



**act/cut**

## Best performance for your continuous cutting machines and punch-presses

CAM for 2D cutting, punching and routing

Developed from Alma's 30 year experience of cutting and punching CAD/CAM software development, **act/cut** pilots continuous cutting machines (laser, plasma, oxy-cutting, waterjet, aluminum sheets and wood panel routing) as well as punch-presses and combined machines.

**act/cut** pilots all types of machines, taking into account individual technology specification at every step of programming, from part preparation to the NC code generation, including nesting and tool path definition.

**act/cut** is a real time saver, fully automated whenever possible, yet leaving the final decision to the user, ensuring optimum efficiency in specific situations.

**act/cut's** unique nesting algorithms, fully adapted to all cutting needs, significantly decrease material use.

Open and customizable, **act/cut** imports part geometries from any CAD software and easily interfaces with Production Management Systems or ERP solutions. Lots of dedicated optional modules interact with **act/cut**: 3D import and unfolding of sheet metal parts, developed shapes for boiler construction and ventilation, tube cutting, letter and drawing cutting (logos, billboards), 3D import and automated machining allocation on parts for 2.5 axis wood panel routing...



A pioneer in sheet metal cutting optimization with automatic nesting for more than 30 years, Alma is a first-rate CAD/CAM software developer, specializing in sheet metal machining, cutting and robotics, with a strong international presence, subsidiaries and a dedicated distributor's network.

Capable of piloting all technological processes in the sheet metal industry, from mechanical welding to industrial cutting, from standard machines to the most complex installations, **act/cut** software can adapt to any production configuration and provide immediate benefits.

Alma's solution guarantees you will benefit from the unrivaled know-how of a groundbreaking company, which has developed numerous partnerships with machine or robotic manufacturers, and has always dedicated maximum attention to its clients.

### alma Industrial software

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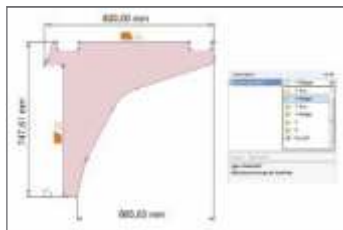
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# All round benefits with act/cut



## Reducing preparation and programming time

- Full automation available for every step of the programming process (CAD-CAM interfaces, nesting, tool assignment and tool path definition ...). The software can operate successfully as a black box.
- "Intelligent" features: optimization strategies are chosen according to localized situations; similar context scenarios can be recorded.
- Integration with the client's Information System: direct and automatic links with CAD solutions, production management systems, ERPs and other CAM modules (folding, unfolding, ...).
- All the client's machines can be piloted using the same software.
- Complementary offer of integrated craft dedicated modules (folding/unfolding, letter and drawing cutting, tube cutting, 3D cutting, ...).
- Simplified programming (user friendly, software standardization, flexible switch between automation and interactivity).
- Short learning curve.



## Saving material

- Improvement of material usage rate (decreased loss rate) thanks to optimized nesting.
- Nesting in remnant sheets from previous nesting.



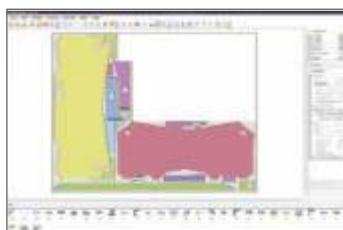
## Reducing cycle time, increasing machine productivity

- Tool path optimization.
- Individual technology specifications are taken into account (multi-torch cutting, common cut, laser head up/head down management ...).
- Management of loading/unloading and part sorting systems (palletization).



## Improving quality of the produced parts

- Cutting quality optimization by taking into account individual technology specifications (cutting conditions allocation, lead-in or tool definition, tool paths, speed and acceleration description ...).
- Repeatability of both programs and situations.



## Saving on consumables and tools

- Reduction of the number of piercings (bridges, chain cutting, common cut) and tool path optimization.
- Optimized management of cutting conditions.
- Reduction of the number of punch strikes (common cut, optimized notching...).



## Reducing handling operations in the workshop

- Reduction in number of actual cut sheets.
- Skeleton cut with management of various evacuation modes.
- Management of loading/unloading and part sorting (palletization) systems.

## Increasing security around machines

- Implementation of collision risk avoidance (collision between cutting head and an actual cut part, collision between tool turret and clamps on punching machines).
- Programming methods forbidding release of off-cuts (punching, routing) guaranteeing that released parts or off-cuts, are held by the machine.
- Simulation features showing which defined operations can be performed.

