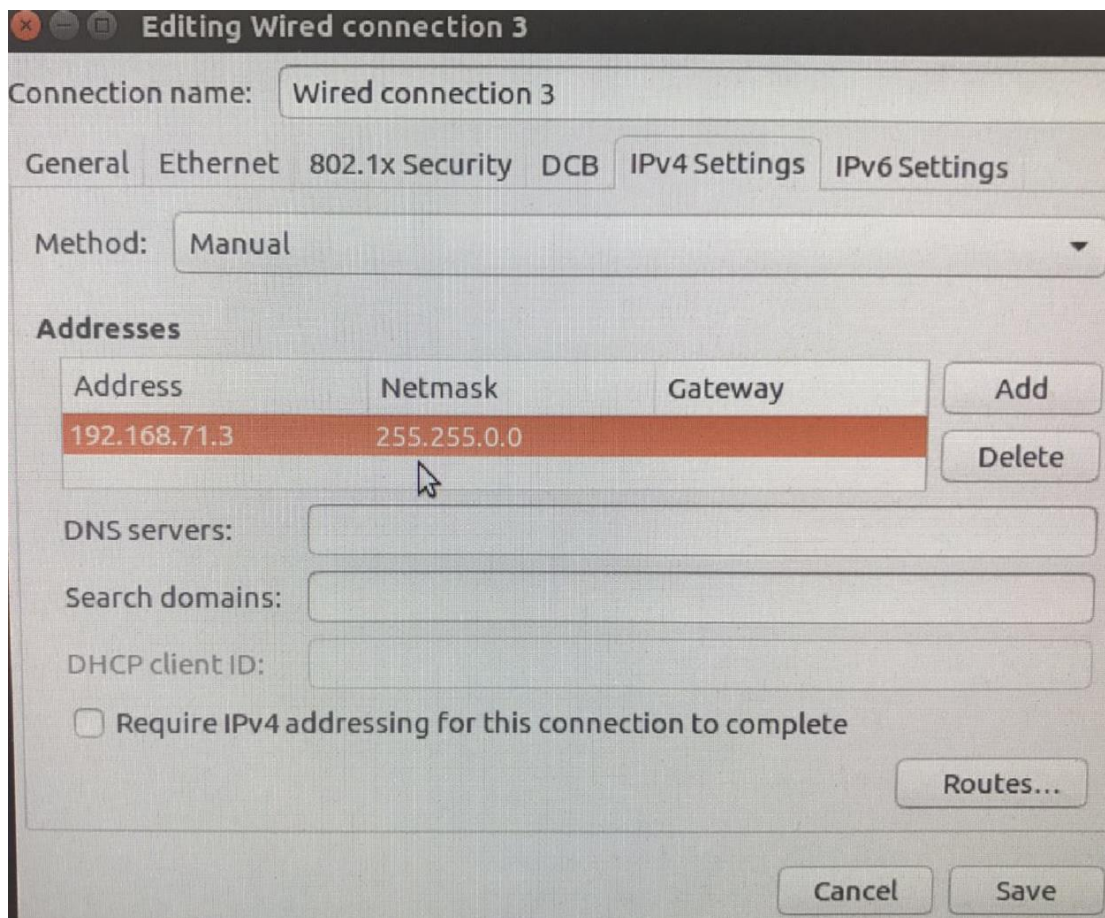


## Ubuntu 系统设置 lucid 相机 IP

1 首先设置网口的 IP 地址：如下图设置 IP: 192.168.71.3, 子网掩码: 255.255.0.0



2 需要将相机的 IP 地址与网口的 IP 地址设置在同一个网段, 此时需要进入 lucid SDK 的 安 装 路 径 /Desktop/ArenaSDK\_Linux\_x64/precompiledExamples , 用./IpConfigUtility /list 命令查看相机连接的 IP 状态;

```
lucid@lucid-Inspiron-5680:~/Desktop/ArenaSDK_Linux_x64/precompiledExamples$ ./IpConfigUtility /list
[index] MAC IP SUBNET GATEWAY IP CONFIG
[0] 1C0FAF428ABB 169.254.188.138 255.255.0.0 0.0.0.0 DHCP= 0 Persistent Ip= 1 LLA = 1
[1] 1C0FAF06DE72 192.168.0.9 255.255.255.0 0.0.0.0 DHCP= 0 Persistent Ip= 1 LLA = 1
```

