SYNTEC
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# Network Setting and File transfer

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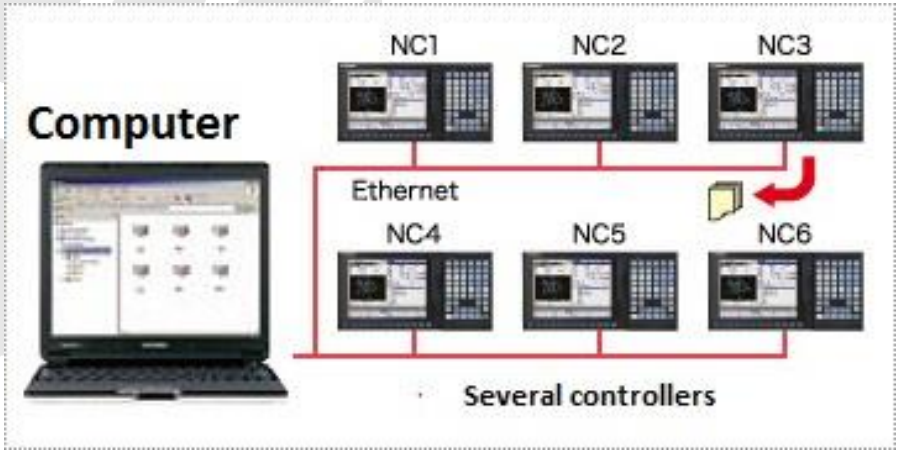
# Background

- Sometimes user needs to transfer data from USB to CNC or CNC to USB for editing purposes/installing new softwares. This process uses ‘File transfer’ option of CNC.
- Or some times several controllers need to access one file from the same computer.
- So we need to establish connection between several controllers and PC at the same time.



# Objectives

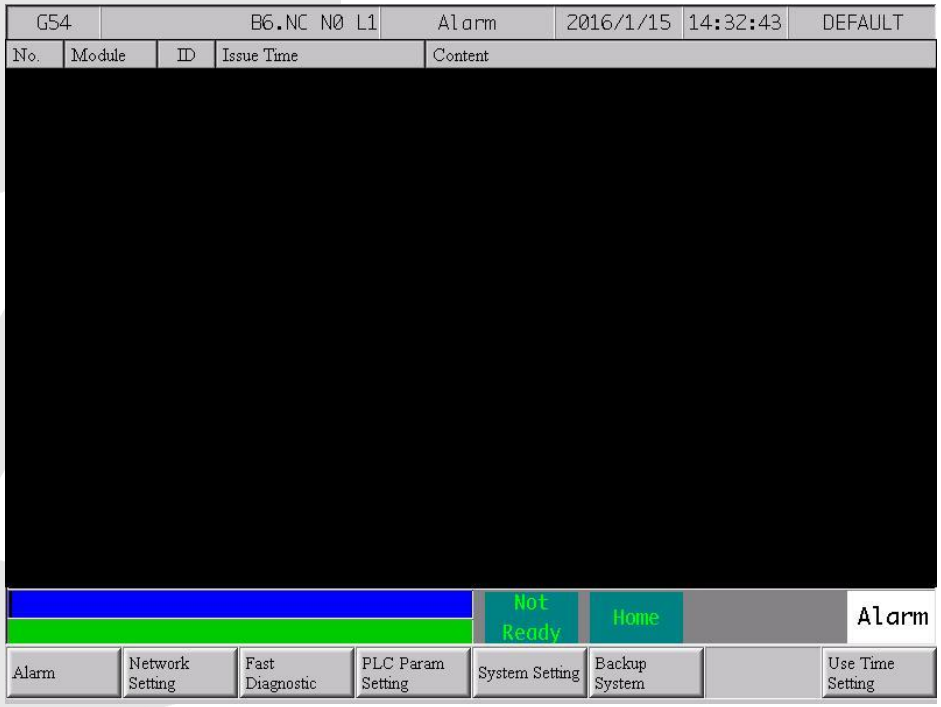
1. Setting up LAN network between a CNC controller and Computer.
2. Perform file transfer operations using USB/Network connection.

# Objective 1
# Setting up LAN network between CNC and Computer.

1. To perform file transfer operation between computer and a cnc controller , please connect the two devices using an Ethernet cable.
2. Then goto the Network setting option in CNC to set all the required parameters.
3. In the computer, declare a folder as a shared folder so it's contents can be accessed over the network for import/export purpose by CNC.
4. In following slides, we briefly explain 2nd and 3rd step.

