



Changes for the Better

MITSUBISHI CNC

Data Saver Setup Manual

M700BM/M700UM Series



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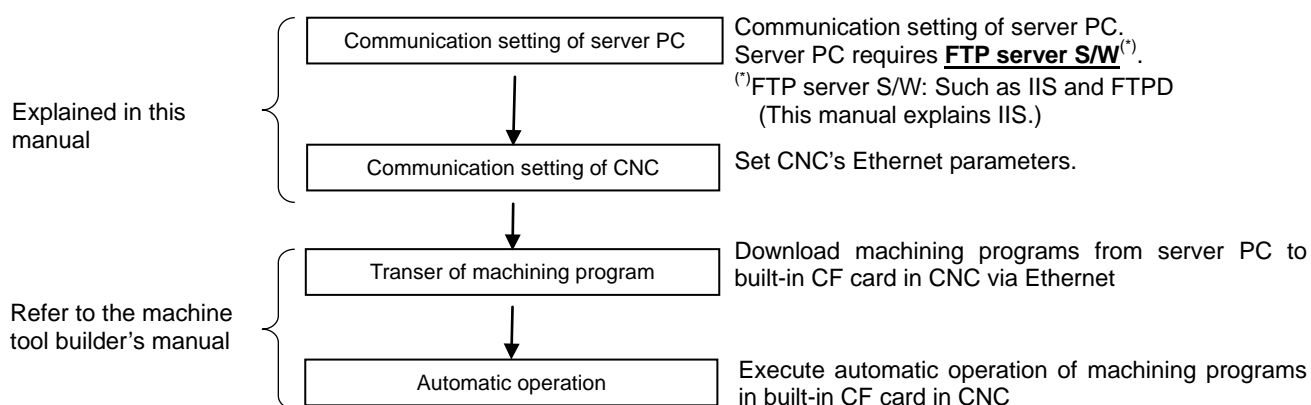
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1 OUTLINE

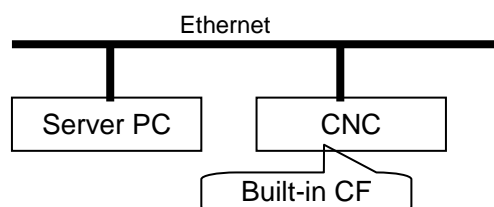
The high-speed program server function enables an automatic operation with Ethernet communication between the CNC and the server PC (FTP server) to download machining programs to the built-in CF card in the CNC. This function is suitable for an operation of large-size machining program stored in the server PC created by CAM. This manual describes the procedures to connect the CNC and the server PC via Ethernet.

2 OVERALL FLOW

The flow of transferring the machining programs of the server PC and starting an automatic operation is as below.



3 NETWORK CONNECTION



Connect the server PC with the CNC via Ethernet.
Use a straight cable and hub when connecting multiple network devices (such as another machine tool, FA device, or PC).
Use a cross cable when connecting the CNC with the server directly (without using a hub).

4 SETTING EXAMPLE

This manual explains how to set based on these setting examples.

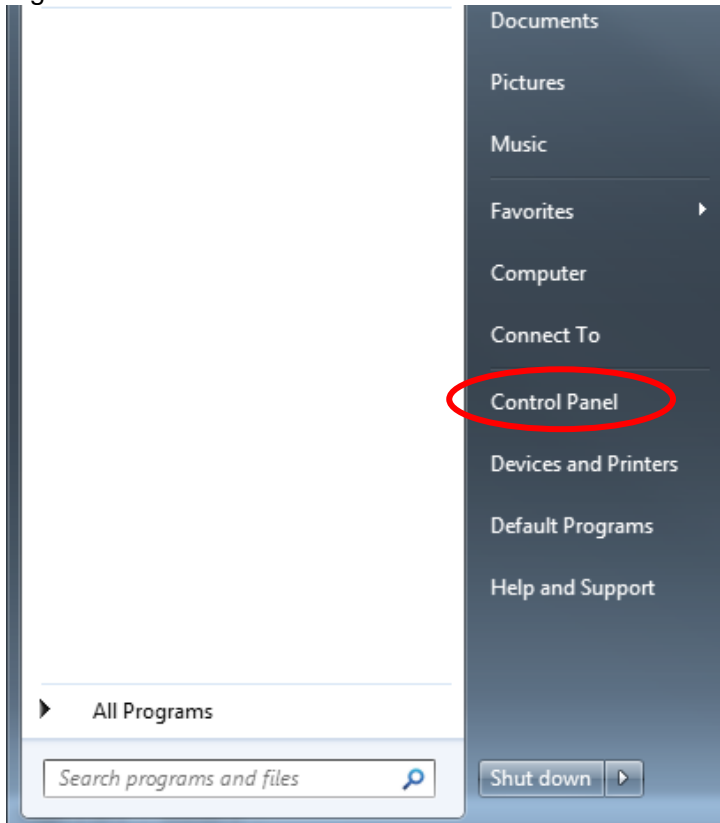
Item	Value	Remarks
Server PC (FTP server) IP address	192.168.0.10	CNC parameter #9711
CNC global IP address	192.168.0.20	CNC parameter #1926
CNC global netmask	255.255.255.0	CNC parameter #1927
CNC global gateway	192.168.0.254	CNC parameter #1928
Server PC OS	Windows [®] XP /Windows [®] 7 Windows [®] 8.1/ Windows [®] 8	-
FTP server S/W	IIS	-
FTP user name	M700	CNC parameter #9712
FTP user password	M700PASS	CNC parameter #9713
FTP site directory	c:\data	Create in server PC in advance

5 SET SERVER PC

5.1 Windows® 7

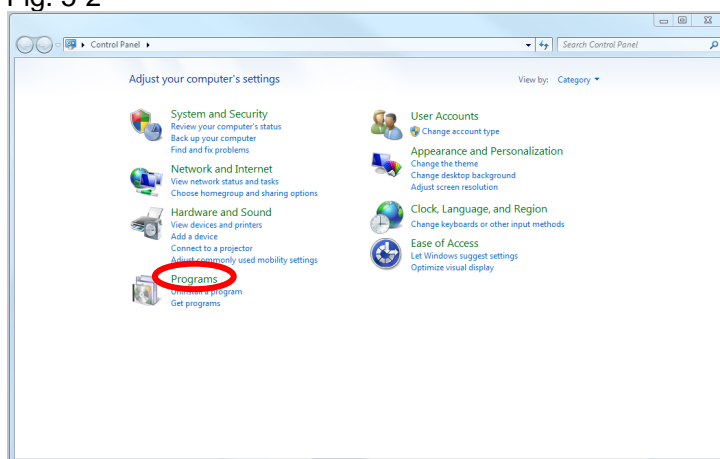
5.1.1 Install IIS

Fig. 5-1



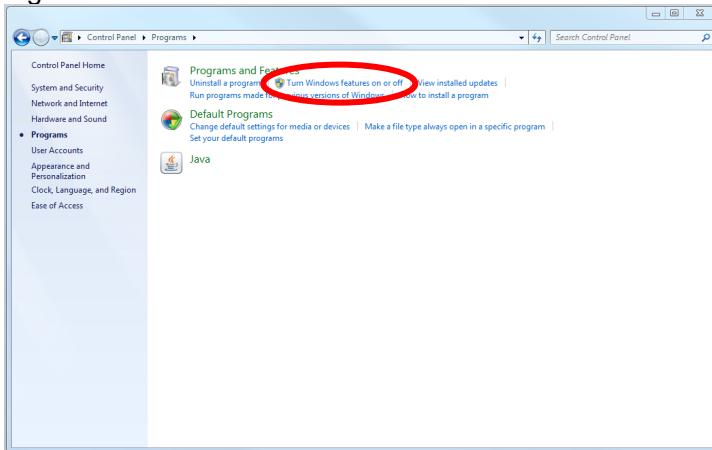
Select "Control panel" from Start Menu.

Fig. 5-2



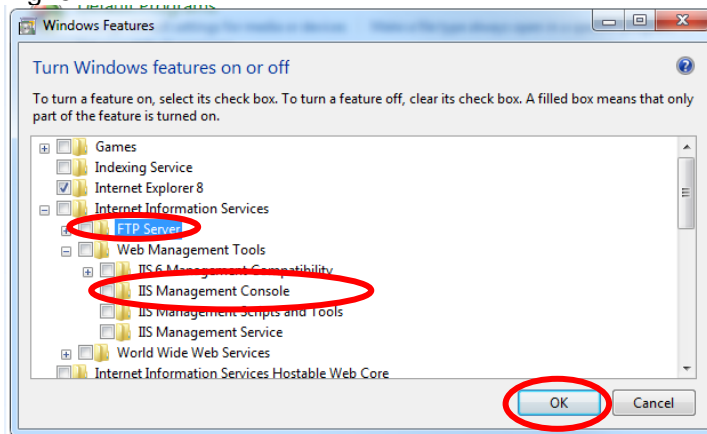
Select "Programs" of "Control Panel".

Fig. 5-3



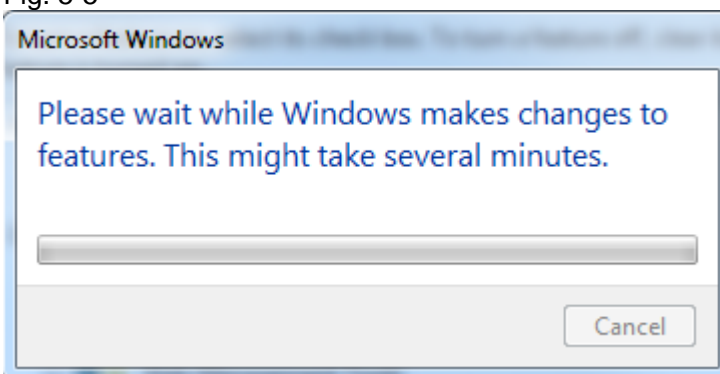
Select "Turn Windows features on or off".

Fig. 5-4



Tick the following items in "Internet Information Service", then click OK.
 "FTP Server"
 "IIS Management Console"

Fig. 5-5

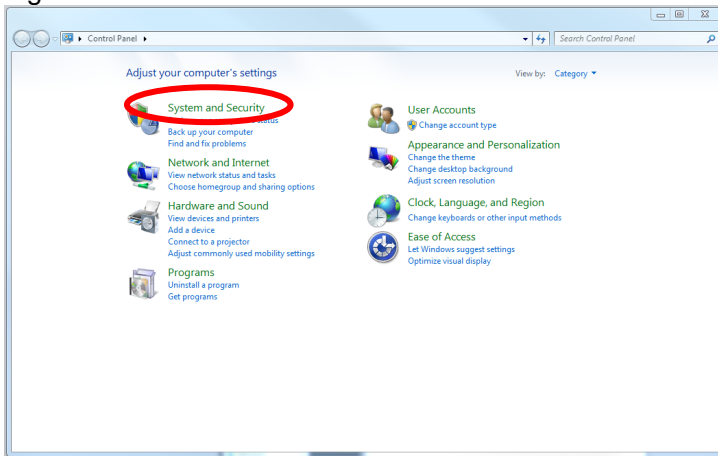


Copying of necessary files starts.

Installation is complete when copying is finished.

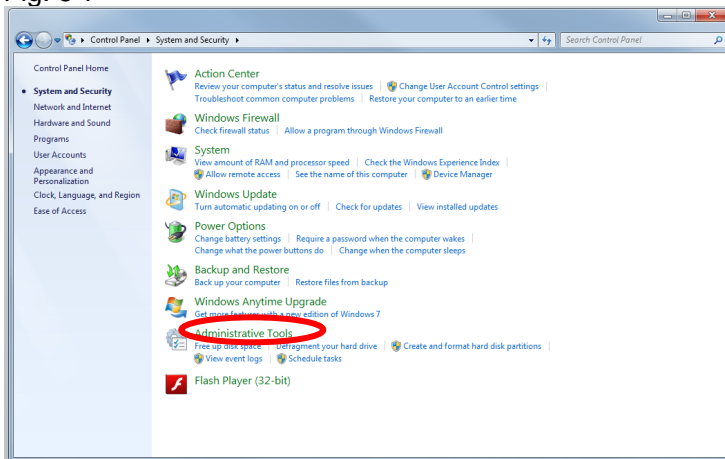
5.1.2 Set IIS

Fig. 5-6



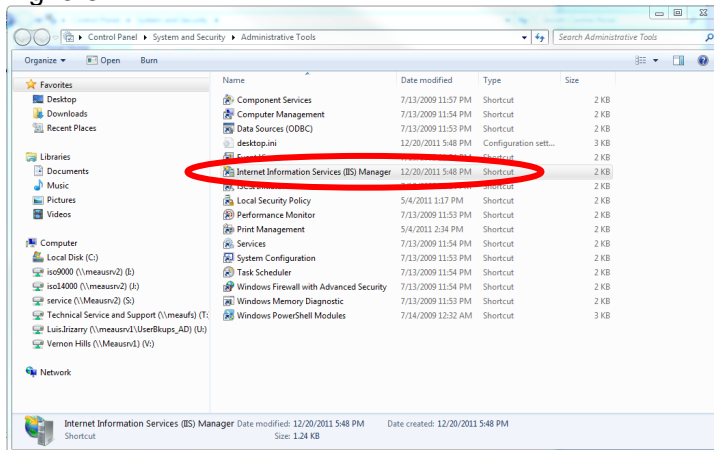
Select "System and Security" from "Control Panel".

Fig. 5-7



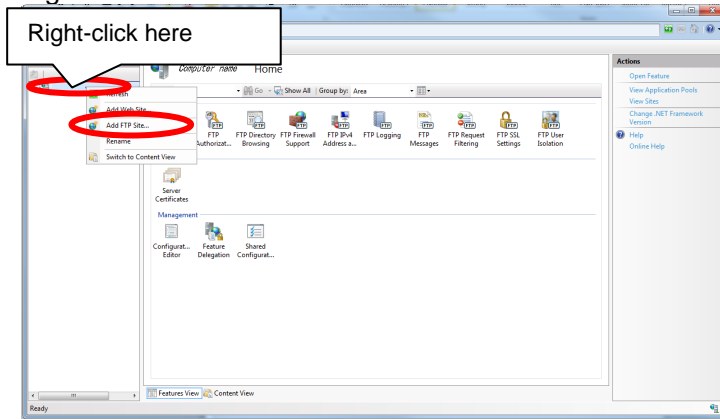
Select "Administrative Tools".

Fig. 5-8



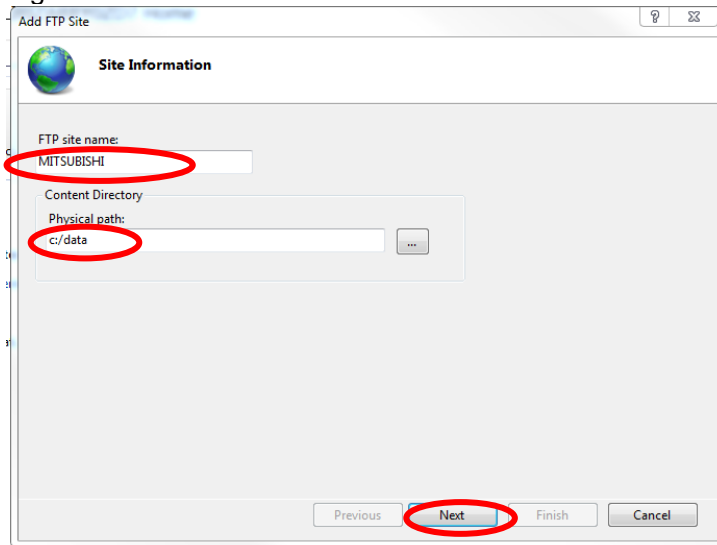
Select “Internet Information Services (IIS) Manager”.

Fig. 5-9



Right-click the connection list and select “Add FTP Site”.

Fig. 5-10

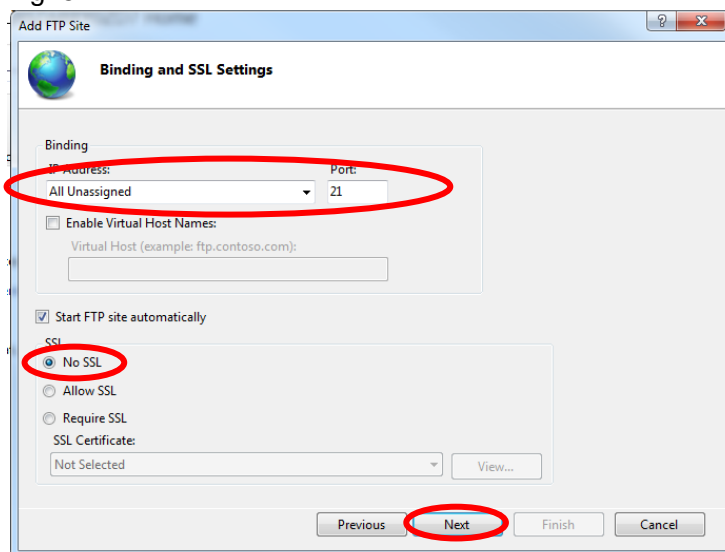


Set as below and select "Next".

