

APPLICATION TIP MARWIN

THE SCANNED GRAPHIC CODE AUTOMATICALLY STARTS THE CORRESPONDING MEASUREMENT PROGRAM. PROTOCOL ENTRIES ARE AUTOMATICALLY SET.

Convenient, reliable and fast data entry with laser scanner or RFID to start the correct measuring program as well as for logging and data export.



This is what we mean by **EXACTLY**.

Fast and convenient program start with a scanner



Start measuring programs easily, quickly and conveniently with a laser scanner

With MarWin measuring stations from the areas MarSurf, MarForm and MarShaft, measuring programs can be started easily and conveniently by scanning the DMC code. In addition, the information contained in the code can be used for logging or exporting data. Component information is imported, virtually eliminating errors in the log and export data. The operator only has to scan in the data of the component to be tested and the associated measuring program is simultaneously started. It couldn't be easier or more convenient.

Reading the workpiece-specific data with an RFID scanner

The data of the workpiece to be tested can also be read with an RFID scanner. In this case, **the RFID scanner** receives the signals that are sent by the RFID transponder.

Scanning other graphic codes

Other graphic code formats such as bar code, QR code, etc. can of course also be scanned.

Image 1: Start the scan of the DMC code

| | | | | and a second second |
|---|-----------|------------|---------|---------------------|
| ٢ | Karl-Jose | ef Gödecke | 9007-63 | |
| | Max | Mustermann | 8008-64 | |
| | Theo | Tester | 7007-36 | |
| | Carl | Mahr | A018-61 | |
| | Eva | Riese | 6012-69 | |
| | | | | |



Image 2: Printout of name, personnel number and DMC code

Image 3: Prompt to scan operator's name

Graphic code of operator names with personnel numbers

The strings of these DMC codes in this example are printed on a sheet of paper along with their contents in ASCII. They include the first name, tab, last name, tab and the personnel number. In the graphics, however, the tabs are invisible. The DMC codes can be generated in the Internet or with separate programs.

Reading the workpiece-specific data makes testing easier, faster and more reliable

By reading the data, the operator is relieved because he no longer has to check where and what information must be entered, and which measuring program is the right one for this component, and which features must be checked at all. Which program is needed for this processing state and the associated tolerances? The operator is relieved of these questions and decisions by scanning the data. Testing processes are thus faster, more reliable and more economical.

After a brief instruction, the operating personnel is able to scan in the graphic codes and thus start the correct measuring program. (Images 1 and 2)

It couldn't be easier!

Fast and convenient program start with a scanner



Image 4: Prompt to scan the workpiece DMC code



Reading the workpiece-specific data and starting the Quick&Easy program

After reading in the DMC code of the operator name, the DMC code of the workpiece is scanned and compared with the string of the associated measurement program. Then the assigned measuring program is started automatically (Images 4 and 5).

In the event that no measuring program exists or has been assigned to the read string, the default settings are loaded.

Display of read data

The read data is displayed before the measurement in order to be able to enter additional information, Image 6.

Comprehensive documentation and automatically correctly entered protocol information

The data from the imported DMC codes are automatically transferred to the log header.

Image 5: The Quick&Easy measuring program starts with operating prompts

| Profile information | | | a × |
|---------------------------|------------------|--------------------------------------|------------------|
| Inspector | | Signature | |
| Karl-Josef Gödecke | | Personal-No.: 9007-63 | |
| Workpiece name | Drawing no. | Machining operation | |
| Shaft DL | 224-314.086 A1 | Operation: OP 080 | |
| Meas, record no., e.g. | | Department, e.g. | |
| Production line: PL - 7.4 | | Machine: ANT - 42 | |
| Machine no., e.g. | | Job no., e.g. | |
| Spindel: SP - 2 | <u>);;;;;;;;</u> | Production date: 13.07.2018 14:46:07 | <u>);;;;;;;</u> |
| Comment | | | |
| Department: Marketing | | | <u>];;;;;;;;</u> |
| | | Save | Cancel |

