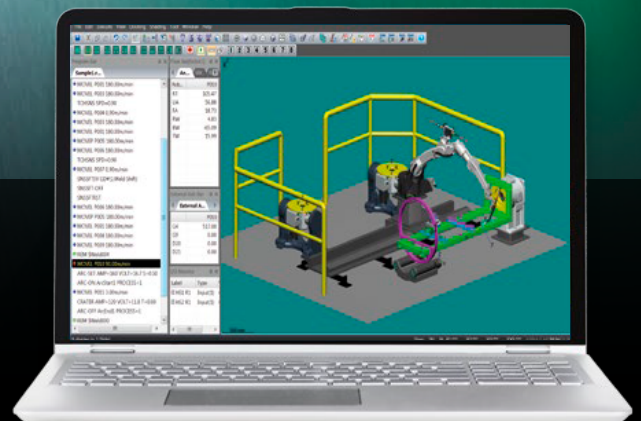




**SIMPLY WELDING.**

**PC SOFTWARE**

**FOR ROBOT AND WELDING  
SYSTEMS**





INCREASED PRODUCTIVITY  
THROUGH ON- & OFFLINE-ACCESS  
TO YOUR **ROBOTS.**

PC SOFTWARE  
FOR ROBOT AND WELDING SYSTEMS

YOUR  
WELDING SYSTEM  
IN THE  
PRODUCTION!