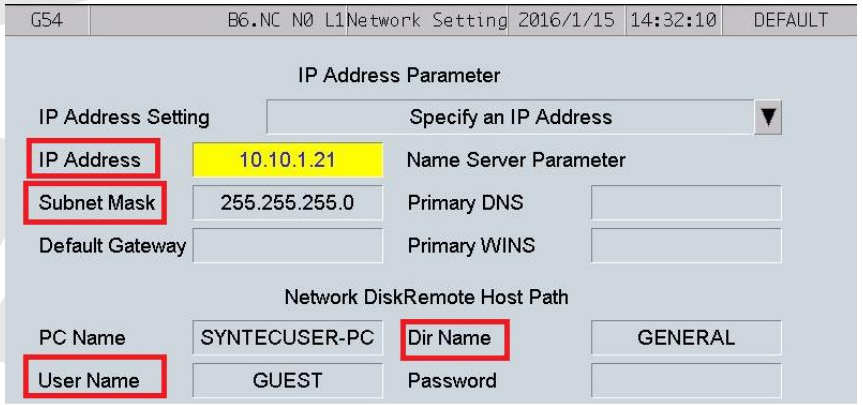
# Network Setting

- We first set the network setting of the controller.
- In the CNC Monitor Home screen, press F5 ‘Maintain’.
- Press F2 for ‘Network Setting’



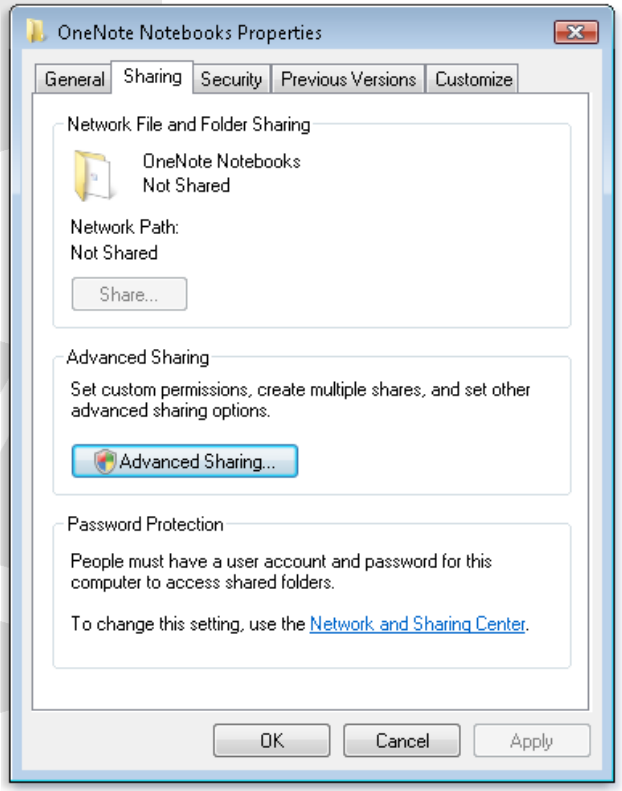
# Network Setting

1. Set the **IP address** and **Subnet Mask** as shown in the adjacent figure.
2. Check your PC name by right clicking on ‘My computer’ and then enter in ‘**PC Name**’ input box.
3. Type in ‘**User Name**’ as Guest. Make sure guest account is enabled in your computer.
4. Enter the folder/directory name in ‘**Dir Name**’ input box which has been declared as shared resource in your computer.
5. In next slides we understand how to declare folder/directory as shared resource.



