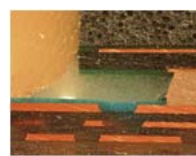
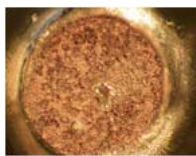


PCB Nickel Gold Surface Failures - Good, Bad and the Ugly Seminar



Bob Willis

Bobwillisonline.com

Your Delegate Webinar Control Panel

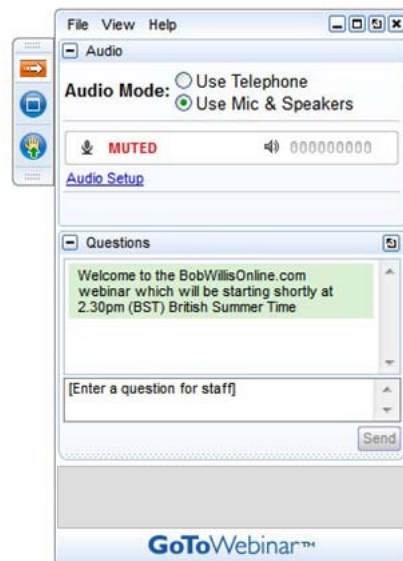
Open and close your panel

Full screen view

Raise hand for Q&A at the end



*Submit text questions
during or at the end*



Institute of Circuit Technology

The Institute is currently in its 37th year

It currently has 230 members and is continuing to grow

Offers a wide and increasing range of services to members

Annual symposium, evening seminars, foundation course,
technical journal, website etc



PCB Nickel Gold Surface Failures - Good, Bad and the Ugly Seminar

Wednesday 9th November between 2.30pm – 5.30pm GMT Greenwich Mean Time

- | | |
|--------|--|
| 2.30pm | Seminar Introduction & PCB Process Problems
Bob Willis – Bobwillisonline.com |
| 3.00pm | Theory of Nickel/Gold Plating for PCBs
Nigel White - Atotech |
| 3.30pm | PCB Suppliers Control & Monitoring methods
Dennis Price – Merlin Circuit Technology |
| 4.00pm | Failure Analysis Techniques for PCBs
Chris Hunt – National Physical Laboratory |
| 4.30pm | <i>ASPIS</i> – A Project to Enhance the Performance of Nickel-Gold Solderable Finishes
Martin Goosey – Chairman of the Institute of Circuit Technology |
| 5.00pm | Shop Floor Investigation of BGA Failures
Bob Willis – Bobwillisonline.com |
| 5.20pm | Final Question & Answer Session |

Worldwide Webinar Audience



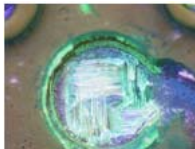
Worldwide Webinar Audience



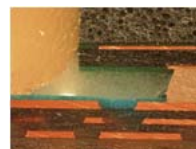
Each presentation will start on the hour or on the half hour

If any presentation plus questions finishes in under 30min we will take a short break untill the next presentation start time

