



**Data Logging Measurement System
with SMART SENSOR TECHNOLOGY™**

SCORPION® Software Version 8 (SV8)

Filled with customer-driven user-friendly enhancements, collected over years of input from SV7 Users, **SCORPION® Software Version 8 (SV8)** takes data analysis to a whole new level. Developed specifically to support the new SCORPION® 2 hardware, SV8 also maintains compatibility

and can be used with the older SCORPION® data loggers dating back to 1990. While significantly enhanced, it retains traditional on screen displays so that existing SV7 Users can easily transition to SV8 without having to relearn the data analysis/interpretation process.

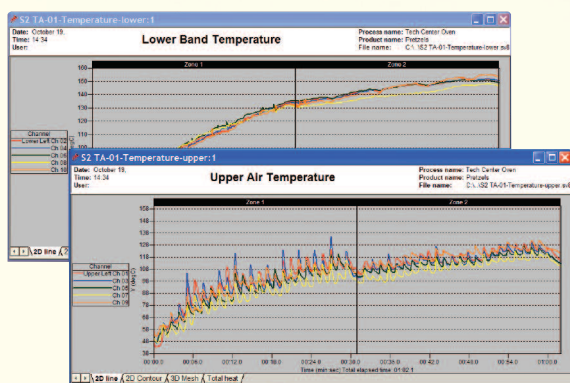
Data Download – choose one or several profiles to be Downloaded from the data logger. Edit profile “Start” and “Finish” times, enter File Names, add Notes and assign Process Information.

Run #	Date	Time	Start	Finish	Smart Sensor Type	Download	File Name	Notes	Process Info
1	03/29/11	10:21:14	00:00:13.0	00:48:51.8	Prod. Probe, Heat Flux	<input checked="" type="checkbox"/>	Line 5	Under Full Product Load	✓
2	04/04/11	09:36:56	00:00:00.0	00:00:01.8	Prod. Probe	<input type="checkbox"/>			
3	04/04/11	09:37:12	00:00:25.0	00:00:45.5	Prod. Probe	<input checked="" type="checkbox"/>	Line 7	High Speed Test	✓
4	04/08/11	16:21:36	00:00:00.0	00:00:08.0	Prod. Probe	<input type="checkbox"/>			
5	04/08/11	16:23:13	00:00:00.0	00:00:12.0	Prod. Probe	<input type="checkbox"/>			
6	04/08/11	16:24:31	00:00:04.0	00:00:12.0	Temp, Prod. Probe	<input checked="" type="checkbox"/>	Line 9	No Product	✓

User: R. J. Starke

Download Selected Assign Process Info

Cancel Erase All Profiles Remove Process Info



2D Line Graphs

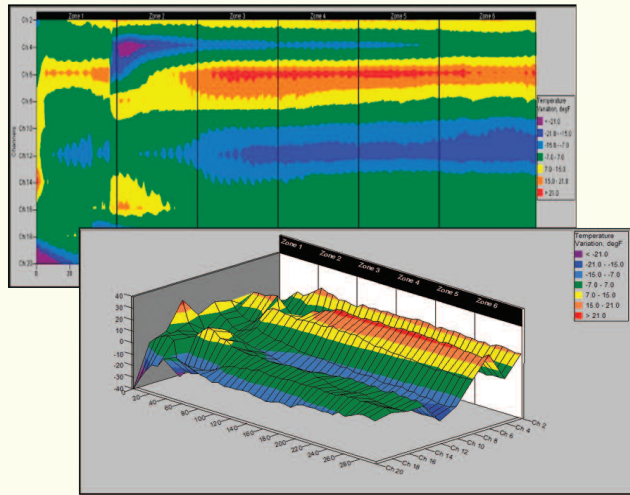
Each profile appears in its own SV8 window for analysis. Temperature Sensor Array data (containing upper and lower measurements) is automatically separated and displayed in upper and lower graphs.

DATA COLLECTION

ANALYSIS

PROBLEM SOLVING

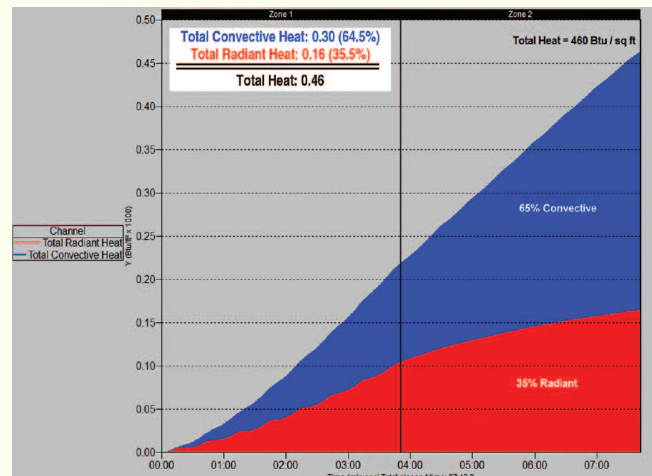
2D Contour Graph



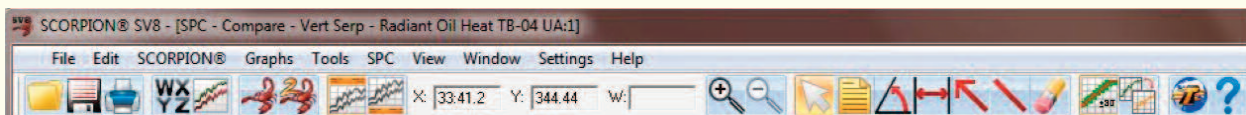
3D Mesh Graph

The Heat Flux Sensor measures the Total Heat experienced by the product and is conveniently displayed in the **Total Heat Graph**. The convective and radiant percentages are automatically calculated and displayed on the graph.

