

Large scale production – with full cost control

This is the most extensive optimising module. It gives full control over costs, cutting constraints and all cutting pattern features including th special requirements of larger scale production.

If it fully integrated with the PQ module (where used) and includes an interface to a large number of proprietry saws.

The overall process is:-

- Enter or Import part sizes
- Optimise
- Send cutting data to saw



The starting point of optimisation is a list of part sizes. This can be produced in a variety of ways:-

- Enter sizes in the 'Part list' grid
- Calculate part sizes from product requirements (PQ module)
- Import part sizes from external files or systems

Some lists can have extra custom fields with information for reports of for part labels. The system also provides a set of pre-defined fields which automatically calculate extra data.

The sizes entered are typically the finished sizes and the part list includes options to adjust the sizes to allow for edging, laminates and re-trimming.

The part list includes a full set of options to edit or insert trims, re-order and change the list.

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2.	BASE-BACK	HARDBOARD-WHITE-4MM	976.0	735.0	1	0	0	N						
3.	BASE-BACK	HARDBOARD-WHITE-4MM	976.0	735.0	1	0	0	N						
4.	BASE-BACK	HARDBOARD-WHITE-4MM	476.0	735.0	1	0	0	N						
5.	BASE-BACK	HARDBOARD-WHITE-4MM	876.0	735.0	1	0	0	N						
6.	BASE-BOTTOM	MEL-CHIP-18MM	464.0	582.0	1	0	0	N						
7.	BASE-BOTTOM	MEL-CHIP-18MM	564.0	582.0	1	0	0	N						
8.	BASE-BOTTOM	MEL-CHIP-18MM	464.0	582.0	1	0	0	N						
9.	BASE-CABINET-BOTTOM	MEL-CHIP-18MM	864.0	582.0	1	0	0	N						
10.	BASE-CABINET-DIVIDER	MEL-CHIP-18MM	560.0	533.0	1	0	0	N						
11.	BASE-CABINET-DOOR	MFC18-DAK	400.0	556.0	1	0	0	х						
12.	BASE-CABINET-DRAWER	MFC18-DAK	400.0	184.3	1	0	0	Y						
13.	BASE-CABINET-DRAWER-LONG	MFC18-DAK	900.0	184.3	1	0	0	Y						~
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In this example there are a large number of part sizes required in small quantitied. Each part has a material code which matches the part to the available materials.

The number of columns in use can be adjusted to match the details required and help with data entry.

The global line at the top of the list allows entry vales that apply to the whole list and helps to speed up data entry and avoid mistakes.

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3.	BASE-BACK	HARDBOARD-WHITE-4MM	976.0	735.0	1	0	0	N						
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5.	BASE-BACK	HARDBOARD-WHITE-4MM	876.0	735.0	1	0	0	N						
6.	BASE-BOTTOM	MEL-CHIP-18MM	464.0	582.0	1	0	0	N						
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9.	BASE-CABINET-BOTTOM	MEL-CHIP-18MM	864.0	582.0	1	0	0	N						
10.	BASE-CABINET-DIVIDER	MEL-CHIP-18MM	560.0	533.0	1	0	0	N						
11.	BASE-CABINET-DOOR	MFC18-DAK	400.0	556.0	1	0	0	х						
12.	BASE-CABINET-DRAWER	MFC18-DAK	400.0	184.3	1	0	0	Y						
13.	BASE-CABINET-DRAWER-LONG	MFC18-OAK	900.0	184.3	1	0	0	Y						~
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Sizes can be entered in millimeters, decimal inches or fractional inches.



All materials are stored in the Board library. This is a database of all sheet material and includes quantities and costs. The board library stores records for each material and a record for each board size(including any offcuts) for each material type

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	MIRROR-GLASS		Mirror	Glass (su	ndry)				!	5.0 1	N		0					Sun	dry			0.00	Ċ
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In this example the material MFC18-Teak has two available board sizes 3050 x 1525 and 2440 x 1220.

The Material column in the part list associates each part with the correct material to use and the optimiser selects the optimum board sizes to use for each job.

Optimising parameters are used to describe the type of cutting (trims, re-cuts, headcuts ...). See the 'Parameters' section for details. Typical parameters are:-

Saw kerf Front Trims Rear trims

The Front trim parameters, for example, allows the specification of the amount of material including kerf allowed at the front of the board for rips and cross cuts.



Saw parameters are used to describe each saw; overall cutting length, position of clamps, size of waste flap ... Typical parameters are:-

Saw model Cutting height Overall cutting length ...



Different parameters list can be set up and used to produce the correct cutting requirements for any list. Typically users set up a handful of parameters lists with commonly used settings and add extra lists for one-off or special jobs.



Optimisation produces the pattern layout (balancing cutting times and waste) and a set of details reports for each job The results are shown in the section of the program 'Review Runs'. Runs are stored and can be easily recalled for review or adjustments.

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📅 Pattern summary	Description	Quantity	m2	m3	Weight	Percent	Rate	Cost	Statistic	Value ^
	Required parts	620	312.61	4.66		83.54%			Number of patterns	44
Him Fattern preview	Plus/Over parts	0	0.00	0.00		0.00%			Headcut patterns	12
🗏 Pattem	Offcuts	37	9.83	0.17	68.73	2.63%			Rotated patterns	1
-	Scrap		51.75	0.61		13.83%			Recut patterns	20
	Core trim		0.00	0.00		0.00%			Number of cycles	44
	Boards	116	374.19	5.44	2338.74	100.00%			Cutting length	1492.3
									Throughput (M3/Hr)	1.6
									Waste (%Parts)	19.70%
									Waste (%Boards)	16.46%
	Sheets used		373.40	5.43		99.79%	4 550	1081.26		
	Offcuts used		0.79	0.01		0.21%	1.550	1.22		
	Offcuts created		-9.83	-0.17		-2.63%	0.000	0.00		
	Net material used	2,2514-	364.36	5.27		97.31%	50.000	1082.48		
	Total parts	3.200	242.64	4.66	4007 72	02 5 40/	50.000	170.04		
	Total parts	620	312.01	4.00	1901.13	03.34%	4.009	1203.12		
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Batch Optimisation

This shows the overall details of a job, yield, costs, type off cutting pattern.

The management summary includes a Dashboard view showing a graphical view of some of the data.



Batch summary

This can be customised for almost any view and to include charts from other summaries. The cutting patterns are shown in a thumbnail overview.



Preview of patterns

Clicking on a thumbnail picture moves to the full screen of each pattern.

Extra details of each pattern are available on the tabs at the foot of each drawing.

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🗏 Pattem	Material: MFC18-OAK Prelaminated - Oak 18mm		Boards: 2
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Full details of pattern

All reports can be fully customised and the Form & Design option is available for custom reports - fully integrated into the program.

The program also supports decimal and fractional inches.

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	Board: 1 Maste: 49 659/ Size: 49 x 06	A 0.2/4
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Pattern sequence		
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Pattern - fractional inches

In this example the pattern is shown in an alternative view 'Monochrome'. There are several choices of pattern view.

- Enhanced picture with bitmap or solid colour
 Flat picture with bitmap or solid colour
- Picture with colour for different part type (recut, plus part, offcut ...)
- Monochrom picture

There are a range of reports on the job, including, offcuts, costs, board usage.

Offcuts

Shows the offcuts produced in a run.

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Station summary MEL-CHIP-18MM Prelaminated - White 18mm Thickness 18.0 Book 5 Min size 300.0 X 200.0	
Affair Destacking pictures 2. XMEL-CHIP-18MM/00014170 X 614.0 207.2 4 0.509 1.570 0.200 0.80 4.58 4/41	
MFC18-BEECH Prelaminated - Beech 18mm Thickness 18.0 Book 5 Min size 300.0 X 200.0	
3. XMFC18-BEECH/00014171 X 928.0 260.9 1 0.242 1.605 0.389 0.39 1.74 1/34	
4. XINFC10-DECENT/00014172 X 564.4 578.0 1 0.165 1.005 0.297 0.30 1.33 1/34 554.4 578.0 1 0.165 1.005 0.297 0.30 1.33 1/34	
6. XMFC18-BEECH/00014174 X 359.6 312.3 6 0.674 1.480 0.166 1.00 4.85 6/39	
Patterns 9 1.277 1.94 9.20	
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Review runs Offcut summary

Offcuts can be returned to the board library for use in later runs with the Stock control module.

<u>Boards</u>

This shows the amount of each board size used in a run.

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	15.	MEL-CHIP-18MM	Prelaminated - White 18mm	MEL-CHIP-18MM/02		2440.0	1220.0	362	6		17.86	3.1
Board summary	12.	MFC18-BEECH	Prelaminated - Beech 18mm	MFC18-BEECH/01		3050.0	1525.0	1702	5		23.26	3.1
Pattern summary	13.	MFC18-BEECH	Prelaminated - Beech 18mm	MFC18-BEECH/02		2440.0	1220.0	1628	21		62.51	2.!
and i accontectmenty	4.	MFC18-EBONY	Prelaminated - Ebony 18mm	MFC18-EBONY/01		3050.0	1220.0	805	8		29.77	5.1
🖉 Input summary	5.	MFC18-EBONY	Prelaminated - Ebony 18mm	MFC18-EBONY/02		2440.0	1220.0	523	6		17.86	5.1
-W Material automatic	1.	MFC18-OAK	Prelaminated - Oak 18mm	MFC18-OAK/01		3050.0	1220.0	428	9		33.49	3.:
i Material summary	2.	MFC18-OAK	Prelaminated - Oak 18mm	MFC18-OAK/02		2440.0	1220.0	114	16		47.63	2.
	11.	MFC18-RED	Prelaminated - Red 18mm	MFC18-RED/02		2440.0	1220.0	14	3		8.93	4.
	1.	MFC18-TEAK	Prelaminated - Leak 18mm	MFC18-TEAK/02		3050.0	1525.0	955	6		27.91	3.1
	6.	MEC18-TEAK	Prelaminated - Leak 18mm	MFC18-TEAK/01	v	2440.0	1220.0	1020	4		11.91	3.
	10.	MFC18-TEAK	Prelaminated - Leak 18mm	X00125/0001	х	780.0	1011.0	1	1		0.79	1.
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Review runs Board summary

Job costing

A summary of all the cost centres for a job.

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💐 Fittings	Code	Description	Quantity	Linear	Area	Cost	Total	^
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🋅 Batch	MEC18 OAK/01	MEC18 OAK 3050 0 x 1220 0	Quantity		33 / 90	3 300	110 514	
material	MEC18-04K/01	MEC18-OAK 2000 x 1220.0 MEC18-OAK 2000 x 1220.0	16		17 629	2 970	1/11/158	
summary	HARDBOARD-4MM/01	HARDBOARD-4MM 2440.0 x 1220.0	31		92 281	0.890	82 130	
	MEC18-EBONY/01	MEC18-EBONY 3050 0 x 1220.0	8		29 768	5 760	171 464	
	MEC18-EBONY/02	MEC18-EBONY 2440 0 x 1220 0	6		17 861	5 210	93 055	
	MFC18-TEAK/01	MFC18-TEAK 2440.0 x 1220.0	4		11.907	3,110	37.031	
	MFC18-TEAK/02	MFC18-TEAK 3050.0 x 1525.0	6		27.907	3,110	86,792	
	X00125/0001	MFC18-TEAK 780.0 x 1011.0	1		0.789	1.550	1.222	
	MFC18-BEECH/01	MFC18-BEECH 3050.0 x 1525.0	5		23.256	3.210	74.653	
	MFC18-BEECH/02	MFC18-BEECH 2440.0 x 1220.0	21		62.513	2.960	185.038	
	MEL-CHIP-18MM/02	MEL-CHIP-18MM 2440.0 x 1220.0	6		17.861	3.140	56.083	
	MFC18-RED/02	MFC18-RED 2440.0 x 1220.0	3		8.930	4.820	43.045	
			116		374.191		1082.484	
	Sundry	Material	Quantity	Linear	Area	Cost	Total	
	MIRROR-GLASS	MIRROR-GLASS	14			3.200	44.800	
Summaries			14				44.800	
Advanced								
Patterns	Edging	Description	Quantity			Cost/m	Total	
Machining	OAK-TAPE-22MM	Oak PVC Tape 22mm	47.460			0.840	39.866	
Custom	EBONY-TAPE	Ebony PVC Tape 22mm	34.980			0.840	29.383	
Custom	BFFCH-TAPF-22MM	Beech PVC Tape 22mm	21.340			0 720	15 365	~

Review runs job costing

Charts and Analysis

Most reports include options to add a graphical view or chart of the report data. Up to 3 custom charts can be defined for each summary.



Review runs chart

The data to highlight in this way typically varies from company to company so there are full facilities for defining data to include and style of chart for each report in Review runs (*Settings - Chart settings*)

Professional optimising

The professional optimiser is designed for larger volumes of parts – up to the very largest; it balances the cutting time and costs against material cost to produce an effective solution.

The optimiser includes many specialist features which are often needed with volume production:

- Over production
- 'Strip production' this option to allow ripping and cross cutting to appear on separate patterns.

This is often required where the cutting line separates ripping and cross cutting across separate saws (e.g. Kitchen worktops).



- Option to restrict the number of pallet groups

The number of parts not completed at any time is kept below a fixed value. This helps wiff offstacking and later production processes where there are large volumes of parts.

- Free cut analysis

This determines the optimum position for cutting jumbo boards – a free cut to split boards is often an option for those using high board volumes.

- Optimising parameters to control the number of different board sizes used and the order of the part production (priority). These are often more important for volume production.

