

Technical Note

Setting a Persistent IP Address for a GigE Camera

Setting a persistent IP address for a GigE camera

In some situations, camera users may want to, or need to, set specific IP addresses for their GigE Vision host(s) and camera(s). In these situations, the user has two choices for allocating IP addresses.

- DHCP (for dynamic assignment of addresses)
- Persistent IP (for static assignment of addresses)

This document describes how to set a persistent IP address.

Valid persistent IP addresses and Net masks:

To allocate a persistent IP address, a user can select from two methods:

1. Manual method for setting NIC's IP address

In connecting camera(s) to a NIC using persistent IP addresses, common subnets shall be allocated to both the NIC and the camera(s). In the case of multiple NIC's, each NIC shall have different IP subnets.

In these cases, you can set the following IP addresses and subnet masks using Windows (see Figure 1):

The 1st NIC: IP Address 192.168.11.10, Subnet mask 255.255.255.0

The 1st Camera: IP Address 192.168.11.11, Subnet mask 255.255.255.0

The 2nd NIC: IP Address 192.168.12.10, Subnet mask 255.255.255.0

The 2nd Camera: IP Address 192.168.12.11, Subnet mask 255.255.255.0

The 3rd NIC: IP Address 192.168.13.10, Subnet mask 255.255.255.0

The 3rd Camera: IP Address 192.168.13.11, Subnet mask 255.255.255.0



Technical Note

Setting a Persistent IP Address for a GigE Camera

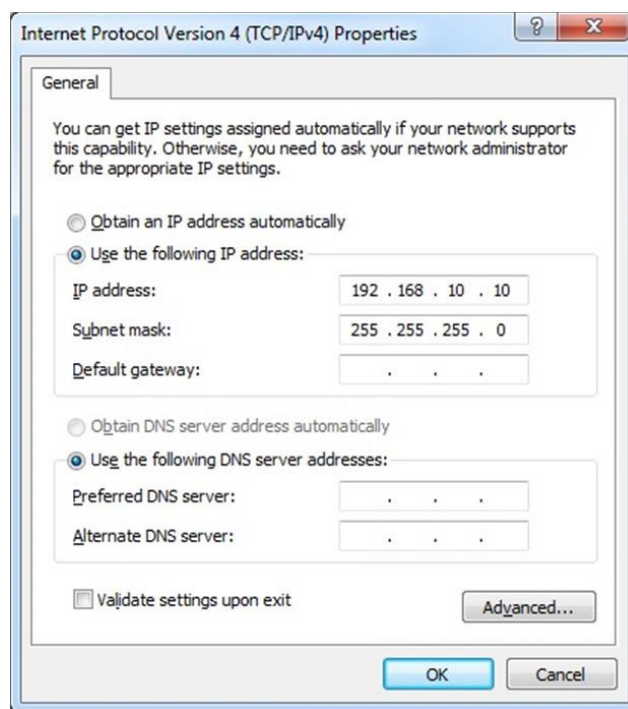


Figure 1

2. Automatic method for setting NIC's IP address

In Windows 7 or Windows 10 systems, you can optionally select the button labeled "Obtain an DNS server address automatically" (see Figure 2). In this case, an IP address is automatically allocated in the 169.254.xxx.yyy range and the subnet mask is set to 255.255.0.0 (see Figure 3).

