

# User Manual

PC-DMIS – Q-DAS Converter Version 1.3.2



## PC-DMIS - Q-DAS Converter

Version 1.3.2

Hexagon Metrology - Germany

This product was designed for PC-DMIS Version 3.2, 3.25 and 3.5

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**Note:** Despite every effort, we are unable to fully preclude the possibility of errors in the documentation. We will be pleased to receive any hints or suggestions you may have.

We would like to express our special thanks to the Q-DAS<sup>®</sup> company for their excellent cooperation during development of this converter. We would also like to thank the WEBASTO and BENTELER companies who provided us with very good support with test and information during development.



**Q-DAS<sup>®</sup>**

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## 1. General information

### 1.1. Software objectives

This software has been developed to allow generation of qs-STAT<sup>®</sup> data under the PC-DMIS<sup>™</sup> software package, Version 3.2 and higher.

The converter allows manual conversion (OFFLINE) or automatic conversion from the part program (ONLINE).

### 1.2. Software requirements

The software has been developed for the Windows NT 4.0, Windows 2000 and Windows XP operating systems. No software tests have been conducted with other operating systems.

The tests of compatibility of the data generated with qs-STAT<sup>®</sup> were conducted with version qs-STAT<sup>®</sup> Millennium. However, in accordance with Q-DAS<sup>®</sup>, the format may also be used for less recent versions.

PC-DMIS<sup>™</sup> Version 3.2, 3.25 or 3.5 must be installed on the same computer in order to be able to use the software practically.

### 1.3. Software warranty and support

This product has no software warranty. We are unable to assume liability for any damage to the computer used or to other installed hardware or software. We are unable to guarantee that the program will function correctly. Neither is there any claim to bug fixing, rectification of defects or further development of the program. We cannot guarantee that the supplied documentation is correct or up-to-date.

The user has no claim to software support from the manufacturer. Please submit any improvement proposals to the following e-mail address:

<mailto:fherr@de.dea.it>

By installing the software, you hereby automatically accept this agreement. Any differing agreements must be concluded in written form with the manufacturer.

## 2. Installation instructions

### 2.1. Shipping contents

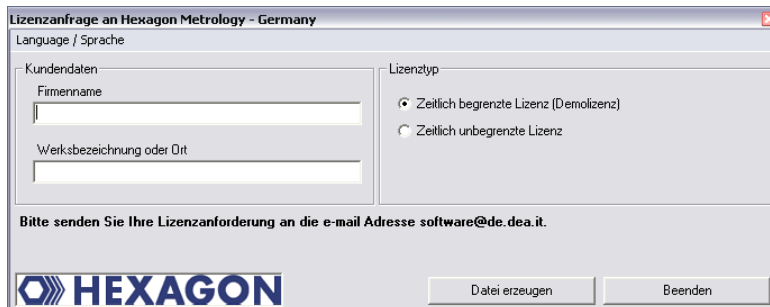
The software is available for download on the DEA – Brown & Sharpe GmbH ftp-Server.

<http://ftp.dea3d.de> or <ftp://ftp.dea3d.de>

### 2.2. Installation

To install the software execute the setup .exe file. Please follow the commands of the setup routine carefully.

After starting the software, the system will check automatically if a license exist. Otherwise you will see the following dialog which allows you to generate a license request:



The menu Language / Sprache allows to change between German and English language.

After you receive your license please copy this file (KundenLizenz.dat) in the installation folder of the software. If you like to use a plant or company license you should receive this file from your software supplier.

### 2.3. Uninstalling the software

Should you need to uninstall the software later, you can do this with the uninstall routine in the program folder.

### 3. Using the software

#### 3.1. Language setting

You can choose the required language in menu Settings – Language. Should you require a language not offered, please contact your software supplier.

