ENGLISH

ASPAN

MOdular **S**oftware **T**ool

To program pantographs, machining centers, edge banders and other industrial machinery.

_ CAD/CAM
_ Nesting
_ Vectorializer
_ Door management
_ Cabinet management

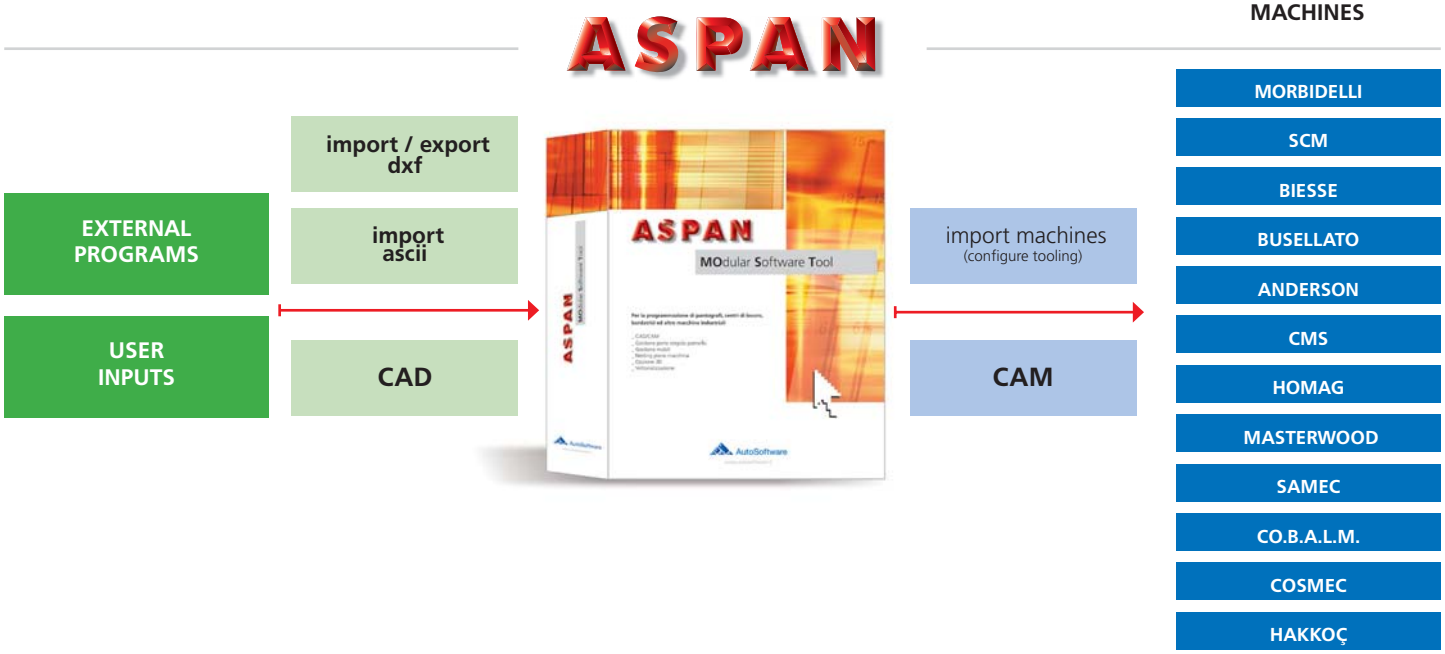
ASPAN

The **"Bridge"** between woodworking machines

AutoSoftware

www.autosoftware.it

ASPAN



What is Aspan?

Aspan is an integrated CAD-CAM program. Users draw their production parts quickly and easily in the CAD environment and then transfer these to the CAM environment to prepare the optimized machine programs needed to actually produce the part.

A set of easy to understand commands (e.g. "Draw Holes", "Draw Grooves") and automatic routines (e.g. "Assign tools", "Optimize machining sequence") make it easy for users to define the machining operations to be performed on the unfinished parts.