Technical Note

Setting a Persistent IP Address for a GigE Camera

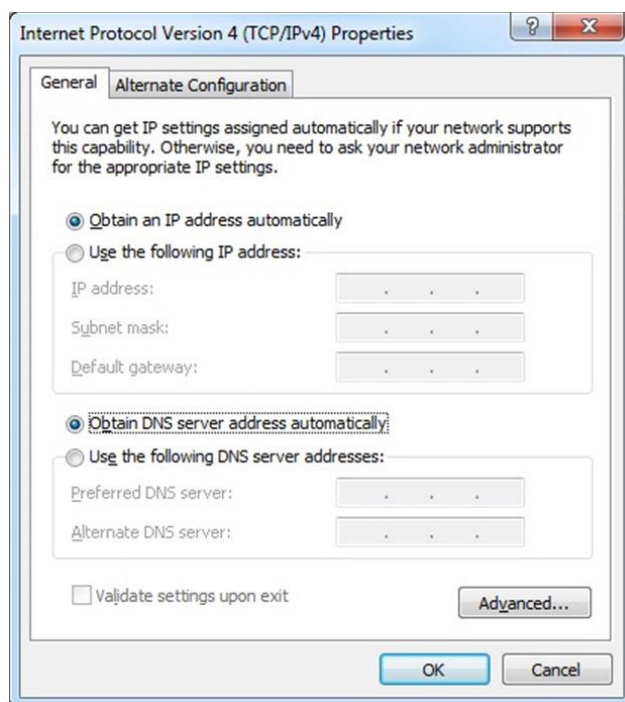


Figure 2

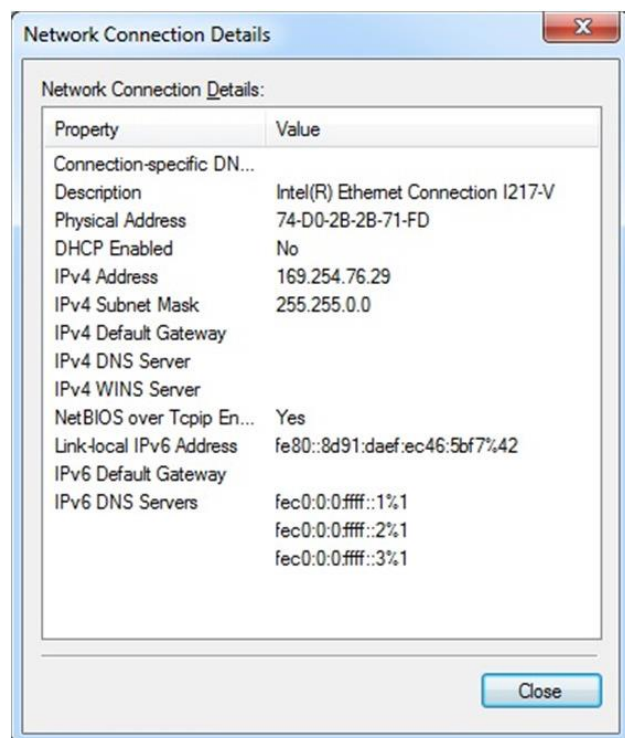


Figure 3



Technical Note

Setting a Persistent IP Address for a GigE Camera

When using this method, the camera's subnet should be identical to NIC's subnet. Therefore the following IP address should be set on the camera (see next section for how to set).

IP Address 169.254.xxx.yyy, Subnet mask 255.255.0.0.

However, when multiple cameras are connected to one PC, this method results in all cameras belonging to the same subnet. This is not recommended.

Therefore, when multiple cameras are involved, it is preferable to use method 1 - "Manual method for setting NIC's IP address".

Setting the IP address for a camera

Regardless of the method used for setting the NIC's IP address, the process for setting the camera's IP address will be the same.

First, confirm the IP address and subnet mask that has been allocated to the NIC. You can check this in the same Internet Protocol Version 4 Properties form used to set the address (Figure 4).

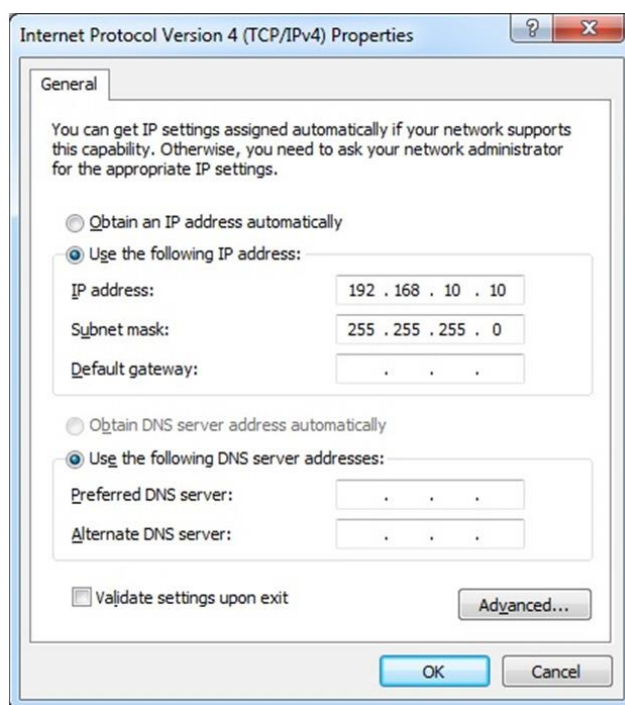


Figure 4

Next, the camera's IP address needs to be set as a Persistent IP.

