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Power supply



24 V power supply

or

F

USB LED (green/ red)

Power over Ethernet [Part-No.: ACPIPOE]

System LED (green/ red)

GREEN ON GREEN flashing	Power supply and system OK System start. firmware update or reset to factory settings	GREEN ON RED ON	USB port in use The USB server has been disconnected the power supply of the port e.g. due to overload or temporary
RED ON	System error		disconnecting of the USB device

USB Server Gigabit 2.0 - Quick Start Guide

Software

Install the software programs from the Software-CD (folder: USB-Server):

WuTility

USB Redirector

Scope of Supply

- USB Server Gigabit 2.0
- 24 V power supply
- Ethernet cable, 1 m
- Quick Start Guide



- Only the USB Server Gigabit 2.0 (Part-No.: **ACPIUSBSGB**) is supported, which is ordered directly from Optris!
- PIX Connect software version Rel. 3.1.3011.0 or higher

Connection variants USB server

Model	Channel	max. speed	max. number of units on one USB server
PI 160	IR	120 Hz	2
PI 200/ 230	IR+VIS	128 Hz	1
	IR	128 Hz	2
PI 400i/ 450i	IR	80 Hz	1
		27 Hz	2
PI 640	IR	32 Hz	1
PI 1M/ 08M/ 05M	IR	27 Hz	2
		32 Hz	1
		80 Hz	1
		1 kHz	1
Pyrometer	IR	-	2
PI + Pyrometer	IR	-	2
Xi 400	iR	80 Hz	1
		27 Hz	2
Xi + Pyrometer	IR	-	2



1. Direct Connection USB Server Gigabit 2.0 [ACPIUSBSGB] (Point-to-Point-Network) Installation



On a direct connection to a PC both, the USB server as well as the PC must use a fixed IP address. There is no DHCP server available. Accomplish the following settings on your PC once (depending on the operating system the procedure can differ from the here shown – the following description refers to a Windows 7 system).

1. Go to Control Panel; open Network and Sharing Center.



- 2. Enter Local Area Connection status screen [1] is shown and subsequently Properties.
- 3. Mark Internet protocol Version 4 (TCP/IPv4) [2] and go to Properties again.

General	us	Local Area Connection Properties Networking	Internet Protocol Version 4 (TCP/IPv4) Properties
Connection IPv4 Connectivity: IPv6 Connectivity:	Internet	Connect using:	You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Media State: Duration: Speed: Details	Enabled 00:05:48 1.0 Gbps	Configure This connection uses the following terms:	Obtain an IP address automatically Use the following IP address: IP address: Subnet mask: Default pateway:
Activity Sent Bytes: 96,1	— 👽 — Received 057 29,998	Link-Layer Topology Discovery Mapper UO Driver Link-Layer Topology Discovery Responder Install Uninstall Properties Description	Obtain DNS server address automatically Use the following DNS server addresses: Preferred DNS server: Alternate DNS server:
Properties SDisab	le Diagnose Close	Inframesion Control Protocol/Internet Protocol. Ine default wide area network protocol that provides communication across diverse interconnected networks. OK Cancel	Validate settings upon exit Advanced OK Cancel
[1]		[2]	[3]

- 4. In the register card General enable the checkbox Use the following IP address [3]
- 5. Now enter a user defined IP address for your PC, for example **192.168.0.1**.



