# Software solutions for the braiding world

The textile industry – although it is one of the oldest industries in human history - has always been a leader in innovation.
The same applies for the braiding world and Herzog.
To help you stay at the top, we support you with various software solutions.

Standard and custom-made software solutions

The Herzog software family **C**omputer **A**ided **B**raiding offers solutions for various tasks in your braiding business.

If you would like to take a closer look at your braiding process, we offer individual solutions for process data acquisition.
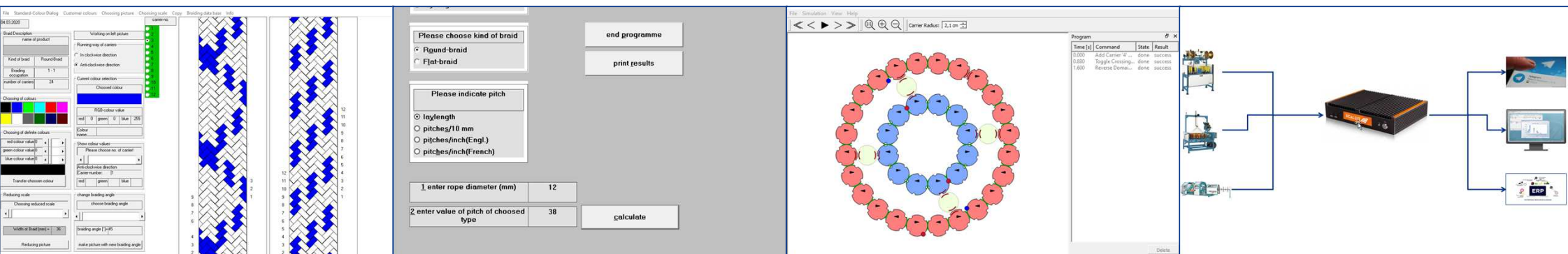
The Herzog software family Computer Aided Braiding

Under Computer Aided Braiding we offer three software programs

CAB Calculation

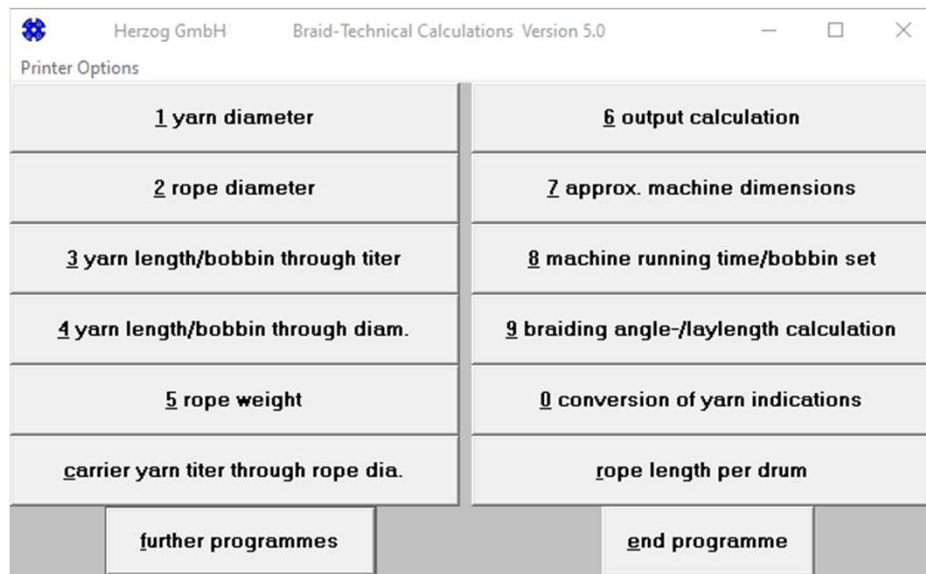All the calculations you need for rope design and machine operation

CAB Design

Simply prepare images of all types of different rope designs Design your braid with a vast choice of colors

CAB Soft

Simulation of carrier paths on advanced braiding machines

CAB Calculation

CAB Calculation offers all necessary calculation tools for running a braiding production.

