

7.	Operating system management program WINBV	Version 5.5 and more highly
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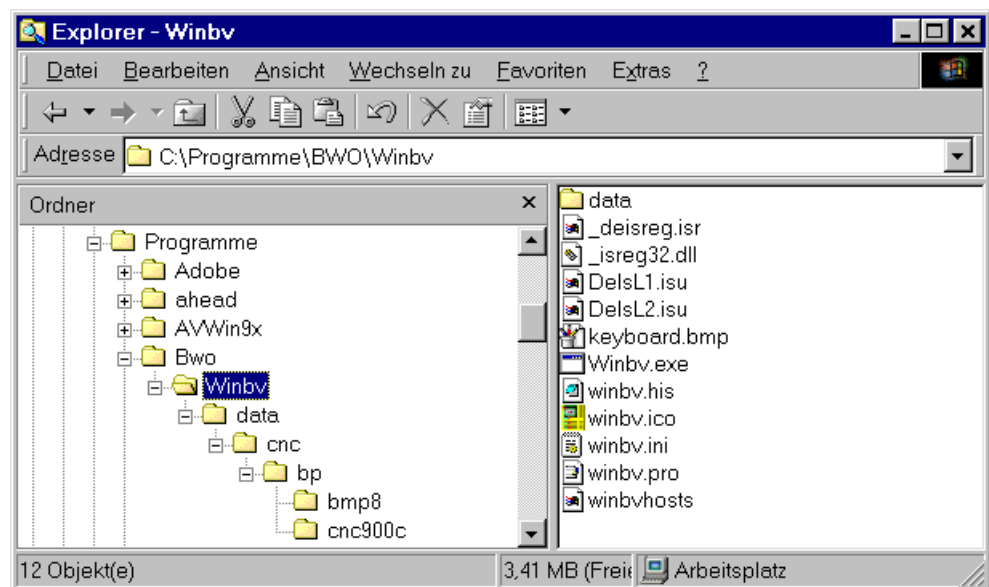
## 7. Operating system management program WINBV

WINBV is actual a tool for:

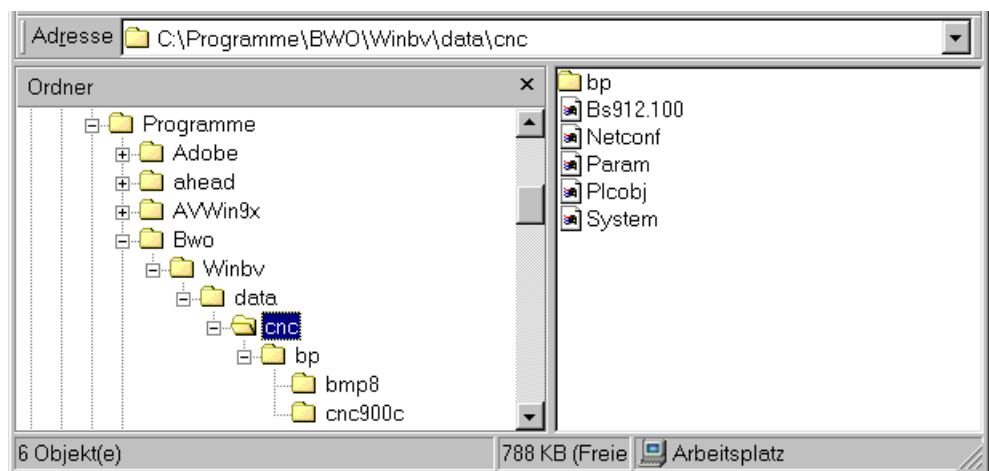
- System maintenance
- Data administration
- Data protection
- NC archiving
- On-line remote diagnostics

### 7.1 WINBV install

WINBV becomes over on by BWO supplied SETUP program installed. WINBV puts one linkage and the following directories on



In the subdirectory CNC are already all directories and files for those standard CNC contained.



For further applications it is advisable, the directories and files after the same sample to create.

## 7.1 WINBV install (continuation)

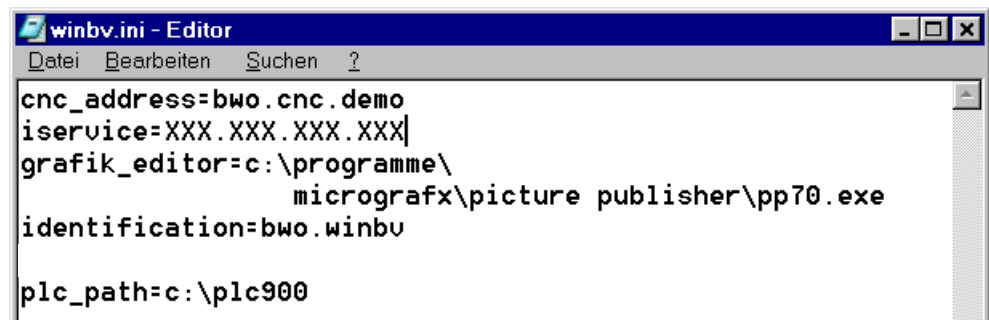
### Special files

#### WINBV.ini

Language selection:

without specification  
> English

deutsch > German



```

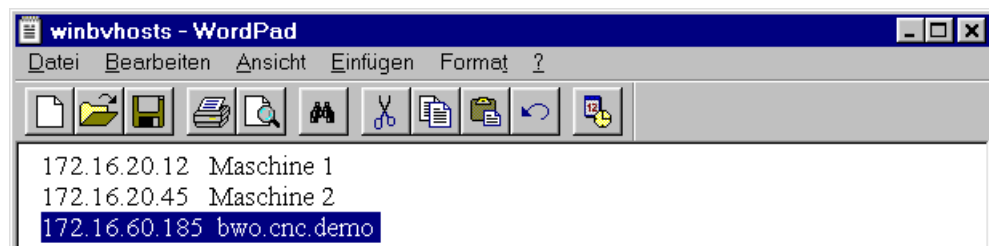
cnc_address=bwo.cnc.demo
iservice=XXX.XXX.XXX.XXX|
grafik_editor=c:\programme\
                    micrografx\picture publisher\pp70.exe
identification=bwo.winbv

plc_path=c:\plc900
    
```

For the remote diagnostics into the winbv.ini must be the Iservice address.  
As graphic editor **Micrografx\picture publisher** one recommends.

#### WINBVhosts

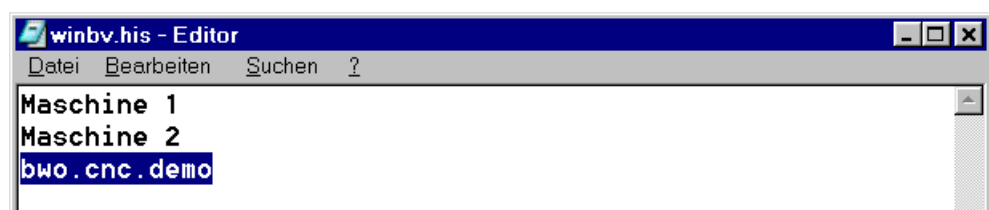
Definition of  
symbolic addresses



```

172.16.20.12 Maschine 1
172.16.20.45 Maschine 2
172.16.60.185 bwo.cnc.demo
    
```

