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As part of the ABB’s IndustrialIT family, cpmPlus Collaborative Production Management solutions can help you solve some of the most critical problems facing papermakers today. cpmPlus provides planning, production management and the energy optimization for the pulp and paper industry, connectivity to mill floor systems and a bridge to enterprise systems. Leveraging decades of pulp and paper experience, ABB’s cpmPlus manages the entire manufacturing process through customer shipment and lets you deliver the right product to the right customer at the right time.
Dear Customer,

Rising costs, shrinking profits, increased competition, environmental concerns, these are challenging times for papermakers. While papermaking has been changing for years, nothing has highlighted the pressures on the industry like the recent spike in energy costs.

The cost of energy is having a global impact on each of us as individuals, ABB as a company and especially you as papermakers. Pulp and paper manufacturing is an energy intensive business and as a result, the spiraling rise in energy costs and concerns over future supplies has significantly deteriorated the profitability of what was already a tough business. However, it is in this new reality that ABB can become an even more valuable industry partner by leveraging what we do best. And energy is what we do best. ABB is involved in every aspect of energy, from its production through transmission to efficient end use at customer facilities. Our sustainable energy, control and automation solutions have proven their worth in helping our customers run more energy-efficient operations.

While providing technologies that afford significant energy savings when energy costs are soaring, we are also committed to higher levels of customer productivity through products and systems that boost performance.

Advanced ABB control solutions such as IndustrialIT System 800xA seamlessly link mill automation, asset optimization and collaborative business processes for measurable productivity and profitability gains. Complete integration of mill automation, front-end raw material control, process and data management in real time enhances operational efficiency by delivering cost savings, manufacturing optimization and energy efficiency.

We at ABB are committed to being the supplier of choice and a responsible partner to our pulp and paper customers that depend on us for achieving their business goals by driving power and productivity for a better world. “Power and productivity for a better world” is not just an empty marketing slogan at ABB.

Roger Bailey
Senior Vice President
Pulp and Paper Business Unit
roger.bailey@us.abb.com

Energy
ABB is a global leader in power and automation technologies and provides papermakers with energy savings solutions for virtually any type of mill.

>> 4

CPM
Stora Enso’s Imatra Mills launch possibly the largest CPM system ever delivered to a papermaker and secures their future for years to come.

>> 6

SCA Graphic Laakirchen chooses reliable ABB quality control
SCA’s upgrades with ABB’s highly-reliable QCS system ensured reduced product defects and waste.

>> 8

ABB helps Sappi Saiccor’s cellulose mill expand smoothly
Upgrades with ABB’s IndustrialIT Extended Automation System 800xA fits into the mill’s continuing, successful growth and future expansion.

>> 9

Smarter Platform - Smarter Process
ABB’s new Network Platform is the industry’s strongest and smartest measurement foundation. It’s always been the toughest on the outside, now it’s the smartest on the inside.

>> 10

Gold medal products from ABB support Beijing Olympics
To help make the games a success, ABB contributed to more than 30 projects in Beijing.

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M-real Simpele chooses ABB for remote support
When M-real needed accurate, swift and consistent support, they turned to ABB for remote service.

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Latest ABB news
New orders from around the world.

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Energy

80 percent of available energy is wasted and only 20 percent becomes the power we need. ABB technologies can reduce waste by 20 to 30 percent.
Without exception, the costs associated with powering a mill are increasing. More than ever, maintaining profitability is directly tied to efficiencies in power usage and operations. ABB is a global leader in power and automation technologies and has unparalleled expertise in the pulp and paper industry. This combination provides papermakers with the practical experience and expertise needed to identify energy savings solutions for virtually any type of mill.

ABB experts have helped organizations identify energy savings opportunities for years. This means eliminating the risk in decision making and providing papermakers with the action items needed to develop and follow a roadmap that results in mill improvements and payback.

While every mill is unique, all have areas where substantial energy savings can be realized. ABB offers a team of experts who can uncover those opportunities from top to bottom—from mechanical opportunities, right through the forecasting and situational energy usage, as well as energy procurement, generation, distribution and consumption used in the papermaking process.

**Total power distribution and electrification solutions**

It is critical that components used in an electrification solution are energy efficient. ABB offers complete IndustrialIT enabled power distribution and process electrification solutions, which reduce energy consumption and optimize energy use.

