

# Datasheet:

## Software Applications

### Meter Performance Monitoring

#### Introduction

The KELTON Meter Performance Monitoring (formerly K-TRAC) application uses proven statistical techniques to give confidence in meter proving. It monitors the performance of all pulse generating flow meters including turbine meters and positive displacement meters when calibrated on-line using a meter proving system.

#### Key Features

- Predictive techniques with total reliability
- Choice of validation options including control charts and performance curves
- Configured to match requirements
- Automatic proving
- Analysis database
- Calculate sensitivity to changing process conditions
- Seamless integration with KELTON MeterManager™

#### Benefits

- Control and analysis made easy
- Ensures compliance
- Records a fully auditable history
- Gives confidence in meter factor and measurement
- Reduces proving validation time
- Performance monitoring you can trust
- Developed and supported by KELTON

As the meter factor obtained by proving will be directly proportional to the measured quantity, downloading an erroneous meter factor will result in measurement bias errors. The meter performance monitoring application uses robust statistical techniques to validate the meter factor before it is downloaded.

The application can either be used on-line where the prove data are transferred and validated automatically without the need for user intervention or off-line where prove data are entered manually. If it is not possible to perform a prove due to equipment malfunction or availability, the Meter Performance Monitoring application uses modelling techniques to predict the meter factor, or meter K-factor, based on the current operating conditions.

Meter factors and K-factors can be predicted, using a minimum of any three process variables. The sensitivity of the meter factor to process conditions can be determined to help set realistic re-prove alarm limits. A built-in comprehensive reporting facility provides instant access to the status and condition of your systems.

KELTON engineers recognise that client needs may vary, so the application can be configured to suit your own systems. For each application you can configure the methods of validation, units of measurement and process limits.

You can determine the criteria for the performance curve and the control chart along with outlier checks (Grubb's) and limits such as the deviation from the previous prove or the previous valid prove.

#### About KELTON™

Fully accredited, KELTON is the leading independent measurement consultancy and software developer for the oil and gas industry. For well over two decades, KELTON has helped many international and national operators to ensure their full compliance with industry regulations. Whether clients require inspection, auditing or certification as part of System Compliance, uncertainty calculations for System Assurance or System Support – in KELTON they find a partner they can trust.

Services include:

- System Compliance
  - Inspection
  - Audit
  - Certification
- System Assurance
  - Design uncertainty
  - Modelling uncertainty
  - System uncertainty
- System Support
  - Manual/guidelines
  - Procedure generation
  - Educational
- Measurement Software
  - Desktop applications
  - Database applications
  - Pipeline applications

KELTON encompasses ISO/EN 9001 & 14001, BS/OHSAS 1800 and UKAS type 'C' Accreditation, is Microsoft Certified and is recognised as an Investor in People. Support is available from three strategic locations: UK, Qatar and Abu Dhabi.

If additional information is required visit:

[www.kelton.co.uk](http://www.kelton.co.uk)



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The meter performance monitoring application can be configured to match client operation practices and chosen methods of verification. With minimal handshaking, it can be integrated with existing prover system(s) to automate the prove validation process and remove the requirement for manual intervention. Control charts and curves show meter performance and the correlation between the meter factor and process variables. As the application is integrated with KELTON MeterManager, prove data is available for viewing and analysis across your network and organisation.

