

1. Introduction

The ComGage test step function „Universal Export-Module“ allows to export measuring data from ComGage.

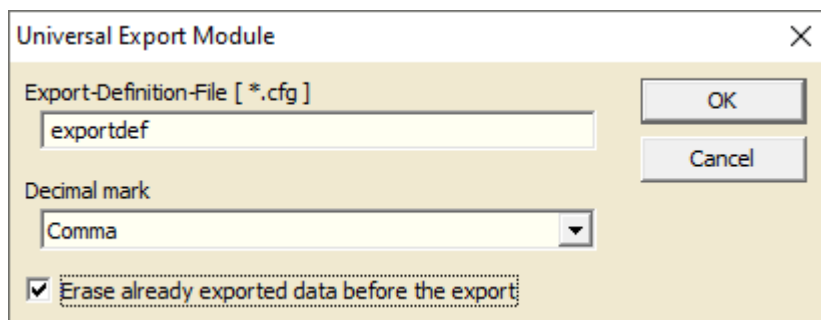
The lines to be exported are freely definable in an Export-Definition-File.

Wildcards in the Export-Definition-File will be replaced by the Universal Export Module with the corresponding values in test scheme / test order / measuring data.

A test order is needed to use this function.

2. Setup-Settings

- Call menu „Test Scheme → Create / Change“ and open the test scheme.
- Add a new test step or open an existing test step.
- Add function „Universal Export-Module“ in „Expert-Mode“.
- By the Setup-Button the following setup-window is opened :



In the edit box the file name of Export-Definition-File (without extension .cfg and without folder name) is inserted.

The Export-Definition-Files are searched in the “**Directory for test orders**” and the filename is limited to a length of 12 characters.

The exported files are written into the “**Directory for converted measuring data**”.

The **Decimal mark** allows to switch between “*Comma*” and “*Point*” as decimal mark.

3. File structure of the Export-Definition-File

Note : The Export-Definition-File has to be saved in ANSI format.

- Line 1 :
- is marked by **#F#** or by **#D#**.
 - **#F#** contains the filename of the exported file. As folder the ComGage folder for converted measuring data is used.
 - **#D#** must contain full folder + filename of the exported file.
 - **#F#** and **#D** can both contain wildcards.

Note : *If the exported file already exists and the option “Erase already exported data before the export” is not activated, then the new data is simply appended to the file.*

- Line 2...n :
- The first character of each line contains the export-type of that line.
 - First character = „>“ : Line is exported to file.
 - First character = „}“ : Line is only exported into a new file.
 - ➔ avoids the multiple export of head data into the file.
 - Character 2...n in the line contains the exported text (incl. wildcards).

4. Wildcards

The following table contains the list of available wildcards :

Wildcard	Function
<\$ON>	Test order number
<\$ON\$-B>	Test order number (blank characters are removed)
<\$ON\$L15>	Test order number (length=15 bytes / missing bytes=blank)
<\$AR>	Article number
<\$AR\$-B>	Article number (blank characters are removed)
<\$AR\$L15>	Article number (length=15 bytes / missing bytes=blank)
<\$AN>	Article name
<\$AN\$-B>	Article name (blank characters are removed)
<\$AN\$L15>	Article name (length=15 bytes / missing bytes=blank)
<\$D\$Y>	Export-Date : Year(4-digit)
<\$D\$M>	Export-Date : Month (2-digit)
<\$D\$D>	Export-Date : Day (2-digit)
<\$T\$H>	Export-Time : Hour (2-digit)
<\$T\$M>	Export-Time : Minute (2-digit)
<\$T\$S>	Export-Time : Second (2-digit)
<\$C1..128\$NA>	Characteristic 1..128 : Name
<\$C1..128\$NA\$-B>	Characteristic 1..128 : Name (blank characters are removed)
<\$C1..128\$NA\$L15>	Characteristic 1..128 : Name (length=15 bytes / missing bytes=blank)
<\$C1..128\$UN>	Characteristic 1..128 : Unit
<\$C1..128\$UN\$-B>	Characteristic 1..128 : Unit (blank characters are removed)
<\$C1..128\$UN\$L15>	Characteristic 1..128 : Unit (length=15 bytes / missing bytes=blank)
<\$C1..128\$NS>	Characteristic 1..128 : Nominal size
<\$C1..128\$NS\$L12>	Characteristic 1..128 : N.S. (length=12 bytes / missing bytes="0")
<\$C1..128\$US>	Characteristic 1..128 : Upper specification limit (relative to nom. size)
<\$C1..128\$US\$L12>	Characteristic 1..128 : USL (length=12 bytes / missing bytes="0")
<\$C1..128\$UC>	Characteristic 1..128 : Upper controlling limit (relative to nom. size)
<\$C1..128\$UC\$L12>	Characteristic 1..128 : UCL (length=12 bytes / missing bytes="0")
<\$C1..128\$LC>	Characteristic 1..128 : Lower controlling limit (relative to nom. size)
<\$C1..128\$LC\$L12>	Characteristic 1..128 : LCL (length=12 bytes / missing bytes="0")
<\$C1..128\$LS>	Characteristic 1..128 : Lower specification limit (relative to nom. size)
<\$C1..128\$LS\$L12>	Characteristic 1..128 : LSL (length=12 bytes / missing bytes="0")
<\$C1..128\$UT>	Characteristic 1..128 : Upper tolerance limit (\$NS + \$US)
<\$C1..128\$UT\$L12>	Characteristic 1..128 : UT (length=12 bytes / missing bytes="0")
<\$C1..128\$LT>	Characteristic 1..128 : Lower tolerance limit (\$NS + \$LS)
<\$C1..128\$LT\$L12>	Characteristic 1..128 : LT (length=12 bytes / missing bytes="0")
<\$C1..128\$M1>	Characteristic 1..128 : Master Value 1
<\$C1..128\$M1\$L12>	Characteristic 1..128 : Master 1 (length=12 bytes / missing bytes="0")
<\$C1..128\$M2>	Characteristic 1..128 : Master Value 2
<\$C1..128\$M2\$L12>	Characteristic 1..128 : Master 2 (length=12 bytes / missing bytes="0")
<\$C1..128\$NO>	Characteristic 1..128 : Note
<\$C1..128\$NO\$-B>	Characteristic 1..128 : Note (blank characters are removed)
<\$C1..128\$NO\$L15>	Characteristic 1..128 : Note (length=15 bytes / missing bytes=blank)

