# User Manual PC-DMIS – Q-DAS Converter Version 2.3.x

Q PC-DMIS - Q-DAS Co	nverter Version 2.3.9					_ 🗆 🛛
<u>File Preferences Help</u>						
Online Offline	ASCII Export Exit					
- PC-DMIS Part Information -						
PC-DMIS FILE NAME	d:\PCDMIS\WS-Programme\Ve	ersion 4 O'Test Q-DA	SINELLIPEG			
	-					
PC-DMIS PART NAME	Test Q-DAS NEU					
PC-DMIS REV NUMBER	A					
PC-DMIS SER NUMBER	123456					
- Characteristic Data						
LOC2.Y	<u>^</u>	Nominal		Upper Specit	insting Light	
✓ LOC2.DF		Nominai	45.00000	Upper Specin	ication Limit	45.01
LOC2.TP		Measured	45.00000	Lower Speci	fication Limit	44.99
LOC3.X		UTol	0.01000	Feature 1		_IN1
✓ LOC3.Y				<b>F</b>		
✓ LOC3.Z	_	LTol	-0.01000	Feature 2	J L	.IN2
LOC3.DF	=	Deviation	0.00000	Feature 3		
LOC3.TP		Out of Tol	0.00000	🗌 Unner Na	tural Boundary	
PERP1.						
ANGL1.A	×	Unit	DEG	Lower N	atural Boundary	
Uncheck all Values	Check OOT Values			Attribute	(Marked)	
Check all Values	Check OK Values					
Add Events for a	actual Characteristic					
		,				
Offline Import finished.				OFF	11.03.2006	16:23

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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 all our customers who provided us with very good support with test and information during development.



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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 3.5 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>TM</sup> Version 3.5 or higher must be installed on the same computer in order to be able to use the software practically.

## 1.3. Software warranty and support

See current license.txt file in the installation folder of the software.

## 2. Installation instructions

## 2.1. Shipping contents

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

ftp://ftp.dea3d.de/DEA-Addon/PC-DMIS-Q-DAS\_Converter\_Version\_2

or

http://ftp.dea3d.de/DEA-Addon/PC-DMIS-Q-DAS\_Converter\_Version\_2

## 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:

Lizenzanfrage an Hexagon Metrology - Germany Language / Sprache	×
Kundendaten Firmenname [ Werksbezeichnung oder Ort	Lizenztyp
Bitte senden Sie Ihre Lizenzanforderung an die e-mail Å	dresse software@de.dea.it.
<b>O</b> HEXAGON	Datei erzeugen Beenden

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.

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## 3. Using the software

## 3.1. Language setting

The Software is available in the following languages:

- English
- German
- French
- Italian
- Czech
- Spanish
- Portuguese
- Hungarian (starting from 2.3.11)

If you need a different language, please contact your software supplier.

The language can be selected using the File – Language menu. With the selection you decide also the axis letters (specially if the converter should be compatible with Version 1).

## 3.2. Creating the measurement program in PC-DMIS

Create your measurement program as normal using the PC-DMIS<sup>™</sup> software, Version 3.5 or higher. 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", STATS/OFF and STATS/TRANSFER, DIRECTORY={Target directory} will be supported, if the check box "Support of Stat commands" will be activated in the Setup dialog.

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Einstellungen für Q-DAS ASCII Dateien		
Verzeichnis für Q-DAS ASCII Dateien	Programm Einstellungen	
C Dateien in PC-DMIS Programmverzeichnis speichern	🔽 Mehrzeilige Kommentare	ок
<ul> <li>Individuellen Speicherort w\u00e4hrend der Ausf\u00fchrung w\u00e4hlen</li> <li>Dateien im Standardverzeichnis speichern</li> </ul>	Bestehende CFG Dateien verwenden     G-DAS Positionsberechnung verwenden	Abbrechen
🖃 d: [Lokaler Datenträger]	Ergebnisabhängige Unterverzeichnisse verwenden	Einstellungen exportieren
िये d: \ िये Q-DAS Daten	PC-DMIS -Q-DAS Konverter V.1 kompatible     Achsbezeichnungen     Standardwerte für Q-DAS Zusatzdaten	Einstellungen importieren
Test	<ul> <li>verwenden</li> <li>Konverterfenster w</li></ul>	Advanced Settings
	Support of Stat Commands	
	Attribut • 255 C 256	
	Q-DAS Datei Struktur	
Gewähltes Verzeichnis d:\Q-DAS Daten	C DFQ O DFD + DFX	
Q-DAS ASCII Dateiname Application file name rule Dateiname Dateiname Trennzeichen Vierstelligen Dateizähler verwenden	Werkstücksname 💌 + Versionsnr. 💌 +	Seriennr.
<ul> <li>GM file name rules</li> </ul>		

If this check is activated, the converter will not read dimensions or other commands before the STATS/ON command is included in the part program.

