

# Gauge control

Calibration laboratories depend on comprehensive software assistance. An efficient way of inspection planning and an all attributes extensive processing of the hereby generated inspection assignment are the key-elements of our gauge control software *iQ-PMUE*. *iQ-PMUE* is supplemented by a direct connection to a variety of inspection devices, which ensures that measured values do not have to be transferred manually. If you choose to use our module *iQ-PMS* to establish a bidirectional Interface to a calibration service provider their measured original values can be recorded in *iQ-PMUE* and archived in an inspection assignment.

## Workflow

Gauge control is based on three pillars: inspection planning, inspection and usage decision. Inspection planning is carried out with the module *iQ-PLAN*, which can be specifically calibrated for the needs of gauge inspection planning. In this process a plan is generated which is then checked attribute by attribute. Upon accepting a gauge for term inspection it can be directly ramified into inspection. In this case an inspection assignment is created in the background which is immediately available for the execution of measuring tasks. The usage decision concludes the collection of measurands. It is also possible to generate the calibration certificate there or rather calculating the trend or even initiate a gauge complaint.

In order to utilize *iQ-PMUE* it is required to manage gauges with *iQ-PMV*.

## Overview of important features and tables

### Inspection planning

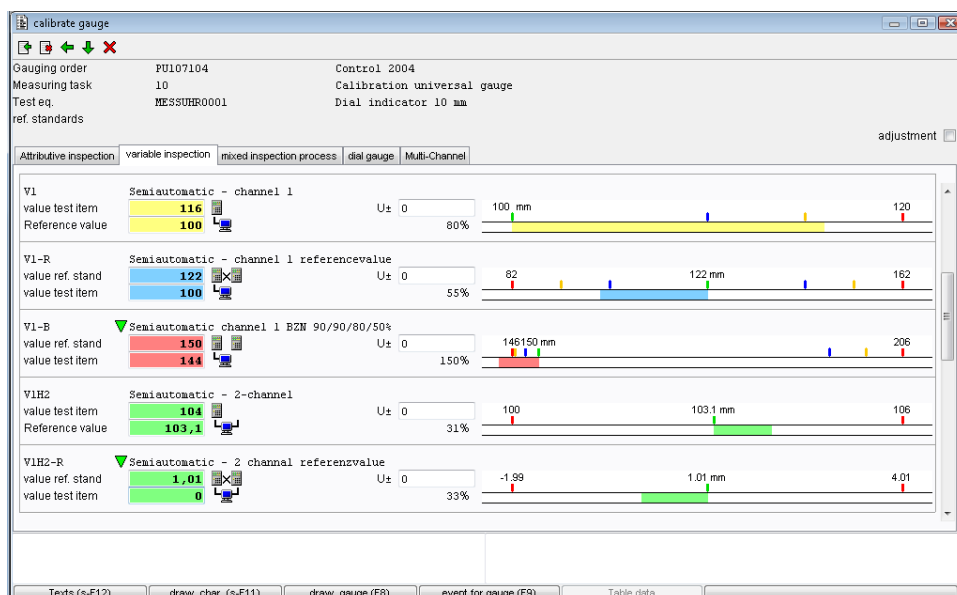
- The significant benefits of the inspection planning are specified in the module *iQ-PLAN*. In this part important aspects specifically for gauge inspection planning are written down.
- A new revision state can be added to the plan in order to document a new measuring procedure or constructional changes to the gauge.
- Disengage/Lock/Archive features on revision state level
- Measuring assignment: e.g. one for every metering range (0-1V, 0-10V, 0-1mA etc.). The measuring points of a single metering range are described by the corresponding amount of attributes in an assignment.
- Inspection plan masters with assignments referenced

in other regular plans can be created (comp. *iQ-PLAN* – here PVO) (set up once and use it in any plan and as often as you see fit)

- Test location groups allowance or rather test location allowance
- Mandatory user guidance approved by the gauger („connect PIN1 with PIN7, measure between PIN3 and PIN7“)
- Through the module *iQ-PMPL* predefined standard plans are available and checking courses from sections of pressure and force as well as electronics are supported.

