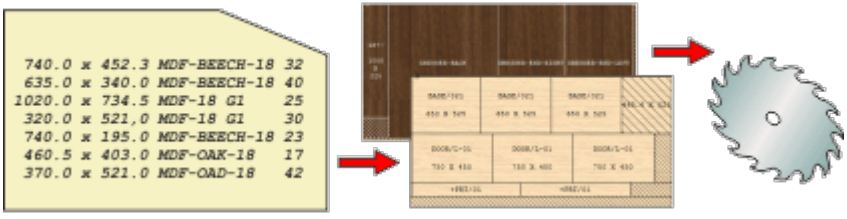
Magi-Cut Intro - Datasheet

Magi-Cut Intro is a straightforward way of generating cutting patterns for a list of part sizes. It is designed for the smaller workshop using a sliding table saw or vertical saw and is focused on producing efficient cutting patterns from lists of part sizes and available materials (boards).



This is how to work with Magi-Cut Intro:-

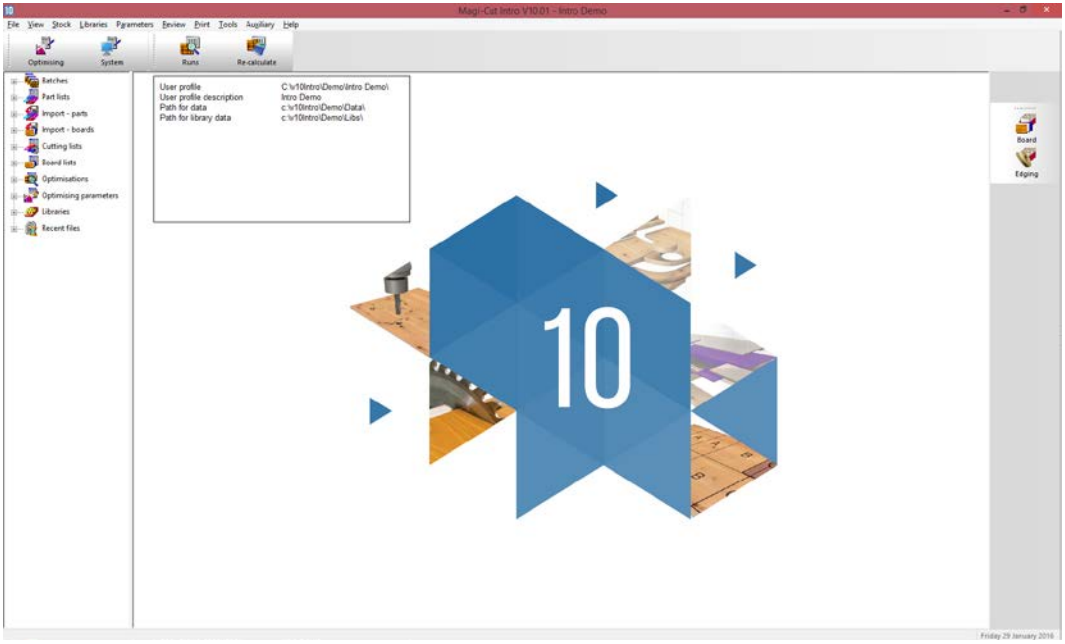
- Create (or import) a part list
- Enter or adjust the part sizes, material and quantities required
- Automatically select the available board sizes from the Board library


Optimise

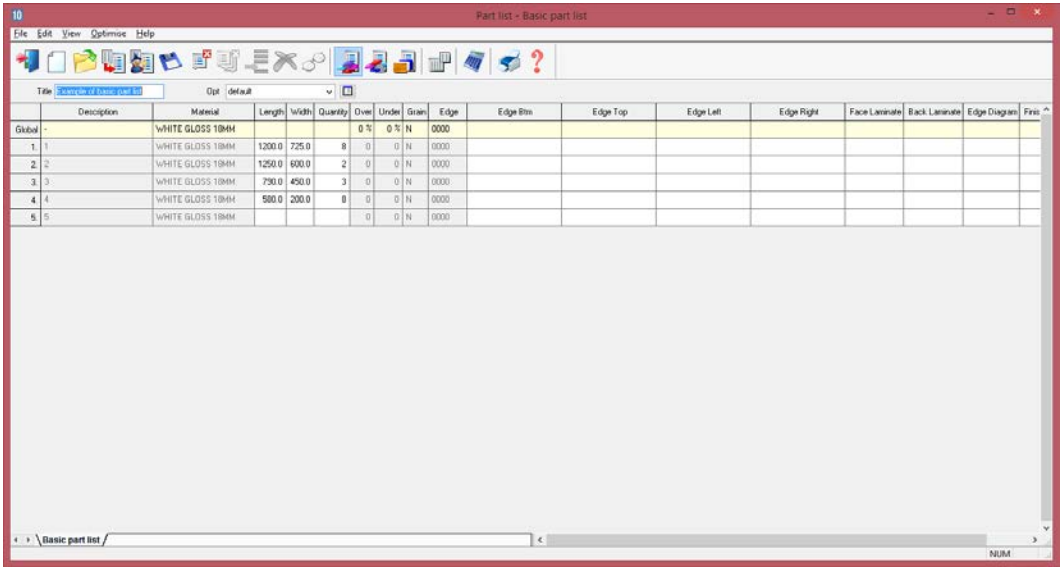
- Review the results
- Print or Export results
- Use the Cutting instructions to set the saw

Magi-Cut Intro also includes options for dealing with Edges and laminates, controlling and updating stock in a library of boards, and a designer for custom reports and labels.

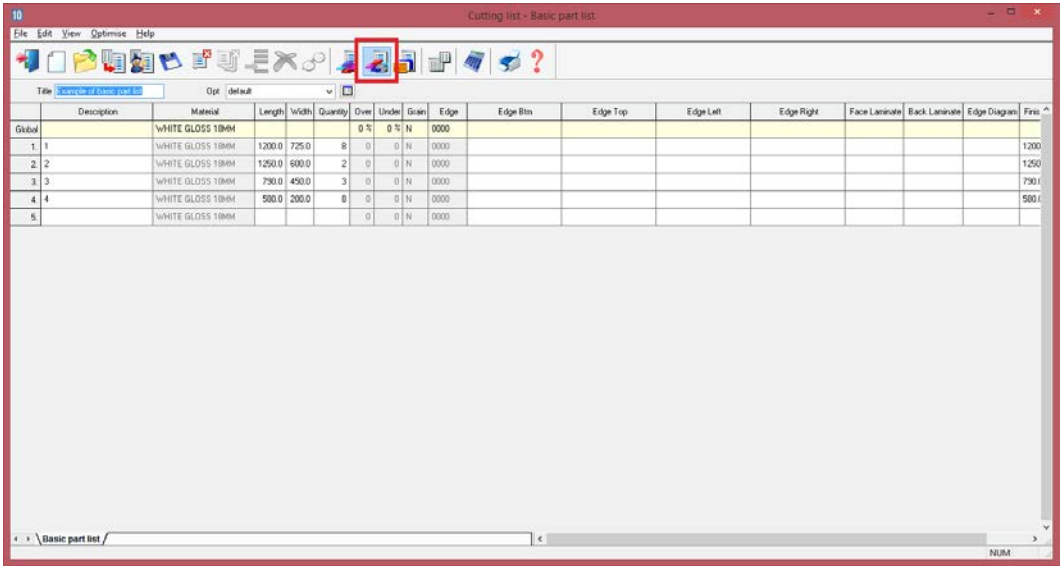
The Main screen is the heart of the system. All options and data are available from here.



The starting point of optimisation is a list of part sizes (cutting list).

