User Manual PC-DMIS – Q-DAS Converter Version 4.3.2xx

Q PC-DMIS - Q-DAS Kon	verter Version 4.2.0					
Datei Einstellungen Hilfe						
Online Offline	ASCII Export Beenden					
PC-DMIS Programm Informat	ionen					
PC-DMIS Dateiname	D:\Programmdaten\PC-DMIS\V	/S-Programme\Versi	on 4.2\Testprogram	n für Q-DAS\T	estprogramm für Q-I	DAS Interface - 1
PC-DMIS Werkstücksname	Testprogramm für Q-DAS Inte	rface				
PC-DMIS Versionsnr.	1					
PC-DMIS Seriennr.	123-456-789					
Merkmalsdaten						
✓ WINKEL1.A ✓ ABST1.M	•	Nennmaß	0.00000	Unt. Spez. G	renze	0.01
ABST2.M ABST3.M		Ob. Abmaß	0.00000	Element 1	KF	EIS1
ABST4.M		Unt. Abmaß	0.00000	Element 2		
ABST6.M		Abweichung	0.00000	Element 3		
✓ Testid1		Abw. a.Tol.	0.00000	🔲 Obere na	atürliche Grenze	
✓ TestId2	v	Einheit	MM	🔽 Untere n	atürliche Grenze	
Alle demarkieren	AT Werte markieren			✓ Attribut (Markierung)	
Alle markieren	IT Werte markieren					
Ereignisse zum aktuel	llen Merkmal hinzufügen					
<u> </u>						
Offline Import fertig.				OFF	21.05.2007	16:38

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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[®] 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.



Q-DAS® Gesellschaft für Datenverarbeitung und Systemtechnik mbH Eisleber Strasse 2 D-69469 Weinheim Germany

1. General information

1.1. Software objectives

This software has been developed to allow generation of qs-STAT[®] data under the PC-DMIS[™] software package, Version 4.2 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[®] were conducted with version qs-STAT[®] Millennium. However, in accordance with Q-DAS[®], the format may also be used for less recent versions.

PC-DMISTM Version 4.2 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.

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2. Installation instructions

2.1. Shipping contents

The software is available for download on the Hexagon Metrology GmbH ftp-Server.

ftp://ftp.dea3d.de/DEA-Addon/

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 exists. Otherwise you will see the following dialog which allows you to generate a license request:

License request to Hexagon Metrology	X
Language / Sprache	
Customer data Company name City	C License Type C Temporary License (Demo license) C Permanent License
Please send your license request file to the following e-m	ail address: Frank.Herr@HexagonMetrology.com.
O » HEXAGON	Generate file End

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

Please send your license request to the following e-Mail address: Frank.Herr@HexagonMetrology.com

After you receive your license please copy this file (ROY-QDAS_License.dat) in the installation folder of the software.

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 (especially 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[™] software, Version 4.2 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.

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

						DFD	
Key	/0	Description	Length	Туре	catalog based	DFX	Comments
1	-		1	1	1		1
K0006		Batch number	14	Α			"#" must be used
K0007		Cavity number	5	I	Х		
K0008		Operator name	5	I	Х		
K0009		Text	255	A			
K0010		Machine number	5	I	Х		
K0012		Gage number	5	I	Х		
K0014		Part Ident	40	A			
K0015		Reason for test	5	I	content		
K0016		Production number	30	А			
K0017		Work piece fixture number	30	А			
K0053		Order number	20	А		DFX	
K1001		Part number	30	А		DFD	
K1002		Part description	80	А			
K1004		Part amendment status	20	А			
K1005		Product	40	А			
K1007		Part number - short description	20	A			
K1008		Part type	20	A			
K1009		Part code	20	А			
K1014		Part ident	20	A			
K1021		Manufacturer number text	20	A			
K1022		Manufacturer description	80	A			
K1031		Material number text	20	Α			
K1032		Material description	40	Α			
K1041		Drawing number text	30	А			
K1042		Drawing amendment	20	Α			
K1052		Contactor description	40	Α			
K1053		Contract	40	А			
K1061		Customer number text	20	А			
K1062		Customer description	40	Α			
K1072		Supplier description	40	Α			
K1081		Machine number text	24	Α			
K1082		Machine description	40	Α			
K1085		Machine location	40	Α			
K1086		Work cycle / Operation	40	Α			
K1087		Work cycle description	40	А			
K1100		Area / Plant sector	40	Α			
K1101		Department	40	А			
K1102		Workshop	40	А			
K1103		Cost centre	40	А			
K1104		Shift	20	А			
K1202		Test facility description	40	Α			