ABB can design your network and recommend the voltage levels, circuit capacities and proper electrical supply that will guarantee the best long-term reliability.

Choosing the right voltage levels can make a substantial difference in a mill's electrical consumption. ABB can model your network, assuring you properly sized network dimensioning to save energy from day one.

Electric motors account for an estimated 65 percent of industrial electrical use. Any increases in efficiency clearly provide the potential for major savings.

High efficiency motors: Over its life, a motor can cost 15 to 20 times more to run than to buy. A high-efficiency motor can pay for itself many times over in energy savings. ABB motors are not only highly efficient, but they also provide superior reliability and availability, ensuring increased savings and uptime.

Dimensioning of the motor arrangements has an important effect on cost and reliability, and adjusting reactive power and filtering harmonics impacts a mill's bottom line costs. Our experts help organizations realize savings through right-sized motors, while increasing reliability and reducing operating costs.

**Optimize complex operations for energy efficiency**

Many mills and processes were designed with upfront cash cost as the foremost measure. In other mills the long-term cost of operation was compared to the upfront cost but the discount rate of energy cost was significantly underestimated. In either case, ABB helps papermakers improve sub-optimized processes by implementing improved visibility and advanced control.

**Energy savings through improved paper machine performance and control**

Improving energy efficiency in the paper machine can mean big savings for mills because the machine is the most expensive part of the process in terms of energy. ABB control systems not only ensure the end product quality of the sheet -- they also act as the optimal point of focus initiatives to improve machine efficiency.

ABB Quality Control Systems give papermakers the ability to precisely measure the characteristics of the paper while it is being produced. By being able to measure characteristics such as the sheet's moisture content, ABB systems can make adjustments to the machine's operation that minimize energy usage while ensuring end product quality.

ABB also delivers advanced actuators for the production process. By applying highly-focused energy to precise spots, ABB actuators reduce energy in the form of steam and electricity.

** Seamlessly link mill automation, optimization and collaborative business**

Pulp and paper mill operations represent hundreds of inter-related functions. ABB regulatory and process control tools and software address these functions to assure efficiency, reliability -- and energy savings.

Coordinating all of these activities is the holistic process of running the mill. This process makes sure that all subprocesses are coordinated to assure mills operate at the highest level of energy efficiency and productivity.

It's at this level that ABB Optimize products help mills operate in the black, with energy, raw materials and runtime managed for the highest level of efficiency possible.

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**ABB technology can reduce losses along the energy value chain**

- **Process automation**
- **Transport systems**
- **Plant automation**
- **Grid operation**
- **Process automation**
- **Motors and drives**
- **Building installations**

**Primary energy production**

**Transport** (e.g. pipelines, marine transport)

**Conversion inefficiency** (e.g. power plants)

**Line losses**

**Production processes**

**Motor inefficiency**

**Losses in building systems**

**Energy provision**

**Energy consumption**

- Reduced energy losses with ABB products
- Energy losses without ABB products
The world’s largest CPM system launched

The Collaborative Production Management Solution (CPM) that ABB delivered to Stora Enso in Finland may be the largest system ever delivered to a paper company. The CPM covers 11 production lines at Kaukopää, Tainionkoski and Karhula mills – known as Stora Enso’s Imatra Mills.
The Stora Enso IT project that resulted in one of the largest-ever CPM pulp and paper system deliveries actually began several years before the two and a half years of planning and implementation that led to final completion.

In autumn 2003, an internal study on updating the mills’ information systems was launched at Imatra Mills. At the time of the study, Imatra Mills used systems from different time periods and suppliers. After careful analysis and comparison, ABB was selected as the system supplier and the project was launched in early 2005.

“The goal of the project was to minimize risks and secure our operations for at least 15 years into the future,” says Jari Suikkanen, who oversaw the CPM system project at Stora Enso. “Establishing an integrated IT platform provides a solid foundation for the future.”

Stora Enso’s key criteria for the investment: quality control plus traceability of board, paper production conditions and raw materials.

Closer to St. Petersburg than Helsinki

The Imatra Mills are the sixth largest paper and board producers in the world, with total annual production of over one million tons. The mills produce consumer packaging board, office papers and laminated paper. Ninety-two percent of production is to support our decisions,” says Suikkanen.