Image 6: Information read from the DMC code

MarWin DMC code for automatic program start and convenient data entry

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Automatically correctly entered protocol information



C:/Mahr/Users/Gödecke/QE/QE-Prog_224-314.086_A1_OP_080_Pos_27-30_EN.qer

Image 7: Evaluation and documentation of the contour measurement with the assigned Quick&Easy measuring program

Comprehensive documentation and automatically correctly entered protocol information

Data from the scanned DMC codes is automatically transferred to the log header. Incorrect or incomplete logging is thus excluded. The unambiguous traceability to the tested parts is reliably guaranteed.

| Options |
|---------------------------------|
| (User administration |
| Configure function key bar |
| O Configure qs-STAT export |
| 🕵 Configure measuring assistant |
| Configure graphical codes |

Image 8: The configuration of the graphic code is started in the "Options" menu

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Configuration of a graphic code with MarWin

For the information contained in the DMC code to be included in the log and in the data export, the following three steps must be carried out:

- Reading the DMC code,
 Separation of the character string into its individual information and definition of the names of the individual text fields
- Preparation of comparative texts and comparison samples and Assignment to the measuring programs to be started
- Assignment of the individual information fields to the protocol fields and export areas

The configuration of the graphic code is started in the "Options" menu (Image 8).

A new graphic code is created and the name of the dialog text to be displayed and the image to be displayed are entered.

Then the graphic code is scanned (Image 9).

Reading the DMC code

The description of the graphic code is made after scanning the DMC code of the operator's name (Image 2). The entire scanned character chain with the separators is shown, example code Figure 9.

Configuration of a graphic code with MarWin

| | | gn content to record fields | |
|----------|-----------------------------|---|-----------|
| ode name | Sample code | Element names | |
| perator | Karl-JosefGödecke9007-63 | First name;Name;Personal number; | New |
| | | | Delete |
| | | | Upwards |
| | | | Downwards |
| | Name | operator | |
| | Text in the scanning dialog | III Please scan name of operator III | |
| | Image in the scan dialog | C:\Mahr\Users\Gödecke\Scripts\Pictures\Mahr-BIFotolia_48209408_CheckMark1208x1573300dpiCMYK_400x480.jpg | |
| | Sample code | Karl-Josef Gödecke 9007-63 | Scan |
| | Separating pattern | ^(.*?) (.*?) (.*)\$ | Configure |
| | Element names | First name;Name;Personal number; | Naming |

Image 9: Description of the graphic code after scanning the DMC code of the operator name and the configuration

| Please sele | ect a sequence of cha | aracters as separ | ator, or | | | |
|--|--|-------------------|---------------------|-----|--------|--|
| | he cursor to define t | | e. | | | |
| Then click | the corresponding I | button. | | | | |
| | | | | | | |
| Karl-Josef | Gödecke 9007-6 | 3 | | | | |
| | Separator | | All separators | IKI | Range | |
| emove ele | ements | | | | | |
| | | de a marked eler | nent ({} or <>) and | | | |
| | te" to remove this e | | | | | |
| Dr click "D | elete all" to remove | all defined elem | ients. 💦 | | | |
| | | | 45 | | | |
| | | | | | | |
| | | | | | | |
| Karl-Josef | {}Gödecke{}9007-6 | 63 | | | | |
| Karl-Josef | {}Gödecke{} 9007-6 Delete | 63 | Delete all | | | |
| ۲ | | | Delete all | | | |
| () utput | Delete | | Delete all | | | |
| () utput | | | Delete all | | | |
| () utput Separated | Delete data preview: | 8 | Delete all | | | |
| wtput Separated | Delete | 8 | Delete all | | | |
| tutput Separated Karl-Jose | Delete data preview: | 1 | Delete all | | | |
| tutput Separated Karl-Jose | Delete data preview: f[Gödecke]9007-63 | 1 | Delete all | | | |
| witput Separated Karl-Jose Pattern us | Delete data preview: f[Gödecke]9007-63 | 1 | Delete all | | | |
| witput Separated Karl-Jose Pattern us | Delete data preview: f]Gödecke]9007-63 ed for separating th | 1 | Delete all | | | |
| Dutput Separated Karl-Jose Pattern us | Delete data preview: f]Gödecke]9007-63 ed for separating th | 1 | Delete all | | Cancel | |

Configuration of separating pattern

You can use single separators, all separators, or individual ranges for separating the data into its individual components. In addition, separators can also be deleted.