#### 3.2. Creating the measurement program

Create your measurement program as normal using the PC-DMIS™ software, Version 3.2x. Note the following during creation of the evaluation:

- a) The output option must be set to “STATS” or “BOTH” for evaluations which are to be included in the statistics.
- b) Command “STATS/ON” does not influence the conversion.
- c) Trace fields are supported in conversion. The following Trace field names are supported:

KEY	TRACE Name (this name is depending from the language settings which you have chosen in the software)	Length	Type	DFD (constant)	DFD (per dimension)	DFX (variable during run time)	Example	Q-DAS Catalog
K0005	EVENT	[---]	I			X	5,6,8	X
K0006	BATCH NUMBER	[14]	A			X	#5	
K0007	CAVITY NUMBER	[5]	I			X	7	X
K0008	OPERATOR	[5]	I			X	1	X
K0010	MACHINE	[5]	I			X	356	X
K0012	GAGE	[5]	I			X	123	X
K0053	ORDER	[20]	A			X	1A234	
K1007	PART NR SHORT	[20]	A	X			A123CD	
K1011	VARIANT	[20]	A	X			1A23	
K1101	DEPARTMENT	[40]	A	X			D234	
K1303	PLANT	[20]	A	X			ABC	
K2005	CHARACTER CLASS	[1]	I			X	0	
K2022	DECIMAL PLACES	[1]	I			X	3	
K2060	CATALOG	[5]	I			X	2	X
K2404	GAGE RESOLUTION	[22]	F	X			0.0002	

Possible Values for Characteristics Class K2005

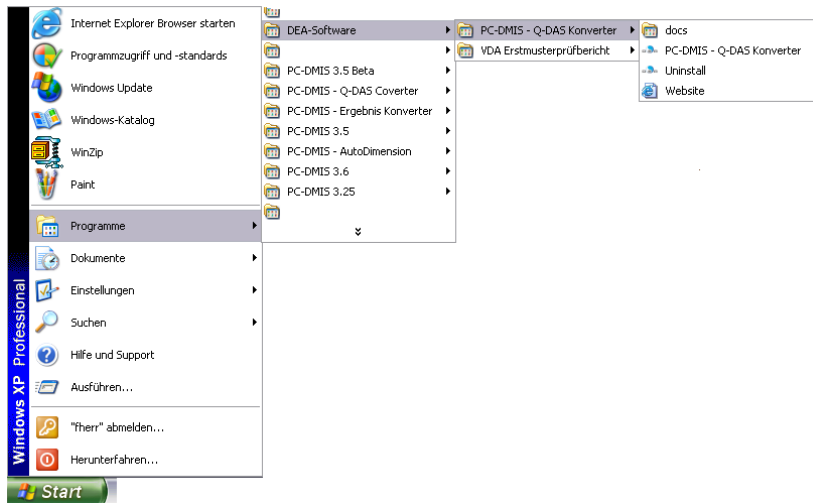
Value	Description
0	unimportant
1	little important
2	important
3	significant
4	critical

- d) You can insert a log comment in front of each characteristics with setting “Use Comments”. This comment is then saved in key field K2900. It cannot be changed during the runtime.

Then save your measurement program without quitting the program.

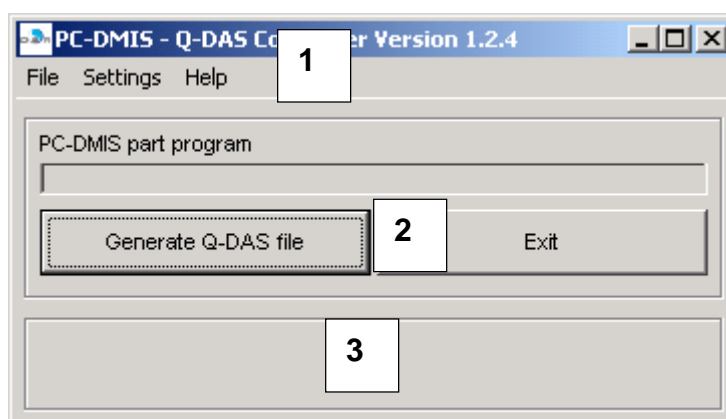
### 3.3. Launching the PC-DMIS – Q-DAS Converter software

You can launch the software by default in program group DEA-Software \ PC-DMIS – Q-DAS Converter.