Comparision of Optimisers

	Standard	Professional
Part list	SO	PO
Metric or imperial dimensions	•	•
Grain/cross grain or ungrained parts	•	•
Exact quantity or over/under production	•	•
Maximum part sizes per part list (undivided)	20,000	20,000
Mixed material lists – unlimited materials per job	•	•
User-defined part list information fields	99	99

Configurable part list editor	•	•
Grain match – master part templates	•	•
Import		
Import part/cutting lists from user-defined csv. xls(x)	•	•
Import board lists from user defined csv. xls(x) files	•	•
Import patterns – from PTX	•	•
Cutting List		
Multiple boards & offcut sizes per job	•	•
Cutting list rules – user defined tables	•	•
Allow alternative materials per part	•	•
Optimising		
Small/medium quantity sheet optimiser	•	•
Timber/Workshop cross cut optimsier	•	•
Strip production optimiser		•
Full sheet over production optimiser		•
Volume optimisation		•
Auto optimiser selection		•
Pattern complexity controls	Limited	•
Saw kerf & trim settings	•	•
Separate kerf for rip and crosscut saws		•
Optimisation based on material cost	•	•
Optimisation based on cost(material + cutting time)		•
Vertical strips in head cut patterns		•
Maximum part sizes per optimisation	10,000	10,000
Maximum pieces per optimisation	10,000	Unlimited
Faster optimisation with multi-core processors	10,000 •	Unlimited •
Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs	10,000 •	Unlimited •
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser	10,000 •	Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser	10,000 • •	Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser Volume optimisation	10,000 • •	Unlimited Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser Volume optimisation Extended optimisation parameters	10,000 • • Limited	Unlimited Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser Volume optimisation Extended optimisation parameters Control of open parts or pallet groups	10,000 • • Limited	Unlimited Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser Volume optimisation Extended optimisation parameters Control of open parts or pallet groups Control of 'plus part' preference	10,000 • • Limited	Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser Volume optimisation Extended optimisation parameters Control of open parts or pallet groups Control of 'plus part' preference Free cut analysis	10,000 • • Limited	Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser Volume optimisation Extended optimisation parameters Control of open parts or pallet groups Control of 'plus part' preference Free cut analysis Material parameters	10,000 • Limited	Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser Volume optimisation Extended optimisation parameters Control of open parts or pallet groups Control of open part' preference Free cut analysis Material parameters Mixed material stacks	10,000 • Limited	Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser Volume optimisation Extended optimisation parameters Control of open parts or pallet groups Control of 'plus part' preference Free cut analysis Material parameters Mixed material stacks Re-optimisation of remaining (unproduced) parts	10,000 • Limited	Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser Volume optimisation Extended optimisation parameters Control of open parts or pallet groups Control of 'plus part' preference Free cut analysis Material parameters Mixed material stacks Re-optimisation of remaining (unproduced) parts	10,000	Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser Volume optimisation Extended optimisation parameters Control of open parts or pallet groups Control of 'plus part' preference Free cut analysis Material parameters Mixed material stacks Re-optimisation of remaining (unproduced) parts	10,000	Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser Volume optimisation Extended optimisation parameters Control of open parts or pallet groups Control of 'plus part' preference Free cut analysis Material parameters Mixed material stacks Re-optimisation of remaining (unproduced) parts Export Export report data to Access database Evant report data to Solite database	10,000	Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser Volume optimisation Extended optimisation parameters Control of open parts or pallet groups Control of 'plus part' preference Free cut analysis Material parameters Mixed material stacks Re-optimisation of remaining (unproduced) parts Export Export report data to Access database Export summarises to XLS(X) filor	10,000	Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser Volume optimisation Extended optimisation parameters Control of open parts or pallet groups Control of 'plus part' preference Free cut analysis Material parameters Mixed material stacks Re-optimisation of remaining (unproduced) parts Export Export report data to Access database Export Summaries to XLS(X) files Export summaries to parts	10,000	Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser Volume optimisation Extended optimisation parameters Control of open parts or pallet groups Control of 'plus part' preference Free cut analysis Material parameters Mixed material stacks Re-optimisation of remaining (unproduced) parts Export Export report data to Access database Export summaries to XLS(X) files Export summaries to pdf Export summaries to DYE files	10,000	Unlimited
Maximum pieces per optimisationFaster optimisation with multi-core processorsBatch optimisation multiple lists- up to 250 jobsstrip production optimiserFull sheet over production optimiserVolume optimisationExtended optimisation parametersControl of open parts or pallet groupsControl of 'plus part' preferenceFree cut analysisMaterial parametersMixed material stacksRe-optimisation of remaining (unproduced) partsExportExport report data to Access databaseExport report data to SQLite databaseExport summaries to XLS(X) filesExport patterns to DXF files	10,000	Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser Volume optimisation Extended optimisation parameters Control of open parts or pallet groups Control of 'plus part' preference Free cut analysis Material parameters Mixed material stacks Re-optimisation of remaining (unproduced) parts Export Export report data to Access database Export summaries to XLS(X) files Export summaries to pdf Export patterns to DXF files	10,000	Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser Volume optimisation Extended optimisation parameters Control of open parts or pallet groups Control of 'plus part' preference Free cut analysis Material parameters Mixed material stacks Re-optimisation of remaining (unproduced) parts 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	10,000	Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser Volume optimisation Extended optimisation parameters Control of open parts or pallet groups Control of 'plus part' preference Free cut analysis Material parameters Mixed material stacks Re-optimisation of remaining (unproduced) parts 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. Baord. Material and Pattern summaries	10,000	Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser Volume optimisation Extended optimisation parameters Control of open parts or pallet groups Control of 'plus part' preference Free cut analysis Material parameters Mixed material stacks Re-optimisation of remaining (unproduced) parts <i>Export</i> <i>Export</i> <i>Export</i> report data to Access database Export report data to SQLite database Export summaries to pdf Export patterns to DXF files <i>Reports, forms and labels</i> Batch, job summaries Offcut summary	10,000 • • Limited • • • • • • • • • • • • •	Unlimited
Maximum pieces per optimisation Faster optimisation with multi-core processors Batch optimisation multiple lists- up to 250 jobs strip production optimiser Full sheet over production optimiser Volume optimisation Extended optimisation parameters Control of open parts or pallet groups Control of 'plus part' preference Free cut analysis Material parameters Mixed material stacks Re-optimisation of remaining (unproduced) parts <i>Export</i> <i>Export</i> Export report data to Access database Export report data to SQLite database Export summaries to pdf Export patterns to DXF files <i>Reports, forms and labels</i> Batch, job summaries Offcut summary Part costings – Weight calculations	10,000 • Limited Limited • • • • • • • • • • • • •	Unlimited
Maximum pieces per optimisationFaster optimisation with multi-core processorsBatch optimisation multiple lists- up to 250 jobsstrip production optimiserFull sheet over production optimiserVolume optimisationExtended optimisation parametersControl of open parts or pallet groupsControl of 'plus part' preferenceFree cut analysisMaterial parametersMixed material stacksRe-optimisation of remaining (unproduced) partsExportExport report data to Access databaseExport summaries to pdfExport summaries to pdfExport patterns to DXF filesReports, forms and labelsBatch, job summariesPart, Baord, Material and Pattern summariesOffcut summaryPart costings – Weight calculationsCutting time calculations/saw simulation report	10,000	Unlimited

Dashboard – graphs and bar charts	•	•
Configurable reports & summaries	•	•
Form design – part lists, patterns	•	•
Label design – inlcudes barcodes and pictures	•	•
Labels for parts and offcuts	•	•
Stock		
Material library with boards and offcuts	•	•
Automatic stock issue from jobs	•	•
Import adjustment from file	•	•
Destacking and palletisation		•
Patterns		
Thumbnail preview of patterns	•	•
Pattern display – colour coded or material texture	•	•
Pattern editor – add, move delete parts	•	•
Cutting instructions for saw operator	•	•
Pattern library – standard templates – grain match ptns	•	•
Manual patterns	•	•
Beam saw interface		
Transfer to Single saw- Cadmatic 4 only	•	•
Transfer to Single saw- Cadmatic 4 only Transfer to online label PC	•	•
Transfer to Single saw- Cadmatic 4 onlyTransfer to online label PCTransfer to single saws – most types	• • •	•
Transfer to Single saw- Cadmatic 4 onlyTransfer to online label PCTransfer to single saws – most typesTransfer to Angular saws	• • • •	•
Transfer to Single saw- Cadmatic 4 onlyTransfer to online label PCTransfer to single saws – most typesTransfer to Angular sawsTransfer to Weeke Cutting centre	• • • • • • • • • • • • • • • • • • • •	• • • •
Transfer to Single saw- Cadmatic 4 onlyTransfer to online label PCTransfer to single saws – most typesTransfer to Angular sawsTransfer to Weeke Cutting centreTransfer to Multiple saw/Multiple saw parameter files	• • • • • • • • • • • • • • • • • • • •	• • • • •
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The following features come as standard with the Professional Optimiser.

Edges & Laminating

Accurate application and costing of edge-banding materials



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

- 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. The program automatically calculates the correct cutting sizes required to meet the finished size with edging set at the part list.

Sizes are entered (or imported) via the Part list.

These are typically the finished sizes but where there is edging and laminating the finished size has to be adjusted to the cut size before being sent to the saw.

III Pa	art list - Office units							-	- 0	×	
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Title Office units Opt DEFAULT V Saw DEFAULT V											
	Description	Material	Length	Width	Quantity	Grain	Edge Left	Edge Right	Face Lamin.	Inf	^
Global						1					
1.	F-CUPBOARD-TOP	MFC18-BEECH	700.0	350.0	6	X	BEECH	BEECH	1		
2.	F-CUPBOARD-SIDE	MFC18-BEECH	332.0	790.0	12	Y	REECH	BEECH			
3.	F-CUPBOARD-BASE	MFC18-BEECH	700.0	350.0	6	Y	BEECH	BEECH			
4.	F-CUPBOARD-DOOR	MFC18-BEECH	330.0	790.0	12	Y					
5.	F-CUPBOARD-SHELF	MFC18-BEECH	635.0	340.0	6	Y					
6.	F-CUPBOARD-BACK	HARDBOARD-4MM	665.0	800.0	6	N					
7.	F-CAB-TOP	MFC18-BEECH	450.0	392.0	5	Y					
8.	F-CAB-SIDE	MFC18-BEECH	370.0	585.0	10	Y					
9.	F-CAB-BASE	MFC18-BEECH	450.0	392.0	5	Y					
10.	F-CAB-BACK	HARDBOARD-4MM	420.0	590.0	5	N					
11.	F-CAB-DRW-FRONT	MFC18-BEECH	445.0	290.0	10	Y	BEECH	APE-22MM			
12.	F-CAB-DRW-SIDE	MEL-CHIP-15MM	355.0	260.0	20	N					
13.	F-CAB-DRW-BACK	MEL-CHIP-15MM	380.0	240.0	10	N					~
< ► \	Office units /	1		<			1			>	
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Edging - Part list

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 Top, Side and Base have edging material on some of the edges.

The correct cutting sizes are produced automatically.

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Title Office units Opt DEFAULT V 🔲 Saw DEFAULT V												
	Description	Material	Length	Width	Quantity	Grain	Edge Left	Edge Right	Face Lamin	Inf 🔷		
Global				/								
1.	F-CUPBOARD-TOP	MFC18-BEECH	698.0	350.0	6	Y	BEECH	BEECH				
2.	F-CUPBOARD-SIDE	MFC18-BEECH	330.0	790.0	12	Y	BEECH	BEECH				
3.	F-CUPBOARD-BASE	MFC18-BEECH	698.0	350.0	6	Y	BEECH	BEECH				
4.	F-CUPBOARD-DOOR	MFC18-BEECH	330.0	790.0	12	Y						
5.	F-CUPBOARD-SHELF	MFC18-BEECH	635.0	340.0	6	Y						
6.	F-CUPBOARD-BACK	HARDBOARD-4MM	665.0	800.0	6	N						
7.	F-CAB-TOP	MFC18-BEECH	450.0	392.0	5	Y						
8.	F-CAB-SIDE	MFC18-BEECH	370.0	585.0	10	Y						
9.	F-CAB-BASE	MFC18-BEECH	450.0	392.0	5	Y						
10.	F-CAB-BACK	HARDBOARD-4MM	420.0	590.0	5	N						
11.	F-CAB-DRW-FRONT	MFC18-BEECH	443.0	290.0	10	Y	BEECH	BEECH				
12.	F-CAB-DRW-SIDE	MEL-CHIP-15MM	355.0	260.0	20	N						
13.	F-CAB-DRW-BACK	MEL-CHIP-15MM	380.0	240.0	10	N				- v		
	Office units /			<						> .		
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Edging - Cutting list

For example, a finished length of 332.0 mm requires a cutting size of 330.0 mm if the part is edged by (2mm) tape on each length edge.

The part list can include a field for describing the Edge diagram.

This field can be used to set how adjoining edge pieces butt on to each other or whether they are mitred.



Edging diagram

This can be used when printing labels for edging to show on the label (at the Edgebander) exactly how the edging is applied.

Ref: Example 2 Part Code:	
CAB-DOOR-L	
Length:	558.0
Width:	418.0
Thickness:	18.0
Total Quantity:	120
Date:	08/05/2012
Edging details: Top: BEECH-TAPE-22MM	
Btm: BEECH-TAPE-22MM	
Left: BEECH-TAPE-22MM	
Right: BEECH-TAPE-22MM	

The edging diagram can be included on each part label to show clearly how the edging is produced. This is available with:-

Printing labels at the Office
Printing labels at the Saw (Online label PC)
Printing labels at the Saw (Cadmatic saw controller)

For the Cadmatic the information is passed to the Cadmatic controller on transfer of data to the saw.

- With the Parts & Labels module the edging requirements can be printed on a label as a bar code and used for processing at the edgebander after cutting.

