



ConneXview – 针对日益复杂的工业以太网解决方案

演讲者：华镭

HEC 市场部产品经理

Clipsal

Merlin Gerin

Square D

TAC

Telemecanique





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I. 简介

II. ConneXview 介绍

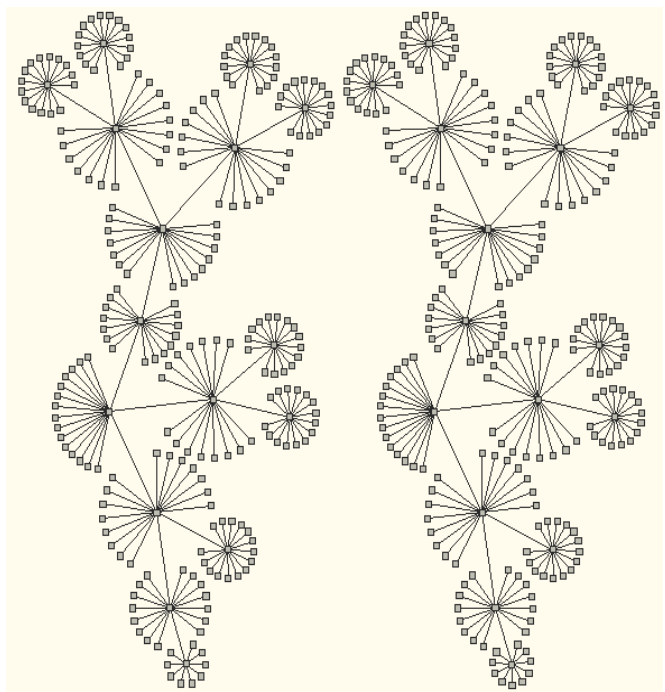
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I. 简介



- 工业以太网正在变得日益复杂:
 - 更多的节点, 连接, 新设备和更多的流量
- 这种复杂性需要多种工具来“理解”网络:
 - 监视状态, 识别问题和帮助解决
- **ConneXview** 就是一种解决方案:
 - 以太网诊断和排除故障的工具



I. 简介



II. ConneXview 介绍

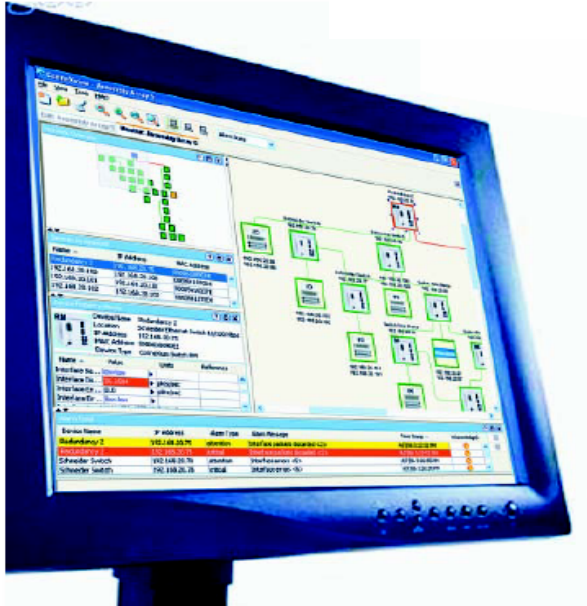
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II. ConneXview 介绍



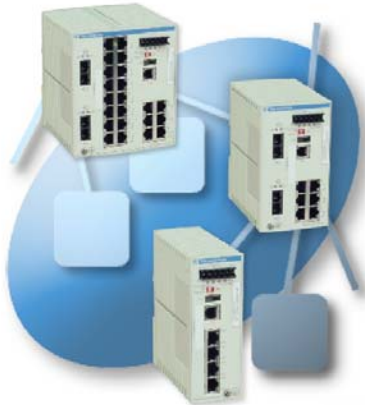
- 负责工业以太网维护的人员要处理：
 - 以太网的复杂拓扑结构
 - 众多的通信协议
 - 潜在数量巨大的连接设备

