Shrinkpacker Smiflexi SK 600T:
Simple architecture for fast format changeover

SERCOS inside: New SERCOS III
Conformance Test available

Product-News: PacDrive 3 –
Ethernet-based Automation Technology

Application:
The easy way to SERCOS

|||SERCOS
interface

SERCOS III is gaining ground

Communication interfaces in automation technology can be distinguished using a variety of criteria. Most important are the technical features of a bus system, e.g., real time capabilities, protocol efficiency, supported topologies, possible cycle times. However, in addition to purely technical criteria there is a whole series of other important factors which play an important role in the validation and selection of a bus system. Among these are typical criteria like market acceptance, product availability, level of standardization and vendor independence.

SERCOS III is characterized as a real-time Ethernet solution through the fact that is suitable for applications with particularly high real-time, performance and availability demands and thus covers the entire spectrum of usage. In addition, SERCOS III achieves a very high degree of standardization through uniform and comprehensive profiles. This is the requirement to be able to connect the peripheral devices of various manufacturers to controls of different vendors with a minimum customization and configuration effort. A particularly effective and independent test system is available with the newly developed conformance test. The tool not only tests the compatibility in terms of the communication and real-time behaviour but also the conformity of the device implementations with the function profiles defined for servo drives and I/Os.

These features of SERCOS III allow it to meet the demands of a modern communication interface. The question of vendor independence of technology, which particularly arises before a development decision, can be answered with reference to the publication of the master driver as open source. The publication of the software is more than simply the technical basis for open source based SERCOS III implementations. It is evidence of the manufacturer independent and thus freely accessible technology!

We hope you enjoy reading…

Peter Lutz, Managing Director
SERCOS International e.V.

Quick-Info 2-0901 ▲

Rexroth
Bosch Group

At Drinktec 2009 show Smigroup presented the newly developed Shrinkpacker SK 600T.

Shrinkpacker Smiflexi SK 600T: Simple architecture for fast format changeover

More flexible, faster, easier: In the packaging industry more and more machine builders use SERCOS III to reach a higher overall productivity with innovative machine concepts, for example Smigroup, a worldwide leading manufacturer of packaging machines. In its newest generation of shrink packers, the SK series of the Smiflexi division, the Italian Company uses SERCOS III as universal bus for the complete automation and combines short format changeover times with a high throughput.

At Drinktec 2009 show, Smigroup presented the newly developed Shrinkpacker SK 600T. It can pack a wide range of containers, like bottles, cans, jars into film, in film only, cardboard pad plus film, tray only, or cardboard tray plus film. "The batch sizes in mineral water, soft drinks and lemonades are decreasing because of the high competition and our customers care about short format changeover times," says Pietro Volpi from SMI. The electronic cam shaft of the machine with 16 compact Rexroth IndraDrive Cs servo drives reduces the change-over almost completely to software commands.

Italian-based company SMI is one of the world's largest manufacturer of hi-tech secondary packaging machines, and one of the leading manufacturers of rotary stretch-blow moulding machines. Smiflexi division markets about 300 shrinkwrappers and wrap-around casepackers every year, capable of output rates from 20 to 360 packs/minute. Smiform division produces approximately 50 stretch-blow moulders per year for the making of PET and PP containers.

The North Italian engineers decided to use the real-time communication SERCOS III for all servo drives and I/Os in the new machine. "This simplifies the architecture and gives us the choice of components from different suppliers," states Pietro Volti. The MARTS 3000 control developed by SMI communicates over Ethernet with all actuators and I/Os from SMI, WAGO and Phoenix Contact.

SERCOS III controls 40 devices with a cycle time of 1ms. The simple integration of products of different suppliers with Ethernet interface reduced the engineering time by almost one third. SERCOS III has implemented real-time mechanisms, profiles, telegram structure and synchronization from its predecessor. "Additionally, SMI has integrated innovative SERCOS III functions such as redundancy into its new architecture," points out Luca Stanzani, Industrial Sector Food and Packaging of Bosch Rexroth in Italy.

Because of the hard synchronization of SERCOS III and the highly dynamic servo drives, the SK 600T packs up to 60 packs per minute in single lane operation. All machine types of the SK series are designed by SMI for multiple lane use with electric grouping of products. SERCOS III technology of real time direct cross communication between controls enables machine-builders and end users to synchronize different machines and modules

easily. "With this technology all customers can configure their complete packaging lines for highly flexible Inline processes," underlines Pietro Volpi.

