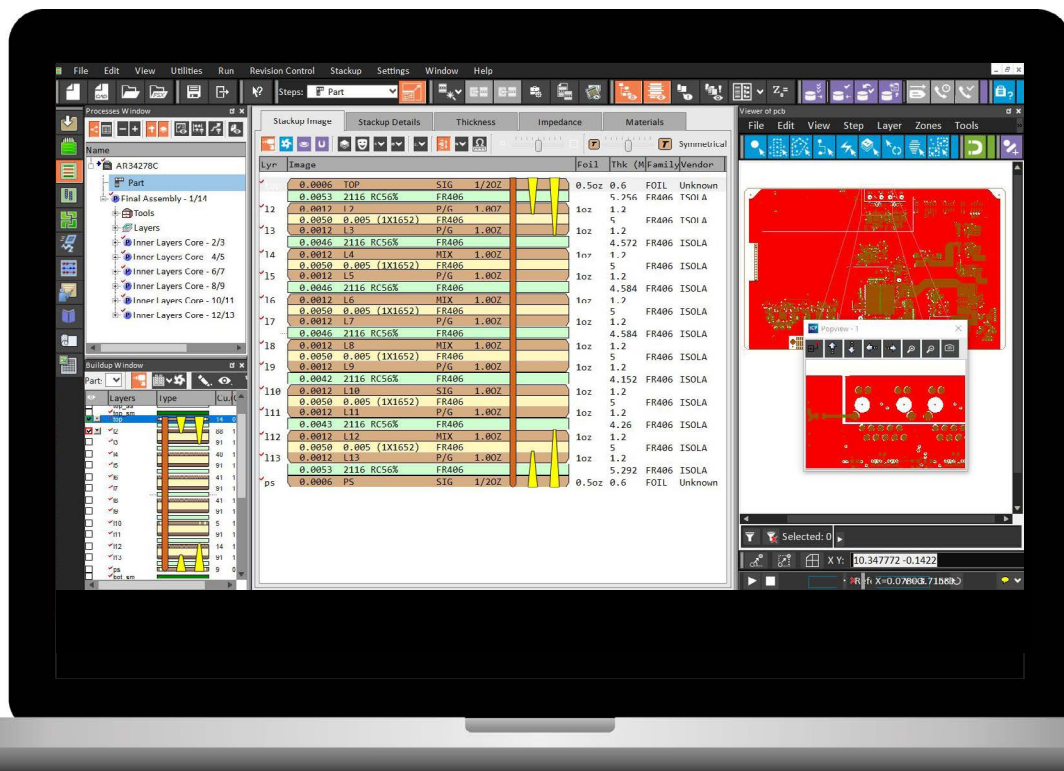


Frontline InFlow[®]

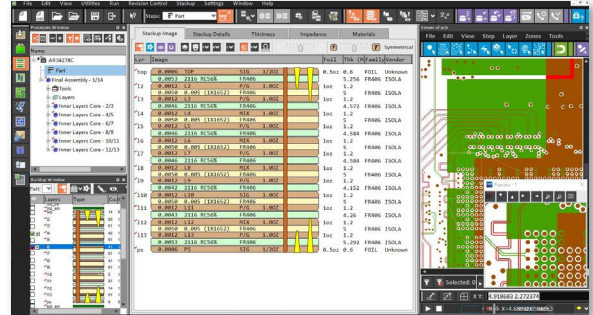
All-in-One Engineering Automation



Make the most of your process

Frontline InFlow is an all-in-one PCB engineering automation system that covers the entire engineering workflow, driving accelerated time to market, increased productivity and standardized high quality—with striking simplicity.

With no limits on production complexity, volume or operator experience, Frontline InFlow transforms your engineering department into a smart powerhouse, unlocking new high-speed technologies and opportunities for your business.