If you want to switch between a user-defined IP address and a DHCP server, the following alternative configuration is recommended: Under the General tab choose Obtain an IP address automatically, and on the Alternate Configuration tab, click User configured and enter a user defined IP address:

this capability. Otherwise, you need to for the appropriate IP settings.	ask your network administrator	settings below.	nan one network, enter the alt
Obtain an IP address automatical		Automatic private IP addres Outrigued	s
O Use the following IP address:		IP address:	192.168.0.1
IP address:		Subnet mask:	255.255.0.0
Default gateway:		Default gateway:	
Obtain DNS server address autom	atically	Preferred DNS server:	
Use the following DNS server addr	esses:	Alternate DNS server:	
Preferred DNS server:		Preferred WINS server:	
Alternate DNS server:		Alternate WINS server:	
Validate settings upon exit	Advanced	Validate settings, if change	d, upon exit

Starting the program WuTility

6. To change the network settings of the USB server start the *WuTility* program:

İ

📼 Unt	titled - WuTility											
File	File Device Configuration Firmware Options Help											
Ne	ີງ 🚔 w Open	Save S	💮 📉 ican IP Address	🖳 🚯 🚺	er Firmware H	G? 🚯 Help About						
	Ethernet address	IP address	Product ID	Product name	Version							
	00c03d:07055e	190.107.233.110) #53662 / TB900979	USB-Server Industry Gigabit	1.15							
Ready						NUM						

Independent on the current network settings of the USB server the device is displayed now (if not, refresh the current view with **Scan**).

Untitled - WuTility		et Inventorying Method
e Device Configuration Firmware Device Server Server Server New Open Save Sc Ethernet address IP address Prov	Options; Help Options; Help Options; Help Program startup actions Program startup actions Program startup actions Sore passwords? ✓ Remind me about registration? ✓ Sore for new devices? Toolbar Edit columns Hiphlight address range Invertooring method XML converter online update	Local broadcasts (NOT recommended) Global broadcast Global broadcast, select interface Address Mask Gateway This computer seems to be connected to only one network. 'Global broadcast.

7. Mark the USB server and then press IP Address:



 New Open	Save So	an IP Address	🗐 🕞 Telnet Browser	Register	م ∂ Firmware	ු? Help	6 About
Ethernet address	IP address	Product ID	Product name		Version		
00c03d:07055e	190.107.233.110	#53662 / TB90097	9 USB-Server Industr	y Gigabit	1.15		

8. The standard setting of the USB server is DHCP. On a direct connection to a PC set a static IP address to the device. Take care that the network part of the address is identical to the network part of the IP address of the connected PC (therefore: **192.168.0**). The host part must have a different digit than the user-defined IP address of your PC (for example: 192.168.0.2):

static							Address mage:
IP address (must be unique):	192	1 ▼	68 🛓	0	×	2	Subnet #0
This address might	t be uni	used.					Check again
							Default values from
Subnet mask:	255	. 2	55 .	255	•)	Windows networking
Default gateway:	0	. 0		0] . [)	
DNS server A:							
DNS server B:							

9. Now press Next and then Finish. The network connection between PC and USB server will be established and you can perform the USB Redirector as described previously. Close the *WuTility* software.

HAL)	Unt	itled - WuTi	ility											x
Fi	File Device Configuration Firmware Options Help													
	 Ne	່ງ 🖆 w Ope	en	Save	() Sc	ر) an	IP Address	<u>ا</u> Telnet	(f) Browser	Register	F irmware	୍ଭ ? Help	6 Abou	t
		Ethernet ad	ldress	IP address		Pro	oduct ID	Produ	ct name	v	ersion			
	(00c03d:070	55e	192.168.0.2		#53	3662 / TB90097	9 USB-Se	erver Industry	/ Gigabit 1	.15			
L														
L														
Re	ady												NUM	

Starting the USB Redirector

10. Start the **USB Redirector**. The local network will be automatically scanned for available USB servers (if not, refresh the current view with File/ New).

U Unti	tled - W&T USE	8 Redirect	or									
File E	dit Devices	Options	Help									
D New	😅 Open	Save	୍ଲେ) Scan	Insert	₽ Edit	(b Browser	l± Claim	, Adva	nced Rela	≿ 07 ase Deta	ls Options	6 About
	Identification	Port	Description				Annot	ation	Requested	Client	Status	
<u>ې</u>	192.168.0.2 0403-DE37	32032 1	USB-Server PI IMAGE	- 07055E R								
٠												E.
Ready											NU	M



If several USB servers are in your network you can identify your own by the number you find in the overview of *Redirector* (under *Description*) as well as on the serial number label of your device(e.g.: USB server-**07055e**).

