

Case Study: CONNOVA AG



In 2014 CONNOVAAG purchased CrossTrack AMS along with JETCAM Expert, which provided material location and usage tracking along with integrated nesting and scheduling. Nests were often 15-20% more efficient than before and much faster to generate. They have full material batch traceability, with data much faster to enter and traceability reports generated in seconds. Integration into a camera-based prototype ply digitising tool allowed users to take images of hand-drawn ply templates that could be turned into cut-ready DXF files, reduced the process of digitising plies from 16 hours per week to just 2. CONNOVA saw a return on investment in under two months. This case study revisits the company three years later, after the subsequent purchase of CrossTrack CMS, which provides full life traceability of rolls, kits and plies. They also upgraded their ply digitising tool and added an Aligned Vision 3D laser system to increase accuracy and speed of the hand layup process.

Highlights

- Full life tracking to ply level
- Paperwork reduced by a further 20%
- Instant traceability reports
- Useful for locating consignment stock
- Automatic roll allocation
- Tracking new material types
- Requested updates further reduced time spent
- Improved speed of ply digitising imports
- Integrated lasers for ply placement give 'next step' reporting

CONNOVA AG, based in Villmergen (Switzerland) and Dresden (Germany), had already seen significant benefits after the implementation of CrossTrack and JETCAM Expert early in 2014.

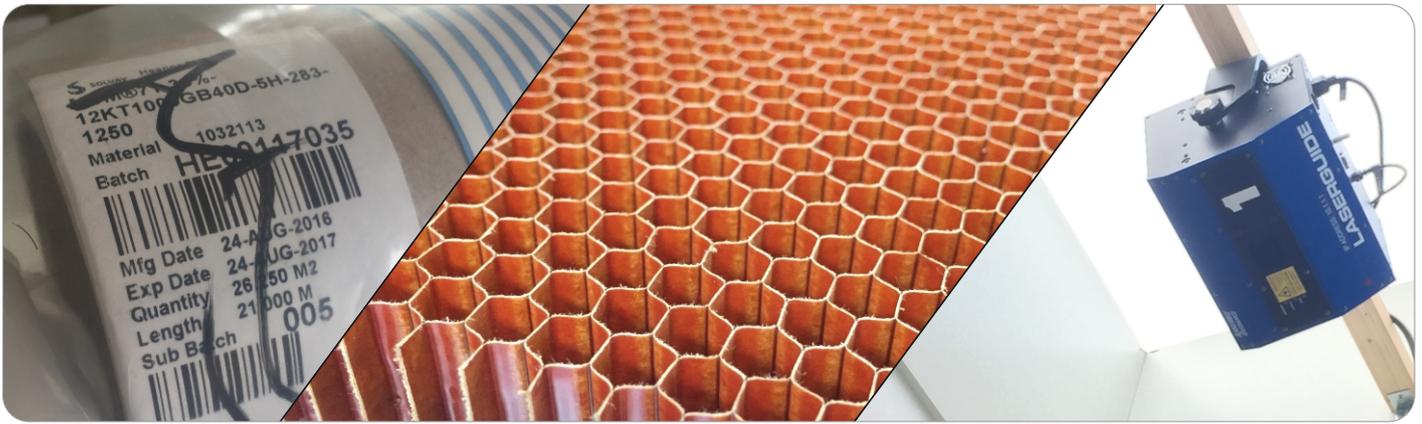
The company has three freezers, storing up to 80 rolls, along with several locations where unprocessed and processed material can be stored during manufacturing, so in the Summer of 2015 they decided to upgrade from CrossTrack AMS to CMS, providing the full life status of rolls, kits and plies.

Stefan Wyss, Project Manager explained that CMS was a natural progression. CrossTrack was tracking the amount of material available, but they were still tracking material life

manually at that point; *“The problem was that we had no material handling software in-house to track life, so we tracked it with Excel spreadsheets.”*

Once the decision was made to upgrade to CrossTrack CMS an on-site implementation day was planned. Stefan recalls that the update was straightforward; *“Everything was done in one day, and most of that time was spent updating the life of the material that we already had in the system.”*

Any upgrade on an enterprise system requires additional learning, but Stefan noted that staff found it straightforward; *“It was very intuitive. It’s not a complex program to use. It has complex processes behind it, but using it is very easy.”*



Immediately, additional benefits came to light. CONNOVA holds consignment stock for customers such as Marengo Helicopters, and Stefan has to provide regular reports to show current stock; *“Before, I had to go into the Excel spreadsheet, filter the materials, manually check if it is right with physical stock and then create the list. That would take 1-1/2 hours per week and now it takes around 10-15 minutes.”*

