

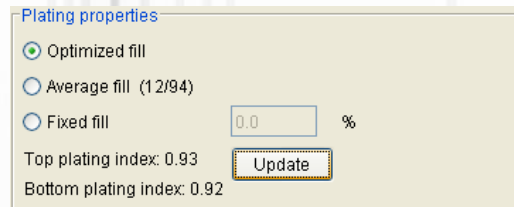
Scan QR code to see
MultiJobPanel Web page



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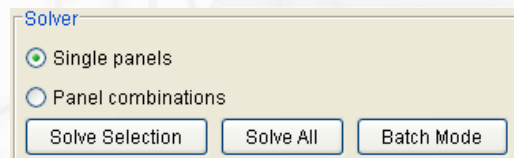
Plating Analyzer



The screenshot shows the 'Plating properties' dialog box. It has three radio buttons: 'Optimized fill' (selected), 'Average fill (12/94)', and 'Fixed fill'. Next to 'Fixed fill' is a text input field containing '0.0' and a '%' symbol. Below these are two lines of text: 'Top plating index: 0.93' and 'Bottom plating index: 0.92'. An 'Update' button is located to the right of the bottom index.

The Plating Analyzer calculates an index for the top and bottom side of the panel giving an indication of how well the panel can be plated. Plating indexes are calculated on the fly as you edit the production panel or on-demand by hitting the Update Plating Index function. Plating Analyzer features an integrated fill pattern generator which floods the areas in between PCBs with a fixed, averaged or dynamically calculated fill pattern to help you achieve optimum plating results and fewer scrap panels. When Plating Analyzer and Layout Optimizer are both installed on your system, the latter can list alternative panel layouts in descending order of plating efficiency, an absolutely unique feature currently available on the market. As soon as plating indexes are available, the Interactive Panel Editor features an extra tab page with the predicted plating result: Green color indicates good plating. The different shades of blue indicate under-plating. The different shades of red indicate over-plating

Geometric Optimizer



The screenshot shows the 'Solver' dialog box. It has two radio buttons: 'Single panels' (selected) and 'Panel combinations'. Below these are three buttons: 'Solve Selection', 'Solve All', and 'Batch Mode'.

Geometric Optimizer takes the creation of a mixed-PCB panel one step further. Starting from the items in a job list, it proposes a number of possible production panel layouts without the need for human intervention. Taking the outline of the job, the requested number of PCBs, the minimum clearance required and a few other job properties, this module examines a massive amount of possible solutions for either all entries in the job list or for a selected subset only.

With the option "Single Panels" or "Panel Combinations" you impose more or less stringent rules as to whether or not a PCB may

occur on different production panels. The Geometric Optimizer produces a Solutions Table which lists the various production panel configurations within the constraints you imposed. One single solution within the Solutions Table will typically consist of several panels, each holding a number of PCBs from the Job List. Every production panel in a solution has a "required number of panels" information field. Launching production batches with the stated number of panels guarantees that when production is finished, all PCBs on the panels will have been produced in sufficient quantities to satisfy your customer orders.

Solutions Table

The solutions table shows details of each solution and the panel jobs it contains. In case of single panel mode, only 1 solution is shown containing all proposed panel jobs. The table is sortable by clicking the header.

Panelizer

Panel Editor stores the information about production panel layout in the form of text files which can be saved, reloaded and edited as required.

Batch Processor

To achieve the highest level of automation, the Batch Processor option can be added on. In this "full-option" configuration, Panel Editor monitors a predefined directory for incoming Multi Job Panel requests. These requests come as XML-formatted documents containing the jobs to be panelized with the associated information. Typically these documents will be generated by the Production Module of an ERP system.

As soon as such an XML document is available, Multi Job Panelizer will pick it up, convert it to its own Job List syntax and start building a Solutions table. Customer scripts can be plugged in at this stage to take decisions which in an interactive mode would be taken by an operator and which define for instance your definition of "the optimum solution".

Based on this input, the system automatically qualifies hundreds of possible solutions as sub-optimal to come out of the batch modus with just a handful of options left. From this short list, one will be more optimal than the others. This solution will be loaded automatically as the active solution in Panel Editor

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