**RESUME COMPUTER NETWORK**

Computer networks are collections of computers that are connected to each other using communication protocols. Basic principle of computer networks is the occurrence of two-way communication between the sender and receiver of information.

Based on the vast territory, I use a LAN (Local Area Network) is a local computer network, the area is very limited. Media that can be used for a LAN cable (UTP or BNC) and wireless.

Based on the configuration, I use a peer-to-peer is used on the network with fewer number of computers, where each - each computer has an equal status and does not require a centralized system (server).

The tools necessary to create a network, it is;

1. Twisted Pair (UTP) is a cable consisting of pairs - insulated conductor pair and widely used

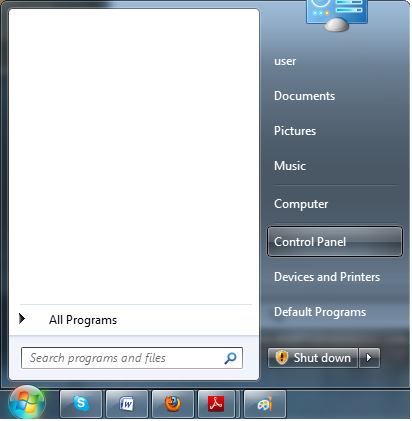
for ethernet and telephone networks.

1. Crimp Tool, is a tool to install the UTP cable into the RJ-45 connector. Serves to cut and peel wires.
2. RJ-45, is konektur eight wires that are typically used to connect a computer to a LAN, especially Ethernet.
3. LAN Tester is used to check the cable connection on a local network (LAN). This tool is equipped with LED lights as an indicator connected / absence of a wired network.
4. NIC (Network Interface Card), commonly referred to as LAN card or a network card. Used as an interface (interface) computers with a network of computers that can communicate with each other.

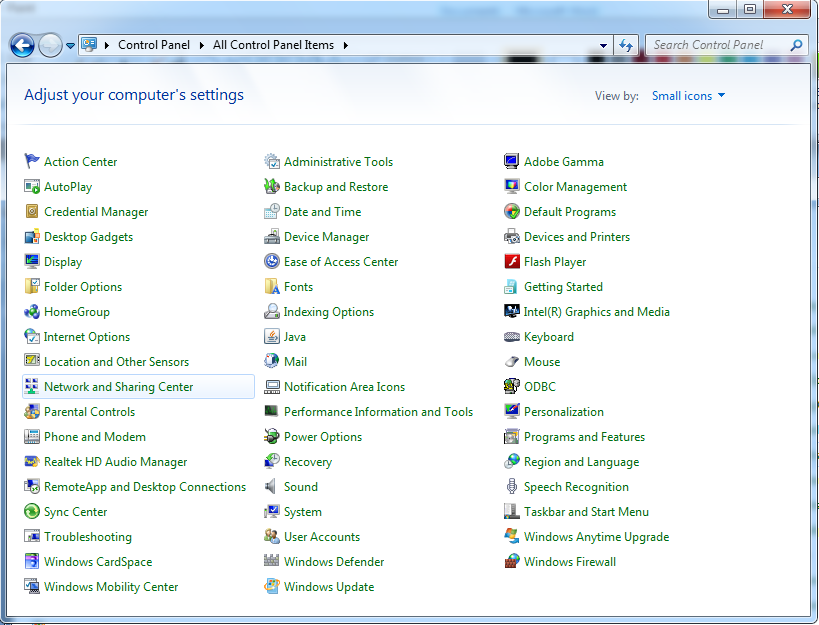
To create a computer network (LAN) can be through a cable or wireless communication media. LAN wiring technique using twisted pair cable UTP type, consisting of 8 copper wires with different colors - different pairs were grouped into 4 color groups, namely: orange, green, blue and brown.

