# NT100-DN-DP 网关操作指南

本文以 NT100-DN-DP 网关为例,介绍该网关的配置步骤,其他系列网关的 配置步骤与此类似。



(1)当 NT 100 第一次通过 USB 电缆与计算机相连并且上电后,计算机会自动检测到该硬件, 弹出图 1 所示对话框,选择从指定地址安装:



图 1

(2)选择从光驱安装,并把 NT 100产品光盘放入光驱中,如图 2 所示:



图 2

(3) 安装完成,如图3所示:

Completing the Hardware Update Wizard The wizard has finished installing the software for:
Click Finish to close the wizard.
< Back Finish Cancel

(4) 在"设备管理器"中可以看到此设备驱动成功安装,如图4所示:



(5) 在光驱中放入 NT 100 产品光盘,安装配置软件 SYCON.net。安装程序在光盘 Software\SYCON.net 目录下,双击该安装程序,弹出语言选择对话框,选择英语,如图5所示:

4	W鋒len Sie die Sprache dieser Installatio	n aus der unten aufgi
E	🚆 rien Auswani aus.	
	English (United States)	~

(6) 选择接受协议, 如图 6 所示:

License Agreement		
Please read the following license	agreement carefully.	
HILSCHER SOFTWARE LICENSE A	GREEMENT	^
This document is a legal Agreement Systemautomation mbH, ("Hilscher") the software. By installing or otherv Agreement. If you do not agree to th Software, return it to us or to the dis refund.	between you, the license, and Hilscher Gesellschaft fi . Please read this Agreement carefully before you inst vise using the software, you accept the terms of this le terms of this Agreement, then do not install or use th stributor from which you have it purchased for a full	ir all e
<ol> <li>Copyright This software program (the "Software and international copyright laws and</li> </ol>	are") is owned by Hilscher and is protected by German I international trade provisions. The software is license	i edi, 💌
I accept the terms in the license a	agreement	
I do not accept the terms in the li	cense agreement	
stallShield	19-1	
	<back next=""> Can</back>	cel
	图 6	

### (7) 输入信息, 如图7所示:

Please enter your information.		
User Name:		
Hischer		
Organization:		
Hischer		
Install this application for:		
Anyone who uses	this computer (all users)	
Only for me (Micr	osoft)	
allShield		

(8) 选择完整安装, 如图 8 所示:

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Setup Type	
Choose the si	etup type that best suits your needs.
Please select	a setup type.
() <u>C</u> omplete	e
1 <sup>1</sup>	All program features will be installed. (Requires the most disk space.)
◯ Cu <u>s</u> tom	
1 <sup>4</sup>	Choose which program features you want installed and where they will be installed. Recommended for advanced users.
allShield	
	< <u>B</u> ack <u>N</u> ext > Cancel

(9) 单击"Install",开始安装,如图9所示:

Ready to Install the Program	n		
The wizard is ready to begin ins	stallation.		
Click Install to begin the installa	ition.		
If you want to review or chang exit the wizard.	e any of your installation	settings, click Back. Cl	ick Cancel to
allShield			
	< Back	Instal	Cancel

在软件安装完成后,会启动"SYCON.net",要求输入密码,如果不需要密码,直接点击

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(10)当 NT 100 网关 USB 设备驱动以及网关配置工具 SYCON. net 都安装成功后,使用 USB 电 缆连接 NT 100 与计算机,并打开 SYCON. net,选择 "File" "New",如图 10 所示:

	and the second second	
i = sµeti undines		CCLIPA CCLINA Do-actick EthertaticP Cover ModeuryTCE E PowDeLIPE ForMOLIPE PowDeLIPE E PowDeLIPE E PowDeLIPE
	<u>XII — — —</u>	E Station / Second DIH Dave /

图 10

(11) 在软件界面右侧选择"Fieldbus"栏,将"DeviceNet""Gateway / Stand-Alone Slave" 文件夹中的 NT 100-XX-XX 图标拖放至中间区域的灰线下方,如图 11 所示:



图 11

(12) 双击该图标,弹出配置对话框,如图 12 所示,此时在"Device Assignment"栏中显示计算机已经找到硬件,勾选设备前的方框,并单击"Apply":

