

7.	Operating system management program WINBV	Version 5.5 and more highly
7.1	WINBV install	7 - 2
7.2	WINBV start	7 - 4
7.3 7.3.1 7.3.2 7.3.3	Directories Directory CNC Directory PANEL Directory PC	7 - 6 7 - 6 7 -11 7 -12
7.4	System functions	7 -13
7.5	Remote diagnostics	7 -16
7.6 7.6.1 7.6.2 7.6.3 7.6.4	Display of the operating panel Switching on I/O circulation Diagnosis Remote diagnostics	7 -18 7 -18 7 -20 7 -21 7 -22



7. Operating system management program WINBV

WINBV is actual a tool for:

- System maintenance
- Data adminstration
- 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

🔍 Explorer - Winbv		_ 🗆 🗙
<u>]</u>	<u>Eavoriten Extras ?</u>	<u></u>
+ • → · È ½ È Ë ∽ × Ĕ	↓ B=== ▼	
Ad <u>r</u> esse 🗀 C:\Programme\BWO\Winbv		-
Ordner	 data _deisreg.isr _isreg32.dll DelsL1.isu DelsL2.isu Winbv.exe winbv.his winbv.ico winbv.ini winbv.pro winbv.hosts 	
12 Objekt(e)	3,41 MB (Freix 🛄 Arbeitsplatz	/



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

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

WINBVhosts	📱 winbvhosts - WordPad	- 🗆 🗙
	<u>D</u> atei <u>B</u> earbeiten <u>A</u> nsicht <u>E</u> infügen Forma <u>t</u> <u>?</u>	
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	<mark>⊉winb∨.his - Editor</mark> Datei Bearbeiten Suchen <u>?</u>	

Maschine 1
Maschine 2
bwo.cnc.demo

WINBV.pro

Log of the connections

📱 winbv.pro - WordPad 📃 🗖 🗙
<u>D</u> atei <u>B</u> earbeiten <u>A</u> nsicht <u>E</u> infügen Forma <u>t</u> <u>?</u>
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 : 784. Date : Mon Jul 29 2002 Time : 16:48:56 connected to : bwo.cnc.demo duration : 900 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 or with symbolic address (determining with WINBVhosts)

	? ×
Connect to :	
bwo.cnc.demo	•
Ok	

Selection of CNC

■ WINBV	? ×
Connect to :	
bwo.cnc.demo	•
Maschine 1	
Maschine 2	
bwo.cnc.demo	

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

	? ×
Connect to panel ?	
Yes	No



7.2 WINBV start (continuation)

View after the start

Connections to the CNC CPU and to operating panel are maked

Winby 5.2 connected width : bwo.cnc.dem	10		- 🗆 🗙
<u>F</u> ile <u>H</u> elp			
Directory tree	File	Length	Date
 bwo.cnc.demo bwo.cnc.demo panel 1 bwo.cnc.demo panel 2 bwo.cnc.demo panel 2 			

Total directory structure

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

10		- 🗆 ×
File	Length	Date
1		
1		
	no File	



7.3 Directories

7.3.1 Directory CNC

Files in	Winby 5.2 connected width : bwo.cnc.demo				
general directory <u>CNC</u>	<u>F</u> ile <u>H</u> elp				
	Directory tree		File	Length	Date
	8		// bs912.110	756720	2002-07-29 0
	🖽 📙 bwo.cnc.d		Anetconf	897	2106-02-06 0
	🖻 🖳 bwo.cnc.d	•	() param	16235	2083-01-03 0
	i ⊞ <mark>≣</mark> bwo.cnc.d ⊡ ≣ pc	emo panel 2	↓ plcbig ↓ plcobj	8 262144	2002-07-29 0 2002-07-29 0
	l m Bhc		<pre></pre>	17	2002-07-29 0
h-012 100	CNC operating	watam			
bs912.100	CNC operating	system			
netconf	Ethernet configu				
	# lines starting with # in the first column are a comment				
	# define cnc ne	twork 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				
	#	172.10.00.100 200	.200.0.0 000	000000000	, ,
	# define file ser	ver adress			
	host	172.16.60.189			
	# # dofine route t	e file e envere			
	# define route to route		5.255.0.0 0.0	.0.0 1	
	#	172.10.00.100 200	5.200.0.0 0.0	.0.0 1	
	Identification *	mycompany.mycnc.r	mynum		
	#				
	gateway * #	XXX.XXX.XXX.XXX			
	" iservice *	XXX.XXX.XXX.XXX			
	#				
	mail1 * to:	sub:	msg:		
	#				
	serial2 * 9600 8	e 1			
	Note: * = optional	ly			
		,			



param	Installation related parameters / machine datas		
plcobj	Installation related PLC programm		
system	link on the active CNC operating system / link—>bs912.100		
Notes to the Ethe	ernet 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 rooter 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.		
maila	 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)		



