PerformancePartner

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ABB’s voice in the pulp & paper industry

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K2

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ABB's Help Desk is open 365 days a year to help connect callers with the right source of information and ABB's global logistics network is strategically positioned to provide fast parts and repair service throughout the world, 24 hours a day.
Dear reader,

As a major supplier to the pulp and paper industry, ABB is in a unique position to create a positive impact on our customer’s bottom line. With the broad penetration of ABB products into the pulp and paper industry, that is no understatement. Our last study showed over 85% of mills have some product from ABB installed and running. Whether it is a transmitter, a transformer or a complete automation system, some part of the process depends on ABB. Our past as well as our future success is based on one very important fact: ABB has and must continue to provide innovation in our products and services.

While performance is still a primary factor used to differentiate competitive offerings, lifecycle costs are becoming more important. With the launch of Papermaking Suite 3.0, ABB delivered the broadest line of automation solutions all based on the same underlying architecture. Each solution, while maintaining its unique performance advantages, is built on the ABB 800xA System. A recent ARC study (PAS Maintenance Costs – Significant Opportunity for Saving, September, 2004) showed that the average plant has 34 automation systems, the average cost for spares was USD 66,700 per system, the cost of training for maintenance was USD 62,000 per system and that automation system maintenance represented 5.5% of the operational budget. By reducing the number and type of automation systems in a mill, ABB is reducing the operational costs.

ABB offers an extensive service portfolio. With ABB preventive maintenance services, customers can minimize lifecycle costs and maximize productivity. ABB Paper Machine Optimization service engineers work closely with mills to answer key process questions and benchmark fiber line control, machine control, profile capability and response performance, identifying opportunities for improvements. Drawing on experience gained from developing these types of solutions with pulp and paper customers over many years, ABB is able to offer flexible and cost-effective services tailored to fit the specific needs of the customer.

A lot of the content in this issue is on products and concepts that lower operational costs, increasing process and operator efficiency. We believe ABB can add a lot of new value by focusing on this part of the business and the recent ABB maintenance outsourcing order awarded by Carter-Holt Harvey, is a strong indication that we are right. This order will be ABB’s second from this customer and covers their Tasman pulp mill in Kawerau, New Zealand.

Lasse Mäkelin
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Have you ever wanted another set of eyes to keep track of your production? Are you losing operational efficiency because you seldom seem to be in the right place at the right time? Today’s most optimized paper automation systems do not equip papermakers with all the tools they need to make fast, well informed decisions.

Lights, camera, action...

To help keep pace with ever-increasing product quality demands and to achieve optimal paper machine operation, ABB introduced, at the Helsinki PulPapel 2004 trade show in June, Process Watch and Web Watch that enables papermakers to “see” readily available data to solve problems and optimize the process across the mill.

Expert diagnosis for improved product quality

Process variations caused by poorly performing equipment such as pumps, motors, valves, etc. create major problems for papermakers. Often these variations are amplified by the control system and many times lead to poor quality products, unscheduled downtime and lower productivity. With ABB’s AdviseIT Process Watch, papermakers can easily diagnose these variations without leaving their Quality Control 3.0 display.

AdviseIT Process Watch takes processes to the max through real-time integration of process and condition monitoring solutions with IndustrialIT Quality Control 3.0.

Consisting of a scanner interface module and a small subset of process and condition monitoring I/O, AdviseIT Process Watch isolates process areas contributing to poor quality and advises operators on the right corrective actions. When process or condition problems crop up, integrated alarms and event lists alert personnel.