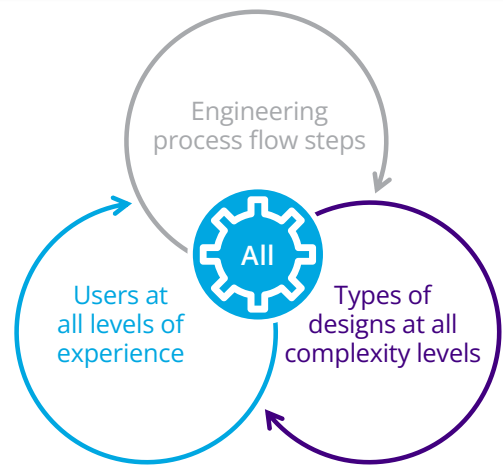


Everything you need to automate your entire workflow

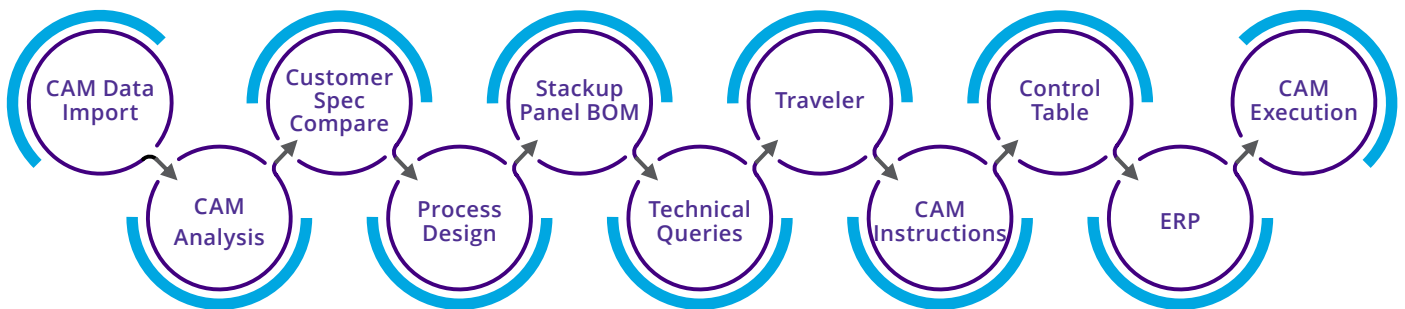
- Accelerate time to market
- Increase productivity
- Standardize workflows and outputs

Accelerate Time to Market

Cut process planning time by up to 60% by replacing manual tasks with simple rules-based engineering process automation. Frontline InFlow's continuous synchronization with CAM and ERP and modern, easy-to-use interface save time, reduce errors and scrap, and deliver best quality results.



Fully Automate Every Step of Your Engineering Processes



Massive time saving



Optimal results and uncompromised quality



Minimize human error and risk of scrap

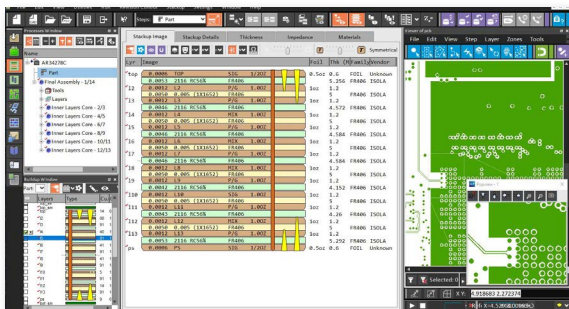


Continuous synchronization with CAM and ERP

Increase Productivity

Powerful engineering graphic editing

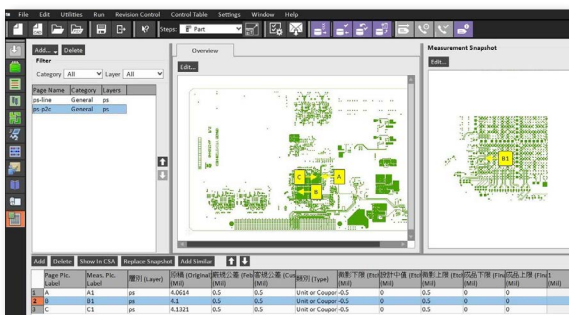
Frontline InFlow's engineering graphic editor allows engineers to manage design data read-in, cleanup and analysis, and the entire engineering process, reducing reliance on CAM resources. Compare layers and steps, automate CAM scripts and save the MI database locally for future use.



Engineering graphic editor

Generate critical measurement (POI) reports

Quickly generate Critical Measurement reports with the Control Table feature that runs an automatic process based on engineering graphic analysis.



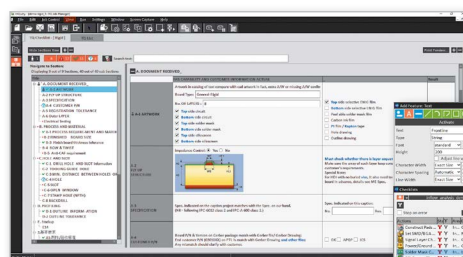
Critical measurement (POI) reports

Create and track technical queries

Create, manage and track requirements-driven technical queries with standardized automatic checklists and traceability reports that shorten technical query cycles.