- **ConneXview** 是一个诊断和故障排查工具，专为工业以太网和自动化人员而设计



II. ConneXview 介绍

- 很多施耐德产品已经内置于 ConneXview 的文件库中，可以通过该软件识别
 - ConneXium 交换机
 - Modicon PLC
 - Advantys IO
 - ...和众多其他产品
- 允许增加设备，即可以是施耐德产品，也可以是非施耐德的产品，可以加入到 ConneXview 定制的产品中去





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III. ConneXview 的特性

- 自动发现网络和设备，自动生成连接的设备与网络的拓扑图形
- 监视网络的健康状态
- 一旦出现“超限”，提供报警
- 有一个内置的“网络助手”帮助你诊断和解决问题





III. ConneXview 的特性



M1EHost



ConneXium Switch RM

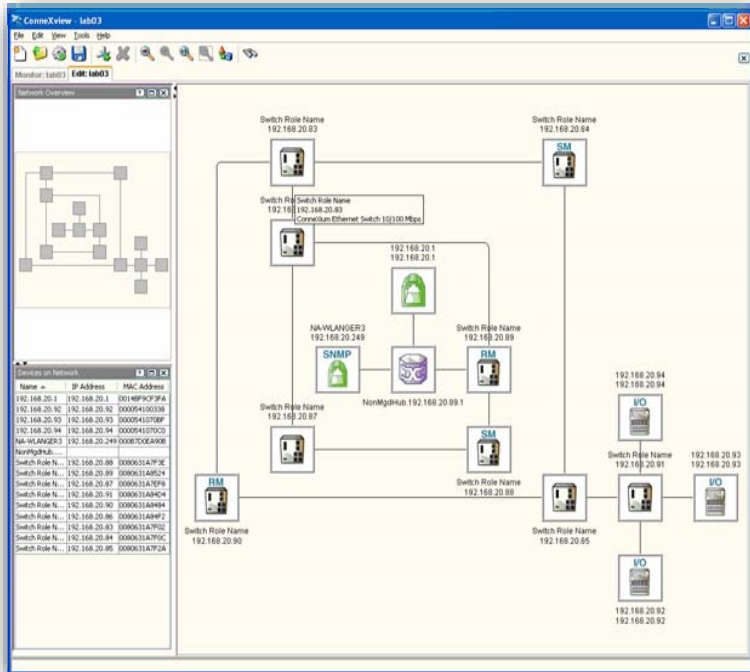


ETZHost

- 连接设备和网络拓扑的图形表示了发现设备的图形对象。图形可以进行编辑，如加入今后打算添加的设备 (包括层 2 网络)

