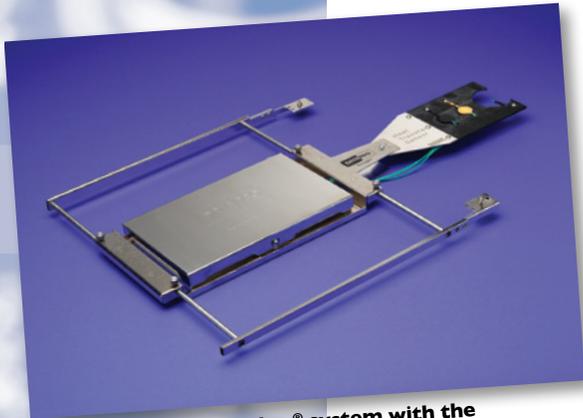




Fluke Process Instruments

Rapid Oven Setup (ROS)

for use with Insight™ software for Reflow Tracker®



Datapaq® Reflow Tracker® system with the Rapid Oven Setup Heat Transfer Sensor

Rapid Oven Setup (ROS) is an innovative modeling tool that calculates optimum reflow oven settings for a given product and profile quickly, easily and accurately.

Every time a new product or solder paste is introduced, the reflow oven settings have to be optimized – a time consuming process. Rapid Oven Setup (ROS) from Datapaq® automates this process by calculating the optimum oven settings for any combination of oven, product and target profile. ROS accomplishes in seconds an operation that can take even an experienced process engineer hours to achieve.

RAPID OVEN SETUP:

- Ensures the optimum profile is found
- Reduces scrap levels
- Saves time and money
- Speeds up the changeover to new profiles (lead free)
- Enables users to check product and oven compatibility offline
- Works on all reflow ovens, old or new, infrared or convection

HOW DOES RAPID OVEN SETUP WORK?

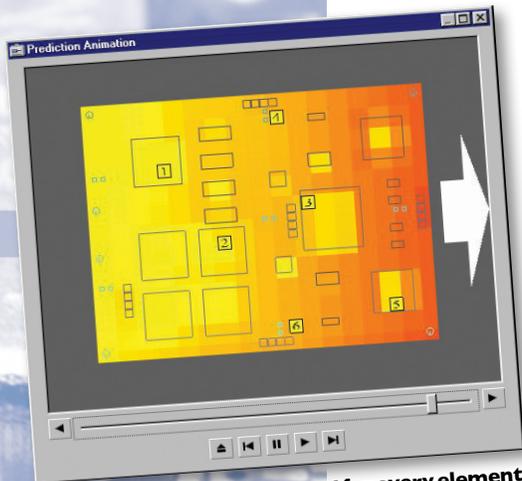
There are two unique features that enable the ROS system to achieve unrivalled accuracy:

The Heat Transfer Sensor measures the actual performance of each oven.

This ensures that the system will work accurately in any oven.

ROS can read information directly from CAD files.

This enables it to automatically produce a detailed thermal model of the product, removing any possible operator error.

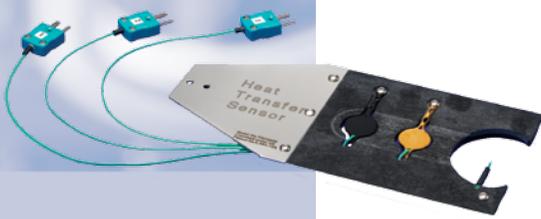


A thermal profile is calculated for every element of the product



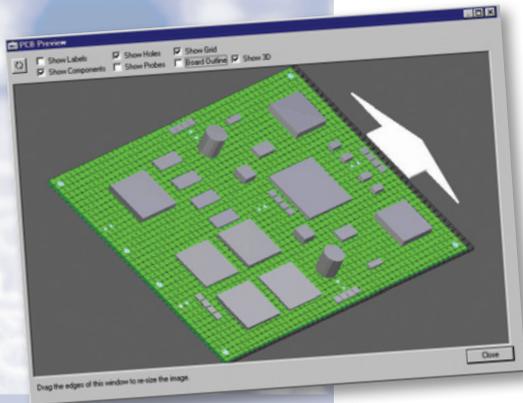
Rapid Oven Setup ensures 'right first time' profiles

RAPID OVEN SETUP (ROS)



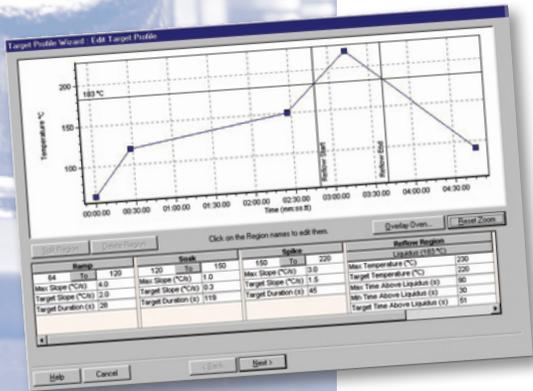
OVEN PERFORMANCE MEASUREMENT

The Datapaq ROS uses a heat transfer sensor to accurately characterize the performance of the oven. The heat transfer sensor has one thermocouple to measure air temperature, one thermocouple attached to a low emissivity sensor, and a third connected to a high emissivity sensor. The system measures the heat transfer efficiency of the oven and any calibration errors in the zone settings, leading to unrivalled accuracy in all oven types.



PRODUCT THERMAL MASS CALCULATION

The ROS system can read the CAD files used to design the product. It uses this information to create a detailed thermal model. This innovative approach enables ROS to calculate thermal profiles for every location on the product. It then uses finite difference methods to calculate a thermal profile for every location on the product. This can all be achieved without having to connect thermocouples to a test PCB, saving time and money.



TARGET PROFILE DEFINITION

The ROS system has an easy-to-use, wizard-based interface for defining target profiles. The dual display of graph and analysis allows the user to either click and drag on the graph or enter the numerical data. This approach enables the user to easily and quickly create target profiles that comply not only with solder paste specifications, but also with any other company or component requirements.

Rapid Oven Setup is designed for use with Insight™ software for Reflow Tracker®. It is compatible with the full range of Datapaq® Q18 loggers.

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Worldwide Service
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