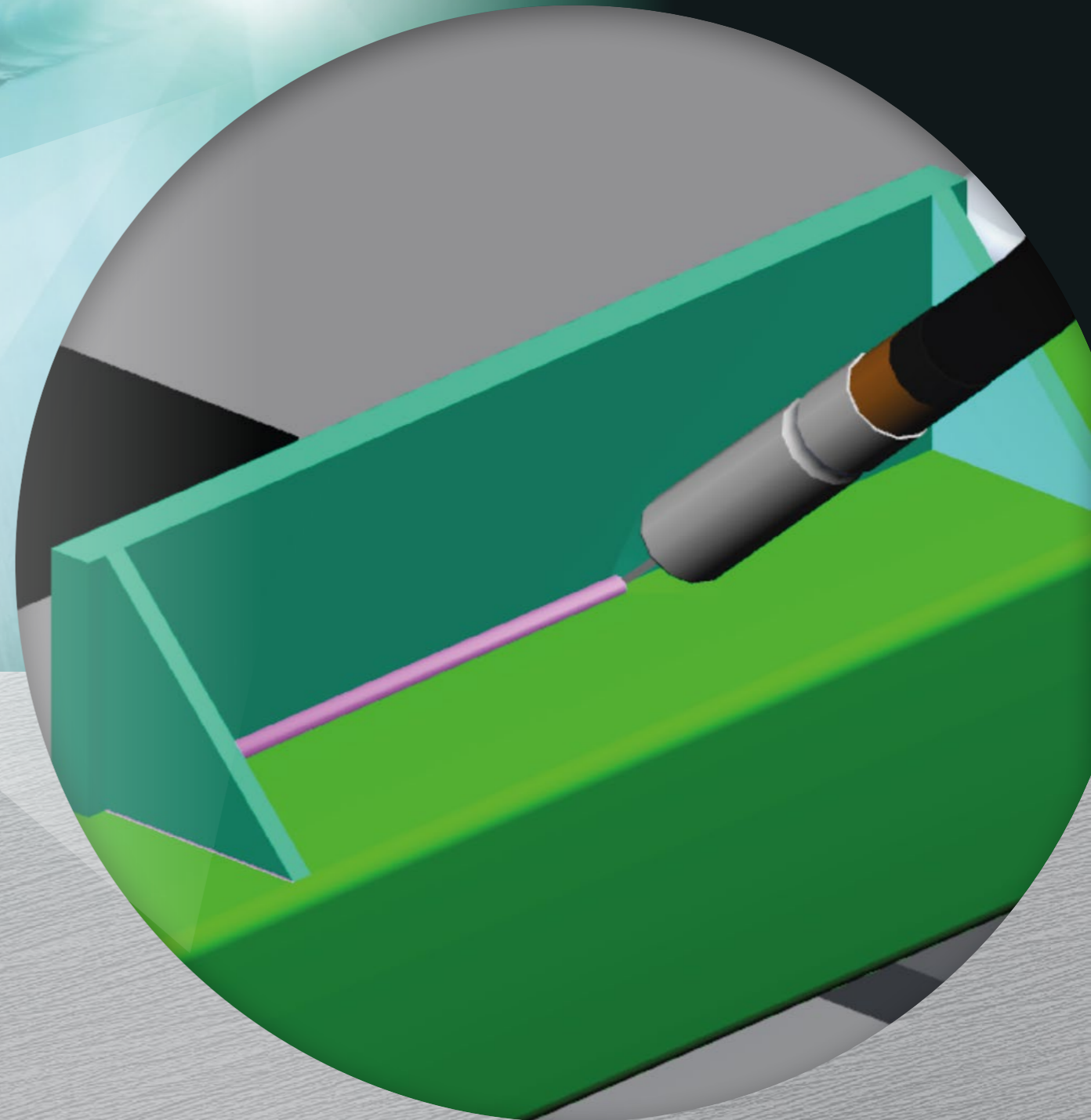
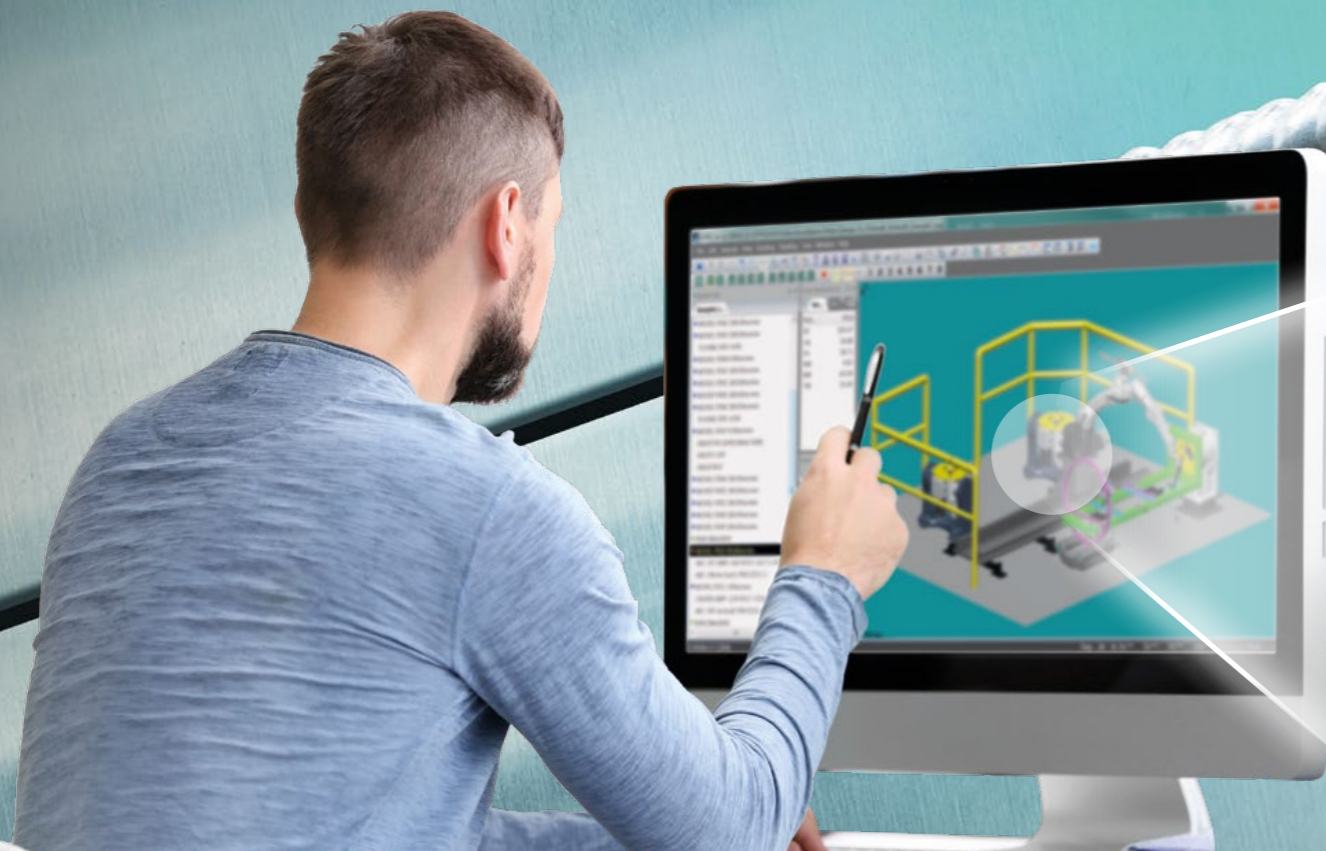