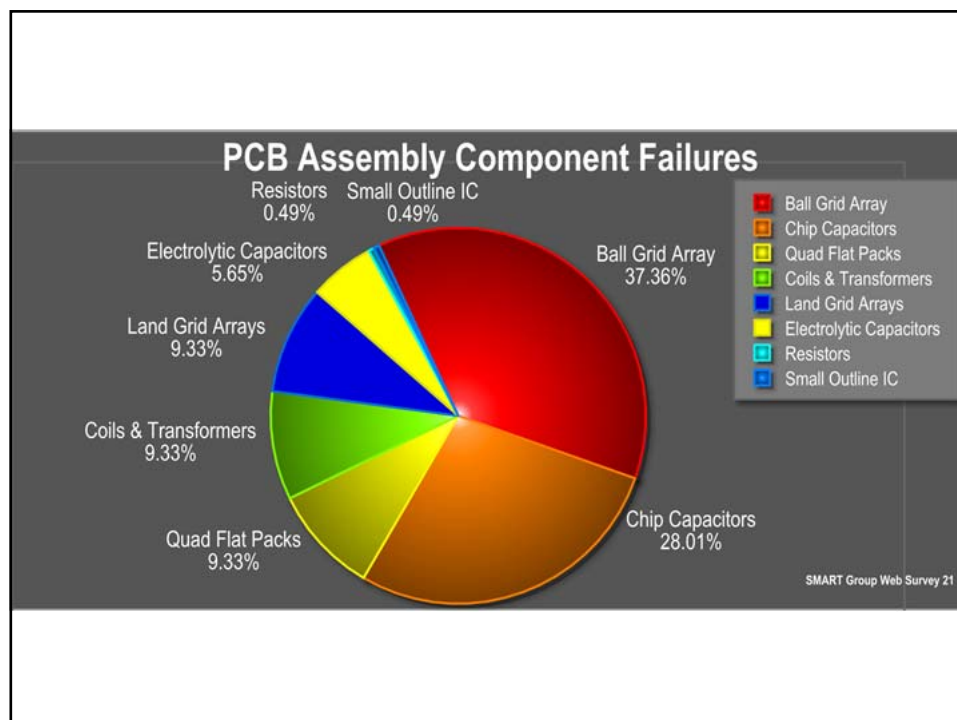
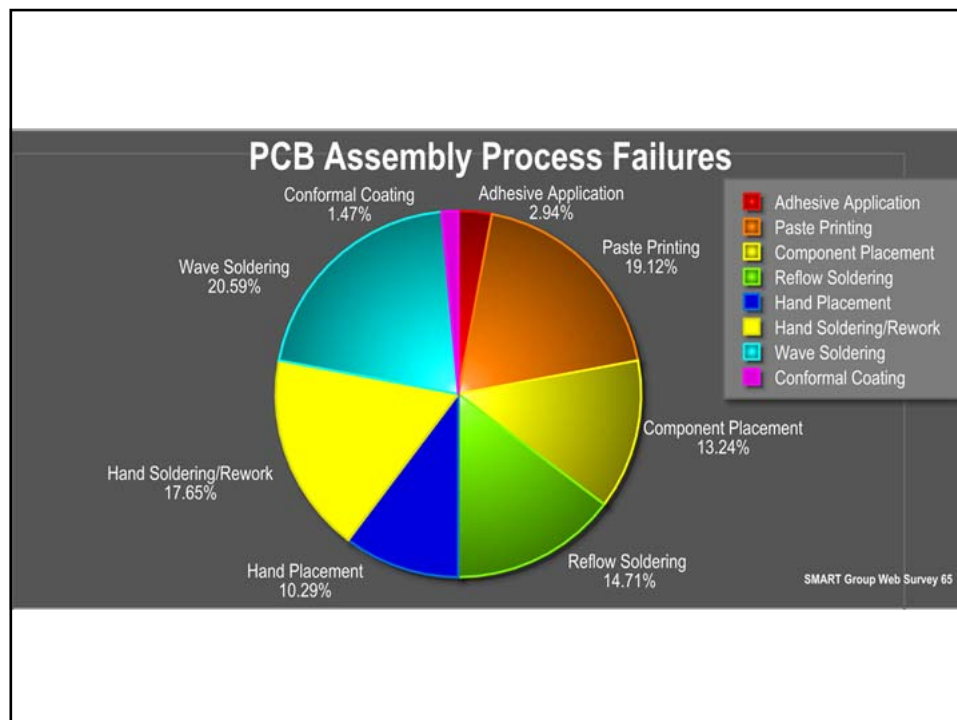
A copy of each presentation will be sent by email at the end of the webinar. We also plan to record the presentations