### 3.4. User interface of the PC-DMIS – Q-DAS Converter software

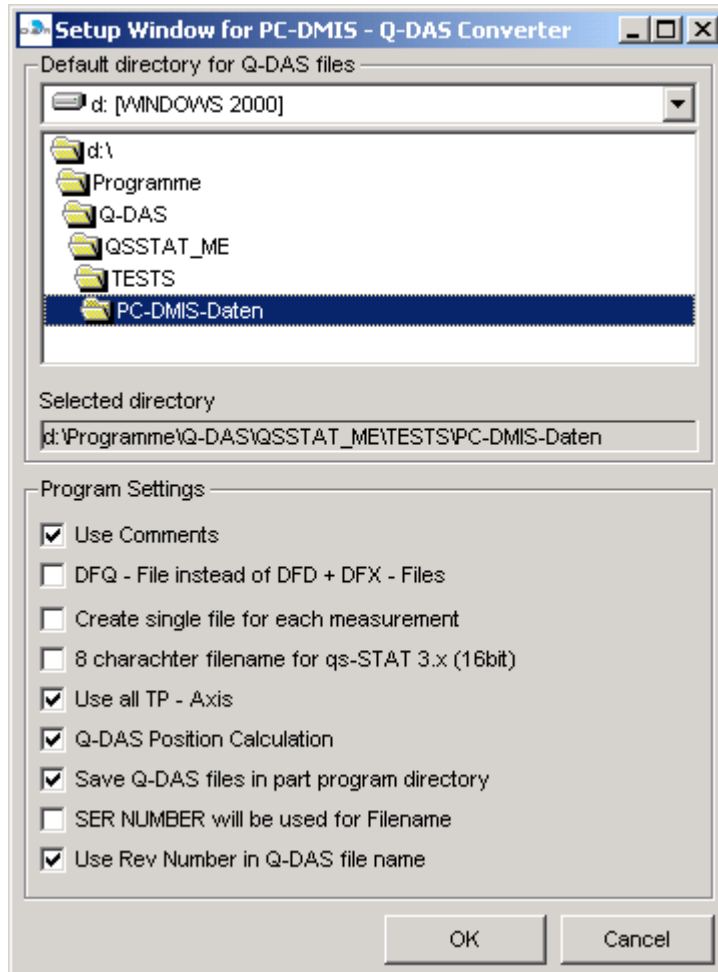
The user interface of the software is subdivided into 3 essential sections. Section 1 is a “Menu bar”. Section 2 consists of command buttons. A progress bar is displayed during conversion in Section 3.



### 3.5. Configuration of the converter

In order to match the converter to the relevant requirements of the application, launch menu item “Setup” in the “Settings” menu. You can also do this with the shortcut <Ctrl><K>.

You will see the following window:



In this window, you can choose the directory to which your Q-DAS files are to be saved.

The “Use Comments” settings assumes that there is a log comment in front of each characteristic in the PC-DMIS program. If this is the case, a key field (K2092) is created in the DFD or DFQ file.

Switch “DFQ File instead of DFD + DFX - Files” defines whether a file is to be created in DFQ format. By default, the PC-DMIS – Q-DAS Converter creates two files (DFD format and DFX format).

Switch “Create single file for each measurement” forces the converter to create separate files for each measurement.

Using the “8 character filename for qs-STAT 3.x (16-bit)” setting, the file name can be restricted automatically to 8 characters by the Converter. Please note that the name must be unique within these 8 characters. You can edit the name within the PC-DMIS program (without influencing the file name). Some of the

witches can not used together with this switch. They will be automatically deactivated.

The “Use all TP - Axis” switch results not only in the position evaluation itself but also converts the preset axis or diameter evaluations. However, it must be noted that the axes themselves do not include a tolerance. The tolerance value is transferred as  $\pm 0.0000$ .