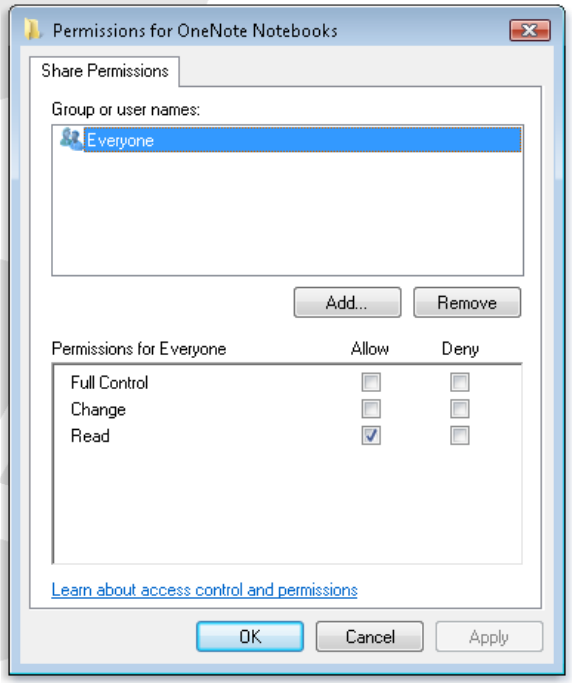
# Sharing a Folder in Computer

1. Right click on a folder and click ‘Properties’.
2. Then click on ‘Sharing’ button among the menu button on the top of screen as shown in the figure.
3. Click on ‘Advanced Sharing’ and then on ‘Permissions’.



# Sharing a Folder in Computer

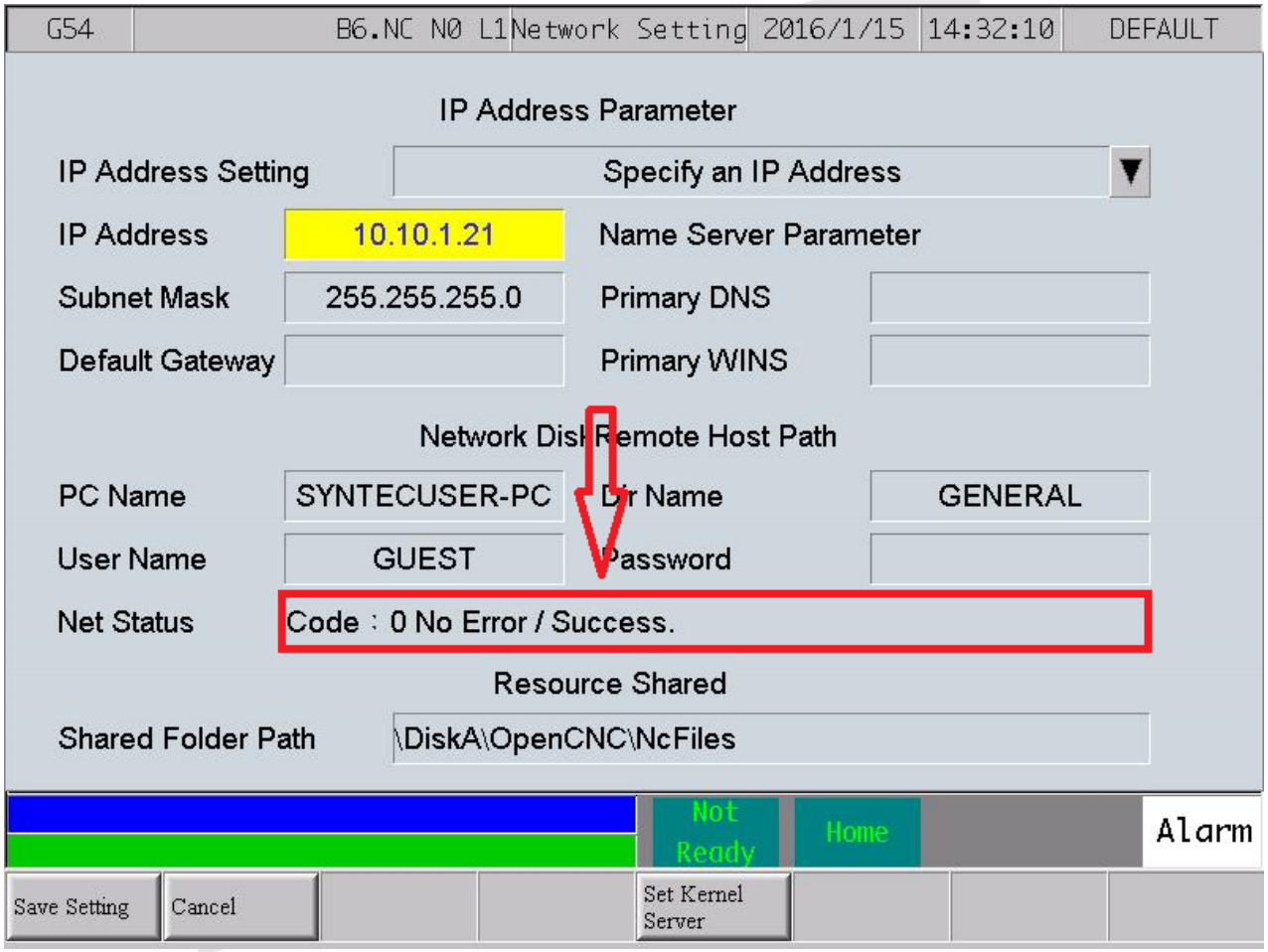
1. In the share permissions tab, select ‘Everyone’.
2. Make sure the check box is clicked for Read option as shown in the figure.
3. Now your folder is ready to be accessed over network by external systems, in our case CNC.
4. Next connect a LAN cable between the controller and your PC.
5. Once the connection appears in your PC, goto network and connections setting in control panel.



