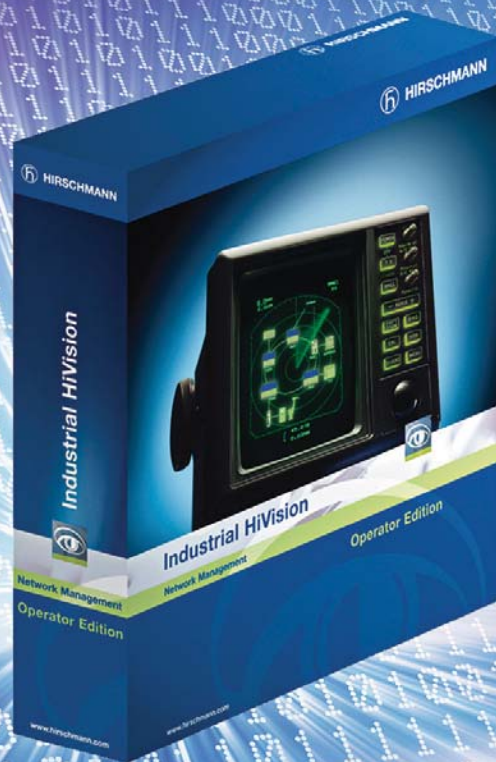




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Industrial HiVision Software



**The Essential Management Tool
For All Stages of Your Network
Life Cycle**



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Network visibility equals high availability. Industrial Hivision is a state-of-the-art software package for network management professionals.

You Can Depend On Hirschmann® To Keep Your Mission-Critical Systems Up And Running.





Industrial HiVision - The Essential Management Tool for all Stages of Network Life Cycle

About Industrial HiVision

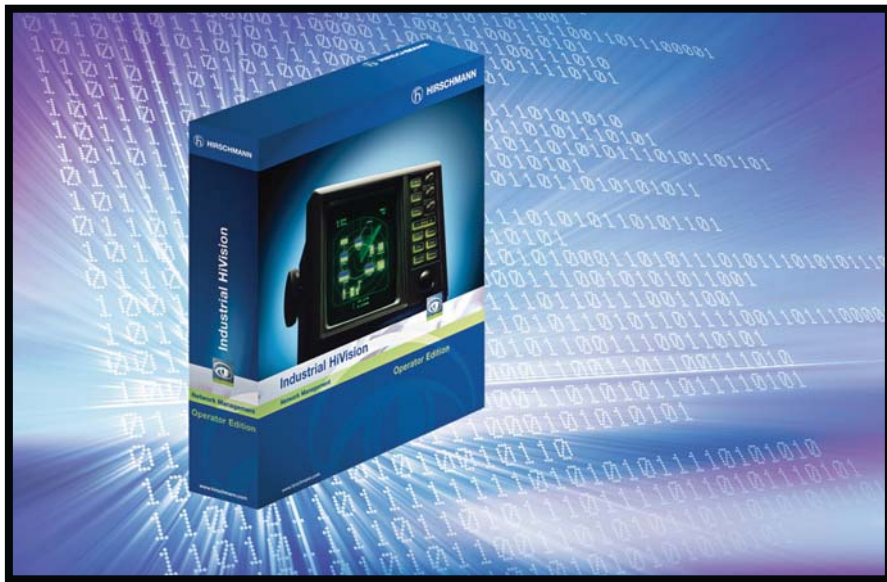
Network visibility equals high availability. Hirschmann® introduces Industrial HiVision, the new state-of-the-art software for industrial network management.

Designed for effective industrial supervision, Industrial HiVision is easy to integrate into SCADA applications and offers a built-in SNMP to OPC server. The graphical user interface is available as an ActiveX control or DTM and offers seamless operation inside FDT applications.

Turn individual network components into a complete network architecture while monitoring and reporting on system performance.