YOUR  
WELDING SYSTEM  
IN THE  
SIMULATION!



# » YOU REQUIRE **OFFLINE** PROGRAMMING OF YOUR ROBOTS? «

**DTPS**  
PART OF THE G2/G3 PC TOOL SOFTWARE



That's easy! With the Panasonic

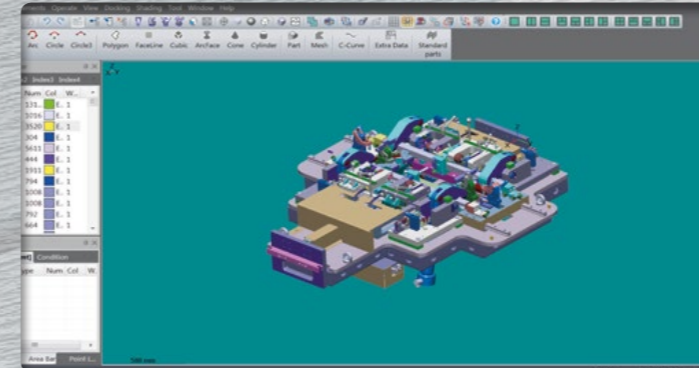
## **DTPS SOFTWARE.**

With DTPS, the Panasonic **Desk-Top Programming & Simulation System**, Panasonic robot programs can be created and edited offline. This makes it possible to run the robot program on the PC in simulation and optimise the robot movement with the corresponding welding parameters offline.