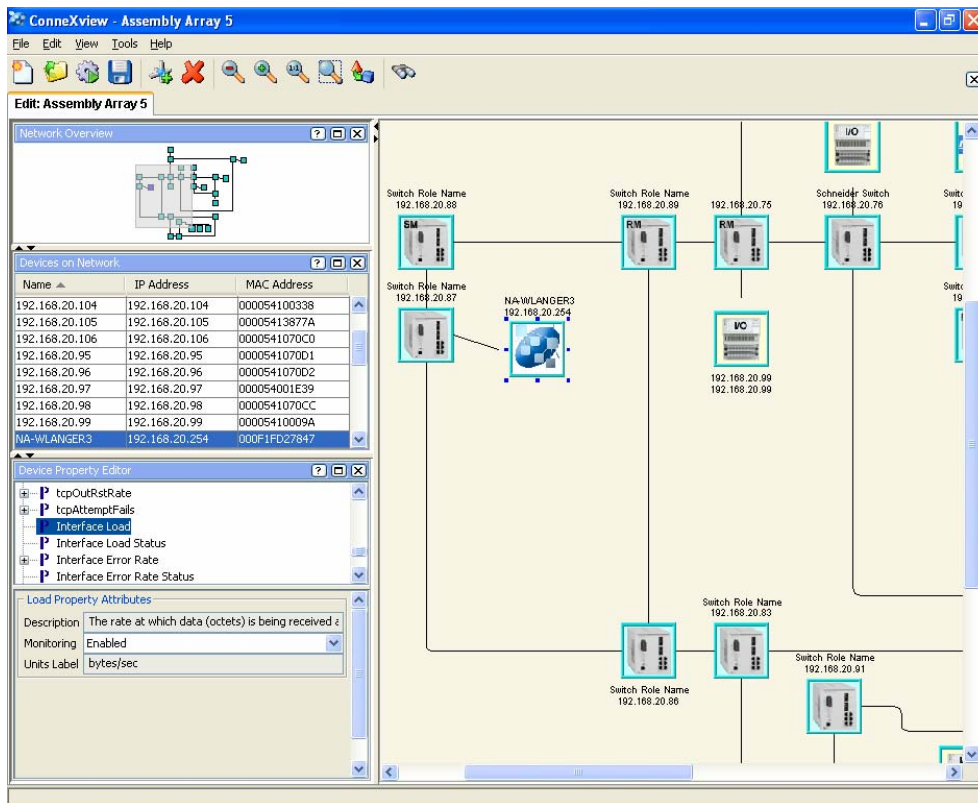
- 支持两种协议来发现 (SNMP 和 Modbus TCP) 设备的更多属性

- 图标和标签描述帮助你以图形方式识别在网络拓扑图上的每个设备





III. ConneXview 的特性



The screenshot displays the ConneXview software interface for 'Assembly Array 5'. The main window shows a network diagram with several switches and a central server. The left sidebar contains several panels:

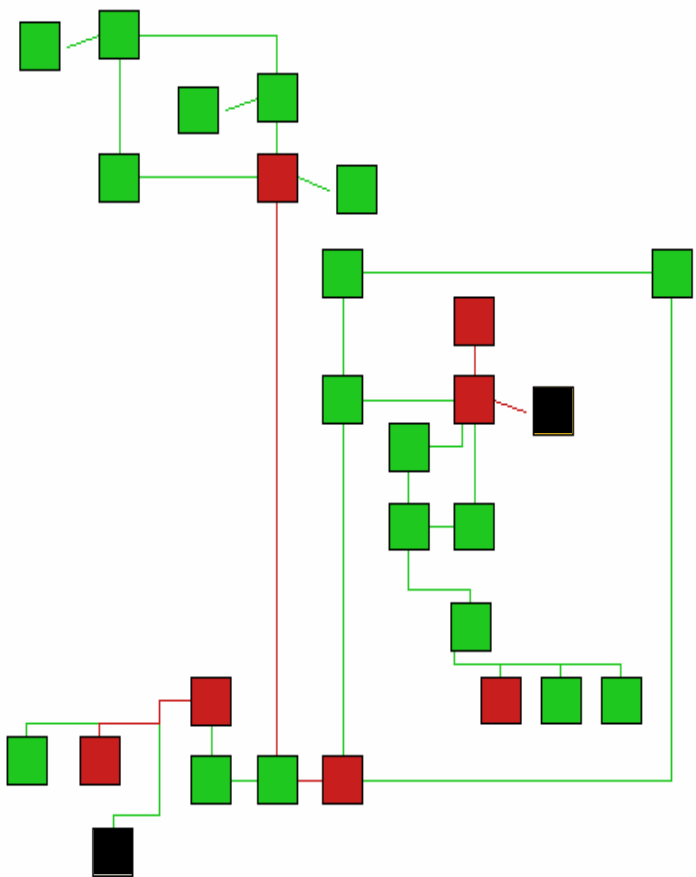
- Network Overview:** A small thumbnail of the network diagram.
- Devices on Network:** A table listing network devices with their IP and MAC addresses.
- Device Property Editor:** A panel for configuring device properties, including 'Interface Load' and 'Interface Error Rate'.
- Load Property Attributes:** A panel for configuring load-related attributes, such as 'Monitoring' (Enabled) and 'Units Label' (bytes/sec).