When the delimiters or areas are marked, a preview of the separated data is displayed immediately, so that you can be sure that the data blocks are extracted correctly (Image 10).

In this example of the DMC code in Image 2, tabs were used as separators.

Image 10: Configuration of the separating patter for the data of the graphic code with tabulator, TAB

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Configuration of a graphic code with MarWin

| Assign names to the single header fields later on. | e elements of the graphical code. This | will offer you a better overview when assigning the elements to the record |
|--|--|--|
| Elements and their names | for code 'operator' | ĺ₹ |
| Element number | Element content | Element name |
| 1 | Karl-Josef | First name |
| 2 | Gödecke | Name |
| 3 | 9007-63 | Personal number |
| | | |
| | | |
| • | | |
| Elemer | nt name First name | |
| | | OK Cancel |
| | | |

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Image 11: Name assignment for the elements of the code "operator"

Finally, the element names of the first graphic code are entered.

Configuration of a code for the part-specific information

| 🖞 Confi | igure grap | hical codes |
|---------|------------|-------------|
|---------|------------|-------------|

| Code name | e Sample code | Element names | |
|----------------------|---|---|-----------|
| operator DMC-1000 | Karl-JosefGödecke9007-63 224-314.086 A1\$Shaft Exp\$OP 080\$Pos 27-3 | First name;Name;Personal number; \$PL - 7.4\$ANT - 42\$\$P - 2\$16.07 Drawing number;Part name;Operation;Feature;Production line;Machine;Spindle;Production da | te: New |
| | | | Delete |
| | | | Upwards |
| | | | Downwards |
| | Name | MC-1000 | |
| | Text in the scanning dialog | | - |
| | | Please scan DMC code of the workpiece | |
| | | | - - |
| | Image in the scan dialog | \Mahr\Users\Gödecke\Scripts\Pictures\DMC-httpmahr.de.jpg | |
| | Sample code | 24-314.086 A1\$Shaft Exp\$OP 080\$Pos 27-30\$PL - 7.4\$ANT - 42\$SP - 2\$16.07.2018 15:04:51 | Scan |
| | Separating pattern | (.*?)\\$(.*?)\\$(.*?)\\$(.*?)\\$(.*?)\\$(.*?)\\$(.*?) | Configure |
| | Element names | rawing number;Part name;Operation;Feature;Production line;Machine;Spindle;Production date; | Naming |
| | | | |

Image 12: Configuration of the code of the workpieces (DMC-1000) with "\$" as separator

Structure of the graphic code of a workpiece

As a rule, the graphic code of a workpiece contains information such as drawing number, serial or batch number, workpiece name, production line, processing machine, spindle, sequence of operations, etc., to name but a few. This information is available as an alphanumeric string, which may be separated by separators. In some cases, fixed ranges, i.e. characters 1-12 for drawing number and characters 13-25 for the part name, are also available for the individual information.

In this example, the individual elements were separated with the separator "\$" (Images 12 and 13).

Configuring the separator pattern

| 2018 15:04:51 |
|---|
| Range |
| Configuring the separating pattern for graphical code data Define elements Please select a sequence of characters as separator, or position the cursor to define the end of a range. Then click the corresponding button. |
| 2 224-314.086 A1\$Shaft Exp\$OP 080\$Pos 27-30\$PL - 7.4\$ANT - 42\$SP - 2\$16.07.2018 15:04:51 Separator All separators |
| Remove elements |
| Please position the cursor inside a marked element ({} or <>) and click "Delete" to remove this element. Or click "Delete all" to remove all defined elements. |
| 224-314.086 A1{\$}Shaft Exp{\$}OP 080{\$}Pos 27-30{\$}PL - 7.4{\$}ANT - 42{\$}SP - 2{\$}16.07.2018 15:04:51 Operation Delete Delete Delete all |
| Output Separated data preview: |
| I224-314.086 A1 Shaft Exp OP 080 Pos 27-30 PL - 7.4 ANT - 42 SP - 2 16.07.2018 15:04:51 Pattern used for separating the data: |
| ^(*?)\\$(*?)\\$(*?)\\$(*?)\\$(*?)\\$(.*?)\\$(.*)\$ |
| OK Cancel |
| |