- Conversions between yarn value counts and lay length definitions
- Calculations around different yarn types to determine titers based on geometries or geometries based on titers
- Possible braid production based on sizes and machine models

CAB Calculation

Choosing size of bobbin for core | Choosing size of bobbin for cover | Choosing material core | Choosing material cover

Core bobbin: AFD 160 selected (Da= 87, Di= 26, WL= 320)
Cover bobbin: AFD 140 selected (Da= 78, Di= 24, WL= 280)
Material core: PA (Rho_S= 1.14)
Material cover: PA (Rho_M= 1.14)

Input field		Result field			
Input outer diameter (mm)	16	core diameter (mm)	11,3	laylength core (mm)	49,4
Input percentage core (%)	50	strand diameter core(mm)	,9	laylength cover (mm)	50,3
percentage cover (%)	50	strand diameter cover(mm)	,8	Produktion core(m/h)	98,7
Input braiding angle core (°)	55	strand core in tex	647	Produktion cover (m/h)	59,1
Input braiding angle cover (°)	45	strand cover in tex	591	Braiding time core(h)	4,8
Input number of bobbin core	24	Meter/bobbin core	576,6	Braiding time cover(h)	10,9
Input number of ends / bobbin (core)	4	Meter/bobbin cover	906,5	rope weigth core (kg/100m)	7,5
Input number of bobbin cover	48	Meter braid core	472,3	rope weigth total (kg/100m)	15,1
Input number of ends / bobbin (cover)	2	Meter braid cover	641,	Prodoction core (kg/h)	7,4
horngear revolution core braider(rpm)	200	reduction core (%)	22,1	Production total (kg/h)	8,9
horngear revolution cover braider(rpm)	235	reduction cover (%)	41,4		
filling grade of rope(%)	70				

CAB Calculation offers many functions

- Production output and runtimes of machines
- Productivity of different bobbin winders in combination with braiding machines
- Detailed calculations on core cover ropes
- Hose and preform cover calculation

CAB Design
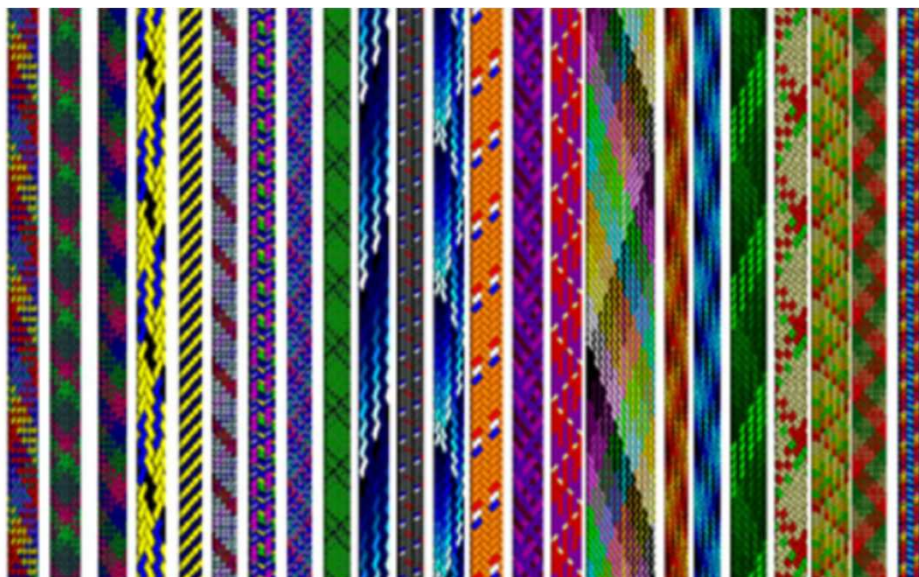
It used to be a lot of work to make a rope sample for your customer

- Making braid samples for customers is a labor-intensive and costly business

- Getting short amounts of yarn with the correct color or dye it yourself

- Setting up the machine to braid a short piece

- Sending the sample to the customer only to learn that he wants it just a little bit different