Specialized modules such as Stock Watch, Press Watch and Calendar Watch, provide detailed monitoring of the fiber line, press section and calendar stack.
AdviseIT Process Watch

- Embedded machine condition monitoring within IndustrialIT Quality Control 3.0
- Integrated alarm and event lists for QCS, process and condition monitoring
- Pre-packaged, process specific solution modules:
  - Stock Watch to monitor the fiber line
  - Press Watch to monitor the press section
  - Calender Watch to monitor the calender stack
- On demand analysis “pop-up” windows on the QCS profile display(s)
- Available engineering tool set with Time Synchronous Averaging, Contribution Analysis and Spectral Analysis with Frequency Banding
- Expert advice for correcting existing or impending off-quality conditions

AdviseIT Process Watch advantages

- 24x7 analysis of key process areas
- Extend equipment life
- Avoid unscheduled downtime through prompt alert of pending failures
- Less off-quality paper
- Root cause identification of sheet quality problems
- Eliminates the need for expensive, stand alone vibration analysis systems

Providing operators with 24/7 analysis, AdviseIT Process Watch extends equipment life as it helps mills avoid unscheduled downtime and improve paper quality by delving into root causes. Mills that are considering expensive, stand alone vibration analysis systems will find that AdviseIT Process Watch within Quality Control 3.0 is a great entry level solution that can save the mill money.

In-depth QCS video analysis

Ever wished you could be in all places at all times? Is there a particular problem area on your machine that requires constant monitoring to troubleshoot? AdviseIT Web Watch uses a single high-speed camera integrated into the Quality Control 3.0 system, to provide the increased visibility you need to improve operations.

From sheet defect detection to release angle analysis to hydraulic knife imaging to open draw monitoring, AdviseIT Web Watch continuously monitors the process, alarms operators when problems are discovered and automatically plays a digital movie of the process event. All actions are easily accessible from an operator’s Quality Control 3.0 display.

With video analysis for process troubleshooting and diagnostics readily available from a portable, plug-n-play single camera, operators can probe the true causes for sheet defects and operational inefficiencies.

AdviseIT Web Watch

- Embedded high-speed camera imaging within IndustrialIT Quality Control 3.0
- Integrated alarm and event lists for QCS, process and condition monitoring
- Portable, plug-n-play single camera video solution
- Continuous digital movie recording and event capture
- Hands-free image analysis windows – automatically display movies of problem areas

AdviseIT Web Watch advantages

- Avoid unscheduled downtime through prompt alerts of pending failures
- Root cause identification of sheet defects
- 24x7 digital recording of key process areas
- Eliminates the need for expensive, stand alone camera systems

By encompassing modern high-speed video imaging technology and embedded condition monitoring, the AdviseIT Web Watch and Process Watch features dramatically expand the boundaries of traditional QCS. Unlike any other solution on the market today, Web Watch and Process Watch provide papermakers with the process information, tools and “another set of eyes” that keep track of production and greatly improve operational efficiency.

Don’t rub your eyes, because this is in fact a gold scanning platform on center stage in the ABB booth at PulPaper 2004 in Helsinki. This concept scanner was on display to celebrate ABB’s 7,500th scanner for the pulp and paper industry. ABB is set to deliver the milestone 7500th scanner to Holmen Iggesunds Bruk in Sweden.
A world-class manufacturer of liquid packaging board, white top, kraft, sack paper and fluff pulp, Korsnäs has succeeded in maintaining its market position through sound investment and a strategy built around the use of state-of-the-art technology that includes ABB quality control systems, distributed control systems, web inspection systems and drive systems.

The mill's board line has two paper machines, two recovery boilers, the chlorine/oxidation process, recaustecizing lines, three fiber lines and the wood yard. All of these processes have previously been run from 13 control rooms equipped with automation and control systems from ABB.

Even though the recent investments had benefited both production and quality, the mill managers felt there was still more to be gained. An in-depth analysis of Korsnäs' historical data showed that the most common incidents affecting productivity were occasional sheet breaks, minor process upsets and delays caused by non-availability of the pulp lines or mechanical equipment. The next big opportunity was therefore perceived to lie here.

**K2 project**

While realizing that traditional investment, new technology and new equipment bring a predictable return, the Korsnäs project team also wondered what else could be done to achieve an overall improvement. Three key goals were identified:

Create a new team organization: Korsnäs, like many mills, had been operating with a traditional, vertical organization with engineering, production, maintenance and planning teams. As in most organizations, problem-solving was often looked at from an engineering, production or operations standpoint. This meant that a change implemented by the maintenance department to solve a pump problem was just as likely to have an effect on production or quality later on. Also, most problems discovered on an off-shift were deferred to the main-day shift, whose staff were able to handle most repairs. These delays had an impact on production and quality.

