

## SERVICE & SUPPORT

Our software and services are characterized by the close collaboration with our customers in industry, research and education. CAM-Service offers practical software solutions for requirements arising from practical experience.

All laser process specific functions and modules of the CAGILA software are developed by CAM-Service in house. Direct communication between

development, support and sales provides best service to our customers in a short response time.

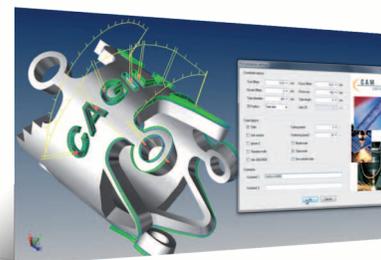
If you have special projects that require a customized solution we would be pleased to assist you with our long experience in the field of CAM software.

# CAGILA®

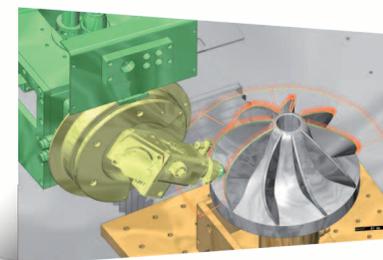
highly sophisticated NC programming for laser processing

## YOUR FLEXIBLE CAM SYSTEM

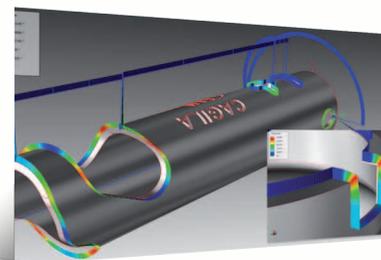
for laser-, water jet- and plasma cutting



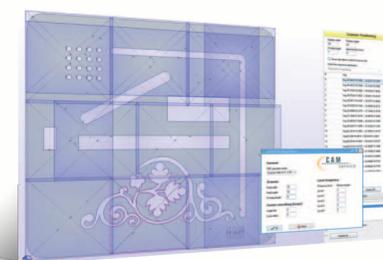
3D programming of tool path



3D simulation of laser tool path



tool path analysis



2,5D scanner stitching

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Solving your CAD/CAM problems



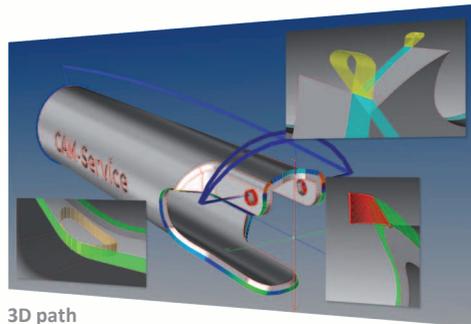
# CAGILA PROVIDES SOLUTIONS TO OPTIMIZE YOUR NC PROCESS CHAIN.

CAGILA is an innovative, easy to use CNC programming software with optimized functions developed especially for laser-, water jet- and plasma cutting. CAGILA provides high quality data

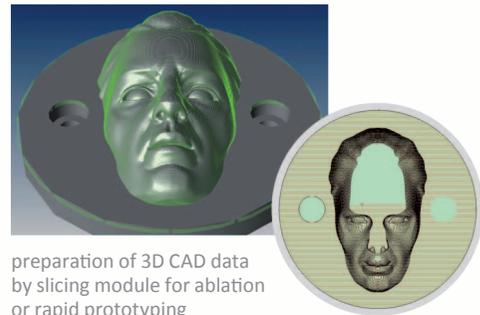
preparation using specialized modules for CNC based micro and macro processing. Interfaces and modules provide bidirectional links in the NC process chain between CAD, CAM and CNC.

