

azbil
FIELD

Okura Garden Hotel Shanghai

azbil
MIND

Harnessing synergies between various
business fields to propose solutions
to customers' problems globally

special

Sonic Landscape in Japan

FESTIVALS



Sonic Landscape in Japan 祭 Festivals

The festivals of Japan, enlivened by brisk, enchanting music



Piihyara

【Piihyara】～ピーひゃら

Matsuri-bayashi, or festival music, is a staple at traditional Japanese festivals. The music is performed with traditional Japanese instruments, which in most cases are simple ensembles of flutes as well as percussion instruments such as Japanese drums and gongs. This festival music is sometimes described with the onomatopoeia piihyara, expressing the high-pitched tones of the flutes producing the melody. During the summer, when festivals are held most frequently, the piihyara of festival music can be heard throughout the country.

Instruments commonly used in festival music



Odaiko (bass drum)
A drum made of a large log hollowed out into a tube shape then fitted with skin heads. It supplies the bass rhythm.



Shinobue (bamboo flute)
A simple flute made by cutting holes into slender bamboo. It is used to play the melody.

Shimedaiko (small hand-held drum)
A higher pitched drum made by tightly lacing together skins on either side. It supplies the mid-range rhythm.

The sounds of flutes and drums resonate through the festive air

Matsuri, which is the Japanese word for festival, has etymological roots in an old word denoting a prayer or tribute to deities. This is because most traditional festivals are associated with religious rituals. For most of its history Japan has been an agrarian society, and for this reason many festivals derive from votive rituals held to pray for bountiful harvests, or alternatively, to give thanks to the gods for such harvests.

There are an especially large number of festivals associated with rice farming. Rites and rituals were performed at each major juncture of the rice farming process: the planting of

seeds, the replanting of seedlings, prayers for rain, and harvest time. These rituals went on to evolve into distinct festivals. The prayers offered are to *Shinto* gods, animistic deities unique to Japan that are believed to inhabit all things in nature.

In *Shinto* festivals, deities are temporarily housed and transported in portable shrines called *mikoshi*. The highlight of these festivals is the *mikoshi* being paraded around, shouldered by large numbers of people. At some festivals *mikoshi* are pulled around on wheeled floats called *dashi*. These floats are decorated in unique ways that differ from festival to festival.

Matsuri-bayashi, or festival music, is played at these festivals on traditional instruments like the flutes and drums. Performers sometimes perform at

shrines, as they walk along the processions, or from atop floats. In general, the songs are quite simple in composition, with deep, resonating beats of giant bass drums combining with the higher pitches of gongs and smaller hand-held drums to create the rhythm, upon which flutes overlay a brisk melody. The Japanese onomatopoeia *piihyara*, which describes the sound of the flutes, is symbolic of the festivals of Japan.

The Bon dance, a festival held throughout Japan

There are also festivals that spread as a result of Buddhist influences. During the nationwide observance of *Obon*, the spirits of ancestors are welcomed home and honored every year for several days in August. The climax of *Obon* is a festival called *bon odori*, or Bon dance. Anyone can join the dance. Elevated platforms or towers are erected on temple grounds, at station squares and other open plazas. It is on these towers that performers play drums, flutes, and other instruments. In most cases there is a singer that sings solo to the music. Participants

Booths and stalls

For many, being able to stroll around the rows of booths and stalls is a major attraction of the festivals. They offer things like cotton candy and "goldfish scooping", which can only be enjoyed at festivals. Many people relish these things as a chance to make new and lasting memories.



Yukata

It is very common to see visitors to summer festivals dressed in traditional *yukata* (often called "summer kimono"). Sockless wooden clogs are the preferred footwear with *yukata*, and women most often wear their hair up.



surround the towers in multiple concentric rings, and dance around them in slowly moving circles according to set, synchronized steps, which depend on the song being played. One of the distinctive characteristics of Japanese festivals is that the ritual portions are conducted quietly and solemnly, but the non-ritual portions are marked by festival music and dance.

During festivals there are also booths and stalls that line temple grounds and roadsides, featuring attractions and selling food and drinks. Some of the more common foods are *takoyaki*

(small pieces of octopus in a flour batter grilled into bite-sized spheres), *yakisoba* noodles, *yakitori* (chicken kabobs), cotton candy, and shaved ice. Popular stall attractions include "goldfish scooping" (where one tries to catch goldfish with a miniature ladle covered by a "net" of very flimsy paper; you can take home any goldfish you are able to catch), ring tossing, and shooting galleries. One of the biggest draws to festivals is being able to walk around from stall to stall as the *piihyara* sounds of the festive music play in the background.