FTP site name: MITSUBISHI
Content Directory: c:/data

Create the directory c:/data in advance.

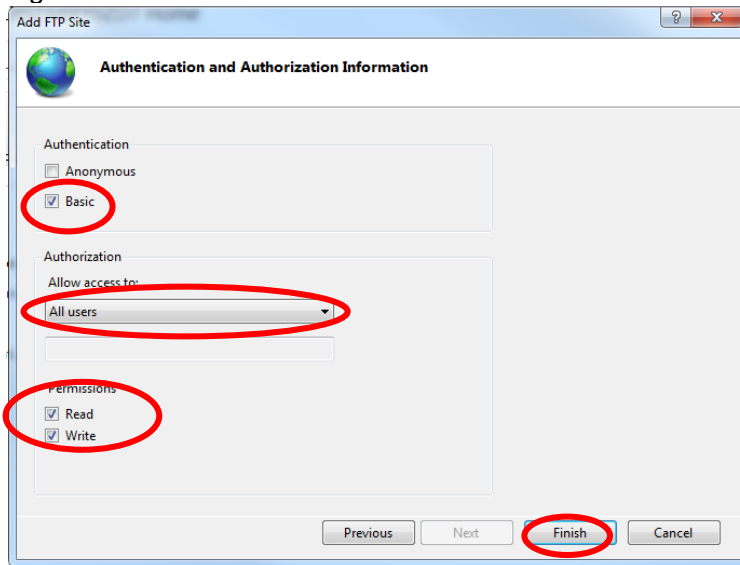
Fig. 5-11



Set as below and select "Next".

- Binding
IP Address: "All Unassigned"
Port: 21
- SSL
Select "No SSL"

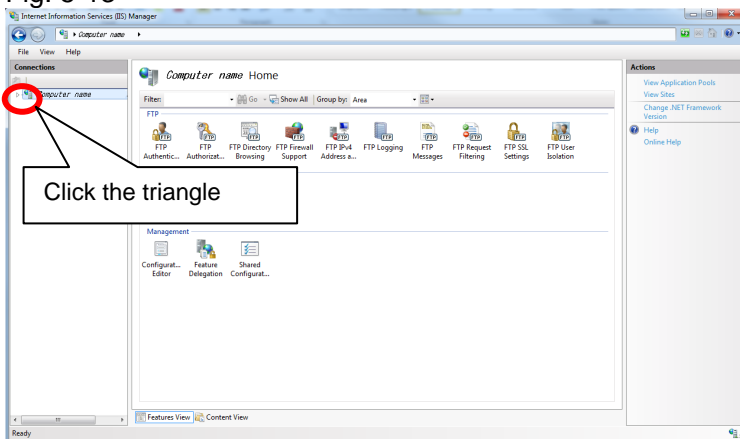
Fig. 5-12



Set as below and select "Finish".

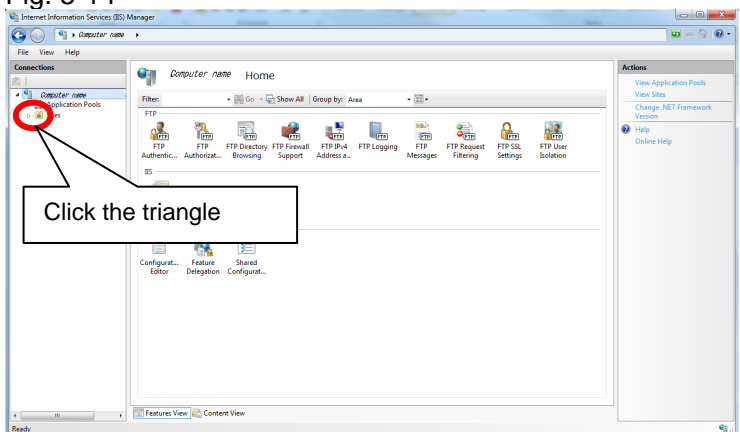
- Authentication
Select "Basic"
- Authorization
Allow access to: Tick "All users", "Read" and "Write"

Fig. 5-13



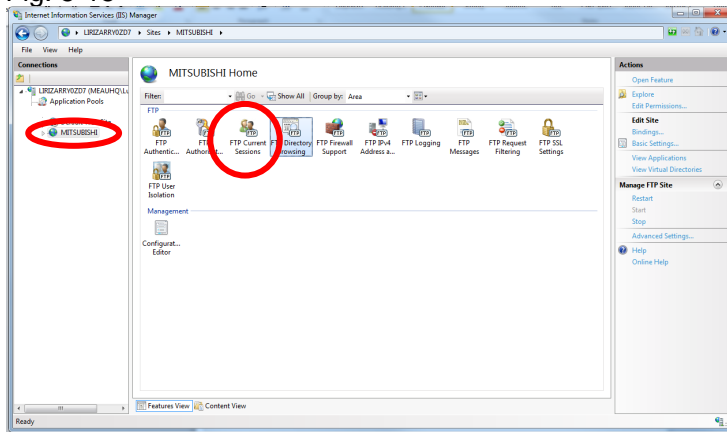
Select the triangle in "Connections" to open the connection list.

Fig. 5-14



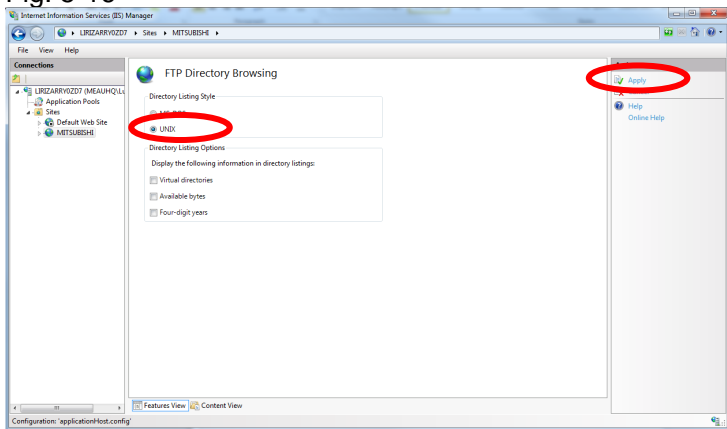
Select the triangle next to "Site" to open the connection list.

Fig. 5-15



Select the created site (MITSUBISHI), then select "FTP Directory Browsing".

Fig. 5-16



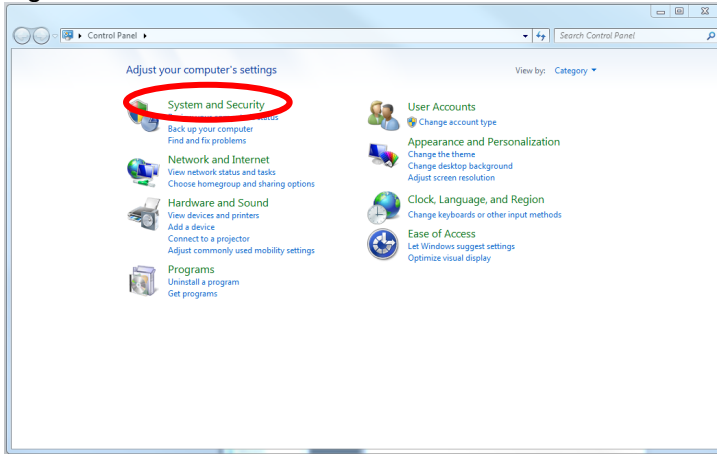
Set the FTP Directory Browsing as below, and select Apply.

Directory Listing Style: "UNIX"

Now IIS setting is complete.

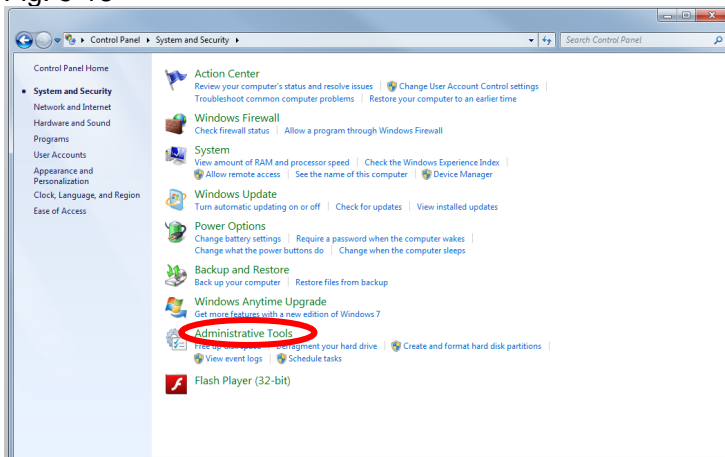
5.1.3 Set firewall

Fig. 5-17



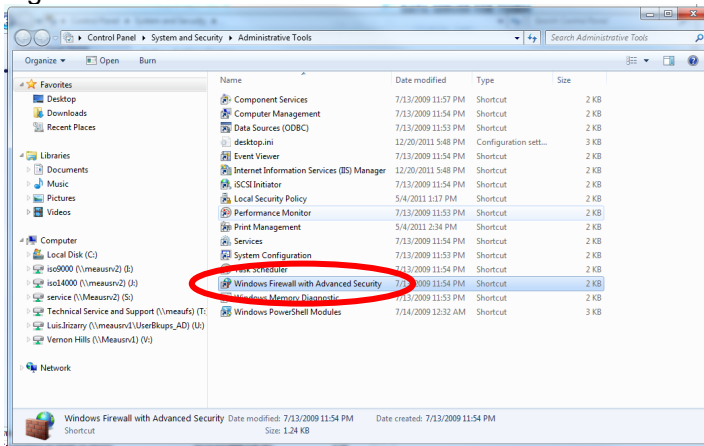
Select "System and Security" from "Control Panel".

Fig. 5-18



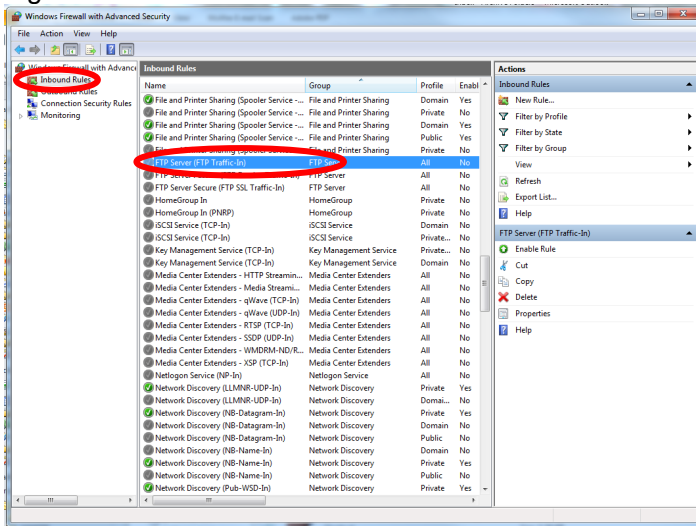
Select "Administrative Tools".

Fig. 5-19



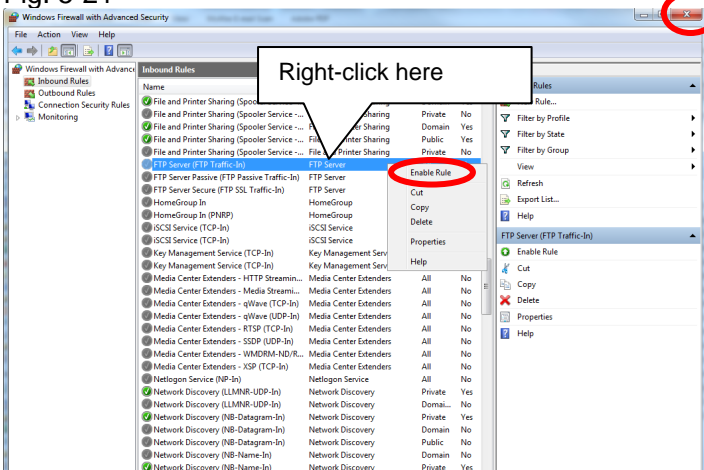
Select "Windows Firewall with Advanced Security".

Fig. 5-20



Select "Inbound Rules", then select "FTP Server (FTP Traffic-In)".

Fig. 5-21



Right-click "FTP Server (FTP Traffic-In)", and select "Enable Rule" of the pop-up menu.

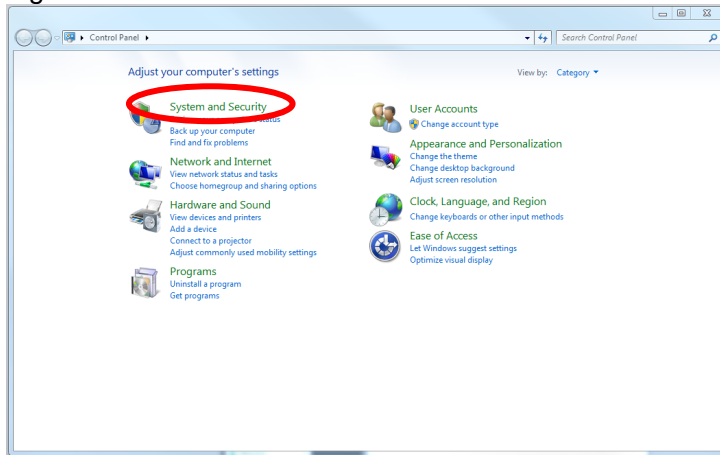
After selecting, close the window.

Now firewall setting is complete.

5.1.4 Register FTP user

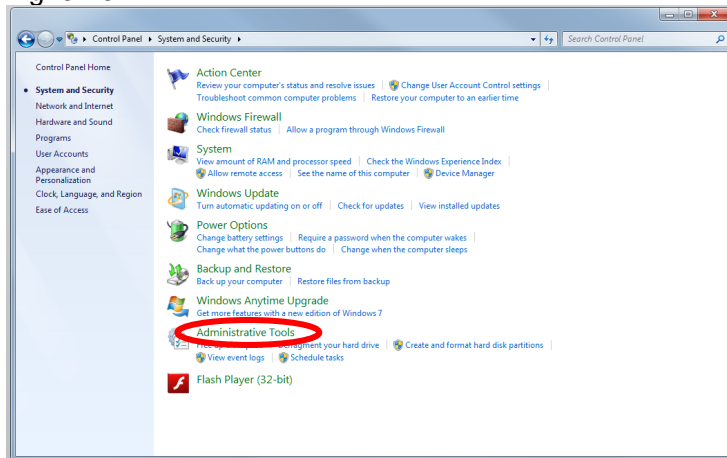
These procedures are to be carried out by a user with administrative privileges.

Fig. 5-22



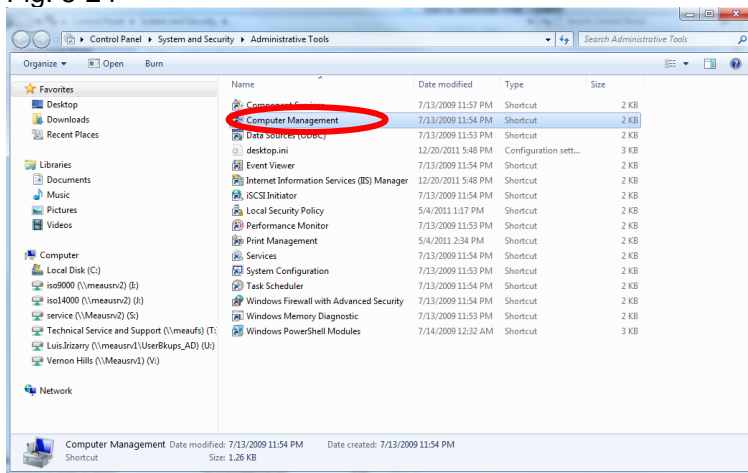
Select "System and Security" of "Control Panel".

Fig. 5-23



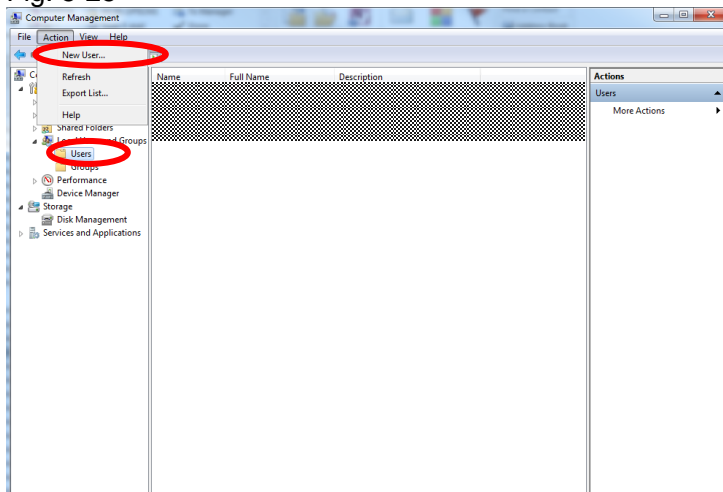
Select "Administrative Tools".

