Intel Atom processor lines fill an important gap between low-end processors that are not powerful enough and high-end processors that are too complex, expensive and hot! Atom processors enable many new embedded and mobile devices for a wide range of markets and applications. This opens up important new opportunities for power-efficient applications.

Advantech has implemented the Intel Atom processor N450 single core/ D510 dual core and ICH8M chipsets into various embedded products. This combination provides the best efficiency of performance versus power, and is ideal for applications where small size, low power consumption, and thermal efficiency are important. For example, Advantech's PCM-9562 can support up to three Gigabit LANs, two watchdog timers, and comes with a rich array of I/O interfaces. It also includes power-off protection and UL60601/ EN60601 medical certification. PCM-3362/ 9362/ 9562 also provide an optional heat spreader thermal

solution that makes it easier for customers to design a more compact chassis with better thermal results.

The Future of Next Generation Ultra-low Power Intel Atom Processors

The next generation ultra low power Intel Atom processors with seven-year lifetime support will be available in the fourth quarter of 2010. They will come in three flavors: 600 MHz, 1.0 GHz, and 1.3 GHz, all in super-small packages with most of the north bridge functions packed onto the same chip as the processor. The new platform has an overall package size that's 46% smaller than the previous chip package for the embedded market. That means the platform can offer vendors much greater versatility because instead of using proprietary interconnects, the processor communicates with the IOH I/O controller via an industry-standard PCI Express bus. Third-party vendors can create their own IOH chips that add custom functionality targeted at vertical applications. Meanwhile, Intel will provide its own IOH chips for general embedded applications, offering typical interfaces such as USB, PCI Express, gigabit Ethernet, SATA, and SDIO.

Advantech will release these new ultra-low-power platforms in late 2010. We also provide many low-power solutions on different x86 platforms that can fulfill any embedded application demands. ■

Big Future for Tablet PC Applications

Interview by Nienlu, with pictures from Advantech

An interview with Jackel Sheng, Senior Product Manager, Advantech eServices & Applied Computing Group



The tablet PC has become the focus of public interest once again since Apple began selling iPad. Although IPC vendors have applied flat panel form factor products in various fields for some time already, new concepts for industrial applications have changed only gradually over time.

Since the launch of Apple's iPad, it seems that the consumer electronics market is accepting the flat touchscreen tablet PC concept again. Suddenly, various vendors have announced their tablet PC plans to develop similar form factor products. Although touchscreen flat panel products have been applied in industrial applications for a long time, this new trend has also had an impact on the IPC industry.

Tablet PC Features Spread Further Than the Consumer Market

In fact, the tablet computer was developed several years ago. Both hardware and software vendors attempted to introduce the tablet PC to the mainstream market but software and touchscreen technologies were not mature at that time, but features such as touch input and simple operation were ideal features for industrial applications. In the IPC industry, flat panel products have been adopted for use in harsh environments for some time. In recent years, other industries have taken an interest in flat panel products because of their architecture and convenience of use. So now, tablet products have been making steady progress in many different markets.

Jackel Sheng, Senior Product Manager of eServices and Applied Computing Group, pointed out the inexhaustible potential that touchscreen tablets offer in business and consumer applications. And, based on industry experience, the question now is how do IPC vendors introduce touchscreen tablet PCs to new fields and applications? In future, a main focus will be to provide more user-friendly touch operation through better software interfaces and improved touch screen technology.

Emphasizing Service-oriented and User-centered Design

Unlike the tablet PC, which similar to iPad, concentrates on ease of use and convenience, the traditional flat panel computer has emphasized flexibility and robust design that fits the needs of factory or machine integration, external appearances were not a primary focus. But with the expansion of tablet PC applications, manufacturers have

now adjusted their focus to more service-oriented functions to meet new application needs. Sheng said that for the future development of tablet PC applications, IPC vendors need to strike the right balance between usability and functionality in both software and hardware. The definition of a "user" is so much more than just a person who uses a product, it also includes the idea of "Usability", and "Ubiquitous Service". In the past, traditional industrial design was just based on product functions. Nowadays, the designer of a tablet PC application should consider a user's behavior and habits. Usability is about the ease with which people can employ a particular tool in order to achieve a particular goal. With this in mind, vendors have to attain a better understanding of end-user demands so they can better target their applications.