Well-known festivals held in the summer

Gion Festival

Kyoto City
July 1-31



The Gion Festival can be traced back to 869 when, after Japan was struck by a nationwide epidemic, 66 halberds representing each of the provinces were placed on display to appease the gods and pray for the people's health. The highlight of the festival comes on the 17th with the procession of 32 floats.

Aomori Nebuta Festival

Aomori City
August 2-7

The Nebuta Festival is a parade of floats called *nebuta*, which are bold and gigantic paper lanterns in the shape of people and other creatures. The floats are inspired by historical figures, Kabuki plays, and others. They are pulled wildly through the streets with ropes.



Awa Odori

Tokushima City
August 12-15

Groups of dancers dance along in a procession to a two-beat rhythm led by flutes, drums, gongs, and shamisen (a traditional three-stringed lute-like instrument). There are two styles of dancing: one for men, which is dynamic and humorous, and one for women, which is graceful and elegant.



Okura Garden Hotel Shanghai



The Okura Garden Hotel Shanghai was the first commercial building in China to be selected as the venue for an energy-saving model project undertaken by the New Energy and Industrial Technology Development Organization (NEDO), a Japanese independent administrative institution that implements energy-saving projects in various countries in the Asia-Pacific region. Yamatake Corporation participated in this energy-saving model project and significantly contributed to reducing energy costs and carbon dioxide emissions by maximizing its advanced know-how and characteristic technologies backed by an excellent track record in China.

Implementing a national energy-saving model project under rapid economic growth

China has achieved remarkable economic growth in the past twenty years or so. Against this backdrop, its CO₂ emissions exceeded those of the United States in 2007 to become the highest in the world. The nation's rapid growth, however, has caused rising concern at the serious impact on the global environment and energy market.

Under such circumstances, on No-



The savic-net FX installed as part of the project and existing monitoring system. The savic-net FX installed as a BEMS links with the existing system for monitoring, managing and analyzing the energy consumption trends.

vember 28, 2008, NEDO*¹, an agency operating under the Ministry of Economy, Trade and Industry of Japan, officially decided to implement an energy-saving model project aiming to introduce Japan's energy-saving technologies, together with the government of China, for the Okura Garden Hotel Shanghai located in Shanghai, China. The project was launched in January 2009.

NEDO promotes energy-saving model projects mainly in countries in the Asia-Pacific region with the aim of verifying the effectiveness of Japan's energy-saving technologies and disseminating the technologies in the countries where such projects were launched in order to contribute to reducing energy consumption in those countries.

The energy-saving model project launched in China was entrusted to Japan Facility Solutions, Inc. (JFS) by NEDO. JFS, in turn, commissioned

Yamatake to construct a BEMS*², the core of the project, including the design of the energy-saving system, procurement of equipment, as well as instrumentation and engineering. To undertake these tasks, Yamatake decided to form collaboration with its local subsidiary, Azbil Control Solution (Shanghai) Co., Ltd.

Solving issues by applying advanced know-how accumulated through extensive experience in China

The Okura Garden Hotel Shanghai selected for the model project opened in 1990. The building was constructed as the French Club in 1926 during the French Concession period, and its elegant Art Deco architecture stands out. This highly rated hotel is owned by Nomura China Investment Co., Ltd. and managed by Okura Hotels & Resorts.

"About half our guests are Japanese. Our hotel is very popular particularly



Yamatake-manufactured inverter control panels installed in the machine room. They optimize energy consumption by providing appropriate control according to the air-handling units and pump load demand.



among Japanese who come to Shanghai for business or pleasure," says Ms. Tang.

The Okura Garden Hotel Shanghai obtained ISO 9001 certification in 2001 and ISO 14001 certification in 2006. As such, it is well-known for its proactive efforts in the areas of quality control and environmental management.

"Our hotel was the first commercial building selected in China for NEDO's project. We believe the reason for this selection was the high evaluation given to the advanced technologies we incorporated in 2002 for the building's operation and management, such as automatic control devices and monitoring system for heating, ventilation and air-conditioning (HVAC)," says Mr. Iimura.