Fig. 5-24



Select "Computer Management".

Fig. 5-25



"Local Users and Groups" → "Users"
→ Select "New User" from the "Action" menu.

Fig. 5-26

New User

User name: M700

Full name:

Description:

Password: M700PASS

Confirm password: M700PASS

☐ User must change password at next logon

☐ User cannot change password

☒ Password never expires

☐ Account is disabled

Help Create Close

Set as below and select "Create".

User name: M700

Password: M700PASS

- Remove the tick of "User must change password at next logon".
- Tick "Password never expires".

Select "Create" to create a user for FTP, "M700".

Fig. 5-27

New User

User name:

Full name:

Description:

Password:

Confirm password:

☒ User must change password at next logon

☐ User cannot change password

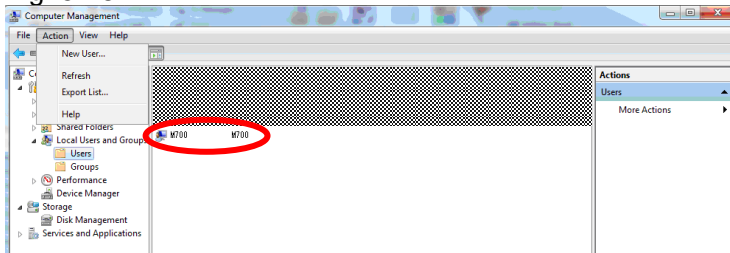
☐ Password never expires

☐ Account is disabled

Help Create Close

When "Create" is selected, the input content is cleared.
Select "Close".

Fig. 5-28



Confirm that the user for FTP, “M700” has been created.

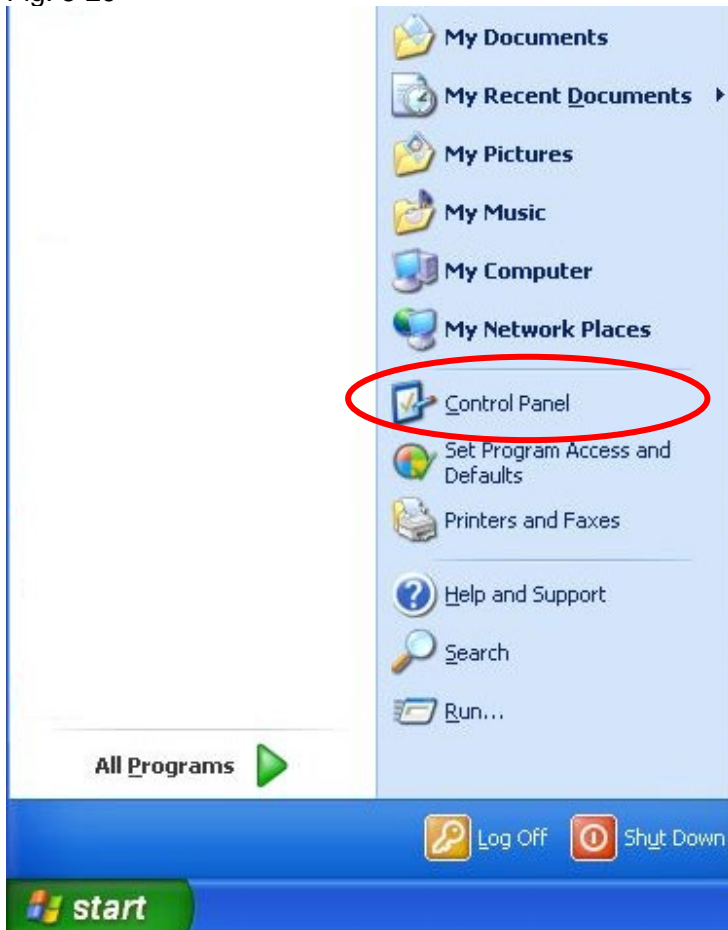
Now FTP user registration is complete.

Now server setting for Windows® 7 is complete.
Proceed to “6.SET CNC”.

5.2 Windows® XP

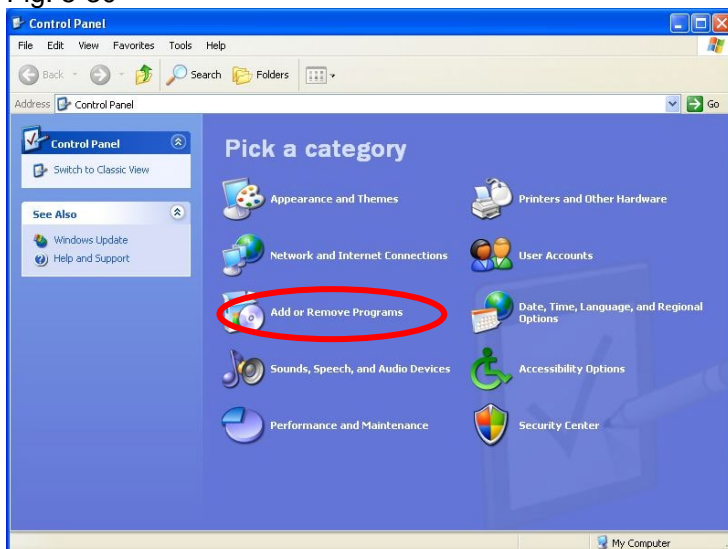
5.2.1 Install IIS

Fig. 5-29



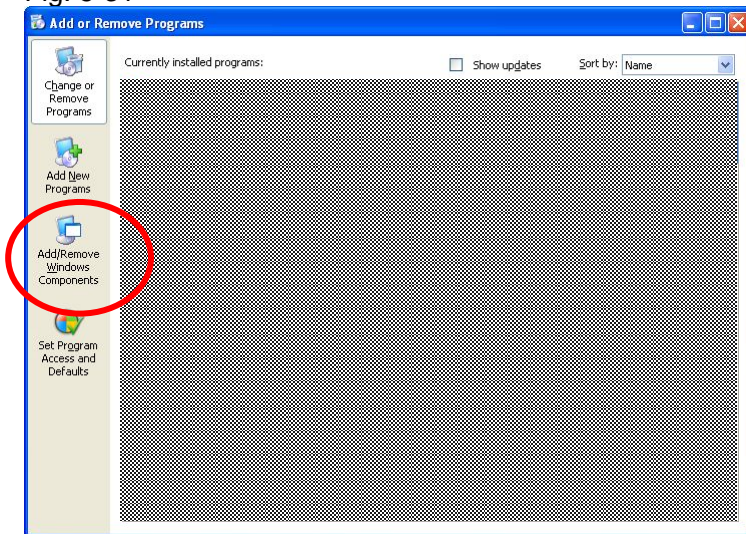
Select "Control Panel" from Start menu.

Fig. 5-30



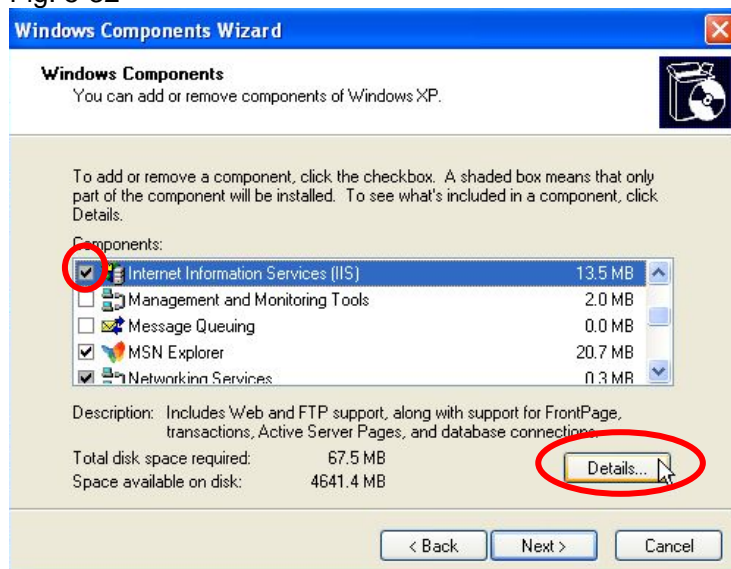
Select "Add or Remove Programs" of "Control Panel".

Fig. 5-31



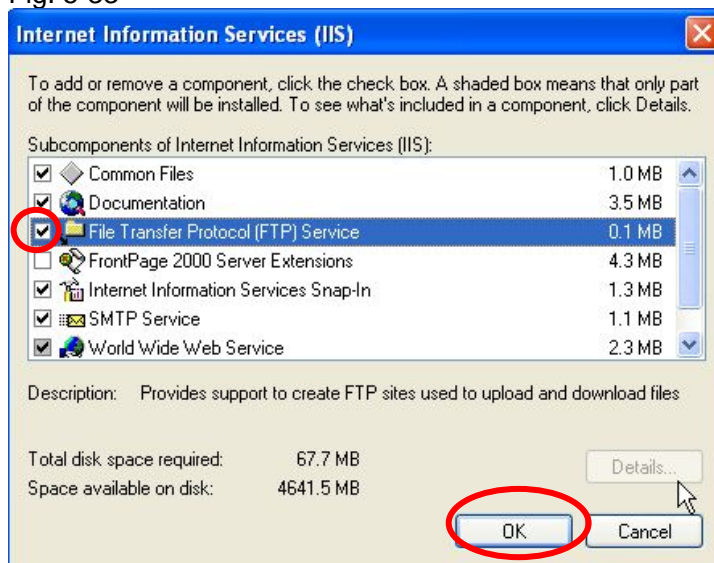
Select "Add/Remove Windows Components".

Fig. 5-32



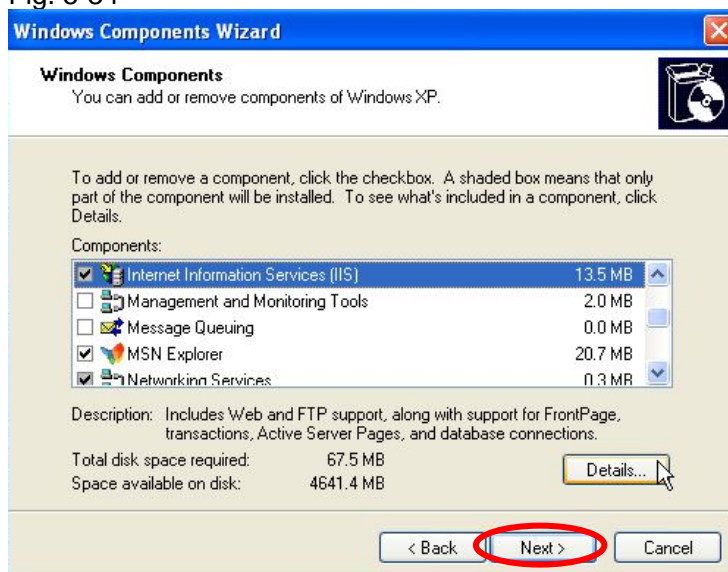
Tick "Internet Information Service(IIS)" and select "Details..."

Fig. 5-33



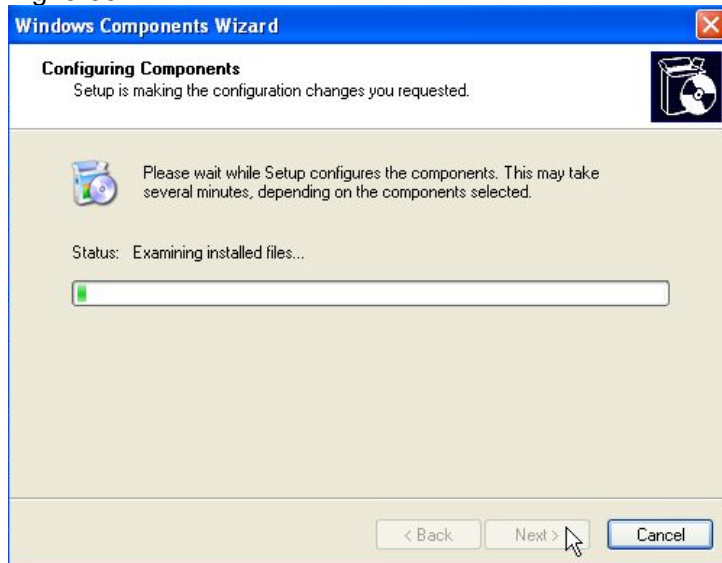
Tick "File Transfer Protocol(FTP)Service" and select "OK".

Fig. 5-34



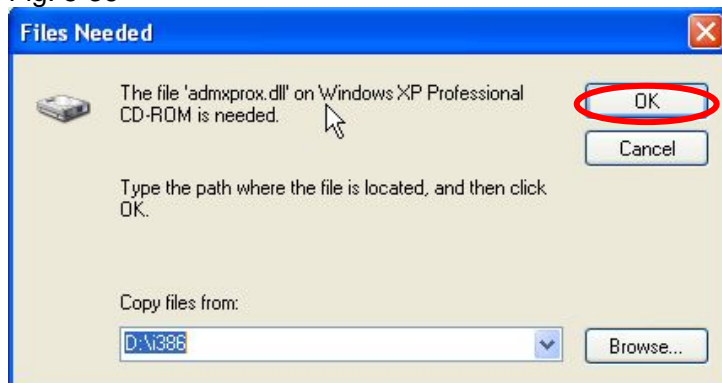
Select "Next".

Fig. 5-35



Installation starts.

Fig. 5-36

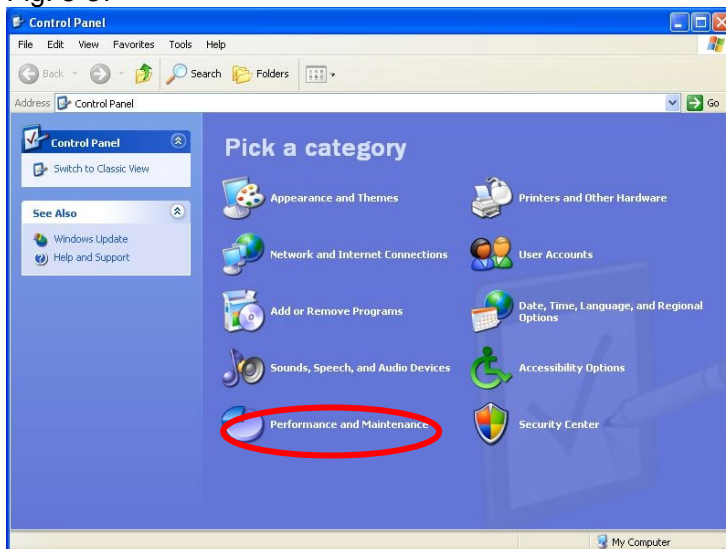


When this window appears, insert the Windows CD into the CD drive.

Installation is complete when copying of the files is finished.

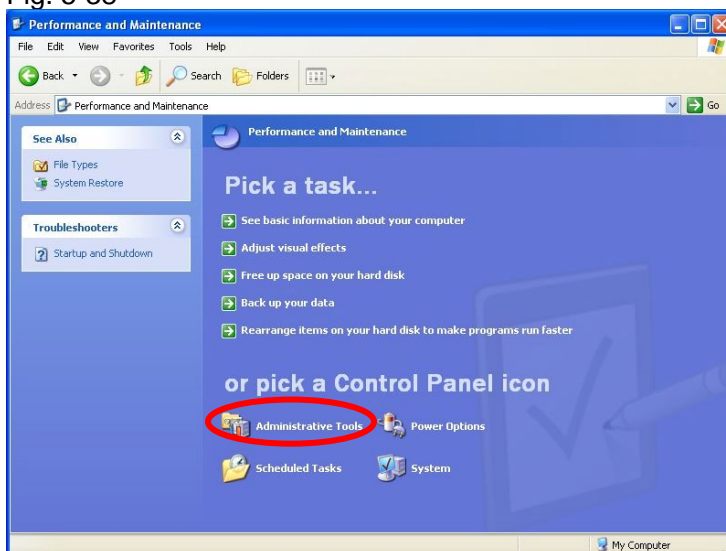
5.2.2 Set IIS

Fig. 5-37

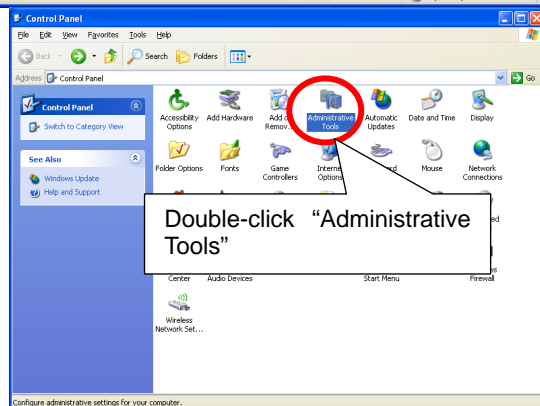


Select "Performance and Maintenance" of Control Panel.

