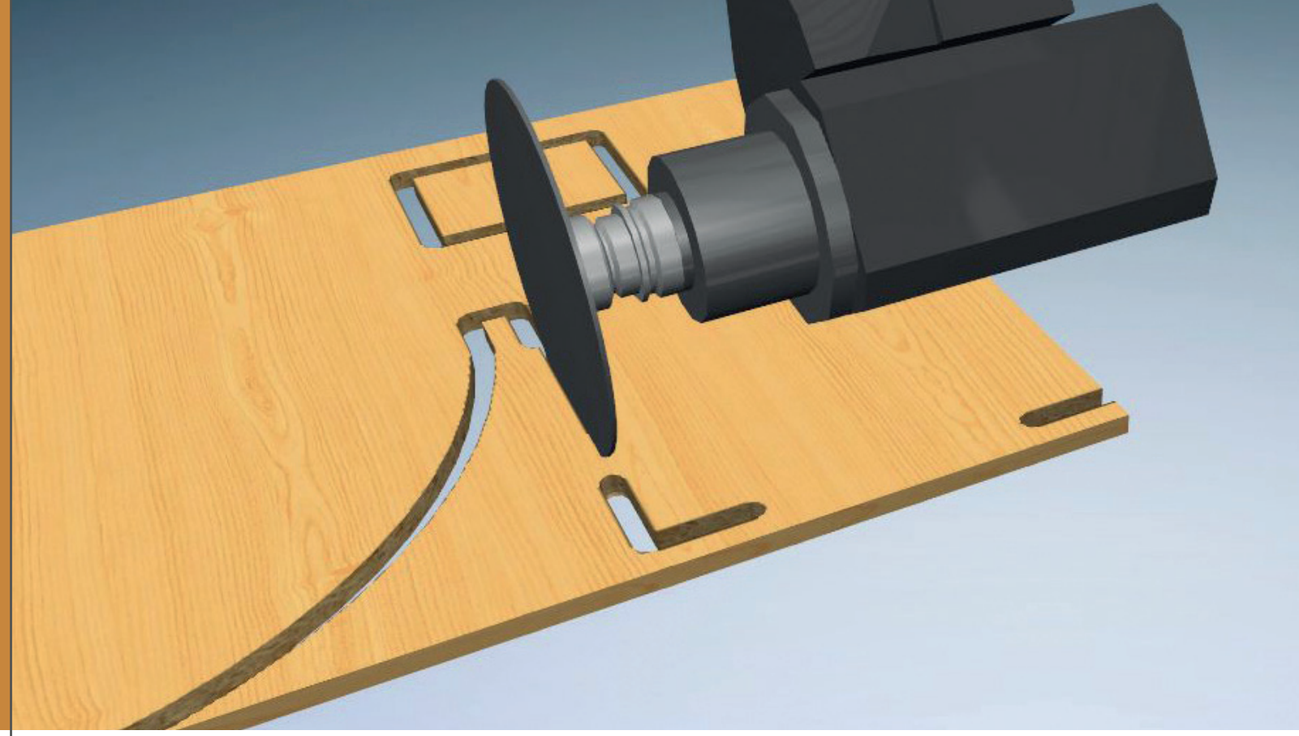
CAD / CAM

COBUS Nesting

Highly efficient



Professional nesting software

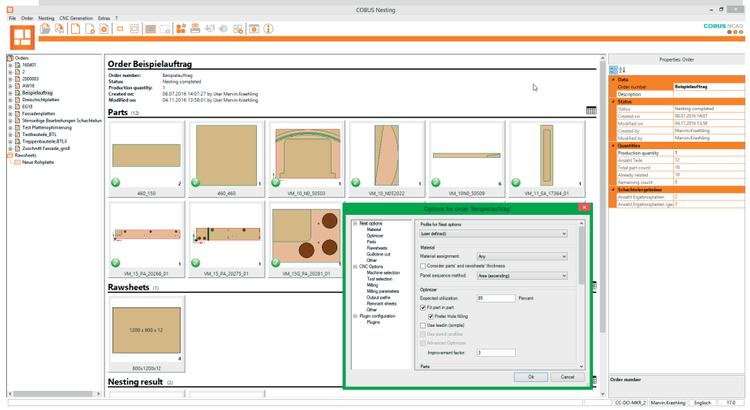
In the scope of manufacturing, “Nesting” refers to the process of laying out patterns of parts on a sheet of material to maximize the utlization of the material and reduce waste.

