

18 PC Logging

The PC Logging tab displays the current status information with regard to logging sap flow data directly to a computer. If no logging functions have been selected using the File menu then this tab will simply state that logging is disabled. As with logging data to the MicroSD card of the SFM1 Sap Flow Meter there are two data formats available: Log Incoming Reporting Option Data or Log Temperatures.

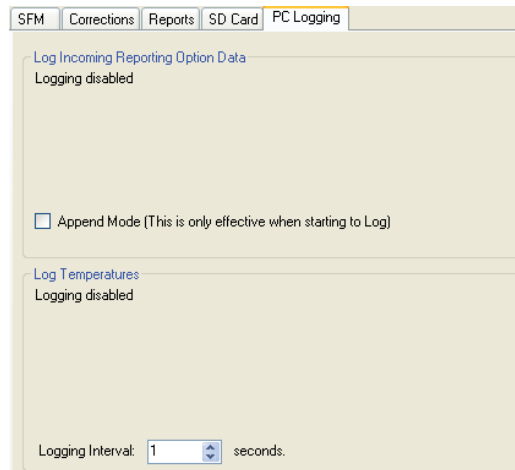
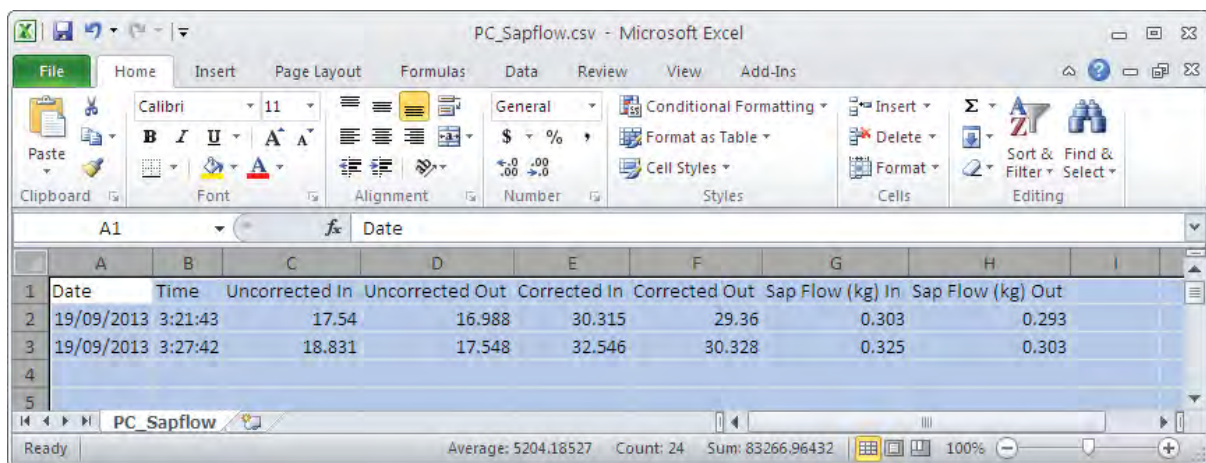


Figure 99: Inactive PC Logging Tab.

18.1.1 Log Incoming Reporting Option Data

The Log Incoming Reporting Option Data will record the basic parameters; Sap Velocity & Sap Flow for both Inner & Outer measurement points. Each data point is Date & Time Stamped and corresponds with the same parameters in the main data file as logged to the MicroSD card, if one is inserted into the SFM1. If no MicroSD card is inserted then only one file, PC_Sapflow.csv, will be logged directly to the computer.



	A	B	C	D	E	F	G	H	I
1	Date	Time	Uncorrected In	Uncorrected Out	Corrected In	Corrected Out	Sap Flow (kg) In	Sap Flow (kg) Out	
2	19/09/2013	3:21:43	17.54	16.988	30.315	29.36	0.303	0.293	
3	19/09/2013	3:27:42	18.831	17.548	32.546	30.328	0.325	0.303	
4									
5									

Figure 100: Example sap flow data logged direct to a PC_Sapflow.csv file on the computer.

18.1.1.1 Log Incoming Results – Start

To commence logging Sap Flow Data to the computer begin by accessing the File menu and select Log Incoming Results, expand this menu option and click Start. A MS Windows® Explorer “Save As” window automatically loads providing a choice of directories to save the data file to. The Default location is C:\Program Files\ICT\ICT SFM\ This directory can be changed to a user defined storage location if preferred.



