

This documents provides on overview of upgrading from 963 to IQ™VISION v2.20 or greater.

For more information on why upgrade to IQVISION and the benefits, see our website:

<https://www.trendcontrols.com/en-GB/Pages/IQVISION.aspx>

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1. WHY UPGRADE TO IQVISION?

1.1. IQVISION can connect to more systems: IQVISION can communicate with many different systems and make those points available for viewing/adjustment. IQVISION v2.20 is supplied with direct Ethernet based driver support for:

- Trend
- BACnet IP
- EIB/KNX IP
- Lon IP
- MODBUS® IP master and slave
- M-BUS IP
- SNMP and OPC-UA Client & Server

1.2. Trend developed driver for Trend systems: The Trend driver supplied with IQVISION is the only Trend driver for Niagara developed, and approved by Trend. It enables a secure, encrypted and authenticated connection to the Trend System. This ensures messages cannot be intercepted or modified. It uses a site connection encrypted using AES-128 with a 2048-bit RSA public/private key exchange and this is the recommended standard for all new systems.

The driver can automatically connect to, and switch between, multiple vCNCs which provides redundancy in the case of device failure, and enables higher bandwidth.

The driver also offers enhanced alarm handling features for the Trend System.

1.3. JAVA plug-ins are not required: 3rd party JAVA plug-ins on Client browsers are no longer required. Using HTML5, information is displayed through secure browsers to standard clients without the risk of incompatibility when security patches or updates are rolled out across the IT system.

Most main stream browsers no longer support the JAVA applet plug-in which is needed for client users to access 963. Oracle no longer advise the use of the Java plug-in and want developers to stop using the technology. Internet Explorer is now the only browser that supports the plug-in, and this may change in the future.

It has been identified that when JAVA updates are installed on 963 client machines problems can occur. Security, stability, customer feedback and long term support are all reasons why Trend have moved away from this technology.

1.4. IQVISION runs as a service: IT departments often demand software is installed in secure virtual servers running as a service. IQVISION was designed and developed to operate in this way, unlike 963 which needs to utilise 3rd party software to fulfil these needs.

1.5. Systems can be extended by 3rd party developers. IQVISION is built on top of the Niagara framework which means if a site has a unique requirement for integration or visualisation, there is the Niagara community who already have many extensions, and if a requirement isn't yet met, it can probably be met by this community.

1.6. Operating System support: 963 has been available since 2003 and in many cases, will be installed on operating systems that are no longer supported by Microsoft. For Operating Systems outside of the extended support, patches for security fixes are no longer issued and this can leave systems vulnerable to cyber-attack.

For example, Windows XP extended support ended in April 2014, and support for Windows 7 and Windows Server 2012 R2 SP1 ends in January 2020. More details can be found on Microsoft lifecycle fact sheet site:

<https://support.microsoft.com/en-us/help/13853/windows-lifecycle-fact-sheet>

1.7. Trend are no longer actively developing 963: 963 has reached the end of its development life and it will be withdrawn from sale mid-2019. All our focus is now on our platform for the future, IQVISION.

2. WHICH IQVISION IS NEEDED?

Trend have created a series of upgrade options which allow 963 to be upgraded. However, there isn't a one-for-one mapping from the 963 products that exist on site to IQVISION.

The licensing for IQVISION is different from 963. 963 had licenses depending on the number of client users, which is not the case for IQVISION. IQVISION is licensed based on points capacity.

You should also consider if there is any 3rd party integration on the 963 site. This would have been achieved using the TOPS/BACnet or TOPS/TONN driver. If this is the case, consider integrating these points into IQVISION. These points must be covered by the 'Open' point extensions license, or if they exist in TONNs, the number of TONN connections licensed.

The table below will help you identify the IQVISION to order based on the features of 963 that are currently being used.

