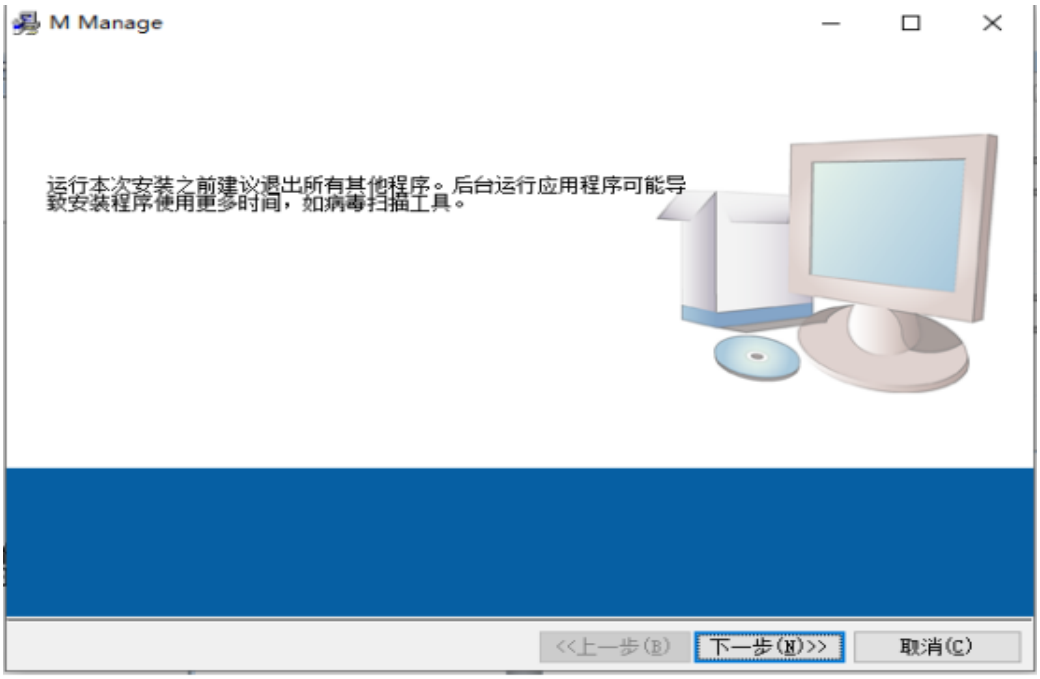
M Console Quick User Guide

About M Console

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

Software Installation

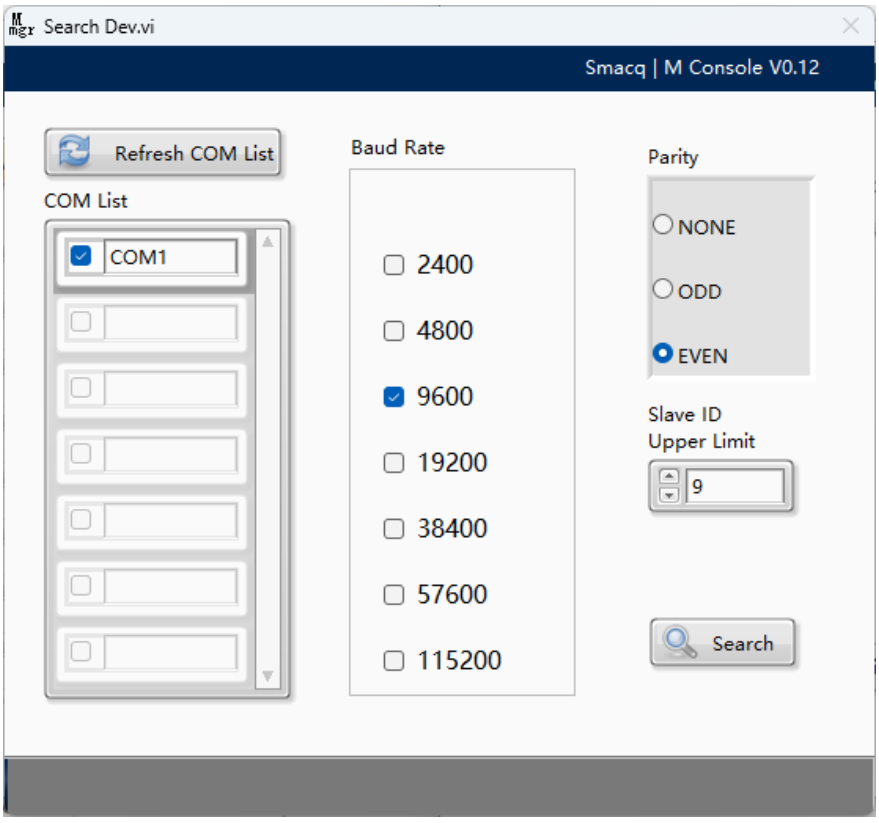
M Console can only be installed on Windows operating systems. Open the installation folder and double-click setup.exe to start the installation. After installation, a shortcut named M Console will be created in the specified path.