1) CAD – this is the drawing environment used to create graphic entities such as various types of hole (e.g. standard, countersunk, in lines, angled, hole barriers) and routings (e.g. straight grooves, arcs, ellipses, rectangles, points). Standard commands (e.g. "Join", "Rotate", "Auto-join") and advanced functions (e.g. "Text", "Empty area", "Inclined surfaces") are used to create the drawings themselves.

2) CAM – this is the environment where drawings are converted into machine programs. This is done using a series of utilities for operations such as automatically assigning tools and optimizing machining sequences. A series of special commands (e.g. "Inputs/ Outputs", "Multi-machining") makes it possible to configure the machine program with the exact specifications (e.g. tools, speed, worktable) of the machine currently being used.

3) Links to machines: Aspan handles various machine types and will generate programs for multiple machines starting out from a single drawing. Aspan can also reconstruct a drawing starting out from a machine program. This function can be used as a vital link between machines making it possible to pass data from one machine to another.

4) Links to other programs: Aspan can be linked to a variety of external programs such as "IMOS", "KDCw", "Pattern System", "Cabinet Ware" and "Drill Mate". This is done using ASC, an AutoSoftware proprietary format, and DXF files. This means that users can prepare designs with their drawing program of choice and then use Aspan functions to generate the machine programs necessary. Linking one program to another is made easy by a series of Aspan utilities such as the "Import CSV file" function.

5) Customized commands: Aspan has its own integrated programming language - AutoSoftware Programming Language (APL). With APL users can create new CAD and CAM commands to optimize their design procedures.

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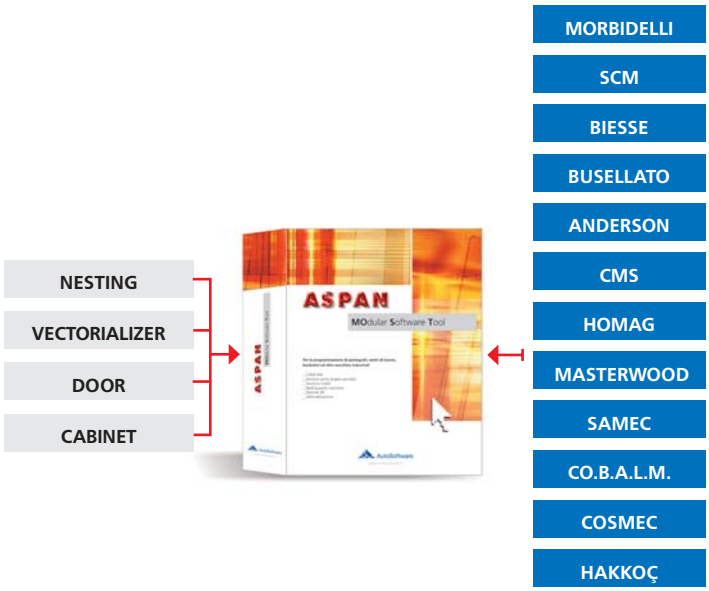
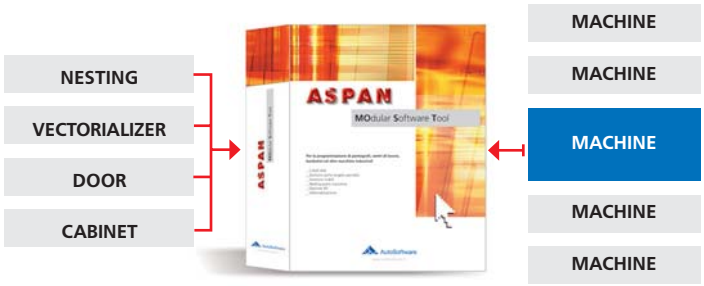
ASPAN _ PILOT



• **PILOT**
base program + all available optional modules + unlimited number of machine configurations.