11. You see in the *Redirector* the connected USB device. Mark it and press the Claim button.



The status is changing now to Connected. You can see the IP address of your local PC under Client:



The device (IR camera PI, Xi, CTvideo or CSvideo) can now be used in the same way as it would be connected directly to a local USB port of your PC.

The program *Redirector* can be minimized – the connection will be determined if you close the window.

Automated USB Redirector

Open the *Redirector* and mark the connected device.

Then press Advanced:



Select permanently:



Stopping the USB Redirector

To stop the connection between the USB Redirector and the device, start the *Redirector* and press the **Release** button:

Untit	tled - W&T US	B Redirect	or									
File E	dit Devices	Options	Help						_	-		
D New	🗃 Open	R Save	୍ଲେ) Scan	Insert	©¶ Edit	Browser	l± Claim	L Advanced	l <u></u> . Release	Q? Details	ىتى Options	6 About
	Identification	Port	Description				Annota	ation Requ	ested	Client	Status	
۰	192.168.0.2	32032	USB-Server-	07055E								
-4	0403-DE37	1	PI IMAGEI	R				pern	nanen	192.168.0.1	connected	
Ready											NU	м

2. Connection USB Server Gigabit 2.0 [ACPIUSBSGB] via Network

Installation



On a connection to a PC both over the network, the USB server as well as the PC must use an automatic IP address. Here the DHCP server is available. Review the following settings on your PC once (depending on the operating system the procedure can differ from the here shown – the following description refers to a Windows 7 system).

1. Go to Control Panel; open Network and Sharing Center.



- 2. Enter Local Area Connection status screen [1] is shown and subsequently Properties.
- 3. Mark Internet protocol Version 4 (TCP/IPv4) [2] and go to Properties again.

Uccal Area Connection Status	Local Area Connection Properties	Internet Protocol Version 4 (TCP/IPv4) Properties
General	Networking	General Alternate Configuration
Connection IPv4 Connectivity: Internet	Connect using: Intel(R) PRO/1000 MT Network Connection	You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Pv6 Connectivity: No network access Media State: Enabled Duration: 00:05:48 Speed: 1.0 Gbps Details	Configure This connection uses the following items:	Obtain an IP address automatically Use the following IP address: IP address: Subnet mask: Default gateway: .
Activity	Unk-Layer Topology Discovery Mapper I/O Driver Unk-Layer Topology Discovery Responder Install Uninstall Properties	Obtain DNS server address automatically Use the following DNS server addresses: Preferred DNS server:
Bytes: 96,057 29,998	Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.	Alternate DNS server:
Cose	OK Cancel	OK Cancel

4. In the register card General enable the checkbox Obtain an IP address automatically [3]

The default setting for the USB server is DHCP. If you have not previously used the *WuTility* program, you do not have to start it. If you have already used it before, e.g. a direct connection, make sure that the following setting is configured:

- Start the *WuTility* program. Regardless of the network settings of the USB server, this is now displayed (if not, simply update the view with *scan*).
- Select the USB server and then press the IP address: PAddress



• The setting of the USB server must be set to dynamic (DHCP).

🔨 Device Settings: N	etwork Parameters	×
 dynamic (DHCP) static 		
		Address range:
IP address (must be unique):	192 - 168 - 49 - 154 -	Subnet #0 👻
This is your own IF	'address.	Check again
		Default values from
Subnet mask:	255 . 255 . 255 . 0	Windows networking 🔹
Default gateway:	192 . 168 . 49 . 253	
DNS server A:	192 . 168 . 49 . 31	
DNS server B:	192 . 168 . 47 . 31	
	< Back	Next > Cancel

Now press **Next** and then **Finish**. The network connection between PC and USB server will be established and you can close the **WuTility** software.

