



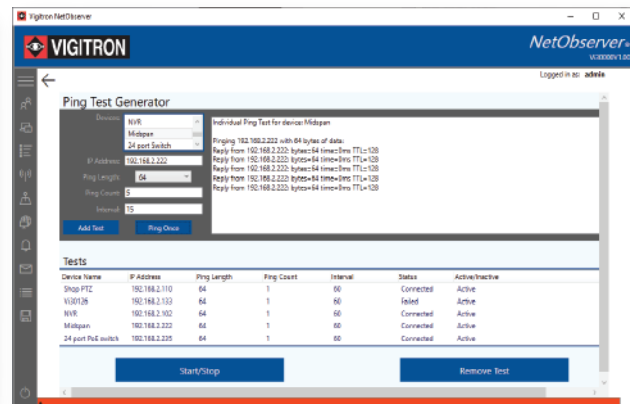
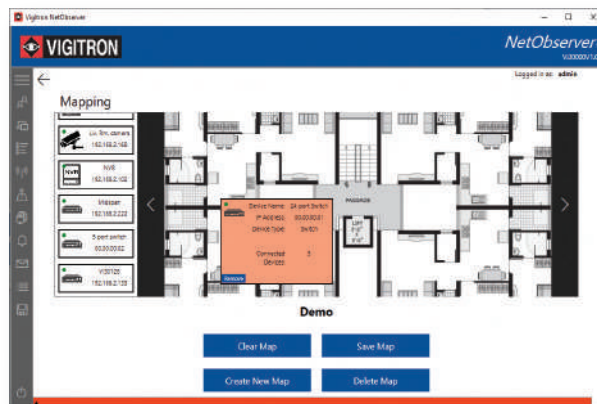
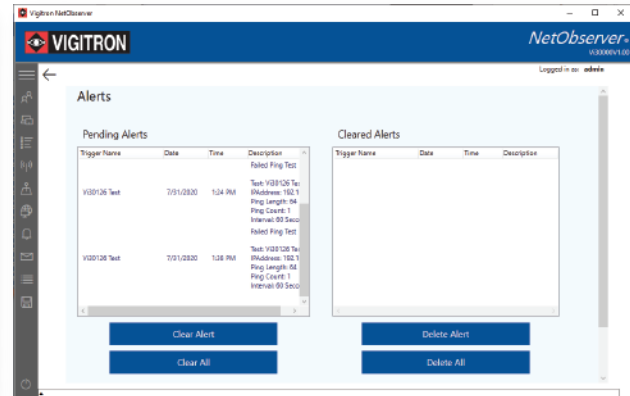
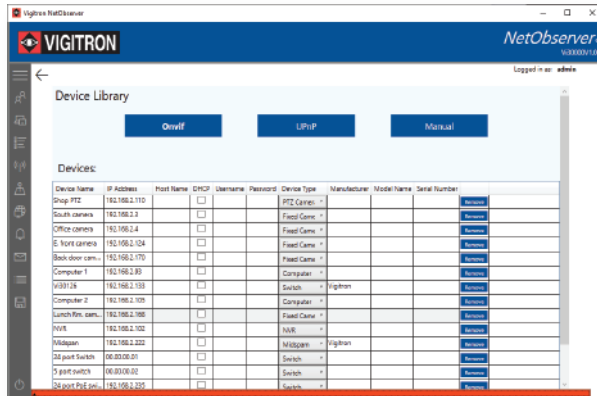
NetObserver[™] V1.0

Network Health Monitoring Software

Phone: (+1) 858- 484-5209
Email: support@vigatron.com
Website: www.vigatron.com

What is NetObserver™?

NetObserver™ is a comprehensive Windows™ based software with the ability to communicate with up to 240,000 connected devices providing information on device location, status and alert type. Messages can be displayed for immediate response, location shown on both area and topographic maps, stored in databases and used to send email messages.



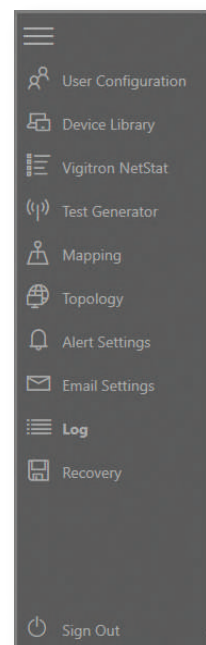
Why use NetObserver™?

Networks are key to system performance and operation. Networking problems can render a single device or multiple devices inter-operative. Troubleshooting networks can be time consuming resulting in excessive network down time. Often network problems are seen as their connected devices resulting in perfectly operating network switches and cameras returned to manufacturers as defective. The result is system down time with still unresolved problems.

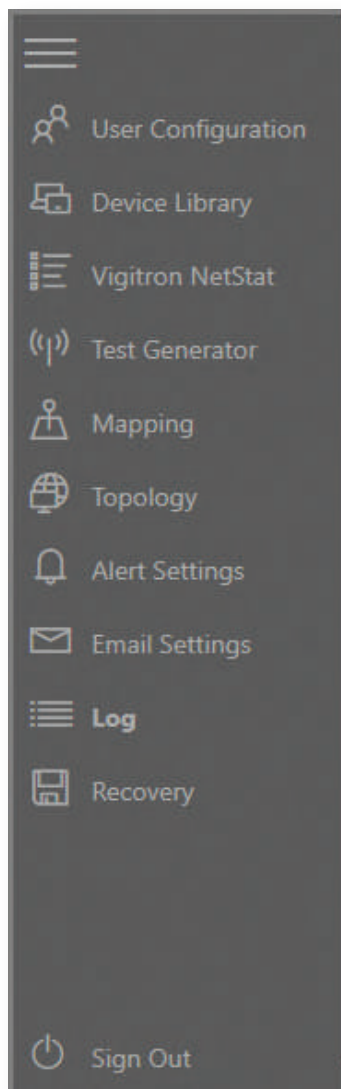
Many times networks are composed of products from different manufacturers. Defective claims can often result in a process of “finger pointing” where different manufacturers blame each other for the resulting problems. The result is wasted hours on phone calls and unresolved problems.

