Version V8

Example Printouts

Revision 1.14

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Introduction

Welcome to V8

V8 is a comprehensive software package that covers most aspects of optimisation and production for the Woodworking industry. It is Windows software which runs on a PC. It provides all the information to keep control of costs, cut down errors, and cut material efficiently and effectively.

V8 deals with a variety of products.

- Kitchen cabinets
- Office furniture
- Shop fittings
- Doors
- Plastic fabrications
- Caravans
- Bathrooms
- Vanity Units

The following pages show a wide range of printouts from Version V8 and cover most of the reports and summaries available from the program.

There are illustrations from several different sorts of data to show the many different ways of working with the software.

Note

Text above and below each example is not part of the Printout but briefly describes the example and highlights important points.

Some Printouts are adjusted or cropped to fit on the page.

Quotes / Orders and Products

This section shows examples of the reports for the Quotes / Orders, Product library and Product requirements modules.

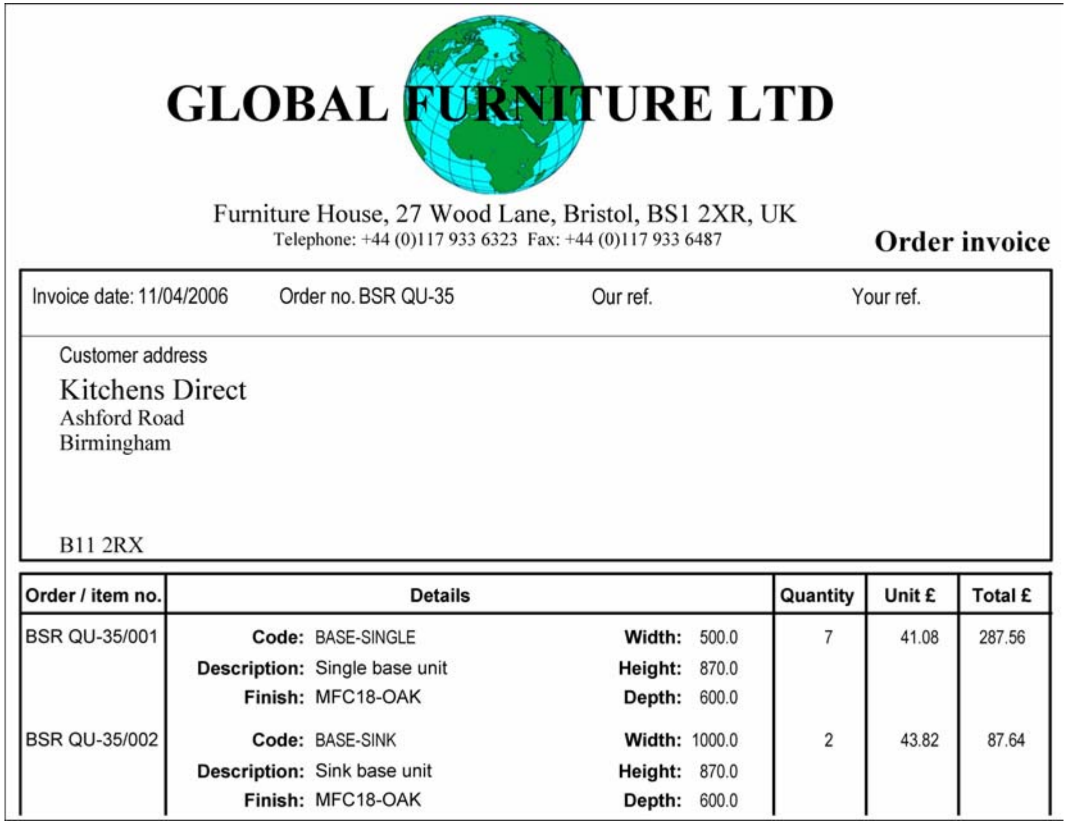
Many users choose to start the optimisation from a customer order or from a list of Product requirements. The program works out the part sizes and quantities for cutting using the definitions of each product in the Product Library.

There are reports for managing the order (Invoice, Despatch note etc.) and reports for managing the production process such as a breakdown of materials and costs.

The Label and Form Design module is used to create templates for printing reports with different layouts and content. A very wide range of customised reports can be created.

The software includes a variety of templates and examples of reports to help with the design process.

Quotes / orders Invoice - example of order processing document



GLOBAL FURNITURE LTD

Furniture House, 27 Wood Lane, Bristol, BS1 2XR, UK
Telephone: +44 (0)117 933 6323 Fax: +44 (0)117 933 6487

Order invoice

Invoice date: 11/04/2006 Order no. BSR QU-35 Our ref. Your ref.

Customer address
Kitchens Direct
Ashford Road
Birmingham

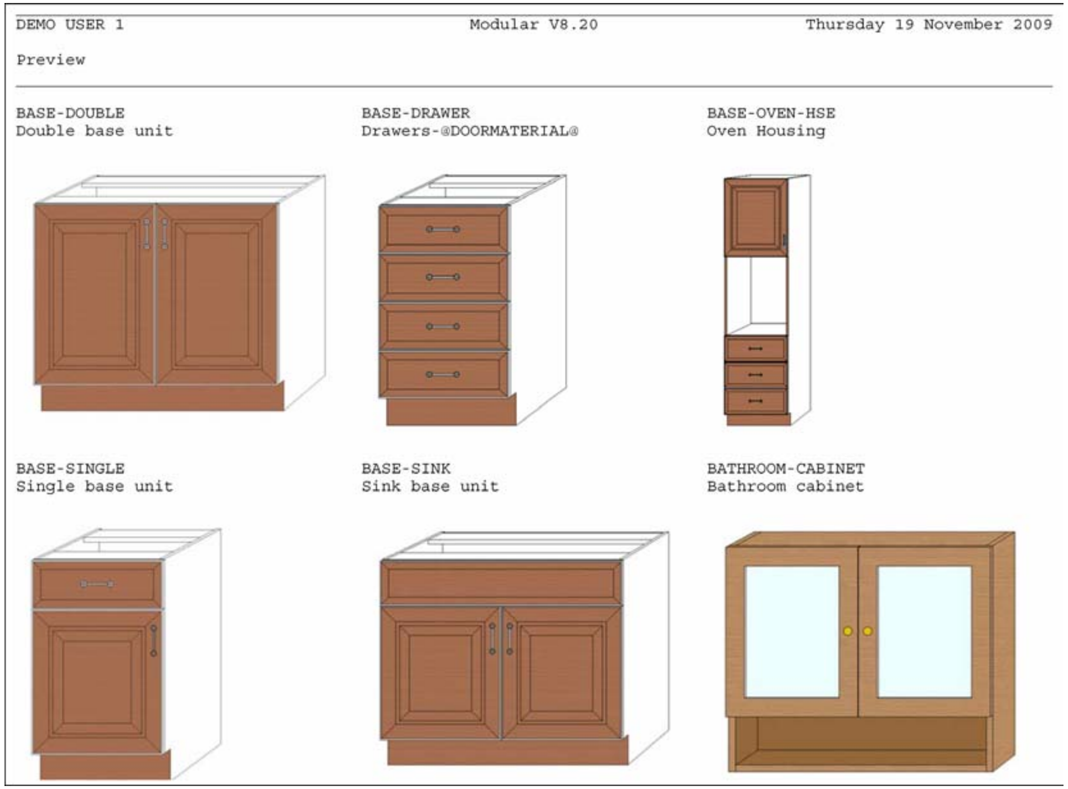
B11 2RX

Order / item no.	Details	Quantity	Unit £	Total £
BSR QU-35/001	**Code:** BASE-SINGLE **Width:** 500.0 **Description:** Single base unit **Height:** 870.0 **Finish:** MFC18-OAK **Depth:** 600.0	7	41.08	287.56
BSR QU-35/002	**Code:** BASE-SINK **Width:** 1000.0 **Description:** Sink base unit **Height:** 870.0 **Finish:** MFC18-OAK **Depth:** 600.0	2	43.82	87.64

Fig. 1

Note - complete invoice not shown. Invoices may consist of several pages and include continuation sheets, sub totals, final totals etc.

Product library - Catalog of products in the product library. Shows thumbnail pictures of each product.



```
DEMO USER 1                    Modular V8.20           Thursday 19 November 2009

Preview
```

BASE-DOUBLE
Double base unit

BASE-DRAWER
Drawers-@DOORMATERIAL@

BASE-OVEN-HSE
Oven Housing

BASE-SINGLE
Single base unit

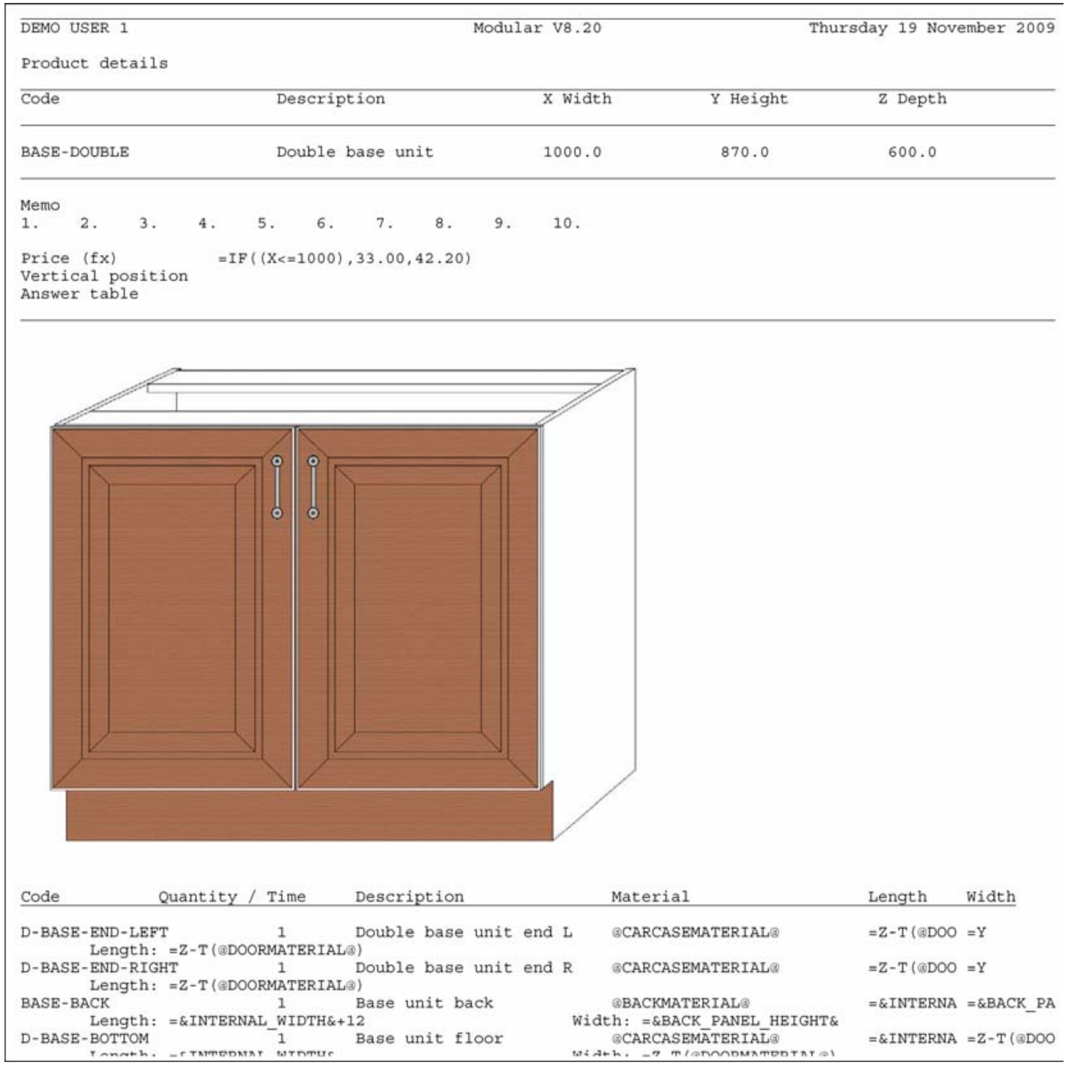
BASE-SINK
Sink base unit

BATHROOM-CABINET
Bathroom cabinet

Fig. 2

The product library can include, products, sub-assemblies (e.g. drawer units or pedestals), fittings (hardware) and details of the operations on each products (e.g. assembly, clamping etc).

Product details - shows drawing and full details of a product definition.



```
DEMO USER 1                        Modular V8.20                  Thursday 19 November 2009

Product details

Code                      Description               X Width          Y Height         Z Depth

BASE-DOUBLE               Double base unit          1000.0            870.0            600.0

Memo
1.    2.    3.    4.    5.    6.    7.    8.    9.    10.

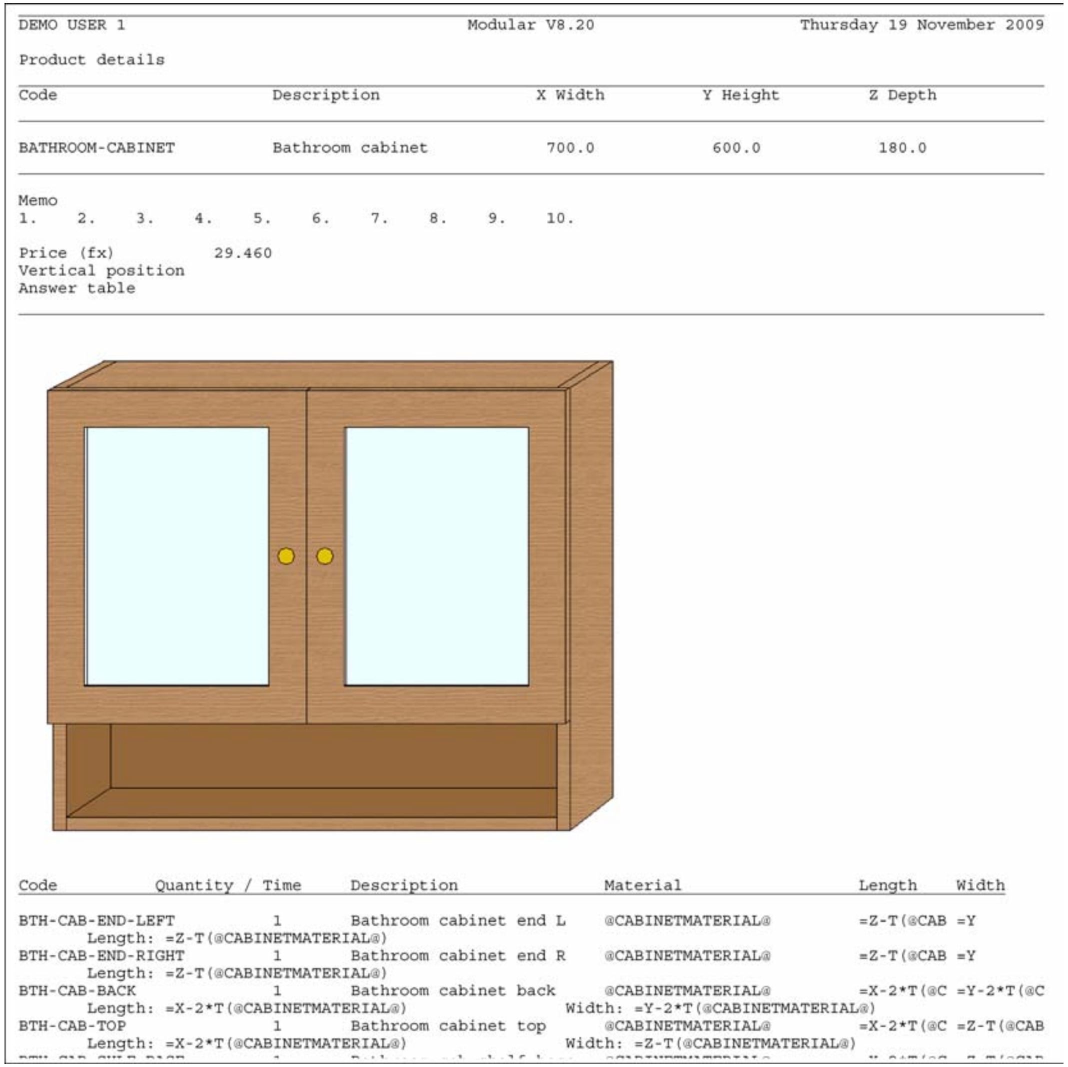
Price (fx)          =IF((X<=1000),33.00,42.20)
Vertical position
Answer table
```

```
Code          Quantity / Time     Description               Material                  Length    Width

D-BASE-END-LEFT             1       Double base unit end L    @CARCASEMATERIAL@         =Z-T(@DOO =Y
       Length: =Z-T(@DOORMATERIAL@)
D-BASE-END-RIGHT            1       Double base unit end R    @CARCASEMATERIAL@         =Z-T(@DOO =Y
       Length: =Z-T(@DOORMATERIAL@)
BASE-BACK                   1       Base unit back            @BACKMATERIAL@            =&INTERNA =&BACK_PA
       Length: =&INTERNAL_WIDTH&+12                       Width: =&BACK_PANEL_HEIGHT&
D-BASE-BOTTOM               1       Base unit floor           @CARCASEMATERIAL@         =&INTERNA =Z-T(@DOO
       Length: =&INTERNAL_WIDTH&                          Width: =Z-T(@DOORMATERIAL@)
```

Fig. 3

Product details - Product library can be used to define a very wide range of products and product ranges for fixed size items and parametric products.



```
DEMO USER 1                                  Modular V8.20                                 Thursday 19 November 2009

Product details

Code                      Description                X Width          Y Height         Z Depth

BATHROOM-CABINET          Bathroom cabinet            700.0            600.0            180.0

Memo
1.    2.    3.    4.    5.    6.    7.    8.    9.    10.

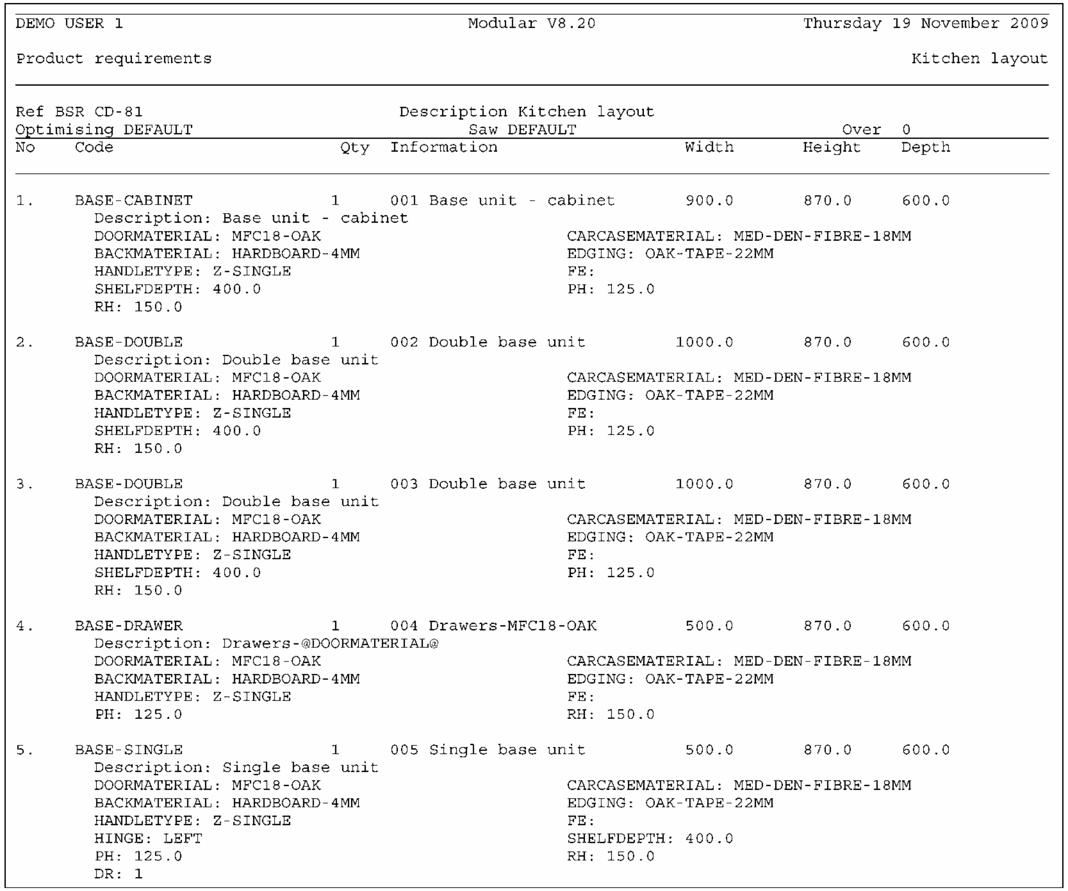
Price (fx)          29.460
Vertical position
Answer table
```

```
Code          Quantity / Time     Description               Material                  Length    Width

BTH-CAB-END-LEFT          1       Bathroom cabinet end L    @CABINETMATERIAL@         =Z-T(@CAB =Y
       Length: =Z-T(@CABINETMATERIAL@)
BTH-CAB-END-RIGHT         1       Bathroom cabinet end R    @CABINETMATERIAL@         =Z-T(@CAB =Y
       Length: =Z-T(@CABINETMATERIAL@)
BTH-CAB-BACK              1       Bathroom cabinet back     @CABINETMATERIAL@         =X-2*T(@C =Y-2*T(@C
       Length: =X-2*T(@CABINETMATERIAL@)                Width: =Y-2*T(@CABINETMATERIAL@)
BTH-CAB-TOP               1       Bathroom cabinet top      @CABINETMATERIAL@         =X-2*T(@C =Z-T(@CAB
       Length: =X-2*T(@CABINETMATERIAL@)                Width: =Z-T(@CABINETMATERIAL@)
```

Fig. 4

Product requirements - quantity and type of products required to fulfil an order.



```
DEMO USER 1                                   Modular V8.20                     Thursday 19 November 2009

Product requirements                                                                       Kitchen layout
---------------------------------------------------------------------------------------------------------

Ref BSR CD-81                          Description Kitchen layout
Optimising DEFAULT                            Saw DEFAULT                           Over  0
---------------------------------------------------------------------------------------------------------
No    Code                       Qty  Information                  Width       Height    Depth
---------------------------------------------------------------------------------------------------------

1.    BASE-CABINET              1    001 Base unit - cabinet       900.0       870.0     600.0
        Description: Base unit - cabinet
        DOORMATERIAL: MFC18-OAK                         CARCASEMATERIAL: MED-DEN-FIBRE-18MM
        BACKMATERIAL: HARDBOARD-4MM                     EDGING: OAK-TAPE-22MM
        HANDLETYPE: Z-SINGLE                            FE:
        SHELFDEPTH: 400.0                               PH: 125.0
        RH: 150.0

2.    BASE-DOUBLE               1    002 Double base unit         1000.0       870.0     600.0
        Description: Double base unit
        DOORMATERIAL: MFC18-OAK                         CARCASEMATERIAL: MED-DEN-FIBRE-18MM
        BACKMATERIAL: HARDBOARD-4MM                     EDGING: OAK-TAPE-22MM
        HANDLETYPE: Z-SINGLE                            FE:
        SHELFDEPTH: 400.0                               PH: 125.0
        RH: 150.0

3.    BASE-DOUBLE               1    003 Double base unit         1000.0       870.0     600.0
        Description: Double base unit
        DOORMATERIAL: MFC18-OAK                         CARCASEMATERIAL: MED-DEN-FIBRE-18MM
        BACKMATERIAL: HARDBOARD-4MM                     EDGING: OAK-TAPE-22MM
        HANDLETYPE: Z-SINGLE                            FE:
        SHELFDEPTH: 400.0                               PH: 125.0
        RH: 150.0

4.    BASE-DRAWER               1    004 Drawers-MFC18-OAK         500.0       870.0     600.0
        Description: Drawers-@DOORMATERIAL@
        DOORMATERIAL: MFC18-OAK                         CARCASEMATERIAL: MED-DEN-FIBRE-18MM
        BACKMATERIAL: HARDBOARD-4MM                     EDGING: OAK-TAPE-22MM
        HANDLETYPE: Z-SINGLE                            FE:
        PH: 125.0                                       RH: 150.0

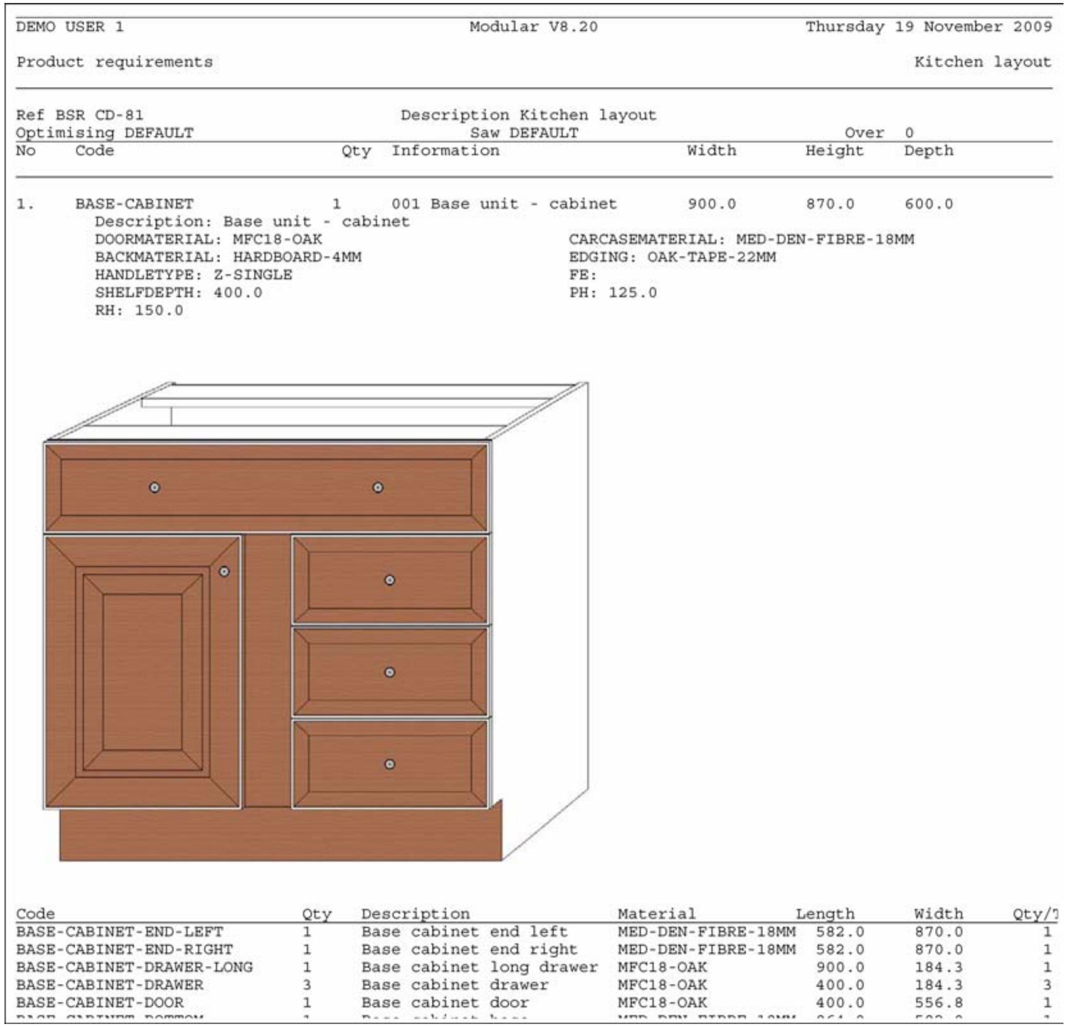
5.    BASE-SINGLE               1    005 Single base unit          500.0       870.0     600.0
        Description: Single base unit
        DOORMATERIAL: MFC18-OAK                         CARCASEMATERIAL: MED-DEN-FIBRE-18MM
        BACKMATERIAL: HARDBOARD-4MM                     EDGING: OAK-TAPE-22MM
        HANDLETYPE: Z-SINGLE                            FE:
        HINGE: LEFT                                     SHELFDEPTH: 400.0
        PH: 125.0                                       RH: 150.0
        DR: 1
```

Fig. 5

Note- some items are represented by 'variables' such as DOORMATERIAL and HANDLETYPE. This means that these details (which may vary for each customer) can be entered when the order is taken and do not have to be set up in the product library.

Variables help to keep the product library small, flexible and easy to maintain

Product requirements details - full breakdown of product requirements in terms of the parts, fittings, subassemblies and operations.



```
DEMO USER 1                                 Modular V8.20                      Thursday 19 November 2009

Product requirements                                                                       Kitchen layout

Ref BSR CD-81                           Description Kitchen layout
Optimising DEFAULT                             Saw DEFAULT                              Over  0
No     Code                       Qty  Information                  Width        Height     Depth

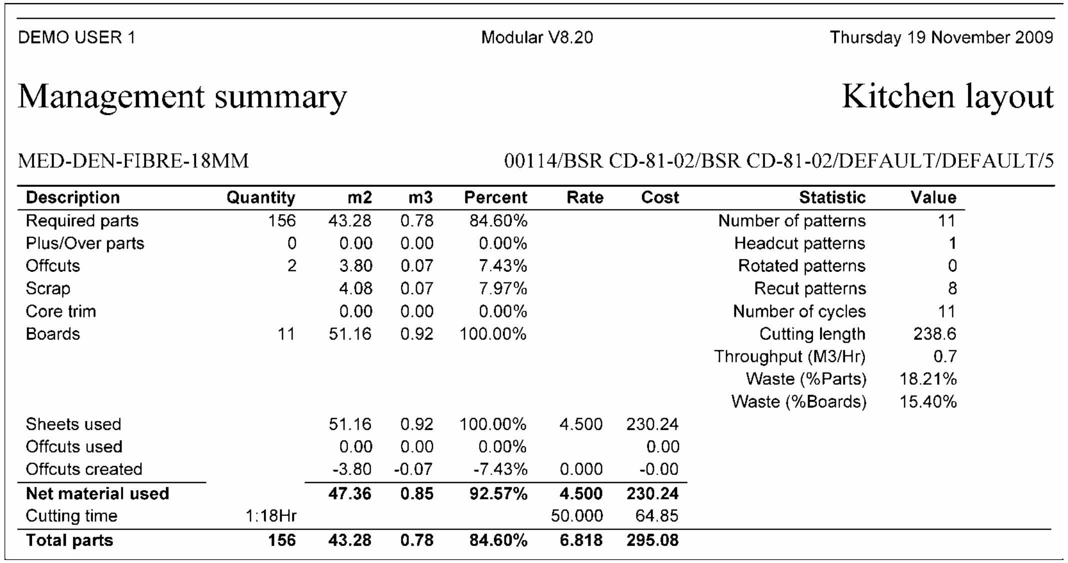
1.     BASE-CABINET               1    001 Base unit - cabinet      900.0        870.0      600.0
         Description: Base unit - cabinet
         DOORMATERIAL: MFC18-OAK                        CARCASEMATERIAL: MED-DEN-FIBRE-18MM
         BACKMATERIAL: HARDBOARD-4MM                    EDGING: OAK-TAPE-22MM
         HANDLETYPE: Z-SINGLE                           FE:
         SHELFDEPTH: 400.0                              PH: 125.0
         RH: 150.0
```

```
Code                         Qty   Description                Material            Length      Width     Qty/
BASE-CABINET-END-LEFT        1     Base cabinet end left      MED-DEN-FIBRE-18MM   582.0      870.0        1
BASE-CABINET-END-RIGHT       1     Base cabinet end right     MED-DEN-FIBRE-18MM   582.0      870.0        1
BASE-CABINET-DRAWER-LONG     1     Base cabinet long drawer   MFC18-OAK            900.0      184.3        1
BASE-CABINET-DRAWER          3     Base cabinet drawer        MFC18-OAK            400.0      184.3        3
BASE-CABINET-DOOR            1     Base cabinet door          MFC18-OAK            400.0      556.8        1
```

Fig. 6

Optimising product requirements - A list of product requirements is optimised to produce a set of cutting patterns. After each optimisation (run) the program provides a range of analyses and reports.

The first report shown is the Management summary with the overall material use, waste and costs of an optimisation (run).



DEMO USER 1 Modular V8.20 Thursday 19 November 2009

Management summary Kitchen layout

MED-DEN-FIBRE-18MM 00114/BSR CD-81-02/BSR CD-81-02/DEFAULT/DEFAULT/5

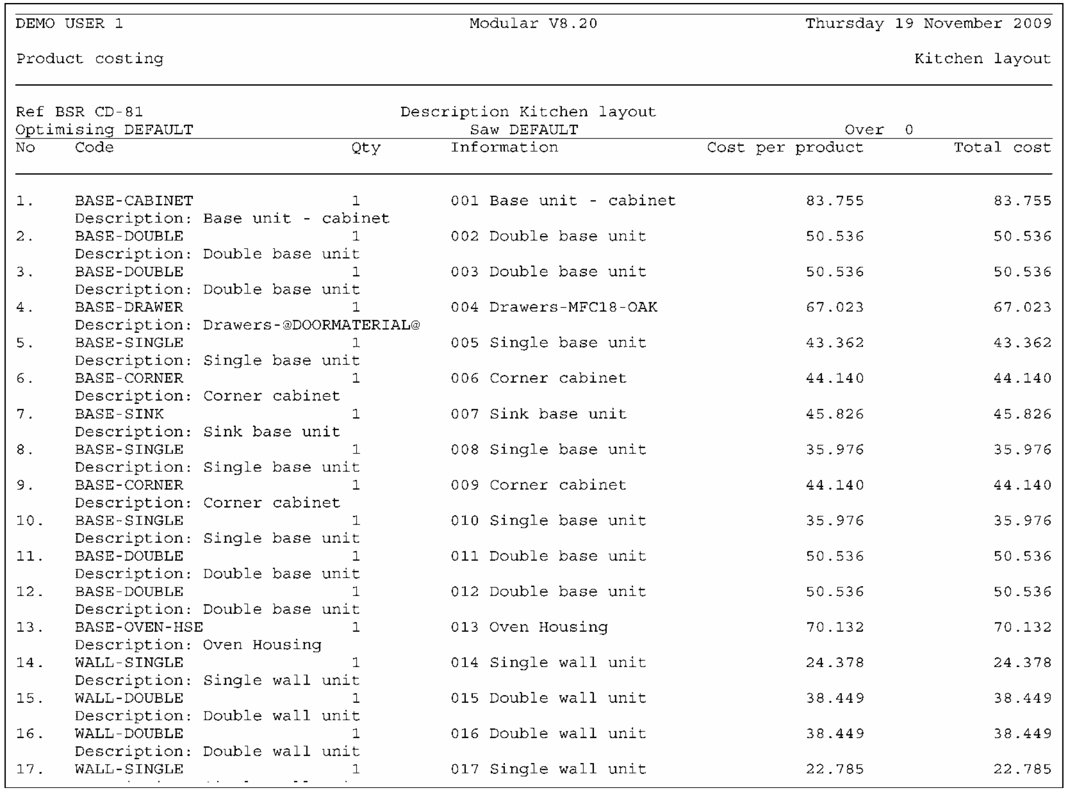
Description	**Quantity**	**m2**	**m3**	**Percent**	**Rate**	**Cost**	**Statistic**	**Value**
Required parts	156	43.28	0.78	84.60%			Number of patterns	11
Plus/Over parts	0	0.00	0.00	0.00%			Headcut patterns	1
Offcuts	2	3.80	0.07	7.43%			Rotated patterns	0
Scrap		4.08	0.07	7.97%			Recut patterns	8
Core trim		0.00	0.00	0.00%			Number of cycles	11
Boards	11	51.16	0.92	100.00%			Cutting length	238.6
							Throughput (M3/Hr)	0.7
							Waste (%Parts)	18.21%
							Waste (%Boards)	15.40%
Sheets used		51.16	0.92	100.00%	4.500	230.24		
Offcuts used		0.00	0.00	0.00%		0.00		
Offcuts created		-3.80	-0.07	-7.43%	0.000	-0.00		
Net material used		**47.36**	**0.85**	**92.57%**	**4.500**	**230.24**		
Cutting time	1:18Hr				50.000	64.85		
Total parts	**156**	**43.28**	**0.78**	**84.60%**	**6.818**	**295.08**		

Fig. 7

Note - the figures at the right include the throughput, number of saw cycles and overall waste. The optimisation uses the optimising and saw parameters to take into account the features of each saw and any limitations on the cutting patterns due to material or handling etc.

Note - where there is more than one run in a batch the Batch summary showing one line for each run is shown after optimising.

Product costing - breakdown of costs for each product requirement after optimisation



```
DEMO USER 1                                   Modular V8.20                     Thursday 19 November 2009

Product costing                                                                            Kitchen layout

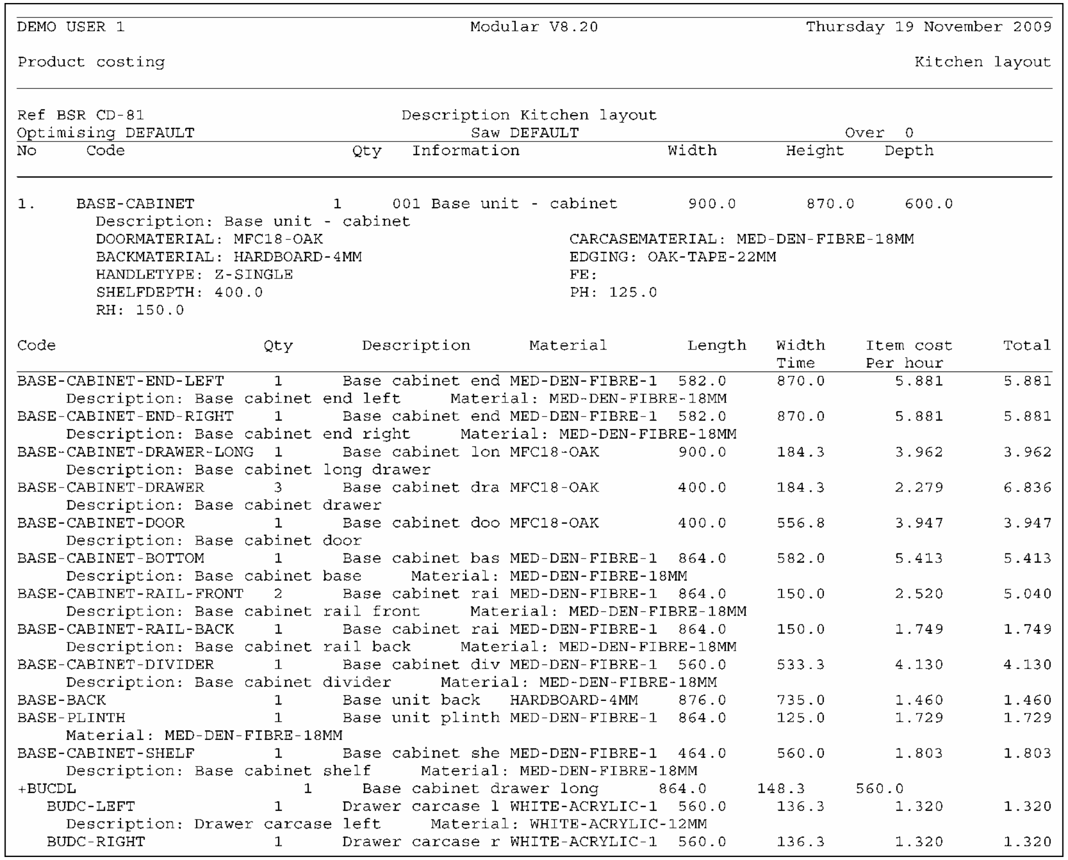
Ref BSR CD-81                          Description Kitchen layout
Optimising DEFAULT                            Saw DEFAULT                          Over  0
No     Code                         Qty       Information                Cost per product         Total cost

1.     BASE-CABINET                 1         001 Base unit - cabinet              83.755             83.755
       Description: Base unit - cabinet
2.     BASE-DOUBLE                  1         002 Double base unit                 50.536             50.536
       Description: Double base unit
3.     BASE-DOUBLE                  1         003 Double base unit                 50.536             50.536
       Description: Double base unit
4.     BASE-DRAWER                  1         004 Drawers-MFC18-OAK                67.023             67.023
       Description: Drawers-@DOORMATERIAL@
5.     BASE-SINGLE                  1         005 Single base unit                 43.362             43.362
       Description: Single base unit
6.     BASE-CORNER                  1         006 Corner cabinet                   44.140             44.140
       Description: Corner cabinet
7.     BASE-SINK                    1         007 Sink base unit                   45.826             45.826
       Description: Sink base unit
8.     BASE-SINGLE                  1         008 Single base unit                 35.976             35.976
       Description: Single base unit
9.     BASE-CORNER                  1         009 Corner cabinet                   44.140             44.140
       Description: Corner cabinet
10.    BASE-SINGLE                  1         010 Single base unit                 35.976             35.976
       Description: Single base unit
11.    BASE-DOUBLE                  1         011 Double base unit                 50.536             50.536
       Description: Double base unit
12.    BASE-DOUBLE                  1         012 Double base unit                 50.536             50.536
       Description: Double base unit
13.    BASE-OVEN-HSE                1         013 Oven Housing                     70.132             70.132
       Description: Oven Housing
14.    WALL-SINGLE                  1         014 Single wall unit                 24.378             24.378
       Description: Single wall unit
15.    WALL-DOUBLE                  1         015 Double wall unit                 38.449             38.449
       Description: Double wall unit
16.    WALL-DOUBLE                  1         016 Double wall unit                 38.449             38.449
       Description: Double wall unit
17.    WALL-SINGLE                  1         017 Single wall unit                 22.785             22.785
```

Fig. 8

The product costing summary shows the total cost for each item in the product requirement list and the cost per product.

Product costing details - for each item in the product requirement list there is a full breakdown of the costs.



```
DEMO USER 1                                   Modular V8.20                      Thursday 19 November 2009

Product costing                                                                             Kitchen layout

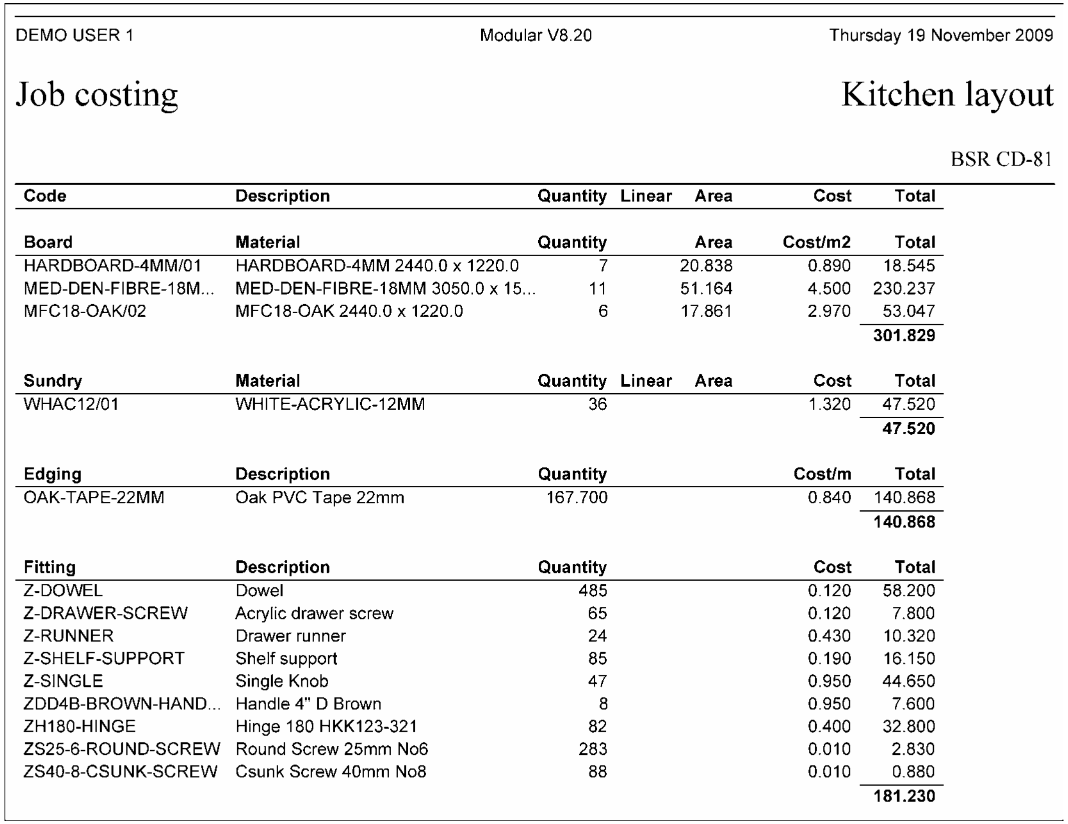
Ref BSR CD-81                          Description Kitchen layout
Optimising DEFAULT                            Saw DEFAULT                            Over  0
No     Code                       Qty   Information               Width        Height    Depth

1.    BASE-CABINET              1     001 Base unit - cabinet       900.0       870.0     600.0
        Description: Base unit - cabinet
        DOORMATERIAL: MFC18-OAK                         CARCASEMATERIAL: MED-DEN-FIBRE-18MM
        BACKMATERIAL: HARDBOARD-4MM                     EDGING: OAK-TAPE-22MM
        HANDLETYPE: Z-SINGLE                            FE:
        SHELFDEPTH: 400.0                               PH: 125.0
        RH: 150.0

Code                     Qty       Description      Material        Length    Width    Item cost    Total
                                                                              Time     Per hour
BASE-CABINET-END-LEFT     1      Base cabinet end MED-DEN-FIBRE-1  582.0      870.0       5.881      5.881
     Description: Base cabinet end left     Material: MED-DEN-FIBRE-18MM
BASE-CABINET-END-RIGHT    1      Base cabinet end MED-DEN-FIBRE-1  582.0      870.0       5.881      5.881
     Description: Base cabinet end right     Material: MED-DEN-FIBRE-18MM
BASE-CABINET-DRAWER-LONG  1      Base cabinet lon MFC18-OAK        900.0      184.3       3.962      3.962
     Description: Base cabinet long drawer
BASE-CABINET-DRAWER       3      Base cabinet dra MFC18-OAK        400.0      184.3       2.279      6.836
     Description: Base cabinet drawer
BASE-CABINET-DOOR         1      Base cabinet doo MFC18-OAK        400.0      556.8       3.947      3.947
     Description: Base cabinet door
BASE-CABINET-BOTTOM       1      Base cabinet bas MED-DEN-FIBRE-1  864.0      582.0       5.413      5.413
     Description: Base cabinet base     Material: MED-DEN-FIBRE-18MM
BASE-CABINET-RAIL-FRONT   2      Base cabinet rai MED-DEN-FIBRE-1  864.0      150.0       2.520      5.040
     Description: Base cabinet rail front     Material: MED-DEN-FIBRE-18MM
BASE-CABINET-RAIL-BACK    1      Base cabinet rai MED-DEN-FIBRE-1  864.0      150.0       1.749      1.749
     Description: Base cabinet rail back     Material: MED-DEN-FIBRE-18MM
BASE-CABINET-DIVIDER      1      Base cabinet div MED-DEN-FIBRE-1  560.0      533.3       4.130      4.130
     Description: Base cabinet divider     Material: MED-DEN-FIBRE-18MM
BASE-BACK                 1      Base unit back   HARDBOARD-4MM    876.0      735.0       1.460      1.460
BASE-PLINTH               1      Base unit plinth MED-DEN-FIBRE-1  864.0      125.0       1.729      1.729
     Material: MED-DEN-FIBRE-18MM
BASE-CABINET-SHELF        1      Base cabinet she MED-DEN-FIBRE-1  464.0      560.0       1.803      1.803
     Description: Base cabinet shelf     Material: MED-DEN-FIBRE-18MM
+BUCDL                       1     Base cabinet drawer long      864.0     148.3     560.0
   BUDC-LEFT              1      Drawer carcase l WHITE-ACRYLIC-1  560.0      136.3       1.320      1.320
     Description: Drawer carcase left     Material: WHITE-ACRYLIC-12MM
   BUDC-RIGHT             1      Drawer carcase r WHITE-ACRYLIC-1  560.0      136.3       1.320      1.320
```

Fig. 9

Job costing - full details of all the costs for an optimisation including materials, edging, fittings (hardware), operations and machining costs.



DEMO USER 1 Modular V8.20 Thursday 19 November 2009

Job costing

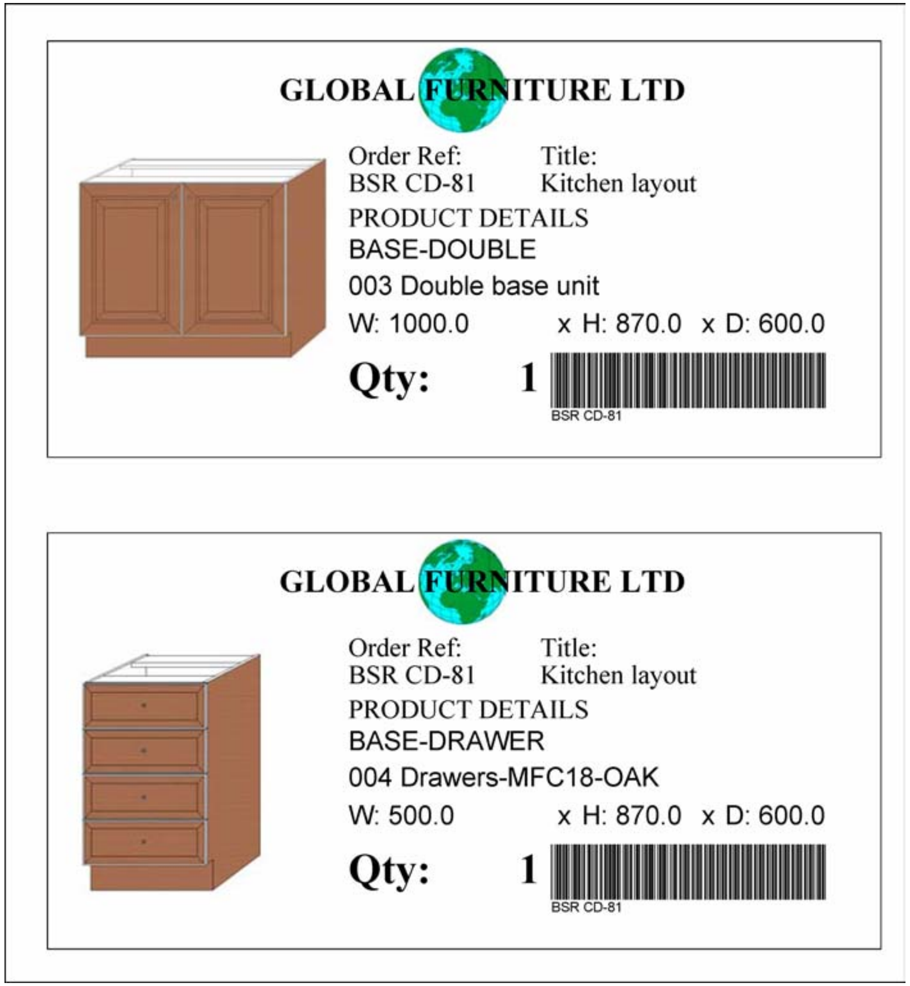
Kitchen layout

BSR CD-81

Code	Description	Quantity	Linear	Area	Cost	Total
Board	**Material**	**Quantity**		**Area**	**Cost/m2**	**Total**
HARDBOARD-4MM/01	HARDBOARD-4MM 2440.0 x 1220.0	7		20.838	0.890	18.545
MED-DEN-FIBRE-18M...	MED-DEN-FIBRE-18MM 3050.0 x 15...	11		51.164	4.500	230.237
MFC18-OAK/02	MFC18-OAK 2440.0 x 1220.0	6		17.861	2.970	53.047
						301.829
Sundry	**Material**	**Quantity**	**Linear**	**Area**	**Cost**	**Total**
WHAC12/01	WHITE-ACRYLIC-12MM	36			1.320	47.520
						47.520
Edging	**Description**	**Quantity**			**Cost/m**	**Total**
OAK-TAPE-22MM	Oak PVC Tape 22mm	167.700			0.840	140.868
						140.868
Fitting	**Description**	**Quantity**			**Cost**	**Total**
Z-DOWEL	Dowel	485			0.120	58.200
Z-DRAWER-SCREW	Acrylic drawer screw	65			0.120	7.800
Z-RUNNER	Drawer runner	24			0.430	10.320
Z-SHELF-SUPPORT	Shelf support	85			0.190	16.150
Z-SINGLE	Single Knob	47			0.950	44.650
ZDD4B-BROWN-HAND...	Handle 4" D Brown	8			0.950	7.600
ZH180-HINGE	Hinge 180 HKK123-321	82			0.400	32.800
ZS25-6-ROUND-SCREW	Round Screw 25mm No6	283			0.010	2.830
ZS40-8-CSUNK-SCREW	Csunk Screw 40mm No8	88			0.010	0.880
						181.230

Fig. 10

Product labels - design and print labels for products and parts. Labels can include drawings, graphics and bar codes.



GLOBAL FURNITURE LTD

Order Ref:	Title:
BSR CD-81	Kitchen layout

PRODUCT DETAILS
BASE-DOUBLE
003 Double base unit
W: 1000.0 x H: 870.0 x D: 600.0
Qty: 1
BSR CD-81

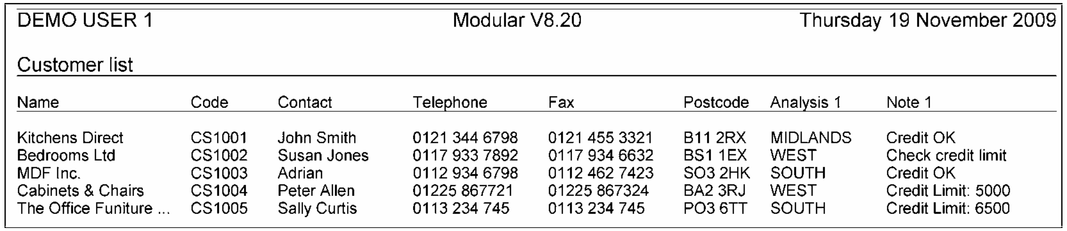
GLOBAL FURNITURE LTD

Order Ref:	Title:
BSR CD-81	Kitchen layout

PRODUCT DETAILS
BASE-DRAWER
004 Drawers-MFC18-OAK
W: 500.0 x H: 870.0 x D: 600.0
Qty: 1
BSR CD-81

Fig. 11

Customer database - use the customer database to hold the full contact details for each customer.



