



Trend IP Integration Driver for Niagara 4

Prepared by: Date: Revision Rob Heathcock, Technical Director 20 January 2022 1.9

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INTRODUCTION

The Trend IP integration driver is designed to provide an easy interface to a Trend Building Management System.

The driver packs come with a point pack (number of points, for example 100 points) and one VCNC connection. Each VCNC connection is restricted to the LAN that it belongs to (i.e. LAN11), meaning only controllers from LAN11 are discoverable. If multiple LAN connections are required then an additional VCNC connections will be required - one VCNC connection per LAN. The overall point pack can then be shared across the Trend Driver Networks.

The Trend driver fully supports time schedules (read & write) and alarm receiving, these are additional, licensable features that are not included as part of the standard point packs. For more information please see the Licensing section.

The driver full supports the following ranges of controllers -

- IQ7x Series
- ► IQ9x Series
- IQ1xx Series
- IQ2xx Series
- IQ3xx Series
- IQ4xx Series
- IQeco
- ► IQL*

**Note:* IQL connections are supported but require a specific configuration. Please contact technical support for further information.

Traditional current loop controllers should be connected via a VCNC (EINC / IQ4NC etc). However on a current loop only installation we can provide an IP > Serial converter that will allow a serial supervisor port (RS232) to be used as a VCNC connection to the connected local LAN.

PART CODE	DESCRIPTION
TD01232IP	Serial Device Server - Ethernet to RS232 Adapter

In the current release of the driver the following controllers are not supported -

IQ4xx Series using secure VCNC connections*

Support for this range of controller will be added in a future release of the driver.

DRIVER INSTALLATION

The Trend driver supports Niagara 4.10 and above.

NOTE:

If your installation is running an an older version of software then it must be upgraded to meet the above requirements to run this driver.

Any future updates to the Trend driver will be available for the current release of Niagara (N4.10 as of the current release) and previous release (N4.9 as of the current release). All other releases will become legacy and unsupported.

AX Installation:

Support for Niagara AX has now ceased. This product becomes fully unsupported in June 2021.

Niagara 4 Installation:

You will need the version specific JAR files for your specific Niagara 4 installation.

To install the driver copy the *tyrrellTrendIp-rt.jar* & *tyrrellTrendIp-wb.jar* to the following directory -

c:\niagara\niagara 4.x.xx\modules

Once the files have been put into the correct directory close your workbench, reinstall the platform daemon for your version of niagara and relaunch the workbench.

The driver is now ready to use in a local station or to commission / update a JACE.

To install the driver on a JACE use the software manager on the platform of the target device.

Niagara 4 Software Signing Certificates:

Niagara 4.9 onwards introduced a new security measure in that Tridium require all 3rd party drivers to be securely signed with a certificate. The Tyrrell code signing certificate is embedded within the JAR file and verified through an approved certificate authority (CA) within the Niagara framework. This means that you do not have to manually install any additional code signing certificates.

LICENSING

The driver has several license options available -

PART CODE	DESCRIPTION
UD00101A	Trend IP 100 Point Pack / 1 VCNC
UD00101B	Trend IP 250 Point Pack / 1 VCNC
UD00101C	Trend IP 500 Point Pack / 1 VCNC
UD00101D	Trend IP 1000 Point Pack / 1 VCNC
UD00101E	Trend IP 2000 Point Pack / 1 VCNC
UD00201CON	Additional Virtual CNC (For Multi LAN Configurations)
UD00301A	Tridium Schedule to 1 Trend Time Zone
UD00301B	Tridium Schedule to 2 Trend Time Zone
UD00301C	Tridium Schedule to 5 Trend Time Zone
UD00301D	Tridium Schedule to 10 Trend Time Zone
UD00301E	Tridium Schedule to 25 Trend Time Zone
UD00301F	Tridium Schedule to 50 Trend Time Zone
UD00301G	Tridium Schedule to 100 Trend Time Zone
UD00401A / UD00401G	Trend Alarm Recipient Pack (1 x IQ / 100 x IQ Alarms)
	Alarm Pack Breaks = 1 / 2 / 5 / 10 / 25 / 50 / 100

The standard point pack comes with 1 x VCNC connection. When a VCNC is bound to the Driver Network it locks the driver to the LAN that the VCNC belongs to (i.e. LAN11). No Outstation(s) from any other LAN will be discoverable.

