

azbil

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azbil Group PR magazine

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FIELD

The Energy

azbil
MIND

Creating Additional Value at
the Customers' Site in the azbil
Group's "Period of Growth"

Sonic Landscape in Japan

Mt. Fuji

Mt. Fuji

The more you see and the more you climb, the more you are fascinated by Mt. Fuji.

[zaku zaku] ~ざくざく

In Japan, the sounds you hear and the textures you feel when you step on coarse and gravelly ground are described with the following onomatopoeia, "zaku, zaku, zaku..." This is the highest mountain in Japan, Mt. Fuji. On the mountain, where vegetation is scarce and rubble-like solidified lava stretches for miles, the sound constantly echoes into climbers' ears and hearts.

Photo: Fuji Sengen Shrine



DATA

The highest mountain in Japan, located approximately 100 km west southwest of Tokyo and extending into two prefectures, Shizuoka and Yamanashi.

- Elevation: 3776 m
- A stratovolcano that most recently erupted in 1707
- Annual average temperature at the summit: minus 6.4 degrees C
- Difference in elevation on the shortest climbing route to the summit: 1380 m
- Time required: approximately 4.5 hours

Graceful appearance attracting those who see it

Mt. Fuji is located approx. 100km west southwest of the center of Tokyo. Its elevation is 3776m. It is much higher than the second highest Mt. Kita-dake (3192m) and the third highest Mt. Okuhodaka-dake (3190m), and when the question, "What is the number one mountain in Japan?" is asked, even a young child can answer promptly, "It's Mt. Fuji." The reason why Mt. Fuji is admired as the number one mountain in Japan is because of its graceful shape as well as its Japan's highest elevation. Even in Japan, a unique mountainous country in the world,

about 70% of the national land of which consists of mountains, the shape of Mt. Fuji is exceptional. It is a cone-shaped stand-alone mountain which looks the same from any angle. More precisely, because the slope becomes steeper from halfway to the summit, and in contrast becomes gentler towards the foot, the mountain has a beautiful silhouette like symmetrically joined parabolas. Unsurprisingly, it has

Climbers held in a queue due to the popularity.



been worshiped. In the 16th century, it became common to see a group of people who have faith in the god living on Mt. Fuji engaged in ascetic practices by climbing the mountain and walking around lakes and marshes surrounding it. Even today, such people can be seen.

Try to reach the summit during a short period of time in summer

Even if you have no particular faith, once you see the noble and great mountain, you must feel like standing on the summit. It's an honest desire. Although the mountain is high in elevation, there is no difficulty in alpinism. A shorter climbing route usually takes about 5 hours to go up to the summit. Mt. Fuji is open to the public for climbing for two months in July and August. Even if it is an extremely hot day when the maximum temperature is above 30 degrees Celsius on the ground, the average temperature at the summit is as low as about 6 degrees Celsius. Sensible temperature is lower, because it is windy. There is plenty of

lingering snow in June, it suddenly gets cold in the middle of September, and it normally begins to snow in early October. In winter, fierce snow-storm keep amateur climbers away. Its environment is so harsh that alpinists who plan to go on an expedition to an 8,000m mountain like the Himalayas choose Mt. Fuji as a training site. After the mountain is opened to the public for climbing on July 1, a number of climbers visit there from home and abroad. In 2010, partly because mountain climbing became popular especially among young Japanese women, more than 250,000 people enjoyed climbing Mt. Fuji for two months. On holidays, climbers form a queue on all the three main climbing

routes. On the slope devoid of vegetation and covered with brown rubble, people keep taking a step forward. *Zaku, zaku, zaku, zaku* The climbing is a monotonous and simply stoic activity, but whenever you stop advancing and look down, you can realize that you are steadily going upward. Then you reach the summit. It's better to let you imagine how spectacular the view from the summit is. The view is a special prize that only those who have repeated the *zaku zaku* tens of thousands of times are allowed to get.



