



SPECTRA GMBH & CO. KG

YOUR COMPETENT CONTACT FOR INNOVATIVE
INDUSTRIAL PC & AUTOMATION SOLUTIONS





THE COMPANY

WELCOME AT SPECTRA

Spectra GmbH & Co. KG was established in 1982 and has many years of experience in the fields of industrial PC, industrial communication and automation. Our services in the industrial PC sector include the development and manufacture of individual industrial PC systems, even in small quantities.

We integrate new technical developments into our existing services for the benefit of our customers. Thus we compile complete packages to the topic industry 4.0 & IIoT with our customers consisting of consultation, IIoT-products, configuration and programming. Another new feature is the integration of voice control solutions into our industrial PC, which allows a completely new type of interaction between man and machine.

With the objective of providing comprehensive, optimum and above all customer-proximate care in the German-speaking world, a subsidiary was opened in Switzerland in 2004: Spectra (Schweiz) AG. This was followed in 2006 by a branch office in Austria.

Marketing, purchasing, numerous logistics activities, development and quality assurance measures are performed centrally at our headquarters in Reutlingen. This is also the location of our large central warehouse with over 45,000 products, ensuring very short delivery times.

SPECTRA IN FIGURES

3.400 m² SURFACE

Office: 1.400 m²

Logistics/Production: 2.000 m²

104 EMPLOYEES

Germany: 80

Switzerland: 8 | Austria: 2

Taiwan: 14

6 LOCATIONS NATIONAL

Headquarters: Reutlingen

Sales Offices: South, southwest, Southeast,
West, North

3 LOCATIONS INTERNATIONAL

Switzerland: Spectra (Schweiz) AG, Winterthur

Austria: Spectra, Sipbachzell (Wels)

Taiwan: Cervoz Co. Ltd, New Taipei City





WE ARE DIFFERENT!

PERSONALITY

Customers for industrial high-tech products attach especially high importance to good service. For Spectra as a supplier of high quality products, competent and personal customer support in both pre- and post-sales is of key importance. Instead of having to call anonymous call centres, customers can at any time turn to their personal contact person, who with professional competence and experience is able to deal with requests and problems in a committed, cooperative and solution-orientated manner.

SPEED

So that we can implement customer requirements just-in-time, Spectra has optimised and streamlined all relevant processes. An expanded production site in Reutlingen and the computer-controlled logistics centre assure you of rapid and reliable production and short delivery times.

The shortest path from idea to the installed solution.



QUALITY

Unser Anspruch an absolute Qualität fängt bei der sorgfältigen Auswahl von Komponenten an und beinhaltet gewissenhafte Qualitätskontrollen mit zahlreichen hausinternen Tests. Modern ausgestattete, intelligent organisierte Produktionsräume sind der notwendige äußere Rahmen für eine präzise und hochwertige Fertigung unserer Industrie-PC Systeme.

Dazu gesellen sich motivierte, bestqualifizierte Mitarbeiter mit langjähriger Erfahrung.

DOWN-TO-EARTHNESS

With solid technical knowledge and „private sector“ common sense, we have always been considered by our customers ever since the company was established as a reliable business partner. Solutions are designed transparently and on schedule, planning for complex projects is set out in project specifications.

Project management is supported by efficient ERP and our experienced team helps our customers to save time and money.

SPECTRA

INNOVATIVE INDUSTRY SOLUTIONS

For us, customer satisfaction also means delivering the right solution for every industry. Our competence, developed from many years of experience and knowledge of customer needs, is your advantage.

We know which requirements products have to meet for the different industries. Whether IP protection, norms & standards, vibration resistance or other special requirements, we offer you the right solution for your application.

IMAGE PROCESSING & VISUALISATION

Industrial image processing plays a major role in the progressive automation of manufacturing processes. High reliability, more safety, high throughput speeds and improved economy are in demand.

In addition to the appropriate cameras and software, fast industrial PC are used to evaluate the image data in real time.

A secure network structure with a high data throughput is another important component.