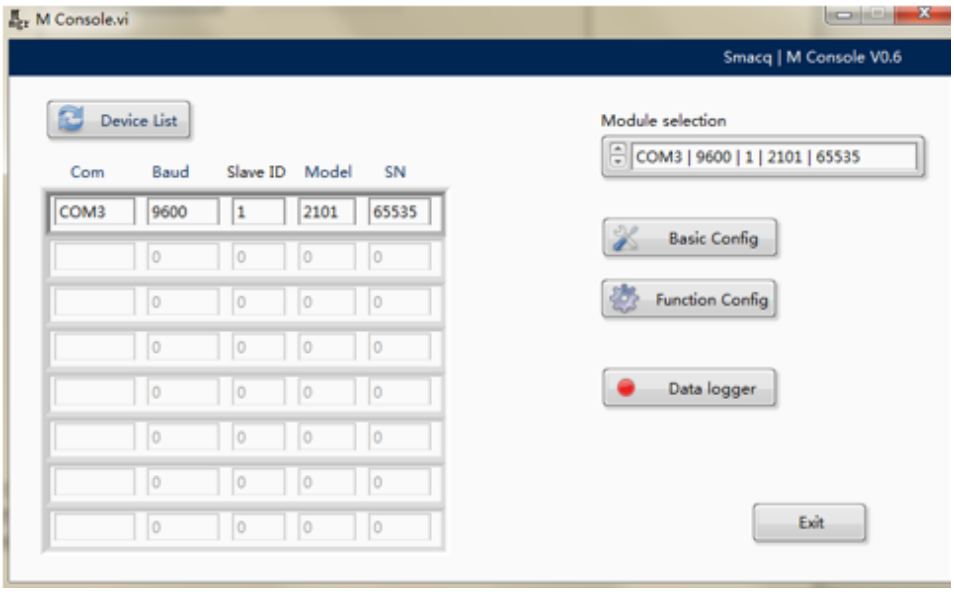
Software Installation

Launch software

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

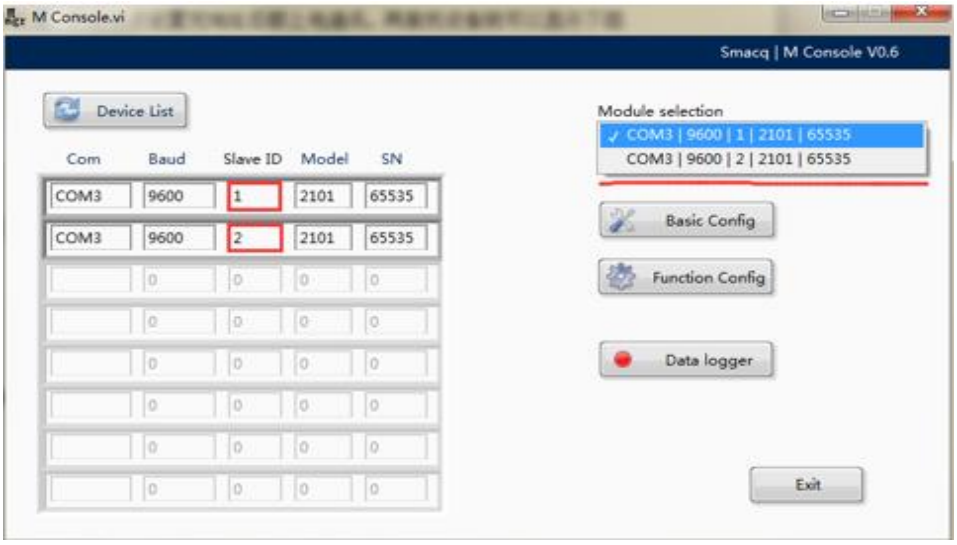


Choose COM port and search for modules



Display Module Information

If multiple M series modules are connected to the computer, you need to power on and communicate with each module in sequence, and modify the **Slave ID** 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.