Three phase start-up

The start-up of the CPM system was implemented in three phases. “We started with the most challenging task,” says Suikkanen. “It was the Kaukopää board machines with finishing lines. They encompassed a variety of old and new technology. The central packing station and the shipping department operated the whole start-up time.”

The completed system was turned over to Stora Enso on schedule in early 2008. The ABB-delivered system, integrated with Stora Enso’s ERP systems, Fenix and SAP, has almost 600 simultaneous users.

“Now we have much more information to support our decisions,” says Suikkanen. To date, almost 1,500 people have participated in system training courses.

Smooth collaboration

During four and a half years of close cooperation, Stora Enso and ABB worked together in a smooth collaboration that resulted in today’s successfully implemented system. Critical to the success, both companies’ project managers had the ability and willingness to stay focused on their goals which centered on improving Imatra Mills’ cost efficiency and productivity.

The collaboration has proved so successful that ABB and Stora Enso recently signed a maintenance contract making ABB responsible for updating the systems for years to come.
CA Graphic Laakirchen AG was concerned about meeting current quality needs – as well as future ones. The company recently selected ABB’s Quality Control System to meet their demanding quality requirements.

By upgrading with ABB’s highly-reliable quality control system, the company ensured that they will reduce product defects and waste.

SCA – Europe’s second largest packaging manufacturer
SCA Graphic Laakirchen AG is an Austrian subsidiary of the international SCA (Svenska Cellulosa Aktiebolaget) Group, Europe’s second largest packaging manufacturer.

SCA Group produces and sells packaging solutions, sanitary products and printing papers worldwide. SCA employs over 50,000 people in more than 50 countries.

SCA’s Laakirchen mill specializes in the production and development of super calendered gravure printing and offset paper. Laakirchen’s two paper machines, PM 10 and PM 11, annually produce approximately 500,000 tons of high-quality super-calendered gravure printing and offset paper. About 95% of production is sold in Europe.

From tradition to innovation
Paper manufacturing in Laakirchen has a long tradition reaching back to the mid-19th century, however the Laakirchen mill is known for its consistent use of forward-looking technologies. Quality control systems from ABB are a key part of this approach.

An ABB Quality Control System has been used since 1987 on PM 10 for quality assurance. After the current upgrade of the PM 10 with ABB’s Quality Control System, the mill plans to upgrade three calender systems.

Minimum of technical risk
One essential reason why SCA chose ABB as their supplier again: the guarantee that changes can be made with a minimum of technical risk during scheduled plant downtimes. Laakirchen can also run their old and the new systems simultaneously – another good argument for choosing ABB.

The ABB concept provided for the continued use of the existing measuring frame SP 1200 – another practical example of the investment security provided by ABB solutions.

During implementation an international project team worked as part of the Paper System Europe-concept, along with local technicians, to make sure that the required skills were available at the right time and place. ABB provided evidence for the agreed system availability and precision guarantees.
Sappi Saiccor recently upgraded to the IndustrialIT Extended Automation System 800xA, ABB’s new automation platform – an improvement that fits into the mill’s continuing, successful growth.

When the Sappi Saiccor chemical cellulose mill located near Durban, South Africa, was extended and modernized in 1994, the company invested in ABB’s Advant OCS control system, a decision made after detailed analysis and planning.

Five years later the installed control system was modernized, paving the way for later expansion.

Largest chemical cellulose producer

Located at Umkomaas on the KwaZulu-Natal south coast just 50 km south of the port of Durban, Sappi Saiccor is the world’s largest producer of chemical cellulose.

Founded 50 years ago, Saiccor was the first mill to produce chemical cellulose from eucalyptus - an important milestone that has revolutionized the industry. Sappi, the international saw paper giant, bought the company in 1988.

Today Sappi Saiccor produces approximately 600,000 tons of elemental chlorine free chemical cellulose per year.

Reducing the environmental footprint

In 1994, Sappi Saiccor invested more than USD 250 million to expand and upgrade the mill’s facilities, increasing pulp production capacity from 450,000 to 585,000 t/y and enhancing product quality. The upgrade significantly reduced the mill’s environmental footprint.

In 2001, ABB supplied engineering and delivered a millwide control system.

