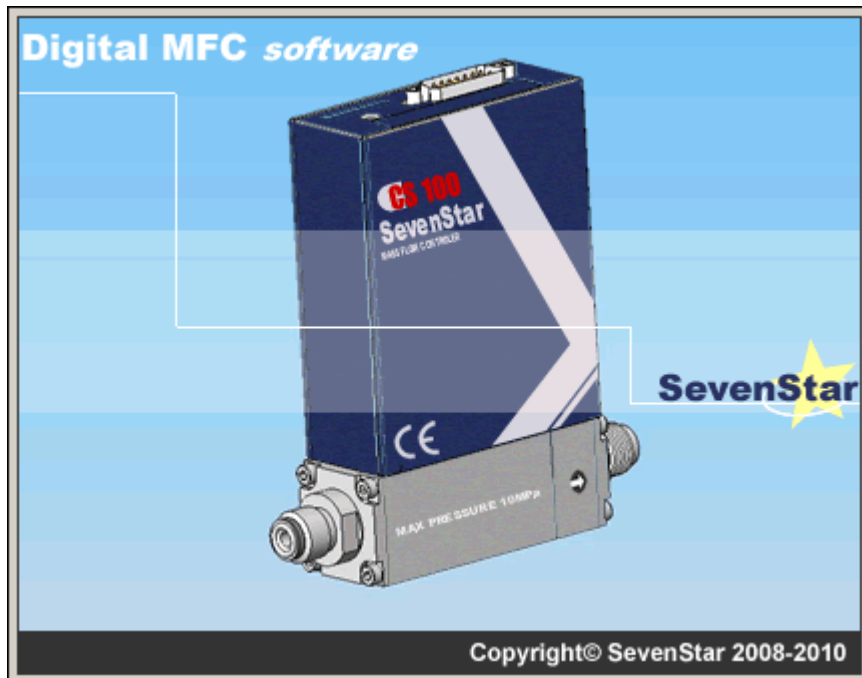


# Digital MFC software V1.10

## User's Manual



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Please note: This manual is only for you to get a quick get-through of the high vacuum system, to gain detailed information of each part, please carefully read the individual operation handbook, MTI will have no responsibility if any damage caused by misuse.

MTI has right to update the product without informing the customer which means the data in this manual may vary some time, please visit [www.mtixtl.com](http://www.mtixtl.com) for the latest information.

## Introduction

Digital MFC software provides the friendly interface for easily access, controlling and monitoring the flow rate.

### System requirement

Minimum Requirements:      CPU P4 1.5GHz  
   Memory 256M  
   COM Serial Port

Operation system:              Windows XP sp2 or Windows2000 sp4

## Installation Procedure

Step 1, Insert the CD and run Digital MFC software application Setup.exe



Step 2, Select your own installation language, click “OK”



Step 3, Please follow the following instructions to finish the installation.

# Operation Instruction

## Run Application

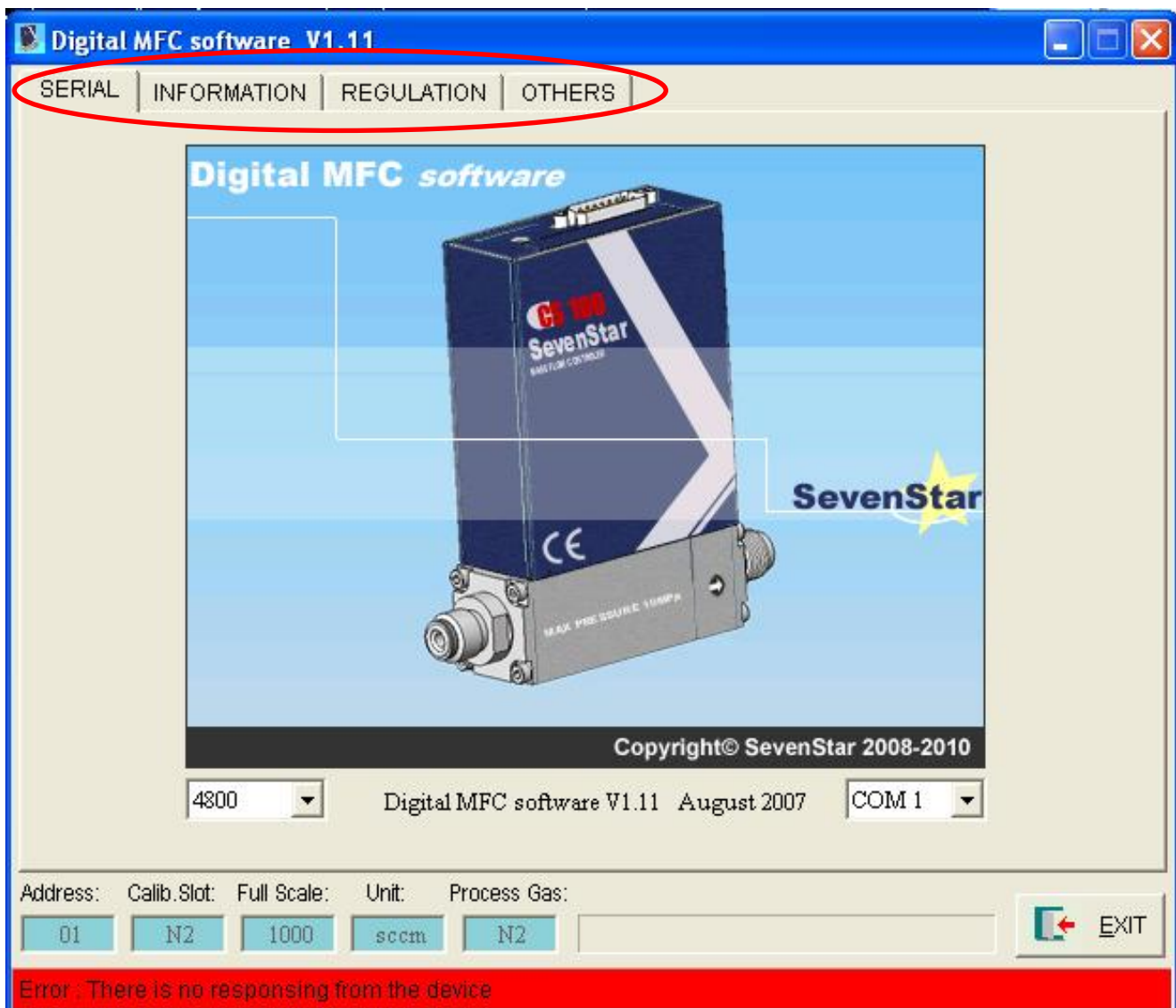
Double click the icon as shown in the following picture.



