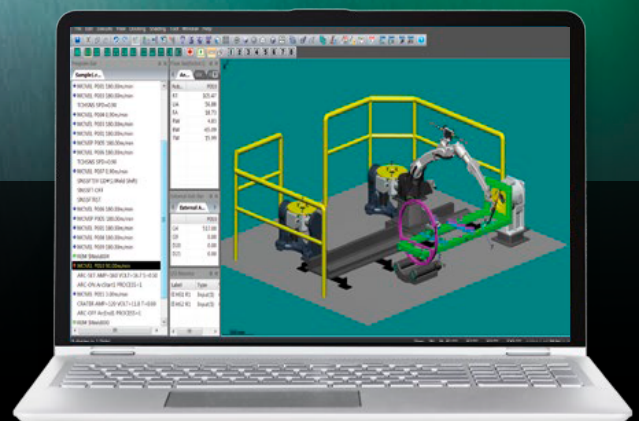


SIMPLY WELDING.

PC SOFTWARE

**FOR ROBOT AND WELDING
SYSTEMS**



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

PC SOFTWARE
FOR ROBOT AND WELDING SYSTEMS

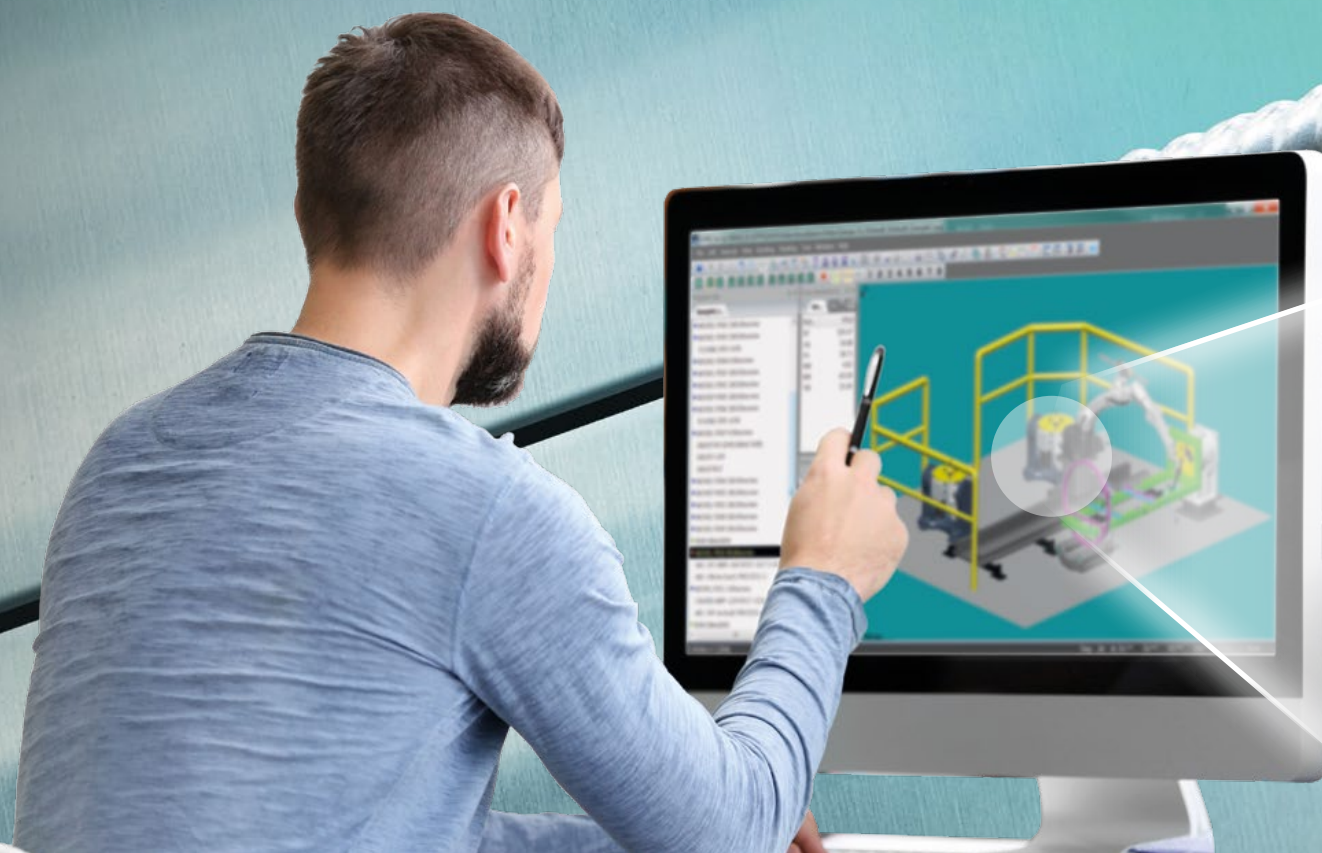
YOUR
WELDING SYSTEM
IN THE
PRODUCTION!