» YOU WOULD LIKE TO ORGANIZE YOUR PRODUCTION TO BE MORE PRODUCTIVE, SAFER AND EFFICIENT? USE **DTPS.** «

**DTPS**  
PART OF THE G2/G3 PC TOOL SOFTWARE

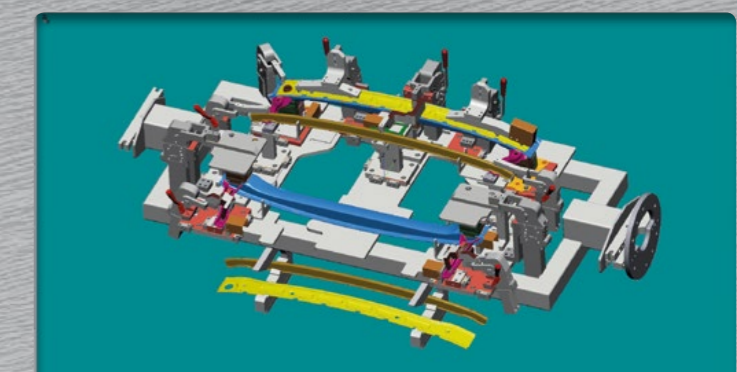
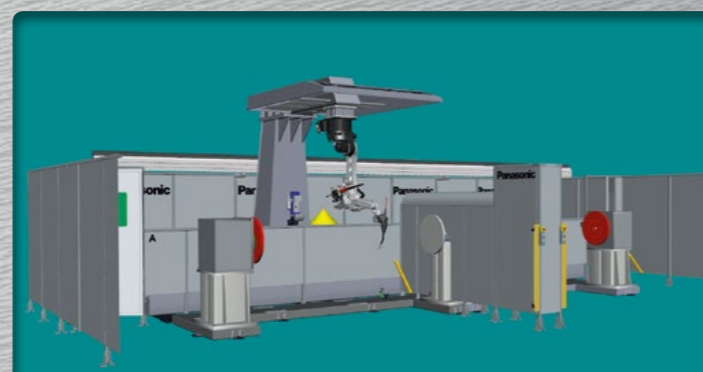
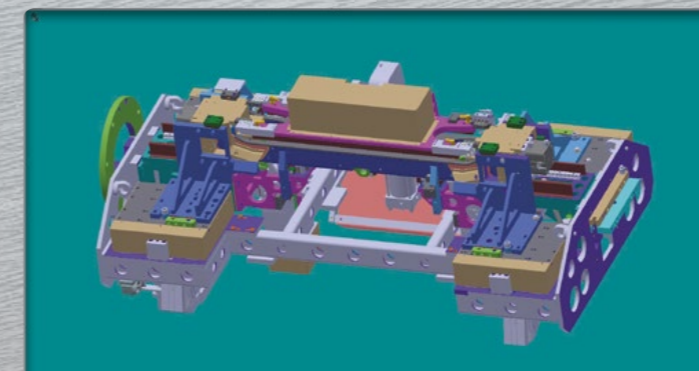
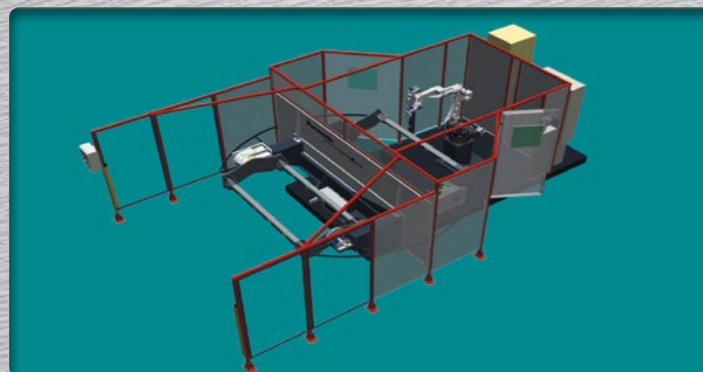


**IMPORT**

of external CAD data into the DTPS program is no problem!

**SYSTEM CONFIGURATION**

Layouts can be easily created from the work desk!



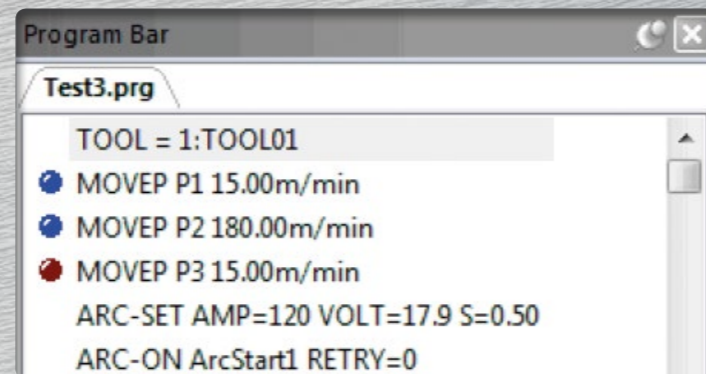


# HIGHER PRODUCTIVITY, SAFER, SMARTER. WITH **DTPS.**

**DTPS**  
PART OF THE G2/G3 PC TOOL SOFTWARE

## PROGRAM PRESENTATION

Offline programming as well as processing and optimization of existing programs? This software makes it possible!



## WELDING AND CYCLE TIME CALCULATION

Through this investigation an initial piece cost calculation and utilization analysis is possible.

