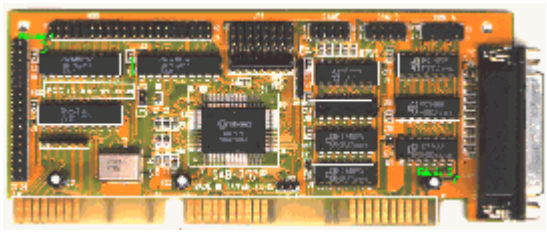
Application Notes

Application Note 113

You can simplify fault finding by using a scanned picture of your PCB for guided fault finding

You can now insert pictures of your PCB into a PFL or FT100 test program, further simplifying faultfinding by automatically guiding you to the component under test.

How?
First you need to ensure your PFL or FT100 is operating on V4.7 or higher software check this in the Help About screen. Ask your distributor for an upgrade if necessary. Your existing test programs will be automatically converted when they load to support layout view.



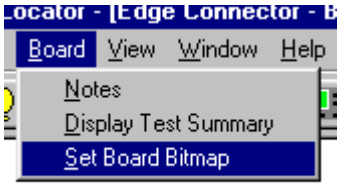
What about my PC?
To get best results you should use minimum of1024 x 768 resolution with 16 bit High colour is recommended, although it is still useable at 256 colour 800 x 600.

Where do I obtain a bitmap?
The above picture of an isa card is scanned using a HP Scanjet II CX, most desktop scanners are very capable of scanning pcbs provided the components are not too high (10 –20mm). Alternatively a digital camera can offer good results. For PCB's with tall components you could also take a conventional photo and scan the print.

Hint:
When you use a scanner you obtain the best pictures if you REDUCE the scanner resolution to 75 dpi. Scanning at a higher resolution tends to cause colours to be poor on screen. Scanners are normally set for a resolution suitable for printing which is typically much higher than that available on screen.

Now I have a bitmap what is the next step?
Run the PFL or FT100 software and open the test program for the PCB you have scanned (assuming you are attaching a bitmap to an existing test program)

Now click on the board layout icon which will switch you into board layout view.



Once in layout view, use the set board bitmap option as follows:

This will attach the appropriate bitmap to the test file.

How do I link the components in the test list to the picture?
After attaching a bitmap use Window Tile to display the test list and board picture together. Simply select a component in the test list then use the mouse to drag a box over the appropriate area on the picture. If you need to break the link right click the mouse over the selected component.

Once you have done this for all components you can test simply by double clicking on the component you wish to test. On a FT100 you can select multiple tests by dragging the mouse over the group of components you wish to test.

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