Improved availability and profitability

In 2006 the Sappi Group invested in a USD 46.5 million expansion that will increase Sappi Saiccor’s pulp capacity from about 600,000 tons per year to 800,000.

In combination with this project, ABB won a USD 32 million order from Sappi to be a single-solution provider. ABB’s control system will have five redundant AC 800M controllers for 2,500 S800 I/O channels and 10 Process Portal operator workplaces along with extensive Profibus communications. The order includes 2,700 smart instruments and 600 smart motor controllers as well as Information Management, Asset Management and DTM (Device Type Management) functionality. Five control rooms received new operator systems.

Ken Toward, Divisional Engineer - Instruments at Sappi Saiccor, praises the system’s flexibility, software design and ease to configure and run. He believes that Sappi Saiccor obtained a lot for its money.

“Since we have been using ABB’s control systems, we have seen an improvement in the availability and reliability of our control systems,” says Toward, who describes the automation platform as “outstanding.”

He is also highly positive about storing, displaying and retrieving process and historical data. ABB’s 800xA system makes it possible to maintain continuous contact with all parts of the process in real time, and all the data are stored for future documentation and traceability.

Toward says his cooperation with ABB – “from management to the men on the factory floor” – has run very smoothly.

“We have been working together since 1994, but the technicians from ABB do not try to control us, and we really work as a team,” he says. “We always know to whom we can turn if ever a problem occurs. The service technicians are always really professional.”

Future capacity

The new application solutions have the capacity to handle the mill’s future expansion. Open standards make it easy to integrate new systems, which Sappi Saiccor also regards as a major advantage. And because the system is being upgraded in stages, operating breakdowns are minimized.

Sappi Saiccor’s system changeover has been remarkably smooth. The plant’s systems are operating in parallel and several generations are running at the same time – without any disruptions.
Smarter Platform - Smarter Process

For some 20 years, the Smart Platform has been the workhorse of ABB’s paper Quality Control System (QCS) business. Now, the Global Center of Excellence in Dundalk is renewing this technology platform and has brought the “Network Platform” to the market.
he paper upon which this article is printed might seem the simplest thing in the world – a familiar product that has been around for over 2,000 years. But the modern production of these simple sheets involves an almost unimaginable array of technology, a key element of which originates in ABB.

The ABB Smart Platform

The chief weapon in the papermaker’s arsenal is his scanning platform, exemplified by the ABB Smart Platform. This consists of a steel O-frame (through which the paper being made passes), which holds an assembly of sensors that are scanned across the paper as it is manufactured. These sensors measure the moisture, thickness, density, ash, color, fiber orientation, etc., of the paper.

As the paper web can be over 15 m wide, moving at 90 km/h, and the sensors glide just a few millimeters above the surface, the sensor assembly must be guided precisely. In fact, the top and bottom sensor assemblies, which are separated by a 7 mm gap through which the paper passes, must be aligned to an accuracy of at least 0.4 mm across the full width of the paper. An indication of the required sensor-measurement precision is given by the fact that the caliper sensor, for instance, measures the paper thickness to within one millionth of a meter across a 15 m wide paper web!

The environmental conditions in the paper mill also present a challenge: Just a few millimeters from the sensor heads, paper is heated to over 100° C. Excessive vibration, 100 percent humidity and a liberal sprinkling of dust are usually also guaranteed.

Up to 10 different sensors can be deployed on one frame, and the sensor data collected is collated and fed into sophisticated control algorithms, which generate instructions for the paper machine. The paper machine operator is able to view almost any data he chooses and make manual interventions.

A modern paper machine cannot be operated without such technology. ABB continually strives to enhance its products and bring the latest technologies to its customers, thereby enabling cost reduction, greater reliability and increased performance. Through this ever-present desire to “push the envelope,” ABB developed its new QCS product, Network Platform, helping keep the company at the forefront of quality control systems for papermakers.

The new ABB Network Platform

Network Platform primarily employs standard electronics; the small amount of custom electronics will disappear when the sensors are upgraded. The platform features state-of-the-art technology and is fully compliant with modern standards – all of which ensure that it will be easily supported, now and in the future. The processor core has been upgraded to an Intel® Pentium® 1.1 GHz single-board PC, which runs on Microsoft® Windows® XP Embedded. There is no hard drive, as the application is stored on CompactFlash. Portability of architecture is ensured via IBM® Rational® Rose® Technical Developer, so a move to a new PC board or to a new Windows operating system, for example, is not an issue.