NetObserver™ can help to resolve these problems by:

- Defining the problem
- Locating the problem
- Helping to quickly fix the problem



NetObserver™ Features



- User Configuration**

 - Sets up user names, passwords, adds, changes user names and passwords, assigns admin or viewer functions.
- Device Library**

 - Assigns devices such as switches, and devices connected to individual switches and transmission points, allows for port and device naming.
- Vigitron NetStat**

 - Receives and logs errors messages, allows for filtering of messages
- Test Generator**

 - Connected device test based on IP address, can vary packet size, tests can be done for single or multiple address; one or multiple times.
- Mapping**

 - Insert maps in various formats, drop & drag library devices to specific map locations. Device information & operating status is shown on map.
- Topology**

 - Display individual status mapping of devices connected to switch or headend points or show what an individual device is connected to. All devices are shown with their operating status.
- Alert Settings**

 - Allows you to select which alarms are registered; customize messaging and responses.
- Email Settings**

 - Programs messages via private or public emails services.
- Log**

 - Records messaging from connected devices. Allows for custom sorting and filtering. Logs can be exported.
- Recovery**

 - Allows downloading of all custom settings and recovery
- Sign Out**

 - Click this button to sign out of NetObserver.

NetObserver™ is a feature rich flexible software allowing operators to customize alerts, responses and interactions to locate and fix network problems.

NetObserver™ can operate with any network configuration and with any device with an IP address.

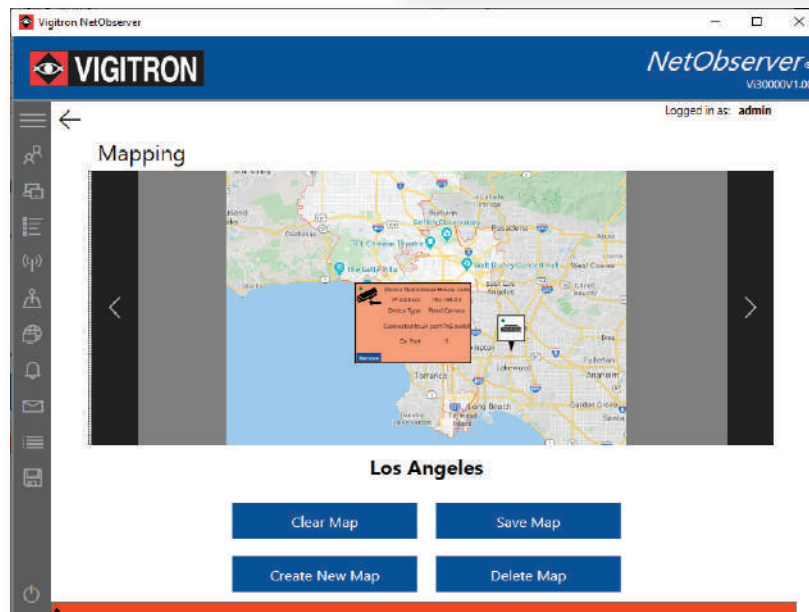
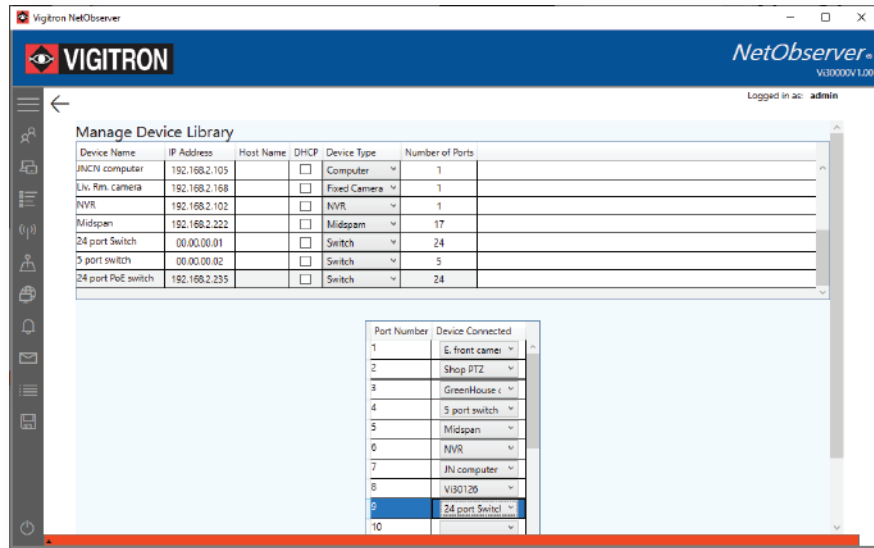
How does NetObserver™ Communicate?

NetObserver™ uses two communications methods. Devices with SNMP, UDP, TCP and Syslog can output their messages to NetObserver™.

Devices without these abilities use NetObserver's built in test generator which can be custom configured to continually monitor and report connection status.