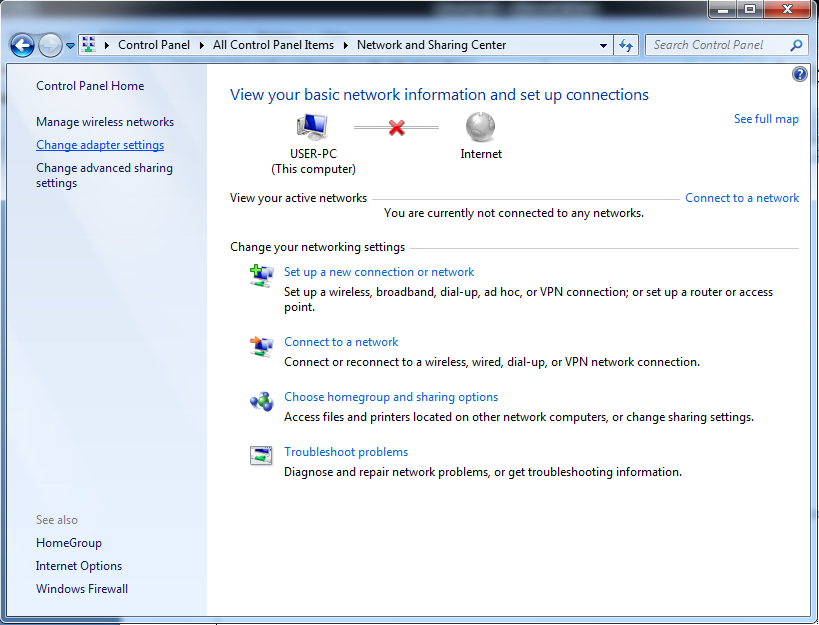
The technique used is cross-wiring (cross) is used to connect 2 computers directly (without a switch / hub). In the cross-wiring technique, which pin on the end of the first cable wiring diturutkan as straight, but at the end of the second crossing occurs (cross). Crossing using formulas 1-3, 2-6 which means pin-1 at the end of the first cable will meet the third pin on the end of the second cable, and pin-2 at the end of the first cable will meet to-6 pin cable on the end of the second . For more details, please see the following table:

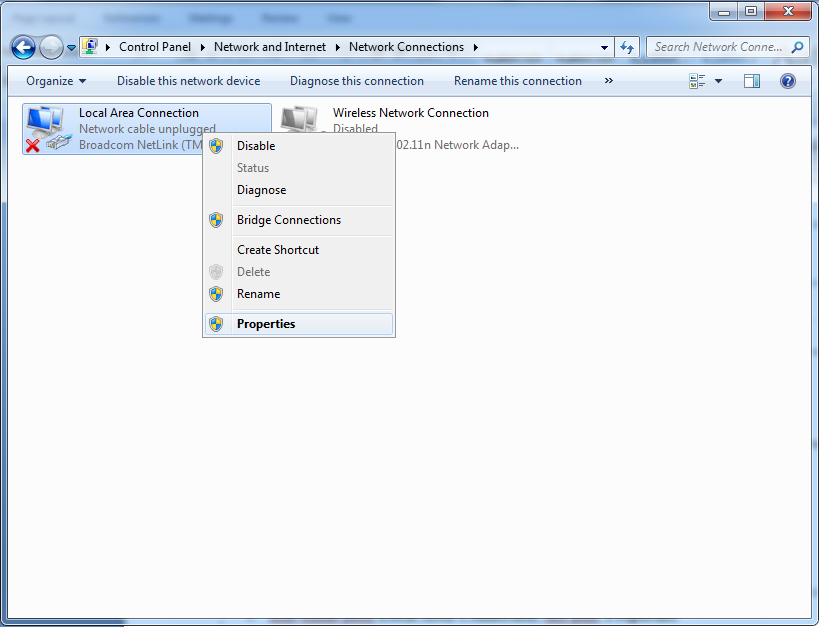
|  |  |  |  |
| --- | --- | --- | --- |
| **End To 1** | | **End To 2** | |
| **Pin** | **Color** | **Pin** | **Color** |
| 1 | Orange – White | 3 | Green – White |
| 2 | Orange | 6 | Green |
| 3 | Green – White | 1 | Orange – White |
| 4 | Blue | 4 | Blue |
| 5 | Blue – White | 5 | Blue – White |
| 6 | Green | 2 | Orange |
| 7 | Brown – White | 7 | Brown – White |
| 8 | Brown | 8 | Brown |

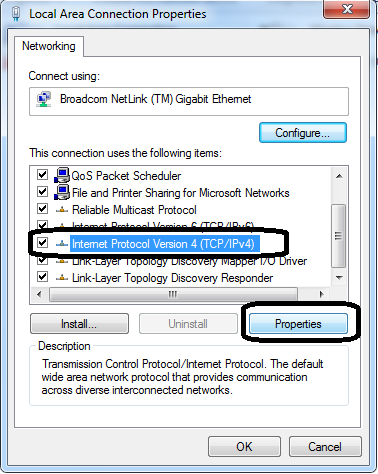
After doing engineering wiring, replace all subsequent network equipment properly configure the IP address on the computer. Next step - step setting the IP address on Windows 7 operating system:

1. Open the **Control Panel**, click the **Windows** button, select **Control Panel**.
2. In the **Control Panel**, select **Network** and **Sharing Center.**

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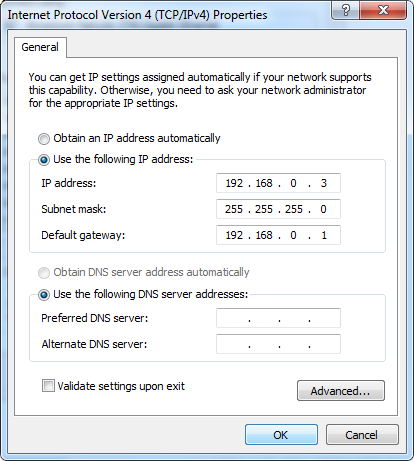
1. Then select **Change Adapter Settings**.
2. Right-click on **Local Area** **Connection** and select **Properties**.
3. Then select **Internet Protocol Version 4 (TCP/IPv4)**, and then select **Properties**.



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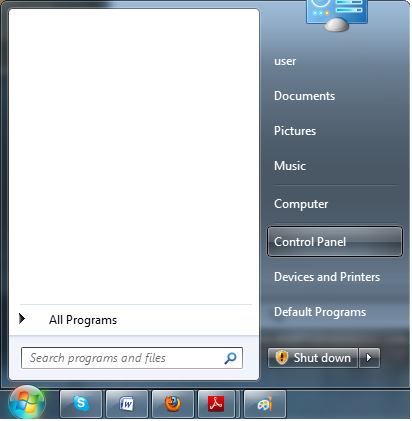
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1. Select **Use the following IP address**, then enter the IP address, subnet mask, and gateway configuration appropriate, and then click **OK**.

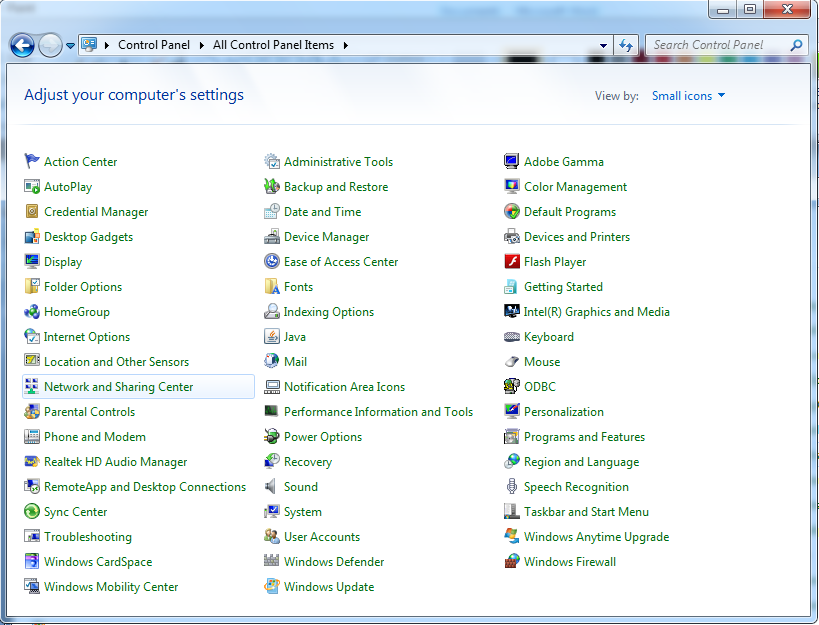


One advantage of using a computer network is its ability to share (share) files between computers in the network, each computer kerana can directly interact with other computers. Here are the steps - steps to share configuration files via Windows 7 Homegroup