In addition, various innovative solutions

explains Pietro Volpi – the automation components of both versions communicate via SERCOS III with the controller.

The electronic camshaft of the machine with 16 compact Rexroth IndraDrive Cs servo drives reduces the changeover almost completely to software commands.

reduce the time for format changeover: The self-adjusting product infeed guiding rails adapt automatically to the different pack sizes with almost no manual adjustment by the operator. All movements, starting from the grouping of products, unwinding of foils, to the automatic alignment of printed foil are controlled with the IndraDrive Cs servo drives, which have a performance range from 0.05 to 3.5kW. The highly compact multi-ethernet IndraDrive Cs drives are the standard configuration with multi-encoder interface for the most used encoder types. This simplifies the logistics for SMI and the end user, because one hardware covers all options within the machines.

The new SK 600T also reaches a high efficiency due to reduced energy use: "Users can produce the heat for the shrink tunnel with electricity or gas,"

Contact:
Bosch Rexroth AG
Phone +49 (0) 9352 / 40-4552
Fax +49 (0) 9352 / 403-4552
Anfragen-PR@boschrexroth.de
www.boschrexroth.com

Quick-Info 2-0902 ▲

The Anybus-CC communication module contains all hardware and software components of a SERCOS III slave interface.

The easy way to SERCOS

The new Anybus-CC communication module for SERCOS III simplifies the development of a SERCOS III communication interface and saves up to 70% on development costs.

The implementation of a SERCOS III interface for field devices does not necessarily have to take place under its own auspices. The new, pre-finished Anybus-CC communication module by HMS for SERCOS III is an interesting alternative. By using the module, development expenses can be reduced by up to 70% and the time to market can be significantly shortened.

SERCOS III in CompactFlash format

The new Anybus-CC module for SERCOS is an intelligent communication module and is similar to a CompactFlash in terms of dimensions. It has its own microprocessor which independently operates the entire SERCOS III protocol in cooperation with a SERCOS FPGA. This means the automation device processor is completely unburdened by the protocol operation. The module has all hardware components of a SERCOS III interface, including Ethernet transceiver, analogue input (PHY), diagnostic LEDs and two RJ45 connectors for physically connecting to the SERCOS Network. HMS supplies the module with a compact casing as a flexible plug-in solution or without module casing for installation in the device casing. If required by mechanical constraints, the module can also be manufactured as a customer-specific model.

The module is a certified and complete solution. The module price includes all licence costs as well as a generic SERCOS III device description file.

Using the Anybus-CC module reduces the difficulty of implementing a SERCOS III interface to connecting the communication module to the hardware and software of the automation device. The hardware connection takes place either via a fast asynchronous serial interface or via a Dual Port RAM interface. The module only requires a 3.3 volt power supply.

The Anybus-CC module also contains the complete SERCOS III protocol stack and works as a slave in the SERCOS network. The range of functions includes the SERCOS FSP I/O profile. From the point of view of the device software, the module works like a memory chip. The internal software of the automation device writes the data which is to be transferred to the SERCOS Master into the data transmission area and reads the data received from the SERCOS Master from the received data area. The software interface between the module and the device software is object oriented. In order to be able to connect the module to the internal software of the automation device quickly, HMS provides the device manufacturers with a driver in C source code. Starter kits and developer workshops facilitate

the Anybus-CC technology start-up and give developers valuable tips for a fast and flawless integration.

The modular solution is characterised by low development costs and short development times. The typical in-design time is around 2-3 weeks. In addition, the solution also has other benefits: The Anybus-CC module from HMS is not only available for SERCOS III but also for many other field busses and industrial Ethernet standards. Currently, the Anybus-CC family has 18 function compatible communication modules. All modules have a standardised hardware and software interface and can be uniformly addressed by the device software. An automation device can be easily integrated into various industrial networks using the appropriate Anybus-module. Automation device manufacturers can therefore cater to customers' desires and integrate their devices in all kinds of networking worlds.

