TECH TRENDS

The fork that keeps track of what you eat

-the intelligent fork can also be programmed to communicate with fx insulin pens

Read more on the last page

Prevas purchase APC

Prevas has purchased the Swedish company APC, which is a leading company in the field of controlling and optimising the development of steel production.

Read more on page 3

Time-to-market

With Prevas as a development partner, Cardlab will set the future standard for intelligent plastic cards.

Read more on page 4

Save time and money

Competitive levels receive a boost when development projects are based on ready-made development platforms. Savings of 30-80 percent can be achieved, both in calendar time and in development costs.

Read more on page 6

Continued full steam ahead

Recession and crisis in the world economy. One pessimistic scenario after the other has been depicted over the past few months. Thus far, however, there are no signs of flagging trends or recession in our industry. On the contrary, Prevas' customers within both product development and the industry seem to have increased their rate of investment.

The turbo speed required of the development departments is a new trend – they increasingly have a shorter amount of time to develop new and more complex products. Industrial enterprises currently face very tough global competition in which long-term and structured working methods including constant improvements are a must. This is particularly true since the trend towards completely integrated production within companies and with customers and suppliers has continued. Everyone involved is dependent upon deliveries being made on time and at the right price.

Customers in control

"Time to market" is a key concept, no matter if the issue involves fast-paced consumer products or large and complex production systems. In order to meet demands, innovation in terms of new technical solutions, constant productivity and quality improvements are needed.

The fact is that customers and consumers are to an increasing extent expecting more. Communication and electronics must be integrated into basically all types of products. There is a great deal of impatience including very little tolerance to having to wait. If the normal supplier is unable to deliver on time, other alternatives are easily accessible. The effort required to order elsewhere is often no more complicated than hitting a few keys on a computer.

Development partner of central importance

This issue places a great deal of pressure on companies that are active in a market in which time and cost dependency are two of the most important competitive parameters. As a direct consequence, placing segments of a development project or even entire development departments outside the company itself has become increasingly common.

Flexibility results, which allows development resources to be easily increased or decreased to match customer need. Complete platforms are also being demanded to an increasing extent since the interplay between time and finances can be improved.

Prevas works closely with development and production departments at large and small companies. These companies in no way reflect the negative image of the future that is being depicted in the mass media; rather, belief in the future abounds. So my conclusion is – if signs of a slowing economy are being sought, Prevas and our customers are not the places to look.

Mats Lundberg
CEO Prevas AB

TECH trends

Technical trends, inspiration and news from Prevas AB

Prevas is an innovative IT company with a strong corporate culture that offers its customers solutions with a world-class competitive edge.
Prevas develops intelligence in products and industrial systems.
Prevas has offices in Västerås, Stockholm, Göteborg, Malmö, Linköping, Uppsala, Karlstad, Copenhagen, Lyngby, and Århus, as well as Oslo.

For more information on Prevas, please visit
www.prevas.com

Prevas

An extra dimension to military surveillance

Exensor Technologies in Lund and Prevas are on the verge of completing an advanced solution for the military, which will make it possible to detect passing vehicles and persons. Since 2003, the two companies have been collaborating on the first version of the military solution, which was ordered by the German military. The surveillance solution consists of a sensor, buried beneath the road, which gathers information on all passing traffic. In June 2007, Exensor Technologies once again turned to Prevas to create a new and improved military surveillance product to run on a different platform, to significantly enhance both battery life and sensitivity.

The oil industry focuses on maintenance

The large American concern FMC Technologies has chosen Prevas as its cooperation partner for a comprehensive maintenance project. FMC Technologies specialises in systems for the oil industry, and Prevas is involved in developing a new, efficient system for oil well maintenance. As well as design and development, Prevas is playing an important role in implementing the system, which is based on Wonderware Industrial Systems.

Solid growth at Prevas

Prevas has just published it annual accounts for 2007 which show a company undergoing solid growth. Turnover amounted to more than DKK 470 million compared with DKK 278 million in 2006, and the number of employees rose from 300 to 550 which makes Prevas the largest company in its sector in Scandinavia. 2007 was also a year of substantial investment. Prevas established a number of centres of excellence, and now has eleven sites in Scandinavia, one of which is a newly established office in Norway. In Denmark, 2007 saw Prevas purchase the companies IO Technologies and Kasmatic Innovation, and at the same time establish an office at the DTU [Technical University of Denmark] in Lyngby. A new office was also opened in Kista in Sweden. With order books full coming into 2008, Prevas expects this positive development to continue.