If you wish to add Outstations from multiple LANs then an additional VCNC license will be required. A second Trend IP driver can then be loaded and locked to a different VCNC on the target LAN (i.e. LAN12). The point pack will be shared across the two drivers.

SOFTWARE MAINTENANCE

The Trend driver includes a software maintenance feature. Every new purchase of the driver will support the current release of Niagara 4 and the next release of Niagara 4, any subsequent upgrade will require a software maintenance license to be applied.

As an example the current release of Niagara 4 is N4.10, a new driver purchase will cover you for N4.10 and an upgrade to N4.11 (also any previous release of the software - note we only support the current release and previous release with driver updates). Any further upgrades, for example to N4.12 or above, will require a software maintenance to be applied. The software maintenance would then cover you for the now current release and the next release of the software. You can upgrade from any previous release with a single software maintenance purchase.

If you purchased a historic release of the driver then a software maintenance license will be required for any upgrades including and above Niagara 4.9.

Any questions or queries in relation to this item should be sent to sales@tyrrellproducts.com

DEMO MODE

In addition to permanent licenses the driver also supports a two hour demonstration mode.

To activate this mode follow the below steps -

- Insert a new Tyrrell Trend IP network (see the following section)
- Go into the property sheet of the network
- Right click on the Driver > Actions > Generate Demo PIN

TyrrellTrendIpNetwork (Tyrrell	Trend In Notwork) Views	۱.	
	Actions	•	Ping
Generation Generation	New	censed •	<u>G</u> enerate Demo Pir
🕀 🔣 Health	Cut Cut	Ctrl+X	sion Closed
	Сору	Ctrl+C	
Monitor	Paste	Ctrl+V	
🗉 🥜 Tuning Policies	Paste Special		
	Duplicate	Ctrl+D	
🗆 🔘 Adapter Title	Delete	d. Delete	•
🗆 🔘 Ip Address	្នំឆ្នំ Find		
🗆 🔘 Cnc Port	Link Mark	[10001 - 1	0119]

An image will appear at the bottom of the property sheet with a demo PIN



Right click on the Driver > Actions > Enter Demo PIN

TyrrellTrendIpNetwork	Views	letwork)	
🗆 🔘 Status	Actions 100 au	lt,down,	Ping
🗆 🔘 Enabled	New	ue 🔽	Enter Demo Pin
🗆 🔘 Fault Cause			ensed
🕀 🔣 Health	Cut Fail 1	Ctrl+X	PM GMT] Session Closed
🕀 🔔 Alarm Source Info	Copy Alarm	Ctrl+C	
H Monitor	Paste Pine M	Ctrl+V	
E A Tuning Policies	Paste Special		
FT B Poll Scheduler	C Duplicate	Ctrl+D	
	Delete	Delete	

- Enter the PIN exactly as it is shown in the image
- When entered correctly a pop up box will appear with instructions.
- Restart the station to complete the activation of the demo mode.
- After two hours the demo mode will expire, repeat the above steps to reactivate the demo mode.

STARTING THE DRIVER

To stat the driver for the fist time -

- Connect to a running station and navigate to **Config > Drivers**
- Select New Driver or Right Click > New Driver
- From the drop down list select Tyrrell Trend IP
- You can rename this network to something more appropriate
- The driver is now ready for configuration

VIRTUAL CNC DISCOVERY

Double click on the Tyrrell Trend IP Network, the first time the driver is ran it will default to the CNC Device Manager window.