Features at a Glance

- Supports 32 and 64 bit Windows and Linux operating systems
- Integration of third-party devices
- Enhanced Auto-Topology Discovery
- Path availability calculator
- User-defined menus
- Configuration check.
- Client/Server architecture
- Asset Management
- OPC read/write
- Configurable scan rate
- Supports multiple languages
- MultiConfig for simultaneous configuration of multiple devices
- Password-protected remote access
- Reporting Tools (PDF or Microsoft® Excel)
- Licenses are available for multiple user nodes: 25, 50, 100, 250, and 500
- Node count licenses are cumulative - they can be combined to obtain the optimum fit for your application



Welcome to Industrial HiVision, where network availability equals high availability.

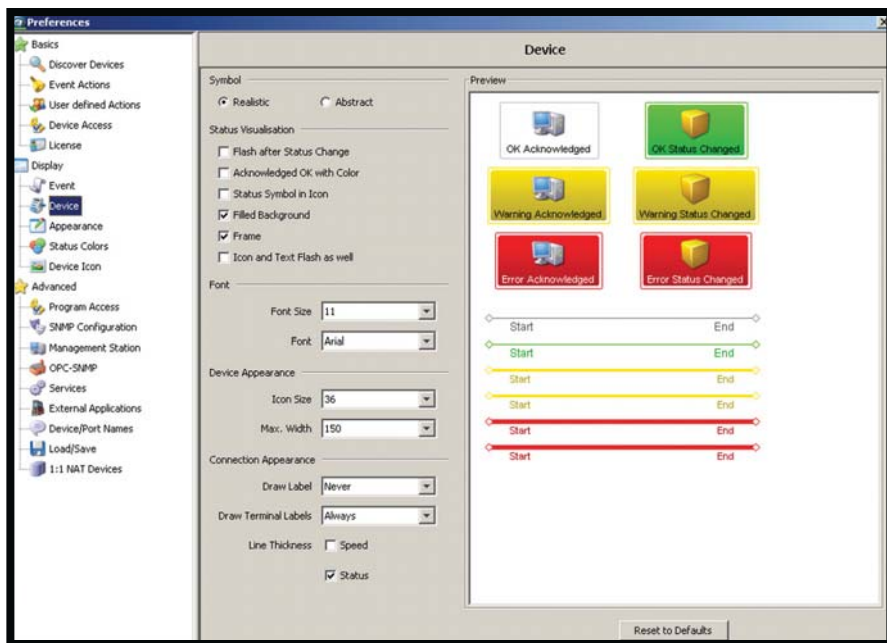


Illustration 1: The look and feel of Industrial HiVision is highly customizable.

Integration of Thirty-Party Products and Enhanced Auto-Topology Discovery

Integration of Third-Party Products

Network management software from a specific networking device manufacturer is of course optimized for the manufacturer's own devices. Generic network supervision software will never provide the ease of use and the deep level of product integration. However, in the real world, a network is a multi-vendor environment and end devices will be from a multitude of vendors. Industrial HiVision makes it simple for network administrators to integrate any manageable third-party product, no matter whether these are network infrastructure products or end devices.

All managed products offer a standard supervised feature set, for example the status of a connection to a device. In addition, options such as device-specific functions, status propagation and long-term history are available. You decide the level of supervision detail to suit your own requirements.

Key benefits

- Monitor and trend all manageable devices from any manufacturer.
- Industrial HiVision shows the status of your complete system.
- Total network supervision with a single network management application.