The STATS/OFF command will be something like a pause command, you can activate the data transfer to the converter with the STATS/ON command again. All commands between STATS/OFF and STATS/ON will not be read from the converter.

The STATS/TRANSFER command will allows you to define a target directory in the part program. This target directory will override the converter default settings. The command will also close the Online process. Depending on the start up option (/i or /a) the export of the Q-DAS ASCII file will start automatically (/i) or not (/a).

2	fields	are	supported	for the	following	K-fields:

Key	/0	Description	l enath	Type	catalog basedt Customer desci	iption DFD	Remarks
itoy	10		•	•	I. Data		Remarks
K0006		Batch number	14	А			"#" must be used
K0007		Cavity number	5	Ι	Х		
K0008		Operator name	5	Ι	Х		
K0009		Text	255	А		DFX	
K0010		Machine number	5	Ι	Х		
K0012		Gage number	5	I	Х		
K0053		Order	20	А			
	-		P	arts da	ata		
K1021		Manufacturer No.	20	А		DFD	
K1022		Manufacturer name	80	А		DFD	
K1031		Material number	20	Α		DFD	
K1032		Material description	40	Α		DFD	
K1041		Drawing number	30	А		DFD	
K1042		Drawing Amendment	20	А		DFD	
K1052		Contractor Name	40	А		DFD	
K1053		Order	40	А		DFD	
	-	-	Chara	cteristi	cs data		
K2001		Characteristic number	20	А			
K2005	X	Characteristics class	1	I	Module AS/PC/PV definierte Feldinhalte		
K2006	х	Controll item	1	I	definierte Feldinhalte		
K2320		Contract number	20	А		DFD	only for all characteristics
K2401		Gage number	40	А			only for all characteristics
K2402		Gage description	80	А			only for all characteristics
Additional	Tra	ce fields		-			1
FileName		String for file name	255	А			

## c) Trace fields are supported for the following K-fields:

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In PC-DMIS<sup>™</sup> one dimension includes sometimes more then one characteristic. Then you can use for K2005 or K2006 more then one value separated by comma. The value is used for the next characteristic in the part program. If you use more then one value (separated by comma) then each value is for the next characteristic. In the following example program you can see this by the different colors.

If you use the Trace commands, you should disable the Keys in the user interface using the Setup for Q-DAS Keys.

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DISPLAYPRECISION/3 TRACEFIELD/NO\_DISPLAY,LIMIT=1; K2005/0:3 TRACEFIELD/NO DISPLAY,LIMIT=1; K2006/0:1 COMMENT/REPT,LOC1 / X-Axis for Hole 204 ,LOC1 / Y-Axis for Hole 204 LOC1 / Z-Axis for Hole 204 ,LOC1 / Diameter for Hole 204 DIM LOC1= LOCATION OF CIRCLE CIR1 UNITS=MM ,\$ GRAPH=OFF TEXT=OFF MULT=10.00 OUTPUT=BOTH AX NOMINAL +TOL -TOL MEAS DEV OUTTOL X 203.199 0.000 0.000 203.199 0.000 0.000 ----#----Y 76.200 0.000 0.000 76.200 0.000 0.000 ----#----0.000 0.000 0.000 0.000 0.000 0.000 ----#----Ζ 25.400 0.000 0.000 25.400 0.000 0.000 ----#----D END OF DIMENSION LOC1 TRACEFIELD/NO\_DISPLAY,LIMIT=15; K2005:2,2, TRACEFIELD/NO\_DISPLAY,LIMIT=15; K2006: 0,0,1,1 COMMENT/REPT,LOC2 / X-Axis for Hole 204 ,LOC2 / Y-Axis for Hole 204 ,LOC2 / Diameter for Hole 204 LO C2 / True Position for Hole 204 DIM LOC2= TRUE POSITION OF CIRCLE CIR1 UNITS=MM ,\$ GRAPH=OFF TEXT=OFF MULT=10.00 OUTPUT=BOTH DEV PERPEN CENTERLINE=OFF DISPLAY=DIAMETER AX NOMINAL +TOL -TOL BONUS MEAS DEV OUTTOL 203.199 0.000 76.200 0.000 203.199 76.200 DF 25.400 0.000 0.000 0.000 25.400 0.000 0.000 ---тр MMC 0.000 0.000 0.000 0.000 ----#----END OF DIMENSION LOC2 DISPLAYPRECISION/4 DIM LOC3= TRUE POSITION OF CIRCLE CIR1 UNITS=MM .\$ GRAPH=OFF TEXT=OFF MULT=10.00 OUTPUT=BOTH DEV PERPEN CENTERLINE=OFF DISPLAY=DIAMETER AX NOMINAL +TOL -TOL BONUS MEAS DEV OUTTOL X 203.1990 203.1991 0.0001 76.2000 0.0000 76.2000 Y DF 25.4000 0.0000 0.0000 0.0000 25.4001 0.0001 0.0001 -----> MMC 0.0000 0.0002 0.0002 -----> TP 0.0000 END OF DIMENSION LOC3

d) You can insert a report comment in front of each dimension. This comment is then saved in Q-DAS key field K2900. It cannot be changed during the runtime.