如果找不到相机, 请注意相机灯的状态是否正常, 如果正常, 可以尝试输入以下命令:

```
$ sudo sysctl -w net.ipv4.conf.default.rp_filter=0
$ sudo sysctl -w net.ipv4.conf.all.rp_filter=0
```

3 Force 相机的 IP, Force 成跟网卡在同一个网段, 如 IP 地址为 192.168.71.1, 子网掩码为 255.255.0.0;

```
lucid@lucid-Inspiron-5680:~/Desktop/ArenaSDK_Linux_x64/precompiledExamples$ ./IpConfigUtility /force -i 0 -a "192.168.71.1" -s "255.255.0.0"
No GatewaySelected, defaulting to 0.0.0.0
Successfully Forced IP to: (192.168.71.1, 255.255.0.0, 0.0.0.0)
Press enter to complete
```

4 需要对相机进行永久 IP 的设置，若多个相机，可以按索引号来操作，命令如下：  
`./IpConfigUtility /persist -i 0 true -a "192.168.71.2" -s "255.255.0.0" -g "0.0.0.0";`  
 永久 IP 设置完后，若要将 DHCP 设置 false，persistent IP 设置为 true，此时输入命令：  
`./IpConfigUtility /config -i 0 -p true -d false;`

```
lucid@lucid-Inspiron-5680:~/Desktop/ArenaSDK_Linux_x64/precompiledExamples$ ./IpConfigUtility /persist -i 0 true -a "192.168.71.2" -s "255.255.0.0" -g "0.0.0.0"
Successfully set Persistent Ip to: (192.168.71.2, 255.255.0.0, 0.0.0.0)
Press enter to complete

lucid@lucid-Inspiron-5680:~/Desktop/ArenaSDK_Linux_x64/precompiledExamples$ ./IpConfigUtility /config -i 0 -p true -d false
Successfully set Persistent IP configuration to = true
Successfully set DHCP configuration to = false
Press enter to complete
```

