CENIT is one of the premier service providers for Dassault PLM-Solutions with wide experience in CATIA and DELMIA manufacturing applications in all kinds of industries. A multitude of manufacturing solutions, tailored for a dedicated application and based on V5 are receiving wide acclaim for their intelligence and ease of use. FASTTRIM, uses the DELMIA Manufacturing and Simulation Infrastructure for a smooth integration into the V5 platform.

Years of cooperation with leading laser machine manufacturers and the prototyping industry paved the way for a customer-driven tool that covers the entire CAD/CAM process chain for all 3D laser applications, thus bringing added value to our customers due to its flexibility and functionality.

FASTTRIM includes all necessary CAD/CAM and simulation components to cover all laser process requirements.

A FASTTRIM seat can be extended by additional CAD/CAM modules such as 3-axis or 5-axis CNC machining or Sheet Metal Design.

**CAD Features and automated Math data clean up**
- 3D Solid and Surface based Design, Assembly Design
- Simple flat blank development using powerful sketching tools
- Gaps/Overlapping in geometry are eliminated automatically
- Automatic true arc interpolation regardless of math data quality
Cutting fixture design and programming
- Automatic creation of stanchions, base plate, tabs and interlocking according to predefined fixture templates
- Automatic labeling, weight relief patterns, pin-hole support
- Automatic unfolding and nesting of base plate and stanchions into a given sheet size and automatic programming
- Full Associativity between 3D Fixture and nested plates
- Fixture plates can be oriented in any direction. “Egg-Grate”, “Diagonal stanchion” and Pam-Stanchion (Option) methods are supported
- “3 point transformation“ and optional multiple point “Best-Fit“ function (Option) available to align CAD model to a given part position on laser table for shops using jury-rigged fixtures

Programming and Simulation
- Powerful algorithms to generate a smooth and collision-free tool path automatically
- Collision check with exact machine tool kinematics and dimensions, clamps and fixtures
- Powerful Jogging / Teach / Optimize function to keep complete control over machine motions.
- Very quick programming of any type of macro geometry (holes, rectangles, key-holes, slots) with support of sub programs
- Macro geometry editor (relocating, transforming, rotating, changing dimensions)
- Offline teach functions (local offsets to native trim line, transformations, etc.)
- Automatic or manual rewind operations according to machine tool travel limits
- Automatic lead-in, lead-out, clearance operations; cutting conditions can be set automatically
- True mirror function keeping all changes in the mirrored program

Reverse Engineering (Option)
- G-Codes (or RML-code) can be uploaded and modified, no matter if the origin was FASTTRIM or another programming system or even a digitized NC-file
- Simple G-Code editing and modification
- Conversion into different G-Codes (e.g. Mazak 510 Trumpf 840D)

Knowledge based machining can be accomplished through CENIT’s macro language. Laser technology data, machining operations and methods can be defined and stored for reuse. Special applications like 5-axis tube cutting, bevel cutting and others are also supported.

Laser machines supported
An extensive set of implementation kits for 5-axis and 6-axis laser machines such as Mazak, Mitsubishi, NTC, Prima and Trumpf are available in all models and sizes. Machine specific control panels allow further customization of shop floor proven post processors.

Infrastructure
- Intuitive and easy-to-use interface based on Windows 2000 or Windows XP
- Customizable user input panels
- Import and export native CATIA, DXF and IGES (native UG and STEP are available as an option)

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