At present, the touchscreen tablet PC is widely used in many fields such as in kiosks, POS, gaming, signage, and vehicle communication. Sheng further explained that most tablet PCs for industry will be placed in public areas, therefore the product to be adapted to multiple types of user. The most important direction of Advantech's development in tablet PC's is how does Advantech integrate the software and hardware to maximize the effectiveness of functionality and convenience? "We should be ready to develop comprehensive hardware and software platforms based on users' needs. Through careful research of user behaviors, we will design new products with better functions and appearance specially tailored for different vertical markets. It sounds easy to say 'Start from the user,' but actually it's not as easy as it sounds," said Sheng.

Advantech has also invested a lot of effort in firmware, becoming a Microsoft embedded agent, and developed an API suite called SUSI (Secure & Unified Smart Interface) to help make it easier for customers to better configure their application. Based on our rich experience in the IPC industry, we intend to provide even more software services to increase customer value. In line with the trend towards more tablet PC applications, Advantech will take advantage of its legacy resources, and by sensible and effective application, become a leading pioneer in this industry. ■

Energy Management Systems Significantly Improve the Efficiency of Building Automation

Script & Photo provided by Advantech



In today's environmentally conscious world, power conservation and carbon reduction issues are ever increasing. Many nations are even beginning to regulate such activities, and certainly such activities would benefit the larger nations most of all. Back in 2004, the Chinese government announced an energy initiative that mapped out a carbon reduction goal as part of the nation's five-year plan, China's national guidelines for economic and social development. Under that plan, China hoped to reduce 20% of their per unit GDP energy consumption by the end of 2010. It's an aggressive plan to be sure, but one that seems to be succeeding so far.

To meet this goal, the government initiated ten key energy efficiency projects, including oil conservation and substitution, renovation of coal-fired industrial boilers, district-level restructuring power generation, waste heat and pressure utilization, electric machine power conservation, energy system optimization, building energy conservation, "green" lighting, energy conservation in governmental departments, and the construction of monitoring, evaluation and technical services.

Among them, building energy conservation was of great importance. Statistics shows that of China's 40-billion square meters of floor area, only 1% have implemented energy conservation. In 2006, buildings consumed over 27% of the nation's energy consumption, nearly 3 in 10. Therefore, it was imperative for the nation to lower the buildings' energy consumption level and improve their

energy efficiency.

On October 23rd, 2007, the housing ministry and the finance ministry aligned themselves in an announcement on how they will enhance power conservation management in government and large public buildings. On May 13th, 2008, the housing ministry and the education ministry then announced they also would further improve energy and water conservation in colleges. Finally, Premier Wen Jiabao of the State Council issued Order #531 that put the 'Energy Conservation Regulation for State-funded Institutions' act into force on October 1st, 2008.

Assessing China's 5-Year Plan

While solid numbers are difficult to attain, analysts agree China has achieved a remarkable turnaround in reducing energy consumption. In 2006, many felt that China's 2010 target would be nearly impossible to achieve, but now they appear to be doing just that, achieving the impossible. One of the more interesting accomplishments involve new buildings in China, where it was found that compliance to strict new energy rules was up to 98%.

Smart Power Management: The First Step in Energy Saving

The traditional view of energy conservation has always been simply to reduce the amount of consumed energy, which seems like a simple solution at first. However, real energy conservation does not seek to compromise users'

comfort; instead, it emphasizes the implementation of improved technical and managerial means to synthetically reduce the overall energy cost, while still increasing the efficiency and reliability of the energy that is being used. This has become the common ground for many industrial computer corporations.

These ideas can be made practical through energy management systems, which establish centralized monitoring and control over the lighting, air-conditioning, elevators, heat, water and gas in a given building or group of buildings, and also generates a large amount of raw data that can be used later for analysis.