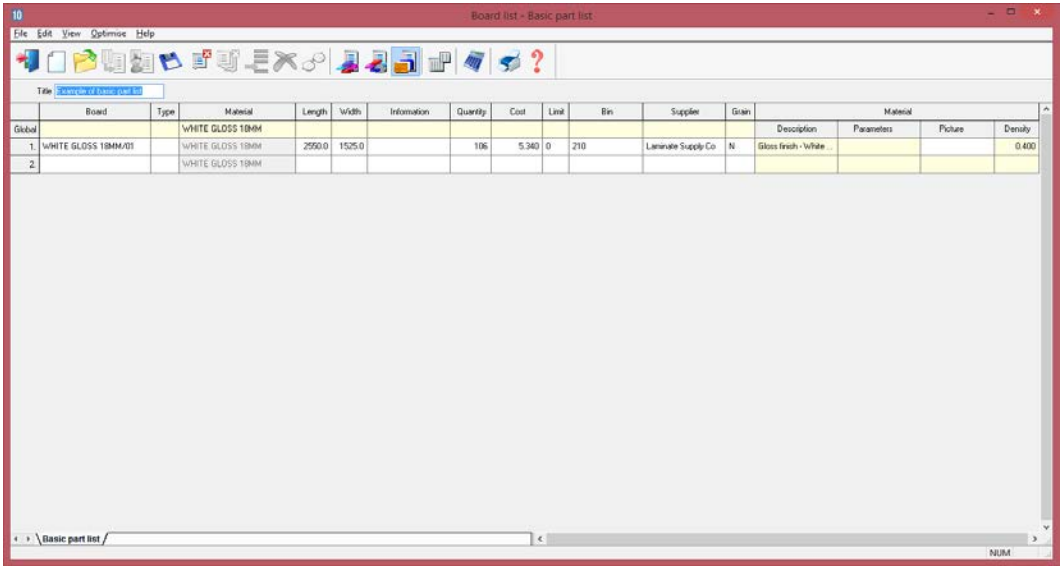

Part list - Basic part list
File Edit View Optimise Help
Title Example of basic cut list
Opt default
Description Material Length Width Quantity Over Under Grain Edge Edge Btm Edge Top Edge Left Edge Right Face Laminate Back Laminate Edge Diagram
Global - WHITE GLOSS 18MM 0 % 0 % N 0000
1 1 WHITE GLOSS 18MM 1200.0 725.0 8 0 0 N 0000
2 2 WHITE GLOSS 18MM 1250.0 600.0 2 0 0 N 0000
3 3 WHITE GLOSS 18MM 790.0 450.0 3 0 0 N 0000
4 4 WHITE GLOSS 18MM 580.0 200.0 8 0 0 N 0000
5 5 WHITE GLOSS 18MM 0 0 N 0000
Basic part list
NUM

Once the part sizes and other details are entered the program creates a Cutting list.



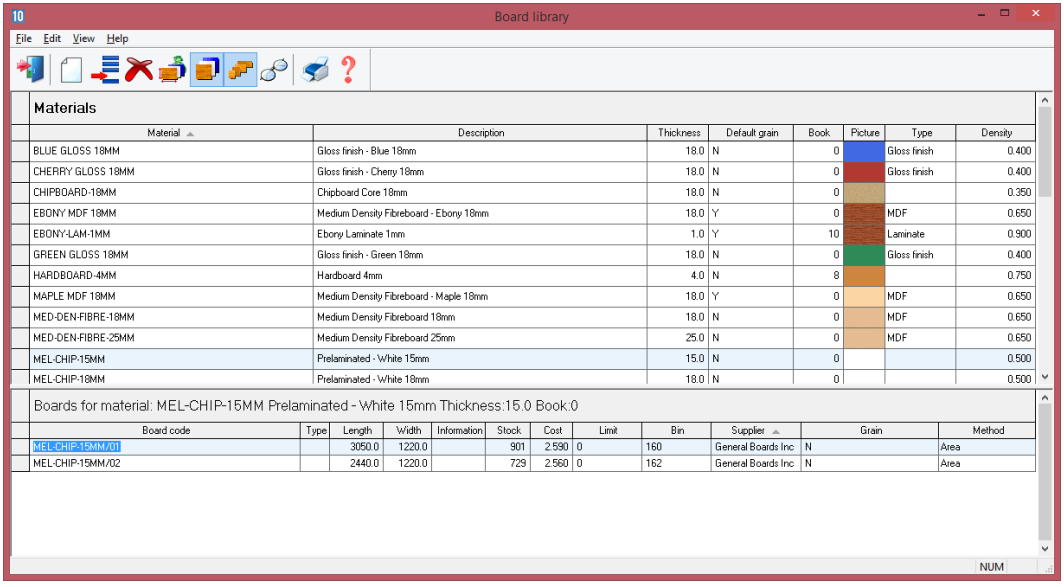
This is a copy of the part list but where there is edging or other information fields the program automatically calculates the actual cutting sizes ready for the saw.

The program also creates a Board list.



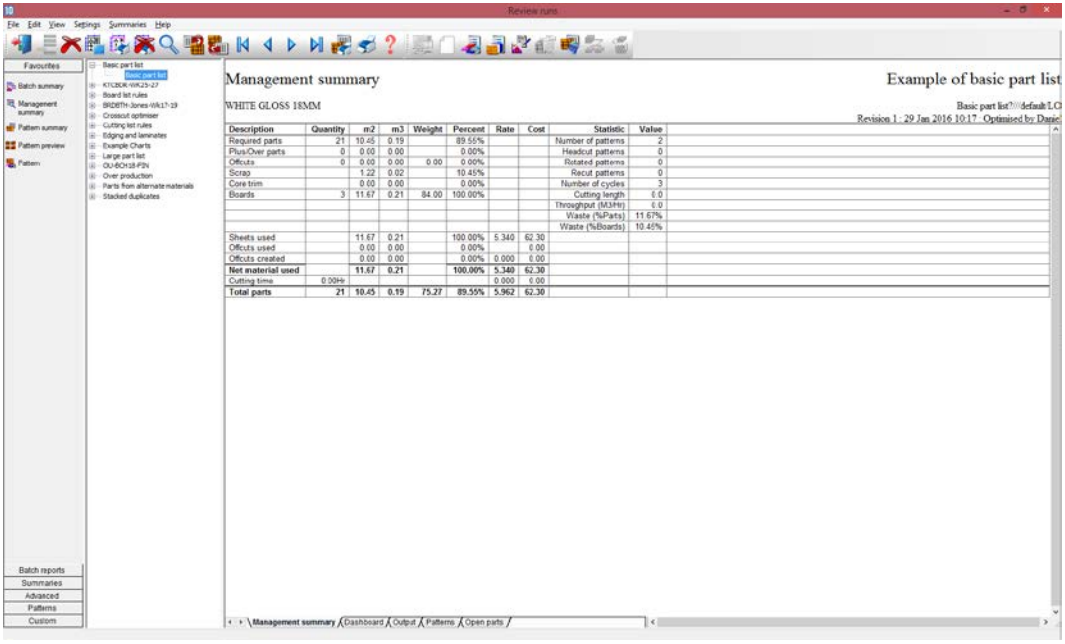
The Board list is created by the program extracting from the Board library all board sizes (and offcuts if any) matching the material codes used in the Cutting list against each part.

The board library stores the details and quantities of all the sheet material.




The program produces a set of cutting patterns and moves to the 'Review runs' section of the program. This shows all cutting patterns and a set of summary reports.

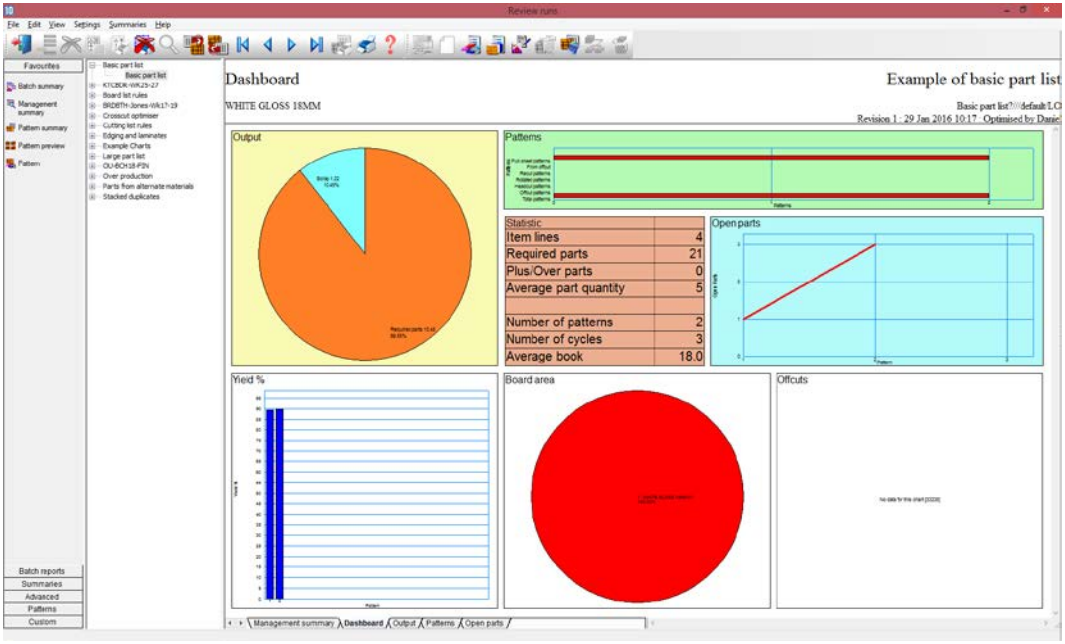
The first report shown is an overall summary of the job; the *Management Summary*.



