

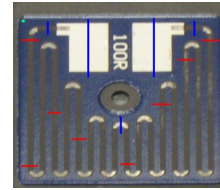
Easy Set Up procedure

Matrix Scan Facility

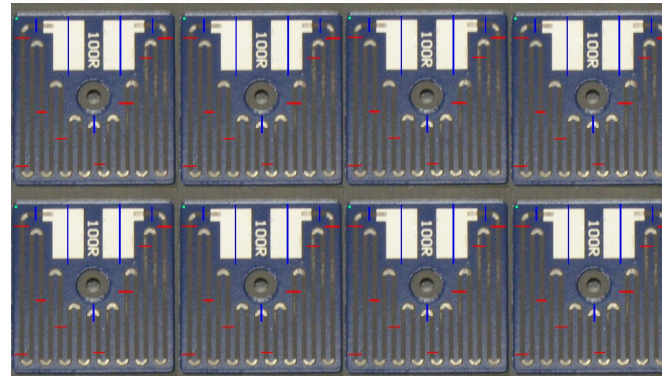
Programming of the scan positions is done using the camera by going to the start positions of the desired scan lines, using the cursor keys. Step size and scan line length is then keyed in and the system is ready to go.

The system scans in both X and Y

Once a matrix-sub-scan has been defined, the user can then specify the start points of a multiple number of matrix-sub-scans, to form a larger matrix scan as shown.



Matrix-sub-scan

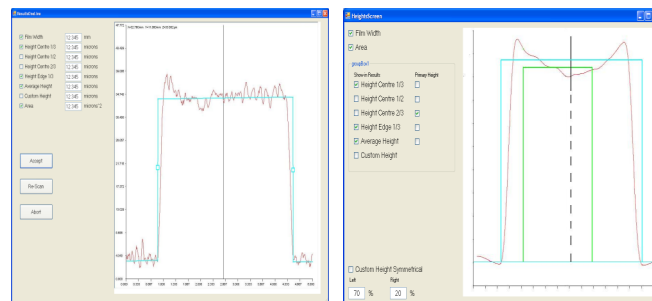


Multiple Matrix

Edge detection

Our well proven edge detection algorithm determines where the edge of the printed component actually is. Once the edge position is known parameters such as width, cross section area and volume can easily be calculated and reported.

Height (Set-up) Screen allows the user to configure what height calculations are shown on the results screen, and also create a custom configuration.