The software will automatically search the connected device after starting the program.

1. Address will search from 32 to 96
2. Baud rate: 19200, 9600, 4800, 2400, 1200
3. Serial Port: From 1 to infinity

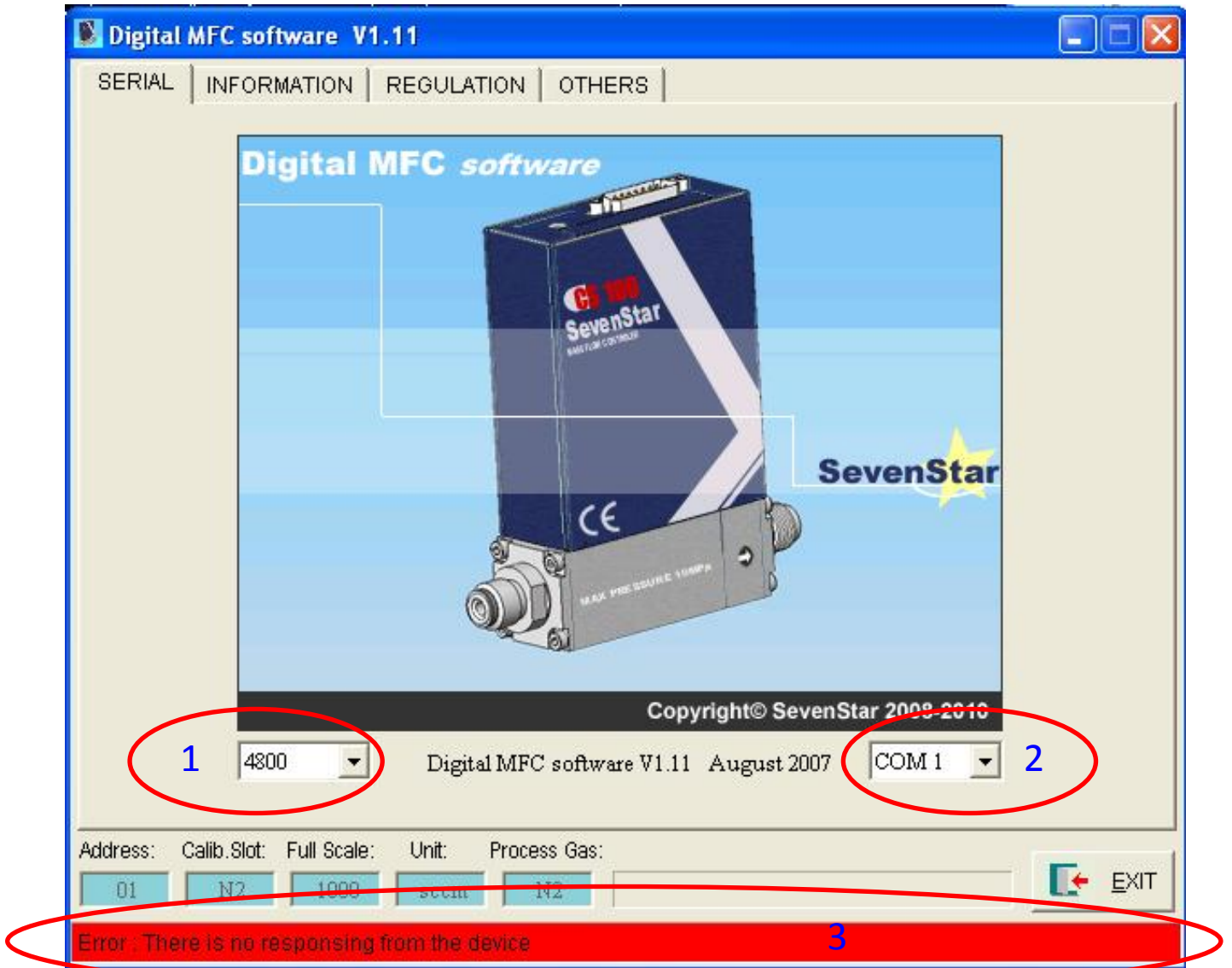
