

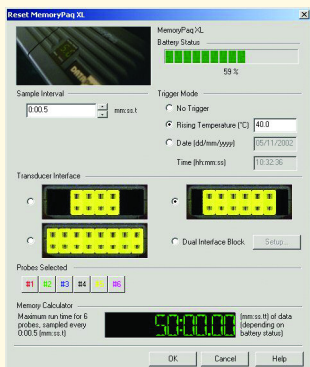
Quick Reference Guide

1. Charge Battery



- Connect MemoryPaq to Computer Interface and insert the charger jack connected to the main power supply.
- Charging will take approximately 1 hour (check Computer Interface LED's for charging status).

2. Reset MemoryPaq



- Manually insert, then remove charger jack from MemoryPaq charger socket.
Manual Reset selects a default sample interval of 5 seconds and activates logging when the MemoryPaq and Transducer Interface are attached using the number of thermocouples connected.

- PC Reset – enter requirements for run.

Sample interval

Trigger mode (No Trigger = Auto Start when MP & TI connected)

Transducer type used

Number of probes connected

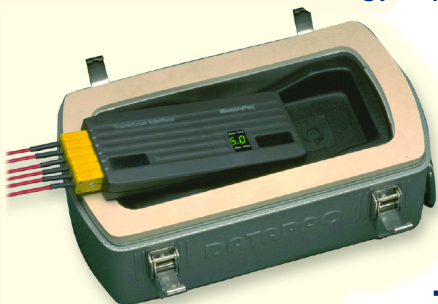
Check Battery Status

Check Memory Calculator

Press  for full details on Reset options

NOTE: If necessary, the MemoryPaq can be reset prior to each run. Otherwise the MemoryPaq will retain the settings from the previous run. After downloading data to the PC, connecting the MemoryPaq and Transducer will recall the last reset conditions automatically.

3. Assemble Components



- Plug the probes into the Transducer Interface.
- Connect the MemoryPaq into the Transducer Interface and check MemoryPaq LED's status.
- Place assembly into the heatsink inside of the Thermal Barrier.
- Secure barrier lid.

4. Data Collection



- Attach the probes to the test piece or product.
- Send complete system through the oven.
- Collect system at exit.
- Remove logger from barrier.
- Leave barrier to cool in safe place.



5. Data Transfer



- Disconnect the MemoryPaq and plug into the Computer Interface.
- Select "Download from Logger".
- Select Process File when prompted by the software (if created for the run).
- Save Data File.
- Print Standard Report.

Key functions of **insight** software

Paqfile Tab
Open multiple files together

Mouse Zoom

Distance Axis

Zone Markers

Notes

Gas Burner 215 C

Gas Burner 165 C

Analysis Tabs

Analysis (with Red Alarm Markers)

Tolerance Curve

Profile QA

PASS

FAIL

Probe Toolbar Switch On/Off

Probe Image

Options

Splitter Bar
Resize View

Probe	190.0°C (mm:ss.H)	200.0°C (mm:ss.H)	210.0°C (mm:ss.H)	Datapaq Value
#1 (°C)	07:30.00	06:25.00	02:35.00	84
#2 (°C)	05:45.00	03:20.00	00:00.00	85
#3 (°C)	06:10.00	03:45.00	00:00.00	72
#4 (°C)	06:25.00	04:10.00	00:00.00	74
#5 (°C)	05:40.00	03:05.00	00:00.00	86
#6 (°C)	05:55.00	03:35.00	00:00.00	80



Reset Data Logger pre-run



Download Data from logger to PC post-run



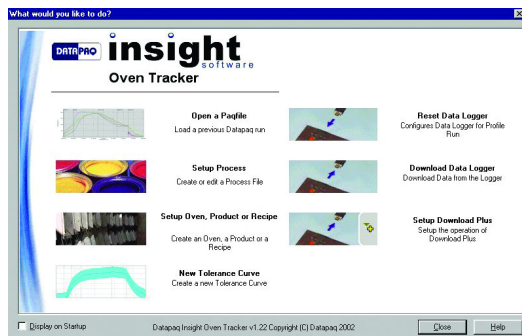
Download Plus

Download Data, Select Process File, AutoSave Data and AutoPrint...
...from one single button press.



Wizards

Wizards are available to guide you step by step through the necessary software operation. Use advanced features with confidence and ease (eg. setting up Download Plus)

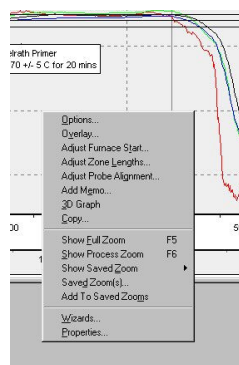


- Open a Paqfile
- Setup Process
- Setup Oven, Product or Recipe
- Reset Data Logger
- Download Data Logger
- Setup Download Plus
- New Tolerance Curve



Right Click Mouse

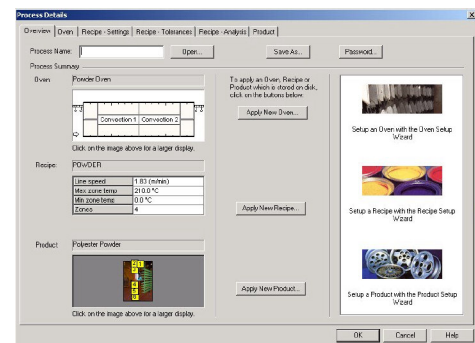
Right click the mouse button to access many useful functions rapidly. For example Overlay Results files or Tolerance curves efficiently and easily to see whether your oven is changing over time.