Contact:
HMS Industrial Networks GmbH
Phone +49 (0) 721 / 96472-0
info@anybus.de
www.anybus.de

Quick-Info 2-0903 ▲

|||SERCOS interface

||| SERCOS
interface

SERCOS III
Conformance Test available

To perform conformance testing of SERCOS III slave devices, a new, powerful and vendor-independent conformance test tool has been developed, the SERCOS III Slave Conformizer.

This tool is provided as a complete test and development environment for SERCOS slave devices. It includes an active PCI-SERCOS interface card and the test software, which runs under Windows XP without the need for real-time extensions.

The Conformizer is an easy-to-use package with a GUI based on the Eclipse framework. The tests are made available in a readable format using the Ruby script language. Extensive test scripts for communication, the generic device

profile and function-specific profiles for drives and I/Os are included. In addition, product or vendor-specific scripts can be easily integrated.

As the identical tool is also used for the certification process in the testing laboratory at the University of Stuttgart, the certification itself can be carried out at low time and cost.

Product- and manufacturer- specific consultation and support for the SERCOS III Conformizer is offered by the Institute for Control Engineering of Machine Tools and Manufacturing Units (ISW) at the University of Stuttgart and Distributed Systems Engineering, Esslingen, Germany.

Contact:

SERCOS International e.V.
Küblerstraße 1, D-73079 Süßen
Phone: +49 (0) 7162/9468-65
Fax: +49 (0) 7162/9468-66
www.sercos.de

University of Stuttgart,
Institute for Control Engineering of Machine Tools and Manufacturing Units (ISW)
Seidenstr. 36, D-70174 Stuttgart
www.isw.uni-stuttgart.de

Distributed Systems Engineering (DSE)
Entennest 2, D-73730 Esslingen
www.topdse.de

Quick–Info 2–0904 ▲
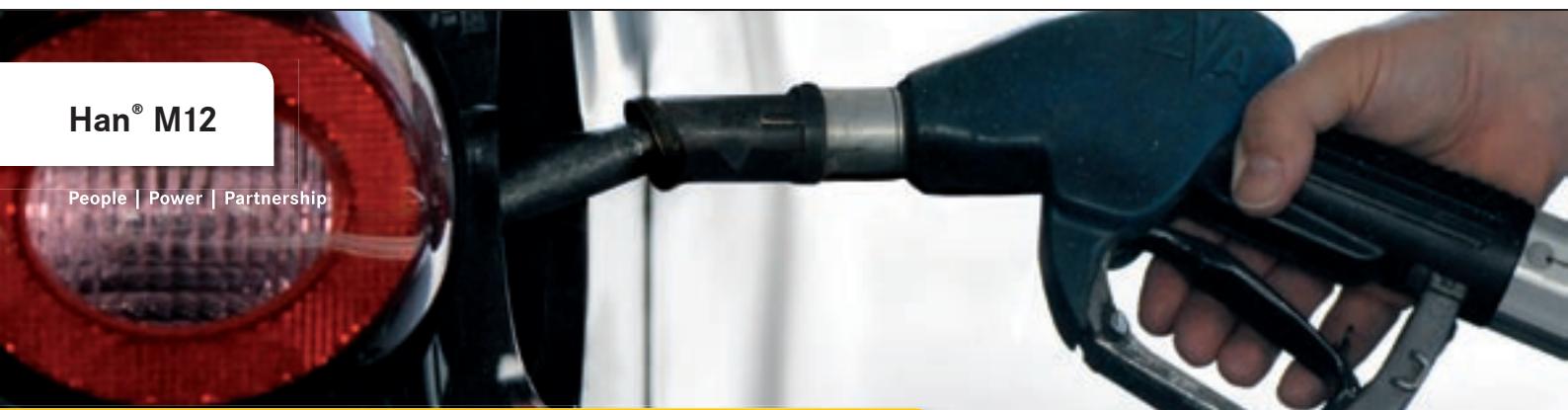
Modular evaluation kit for Real-time Ethernet

