

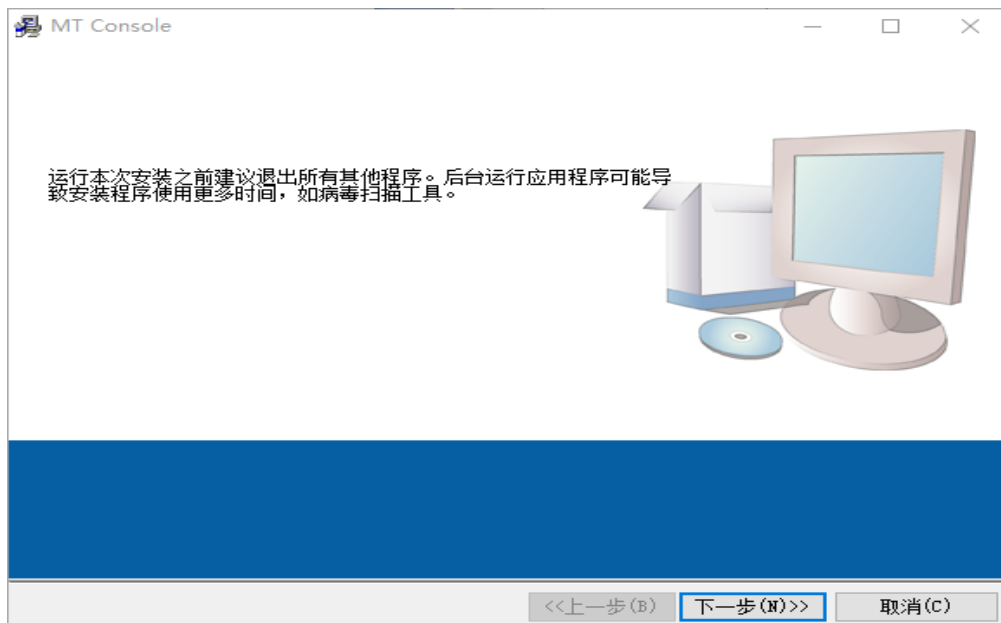
# MT Console Quick User Guide

## About MT Console

MT Console is a data acquisition software developed by Smacq for the MT series of remote IO modules. It helps users without programming experience quickly obtain experimental data. Designed primarily for basic applications, MT Console enables you to configure, test, and use the MT series remote IO modules easily. However, for complex applications, users need to select an appropriate development environment and implement relevant functions through programming. MT Console can be downloaded from the relevant page at [www.smacq.com](http://www.smacq.com) or obtained by contacting [service@smacq.com](mailto:service@smacq.com).

## Software Installation

MT Console can only be installed on Windows operating systems. Open the installation folder and double-click setup.exe to start the installation. After installation, a shortcut named MT Console will be created in the specified path.

