

Notes:



**Measuring Device
integration**

RS232

Notes:

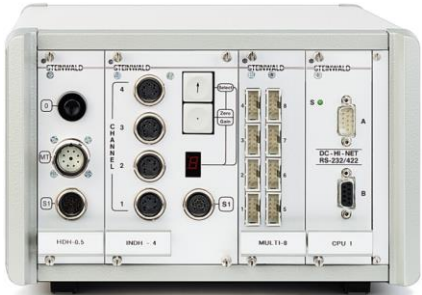
Contents

- Measurement devices
- Serial interface types
- Operating modes of measuring instruments
- Measuring procedure
- Characteristics mask settings
- Troubleshooting

- Special features are not discussed deeply:
 - Keyboard interface (e.g. Sony / Steinwald / Barcode reader)
 - TCP-Interface
 - Digital I/O (Digital measuring cards)
 - USB to RS232 Interface

Measurement devices

Notes:



Notes:

Interface packages

- [IF G](#) is included as a standard in: qs-STAT, procella und solara.MP
 - Includes simple gauges and directly connected measuring devices
- [IF M](#) is included in O-QIS (IF G + IF M)
 - IF M includes multiplexers und more complex measuring devices
- [IF I/O](#) includes multiplexers with special features to connect external sensors and interfaces to enthält mehrkanalige Anschlussboxen mit Anschluss an externe Signale oder automation systems
 - IF I/O requires IF M
 - IF I/O measuring devices require installation by Hexagon employees
- Beispiele:
 - IF G: Mahr 16 EX Digital Hand Caliper
 - IF M: IBR rf1 (Radio adapter for hand-held measuring devices)
 - IF I/O: Marposs Digicrown I/O (Software-driver)

Notes:

Operating modes of the measuring devices

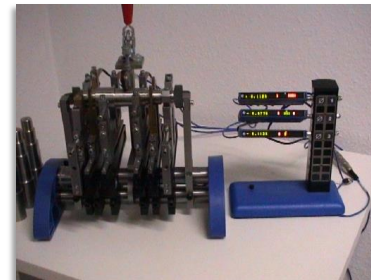
- Triggering at the measuring device
 - Triggering via foot switch / external trigger
 - Triggering by software (space bar, formerly return key)
 - automatic sending of data by the unit after completion of the measurement
- NOTE: Not every measuring device / multiplexer supports all the above-mentioned operating modes.



Notes:

Measurement procedure

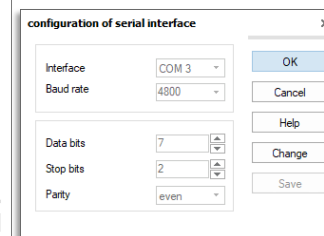
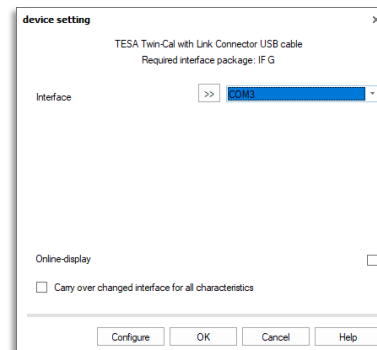
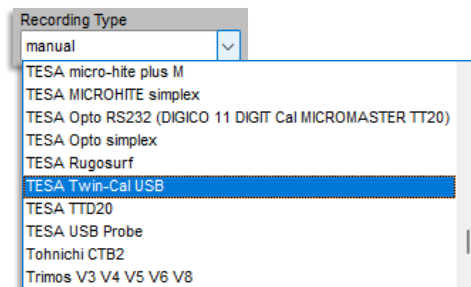
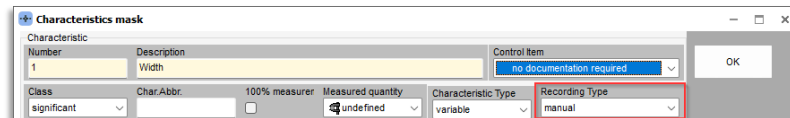
- Static measurement (transmission of a measured value)
 - Insert part
 - The measuring equipment determines the currently applied measured value
 - The current measured value is taken over by triggering.
- Dynamic measurement (transmission of several measured values)
 - Insert part
 - Measurement start ("Start Trigger")
 - Recording of original values over a certain period of time
 - End of measurement ("End Trigger") -> Calculation of a characteristic value (e.g. maximum over the measurement period)
 - Acceptance of the calculated value



