

How to connect two scanners to one PC that is not on a network.

I imagine you have the units connected to a switch like in the picture below. I have two blue cables going back to my scanners and one black cable going back to my PC.



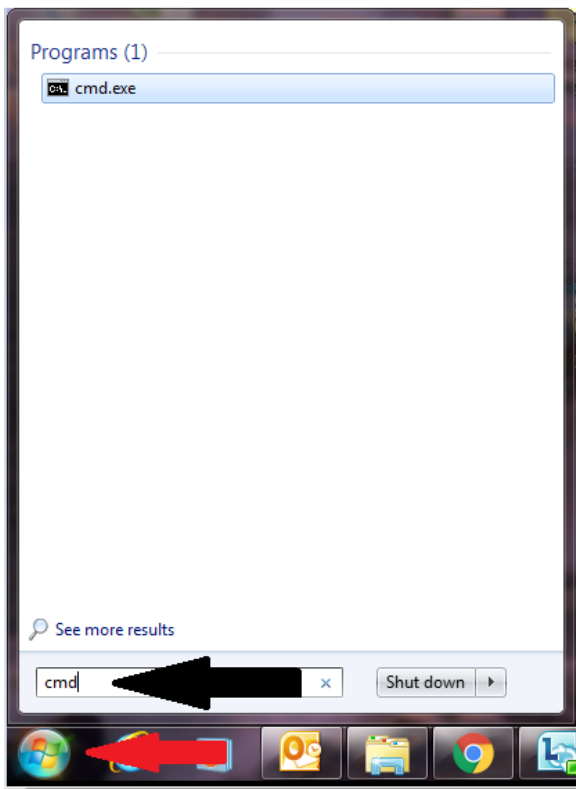
Undo one of the scanner cables at the switch. The default IP address of both scanners is 192.168.42.30, so we need to talk with just one of the scanners at a time. The head that was unplugged we will leave with IP address 192.168.42.30. We will be changing the IP address of the scanner that is still connected to the PC. It is important for the user to remember what cable goes to what scanner. It is recommended to label each head with their corresponding IP address for future reference. A sharpie pen will work just find writing on the scanner itself.



Next you will need to configure your PC's network address to communicate with your scanner. This step can be found in the Raytek MP150 operator's manual. Manual Section-**5.7.3 Changing the Ethernet Settings for the PC. Revision E4 FEB.2015.**

After changing the IP address of the PC we will now need to change the scanners IP address.

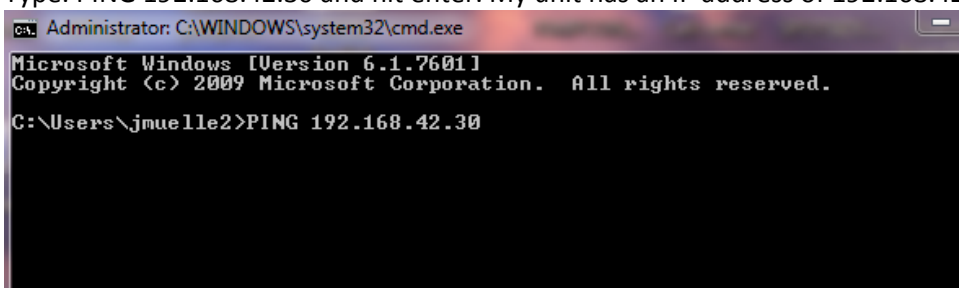
On the PC we will need to navigate to the DOS prompt. Click on the Windows icon (RED arrow) and type in cmd (black arrow) in the search bar, and hit enter. We want to run the cmd.exe.



You will get a new pop-up window.



Type: PING 192.168.42.30 and hit enter. My unit has an IP address of 192.168.42.30, so that is why I used it.



