



FT2 View Instruction Manual

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Introduction:

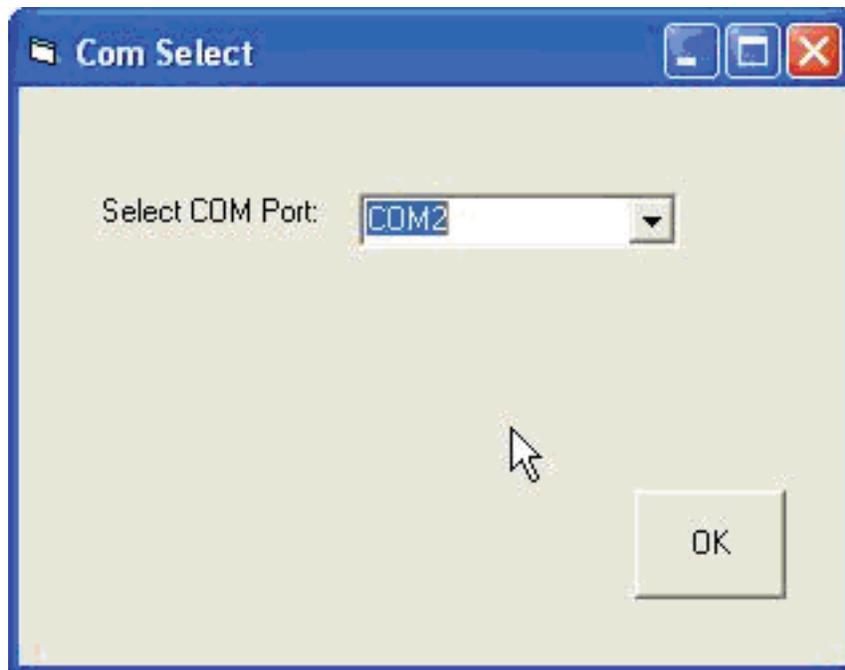
The FT2 View application software is a program that runs on a PC and communicates with a Fox FT2 Thermal Mass Flowmeter.

Installation:

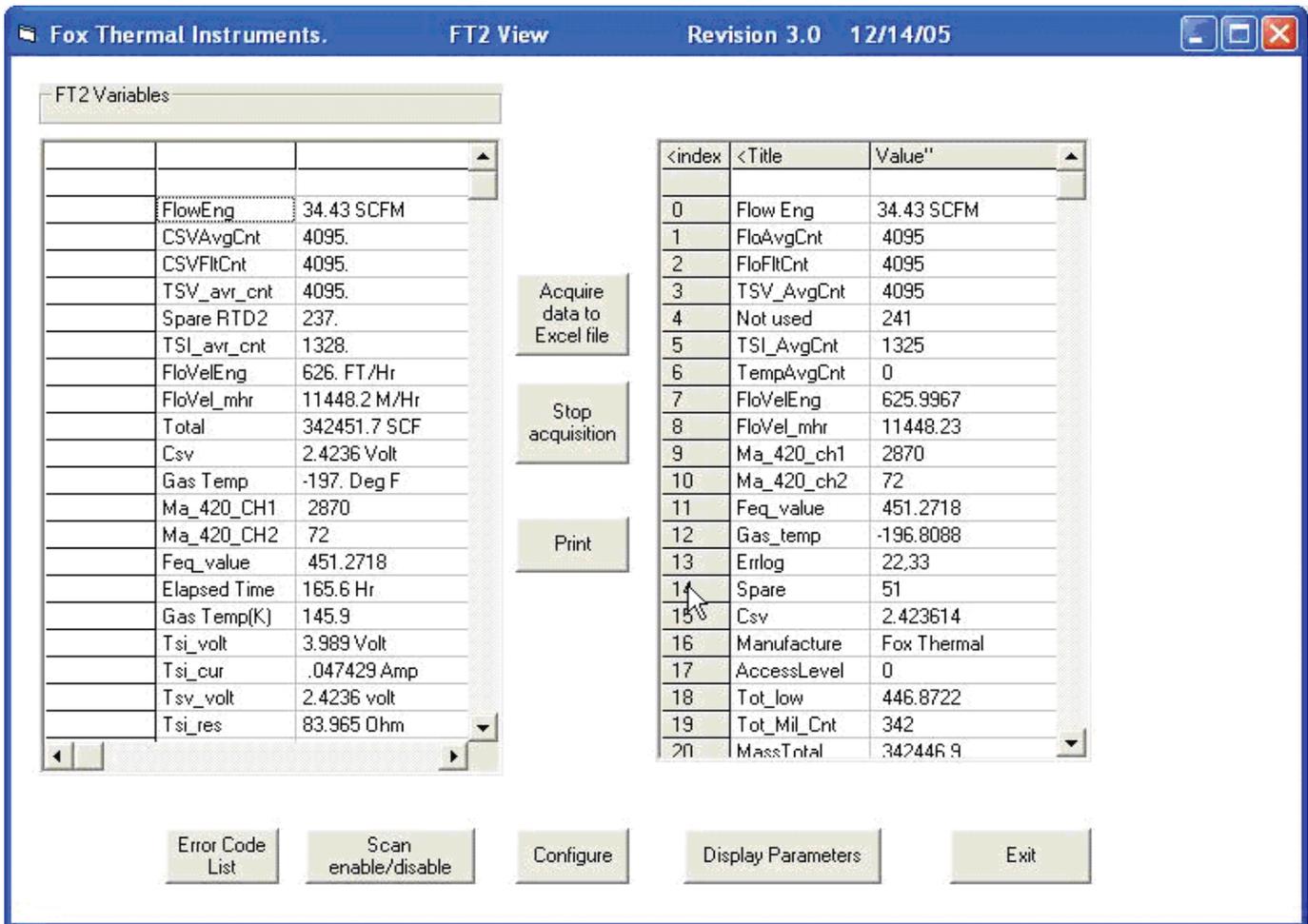
Run the setup.exe that is located on the FT2 View CD and follow the instructions.

