

---

# Quick Start Guide for FCM-MTCP

June 2013, Version 1.0.1

Thanks for purchasing FCM-MTCP & iDCS-8000 system. This Quick Start Guide will provide information needed to get started with FCM-MTCP and iDCS-8000 system. Please also consult the User Manual for detailed information for the setup and usage of FCM-MTCP and iDCS-8000 system.

## What's In the Box?

In addition to this guide, the package includes the following items:



**iDCS-8830**



**RS-232 cable  
(CA-0904)**

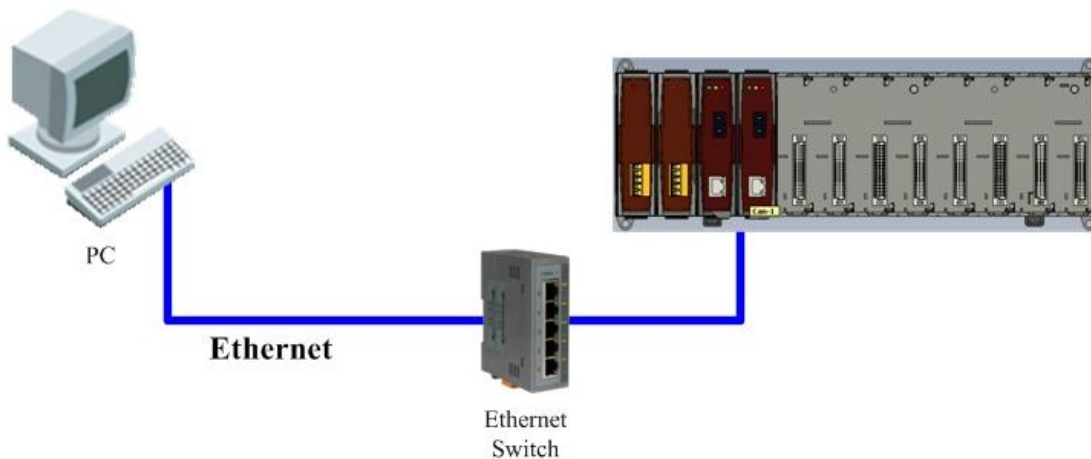
## Technical Support

- **iDCS-8000 & FCM-MTCP User Manual**  
CD:\n  
<http://ftp.icpdas.com/pub/cd/>
- **iDCS-8000 Website**  
[http://www.icpdas.com/root/product/solutions/remote\\_io/dcs\\_redundancy\\_io/ids\\_introduction.html](http://www.icpdas.com/root/product/solutions/remote_io/dcs_redundancy_io/ids_introduction.html)
- **ICP DAS Website**  
<http://www.icpdas.com/>

---

# 1 Connect PC to the FCM-MTCP via the Ethernet port

Connect PC to the FCM-MTCP via the Ethernet port, and then turn power on. The Ethernet switch or hub may be needed if one more computers will be connected to FCM-MTCP.



---

# 2 Installing the MiniOS7 Utility

**Step 1: Get the MiniOS7 Utility tool**

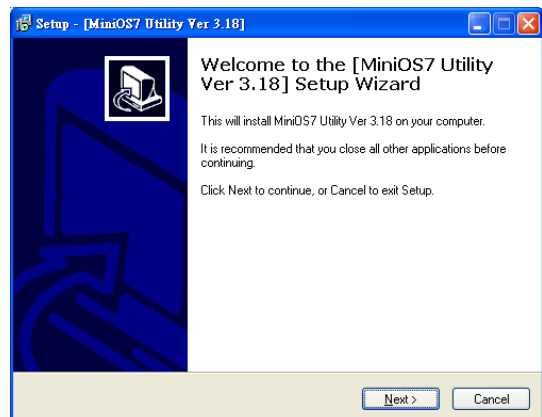


The MiniOS7 Utility can be obtained from companion CD or our FTP site:  
CD:\Napdos\minios7\utility\minios7\_utility\  
[ftp://ftp.icpdas.com/pub/cd/8000cd/napdos/minios7/utility/minios7\\_utility/](ftp://ftp.icpdas.com/pub/cd/8000cd/napdos/minios7/utility/minios7_utility/)

## Step 2: Follow the prompts to complete the installation



After the installation has been completed, there will be a new short-cut for MiniOS7 Utility on the desktop.