#### WINBV.his

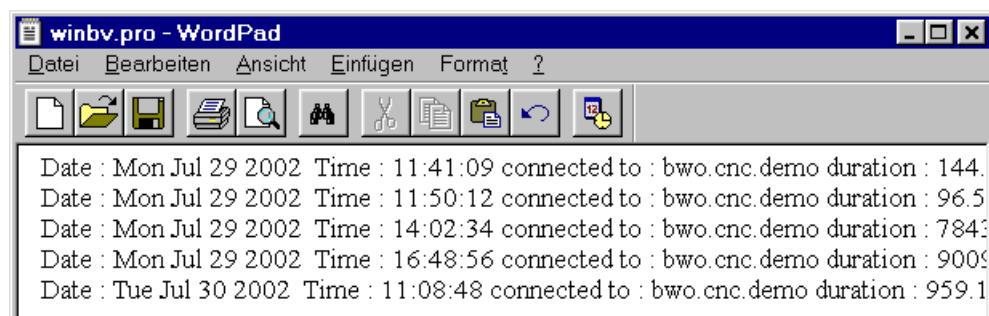


```

Maschine 1
Maschine 2
bwo.cnc.demo
    
```

#### WINBV.pro

Log of the  
connections

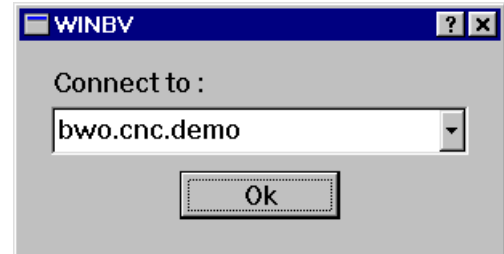


```

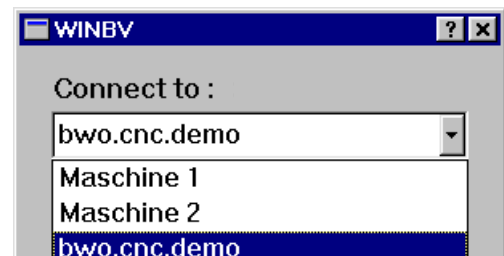
Date : Mon Jul 29 2002 Time : 11:41:09 connected to : bwo.cnc.demo duration : 144.
Date : Mon Jul 29 2002 Time : 11:50:12 connected to : bwo.cnc.demo duration : 96.5
Date : Mon Jul 29 2002 Time : 14:02:34 connected to : bwo.cnc.demo duration : 7843
Date : Mon Jul 29 2002 Time : 16:48:56 connected to : bwo.cnc.demo duration : 9009
Date : Tue Jul 30 2002 Time : 11:08:48 connected to : bwo.cnc.demo duration : 959.1
    
```

## 7.2 WINBV start

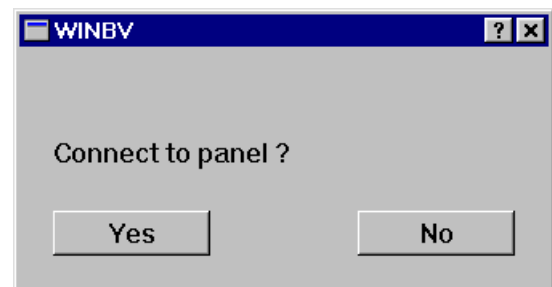
Connection makes to  
controller CNC CPU  
with IP No. xxx.xxx.xxx.xxx  
or with symbolic address  
(determining with WINBVhosts)



Selection of CNC



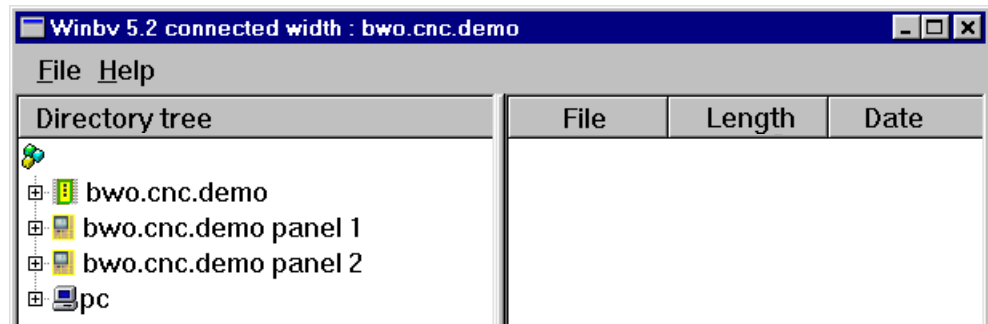
Connection makes to  
operating panel  
(only with started operating panel)



## 7.2 WINBV start (continuation)

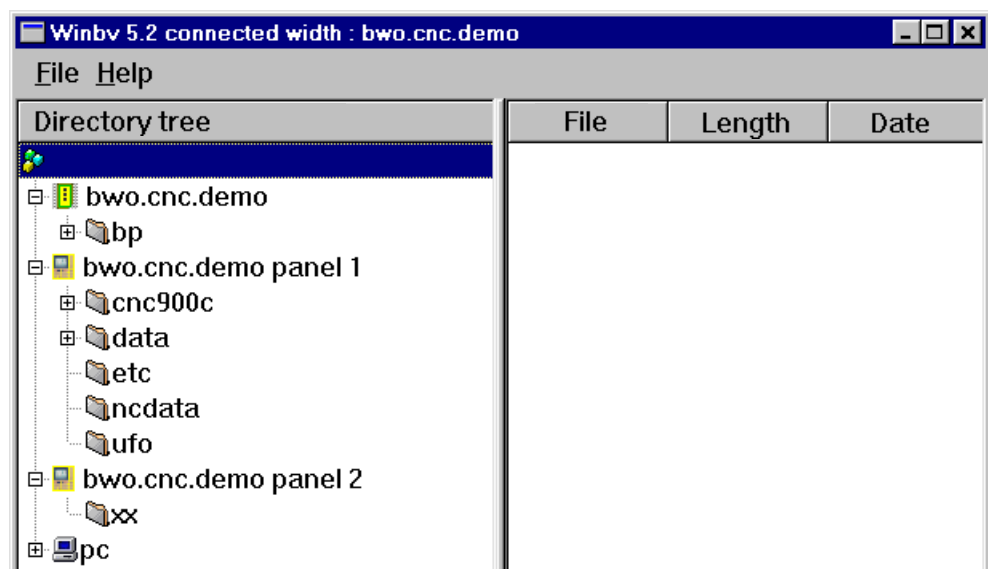
### View after the start

Connections to the CNC CPU and to operating panel are made



### Total directory structure

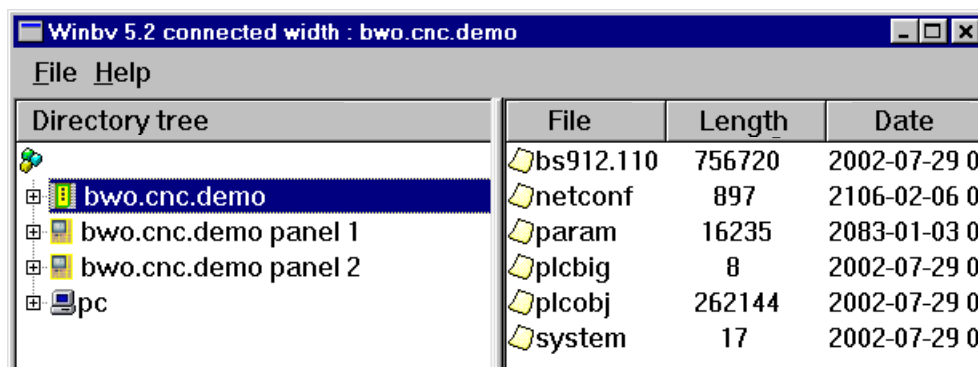
CNC CPU, operating panel 1, operating panel 2 as well as PC