Previously, CONNOVA took rolls from stock on a first in/first out basis with the Excel spreadsheets, but CrossTrack now automatically prompts which roll to use. Said Stefan; *“You decrease your error rate when processes are automated.”* CEO Jon Andri Joerg added; *“In the past we’d often get the question ‘what shall we do with this material as it expires tomorrow’. That just doesn’t happen anymore.”*

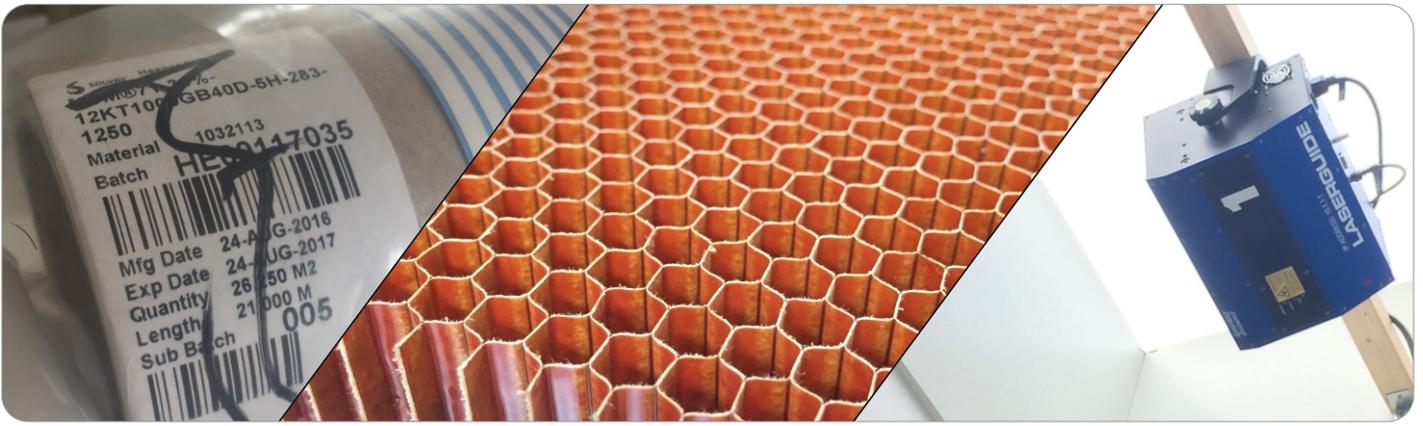


Almost all nests are cut automatically now, but manually cut material usage can also be logged in CrossTrack and deducted from stock. Stefan noted that stock figures are accurate because of the automated manufacturing process; *“We trust the system because we cut all the plies on our cutter. You can’t use more material than you nest. When the material is running out in CrossTrack, it’s run out in reality - they always match.”*



Users can right-click a roll, batch or kit and immediately generate a full traceability report. The CMS upgrade adds the full life of each and every ply at every stage of the cutting and kitting process, also detailing the operator that logged each change and any relevant user comments. An on-screen life graph also visually shows a timeline of any logged events such as nests cut and location changes.

CrossTrack is now so trusted that paper usage has reduced by 20% as life-tracking paperwork is now



eradicated, and they no longer have to manually check the freezer, and CrossTrack's reach is now extending to other materials such as foam cores.

Once the system had been in use for several months CONNOVA sent a list of requested enhancements to JETCAM, all of which were delivered in an update provided free under maintenance. Improvements to label printing, transferring stock and reporting helped to further streamline the workflow process and reduce the possibility for error.

CONNOVA purchased an update to their prototype ply digitising system, supplied by JETCAM Composite, which reduced the space required to photograph templates and allowed them to scan plies using a mobile phone. The reworked tool automatically performs keystone correction, with images then sent via the cloud in seconds to the

software. They are then converted to a DXF, and can then be processed by CrossTrack's automatic CAD import, ready for nesting and cutting.

CONNOVA also purchased JETCAM partner Aligned Vision's 3D LASERGUIDE ply placement laser system, enabling much more accurate ply placement during layup and delivering additional reporting data on top of that delivered by CrossTrack on the various processes completed during layup. Aligned Vision's BUILDGUIDE allows CONNOVA to create comprehensive digitized ply books that can be used on a tablet, with the possibility of the resulting reports being linked back to the kit record in CrossTrack.

The company has grown 15% since installing CrossTrack CMS, but has not needed to increase staff. Joerg noted that JETCAM has helped them to win business because of its ability to generate instant traceability reports, concluding; "CrossTrack was a logical upgrade, in line with our aim of continuous improvement. It's a tool that helps to build trust and confidence in our operation."