Notes:

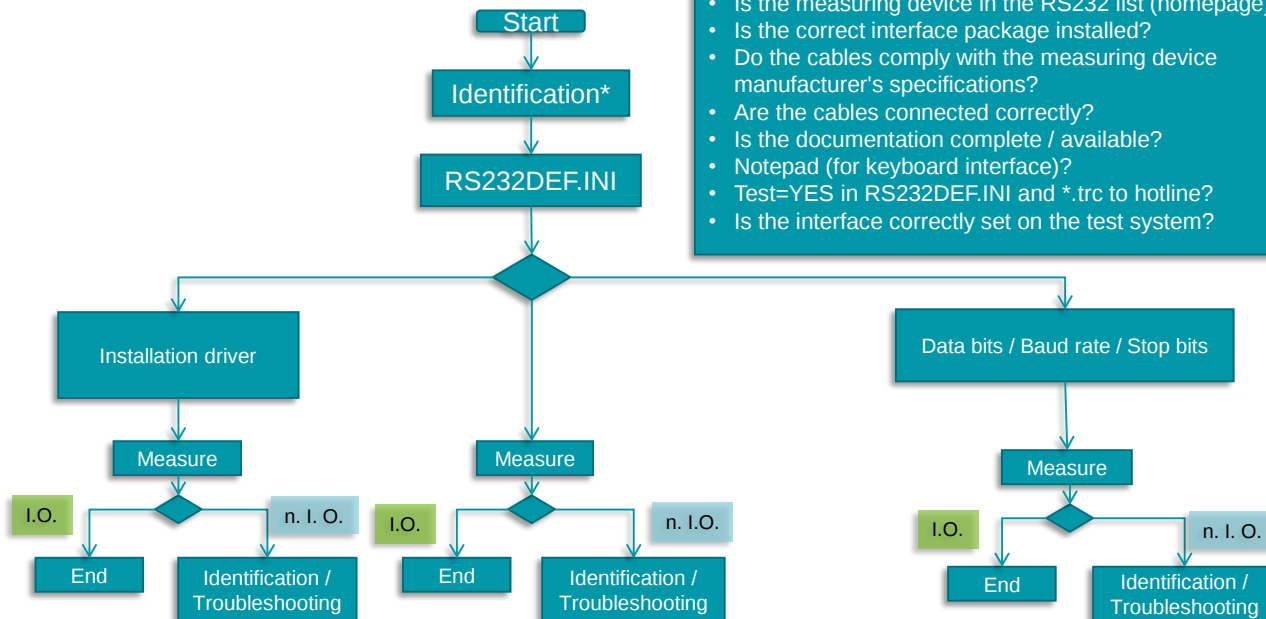
Settings in the characteristics mask

- The recording type can be selected in the characteristics mask
- With a right click, the measuring device can be copied to all characteristics
- Enter the serial interface (RS232/USB) correctly (according to the manufacturer's documentation).



Notes:

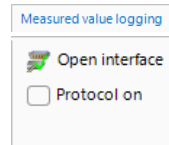
Flow chart troubleshooting



Notes:

Troubleshooting

- Entry "ExtTest=YES" in RS232DEF.INI (old)
- The RS232DEF.INI is in the */share/V1x/Plant/Default/Others/ directory(!)
- <STRG> + Open interface in the tab Part/feature (new)
- Logged until the interface is closed
- The default path is %temp%\<programme name>\qsterm1.trc for Com1
- A different path can be defined in the tab "Measured value logging" via "Protocol on" or "Pro



```
[TESA Twin-Cal USB]
;BS 2016-07-14
id=339
shtxt=TESA Twin-Cal USB
name=TESA Twin-Cal with Link Connector USB cable
lib=imp_000.dll
config=COM1,4800,E,7,2
pos1=1
pos2=0
endch=10
reqstr=?\d013
OnlineValuesPossible=1
ReqTime=500
;ExtTest=$01
```