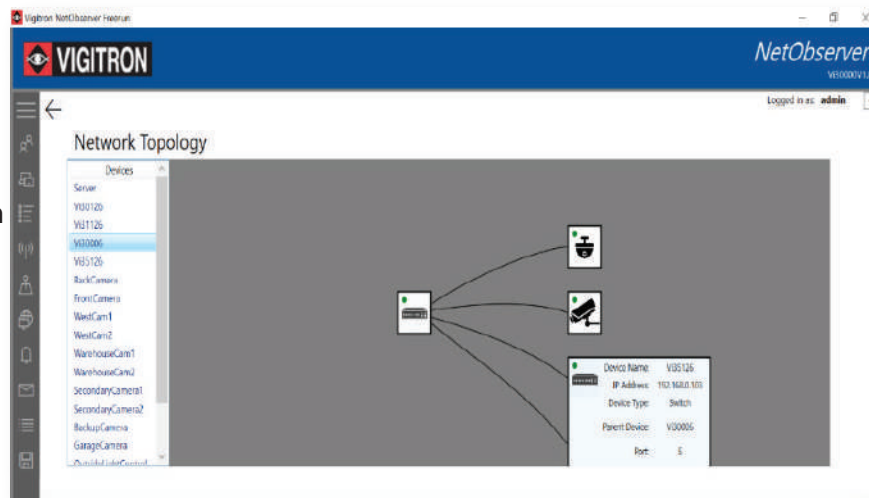
How I would know if a problem exists?

NetObserver™ provides a simple to use method to program connected devices to switches and other devices where multiple products are routed to. You can customize switches and connected devices providing names, locations and port connections.



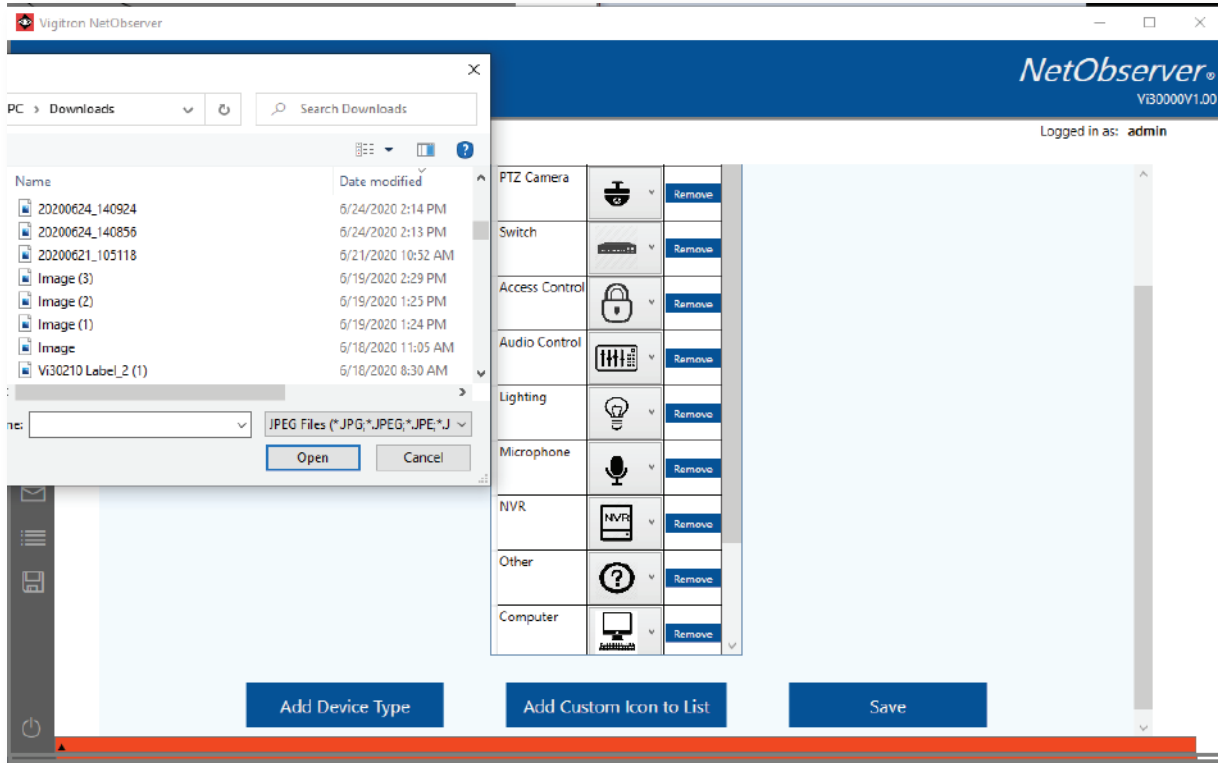
Switches and connected devices can be positioned in maps of any compatible Windows™ formats displaying on line and off line status with specific device information. Product icons can be customized using actual product images.

NetObserver Topographical map features easily displays connected devices to specific collection areas such as network switches routers and other collection points. Icons will display on line and off line status with specific device information.

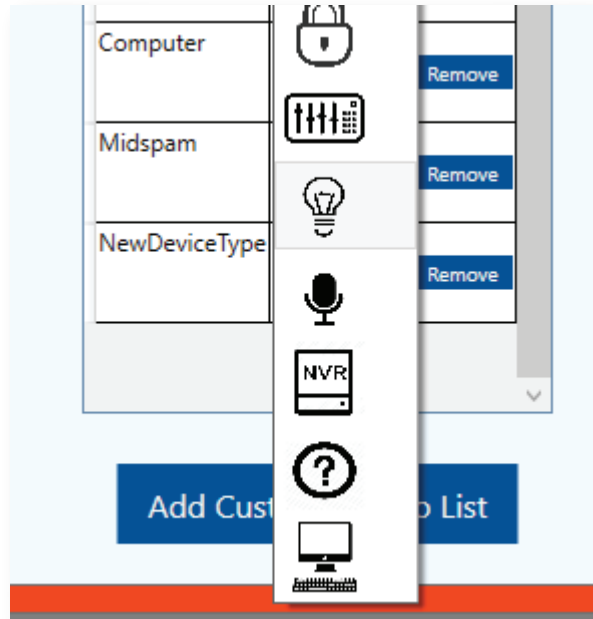


Building a library

NetObserver™ provides an extensive library of preprogrammed devices.