You should get a message like below if it was successful.

```
Administrator: C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\jmuelle2>PING 192.168.42.31

Pinging 192.168.42.31 with 32 bytes of data:
Reply from 192.168.42.31: bytes=32 time=5ms TTL=64
Reply from 192.168.42.31: bytes=32 time=10ms TTL=64
Reply from 192.168.42.31: bytes=32 time=11ms TTL=64
Reply from 192.168.42.31: bytes=32 time=11ms TTL=64

Ping statistics for 192.168.42.31:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 5ms, Maximum = 11ms, Average = 9ms

C:\Users\jmuelle2>
```

If you get a message like the one below, then it could be two different things. It could be a Bad/disconnected cable or a wrong IP address.

```
Administrator: C:\WINDOWS\system32\CMD.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\jmuelle2>PING 192.168.42.31

Pinging 192.168.42.31 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

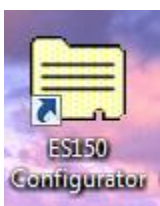
Ping statistics for 192.168.42.31:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\Users\jmuelle2>
```

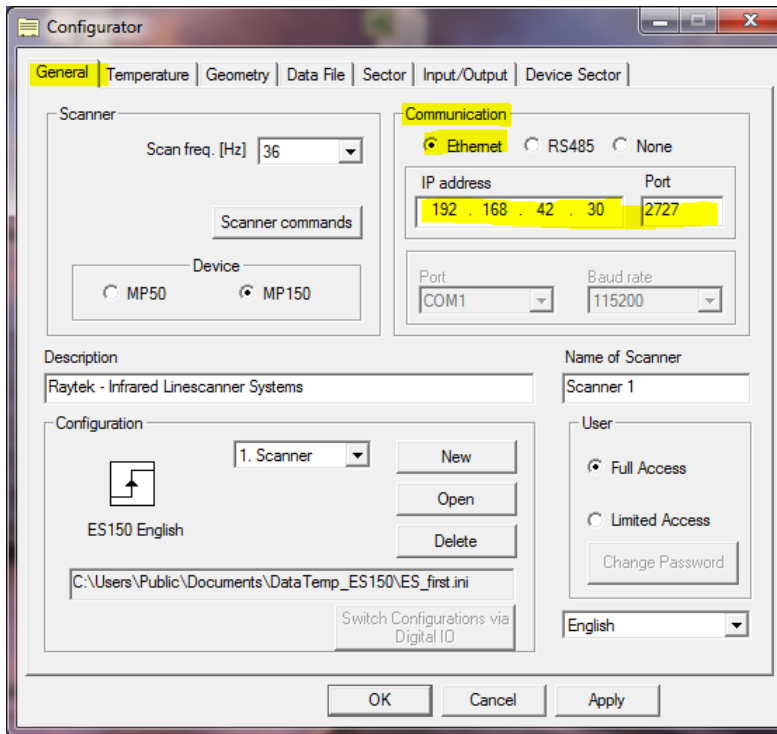
If you get the first message then we have successfully talked to the scanner and we can move on to the next step. Tech support can help with troubleshooting if you cannot ping the scanner.

In the Raytek MP150 operators manual you can try and change the IP address of the scanner using telnet like section-
5.7.4 Changing the Ethernet Settings for the Scanner. I recommend that you use one of our software programs to do this-ES/EC/GS/TF150. Next I will step you through the process of doing that with this document. I will use the ES150 software package in this example.

Step 1-Open the ES150 configurator.



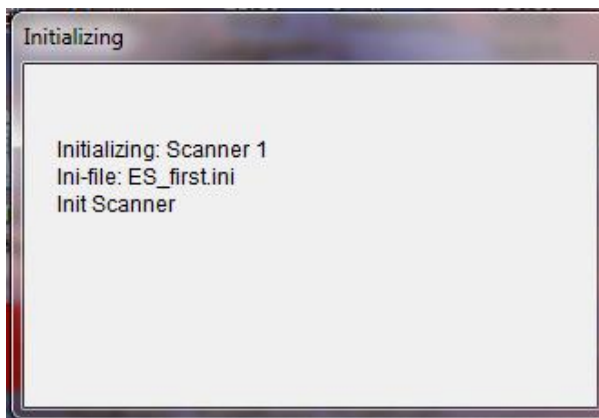
Step 2-On the configurator page you will see a “general” tab. We will only need to verify that the communication section is properly set. Check that the ETHERNET selection is highlighted and the IP address is set as-192.168.42.30 Port 2727. Refer to the following image below. Make sure that you select “apply” and “OK” after making your changes.