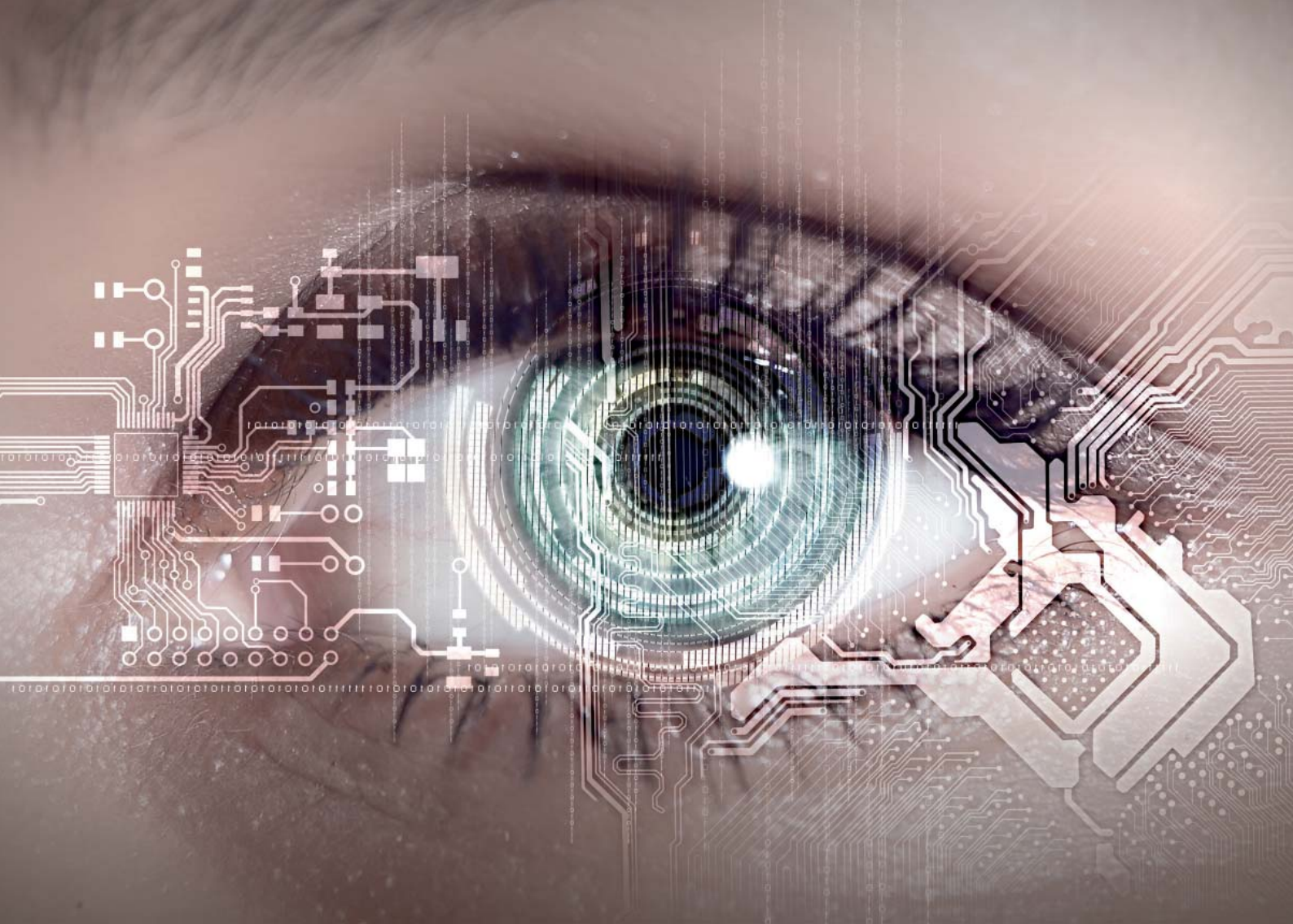
Spectra offers you numerous solutions for image processing – the automation technology of the future.

DIGITAL SIGNAGE

A typical digital signage application is the presentation of digital media content in advertising and information systems. These include electronic posters, electronic traffic signs or display boards at railway stations or airports. For these applications Spectra offers Mini PC with high graphics performance.

BUILDING AUTOMATION

SPS with HMI, Panel-PC, Programmable Controllers and much more for the control of heating systems, air conditioning systems, access control systems or intelligent lighting concepts can be found at Spectra.



SECURITY

Surveillance of large company premises, building entrances or underground garages are some areas of application in which our Mini-PC, switches and cameras are used in the security sector.

TRANSPORT

Products that are used in the transport industry have a special E-certification. They have to meet very special requirements with regard to vibration resistance and environmental influences. Most of the mini PC that are used have Ignition Control functions.

We also offer panel PC, monitors and switches for use in trucks, buses, ships and trains.

INDUSTRIAL VOICE CONTROL

Together with our partner, Voice Inter Connect GmbH, we offer customized sensors, network and processing units (private servers). We also design and implement flexible, user-centered operating concepts for machines and systems.