Bit-map files in the directory	Winby 5.2 connected width : bwo.cnc.demo					
CNC \ BP \ <u>BMP8</u>	<u>File H</u> elp					
•• (<u>=•</u>	Directory tree	File	Length	Da		
BP actual the	8	axkeys.bmp	80374	2001-		
subdirectory for the	🖶 🗾 bwo.cnc.demo	A keyboard.bmp	124702	2001-		
operating panel.	🗄 🔍 bp	A keylayout	2080	2001-		
	- 🐚 bmp8	Iampegruen.bmp	518	2001-i		
All files off this	- 🐚 cnc900c	[2] Iampeoff.bmp	238	2001-		
directory are read	🖶 🔜 bwo.cnc.demo panel 1	Iampeon.bmp	238	2001-i		
with ' boot ' by the	🖻 🔜 bwo.cnc.demo panel 2	[2] Iamperot.bmp	518	2001-i		
operating panel.	⊞ pc	Iampeweiss.bmp	518	2001-		
		Optimized provide the second secon	99958	2002-1		
		Optimization (Contemporation)	264	2002-1		
		I				

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



Files in the	Winby 5.2 connected width : bwo.cnc.demo				
directory CNC \ BP \ <u>CNC900C</u>	<u>F</u> ile <u>H</u> elp				
	Directory tree	File	Length	Da	
BP actual the	8	Cnc900x.cfg	58	2002-1	
subdirectory for	🖻 📙 bwo.cnc.demo	Oppcimage	828080	2002-1	
the operating panel.	⊡® b p	Show_e	464607	2002-1	
	🛍 bmp8				
All files off this	🖣 cnc900c				
directory are read	🐵 🔜 bwo.cnc.demo panel 1				
with ' boot ' by the	🐵 🔜 bwo.cnc.demo panel 2				
operating panel.	⊞ ⊒pc				

cnc900x.cfg	Configuration file for releasing from directories with path specification (here NCDATA).			
	beep:off DRIPFEED://server/ncdata NCDATA1:/ncdata NCDATA2://server/ncdata	'bleeper' ON / OFF drippfeed mode flash disk (operating panel) peripheral file server		
ppcimage	operating system operating panel CNC	910 / CNC920		
show_e	installation related user surface / pictures			



Files in the directory Winby 5.2 connected width : bwo.cnc.demo _ [CNC \ <u>NCRAM</u> <u>File</u> <u>H</u>elp Length **Directory tree** File NC programs in the 8 P1000 RAM memory of the 2704 🖻 🔋 bwo.cnc.demo CNC 🖨 🐚 bp 🐚 bmp8 Cnc900c ncram 🗄 🖳 bwo.cnc.demo panel 1 🗉 🖳 bwo.cnc.demo panel 2



7.3.2 Directory PANEL

Files in the directory PANEL \ CNC900C

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

Winby 5.2 connected width : bwo.cnc.demo			
<u>F</u> ile <u>H</u> elp			
Directory tree	File	Length	Da
8	<pre></pre>	23	2001-
🗄 🗉 bwo.cnc.demo	<pre></pre>	24	2001-
🖻 🖳 bwo.cnc.demo panel 1	🥗pass_1.dat	1274	2001-
🖶 🐚 cnc900c			
🖻 🛍 data			
- 🔍 etc			
ncdata			
ufo			
🖻 🖳 bwo.cnc.demo panel 2			
⊞ ≣ pc			

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 <u>PC</u>

Winby 5.2 connected width : bwo.cnc.demo				
<u>F</u> ile <u>H</u> elp				
Directory tree	File	Length	Datu	
8	🖉 BS912.100	719824	2002-03	
🖻 🗾 bwo.cnc.demo	A NETCONF	591	2001-11	
🖶 🖳 bwo.cnc.demo panel 1	PARAM	21080	2001-10	
🖽 🖳 bwo.cnc.demo panel 2	PLCOBJ	65536	2001-10	
⊨ pc	A SYSTEM	17	2001-09	
🖻 🖣 cnc				
⊡ 🐚bp				
bmp8				
Cnc900c				

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

Winby 5.2 conne	cted width : bwo.cnc.dem	0		- 🗆 ×
<u>F</u> ile <u>H</u> elp				
<u>S</u> et clock	m	File	Length	Date
<u>R</u> ead Flash				
<u>C</u> onsole	no			
<u>P</u> lc	no panel 1 no panel 2			
<u>Q</u> uit				