Last measuring value from file :

<\$C1..128\$MV\$5>	Characteristic 1..128 : Measuring value \$5 : Number of decimal places No entry = 6 decimal places \$0 = no decimal places \$1 ... 5 = number of decimal places according to numeral
<\$C1..128\$MV\$5\$L12>	Characteristic 1..128 : Value (length=12 bytes / missing bytes="0")
<\$C1..128\$RS\$x\$y\$z>	Characteristic 1..128 : Tolerance-result of last measuring value x : Exported text on value within controlling limits or within tolerance limits on deactivated controlling limits y : Exported text on value outside controlling limits but within tolerance limits z : Exported text on value outside tolerance limits
<\$C1..128\$R1..30>	Characteristic 1..128 : Reference information dataset (Machine, Batch, ...)
<\$C1..128\$R1..30\$-B>	Characteristic 1..128 : Reference information (blank characters are removed)
<\$C1..128\$R1..30\$L15>	Characteristic 1..128 : Reference information (length=15 bytes / missing bytes=blank) !!! The numbers R1...30 of the reference information datasets you find in menu "Options / Reference information"
<00> ... <ff>	ASCII-code (as HEX-number) of one character

Example : Measuring value = 12.4
 Wildcard : <\$C1\$MV\$0\$L5> (last saved value of C1, no decimal places, length 5 bytes)
 → exported value = 00012

