DATRAN VI

Product Release Notice
Release 6.70 V6.70.1

QTECH
DATA SYSTEMS

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Revision Details

| 1.0 | Sept 2017 | Initial Issue for 6.70.0 |
| 2.0 | Oct 2017 | Revisions for 6.70.1 |

Introduction

DATRAN VI version 6.70 is now available and is provided to all software maintenance agreement (SMA) holders.

Please log in to the Members section of the QTech website to download this software.

This version is an exciting and significant upgrade with many new features and enhancements.

> ⚠️ A minimum of DATRAN v6.70.0 is a prerequisite for the use and integration of the new DATRAN XL4 *Plus* RTUs onto your SCADA system.

A Getting Started Guide is also provided to step you through the installation and help ensure a seamless introduction of the upgrade.

Your feedback on the product and possible future enhancements is always appreciated, so please do not hesitate to contact QTech on +64 3 366 3713, or email it to techsupport@qtech.co.nz.

The Benefits of Upgrading

Software and hardware is continually evolving. Many of our customers have been using DATRAN for over 25 years, and it has remained a stable product on a variety of platforms, from the early DOS days, to the current Windows Operating Systems.

DATRAN VI is a major evolution of our early products and we feel that it combines the best of the features from all these products, along with a quality control program used to manage its development and release that is essential for software being used in the roles that DATRAN is used.

For all DATRAN VI users with a current SMA, this upgrade is available to download from the members section of our website.

We strongly recommend that all systems are updated to the current release, and suggest to DATRAN VI users without Software Maintenance Agreements (SMA) that they consider this significant upgrade, as this release will be where QTech is able to focus its direct support.

Thank you all for your continued support and commitment to DATRAN.

The DATRAN team

This Release

The following sections detail the new features and user requested enhancements in this version of DATRAN VI. We have also resolved a number of requested tweaks and bug fixes.

Please keep these improvement suggestions coming.

Prerequisites for Upgrade

Prior to upgrading to DATRAN VI v6.70 from any previous version, the following should be considered:

- If your current installation is older than v6.52, please contact us as there are additional tasks required to perform the migration.
- It is important that any sites that have RTUs with firmware older prior to v7.0 do not have any point count values of 255.If they do then either disable the site, upgrade the firmware, or set the point count value to 254 for example.

Summary of New Features and Modifications

This release is primarily required to enable support for the XL4 *Plus* RTU. The RTU firmware now permits management of up to 65,535 data points. This is an increase from the 255 data points previously manageable by the RTU. In effect, the RTU has moved from 8 bit to 16 bit data point support. The increased point count requires changes to the underlying communications protocols to handle the larger point count, which will be referred to as Extended Point Count in future correspondence.

The key changes made are:
- Modifications to the QComms protocol to support 16 bit extensions.
- Changes to the Historical Data Logging module to support larger point count.
- Addition of per point interval logging for historical data logging.
- Associated GUI form changes in DATRAN Browser.
- Alarm acknowledgement via SMS Direct.
- Alarm acknowledgement extended beyond 5 simultaneous alarms

Please note other products affected by this release include:
- DATRAN Supervisor
- DATRAN Browser
- DLP-IDE

The pertinent changes in DATRAN Browser for Historical Datalogging are:
- The addition of the "Datagram Version" combo.
- The addition of the "Interval" combo on the right, which overrides the value in the left side "Interval" combo.
- Extra interval timing values were added to the list to give more options
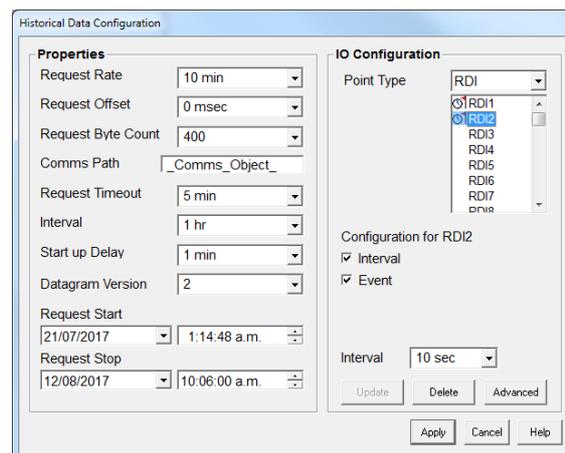
When configuring DATRAN:
- In order for QComms to accept point count values larger than the old limits accept a property "Use Extended Point Count" = 1, must be added to the RTU comms object.
- The channel "Max Packet Length" property may need to be increased. A reasonable value would be 4096.
- The RTU Retry Timeouts may need to be increased, especially when using 1200 or slower serial comms.

When configuring RTU Datalogging:

- The new property "Datagram Version" must be set to 2 in order to configure points with index > 255. The XL4 firmware V7 does not support Datagram version 1 any longer, which means that this change is compulsory when upgrading the RTU firmware.
- There is a new feature that allows intervals to be specified on a point by point basis. The point interval will default to the site interval value (on the left side of the dialogue) if not specified for the point.
- When upgrading a site, it is important to retrieve the existing logged data before performing the upgrade, as the upgrade will erase any logs on the RTU.
- In the previous Historical Data Interface version, the "Request Byte Count" property was included in the RTU configuration message. This meant that if the value was changed that would force the RTU to reinitialise the RUT datalogging state. But in this version the "request Byte Count" property can be changed without that causing a reinitialization.
- The first time a site is polled it may need the _comms_hist_data_ reapplied. This is only necessary if Datran continues to poll the site without updating the "Bytes Remaining" counter. Usually this will not be necessary.