From this pool of valuable resources, it was decided to create a one-team organization and widen the base to include traditional white-collar jobs. The matrix organization would consist of cross-functional shift teams that would be responsible for production, repairs and quality issues for their shift, and provide the attention necessary for problem-solving and tweaking process upsets and repairs as they occurred.

Each shift would appoint a team leader who would be responsible for everything from the wood yard to roll handling, in other words everything from 'chip to ship.'

Consolidate control rooms: Some paper mills are built these days with a single, central control room. When the mill is constructed on a greenfield site, a central control room presents few problems. However, transforming a site with 13 control rooms into one with just one or two control rooms is quite another task, and can present a considerable challenge.

The mill's goal over the 10 years it has been working with ABB has been to automate all areas where automation makes sense. In recent years, this strategy has resulted in automation of everything from the wood yard to shipping.
In early 2002, the Korsnäs paper mill in Gävle, Sweden embarked on an ambitious program to fulfill its vision of mill-wide automation and control room consolidation. Building on its decade-long partnership with ABB, a strategy was developed that aimed at creating a new organization and increasing productivity. Like the world’s second tallest mountain, the program’s code name was K2.
The long-term vision has been to consolidate the 13 control rooms into two control rooms. With the new team organization in place, control room consolidation was the next logical step. Although there had been no major process issues over the years, equipment availability was sometimes a problem and process bottlenecks did occur. It was seen that concentrating all the automation and mill-wide information in two centers would provide the new shift teams with the right information at the right time. And, as everybody knows, well-informed operators make the best decisions.

Be objective driven: Over the years Korsnäs had come to rely on a set of key performance indicators (KPIs). Recording tracking and trending with KPI data consistently provided an analytical insight into problem solving. Much of the K2 project has been based on this data; the team’s challenge was to achieve long-term success and sustainability through a solution that would allow daily monitoring and feedback on performance.

Project implementation
The K2 project was launched in January 2002, after a period of intense planning. Of the total project costs, 40 percent went toward automation, another 40 percent toward civil and other engineering, and 20 percent toward training and miscellaneous activities.

The overall automation strategy for the mill was driven by four common requirements:
- It must easily interface to existing systems
- It must link to PI historian
- It must be reliable and serviceable
- It must be easy to use

A long-term automation strategy
The K2 project points to an emerging industry trend – that of long-term strategies and partnerships between mills and their automation suppliers. ABB and Korsnäs have pioneered this trend and can already look back on a long history of close cooperation. An evolutionary approach to automating the Korsnäs mill, involving both software and hardware migration, is ensured by the mill’s policy of utilizing new technology as it becomes available. Acquiring new technology built on existing architecture is a cost-effective way for the mill to remain competitive. ABB’s broad product portfolio provides further benefits to the mill by providing distributed control systems, quality control systems, drives, advanced controls and collaborative management systems, all in an integrated solution.

When the time came to consolidate the control rooms, any doubts Korsnäs had been having soon vanished. Since the mill’s current systems were from ABB, operator training was minimized. To provide further standardization, ABB updated all legacy operator stations with new Operator human-system interfaces. This ensures that the operator stations all have the same look and feel, yet are still compatible with existing controllers.

Productivity up by six percent
As already mentioned, when constructing mills on greenfield sites the trend today is toward having one central control room. Such a site is the Visy mill in Australia. Equipped with ABB paper automation solutions, this mill is controlled entirely – from the pulp process through manufacturing to warehousing – from one control room.

Consolidating multiple control rooms on existing sites is, nevertheless, still considered to be a challenge. Korsnäs not only took up the challenge, but by all accounts has also benefited from results that have more than met the original project expectations. These have included a
For hundreds of years, Gävle's strategic location has been the key to the small city's fortune.