DEMO USER 1 Modular V8.20 Thursday 19 November 2009

Customer list

Name	Code	Contact	Telephone	Fax	Postcode	Analysis 1	Note 1
Kitchens Direct	CS1001	John Smith	0121 344 6798	0121 455 3321	B11 2RX	MIDLANDS	Credit OK
Bedrooms Ltd	CS1002	Susan Jones	0117 933 7892	0117 934 6632	BS1 1EX	WEST	Check credit limit
MDF Inc.	CS1003	Adrian	0112 934 6798	0112 462 7423	SO3 2HK	SOUTH	Credit OK
Cabinets & Chairs	CS1004	Peter Allen	01225 867721	01225 867324	BA2 3RJ	WEST	Credit Limit: 5000
The Office Funiture ...	CS1005	Sally Curtis	0113 234 745	0113 234 745	PO3 6TT	SOUTH	Credit Limit: 6500

Fig. 12

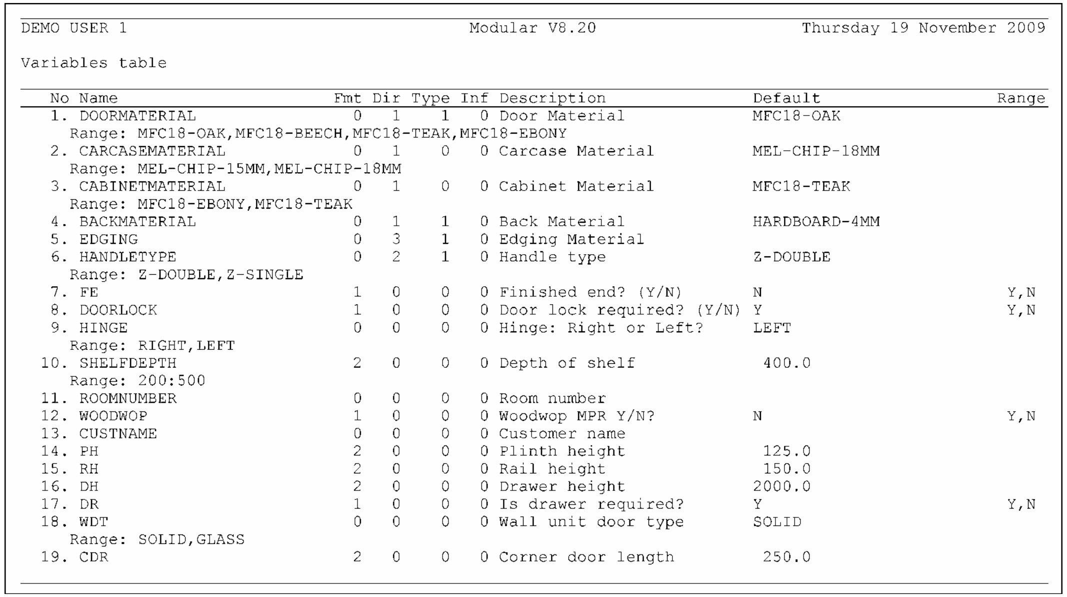
The database includes fields for custom analysis codes and for different pricing and discount options which are fully integrated with the products and order processing.

Variables, Formulae, Answers

The product library can be used to set up a single definition for a group of products. Typically the basic construction is the same but several items such as doors, colour, sizes may vary across the range. To do this the product definition must be flexible enough so these items can vary depending on style and colour chosen. A set of tables are used to set up the Variables, Formula and default answers.

The variables table is where the variables are set up. Typical examples are variables for the door colour, carcase material, type of handle etc.

Variables table - stores all the variables used in defining products and parts.



```
DEMO USER 1                                   Modular V8.20                     Thursday 19 November 2009

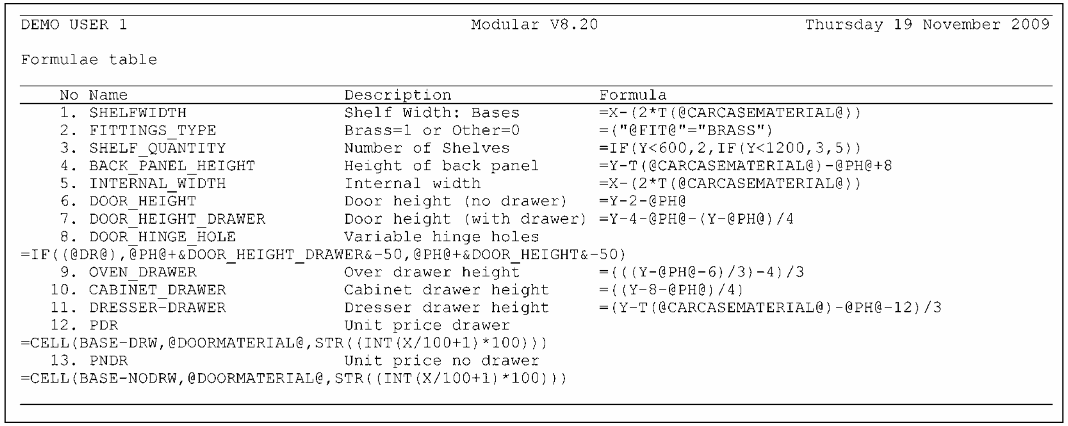
Variables table

   No Name                      Fmt Dir Type Inf Description               Default                  Range
   1. DOORMATERIAL                0   1    1   0 Door Material             MFC18-OAK
     Range: MFC18-OAK,MFC18-BEECH,MFC18-TEAK,MFC18-EBONY
   2. CARCASEMATERIAL             0   1    0   0 Carcase Material          MEL-CHIP-18MM
     Range: MEL-CHIP-15MM,MEL-CHIP-18MM
   3. CABINETMATERIAL             0   1    0   0 Cabinet Material          MFC18-TEAK
     Range: MFC18-EBONY,MFC18-TEAK
   4. BACKMATERIAL                0   1    1   0 Back Material             HARDBOARD-4MM
   5. EDGING                      0   3    1   0 Edging Material
   6. HANDLETYPE                  0   2    1   0 Handle type               Z-DOUBLE
     Range: Z-DOUBLE,Z-SINGLE
   7. FE                          1   0    0   0 Finished end? (Y/N)       N                         Y,N
   8. DOORLOCK                    1   0    0   0 Door lock required? (Y/N) Y                         Y,N
   9. HINGE                       0   0    0   0 Hinge: Right or Left?     LEFT
     Range: RIGHT,LEFT
  10. SHELFDEPTH                  2   0    0   0 Depth of shelf             400.0
     Range: 200:500
  11. ROOMNUMBER                  0   0    0   0 Room number
  12. WOODWOP                     1   0    0   0 Woodwop MPR Y/N?          N                         Y,N
  13. CUSTNAME                    0   0    0   0 Customer name
  14. PH                          2   0    0   0 Plinth height              125.0
  15. RH                          2   0    0   0 Rail height                150.0
  16. DH                          2   0    0   0 Drawer height             2000.0
  17. DR                          1   0    0   0 Is drawer required?       Y                         Y,N
  18. WDT                         0   0    0   0 Wall unit door type       SOLID
     Range: SOLID,GLASS
  19. CDR                         2   0    0   0 Corner door length         250.0
```

Fig. 13

The library can include a full description of the variable and include a default value and limit the range of values that can be entered. This helps to make entry of product requirements simpler and reduces errors when the order is entered.

Formula table - stores commonly used formula for Product and Part definitions.



```
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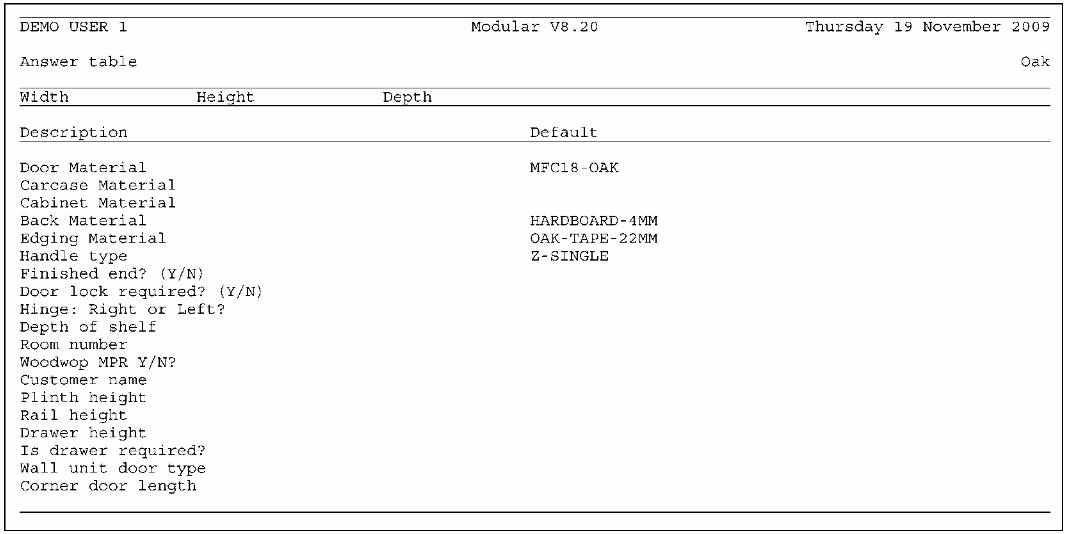
Formulae table

    No Name                      Description               Formula
    1. SHELFWIDTH                Shelf Width: Bases        =X-(2*T(@CARCASEMATERIAL@))
    2. FITTINGS_TYPE             Brass=1 or Other=0        =("@FIT@"="BRASS")
    3. SHELF_QUANTITY            Number of Shelves         =IF(Y<600,2,IF(Y<1200,3,5))
    4. BACK_PANEL_HEIGHT         Height of back panel      =Y-T(@CARCASEMATERIAL@)-@PH@+8
    5. INTERNAL_WIDTH            Internal width            =X-(2*T(@CARCASEMATERIAL@))
    6. DOOR_HEIGHT               Door height (no drawer)   =Y-2-@PH@
    7. DOOR_HEIGHT_DRAWER        Door height (with drawer) =Y-4-@PH@-(Y-@PH@)/4
    8. DOOR_HINGE_HOLE           Variable hinge holes
=IF((@DR@),@PH@+&DOOR_HEIGHT_DRAWER&-50,@PH@+&DOOR_HEIGHT&-50)
    9. OVEN_DRAWER               Over drawer height        =(((Y-@PH@-6)/3)-4)/3
   10. CABINET_DRAWER            Cabinet drawer height     =((Y-8-@PH@)/4)
   11. DRESSER-DRAWER            Dresser drawer height     =(Y-T(@CARCASEMATERIAL@)-@PH@-12)/3
   12. PDR                       Unit price drawer
=CELL(BASE-DRW,@DOORMATERIAL@,STR((INT(X/100+1)*100)))
   13. PNDR                      Unit price no drawer
=CELL(BASE-NODRW,@DOORMATERIAL@,STR((INT(X/100+1)*100)))
```

Fig. 14

Some formula in product definitions are used throughout a range of products. A typical example might be the calculation of the height of a plinth. Use the formula library to store the common definitions. This also helps to reduce errors and make the product definitions easier to read and change.

Answer table - stores a set of answers to variables which defines a specific range of products.



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DEMO USER 1                                   Modular V8.20                 Thursday 19 November 2009

Answer table                                                                                      Oak

Width              Height             Depth

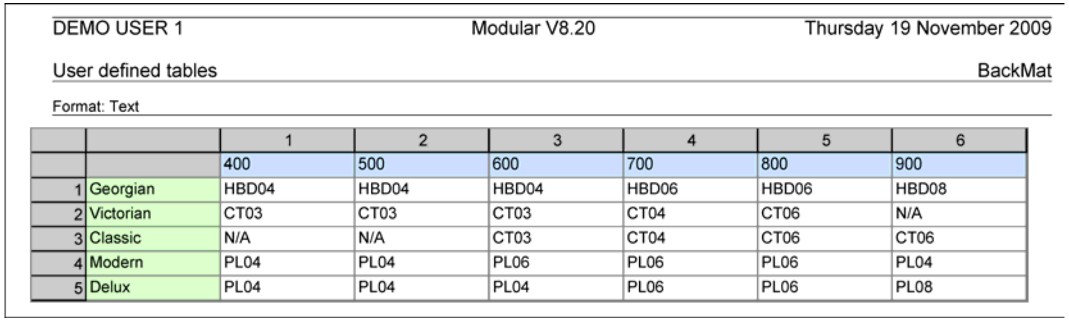
Description                                              Default

Door Material                                            MFC18-OAK
Carcase Material
Cabinet Material
Back Material                                            HARDBOARD-4MM
Edging Material                                          OAK-TAPE-22MM
Handle type                                              Z-SINGLE
Finished end? (Y/N)
Door lock required? (Y/N)
Hinge: Right or Left?
Depth of shelf
Room number
Woodwop MPR Y/N?
Customer name
Plinth height
Rail height
Drawer height
Is drawer required?
Wall unit door type
Corner door length
```

Fig. 15

For a range of products such as 'Country style' kitchen cabinets each product may have a large number of variable items but the answer to many of them, such as finish, or handles may be the same across the range. Use the answer tables allow to store a set of answers for each range.

User defined tables - these are used with formula for products to define more complex relations. In the example the table is used to determine which back material is used for cabinets. This depends on the model range and the cabinet size.



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User defined tables BackMat

Format: Text

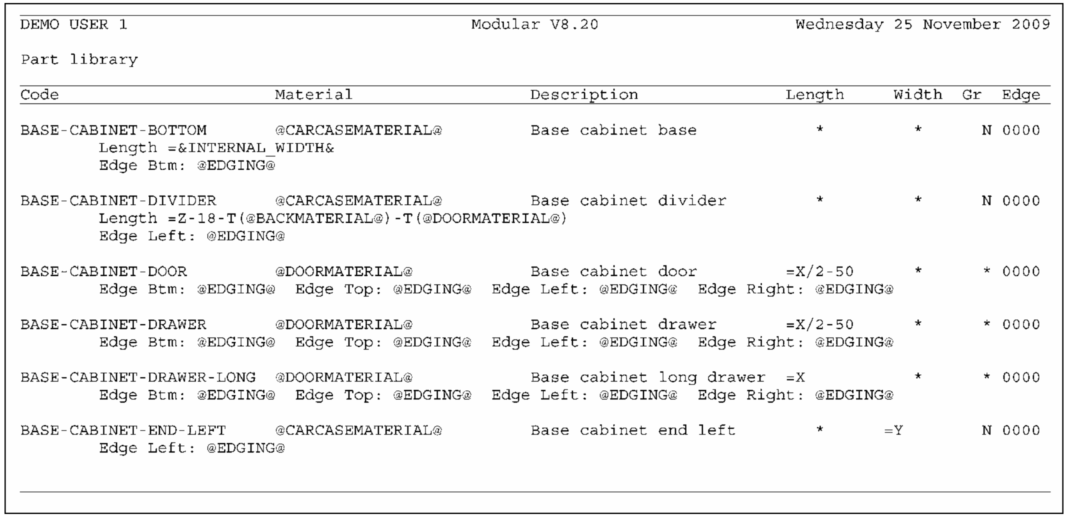
		1	2	3	4	5	6
		400	500	600	700	800	900
1	Georgian	HBD04	HBD04	HBD04	HBD06	HBD06	HBD08
2	Victorian	CT03	CT03	CT03	CT04	CT06	N/A
3	Classic	N/A	N/A	CT03	CT04	CT06	CT06
4	Modern	PL04	PL04	PL06	PL06	PL06	PL04
5	Delux	PL04	PL04	PL04	PL06	PL06	PL08

Fig. 16

Part library and Part labels

This section shows examples of the Part library and Part labels.

The Part library stores commonly used parts or parts defined with formula (which describe types or styles of part).



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Part library

Code                      Material                  Description               Length     Width  Gr  Edge

BASE-CABINET-BOTTOM       @CARCASEMATERIAL@         Base cabinet base            *         *      N 0000
        Length =&INTERNAL_WIDTH&
        Edge Btm: @EDGING@

BASE-CABINET-DIVIDER      @CARCASEMATERIAL@         Base cabinet divider         *         *      N 0000
        Length =Z-18-T(@BACKMATERIAL@)-T(@DOORMATERIAL@)
        Edge Left: @EDGING@

BASE-CABINET-DOOR         @DOORMATERIAL@            Base cabinet door         =X/2-50      *      * 0000
        Edge Btm: @EDGING@  Edge Top: @EDGING@  Edge Left: @EDGING@  Edge Right: @EDGING@

BASE-CABINET-DRAWER       @DOORMATERIAL@            Base cabinet drawer       =X/2-50      *      * 0000
        Edge Btm: @EDGING@  Edge Top: @EDGING@  Edge Left: @EDGING@  Edge Right: @EDGING@

BASE-CABINET-DRAWER-LONG  @DOORMATERIAL@            Base cabinet long drawer  =X           *      * 0000
        Edge Btm: @EDGING@  Edge Top: @EDGING@  Edge Left: @EDGING@  Edge Right: @EDGING@

BASE-CABINET-END-LEFT     @CARCASEMATERIAL@         Base cabinet end left        *      =Y        N 0000
        Edge Left: @EDGING@
```

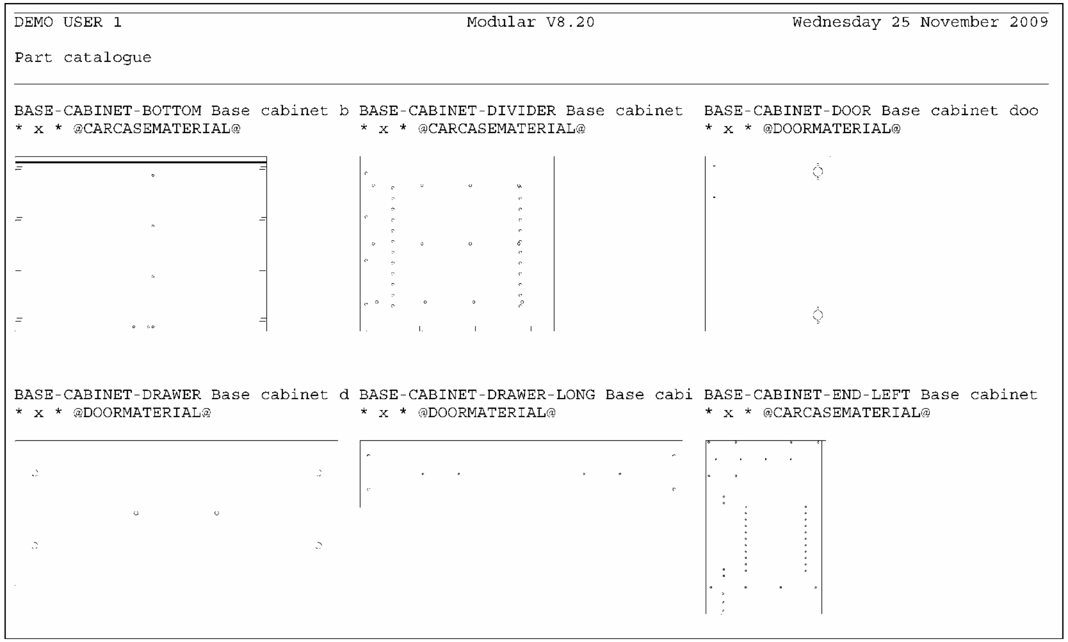
Fig. 17

The Part library also stores fittings (hardware) and operations such as assembly or packing.

With the label design option a variety of templates can be created for part labels.

Labels can be printed in the office or at the saw.

Part library - catalog view of parts in the Part library.



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Part catalogue

BASE-CABINET-BOTTOM Base cabinet b BASE-CABINET-DIVIDER Base cabinet  BASE-CABINET-DOOR Base cabinet doo
* x * @CARCASEMATERIAL@            * x * @CARCASEMATERIAL@            * x * @DOORMATERIAL@

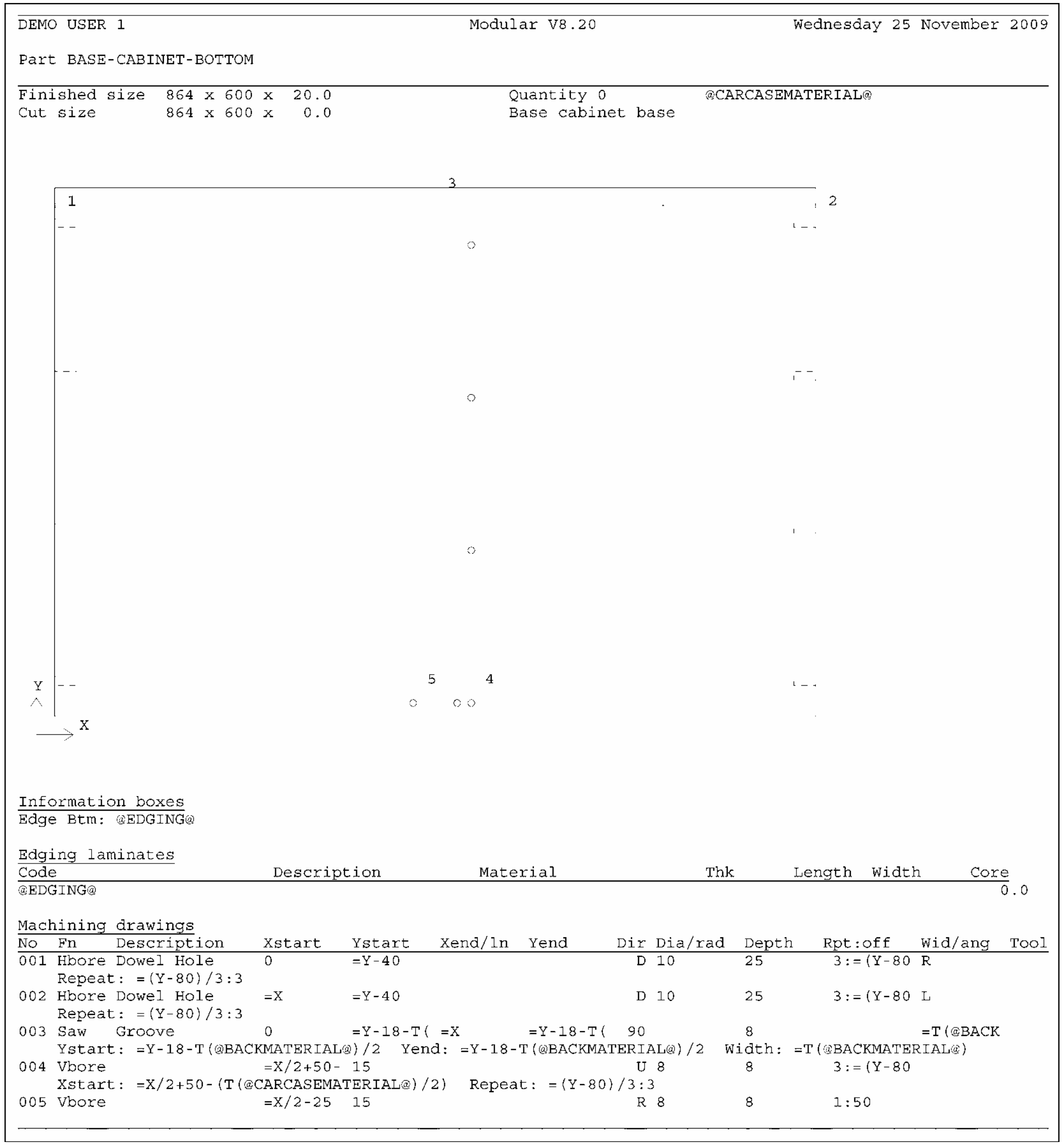
BASE-CABINET-DRAWER Base cabinet d BASE-CABINET-DRAWER-LONG Base cabi BASE-CABINET-END-LEFT Base cabinet
* x * @DOORMATERIAL@               * x * @DOORMATERIAL@               * x * @CARCASEMATERIAL@
```

Fig. 18

The part library can contain a large variety of parts.

Some parts including machining and routing instructions. Some plain parts may not need any machining or an associated drawing.

Part library details - full information for each part including drawing and machining instructions.



```
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Part BASE-CABINET-BOTTOM

Finished size  864 x 600 x  20.0                  Quantity 0          @CARCASEMATERIAL@
Cut size       864 x 600 x   0.0                  Base cabinet base

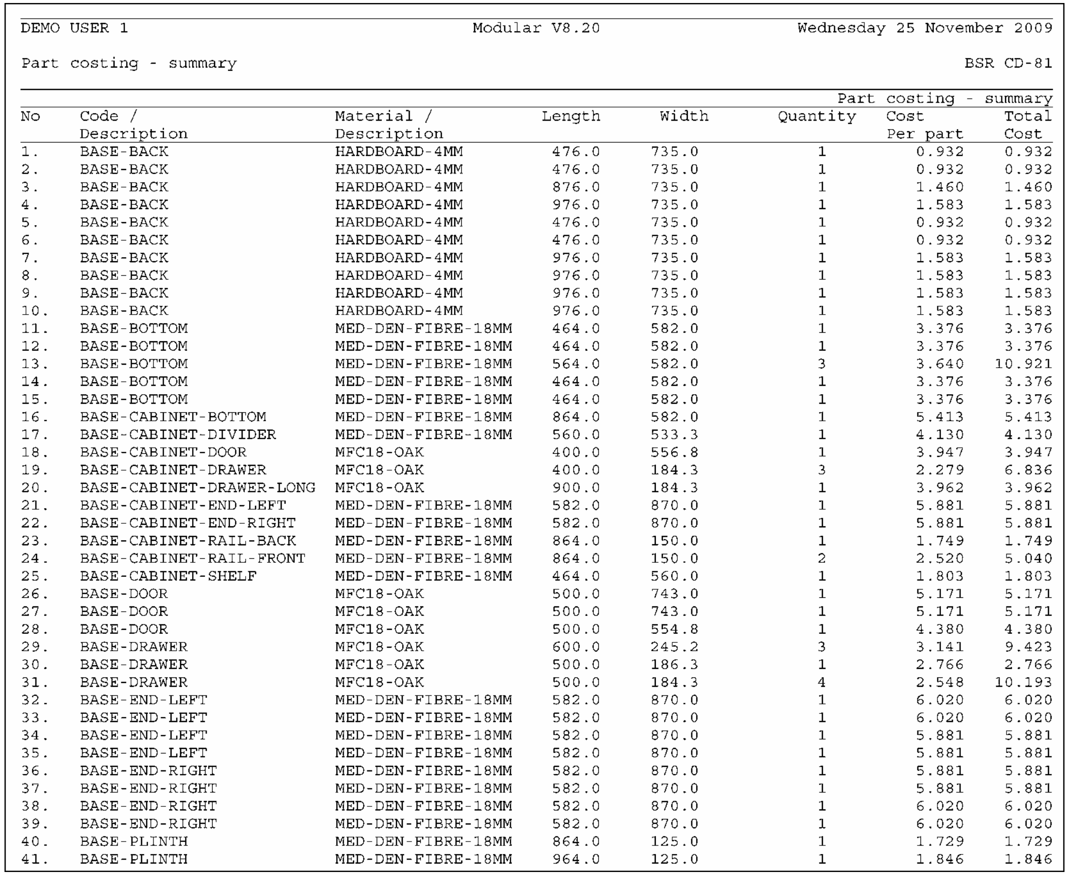
Information boxes
Edge Btm: @EDGING@

Edging laminates
Code                      Description          Material               Thk      Length  Width     Core
@EDGING@                                                                                            0.0

Machining drawings
No  Fn    Description    Xstart   Ystart   Xend/ln  Yend     Dir Dia/rad  Depth   Rpt:off   Wid/ang  Tool
001 Hbore Dowel Hole     0        =Y-40                        D 10       25         3:=(Y-80 R
    Repeat: =(Y-80)/3:3
002 Hbore Dowel Hole     =X       =Y-40                        D 10       25         3:=(Y-80 L
    Repeat: =(Y-80)/3:3
003 Saw   Groove         0        =Y-18-T( =X       =Y-18-T(  90          8                  =T(@BACK
    Ystart: =Y-18-T(@BACKMATERIAL@)/2  Yend: =Y-18-T(@BACKMATERIAL@)/2  Width: =T(@BACKMATERIAL@)
004 Vbore                =X/2+50- 15                           U 8        8          3:=(Y-80
    Xstart: =X/2+50-(T(@CARCASEMATERIAL@)/2)  Repeat: =(Y-80)/3:3
005 Vbore                =X/2-25  15                           R 8        8          1:50
```

Fig. 19

Part costing summary - shows a summary of the costing for each part in an optimisation of a list of product requirements or a list of parts.



```
DEMO USER 1                                   Modular V8.20                      Wednesday 25 November 2009

Part costing - summary                                                                            BSR CD-81

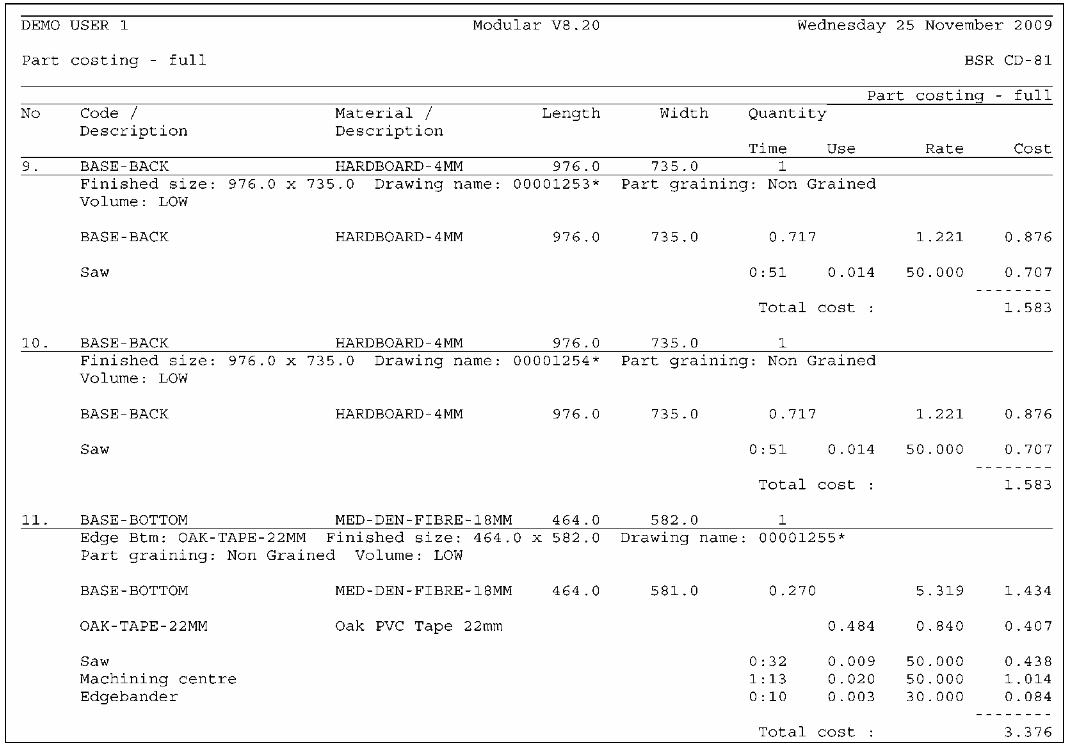
                                                                                     Part costing - summary
No    Code /                    Material /           Length     Width      Quantity  Cost           Total
      Description               Description                                          Per part       Cost
1.    BASE-BACK                 HARDBOARD-4MM         476.0     735.0             1         0.932    0.932
2.    BASE-BACK                 HARDBOARD-4MM         476.0     735.0             1         0.932    0.932
3.    BASE-BACK                 HARDBOARD-4MM         876.0     735.0             1         1.460    1.460
4.    BASE-BACK                 HARDBOARD-4MM         976.0     735.0             1         1.583    1.583
5.    BASE-BACK                 HARDBOARD-4MM         476.0     735.0             1         0.932    0.932
6.    BASE-BACK                 HARDBOARD-4MM         476.0     735.0             1         0.932    0.932
7.    BASE-BACK                 HARDBOARD-4MM         976.0     735.0             1         1.583    1.583
8.    BASE-BACK                 HARDBOARD-4MM         976.0     735.0             1         1.583    1.583
9.    BASE-BACK                 HARDBOARD-4MM         976.0     735.0             1         1.583    1.583
10.   BASE-BACK                 HARDBOARD-4MM         976.0     735.0             1         1.583    1.583
11.   BASE-BOTTOM               MED-DEN-FIBRE-18MM    464.0     582.0             1         3.376    3.376
12.   BASE-BOTTOM               MED-DEN-FIBRE-18MM    464.0     582.0             1         3.376    3.376
13.   BASE-BOTTOM               MED-DEN-FIBRE-18MM    564.0     582.0             3         3.640   10.921
14.   BASE-BOTTOM               MED-DEN-FIBRE-18MM    464.0     582.0             1         3.376    3.376
15.   BASE-BOTTOM               MED-DEN-FIBRE-18MM    464.0     582.0             1         3.376    3.376
16.   BASE-CABINET-BOTTOM       MED-DEN-FIBRE-18MM    864.0     582.0             1         5.413    5.413
17.   BASE-CABINET-DIVIDER      MED-DEN-FIBRE-18MM    560.0     533.3             1         4.130    4.130
18.   BASE-CABINET-DOOR         MFC18-OAK             400.0     556.8             1         3.947    3.947
19.   BASE-CABINET-DRAWER       MFC18-OAK             400.0     184.3             3         2.279    6.836
20.   BASE-CABINET-DRAWER-LONG  MFC18-OAK             900.0     184.3             1         3.962    3.962
21.   BASE-CABINET-END-LEFT     MED-DEN-FIBRE-18MM    582.0     870.0             1         5.881    5.881
22.   BASE-CABINET-END-RIGHT    MED-DEN-FIBRE-18MM    582.0     870.0             1         5.881    5.881
23.   BASE-CABINET-RAIL-BACK    MED-DEN-FIBRE-18MM    864.0     150.0             1         1.749    1.749
24.   BASE-CABINET-RAIL-FRONT   MED-DEN-FIBRE-18MM    864.0     150.0             2         2.520    5.040
25.   BASE-CABINET-SHELF        MED-DEN-FIBRE-18MM    464.0     560.0             1         1.803    1.803
26.   BASE-DOOR                 MFC18-OAK             500.0     743.0             1         5.171    5.171
27.   BASE-DOOR                 MFC18-OAK             500.0     743.0             1         5.171    5.171
28.   BASE-DOOR                 MFC18-OAK             500.0     554.8             1         4.380    4.380
29.   BASE-DRAWER               MFC18-OAK             600.0     245.2             3         3.141    9.423
30.   BASE-DRAWER               MFC18-OAK             500.0     186.3             1         2.766    2.766
31.   BASE-DRAWER               MFC18-OAK             500.0     184.3             4         2.548   10.193
32.   BASE-END-LEFT             MED-DEN-FIBRE-18MM    582.0     870.0             1         6.020    6.020
33.   BASE-END-LEFT             MED-DEN-FIBRE-18MM    582.0     870.0             1         6.020    6.020
34.   BASE-END-LEFT             MED-DEN-FIBRE-18MM    582.0     870.0             1         5.881    5.881
35.   BASE-END-LEFT             MED-DEN-FIBRE-18MM    582.0     870.0             1         5.881    5.881
36.   BASE-END-RIGHT            MED-DEN-FIBRE-18MM    582.0     870.0             1         5.881    5.881
37.   BASE-END-RIGHT            MED-DEN-FIBRE-18MM    582.0     870.0             1         5.881    5.881
38.   BASE-END-RIGHT            MED-DEN-FIBRE-18MM    582.0     870.0             1         6.020    6.020
39.   BASE-END-RIGHT            MED-DEN-FIBRE-18MM    582.0     870.0             1         6.020    6.020
40.   BASE-PLINTH               MED-DEN-FIBRE-18MM    864.0     125.0             1         1.729    1.729
41.   BASE-PLINTH               MED-DEN-FIBRE-18MM    964.0     125.0             1         1.846    1.846
```

Fig. 20

Shows the cost per part and the total cost based on the quantity of each part.

Export - part costing data can be exported to another system.

Part costing full - details of costing for a part after optimisation. Shows a breakdown of material and machine costs.



```
DEMO USER 1                                Modular V8.20                  Wednesday 25 November 2009

Part costing - full                                                                       BSR CD-81

                                                                                Part costing - full
No     Code /                    Material /              Length       Width    Quantity
       Description               Description
                                                                               Time     Use       Rate       Cost
9.     BASE-BACK                 HARDBOARD-4MM            976.0       735.0       1
       Finished size: 976.0 x 735.0  Drawing name: 00001253*  Part graining: Non Grained
       Volume: LOW

       BASE-BACK                 HARDBOARD-4MM            976.0       735.0       0.717          1.221      0.876

       Saw                                                                     0:51     0.014    50.000     0.707
                                                                                                          --------
                                                                                Total cost :                1.583

10.    BASE-BACK                 HARDBOARD-4MM            976.0       735.0       1
       Finished size: 976.0 x 735.0  Drawing name: 00001254*  Part graining: Non Grained
       Volume: LOW

       BASE-BACK                 HARDBOARD-4MM            976.0       735.0       0.717          1.221      0.876

       Saw                                                                     0:51     0.014    50.000     0.707
                                                                                                          --------
                                                                                Total cost :                1.583

11.    BASE-BOTTOM               MED-DEN-FIBRE-18MM       464.0       582.0       1
       Edge Btm: OAK-TAPE-22MM  Finished size: 464.0 x 582.0  Drawing name: 00001255*
       Part graining: Non Grained  Volume: LOW

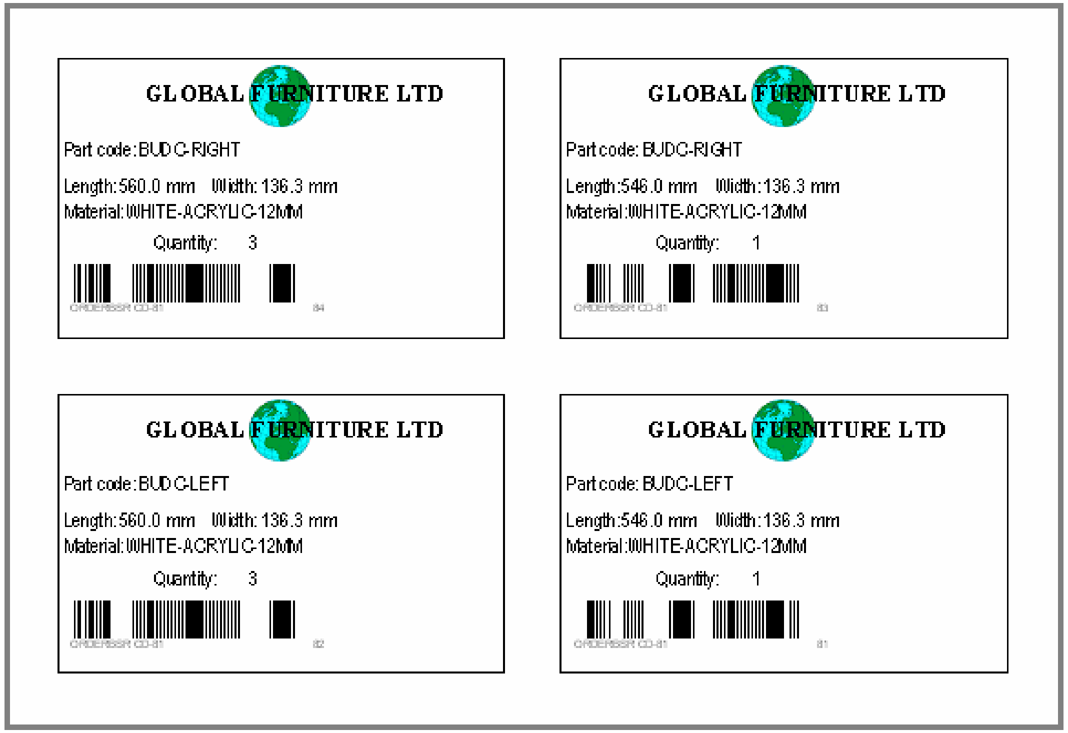
       BASE-BOTTOM               MED-DEN-FIBRE-18MM       464.0       581.0       0.270          5.319      1.434

       OAK-TAPE-22MM             Oak PVC Tape 22mm                                      0.484     0.840     0.407

       Saw                                                                     0:32     0.009    50.000     0.438
       Machining centre                                                        1:13     0.020    50.000     1.014
       Edgebander                                                              0:10     0.003    30.000     0.084
                                                                                                          --------
                                                                                Total cost :                3.376
```

Fig. 21

Part labels - flexible design options include drawings and barcodes.



GLOBAL FURNITURE LTD

Part code:BUDC-RIGHT

Length:560.0 mm Width:136.3 mm

Material:WHITE-ACRYLIC-12MM

Quantity: 3

GLOBAL FURNITURE LTD

Part code:BUDC-RIGHT

Length:546.0 mm Width:136.3 mm

Material:WHITE-ACRYLIC-12MM

Quantity: 1

GLOBAL FURNITURE LTD

Part code:BUDC-LEFT

Length:560.0 mm Width:136.3 mm

Material:WHITE-ACRYLIC-12MM

Quantity: 3

GLOBAL FURNITURE LTD

Part code:BUDC-LEFT

Length:546.0 mm Width:136.3 mm

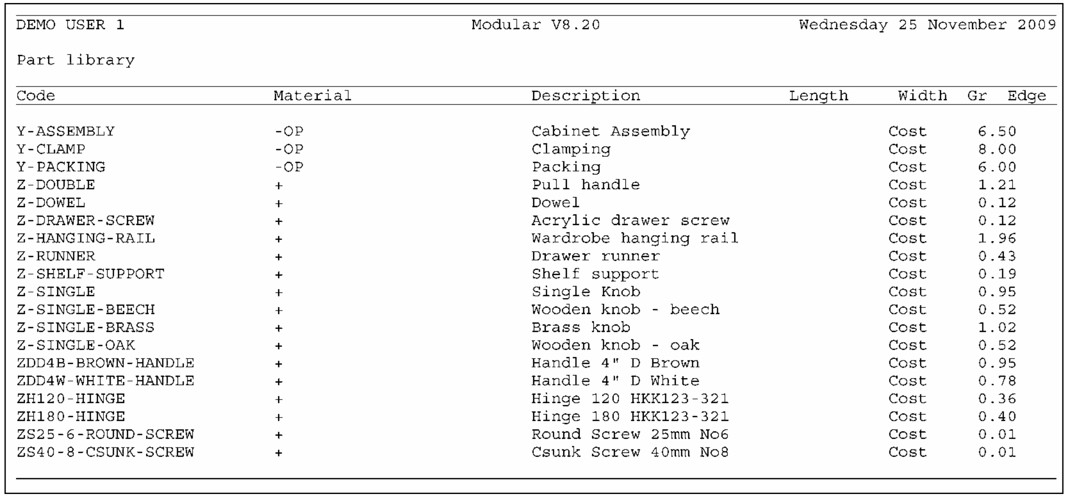
Material:WHITE-ACRYLIC-12MM

Quantity: 1

Fig. 22

Labels can be printed in part list sequence or cutting sequence.

Part library - fittings (hardware) - the part library can include fittings (hardware).



```
DEMO USER 1                                          Modular V8.20                        Wednesday 25 November 2009

Part library

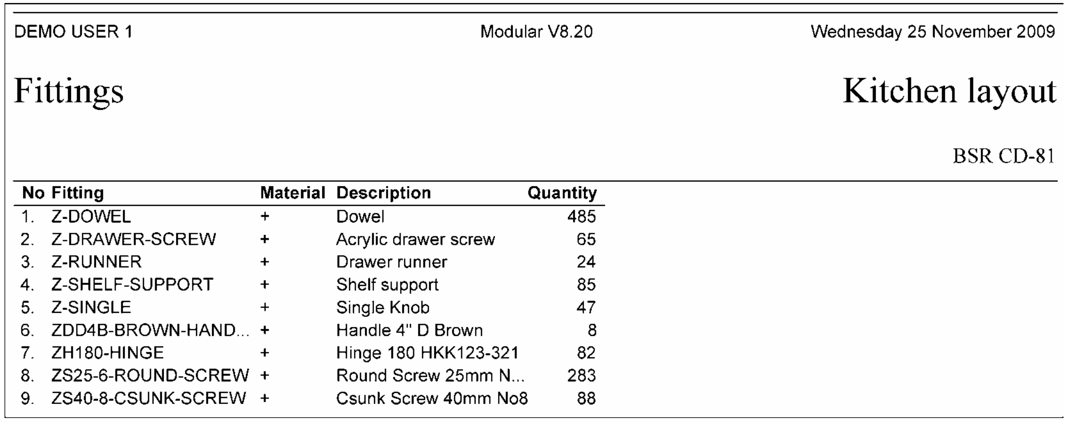
Code                          Material                      Description                   Length      Width   Gr   Edge

Y-ASSEMBLY                    -OP                           Cabinet Assembly                          Cost     6.50
Y-CLAMP                       -OP                           Clamping                                  Cost     8.00
Y-PACKING                     -OP                           Packing                                   Cost     6.00
Z-DOUBLE                      +                             Pull handle                               Cost     1.21
Z-DOWEL                       +                             Dowel                                     Cost     0.12
Z-DRAWER-SCREW                +                             Acrylic drawer screw                      Cost     0.12
Z-HANGING-RAIL                +                             Wardrobe hanging rail                     Cost     1.96
Z-RUNNER                      +                             Drawer runner                             Cost     0.43
Z-SHELF-SUPPORT               +                             Shelf support                             Cost     0.19
Z-SINGLE                      +                             Single Knob                               Cost     0.95
Z-SINGLE-BEECH                +                             Wooden knob - beech                       Cost     0.52
Z-SINGLE-BRASS                +                             Brass knob                                Cost     1.02
Z-SINGLE-OAK                  +                             Wooden knob - oak                         Cost     0.52
ZDD4B-BROWN-HANDLE            +                             Handle 4" D Brown                         Cost     0.95
ZDD4W-WHITE-HANDLE            +                             Handle 4" D White                         Cost     0.78
ZH120-HINGE                   +                             Hinge 120 HKK123-321                      Cost     0.36
ZH180-HINGE                   +                             Hinge 180 HKK123-321                      Cost     0.40
ZS25-6-ROUND-SCREW            +                             Round Screw 25mm No6                      Cost     0.01
ZS40-8-CSUNK-SCREW            +                             Csunk Screw 40mm No8                      Cost     0.01
```

Fig. 23

In this case fields such as length and width are not used.

If fittings are included in product definitions a fittings summary for any optimisation (run) is available. This can be used as a picking list.



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Fittings

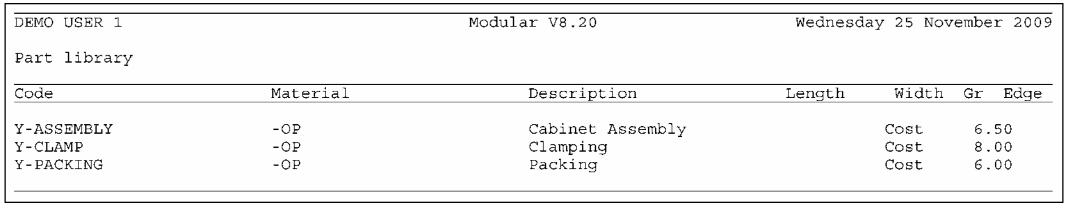
Kitchen layout

BSR CD-81

No	Fitting	Material	Description	Quantity
1.	Z-DOWEL	+	Dowel	485
2.	Z-DRAWER-SCREW	+	Acrylic drawer screw	65
3.	Z-RUNNER	+	Drawer runner	24
4.	Z-SHELF-SUPPORT	+	Shelf support	85
5.	Z-SINGLE	+	Single Knob	47
6.	ZDD4B-BROWN-HAND...	+	Handle 4" D Brown	8
7.	ZH180-HINGE	+	Hinge 180 HKK123-321	82
8.	ZS25-6-ROUND-SCREW	+	Round Screw 25mm N...	283
9.	ZS40-8-CSUNK-SCREW	+	Csunk Screw 40mm No8	88

Fig. 24

Part library - operations - the part library can include operations on a part, such as clamping, assembly and packing.



```
DEMO USER 1                              Modular V8.20                       Wednesday 25 November 2009

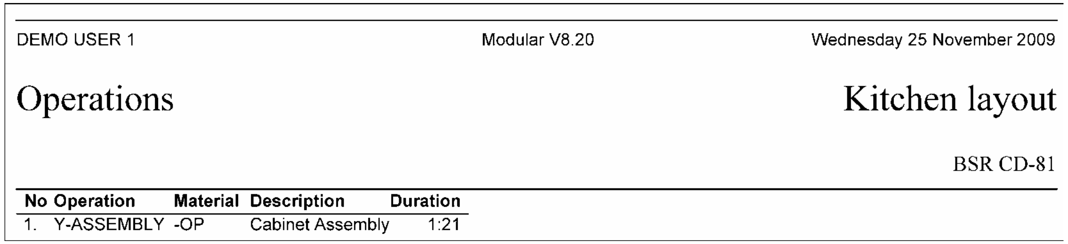
Part library
Code                      Material                  Description               Length     Width  Gr  Edge

Y-ASSEMBLY                -OP                       Cabinet Assembly                     Cost     6.50
Y-CLAMP                   -OP                       Clamping                             Cost     8.00
Y-PACKING                 -OP                       Packing                              Cost     6.00
```

Fig. 25

In this case fields such as length and width are not used.

If operations are included in product definitions an operations summary for any optimisation (run) is available.



DEMO USER 1 Modular V8.20 Wednesday 25 November 2009

Operations

Kitchen layout

BSR CD-81

No	Operation	Material	Description	Duration
1.	Y-ASSEMBLY	-OP	Cabinet Assembly	1:21

Fig. 26

Edging and Laminating

This section shows examples of the printed reports for Edging and Laminating.

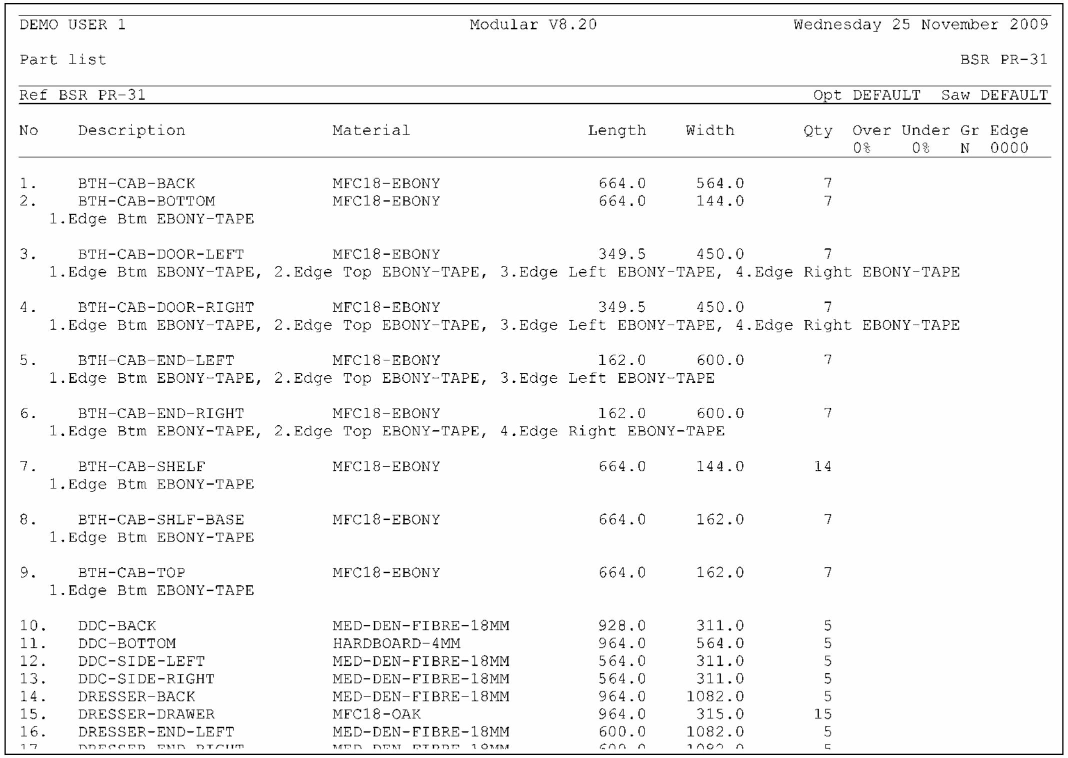
Edging and laminating material and operations are set up in the Edging Library.

The program uses this information to calculate the cut sizes for a run ready for optimisation. The edging library also includes costing information.

The part list entered (whether created automatically from the product requirements or entered manually) is usually based on the Finished size and if a part has edging or laminate applied the actual cut size for the core material and the laminate will be different from the finished size to allow for the edging and laminating operations.

Colours and combination materials - the program also includes facilities to deal with extensive use of colours and with combination or pre-laminated materials that are produced as required.

Edging - details in Part list. Part list with edging details included.