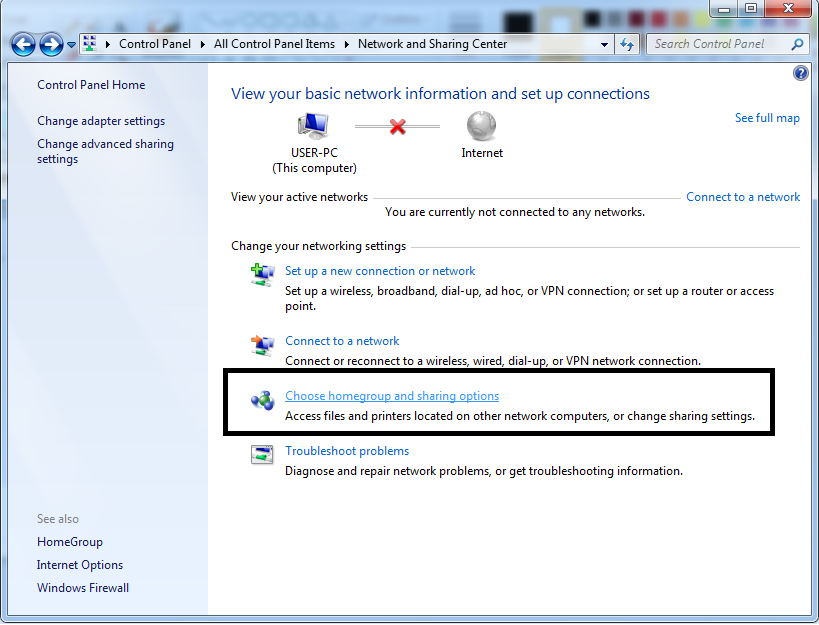
1. Open the Control Panel, click the Windows button, select Control Panel.



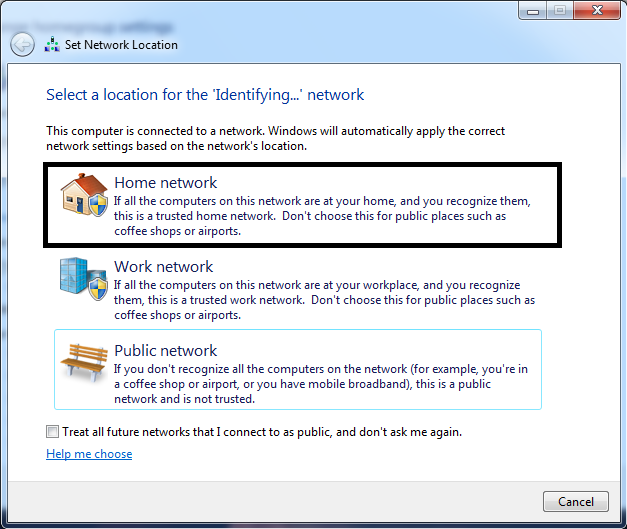
1. Menu **Control Panel**, pilih **Network and Sharing Center.**



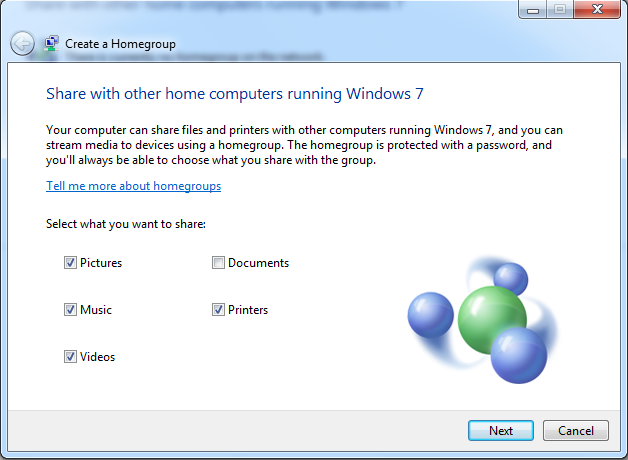
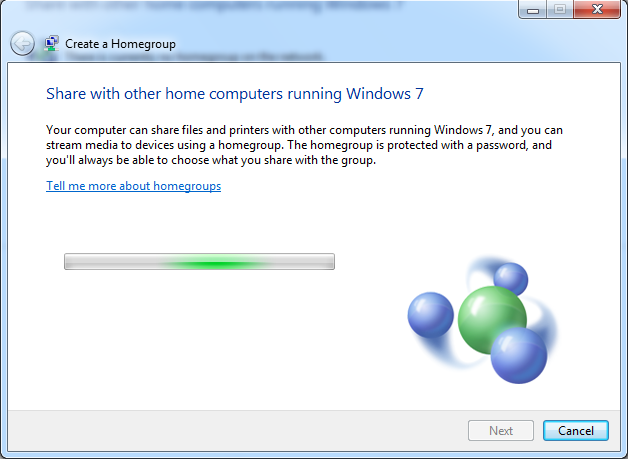
1. Then select Choose **homegroup and sharing options**.