Name	IP Address	MAC Address
192.168.20.104	192.168.20.104	000054100338
192.168.20.105	192.168.20.105	00005413877A
192.168.20.106	192.168.20.106	0000541070C0
192.168.20.95	192.168.20.95	0000541070D1
192.168.20.96	192.168.20.96	0000541070D2
192.168.20.97	192.168.20.97	000054001E39
192.168.20.98	192.168.20.98	0000541070CC
192.168.20.99	192.168.20.99	00005410009A
NA-WLANGER3	192.168.20.254	000F1FD27847

- 任务框中提供了很多深层次的信息，包括连接设备列表和网络统计
- 每个设备都支持超级链接，连接到它的用户工程工具或 web 网页上
- 如果对某个区域感兴趣，可以使用放大功能，更详细查看相关的内容



III. ConneXview 的特性

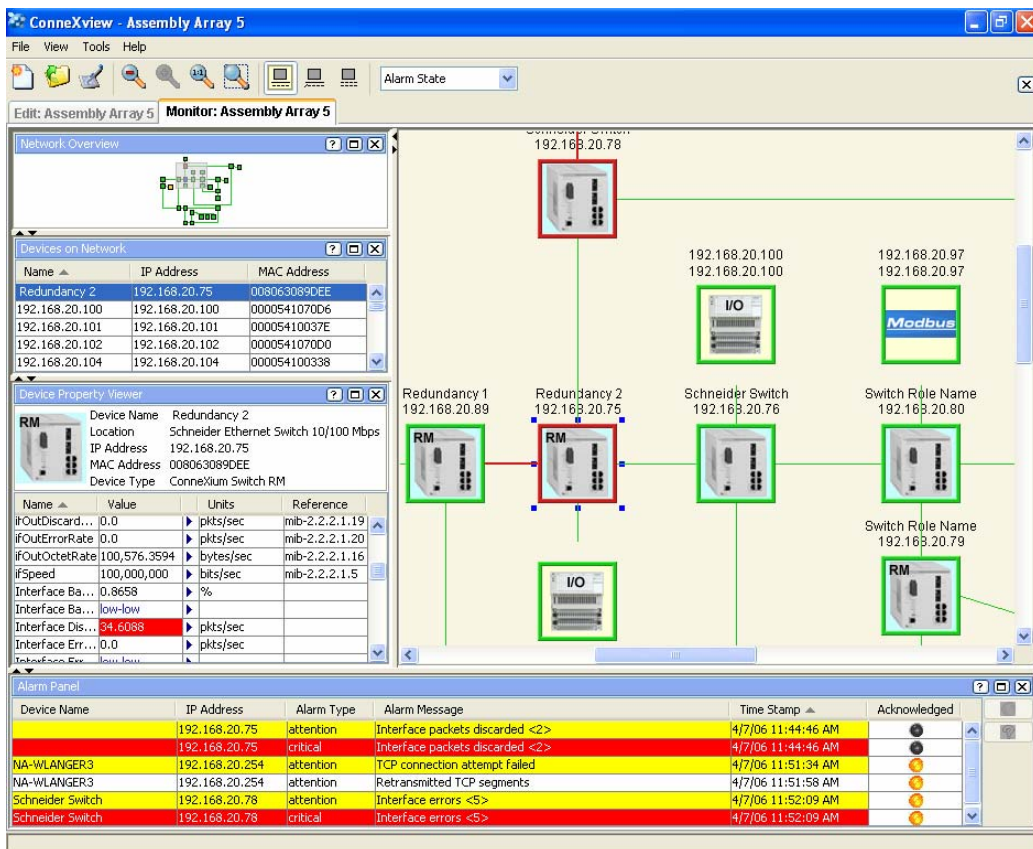


- 自动发现和网络拓扑图为网络健康和设备存在提供了即时确认能力
- 每个网段和网络设备使用彩色编码表示不同含义：
 - 绿色 表示所有设备工作正常
 - 黄色 意味着具有潜在的问题
 - 红色 表示需要立刻引起注意