10 Device: NT 100-X	anor Smbri		Vendor II	); GX031E		ŝ	
Nevigation area 📃	-	Di	wise Assignm				
Settings	Scarprogram: 4/4	Decreas (Current decise: -)					
TCP/IP Dever for net X → Device Assignment Device Assignment Settings Uconse IVe Oate Assigne IVe Oate Assigne IVe Oate Assigne	Soon Device selection:						
	Device	Hardware Poilts	Seitainumber	Ditver	ChannelProtocol	14	
			200/		Gerenia)		
	<				1	13	
	Access geth:	(258440.ND+7818-4504	-5634-218-20.38	evering the second s			
			OK	Cance	Aboy H	sk:	

(13) 在"Setting"栏中,作如图 13选择,X2 端口选择"DeviceNet Slave",X3 端口选择 "PROFIBUS-DP Master",在单击对应的 Firmware 后,单击"Download"按钮下载 Firmware。 在以后使用时,如果转换的协议没有改变,那该固件只需要下载一次即可。

netDevice - Gateway netTAP	[NT 100-XX-XX]<>(#1)	÷	Device TD	
Vendor: Hilscher G	mbH		Vendor ID:	0x011E
Navigation area	General D <u>e</u> scription:	netTAP	Settings	
Configuration → Settings Signal Mapping Memory Card Management Licensing	Protocol Combinations Primary network (Port X2): Required gateway: Required license:	DeviceNet Slave         ▼           NT 100-DN-DP         ▼           Yes (1)         ▼	Secondary network (Port X3):	PROFIBUS-DP Master
	Available Firm <u>w</u> are:	NTDNSDPM.NXF		Browse Download
	Software class: Software version: Basic Settings	Gateway 1.3.3.0		
	Mapping C <u>y</u> cle time:	1 ms	Mapping mode:	Default
			ОК	Cancel Apply Help
		_		1.

图 13

(14) 等待 Firmware 下载,如图 14 所示:

Navigation area 🔚				
Settings	nettlevice			
Configuration TCP/IP Deven for netX Device Assignment Configuration Settings License UIO Date Mapping MMC Management	Device: netTAF()/T Transfer Data 9 % complete	100-XI-30(]<>(#1)	ROULD OF MADE	2
	Filmware Download			
	Pirm <u>o</u> ore file:	Manaliban yan.		YOMER .
	Firmware name:	Gabaway	E	perioad
	Pirmwore version:	1.1.5.0		
	Galeriay Settings			
				-

图 14

(15)观察对话框下侧的固件下载进程提示,在 Firmware 下载完成,单击"OK",回到配置

软件主界面。将"Fieldbus" 一栏"Profibus DPV0""Slave"文件夹中的相应从站图标拖 放至紫色线下方,本例中以赫优讯 PROFIBUS 从站测试板 CB\_AB32-DPS 为例,如图 15 所示:



若是其他厂商从站产品,则必须选择"Network""Import Device Description",导入其GSD文件,再重启软件。

(16) 双击 CB\_AB32-DPS 图标,对 PROFIBUS 从站进行配置,此处均选择默认参数,如图 16 所示:

Vendor:	CB_AE32-OPS Hischer Grith			Device ID: Vendor ID:	0::7506 -	
Navigation Area 🚞			N	todates		
Configuration Contract	Available Modules:					
- Modules	Nodule name		h	fodule Configuration	Identifier	
Parameters Groups Extensions Devia	2 byte input/output		0	x21,0×11		
DPVI Device Description Device GSD					Inset	Append
	Circligueed Modules:			and to make		1 Canada Salanana
	Winter Street in a case					
	Slot Module nens 1 2 byte input,	ioulput		6x21,0x11	ration ucentiner	
	Sot Nodule non: 1 2 byte mout	oulput		0>21,0>(1	ration licentifier	
	Sot Nodule next 2 tryle motified Length of input/jouto Length of input/jouto Length of putput data Length of putput data Number of modules:	utdata: 41 t: 21 ta: 21 ta: 21 ta: 21	nytes (max. 306 byb rytes (max. 244 byb rytes (max. 244 byb max. 1)	( 2010 Conta ( 221,0x(1) cs) cs) cs)	radan icerkiner	Bannve

