

Sawmill and wood-product solutions

From the log to the pack sawn and dried right

The log drawn to scale with its boards in it, recovery by volume and by value, sizes worked back from the customer's measure, and kilns checked against what each species allows.

Log end drawn to scale

Cant, boards, kerf and leftover

Recovery, twice

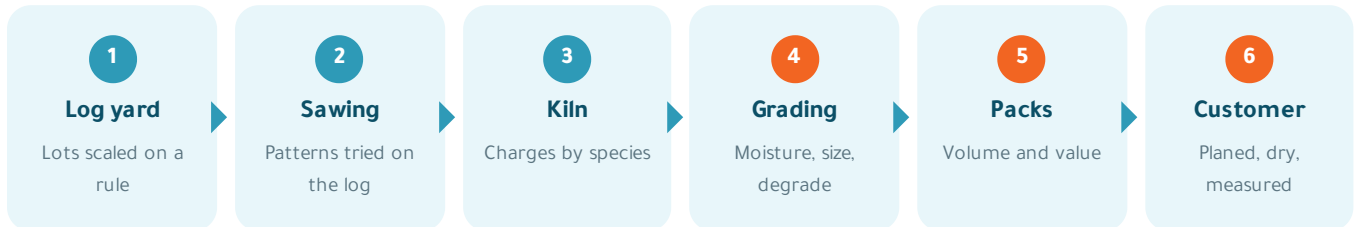
By volume and by value

Kiln EMC

From the dry and wet bulbs

Every cut decided on a shape – not on a table

A sawmill's raw material arrives in a shape nobody chose. VLUERP follows each log from the yard through sawing, kiln and grading to the pack sold – tied to the stores and the accounts.



The log, drawn to scale

Heart, cant, boards, red kerf strips and leftover on the log end – a sawyer argues about a shape, and a table has never settled it.



Recovery by volume and value

Both side by side, because they disagree – and a pattern that yields more cubic metres of the wrong grade is a worse pattern.



Sizes worked backwards

Green size = finished + planing + shrinkage + saw variation, with shrinkage solved on the green size rather than added to the dry one.



Kilns against the species

Each charge is checked against the drying rate its species allows – rushed, too wide a spread and not conditioned all show.

2

measures of recovery

4

links in the size chain

22%

light scale, example lot

1.8

points a day, 25 mm oak

The log and its boards – drawn to scale

Try a sawing pattern on a log and see the cut before the saw does – then compare what the yard booked with what the logs really scale.



Sawing patterns

- Patterns hold cant, kerf, the sizes across the cant and the smallest log they suit, per species.
- Try a pattern on a log: the log end drawn with heart, cant, boards, **kerf** in red and the leftover.
- Every run reports recovery by **volume** and by **value** – and value is the one that pays wages.
- Value per cubic metre of log and the spread between runs on the dashboard, run by run.



Log intake and overrun

- Lots received by species and supplier, with log count, scale rule, small end and taper.
- Overrun compares the **booked** scale with a re-scale of the same logs on your house rule.
- It reads zero when the yard did its job, and catches a parcel measured on the small end of a taper.
- In cubic metres, lumber against log is just recovery – so overrun is judged on the scale instead.



A recovery no mill achieves is a scale problem

In a worked example, a log lot booked on the cylinder rule scaled **22.01% light**, so its two runs read **73% recovery** – a figure no oak mill has ever reached. The wood was real, the scale was light, and the overrun check says so.

Where the log went

The dashboard shows where each cubic metre of log went, run by run.

Veneer peeling

Peels recorded by block and core diameter, with veneer off the block against its geometric ceiling.

Packs graded

Each pack measured for size and moisture and graded; undersize and off-moisture packs are flagged.

Dry, at the customer's size — worked backwards

The customer measures a planed, dry board. The module works back to the green size to saw, and dries it at a rate the species can take.