Press the **Discover** button and you will be prompted to select the ethernet adaptor to use -

M S	ation (IQ3_L21_011)	Config 🖷 Drivers	TyrreliTrend	lIpNetwork				
	Tyrrell Trend CNC Device Ma	anager						
ŢŢ	Name	Туре	Status	Enabled	Fault Cause	Ip Address	Cnc Port	Lan Number
Ľ	TyrrellTrendIpNetwork	Tyrrell Trend Ip Network	{fault,down}	true	Unknown/Missing 'TCP/IP Adapter'. Invalid 'Ip Address' - ". Invalid 'Cnc Port' - '-1'.		-1	-1
-								
				Disco				
				na Disco				
				🔵 Tti Cnc I	Discovery Preferences			
				🗆 🔘 Ada	pter Title No Adapter selected.			
			L					
=					OK Cancel			

The driver will then send a broadcast discovery message to find all VCNCs on the network. Once discovery has completed the results will be displayed in the top half of the window.

The user should then select the VCNC they wish to use, select the driver in the bottom half of the window and press the **Match** button.

LA	N21) 🗏 Config	۵ 🖬 ک	rivers	40 T	yrrellTrendIp	oNetwork								O Tyrrell	Trend CNC Devic	e Manager 👻
	🕑 🔦 Tti Cnc Dis	scovery													Succe	ess » 📀
]	Discovered															1 objects
-	Identifier	Ip Addre	SS	Lan	Outstation	Firmware Ver	sion Cn	c Device Type	Cnc Outstation	Cnc Port	Cnc In Use By	Ip Address				F
-	Demo IQ412	192.168	.1.100	22	11	3.31	Iq4		101	10101	192.168.1.100					
				_												
	Tyrrell Trend CNC	Device Ma	anager	_		-										1 objects
	Name		Туре			Status	Enabled	Fault Cause					Ip Address	Cnc Port	Lan Number	F
	CyrrelTrendIp	Network	Tyrrell T	[rend]	Ip Network	{fault,down}	true	Unknown/Mis	sing 'TCP/IP Adap	ter'. Invalid	'Ip Address' - ".	Invalid 'Cnc Port' - '	-1'.	-1	-1	
							w	Edit (M	Discover	Cancel	bba 💿	P Match				
<u> </u>									Discover	Culler		C _c nucci				
																1

NOTE: The Tyrrell Trend IP network will be locked to the LAN of the VCNC that it is bound to. If a multi LAN installation is required an additional VCNC license will be required. A second copy Tyrell Trend IP network can then be loaded and linked to a VCNC on the second LAN.

If for any reason the discovery process is not available (wide area networks or managed switches the VCNC settings can be configured manually via the Property Sheet.

ď	Drivers	
٦	The Drivers (Driver Container)	
ī.		a Network
4	TyrrellTrendIpNetwork Tyrrel	Trend Ip Network
	🗆 🔘 Status	{down}
	🗆 🔘 Enabled	🔘 true 🔻
	🗆 🔘 Fault Cause	
	🕀 🔣 Health	Fail [30-Mar-17 1:31 PM BST] Can not connect to
	🕀 🔔 Alarm Source Info	Alarm Source Info
	🕀 🔣 Monitor	Ping Monitor
	Tuning Policies	Tuning Policy Map
		N Poll Scheduler
	🗆 🔘 Adapter Title	Intel(R) PRO/1000 MT Network Connection
	🗆 🔘 Ip Address	192.168.1.100
	🗆 🔘 Cnc Port	10101 [10001 - 10119]
	① Cnc Connection	Cnc Connection
	🗆 🔘 Lan Number	22 [1 - 119]
	🕀 🔘 Alarm Receiver	Tti Alarm Receiver Network Ext
	Response Timeout	00000h 00m 02.000s 🛉 [500ms - 30secs]
	① Cnc Discovery Preferences	Tti Cnc Discovery Preferences

- Select the **Network Adapter** to be used.
- Enter the **IP Address** or a **Host Name**.
- Enter the **CNC Port** value to be used.

Legacy Trend equipment (IQ3 / EINC etc) should not be directly connected to a LAN port of a JACE8000 with a regular patch lead, a specific crossover lead pin out would be required. It is recommended to connect a basic IP switch between the JACE and Trend equipment.