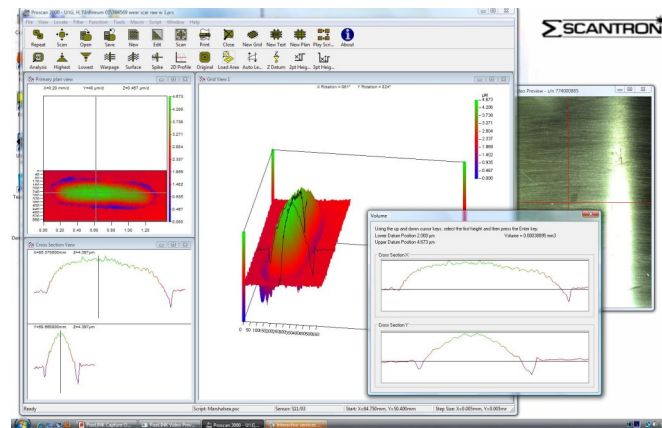
Edge Detection Window

Height Set Up Window

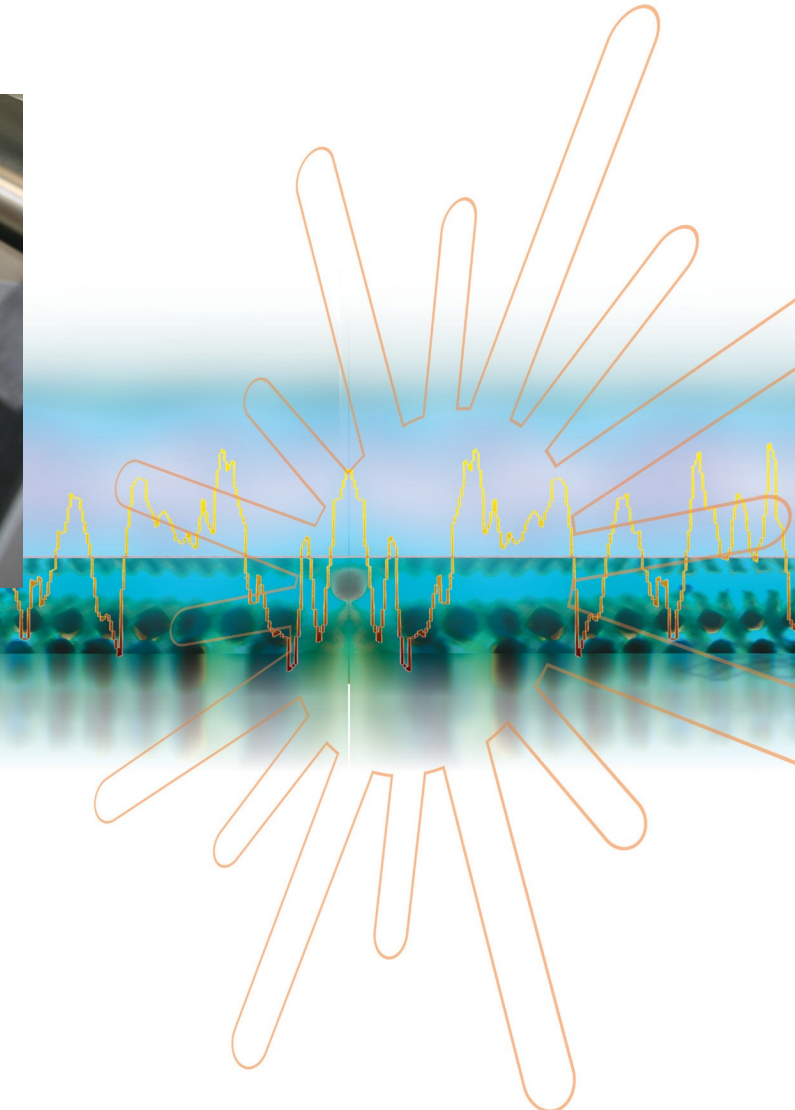
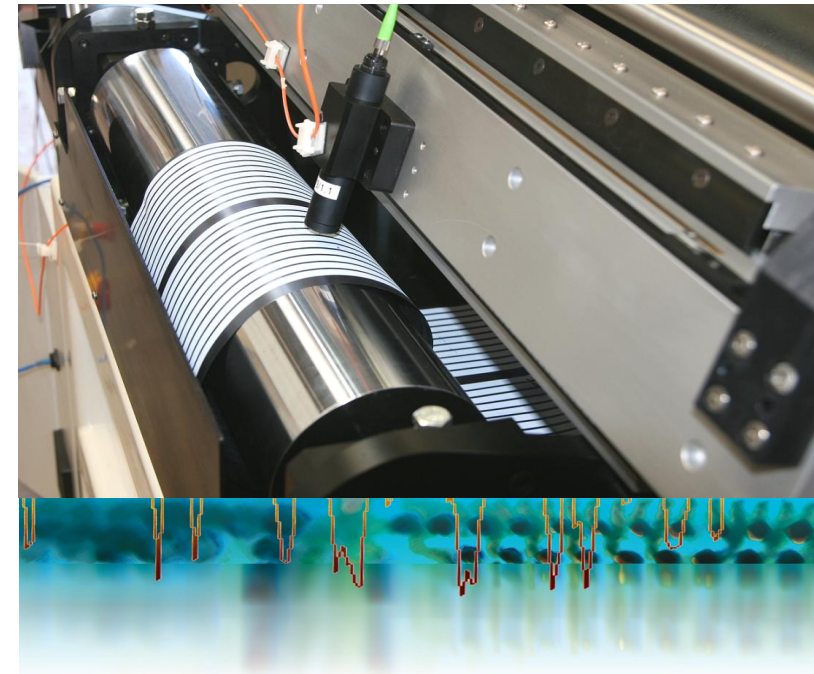
Proscan 2100

The system comes with the standard Proscan software which is an extremely powerful and user friendly surface profile measurement software.

Parameters such as Volume, Cross section area, 20 different surface algorithms, Angle, Radius and many more are on tap.



Volume calculation of a wear scar



PROSCAN CHANNELTRAK and THICKFILM
 PRECISE NON-CONTACT MEASUREMENT OF PHOTOVOLTAIC
 AND THICKFILM PASTE.