www.automataweb.com

Master and Slave Evaluation kit for SERCOS III

The Automata evaluation kit supports master and slave test implementations based on different FPGA types (Altera or XIlinx). It consists of two boards (FPGA module and base board) plus an optional expansion module. The evaluation kit is suitable in particular for test implementations and performance measurements of SERCOS III master and slave devices based on SoPC (System on a Programmable Chip) solutions. For this, the SERCOS III master or slave IP core is combined with a CPU core. The evaluation kit can also be used for other Real-time Ethernet protocols. Both FPGA variants are supported by proven master and slave communication stacks.
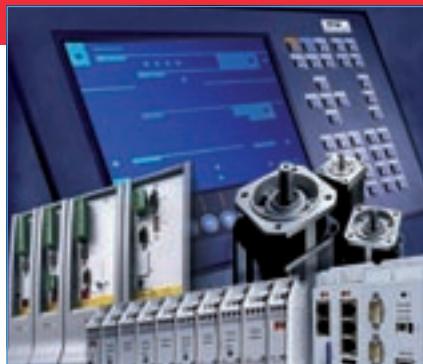
SERCOS III product range for the ExC66 controller family

www.eckelmann.de

SERCOS III product range of Eckelmann AG

The Eckelmann group presents diverse new products at SPS/IPC/DRIVES, for example, the XBM series of SERCOS III I/O modules or the E.Darc servo controller on an FPGA basis with integrated SERCOS III interface. The E.Darc drive system has an integrated safety kit up to SIL 3 as well as an optional feedback module for optimal energy output. Customer applications can be integrated via an Open Motion Controller Platform (OMCP). The XBM series is also just being launched. Just like the E.Darc, these I/O modules can be connected to the ExC66 standard controller family via SERCOS III. The ExC66 type controllers are available in several models for motion, PLC and CNC applications.

MOTF (Marking on the fly) with FOBA Laser systems and SERCOS III

www.foba.de

Precision laser with SERCOS III interface

As a leading supplier of precision lasers for the marking and engraving of a large variety of materials, FOBA Technology + Services GmbH is also specialized in the integration of laser production lines. The air-cooled fibre laser, with a performance of either 10 or 20 Watt, is particularly well-suited for this. The integration of the laser into the production line is simple and easy, thanks to the low space requirement and the flexible connection between the laser head and controls. In addition to the well-established control interfaces, Profibus, Serial Digital I/O and Ethernet USB, FOBA is now responding to the increasing trend of using real-time systems and is now offering its customers SERCOS III as a complete control solution. The Ethernet-based SERCOS lll is implemented via a PCI plug-in card which is installed in the laser control (PC system) and configured as a slave.

SERCOS III Cabling for industrial and automation applications

www.HARTING.com

System Cabling for SERCOS III

Security and reliability are important requirements for an automation cabling system. To support SERCOS III applications in the field, HARTING offers a programme of cabling components to build the passive infrastructure for industrial and automation facilities. All components are especially designed for use in cabinets with IP20 level as well as installation in harsh environments requiring IP 65/67 protection. The robust and completely shielded M12 D-coded connector is commonly used, well known, proven and tested in the area of automation. The product programme also covers industrial outlets, distribution modules, feed-through connectors and bulk heads as well as preassembled system cords, connector sets for on-site assembly and cables for fixed and flexible installation.

The Industrial Ethernet Module (IEM) supports a fast and cost-efficient realization of a SERCOS III interface

www.ixxat.de

Easy connection of devices to SERCOS III using IXXAT's IEM

Using IXXAT's Industrial Ethernet Module (IEM), devices can be connected quickly and cost-efficiently to SERCOS III networks. The IEM is based on a powerful Altera Cyclone III FPGA and includes an integrated 32-bit CPU and Ethernet controllers, the PHYs, magnetic modules and RJ45 jacks. The IEM is equipped with two Ethernet interfaces allowing set up of line as well as ring topologies. The connection to the host system is either memory mapped with data and address bus or via SPI. In addition to SERCOS III, additional Industrial Ethernet protocols are available on the IEM. The protocol independent programming interface (Host API) is designed to support the various industrial Ethernet protocols by making only slight changes to the application. For development and testing, IXXAT also offers an evaluation kit. Customer specific modification as well as a design-in solution are offered.