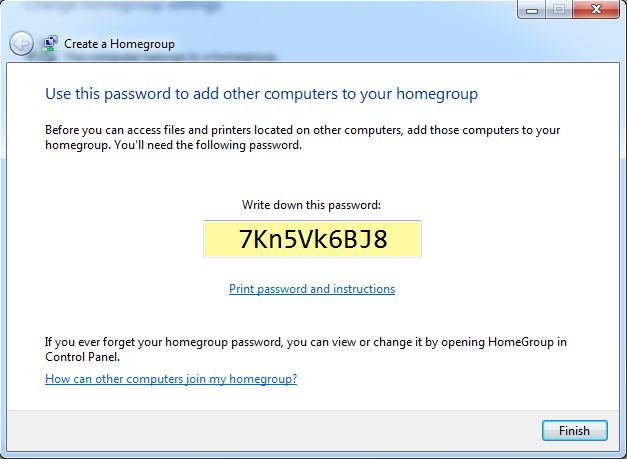
1. Next select the What is a network location?.
2. Then select Home network.



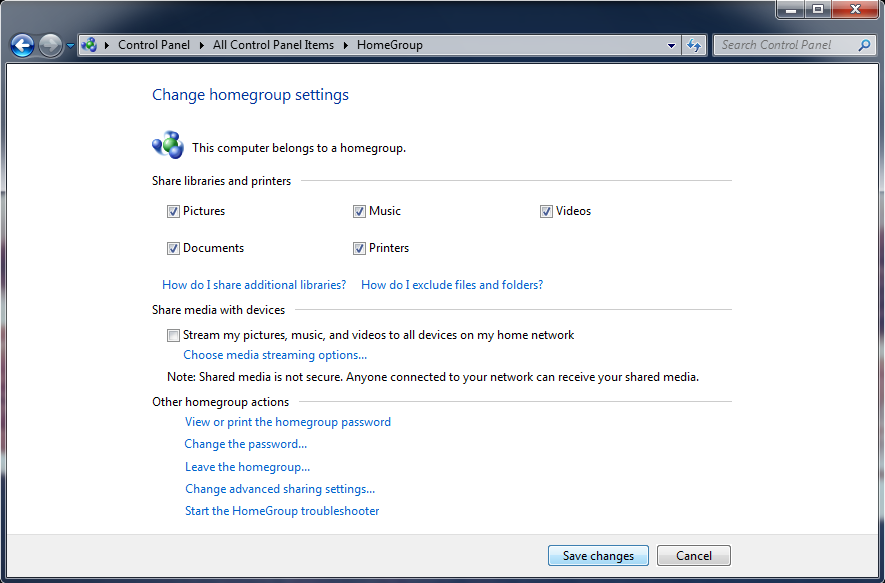
1. Wait a while until the process is complete.
2. Tentukan pilihan file yang akan di-share, lalu klik **Next**.



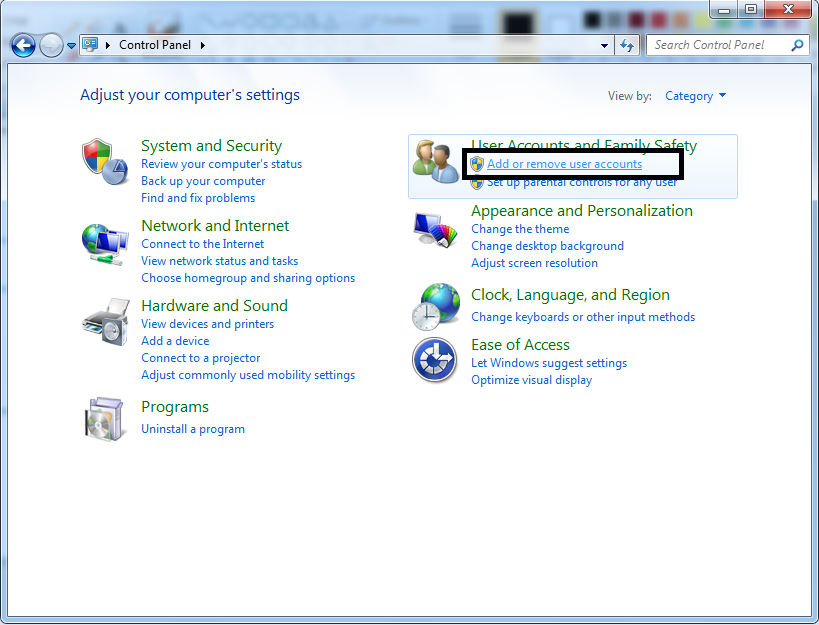
1. Wait a while until the process is complete.
2. Next comes the code (password) that will be used by other computers to access the homegroup. Write down this password, hereinafter click Finish.