Situated on central Sweden's east coast, just an 80-minute train ride from Stockholm, Gävle is well-placed for transportation and industry. Gävle is a harbor town with an abundance of local waterways, and it is in the midst of an area rich in natural resources like iron and wood.

Industry has played a guiding role in Gävle's history. With its wealth of resources and easy accessibility to boats, trains and main roads, Gävle has developed into a city of 91,000, where technology and innovation have made their mark.

The Korsnäs paper mill lies to the south of Gävle. Built in 1899 the site was chosen for its strategic location on the shore of the Baltic Sea and the banks of the Dal river.

The Dal runs through the forests of central Sweden from its source in Norway. By the 1890s timber could be floated along the entire length of the river and, after processing at the mill, loaded directly onto boats and shipped to market.

When it was opened the mill was the largest in the country. It had been moved lock, stock and barrel from its previous location near Falun in what was one of the biggest industrial relocations of the time.

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When it was opened the mill was the largest in the country. It had been moved lock, stock and barrel from its previous location near Falun in what was one of the biggest industrial relocations of the time. Machinery, buildings and some 2,000 people were transported to the new site 80 kilometers further east.

A few kilometers inland on the Dal is Älvrkarleby, one of Sweden's first hydro-power plants. Built in 1917 the plant still generates 126 megawatts of electricity and is a research and development center for hydropower technology.

Älvrkarleby is one of many sites that illustrate how iron, timber and water have molded the region's history and industrial development.

The Dal has been a source of energy ever since the early Middle Ages. The energy was harnessed as it rushed over falls and rapids, and was used to power mills, forges and foundries.

All over the Gävle area there are archeological ruins that testify to the widespread use of metallurgy and that show how iron making has evolved over the past thousand years.

One of the most important metallurgy sites is Gysinge, which was founded nearly 300 years ago when iron making first became an industry. Gysinge was a complete processing plant, with furnaces to melt ore and foundries to forge iron. It was also a self-contained community, with its workers and their families living on-site.

The city has many technology and service businesses, and Gävle Technology Park is rapidly expanding to include IT companies. The city's major university, Gävle University, with 12,500 students, is located close by. Much of Gävle University's research work is in the housing, building and planning industries.

Gävle lives up to its past promise as a center for innovation, as the city continues to open its doors to knowledge and imagination.

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Sustainability – the key to success

Like changes in any organization, the changes undertaken by Korsnäs need to be sustainable in the long term to be successful. How an organization embraces such changes is at the heart of every successful operation. At Korsnäs, daily shift meetings are used to reinforce the message and make sure team members focus on the same goals. To this end, the teams have developed a matrix of common goals and objectives that are reviewed daily. These data are evaluated together with statistical data from the previous shift in a trend analysis of key process indicators such as quality, production, sheet quality, caliper weight and cross-direction profiles. Also reviewed are roll quality and customer orders, plus the production results from the last 24 hours.

This focus is reinforced throughout the mill by real-time performance monitors that provide on-line updates of ‘time between sheet breaks’, the machine’s speed, production and other performance figures. All team members are kept informed about the mill’s status at all times.

The K2 project points up the strengths of the long-term partnership between Korsnäs and ABB. Installing new ABB technology based on existing architecture assures the mill of a fully integrated control and automation solution. The mill’s strong results since the upgrade are a powerful argument for such a strategy.
ABB Pulp & Paper has always focused on delivering customer value during the entire lifecycle of a specific investment or a whole mill. Service has been a core ABB business for decades and we have been able to develop strong local service organizations in all major geographic pulp and paper markets. By applying the knowledge we have obtained while working at pulp and paper mills around the world, ABB has been able to reduce annual maintenance expenditures and maximize quality for papermakers.

Service is at the heart of the elements that make a pulp and paper mill more cost effective. ABB’s focus on delivering first rate customer value throughout a mill’s lifecycle has proven to be a benefit for papermakers throughout the world. Our comprehensive service offerings provide needed support, particularly in operations where outsourcing has made production more challenging.

