

SYNCHRONIZED Success

INFORMATION ABOUT OUR INDUSTRIAL AUTOMATION BUSINESS

 invensys.
EUROTHERM.

 IPS
INVENSYS PROCESS SYSTEMS

invensys.
Wonderware

Forging a stronger Invensys

Bringing together the best
of IPS, Eurotherm and Wonderware.

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ALSO INSIDE



● IPS EURA and Canada
regions team up
for EPC pursuit.

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● Wonderware helps
New Belgium Brewing
Company maintain
quality and taste.

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● See what our clients
and others are
saying about us.

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 IPS
INVENSYS PROCESS SYSTEMS

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Wonderware

Welcome to a new integrated business!

Change is an opportunity. And as we adjust to new ways of working together, we would love to hear your ideas to make our new organization successful. In 300 words or less, share with us your best ideas on how to take advantage of three successful business cultures within the IPS, Wonderware and Eurotherm teams.



The winning idea will be featured in an upcoming issue of this publication and will be presented to top company executives for review. What's more – the winner will take home a new **Amazon Kindle2**, the trendy new wireless reading device that lets you download up to 1,500 books, newspapers, and magazines over its fast 3G network.

Your ideas for integrating workplace culture will be judged on originality, creativity and ability to implement over the next six months. In addition, you can submit your ideas for naming our new industrial automation business as well. All entries must include your name, title, business unit address, phone and email contact information, and must be received by May 29, 2009. Submit your entry (one per person) by email to: integration.info@ips.invensys.com or send by mail to: Invensys, attn: Cynthia Baker/Global Communications, 5601 Granite Parkway III, Suite 1000, Plano, Texas 75024. Good luck!

SYNCHRONIZED success

Global Communications publishes synchronized success magazine for the team members of Invensys Industrial Automation. We welcome feedback from our readers by email at integration.info@ips.invensys.com or mail to Invensys – Global Communications – Success Editor, 5601 Granite Parkway III, Plano, Texas 75024.

All correspondence must include your name, department, region and phone number. Letters to the editor may be edited for clarity and length.

driven by people

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enabled by technology



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Hot project

Eurotherm India wins a major order for Thyristor Control Furnace Heating Technology.





driven by people

About Global Water

● Global Water ensures their customers use less drinkable water than typical consumers by conveying recycled water through a vast, automated distribution network ensuring their communities utilize this important resource a second time for non-drinkable uses, such as outdoor irrigation.

Wonderware solution for Global Water

- Wonderware® System Platform
- Wonderware InTouch® HMI
- Wonderware Historian Software
- ActiveFactory® Trending, Analysis and Reporting Software
- SCADAAlarm™ Alarm & Event Notification Software
- Wonderware Information Server

Wet and wise

Wonderware Software Solution helps Global Water utility company meet its goals

THE FASTEST-GROWING private utility company in Arizona, Global Water Management, LLC, sets the bar high to provide superior customer service, deliver high-quality drinking water to customers, and maximize the use of recycled water within its service areas.

Global Water contacted the local authorized Wonderware distributor, Wonderware West and CP Control Technologies, LLC, an Arizona systems integrator. The three entities formed a team to work together to meet Global Water's goals for quality, efficiency and profitability.

To accomplish these objectives, Global Water's management team developed a list of desired, additional capabilities. They wanted improved measurement of their treatment processes, better ability to recognize and correct possible quality problems before they occurred, and more comprehensive historical data to assist

“It has allowed us to build in more features that Global Water wanted and still finish on time. From a developer's standpoint, it made us look pretty smart.”

— JEREMY PETERSON, COO OF CP CONTROL TECHNOLOGIES, GLOBAL WATER

with management decisions. They recognized that if they could save power, they could also save money.

In addition to a clear vision of what they wanted, Global Water also had an aggressive timeline. Four of the utility's sites needed to be deployed at the same time, and CP Control was asked to complete their role for the project within weeks.

The Wonderware System Platform gave the project a firm foundation, including patterns to follow for standardization of the system design. I/O configuration from the programmable logic controllers (PLC), object modeling and graphics, tags and naming conventions were set from the beginning. Then they were also used by the developers and engineers who took responsibility for the system post-deployment.

“After the upfront investment in development, you get great time savings,” said **Jeremy Peterson**, COO for CP Control Technologies. “It has allowed us to build in more features that Global Water wanted and still finish on time. From a developer's standpoint, it made us look pretty smart. We did triple the work in one-fourth of the time because Wonderware software's repeatability and deployment of objects makes development so easy.”



IA integration

What people are saying

“Through this integration, we are positioning ourselves to be an even more valuable partner for our clients, giving them a more holistic and impactful set of business solutions. When we excel at providing our customers with increased value and therefore, increased success, we ourselves experience greater success and growth.”

— ULF HENRIKSSON, INVENSYS CEO

“I’m proud of the collaboration that has occurred across these three business groups during the IA exploration. Very quickly, the Wonderware, Eurotherm and IPS people in each workstream put aside their different models and began creating a new, more impactful one. As we replicate this across the larger organization, it will be powerful.”

— JEFF GREENE,
SVP OF INTEGRATION

“The opportunity we have to empower our customers, their workers and, ultimately, our fellow citizens, is exciting. However, as we go through the integration activities, we will stay focused on growing our business and delivering excellence for our customers. In this way, we’ll be ensuring our success both today and tomorrow.”

— SUDIPTA BHATTACHARYA, COO,
INVENSYS INDUSTRIAL AUTOMATION



Forging a

Bringing together Invensys’ three industrial automation groups

Wonderware, Eurotherm and IPS are coming together under the project name **Invensys Industrial Automation**. Provided below is a short update on this evolution and what it will mean for our customers and our people.

Background

Informal discussions around closer collaboration across Invensys groups have occurred over the past several years. In fact, IPS and Wonderware already share a combined development organization, and all three groups have cooperated in various business opportunities, typically on an ad-hoc basis.

