

production manager

2 / 2011

Journal for Logistics & Production

Contents

► Title story

Wemhöner uses PSIPENTA business software
Greater flexibility,
better performance p. 1

► Products & solutions

PSIwms used at Hilti
Befestigungstechnik AG
PSIwms as information
backbone p. 6

PSI Metals at ArcelorMittal Dofasco
System conversion with new
dimension p. 8

► Events

PSI Metals at METEC 2011
Cockpit as intelligent
decision tool p. 11

► An interview with

Dr. Giovanni Prestifilippo on
PSIglobal 2.0
The time was right for a
major release p. 12

► Company news

New orders for integrated
MES/ERP projects
Manufacturing companies
use modular ERP standard p. 14

Group revenues increase by 8%
PSI 2010 with clear growth
in exports p. 15



Wemhöner uses PSIPENTA business software

Greater flexibility, better performance

The plant manufacturer has been using business software from PSIPENTA Software Systems GmbH since 2003. Following the switch to Release 7.1.3 in 2010, the company is now changing its hardware too. Linking to the myOpenFactory communication platform has also generated huge savings and efficiencies in order processing and invoicing.

Almost all of us will at one time have walked across or lovingly touched products produced on Wemhöner machines. Wemhöner Surface Technologies GmbH & Co. KG from Herford in Germany produces machines and production systems for refining timber products. These include base products for furniture manufacture and for door, panel and timber

continuous presses or short-cycle press systems are used for furniture and laminate floors. 3D vario presses produce interior fittings in the automotive sector, special presses and other composites.

With a market share of over 50%, the owner-managed machine builder achieved revenues of over 60m in 2009 despite the economic crisis. Of this, over

► Page 3

PSI 

News ticker

+++ PSI presents its new logistics solutions at transport logistic 2011 – new functions in the PSIGlobal planning and control system and in the PSI_{ms} transportation management system +++ PSI presents innovative logistics solutions at CeMAT – Smart Grid for Logistics: intelligent networking of existing logistics systems +++ PSI delivers new energy management for N-ERGIE – consolidation of processes for all relevant products such as electricity and gas +++ PSI AG Management Board approves share buyback +++ PSI and GreenCom Networks enter into partnership – collaboration in the development of integrated energy management systems +++

Imprint

Publisher: PSI AG

Dircksenstraße 42-44

10178 Berlin (Mitte), Germany

Telephone: +49 30 2801-2029

Fax: +49 30 2801-1042

production.management@psi.de

www.psi.de

Editorial team: Ulrike Fuchs, Anja Malzer,

Bozana Matejcek, Annett Pöhl

Design: Ulrike Fuchs

Printed by: Repro- & Druck-Werkstatt

Editorial



Dear readers,

Both curiosity and the joy of innovative ideas and solutions were the springboard for the successful collaboration between PSIPENTA and the FIR at RWTH Aachen. The FIR is a multi-industry research institute at RWTH Aachen. True to our motto "Use research – create added value", we are working with companies from several industries to develop practical solutions for the key problems facing industry.

As early as 1999, PSIPENTA and FIR started work on the "ProWork" project, the first joint research initiative to increase the efficiency of PPS systems through workflow management. Working on further projects, we are currently integrating order processing into adaptable production networks ("WinD") and implementing an IT platform to coordinate integrated service concepts for generating renewable energy ("EUMONIS"). As such, we are successively tackling current challenges and trends for production in Germany, and developing suitable solutions, for example for managing complex customer/supplier relationships in mechanical engineering and plant construction.

It is within this context that I would like to recommend reading the results of the myOpenFactory initiative, which offers a particularly clear example of how results from joint research projects can provide the industry with concrete and tangible added value. MyOpenFactory is a simple solution that enables the electronic integration (EDI) of customers and suppliers in intercompany order and project processing, and which is used amongst others by Wemhöner Surface Technologies from Herford, Germany. Wemhöner aimed to simplify its work processes in purchasing using myOpenFactory and, in this edition, reports a hugely positive balance – after three years of successful deployment.

I hope you enjoy reading the articles and find some interesting ideas.

Yours faithfully,

*Prof. Dr. Volker Stich
Managing Director
FIR at RWTH Aachen*

► *Continued from page 1*

90% of products were sent for export. Some 250 employees at the head office in Herford contributed to this success, and since 2006 a further 75 employees have been working for the Chinese subsidiary in Changzhou. Company representatives working on-site handle worldwide sales.

