



DATRAN™

PRODUCT RELEASE NOTICE

Q03 Firmware

RELEASE 5.23

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Issue 1

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Introduction

Q03 firmware version 5.23 is now available for both DATRAN II eXcel (Q22) and QRTU (Q20) hardware.

Q90 Configuration and diagnostic utility version 3.29 (or later) is required to configure Q03 version 5.23 firmware.

The following sections of this document describe all the new features and fixes.

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.

The DATRAN team

Summary of New Features

The following new features have been added since the last general release v5.22:

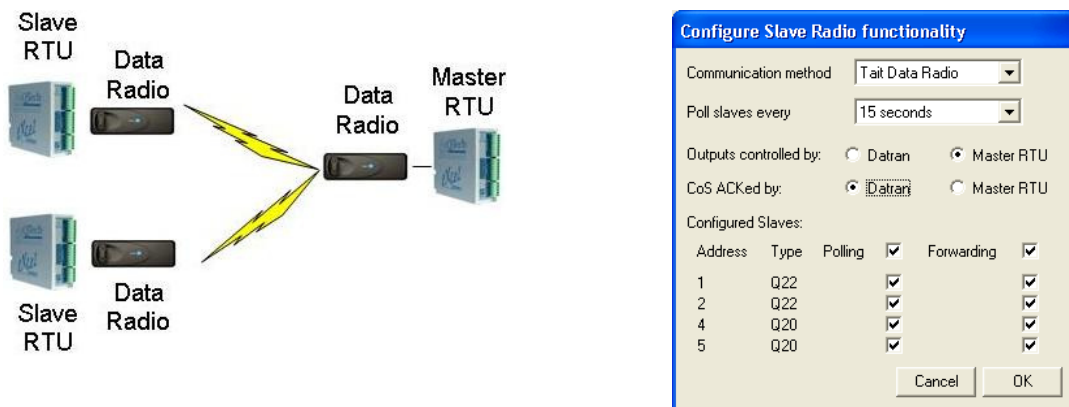
- **Master / Slave configuration enhancements**

Many customers are now making extensive use of the DATRAN Store and Forward capabilities. There have been a number of customer suggestions for improvements, which have now been made.

Firstly, in the case of systems where the Master RTU is polling the slaves *and* forwarding messages from DATRAN, it is now possible to select who acknowledges any changes of state – the Master RTU or DATRAN. Previously the Master acknowledged everything which meant that it was necessary to write a DLP to make sure that timely information was forwarded to DATRAN.

Now you can simply configure the Master to forward these messages and DATRAN will acknowledge them, so both the Master and DATRAN are kept up to date.

Please [click here](#) for an updated Application Note.



In addition, as you will see from the dialogue box, Q90 now enables you to select the "Communication method" for your slaves, and it will automatically configure the rest of the port settings for you. The options are Tait Data Radio, Q71 1200bps FSK modem, Serial RS232, QDR digital radio or the legacy Q22C FSK on board modem.

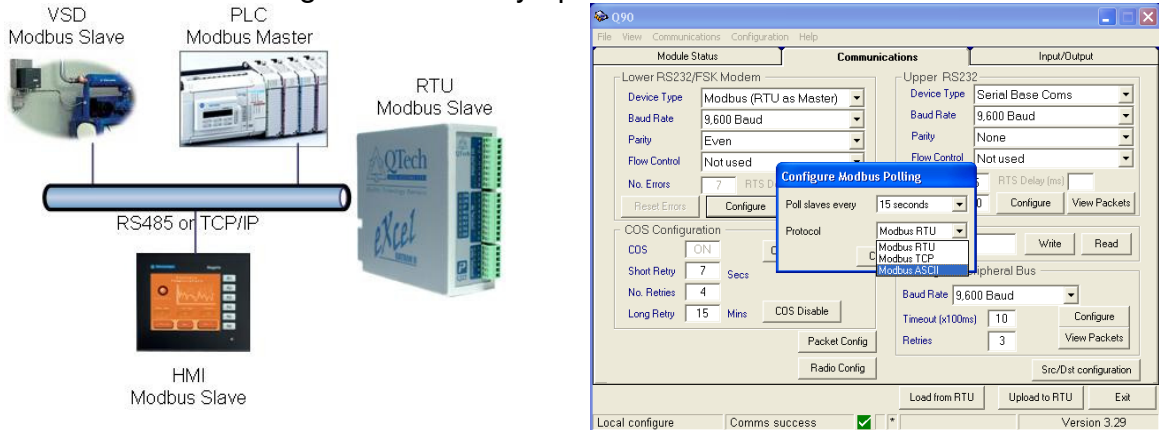
The RS232 methods are now supported on either of the Q03 serial ports.

- **Master RTU Output Polls**

When an output value changes in DATRAN it automatically triggers an output poll to that RTU. Until now you had to write a DLP to have the same behaviour in a Master RTU. However, in v5.23 that behaviour is built in automatically, provided the Master RTU is set up to poll the slave, and it has control of the outputs. This way your DLPs can be simplified, and your slaves needn't wait until the next scheduled poll to get their outputs updated.

One very useful aspect of this is that you can reduce your polling rate without compromising the speed of updating your slaves. This leaves the radio system open for unsolicited Change of State (COS) information.

- Modbus ASCII protocol when the RTU is Modbus Master or Slave**
 Previously; the RTU has supported both the Modbus TCP protocol and Modbus RTU protocol. We have now added the Modbus ASCII protocol to this list, which completes the set of original Modbus standard protocols. Modbus ASCII is rather more unusual than the traditional RTU protocol, but is used by a number of irrigation system controllers. This new option allows an extra level of integrated telemetry options.



RS485 communication will require a suitable converter for the RTU RS232 port.

- Slave RTU Battery Low flags**
 When using ordinary IPB expansion modules, the DLP can read a flag to indicate that they have low battery levels (ExBatLow). This indication is now available for Slave RTU sites, so a warning can be sent to DATRAN by the Master even if it is not configured to forward DATRAN messages to the slave directly.

Summary of Issues Resolved

The following issues have been resolved since Q03 version 5.22 which was the previous general release.

QTech Id	Description
4684	Store and Forward in serial mode now works out of the bottom RS232 port.
4672	Store and Forward used to fail to direct poll responses to DATRAN properly under certain rare circumstances.
4666	Base Comms got stuck when using Store and Forward
4620	RTS/CTS now work as request rather than inhibit
4584	CoS ACK now working on store and forward
4525	RTU Datalogging no longer logging when it shouldn't
4491	Store and forward now functions properly when using Q71 modems

Disclaimer

Whilst 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.

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.

Ongoing Support

A support services maintenance agreement is available (or users can upgrade from an existing maintenance agreement).

All support will be charged at \$100 +GST per hour plus disbursements.