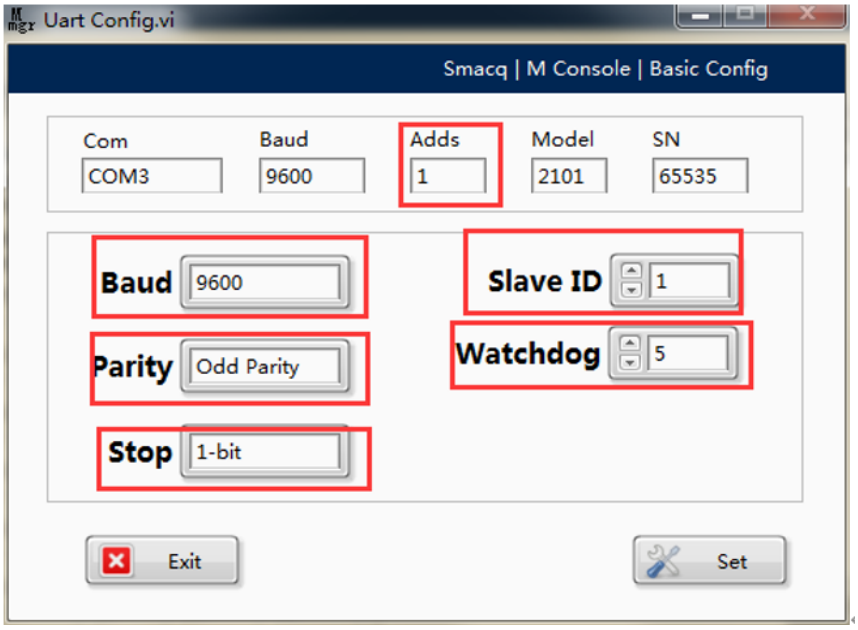
Multiple Module Connections

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

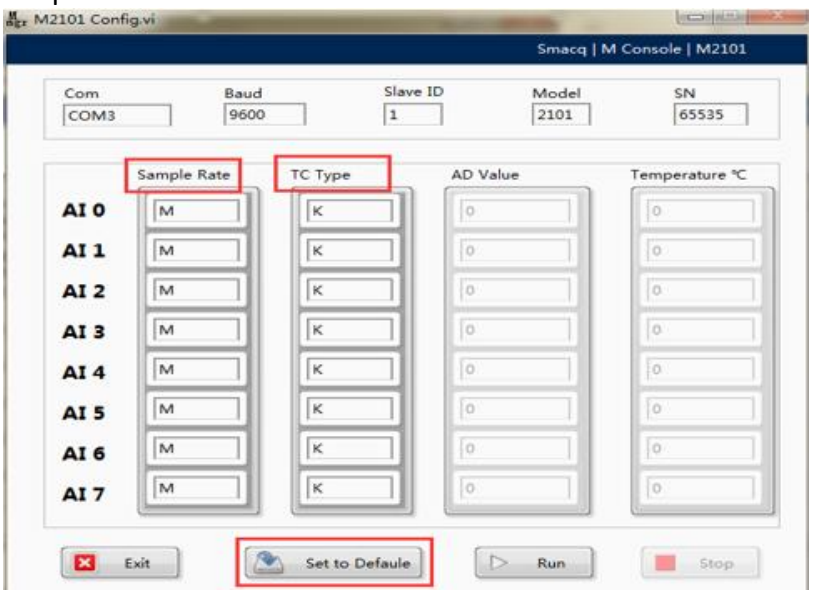
Click Basic Config to modify basic parameters such as the module's Baud, Slave IDs, Check digit, Watchdog and Stop bit and so on. After modification, click Set to save the parameter settings. (Note: After modifying parameters, you need to search for devices again.)