ERP for no. 1 on the BOM

In 2003, the company introduced a new ERP system in Herford. Due to costs, a requirements specification was not drawn up first. "A snapshot of the company at any given moment was enough to justify the new system," explains Norbert Wagner, responsible for data processing and organisation. Instead, a requirements catalogue was drafted, listing urgent requirements according to priority. Based on this, a project team defined sixteen points that the new software had to satisfy. "We are systems manufacturers," says Wagner, discussing the company's current position, "which essentially means we manufacture item 1 on the bill of materials and therefore usually have very long procurement times." The core components of these machines are frame covers or large heating plates with delivery times of two to four months. An ERP system needs to be able to map such a configuration with advance planning or similar tools. Ultimately, six software companies made the final selection that had to be able to meet these key points. Naturally, none of them were able to tick every single box, but it was still a relatively easy decision. As Wagner recalls: "One bidder met 13 points, while the others met only a maximum of eight." Since then, the Herford base has been using the complete *PSI_{penta}* ERP solution from Berlin-based PSIPENTA Software Systems GmbH (version 7.1.3 since the start of 2010).

New operating system

By mid 2009, Wagner and his colleagues were already starting to see a drop in performance with version 7.0.3. Although this did not lead to critical situations, there were times, for example during inventories or major post-costing, when it became clear that the HP Unix machines were at their limits. The decision was therefore taken to introduce new hardware with the new software release. The company also wanted to use only a Linux

operating system. This means that the hard disks of one server are mirrored live to the other server via a network connection with DRBD so that the most up-to-date data volumes are always available on two servers. Distributing the system across two rooms ensures maximum system reliability. The Heartbeat System – a high availability solution – also ensures that the servers do not just run in backup mode. As such, half of the services run on one server node while the other half run on the other. Should one of the

AWK AACHENER WERKZEUGMASCHINEN 2011 KOLLOQUIUM 26 – 27.05.

Competitive Factor Production Engineering

The Aachen Approach

Specialist Lectures

Session 1 | Self-Optimizing Production

13:30 High Resolution Production Management
A. Keseberg (PSIPENTA) a.o.

PSI 

operating system in its backbone/server configuration. The hardware costs for proprietary Unix systems were deemed to be simply too high. "The stability of Linux machines is just as good, and in principle, they are twice as cheap," says Wagner.

They therefore commissioned external software partner PerFact to develop the IT infrastructure and the distribution of the servers across two separate server rooms in order to ensure the applications remained failsafe. Two Linux servers were implemented in a cluster on which the applications run in nor-

mal operation. This means that the hard disks of one server are mirrored live to the other server via a network connection with DRBD so that the most up-to-date data volumes are always available on two servers. Distributing the system across two rooms ensures maximum system reliability. The Heartbeat System – a high availability solution – also ensures that the servers do not just run in backup mode. As such, half of the services run on one server node while the other half run on the other. Should one of the

Mirrored security

The PerFact specialists then executed the programs from their own offices. An Oracle database was installed on one server, and the new *PSI_{penta}* release on the other. Only minimal adjustments to the start scripts were necessary in the ERP system in order to allow the start/stop mechanisms of the high-availability system to shut down and reboot the system in an emergency. Everything was

tested under full capacity conditions, amongst other things by interrupting the power supply.

This constellation ensures not only the best possible failsafe protection, but also high flexibility. If for example hard disks need to be added in one server to increase capacity, it can simply be completely shut down and everything continues to run on the other server. This means that even a major update can be tested without difficulty. Following this method, PerFact completed the implementation of the new operating system and the new PSIPenta release including tests in just a few weeks without any problems. Wagner described this phase as "quick and painless".

PSIPenta combines what belongs together

In PSIPenta, Wemhöner has also integrated MES modules from the Berlin

company such as SDC and TA: "This allows us to perform post-costing, forecasts and make plans," says Wagner, who also values the integration of the design and design data in the manufacturing system. "We use an EDM system in which plans are transferred to all areas of the business via PSIPenta and can be printed out on a BDE terminal," says the data processing project manager. He continues: "This means the entire process chain from design through to production planning right through to the manufacturing level is integrated in one system."

In the new PSIPenta release, objects in the project area that combine the widest range of manufacturing orders are also vital for Wagner. One production line – 120 metres long, 30 metres wide, eight metres high – can consist of 10 or 20 different individual machines that are linked together. When

such a machine is shipped out and installed in the customer's system, customer support orders are usually triggered even at this early stage. It could be that a component has failed or perhaps the customer wants to change something during installation. Whatever the reason, the line components can change. This is where the project objects come in: not only do they include the line orders, they also list replacement parts orders and any subsequent deliveries. "If there are 100,000 BOM lines for example, it's very easy for something to go missing," says Wagner.

myOpenFactory: Automatic external communication

Even just a few years ago, the normal route for a purchase order was by fax. Professor Schuh from RWTH Aachen University set up a research project with a range of partners to replace this communication system with automation. One of these development partners was and remains PSIPENTA GmbH. Together, the research team developed the myOpenFactory communication platform and set it into mass production.

"Major suppliers love automatic processes," says Wagner. This is why Wemhöner uses myOpenFactory in which data such as purchase order data is translated into a specific standard via an adapter integrated in the ERP system and sent to the myOpenFactory server. Using their own adapter, the vendor then creates their own proprietary settings. Unlike faxes, order confirmations are also returned via this method, and are automatically sent to PSIPenta if the purchase order data matches the confirmation data.