Feature	963	IQVISION	Order Code [Description]
Client users	Licensed by the number of simultaneous client connections. Maximum 25 concurrent web users	Unrestricted (the only restriction is related to hardware performance).	N/A
Trend points	Unrestricted	Licensed capacity, select the entry supervisor size which suits the project, from 300 to 50,0000 points. For larger systems contact your Trend account manager. <i>Note: If the exact number of points is not listed then upgrade capacity packs can be applied.</i>	Entry Supervisors - Order 963-IQV-300 [963 TO IQV-300 BASE 300 TREND PTS] 963-IQV-500 [963 TO IQV-500 BASE 500 TREND PTS] 963-IQV-2500 [963 TO IQV-2500 BASE 2500 TREND PTS] 963-IQV-5000 [963 TO IQV-5000 BASE 5K TREND PTS] 963-IQV-15000 [963 TO IQV-15000 BASE 15K TREND PTS] 963-IQV-50000 [963 TO IQV-50000 BASE 50000 TREND PTS] Upgrade packs - Order 963-IQV-100-EXT [963 TO IQV-100-EXT ADD 100 TREND PTS] 963-IQV-500-EXT [963 TO IQV-500-EXT ADD 500 TREND PTS] 963-IQV-2500-EXT [963 TO IQV-2500-EXT ADD 2500 TREND PTS] 963-IQV-5000-EXT [963 TO IQV-5000-EXT ADD 5000 TREND PTS] 963-IQV-15000-EXT [963 TO IQV-15000-EXT ADD 15000 TREND PTS]
BACnet	TOPS/BACnet used and licensed for the number of BACnet devices.	Licensed capacity, select the number of open points you need.	Open point packs- Order 963-IQV-500-OPEN [963 TO IQV-500-OPEN ADD 500 OPEN PTS] 963-IQV-2500-OPEN [963 TO IQV-2500-OPEN ADD 2500 OPEN PTS] 963-IQV-5000-OPEN [963 TO IQV-5000-OPEN ADD 5000 OPEN PTS] 963-IQV-10000-OPEN [963 TO IQV-10000-OPEN ADD 10K OPEN PTS]
Other Open systems	Not applicable, 963 was unable to supervise other systems.	Many open IP based drivers are available directly in the product. Drivers are available from 3rd party Niagara developers, generally these simply require open points capacity.	
TONN/ TONN8	TOPS/TONN used to access data points from TONN devices.	TONN nodes can be added to IQVISION, using node packs. For upgrades two options exist.	963-IQV-1-N [963 TO IQV-1-N ADD 1 TONN] 963-IQV-10-N [963 TO IQV-10-N ADD 10 TONN]
SMS	An SMS modem was directly connected to 963	Option not available in IQVISION. It is possible to configure a TONN/TONN8 with an external SMS modem for alarm delivery, or alternatively you should use the Mobile alarm app for sending alarms directly to a phone.	
SQL Server	963 uses SQL Express as standard. Sites could upgrade to full SQL Server outside of the Trend product.	IQVISION uses its own proprietary database. For most sites this is sufficient. However, for systems which still require an SQL database, the IQVISION data can be pushed to SQL using a driver.	963-IQV-DB-SQL [963 TO IQV-DB-SQL]
CFR 21 pt 11	963 standard features	IQVISION E-signature features – To be launched soon, please contact your Trend account manager for more details.	No specific upgrade parts are available. Standard E-Signature product planned to be launched during 2019.
Trend Modem	Autodial option via LAN modem	TMN connection is not supported.	N/A
CSV Export	Ability to export to a CSV file	Supported	IQV-DB-CSV

Note: There are many more features in IQVISION than in 963, the above table represents the mapping transition across from 963 to IQVISION and is not intended to be a full feature list.

3. HOW MANY POINTS ARE NEEDED?

Knowing how many points required is important when ordering IQVISION. An IQVISION point is the input value of a Sensor, Knob, Switch and Digital Input modules, and an output value for Driver modules plus user defined points (any strategy module parameter accessible via text comms). Alarms, Plots modules and Time Schedule modules are not included in the point count.

Note: TONN points do not need to be included only the TONN device.

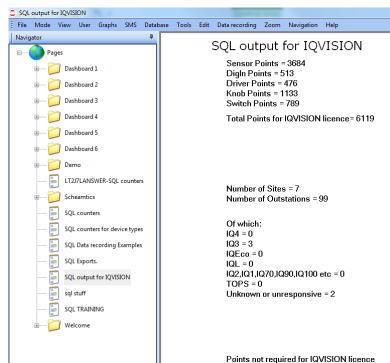
There are several ways to calculate the number of points that will be required for IQVISION.

- Use the IQ@SET's IQVISION export feature which produces a dxml file listing all the points in the IQ@SET project that can be opened in Microsoft Excel.