Lead Configurations:



TREND IQ DISCOVERY

Once the VCNC is configured double click on the driver and this will bring up the IQ Device manager window.

Press the discover button to do a discover of all Outstations on the local LAN. NOTE: The driver will only discover outstations on the same LAN as the VCNC that the driver is connecting with. If you require a multi-LAN configuration then additional license features will be required (i.e. additional VCNC connections).

È 6		🥱 🔗 📔 🗞 🧐								
4	In Drivers In Tyrrell Trend Ip Network									
	Database	:								
<u>,</u>	Name	Туре	Exts	Status	Enabled	Lan	Outstation	Overview Reply	Firmware Version	Trend Device Type
Ц	011	Tyrrell Trend Ip Device	0 🗞 🗟	{ok}	true	0	11			Iq4xx

The IQ devices support the following extensions -

- Points
- Schedules (Import & Export)
- Alarms (Requires configuration in the Outstations)

NOTE: IQ controllers may also require a PIN number to be entered to support writing of parameters such as Knobs & Switches. If the IQ using PIN security and a PIN is not entered, or entered incorrectly then the point may be forced into fault when attempting to write a value (the point will receive a NAK response from the target IQ). Once the PIN has been entered correctly the point will come out of fault when a successful write is completed.

MULTI LAN INTEGRATION

All of the standard point packs come with a single VCNC connection. When a VCNC is linked to TyrrellTrendlPNetwork the driver is only capable of discovering Outstations on the same LAN.

If a multi LAN configuration is required then an additional VCNC license feature is required. When there are two or more additional VCNC licenses available then a second TyrrellTrendlPNetwork should be loaded and the VCNC discovery process repeated. The new VCNC connection should belong to a VCNC on the second LAN -

TyrrellTrendIPNetwork_LAN11	10101 (LAN11)
TyrrellTrendlPNetwork_LAN12	10102 (LAN12)

E	C	" ❷ ⁊ ๙ Ľ	*			
9	4	Drivers				
	1	Driver Manager				
T	1	Name	Туре	Status	Enabled	Fault Cause
Ľ		C NiagaraNetwork	Niagara Network	{ok}	true	
		C Trend_LAN11	Tyrrell Trend Ip Network	{ok}	true	
		Call Trend_LAN12	Tyrrell Trend Ip Network	{fault,down,alarm,unackedAlarm}	true	Exceeded CNC limit of 1

If a license feature is not available then the new network will report this as a fault.

There is no limit to the amount of networks that can added, provided there are VCNC license features available and a suitably sized point pack.

POINT DISCOVERY

Navigate into the Trend Network and the Outstation. The user can then press the **Discover** button, this will then open a new window prompting for discovery options -

	Discovery Parameters	5	×
	O Tti Point Discovery Prefere	nces	
	🗆 🔘 Do Not Ask Again	● false ▼	
		Module Sensors 💌 S	
		From Module Number 0 to 0	
	Discovery spec	Parameter Value 🔻 🕅 Number	
		Value Type Real	
-	🗆 🔘 Ignore Empty Labels	🔘 true 🔻	
		OK Cancel	

The user can select several options -

Module	Sensors / Digital Inputs / Drivers / Analogue Nodes / Digital Bytes / Knobs / Switches / Loops / Other (any other component)
From Module Number	Fix the range of discovery (leave at 0 for auto discovery)
Parameter	Value / Units / Low Alarm / High Alarm / Offset / Input Type / Other (any other parameter)
Ignore Empty Labels	This option will not present any components with a blank or empty labels (e.g. = "")