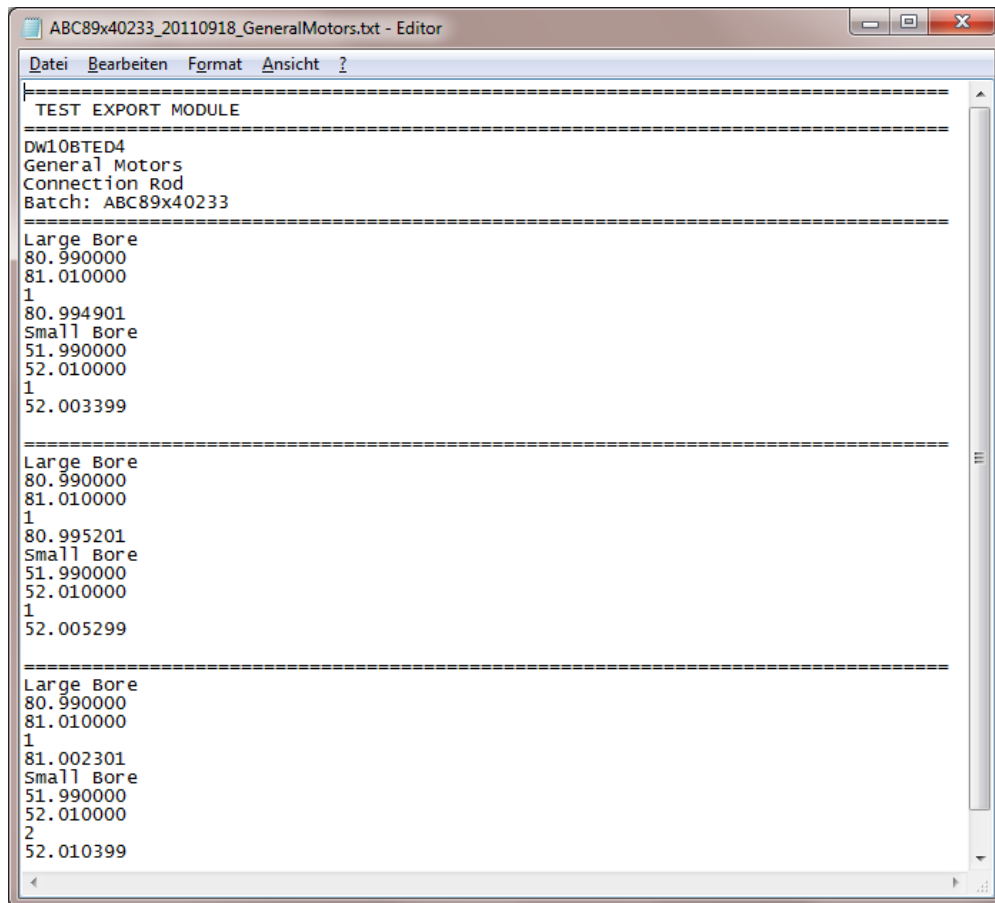
5. Example for an Export-Definition-File

```
#F#<$C1$R18$-B>_<$D$Y><$D$M><$D$D>_<$C1$R1$-B>.txt
}=====
} TEST EXPORT MODULE
}=====
}<$AR>
}<$C1$R1>
}<$AN>
}Batch: <$C1$R18>
>=====
><$C1$NA>
><$C1$LT>
><$C1$UT>
><$C1$RS$1$-$2>
><$C1$MV>
><$C2$NA>
><$C2$LT>
><$C2$UT>
><$C2$RS$1$-$2>
><$C2$MV>

#F# : Filename of exported file
} : Line is only exported into a new file ( head data )
> : Line is always exported to file
```

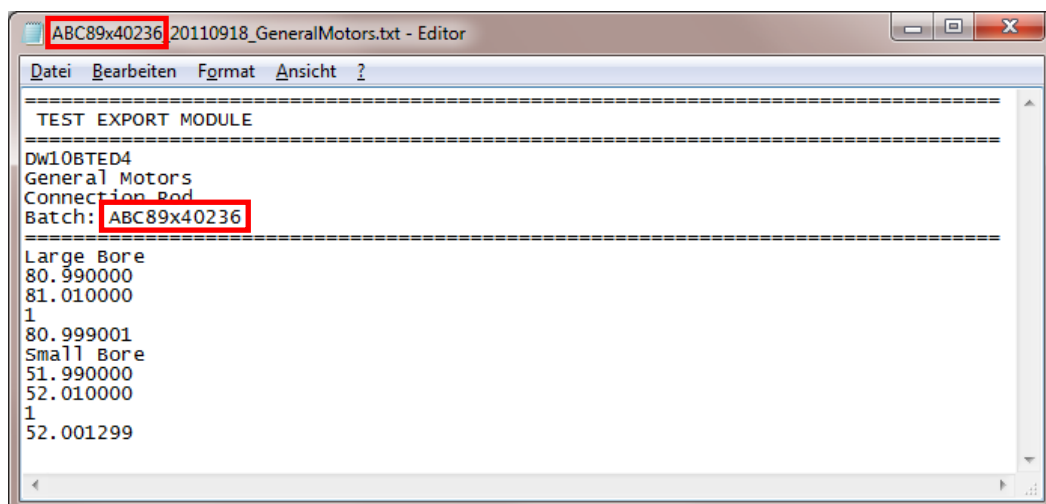
6. Example for a corresponding result file

3 parts were measured and exported with same batch number :



```
ABC89x40233_20110918_GeneralMotors.txt - Editor
Datei  Bearbeiten  Format  Ansicht  ?
=====
TEST EXPORT MODULE
=====
Dw10BTED4
General Motors
Connection Rod
Batch: ABC89x40233
=====
Large Bore
80.990000
81.010000
1
80.994901
Small Bore
51.990000
52.010000
1
52.003399
=====
Large Bore
80.990000
81.010000
1
80.995201
Small Bore
51.990000
52.010000
1
52.005299
=====
Large Bore
80.990000
81.010000
1
81.002301
Small Bore
51.990000
52.010000
2
52.010399
```

An additional part was measured and exported with different batch number:



```
ABC89x40236_20110918_GeneralMotors.txt - Editor
Datei  Bearbeiten  Format  Ansicht  ?
=====
TEST EXPORT MODULE
=====
Dw10BTED4
General Motors
Connection Rod
Batch: ABC89x40236
=====
Large Bore
80.990000
81.010000
1
80.999001
Small Bore
51.990000
52.010000
1
52.001299
```