ACHIEVE YOUR INDUSTRY 4.0 GOALS: GO FOR SPEED, INNOVATION, AND SECURITY

Clever SEH Solutions for Industrial Networks of All Sectors



BE INNOVATIVE—STAY IN THE RACE

Many a race is decided in the pits. The pit crew must function as a whole then and there, completing different services. When digitalizing important parts of your company, team work is equally decisive.

All industry 4.0 and IIoT projects, as different as they may be, share one similarity: increase in digitalization leads to an increase in required interfaces. What's the problem? Industrial computers have a limited number of interfaces as well and space in control cabinets is at a premium.

That is why solutions need to
- guarantee data security and system stability,
- transfer data at top speeds,
- be effortlessly expandable and exchangeable,
- reduce IT costs effectively,
- work with your operating system, and
- fit ergonomically into control cabinets.

Our industrial solutions are developed and manufactured in Germany. They meet all the requirements listed above with exception and more. SEH also is a competent service provider to stand by your side. If required, we adapt our solutions to meet your individual needs. Tap the full potential of digitalization and use our solutions innovatively to save hardware costs in the future.

Would you like to get to know our clever industrial solutions? Then hop into the cockpit and race with us! Find a motor sport use case on page 7—and two further use cases from other sectors!



THE TURBOCHARGED USB DEVICESERVER
INU-100



Speed is essential, in both motor sport and IT. And the INU-100 is a speedster: with Gigabit Ethernet and USB 3.0 SuperSpeed, the USB Deviceserver has data transfer rates of up to 100 MB/s. This is perfect for transferring data in industrial environments.

Advantages of the INU-100: Embeds your USB devices into any industrial TCP/IP network, even if the USB devices are not network-capable. The USB devices can be of any kind: dongles, mass storage, cameras, sensors, etc. Your creativity knows no bounds. Use your equipment flexibly and independent of location. The INU-100's integrated change over relay can switch automatically upon a change in status or an event; examples are the connection of a USB device or a failed network connection. Furthermore, the relay can be switched manually.

Advantages of the INU-100

- USB devices are embedded seamlessly and comfortably
- Central access management from a PC/ industrial PC
- Using standard USB devices saves money
- The USB Deviceserver is reliable and highly available
- The integrated change over (CO) relay offers automatic and event-based switching
- Your data is transfered at top speeds of up to 100 MB/s
- The INU-100 safeguards your data during transmission



INTERMEDIATE TIRES CONNECT WORLDS

Serial to USB converter SU-302



If the circuit is not wet enough any more for the full wet tire but still is too wet for the racing slick, the intermediate tire shines. It is a intermediary between weather conditions and makes sure the races continues.

Similarly, the SU-302 connects the worlds of serial and USB devices. So if your modern IT environment does not have enough interfaces or none at all while it has USB interfaces, the SU-302 is the solution. Combined with the INU-100 serial data can even be easily and securely transmitted via TCP/IP network.

Advantages of the SU-302

- Trouble-free embedding of crucial serial devices
- Driver availability is guaranteed
- Secured data transmission when combined with the INU-100
- The SU-320 is immune to interference and robust



MORE SPACE IN THE COCKPIT

The USB Hub IH-304



The cockpit of a race car holds a significant amount of technology. The driver often barely fits into the available space. Elbow-room can be the decisive advantage: If there is space for movement, dynamic reaction is possible.

That is also true for the IH-304. With this USB hub you can use up to 4 USB devices on one single USB port. That way you save valuable space in control cabinets and server racks! And USB 3.0 SuperSpeed guarantees fastest transmission of USB data. In addition, the USB ports can be used for charging USB devices.

Advantages of the IH-304

- USB ports are expanded easily while space and costs are saved
- The IH-304 is compatible with all USB devices
- All USB 3.0 ports can be used to charge USB devices
- The built-in overvoltage protection keeps connected devices safe
- The USB hub is reliable and durable



WINNING TEAM
Our Product Bundle



Our product bundle puts you on the podium
Our products have clever features and a space-saving design. They are high in quality and durable. That alone puts you into the Formula 1. But if you use them in combination, they make you a world champion!