# 3 Using MiniOS7 Utility to Assign a New IP

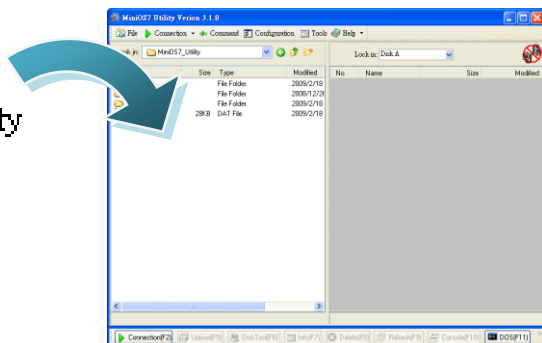
The FCM-MTCP is an Ethernet device, which comes with a default IP address. Therefore, you must first assign an appropriate IP address to the FCM-MTCP.

The default IP settings are as follows:

Item	Default
IP Address	192.168.255.1
Subnet Mask	255.255.0.0
Gateway	192.168.0.1

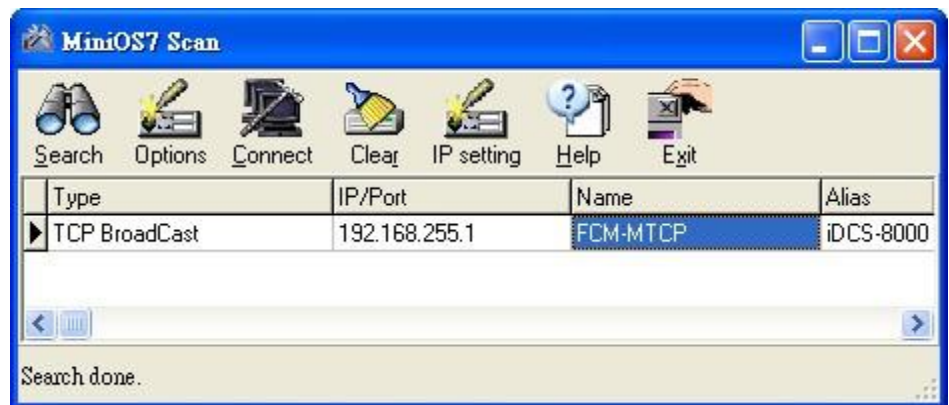
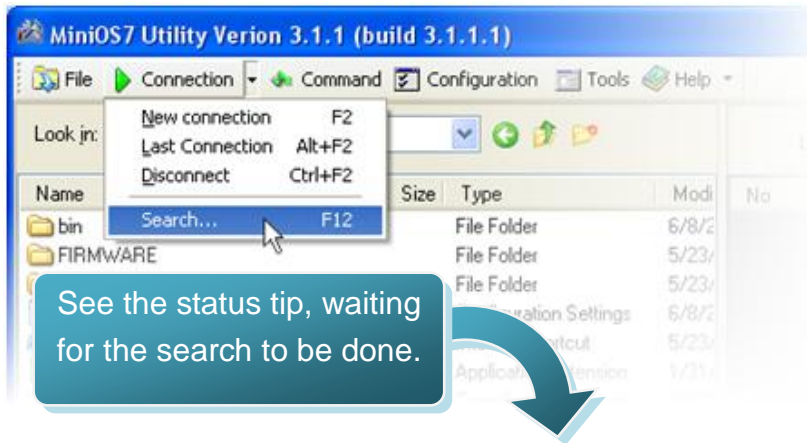
## Step 1: Run the MiniOS7 Utility

Double-click the MiniOS7 Utility shortcut on your desktop.



