HCLSoftware

Stop quoting in the dark. Start winning at a profit.

Machining Insights : The Machinist's Secret Weapon for Faster Quoting, Smarter DFM, and Higher Margins.



HCL DFMPro

HCL DFMPro **Machining Insights** is a new approach for machinists to analyze CAD designs. It reveals what actually drive your machining costs—and how to eliminate them before you quote.

The realities of the shop floor

When an RFQ hits your desk, the clock starts ticking. But manual CAD file or geometry analysis often leaves you trapped between underquoting a risky job and overquoting yourself out of the deal.

The radius nightmare

Parts with 12 different corner radii force unnecessary tool changes, custom tooling costs, and inflated cycle times.

Avoidable design features

Extruded text features and modeled threads instead of cosmetic ones lead to increased analysis and processing times.

The quoting dilemma

Spending hours in CAM to program a part you might not win versus "guesstimating" and taking a hit on profit margins.

The awkward DFM call

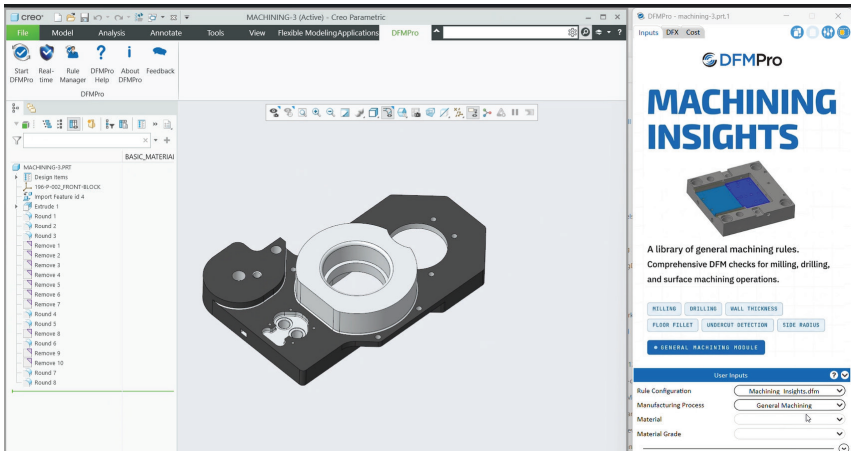
Struggling to prove to a customer's design engineer why their deep, square-cornered pocket costs 50% more to machine.

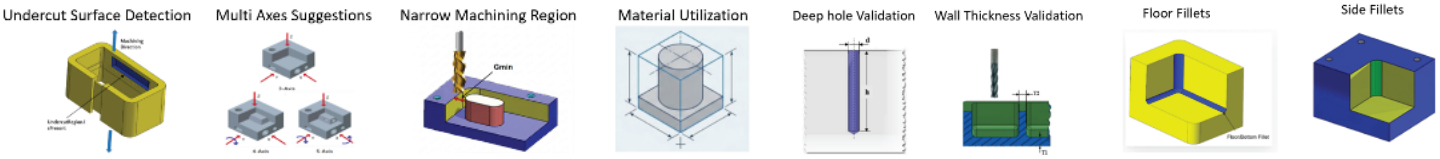
> "If you quote the part as drawn, your price is too high. If you guesstimate, your margin is too low."

What HCL DFMPro Machining Insights uncovers

Single-Click CAD Intelligence inside SOLIDWORKS/Creo/NX before you ever touch a CAM tool path. Instantly analyze design complexity and cost drivers. Utilize **Machining Insights** to focus on DFM trade-offs helping reduce price and improve margins rather than argue over design issues. Shift the discussion from a GO-NOGO decision to a WHATIF scenario.

Machining Insights





Capability	What It analyzes	Machinist benefit
Feature & radius distribution	Easy visualization for hole diameters, fillet radii, etc.	Eliminates tool-change bottlenecks; identifies standard vs. custom cutters.
Automated DFM checks	Flags deep/thin walls, unmachinable corners, and deep blind holes.	Prevents quoting impossible geometry; reduces scrap on the floor.
Cost & cycle drivers	Pinpoints critical features driving most of your machine time.	Enables fast, data-backed cycle time and cost estimations.
Machining axes strategy	Analyzes the complete part geometry and estimates the number of machining setups required.	Improve machine utilization, reduce setup changes, simplify fixture planning, and achieve more accurate production cost estimates.
Buy to fly ratio	Compares the finished part volume with the smallest possible stock.	Identify designs with excessive material removal, optimize stock selection, reduce material waste.
Feature accessibility	Identifies narrow machining regions, undercut surfaces, inaccessible areas.	Simplify the design, reduce the need for special tooling or multi-axis machining.
Bottom vertex fillet identification	Identifies areas where the radius of a pocket equals the bottom radius.	Avoid specialized ball mill passes and longer detailing runs.

How it transforms your shop

Position your business as a high-value manufacturing partner rather than a commodity job shop competing solely on price.

Data-Backed quotes

Justify Your Price
Provide clients with visual graphs showing exact setup and tooling requirements. Back up your pricing with clear manufacturing data.

Value engineering

Offer Cost-Savings
Show clients how minor design changes—like standardizing 6 fillet radii—can reduce tool changes and cut unit costs by 15-20%.

Expert positioning

Win Long-Term Trust
Become an indispensable DFM advisor to OEMs. Deliver actionable design feedback alongside every quote you submit.

Real world examples:

Radius optimization: "What if we standardize the 5 internal corner radii to 0.125"+ 3% margin – we can eliminate 3 tool changes, reduce cycle time and reduce your piece price by 18%."

Machining setups: What if we modify the bottom surface of this pocket to a planar one we can machine this part of a 3-axis mill at a 15% price reduction.

Core business impact

5x faster quoting

Instantly analyze complex models without waiting for full CAM programming. Respond to RFQs before your competitors.

Protected profit margins

Detect tight tolerances, deep holes, and high-risk geometry before bidding. Never underquote a complex part again.

Higher win rates

Stand out by offering proactive, cost-saving DFM alternatives that make your quotes the smartest option for buyers.

100% native integration

Runs directly inside SOLIDWORKS®. No file conversions, no lost metadata, and zero workflow disruption.

Stop guessing. Start analyzing. Schedule a live demonstration with our machining experts.

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