In addition to Rational Rose, other IBM products were utilized by the Network Platform development team to ensure a seamless tool integration, from software inception to application deployment. These include Rational RequisitePro for requirements capture, Rational Test RealTime for black-box testing, and Rational TestManager for the control and recording of system tests.

The new software brings a host of new features. It now takes a mere two to four hours to build, install and test object code when the source is modified. A single DVD contains all the manuals and documentation. And the de facto standard application language C++ has been chosen for maximum portability and supportability.

In addition, substantially improved diagnostics tools and displays have dramatically increased the customers’ access to the paper process data. This, coupled with the overall simplicity and flexibility of the system, reduces training requirements and eases the configuration in the factory and during project delivery. For example, sensor-complement assignment, in which the system is set up for its particular permutation of sensors, was previously a complex task but is now very simple, as is integration with System 800xA Asset Optimization and remote diagnostics features.

ABB’s Network Platform also provides a lower cost of ownership for the customer through:

• Improved ease of use for the installer and maintainer
• Support for remote connectivity
• Enhanced support for sensor additions in the field
• Better support for software upgrades in the field
• Improved support for external safety I/O

The development project itself was an excellent example of successful international cooperation with teams based in Columbus, Ohio, Bangalore and Dundalk, pooling many man years of effort to complete the project. Huge emphasis was placed on the test management, and the zero-defect rate in the first product shipments has proven the value of the stringent test strategy.

Future perfect

This new modern platform will enable continued QCS product development for the next 10 to 15 years and will accommodate many new technology advances, such as flexible scan patterns, wireless technology, ultra-fast scanning and the integration of very high-speed sensors. With only 25 percent of the RAM capability and about 2 to 5 percent of the CPU real-time capability currently being used, there is enough reserve horsepower to drive many new ideas!

Already, advanced testing is taking place on two new core sensors that both have a performance specification far in advance of any comparable sensor from the competition. Only the Network Platform could provide the processing muscle to deal with the very high-speed raw data and the very advanced diagnostics offered by these new sensors.

The first production systems have already been shipped and are performing very well indeed. Deliveries are ramping up and dozens of ABB Network Platforms will be running in paper mills all over the world within the year.
Gold medal products from ABB support Beijing Olympics

Big sports competitions involve big spending on venues, accommodation and transport infrastructure, and the first Olympic Games held in China are no exception.

China’s spending on infrastructure related to the Olympic Games totaled about 180 billion yuan (USD 26 billion) over the five-year investment period, according to a Deutsche Bank report.

To help make the games a reality, ABB contributed to more than 30 projects in Beijing that were either part of the games, or the infrastructure supporting them. ABB China organized an Olympic project support team made up of more than 60 power and automation engineers who provided dedicated support to the 30 Olympic projects ABB had been involved in. Many were based on site inside stadiums during the games.

“China has put its heart and soul into organizing these Games,” said Brice Koch, head of ABB in China. “We are proud to say that ABB is contributing to the smooth running of the event, for the athletes and visitors alike.”

Behind the scenes

Visitors to Beijing didn’t see ABB’s contribution although they experienced the benefits, starting at the airport. ABB delivered gas-insulated switchgear and feeder protection relays for the huge baggage-handling facilities at a new terminal opened this year as well as several thousand instruments, which manage the lighting.

Beijing’s metro network was also expanded ahead of the games, and Line 4 operates with medium and low voltage switchgear supplied by ABB.

These include a 500-kV power transformer for the Chengbei substation located near the Olympic park, a key facility for the electricity supply to several sports venues.

Power projects make up the bulk of ABB’s contribution to Olympic projects. Power transformers, capacitors, switchgear and other products were supplied to at least nine substations completed as part of Beijing’s Olympic investments.

ABB also delivered the power transformer, gas-insulated switchgear and capacitor for the substation that supplied electricity to the two most prominent and spectacular arenas, the main stadium and water sports center.