SiteName	TagName	InstName	lanAddr	TagName2	deviceName	deviceAddr	pinLevel	deviceType	TagName3	pointType	pointNo	pointName
Tech Pubs Rig	Ethernet LAN	18		Tech Pubs IQ3XCITE	30			IQ3				
Tech Pubs Rig	Ethernet LAN	18		Tech Pubs IQ3XCITE	30			IQ3				
Tech Pubs Rig	Ethernet LAN	18		Tech Pubs IQ412	40			IQ4	S		5	Sensor 5
Tech Pubs Rig	Ethernet LAN	18		Tech Pubs IQ412	40			IQ4				
Tech Pubs Rig	Ethernet LAN	18		Tech Pubs IQ412	40			IQ4				
Tech Pubs Rig	Ethernet LAN	18		Tech Pubs IQ422	41			IQ4				
Tech Pubs Rig	Ethernet LAN	18		Tech Pubs IQ422	41			IQ4				
Tech Pubs Rig	Ethernet LAN	18		Tech Pubs IQ422	41			IQ4				
1	Tech Pubs Rig	Ethernet LAN	18	Tech Pubs IQ4E	42			IQ4		D		1 LTHW Primary Pump 1
2	Tech Pubs Rig	Ethernet LAN	18	Tech Pubs IQ4E	42			IQ4		D		2 LTHW Primary Pump 2
3	Tech Pubs Rig	Ethernet LAN	18	Tech Pubs IQ4E	42			IQ4		D		3 VT Mixing Valve
4	Tech Pubs Rig	Ethernet LAN	18	Tech Pubs IQ4E	42			IQ4		D		4 VT Secondary Pump 1
5	Tech Pubs Rig	Ethernet LAN	18	Tech Pubs IQ4E	42			IQ4		D		5 VT Secondary Pump 2
6	Tech Pubs Rig	Ethernet LAN	18	Tech Pubs IQ4E	42			IQ4		D		6 Boiler 1
7	Tech Pubs Rig	Ethernet LAN	18	Tech Pubs IQ4E	42			IQ4		D		7 Boiler 2
8	Tech Pubs Rig	Ethernet LAN	18	Tech Pubs IQ4E	42			IQ4		D		8 AHU Supply Fan
9	Tech Pubs Rig	Ethernet LAN	18	Tech Pubs IQ4E	42			IQ4		D		9 AHU Extract Fan

For details of using IQ@SET's IQVISION export feature see the IQSET Manual (TE200147).

- Use the 'SQL output for IQVISION' 963 schematic page available from (<https://partners.trendcontrols.com/partners/index.aspx#Downloads:IQVISION>), which provides a list of the points in the 963.



- Estimate the number of points used by 963, so for example review the schematic pages and review the details to see how many points are included on average, i.e. 50 points, then multiply by the number of schematic pages.
- For TONNs & BACnet devices, engineers will need to use their IQVISION engineering license and discover the system, map the points and perform a point count.

In the future we are looking to extend the 963 to IQVISION migration tool, we will be adding more reporting facilities into the tool to identify what exists on site, so please check back occasionally or keep an eye out for the marketing communications to see when these enhancements are added.

4. ORDER IQVISION

When ordering the 963 to IQVISION upgrade products it is important to send in details of the 963 which will be upgraded.


- Original 963 serial number
- Site name
- Site contact

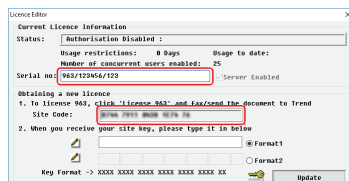
If this information is not supplied, it will not be possible to process the order as an upgrade and the standard IQVISION part numbers will have to be used.

Note: It is only possible to order the Trend & Open point extensions, SQL driver and TONN database upgrades at the time of placing the IQVISION order, i.e. 300, 500, 2500 point supervisor. The upgrade parts are only available when all items are ordered together. It is possible to upgrade the IQVISION later, but, this will need to be achieved using the standard part numbers and not the upgrade options.

For details of the scheme terms and conditions see ["Participation in the Scheme"](#).

To obtain the 963 licence details:

- Log onto 963 as an administrator.
- Press **F1** to display the information centre.
- Click . The **Licence Editor** is displayed. Make a note of 'Serial Number' and 'Site Code'.