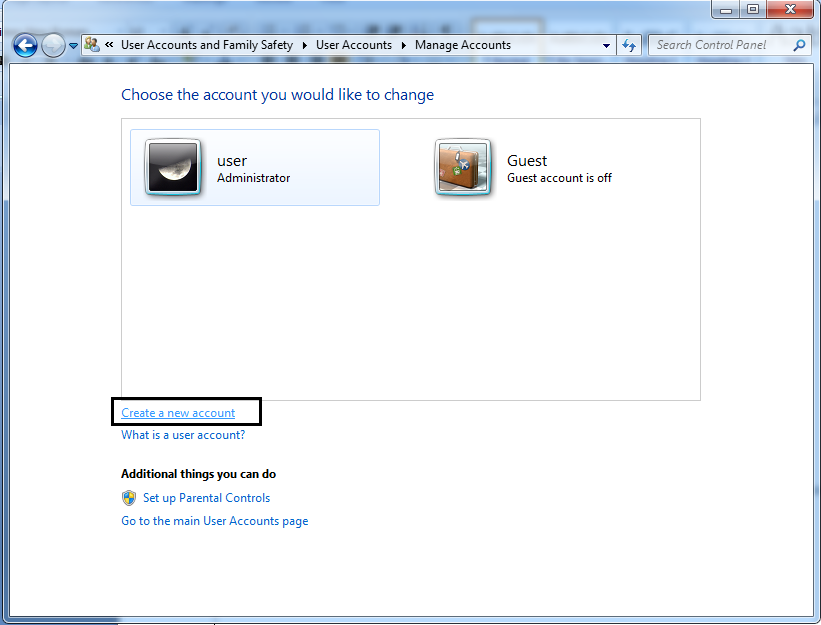


1. When finished, click **Save Changes.**

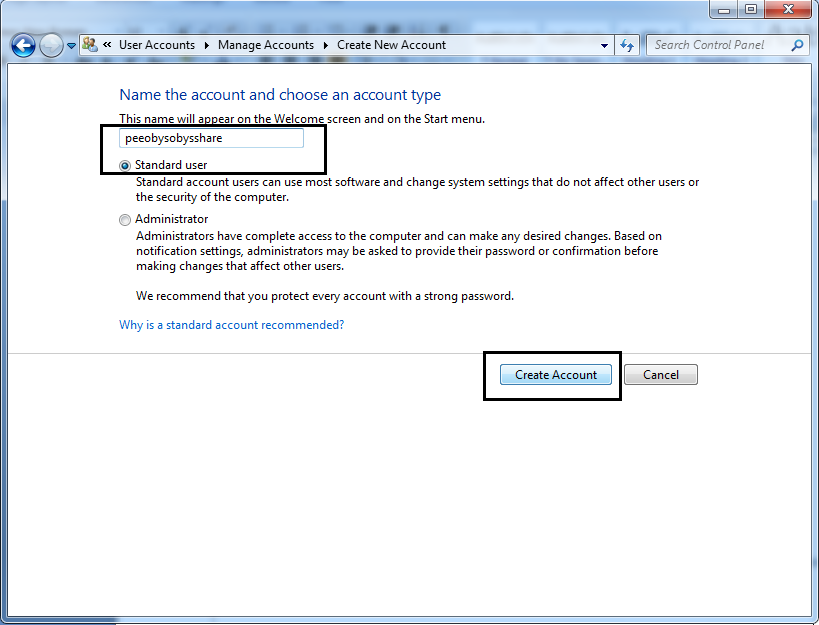


After configuring the IP address setting in Windows 7, we then share files between Windows 7 and Windows XP to be connected and file sharing (peer to peer).

