



## 1. Introduction

The ComGage special measurement mode *Measuring Value Reception over RS232* can be used to receive measuring values from a gauge that is connected to a COM port. It also allows the use of gauges which output their measuring values via a virtual COM port.

**Important note :** The software license 74 ( Mahr / Sylvac wireless gauges ) is required to use this special measurement mode.

## 2. Configuration

The special measuring mode has to be selected in the drawing data of the related characteristic :

DRAWING DATA (Characteristic-Programming)

Article Number: WGL015  
Char. Number: C1  
Article Name:  
Characteristic name: Characteristic 1

CHARACTERISTIC DATA FROM THE DRAWING

Unit: mm  
Resolution: 0.0001  
Nominal size: 0  
Upper specification limit (USL): 0.3  
Upper controlling limit (UCL): 0.225  
Lower controlling limit (LCL): -0.225  
Lower specification limit (LSL): -0.3

MEAS. VALUE COLLECTION

Measurement inputs: 0  
Measurement mode: Measuring Value Reception over RS232

ADJUSTMENT OF THE CHARACTERISTIC

1. Master value: 0  
2. Master value: 0

Reference test: OK Cancel Help

The settings for the measurement inputs are ignored. But because of performance reasons, we recommend the use of a constant, e.g. 0.

The special measuring mode can be configured in the following dialogue, which is opened via the *Setup* button :

Measuring Value Reception over RS232

COM-Port: COM 1  
Baudrate: 9600  
Parity bit: No  
Number of Databits: 8

Filterstring for Measuring Value:  
On mea. value reception: Set: Register R1

The measuring value is part of a received data block. The value is only used, when the Start-String is detected before. A next value can be only received after the detection of the End-String.

Start-String: Rz  
End-String: 0d

On an inserted Detection-String it will be checked, whether it is part of the datablock. If not, then the data block is removed.

Datablock-Detection-String:

☒ Set Register R898, when the received measuring value is outside the tolerance limits of the characteristic.

☐ Test of the received part number: Set Register R899, when the string after following filterstring is not equal to the article number of test scheme.

Reference Information Type: ---  
Filter String:

OK Abbrechen



### COM-Port

The COM port or virtual COM port for receiving the measuring values can be selected here.  
Available are COM 1 to COM 128.

### Baudrate

The baud rate that is used by the measuring instrument to send the measuring data via the COM port can be selected here. The following baud rates are available :  
1200 / 2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200

### Parity bit

The parity used for the transmission can be selected here.  
Available are : NO / EVEN / ODD

### Number of Databits

The number of data bits used for the transmission can be selected here.  
Available are : 7 or 8

### Filterstring for Measuring Value

A filter string is a string of characters that is always transmitted only before the required measuring value. The filter string can be used to ensure that all received measuring values are assigned to the correct characteristics.

If a filter string is entered, a measuring value is assigned to this characteristic only if the exact filter string was recognised before.

### On mea. value reception : Set

The selected register is set to the value 1 when a measuring value has been received for this characteristic. This register can be used e.g. to execute the save function for this characteristic. It has to be reset manually before the next measuring value transmission.  
Available are : Register R1 / ... / Register R899

### The measuring value is part of a received data block. ...

This option can be activated if the measuring instrument sends the data in data blocks. *Start-String* and *End-String* mark the beginning and the end of the data block. The measuring value is searched inside the data block by using the filter string that was entered above.

If ComGage shall not import a measuring value from every transmitted data block, an additional *Datablock-Detection-String* can be entered. If such a string is entered, all data blocks without this string are ignored, even if the *Start-String* and the *End-String* are found.

**Note :** All of the following options can only be used in test orders, so that the register R999 has the value 1.

### Set Register R898, when the received measuring value is outside tolerance limits of the characteristic.

The register is set to the value 1 if the received measuring value is outside the specification limits of the characteristic.

That means that this register can be used for the sequence control.

### Test of the received part number : ...

If ComGage shall check whether a certain partial string is transmitted, a filter string can be entered here. The filter string has to be transmitted directly before the partial string that has to be checked.

If the partial string is not identical to the article number of the test scheme, the register R899 is set to the value 1.

### Reference Information Type

Transmitted data can be saved as reference information, if a reference information type is selected here. The related *Filter String* has to be entered directly below. The data transmitted directly after the filter string is saved.

The end of the data that shall be saved as reference information has to be marked by a <cr> or a <lf>.