# Sharing a Folder in Computer

- We need to set the IPV4 settings in PC similar to the controller's network settings.
- We just need to set two parameters in the PC , IP address and subnet mask.
- Just make sure IP address is set other than 10.10.1.21.
- Subnet mask must have the same value 255.255.255.0.
- Now we are set to do the file transfer over network.

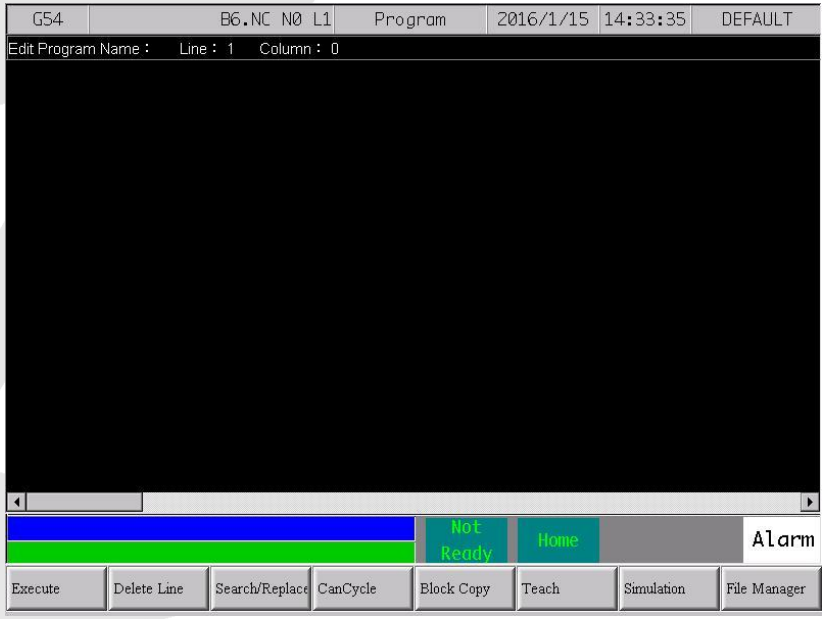
# Successful connection message



# Objective 2

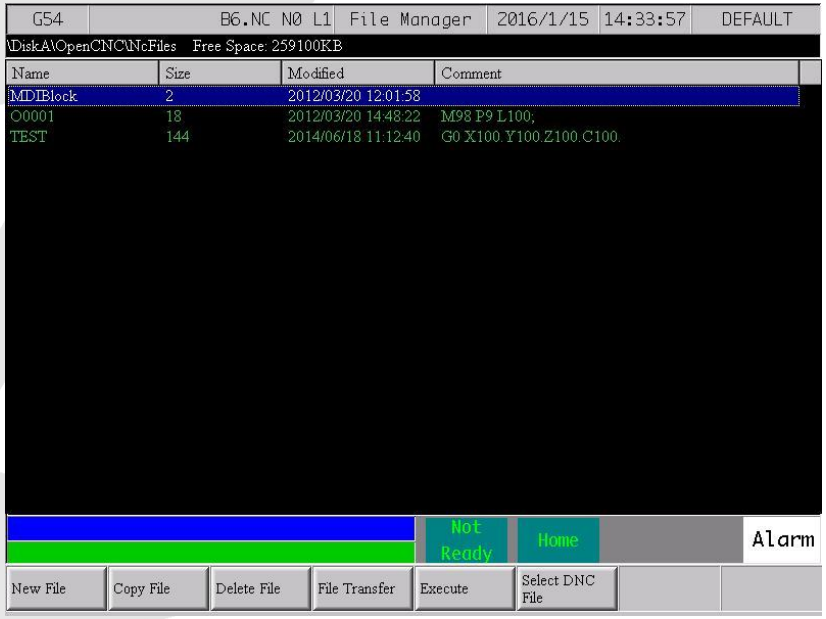
## Perform file transfer operations using USB/Network connection

- Connect a USB consisting NC files to the CNC controller.
- Also connect the controller to a PC using an Ethernet cable. We will now understand how file transfer takes place.
- Press F8 to enter ‘File Manager’.