Operation:

Connect a RS232 DB9 cable from the FT2 RS232 serial port located on the inside of the FT2 transmitter and a serial port of a PC. The serial cable must be a null modem cable or use a null modem DB9 adapter.



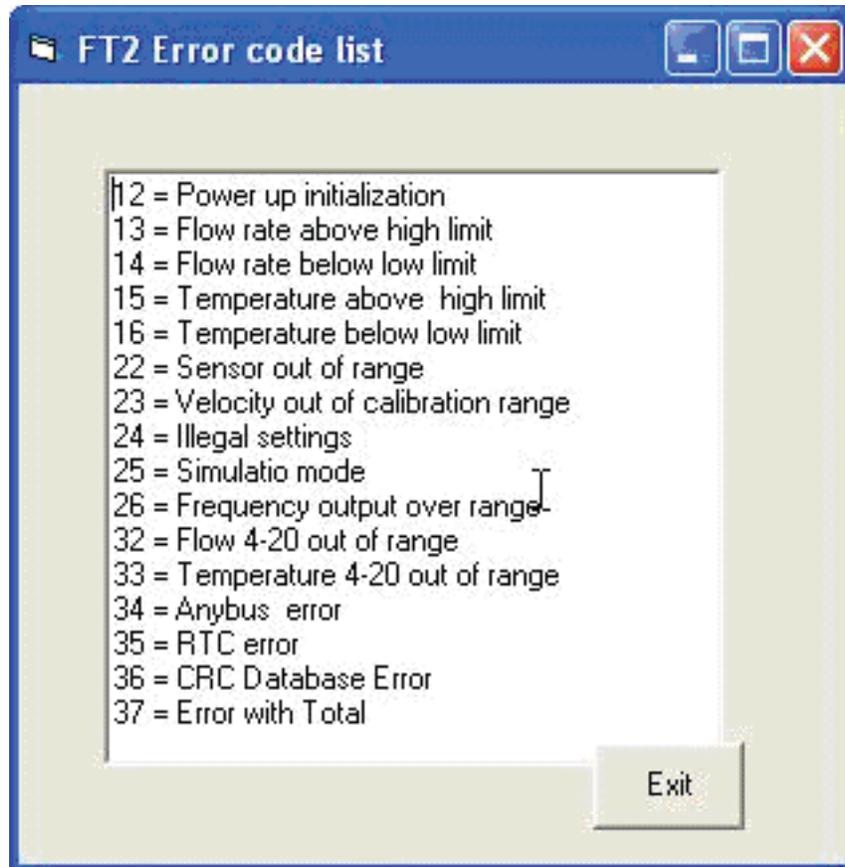
Run the application by clicking on FT2_View.exe and select the Communication port used when prompted by using the drop down menu and press OK.



