



User Guide

The complete step-by-step guide to the sheet-panel cut optimiser — panels, PDF measurement, results, cost, saving and plans.

`getcladra.com · v20.4 · Sheet-panel cut optimiser`

01 Getting started

Cladra works out the most material-efficient way to cut your panels from standard sheets, then shows you exactly which piece goes where on each sheet.

Open the app at getcladra.com/app. You can start optimising straight away on the free plan — no account needed to try it. Sign up (top of the login screen) when you want to save projects to the cloud and use the paid time-savers.

The screen has three parts: the **left sidebar** is where you set up the sheet, add panels, and enter cost; the **large canvas** in the middle shows the cut layout once you run it; the **top stats bar** summarises sheets, waste and efficiency.



First time in? A short guided tour points out the main controls. You can replay or skip it any time — look for **Skip tour**.

02 Sheet & settings

Before adding panels, tell Cladra what sheet you're cutting from. These live at the top of the sidebar under the panel-set name.

SETTING	WHAT IT DOES
Name	A label for this panel set / material (e.g. <i>WF10, C04 Edge</i>). Shown on the results tabs.
Material	Optional free-text note (e.g. <i>18mm Birch ply</i>). Appears on the cut plan.
Sheet W (mm)	Width of one standard sheet, e.g. 1200 .
Sheet H (mm)	Height of one standard sheet, e.g. 2400 .
Kerf (mm)	The blade gap consumed by each cut. A common default is 3-5 . Set 0 for no gap. Can be overridden per panel.
Min Offcut	The smallest leftover piece worth using, e.g. 150 . Anything smaller is treated as waste and won't be used to hold a panel. Set 0 to use every scrap. Must be no bigger than your smallest panel — see the note below.
Rotation	No — grain direction fixed keeps every panel in its entered orientation (use for grained/directional material). Yes — allow 90° rotation lets Cladra turn panels to pack tighter.



Rotation matters for real material. If your sheet has a grain or a face direction, leave rotation on **fixed** — otherwise the layout may turn panels in ways you can't actually cut.

Min Offcut vs your panel sizes

Min Offcut says "*a leftover smaller than this isn't worth using.*" So if a panel in your design is **smaller than your Min Offcut**, the two settings contradict each other: Cladra throws away every strip small enough to hold that panel, and the job burns extra sheets instead.

Cladra checks for this before it runs. If it finds a conflict it stops and offers to lower Min Offcut to match your smallest panel. Your design always wins — you cut what the drawing says — so the setting is what gives way.



Rule of thumb: **Min Offcut $\leq$ your smallest panel dimension.** If your smallest panel is 1200×135, Min Offcut must be 135 or less.

03 Adding panels

A panel is one finished piece you need to cut. Add them in the **Panels** section of the sidebar.

Add panels one at a time

- 1 Type the width in the **W mm** box and the height in **H mm**.
- 2 Optionally add an **ID** (a label like *WF10-09*) and a quantity.
- 3 Press **Enter** or click **+ Add**. The panel appears in the list above.

Each row in the list shows its ID and size. Use the pencil to **edit**, the copy icon to **duplicate**, and the **×** to **remove** a panel.

List tools

- **Sample** — loads a set of example panels so you can see how a job looks.
- **Clear** — empties the current panel list.
- **Sort ↓ Area / ↓ ID / ↑ Rev** — reorder the list by size, by ID, or reverse it.



You can enter a size directly as **1200x600** in the width box and Cladra will split it into width and height for you.

04 Excel & CSV import

Have a cutting list already? Import it instead of typing.

- 1 Click **↑ Upload Excel (.xlsx)** in the sidebar.
- 2 Choose whether to **Replace list** (clear then load) or **Add to list** (append to what's there).
- 3 Pick your file. Cladra reads it, reports how many panels it found, and fills the list.

What the spreadsheet needs

Cladra looks for a header row and reads these columns (header names are matched loosely, and it reads the sheet named **Panels** if there is one):

COLUMN	NEEDED?	NOTES
Panel ID / ID	Optional	Label for the piece.
Width (mm)	Required	Also accepted as <code>Dim A</code> .
Height (mm)	Required	Also accepted as <code>Dim B</code> .
Kerf	Optional	Per-panel blade gap; blank inherits the sheet kerf.
Zone	Optional	Grouping tag carried onto the panel.
Status	Optional	Lets you flag/skip rows.



Cladra provides a ready-made **panel template** spreadsheet with the right columns and an Instructions tab. Start from that if you're unsure of the format. There's also a shape-code version that calculates a bounding box for angled/triangular pieces.

05 Measure from a PDF drawing

Pull panel sizes straight off an architectural PDF — set the scale once, then measure or auto-detect.

- 1 Click **Measure from PDF drawing** in the sidebar, then **Import PDF** and choose your drawing.
- 2 ① **Set scale** — draw a line along something of known length (a dimension line, a door, a grid spacing), type that real length in mm, and click **Set scale**. Everything you measure after this is calibrated to that.
- 3 ② **Measure panels** — drag a box around each panel to capture its width × height. Each one is added to the list, tagged with the drawing name and page.
- 4 ✨ **Auto-detect** — on vector PDFs, Cladra can find rectangular panels from the line work automatically. Review what it finds.
- 5 ☐ **Limit area** — draw a region first to restrict auto-detect to one wall or elevation, ignoring everything outside it.

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When you're happy, **Add to panel list** brings the measured panels back into the optimiser.