## Function Module Instruction



**Main Function of four modules including:**

- 1. Serial
- 2. Information
- 3. Regulation
- 4. Others

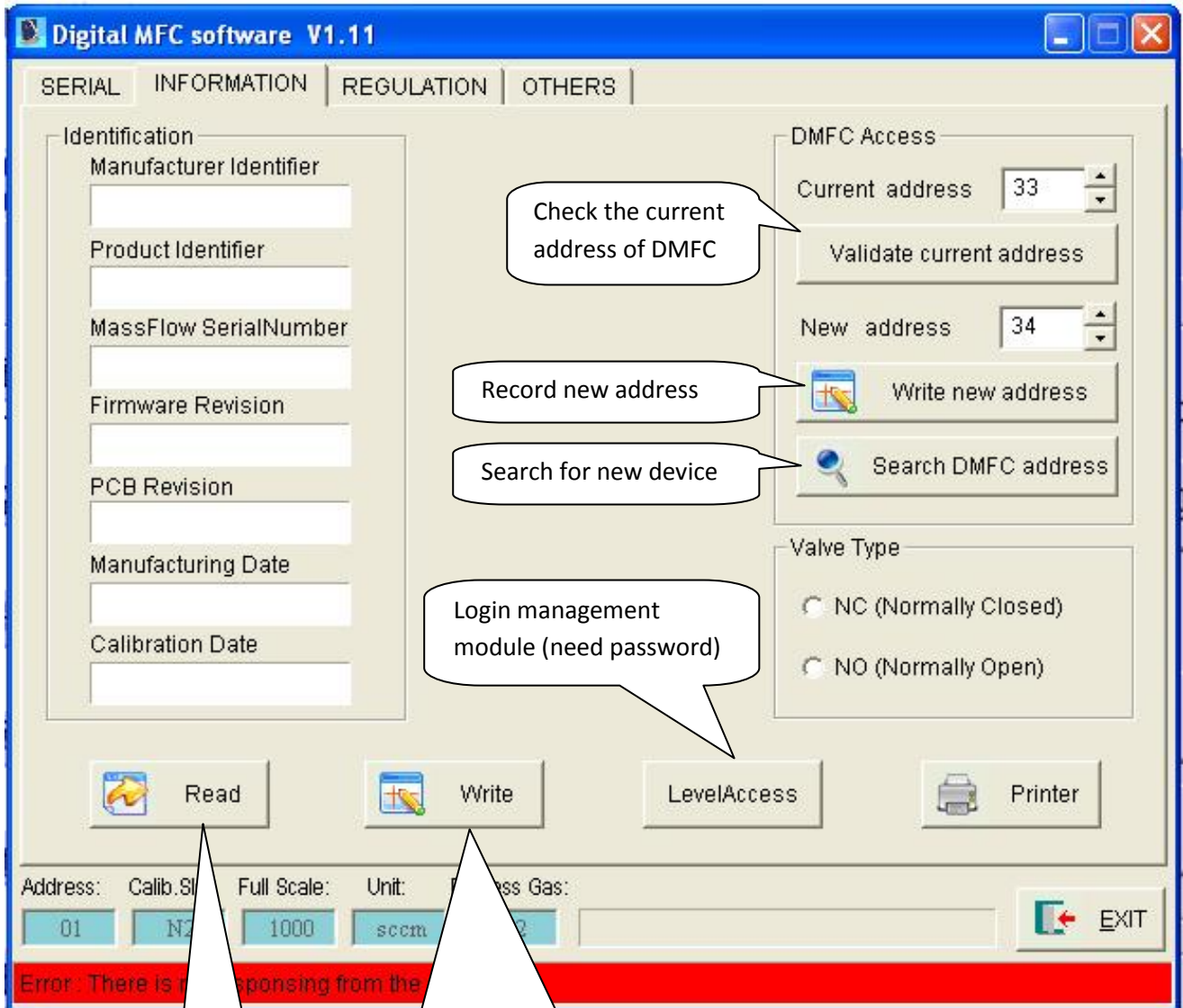
**Serial Module**



**Main function:**

- 1. Baud Rate
- 2. Serial Port selection
- 3. Show information about the current status