Use the combinations offered by our industry bundle of INU-100, IH-304, and SU-302

- INU-100: Embed USB devices/data into TCP/IP networks
- SU-302: Make serial devices/data available via USB interface
- IH-304: Expand a USB interface with this USB hub
- INU-100 + SU-302: Embed serial devices/data into TCP/IP networks
- INU-100 + IH-304 (+SU-302): embed several (up to 4 per INU USB port) USB devices (respectively serial devices when combined with the SU-302) into a TCP/IP network.
- IH-304 + SU-302: connect several (up to 4 per IPC USB port) USB devices and/or serial devices locally to a PC/IPC.

A great addition to your racing team: our power supply recommendation
Do you use the space in your control cabinet optimally? You can freely choose the power supply for our industrial solutions. If you are still looking though, we recommend the top-hat rail power supplies DRP-20 and DRP-75.



THINK OUTSIDE THE COCKPIT

Use Cases from 3 Different Sectors

Motor sport: Clever Data Transfer

In motor sport data is constantly collected and analyzed. In many formulas, a laptop is connected to the race car via cable during a pit stop. This not only endangers the laptop (pit stops are hectic), but also requires that a technician and his laptop are integrated into the pit stop routine and have their place in the little space around the race car.

A German racing team solved this dilemma elegantly — with SEH: The technicians found a way to connect the CAN bus of the race car to the pit garage! An adapter (PCAN USB) connects the car and the INU-100. The INU-100 in turn is connected to the garage's network. In other words: The laptop is in a garage far away and receives the data from the pit garage (via the INU). When data is transfered, the INU-100 in the pit garage switches its integrated relay. A red lamp lights up. If the contact is interrupted when the adapter is removed, the lamp switches to green and the race can continue. This exceptional case shows, that SEH products are perfect for creative and innovative solutions.

Beverage Industry: Smart and Cost-Saving Authentication

In many industry branches as for example in the beverage industry, it is commonplace to limit the access to equipment. The operators of our customer need to pass two hurdles if they want access to the plant's machines: they need to pass the physical access protection of the machines and they need access to the plant virtualization. As industry environments often require robust systems, the company uses an RFID system for authentication.

What Is Special About this Case?

The plant's control cabinet houses an INU-100. It connects

- the RFID reader (via USB) and
- the electrical door opener (via relay)

to the network and thus to the control center. The operators can identify themselves with one single card at both systems — and gain access to the machines as well as the plant virtualization.

The advantage of this solution when compared to regular solutions of this type is not only the lower cost but also the freedom of choice for the single system components.

Plant Breeding: Worldwide Production Control with SEH

Some plants require special care. And if we're talking about thousands of plants, as is the case with our customer, special equipment is required. And our customer modernized, digitalized, virtualized, and centralized this equipment — lighting, climate control, heating. All applications are now visualized in a graphical user interface.