Any conflicting confirmations are sent to a client where they can be assessed by the purchaser. Once the order confirmation is approved it is automatically



Wemhöner constructs installations of up 120 metres in length.

Source: Wemhöner



Wemhöner make huge savings by connecting to the myOpenFactory communication platform.

maintained in the ERP system. This process led to a reduction in administration costs at Wemhöner of up to 70%. The same process is used for inbound invoices that are received via the platform: again, there are no more administration costs for entering invoices. Wemhöner communicates not only with smaller suppliers via this platform, but also with major business partners like Siemens, Bosch Rexroth and Festo. ☺



► Information

Contact: Ulrike Fuchs,
Marketing Communications,
PSIPENTA Software Systems GmbH
Telephone: +49 30 2801-2029
Fax: +49 30 2801-1042
Email: ufuchs@psipenta.de
Internet: www.psipenta.de

myOpenFactory

EDI – easy as...

The myOpenFactory cooperation platform enables the **secure transfer of documents for intercompany order processing** with "electronic data integration" (EDI). Small and medium-sized companies can communicate easily and economically (see fig. 1) with the widest range of business partners. All that is needed is a **single interface** – from the installed ERP system to myOpenFactory. Low-cost standard connections for many ERP systems or the web portal are available for all other partners.

The **data exchange format** is streamlined and based on standard paper documents. It only requires 183 different fields (compared, for example, to the 5000 fields of an EDIFACT purchase order). myOpenFactory only filters out those documents that have significant differences from the information that is required. This considerably reduces the time required for order processing.

Interchangeable documents: enquiry, quotation, order confirmations, change order, status request, status report, stock query, stock report, call off, delivery note, goods receipt note, invoice, credit note, complaint, payment reminder

PRODUCTS

myOpenFactory: Secure transfer of documents via EDI

Express: Connection from the ERP system to myOpenFactory – documents from the ERP system are sent via the interface, received documents are checked and then automatically posted in the ERP system

Cockpit: Access to the platform and involvement in overall communication via a web portal

Adapter: Communication via an individual adapter

Partner: Exclusive connection for business partners with their ERP system

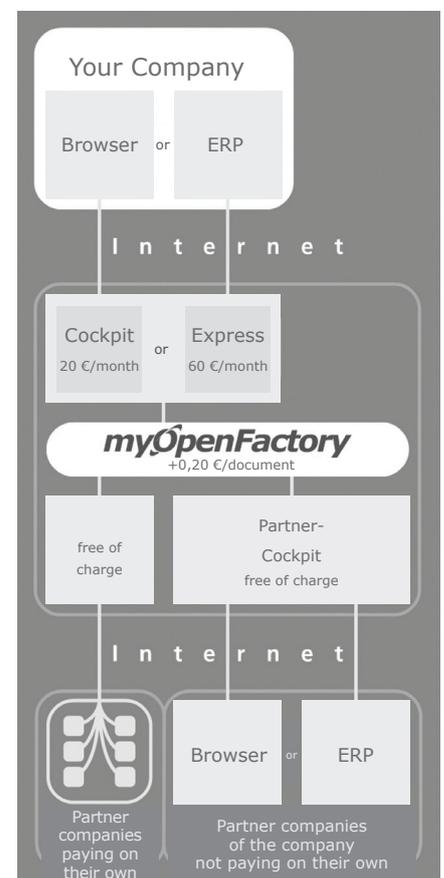
Companies: Communication with participating companies without additional costs

Further information:

Alexander Klähn

PSIPENTA Software Systems GmbH

Telephone: +49 800 3774968 (erp4you)



User report: PSI*ums* used at Hilti Befestigungstechnik AG

PSI*ums* as an information backbone



By using PSI*ums*, Hilti improved its service level by two hours.

Source: STUTE

Stute Verkehrs-GmbH uses PSI*ums* to manage the regional distribution hub of Hilti Befestigungstechnik AG in Nuremberg. Working in tandem with the service provider's tried-and-tested warehouse structure, it was possible to increase the service level in next-day distribution at Hilti by some 10%.

Hilti Befestigungstechnik AG is one of the world's leading producers of power tools and fastening technology. Purchase orders from end customers and 200 Hilti centres in central Europe are shipped from three locations as overnight services. The latest of these Regional Distributions Centres (RDC) was set up in the area of the Nuremberg port. Occupying an area of around 10,000 square metres, 5000 different items for professional craftsmen are stored across 7250 pallet spaces, shelf compartments with 4800 storage spaces, a cantilever shelf and a hazardous materials area and block storage area. "By adding a new warehouse

in a strategically important location, we wanted to continue to improve our service level for Germany and Austria," says Stefan Schmuck, Project Manager for distribution processes and responsible for warehouse integration at Hilti locations, in justifying the decision for the new RDC.