Vestas and Prevas

Time-to-market is the most important parameter for almost all markets today. This is the case for the Danish company Vestas, which is a world leader in the wind power industry.

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A constant demand for new products and an increasing requirement for advanced functionality means that most companies are no longer able to develop technologies from scratch themselves. Vestas and Prevas have been working closely together for some time on the next generations of wind power plant. New projects are now being developed in which Prevas can use its vast experience and broad skills base within the energy sector.

Ragasco and Prevas in partnership

Ragasco AS is the leading player on the European market in the development and production of gas cylinders. Amongst other things, Ragasco is behind the exciting development of gas cylinders for gas-powered Mercedes cars. Prevas is implementing a solution, which monitors the traceability, quality and efficiency of production. Everything is built on the Wonderware System Platform.

Prevas has purchased APC

Prevas has purchased the Swedish company APC, which is a leading company in the field of controlling and optimising the development of steel production. The purchase has already enabled Prevas to initiate its first major project; a job for the huge stainless steel supplier, Outokumpu. Prevas is contracted to supply a FOCS system to help Outokumpu in Avesta, Sweden, to optimise their heating system by examining both energy emission and product quality. The project is to be implemented using advanced mathematical calculation models which Prevas can access through its own programs. The steel sector is currently experiencing a significant upturn in the market, which is one of the main reasons behind the purchase. Prevas has already signed the next project. The Finnish company Ruukki has ordered a system for its two furnaces. The size of the contract is of the order of four million Swedish kronor.

Time-to-market calls for flexibility

There is movement on the international market for intelligent credit cards. Not least for smartcards, where fingerprint recognition and intelligent two-way communication are just two of the many new options which will soon be available on the market. Competition is hard and success is hard to come by - it pays to be at the cutting edge.

Last summer the development companies Cardlab and Prevas started a process of close cooperation. The aim was, and is, clear. With Prevas as a development partner, Cardlab will set the future standard for intelligent plastic cards. The aim is ambitious, but as Cardlab's development director, Torsten Nordentoft explains, it is necessary to set standards if the skill levels are appropriate to do so.

- We are well on the way to establishing ourselves on the market for, amongst other things, secure methods of payment and personal identification. And this hasn't happened by chance. Whilst our competitors are spending time in protracted decision-making processes, we are using our time to construct a flexible working process in which decisions can be made quickly. If you have to be constantly at the cutting edge, both with regard to the market's general development and customers' requirements for the next generations of innovative cards, you can't let timing spoil the massive potential, says Torsten Nordentoft, emphasising that

- Timing cannot be bought for money. On the other hand, correct timing can make lots of money for your company. Conversely incorrect timing can bring a company down, because the globalised world waits for no man.

An example of good timing is the intelligent gift voucher from Cardlab and Prevas, which comes in credit card format. The solution has been popular in the USA for many years now but has not been ready for the Scandinavian market until now. The two cooperating companies were also ready, and the intelligent gift voucher is now in production.

Put timing on the company's agenda

Cardlab provides solutions to complex problems. Amongst other things, Cardlab is the only company which has provided solutions to problems in large-scale production technology, facilitating the production of multi-technology cards by the million, including cards with integrated batteries, coils, memories and biometric fingerprint readers. Once again timing and flexibility have prepared the way.

- Time-to-market depends partly on experience and the flexibility to act when action is required. But it also involves incorporating time-to-market into the business philosophy itself. If companies do this, they will automatically establish routines and tools that ensure that the same product or solution hits the market at exactly the right time, says Torsten Nordentoft.

The development of intelligent plastic cards is a niche market. But according to Torsten Nordentoft, this doesn't mean that you should rest on your laurels.

- Irrespective of whether you are a player in a market with many or few competitors, you still have to be at the cutting edge of development and user requirements. If you dream up a way of solving a problem which seems intractable, call up the management, find the money and get started. If your solution is the right one, don't waste time and don't delay.