In addition to powerful hardware and network technology as well as installation support, Spectra customers can also take advantage of consulting and integration support for intercom solutions, voice and video transmission, evaluation and storage.

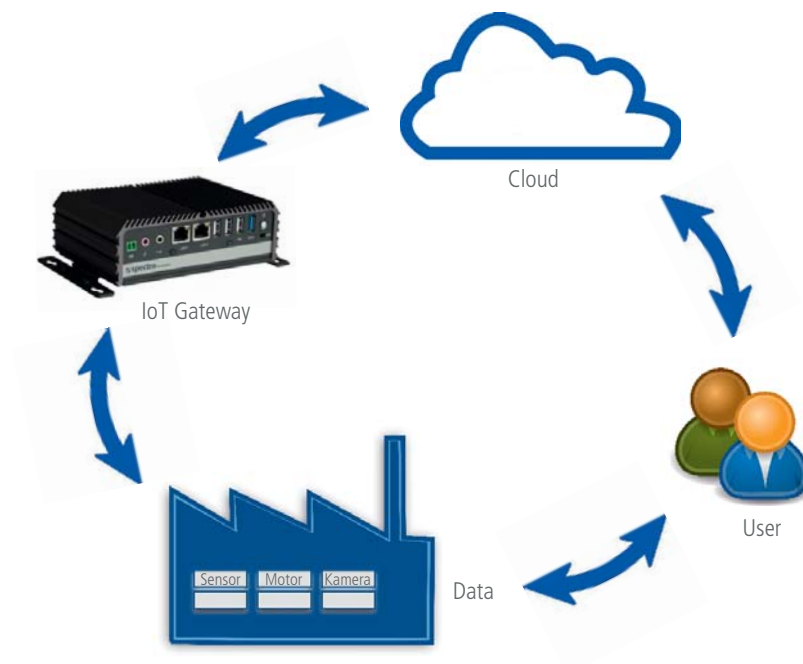
In this way, internal communication, documentation and administrative processes can be designed and optimised more efficiently.

SPECTRA INDUSTRY 4.0 AND IIoT

FROM SENSOR TO CLOUD

Industry 4.0, Industrial IoT (Internet of Things) & Co. represent the consistent digitalisation of industrial value creation networks. Plants, machines and processes merge here with information and communication technology

to so-called Cyber Physical Systems (CPS). They are associated with the idea that, as part of a self-coordinating network, they initiate a fundamental improvement in industrial processes.





DIGITALISATION IN PRODUCTION

Two technological trends dominating this development: the leaps in performance in hardware technology and the integration of components in an IP-based network, including communication with central cloud servers on the Internet.

With their open universal architecture and built-in multi-core Intel processors, modern embedded systems are predestined to take on the task of data integration and processing. In addition, specialized IoT gateways help to transfer data from the existing sensors of the machine world to the cloud environments. For this purpose, the gateway collects the data in different fieldbus environments formats, makes these standard

Ethernet capable and communicate via mobile networks or the ordinary Internet access of a company with the cloud services.

The fine-grained, real-time data exchange between manufacturing and management systems can lead to greater flexibility and better utilization of production capacity through smaller batch sizes.

The cost structures in production can be optimized by an automated coordination of consumption and capacities. It is also conceivable that plants could use their „knowledge“ about the current values of the production parameters and independently initiate maintenance.

However, entering the industry 4.0/CPPS age is a thematically and technologically challenging task: Companies must carefully weigh up which data makes sense at all for evaluation in the context of cloud services. This also raises the question of how the information from sensors, actuators, processes and machines can be channelled into standard Ethernet communication.

Spectra is your competent partner in these questions and works with you to develop individual solutions in the area of industry 4.0 & IIoT. From consulting, hardware and software to implementation – everything from one source.



INHOUSE DEVELOPMENT DEPARTMENT

WE MAKE IT POSSIBLE

Our development department is significantly involved in the development or improvement of spectra's own products.

Do you have requirements that the market cannot meet? You need a special design? We make it possible. Our experts have a high technical understanding and many years of experience.

They are at your side with words and deeds both during the implementation of larger projects and during the development of your customer-specific system and discuss all requirements with you in detail.

Again our slogan „powered by individuality“ fits.

KNOW-HOW IN INDUSTRIAL COMPUTING

ONE FOR ALL

Whether industrial production, research or medical technology, environment or building management technology, Spectra offers a tailor-made PC solution. This claim is supported by numerous references from a wide variety of industries.