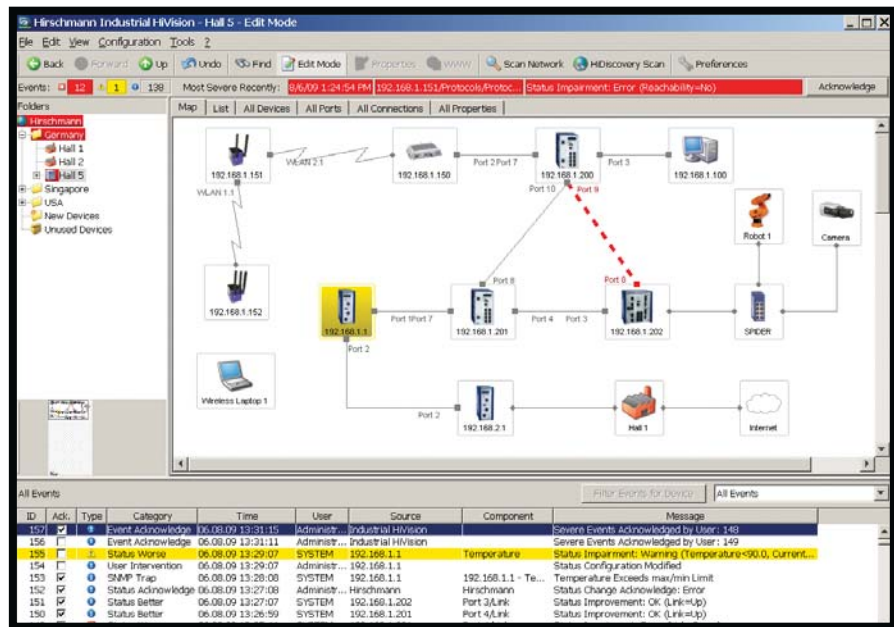


Illustration 2: Industrial HiVision graphical user interface.

Enhanced Auto-Topology Discovery

Precise knowledge of the network topology is essential for monitoring the reliability of industrial networks. The network administrator must know how and where components connect in order to manage complex networks and quickly perform maintenance as required.

The intuitive Industrial HiVision user interface allows rapid and effortless visualization of the network topology.

The standardized Link Layer Discovery Protocol (LLDP) is used when scanning all network infrastructure components as well as information received. This provides Industrial HiVision the means to build a representation of the network and its connectivity, including detecting devices such as PLCs, I/O, and HMIs while graphically depicting these devices on a topology map. Other devices detected include unmanaged switches and hubs, as well as devices located behind a router.

Key benefits

- Automatic creation of network maps without manual intervention.
- Topology maps are 100% accurate.
- Network documentation is always up to date.



Path Availability Calculator, Line Thickness for Link Speed, and Reporting Tools

Path Availability Calculator

The objectives of the path availability calculator are to calculate the availability of communication between two devices, when there are multiple physical paths and to show the effect of adding additional physical paths (based on the algorithm developed by Hanover University of Applied Science, Fachhochschule Hannover).

The path availability is calculated using Mean-Time-Between-Failure (MTBF) and Mean-Time-To-Recover (MTTR) rates. These are configurable using MultiConfig.

Line Thickness for Link Speed

Link Thickness is an optional feature to Industrial HiVision which recognizes line speed between switches and other devices automatically.

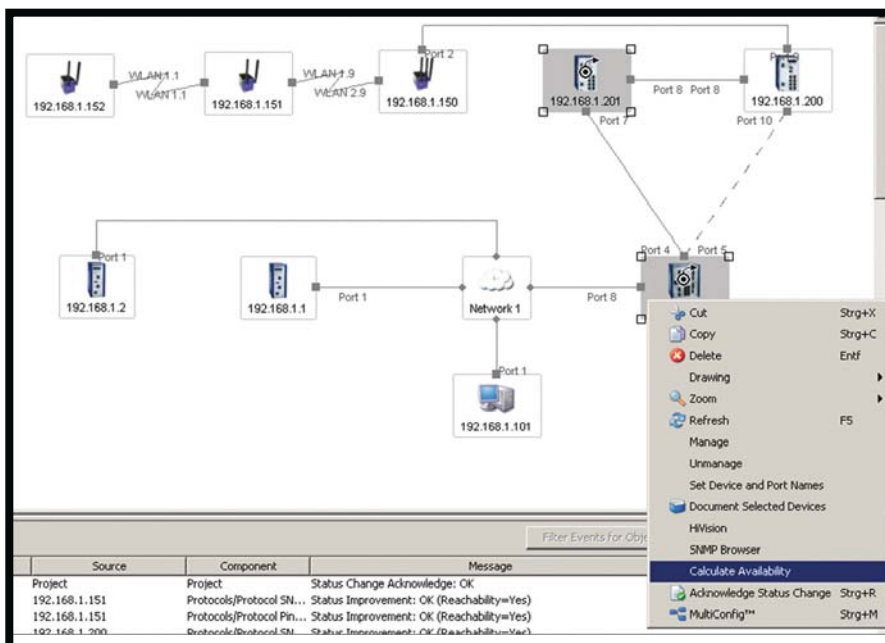


Illustration 3: Calculating the availability of communication between two devices using the Path Availability Calculator.