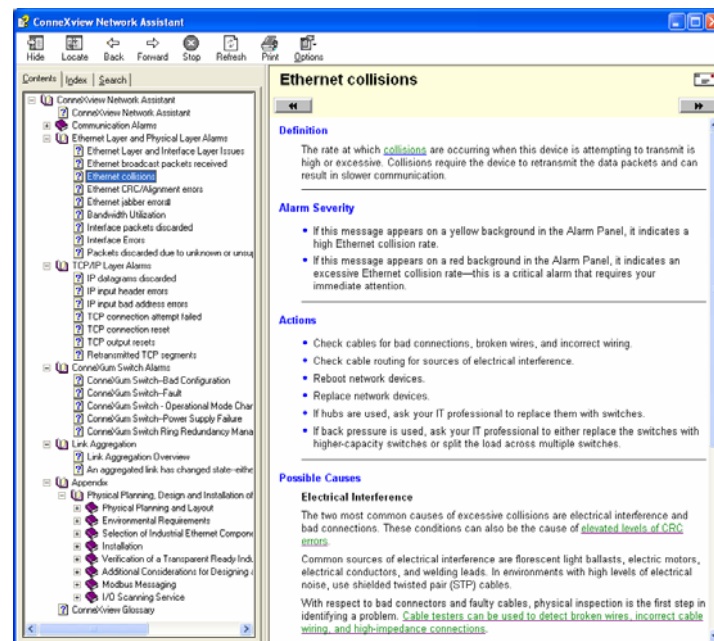
III. ConneXview 的特性

- 专用的报警窗口
- 全面的帮助手册



Alarm Panel

Device Name	IP Address	Alarm Type	Alarm Message	Time Stamp	Acknowledged
	192.168.20.75	attention	Interface packets discarded <2>	4/7/06 11:44:46 AM	
	192.168.20.75	critical	Interface packets discarded <2>	4/7/06 11:44:46 AM	
NA-WLANGER3	192.168.20.254	attention	TCP connection attempt failed	4/7/06 11:51:34 AM	
NA-WLANGER3	192.168.20.254	attention	Retransmitted TCP segments	4/7/06 11:51:58 AM	
Schneider Switch	192.168.20.78	attention	Interface errors <5>	4/7/06 11:52:09 AM	
Schneider Switch	192.168.20.78	critical	Interface errors <5>	4/7/06 11:52:09 AM	



Ethernet collisions

Definition
The rate at which collisions are occurring when this device is attempting to transmit is high or excessive. Collisions require the device to retransmit the data packets and can result in slower communication.

Alarm Severity

- If this message appears on a yellow background in the Alarm Panel, it indicates a high Ethernet collision rate.
- If this message appears on a red background in the Alarm Panel, it indicates an excessive Ethernet collision rate—this is a critical alarm that requires your immediate attention.

Actions

- Check cables for bad connections, broken wires, and incorrect wiring.
- Check cable routing for sources of electrical interference.
- Reboot network devices.
- Replace network devices.
- If hubs are used, ask your IT professional to replace them with switches.
- If back pressure is used, ask your IT professional to either replace the switches with higher-capacity switches or split the load across multiple switches.

Possible Causes

Electrical Interference
The two most common causes of excessive collisions are electrical interference and bad connections. These conditions can also be the cause of elevated levels of CRC errors.

Common sources of electrical interference are fluorescent light ballasts, electric motors, electrical conductors, and welding leads. In environments with high levels of electrical noise, use shielded twisted pair (STP) cables.

With respect to bad connectors and faulty cables, physical inspection is the first step in identifying a problem. Cable testers can be used to detect broken wires, incorrect cable wiring, and high-impedance connections.



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V. 结论

- ConneXview 是一个简单易用的工业以太网诊断工具。



问题与解答



3 个主要信息

- 通过自动发现和生成拓扑图，**ConneXview** 帮助你图形化地监视整个网络的状态
- **ConneXview** 的报警特性提醒你工业以太网出现了问题
- **ConneXview** 增加了网络的可用性，减少了宕机的时间，帮助你提高了网络的性能



感谢您的参与!