Photovoltaic measurement system

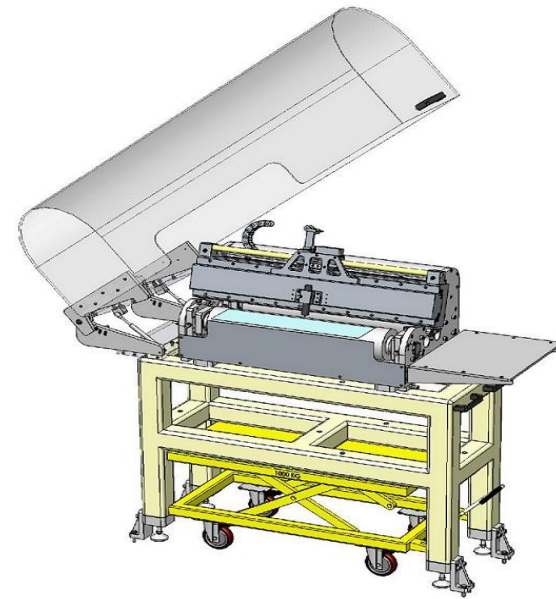
On Line measurement

Scantron has developed a revolutionary system for on line thick film measurement.

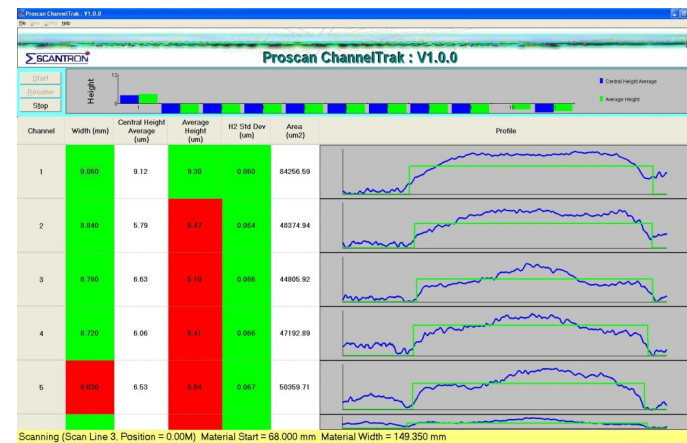
ChannelTrak is measuring the height of titanium oxide paste to a micron accuracy whilst the line is running.

The Proscan ChannelTrak has been designed to measure continuously fed web materials to accurately characterise the surface features and texture to within 0.5 microns;

Applications include thick-film materials, coated metal products and fine tolerance sheet metals. A pair of high precision rollers present the web material to the confocal chromatic sensor with a wrap of 30 degrees, so as the measurement is taken whilst the material is supported by the precisely ground main roller. A full suite of analysis tools are available which can be supplied to suit your specific application. The unit scans in real-time and is probably the most accurate on-line non-contact measurement device available anywhere in the world.



Proscan ChannelTrak



Main Software Screen

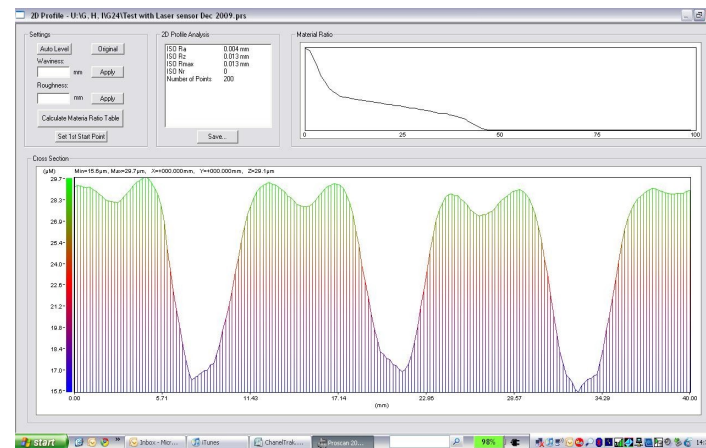
Channel corner detection / Edge detection

This is a method for calculating the widths of channels, by looking for "corners" in the data.

Main software screen

When the software has loaded, the main screen is displayed. This screen is broken down into different sections (see diagram):

- Menu toolbar. This provides access to configuration menus, results reports, and the help menu.
- Scanning control.
- Height bar graph. This displays the centre height average (blue) and the average height (green) of the channels as bar graphs.
- Numerical display. This displays the following information for each channel:
 - a. Width (mm)
 - b. Central height average (µm)
 - c. Average height (µm)
 - d. Height Standard Deviation (µm)
 - e. Cross sectional area (µm²)
- Graphical Display. This displays the scanned profile for each channel.
- Status bar. This gives information about the current status of the machine,



