LuxScan Technologies

Scanners for the lumber industry

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The mission

LuxScan manufactures industrial scanners for processes automation in the lumber industry.

To be competitive, modern production processes require high performance, accuracy, quality and reliability. Our commitment is to meet these demands in the field of scanning systems and control engineering. Since 1998, our constant growth is sustained by high level products, outstanding service and an excellent reputation on the market.

LuxScan is the worldwide leader in wood scanning.

Fields of expertise

LuxScan has a wide range of experience in the following areas of the secondary wood processing segments :

- **Cross-cutting**
- **Ripping**
- **Sorting**
- **Stress grading**
- **Color matching**

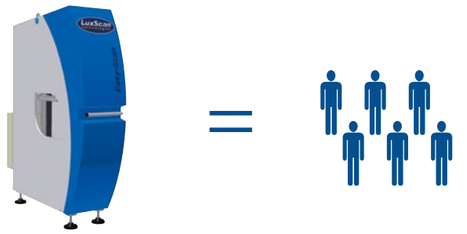
LuxScan provides a set of products for real time scanning and quality inspection in the fields of Doors / windows industry, Furniture industry, Flooring / parquet, Components (for construction, or furniture ..), Kitchen and bath cabinet, Glue lam beam industry, Truck flooring, Panelling, etc.

Your benefits

How do you increase yield, deliver a better & more consistent product and save labor ?

Saving labor costs

By feeding 1, 2 or 3 fast chop saws, a scanner may typically replace 3 to 9 operators * 2 or 3 shifts, so up to 27 employees per day !



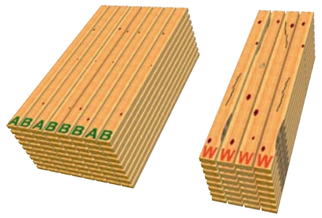
Increasing yield / value

The scanner increases yield versus manual marking, from the accuracy of defect location versus manual mark done by the operator -> a minimum of 3% yield gain can be expected.

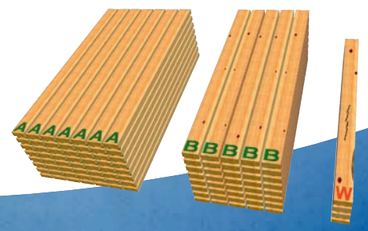
The optimizer evaluates « thousands » of possible solutions for each board, considering all the parts description (length, qualities, quantities, ...). This enables more acceptable defects to be left in the final parts, which means :

- more long lengths
- More usable parts from the same raw material -> so more value !

Before

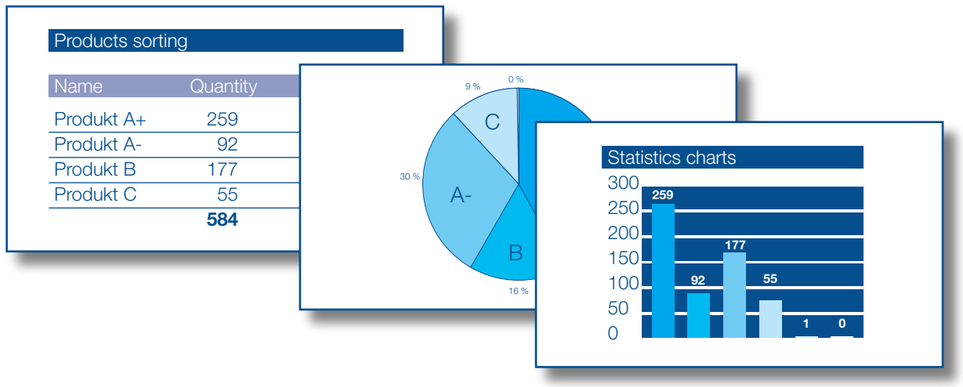


After



Controlling the production in real time

- You get Real time statistics on the production, from your office by shift, by operator, by supplier, ...
- you can qualify your timber suppliers -> pay what you really get, not what you expect you get from your supplier
- Adjust the product quality for each final customer -> over quality costs money as well !