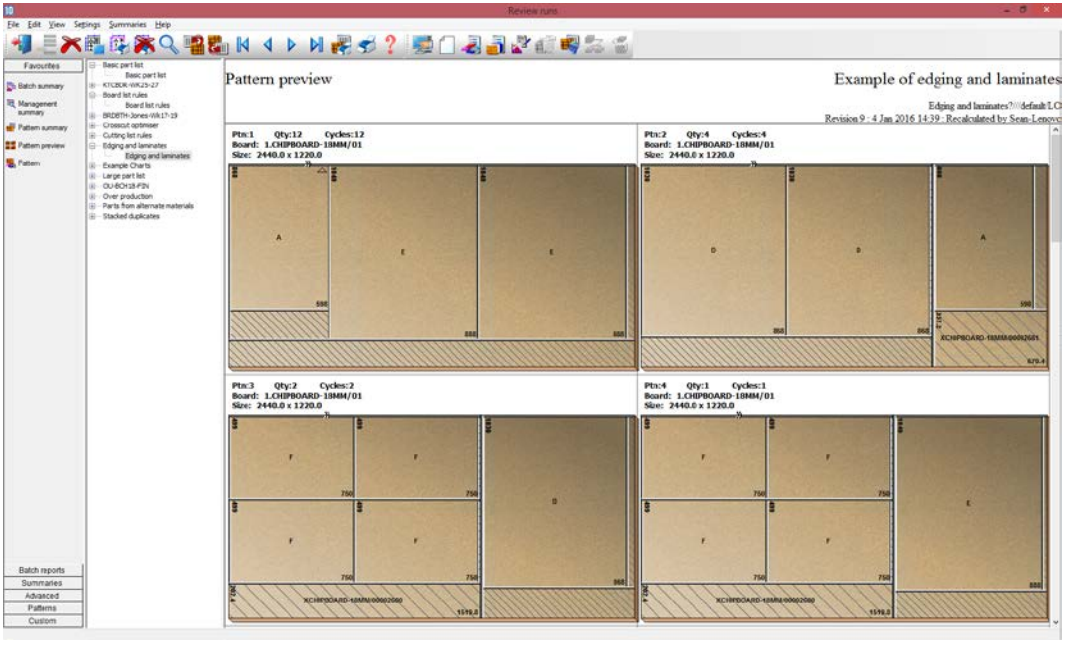
Description	Quantity	m2	m3	Weight	Percent	Rate	Cost	Statistic	Value
Required parts	21	10.45	0.19		89.55%			Number of patterns	2
Plus/Over parts	0	0.00	0.00		0.00%			Headcut patterns	0
Offcuts	0	0.00	0.00	0.00	0.00%			Rotated patterns	0
Scrap		1.22	0.02		10.45%			Recut patterns	0
Core trim		0.00	0.00		0.00%			Number of cycles	3
Boards	3	11.67	0.21	84.00	100.00%			Cutting length	0.0
								Throughput (M3/Hr)	0.0
								Waste (%Parts)	11.67%
								Waste (%Boards)	10.45%
Sheets used		11.67	0.21		100.00%	5.340	62.30		
Offcuts used		0.00	0.00		0.00%		0.00		
Offcuts created		0.00	0.00		0.00%	0.000	0.00		
Net material used		**11.67**	**0.21**		**100.00%**	**5.340**	**62.30**		
Cutting time	0.00Hr					0.000	0.00		
Total parts	**21**	**10.45**	**0.19**	**75.27**	**89.55%**	**5.962**	**62.30**		

This is an overall summary of the job, for example. Total costs, Overall Waste percentage, Net material used…

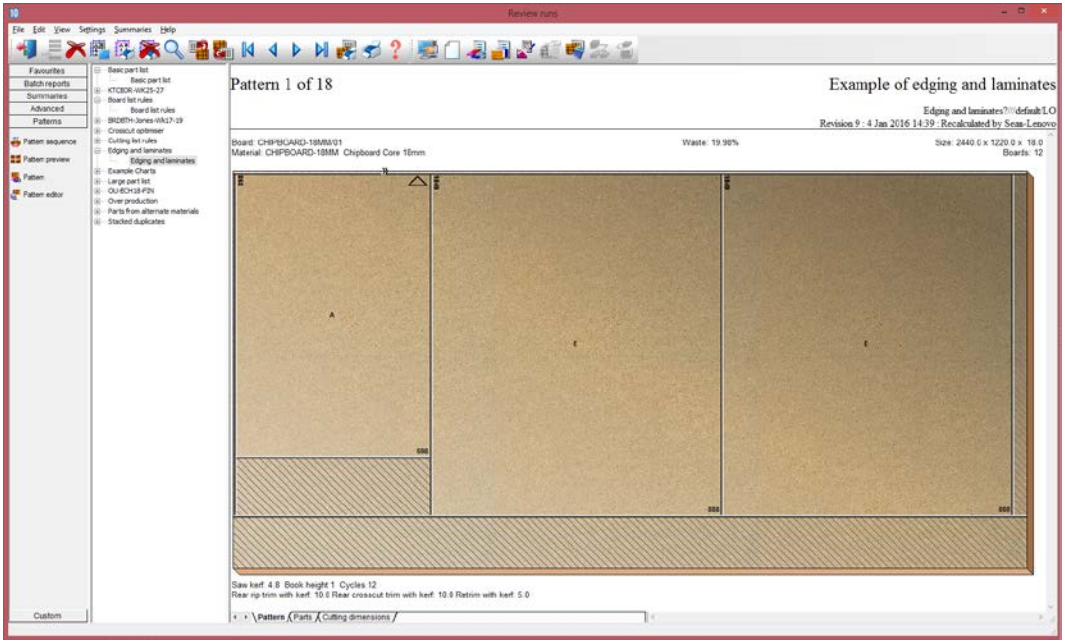
At the foot of the report are a set of tabs with more information. For example, the 'Dashboard' gives a graphical view of the management summary data.


Review runs
File Edit View Settings Summaries Help
Favourites
Batch summary
Management summary
Pattern summary
Pattern preview
Pattern
Batch reports
Summaries
Advanced
Patterns
Custom
Basic part list
Board list rules
Crosscut optimiser
Cutting list rules
Edging and laminates
Example Charts
Large part list
Over production
Parts from alternate materials
Stacked duplicates
Dashboard
WHITE GLOSS 18MM
Example of basic part list
Output
Patterns
Statistic
Item lines 4
Required parts 21
Plus/Over parts 0
Average part quantity 5
Number of patterns 2
Number of cycles 3
Average book 18.0
Open parts
Yield %
Board area
Offcuts
Management summary
Dashboard
Output
Patterns
Open parts

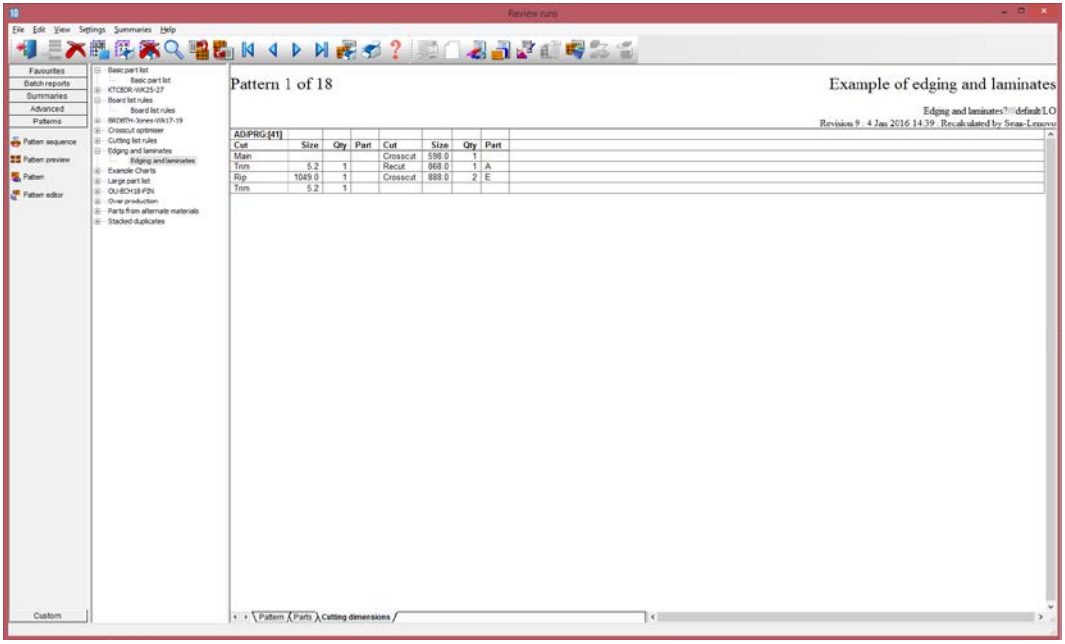
The individual cutting patterns are viewed via the 'Pattern preview' option.



