WirelessHART: Easy Integration into Existing Field Devices

By Inge Hübner

After some teething problems, wireless technology, such as WirelessHART, is becoming more and more established in the process industry. To make it easier for users to integrate this wireless technology into existing field devices, Softing’s communications specialists have launched a WirelessHART module. In the following interview, product manager Thomas Hilz sets forth details and background information on this product. He also gives an insight into the WirelessHART market and its standard.

etz: Mr. Hilz, Softing [1] has been extending its fieldbus and Ethernet know-how to include the WirelessHART area. How would you assess the spread and the acceptance of this relatively young wireless transmission technology?

T. Hilz: It’s true, we have been doing business in the field of wired industrial communications for over 30 years. On the basis of this know-how, we have decided to extend our portfolio to include the wireless area, since we see substantial advantages there for our customers. After a somewhat hesitant start and initial uncertainty, e.g. due to competing wireless standards and doubts about the security and reliability of wireless devices, a strong increase in the acceptance of wireless data transmission can currently be observed. WirelessHART has by now become established as a standard. There is an ever-increasing number of use cases, and plant operators worldwide are recognizing the advantages of this technology, which in turn has an impact on demand for us. According to an ARC study conducted last autumn, WirelessHART takes a leading position in terms of standardized wireless protocols in process automation.

Regional centres of demand can certainly be seen in Europe and North America at the moment, but our sales office in Japan, for example, has been reporting increasing inquiries regarding WirelessHART, too. In this context, however, it also needs to be mentioned that HART has traditionally been rather weakly represented in Japan, and given the installations there of which some have been around for quite a while and growing old, there is an increasing need for digital devices.
etz: What kind of products are you currently offering in terms of WirelessHART?
T. Hilz: The core business of Softing has always been in the integration of industrial communications technology for device manufacturers and system vendors. Consequently, with the WD-H, we are now offering a communication module for the integration of WirelessHART into field devices for process automation. Outstanding features of the WD-H include comprehensive certification as well as the high quality of the stack, which is based on the well-known WiTECK stack. As one of the founding members of the WiTECK consortium [2], we have been able to learn first-hand what demands are made on the stack. In addition, it has been of decisive importance for us to use standard components in the development of the wireless module and to ensure the longest possible range for the transmission of data.
Moreover, we offer a WirelessHART Starter Kit that enables newcomers to evaluate WirelessHART and supports the integration of our module into the customer's application. This product has been designed with efficiency and ease of use in mind.

etz: Against what background did this product focus take place, and what has customer response been like so far, to the Starter Kit on the one hand, and to the module on the other?
T. Hilz: Softing provides perfectly tailored communication solutions. This gives customers the possibility to concentrate on their core competence, e.g. sensor technology.
In a first step, we deliberately focused on the development of an embedded WirelessHART module, since the range offered by module providers at the moment is not really very large. Our experience and expertise, e.g. in integrating modules into field devices, makes it easier for customers to develop complete WirelessHART field devices. We want to provide our customers with a powerful alternative based on practical experience.
Last winter, we officially launched our WirelessHART products, and now, in the first quarter of 2012, we have already seen a strong interest in the WD-H and in the Starter Kit. For the latter, we've already been able to win some interesting customers, including international ones. The feedback has been positive throughout and encourages us to continue our course.

etz: Are you going to introduce more developments at the Hanover Fair?
T. Hilz: To my knowledge, Softing is the only provider worldwide with experience in both process and manufacturing automation.
Therefore, in addition to our products of the WirelessHART range, we will also be showing products at the Hanover Fair that are based on other technologies. In addition to PROFIBUS and PROFINET, they will also include OPC, Foundation Fieldbus and various Real-Time Ethernet protocols. Special mention is to be made of our FBK-2, which allows the integration of not only Foundation Fieldbus but also PROFIBUS PA into field devices, and thus ensures the greatest possible flexibility for the customer. Furthermore, I'd like to point out that we have recently launched a most powerful Real-Time Ethernet Module, the RTEM, which offers our customers maximum security of investment through universal hardware.

etz: What will be your focus regarding further developments in the field of WirelessHART?
T. Hilz: Softing has always believed in the use and in the development of standards to ensure maximum interoperability for our customers. This is shown, among other things, by the fact that we have all stacks right here in-house, which in my estimation is a unique thing. Our priority has always been to provide added value for the customer. That's why we try to use our know-how for future-oriented products that will provide functional advantages. In this connection, we have set ourselves the target to develop products that, circumstances permitting, are easy to understand and which, in addition, can easily be integrated and operated.
You have already mentioned that you are a member of the WiTECK consortium. Could you please give us a brief insight into the current state of activity? What is the role of Softing in the consortium?

**T. Hilz:** WiTECK stands for Wireless Industrial Technology Konsortium. This is an open non-profit organization for manufacturer and platform independent implementation of wireless standards for process and factory automation. It is an association of leading companies in the field of process automation whose mission is to provide a reliable, cost-effective, high-quality alternative to the hitherto established wireless standards and make it available to its members.

Softing assumes a special role here: On the one hand, we do the actual development and programming work, in return for which WiTECK grants us permission to modify, port, extend and independently market the original software. On the other hand, we act as an official licensing agent.

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**Fig. 2.** Another highlight of the Softing product range: the FBK-2. It offers a quick solution for the integration of Foundation Fieldbus H1 and PROFIBUS PA into field devices

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**Fig. 3.** Thomas Hilz works as a product manager for Softing Industrial Automation GmbH in Haar, Germany. He is responsible for the development and international launch of WirelessHART and HART products. In addition, Thomas Hilz is an active member of various working groups of the fieldbus organizations

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**More information**