

# Online seminars



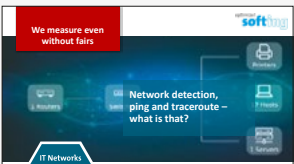

Special times require special measures. We would be pleased to continue to hold our seminars live and on site with your customers and to demonstrate the latest developments in the field of IT network technology. But even in times of keeping our distance, we bring our expertise to you and are still happy to be there for you.







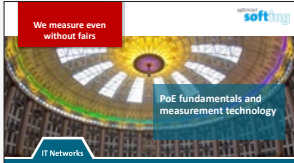

For this purpose, we offer you an extensive selection of online seminars, which we would be happy to organize and conduct together with you.








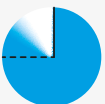
**We look forward to being close to you and your customers in this way, even in these special times.**

## 3 steps to an online seminar

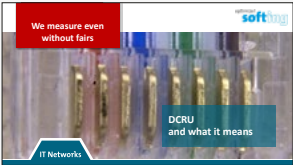

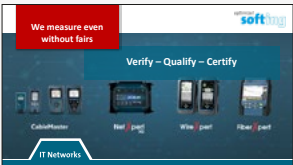

- 1** Select up to three seminars from the list.
- 2** Send your selection to your sales contact.
- 3** We will then contact you to find a suitable date.

	Brief description	Target audience	Duration
<b>1. CABLING STANDARDS UPDATE 2020</b>			
	<p>For a legally compliant acceptance measurement it is important to keep up to date with the latest cabling standards.</p> <p>What new names and link definitions are there?</p> <p>This online seminar explains in detail the important innovations in the EN50173 and ISO/IEC 11801 series of standards for the certification of cabling systems.</p>	Anyone who deals with the passive data/network infrastructure, plans, installs, supports, builds or checks it.	 30-45 min.
<b>2. NETWORK DETECTION, PING AND TRACEROUTE - WHAT IS THAT?</b>			
	<p>Network detection, ping and traceroute:</p> <p>What do these terms mean in concrete terms and what possibilities does it open up for the technician or system administrator?</p> <p>Which values are good, which are bad and where are which errors in the data transmission inside and outside my network?</p> <p>Is my printer online, can I access the Internet and why is the website taking so long?</p> <p>The online seminar will show you how the NetXpert XG can be used to detect active and inactive network components as well as errors.</p>	Anyone who deals with the passive and active data/network infrastructure, plans, installs, supports, builds or checks it.	 30-45 min.