Then save your measurement program without quitting the program.

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

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

			Roxio Easy CD Creator 5			
E	Internet Explorer Browser starten					
	Programmzugriff und -standards	W				
	Programmzagnin and -scandaras		National Instruments	Þ		
	Windows Update		PC-DMIS 3.5	Þ		
	Windows-Katalog		PC-DMIS 3.6 Beta	Þ		
$\leq$	2		DEA-Software	۲		
	WinZip		1&1 Internet	•		
11	Paint		Lasertracker Interface	ł		
V			PC-DMIS - Ergebnis Konverter	•		
6	Programme		PC-DMIS - Q-DAS Converter	•	• <b>•</b> ••	PC-DMIS - Q-DAS Converter Uninstall
	-	1	Ŷ		~	Website
3	Dokumente					WEBSIC
<ul> <li>✓</li> <li>✓</li></ul>	Einstellungen	·				
$\mathbf{P}$	Suchen	·				
	Hilfe und Support	n				
	Ausführen					
2	"fherr" abmelden					
0	Herunterfahren					
🤁 Sta	rt 🚽 🏂 🛷 🔔 🖸					

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

The user interface of the software allows the user to see all his part information's and results before he will generate the Q-DAS file.

Q PC-DMIS - Q-DAS Cor	overter Version 2.3.9				_ 🗆 🛛
Eile Preferences Help					
Online Offline	ASCII Export Exit				
-PC-DMIS Part Information					
PC-DMIS FILE NAME	d:\PCDMIS\WVS-Programme\Ve	rsion 4.0\Test Q-D.	AS NEU.PRG		
PC-DMIS PART NAME	Test Q-DAS NEU				
PC-DMIS REV NUMBER	A				
PC-DMIS SER NUMBER	123456				
Characteristic Data					
LOC2.Y	~	Nominal	45.00000	Upper Specification Limit	45.01
LOC2.DF		Measured			
LOC2.TP		Measured	45.00000	Lower Specification Limit	44.99
LOC3.X		UTol	0.01000	Feature 1	LIN1
LOC3.Y		LTol	-0.01000	Feature 2	LIN2
LOC3.Z LOC3.DF	=		·	, 	LI112
✓ LOC3.TP		Deviation	0.00000	Feature 3	
✓ PERP1.		Out of Tol	0.00000	🔲 Upper Natural Boundary	
ANGL1.A	<b>v</b>	Unit	DEG	🔲 Lower Natural Boundary	
Uncheck all Values	Check OOT Values			✓ Attribute (Marked)	
Check all Values	Check OK Values				
Add Events for a	ctual Characteristic				
Offline Import finished.				OFF 11.03.2006	16:23

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#### 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 "Preferences" menu.

Output File Setup for Q-DAS ASCII files		
Folder for Q-DAS ASCII files	Program Settings	1
C Save files in the PC-DMIS Part Program Folder	Multi Line Comments	ок
C Select an individual Folder during each execution	Use existing CFG File	Cancel
Save files in the Default Folder	☑ Use Q-DAS Position Calculation	
d: [Lokaler Datenträger]	Depending on the result, use differenet subfolders	Export Settings
at \	Use Q-DAS Converter V.1 Axis Designations	Import Settings
Test	Use default values for Q-DAS data	
	Minimize the dialogue during the execution	Advanced Settings
	Support of Stat Commands	
	Attribute	
1	Q-DAS File Structure	
Selected Path	C DFQ © DFD + DFX	
ja.va-DAS Daten		
Q-DAS ASCII File Name		
Application file name rule		
File Name Date + Time +	. Part Name 🔹 🕇 Revision Number 💌 🕇	Serial Number
Separator		
🔲 Use 4 Digits Counter		
C GM file name rules		

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

The following options are possible:

- Use PC-DMIS Part Program Folder If you select this option, the software will save the Q-DAS ASCII files in the same folder as the PC-DMIS part program.
- Select an individual Folder during each execution During each part program execution, the operator can select a folder, where the software will save the Q-DAS ASCII files.
- Use Default folder
   If this option is used, you need to select the default folder in this dialog.

There is also a possibility to use a specific folder name from the command line in the PC-DMIS part program (see chapter 3.8).