Fig. 5-38

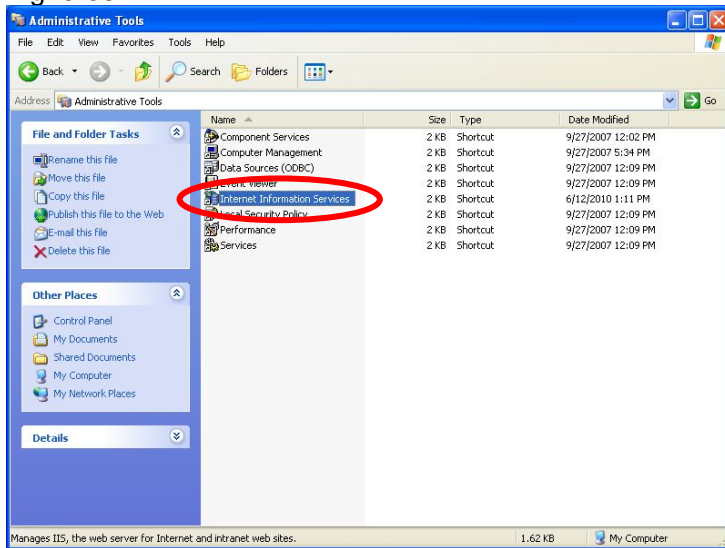


Select "Administrative Tools".



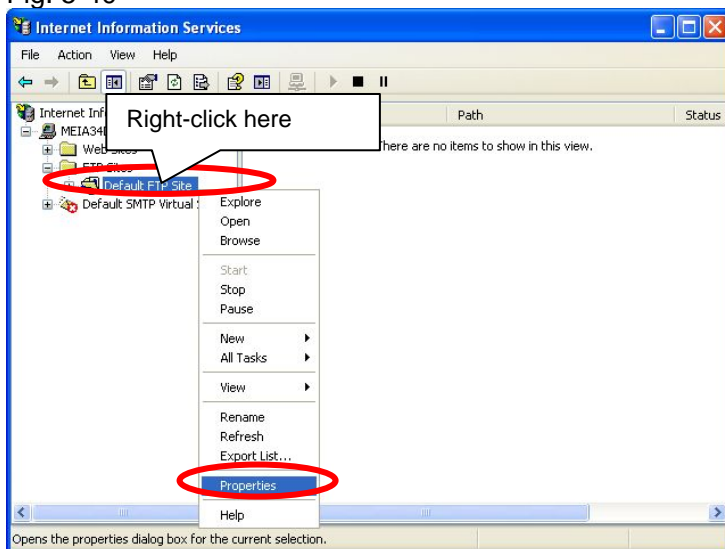
*When Control Panel is displayed in classic style, select "Administrative Tool" directly.

Fig. 5-39



Select "Internet Information Services".

Fig. 5-40

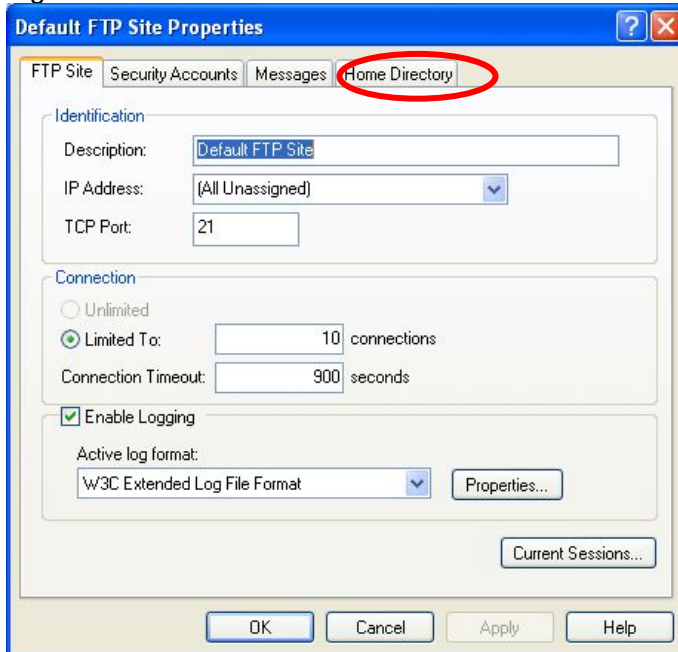


Right-click "Default FTP Site" from among "FTP Sites" and select Properties.

If there is not "FTP Sites", it means that IIS has not been installed.

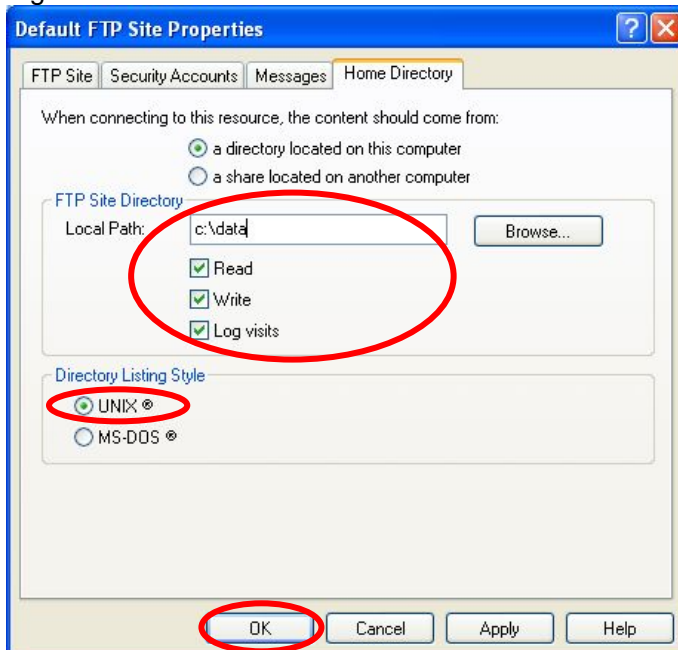
See "5.2 Windows XP" and install IIS.

Fig. 5-41



Click "Home Directory".

Fig. 5-42



Set as below.

- FTP Site Directory
Local Path : c:\data
Tick "Read", "Write" and "Log visits"

- Directory Listing Style
Select "UNIX"

Created the directory c:\data in advance.

Now IIS setting is complete.
Click OK to close Properties.

5.2.3 Set firewall

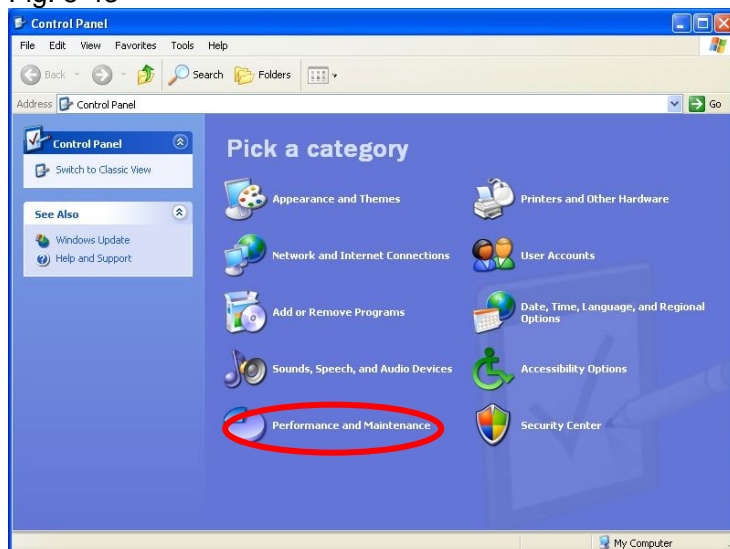
Standard Windows® XP does not require firewall setting.

Check the security software's setting and make sure that FTP (port 21) is not blocked if security software is installed.

5.2.4 Register FTP user

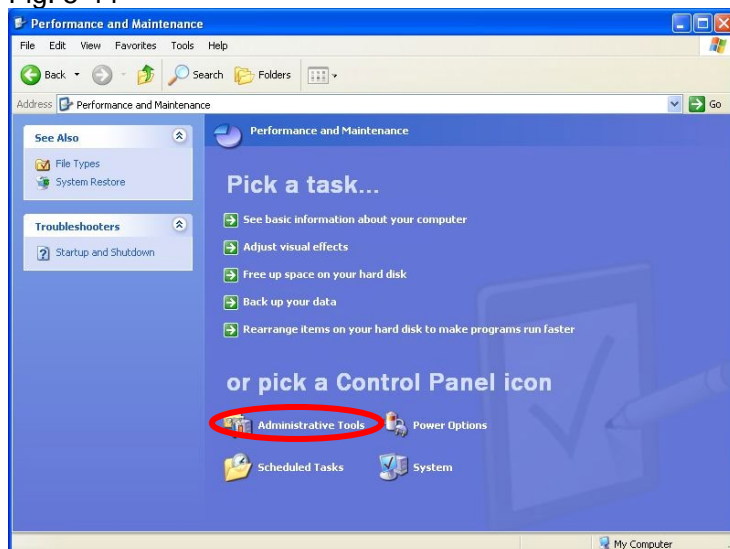
These procedures are to be carried out by a user with administrative privileges.

Fig. 5-43

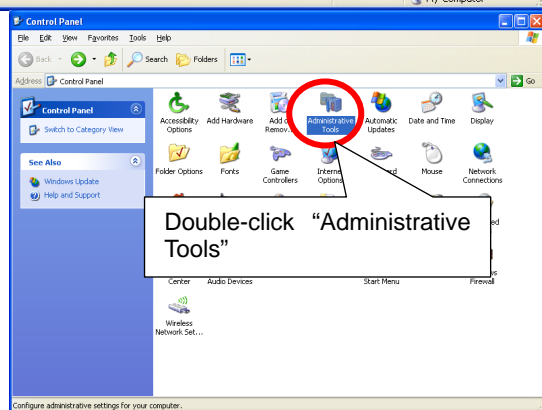


Select "Performance and Maintenance" of "Control Panel".

Fig. 5-44

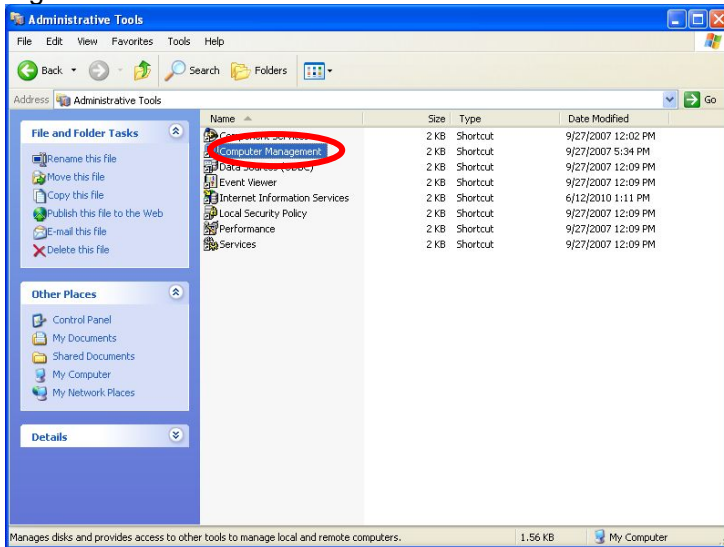


Select "Administrative Tools".



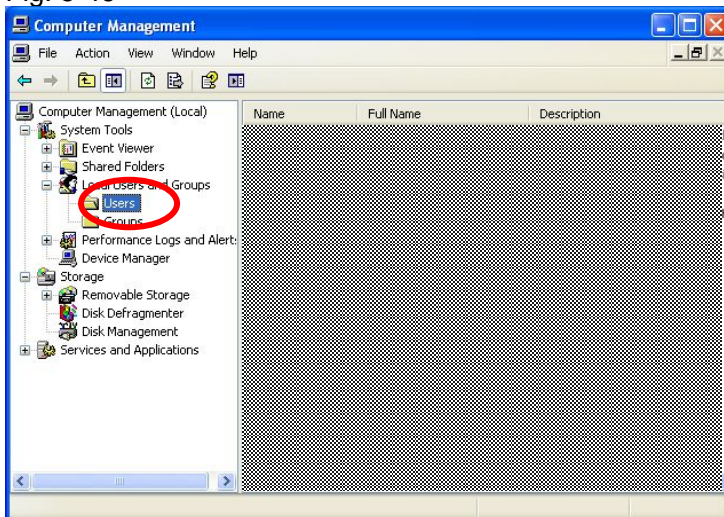
*When Control Panel is displayed in classic style, select "Administrative Tool" directly.

Fig. 5-45



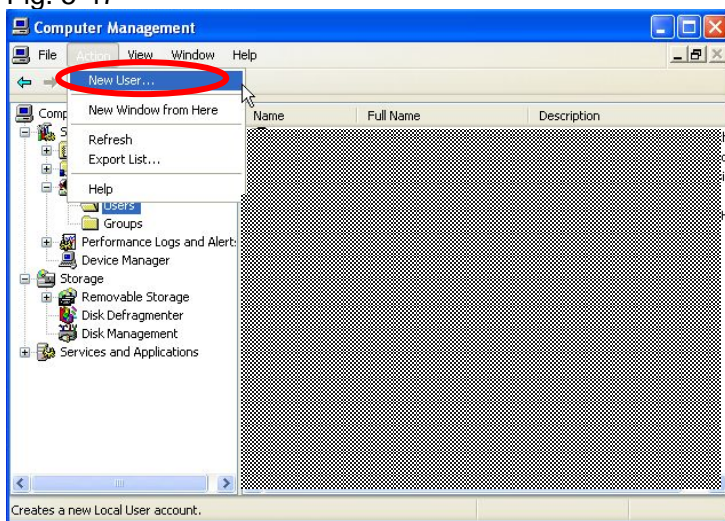
Select "Computer Management".

Fig. 5-46



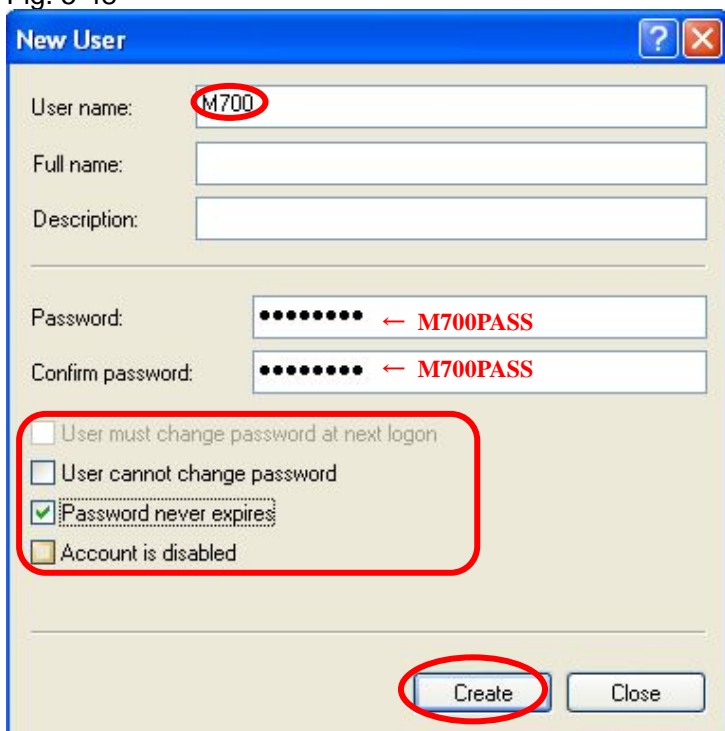
Select "Users" of "Local Users and Groups".

Fig. 5-47



Select "New User..." of "Action" menu.

Fig. 5-48



Set as below.

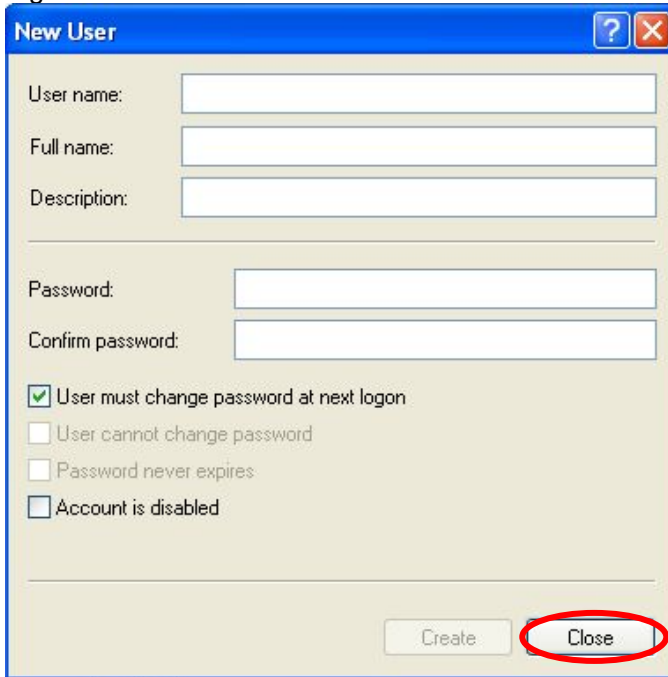
User name: M700

Password: M700PASS

- Remove the tick of "User must change password next logon".
- Tick "Password never expires".