Almost all the big names in manufacturing industry are to be found in our customer file. However, many small and medium-sized companies and virtually all German universities and technical colleges appreciate our personal service and our wide portfolio.

THE MATCHING SYSTEM SOLUTION

Whether standard 19" industrial PC for integration in control cabinets, compact PC, panel PC with flat screen display, a PC for installation on DIN rails or a powerful digital signage player. The choice is yours.

And in consultation with your personal Spectra adviser, you decide the best and most suitable solution for your application. We prepare a high quality, turnkey system that undergoes comprehensive tests before it reaches you.





YOU CAN DEPEND ON US

QUALITY AND WARRANTY

Our careful selection of components combined with numerous and extensive tests guarantee the quality of our products, their reliability and your security! No company can afford down-times nor should it have to.

We therefore test all our systems, which leave our premises, in a practice-based 24-hour burn-in test so that can be rest assured that the product that has been individually matched with your requirements will reliably withstand even the toughest demands.

Furthermore, we extend a 24-month warranty over all systems.

SERVICE AND SUPPORT

In addition to the warranty and quality assurance, we offer our customers not only expert individual advice, but also competent support during commissioning and if any problems arise in service. Our repair department provides rapid, reliable and uncomplicated assistance – also on our customers' premises.

Our range of services is rounded off with qualified pre-sales advice and after-sales support by our experienced system integrators. In addition, we offer an assembly and designer service for customised industrial PC and multimedia systems.

SPECTRA

THE SYSTEM SUPPLIER

INDUSTRIAL PC SYSTEMS

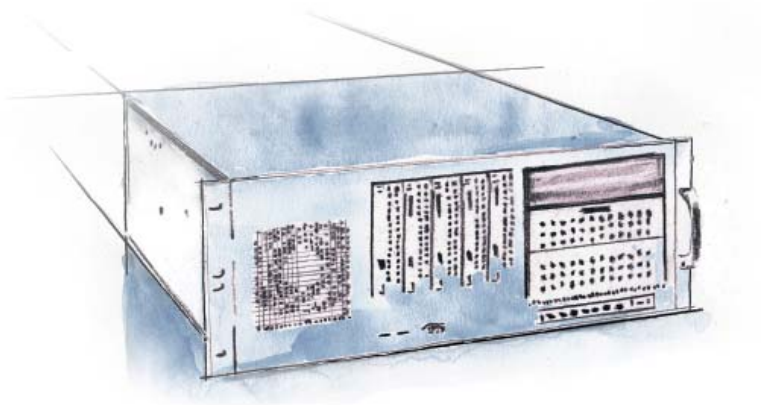
Customised, powerful, especially robust solutions are what is required here.

A Spectra industrial PC system is especially harmonised and assembled with customer requirements.

After all, when it comes to maximising productivity, the highest levels of standards of reliability and the best quality are of decisive importance.

PORTFOLIO

- IPC systems for 19" installation with or without flat screen display
- Mini PC with or without fan
- Industrial panel PC with touch screen in metal housing
- Fanless box PC for use in vehicles
- DIN-rail PC
- Industrial PC with PCI and PCIe extension slots in compact housing



SPECTRA THE COMPONENT SUPPLIER

In addition to our range of systems, we offer you robust industrial PC components that are suitable for industrial use and have long-term availability.

These range from displays and power supply units to housings. The portfolio is supplemented with industrial boards.

However, anyone who has bought an industrial PC from us often also needs an Ethernet switch or fieldbus modules, because the IPC is often not isolated in the production chain, but should process and pass on recorded data. You will also find a large number of these products in our portfolio.

INDUSTRIAL PC COMPONENTS

The component carousel is turning faster and faster. Innovative developments and trends come and go at an ever increasing rate. Spectra with its products is always future-orientated and combines state-of-the-art innovations with continuity.

PORTFOLIO IPC COMPONENTS

- Displays & monitors
- IPC housing
- Power supplies
- Industrial PC boards
- CPU cards, passive bus boards
- PC extension cards & modules
- Processors, memory modules, SSD





COMMUNICATION & AUTOMATION

Industrial communication involves the transmission of data between devices and the conversion of different interfaces and protocols. High transmission speed and high reliability play a decisive role.

PORTFOLIO COMMUNICATION

- Ethernet switches
- Interface converters
- Device servers
- Media converters
- Hubs, repeaters, isolators

Spectra offers a wide range of products with which you can implement your automation solution. Data acquisition with fieldbus I/O modules, control with a compact PLC, data transmission via cloud solutions and much more.