```
DEMO USER 1                                   Modular V8.20                          Wednesday 25 November 2009

Part list                                                                                            BSR PR-31

Ref BSR PR-31                                                                              Opt DEFAULT  Saw DEFAULT

No     Description               Material                    Length    Width        Qty  Over Under Gr Edge
                                                                                          0%    0%  N  0000

1.     BTH-CAB-BACK              MFC18-EBONY                  664.0     564.0         7
2.     BTH-CAB-BOTTOM            MFC18-EBONY                  664.0     144.0         7
   1.Edge Btm EBONY-TAPE

3.     BTH-CAB-DOOR-LEFT         MFC18-EBONY                  349.5     450.0         7
   1.Edge Btm EBONY-TAPE, 2.Edge Top EBONY-TAPE, 3.Edge Left EBONY-TAPE, 4.Edge Right EBONY-TAPE

4.     BTH-CAB-DOOR-RIGHT        MFC18-EBONY                  349.5     450.0         7
   1.Edge Btm EBONY-TAPE, 2.Edge Top EBONY-TAPE, 3.Edge Left EBONY-TAPE, 4.Edge Right EBONY-TAPE

5.     BTH-CAB-END-LEFT          MFC18-EBONY                  162.0     600.0         7
   1.Edge Btm EBONY-TAPE, 2.Edge Top EBONY-TAPE, 3.Edge Left EBONY-TAPE

6.     BTH-CAB-END-RIGHT         MFC18-EBONY                  162.0     600.0         7
   1.Edge Btm EBONY-TAPE, 2.Edge Top EBONY-TAPE, 4.Edge Right EBONY-TAPE

7.     BTH-CAB-SHELF             MFC18-EBONY                  664.0     144.0        14
   1.Edge Btm EBONY-TAPE

8.     BTH-CAB-SHLF-BASE         MFC18-EBONY                  664.0     162.0         7
   1.Edge Btm EBONY-TAPE

9.     BTH-CAB-TOP               MFC18-EBONY                  664.0     162.0         7
   1.Edge Btm EBONY-TAPE

10.    DDC-BACK                  MED-DEN-FIBRE-18MM           928.0     311.0         5
11.    DDC-BOTTOM                HARDBOARD-4MM                964.0     564.0         5
12.    DDC-SIDE-LEFT             MED-DEN-FIBRE-18MM           564.0     311.0         5
13.    DDC-SIDE-RIGHT            MED-DEN-FIBRE-18MM           564.0     311.0         5
14.    DRESSER-BACK              MED-DEN-FIBRE-18MM           964.0    1082.0         5
15.    DRESSER-DRAWER            MFC18-OAK                    964.0     315.0        15
16.    DRESSER-END-LEFT          MED-DEN-FIBRE-18MM           600.0    1082.0         5
17.    DRESSER-END-RIGHT         MED-DEN-FIBRE-18MM           600.0    1082.0         5
```

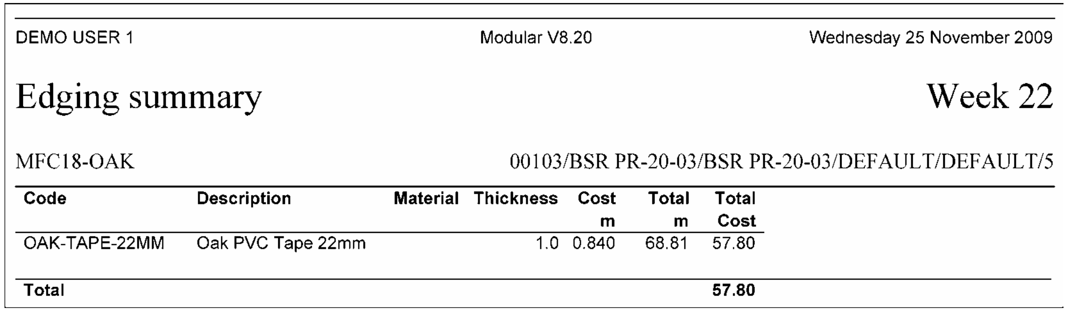
Fig. 27

Note that some parts have edging specified. The Edging is specified in the extra fields defined for the part list: Edge Btm, Edge Top etc.

(These extra fields are called 'Information boxes' and are set up via the Information box parameters).

In this case the Edging requirements are Tape.

Edging Summary - shows the edging requirements for an optimised run.



DEMO USER 1 Modular V8.20 Wednesday 25 November 2009

Edging summary Week 22

MFC18-OAK 00103/BSR PR-20-03/BSR PR-20-03/DEFAULT/DEFAULT/5

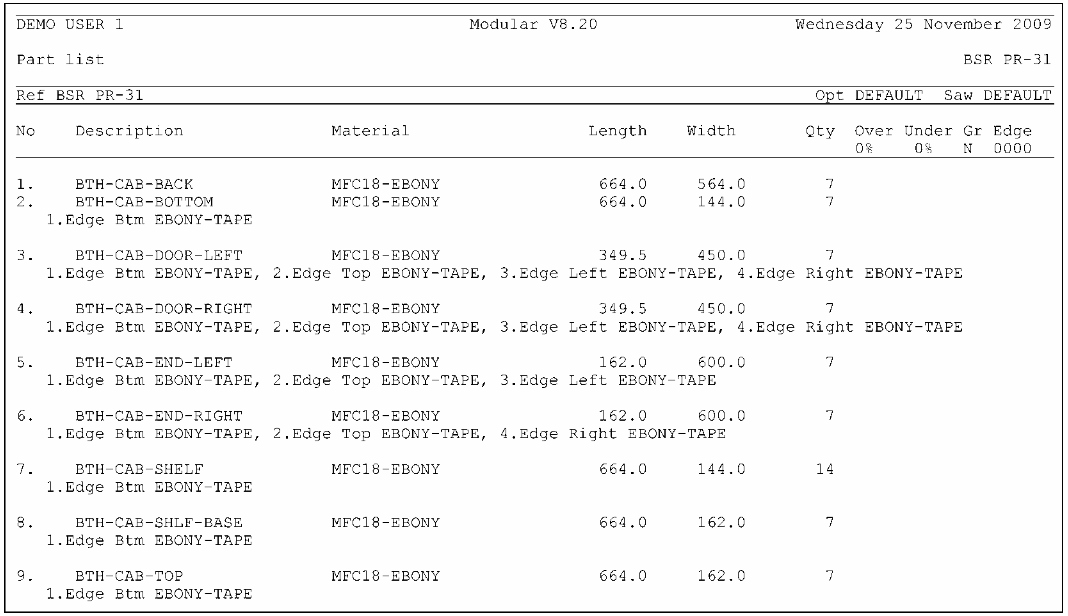
Code	**Description**	**Material**	**Thickness**	**Cost m**	**Total m**	**Total Cost**
OAK-TAPE-22MM	Oak PVC Tape 22mm		1.0	0.840	68.81	57.80
Total						**57.80**

Fig. 28

In this case the length of each type of Edging tape required.

Laminating - details in Part list

A part list can include details of the Front and Back laminate required.



```
DEMO USER 1                                   Modular V8.20                     Wednesday 25 November 2009

Part list                                                                                        BSR PR-31

Ref BSR PR-31                                                                     Opt DEFAULT  Saw DEFAULT

No    Description               Material                  Length    Width       Qty  Over Under Gr Edge
                                                                                     0%     0%  N  0000

1.    BTH-CAB-BACK              MFC18-EBONY                664.0     564.0        7
2.    BTH-CAB-BOTTOM            MFC18-EBONY                664.0     144.0        7
   1.Edge Btm EBONY-TAPE

3.    BTH-CAB-DOOR-LEFT         MFC18-EBONY                349.5     450.0        7
   1.Edge Btm EBONY-TAPE, 2.Edge Top EBONY-TAPE, 3.Edge Left EBONY-TAPE, 4.Edge Right EBONY-TAPE

4.    BTH-CAB-DOOR-RIGHT        MFC18-EBONY                349.5     450.0        7
   1.Edge Btm EBONY-TAPE, 2.Edge Top EBONY-TAPE, 3.Edge Left EBONY-TAPE, 4.Edge Right EBONY-TAPE

5.    BTH-CAB-END-LEFT          MFC18-EBONY                162.0     600.0        7
   1.Edge Btm EBONY-TAPE, 2.Edge Top EBONY-TAPE, 3.Edge Left EBONY-TAPE

6.    BTH-CAB-END-RIGHT         MFC18-EBONY                162.0     600.0        7
   1.Edge Btm EBONY-TAPE, 2.Edge Top EBONY-TAPE, 4.Edge Right EBONY-TAPE

7.    BTH-CAB-SHELF             MFC18-EBONY                664.0     144.0       14
   1.Edge Btm EBONY-TAPE

8.    BTH-CAB-SHLF-BASE         MFC18-EBONY                664.0     162.0        7
   1.Edge Btm EBONY-TAPE

9.    BTH-CAB-TOP               MFC18-EBONY                664.0     162.0        7
   1.Edge Btm EBONY-TAPE
```

Fig. 29

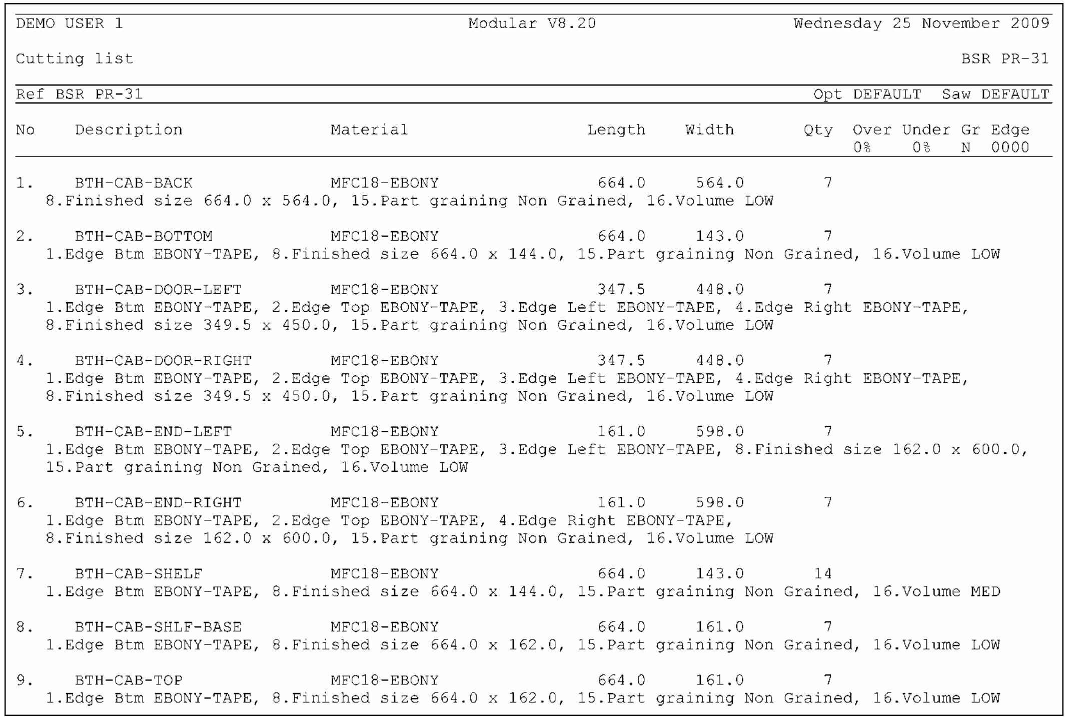
This enables the program to calculate the sizes of the laminate pieces required. These are added to the part list along with the core sizes and other non-laminated parts.

The Laminate data is specified in the extra fields defined for the part list: Front Laminate, Back Laminate.

(These extra fields are called Information boxes and are set up via the Information box parameters).

Laminating - details in Cutting list

Where laminate information is included the program automatically calculates the laminate sizes required and adds them to the Cutting list.



```
DEMO USER 1                                  Modular V8.20                          Wednesday 25 November 2009

Cutting list                                                                                        BSR PR-31

Ref BSR PR-31                                                                          Opt DEFAULT  Saw DEFAULT

No    Description               Material                  Length    Width       Qty  Over Under Gr Edge
                                                                                     0%    0%   N  0000

1.    BTH-CAB-BACK              MFC18-EBONY                664.0     564.0        7
   8.Finished size 664.0 x 564.0, 15.Part graining Non Grained, 16.Volume LOW

2.    BTH-CAB-BOTTOM            MFC18-EBONY                664.0     143.0        7
   1.Edge Btm EBONY-TAPE, 8.Finished size 664.0 x 144.0, 15.Part graining Non Grained, 16.Volume LOW

3.    BTH-CAB-DOOR-LEFT         MFC18-EBONY                347.5     448.0        7
   1.Edge Btm EBONY-TAPE, 2.Edge Top EBONY-TAPE, 3.Edge Left EBONY-TAPE, 4.Edge Right EBONY-TAPE,
   8.Finished size 349.5 x 450.0, 15.Part graining Non Grained, 16.Volume LOW

4.    BTH-CAB-DOOR-RIGHT        MFC18-EBONY                347.5     448.0        7
   1.Edge Btm EBONY-TAPE, 2.Edge Top EBONY-TAPE, 3.Edge Left EBONY-TAPE, 4.Edge Right EBONY-TAPE,
   8.Finished size 349.5 x 450.0, 15.Part graining Non Grained, 16.Volume LOW

5.    BTH-CAB-END-LEFT          MFC18-EBONY                161.0     598.0        7
   1.Edge Btm EBONY-TAPE, 2.Edge Top EBONY-TAPE, 3.Edge Left EBONY-TAPE, 8.Finished size 162.0 x 600.0,
   15.Part graining Non Grained, 16.Volume LOW

6.    BTH-CAB-END-RIGHT         MFC18-EBONY                161.0     598.0        7
   1.Edge Btm EBONY-TAPE, 2.Edge Top EBONY-TAPE, 4.Edge Right EBONY-TAPE,
   8.Finished size 162.0 x 600.0, 15.Part graining Non Grained, 16.Volume LOW

7.    BTH-CAB-SHELF             MFC18-EBONY                664.0     143.0       14
   1.Edge Btm EBONY-TAPE, 8.Finished size 664.0 x 144.0, 15.Part graining Non Grained, 16.Volume MED

8.    BTH-CAB-SHLF-BASE         MFC18-EBONY                664.0     161.0        7
   1.Edge Btm EBONY-TAPE, 8.Finished size 664.0 x 162.0, 15.Part graining Non Grained, 16.Volume LOW

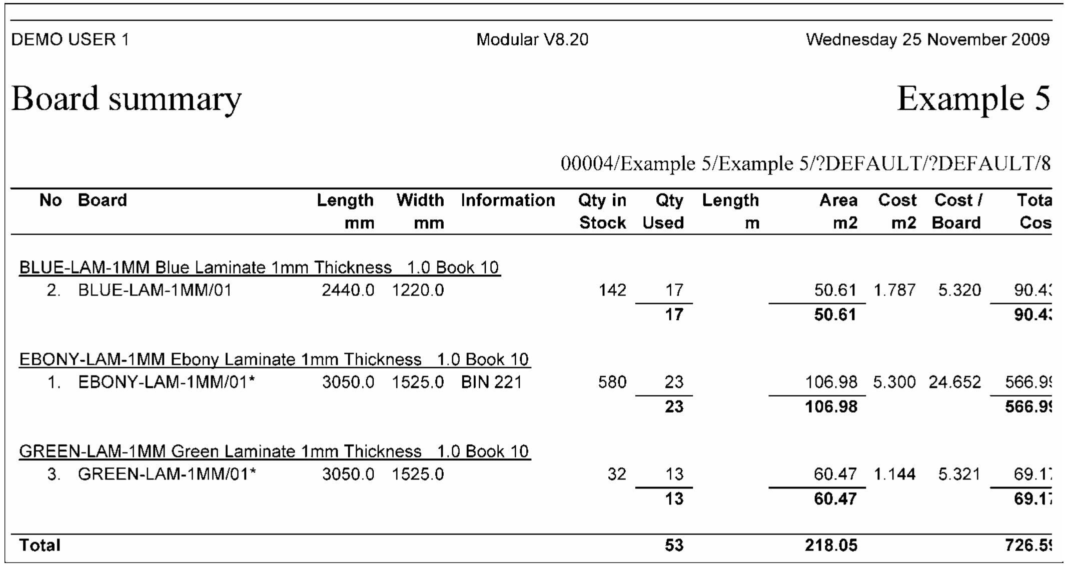
9.    BTH-CAB-TOP               MFC18-EBONY                664.0     161.0        7
   1.Edge Btm EBONY-TAPE, 8.Finished size 664.0 x 162.0, 15.Part graining Non Grained, 16.Volume LOW
```

Fig. 30

Note - the Cutting list includes the laminate sizes as a requirement (Lxxxx).

The core and laminates are then ready for optimising.

Laminate sheets - where the laminate requirement (e.g. for front or back laminate) is shown the laminate sheets are included in the optimisation as separate materials. For example, they are shown on the Board summary.



DEMO USER 1 Modular V8.20 Wednesday 25 November 2009

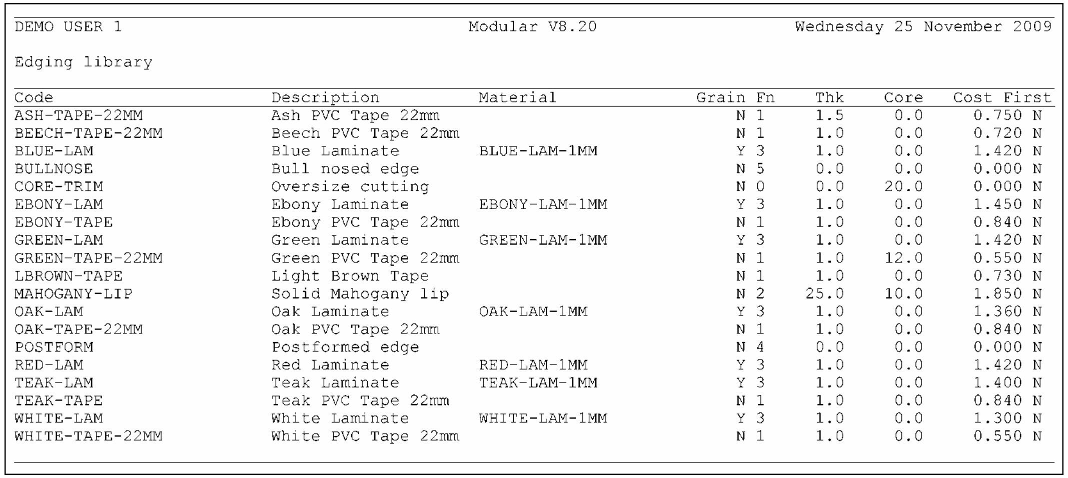
Board summary Example 5

00004/Example 5/Example 5/?DEFAULT/?DEFAULT/8

No	Board	Length mm	Width mm	Information	Qty in Stock	Qty Used	Length m	Area m2	Cost m2	Cost / Board	Tota Cos
BLUE-LAM-1MM Blue Laminate 1mm Thickness 1.0 Book 10											
2.	BLUE-LAM-1MM/01	2440.0	1220.0		142	17		50.61	1.787	5.320	90.4
						17		**50.61**			**90.4**
EBONY-LAM-1MM Ebony Laminate 1mm Thickness 1.0 Book 10											
1.	EBONY-LAM-1MM/01*	3050.0	1525.0	BIN 221	580	23		106.98	5.300	24.652	566.9
						23		**106.98**			**566.9**
GREEN-LAM-1MM Green Laminate 1mm Thickness 1.0 Book 10											
3.	GREEN-LAM-1MM/01*	3050.0	1525.0		32	13		60.47	1.144	5.321	69.1
						13		**60.47**			**69.1**
Total						**53**		**218.05**			**726.5**

Fig. 31

Edging library - stores edging materials and methods, for example, tape, laminate strips, solid edging, postform, bullnose.



```
DEMO USER 1                                   Modular V8.20                    Wednesday 25 November 2009

Edging library

Code                      Description          Material                  Grain Fn    Thk    Core   Cost First
ASH-TAPE-22MM             Ash PVC Tape 22mm                                N 1     1.5     0.0     0.750 N
BEECH-TAPE-22MM           Beech PVC Tape 22mm                              N 1     1.0     0.0     0.720 N
BLUE-LAM                  Blue Laminate        BLUE-LAM-1MM                Y 3     1.0     0.0     1.420 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-LAM                 Green Laminate       GREEN-LAM-1MM               Y 3     1.0     0.0     1.420 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                   Oak Laminate         OAK-LAM-1MM                 Y 3     1.0     0.0     1.360 N
OAK-TAPE-22MM             Oak PVC Tape 22mm                                N 1     1.0     0.0     0.840 N
POSTFORM                  Postformed edge                                  N 4     0.0     0.0     0.000 N
RED-LAM                   Red Laminate         RED-LAM-1MM                 Y 3     1.0     0.0     1.420 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-LAM                 White Laminate       WHITE-LAM-1MM               Y 3     1.0     0.0     1.300 N
WHITE-TAPE-22MM           White PVC Tape 22mm                              N 1     1.0     0.0     0.550 N
```

Fig. 32

The function number (Fn) sets the type of edging.

Note - Where the material is a sheet (e.g. for laminates) the material details can be stored in the Board library in the usual way and the Material code links to those details.

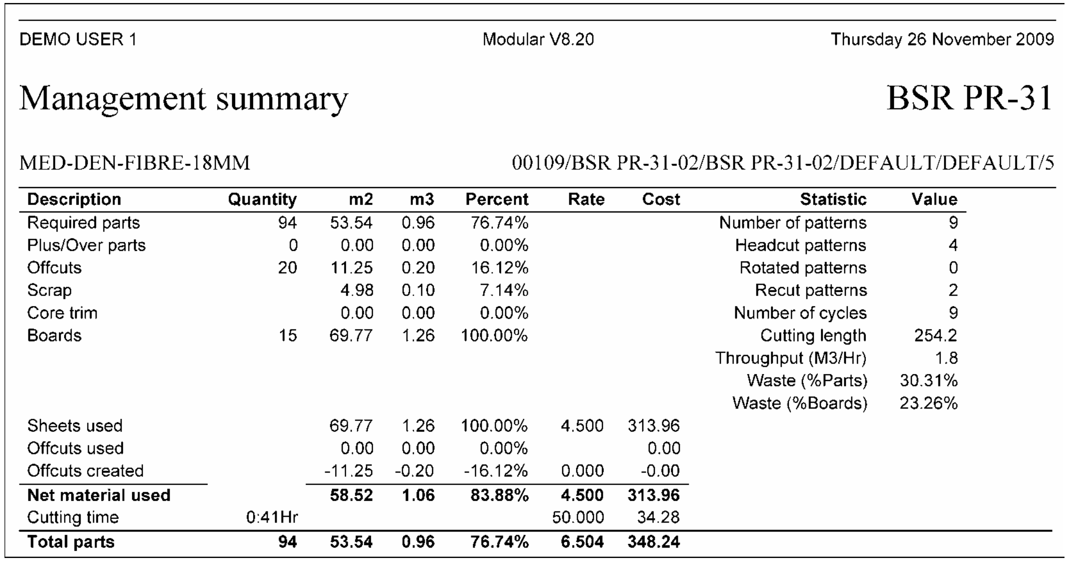
Optimising and transfer to saw

Whether working from orders, product requirements or part lists the program always generates a Cutting list (list of sizes for cutting) which is optimised to produce a set of Cutting patterns.

For each job (or run) there is a set of reports describing and analysing the run.

With Form Design it is possible to customise the existing reports and to create new fully customised reports.

***Management Summary* -** An overview of the run showing the material used, waste and costs.



DEMO USER 1 Modular V8.20 Thursday 26 November 2009

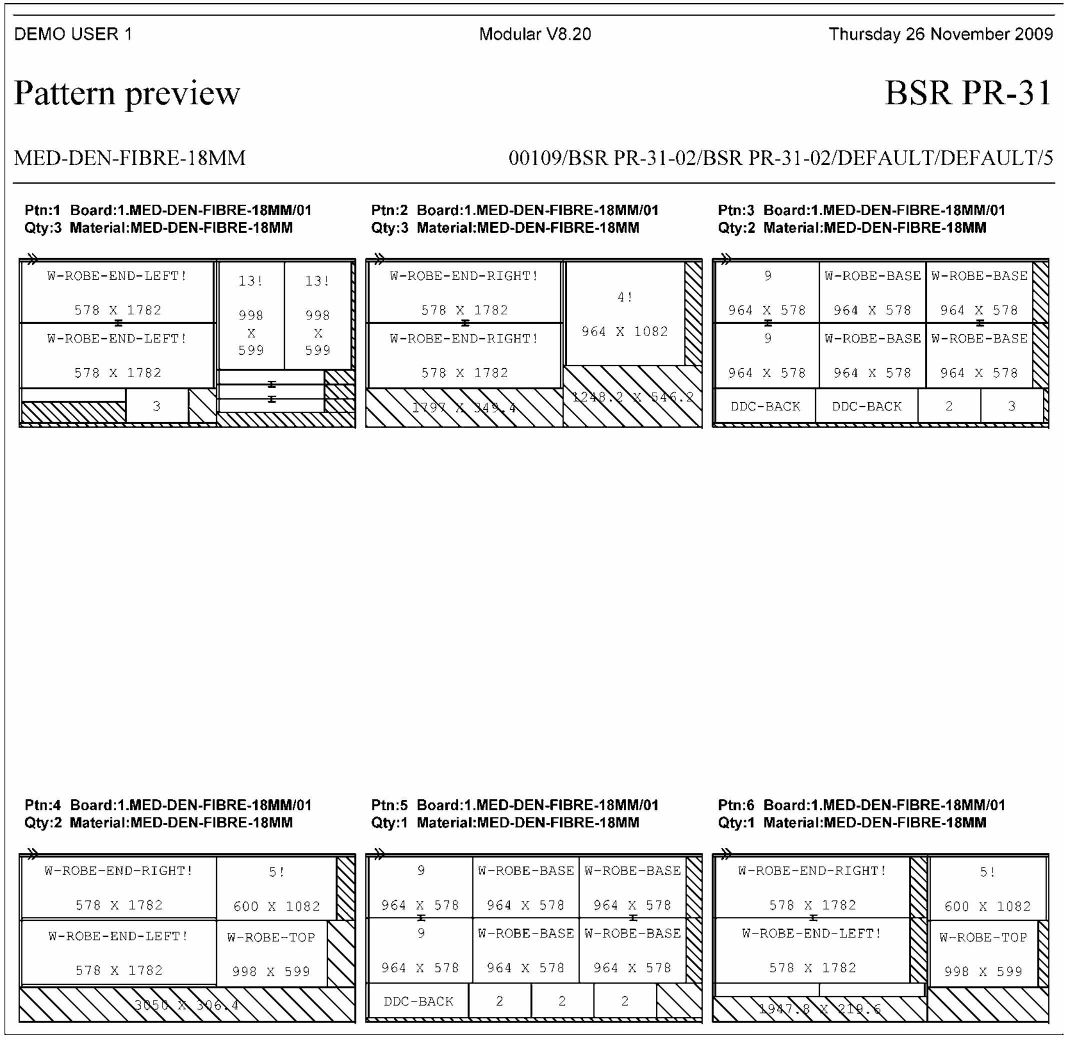
Management summary BSR PR-31

MED-DEN-FIBRE-18MM 00109/BSR PR-31-02/BSR PR-31-02/DEFAULT/DEFAULT/5

Description	Quantity	m2	m3	Percent	Rate	Cost	Statistic	Value
Required parts	94	53.54	0.96	76.74%			Number of patterns	9
Plus/Over parts	0	0.00	0.00	0.00%			Headcut patterns	4
Offcuts	20	11.25	0.20	16.12%			Rotated patterns	0
Scrap		4.98	0.10	7.14%			Recut patterns	2
Core trim		0.00	0.00	0.00%			Number of cycles	9
Boards	15	69.77	1.26	100.00%			Cutting length	254.2
							Throughput (M3/Hr)	1.8
							Waste (%Parts)	30.31%
							Waste (%Boards)	23.26%
Sheets used		69.77	1.26	100.00%	4.500	313.96		
Offcuts used		0.00	0.00	0.00%		0.00		
Offcuts created		-11.25	-0.20	-16.12%	0.000	-0.00		
Net material used		**58.52**	**1.06**	**83.88%**	**4.500**	**313.96**		
Cutting time	0:41Hr				50.000	34.28		
Total parts	**94**	**53.54**	**0.96**	**76.74%**	**6.504**	**348.24**		

Fig. 33

Pattern Preview - a thumbnail preview of the cutting patterns for a run



DEMO USER 1 Modular V8.20 Thursday 26 November 2009

Pattern preview BSR PR-31

MED-DEN-FIBRE-18MM 00109/BSR PR-31-02/BSR PR-31-02/DEFAULT/DEFAULT/5

Ptn:1 Board:1.MED-DEN-FIBRE-18MM/01
Qty:3 Material:MED-DEN-FIBRE-18MM

Ptn:2 Board:1.MED-DEN-FIBRE-18MM/01
Qty:3 Material:MED-DEN-FIBRE-18MM

Ptn:3 Board:1.MED-DEN-FIBRE-18MM/01
Qty:2 Material:MED-DEN-FIBRE-18MM

Ptn:4 Board:1.MED-DEN-FIBRE-18MM/01
Qty:2 Material:MED-DEN-FIBRE-18MM

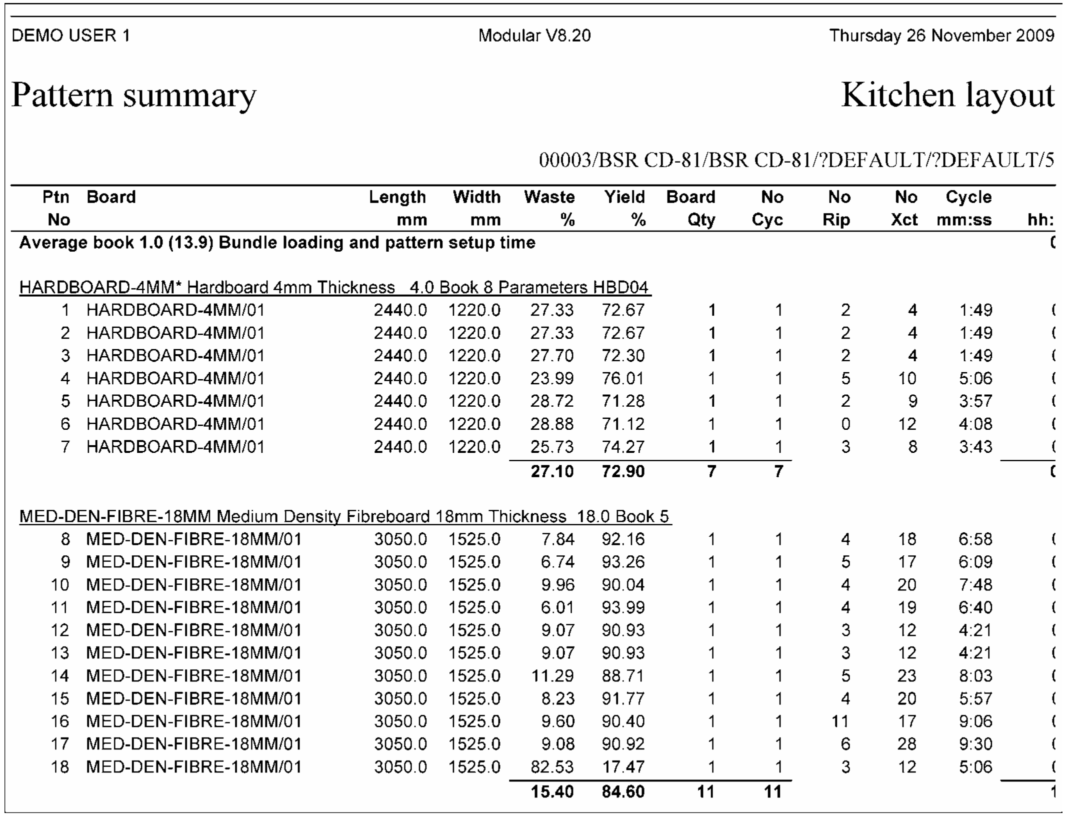
Ptn:5 Board:1.MED-DEN-FIBRE-18MM/01
Qty:1 Material:MED-DEN-FIBRE-18MM

Ptn:6 Board:1.MED-DEN-FIBRE-18MM/01
Qty:1 Material:MED-DEN-FIBRE-18MM

W-ROBE-END-LEFT!
578 X 1782
W-ROBE-END-LEFT!
578 X 1782
13!
998 X 599
13!
998 X 599
3
W-ROBE-END-RIGHT!
578 X 1782
W-ROBE-END-RIGHT!
578 X 1782
4!
964 X 1082
1797 X 349.4
1248.2 X 546.2
9
964 X 578
9
964 X 578
W-ROBE-BASE
964 X 578
W-ROBE-BASE
964 X 578
W-ROBE-BASE
964 X 578
W-ROBE-BASE
964 X 578
DDC-BACK
DDC-BACK
2
3
W-ROBE-END-RIGHT!
578 X 1782
W-ROBE-END-LEFT!
578 X 1782
5!
600 X 1082
W-ROBE-TOP
998 X 599
3050 X 306.4
9
964 X 578
9
964 X 578
W-ROBE-BASE
964 X 578
W-ROBE-BASE
964 X 578
W-ROBE-BASE
964 X 578
W-ROBE-BASE
964 X 578
DDC-BACK
2
2
2
W-ROBE-END-RIGHT!
578 X 1782
W-ROBE-END-LEFT!
578 X 1782
5!
600 X 1082
W-ROBE-TOP
998 X 599
1947.8 X 219.6

Fig. 34

Pattern summary - list of patterns in run



DEMO USER 1 Modular V8.20 Thursday 26 November 2009

Pattern summary Kitchen layout

00003/BSR CD-81/BSR CD-81/?DEFAULT/?DEFAULT/5

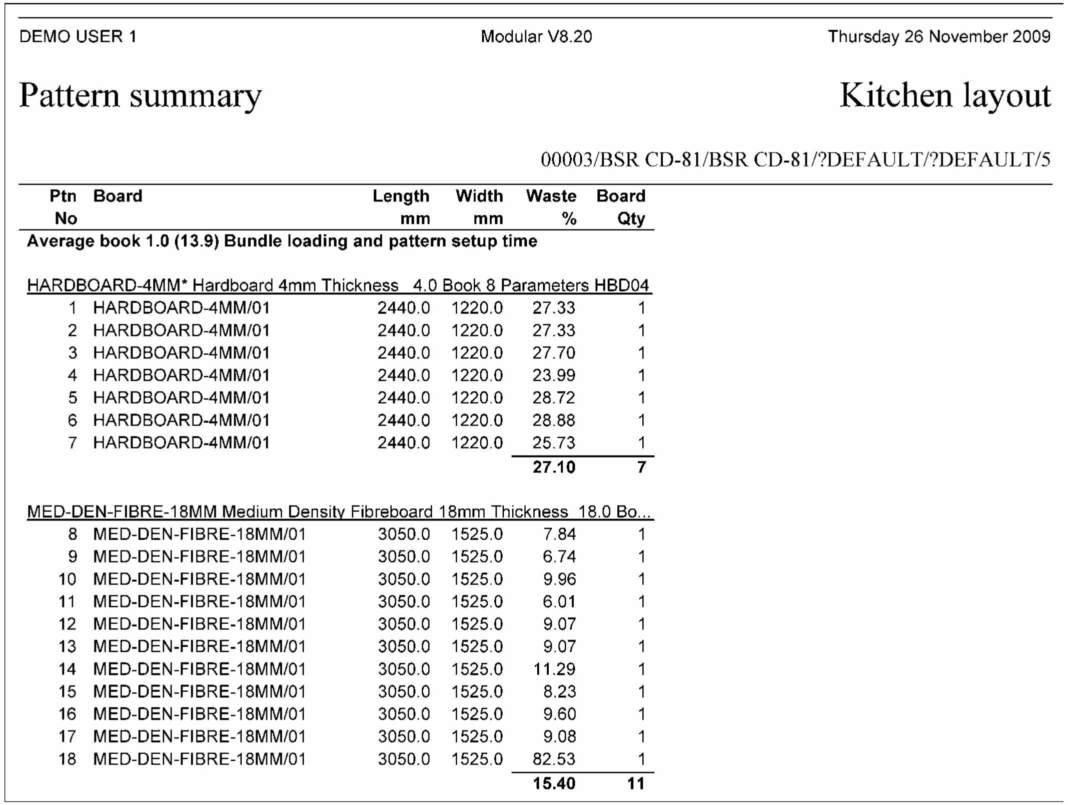
Ptn No	Board	Length mm	Width mm	Waste %	Yield %	Board Qty	No Cyc	No Rip	No Xct	Cycle mm:ss	hh:
Average book 1.0 (13.9) Bundle loading and pattern setup time											**(**
HARDBOARD-4MM* Hardboard 4mm Thickness 4.0 Book 8 Parameters HBD04											
1	HARDBOARD-4MM/01	2440.0	1220.0	27.33	72.67	1	1	2	4	1:49	(
2	HARDBOARD-4MM/01	2440.0	1220.0	27.33	72.67	1	1	2	4	1:49	(
3	HARDBOARD-4MM/01	2440.0	1220.0	27.70	72.30	1	1	2	4	1:49	(
4	HARDBOARD-4MM/01	2440.0	1220.0	23.99	76.01	1	1	5	10	5:06	(
5	HARDBOARD-4MM/01	2440.0	1220.0	28.72	71.28	1	1	2	9	3:57	(
6	HARDBOARD-4MM/01	2440.0	1220.0	28.88	71.12	1	1	0	12	4:08	(
7	HARDBOARD-4MM/01	2440.0	1220.0	25.73	74.27	1	1	3	8	3:43	(
				27.10	**72.90**	**7**	**7**				**(**
MED-DEN-FIBRE-18MM Medium Density Fibreboard 18mm Thickness 18.0 Book 5											
8	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	7.84	92.16	1	1	4	18	6:58	(
9	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	6.74	93.26	1	1	5	17	6:09	(
10	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	9.96	90.04	1	1	4	20	7:48	(
11	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	6.01	93.99	1	1	4	19	6:40	(
12	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	9.07	90.93	1	1	3	12	4:21	(
13	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	9.07	90.93	1	1	3	12	4:21	(
14	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	11.29	88.71	1	1	5	23	8:03	(
15	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	8.23	91.77	1	1	4	20	5:57	(
16	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	9.60	90.40	1	1	11	17	9:06	(
17	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	9.08	90.92	1	1	6	28	9:30	(
18	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	82.53	17.47	1	1	3	12	5:06	(
				15.40	**84.60**	**11**	**11**				1

Fig. 35

Note - list is sorted by material

***Pattern summary customised* -** list of patterns in a run.

In this example a standard report is customised to highlight the waste and board quantity.



DEMO USER 1 Modular V8.20 Thursday 26 November 2009

Pattern summary

Kitchen layout

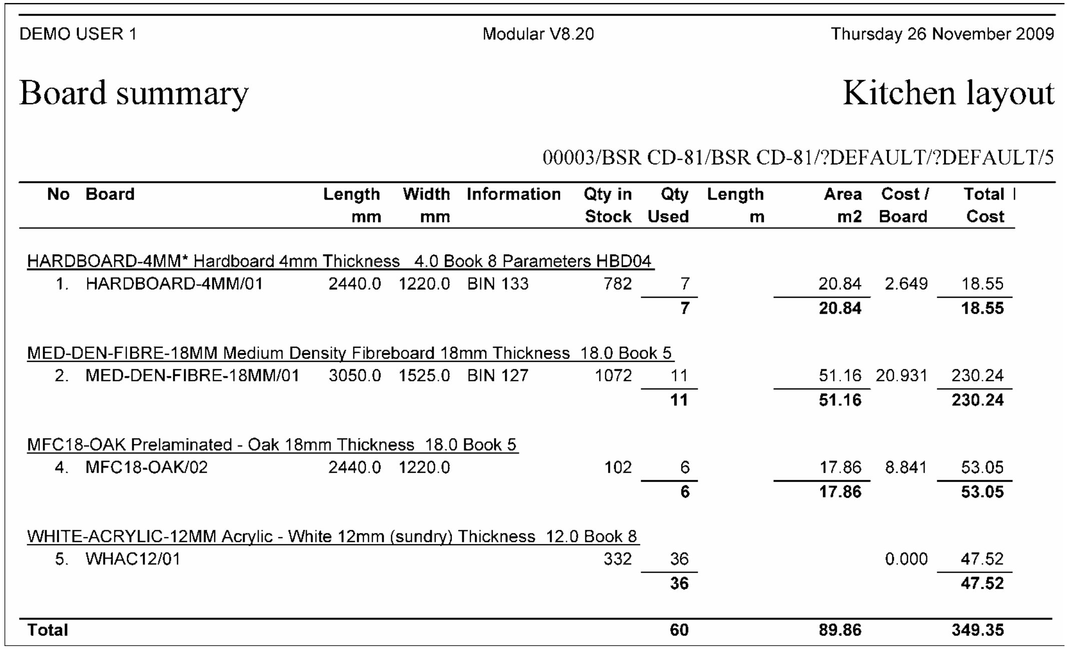
00003/BSR CD-81/BSR CD-81/?DEFAULT/?DEFAULT/5

Ptn No	Board	Length mm	Width mm	Waste %	Board Qty
Average book 1.0 (13.9) Bundle loading and pattern setup time					
HARDBOARD-4MM* Hardboard 4mm Thickness 4.0 Book 8 Parameters HBD04					
1	HARDBOARD-4MM/01	2440.0	1220.0	27.33	1
2	HARDBOARD-4MM/01	2440.0	1220.0	27.33	1
3	HARDBOARD-4MM/01	2440.0	1220.0	27.70	1
4	HARDBOARD-4MM/01	2440.0	1220.0	23.99	1
5	HARDBOARD-4MM/01	2440.0	1220.0	28.72	1
6	HARDBOARD-4MM/01	2440.0	1220.0	28.88	1
7	HARDBOARD-4MM/01	2440.0	1220.0	25.73	1
				27.10	**7**
MED-DEN-FIBRE-18MM Medium Density Fibreboard 18mm Thickness 18.0 Bo...					
8	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	7.84	1
9	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	6.74	1
10	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	9.96	1
11	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	6.01	1
12	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	9.07	1
13	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	9.07	1
14	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	11.29	1
15	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	8.23	1
16	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	9.60	1
17	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	9.08	1
18	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	82.53	1
				15.40	**11**

Fig. 36

Note **-** Form design can also be used to create a brand new fully customised report.

Board summary - a list of the boards required for a run.



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Board summary

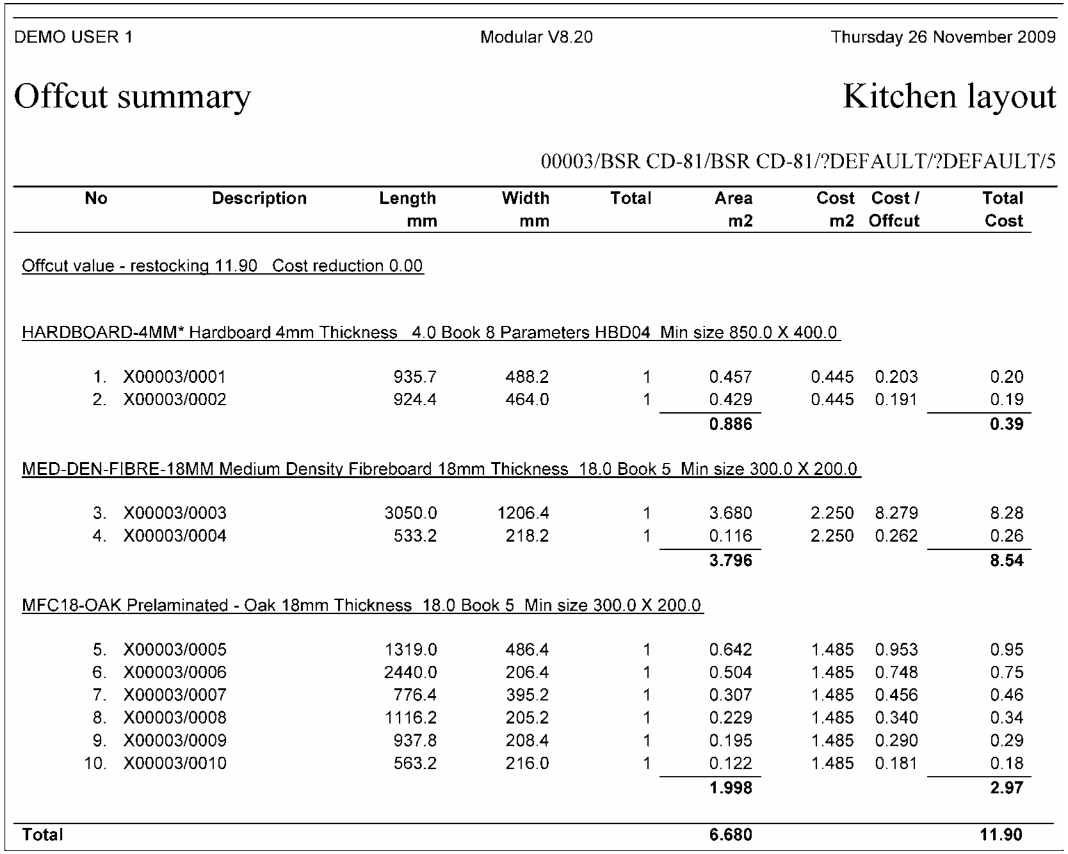
Kitchen layout

00003/BSR CD-81/BSR CD-81/?DEFAULT/?DEFAULT/5

No	Board	Length mm	Width mm	Information	Qty in Stock	Qty Used	Length m	Area m2	Cost / Board	Total Cost
HARDBOARD-4MM* Hardboard 4mm Thickness 4.0 Book 8 Parameters HBD04										
1.	HARDBOARD-4MM/01	2440.0	1220.0	BIN 133	782	7		20.84	2.649	18.55
						7		**20.84**		**18.55**
MED-DEN-FIBRE-18MM Medium Density Fibreboard 18mm Thickness 18.0 Book 5										
2.	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	BIN 127	1072	11		51.16	20.931	230.24
						11		**51.16**		**230.24**
MFC18-OAK Prelaminated - Oak 18mm Thickness 18.0 Book 5										
4.	MFC18-OAK/02	2440.0	1220.0		102	6		17.86	8.841	53.05
						6		**17.86**		**53.05**
WHITE-ACRYLIC-12MM Acrylic - White 12mm (sundry) Thickness 12.0 Book 8										
5.	WHAC12/01				332	36			0.000	47.52
						36				**47.52**
Total						**60**		**89.86**		**349.35**

Fig. 37

Offcut summary - list of offcuts produced by an optimisation



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Offcut summary Kitchen layout

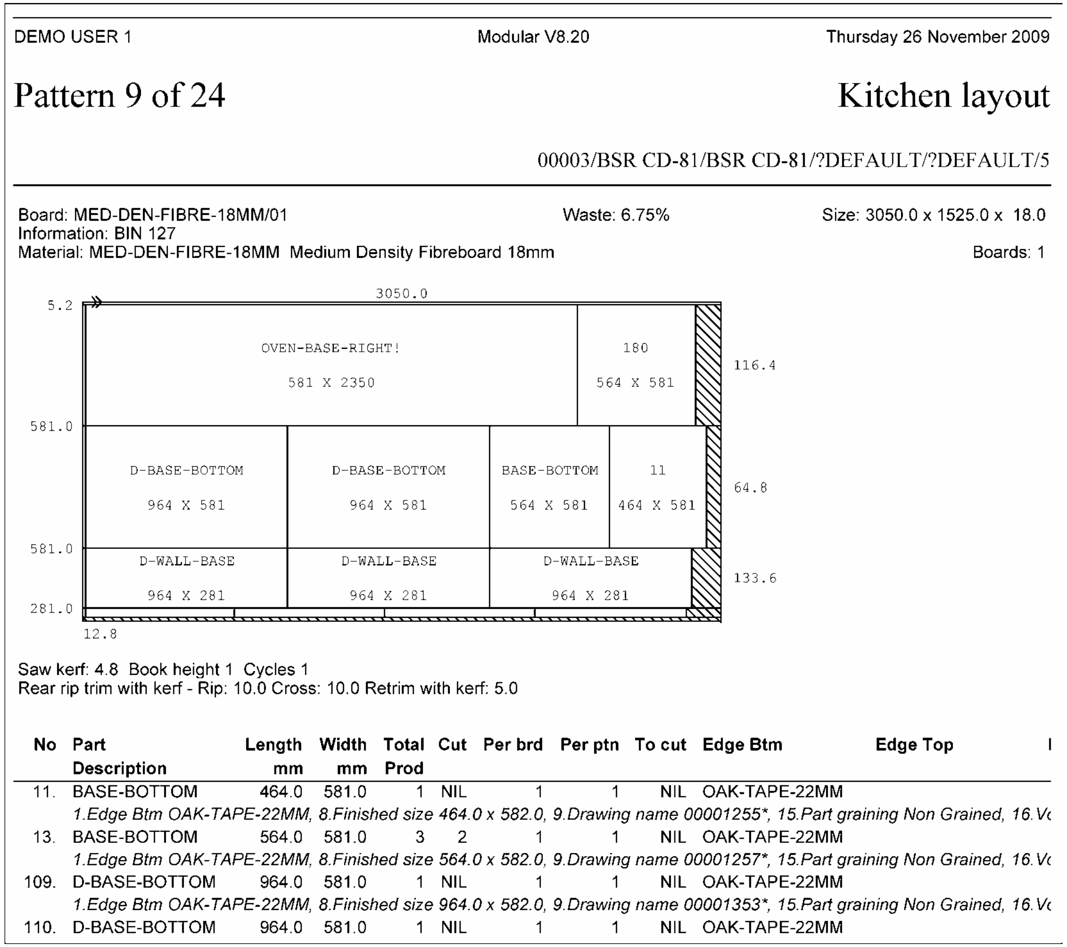
00003/BSR CD-81/BSR CD-81/?DEFAULT/?DEFAULT/5

No	Description	Length mm	Width mm	Total	Area m2	Cost m2	Cost / Offcut	Total Cost
Offcut value - restocking 11.90 Cost reduction 0.00								
HARDBOARD-4MM* Hardboard 4mm Thickness 4.0 Book 8 Parameters HBD04 Min size 850.0 X 400.0								
1.	X00003/0001	935.7	488.2	1	0.457	0.445	0.203	0.20
2.	X00003/0002	924.4	464.0	1	0.429	0.445	0.191	0.19
					0.886			**0.39**
MED-DEN-FIBRE-18MM Medium Density Fibreboard 18mm Thickness 18.0 Book 5 Min size 300.0 X 200.0								
3.	X00003/0003	3050.0	1206.4	1	3.680	2.250	8.279	8.28
4.	X00003/0004	533.2	218.2	1	0.116	2.250	0.262	0.26
					3.796			**8.54**
MFC18-OAK Prelaminated - Oak 18mm Thickness 18.0 Book 5 Min size 300.0 X 200.0								
5.	X00003/0005	1319.0	486.4	1	0.642	1.485	0.953	0.95
6.	X00003/0006	2440.0	206.4	1	0.504	1.485	0.748	0.75
7.	X00003/0007	776.4	395.2	1	0.307	1.485	0.456	0.46
8.	X00003/0008	1116.2	205.2	1	0.229	1.485	0.340	0.34
9.	X00003/0009	937.8	208.4	1	0.195	1.485	0.290	0.29
10.	X00003/0010	563.2	216.0	1	0.122	1.485	0.181	0.18
					1.998			**2.97**
Total					**6.680**			**11.90**

Fig. 38

Offcuts can be stored and used later. The minimum sizes for an offcut are set by the optimising parameters.

Pattern - a full page view of each pattern. Below the pattern is a summary of the part sizes on the pattern and the quantities produced.



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Pattern 9 of 24 Kitchen layout

00003/BSR CD-81/BSR CD-81/?DEFAULT/?DEFAULT/5

Board: MED-DEN-FIBRE-18MM/01 Waste: 6.75% Size: 3050.0 x 1525.0 x 18.0
Information: BIN 127
Material: MED-DEN-FIBRE-18MM Medium Density Fibreboard 18mm Boards: 1

3050.0
5.2
OVEN-BASE-RIGHT!
581 X 2350
180
564 X 581
116.4
581.0
D-BASE-BOTTOM
964 X 581
D-BASE-BOTTOM
964 X 581
BASE-BOTTOM
564 X 581
11
464 X 581
64.8
581.0
D-WALL-BASE
964 X 281
D-WALL-BASE
964 X 281
D-WALL-BASE
964 X 281
133.6
281.0
12.8

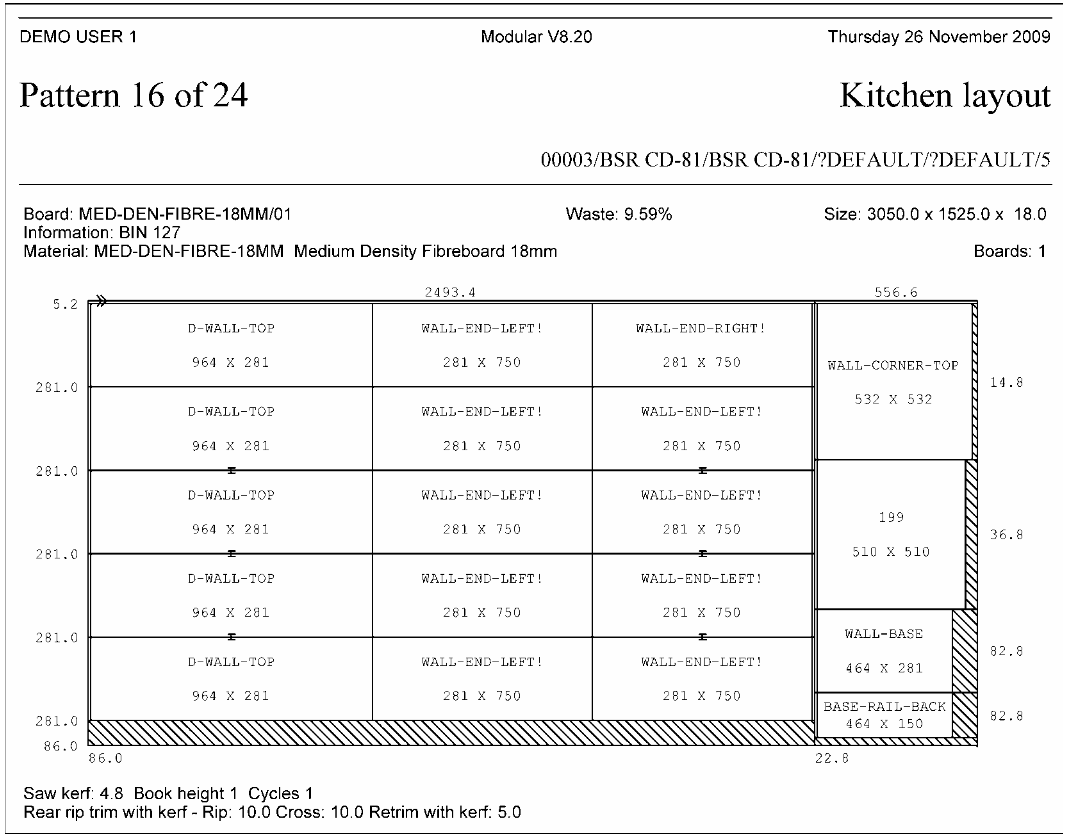
Saw kerf: 4.8 Book height 1 Cycles 1
Rear rip trim with kerf - Rip: 10.0 Cross: 10.0 Retrim with kerf: 5.0

No	Part Description	Length mm	Width mm	Total Prod	Cut	Per brd	Per ptn	To cut	Edge Btm	Edge Top	I
11.	BASE-BOTTOM	464.0	581.0	1	NIL	1	1	NIL	OAK-TAPE-22MM		
	1.Edge Btm OAK-TAPE-22MM, 8.Finished size 464.0 x 582.0, 9.Drawing name 00001255, 15.Part graining Non Grained, 16.V*										
13.	BASE-BOTTOM	564.0	581.0	3	2	1	1	NIL	OAK-TAPE-22MM		
	1.Edge Btm OAK-TAPE-22MM, 8.Finished size 564.0 x 582.0, 9.Drawing name 00001257, 15.Part graining Non Grained, 16.V*										
109.	D-BASE-BOTTOM	964.0	581.0	1	NIL	1	1	NIL	OAK-TAPE-22MM		
	1.Edge Btm OAK-TAPE-22MM, 8.Finished size 964.0 x 582.0, 9.Drawing name 00001353, 15.Part graining Non Grained, 16.V*										
110.	D-BASE-BOTTOM	964.0	581.0	1	NIL	1	1	NIL	OAK-TAPE-22MM		

Fig. 39

'Still to cut' assumes patterns are cut in the sequence shown within each material group. The figures at the edge of the pattern indicate the size of the falling piece. The saw kerf and trim settings used are shown beneath the pattern.

Pattern - with head cut



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Pattern 16 of 24 Kitchen layout

00003/BSR CD-81/BSR CD-81/?DEFAULT/?DEFAULT/5

Board: MED-DEN-FIBRE-18MM/01 Waste: 9.59% Size: 3050.0 x 1525.0 x 18.0
Information: BIN 127
Material: MED-DEN-FIBRE-18MM Medium Density Fibreboard 18mm Boards: 1

2493.4
556.6
5.2
D-WALL-TOP
964 X 281
WALL-END-LEFT!
281 X 750
WALL-END-RIGHT!
281 X 750
WALL-CORNER-TOP
532 X 532
14.8
281.0
D-WALL-TOP
964 X 281
WALL-END-LEFT!
281 X 750
WALL-END-LEFT!
281 X 750
281.0
D-WALL-TOP
964 X 281
WALL-END-LEFT!
281 X 750
WALL-END-LEFT!
281 X 750
199
510 X 510
36.8
281.0
D-WALL-TOP
964 X 281
WALL-END-LEFT!
281 X 750
WALL-END-LEFT!
281 X 750
281.0
WALL-BASE
464 X 281
82.8
D-WALL-TOP
964 X 281
WALL-END-LEFT!
281 X 750
WALL-END-LEFT!
281 X 750
BASE-RAIL-BACK
464 X 150
82.8
281.0
86.0
86.0
22.8

Saw kerf: 4.8 Book height 1 Cycles 1
Rear rip trim with kerf - Rip: 10.0 Cross: 10.0 Retrim with kerf: 5.0

Fig. 40

Head cut - divides the pattern into two portions allowing more complex patterns

Patterns - parts produced

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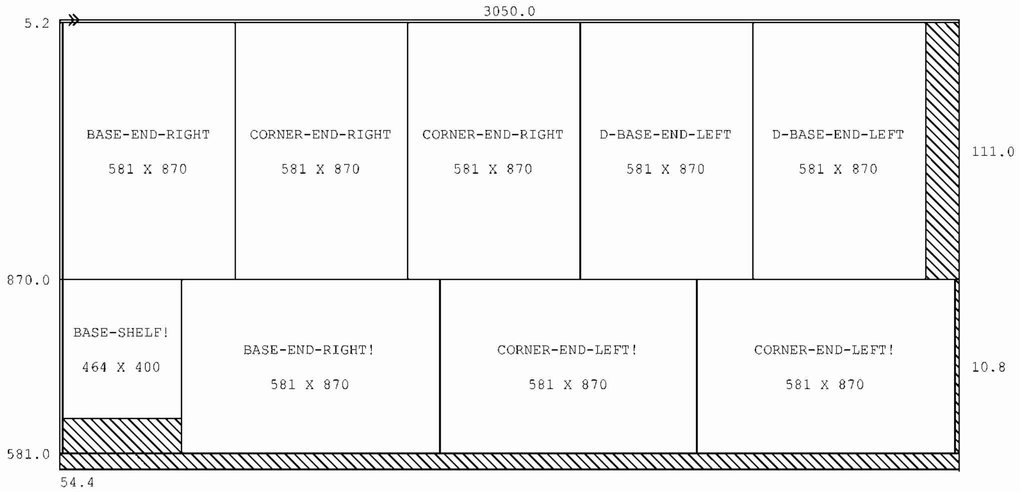
Pattern 12 of 24 Kitchen layout

00003/BSR CD-81/BSR CD-81/?DEFAULT/?DEFAULT/5

Board: MED-DEN-FIBRE-18MM/01 Waste: 9.07% Size: 3050.0 x 1525.0 x 18.0
Information: BIN 127
Material: MED-DEN-FIBRE-18MM Medium Density Fibreboard 18mm Boards: 1


3050.0
5.2
BASE-END-RIGHT
581 X 870
CORNER-END-RIGHT
581 X 870
CORNER-END-RIGHT
581 X 870
D-BASE-END-LEFT
581 X 870
D-BASE-END-LEFT
581 X 870
111.0
870.0
BASE-SHELF!
464 X 400
BASE-END-RIGHT!
581 X 870
CORNER-END-LEFT!
581 X 870
CORNER-END-LEFT!
581 X 870
10.8
581.0
54.4

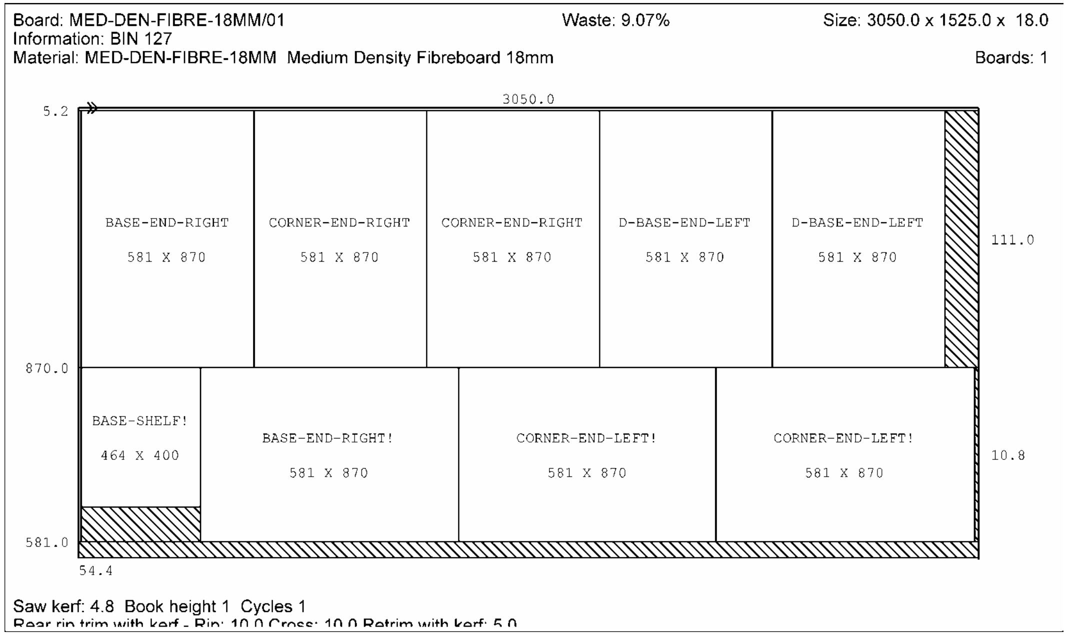
Saw kerf: 4.8 Book height 1 Cycles 1
Rear rip trim with kerf - Rip: 10.0 Cross: 10.0 Retrim with kerf: 5.0

No	Part Description	Length mm	Width mm	Total Prod	Cut	Per brd	Per ptn	To cut	Edge Btm	Edge Top	I
38.	BASE-END-RIGHT	581.0	870.0	1	NIL	1	1	NIL			
	4.Edge Right OAK-TAPE-22MM, 8.Finished size 582.0 x 870.0, 9.Drawing name 00001282, 15.Part graining Non Grained, 16.*										
39.	BASE-END-RIGHT	581.0	870.0	1	NIL	1	1	NIL			
	4.Edge Right OAK-TAPE-22MM, 8.Finished size 582.0 x 870.0, 9.Drawing name 00001283, 15.Part graining Non Grained, 16.*										
65.	BASE-SHELF	464.0	400.0	3	1	1	1	1			
	8.Finished size 464.0 x 400.0, 9.Drawing name 00001309, 15.Part graining Non Grained, 16.Volume LOW*										

Fig. 41

The parts produced are shown beneath the pattern. The 'To cut' calculation assumes the boards are cut in pattern order.

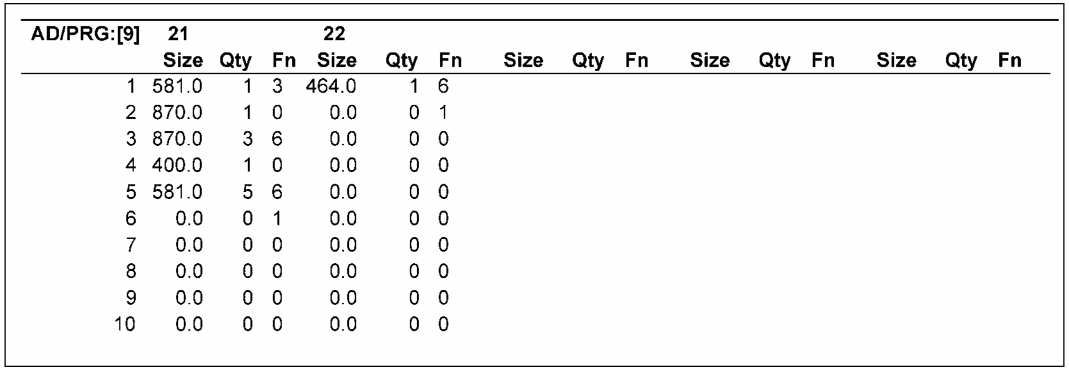
Patterns - cutting instructions


Board: MED-DEN-FIBRE-18MM/01 Waste: 9.07% Size: 3050.0 x 1525.0 x 18.0
Information: BIN 127
Material: MED-DEN-FIBRE-18MM Medium Density Fibreboard 18mm Boards: 1

3050.0
5.2
BASE-END-RIGHT
581 X 870
CORNER-END-RIGHT
581 X 870
CORNER-END-RIGHT
581 X 870
D-BASE-END-LEFT
581 X 870
D-BASE-END-LEFT
581 X 870
111.0
870.0
BASE-SHELF!
464 X 400
BASE-END-RIGHT!
581 X 870
CORNER-END-LEFT!
581 X 870
CORNER-END-LEFT!
581 X 870
10.8
581.0
54.4

Saw kerf: 4.8 Book height 1 Cycles 1
Rear rip trim with kerf - Rip: 10.0 Cross: 10.0 Retrim with kerf: 5.0

Fig. 42

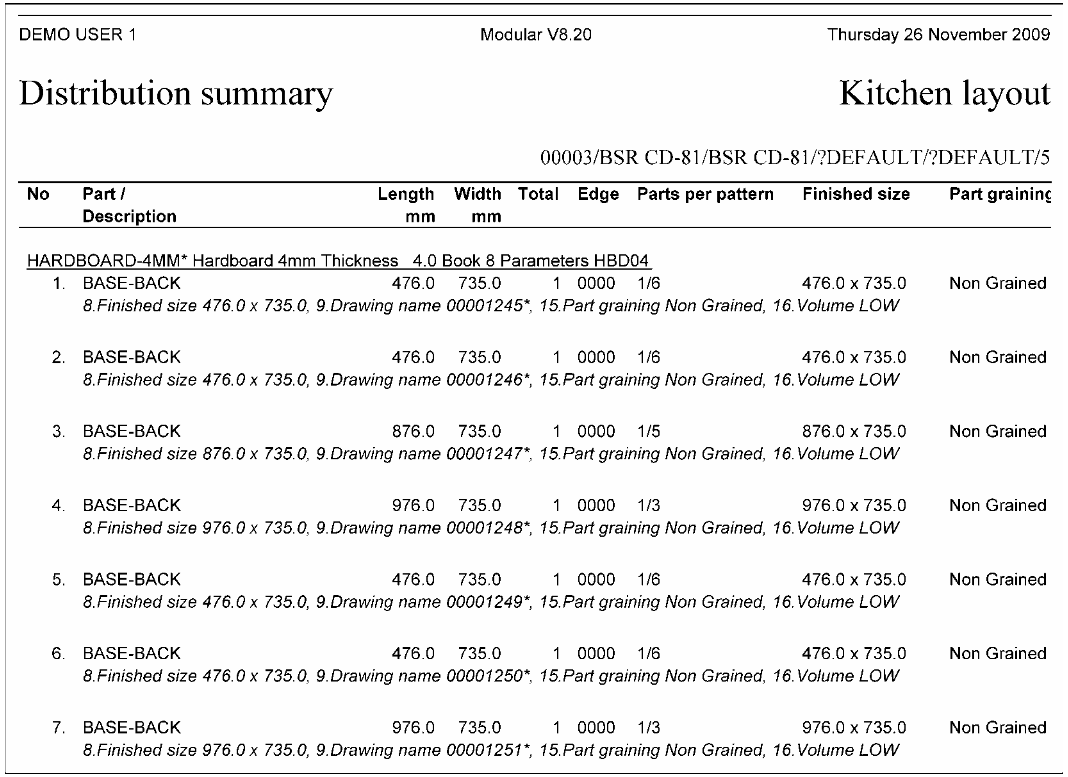


AD/PRG:[9]	**21**			**22**											
	Size	**Qty**	**Fn**	**Size**	**Qty**	**Fn**	**Size**	**Qty**	**Fn**	**Size**	**Qty**	**Fn**	**Size**	**Qty**	**Fn**
1	581.0	1	3	464.0	1	6									
2	870.0	1	0	0.0	0	1									
3	870.0	3	6	0.0	0	0									
4	400.0	1	0	0.0	0	0									
5	581.0	5	6	0.0	0	0									
6	0.0	0	1	0.0	0	0									
7	0.0	0	0	0.0	0	0									
8	0.0	0	0	0.0	0	0									
9	0.0	0	0	0.0	0	0									
10	0.0	0	0	0.0	0	0									

Fig. 43

Where necessary (e.g. Sliding table saw) the pattern includes cutting instructions.

Distribution Summary - shows the sequence in which parts are produced and which parts are produced on which pattern.



