

Build a Peer to Peer Network, Change IP Address using TCP/IP and Verifying

Peer-peer network

1. Ok first we'll need two computers that both have Ethernet Network Interface Controller cards (NIC cards) installed and one 1 cross-over cable.
2. Next on the back of each machine, find the NIC card's port and take the cross-over cable and plug it into each card.
3. Next boot up both machines to their OS (we'll use Windows).
4. Then on the first machine in Windows open up control panel, then find Network connections and right-click the icon that says Local Area Connection.
 - a. Then select Properties and in the section that says "This connection uses the following items:" find and select the item that says "Internet protocol (TCI/IP)" and find the button that says Properties and open it up.
 - b. Now find the section where it says "Use the following IP address" click and select it, then and in the field that says "IP Address" type: 192.168.1.1 (on the second machine you would type: 192.168.1.2).
5. Now repeat step 4 on the second machine.
6. Now on the first machine open up "Command Prompt" and type: ping 192.168.1.2
You should get a message that says "Reply from: 192.168.1.2" and it should read out the time it took and the number of packets sent.
7. Now you should have a peer-peer local network.



— = Cross-over media

Multiple PC connections via a switch network

1. Ok first we'll need three computers that all have Ethernet Network Interface Controller cards (NIC cards) installed and one three (3) straight-through cables and a Network Switch.
2. Next on the back of each machine, find the NIC card's port and take the straight-through cable and plug it into each card on each machine, then plug the other end of each wire into the Ethernet ports (Not the internet ports) on the switch.
3. Next boot up all the machines to their OS (we'll use Windows).
4. Then on the first machine in Windows, open up control panel, then find Network connections and right-click the icon that says Local Area Connection.
 - a. Then select Properties and in the section that says "This connection uses the following items:" find and select the item that says "Internet protocol (TCI/IP)" and find the button that says Properties and open it up.
 - b. Now find the section where it says "Use the following IP address" click and select it, then and in the field that says "IP Address" type: 192.168.1.2 (192.168.1.1 is the default gateway's IP address, so on the second machine you would type: 192.168.1.3 and so on for all computers you have attached to the network switch after you would go in sequential order).
5. Now repeat step 4 on all three machines and remember to set the IP addresses accordingly.
6. Now on the first machine open up "Command Prompt" and type: ping 192.168.1.2
You should get a message that says "Reply from: 192.168.1.2" and it should read out the time it took and the number of packets sent.
7. Repeat for all three machines on your network.
8. Now you should have a peer-peer local network.