In a standard energy management system, administrators and management personnel have instant access to a variety of information about the energy consumption in buildings, and can take necessary measures to increase energy efficiency. Energy management systems help building proprietors collect and analyze a large amount of energy consumption data, and help companies monitor and control energy consumption in their production facilities. They also help assess the correlated influence of a given energy consumption measure, providing references for future policy making.

Energy management systems feature data collection, analytical systems, and a number of equipment monitoring and control subsystems. The data collection and analytical systems lay the foundation for the entire management system, as they provide the fundamental information about the operation of the equipment in the building, enabling automatic control and inspection over power supply and distribution, water supply and drainage, and other energy and environmental facilities. They help provide effective energy conservation opportunities for corporations, ensuring precise data, real time transmission, energy consumption analysis and cost, and establish a primary energy profile that converts and displays energy usage. In turn, these results help users manually modify their monitoring and control policies, so as to optimize equipment operation efficiency with reduced operation hours and cost. To achieve this, building proprietors have to install data collecting tools, digital controllers and power meters to realize terminal data gathering.

Energy management is indispensable for building proprietors in implementing energy conservation. It is equivalent to an overall examination of the building's power consumption.

By analyzing the power consumption of the building during a given period, the management system helps map out a "baseline", and accordingly establish itemized statistics and assessments for the building's energy use, including air conditioning, lighting, and elevators, so as to optimize management with various energy conservation plans.

Advantech's Building Energy Management Solutions (BEMS)

As one of the top building automation providers in China and a member of the Energy Conservation Association in China, Advantech offers important values for building proprietors: reduced power consumption and energy costs, improved energy efficiency, and reliable industrial-grade products.

Thomas Lee, a building energy conservation expert and General Manager of Advantech's Green Energy Business, points out that every building energy management project needs to be custom-tailored to the specific details of the building's energy use, which often starts with an analysis and assessment of energy use, and then the implementation of a thorough mapped out energy conservation plan.

Advantech's BEMS helps corporations collect and analyze large amount of distributed energy consumption data of their production facilities. The users of the system can also implement a simulation of a proposed energy conservation measure to preview its effects as reference for policy making. This significantly reduces investment risks. Advantech's BEMS products are fully compliant with China's technical guidelines for use in government and large public buildings. Advantech also provides free portals for the driving and connection of smart measuring equipment, in accordance with communication protocols such as Modbus. They also have a strong networking capacity, ensuring that customers can browse and maintain the system remotely via the internet, anytime and anywhere.

Data acquisition software and terminal devices such as data collecting tools and smart meters also play important roles in collecting information and implementing diagnoses for energy consumption. They enable the automatic control and inspection over power supply and distribution, water supply and drainage and other energy and environmental subsystems. They also help corporations to discover opportunities for energy conservation, enhancing the precision of real time reactions and establishing a primary energy profile with estimated energy costs. Advantech also provides WebAccess software pack, data collecting tools, direct digital controllers (DDCs) and multimeters.

Application Cases

Advantech's BEMS products have been widely adopted by businesses, chain stores, college campuses, and more. Remarkable applications include a power conservation project for a Taipei-based convenience store chain, a renovation project for a shopping mall in Hefei, China, an ice-storage air-conditioning system for an office building of electronics companies in Guangdong, China and an energy management project for a five-star hotel in Beijing. Advantech's BEMS solutions are also applied to Advantech's own office buildings in Beijing, Shanghai and Taipei. ■



Francesco Cattaneo
Channel Manager
Advantech Europe

Greetings from Italy! My name is Francesco Cattaneo and I've been with Advantech since April 2008, initially as Channel Manager for Italy, and since 2009 for Spain, Portugal and Greece. This is a very good challenge that requires me to always be focused on helping our Channel Partners be on target and to allow our sales to grow, helped by a wonderful team across Europe.

After some years in the Audio/Video business in the Italian market, and a couple of years spent travelling across the US and the Middle East for Fimi Philips, Advantech represented for me an excellent opportunity to be active in the field (in such wonderful countries!), and at the same time allow me to continuously learn from other colleagues.