Powerful and flexible design platform for automation applications

www.msc-ge.com

Industrial reference platform with SERCOS III

With the Hpe®_IRP kit, MSC is providing a very efficient, flexible and effective design platform based on the new Qseven standard in cooperation with several industry partners. As a result, development stages are considerably shortened and costs as well the time to market are optimized. The Hpe®_IRP industrial design kit is based on the Intel® Atom™ Processor and an Altera Arria® GX FPGA. In addition to the hardware platform, it includes the interface diagram for the basis board, demo examples, the development software, IPs (including the IP for SERCOS III) and Linux drivers. Furthermore, the package contains an evaluation version of the SoftPLC CoDeSys. Open Source Automation Development Lab (OSADL) Linux is used as the operating system.

|||SERCOS interface

OPENcontrol GMC and CNC family with SERCOS III interface

The OPENcontrol product family from PRIMA ELECTRONICS is based on an open control architecture and combines efficient motion control with an integrated PLC. The controllers are compact and are scalable in terms of the CPU performance. Alongside conventional interfaces, SERCOS III is supported as a universal real-time Ethernet interface. Even very challenging CNC applications can be realized with the available control functionality. Up to 64 axes in up to 24 channels are supported, and these can be mutually or independently interpolated as well as dynamically exchanged. Various types of interpolations and kinematics, as well as numerous technological functions, e.g., for HSM applications, are available.

OPEN20 – Numerical Control with SERCOS III interface

www.primaelectronics.com

PRIMA ELECTRONICS

Versatile and Efficient – The new pneumatic valve terminal system from Rexroth

Rexroth's CD01/02-PI pneumatic valve terminal system CD01/02-PI has a modular design and can hold up to 32 valves with different widths and various functions. Plug-in valves make it possible to exchange the valves in the valve terminal system quickly and easily. Thanks to the use of D-coded M12 plugs, the device fulfils the requirements in protection classes IP65 and NEMA 4. It also supports remote addressing for easy commissioning. Due to implementation of the redundancy principle, this valve terminal is ideal for high-availability automation solutions. In addition, it is predestined for areas requiring standardized valves with high flow rates, such as in the automotive industry or in general machine construction.

The pneumatic valve terminal system: modular and sturdy design

www.boschrexroth.com

Rexroth
Bosch Group

Weighing technology connected directly to SERCOS III

Sartorius presents the new process transmitter for connecting the DMS load cells directly to the SERCOS III controllers. The process transmitter has a high precision connection for load cells and guarantees weight results which are exact and stable over a long period of time. Load cell supply, sense monitoring through the transmitter, calibrations and all other configurations can be carried out via TCP/IP protocol and web services. The casing is specifically designed for the use on DIN rail mounting and equipped with a 24V supply. The SERCOS III interface provides the weight value of a scale as a slave. In addition, the weighing can be accessed directly via the interface, e.g., the taring or setting of predefined limits.

High-precision and high-speed weighing with SERCOS III

www.sartorius-mechatronics.com

sartorius
mechatronics

SERCOS III is the basis for the consistent high-performance automation bus of PacDrive 3 with an integrated safety solution

www.elau.de

PacDrive 3: Ethernet-based Automation Technology

The new PacDrive 3 is the successor to the PacDrive M automation solution which has been successfully used for the past 10 years. Proven methods to reduce design, installation and commissioning costs have been ported on a future-proof technology: SERCOS III. This Ethernet-based, consistent automation bus is the basis for integrated safety solutions and ensures that the bus is not a bottle neck. The new controllers are characterized by higher performance together with a refined scalability. A modular drive concept for single- and multi-axis applications reduces the costs for servo-driven solutions. A workbench which includes all tools for the entire engineering process, as well as commissioning and diagnostics, combined with a multiuser concept, facilitates the design of interdisciplinary project processes.

Schneider Electric

ELAU PACKAGING SOLUTIONS

SYBERA Master Library

www.sybera.de

New SERCOS III Master for Windows

The SERCOS III Master by Sybera uses, by default, 2 PCI Ethernet adapters within a PC and is operated together with the X-Realtime high-performance real-time subsystem. The X-Realtime software removes the shortfall of the Windows operating system of not providing any determistic time response. The SERCOS III Master by SYBERA sends MDT (Master Data Telegrams) and AT (Acknowledgement Telegrams) in a defined time period (RT operation) to the slaves. Both of the Master's Ethernet connections work at the same time in the redundant ring operation. SYBERA reduces the jitter resulting from this through an asynchronous coupling of the real-time subsystem with Windows. SYBERA is implementing the SERCOS III Master as a programming library which can be used to develop individual applications. The SERCOS III master by SYBERA will be available in the 1st quarter of 2010.