An ABB staple: demand service, generally spare parts or “repair and tune” support, delivered on site or remotely. A core ABB business for decades, we have developed strong local service organizations in all major geographic pulp and paper markets.

In paper mills, where maintenance personnel play a direct role in operations, ABB’s service offerings are especially valuable because of our experience in helping maintenance staff work more effectively. Our team approach to delivering support for paper machine drives has increased productivity. And preventive maintenance has brought extended life to papermakers’ systems, increasing product quality and keeping down costs.
Full service for Carter Holt Harvey’s Kinleith mill

Carter Holt Harvey, a leading Australasian pulp and paper company, is one of the biggest employers and forest owners in New Zealand.

Despite their size and success, in 2002 Carter Holt Harvey faced a dilemma. Company executives realized they would have to either cut their Kinleith, New Zealand mill’s operations and maintenance costs significantly, or shut the plant down.

Located near the town of Tokoroa, the Kinleith mill employs 420 production specialists and 170 maintenance personnel. The mill’s annual production capacity is approximately 600,000 t/y of bleached and unbleached pulp and special board.

Carter Holt Harvey management heard about ABB’s excellent maintenance expertise and global presence. They were impressed by ABB’s solid reputation, long presence in Australasia, and track record for successfully implementing changes that affect a corporation’s culture.

Because Carter Holt Harvey wanted to try and keep the Kinleith mill operating – and they knew they could not manage to make all the changes needed by themselves – company executives decided to consider ABB.

Carter Holt Harvey began talks with ABB, and soon learned that ABB’s long-term plans and values closely resembled their own. The positive signs were all there, and the two companies signed a full service agreement that became effective in January 2003.

Drawing on global experience

“The Carter Holt Harvey’s relationship with ABB will play an important role in giving the mill a sustainable future,” says Peter Springford, Chief Executive Officer of Carter Holt Harvey. “In the intensely competitive global pulp and paper market, and against the backdrop of low pulp prices and a rising Kiwi...
dollar, Kinleith has to change if it is to survive.”

Springford says by applying “best practices” – lessons learned at other process plants around the globe – ABB will reduce the Kinleith mill’s annual maintenance expenditures and improve its overall plant operations. They will also work on changing the mill’s culture to make workers more productive.

At most process and manufacturing plants, the maintenance team consists of local employees. While they have a thorough understanding of the plant and its equipment, their experience is limited to just that facility.

Kinleith’s maintenance personnel can draw on ABB’s worldwide experience from all kinds of plants – from pulp and paper to pharmaceuticals. By sharing their expertise with workers, ABB is helping to reduce maintenance costs and improve the way existing plant equipment runs.

At Kinleith, the cost-saving objectives ABB is putting in place are ambitious. One of the central elements of the Kinleith partnership agreement is OEE. OEE is being used by both maintenance and production as a performance indicator, because it is in the common interest of both parties to ensure and maximize performance.

What does it take to create a performance-based contract like the one at Carter Holt Harvey? These deals are not off-the-shelf solutions. They must be tailored to a company’s specific circumstances.

ABB’s experience in providing performance-based solutions for a wide variety of customers facing different situations, is helping company personnel create methods that will raise a plant like Kinleith’s bottom line. Carter Holt Harvey is leveraging ABB’s expertise in designing flexible but cost-efficient processes, used from start-up through implementation.

Services optimize paper machine drives productivity

ABB services for drives maximize paper machine performance and functionality, ensuring efficient interfacing with other process systems. An experienced ABB project support team including 30 certified engineers from around the world, offers highly-organized and experienced project management and engineering.

In particular, ABB optimizes rebuild projects. Because they are highly-experienced – performing an average of two start-ups each week – ABB technicians can smoothly add the latest technologies to aging systems and offer traditional on-call services both during and after warranty. The ABB project support team also delivers detailed analysis and tuning services that improve drive system performance.