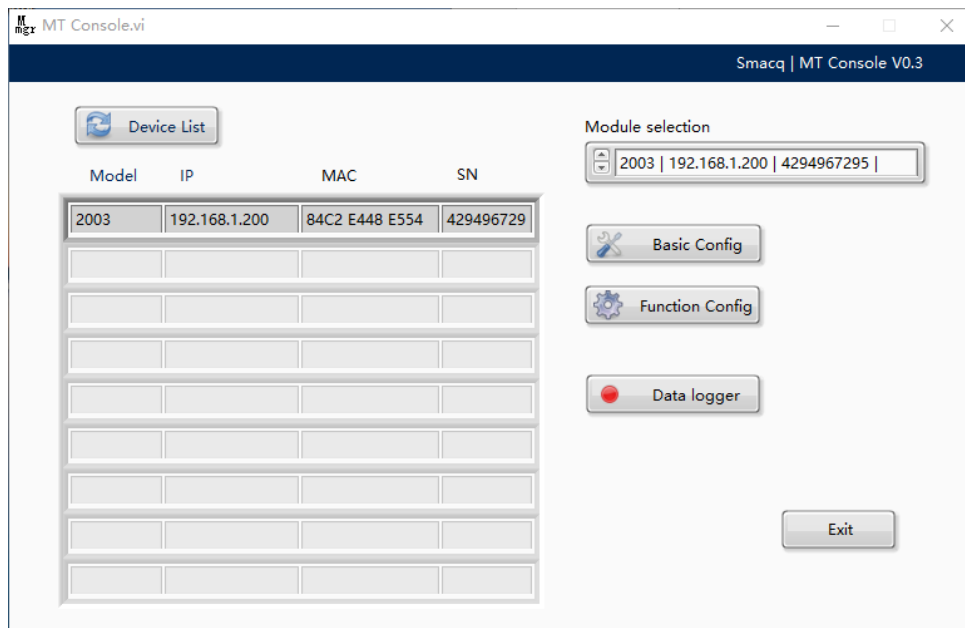


Software Installation

## Launch software

Double-click the MT Console shortcut to launch the software. After opening the software, click the Device List button, and the MT series modules connected to the computer will be displayed in the corresponding window of the software.

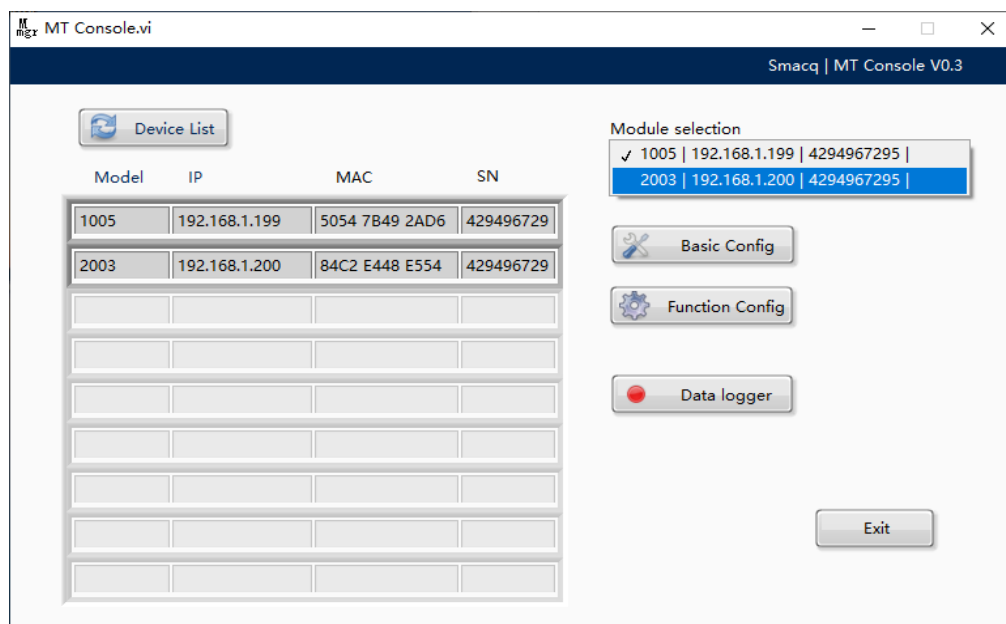
**Note: At this time, the computer's IP address must be in the same network segment as the module's IP address. The default IP address of the MT series modules is 192.168.1.200.**



Search for Modules and Display Module Information

If multiple MT series modules are connected to the computer, you need to power on and communicate with each module in sequence, and modify the IP address of each module. After completing the settings, power on and communicate with all modules, then search for devices again to display all modules connected to the computer. As shown in the figure below. (The module IP address can be modified in Basic Config, and detailed information will be explained in the next section.)

In addition, you can select modules with different IP addresses in the Module selection window of the software to set parameters.



Multiple Module Connections

## Function Description

Button	Function Description
Basic Config	Basic parameter settings
Function Config	Allows adjustment of module channel settings and data display
Data logger	Enables operation and analysis of collected data