## 7.3 Directories

### 7.3.1 Directory CNC

Files in  
general directory  
CNC



Directory tree	File	Length	Date
bwo.cnc.demo	bs912.110	756720	2002-07-29 0
bwo.cnc.demo panel 1	netconf	897	2106-02-06 0
bwo.cnc.demo panel 2	param	16235	2083-01-03 0
pc	plcbig	8	2002-07-29 0
	plcobj	262144	2002-07-29 0
	system	17	2002-07-29 0

**bs912.100** CNC operating system

**netconf**

Ethernet configurations

# lines starting with # in the first column are a comment

```
# define cnc network adres
local          172.16.60.185
netmask        255.255.0.0
#
# define panel network adres
control_panel  172.16.60.186 255.255.0.0 000000000000
#
# define file server adress
host           172.16.60.189
#
# define route to file servers
route          172.16.60.189 255.255.0.0 0.0.0.0 1
#
Identification * mycompany.mycnc.mynum
#
gateway *      xxx.xxx.xxx.xxx
#
iservice *     xxx.xxx.xxx.xxx
#
mail1 * to:          sub:          msg:
#
serial2 * 9600 8 e 1
```

Note: \* = optionally

## 7.3.1 Directory CNC (continuation)

<b>param</b>	Installation related parameters / machine datas
<b>plcobj</b>	Installation related PLC programm
<b>system</b>	link on the active CNC operating system / link—>bs912.100

### Notes to the Ethernet configuration

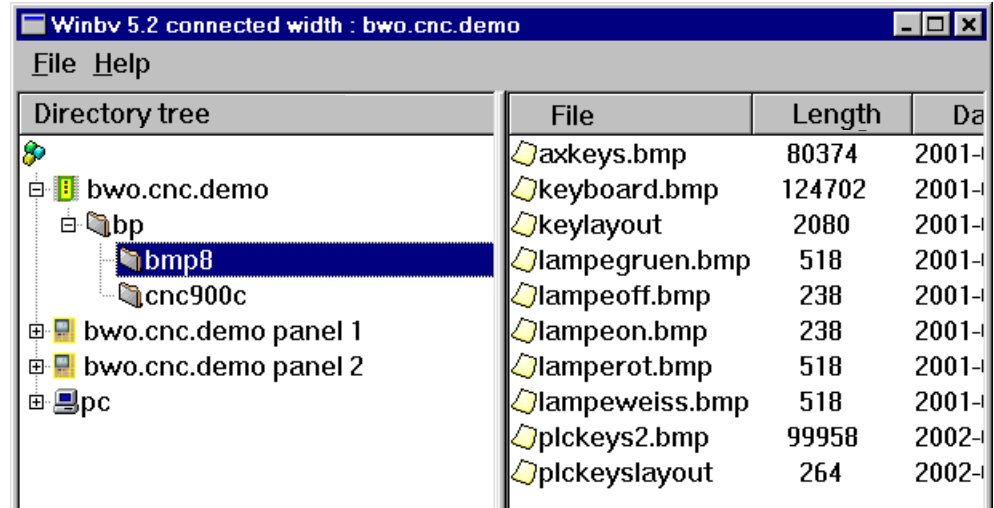
local	own CNC address
netmask	own network mask
control_panel	Control panel address, network address, Ethernet address. Ethernet address 0 means: each operating panel is accepted. Control_panel can be indicated up to 4 times.
host	file server address (must be equipped with SERVER.EXE).
route	commands for the integrated router PC address, gateway address, Ethernet connection number 0 (E1), 1 (E2)
identification	symbolic term of the controller The recommended sequence: machine producer. user. machine no.
gateway	Address of computer in the house network, which makes the acces to internet.
iservice	Address of the BWO central internet computer for on-line remote diagnostics (inquire address please from BWO).
mail1 : mail9	to: address@company.com      sub: concern      msg: messages In the concern and in the message contents of parameters can be transmitted.  to it control characters are to 3 at the disposal : % \$ # %    the total parameters transmit \$    only the lower 16 bits of the parameter transmit #    the identification of the machine transmits
mail1	Example: to: myaddress@company.de sub: #      msg: machine is with message \$:8509 Clearing by an error message at the machine. Max. 256 characters.
serial1 / serial2	configuration of the serial interfaces 1 and 2 baudrate bits parity stopbit parity: e (even) / o (odd) / n (no)

## 7.3.1 Directory CNC (continuation)

### Bit-map files in the directory CNC \ BP \ BMP8

BP actual the subdirectory for the operating panel.

All files off this directory are read with 'boot' by the operating panel.



Directory tree	File	Length	Da
bwo.cnc.demo	axkeys.bmp	80374	2001-1
bp	keyboard.bmp	124702	2001-1
bmp8	keylayout	2080	2001-1
cnc900c	lampegruen.bmp	518	2001-1
bwo.cnc.demo panel 1	lampeoff.bmp	238	2001-1
bwo.cnc.demo panel 2	lampeon.bmp	238	2001-1
pc	lamperot.bmp	518	2001-1
	lampeweiss.bmp	518	2001-1
	plckeys2.bmp	99958	2002-1
	plckeyslayout	264	2002-1

<b>axkeys.bmp</b>	layout for the axis selection keys
<b>keyboard.bmp</b>	key board for inserting on toach screen
<b>keylayout</b>	keyboard layout for BWO virtual keyboard
<b>lampegruen.bmp</b>	PLC keys T1 –T8 ' key actuates ' inserted green box
<b>lamperot.bmp</b>	PLC keys T1 –T8 ' key actuates ' inserted red box
<b>lampeweiss.bmp</b>	PLC keys T1 –T8 ' key does not actuate ' inserted box off
<b>lampeon.bmp</b>	PLC keys T1 –T40 ' key actuates ' inserted red square
<b>lampeoff.bmp</b>	PLC keys T9 –T40 ' key does not actuate ' inserted red square off
<b>plckeys2.bmp</b>	Layout for PLC keys T9 – T40

Note:

The files **axkeys.bmp** and **plckeys2.bmp** can be provided by the customer with installation related letters or layouts. For this BWO recommends the program ' Micrografx Picture Publisher '.

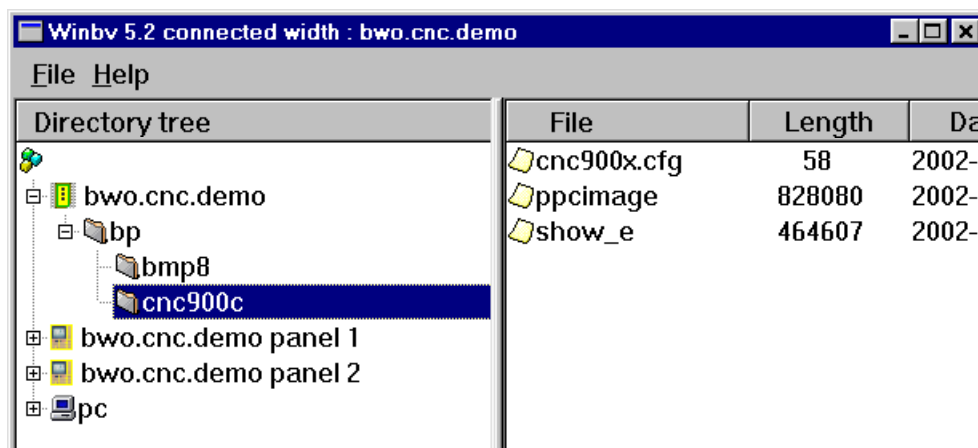


## 7.3.1 Directory CNC (continuation)

### Files in the directory CNC \ BP \ CNC900C

BP actual the subdirectory for the operating panel.

All files off this directory are read with ' boot ' by the operating panel.