Late in 2008, these integration conversations increased in intensity, as it became increasingly apparent that presenting a more cohesive face to the marketplace could have significant advantages.

Beginning in January, at the direction of Invensys CEO **Ulf Henriksson**, approximately 50 leaders from Wonderware, Eurotherm and IPS began meeting to explore in detail how such an integration might work and what advantages it would bring to customers and to Invensys. This team spent the last several months examining all aspects of integration, gathering as a group several times and, on an ongoing basis, in smaller workstream teams (Development, Delivery, Portfolio/Marketing, and Functional Support).

The opportunity

Discussing in detail the findings, thoughts and learnings from this intense activity is not possible in this forum, but at a summary level, the work teams came to the conclusion that integrating these three business groups would further boost the value we bring to clients and strengthen

our overall competitive position.

Specifically, the teams found that Invensys has a unique opportunity, one that is time-critical, to create a new space in the marketplace. This space is made possible by combining IPS’ capabilities at the manufacturing controls level, with Eurotherm’s device and automation technologies, and Wonderware’s open software architecture.

The result is a unique Invensys capability to help clients gain significant, measurable, business performance improvement in real-time. It is enabled by our ability to link all industrial assets through an open technology platform.

Specifically, as an integrated, in-step organization, Invensys IA will be able to:

- Offer the only open, hardware-independent platform available (Wonderware’s ArchestrA)
- Using that platform, provide clients with the only available cost-effective linkage between manufacturing operations and business operations
- In essence, create a de facto industry standard platform that enables the development and utilization of new products and rich applications for the entire enterprise ecosystem. Some built by Invensys, others by third-parties—but all residing on the Invensys open software platform
- Offer clients products, services and solutions available through one global partner possessing unmatched industry and solutions expertise.

stronger Invensys



- U.S. \$1.5 billion revenue
- Serves more than 5,000 clients in 60 countries
- Holds 350 IPS patents
- Employs approximately 7,500 people, with 400+ global consultants and 2,400+ engineers



- 1,200 employees
- More than 40 years' experience designing plant and process automation technologies
- Manufacturing operations in Europe, Americas, APAC
- Global leader in industrial control and monitoring products and services



- Leading supplier of industrial automation and information software solutions
- More than one-third of the world's plants and facilities run Wonderware software solutions
- More than 540,000 active software licenses in approximately 125,000 plants and facilities worldwide

What employees can expect

The exploration of this combination has resulted in a definite commitment to integrate the three business groups.

But what, exactly, does integration mean?

Integrating the three business groups won't occur overnight. For example, the IPS sales team isn't out selling Wonderware or Eurotherm solutions, and Wonderware distributors aren't now offering Foxboro products. Determining the optimum channels for certain products and services, in each industry and geography, will evolve over an extended period of time.

But visible signs of integration will occur shortly. As one example, leveraging each business group's key customer relationships is already occurring. For instance, where Eurotherm has a strong client relationship, the Eurotherm relationship manager is working with Wonderware and IPS to ensure that client has visibility to what additional Invensys capabilities are available to address their business needs.

In another example, employees will soon see a more formal, integrated

organization structure. The new organization will be designed to allow Invensys IA to operate efficiently, quickly and leveraging the best ideas, processes and innovation across the organization. Silos will be eliminated and a coordinated, agile culture will emerge.

At the same time this integration is beginning, Invensys is taking steps to strengthen its overall brand. As this branding activity unfolds, it will allow us to present a unified, Invensys face to the market while retaining our important market facing brands that customers have come to know and trust.

As the new IA continues to evolve, ongoing communication with employees will be paramount. Leadership Town Hall meetings, this publication, and many other vehicles will be used to share information as it becomes available.

If you have questions related to the integration of Wonderware, IPS and Eurotherm, please contact your manager. Your ideas and suggestions are always welcome at integration.info@ips.invensys.com.

The benefits of integration

- Able to offer a unique and differentiated value proposition to customers
 - Only open, hardware-independent software platform
 - Only available cost-effective linkage between manufacturing operations and business operations
 - Enable development and utilization of new products and rich applications for the enterprise ecosystem
 - Products, services and solutions available through one global partner possessing unmatched industry and solutions expertise
- Unified strategy and direction for the combined employee population - all talent pulling in the same direction
- Cost advantages through leverage of existing vendors, resources and skill-sets
- Better positions Invensys as a technology solutions provider
 - Products, software, hardware, etc. are part of overall business solutions
- Leverage existing key customer relationships as a pathway for more Invensys products, services and solutions
 - No current overlap in each business group's "Top 25" client base



IPS executive wins management award

Carmen Wee, IPS Vice President for Asia-Pacific Human Resources, recently was awarded the 2009 Robert Walters Award for Best HR Leader from HRM Singapore.

She was chosen based on her exceptional ability to lead and create an environment that focuses all employees on organizational priorities, communication effectiveness and implementation of new HR initiatives.