SYBERA

*Transforms SERCOS III to a system bus - the WAGO I/O system with SERCOS III coupler*

www.wago.com

SERCOS III with WAGO I/O System

The newly developed 750-351 coupler, for the WAGO I/O system opens up the entire spectrum of SERCOS III services for users. With this third generation, SERCOS, originally a pure drive bus, has become a full-fledged system bus with a uniform I/O profile and the "CIP safety on SERCOS" safety protocol. It goes without saying that all of the real-time characteristics have also been retained. The WAGO coupler is integrated into the overall system via the new SERCOS III-I/O profile using SDDML device description files. All features, such as the redundant ring topology, synchronous slave-to-slave communication (CC), hot plugging, as well as the independent Ethernet NRT (non-real-time) channel are supported. This provides the user with an extremely powerful connection that can be integrated very easily at the fieldbus level and makes the use of other fieldbus systems redundant.

WAGO®
INNOVATIVE CONNECTIONS

SERCOS interface

III SERCOS interface
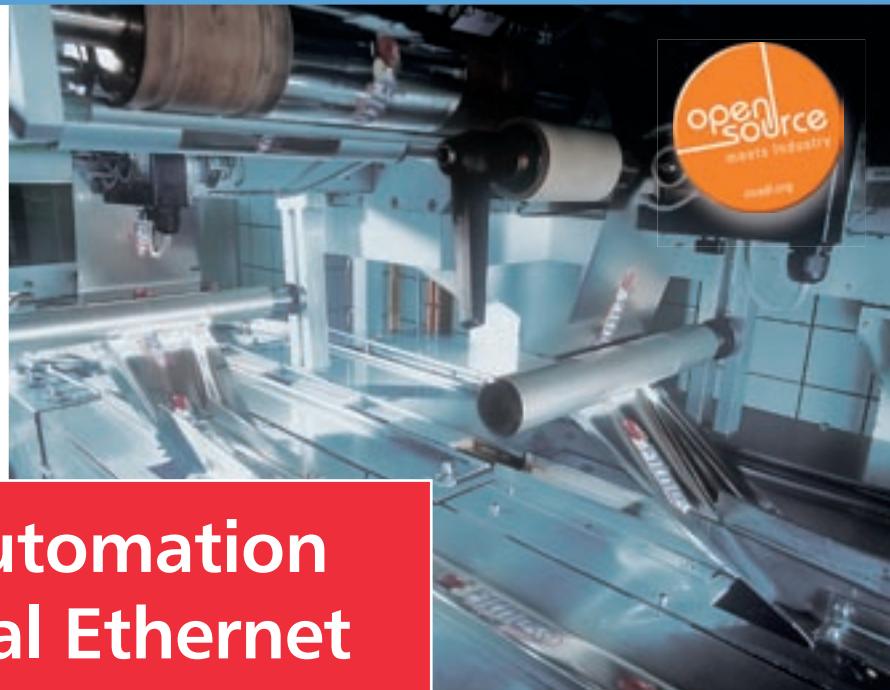
Innovative Automation with Industrial Ethernet

A small revolution has reached mechanical engineering: open source software has created a sensation on the computer market, because it offers quality programmes which are suitable and available for everyone at no cost so it can compete with commercial products. In light of the tough demands on solutions, is this idea suitable for industrial production as well? Initial offers strive to provide evidence of this.

When the Finnish student Linus Torvalds published a project on 17th September 1991 which he had worked on for a few months for fun he could not have had any idea of the dimension it would take on. In fact all he wanted was feedback from other programmers and asked what needs the user would have. Linux was created from this hobby, an operating system which turned the laws of the computer market upside down. Linux is free, is being further developed by thousands of experts and is completely open. Every user can see the complete code; they can and should carry out modifications as long as these are published with the circulation of the software. Thus improvements and extensions are again made available to the general public. The idea of open source software - whereby it is not one single manufacturer who treats the technical bases as a business secret and is solely responsible for improvement and operation - has spilt over into many fields. Databases, web browsers, text editing, programming environments, content management systems and email programmes are available as open sources. As far as quality is concerned, they can also keep up with commercial solutions because the community finds errors quicker in the open system and drives innovation forward in its own interests.