Reporting Tools

Designed for long-term reporting, this feature allows outputs in Portable Document Format (PDF) – table, bar or line graph or Microsoft Excel with graph conversion. The recording of any parameter is possible – including user defined parameters, with multiple parameters per graph. Typical report parameters include bandwidth utilization, number of errors, and temperature thresholds etc.

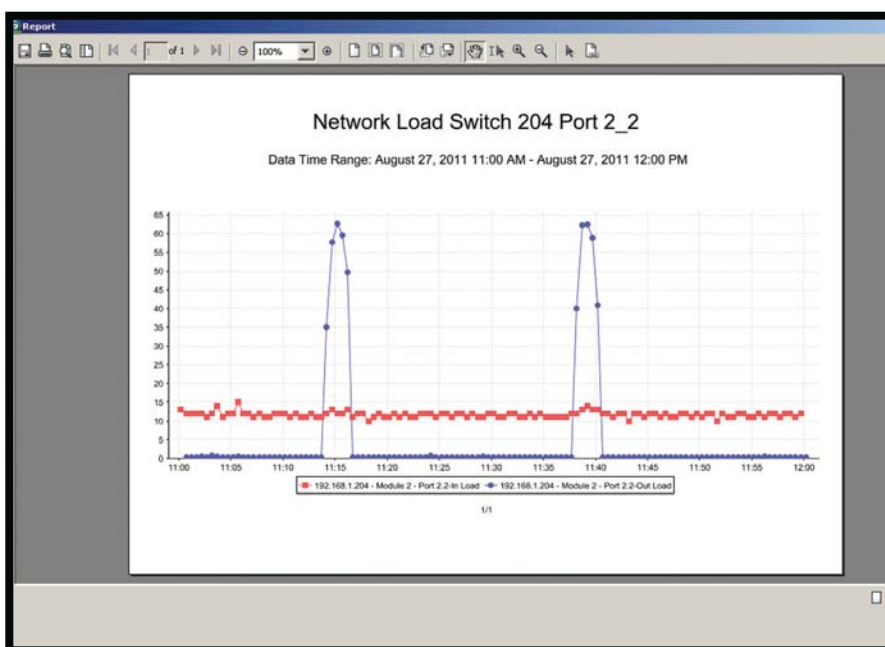


Illustration 4: Recording of any parameter is possible using the reporting tool interface.

MultiConfig™ For Network Installation and Live Operations

MultiConfig for Network Installation

Most network infrastructures require identical configuration parameters for devices. However, those parameters will differ from one network to the next. Which redundancy protocol is required? What is the temperature threshold of the devices? Where is the timeserver located? Is the web interface disabled for live operation? To which management station are alarms sent? Must unused ports be disabled? The list is endless.

Whether you are configuring 10 devices, or 1000 devices, the problems are the same. Configuring devices individually is a tedious task and a misconfiguration error on a single device can be almost impossible to find. As a result, Site Acceptance Tests will be prolonged or the network may fail during live operation. MultiConfig prevents these problems from happening.

Not only will MultiConfig allow you to configure the same parameters across multiple devices simultaneously, but it will also show you where there is inconsistency between parameter configurations. It even works across different types of devices, where those devices have parameters in common. Finally, MultiConfig will allow you to save multiple device configurations, both locally and to a server, without touching devices individually.

Key benefits

- Reduction in network installation time.
- Consistency in network infrastructure configurations.
- Expedited network hand-over collateral.