NetObserver™ allows you to upload and use custom icons and images with titles. Your maps can contain icons of the actual product images.



Discovering what's on your network

Onvif and UPnP Compatible Devices

NetObserver™ automatically discovers Onvif and UPnP devices populating the Device List.

Device Library

Onvif UPnP Manual

Devices:

Device Name	IP Address	Host Name	DHCP	Username	Password	Device Type	Manufacturer	Model Name	Serial Number	
Shop PTZ	192.168.2.110		<input type="checkbox"/>			PTZ Camer. ▾				Remove
S.E camera	192.168.2.3		<input type="checkbox"/>			Fixed Came ▾				Remove
Office door ca...	192.168.2.4		<input type="checkbox"/>			Fixed Came ▾				Remove
E. front camera	192.168.2.124		<input type="checkbox"/>			Fixed Came ▾				Remove
Sun Rm. camera	192.168.2.170		<input type="checkbox"/>			Fixed Came ▾				Remove
computer	192.168.2.93		<input type="checkbox"/>			Computer ▾				Remove
Vi30126	192.168.2.133		<input type="checkbox"/>			Switch ▾				Remove
Computer 1	192.168.2.105		<input type="checkbox"/>			Computer ▾				Remove

Devices without Onvif and UPnP ability

If a device does not have Onvif or UPnP ability users can manually enter connected devices IP address and custom information.

Device Library

Onvif UPnP Manual

IP Address:

Host Name:

DHCP:

Add Device

Unmanaged devices without an IP address

NetObserver™ also works with devices without IP address. Operators can program icons, position on maps, program connections and check connections of to these devices.

Manage Device Library

Device Name	IP Address	Host Name	DHCP	Device Type	Number of Ports
Server	192.168.0.1		<input type="checkbox"/>	NVR ▾	1
Vi30126	192.168.0.100		<input type="checkbox"/>	Switch ▾	26
Vi31126	192.168.0.101		<input type="checkbox"/>	Switch ▾	26
Vi30006	192.168.0.102		<input type="checkbox"/>	Switch ▾	6
Vi35126	192.168.0.103		<input checked="" type="checkbox"/>	Switch ▾	26
BackCamera	192.168.0.151		<input type="checkbox"/>	Fixed Camera ▾	1
FrontCamera	192.168.0.152		<input type="checkbox"/>	Fixed Camera ▾	1
WestCam1	192.168.0.153		<input type="checkbox"/>	Fixed Camera ▾	1

Port Number	Device Connected
1	OutSideLight ▾
2	FrontGate ▾
3	BackGate ▾
4	▾
5	▾
6	▾
7	▾
8	▾
9	▾
10	▾
11	▾
12	▾

The operator can assign all connected devices to their sources.

Comprehensive Testing

NetObserver™ can be used to test and confirm connections. Multiple devices connected to a switch or at any network point can be tested. Testing can be programmed to compensate for cable distances and delays reducing the potential for false readings

Ping Test Generator

Devices: NVR, Midspan, 24 port Switch

IP Address: 192.168.2.222

Ping Length: 64

Ping Count: 5

Interval: 15

Buttons: Add Test, Ping Once

Individual Ping Test for device: Midspan

Pinging 192.168.2.222 with 64 bytes of data:
 Reply from 192.168.2.222: bytes=64 time=0ms TTL=128
 Reply from 192.168.2.222: bytes=64 time=0ms TTL=128
 Reply from 192.168.2.222: bytes=64 time=0ms TTL=128
 Reply from 192.168.2.222: bytes=64 time=0ms TTL=128
 Reply from 192.168.2.222: bytes=64 time=0ms TTL=128

Device Name	IP Address	Ping Length	Ping Count	Interval	Status	Active/Inactive
Shop PTZ	192.168.2.110	64	1	60	Connected	Active
V30126	192.168.2.133	64	1	60	Failed	Active
NVR	192.168.2.102	64	1	60	Connected	Active
Midspan	192.168.2.222	64	1	60	Connected	Active
24 port PoE switch	192.168.2.235	64	1	60	Connected	Active

Buttons: Start/Stop, Remove Test

Packet testing ranges to the highest levels of Jumbo frames confirming transmission of high Megapixel cameras.

Ping Test Generator

Devices: NVR, Midspan, 24 port Switch

IP Address: 192.168.2.222

Ping Length: 64

Ping Count: 1

Interval: 60

Buttons: Add Test

Individual Ping Test for device: Midspan

Pinging 192.168.2.222 with 64 bytes of data:
 Reply from 192.168.2.222: bytes=64 time=0ms TTL=128
 Reply from 192.168.2.222: bytes=64 time=0ms TTL=128
 Reply from 192.168.2.222: bytes=64 time=0ms TTL=128
 Reply from 192.168.2.222: bytes=64 time=0ms TTL=128
 Reply from 192.168.2.222: bytes=64 time=0ms TTL=128

Device Name	IP Address	Ping Length	Ping Count	Interval	Status	Active/Inactive
Shop PTZ	192.168.2.110	64	1	60	Connected	Active
V30126	192.168.2.133	64	1	60	Failed	Active
NVR	192.168.2.102	64	1	60	Connected	Active
Midspan	192.168.2.222	64	1	60	Connected	Active
24 port PoE switch	192.168.2.235	64	1	60	Connected	Active

Testing can be used to confirm connections or used to continuously monitor connected devices generating alerts for devices that go off line.