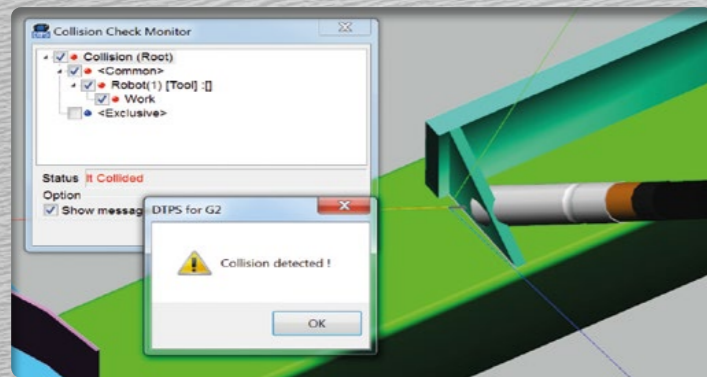
Step	1 - 1425
Total Time(sec)	477.024
Arc ON time(sec)	358.501
Arc ON rate(%)	75.2
Welding length(m)	1.700
Number of Welding Line	189
Wire Length(m)	9.788

Information of each step  Don't display no movement step

Step	Command	Distance(mm)	Time(s)
1	TOOL = 1:TOOL...	0.00	0.0
2	MOVEP P1 15.0...	0.00	0.0

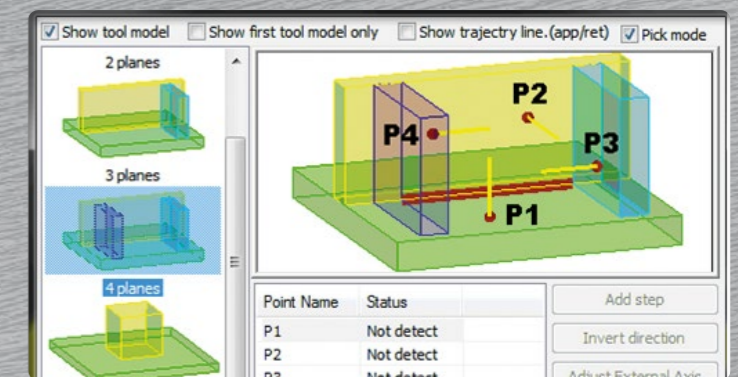
## COLLISION MONITORING

Jigs, tools and workpieces can be checked for accessibility and working area clearance.



## TEACHING NAVI

Supports you in the creation of an optimised motion sequence.





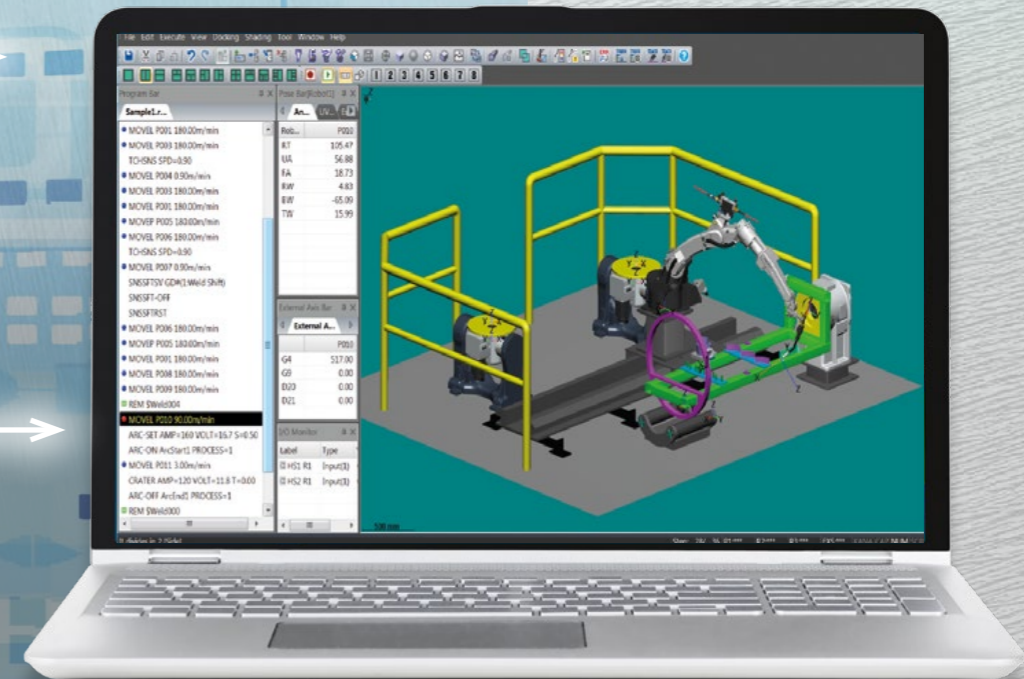
# TRANSFERRING PROGRAMS FROM THE PC TO THE CONTROLLER?

