Centralize data in a customized electronic knowledge-base

InPlan stores all your company's knowledge and expertise in a central database, accessible to authorized personnel across departments and sites. This pooling of resources enhances efficiency and reduces operating costs.

Powerful relational database

The central engineering database integrates with all engineering applications to support archiving, revision control, hold/release and multi-user management, and front-end operations to prevent data duplication and double data entry. By computerizing time-consuming tasks, information is instantly accessible and up to date.

Rules and flows

The Rules Editor lets you store your company's engineering knowledge and reasoning in rules that are automatically applied during automated PCB planning. Rules replace subjective planning decisions with systematic automated ones driving your company's outputs with a uniform logic.

Materials Library

The Materials Library is your electronic material warehouse that contains all the materials available at your manufacturing plant for use in InPlan. Materials are automatically selected from here for the stackup and BOM.

Drill Bits Library

The Drill Bits Library contains all the drill bits your company will use in drill programs or include in the BOM. Perform bulk drill bit imports during initial system implementation and manage your inventory with ease.

Produce high-quality documentation

Produce customizable engineering process planning reports in seconds. From MIL documents and technical queries to travelers, the BOM and CAM instructions, you can view, print or save reports as PDF/Word documents.

Technical queries

Automatically send technical queries to your customers in a configurable document with easy-to-understand graphic snapshots and ad-hoc or library notes.

Bill of Materials

Generate a comprehensive BOM – a list of all the materials required for each PCB fabrication process. The BOM lists materials used for the PCB itself, such as copper foils, cores and laminates, as well as materials used in the fabrication process, such as drill bits.

For up-to-date system requirements, please refer to the InPlan Support section on the Frontline website at www.frontline-pcb.com

About Frontline

Frontline PCB Solutions is the world leader in pre-production CAM and engineering software solutions for the PCB industry. Frontline draws on proven technologies from Orbotech and Mentor Graphics to create new standards in vertical and horizontal integration for the PCB industry. Frontline builds on the strategic vision, knowledgebase and hands-on track record of two market leaders, as well as over three decades of experience and the largest installed base of front-end solutions in the world of over 9500 seats.

Your path to business success

- Significantly reduce cycle time
- Cut material costs through optimized stackup and panel design
- Guarantee quality by improving accuracy and consistency
- Integrate your engineering process with CAM and MRP
- Centralize data in a customized electronic knowledge-base
- Produce high-quality documentation

www.frontline-pcb.com

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Frontline Headquarters: Tel: (972)-8-932-2183
Your path to business success

InPlan® is a comprehensive PCB automatic engineering system that synergizes sophisticated engineering know-how with state-of-the-art preproduction planning tools to design the optimal manufacturing process for PCB jobs.

Using InPlan’s rules engine, electronic specs and dedicated wizards, planners generate manufacturing processes with the right sequence of operations, create an inventory-based bill of materials (BOM) and issue precise tooling instructions.

InPlan leverages your engineering expertise to lower costs, accelerate time to market and provide a reliable solution to PCB delivery bottlenecks.

Significantly reduce cycle time
InPlan’s focus on automation reduces process planning time and eases front-end bottlenecks. By automating stackup and panel design, traveler creation, NC tool assignment, CAM instruction creation and BOM generation, you cut out manual data entry and increase throughput to meet the tightest deadlines.

Traveler
Cut cycle time by automatically generating travelers – sets of rules-driven manufacturing work instructions – that list all the procedures in a PCB fabrication process. Fully integrated with your ERP system, travelers are transferred to the site’s manufacturing system.

NC Tools
Automatically define the NC bits and tooling methods used by NC machines to drill and profile boards and panels. Automatically add the drill bits to the BOM to calculate board costs and help plan the work process for a specific set of boards in the traveler.

Cut material costs through optimized stackup and panel design
Keep material costs to a minimum by automatically generating cost-optimized stackups and running dedicated wizards to generate array, panel and material cut design options that guarantee cost-efficient material utilization.

Create cost-optimized impedance controlled stackups
Produce the optimal stackup for your board in minutes. InPlan utilizes your manufacturing knowledge, material library and job requirements to drive down costs, while solving impedance constraints with InSolver® – InPlan’s impedance solver — or your preferred impedance software. Customize material selection rules and impedance optimization to meet your needs and constraints. InPlan’s InSolver Engine enables modeling frequency dependent losses, to ensure materials meet design high speed performance requirements.

Ensure optimal material utilization
Solve panelization challenges and cut material costs with automatic shape interlocking, flipping and gold connector consideration. Use fixed or dynamic panel sizes, run automatic coupon placement and produce optimal cuts from sheets and rolls. Plus, smart editing tools help you adjust panel layouts and generate dimensioning lines.

Automatically generate impedance coupons
Quickly generate quality impedance coupons for impedance-controlled boards and replace error-prone manual layouts with automatically computed coupon sizes, content and quantities. Use InLink to import coupons to Frontline CAM products.

Integrate your engineering process with CAM and MRP
Integrate data from CAM and the central InPlan database to ensure consistent, up-to-date job data. InPlan integrates with your back-end system by incorporating customer, material and manufacturing operation data.

Output process planning data to your MRP system
Integrate job-planning data from InPlan with your company’s MRP system to prepare the shop floor for production. Automatic data synchronization reduces replicated data entry, removing front-end bottlenecks and eliminating errors.

Two-way integration with Frontline CAM systems
Synchronize layer and job data from Genesis 2000® and InCAM®. Use InPlan to view layers, drill programs, ODB++ checklists, electronic notes and production panels for prompt decision-making. Use InLink to integrate InPlan panel layouts, impedance coupons and NC tools with Genesis 2000 and InCAM.

CAM instructions
Generate rules-driven instructions to CAM operators for solving production issues. The CAM instruction can be a DFM, checklist, script name, analysis or any other action. Add instructions to solve specific production issues, including editable snapshots created in InPlan’s CAM Viewer.
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