Device Name	IP Address	Ping Length	Ping Count	Interval	Status	Active/Inactive
Shop PTZ	192.168.2.110	64	1	60	Connected	Active
V30126	192.168.2.133	64	1	60	Failed	Active
NVR	192.168.2.102	64	1	60	Connected	Active
Midspan	192.168.2.222	64	1	60	Connected	Active
24 port PoE switch	192.168.2.235	64	1	60	Connected	Active

Testing results along with testing conditions are display providing specific testing information.

Ping Test Generator

Devices: SecondaryCamera2, SecondaryCamera1, BackupCamera

IP Address: 192.168.0.158

Ping Length: 64

Ping Count: 2

Interval: 15

Buttons: Add Test

Individual Ping Test for device: SecondaryCamera2

Pinging 192.168.0.158 with 64 bytes of data:
 Reply from 192.168.0.158: bytes=64 time=1ms TTL=128
 Reply from 192.168.0.158: bytes=64 time=1ms TTL=128

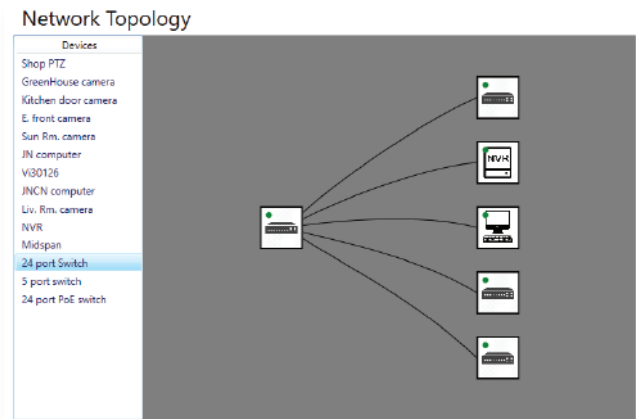
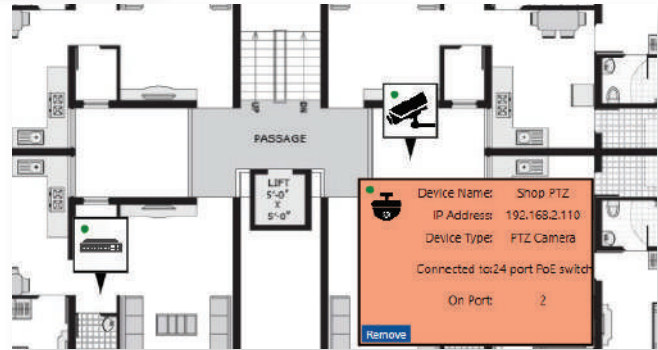
Device Name	IP Address	Ping Length	Ping Count	Interval	Status	Active/Inactive
V30126	192.168.0.100	64	2	15	Connected	Active
V30086	192.168.0.102	64	2	15	Connected	Active
WestCam1	192.168.0.153	64	2	15	Connected	Active
SecondaryCamera2	192.168.0.158	64	2	15	Connected	Active

Mapping Where alerts are happening



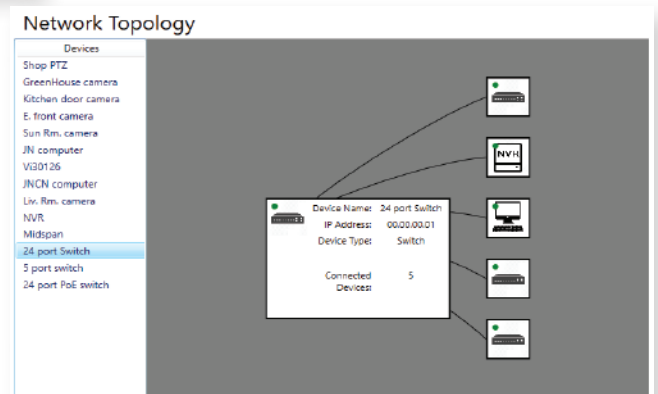
NetObserver™ accepts any Windows™ compatible map. Device icons can be positioned at any point on the map.

IP address, device name port connections can be obtained by simply clicking on the device icon. Clicking on switch devices will display the number of connected devices.



Topographical map will show devices connected to a specific central point such as a network switch

Selected devices will show device name, port connections and number of active ports.



Selecting an individual device will show its connection to its host.

Alerts: Knowing what happened, where and why it happened

Ping Test Generator

Devices:

IP Address:

Ping Length:

Ping Count:

Interval:

Tests

Device Name	IP Address	Ping Length	Ping Count	Interval	Status	Active/Inactive
BackCamera	192.168.0.151	64	5	20	Failed	Active
V35126	192.168.0.103	64	5	20	Connected	Active
V31126	192.168.0.101	64	5	20	Connected	Active
V30126	192.168.0.100	64	5	20	Connected	Active

Ending Alerts
2

NetObserver™ screens will immediately register and note alerts with the ability for operators to directly go Alert management.

Alerts from SNMP, UDP, TCP and Syslog can be viewed together or from their individual source using the NetStat screen.

NetStat

ALL | SNMP | TCP | UDP | Syslog

Date	Time	Source Device	Source IP	Description	Protocol
7/31/2020	2:30 PM	V30126	192.168.0.100	PoE_Off Port 1	SNMP
7/31/2020	2:30 PM	V31126	192.168.0.101	Loss of traffic detected port 1	SYSLOG
7/31/2020	2:32 PM	V31126	192.168.0.101	Cold start	SYSLOG

NetStat

ALL | SNMP | TCP | UDP | Syslog

Date	Time	Source Device	Source IP	Description	Protocol
7/31/2020	2:30 PM	V30126	192.168.0.100	PoE_Off Port 1	SNMP
7/31/2020	2:30 PM	V31126	192.168.0.101	Loss of traffic detected port 1	SYSLOG
7/31/2020	2:32 PM	V31126	192.168.0.101	Cold start	SYSLOG

All alerts including Pings are recorded to the general log.