```
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Distribution summary                                                                  Kitchen layout

                                                    00003/BSR CD-81/BSR CD-81/?DEFAULT/?DEFAULT/5
No   Part /                         Length  Width  Total  Edge  Parts per pattern  Finished size   Part grainin
     Description                        mm     mm

HARDBOARD-4MM* Hardboard 4mm Thickness  4.0 Book 8 Parameters HBD04
  1. BASE-BACK                       476.0  735.0      1  0000  1/6                476.0 x 735.0   Non Grained
     8.Finished size 476.0 x 735.0, 9.Drawing name 00001245*, 15.Part graining Non Grained, 16.Volume LOW

  2. BASE-BACK                       476.0  735.0      1  0000  1/6                476.0 x 735.0   Non Grained
     8.Finished size 476.0 x 735.0, 9.Drawing name 00001246*, 15.Part graining Non Grained, 16.Volume LOW

  3. BASE-BACK                       876.0  735.0      1  0000  1/5                876.0 x 735.0   Non Grained
     8.Finished size 876.0 x 735.0, 9.Drawing name 00001247*, 15.Part graining Non Grained, 16.Volume LOW

  4. BASE-BACK                       976.0  735.0      1  0000  1/3                976.0 x 735.0   Non Grained
     8.Finished size 976.0 x 735.0, 9.Drawing name 00001248*, 15.Part graining Non Grained, 16.Volume LOW

  5. BASE-BACK                       476.0  735.0      1  0000  1/6                476.0 x 735.0   Non Grained
     8.Finished size 476.0 x 735.0, 9.Drawing name 00001249*, 15.Part graining Non Grained, 16.Volume LOW

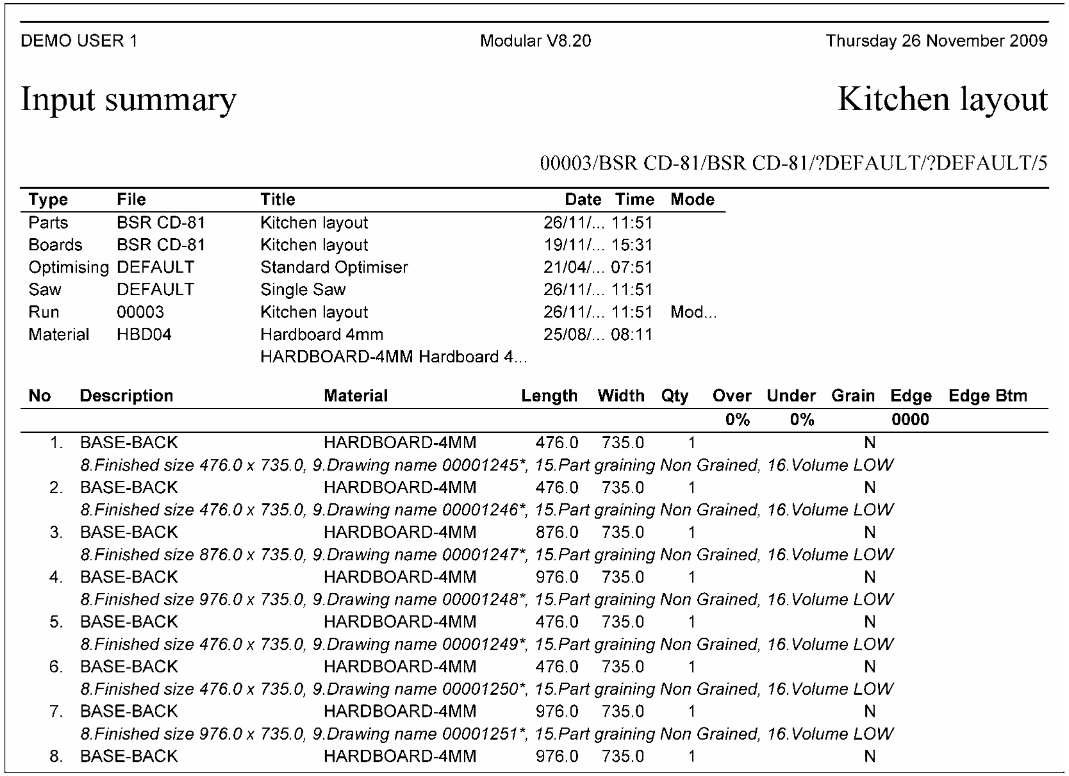
  6. BASE-BACK                       476.0  735.0      1  0000  1/6                476.0 x 735.0   Non Grained
     8.Finished size 476.0 x 735.0, 9.Drawing name 00001250*, 15.Part graining Non Grained, 16.Volume LOW

  7. BASE-BACK                       976.0  735.0      1  0000  1/3                976.0 x 735.0   Non Grained
     8.Finished size 976.0 x 735.0, 9.Drawing name 00001251*, 15.Part graining Non Grained, 16.Volume LOW
```

Fig. 44

For each Part the text e.g. 28/4 7/5 etc shows the quantity of a part produced on a pattern. In this case 28 of the part are produced on pattern 4 and a quantity of 7 are produced on pattern 5.

Input summary - full summary of data entered including the parameter settings



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Input summary Kitchen layout

00003/BSR CD-81/BSR CD-81/?DEFAULT/?DEFAULT/5

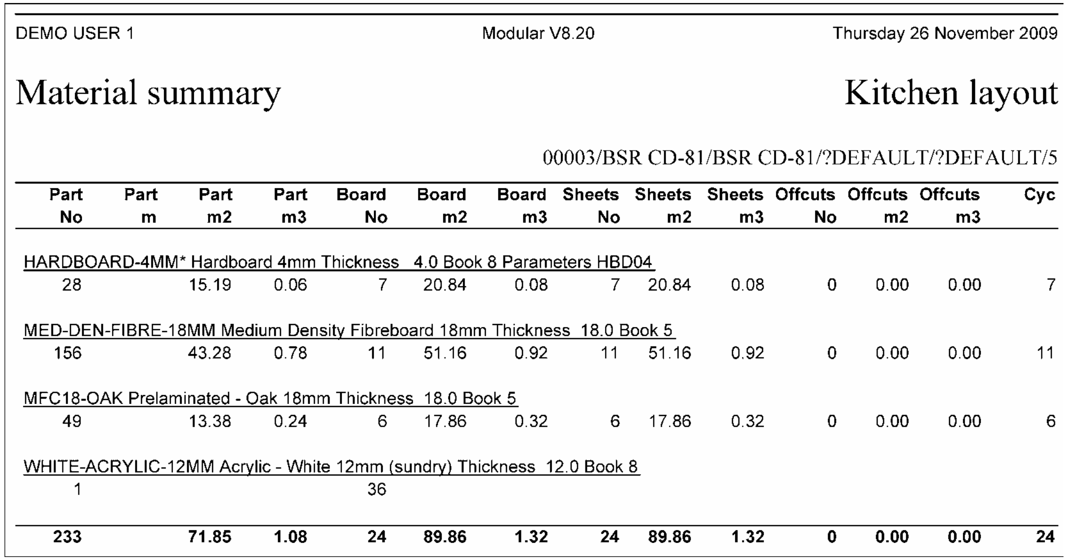
Type	**File**	**Title**	**Date**	**Time**	**Mode**
Parts	BSR CD-81	Kitchen layout	26/11/...	11:51	
Boards	BSR CD-81	Kitchen layout	19/11/...	15:31	
Optimising	DEFAULT	Standard Optimiser	21/04/...	07:51	
Saw	DEFAULT	Single Saw	26/11/...	11:51	
Run	00003	Kitchen layout	26/11/...	11:51	Mod...
Material	HBD04	Hardboard 4mm HARDBOARD-4MM Hardboard 4...	25/08/...	08:11	

No	**Description**	**Material**	**Length**	**Width**	**Qty**	**Over**	**Under**	**Grain**	**Edge**	**Edge Btm**
						0%	**0%**		**0000**	
1.	BASE-BACK	HARDBOARD-4MM	476.0	735.0	1			N		
	8.Finished size 476.0 x 735.0, 9.Drawing name 00001245, 15.Part graining Non Grained, 16.Volume LOW*									
2.	BASE-BACK	HARDBOARD-4MM	476.0	735.0	1			N		
	8.Finished size 476.0 x 735.0, 9.Drawing name 00001246, 15.Part graining Non Grained, 16.Volume LOW*									
3.	BASE-BACK	HARDBOARD-4MM	876.0	735.0	1			N		
	8.Finished size 876.0 x 735.0, 9.Drawing name 00001247, 15.Part graining Non Grained, 16.Volume LOW*									
4.	BASE-BACK	HARDBOARD-4MM	976.0	735.0	1			N		
	8.Finished size 976.0 x 735.0, 9.Drawing name 00001248, 15.Part graining Non Grained, 16.Volume LOW*									
5.	BASE-BACK	HARDBOARD-4MM	476.0	735.0	1			N		
	8.Finished size 476.0 x 735.0, 9.Drawing name 00001249, 15.Part graining Non Grained, 16.Volume LOW*									
6.	BASE-BACK	HARDBOARD-4MM	476.0	735.0	1			N		
	8.Finished size 476.0 x 735.0, 9.Drawing name 00001250, 15.Part graining Non Grained, 16.Volume LOW*									
7.	BASE-BACK	HARDBOARD-4MM	976.0	735.0	1			N		
	8.Finished size 976.0 x 735.0, 9.Drawing name 00001251, 15.Part graining Non Grained, 16.Volume LOW*									
8.	BASE-BACK	HARDBOARD-4MM	976.0	735.0	1			N		

Fig. 45

The lower portion of the input summary (not shown) lists boards used for optimising and the optimising and saw parameter values - these values are important for being able to reproduce the run accurately.

Material summary - list of the materials for a run including costs.



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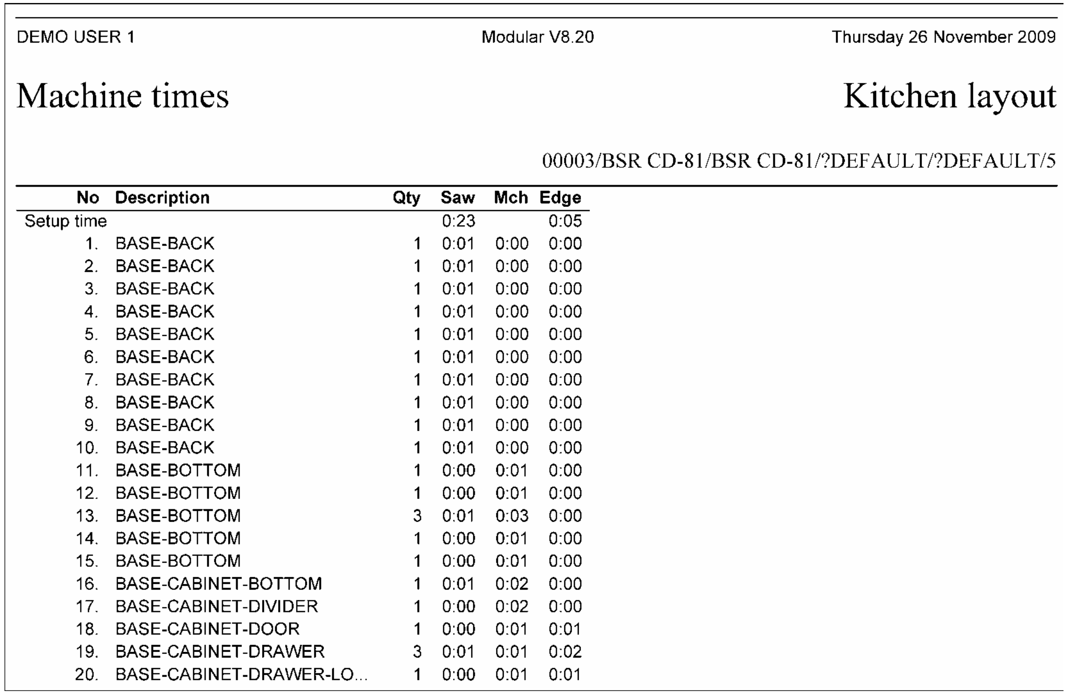
Material summary Kitchen layout

00003/BSR CD-81/BSR CD-81/?DEFAULT/?DEFAULT/5

Part No	Part m	Part m2	Part m3	Board No	Board m2	Board m3	Sheets No	Sheets m2	Sheets m3	Offcuts No	Offcuts m2	Offcuts m3	Cyc
HARDBOARD-4MM* Hardboard 4mm Thickness 4.0 Book 8 Parameters HBD04													
28		15.19	0.06	7	20.84	0.08	7	20.84	0.08	0	0.00	0.00	7
MED-DEN-FIBRE-18MM Medium Density Fibreboard 18mm Thickness 18.0 Book 5													
156		43.28	0.78	11	51.16	0.92	11	51.16	0.92	0	0.00	0.00	11
MFC18-OAK Prelaminated - Oak 18mm Thickness 18.0 Book 5													
49		13.38	0.24	6	17.86	0.32	6	17.86	0.32	0	0.00	0.00	6
WHITE-ACRYLIC-12MM Acrylic - White 12mm (sundry) Thickness 12.0 Book 8													
1				36									
233		**71.85**	**1.08**	**24**	**89.86**	**1.32**	**24**	**89.86**	**1.32**	**0**	**0.00**	**0.00**	**24**

Fig. 46

Machine times - summary of the machine times for each part in a run. The Saw, Edging and Machining centre times are calculated from the times set for each operation.



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Machine times Kitchen layout

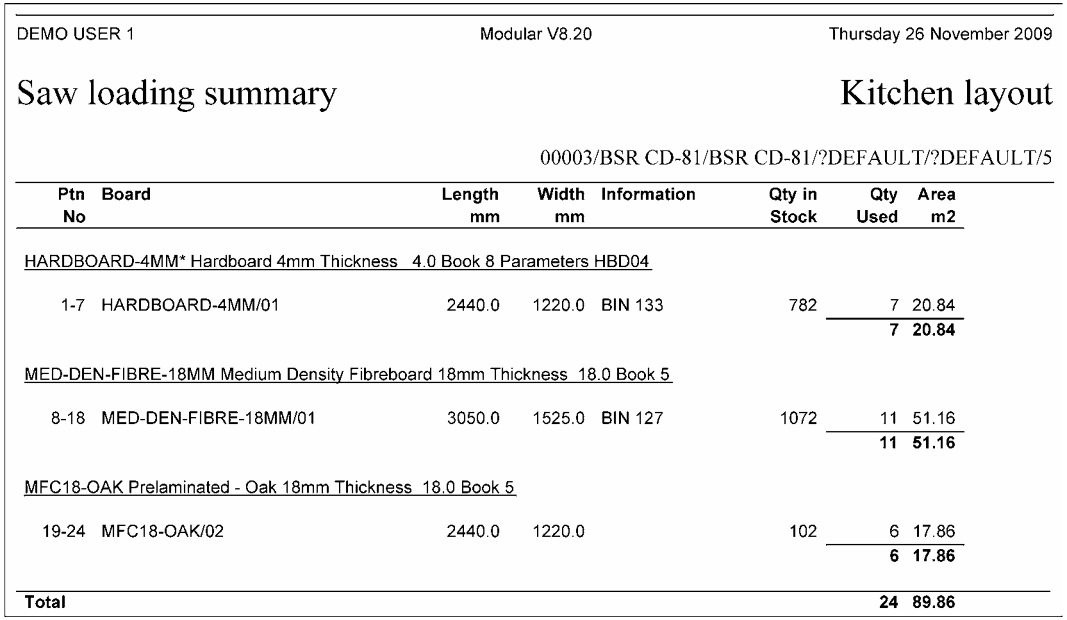
00003/BSR CD-81/BSR CD-81/?DEFAULT/?DEFAULT/5

No	Description	Qty	Saw	Mch	Edge
Setup time			0:23		0:05
1.	BASE-BACK	1	0:01	0:00	0:00
2.	BASE-BACK	1	0:01	0:00	0:00
3.	BASE-BACK	1	0:01	0:00	0:00
4.	BASE-BACK	1	0:01	0:00	0:00
5.	BASE-BACK	1	0:01	0:00	0:00
6.	BASE-BACK	1	0:01	0:00	0:00
7.	BASE-BACK	1	0:01	0:00	0:00
8.	BASE-BACK	1	0:01	0:00	0:00
9.	BASE-BACK	1	0:01	0:00	0:00
10.	BASE-BACK	1	0:01	0:00	0:00
11.	BASE-BOTTOM	1	0:00	0:01	0:00
12.	BASE-BOTTOM	1	0:00	0:01	0:00
13.	BASE-BOTTOM	3	0:01	0:03	0:00
14.	BASE-BOTTOM	1	0:00	0:01	0:00
15.	BASE-BOTTOM	1	0:00	0:01	0:00
16.	BASE-CABINET-BOTTOM	1	0:01	0:02	0:00
17.	BASE-CABINET-DIVIDER	1	0:00	0:02	0:00
18.	BASE-CABINET-DOOR	1	0:00	0:01	0:01
19.	BASE-CABINET-DRAWER	3	0:01	0:01	0:02
20.	BASE-CABINET-DRAWER-LO...	1	0:00	0:01	0:01

Fig. 47

Other machine groups can be added to the analysis using the Machine Rate parameters.

Saw loading summary - shows a list of the materials for loading at the saw



DEMO USER 1 Modular V8.20 Thursday 26 November 2009

Saw loading summary Kitchen layout

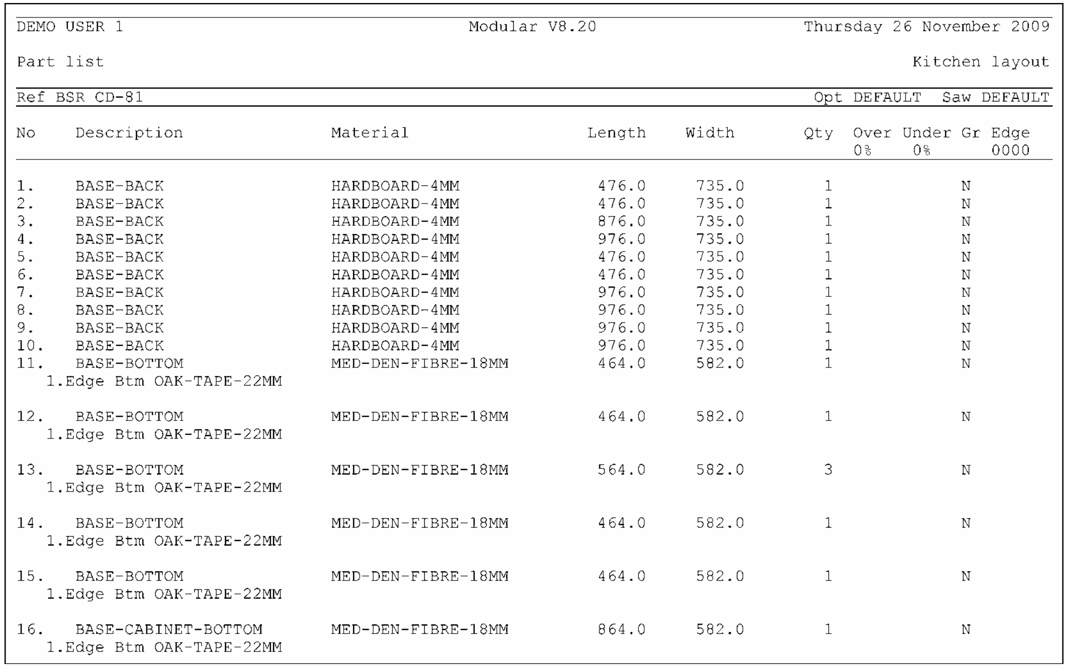
00003/BSR CD-81/BSR CD-81/?DEFAULT/?DEFAULT/5

Ptn No	Board	Length mm	Width mm	Information	Qty in Stock	Qty Used	Area m2
HARDBOARD-4MM* Hardboard 4mm Thickness 4.0 Book 8 Parameters HBD04							
1-7	HARDBOARD-4MM/01	2440.0	1220.0	BIN 133	782	7	20.84
						7	**20.84**
MED-DEN-FIBRE-18MM Medium Density Fibreboard 18mm Thickness 18.0 Book 5							
8-18	MED-DEN-FIBRE-18MM/01	3050.0	1525.0	BIN 127	1072	11	51.16
						11	**51.16**
MFC18-OAK Prelaminated - Oak 18mm Thickness 18.0 Book 5							
19-24	MFC18-OAK/02	2440.0	1220.0		102	6	17.86
						6	**17.86**
Total						**24**	**89.86**

Fig. 48

Costs are not included.

Part list - list of parts to be optimised. Either created automatically when working with Orders or Product requirements or can be imported or entered manually. Typically shows Finished sizes.



```
DEMO USER 1                              Modular V8.20                          Thursday 26 November 2009

Part list                                                                                  Kitchen layout

Ref BSR CD-81                                                                        Opt DEFAULT  Saw DEFAULT

No     Description               Material                  Length     Width        Qty  Over Under Gr Edge
                                                                                         0%    0%      0000

1.     BASE-BACK                 HARDBOARD-4MM              476.0     735.0          1              N
2.     BASE-BACK                 HARDBOARD-4MM              476.0     735.0          1              N
3.     BASE-BACK                 HARDBOARD-4MM              876.0     735.0          1              N
4.     BASE-BACK                 HARDBOARD-4MM              976.0     735.0          1              N
5.     BASE-BACK                 HARDBOARD-4MM              476.0     735.0          1              N
6.     BASE-BACK                 HARDBOARD-4MM              476.0     735.0          1              N
7.     BASE-BACK                 HARDBOARD-4MM              976.0     735.0          1              N
8.     BASE-BACK                 HARDBOARD-4MM              976.0     735.0          1              N
9.     BASE-BACK                 HARDBOARD-4MM              976.0     735.0          1              N
10.    BASE-BACK                 HARDBOARD-4MM              976.0     735.0          1              N
11.    BASE-BOTTOM               MED-DEN-FIBRE-18MM         464.0     582.0          1              N
   1.Edge Btm OAK-TAPE-22MM

12.    BASE-BOTTOM               MED-DEN-FIBRE-18MM         464.0     582.0          1              N
   1.Edge Btm OAK-TAPE-22MM

13.    BASE-BOTTOM               MED-DEN-FIBRE-18MM         564.0     582.0          3              N
   1.Edge Btm OAK-TAPE-22MM

14.    BASE-BOTTOM               MED-DEN-FIBRE-18MM         464.0     582.0          1              N
   1.Edge Btm OAK-TAPE-22MM

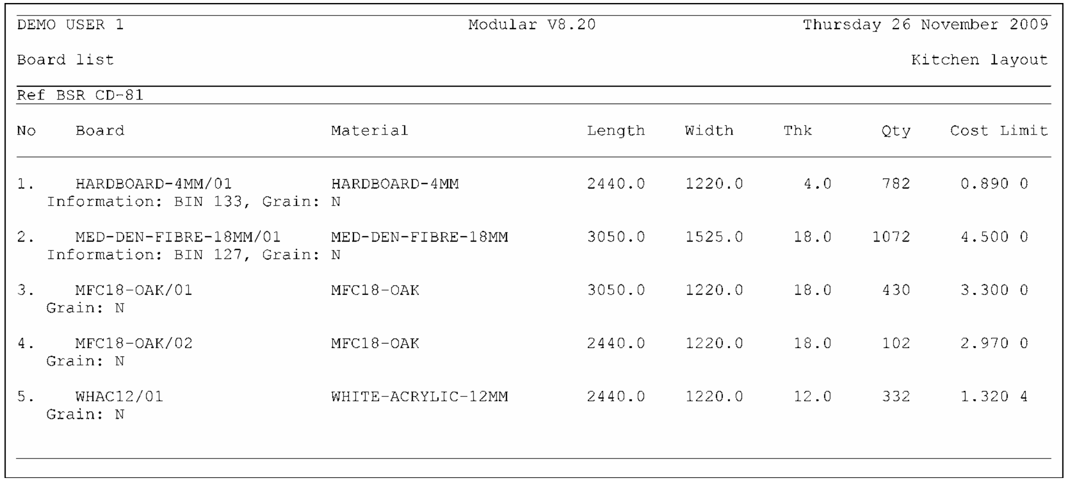
15.    BASE-BOTTOM               MED-DEN-FIBRE-18MM         464.0     582.0          1              N
   1.Edge Btm OAK-TAPE-22MM

16.    BASE-CABINET-BOTTOM       MED-DEN-FIBRE-18MM         864.0     582.0          1              N
   1.Edge Btm OAK-TAPE-22MM
```

Fig. 49

Information boxes (custom data for each part) are listed in sequence after the basic part data.

Board list - the program checks the board library and extracts a list of materials and board sizes to use for the optimisation. The material code for each part determines the materials extracted.



```
DEMO USER 1                                  Modular V8.20                             Thursday 26 November 2009

Board list                                                                                          Kitchen layout

Ref BSR CD-81

No    Board                      Material                   Length     Width     Thk        Qty     Cost Limit

1.    HARDBOARD-4MM/01           HARDBOARD-4MM              2440.0     1220.0      4.0       782      0.890 0
   Information: BIN 133, Grain: N

2.    MED-DEN-FIBRE-18MM/01      MED-DEN-FIBRE-18MM         3050.0     1525.0     18.0      1072      4.500 0
   Information: BIN 127, Grain: N

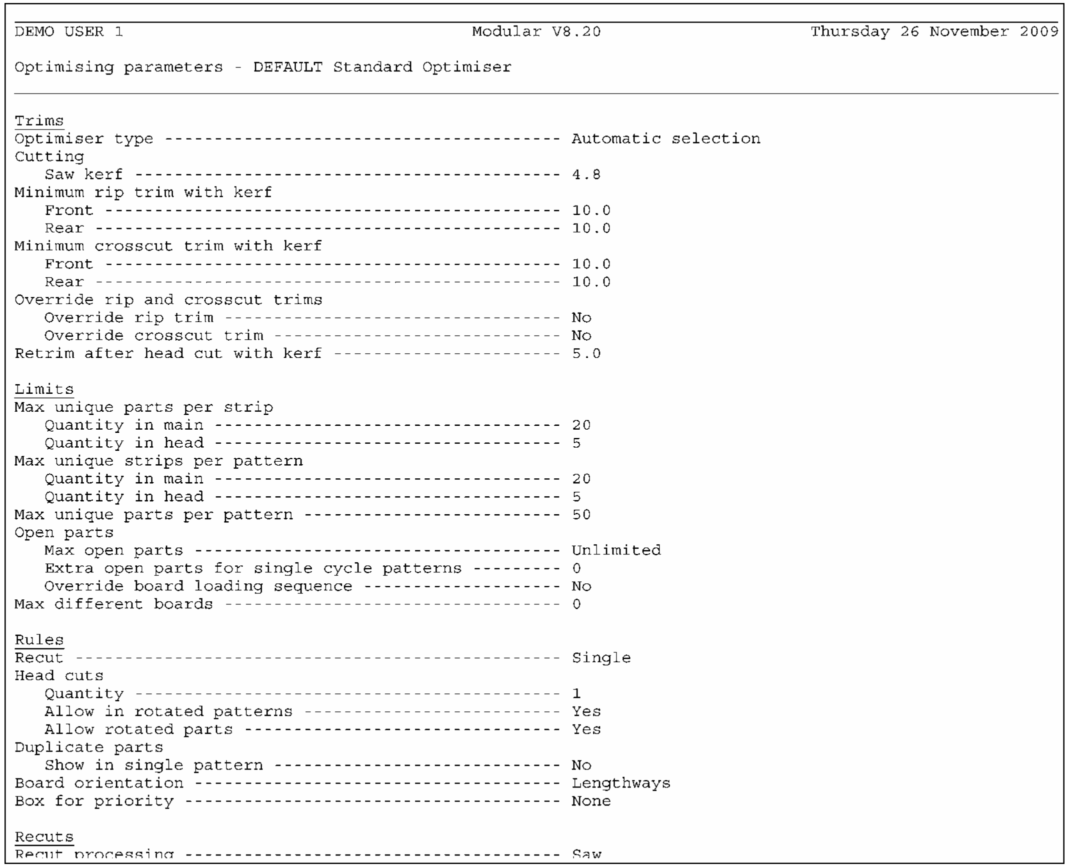
3.    MFC18-OAK/01               MFC18-OAK                  3050.0     1220.0     18.0       430      3.300 0
   Grain: N

4.    MFC18-OAK/02               MFC18-OAK                  2440.0     1220.0     18.0       102      2.970 0
   Grain: N

5.    WHAC12/01                  WHITE-ACRYLIC-12MM         2440.0     1220.0     12.0       332      1.320 4
   Grain: N
```

Fig. 50

Optimising parameters - list of parameter settings for optimising. There may be several different lists to deal with specific types of job. The parameters deal with common features such as, saw kerf, trims, minimum offcut size, level of recuts etc.



```
DEMO USER 1                                   Modular V8.20                     Thursday 26 November 2009

Optimising parameters - DEFAULT Standard Optimiser


Trims
Optimiser type ---------------------------------------- Automatic selection
Cutting
   Saw kerf ------------------------------------------- 4.8
Minimum rip trim with kerf
   Front ---------------------------------------------- 10.0
   Rear ----------------------------------------------- 10.0
Minimum crosscut trim with kerf
   Front ---------------------------------------------- 10.0
   Rear ----------------------------------------------- 10.0
Override rip and crosscut trims
   Override rip trim ---------------------------------- No
   Override crosscut trim ----------------------------- No
Retrim after head cut with kerf ----------------------- 5.0

Limits
Max unique parts per strip
   Quantity in main ----------------------------------- 20
   Quantity in head ----------------------------------- 5
Max unique strips per pattern
   Quantity in main ----------------------------------- 20
   Quantity in head ----------------------------------- 5
Max unique parts per pattern -------------------------- 50
Open parts
   Max open parts ------------------------------------- Unlimited
   Extra open parts for single cycle patterns --------- 0
   Override board loading sequence -------------------- No
Max different boards ---------------------------------- 0

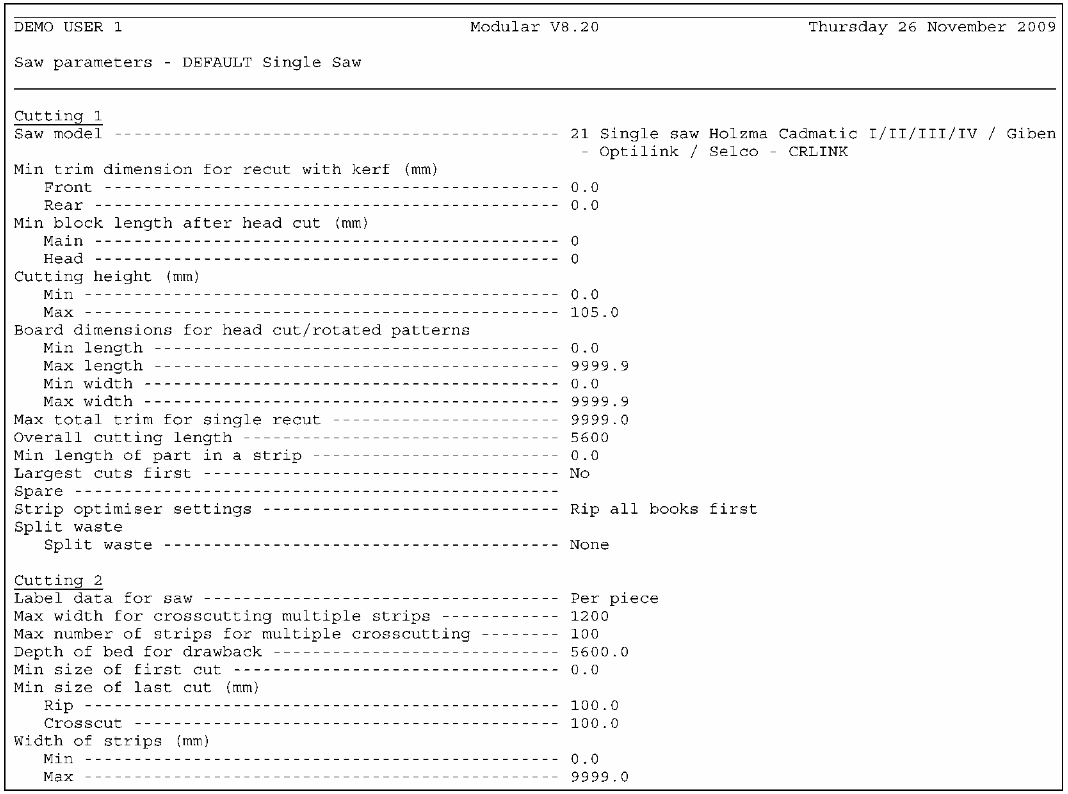
Rules
Recut ------------------------------------------------- Single
Head cuts
   Quantity ------------------------------------------- 1
   Allow in rotated patterns -------------------------- Yes
   Allow rotated parts -------------------------------- Yes
Duplicate parts
   Show in single pattern ----------------------------- No
Board orientation ------------------------------------- Lengthways
Box for priority -------------------------------------- None

Recuts
Recut processing -------------------------------------- Saw
```

Fig. 51

The layout is grouped by the same sections as shown by tabs on-screen.

Saw parameters - list of saw parameter settings for optimising. These determine basic features of the saw, such as, cutting height, clamp sizes and positions, size of waste flap etc.



```
DEMO USER 1                                   Modular V8.20                     Thursday 26 November 2009

Saw parameters - DEFAULT Single Saw

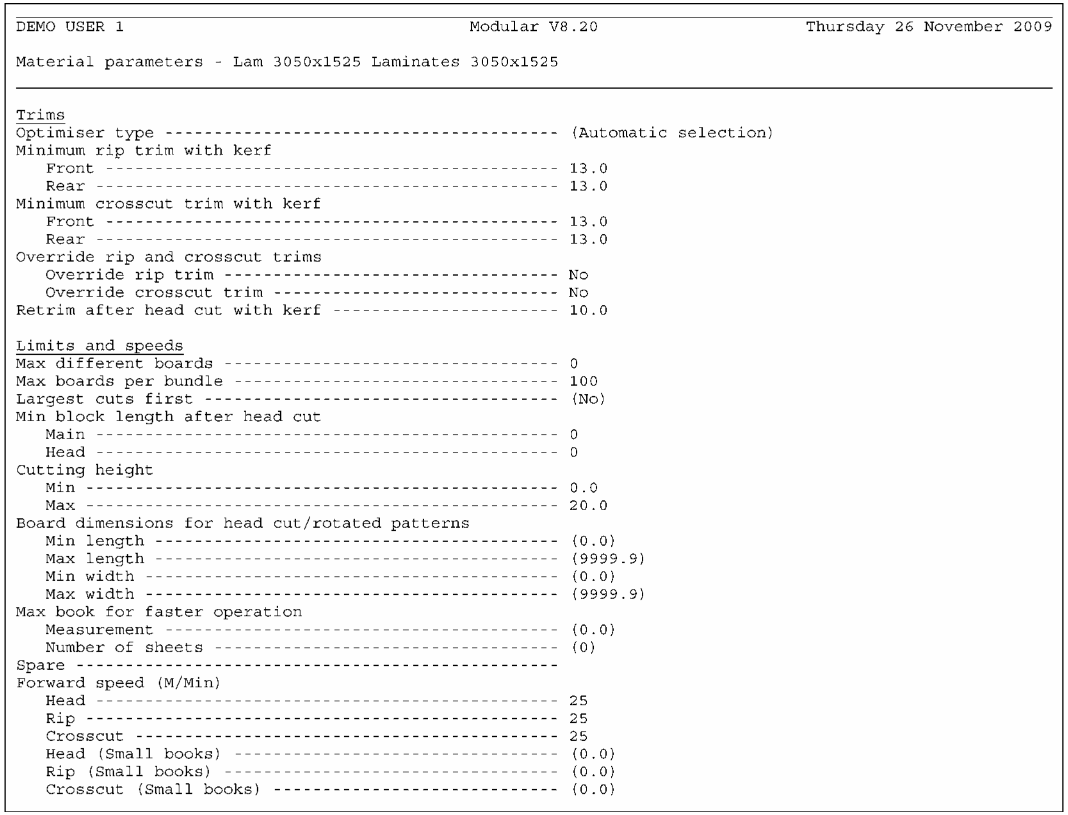
Cutting 1
Saw model --------------------------------------------- 21 Single saw Holzma Cadmatic I/II/III/IV / Giben
                                                         - Optilink / Selco - CRLINK
Min trim dimension for recut with kerf (mm)
   Front ---------------------------------------------- 0.0
   Rear ----------------------------------------------- 0.0
Min block length after head cut (mm)
   Main ----------------------------------------------- 0
   Head ----------------------------------------------- 0
Cutting height (mm)
   Min ------------------------------------------------ 0.0
   Max ------------------------------------------------ 105.0
Board dimensions for head cut/rotated patterns
   Min length ----------------------------------------- 0.0
   Max length ----------------------------------------- 9999.9
   Min width ------------------------------------------ 0.0
   Max width ------------------------------------------ 9999.9
Max total trim for single recut ----------------------- 9999.0
Overall cutting length -------------------------------- 5600
Min length of part in a strip ------------------------- 0.0
Largest cuts first ------------------------------------ No
Spare -------------------------------------------------
Strip optimiser settings ------------------------------ Rip all books first
Split waste
   Split waste ---------------------------------------- None

Cutting 2
Label data for saw ------------------------------------ Per piece
Max width for crosscutting multiple strips ------------ 1200
Max number of strips for multiple crosscutting -------- 100
Depth of bed for drawback ----------------------------- 5600.0
Min size of first cut --------------------------------- 0.0
Min size of last cut (mm)
   Rip ------------------------------------------------ 100.0
   Crosscut ------------------------------------------- 100.0
Width of strips (mm)
   Min ------------------------------------------------ 0.0
   Max ------------------------------------------------ 9999.0
```

Fig. 52

The layout is grouped by the same sections as shown by tabs on-screen.

Material parameters - list of optimising and saw parameters that can be overridden for a material. For example, some materials require a slower cutting speed.