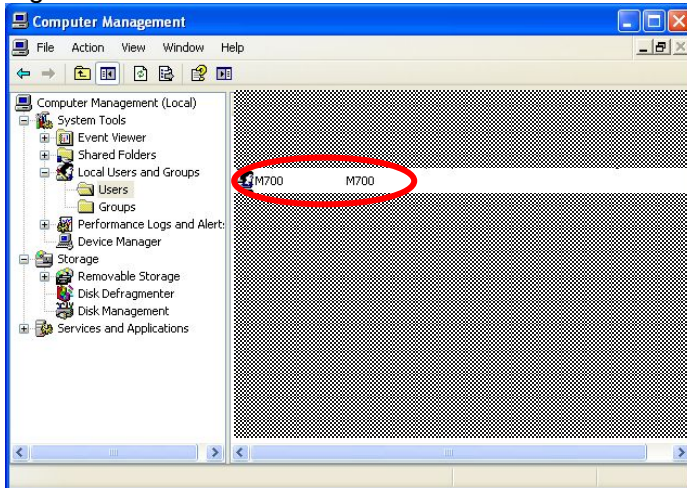
Select "Create" to create a user for FTP, "M700".

Fig. 5-49



When "Create" is selected, the input content is cleared.
Select "Close".

Fig. 5-50



"M700" has been added to the user list.

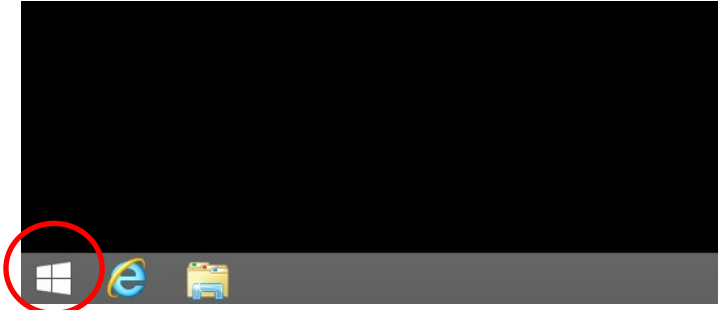
Now FTP user registration is complete.

Now server setting for Windows® XP is complete.
Proceed to "6.SET CNC".

5.3 Windows® 8.1

5.3.1 Install IIS

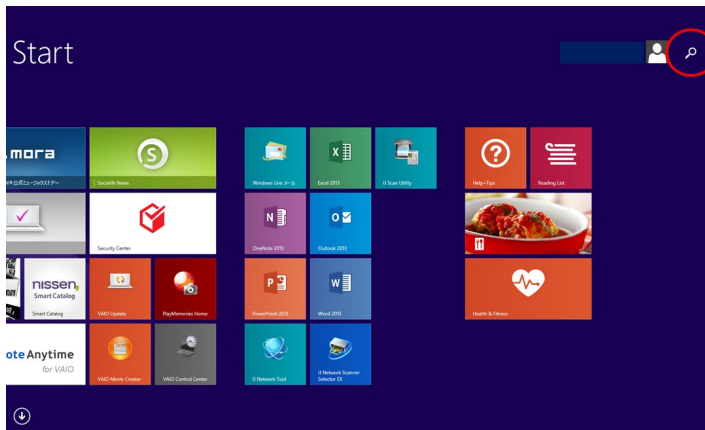
Fig. 5-51



Select "Start".

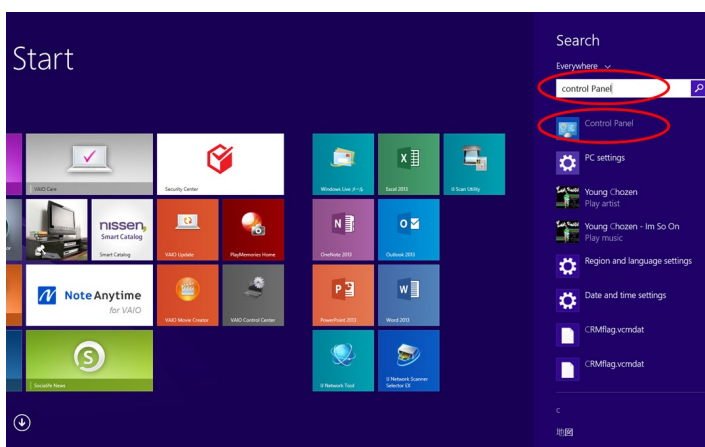
[For Windows® 8]
Press [W] while pressing [Windows] key.
The setting "Search charm bar" will appear.

Fig. 5-52



Select "Search" on the upper right corner of the screen.

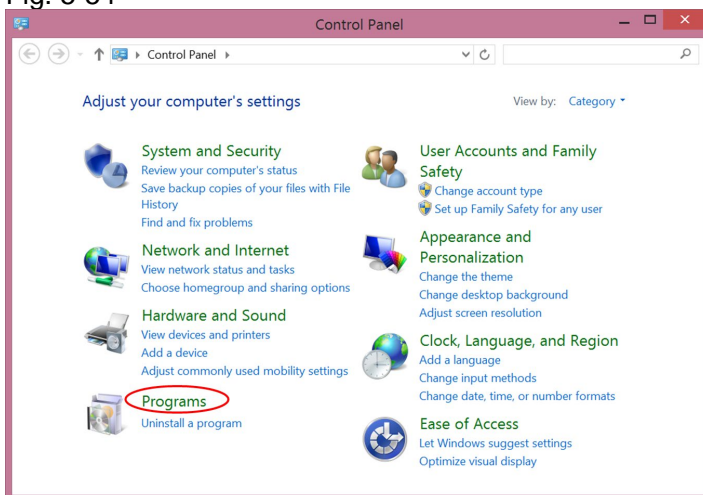
Fig. 5-53



Type "control panel" in "Program and File search".

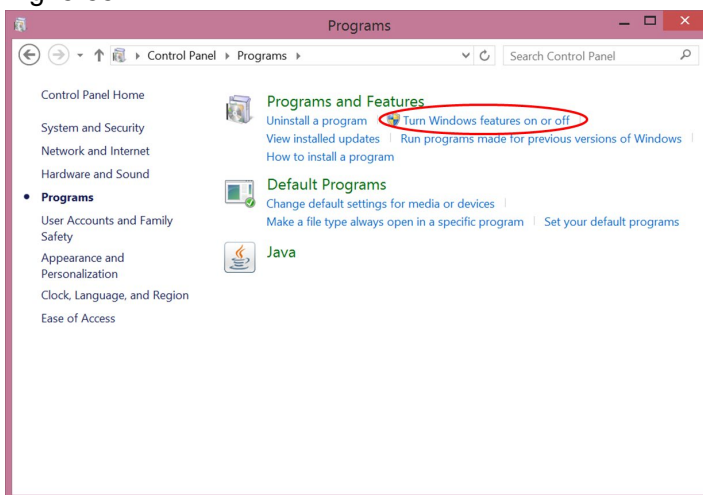
When a list appears on the lower side, select "Control Panel" from the list.

Fig. 5-54



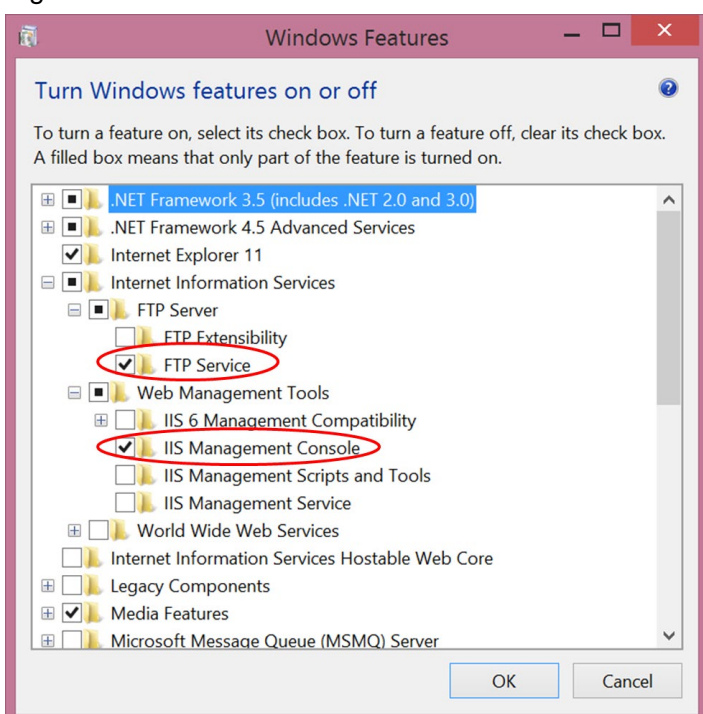
Select “Programs” of “Control Panel”.

Fig. 5-55



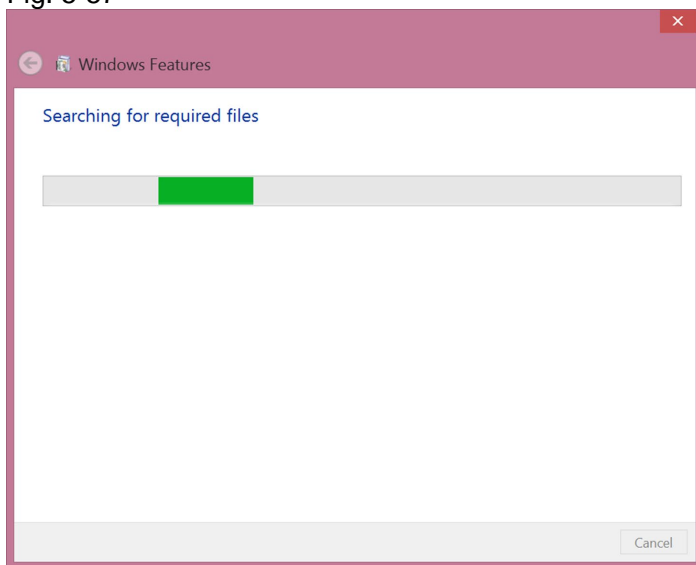
Select “Turn Windows features on or off”.

Fig. 5-56



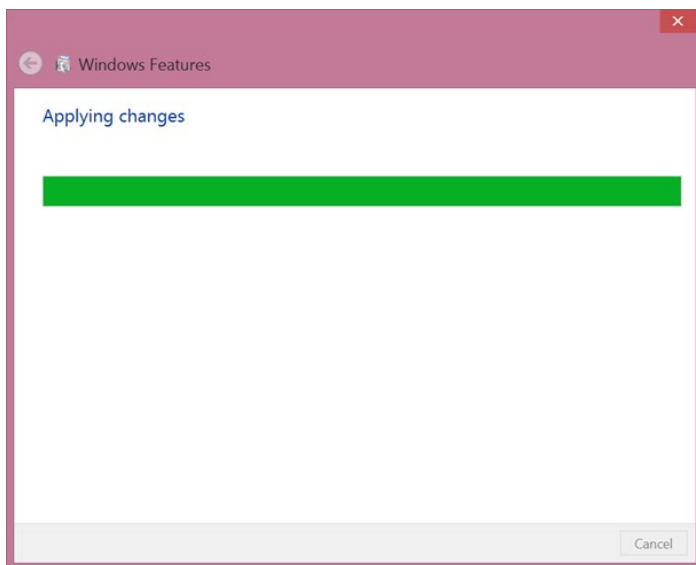
Tick the following items in “Internet Information Service”, then click OK.
“FTP Server”
“IIS Management Console”

Fig. 5-57



Start searching the necessary files.

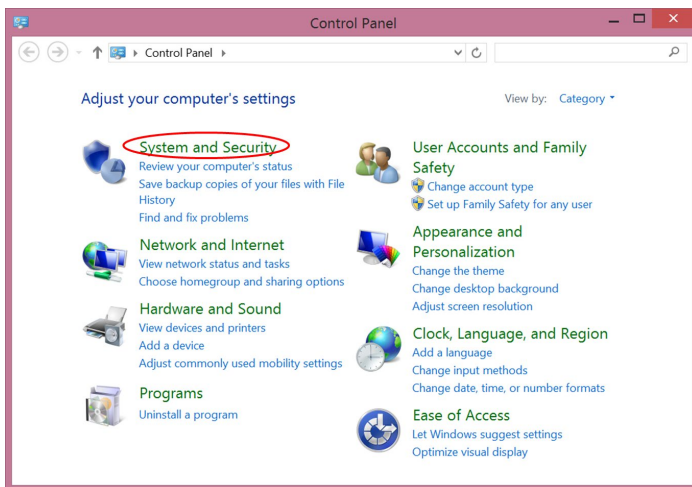
Fig. 5-58



When changes are applied, the installation is completed.

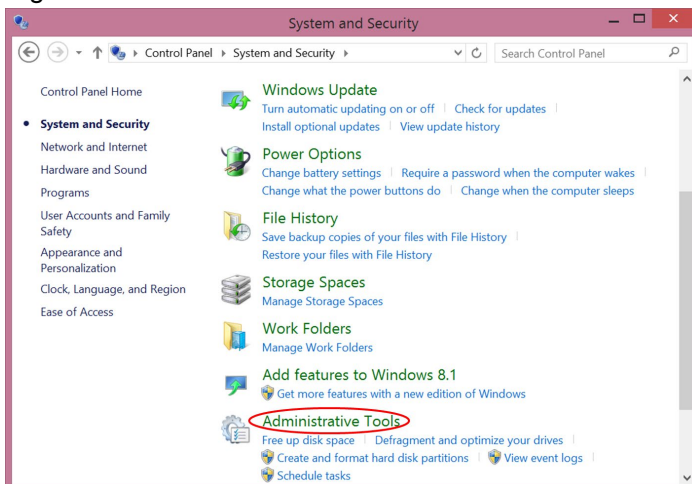
5.3.2 Set IIS

Fig. 5-59



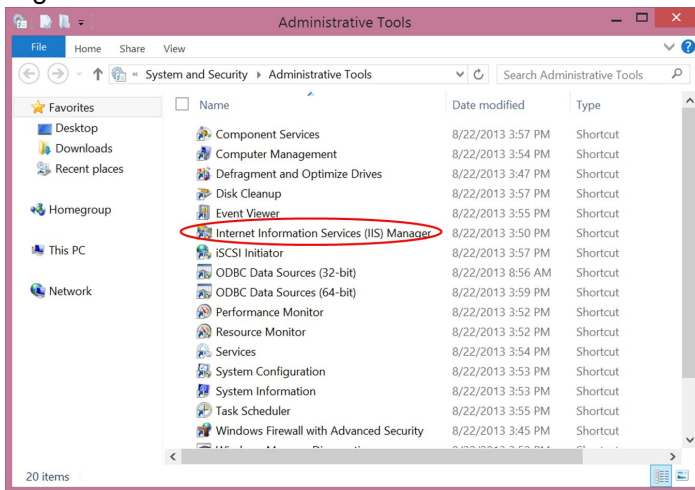
Select "System and Security" from "Control Panel".

Fig. 5-60



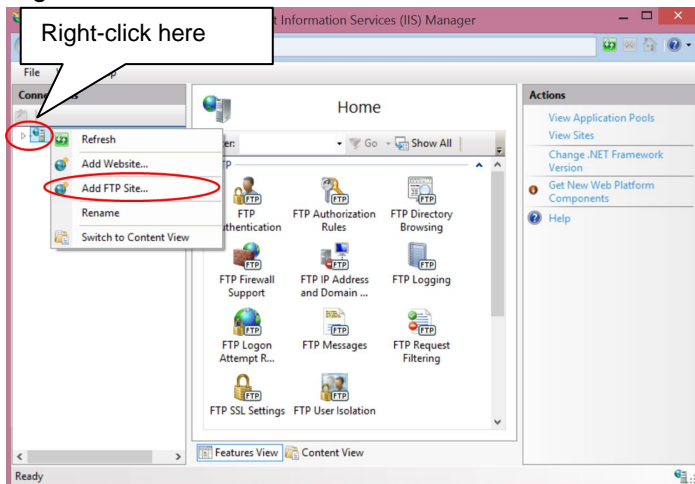
Select "Administrative Tools".