Double click on a thumbnail to view the pattern full screen.



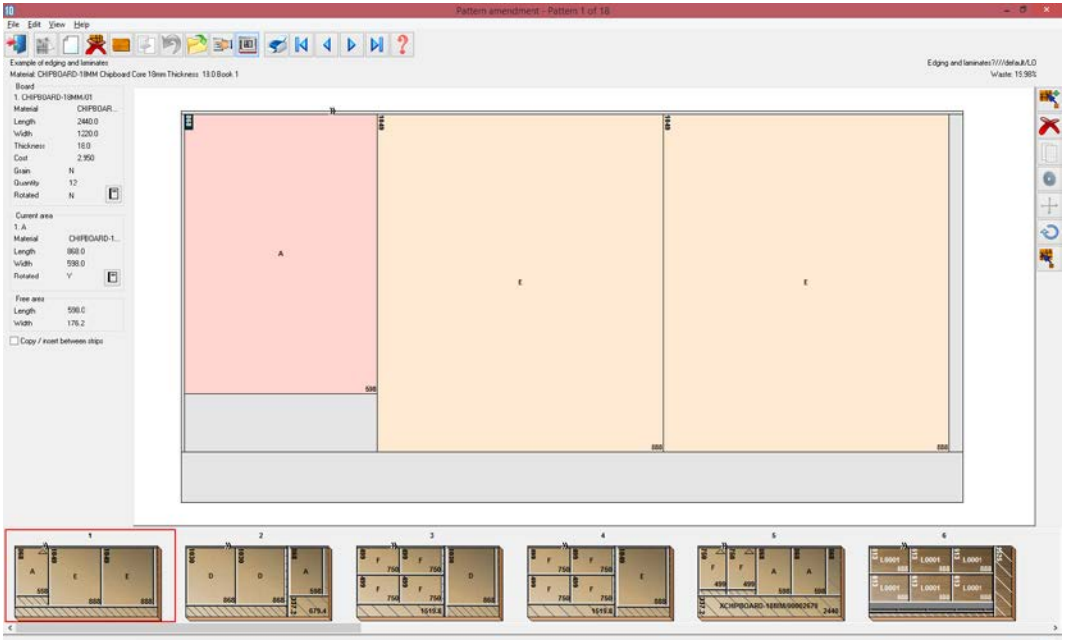
The cutting instructions can be used to set the saw; there are options to export the pattern data and/or the print the data.



Pattern editor

In production there are sometimes last minute changes if materials are not available or an order changes. The optimiser includes a pattern editor to adjust the patterns; to alter a quantity, change a board, change to order in which patterns are cut…

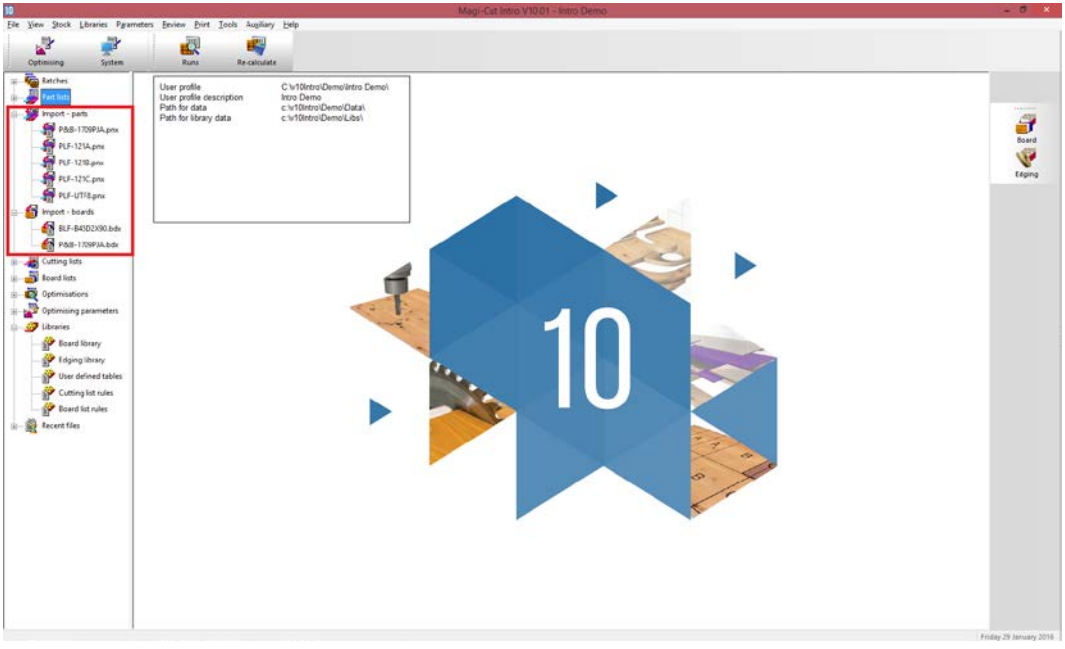
Click on any pattern to move to the editor.



Once the changes are complete the run is recalculated. The editor is easy to use and acts in a similar way to a graphics program.

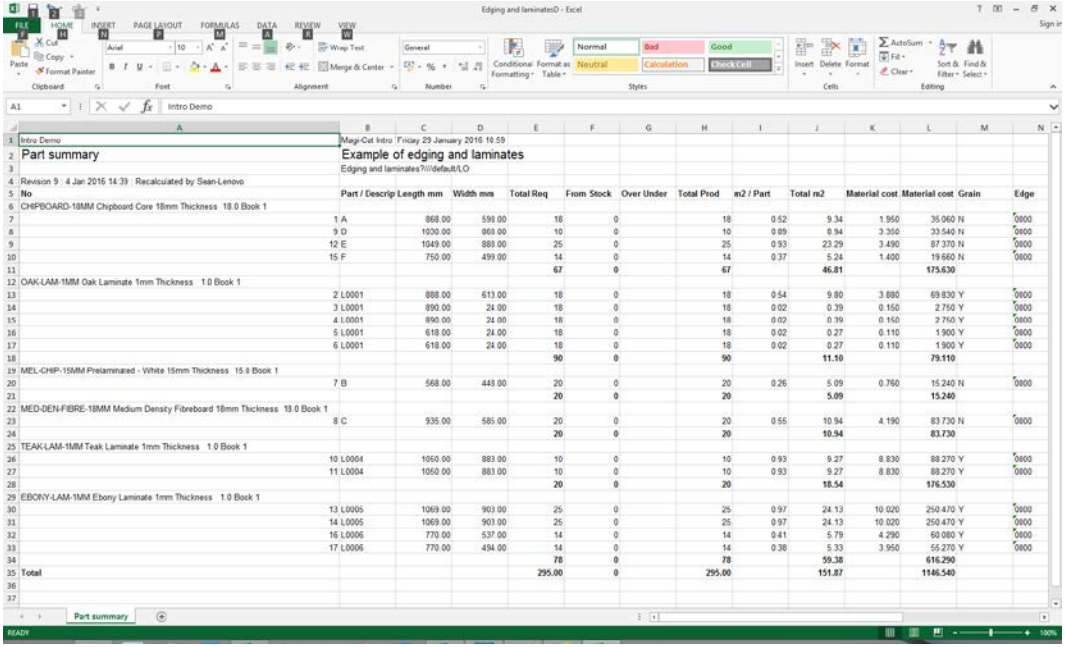
Import and export cutting data

The program includes a variety of options for importing and exporting data from the program.



Any set of results or individual reports can be exported to an external file (for example, a text file or an Excel format file). Pattern drawings can be exported as a DXF format file.

In the following example a Part list summary was exported to Excel.