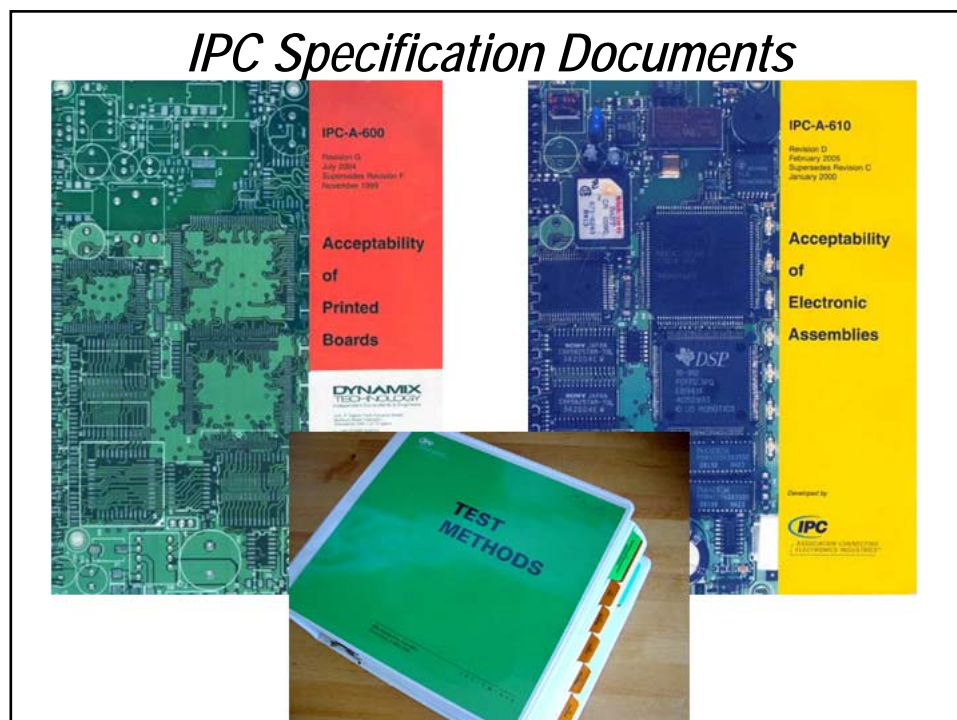
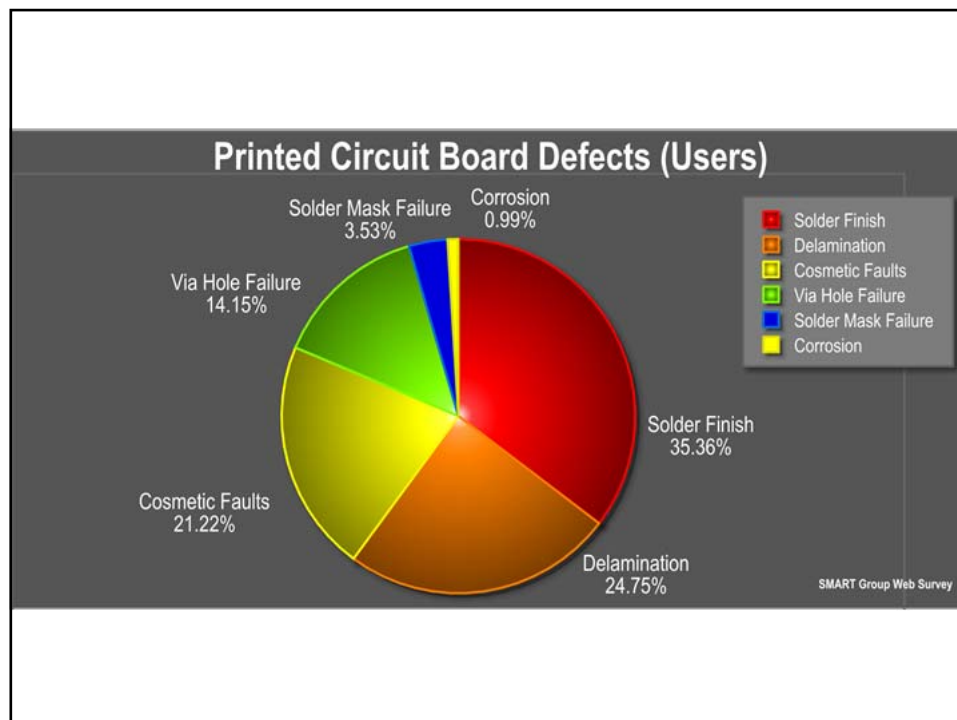