Impressive references

The Nuremberg logistics centre is the first RDC that Hilti has operated via a service provider. "A quality-driven decision process," states Schmuck. Following a bidding process, the contract lo-

gistics experts at Stute Verkehrs-GmbH in Bremen, a 100% owned subsidiary of the Kühne + Nagel Group, won the contract. Working in Nuremberg, the service provider is responsible for all operations from goods receipt, storage and picking, despatch preparation, right through to shipment. The information backbone of Hilti's processes in the new RDC is built on the PSI*ums* Warehouse Management from PSI Logistics GmbH, Berlin. "We work in warehouses at several locations using PSI*ums* and for customers from different industries," explains Stute Project Manager, Lutz Gramke. "The IT system ensures the clear logistical functionality and quality of our processes. Ultimately, the shared reference projects of Stute and PSI Logistics convinced Hilti. It meant we were also able to recruit the renowned IT service provider for the Hilti project."

A head start with big impact

Within four months of the contract being awarded, the first release of PSI*ums* was tested and implemented – including the required SAP interface with its customer-specific design. A head start with a big impact. Before the new RDC could be stocked, material flows had to be redefined, and the incoming goods had to be received via an interim warehouse over several months to build up stock. With PSI*ums*, the incoming goods could be logged in the Warehouse Management System of the new RDC in advance and in accordance with the future stock IDs and storage area assignments. This meant the stock could be managed in the new PSI*ums*, and stock transfer processes of some 4000 pallets could be managed.

When the new distribution centre went live, this also allowed simplified goods receipt entry.

The procurement of third-party goods and goods from production locations is bundled and coordinated by Hilti. Delivery is completed by 10am. The goods receipt information is sent to Nuremberg as a delivery note. PSI*ums* then manages the four storage areas and controls the pick processes. Around 200 goods receipt lines are entered each day via a flexible goods receipt terminal and accepted in the Warehouse Management System. Pallets are removed and stored using a narrow-aisle forklift truck according to random space assignment. The "Transport Control" forklift control system is integrated in PSI*ums* for optimised transport requests. Shelf storage items and hazardous materials are managed and stocked using a mobile data terminal (MDT). Storage places are assigned by PSI*ums*, which also generates the corresponding barcode labels for the items awaiting transport.

Reliable IT support and proven processes

Purchase orders that are received in Nuremberg up until 6pm are prepared on the same day – representing an improvement in service level of two hours. Seven pick areas have been set up especially for this purpose. Around 80% of all pick items are picked at the pallet flow rack with integrated shelf storage using the MDT. Using PSI*ums*, up to 12 orders can be picked at the same time. The remaining 20% of order lines are picked from the pallet shelves and the hazardous materials area via vertical picking. The items are then combined, packed and prepared for shipment at 13 packing stations. Overall, up to 2500 lines split across 1000 packages and around 60 pal-

lets leave the delivery warehouse each night. Added to this are around 130 bundles of long goods. "Owing to the restrictive time window, we need reliable IT support and tried-and-tested processes," says Gramke. "The typical Stute warehouse structure with a large number of fixed storage areas, multiple picking levels and optimum replenishment strategy ensures punctual delivery with a high percentage of completed end customer deliveries."

A new benchmark

The RDC in Nuremberg has now become the benchmark for future European Hilti locations. In 2009, Hilti and Kühne + Nagel/Stute announced a strategic part-

nership for a shared one-stop integrated logistics solution. "A standardised, proven IT system for warehouse processes makes perfect sense," says Gramke. "It allows us to leverage synergies. Unless Hilti has other plans, we will definitely continue to use PSI Logistics again on other projects." 

► Information

Contact: Markus Conrad,
Senior Consultant,
PSI Logistics GmbH, Aschaffenburg, Germany
Telephone: + 49 6021 366-497
Fax: + 49 6021 366-663
Email: m.conrad@psilogistics.com
Internet: www.psilogistics.com

PSI*metals* UserGroup

We will welcome all
PSI Metals customers
to our annual
PSI*metals* UserGroup.



When: September 27th & 28th, 2011
Where: Relexa Hotel Bad Salzdetfurth & Salzgitter Flachstahl GmbH.

www.psimetals.com

PSI 

User report: System conversion with new dimension

PSI*metals* at ArcelorMittal Dofasco

The importance of efficient and effective planning, scheduling and execution directly supports ArcelorMittal Dofasco's working capital and cost goals. Prior to the implementation of PSI*metals*, these functions were supported by many computer based Manufacturing Execution Systems (MES) that had evolved over the years. Although these systems provided acceptable functionality and were stable, their combination was somewhat inflexible and hampered reaching levels of business process performance that was possible for order fulfilment in the steel industry.



The above situation resulted in:

- higher than optimal levels of inventory and work in process,
- unnecessary product movement and plant set up,
- limited integration between successive operations ,
- reduced visibility of material and material characteristics, and
- additional effort required to distribute manufacturing instructions,
- and provided improvement opportunities.

The availability of an MES package (PSI*metals*) specific for the steel industry was used to help overcome the current limitations and realize the improvement opportunities.