此时相机的永久 IP 设置为 192.168.71.2，子网掩码是 255.255.0.0，需要相机断电后才可以生效。

5 相机断电后，可以用 `./IpConfigUtility /list` 命令查看相机连接的 IP 状态；

6 以下是 IpConfigUtility 工具的帮助说明。

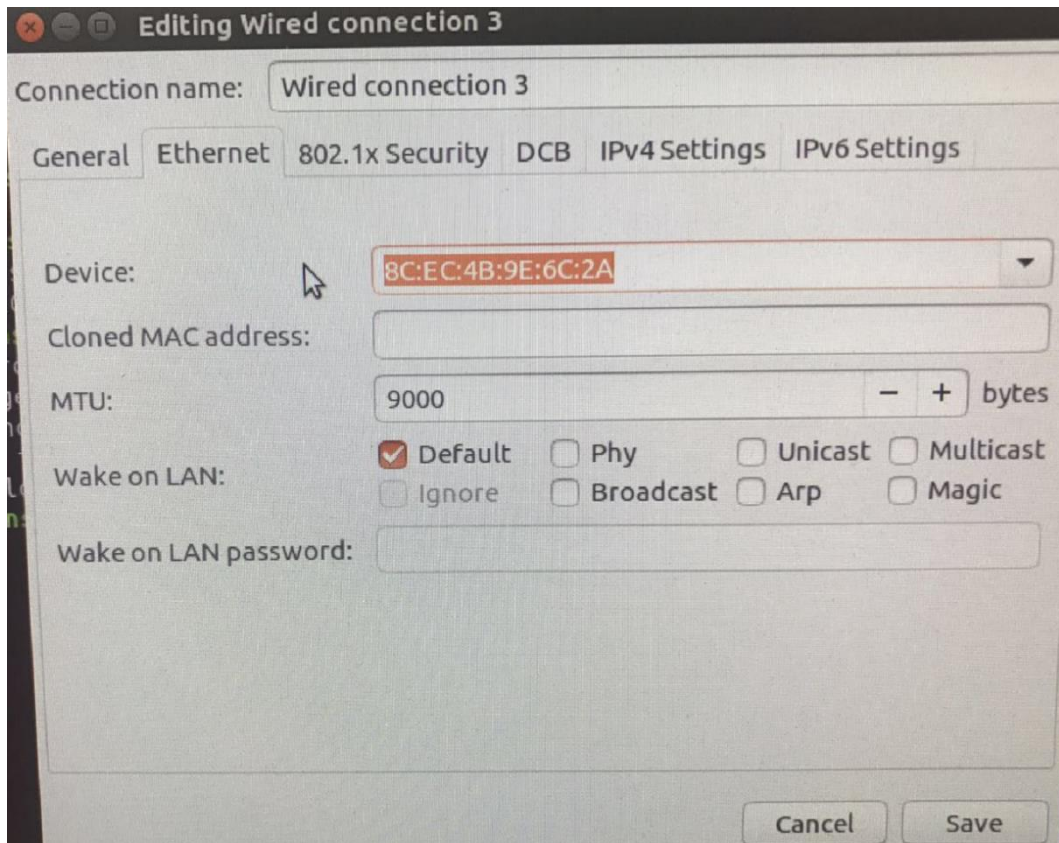
```
/config: This toggles the current IP configuration scheme for a device.
The arguments can be: (mandatory args: [-m or -i])
-m: The mac address of the device to change the configuration on (eg. "0x1C0FAF000001")
-i: The index of the device to change the configuration on (eg. 0 or 1 or 3 etc.)
-p: Enable/Disable persistent IP (eg. "true")
-d: Enable/Disable DHCP (eg. "true")
For example $> IpConfigUtility.exe /config -i 0 -p true -d false

/force: This command forces an ip to the camera. It takes up to 4 arguments
The arguments can be: (mandatory args: [-m or -i],-a,-s)
-m: The mac address of the device to force (eg. "0x1C0FAF000001")
-i: The index of the device to force ip to (eg. 0 or 1 or 3 etc.)
-a: The ip address to force (eg. "169.254.1.1")
-s: The subnet to force (eg. "255.255.0.0")
-g: The gateway to force (eg. "169.254.1.1")
For example $> IpConfigUtility.exe /force -i 0 -a "169.254.1.1" -s "255.255.0.0"

/persist: This command sets a peristent ip to the camera. It takes up to 4 arguments
The arguments can be: (mandatory args: [-m or -i],-a,-s)
-m: The mac address of the device to change the persistent ip on (eg. "0x1C0FAF000001")
-i: The index of the device to change the persistent ip on (eg. 0 or 1 or 3 etc.)
-a: The new persistent ip address (eg. "169.254.1.1")
-s: The new persistent subnet (eg. "255.255.0.0")
-g: The new persistent gateway (eg. "169.254.1.1")
For example $> IpConfigUtility.exe /persist -i 0 -a "169.254.1.1" -s "255.255.0.0"

/dhcp: This command sets the camera to dhcp mode.
The arguments can be: (mandatory args: [-m or -i],-a,-s)
-m: The mac address of the device to change the persistent ip on (eg. "0x1C0FAF000001")
-i: The index of the device to change the persistent ip on (eg. 0 or 1 or 3 etc.)
For example $> IpConfigUtility.exe /dhcp -i 0
```

注意：网卡的 MTU 需要设置 9000.



同时需要将 socket buffer size 设置为 32MB.

```
$ sudo sh -c "echo 'net.core.rmem_default=33554432 >> /etc/sysctl.conf'"
$ sudo sh -c "echo 'net.core.rmem_max=33554432 >> /etc/sysctl.conf'"
$ sudo sysctl -p
```

也需要设置网卡的 receive buffer

```
$ sudo ethtool -G enp0s8 rx 4096
```