Advantech has huge opportunity for growth in several key markets in Europe—and I want to be part of this! When I'm not working, I love to travel with my wife around the world, looking for sun and big waves to surf or new routes to ride with my motorbike! It's great to be here—don't forget the sky's the limit!

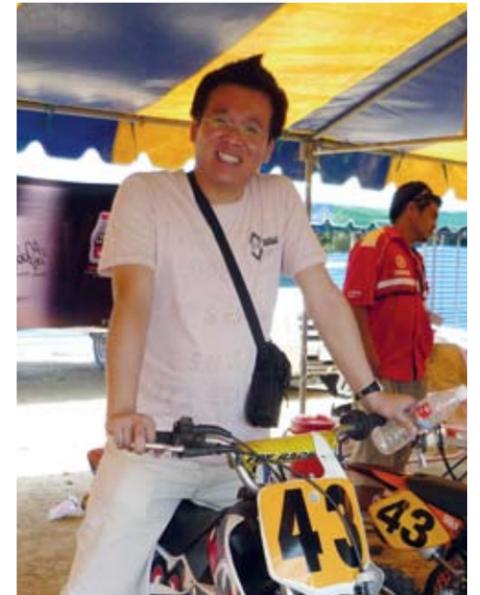
“Apa Khabar?” means “how are you” in Malay. I am Matrix Choong from Advantech Malaysia, currently working as a Key Account Sales Manager here. I love making friends and helping everybody as much as I can.

I joined Advantech over 10 years ago and for the first 7 years I was purely responsible for technical matters. There were many steps from being a technician to technical manager, but it was a great time where I could help customers and colleagues, solving their challenges with Advantech products and solutions. My favorite part was giving training from time to time.

Back in 2007, I was given an opportunity to handle eA CP across the SAP region. It was very challenging dealing with different people, discussing business and partnerships, but the rewards were fruitful and it was exciting to get the job done in an efficient manner. Thanks to Advantech I was able to travel around ASEAN countries which provided me with incredible memories.

Now I've shifted to the Key Account (KA) sales team, which deals with some important KA like Agilent and Seagate. In collaboration with these KAs, I felt it an honor to be able to get involved in moving technologies forward using Advantech products. This makes me so proud to be an Advantecher.

Every year I try to spend some time traveling overseas, discovering and exploring new things. I think it's great to taste difference life styles, cultures and foods, I think this enhances our experience and attitude towards life.



Matrix Choong
Account Sales Manager
Advantech Malaysia

Hello I'm Sharon Roy, an Inside Sales Engineer in our Cincinnati, OH facility. I started my career with Advantech in the spring of 1999 as a sales coordinator for the Southern and Central Regions. The following seven years I worked closely with our sales team, PMs and application engineers which helped me increase my technical knowledge, and I was promoted to an inside sales engineer in 2006. In 2008 I was given the opportunity to join the DMF sales team to grow the general account business and establish new business for the mid-west region (OH, KY, IN, MI, WI, IL & MO). This was very exciting to me because I enjoy working with people and establishing relationships.

Before starting my career with Advantech I worked for a local fortune 500 company in their corporate store managing the daily operations. This is where I learned the importance of excellent customer service and people skills. After 15 years of service I moved on to a medical company and became a secretary and an auditor for the Service Manager. After just 11 months of service the company closed our regional office and that brought me to Advantech. I enjoy being an Advantecher and I'm proud to be a part of the Advantech family.

I enjoy spending my spare time with my husband Ron, our two dogs Sadie and Pepper, and our two cats Tiger and Little Kitty. I also enjoy cooking, gardening, reading, traveling and spending time with family and friends.