	Brief description	Target audience	Duration
<b>3. FUNDAMENTALS OF FIBER OPTIC MEASUREMENT TECHNOLOGY</b>			
 <p>We measure even without fairs</p> <p>Fundamentals of fiber optic measurement technology</p> <p>IT Networks</p>	<p>Fiber optic cabling is the backbone of modern communication networks, the data center, industrial and office environments.</p> <p>Learn the basics of fiber optic building cabling and the associated fiber optic measurement technology. Get an overview of fiber optic technologies based on the principle of Universal Structured Building Cabling, the cable and connector types used, the underlying fiber optic standards and norms.</p> <p>The usual test and measurement methods are explained and the acceptance measurements according to Tier 1 and Tier 2 with the parameters to be tested are shown.</p>	<p>Anyone who deals with the passive and active data/network infrastructure, plans, installs, supports, builds or checks it.</p>	 <p>60-90 min.</p>
<b>4. FUNDAMENTALS OF COPPER MEASUREMENT TECHNOLOGY</b>			
 <p>We measure even without fairs</p> <p>Fundamentals of copper measurement technology</p> <p>IT Networks</p>	<p>This online seminar gives an overview of the basics of universal building cabling and the associated copper measurement technology for installation, acceptance measurement and troubleshooting.</p> <p>Learn about the structure of structured cabling, the subdivision into the individual functional levels and the respective media used. Receive updates on the applicable standards and norms and the usual definitions (e.g. the difference between component category and route performance class, the meaning of the NVP value, etc.)</p> <p>The three main test and measurement methods - verification, qualification and certification for copper networks - are explained and the tested parameters of a certification including possible causes of faults are explained.</p>	<p>Anyone who deals with the passive and active data/network infrastructure, plans, installs, supports, builds or checks it.</p>	 <p>60-90 min.</p>
<b>5. INSPECT BEFORE CONNECT</b>			
 <p>We measure even without fairs</p> <p>Inspect before Connect</p> <p>IT Networks</p>	<p>The inspection and cleaning of the connector end surfaces of fiber optic connectors is an indispensable part of every connection process on a fiber optic line. Only an automated evaluation of the connector end surfaces of fiber optic connections guarantees consistent quality and functionality.</p> <p>In this online seminar you will learn the basics of data transmission on fiber optics and the setup of a fiber optic connector. Using real world examples, you will see how dirt or damage affects the light signals used for data transmission and learn more about standards.</p>	<p>Anyone who deals with the passive and active data/network infrastructure, plans, installs, supports, builds or checks it.</p>	 <p>30-45 min.</p>
<b>6. POE FOUNDATIONS AND MEASUREMENT TECHNOLOGY</b>			
 <p>We measure even without fairs</p> <p>PoE fundamentals and measurement technology</p> <p>IT Networks</p>	<p>Power-over-Ethernet, i.e. the remote supply of end devices via the (copper) data line, is currently one of the top issues in the cabling sector.</p> <p>This online seminar will explain how remote powering works, what PoE classes and power levels are available.</p> <p>Which standards/requirements for cabling structures and active components are relevant?</p> <p>What do I have to consider during installation?</p> <p>Which passive and active measurements are absolutely necessary to ensure a smooth combined transmission of data and energy?</p>	<p>Anyone who deals with the passive and active data/network infrastructure, plans, installs, supports, builds or checks it.</p>	 <p>30-45 min.</p>

	Brief description	Target audience	Duration
<b>7. CABLEMASTER - SIMPLE MEASUREMENT</b>			
 <p>We measure even without fairs</p> <p>CableMaster – simple measurement</p> <p>IT Networks</p>	<p>It used to be called “ringing out”, the process of checking the continuity of cables and conductors. Modern verifiers such as the CableMaster series do much more than just checking that the wiring is correct. For today’s data networks, the correct wiring diagram and continuous wiring is essential.</p> <p>Short-circuits, interruptions, incorrect connection/wiring of the connections, as well as incorrect wire assignments are frequent causes of malfunctions during data transmission. It is therefore absolutely necessary to carry out at least one basic connection test after installation.</p> <p>We will show you how to do this with our CableMaster series and which further tests are useful.</p>	<p>Anyone who deals with the passive and active data/network infrastructure, plans, installs, supports, builds or checks it.</p>	 <p>30-45 min.</p>
<b>8. FIBERXPERT - OTDR MEASUREMENT AND EVALUATION</b>			
 <p>We measure even without fairs</p> <p>FiberXpert – OTDR measurement and evaluation</p> <p>IT Networks</p>	<p>This online seminar provides insights into Optical Time Domain Reflectometry (OTDR).</p> <p>What is an OTDR, how does an OTDR work and what does an OTDR measure? Fiber optic cabling has to be measured and documented before commissioning, similar to copper cabling. In order to get a detailed view into the fiber optic, there are different measuring instruments and methods available, including the OTDR.</p> <p>How to use an OTDR correctly? In this online seminar you will learn what has to be considered when measuring fiber optic cabling and how the OTDR FX5000 FiberXpert can support you.</p>	<p>Anyone who deals with the passive and active data/network infrastructure, plans, installs, supports, builds or checks it.</p>	 <p>30-45 min.</p>
<b>9. WAVEXPERT - THE WLAN SNIFFER FOR DATA ANALYSIS</b>			
 <p>We measure even without fairs</p> <p>WaveXpert – the WLAN sniffer for data analysis</p> <p>IT Networks</p>	<p>The increasing use of mobile devices also requires better tools to analyze WLAN protocols. More mobile devices and “Bring Your Own Device” (BYOD) increase the amount of data in WLAN networks. Speed and bandwidth in our WLAN networks also increase with the new technologies.</p> <p>For troubleshooting and analysis of the WLAN data frames (e.g. with the WireShark software), this data must be labeled correctly.</p> <p>Gain an insight into the advantages of WLAN packet capture and analysis of wireless networks with the WLAN sniffer WaveXpert in this online seminar.</p>	<p>WLAN administrators, Service providers, system integrators and Wireshark users in WLAN area</p>	 <p>30-45 min.</p>
<b>10. WIREXPERT - MODERN CERTIFIER SERIES</b>			
 <p>We measure even without fairs</p> <p>WireXpert – modern certifier series</p> <p>IT Networks</p>	<p>Acceptance measurements are carried out with certifiers according to standards such as EN50173. The WireXpert certifies copper cabling up to category 8 or even fiber optic cabling. Its flexibility and clear, intuitive menu navigation make WireXpert an important measuring instrument for network cabling.</p> <p>We show you the necessary settings and possibilities for a legally binding acceptance measurement with the WireXpert.</p>	<p>Anyone who deals with the passive and active data/network infrastructure, plans, installs, supports, builds or checks it.</p>	 <p>45-60 min.</p>