TQ management

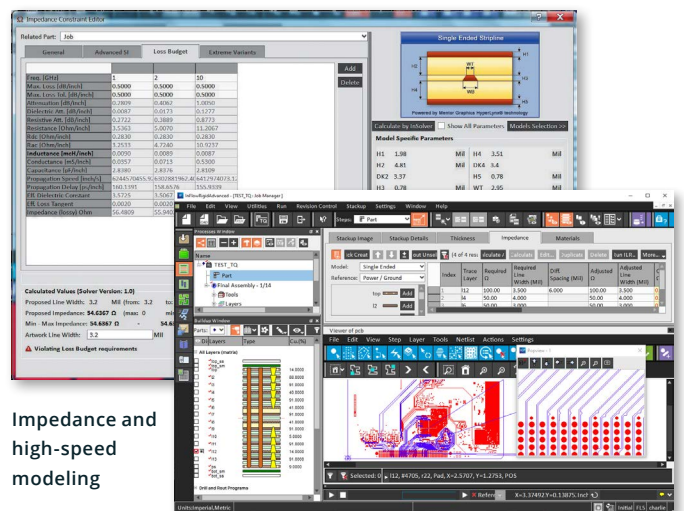


TQ checklist and list

High speed and 5G-ready

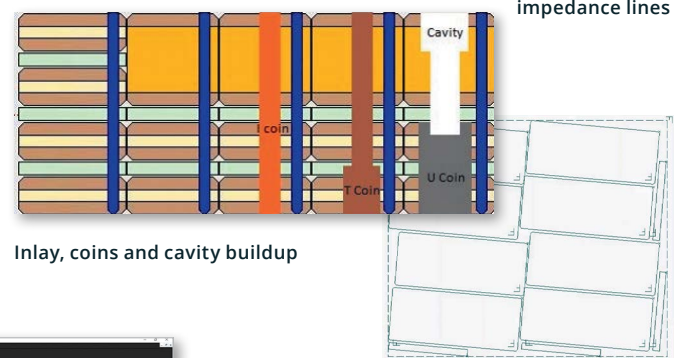
Meet customer requirements for high speed and 5G.

- Ensure loss budget compliance through improved loss calculation attenuation.
- Comply with cost-optimized design intent through inlay modeling.
- Model heat dissipation structures, coins and cavities.
- View and mark impedance lines for the shop floor; validate against extreme impedance variances.
- Optimize panels while maintaining impedance and attenuation consistency by auto-rotating PCBs and coupons.



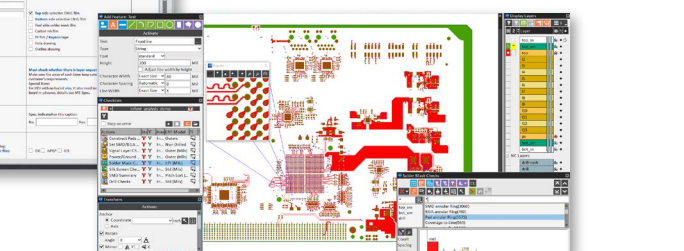
Impedance and high-speed modeling

View and mark impedance lines



Inlay, coins and cavity build-up

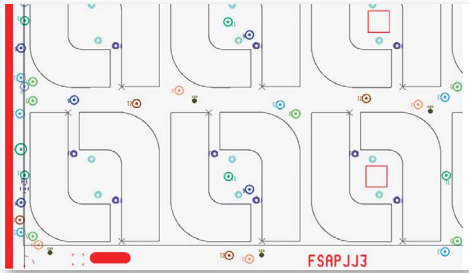
Rotate coupons



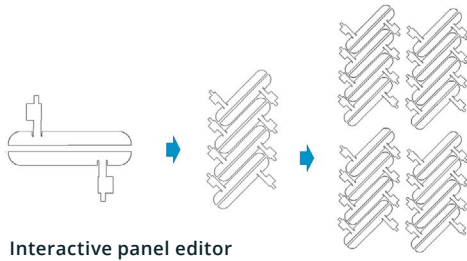
TQ graphic editor

Interactive flex tools (Flex customers only)

Speed up flex panelization and tooling hole placement with interactive panel editing tools.



Tooling hole placement



Interactive panel editor

Rules-driven process planning and engineering

Automate engineering work through rules-driven process planning and quickly produce high-quality manufacturing instructions.

Automatic stackup, BOM, traveler and CAM execution

Automate stackup design, BOMs and travelers and generate InCAM Pro CAM Guides to speed up CAM instruction execution.

Easy integration with CAM and ERP

Prevent errors by reducing data transfer and conversion between CAM and Engineering through CAM and ERP integration.

Automatic panel design and tooling

Whether it's one-click panel, array and sheet design or guaranteed impedance and attenuation consistency, Frontline InFlow's panel design and tooling solution enables optimized BOMs that meet customer and manufacturing requirements.

Optimize NC drill bit selection

Frontline InFlow optimizes NC drill bit selection by considering both design and manufacturing requirements. Define pilot holes and unify bits that meet cost and yield requirements.

The Power of Standardization

Frontline InFlow standardizes engineering workflows and outputs to enable fast operator onboarding and time to market, and consistently high-quality reports and outputs, regardless of engineer experience—from BOM, traveler and CAM instructions to control table, technical queries and custom engineering reports.

Safeguard Your Engineering Knowledge

Frontline InFlow stores and automates the knowledge of your experience and experts, giving you greater access to critical information and eliminating knowledge loss—with the flexibility to be used by non-experienced staff.

Frontline InFlow™ – A Smart Investment in Your Success

Accelerate Time to Market



Address New Technologies

Increase Revenues and Quality



Reduce Costs

Increase ROI on Human Resources



Maintain Expertise