Fig. 5-61



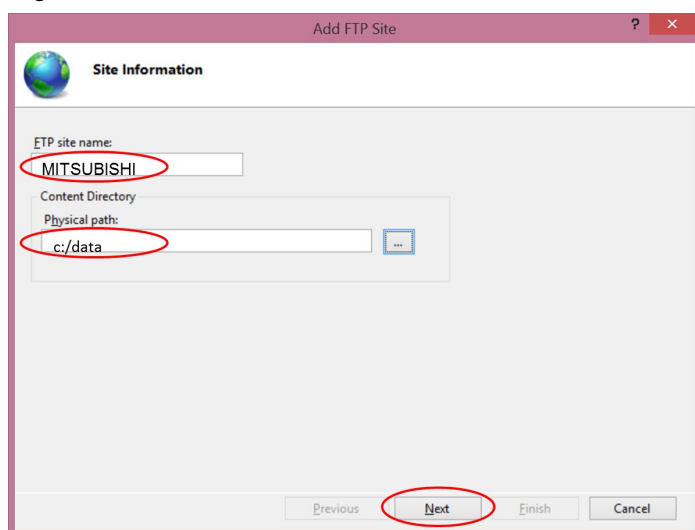
Select "Internet Information Services (IIS) Manager".

Fig. 5-62



Right-click the connection list and select "Add FTP Site".

Fig. 5-63

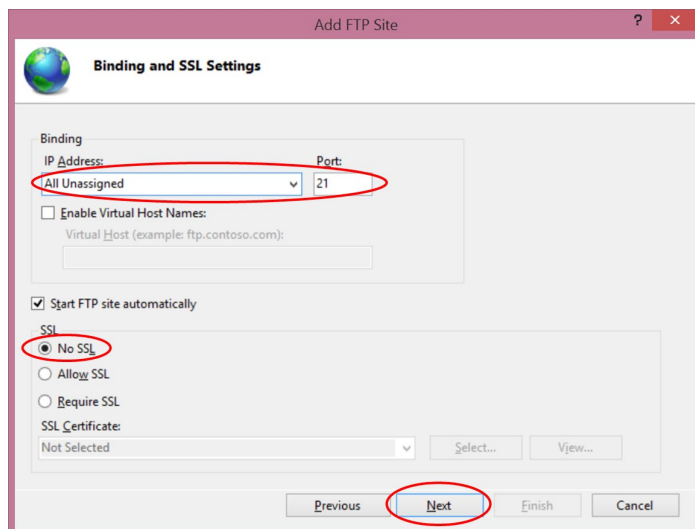


Set as below and select "Next".

FTP site name: MITSUBISHI
Content Directory: c:/data

Create the directory c:/data in advance.

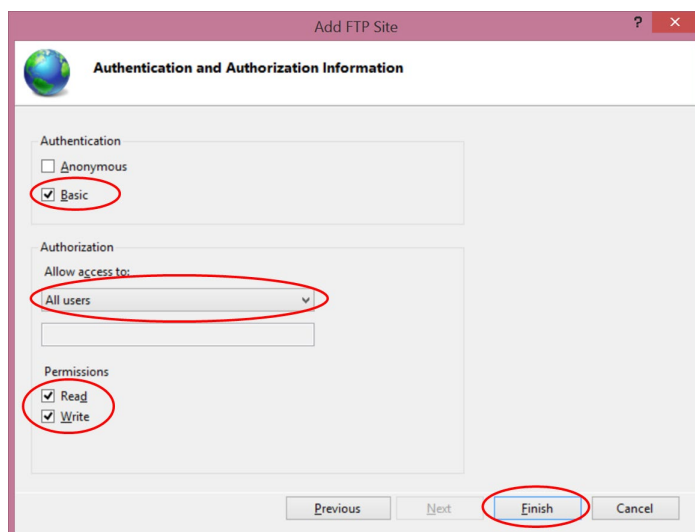
Fig. 5-64



Set as below and select "Next".

- Binding
IP Address: "All Unassigned"
Port: 21
- SSL
Select "No SSL"

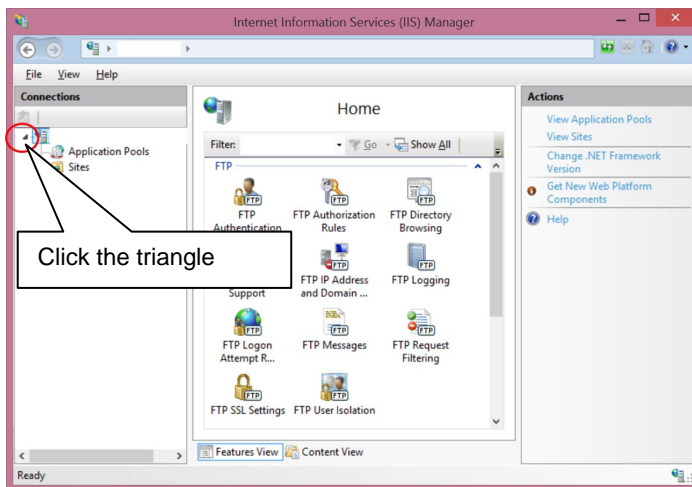
Fig. 5-65



Set as below and select "Finish".

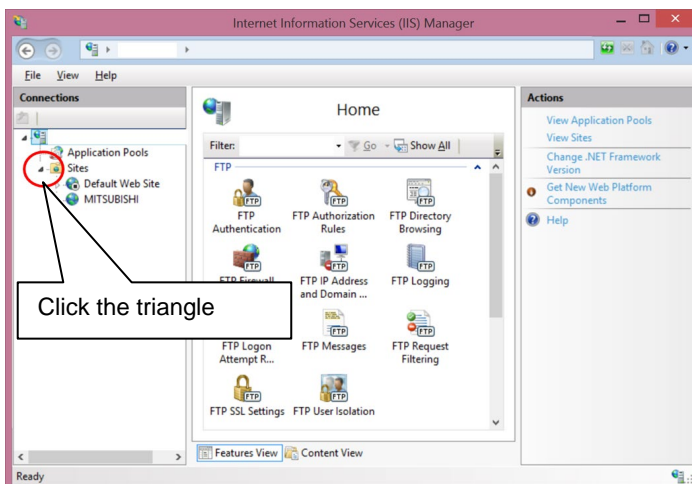
- Authentication
Select "Basic"
- Authorization
Allow access to: Tick "All users", "Read" and "Write"

Fig. 5-66



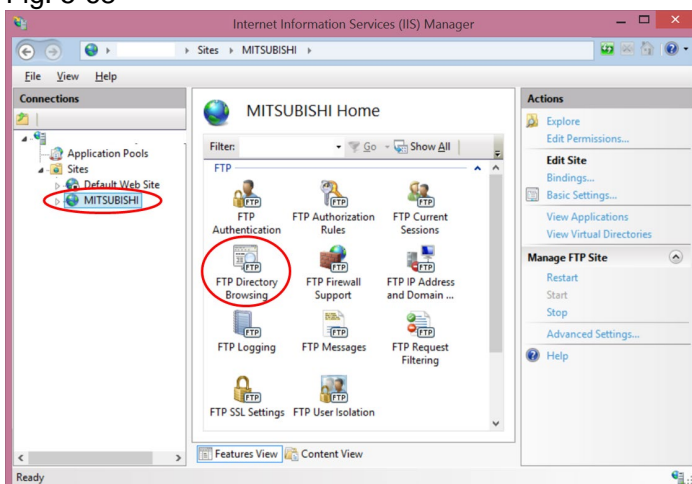
Select the triangle in “Connections” to open the connection list.

Fig. 5-67



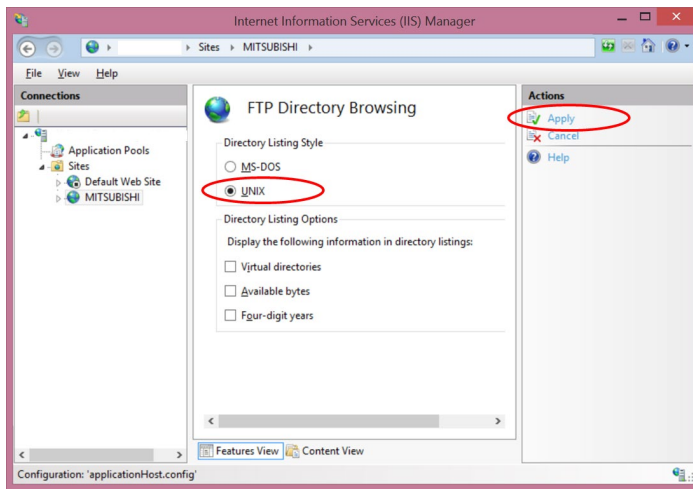
Select the triangle next to “Site” to open the connection list.

Fig. 5-68



Select the created site (MITSUBISHI), then select “FTP Directory Browsing”.

Fig. 5-69



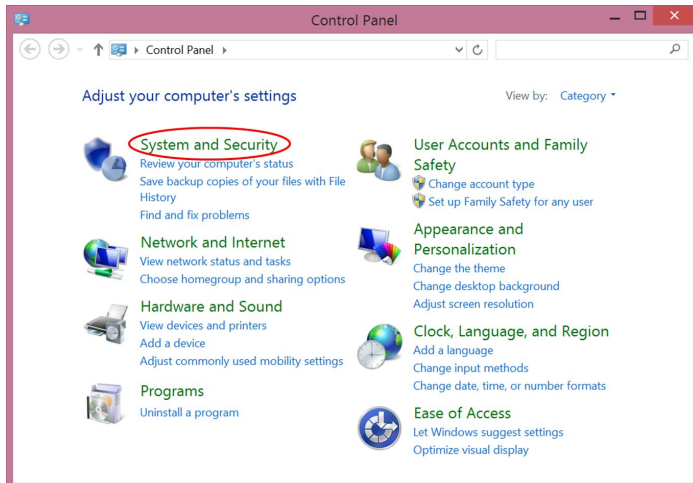
Set the FTP Directory Browsing as below, and select Apply.

Directory Listing Style: "UNIX"

Now IIS setting is complete.

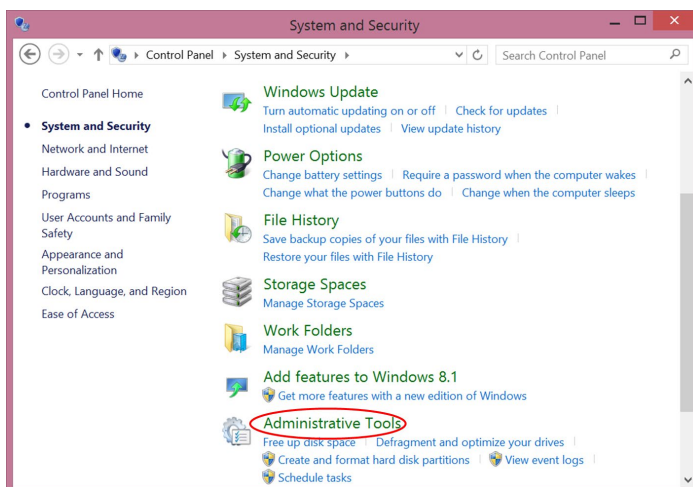
5.3.3 Set firewall

Fig. 5-70



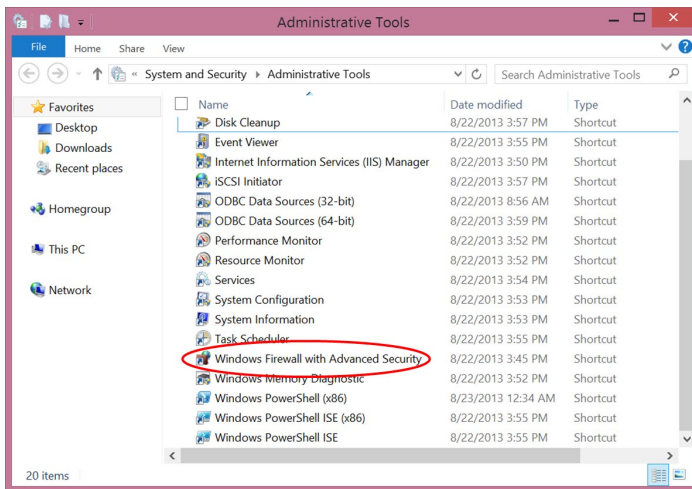
Select "System and Security" from "Control Panel".

Fig. 5-71



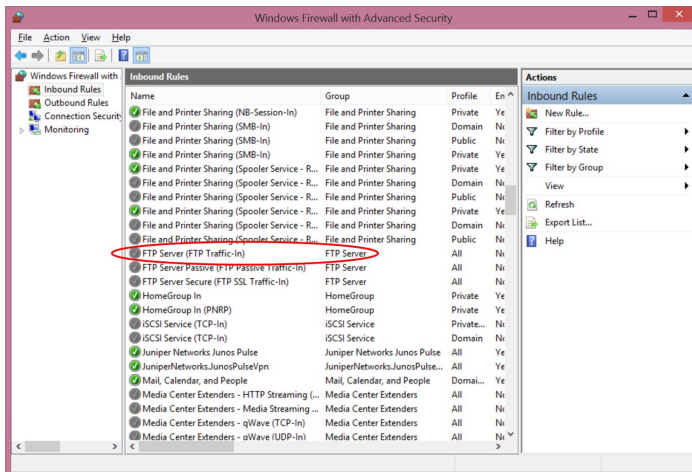
Select "Administrative Tools".

Fig. 5-72



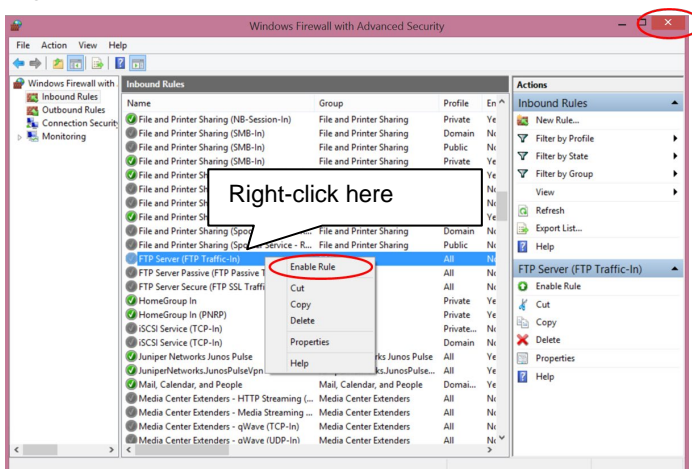
Select “Windows Firewall with Advanced Security”.

Fig. 5-73



Select “Inbound Rules”, then select “FTP Server (FTP Traffic-In)”.

Fig. 5-74



Right-click “FTP Server (FTP Traffic-In)”, and select “Enable Rule” of the pop-up menu.

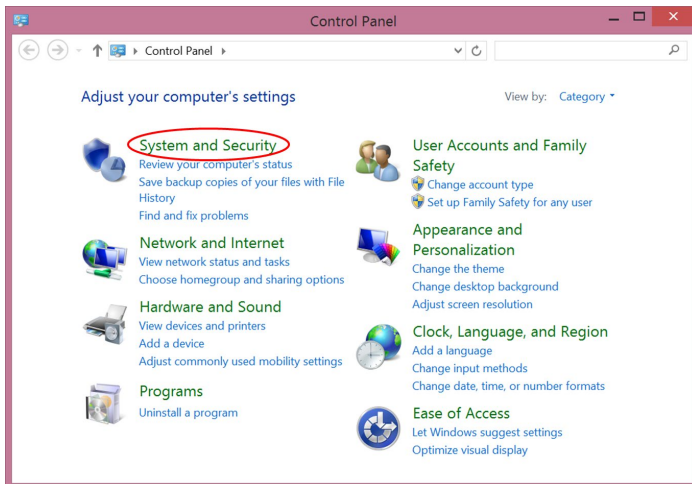
After selecting, close the window.

Now firewall setting is complete.

5.3.4 Register FTP user

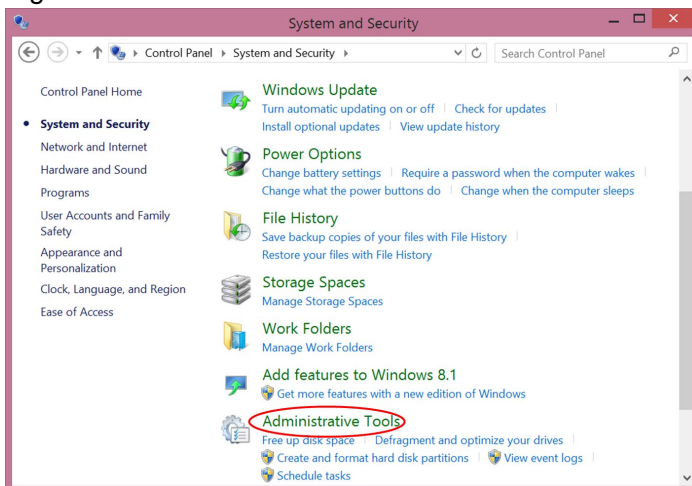
These procedures are to be carried out by a user with administrative privileges.