In the "Q-DAS ASCII File Name" frame you can configure the file name, which will be used for the Q-DAS ASCII file. Part Name, Revision Number and Serial Number are values which are offered from the PC-DMIS part program header. Date and Time are used from the computer system during the file will be generated. The selected separator will be used between each of the other

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settings. If you didn't use the Date and Time setting, you need to use the 4 digits counter, otherwise the software will override the old file.

The GM file name rules will create the following file name format:

{string from Trace field 'FileName'}\_MMDDhhmmss.dfd

or

MMDDhhmmss.dfd

In the "Program Settings" frame are some settings, which allows the operator to configure the software in the best way for his application.

• Multi Line Comments

Comments can be used as additional explanation of the individual characteristics. The respective comment is firmly bound to a characteristic. In order to be able to reach this, some rules in the PC-DMIS Program must be considered.

Whether a comment is used or not, is dependent on the type of the comment and the position in the measuring program.

- The comment must be a protocol comment
- The comment must stand directly before the dimension.
- Comments of several lines are considered up to 20 lines. If more than 20 lines were used, the remaining lines are ignored.

Dependent on the status of the check box you will receive different interpretations of PC-DMIS protocol comments with several lines.

Around this to describe in detail you find in the following two examples:

Example 1:

	COMI	MENT/RE	EPT,Comn	nent for X	(-Axis			
		,Comm	ent for Y-A	Axis				
		,Comm	ent for Z-A	Axis				
		Comm	ent for D-A	Axis				
	MOVE	E/CLEAR	PLANE					
DIM	1= LOCA	ATION OF	F CIRCLE	KREIS1	UNITS=I	N .\$		
			OFF MUL					
AX	NOMINA	AL +TC	L -TO	L ME	AS M	IAX N	MIN DEV	
X	1.000	0.004	-0.004	1.000	1.441	0.559	0.000#	
Y	1.000	0.004	-0.004	1.000	1.441	0.559	0.000#	
Z	0.000	0.004	-0.004	0.000	-0.079	-0.157	0.000#	
D	1.000	0.008	-0.008	1.000	1.000	1.000	0.000#	
END	OF DIM	ENSION	1					
		_						

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This comment is not used, since MOVE/CLEARPLANE stands a command between the comment and the characteristic.

#### Example 2:

	COMM		PT,Comm		-Axis			
		,Comm	ent for Y-A	Axis				
		,Comm	ent for Z-A	xis				
		Comm	ent for the	D-Axis				
DIM	1= LOCA	TION OF	- CIRCLE	KREIS1	UNITS=	IN ,\$		
			OFF MUL					
AX	NOMINA	L +TO	L -TO	L ME	AS N	/IAX N	1IN DEV	
X	1.000	0.004	-0.004	1.000	1.441	0.559	0.000#	
Y	1.000	0.004	-0.004	1.000	1.441	0.559	0.000#	
Z	0.000	0.004	-0.004	0.000	-0.079	-0.157	0.000#	
D	1.000	0.008	-0.008	1.000	1.000	1.000	0.000#	
END	OF DIME	ENSION	1					

The comment is used, since no command between the comment and the characteristic will be placed. Only Trace commands and decimal precision commands can be placed between the comment command and the dimension command.

If Multi Line Comments will be active, you will get the following result:

Dimension	Comment
1.X	Comment for X-Axis
1.Y	Comment for Y-Axis
1.Z	Comment for Z-Axis
1.D	Comment for D-Axis

If Multi Line Comments will be not active, the following interpretation will be used:

Dimension	Comment
1.X	Comment for X-Axis / Comment for Y-Axis / Comment for Z-Axis / Comment for D-Axis
1.Y	Comment for X-Axis / Comment for Y-Axis / Comment for Z-Axis / Comment for D-Axis
1.Z	Comment for X-Axis / Comment for Y-Axis / Comment for Z-Axis / Comment for D-Axis
1.D	Comment for X-Axis / Comment for Y-Axis / Comment for Z-Axis / Comment for D-Axis

- Check for existing CFG File
   If this setting is used, the converter check, depending of the name of
   the part program an the revision number, if a CFG file exists. In this
   CFG File the operator can save the last settings of the additional Q DAS data.
- Use Q-DAS Position Calculation
   If this check box is marked, the Converter will use K2008, K2030
   and K2031 for Position dimensions. If this structure is used, Q-DAS
   knows, which ordinates are used for which dimension. The
   calculation of the true position value will be done from qs-STAT®

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Depending on the result, use different subfolders
 If this setting is active, the converter will build the following subfolder
 in the target folder:

a) FirstParts

b) PartOK

c) PartOOT

Results from parts, which are measured the first time, will be saved in the FirstPart folder (independent off the result).