Runnability+ to extend systems, remote services for efficiency

Runnability+ service, a fixed-price package, evaluates and measures drive systems while it controls performance. Runnability+ helps papermakers get the most out of their existing systems by recommending improvements that help them delay having to make new investments. Minor adjustments are done immediately on site.

Remote service is an efficient tool that provides swift assistance when it’s most needed. Performed online by an experienced ABB team, remote services provide fast system access that saves unplanned downtime and enable rapid process stabilization.

Remote connectivity promotes long term online monitoring to verify process stability. As part of a plant’s preventive maintenance program, remote connectivity can detect unexpected long-term variations in process values before production disturbances occur.

“ABB lifecycle services are helping us extend the lifetime of the system.”

Preventive maintenance smooths operations at Loparex

Preventive maintenance helps papermakers achieve better product quality and keep down costs. The preventive maintenance program is ABB’s method to ensure superior functionality. Some of the elements of the program are lifecycle analysis, site survey and preventive maintenance.

Loparex Oy, Finland, part of the UPM-Kymmene Group, is a leading manufacturer of siliconized papers for sanitary products as well as a global supplier of release liners for all product segments.

Loparex has first hand experience in the strengths of ABB’s Preventive Maintenance Program, which includes optimizing equipment life, keeping maintenance costs under control and making maintenance costs predictable. Loparex uses their program for their two ABB Web Imaging Systems.

Thanks to the information obtained from their site survey, Loparex was able to begin action to acquire a new and needed PC and to take specific corrective measures in a timely way says Ilkka Matikka, a Loparex automation engineer.

“Faultless operation is important,” says Matikka. “We deliver only defect free papers to our customers.” Hospitals and the food industry are two instances where Loparex’s products are used, states Matikka. The hygienic needs in both of these areas makes product quality even more important.

The preventative maintenance program comprises a wide range of activities: inspection, various measurements, cleaning and part replacement. According to Matikka, regular maintenance gives Loparex increased assurance that their Web Imaging Solutions accurately display defects, as it guarantees faultless operation and reliability.

“The maintenance schedule facilitates optimizing maintenance procedures,” says Matikka. “ABB lifecycle services are helping us extend the lifetime of the system.”

ABB’s four-phase lifecycle models prolong equipment life because they maximize efficient usage and support a papermaker’s planning process by providing needed information up front.

Matikka considers the lifecycle model useful for planned maintenance. “All equipment has its own service life,” he says, “nothing is eternal. The lifecycle model helps us prepare for replacements and reserve money for investments.”
New IndustrialIT orders

Canada
Scott New Westminster in western Canada has ordered a new ABB MeasureIT Scanning Platform SP700 and sensors. ABB is also supplying a new steambox interface, plus upgrades to an existing ABB Nexus QCS and an AccuRay OPC server.

Norske Canada has placed an order for a system upgrade project. ABB will initially upgrade the ABB Nexus QCS, the steambox interface, the existing scanner, and add an AccuRay OPC server. In a second phase ABB, using its StepUp program, will supply System 800xA User Consoles and add a Profile Historian.

China
Asia Pulp and Paper Co. Ltd. has signed a contract worth more than USD 40 million for process automation, drives, Quality Control Systems, electrification, and related services. ABB’s technology will support the installation of a new fine paper machine at the JiangSu Gold East mill in Dagang. The new paper machine will be the world’s largest in installed power at 120 megawatts. The machine is scheduled for startup in March 2005.

Sun Paper of China has ordered a new Paper Machine Drive system for its PM19 production line. The line includes new drive systems for a 4.9 meter wide coater and three different finishing machines on the line. The finishing line includes 120 AC drive units. The machines will start up in 2005.

Egypt
Nuqul’s Al-Sindian tissue mill has purchased the latest ABB technologies, including a complete IndustrialIT system with DCS, QCS, drives, electrification, MCCs and instrumentation systems. ABB is supplying the mill with an AC Extended Automation System 800xA for control and drives, Profibus solution for field control and instrumentation and Intelligent Motor Control Center with INSUM-DCS Interface. The order also includes startup, commissioning and training services.

