Siemens Industry focuses on sustainability with software and system solutions for energy efficiency

Nuremberg – Hannover, Germany.
At this year’s Hanover Fair, Siemens is setting out to answer some of industry’s most pressing questions with an integral array of automation solutions for industrial processes. At the main booth A92 in hall 9, the company will be highlighting different themes appertaining to this year’s Hanover Fair motto: “Efficiency – Innovation – Sustainability”.

While innovative automation and drive solutions make a difference to improved energy efficiency, analytical tools, energy-saving products and concepts actively work to reduce energy consumption, costs and CO2 emissions. On the subject of optimizing productivity, Siemens will be revealing ways of utilizing rationalization potential during the operating phase or also during the earlier plant design stage. Presenting selected industry-specific examples from the worlds of automotive engineering, food and beverage, pharmaceuticals, oil and gas as well as solar technology, Siemens will be highlighting potential for optimizing production plants. At the same time, the selected examples provide a clear demonstration of how a successful marriage can be created between economic efficiency, productivity and environmental responsibility. The theme industrial software will additionally be highlighted in hall B17, booth B40.

Siemens at Hannover Messe
Siemens automation solutions to be shown at the Asia Solar Exhibition

Shanghai, China. Early in April, the Siemens Industry Automation and Drive Technologies Divisions showcased their portfolio at the “Asia Solar Photovoltaic Exhibition”. Their exhibits included automation solutions covering the entire value chain – from polysilicon and glass production, to machine, line and factory automation and products used in field applications.

From 30 March to 1 April, visitors to the Asia Solar Exhibition at ShanghaiMart had an opportunity to gain a full overview of the automation offerings of the Siemens Industry Automation and Drive Technologies Divisions. In addition to automation solutions covering the entire value chain, the Siemens booth featured a mockup of a solar tracer, automated using the latest Siemens technology.

The Sinvert PV inverters met with an enthusiastic reception from visitors. Using a highly efficient method, these inverters transform direct current into alternating current which is then fed into the grid via medium-voltage components.

A number of seminars and lectures held alongside the exhibition provided an ideal platform for presenting information on the topic of “Totally Integrated Automation for the solar industry”.

Experts expect the Chinese market for PV plants to show the world’s highest growth rates in the next few years.

Siemens was successful in entering the Chinese market back in 2009, when the company was awarded a first major 10MW contract in Shilin.

Asia Solar
www.asiasolar.cc

Siemens Solar inverters

Siemens Solar industry
www.siemens.com/solar-industry
Siemens Industry Software at the Hanover Fair

Nuremberg - Hanover, Germany.
From 19 to 23 April, Siemens Industry Software will be showcasing the latest developments and versions of NX 7, Teamcenter 8 and Tecnomatix 9 in hall 17 (booth B40).

• NX – digital product development and NC programming
  ... is the CAD/CAM/CAE system for all development and manufacturing processes, from industrial design and construction, simulation and optimization to production planning. The new Synchronous Technology enables NX to directly process CAD models from any source, using either parametric or history-free modelling methods.

• Teamcenter – the integrated PLM portfolio for product design
  ... is used to define, distribute and control complete digital product mockups, associated documents and information, as well as all related processes and resources across the entire product life cycle. The open system concept, which is based on a service-oriented architecture and uses industrial standards, enables interoperability between the most varied applications.

• Tecnomatix – digital manufacturing
  ... optimizes aspects such as process planning, factory and manufacturing workflow simulation and factory layout, and enables ergonomic studies as well as seamless connection to higher-level planning systems. Modules can be used either as stand-alone units or in combination with others in a virtual environment.

PLM for small and medium-size enterprises
In addition, certified distributors and service partners will be presenting current developments and innovations around the Solid Edge and Velocity Series.

• Teamcenter Express – user-friendly, pre-configured and easy-to-install solution applied in product data management (cPDM)

• Solid Edge – 3D design, as easy as 2D based on the unique Synchronous Technology

• Femap – Finite element analysis for the CAE engineer

• CAM Express – CAD-integrated NC programming and simulation

Siemens Industry Software provides a full range of practically tried and tested software solutions to resolve complex tasks in product design.

Siemens Industry Software
www.siemens.com/plm

Booth and Registration
www.plm.automation.siemens.com/de_de/about_us/events_webinars/2010/hannover-messe.cfm
“Inspiring Innovation”: An exchange of Sabic and Siemens technologies

Al-Jubail, Saudi Arabia. In mid-April, the Siemens Industry Automation Division will be presenting its portfolio at the 9th Sabic Technical Meeting (STM 9) in Al-Jubail. Under the heading “Inspiring Innovation”, the congress organized by Sabic, a leading producer of chemicals, fertilizers, plastics and metal, provides researchers, chemists and engineers with a forum for discussion of new products and technologies. Over 8,000 visitors are expected.