The above FT2 view screen is displayed. The right side displays all of the FT2 parameters and is scanned once upon entering the program. Refresh of the data can be accomplished by clicking on the "Display Parameters" button.

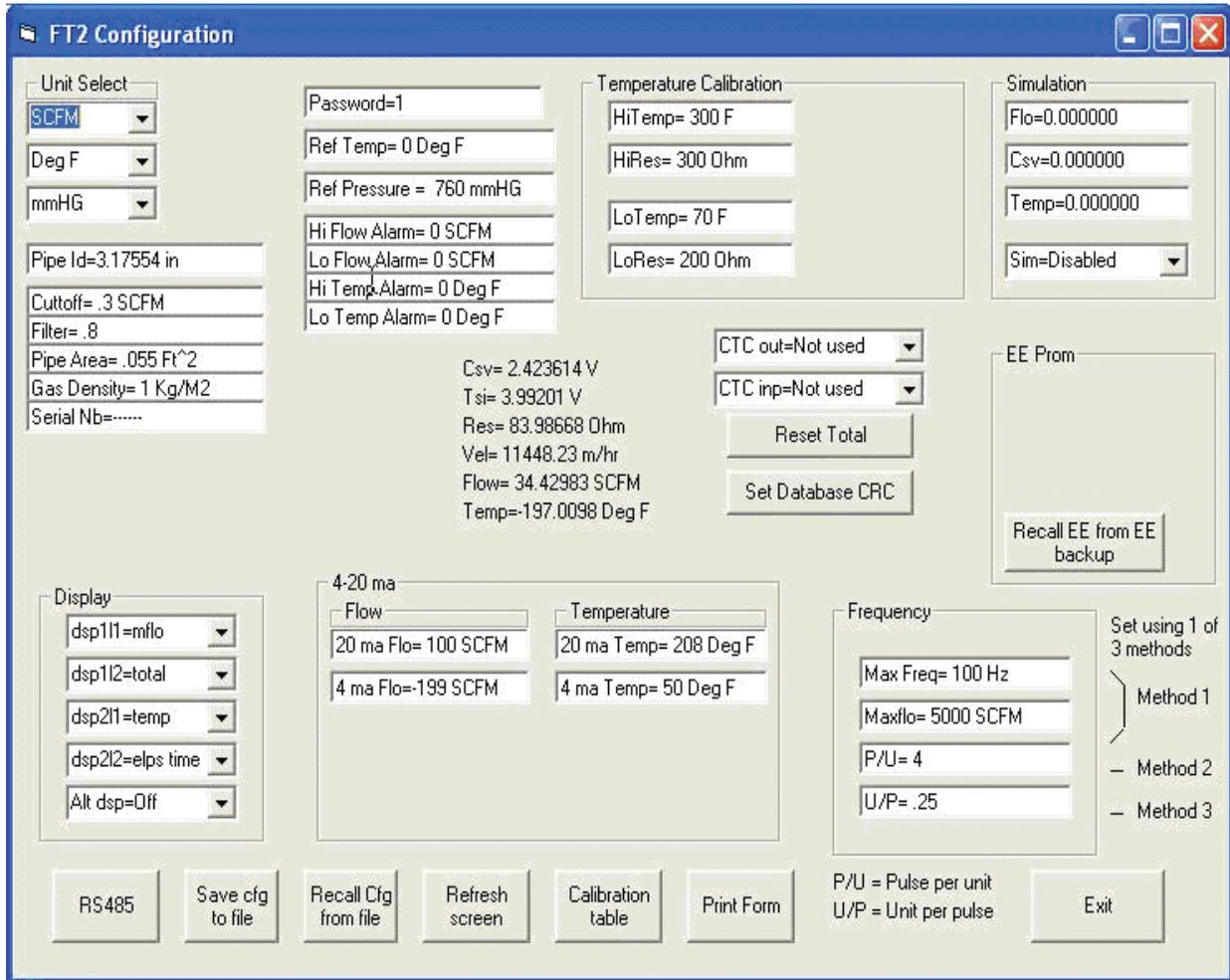
The left side displays FT2 variables and is automatically refreshed about once a second.

