

Intelligent Insight Software.

IQ-Insight PC software allows all IQ set-up configuration and data logger information to be reviewed analysed and reconfigured. The visually interactive application is a stand-alone program, running under Microsoft™ Windows 2K or higher. Intuitive and clear menus make analysing the data from an IQ simple and fast. Laptop PC's with a USB IrDA™ interface running IQ-Insight can be directly connected to an actuator to allow set-up, adjustment and analysis. Alternatively, using a PDA running IQ Pocket-Insight, data can be uploaded from the actuator and later downloaded to a PC.

New Setting Tool Pro

The Setting Tool Pro will allow downloading/uploading of datalogger and configuration files. The tool is intrinsically safe and can be used in hazardous areas. File transfer is possible by connecting to IQ-Insight via IrDA™.

IrDA™ communication

IQ supports IrDA™ compatible communication. IQ configuration and data logger files are accessed non-intrusively via the actuator display. IrDA™ data exchanges can be made with the supplied Setting Tool Pro, compatible Personal Digital Assistant (PDA) or PC via a USB IrDA™ adaptor.

Data Logging

Every IQ includes an on board data logger. The data logger captures and stores valve, actuator and control signal operation and status data and can be viewed using Insight. Log data is time and date stamped and can be analysed by playing back in "real time" or on an event by event basis.

Features:

- Actuator configuration
- Valve torque profile, open/closed instantaneous and average torque against valve position
- Virtual nameplate
- Number of operations
- Full option card configuration
- Valve and actuator position starts log
- Operation signal log
- Actuator control status log
- Statistics.



Setup, Configuration and Data Logging

Insight PC Software

Insight

The IQ Insight in conjunction with IQ and IQT actuators allows complete analysis of valve and actuator operational conditions. The real life case studies below show how users can quickly and

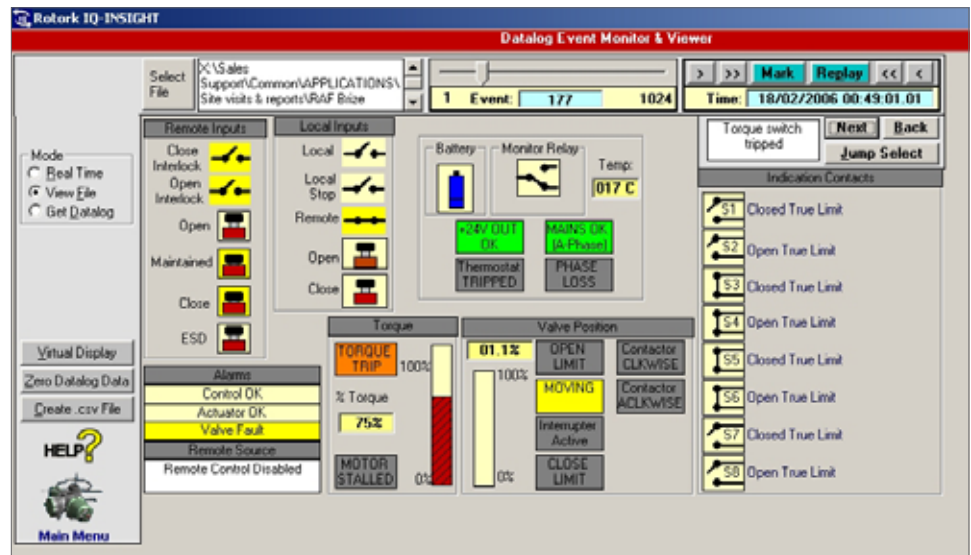
conveniently investigate the operation of actuated valves for purposes such as preventative maintenance, fault diagnosis and asset management.