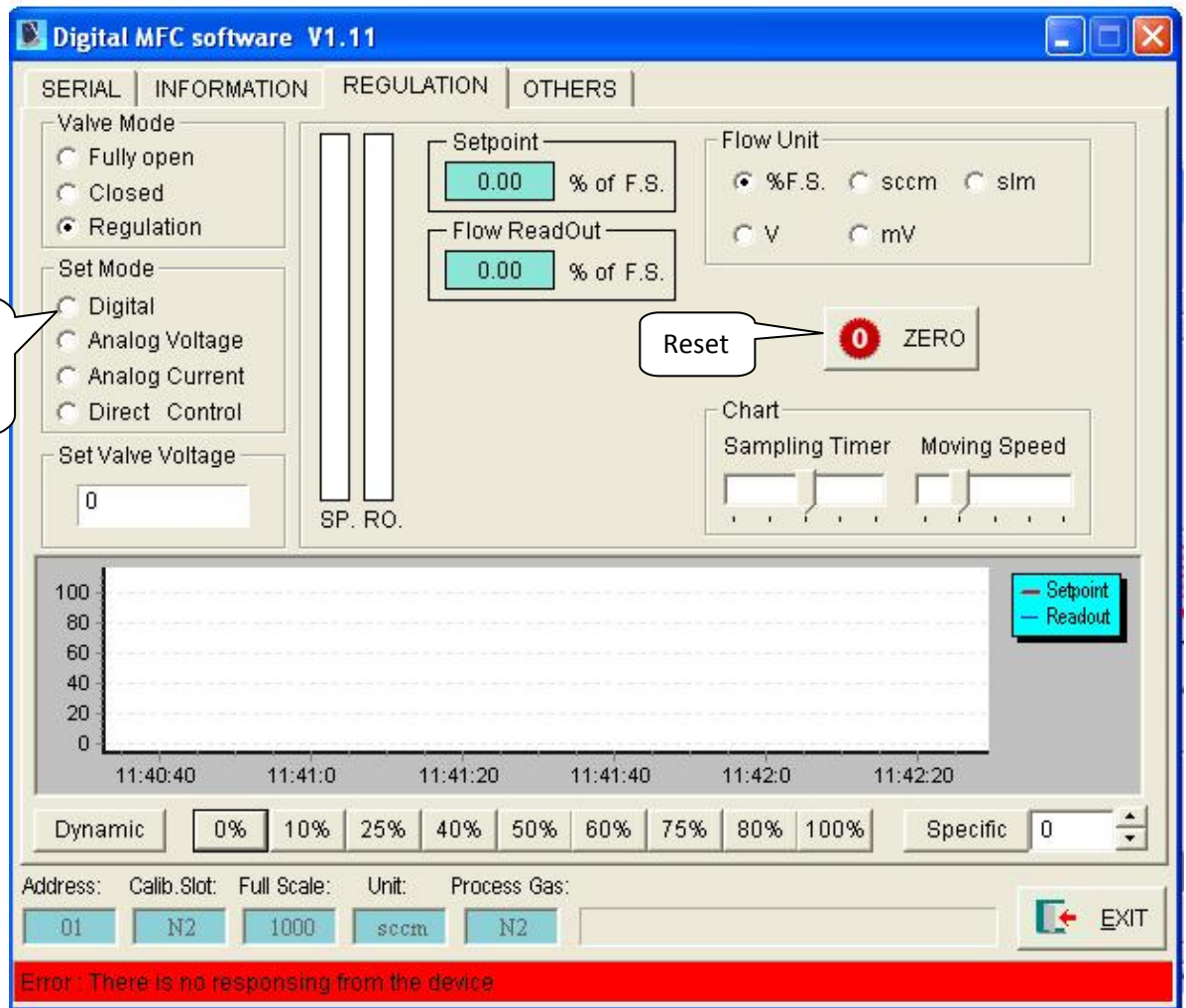
# Information Module



Read product information

Record product information (Only available for administration authority)

# Regulation Module



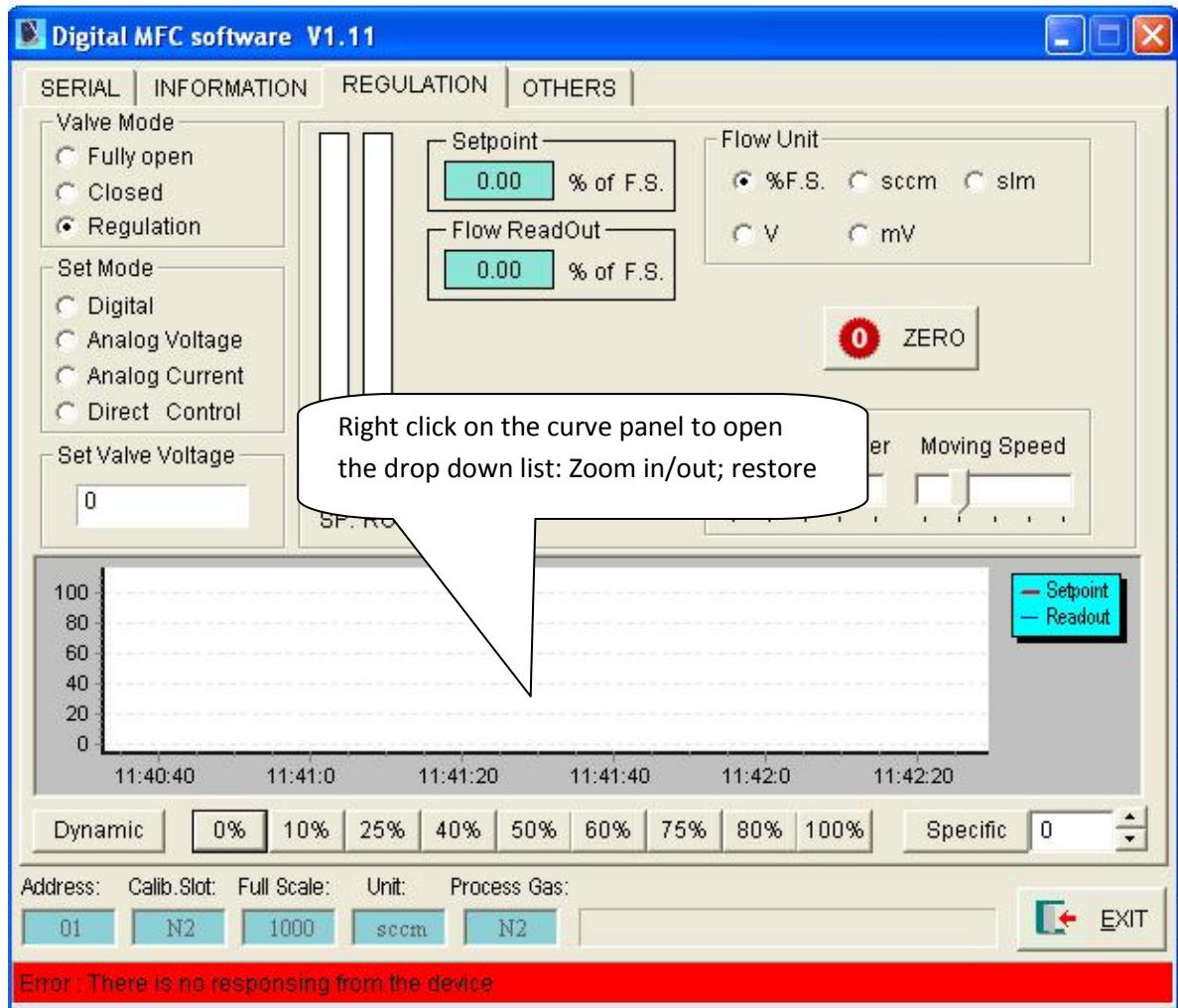
## Function:

1. Gauge control model;
2. Digit, analog voltage, simulation current, diagnose mode;
3. Reset



# Flow rate setting

## Curve instruction:

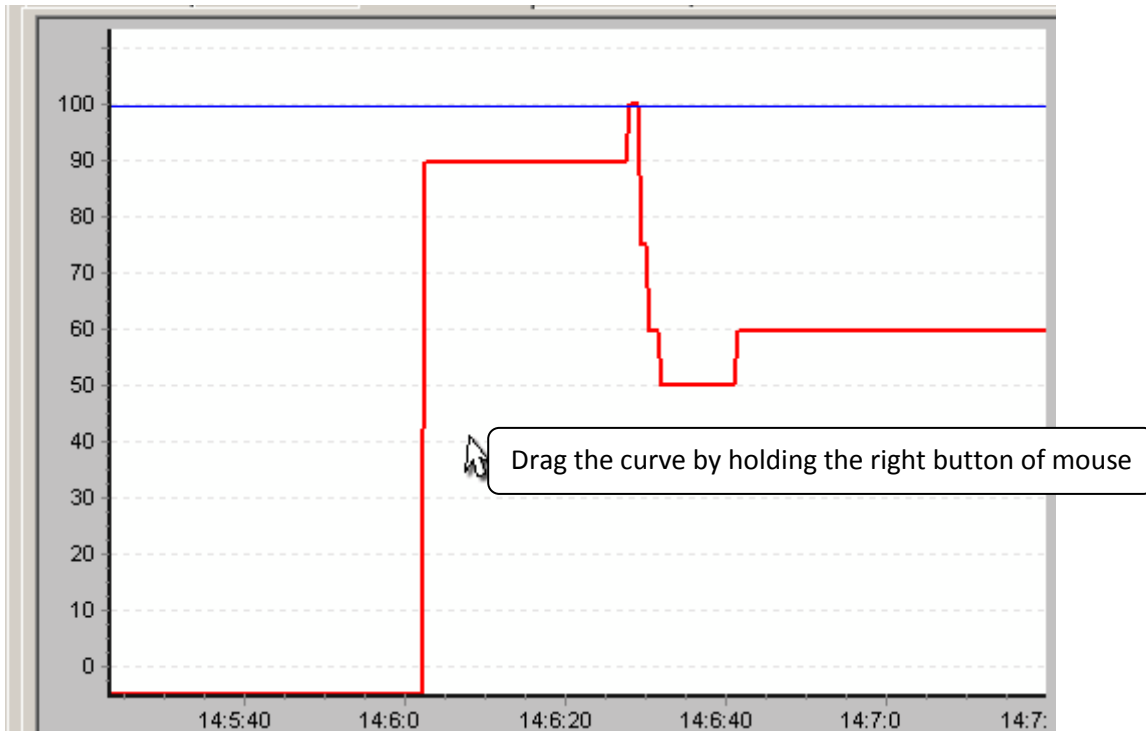


### Function:

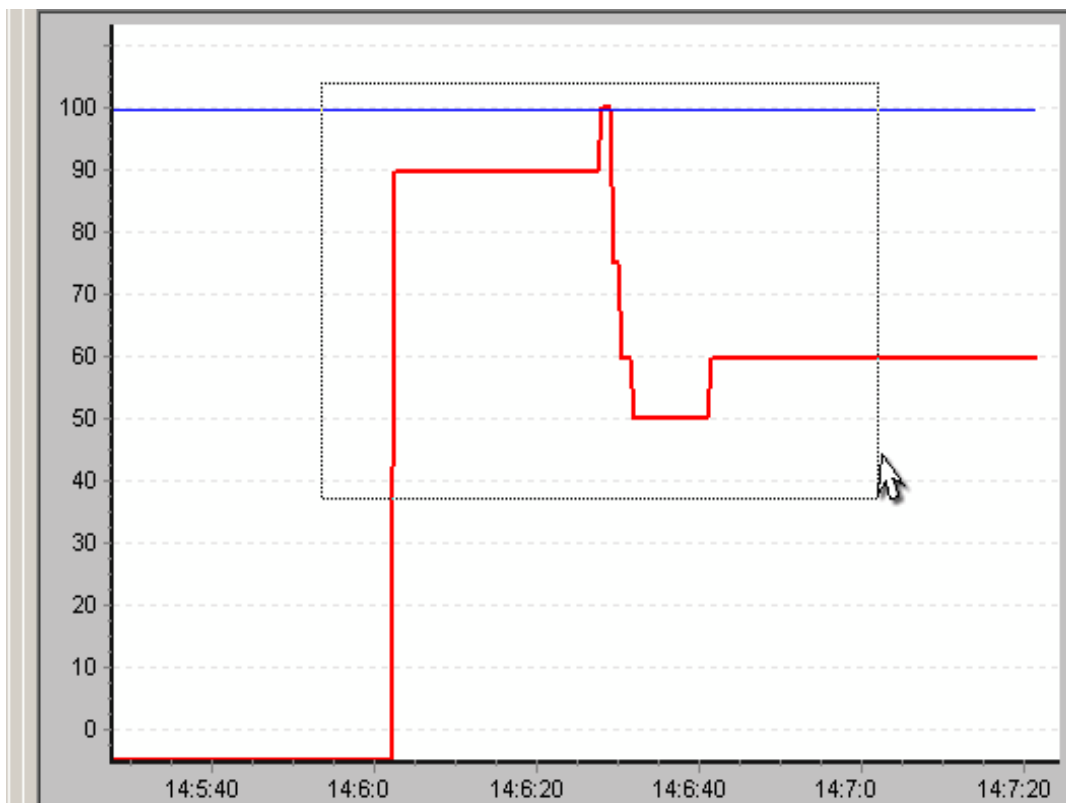
1. Zoom in and zoom out curve display.
2. Shortcut restore after zooming in.