## Improving workshop organization and production response time

- Consistent programming methods for different machines. Programs created on a single machine can easily be reused on another.
- Manufacturing order management with automatic pooling of parts to produce.
- Management of remnant sheets and off-cuts.
- Streamlining of the necessary sheet formats, and reduction of the number of cut sheets (intelligent automatic nesting).

## Improving data organization and process quality

- Numerical data archiving and document trail.
- Know-how formalisation.
- Program standardization.
- Significant reduction of potential errors.
- Data integrity control at each step of the programming process (for example: validation of nesting after a geometrical part modification).
- Better streaming of data between services (Design departments, Methods, production, quality ...).
- Integrated dedicated modules simplifying data exchanges.

# act/cut, the best software for all your machines!

“act/cut automatic nesting decreased preparation time by a factor of 2 and improved material use by 23%.”

Socata

“Streamlining the use of sheet formats, combined with act/cut nesting performances enabled us to decrease loss rate by 10 points.”

Trane

“Using the same programming software for all our cutting machines, and on all of our production sites enabled us to share our resources.”

Marchesini Group

“The various shortcuts found within all levels of the software, and its full integration in the Windows operating system resulted in fast programming.”

Nichrominox

“act/cut is faster, easier to use and more efficient in the nesting process. Data exchanges with Design are simple and better managed.”

Feldbinder

## Laser cutting



As early as 1988, Alma had created a fully automated solution for the programming of laser cutting machines. Since then, Alma has kept pace with the development of this specific technology. Today, half of Alma's customers have at least one laser cutting machine. Nesting efficiency, the possibility of using all laser cutting modes, technological parameter management and software automation make **act/cut** the most productive solution to program your laser cutting machines.

## Oxy-cutting and plasma cutting



**act/cut** pilots numerous oxy-cutting and plasma cutting machines of all types. It is used by the most important flame cutting companies, as well as by the most prestigious manufacturers of transport and construction equipment or mechanically welded assemblies. **act/cut's** unequalled performance in oxy-cutting and plasma cutting is due to the consideration given to the needs and specifications demanded by these technological processes, but also to the combination of powerful automation and the possibility of user interaction in specific situations.

## Punching-nibbling



**act/cut's** added value in punching-nibbling technology lies mainly in the software's powerful automation (tool allocation, machining sequence, nesting, part evacuation ...) and in its unique nesting algorithms. This makes **act/cut** a highly productive solution for on-demand production of numerous and varied parts. The software can manage all loading/unloading peripherals and is perfectly adapted to combined machines (punching/laser and punching/shearing).

## Waterjet cutting



Uniquely adapted to continuous cutting technologies, **act/cut** is an extremely valid waterjet machine programming system. It knows how to take into account all the specific technological characteristics of waterjet cutting, from tool trajectories through to cutting speed and lead-in modes. Whether you work with large nesting projects or cut single parts, **act/cut** easily suits the cutting parameters of a large range of materials cut with waterjet technologies.

## Aluminium sheet routing



Aluminum sheet routing technology is specific to the needs of the aeronautics industry, which has been one of Alma's strong points since the early 1990's. Numerous aircraft manufacturers and subcontractors use **act/cut** on a daily basis to pilot their NC routing machines. High nesting performance and the full management of all the needs and specifications of this technological process makes **act/cut** the ideal solution for the programming of your aluminum routing machines.