The "Error Code List" button enables the user to display a list of error codes and their descriptions.



The “**Scan Enable/Disable**” button allows the user to stop and start the data scanning.

The “**Configure**” button* allows the user to enter a sub-menu to permit FT2 parameters settings and display. A password will be requested to access different levels of parameters protection.

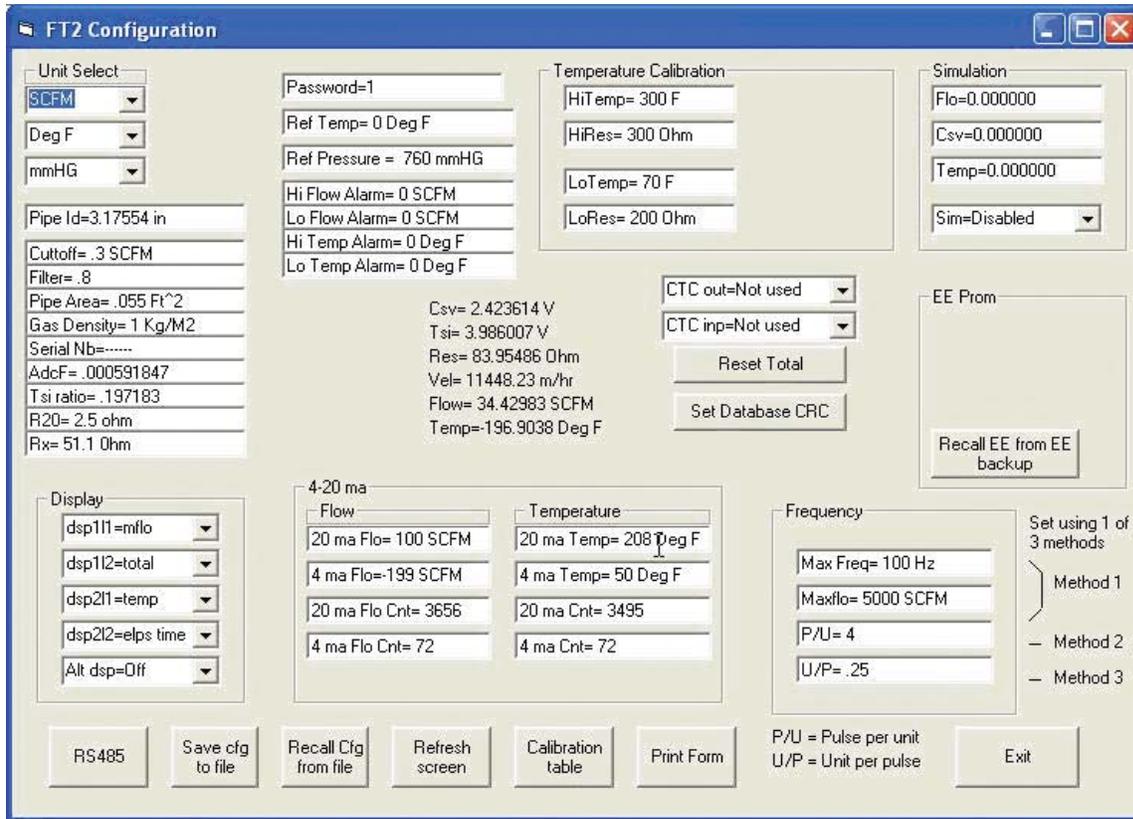


“Acquire data to Excel file” button is use to save specified data at a requested time interval to an Excel spreadsheet. The “Stop Acquisition” button is clicked to terminate data collection.

* Please note that the “Configure” button will be visible only after communication has been established with the FT2.