Finland
ABB’s Vaasa unit will design, supply and install an extensive electrical system at M-real’s new BCTMP plant in Kaskinen. The delivery scope includes a 110 kV gas-insulated switchyard, power transformers, medium voltage switchgear, refinery motors and low voltage equipment. Engineering, installation, startup and training are also included. The new BCTMP mill is slated to be ready in autumn 2005.

ABB will supply a data warehouse solution, based on ABB’s IndustrialIT Process Data Management, to support the integration and consolidation of numerous systems associated with the planning and optimization of energy supply for Helsinki Energy. The system will be installed at Helsinki Energy’s main control center with a startup date of March 2005. Helsinki Energy is one of the largest utility companies in Finland, selling electricity to over 300,000 customers.

France
Turckheim (Mattissiere et Forest, Usine de Turckheim) has ordered a Web Imaging System for their 4,600 mm wide newprint machine. The project will be coordinated from Finland with commissioning and training handled by ABB France.

Germany
Papierfabrik Rieger, located about one and a half hours east of München, purchased an ABB Web Imaging System and classifier for their 2.5 meters wide paper machine that produces white top liner.

Italy
Poligraphico has ordered ABB’s Web Imaging System with classifier for their 2,300 mm wide paper machine. The Web Imaging System will have a unique feature that will detect the presence or absence of water marks.

New Zealand
ABB signed a full-service alliance agreement with Carter Holt Harvey Pulp & Paper for their Tasman pulp mill in Kawerau. The five-year contract, worth more than USD 29 million, covers all reliability and maintenance services. The new full service alliance is a performance-based agreement measured on equipment effectiveness, maintenance costs and maintenance spares inventory value. ABB will direct all maintenance services, management of spare parts and all inventory at the Tasman mill.

South Africa
Mondi Business Papers has placed an order for a 5.8 meter wide Metso WinDrum Pro winder with ABB drive system. The system includes 5 drive points and the new winder drive is designed to operate on 2,500 m/min web speed with over 3,3 m meter rolls.

Spain
ABB will design and supply an extensive Papermaking Suite 3.0 solution for S.A. Industrias Celulosa Aragonesa’s, SAICA, new liner machine PM10 in el Burgo de Ebro (Zaragoza). ABB will deliver an IndustrialIT Extended Automation System 800xA for DCS, a quality control system and a drive system. PM10, scheduled for startup in early 2006, will have a 8,550 mm wide sales and a speed of 1,500 m/min. The machine will produce 400,000 tons per year.

ABB signed a contract to supply a drive system to the new newprint production line at Holmen Paper Papperla Peninsular, S.L. The drive system, including 58 drive sections, will control and monitor the whole production line including PM62 and two Voith winders. ABB’s contract also includes spare parts, installation and cabling of equipment, startup and training.

Sweden
Korsnäs Ltd. has placed an order to upgrade their existing Quality Control System on PM4, and a new Web Imaging System. The delivery, covers the upgrade of 4 MeasureIT Scanning Platforms and the existing operator environment will increase to 6 workplaces and an engineering station. The latest release AC450 will give the QCS system profile control for basis weight, moisture and coatweight as well as machine direction controls for basis weight, moisture, caliper, ash, coatweight and advanced MD controls for Auto Grade Change. The new generation Web Imaging System will have Advanced Classifier with a neural network based classification tool that can be taught to “recognize” type defects such as holes, spots and coating streaks and pinpoint their root cause. The new systems will be in operation in May 2005.

As a supplier to Kvaerner Power, ABB is providing Stora Enso’s Skoghall mill in Karlstad, with an automation system for their new recovery boiler. The delivery includes a new Extended Automation System 800xA with six Process Portal operator stations and seven AC 800M process stations, as well as motors, frequency converters, controls and instrumentation.

ABB won an order to provide power distribution, process electrification and drives for Metso Paper’s 5C paper machine PM12 delivery to Stora Enso’s Kvarnsveden mill. The new production line will be one of the largest in the world. ABB will supply sectional drives, power distribution, process electrification, building electrification and an erection time power distribution system.