PORTFOLIO AUTOMATION

- Fieldbus I/O modules
- Fieldbus I/O systems
- Programmable Automation Controller (PAC)
- Plug-in modules for I/O systems & PAC
- Programmable Logic Controller (PLC)

OUR ADDITIONAL SERVICES

Spectra defines service as understanding your wishes and implementing them, the goal always being to supply you with an all-inclusive package. To achieve this, we make a wide range of modifications to the industrial PC systems, conduct extensive tests, install your

software or organise hands-on workshops for programming our controllers.

Sometimes we are also just the interface to refer you to the right point of contact. Satisfied customers are our top priority.

CONFIGURATION ADAPTATION

You can change individual components (hardware, operating system) of our standard industrial PC at any time. The integration of your additional, customised components is also possible ex works. These will be included into the system tests conducted as part of the final inspection.

COMPONENT KITS

Component kits consisting of an industrial board, CPU, fan, RAM and SSD are the ideal basic framework for an individually designed PC system. All components are tested for full compatibility. We register your individual component kit under its own article number, which includes the serial numbers of all parts and we monitor availability and revisions. Upon request we will also install your software image.

COMPATIBILITY TEST

Despite the comprehensive standardisation of PC, it makes sense to thoroughly test customised systems, including the installed software, prior to series production. Our burn-in oven is also capable of simulating increased temperature requirements. All compatibility tests are documented in a comprehensive test record.

INDIVIDUALISATION

The possibilities for individualisation are numerous. They range from the individual colouring of the housing or front panel to the printing or sticking of your logo.

We realize requirements of this kind quickly and easily, even for smaller quantities.



CUSTOMER-SPECIFIC ITEM NUMBER

Your individual industrial PC is managed under its own item number in Spectra's ERP system. This allows for clear revision control of your system and easy reordering.

MECHANICAL MODIFICATIONS

Sometimes the mere relocation of an interface within the housing is sufficient to make a standard PC your ideal PC. In some cases, the attachment of a cost-effective mounting plate can significantly reduce the assembly costs or improve the thermal installation position of the IPC.

SOFTWARE MODIFICATIONS

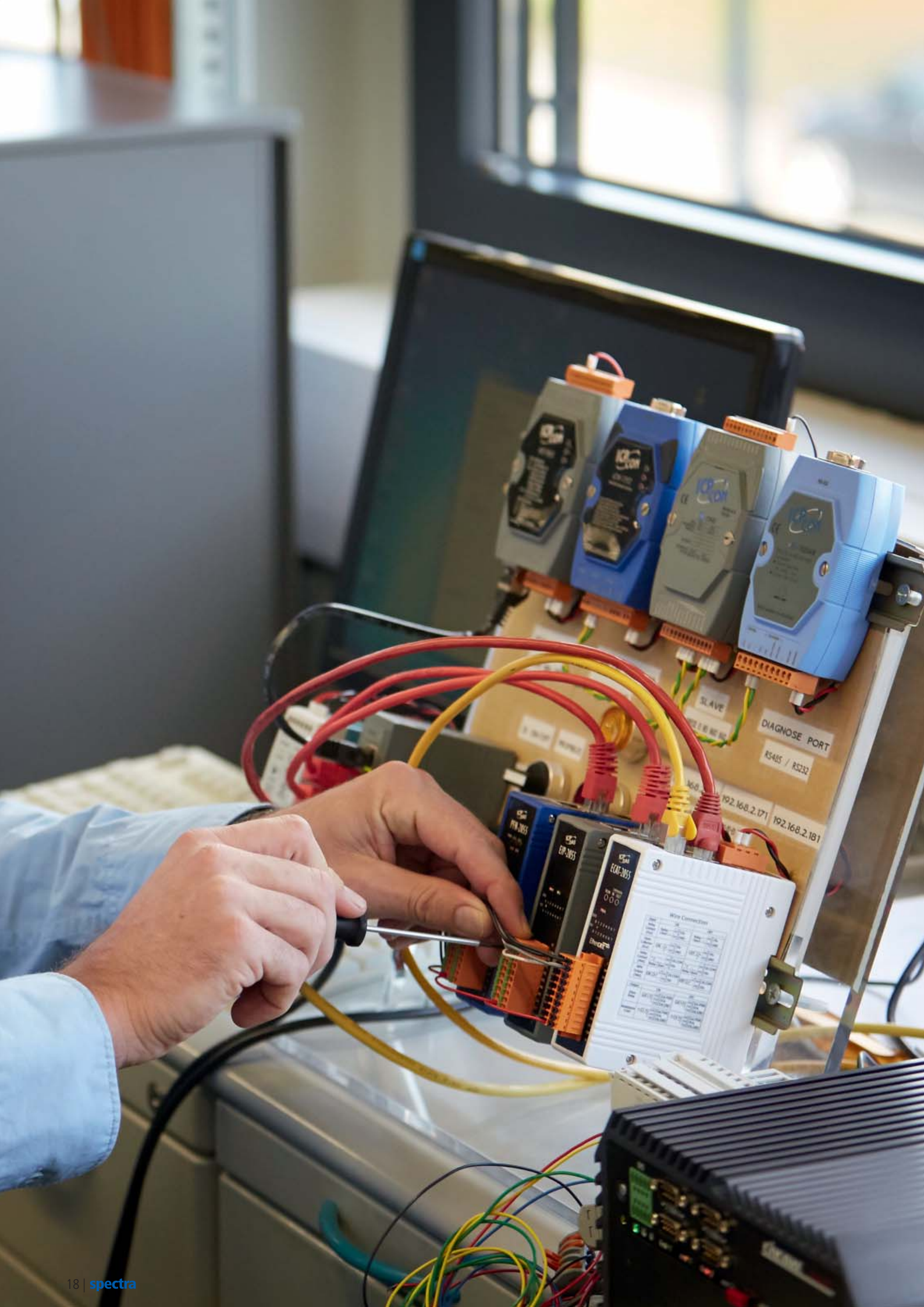
From BIOS modifications to the development of customised operating systems. We can install the operating system on your industrial PC either in a "frozen" state defined together with you or in the most recent version.