Functions with	Winby !	Winby 5.2 connected width : bwo.cnc.demo					
directory CNC	<u>F</u> ile <u>H</u> elp						
(right mouse button)	Director	y tree		File	Length	Date	
	8			🧳bs912.110	756720	2002-07-29 0	
	🗉 📙 bwo	o.cnc.demo		Onetconf	897	2106-02-06 0	
	🗏 🗄 🔜 bwo	o.cnc.demo panel 1		/ param	16235	2083-01-03 0	
	🗏 🗄 🔜 bwo	🐵 🔜 bwo.cnc.demo panel 2		Optimization (Contraction)	8	2002-07-29 0	
	🗄 🗐 pc			//plcobj	262144	2002-07-29 0	
		New directory		System	17	2002-07-29 0	
		Delete					
		Сору					
		Paste					
		Format					



7.4 System functions (continuation)

Functions with directory panel (right mouse button)

Winby 5.	2 connected width : by	wo.cnc.dem	10		- 🗆 🗙
<u>F</u> ile <u>H</u> elp)				
Directory	/ tree		File	Length	Datu
8			🖉 cnc900x.cfg	84	2001-08
🖽 🔋 bwo	.cnc.demo		/>remote	25	2002-07
🕀 🔜 bwo.	.cnc.demo panel 1				
	.cnc.demo panel 2				
i≣ -≣pc					
	New directory				
	Delete				
	Сору				
	Paste				
	Format				
	Screen				
1 1					





System functions (continuation) 7.4



	Winby 5.2 connected width : bwo.cnc.dem	10		- 🗆 🗙
	<u>F</u> ile <u>H</u> elp			
	Directory tree	File	Length	Datu
	8	🖉 cnc900x.cfg	58	2002-07
	🖻 🗾 bwo.cnc.demo	Oppcimage	828080	2002-07
	🖕 🖻 🖏 bp	🧳 show_e	464607	2002-07
to	- 🔍 bmp8			
CNC\BP\CNC900C	 ➡ ➡ bwo.cnc.demo panel 1 	Del	ete	
	🖻 🔜 bwo.cnc.demo panel 2	Cor	у	
	i ∎ .≣pc	Pas	te	
		Edi	t	
		cOr	npare	- 1
		Syn	nbolic Link!	
				. 1



7.5 Remote diagnostics

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



CNC control of the machine user.

- 2 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).
- **3** Program WINBV on PC of the machine producer.
- The program WINBV asks the BWO internet PC whether the CNC of the machine user is on-line actual.
- 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



CNC control of the machine user.

2 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).

- **3** Program WINBV on PC of the machine producer.
- The program WINBV asks the BWO internet PC whether the CNC of the machine user is on-line actual.
- 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)

Winby 5.2 connected width : I	wo.cnc.demo	D		- 🗆 ×
<u>F</u> ile <u>H</u> elp				
Directory tree		File	Length	Datu
8		🖉 cnc900x.cfg	84	2001-08
🗉 📒 bwo.cnc.demo		🦾 remote	25	2002-07
🖽 🔜 bwo.cnc.demo panel 1				
🖶 🔜 bwo.cnc.demo panel 2				
i ⊞pc				
New directory				
Delete				
Сору				
Paste				
Format				
Screen				



7.6.1 Switching on (continuation)

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

Ŷ	T1 T2 T3 T4 T5 T6 T7 T8	
	K1 HAND	P
i	HAND-DATEN Soll Ist Override	
↔	Vorschub 10000 12000 120 Drehzahl 1136.821 0 0 0 0	
N	Nullpunkt - M-Fkt	×.
!	KoordArt - X 879.000 Y 0.000 Z 170.734 A -19.300	∄↑
	B 0.000 C 166.650	∄₽
	Kanal Startdaten Dialog Parameter	?
	YZC	
	$\overrightarrow{} \rightarrow \cancel{} \rightarrow \phantom{$	Ű



7.6.2 I/O circulation

Û	T1 T2	T3 T4	T5 T6	T7 T8			
	EA-Yerkehr K1	HAND			T		
i ↔		DOLDATA EROPOINTS 3-00 10:43 2704	<data> 10- <etc> 10-</etc></data>	-10-44 8:11 10 -18-44 8:13 10 -18-44 8:13 10 -01-99 0:00 309			
N					\		
	Freier NC-Speicher 1416576 Max NC-Speicher 1419776			िि↑			
	X 879.000	Y 0.000	Z 170.734	A -19.300			
	B 0_000	C 166.650		<u> </u>			
	Kana I	Narkiere Lösche	Programm E ingabe	Kopie <->] ?		
XYZC							



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 "

Û	T1 T2 T3 T4 T5 T6 T7 T8	
	K1 HAND	F
i	Online	
+	Offline Meldungsnr. Eingabe Iservice Host XXX.XXX.XXX	
Ν	·	
!	X 879.000 Y 0.000 Z 170.734 A -19.300	
	B 0.000 C 166.650	
	Meldung senden Online Offline	?
	YZC	
۲.		