### 3. Example

A measuring instrument or a machine outputs the following data :

```

Terminal
Lager: 1<0d>
<0a>Result: 1<0d>
<0a>Fmean1: 919 N<0d>
<0a>OT Fmean: 8000 N<0d>
<0a>UT Fmean: 800 N<0d>
<0a>Fmin1: 911 N<0d>
<0a>Fmax1: 930 N<0d>
<0a>Fein1: 919 N<0d>
<0a>Faus1: 926 N<0d>
<0a>UT F1: 199 N<0d>
<0a>OT F1: 7999 N<0d>
<0a>W1: 1.186 J<0d>
<0a>Smax: 173.23 mm<0d>
<0a>OT S: 173.87 mm<0d>
<0a>UT S: 172.20 mm<0d>
<0a>Lschief: 0<0d>
<0a>Lfehlt: 0<0d>
<0a>Datum: 15.09.2008<0d>
<0a>Uhrzeit: 09:46:49<0d>
<0a>Teilenr: 366129-01<0d>
<0a>
    
```

If e.g. the value for Smax is needed, the configuration of the wgl015 could look like this :

Measuring Value Reception over RS232

COM-Port  
Baudrate  
Parity bit  
Number of Databits

COM 1  
9600  
No  
8

OK  
Abbrechen

Filterstring for Measuring Value  
On mea. value reception : Set

Smax:  
Register R1

In this case, the value 173.23 is imported for this characteristic and the register R1 is set to 1. Depending on this register, the measuring value can be saved. Afterwards, the register has to be reset to 0 manually :

LIST OF CREATED FUNCTIONS					
No.	Function	Function key	Hand/Foots...	Dig. Input	Event
X1	Save measured values : C1	---	---	---	Formula : R1=1
X2	Setting register(s) : R1=0	---	---	---	Formula : R1=1

If such blocks are transmitted for several bearings ( German : Lager ), but this characteristic shall only be used for bearing 1 ( Lager 1 ), the following additional settings could be used to identify the needed data blocks :

The measuring value is part of a received data block. The value is only used, when the
☒ Start-String is detected before. A next value can be only received after the detection of the End-String.

Start-String  
End-String

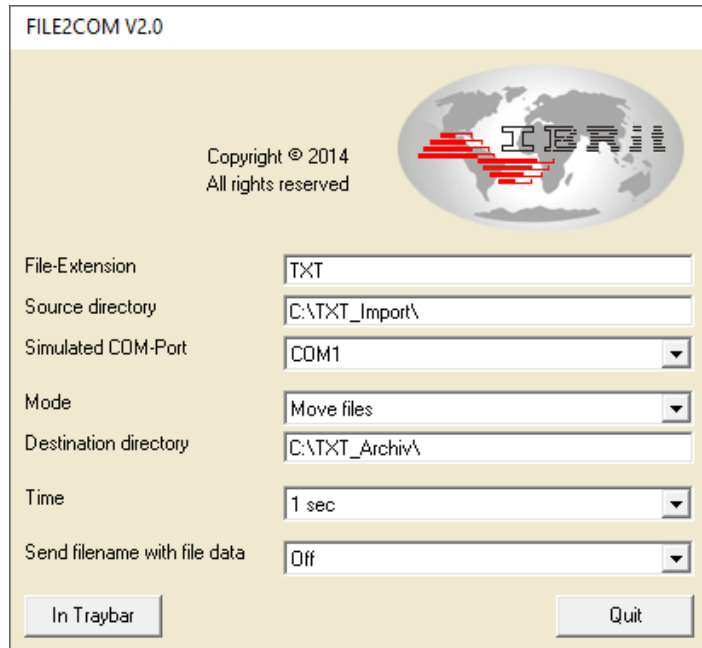
Lager: 1  
Teilenr

On an inserted Detection-String it will be checked, whether it is part of the datablock. If not, then the data block is removed.

Datablock-Detection-String

## **Appendix A**

If the measuring instrument outputs its data into a text file, the software File2COM can be used to read the data from the file and to output it via a virtual COM port.



The software allows the configuration of several settings, e.g. if the text files shall be moved or deleted after the data has been read and the interval in which the source folder shall be checked for new text files.

This software and the related documentation can be downloaded via the following link :

<http://www.ibr.com/download/File2Com.zip>

The software is only available for Windows XP ... Windows 11.