Production Management and Control optimizes production of stair and timber products up to batch size 1 and is made to reduce flow times as well as ensure a clear overview of all production areas in real-time. Manufacturing order and production planning is automated according to delivery dates and the complexity of orders. This eliminates manual process planning entirely. A clear overview of all production processes at any time make the optimal utilization of resources possible, while keeping material flow low. Efficiency is guaranteed, even with increasing production output.

All benefits at a glance:
- Visualization and control of all production processes in real-time
- Interconnection and digitalization of the entire production
- Process optimization and process reliability, while staying flexible
- Short reaction times and flexibility with last-minute orders
- Easy coordination of individual special orders
- Reduction of flow and delivery times on all orders
- Small inventory and revolving stocks
- Easy and efficient utilization of resources
- Reduction of processing costs
- Paperless production
- Partial or full automation possible
- Scalable for every size and type of production
- Only one integrated software, directly integrated and synchronized with ERP systems
The Patent Pending Anchor-Lok® box newel system is the next step in newel anchoring methods using all hidden fasteners and the Anchor-Lok block to achieve simple, better installations.

1. Unsurpassed craftsmanship and engineering. Meets IRC, IBC and NFPA height requirements.
2. Superior method of installation for both fascia and top mounted newels, especially transition newels at platform applications.
3. Reduced installation time. Only the boot is field cut. Removable boot panel allows various fastener methods with the Anchor-Lok block, screws lags, and adhesives.
4. The body sits on a ledge inside the 5/4" boot, glued and drawn tight with the threaded rod thru the body and the upper boot web.
5. Modular design with interchangeable body, body panels, cap, and mouldings for a variety of designs.
6. Floating 3/4" raised panels and 3/8" flat panels using our proprietary "Floating Delayed Spring".
7. The removable upper body panel allows use of slotted washers and lag bolts instead of rail bolts, no plugs to sand.
8. Simplified, color coded inventory control, easier handling. Body and boot are individually packaged so even 72" newels fit on a standard sized pallet which means lower shipping costs and less transport damage.
From design on AutoCAD, parts purchased and fabricated within OSHA requirements, this was designed and built all by employees. Through this process the team has made a lacquer spraying system which climbs to a second floor to move through a serpentine pattern before returning to the main floor for additional spraying or unloading. Between the pattern and adjusting the conveyor speed we were able to move the components through the system taking advantage of the proper drying time. Building this system, we were also able to free up valuable finish shop floor space taken by drying materials which has now become the staging area allowing for more space on the production shop floor. By designing and fabricating a system that was originally designed to make the task of spraying lacquer more ergonomic for our technicians, we also saved quite a bit of funds when compared to pricing of a turn-key system - even with our labor to build the system.
We were asked to design a stairway with floating glass treads on a mono-beam stringer stairway. The immediate and most glaring challenge was clearly in how to secure the glass tread to the 6" wide mono-beam carriage. Another wrinkle was their desire to have the treads lit up with RGB (variable color) lighting while accommodating for concealment of wire feeds for the lighting.

We decided to take advantage of the process of making laminated tempered glass and designed some relatively simple custom machined stainless steel hardware. The hardware could be used for glass with various numbers of laminations and in this situation we used triple laminated treads. The top layer of glass is cut with a larger hole and the bottom two laminations have smaller diameter holes. A bolt is inserted into the bottom of the mono-beam tread plate, inserted into the small hole in the bottom of the glass tread, and then threaded into the top puck. A thin piece of plastic creates a protective barrier between the glass and the steel tread plate and the puck ends up flush with the top face of the tread.

Machining of these components was all done in our own machine shop.
3D parametric software is used across our stair design and build process in order to optimize the design and streamline the production process. The software package allows us to design, render, analyze, and generate approval and fabrication drawings.

Customers, architects, engineers, fabricators and installers all have access to the same 3D drawings making the communication of the design far more comprehensive than traditional means and methods.

Renderings are used to illustrate the overall appearance of the structure to streamline the approval process and the modeling software allows for rapid changes to be made as necessary. Similarly, when field dimensions are verified, all the drawings can be revised with the click of a button due to the integration of parametric data driving the model.

Structural simulations streamline the engineering process when required. The FEA analysis is extremely accurate and provides data to support the engineering process and optimize the design for cost and aesthetics.

All of the fabrication drawings are derived from these 3D models eliminating any additional drafting for shop. Both the installers and fabricators also have access to the 3D model and can take direct measurements from a tablet giving them a far superior tool than traditional 2D drawings.