



Network Instruments offers a variety of network troubleshooting certification programs and technical training courses across the world through NI University. Courses are designed to help IT administrators effectively monitor, troubleshoot and maintain their networks presenting both theory and practice in analysing networks using the award-winning Observer® network analyser.

Whether you are new to network administration or a seasoned industry professional, NI University has a variety of courses to help you gain basic network analysis skills or develop methodologies for proactive network management. Choose either a one-day introductory course or the comprehensive three-day Certified Network Instruments Engineer Program (CNIE).



### Course Descriptions

#### Introduction to Observer

This course is designed to teach students basic network management skills using the award-winning Observer network analyser. Maximise your Observer investment by learning how to effectively troubleshoot, maintain, optimize and monitor network traffic.

Upon course completion students will be able to:

- Discover common network problems and resolution methods
- Understand network specifications, principles and physical layer components
- Understand how to use a protocol analyser in switched, Fast Ethernet, and Gigabit Ethernet environments
- Install and configure the Observer console and Advanced Probes
- Diagnose a network using packet level details and basic SNMP

#### Advanced Observer Training\*\*

Take your troubleshooting skills to the next level with in-depth training on advanced software features. With Advanced Observer Training you'll have full knowledge of SNMP troubleshooting, Expert Analysis, filtering capabilities, switch scripting and more.

Upon course completion students will be able to:

- Utilise advanced filtering techniques for faster troubleshooting
- Pinpoint difficult problems through real-time or post-capture Expert Analysis
- Recognise differences between problems in the network and problems in higher-layer processes
- Determine a solid approach for troubleshooting networks by understanding the concepts that define the environment
- Manage SNMP devices located anywhere on the network
- Monitor and set notifications based upon SNMP traps
- Share findings using tailor-made charts, tables, lists and graphical objects
- Understand switch scripting techniques

\*\* prerequisite: Introduction to Observer



## NI University Certification Program

As a Certified Network Instruments Engineer you will have the full knowledge of heterogeneous network management and troubleshooting. Students must complete all three days of coursework, pass the practical examinations, and demonstrate understanding of the scripting process to be awarded the title of "Certified Network Instruments Engineer."

### Course Agenda

<b>Certified Network Instruments Engineer</b>	<b>Introduction to Observer</b>	<p><b>Day 1</b></p> <p>Registration/Introduction</p> <p>Using Observer's Distributed Network Analysis Architecture (NI-DNA™) to troubleshoot network problems</p> <p>Observer Overview</p> <p>Observer Standard Functions</p> <ul style="list-style-type: none"> <li>• Statistics and Tools</li> <li>• Packet Capture</li> <li>• Expert System</li> <li>• SNMP Basics</li> <li>• WAN Delay Analysis</li> <li>• Trending Setup</li> <li>• Reporting</li> </ul>
	<b>Advanced Observer Training</b>	<p><b>Day 2</b></p> <p>Lab 1 Deploying the analyser Lab 2 Fault Finding Techniques <i>Finding elusive problems and solving complex situations</i> Lab 3 Proactive Monitoring <i>Baselining the network and setting thresholds for triggers, alarms, alerts, SNMP traps and more</i> Lab 4 Network Management <i>Identifying erroneous network traffic and understanding protocols, applications, SNMP device management and more</i></p> <p><b>Day 3</b></p> <p>Lab 5 Wide Area Network <i>Using Observer on a WAN</i> Lab 6 802.11 Wireless Networks <i>Analysing, troubleshooting, and securing WLANs</i> Lab 7 VoIP Analysis <i>Understanding and troubleshooting Voice over IP connections</i></p> <p>Formal Examination - Written and Practical Test for CNIE certification</p>

### Required Student Materials

To register for any NI University course, each student must have the following:

- A laptop computer (Minimum Specifications: Pentium III, 1000MHz with 512MB RAM)  
*To rent a laptop, please contact your Network Instruments reseller*
- A licensed copy of Expert Observer or Observer Suite (current version)
- Either a Network Instruments PCMCIA card or another 10/100 Ethernet card
- A copy of a Microsoft Windows Operating System (Windows XP or 2000)

### Course Location and Registration

All NI University courses are offered at various locations throughout Europe. For more information about NI University courses and how to register, please contact your local reseller or one of our offices. Information is also available on our website at [www.networkinstruments.co.uk/training](http://www.networkinstruments.co.uk/training).

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