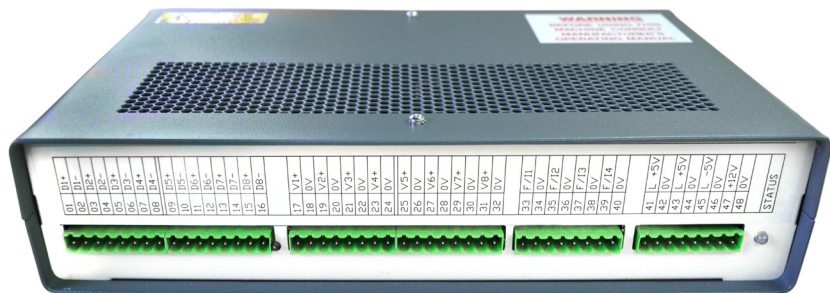


➤ World leading supplier of engineering teaching equipment

D103 Hilton Data Logging System



The Hilton Data Logging System (HDL) is a pre-configured menu driven Software supplied with the relevant hardware upgrade allowing all recommended experiments involving the electronic transducers and instruments on the base unit to be carried out with the aid of computerised data acquisition, data storage and on-screen data presentation.

This enhances student interest and speeds comprehension of the principles being demonstrated.

Students are presented with either raw data for later hand calculation or alternatively data may be transferred to most spreadsheets for computerised calculation and graphical presentation.

Data may be stored and/or displayed at any time using the software supplied. Alternatively data may be transferred to any compatible spreadsheet together with individual time and date stamp on each reading for more complex analysis.

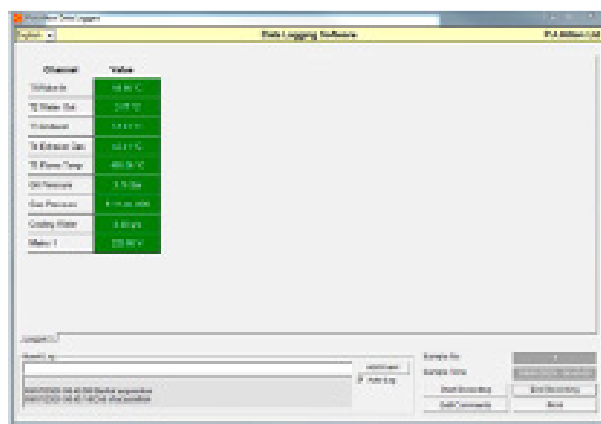
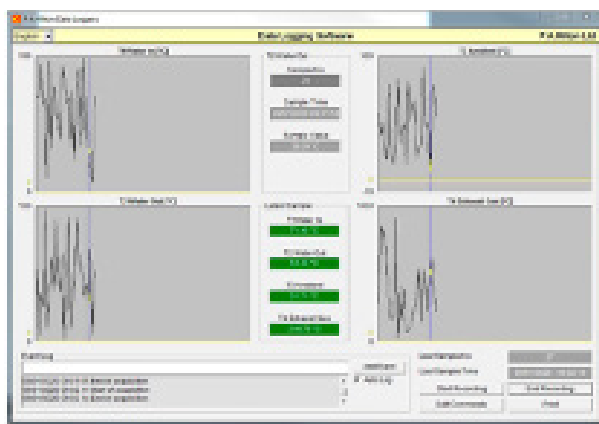
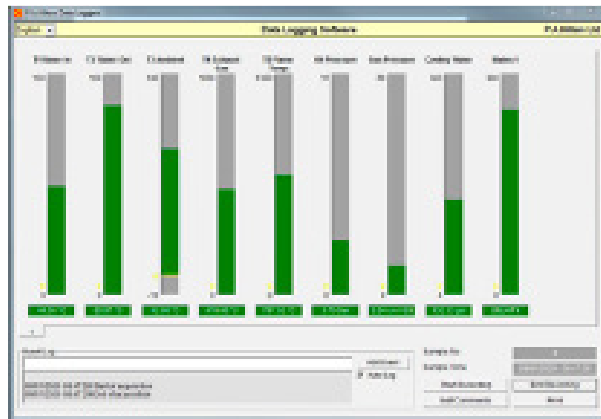
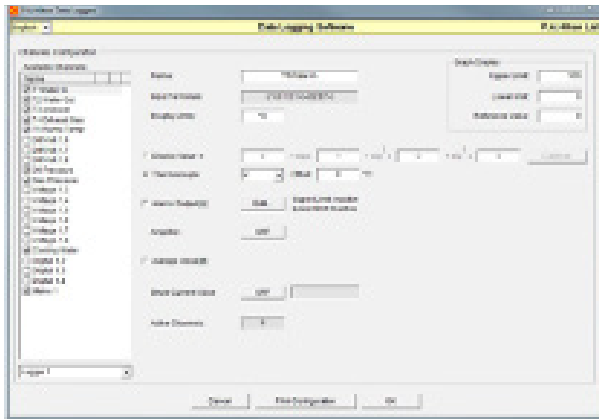
Please Note: that different experimental hardware uses different data logging configuration and set-up files specific to that set of experiments and it is strongly recommended referring to the set-up manual before undertaking any experimentation.