In the PartOK folder the software will save a copy of the Q-DAS ASCII files, if all values are in tolerance. This should be the group of parts, which are delivered.

In the PartOOT folder the converter will save a copy of the Q-DAS ASCII files, if one or more values are out of tolerance.

If you measured a part a second time, you should mark it as a reworked part. The Q-DAS ASCII files will be saved (depending on the result) only in the PartOK or PartOOT folder.

- Use Q-DAS Converter V. 1 Axis Designations If this option is checked the Converter will use compatible values for K2001 against the Version 1.x.x
- Use default values for Q-DAS data
   If this option is checked, the converter offers the same settings for
   the add. Q-DAS data for all part programs. The defaults have to be
   saved one time in the dialog.
- Minimize the dialogue during execution This setting allows the operator to decide, if the dialogue will be minimized during the execution.
- Attribute

If a dimension is not marked in the PC-DMIS part program, the converter will set the Attribute (K0002) to 255 or 256. The meaning of this values you can find in your Q-DAS documentation. If the dimension command is marked, the converter will use the value 0.

• Q-DAS File structure

The converter can create Q-DAS ASCII files in the following formats: a) DFQ

b) DFD and DFX

<u>IMPORTANT</u>: If you like to use Q-DAS Monitoring software, you must use DFD and DFX.

 

 OK
 Store the values in the registry of your computer (HKEY\_LOCAL\_MACHINE \ SOFTWARE \ DEAGERMANY \ PCDQDAS \ Settings) and close the dialog.

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Cancel	Cancel will o	lose the dialog without saving the values.
Export Settin	(OutputFile_ the software configuration	will save the settings in an external file Settings.cfg) in the installation folder of . This file can be used for the n of a second systems or if you need to ferent settings.

Import Settings This button will import the OutputFile\_Settings.cfg file.

Advanced Settings This button will open a dialog for special settings to fit the converter with your qs-STAT package.

Advanced Settings (Only for Q-DAS Experts)		×
Characteristic Number © Dimension ID + Axis letter © Characteristics Counter	Characteristic Name © Dimension ID + Axis letter + Feature ID'S © PC-DMIS Comment text	OK Cancel
Q-DAS Catalog  C:\Programme\PC-DMIS - Q-DAS Converter\Catalogs\MyCatalog  Values from DFD file  Values from SOL Database	og.DFD	
Internal Catalog files for K1209, K2005, K2320, 2401, K2402 C:\Programme\PC-DMIS - Q-DAS Converter\Catalogs C:		
Catalogs		

Please contact your statistical expert before changing this parameters.

#### **Output file settings for Q-DAS Monitoring**

Output File Setup for Q-DAS Monitoring	
- Folder for Q-DAS Monitoring Files	ок
C: [Windows XP]	Cancel
Selected Path	

In this dialog you can define a folder, where the converter will store the files for the Q-DAS Monitoring software. Inside of the selected folder the converter will create an individual subfolder for each part program. For each part program the converter will save one DFD file (0000001.dfd) and for each execution a DFX file (00000001.dfx ... 00009999.dfx). The converter will use the first free number for the DFX file.

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## **Q-DAS Settings**

Q-DAS Fie	ld Description	×
-Field Des	cription	
K0006	Batch number	ОК
K0007	Cavity number	Cancel
K0008	Operator name	Export Settings
K0009	Text	have and Catting on
K0010	Machine number	Import Settings
K0011	Process parameter	
K0012	Gage number	
K0053	Order	
K2320	Contract number	
K2401	Gage number	
K2402	Gage description	

Depending on the customers application Q-DAS often use some K-Fields with a different description as the standard. In this dialog you can fit the converter interface with the used descriptions in qs-STAT®.

The button Export Settings will save the values in the file QDAS\_Settings.cfg in the installation folder of the converter software. The OK button will save the values in the registry of your computer.

p für	Q-DAS Keys			
or K-Fiel	ds			×
ata —				
0006	Chargennummer			OK
007	Nestnummer			Cancel
8000	Prüfername			
0009	Text			
0010	Maschinennummer			
0011	Prozessparameter			
0012	Prüfmittelnummer			
053	Auftrag			
Data —		- Characteristic:	s Dai	ta
007	Part number short	🔽 K2005	Ch	naracteristic Class
010	Control Item	🔽 K2320	Au	uftragsnummer
011	Variante	🔽 K2401	Pr	üfmittelnummer
053	Contract	🔽 K2402	Pr	üfmittelbezeichnun;
101	Department	🔽 K2404	Ga	age Resolution
203	Reason for Test			
303	Plant			
900	Remark			
	vr K-Fiel vata 0006 0007 0008 0009 0010 0011 0012 0053 007 010 011 053 101 203 303	0006       Chargennummer         0007       Nestnummer         0008       Prüfername         0009       Text         0010       Maschinennummer         0011       Prozessparameter         0012       Prüfmittelnummer         0013       Auftrag         004a	or K-Fields         iata         0006       Chargennummer         0007       Nestnummer         0008       Prüfername         0009       Text         0010       Maschinennummer         0011       Prozessparameter         0012       Prüfmittelnummer         0053       Auftrag         004a       ✓         007       Part number short         010       Control Item         011       Variante         053       Contract         053       Contract         101       Department         023       Reason for Test         303       Plant	int K-Fields         inta         inta