Edging and laminatesD - Excel

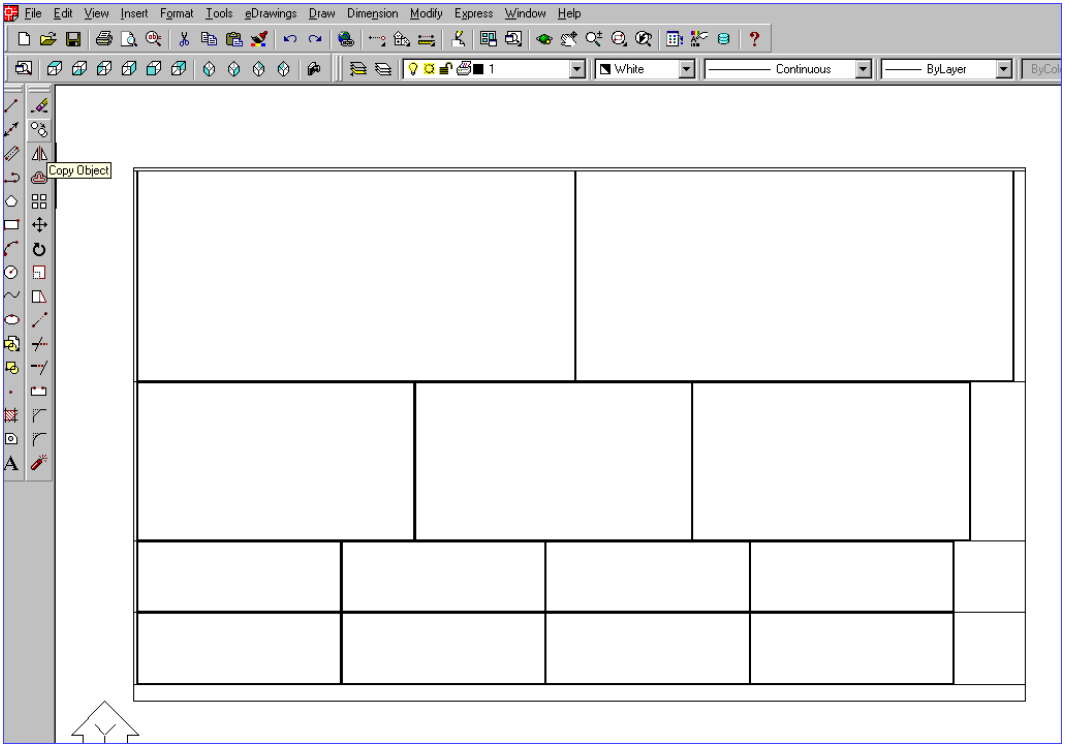
Intro Demo

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Intro Demo	Magi-Cut Intro Friday 29 January 2016 10:59												
2	Part summary	Example of edging and laminates												
3		Edging and laminates?///default/LO												
4	Revision 9 : 4 Jan 2016 14:39 : Recalculated by Sean-Lenovo													
5	No	Part / Descrip	Length mm	Width mm	Total Req	From Stock	Over Under	Total Prod	m2 / Part	Total m2	Material cost	Material cost	Grain	Edge
6	CHIPBOARD-18MM Chipboard Core 18mm Thickness 18.0 Book 1													
7	1	A	868.00	598.00	18	0		18	0.52	9.34	1.950	35.060	N	0800
8	9	D	1030.00	868.00	10	0		10	0.89	8.94	3.350	33.540	N	0800
9	12	E	1049.00	888.00	25	0		25	0.93	23.29	3.490	87.370	N	0800
10	15	F	750.00	499.00	14	0		14	0.37	5.24	1.400	19.660	N	0800
11					**67**	**0**		**67**		**46.81**		**175.630**		
12	OAK-LAM-1MM Oak Laminate 1mm Thickness 1.0 Book 1													
13	2	L0001	888.00	613.00	18	0		18	0.54	9.80	3.880	69.830	Y	0800
14	3	L0001	890.00	24.00	18	0		18	0.02	0.39	0.150	2.750	Y	0800
15	4	L0001	890.00	24.00	18	0		18	0.02	0.39	0.150	2.750	Y	0800
16	5	L0001	618.00	24.00	18	0		18	0.02	0.27	0.110	1.900	Y	0800
17	6	L0001	618.00	24.00	18	0		18	0.02	0.27	0.110	1.900	Y	0800
18					**90**	**0**		**90**		**11.10**		**79.110**		
19	MEL-CHIP-15MM Prelaminated - White 15mm Thickness 15.0 Book 1													
20	7	B	568.00	448.00	20	0		20	0.26	5.09	0.760	15.240	N	0800
21					**20**	**0**		**20**		**5.09**		**15.240**		
22	MED-DEN-FIBRE-18MM Medium Density Fibreboard 18mm Thickness 18.0 Book 1													
23	8	C	935.00	585.00	20	0		20	0.55	10.94	4.190	83.730	N	0800
24					**20**	**0**		**20**		**10.94**		**83.730**		
25	TEAK-LAM-1MM Teak Laminate 1mm Thickness 1.0 Book 1													
26	10	L0004	1050.00	883.00	10	0		10	0.93	9.27	8.830	88.270	Y	0800
27	11	L0004	1050.00	883.00	10	0		10	0.93	9.27	8.830	88.270	Y	0800
28					**20**	**0**		**20**		**18.54**		**176.530**		
29	EBONY-LAM-1MM Ebony Laminate 1mm Thickness 1.0 Book 1													
30	13	L0005	1069.00	903.00	25	0		25	0.97	24.13	10.020	250.470	Y	0800
31	14	L0005	1069.00	903.00	25	0		25	0.97	24.13	10.020	250.470	Y	0800
32	16	L0006	770.00	537.00	14	0		14	0.41	5.79	4.290	60.080	Y	0800
33	17	L0006	770.00	494.00	14	0		14	0.38	5.33	3.950	55.270	Y	0800
34					**78**	**0**		**78**		**59.38**		**616.290**		
35	**Total**				**295.00**	**0**		**295.00**		**151.87**		**1146.540**		
36														
37														

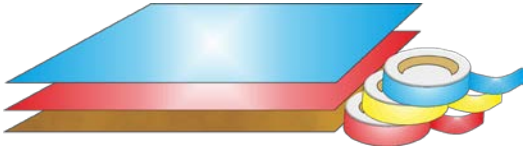
Part summary

READY

Patterns can be exported to a DXF format and are then available to most CAD programs.



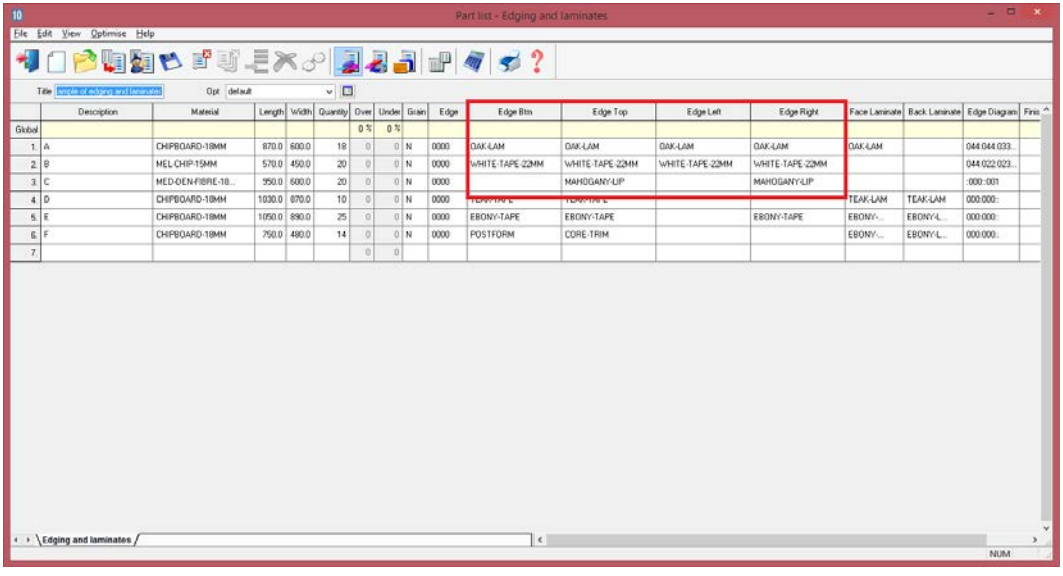
Edges & Laminating



This option provides a full set of options to deal with edged, trimmed and laminated parts. A wide variety of edging methods are covered:-

- Tape, Laminate strips, Solid lipping, Postform edging, Bullnose edging, Laminate front and back, Core trimming (cutting back before edging), Edge before laminating

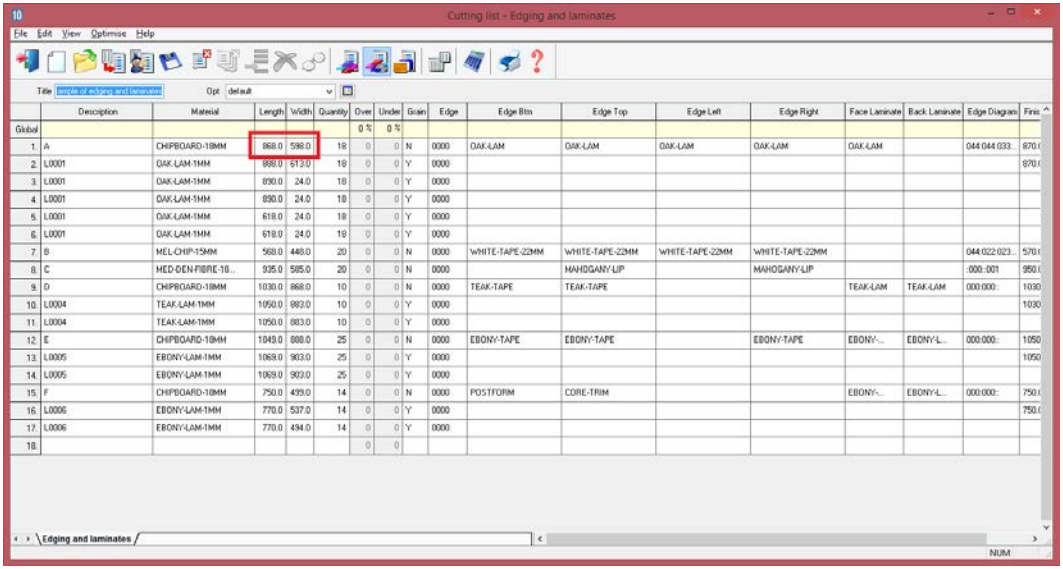
The edging requirement is set at the part list and can be set for each part.



