Kühn-Software:	Software Engineering Services
Contact:	Office ++49 (0)511 26299914
	Fax: +++49 (0)511 26299929
E-Mail:	info@kuehn-software.de

Palletizing Software
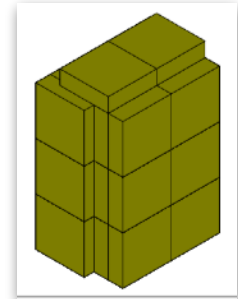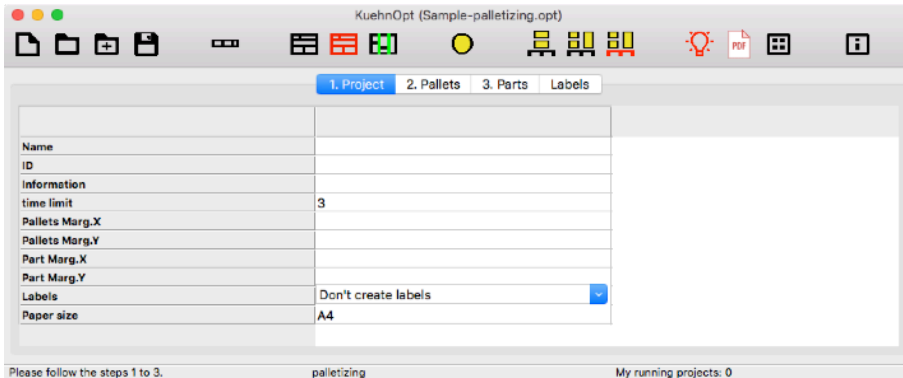
Features

- Metaoptimization for several pallets.
- Different package sizes in a layer are optimized too.
- Optimization result is the number of needed pallets.
- Reports.
- Labels.
- 3D view including zoom.
- HTML-Export.
- ASCII-Export.
- Customizations for your machines and host system.
- Minimal hardware requirements: 64 MB RAM, 20 MB space on harddisk.
- OS: **Apple Mac OS X**, **Windows**, **Android**, **Linux**, Embedded Linux (e. g. Siemens IOT hardware).
- Customer specific options.
- .

KuehnOptPal is a user friendly tool for generating optimal pallet loads. It generates pallets and layouts from a given order. Input data is the number of packages with size and maximum load height.

KuehnOptPal optimizes for the minimum number of needed pallets. It produces reports with 3D pallets view and 2D view from any needed layout. The unique feature is the optimization for the whole orders.
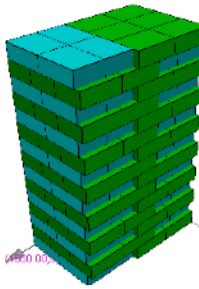
Kühn-Software offers several customizations for your production process and machines.

Price: from 299 €
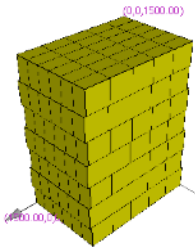(see our separate list for details)

Stability features

1. Auto mirror identical layers.

2. Auto move identical layers.

Flexibility:

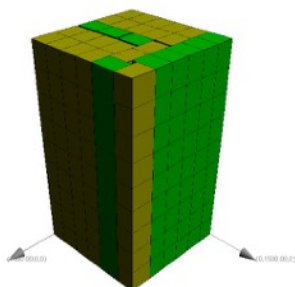Any generated pallet, layout or layer can be edited.

Sample 1

Question: How many packages (205 x 159) fit on a pallet (1000 x 1000) ?

KuehnOptPal calculates the best fitting pattern for the layer and pallet. In this case we can place 270 packages on the whole pallet. 30 packages fit in each layer. There are 9 layers.

Sample 2

In some cases it useful to have different packages sizes (e. g. 350 x 250 and 145 x 225) in a layer as shown below:

Sample 3 whole order

Pallet 1200 x 1000. Packages:

Count	Length	Width	Height
1000	300	200	600
3400	225	145	480
2300	274	175	330

KuehnOptPal Solution: **59** pallets.

Manual solution: 62 pallets.

Compared to the manual calculated solution **we save 3 pallets !** Please visit our website to see the complete solution.

Customization

KuehnOptPal can be customized to any production system. Here are some samples:
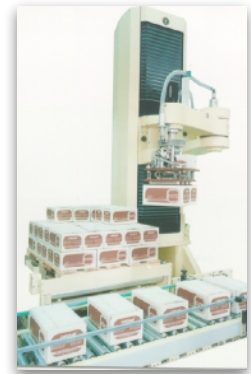
Import

- ERP host system,
- ASCII
- XML

Export

- XML
- ASCII
- Serial RS232 / RS485
- Ethernet (sockets)
- CNC

- Robot
- Gantry
- Palletizing data can be generated in any robot or PLC programming language.

KuehnOptPal module palletizing.

KuehnOptPal generates a valid packing sequence for robots (SCARA robots like above). Thereby not only the robot positions are calculated, also information for controlling the gripper is generated. Multiple vacuum grippers are supported.

KuehnOptPal module 3D simulation:
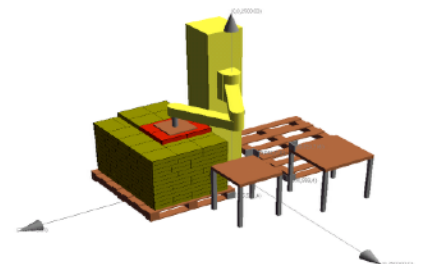
Kühn-Software offers a positioning interface to robot controls. It allows to watch the palletizing process in realtime.

The 3D simulation shows the whole palletizing process for configuring the plants. In-feeds and pallet stations can be edited and simulated too.

The robot connection offers a collision detection (offline) before installing any mechanical units.