Log Sorting

Both NetStat™ and Logs can be sorted with programmable To-From dates and times to focus on specific events and devices.

Sorting Configuration

Enable Sorting

Device:

Order By:

Show Messages Between Dates: and

Show Messages Between Times: : and :

Alerts: Knowing what happened, where and why it happened

Email Configuration

To: [Add Recipient](#)

Recipients: [Delete Selected](#)

SMTP Server:

Port: Enable SSL

Email Address:

Email Password:

Subject:

Body:

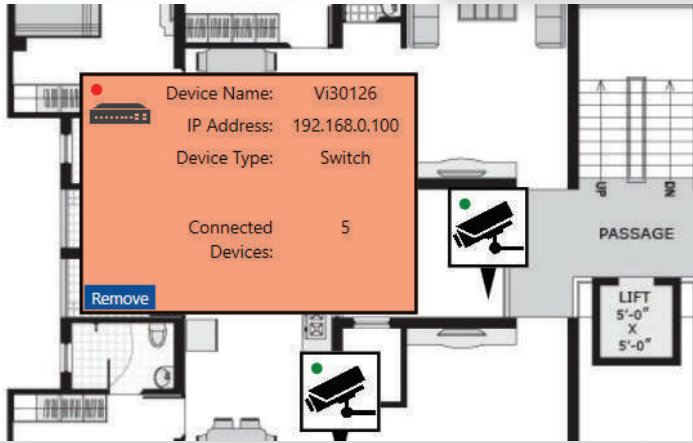
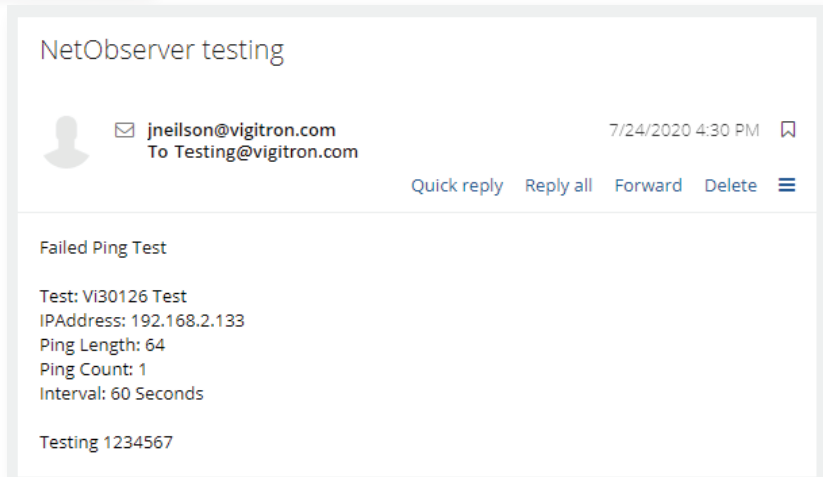
[Send Test Email](#)

Send email notification for alerts

[Save Configuration](#)

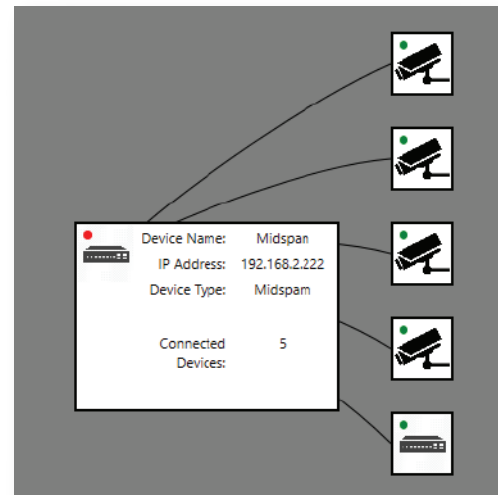
Alerts can be programmed to send emails.

Email alerts can be sent to private and public emails.



When viewing Maps during an alert the icon LED will change from green to red.

When using the topographical map and alert will change the device icon from green to red.



Logs can be

Active alert for trigger: Midspan Test | Alert Description: Failed Ping Test

7/31/2020 3:36 PM

Test: Midspan Test
 IPAddress: 192.168.2.222
 Ping Length: 64
 Ping Count: 1
 Interval: 60 Seconds

Active alert for trigger: Vi30126 Test | Alert Description: Failed Ping Test

7/31/2020 3:36 PM

Test: Vi30126 Test
 IPAddress: 192.168.2.133
 Ping Length: 64
 Ping Count: 1
 Interval: 60 Seconds

Export Log Clear Log Filter and Sorting

Export logs in .Txt and .CVS formats.