Assigning the element names

lapping names to single elements of the graphical code

Assign names to the single elements of the graphical code. This will offer you a better overview when assigning the elements to the record header fields later on.

Elements and their names for code 'DMC-1000'

| ent name |
|------------|
| |
| ame |
| ation |
| re |
| ction line |
| ne |
| le |
| ction date |
| |
| |
| OK Cancel |
| |

Image 14: Assignment of element names and the display of the scanned element contents

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Assigning comparison texts to the measuring programs

| | | E. | 1 | | | | 6 | | | |
|------------|---|---|--|---|---|---|--|--|----|--|
| . station | Measure | Meas, assistant | Switch to | Open | Save | Print | Options | Help | E | |
| | ical code Assign measuri | | ntent to record fields | | | | | | 1 | |
| Conditions | of full for full full starting are fin | | C-1000 Drawing-number(8 | 8 1)> <dmc-1000 partna< td=""><td>ame(8 2)><dmc-1000 ope< td=""><td>ration(8 3)><dmc-1000< td=""><td> Feature(8 4)></td><td></td><td>•</td></dmc-1000<></td></dmc-1000 ope<></td></dmc-1000 partna<> | ame(8 2)> <dmc-1000 ope< td=""><td>ration(8 3)><dmc-1000< td=""><td> Feature(8 4)></td><td></td><td>•</td></dmc-1000<></td></dmc-1000 ope<> | ration(8 3)> <dmc-1000< td=""><td> Feature(8 4)></td><td></td><td>•</td></dmc-1000<> | Feature(8 4)> | | • | |
| Comparis | | | ring program to be started | | | | | | | |
| | 086 A1Shaft DLOP 080Pos 086 A1Shaft TOLOP 080Po | | nr\Users\Gödecke\QE\QE- | | DP_080_Pos_27-30.qer DP_080-TOL_Pos_27-30.qer | | | New | 1 | |
| 101-454.0 | | | | | | | | | | |
| | 101-454.034 A1ShaftOP 090Pos 1-4 C:\Mahr\Users\Gödecke\QE\QE-Prog_101-454.034_A1_OP_090_Pos_1-4.qer 101-454.100 A1ShaftOP 140Pos 1-4 C:\Mahr\Users\Gödecke\QE\QE-Prog_101-454.134_A1_OP_140_Pos_1-4.qer | | | | | | | | | |
| | | | | | | MC 1000 | | Delete | | |
| | 086 A1Shaft ExpOP 080Pos | s 27-30 C:\Mał | | -Prog_224-314.086_A1_0 | DP_080-EXP_Pos_27-30D | MC-1000.qer | | Upward | | |
| 224-314.0 | 086 A1Shaft ExpOP 080Pos | s 27-30 C:\Mał | nr\Users\Gödecke\QE\QE- | -Prog_224-314.086_A1_0 | DP_080-EXP_Pos_27-30D | MC-1000.qer | | Upward | ls | |
| 224-314.0 | 086 A1Shaft ExpOP 080Pos | s 27-30 C:\Mai C:\Mai | nr\Users\Gödecke\QE\QE nr\Users\Gödecke\QE\Star | -Prog_224-314.086_A1_(ndard-meas-program_LT | DP_080-EXP_Pos_27-30D | MC-1000.qer | | | ls | |