3. Curve moves, suspends and restores.



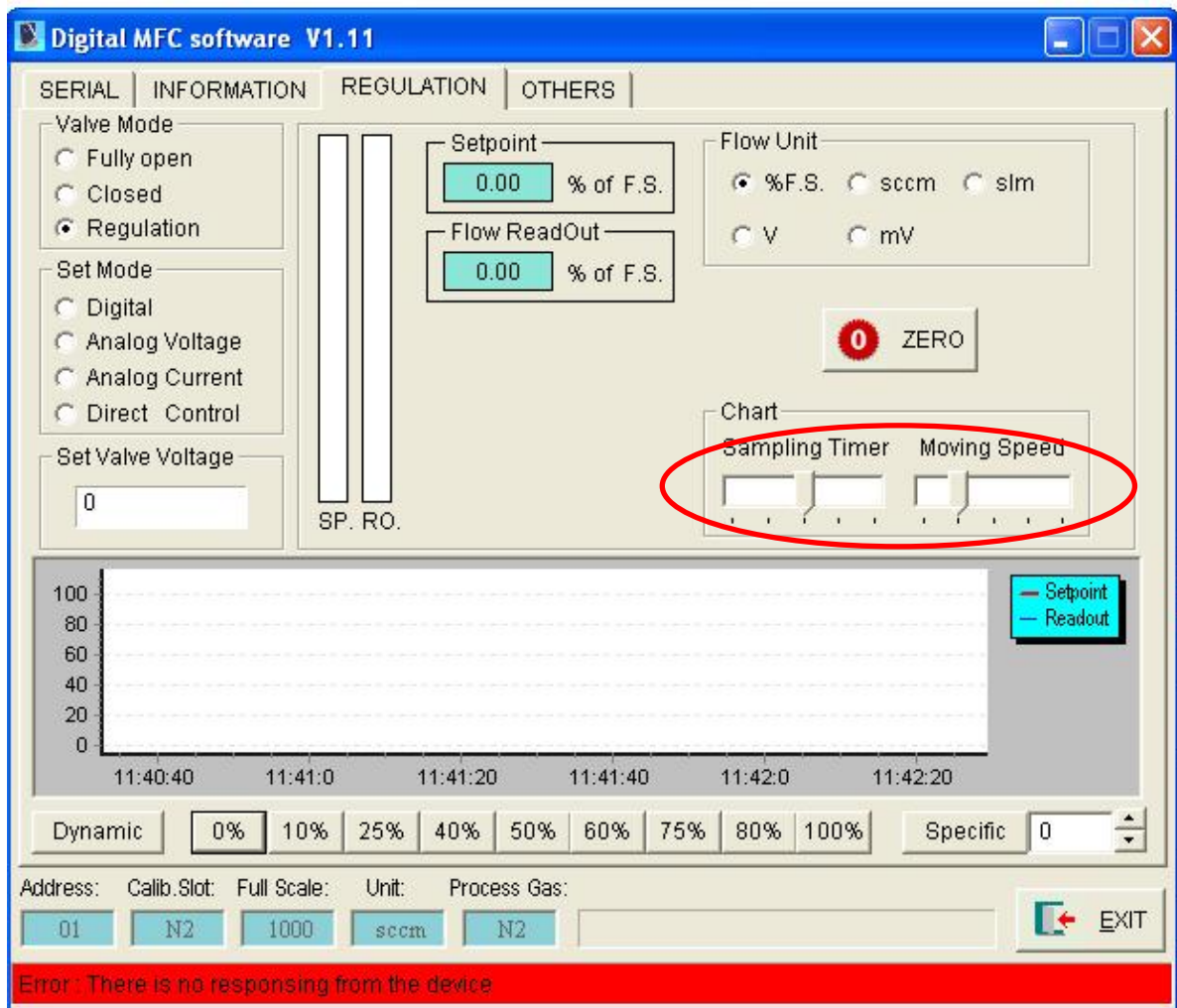
## Moving Curves



## Enlarge selected area



## Sampling Clock setting



### Function:

1. Sampling clock setting—How many point will be recorded per second.
2. Curve moving speed—click and hold right button to set the curve moving speed