Ever-changing Mt. Fuji

The appearance of Mt. Fuji varies depending on season, hours and weather. Mt. Fuji has been drawn and painted over again and again by various artists including ukiyoe artist Hokusai Katsushika and Japanese painter Taikan Yokoyama. In the field of literature, author Osamu Dazai described Mt. Fuji in his autobiographical novel, "Fugaku Hyakkei". If you are lucky, you may be able to see the magnificent figure of Mt. Fuji featured in these works.



AKA FUJI
Red Fuji

In the summer morning, Mt. Fuji is colored dark red by sunlight.



SAKASA FUJI
Inverted Fuji

Mt. Fuji is reflected on the surface of Lake Motosu, and you may see a beautiful view of the inverted Mt. Fuji.

KAGE FUJI
Shadow Fuji



DIAMOND FUJI
Diamond Fuji

When the sun rises above the summit of Mt. Fuji, the area around the summit shines like a diamond.

During hours when the sun stays low in the sky immediately after sunrise, the shadow of Mt. Fuji is reflected in the sea of clouds.

The Energy



The Energy, Indonesia's first intelligent building, was constructed as the head office of the Medco Group, one of Indonesia's major corporate groups. PT. Azbil Berca Indonesia, Yamatake's overseas affiliate, created an Intelligent Building Management System (IBMS) for introduction into The Energy. As a result, it succeeded in reducing the energy consumption of the entire building to half of the planned consumption.

Aiming to reduce the energy consumption of the Group's landmark building

With the fourth largest population in the world (230 million people), Indonesia has long been addressing energy policies with a view to protecting the environment, aimed at the coexistence of the economy and environment. The country enacted the Energy Saving Law in August 2007 and is now working toward the establishment of related laws, regulations and systems.

The Medco Group has one of the highest sales figures in Indonesia. With a workforce of 10,000 employees, the

Group is conducting a diversified business in the energy field such as oil, natural gas, power plants, and ethanol production, as well as in the non-energy field including real estate, hotels and banks. PT. API METRA GRAHA, which conducts the real-estate business of the Group, proposed to reduce communication and transportation costs by putting all Medco Group offices—which were distributed in several locations throughout Jakarta—under one roof. As its first project, PT. API METRA GRAHA constructed The Energy, an intelligent office building with a total floor area of approx. 65,000 m² and 43 stories above the ground and five stories below, in Jakarta.

"In 2011, all Group companies will move into The Energy, which will serve as the control tower connecting all the domestic and overseas offices via a high-speed network," says Mr. Yuyun Priandy. "The Energy will become a landmark of the Medco Group."

The concept for constructing The Energy is "Intelligent Workspace." The Energy is an intelligent building equipped with the functions to dynamically conduct business in offices around the world by connecting information/communication technology systems such as the Internet, wireless LAN, and telephone as well as facility management systems such as security, CCTV*, air conditioning, lighting, parking lots, and conference room reservation management, all with a single IP backbone**2. The challenge in promoting this concept is the monitoring and management of energy consumption of the entire building.

"Against the backdrop of rising energy prices, we have set an ambitious goal of managing the energy consumption of The Energy to achieve energy savings," says Mr. Priandy. "Office activities must be performed in comfort without restricting the supply of electric power or the use of elevators and other



①An alarm issued on site is sent from the savic-net FX to cell phone and PDAs via electronic mail. The building management representative and building management operators can check the building's status in real-time, wherever they are.

②The IBMS is composed of facility management systems integrated around the savic-net FX. The operation status of the facilities in the building can be checked.

facilities. For this reason, we introduced the Intelligent Building Management System (IBMS)**3, which enables integrated management of building facility systems. We aimed to achieve energy savings by managing the operation of all facilities with a single system and monitoring energy consumption including the amount of electric power used."

PT. Azbil Berca Indonesia was selected for its track record in Indonesia and technical capabilities

Based on this concept, the construction project of The Energy started in 2006. PT. Azbil Berca Indonesia (ABID), Yamatake's overseas affiliate, was selected from among seven manufacturers to construct the IBMS, the heart of this building's concept.