Laminating



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

III Part list - Office units - C X											
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Title Office units Opt DEFAULT V 🔲 Saw DEFAULT V											
	Description	Material	Length	Width	Quantity	Grain	Face Laminate	Back Laminate	Inf 🛆		
Global											
1.	F-CUPBOARD-TOP	MFC18-BEECH	700.0	350.0	6	Y	BEECH-L	BEECH-L			
2.	F-CUPBOARD-SIDE	MFC18-BEECH	332.0	790.0	12	Y					
3.	F-CUPBOARD-BASE	MFC18-BEECH	700.0	350.0	6	Y					
4.	F-CUPBOARD-DOOR	MFC18-BEECH	330.0	790.0	12	Y					
5.	F-CUPBOARD-SHELF	MFC18-BEECH	635.0	340.0	6	Y					
6.	F-CUPBOARD-BACK	HARDBOARD-4MM	665.0	800.0	6	N					
7.	F-CAB-TOP	MFC18-BEECH	450.0	392.0	5	Y	BEECH-L	BEECH-L			
8.	F-CAB-SIDE	MFC18-BEECH	370.0	585.0	10	Y	BEECH-L	BEECH-L			
9.	F-CAB-BASE	MFC18-BEECH	450.0	392.0	5	Y					
10.	F-CAB-BACK	HARDBOARD-4MM	420.0	590.0	5	N					
11.	F-CAB-DRW-FRONT	MFC18-BEECH	445.0	290.0	10	Y					
12.	F-CAB-DRW-SIDE	MEL-CHIP-15MM	355.0	260.0	20	N					
13.	F-CAB-DRW-BACK	MEL-CHIP-15MM	380.0	240.0	10	N					
	Voffice units / / / / / / / / / / / / / / / / / / /										
	NUM .										

Laminates - part list

The program automatically adds extra items to the cutting list (cutting requirement) to allow for the laminate pieces required.

The laminate size is adjusted to allow for trimming as required.

11 C	utting list - Office units							- 0	×		
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Title Office units Opt DEFAULT V Saw DEFAULT V											
	Description	Material	Length	Width	Quantity	Grain	Face Laminate	Back Laminate	Inf	^	
Global											
1.	F-CUPBOARD-TOP	MFC18-BEECH	698.0	350.0	6	Y	BEECH-L	BEECH-L			
2.	L0001	BEECH-LAM	718.0	365.0	6	Y					
3.	L0001	BEECH-LAM	718.0	365.0	6	Y					
4.	F-CUPBOARD-SIDE	MFC18-BEECH	330.0	790.0	12	Y					
5.	F-CUPBOARD-BASE	MFC18-BEECH	698.0	350.0	6	Y					
6.	F-CUPBOARD-DOOR	MFC18-BEECH	330.0	790.0	12	Y					
7.	F-CUPBOARD-SHELF	MFC18-BEECH	635.0	340.0	6	Y					
8.	F-CUPBOARD-BACK	HARDBOARD-4MM	665.0	800.0	6	N					
9.	F-CAB TOP	MFC18-BEECH	450.0	392.0	5	Y	BEECH-L	BEECH-L			
10.	L0007	BEECH-LAM	470.0	407.0	5	Y					
X	L0007	BEECH-LAM	470.0	407.0	5	Y					
12.	F-CAB-SIDE	MFC18-BEECH	370.0	585.0	10	Y	BEECH-L	BEECH-L			
13.	L0008	BEECH-LAM	390.0	600.0	10	Y					
14.	L0008	BEECH-LAM	390.0	600.0	10	Y				~	
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Laminates - cutting list

Edging summary and costs

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

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Favourites									
Batch reports	Edg	ing sumr	narv Exa	mple o	f edgin	g and	d lar	ninat	es
Summaries						0			
Advanced			Edging and	1 laminates/	//?default/?de	fault/SC) Rules	CL BL1	6
			Revision	33 : 3 Sep 2	2018 14:28 :	Optimis	ed by S	ean-Len	ovo
Offcut summary	Code		Description	Material	Thickness	Cost	Total	Total	^
避 Distribution			-			m	m	Cost	
summary	WHITE	-TAPE-22MM	White PVC Tape 22mm		1.0	0.550	42.36	23.30	
and Edging summary	TEAK-	TAPE	Teak PVC Tape 22mm		1.0	0.840	21.00	17.64	
	EBON	Y-TAPE	Ebony PVC Tape 22mm		1.0	0.840	76.20	64.01	
Machine times									-
aw loading summary	Total							104.95	
Destacking summary									
탱킹 Station summary									
Destacking pictures									
Patterns									
Machining									
Custom		Edging summan	1	<				>	
				0					
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The Edging summary can include a custom graphic representation of the data.



Edging summary - chart

The printed part costing report includes the cost of edging material and the edgebander costs.

Part	costing - full						Edging	example
						Pa	rt costing	- full
No	Code / Description	Material / Description	Length	Width	Quantit	У		
1.	CVR/TP Edge Btm: BEECH-TAPE-2210 Finished size: 920.0 x 42 Edgebander: N/A	MFC18-BEECH Edge Top: BEECH-TAP 0.0 Part graining: G	920.0 2-22MM Ed rained Vo	420.0 ige Left: B lume: LOW	Time 1 EECH-TAPE Part are	Use -22MM a m2: 0	Rate	Cost
	CVR/TP	MFC18-BEECH	919.0	418.0	0.384		3.649	1.402
	BEECH-TAPE-22MM	Beech PVC Tape 22mm				2.320	0.720	1.670
	Saw Edgebander				0:50 1:20	0.014	50.000 30.000	0.697 0.663
					Total	cost :	-	4.432
2.	PRT/END Edge Top: BEECH-TAPE-22M Volume: LOW Part area mi	MFC18-BEECH 4 Finished size: 750.0 2: 0.3 Edgebander: N/2	750.0 0 x 420.0	420.0 Part grai	2 ning: Gra	ined -		
	PRT/END	MFC18-BEECH	750.0	419.0	0.314		3.649	1.147
	BEECH-TAPE-22MM	Beech PVC Tape 22mm				0.770	0.720	0.554
	Saw Edgebander				0:44 0:26	0.012	50.000 30.000	0.607 0.217
					Total	cost :	-	2.526
3.	PRT/TOP Edge Btm: BEECH-TAPE-22M Finished size: 690.0 x 42 Edgebander: N/A	MFC18-BEECH 1 Edge Top: BEECH-TAP 20.0 Part graining: G	690.0 2-2210M Ed rained Vo	420.0 ige Left: B lume: LOW	2 EECH-TAPE Part are	-22MM am2:0	. 3	
	PRT/TOP	MFC18-BEECH	689.0	418.0	0.288		3.649	1.051
	BEECH-TAPE-22MM	Beech PVC Tape 22mm				1.860	0.720	//
	Saw Edgebander				0:41 1:12	0.011 0.020	50.05 30.	
					Total	cost :		

Edging - part costing

The operational details and costs of each Edgebander are set up in the Edging parameters and the Machining rate parameters. These include options such as:-

-	Overlap	for	edgi	ng
-	Gap bet	ween	part	S
-	Edgeband	der s	peed	ł
-	Double s	sided	l or	not



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 ...

11	III Edging library											
File	File Edit View Help											
-	∜ 🕏 & 📉 ?											
	Code	Description	Material	Grain	Fu	Thick	Core	Cost	Edge first 🔺			
►	ASH-TAPE-22MM	Ash PVC Tape 22mm		N	1	1.5	0.0	0.750	N			
	BEECH-LAM	Beech Laminate		Y	3	1.0	0.0	1.450	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	1.850	N			
	OAK-LAM	0ak 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			
*									×			

Edging library

For example, where a core trim is specified, this indicates that the core material is trimmed first before edging is applied. This is quite common, for instance with doors, where solid wood edges are often applied before laminating.

- Where there are a large number of different laminates for example with laminate colours the Board library can be used instead of the edging library for describing the laminates - this is often more convenient for sheet laminates.

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



The laminate size is automatically adjusted to take account of the lipping.



The tolerances and settings for applying edging and laminates are set via the Edging parameters (*Main screen - Parameters - Edging*).

Laminate Edging Help view Set the parameters for laminate use 0.999 Overlap for laminates: On laminate length (total) Overlap for laminates 0.999 Willimetres On laminate length (total) 20.0 ~ On laminate width (total) 15.0 ~ Core oversize for laminating 0.0 ~ On core length (per edge) 0.0 ~ Add to laminate size	1 Edging	g parameters						_	×
Set the parameters for laminate use Pange Overlap for laminates: On laminate length (total) Overlap for laminates Image Image Overlap for laminates Image Image On laminate length (total) Image Image On laminate width (total) Image Image On core length (per edge) Image Image On core width (per edge) Image Image Add to laminate size Image Image Image Image Image Image	Laminate	Edging							Help view >>
Overlap for laminates On laminate length (total) Image: Description of the state of the state overlap per edge On bull nosed edges Don post formed edges	Set the	e parameters for lamina	te use Range 0 - 999 Millimetres			Overlap for	laminates: On	laminate length (t	otal)
On laminate length (total) On laminate width (total) 15.0 Core oversize for laminating On core length (per edge) 0.0 On core width (per edge) 0.0 Add to laminate size Laminate overlap per edge On bull nosed edges 25.0 On post formed edges	Overlap	for laminates							
On laminate width (total) 15.0 ~ Core oversize for laminating 0.0 ~ On core length (per edge) 0.0 ~ On core width (per edge) 0.0 ~ Add to laminate size	On lamir	nate length (total)		20.0	\sim				
Core oversize for laminating On core length (per edge) On core width (per edge) On core width (per edge) Add to laminate size Laminate overlap per edge On bull nosed edges 25.0 On post formed edges	On lamir	nate width <mark>(</mark> total)		15.0	\sim				
On core length (per edge) On core width (per edge) On core width (per edge) Add to laminate size Laminate overlap per edge On bull nosed edges 25.0 On post formed edges	Core ov	versize for laminating -							
On core width (per edge) Add to laminate size Laminate overlap per edge On bull nosed edges 25.0 ~ On post formed edges	On core	length (per edge)		0.0	\sim				
Add to laminate size Laminate overlap per edge On bull nosed edges 25.0 On post formed edges	On core	width (per edge)		0.0	\sim	\leftrightarrow		\leftrightarrow	
Laminate overlap per edge On bull nosed edges 25.0 ~ On post formed edges 25.0 ~	Add to la	aminate size							
On bull nosed edges 25.0 ~ On post formed edges 25.0 ~	Laminat	te overlap per edge							
On post formed edges	On bull r	nosed edges		25.0	\sim				
	On post	formed edges		25.0	~				
OK Diet Usla							Drint	Hala	Canad

Edging parameters

This includes the details for more complex edges such as Post form and bullnose edges.



Summary of Edging & Laminating

Maximum items in library	99999
Maximum length of edge code	25
Maximum laminates in board library	Unlimited
Edges	•
Laminates	•
Costing	•
Edging diagram with labels	•
Edging Summary	•



For better management and tracking of parts

The Parts Library feature provides a database for parts and used with the form and label designer provides extensive facilities for managing extra data for parts.

It is especially useful where the same parts are used again and again in different cutting lists or where extra information is needed for each part for later processing, admin, or bar codes,

Parts can be added to any cutting list with minimum data entry - this saves times and avoids costly mistakes.

Part library

The data entry screen provides an easy way to enter part details.

11 Part library			— 🗆 X
File Edit Help			
* 🔊 🚺	×[
Туре		Part ~	P
Code		BASE-CABINET-DOOR	
Material		@DOORMATERIAL@	
Description	fx Def	Base cabinet door	
Length	\odot \bigcirc	=X/2-50+T(@CARCASEMATERIAL@) fx	
Width	\odot \bigcirc	=Y-18-@PH@-&CABINET_DRAWER&	ġ
Grain		X Edge 0 0 0	
Drawing type		Machining O Drawing lib O MPR(X) files O Picture	I
			^
Edge Btm		@EDGING@	
Edge Top		@EDGING@	
Edge Left		@EDGING@	
Edge Right		@EDGING@	
Face Laminate			
Back Laminate			
Edge Diagram			
Finished size			
Drawing name			
Step angle			
Priority			
Mirrored			
Small part			
Alternative material(s)			
Part graining			
Volume			
I emplate - Router			
Part area m2			
Edgebander			¥

Part library

The part details include the standard items such as material code, length and width but any amount of user defined information can be stored with each part using extra fields (information boxes). This extra data can also be included on labels and reports to help with later processing of the part.

The part library can also include a picture of the part from the Machining library or a graphics file such as BMP, JPG or MPR(X).

For some parts it is often useful to include a picture of the part on a label to help identify the part quickly.



Part label

At any cutting list the items in the library can be accessed by a single click and the part can be added to the list.

Typically only one or two items of information need to be adjusted such as the quantity required or possibly the material to use.

11 Pa	art list - Kitchen & bedroom								- 🗆	\times
File I	Edit View Optimise Help									
*	🧰 📂 📮 🖉		" I] 🚅 🗡	ø	3		6	₽ 🕡	🥩 ?	
٦	Title Example Prod req 01		Opt default	~		Saw defau	lt	~	!!	
	Description		Material	Length	Width	Quantity	Grain	Face Laminate	Back Lamina	:e Inf 🖍
Global										
1.	BTH-CAB-END-LEFT	MFC1	18-EBONY	162.0	600.0	1	Y			
2.	BTH-CAB-END-RIGHT	MFC1	18-EBONY	162.0	600.0	1	Y			
3.	BTH-CAB-BACK	MFC	11 Parts							
4.	BTH-CAB-TOP	MFC					- Gro	חח		
5.	BTH-CAB-SHLF-BASE	MFC	XDD	•			Al		~ E	dit De
6.	BTH-CAB-BOTTOM	MFC		1						
7.	BTH-CAB-DOOR-LEFT	MFC	BTH-CAB-BA	 ск			BTH.CAB.DOORJ			
8.	BTH-CAB-DOOR-RIGHT	MFC	51110000			brindsbr	001100	· _	binicab	DOONE
9.	BTH-CAB-SHELF	MFC	1	ו		· ·	·	ſ		<u> </u>
10.	MIRROR-INSERT	MIRE								
11.	W-ROBE-TOP	MFC					. 1			
12.	W-ROBE-END-LEFT	MFC	L	1			:	Ł		
13.	W-ROBE-END-RIGHT	MFC	BTH-CAB-DOOR-	RIGHT		BTH-CAB-E	ND-LEF	Т	BTH-CAB	END-RIG
14.	W-ROBE-BASE	MFC	Find			Filter				
< ► \	Kitchen & bedroom			OK		Edit		Help	Cano	el

Cutting list - part library

Form & Label designer

The program includes a designer screen so that almost any style of label (typically a small adhesive label) or a full form (a one page report or a route card) can be set up.