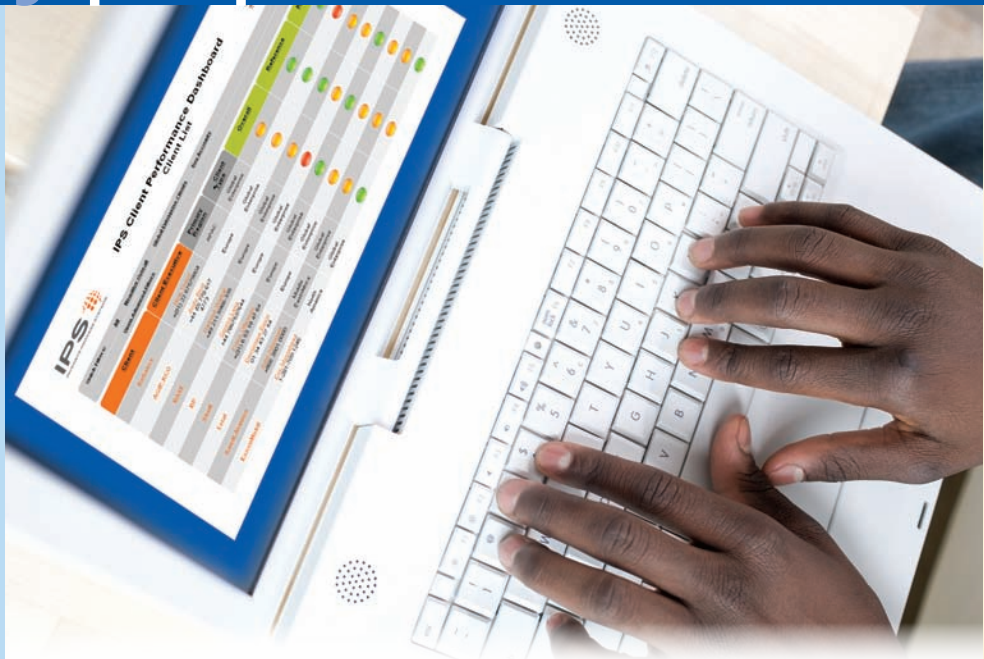
Candidates represent a cross-section of HR professionals across all industry sectors in Singapore, Asia's leading country for HR practices. Other companies winning for top HR practices include **The Ritz-Carlton, Millenia Singapore; McDonalds Restaurants** and **Singapore General Hospital**.

"Carmen continues to be a change champion at IPS," said **Nabil Kassem**, IPS President of Middle East and Asia Pacific. "Her strong leadership abilities are an asset to the organization and we congratulate her on this honor."

Now in their sixth consecutive year, the HRM Awards are the leading event for recognizing and celebrating the best in Singapore-based human resources.



Carmen Wee



Client Dashboard

New web portal provides valuable business information

IPS' NEW CLIENT DASHBOARD is a single-source option for all enterprise and key client information. The portal was produced with the Client Care team led by **Tish Atchison, Greg Dale** from Program Management and a third party vendor.

With the Dashboard, leaders can log in and see information on:

- Performance and project status
- Account/support team and client contact information
- Financial orders and pipeline.

"For the first time, IPS has a single-source repository for our Global Enterprise and key client information at the executive level," said **Tish Atchison**, IPS vice president of Client Care. "This provides unprecedented visibility to the key relationship indicators – referenceability and renewability – for our most valued clients."

The Dashboard was launched in February.

"Naturally, the immediate benefit is the ability to quickly review the overall status and health of my specific client," said **Maxie Williams**, enterprise client executive for the Valero account. "It also enables me to review the other Client Dashboards to determine if there are activities, issues or common themes that could benefit me in providing better service to Valero."

The Client Dashboard is secure and available wherever an online connection exists. In the next release, client-specific satisfaction surveys will be available to capture feedback and insight. Future improvements include interfaces to automate financial and pipeline data, client access to the dashboard and more feedback capabilities. This Dashboard has the potential to expand to include all IA business at some point as well.

Top performers

Wonderware earns certification for sixth straight year as customer support and services group excel

WONDERWARE HAS DONE IT AGAIN. Its customer support and services group has achieved the prestigious Service Strategies' Service Capability & Performance (SCP) Standards certification for a sixth consecutive year.

Representing best practices in the industry, the SCP standards certification quantifies the effectiveness of customer service and support based upon a stringent set of performance standards. Wonderware Customer First technical support center underwent a rigorous audit conducted by the Service Strategies Corp. to attain certification for compliance with the firm's service and support standards.

"We are pleased to earn this important recognition for a sixth consecutive year," said **Neal Hatton**, Wonderware director of technical support. "Wonderware Customer First technical support center professionals are dedicated to providing customers worldwide with the highest quality of customer assistance. The SCP audit and certification process continues to confirm this team's outstanding dedication to operational excellence and its commitment to achieving the highest possible levels of customer satisfaction."

"Wonderware Customer First technical support center professionals are dedicated to providing the highest quality of customer assistance."

— NEAL HATTON,
WONDERWARE DIRECTOR
OF TECHNICAL SUPPORT

Wonderware support centers are located in California, Pennsylvania, Texas, Canada, Italy, Singapore, China and Brazil, and are staffed with Wonderware engineers who provide technical assistance and problem resolution for customers. The support centers also provide support to an expansive network of more than 2,000 individual Wonderware certified service providers at nearly 60 locations enabling 24/7 support to customers globally.

"By passing the meticulous requirements necessary to achieve SCP certification, Wonderware continues to demonstrate that it is committed to delivering world-class support and service to its customers," said **Derek Nash**, SCP auditor. "During the SCP audit, Wonderware exhibited a clear commitment to customer satisfaction and continuous improvement."

The SCP support standard is part of a suite of service capability and performance standards designed to improve the quality and effectiveness of customer service and support operations. The standards define best practices for delivering world-class service and support, quantify performance levels and establish a framework for continuous improvement. Certified companies must continue to demonstrate their commitment to excellence and high performance standards through annual certification audits, as Wonderware has done for each of the past six years.





Dave Hardin

Thought leadership

Dave Hardin from IPS Global Development was re-elected to the GridWise Architecture Council (GWAC) for a second two-year term. The council is a 13-member group sponsored by the U.S. Department of Energy to advance interoperability among the many entities that interact with the nation's electric power system. Hardin represents industrial and industrial automation stakeholders. The goal of the council is to conceive and articulate the guiding interoperability concepts and principles that support the transformation of the nation's energy system into a rich, collaborative network of decision-making information exchange, market-based opportunities and enhanced automation and operational visibility. The council is coordinating closely with the National Institute of Technology and the Federal Energy Regulatory Commission in the development of the interoperability framework for smart grid standardization.

GWAC members serve staggered two-year terms and are selected from industry and academia for their leadership in power systems, information technology, telecommunications, financial systems and end-use electricity consumption.