The national stadium, better known as the Bird’s Nest because of its steel lattice-work exterior, was the focus of the world’s attention for the opening ceremony starting at eight minutes past eight on the eighth day of the eighth month of 2008. Eight is considered a lucky number in China because it is pronounced like the word “wealth.”

One of the key venues of the Beijing Olympics was the National Aquatics Center or “Water Cube,” an architectural highlight that looks like a box of tightly packed ice cubes. With a capacity to seat 17,000 it hosted the swimming, diving, and synchronized swimming competitions.

ABB’s low and medium voltage products and systems were in more than a dozen other sports facilities, including the venues for gymnastics, baseball, hockey and archery.

Intelligent control

All instrumentation complied with the KNX international building control standard. The KNX standard was formerly known as the EIB (European Installation Bus) control standard and was developed by a group of European electric manufacturers, including ABB. It is now used as the international standard for intelligent building control systems.

ABB also equipped the stadium with KNX technology to help run the floodlights and monitor the electric circuits. To avoid an embarrassing glitch, an ABB employee was on hand in the bowels of the stadium to keep an eye on the installation throughout the ceremony. ABB’s KNX intelligent building control system is also part of the National Aquatics Center.
M-real Simpele chooses ABB for remote support

When the M-real Simpele mill needed accurate, swift and consistent support to meet a wide range of technical needs, mill personnel turned to ABB for remote service. One of the only suppliers offering remote service for drive systems, ABB's support saves time and improves efficiency for papermakers.

In 2006 the M-real Simpele mill, located in Simpele in southeast Finland, rebuilt their board machine -- and ABB supplied the drive system and an electrification solution. Mill personnel chose to include remote support with ABB's product delivery. Two years later, ABB's remote support service has become an essential part of the Simpele mill's success.

“We would not give up remote support,” says Timo Kero, the supervisor responsible for the Simpele board machine’s automation. “We can now get quick, expert support in problem situations and deviations. With the help of remote support some software modifications have also been done.”

From modifying software to tuning drives

ABB's remote service provides responsive and expert customer support. Typically, the service is used to assist mills with solving problems; software modification and enhancement; and tuning drive systems. ABB support staff includes experienced software and product development specialists as well as commissioning engineers.

It's easy for paper mills to get started using ABB remote support. All they need is an Internet connection and standard equipment. A software package installed on the drive system maintenance PC ensures the confidentiality and integrity of the information.

Remote support for the warranty period is included in ABB's line drive delivery. After this, most mills sign a Remote Support Service Agreement with ABB for continuing support.

Simpele's new drives

Simpele's new ABB Direct Drive System includes permanent magnet motors, ACS 800 frequency converters and gearless drives. Before the rebuild, the mill had a DC Drive System.

“Previously, the DC systems needed service every three weeks. Now with DC motors, gearboxes and tachometers eliminated, the service and maintenance amount is dramatically decreased thanks to the new technology,” says Kero.

ABB also delivered a Data Logger system that combines the remote support and history data of the drive system to offer detailed data analysis.

The production capacity of the Simpele mill's board machine was increased to 215,000 tons and its maximum speed was upped to 800 meters/minute. The investment was designed to increase the mill's production capacity, improve product quality and strengthen global competitiveness.

Fast response

Remote service keeps the Simpele mill running smoothly by providing knowledgeable support as soon as it’s needed.

Kero says that the Simpele mill obtains fast response from ABB's Service Center located in nearby Lappeenranta. Complex support issues are handled expertly out of ABB's Center of Excellence for drive systems in Helsinki, 300 kilometers from the mill.

Timo Kero
Major Industrial IT orders

Australia

ABB has secured an upgrade order from Visy Pulp and Paper for the VP8 machine at their Gibson Island site in Brisbane, Australia. This order includes ABB Automation Sentinel as well as several system component upgrades such as the QCS controllers, DCS, and CPU upgrades. The delivery is targeted for completion by December 2008.

For the past decade, Visy Pulp and Paper has used ABB products and services with new system deliveries and upgrade projects at sites across their business. ABB’s step-wise upgrade path and comprehensive lifecycle management program has helped Visy to minimize expenditure while protecting their existing installed base.

With ABB’s hardware upgrade options and Automation Sentinel program, Visy will be able to inject new life into its systems in VP8, bring them back to the first “Active” phase in the lifecycle and extend their productive lifespan easily and cost effectively.