Starting the USB Redirector

5. Start the **USB Redirector**. The local network will be automatically scanned for available USB servers (if not, refresh the current view with File/ New).

File	Edit Devices	Options	Help					-	-		_		
D New	🖨 Open	- Save	(p) Scan	Insert	다. Edit	() Browser	Claim	Adva	inced	l∷ Release	9 ? Details	ىتر Options	e About
	Identification	Port	Description				Annot	ation	Reque	ested	Client	Status	
٠	192.168.4	32032	USB-Server-	07055E									
-¢	0403-DE37	1	PI IMAGEF	,									

If several USB servers are in your network you can identify your own by the number you find in the overview of *Redirector* (under *Description*) as well as on the serial number label of your device (e.g.: USB server-07055e).

6. You see in the *Redirector* the connected USB device. Mark it and press the Claim button.

U Unti	Untitled - W&T USB Redirector												
File E	dit Devices	Options	Help										
D New	🗃 Open	Save	(m) 🗳 Scan Inser	t Edit	6 Browser	【土 Claim	문 Advanced	l∷ Release	9 ? Details	ىتى Options	B About		
	Identification	Port	Description			Annota	tion Requ	ested C	lient	Status			
٠	192.168.4	32032	USB-Server-07055	E									
6													
Ready										NII	м		

The status is changing now to connected. You can see the IP address of your local PC under Client:

U Ur	titled	- W&T US	B Redirect	or											x
File	Edit	Devices	Options	Help											
C Nev) ~	🗃 Open	S ave	୍ଲେ) Scan	Insert	₽ Edit	6 Browser	l± Claim] Adva		l. <u>≓</u> Releas	9? Details	ح Options	6 Abou	ıt
	Ider	ntification	Port	Description				Annot	ation	Requ	ested	Client	Status		
۰	192	2.168.4	32032	USB-Server-O)7055E										
- 6	P	0403-DE37	1	PI IMAGER						until	exit	192.168.49.154	connect	ed	
•							III								- P.
Ready													NU	М	

The device (IR camera PI, Xi, CTvideo or CSvideo) can now be used in the same way as it would be connected directly to a local USB port of your PC.

The program *Redirector* can be minimized – if you close the window, the *Redirector* will be automatically terminated.

Automated USB Redirector

Open the *Redirector* and mark the connected device.

Then press Advanced:

File E	dit Devices	Options	Help									
D New	🗃 Open	Rave Save	(ල) Scan	Insert	₽ Edit	6 Browser	Claim	문 Advanced	∦ <u></u> Releas	e Details	ىتى Options	B About
	Identification	Port	Description				Annota	tion Requ	ested	Client	Status	
۰	192.168.4	32032	USB-Server	-07055E								
	0403-DE37		PIIMAGE	IR				until	exit	192.168.49.154	connecte	ł

Select permanently:

Claim for Local Use - 192.168.49.184:32032/1	? ×	Unti	itled - W&T USB	Redirect	or									• X
When and how long would you like to use the device?		File E New	Edit Devices Edit Open	Options Save	Help (ෆූ) Scan	E. Insert	Edit	(°) Browser	dia. Claim	R Advanced	(武 I Release	()? Details	نٽر. Options	B About
			Identification	Port	Description				Annota	tion Req	uested	Client	Statu	s
			192.168.4	32032	USB-Server	-07055E								
• Permanently		-6	0403-DE37	1	PLIMAGE	R				pen	manently	192.168.49.	154 conn	ected
More >> Use as default settings OK	Cancel	•						III						- F
		Ready											NU	M

The connection is now kept also if the program *Redirector* will be closed. If the PC and/ or the USB server are restarted, the connection will be recovered automatically.

Stopping the USB Redirector

To stop the connection between the USB Redirector and the device, start the *Redirector* and press the **Release** button:



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