These are labels or forms for printing in the office

The data on the form or label can be chosen from any of the data set up for each part in the Part database. For example:-

Material code Length Width

```
...
Part drawing
User defined details
Barcodes
Logos
...
```

The designer allows for the creation of a barcode for any of the items on the form or label, for example, barcodes for the part code and quantity.



Part label

The designer screen is easy to use and a variety of templates are already set up to use as a starting point.

Design Label (Part lists / Cutting lists) - Part Stock - 1D Barcode		
Date: <		
8.10 4.73	P NUM SCRL	//

Label designer

Each label or form is fully customisable. The designers include several options to help create effective designs.

- Grid, guidelines and snap options to help place items on the design
- Different templates with alternative designs and styles
- Quick preview to check the layout
- Data preview to make an accurate check of the layout

Parts & Labels with Products & Quotes (PQ) module

When used the with the PQ module the Part library extends the flexibility of the program since it can be used to define parts using variables and formulae for the part information.

The same part entry in the part library can be used for a range of colours, materials or sizes.

11 Part library		— D X
File Edit Help		
* 🔿 🔊	S S N A D	
Туре	Part ~	
Code	BASE-CABINET-DOOR	
Material	@DOORMATERIAL@	
Description fx Def	Base cabinet door	\$
Length 💿 🔿	=X/2-50+T(@CARCASEMATERIAL@)	f _x
Width 🔍 🔿	=Y-18-@PH@-&CABINET_DRAWER&	¢
Grain	× ~ E	idge 0 0 0 0 🗉
Drawing type	Machining O Drawing lib	MPR(X) files O Picture
Edge Btm	1	@EDGING@
Edge Top	1	@EDGING@
Edge Left	1	@EDGING@
Edge Right	1	@EDGING@
Face Laminate		
Back Laminate		

Part library and PQ module

In this example the Material is defined by a variable '@DOORMATERIAL@' and the Length and Width are defined by formulae. This single part library entry can produce the correct specification for a range of cabinet doors in different materials, colours and sizes.

Fittings, Sundry parts, Operations

Requires the PQ module

The parts database can also include fittings (hardware).

Fittings can include typical ironmongery items such handles, hinges and brackets and also larger 'bought in' appliances.

111 Part library File Edit Help		- 0	×
	≥ ≪ ⋈ ◁ ▷ ⋈ ♂ ?		
Туре	Fitting ~)
Code	Z-DOUBLE		
Material	4		
Description	Pull handle		
Cost	1.210		
Drawing type	Machining Orawing lib MPR(X) files Oracture		.

Part library - Fittings

11 Part library		
File Edit Help		
1 🔊 🖡		≥ ≤ ↓ ↓ ▶ ₩ & ?
Туре		Part ~
Code		ALM-32P
Material		ALUMINIUM
Description	fx Def	Aluminium plinth S
Length	00	1340.0 f x
Width	00	168 @
Grain		Variable ~ Edge 0 0 0 0
Drawing type		Machining O Drawing lib O MPR(X) files O Picture
Edge Btm		
Edge Top		
Edge Left		

The library can also include 'bought in' or sundry parts that are required but are ready to use.

sundry parts

The operations required for each part can also be included in the database.

These are items such as, clamping, assembly, packing - where these can be allocated on a 'per part' basis.

11 Part library	
File Edit Help	
🍕 👏 📋 🔭	差 📢 🗸 🕅 🔗 ?
Туре	Operation ~
Code	Y-ASSEMBLY
Material	-0P
Description	Cabinet Assembly
Cost	6.500
Drawing type	Machining Drawing lib MPR(X) files Picture

Part library - operations

These items are added to the 'Order' so that a full specification (and costing) of the job is available.

Quotes / orders - Products & parts order File Edit Ontions Help														×
	<i>i</i>	?												
Order 🗉 Order date Cust	omer code			Custome	r name		💷 Delivi	erv date	-N	lote:	s			_
Products & parts order 28/05/2012 CS1	001			Kitchens	Direct		11/0	6/2012	7 6	Cred	lit OK		~	7
							No Sat Deliveri				liveries	~	-	
Invoic Cauta at John Smith Ashfe	e address ad Road				Delivery addres:	8	< ;	>					~	-
Z DO D	ngham				Canal Road								~	-
Terms 30 Days 🗸					Birmingham								~	-
Status Estimated 🗸													Single base	unit
Extra customer information Posto	ode	B11 28×			Postcode	B12 4	IJ	=					ingle base	1
Taken by Customer reference D	escription				DEFU			1						
E	xample of quot	e		Uptimisi	ng DEFAU	LI	~	Over						
Visishina Mada	Edit			Saw	DEFAU	LT	~	0						
	" <u></u>	×-	E () ⁰∕=		4	Ľ,	٢						
			Product				Part						.	^
No Lode Information		Width	Height	Depth	Material	Length	Width	Grain	Edge	Inf	Чţy	Unit price	I otal price	
1 BASE-SINGLE Single base unit		500.0	870.0	600.0							7	40.00	280.00	
2 BASE-SINK Sink base unit		1000.0	870.0	600.0							2	40.56	81.12	
3 WALL-DOUBLE Double wall unit		1000.0	750.0	300.0							5	34.48	172.40	
4 WALL-SINGLE Single wall unit		500.0	750.0	200.0									en ne.	
Deliver separately				300.0							3	21.12	63.36	-
				300.0							3	21.12	63.36	
5 F-UNIT-DOOR Fixed size unit door				300.0	MFC18	495.0	570.0	Y	0000		4	3.61	14.44	
5 F-UNIT-DOOR Fixed size unit door 6 F-UNIT-END-LEFT Fixed size unit end left				300.0	MFC18 MEL-CH	495.0 585.0	570.0 870.0	Y N	0000		4 4	21.12 3.61 4.06	14.44	
5 F-UNIT-DODR Fixed size unit door 6 F-UNIT-END-LEFT Fixed size unit end left 7 F-UNIT-END-RIGHT Fixed size unit end right					MFC18 MEL-CH MEL-CH	495.0 585.0 585.0	570.0 870.0 870.0	Y N N	0000		3 4 4 4	21.12 3.61 4.06 4.06	14.44 16.24 16.24	
5 F-UNIT-DOOR Fixed size unit door 6 F-UNIT-END-LEFT Fixed size unit end left 7 F-UNIT-END-RIGHT Fixed size unit end right 8 Z-SINGLE Single Knob 9 Y DRC/NIC Dacking				300.0	MFC18 MEL-CH MEL-CH	495.0 585.0 585.0	570.0 870.0 870.0	Y N N	0000		3 4 4 4 23	21.12 3.61 4.06 4.06 0.95	14.44 16.24 16.24 21.85	
5 F-UNIT-DOOR Fixed size unit door 6 F-UNIT-END-LEFT Fixed size unit end left 7 F-UNIT-END-RIGHT Fixed size unit end right 8 Z-SINGLE Single Knob 9 Y-PACKING Packing 10 10 10				300.0	MFC18 MEL-CH MEL-CH	495.0 585.0 585.0	570.0 870.0 870.0	Y N N	0000		3 4 4 23 14	21.12 3.61 4.06 4.06 0.95 6.00	14.44 16.24 21.85 84.00	
5 F-UNIT-DOOR Fixed size unit door 6 F-UNIT-END-LEFT Fixed size unit end left 7 F-UNIT-END-RIGHT Fixed size unit end right 8 Z-SINGLE Single Knob 9 Y-PACKING Packing 10 11 14					MFC18 MEL-CH MEL-CH	495.0 585.0 585.0	570.0 870.0 870.0	Y N N	0000		3 4 4 23 14	21.12 3.61 4.06 4.06 0.95 6.00	14.44 16.24 21.85 84.00	
5 F-UNIT-D00R Fixed size unit door 6 F-UNIT-END-LEFT Fixed size unit end left 7 F-UNIT-END-RIGHT Fixed size unit end left 8 Z-SINGLE Single Knob 9 Y-PACKING Packing 10 11 12 12					MFC18 MEL-CH MEL-CH	495.0 585.0 585.0	570.0 870.0 870.0	Y N N	0000 0000 0000		3 4 4 23 14	21.12 3.61 4.06 4.06 0.95 6.00	14.44 16.24 21.85 84.00	
5 F-UNIT-D00R Fixed size unit door 6 F-UNIT-END-LEFT Fixed size unit end left 7 F-UNIT-END-RIGHT Fixed size unit end left 8 Z-SINGLE Single Knob 9 Y-PACKING Packing 10 11 12 13					MFC18 MEL-CH MEL-CH	495.0 585.0 585.0	570.0 870.0 870.0	Y N N	0000 0000 0000		3 4 4 23 14	21.12 3.61 4.06 4.06 0.95 6.00	14.44 16.24 16.24 21.85 84.00	
5 F-UNIT-D00R Fixed size unit door 6 F-UNIT-END-LEFT Fixed size unit end left 7 F-UNIT-END-RIGHT Fixed size unit end right 8 Z-SINGLE Single Knob 9 Y-PACKING Packing 10 11 12 13 13 14					MFC18 MEL-CH MEL-CH	495.0 585.0 585.0	570.0 870.0 870.0	Y N N	0000 0000 0000		3 4 4 23 14	21.12 3.61 4.06 4.06 0.95 6.00	14.44 16.24 16.24 21.85 84.00	
5 F-UNIT-D00R Fixed size unit door 6 F-UNIT-END-LEFT Fixed size unit end left 7 F-UNIT-END-AIGHT Fixed size unit end left 8 Z-SINGLE Single Knob 9 Y-PACKING Packing 10 11 12 13 14 15					MFC18 MEL-CH MEL-CH	495.0 585.0 585.0	570.0 870.0 870.0	Y N N	0000 0000 0000		3 4 4 23 14	21.12 3.61 4.06 4.06 0.95 6.00	63.36 14.44 16.24 21.85 84.00	

Quote / order

Parts & Labels with the Machining Interface

The Part library is fully integrated with the Machining Interface; the part picture can be a machining drawing from the parametric Machining library. So any pictures and details created in the machining library can be passed through to the part label or form.

The part library can also be integrated with:-

- External bitmap (BMP, JPG) drawing
- WoodWop MPR(X) drawings

Parts & Labels with the Online PC option

The Online PC option can be used for designing and printing labels at the saw, it is typically used where there is no saw controller or the saw controller only has limited set of options.

Information and labels are automatically sent to the Online PC option to allow the viewing and printing of part information at the Saw.

Summary of Parts and Labels

- The form and label designer is not directly used for printing labels at the saw (other than via the Online PC option). It can be used to create designs for some saw controllers (e.g. Cadmatic) but there are often also label design options with many saw controllers.

	Parts & Labels	Parts & Labels +
		Online PC
Maximum items in library	99999	99999
Parts	•	•

Sundry parts	•	•
Fittings	•	•
Operations	•	•
Maximum length for part code	50	50
Form designer and templates	•	•
Label designer and templates	•	•
Parametric parts	•	•
Parametric drawings	•	•
External part drawings	•	•
Printing at Office	•	•
Printing at Saw		•
Import parts to database	•	•
Import external drawings to database	•	•

- The number of designs for the form designer or label designer is unlimited.

- Printing at the Saw is typically handled by software at the saw controller.

Destacking and Palletisation

Efficient offstacking and faster through flow

Destacking requires the optimising module: PO

This provides for the set up and planning of the destacking process so that parts are distributed to pallets or baseboards efficiently after cutting.

Parts can be destacked manually or with specialised destacking equipment. It is flexible enough to cope with many destack situations including the use of automatic machinery.

A straightforward example is where parts are manually destacked on to fixed size pallets around the saw.



Each location around the saw is a 'Station'.

The optimisation takes account of the destacking requirements and parts are only destacked to stations that are large enough. The required quantity of each part is completed before the station is cleared ready for the next part.



The destacking parameters are used to describe the number, size, and type of each station. Typically there might 4 or 5 stations available.

11 Destacking parameters					×
	Rai 0-9999.9, (nge D-9999.9,			
	Value			^	
1. Size of station 1	3000.0	3000.0	A		
2. Size of station 2	3000.0	3000.0	A		
3. Size of station 3	6500.0	6500.0	A		
4. Size of station 4	6500.0	6500.0	A		
5. Size of station 5	1000.0	1000.0	M		Print
6. Size of station 6	4000.0	4000.0	M		
7. Size of station 7	6500.0	6500.0	S		
8. Size of station 8	6500.0	6500.0			
9. Size of station 9	6500.0	6500.0			Cancel
10. Size of station 10	6500.0	6500.0			Cancer
11. Size of station 11	6500.0	6500.0			Help
12. Size of station 12	6500.0	6500.0			
13. Size of station 13	6500.0	6500.0			OK

Destacking parameters

The destacking layout to use is set by information in the Part list (Part list information boxes).