"ABID has a proven track record in Indonesia as well as a long history of developing sensors, controllers and system products," says Mr. Priandy. "We concluded that ABID would be able to not only satisfy our technical specifications and requirements, but also integrate all facility management systems into an overall synthesis with the IBMS at the core."

The IBMS, built around Yamatake's savic-net™FX building management system, provides integrated management of electric power, lighting, disaster prevention, security, CCTV, emergency broadcasting, elevators, escalators, parking lots, and other facility management systems. Each tenant is provided with a Web portal function for setting the temperature of air conditioners, programming the air-conditioning in conference rooms, applying for extended use of conference rooms, and monitoring the dining room by camera.

Finely-tuned monitoring and management of energy consumption, and Tackling advanced building design

The Energy was thus completed in

September 2008 as the first intelligent office building in Indonesia. Planned power consumption was estimated at 8 M Watt, but the actual consumption was held down to 4 M Watt, half of the planned power consumption. Energy conservation, one of the original goals, was successfully achieved.

"Power consumption is monitored in real-time by the building management personnel in the central monitoring room, and is made available on the Internet to each tenant," says Mr. Priandy. "Energy-saving awareness is growing among tenants because they can easily check the power consumption of their air conditioners and lighting, resulting in lower energy consumption."

Meanwhile, in the central monitoring room, the operation status of all facility management systems can be monitored with only the IBMS, instead of monitoring many facility management systems for different operations such as security, disaster prevention, and lighting. Monitoring work has been simplified, requiring a minimum number of personnel: two persons during the day and one person at night. In addition, procedures for dealing with abnormal situations have already been established. If an alarm goes off, the abnormal event will immediately be relayed to the building management representative's and building management operator's cell phones and PDAs**4 via electronic mail. The building management representative for PT. API METRA GRAHA will take immediate action and ABID will deal with the situation as necessary.

PT. API METRA GRAHA will pursue further reduction of energy consumption of The Energy and tackle new challenges in the construction of new buildings based on the experience obtained through this project.

"We have learned a great deal from the construction of The Energy and

PT. API METRA GRAHA



Location

Jakarta, Indonesia
The Energy 7th Fl., SCBD Lot 11 A Jl.Jend. Sudirman Kav.52-53

Business scope

Planning, operation and maintenance of buildings



Mr. Yuyun Priandy
IT adviser

the operation of the IBMS," says Mr. Priandy. "Taking advantage of our experience, in constructing new buildings, we will monitor the facility operation status and energy consumption in a more finely-tuned manner. We would also like to develop "smart" buildings that can automatically operate air-conditioning and lighting facilities, with the IBMS at the core. We are extremely satisfied with ABID's approach to both the introduction of IBMS and subsequent follow-ups. We expect that ABID will make further proposals that meet customers' requests."

glossary

*1 ▶ CCTV (Closed Circuit Television)

Unlike television broadcasts for public viewing, this system is for specified viewers to monitor remote locations within a predetermined closed area. This system is installed for the purpose of crime prevention.

*2 ▶ IP backbone

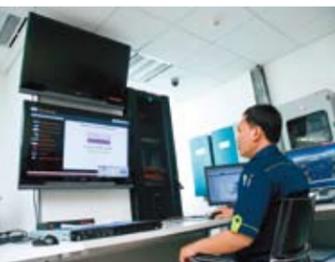
Network infrastructure using the Internet protocol (IP), it is most widely used in networking.

*3 ▶ IBMS

Intelligent Building Management System. Various facility management systems such as security, CCTV, air conditioning, lighting, and elevators are integrated to monitor the entire building and achieve energy and cost savings.

*4 ▶ PDA

Personal Digital Assistant. Any small mobile hand-held device with information storage capabilities; for keeping schedules, memos, electronic mail, and other information on hand.



The amount of electricity currently used is displayed at all times on the large-screen monitor installed in the central monitoring room. Information of all facility management systems can also be displayed and shared by personnel in the central monitoring room.