| 224-314.0 | 086 A1Shaft ExpOP 080Pos | s 27-30 C:\Mai C:\Mai | nr\Users\Gödecke\QE\QE- | -Prog_224-314.086_A1_(ndard-meas-program_LT | DP_080-EXP_Pos_27-30D | MC-1000.qer | | Upward | ls | |
| 224-314.0 | 086 A1Shaft ExpOP 080Pos | s 27-30 C:\Mai C:\Mai Sample content 224-: | nr\Users\Gödecke\QE\QE nr\Users\Gödecke\QE\Star 314.086 A1Shaft ExpOP 0 | -Prog_224-314.086_A1_(ndard-meas-program_LT 80Pos 27-30 | DP_080-EXP_Pos_27-30D | MC-1000.qer | | Upward | ls | |
| 224-314.0 | 086 A1Shaft ExpOP 080Pos etting | s 27-30 C:\Mal C:\Mal Sample content 224-: Comparison text 224-: | nr/Users/Gödecke/QE/QE- nr/Users/Gödecke/QE/Star 314.086 A1Shaft ExpOP 08 314.086 A1Shaft DLOP 08 | -Prog_224-314.086_A1_(ndard-meas-program_LT 180Pos 27-30 | DP_080-EXP_Pos_27-30D _50mm.qe | xt which has to comply | with the evaluated for | Upward Downwar | ls | |
| 224-314.0 | 086 A1Shaft ExpOP 080Pos etting | s 27-30 C:\Mal C:\Mal Sample content 224-: Comparison text 224-: | nr/Users/Gödecke/QE/QE- nr/Users/Gödecke/QE/Star 314.086 A1Shaft ExpOP 08 314.086 A1Shaft DLOP 08 | -Prog_224-314.086_A1_(ndard-meas-program_LT 180Pos 27-30 | DP_080-EXP_Pos_27-30_D _50mm.qe | xt which has to comply se e.g. the sample cont | ent from the previous in | Upward Downwar | ls | |
| 224-314.0 | 086 A1Shaft ExpOP 080Pos etting | s 27-30 C:\Mal C:\Mal Sample content 224-: Comparison text 224-: | nr/Users/Gödecke/QE/QE- nr/Users/Gödecke/QE/Star 314.086 A1Shaft ExpOP 08 314.086 A1Shaft DLOP 08 | -Prog_224-314.086_A1_(ndard-meas-program_LT 180Pos 27-30 | DP_080-EXP_Pos_27-30_D _50mm.qe | xt which has to comply se e.g. the sample cont | with the evaluated for ent from the previous in ram selected in the next | Upward Downwar | ls | |
| 224-314.0 | 086 A1Shaft ExpOP 080Pos etting | s 27-30 C:\Mal C:\Mal Sample content 224-: Comparison text 224-: | nr/Users/Gödecke/QE/QE- nr/Users/Gödecke/QE/Star 314.086 A1Shaft ExpOP 08 314.086 A1Shaft DLOP 08 | -Prog_224-314.086_A1_(ndard-meas-program_LT 180Pos 27-30 | DP_080-EXP_Pos_27-30_D _50mm.qe | xt which has to comply se e.g. the sample cont | ent from the previous in | Upward Downwar | ls | |
| 224-314.0 | 086 A1Shaft ExpOP 080Pos etting | s 27-30 C:\Mal C:\Mal Sample content 224-: Comparison text 224-: | nr/Users/Gödecke/QE/QE- nr/Users/Gödecke/QE/Star 314.086 A1Shaft ExpOP 08 314.086 A1Shaft DLOP 08 | -Prog_224-314.086_A1_(ndard-meas-program_LT 180Pos 27-30 | DP_080-EXP_Pos_27-30_D _50mm.qe | xt which has to comply se e.g. the sample cont | ent from the previous in | Upward Downwar | ls | |