Parameter Settings

Function Config

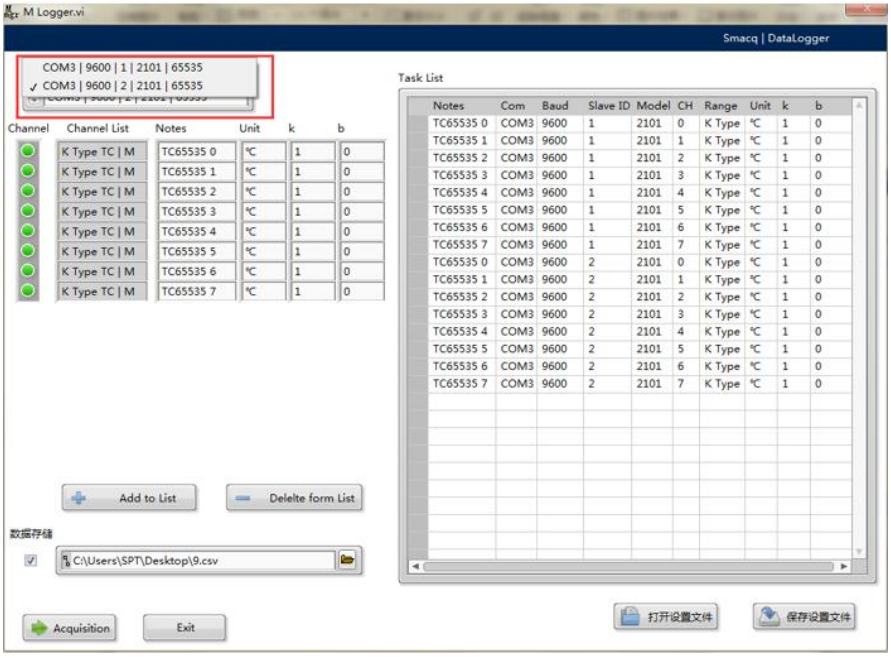
Clicking on Function will bring up the interface shown in the figure below, which can display the analog input channels. You can change the sampling rate, the sensor model, and clicking RUN will display the AD value in real-time as well as the converted temperature data value. After setting these up, you can click Set Default to set the current parameters as the default values.