Process Files

Create template files that describe your coating processes (Oven, Recipe, Product). Apply to downloaded data to document the profile completely and allow data to be interpreted fully against the process.

Set up file just once to avoid repeating data input after each run, making operation quicker and easier.



Analysis Options

For each analysis set-up Analysis parameters and Alarm conditions.



Probe Names

describing location of probes on the product.



Print

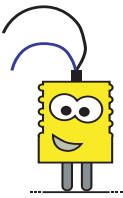
Use Print options to configure the information printed whether Full Report, Graph Only, or Raw Data.

For the Full Report select which information is included. Check report format with Print Preview before actually printing a hard copy.



Help Button

On any dialogue, press the Help button for information specific to the operation you are performing.



Analysis... Convert raw data into meaningful information that will improve your process.



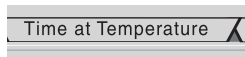
Max/Min Temperature

Calculate the maximum temperature and time achieved for each probe location on the product measured.



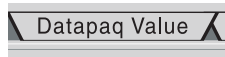
View Temperature Data

Display the product/air temperature at any point in the process. Click the left-hand mouse button on the trace of interest. Move the cursor bar with mouse to appropriate position and read time and temperature information. Print raw data or export if appropriate.



Time at Temperature Data

Calculate the time at which a product reached a specified temperature, and the dwell time the product was held at, or above that temperature. Click on the Options button to select multiple threshold temperatures



Datapaq Value

Calculate the index of cure against coating supplier cure specifications using all temperature data from the profile graph that contributes to the cure process. Click on the options button and input the cure schedule information obtained from the coating supplier.

Find the acceptable range of Datapaq values (eg 90 – 140) which gives you the coating cure quality you require from physical QA tests.

Theoretically, near 100 indicates a perfect cure. Significantly less than 100 indicates under cure. Significantly over 100 indicates over cure.

Use Datapaq value as an ideal process control or optimisation indicator. If Datapaq Value falls within your specified range the process is in control - continue production with confidence.

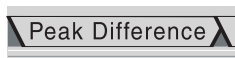
Parameters									Add	Remove
	LOW		MID		HIGH					
	<input checked="" type="checkbox"/> Time Above		<input checked="" type="checkbox"/> Time Above		<input checked="" type="checkbox"/> Time Above		Min	Max		
	Temp	Time	Temp	Time	Temp	Time	Temp (°C)	Temp (°C)		
1	190.0	10:00.00	200.0	08:00.00	210.0	06:00.00	180.0	220.0		

- Min - Temperature at which curing (Cross-linking) starts
- Max - Temperature at which coating damage is possible
- 3 Coating Cure Schedules (Low, Mid, High - Time at Temperature settings)



Slopes and Rise/Fall

Use Slopes and Rise/Fall time analysis functions to calculate rate of heating within the process to control solvent flash off or powder flow out and so ensure cosmetic appearance.



Peak Difference

Determine the peak difference temperature between probes to identify differential heating or hot and cold spots within the oven.



Alarms

Analyse from the profile data what Alarm conditions were triggered so allowing quick and easy analysis of what the failure conditions were for the process.

Status Information

Glossary

MP= MemoryPaq; CI = Computer Interface; TI = Transducer Interface;
hot data = data that has not been downloaded from the MemoryPaq to the computer.

MemoryPaq display

The display shows the sample interval the MP will use unless there is an error, or the MP is communicating with the PC. To conserve battery life the display is only on for 15 seconds after each action. While charging the display will show the sample interval.



Communicating with PC.



Five second sample interval.



Fifty second sample interval.



Half second sample interval.



Programmed sample interval cannot be displayed.
e.g. 12.5 seconds.



Error condition showing error number.

MemoryPaq LEDs

RED flashing every 5 seconds.	Contains hot data or memory full.
GREEN flashing at sample interval.	Logging.
RED and GREEN flash together at sample interval.	Waiting for connection to TI.
RED and GREEN flash alternately at sample interval.	Waiting for time or temperature trigger.
YELLOW flashing every 5 seconds.	Low battery warning.
YELLOW on.	Charging.
RED and GREEN flash rapidly 5 times.	Reset successful.
GREEN flashes rapidly 5 times.	Download successful.

Computer Interface LEDs

YELLOW on.	Charger connected and on.
YELLOW and RED on.	Fast charging MP.
YELLOW and GREEN on.	MP fully charged.

List of errors

Error Meaning	Action
E1 Failed temperature trigger. Either none of the probes reached the temperature required to activate the trigger or, one or more of the probes was already above the trigger temperature.	Even though the trigger failed the MP will still contain all the readings from the time it was attached to the TI, until disconnected. Download the data to the PC and check the actual values against the trigger value.
E2 Failed time trigger. Either the MP was disconnected from the TI before the set time trigger or, the trigger expired before the MP was connected to the TI.	Even though the trigger failed, the MP will still contain all the readings from the time it was attached to the TI, until disconnected. Download the data to the PC and check the actual times against the trigger value.
E3 No data in MP. A download was attempted when there were no readings.	Perform run before attempting download.
E4 MP contains hot data. The MP contains data from a previous run that has not been downloaded.	Hot data cannot be overwritten. Either download the data to the PC or, reset the MP from the PC.
E5 Temperature greater than temperature trigger. At least one of the probes is reading a temperature greater than the temperature trigger.	Reduce the temperature of all probes below the trigger temperature or, reset the trigger temperature to a greater value.
E8 MP cannot log as programmed. The number of probes set when the MP was reset is different from the number of probes present on the TI.	Using the software, reset MP to the same number of probes as present on the TI.
EE Serious internal error.	A serious problem has occurred. Reset the MP using the charger jack. If the problem persists, call Datapaq.



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