	Description	Material	Length	Width	Quantity	Over	Under	Grain	Edge	Edge Btm	Edge Top	Edge Left	Edge Right	Face Laminate	Back Laminate	Edge Diagram
Global						0 %	0 %									
1	A	CHIPBOARD-18MM	870.0	600.0	18	0	0	N	0000	OAK-LAM	OAK-LAM	OAK-LAM	OAK-LAM	OAK-LAM		044:044:033..
2	B	MEL CHIP-15MM	570.0	450.0	20	0	0	N	0000	WHITE-TAPE-22MM	WHITE-TAPE-22MM	WHITE-TAPE-22MM	WHITE-TAPE-22MM			044:022:023..
3	C	MED-DEN-FIBRE-18..	950.0	600.0	20	0	0	N	0000		MAHOGANY-LIP		MAHOGANY-LIP			:000:001
4	D	CHIPBOARD-18MM	1030.0	870.0	10	0	0	N	0000	TEAK-TAPE	TEAK-TAPE			TEAK-LAM	TEAK-LAM	000:000::
5	E	CHIPBOARD-18MM	1050.0	890.0	25	0	0	N	0000	EBONY-TAPE	EBONY-TAPE		EBONY-TAPE	EBONY-...	EBONY-L...	000:000::
6	F	CHIPBOARD-18MM	750.0	480.0	14	0	0	N	0000	POSTFORM	CORE-TRIM			EBONY-...	EBONY-L...	000:000::
7						0	0									

A set of extra fields (called Information boxes) extend the Part list to allow for the entry of the edging code for each edge of each part. For example, in the above example items such as drawers and doors have edging material on some of the edges.

The correct cutting sizes are produced automatically and placed in the 'Cutting list'.

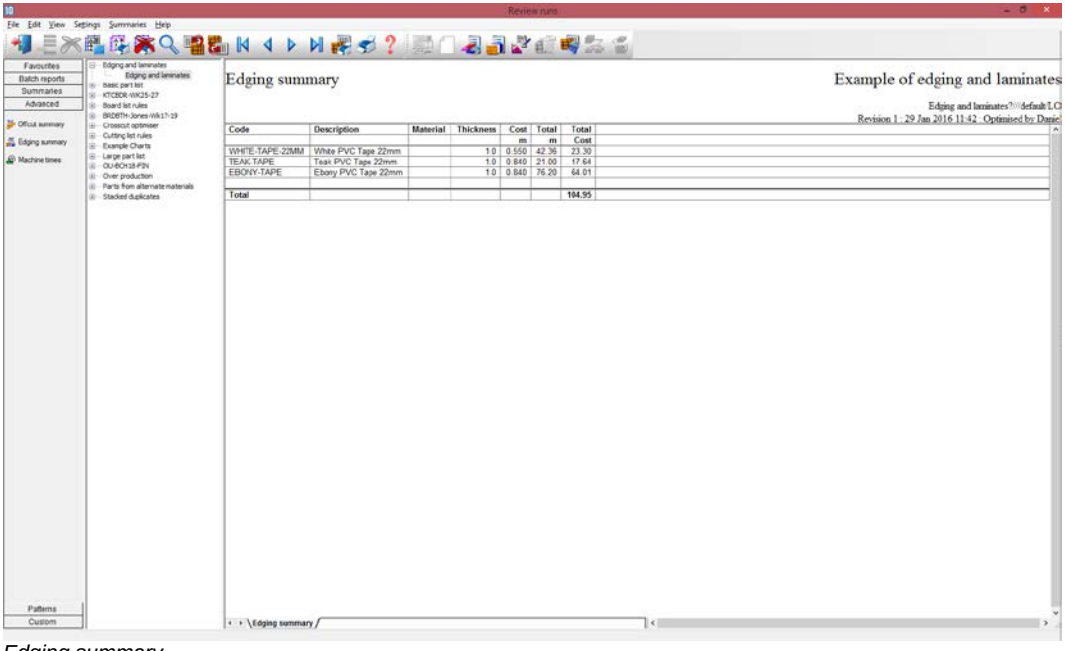


	Description	Material	Length	Width	Quantity	Over	Under	Grain	Edge	Edge Btm	Edge Top	Edge Left	Edge Right	Face Laminate	Back Laminate	Edge Diagram	Finis
Global						0 %	0 %										
1	A	CHIPBOARD-18MM	868.0	598.0	18	0	0	N	0000	OAK-LAM	OAK-LAM	OAK-LAM	OAK-LAM	OAK-LAM		044.044.033.	870.(
2	L0001	OAK-LAM-1MM	888.0	613.0	18	0	0	Y	0000								870.(
3	L0001	OAK-LAM-1MM	890.0	24.0	18	0	0	Y	0000								
4	L0001	OAK-LAM-1MM	890.0	24.0	18	0	0	Y	0000								
5	L0001	OAK-LAM-1MM	618.0	24.0	18	0	0	Y	0000								
6	L0001	OAK-LAM-1MM	618.0	24.0	18	0	0	Y	0000								
7	B	MEL-CHIP-15MM	568.0	448.0	20	0	0	N	0000	WHITE-TAPE-22MM	WHITE-TAPE-22MM	WHITE-TAPE-22MM	WHITE-TAPE-22MM			044.022.023.	570.(
8	C	MED-DEN-FIBRE-18...	935.0	595.0	20	0	0	N	0000		MAHOGANY-LIP		MAHOGANY-LIP			:000:.001	950.(
9	D	CHIPBOARD-18MM	1030.0	868.0	10	0	0	N	0000	TEAK-TAPE	TEAK-TAPE			TEAK-LAM	TEAK-LAM	000.000:.	1030
10	L0004	TEAK-LAM-1MM	1050.0	883.0	10	0	0	Y	0000								1030
11	L0004	TEAK-LAM-1MM	1050.0	883.0	10	0	0	Y	0000								
12	E	CHIPBOARD-18MM	1043.0	888.0	25	0	0	N	0000	EBONY-TAPE	EBONY-TAPE		EBONY-TAPE	EBONY-...	EBONY-L...	000.000:.	1050
13	L0005	EBONY-LAM-1MM	1069.0	903.0	25	0	0	Y	0000								1050
14	L0005	EBONY-LAM-1MM	1069.0	903.0	25	0	0	Y	0000								
15	F	CHIPBOARD-18MM	750.0	499.0	14	0	0	N	0000	POSTFORM	CORE-TRIM			EBONY-...	EBONY-L...	000.000:.	750.(
16	L0006	EBONY-LAM-1MM	770.0	537.0	14	0	0	Y	0000								750.(
17	L0006	EBONY-LAM-1MM	770.0	494.0	14	0	0	Y	0000								
18						0	0										

For example, a finished width of 600.0 mm requires a cutting size of 597.0 mm if the part is edged by (1.5 mm) tape on each length edge.

The part list can also include fields for laminating one or both sides of a part.