Learning capabilities

Data Acquisition will allow students to quickly and accurately collect and record information for further review and analysis using proprietary spreadsheets etc.

- Proven 21 channel interface with 8 thermocouples (type T and K as standard) / differential voltage inputs ($\pm 100\text{mv DC}$).
- Eight single ended DC voltage inputs ($\pm 8\text{v}$)
- Four logic or frequency inputs
- One mains voltage input.
- On board 12v DC, $\pm 5\text{V DC}$ and where necessary an optional $\pm 15\text{v DC}$ power supplies for most commercially available transducers.

Sample graphical representation (may differ unit to unit)



Experimental configuration of each set-up

	C492/230/A/CC	C492/230/B/CC	C492/230/A/B/CC	C492/115/A/CC	C492/115/B/CC	C492/115/A/B/CC	F300/115/FC	F300/230/FC	F860/115/FC	F860/230/FC	F865/220/FC	F865/415/FC	H050/115/HC	H050/230/HC	H050A/000/HC
A660/415/AC															
A660/415/C/AC															
A660/220/AC															
A660/220/C/AC															
Fan Inlet Dry °C	Water In °C	Air Inlet °C	Compressor Air In °C	Air Inlet °C	Temp °C										
Fan Inlet Wet °C	Water Out °C	Air Outlet °C	Compressor Air Out °C	Air Outlet °C	Chamber Pressure										
Pre-Heat Dry °C	Ambient °C	Torque	Ambient °C	Air Into Hp °C	Oil Height										
Pre Heat Wet °C	Exhaust Gas °C	Air Flow	Motor Force	Air Hp Out °C											
Cooling Dry °C	Flame °C	Inlet Pressure	Suction Px	Water Inlet °C											
Cooling Wet °C	Oil Pressure	Turbine Speed	Orifice Plate	Water Outlet °C											
Reheat Dry °C	Gas Pressure	Supply Volts	Compressor Amps	Discharge Px											
Reheat Wet °C	Cooling Water Flow		Compressor RPM	High Px											
Return Dry °C	Supply Volts		Discharge Px	Orifice Differential Px											
Return Wet °C			Supply Volts	Motor Volts											
Fresh Dry °C				Motor Amps											
Fresh Wet °C				Compressor RPM											
Evap Out °C				Water Flow											
Cond In °C				Supply Volts											
Cond Out °C															
Compressor Amps															
1st Reheat 1kW															
2nd Reheat 1kW															
1st Preheat 1kW															
2nd Preheat 1kW															
Evaporator Px															
Condensor in Px															