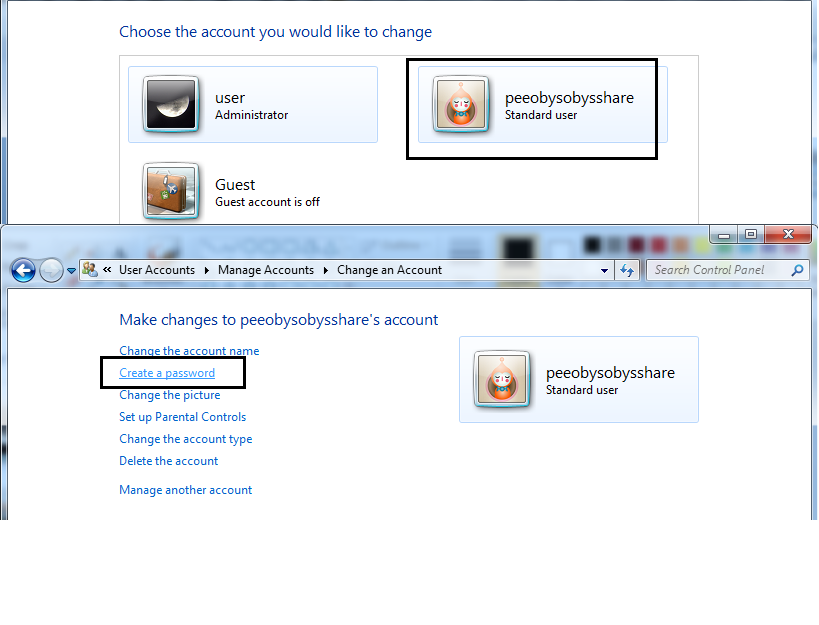
1. In windows 7, create a new user. Open the Control Panel, select Add or Remove User Accounts.
2. Select Create a new account.



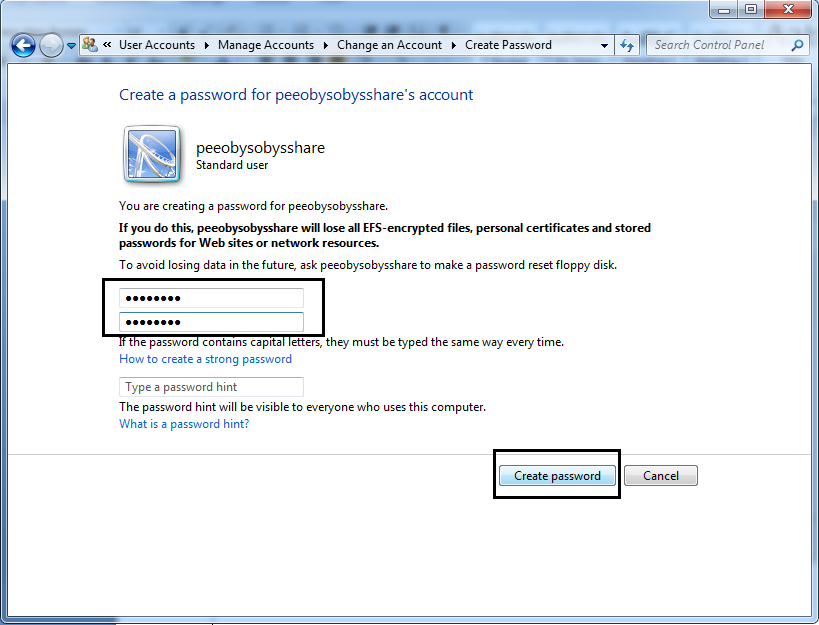
1. Fill in the username and specify the type of user. Then click Create Account.