United States
Bowater, Coosa Pines, Alabama, has ordered a new 800xA DCS system for their PM3. The new 800xA will provide the foundation to integrate the existing ABB Drives and the existing ABB Web Imaging System.

PH Glafelter, Spring Grove, Pennsylvania, has purchased a new ABB Dilution Profiler.

Republic Lawson, Oklahoma, has ordered a new Smart Advisor System consisting of 14 cameras with MDWI. Eight cameras will be mounted at the reel and will be used for hole detection using the MDWI application.
ABB launches the next-generation IndustrialIT CPM solutions for the pulp and paper industry

Venice, Italy was the scenic background for ABB’s Collaborative Production Management (CPM) User Group Meeting that took place in October, 2004.

The CPM User Group Meeting was very well attended by European and Australian pulp and paper customers. The 2 day event combined presentations on application innovations, IT advancements and user experiences. Lasse Mäkelin, head of ABB's Pulp and Paper Unit, greeted the meeting's participants and shared his vision for the future of CPM.

The meeting offered an excellent place to evaluate ABB's latest IndustrialIT CPM technology and analyze service possibilities. ABB took the opportunity to launch new CPM software and a new user interface for the pulp and paper industry. CPM solutions cover software products for production scheduling and optimization, production and quality management, energy management and optimization, and process data management.

The new releases are based on Service Oriented Architecture (SOA) that has been designed to provide greater agility, flexibility and uniformity to users in dynamic business environments by open standards based computing. Service oriented approach provides users with understandable, high-level business services they can call upon as needed.

Furthermore, the new application releases offer a wide range of innovative features giving remarkable operational advantages to pulp and paper mills. New features include multi-mill optimization, machine reel planning, sample handling, run and performance analysis in trend charts, conditional history recording and retrieval.

ABB’s CPM solutions are built on decades of experience in delivering world-leading, industry-specific CPM and automation systems, expanding them to the enterprise, and tightly integrating them with corporate business systems.

The new generation user interface, having role-based users, filters information according to the role the person has in the company. Therefore only the needed information is shown, neither more or less. By sorting information acquisition, decision support and communication the right person gets the right information at the right time.

Innovative ABB technology and integrated solutions excite Spanish papermakers

ABB Sistemas Industriales hosted Spanish pulp and paper customers at a two day seminar held in AC Los Enlaces Hotel in Zaragoza, Spain, in June, 2004. Over 40 customers from 18 mills attended, including customers from Saica, Holmen, Europac, Kartogroup, GP, SCA, Tarraspapel, Smurfi and Stora Enso.

Of great interest to seminar attendees: Papermaking Suite 3.0, the integrated concept that includes the Extended 800xA Open Control System, Quality Control, Web Imaging and Drive System, all based on the common 800xA system. Francisco Albiach, ABB’s pulp and paper manager in Spain, led a particularly interesting introduction to Collaborative Production Management.

Participants representing different mills producing a wide spectrum of paper grades, took advantage of the opportunity presented by the seminar to discuss a variety of aspects of pulp and paper production. The seminar’s second day, when tissue customers exchanged ideas and became deeply involved in discussion, was especially popular with attendees.
What's behind your paper?

Introducing the latest IndustrialIT Drive Solution.

We have developed our new Paper Machine Drive PMC800 solution to meet your requirements for perfection: reliability, efficiency, safety, availability and integrated functionality.

Perfection at start up. Threading the sheet is a challenge. To guarantee success, mills need to use all of their system’s capability at start up, the first time and every time.

Perfection when running. Our drives system is optimized to deliver the best performance for every grade you produce. We use our dedicated pulp and paper application expertise to ensure the highest performance every day, for every grade.

Perfection over the life of the system. Our commitment to support derives from a lifetime of experience with Paper Machine Drives. Whether you choose a full drive upgrade or an incremental upgrade program.

The PMC800 drive system is part of the Papermaking Suite 3.0 family.

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