Configure Menu:

After pressing the “Configure Menu” button, a screen will prompt the user to enter a password that will allow access to some or all parameters. After entering the password (1234 for most parameters), the “Configure Menu” button will flash with “Please Wait” until the program has acquired all the parameters from the FT2 and displays them on the screen.



- The display section allows programming of the display 1 & 2 of the local display.
 Dsp111 is for display 1 line1.
 Dsp112 is for display 1 line 2.
 Dsp211 is for display 2 line 1.
 Dsp212 is for display 2 line 2.
- The 4-20 mA section allows programming of the two 4-20 mA outputs for flow rate and temperature. The “20mA Flo” is the flow rate corresponding to the 20 mA and the “4 mA Flo” is the flow rate corresponding to the 4 mA. “20 mA Temp” and “4 mA Temp” are settings for gas temperature.

The “20 mA flo cnt” and the “4 mA flo cnt” are the calibration settings and should not be changed unless the output is out of specification.

The “20 mA Temp cnt” and “4 mA Temp cnt” are for the output associated with temperature.

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The frequency section allows the programming of the pulse output associated with flow rate. Three methods are provided to accomplish this. The first method is by setting the maximum flow rate and corresponding frequency output (frequency may not exceed 100 hz), the second method is by setting the number of pulses per flow rate unit (i.e. 10 pulses per SCF) and the third is by setting the total unit per pulse (i.e. 10 SCF per pulse).

The Temperature calibration section allows the user to modify the temperature calibration factors but should not be modified unless the temperature reading is out of calibration.

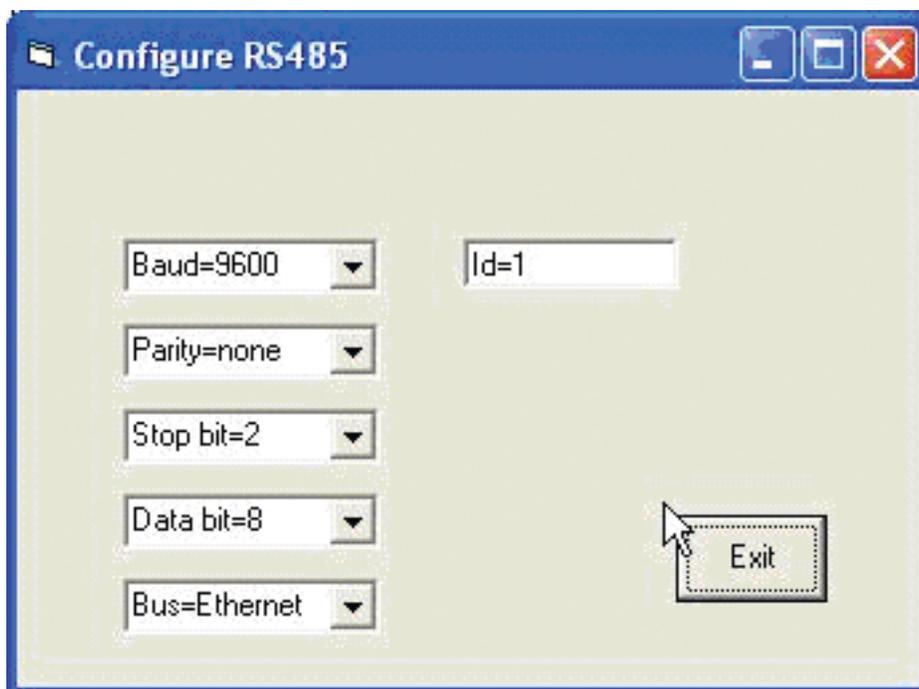
“CTC out” allows the programming of the digital output as an alarm indicator for exceeding a certain threshold for flow rate or temperature.

“CTC inp” allows the programming of a contact input to reset the totalizer.