Destacking library

The layout for destacking on to a pallet or baseboard is at its simplest the number in the length and the number in the width, for example, 3×3 or 2×1 .

The styles to use are defined in the Destacking library. In this example there are different styles for baseboards and pallets.

11	Destacking library												- C	ı ;	×
File	File Edit View Help														
+	H 🖎 🔭 💷 👘 & 🥩 💈 ?														
	Poforonoo		Palle	t/Baseboa	rd/Runners						Part s	:tack			^
	nelelence	Туре	Material	Thk	Length	Width	Layout	Per stk	Max no	Max ht	0 ver-In	0 ver-wd	Layout	LW	
	BASEBOARD_01	1	MEL-CHIP-15MM	15.0	2000.0	2000.0	1x1	1	40	1000.0	0	0	2x2	L	
	BASEBOARD_02	1	MED-DEN-FIBRE-25MM	25.0	3500.0	3000.0	1x1	2	100	3000.0	10	10	4×4	W	
	PALLET_1000X1000	0	CHIPBOARD-18MM	18.0	1000.0	1000.0	1x1	0	50	1500.0	0	0	1x1		
	PALLET_2020X2020	0	CHIPBOARD-18MM	18.0	2020.0	2020.0	1x1	0	45	1500.0	5	0	2x3	L	
	PALLET_3020X3200	0	CHIPBOARD-18MM	18.0	3020.0	3200.0	1x1	1	50	2000.0	0	0	3x3		
	1														
													_		~
<)	·

Destacking library

The library can hold many hundreds of styles but typically only a handful of styles are required. They can be set to match your requirements for stacking and processing.

Optimising and Destacking

The Destacking calculations are part of the optimising process and all the information is calculated during optimisation.

The destacking style to use for each part is set at the Part list using extra fields (Part list information boxes).

III Pa	art list - DS2 batch	n test							- 1		×	
File E												
*] 🗋 🖻 🗓 🖏 🍽 🖤 丟 🔗 🖳 🛃 🔒 🖉 📲 🚿 🧳 📜												
Title Small list for batch Dpt DSMQO× V II Saw single V II												
	Description	Material	Length	Width	Quantity	Over	Under	Grain		Edge	^	
Global						%	%					
1.	1	MFC18-EBONY	368.9	210.1	17	0	0	Y	0000			
2.	2	PARTICLBRD-25MM	446.4	349.0	9	0	0	N	0000			
3.	3	SUNDRY-UNIT	268.6	293.2	28	0	0	х	0000			
4.	4	MFC18-EBONY	448.6	112.3	38	0	0	х	0000			
5.	5	SUNDRY-LINEAR	323.5	260.6	5	0	0	х	0000			
6.	6	SUNDRY-LINEAR	291.1	110.4	25	0	0	N	0000			
7.	7	SUNDRY-AREA	327.6	397.1	32	0	0	N	0000			
8.	8	#TEAK-FOIL	563.9	350.4	7	0	0	х	0000			
9.	9	MEL-CHIP-18MM	447.8	361.8	31	0	0	х	0000		-	
10.	10	SUNDRY-UNIT	273.5	352.2	10	0	0	х	0000		_	
11.	11	WHITE-LAM-1MM	273.9	133.9	21	0	0	Y	0000		-	
12.	12	OAK-BEAM	518.6	198.4	3	0	0	N	0000		_	
13.	13	#TEAK-FOIL	329.5	195.6	47	0	0	N	0000		-	
14.	14	EBONY-LAM-1MM	554.2	295.3	48	0	0	х	0000		-	
15,	15	HARDBOARD-4MM	392.8	116.1	21	0	0	X	0000		~	
I ← ↓ \	DS2 batch test	/			<						>:	
									NU	JM		

Destacking - part list

In this example several different pallet layouts are used. In many cases it may be necessary to specify different layouts for different parts, for example, it may dangerous to stack very small parts in a 4 x 4 layout.

The part list is optimised in the usual way. The Destacking information is shown in the 'Review runs summaries'. The optimisation automatically includes an advanced algorithm that ensures optimisation takes account of the stations sizes set in the Destacking parameters.

The Destacking pictures show the layout for each part.



Destacking pictures

These can be used for controlling and checking the destack process.

Two other reports are available:-

Station summary

This shows how each station is loaded and the order of parts arriving at each station.

111 Review runs											- 0	×
File Edit View Setting	s Summa	ries Stock	Help									
		x Q			N	♦ ♦		🛃 🥩 💡	Celan.		0 🧸	<u>i</u>
Batch reports	Chatia									<u> </u>	a all list for	. h a t a h
Summaries	Statio	n summ	ary							50	nall list for	patch
Advanced							00445/	000 hatak taat	000			
							00115/L	JSZ batch test/l	JSZ bato	n test/L		e/SQ 🗾
	Bsb	Length	Width	Bsb	Part	Part /		Part	Part	Part	Part	Pai ^
Offcut summary	NO	mm	mm	Qty	NO	Descriptio	n	Qty	LN	vva	Orientation	F
	Station	number 1										
1	Bsb 1	440.2	757.8	2	1.	1		17	2	2	!	10
Distribution summary	Bsb 5	338.8	1014.8	2	17.	17		29	2	2	!	10
	Bsb 7	743.6	915.6	2	9.	9		31	2	2	!	10
	Bsb 10	430.5	145.9	1	23.	23		6	1	1		1
	Bsb 11	610.6	1128.4	2	14.	14		48	2	2	!	10
Edging summary	Bsb 13	642.4	882.8	2	16.	16		26	2	2		10
	BSD 14	2/1.6	1335.0	42	21.	21		2	_ 2	2	!	10
				15				159				
Machine times	Station	number 2										
1	Bsb 2	735.0	1268.8	2	19.	19		27	2	2	!	10
all a second	Bsb 6	718.0	912.8	2	2.	2		9	2	2	!	10
Saw loading summary	Bsb 8	287.8	567.8	2	11.	11		21	2	2	!	10
	Bsb 9	416.8	1057.2	2	12.	12		3	2	2	!	4
#				8				60				
Destacking summary	Station I	number 3										
	Bsb 3	653.0	1211.8	2 2	25.	25		37 37	2	2	!	10
Station summary												
	Station I	number 4	047.0	~					6	~		40
	Bsb 4	244.6	917.2	2	. 4.	4			_ 2	2	!	10
Destacking pictures				2				38				
protocolor and protocolo	Station	number 5 N	Ianual									
	Bsb 12	392.8	116.1	1	15.	15		21	1	1		5
	Bsb	650.9	372.5	0	20.	20		5	1	1		4
Patterns				1				26	-			~
Machining		tation sumr	nary /				<					>

Station summary

Destacking Summary

This shows for each cutting pattern how the parts are produced and the sequence they arrive at stations.

Review runs										-		×
	s Summar		нер	H n	4 4	ьп	— <i>—</i>	A : T				
1		\sim		6				6 3			<i>4</i> 🧾	1 🎽
Batch reports	D	1.1							0	- U. P		
Summaries	Destac	King su	Imma	ary					Sm	ali lis	t for da	atch
Advanced						00115	/DS2 batch t	act/DS2 hata		SMOO Y	V/cingle/S	
	Dta	0	N.	D+ (00115	/DSZ batch to		Ct-		Carry I	
P	Pth	Open Parts	NO	Part / Description	on		Length	wiath	Sth	Qty	Group / Pictures	î
Offcut summary	1	3	1.	1	011		368.9	210.1	1	9	2 2 !	_
			19.	19			624.4	357.5	2	18	2 2 !	
1			25.	25			595.9	316.5	3	36	2 2 !	
Distribution summary	2	4	1.	1			368.9	210.1	1	8*	2 2 !	
			4.	4			448.6	112.3	4	3	2 2 !	
			19.	19			624.4	357.5	2	9*	2 2 !	
Edging summary	3	1	25. 1	20			295.9	310.5	3	35*	2 2 !	
Luging commonly	4	1	17	17			497.4	159.4	1	28	2 21	
	5	2	2.	2			446.4	349.0	2	9*	2 2 !	
			17.	17			497.4	159.4	1	1*	2 2 !	
Machine times	6	1	9.	9			447.8	361.8	1	24	2 2 !	
<i>(</i>	7	1	9.	9			447.8	361.8	1	7*	2 2 !	
6	8	1	11.	11			273.9	133.9	2	21*	2 2 !	
Saw loading summary	9	2	12.	12			518.6	198.4	2	3° C*	2 2 !	
	10	1	23. 14	23			430.5	295.3	1	40	2 21	
#	11	1	14	14			554.2	295.3	1	-+0	2 2 1	
Destacking summary	12	1	15.	15			392.8	116.1	5	21*	1 1	
<i>4</i> 4 €-4]1	13	1	16.	16			431.4	311.2	1	24	2 2 !	
25	14	1	16.	16			431.4	311.2	1	2*	2 2 !	
Station summary	15	1	20.	20			640.9	372.5	5	3	11	
	16	1	20.	20			640.9	372.5	5	2*	11	
	1/	1	21.	21			657.5	125.8	1	2*	2 2 !	
B B B Destacking pictures												
Destacking pictures												
Patterns												~
Machining	∢ ▶ \De	stacking su	ımmary			<						>

Destacking summary

Using Destacking information

- All the reports can be easily printed and used at the Destacking area or for planning.

- For Homag/Holzma/Homag Automation destacking machinery the destacking information can be downloaded (via the Saw interface) for use by automatic destacking machinery.

- Labels for each pallets and/or each stack can be printed in the office.

Baseboards

Many customers offstack to cut to size baseboards rather than pallets. Destacking can be set up for this (or a mixture of both).

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т	itle AUTOMATIC DESTAC	KING Opt D	ESTACK		~		:	Saw 🤇	SINGLE	~ [Cu
	Description	Material	Length	Width	Quantity	Over	Under	Grain	Edge	Destacking Style	Destacking Mod	e ir ^
Global						0%	0%					
1.	BU05HK-BACK	HARDBOARD-4MM	474.0	710.0	20	0	0	Ν	0000	BASE_1	S	
2.	BU05MB-BASE	MEL-CHIP-18MM	474.0	585.0	20	0	0	Ν	WW00	BASE_1	A	
3.	BU05ME/LEFT	MEL-CHIP-18MM	585.0	870.0	45	0	0	Ν	00w0	BASE_1	A	
4.	BU05ME/RIGHT	MEL-CHIP-18MM	585.0	870.0	45	0	0	N	000W	BASE_1	A	
5.	BU05MP-PLINTH	MEL-CHIP-18MM	500.0	150.0	20	0	0	N	0000	BASE_1	A	
6.	BU05MR-RAIL	MEL-CHIP-18MM	474.0	75.0	40	0	0	N	0000	BASE_1	A	
7.	BU05MS-SHELF	MEL-CHIP-18MM	474.0	395.0	20	0	0	N	WW00	BASE_1	A	
8.	BU05WD-WHITE-D	WHITE-LAM-1MM	495.0	570.0	20	0	0	N	www	BASE_1	A	
9.	BU05wW-WHITE	WHITE-LAM-1MM	495.0	150.0	20	0	0	N	www	BASE_1	A	
10.	HU06HK-BACK	HARDBOARD-4MM	574.0	710.0	25	0	0	N	0000	BASE_2	A	
11.	HU06MB-BASE	MEL-CHIP-18MM	574.0	585.0	25	0	0	N	WW00	BASE_2	м	
12.	HU06MP-PLINTH	MEL-CHIP-18MM	600.0	150.0	25	0	0	N	0000	BASE_2	м	
13.	HU06MR-RAIL	MEL-CHIP-15MM	574.0	75.0	50	0	0	N	0000	BASE_2	м	
14.	SU05HK-BACK	HARDBOARD-4MM	998.0	745.0	30	0	0	N	0000	BASE_1	s	
15.	SU05MB-BASE	MEL-CHIP-18MM	964.0	595.0	30	0	0	N	WW00	BASE_1	s	
16.	SU05ME/LEFT	MEL-CHIP-18MM	580.0	870.0	60	0	0	N	00w0	BASE_2	A	
17.	SU05ME/RIGHT	MEL-CHIP-18MM	580.0	870.0	60	0	0	N	00w0	BASE_1	м	
18.	SU05MF-FASCIA	MEL-CHIP-18MM	1000.0	180.0	15	0	0	N	00ww	BASE_1	м	
< ► \	BSR50 /				<				l	1	1	>
											NUM	

Destacking with Baseboards

The destacking pictures show the layout for each part on the baseboards.



Destacking pictures - Baseboards

The program also provides a cutting list for the Baseboards ready for optimising.

III Cu	tting list - BSR50-										-		×
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т	itle	Opt			~		:	Saw [~	_		Cu
	Description	Material	Length	Width	Quantity	Over	Under	Grain	Edge	Destacking Style	Destack	king Mode	lr ^
Global						0%	0%	N	0000				
1.	20	MEL-CHIP-15MM	948.0	1480.0	1	0	0	N	0000				
2.	14	MEL-CHIP-15MM	1996.0	1490.0	1	0	0	N	0000				
3.	1	MEL-CHIP-15MM	948.0	1420.0	1	0	0	N	0000				
4.	10	MED-DEN-FIBRE-2	2860.0	2316.0	2	0	0	N	0000				
5.	7	MEL-CHIP-15MM	948.0	790.0	1	0	0	N	0000				
6.	15	MEL-CHIP-15MM	1928.0	1190.0	1	0	0	Ν	0000				
7.	17	MEL-CHIP-15MM	1160.0	1740.0	1	0	0	Ν	0000				
8.	3×	MEL-CHIP-15MM	1170.0	1740.0	2	0	0	Ν	0000				
9.	11	MED-DEN-FIBRE-2	2360.0	2316.0	2	0	0	Ν	0000				
10.	5	MEL-CHIP-15MM	1000.0	300.0	1	0	0	N	0000				
11.	16	MED-DEN-FIBRE-2	3500.0	2340.0	2	0	0	N	0000				
12.	19	MEL-CHIP-15MM	2000.0	300.0	1	0	0	N	0000				
13.	6	MEL-CHIP-15MM	948.0	150.0	1	0	0	N	0000				
14.	12	MED-DEN-FIBRE-2	620.0	2420.0	2	0	0	N	0000				
15.	2	MEL-CHIP-15MM	948.0	1170.0	1	0	0	N	0000				
16.	18	MEL-CHIP-15MM	2000.0	360.0	1	0	0	N	0000				
17.	8	MEL-CHIP-15MM	990.0	1140.0	1	0	0	N	0000				
18.	9	MEL-CHIP-15MM	990.0	300.0	1	0	0	Ν	0000				
$+ \rightarrow \setminus$	BSR50- /				<				1	1			> _
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Destacking - Baseboard picking list

Note - the baseboard cutting list has the same name as the part list with a hyphen added. e.g. 'Cabinets', 'Cabinets-'. This list is found in the 'Cutting list' section.