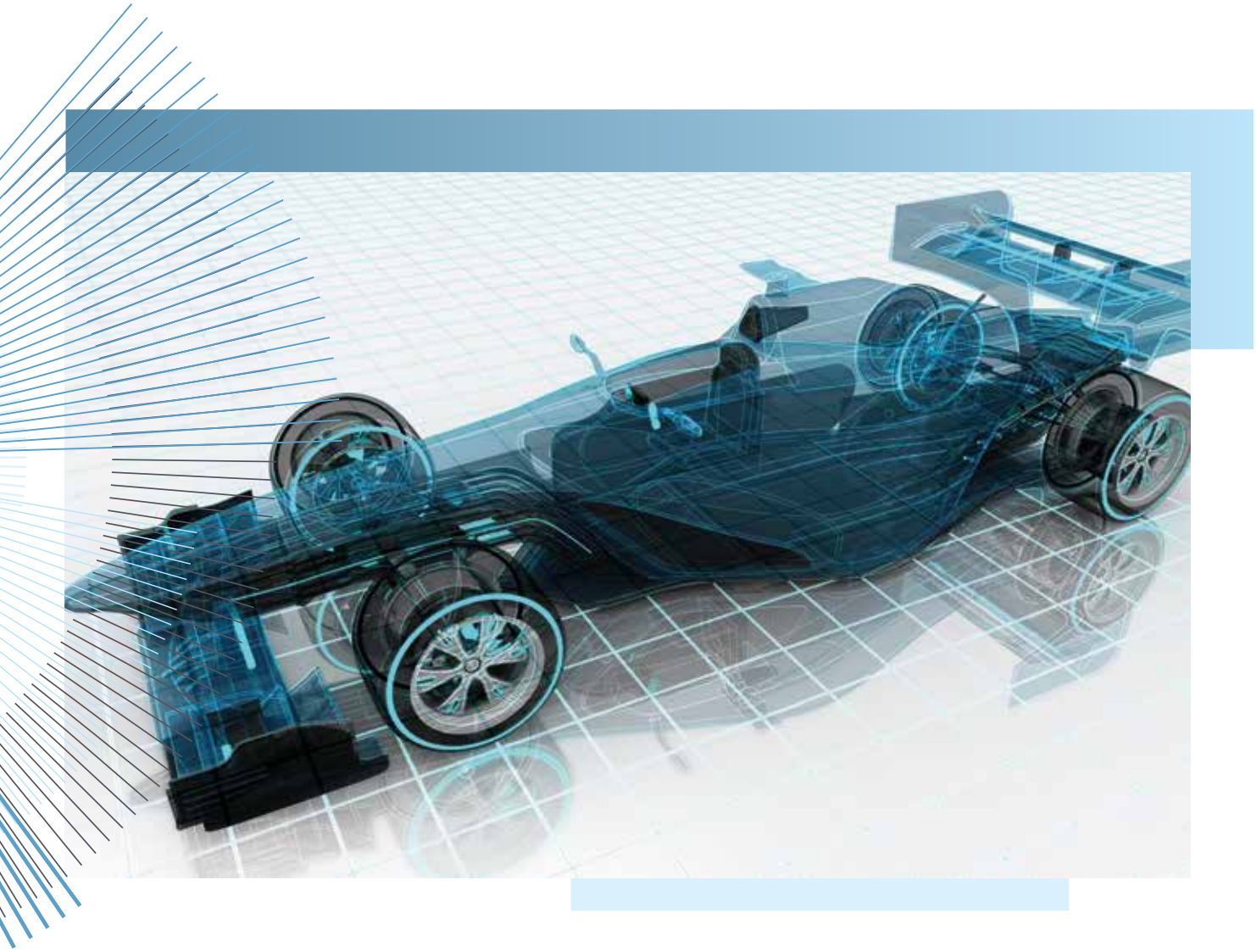
The challenge: Our customer had expensive and very reliable climate control computers which understandably were to be used in the future as well. And with our solutions existing and new systems can be merged seamlessly!

Serial to USB converters SU-302 and USB Deviceservers INU-100 now intelligently connect the climate control computers, greenhouse equipment, and the company's network. This solution provides many advantages. For example, the plants can be monitored and controlled from any branch anywhere (theoretically also from those that might be added in the future). In addition, central authentication at a panel PC on-site (i.e. in the greenhouse) is now possible. This new production process reduces costs and is more reliable and more efficient. A modern M2M strategy and saving costs can go hand-in-hand after all — as proven by this use case.

THE RACE ENGINEERS FOR YOUR NEXT INDUSTRY 4.0 GRAND PRIX **SEH!**

SEH specializes in premium-quality network solutions. With more than 30 years of experience in printing and networking, SEH offers a broad range of expertise for all professional environments.

SEH develops and manufactures all products at the headquarters in Germany. US and UK subsidiaries as well as an extensive network of partners, distributors, and resellers allow for worldwide distribution.



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