H102/115/HC H102/230/HC	H102E/HC	H102G/HC	H102K/HC	H112/115/HC H112/230/HC	H112E/HC	H112M/115/HC H112M/230/HC
Hot Water Outlet °C	Hot Water Outlet °C	Hot Water Outlet °C	Liquid Temp °C	Module Temp °C	Module Temp °C	Steam °C
Hot Water Return °C	Module Temp °C	Hot Water Return °C	Surface °C	Module Temp °C	Module Temp °C	Throttle °C
Cold Water Outlet °C	Module Temp °C	Cold Water Outlet °C	Water Inlet °C	Module Temp °C	Module Temp °C	Steam Pressure
Cold Water Return °C	Module Temp °C	Cold Water Return °C	Water Outlet °C	Module Temp °C	Module Temp °C	
Cold Water Flow	Module Temp °C	Intermediate °C	Chamber Pressure	Module Temp °C	Module Temp °C	
Hot Water Flow	Module Temp °C	Intermediate °C	Cold Water Flow	Module Temp °C	Module Temp °C	
Supply Volts	Module Temp °C	Intermediate °C	Supply Volts	Module Temp °C	Module Temp °C	
Module Temp °C	Module Temp °C	Intermediate °C		Module Temp °C	Module Temp °C	
Module Temp °C	Module Temp °C	Cold Water Flow		Module Temp °C	Ambient °C	
Module Temp °C	Module Temp °C	Hot Water Flow		Module Temp °C	Input Volts	
Module Temp °C	Module Temp °C	Intermediate °C		Module Temp °C	Input Amps	
Module Temp °C		Intermediate °C		Module Temp °C	Supply Volts	
Module Temp °C		Intermediate °C			Air Velocity	
Module Temp °C		Intermediate °C			Input Volts	
Module Temp °C		Supply Volts			Input Amps	
Module Temp °C					Water Flow	
Module Temp °C					Supply Volts	
Module Temp °C					Radiometer	
Module Temp °C					Luxmeter	

H112N/115/HC H112N/230/HC	H112R/115/HC H112R/230/HC	H112S/115/HC H112S/230/HC	H352/115/HC H352/230/HC	H656/115/HC H656/230/HC	H694/115/HC H694/230/HC
Hot Plate °C	Heater °C	Surface °C	Heat Surface °C	Surface °C	Heater Temp °C
Cold Plate °C	Heat Sink °C	Liquid °C	Ambient Air °C	Liquid °C	Bed Temp °C
Cooling Water °C	Torque	Vapour °C	Pin 1st °C	Vapour °C	Air in °C
Heat Flow Meter	Input Volts	Water Inlet °C	Pin 2nd °C	Water Inlet °C	Heater Power
HFM High Range	Input Amps	Water Outlet °C	Pin 3rd °C	Water Outlet °C	Bed Pressure mm/Wg
Supply Volts	RPM	Chamber Pressure	Fin 1st °C	Chamber Pressure	Air Flow L/min
	Supply Volts	Input Voltage	Fin 2nd °C	Heater power	Supply Volts
		Input Amps	Fin 3rd °C	Water Flow	
		Water Flow	Input Volts	Supply Volts	
		Heater Power	Depression		
			Hot Water Flow		
			Supply Volts		