### Attributes

- Attributive characteristics with type of defect catalogues



- Variable characteristics with sundry forms of measuring details, even percental (e.g. electrical measuring devices)
- Predefined formulas like MIN, MAX, MW, FGES, FU, RANGE etc.
- Warning and intervention limits

#### Inspection assignment organisation

- Generation of assignments with in the inspection plan registered gauge master data
- Initiation of assignment generation for arbitrary motives
- Distinction into a variety of checking reasons initial, term or special inspections which could differ in testing range for example
- Illustration of due inspections in overviews with highlighted exceeded terms

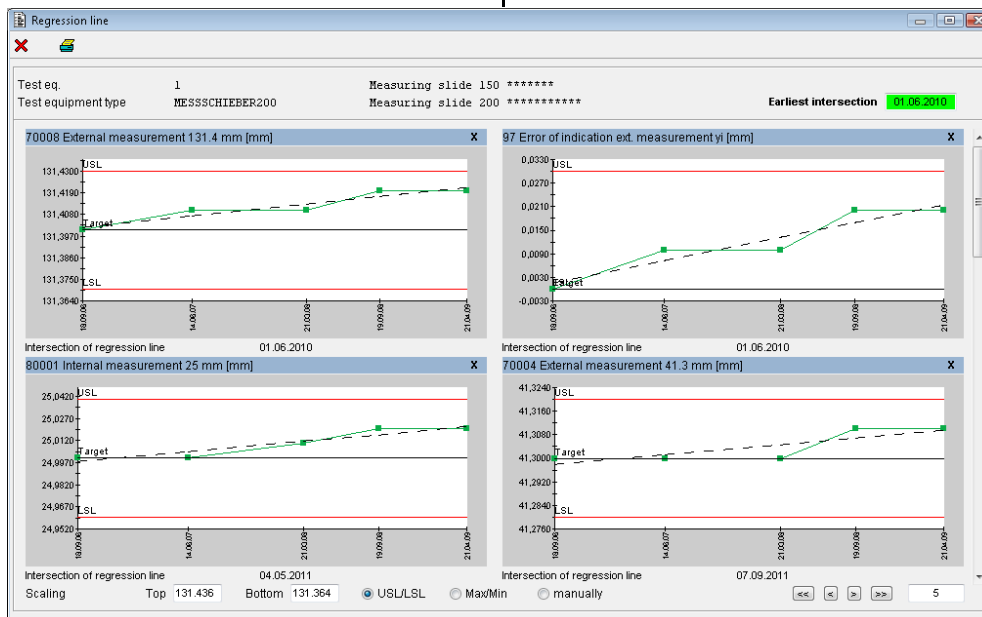
#### The inspection

- Print a checking commandment for manual recording e.g. at site
- Gauge specific check courses through a special inspection environment e.g. for dial gauges, gauge block, domes, screw threads etc.
- Variable inspection through manual entry or sealed off devices

- Gathering of actual value and reference value of the calibrator
- Illustration of the deviation from the nominal value in consideration of the reference value
- Percental declaration to the extent of tolerance of the deviation
- Recording of particular observations within occurrences
- Display of drafts and photographs or rather scanned information
- Display of standard and individual text of checking, measuring assignment and attribute
- Cost input with optional assignment of reasons

#### Evaluations

- Graphical illustration of trends of single attributes
- Display of linearity progression over a measuring range
- Reference to the inspection assignment from gauge history with peculiar attributes of the checking on display.
- Cost analysis
- Cycle times, ...



#### Interface to other modules

- *iQ-PMV* for gauge management
- *iQ-PM-Beanst* for assisting a complaint process with automatic reminding
- *iQ-PMPL* in order to use completed inspection plans in accordance to VDI/VDE/DGQ
- *iQ-PM-Mobil* in order to autarkically process an inspection assignment
- *iQ-PMS* in order to adopt the measuring values from the assignments for using a calibration service
- *iQ-GL* for central maintenance of master data of any module
- *iQ-DOKU*, for example so as to record the calibration certificate to the related inspection assignment
- *iQ-INFO* for self-created evaluations (e.g. with Crystal Reports)