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User M	lanua	l				0	HEXAGON
	1	I	1	1.	I		1
K1203	_	Reason for test	80	A		4	
K1206	_	Test location	40	A		4	
K1210	_	Measurement type	5	I		4	
K1222	_	Inspector name	40	A		4	
K1231	_	Measurement program number	20	A		4	
K1232		Measurement program version	20	А		1	
K1302		Test batch	40	А		1	
K1303		Plant	40	А			
K1343		Test plan creation date	20	D			
K1344		Test plan creator	40	А			
K1802		User field content 1	255	А			
K1812		User field content 2	255	А			
K1822		User field content 3	255	А			
K1832		User field content 4	255	А			
K1842		User field content 5	255	А		1	
K1852		User field content 6	255	А			
K1860		User fierld description 7	50	А			
K1862		User field content 7	255	А		1	
			1	4			
K2001		Characteristic number	20	А			
K2005	x	Charcteristic class	1	I	Module AS/PC/PV defined field content		
K2006	v	Control itom	1		defined field		
112000		Contornem	I	1	0=off	1	
K2203	_	Karosseriemodus	1	I	1=enabled	4	only for all characteristics
K2320		Contract number	20	А		1	only for all characteristics
K2401		Gage number text	40	А		1	only for all characteristics
K2402	_	Gage Description	80	А			only for all characteristics
K2434	Х	Proof of process capability	1	I	Yes=1 / No=0		only for all characteristics
K8500		Subgroup size	5	I			only for all characteristics
K8501		Subgroup type	3		defined field content	DFD	only for all characteristics
FileName		String for file name	255	А			

In PC-DMIS[™] 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 ----#----Υ 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: 2,2,2,2 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 ,LOC2 / 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

 X
 203.199
 203.199
 0.000
 0.000
 0.000
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 0.000
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 0.000
 0.000
 0.000</t DF 25.400 0.000 0.000 0.000 25.400 0.000 0.000 ----0.000 0.000 0.000 ----#----MMC 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 $DF \quad 25.4000 \quad 0.0000 \quad 0.0000 \quad 0.0000 \quad 25.4001 \quad 0.0001 \quad 0.0001 \quad ----->$ TP MMC 0.0000 0.0000 0.0002 0.0002 -----> 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.

Course of the second se	
m	 Bedienerhandbuch (DOC)
(m)	🕨 🗾 Bedienerhandbuch (PDF)
1	► 📋 LiesMich
(m)	PC-DMIS - Q-DAS Converter
(🕨 🛃 Q-DAS Data Format
m	🕨 📩 Q-DAS Daten Format
1	🕨 📋 ReadMe
	🕨 🎯 Uninstall
m	 User Manual (DOC)
6	🕨 📩 User Manual (PDF)
💼 PC-DMIS - Q-DAS Converter	Website
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	Converter

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.

PC-DMIS - Q-DAS Converter Version 4.2.0				
Eile Preferences Help				
Online Offline ASCII Export Exit				
PC-DMIS Part Information				
PC-DMIS FILE NAME D: Programmdaten PC-DMIS	NS-Programme\Ver	rsion 4.2\Testprogram	n für Q-DAS\Testprogramm für G	Q-DAS Interface - 1
PC-DMIS PART NAME Testprogramm für Q-DAS Int	erface			
PC-DMIS REV NUMBER 1				
PC-DMIS SER NUMBER 123-456-789				
Characteristic Data				
WINKELLA	Nominal	0.00000	Upper Specification Limit	0.01
ABST1.M		1 0.00000		0.01
ABST2.M	Measured	0.00000	Lower Specification Limit	
ABST3.M	UTol	0.01000	Feature 1	KREIS1
ABST4.M	I Tol	0.00000	Feature 2	
ABST5.M	2101	0.00000	104441012	
ABS16.M	Deviation	0.00000	Feature 3	
	Out of Tol	0.00000	🔲 Upper Natural Boundary	
✓ Testid2	Unit	MM	🔽 Lower Natural Boundary	
	1		Attribute (Marked)	
Uncheck all Values Check OOT Values			<u>, .</u>	
Check all Values Check OK Values				
Add Events for actual Characteristic				
Offline Import finished.			OFF 21.05.2007	16:44

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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.