Log Sorting

Sort by date and time

Sorting Configuration

Enable Sorting

Device:

Order By:

Show Messages Between Dates: and

Show Messages Between Times: : and :

Save Configuration

Log

Date	Time	Device Name	Description

Export Log Clear Log Filter and Sorting

Clear Logs

NetObserver™ Messag-

Date	Time	Device Name	Description
8/3/2020	7:57 AM	WestCam1	Warm start
8/3/2020	7:56 AM	Server	Authentication Failure
Active alert for trigger: Test2 Alert Description: Message Received:			
8/3/2020	7:55 AM		Trigger Name: Test2 Device Source: Vi35126 IPAddress Source: 192.168.0.103 Message Content:PoE_Off Port 1
Active alert for trigger: Test2 Alert Description: Message Received:			
8/3/2020	7:54 AM		Trigger Name: Test2 Device Source: Vi35126 IPAddress Source: 192.168.0.103 Message Content:This message has been generated by the simulation feature This event should not be used for system diagnosis
Active alert for trigger: BackCamera Test Alert Description: Failed Ping Test			
8/3/2020	7:53 AM		Test: BackCamera Test IPAddress: 192.168.0.151 Ping Length: 64 Ping Count: 5 Interval: 20 Seconds
Active alert for trigger: Vi31126 Test Alert Description: Failed Ping Test			
8/3/2020	7:53 AM		Test: Vi31126 Test IPAddress: 192.168.0.101 Ping Length: 64 Ping Count: 5 Interval: 20 Seconds
Active alert for trigger: Vi30126 Test Alert Description: Failed Ping Test			
8/3/2020	7:53 AM		Test: Vi30126 Test IPAddress: 192.168.0.100 Ping Length: 64 Ping Count: 5 Interval: 20 Seconds
Active alert for trigger: Vi35126 Test Alert Description: Failed Ping Test			
8/3/2020	7:53 AM		Test: Vi35126 Test IPAddress: 192.168.0.103 Ping Length: 64

Message format

Format of messages when elevated to Alert conditions

Alerts from Failed Ping Tests

All messages regardless of source will contain the Device Name, Trigger Name, IP Address, Connection. When the message originates from SNMP, TCP, UDP, TCP or the Syslog, the message content will depend on the connected device. If Ping test function is use, the message contains the communications conditions.

Vigtron Switches – Providing more information

- PoE_On Port xx
- PoE_Off Port xx
- SecurPort: TxRx Disabled Port xx
- E0: Port Overload (ICUT) Event on Port xx
- E1: Port Short Circuit Limit (ILIM) Event on Port xx
- E3: Port Severe Short Circuit Event on Port xx
- E4: Port Thermal Shutdown Event on Port xx
- E5: Port Temperature Limit Event on Port xx
- E6: Main Power Overload Event on Port xx
- E7: PoE Auto Check Timeout Event on Port xx
- Power Budget: Budget Exceeded, disabled Port xx
- PSE Overload Protection: Disabled Port xx
- Traffic Detected Port xx (Exception: Vi30126, Vi35126)
- Loss of Traffic Detected Port xx (Exception: Vi30126, Vi35126)
- Authentication Failure: This message is sent when Someone tries to login with incorrect information.
- Cold Start: This message is sent when the PoE Switch is powered up.
- Warm Start: This message is sent when the PoE Switch is rebooted form the GUI.



UDP Monitor

File Edit View Port: 514 Listen Listening on port 514

Date	Time	Source	Description
03/15/2019	13:07:16	192.168.2.244	<S>1 2019-03-15T13:01:44+00:00 192.168.2.244 syslog - [V3026] Login passed for user 'admin' through WEB from 192.168.2.18 and authenticated by local method
03/15/2019	12:47:08	192.168.2.244	<S>1 2019-03-15T12:41:36+00:00 192.168.2.244 syslog - [V3026] User 'admin' logout through WEB from 192.168.2.18
03/15/2019	12:18:24	192.168.2.244	<S>1 2019-03-15T12:12:52+00:00 192.168.2.244 syslog - [V3026] Link down on port 13
03/15/2019	12:15:04	192.168.2.244	<S>1 2019-03-15T12:09:31+00:00 192.168.2.244 syslog - [V3026] Login passed for user 'admin' through WEB from 192.168.2.18 and authenticated by local method
03/15/2019	12:14:46	192.168.2.244	<S>1 2019-03-15T12:09:14+00:00 192.168.2.244 syslog - [V3026] Bad password attempt for user 'admin' through WEB from 192.168.2.18 and authenticated by local method
03/15/2019	12:14:46	192.168.2.244	<S>1 2019-03-15T12:09:14+00:00 192.168.2.244 syslog - [V3026] Bad password attempt for user 'admin' through WEB from 192.168.2.18 and authenticated by local method
03/15/2019	12:14:36	192.168.2.244	<S>1 2019-03-15T12:09:03+00:00 192.168.2.244 syslog - [V3026] User 'admin' logout through WEB from 192.168.2.18
03/15/2019	12:14:04	192.168.2.244	<S>1 2019-03-15T12:08:32+00:00 192.168.2.244 syslog - [V3026] Login passed for user 'admin' through WEB from 192.168.2.18 and authenticated by local method
03/15/2019	12:13:58	192.168.2.244	<S>1 2019-03-15T12:08:26+00:00 192.168.2.244 syslog - [V3026] User 'test' logout through WEB from 192.168.2.18
03/15/2019	12:11:50	192.168.2.244	<S>1 2019-03-15T12:06:17+00:00 192.168.2.244 syslog - [V3026] Login passed for user 'test' through WEB from 192.168.2.18 and authenticated by local method
03/15/2019	12:11:32	192.168.2.244	<S>1 2019-03-15T12:05:59+00:00 192.168.2.244 syslog - [V3026] User 'admin' logout through WEB from 192.168.2.18
03/15/2019	12:07:08	192.168.2.244	<4>1 2019-03-15T12:01:35+00:00 192.168.2.244 syslog - [V3026] Link up on port 17
03/15/2019	12:07:06	192.168.2.244	<4>1 2019-03-15T12:01:33+00:00 192.168.2.244 syslog - [V3026] Link down on port 17
03/15/2019	12:07:00	192.168.2.244	<4>1 2019-03-15T12:01:28+00:00 192.168.2.244 syslog - [V3026] Link up on port 17
03/15/2019	12:05:46	192.168.2.244	<4>1 2019-03-15T12:00:14+00:00 192.168.2.244 syslog - [V3026] Link up on port 13

Vi3026 IP Address

Switch model. Can not be changed.