4.1. ORDER CODES

Order Code	Description
963-IQV-300	963 TO IQV-300 BASE 300 TREND PTS
963-IQV-500	963 TO IQV-500 BASE 500 TREND PTS
963-IQV-2500	963 TO IQV-2500 BASE 2500 TREND PTS
963-IQV-5000	963 TO IQV-5000 BASE 5K TREND PTS
963-IQV-15000	963 TO IQV-15000 BASE 15K TREND PTS
963-IQV-50000	963 TO IQV-50000 BASE 50000 TREND PTS
963-IQV-150000	963 TO IQV-150000 BASE 150K TREND PTS
963-IQV-100-EXT	963 TO IQV-100-EXT ADD 100 TREND PTS
963-IQV-500-EXT	963 TO IQV-500-EXT ADD 500 TREND PTS
963-IQV-2500-EXT	963 TO IQV-2500-EXT ADD 2500 TREND PTS
963-IQV-5000-EXT	963 TO IQV-5000-EXT ADD 5000 TREND PTS
963-IQV-15000-EXT	963 TO IQV-15000-EXT ADD 15000 TREND PTS
963-IQV-25000-EXT	963 TO IQV-25000-EXT ADD 25K TREND PTS
963-IQV-50000-EXT	963 TO IQV-50000-EXT ADD 50K TREND PTS
963-IQV-150000-EXT	963 TO IQV-150000-EXT ADD 150K TREND PTS
963-IQV-500-OPEN	963 TO IQV-500-OPEN ADD 500 OPEN PTS
963-IQV-2500-OPEN	963 TO IQV-2500-OPEN ADD 2500 OPEN PTS
963-IQV-5000-OPEN	963 TO IQV-5000-OPEN ADD 5000 OPEN PTS
963-IQV-10000-OPEN	963 TO IQV-10000-OPEN ADD 10K OPEN PTS
963-IQV-1-N	963 TO IQV-1-N ADD 1 TONN
0963-IQV-ALM-PORTAL	963 TO IQV-ALARM-PORTAL

5. MIGRATE TO IQVISION

It is important to establish if migrating the 963 is the right approach. Whilst it can save time to migrate the existing 963, there are a couple of things to consider:

- Is the end user happy with the 963?
- Would it be easier or quicker to start again?
- Are the required 963 features available in IQVISION - see [“963 Features Not Available in IQVISION”](#). The converted 963 may require too much re-work, so creating a new solution may be more beneficial.

Note: If the upgrade is for an existing 963 and the serial number is supplied, the upgrade parts can be used without migrating the existing 963. It may be the case that starting with a fresh design, gives the customer a better end solution.

If migrating the existing 963 is the right option for the site, follow the process below:

- Export the 963 project:
 - Visit site and back up the 963 project directory, normally C:\Program Files\Trend Control Systems Limited\963.
 - Prepare the 963 project for migration - see 'Preparation in 963' in the IQVISION Manual (TE201382).
 - Use the 96x Export Tool to export the 963 project. During the export ensure that the **IQVISION** option is selected in the **Export** section, and set up the font mapping file to ensure the fonts in 963 are correctly mapped. See the 96x Schematic Export Tool Manual (TE201242) and 'Preparation in the 96x Export Tool' in the IQVISION Manual (TE201382).
- Install and licence IQVISION - see 'Installing IQVISION' & 'Licencing IQVISION' in the IQVISION Configuration Manual (TE201382).
- Perform the initial IQVISION set up - see 'Initial Setup' in the IQVISION Configuration Manual (TE201382).
- Build the site - see 'Using Manual Site Discovery' in the IQVISION Configuration Manual (TE201382).

Important: To prevent having to reconfigure all point references in the schematic pages use the same connection information (same vCNC) as the 963.

- Use IQVISION's migration tool to import the schematic pages from the 963 - see 'Migration Tool' in the IQVISION Configuration Manual (TE201382).
- Perform the post migration tasks - see [“Post Migration tasks” on page 6](#).

An alternative to performing the migration you could use the migration service offered by Trend

There are a number of reasons why using this service may be preferred:

- Quick and efficient - Carried out by expert Trend engineers remotely, ensuring the delivery of a fully functional, upgraded Supervisor
- Honeywell Quality - Extensive quality checks are carried out before the upgrade is delivered to customer
- Flexible - Multiple levels of service allowing you to even create brand new graphics along with the latest IQVISION supervisor

Contact your account manager today or send us an email on migrationservice@trendcontrols.com.