(17) 右击 NT 100 图标,选择 "Configuration" "DeviceNet Slave",对 DeviceNet 协议参数进行配置,选择 "Configuration" 栏,设置站地址、波特率、输入输出字节数等参数,此 字节数必须不小于实际传输字节数,如图 17 所示:

NetDevice - DeviceNet Slav	ve netTAP[NT 100-E	DN-DP]<>(#1)			
IO Device: NT 100 Vendor: Hilscher	-DN-DP r GmbH		Vendor ID:	0×0001 0×011b	FDT
Navigation area 📃					
Configuration Configuration Signal Configuration Bi	Minor <u>R</u> ev: Product <u>N</u> ame: us				
	MACID	2			
	Baud Rate:	500 kBaud 💌			
	Extras:	Ignore Address Switch 🗖			
		Continue On Bus Off			
		Receive-Idle Clears Data			
		Receive-Idle keeps Data 🗖			
D	ata				
	Prod. Data Length:	8			
	Cons. Data Length:	8			
		ĺ	De <u>f</u> ault		
		[	ОК	Cancel Apply	Help
					1.
		图 17			

(18) 选择"Signal Configuration"栏,如图 18 所示:

Vendor: Hils	100-DN-DP icher GmbH	Device ID: Vendor ID:	0×0001 0×011b	5	
Navigation area 📃					
Configuration	Disable advanced editing				
Signal Configuration		Signal Name	Data Type	Length	
Signar configuration	B Butes In (Poll)	8 Butes In		gar	
		8 InBytes	BYTE	8	Input
	8 Bytes Out (Poll)	8 Bytes Out			
		8 OutBytes	BYTE	8	Output
	Add module Add signal	Remove			Default
	Add module Add gignal	Remove			Default
	Add module Add signal	<u>R</u> emove OK	Cancel	Apply	Default Help

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(19) DeviceNet 协议参数配置完成后,单击"OK"回到主界面,再次右击 NT 100 图标,选择"Configuration""PROFIBUS-DP Master",对 PROFIBUS 协议参数进行配置。选择"Bus Parameters"栏,如图 19 所示,由于修改过输入输出字节数,因此需单击"Adjust"按钮进行参数自动调整:

PG De-tre R Vendor	NT 100-RE-OF Histher Gribh			Devene ID: Vendor ID:	CHURAN		
Navigation Area 🛛 🛅							
) Configuration My Eus Paramaters Process Bata	Profile: Elos Perameters	FROFIBUS D					
Address Table Station Table	Boud Rate:	1500 +	HE QS	Station Address:	F	- 코	
	Sict Time:	303	158	Target Richardon Times	1	21211 811	
	Min. Station Delay Time:	11	tek		- :	2467 ris	
	His. Station Ordey Time:	150	:54	GAP Actualization Pactors	1	10	
	Quiet Time:	2	tor	Hex. Rebly Unit:		1	
	Setup Time:	1	.58	Highest Station Address (HSA)	e 🗖	126	
	Eus Manitoling						
	Date Control Time:	120	me F	Override slave specific Watche	log Control 1	Time	
	Hin, Slave Interval	2002	Ļ6	Wotchdog Control Time:		20 nis	
	Calculated Timing Ticl 37 KBR		Γ 4.	o Clear ON			
	Tio2: 150 kOk	1	V 18	ues narked with this symbolish justed to changes in the topolo;	ouidibe	Adjust	
				OK Car	oe) . (oc	Aug 1	Help

图 19

(20) 选择 "Process Data" 栏, 如图 20 所示:

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IO Device:	NE 1004RE-OP	Device ID: Os084A	
Vender	Histor Subti	Vendor ID: OXOLDE	Fi
Navigation Alea 🗧		Process Data	
Configuration	Tate	Tag	
Electronic Cata	「白っ 個 CB_AB32-DPS ∢Addr 1>	C8_AB32-DPS	
Address Table	<ul> <li>EI- I 2 byte nput/output (Ski1)</li> </ul>	2 byte nput/output	
Station Jable	📋 👘 (B Bit) byte autput	Output_1	
	- 🔟 18 Bit) byte autput	0.4p.(_2	
	- 🔟 (BBil) byte in put	[np.d_]	
	10 Bit) byte input	Input_2	
· · · · · · · · · · · · · · · · · · ·		OK Concel Asce	Help