China

ABB has received a Drive System order from Shandong Tralin Paper Co. Ltd. The group is rebuilding a paper machine for increased production. This is a part of Tralin’s 150,000 t/y Low Basis Weight Paper project. The paper machine is scheduled to start-up in April 2009.

The PMC800 drive system will run and control the whole paper production line. The system includes several unique technologies in control, drives and applications. For example ACS 800 industrial drives include higher efficiency with the latest IGBT technology, and drives save energy and need less maintenance. The delivery covers also a complete range of services as project management, engineering, documentation, installation supervision, testing, commissioning and customer training.

Finland

ABB has won an order from Stora Enso Publication Papers Oy Ltd. to supply new Quality Control and Web Imaging systems to the PM 2 and PM 3 production lines at their Anjalankoski mill in Finland. The annual production capacity will be 435,000 tons. Investments improve both the product quality and the efficiency of the production lines.

The delivery includes two new Network Platform scanners as well as sensors measuring paper quality for PM 2, cross direction controls for basis weight and renewal of previous generation system for PM 3. In addition, ABB will also supply the new Web Imaging HDI800 System as well as Automatic Braking System for the winder. Process and production information gathered from the new systems will be transferred to the earlier delivered, extensive ABB Collaborative Production Management system for follow-up production efficiency.

The deliveries will be complete during the year-end 2008.

Hungary

W. Hamburger Papirgyarto KFT in Hungary is building a new packaging board machine in their Dunajvaros mill, about 80 kilometers to the south of Budapest. ABB delivered a PMC 800 drive system for their board machine and a winder, 45 single drives based on the PMC 800 configuration, Data Logger tool for history data analysis, Process Portal A, spare parts, training and installation supervision. The new production line is scheduled to start up in summer 2009.

Indonesia

Abb has won a contract from PT Evergreen International Paper to provide DCS and QCS Systems to its new paper machine in Medan, Indonesia. This delivery will include the IndustrialIT System 800xA with 4 Process Portals, 3 AC 800M controllers and close to 1,000 S800 I/O channels, and the latest NP700 Network Platform.

Earlier this year, PT Evergreen also awarded an order for ABB’s sectional drives that includes controllers, AC Drives and AC motors. The integrated DSC, QCS and Drives system is targeted for completion by April 2009.

This project will be executed in close cooperation with the paper machine supplier with whom ABB already has a good working relationship. The customer expects to save on manpower with ABB’s effective and efficient engineering and single point of contact for Drives and Automation Systems.

In addition, ABB will also provide service and support including customer training, spare parts, product lifecycle support and future upgrades, which will help the customer reduce total investment costs.

Poland

Mondi Packaging Paper Świecie SA in Poland has placed an order to ABB for their new packaging board machine. The delivery scope includes a Direct Drive solution for their board machine and a winder as well as spare parts, start-up, installation supervision and training. Data Logger for history data analysis tool is also included in the delivery. The new production line will be start up in summer 2009.

Spain

To the Smurfit Kappa Nervion, S.A. in Spain, ABB delivers a new PMC800 drive system for their PM 2 and a winder. The mill located in Bilbao has been producing 125,000 t/y of kraft paper for sacks and packaging based on virgin stock.

Portucel Sporcel Group in Spain has placed a PMC 800 drive system order for their ATF paper machine in Setubal.

Sweden

ABB has been awarded fifteen new Web Imaging Solution contracts recently. The latest orders are for Munksjö Paper Billingfors mill and Stora Enso Nymölla mill in Sweden, Stora Enso Anjalaankoski mill and UPM-Kymmene Tervasaaari mill in Finland, Ahlstrom Rottersac mill in France, Ahlstrom Osnabrük mill and Sappi Alfeld mill in Germany, Burgo Lugo mill in Italy and Neenah Paper Munising mill as well as North Pacific Paper and NewPage Wisconsin Rapids mills in the United States. The Anjalankoski and Wisconsin Rapids mills will also be equipped with ABB solution.