In this dialog you can configure, which K-Fields should be used by the operator. If the check is active, the K-Field is enabled in the operator interface, otherwise the Field is disabled.

You must disable all K-Fields for which you like to use TRACE commands in your part program.

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The OK button will save the values in the registry of your computer.

## 3.6. Offline conversion

Launch the converter, as described in Point 3.3, after the measurement program has run.



In order to start the conversion operation, click on the <OFFLINE> button. After the converter has received all values from the part program, the following dialog will be opened:

Events		Add. D	ata		
K0005 Events	MA100 Locater off location / loose (1)	K0006	Chargennummer	# 23	ок
Unselect all	MA110 Clamp worn / broken (2) MA120 Contaminated (chips/dirt/etc.) (3)	K0007	Nestnummer	N1004 Fixture 4 (4)	Delete Data
	MA140 Tool off location / loose (4) MA150 Guide Worn / broken (5)	K0008	Prüfername	P003 Station 3 (3)	D
	MA160 Insufficient lubrication (6) MA170 Electrical fault (7)	K0009	Text	TESTinfo	Save Program Data
	MA180 Computer malfunction (8) MA190 Pneumatic interruption (9)	K0010	Maschinenr.	M004 Machine 4 (4)	
	MA200 Hydraulic low fluid / leak (10)	K0012	Prüfmittelnummer	PM003 Gage 3 (3)	
	MA210 Librication failure (11) MA220 Mechanical failure (12)	K0053	Auftrag	DEMO1	
	MA230 Transfer automation failure (13) MA240 Feed rate slow / fast (14)	Parts [	)ata	,	
	MA250 Spindle speed not as specified (15) MA260 Cycle time interruption (16)		Part number short	123.456	
	TL100 Tool worn / broken (17) TL110 Tool Off location / loose (18)	K1010	Control Item	Yes	
	TL120 Incorrect setup on tool (19) TL130 Wrong tool (20)	K1011	Variante	A	
	TL140 Manufactured wrong (21) TL150 Poor installation (22)	K1053	Contract	DEM01	
	TL160 Test tooling (23) TL170 New tool (24)	K1101	Department	AWT CO	
	FL100 Pressure insufficient / excessive (25 FL110 Misdirected flow (26)	K1203	Reason for Test	Zertifizierung	
	FL120 Concentration - High / low (27) FL130 Concentration - Oily / dirty (28)	К1209	Prüfart	Value 2	
K2060	0 Main Catalog	К1303	Plant	Lahnau	
Use Catalog	1 Machine Related 2 Tooling Related		Remark	keine	
	3 Metalworking Fluid Related 4 Measurement System Related		teristcs Data		
	5 Material Related 6 Miscellaneous		Characteristic Class	wichtig 🔹	
		K2320	Auftrags-Nummer	Vertrag 2	
(0011/0 Prozesspai	rameter	K2401	Prüfmittel-Nummer	Gage 3	
[3 9,5 14,5 13,4 11]		<sub>K2402</sub>	Prüfmittelbezeichnun:	Mistral 100707 🔹	
art Settings		 K2404	Gage Resolution	0.0005	
Reworked Par				,	

In this dialog you can set your additional Q-DAS data. All values, which you set here, will be used for all characteristics.

Also you can mark your part as an reworked part in this dialog. This setting is only important if you like to use the setting "Depending on the result, use different subfolders". Otherwise you can ignore this setting.

Tipp:

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The process parameter will be configured in a separate dialog. The dialog will be opened by clicking on the .... button.

Configuration Dialog For Process Parameter		×
Process Parameter Catalog       0     Process Parameter Catalog       1     P1001       2     P1002       1     P1003       2     P1002       1     P1003       4     P1004       1005     Process param       2     P102       1     P1005       1     P1004       1     P1005       1     P1005       1     P1004       1     P1005       1     P1005	Process Parameter Value 1 P-W001-1 Tool Parameter 1.1 2 P-W001-2 Tool Parameter 1.2 3 P-W001-3 Tool Parameter 1.3	OK Cancel
K0011 Selected Process Parameter	411 13	

First you select the catalog. Second you select the process parameter. Then you can see all available Values in the value list. After selecting the value you can add the selection with the button in the list for the selected process parameter. Then you can select the next combination of process parameter and value. With the button you can delete the complete parameter selection or the marked value in the list.