The heart of production

The new production management system plans and controls all the systems in the Finishing mills and its outside processors. The PSI*metals* Planning, PSI*metals* Quality and PSI*metals* Production com-

At ArcelorMittal Dofasco, the PSI Metals software forms the backbone of the overall production IT infrastructure. Source: ArcelorMittal Dofasco

ponents in use fully cover planning know-how and integrate comprehensive functions for the planning, control and monitoring of the Finishing production. PSI*metals* covers all functions of a level-3 system and forms the backbone of the entire IT infrastructure in production. In this position, the new system is an integral part of the new IT landscape and an important tool in Dofasco's manufacturing process.

Better and faster

The introduction of the new production management system was geared towards achieving significant improvements in all areas of production, business and IT. The most important goals were for the following areas:

Business & production:

- Mapping of all production-relevant business processes through uniform production planning and control

- Greater transparency, flexibility and speed for planning processes

- Reduced inventories

Information Technology:

- Simplification of the IT landscape
- Improved data quality through the implementation of single-source-of-record in a central and consistent factory model
- User-friendly, modern interaction between users and the system

Always in co-operation with the customer

ArcelorMittal Dofasco and PSI Metals cooperated closely in order to adapt the system to the customer's specific needs and to put it into operation. The project followed the industry's tried-and-tested method involving the requirements specifications phase, system design, build & customizing phase, testing and implementation.

In order to give ArcelorMittal Dofasco the opportunity to exert influence and to control results from an early stage, PSI provided a test system in different stages of development during the build & customizing phase. This meant that the project team and key users were able to compare their expectations with the functions of the future solution at an early point in time. The build & customizing phase was completed in Germany and ended with a software acceptance test with several ArcelorMittal Dofasco participants attending.

From old to new: 140 systems, 60 interfaces and 3 time zones

The biggest challenge was the introduction of the new backbone into a legacy system landscape with production running. "The IT landscape at Dofasco had grown over time and, when the project began, included around 140 systems/programs that were involved in production planning, control and analysis," reports Thomas Vieweg, project manager at PSI Metals in Germany and responsible for the introduction of PSI*metals* at ArcelorMittal Dofasco. "PSI*metals* allowed us to completely replace 35 systems, and

interfaces were adapted for around 60 systems. This meant that we first had to create trust by proving that a migration of this dimension is doable without long interruptions in production," Thomas Vieweg continues.

ArcelorMittal Dofasco partnered India's WIPRO Technologies as System Integrator for the MES Program. WIPRO was responsible for integrating the remaining systems. The project was hence implemented in three countries with three time zones and a maximum time difference of 11.5 hours. Although there were logistical challenges planning telephone and web conferences with the time zone differences, it also made working around the clock possible.

Integrated production workflows

Integration into the legacy systems, the level-2 systems and transport control, as well as the connection to the external outside processors via EDI were carried out by WIPRO using PSI*integration*, PSI's EAI tool. Although the date for the introduction of SAP has not yet been set, the new MES is to be prepared for SAP to be introduced at a later date. PSI*metals* guarantees this because it has been accredited as a Powered by SAP

ArcelorMittal Dofasco

ArcelorMittal Dofasco Inc. is a subsidiary under the Flat Carbon Americas division of ArcelorMittal, the largest steel company in the world, with approximately 280,000 employees in more than 60 countries. The company produces 10% of the world's steel.

ArcelorMittal Dofasco is based in Hamilton, Ontario where it has a 730 acre state-of-the-art facility including 3 blast furnaces, 3 coke plants, a basic oxygen steel making plant, and electric arc furnace, 2 slab casters, a hot-strip rolling mill, cold mills, galvanizing lines, 2 tube mills and an electrolytic tinning line. It produces high-quality, flat-rolled and tubular steels and laser-welded blanks, and is Canada's only producer of tinplate.



Target industries:

- Automotive industry
- Construction industry
- Energy
- Manufacturing
- Pipe and tube production
- Appliance
- Containers
- Steel distribution industry

**Visit us in hall 5,
at booth B03.
PSI Metals GmbH**







**The Bright
World of Metals.**
Düsseldorf, Germany
28 June - 02 July 2011

The world's biggest installation

The solution installed at ArcelorMittal Dofasco is the world's largest PSImetals installation at one location. PSImetals currently plans and controls:

- 22 own systems per level 2
- 25 own systems (manually)
- 2 tube mills
- 85 systems at outside processors by EDI
- 35 systems for outside processors through data entry screens

Interfaces are in place to:

- legacy systems for acceptance hot strip data
- legacy planning system for accepting cross-plant capacity planning
- the internal level-2 systems
- the test laboratory
- EDI systems to interface with outside processors
- the transport management system
- to the shipping system

Functions at a glance

The following PSImetals functions are implemented at ArcelorMittal Dofasco:

- Campaign planning and optimization
- Cross-plant planning
- Material allocation
- Scheduling for Finishing operations: cold mills, galvanize lines, tube mills
- Production order life cycle
- Material and stock management for around 50,000 storage locations
- Schedule execution management
- Production tracking
- Quality control and deviation management
- KPI monitoring and reporting



System switchover from old to new at ArcelorMittal Dofasco: a delighted team with the first coil produced with the new production management system. Source: ArcelorMittal Dofasco

NetWeaver and can draw on a wealth of integration experience with other customer projects.