Figure 101: The Menu sequence required to start Logging Incoming Sap Flow data direct to the computer.

Once logging had begun, the data file will continue to increase in size as new data is logged at the user defined logging interval. The logging interval is set in the [Measurement Mode](#) drop down menu of the Measurement Control Section of the SFM software. The Log Incoming Reporting Option Data section of the PC Logging Tab will keep a live summary of the number of values logged to the file name as chosen by the user. The file name will be displayed complete with the full directory path to ensure the file is easily found.

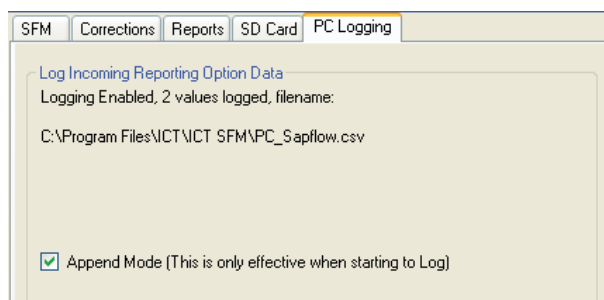


Figure 102: A summary of the sap flow mode reporting option data that has been logged direct to a computer.

18.1.1.2 Append Mode

Note that the “Append Mode” can be selected to ensure that if a new logging session is resumed using an existing log file name, a new header will be placed in file at the end of the previous list of records to demarcate subsequent records that are appended to the existing file.

WARNING 20 - Failure to select “Append Mode” without renaming the log file will simply overwrite the contents of the existing log file.

18.1.1.3 Log Incoming Results – Stop

To cease logging sap flow data to the PC_sapflow.csv file direct to the computer, open the File Menu, open the Log Incoming Results option and click Stop. All logging to this data file will stop.

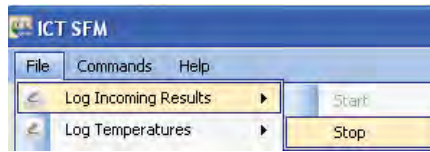
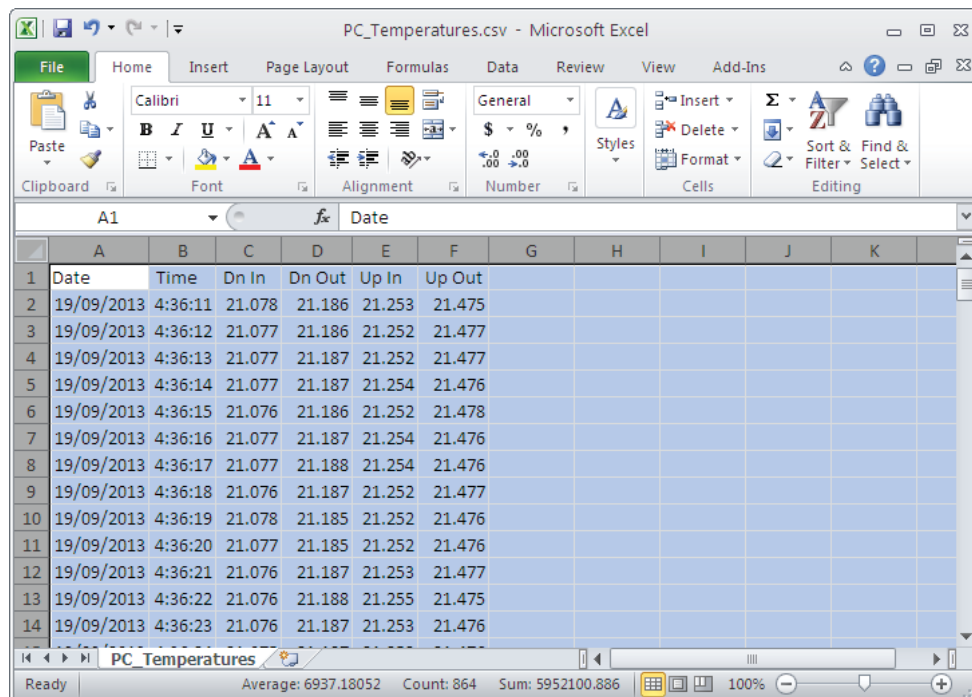


Figure 103: The expanded File Menu option sequence to stop logging sap flow data to the computer.