YOUR
WELDING SYSTEM
IN THE
SIMULATION!

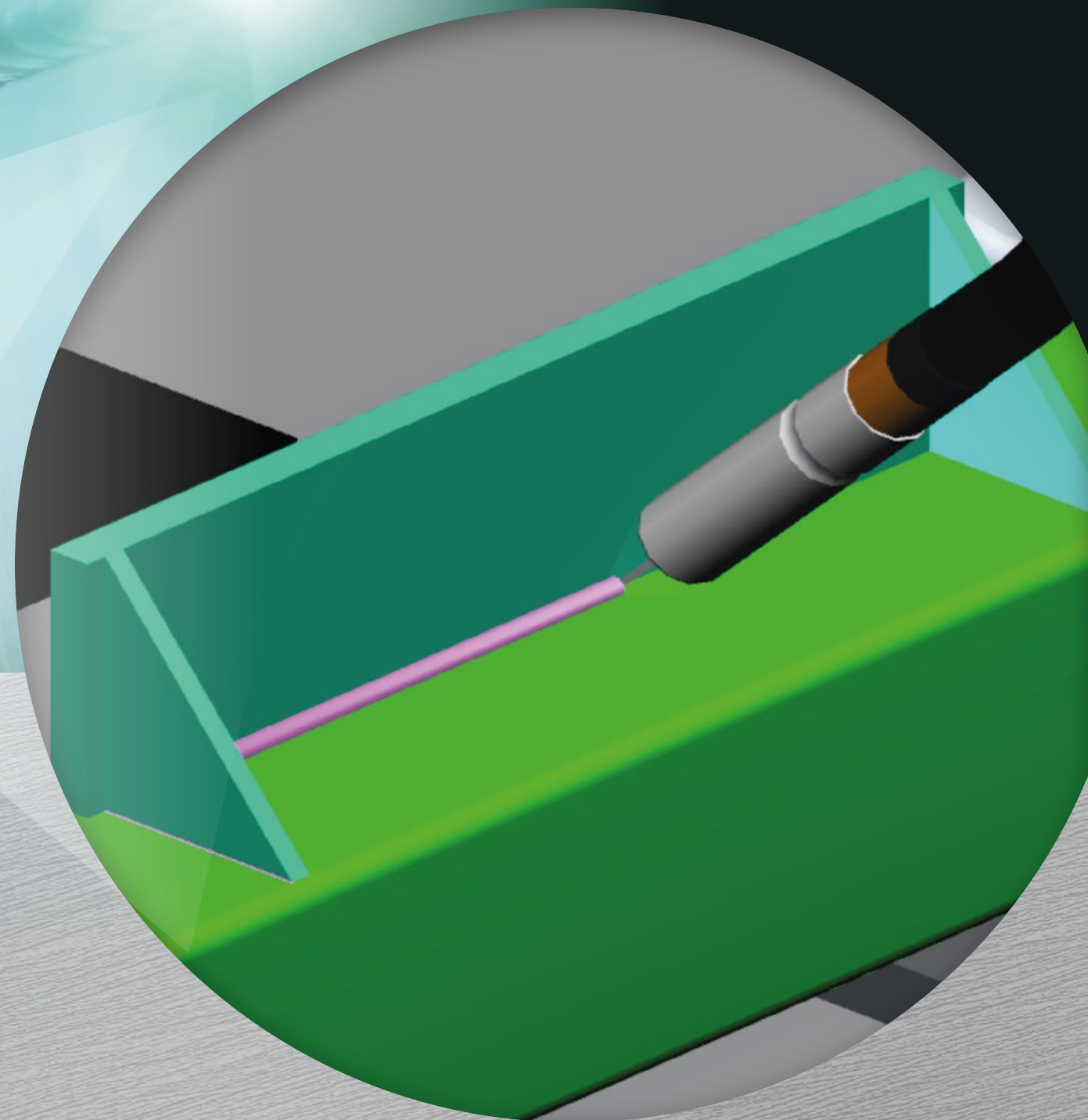
» YOU REQUIRE **OFFLINE** PROGRAMMING OF YOUR ROBOTS? «

DTPS
PART OF THE G2/G3 PC TOOL SOFTWARE



That's easy! With the Panasonic
DTPS SOFTWARE.

With DTPS, the Panasonic **D**esk-**T**op **P**rogramming & **S**imulation **S**ystem, 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.