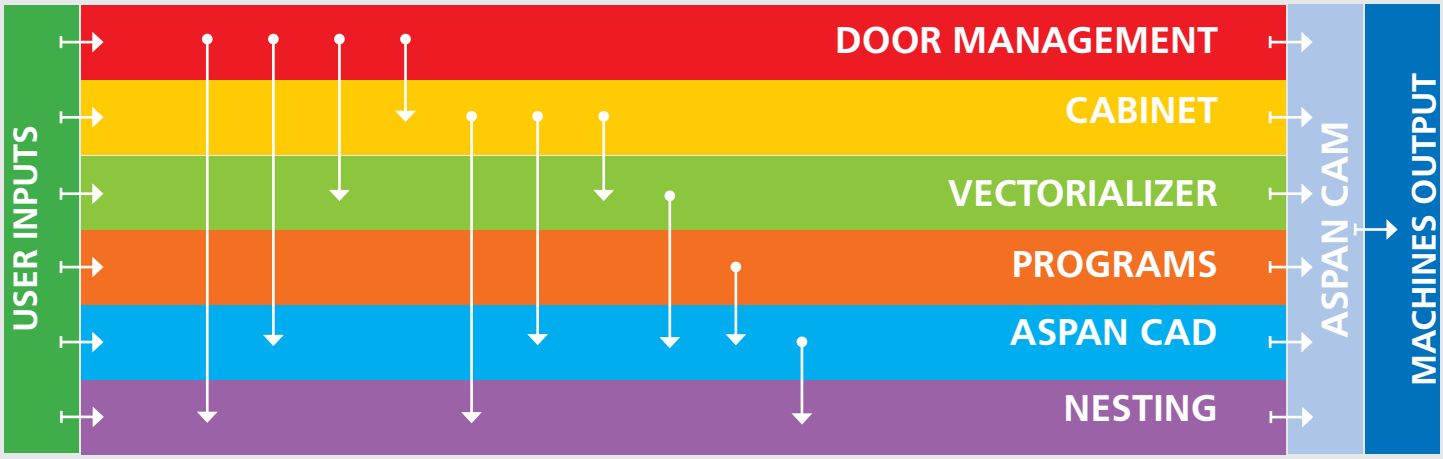
ASPAN _ PROSPECT



• **PROSPECT**
base program + only one machine configuration; on request: optional modules, additional machine configurations (max 5).

ASPAN operating mode

Possible MOST (MOdular Software Tool) system uses



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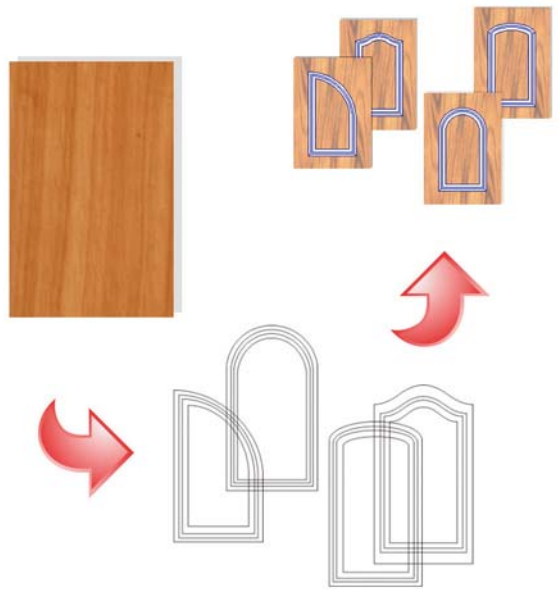
ASPAN _ DOORS



The Door Module is used prepare the drawing and machine program needed to produce a finished door from a single, unfinished panel. This module comes complete with a library of door types. The library includes standard, offset, arched, gothic and rounded doors with one or more vertical and horizontal panels. Users can create new types of doors from the ones provided according to their requirements and then add the new, customized door to the library. The door parameters that can be modified include: overall dimensions; number and type of machining operations; number of horizontal and vertical panels.
If the door selected meets the user's requirements, the user only has to enter the door's overall dimensions to immediately obtain the related drawing, the machining operations necessary and the optimized machine program. The Door Module can also be used together with the optional Nesting Module. In this case the machine worktable can be optimized for the doors selected with the quantities and dimensions required. A door made in this way can of course be customized later with drawings, lettering and other personal touches using the CAD commands.