In an effort to offer ArcelorMittal Dofasco a smooth transition to the new world, all the data in the old systems was automatically imported into PSImetals as active material with material parameters and production data along with the complete history. This complex data migration was carried out in close cooperation between ArcelorMittal Dofasco, WIPRO and PSI.

Production with the new system

One important decision was how to commission the new system. Both a phased and a rapid release (a start up of the system over a 7 day period) implementation were discussed. The rapid release option was selected to minimize the complex integration of a phased implementation. After two days of data migration, the PSImetals solution, and all of the interfaces (level-4 systems, the laboratory, transport management, Decision Sup-

port Environment (DSE system), all 22 level-2 systems and external outside processors) were put into operation without any major difficulties within five days. The first coil was produced on schedule with the new system.

Equipped for the future

With PSImetals as the production management system, ArcelorMittal Dofasco has a solution today that provides the classical MES functions. The system was adapted to the legacy system landscape and forms a sound basis for the future IT landscape. ☺

► Information

Contact: Thomas Vieweg,
Project Manager,
PSI Metals GmbH, Berlin, Germany
Telephone: + 49 30 2801-1820
Fax: + 49 30 2801-1020
Email: info@psimetals.com
Internet: www.psimetals.com

Events: PSI Metals at METEC 2011

Cockpit as intelligent decision center

At METEC 2011, the 8th International Trade Fair for Metallurgical Technology from 28 June to 2 July, PSI Metals will be presenting the *PSI Metals Cockpit*, an integrated, homogeneous view of all production processes in metal production. Different scenarios as for iron making, steel making, rolling and others will show how local process deviations may influence planning, production and logistics targets in other plant areas.

In Hall 5, Stand B03, PSI Metals will use the examples of two production sites to demonstrate the interaction of different plant areas. Taking the following situations, the demonstration will show how the *PSI Metals Cockpit* supports the cross-functional and global plant monitoring leading to a collaborative and streamlined decision making process along the supply chain.

Controlling of iron ore supply: The forecast iron ore quantity is not sufficient. How can an interruption in casting be prevented for smelt processes that are either planned or already in production?

Deviation Management for Heats: The temperature of a heat in production is

too low. How can the quality specifications still be achieved?

Secure line supply: A fault leads to disruption of the rolling program. How can the rolling program be continued through short-term material supply?

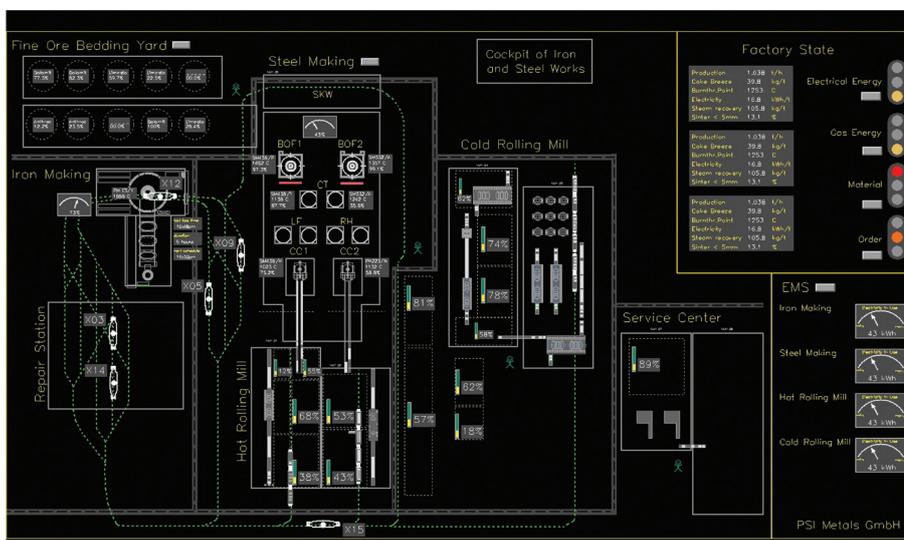
Quality in real time: A coil does not achieve its required quality values in galvanisation. Which process steps will now ensure that the coil can continue to be used?

On-time-delivery in the hot rolling mill: The material for customer XSteel is ready in the yard, but has not yet been planned in the rolling schedule. How can on-time-delivery still be ensured despite the delay?

Collaboration in the supply chain: There is an unplanned production stop in Service Center during galvanisation. How does this affect the downstream lines at the other production location?

The graphical display of the *PSI Metals Cockpit* shows real-time process and quality data for all the above scenarios. At the same time, planning information, key performance indicators and webcam shots can be displayed from live production. The highly innovative user interface allows all information to be displayed as required and in the necessary level of detail (semantic zooming) and allows the user to navigate to all connected functions of the *PSI Metals* product family according to context.