In this model project, a number of measures were taken centering around the energy management system and energy-saving equipment. The main item is Yamatake's building management system, savic-net™FX, which functions as a BEMS. This system collects and accumulates energy-related data via a link of the existing monitoring system and BACnet*³, and enables the management and analysis of energy consumption trends as



Machine room installed with highly efficient once-through boilers and cogeneration system as part of the project. Many visitors come to see this system.

required. Furthermore, inverter control was introduced for the HVAC equipment and heat source pumps. By varying their operating conditions in accordance with the load demand, energy consumption can be optimized.

"It is true that we faced various difficulties in introducing these systems and equipment in terms of the differences in engineering and construction methodologies between China and Japan, as well as adjustments with the vendors who supplied the existing systems. Yamatake solved each and every issue that arose by drawing on its advanced technological capabilities and extensive know-how based on the experience of completing many projects in China, so the project progressed smoothly," says Mr. Iimura.

True goal is to spread the achievement of energy-saving measures throughout China

The installation of the system and equipment for the project was completed by the end of May 2010, whereupon full operation commenced.

"At present, we are making adjustments to some machines. In 2010, after the system went into operation, the energy cost was curtailed by more than 10% as compared to the first half-year of 2009. CO₂ emissions also decreased by more than 10%. In view of these achievements, I believe that we can attain the target specified for this project, namely an energy-saving rate of 16% as compared to the 2006 level. Thanks to Expo 2010 Shanghai, our occupancy rate has increased significantly. With that in mind, I think the energy-saving result we have attained to date should be highly acclaimed," says Mr. Yan.

The energy-saving model project, jointly implemented by the Japanese and Chinese governments, is drawing considerable attention in China. In fact, the Okura Garden Hotel Shanghai is visited by many companies, not only Chinese companies planning to take energy-saving measures but also Japanese companies operating in China.

"Our aim goes beyond merely achiev-

Okura Garden Hotel Shanghai



Location

58 Mao Ming Road(S.), Shanghai 200020, China

Opening date

March 20, 1990

Outline of facilities

492 guest rooms, 5 restaurants, 3 bars/lounges, 10 banquet halls, indoor swimming pool, tennis courts, business center, gym, etc.



Mr. Ming Yan
Executive Administration
Director
Director of Engineering
Department

Ms. Hong Lin Tang
Manager
Planning & Advertising
Executive Office



Mr. Seiji Iimura
General Manager
Nomura Land and Building Co., Ltd

ing energy-saving effects in our hotel. We hope that the achievements obtained through the project will spread across China. That is our true goal," says Mr. Yan.

glossary

***1▶ NEDO(New Energy and Industrial Technology Development Organization)**
Independent administrative legal entity of the Japanese Ministry of Economy, Trade and Industry.

***2▶ BEMS (Building Energy Management System)**
A system designed to minimize the energy consumption for an entire building or plant by automating the monitoring and control of energy consumed by energy-using facilities and equipment including district heating/cooling equipment.

***3▶ BACnet (Building Automation and Control Networking protocol)**
A communications protocol for networks for intelligent buildings. BACnet is used for the integrated control of various facilities and equipment, such as HVAC, lighting, access control, and fire detectors. This protocol enables the connection and monitoring of devices made by different manufacturers through a common interface.

Harnessing synergies between various business fields to propose solutions to customers' problems globally

The azbil Group continues to "strengthen the International business," which is specified as a priority measure in the four-year medium-term plan initiated in fiscal year 2010. Based on the know-how and technological capabilities accumulated over many years of operation in Japan, we are maximizing the synergies between various business fields to deliver unique solutions that only the azbil Group can, thus providing a diversity of value and utility to customers worldwide.

Actively collaborating with local companies to meet regional market needs

Driven by the Group philosophy of "human-centered automation," the azbil Group actively engages in business with the aim of further contributing to solving problems at the customer's site. To that end, the Group is carrying out its medium-term plan for the four-year period from fiscal years 2010 to 2013 positioned as the "period of growth."

In particular, strengthening the International business is a priority measure; therefore, the azbil Group has been striving to provide the optimum solutions to meet the needs of customers in countries and regions worldwide by utilizing the technologies and know-how accumulated over many years of operation in Japan in the business fields of Building Automation, Advanced Automation and Life Automation.