The Save Data button will save the used settings specially for the actual part program. The system can provide the same settings during the next conversion.

<u>IMPORTAND</u>: You must copy your Q-DAS catalog in the folder catalogs inside of the installation folder of the software. The name of the file must be MyCatalog.dfd Since Version 2.1.2. there is a registry setting (CatalogPathName) which can be used to define the path and name for the Q-DAS catalog.

In the same folder you can save the possible values for K2320, K2401 and K2402. The name of this files are K2320.dat, K2401.dat and K2402.dat. This files can be edit with a standard editor on your computer.

〕 K2402. dat - Editor		
Datei Bearbeiten Format Ansicht	2	
Global 070705 Mistral 100707 Scirocco 201209		× ×
	Z	eile 1, Spalte 1

Additional Q-DAS Data for a specific characteristics

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PC-DMIS SER NUMBER	3	
PC-DMIS Data		
ABST1.M	<b>^</b>	Nomii
✓ WINKEL1.A ✓ KONZEN1.M		Meas
RUNDH1.M		
GERADH1.M		UTol
EBEN1.M		LTol
RECHTW1.M		Devia
✓ PARAL1.M ✓ NEIGUNG1.M		Outo
SYM1.M		Uuto
KEYIN_1.M	~	Unit
Uncheck all Values	Check OOT Values	
Check all Values	Check OK Values	
Add. Data for act	ual Characteristic	
Offline Import finished.		

In the PC-DMIS Data frame all imported values are now displayed. The actual displayed value can be selected in the list box. After the import process all check boxes in this list are active. This should be also if you export the values later in the Q-DAS ASCII format.

Before you export the Data in the Q-DAS ASCII format, you can figure out, which values are inside of the tolerance and which not. For this you can use the buttons Uncheck all Values, Check OOT Values, Check all Values and

Check OK Values. With the button Add. Data for actual Characteristic you can add Events for the actual characteristic. Also you can decide, if this characteristic is a control item (K2006). The used catalog is only a filter for the list. If you add an event to an individual characteristic, this characteristic will be set to the main catalog in the Q-DAS ASCII file.

		OK
K0005/7 Events	MA100       Locater off location / losee (1)         MA110       Clamp worn / broken (2)         MA140       Contaminated (chips/dirt/etc.) (3)         MA140       Tool off location / losse (4)         MA140       Tool off location / losse (14)         MA150       Guide Worn / broken (5)         MA160       Fundationation / losse (14)         MA160       Computer mathraction (5)         MA160       Computer mathraction (6)         MA190       Preumatic interruption (9)         MA200       Librication failure (11)         MA200       Horanistic native (11)         MA200       Horanistic native (12)         MA200       Hechanical failure (12)         MA200       Spindle speed not as specified (15)         MA200       Spindle speed not as specified (15)         MA200       Spindle speed not not (12)         TL100       Tool Worn / bocken (17)         TL101       Tool (20)         TL102       Noranidactured worng (21)         TL103       Wrong tool (20)         TL104       Manulactured worng (21)	Cancel
K2060/7 Use Catalog	0 Main Catalog 1 Machine Related 2 Tooling Related 3 Metalworking Fluid Related 4 Measurement System Related 5 Material Related 6 Miscellaneous 7 Assembly System	

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Before you finally export the Q-DAS data, you have to use the Check all Values button. Since Version 2.1.2. this will be done automatically.



Now you can export the Q-DAS ASCII data with the ASCII Export button.

## 3.7. ONLINE conversion

If you like to use the Online functionality of the converter, you need to start the converter before you execute the part program but after you have opened the part program.

The Input dialog for Q-DAS data can be closed during runtime of your part program.

During runtime of the part program the converter receive the Values from PC-DMIS.

This process save a lot off time, which is needed, if you receive the values Offline.

#### 3.8. Execute the converter from the PC-DMIS part program

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

	Öffnen ?X
	Suchen in: 🔁 PC-DMIS - Q-DAS Converter 💽 🖛 🖻 📸 🕶
External Command	Catalogs Documentation PartData TempData PCDQDAS.exe Uninst.exe
Please enter the path of the command to be executed:	Dateiname: PCDQDAS.exe Üţfmen Dateityp: EXE Files (*.exe)  Abbrechen

PC-DMIS<sup>™</sup> dialogs for external commands

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The complete command is as follows:

EXTERNALCOMMAND/NO\_DISPLAY, NO\_WAIT ; C:\PROGRAMME\PC-DMIS - Q-DAS CONVERTER\PCDQDAS.EXE /A

Parameter "/A" causes conversion to be launched automatically.