```
DEMO USER 1                                   Modular V8.20                     Thursday 26 November 2009

Material parameters - Lam 3050x1525 Laminates 3050x1525

Trims
Optimiser type ---------------------------------------- (Automatic selection)
Minimum rip trim with kerf
   Front ---------------------------------------------- 13.0
   Rear ----------------------------------------------- 13.0
Minimum crosscut trim with kerf
   Front ---------------------------------------------- 13.0
   Rear ----------------------------------------------- 13.0
Override rip and crosscut trims
   Override rip trim ---------------------------------- No
   Override crosscut trim ----------------------------- No
Retrim after head cut with kerf ----------------------- 10.0

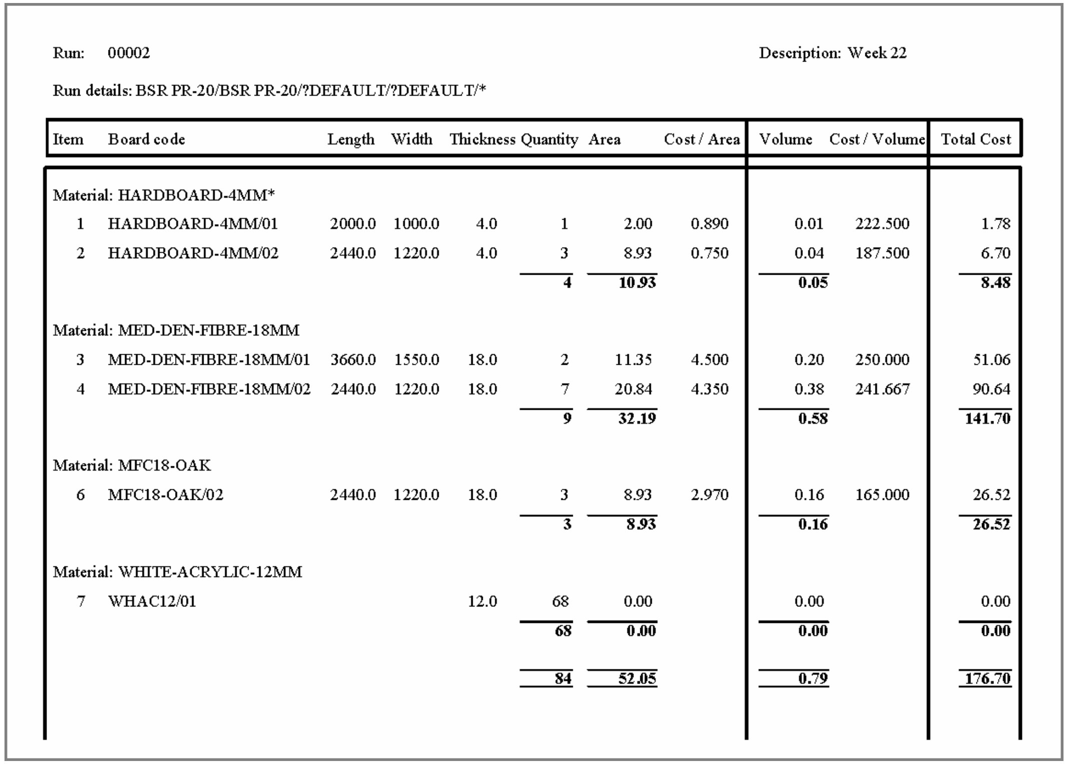
Limits and speeds
Max different boards ---------------------------------- 0
Max boards per bundle --------------------------------- 100
Largest cuts first ------------------------------------ (No)
Min block length after head cut
   Main ----------------------------------------------- 0
   Head ----------------------------------------------- 0
Cutting height
   Min ------------------------------------------------ 0.0
   Max ------------------------------------------------ 20.0
Board dimensions for head cut/rotated patterns
   Min length ----------------------------------------- (0.0)
   Max length ----------------------------------------- (9999.9)
   Min width ------------------------------------------ (0.0)
   Max width ------------------------------------------ (9999.9)
Max book for faster operation
   Measurement ---------------------------------------- (0.0)
   Number of sheets ----------------------------------- (0)
Spare -------------------------------------------------
Forward speed (M/Min)
   Head ----------------------------------------------- 25
   Rip ------------------------------------------------ 25
   Crosscut ------------------------------------------- 25
   Head (Small books) --------------------------------- (0.0)
   Rip (Small books) ---------------------------------- (0.0)
   Crosscut (Small books) ----------------------------- (0.0)
```

Fig. 53

The material parameters used depend on the material code.
The layout is grouped by the same sections as shown by tabs on-screen.

Custom Reports

With the Form design option it is possible to create new fully customised reports for use with Review runs.



Run: 00002 Description: Week 22

Run details: BSR PR-20/BSR PR-20/?DEFAULT/?DEFAULT/*

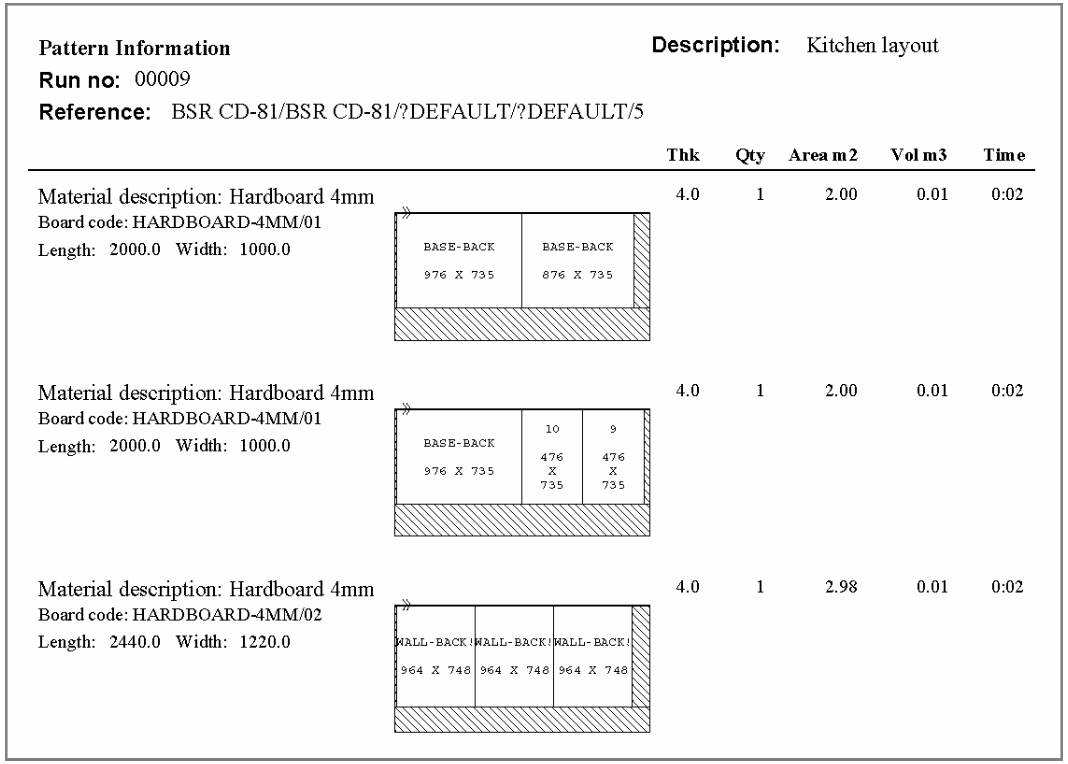
Item	Board code	Length	Width	Thickness	Quantity	Area	Cost / Area	Volume	Cost / Volume	Total Cost
Material: HARDBOARD-4MM*										
1	HARDBOARD-4MM/01	2000.0	1000.0	4.0	1	2.00	0.890	0.01	222.500	1.78
2	HARDBOARD-4MM/02	2440.0	1220.0	4.0	3	8.93	0.750	0.04	187.500	6.70
					4	**10.93**		**0.05**		**8.48**
Material: MED-DEN-FIBRE-18MM										
3	MED-DEN-FIBRE-18MM/01	3660.0	1550.0	18.0	2	11.35	4.500	0.20	250.000	51.06
4	MED-DEN-FIBRE-18MM/02	2440.0	1220.0	18.0	7	20.84	4.350	0.38	241.667	90.64
					9	**32.19**		**0.58**		**141.70**
Material: MFC18-OAK										
6	MFC18-OAK/02	2440.0	1220.0	18.0	3	8.93	2.970	0.16	165.000	26.52
					3	**8.93**		**0.16**		**26.52**
Material: WHITE-ACRYLIC-12MM										
7	WHAC12/01			12.0	68	0.00		0.00		0.00
					68	**0.00**		**0.00**		**0.00**
					84	**52.05**		**0.79**		**176.70**

Fig. 54

A custom report showing board details.

Custom Reports - multi-line items

'Per item' data can spread over several lines if necessary.



Pattern Information

Run no: 00009

Reference: BSR CD-81/BSR CD-81/?DEFAULT/?DEFAULT/5

Description: Kitchen layout

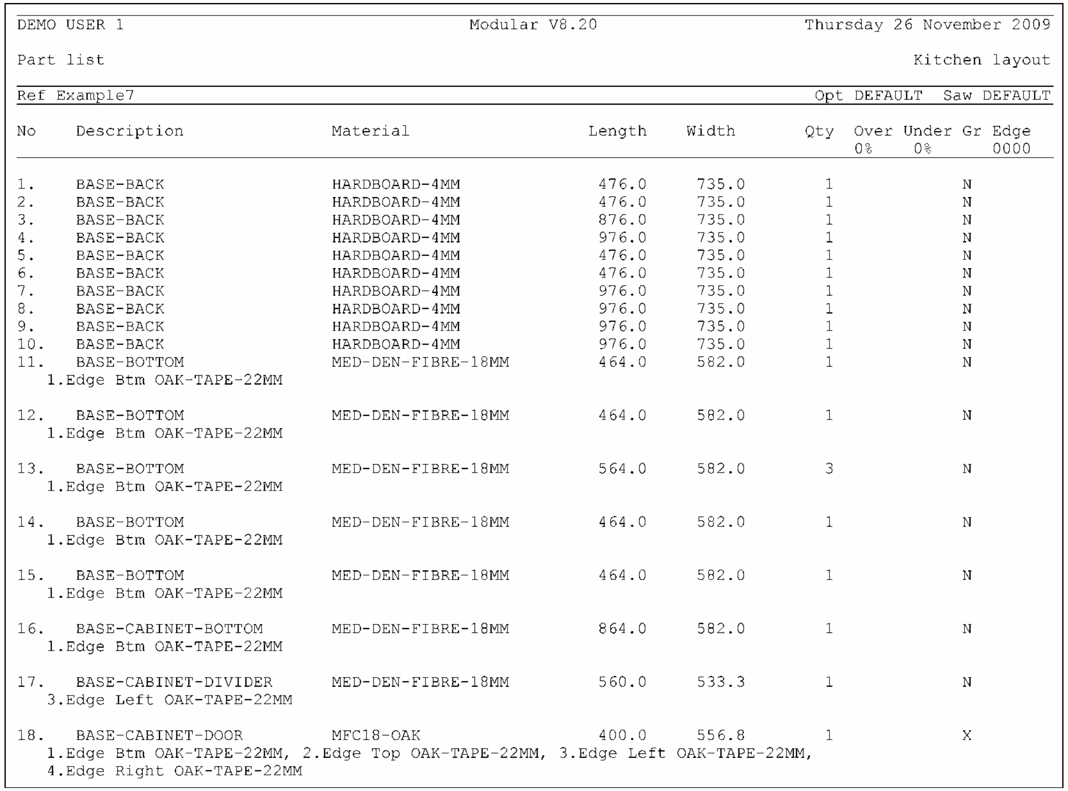
	Thk	Qty	Area m2	Vol m3	Time
Material description: Hardboard 4mm Board code: HARDBOARD-4MM/01 Length: 2000.0 Width: 1000.0	4.0	1	2.00	0.01	0:02
Material description: Hardboard 4mm Board code: HARDBOARD-4MM/01 Length: 2000.0 Width: 1000.0	4.0	1	2.00	0.01	0:02
Material description: Hardboard 4mm Board code: HARDBOARD-4MM/02 Length: 2440.0 Width: 1220.0	4.0	1	2.98	0.01	0:02

BASE-BACK
976 X 735
BASE-BACK
876 X 735
BASE-BACK
976 X 735
10
476 X 735
9
476 X 735
WALL-BACK!
964 X 748
WALL-BACK!
964 X 748
WALL-BACK!
964 X 748

Fig. 55

Optimising - divided part lists

For some situations it is useful to divide a part list into several different lists. For example, one list for each material.



```
DEMO USER 1                          Modular V8.20                  Thursday 26 November 2009

Part list                                                                      Kitchen layout

Ref Example7                                                       Opt DEFAULT  Saw DEFAULT

No    Description               Material                  Length    Width       Qty  Over Under Gr Edge
                                                                                      0%    0%      0000

1.    BASE-BACK                 HARDBOARD-4MM              476.0     735.0        1              N
2.    BASE-BACK                 HARDBOARD-4MM              476.0     735.0        1              N
3.    BASE-BACK                 HARDBOARD-4MM              876.0     735.0        1              N
4.    BASE-BACK                 HARDBOARD-4MM              976.0     735.0        1              N
5.    BASE-BACK                 HARDBOARD-4MM              476.0     735.0        1              N
6.    BASE-BACK                 HARDBOARD-4MM              476.0     735.0        1              N
7.    BASE-BACK                 HARDBOARD-4MM              976.0     735.0        1              N
8.    BASE-BACK                 HARDBOARD-4MM              976.0     735.0        1              N
9.    BASE-BACK                 HARDBOARD-4MM              976.0     735.0        1              N
10.   BASE-BACK                 HARDBOARD-4MM              976.0     735.0        1              N
11.   BASE-BOTTOM               MED-DEN-FIBRE-18MM         464.0     582.0        1              N
   1.Edge Btm OAK-TAPE-22MM

12.   BASE-BOTTOM               MED-DEN-FIBRE-18MM         464.0     582.0        1              N
   1.Edge Btm OAK-TAPE-22MM

13.   BASE-BOTTOM               MED-DEN-FIBRE-18MM         564.0     582.0        3              N
   1.Edge Btm OAK-TAPE-22MM

14.   BASE-BOTTOM               MED-DEN-FIBRE-18MM         464.0     582.0        1              N
   1.Edge Btm OAK-TAPE-22MM

15.   BASE-BOTTOM               MED-DEN-FIBRE-18MM         464.0     582.0        1              N
   1.Edge Btm OAK-TAPE-22MM

16.   BASE-CABINET-BOTTOM       MED-DEN-FIBRE-18MM         864.0     582.0        1              N
   1.Edge Btm OAK-TAPE-22MM

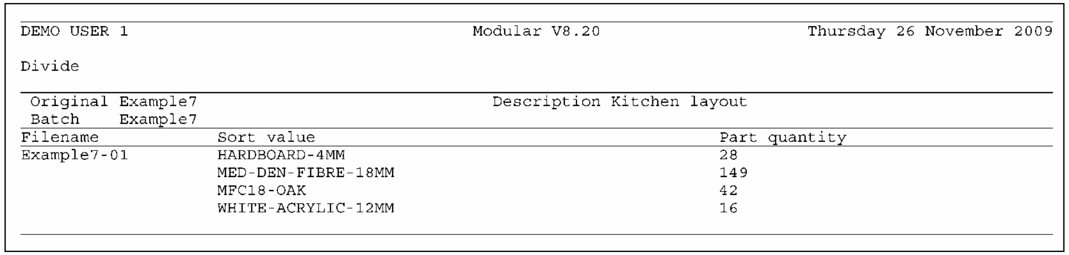
17.   BASE-CABINET-DIVIDER      MED-DEN-FIBRE-18MM         560.0     533.3        1              N
   3.Edge Left OAK-TAPE-22MM

18.   BASE-CABINET-DOOR         MFC18-OAK                  400.0     556.8        1              X
   1.Edge Btm OAK-TAPE-22MM, 2.Edge Top OAK-TAPE-22MM, 3.Edge Left OAK-TAPE-22MM,
   4.Edge Right OAK-TAPE-22MM
```

Fig. 56

Optimising - divide by material

Original list is split into several separate lists.

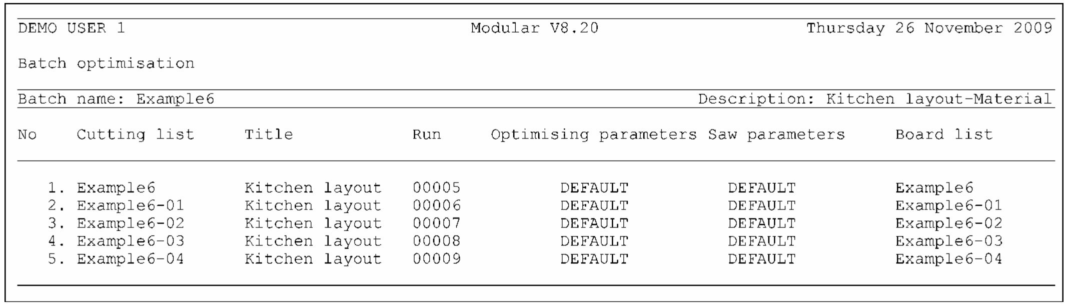


```
DEMO USER 1                                 Modular V8.20                      Thursday 26 November 2009

Divide
 Original Example7                                   Description Kitchen layout
 Batch    Example7
Filename           Sort value                                          Part quantity
Example7-01        HARDBOARD-4MM                                       28
                   MED-DEN-FIBRE-18MM                                  149
                   MFC18-OAK                                           42
                   WHITE-ACRYLIC-12MM                                  16
```

Fig. 57

Separate lists are optimised as a batch - use *Optimise Batch*



```
DEMO USER 1                                 Modular V8.20                      Thursday 26 November 2009

Batch optimisation

Batch name: Example6                                               Description: Kitchen layout-Material

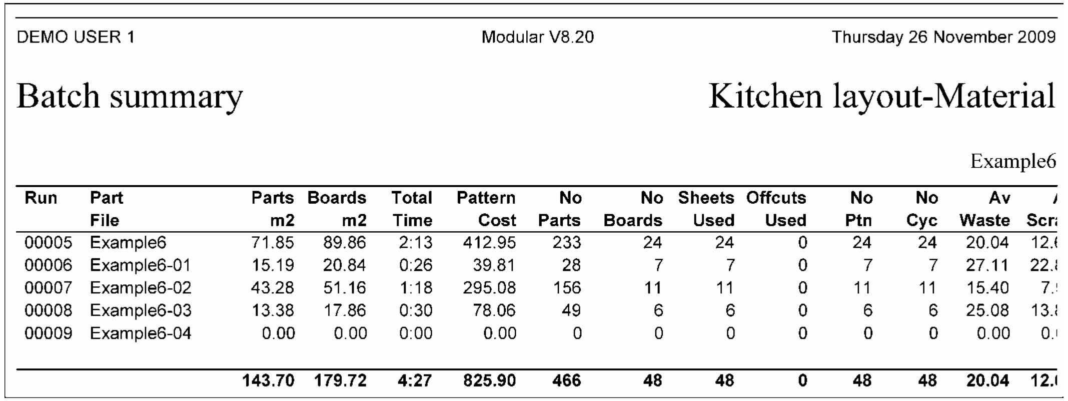
No    Cutting list     Title            Run     Optimising parameters Saw parameters     Board list

   1. Example6         Kitchen layout   00005          DEFAULT          DEFAULT          Example6
   2. Example6-01      Kitchen layout   00006          DEFAULT          DEFAULT          Example6-01
   3. Example6-02      Kitchen layout   00007          DEFAULT          DEFAULT          Example6-02
   4. Example6-03      Kitchen layout   00008          DEFAULT          DEFAULT          Example6-03
   5. Example6-04      Kitchen layout   00009          DEFAULT          DEFAULT          Example6-04
```

Fig. 58

Optimising - Batch summary

Where there is more than one part list / cutting list in a batch the first summary shown is usually the Batch summary. The other summaries then follow for each run.



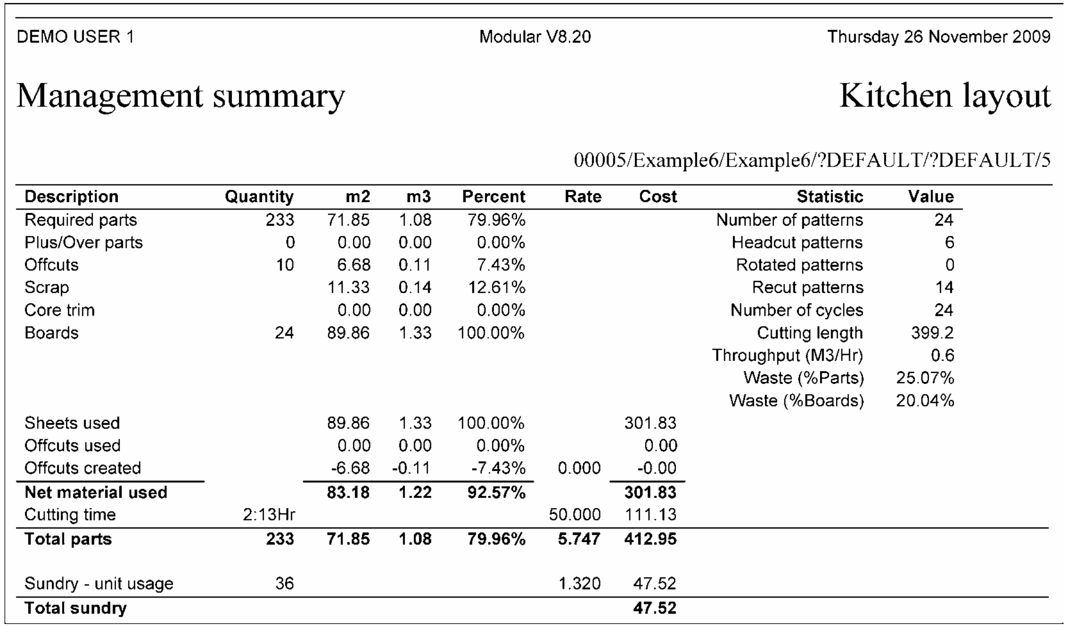
DEMO USER 1 Modular V8.20 Thursday 26 November 2009

Batch summary Kitchen layout-Material

Example6

Run	Part File	Parts m2	Boards m2	Total Time	Pattern Cost	No Parts	No Boards	Sheets Used	Offcuts Used	No Ptn	No Cyc	Av Waste	Scr
00005	Example6	71.85	89.86	2:13	412.95	233	24	24	0	24	24	20.04	12.
00006	Example6-01	15.19	20.84	0:26	39.81	28	7	7	0	7	7	27.11	22.
00007	Example6-02	43.28	51.16	1:18	295.08	156	11	11	0	11	11	15.40	7.
00008	Example6-03	13.38	17.86	0:30	78.06	49	6	6	0	6	6	25.08	13.
00009	Example6-04	0.00	0.00	0:00	0.00	0	0	0	0	0	0	0.00	0.
		143.70	**179.72**	**4:27**	**825.90**	**466**	**48**	**48**	**0**	**48**	**48**	**20.04**	**12.**

Fig. 59



DEMO USER 1 Modular V8.20 Thursday 26 November 2009

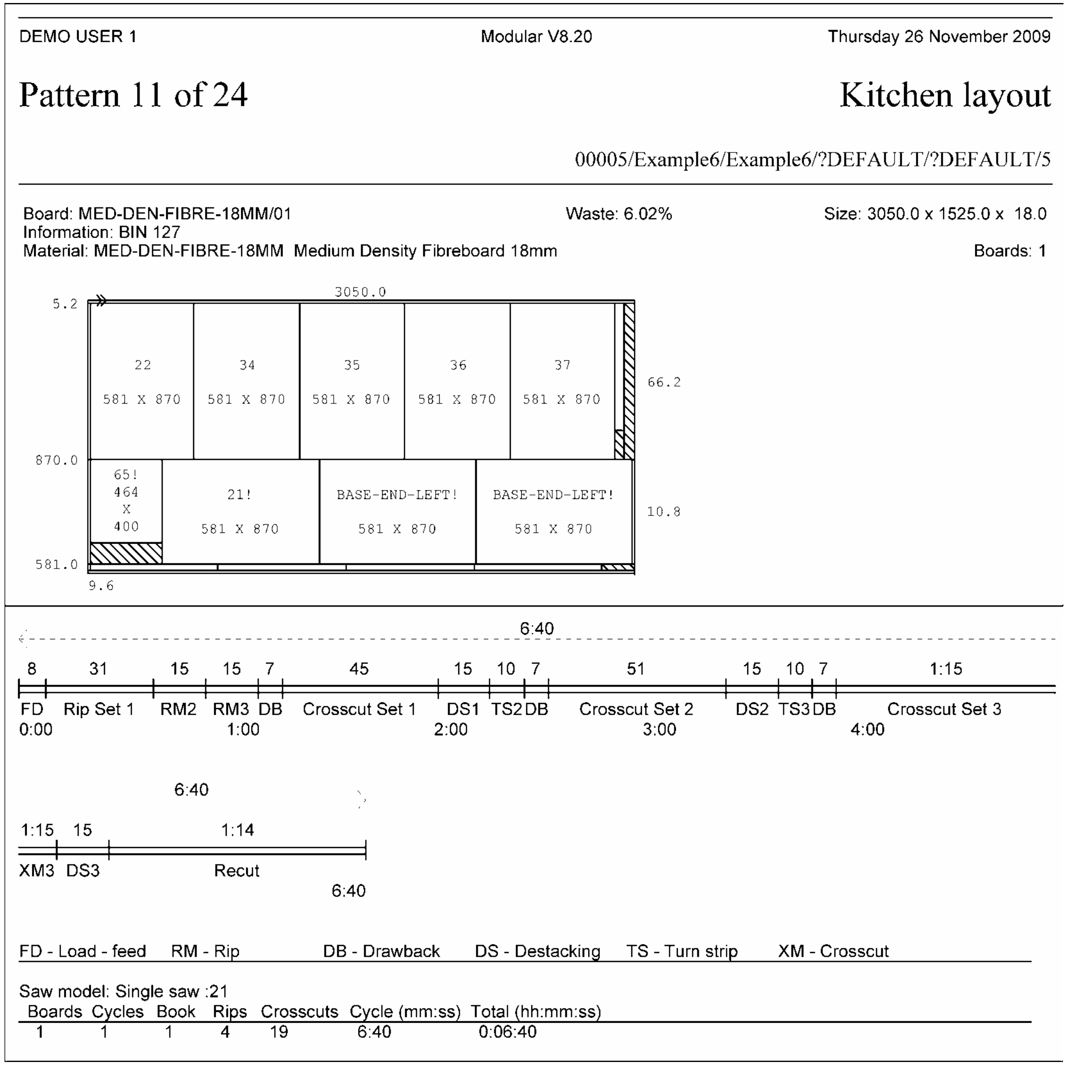
Management summary Kitchen layout

00005/Example6/Example6/?DEFAULT/?DEFAULT/5

Description	Quantity	m2	m3	Percent	Rate	Cost	Statistic	Value
Required parts	233	71.85	1.08	79.96%			Number of patterns	24
Plus/Over parts	0	0.00	0.00	0.00%			Headcut patterns	6
Offcuts	10	6.68	0.11	7.43%			Rotated patterns	0
Scrap		11.33	0.14	12.61%			Recut patterns	14
Core trim		0.00	0.00	0.00%			Number of cycles	24
Boards	24	89.86	1.33	100.00%			Cutting length	399.2
							Throughput (M3/Hr)	0.6
							Waste (%Parts)	25.07%
							Waste (%Boards)	20.04%
Sheets used		89.86	1.33	100.00%		301.83		
Offcuts used		0.00	0.00	0.00%		0.00		
Offcuts created		-6.68	-0.11	-7.43%	0.000	-0.00		
Net material used		**83.18**	**1.22**	**92.57%**		**301.83**		
Cutting time	2:13Hr				50.000	111.13		
Total parts	**233**	**71.85**	**1.08**	**79.96%**	**5.747**	**412.95**		
Sundry - unit usage	36				1.320	47.52		
Total sundry						**47.52**		

Fig. 60

Optimising - Saw simulation. For each pattern a simulation report for an average saw cycle is available. The timeline shows each activity (drawback, crosscut etc).



DEMO USER 1 Modular V8.20 Thursday 26 November 2009

Pattern 11 of 24

Kitchen layout

00005/Example6/Example6/?DEFAULT/?DEFAULT/5

Board: MED-DEN-FIBRE-18MM/01 Waste: 6.02% Size: 3050.0 x 1525.0 x 18.0
Information: BIN 127
Material: MED-DEN-FIBRE-18MM Medium Density Fibreboard 18mm Boards: 1

3050.0
5.2
22
581 X 870
34
581 X 870
35
581 X 870
36
581 X 870
37
581 X 870
66.2
870.0
65!
464
X
400
21!
581 X 870
BASE-END-LEFT!
581 X 870
BASE-END-LEFT!
581 X 870
10.8
581.0
9.6
6:40
8
31
15
15
7
45
15
10
7
51
15
10
7
1:15
FD
Rip Set 1
RM2
RM3
DB
Crosscut Set 1
DS1
TS2
DB
Crosscut Set 2
DS2
TS3
DB
Crosscut Set 3
0:00
1:00
2:00
3:00
4:00
6:40
1:15
15
1:14
XM3
DS3
Recut
6:40

FD - Load - feed RM - Rip DB - Drawback DS - Destacking TS - Turn strip XM - Crosscut

Saw model: Single saw :21

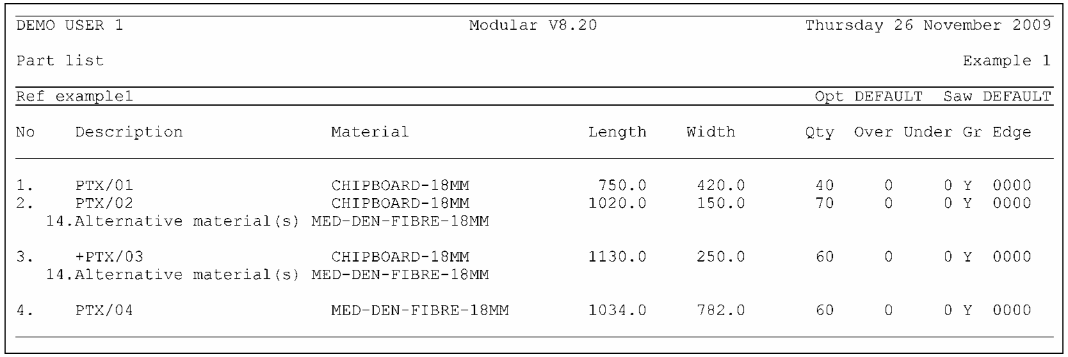
Boards	Cycles	Book	Rips	Crosscuts	Cycle (mm:ss)	Total (hh:mm:ss)
1	1	1	4	19	6:40	0:06:40

Fig. 61 & 62

Optimising - alternative materials

In some situations internal and hidden parts can be made from alternative materials.

Part list - alternative materials



```
DEMO USER 1                                 Modular V8.20                    Thursday 26 November 2009

Part list                                                                                   Example 1

Ref example1                                                                Opt DEFAULT  Saw DEFAULT

No    Description               Material                  Length    Width       Qty  Over Under Gr Edge

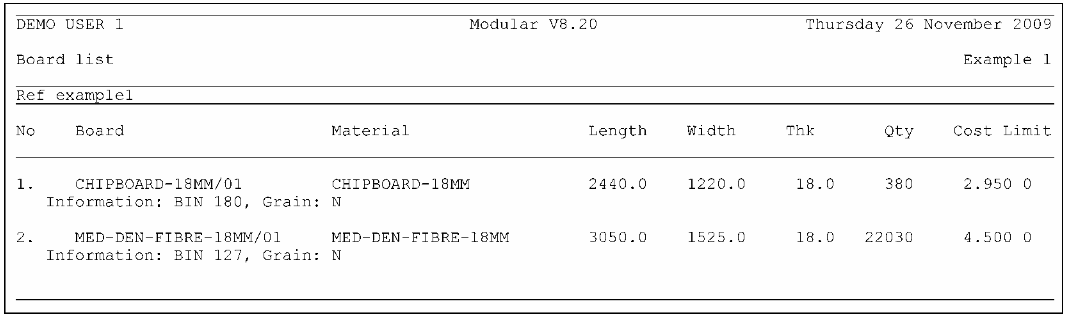
1.    PTX/01                    CHIPBOARD-18MM             750.0    420.0        40     0     0 Y  0000
2.    PTX/02                    CHIPBOARD-18MM            1020.0    150.0        70     0     0 Y  0000
   14.Alternative material(s) MED-DEN-FIBRE-18MM

3.    +PTX/03                   CHIPBOARD-18MM            1130.0    250.0        60     0     0 Y  0000
   14.Alternative material(s) MED-DEN-FIBRE-18MM

4.    PTX/04                    MED-DEN-FIBRE-18MM        1034.0    782.0        60     0     0 Y  0000
```

Fig. 63

Board list - alternative materials



```
DEMO USER 1                                 Modular V8.20                    Thursday 26 November 2009

Board list                                                                                  Example 1

Ref example1

No    Board                     Material                  Length    Width     Thk        Qty    Cost Limit

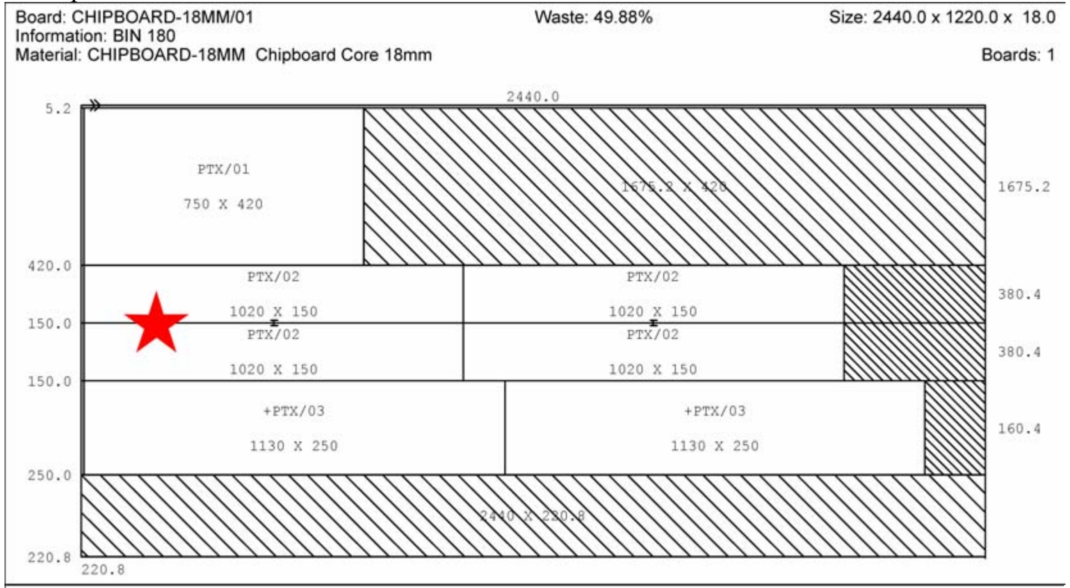
1.    CHIPBOARD-18MM/01         CHIPBOARD-18MM            2440.0    1220.0     18.0       380     2.950 0
   Information: BIN 180, Grain: N

2.    MED-DEN-FIBRE-18MM/01     MED-DEN-FIBRE-18MM        3050.0    1525.0     18.0     22030     4.500 0
   Information: BIN 127, Grain: N
```

Fig. 64

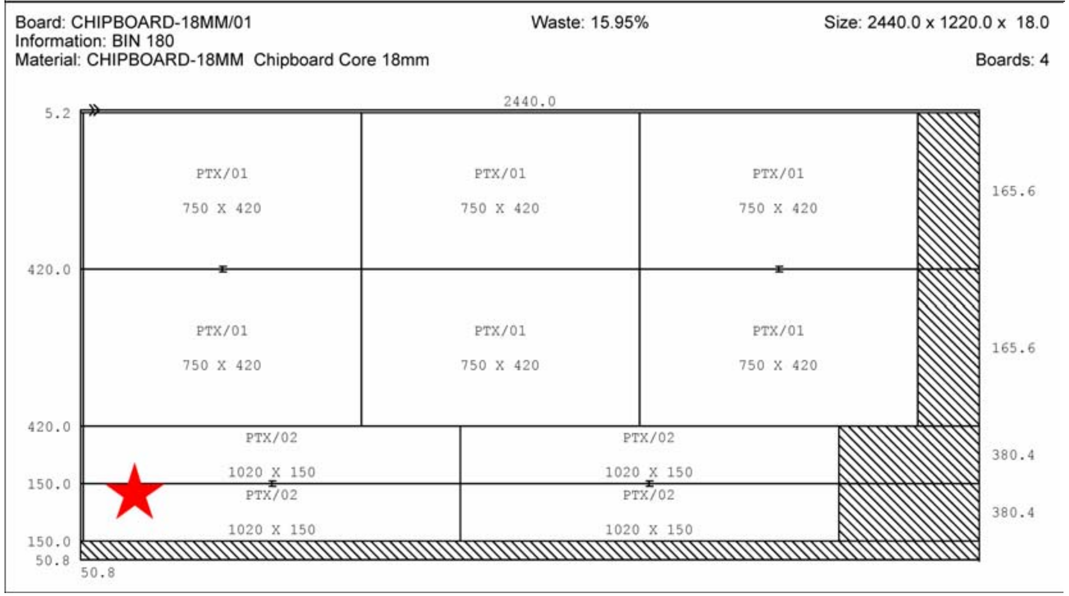
The patterns following show the same parts cut from sheets of two different materials in the same run.

Same parts cut from sheets of two different materials in the same run.



Board: CHIPBOARD-18MM/01 Waste: 49.88% Size: 2440.0 x 1220.0 x 18.0
Information: BIN 180
Material: CHIPBOARD-18MM Chipboard Core 18mm Boards: 1

2440.0
5.2
PTX/01
750 X 420
1675.2 X 420
1675.2
420.0
PTX/02
1020 X 150
PTX/02
1020 X 150
380.4
150.0
PTX/02
1020 X 150
PTX/02
1020 X 150
380.4
150.0
+PTX/03
1130 X 250
+PTX/03
1130 X 250
160.4
250.0
2440 X 220.8
220.8
220.8



Board: CHIPBOARD-18MM/01 Waste: 15.95% Size: 2440.0 x 1220.0 x 18.0
Information: BIN 180
Material: CHIPBOARD-18MM Chipboard Core 18mm Boards: 4

2440.0
5.2
PTX/01
750 X 420
PTX/01
750 X 420
PTX/01
750 X 420
165.6
420.0
PTX/01
750 X 420
PTX/01
750 X 420
PTX/01
750 X 420
165.6
420.0
PTX/02
1020 X 150
PTX/02
1020 X 150
380.4
150.0
PTX/02
1020 X 150
PTX/02
1020 X 150
380.4
150.0
50.8
50.8

Fig. 65 & 66

Pattern amendment - pattern from a run before/after pattern amendment

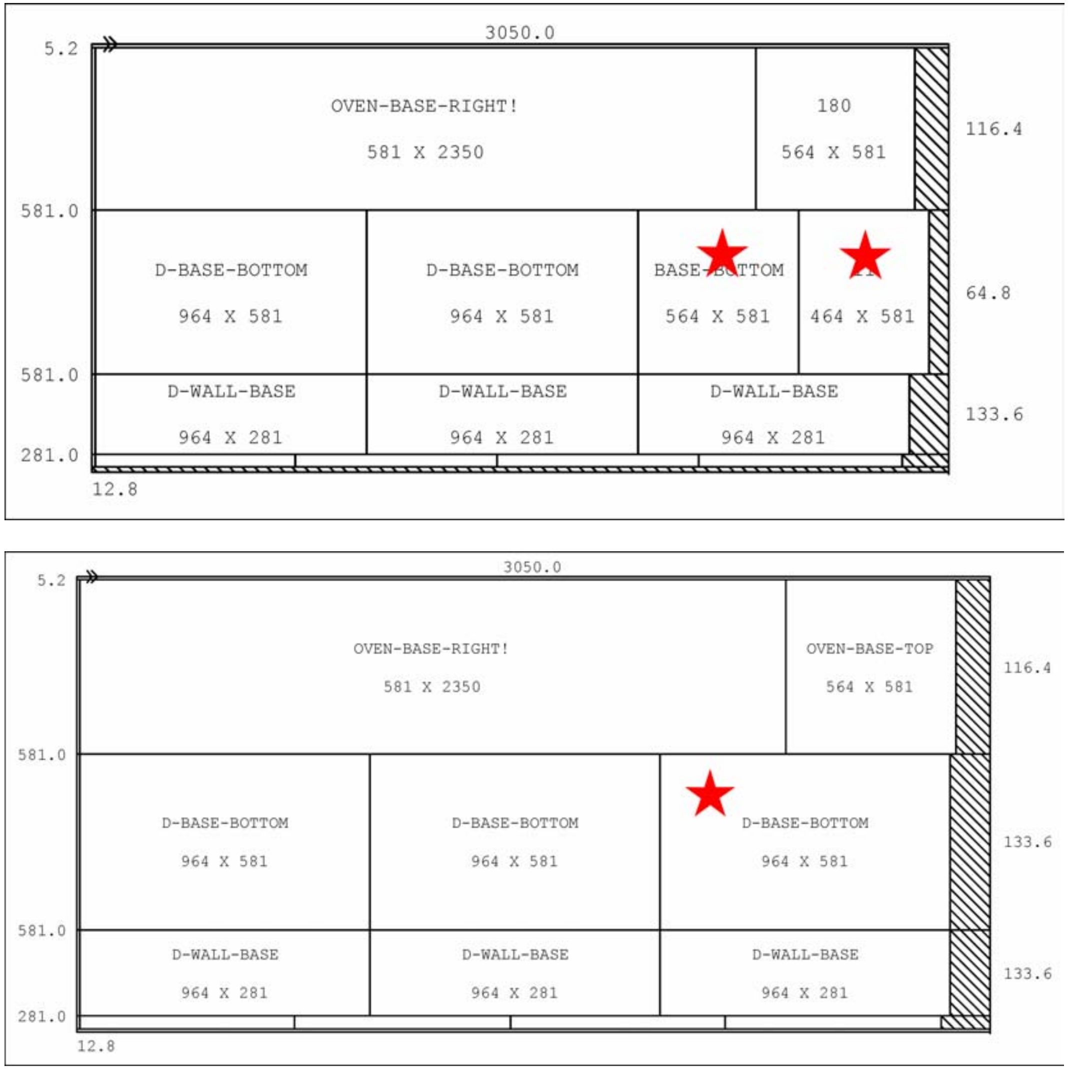

3050.0
5.2
OVEN-BASE-RIGHT!
581 X 2350
180
564 X 581
116.4
581.0
D-BASE-BOTTOM
964 X 581
D-BASE-BOTTOM
964 X 581
BASE-B TTOM
564 X 581
464 X 581
64.8
581.0
D-WALL-BASE
964 X 281
D-WALL-BASE
964 X 281
D-WALL-BASE
964 X 281
133.6
281.0
12.8
3050.0
5.2
OVEN-BASE-RIGHT!
581 X 2350
OVEN-BASE-TOP
564 X 581
116.4
581.0
D-BASE-BOTTOM
964 X 581
D-BASE-BOTTOM
964 X 581
D-BASE-BOTTOM
964 X 581
133.6
581.0
D-WALL-BASE
964 X 281
D-WALL-BASE
964 X 281
D-WALL-BASE
964 X 281
133.6
281.0
12.8

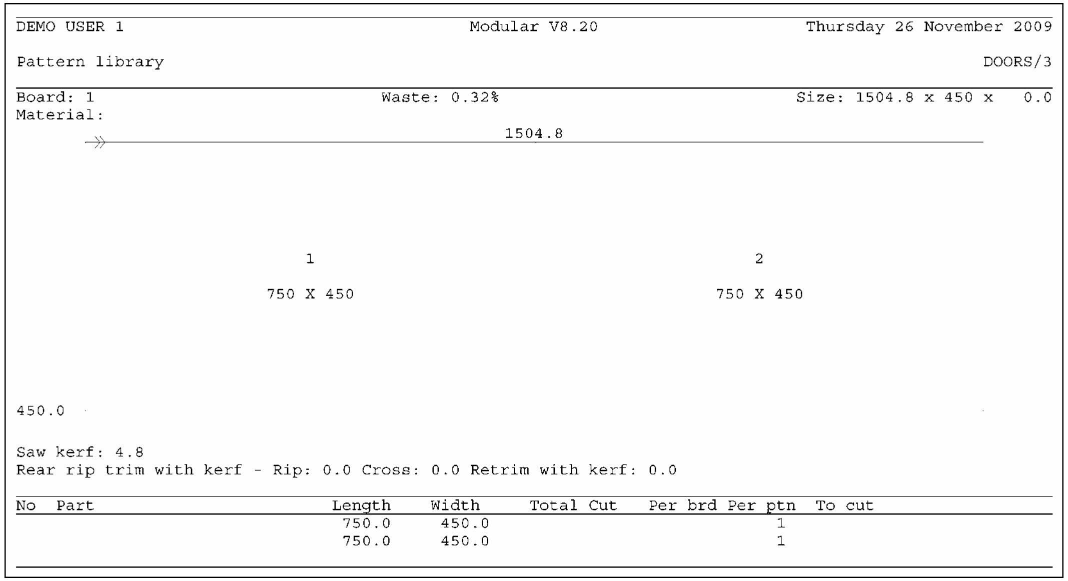
Fig. 67 & 68

In this example parts are deleted and replaced by another part.

Pattern library - grain matching

This is the process of ensuring that certain parts are produced from the same area of material so that the grain matches (for example, when producing cabinet doors).

To do this a template is defined for these parts in the Pattern library.



```
DEMO USER 1                              Modular V8.20                Thursday 26 November 2009

Pattern library                                                                         DOORS/3
Board: 1                      Waste: 0.32%                           Size: 1504.8 x 450 x   0.0
Material:
                                            1504.8

                        1                                     2

                    750 X 450                             750 X 450

450.0

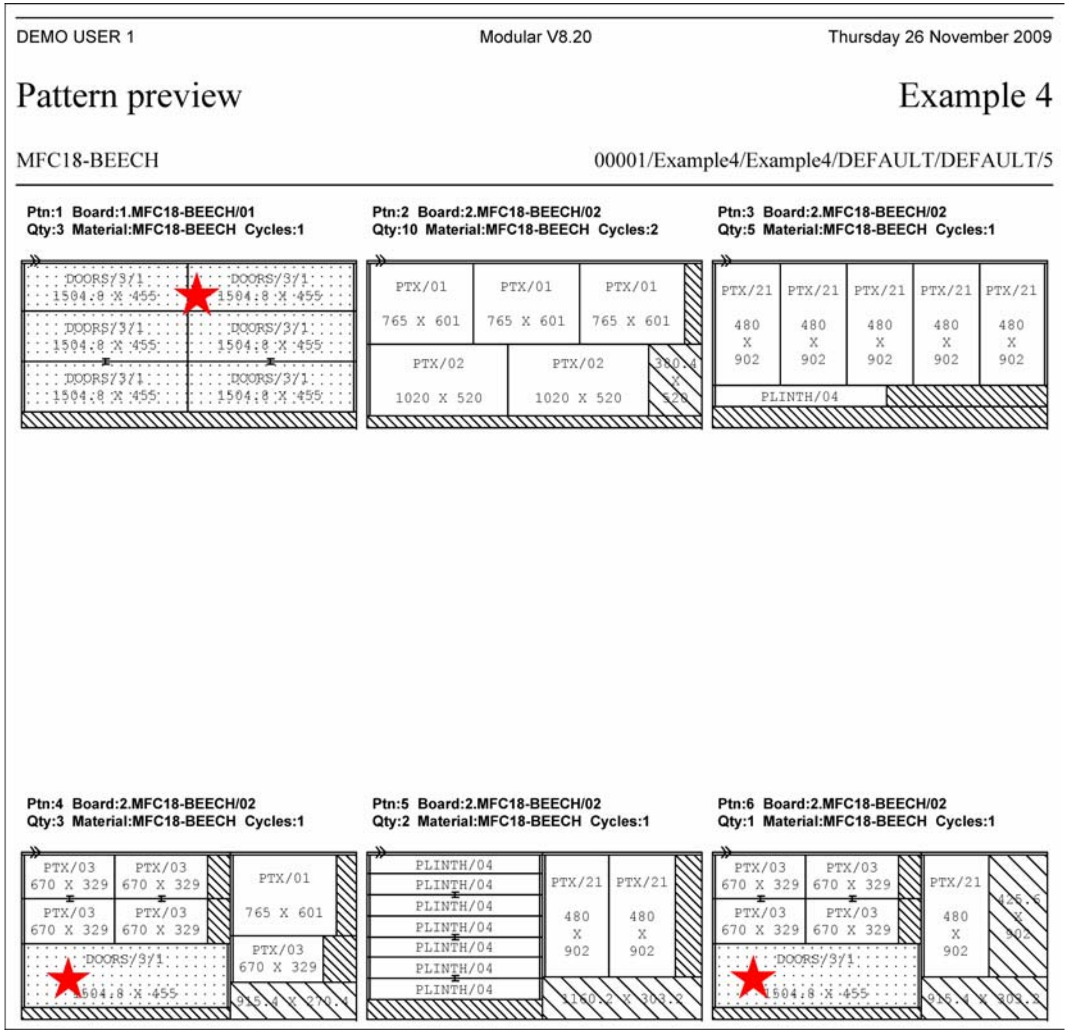
Saw kerf: 4.8
Rear rip trim with kerf - Rip: 0.0 Cross: 0.0 Retrim with kerf: 0.0

No  Part                        Length    Width     Total Cut   Per brd Per ptn  To cut
                                 750.0    450.0                               1
                                 750.0    450.0                               1
```

Fig. 69

This shows the required layout of the parts.

Patterns - grain matching - optimisation produces the template parts in a fixed a layout (see starred examples)



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Pattern preview Example 4

MFC18-BEECH 00001/Example4/Example4/DEFAULT/DEFAULT/5

Ptn:1 Board:1.MFC18-BEECH/01
Qty:3 Material:MFC18-BEECH Cycles:1

Ptn:2 Board:2.MFC18-BEECH/02
Qty:10 Material:MFC18-BEECH Cycles:2

Ptn:3 Board:2.MFC18-BEECH/02
Qty:5 Material:MFC18-BEECH Cycles:1

Ptn:4 Board:2.MFC18-BEECH/02
Qty:3 Material:MFC18-BEECH Cycles:1

Ptn:5 Board:2.MFC18-BEECH/02
Qty:2 Material:MFC18-BEECH Cycles:1

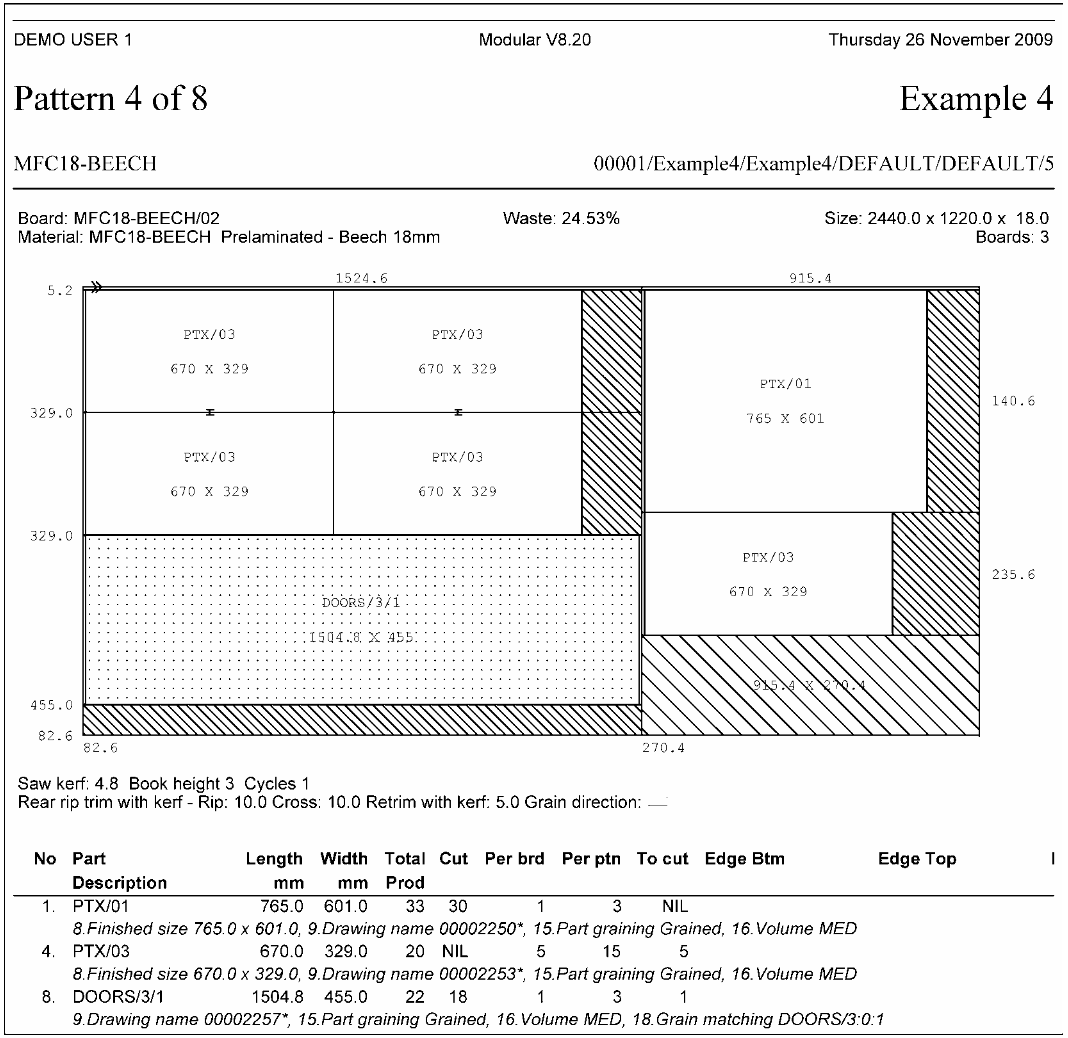
Ptn:6 Board:2.MFC18-BEECH/02
Qty:1 Material:MFC18-BEECH Cycles:1

DOORS/3/1 1504.8 X 455
PTX/01 765 X 601
PTX/02 1020 X 520
380.4 X 520
PTX/21 480 X 902
PLINTH/04
PTX/03 670 X 329
915.4 X 270.4
1160.2 X 303.2
426.6 X 902
915.4 X 303.2

Fig. 70

In this example the parts are produced as master parts to be divided later.

Part template for grain matching - full pattern



DEMO USER 1 Modular V8.20 Thursday 26 November 2009

Pattern 4 of 8 Example 4

MFC18-BEECH 00001/Example4/Example4/DEFAULT/DEFAULT/5

Board: MFC18-BEECH/02 Waste: 24.53% Size: 2440.0 x 1220.0 x 18.0
Material: MFC18-BEECH Prelaminated - Beech 18mm Boards: 3

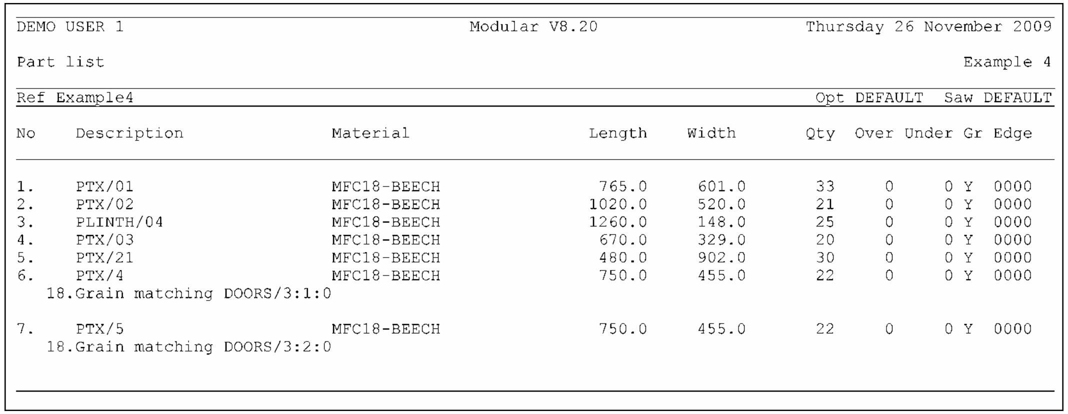
1524.6
915.4
5.2
PTX/03
670 X 329
PTX/03
670 X 329
329.0
PTX/03
670 X 329
PTX/03
670 X 329
PTX/01
765 X 601
140.6
329.0
PTX/03
670 X 329
235.6
DOORS/3/1
1504.8 X 455
915.4 X 270.4
455.0
82.6
82.6
270.4

Saw kerf: 4.8 Book height 3 Cycles 1
Rear rip trim with kerf - Rip: 10.0 Cross: 10.0 Retrim with kerf: 5.0 Grain direction: —

No	Part Description	Length mm	Width mm	Total Prod	Cut	Per brd	Per ptn	To cut	Edge Btm	Edge Top	I
1.	PTX/01	765.0	601.0	33	30	1	3	NIL			
	8.Finished size 765.0 x 601.0, 9.Drawing name 00002250, 15.Part graining Grained, 16.Volume MED*										
4.	PTX/03	670.0	329.0	20	NIL	5	15	5			
	8.Finished size 670.0 x 329.0, 9.Drawing name 00002253, 15.Part graining Grained, 16.Volume MED*										
8.	DOORS/3/1	1504.8	455.0	22	18	1	3	1			
	9.Drawing name 00002257, 15.Part graining Grained, 16.Volume MED, 18.Grain matching DOORS/3:0:1*										

Fig. 71

Part list grain match - Information box set for grain matching.



```
DEMO USER 1                                   Modular V8.20                     Thursday 26 November 2009

Part list                                                                                       Example 4

Ref Example4                                                                    Opt DEFAULT   Saw DEFAULT

No     Description               Material                  Length     Width        Qty  Over Under Gr Edge


1.     PTX/01                    MFC18-BEECH                765.0     601.0         33     0     0 Y  0000
2.     PTX/02                    MFC18-BEECH               1020.0     520.0         21     0     0 Y  0000
3.     PLINTH/04                 MFC18-BEECH               1260.0     148.0         25     0     0 Y  0000
4.     PTX/03                    MFC18-BEECH                670.0     329.0         20     0     0 Y  0000
5.     PTX/21                    MFC18-BEECH                480.0     902.0         30     0     0 Y  0000
6.     PTX/4                     MFC18-BEECH                750.0     455.0         22     0     0 Y  0000
   18.Grain matching DOORS/3:1:0

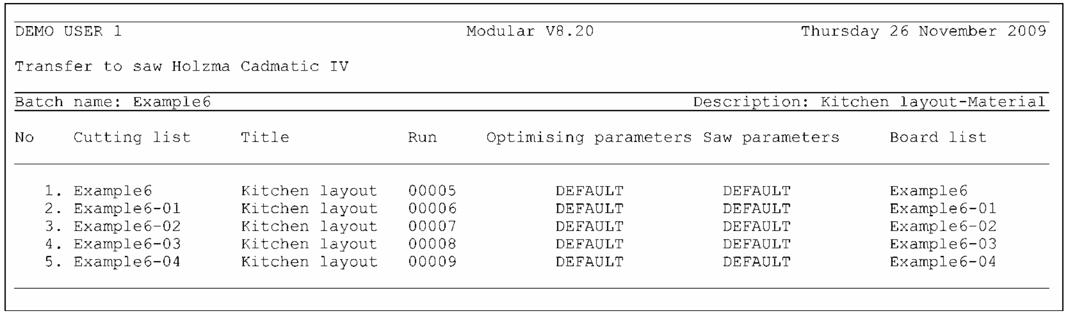
7.     PTX/5                     MFC18-BEECH                750.0     455.0         22     0     0 Y  0000
   18.Grain matching DOORS/3:2:0
```

Fig. 72

Each part for grain matching is allocated to a template e.g. DOORS/3

Transfer to saw

Runs are transferred to the saw as a batch.