A central theme for further developing the International business is the issue of how to effectively approach and respond to local market needs that vary among countries and regions. We believe that collaboration with local companies is the key to achieving global business development. In recent years, Yamatake has aggressively promoted such collabora-

tion by affiliating with local companies in various countries. For instance, in the Building Automation business, the azbil Group is actively engaged in business for local customers in China, South Korea, Australia and Indonesia through affiliations with local construction companies and consulting firms. In the Advanced Automation business, the Group is accelerating onsite support services to Japanese manufacturers operating or planning to operate overseas. In Taiwan, where the replacement of existing gas meters with microcomputer-controlled gas meters is scheduled in the near future, Kimmon Manufacturing Co., Ltd., the azbil Group's mainstay company in the Life Automation business, has established a joint venture with a local company, thus strengthening the Group's business capabilities in the Taiwanese market.

Furthermore, in the water-related business, we are hoping to provide comprehensive solutions with Yamatake's Advanced Automation Company handling projects involving monitoring and control facilities for purification plants upstream and Kimmon Manufacturing taking charge of water meters and other devices installed in homes and user facilities downstream. The development of

business utilizing synergies between the business fields of Building Automation, Advanced Automation and Life Automation is a unique strength of the azbil Group of which we can all be proud.

Focus on establishing and strengthening solution-providing bases

The azbil Group is also establishing and strengthening its solution-providing business bases on a global scale. In the Asian region, we established the Asia Solutions Center in Thailand in April 2010, the latest addition to the existing subsidiaries in East Asian countries such as China and South Korea, and ASEAN member countries. By maintaining close communication with Group companies in Japan and coordinating engineering and technical support functions for projects throughout Asia, and in India and the Middle East, the Asia Solutions Center is enhancing support for customers in those countries and regions.

Business bases are also being established in other growing markets. In the Middle East, we opened an office in Dubai, the United Arab Emirates in 2008, followed by another office in Abu Dhabi in 2009. Planning is underway to establish a third Middle

East office in 2011. Furthermore, our Indian subsidiary founded in April 2010 opened two offices to expand business activities while a subsidiary was also established in Brazil in October 2010.

Developing local human resources is key to "glocal operations"

In addition to meeting the needs of Japanese companies expanding their business overseas, collaborating with local companies, and strengthening business bases overseas, we are addressing another important task of the International business, namely the establishment of "glocal operations." This is to ensure that the local subsidiaries can implement their original strategies that are optimally suited to their respective markets and accurately meet local customers' needs, while based on the azbil Group's global strategies.

Another key measure is promoting the localization of product design, development and production, which until now have mainly been conducted in Japan. Accomplishing this will enable us to work closely with local customers to grasp their needs and provide swift solutions. In North America, we have already implemented this measure and system for providing



Toshitsune Okubo
Managing Executive Officer
Yamatake Corporation

solutions to semiconductor equipment manufacturers, which are earning high evaluations from customers. Going forward, we intend to carry out similar activities in other countries.

In establishing glocal operations, it is necessary to strengthen human resources. To that end, we are focused on fostering employees at overseas subsidiaries. The Human Resources Department is taking initiatives to implement E-learning and hold education and training sessions in Japan for the local management staff in various countries. These measures have been fruitful, leading to the develop-

ment of local key persons. We are planning to actively assign responsible local personnel to management positions who will expand business in their respective countries and regions.

Guided by the "human-centered automation" philosophy, the azbil Group will continue to deliver unique solutions that maximize the synergies between the three core businesses -- Building Automation, Advanced Automation and Life Automation -- in ways best-suited to the characteristics of local markets, and strive to maximize the value provided to customers.

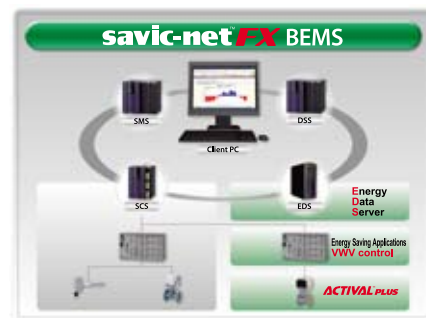
■ savic-net™FX BEMS Energy-saving Package for Buildings

The azbil Group proactively sells an energy-saving package product called the savic-net FX BEMS ("FX-BEMS," BEMS: Building Energy Management System), which is designed to reduce the energy consumed by building HVAC (Heating, Ventilating, and Air Conditioning) systems. By combining energy-saving methods and products that have been used successfully in Japan, the FX-BEMS responds to worldwide needs for energy conservation.