Ceramic paste on substrate

Thick film measurement system

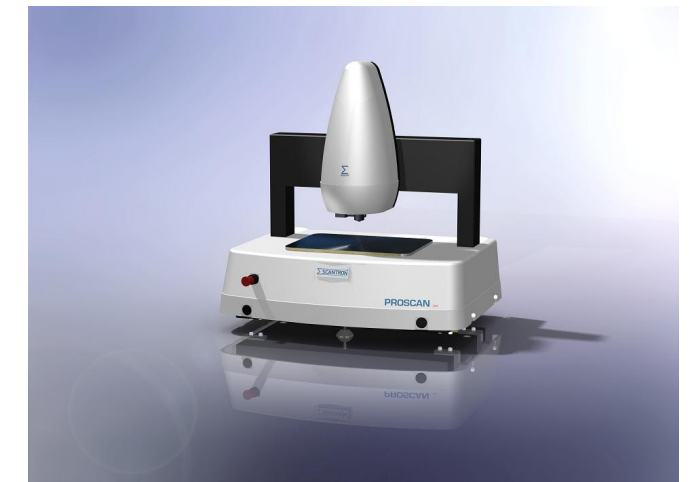
Off Line measurement

Proscan Thick film has been designed for any off-line paste or thick film application.

This system is easily programmed to measure the height and width on any track in both x and y. You can program the system to automatically measure the features within the 100 x 150 mm travel.

Our modular approach also allows us to build systems of practically any sizes. Ranging from 50 x 50 mm travel to 3 m x 2 m travel.

Our proven edge detection enables the software to calculate cross section area and volume.



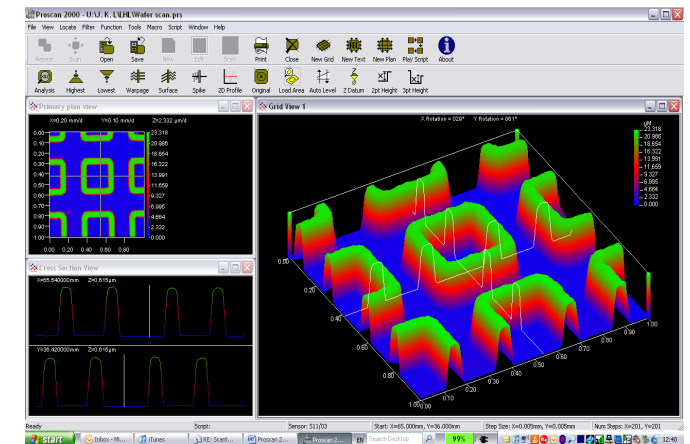
The new Proscan 2100 with granite Frame

The Proscan Thick film Inspection system generates true three dimensional profiles without contact with the product. This means wet and soft print layers can be quickly and accurately measured without influence or damage to the substrate or print layers.

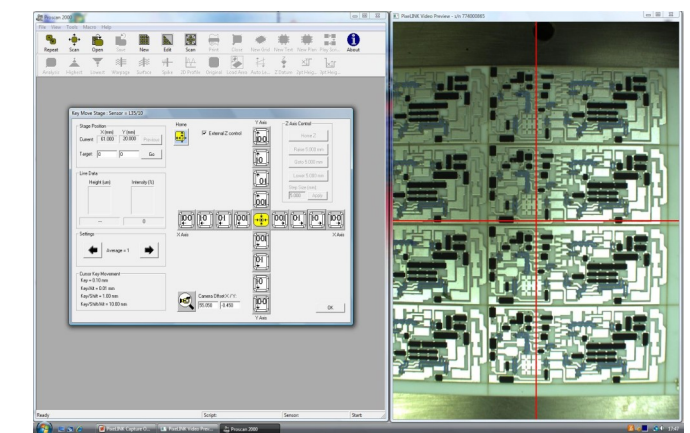
Solder paste, carbon, enzyme, silver and insulation are amongst the many materials that can be evaluated against production performance.

Key Features & Benefits

- Ultra fast measurement sampling capable of scanning over 80mm per second.
- Unique measurement technology allows almost any material to be measured including those with transparent properties such as flexible substrates.
- Easy to use dedicated user programming offers open flexibility for single button automatic operation accounting for changes in product design.
- Full statistical analysis can be integrated as part of any automated routine as well as calculation for volume of material, cross section and surface area.
- Qualified absolute measurements with supporting graphical and numeric data with traceability to NIST (National Institute of Standards and Technology).
- On screen graphics and SPC data help to immediately identify trends and variants for the production process.
- Only the minimum of resetting means surface roughness, emulsion thickness on screens, edge profiles on squeegees and etching of masks can all be easily measured.



Scan on wafer



Camera view for scanning set-up.