## Basic Config

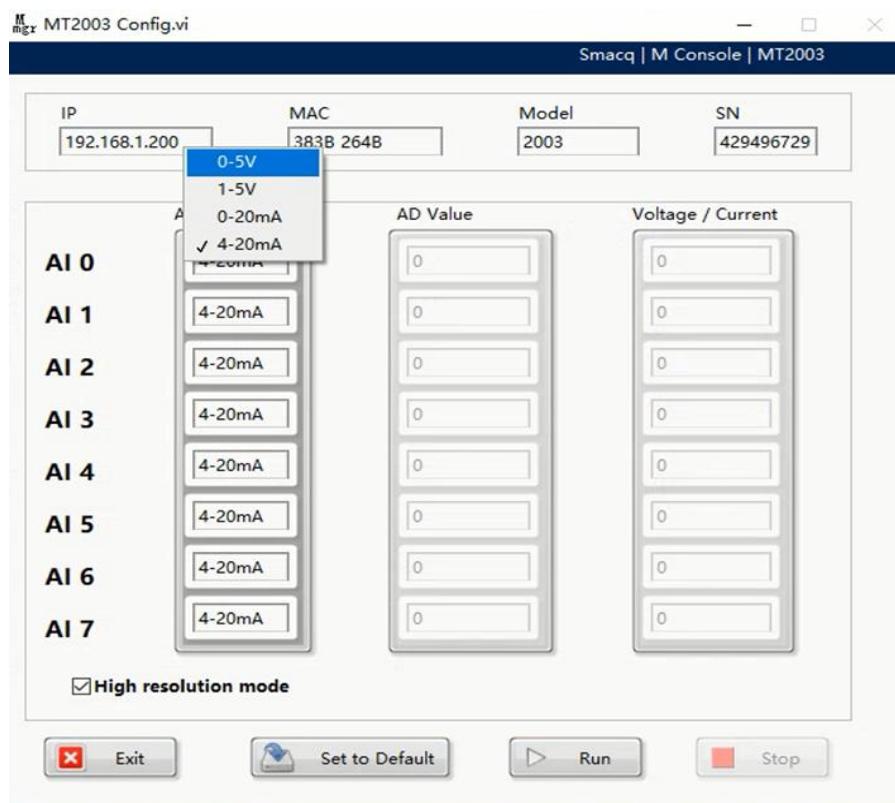
Click Basic Config to modify basic parameters such as the module's IP address, working mode (Mode), and local port number (Local Port). After modification, click Set to save the parameter settings. (Note: After modifying parameters, you need to search for devices again.)

The screenshot shows the 'Basic Config' window of the Smacq MT Console. The window has a title bar 'Basic Config.vi' and a subtitle bar 'Smacq | MT Console | Basic Config'. The main area contains several input fields and checkboxes. At the top, there are four fields: IP (192.168.1.200), MAC (84C2 E448 E554), Model (2003), and SN (429496729). Below these, there is a DHCP checkbox (unchecked) and a Mode dropdown menu (set to 'TCP SERVER'). Further down, there are fields for IP (192.168.1.200), Local Port (502), Gateway (192.168.1.1), Dest IP (192.168.1.100), Mask (255.255.255.0), and Dest Port (1000). A Random checkbox is also present. At the bottom, there are two buttons: 'Exit' and 'Set'. Red rectangular boxes are drawn around the 'Mode' dropdown, the 'IP' field, and the 'Local Port' field.