### cnc900x.cfg

Configuration file for releasing from directories with path specification (here NCDATA).

beep:off	'bleeper' ON / OFF
DRIPFEED://server/ncdata	drippfeed mode
NCDATA1:/ncdata	flash disk (operating panel)
NCDATA2://server/ncdata	peripheral file server

### ppcimage

operating system operating panel CNC910 / CNC920

### show\_e

installation related user surface / pictures

7.3.1 Directory CNC (continuation)

Files in the directory  
CNC \ NCRAM

NC programs in the  
RAM memory of the  
CNC

Winbv 5.2 connected width : bwo.cnc.demo

File Help

Directory tree

bwo.cnc.demo

bp

bmp8

cnc900c

**ncram**

bwo.cnc.demo panel 1

bwo.cnc.demo panel 2

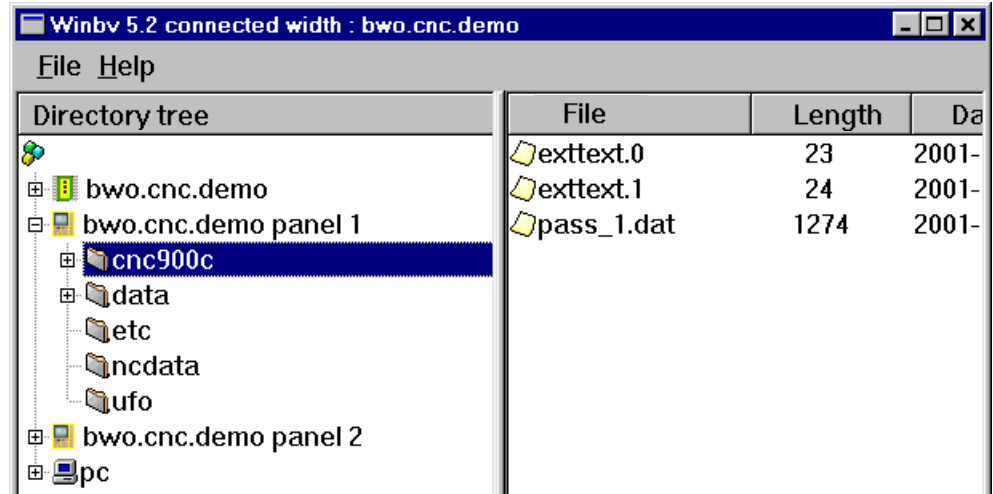
pc

File	Length
P1000	2704

## 7.3.2 Directory PANEL

### Files in the directory PANEL \ CNC900C

PANEL actual the  
general directory on  
the Flash disk of the  
operating panel



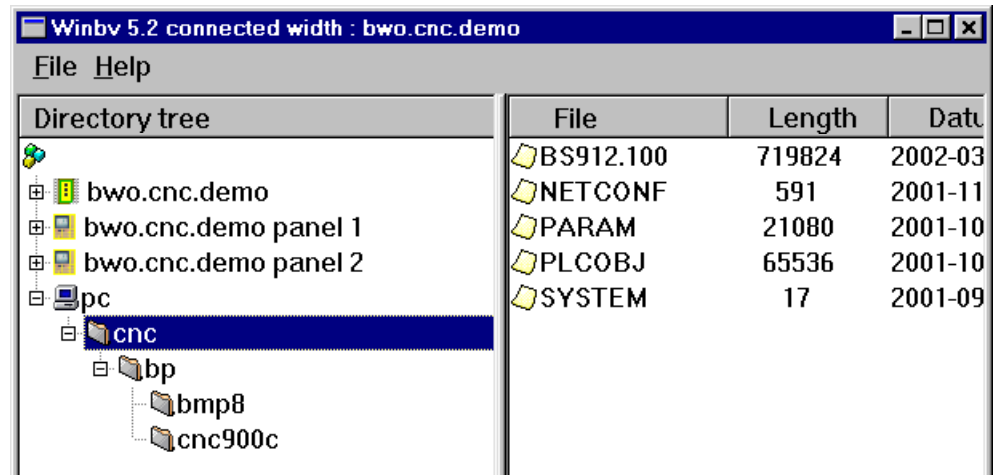
These are installation related files (secured on the flash disk)

- NC programs
- zero points
- tool datas
- parameter (axis machine data)
- parameter (SERCOS final drive data)

The directory PANEL on the flash disk of the operating panel can cover still further directories, which contain various configuration files as well as user-referred files or texts due to application.

## 7.3.3 Directory PC

### Structure of the directory PC



The subdirectories can be selected and organized freely however are recommended it to structure the organization of the subdirectories after the following system.

For each application on subdirectory, which again all subdirectories for total application contains (CNC CPU, PANEL) .

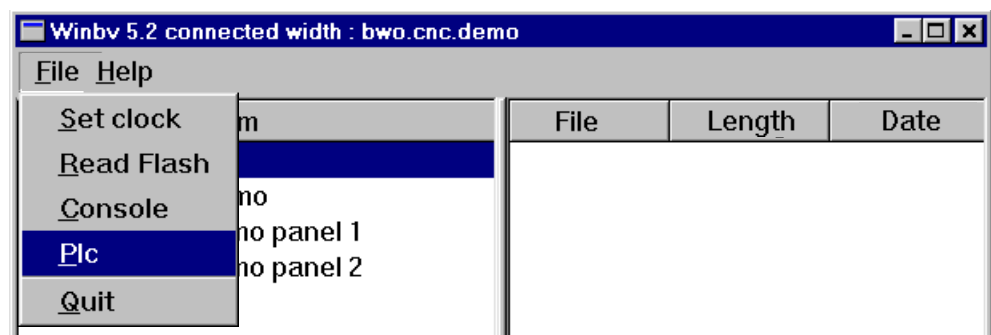
## 7.4 System functions

### WINBV System functions

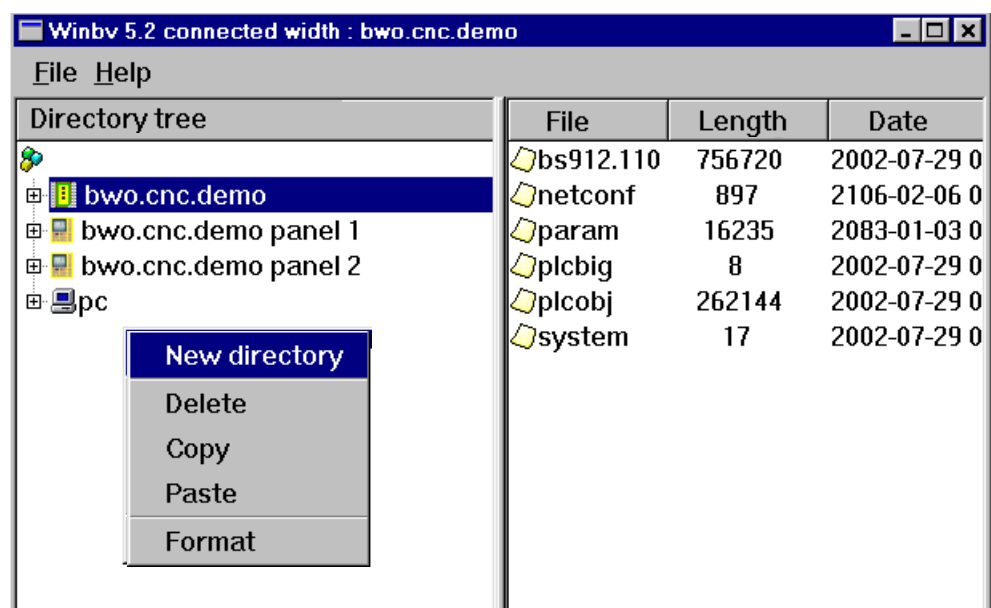
Directories and files can be created, copied, inserted, deleted as well as processed by comfortable functions.