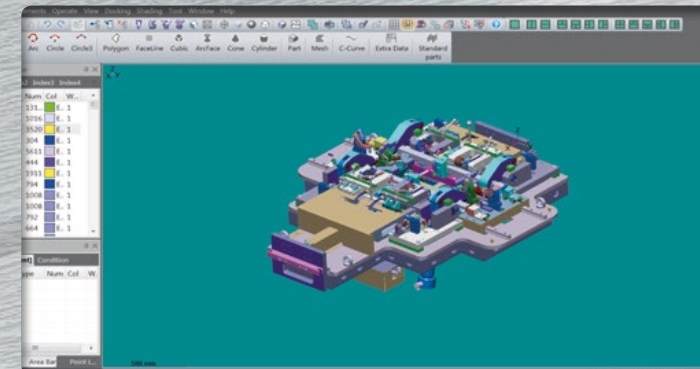


» YOU WOULD LIKE TO ORGANIZE
YOUR PRODUCTION TO BE MORE
PRODUCTIVE, SAFER AND
EFFICIENT? USE **DTPS.** «

DTPS
PART OF THE G2/G3 PC TOOL SOFTWARE

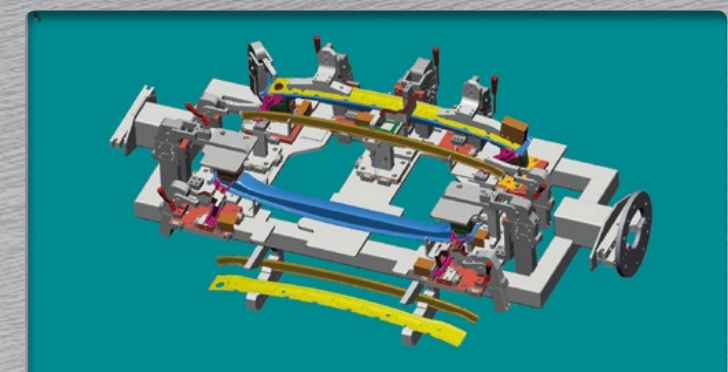
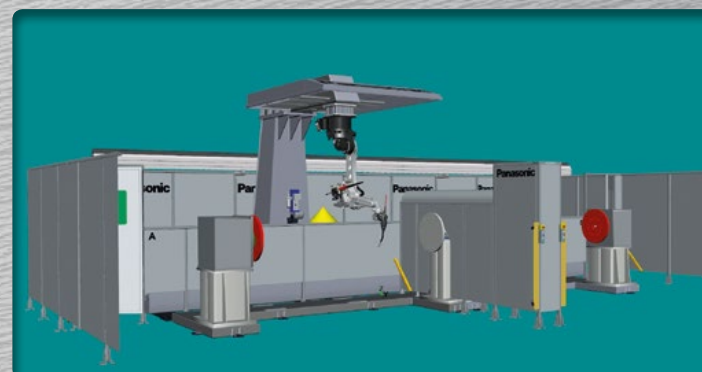
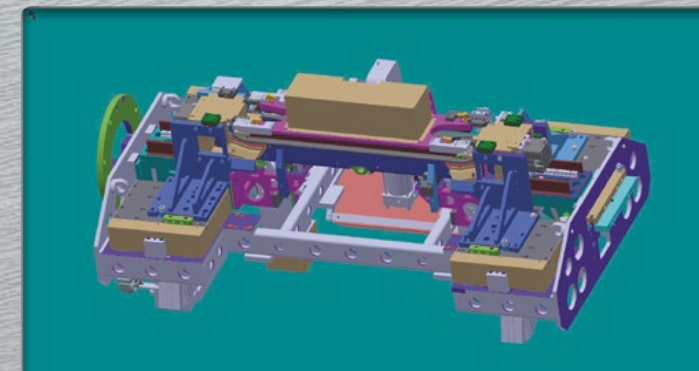
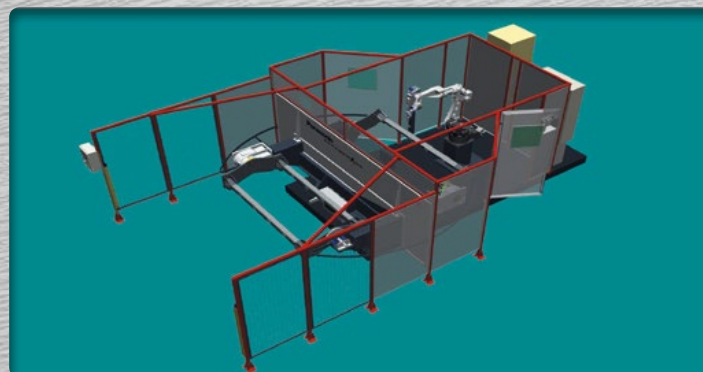