The Siemens presentation at the 9th Sabic Technical Meeting will focus on chemical plant automation, approaches to process optimization, training of plant operators as well as ways to increase efficiency by applying innovative solutions.

For a number of years, Siemens and Sabic have worked together very successfully on various innovation topics. Siemens advises Sabic Research & Technology on process safety and security in the implementation of their own innovations, for instance.

Sabic employs a workforce of 33,000 and is one of the top five petrochemical companies in the world, operating 19 chemical plants in Saudi-Arabia. In 2008, Sabic produced 56 million tonnes of polyethylene, polypropylene, other plastics, glycol, methanol, and fertilizers.

Siemens Operator Training Systems

Siemens Safety Services

Sabic
www.sabic.com
New York, USA.
At Interphex 2010, due to be held from April 20 to 22, Siemens will be answering questions from visiting members of the pharmaceutical industry under the banner of “Answers for Industry”. The emphasis will be on consulting competence around the issues of quality, sustainability, standardization and innovation.

For several years, Siemens has been exhibiting at this fair and presenting itself as a partner of the pharmaceutical industry with many years of experience. Alongside a wide range of automation products, the company will be presenting its overarching innovative solution portfolio designed to help the pharmaceutical industry meet the challenges of both growing cost pressure and rapid technological change. The Siemens solutions improve quality and enhance productivity while reducing resource input and protecting the environment. Siemens will cover a wide range at the fair (booth # 2528):

• QbD (Quality-by-Design) in R&D and Manufacturing, PAT (Process Analytical Technology) and knowledge management
• Optimized water and energy supply: green design coupled with reduced cost
• Patient safety through brand identity protection
• Transparent, future-oriented life cycle management
• Ever more complex security requirements
• Integrated automation from the office and laboratory to the pilot plant and production

For over 30 years, Interphex has been the world’s largest forum focusing on topics around qualification and training, products and services supplied to the pharmaceutical market regulated by the FDA, the US-American Food and Drug Administration.

Pharma Industries
http://www.siemens.com/pharma

Siemens at Interphex
Energy-efficient solutions and products by Siemens to be showcased at IFAT in Shanghai

Shanghai, China. Energy-efficient solutions and products by Siemens to be showcased at IFAT in Shanghai.

The IFAT Shanghai is a bi-annual trade fair which, for the first time this year, combines three shows in one: IFAT, EPTEE, and CWS. The EPTEE – China International Environmental Protection Exhibition and Conference – is one of the leading trade fairs for all industries active in the field of environmental protection. The EPTEE is of interest to all companies involved in the development and manufacturing of waste recycling plants, emission control systems, wind power stations, solar and biomass plants, geothermal plants, as well as water treatment plants, instrumentation, controls and analyzers. The CWS – China Water Show for Water, Air, Waste, Energy and Recycling – centers on the issues of water supply, drainage and waste water disposal, and showcases the latest achievements in such field as pumps, valves, filters, compressors, water supply systems, water treatment plants and water tanks.

Representing 21 per cent of the world’s population, China holds only six per cent of the world’s renewable water resources. The situation is further aggravated by the rapidly growing economy and a population shifting towards the densely populated coastal regions. Moreover, both ground water and surface water resources are polluted. The Chinese government attaches great importance to water management. Official water requirement forecasts for the period between 2007 and 2016 are based on greater water efficiency in farming to compensate for increased industrial and residential water consumption.
Siemens Industry Automation helps GMN Paul Müller Industrie optimize its processes

Nuremberg, Germany.
The Siemens Industry Automation Division will be installing its Teamcenter and NX software at GMN. The Nuremberg-based manufacturer of ball bearings, spindles, free-wheel clutches and non-contact seals will use this software to standardize its product data management and to migrate GMN’s design department from 2D to 3D. The pilot phase is currently under way in the field of spindle systems. In addition to using the Siemens software licenses, GMN will also be benefiting from support and training services provided by Siemens. GMN Paul Müller Industrie GmbH & Co KG manufactures predominantly on the basis of customer orders for special applications, requiring utmost precision and efficient product data management.

Siemens PLM Software
www.siemens.com/plm

GMN Paul Müller Industrie
GmbH & Co KG
http://www.gmn.de
Siemens process control system cleans wastewater in the Canadian city of Kelowna

Kelowna, British Columbia, Canada.
The Siemens Industry Automation Division has been commissioned to upgrade and expand the control system of the wastewater treatment plant in the Canadian City of Kelowna.

By the end of 2010, following installation of the latest Simatic PCS 7 process control system using Apacs+ and Simatic S7 controllers, the operator will be ideally prepared to meet future capacity demand, which is expected to almost double within the next four years.