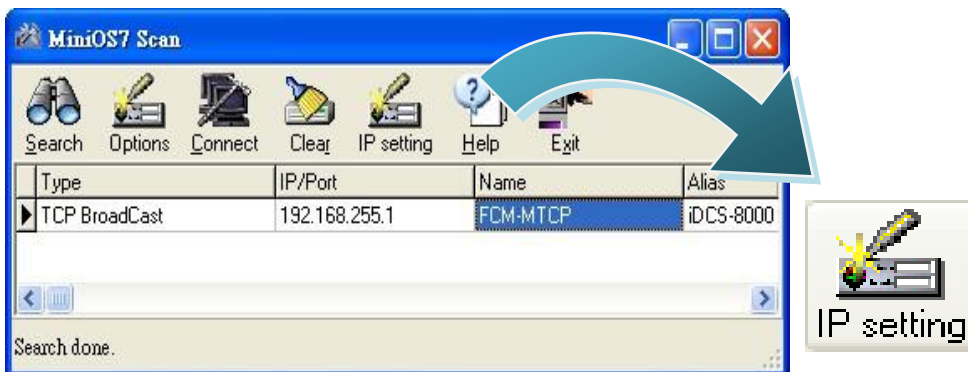
**Step 2: Press “F12” or choose “Search” from the “Connection” menu**

After pressing F12 or choosing Search from Connection menu, the MiniOS7 Scan dialog will appear, that will display a list of all the MiniOS7 modules on your network.

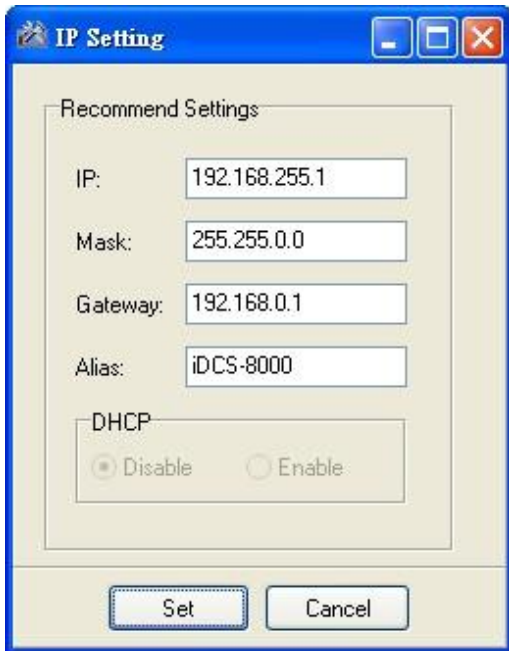


**Step 3: Choose the module name and then choose “IP setting” from the toolbar**

Choose the module name for fields in the list, and then choose IP setting from the toolbar.

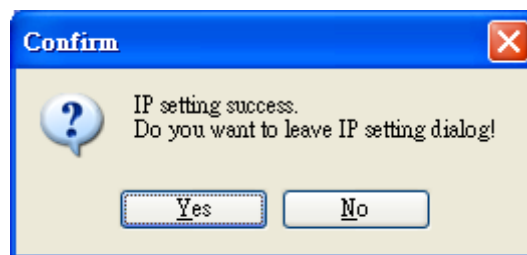


**Step 4: Assign a new IP address and then choose “Set” button**



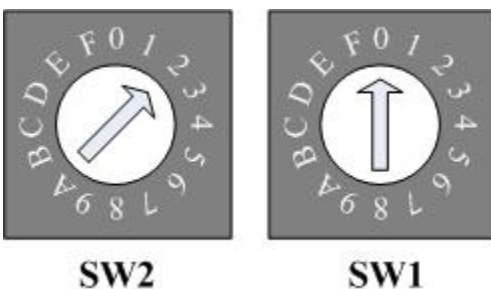
**Step 5: Choose “Yes” button**

After completing the settings, press the Yes button in the Confirm dialog box to exit the procedure.



## 4 Reboot the iDCS-8000 and finish the IP configuration

After finishing the IP configuration, power off and set the 4th-section IP address by using the rotary switches SW1 and SW2. For example, switch the SW1 and SW2 to '0' and '2', this mean the 4th-section IP address will be 20h (that is 32). Please note that to configure the 4th-section IP address to 0h or to FFh will cause heavy fault of FCM-MTCP.