**PC EDITOR**  
**WITH THE AUTO RECEIVING FUNCTION**

Yes! With the Panasonic **PC EDITOR.**

With the PC Editor you can edit robot programs directly on the PC. Checks, adjustments and corrections of movement as well as process parameters are possible with this module.

ITEM COUNTER  
ERROR HISTORY  
WELDING PARAMETERS  
ROBOT PROGRAMS  
AND MUCH MORE



With the extra Auto Receiving Function you can automatically transfer back-ups from the robot controller to your computer per ethernet connection.

## BACK-UP TRANSFER



# » PROCESSING PROGRAMS AS TEXT FILES? «

TEXT CONVERTER  
PART OF THE G2/G3 PC TOOL SOFTWARE



PRINTING  
ROBOT  
PROGRAMS

```
PC Editor TXT - Editor
Datei Bearbeiten Format Ansicht ?
<< FILE INFORMATION >>
Robot      : TM1400(WGH3)
Comment    :
Sub Comment(1) :
Sub Comment(2) :
Mechanism  : 2(Robot.G5)
Creator (User-ID) : robot
Welder     : 1:TAWERS
User coordinates : None
Created    : 30.04.2017 07:31:23
Modified   : 10.05.2017 11:46:08
Origin Program : TEST
Program Edit : All enable

<< POSE DATA(S) >>
PO01 RT=0,000 UA=-25,000 FA=25,000 RW=0,001 BW=-120,000 TW=0,000 GS=16,600
PO02 X=257,976 Y=155,042 Z=517,913 U=-180,000 V=74,999 W=179,999 G5=16,600
PO03 X=674,613 Y=588,431 Z=84,290 U=-5,328 V=16,877 W=179,573 G5=82,345
PO04 X=624,374 Y=591,487 Z=248,846 U=-5,338 V=16,881 W=179,562 G5=82,345
PO05 X=674,926 Y=589,052 Z=85,680 U=-5,338 V=16,880 W=179,563 G5=107,015
PO06 X=674,947 Y=589,314 Z=84,720 U=-5,333 V=16,878 W=179,570 G5=134,437
PO07 X=661,170 Y=588,113 Z=129,672 U=-5,337 V=16,883 W=179,563 G5=134,437
PO08 RT=30,635 UA=37,883 FA=3,732 RW=-16,072 BW=-79,814 TW=150,648 G5=-211,183
PO09 X=674,816 Y=586,909 Z=85,574 U=-5,338 V=16,879 W=179,562 G5=-211,183

<< COMMAND(S) >>
<-> Begin of Program
TOOL = 1:524
(*) MOVEP GP#(2:BAZA B) 100,00m/min
(*) MOVEP PO02 160,00m/min
***-** **0001,160,00m/min
```

ARCHIVING ERROR  
MESSAGES IN  
PAPER FORM

```
TextConverterDataText - Editor
Datei Bearbeiten Format Ansicht ?
-----
Error history
No.      01
Date     10.05.2017 11:06:38
Content  E7001 collision detected
Sub information FA
Program  TEST
Position P015

No.      02
Date     10.05.2017 07:33:39
Content  E7001 collision detected
Sub information RW
Program  TEST
Position P036

No.      03
Date     10.05.2017 07:33:32
Content  E7001 Collision detected
Sub information Rv
Program  TEST
Position P036
```

Yes! Quite simply with the Panasonic  
**TEXT CONVERTER.**

With Text Converter, it is no longer a problem for you to create text files from robot programs and general system data. Such text files support you in archiving, documentation creation and analysis of programs in paper form.

Create the relevant data, e.g. the last error and alarm messages, in paper form to ease analysing optimum system utilisation.

Easy conversion back from text format to robot program format is also possible!