Parameter Settings

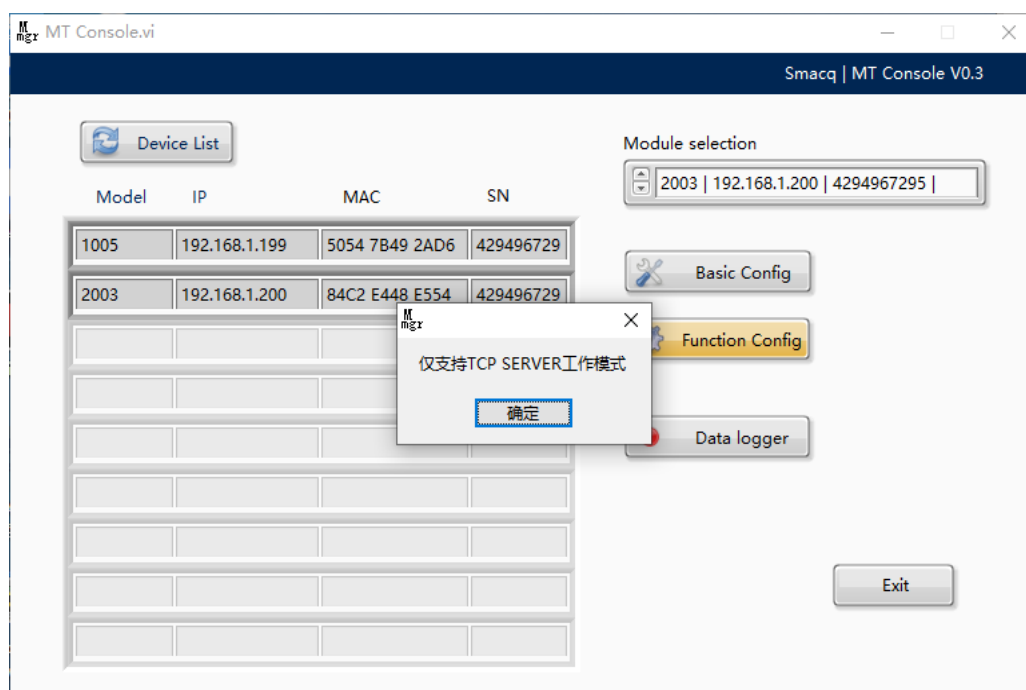
## Function Config

Click Function Config to open the interface as shown in the figure below. This interface displays module channel information. Taking MT2003 as an example, the default range of each module channel is 4-20mA, and the range of any channel can be modified. Click Set to Default to save the modified settings as default. Click RUN to display the AD Value and converted data values in real time. (Note: For MT2000 or MT4000 series modules, when modifying the AI channel range from current to voltage, you need to disassemble the module and pull out the jumper cap of the corresponding channel. Conversely, the jumper cap needs to be installed.)



Function Configuration

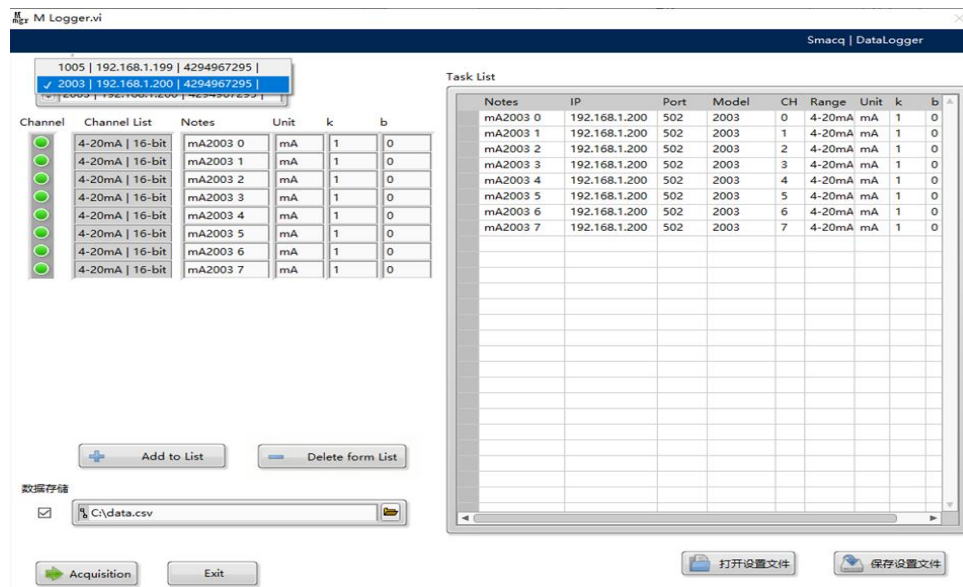
Function Config only supports modules opened in server mode. If the module is adjusted to client mode, clicking the Function Config button will pop up the following prompt window.