## Wood panel trimming



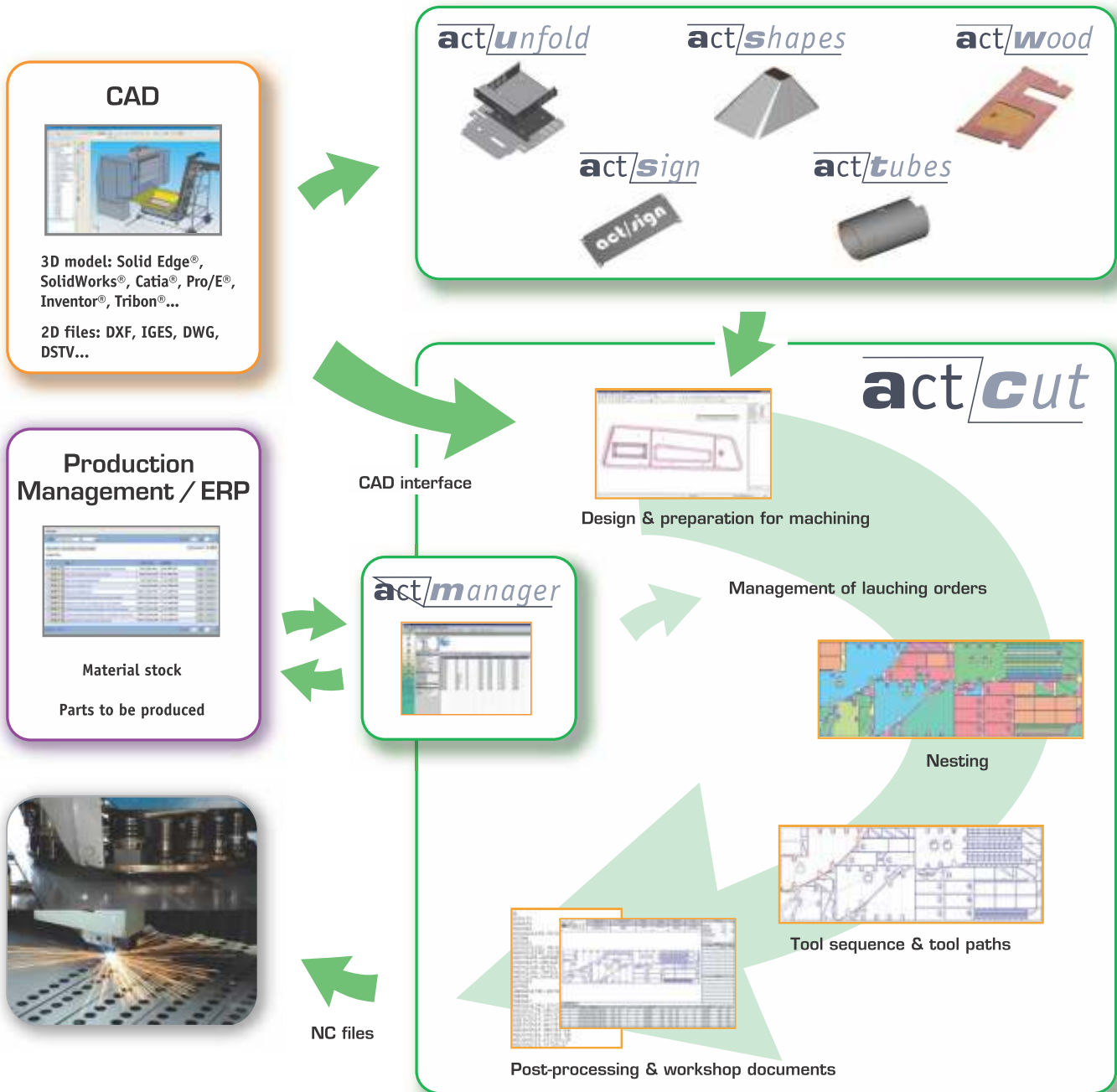
Alma has developed over the years, its own expertise in the field of wood panel machining on 2.5 axis machines. **act/cut** is an added value specialized software solution for the industry's need for part nesting: pleasure boat production, sofa and furniture manufacturing, trailer and caravan manufacturing, playground or kitchen design, etc. Furthermore, **act/wood**, the dedicated module, combines geometry recognition functions and automatic machining functions, enabling any CAD-designed 3D part to be imported, prepared and programmed with **act/cut**.

## The same software pilots all your machines, using any type of technology

**act/cut's** architecture and customization possibilities, makes the integration of technologies and machines very easy. It creates a single environment to control all of your machines, taking advantage of the various machine features. Thanks to its easy learning, streamlined programming method, easy collaboration between users, and its technological excellence, **act/cut** is an unequalled productivity booster.



# The software suite for 2D cutting and punching



## Optional modules which can be added to act/cut:

- **act/unfold:** 3D import, unfolding and modeling of sheet metal parts.
- **act/shapes:** developed library shapes for boiler construction and ventilation.
- **act/sign:** letter and drawing transformation into cutting profiles.
- **act/wood:** 3D import and automated machining allocation on parts for 2.5 axis, for wood panel routing.
- **act/tubes:** tube modeling and nesting; tube cutting programming on 2D machines with a rotation axis driven by **act/cut**.
- **act/manager:** cutting activity management (manufacturing orders, stocks, launching orders) and the data import/export from and to any Production Management Systems or ERP.

## Other products of the act/ range:

- **act/bend:** bending simulation and NC press brakes programming.
- **act/square:** rectangular cutting optimization (shearing, etc).
- **act/cut 3d:** 5 axis cutting machines and robot cutting programming.
- **act/weld:** arc welding robots offline programming.