```
DEMO USER 1                                          Modular V8.20                             Thursday 26 November 2009

Transfer to saw Holzma Cadmatic IV

Batch name: Example6                                                                  Description: Kitchen layout-Material

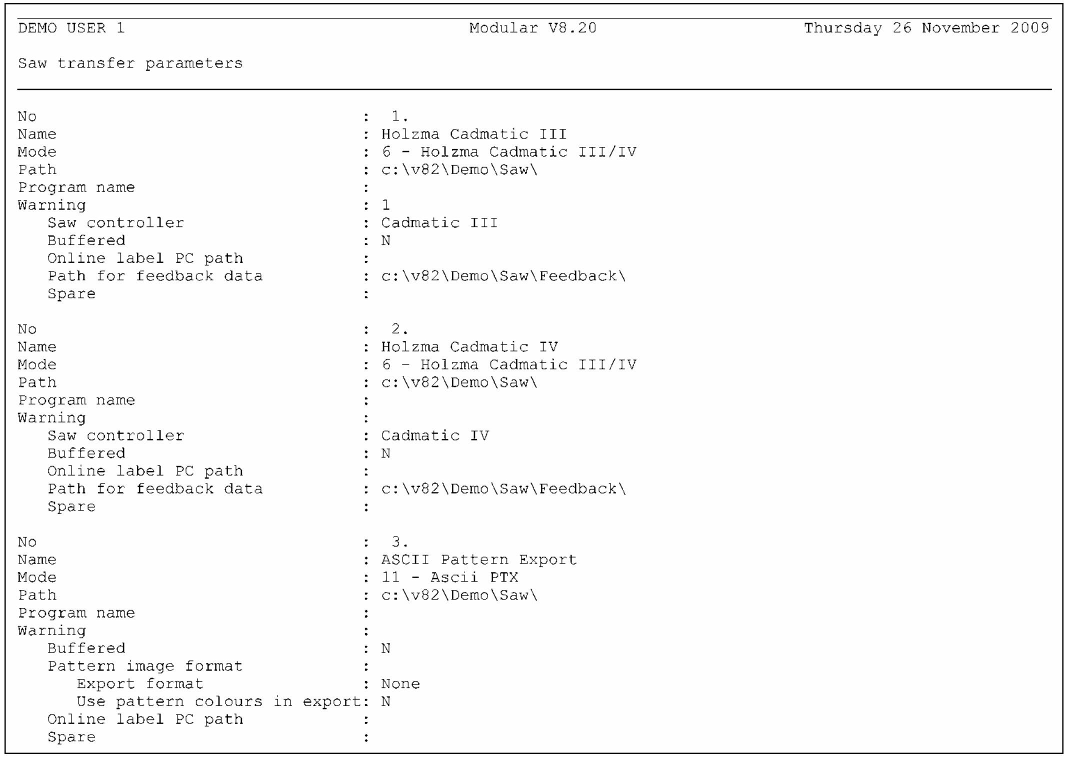
No     Cutting list      Title             Run      Optimising parameters Saw parameters      Board list


   1. Example6          Kitchen layout    00005            DEFAULT           DEFAULT             Example6
   2. Example6-01       Kitchen layout    00006            DEFAULT           DEFAULT             Example6-01
   3. Example6-02       Kitchen layout    00007            DEFAULT           DEFAULT             Example6-02
   4. Example6-03       Kitchen layout    00008            DEFAULT           DEFAULT             Example6-03
   5. Example6-04       Kitchen layout    00009            DEFAULT           DEFAULT             Example6-04
```

Fig. 73

Transfer to saw - set up

Saw transfer is set up via the Saw transfer parameters. Different transfers can be set up for different saws or export methods.



```
DEMO USER 1                                  Modular V8.20                       Thursday 26 November 2009

Saw transfer parameters
----------------------------------------------------------------------------------------------------------

No                                  :  1.
Name                                : Holzma Cadmatic III
Mode                                : 6 - Holzma Cadmatic III/IV
Path                                : c:\v82\Demo\Saw\
Program name                        :
Warning                             : 1
   Saw controller                   : Cadmatic III
   Buffered                         : N
   Online label PC path             :
   Path for feedback data           : c:\v82\Demo\Saw\Feedback\
   Spare                            :

No                                  :  2.
Name                                : Holzma Cadmatic IV
Mode                                : 6 - Holzma Cadmatic III/IV
Path                                : c:\v82\Demo\Saw\
Program name                        :
Warning                             :
   Saw controller                   : Cadmatic IV
   Buffered                         : N
   Online label PC path             :
   Path for feedback data           : c:\v82\Demo\Saw\Feedback\
   Spare                            :

No                                  :  3.
Name                                : ASCII Pattern Export
Mode                                : 11 - Ascii PTX
Path                                : c:\v82\Demo\Saw\
Program name                        :
Warning                             :
   Buffered                         : N
   Pattern image format             :
      Export format                 : None
      Use pattern colours in export: N
   Online label PC path             :
   Spare                            :
```

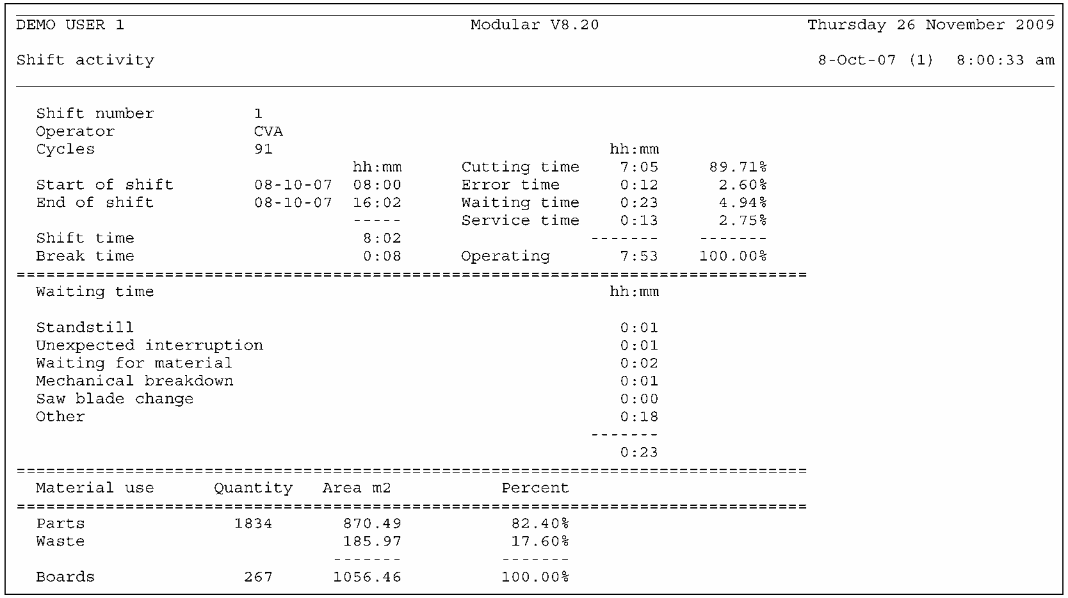
Fig. 74

This can include transfer to a group of machines.

Feedback from saw

For some saws/saw controllers Feedback data is available. This can be used for analysis. These are available via the Saw transfer options.

Shift activity - shows analysis of cutting at the saw for a shift.



```
DEMO USER 1                                   Modular V8.20                     Thursday 26 November 2009

Shift activity                                                                   8-Oct-07 (1)  8:00:33 am

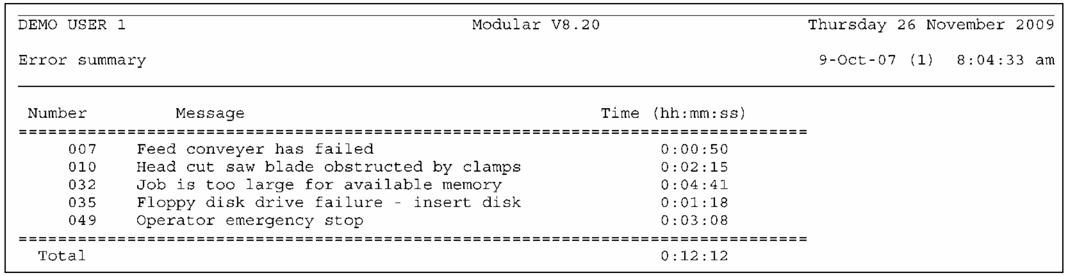
  Shift number          1
  Operator              CVA
  Cycles                91                                  hh:mm
                                  hh:mm      Cutting time    7:05     89.71%
  Start of shift        08-10-07  08:00      Error time      0:12      2.60%
  End of shift          08-10-07  16:02      Waiting time    0:23      4.94%
                                  -----      Service time    0:13      2.75%
  Shift time                       8:02                   -------    -------
  Break time                       0:08      Operating       7:53    100.00%
================================================================================
  Waiting time                                              hh:mm

  Standstill                                                 0:01
  Unexpected interruption                                    0:01
  Waiting for material                                       0:02
  Mechanical breakdown                                       0:01
  Saw blade change                                           0:00
  Other                                                      0:18
                                                          -------
                                                             0:23
================================================================================
  Material use      Quantity   Area m2           Percent
================================================================================
  Parts               1834       870.49           82.40%
  Waste                          185.97           17.60%
                                -------          -------

  Boards               267      1056.46          100.00%
```

Fig. 75

Feedback from saw - Error summary for shifts



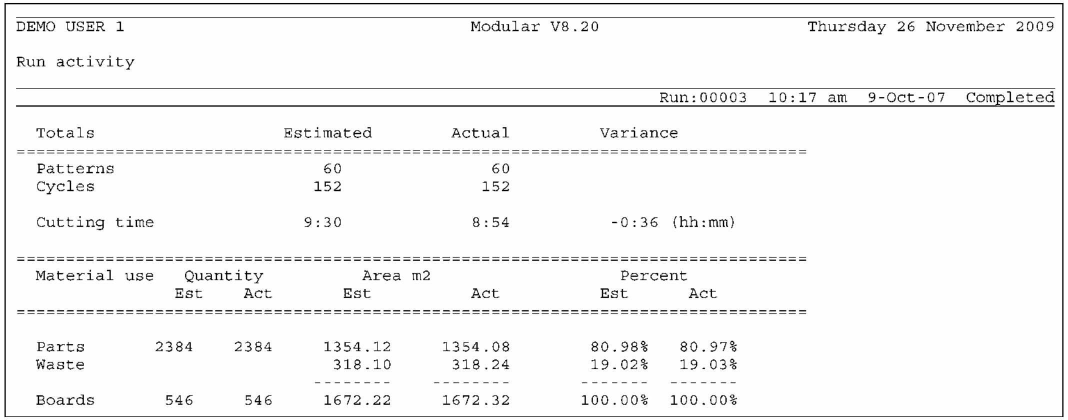
```
DEMO USER 1                                  Modular V8.20                         Thursday 26 November 2009

Error summary                                                                     9-Oct-07 (1)  8:04:33 am

 Number         Message                                    Time (hh:mm:ss)
================================================================================
     007    Feed conveyer has failed                              0:00:50
     010    Head cut saw blade obstructed by clamps               0:02:15
     032    Job is too large for available memory                 0:04:41
     035    Floppy disk drive failure - insert disk               0:01:18
     049    Operator emergency stop                               0:03:08
================================================================================
  Total                                                           0:12:12
```

Fig. 76

Feedback from saw - Analyse runs



```
DEMO USER 1                                  Modular V8.20                         Thursday 26 November 2009

Run activity

                                                              Run:00003  10:17 am  9-Oct-07  Completed

  Totals                    Estimated        Actual         Variance
================================================================================
  Patterns                         60            60
  Cycles                          152           152

  Cutting time                   9:30          8:54          -0:36 (hh:mm)

================================================================================
  Material use   Quantity           Area m2                   Percent
                Est    Act       Est          Act          Est      Act
================================================================================

  Parts       2384     2384      1354.12      1354.08       80.98%   80.97%
  Waste                           318.10       318.24       19.02%   19.03%
                                --------     --------      -------  -------
  Boards       546      546      1672.22      1672.32      100.00%  100.00%
```

Fig. 77

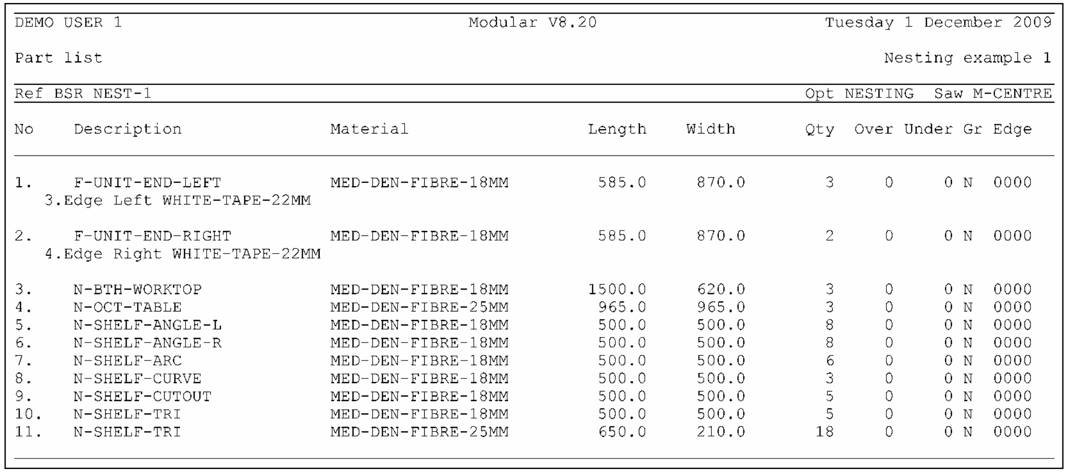
Nesting optimising

The program includes Nesting optimising options. These are for runs that are divided and machined at Machining centres.

Part lists and boards are added in the usual way. Where part drawings are used these may be set up in the Machining library or via MPR files.

The part list/cutting list is optimised using the Nesting optimiser options.

Nesting part list



```
DEMO USER 1                                  Modular V8.20                  Tuesday 1 December 2009

Part list                                                                        Nesting example 1

Ref BSR NEST-1                                                             Opt NESTING  Saw M-CENTRE

No    Description               Material                    Length     Width        Qty  Over Under Gr Edge

1.    F-UNIT-END-LEFT           MED-DEN-FIBRE-18MM           585.0     870.0          3     0     0 N  0000
   3.Edge Left WHITE-TAPE-22MM

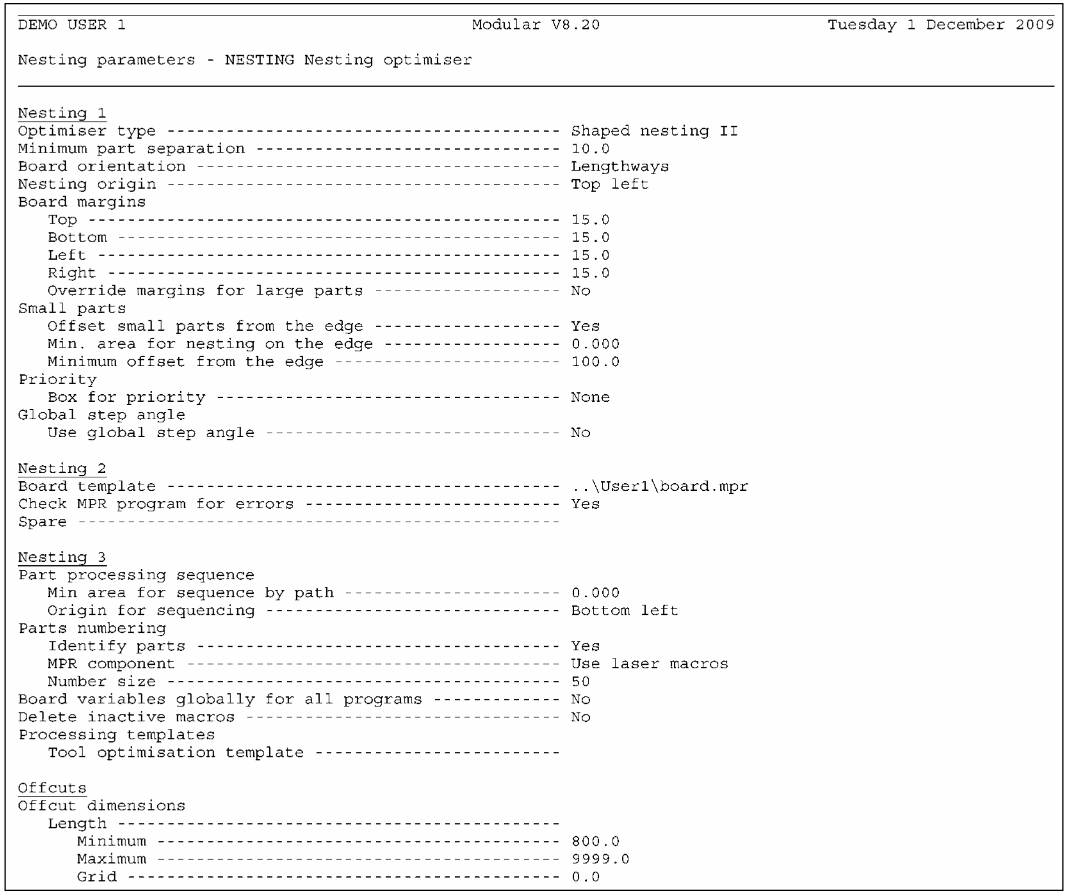
2.    F-UNIT-END-RIGHT          MED-DEN-FIBRE-18MM           585.0     870.0          2     0     0 N  0000
   4.Edge Right WHITE-TAPE-22MM

3.    N-BTH-WORKTOP             MED-DEN-FIBRE-18MM          1500.0     620.0          3     0     0 N  0000
4.    N-OCT-TABLE               MED-DEN-FIBRE-25MM           965.0     965.0          3     0     0 N  0000
5.    N-SHELF-ANGLE-L           MED-DEN-FIBRE-18MM           500.0     500.0          8     0     0 N  0000
6.    N-SHELF-ANGLE-R           MED-DEN-FIBRE-18MM           500.0     500.0          8     0     0 N  0000
7.    N-SHELF-ARC               MED-DEN-FIBRE-18MM           500.0     500.0          6     0     0 N  0000
8.    N-SHELF-CURVE             MED-DEN-FIBRE-18MM           500.0     500.0          3     0     0 N  0000
9.    N-SHELF-CUTOUT            MED-DEN-FIBRE-18MM           500.0     500.0          5     0     0 N  0000
10.   N-SHELF-TRI               MED-DEN-FIBRE-18MM           500.0     500.0          5     0     0 N  0000
11.   N-SHELF-TRI               MED-DEN-FIBRE-25MM           650.0     210.0         18     0     0 N  0000
```

Fig. 78

Nesting parameters

These are used to set the Nesting features the type of nesting optimiser (Rectangular or shaped), margins, offcuts etc.



```
DEMO USER 1                                   Modular V8.20                       Tuesday 1 December 2009

Nesting parameters - NESTING Nesting optimiser

Nesting 1
Optimiser type ---------------------------------------- Shaped nesting II
Minimum part separation ------------------------------- 10.0
Board orientation ------------------------------------- Lengthways
Nesting origin ---------------------------------------- Top left
Board margins
   Top ------------------------------------------------ 15.0
   Bottom --------------------------------------------- 15.0
   Left ----------------------------------------------- 15.0
   Right ---------------------------------------------- 15.0
   Override margins for large parts ------------------- No
Small parts
   Offset small parts from the edge ------------------- Yes
   Min. area for nesting on the edge ------------------ 0.000
   Minimum offset from the edge ----------------------- 100.0
Priority
   Box for priority ----------------------------------- None
Global step angle
   Use global step angle ------------------------------ No

Nesting 2
Board template ---------------------------------------- ..\User1\board.mpr
Check MPR program for errors -------------------------- Yes
Spare -------------------------------------------------

Nesting 3
Part processing sequence
   Min area for sequence by path ---------------------- 0.000
   Origin for sequencing ------------------------------ Bottom left
Parts numbering
   Identify parts ------------------------------------- Yes
   MPR component -------------------------------------- Use laser macros
   Number size ---------------------------------------- 50
Board variables globally for all programs ------------- No
Delete inactive macros -------------------------------- No
Processing templates
   Tool optimisation template -------------------------

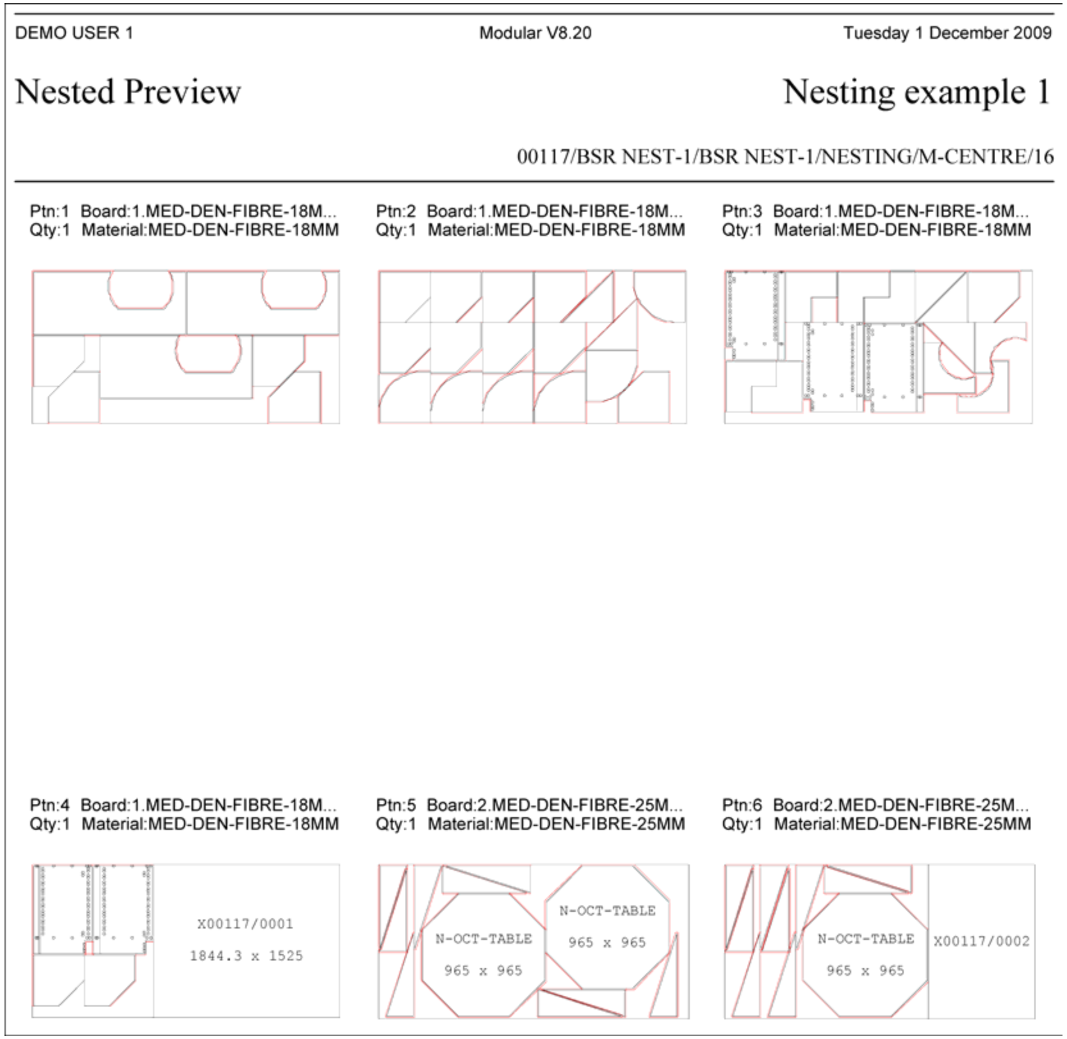
Offcuts
Offcut dimensions
   Length ---------------------------------------------
      Minimum ----------------------------------------- 800.0
      Maximum ----------------------------------------- 9999.0
      Grid -------------------------------------------- 0.0
```

Fig. 79

'Saw' parameters are used to describe the set up for each machining centre.

Nesting preview

The result of the Nesting optimisation is a set of patterns.



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Nested Preview Nesting example 1

00117/BSR NEST-1/BSR NEST-1/NESTING/M-CENTRE/16

Ptn:1 Board:1.MED-DEN-FIBRE-18M...
Qty:1 Material:MED-DEN-FIBRE-18MM

Ptn:2 Board:1.MED-DEN-FIBRE-18M...
Qty:1 Material:MED-DEN-FIBRE-18MM

Ptn:3 Board:1.MED-DEN-FIBRE-18M...
Qty:1 Material:MED-DEN-FIBRE-18MM

Ptn:4 Board:1.MED-DEN-FIBRE-18M...
Qty:1 Material:MED-DEN-FIBRE-18MM

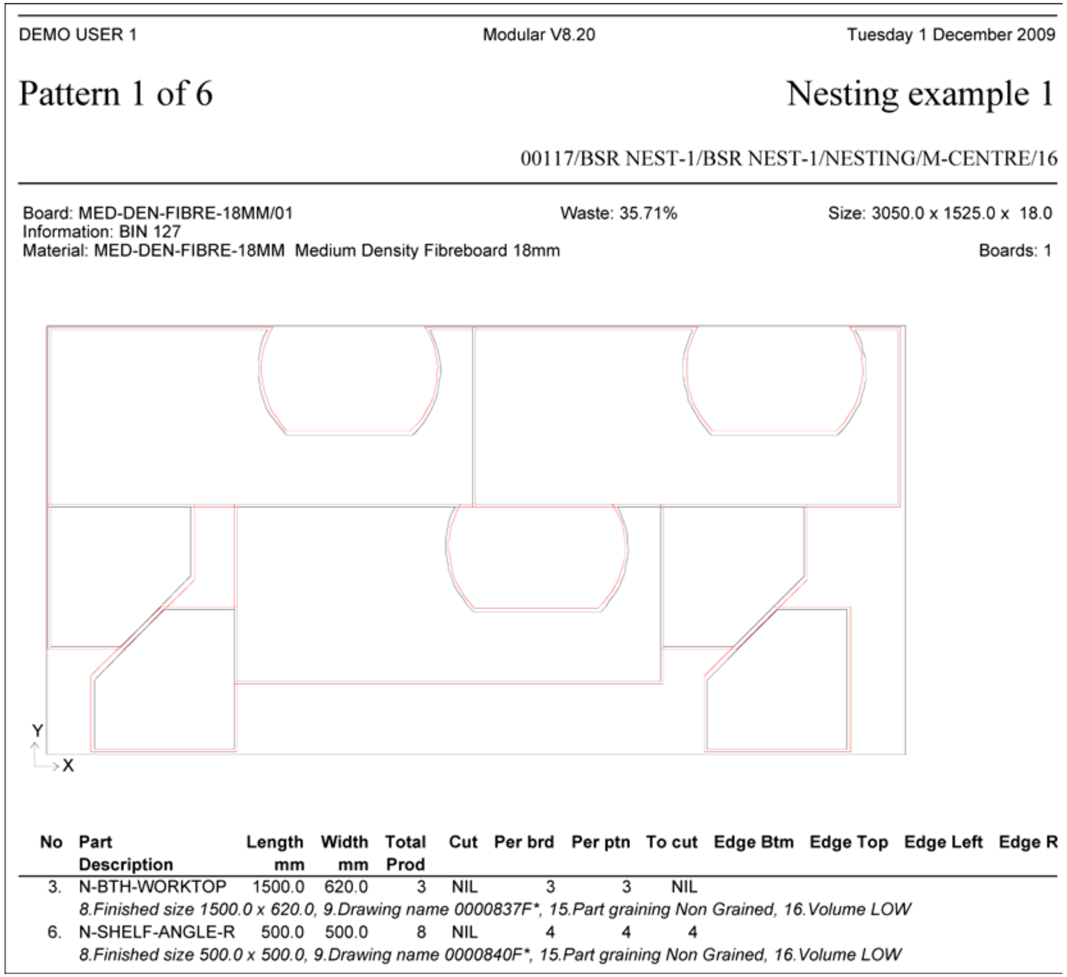
Ptn:5 Board:2.MED-DEN-FIBRE-25M...
Qty:1 Material:MED-DEN-FIBRE-25MM

Ptn:6 Board:2.MED-DEN-FIBRE-25M...
Qty:1 Material:MED-DEN-FIBRE-25MM

X00117/0001
1844.3 x 1525
N-OCT-TABLE
965 x 965
N-OCT-TABLE
965 x 965
N-OCT-TABLE
965 x 965
X00117/0002

Fig. 80

Nesting optimising - Pattern for shaped nesting



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Pattern 1 of 6 Nesting example 1

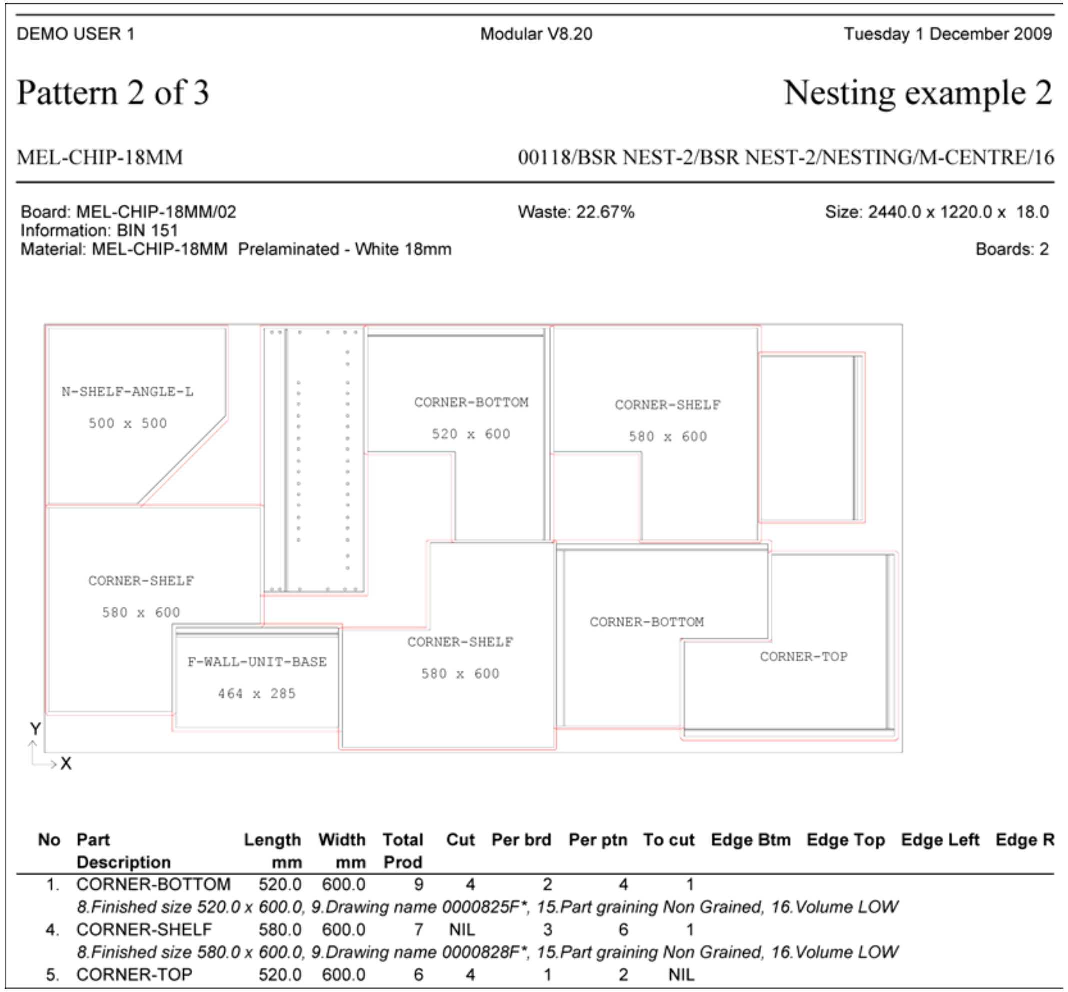
00117/BSR NEST-1/BSR NEST-1/NESTING/M-CENTRE/16

Board: MED-DEN-FIBRE-18MM/01 Waste: 35.71% Size: 3050.0 x 1525.0 x 18.0
Information: BIN 127
Material: MED-DEN-FIBRE-18MM Medium Density Fibreboard 18mm Boards: 1

No	Part Description	Length mm	Width mm	Total Prod	Cut	Per brd	Per ptn	To cut	Edge Btm	Edge Top	Edge Left	Edge R
3.	N-BTH-WORKTOP	1500.0	620.0	3	NIL	3	3	NIL				
	8.Finished size 1500.0 x 620.0, 9.Drawing name 0000837F, 15.Part graining Non Grained, 16.Volume LOW*											
6.	N-SHELF-ANGLE-R	500.0	500.0	8	NIL	4	4	4				
	8.Finished size 500.0 x 500.0, 9.Drawing name 0000840F, 15.Part graining Non Grained, 16.Volume LOW*											

Fig. 81

Nesting optimising - Pattern for rectangular nesting



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Pattern 2 of 3 Nesting example 2

MEL-CHIP-18MM 00118/BSR NEST-2/BSR NEST-2/NESTING/M-CENTRE/16

Board: MEL-CHIP-18MM/02
Information: BIN 151
Material: MEL-CHIP-18MM Prelaminated - White 18mm

Waste: 22.67%

Size: 2440.0 x 1220.0 x 18.0
Boards: 2

N-SHELF-ANGLE-L
500 x 500
CORNER-SHELF
580 x 600
CORNER-BOTTOM
520 x 600
CORNER-SHELF
580 x 600
F-WALL-UNIT-BASE
464 x 285
CORNER-SHELF
580 x 600
CORNER-BOTTOM
CORNER-TOP
Y
X

No	Part Description	Length mm	Width mm	Total Prod	Cut	Per brd	Per ptn	To cut	Edge Btm	Edge Top	Edge Left	Edge R
1.	CORNER-BOTTOM	520.0	600.0	9	4	2	4	1				
	8.Finished size 520.0 x 600.0, 9.Drawing name 0000825F, 15.Part graining Non Grained, 16.Volume LOW*											
4.	CORNER-SHELF	580.0	600.0	7	NIL	3	6	1				
	8.Finished size 580.0 x 600.0, 9.Drawing name 0000828F, 15.Part graining Non Grained, 16.Volume LOW*											
5.	CORNER-TOP	520.0	600.0	6	4	1	2	NIL				

Fig. 82

Nested optimising - pattern editor

Nested patterns produced by the Nesting optimisers can be viewed and edited.

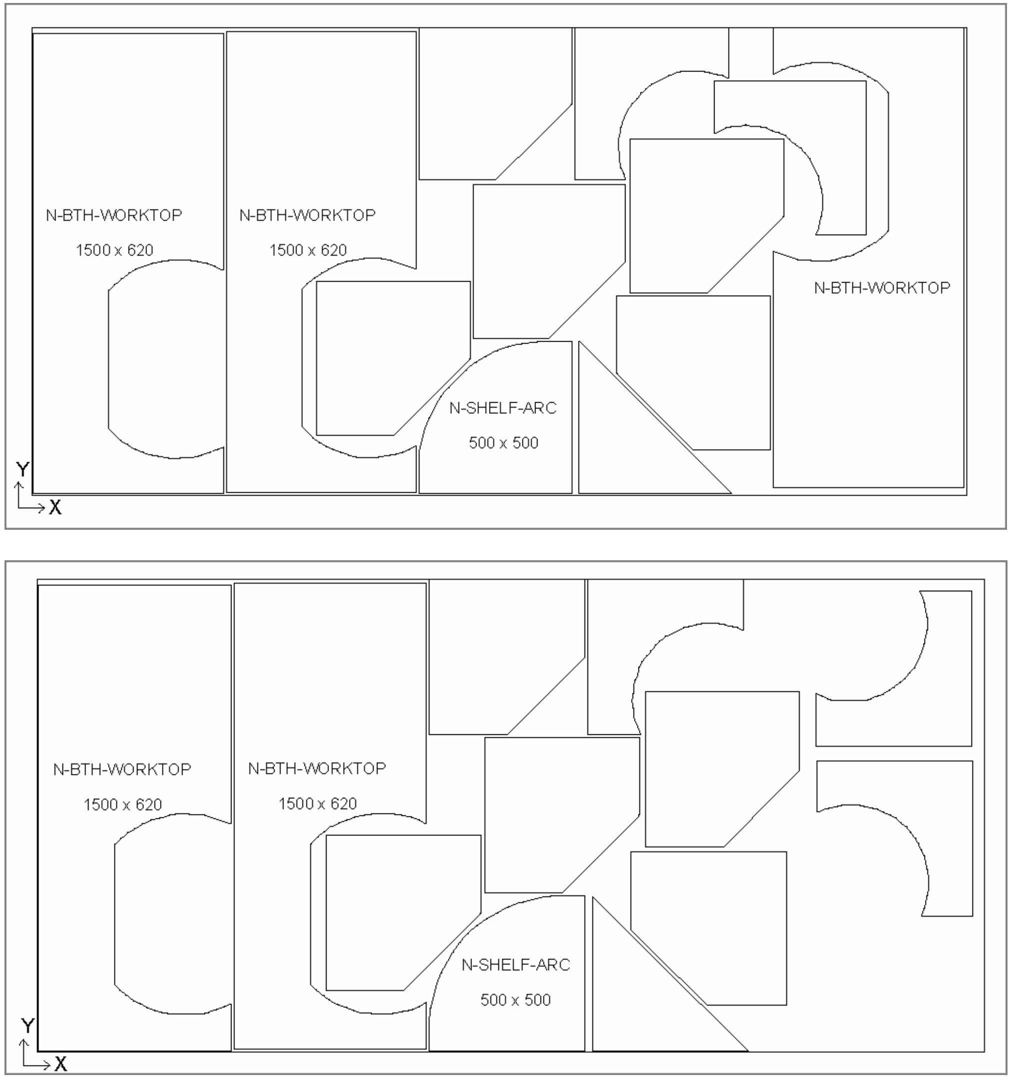
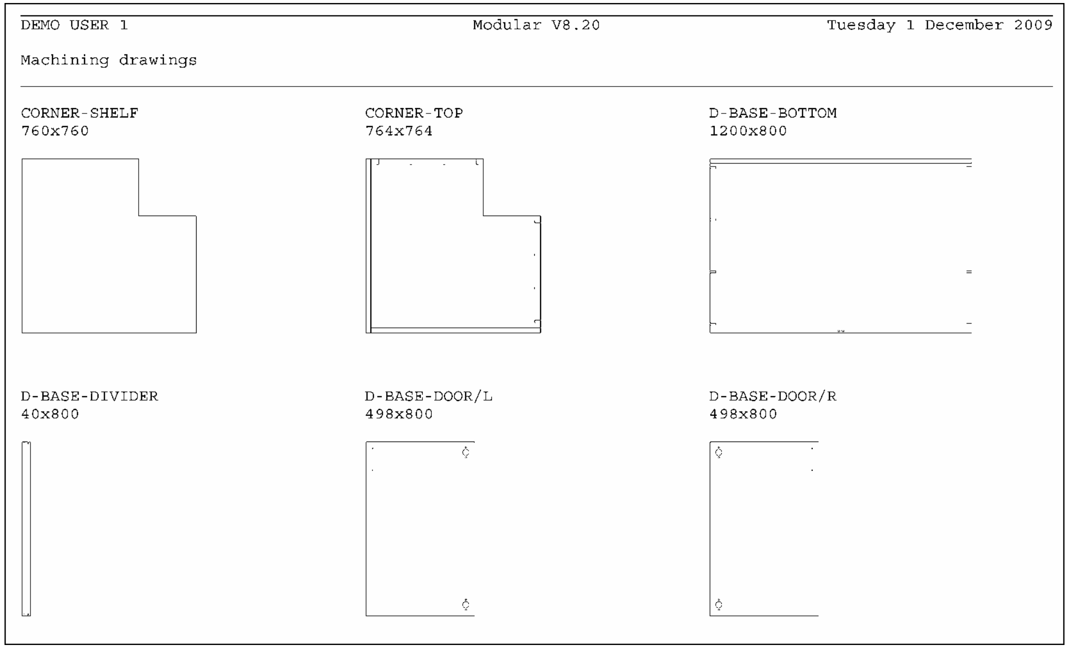

N-BTH-WORKTOP
1500 x 620
N-BTH-WORKTOP
1500 x 620
N-BTH-WORKTOP
N-SHELF-ARC
500 x 500
Y
X
N-BTH-WORKTOP
1500 x 620
N-BTH-WORKTOP
1500 x 620
N-SHELF-ARC
500 x 500
Y
X

Fig. 83

Nested optimising - machining library

Part drawings for Nesting are created in the Machining library.



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Machining drawings

CORNER-SHELF
760x760

CORNER-TOP
764x764

D-BASE-BOTTOM
1200x800

D-BASE-DIVIDER
40x800

D-BASE-DOOR/L
498x800

D-BASE-DOOR/R
498x800

Fig. 84

Nested optimising - MPR files

Parts and Part drawings for nesting can also be MPR files

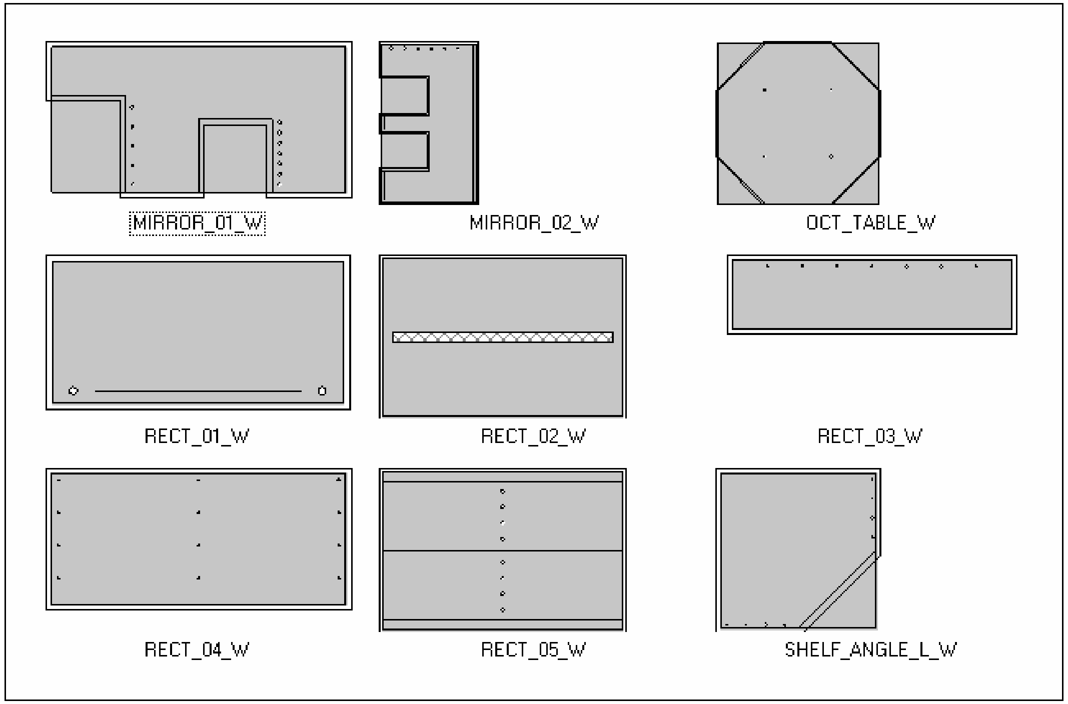
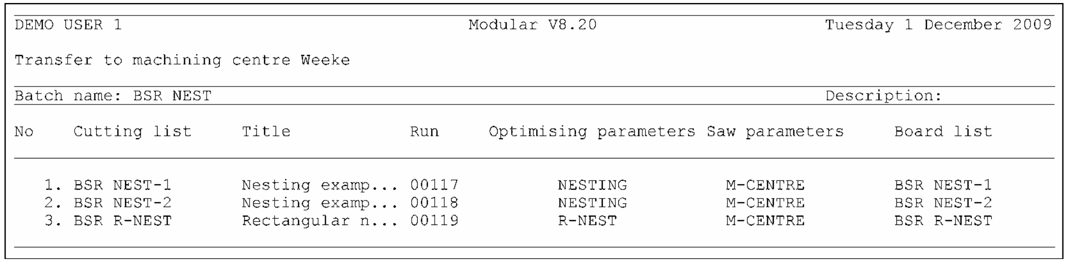

MIRROR_01_W
MIRROR_02_W
OCT_TABLE_W
RECT_01_W
RECT_02_W
RECT_03_W
RECT_04_W
RECT_05_W
SHELF_ANGLE_L_W

Fig. 85

Nested optimising - transfer

Nested runs are transferred to the machining centre via the Machining Interface.



```
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Transfer to machining centre Weeke

Batch name: BSR NEST                                                               Description:

No    Cutting list     Title            Run     Optimising parameters Saw parameters     Board list

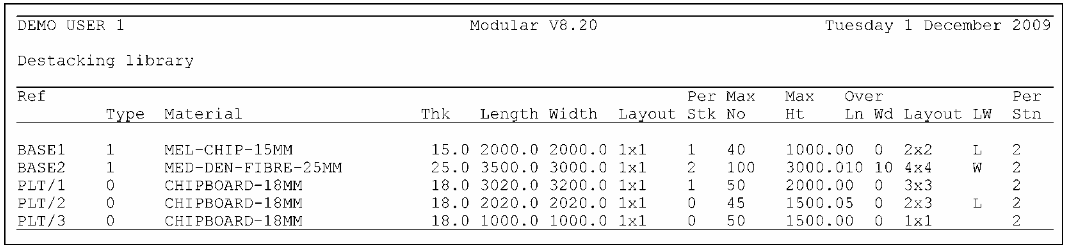

   1. BSR NEST-1       Nesting examp... 00117          NESTING          M-CENTRE          BSR NEST-1
   2. BSR NEST-2       Nesting examp... 00118          NESTING          M-CENTRE          BSR NEST-2
   3. BSR R-NEST       Rectangular n... 00119          R-NEST           M-CENTRE          BSR R-NEST
```

Fig. 85-1

Destacking and Palletising

This section shows examples of the reports available for destacking (offstacking). This can include both manual methods and mechanical offstacking machinery.

Destacking library - stores information about the available pallet sizes and the rules for using and cutting baseboards.



```
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Destacking library

Ref                                                                 Per Max   Max   Over             Per
         Type  Material                  Thk   Length Width  Layout Stk No    Ht    Ln Wd Layout LW  Stn