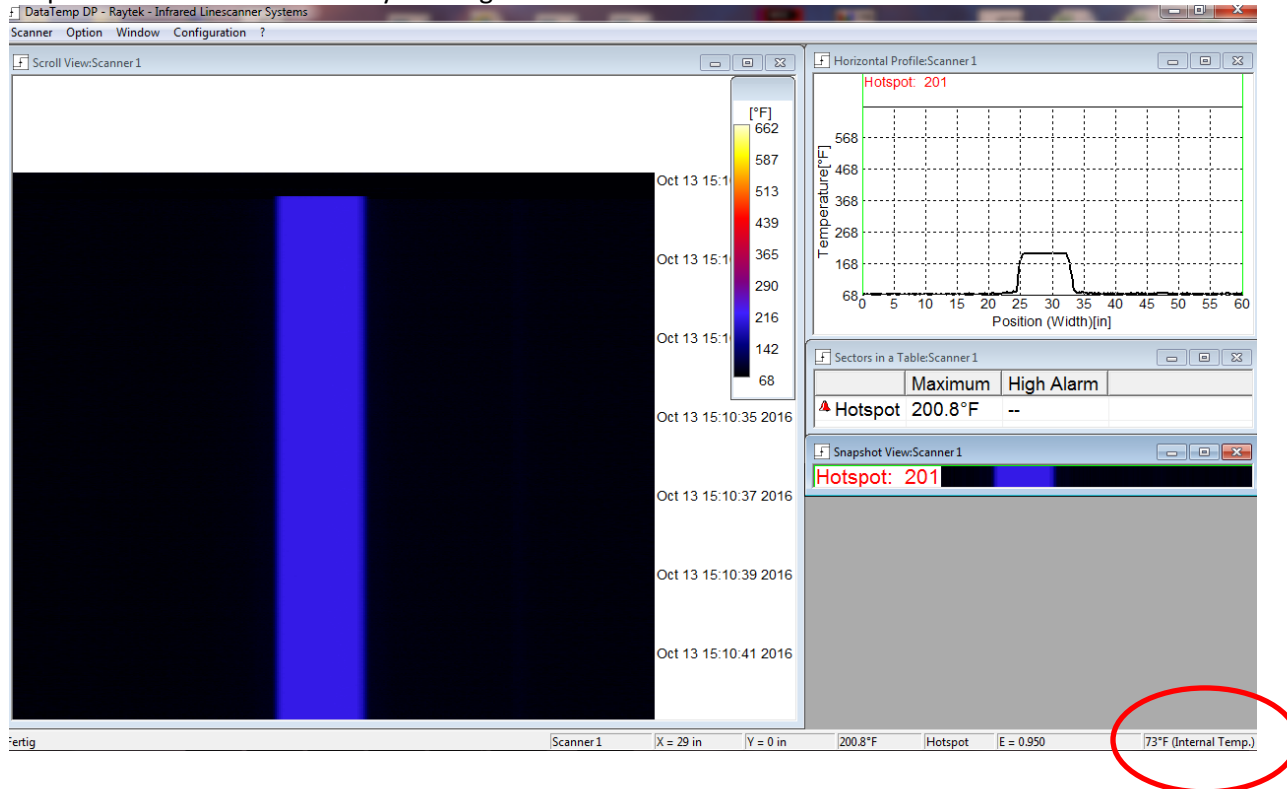
Step 3-Open your ES150 English software.



Step 4-You will get a popup window that tells you the scanner is starting.