| 224-314.0 | 086 A1Shaft ExpOP 080Pos etting | s 27-30 C:\Mal C:\Mal Sample content 224-: Comparison text 224-: | nr/Users/Gödecke/QE/QE- nr/Users/Gödecke/QE/Star 314.086 A1Shaft ExpOP 08 314.086 A1Shaft DLOP 08 | -Prog_224-314.086_A1_(ndard-meas-program_LT 180Pos 27-30 | DP_080-EXP_Pos_27-30_D _50mm.qe | xt which has to comply se e.g. the sample cont | ent from the previous in | Upward Downwar | ls | |
| 224-314.0 | 086 A1Shaft ExpOP 080Pos etting | s 27-30 C:\Mal C:\Mal Sample content 224-: Comparison text 224-: | nr/Users/Gödecke/QE/QE- nr/Users/Gödecke/QE/Star 314.086 A1Shaft ExpOP 08 314.086 A1Shaft DLOP 08 | -Prog_224-314.086_A1_(ndard-meas-program_LT 180Pos 27-30 | DP_080-EXP_Pos_27-30_D _50mm.qe | xt which has to comply se e.g. the sample cont | ent from the previous in | Upward Downwar | ls | |
| 224-314.0 | 086 A1Shaft ExpOP 080Pos etting | s 27-30 C:\Mal C:\Mal Sample content 224-: Comparison text 224-: | n/Users/Gödecke/QE/QE n/Users/Gödecke/QE/Stat 314.086 A1Shaft ExpOP 0 314.086 A1Shaft DLOP 08 ahr/Users/Gödecke/QE/Q | -Prog_224-314.086_A1_(ndard-meas-program_LT 180Pos 27-30 | DP_080-EXP_Pos_27-30_D _50mm.qe | xt which has to comply se e.g. the sample cont | ent from the previous in | Upward Downwar | ls | |
| 224-314.0 | 086 A1Shaft ExpOP 080Pos etting | s 27-30 C:\Mal C:\Mal Sample content 224-: Comparison text 224-: | n/Users/Gödecke/QE/QE n/Users/Gödecke/QE/Stat 314.086 A1Shaft ExpOP 0 314.086 A1Shaft DLOP 08 ahr/Users/Gödecke/QE/Q | Prog_224-314.086_A1_ ndard-meas-program_LT 80Pos 27-30 80Pos 27-30 E-Prog_224-314.086_A1 | DP_080-EXP_Pos_27-30_D _50mm.qe | xt which has to comply se e.g. the sample cont rt the measuring prog | ent from the previous in | Upward Downwar mation rule put box) in order to input box. | ls | |
| 224-314.0 | 086 A1Shaft ExpOP 080Pos etting | s 27-30 C:\Mal C:\Mal Sample content 224-: Comparison text 224-: | n/Users/Gödecke/QE/QE n/Users/Gödecke/QE/Stat 314.086 A1Shaft ExpOP 0 314.086 A1Shaft DLOP 08 ahr/Users/Gödecke/QE/Q | Prog_224-314.086_A1_ ndard-meas-program_LT 80Pos 27-30 80Pos 27-30 E-Prog_224-314.086_A1 | DP_080-EXP_Pos_27-30_D _50mm.qe | xt which has to comply se e.g. the sample cont rt the measuring prog | ent from the previous in ram selected in the next | Upward Downwar mation rule put box) in order to input box. | ls | |