Free software as a basis for the industry

Despite the proven record of success which has prompted sector giants like IBM, SAP and Intel to officially support open source projects, the professional user is often still sceptical. On the one hand liability is an issue, as there is no official manufacturer and thus no-one to formally contact

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III SERCOS interface

when you have a problem. This gap is filled by providers who offer solutions based on the free software and also step in as far as operation is concerned. On the other hand it is feared that a group of volunteers could also lose interest in their hobby. For then a commercial user would have a real problem if they are relying on the technology. However, this fear is totally groundless for many projects are predominantly looked after by salaried engineers. With Linux this is the case for over 95 percent of the developers.

Carsten Emde from the Open Source Automation Development Lab (OSADL) knows about these concerns. OSADL is a registered co-operative that would like to promote and coordinate open source software into mechanical engineering and into factory automation. "Users and manufacturers have an extremely high demand for quality standards," says Carsten Emde, "we are talking about facilities, which must function faultlessly round the clock. It is not only a question of profitability of machinery but also of safety of employees and products." In fact it is exactly this which speaks for the use of open source software according to Emde. "The Linux operating system features a quality and stability which has never been achieved before. The reason for this is first the open source software licence and consequently the large number of developers and testers. "Progress is not just dependent on the resources of one single company. Anyone who uses the free software makes the commitment at the same time to publish their improvements and make them available to other users. Initially this seems to contradict economic interests because companies have to renounce the intellectual property of their work. In actual fact though, the benefits of collaborative work outweigh the costs and risks. For if everyone built their own motorway network the total expenditure would be higher than with a collaborative project even if in the process the competitors must travel on sections which they did not build themselves."

More control for users and developers

Because with open source software the whole source code is openly accessible, Carsten Emde does not see any risk of projects fizzling out quickly. "Open source software cannot be phased out. With Linux an engineer does not need to make its customers a promise which their previous supplier of proprietary software could not keep - namely the continuous maintenance of software during the whole life cycle of machinery." In fact, this makes open source software safer than many commercial projects. A manufacturer can decide not to further develop a product range or take development in a direction which the user does not like. With open source software end customers can further develop the project under their own direction without any problems and drive development forward in totally new fields of application.

Advocates of the open source idea hope to be able to give the software side of factory automation new impetus. For in mechanical and plant engineering you must differentiate between physical automation and logical automation. There are different industrial Ethernet solutions with protocols that guarantee that control commands and information are exchanged between drives and controls. Development here is carried out according to plan in long-term development steps to guarantee the compatibility of components. A permanent change of control commands would not be of any advantage.

New paths in software development

It is different though with software. Here new programming tools, better development environments and quicker processors can bring about noticeable progress. Existing facilities can be improved by innovative control software, which can increase productivity with relatively little investment. It can also be very attractive for developers to develop programmes which can run on a whole range of hardware solutions and not just on one manufacturer's control systems.

As open source software, Linux is adaptable to different platforms. It does not just run on standard PCs but can also be used in embedded solutions. Software which is built on Linux can be ported by simple compilation. With all its advantages there is also a crucial catch. The software in the control system must be able to communicate with the hardware. This takes place via device drivers, which assume the command's translation work for the

relevant devices and networks. The development of drivers is
not a trivial matter. On the one hand it is a challenge for a group
of talented programmers to replicate the know-how of a devel-
oped and practical technology. On the other hand many manu-
facturers use protected methods in their protocols. They can-
not disclose these in the spirit of open source thinking without
waiving the commercial use of their rights with this special im-
plementation.

This is a dilemma. On the one hand OSADL would like to give
factory automation new impetus with software development
by opening up the entire market for more developers. On the
other hand patents partially prevent open solutions from re-
sponding to proprietary hardware and real-time networks, be-
cause even published drivers would fall under the GNU General
Public License. "Our members are urging us to find solutions
with providers", says Carsten Emde, "there are well-known en-
gineers who consider open source and Linux to be the ideal ba-
sis for innovative and reliable software development. For this
though, an industrial Ethernet must be as freely responsive as
every Ethernet controller in a computer - regardless of who
manufactured the chip." As a response to this need, SERCOS
International decided to realize and release an open source
driver for SERCOS III master implementations.