Dutput 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	1
Save files in the Default Folder	Use Q-DAS Position Calculation	Cancel
∫æa: ▼	E Depending on the result, use differenet subfolders	Export Settings
🔄 d:\	Use Q-DAS Converter V.1 Axis Designations	
Q-DAS_Daten	✓ Use default values for Q-DAS data	Import Settings
	Minimize dialogue during evecution	Advanced Settings
	I◆ Minimize dialogue during execution	Auvanced Settings
	Lower Plausibility Limit	
	5 multiply I. Tol.	
	Lipper Plausibility Limit	
	5 multiply u. Tol.	
	Fixed Decimal Precision Value 2	
	Attribute	
Selected Path		
d:_Q-DAS_Daten	Q-DAS File Structure	
/ // // // // // // // // // //////////	OFQ C DED + DEX	
Theep always local file in Application (rempt) at a save (rolder		
Q-DAS ASCII File Name		
Application File Name Rule		
File Name Date 👻 🛨 Time 💌 🛨	Part Name 👻 🛓 Serial Number 👻 🛓	Revision Number 👻
		1
Separator		
厂 Use 4 Digits Counter		
C OM File Neme Pule		

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.

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With the enabled checkbox "Keep always local file in

"Application\TempData\Save\ folder" the converter will always create a local copy of the Q-DAS ASCII file. This make sense if the target folder is on a server.

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 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:

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Example 1:

	COMM	IENT/RE Comme, Comme,	PT,Comm ent for Y-A ent for Z-A	nent for X Axis Axis	-Axis			
		,Comme	ent for D-A	Axis				
	MOVE	/CLEARI	PLANE					
DIM 1	= LOCA	TION OF	CIRCLE	KREIS1	UNITS=I	N ,\$		
GRAF	PH=OFF	TEXT=0	OFF MUL	T=10.00	OUTPU	T=BOTH		
AX N	IOMINA	L +TO	L -TO	L ME	AS M	1AX N	/IN DEV	
Х	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	INSION	1					

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

Example 2:

	COMM	/ENT/RE	PT,Comn	nent for X	(-Axis			
		,Comm	ent for Y-A	Axis				
		.Comm	ent for Z-A	Axis				
		Comm	ent for the	D-Axis				
DIM	1= LOCA		- CIRCLE	KREIS1	UNITS:	=IN .\$		
GR/	APH=OFF	TEXT=	OFF MUL	T=10.00	OUTPL	JT=BOTH		
AX	NOMINA	L +TO	L -TO	L ME	AS	MAX	MIN DEV	
Х	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#	
Ζ	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					

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

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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®
- 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.

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•	Q-DAS File structure
	The converter can create Q-DAS ASCII files in the following formats:
	a) DFQ
	b) DFD and DFX
	IMPORTANT: If you like to use Q-DAS Monitoring software, you
	must use DFD and DFX.

 Plausibilitätsgrenze unten and oben Here a factor is entered. Using this factor, the tolerance values and the nominal value the values for K2130 und K2131 will be calculated:

K2130 = Nominal + lower tolerance * lower factor K2131 = Nominal + upper tolerance * upper factor

• Fest Nachkommastellen If this check is enabled the converter will used the value for K2022 which is here defined. Otherwise the decimal precision command from the part program will be used.

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

Cancel Cancel will close the dialog without saving the values.

- Export Settings This button will save the settings in an external file (OutputFile_Settings.cfg) in the installation folder of the software. This file can be used for the configuration of a second systems or if you need to work with different 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.