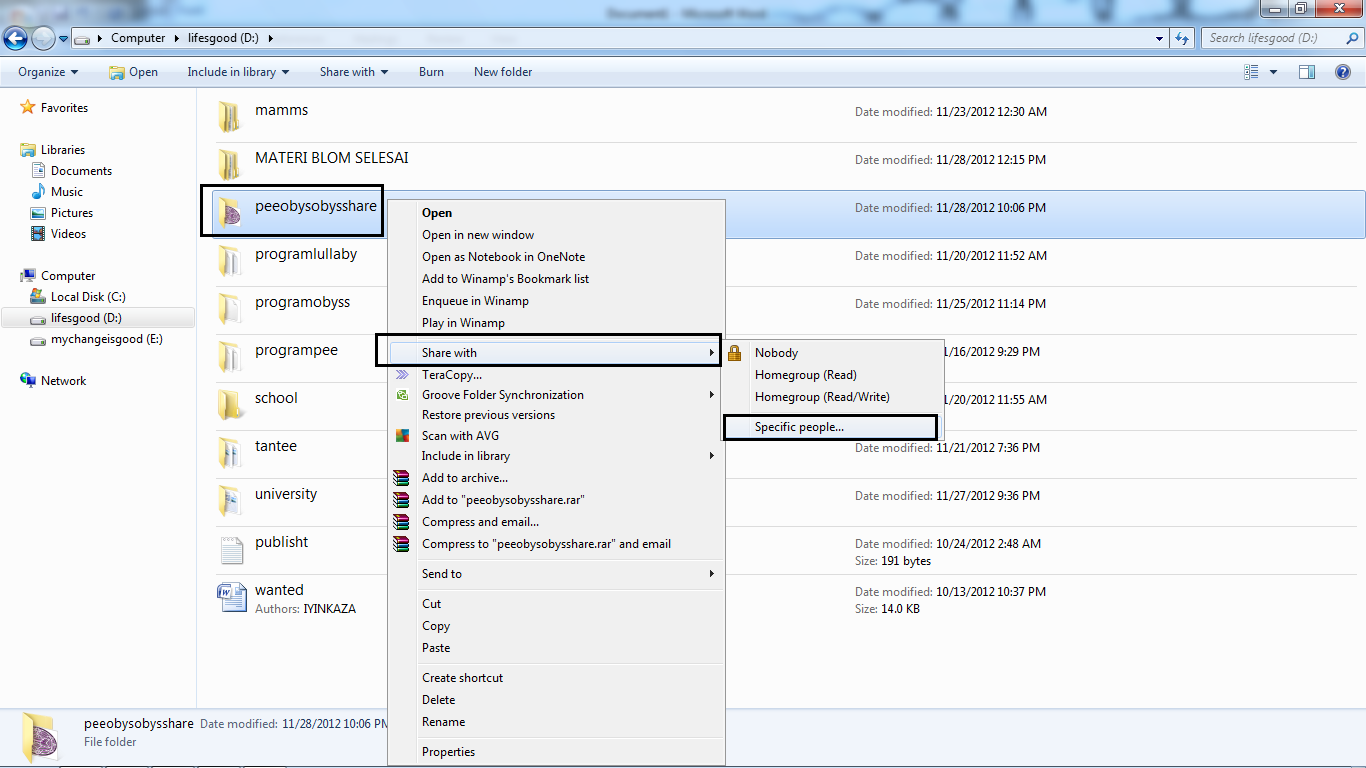


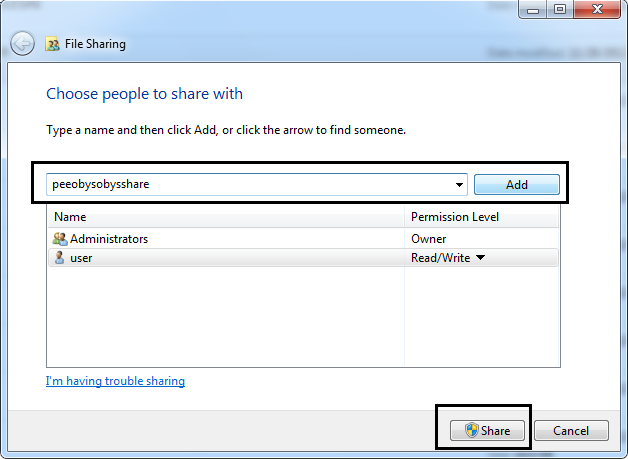
1. Select the newly created user, and then click Create a password.



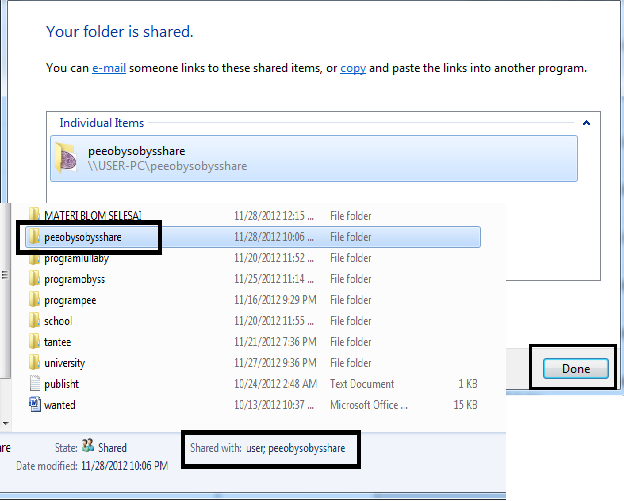
1. Fill in the password, and then click Create a password.



1. Then select the folder you want to share, right-click, select Share with and choose specific people ...
2. Fill in the username that was created earlier, click Add, then click Share.



1. Wait a few moments, and then click Done. Folder will be shared by the state indicated it says on the bottom of the window.



**Note:** The username and password have been created to be used by another computer when you open a folder share.