The dimension chain

- Saw green = finished + planing + shrinkage + saw variation, with shrinkage taken as a share of the **green** size.
- Tangential and radial shrinkage per species; a mixed-cut pack takes their average.
- Each size shows its total allowance, its green volume and the loss from sawn to sold.



Kilns

- Kiln EMC from the dry and wet bulbs: humidity by the psychrometric equation, then EMC by Hailwood-Horrobin.
- A charge faster than its species allows is flagged **rushed**, with a safe schedule shown beside the plan.
- Days over plan are counted only against a plan that could have been met.

Worked figures from testing

Case	What it shows	Figure
Kiln at 48 / 42 °C	Relative humidity and equilibrium moisture	69.8% RH · 11.70% EMC
Kiln at 62 / 52 °C	Relative humidity and equilibrium moisture	59.2% RH · 8.91% EMC
Kiln at 76 / 58 °C	Relative humidity and equilibrium moisture	42.1% RH · 5.84% EMC
25 mm oak in 11 days	At a maximum of 1.8 points a day it needs	27.78 days
A pack of 25 mm boards	Measured against the nominal size	24.20 mm

The EMC figures were verified by hand against the psychrometric equation; the kiln and pack cases come from the worked example.

Every screen in the module – and what is on it

Read off the running application – the panels, columns and figures that are actually there.

8 **71**
screens functions

01 Dashboard

Where the log went Recent runs
Recovery Value per m³ of log
Logs cost Spread In the yard
In the kiln Degraded

02 Log yard

Log intake Species Supplier
Logs Rule Scaled
Small end Taper Overrun

03 Sawing

Try a pattern on a log
New pattern Cant Kerf
Sizes Across the cant
Smallest log Runs

04 Packs

Grade a pack Volume Value
Undersize Off moisture
Moisture Measured Grade
Degrade

05 Kilns

Load a charge Running
Rushed Too wide a spread
Not conditioned Thickness
Volume Days Planned

06 Dimensions

Saw green Total allowance
Shrinkage Green volume
Sells as Sawn to sold Cut
Coefficient Shrink, green to 10%

07 Panels

Record a peel Off the block
Geometric ceiling Clipper
Blocks Block Ø Core Ø
Veneer Round wood

08 Settings

Species Grades Accounts
Botanical name Green kg/m³
Dry kg/m³ Tangential Radial
Max drying rate

Not a separate program – a complete business system

The trade module sits on top of a complete ERP: everything it does lands directly in the accounts, the stores and the reports – no double entry.



Accounting

Editable chart of accounts, automatic entries from every transaction, VAT and financial statements.



Financial dimensions

Cost centres, departments, business lines and sites – with statements per factory.



Inventory

Warehouses and bins, batches and serials, moving average, FIFO or standard cost.



Purchasing & sales

RFQs, purchase orders and receipts, quotations, invoices and ageing.



Maintenance & assets

Equipment register, preventive maintenance, work orders and depreciation.



Access & language

Roles and rights per module, audit trail, full Arabic and English interface.

Standards and regulations supported

Wood Handbook

USDA FPL – EMC and shrinkage

Tetens

Saturation vapour pressure (kiln RH)

Doyle · Scribner

Board-foot log rules and overrun

The kiln and scaling calculations follow these published methods; your house scale rule and your species data are yours to set.

Saw your own logs **on screen**

Book a session and we'll set up the demo with your species, your sizes and a log lot of yours, and walk your sawyers and kiln operator through it.

Request a demo

Website

www.vluerp.com

Demo request

www.vluerp.com/#demo

Email

hello@vluerp.com

- 1 Try a pattern:** a log end drawn to scale with its cant, boards, kerf and leftover.
- 2 Log yard:** the booked scale against a re-scale on your house rule – the overrun check.
- 3 Dimensions:** work back from the size your customer measures to the green size to saw.
- 4 Kilns:** a charge checked against its species, with the kiln's EMC from both bulbs.

Switched on from Add-ons with a free seven-day trial, and it runs on the same general ledger.