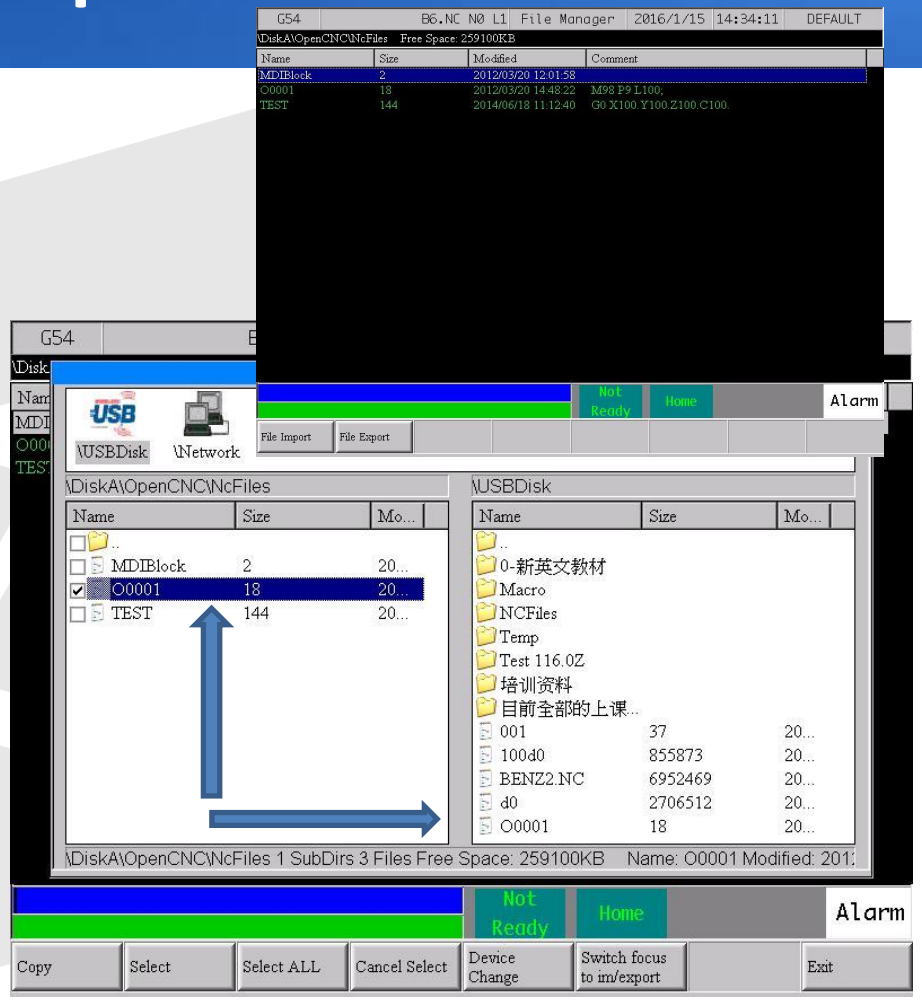
# File Export

- Then press F4 for ‘File Transfer’.
- Then we will have to two options to choose. We choose ‘File Export’ first by pressing F2.