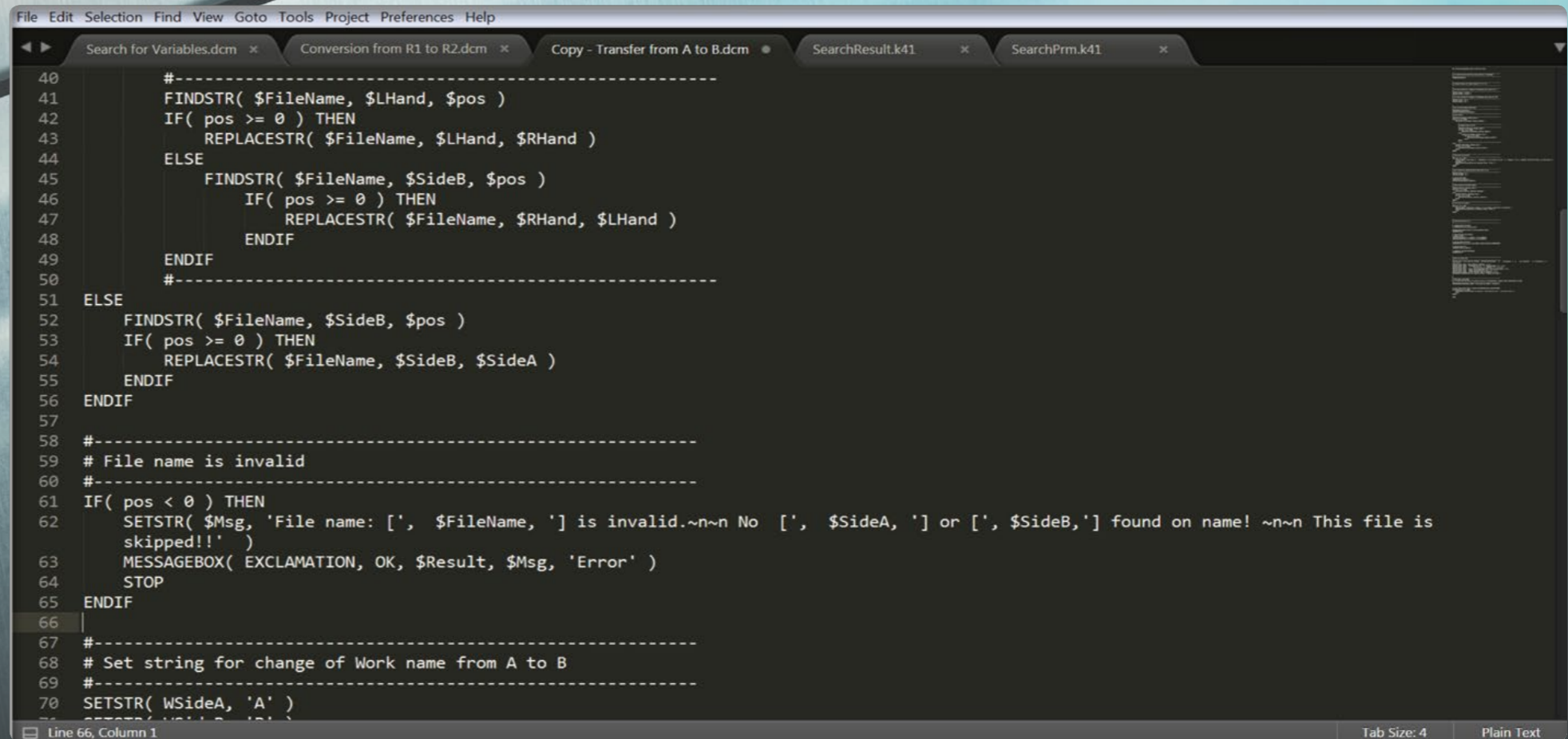
# » ADJUSTING SOFTWARE ACCORDING TO MY INDIVIDUAL REQUIREMENTS? «

**DTPS MACROS**  
PART OF THE G2/G3 PC TOOL SOFTWARE

No problem!  
With the Panasonic  
**MACROS.**

You can use the macros to program additional functions that are outside the software's default settings.