Image 15: Assignment of the comparison texts to the measuring programs to be started

Rule for forming the identification of the measuring program

In this example, the rule for forming the identification of the measuring program is comprised of

Drawing number - Workpiece name - Machining operation - Features

This information is read out of the DMC code and compared with the comparison text of the workpiece. If the four pieces of information are identical, then the corresponding measuring program is started. If no comparison text matches the scanned information, then the default settings are loaded and, for example, a manual measurement performed or only a note displayed, according to the programmed standard program.

| as. station | | assistant | Switch to | Open | Save | Print | Options | Help | • Ba |
|----------------------------------|-------------------------------|--------------|---|--------------------|------|----------|-------------|---|----------------------------|
| | Configure grap | | | | | | | | |
| scribe graphical Meas. record | code Assign measuring program | Assign cont | ent to record fields | | | | | | |
| meas. record | Title, 1st li | e Mahr Gmb | H | | | | | | |
| | Title, 2nd li | e Carl-Mahr- | Str. 1 | | | | | | • |
| | Title, 3rd li | e D 37073 0 | Goettingen | | | | | | |
| | Company lo | 0 | | | | | | | |
| Profile informati | | | | | | | | | |
| | Inspect | | First name(10 1)> <ope< td=""><td></td><td></td><td></td><td></td><td></td><td></td></ope<> | | | | | | |
| | | | <operator personal-nur<="" td="" =""><td>mber(10 3)></td><td></td><td></td><td></td><td></td><td></td></operator> | mber(10 3)> | | | | | |
| | Workpiece nar | | 0 Partname(8 2)> | | | | | | |
| | Drawing r | | 0 Drawing-number(8 1) | | | | | | • • |
| | Machining operati | | <dmc-1000 operation(< td=""><td></td><td></td><td></td><td></td><td></td><td></td></dmc-1000 operation(<> | | | | | | |
| | Meas. record no., e | | | duction line(8 5)> | | | | operator DMC-1000 | Drawing-number |
| | Department, e | | <dmc-1000 machine DMC-1000 Spindel(8 7)></dmc-1000 machine | | | | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | Partname Operation |
| | Machine no., e | | | | | | | | Feature |
| | Job no., e | | e: <dmc-1000 productio< td=""><td>on date(8 8)></td><td></td><td></td><td></td><td></td><td>Production line Machine</td></dmc-1000 productio<> | on date(8 8)> | | | | | Production line Machine |
| | Comme | | nt: Marketing | | | | | | Spindel |
| | | | | ✓ OK | | X Cancel | | I Help | Production date |
| | | | | | | | PCV 175-M/8 | mm 6479/13 Meas. force: 0.0 | 010 [N] User: Gödeck |
| 1 | ₩12_/ | | 1 | 1 | | 1 | 1 | 1 | , Julian Doubles |

Image 16: Assignment of the element names to the protocol fields

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Assignment of the individual elements to the protocol fields

The contents of the individual protocol fields are defined under the *Assign protocol fields* tab. The element names previously defined in the two example codes "Inspector" and "DMC-1000" can now be selected and assigned to the protocol fields (Image 16).

Several elements such as, for example, in the field Inspector "<operator | First Name (10 | 1)> <operator | Name (10 | 2)>" as well as constant texts and element names like in the protocol field, e.g. Machine no. "Spindle: <DMC-1000 | Spindle (8 | 7)>" can be contained in one protocol field.

Export of the measurement results with Option ContourPlus

| | Operating sequence Settings | ? | | | | | | | |
|-----------------------|-----------------------------|-------------------------|--------------------------|-------------------------------|----------------------|-------------------------------|-------------------------------|----------------------------------|------------------|
| Meas. station | Measure | Meas. assistant | Switch to | Open | Save | Print | Options | ? Help | ⇒∬ Ext |
| aluation Elements | Results Operat | ing sequence Mea | is. record Record p | preview Export | | | | | |
| Export path | | | <part_name>_</part_name> | _ <drawing_no></drawing_no> | _ <date><</date> | TIME> <text_4></text_4> | | | |
| Confirm before export | | | On | | | | | | |
| Measuring resu | ults export | | | | | | | | |
| Perform expo | | | On | | | | | | |
| Export type | | | CSV file | | | | | | |
| Export file | | | Export_KJG.txt | | | | | | |
| | | | Append | | | | | | - |
| Automatic profi | le export | | | | | | | | |
| Perform expor | rt | | Off | | | | | | |
| Export file | | | | | | | | | |
| Automatic resu | Its export | | | | | | | | |
| Perform export | rt | | On | | | | | | |
| Export file | | | <part_name>_</part_name> | _ <drawing_no></drawing_no> | _ <date>_<</date> | TIME> <text_4></text_4> | | | |
| Automatic mea | suring record e | xport as PDF | | | | | | | |
| Perform expor | rt | | Off | | | | | | |
| Export file | | | | | | | | | |
| | | | | | | | PCV 175-M/8 | mm 6479/13 Meas. force: 0.010 [h | I) User: Gödecke |
| | | mt2_AcceptKN100 (F5) | Startposition (F6) | Gewindestift-Witte_1x (F7) | Reference | Welle_Messass_Level-2 (F9) | Erfolgswelle_1-1_KJG (F10) | (F11) | Shaft 17-07-14 |