Sharon Roy
Inside Sales Engineer
Advantech America



Bangcai Zhang
Business Director
Advantech China

In 1998 on All Fools' Day (April 1), I was lucky enough to join the Advantech family, so now I have been here 12 years. As Advantech grew so did I, and I worked in different positions, first as an engineer, then sales supervisor, assistant sales manager, then sales manager, and finally as a business director in the industrial automation department until 2008. During the same corresponding period, I worked in branches in Shanghai, Shenzhen, and Beijing respectively. From this I got to learn about local customs and practices, and it was this experience that laid a solid foundation for my current work.

I am very happy working at Advantech as it is full of challenges every day, and I am deeply motivated by my colleagues' cooperation, enthusiasm and professionalism. I can even feel the great ambition and foresight of Advantech's leaders in shaping the future IOT era. Recently, Advantech changed its mission to "Enabling an Intelligent Planet" from "Trusted ePlatform Services". I believe that all Advantecher's including myself, are ready to contribute our best effort in carrying out our new mission.

Now I belong to a bigger family, I can proudly say: I have found work, study, and love at Advantech. Now, I actively join company activities while looking after my family. I welcome all global Advantecher's to Beijing!

Jointly Conquering the Industrial Mobile Computing Market

Earlier this year, Advantech announced the acquisition of DLoG GmbH, a technology company with a workforce of about eighty based in Germering (near Munich), Germany. It was a good move: DLoG is one of the world's leading providers of intra-logistics solutions for warehousing, heavy duty applications, and industrial manufacturing, built around a growing range of exceptionally well designed, rugged mobile and stationary industrial computers.

The legal paperwork has been signed and sealed for some months now and Advantech-DLoG, the re-branded result, has joined forces with Advantech's Industrial Mobile Computing (IMC) operation. The two groups have clearly defined roles: Advantech corporate-based IMC will focus mainly on developing fleet management and ODM products; Advantech-DLoG will cover the intra-logistics, heavy duty and stationary applications. With the focus of the new group under the leadership of the Munich-based management team, Advantech will be able to integrate the two parties' strengths with the clear objective to gain global market leadership in industrial in-vehicle computing. Combining DLoG's and IMC's markets and competencies, Advantech-DLoG is set to create an international, multi-cultural powerhouse targeting revenue of \$100m in 2015.

The German organization will be taking the lead in Advantech-DLoG's global operations: The Advantech corporate offices will work to create a global competence and profit center in industrial mobile computing, the first of its kind outside of greater China. The objective, to be reached in combination with Advantech RBUs, is to further improve market penetration in Europe for fleet management, and strive for aggressive global growth through targeted sales and service empowerment. Meanwhile, building on a significantly expanded mobile industrial computing portfolio, DLoG is already making plans to introduce a new range of products in the near future.

"Both IMC and DLoG have proven to be proficient industrial, in-vehicle computing suppliers," says Advantech-DLoG head Hans-Peter Nüdling. "We are most excited about our chance to develop more complete product lines and gain higher market penetration worldwide. This acquisition is decidedly helping us to expand from our current intra-logistics and heavy duty segments by taking advantage of Advantech's strengths in stationary applications and fleet management."

Advantech-DLoG intends to make use of Advantech IMC's extensive development resources and worldwide service network in order to accelerate its present growth. "Clearly, Advantech-DLoG's plans are perfect news for our customers and partners. Access to Advantech's extensive development and service resources, and assuming the role of a global organization's center of expertise opens up a whole new vista of opportunities for us," Hans-Peter Nüdling comments. "At the same time, we will ensure stability through preserving DLoG's highly successful and competitive supply chain and channel structure. In the past, DLoG had an average rate of growth of ten percent per annum. Thanks to our new corporate structure we are in a position to start a product offensive in the near future and so achieve even higher growth rates."

"Having DLoG and Advantech's IMC work together under a single, internationally experienced leadership team also presents an inter-cultural opportunity for those concerned," Nüdling pointed out. "I like to look at this as an exciting opportunity rather than a challenge," he says. "Joining forces with Taiwan based competencies within the IT arena enables us to leverage our respective strengths, complementing each other's. What we certainly have in common is our strong commitment to operational excellence and aggressiveness for growth, paired with solid engineering and loyalty to protect our customers' investments." ■



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