Function Configuration

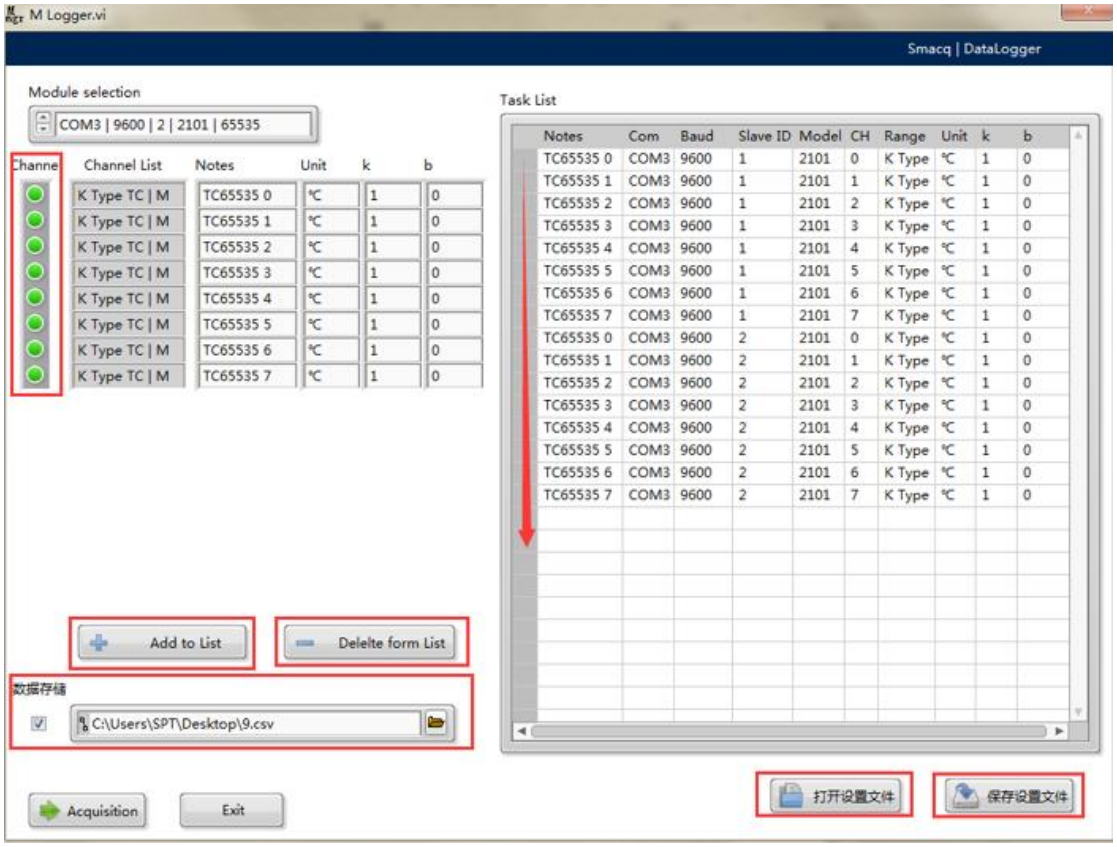
Data logger

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.



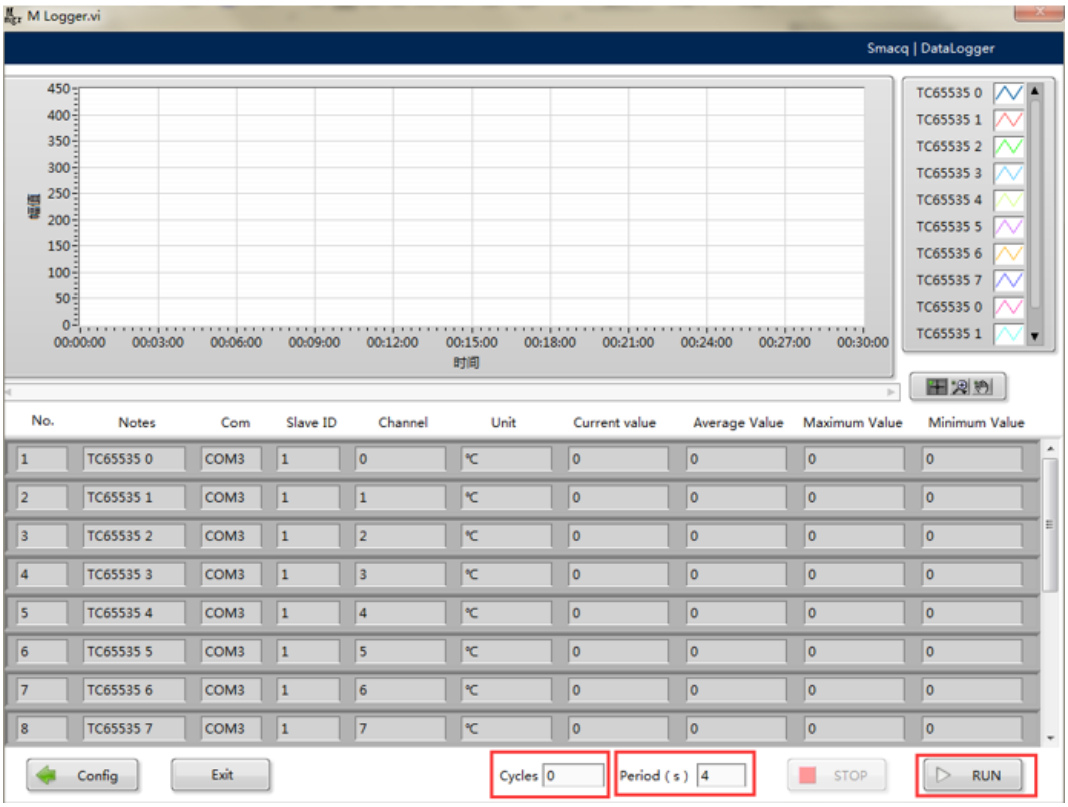
Data Logging Interface

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

M 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.