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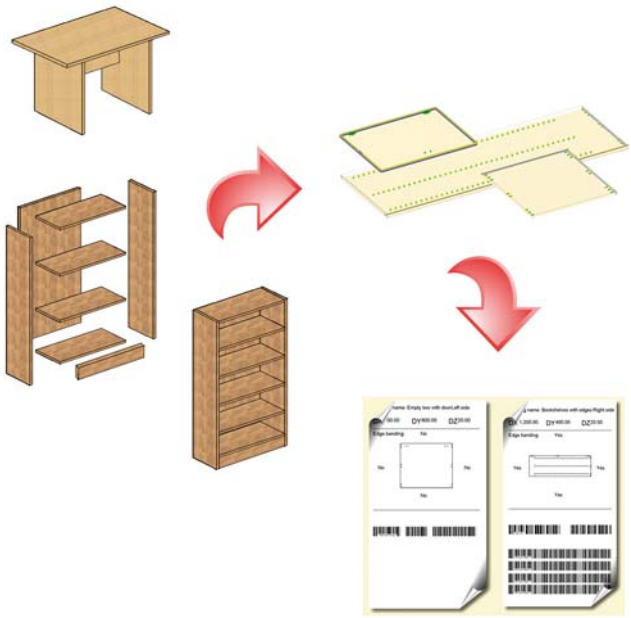
ASPAN _ CABINET



The Cabinet Module is used to prepare all the drawings, machining operations and machine programs needed to produce a complete cabinet starting out from unfinished panels.
This module is complete with a library containing various items of furniture such as empty boxes, wall cabinets (with and without doors), bookshelves, desks and cupboards. The user can use a library item as the basis for a customized piece of furniture and then store this personalized item in the library. The dimensions and components of items of furniture can be modified. If a library item meets the user's requirements, the user only has to enter the final overall dimensions to immediately obtain the drawings of the single components, the machining required (e.g. joint holes, shelf holes) and all the related optimized machine programs.
The Cabinet Module can be used together with the optional Door Module where the user can select cabinet doors from those present in the Door Module library. The Cabinet Module can also be used with the optional Nesting Module where the machine worktable layout can be optimized with all the furniture components in the quantities and sizes required. All the furniture components can be customized later with drawings, lettering and other personal touches using the CAD commands.

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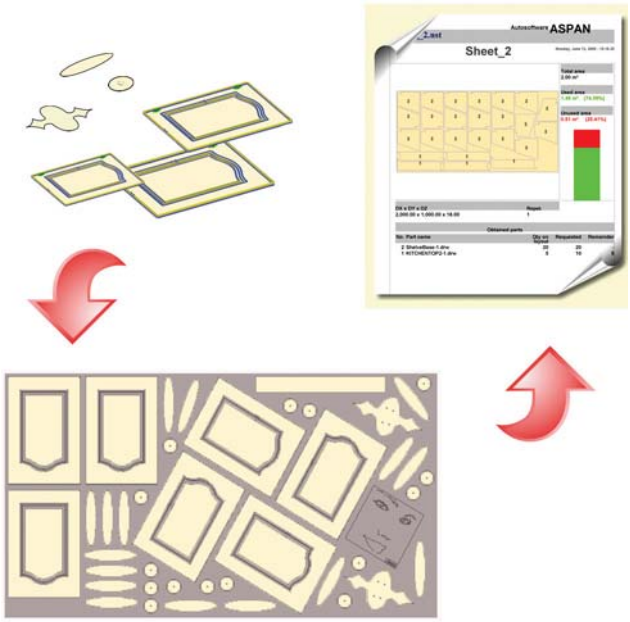
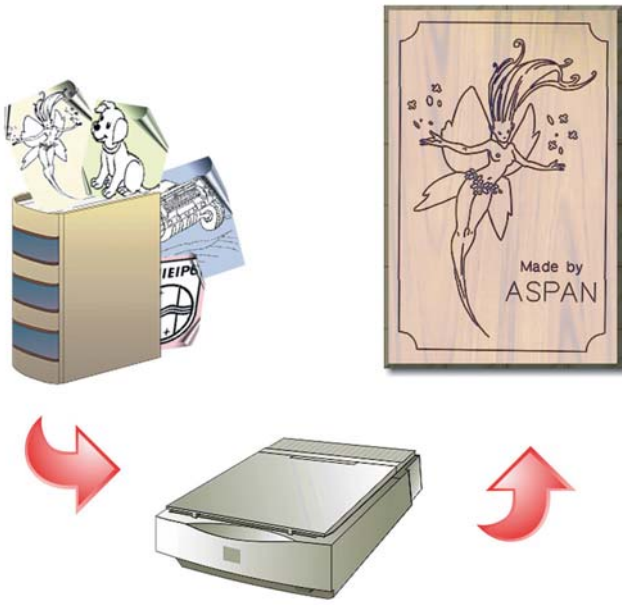
ASPAN _ NESTING