Thus the possibility consists to create backup on the PC by each application on.

#### Menü File

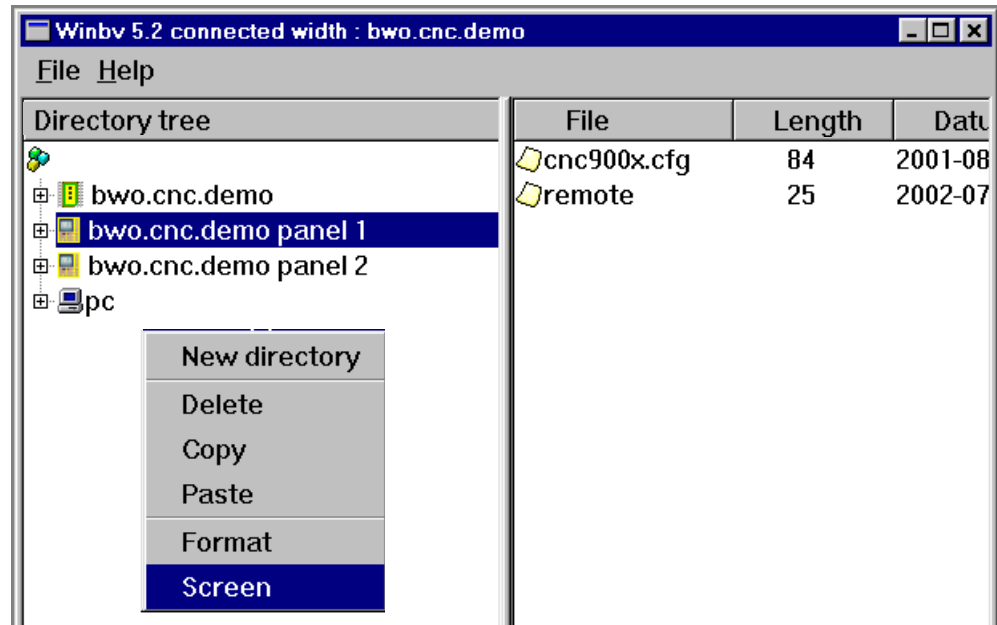


#### Functions with directory CNC (right mouse button)

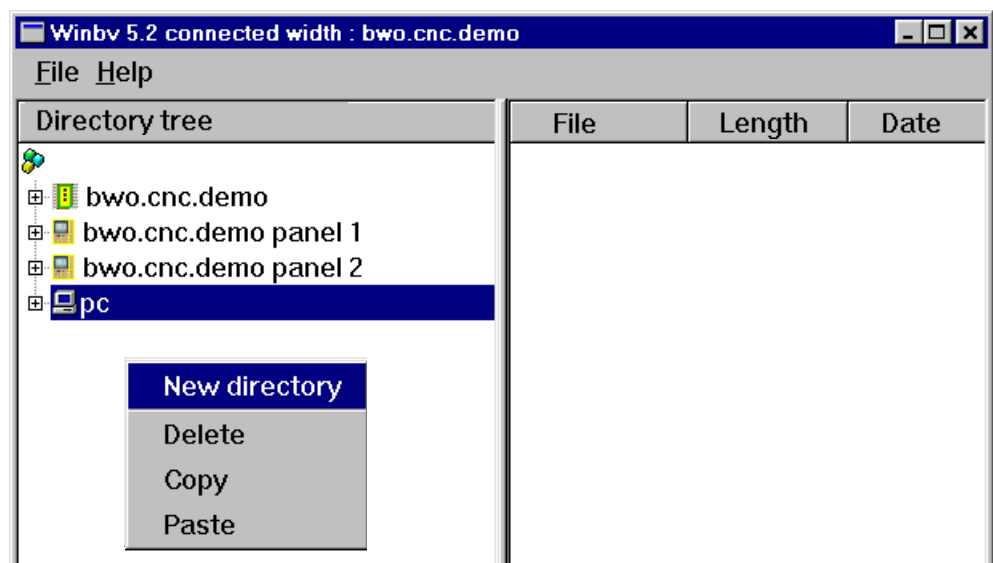


## 7.4 System functions (continuation)

**Functions with  
directory panel**  
(right mouse button)



**Functions with  
directory PC**  
(right mouse button)

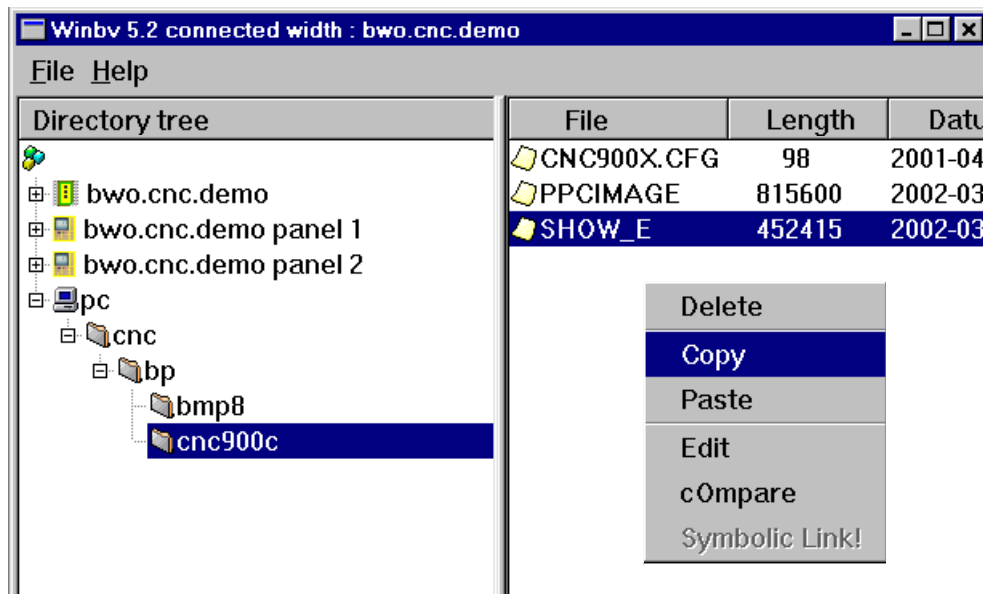


## 7.4 System functions (continuation)

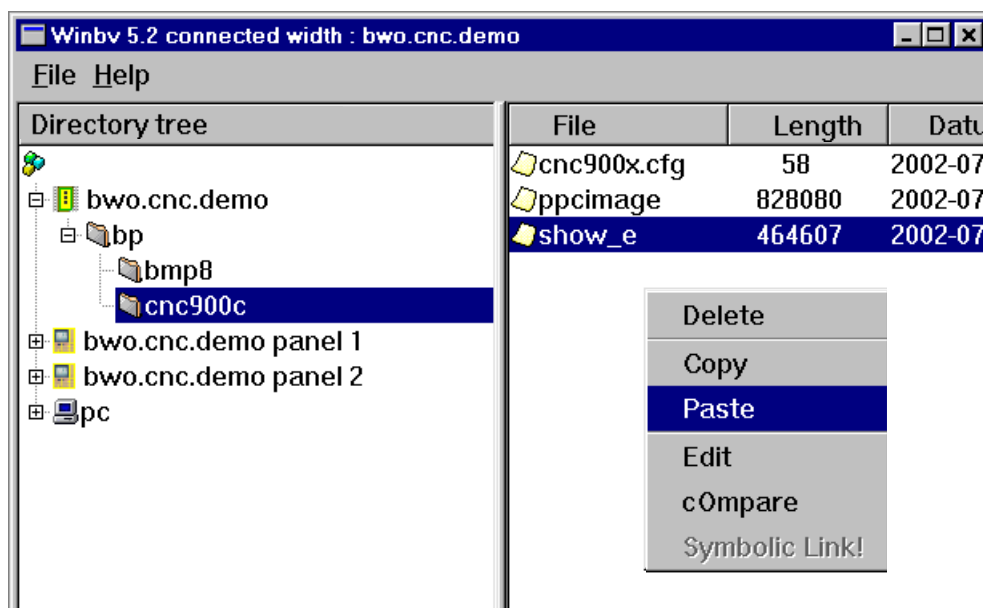
Functions with file  
(right mouse button)