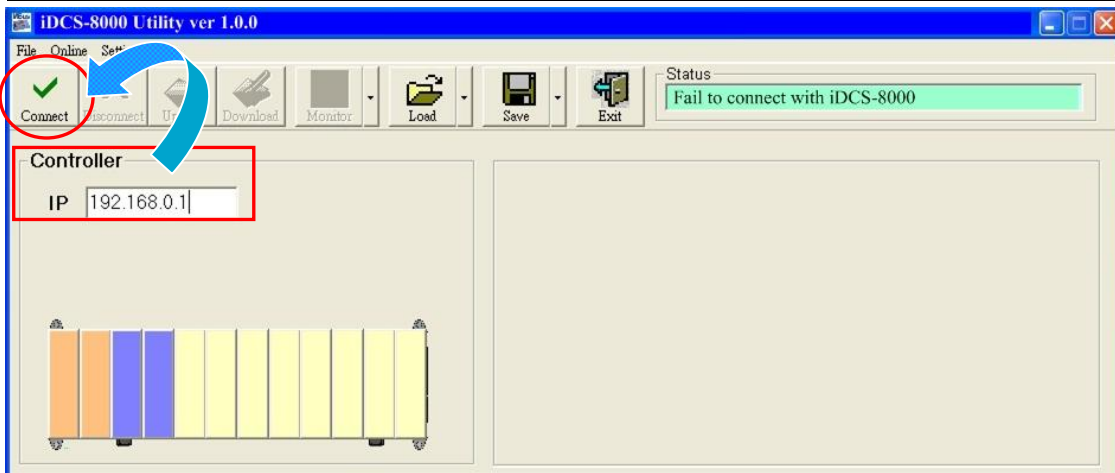


After finishing the IP configuration, turn the power on again. The FCM-MTCP will boot up with the modified IP address and the 4th-section IP address will follow the setting of SW1 and SW2 rotary switches. For more detail about how to configure the IP address of FCM-MTCP, please refer to the Appendix B in the FCM-MTCP user's manual.

## IO Configuration By Using iDCS-8000 Utility

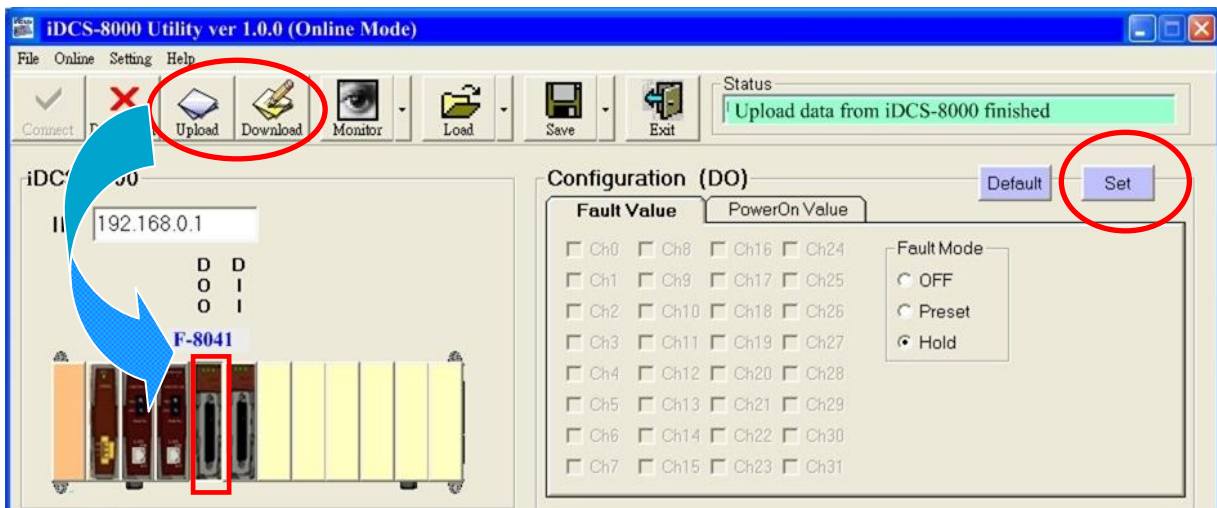
Use iDCS-8000 utility to set the configuration of IOM (IO module). Execute the utility and enter the IP address of your FCM-MTCP in the IP field. After clicking “Connect” and “Upload” button, the utility will start fetching and showing the hardware information and the original configuration from FCM-MTCP in the utility. You can get the iDCS-8000 utility in the webpage of the FCM-MTCP:

### Step 1: Connect with the MCU device



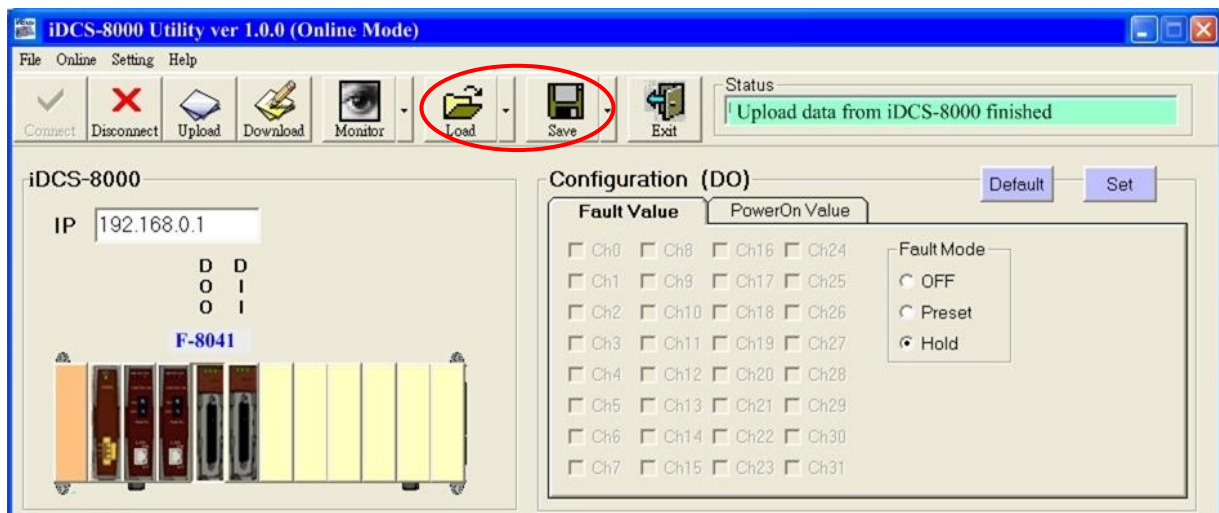
### Step 2: Upload/Download IOM configuration

Afterwards, you can click “Upload” button to get configuration of I/O module and click the module picture shown on the iDCS-8000 picture to see and set the configuration. After modifying the configuration, click “Download” button to save the configuration into FCM-MTCP.



### Step 3: Save/Load IOM configuration

After downloading the configuration into the FCM-MTCP, you can click “Save” button to save these parameters into an ini file. Or use “Load” button to load the configuration from an ini file. This is a useful way when you have several FCM-MTCP which use same configuration.



### Step 4: Finish IOM configuration

Now, you have finished the IP setting and IOM configuration. Then, you can put the iDCS-8000 system in Modbus/TCP network in your application.

For more detail about the internal Modbus memory address mapping of the FCM-MTCP, please refer to the section 4 in user’s manual of FCM-MTCP. Besides, FCM-MTCP supports some specific Modbus commands for configuring the iDCS-8000 system. About these commands, please refer to the section 5 in user’s manual of FCM-MTCP.



## Test with FCM-MTCP by using Modbus Master Tool

Before starting your own application or project, it is recommended to verify your Modbus network and configuration of FCM-MTCP. ICPDAS provides a useful tool, MBTCP, for you to test. There is also other third party tool, like ModScan, for your testing. The following is the parameter of setting for the FCM-MTCP for the example:

IP Address            192.168.0.3  
 Subnet Mask        255.255.0.0  
 Gateway            192.168.0.254

In this example, a digital output module is plug in slot 0. We will send the command, write single and force multiple coil, to the FCM-MTCP to output value to digital output module, then check the change of LED of output channel. Also, the iDCS-8000 Utility can be used for monitoring the output value as well in this example.