Flexible Destacking

The destacking options are very flexible and can be set up for:-

- Offstacking to the floor (no station sizes)
- Offstacking to a mix of automatic and manual stations
- Offstacking to include one or more 'Overflow' stations
- Use of 'Pallet groups'

Pallet groups

The program also includes more general options to take account of Pallet groups. For example, a field (information box) is available at the part list to set a pallet group number for each part.

This ensures the optimisers arrange the pattern layouts so parts in the same pallet group are finished before considering parts from other pallet groups. This speeds up later production and assembly operations and helps with delivery times for specific parts.

For example, a customer recently needed to set up their system to produce 1 job at a time and used the Pallet group option for this. The flexibility of the optimisers also allowed 'changeover' patterns where one group finished and the next started so waste was minimised.

Summary of Destacking

	Destacking
Maximum items in library	9999
Maximum number of stations	20

Automatic machinery	•
Manual destacking	•
Allow overflow stations	•
Pallet groups	•
Fixed pallets	•
Baseboards	•
Destack to floor	•
Labels for stacks or pallets	•
Destack pictures	•
Destack Summary	•
Station summary	•
Download to destack machinery	•

Pattern amendment

Edit patterns and create new patterns manually (without optimising)

Pattern amendment can be useful for including last minute production changes and for using up offcuts.

Simple double click the Pattern screen from Review runs and you can start editing patterns.

The program displays the pattern editor (pattern amendment).



Pattern amendment

The pattern is shown at the right and information about the pattern is shown to the left. The bottom pane (Preview bar) shows a thumbnail view of the patterns in the run.

From this point you can add, copy or delete parts, copy or delete strips, insert or delete head cuts, fill in offcuts and make any change to an existing pattern that you need. You can also change the board quantity and the board rotation and the size of the board or place the existing set of parts on a different board.

Parts can be moved or copied from the pattern shown to patterns in the preview bar - making it easy to alter or adjust patterns.

The program checks all the actions you take and will prevent you moving or copying items to areas that are too small or creating a pattern that violates the basic parameters such as trims.

Board information - At the top left of the screen is information about the current board (Item no, board code, material code, length, width, thickness, cost and quantity). Note that the board item number is the item number of the board in the working board list.

To edit the current board (change the run quantity, rotate the board) select the 'Properties' button in the Board information section of the screen. The Boards dialog is displayed and you can use this to change the current board.

Board		×
1. MFC18-ASH/01	~	
Material	MFC18-ASH ~	
Length	2440.0)
Width	1220.0)
Thickness	18.0)
Cost	3.450)
Grain	Y-Yes 🗸 🗸	
Quantity	1 🛊	
Rotated		
ОК	Help Cancel	

Current Area information - As the cursor moves around the pattern information about the area under the cursor is shown in the Current Area information at the left of the screen.

Current area		
111. BASE-END-LEFT		
Material	MFC18-ASH	
Length	582.0	
Width	720.0	
Rotated	Y	

Pattern amendment current area

If the cursor is positioned on a part, the following information is shown: Item Number, Description, Material, Length, Width, Rotated (y/n). This is the main part information from the part list.

If the cursor is positioned on an area of waste (offcut or scrap) the window shows a description of offcut or scrap also the length and width of the area. When you add a part the program works out how many of each part fill the space you are adding to and automatically inserts the correct number of items. You can also create new parts (that are not in the part list or part library - enter a part code and the dimensions and any other information.

Free Area information - At the bottom of the information at the left of the screen is the Free Area information - this shows the size of the waste at the end of the strip that the cursor is on.

Free area		
Length	106.0	
Width	592.0	
-		

Pattern amendment - free area

When the cursor position is within a recut the free area refers to the waste below the recut (not the waste at the end of the strip).

Manual patterns - You can also create patterns manually with the MANUAL PATTERNS option on the OPTIMISE menu at the Part list screen.

Pattern amendment - example

In this example we are deleting a large part from an optimised run and adding in its place some plinths which are urgently required to replace 80 damaged plinths from a previous order.

We first locate the pattern with the part to delete and select the part by placing the cursor on it or by using the space bar.



Pattern amendment - edit

Part 3 will be deleted and the area reused with some other parts that have become more urgent.

Take care when manually adjusting patterns because if too many changes are made then this may produce very inefficient cutting - in this case it is better to change the part list and re-optimise.

Select DELETE or the DEL button to remove the part.



Pattern amendment - edit

The Area is shown as an offcut (or waste) as a shaded or coloured area.

The size of the waste area is shown. Note that not all of the area may be available because trims still need to be taken into account.

We now use the ADD option to add the parts required.

1	Add - parts X	1
1200 X 725	Material WHITE GLOSS 18MM Length 580.0 Width 200.0 Grain N - No Edging 0000	1200 X 725
3 790 X 450	E dge Top E dge Top E dge Top E dge Lett E dge Right Face Laminate B ack Laminate E dge Diagram V Quantity and orientation Rotated	950.4 X 450
	In length 1	

Pattern amendment - add part dialog

The ADD dialog automatically shows the number that fit in the length and width.

In this case the part was added from the part library as it was in the original part list.

It is also possible to use parts not from existing lists or enter a part sizes manually.

After checking the part select Ok to add



Pattern amendment – edit

Note - deleting a part from a pattern with run quantity of '5' deletes 5 of that part from the run.

Material - the material of any added parts must match the board material.

Pattern Amendment Summary

Manual editing of optimised patterns	•
Import of patterns	•
Addition of parts from the existing run	•
Addition of plus parts from the part library	•
Export of patterns	•



For fast set up of CNC machinery

Where parts contain additional machining such as grooves, routs, drilling and cut-outs the Machining interface module is used to create and store the part drawings (via the Machining library) and also send the correct machining instructions for each part to the CNC machining centres.

Most machining centre formats are supported including DXF, Homag/Weeke WoodWop, and other proprietary formats.

The MI module requires one of the Optimiser modules SO, PO or the Nesting optimiser (NE) fro shaped parts.

The machining editor provides full facilities for creating machining drawings. A wide variety of machining functions are provided:-

```
Saw groove
Horizontal drilling
Vertical drillings
Cut-outs
Arc router
Circle router
Pockets
Contours
Vacuum pods
...
```

11 Machining library × File Edit View Function 🐋 통 🧗 59 躢 M S 2 TT. D BASE-CABINET-BOTTOM 1200 x 800 x 20 -3 l 2 Hbore Dowel Hole (=X,=Y-50) 25 -1200 200 600 800 1000 400 3 Saw Groove (0,=Y-18-T(@BACKM/ 4 Vbore (=X/2+50-(T(@CARCASEM. 4 Vbore (=X/2+50-(T(@) 5 Vbore (=X/2-25,15) 8 R -8d ÷ 0 400 < > fx @ \$ Try $\overline{\mathbb{N}}$ Function Horizontal drill 50 Dowel Hole Description $\overline{\mathbf{Q}}$ Back On / Off Xstart Ø 0 Ystart =Y-50 The second ZStar =Z/2 ... v

The machining library contains the part drawing and instructions.

Machining library

The panes at the left show the details of each instruction and the full part is shown in the diagram at the right.

Drawings can be set up with formulae so they are fully parametric and automatically adjust if the part size changes. Common machining patterns can be dealt with by one drawing assigned to many different parts.

The above example shows a set of drilling and routing instructions for a part.

Machining Instructions - At the left of the screen is the FUNCTION toolbar to select the type of machining operation (such as drilling or routing).

Enter the details of each operation in the boxes to the right of the toolbar. The part drawing illustrating the machining is shown in the area to the far right of the screen. The drawing is built up as you enter machining operations.

For example, for a vertical drill operation enter the co-ordinates of the first hole - depth and diameter of the hole and the number, separation and direction of the repeated holes.

You can also enter the tool number and other machine specific details.

To move directly to a machine operation (for example to edit the details) click on the relevant part of the drawing. The current instruction is highlighted.

You can also use the mouse to enter instructions, for example, to specify the start and end of a groove.

External drawings – where the drawings are external files such as DXF or Homag/Weeke MPR(X) the Machining editor can still be used to view and adjust drawings and the drawing information is sent to a machining centre via the Machining Interface.

DXF drawings suitably layered can also be imported to the Machining library.

Shaped parts

The drawing editor allows for contours to define shaped parts.



Shaped parts

Each machining instruction can include extra tooling information to allow for tool speeds, tool path compensation etc.

Use the mouse to quickly draw the function and use the boxes at the left to add the detailed measurements where required.



The transfer of machining data to CNC machines is set up via the following parameters:-

```
Machining centre parameters
Machining centre transfer parameters
```

The machining centre parameters set up the general features for the machining drawings/instructions such as the Drawing origin, and specific features for proprietary machines such as the 'Park mode' for Homag/Weeke WoodWop.

rawing	Generation	Nested patterns	Machining times	WoodWop tools 1	WoodWop tools 2	RoverCAD tools	Aspan tools	Help view >
Set the p	parameters for	drawing and viewi	ing machining in lib	raries				
			Ra	nge				
Origin								
Top lef	ft	0	O Top rig	ght				
Bottom	n left	۲	└─── O Botton	n right			_	
Tool pa	ath display							
Show v	width							
Show o	direction and p	bath				*	×	
Import -	DXF format		Layered	- user defined	~			
Rout co	onnection tole	rance	0.100					
Use mid	l-point of long	est rout for border :	start		\checkmark			
Use mid	fpoint of long	est rout for closed	contour start		\checkmark			
Use DX	(Flayer name	for machining func	tion description					
Images	in preview are	a	7					
					OK	Print	Help	Cancel

The Machining centre transfer parameters control the transfer of data to the machining centre. File format, where files are located and whether there are separate files for Front and Back instructions.

	Machining centre transfer par	ameters			- 0	Х
File		୫ 💰 ?				
No	Name	Туре	Path for part drawings	Warning	None	~ ^
1.	WoodWOP	8 · Homag/Weeke Woodwop V4/V5/V6/V7 (MPR/X)	c:\v11\Demo\Mch\MPR\Parts\	Subfolders for parts	Mone	
2.	2D-DXF	0 - 2D DXF Non-layered (DXF)	c:\v11\Demo\Mch\DXF\Parts\	Use common transfer name for	parts	
3.	Nested DXF	9 - 2D DXF nested layered (DXF)	c:\v11\Demo\Mch\DXF\Parts\	Path for parts		
4.	Nested XXL	14 - Xilog (XXL)	c:\v11\Demo\Mch\Xilog\Parts\	Back		
5.				Horizontal		
6.				Meeting		
7.				Pattom path	c:\v11\De Subfolder	
8.				0 diab Garages		
9.				o uigit nienames		
10.				LSV path	Subroider	
11.				PNX path	Subfolder	
12.				ASCII or Unicode	ASCII	\sim
13.				Online label PC path		
14.				Online label PC part sequence		
10.				Pattern origin	As machined	\sim
				Part origin	Leading side	
				- Work list		
				Work list (LIS) path	Subfolder	
				Stop positions 1	1 Include MPR(X) path	
<			>	Options		

Machining centre transfer parameters

A wide range of transfer formats are supported:-

Homag/Weeke WoodWop V4/V5/V6/V7 (MPR(X))
Homag Weeke WoodWop V2.5 (MPR)
2D DXF non layered
2D DXF layered
D DXF layered

Biesse RoverCad (CID) Morbidelli Aspan V3.2 (ASC) Morbidelli Aspan V4.0 (ASC) Busellato Autolink (DXF) ASCII/Unicode PTX MDB PTX

The machining centre transfer parameters also include a 'Tooling replacement table', so that tooling instructions can be translated to a specific format for a machine. This allows for a single set of drawings which can then be interpreted for different CNC machines.

11	Machining centre transfer par	ameters			- 🗆 X
File	Edit Help	a 🚄 n			
1		S S (
No	Name	Туре	Path for part drawings	Options	
1.	WoodWOP	8 · Homag/Weeke Woodwop V4/V5/V6/V7 (MPR/X)	c:\v11\Demo\Mch\MPR\Parts\	BHX500 Macro file	
2.	2D-DXF	0 - 2D DXF Non-layered (DXF)	c:\v11\Demo\Mch\DXF\Parts\	ABD Macro file	
3.	Nested DXF	9 - 2D DXF nested layered (DXF)	c:\v11\Demo\Mch\DXF\Parts\		
4.	Nested XXL	14 - Xilog (XXL)	c:\v11\Demo\Mch\Xilog\Parts\	ABU (LIS) path	··· Subfolder
5.				Convert machining data from inch	nes to mm
6.				Include border on part drawings	
7.				Tool sequence parameters	tsp01 🗸 🏳
8.				Nesting machine origin	Pottom loft
9.				Determine the state	Bottomilen
10.				- Part machine origin	Top right 🗸 🗸 🗸
11.				Mirror pattern	None 🗸 🗸
12.				TLG file	Work area
13.				Spare	
14.				Looling replacement	
15.					
				No Instruction Replac	ement Materix A
				1. DUWEL T=7:EM=	<u>الا</u>
				2. I=1 T=101	
				3.	¥
				<	>
			, ,	1	

Machining centre transfer parameters Tooling

For most parameters there is a clear picture of the setting involved and examples of the set up.