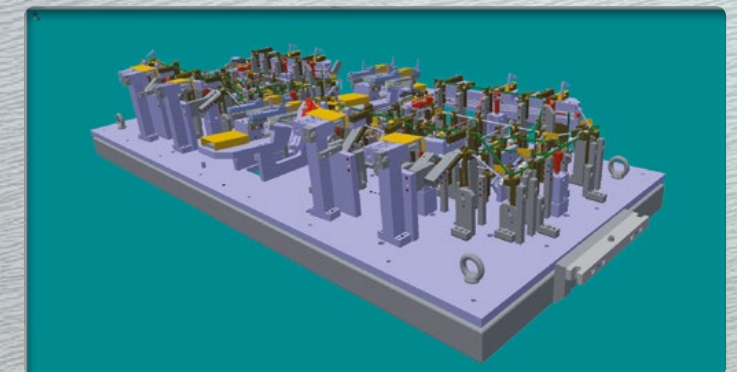
IMPORT

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



SYSTEM CONFIGURATION

Layouts can be easily
created from the
work desk!

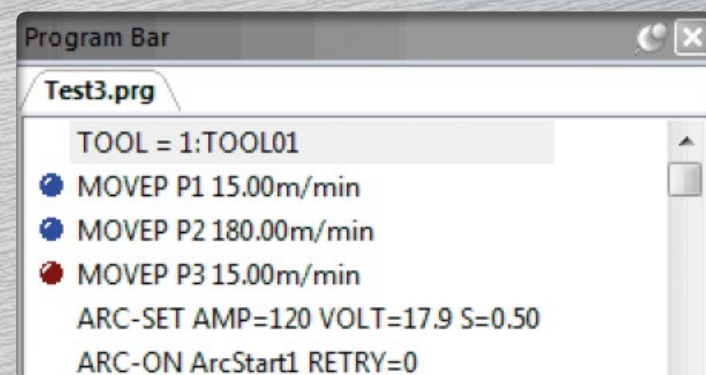


HIGHER PRODUCTIVITY, SAFER, SMARTER. WITH **DTPS.**

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 lenght(m)	1.700
Number of Welding Line	189
Wire Length(m)	9.788