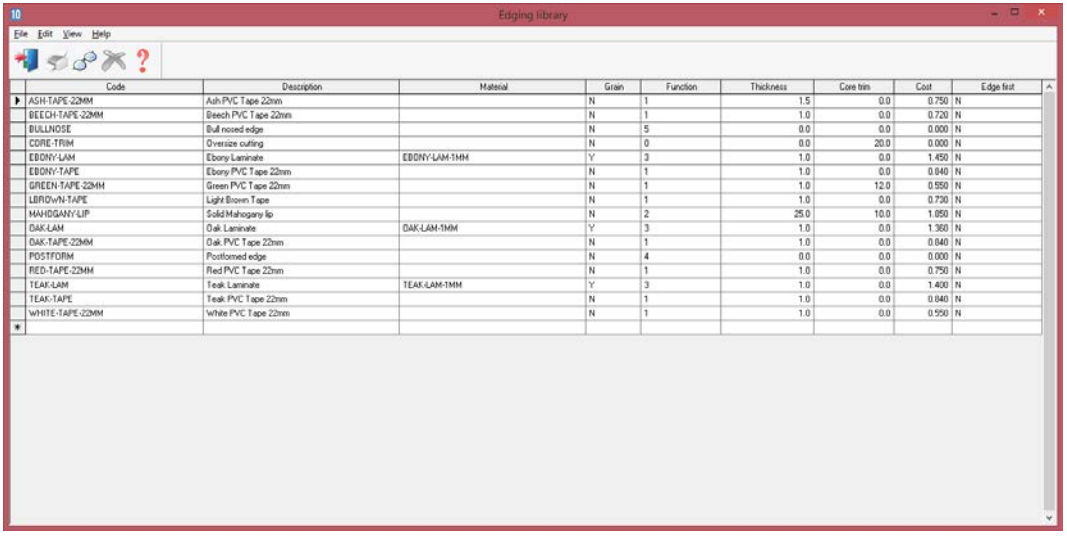
The edging summary gives full details of the edging requirements including the costs.



Edging summary

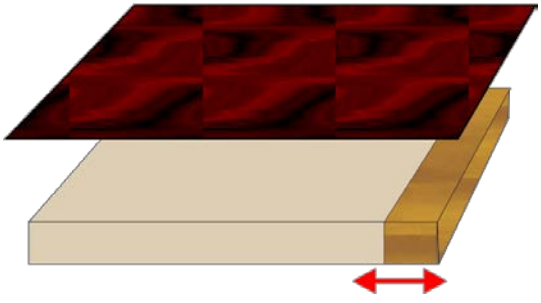
Edging library

The details of the edging materials and operations are set up in the Edging library. This can be customised to match many different edging methods, for example, whether edging is applied before laminating, whether a core trim is taken, the type of edging …

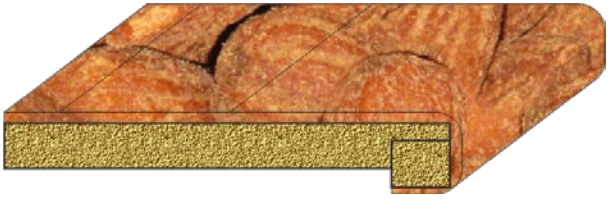


Code	Description	Material	Grain	Function	Thickness	Core trim	Cost	Edge first
ASH-TAPE-22MM	Ash PVC Tape 22mm		N	1	1.5	0.0	0.750	N
BEECH-TAPE-22MM	Beech PVC Tape 22mm		N	1	1.0	0.0	0.720	N
BULLNOSE	Bull nosed edge		N	5	0.0	0.0	0.000	N
CORE-TRIM	Oversize cutting		N	0	0.0	20.0	0.000	N
EBONY-LAM	Ebony Laminate	EBONY-LAM-1MM	Y	3	1.0	0.0	1.450	N
EBONY-TAPE	Ebony PVC Tape 22mm		N	1	1.0	0.0	0.840	N
GREEN-TAPE-22MM	Green PVC Tape 22mm		N	1	1.0	12.0	0.550	N
LBROWN-TAPE	Light Brown Tape		N	1	1.0	0.0	0.730	N
MAHOGANY-LIP	Solid Mahogany lip		N	2	25.0	10.0	1.050	N
OAK-LAM	Oak Laminate	OAK-LAM-1MM	Y	3	1.0	0.0	1.360	N
OAK-TAPE-22MM	Oak PVC Tape 22mm		N	1	1.0	0.0	0.840	N
POSTFORM	Postformed edge		N	4	0.0	0.0	0.000	N
RED-TAPE-22MM	Red PVC Tape 22mm		N	1	1.0	0.0	0.750	N
TEAK-LAM	Teak Laminate	TEAK-LAM-1MM	Y	3	1.0	0.0	1.400	N
TEAK-TAPE	Teak PVC Tape 22mm		N	1	1.0	0.0	0.840	N
WHITE-TAPE-22MM	White PVC Tape 22mm		N	1	1.0	0.0	0.550	N

The core trim, for example, allows for the removal of core material ready for solid wood lipping.



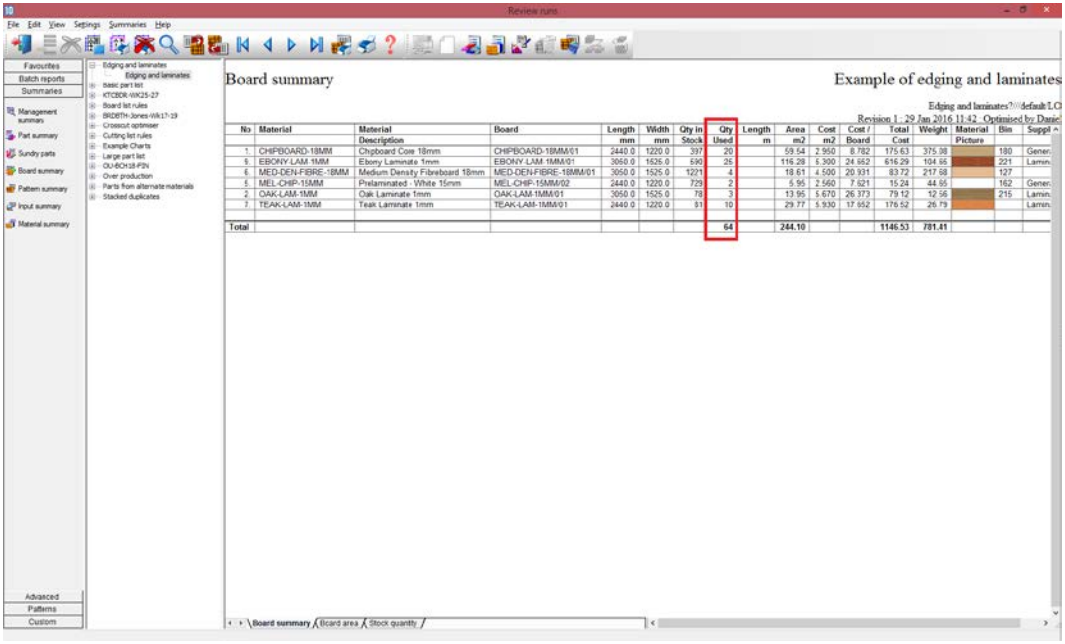
This can include the details for more complex edges such as postform and bullnose edges.



Stock Control

The stock control options allow the offcuts generated in each run to be returned to the Board library so they are available for later optimisations. There are also options to update the board stock from an external file and to adjust board costs.

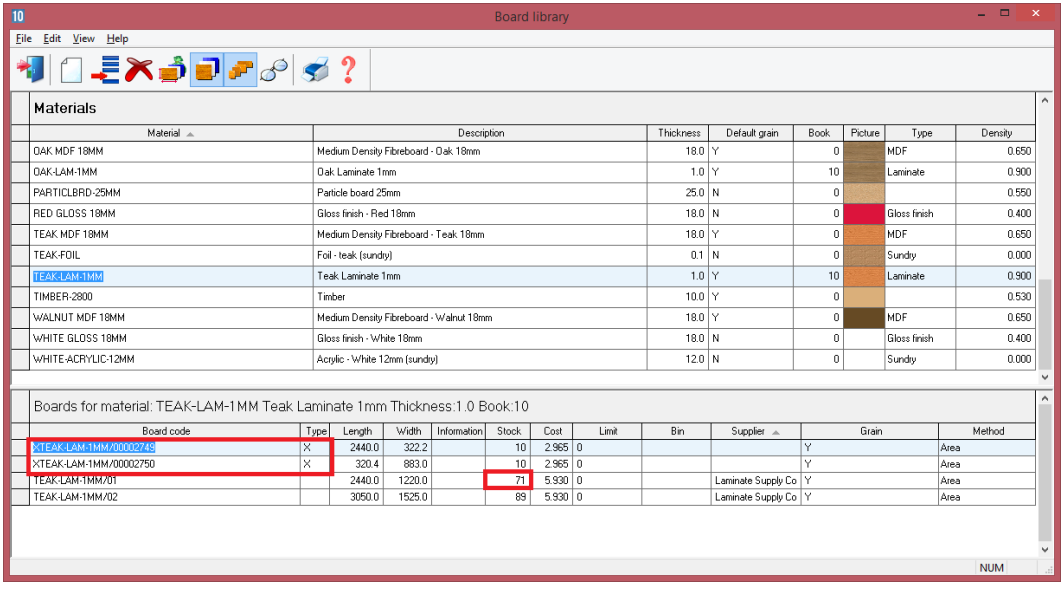
The quantity of boards required for any job is calculated by the optimization.