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vanced Settings (Only for Q-DAS Experts)		
Characteristic Number Dimension ID + Axis letter Characteristcs Counter Ford rule (10 character point label)	Characteristic Name C Dimension ID + Axis letter + Feature ID'S C PC-DMIS Comment text Ford rule (10 character point label + Coord)	OK Cancel
Script für ftp - Upload ftp - Upload für Q-DAS Datei automatisch durchfi D:\Programmdaten\Visual Basic\FTP_Upload\FTPI	uhren Jpload vbs	
Q-DAS Catalog D:\Programme\PC-DMIS - Q-DAS Converter\Catalo;	gs\MyCatalog dfd	
Internal Catalog files for K1209, K2005, K2320, K240 D:\Programme\PC-DMIS - Q-DAS Converter\Catalo	11, K2402	
d: D:\ Programme P:-DMIS - Q-DAS Converter		
Catalogs		-

Please contact your statistical expert before changing these parameters.

The Script for ftp Upload will be used to transferring the file from the target folder to an ftp-Server.

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
TEMP FirstParts OTTO_2_3 PartOK PartOOT	
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.

Q-DAS Settings

Q-DAS Fie	ld Description	×
-Field Des	scription	
K0006	Batch number	ОК
K0007	Cavity number	Cancel
K0008	Operator name	Export Settings
K0009	Text	Import Settings
K0010	Machine number	
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.

Setup für	Q-DAS Keys		
Setup for K-Fiel	ds		×
Add. Data —			
▼ K0006	Chargennummer		OK
V K0007	Nestnummer		Cancel
🔽 K0008	Prüfername		
🔽 K0009	Text		
🔽 K0010	Maschinennummer		
🔽 K0011	Prozessparameter		
🔽 K0012	Prüfmittelnummer		
🔽 K0053	Auftrag		
Parts Data —		Characteristics D	Data
🔽 K1007	Part number short	▼ K2005	Characteristic Class
🔽 K1010	Control Item	🔽 K2320 🗸	Auftragsnummer
🔽 K1011	Variante	🔽 K2401	Prüfmittelnummer
🔽 K1053	Contract	🔽 K2402	Prüfmittelbezeichnun;
🔽 K1101	Department	🔽 K2404	Gage Resolution
🔽 K1203	Reason for Test		
🔽 K1303	Plant		
🔽 K1900	Remark		

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:

put Dialog for Q-L	DAS Data				
Events		Add. D	ata		
K0005 Events	M0400 Leaster off leasting (lease (4)	K0006	Batch number	#	OK
Lincoloct oll	MA100 Localer off location / loose (1)				
	MA120 Contaminated (chips/dirt/etc.) (3)	K0007	Cavity number		Delete Data
	MA140 Tool off location / loose (4)		- ·		
	MA150 Guide Worn / broken (5)	K0008	Operator name	▼	Caula Duannaia Data
	MA160 Insufficient lubrication (6)	100000	Test		Save Program Data
	MA170 Electrical fault (7)	Kuuus	Text	1	
	MA180 Computer malfunction (8)	K0010	Machine number	_	
	MA190 Pneumatic interruption (9)			·	
	MA200 Hydraulic low fluid / leak (10)	K0012	Gage number	▼	
	MA210 Librication failure (11)		-		
	MA220 Mechanical failure (12) MA230 Trapsfer sutomation failure (13)	K0053	Order		
	MA200 Transfer adjoination failure (13) MA240 Feed rate slow (fast (14)				
	MA250 Spondle speed not as specified (15)	Parts D	ata		
	MA260 Cycle time interruption (16)	K1007	Part number short		
	TL100 Tool worn / broken (17)				
	TL110 Tool Off location / loose (18)	K1010	Control Item		
	TL120 Incorrect setup on tool (19)				
	TL130 Wrong tool (20)	K1011	Variante		
	TL140 Manufactured wrong (21)				
	TL150 Poor installation (22)	K1053	Contract		
	TL160 Test tooling (23)				
	FL400 Description (24)	K1101	Department		
	FL100 Pressure insumcient) excessive (25)	K1202	Research for Test		
	FL120 Concentration - High (low (27)	R1203	riedsoff for rest	1	
	FL130 Concentration - Oily / dirty (28)	K1209	Inspection type		
	j. =				
K2060	0 Main Event Catalog	K1303	Plant		
Lise Catalog	1 Ereignis-Subkatalog 1				
	2 Ereignis-Subkatalog 2	K1900	Remark		
	3 Ereignis-Subkatalog 3				
	4 Maßnahmen-Subkatalog 4	Charac	teristos Data ———		
	10000 Malšnahmen	K2005	Characteristic Class		
	20000 Ursachen				
		K2320	Contract number		
(0011.0 Process Pr	arameter				
0011/0110003311	arameter	K2401	Gage number	▼	
,		K2402	Gage description	· · · ·	
ort Settions		K2404	Care Resolution		
ar oomigo		112404	oage nesolution	1	
Revvorked Par	rt				