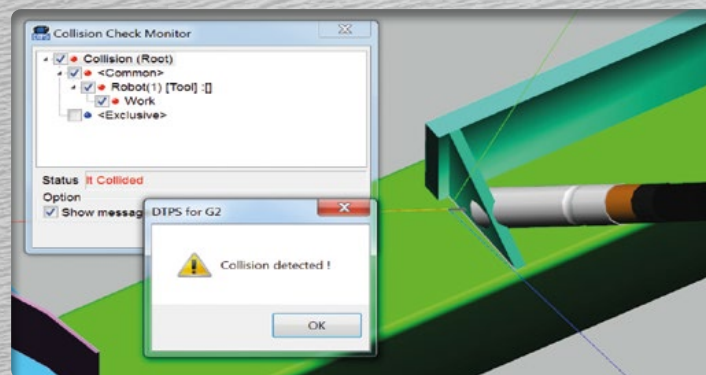
Information of each step ☐ Don't display no movement step

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

Jump to
Simulation
Modify Pose

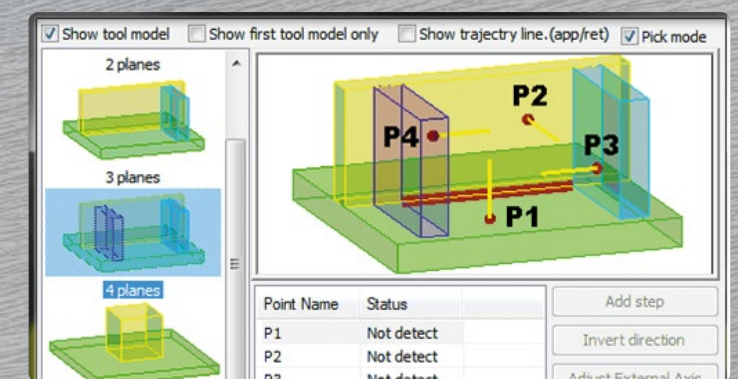
COLLISION MONITORING

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

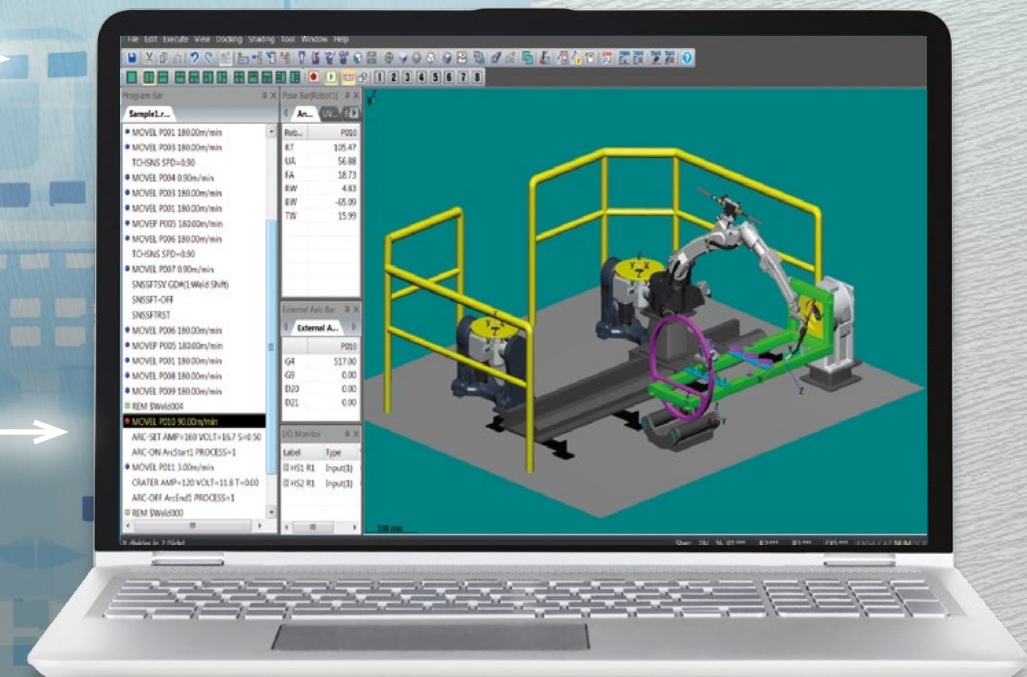
ERROR HISTORY

WELDING PARAMETERS

ROBOT PROGRAMS

AND MUCH MORE

BACK-UP TRANSFER



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

TEXT CONVERTER
PART OF THE G2/G3 PC TOOL SOFTWARE



```

PC Editor TXT - Editor
Dens: 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) >>
P001 Rt=0.000 Ua=-25.000 Fa=-25.000 Rw=0.001 Bw=-120.000 Tw=0.000 G5=16.600
P002 Rt=-25.976 Ua=5.525 Fa=-31.717 U13=180.000 Vw=74.999 Ww=179.999 G5=16.600
P003 X=-674.613 Y=-588.431 Z=-84.290 Uw=5.328 Vw=16.877 Ww=179.573 G5=-82.345
P004 X=624.374 Y=-591.487 Z=248.840 Uw=5.338 Vw=16.881 Ww=179.562 G5=-82.345
P005 X=674.926 Y=-589.052 Z=-85.680 Uw=5.338 Vw=16.880 Ww=179.563 G5=-107.015