	Brief description	Target audience	Duration
<b>11. NETXPERT - QUALIFY UP TO 10 Gb/s</b>			
	<p>With the NetXpert XG, the qualification of copper and fiber cabling with speeds up to 10Gb/s is now possible. Important in the field is a qualification and documentation of the commissioned performance of the structured cabling. This does not necessarily have to be a certification. For many customers it is sufficient to prove that the desired data speed is available at the outlet and is clearly documented.</p> <p>Learn how to qualify a copper or fiber cable link for an application supporting 10Gb/s speeds. Learn how to troubleshoot cable, active networks, and POE devices with this all-in-one tool.</p>	<p>Anyone who deals with the passive and active data/network infrastructure, plans, installs, supports, builds or checks it.</p>	 <p>30-45 min.</p>
<b>12. DCRU AND WHAT IT MEANS</b>			
	<p>Introduction to the direct current resistance unbalance measurement (DCRU).</p> <p>This online seminar explains how certain PoE applications affect cabling and why DCRU measurement is especially useful for cabling where 4-Pair-PoE applications are planned.</p>	<p>Anyone who deals with the passive and active data/network infrastructure, plans, installs, supports, builds or checks it. Particularly interesting for users who deal with PoE applications.</p>	 <p>30-45 min.</p>
<b>13. SINGLE PAIR CABLING</b>			
	<p>In this online seminar, we offer you an introduction to the Single Pair Technology with an outlook on the measurement technology for Single Pair applications.</p> <p>The online seminar explains which Ethernet applications can be covered with only one pair of wires and explains the standards on which they are based.</p> <p>The new single pair cabling structures are explained from the point of view of measurement technology and the necessary adjustments to the measurement technology are presented.</p>	<p>Anyone who deals with the passive and active data/network infrastructure, plans, installs, supports, builds or checks it. Particularly interesting for users who deal with industrial and building automation applications.</p>	 <p>30 min.</p>
<b>14. WIREXPERT - APPLICATIONS</b>			
	<p>Learn the different application areas for the WireXpert series: Copper cabling in office or industrial environments, data centers or laboratories. The WireXpert is versatile and always offers the right measuring adaptation for copper or fiber optics.</p> <p>The seminar leads the participants through the versatile application areas of the WireXpert series and shows how the WireXpert devices can be adapted by modules and upgrades to various applications for offices, data centers, industry and even laboratories.</p>	<p>Anyone who deals with the passive and active data/network infrastructure, plans, installs, supports, builds or checks it.</p>	 <p>15 min.</p>
<b>15. VERIFY - QUALIFY - CERTIFY</b>			
	<p>For modern data networks, the correct connection scheme and consistent wiring is essential. After an installation of the cabling, it is absolutely necessary to carry out at least a basic connection test. But which tests are mandatory? And what proof must actually be presented to the client?</p> <p>The online seminar provides important information on the correct selection of the measuring device.</p>	<p>Anyone who deals with the passive and active data/network infrastructure, plans, installs, supports, builds or checks it.</p>	 <p>45-60 min.</p>