Machining summary and costs

The summary reports in Review runs, for example, Job costing, include the details for machining where these are relevant.

11 Review runs						-	
File Edit View	Settings Summaries S	tock Help					
*] _2 >	s 📳 💱 🎉	🔍 🖷 🚼 🚺 🔺 🕨		5	?		1 - 4
Favourites Batch reports	Job costing					Shaped	Nesting
🍇 Job costing						Sh	apedNesting
💐 Fittings							
Coperations	Code	Description	Quantity	Linear	Area	Cost	Total
Batch material	Board	Material	Quantity		Area	Cost/m2	Total
summary	MEL-CHIP-15MM/01	MEL-CHIP-15MM 3050.0 x 1220.0	5		18.605	2.590	48.187
	MEL-CHIP-15MM/02	MEL-CHIP-15MM 2440.0 x 1220.0	1		2.977	2.560	7.621
			6		21.582		55.808
	Operation	Description	hh:mm			Cost per hour	Total
	Nesting		1:10			50.000	58.069
Summaries							58.069
Advanced	Total						113.877
Patterns							
Machining							
Custom							
,	,						

Machining job costing report

There are several specific reports and optiosn for Machining under the 'Machining' tab.

Machining drawing

The machining drawing shows each drawing fully resolved.



The drawing shown has been resolved to absolute values fready for transfer.

Machining Instructions

At the foot of each machining drawing are a set of tabs showing the full machining instructions.

11 Review	runs											_		I	×
File Edit	View	Setting	s Sumn	naries Stock	Help										
1	8				1		◀			2	3 ?		1	4	3
Favourit	es	1						_				-			
Batch rep	orts	1 Par	t 1 c	of 11	Shap	ed ne	esting	_	part	librar	v dra	wir	ng s	ou	rce
Summar	ies][r		0		r		<i></i>		-0 -		
Advance	d]				Nesti	ng - Part li	bra	try///NES	STING/M	-CENTF	E/NE	Rul	es:CL	1 🗩
Pattern	s	11				Re	vision 53 :	27	Aug 20	18 14:26 :	Recalcul	ated b	ov Sea	an-Le	novc
Machinir	ng	No	Fn	Description	Xstart	Ystart	Diamete	r I	Wid/ang) Depth	Offset	Rpt	Dir	Тоо	<u>^</u> ار
		001	Vbore	Shelf hole	485	200	1	8		6	32	20	0		_
preview		002	Vbore	Dowel hole	560	861	1	0		6	178.33	3	L		
		003	Vbore	Dowel hole	560	150	1	0		6	1/8.33	3	L		
drawings		004	Vbore	Hole	540 540	150		0 8		0	405	1	L I		
Machinina	a dita a	006	Vbore	Shelf hole	45	200		8		6	32	20	0		
Machining	editor	007	Vbore	Hinge hole	90	770	1	0		6	32	1	0		
<u>ਕ੍ਰੈਕ</u> ੍ਰੈ Nested Pr	eview	008	Vbore	Hinge hole	90	180	1	0		8	32	1	0		
🚓 Nested Dr	awings	009	Vbore	Dowel	85	20	1	0		6	32	2	0		
평 Routing V	iew														
Custon	n		Drawin	na λ Instruction	is 1 🖌 Instr	ructions 2	2 🖌 Instrud	<							>
				- ()	~~~~										

At Review runs the instructions are resolved to absolute values.

With the parts and labels feature route cards or labels for each machined parts can be printed at the office.

Ontimized Ports			
Run: Nesting - Part library			
Edgebander setup time: 0:00 Saw setup time: 0:00			
Part code:F-UNIT-END-LEFT Material code:MED-DEN-FIBRE-18MM Length: 585.0 Width: 870.0 Quantity: 3 Non Grained Ref. Code: MEDF-U3	Bottom edge: Top edge: Left edge: WHITE-TAPE-22MM Right edge:	Drawing name: 0011429F Part Volume: LOW	
Part code: F-UNIT-END-RIGHT Material code:MED-DEN-FIBRE-18MM Length: 585.0 Width: 870.0 Quantity: 2 Non Grained Ref. Code: MEDF-U2	Bottom edge: Top edge: Left edge: Right edge: WHITE-TAPE-22MM	Drawing name: 0011430F Part Volume: LOW	
Part code: N-BTH-WORKTOP Material code: MED-DEN-FIBRE-18MM Length: 1500.0 Width: 620.0 Quantity: 3 Non Grained Ref. Code: MEDN-B3	Bottom edge: Top edge: Left edge: Right edge:	Drawing name: 0011431F Part Volume: LOW	
Part code:N-OCT-TABLE Material code:MED-DEN-FIBRE-25MM Length: 965.0 Width: 965.0 Quantity: 3 Non Grained Ref. Code: MEDN-O3	Bottom edge: Top edge: Left edge: Right edge:	Drawing name: 0011432F Part Volume: LOW	

With the pattern editor last minute adjustments can be made to any drawing before sending the data to the CNC machining centre.

External drawings - The drawing editor and transfer of data to a CNC machine can be integrated with the use of external drawing files such as DXF and MPR(X).



In this case the stand-alone drawings can be used with parts so items do not have to be duplicated in the machining library or drawn twice.

Summary of Machining Interface

	MI
Machining Drawings	99999
Machining functions (drill, route,)	•
Support for proprietary formats	•
Support for DXF	•
Transfer to Machining centre	•
Shaped drawings	•
Labels for drawings	•
Parametric drawings	•

Forms & Labels

Use the Design options to create templates for forms and labels. Labels are typically for printing labels in the office for parts or products but also can be used to design labels for the Cadmatic saw controllers or the Online PC saw interface for labels at the saw.

Forms are typically for adding brand new custom forms to Review runs or providing a full set of order or stock documentations; Invoices, despatch notes, worksheets ...

Types of forms or labels available to create:-

Quotes / Orders						
Product requirements						
Part lists / Cutting lists						
Cutting patterns						
Runs						
Saw (for labels only)						

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

11 Design Label (Part lists / Cutting lists) - Cutting List Label - 1D Barcode	_		х
File Edit Parameters View Tools Help			
📲 🗋 • 📂 🔍 🚅 📉 🖻 🔍 🔎 ?			
Static picture			
GLOBAL FURNITURE LTD			
Part code:			
Material: Material code Y 1.81			
Length: Length - millimetres			
Width: Width - millimetres		-	
		-	
		_	
6.64 1.83	CA	P NUM	SCRL

To design a form or label create a template that describes the items of information (objects) on the label or form; where they are placed and special effects such as pictures or colour. Once the template is saved it can be used by the program for printing that style of label or form.

Many users typically only need one or two templates for all their part and product labels but may need several templates for forms such as invoices, despatch notes, waybills and so on.

Standard templates - There are several standard templates supplied with the software which you can use as a starting point for your templates. Use the SAVE AS option to take a copy of the standard form and always make changes to the copy.

Label design

	Next Previous Two page Zoom in	Zoom out Exit		
	GLOBAL FURNITURE LTD	GLOBAL FURNITURE LTD		
F	Part code: W-ROBE-DRAWER Material: MFC18-TEAK	Part code: W-ROBE-PLINTH Material: MFC18-TEAK		
L	ength: 1000.0mm	Length: 964.0 mm		
١	Vidth: 225.0 mm	Width: 125.0 mm		
0	Quantity: 10	Quantity: 5		
0	u III III III III III 095			
_			-	
	GLOBAL FURNITURE LTD	GLOBAL FURNITURE LTD		
F	Part code: W-ROBE-BASE	Part code: W-ROBE-END-RIGHT		
F	Part code: W-ROBE-BASE //aterial: MFC18-TEAK .ength: 964.0 mm	Part code: W-ROBE-END-RIGHT Material: MFC18-TEAK Length: 578.0 mm		
F N L	Part code: W-ROBE-BASE Material: MFC18-TEAK .ength: 964.0 mm	Part code: W-ROBE-END-RIGHT Material: MFC18-TEAK Length: 578.0 mm Width: 1782.0mm		
F N L V	Part code: W-ROBE-BASE Material: MFC18-TEAK .ength: 964.0 mm Width: 578.0 mm Quantity: 10	Part code: W-ROBE-END-RIGHT Material: MFC18-TEAK Length: 578.0 mm Width: 1782.0mm Quantity: 5		
F N L V	Part code: W-ROBE-BASE Material: MFC18-TEAK .ength: 964.0 mm Width: 578.0 mm Quantity: 10	Part code: W-ROBE-END-RIGHT Material: MFC18-TEAK Length: 578.0 mm Width: 1782.0mm Quantity: 5		

The form or label design can be previewed to see what the design looks like.

When creating a NEW design use the OBJECT TOOLBAR (at the left) to place label design elements on the label. The main elements are:-

- Text boxes fixed text to describe the data
- Data boxes for the variable data (e.g. part codes)
- Lines to draw lines on the label
- Picture boxes for part drawings or logos
- Barcode boxes for bar codes (e.g. bar code for part code and quantity)

Use the properties box to change any features, for example, to fine tune the position of the item.

The forms or labels can be set up to print in a wide variety of layouts; continuous, 2 per page ...



Printed labels

Forms

Design a form in the same way as a label - the main differences are that a form (like an invoice) usually contains a section with a list of varying data items (e.g. products and prices) and uses page numbers, headings, and continuation pages etc.



Form design

The page size, margins and other general features can be configured for each form or label from the parameters menu.

With labels set the frequency with which labels are produced, per part, per part type, per stack etc.

Custom Reports / Summaries

Form design can also be used to create fully customised reports for runs (optimising results). This can be useful for tailoring documents to suit the production process. Emphasising important data, removing details, matching the order of data to the company standard ...



Here is part of a design for a custom report for a cutting list summary.

Custom report design

The layout and information on the report can be fully customised. The above design produces the following style of report or summary.

Rev	riew runs					- 0	×
File b	ait View Settings Summarie	s Stock Help			3 G	Y 🐴	i i
Cut	ting List Form -	1D Barcode 1 of 47		Tyampi	• C 4	D dr	wino
Cut	ling List Porm -	ID Balcode 1 0147	1	Kitchen ol	e CA	ult/?defu	awing aso o
]	Revision 1 : 28 Sep 2	2018 11:37 :	Optimise	ed by Sea	n-Lenovo
		Contraction of the second s	Job reference: Kitchen plan				
	GLOB	AL FURNITURE LTD	Title: Example CAD drav	ing			
			Date:				
Cut	Furniture] Telepi ting list details	House, 27 Wood Lane, Bristol, BS1 2XR, UK hone: +44 (0)117 933 6323 Fax: +44 (0)117 933 6487	10/10/2010				-
Item	Part code	Material details		Part area	Length	Width	Qty
	DACE DACK	Material: HARDBOARD-WHITE-4MM		0.00	476.0	710.0	
ľ	DHOLIDHUN			0.00	470.0	/10.0	
16	BASE-BACK	HARDBOARD-WHITE-4MM Hardboard 4mm - White		0.00	976.0	710.0	1
26	BASE-BACK	HARDBOARD-WHITE-4MM Hardboard 4mm - White		0.00	976.0	710.0	1
37	BASE-BACK	HARDBOARD-WHITE-4MM Hardboard 4mm - White		0.00	976.0	710.0	1
47	BC-BASE-BACK	Hardboard 4mm - White		0.00	976.0	710.0	1
<		Page 1					v
							- í.

Custom reports in Review runs

For run based custom reports it is often more convenient to integrate the reports in Review runs so that they appear on the Report bar - like any other report.

Any reports created via this option are automatically added to the report bar under the 'Custom' tab.

11 Review runs			– 🗆 X
File Edit View	Settings Summaries Stock Help		
*] 🗐 🖉	📉 🕮 🚱 🎇 🔍 📲 🚮 🚺 🔌	🕨 🛛 🛃 🍼 📍 🗾	🖉 🛃 📑
Favourites			
Batch reports	Optimised Part Details - 1D	. Example CA	D Drawing
Summaries	1	-	C
Advanced	1	Kitchen plan///?DEFAULT/?DEFAULT/SC	Q [Rules:CL,BL] 🕦
Patterns	R	levision 6 : 27 Aug 2018 14:26 : Recalcula	ted by Sean-Lenovo
Machining	Optimised Parts		^
Custom			
瓣 Board Details	Run: Kitchen plan	Description	Example C
😹 Cutting List	Edgebander setup time: 0:05 Saw setup time: 0:00		
Form - 1D	Part code: BASE-CABINET-END-LEFT	Bottom edge:	Drawing name:
Daicode	Material code:MEL-CHIP-18MM	Top edge:	00014463
Form - 2D	Length: 581.0 Width: 870.0	Left edge: OAK-TAPE-22MM	Part Volume:
Barcode	Quantity: 1 Non Grained	Right edge:	LOW
🙀 Cutting	Ref. Code: MELBAS1		
Pattern Form			
Material Details - 1D		FIN SIZE582.0	X 870.0
Barcode			
🙀 Material	Part code: BASE-CABINET-END-RIGHT	Bottom edge:	Drawing name:
Details - 2D Barcode	Material code:MEL-CHIP-18MM	Top edge:	00014464
M Optimized	Length: 581.0 Width: 870.0	Left edge:	Part Volume:
Part Details -	Quantity: 1 Non Grained	Right edge: OAK-TAPE-22MM	LOW
1D Barcode	Ref. Code: MELBAS1		
Part Details -		FIN SIZE582.0	X 870 0
2D Barcodes			
🙀 Pattem			
Details - 1D Barcode	Part code: BASE-CABINET-DRAWER-LONG	Bottom edge: OAK-TAPE-22MM	Drawing name:
All Pattern	Naterial code:MFC18-OAK	IOP edge: OAK-TAPE-22MM	00014465 Part Volume:
Details - 2D	Quantity: 1 Grained	Right edge: OAK-TAPE-22MM	LOW
Barcode	Ref. Code: MECBAS1		
		FIN SIZE900.0	X 184.3
			~
	<		>

Custom report

These reports can also be accessed from the main screen as forms (Print - Forms - Runs).