H814/115/HC H814/230/HC	H893/115/HC H893/230/HC	H893E	H911/115/HC H911/230/HC	H953/115/HC H953/230/HC	H981/115/HC H981/230/HC
Wet Bulb °C	Air Dry In °C	Air Dry In °C	Saturation °C	Tube In °C	Low mV
Dry Bulb °C	Air Wet In °C	Air Wet In °C	Drop Surface °C	Tube Out °C	Platinum °C
Supply Volts	Air Dry Out °C	Air Dry Out °C	Water Inlet Drop °C	Hot In °C	Thermister °C
	Air Wet Out °C	Air Wet Out °C	Water Outlet Drop °C	Hot Mid_1 °C	Thermocouple °C
	Water In °C	Water In °C	Film Surface °C	Hot Mid_2 °C	High mV
	Water Out °C	Water Out °C	Water Inlet Film °C	Hot Out °C	
	Air Pressure	Intermediate Water °C	Water Outlet Film °C	Cold In_Out °C	
	Heater Load	Air Dry Intermediate °C	Chamber Pressure	Cold Mid_Out °C	
	Water Flow	Air Wet Intermediate °C	Water Flow Film	Cold Mid_2 °C	
	Supply Volts	Intermediate Water °C	Water Flow Drop	Cold In_Out °C	
		Air Dry Intermediate °C	Supply Volts	Hot Water Flow	
		Air Wet Intermediate °C		Cold Water Flow	
		Intermediate water °C		Supply Volts	
		Air Dry Intermediate °C			
		Air Wet Intermediate °C			
		Air Pressure			
		Heater Load			
		Water Flow			
		Supply Volts			

HB100K/000/T	R515/115/RC R515/230/RC	R560/115/RC R560/230/RC	R715/115/RC R715/230/RC	R833/115/RC R833/230/RC
Water Flow	Suction °C	Suction °C	Suction °C	Suction °C
	Discharge °C	Discharge °C	Discharge °C	Discharge °C
	R134a Liquid °C	R134a Liquid °C	R134a Liquid °C	Water Supply °C
	Evaporator °C	Condenser Water In °C	Evaporator °C	Evaporator °C
	Water In °C	Condenser Water Out °C	Water In °C	Condenser Water In °C
	Water Out °C	Evaporator Water In °C	Water Out °C	Condenser Water Out °C
	Evaporator Pressure	Evaporator Water Out °C	Dyno Load N	Evaporator Water In °C
	Condensor Pressure	Reservoir °C	Evaporator Pressure	Evaporator Water Out °C
	Wattmeter	Evaporator °C	Condensor Pressure	Ground Source °C
	Refrigerant Flow	Evaporator Pressure	Wattmeter	Evaporator Pressure
	Water Flow G/sec	Condensor Pressure	Refrigerant Flow	Condensor Pressure
	Supply Voltage	Wattmeter	Motor Amps	Wattmeter
		Refrigerant Flow	Compressor Rpm	Refrigerant Flow
		Condenser Water Flow	Water Flow	Water Evaporator
		Evaporator Water Flow	Supply Voltage	Air Evaporator
		Supply Volts		Evaporator Water Flow
				Condensor Water Flow
				Supply Volts

RE540/115/RC RE540/230/RC	RE551/115/RC RE551/230/RC	RE570/115/RC RE570/230/RC	S211/115/SC S211/230/SC S220/115/SC S220/230/SC S220/415/SC	816/115/C 816/230/C
Panel Test Volts	Mains Water °C	Velocity Before °C	Turbine °C	Module Temp °C
Panel Test Amps	Panel Entry °C	Velocity After °C	Condensate °C	Module Temp °C
Panel °C	Panel Outlet °C	Generator Amps	Cooling Water In °C	Module Temp °C
Load Current	Ambient °C	Load/Batt Amps	Cooling Water Out °C	Module Temp °C
Battery Current	Solarimeter	Generator Volts	Condenser °C	Module Temp °C
Panel Current	Bleed Flow	Load/Batt Volts	Boiler Feed °C	Module Temp °C
Battery Load Volts	Panel Hot flow	Turbine RPM	Steam Out °C	Module Temp °C
Solarimeter	Supply Volts		Throttle °C	Module Temp °C
			Boiler Pressure	Module Temp °C
			Throttle Pressure	Module Temp °C
			Turbine Pressure	Supply Volts
			Condenser	Generator Watts
			Braking Force	Evap Load Watts
			Boiler Amps	
			Turbine RPM	
			Cooling Water Flow	
			Supply Volts	

Ordering Information

Please refer to each units respective technical leaflet for codes and full specification.

Technical Specifications

IBM PC, or compatible
1GB RAM
Windows XP, 8, 9, 10
USB port