The “Q-DAS Position Calculation” switch have to be used together with the “Use all TP – Axis” switch. If you activate this switches the converter will use K2008, K2030 and K2031. The position calculation will be done by qs-STAT<sup>®</sup>.

Using the “Save Q-DAS files in part program directory” switch, you can decide whether the Q-DAS files are to be saved to the default directory or to the WS program directory.

The file name of the output files is generated by default from the PART NAME of the PC-DMIS program. Alternatively however, the serial number from the PC-DMIS program can be used. In order to set this, activate the “SER NUMBER will be use for Filename” switch.

Switch “Use Rev Number in Q-DAS file name” forces the converter to use the REV NUMBER from the PC-DMIS part program inside the Q-DAS file names.

### 3.6. Offline conversion

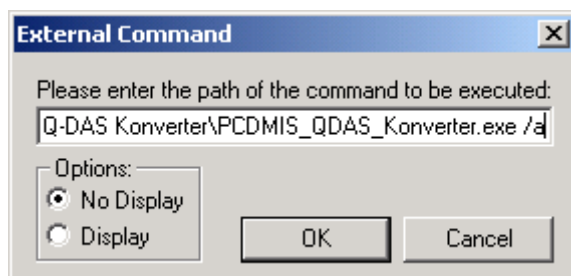
Launch the converter, as described in Point 3.2, after the measurement program has run.

In order to start the conversion operation, click on the <Generate Q-DAS File> button.

The conversion operation is complete when the progress bar is no longer displayed.

### 3.7. ONLINE conversion

In order to perform the conversion ONLINE, add an external command in your part program:





The complete command is as follows:

C:\Programme\PC-DMIS – Q-DAS Konverter\PCDMIS\_QDAS\_Konverter.exe /a  
"C:\Programme\PC-DMIS – Q-DAS Konverter\" stands for the installation directory of the software. This may differ from case to case.

Parameter "/a" causes conversion to be launched and terminated automatically.

Using option "No Display" or "Display" you can decide whether the measurement program pauses until the conversion operation is complete.

### 3.8. List of available shortcuts

Shortcut	Function
<Ctrl><Q>	Starts the conversion operation
<Ctrl><B>	Quits the program
<Ctrl><K>	Opens the Setup window
<Ctrl><I>	Opens the window with the production information

### 3.9. List of supported Q-DAS K fields

Key	Field
K0001	Measured value
K0002	Attribute
K0004	Time
K0005	Event
K0006	Batch number
K0007	Cavity number
K0008	Operator name
K0010	Machine number
K0012	Gage number
K0053	Order
K0100	Total no. of characteristics in file
K1001	Part number
K1002	Part description
K1004	Part amendment status
K1007	Abbreviation part number
K1011	Variant
K1101	Department
K1303	Plant
K1900	Remark (automatically used)
K2001	Characteristic number
K2002	Characteristic description
K2005	Characteristics class
K2008	Characteristics group type
K2022	Decimal places
K2030	Group number
K2031	Group element number
K2060	Events catalog
K2101	Nominal value
K2112	Lower allowance
K2113	Upper allowance
K2120	Lower natural boundary
K2121	Upper natural boundary
K2142	Unit
K2404	Gage Resolution
K2900	Remark

Total number of K fields: 35

### 3.10. Where do the contents of the K fields come from?

Key	Field Description	Dimension	Trace	Automatically	PC-DMIS Program
K0001	Measured value	X			
K0002	Attribute				Mark or unmark
K0004	Time			X	
K0005	Event		X		
K0006	Batch number		X		
K0007	Cavity number		X		
K0008	Operator name		X		
K0010	Machine number		X		
K0012	Gage number		X		
K0053	Order		X		
K0100	Total no. of characteristics in file			X	
K1001	Part number				X
K1002	Part description				X
K1004	Part amendment status				X
K1007	Abbreviation part number		X		
K1011	Variant		X		
K1101	Department		X		
K1303	Plant		X		
K1900	Remark (automatically used)			X	
K2001	Characteristic number	X			
K2002	Characteristic description	X			
K2005	Characteristics class		X		
K2008	Characteristics group type			X	
K2022	Decimal places		X		
K2030	Group number			X	
K2031	Group element number			X	
K2060	Events catalog		X		
K2101	Nominal value	X			
K2112	Lower allowance	X			
K2113	Upper allowance	X			
K2120	Lower natural boundary			X	
K2121	Upper natural boundary			X	
K2142	Unit	X			
K2404	Gage Resolution		X		
K2900	Remark				X

