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## Medical equipment becomes interoperable

The steute business unit Meditec develops and manufactures controls for medical equipment. We spoke to Guido Becker, Meditec Product Manager, about the special requirements of this complex industrial field.



*Use-systems in medical technology have to withstand a lot and thereby be communicative and easy to use.*

### >What trends do you see emerging in the development of medical equipment?

The equipment is becoming more and more complex, as are the user interfaces. Also, an increasing number of devices are being used in the OR, often for the purpose of performing imaging techniques during surgery. This has an additional impact on control design.

### >What consequences does this have for your work?

We – together with our customers – have to consider how we can best manage this complexity and facilitate ergonomic, intuitive and error-free operation of OR equipment. An intelligent menu design is very helpful here, permitting multiple functions, as well as integration, i.e.

operation of different devices with the same user interface - a very important current trend.

**>What does that mean in more specific terms?**

That means: a surgeon first plans the operation using a navigation system controlled via the user interface. Then he or she switches to performing the surgery with various electrosurgical devices, controlled via the same user interface. During the operation the surgeon controls proceedings using a surgical microscope, which is also activated via the same user interface because the devices are all integrated.

**>Integration is currently also a key topic in industry. How is it being solved in the medical field – who defines the interfaces and standards?**

There is a landmark project concerning the interoperability of medical equipment in which many renowned manufacturers and universities are participating. We are involved as an associated partner. The goal of OR.NET is to develop and establish open standards which facilitate such interoperability for devices from different manufacturers. At the same time, OR.NET will create interfaces for the connection of devices to holistic hospital information systems.

**>Is that still a long way off or already reality?**

At the Medica im November 2015, we were able to show the practical advantages of integration with other OR.NET partners: an ultrasound dissector and a surgical microscope were controlled via a joint user

interface. This project uses the foot control from the surgical microscope. The surgeon selects one of the two medical devices via a touchscreen and is then able to operate either one with the same foot control. This considerably reduces the complexity of the control unit - and the surgeon, who uses the dissector and the microscope in turns, does not have to keep readjusting.

**>This project concerns the future – but what is the present situation? What can steute offer its customers today?**

We have split our product range into two lines. Our „Classic“ controls are configured according to the customer's wishes on the basis of an existing modular system. The user interfaces in our „Custom“ line are developed individually with the customer from the outset. Our activities focus on foot controls for all types of medical fields, but hand controls are also to be found within our range.

**>Hygiene is a frequent concern in connection with hospitals. Does this impact the design of user interfaces?**

Definitely. We have developed foot control systems suitable for washer-disinfectors (WD). To date, this procedure has only been customary for surgical instruments. Hygiene is also an key reason why our latest controls communicate with their medical devices by radio and not cable.

**>This trend is also to be observed in industry. Can you use the same wireless standards as your colleagues in the steute business unit Wireless?**

No. We have developed a dedicated wireless technology for medical equipment.

**>What will be the focus of your presentation at the Medtec 2016?**

We shall be represented on the joint VDMA booth for medical equipment with other suppliers and will be showing examples of user interfaces for medical equipment from different fields – including, of course, WD-compatible and wireless controls.

**>In retrospect, was it a good strategy to target medical equipment as a potential market?**

For us it was definitely the right step about twenty years ago. It enabled us to tap into a very innovative and technology-friendly

new clientele which we have collaborated with intensively ever since, growing and learning all the time. It has to be said, however, that the entrance barriers to this market are high. Medical equipment has a completely independent set of standards and, as medical products, user interfaces are subject to very high standards of quality and traceability, etc. For this reason we manufacture them in a completely separate production hall.

**>Thank you for talking to us!**

Interviewed:



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Images: steute Schaltgeräte GmbH & Co. KG