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 $\boxed{\dots}$ button.

Configuration Dialog For Process Parameter		×
Process Parameter Catalog 0 Process Parameter Catalog		OK
Process Parameter 1. P1001 Process param. 1. PP1 2. P1002 Process param. 2. PP2 3. P1003 Process param. 3. PP3 4. P1004 Process param. 4. PP4 5. P1005 Process param. 5. PP5	Process Parameter Value 1 PvV001-1 Tool Parameter 1.1 2 PvV001-2 Tool Parameter 1.2 3 PvV001-3 Tool Parameter 1.3	
) K0011 Selected Process Parameter	411 1 3	

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 ?	
Global 070705 Mistral 100707 Scirocco 201209	2
<u>S</u>	>
	Zeile 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	~	Nomii
WINKEL1.A		Meas
RUNDH1.M		LIT-I
GERADH1.M		010
EBEN1.M		LTol
RECHTW1.M		Devia
V PARALI.M	=	Out o
SYM1.M		ouro
✓ 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

<u>Check OK Values</u>. 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.

Add. Q-DAS Data Dia	log for Characteristic 7	
K0005/7	MA100 Locater off location / loose (1)	ОК
Events	MA110 Clamp won / broken [2] MA120 Contaminated (chips/chi/stc.) (3) MA120 Contaminated (chips/chi/stc.) (3) MA120 Contaminated (chips/chi/stc.) (3) MA150 Guide V/on / broken (5) MA160 Insufficient lubrication (6) MA170 Electrical fault (7) MA180 Computer malfunction (8) MA190 Preumatic interruption (9) MA200 Hydraulic low fluid / leak (10) MA201 Bydraulic low fluid / leak (10) MA201 Hydraulic low fluid / leak (10) MA201 Bydraulic low fluid / leak (10) MA202 Hydraulic low fluid / leak (10) MA203 Bydraulic low fluid / leak (11) MA204 Fed rate slow / rats (14) MA205 Cyclic time interruption (16) TL100 Tool worn / broken (17) TL110 Tool (16) location / loose (18) TL130 V/ong tool (20) TL140 Manufactured wrong (21) TL150 Pointstallation (22) TL170 New tool [24) FL100 Pressure insufficient / excessive (25) FL100 Concentration - High / low (27) FL130 Concentration - High / low (28) FL140 Temperature - High / low (28) GA100 Part misloated / misgaged (30)	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 Miscelaneous 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 saves 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 💽 🔶 🖆 🥅 🕶	
	Catalogs Contraction PartData TempData PCDQDAS.exe	
External Command	log uninst.exe	
Please enter the path of the command to be executed:	Dateiname: PCDQDAS.exe Üįfnen	וכ
C No Display C No Wait Display C Wait OK	Dateityp: EXE Files (*.exe)	

PC-DMIS[™] dialogs for external commands

	HE	XA	GO	N
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External Command	
Please enter the path of the comman IS - Q-DAS CONVERTER\PCDQDA	d to be executed: S.EXE /A
Options: • No Display • No Wait	Cancel
C Display C Wait	ОК

The complete command is as follows:

EXTERNALCOMMAND/NO_DISPLAY, NO_WAIT ; C:\PROGRAMME\PC-DMIS - Q-DAS CONVERTER\PCDQDAS.EXE /A

Please note that there must be an empty character between the exe and the /.