CUSTOMISED FINAL INSPECTION

As part of the final inspection, we conduct extensive system tests for your customised industrial PC system in consultation with you. Our individual options range from customised test cycles to application tests of additional hardware provided by you, all the way to extensive documentation.

CUSTOMISED LOGISTICS CONCEPTS

Framework agreements guarantee the long-term, on-schedule delivery of your products. The storage of components that are crucial for your project enables us to reproduce the same industrial PC even after product discontinuation. Moreover, it can be useful to consider together the packaging materials or packaging units to optimise your in-house processes.



AFTER SALES SERVICE & SUPPORT

PERSONAL CONTACT

Customers of industrial high-tech products attach particular importance to first-rate service. The failure of an industrial PC may indeed entail a standstill of a production line.

Therefore, it is a matter of course for us to ensure that in the event of hardware problems you have a competent and experienced point of contact at your disposal who is able to solve some problems already over the phone.

SIMULATION OF OPERATING CONDITIONS

If the problem cannot be eliminated with the help of the telephone support, the computer needs to be examined in our company. We make enquiries about the specific operating conditions on site and simulate them in our company. This approach allows for quick fault diagnosis and fault removal.

ELIMINATE CAUSES OF FAILURE

Even with applications that have run without problems for a long time, increased error messages can suddenly occur. If you suspect an error in the hardware, we analyze together with you what has changed in the environment recently. Because often changed environmental conditions are the cause for the occurrence of a malfunction.

BACKUP FROM MANUFACTURER

The long-standing, close relationship with our Hardware supplier also benefits the customer in a support case. Should we not be able to answer a question or solve a problem, the developers and support of the manufacturer are available to us and our customers.

WORKSHOPS

Would you like to get an easier introduction to the world of compact controllers or expand your existing knowledge?
Are you thinking about an Industrial IoT project and need information that will make your first steps easier?
We offer workshops in our company or at your site.

powered by individuality



Phone
E-Mail
Web

Spectra GmbH & Co. KG

Mahdenstr. 3
72768 Reutlingen
Germany
+49 (0) 7121 1432-10
spectra@spectra.de
www.spectra.de



Phone
E-Mail
Web

Spectra GmbH & Co. KG

Gewerbepark Ost 1
4621 Sipbachzell (Wels)
Austria
+43 (0) 7240 20190
info@spectra-austria.at
www.spectra-austria.at



Phone
E-Mail
Web

Spectra (Schweiz) AG

Flugplatzstr. 5
8404 Winterthur
Switzerland
+41 (0) 43 27710-50
info@spectra.ch
www.spectra.ch

To improve the legibility of the text, the use of gender-specific language forms was not applied.
All personal designations are valid for all genders.