In this example the Sensors will be discovered -

				_ 🗆 >
ana	ger Help			
	🍺 - 🖩 🗟 🗋 🖌	i 🗅 🖺 🚱 🤤 🖞	🥱 🕐 🖺 🐛 🤔 📄 🖪 🌺 📀 😂	
Sta	tion (Trend_LAN21)	Config 👘 Drivers	🚛 Trend_LAN11 🔛 O11 🍈 Points	C Tyrrell Trend IQ Point Manager
	🕑 嘴 Trend IQ Module	e Discovery		Success » 😵
·]	Discovered			26 objects
	Label	Value Spec	Read Only	8
	Inlet Air Temp	Sensor - S1(V) - Real	false	
	Return Air Temp	Sensor - S2(V) - Real	false	
	Sensor 3	Sensor - S3(V) - Real	false	
	Sensor 4	Sensor - S4(V) - Real	false	
	Sensor 5	Sensor - S5(V) - Real	false	
	Sensor 6	Sensor - S6(V) - Real	false	
	Sensor 7	Sensor - S7(V) - Real	false	
	Sensor 8	Sensor - S8(V) - Real	false	
	Sensor 9	Sensor - S9(V) - Real	false	
	Sensor 10	Sensor - S10(V) - Real	false	
	Sensor 11	Sensor - S11(V) - Real	false	
	Sensor 12	Sensor - S12(V) - Real	false	
	Sensor 13	Sensor - S13(V) - Real	false	
	Sensor 14	Sensor - S14(V) - Real	false	
	Sensor 15	Sensor - S15(V) - Real	false	
	Sensor 16	Sensor - S16(V) - Real	false	
	Sensor 17	Sensor - S17(V) - Real	false	
	Sensor 18	Sensor - S18(V) - Real	false	

The user can then select the Sensors they want to add to the Station Database and press the **Add** button.

× Add											
Name	Туре	Facets	Enabled	Device Facets	Value Spec	Label	Poll Frequency	Optional Extensions	₽.		
🔘 Inlet Air Temp	Numeric Writable	precision=2,units=°C,min=-40.00,max=110.00	true	precision=2,units=°C,min=-40.00,max=110.00	Sensor - S1(V) - Real	Inlet Air Temp	Normal				
Return Air Temp	Numeric Writable	precision=2,units=°C,min=-40.00,max=110.00	true	precision=2,units=°C,min=-40.00,max=110.00	Sensor - S2(V) - Real	Return Air Temp	Normal				
Name Tolat Air Tamo											
O Type	Two Numeric Writable										
Facets	acets precision=2 °C.units=°C.min=-40.00 °C.max=110.00 ° > '@ •										
Enabled	🔘 true	© true ▼									
O Device Facets precision=2 ℃,units=℃,min=-40.00 ℃,max=110.00 ° » ᅝ ▼											
Value Spec	🔘 Value Spec Module Sensors 💌 S Number 1 Parameter Value 💌 🗹 Number Value Type Real										
🔘 Label	Inlet A	ir Temp	6								
Poll Frequency	Normal	•									
Optional Exter	Optional Extension Numeric/Interval [Not Present] Image: Add Control of the present] Image: Add Control of the present]										
				OK Cancel							

The user can then adjust the points configuration -

Name	Adjust the point name
Туре	Adjust the point type (read or write)
Facets	The Facet will automatically inherit from the Trend Units where available, otherwise a manual Facet can be set
Optional Extensions	History and / or Alarm extensions can be automatically added to the point

	<u>- 🗆 ×</u>								
ager Help									
😰 • 🗟 🕼 📮 👪 🗅 🖺 🚱 🥥 🥢 🛍 🐛 🛯 🗩 🖪 🌺 🛇 🔿									
ation (Trend LAN21) 🗏 Config 🖷 Drivers 🖷 Trend LAN11 📓 O11 伦 Points	ion (Trend_LAN21) 🖹 Config 📲 Drivers 🦏 Trend_LAN11 🔛 O11 🌘 Points 🖸 Tyrrell Trend IQ Point Manager 🗸								
V Trend IQ Module Discovery	Success » 🔇								
Discovered 10									
Label Value Spec Read Only	9								
Occupancy PIR Digital Input - I1(S) - Bool false									
Comm Alarm Digital Input - I2(S) - Bool false									
Digital Input 3 Digital Input - I3(S) - Bool false									
Digital Input 4 Digital Input - I4(S) - Bool false									
Digital Input 5 Digital Input - I5(S) - Bool false									
Digital Input 6 Digital Input - I6(S) - Bool false									
Digital Input 7 Digital Input - I7(S) - Bool false									
Digital Input 8 Digital Input - I8(S) - Bool false									
Digital Input 9 Digital Input - I9(S) - Bool false									
Digital Input 10 Digital Input - I10(S) - Bool false									
Database	4 objects								
Name Type Out Status Enab	oled Value Spec Label Poll Frequency 😰								
● Inlet Air Temp Numeric Writable 113.92 °C {alarm, unackedAlarm} @ def {ok} true	Sensor - S1(V) - Real Inlet Air Temp Normal								
Return Air Temp Numeric Writable 24.20 °C {ok} @ def {ok} true	Sensor - S2(V) - Real Return Air Temp Normal								
Occupancy PIR Boolean Writable false {ok} @ def {ok} true	Digital Input - I1(S) - Bool Occupancy PIR Normal								
Comm Alarm Boolean Writable true {ok} @ def {ok} true	Digital Input - I2(S) - Bool Comm Alarm Normal								