P006 X=-674.947 Y=-588.314 Z=-84.720 Uw=5.333 Vw=16.878 Ww=179.570 G5=-134.437
P007 X=-661.170 Y=-588.113 Z=129.672 Uw=5.337 Vw=16.883 Ww=179.563 G5=-134.437
P008 Rt=30.635 Y=37.883 Fa=3.732 Rz=-16.072 Bw=-79.814 Tw=-150.648 G5=-211.183
P009 X=214.616 Y=-586.909 Z=-85.574 Uw=5.338 Vw=16.879 Ww=179.562 G5=-211.183

<< COMMAND(S) >>
<-> Begin of Program
TOOL = 1:524
(*) MOVEP GPR(2:BAZA 6) 100.00m/min
(*) MOVEP P002 160.00m/min

```


The screenshot shows a window titled "TextConverterDataTest - Editor". The menu bar includes "Datei", "Bearbeiten", "Format", "Ansicht", and "?". The main text area displays an "Error history" section with three entries:

No.	Date	Content
01	10.05.2017 11:06:38	Collision detected
		Sub information FA
		Program TEST
		Position P015
02	10.05.2017 07:33:39	Collision detected
		Sub information RW
		Program TEST
		Position P036
03	10.05.2017 07:33:32	Collision detected
		Sub information RW
		Program TEST
		Position P036

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!