Data Analysis – the click of a button transforms 2D Line Graphs into 2D Contour or 3D Mesh Graphs for enhanced data analysis.



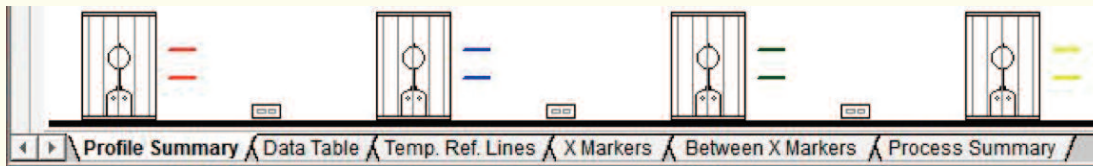
Total Heat Graph



	File Open		Zoom In
	File Save		Zoom Out
	Print		No Tool
	Graph Axis		Add Notes to Graph
	Graph Format		Slope Measurement
	SCORPION® Connect		Measure
	SCORPION® 2 Connect		Draw Arrow
	Header		Draw Line
	Footer		Erase
X: 00:33.8	Arrow X Axis Value		SPC Compare
Y: 100.14	Arrow Y Axis Value		Overlay Profiles
W: 53.61	Arrow W Axis Value		Reading Thermal Website
			Electronic User Guide

SV8 Toolbar – provides easy access to the major features of the software.

Additional Features are easily accessed with “Footer Tabs”:

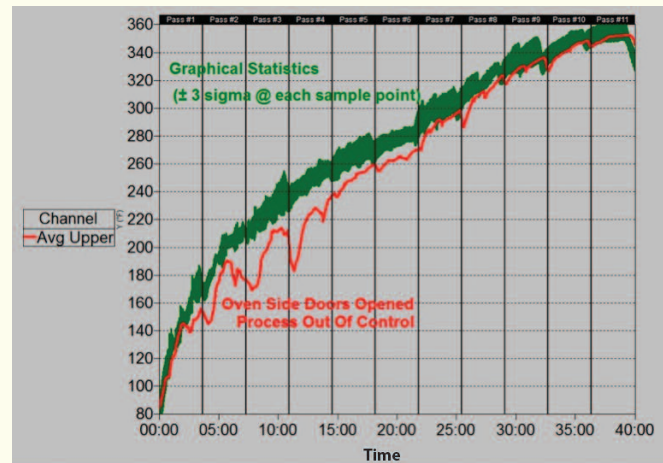


- **Profile Summary:** a complete description of the profile including time and date, scan rate, user name, sensor used, data logger used, maximum internal temp reached by the data logger, calibration dates of data logger and sensor and start/finish data trimming capability.
- **Data Table:** raw data collected by the data logger which can be exported to other programs.
- **Temp. Ref. Lines:** display channel time and average temp between four temp reference lines. Used in Food Safety applications to calculate % Kill.
- **X Markers:** display channel values at four X axis positions.
- **Between X Markers:** display channel minimum, maximum and average values between four X axis positions.
- **Process Summary:** a complete description of the process being profiled including process name, product name, equipment type, conveyor type, number of zones and zone lengths.



Advanced Features built into SV8 include:

- **Units of Measure:** work in SI (°C, m) or US (°F, ft)
- **Calibration Reminders:** remind the user when data logger and sensor calibrations are due.
- **Data Trimming:** easily trim the profile data “start” and “finish” times, before or after download, without editing the raw data table. Start and finish times are entered as hh:mm:ss.
- **Overlays:** profiles of the same and different type can be overlaid on the same graph. For example a temperature profile can be overlaid on an air velocity graph.
- **Averages:** averages can be created for a specific data set and overlaid data sets. Averages-of-averages can also be created.
- **Cursor Display:** on screen display of x, y and w data values as the cursor arrow is moved over a graph.
- **X Axis Display:** display time, distance (ft / m) or percent travel through the process.
- **Help:** easy to use electronic manual.
- **Graphical SPC:** graphical statistical process control available with all sensors.



SPC Graph

Data Logger Compatibility

SV8 Communicates with all previous SCORPION® Data Loggers. It supports the simultaneous use of a SCORPION® 2 Data Logger and an older SCORPION® Data Logger. Each has its own toolbar button for communication, allowing users with mixed hardware to use a single software program.

Data Compatibility

Opens all previous profile data collected with SV5, SV6 or SV7.

System Requirements

Windows XP / Windows 7, 32 or 64bit
1Gb RAM
1Gb free hard disk space
1 free USB 2.0 port
17" or larger color display
Color Printer



READING THERMAL