A key component in this process is having a fully integrated software solution. COBUS Nesting fits in by providing a professional solution for minimizing waste during parts production.

The nesting algorithm analyzes the individual parts at hand, calculates the optimal position and rotation (if enabled) and outputs fully nested sheets with corresponding cutting instructions.

Easy to implement and work with, COBUS Nesting can import from multiple sources, automate the printing of labels and offers multiple options for optimizing nesting performance.

The result is the potential for significant savings in material costs and time spent in production. Get done with the manufacturing quickly and efficiently to move on to the next step!



Your benefits at a glance

- Nesting library (64-Bit)
- Nesting from construction files
- Calculation of material usage
- Calculation and display of scrap
- Display of parts produced vs. nominal quantity of parts needed on job level
- Automatic scrap management
- Automatic label printing
- Data transfer from flexible parts lists and ERP-systems
- Data transfer from Excel
- Plug-in options for customized add-ons
- Processing segmentation (e.g. horizontal processing)
- Accurate processing time calculations
- Fully automatic CNC program generation

Your benefits: Save time and money!

This is COBUS ConCept:

With more than 25 years of experience providing mid-sized manufacturers professional IT development and implementation, COBUS ConCept has become a trusted and reliable partner for Woodworking manufacturers around the world. Based in Germany, COBUS ConCept is dedicated to developing and perfecting software that helps manufacturers, especially those in woodworking, streamline thier operations.

Your Success.

Our Motivation.

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Stand: 04/2017[ccs-P-106-de]
This document supersedes any previous