PCB Assembly Process Problems



Bob Willis
Bobwillisonline.com

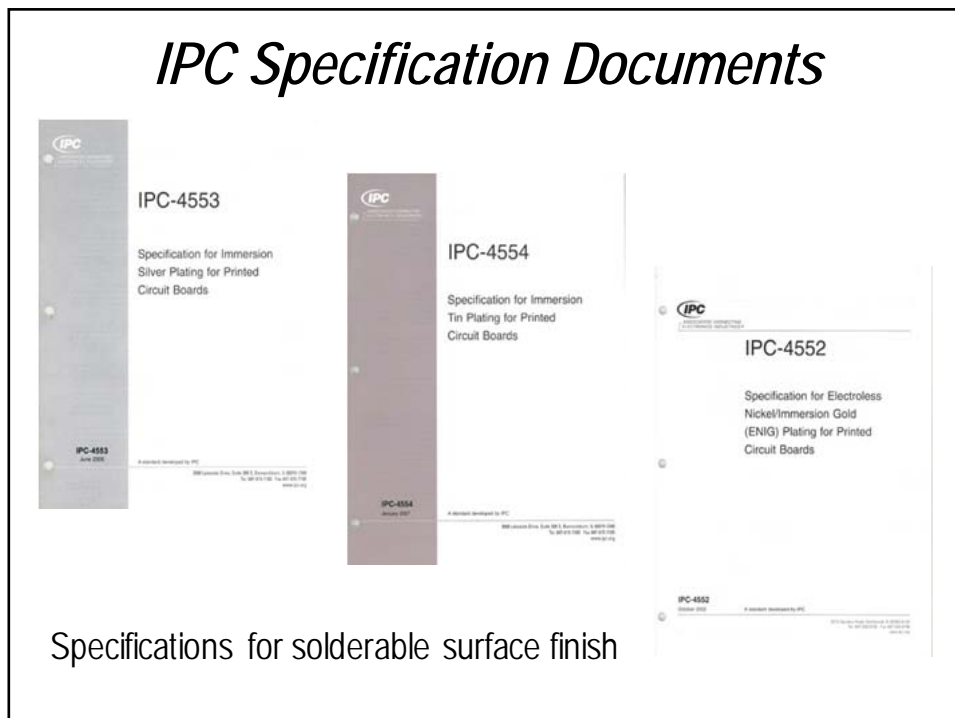




IPC Specification Documents



IPC Specification Documents



Specifications for solderable surface finish

PCB Solder Finishes Wall Charts
www.bobwillisonline.com/posters/



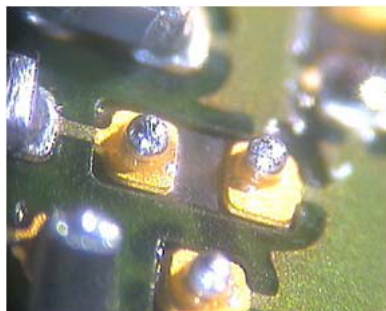
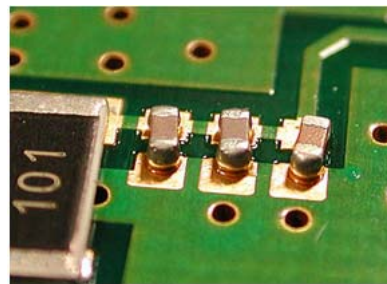
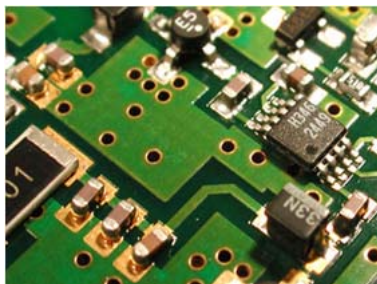
Lead-Free Technology Report
www.bobwillis.co.uk/experience2006.pdf



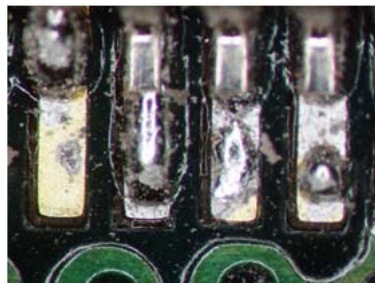
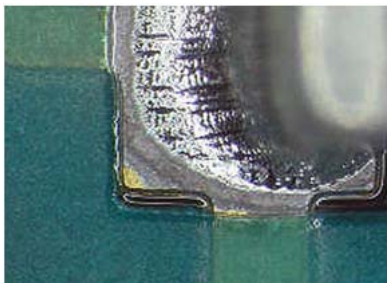
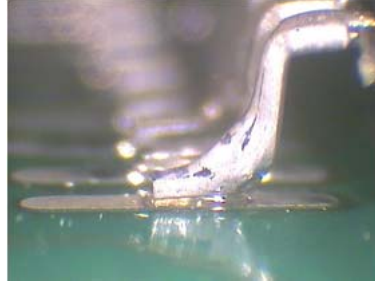
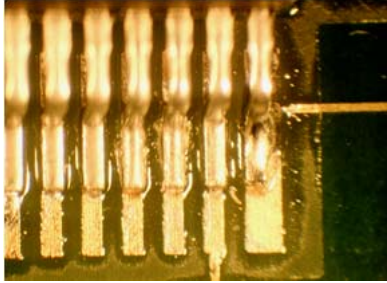
Lead-Free Support Material & Book Listing
www.ASKbobwillis.com/lfassembly.pdf



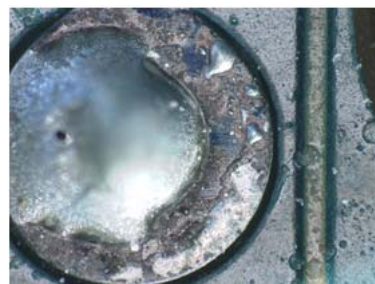
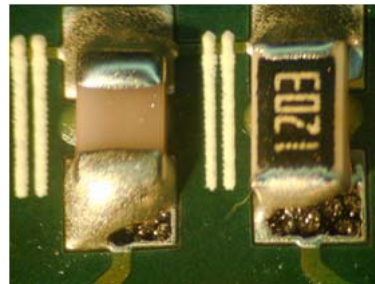
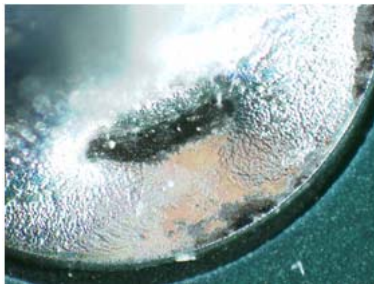
Surface Non-Wetting