When configuring Alarm Acknowledgements:

- Alarm acknowledgement can exceed the short code pool of 5 if configured to use "Alarm ID"
- To configure properly you have to setup the Formats of the messages as follows:
- When acknowledging the alarm you need to send an SMS with the text:
  ACK <alarm Id>
  where you replace <alarm Id> with the "Alarm Id" number you received in the alarm SMS.
- You can also acknowledge the alarm SMS as previously by just sending a blank reply, but with the limitation of a maximum short code pool of 5 simultaneous alarms.
- Usage:
  ALM: ALM [Alm:{Alarm Id}] {(ALM)LocalTime} {Description}
  ALM Ack: ACK [Ack:{Alarm Id}] {(ALM Ack)LocalTime} {Description}

Please note: you have to define a field [Alm:{Alarm Id}] for the alarm and [Ack:{Alarm Id}] for the ack notification
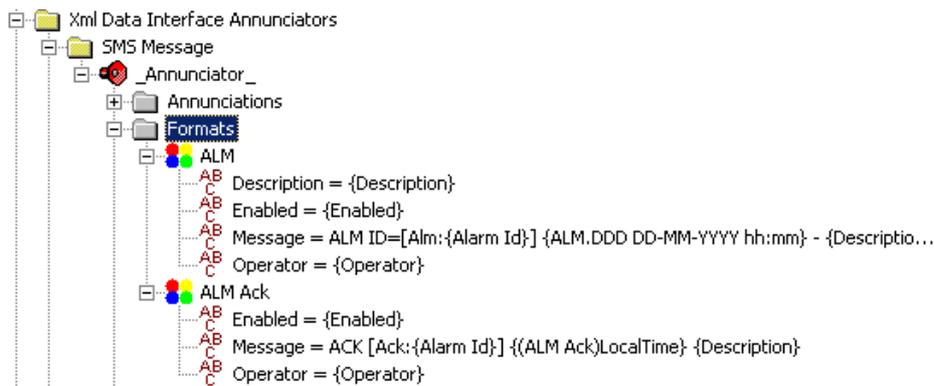
When Configuring SMS Direct (in backup mode) for alarm acknowledgement the following settings must be used for the annunciator

- Annunciation Life: Alarm Instance
- Delete Success: False
- Delete Error: False

Summary of Issues Resolved

The following issues have been resolved since the base version of DATRAN VI v6.70

ID	Summary
- 0006158	[DATRAN Browser] No comms object dialog box.
- 0006151	[Comms - DNP3] Make DNP3 service not to reset its ranges' points values when reset.
- 0006109	[Historical Data Logging] Modify Routed Datagrams to allow 16 bit values in the point count fields. (new feature)
- 0005903	[SMS Direct] CM910 stops working and needs to be re-powered before SMS works again.
- 0006002	[Comms - Modbus] _Comms_Object_'s WritesEnabled flag change not effective unless comms object is re-applied.
- 0006103	[Comms - QTech] Modify QCOMMS protocol to allow 16 bit values in the point count fields. (new feature)
- 0005561	[Comms - DNP3] DNP Service crashes occasionally (every few months).
- 0005716	[Comms - DNP3] qc_dnp keeps restarting. Replication service has same issue.
- 0005881	[Comms - DNP3] DNP3 master doesn't retry on LINK RESET failure.
- 0005549	[XML Fetch] Multiple node retrieval from XML Fetch.
- 0005544	[Alarm Service] Alarms will store the Alarm Class and Id in the database for future reporting.
- 0005531	[ADODCM] Mini Trending occasionally draws a loop.
- 0005515	[EPL Power Management] Log USI Controllable Time Off Today.
- 0003444	[Comms - Modbus] 2.5 Modbus Comms.
- 0005497	[Comms - QTech] Serial Port > 9 not working.
- 0005470	[Comms - DNP3] Fails to handle interchar timeouts on TCP packets.

Disclaimer

While every endeavour has been made to ensure that the product description is accurate, details are subject to change. QTech Data Systems Ltd reserves the right to alter the system specifications if required. It is our firm intention to continue to develop the features of the DATRAN VI product range and add additional modules.

QTech Data Systems Ltd does not warrant the suitability of this product for any particular application as the conditions in which it is used are beyond our control. This is not withstanding warranty of merchantability.

Increasingly, systems are being connected to the Internet. QTech Data Systems Ltd cannot guarantee these services will be available or functional 100% of the time, because the integrity of network connections is beyond our control.

Ongoing Support

QTech Data Systems Ltd encourages clients to configure their systems to allow remote access via a directly connected modem or internet based VPN. This allows for off-site support from either QTech Data Systems Ltd staff, or in-house staff outside of work hours.

DATRAN is a registered trademark of QTech Data Systems Ltd.