Creating Additional Value at the Customers' Site in the azbil Group's "Period of Growth"

The medium-term plan from fiscal years 2010 to 2013 positioned as the "period of growth" focuses on the creation of new value for customers at their site through the provision of unique products and services that only the azbil Group can deliver. All efforts will be put into "creating new work styles" based on "human-centered automation."

Turning a challenging environment into a tailwind to steadily advance the strengthening of business foundations

To commemorate the centennial of its founding in 2006, the azbil Group established its Group symbol of "azbil," and has since been developing business toward realizing its corporate philosophy of "human-centered automation." Society today faces a number of pressing problems, such as environmental issues caused by rising CO₂ emissions, issues of safety and security in industry and homes, an aging population combined with a declining birthrate, and population growth. I believe that human-centered automation can contribute to solving these issues, and we are operating business under this belief.

The three years of the medium-term plan starting from fiscal years 2007 to 2009 were designated as the "period of establishing a firm foundation" for realizing the corporate philosophy. As a Group we implemented reforms of business structures and operations to strengthen the profit structure and expand domains for the Building Automation (BA) business, the Advanced Automation (AA) business for plants and factories, and the Life Automation (LA) business for lifelines and daily life settings.

Unfortunately, from the middle of

fiscal year 2008 — against the backdrop of the global financial crisis triggered by the subprime mortgage meltdown in the U.S. — corporate capital investment declined sharply, which left us no choice but to revise downwards the financial targets in fiscal year 2009. From the viewpoint of strengthening business foundations, however, steady progress was achieved. The challenging environment enabled all employees to share a sense of crisis; and by implementing the initial three principles of growth creation, which are "creating new businesses," "creating new work styles," and "fostering azbil spirit," we advanced boldly to cultivate new domains and reform business structures, and thereby attained results in a variety of aspects.

Reinforcing initiatives in various aspects to actively expand business in the "period of growth"

During the four years of the medium-term plan from fiscal years 2010 to 2013 positioned as the "period of growth," based on the business foundations built up over the previous three years, we will contribute to resolving customers' issues on site with our products and services, and thereby aim for further advancement.

For products, our plan is to aggressively bring to market next-generation products that appeal to customers, while considering the following three points: miniaturization, integration through networks, and localized/minute measurement of the whole. These three conditions aim to optimize overall performance, which we expect will meet the latest needs of customers.

It is also crucial to provide services that respond specifically to the complex and diverse issues at the customers' site. To do so, we are aiming to improve each employee's capabilities while further developing problem-solving skills as a team.

Furthermore, strengthening the International business is viewed as an essential pillar for supporting the "period of growth." In the previous period of establishing a firm foundation, we consolidated existing subsidiaries within North America and within China, with an eye on raising operational efficiency through shared resources and improving solution-proposing capabilities. Measures aimed at expanding points of contact with global customers are being implemented with speed. For example, in April 2010 we formed a subsidiary, Azbil India Pvt. Ltd., to newly enter the Indian market, and in October 2010 another subsidiary,

Azbil Brazil Ltd., was established in South America.

In the AA business domain, there are many customers worldwide who are using Yamatake products that were purchased many years ago. To better serve these customers, we opened the Asia Solution Center to propose solutions for system renewals or for extending the life of existing systems, and thereby increase value throughout the life cycle of the customers' systems and facilities.

For the BA business, it is necessary to establish close contact with customers in order to understand country-specific and regional characteristics, such as climate and differences in building management. In April 2009 we formed a capital tie-up with HANIL MECHANICAL & ELECTRICAL CONSULTANTS Ltd., the No. 1 architectural design firm in Korea. We are also approaching customers in Australia and the Middle East together with local partner companies. Furthermore, in September 2010 we launched global sales of the savicnet™FX BEMS (Building Energy Management System), an energy-conserving package for building HVAC (heating, ventilation and air-conditioning), and we are planning to accelerate global business expansion.