### 3.11. Excerpt from a PC-DMIS example program

```

COMMENT/DOC,-----
,Input comments for Operator, also you can use assignments
,-----

OPERATOR =COMMENT/INPUT,Operator Name
DEPARTMENT =COMMENT/INPUT,Department
GAGE =COMMENT/INPUT,Gage
OPERATION =COMMENT/INPUT,Operation
CHARGE =COMMENT/INPUT,Charge
STATION =COMMENT/INPUT,Station or Fixture
MACHINE =COMMENT/INPUT,Machine
PART_SHORT =COMMENT/INPUT,Part Number Short Description
PLANT =COMMENT/INPUT,Plant or Business Unit
GAGE_RES =COMMENT/INPUT,Gage Resolution
COMMENT/DOC,-----
,Global TRACE Commands
,-----

TRACEFIELD/NO_DISPLAY ; BATCH NUMBER : CHARGE.INPUT
TRACEFIELD/NO_DISPLAY ; CAVITY NUMBER : STATION.INPUT
TRACEFIELD/NO_DISPLAY ; OPERATOR : OPERATOR.INPUT
TRACEFIELD/NO_DISPLAY ; MACHINE : MACHINE.INPUT
TRACEFIELD/NO_DISPLAY ; GAGE : GAGE.INPUT
TRACEFIELD/NO_DISPLAY ; ORDER : OPERATION.INPUT
TRACEFIELD/NO_DISPLAY ; DEPARTMENT : DEPARTMENT.INPUT
TRACEFIELD/NO_DISPLAY ; PLANT : PLANT.INPUT
TRACEFIELD/NO_DISPLAY ; GAGE RESOLUTION : GAGE_RES.INPUT
TRACEFIELD/NO_DISPLAY ; PART NR SHORT : 123456
TRACEFIELD/NO_DISPLAY ; VARIANT : 1234A56
COMMENT/DOC,-----
,TRACE Commands which can be different for each Dimension
,-----

TRACEFIELD/NO_DISPLAY ; CHARACTER CLASS : 2
COMMENT/DOC,-----
,VARIABLE TRACE Commands which can be different for each Dimension
,-----

TRACEFIELD/DISPLAY ; EVENTS CATALOG : 0
TRACEFIELD/DISPLAY ; EVENT : 2,3,8
DIM LOC1= LOCATION OF CIRCLE CIR1 UNITS=MM ,$
GRAPH=OFF TEXT=OFF MULT=1.00 OUTPUT=STATS
AX NOMINAL MEAS DEV +TOL -TOL OUTTOL
X 25.3994 25.3994 0.0000 0.5000 -0.5000 0.0000 ----#-----
Y 25.4000 25.4000 0.0000 0.5000 -0.5000 0.0000 ----#-----
Z 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 ----#-----
D 25.4000 25.4000 0.0000 0.5000 -0.5000 0.0000 ----#-----
END OF DIMENSION LOC1
TRACEFIELD/NO_DISPLAY ; CHARACTER CLASS : 1
TRACEFIELD/DISPLAY ; EVENTS CATALOG : 1
TRACEFIELD/DISPLAY ; EVENT : 7
DIM LOC2= TRUE POSITION OF CIRCLE CIR1 UNITS=MM ,$
GRAPH=OFF TEXT=OFF MULT=1.00 OUTPUT=BOTH DEV PERPEN CENTERLINE=OFF
AX NOMINAL MEAS DEV +TOL -TOL BONUS OUTTOL
X 25.3994 25.3994 0.0000
Y 25.4000 25.4000 0.0000
DF 25.4000 25.4000 0.0000 0.0500 -0.5000 0.0000 -----#
TP RFS 0.0000 0.0500 0.0000 0.0000 #-----
END OF DIMENSION LOC2
TRACEFIELD/NO_DISPLAY ; CHARACTER CLASS : 1
TRACEFIELD/DISPLAY ; EVENTS CATALOG : 0
TRACEFIELD/DISPLAY ; EVENT : 28
DIM LOC2= TRUE POSITION OF CIRCLE CIR2 UNITS=MM ,$
GRAPH=OFF TEXT=OFF MULT=1.00 OUTPUT=BOTH DEV PERPEN CENTERLINE=OFF
AX NOMINAL MEAS DEV +TOL -TOL BONUS OUTTOL
X 25.3994 25.3994 0.0000
Y 76.2000 76.2000 0.0000
DF 25.4000 25.4000 0.0000 0.0500 -0.5000 0.0000 -----#
TP RFS 0.0000 0.0500 0.0000 0.0000 #-----
END OF DIMENSION LOC2
EXTERNALCOMMAND/NO_DISPLAY ; D:\Programme\PC-DMIS - Q-DAS
Konverter\PCDMIS_QDAS_Konverter.exe /a