With CAB Design you can create any kind of braid design simply on your computer
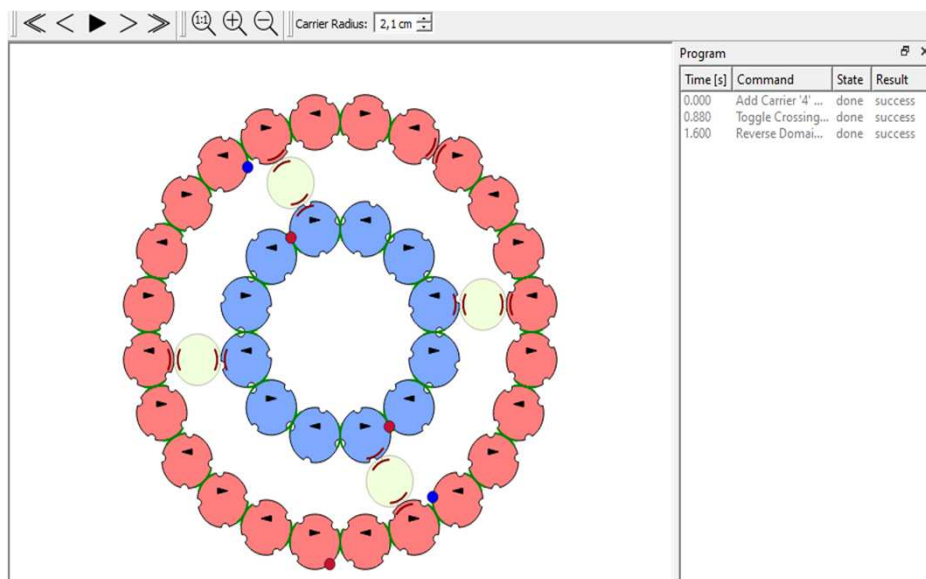
CAB Design
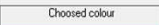
CAB Design offers many functions

- Round braids

- Flat / Lace braids

- One over two constructions

- Tandem constructions

- Half occupied constructions

- Variable braiding angles

- Standard and customer color database

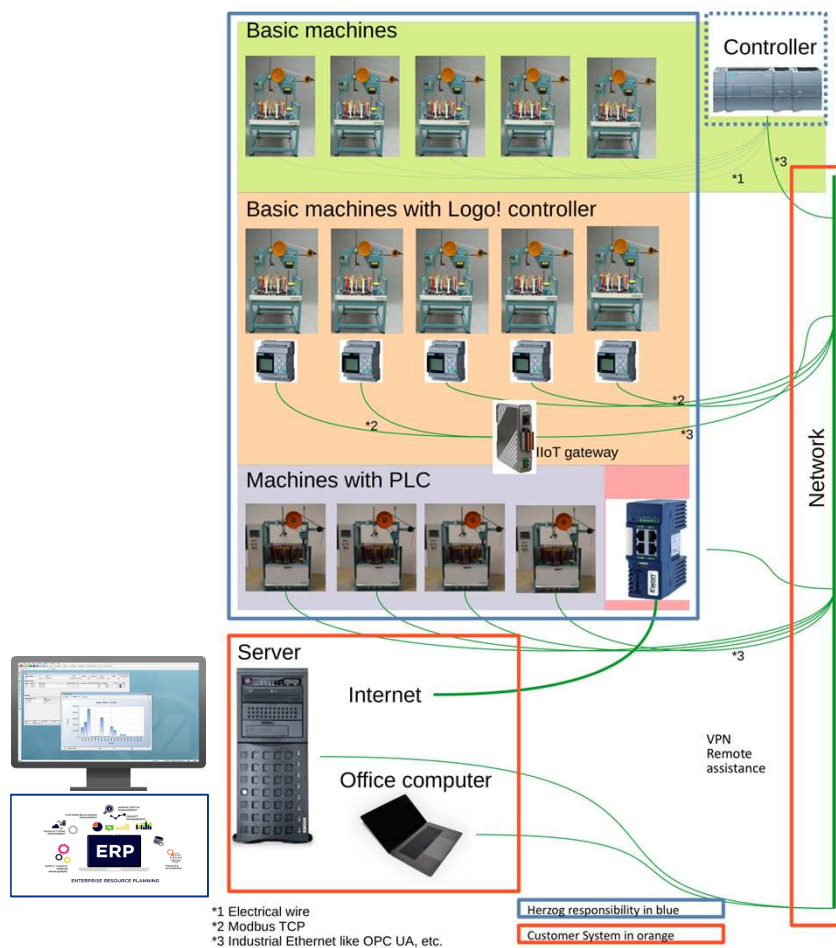- Cut and copy your images into all regular office programs

CAB Soft

CAB Soft helps to create and simulate step sequences for all advanced Herzog braiding machines

- Placing, deleting and color changing of carriers
- Switching of crossings
- Enabling, disabling and direction change of horn gear domains
- Anti-collision testing

MDA - Machine data acquisition

Machine data acquisition is becoming increasingly important for production in the modern digital world.

HERZOG can support you on your way to Industry 4.0:

- Machines are basic braiding machines without PLC, PLC based braiding machines, semi-automatic winding machines without PLC, PLC based winding machines and additional machines around the braiding process.

- To get basic machines connected to the internet we offer additional PLC / controller

- Systems for storing data in a database and analyzing the data are not part of our scope of supply and should be implemented by your local or external software provider/consultant

For more information please contact us

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