Example copying  
the file SHOW\_E

from  
PC\CNC\BP\CNC900C



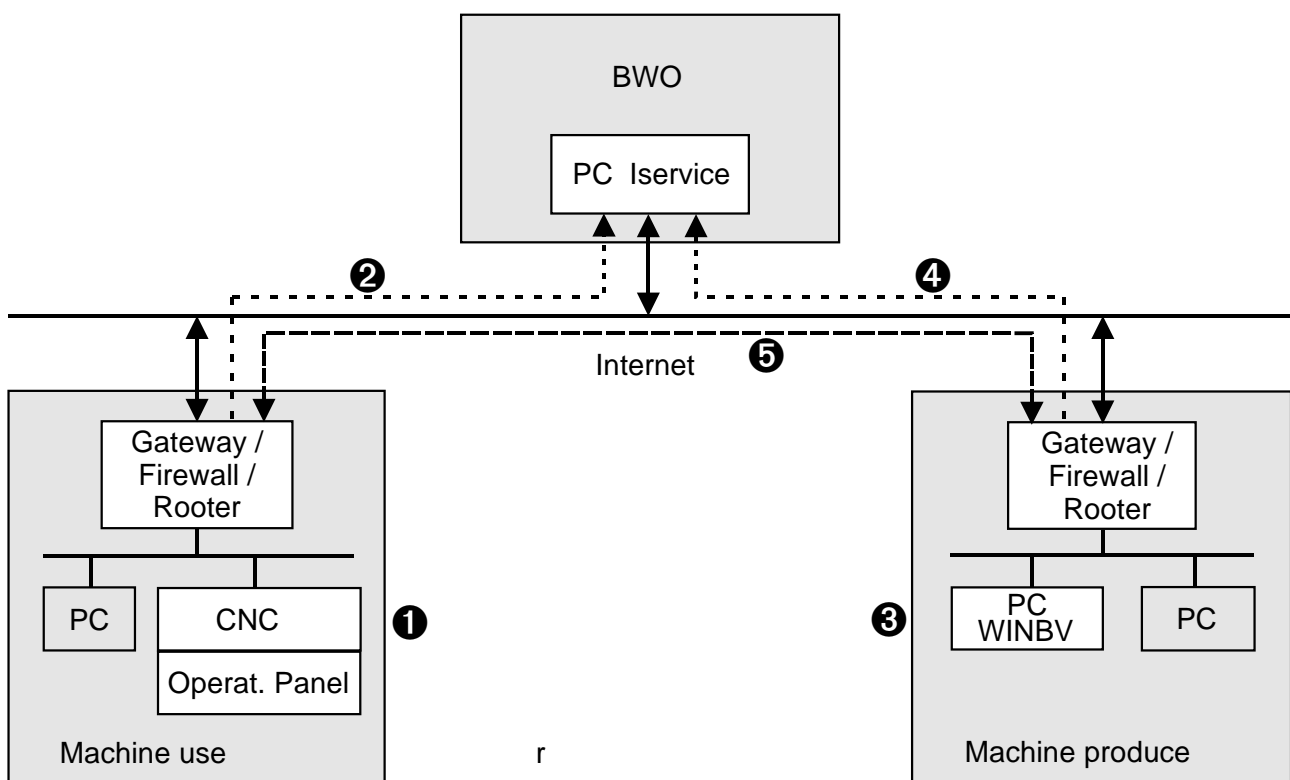
to  
CNC\BP\CNC900C



## 7.5 Remote diagnostics

### Mode of operation of the BWO remote diagnostics with internal firm network

- ❶ CNC control of the machine user.
- ❷ The CNC control of the machine user goes with an incident (at the request of the operator) on-line and sends over internet a message with the own CNC address (e.g. bwo.cnc.demo) to the internet PC by BWO (Iservice address).
- ❸ Program WINBV on PC of the machine producer.
- ❹ The program WINBV asks the BWO internet PC whether the CNC of the machine user is on-line actual.
- ❺ The BWO internet PC links the CNC directly with programm WINBV. Now can of the machine producer remote diagnostics of the machine to be executed. On the Firewall computer of the machine user the IP masquerading must for suitable devices de-energised. Bond BWO with questions please