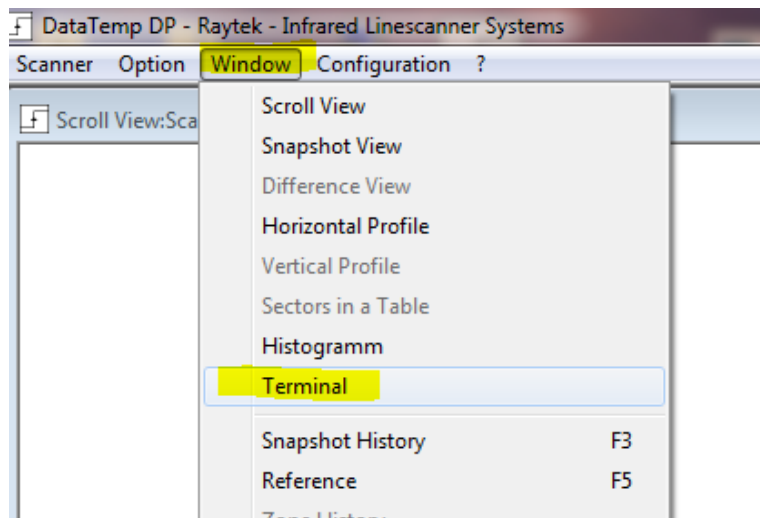


Step 5-The software starts and you will get screen similar to the one below.

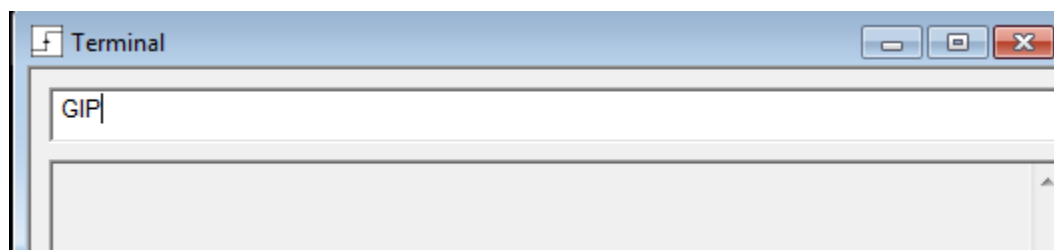


What shows me that I have a good connection with the scanner is the visual image, and also the fact that I see the internal temperature in the bottom right corner of the software.

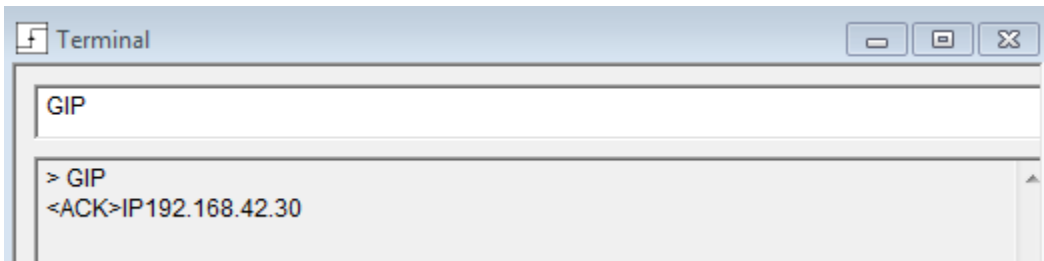
Step 6-Next I will navigate to, and open the Terminal window.



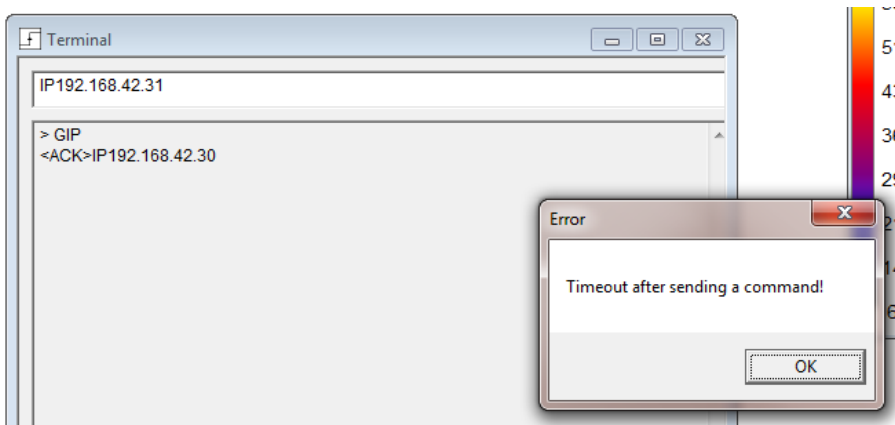
Step 7-A new terminal window opens. In the top white box type in GIP, and hit enter. All entries must be in capital letters.