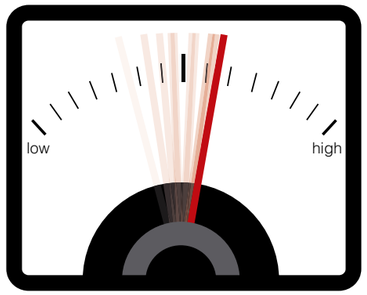


Increasing productivity

A scanner can process very high volume :

- cross cutting : more than 70.000 meters (210.000 lineal feet) per shift with 1 scanner feeding 3 saws
- Sorting in a planner mill : up to 650 m/mn … (2.000 lineal feet)

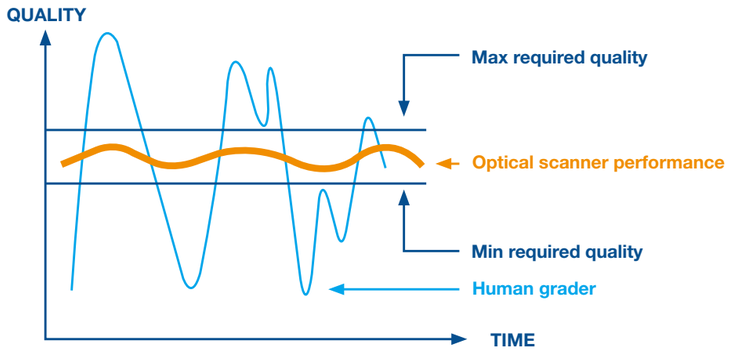
The scanner is capable of running high volumes at a constant speed so you are not longer at the mercy of your employees to control the amount of material to be produced.



It becomes possible to use lower grades as raw material, and to keep the same high quality for the final parts.

Improving product quality

- repeatable and consistent quality for cross-cutting, ripping and sorting
- No human factors: absenteeism, training, retention, fatigue, lack of attention
- Ability to change grading / cutting rules instantaneously
- Less rejects on final products
- No under quality
- No over quality



optical scanner grading / human grading

Scanning

LuxScan shows you how to take your production to a new level of efficiency. Scanning is a 3 step process :

1 - Board scanning

2 - Image processing

3 - Optimizing

1 - Board scanning

In a scanner, everything starts with the EYES.

LuxScan provides solutions based on different types of sensors : Laser cameras for defect detection, color cameras for appearance (matching) or color defects (such as blue stain), and X-ray sensor (for density measurement or internal defect detection) and accoustic sensors (for stress grading applications).

For each application, we define the appropriate sensors- or the best combination of sensors- according to the wood species, wood surface quality and customers requests for defect detection.

Our challenge is to get the best image quality versus the speed the system needs to run.

2 - Image processing

It is well known that we “see” as much with our BRAIN as with our EYES.

Wood inspection means identifying all defects and coloration all along the board, and this with an incredible precision. The brains, Luxscan’s INTEGRAL software, is based on years of research and development.. Typically, recognition is effective for black, sound and loose knots, resin pockets, cracks, wane, inbark, wormholes, blue and red stain, decay, hole, lack of

materials, .. dimensions (length, width, thickness) are also controlled all along the piece.

3 - Optimizing

Time for approximation is over. Get the optimum from each board!

LuxOptim is a powerful optimizing software, which determines the most efficient cutting / sorting / ripping solution for each board, taking into account customer goals:

“To simultaneously produce a certain quantity of different products, with minimum waste and best value of the wood.”

The Optimum cutting solution for each board is found according acceptance criteria (type, size and defects positions on the piece).

Products

Our customers have different needs :
we have the right product to meet your needs.

Please check our website **www.luxscan.com**
or contact your dealer for more information.

Full service

The LuxScan team provides a complete solution : mechanical and electrical design, feasibility tests, software and hardware development, training, commissioning and service.

Maintenance

Because we know the importance of keeping your line in production, our hot line team is ready to support you by phone, modem or internet when you need it.
Reliability of our scanners is a key of our success. And your satisfaction is our pride !

Compatibility

LuxScan has established strong relationships with all machinery suppliers in the wood industry. Our scanners are compatible with all current models.

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