```

### 3.12. Trace Names for the different languages

KEY	German	English	Czech	Spanish
K2060	KATALOG	CATALOG	KATALOG	Catálogo
K0005	EREIGNISS	EVENT	VYSKYT	Acontecimientos
K0006	CHARGE	BATCH NUMBER	SARZE	Carga
K0007	NEST	CAVITY NUMBER	HNIZDO	Nido
K0008	PRUEFER	OPERATOR	KONTROLOR	Verificador
K0010	MASCHINE	MACHINE	STROJ	Máquina
K1001	TEILENUMMER	TEILENUMMER	CISLO DILU	Número pieza
K0053	AUFTRAG	ORDER	ZAKAZKA	Solicitud
K0012	PRÜFMITTELNR	GAGE	CISLO MERIDLA	Nº medio ctrol.
K1007	TEILENR KURZ	PART NR SHORT	CISLO DILU ZKR	Nº pza. abrev.
K1101	ABTEILUNG	DEPARTMENT	ODDELENI	Departamento
K1303	WERK	PLANT	ZAVOD	Planta
K2005	MERKMALKLASSE	CHARACTER CLASS	TRIDA ZNAKU	Clase carácter.
K2022	NACHKOMMA	DECIMAL PLACES	DESETINY	Dígs tras coma
K2404	PRÜFMITTELAUFL	GAGE RESOLUTION	ROZLISENI MER	Aprec.med.ctrol
K1011	VARIANTE	VARIANT	VARIANTA	Variante

KEY	Portuguese	French	Italian	
K2060	Catálogo	Catalogue	Catalogo	
K0005	Acontecimientos	Evenements	Evento	
K0006	Carga	Charge	Lotto	
K0007	Nó	Nid	Conchiglia	
K0008	Verificador	Vérificateur	Collaudatore	
K0010	Máquina	Machine	Machina	
K1001	Número peça	Numéro pièce	Numero pezzo	
K0053	Solicitud	Sollicitude	Ordine	
K0012	Nº medio ctrol.	Nºmoyen cntrôle	Nr. strum.coll.	
K1007	Nº peça abrev.	Nºpièce abregé	N. pezzo breve	
K1101	Departamento	Département	Reparto	
K1303	Planta	Site	Stabilimento	
K2005	Clase carácter.	Class.caractér.	Classe elemento	
K2022	Dígs dep.bírgo	Dígs apr.virgu	cifre decimali	
K2404	Aprec.med.ctrol	Appréc.m.cntról	Ris.strum.coll.	
K1011	Variante	Variante	Variante	