Adapt the software according to your individual and specific requirements. We guarantee the highest degree of flexibility in the application of this software!



```
File Edit Selection Find View Goto Tools Project Preferences Help
Search for Variables.dcm x Conversion from R1 to R2.dcm x Copy - Transfer from A to B.dcm SearchResult.k41 SearchPrm.k41
40 #-----
41 FINDSTR( $FileName, $LHand, $pos )
42 IF( pos >= 0 ) THEN
43   REPLACESTR( $FileName, $LHand, $RHand )
44 ELSE
45   FINDSTR( $FileName, $SideB, $pos )
46   IF( pos >= 0 ) THEN
47     REPLACESTR( $FileName, $RHand, $LHand )
48   ENDIF
49 ENDIF
50 #-----
51 ELSE
52   FINDSTR( $FileName, $SideB, $pos )
53   IF( pos >= 0 ) THEN
54     REPLACESTR( $FileName, $SideB, $SideA )
55   ENDIF
56 ENDIF
57
58 #-----
59 # File name is invalid
60 #-----
61 IF( pos < 0 ) THEN
62   SETSTR( $Msg, 'File name: [, $FileName, ] is invalid.~n~n No [, $SideA, ] or [, $SideB,] found on name! ~n~n This file is
63   skipped!!' )
64   MESSAGEBOX( EXCLAMATION, OK, $Result, $Msg, 'Error' )
65   STOP
66 ENDIF
67 #-----
68 # Set string for change of Work name from A to B
69 #-----
70 SETSTR( WSideA, 'A' )
```

Line 66, Column 1 Tab Size: 4 Plain Text



# » ONLINE PRODUCTION MONITORING IN **REAL TIME** WITH YOUR PC? «

**PRODUCTION MANAGEMENT FUNCTION**  
REAL-TIME MONITORING OF PRODUCTION

No problem.  
With the Panasonic

## PRODUCTION MANAGEMENT FUNCTION.

Do not leave anything to chance! Show the current welding parameters in wave form directly on your computer over remote access.

At the same time, you can display the utilisation status of your welding robots in production via Ethernet on your computer. The robot will be allocated and shown in various states of operation.

WELDING  
CONDITIONS

WELDING DATA  
IN WAVE FORM

ACTUAL VERSUS TARGET  
ACTIVITY PERFORMANCE  
COMPARISON

ROBOT POSITION



Additionally  
representable data:

- I / O status
- Running program
- Load utilization of the axes [Load Ratio]
- and much more ...



# » SIMULTANEOUS DISPLAY OF MULTIPLE ROBOTS ON THE PC? «

Robot No. 1:

**NORMAL  
OPERATION**



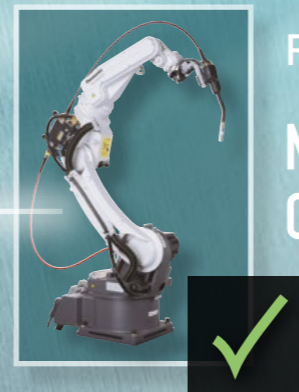
Robot No. 2:

**ERROR**



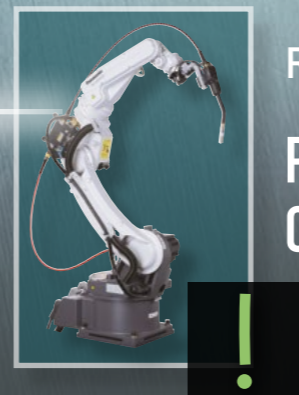
Robot No. 3:

**NORMAL  
OPERATION**



Robot No. 4:

**PROGRAM  
CORRECTION**



Absolutely, of course!  
With the Panasonic

**HAND PROGRAMMER  
REMOTE DISPLAY FUNCTION.**

Show the current display of the  
handheld programmer on the PC?

No problem! With the hand-held  
programming device remote  
display function, a real time remote  
monitoring function on your PC of  
the hand programmable device is  
possible. This allows you to control  
the robot status in real time.

But you want to observe multiple  
hand-held programmers  
simultaneously? This is also  
possible!



Tel.: +49(0)2131/60899-0

robots@eu.panasonic.com  
<https://eu.connect.panasonic.com/>