If preferable folders can be created for each module type (Sensors, Inputs, Drivers etc).

SCHEDULE IMPORT

The default view of the Schedule extension is the **IMPORT** view. Any schedules added via the import will be READ ONLY. If you want to control Trend Time Zones then the **EXPORT** view should be used.

NOTE: Schedule Exports are an additional license feature.

Within the Schedule Import view press the Discover button and add the required schedules to the station -



The imported schedule will be read only. This is useful for learning the existing schedule and confirming schedule within the IQ matches the local Tridium time schedule.



By default the schedules will re-import every 15 minutes. This can be adjusted by editing the Retry Trigger component under the Schedules Extension in the Nav Tree.

SCHEDULE EXPORT

NOTE: Schedule Exports are an additional license feature.

To navigate to the export view select the **Schedule Export Manager** view

	<u>- 🗆 ×</u>
] # 📀 🕄 📪	
🔜 011 🛛 📅 Schedules	Tyrrell Trend IQ 'TimeZone/TimeSchedule' Import Manager 👻
	C Tyrrell Trend IQ 'TimeZone/TimeSchedule' Import Manager
	Tyrrell Trend IQ 'TimeZone/TimeSchedule' Export Manager
	Property Sheet
	1 Wire Sheet
	Category Sheet
	Slot Sheet
	😰 Link Sheet
	New View

Again do a discover for all of the Trend Time Zones in the selected IQ and add the required schedule(s). A configuration window will then appear -

Name	Time Zone Number	Schedule Ord	Export On Change	Enabled	Execution Time			
🏩 AHU Schedule Export	1	station: slot:	true	true	12:00 AM {Sun Mon Tue Wed Thu Fi	ri Sat }		
Nama	AUT. Cob a dulla	E						
	And Schedule	Export						
Time Zone Number 1 [1-max]								
Schedule Ord Station: slot:								
Seport On Change Utue								
🔘 Enabled	🔘 true 🔻							
	Т	me Of Day [12:00:00 AM BST	[÷				
Execution Time	Daily v R	andomization [+00000h 00m 00s	10				
	D	avs Of Week	🗸 Sun 🔽 Mon 🔽 Ti	ue 🗹 We	d 🗹 Thu 🗹 Fri 🗹 Sat			

Name of the Schedule
Trend Time Zone Number
Target Tridium Schedule that will be exported
Should the Tridium Schedule automatically export on a state of change
Time of day the schedule should re-synchronise (e.g. daily at midnight)

ALARMS

NOTE: The receipt of alarms from the Trend LAN is an additional license feature.

This feature is based on the number of Outstations permitted to transmit alarms to the driver. For example, if the LAN has $15 \times IQ3$ and the driver is only licensed for $10 \times Trend$ Device Alarms, the driver will only accept alarms from the first ten outstations that transmit an alarm (in any order - IQ11/12/13/14/19/15/18/17 etc).

The driver will generate an alert alarm if it receives an alarm from an Outstation that exceeds the license capacity. This will notify the user that alarms are being received but the alarm licence capacity has been exceeded.