## SUPPORT OF ALL CNC CONTROLS

- any kind of NC format and dialect for YOUR customized post processor
- 2 up to 5 axis NC processing with analysis of machine kinematics and laser process
- NC subroutine, loop and macro technology
- real NC code simulation with analysis of deviation between NC program and recorded axis positions by NC Analyzer



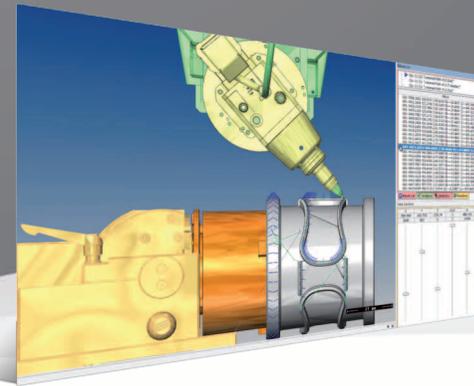
**3D path**  
optimization by destruction loops, leads, sky writing, etc.



preparation of 3D CAD data by slicing module for ablation or rapid prototyping

## ADVANTAGES

- **fast algorithms** need only a few seconds for data preparation of complex CAD files
- **reduction of time and material costs** by high performance nesting
- **flexible adaptation** to solve your problems – but easy to use
- **CAGILA functions** are the result of intensive cooperation with job shops and R&D dept.



## 3D PROCESSING

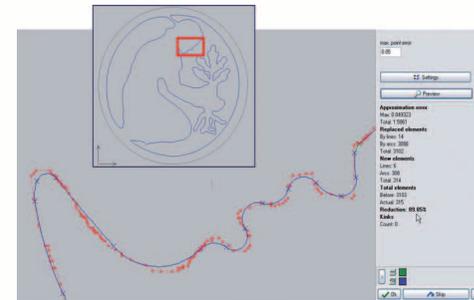
The CAGILA 3D module supports 2 to 5 axis programming of 3D CAD data. Tool path and laser beam orientation is directly extracted from the 3D CAD data model.

In addition to NC programming with laser tool heads also scanners are supported (e.g. ablation of 3D CAD data by slicing).

CAGILA provides import interfaces for native 3D formats like SolidWorks®, Autodesk® Inventor®, Solid Edge®, NX® (Siemens PLM), Pro/ENGINEER®, CATIA®, Parasolid®, ACIS® as well as standard formats like STEP, IGES, VDA-FS. For 2D data CAGILA supports formats like DXF, DWG, IGES, EPS, PS, PDF, AI, Gerber, HPGL / PLT, Trumpf GEO, NC code, etc.

**ADVANCED REPAIR FUNCTIONS.** Even complex CAD data is analyzed and repaired in a minimum amount of time. Faulty data with gaps, intersections, overlapping or identical elements – CAGILA is able to repair them.

**CURVE CONVERSION.** Geometric data from external CAD systems often consists of curves (splines, ellipses, polylines, etc.) which can be converted by CAGILA into CNC adapted tangential arcs with reduced number of elements.

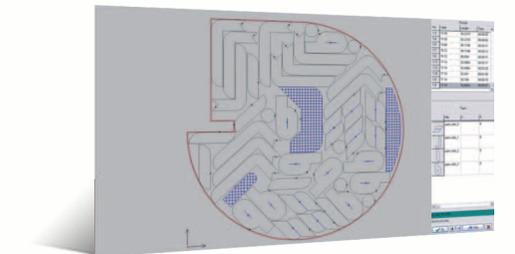


**arc recognition** in line based curves results in fewer elements and highly improved NC path quality

**INNOVATIVE FUNCTIONS.** CAGILA provides high speed perforation / drilling of faces as well as an intelligent path planning for parallel processing of large contours by several lasers (e.g. cutting of filters from a textile coil by 4 laser scanners).

**EASY NC PROGRAMMING.** Automatic recognition of inner and outer contours with easy set up of leads by using multi segment technology for process optimized segmentation of contours. Special functions for laser cutting provide high NC data quality in a few minutes (e.g. destruction cuts, copy of process sequence, geometry dependent technology).

**HIGH PERFORMANCE NESTING.** It yields excellent results for material saving parts placement on arbitrarily shaped materials, including circular blanks and sheets with surface defects.



**nesting technology** with support of restricted areas on all kinds of sheet forms, e.g. airbag textile, wafer or precious metals