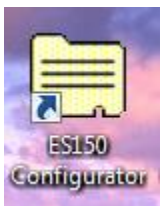
Step 8-confirm that the scanner replied with <ACK> and IP XXX.XXX.XX.XX. Mine shows 192.168.42.30 as the IP address.



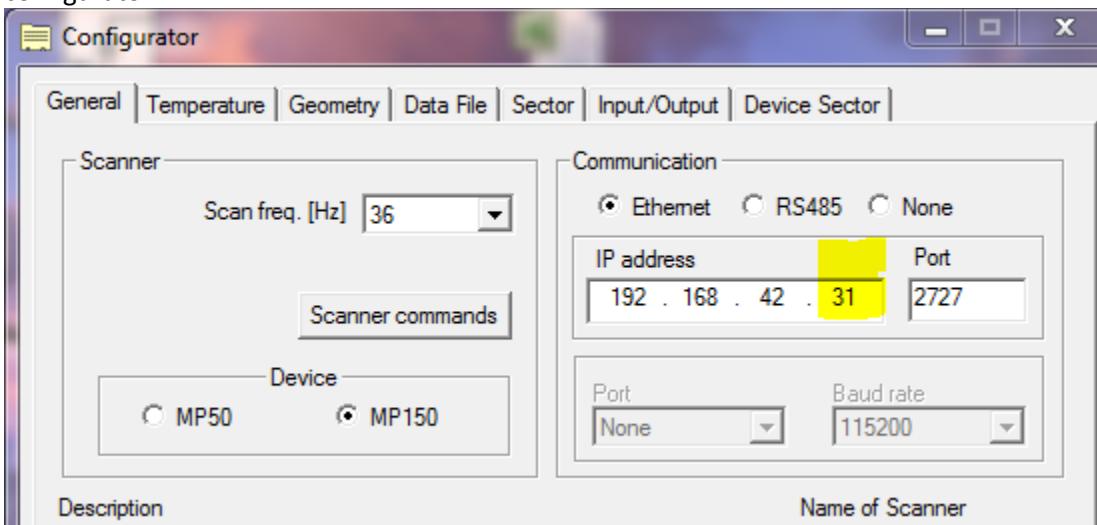
Step 9-Next you will type in the new IP address that you want the connected scanner to be. I will be using 192.168.42.31. Clear out GIP in the command window and enter IP192.168.42.31. A few seconds after you change the IP address there will be a popup error- Timeout after sending a command! Select OK and close the ES150 software



Step 10-Open the ES150 configurator again.



Step 11-Change your IP address to your new one-192.168.42.31. Make sure you select apply and OK before closing the configurator.

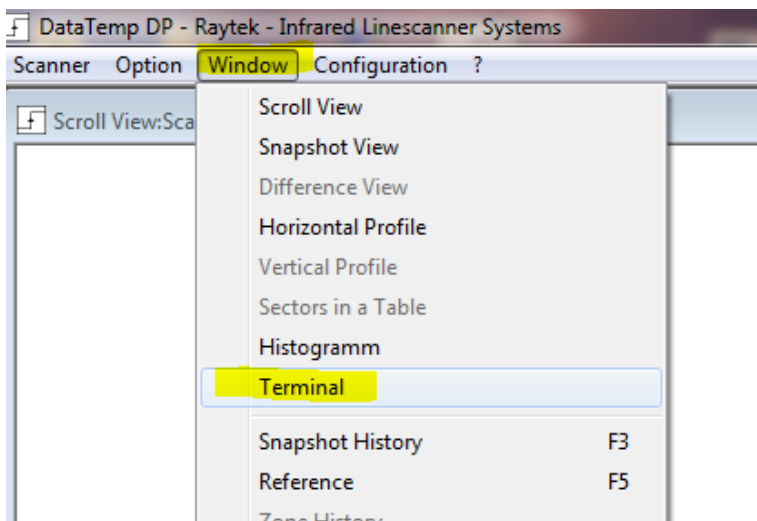


Step 12-Open your ES150 English software again.