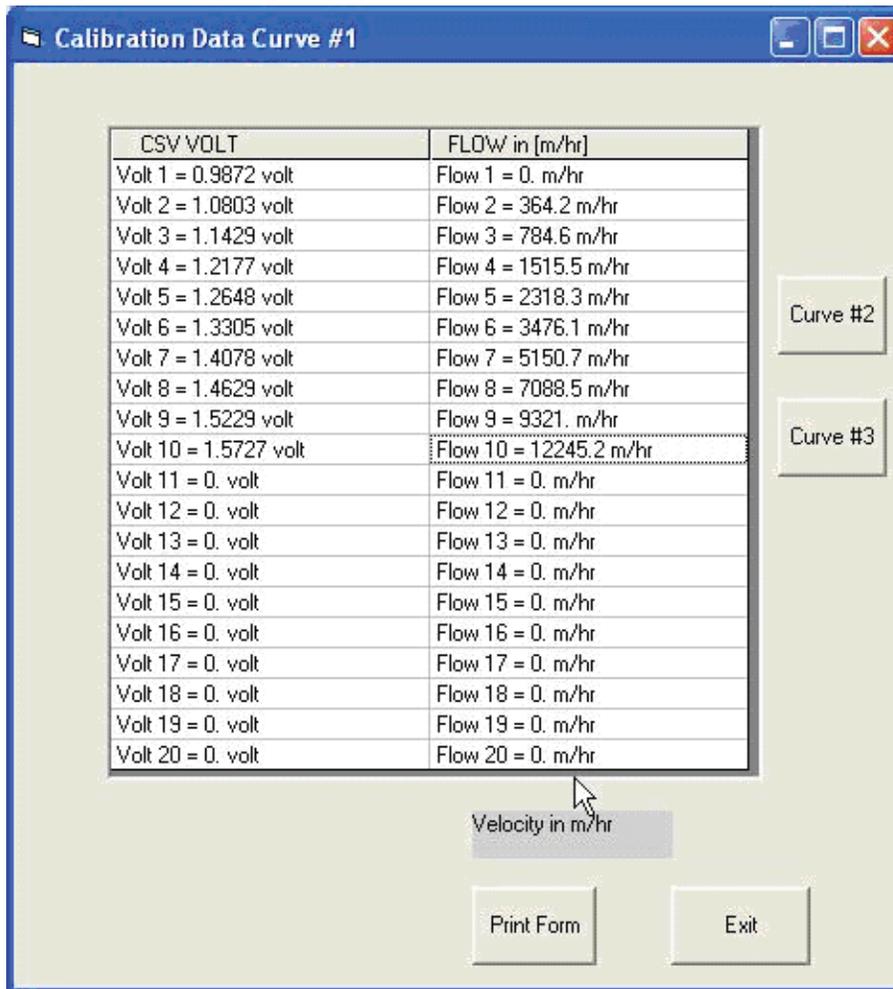
“Set Database CRC” buttons allows the user to reset the CRC associated with critical data in the event an error has been detected. All critical data need to be verified before resetting the CRC to avoid operating with corrupted data.

“Recall EE from EEBackup” is used to recall default parameters set at the factory when the unit was calibrated. A switch on the FT2 circuit board needs to be activated before performing this function.

- “RS485” button allows the user to configure the RS485 serial port and bus type. The RS485 settings apply only if the bus type selected is for the Modbus.



- “Save cfg to file” is used to save all the settings to a data file.
- “Recall cfg from file” is used to recall the settings from a file.
- “Refresh screen” is used to refresh the all the parameters on that screen.
- “Calibration table” button allows access to the flow calibration tables.
- “Print Form” allows the user to print the page.