Image 17: Data export with automatically generated data name and paths

As already described for the protocol fields, the export path and the export file can be generated dynamically from the contents of the protocol fields and constant texts by the program, so that a one-to-one allocation of the measurement results is guaranteed. MarWin EasyContour requires the option ContourPlus.

Depending on the existing option, the export of the measurement results takes place as a text file, CSV file or QS-STAT file. In any case, before the export, a request may be displayed as to whether the results should be exported or not. This is a great advantage for incorrect measurements or insufficiently cleaned components. Furthermore, it can be specified whether the measurement results should be attached to the next measurement or a new file should be created.

| Baft_101-454.100 A1_2018_09_25_12-26-25_Production date_14.07.2018 07_12_45 | | | | | | | | | | |
|---|---|--|------------------|-------------|--------|--|--|--|--|--|
| Computer - System (C:) - Mahr - Users - Gödecke - Export - Shaft_101-454.100 A1_2018_09_25_12-26-25_Production date_14.07.2018 07_12_45 | | | | | | | | | | |
| Organisieren 🔻 🧻 Öffnen 🔻 Druken Brennen Neuer Ordner | | | | | | | | | | |
| 🖟 Gödecke | | Name ^ | Änderungsdatum | Тур | Größe | | | | | |
| 퉬 data | | Export_KJG.txt | 25.09.2018 12:26 | Textdokumer | nt 1KB | | | | | |
| DMC-Code | | | | | | | | | | |
| Evaluations | | Shaft 101-454.100 A1 2018_09_25 12-26-25 Production date 14.07.2018 07_12_45.qep | 25.09.2018 12:26 | QEP-Datei | 140 KB | | | | | |
| 🍌 Export | | | | | | | | | | |
| MfM_Topographie | | | | | | | | | | |
| Profiles | • | | | | | | | | | |



Tip: Quick Info and tooltips are displayed in the profile information or protocol header fields when the mouse cursor hovers over a field (Images 6 and 15).

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Comprehensive and detailed help





Comprehensive help functions and directly displayed tooltips

Both the useful tooltips, which appear while holding the mouse pointer in a window area, as well as the comprehensive offline help contribute to the easy handling of the configuration of the graphical code. Without any programming knowledge, the company-specific data structure is displayed and after a short time you can conveniently read in your DMC codes or other graphics codes or RFID.

Reading the graphic codes with MarShaft and MarForm

Of course, due to the common software platform MarWin, graphic codes can also be scanned by all MarShaft and MarForm measuring stations. The **MarWin graphics code interpreter** decomposes the code into its individual components and then assigns them to the protocol fields and export areas. Thus, the procedure described here is almost identical and can be easily implemented with all MarWin measuring stations.

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Configuration of a graphic code with MarWin



Image 20: Scanning the DMC workpiece code and reading and transferring the information to the log

Tip: The application tip about creating custom logs can be found here:

https://www.mahr.com/en/Services/Production-metrology/Know-how/Application-Tips/General-Application-Tips/?ContentID=254434&Overview=0

Detailed information on the diverse measuring and evaluation strategies from industrial practice with our contour and surface measuring stations can be obtained from our Level 2 application training courses. Contact our Head of Application Engineering Mr. Nils Gößner Tel.: +49 (551) 7073-499 Nils.Goessner@mahr.de

This and other application tips and videos can be found at:

https://www.mahr.com/en/Services/Production-metrology/Know-how/Application-Tips/General-Application-Tips/?ContentID=254434&Overview=0

MarWin DMC code for automatic program start and convenient data entry

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DMC code automatically starts the corresponding measuring program KJG $\,$ V1.0 \mid 10.2018 $\,$