My computer IP Address.

Vigtron switches provide a wide amount of status information. They are the perfect switches to use with NetObserver™

Saving Configurations

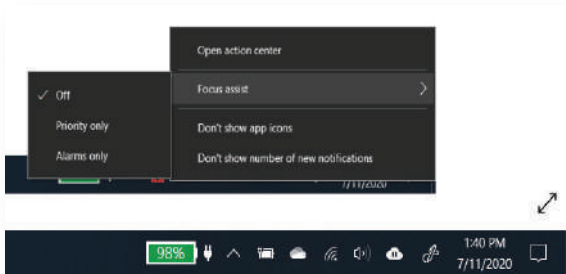


Saved configurations can be downloaded, re-installed on the same computer or other computers running NetObserver™ saving programming time

Closing down

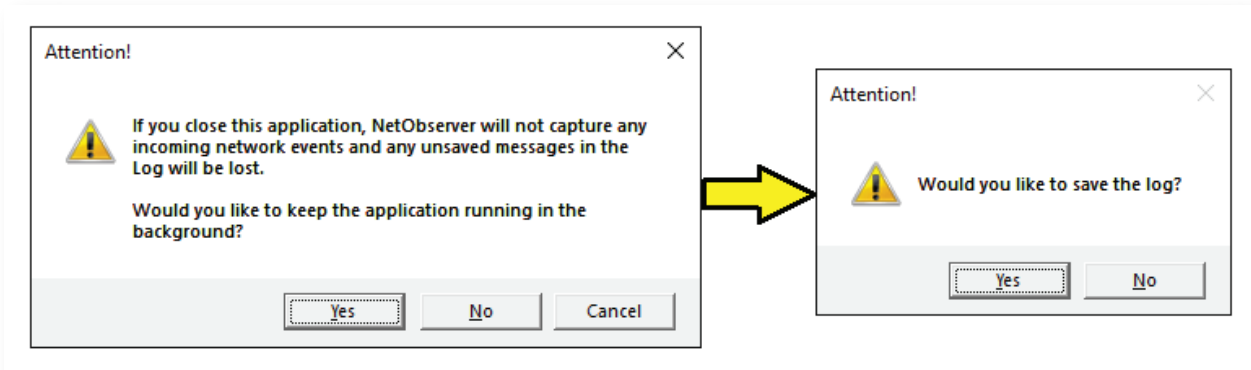
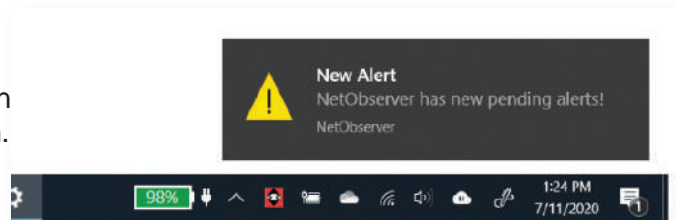


When minimized the NetObserver™ icon will flash when an alert occurs. Click on the icon to return NetObserver to full screen.



When operating with Windows™ 10 NetObserver can be run in the background and issue alerts.

The alerts will appear as pop up. Clicking on NetObserver™ icon will return to full screen.

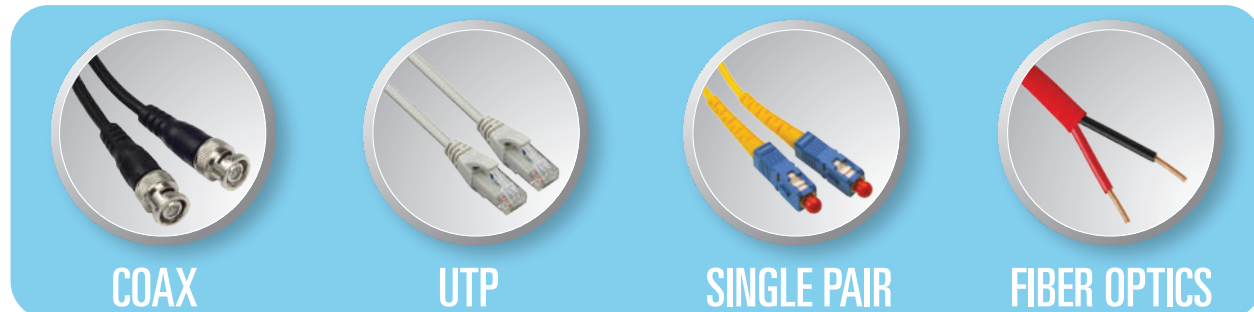


If you want to exit NetObserver™ the program will ask you if you want to save your existing log.



Complete Network Solutions For Security Applications

Ethernet & PoE over



- UTP ETHERNET EXTENDERS
 - COAX ETHERNET EXTENDERS
 - SINGLE PAIR ETHERNET EXTENDERS
 - MANAGED POE SWITCHES
- MANAGED FIBER SWITCHES
 - HARDENED POE SWITCHES
 - MANAGED POE MIDSPANS
 - POE SPLITTERS
- FIBER MEDIA CONVERTERS
 - PoE & ETHERNET REPEATERS
 - IP67 PRODUCTS
 - HEALTH MONITORING APPS

Full Support for Every Stage of your Project

Pre-Sales:

Free Infrastructure Design Services

During-Sales:

Excelent Technical and Sales Support

Post-Sales:

Lifetime Warranty + 3 Years

Phone: (+1) 858 - 484 - 5209 • Email: support@vigtron.com • Website: www.vigtron.com