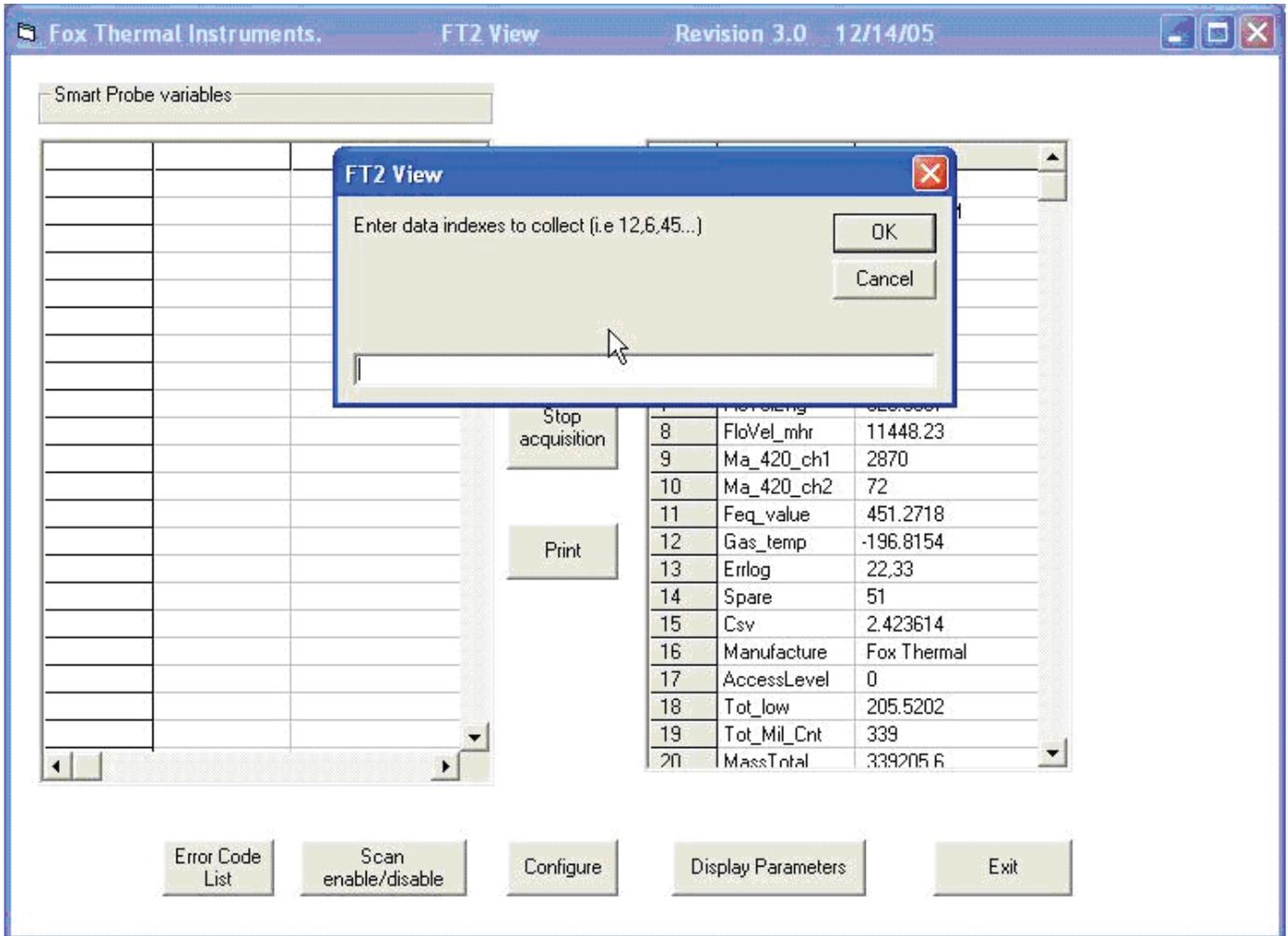
- “Reset Total” button is used to reset the FT2 total.
- “Set database CRC” is used to re-calculated the CRC associated with some of the critical parameters. This would be done to clear a “Database CRC Error” after verifying that all the critical database parameters are accurate.
- “Recall EE from EE backup” is used to recall the manufacture default setting that were shipped with the product.