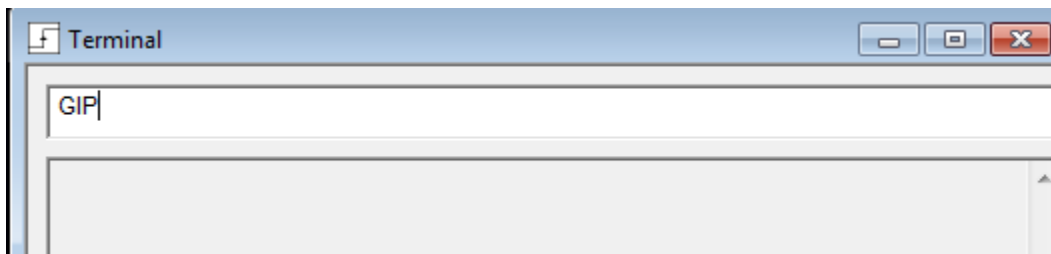


Step 13-If the steps were done correctly you should see an image and also the internal temperature in the corner, like the image in Step 5.

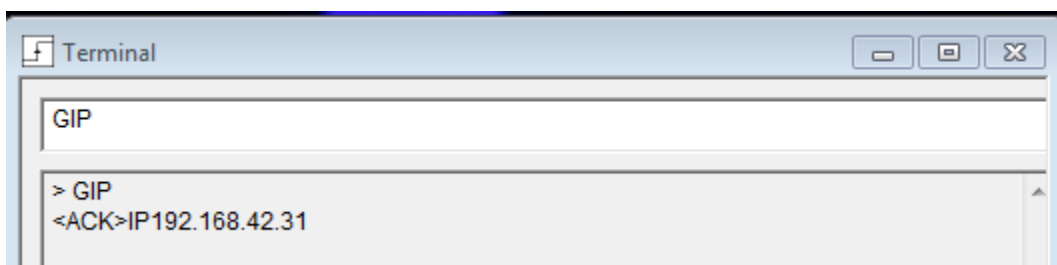
Step 14-Next I will navigate to, and open the Terminal window again.



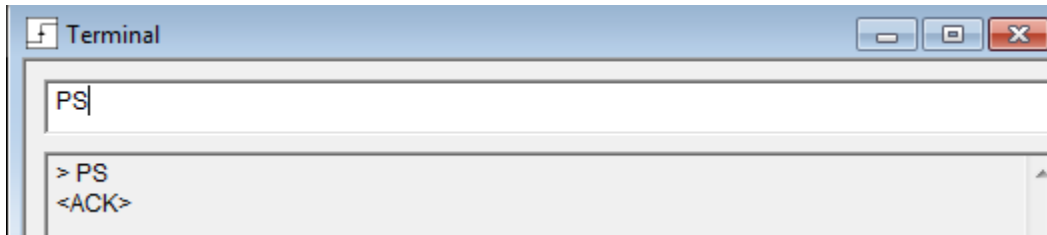
Step 14-A new terminal window opens. In the top white box type in GIP, and hit enter.



Step 15-Confirm that the scanner replied with <ACK> and IP XXX.XXX.XX.XX. Mine shows 192.168.42.31 as the new IP address.

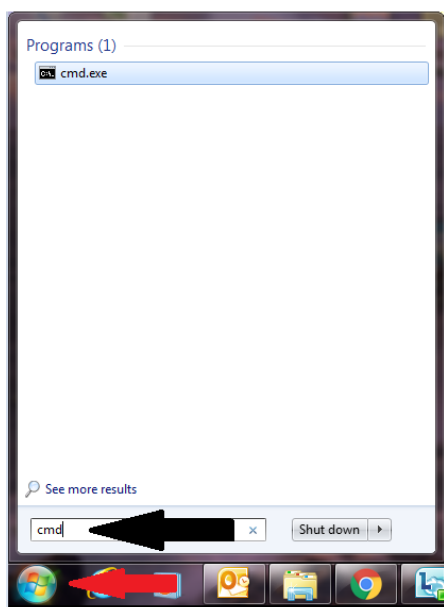


Step 16-Clear GIP in the command window and enter PS, to save the new Parameter. Your response will be a PS and <ACK>



Step 17-The connected scanner now has the new IP address. To confirm communication to both scanners I would reconnect the unplugged cable. This will be the cable for the scanner that still has the default IP address of 192.168.42.30.