Forms and Labels Summary

Create custom forms	•
1D and 2D barcodes supported	•
Template form and labels supplied	•
Local Integrated help	•



Transfering optimised patterns (cutting instructions) to the saw.

The program supports a wide range of saw controllers:-

- Cadmatic (all types)
- Compumatic
- Topmatic
- Giben
- Schelling (Commander 2 and Commander 4 MCS)
- Homag Sawtech (CHxx, NPS400, Ilenia)
- Table saws
- Online PC
- Various other controllers
- Printed patterns and cutting instructions for manual saws



Once selected, the saw transfer program prompts with the current job.

ш	[ransfer	to saw Cadmatic V - Be	droom & bathroom					—		×
File	Edit	View Help								
*	케 🗋 🖻 🝽 –== 🛪 🖉 🚝 🐄 🦆 🖌 🥩 ?									
	Batchi	name Bedroom & bathro	om 🔽 🗉	Description Be	edroom & bathroo	om				
	Tm	Optimising progress	Cutting list	Title	Run	Optimisin	Saw par	Board list		^
Glob	al									
•	1.		Bedroom & b	Bedroom & bathr	Bedroom	default	default	Bedroom & bat	.]	
	2.								1	
									_	
										¥
							F12 C	ontinue	NUM	

Transfer to saw batch screen

After job selection and confirmation, the program displays the data it will transfer.

11 Transfer to saw			_		×
Run Tension trims	Parts Tension trims	Saw Tension trims	Material MED-DEN-FIBRE-18MM MFC18-RED MFC18-TEAK MEL-CHIP-18MM MFC18-0AK	Patterns 1 - 3 4 - 7 8 9 - 10 11	
	OK Print	Help	Cancel		

Transfer to Saw

The transfer is finished once this data is confirmed.

Note - For practical use the saw transfer and machining transfer need to be set up for the company's machines. There are parameters for this and a wide range of options are available.

Typically the saw or machining centre transfer sends data to a location on the Network (Path for Saw data) and a separate program provided by the machinery manufacturer runs and sends the data to the machine. This can all be integrated into the above transfer process.

Analyse Shifts

Some saw controllers can record information as the saw is working. There are reports to analyse this data on a shift basis or to analyse each run. Use this option to analyse the feedback from the saw for each shift.

Analyse shifts File Help					_		×
*J 🔀 🥩 ?							
Shifts 26-SEP-15 (1) 8:13:45 AM 🗸]						
				/Shift activity	∕Error summary∕Saw	activity	Δ
Shift number	1						Â
Operator	ĸJW						
Cycles	100			hh:mm			
-		hh:mm	Cutting time	7:22	88.17%		
Start of shift	26-09-15	08:13	Error time	0:12	2.31%		
End of shift	26-09-15	16:45	Waiting time	0:30	6.02%		
			Service time	0:18	3.50%		
Shift time		8:32					
Break time		0:10	Operating	8:22	100.00%		
Waiting time				hh:mm			
Standstill				0:01			
Unexpected interrupti	on			0:02			
Waiting for material		0:03					
Waiting for destackin	0:02						
Mechanical breakdown	0:03						
Saw blade change				0:00			
Other				0:19			
				0.20			
				0:30			*

Analyse shifts summary

At the top are the shift number, operator's initials and the number of saw cycles during the shift. The other information shows the start and end of the shift and the total elapsed shift time. The analysis of the time is split between the following categories:

Shift time	- total duration of shift
Cutting time	- time that the saw is cutting
Error time	- down time recorded against saw errors
Service time	- time for service operations (e.g. change saw blade)
Waiting time	- saw not in use

Waiting time = Op time - cutting - error - service Break time - operator's break (for example: meals, rest) Operating time - shift time less break time: *Op time* = *shift* - *break*

At the foot of the report is the material usage during the shift. This shows the area of parts and board processed during the shift.

- Click on the tabs at the top right to see more details. The reports available are:-

- Saw activity - shows the full details of each cutting cycle

- Error summary - shows any errors and the cause

Analyse shifts File Help		- 🗆 X
🍕 🗡 🥩	?	
Shifts 26-SEP-1	5(1) 8:13:45 AM	
		/Shift activity / Error summary \Saw activity
Number	Message	Time (hh:mm:ss)
010	Head cut saw blade obstructed by clamps	0:04:07
016	Excessive vibration of rip saw blade	0:01:16
017	Rip saw waste chute is blocked	0:01:27
031	Pattern too complex	0:00:23
032	Job is too large for available memory	0:04:22
Total		0:11:35
		×

Analyse shifts summary of errors

Analyse runs

The feedback data from the saw can also be analysed in terms of runs, that is, comparing the estimated values for a run with the time actually taken at the saw.

11 Analyse runs ile Help							>
📲 🔭 😵 💈							
Runs 00010* 25-	SEP-15 10:39 AM	~				Run:00010 10:39	am 25-Sep-15 In progre
					/Run activit	y Pattern analysis	Cycle analysis
Totals			Estimated	Actual	Varian	ce	
Patterns Cycles			53 100	53 100			
Cutting t	ime		7:51	7:22	-0 : 29	(hh:mm)	
Material	use Qua	ntity	Area	======================================	Perc	======== ent	
	Est ======	Act	Est =======	Act	Est	Act	
Parts Waste	2141	2141	887.34 123.84	887.32 123.94	87.75% 12.25%	87.74% 12.26%	
Boards	323	323	1011.18	1011.26	100.00%	100.00%	
L							~

Analyse Runs summary

The 'Est' and 'Act' columns show the difference between the estimated values and the actual values. In this case the parts produced and waste were the same but the actual cutting time was shorter than estimated.

- Click on a tab at the top right for more detailed reports, that show the differences on a per pattern and per cycle basis, for example:-

Cycle analysis

	Analyse run	s							- 0	×
Ŀ	le <u>H</u> elp		1							
4	1	🥩 ?								
F	Runs	00010" 25-SEP	-15 10:39 AM 🗸 🗸				Run	00010 10:39	am 25-Sep-15 In j	progress
						/	Run activity Patte	rn analvsis	Y Cycle analysi	is \
									, . , , .	^
	Ptn	Cycle	Boards	Parts	Start	End	Waiting	time	(mm:ss)	
	1	1	5	30	25-Sep-15 08:15:35	08:21:05		0:	00	
	1	. 2	5	30	25-Sep-15 08:21:15	08:26:45		0:	00	
	1	. 3	5	30	25-Sep-15 08:26:55	08:32:25		0:	00	
	1	. 4	2	12	25-Sep-15 08:32:35	08:38:05		0:	00	
	2	1	5	45	25-Sep-15 08:38:15	08:43:59		0:	00	
	2	2	5	45	25-Sep-15 08:44:09	08:49:53		0:	00	
	3	1	5	20	25-Sep-15 08:50:03	08:55:41		0:	00	
	3	2	2	8	25-Sep-15 08:55:51	09:00:02		0:	00	
	4	1	5	30	25-Sep-15 09:00:12	09:05:15		0:	00	
	4	2	1	6	25-Sep-15 09:05:25	09:11:55		1:	27	
	5	1	4	44	25-Sep-15 09:12:05	09:16:40		0:	00	
	6	1	3	36	25-Sep-15 09:16:50	09:26:28		0:	00	
	7	1	2	26	25-Sep-15 09:26:38	09:35:21		0:	00	
	8	1	1	9	25-Sep-15 09:35:31	09:40:03		0:	00	
	9	1	1	9	25-Sep-15 09:40:13	09:45:10		0:	00	
	10	1	5	20	25-Sep-15 09:45:20	09:48:06		0:	00	
	10	2	5	20	25-Sep-15 09:48:16	09:51:02		0:	00	
	10	3	5	20	25-Sep-15 09:51:12	09:53:58		0:	00	~

Cycle analysis

The Saw interface feature also includes an option to communicate and send messages to the saw during operation.

Saw Buffer

When transferring data to the Saw with multiple users it can be useful to set up the Saw transfer so that only one user acts as the master location for sending data to the saw. This allows the various incoming runs to be sorted in a buffer and sent to the saw in a more controlled way.

This is set by a Saw transfer parameter: 'Saw buffer'.

If this way of working is set up the saw interface menu (for the master user) contains extra options for managing the saw data.



Buffered transfer to saw

The options are:-

Transfer to saw buffer Saw Buffer Transfer buffer to saw Delete

Saw transfer parameters

The various links to the saws are set up with the Saw transfer parameters. Use one row for each saw.

There are many different types of saw and saw controller and the parameters are often very different for each type. The first thing to set is the MODE which determines the overall type of saw. e.g. Homag/Holzma Cadmatic III/IV.

11	Saw transfer parame	eters				- 0	×
File	Edit Help						
+	1 1 1	✗ ፊ° 💰 ?					
No	Name	Mode	Path	Program 🔨		6 - Homag/Holzma Cadmatic III/IV/V	^
1.	Cadmatic III	6 - Homag/Holzma Cadmatic III/IV/V	c:\v11\Demo\Saw\		Ш.	· · · · · ·	
2.	Cadmatic IV	6 - Homag/Holzma Cadmatic III/IV/V	c:\v11\Demo\Saw\		Ш.	Saw controller	
3.	Cadmatic V	6 - Homag/Holzma Cadmatic III/IV/V	c:\v11\Demo\Saw\		Ш.	Cadmatic III Cadmatic III	
4.	ASCII Pattern Export	11 - ASCII/Unicode PTX	c:\v11\Demo\Saw\		Ш.	Cadmatic III (necusive)	
5.	Online label PC	2 - Online label PC	c:\v11\Demo\Saw\		Ш.		
6.	DXF for saw	16 - DXF	c:\v11\Demo\Saw\		Ш.		
7.	Cutting Centre	17 - Homag/Weeke Cutting Centre	c:\v11\Demo\Saw\CutC		Ш.	ASCII or Unicode ASCII	\sim
8.	SQLite Export	12 - MDB PTX	c:\v11\Demo\Export\		ш		
9.						Daneed	
10.						🗹 Display saw transfer dialog	
11.						Separate runs for patterns using offout boards	
12.							_
13.						Online label PC path	
14.						Path for feedback data c:\v11\Demo\Saw\Fee	dt
15.						Spare	
16.							
17.							
18.							
19.						Authentication	
20.							
21		I		, ×		liser name	. ×.
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Saw transfer parameters

For each row there are extra parameters in the right hand pane to allow for the accurate set up of each saw and its proprietary settings.

All the saw types set up via these parameters are shown as options on the Machine Interface menu.

Most suppliers now provide typical examples of how to set the Saw transfer parameters for their types of saw and controller.

Transfer to Groups

The Saw transfer parameters do not only apply to saws and can be used to transfer data to a group of machines on a flow line, for example, a Homag/Holzma Saw and Homag Automation destacking machine, using the 'Group transfer' option.

III Saw transfer parameters File Edit Help								×
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No	Name	Mode	Path	^		11 - ASCIL/Unicode PTX		^
1.	Cadmatic III	6 - Homag/Holzma Cadmatic III/IV/V	c:\v11\Demo\Saw\					
2.	Cadmatic IV	6 - Homag/Holzma Cadmatic III/IV/V	c:\v11\Demo\Saw\			ASUI or Unicode A	ASCII	
3.	Cadmatic V	6 - Homag/Holzma Cadmatic III/IV/V	c:\v11\Demo\Saw\			Buffered		
4.	ASCII Pattern Export	11 - ASCII/Unicode PTX	c:\v11\Demo\Saw\			Direles construction diele e		
5.	Online label PC	2 - Online label PC	c:\v11\Demo\Saw\			Display saw transfer dialog		
6.	Cell System	Group transfer				Separate runs for patterns using offcut bo	pards	
7.	DXF for saw	16 - DXF	c:\v11\Demo\Saw\					
8.	Cutting Centre	17 - Homag/Weeke Cutting Centre	c:\v11\Demo\Saw\CutC.					
9.	SQLite Export	12 - MDB PTX	c:\v11\Demo\Export\			Prompt before overwriting		
10.						Pattern image format		_
11.						Export file format	None	
12.				_		Use pattern colours in evport file		
13.				_				
14.						Online label PC path		
15.						-		_
16.						Spare		
17.								
18.								
19.				_		Authentication		
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15				/	14			· .:

Saw transfer parameters - transfer to Group

The machines in the group and the order of the machines are set up via the Saw transfer parameters. There are extra options in the right hand pane to set up the communication link for each machine on the Network.

The Group option appears as an item on the Machine interface menu at the main screen and this can then be used like any other transfer option to send data to all the machines in the group; this ensures the same data is sent to each machine and it is correctly co-ordinated.

This type of transfer is only suitable for transfer modes where export file names are unique and create 'one file per run'. The pattern exchange transfer format (PTX) is typically used for sending data to other machines such as Homag, Homag Automation etc.

Saw Interface summary

Transfer data to groups of machines	•
Configurable transfer methods for multiple saws	•
Shift, Run and Cycle analysis	•
Export data to a variety of formats	•