# Installation of Technoteam GigE - camera

Hardware installation

The camera will be operated by PC over the Gigabit-Ethernet network adapter. For putting the camera into operation it is necessary to plug-in the LMK to the network adapter and the power supply.

Adjusting the network adapter

Open in Windows 7/8/10 with "Start | Control panel | Network – and Sharing center" the needed dialog for changing network settings. In the standard case within the applied LAN-network connections will be shown. One of them is the LAN-network connection to the camera: "Unidentified connection".

Go to the properties dialog of this network connection by right-click with the mouse on the connection icon. In the appearing dialog you must press the button "Properties" (left image) after selecting the „Internet protocol version 4 (TCP/IPv4)" settings element.
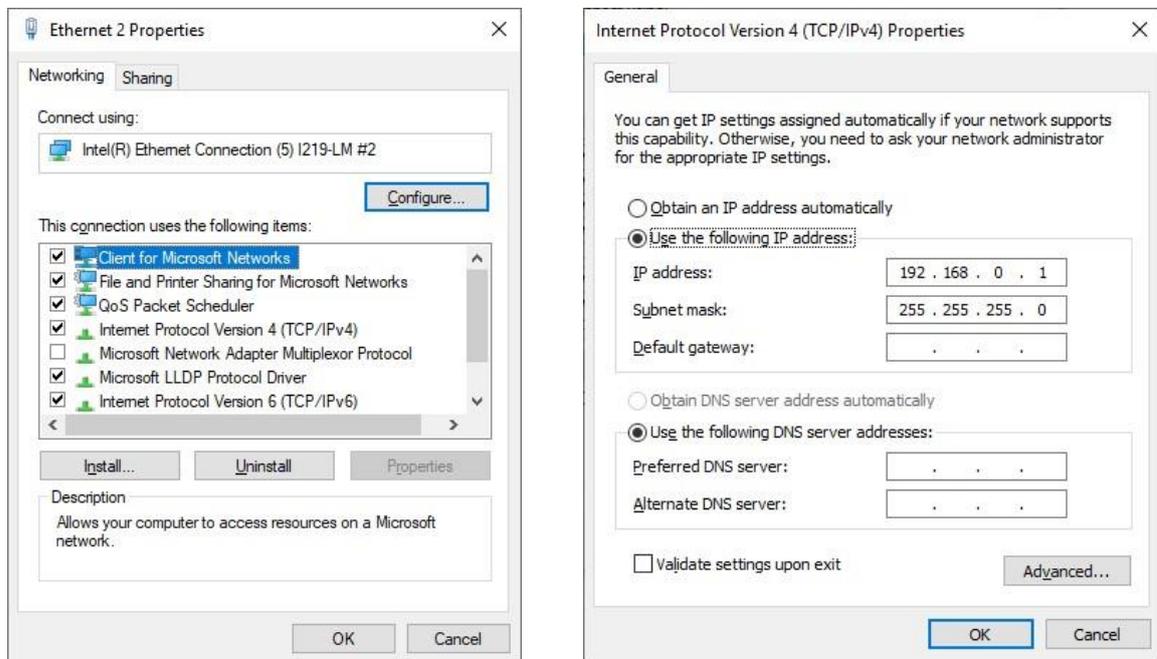

 Now the dialog "Properties of internet protocol version 4 (TCP/IPv4) does appear. It does show the recent settings of the IP-address of the network adapter.

The preset of the IP-address of the camera is "192.168.0.51". For the right configuration of the network adapter an IP-address in the same IP-segment as for the camera is has to applied. The automated set of the IP address using the DHCP-protocol has to be switched-off. The camera does not support this.

When manually entering a new IP-address for the network adapter the first three numbers has to be the same to put them in the same IP-segment. The last number must be a different number and not "0" or "255". For example the IP-address "192.168.0.1" can be used.