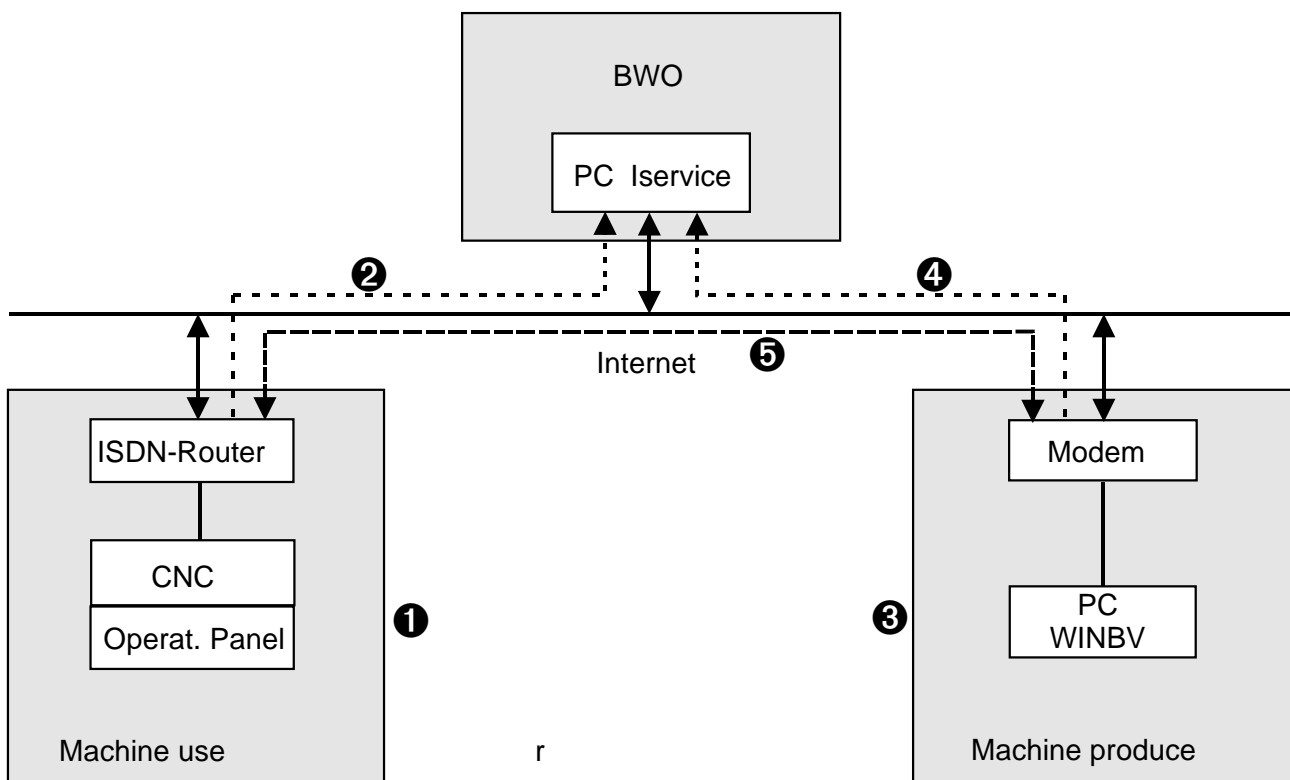




## 7.5 Remote diagnostics (continuation)

### Mode of operation of the BWO remote diagnostics with modem

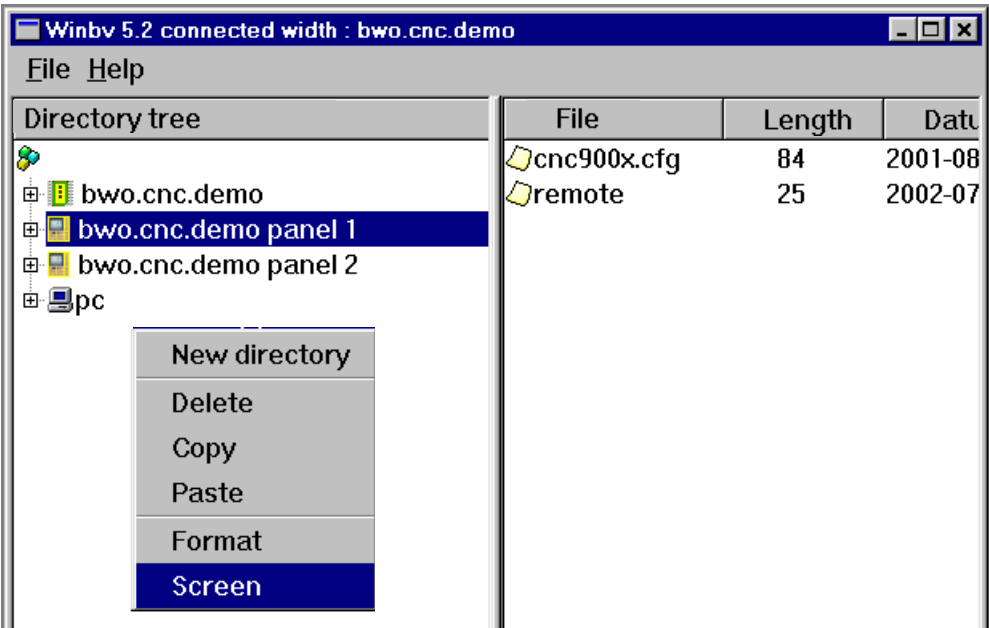
- ❶ CNC control of the machine user.
- ❷ The CNC control of the machine user goes with an incident (at the request of the operator) on-line and sends over internet a message with the own CNC address (e.g. bwo.cnc.demo) to the internet PC by BWO (Iservice address).
- ❸ Program WINBV on PC of the machine producer.
- ❹ The program WINBV asks the BWO internet PC whether the CNC of the machine user is on-line actual.
- ❺ The BWO internet PC links the CNC directly with programm WINBV. Now can of the machine producer remote diagnostics of the machine to be executed.



7.6 Display of the operating panel

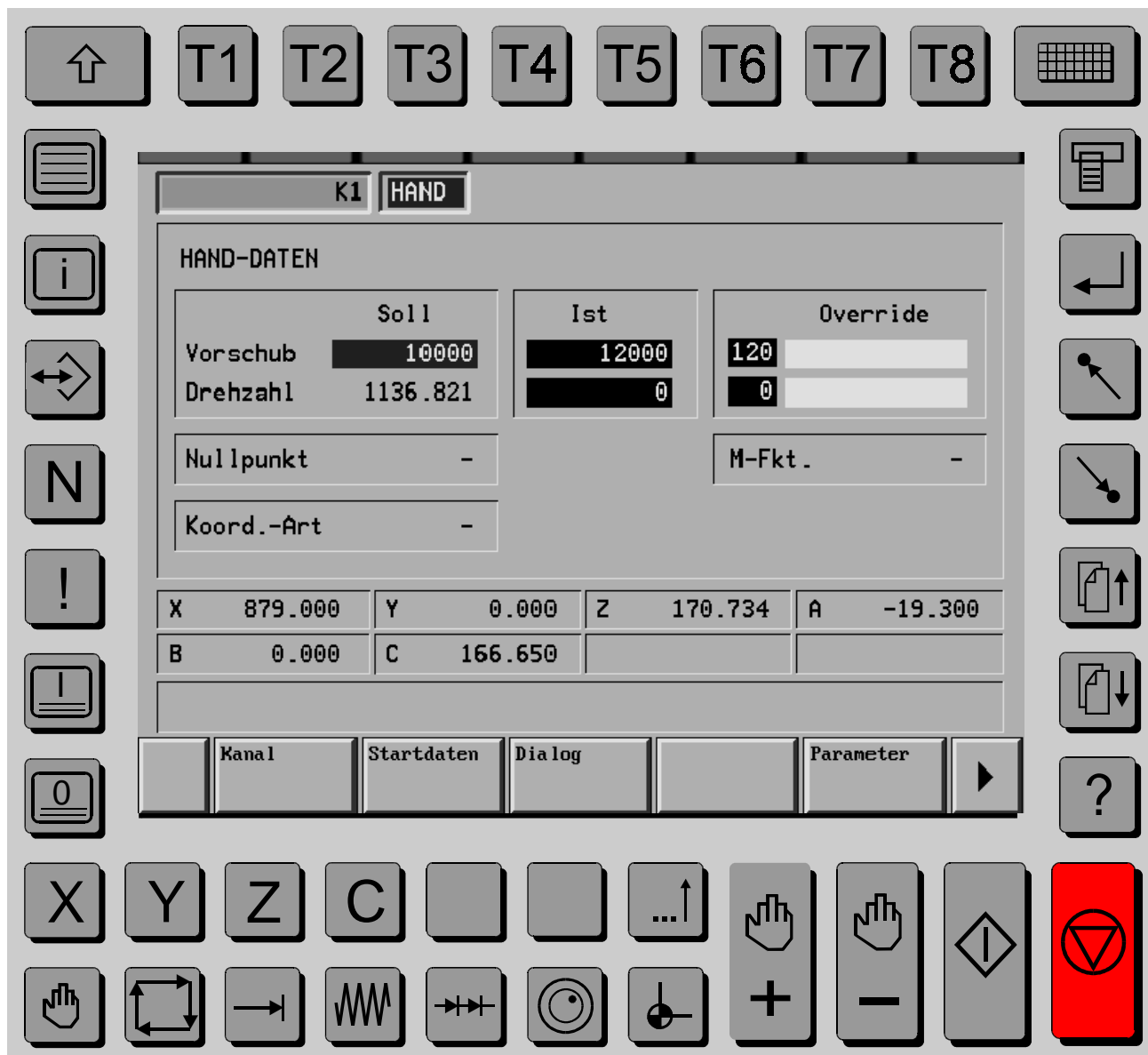
7.6.1 Switching on

**Function Screen**  
(right mouse button)



### 7.6.1 Switching on (continuation)

The display is illustrated. The screen contents actual black-and-white.