Fig. 5-75



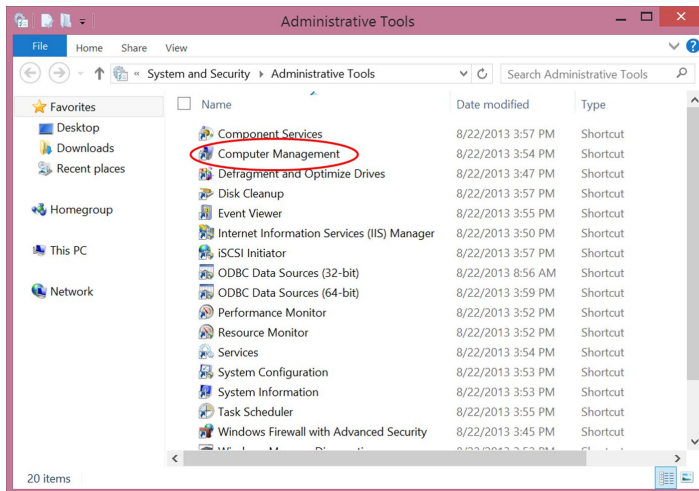
Select "System and Security" of "Control Panel".

Fig. 5-76



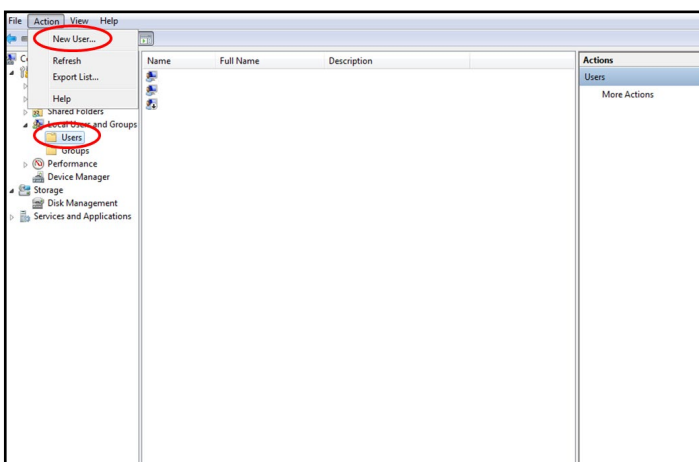
Select "Administrative Tools".

Fig. 5-77



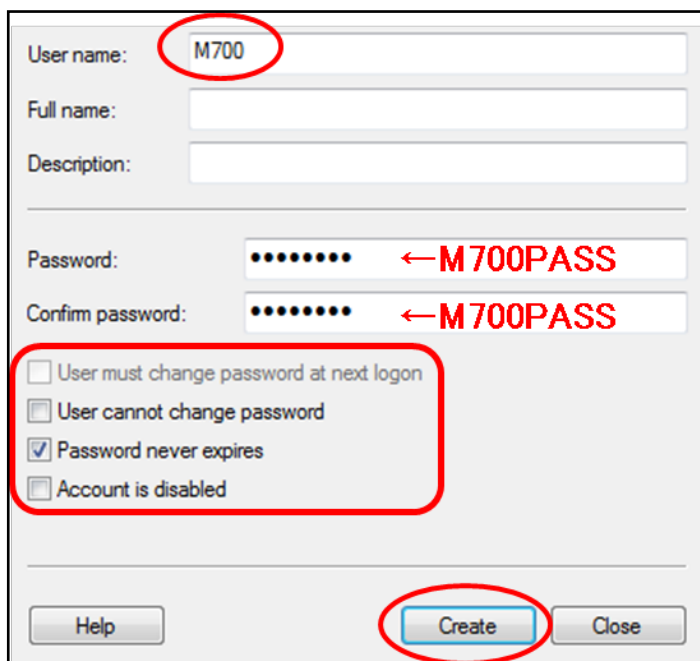
Select "Computer Management".

Fig. 5-78



"Local Users and Groups" → "Users"
→ Select "New User" from the "Action"
menu.

Fig. 5-79



The screenshot shows a user creation dialog box. The 'User name' field is filled with 'M700'. The 'Password' and 'Confirm password' fields are filled with 'M700PASS'. The 'User must change password at next logon' checkbox is unchecked. The 'User cannot change password' checkbox is unchecked. The 'Password never expires' checkbox is checked. The 'Account is disabled' checkbox is unchecked. The 'Create' button is highlighted with a red circle.

Set as below and select "Create".

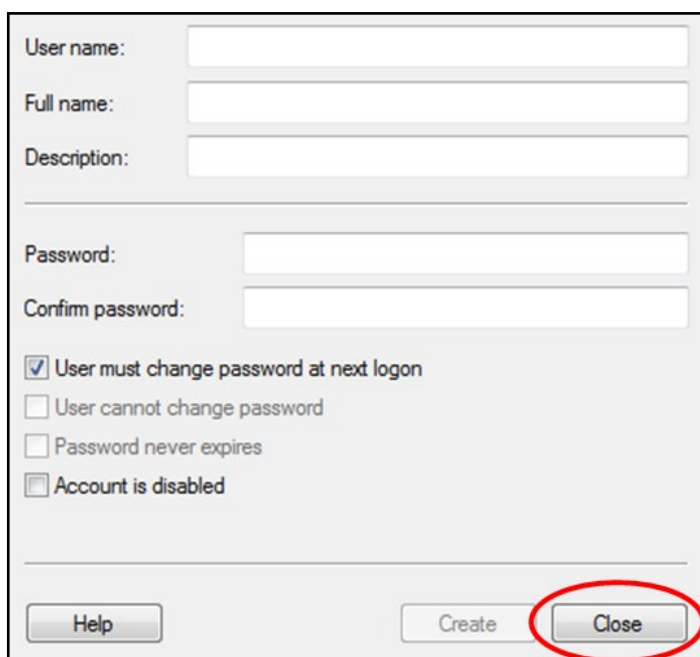
User name: M700

Password: M700PASS

- Remove the tick of "User must change password at next logon".
- Tick "Password never expires".

Select "Create" to create a user for FTP, "M700".

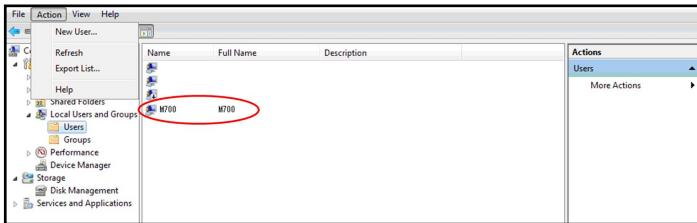
Fig. 5-80



The screenshot shows the same user creation dialog box, but the fields are now empty. The 'User must change password at next logon' checkbox is checked. The 'User cannot change password' checkbox is unchecked. The 'Password never expires' checkbox is unchecked. The 'Account is disabled' checkbox is unchecked. The 'Close' button is highlighted with a red circle.

When "Create" is selected, the input content is cleared.
Select "Close".

Fig. 5-81



"M700" has been added to the user list.

Now FTP user registration is complete.

Now server setting for Windows® 8.1 is complete.
Proceed to "6.SET CNC".

6 SET CNC

Fig. 6-1

No.	Name	Data	No.	Name	Data
1926	Global IP address	192.168.0.20	11028	Tolerance Arc Cent	0.0000
1927	Global Subnet mask	255.255.255.0	11029	Arc to G1 no Cent	0
1928	Global Gateway	192.168.0.254	11030	Man tap sync cancel	0
1930	Host address	0.0.0.0	11033	skipB_no_sens	00000000
1931	Host number	0	11034	G12AddrCheckType	0
1932	FTP Retry	0	11036	meas dir judge	0
1933	FTP Timeout	0	11040	RRAGOut1L	0
11005	PC IP address	0.0.0.0	11041	RRAGOut1H	0
11011	Handy TERM. PW.				
11012	16 axes for 1ch	0			
11017	T-ofs set at run	0			
11019	2-system display	0			
11020					
11022	SRAM Output Type	0			

Set base common parameters as below.

#1926 Global IP address 192.168.0.20
 #1927 Global Subnet mask 255.255.255.0
 #1928 Global Gateway 192.168.0.254

Base common parameter

#	Item		Description
1926 (PR)	IP Address	IP address	Set the CNC's IP address.
1927 (PR)	Subnet mask	Subnet mask	Set the subnet mask for the IP address.
1928 (PR)	Gateway	Gateway	Set the IP address for the gateway.

Now set the Ethernet parameters.

Fig. 6-2

No.	Name	Data	No.	Name	Data
9706	Host No.	1	9734	Host2 directory	
9711	Host1 host name	192.168.0.10	9735	Host2 host type	0
9712	Host1 user name	M700	9736	Host2 Wrđ pos:name	0
9713	Host1 password	M700PASS	9737	Host2 Wrđ pos:size	0
9714	Host1 directory	/	9738	Host2 Wrđ pos:Dir	0
9715	Host1 host type	0	9739	Host2 Wrđ pos:cmnt	0
9716	Host1 Wrđ pos:name	0	9740	Host2 Wrđ num:cmnt	0
9717	Host1 Wrđ pos:size	0	9741	Host2 no total siz	0
9718	Host1 Wrđ pos:Dir	0	9751	Host3 host name	
9719	Host1 Wrđ pos:cmnt	0	9752	Host3 user name	
9720	Host1 Wrđ num:cmnt	0	9753	Host3 password	
9721	Host1 no total siz	0	9754	Host3 directory	
9731	Host2 host name		9755	Host3 host type	0
9732	Host2 user name		9756	Host3 Wrđ pos:name	0
9733	Host2 password		9757	Host3 Wrđ pos:size	0
			9758	Host3 Wrđ pos:Dir	0

21:26

I/O param Ethernet param Link param Subpro stor Operate param Para.No search

Set the Ethernet parameters as below.

#9706 Host No. 1
 #9711 Host name 192.168.0.10
 #9712 User name M700
 #9713 Password M700PASS
 #9714 Directory /

*Server PC's FTP root directory (c:\data) is accessed when #9714 Host directory is set to "/".

When setting is complete, turn the power OFF → ON.

Ethernet parameter

#	Item	Description
9706	Host No.	Select the No. of the host to be used from host 1 to host 4.
9711	Host 1 host name	Set the host computer name. This parameter allows the NC to easily recognize the host computer on the network. Set the host computer's IP address.
9712	Host 1 user name	Set the user name when logging into the host computer.
9713	Host 1 password	Set the password when logging into the host computer.
9714	Host 1 directory	Set the directory name of the host computer. The directory released to the client (CNC unit) with the host computer's server is handled as root directory by the CNC unit.

Now setting to use the high-speed program server operation function is complete.
 Refer to "7 HOW TO CHECK WHEN COMMUNICATION FAILS" when the server PC and the CNC cannot communicate.

7 HOW TO CHECK WHEN COMMUNICATION FAILS

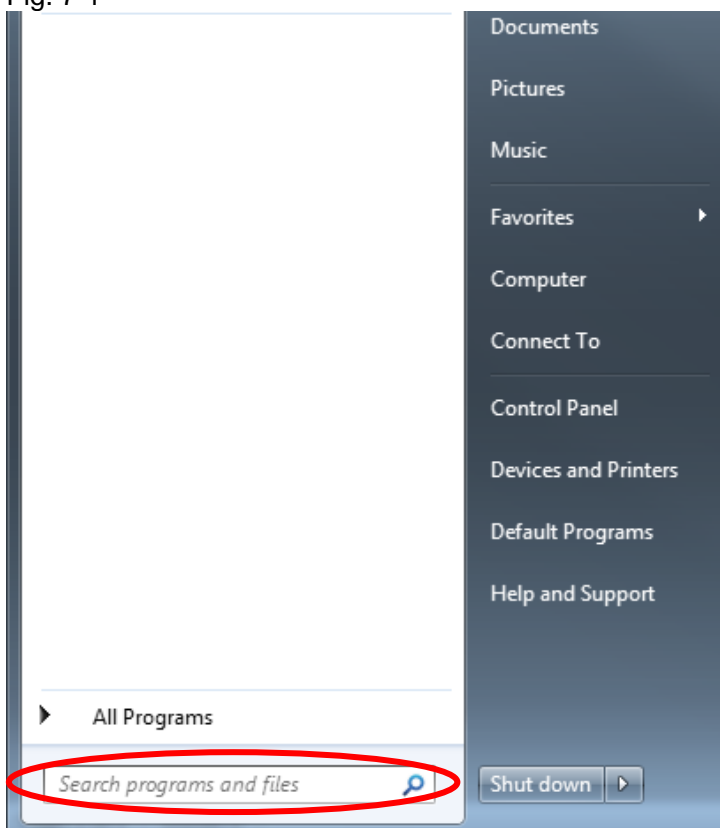
This chapter explains how to check the communication when the server PC and the CNC cannot communicate.

7.1 Start Command Prompt

In this chapter, the command prompt is used for checking. Start the command prompt in the following procedure.

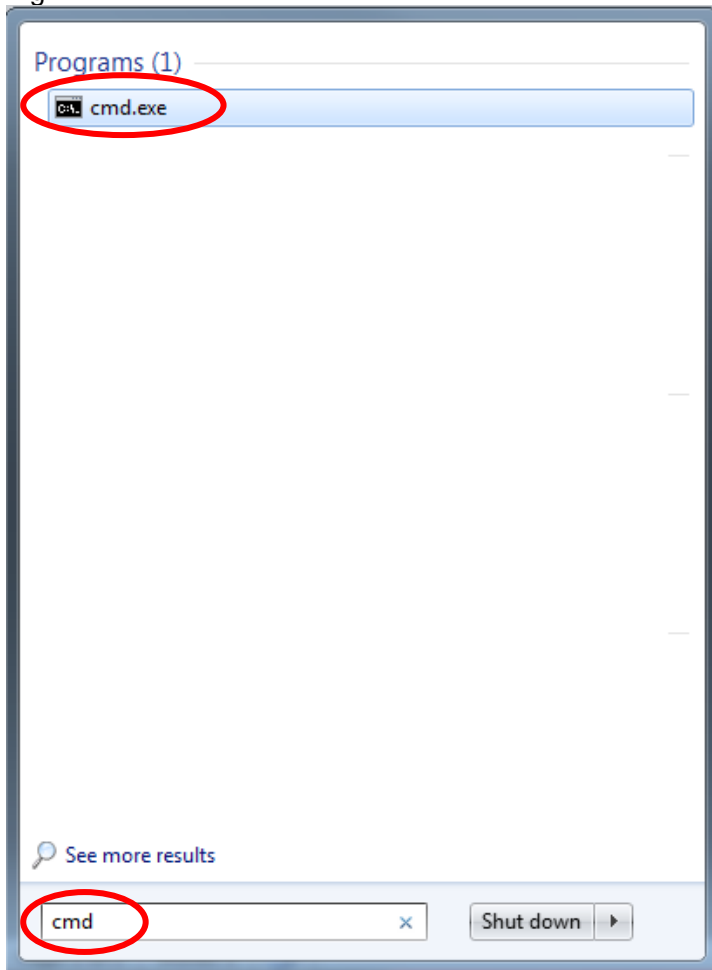
7.1.1 Windows® 7

Fig. 7-1



Select "Search programs and files" from Start menu.

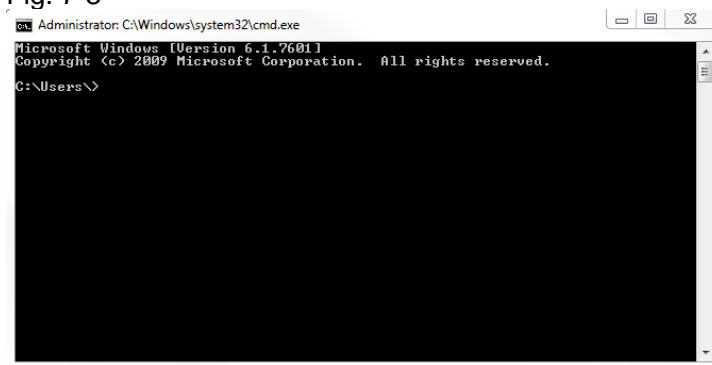
Fig. 7-2



Input “cmd” with keyboard in “Search programs and files”.

A list appears at the top. Select “cmd.exe” from among the list.

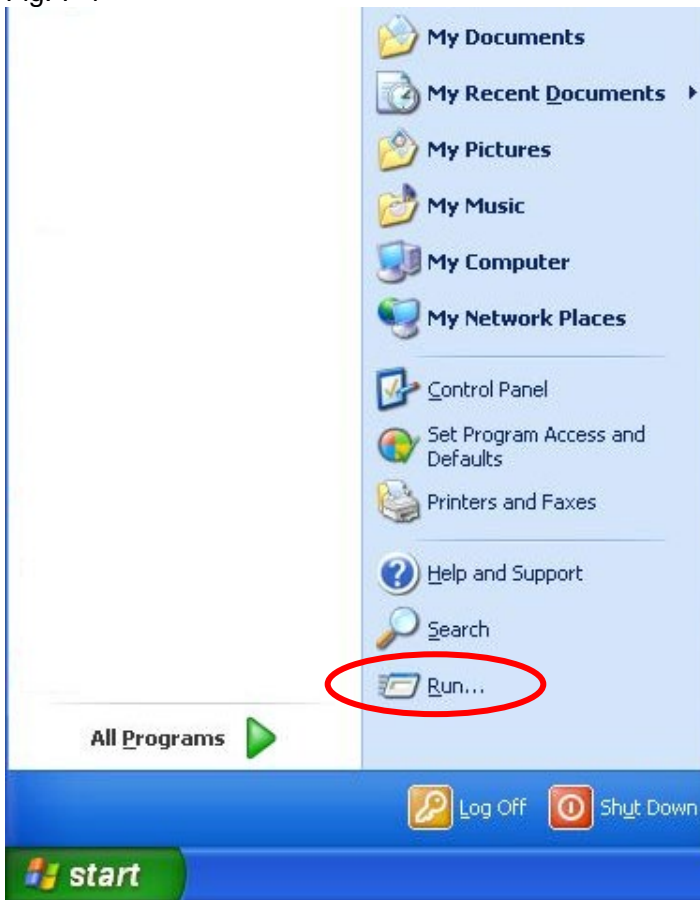
Fig. 7-3



The command prompt starts. Execute the commands explained in this chapter using this command prompt.