5.1. 963 FEATURES NOT AVAILABLE IN IQVISION

Not all features of 963 map directly to IQVISION. The following 963 functionality is not available in IQVISION:

General

- The engineering of the product is currently in English and the user displays are translatable. Contact your local sales office for more details regarding your language requirements.
- **Actions and variables:** Not all 963 actions and variables have an equivalent in IQVISION - see the '963 Variables Supported by IQVISION' section of the 96x Schematic Export Tool Manual (TE201242) for a full list of supported actions and variables.
- **TOPS Data:** Data for TOPS is not available it must be re-engineered using the BACnet Driver.
- Access to IQ1 and IQ2 controller configuration mode.
- Autodial option via LAN modem.
- Automated tasks - The IQVISION reporting service can be used to support some automated tasks which are performed at regular times, such as writing to a file, but not all facilities, e.g. running a script file regularly, are supported.
- Scripts will not work.
- For historical logged data, the original information can be accessed directly in the 963 SQL database. If you wish to have this transferred across to IQVISION, talk to your Trend account manager as there are some services offered by our Network Operations Centre where large multi-sites and logged data can be transferred as a service.
- IQVISION is not compatible with TMN connections to remote sites.
- Only limit support is available for EMICs.

Schematics

- **Graphical options:** The following 963 graphical options are not available in IQVISION:
 - <FLASH> - IQVISION's blink facility can be used
 - <FLASHBORDER> - IQVISION's blink facility can be used
 - <BORDER> - Items appearance can be manually engineered with a border
 - <INVERT> - No IQVISION alternative
- Ability to print pages - No IQVISION alternative - Can add a button to send to PDF file that can then be printed

Alarms

- Alarm pop up panels - No IQVISION alternative - Alarm portal provide the closest alternative
- For SMS it is necessary to use a TONN8 with SMS modem or use the new mobile Alarm App - Contact your local sales office for more details.
- Alarm retransmission to another 963: Alarms can't be retransmitted from IQVISION to a 963. It is possible to send alarms to a remote IQVISION.

6. POST MIGRATION TASKS

The 963 to IQVISION tools work well, but they will not perform the full job so ensure time is allocated to either pre-migration or post migration tasks. Once the migration is complete it is necessary to complete the following post migration tasks:

- If the 963 was accessing TONNs connect IQVISION to the TONNs - see 'Connect to TONNs' in the IQVISION Configuration Manual (TE201382).
- If the 963 used the TOPS to access BACnet points configure IQVISION's BACnet driver - see 'Using the BACnet Driver' in the IQVISION Configuration Manual (TE201382).
- Configure IQVISION to control the occupation times - see 'Controlling Complex Occupation Times' in the IQVISION Configuration Manual (TE201382).
- Configure alarm handling - see 'Configuring Alarms' in the IQVISION Configuration Manual (TE201382).
- Configure the schematics - see 'Creating Schematics' in the IQVISION Configuration Manual (TE201382).

Notes:

The schematic migration is not able to migrate all functionality, therefore it is necessary to review all pages and re-commission as appropriate. The schematic page conversion error report review can be used to help identify areas that need attention. E.g. Modify buttons actions not supported - see ["963 Features Not Available in IQVISION"](#)

If a controller has been removed from the site, but 963 still has links to these devices, they will be migrated from the 963 schematic to the IQVISION PX page. Clarify the point references to be on the pages and re-commission.

Some of the functions of IQVISION and 963 are different, e.g. backing up the databases or some of the action commands that can be configured on schematic page buttons. These will not be transferred and are highlighted in the migration tool report.

- Configure IQVISION users - see 'Set Up IQVISION Users' in the IQVISION Configuration Manual (TE201382).
- Configure reporting services - If the 963 used scheduled events the reporting service must be configured to replicate the scheduled events, where possible, not all event can be replicated
- Backup the IQVISION station - see 'Backup the Configuration' in the IQVISION Configuration Manual (TE201382).

7. PARTICIPATION IN THE SCHEME

Participation in the Scheme and therefore access to the pricing discount is entirely conditional on your agreement to the following. Your purchase is a bone fide 963 upgrade and therefore will result in the decommissioning of an existing fully licensed 963 installation. You will be required to provide full details of the 963 installation which will be replaced by the Trend IQVISION software at the time of purchase and the upgraded 963 must have been first licensed prior to December 2018. Failure to provide this information at the time of purchase will result in loss of the scheme discount and full price will be charged. On delivery of IQVISION under this scheme the applicable 963 license is revoked; a grace period of 90** days after this date is provided to allow phased changeover. You also agree that if at any time evidence is obtained that this 963 license is still being used once the grace period has expired then an invoice will be raised on you for the applied discount which will become a debt due on the normal payment terms agreed. We strongly advise you return the 963 installation disks to your account manager or arrange a secure means of disposing of the installation media and license information.

** - may be extended on agreement with your account manager.

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