图 20

(21) 选择 "Address Table" 栏, 如图 21 所示:

IO Device: Vendor:	NT 100-RE-09 Hilscher Gribti		Device (D): Vendor (D):	OxOB4A OxOD1E		
Navioriton Area 🛛 🗖		Adáreas	Table	Teratori.		2017.00
Configuration Bus Parameters Process Data	P dy to be derived to Incuts	<u>Display mode:</u>	Dedmal	•	<u>C</u> SV Eap	<b>r</b> ‡
📫 Additions Tables	Station A. Dev	ice Name	Module	Туре	Length	Address
Station Table	H 108 AB32 0 PS	EB AS32 DPS	2 byte ir	cu: IB	2	
	Outputs:	se Name	Module	Type	Length	Address
	Culputes Station A Day HBCS_ARK20045	se Name s DB_AB32DPS	Module 2 byte ou	Type pur QB	Length 2	Address
	Culpute: SistemA Dev M BOS ARCIDES	s LB_A632DPS	Mocułe 2 byłe cu	Type pur UB	Length 2	Address
9. <b></b>	Cutputs: Sistim A Dev M DCS AP 2009:	ice Name = DB_AB32DPS	Mocułe 2 byłe ou 0K C	Type pu:QB ancel	Length 2	Address Hstp
Neconnected.	Cutpute: Sister A Dev D Dev B Dev B Dev	ice Name 5 DB_AB32DPS	Mociule 2 byte ou 0K C	Type purQB ance	Active Length 1	Address Histp

(22) 选择 "Station Table" 栏,可以修改从站地址,如图 22 所示:

Vendori	KT 100 GE-00 Hischer SmbH		Vendor 30: 0:	OLIE
Xexigation Area Configuration U.s. Paramaters Process Data Activess Table ⇒ Station Table	Activate Station A CONTENT OF THE	Sh Device _A9320F5	Name Name C9_4832-0P5	Vendos Hischer Gnich
6) — A — J — J)	J.			-1 1

(23) PROFIBUS 协议参数配置完成后单击"OK"回到主界面,右击 NT 100 图标,选择 "Configuration""Gateway",选择"Signal Mapping",如图 23 所示:

TO Device:	NT 100-DN-DP					D	evice ID: -		
📋 Vendor:	Hilscher GmbH					Ve	endor ID: 0x011	E	
Navigation area									
Settings	Av	ailable Signals							
Driver		Port	Y2 (DeviceNet) <4ddr 2>		•	Port x	3 (PROFIBUSIDE) < 4ddr	5	
Device Assignmen	nt	8	Bytes In <pol></pol>			E C	B AB32-DP5 <addr 2=""></addr>		
Configuration		- E	Bytes Out <poll></poll>			St.	atus		
Settings		0.110	le i	1	×	D. 1.110	le i i	[5.1.1	
Signal Mapping		Port X2	Signals A	Data type		Port X3	Signals A	Data type	
Memory Card Mai	nagement	Send	8 InBytes	BYTE ARRAY 8		Send	Output: 0001	BYTE	
Licensing		Send	~8 InBytes.BYTE 0000	BYTE		Send	Output 0002	BYTE	
		Send	~8 InBytes.BYTE_0001	BYTE		Receive	Input_0001	BYTE	
		Send	AR InRuler RVTF 0002	RVTF		Daraiva	Torout 0002	RVTF	
	Ma	apped Signals -							
	Ma	apped Signals -							
		E Port	X2 (DeviceNet) <addr 2=""></addr>		^	🖃 🧰 Port >	(3 (PROFIBUS-DP) <addr< td=""><td>1&gt;</td><td></td></addr<>	1>	
		- i 🔤 8	Bytes In <poll></poll>			🕀 🏣 C	B_AB32-DP5 <addr 2=""></addr>		
		8 📰	Bytes Out <poll></poll>		~	SI SI	atus		
		Port X2 (D	DeviceNet)		1	Port X3	PROFIBUS-DP)		
			Manual Mapping: Map sign	nals <u>R</u> e	move lin	<u>k</u>	Auto Mapping: Off	Apply	Help

图 23

(24)数据映射可以手动进行,也可以自动进行。"Auto Mapping"选项选择"From Port3 to Port2",并单击"Apply"按钮,完成自动映射,如图 24 所示:

🏲 netDevice - Gateway net	TAP[NT 100-DN-DP]	<>(#1)	_					
IO Device: NT 10 No Device: NT 10 No Device: Hilsch	00-DN-DP her GmbH				Dev Ver	vice ID: - ndor ID: 0x01:	1E	FDT
Navigation area								
Settings	Available Signals							
netX Driver Device Assignment	E Port X2	2 (DeviceNet) <addr 2=""> ryte input/output <slot 1=""> atus</slot></addr>			Port X3	(PROFIBUS-DP) <addr _AB32-DP5 <addr 2=""> Itus</addr></addr 	1>	
Settings	Port X2	Signals 🔺	Data type	^	Port X3	Signals 🔺	Data type	^
Memory Card Manageme Licensing	ent Generated Generated Generated	Status Communication Change of Communication State Communication Error	UNSIGNED32 UNSIGNED32 UNSIGNED32		Generated Generated Generated	Status Communication Char Communication State Communication Error	nge of UNSIGNED3 e UNSIGNED3 r UNSIGNED3	2
	Concrated	Vercion	LINSTONED16	>	< Constant	Varcion	UNSTGNED	<u>ک</u>
	Mapped Signals							
	Port X:	2 (DeviceNet) <addr 2=""> wyte input/output <slot 1=""> atus</slot></addr>			Port X3	(PROFIBUS-DP) <addr _AB32-DP5 <addr 2=""> itus</addr></addr 	1>	
	Port X2 (De	viceNet) /output <slot 1="">/Output, 0001</slot>			Port X3 (P	ROFIBUS-DP) DPS <addr 2="">/2 byte inr</addr>	put/output <slot 1="">/0;</slot>	tout 000
	2 byte input 2 byte input	/output <slot 1="">/Output_0002 /output <slot 1="">/Input_0001</slot></slot>		1	<ul> <li>CB_AB32-</li> <li>CB_AB32-</li> </ul>	DPS <addr 2="">/2 byte inp DPS <addr 2="">/2 byte inp</addr></addr>	put/output <slot 1="">/Ou put/output <slot 1="">/Inp</slot></slot>	tput_000 put_0001
	_]2 byte input	/output <slot 1=""> /Input_UUU2</slot>			₩ CB_AB32-	UPS <addr 2="">72 byte inp</addr>	put/output <slot 1="">/Inp</slot>	ut_0002
	P	Nanual Mapping: Map signal	s <u>R</u> emi	ove lini	k	Auto Mapping: Fro	om Port3 to Port2 💌	
					С	K Cancel	Apply	Help
3D= 🚺 🛛 🖾 Save ope	ration succeeded		-					1

图 24

(25)至此,完成了所有参数配置,右击 NT 100 图标,选择"Download",在弹出的对话框 中单击"Yes",进行配置信息的下载,如图 25 所示:

SYDDM and - (HT100 apg) *					- 12 🕺
So you lives tayout time but					
5555 D&9 0 2 5 5	11:0				
netProject	a # relDevice				
Preme: H100     Prem:	APPET 100-IEF-BP1+ attempt to download durin anally weet to download	See To policy Transformer of CT   Downships of Downships, comm 3 m Br	ancitor between made		ncp
	c			Fieldbus /	Vendor ), DITM Class /
SPlau, number of modules reached> Device: 03, Al SPlau, number of modules reached> Device: 03, Al OrdetEadewayDPH::tweeCalConnectReguest enter Download succeeded to device netTAP[NT s00 RFL OrdetEadewayDPH::tweeCalConnectReguest enter OrdetEadewayDPH::tweeCalConnectReguest enter OrdetEadewayDPH::tweeCalConnectReguest enter OrdetEadewayDPH::tweeCalConnectReguest enter OrdetEadewayDPH::tweeCalConnectReguest enter	802-0F5[08_A832-0F5]<1 802-0F5[08_A832-0F5]<1 80> Device: netTAP[NT P]<>(#1). ed> Device: netTAP[NT	1> 100-8E-0P]<>(#1) 100-8E-0P]<>(#1)			
Back			111	Education of the local data	The second
room -		121.0-		Post Resp.7 OLD	1404

图 25

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