

ipo

interactive process optimization

Generate Optimized Programs/Balanced Setups from CAD Data and Minimize Setup Changeovers

PanaPRO®/IPO is a single product that provides everything from automatic conversion and optimization of CAD data to “ready to run” PanaPRO® programs. The CAD import tool uses easy-to-define templates to import CAD and BOM files from virtually any CAD system.

IPO's multi-level, multi-product optimization process converts CAD files into recipes that make efficient use of production equipment and reduce setup time. Moreover, its graphical interfaces allow point-and-click editing at any time during optimization.

Support for multiple parts databases gives increased control over part information used to generate the PanaPRO® recipe files.

Optimization is at the core of PanaPRO®/IPO. Three-levels of optimization provide balanced build times across all machines while limiting machine movement. This results in the highly efficient use of production equipment.

IPO can optimize several products and their relative volume as a group or “mix”. This results in a single setup for all products in the mix – minimizing setup times while providing efficient control programs. Optimization steps' results can be modified at any time to meet the user's needs as well. And when any changes are made, the database and reports are automatically updated.

IPO increases efficiency by providing an offline platform to quickly and easily generate optimized programs. It also supplies a solution to improve equipment utilization by reducing setup time for high mix, low volume production environments.



PCB Manufacturing Industry's Leading Line Optimization and Balancing Software

PanaPRO® is anchored by the powerful and easy-to-use PanaPRO®/IPO. This Interactive Process Optimization product provides automatic program generation and optimization from CAD data. Intuitive, graphical modification of the results of automatic operations is available at all stages of the optimization process.

XY sorting or other very basic optimization schemes may not maximize the capabilities of placement machinery. PanaPRO®/IPO generates machine programs and balanced feeder setups that use optimization and line balancing algorithms to tap the machinery's full potential.

PanaPRO®/IPO is a very powerful tool for contract manufacturers, who regularly do prototype builds, or any user producing a high variety of products at relatively low volumes. For such users, the time it takes to set up the feeder carriage could be as significant as, and even more than, the time spent assembling the product. Those users can take advantage of PanaPRO®/IPO with its combined line setup calculation to minimize setup changes.

Simple Operation

PanaPRO®/IPO's advanced graphical interface allows fast access to the most commonly used functions.

Detailed Manipulation of the Calculated Setup

Users can view the results of the calculation or make specific manipulations to it in the Feeder Setup Editor.

Reporting Changes

The system supports the generation of different report types.

PanaPRO®/IPO Directly Addresses Several Common Manufacturing Issues:

- The view of the product in IPO is exactly how the product will be built; this reduces debugging time and increases equipment utilization. Users can print the "Golden Board" in color to debug setup.
- The optimization process provides balanced build times, directly enhancing process throughput.
- Machine axis (XY table, feeder carriage...) movements are minimized, resulting in shorter build times.