A bid of teamwork

IPS EURA and Canada regions work together on pursuit bid

ENGINEERING, Procuring, and Construction (EPC) opportunities are typically a complex proposal to manage as they often involve

multiple companies competing for the same job where the end-user is in a different country. The **Sonatrach**

Rhourde Nousse headquarters project is a good example of how two IPS regions combined efforts to prepare and submit a \$4 million single offer.

The project scope included DCS, ESD, F&G and SCADA solutions for gas treatment facilities and 34 gas wells. The request originated from SNC LAVALIN in Quebec and SAIPEM in Italy. The timeline was two weeks for all companies to submit their offers.

To coordinate and track the opportunity, an IPS bid manager formed a cross-continent, cross-function pursuit team and split the workload according to respective competencies. A kick-off meeting was held to define the IPS sales strategy, assign tasks and provide a clear picture of the workload and effort required to meet the tight submission due date. This process aligned the team towards a common goal and served as the foundation of the bid/no-bid decision.

Each task was scheduled and tracked in the Proposal & Opportunity Planning tool. Daily calls and checkpoints allowed for timely resolution of issues and collective decision making while

The organization and process by the proposal team optimized the cost of sale, maximized margins and improved our chance to win.

the project status feedback process enabled the entire team to quickly define the most cost effective solution. By assigning a single, accountable individual for each mandatory Contract Quote Authorization (CQA) domain, the CQA submission process was managed as one deal which avoided duplication of effort.

The coordinated management of this opportunity resulted in a consistent proposal that was ready before the submission deadline. While the project has not yet been won, the organization and process by the proposal team optimized the cost of sale, maximized margins and improved our chance to win. It also establishes a best practice procedure that can be applied across all regions that may be able to work together on a particular pursuit.

Thanks to the team members and contributors to this highly efficient bid: **Domenico Napoli, Fabio Scatena, Ray Barker, Roberto Di Meo, Denis Labarre, Rossana Buzzi, Kathryn Huseman, Eric Koulourath, Massimo Marcon, Tony Moreland, Thierry Vuillaume and Mark Levell.**





The new reality show

LEFT: The Immersive Virtual Reality Process provides users with a unique view of plant operations during training.

have the opportunity to learn and make mistakes without putting themselves, the community or the environment at risk. In addition to that, using computer models of real equipment allows endless experimentation without ever taking the equipment off line, mitigating risk to production as well.”

IPS' Virtual Reality tool revolutionizes operator training for process industries

There's a new reality show about to hit the airwaves. IPS recently unveiled its future Immersive Virtual Reality Process technology, a next-generation solution that will enhance the way engineers and operator trainees see and interact with the plant and the processes they control.

When it becomes commercially available later this calendar year, IPS expects Immersive Virtual Reality Process to deliver a wide range of client benefits that will help improve plant safety and security, ensure environmental and regulatory accountability, and increase production and efficiency while controlling feedstock and material costs. Energy, chemical, oil and gas, and other vital process industries will also be able to apply the technology to meet the knowledge-management, training and retention challenges they encounter in

the face of an aging and dwindling industry workforce.

IPS' Immersive Virtual Reality Process can create a three-dimensional computer-generated representation of either a real or proposed environment. Via a stereoscopic headset, users enter a totally immersive environment in which they can move through the plant in any direction. Such freedom is made possible because the virtual environment is rendered at 60 frames per second, significantly faster than what can be achieved by traditional, non real-time rendering.

“The ability to simulate complex processes in connection with virtual actions allows the user to directly experience an environment that changes over time, making it easier to transfer skills learned in training to the work environment,” said **Maurizio Rovaglio**, director, IPS global consulting. “And because rarely performed volatile tasks such as plant shutdowns can be rehearsed in a stable, realistic environment, users and operator trainees

IPS has managed to make Immersive Virtual Reality Process truly realistic by applying its DYNISIM™ software to emulate the plant environment, linking process simulation models with physical-spatial models to create virtually any scenario that a user could encounter in real life. The inherent flexibility of this technology results in fast and economical program configuration.

The company's new solution has been successfully tested in a wide range of scenarios, including process design, maintenance engineering and plant safety. IPS expects Immersive Virtual Reality Process to be widely used in the next generation of process training programs.

“Immersive Virtual Reality Process is another example of developing and delivering innovative solutions that help our clients solve their most critical business issues,” said **Tobias Scheele**, IPS vice president of advanced applications. “The solution continues to be tested by several major global clients, and we are beginning to understand its full potential and additional value-add possibilities. When it becomes available in the second half of this year, we believe it will provide immediate, far-reaching benefits to clients.”



enabled by technology



A tasteful solution

New Belgium Brewing Company reaps benefits of Wonderware's progressive solutions

WHILE MANY manufacturers today work to minimize their impact on the environment and meet green goals, few have been applying these practices for as long as the **New Belgium Brewing Company**. In addition to long-standing programs to reduce, reuse and recycle, in 1998 the company became the first wind-powered brewery in the United States. Sustainability and utilizing innovative technologies are among the company's core values.

The company was seeking to install an Enterprise Manufacturing Intelligence and Manufacturing Execution System that would improve inventory management, increase production accuracy and improve quality control. They also needed to reduce time

spent entering data and manually checking the movement of materials. It was also important to automate a number of quality control procedures that were performed by hand. Plus, the PLC-based batching system was not operating at its full potential and clean-in-place (CIP) information was not readily accessible.

The brewery contacted **Orbis Information Systems** of Dublin, Ireland – a Wonderware System Integrator with food and beverage industry experience – and shared their lengthy list of requirements. New Belgium requested help to configure a system that would enable smoother, automated collection of data as well as more in-depth analysis and understanding of it. Additionally, the brewery hoped to see improvements in energy efficiency, quality assurance and results.