# Others Module

## Alarm

The screenshot displays the 'Digital MFC software V1.11' interface. The 'OTHERS' tab is selected, showing the 'Alarm' section. A red circle highlights the 'Alarm' section, which includes a text area containing software information: 'S Digital MFC software', 'S Revision : V 1.11', 'S Designed by SevenStar', and 'S Reserved : 2008-2010'. Below this is a 'Mask' field and a 'Clear Alarm' button. A red arrow points from the 'Clear Alarm' button to the 'Set Alarm&Warning' dialog box. The dialog box has a blue title bar and contains several checkboxes for alarm and warning options: EEPROM Alarm, Temperature Alarm, Temperature Warning, Valve Coil Alarm, Sensor drift Alarm, and Sensor drift Warning. It also has 'OK' and 'Cancel' buttons. The main window also shows 'Save' options, 'Limited' settings (Upper and Lower Limit), and 'Accumulate' settings (0.0000 SCCM). At the bottom, there is an 'EXIT' button and a red error bar that reads 'Error : There is no responding from the device'.

**Function:** Click to set alarm option.

Activate to monitor the set alarm

The screenshot shows the 'Digital MFC software V1.11' interface. It has tabs for SERIAL, INFORMATION, REGULATION, and OTHERS. The 'Alarm' section is active, showing an 'Active' checkbox (unchecked), a text area with software details, a 'Mask' field, and a 'Clear Alarm' button. The 'Save' section has an 'Active' checkbox (unchecked), an 'Interval Time(Second)' field set to 60, and a 'Data.xls' file selection button. The 'Limited' section has an 'Active' checkbox (unchecked), 'Upper Limit (%)' and 'Lower Limit (%)' fields both set to 0, and 'Alarm' dropdown menus for each. The 'Accumulate' section shows a value of 0.0000 SCCM with 'Read' and 'Erase' buttons. A table on the right lists parameters like Delay, FullScale, Zero Constant, etc., all with values of 0. At the bottom, there are fields for Address (01), Calib.Slot (N2), Full Scale (1000), Unit (sccm), and Process Gas (N2), along with an 'EXIT' button. A red banner at the bottom contains the text 'Error : There is no responding from the device'.

Name	Value
Delay	0
FullScale	0
Zero Constant	0
Target Null Value	0.0
VavleVoltage(OnlyRead)	0
ShutoffLevel	0.0
Softstart Rate	0.0
Temperature(OnlyRead)	0
Conversion Factor	0.0
Valve Mode	0

Alarm was activated if the color turns out to yellow

**Function:**

1. Alarm Activation
2. Alarm Clearance
3. Message Box
4. Alarm will be activated if the color turns out to yellow

## Flow rate limitation

**Digital MFC software V1.11**

SERIAL | INFORMATION | REGULATION | OTHERS

**Alarm**  
 Active  
`S Digital MFC software  
`S Revision : V 1.11  
`S Designed by SevenStar  
`S Reserved : 2008-2010  
Mask :  Clear Alarm

**Limited**  
 Active  
0 Upper Limit (%) Alarm Action  
0 Lower Limit (%) Alarm Action

**Accumulate**  
0.0000 SCCM  
Read Erase

Name	Value
Delay	0
FullScale	0
Zero Constant	0
Target Null Value	0.0
ValveVoltage(OnlyRead)	0
ShutoffLevel	0.0
Softstart Rate	0.0
Temperature(OnlyRead)	0
Conversion Factor	0.0
Valve Mode	0

Address: Calib.Slot: Full Scale: Unit: Process Gas:  
01 N2 1000 sccm N2 EXIT

Error : There is no responding from the device

### Function:

1. Activate the limitation.
2. Set the upper/lower limit. Alarm will be activated and the valve will fully open or close if the overflow existed.
3. Alarm if the color of status bar turns out to yellow.
4. Information tips in the status bar.

# Accumulation

**Digital MFC software V1.11**

SERIAL | INFORMATION | REGULATION | OTHERS

**Alarm**  
 Active  
`S Digital MFC software  
`S Revision : V 1.11  
`S Designed by SevenStar  
`S Reserved : 2008-2010  
Mask:  Clear Alarm

**Save**  
 Active  
60 Interval Time(Second)  
Data.xls ...

**Limited**  
 Active  
0 Upper Limit (%) Alarm Action  
0 Lower Limit (%) Alarm Action

**Accumulate**  
0.0000 SCCM  
Read Erase

Name	Value
Delay	0
FullScale	0
Zero Constant	0
Target Null Value	0.0
VavleVoltage(OnlyRead)	0
ShutoffLevel	0.0
Softstart Rate	0.0
Temperature(OnlyRead)	0
Conversion Factor	0.0
Valve Mode	0