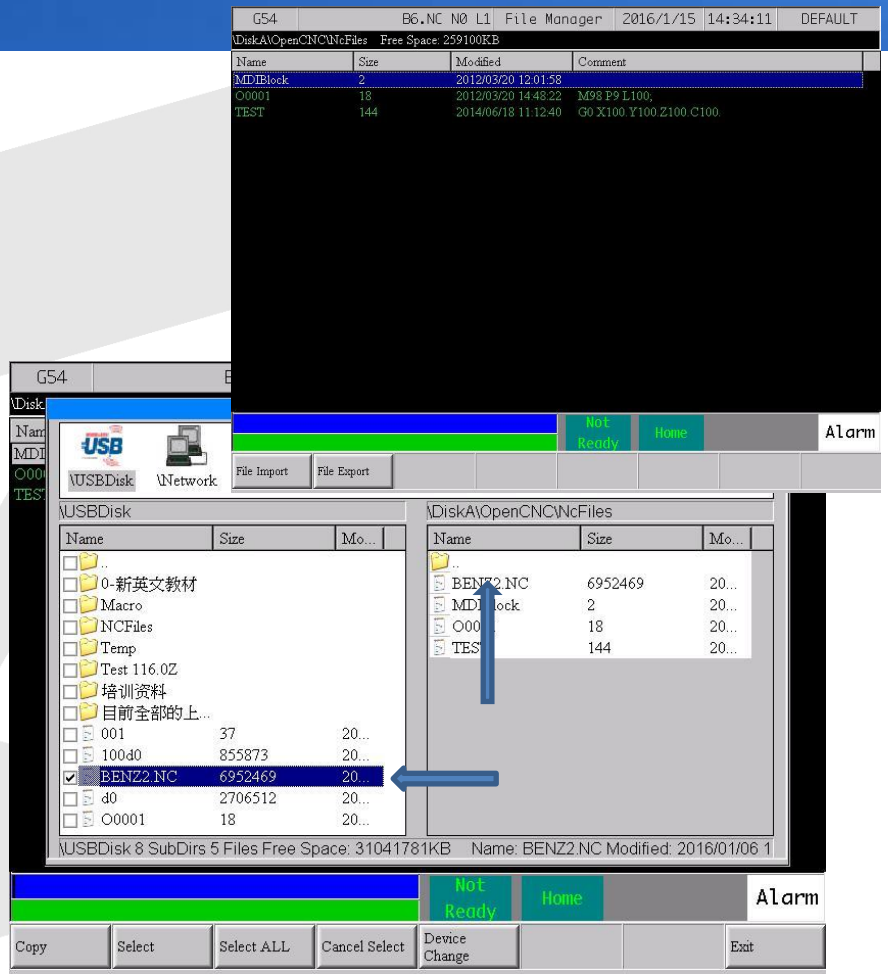
# File Export

- Then by using up/down arrow keys, we choose any file to be exported from controller to USB.
- First press F2 to ‘Select’ a file and then press F1 to ‘Copy’ the file into the USB.
- In this case we transferred file named O0001.



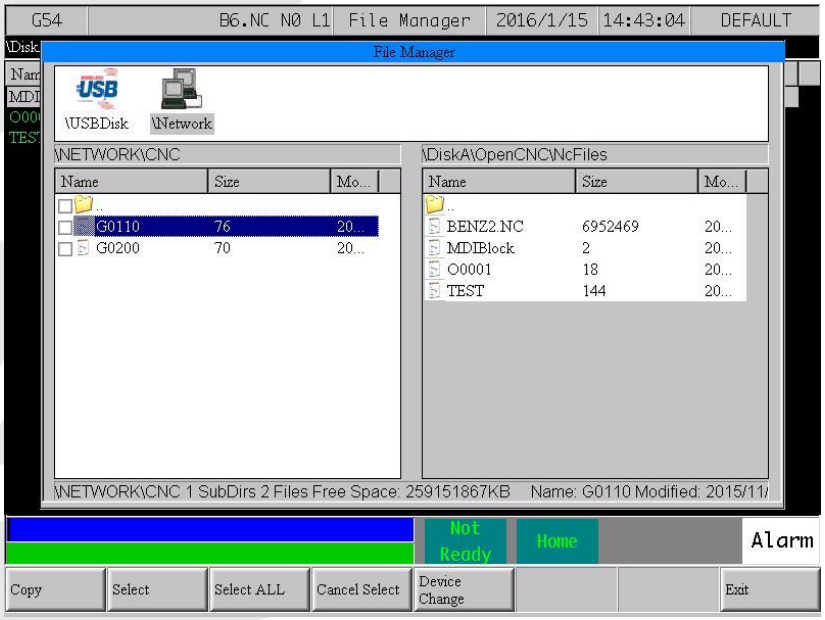
# File Import

- Press ESC and Press F1 for ‘File Import’.
- By using up/down arrow keys, we choose any file to be imported from USB to controller.
- First press F2 to ‘Select’ a file and then press F1 to ‘Copy’ the file into the controller.
- In this case we transferred file named BENZ2NC.



# Device change

- Press F5 to select ‘Device change’.
- Incase we need to perform file transfer over network , use left/right arrow keys to choose Network and start performing file transfer operations on a Network.



Thank you