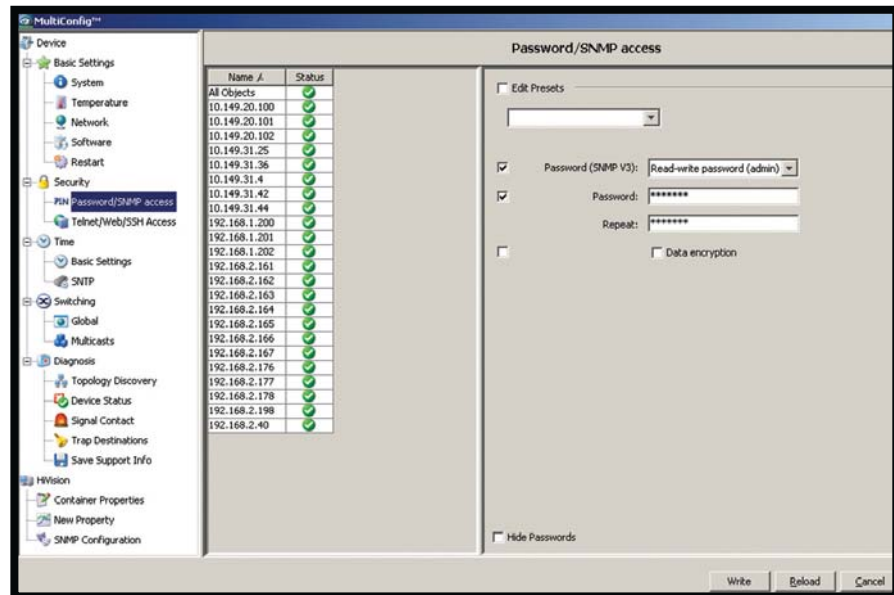


Illustration 5: Example of MultiConfig to change passwords on multiple devices simultaneously.

MultiConfig for Live Operation

Throughout a network's lifetime operation, it is necessary to carry out repetitive but essential maintenance tasks. The threat of cyber attacks means that responsible network administrators will change device passwords regularly. Technology innovations can have great benefits for network architectures, but most devices require firmware updates. In the worst-case scenario, if your network suffers a failure, your support organization will need immediate access to the current configuration files and event logs of all your network devices.

Of course, for small networks, the access to each individual device requires less work, but there are still benefits when using MultiConfig. Nevertheless, for both small and large industrial networks, network security and high availability are the ultimate goals. MultiConfig can fulfill these requirements with a few clicks of a mouse. As a result, network administrators can meet their daily objectives with the least effort and minimal risk.

Key benefits

- Highest network availability.
- Least effort required for network administration and maintenance.
- Minimized operational risk.



Industrial HiVision Benefits

Engineered Through Experience

Industrial HiVision is the fourth generation of network management software from Hirschmann. As technology continues to evolve and new hardware comes to market, Hirschmann continues to improve its network management software. Building on our experience, Industrial HiVision encompasses all the features and benefits of earlier versions. These include:

- Client / Server architecture
- Web browser client
- Edit and Run modes
- Network hierarchy display
- Global and individual status display and propagation
- Flexible event handling
- Customizable data acquisition
- Long-term trending
- Comprehensive export functions
- Asset Management
- Multiple topology displays
- Reporting Tools

Thirty-Day Free Trial

As a network administrator, you need innovative tools to help you meet your targets. Hirschmann is famous for innovation. We are committed to evolving Industrial HiVision to match our new hardware functionality, meet the requirements of our customers, and exceed the demands of the Industrial Ethernet marketplace.

At your convenience, download our latest version of Industrial HiVision, and test it, free of charge for 30 days. Longer evaluation periods are available on request.

To download your free thirty-day trial of Industrial HiVision, visit our website at www.hivision.de.



Always the Right Solution

Belden Inc. designs, manufactures, and markets cable, connectivity and networking products in markets including industrial automation, enterprise, transportation, infrastructure, and consumer electronics worldwide. Belden has manufacturing capabilities in North America, Europe and Asia, and a market presence in nearly every region of the world. Belden was founded in 1902, and today is a leader with some of the strongest brands in the signal transmission industry, including Hirschmann® and Lumberg Automation™.

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AMERICAS

Hirschmann, A BELDEN BRAND

1540 Orchard Drive
Chambersburg, PA 17201
Phone: 717-217-2299

Fax: 717-217-2279

www.belden.com/hirschmann

For technical or sales inquiries, please email
hirschmann.ethernetsupport@belden.com

For training and registration
www.hicomamericas.com