Furthermore, Södra Cell continues to place orders with ABB. Among their latest orders are Pulp Defect Analyzers for their Mönsterås and Värö mills in Sweden and Tofte mill in Norway. These orders were based on the success at Södra Mörrum’s TM 1 and TM 2 lines.
ABB offers new service solution

ServicePro proactive and comprehensive service approach as part of an ABB Assured Performance Agreement℠

ABB has announced the release of ServicePro, an interactive software solution featuring ABB’s best maintenance practices for improved reliability, increased return on assets and consistent service compliance throughout your equipment lifecycle. ServicePro for pulp and paper customers is included as a central part of all ABB-delivered Maintenance Services Contracts to ensure a world-class maintenance process with measurable results.

ServicePro forms the hub for ABB engineers to use for scheduling and implementing maintenance work orders tailored exclusively to ABB solutions. With ServicePro, every ABB engineer who works on your equipment benefits from the knowledge gained from years of ABB best practice experience – delivering a proven and consistent maintenance process that gets results.

The unique foundation of the ServicePro solution is a comprehensive “Knowledge Database” of service best practices specifically for ABB equipment. Maintenance personnel are empowered to be productive and consistently deliver high-quality service. An internet sync to the ABB Master Knowledge Base Library updates the latest revisions to the library including new and improved Preventive Maintenance Work Orders.

Be assured you’re getting results from your Service Maintenance Contracts with reports that document contract compliance, assess service effectiveness and overall system performance. From a management perspective, ServicePro offers you real-time awareness of your team’s activities and the reporting you need to proactively manage your operations.

ABB demonstrates energy efficiency at SPCI 2008

Attendees crowded the ABB exhibit booth during the SPCI (Swedish Association of Pulp and Paper Engineers) Exhibition, May 27-29, at Stockholm International Fairs in Älvsjö, Stockholm. The 2008 exhibit celebrated SPCI’s 100th anniversary.

Energy efficiency was a major topic at SPCI – and this subject is part of ABB’s DNA. Visitors to ABB’s booth could find signs of energy efficiency in all of our products, systems and services. ABB staff demonstrated how our products and solutions can reduce energy costs.


At the booth, ABB held a quiz competition. Visitors answered questions about energy effectiveness to win prizes. One hundred two people took part.

On the conference’s last day, ABB threw a rock show for approximately 4,000 attendees, complete with entertainment by Linda Bengtzing, Andreas Jonsson and Arvingarna, at Gröna Lund amusement park.

International recognition for Dundalk R&D member at recent TAPPI paper conference in Dallas

The Dundalk R&D group is delighted that the TAPPI organization has awarded Dr. Shih-Chin Chen the Division Leadership and Service Award at the PaperCon conference in Dallas in May.

This award recognizes an individual for outstanding leadership and exceptional service to TAPPI which have resulted in significant and demonstrable benefits to the Division’s members.

Founded in 1915, TAPPI is the leading association for the worldwide pulp, paper, packaging and converting industries and the PaperCon conference is the premier event in the papermaking technology calendar. This year’s event in Texas saw over one thousand registrants, with a sold-out exhibit and packed program sessions. Mill and paper company participation at this year’s joint TAPPI/PIMA event was the highest in more than a decade!

At the Dallas conference, Dr. Chen, along with ABB colleague Andreas Zehnpfund, represented the Dundalk R&D group by speaking on the topics of multivariable control techniques on supercalenders and closed loop fiber orientation control.

These two esoteric-sounding topics are, in fact, areas where ABB Dundalk is establishing a solid market position in process control. Expertise in the former was instrumental in Dundalk winning a very large order last year and involves optimizing the control of the machine that makes the paper this article is printed on so glossy! Calendering is the name given to the process of “buffing” the paper to make it shiny and smooth. The latter topic builds on the advantage ABB has in having the only on-line paper fiber orientation sensor in the world. This sensor allows the papermaker to adjust his machine in real-time to make sure the paper fibers are lying correctly in to ensure maximum strength and resistance to curl (if the paper is heated in a printer, you don’t want it to be jammed by curling paper).
How will you make yours smaller?

ABB is helping papermakers reduce their energy footprint everyday.

The global demand for energy is not declining, cost will only rise. ABB is helping paper companies improve efficiency and reduce their energy footprint by supplying energy efficient technologies for all aspects of the pulp and paper process. Be it drives, quality control, web imaging, electrification, collaborative production management solutions — we are committed to reducing the global energy footprint.

To discover more, visit www.abb.com/pulpandpaper

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