"If your solution is the right one, don't waste time and don't delay"
Torsten Nordentoft, development director, Cardlab

System module with undreamt-of possibilities

Integrating the HM20 electronic module with advanced hardware block Prevas has created a solid base for a new development project, and that means a significantly reduced time-to-market.

The HM20 module is already a big hit with Prevas' customers. With the purchase of Realfast, it has been possible to integrate Realfast's intelligent IP block with the HM20 system module. In many cases, the HM20 can replace the traditional PC in a piece of apparatus. The HM20 is incredibly flexible and can be adapted to any type of apparatus. It can be used in windmills, call centre solutions, medical equipment or playing fields - its list of functions is almost endless. It can act as an advanced listening post and be used for signal processing, so that, for example, error diagnostics can be run on a windmill by listening to the vibrations. It can also behave as an IP telephony gateway and compress up to 120 conversations, before sending them over the net. In other words, it is a super-compact building block.

And now the building block's possible applications have just got even broader. When integrated with the intelligent IP block, it is possible to create even more complete solutions and therefore shorten development processes. This applies to CANbus for example, which is widely used in the automobile industry as well as in other sectors. Realfast has developed an IP block which can be integrated into the FPGA component in the HM20, thereby saving an external chip. Up to five CAN controllers can be integrated with the HM20 so you can build an advanced gateway from the Internet to CANbus.

HM20 supports both Linux and Windows CE.

Development platforms save time and money

Competitive levels receive a boost when development projects are based on ready-made development platforms. Savings of 30-80 percent can be achieved, both in calendar time and in development costs.

Only a few years ago it was customary to develop each development project from scratch. All electronic and mechanical systems incorporated into new CD players, washing machines, printers, etc. were developed by development departments, irrespective of whether the products were for large-scale or limited unit production. Nowadays, competition is so intense that issues of both time and economy in development projects must be strictly controlled, and more and more people are therefore looking to tools to make their development processes more efficient and cost-effective.

- Development platforms and modules are one of the areas experiencing rapid growth both in Scandinavia and in the rest of the world. Many companies have had their eyes opened to the opportunities afforded by ready-made platforms. Rather than sitting down with a soldering iron themselves, two thirds of the development project is already established and companies can get new products onto the high street with lightning speed.
- If unit production is limited, the cost-price can be kept at a reasonable level, as many costly development hours can be saved with a ready-made development platform, says Rune Domsten, CTO at Prevas, pointing to the fact that the demand for development platforms is not being driven by time-to-market and economic savings alone.

- The increasing complexity of products also makes people think very carefully before committing themselves to developing everything from scratch, says Rune Domsten.

Within the last year, Prevas has purchased the companies IO Technologies, RealFast, Teleca and Flextronics Design, and is today the largest company in Scandinavia involved in the development of intelligent products. In addition to their staff of highly qualified engi-

neers, each of these companies has brought with them state-of-the-art technologies, which today belong to a family of platforms, modules and IP blocks for software, hardware and VHDL.

As a starting point, all platforms are based on the latest trends in apparatus functionality, i.e. graphic interfaces, wireless Internet enabling and built-in intelligence, and at the same time employ the latest nanometer component technologies, optimising both performance and power consumption.

- Prevas is one of the most experienced companies in Scandinavia in the use of platforms for embedded development tasks. Our measurements show that you can save between 30 and 80 percent of time and development costs by using development platforms. This means that many development tasks can be undertaken in-house rather than outsourced to low-cost regions, without compromising competitiveness, explains Rune Domsten.

Prevas development platform support is based in two technology centres in Copenhagen and Stockholm. These two centres function as skills centres for international customers in connection with platform-based adaptation and development.

With the increased focus on development platforms, Prevas has also intensified cooperation with leading chip producers, such as Texas Instruments, XILINX, Analog Devices and many others. This ensures ongoing knowledge transfer and gives Prevas an advantage in the development process. Cooperation with universities has also been strengthened and there are now four research workers active in the fields of ultrasound, wireless networks, platform modularisation and biotracing.

Prevas AB expands skills base with purchase of Mikon.