Now that the Wonderware software is

in place, the new system provides extensive “track and trace” capability and is a natural fit with New Belgium’s conservation and performance goals. With the new solution, any bottle or tank of beer can be tracked back to all of its inputs – finding 100 percent of them within 30 minutes.

It uses **Key Performance Indicator (KPI)** scorecards to provide immediate information about how each shift is performing, as well as how the plant is doing on a monthly or yearly basis. This real-time visibility is critical because it enables operators to devote their resources to quickly solving the right problems.

In addition to providing more reliable and timely data, the system also aids in enhanced analysis, which has led to increased quality control. Control charts are used to predict the longer-term outcome of process changes. In a business where there are no leftovers – low-quality product literally goes down the drain – Wonderware software is helping to make a significant difference in product consistency.



Getting smart

Eurotherm Intelligent Controls cuts Hydro Aluminum's energy usage in half

THE EUROTHERM solution at Hydro Aluminium, which produces more than 3 million tons of casthouse alloys every year, is helping the plant reduce its energy usage. The solution also increases production, which incorporates Oxyfuel burners from Linde Gas, with capacity up 60 percent while waste is less than 2 percent.

"The key element Hydro needed was increased capacity on melting cold metal, and the solution gives them that, along with large energy savings," said **Lars-Göran Elfgrén**, Eurotherm Project Manager.

"The challenge was to provide accurate combustion control and a smooth transition between all aspects of the cycle, while optimizing the melting cycle and applying the maximum energy when the thermal efficiency is highest.



Efficiency peaks at Hydro Aluminium in Ardal, Norway

- Energy savings at 50 percent
- Production capacity up 60 percent
- Waste less than 2 percent

"We initially installed the solution in two furnaces, and we were back again to fit a similar solution for two more furnaces."

Melting aluminium requires maximum energy at the beginning of the melting cycle when there is a large amount of cold metal, and the energy then has to be limited when the melting process has started.

The intelligent burner control system, which reduced energy usage by 50 percent compared to the old system, is based on the Eurotherm T2550 Process Automation Controller combined with a Safety-PLC to comply with regulations, and HMI.

As well as excellent control of temperature and stoichiometry, the intelligent control and shifting burner patterns give good temperature uniformity and low energy consumption.

Installation of the system included equipment cabinets, design, programming, testing and commissioning, while Eurotherm also took responsibility for training Hydro's staff at the site in Norway.



About IPS Global Consulting

THE GOAL of IPS Global Consulting is to offer value-added consulting services to the organization to meet the business needs of clients and customers. The consulting team has nearly 400 people around the world, led by

Nathalie Marcotte, VP of Global Consulting.

“Global Consulting is only a year and half old,” Marcotte explained. “We have a regional structure to leverage all regions and apply our Go-to-Market services for various practice areas. Many silos are now under one group and working together has really improved our value to the company.”

Marcotte added that the group is focused on engaging with

clients to focus on major issues or concerns and offer a solution.

“We want to be recognized as key contributors and business partners,” Marcotte said. “We want clients to see us as trusted advisors to help guide the direction of their business.”

The regional vice presidents for Global Consulting are:

- Latin America: **Carlos Ricci**
- North America: **Alastair Fraser**
- APAC & MEA: **Cor Swart**
- EURA: **Harald Konermann**



“We want clients to see us as trusted advisors to help guide the direction of their business.”

— NATHALIE MARCOTTE, VP OF GLOBAL CONSULTING

Chile forecast

Global Consulting team drives improvements at Codelco operations in South America

THE IPS CONSULTING team along with IPS Chile took on the challenge to contribute to improving the processing operations at Codelco, the

top copper producer in the world. A team of IPS experts and Codelco senior management examined all aspects of company operations by completing a Performance Assessment. The results of analysis earned IPS the deal to implement a range of multivariable Advanced Process Control (APC) solution to maximize Codelco's processes.

APC has been implemented to reduce slag temperature variability, reduce copper concentration variability in white metal, and control other parameters more precisely.

“Controlling copper concentration is an extremely complex and challenging task,” said **Mallen Gajardo**, who is responsible for the project at Codelco. “With the new multivariable APC, however, the performance and efficiency of our converters has increased greatly, which resulted in more consistency and quality in the copper ore concentration process.”

The program has thus far produced approximately 30-percent improvements in product quality and consistency, and has also decreased shutdown frequency, thereby extending Codelco's utilization.

“In addition, the reduced temperature variation is helping to extend the life of our

converters,” Gajardo added.

Implementation is continuing at other Codelco facilities, following the IPS Consulting methodology and driven within Codelco's management structure. Smelter improvement efforts are part of the broad asset improvement program, which was supported at the highest Codelco management levels.

The APC implementations would open opportunities for the integrated InFusion-based infrastructure to encompass IPS and third-party business intelligence applications, including IPS Real-Time Finance, Avantis asset maintenance and management, and I/A Series distributed control systems. Codelco and IPS have a long and successful history together with distributed control at multiple Codelco processing sites.





Eurotherm controls monitor the effectiveness of medical instrument sterilization, like this endoscope (right).

Saving lives

Eurotherm provides smart patency-control monitoring for Lancer's medical sterilizers

IN THE HEALTHCARE industry, disinfection of medical equipment is critical to the safety of patients and to the performance of the instrument. Each year, thousands of patients becomes sick from infections contracted at a medical facility, and hundreds die.

Eurotherm is helping medical facilities improve their monitoring capabilities for sterilization of equipment, and ultimately, reduce the number of illnesses and deaths. The control monitoring system, known as the 6100A Chart Recorder, can collect and verify data to prove that all disinfection processes are 100 percent accurate and complete.



Decontamination washers keep patients safe by reducing the spread of infection from medical equipment.

For example, an endoscope is used for non-invasive surgical procedures and requires extensive disinfection. A leading manufacturer of endoscope and surgical instrument decontamination tools, Lancer UK, did a six-month evaluation of ABB, Endress & Hauser, and Eurotherm control monitoring systems.