Simulation Mode

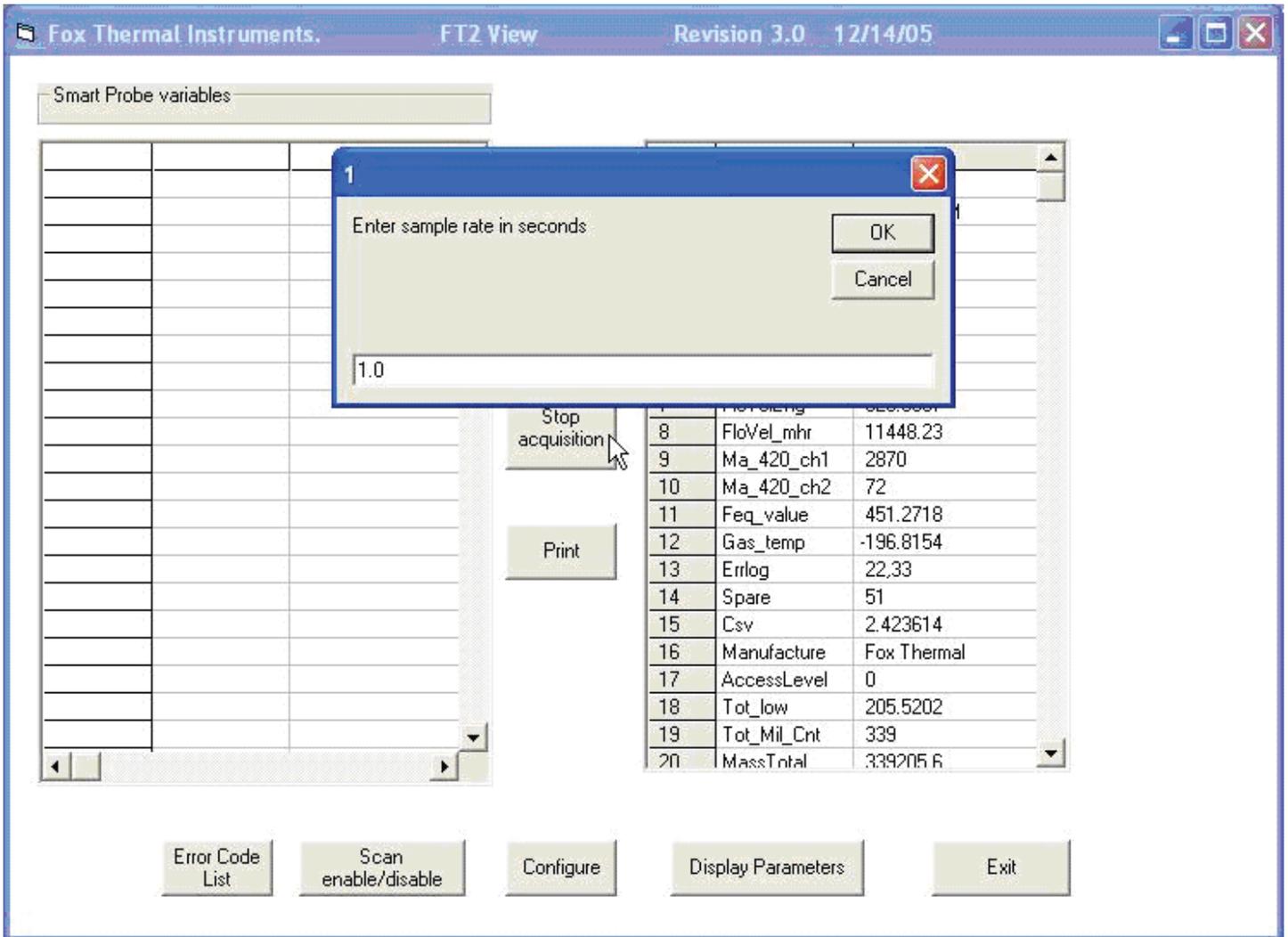
Flow rate, Temperature and sensor sense voltage can be simulated by clicking on the respective display box, entering new values and then selecting Sim=Enable. The Simulation message will be displayed on the FT2 local display every 10 seconds when operating in that mode. After a power cycle, the simulation mode will be automatically disabled. Select SIM = disabled to shut off simulation mode.

Data Acquisition to Excel File

After selecting “Start Acquisition to Excel File” button, a box will prompt the user to enter a list of data index to collect the data.



Please refer to the Thermal Mass Flowmeter & Temperature Transmitter RS232 Message Protocol for data index codes. Data index should be separated with commas. Next a box will prompt the user to enter the sample interval time in seconds and then the file name.



The program will collect the data to the Excel file at specified rate and save it to disk every 30 seconds until stopped by pressing the “Stop Acquisition” button.