The Nesting Module optimizes the filling of a panel, part of a panel or a series of panels with closed parts of any shape. The nesting procedure can be used in the CAD environment to optimize the current panel or an area of that panel with closed parts of any shape drawn in the CAD environment. It can also be used in the machine environment to optimize one or more warehouse sheets with Aspan drawings, free-hand shapes, rectangles, macros, doors, cabinet parts, DXF files and ASC files. Once the parts and the quantities to be optimized have been selected it is possible to assign additional properties to the parts, the panel or the panels to be optimized. These properties include: grain direction; insertion order; rotation steps for filling attempts; filling of unused part or panel holes with other compatible parts. For the worktable nesting procedure users can import the data of the parts to be optimized as CSV format files. For each cutting diagram the user can create a series of graphic reports, part labels, optimized drawings and machine programs.

ASPAN _ VECTOR



The Vectorializer Module converts any image into a drawing that can be used by the Aspan program. The image to be vectorialized must be in the Windows bitmap format (.BMP). The image can contain any type of subject. It could be, for example, an artwork, a logo or a geometric design. The original image can be in colour (up to 256 colours) or black and white. The images are only available in printed format? No problem, just use any scanner to convert them into a .BMP file. The vectorializer takes the original image and traces the outline of the drawing and the central line of the section. It converts and groups together the image pixels as straight lines and arcs on the drawing and then links the entities found to each other. Where necessary it reduces the entities. The resulting drawing depends on the quality, condition and complexity of the original image. In some cases it may be necessary to modify the drawing further to obtain the quality required. The vectorialized drawing is for all intents and purposes a standard Aspan drawing that can be modified, scaled and rotated as required. You can assign tools to it and convert it to a machine program just as you would with a normal drawing.

ASPAN

MOdular **S**oftware **T**ool

An Autosoftware program - www.autosoftware.it

AutoSoftware

Autodesk
Authorized Developer

Aspan enjoys a world-wide reputation as the easiest-to-use software for programming woodworking machinery. The program is very powerful with a user-friendly interface providing access to a hundred high-level commands, functions and options.

Originally created in DOS in 1992, the program has been continuously updated to keep pace with the new operating systems. Performance has been developed and improved with the continuous addition of new commands and functions.

We are proud to say that any of the problems experienced by our customers over the years have been solved by our internal troubleshooting service. We reproduce and solve errors here at AutoSoftware without the need to intervene at customer sites.

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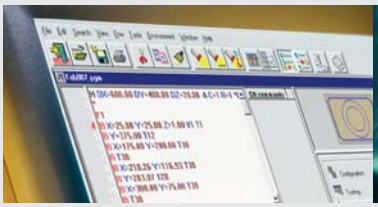

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