

E. Installation of a GigE camera

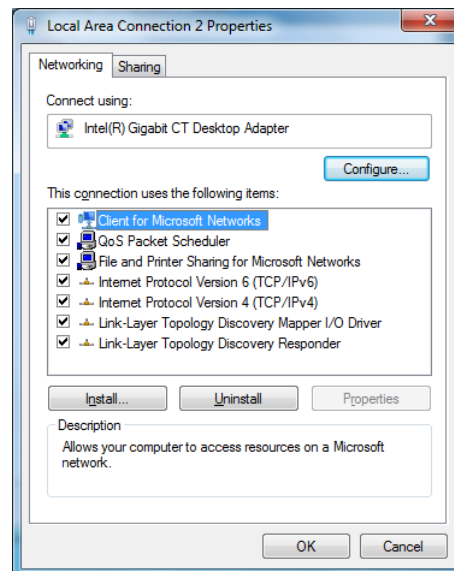
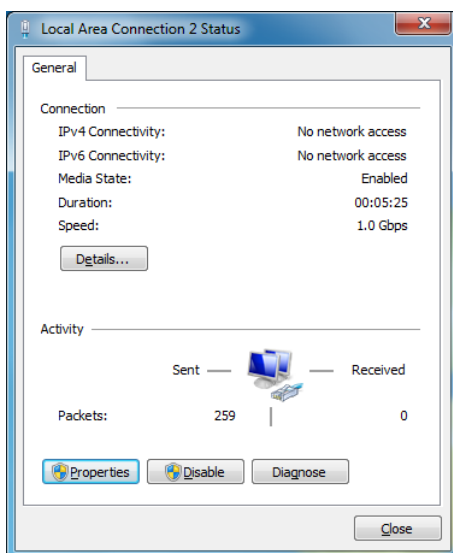
Installation of hardware

The camera is used with a Gigabit Ethernet card on the computer. Prerequisite for the operation of the camera, therefore, is that the camera is connected with a network cable to such a card, and the power of the camera is turned on.

Establishment of the network card

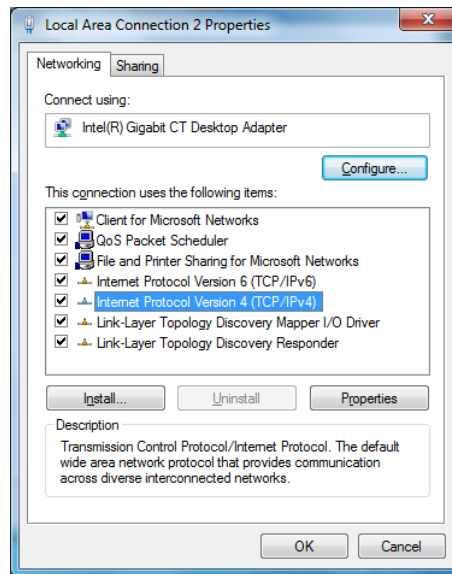
Please open in Windows 7 with „START | CONTROL PANEL | NETWORK AND SHARING CENTER“ the appropriate window. (In Windows XP, click „START | CONTROL PANEL | NETWORK CONNECTIONS“.) In general, there are two LAN connections appear, because most computers are already connected by a first network adapter with its network, while on the second the camera is connected.

Select the properties dialog for the network connection to the camera (left image) and press the button „PROPERTIES“ in this dialog (right image):

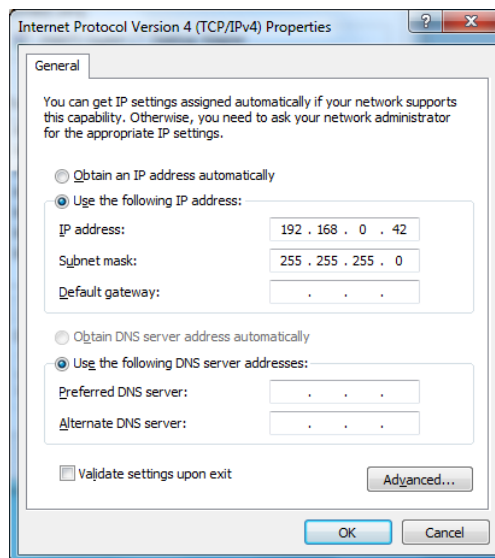


E. Installation of a GigE camera

First set all the check marks in the check boxes and then select the line „INTERNET PROTOCOL VERSION 4 (TCP/IPv4)“:



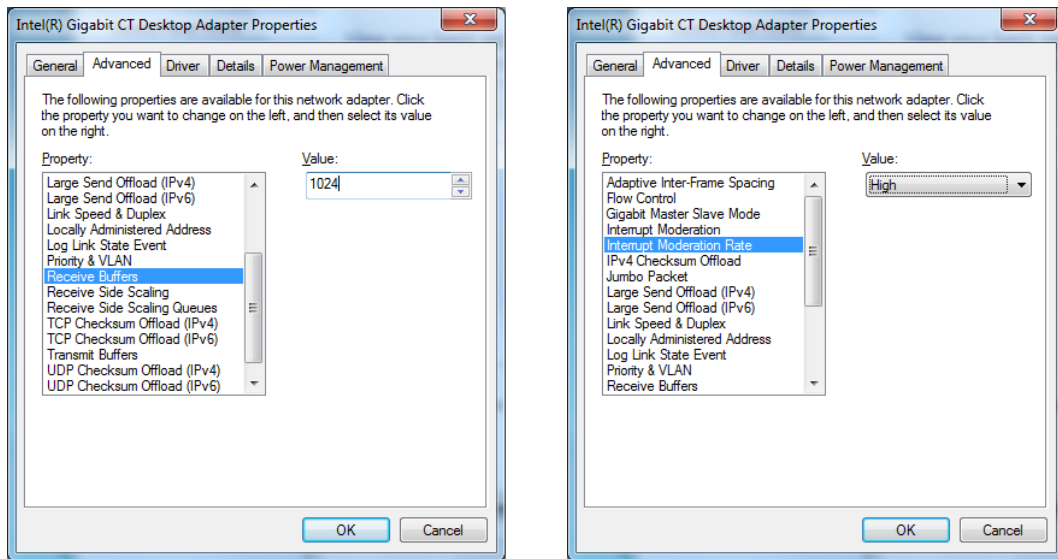
Then press the button „PROPERTIES“:



The address of the camera is set in the hardware of the camera and is reported in its calibration data to the program that uses the camera. The default setting of „TECHNO-TEAM“ for this address is „192.168.0.51“. When configuring the NIC, the first three numbers match those of the camera, the last number don't match with this and may also not be 0 or 255. Therefore, here in the dialog the address of the network card is selected as „192.168.0.42“.

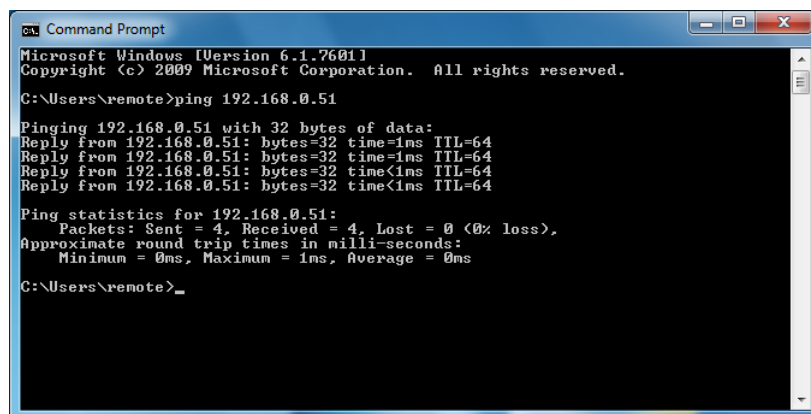
To ensure on slow computers interference-free reception of the camera images, it is recommended that the tab „ADVANCED“ is used to change the default settings for the

receive buffer and the Interrupt moderation rate (???). (The settings depend on the network adapter in the example „INTEL PRO“.)



Checking of the communication with the camera

This finishes the configuration of the network card and the connection to the camera via the network card can be verified. For this, open a console window, e.g. with „START | COMMAND PROMPT“ and there type in „PING 192.168.0.51“ (if that’s the IP address of the camera):



The figure shows the output of the command „PING“. In this example, the communication with the camera was flawless.

Configuration of the firewall

If in a network the communication is monitored by a firewall, then the necessary ports for the connection between the camera and computer have to be enabled. These are the ports „TCP 30“ incoming, „UDP 31“ incoming and „TCP 1636“ outgoing. When using Windows' own firewall in Windows XP and Windows 7, the installation files are located in the two scripts „FIREWALL_XP.CMD“ or „FIREWALL_W7.CMD“. In this case, you do not have to change the firewall rules interactively in the corresponding dialogs.

The scripts must be executed with administrator rights: In Windows Explorer, select the appropriate script file and after pressing the right mouse button click on item „RUN AS ADMINISTRATOR“ from the context menu.

Configuration of the virus scanner

If on the computer being used, the network communications is monitored by a virus scanner, then it has to be shut off in some cases, because the data stream from the camera can contain any bit combinations, including those that are in antivirus software is known as malware signatures.

Examination of the image acquisition

After this the program can be started (LabSoft or IPED), which will work with the camera. After loading the required calibration of the camera please start „LIVE MODE“ and check the image acquisition. Are there any difficulties, you can first test with turn off the firewall and virus scanner and see if it can fix the problem. If that is the case, the configuration of these programs has to be adjusted accordingly.