We will also be holding presentations during the accompanying conference InSteelCon from 27 June to 1 July at the Congress Center Düsseldorf (CCD). PSI will be giving presentations at all four industry trade fairs, ECIC, ECCC, STEELSIM and EECRsteel. Please see www.psimetals.de/en/metec-papers for details of the dates and subjects of our presentations. 



The *PSI Metals Cockpit* supports the cross-functional and global plant monitoring leading to a collaborative and streamlined decision making process along the supply chain. Source: PSI Metals

► Information

Contact: Annett Pöhl,
Marketing,
PSI Metals GmbH, Berlin, Germany
Telephone: + 49 302801-1817
Fax: + 49 30 2801-1020
Email: info@psimetals.com
Internet: www.psimetals.com

Interview with: Dr. Giovanni Prestifilippo on PSIGlobal 2.0

The time was right for a major release

At CeMAT 2011, PSI presented version 2.0 of the tried-and-trusted planning and control system PSIGlobal for the first time. Dr. Giovanni Prestifilippo, Head of Logistics Networks at PSI Logistics GmbH, Berlin, outlines the background and the new features of the premium software.

Dr. Prestifilippo, at CeMAT you presented Release 2.0 of PSIGlobal – why was a major release necessary?

G. Prestifilippo: PSIGlobal has proven itself time and again in numerous applications and allows users to make the required optimisations. Users also sent us more of their wishes and options, which we have analysed and implemented in the system. The time was now right to bundle all the changes and new functions into a major release.

Which new features can customers expect?

G. Prestifilippo: In the new version, the program functions of the premium software have been significantly increased for logistics management. Additional functions for service level optimisation or analysis and data management, an improved and integrated scenario technology, change overviews in which all steps can be automatically entered and saved, or simplified import from existing databases will in future offer greater transparency and optimisation potentials in defining and managing logistics networks.

Could you elaborate on these additional functions?

G. Prestifilippo: Of course. The new release offers various options for simplifying planning activities, for example the direct import of master, movement or warehouse data from customer data-

bases or existing projects. Freely programmable tariff functions allow realistic cost mapping of customer-specific price structures.

The service level optimisation offers an extension to the optimisation functions in PSIGlobal relating to service time compliance. Alongside cost minimisation as the base parameter, this can also be included in location optimisation analyses without having to carry out additional calculations. The route planning algorithm for loading area optimisation was expanded with functions for entering and processing shipment dimensions according to length, width and height.

With the new, multi-adaptable algorithm for optimising material flows in road and rail networks, not only can cost minimisation be defined as the target criteria, but CO2 minimisation can also be defined as a planning base.

Those are the functional developments. Which new features does PSIGlobal 2.0 offer?

G. Prestifilippo: The scenario technology and shipment manipulator are especially worth mentioning. In PSIGlobal 2.0, the proven scenario technology has now been rolled out as standard to all areas of the system. Resources can now be assigned and split into easy-to-manage units to help with the organisation of complex projects.

And the shipment manipulator?



G. Prestifilippo: This is a completely new development in PSIGlobal. The shipment manipulator allows the sensitivity of the network to be monitored according to volumes. For example, using existing shipment data, it on the one hand allows randomised scheduling in the generation of new shipments, and on the other, variations in the units of quantity. This means that the stability of logistics networks in general can be checked, including in the event of changes to the quantity flows. As such, it offers a solid planning base in the simulation of goods receipts from new suppliers or customers, or increasing sales figures. 

► Information

Contact: Anja Malzer,
Head of Marketing,
PSI Logistics GmbH, Hamburg, Germany
Telephone: +49 40 696958-15
Fax: 49 40 696958-90
Email: a.malzer@psilogistics.com
Internet: www.psilogistics.com



Automobil Forum | Stuttgart

22. AUTOMOBIL FORUM 2011

Forum am Schlosspark, Ludwigsburg

24. - 25.05.2011

**The yearly Conference of European automobile
manufacturers and suppliers**

Visit us at booth 11.
PSIPENTA, F/L/S

PSI 

New orders for integrated MES/ERP projects

Manufacturing companies use modular ERP standard

Since the start of the year, numerous manufacturing companies have commissioned PSIPENTA Software Systems GmbH with the introduction of the ERP standard PSIPenta, as well as additional modules for the optimisation of manufacturing planning, control and checks. Owing to its positive export trend and domestic demand for industrial capital goods, the company has reported increased interest in software solutions for the automation of production processes.

Bernhard van Lengerich GmbH & Co. KG, a producer of agricultural machinery, surface technology and electronics, is introducing the ERP Suite with its integrated shop-floor data collection and personnel time management. As a manufacturer with several variants, BvL was impressed by the high functionality coverage in the ERP standard and its excellent system flexibility.