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.

|--|

3.9. List of supported Q-DAS K fields

							_	_
Key	Description	PC-DMIS Header data	PC-DMIS Tracefield	PCD Comment Command	PC-DMIS other Commands	PC-DMIS Dimension comand	Converter User interface	System
K0001	Measured value			Connana	Commande	X		
K0002	Attribute					Marked		
K0004	Time / Date							Х
K0005	Event						Х	
K0006	Batch number		Х				Х	
K0007	Cavity number		Х				Х	
K0008	Operator name		Х				Х	
K0009	Text		Х				Х	
K0010	Machine number		Х				Х	
K0011	Process parameter						Х	
K0012	Gage number		Х				Х	
K0053	Order		Х				Х	
K0100	Number of characteristics							Х
	in file							
K1001	Part number	SERIENNR	Х					
K1002	Part description	WERKSTUCKSNAME	Х					
K1004	Part amendment status	VERSIONSNR	Х					
K1007	Part number short descr.		Х				Х	
K1008	Part type		Х					
K1009	Part code		Х					
K1010	Control item						Х	
K1011	Variant						Х	
K1014	Part ident		Х					
K1021	Manufacturer number		Х					
	text							
K1022	Manufacturer description		Х					
K1031	Material Number Text		X					
K1032	Material Number		Х					
1440.44	Description							
K1041	Drawing number text		X					
K1042	Drawing Amendment		X					
K1052	Contractor Description		X				X	
K1053	Contract		X				X	
K1061	Customer Number Text		X					
K1062	Customer Description		X					
K1072	Supplier Description		X					
K1081	Machine Number Text		X					
K1002	Machine Description		X					
K1085	Wachine Location		X X					
K1000	Work cycle / Operation		X					
K1007	Department		X				v	
K1101			X				^	
K1103	Shift		^ X					
K1104	Toot facility description		X					
K1202	Poscon for tost		X				v	
K1203			^				×	
K1209	Measurement type		Y				~	
K1222	Inspector name		× ×					
K1222	Measuring program		X					
11231	number		~					
K1232	Measuring program		X					
111202	version		~					
K1303	Plant		Х	1			х	
K1344	Test plan creator		X	1			~ ~	
K1802	User field type 1		X	1				
K1812	User field type 2		X	1				
K1822	User field type 3		X	1				
K1832	User field type 4		X	1				
K1842	User field type 5		X	1				
K1852	User field type 6		X	1		1		
K1860	User field description 7		X	1		1		
				1		1		

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Key	Description	PC-DMIS Header	PC-DMIS	PCD	PC-DMIS	PC-DMIS	Converter	System
		data	Tracefield	Comment	other	Dimension	User interface	
1// 0.00				Command	Commands	comand		
K1862	User field type 7		X				X	·
K1900	Remark						X	
K2001	Characteristic number		X			X		Ifd. Nr.*
K2002	Characteristic description			Type: Protocol**		Х		
K2004	Characteristic type							Х
K2005	Characteristic class		Х				Х	
K2006	Control item		Х					
K2008	Group type							Х
K2022	Decimal places				Display			
					precission			I
					command or			I
					PC-DMIS			I
					registry value			<u> </u>
K2030	Group number							Х
K2031	Group element number							Х
K2060	Events catalog						immer 0	
K2061	Process parameter						immer 0	
	catalog							I
K2101	Nominal value					Х		I
K2110	Lower limit value							Х
K2111	Upper limit value							Х
K2112	Lower allowance					Х		I
K2113	Upper allowance					Х		I
K2120	Lower limit type							Х
K2121	Upper limit type							Х
K2130	Lower Plausibility Limit					Х		Х
K2131	Upper Plausibility Limit					Х		Х
K2142	Unit					Х		
K2203	Karosseriemodus		Х					
K2320	Contract number		Х				Х	
K2401	Gage number text		Х				Х	
K2402	Gage description		Х				Х	
K2404	Gage resolution						Х	
K2434	Proof of process		Х					
	capability							I
K2900	Remark			Type:				
K8500	Subgroup size (total)	<u> </u>	v	FIOLOCOI				[
K0500	Subgroup size (ioial)		^ 					
* Eucla	Subgroup type	ntrog DimonsionNumber	1 (Stondord)	int 0)				
** Funk	tion nur mit Registrierungsei	intrag DimensionName =	= - (Standardwert	t ()				