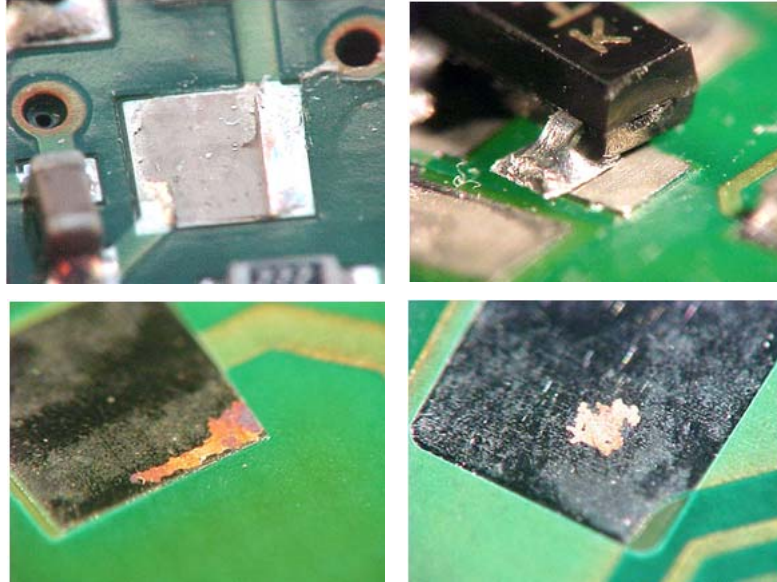
Surface Non-Wetting



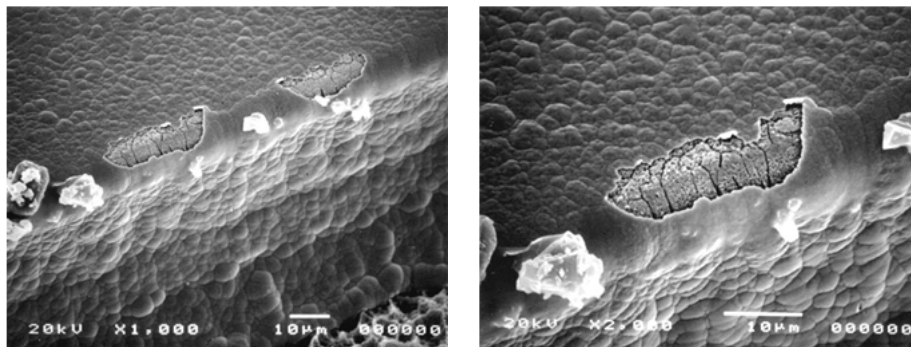
Black Tarry Pads



Solder Finish Lifting

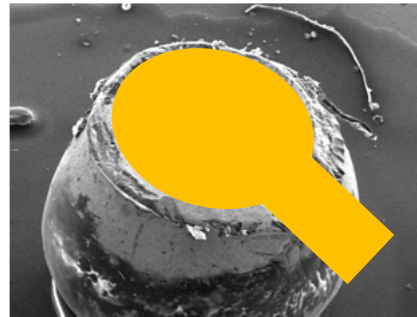
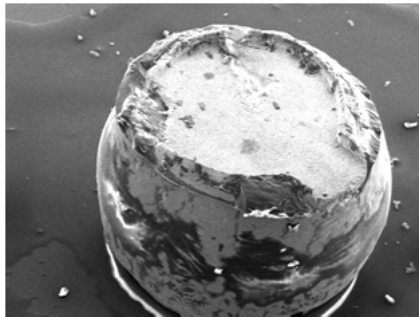


Nickel/Gold Tape Testing



Images courtesy of Shipley

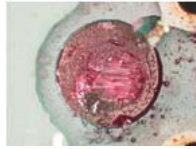
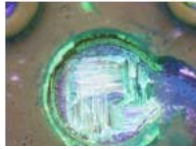
BGA Package to PCB Separation



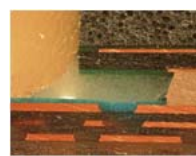
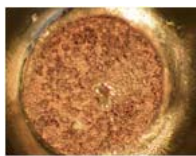
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Question & Answer Session



Bob Willis
Bobwillisonline.com