In the end, Lancer chose Eurotherm to provide a data monitoring solution for their endoscope washer disinfectors. This was the beginning of a business relationship that has led to hundreds of orders for more chart recorders – over the past five years.

Because of the expertise and focus in this industry, Eurotherm's total solution approach continues to beat the competition and help make the hospital environment a safe one.

Open opportunities

Wonderware launches a new, open approach to facilities management

IT'S ALL UNDER CONTROL at Wonderware – thanks to a new Industry Application for Facilities Management. The new application enables more efficient management of facility operations and features a library of templates, graphics, faceplates and symbols for the development of consistent, open applications across the facility enterprise.

“In today’s environment, facility managers are faced with several significant challenges as they struggle to address the needs of their organizations,” said **John Bishop**, industry manager, Wonderware. “These managers face increasing costs for energy, service and maintenance as well as additional and more complex regulations. With these challenges,

“**Facility managers face increasing costs for energy, service and maintenance as well as additional and more complex regulations... They are looking for ways to streamline operations and reduce costs.**”

— JOHN BISHOP, INDUSTRY MANAGER, WONDERWARE

customers are looking for ways to streamline operations and reduce costs.”

The Wonderware facilities management solution is provided through an open distribution model, which is supported by multiple independent systems integrators –

offering more competitive choices to customers. This approach provides an alternative to the market’s “locked” distribution model. By offering another option, Wonderware enables customers to access more open, robust, scalable and secure solutions that best meet their specific technology requirements.

“Most traditional building automation system vendors deliver a costly solution that typically provides proprietary hardware and software that is supplied by a single vendor,” Bishop said. “With Wonderware, the application is an open, competitive and consistent solution. In addition, the Wonderware supervisory software has the capability to upgrade each component to accommodate future technology changes and customer needs.”

MARCH 2009



Eurotherm's paperless recorders, AeroDAQ

NEW INDUSTRY regulations are forcing aerospace and automotive suppliers to implement extensive procedures for furnace maintenance. And now these business leaders are searching for a way to manage data that is quick, reliable and stress-free.

Eurotherm has a new solution, the paperless recorder, AeroDAQ. This recorder was specifically designed to meet the challenges of the aerospace and automotive industries. AeroDAQ calculates due dates for system accuracy tests, temperature surveys and calibration.

The optional batch reporting features fully automate the recording of each job, making it simple to generate the paperwork required by customers in the aerospace industry. It also eliminates the traditional risks associated with mechanical recorders.

AeroDAQ also makes it easier for heat treatment shops to comply with accreditation standards.



Ulf Henriksson, Invensys CEO, (left) unveils plaque for the new facility in Shanghai.

Powering up China

New facility will support China's growing infrastructure development and energy markets

The grand opening of the new Shanghai facility coincides with the company's recently signed U.S. \$250M contract with China Nuclear Power Engineering Corporation (CNPE).

IPS is plugged into China with the opening of a new 18,300-square-meter facility in Shanghai. The new facility strengthens its commitment to clients in the Asia Pacific market and is the company's largest site in the region. It features an Engineering Excellence Center (EEC), modernized staging area, technology showcase center, and a training and customer support service center. It will also serve as the company's regional sales and operations headquarters.

The grand opening coincides with the company's recently signed U.S. \$250 million contract with China Nuclear Power Engineering Corporation (CNPE) to develop and implement four large-scale, fully digitized nuclear control rooms, equipped with the latest simulation technologies, critical control and safety systems, for two new nuclear power plant sites in Fujian and Zhejiang.

More than 100 government officials, news media, and company executives attended the opening ceremony, including **Ulf Henriksson**, CEO of Invensys plc. He delivered the opening remarks and shared more details about Invensys' commitment to China and the nuclear power industry.



Hot project

Eurotherm India wins major order for Thyristor Control Furnace Heating Technology

EUROTHERM INDIA has an advantage in technology for the heat treatment industry by being one of the first. Only one company in India, Vedanta Group, has invested in thyristor control furnace heating technology, and it's running on a Eurotherm control panel solution that is electrically controlled. The Vedanta Group is a metals and mining company primarily engaged in copper, zinc, aluminum and iron ore businesses.

Eurotherm's solution for this vast

This order marks Eurotherm as a major player in the heat treatment industry in India.

project involves design, engineering, manufacturing, and supply of the control panels and high-rated power controllers.

The initial investment on thyristor-controlled, electrically heated furnaces is high when compared to oil/gas fired

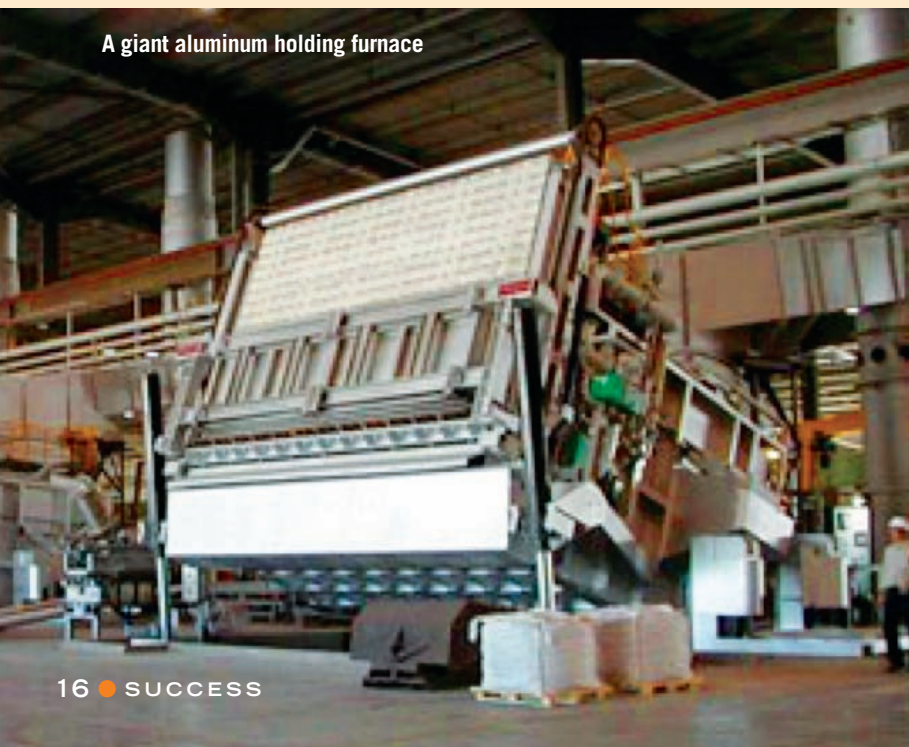
furnace costs. However, Vedanta chose Eurotherm's electric solution because of the potential long-term cost savings and its belief that successful results could positively impact operations across the heat treatment industry.