Application:

IQ Actuator - 6" Plug valve
Aviation JET-A1 refuelling line

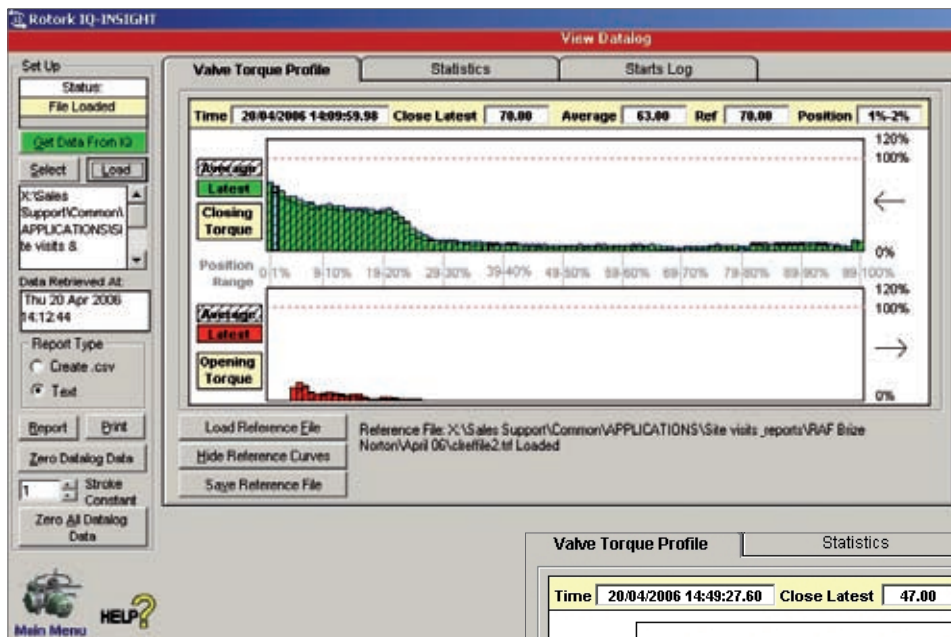
Problem:

Intermittent failure to fully close.



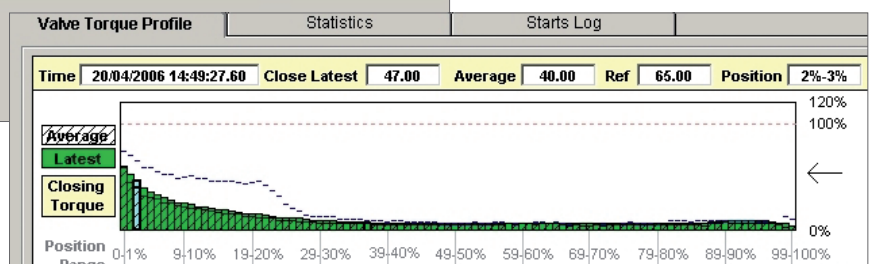
Analysing the IQ Datalogger event log via the IQ-Insight Event Monitor page shows that the actuator sometimes torque tripped before reaching the fully closed position. This example shows a torque trip (event 177) on 18 February 2006 at 00:49 hrs.

Analysing the IQ Datalogger torque log with the IQ-Insight Datalogger page shows the valve torque profile. The valvemaker quickly confirmed that the relatively high closing torque profile (green) indicated a valve problem.



After draining the valve body cavity the valve was stroked again and the datalogger taken (inset).

The new closing profile proves that the operating torque had dropped significantly from the previous operation – as indicated by the torque reference profile shown as a blue dotted line on the graph.

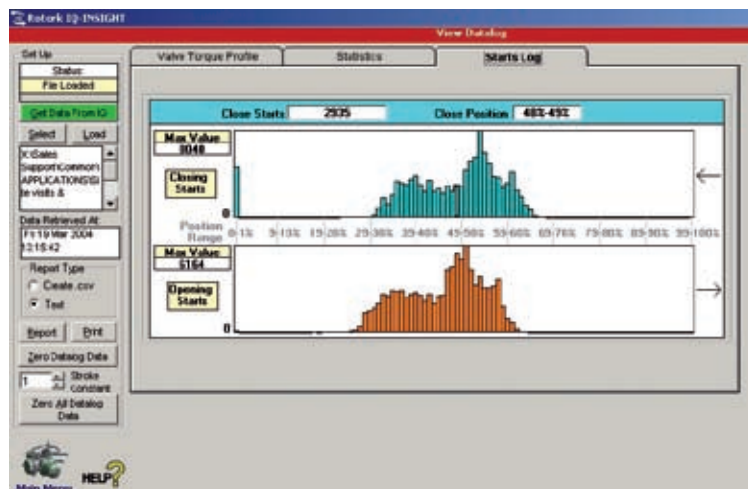


Application:

IQM Actuator - 4" Steam control valve - CHP
PowerStation UK

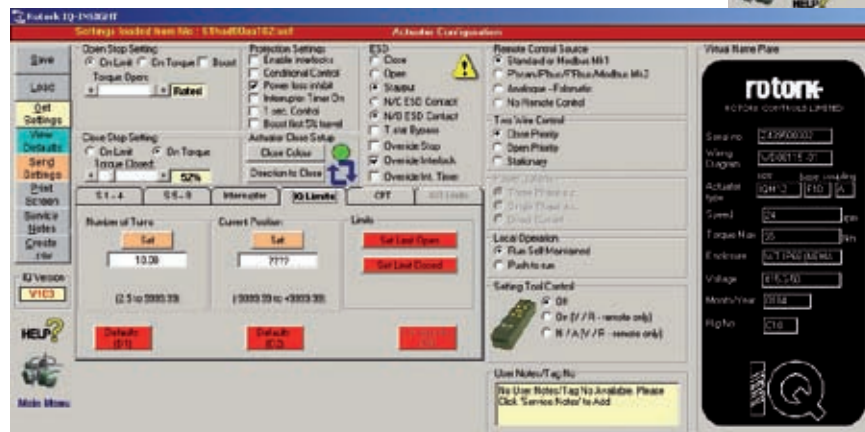
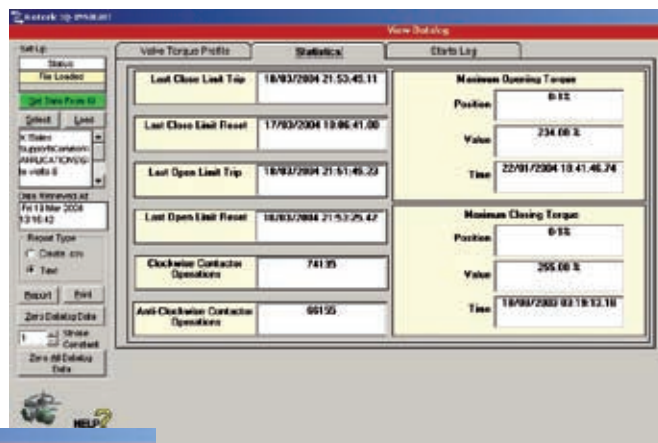
Issue:

To investigate valve and actuator operational parameters for process control analysis and maintenance requirements.



Analysing the IQ Datalogger starts log via the IQ-Insight datalogger page shows the open and closing operation (starts) against valve position. This indicates where the process control requires the valve to be positioned by the IQM modulating actuator over the operational cycle of the boiler unit.

The statistics tab of the datalogger shows that the actuator had completed over 74,000 close positioning starts and over 66,000 open since installation (approximately 9 months). This is well within the maintenance cycle life of the IQM actuator indicating that it could continue without requiring attention.



The actuator configuration was downloaded and saved to allow its type and setup to be recorded as part of the station asset management system.

The file can be viewed for maintenance purposes, uploading to replacement actuator components to replicate setup and used in technical communication with Rotork.

Rotork E-Learning

E-Learning is the latest addition to Rotork's line-up of training tools. They are a series of modules aimed at anyone that has to commission and use Rotork actuators and associated equipment in the field.

They are also equally useful as a refresher course for those who have to deal with our equipment infrequently. The modules consist of a number of interactive 'lessons' that will take around 30 minutes each to complete.

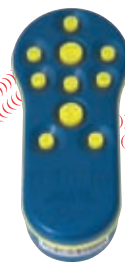
Each module can be downloaded, for future use, or run as a live exercise online.

Rotork E-Learning can be found by entering 'E-learning' in the product search on our website:

www.rotork.com



IQ Actuator



New Setting Tool Pro



PDA/Pocket PC



**PC Laptop running
Insight software**

)))))) = IrDA
Communication