Number of supported key fields: 90

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List of supported dimension types in PC-DMIS[™] 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_PERPENDICULARITY DIMENSION_PROFILE DIMENSION_ROUNDNESS DIMENSION_RUNOUT DIMENSION_STRAIGHTNESS DIMENSION_SYMMETRY DIMENSION_PROFILE_LINE DIMENSION PROFILE SURFACE Feature Control Frames

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3.10. Examples

Use of the converter in a looped part program:

```
PART NAME : Q-DAS Example with Loop
REV NUMBER : 1
SER NUMBER : 1
STATS COUNT : 1
START
          =ALIGNMENT/START,RECALL:,LIST=YES
           ALIGNMENT/END
           MODE / MANUAL
           PREHIT/ 4
           RETRACT/ 4
           MOVESPEED/ 200
           TOUCHSPEED/ 4
           MANRETRACT/2.5
           FORMAT/TEXT, OPTIONS, , HEADINGS, SYMBOLS, ; NOM, TOL, MEAS, DEV, OUTTOL, ,
           LOADPROBE/PH10 1
           TIP/T1A0B0, SHANKIJK=0, 0, 1, ANGLE=0
           MODE/DCC
$$ NO.+-----
                      _____
    , | Insert Loop
     , Remove LOOP ID's
     . +-----
                                  LOOP1 =LOOP/START, ID = NO, NUMBER = 10, START = 1, SKIP =
             OFFSET: XAXIS = 0, YAXIS = 0, ZAXIS = 0, ANGLE = 0
          ASSIGN/V1 = LOOP1
$$ NO,+-----
                                 _____
     , | Start Q-DAS Converter
     ,+-----
     ,
           EXTERNALCOMMAND/NO_DISPLAY, NO_WAIT ; D:\PROGRAMME\PC-DMIS - Q-DAS
CONVERTER\PCDODAS.EXE /i
$$ NO,+-----
                     -----+
     , |Insert a 3 sec. break will stop the part program until the converter is really started
     , + -
     ,
           EXTERNALCOMMAND/NO_DISPLAY, WAIT ; D:\PROGRAMMDATEN\VISUAL
BASIC\PAUSEIMPROGRAMM\PAUSEIMPROGRAMM.EXE /3
$$ NO,+-----
                                                   _____
     , | TRACEFIELD command with name "QDAS"
     , Value "1" will enable the event control for the converter
             ____
                      _____
                                                             _____
           TRACEFIELD/NO_DISPLAY,LIMIT=1 ; QDAS : 1
PNT1
          =FEAT/CONTACT/VECTOR POINT, CARTESIAN
           THEO/<41,82,0>,<0,0,1>
           ACTL/<41,82,0>,<0,0,1>
           TARG/<41,82,0>,<0,0,1>
           SHOW ADVANCED MEASUREMENT OPTIONS=NO
           SHOW CONTACT PARAMETERS=YES
             AVOIDANCE MOVE=NO, DISTANCE=45
             SHOWHITS=NO
DIM LOC1= LOCATION OF POINT PNT1 UNITS=MM ,$

      GRAPH=OFF
      TEXT=OFF
      MULT=10.00
      OUTPUT=BOTH

      AX
      NOMINAL
      +TOL
      -TOL
      MEAS
      DEV

      X
      41.000
      0.010
      -0.010
      41.000
      0.000

      Y
      82.000
      0.010
      -0.010
      82.000
      0.000

      Z
      0.000
      0.010
      -0.010
      0.000
      0.000

      T
      0.000
      0.010
      -0.010
      0.000
      0.000

                                                 DEV OUTTOL
                                                         0.000 ---#----
0.000 ---#----
0.000 ---#----
                                                0.000
                                                          0.000 ---#----
END OF DIMENSION LOC1
$$ NO,+-----
                                                   -----
     , | TRACEFIELD command with name "QDAS"
     , | Value "E" will end the Q-DAS Converter
     ,+-----
     ,
           TRACEFIELD/NO_DISPLAY,LIMIT=1 ; QDAS : E
$$ NO,+----
     , End Loop
     ,+-----
                                  _____
     ,
           LOOP/END
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