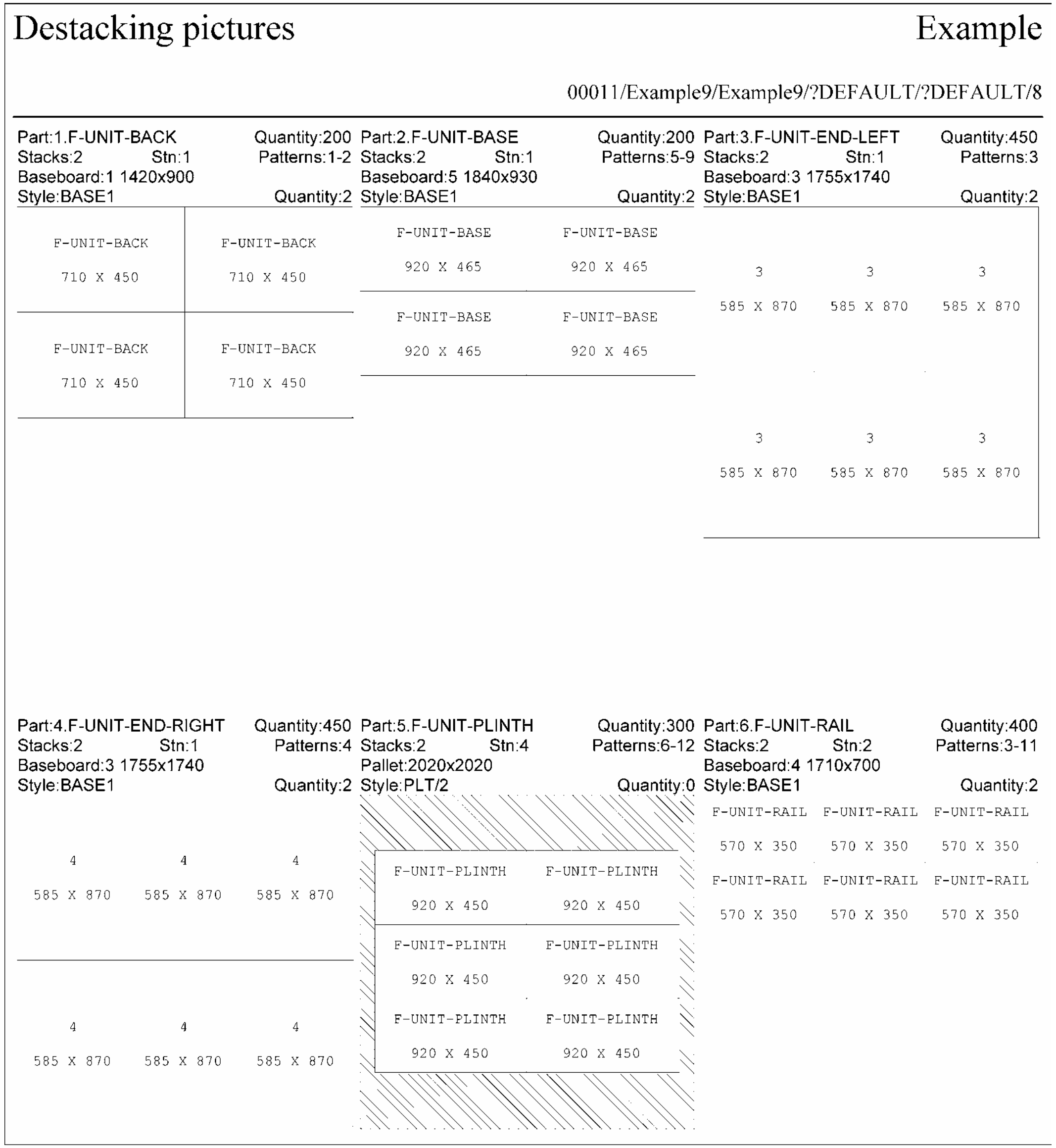
BASE1    1     MEL-CHIP-15MM              15.0 2000.0 2000.0 1x1    1   40    1000.00   0 2x2    L   2
BASE2    1     MED-DEN-FIBRE-25MM         25.0 3500.0 3000.0 1x1    2   100   3000.010 10 4x4    W   2
PLT/1    0     CHIPBOARD-18MM             18.0 3020.0 3200.0 1x1    1   50    2000.00   0 3x3        2
PLT/2    0     CHIPBOARD-18MM             18.0 2020.0 2020.0 1x1    0   45    1500.05   0 2x3    L   2
PLT/3    0     CHIPBOARD-18MM             18.0 1000.0 1000.0 1x1    0   50    1500.00   0 1x1        2
```

Fig. 86

For Baseboards the material code is needed so that the baseboard cutting list can be created and baseboards patterns created for cutting the baseboards.

The destacking parameters are used to define which field in the part list holds the destacking library code for the destacking style.

Destacking pictures - destacking layout for each part



Destacking pictures Example

00011/Example9/Example9/?DEFAULT/?DEFAULT/8

Part:1.F-UNIT-BACK Quantity:200
Stacks:2 Stn:1 Patterns:1-2
Baseboard:1 1420x900
Style:BASE1 Quantity:2

Part:2.F-UNIT-BASE Quantity:200
Stacks:2 Stn:1 Patterns:5-9
Baseboard:5 1840x930
Style:BASE1 Quantity:2

Part:3.F-UNIT-END-LEFT Quantity:450
Stacks:2 Stn:1 Patterns:3
Baseboard:3 1755x1740
Style:BASE1 Quantity:2

Part:4.F-UNIT-END-RIGHT Quantity:450
Stacks:2 Stn:1 Patterns:4
Baseboard:3 1755x1740
Style:BASE1 Quantity:2

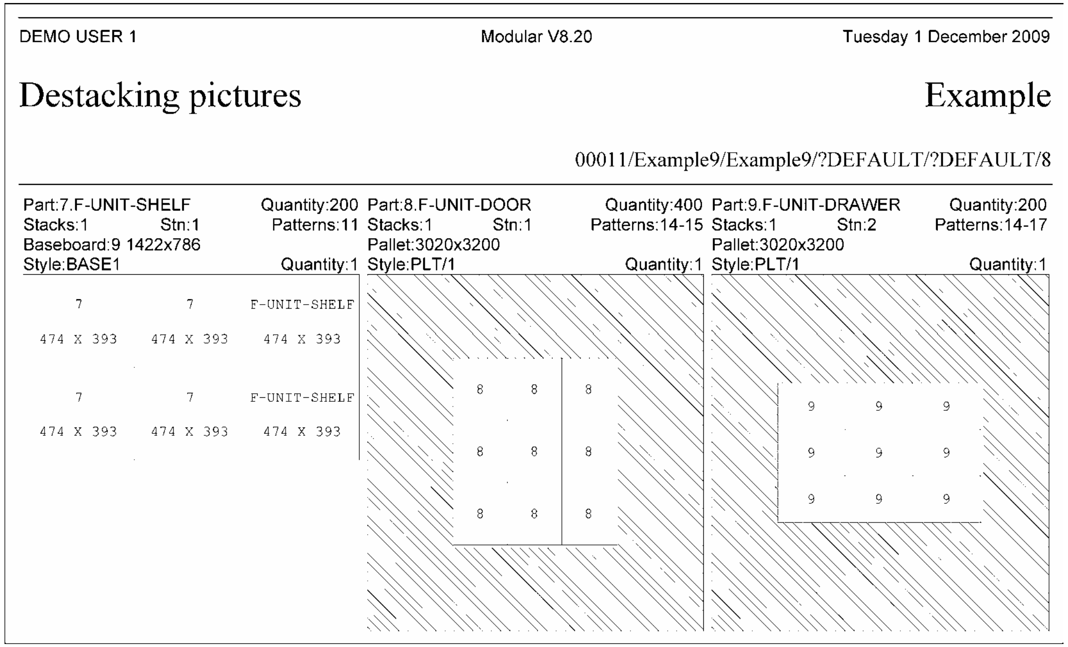
Part:5.F-UNIT-PLINTH Quantity:300
Stacks:2 Stn:4 Patterns:6-12
Pallet:2020x2020
Style:PLT/2 Quantity:0

Part:6.F-UNIT-RAIL Quantity:400
Stacks:2 Stn:2 Patterns:3-11
Baseboard:4 1710x700
Style:BASE1 Quantity:2

F-UNIT-BACK
710 X 450
F-UNIT-BACK
710 X 450
F-UNIT-BACK
710 X 450
F-UNIT-BACK
710 X 450
F-UNIT-BASE
920 X 465
F-UNIT-BASE
920 X 465
F-UNIT-BASE
920 X 465
F-UNIT-BASE
920 X 465
3
585 X 870
3
585 X 870
3
585 X 870
3
585 X 870
3
585 X 870
3
585 X 870
4
585 X 870
4
585 X 870
4
585 X 870
4
585 X 870
4
585 X 870
4
585 X 870
F-UNIT-PLINTH
920 X 450
F-UNIT-PLINTH
920 X 450
F-UNIT-PLINTH
920 X 450
F-UNIT-PLINTH
920 X 450
F-UNIT-PLINTH
920 X 450
F-UNIT-PLINTH
920 X 450
F-UNIT-RAIL
570 X 350
F-UNIT-RAIL
570 X 350
F-UNIT-RAIL
570 X 350
F-UNIT-RAIL
570 X 350
F-UNIT-RAIL
570 X 350
F-UNIT-RAIL
570 X 350

Fig. 87

Destacking pictures



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Destacking pictures Example

00011/Example9/Example9/?DEFAULT/?DEFAULT/8

Part:7.F-UNIT-SHELF Quantity:200
Stacks:1 Stn:1 Patterns:11
Baseboard:9 1422x786
Style:BASE1 Quantity:1

Part:8.F-UNIT-DOOR Quantity:400
Stacks:1 Stn:1 Patterns:14-15
Pallet:3020x3200
Style:PLT/1 Quantity:1

Part:9.F-UNIT-DRAWER Quantity:200
Stacks:1 Stn:2 Patterns:14-17
Pallet:3020x3200
Style:PLT/1 Quantity:1

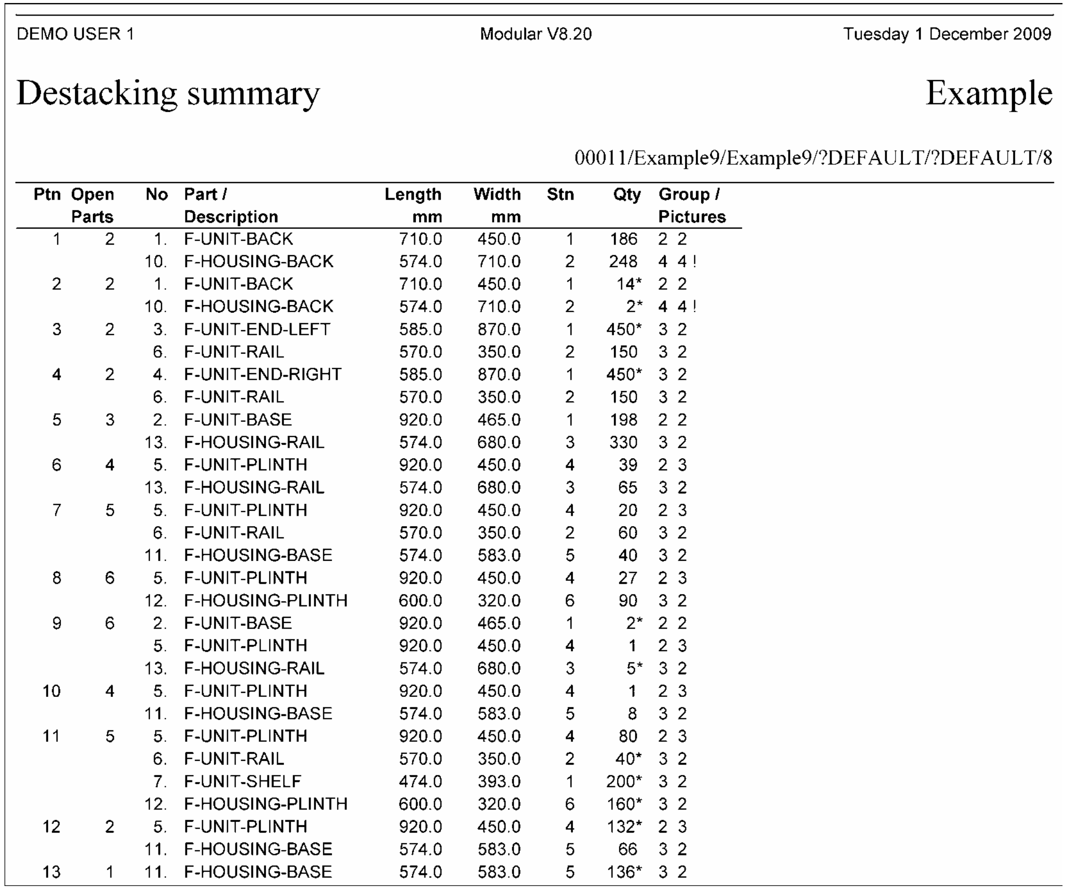
7
7
F-UNIT-SHELF
474 X 393
474 X 393
474 X 393
7
7
F-UNIT-SHELF
474 X 393
474 X 393
474 X 393
8 8 8
8 8 8
8 8 8
9 9 9
9 9 9
9 9 9

Fig. 88

Where a fixed pallet is used, for example a baseboard placed on a fixed pallet, the fixed pallet size is also shown (shading).

The layout can include a top baseboard and support.

Destacking summary - shows how the parts on each pattern are destacked.



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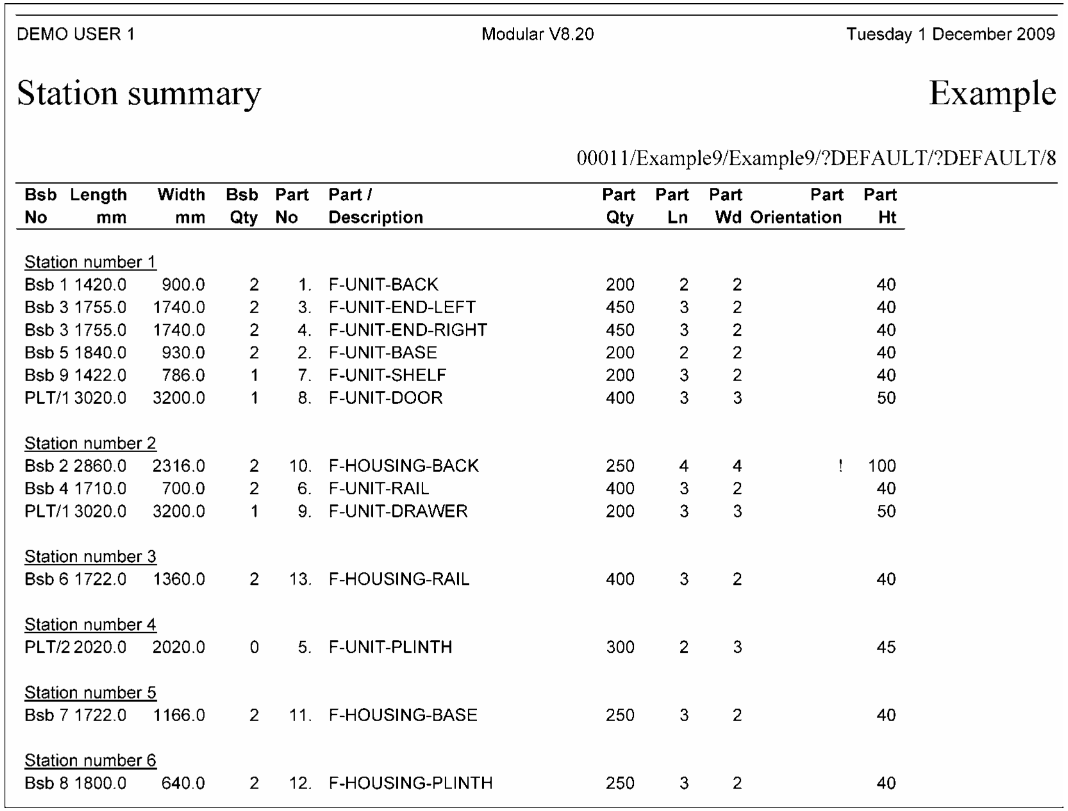
Destacking summary Example

00011/Example9/Example9/?DEFAULT/?DEFAULT/8

Ptn	Open Parts	No	Part / Description	Length mm	Width mm	Stn	Qty	Group / Pictures
1	2	1.	F-UNIT-BACK	710.0	450.0	1	186	2 2
		10.	F-HOUSING-BACK	574.0	710.0	2	248	4 4 !
2	2	1.	F-UNIT-BACK	710.0	450.0	1	14*	2 2
		10.	F-HOUSING-BACK	574.0	710.0	2	2*	4 4 !
3	2	3.	F-UNIT-END-LEFT	585.0	870.0	1	450*	3 2
		6.	F-UNIT-RAIL	570.0	350.0	2	150	3 2
4	2	4.	F-UNIT-END-RIGHT	585.0	870.0	1	450*	3 2
		6.	F-UNIT-RAIL	570.0	350.0	2	150	3 2
5	3	2.	F-UNIT-BASE	920.0	465.0	1	198	2 2
		13.	F-HOUSING-RAIL	574.0	680.0	3	330	3 2
6	4	5.	F-UNIT-PLINTH	920.0	450.0	4	39	2 3
		13.	F-HOUSING-RAIL	574.0	680.0	3	65	3 2
7	5	5.	F-UNIT-PLINTH	920.0	450.0	4	20	2 3
		6.	F-UNIT-RAIL	570.0	350.0	2	60	3 2
		11.	F-HOUSING-BASE	574.0	583.0	5	40	3 2
8	6	5.	F-UNIT-PLINTH	920.0	450.0	4	27	2 3
		12.	F-HOUSING-PLINTH	600.0	320.0	6	90	3 2
9	6	2.	F-UNIT-BASE	920.0	465.0	1	2*	2 2
		5.	F-UNIT-PLINTH	920.0	450.0	4	1	2 3
		13.	F-HOUSING-RAIL	574.0	680.0	3	5*	3 2
10	4	5.	F-UNIT-PLINTH	920.0	450.0	4	1	2 3
		11.	F-HOUSING-BASE	574.0	583.0	5	8	3 2
11	5	5.	F-UNIT-PLINTH	920.0	450.0	4	80	2 3
		6.	F-UNIT-RAIL	570.0	350.0	2	40*	3 2
		7.	F-UNIT-SHELF	474.0	393.0	1	200*	3 2
		12.	F-HOUSING-PLINTH	600.0	320.0	6	160*	3 2
12	2	5.	F-UNIT-PLINTH	920.0	450.0	4	132*	2 3
		11.	F-HOUSING-BASE	574.0	583.0	5	66	3 2
13	1	11.	F-HOUSING-BASE	574.0	583.0	5	136*	3 2

Fig. 89

Destacking Station Summary - shows the workflow through each destacking station



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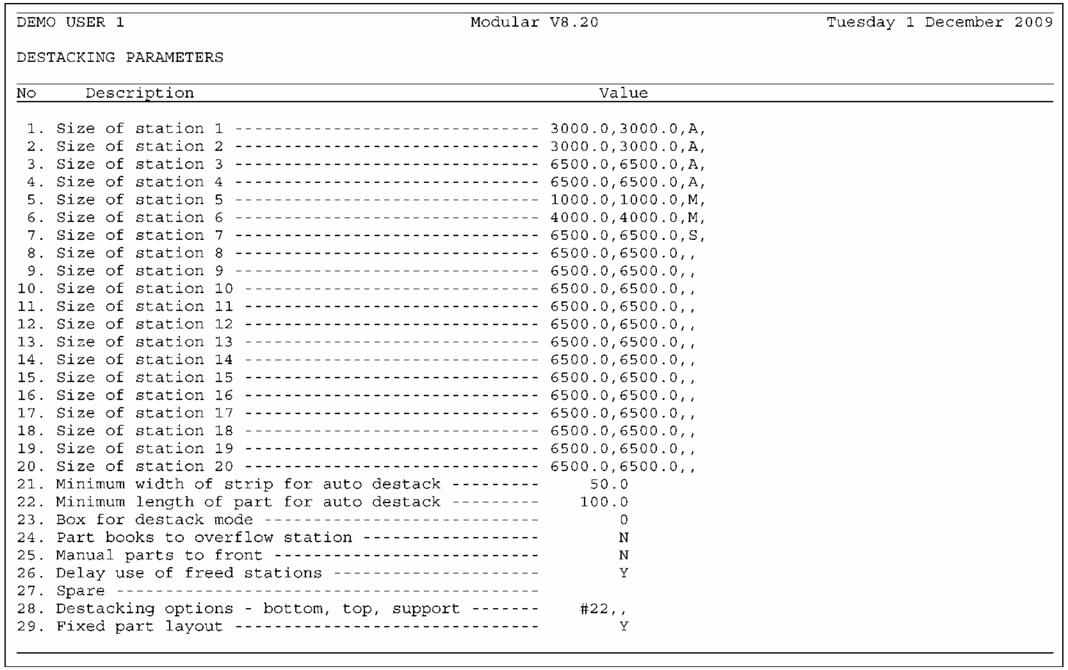
Station summary Example

00011/Example9/Example9/?DEFAULT/?DEFAULT/8

Bsb No	Length mm	Width mm	Bsb Qty	Part No	Part / Description	Part Qty	Part Ln	Part Wd	Part Orientation	Part Ht
Station number 1										
Bsb 1	1420.0	900.0	2	1.	F-UNIT-BACK	200	2	2		40
Bsb 3	1755.0	1740.0	2	3.	F-UNIT-END-LEFT	450	3	2		40
Bsb 3	1755.0	1740.0	2	4.	F-UNIT-END-RIGHT	450	3	2		40
Bsb 5	1840.0	930.0	2	2.	F-UNIT-BASE	200	2	2		40
Bsb 9	1422.0	786.0	1	7.	F-UNIT-SHELF	200	3	2		40
PLT/1	3020.0	3200.0	1	8.	F-UNIT-DOOR	400	3	3		50
Station number 2										
Bsb 2	2860.0	2316.0	2	10.	F-HOUSING-BACK	250	4	4	!	100
Bsb 4	1710.0	700.0	2	6.	F-UNIT-RAIL	400	3	2		40
PLT/1	3020.0	3200.0	1	9.	F-UNIT-DRAWER	200	3	3		50
Station number 3										
Bsb 6	1722.0	1360.0	2	13.	F-HOUSING-RAIL	400	3	2		40
Station number 4										
PLT/2	2020.0	2020.0	0	5.	F-UNIT-PLINTH	300	2	3		45
Station number 5										
Bsb 7	1722.0	1166.0	2	11.	F-HOUSING-BASE	250	3	2		40
Station number 6										
Bsb 8	1800.0	640.0	2	12.	F-HOUSING-PLINTH	250	3	2		40

Fig. 90

Destacking parameters - These are used to set up station sizes and control the destacking process.



```
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DESTACKING PARAMETERS

No     Description                                        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,
 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,,
10. Size of station 10 ------------------------------ 6500.0,6500.0,,
11. Size of station 11 ------------------------------ 6500.0,6500.0,,
12. Size of station 12 ------------------------------ 6500.0,6500.0,,
13. Size of station 13 ------------------------------ 6500.0,6500.0,,
14. Size of station 14 ------------------------------ 6500.0,6500.0,,
15. Size of station 15 ------------------------------ 6500.0,6500.0,,
16. Size of station 16 ------------------------------ 6500.0,6500.0,,
17. Size of station 17 ------------------------------ 6500.0,6500.0,,
18. Size of station 18 ------------------------------ 6500.0,6500.0,,
19. Size of station 19 ------------------------------ 6500.0,6500.0,,
20. Size of station 20 ------------------------------ 6500.0,6500.0,,
21. Minimum width of strip for auto destack ---------     50.0
22. Minimum length of part for auto destack ---------    100.0
23. Box for destack mode ----------------------------        0
24. Part books to overflow station ------------------        N
25. Manual parts to front ---------------------------        N
26. Delay use of freed stations ---------------------        Y
27. Spare -------------------------------------------
28. Destacking options - bottom, top, support -------    #22,,
29. Fixed part layout -------------------------------        Y
```

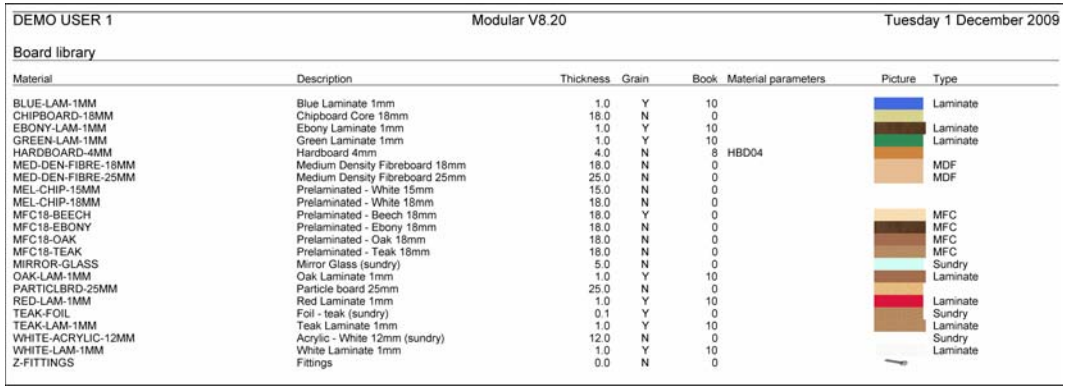
Fig. 91

The station sizes are used with the Destacking optimisers to work with destacking machinery and stations.

For destacking to pallets / baseboards on the floor the standard optimisers can be used and the station sizes are ignored.

Materials

The Board library is a record of all the sheet materials and offcuts. When a cutting list is optimised the program uses the board library to identify the board sizes available for each material.



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Board library

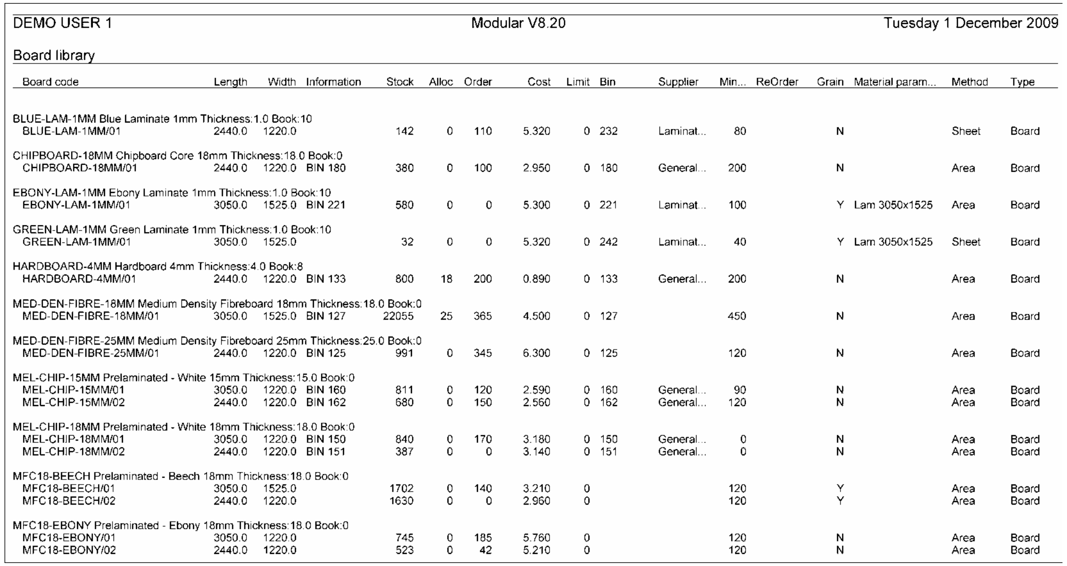
Material	Description	Thickness	Grain	Book	Material parameters	Picture	Type
BLUE-LAM-1MM	Blue Laminate 1mm	1.0	Y	10		🟦	Laminate
CHIPBOARD-18MM	Chipboard Core 18mm	18.0	N	0		🟨	
EBONY-LAM-1MM	Ebony Laminate 1mm	1.0	Y	10		🟫	Laminate
GREEN-LAM-1MM	Green Laminate 1mm	1.0	Y	10		🟩	Laminate
HARDBOARD-4MM	Hardboard 4mm	4.0	N	8	HBD04	🟧	
MED-DEN-FIBRE-18MM	Medium Density Fibreboard 18mm	18.0	N	0		🟧	MDF
MED-DEN-FIBRE-25MM	Medium Density Fibreboard 25mm	25.0	N	0		🟧	MDF
MEL-CHIP-15MM	Prelaminated - White 15mm	15.0	N	0			
MEL-CHIP-18MM	Prelaminated - White 18mm	18.0	N	0			
MFC18-BEECH	Prelaminated - Beech 18mm	18.0	Y	0		🟨	MFC
MFC18-EBONY	Prelaminated - Ebony 18mm	18.0	N	0		🟫	MFC
MFC18-OAK	Prelaminated - Oak 18mm	18.0	N	0		🟫	MFC
MFC18-TEAK	Prelaminated - Teak 18mm	18.0	N	0		🟫	MFC
MIRROR-GLASS	Mirror Glass (sundry)	5.0	N	0		🟦	Sundry
OAK-LAM-1MM	Oak Laminate 1mm	1.0	Y	10		🟫	Laminate
PARTICLBRD-25MM	Particle board 25mm	25.0	N	0		🟧	
RED-LAM-1MM	Red Laminate 1mm	1.0	Y	10		🟥	Laminate
TEAK-FOIL	Foil - teak (sundry)	0.1	Y	0		🟫	Sundry
TEAK-LAM-1MM	Teak Laminate 1mm	1.0	Y	10		🟫	Laminate
WHITE-ACRYLIC-12MM	Acrylic - White 12mm (sundry)	12.0	N	0			Sundry
WHITE-LAM-1MM	White Laminate 1mm	1.0	Y	10		⬜	Laminate
Z-FITTINGS	Fittings	0.0	N	0			

Fig. 92

The material library is set up as a list of materials and board sizes.

Board library - board sizes

Each material may contain several different board sizes, including offcuts



```
DEMO USER 1                                                         Modular V8.20                                              Tuesday 1 December 2009

Board library
  Board code                Length  Width Information Stock Alloc Order    Cost Limit Bin  Supplier  Min... ReOrder Grain Material param... Method Type

BLUE-LAM-1MM Blue Laminate 1mm Thickness:1.0 Book:10
  BLUE-LAM-1MM/01           2440.0 1220.0               142     0   110   5.320     0 232  Laminat...    80             N                   Sheet  Board

CHIPBOARD-18MM Chipboard Core 18mm Thickness:18.0 Book:0
  CHIPBOARD-18MM/01         2440.0 1220.0 BIN 180       380     0   100   2.950     0 180  General...   200             N                   Area   Board

EBONY-LAM-1MM Ebony Laminate 1mm Thickness:1.0 Book:10
  EBONY-LAM-1MM/01          3050.0 1525.0 BIN 221       580     0     0   5.300     0 221  Laminat...   100             Y Lam 3050x1525     Area   Board

GREEN-LAM-1MM Green Laminate 1mm Thickness:1.0 Book:10
  GREEN-LAM-1MM/01          3050.0 1525.0                32     0     0   5.320     0 242  Laminat...    40             Y Lam 3050x1525     Sheet  Board

HARDBOARD-4MM Hardboard 4mm Thickness:4.0 Book:8
  HARDBOARD-4MM/01          2440.0 1220.0 BIN 133       800    18   200   0.890     0 133  General...   200             N                   Area   Board

MED-DEN-FIBRE-18MM Medium Density Fibreboard 18mm Thickness:18.0 Book:0
  MED-DEN-FIBRE-18MM/01     3050.0 1525.0 BIN 127     22055    25   365   4.500     0 127               450             N                   Area   Board

MED-DEN-FIBRE-25MM Medium Density Fibreboard 25mm Thickness:25.0 Book:0
  MED-DEN-FIBRE-25MM/01     2440.0 1220.0 BIN 125       991     0   345   6.300     0 125               120             N                   Area   Board

MEL-CHIP-15MM Prelaminated - White 15mm Thickness:15.0 Book:0
  MEL-CHIP-15MM/01          3050.0 1220.0 BIN 160       811     0   120   2.590     0 160  General...    90             N                   Area   Board
  MEL-CHIP-15MM/02          2440.0 1220.0 BIN 162       680     0   150   2.560     0 162  General...   120             N                   Area   Board

MEL-CHIP-18MM Prelaminated - White 18mm Thickness:18.0 Book:0
  MEL-CHIP-18MM/01          3050.0 1220.0 BIN 150       840     0   170   3.180     0 150  General...     0             N                   Area   Board
  MEL-CHIP-18MM/02          2440.0 1220.0 BIN 151       387     0     0   3.140     0 151  General...     0             N                   Area   Board

MFC18-BEECH Prelaminated - Beech 18mm Thickness:18.0 Book:0
  MFC18-BEECH/01            3050.0 1525.0              1702     0   140   3.210     0                   120             Y                   Area   Board
  MFC18-BEECH/02            2440.0 1220.0              1630     0     0   2.960     0                   120             Y                   Area   Board

MFC18-EBONY Prelaminated - Ebony 18mm Thickness:18.0 Book:0
  MFC18-EBONY/01            3050.0 1220.0               745     0   185   5.760     0                   120             N                   Area   Board
  MFC18-EBONY/02            2440.0 1220.0               523     0    42   5.210     0                   120             N                   Area   Board
```

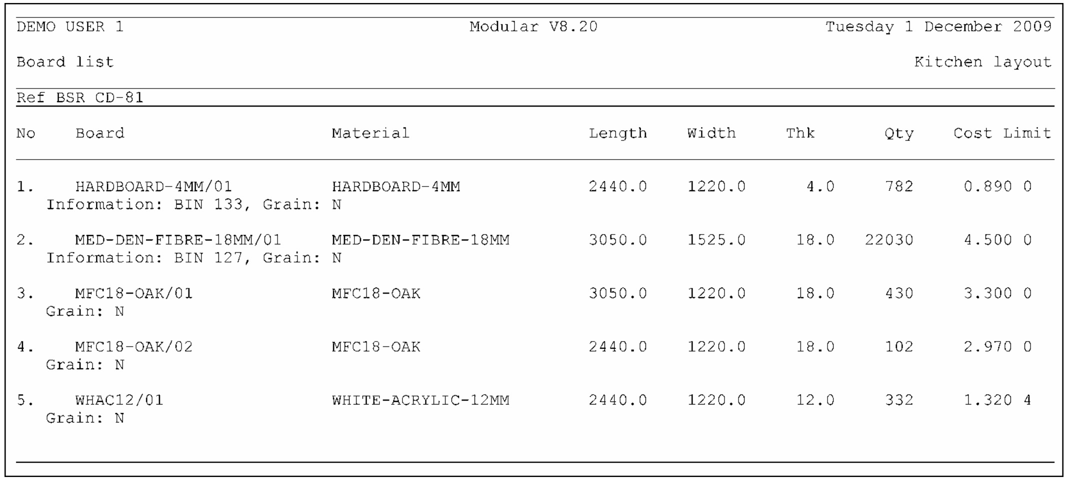
Fig. 93

Quantity - covers physical stock, allocated stock and stock on order.
Offcuts - library can include offcuts from previous optimisations.
Limit - this is used to set how boards are used e.g. in a fixed ratio, or how to deal with low stock.

Board list - Optimising

The program uses the Board library to create a Board list containing the candidate board sizes for each optimisation.

For example, if a part list contains a part with the material code MED-DEN-FIBRE-18MM then those boards sizes are candidates boards for the optimisation and are included in the board list.



```
DEMO USER 1                                  Modular V8.20                              Tuesday 1 December 2009

Board list                                                                                       Kitchen layout

Ref BSR CD-81

No    Board                     Material                  Length     Width     Thk       Qty    Cost Limit


1.    HARDBOARD-4MM/01          HARDBOARD-4MM             2440.0     1220.0     4.0       782     0.890 0
   Information: BIN 133, Grain: N

2.    MED-DEN-FIBRE-18MM/01     MED-DEN-FIBRE-18MM        3050.0     1525.0    18.0    22030     4.500 0
   Information: BIN 127, Grain: N

3.    MFC18-OAK/01              MFC18-OAK                 3050.0     1220.0    18.0       430     3.300 0
   Grain: N

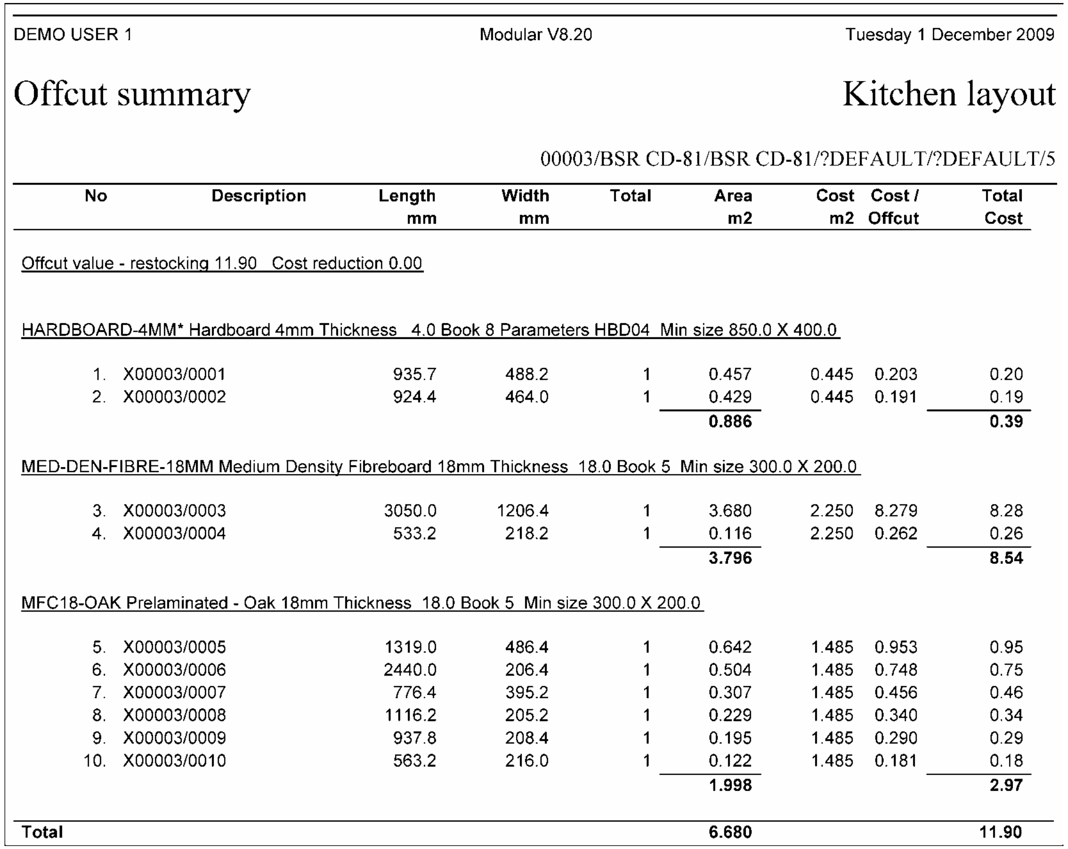
4.    MFC18-OAK/02              MFC18-OAK                 2440.0     1220.0    18.0       102     2.970 0
   Grain: N

5.    WHAC12/01                 WHITE-ACRYLIC-12MM        2440.0     1220.0    12.0       332     1.320 4
   Grain: N
```

Fig. 94

Materials - offcut summary

For each optimised run there may be several offcuts. These can be stored in the board library for later use.



DEMO USER 1 Modular V8.20 Tuesday 1 December 2009

Offcut summary

Kitchen layout

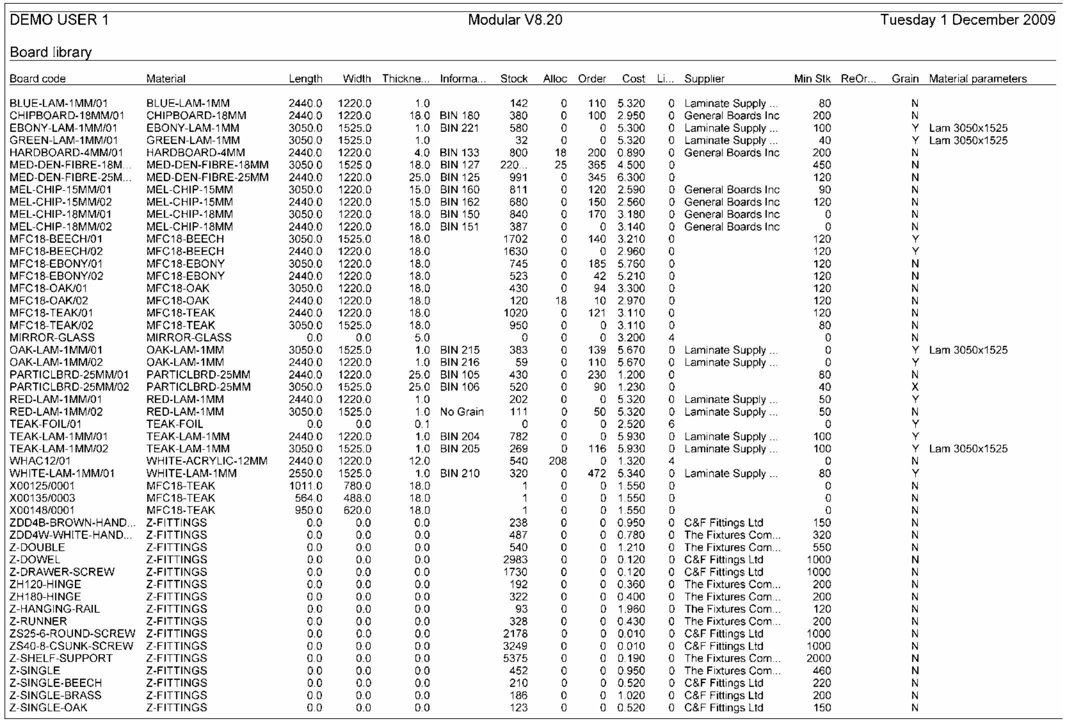
00003/BSR CD-81/BSR CD-81/?DEFAULT/?DEFAULT/5

No	Description	Length mm	Width mm	Total	Area m2	Cost m2	Cost / Offcut	Total Cost
Offcut value - restocking 11.90 Cost reduction 0.00								
HARDBOARD-4MM* Hardboard 4mm Thickness 4.0 Book 8 Parameters HBD04 Min size 850.0 X 400.0								
1.	X00003/0001	935.7	488.2	1	0.457	0.445	0.203	0.20
2.	X00003/0002	924.4	464.0	1	0.429	0.445	0.191	0.19
					0.886			**0.39**
MED-DEN-FIBRE-18MM Medium Density Fibreboard 18mm Thickness 18.0 Book 5 Min size 300.0 X 200.0								
3.	X00003/0003	3050.0	1206.4	1	3.680	2.250	8.279	8.28
4.	X00003/0004	533.2	218.2	1	0.116	2.250	0.262	0.26
					3.796			**8.54**
MFC18-OAK Prelaminated - Oak 18mm Thickness 18.0 Book 5 Min size 300.0 X 200.0								
5.	X00003/0005	1319.0	486.4	1	0.642	1.485	0.953	0.95
6.	X00003/0006	2440.0	206.4	1	0.504	1.485	0.748	0.75
7.	X00003/0007	776.4	395.2	1	0.307	1.485	0.456	0.46
8.	X00003/0008	1116.2	205.2	1	0.229	1.485	0.340	0.34
9.	X00003/0009	937.8	208.4	1	0.195	1.485	0.290	0.29
10.	X00003/0010	563.2	216.0	1	0.122	1.485	0.181	0.18
					1.998			**2.97**
Total					**6.680**			**11.90**

Fig. 95

Board library - Boards only

This is an alternative layout for the library showing a list of board sizes.



DEMO USER 1 Modular V8.20 Tuesday 1 December 2009

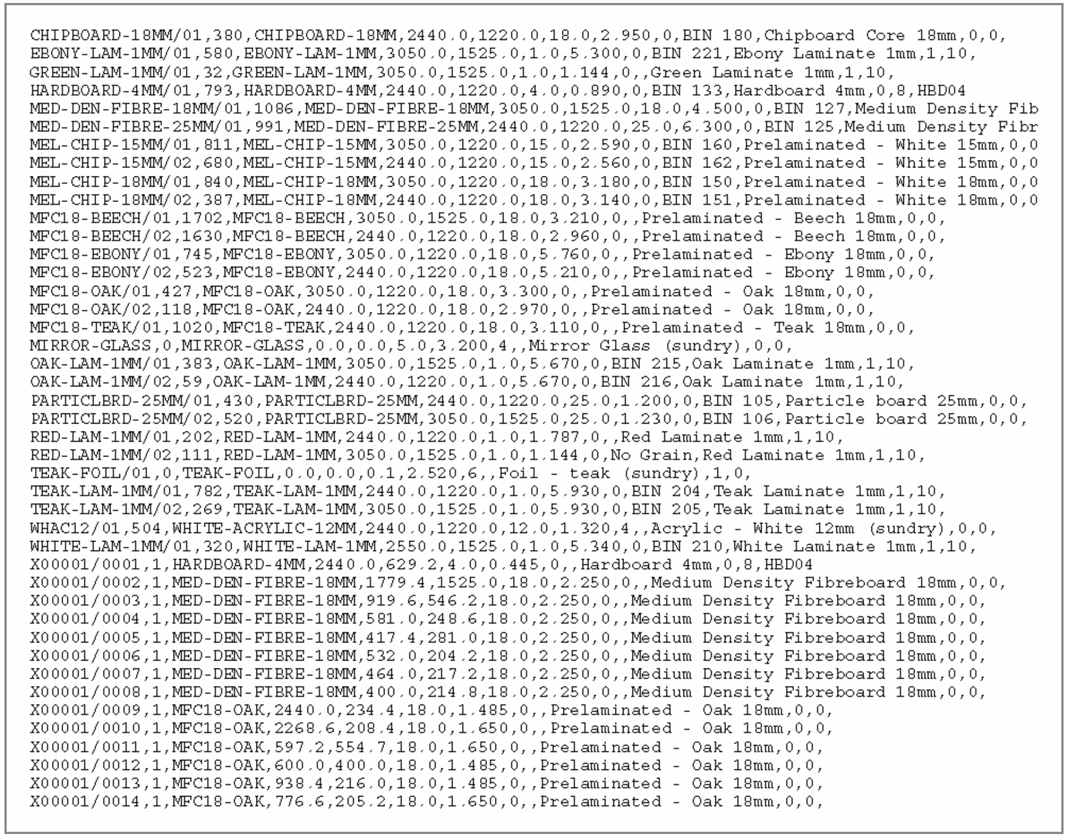
Board library

Board code	Material	Length	Width	Thickne...	Informa...	Stock	Alloc	Order	Cost	Li...	Supplier	Min Stk	ReOr...	Grain	Material parameters
BLUE-LAM-1MM/01	BLUE-LAM-1MM	2440.0	1220.0	1.0		142	0	110	5.320	0	Laminate Supply ...	80		N	
CHIPBOARD-18MM/01	CHIPBOARD-18MM	2440.0	1220.0	18.0	BIN 180	380	0	100	2.950	0	General Boards Inc	200		N	
EBONY-LAM-1MM/01	EBONY-LAM-1MM	3050.0	1525.0	1.0	BIN 221	580	0	0	5.300	0	Laminate Supply ...	100		Y	Lam 3050x1525
GREEN-LAM-1MM/01	GREEN-LAM-1MM	3050.0	1525.0	1.0		32	0	0	5.320	0	Laminate Supply ...	40		Y	Lam 3050x1525
HARDBOARD-4MM/01	HARDBOARD-4MM	2440.0	1220.0	4.0	BIN 133	800	18	200	0.890	0	General Boards Inc	200		N	
MED-DEN-FIBRE-18M...	MED-DEN-FIBRE-18MM	3050.0	1525.0	18.0	BIN 127	220...	25	365	4.500	0		450		N	
MED-DEN-FIBRE-25M...	MED-DEN-FIBRE-25MM	2440.0	1220.0	25.0	BIN 125	991	0	345	6.300	0		120		N	
MEL-CHIP-15MM/01	MEL-CHIP-15MM	3050.0	1220.0	15.0	BIN 160	811	0	120	2.590	0	General Boards Inc	90		N	
MEL-CHIP-15MM/02	MEL-CHIP-15MM	2440.0	1220.0	15.0	BIN 162	680	0	150	2.560	0	General Boards Inc	120		N	
MEL-CHIP-18MM/01	MEL-CHIP-18MM	3050.0	1220.0	18.0	BIN 150	840	0	170	3.180	0	General Boards Inc	0		N	
MEL-CHIP-18MM/02	MEL-CHIP-18MM	2440.0	1220.0	18.0	BIN 151	387	0	0	3.140	0	General Boards Inc	0		N	
MFC18-BEECH/01	MFC18-BEECH	3050.0	1525.0	18.0		1702	0	140	3.210	0		120		Y	
MFC18-BEECH/02	MFC18-BEECH	2440.0	1220.0	18.0		1630	0	0	2.960	0		120		Y	
MFC18-EBONY/01	MFC18-EBONY	3050.0	1220.0	18.0		745	0	185	5.760	0		120		N	
MFC18-EBONY/02	MFC18-EBONY	2440.0	1220.0	18.0		523	0	42	5.210	0		120		N	
MFC18-OAK/01	MFC18-OAK	3050.0	1220.0	18.0		430	0	94	3.300	0		120		N	
MFC18-OAK/02	MFC18-OAK	2440.0	1220.0	18.0		120	18	10	2.970	0		120		N	
MFC18-TEAK/01	MFC18-TEAK	2440.0	1220.0	18.0		1020	0	121	3.110	0		120		N	
MFC18-TEAK/02	MFC18-TEAK	3050.0	1525.0	18.0		950	0	0	3.110	0		80		N	
MIRROR-GLASS	MIRROR-GLASS	0.0	0.0	5.0		0	0	0	3.200	4		0		N	
OAK-LAM-1MM/01	OAK-LAM-1MM	3050.0	1525.0	1.0	BIN 215	383	0	139	5.670	0	Laminate Supply ...	0		Y	Lam 3050x1525
OAK-LAM-1MM/02	OAK-LAM-1MM	2440.0	1220.0	1.0	BIN 216	59	0	110	5.670	0	Laminate Supply ...	0		Y	
PARTICLBRD-25MM/01	PARTICLBRD-25MM	2440.0	1220.0	25.0	BIN 105	430	0	230	1.200	0		80		N	
PARTICLBRD-25MM/02	PARTICLBRD-25MM	3050.0	1525.0	25.0	BIN 106	520	0	90	1.230	0		40		X	
RED-LAM-1MM/01	RED-LAM-1MM	2440.0	1220.0	1.0		202	0	0	5.320	0	Laminate Supply ...	50		Y	
RED-LAM-1MM/02	RED-LAM-1MM	3050.0	1525.0	1.0	No Grain	111	0	50	5.320	0	Laminate Supply ...	50		N	
TEAK-FOIL/01	TEAK-FOIL	0.0	0.0	0.1		0	0	0	2.520	6		0		Y	
TEAK-LAM-1MM/01	TEAK-LAM-1MM	2440.0	1220.0	1.0	BIN 204	782	0	0	5.930	0	Laminate Supply ...	100		Y	
TEAK-LAM-1MM/02	TEAK-LAM-1MM	3050.0	1525.0	1.0	BIN 205	269	0	116	5.930	0	Laminate Supply ...	100		Y	Lam 3050x1525
WHAC12/01	WHITE-ACRYLIC-12MM	2440.0	1220.0	12.0		540	208	0	1.320	4		0		N	
WHITE-LAM-1MM/01	WHITE-LAM-1MM	2550.0	1525.0	1.0	BIN 210	320	0	472	5.340	0	Laminate Supply ...	80		Y	
X00125/0001	MFC18-TEAK	1011.0	780.0	18.0		1	0	0	1.550	0		0		N	
X00135/0003	MFC18-TEAK	564.0	488.0	18.0		1	0	0	1.550	0		0		N	
X00148/0001	MFC18-TEAK	950.0	620.0	18.0		1	0	0	1.550	0		0		N	
ZDD4B-BROWN-HAND...	Z-FITTINGS	0.0	0.0	0.0		238	0	0	0.950	0	C&F Fittings Ltd	150		N	
ZDD4W-WHITE-HAND...	Z-FITTINGS	0.0	0.0	0.0		487	0	0	0.780	0	The Fixtures Com...	320		N	
Z-DOUBLE	Z-FITTINGS	0.0	0.0	0.0		540	0	0	1.210	0	The Fixtures Com...	550		N	
Z-DOWEL	Z-FITTINGS	0.0	0.0	0.0		2983	0	0	0.120	0	C&F Fittings Ltd	1000		N	
Z-DRAWER-SCREW	Z-FITTINGS	0.0	0.0	0.0		1730	0	0	0.120	0	C&F Fittings Ltd	1000		N	
ZH120-HINGE	Z-FITTINGS	0.0	0.0	0.0		192	0	0	0.360	0	The Fixtures Com...	200		N	
ZH180-HINGE	Z-FITTINGS	0.0	0.0	0.0		322	0	0	0.400	0	The Fixtures Com...	200		N	
Z-HANGING-RAIL	Z-FITTINGS	0.0	0.0	0.0		93	0	0	1.960	0	The Fixtures Com...	120		N	
Z-RUNNER	Z-FITTINGS	0.0	0.0	0.0		328	0	0	0.430	0	The Fixtures Com...	200		N	
ZS25-6-ROUND-SCREW	Z-FITTINGS	0.0	0.0	0.0		2178	0	0	0.010	0	C&F Fittings Ltd	1000		N	
ZS40-8-CSUNK-SCREW	Z-FITTINGS	0.0	0.0	0.0		3249	0	0	0.010	0	C&F Fittings Ltd	1000		N	
Z-SHELF-SUPPORT	Z-FITTINGS	0.0	0.0	0.0		5375	0	0	0.190	0	The Fixtures Com...	2000		N	
Z-SINGLE	Z-FITTINGS	0.0	0.0	0.0		452	0	0	0.950	0	The Fixtures Com...	460		N	
Z-SINGLE-BEECH	Z-FITTINGS	0.0	0.0	0.0		210	0	0	0.520	0	C&F Fittings Ltd	220		N	
Z-SINGLE-BRASS	Z-FITTINGS	0.0	0.0	0.0		186	0	0	1.020	0	C&F Fittings Ltd	200		N	
Z-SINGLE-OAK	Z-FITTINGS	0.0	0.0	0.0		123	0	0	0.520	0	C&F Fittings Ltd	150		N	

Fig. 96

Board library - export

Board data can be exported to an external file.



```
CHIPBOARD-18MM/01,380,CHIPBOARD-18MM,2440.0,1220.0,18.0,2.950,0,BIN 180,Chipboard Core 18mm,0,0,
EBONY-LAM-1MM/01,580,EBONY-LAM-1MM,3050.0,1525.0,1.0,5.300,0,BIN 221,Ebony Laminate 1mm,1,10,
GREEN-LAM-1MM/01,32,GREEN-LAM-1MM,3050.0,1525.0,1.0,1.144,0,,Green Laminate 1mm,1,10,
HARDBOARD-4MM/01,793,HARDBOARD-4MM,2440.0,1220.0,4.0,0.890,0,BIN 133,Hardboard 4mm,0,8,HBD04
MED-DEN-FIBRE-18MM/01,1086,MED-DEN-FIBRE-18MM,3050.0,1525.0,18.0,4.500,0,BIN 127,Medium Density Fib
MED-DEN-FIBRE-25MM/01,991,MED-DEN-FIBRE-25MM,2440.0,1220.0,25.0,6.300,0,BIN 125,Medium Density Fibr
MEL-CHIP-15MM/01,811,MEL-CHIP-15MM,3050.0,1220.0,15.0,2.590,0,BIN 160,Prelaminated - White 15mm,0,0
MEL-CHIP-15MM/02,680,MEL-CHIP-15MM,2440.0,1220.0,15.0,2.560,0,BIN 162,Prelaminated - White 15mm,0,0
MEL-CHIP-18MM/01,840,MEL-CHIP-18MM,3050.0,1220.0,18.0,3.180,0,BIN 150,Prelaminated - White 18mm,0,0
MEL-CHIP-18MM/02,387,MEL-CHIP-18MM,2440.0,1220.0,18.0,3.140,0,BIN 151,Prelaminated - White 18mm,0,0
MFC18-BEECH/01,1702,MFC18-BEECH,3050.0,1525.0,18.0,3.210,0,,Prelaminated - Beech 18mm,0,0,
MFC18-BEECH/02,1630,MFC18-BEECH,2440.0,1220.0,18.0,2.960,0,,Prelaminated - Beech 18mm,0,0,
MFC18-EBONY/01,745,MFC18-EBONY,3050.0,1220.0,18.0,5.760,0,,Prelaminated - Ebony 18mm,0,0,
MFC18-EBONY/02,523,MFC18-EBONY,2440.0,1220.0,18.0,5.210,0,,Prelaminated - Ebony 18mm,0,0,
MFC18-OAK/01,427,MFC18-OAK,3050.0,1220.0,18.0,3.300,0,,Prelaminated - Oak 18mm,0,0,
MFC18-OAK/02,118,MFC18-OAK,2440.0,1220.0,18.0,2.970,0,,Prelaminated - Oak 18mm,0,0,
MFC18-TEAK/01,1020,MFC18-TEAK,2440.0,1220.0,18.0,3.110,0,,Prelaminated - Teak 18mm,0,0,
MIRROR-GLASS,0,MIRROR-GLASS,0.0,0.0,5.0,3.200,4,,Mirror Glass (sundry),0,0,
OAK-LAM-1MM/01,383,OAK-LAM-1MM,3050.0,1525.0,1.0,5.670,0,BIN 215,Oak Laminate 1mm,1,10,
OAK-LAM-1MM/02,59,OAK-LAM-1MM,2440.0,1220.0,1.0,5.670,0,BIN 216,Oak Laminate 1mm,1,10,
PARTICLBRD-25MM/01,430,PARTICLBRD-25MM,2440.0,1220.0,25.0,1.200,0,BIN 105,Particle board 25mm,0,0,
PARTICLBRD-25MM/02,520,PARTICLBRD-25MM,3050.0,1525.0,25.0,1.230,0,BIN 106,Particle board 25mm,0,0,
RED-LAM-1MM/01,202,RED-LAM-1MM,2440.0,1220.0,1.0,1.787,0,,Red Laminate 1mm,1,10,
RED-LAM-1MM/02,111,RED-LAM-1MM,3050.0,1525.0,1.0,1.144,0,No Grain,Red Laminate 1mm,1,10,
TEAK-FOIL/01,0,TEAK-FOIL,0.0,0.0,0.1,2.520,6,,Foil - teak (sundry),1,0,
TEAK-LAM-1MM/01,782,TEAK-LAM-1MM,2440.0,1220.0,1.0,5.930,0,BIN 204,Teak Laminate 1mm,1,10,
TEAK-LAM-1MM/02,269,TEAK-LAM-1MM,3050.0,1525.0,1.0,5.930,0,BIN 205,Teak Laminate 1mm,1,10,
WHAC12/01,504,WHITE-ACRYLIC-12MM,2440.0,1220.0,12.0,1.320,4,,Acrylic - White 12mm (sundry),0,0,
WHITE-LAM-1MM/01,320,WHITE-LAM-1MM,2550.0,1525.0,1.0,5.340,0,BIN 210,White Laminate 1mm,1,10,
X00001/0001,1,HARDBOARD-4MM,2440.0,629.2,4.0,0.445,0,,Hardboard 4mm,0,8,HBD04
X00001/0002,1,MED-DEN-FIBRE-18MM,1779.4,1525.0,18.0,2.250,0,,Medium Density Fibreboard 18mm,0,0,
X00001/0003,1,MED-DEN-FIBRE-18MM,919.6,546.2,18.0,2.250,0,,Medium Density Fibreboard 18mm,0,0,
X00001/0004,1,MED-DEN-FIBRE-18MM,581.0,248.6,18.0,2.250,0,,Medium Density Fibreboard 18mm,0,0,
X00001/0005,1,MED-DEN-FIBRE-18MM,417.4,281.0,18.0,2.250,0,,Medium Density Fibreboard 18mm,0,0,
X00001/0006,1,MED-DEN-FIBRE-18MM,532.0,204.2,18.0,2.250,0,,Medium Density Fibreboard 18mm,0,0,
X00001/0007,1,MED-DEN-FIBRE-18MM,464.0,217.2,18.0,2.250,0,,Medium Density Fibreboard 18mm,0,0,
X00001/0008,1,MED-DEN-FIBRE-18MM,400.0,214.8,18.0,2.250,0,,Medium Density Fibreboard 18mm,0,0,
X00001/0009,1,MFC18-OAK,2440.0,234.4,18.0,1.485,0,,Prelaminated - Oak 18mm,0,0,
X00001/0010,1,MFC18-OAK,2268.6,208.4,18.0,1.650,0,,Prelaminated - Oak 18mm,0,0,
X00001/0011,1,MFC18-OAK,597.2,554.7,18.0,1.650,0,,Prelaminated - Oak 18mm,0,0,
X00001/0012,1,MFC18-OAK,600.0,400.0,18.0,1.485,0,,Prelaminated - Oak 18mm,0,0,
X00001/0013,1,MFC18-OAK,938.4,216.0,18.0,1.485,0,,Prelaminated - Oak 18mm,0,0,
X00001/0014,1,MFC18-OAK,776.6,205.2,18.0,1.650,0,,Prelaminated - Oak 18mm,0,0,
```

Fig. 97

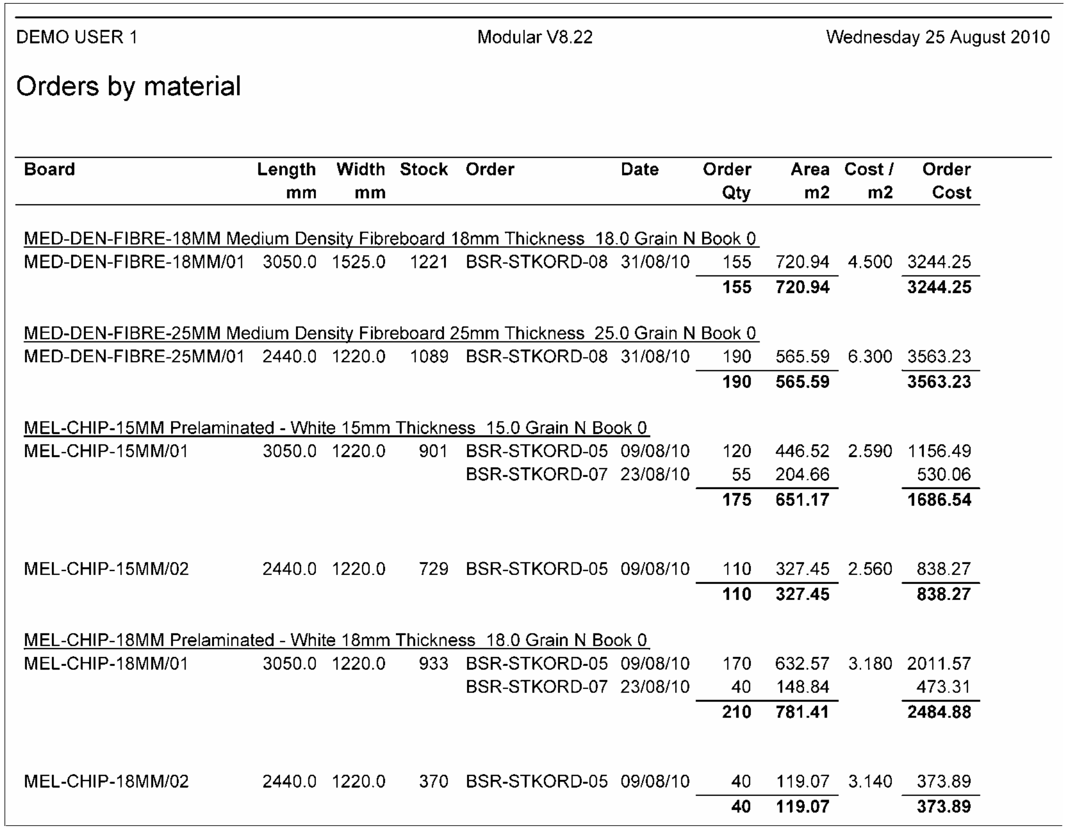
The file is in the standard format for the program for boards. BDX

Stock control

This section shows some examples of the many stock reports that are available. The program offers a comprehensive system of physical stock control for sheet materials, fittings (hardware) and edging materials.

Stock - Orders by material

List of stock orders sorted by material



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DEMO USER 1                              Modular V8.22                    Wednesday 25 August 2010

Orders by material

Board                     Length  Width  Stock  Order            Date    Order    Area  Cost /   Order
                              mm     mm                                    Qty      m2      m2    Cost

MED-DEN-FIBRE-18MM Medium Density Fibreboard 18mm Thickness  18.0 Grain N Book 0
MED-DEN-FIBRE-18MM/01     3050.0 1525.0   1221  BSR-STKORD-08  31/08/10    155  720.94   4.500  3244.25
                                                                           155  720.94          3244.25

MED-DEN-FIBRE-25MM Medium Density Fibreboard 25mm Thickness  25.0 Grain N Book 0
MED-DEN-FIBRE-25MM/01     2440.0 1220.0   1089  BSR-STKORD-08  31/08/10    190  565.59   6.300  3563.23
                                                                           190  565.59          3563.23

MEL-CHIP-15MM Prelaminated - White 15mm Thickness  15.0 Grain N Book 0
MEL-CHIP-15MM/01          3050.0 1220.0    901  BSR-STKORD-05  09/08/10    120  446.52   2.590  1156.49
                                                BSR-STKORD-07  23/08/10     55  204.66           530.06
                                                                           175  651.17          1686.54


MEL-CHIP-15MM/02          2440.0 1220.0    729  BSR-STKORD-05  09/08/10    110  327.45   2.560   838.27
                                                                           110  327.45           838.27

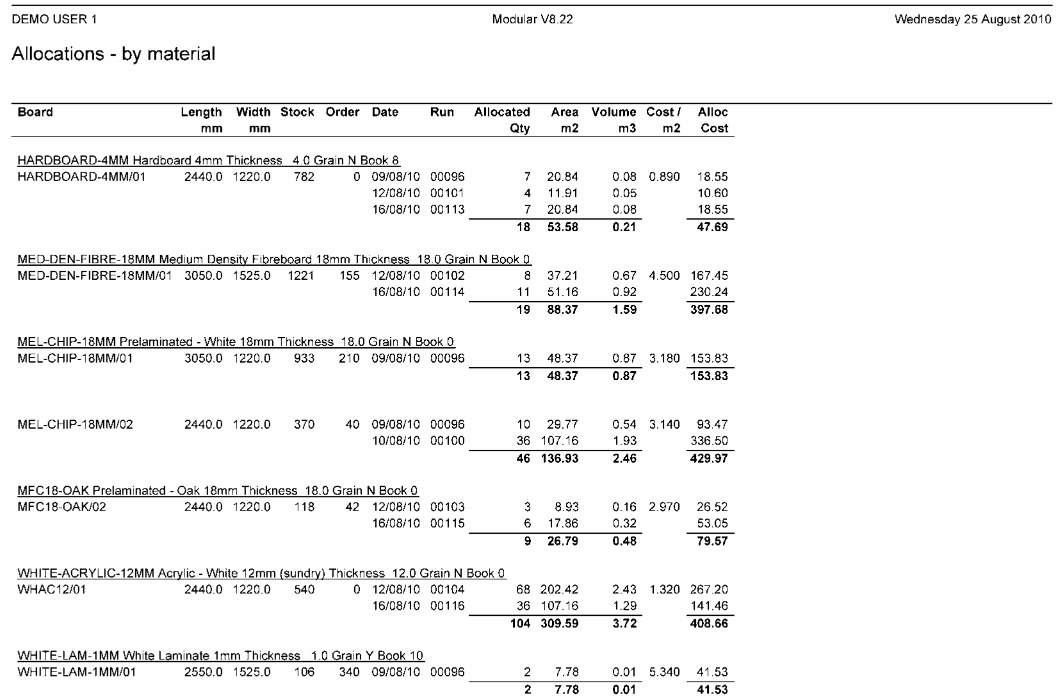
MEL-CHIP-18MM Prelaminated - White 18mm Thickness  18.0 Grain N Book 0
MEL-CHIP-18MM/01          3050.0 1220.0    933  BSR-STKORD-05  09/08/10    170  632.57   3.180  2011.57
                                                BSR-STKORD-07  23/08/10     40  148.84           473.31
                                                                           210  781.41          2484.88


MEL-CHIP-18MM/02          2440.0 1220.0    370  BSR-STKORD-05  09/08/10     40  119.07   3.140   373.89
                                                                            40  119.07           373.89
```

