

DATRAN XL4 *Plus* RTU

FIRMWARE Version 7.14

December 2019

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Introduction

QTech advise that we have released DATRAN XL4 Plus RTU Firmware version 7.14.

This release introduces DNP3 outstation (slave) functionality in the RTU as a licensable item.

QTech views this as a mandatory upgrade and strongly recommends that all DATRAN XL4 Plus RTUs are upgraded to this firmware version. QTech requests that a list of the Serial Numbers of all RTU's post upgrade to this version of firmware is provided to us to assist us in monitoring its use and efficacy.

The following sections of this document describe the enhancements and the installation prerequisites.

Your feedback on the product and possible future enhancements is always appreciated.

Please contact QTech on +64 3 366 3713, or email to techsupport@qtech.co.nz

Summary of New Features and Modifications

This version introduces the following new features:

- Implemented DNP3 Slave
- DNP3 RTU expansion module I/O is marked as offline when in comms fail
- Now supports both 16 bit and 32 bit DNP3 analogue types
- Ensured that the DNP3 implementation includes interval logging
- Ensured that each point can be assigned to its event class individually

More of the comms settings are editable via Workbench than previously.

- The RTU supports file transfers (object 70). These can be used for access to the DLP, configuration, and firmware via DNP3 comms channel.
- The RTU supports Device attributes (object 0)

Key improvements in the XL4 Plus implementation of DNP vs the XL4 implementation

- The default variations for each object can be configured by the user instead of being hard-coded.
- The analogue event logging dead bands and intervals can be configured by the user for each analogue input point individually.
- The analogue input and digital input points can be individually assigned to have membership to the 3 event classes (previous version had digital inputs hard coded in event class 1, and analogue inputs hardcoded in event class 2)

Prerequisites for Upgrade

Hardware Platform

The DATRAN XL4 Plus RTU Firmware Upgrade is designed for both the XL4 *Plus* and the previous model XL4 RTUs.

NB: To upgrade a DATRAN XL4 RTU to a XL4 *Plus*, please contact the QTech sales team at sales@qtech.co.nz to order the upgrade licence key. You will need to supply the serial number of the RTU to be upgraded.

Firmware Options Licencing

All pre-existing licence options for the RTU to be upgraded shall continue with this firmware upgrade.

Firmware Upgrade Process

For an existing XL4 *Plus* RTU:

To upgrade an RTU which already has XL4 *Plus* firmware, ensure you are using at least version 2.6 of QTech's Workbench (available for free download at https://www.qtech.co.nz/shop/Telemetry+Hardware/Workbench/x_sku/00936.html).

Then follow the procedure in the current version of the Owner's Manual available to download from [this page of our website](#).

XL4 RTU to XL4 Plus using this Firmware version:

- For assistance in upgrading an XL4 RTU after you have purchased a new XL4 *Plus* license, please ensure that you follow the [Application Note – “Upgrading QO4 firmware to QO4 Plus on an XL4 RTU”](#), and have read the [Application Note - “Guide to Porting XL4 to XL4 Plus V1.2”](#)

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 notwithstanding 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.

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The circuit details and know how disclosed in this document are proprietary to **QTech Data Systems Limited** and shall remain the intellectual property of **QTech Data Systems Limited**.