Together with the systems integrator Turn-Key Controls, Siemens Industry Automation is upgrading and expanding the control system of Kelowna’s wastewater treatment plant in several stages. The existing Apacs+ control hardware is to be retained to protect the original investment. The expansion relies on the latest Simatic PCS 7 technology, including Asset Management and web access through WebServer. Migration of the installed third party systems was completed successfully by mid 2009. The new technology offers a large number of benefits to the operator: They range from modern visualization at the operator panel and asset management for improved diagnostics and preventive maintenance to the Process Device Manager for centralized configuration of field devices. Moreover, the central archive server ensures the integrity of data archived over long periods, and the system can be monitored and operated over the internet via the WebServer.

The requirements
Kelowna’s sewer system collects, conveys, treats and disposes of domestic and industrial wastewater from the rapidly growing city in British Columbia (BC). The wastewater is conveyed to the wastewater treatment facility, an innovative treatment plant utilizing cutting edge UV disinfection processes and a state-of-the-art odour control system. The City’s wastewater system currently services close to 80% of Kelowna’s population and is being expanded to reach presently unserviced areas and to create capacities for future growth. The City’s wastewater treatment facility has the capacity to treat 40 million litres of wastewater per day, and the flows will soon reach that amount. Over the next four years, a $60 million upgrade of the treatment plant will expand to nearly double its capacity to 70 million litres a day.

Water Portal
www.siemens.com/water/automation

Siemens Canada
www.siemens.ca

System House Turn-Key Controls System Integrator, officially recognized and appointed by Siemens Canada
www.turn-key.ca
Nuremberg, Germany. At its Hanover production plant, used since the end of the fifties to produce sealing compounds and adhesives, Henkel is going ahead with a scheme to upgrade its production process with an MES (Manufacturing Execution System) solution from the Siemens Industry Automation Division. The aim of the project is to improve order management.

The Hanover plant enjoys a special standing as one of Henkel’s more traditional producing locations. Today, the former Sichelwerke plant is used to manufacture products including grouting compound and expanding foam for installers, craftsmen and DIY, as well as industrial users. The formulation of the compound and customer-specific filling into cartridges form the focus of the current optimization project.

The project has entailed equipping the mixer systems in the formulation area and the filler lines with touch panel technology from Siemens. Other areas and also the office environment have been integrated into the MES solution using existing standard PCs. The production management team is able to monitor the current status of all the machinery via the IT web client and carry out real-time analyses of production results without ever leaving the office.

The sealant manufacturing operation in Hanover can be divided into two clearly defined areas: Formulation and filling. The formulation area is largely concerned with the production of bulk products in large containers. These are then processed in the filling department to create the finished product, predominantly using cartridges. Siemens was commissioned to optimize production management and devise an MES solution based on Simatic IT, which would synchronize order and material-related information using SAP.

With a global workforce of around 50,000, Henkel is among Fortune 500 corporations, and is broken down into the three business sectors laundry and home care, cosmetics and toiletries, and adhesive technologies. It operates in 125 countries around the globe. As the world market leader in the field of adhesives, sealants and surface technology, Henkel generated a turnover of €6.22 billion euro in 2009 in its Adhesive Technologies business sector. Its brands, which include household names such as Loctite, Pattex, Ceresit, Pritt, Ponal, Metylan and Sista, are in widespread use, both in the DIY sector, in offices and in industrial applications. Henkel products are used in varied applications ranging from woodworking and wallpapering, car and aircraft manufacture to the production of books and much, much more.

Siemens Manufacturing Execution Systems
www.siemens.com/simatic-it

Henkel
www.henkel.com
Peterborough, Canada – Nuremberg, Germany. The Siemens Industry Automation Division has reached a milestone anniversary with its two MultiRanger and HydroRanger ultrasonic level controllers: Siemens has sold 100,000 of these instruments since their launch in 2001.

“MultiRanger” and “HydroRanger” are members of the successful ultrasonic level controller range by Siemens, which looks back on a long-standing tradition. Milltronics, part of the Siemens Industry Automation Division since 2000 under the name of Siemens Milltronics Process Instruments Inc., was the first company to launch a micro-processor-based ultrasonic level controller back in 1984: AiRanger IV. In 1987 MultiRanger followed as the first multi-functional ultrasonic level controller. Innovations included a plastic enclosure, a patented infrared handheld programmer and patented echo-processing technology. The second-generation MultiRanger, launched in 2001, offered digital communications. MultiRanger is ideal for short to medium range applications up to 15 meters in the mining, aggregates, cement, chemical, food, and pulp and paper industries. The low-maintenance HydroRanger, launched in 2004, is based on MultiRanger and was specifically designed for the water/wastewater industry, for simple level measurement and pump control or for more advanced applications such as open channel flow measurement.