Step 18-On the PC we will need to navigate to the DOS prompt. Click on the Windows icon (RED arrow) and type in cmd (black arrow) in the search bar, and hit enter. We want to run the cmd.exe.



Step 19-You will get a new pop-up window.



Step 20-Type: PING 192.168.42.30 and hit enter.

```
Administrator: C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\jmuelle2>PING 192.168.42.30
```

Step 21-You should get a message like below if it was successful.

```
Administrator: C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\jmuelle2>PING 192.168.42.31

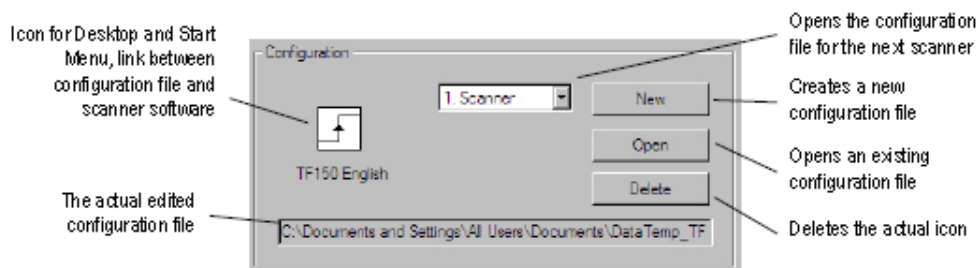
Pinging 192.168.42.31 with 32 bytes of data:
Reply from 192.168.42.31: bytes=32 time=5ms TTL=64
Reply from 192.168.42.31: bytes=32 time=10ms TTL=64
Reply from 192.168.42.31: bytes=32 time=11ms TTL=64
Reply from 192.168.42.31: bytes=32 time=11ms TTL=64

Ping statistics for 192.168.42.31:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 5ms, Maximum = 11ms, Average = 9ms

C:\Users\jmuelle2>
```

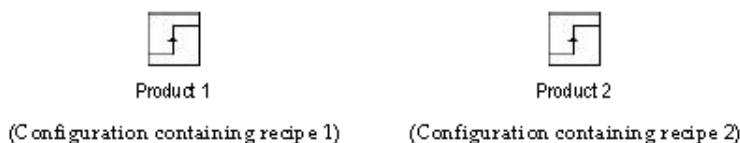
Step 22-repeat steps 20 and 21 using IP address 192.168.42.31.

If both addresses ping back correctly it confirms that your PC is now connected to both scanners. You can now setup each scanners configuration accordingly like it is explained below.



The scanner software allows operation with several scanners simultaneously (a system with 8 scanners is well proven by the manufacturer, even more scanners are thinkable). Each scanner needs its own configuration file. By clicking on the proper combo box, the configuration file for the next scanner is opened and editable. In case of missing that file, you are asked for creating it. In the example above, the file name for a second scanner is determined with TF_first.ini.1, for the third scanner TF_first.ini.2 and so on. In the scanner software, the next scanner can be called up with the menu <Scanner> <New Scanner>.

By preparing different configuration files in advance, you can easily execute the desired configuration later on by simply clicking on the corresponding desktop icon:



These are the steps for adding the second scanner.

Scanner 1 and 2 Ethernet settings

1. Open Configurator
2. Set Ethernet parameters for **Scanner 1** on General page (Communication Ethernet, IP address 192.168.42.30)
3. Click New button in Configuration box (bottom of page) (creating configuration file for Scanner 2 Ethernet settings)
4. Enter filename ES_second, hit Save
5. Enter "Scanner 2" in name field of "Shortcuts " window (creates an icon on your desktop for Scanner 2) I would uncheck the box next to Start menu, so the application does not start itself every time the PC boots up.
6. Hit Ok
7. Click Open button in Configuration box, highlight ES_second file, hit Open (edit configuration settings for Scanner 2)
8. In Description box, write in Scanner 2 ("Scanner 2" will appear on the Title bar of Scanner 2 image)
9. In name of Scanner box, write in Scanner 2 ("Scanner 2" will appear in title bar of Scroll view)
10. In IP Address box, enter 192.168.42.31(see Ethernet Scanner 2 screen shot)
11. Hit Apply and Ok