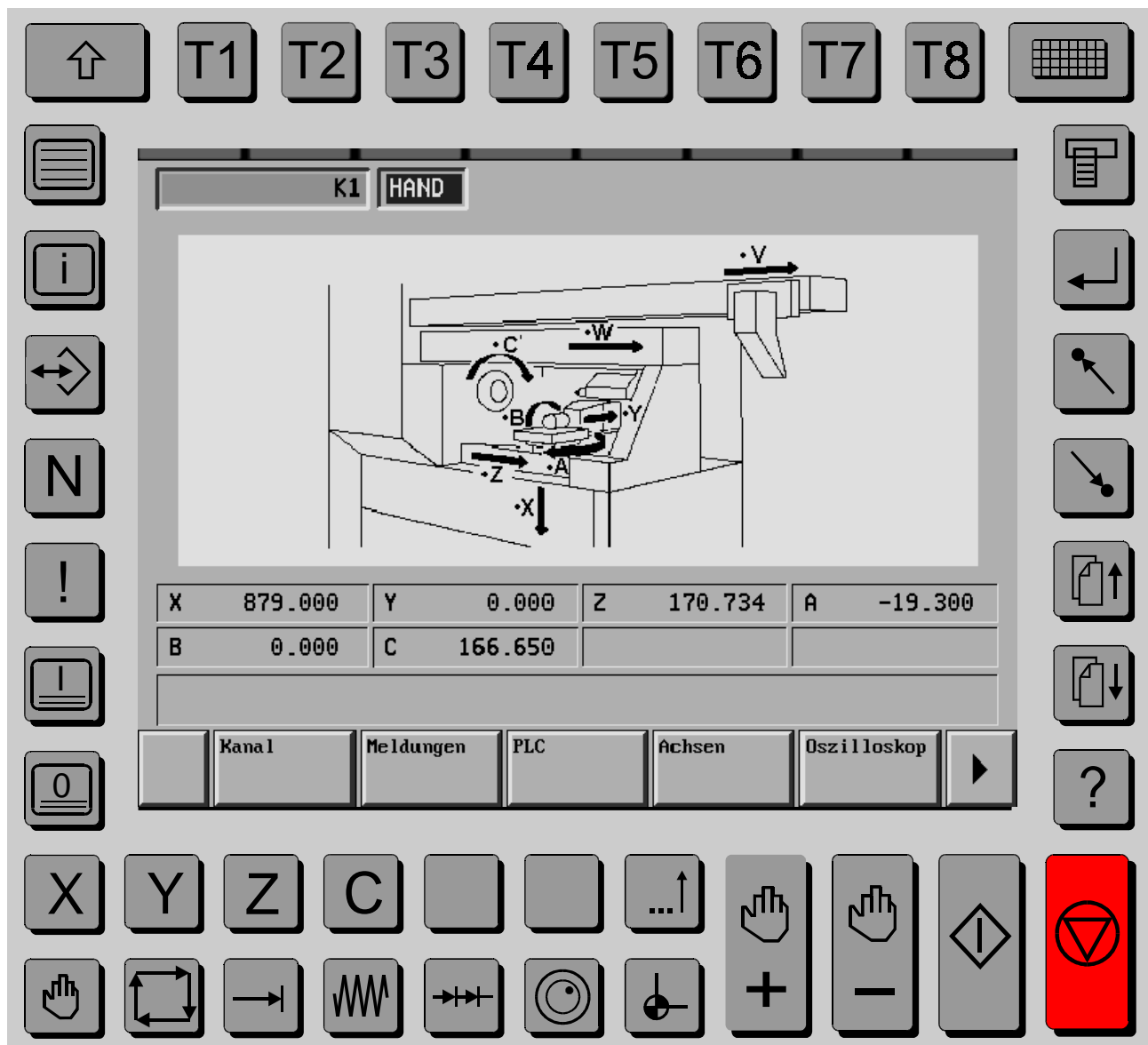


## 7.6.2 I/O circulation



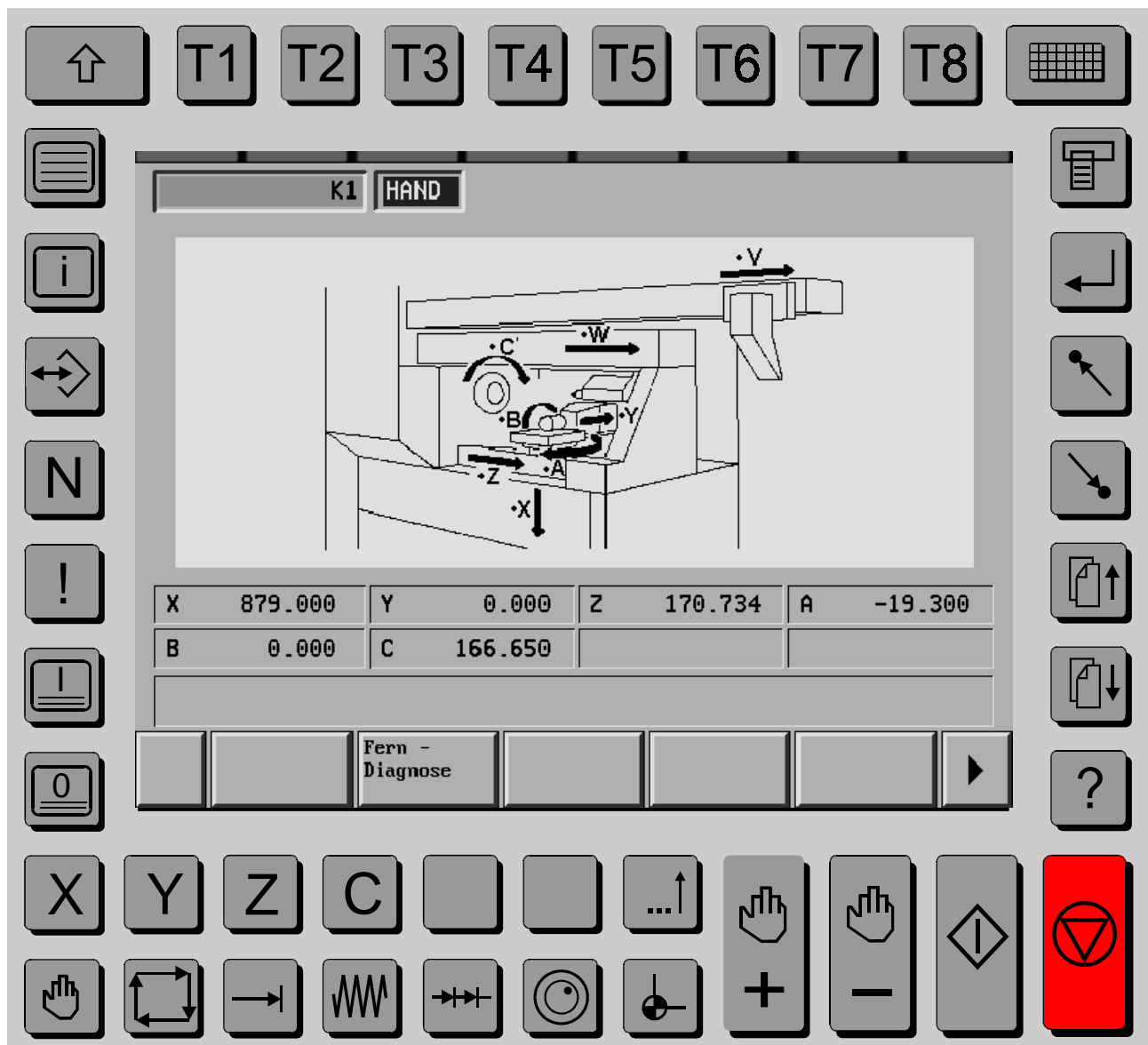
### 7.6.3 Diagnosis

Switching on with the key „!“



#### 7.6.4 Remote diagnostics

Switching on with the keys „!“ and „remote diagnostics „



#### 7.6.4 Remote diagnostics (continuation)

Switching with the keys „on-line “ / „ off-line “