Prompt Message

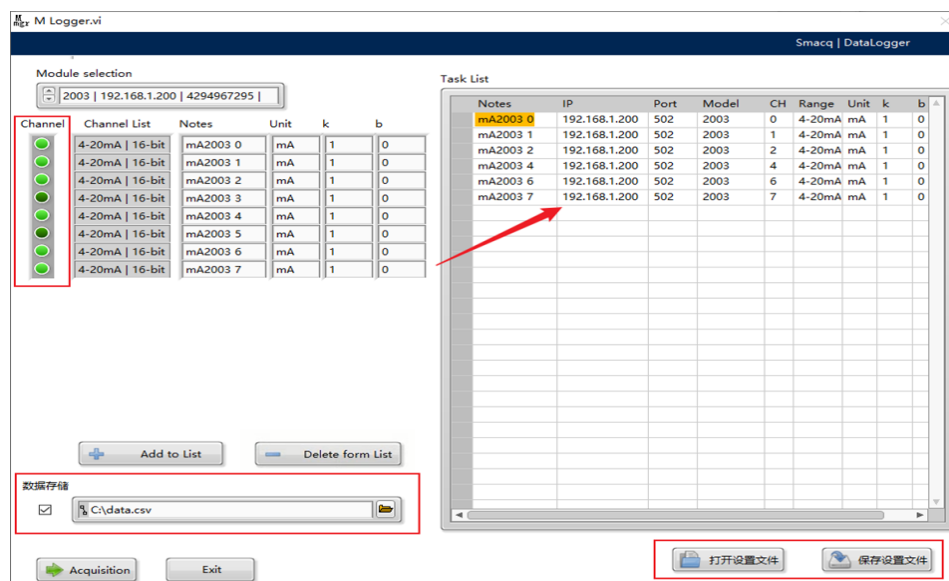
## Data logger

Click Data Logger to open the interface as shown in the figure below. You can select analog acquisition channels and choose channels from modules with different IP addresses for data logging.



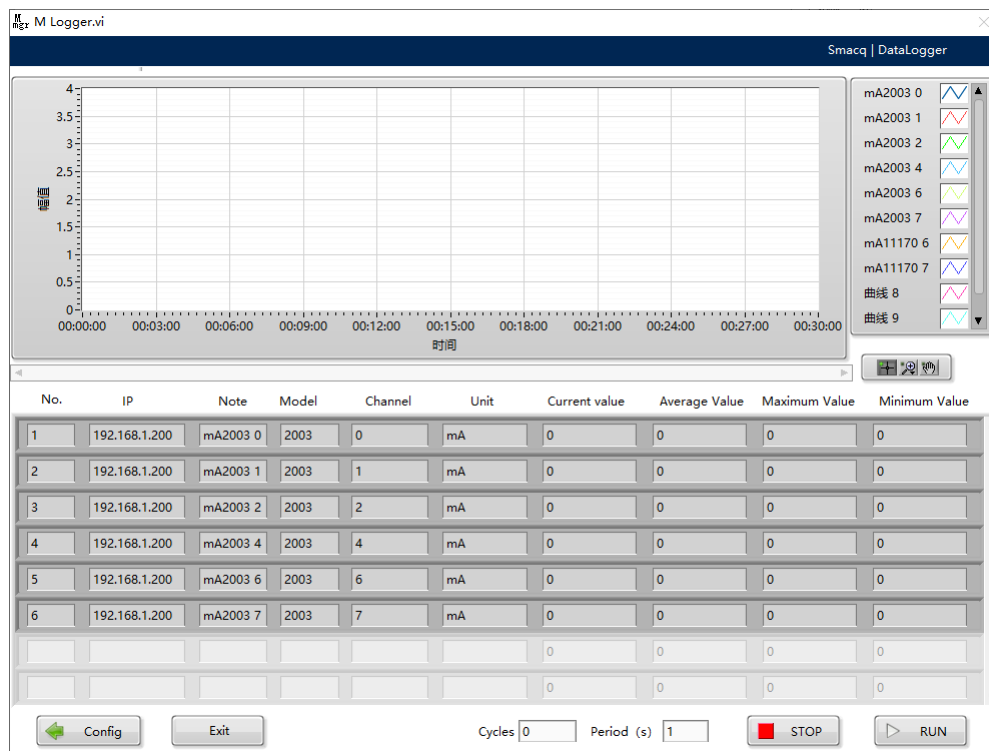
Data Logging Interface

When a channel is selected, the indicator light will be illuminated. Click Add to List to add the selected analog input channel to the list, and Delete from List to remove the selected analog input channel from the Task List. Under Data Storage, click to select the specified folder for storing collected data. The data file format is .csv. Click Save Settings File to generate a current settings file in the set path. For subsequent data acquisition, you can select Open Settings File to find the previously saved settings file, reducing setup time.



Data Logging Settings

After completing the settings shown in the figure above, click Acquisition to enter the data display interface as shown below. Click RUN to generate corresponding waveform graphs based on the data collected by the module and display real-time data, average value, maximum value, and minimum value. Cycle and Period at the bottom of the interface represent the number of cycles and the interval (in seconds) between data records, respectively. The default value of Cycle is 0, indicating continuous acquisition. Click STOP to stop the current data logging.



Data Logging

## Conclusion

MT Console is a software for basic applications, featuring simple operation. We will add more functions in subsequent upgrades. If you encounter any problems during use, please contact us at [service@smacq.com](mailto:service@smacq.com).