This win defines Eurotherm as a major player in the heat treatment industry in India and positions the company ahead of its competition. Many other large-scale aluminum companies in India are closely following the Vedanta project, and it could eventually lead to new business for Eurotherm if other companies decide to use electric solutions.

AEG, Honeywell and Fuji competed for this project, and Eurotherm's advantage came from the quality technology, as well as the spirit of partnership, and long standing relations with furnace manufacturer, Associated Industrial Furnaces Pvt. Ltd of India (AIFPL). Today, Eurotherm is a preferred supplier for Vedanta.

This deal represents progress for the heat treatment industry in India and recognition goes to the Sales and Engineering teams who worked to win this project. **Sunny Mishra**, the account manager for AIFPL, also contributed to this win by providing great customer relations and staying focused on the end goal.

A giant aluminum holding furnace



Environmentally sound

Wonderware helps government building earn green status in Nevada

WHEN MOST PEOPLE THINK of Las Vegas, they imagine the intense heat of the desert, the bright lights of the Strip, and the clang of slot machines. With the immense amounts of electricity it takes to entertain visitors and keep them comfortable, the city is not one you would immediately associate with conservation.

However, the Department of Energy National Nuclear Security Administration's North Las Vegas facilities include Nevada's first government-owned building to earn green status as being environmentally friendly.

This goal was met with Wonderware solutions and National Security Technologies, LLC (NSTec). Team NSTec manages the operations of the North Las Vegas facilities complex, where experiments that are vital to the nation's security are overseen.

The company maintains these buildings in accordance with the Energy Policy Act of 2005 and DOE Order 430.2b – regulations which provide incentives and mandate control of vital power systems such as electricity and water.

The ultimate objective of these regulations is reduced energy consumption and increased conservation, resulting in decreased dependency on oil. And federal agencies are required to lead by example in compliance and validation. Additionally, NSTec

Wonderware solution

- Wonderware® System Platform
- Wonderware InTouch® HMI
- Wonderware Historian Software
- ActiveFactory® Trending, Analysis and Reporting Software

helps the facility achieve cost reductions by managing energy use during peak demand periods.

After a careful evaluation of other products, Team NSTec decided that the Wonderware solution was the right choice.

First, the Wonderware solution updated the antiquated drum-based control system. With the new state-of-the-art, object-oriented system, the team got the improved communications and integration it was looking for. The new solution enables the use of efficiently controlled systems and critical equipment, such as power meters, across the entire facility. Due to Wonderware software's exceptional scalability, the entire building automation system for the North Las Vegas facilities complex is globally managed from NSTec's central station. The team can trend the equipment performance and monitor the energy that it consumes. Along with equipment health monitoring, they also can see its overall performance, and the Wonderware solution enables control of data centers, generator sets, substations,

transfer switches and phone switches.

The Wonderware solution also supports preventive maintenance requirements. If there are problems, the central station receives notification, and prioritized pager and mobile phone messages are also sent to staff working elsewhere. This ensures that emergencies and faults are addressed in a timely manner according to severity.

Best of all, real-time reporting, trending and historical reports are easy to access and use. This requires little or no training for the staff. It also ensures that the facility is consistently controlled, and it stays in compliance, which is the No. 1 goal for Team NSTec.

A big upgrade for Quattor

IPS replaces three obsolete compressor controls at Quattor Chemical Unit

WHEN A COMPANY'S equipment is nearing the end of its life cycle, major problems may arise. To eliminate any issues before they begin, IPS often steps in to suggest an upgrade. And at Quattor, a Brazilian petrochemical company, the effort was a success.

IPS Brazil implemented a revamping project for three compressor controllers at Quattor. Compressors are responsible for load gas, propylene cooling gas and ethylene cooling gas for the Olefins



About Quattor

- Quattor is a Brazilian company with an international calling, resulting of a merger between UNIPAR (60 percent) and Petrobras (40 percent).
- With eight plants located in the South and Northeast regions, it processes polypropylene, polyethylene, etenium and other petrochemicals.
- Growth plans are bold and the company has sufficient infrastructure, modern and additional plants, technological diversity and resources to achieve their goals.

process. IPS provided the client with an upgrade to its services and solutions platform to manage anti-surge controls, velocity and capacity – the Triconex triple control system. IPS also was responsible for all configuration, installation, start-up support and training.

IPS technicians were involved with customer and engineering contractors on the earlier phases of the project. During that time, IPS also was able to demonstrate its industry expertise to Quattor.

Maintaining success

IPS Mexico completes Phase One of PEMEX Burgos contract

WITH A VALUE of \$6.1 million over three years, the PEMEX Burgos oil field maintenance

agreement is well underway. IPS Mexico reported a successful completion of the first stage of the contract that provides comprehensive industrial automation services and solutions to Pemex Exploración y Producción (PEP). The Burgos oil zone covers part of the states of Coahuila, Nuevo Leon and Tamaulipas – this is one of the largest producers of gas in Mexico.