- Launch Start Menu -> eBus -> eBus Player for JAI (Figure 5).
- If the camera is not shown in Available Devices, check "Show Unreachable Network Devices"
- Select the camera and click "Set IP Address"
- Fill in the appropriate IP Address and Subnet Mask in the "Set IP Address" window (Figure 5)



Technical Note

Setting a Persistent IP Address for a GigE Camera

- Then click “OK” and the camera is connected.

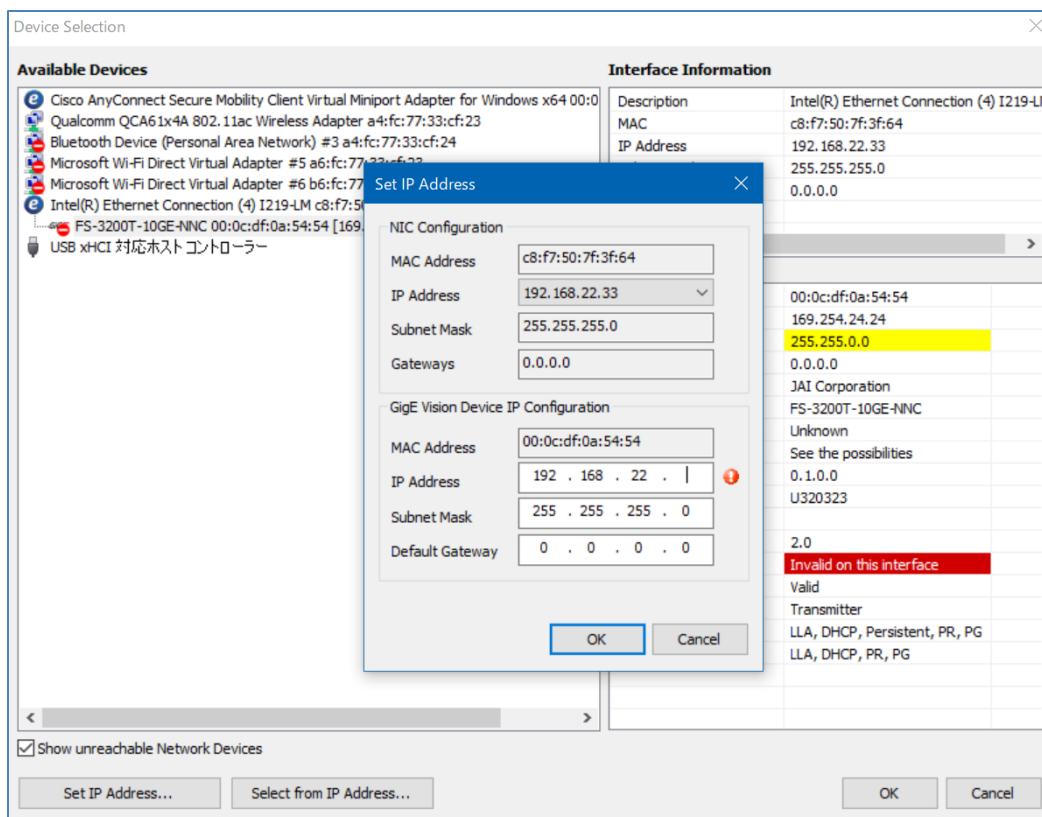


Figure 5

Note: The IP address and Subnet mask entered in “Set IP Address” are just temporary settings. To have the camera memorize the addresses, follow the instructions below.

- Open “Device Control”
- Fill in “GevPersistentIPAdress” with the address which you filled into “Set IP Address”
- Fill in “GevPersistentSubnetMask” with the subnet mask which you filled into “Set IP Address”
- Set “True” to “GevCurrentIPConfigurationPersistentIP”
- Set “False” to “GevCurrentIPConfigurationDHCP”



Technical Note

Setting a Persistent IP Address for a GigE Camera

TransportLayerControl	
GevInterfaceSelector	0
GevMACAddress	00:0C:DF:0A:30:15
GevCurrentIPConfigurationLLA	True
GevCurrentIPConfigurationDHCP	True
GevCurrentIPConfigurationPersistentIP	False
GevCurrentIPAddress	169.254.1.69
GevCurrentSubnetMask	255.255.0.0
GevCurrentDefaultGateway	0.0.0.0
GevPersistentIPAddress	0.0.0.0
GevPersistentSubnetMask	0.0.0.0
GevPersistentDefaultGateway	0.0.0.0

Figure 6

Note: These IP address settings will be kept even when the default/factory UserSet is loaded to the camera.

End.

Revision History

Revision	Date	Changes
1	2020/3/24	New release