The Trend Outstations must be configured to deliver alarms to the VCNC that the Trend Driver is connected to. Below is an example -



The Trend Alarm Destination also requires some configuration -

Trend	Alarm Destination	? ×
e1	Details: To JACE	×
Innut	Label: To JACE	•
Parar	Hold Priority: neters	0
Display	Destination Type:	IQ Lan 🔻
	Message Format:	Coded format should not be used for IQ3/4
◄	Interval:	0
	Inhibit Clear Alarms:	Enable
	Alarm Address:	101
•	Remote Lan:	0
	Destination:	
	Dest. Port	0
Г	From Email:	
Г	To Email:	
	Message:	,
	Email Server Addr.:	
_	Note: This value c	an be edited from the Network Module
	ОК	Cancel

Destination Type	IQ LAN
Message Format	Text
Address	101 (VCNC the Driver connects to)
Remote LAN	0 (Local LAN)

The Trend is now configured and the Tridium end requires some configuration.

The JACE / WebSupervisor requires an appropriately named **Alarm Class** (i.e Trend LAN11).

The alarm receiver of the Outstation in the driver then needs to be configured to deliver alarms to the required **Alarm Class** -

12	1)	Config 🖷 Drivers	Trend_LAN11	11 🔵 Alarm Receiver			
	0	Alarm Receiver 🖳 Console	eRecipient				
	0	Alarm Receiver (Tti Alarm Re	eceiver Device Ext)				
ł		🔘 Status 🧧	ok}				
Enabled 🔘 true 🔻							
L		Fault Cause]		
L							
L		Alarm Class	Trend	-			
L		Source Name	<pre>\$parent.alarmSourceN</pre>	Name%			
		🗌 🔘 Hyperlink Ord	null » Ý@ •			🗌 🗁 👻 (Default View) 🔻 🕨	
		🗆 🔘 Sound File	null			b • 🕨	
		🗌 🔘 Alarm Icon	null			b • 🕨	
		Alarm Instructions	0 Instructions >>>				
		🗆 🔘 Meta Data	» ^r @ -				

Any alarms that are generated by the Trend IQ will now be visible in the Alarm Console -

	😽 Station (Trend_LAN21) 🛛 🗏 Config	ණි ³ Ser	vices 🛛 🐥 AlarmServ	rice 📃 ConsoleRi	ecipient						Alarm Consol	e -
]	O Alarm Receiver 🖳 ConsoleRecipient											8
	Time Range 💌 ? to ? 🔯											
	Open Alarm Sources										1 Sources / 1 Alar	rms
I	Timestamp	Source	Ack State	Source	Alarm Class	Priority	Message Text					R.
L	🐥 31-Mar-17 10:07:21 AM BST	Alert	0 Acked / 1 Unacked	Trend_LAN11/O11	Trend	255	Demo IQ412	Switch 1	DIGIN ON	CLEARED	10:06 01/04/140011I001 CDI1	1
1	- 31-Mar-1/ 10:07:21 AM BST	Alert	U Acked / 1 Unacked	Irend_LAN11/011	Trend	255	Demo IQ412	Switch 1	DIGIN ON	CLEARED	10:06 0 1/04/ 14O0 1100 1 CDI 1	1

When an alarm is delivered to the Driver an acknowledge message is immediately sent back to the IQ that raised the alarm. The ack message does not occur when the alarm is Acknowledge in the Alarm Console.

REVISION HISTORY

REVISION	DESCRIPTION
1.0	Release Candidate
1.1	Alarm acknowledge info added when using Trend Alarms
1.2	Host Names now supported with driver v4.6.96.28.0.12
1.3	Introduction section added Supported / unsupported controller details added General update in line with driver v4.7.109.20.0.15 Misc formatting updates
1.4	IQL Controllers are supported but require a special configuration
1.5	Direct Connections to IQ3 via Crossover Cable Added
1.6	Niagara 4.9 Certificate Details Added
1.7	Software Maintenance Details Added
1.8	Niagara 4.10 Release
1.9	Code Signing Certificate Updated