For realizing an undisturbed image capturing also for slower PC hardware one can furthermore configure the hardware chipset settings of the network adapter to a maximum of performance.
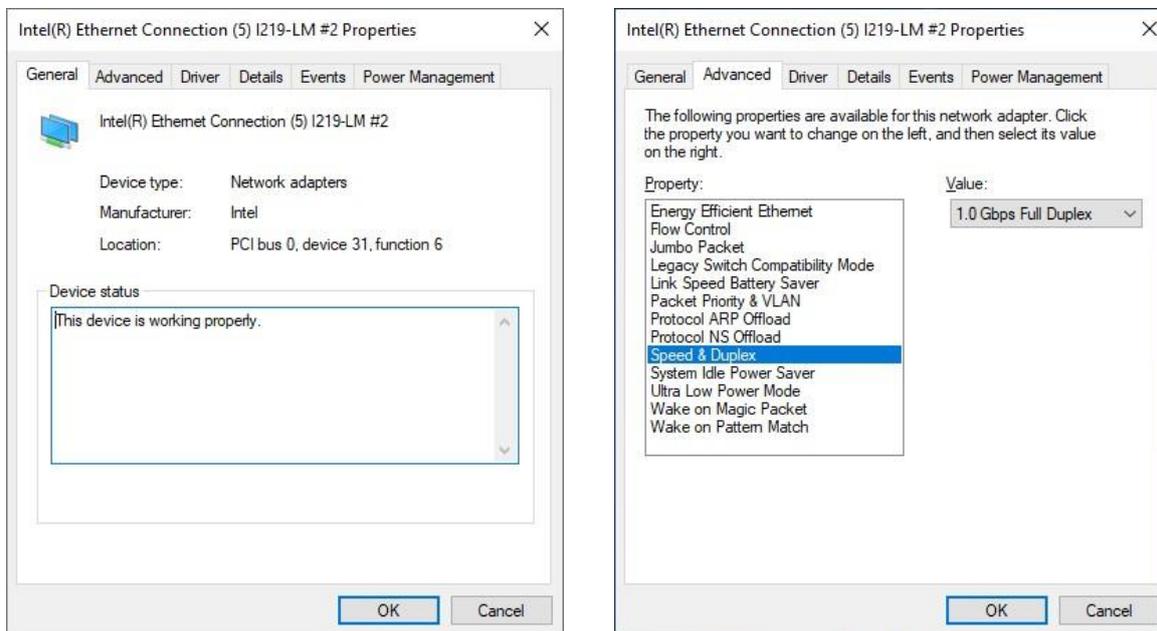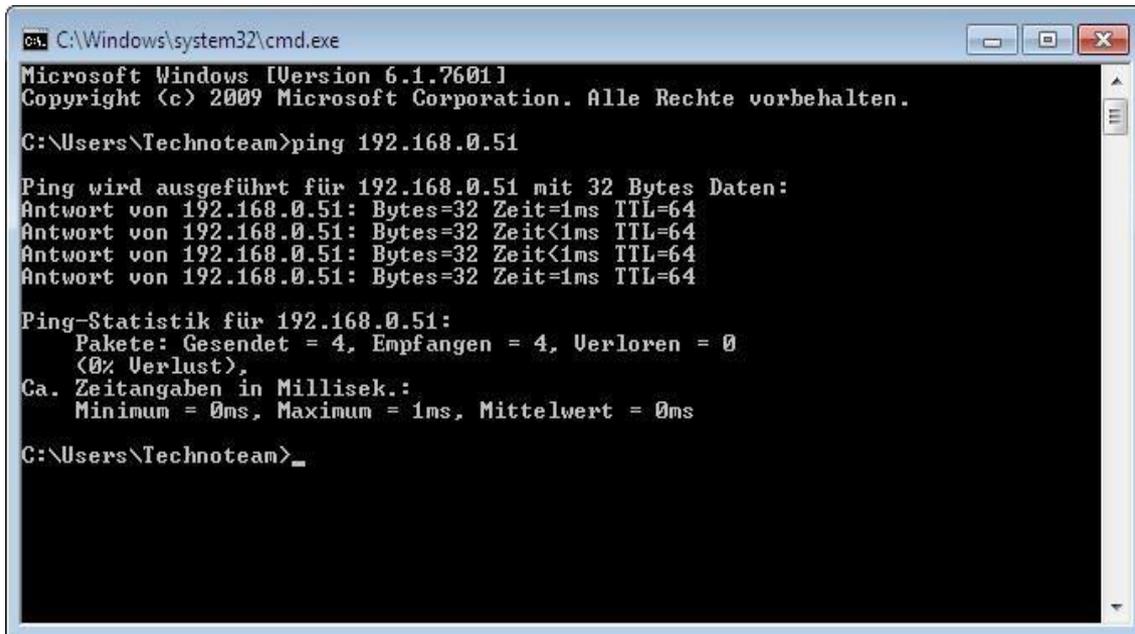
Press the "Configure" button in the dialog for the LAN connection properties and in the appearing dialog go to the "Advanced" tab sheet if available. Please do remark that not all network adapter does offer the same options for a manually configuration. TechnoTeam does recommend network adapter hardware using chipsets of the "Intel Pro" series.

Please enter the following settings in the "Property" listbox of the dialog:

Speed&Duplex:	1.0Gbps Full Duplex
Packet Priority & VLAN:	Packet Priority & VLAN Enabled
Flow Control:	Rx & Tx Enabled
Interrupt moderation:	High
Jumbo Packet:	4096 (or maximum possible set)
Energy Efficient Ethernet:	Off
System Idle Power Saver:	Disabled
Receive Buffers:	2048 (or maximum possible set)
Transmit Buffers:	512 (or maximum possible set)

Checking the communication with the camera

If the configuration of the network communication with the camera is set - one can make a doublecheck using the command line. Therefor open the command line window and sent a pingcommand to the IP-address of the camera. In the below example the IP-address of the camera was "192.168.0.51" and the test was successfully without any errors.

Configuration of the Firewall

If a Firewall is enabled the used ports for the camera-network connection has to be unlocked. The used entry ports are "**TCP 30**" and "**UDP 31**".

When using a Windows-Firewall one can a script file for unlocking the needed ports. The needed files are part of our installation files "firewall_xx.cmd". For running the scripts one has to have/use administration rights.