Helmut Mauell GmbH is replacing its PIUSS-O that it has been using since January 1994 with the PSIPenta ERP system and is now also implementing additional MES modules. Mauell is a producer of complex control systems for automating energy generation and energy distribution networks, and develops system solutions to display information such as mosaic images, and reporting and visu-

alisation systems.

A manufacturer of blades for industry cutting applications based in Solingen is implementing modules such as Capable-to-Promise (CTP) and the MES components shop-floor data collection (SDC) and machine data collection (MDC) alongside the ERP standard.

For Gerhard Weber Kunststoff-Verarbeitung GmbH, the option of multi-site functionality was decisive in addition to the ERP system with its central areas of sales and purchasing, and the MES components SDC, MDC and finite capacity scheduling. Weber is a manufacturer of plastic containers and equipment for the storage of chemicals and handling toxic substances.

In the Austrian market, PSIPENTA managed to win Salzburger Axess AG as

a new customer including its Innsbruck-based subsidiary, Cards and Components Produktions GmbH. The Axess Group develops solutions in ticketing and access management in the areas of sport, leisure, culture and transportation. Cards & Components produces hardware components and smart cards. As project-based manufacturers, both companies were impressed by the high coverage of their requirements in the PSIPenta standard, which also ensures the flexibility needed in the industry. Due to the decentralised organisational structure, multi-site functionality was also decisive here. 

► Information

Contact: Ulrike Fuchs,
Marketing Communications,
PSIPENTA Software Systems GmbH
Telephone: +49 30 2801-2029
Fax: +49 30 2801-1042
Email: ufuchs@psipenta.de
Internet: www.psipenta.de

EVENTS

23/05–26/05/2011	SEAISS Conference, Singapore	PSI Metals	www.seaisi.org/html/events.asp
24/05–25/05/2011	Automotive Forum, Ludwigsburg	PSIPENTA, F/L/S, Stand 11	www.automobil-forum.de
26/05–27/05/2011	Aachener Werkzeugmaschinen-Kolloquium, Aachen	PSIPENTA	www.awk-aachen.de
08/06/2011	ERP-Day with Alfing Kessler Sondermaschinen GmbH, Aalen	PSIPENTA	www.psipenta.de/erp-praxistag
21/06/2011	4. Industry Congress, Linz/Austria	PSIPENTA	www.it-kongress-2011.at
28/06–02/07/2011	METEC, Düsseldorf	PSI Metals, Hall 5, Stand B03	www.metec.de

Group revenues increase by 8%

PSI 2010 with clear growth in exports

In the financial year 2010, the PSI Group recorded an 8% increase in sales of EUR 158.7 million (2009: EUR 147 million). EBIT increased by 22% to EUR 9.5 million. Owing to higher taxes, group profits rose by just 6% to EUR 7.0 million. The value of incoming orders increased by 18% to EUR 177 million and the order backlog grew by 11% to EUR 108 million.

The energy management sector increased revenues by 10% to EUR 65.5 million in 2010. Operating profit rose to EUR 4.7 million. While the contribution of the gas and oil sector again exceeded expectations, results in the electrical energy sector continued to be affected by pilot and export projects. Despite the costs for migrating to the group technology platform, the area of energy management systems continued to recover. In production management, revenues grew by 8% to EUR 67.3 million. Operating profit fell to EUR 1.3 million, marked by almost EUR 1.8 million in investments in the new control system for raw materials transport. Requests from China, Australia and Russia appear very promising. The metal industry and optimisation sectors continued to increase yields, although these were affected by writedowns from purchase price allocation and merger costs in the metal industry.

Infrastructure management increased revenues by 4% to EUR 26 million. The inControl Tech Group in south-east Asia, public transport, telecommunications and PSI Poland contributed significantly to the excellent operating profit of EUR 4.4 million.



In 2010, PSI invested an overall EUR 16.0 million in research and development. Maximum investment in a group-wide standardised technology base and nearshoring was exceeded; the rollout to target industries was started. Additional export versions and the control system for raw materials transport formed another key area of development.

Cashflow from current business activities clearly increased to EUR 13.1 million and end-of-year liquidity also increased to EUR 28.9 million despite the first-time dividend payment. The management board will recommend a slightly increased dividend payment of EUR 0.23 to the general shareholders meeting. PSI is reviewing takeover targets and participation opportunities in

the sectors of smart grid and energy efficiency in transportation.

In 2011, PSI is aiming for incoming orders of EUR 185 million, an increase in revenues to over EUR 170 million and an increase in operating profit to around EUR 13 to 15 million. This target could even be clearly exceeded by gaining major group licences. 

► Information

Contact: Karsten Pierschke,
Head of Communications and Investor Relations,
PSI AG
Telephone: +49 30 2801-2727
Fax: +49 30 2801-1000
Email: KPierschke@psi.de
Internet: www.psi.de

**PSI AG for
IT products and
systems**

Dircksenstraf3e 42-44
10178 Berlin (Mitte)
Germany
Telephone: +49 30 2801-0
Fax: +49 30 2801-1000
www.psi.de
info@psi.de

PSI 