At PEMEX, the installed SCADA systems and communications backbone serve a complex infrastructure. Originally, IPS acted as the Main



Automation Contractor (MAC), with responsibility to supply all IPS and third-party products and services required to deliver PEMEX a full functional SCADA application. The comprehensive maintenance contract covers IPS as well as all other third-party devices.

The Maintenance Team, located at the Reynosa base, works tirelessly to maintain all pieces that supervise, control, gather, optimize and manage strategic areas of the process, and to

guarantee the facilities' safety and environmental protection.

This contract shows the breadth and depth of IPS offerings and expertise in the gas upstream process industry. IPS has been helping PEP meet its long-term business objectives since 2000.

The professionalism of the local Delivery team, which always interpreted PEP needs, and performed according to the project scope, has allowed IPS to build a strong reputation as an applied solutions provider, as well as, an organization that helps to sustain the client's long term goals.

"IPS services and solutions will enable us to increase our total production capacity, in line with our sustainable growth strategy, and strengthen our position as a world leader," said **Aureliano España**, contract administrator, "We look forward to working with IPS as we lower our production costs, improve our security and continue to have a positive impact on our communities and environment by generating more jobs and less waste."

the High 5 IA integration at work

IPS, Wonderware and Eurotherm are working together on a number of projects to produce the most effective results for customers the world over. The highlights below are examples of five such activities.

1

JOINT VENTURE OPENS NEW MARKETS FOR DCS

● IPS and Eurotherm have joined forces to provide DCS solutions for new markets in Vietnam. IPS Vietnam, working through IPS Singapore and Eurotherm, have penetrated several medium size DCS opportunities in markets such as Chemicals, Cement and LPG Gas. The cement market has proven to be an excellent fit for the offering and resulted in a significant order from Song Thao cement plant, with further potential at Ha Tien and Du Luong Cement plants.

2

DCS SOLUTIONS FOR THE WATER INDUSTRY

● IPS and Eurotherm are working with a major SI to provide DCS solutions for the water industry. 5 Star Electric, based in Texas, provides water distribution solutions based on the A2 medium sized DCS solution. A large-scale plant upgrade taken by Coastal Water Authority (CWA) resulted in the complete replacement of the original PLC installation with a plant-wide A2 solution offering DCS capability and reporting. The CWA provides untreated surface water to 2 million homes in Houston, Baytown and Deer Park. CWA also provides untreated surface water to approximately 100 industrial facilities (oil refineries and chemical plants), and a few agricultural customers.

3

COMBINED SOLUTION FOR CONTROL AND ENVIRONMENTAL PROTECTION

● An IPS and Eurotherm solution is providing system control and protecting the environment at an oil refinery. The installation at ERG Priolo Wells in Sicily provides environmental protection monitoring and a control solution for the water table purification from the Petrochemical Refinery and the Sea. Based on Foxboro A2, the solution monitors and controls 28 Wells that have been sunk on the sea perimeter of the oil refinery to ensure the water table is not contaminated before running into the sea. The system will purify the water if it is found to be contaminated.

4

SETTING THE STANDARD FOR EMS APPLICATIONS

● A Eurotherm and Wonderware system has been accepted as the standard EMS installation at GSK Pharmaceutical sites. Comprising EurothermSuite with redundant OPC, Wonderware FactorySuite Gateway and redundant InSQL servers, the system is estimated to be worth \$1 million per annum worldwide over the next two years. The partnership between Wonderware and Eurotherm has helped earn preferential status within GSK for EMS applications, and is seeing Wonderware replace Siemens as the standard SCADA supplier for a GSK Pharmaceutical sites. In a further success at GSK site in Stevenage, UK, Eurotherm engineers solved a communications problem between EurothermSuite OPC and a Siemens SIPAT system by proving Siemens had implemented OPC incorrectly. Solving this problem has promoted considerable respect for Eurotherm within GSK.

5

GSK BIOLOGICS GET SECURE DATA WITH STORE & FORWARD

● Wonderware is helping introduce GSK sites globally to secure data using Eurotherm Store & Forward technology. One example is at GSK Biologicals in Ware, UK, where a Store & Forward solution set to be installed on mobile vessels will continue to log data for up to three weeks when the power is removed by using UPS. The Store & Forward system logs data using an Eycon and T2550 Control System, and forwards to Information Manager to produce electronic batch records. Key to winning the project was the Eurotherm partnership with Wonderware, who are established as the standard SCADA supplier for MES applications. The presence of Wonderware has meant Eurotherm engineers are being given access to GSK sites where they have had difficulty promoting solutions in the past.

“IPS services and solutions will enable us to increase our total production capacity, in line with our sustainable growth strategy, and strengthen our position as a world leader. We look forward to working with IPS as we lower our production costs, improve our security and continue to have a positive impact on our communities and environment by generating more jobs and less waste.”

— AURELIANO ESPAÑA, CONTRACT ADMINISTRATOR,
PEMEX BURGOS GAS FIELD

“Bringing together the capabilities of Wonderware, IPS and Eurotherm makes sense for Invensys. The ability for customers to work with one, integrated, organization will likely make Invensys a more capable and attractive partner – due to both the solutions it can make available and the leverage it can provide in delivering those solutions on a global basis.”

— LARRY O'BRIEN, ARC ADVISORY GROUP

what people say

“Using Wonderware software has made this plant the role model for the Metro region. It has helped us improve and maintain the quality of the water produced in this facility, which is excellent.”

— NANCY CACERES, PUERTO RICO
WATER AND SEWAGE AUTHORITY PLANT MANAGER

“We needed to upgrade our controllers and wanted to make the best choice possible. We called Eurotherm for their solution and felt they would be in the marketplace a long time with this controller. Overall, the team was comfortable with installing it at our facility and it has improved our plastic mold trial operations.”

— RICK STYLER, INJECTION TECHNOLOGIES, INC. (WINDSOR, CANADA)