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DS 282 720-032 · Edition 1 · 0406

Know what is going on in your ETHERNET network:

With Industrial HiVision.

Operator Edition

- Easy monitoring of industrial networks
- Fast visualization
- Reliable early warning system
- LLDP-autotopology complying with IEEE 802.1AB
- Economical entry level solution

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Only someone who knows his network precisely is in a position to control it. The new HiVision with automatic topology detection via LLDP.

Requirements and Solutions

Precise knowledge of the network topology is absolutely essential in order to be able to monitor industrial networks reliably. The administrator must know how and where which components are connected together in order to be able to manage complex networks simply with a single piece of software and intervene or perform maintenance work as necessary.

The new IEEE 802.1AB standard now makes it possible to exchange equipment data within the network via the standardized LLDP-Protocol (Link Layer Discovery Protocol). In this case the switches take on a key function – provided that they support LLDP, a feature in all Industrial ETHERNET switches from Hirschmann.

In addition, the new Industrial HiVision version provides an extension of LLDP in so far as the end devices are concerned, which permits all the equipment such as PLC controls, I/O components or routers to be included, regardless of the manufacturer. LLDP enables the detection of the nearest neighbors and the reception of information from them but allows information to be sent about the end devices themselves. Therefore, automatic topology detection and mapping can be undertaken for the entire network. The result is simple and fast documentation of the complete industrial network within the Industrial HiVision program.

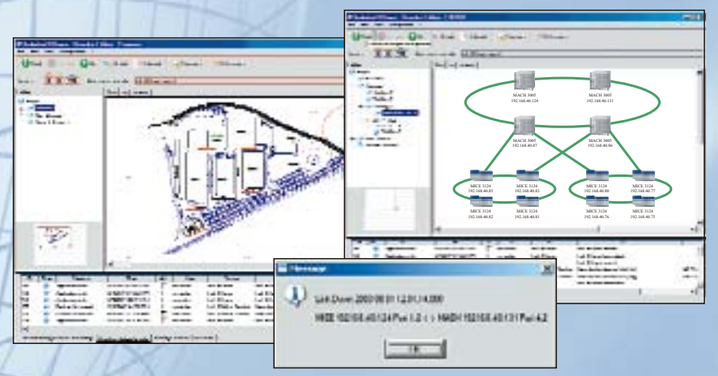
Product features

The intuitive user interface makes unknown networks visible and allows rapid and simple visualization of the topology. This is detected automatically with the aid of the LLDP protocol which scans and checks all connections in the network. In this way the network topology can be mapped automatically which saves knowing the network structure or reduces this to a minimum.

- Networks can be mapped in freely configurable hierarchies and structures
- Equipment scan and autodiscovery via IP-address areas and HiDiscovery
- Customization via freely selectable background images
- Event handling via polling and SNMP trap support
- Interfaces for equipment configuration and extended specific dialogue possibilities via external applications such as HiVision, Web Browser and TELNET
- Scalable price depending on the number of IP addresses in the network

Industrial HiVision

Product description					
Type	**Industrial HiVision – Operator Edition Network management**				
Version	Full version – 25 nodes	Full version – 50 nodes	Full version – 100 nodes	Full version – 250 nodes	Full version – 500 nodes
Order No.	943 156-025	943 156-050	943 156-100	943 156-250	943 156-500
License	License provides supervision of up to 25 nodes (IP addresses)	License provides supervision of up to 50 nodes (IP addresses)	License provides supervision of up to 100 nodes (IP addresses)	License provides supervision of up to 250 nodes (IP addresses)	License provides supervision of up to 500 nodes (IP addresses)
Upgrade version	Upgrade version – 25 nodes	Upgrade version – 50 nodes	Upgrade version – 100 nodes	Upgrade version – 250 nodes	Upgrade version – 500 nodes
Order No.	943 160-025	943 160-050	943 160-100	943 160-250	943 160-500
License	A full version for 25 nodes is required for the upgrade.	A full version for 50 nodes is required for the upgrade.	A full version for 100 nodes is required for the upgrade.	A full version for 250 nodes is required for the upgrade.	A full version for 500 nodes is required for the upgrade.
Node extension	To increase the amount of supervised nodes, licenses can be combined. Additional licenses on request.				
Diagnostics					
Autotopology	Topology discovery is based on LLDP (Link Layer Discovery Protocol, IEEE802.1AB) provided by the switches				
Monitoring	Device state, link and connection state (cable break, utilization), power supply and fan state, …, ICMP (Ping) and SNMP availability				
Modules and components	MACH, MICE, Power MICE, RS2, MICE 20/30, RS 20/30, Octopus, BAT, Lion Familie, EAGLE, EPL/RR, Foundry Networks FastIron Serie SNMP capable switches, any ICMP(Ping) capable device (PLC, decentral IO module, PCs, …)				
Supported protocols	HiDiscovery, ICMP (Ping), SNMPv1, SNMPv2c, SNMPv3				
Event generation	Polling and SNMP trap support				
Alarm and event actions	Alarm and event logging, including alarm actions like message window, e-mail, SMS and program start				
Configuration					
	 Device configuration can be done by WEB interfaces or e. g. HiVision (943 471-XXX). HiVision provides port, device and VLAN manager functionality. The preferred configuration tool can be configured individually for any device or device family.				
Software requirements					
Hardware	Processor: x86 compatible CPU, min. 1 GHz, RAM 512 MB, 1 GB (recommended), hard disk space 500 MB free				
Operating system	Windows 2000/XP Professional Edition and Linux (from kernel 2.2, glibc 2.0)				



Automatic topology discovery at a glance: The LLDP protocol makes it possible.

Applications

Since industrial networks need to be monitored more effectively because they are subject to a higher level of stress from environmental conditions, temperature fluctuations or wear and tear than office networks, management systems such as Industrial HiVision are essential today. In this situation, it is most important to check the status of the end devices and network components whilst they are still operating and to rectify faults before system failures occur which result in expensive downtimes. To guarantee a higher level of operational reliability, the new Industrial HiVision with automatic topology detection facilitates efficient, convenient and reliable network management. This in turn relieves the administrator of stress and saves on costs.