Guillotine cut

User-friendly

CAD/CAM

COBUS Nesting

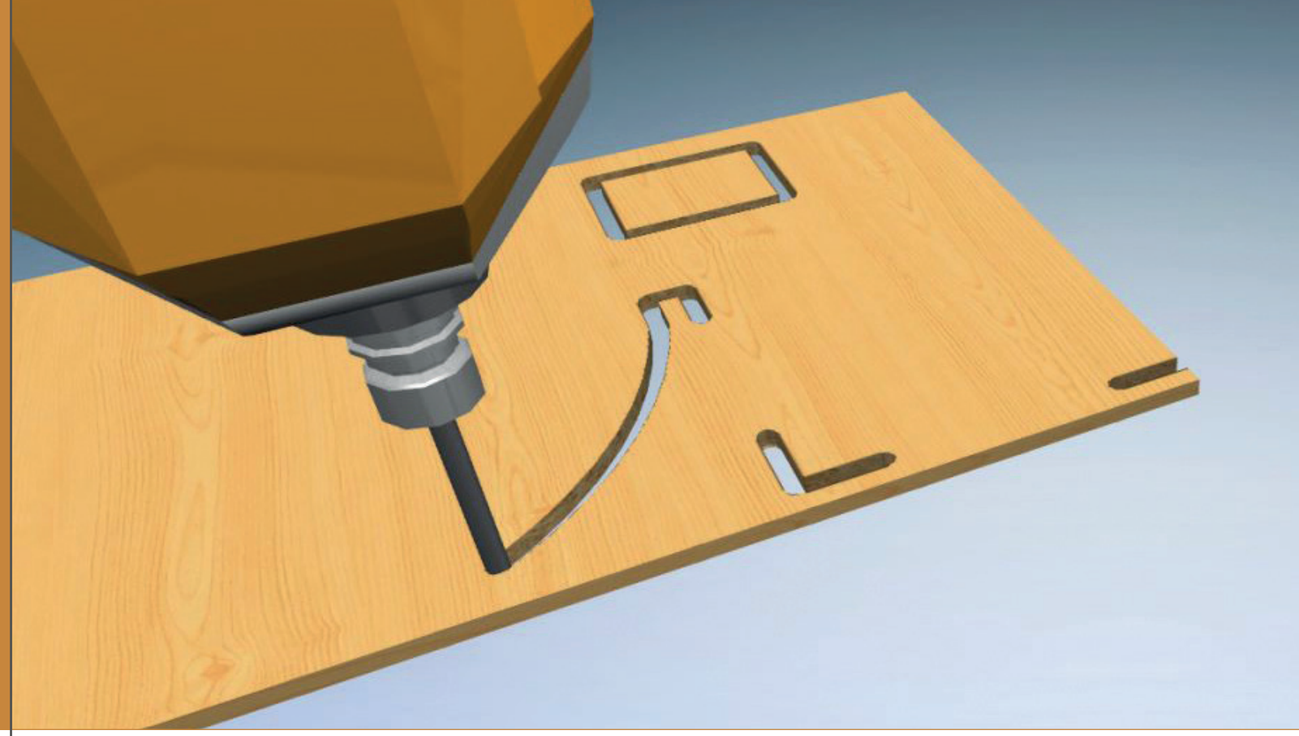
Common Line Cutting

tool path

New Features

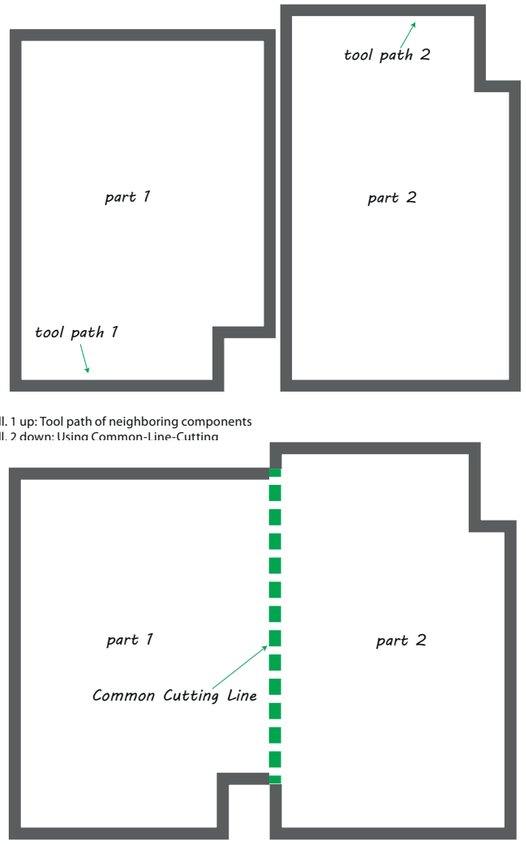
2018

save money



ill. 3: Option sawing and milling

Save time



ill. 1 up: Tool path of neighboring components
ill. 2 down: Using Common-Line-Cutting

Design-to-Machine

The Nesting module was recently completely upgraded using Microsoft .Net framework. The result is a clear and user-friendly user interface on top of a sprightly 64-bit nesting engine.

CNC programs are driven through automatically, from NCAD or other import formats, straight to machine legible code. All important and necessary information, such as grain direction and machining definitions are transported along to be reflected in the final product.

Data import

A brand new feature: DXF files based on a layering system can be directly imported into the nesting module. A fully integrated solution with an ERP system can be achieved by matching the production order coming from the ERP system with the individual DXF part files.

Nesting strategies

A combination of using sawing and routing can be used for creating part trim cuts. The milling bit is initially used to pre mill the edges, work out any arcs and short line segments. Then the saw comes in to complete the process and separate the parts. Tool optimization takes into account the rotation, if desired.

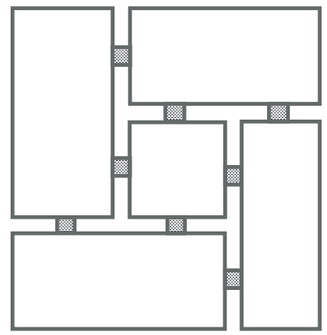
Common Line Cutting, as the name implies, tells the Nesting module to find overlapping trim cuts on parts nested side by side and eliminate those redundant cuts from processing. This has been verified to cut processing time down by 30%.

Tabbing, another strategy, is a common practive for reducing the movement of parts due to loss of suction at the edges of the router table. Bars or "tabs" of material are left in the trim cut so that pieces remain connected together. The start and endpoints are user definable.

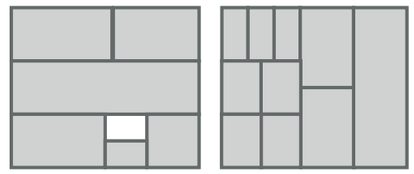
For a more efficient distribution of rectangular parts there is a guillotine cut option as well. The Nest will be organized according to the principle that long straight cuts can be made with the saw to make best use of processing time.

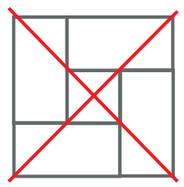
Documents and labels

In order to manage the distribution of parts, the module generates all the necessary documents. Customize and print reports such as material notes, drafts or statistical evaluations. When parts are produced, labels can be automatically printed.



ill. 4: Cutting pattern including tabbing





Such nesting pattern is not possible with the Guillotine-Cut.