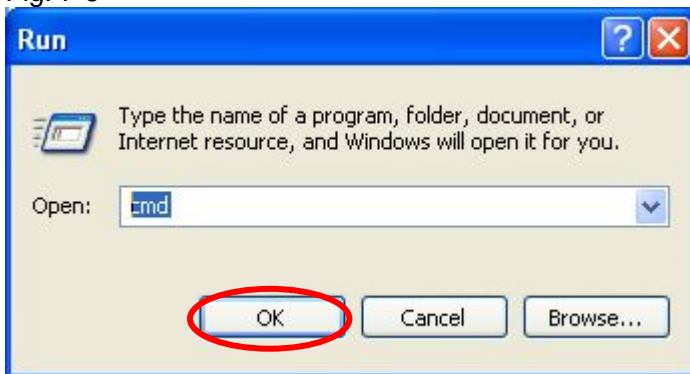
7.1.2 Windows® XP

Fig. 7-4



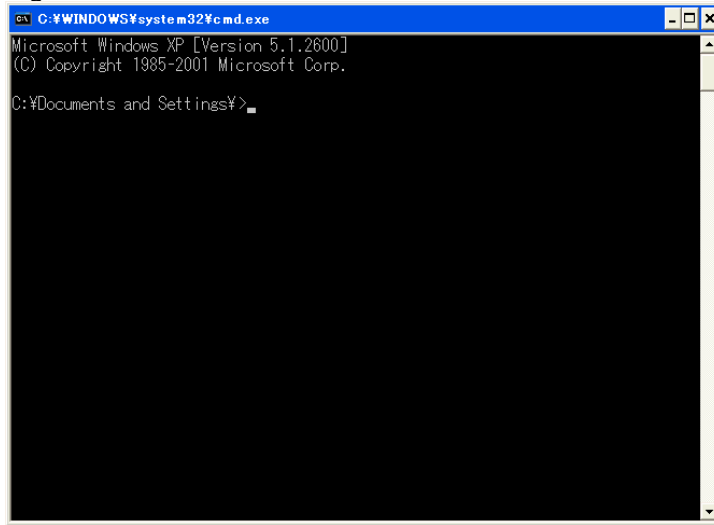
Select "Run" from Start menu.

Fig. 7-5



Input "cmd" and select "OK".

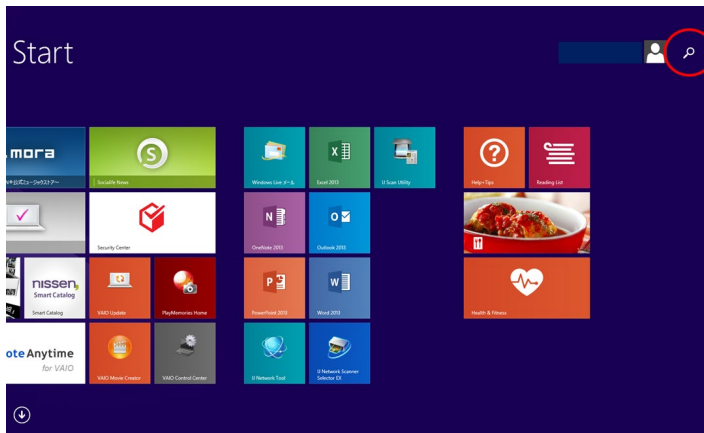
Fig. 7-6



The command prompt starts.
Execute the commands explained in
this chapter using this command
prompt.

7.1.3 Windows® 8.1

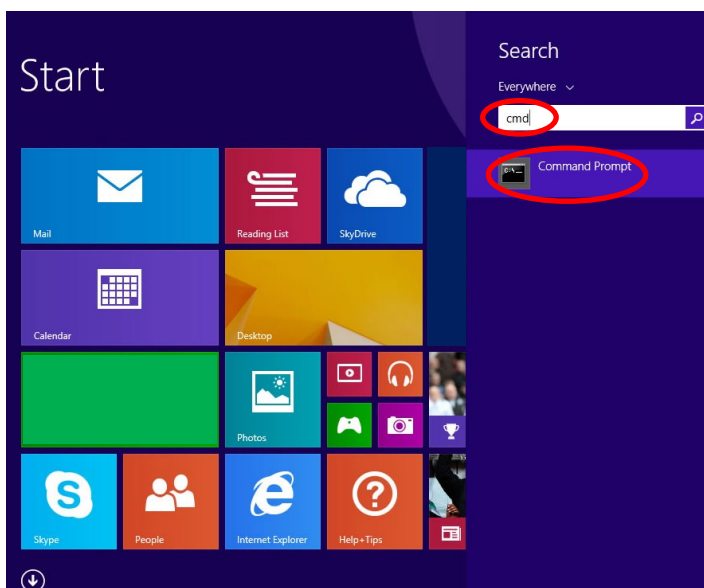
Fig. 7-7



Select “Search programs and files” from Start menu

[For Windows® 8]
Press [Q] while pressing [Windows] key.
Application search charm bar will appear.

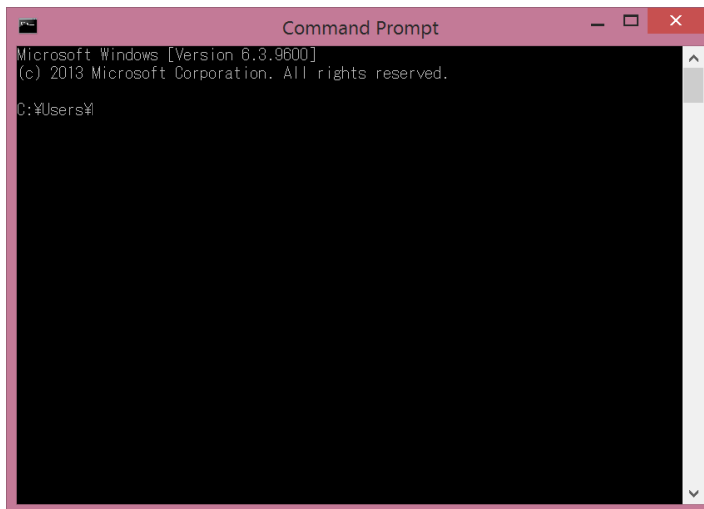
Fig. 7-8



Type “cmd” in “Search Programs and Files”

When a list appears on the upper side, select “Command Prompt” from the list.

Fig. 7-9



The command prompt starts.
Execute the commands explained in
this chapter using this command
prompt.

7.2 How to Check Whether or not Server PC and CNC are Connected Physically

Execute the following command using the server PC's command prompt.

```
> ping [CNC IP address]
```

When the following response is returned, it means that they are connected correctly.

Windows® 8.1、Windows® 7

```
>ping 192.168.0.20

Pinging 192.168.0.20 with 32 bytes of data:
Reply from 192.168.0.20: bytes=32 time<1ms TTL=128
Reply from 192.168.0.20: bytes=32 time<1ms TTL=128
Reply from 192.168.0.20: bytes=32 time<1ms TTL=128
Reply from 192.168.0.20: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

Windows® XP

```
>ping 192.168.0.20

Pinging 192.168.0.20 with 32 bytes of data:

Reply from 192.168.0.20: bytes=32 time=28ms TTL=128
Reply from 192.168.0.20: bytes=32 time=1ms TTL=128
Reply from 192.168.0.20: bytes=32 time=1ms TTL=128
Reply from 192.168.0.20: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.0.20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 28ms, Average = 7ms
```

Time-out occurs as below if they are not connected.

Windows® 8.1、Windows® 7

```
>ping 192.168.0.20

Pinging 192.168.0.20 with 32 bytes of data:
Reply from 192.168.0.10: Destination host unreachable.
Reply from 192.168.0.10: Destination host unreachable.
Reply from 192.168.0.10: Destination host unreachable.
Reply from 192.168.0.10: Destination host unreachable.

Ping statistics for 192.168.0.20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
```

Windows® XP

```
>ping 192.168.0.20

Pinging 192.168.0.20 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.0.20:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

For Windows® 8.1, a reply might be the one as follows.

```
>ping 192.168.0.20

Pinging 192.168.0.20 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.0.20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
```

7 HOW TO CHECK WHEN COMMUNICATION FAILS

7.2 How to Check Whether or not Server PC and CNC are Connected Physically

If time-out occurs, the server PC, CNC, and hub are not connected correctly.
Check the items in the table below.

No	Check item	Check point	Solution
1	Check the connection	Is the power of devices (CNC, hub) ON?	Turn ON the power of all devices.
2		Is a LAN cable connected to devices (CNC, hub, server PC)?	Connect the LAN cable to the devices.
3		Is the hub's LINK indication LED ON?	LAN cable is not correctly connected to the devices (CNC, hub, server PC) if not ON.
4		Is the server PC's LINK indication LED ON?	
5		Is the CNC's LINK indication LED ON?	Check for the connection.
6		Are the server PC and the CNC connected without a hub?	Connect the server PC and the CNC using a cross cable if a hub is not used.
7	Check the CNC setting	Has IP address been set?	Set the parameter #1926 Global IP address.
8		Has subnet mask been set?	Set the parameter #1927 Global Subnet mask.
9		Has gateway address been set if gateway is used?	Set the parameter #1929 Global Gateway.

7.3 How to Check Whether or not FTP Server Setting is Correct

Execute the following command using the server PC's command prompt.

```
> netstat -n -a
```

The network connection list appears as below.

Windows® 8.1、Windows® 7

```
>netstat -n -a

Active Connections

Proto Local Address      Foreign Address    State
TCP   0.0.0.0:21         0.0.0.0:0          LISTENING
TCP   0.0.0.0:80         0.0.0.0:0          LISTENING
      :
      :
      (continues)
```

Windows® XP

```
>netstat -n -a

Active Connections

Proto Local Address      Foreign Address    State
TCP   0.0.0.0:21         0.0.0.0:0          LISTENING
TCP   0.0.0.0:25         0.0.0.0:0          LISTENING
TCP   0.0.0.0:80         0.0.0.0:0          LISTENING
      :
      :
      (continues)
```

If there is a Local Address whose number after ":" is "21", it means that the FTP server is ON. If there is not, check the settings of "5.1.2 Set IIS (Windows® 7)" or "5.2.2 Set IIS (Windows® XP)" or "5.3.2 Set IIS (Windows® 8.1)".

7.4 How to Check Whether or not FTP User is Correctly Registered

Execute the following command using the command prompt of a PC that is on the same network with the server PC.

```
> ftp [Server PC IP address]
```

When you are asked user name and password, input the user name and the password for the data server.

Windows® 7

```
> ftp 192.168.0.10
Connected to 192.168.0.10
220 Microsoft FTP Service
User (192.168.0.10:(none)): M700 (input the user name)
331 Password required for M700.
Password: M700PASS (input the password)
230 User M700 logged in. :
```

Windows® XP

```
> ftp 192.168.0.10

Connected to 192.168.0.10.
220 Microsoft FTP Service
User (192.168.0.10:(none)): M700 (input the user name)
331 Password required for M700.
Password: M700PASS (input the password)
230 User M700 logged in. :
```

Windows® 8.1

```
> ftp 192.168.0.10
Connected to 192.168.0.10.
220 Microsoft FTP Service
User (192.168.0.10:(none)): M700 (input the user name)
331 Password required
Password: M700PASS (input the password)
230 User logged in. :
```

If " 230 User M700 logged in. :" appears, it means that the user name and the password are correctly set.

Windows® 7、Windows® XP

```
230 User M700 logged in. :
```

Windows® 8.1

```
230 User logged in.
```

If "Login failed." appears as below, the FTP user has not been registered correctly. Check the settings of "5.1.4 Register FTP user (Windows® 7)" or "5.2.4 Register FTP user (Windows® XP)" or "5.3.4 Register FTP user (Windows® 8.1)".

Windows® 7

```
530-User cannot log in.  
Win32 error: Logon failure: unknown user name or bad password.  
Error details: An error occurred during the authentication process.  
530 End  
Login failed.
```

Windows® XP

```
530 User M700 cannot log in.  
Login failed.
```

Windows® 8.1

```
530-User cannot log in.  
Win32 error: The user name or password is incorrect.  
Error details: An error occurred during the authentication process.  
530 End  
Login failed.
```

Firewall setting may have a problem if "ftp>" appears after a while, or if "connect : unknown error number" appears. Check the settings of "5.1.3 Set firewall (Windows® 7)" or "5.2.3 Set firewall (Windows® XP)" or "5.3.3 Set firewall (Windows® 8.1)".

Windows® 7

```
ftp> "ftp>" appears after a while
```

Windows® XP

```
> ftp: connect : unknown error number
```

Windows® 8.1

```
> ftp: connect :Time out the connection
```

Input "bye" to finish the command.

```
ftp> bye
```


7.5 How to Check Data Such As Server PC's IP Address

Execute the following command using the server PC's command prompt.

```
> ipconfig
```

IP address, subnet mask, and gateway address appear as below.

Windows® 8.1、Windows® 7

```
> ipconfig

Windows IP Configuration

Wireless LAN adapter:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix . . :

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix . . :
    Link-local IPv6 Address . . . . . :
    IPv4 Address. . . . . : 192.168.0.10
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.0.254

Tunnel adapter isatap.{DEE6B974-F8F4-4D3A-9391-2E7F83A6DBC5}:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix . . :

Tunnel adapter isatap.{88884AA8-0249-4ADE-BF08-9E9FDA7CF124}:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix . . :
```

Windows® XP

```
> ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix . . : aa.bb.com
    IP Address. . . . . : 192.168.0.10
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.0.254
```

7.6 Setting Check List

No	Check item	Check point	Solution
1	Check the connection	Is the power of devices (CNC, hub) ON?	Turn ON the power of all devices.
2		Is a LAN cable connected to devices (CNC, hub, server PC)?	Connect the LAN cable to the devices.
3		Is the hub's LINK indication LED ON?	LAN cable is not correctly connected to the devices (CNC, hub, server PC) if not ON.
4		Is the server PC's LINK indication LED ON?	
5		Is the CNC's LINK indication LED ON?	Check for the connection.
6		Are the server PC and the CNC connected without a hub?	Connect the server PC and the CNC using a cross cable if a hub is not used.
7	Check the CNC setting	Has IP address been set?	Set the parameter #1926 Global IP address.
8		Has subnet mask been set?	Set the parameter #1927 Global Subnet mask.
9		Has gateway address been set if gateway is used?	Set the parameter #1929 Global Gateway.
10		Has the server PC's IP address been set?	Set the host name (parameter #97x1) of the host set by #9706 Host No. (Example: Set #9711 Host 1 host name when #9706=1)
11		Is the FTP user name correctly set?	Set the user name (parameter #97x2) of the host set by #9706 Host No. (Example: Set #9712 Host 1 user name when #9706=1)
12		Is the FTP password correctly set?	Set the user name (parameter #97x3) of the password set by #9706 Host No. (Example: Set #9713 Host 1 password when #9706=1)
13	Network setting check	Is there a device whose IP address duplicates on the network?	IP address of each device must be different each other if device such as another machine tool, FA device, and PC exist on the same network.

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Revision History

Data of revision	Manual No.	Revision details
Dec. 2011	IB(NA)1501063-A	First edition created.
Jul. 2014	IB(NA)1501063-B	<ul style="list-style-type: none">- Added the chapters below.<ul style="list-style-type: none">- 5 SET SERVER PC<ul style="list-style-type: none">- 5.3 Windows® 8.1- 7 HOW TO CHECK WHEN COMMUNICATION FAILS<ul style="list-style-type: none">- 7.1 Start Command Prompt<ul style="list-style-type: none">- 7.1.3 Windows® 8.1- Added explanations for Windows® 8.1 in the section listed below.<ul style="list-style-type: none">- 4 SETTING EXAMPLE<ul style="list-style-type: none">- 7.2 How to Check Whether or not Server PC and CNC are Connected Physically- 7.3 How to Check Whether or not FTP Server Setting is Correct- 7.4 How to Check Whether or not FTP User is Correctly Registered- 7.5 How to Check Data Such As Server PC's IP Address- Corrected the mistakes.

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