Stock control - optimising

Once the run is committed for cutting (data sent to saw) the stock can be updated by the 'Issue stock for runs' options.

The board quantities are reduced and any offcuts are added back to the library.

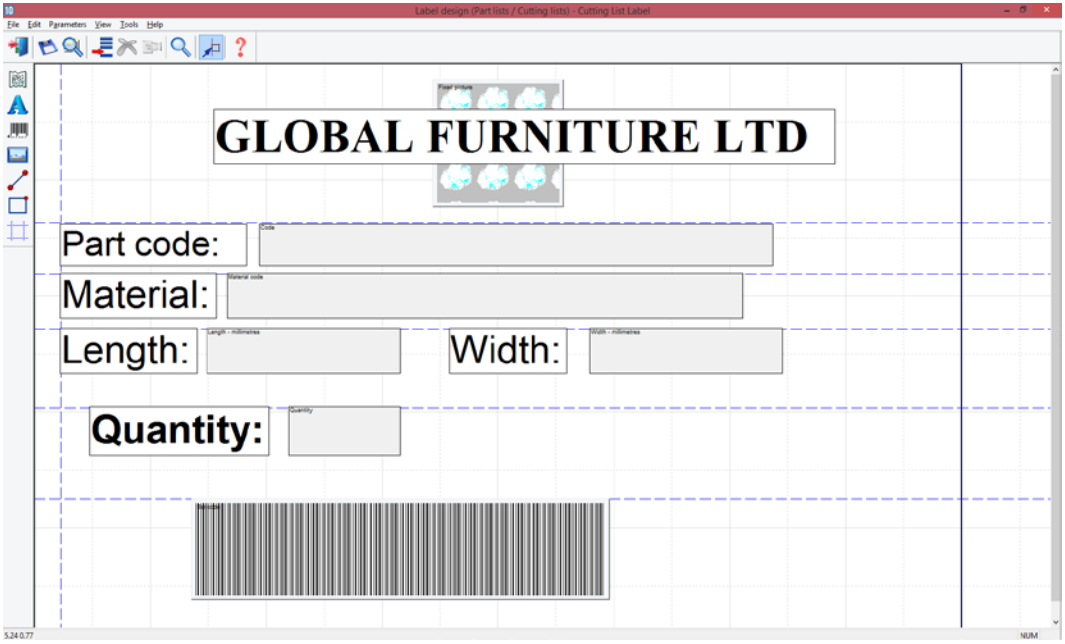


Adjust Stock from file - The stock quantities can also be adjusted from an external file. This is useful, for example, where there is record of material orders on another system.

Labels and Forms

Use the Design options to create templates for labels and forms. Labels are typically for printing labels in the office for parts or runs.

The following example shows a design for a label at the Design screen.



Labels can be printed for a cutting list or for a run.

The Form design is similar and includes facilities for page numbers, headings, and continuation pages…

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Cutting pattern details

Job Ref: Edging and laminates **Date: 12/06/2013**

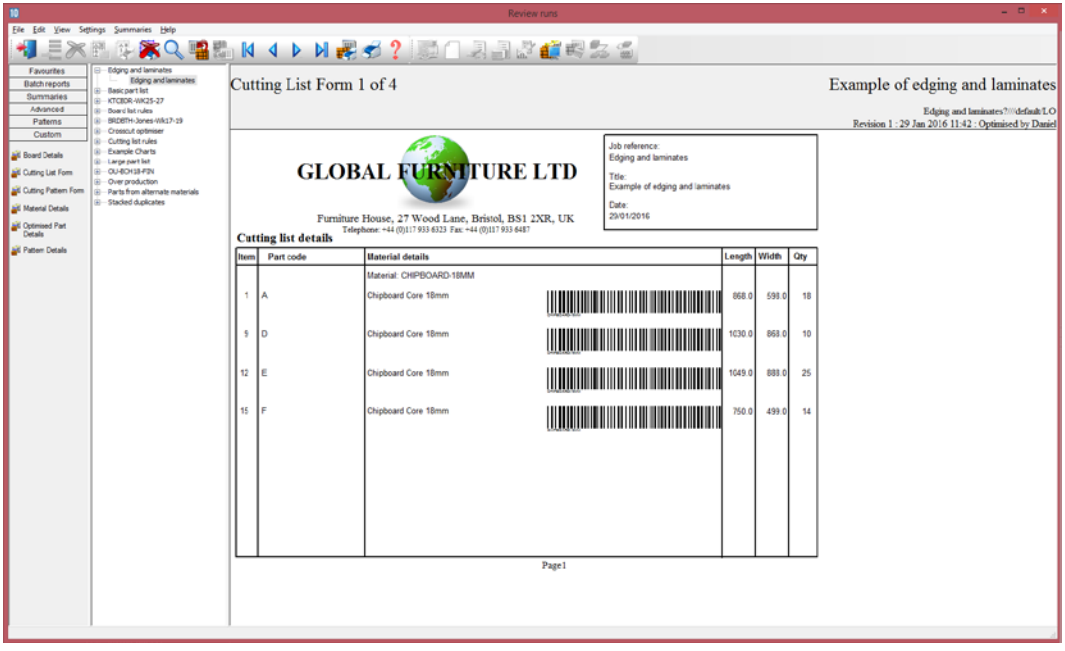
Description: Example of edging and laminates

Run Number: Edging and laminates

Run details: Edging and lami.../Edging and lami.../default/lite/

Item	Part code	Material code	Length	Width	Qty
1	END/1	CHIPBOARD-18MM	870.0	598.0	20
	Length edge - bottom: TEAK-TAPE				
	Length edge - top: TEAK-TAPE				
2	L0001	TEAK-LAM-1MM	890.0	613.0	20
3	UNIT END-TD	MEL-CHIP-15MM	569.0	448.0	15
	Length edge - bottom: WHITE-TAPE-22MM				
	Length edge - top: WHITE-TAPE-22MM				
	Width edge - right: WHITE-TAPE-22MM				
4	TOP-CAB 3	MEL-CHIP-15MM	950.0	319.0	
	Length edge - bottom: WHITE-TAPE-22MM				

Form design can also be used to create custom 'on screen' reports. These are automatically included on the Review runs screen under the 'Custom' tab.



Housekeeping – Magi-Cut Intro includes many 'housekeeping' options to copy, delete and back up data. The operation of the screens and calculation can be customised on-screen and via parameter settings. The program is fully supported by integrated, up to date, local help (no need to rely on a web link).

Features for Magi-Cut Intro

	Magi-Cut Intro
Part list	
Metric or Imperial dimensions	*
Grain/cross grain or no grain parts	*
Exact quantity or over/under production	*
Maximum part sizes per part list	10000
Mixed material lists - unlimited materials per job	*
User-defined part list information fields	99
Configurable part list editor	*
Import	
Import part/cutting lists from user-defined CSV or XLS(X) files	*
Import board lists from user-defined CSV or XLS(X) files	*
Cutting list	
Edgebanding adjustments & requirements	*
Calculation of laminate sizes	*
Multiple boards & offcut sizes per job	*
Optimising	
Small quantity sheet optimiser	*
Medium quantity sheet optimiser	*
Timber/worktop cross cut optimiser	*
Pattern complexity controls	*
Saw kerf & trim settings	*
Minimise material costs	*
Maximum part sizes per optimisation	10000
Maximum pieces per optimisation	10000
Faster optimisation with multi-core processors	*
Batch optimisation - multiple lists - up to 250 jobs	*
Export	
Export report data to Access database	*
Export summaries to XLS(X) files	*
Export summaries to PDF	*

Export patterns to DXF files	*
Reports, forms and labels	
Batch, job summaries	*
Part, board, material and pattern summaries	*
Offcut summary	*
Weight calculations	*
Dashboard - graphs and bar charts	*
Configurable reports & summaries	*
Form design - part lists, patterns	*
Label design - includes bar codes & pictures	*
Labels for parts and offcuts	*
Stock	
Material library with boards and offcuts	*
Automatic stock issue from jobs	*
Import stock adjustment from file	*
Patterns	
Thumbnail preview of patterns	*
Pattern display - colour coded or material texture	*
Pattern editor - add, move, delete parts	*
Cutting instructions for saw operator	*
General	
File maintenance - copy /delete files	*
Backup & restore data	*
Integrated local help	*
Link to website	*
User profiles	*
Vista/Win 7/ Win8 platforms / Windows 10	*