Seiji Onoki

President and Chief Executive Officer
Yamatake Corporation

Applying our environmental conservation know-how in collaborating with customers

In making progress on the global stage, our corporate social responsibility will increase further. For the azbil Group, who is guided by the "human-centered automation" philosophy, reducing our impact on the global environment is an especially important theme. As a Group we are proactively promoting environmental conservation initiatives, for example, reducing CO₂ emissions through our business activities, such as production, sales and distribution. Moreover,

the environmental conservation knowledge accumulated through our activities is then provided via the AA, BA and LA businesses to firmly support the environmental measures of our customers.

As stated earlier, against the backdrop of the global recession, the environment in which we operate remains difficult. In the azbil Group's "period of growth," we will help customers to strengthen their competitiveness by providing new value based on "human-centered automation" as well as ensure our continued effort as a consistently reliable partner.

■ savic-net FX Building Management System

savic-net™FX (hereafter called the FX), developed by Yamatake Corporation, is a next-generation Building Management System capable of open communications and equipped with built-in energy conservation applications software and multilingual interfacing capability. Since its release, the FX has been highly rated for its flexibility and convenient operation via Web browser, with the result that numerous buildings, of mainly medium to large size, are using the FX in China, South-east Asia, and other regions. Through its FX sales, Yamatake looks forward to continuing to contribute to global en-

vironmental preservation by promoting energy conservation and reduction of lifecycle costs for buildings worldwide.



Features:

- Compatible with open networks (BACnet™, Lon-Talk®, Modbus, etc.)
- Allows monitoring of buildings anytime, from anywhere.
- No dedicated software is needed for the client PC. Any general-purpose PC with a Web browser (Internet Explorer) can be used.

Notes

- savic-net is a trademark of Yamatake Corporation.
- BACnet is a registered trademark of ASHRAE.
- LonTalk is a registered trademark of Echelon Corporation (U.S.A.).
- Modbus is a network that uses Modbus Protocol for communications.

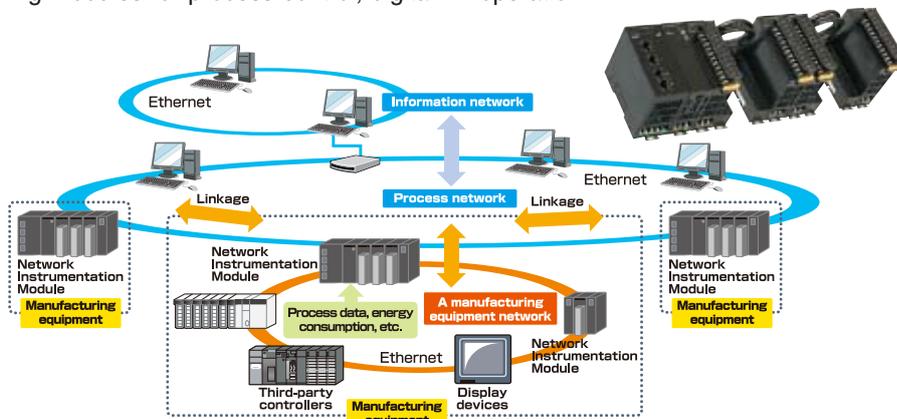
[URL](http://www.azbil.com/products/bi/ba/fx/index.html) <http://www.azbil.com/products/bi/ba/fx/index.html>

■ Network Instrumentation Module

Network Instrumentation Module is a controller for manufacturing equipment and automation systems. All modules can communicate via Ethernet, allowing cooperative control between modules and facilitating information-intensive processing with other devices. In addition, Yamatake's proprietary technology reduces the amount of wiring needed for Ethernet connectivity. Select only the modules with the advanced control functions that you need and connect them with less wiring in order to improve productivity and contribute to energy conservation. Yamatake will continue to expand its module lineup,

which already offers a wide variety of products with various functions, including modules for process control, digital

input, and pulse input, as well as the supervisor modules that coordinate their operation.



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

Japan

- Yamatake Corporation • Yamatake & Co., Ltd.
- Yamatake Control Products Co., Ltd.
- Yamatake Expert Services 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>

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