Contact:
Peter Lutz,
Managing Director
SERCOS International e.V.
Küblerstraße 1, D-73079 Süßen
Phone: +49 (0) 7162/9468-65
Fax: +49 (0) 7162/9468-66
p.lutz@sercos.de
www.sercos.de

Quick-Info 2–0917 ▲

++++ *NEWS* ++++ *NEWS* ++++

SERCOS III as
Open Source

SERCOS International - as up until now the first and only pro-
vider of a high performance real-time Ethernet solution - has
made available an open source driver library for SERCOS III.
Even though SERCOS III is based on a patented technology,
the rights are owned by the SERCOS users organisation.
Therefore a master library could be compiled which meets
the open source movement demands as well as SERCOS' in-
tellectual property rights. The driver library is implemented
in the C programming language and is not operating sys-
tem dependent. The sources for the master driver are avail-
able at the following link:
https://sourceforge.net/projects/cosema

Quick-Info 2–0918 ▲

New board of directors of SERCOS International e.V.

The 37th regular general meeting of the user organization SERCOS International e.V (SI) elected a new board of directors during the 2009 Hannover trade fair. Fred Cohn (picture 1, Schneider Electric USA), Dr. Bernd-Josef Schäfer (picture 2, Bosch Rexroth AG), Ralf Prechtel (picture 3, LTi DRiVES GmbH) and Prof. Alexander Verl (picture 4, Institute for Control Engineering of Machine Tools and Manufacturing Units at the University of Stuttgart) will form the management team for the next three years. As a way of thanking them for the many years of dedicated commitment to the organization, outgoing board members Dr. Karl Tragl and Prof. Günter Pritschow were awarded honorary membership in the user organization.

Quick–Info 2–0919 ▲

Motion and I/O: Together with SERCOS III

SERCOS III Coupler for the WAGO-I/O-SYSTEM

* Full support for SERCOS III V 1.1.1 protocol
* Compatible with the SERCOS III I/O profile
* Device description via SERCOS Device Description Meta Language (SDDML)
* Additional I/O fieldbus no longer required
* I/O nodes synchronous with SERCOS cycle
* Redundancy possible through ring topology
* 100 Mbit/s
* Additional standard Ethernet TCP/IP channel with TCP/IP, HTTP, FTP, BootP, DHCP, SNTP, Web Based Management

www.wago.com

WAGO

++++ *NEWS* ++++ *NEWS* ++++ *NEWS* ++++ *NEWS* ++++ *NEWS* ++

User seminars for SERCOS for Automation

The user seminars organized in the last few months in Beijing (China), Paris (France), Minneapolis (USA) and Atlanta (USA) have had excellent feedback. These events allowed the large number of participants to be able to gain an insight into the functionality and new features of the Ethernet-based SERCOS III as well as into the migration from the traditional SERCOS. Various products and system solutions were presented on the basis of SERCOS III, alongside the technical background. In addition, applications were reported on, which already successfully use SERCOS III as a universal automation network for motion, safety and I/O.

Quick–Info 2–0920 ▲

4th Plugfest in the SERCOS competence center

The 4th plugfest for SERCOS III devices took place on October 29/30 at the Institute for Control Engineering of Machine Tools and Manufacturing Units at the University of Stuttgart. 15 companies took part with a total of 25 products, some of which were controllers, servo drives, electric and pneumatic I/Os, sensors and communication gateways. Numerous new products were able to be integrated smoothly into the different test scenarios. Moreover, a few manufacturers used the plugfest to test their SERCOS III slave devices in terms of conformity to the new test system.

Quick–Info 2–0921 ▲

|||SERCOS *interface*

Workshops · Fairs · Roadshows

Quick–Info 2–0922 ▼

Fairs

Hannover Messe
April 19–23, 2010, Hannover

PackExpo
Oct.–Nov. 31–03, 2009, Chicago/USA

Automatisierungstreff
March 23–25, 2010, Böblingen

FA/PA
June 2010, Peking/China

SPS/IPC/DRIVES 2009
Nov. 23–25, 2009, Nuremberg

Roadshows

June 2010, China   September 2010, Japan
October 2010, India

Workshops / Seminars

March 23, 2010, Böblingen
June 2010, Peking/China

Developer / Seminars

March 24, 2010, Böblingen
June 2010, Peking/China

Migration / Seminars

June 09, 2010, Frankfurt (drives)
June 10, 2010, Frankfurt (controller)

Plugfest

May 26–27, 2010, Stuttgart
Oct. 27–28, 2010, Stuttgart

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