Address: 01 Calib.Slot: N2 Full Scale: 1000 Unit: sccm Process Gas: N2 EXIT

Error: There is no responding from the device

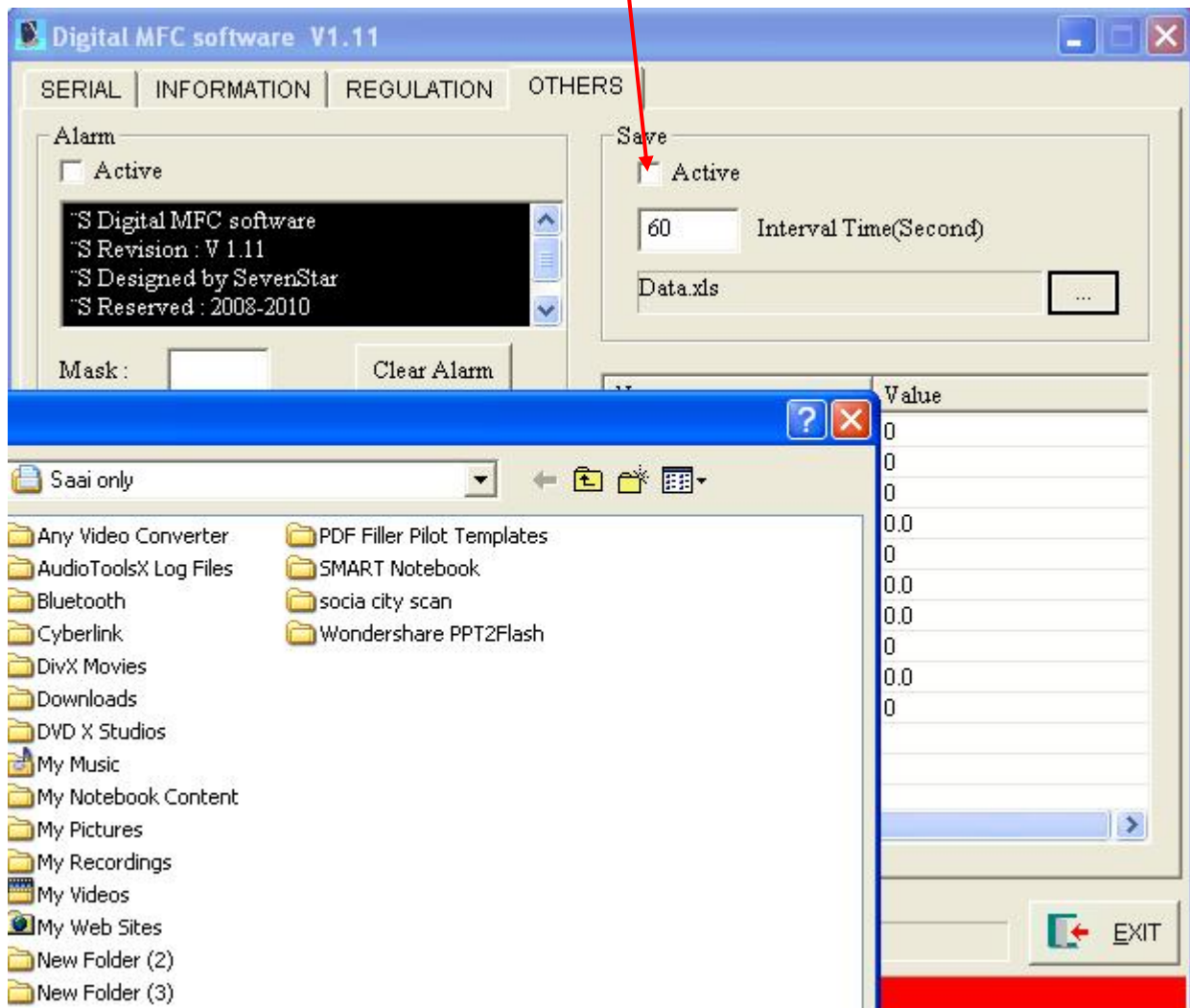
## Function:

1. Read accumulate flow
2. Reset accumulate flow



## Profile Saving

Activate to monitor the set



### Function:

1. Active saving
2. Set the interval time of recording
3. Set the saving path



## Others

The screenshot shows the 'Digital MFC software V1.11' window with the 'OTHERS' tab selected. The interface includes sections for Alarm, Save, Limited, and Accumulate. A table of parameters is highlighted with a red circle, and a red arrow points from a text box below to the table's scrollbar.

Name	Value
Delay	0
FullScale	0
Zero Constant	0
Target Null Value	0.0
ValveVoltage(OnlyRead)	0
ShutoffLevel	0.0
Softstart Rate	0.0
Temperature(OnlyRead)	0
Conversion Factor	0.0
Valve Mode	0

Error: There is no responding from the device

Right click on the panel to send/receive data

### Function:

1. Receive and sent data

Delay	Represent from zero to current setting. (ms)
Full Scale	Adjustable range from 30% sccm to 100% sccm
Zero Constant	Clear "saved zero point value".
Target Null	Customize the current additional value.
Valve Voltage	Read only, current voltage of valve
Shutoff Level	Shut off below this setting value
Soft Start Rate	Increasing percentage per second. Example: SoftStartRate=10,if the current setting is 100%,increasing rate will be 10% per second. Will reach 100% after 10 seconds.
Temperature	Sensor Temperature
Conversion	Gas conversion factor
Valve Mode	"0" represent STEC mode. "1" represent SEMI mode, "2" represent Sevenstar mode