Parameter "/I" can be used on Inline systems, where no operator input should be possible.

Using option "No Display" and "No Wait" to configure the system in the best way.

If you insert this command at the end of the part program (without the parameter "/A" or "/I") you can pop up the converter without starting the import functionality. Then the operator can use the Offline functionality.

A second parameter can be set. This overwrites the adjusted goal listing for the Q-DAS® ASCII files.

Example:

You like to send the data from this part program to the C:\QDAS\_DATA folder.

The complete command is as follows:

EXTERNALCOMMAND/NO\_DISPLAY, NO\_WAIT ; C:\PROGRAMME\PC-DMIS - Q-DAS CONVERTER\PCDQDAS.EXE /A /C:\QDAS\_DATA

Always use for the separation of the command line arguments one "/". Do not use blanks in the path designation.

Key	Field
K0001	Measured value
K0002	Attribute
K0002	Time
K0004	Event
K0005	Batch number
K0007	Cavity number
K0008	Operator name
K0009	Text
K0010	Machine number
K0011	Process parameter
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
K1010	Control item
K1011	Variant
K1021	Manufacturer No.
K1022	Manufacturer name
K1031	Material number
K1032	Material description
K1041	Drawing number
K1042	Drawing Amendment
K1052	Contractor Name
K1053	Contract
K1101	Department
K1203	Reason for test
K1209	Inspection type
K1303	Plant
K1900	Remark (automatically used)
K2001	Characteristic number
K2002	Characteristic description
K2005	Characteristics class
K2006	Control item
K2008	Characteristics group type
K2022	Decimal places
K2030	Group number
K2031	Group element number
K2060	Events catalog
K2061	Process parameter catalog
K2101	Nominal value
K2110	Lower specification limit
K2111	Upper specification limit
K2112	Lower allowance
K2113	Upper allowance
K2120	Lower natural boundary
K2121	Upper natural boundary

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

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Key	Field
K2142	Unit
K2320	Contract number
K2401	Gage number
K2402	Gage description
K2404	Gage Resolution
K2900	Remark

Total number of K fields: 55

#### 3.10. List of supported dimension types in PC-DMIS<sup>™</sup>

DIMENSION\_A\_LOCATION DIMENSION\_D\_LOCATION DIMENSION\_FLATNESS\_LOCATION DIMENSION\_H\_LOCATION DIMENSION\_L\_LOCATION DIMENSION PA LOCATION DIMENSION\_PD\_LOCATION DIMENSION\_PR\_LOCATION DIMENSION\_R\_LOCATION DIMENSION ROUNDNESS LOCATION DIMENSION\_RS\_LOCATION DIMENSION\_RT\_LOCATION DIMENSION S LOCATION DIMENSION\_STRAIGHTNESS\_LOCATION DIMENSION\_T\_LOCATION DIMENSION\_X\_LOCATION DIMENSION\_Y\_LOCATION DIMENSION\_Z\_LOCATION DIMENSION\_TRUE\_DIAM\_LOCATION DIMENSION\_TRUE\_D1\_LOCATION DIMENSION\_TRUE\_D2\_LOCATION DIMENSION\_TRUE\_D3\_LOCATION DIMENSION\_TRUE\_DD\_LOCATION DIMENSION\_TRUE\_DF\_LOCATION DIMENSION TRUE FLATNESS LOCATION DIMENSION\_TRUE\_LD\_LOCATION DIMENSION\_TRUE\_LF\_LOCATION DIMENSION\_TRUE\_PA\_LOCATION DIMENSION\_TRUE\_PR\_LOCATION DIMENSION\_TRUE\_ROUNDNESS\_LOCATION DIMENSION\_TRUE\_STRAIGHTNESS\_LOCATION DIMENSION\_TRUE\_WD\_LOCATION DIMENSION\_TRUE\_WF\_LOCATION DIMENSION\_TRUE\_X\_LOCATION DIMENSION\_TRUE\_Y\_LOCATION DIMENSION\_TRUE\_Z\_LOCATION **DIMENSION 2D ANGLE** DIMENSION\_2D\_DISTANCE DIMENSION\_3D\_ANGLE DIMENSION\_3D\_DISTANCE DIMENSION\_ANGULARITY DIMENSION\_COAXIALITY DIMENSION CONCENTRICITY DIMENSION FLATNESS DIMENSION\_KEYIN DIMENSION\_PARALLELISM

DIMENSION\_PARALLELISM DIMENSION\_PERPENDICULARITY DIMENSION\_PROFILE DIMENSION\_ROUNDNESS DIMENSION\_RUNOUT DIMENSION\_STRAIGHTNESS DIMENSION\_SYMMETRY