The 100,000 MultiRanger and HydroRanger units sold to date reflect the large number of satisfied Siemens customers, including South West Water, which provides water and sewerage services to 1.5 million customers in Devon, Cornwall and parts of Dorset and Somerset, UK. “We are impressed with the performance of the instrumentation and the support from the Siemens team”, says Dave Curtis, System Engineer (SCADA Engineering Systems). Another customer is Selwood, UK’s leading plant and pump rental firm. “For level measurement and control, we integrate our equipment with Siemens ultrasonic systems. Siemens Milltronics products have an excellent reputation for reliability and accuracy, and they are widely used in the water and wastewater industry”, states Chris Caldwell, Electro-Submersible Business Unit Manager. And Brian Laine, Plant Engineer at Baskin Robbins, a large ice cream manufacturer, concludes: “The MultiRanger is 100% super reliable.”

MultiRanger
www.siemens.com/multiranger

Ultrasonic level measurement
www.siemens.com/ultrasonic
The installation of Simatic PCS 7 and Profibus PA ring technology for instrumentation boosts productivity and enhances product quality at the Further Fines Processing Plant (FFPP) of the Australian Rio Tinto Iron Ore company.

The further fines processing plant of Rio Tinto Iron Ore is operated in the Australian Pilbara region and processes around 22 million tonnes of iron ore per annum, reducing impurities and increasing iron ore concentration. However, trials at the plant had identified a range of issues which were compromising the original design throughput, such as unresolved problems involving the inability to control the pressure in the slurry process. Rio Tinto commissioned numerous optimization works in order to reinstate plant throughput to original design levels while ensuring that the quality of the final product met or exceeded customer specifications. Moreover it was important to reduce the risk of failure and to ensure sustained operation into the future. As part of these works, a decision was made to implement a robust control solution and to give plant operations greater visibility.

At the end of an exhaustive evaluation process, Rio Tinto Iron Ore opted for a Siemens Simatic...
PCS 7 process automation solution with drives connected via Profinet DP and redundant Profinet PA for instrument communication.

The Perth-based engineering project management firm Calibre Projects was able to complete the project in time and within the agreed budget frame. Ed Tsang, Senior Electrical Engineer, Rio Tinto Iron Ore said: “By implementing advanced control methodologies, our goals have all been exceeded with significant financial returns as well as improvements in production quality and quantity, with the added bonus of reduced maintenance.” As for the future, Mr Tsang sees further opportunities for a Totally Integrated Automation solution with Profinet: “Our solution, which incorporated Simatic PCS 7, Sinamics drives and Sipart valve positioners on Profinet, would be particularly useful for a new mine or processing plant where there are a large number of tightly controlled process loops.”

The Pilbara region in Western Australia has some of the world’s most ancient natural landscapes, dating back two billion years and stretching over 400,000 square kilometres. Visitors worldwide are drawn to the Pilbara region, known for its deep rocky canyons, peaceful plunge pools, dazzling white beaches and untouched coral gardens. And yet, the Pilbara is also the engine room of Australia’s mining industry, rich in crude oil, salt, natural gas and iron ore.

The Siemens Industry Sector (Erlangen, Germany) is the worldwide leading supplier of environmentally friendly production, transportation, building and lighting technologies. With integrated automation technologies and comprehensive industry-specific solutions, Siemens increases the productivity, efficiency and flexibility of its customers in the fields of industry and infrastructure. The Sector consists of six divisions: Building Technologies, Drive Technologies, Industry Automation, Industry Solutions, Mobility and Osram. With around 207,000 employees worldwide (September 30), Siemens Industry achieved in fiscal year 2009 total sales of approximately €35 billion.

The Siemens Drive Technologies Division (Nuremberg, Germany) is the world’s leading supplier of products and services for production machinery and machine tools. This includes standard products but also encompasses industry-specific control and drive solutions. Integrated technologies along the entire drive train with electrical and mechanical components offer highest potential to reduce energy consumption in industrial plants. The services provided by the Division include mechatronics support in addition to online services for web-based fault management and preventive maintenance. With around 36,000 employees worldwide (September 30), Siemens Drive Technologies achieved total sales of €7.5 billion in fiscal year 2009.

The Siemens Industry Automation Division (Nuremberg, Germany) is a worldwide leader in the fields of automation systems, industrial controls and industrial software. Its portfolio ranges from standard products for the manufacturing and process industries to solutions for whole industrial sectors that encompass the automation of entire automobile production facilities and chemical plants. As a leading software supplier, Industry Automation optimizes the entire value added chain of manufacturers – from product design to development to production, sales and a wide range of maintenance services. With around 39,000 employees worldwide (September 30), Siemens Industry Automation achieved sales of €7.0 billion in fiscal year 2009.