The FX-BEMS is a package product created by integrating Yamatake's building management system, the savic-net FX^{*1}, with the following three functions: the EDS (Energy Data

Server) energy management system which accumulates, analyzes and visualizes energy consumption data; the ACTIVAL™ PLUS^{*2} energy-saving valve which detects and eliminates wasteful HVAC control operations simply when installed; and energy-saving applications, including the VVW (Variable Water Volume) Control, which are HVAC control programs designed to reduce energy consumption.

The FX-BEMS performs a series of operations ranging from the measurement of energy consumption in a building to accumulation and analysis of data as well as implementation of energy-saving measures.



*1 savic-net FX: A globally compatible building management system with revamped functions such as the open communication system, energy-saving features and multi-language capability. Since its release in January 2006, the savic-net FX has been installed in many office buildings and factories in China, Korea and Southeast Asian countries.

*2 In Japan, this motorized two-way valve with flow measurement and control functions is sold under the name of ACTIVAL™.

※ savic-net and ACTIVAL are trademarks of Yamatake Corporation.

■ Combustion safety control equipment for safe and reliable operation of industrial furnaces

●RX Series

The RX series is next-generation combustion safety control equipment designed for safe operation of industrial furnace burners. The RX series products can be used with various types of interlock monitoring and ignition systems of industrial furnaces by combining with the burner interlock module (combustion interlock monitoring function) and burner control module (ignition, safety shut-down function).

●AUD100 Series Advanced UV Sensor

The AUD100 series are flame detectors designed for batch operation.

These detectors are used in combination with Yamatake's AUD15 tube units with built-in UV sensors. The AUD100 series offers two models. The AUD110C is a terminal board type and does not require a relay terminal box, while the

AUD100C is a lead wire type. Select the suitable product according to the wiring and installation conditions at the site.

These products ensure enhanced "safety" and "reliability" of combustion facilities.



RX series



AUD110C



AUD100C

azbil
Group

Leaping Ahead from Yamatake's 100 Years
Human-centered Automation

Japan

- Yamatake Corporation • Yamatake & Co., Ltd.
- Yamatake Control Products Co., Ltd.
- Yamatake Friendly Co., Ltd. • Yamatake Care-Net Co., Ltd.
- Safety Service Center Co., Ltd.
- SecurityFriday Co., Ltd. • Hara Engineering Co., Ltd.
- Kimmon Manufacturing Co., Ltd.
- Yamatake Mizuho Co., Ltd. • Royal Controls Co., Ltd.
- Taishin Co., Ltd. • Tem-tech Lab.

Overseas

- Azbil Korea Co., Ltd. • Azbil Taiwan Co., Ltd.
- Azbil Vietnam Co., Ltd. • Azbil India Pvt. Ltd.
- Azbil (Thailand) Co., Ltd. • Azbil Philippines Corporation
- Azbil Malaysia Sdn. Bhd. • Azbil Singapore Pte. Ltd.
- PT. Azbil Berca Indonesia • Azbil Control Instruments (Dalian) Co., Ltd.
- Azbil Information Technology Center (Dalian) Co., Ltd.
- Yamatake Environmental Control Technology (Beijing) Co., Ltd.
- Azbil Control Solutions (Shanghai) Co., Ltd.
- Shanghai Azbil Automation Co., Ltd.
- Azbil Hong Kong Limited
- Yamatake Automation Products (Shanghai) Co., Ltd.
- Azbil North America, Inc. • BioVigilant Systems, Inc.
- Azbil Brazil Ltd. • Azbil Europe NV

<Branch/Office>

azbil Group PR magazine, azbil July 2011 Vol.3, No.1

Issued by Norihito Oka, Public Relations Section, Corporate Planning Department, Yamatake Corporation
19F Tokyo Building 2-7-3 Marunouchi, Chiyoda-ku Tokyo 100-6419 Japan TEL:81-3-6810-1006 FAX:81-3-5220-7274 <http://www.azbil.com/>



All rights reserved. Unauthorized reprint or reproduction of materials in this magazine is prohibited.