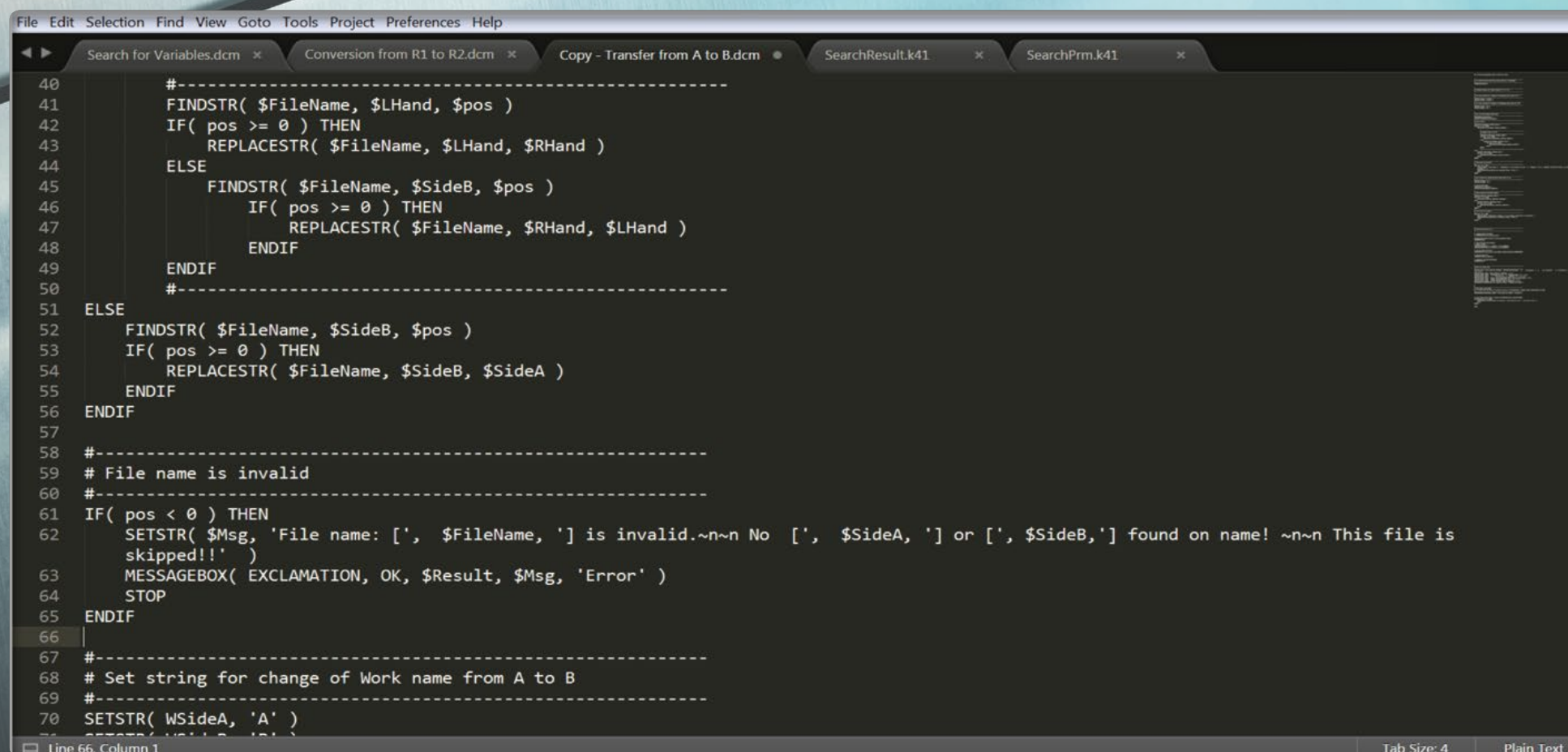
» ADJUSTING SOFTWARE ACCORDING TO MY INDIVIDUAL REQUIREMENTS? «

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 x SearchResult.k41 x SearchPrm.k41 x
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 #-----
69 # Set string for change of Work name from A to B
70 #-----
71 SETSTR( WSideA, 'A' )
72 SETSTR( WSideB, 'B' )
73
```

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? «

PRODUCTION MANAGEMENT FUNCTION
HAND PROGRAMMER REMOTE DISPLAY

Robot No. 1:

**NORMAL
OPERATION**



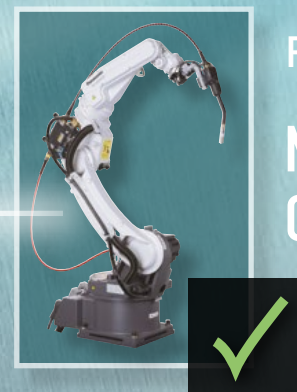
Robot No. 2:

ERROR



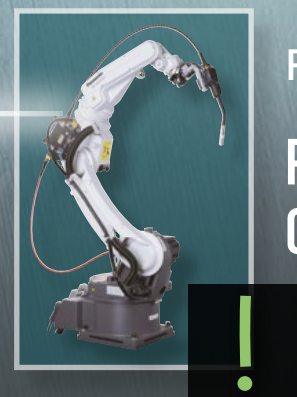
Robot No. 3:

**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/>