Multi-sheet drawing sets are supported — use the page arrows, and the **Bookmarks** panel (if the PDF has them) to jump between sheets.



Always verify before cutting. Measurements depend on the scale you set and how the PDF was drawn, so auto-detect won't be 100% accurate on every drawing. Check every detected panel, adjust where needed, and confirm dimensions against the drawing before ordering or cutting material.



Auto-detect needs a **vector** PDF (one drawn from CAD). A scanned or photographed drawing has no line work to read — measure those manually instead.

06 Running the optimiser

Once your sheet is set and panels are in, click the big ► **Run Optimiser** button at the bottom of the sidebar.

Cladra packs your panels onto as few sheets as possible and draws the layout on the canvas. It respects your kerf, min-offcut and rotation settings. For most jobs this is instant.

Multi-Start search

For a tougher, more exhaustive pass, Cladra can run several packing strategies against each other and keep the best result. This runs on a short time budget and reports which strategy won. Use it when you want to squeeze the last sheet out of a messy job.



Re-run any time you change a panel or setting — the layout and the stats update together.

07 Reading the results

The stats bar across the top gives you the headline numbers; the canvas shows the actual cuts.

STAT	MEANING
Sheets	How many full sheets the job needs.
Used area	The net area of panel actually installed.
Waste	Off-cut area that isn't a usable panel, and its share of what you bought.
Efficiency	Percentage of purchased sheet material that ends up as panels — higher is better.
Panel's	Total pieces placed.
Est. cost	Sheets × price, including your waste markup (see Cost).

Views

- **Visual** — the graphical sheet-by-sheet layout. Step through sheets with the arrows, zoom with the +/– buttons, the scroll wheel, or **Fit**.
- **Table** — every placement as a list you can scan.
- **Offcuts** — the leftover pieces on each sheet, so you can see what's reusable.
- **Cut Seq.** — the order of cuts.

Each panel on the canvas is labelled with its ID and size so whoever's cutting can match it to the list.

08 Multiple panel sets

Cutting more than one material or sheet size in the same job? Use panel sets.

Each set has its own sheet size, kerf and panel list, and optimises independently. Add one with + **Panel set**, switch between them with the tabs at the top of the sidebar, and use the **RESULTS FOR:** tabs above the stats to view each set's layout — or **All sets** for the combined totals.



Example: one set for 18mm ply at 1200×2400, another for edge material at a different size — Cladra keeps each on its own sheets and totals them together.

09 Cost & quantity

Get a quick material estimate from the **Cost & Quantity** section.

FIELD	WHAT IT DOES
Price / sheet	What one sheet costs you.
Currency	USD, NZD, AUD, GBP or EUR.
Qty (sets)	How many copies of the whole job you're pricing.
Waste markup %	A buffer added on top for breakage/spares.

Cladra shows the material cost and the cost with markup, alongside the efficiency and waste figures, so you have a rough number to work from.

The Cost sheet

For a full breakdown, click 💰 **Cost** (next to Cut Plan PDF). This opens a cost sheet that pulls its numbers straight from the optimiser result — panel counts, sheet counts, used area and waste are *calculated*, not typed in.

- A row per panel set, with its material, panels, sheets, used m², waste m², waste % and efficiency — plus a combined total when you have more than one set.
- **Safety buffer** — spare sheets added per job, on top of what the layout needs.
- **Waste markup %** — an allowance applied to the cost.
- Price and currency can be edited right there; changes flow back to the sidebar.
- **Print** gives you a clean cost sheet to send with a quote.



Buffer and markup do different jobs: the **buffer** adds real spare sheets to buy; the **markup** adds a percentage to the price. Material only — no labour, edging, delivery or tax.

10 Saving & exporting

Cladra auto-saves your work in the browser as you go. For more, use the buttons in the top bar.

ACTION	WHAT IT DOES
+ New Project	Start a fresh job.
↶ Restore previous	Bring back your last auto-saved state.
▲ Save	Save the project to your account in the cloud.
📁 Load	Open a saved project.
💾 File	Save/open a project as a local file.
📄 CSV	Export the cutting list as CSV.
📄 Cut Plan PDF	Generate a clean printable cut plan to hand to whoever's cutting.



Browser auto-save keeps your current job on this device. To reach a project from another computer, use ▲ **Save** so it's on your account.

11 Free vs paid plans

The full optimiser is free. Paid plans add the workflow time-savers.

FEATURE	FREE	PAID
Full optimiser, unlimited panels	✓	✓
On-screen cut layout	✓	✓
Browser auto-save	✓	✓
One sheet size / one set	✓	Unlimited
Measure from PDF	—	✓
Excel & CSV import	—	✓
CSV export	—	✓
Cut Plan PDF	—	✓
Cost & quote	—	✓
Cloud save & restore	—	✓
Multiple panel sets	—	✓

Paid tiers: **Solo** NZ\$19/mo (one person), **Team** NZ\$39/mo (3 seats), **Business** NZ\$99/mo (10 seats). Annual billing gives two months free. Start free with no card required and upgrade any time. See the [pricing page](#) for the latest.

12 Keyboard shortcuts

KEY	ACTION
Enter	Add the panel you've typed
Ctrl + S	Save project
Scroll	Zoom the canvas
In PDF: Ctrl + C / V	Copy / paste a measured box
In PDF: Del	Delete the selected box

? Stuck on something not covered here? Email hello@getcladra.com.