18.1.2 Log Temperatures

When the SFM1 is configured to [Needle Temperature](#) mode the Raw Temperatures will be logged direct to a PC_Temperatures.csv file. Once again the data will be a duplicate of the Needle Temperature reporting mode and all settings are configured through the [Raw Temperature](#) mode of the [SD Card Logging Options](#) tab.

The image shows a Microsoft Excel spreadsheet titled 'PC_Temperatures.csv'. The spreadsheet has a header row with columns labeled 'Date', 'Time', 'Dn In', 'Dn Out', 'Up In', and 'Up Out'. Below the header, there are 14 rows of data, each representing a timestamp and corresponding temperature readings. The status bar at the bottom shows 'Average: 6937.18052', 'Count: 864', and 'Sum: 5952100.886'.

	A	B	C	D	E	F	G	H	I	J	K
1	Date	Time	Dn In	Dn Out	Up In	Up Out					
2	19/09/2013	4:36:11	21.078	21.186	21.253	21.475					
3	19/09/2013	4:36:12	21.077	21.186	21.252	21.477					
4	19/09/2013	4:36:13	21.077	21.187	21.252	21.477					
5	19/09/2013	4:36:14	21.077	21.187	21.254	21.476					
6	19/09/2013	4:36:15	21.076	21.186	21.252	21.478					
7	19/09/2013	4:36:16	21.077	21.187	21.254	21.476					
8	19/09/2013	4:36:17	21.077	21.188	21.254	21.476					
9	19/09/2013	4:36:18	21.076	21.187	21.252	21.477					
10	19/09/2013	4:36:19	21.078	21.185	21.252	21.476					
11	19/09/2013	4:36:20	21.077	21.185	21.252	21.476					
12	19/09/2013	4:36:21	21.076	21.187	21.253	21.477					
13	19/09/2013	4:36:22	21.076	21.188	21.255	21.475					
14	19/09/2013	4:36:23	21.076	21.187	21.253	21.476					

Figure 104: Example Raw Temperature data logged directly to a PC_Temperatures.csv file on the computer.

18.1.2.1 Log Temperatures – Start

To commence logging Raw Temperatures to the computer begin by accessing the File menu and select Log Temperatures, expand this menu option and click Start. A MS Windows® Explorer “Save As” window automatically loads, providing a choice of directories to save the data file to. The Default location is C:\Program Files\ICT\ICT SFM\ This directory can be changed to a user defined storage location if preferred.



Figure 105: Start Log Temperatures function to record raw temperatures to a file on the computer.

18.1.2.2 Set Logging Frequency

Once logging, the data file will continue to increase in size as new data is logged at the user defined logging interval set via the [Measurement Mode](#) drop down menu of the Measurement Control Section of the SFM software. The Log Temperatures section of the PC Logging Tab will keep a live summary of the number of values logged to the file name as chosen by the user. The file name will be displayed complete with the full directory path to ensure the file is easily found.

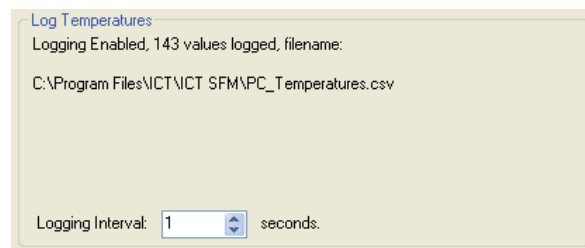


Figure 106: Log Temperatures summary info on the SD Card tab.

18.1.2.3 Log Temperatures – Stop

To cease logging Temperatures to the PC_Temperatures.csv file direct to the computer drop down the File Menu, expand the Log Temperatures option and click Stop. All logging to this data file will stop.

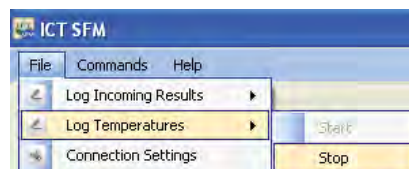


Figure 107: Stop Log Temperatures function to end the recording of raw temperatures to a file on the computer.