Geir Jåsund, CEO Prevas Norge

Mikon is well-known for the development of flexible production and reporting systems (Industrial Information Software). In essence, these are systems which help to provide a better understanding of the processes involved in a specific production. With this purchase, Mikon's resources and skills have become part of the Prevas Group's wide-ranging product portfolio. The aim is for Prevas to also provide solutions for increased profitability and improved relationship management.

Mikon's managing director, Geir Jåsund, is continuing at the Prevas helm of the growing business.

- Prevas is starting at the very top thanks to Mikon's solid base and experience in Industrial Information Software since 1991. Amongst other things, Prevas has recently established a global customer reference database and can provide 24/7 customer support. We have also obtained a wide network of implementation partners across the world, says Geir Jåsund, managing director of Prevas.

An end to bottlenecks

Geir Jåsund explains that the most important job for him and his large department of 8 employees is to localise the factors which provide the shortest route to increased profitability for customers.

- There are three factors which are essential to general performance, irrespective of whether they involve a specific component or a complete production facility. These factors are availability, productivity and quality. We use the term OEE (Overall Equipment Efficiency) to give our customers a useable result based on the three factors. OEE makes it possible to identify the areas in which efficiency can best be enhanced, for example, by showing where quality, reliability and line equipment actually affect the result, says Geir Jåsund; he continues:
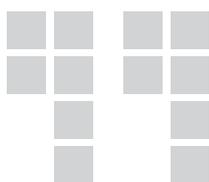
Prevas has reduced quality-related complaints significant

- The best way of describing our business in a few words is to explain that we help our customers optimise their use of existing equipment, therefore avoiding unnecessary investments.

Norgips saves time. And time is money!

Prevas' new solutions are based on a configurable standard platform, which is simple to install, configure and use. One of the companies that knows these solutions well is Norgips, one of the leading suppliers of plasterboards in Sweden and Norway. Norgips has more than 40 years' experience in the development and construction of plasterboards for European markets. As well as plasterboards, Norgips also provides a complete product programme, comprising steel profiles, filler, plaster and various tools.

- Prevas has reduced quality-related complaints significant and the processing time for customer complaints from three hours to a small number of minutes, says Dagfinn Mundal productional manager in Norgips; he elaborates:

- We have replaced a lot of manual operations. In fact up to 100 of our documents and forms are now automated.

Norgips is also using a review of all production factors to ensure that this results in lower costs and increased quality. Norgips checks these variables with support from Prevas.
The result is significant fewer quality-related complaints and a capacity increased by approximately forty percent. Higher quality and increased capacity has ultimately had the same affect on Norgips as system investment, namely increased profitability for the company.

The fork that keeps track of what you eat

The intelligent fork gives a helping hand to everyone who wants to know what they're putting in their mouths. As well as measuring weight, the fork can be used to measure the substances a foodstuff contains, which could be an important solution for diabetes sufferers.

Anyone who has been on a diet also knows how difficult it can be to keep track of how much and even precisely what you're consuming. It's all very well for the labelling to set out the ingredients, but how does this apply to the portion you have on the plate? This is where the intelligent fork can help.

In its simplest form, the intelligent fork is an intelligent calorie counter which measures the weight and the number of calories in the food we are putting in our mouths. But it can also be adjusted to measure other substances in food, such as proteins, fats, carbohydrates, sugars or specific ingredients, a boon to anyone who has to keep to a strict diet. This can include elite athletes, who need to consume a specific quantity of proteins, or diabetes patents who need to keep a weather eye on their sugar intake.

Wireless integration with PCs and insulin needles

The fork is equipped with a display which constantly indicates how much of a certain substance has been consumed. It can also be extended to include an alarm which beeps when you hit a preset maximum limit, which is useful for diabetes patients, for example. All data can be transmitted wirelessly to a PC or mobile telephone, where you can compare and compile statistics, so you always know where you are in relation to the terms of the diet.

- The fork's built-in electronic system can also be programmed to communicate with insulin pens, so that the insulin level in the dosage is automatically exact and correct in relation to what has been consumed. - This will be a significant help to children and elderly people with diabetes, who often have problems dealing with this problem, says Rune Domsten, CTO at Prevas.

The intelligent fork is a product created by Prevas which is still at the concept stage. The technology can be integrated into the spoon and the product can be developed and manufactured as soon as any interest is shown.

Nordic leader in embedded systems and industrial IT

Prevas

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