Fig. 98

Stock Allocations by material

Reserves boards for a job so they are not used for other jobs or estimates



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DEMO USER 1                                          Modular V8.22                                Wednesday 25 August 2010

Allocations - by material

Board                    Length   Width  Stock  Order  Date      Run    Allocated    Area  Volume  Cost /   Alloc
                             mm      mm                                       Qty      m2      m3      m2    Cost

HARDBOARD-4MM Hardboard 4mm Thickness   4.0 Grain N Book 8
HARDBOARD-4MM/01         2440.0  1220.0    782      0  09/08/10  00096          7   20.84    0.08   0.890   18.55
                                                       12/08/10  00101          4   11.91    0.05           10.60
                                                       16/08/10  00113          7   20.84    0.08           18.55
                                                                               18   53.58    0.21           47.69

MED-DEN-FIBRE-18MM Medium Density Fibreboard 18mm Thickness  18.0 Grain N Book 0
MED-DEN-FIBRE-18MM/01    3050.0  1525.0   1221    155  12/08/10  00102          8   37.21    0.67   4.500  167.45
                                                       16/08/10  00114         11   51.16    0.92          230.24
                                                                               19   88.37    1.59          397.68

MEL-CHIP-18MM Prelaminated - White 18mm Thickness  18.0 Grain N Book 0
MEL-CHIP-18MM/01         3050.0  1220.0    933    210  09/08/10  00096         13   48.37    0.87   3.180  153.83
                                                                               13   48.37    0.87          153.83


MEL-CHIP-18MM/02         2440.0  1220.0    370     40  09/08/10  00096         10   29.77    0.54   3.140   93.47
                                                       10/08/10  00100         36  107.16    1.93          336.50
                                                                               46  136.93    2.46          429.97

MFC18-OAK Prelaminated - Oak 18mm Thickness  18.0 Grain N Book 0
MFC18-OAK/02             2440.0  1220.0    118     42  12/08/10  00103          3    8.93    0.16   2.970   26.52
                                                       16/08/10  00115          6   17.86    0.32           53.05
                                                                                9   26.79    0.48           79.57

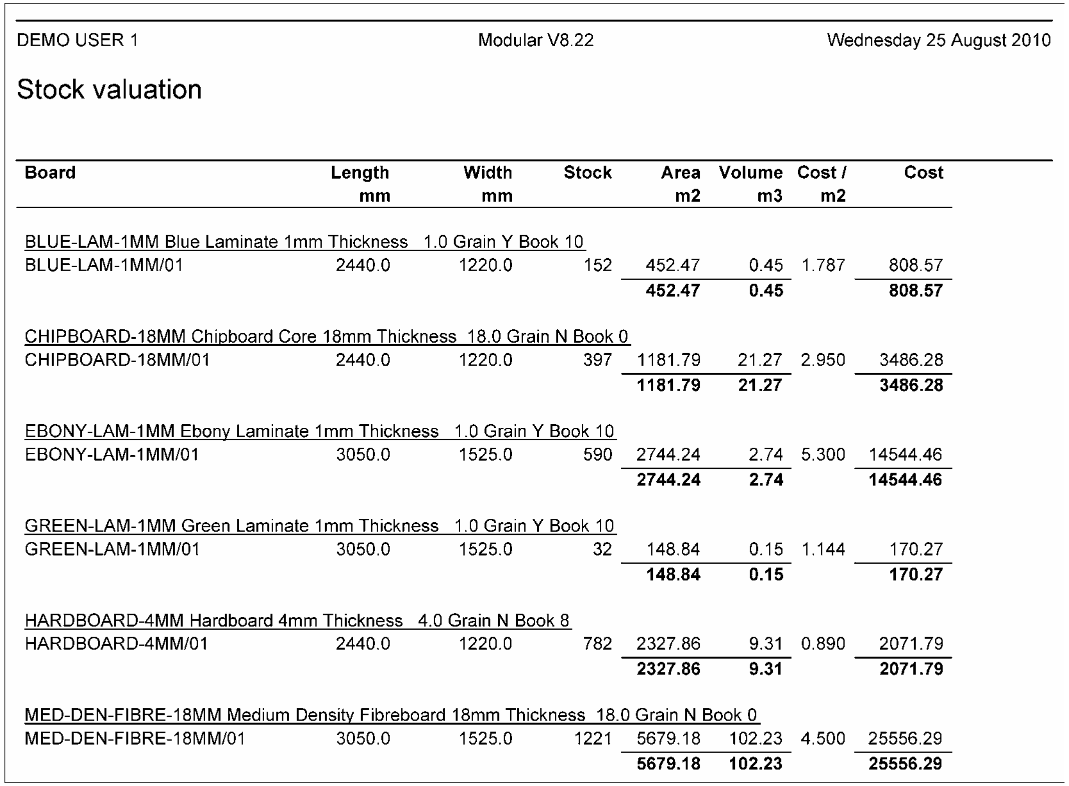
WHITE-ACRYLIC-12MM Acrylic - White 12mm (sundry) Thickness  12.0 Grain N Book 0
WHAC12/01                2440.0  1220.0    540      0  12/08/10  00104         68  202.42    2.43   1.320  267.20
                                                       16/08/10  00116         36  107.16    1.29          141.46
                                                                              104  309.59    3.72          408.66

WHITE-LAM-1MM White Laminate 1mm Thickness   1.0 Grain Y Book 10
WHITE-LAM-1MM/01         2550.0  1525.0    106    340  09/08/10  00096          2    7.78    0.01   5.340   41.53
                                                                                2    7.78    0.01           41.53
```

Fig. 99

Note - allocations are cancelled when stock is issued for cutting

Stock valuation **-** value of material in the library



DEMO USER 1 Modular V8.22 Wednesday 25 August 2010

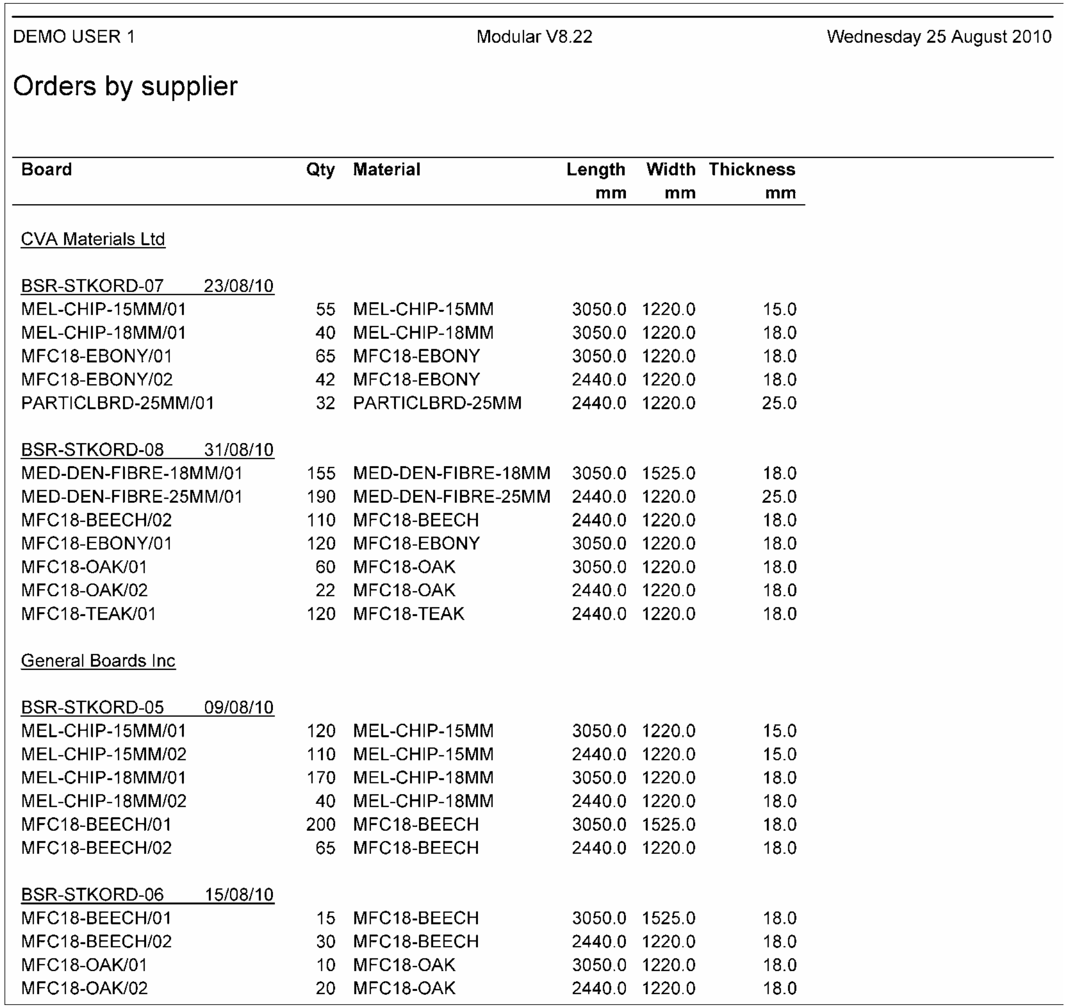
Stock valuation

Board	**Length mm**	**Width mm**	**Stock**	**Area m2**	**Volume m3**	**Cost / m2**	**Cost**
BLUE-LAM-1MM Blue Laminate 1mm Thickness 1.0 Grain Y Book 10							
BLUE-LAM-1MM/01	2440.0	1220.0	152	452.47	0.45	1.787	808.57
				452.47	**0.45**		**808.57**
CHIPBOARD-18MM Chipboard Core 18mm Thickness 18.0 Grain N Book 0							
CHIPBOARD-18MM/01	2440.0	1220.0	397	1181.79	21.27	2.950	3486.28
				1181.79	**21.27**		**3486.28**
EBONY-LAM-1MM Ebony Laminate 1mm Thickness 1.0 Grain Y Book 10							
EBONY-LAM-1MM/01	3050.0	1525.0	590	2744.24	2.74	5.300	14544.46
				2744.24	**2.74**		**14544.46**
GREEN-LAM-1MM Green Laminate 1mm Thickness 1.0 Grain Y Book 10							
GREEN-LAM-1MM/01	3050.0	1525.0	32	148.84	0.15	1.144	170.27
				148.84	**0.15**		**170.27**
HARDBOARD-4MM Hardboard 4mm Thickness 4.0 Grain N Book 8							
HARDBOARD-4MM/01	2440.0	1220.0	782	2327.86	9.31	0.890	2071.79
				2327.86	**9.31**		**2071.79**
MED-DEN-FIBRE-18MM Medium Density Fibreboard 18mm Thickness 18.0 Grain N Book 0							
MED-DEN-FIBRE-18MM/01	3050.0	1525.0	1221	5679.18	102.23	4.500	25556.29
				5679.18	**102.23**		**25556.29**

Fig. 100

Valuations are based on the current price.

Stock Orders by supplier - current orders listed in alphabetical order of supplier



```
DEMO USER 1                              Modular V8.22                     Wednesday 25 August 2010

Orders by supplier


Board                        Qty  Material              Length  Width  Thickness
                                                            mm     mm         mm

CVA Materials Ltd

BSR-STKORD-07     23/08/10
MEL-CHIP-15MM/01              55  MEL-CHIP-15MM         3050.0 1220.0       15.0
MEL-CHIP-18MM/01              40  MEL-CHIP-18MM         3050.0 1220.0       18.0
MFC18-EBONY/01                65  MFC18-EBONY           3050.0 1220.0       18.0
MFC18-EBONY/02                42  MFC18-EBONY           2440.0 1220.0       18.0
PARTICLBRD-25MM/01            32  PARTICLBRD-25MM       2440.0 1220.0       25.0

BSR-STKORD-08     31/08/10
MED-DEN-FIBRE-18MM/01        155  MED-DEN-FIBRE-18MM    3050.0 1525.0       18.0
MED-DEN-FIBRE-25MM/01        190  MED-DEN-FIBRE-25MM    2440.0 1220.0       25.0
MFC18-BEECH/02               110  MFC18-BEECH           2440.0 1220.0       18.0
MFC18-EBONY/01               120  MFC18-EBONY           3050.0 1220.0       18.0
MFC18-OAK/01                  60  MFC18-OAK             3050.0 1220.0       18.0
MFC18-OAK/02                  22  MFC18-OAK             2440.0 1220.0       18.0
MFC18-TEAK/01                120  MFC18-TEAK            2440.0 1220.0       18.0

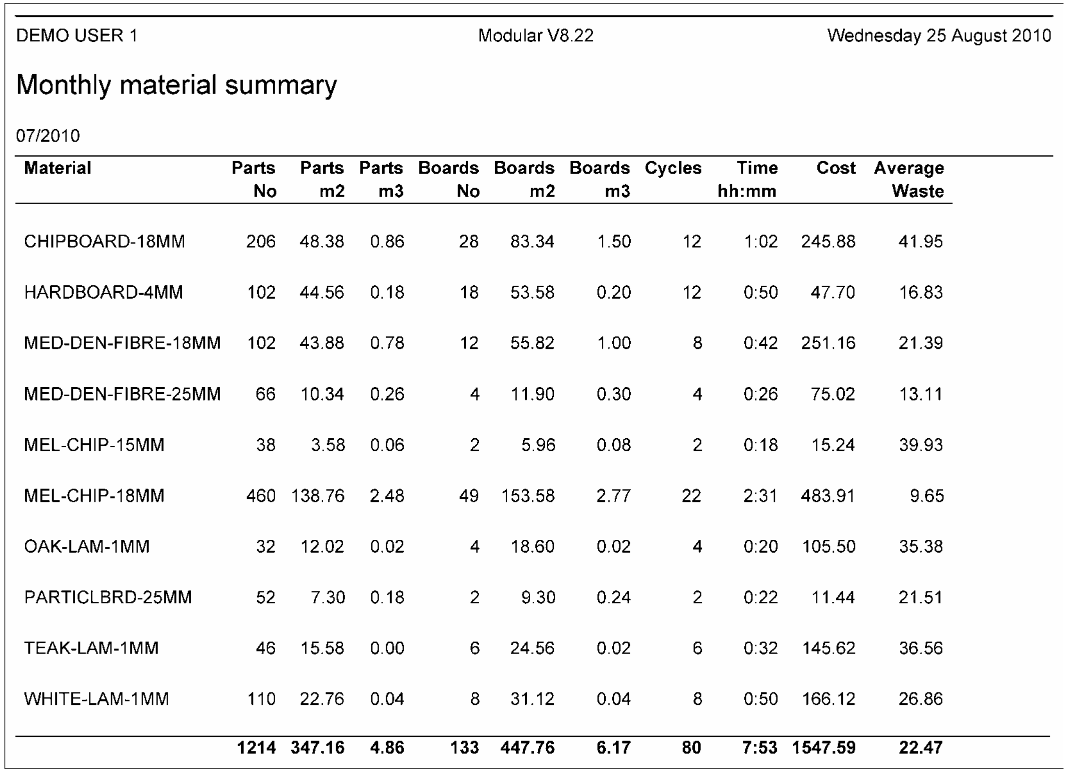
General Boards Inc

BSR-STKORD-05     09/08/10
MEL-CHIP-15MM/01             120  MEL-CHIP-15MM         3050.0 1220.0       15.0
MEL-CHIP-15MM/02             110  MEL-CHIP-15MM         2440.0 1220.0       15.0
MEL-CHIP-18MM/01             170  MEL-CHIP-18MM         3050.0 1220.0       18.0
MEL-CHIP-18MM/02              40  MEL-CHIP-18MM         2440.0 1220.0       18.0
MFC18-BEECH/01               200  MFC18-BEECH           3050.0 1525.0       18.0
MFC18-BEECH/02                65  MFC18-BEECH           2440.0 1220.0       18.0

BSR-STKORD-06     15/08/10
MFC18-BEECH/01                15  MFC18-BEECH           3050.0 1525.0       18.0
MFC18-BEECH/02                30  MFC18-BEECH           2440.0 1220.0       18.0
MFC18-OAK/01                  10  MFC18-OAK             3050.0 1220.0       18.0
MFC18-OAK/02                  20  MFC18-OAK             2440.0 1220.0       18.0
```

Fig. 101

Stock - Monthly material summary - stock movements during a month



DEMO USER 1 Modular V8.22 Wednesday 25 August 2010

Monthly material summary

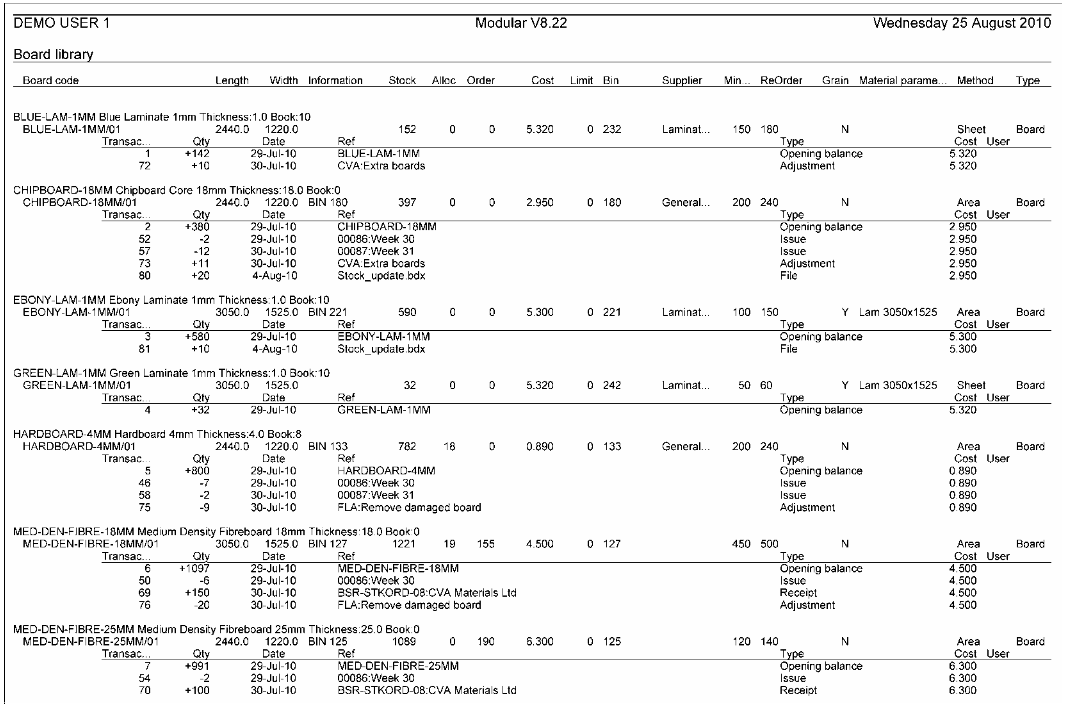
07/2010

Material	**Parts No**	**Parts m2**	**Parts m3**	**Boards No**	**Boards m2**	**Boards m3**	**Cycles**	**Time hh:mm**	**Cost**	**Average Waste**
CHIPBOARD-18MM	206	48.38	0.86	28	83.34	1.50	12	1:02	245.88	41.95
HARDBOARD-4MM	102	44.56	0.18	18	53.58	0.20	12	0:50	47.70	16.83
MED-DEN-FIBRE-18MM	102	43.88	0.78	12	55.82	1.00	8	0:42	251.16	21.39
MED-DEN-FIBRE-25MM	66	10.34	0.26	4	11.90	0.30	4	0:26	75.02	13.11
MEL-CHIP-15MM	38	3.58	0.06	2	5.96	0.08	2	0:18	15.24	39.93
MEL-CHIP-18MM	460	138.76	2.48	49	153.58	2.77	22	2:31	483.91	9.65
OAK-LAM-1MM	32	12.02	0.02	4	18.60	0.02	4	0:20	105.50	35.38
PARTICLBRD-25MM	52	7.30	0.18	2	9.30	0.24	2	0:22	11.44	21.51
TEAK-LAM-1MM	46	15.58	0.00	6	24.56	0.02	6	0:32	145.62	36.56
WHITE-LAM-1MM	110	22.76	0.04	8	31.12	0.04	8	0:50	166.12	26.86
	1214	**347.16**	**4.86**	**133**	**447.76**	**6.17**	**80**	**7:53**	**1547.59**	**22.47**

Fig. 102

Board library - stock

The board library can also contain the stock transactions for each board. The movements in and out of all stock.



```
DEMO USER 1                                              Modular V8.22                                          Wednesday 25 August 2010

Board library
  Board code                      Length    Width  Information    Stock   Alloc  Order      Cost   Limit  Bin       Supplier    Min...  ReOrder   Grain  Material parame...  Method    Type

BLUE-LAM-1MM Blue Laminate 1mm Thickness:1.0 Book:10
  BLUE-LAM-1MM/01                 2440.0   1220.0                   152       0      0     5.320       0  232       Laminat...     150  180           N                        Sheet     Board
                   Transac...       Qty         Date        Ref                                                                   Type                                      Cost  User
                            1      +142      29-Jul-10      BLUE-LAM-1MM                                                          Opening balance                           5.320
                           72       +10      30-Jul-10      CVA:Extra boards                                                      Adjustment                                5.320

CHIPBOARD-18MM Chipboard Core 18mm Thickness:18.0 Book:0
  CHIPBOARD-18MM/01               2440.0   1220.0  BIN 180          397       0      0     2.950       0  180       General...     200  240           N                        Area      Board
                   Transac...       Qty         Date        Ref                                                                   Type                                      Cost  User
                            2      +380      29-Jul-10      CHIPBOARD-18MM                                                        Opening balance                           2.950
                           52        -2      29-Jul-10      00086:Week 30                                                         Issue                                     2.950
                           57       -12      30-Jul-10      00087:Week 31                                                         Issue                                     2.950
                           73       +11      30-Jul-10      CVA:Extra boards                                                      Adjustment                                2.950
                           80       +20       4-Aug-10      Stock_update.bdx                                                      File                                      2.950

EBONY-LAM-1MM Ebony Laminate 1mm Thickness:1.0 Book:10
  EBONY-LAM-1MM/01                3050.0   1525.0  BIN 221          590       0      0     5.300       0  221       Laminat...     100  150           Y  Lam 3050x1525         Area      Board
                   Transac...       Qty         Date        Ref                                                                   Type                                      Cost  User
                            3      +580      29-Jul-10      EBONY-LAM-1MM                                                         Opening balance                           5.300
                           81       +10       4-Aug-10      Stock_update.bdx                                                      File                                      5.300

GREEN-LAM-1MM Green Laminate 1mm Thickness:1.0 Book:10
  GREEN-LAM-1MM/01                3050.0   1525.0                    32       0      0     5.320       0  242       Laminat...      50  60            Y  Lam 3050x1525         Sheet     Board
                   Transac...       Qty         Date        Ref                                                                   Type                                      Cost  User
                            4       +32      29-Jul-10      GREEN-LAM-1MM                                                         Opening balance                           5.320

HARDBOARD-4MM Hardboard 4mm Thickness:4.0 Book:8
  HARDBOARD-4MM/01                2440.0   1220.0  BIN 133          782      18      0     0.890       0  133       General...     200  240           N                        Area      Board
                   Transac...       Qty         Date        Ref                                                                   Type                                      Cost  User
                            5      +800      29-Jul-10      HARDBOARD-4MM                                                         Opening balance                           0.890
                           46        -7      29-Jul-10      00086:Week 30                                                         Issue                                     0.890
                           58        -2      30-Jul-10      00087:Week 31                                                         Issue                                     0.890
                           75        -9      30-Jul-10      FLA:Remove damaged board                                              Adjustment                                0.890

MED-DEN-FIBRE-18MM Medium Density Fibreboard 18mm Thickness:18.0 Book:0
  MED-DEN-FIBRE-18MM/01           3050.0   1525.0  BIN 127         1221      19    155     4.500       0  127                      450  500           N                        Area      Board
                   Transac...       Qty         Date        Ref                                                                   Type                                      Cost  User
                            6     +1097      29-Jul-10      MED-DEN-FIBRE-18MM                                                    Opening balance                           4.500
                           50        -6      29-Jul-10      00086:Week 30                                                         Issue                                     4.500
                           69      +150      30-Jul-10      BSR-STKORD-08:CVA Materials Ltd                                       Receipt                                   4.500
                           76       -20      30-Jul-10      FLA:Remove damaged board                                              Adjustment                                4.500

MED-DEN-FIBRE-25MM Medium Density Fibreboard 25mm Thickness:25.0 Book:0
  MED-DEN-FIBRE-25MM/01           2440.0   1220.0  BIN 125         1089       0    190     6.300       0  125                      120  140           N                        Area      Board
                   Transac...       Qty         Date        Ref                                                                   Type                                      Cost  User
                            7      +991      29-Jul-10      MED-DEN-FIBRE-25MM                                                    Opening balance                           6.300
                           54        -2      29-Jul-10      00086:Week 30                                                         Issue                                     6.300
                           70      +100      30-Jul-10      BSR-STKORD-08:CVA Materials Ltd                                       Receipt                                   6.300
```

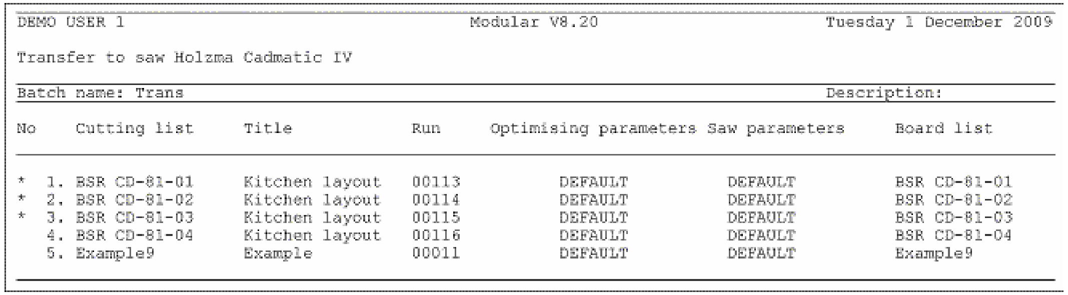
Fig. 103

Machining centre interface

The Machining library holds full details of machining for each part including vertical and horizontal drilling, routing, cut-outs, contours, pockets etc. It includes tooling information for the machining centre. Any machining for parts in an optimised run can be automatically downloaded to a Machining centre.

Where necessary print full details of each machining drawing and the machining instructions.

Transfer to Machining centre - Parts lists with machined parts to transfer to machining centre



```
DEMO USER 1                                   Modular V8.20                        Tuesday 1 December 2009

Transfer to saw Holzma Cadmatic IV

Batch name: Trans                                                                  Description:

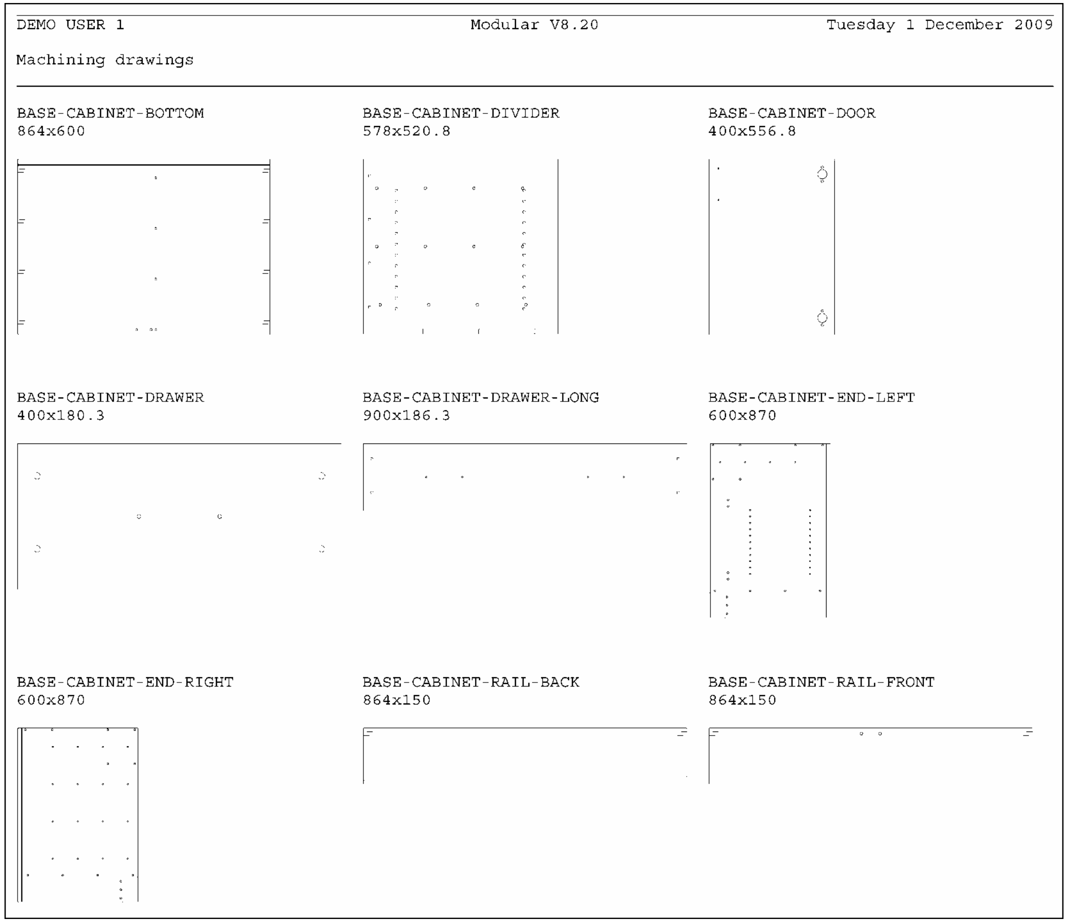
No    Cutting list     Title            Run     Optimising parameters Saw parameters      Board list

*  1. BSR CD-81-01     Kitchen layout   00113          DEFAULT          DEFAULT           BSR CD-81-01
*  2. BSR CD-81-02     Kitchen layout   00114          DEFAULT          DEFAULT           BSR CD-81-02
*  3. BSR CD-81-03     Kitchen layout   00115          DEFAULT          DEFAULT           BSR CD-81-03
   4. BSR CD-81-04     Kitchen layout   00116          DEFAULT          DEFAULT           BSR CD-81-04
   5. Example9         Example          00011          DEFAULT          DEFAULT           Example9
```

Fig. 104

This is a print of the details of the batch transferred

Machining library **-** Thumbnail view of items in library.



DEMO USER 1 Modular V8.20 Tuesday 1 December 2009

Machining drawings

BASE-CABINET-BOTTOM
864x600

BASE-CABINET-DIVIDER
578x520.8

BASE-CABINET-DOOR
400x556.8

BASE-CABINET-DRAWER
400x180.3

BASE-CABINET-DRAWER-LONG
900x186.3

BASE-CABINET-END-LEFT
600x870

BASE-CABINET-END-RIGHT
600x870

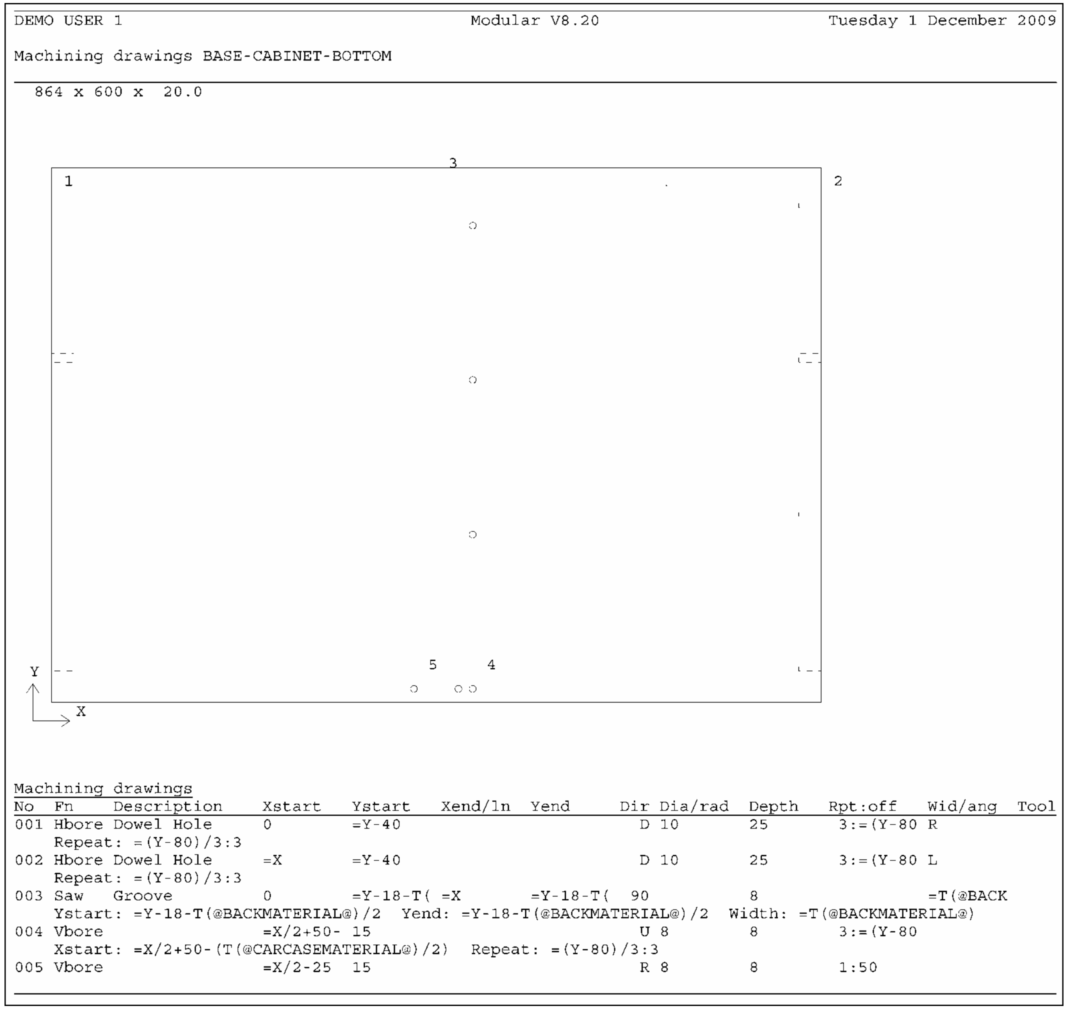
BASE-CABINET-RAIL-BACK
864x150

BASE-CABINET-RAIL-FRONT
864x150

Fig. 105

Machining library holds all part drawings including machining instructions.

Machining library - full drawing and machining instructions



```
DEMO USER 1                                   Modular V8.20                    Tuesday 1 December 2009

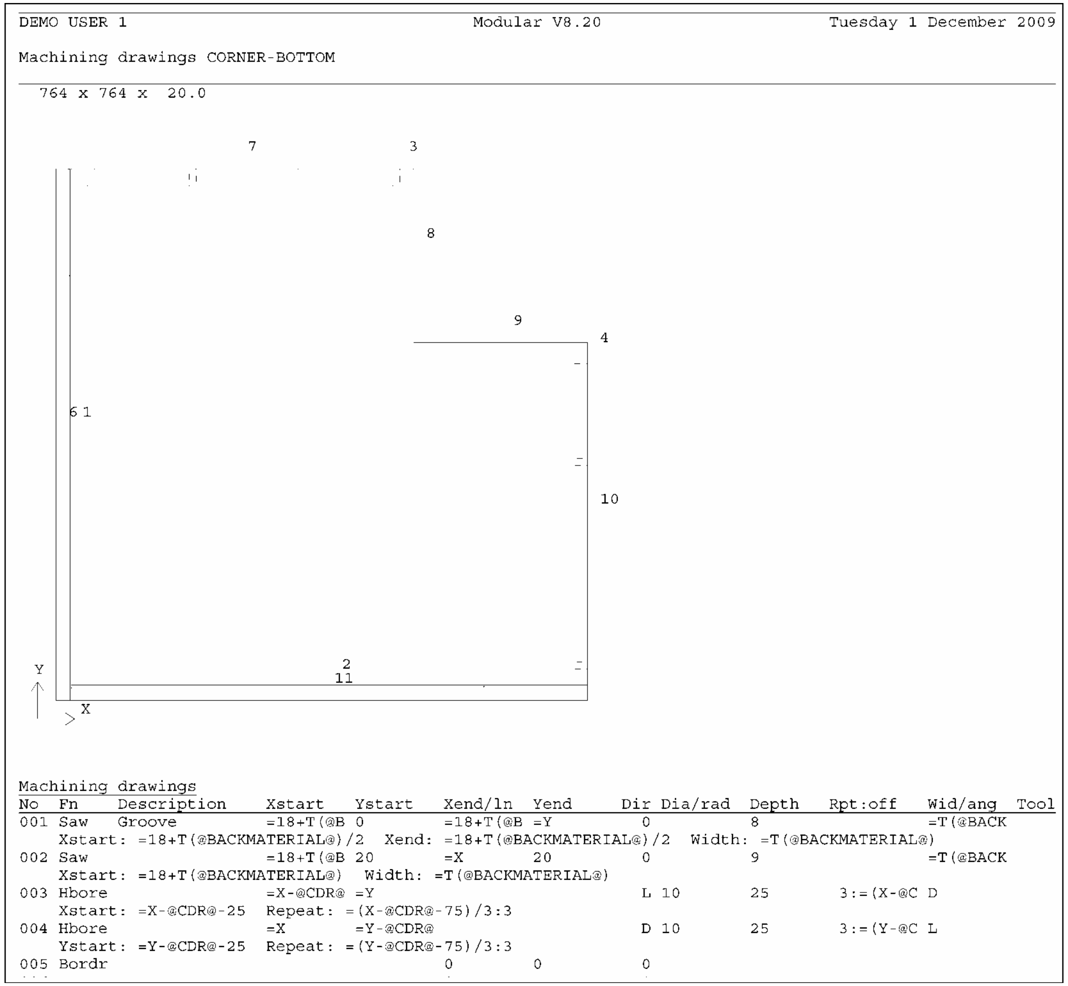
Machining drawings BASE-CABINET-BOTTOM

  864 x 600 x  20.0
```

```
Machining drawings
No  Fn    Description    Xstart   Ystart   Xend/ln  Yend     Dir Dia/rad  Depth   Rpt:off   Wid/ang  Tool
001 Hbore Dowel Hole     0        =Y-40                    D 10      25       3:=(Y-80 R
    Repeat: =(Y-80)/3:3
002 Hbore Dowel Hole     =X       =Y-40                    D 10      25       3:=(Y-80 L
    Repeat: =(Y-80)/3:3
003 Saw   Groove         0        =Y-18-T( =X       =Y-18-T( 90        8                 =T(@BACK
    Ystart: =Y-18-T(@BACKMATERIAL@)/2  Yend: =Y-18-T(@BACKMATERIAL@)/2  Width: =T(@BACKMATERIAL@)
004 Vbore                =X/2+50- 15                       U 8       8        3:=(Y-80
    Xstart: =X/2+50-(T(@CARCASEMATERIAL@)/2)  Repeat: =(Y-80)/3:3
005 Vbore                =X/2-25  15                       R 8       8        1:50
```

Fig. 106

Machining library - full drawing and machining instructions - can include shaped parts



```
DEMO USER 1                                   Modular V8.20                       Tuesday 1 December 2009

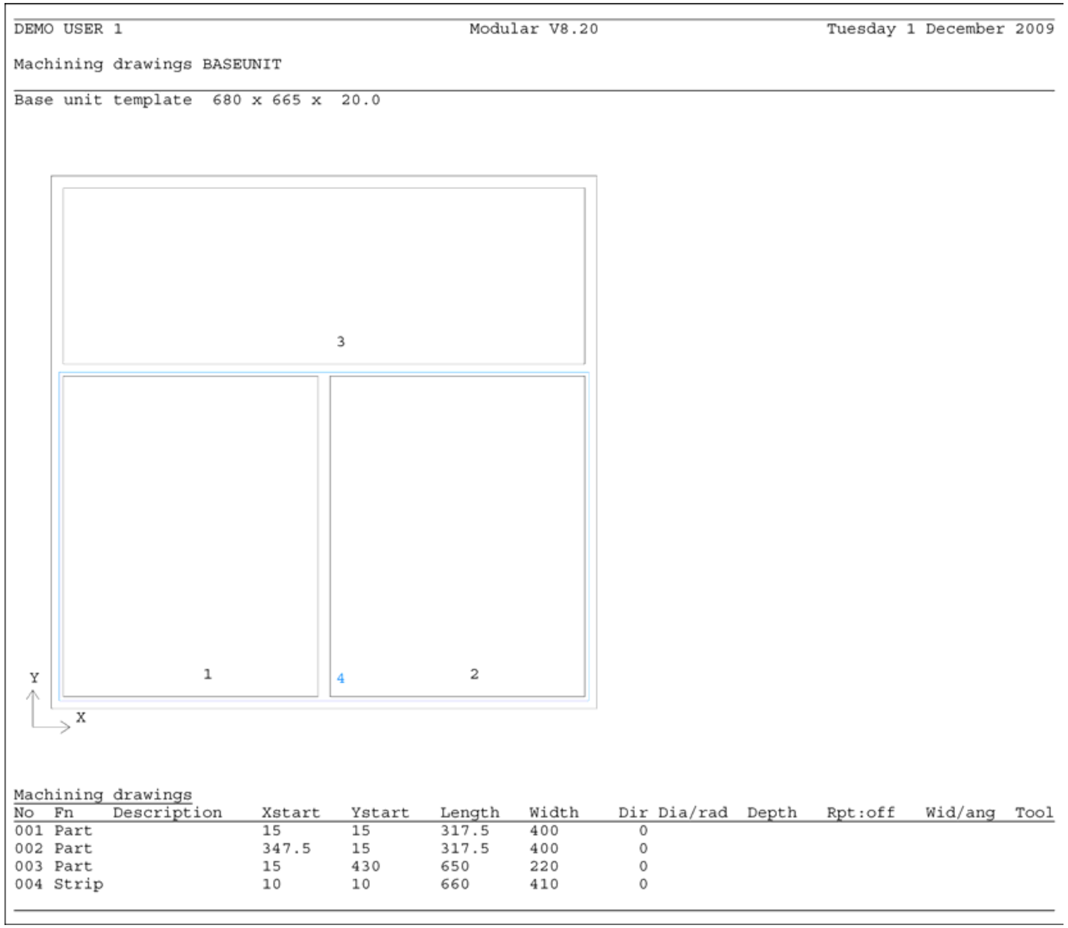
Machining drawings CORNER-BOTTOM

  764 x 764 x  20.0
```

```
Machining drawings
No  Fn    Description    Xstart   Ystart   Xend/ln  Yend     Dir Dia/rad  Depth   Rpt:off   Wid/ang  Tool
001 Saw   Groove         =18+T(@B 0        =18+T(@B =Y         0          8                 =T(@BACK
    Xstart: =18+T(@BACKMATERIAL@)/2  Xend: =18+T(@BACKMATERIAL@)/2  Width: =T(@BACKMATERIAL@)
002 Saw                  =18+T(@B 20       =X       20         0          9                 =T(@BACK
    Xstart: =18+T(@BACKMATERIAL@)  Width: =T(@BACKMATERIAL@)
003 Hbore                =X-@CDR@ =Y                           L 10       25       3:=(X-@C D
    Xstart: =X-@CDR@-25  Repeat: =(X-@CDR@-75)/3:3
004 Hbore                =X       =Y-@CDR@                     D 10       25       3:=(Y-@C L
    Ystart: =Y-@CDR@-25  Repeat: =(Y-@CDR@-75)/3:3
005 Bordr                                  0        0          0
```

Note - formula are converted to absolute value on optimising.

Machining library - includes templates for defining the layout of several parts - for grain matching or nesting.



```
DEMO USER 1                              Modular V8.20                          Tuesday 1 December 2009

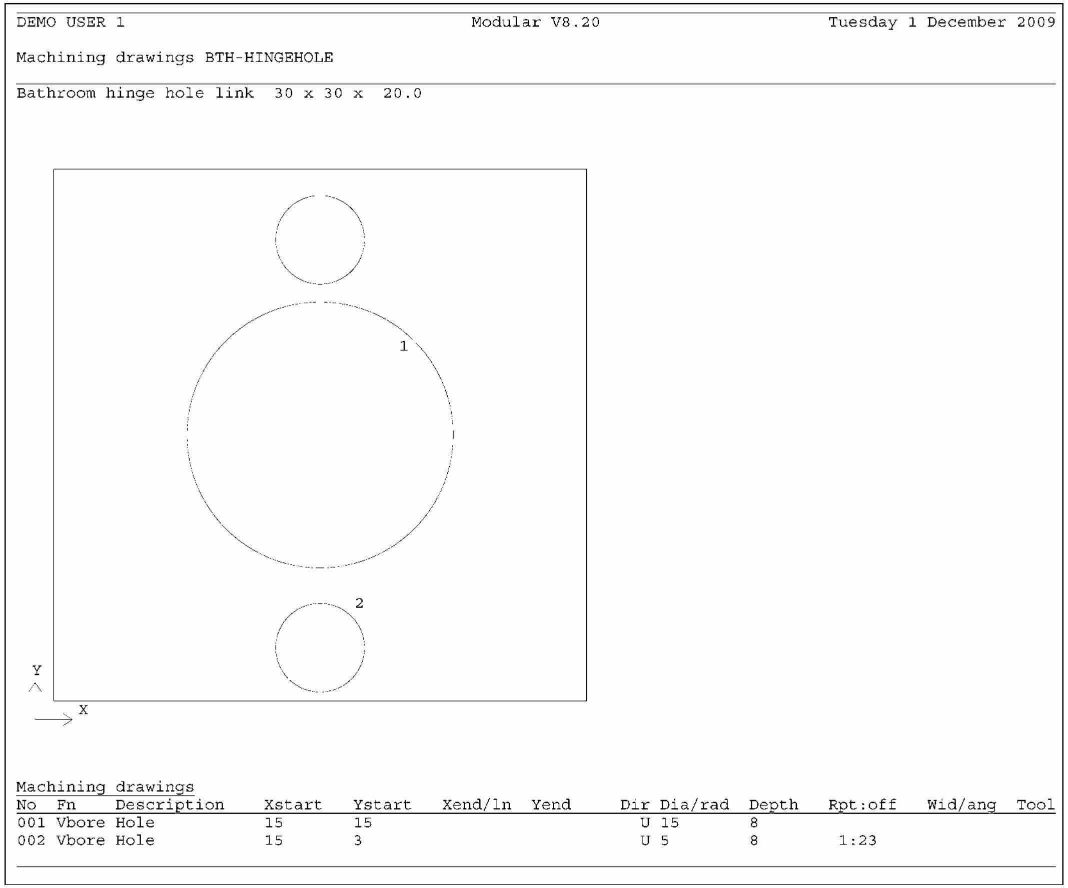
Machining drawings BASEUNIT

Base unit template  680 x 665 x  20.0
```

```
Machining drawings
No  Fn     Description      Xstart    Ystart    Length    Width     Dir Dia/rad  Depth    Rpt:off    Wid/ang  Tool
001 Part                    15        15        317.5     400         0
002 Part                    347.5     15        317.5     400         0
003 Part                    15        430       650       220         0
004 Strip                   10        10        660       410         0
```

Fig. 108

Machining drawings links - drawings can be linked to other drawings so that, for example, instructions for drilling for a hinge can be reused on other drawings.



```
DEMO USER 1                                Modular V8.20                         Tuesday 1 December 2009

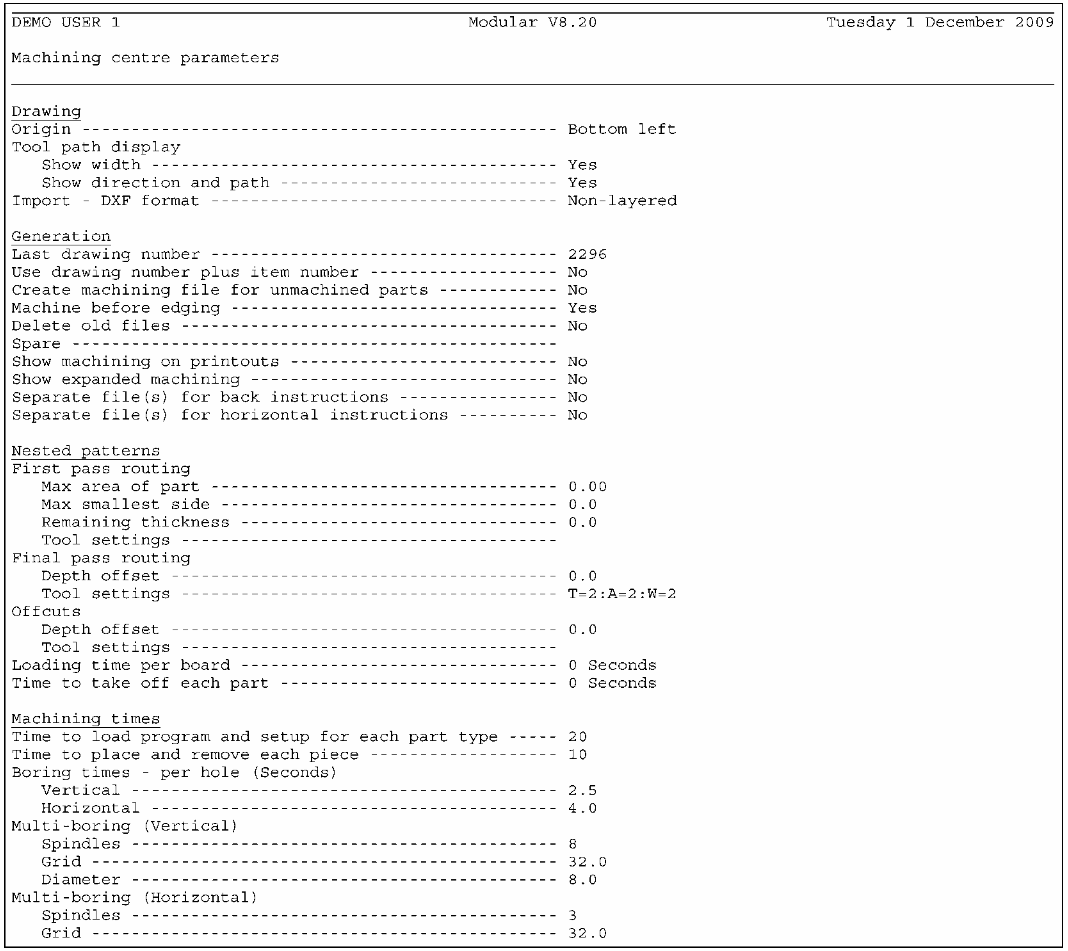
Machining drawings BTH-HINGEHOLE

Bathroom hinge hole link  30 x 30 x  20.0
```

```
Machining drawings
No  Fn    Description      Xstart   Ystart   Xend/ln  Yend     Dir Dia/rad  Depth   Rpt:off   Wid/ang  Tool
001 Vbore Hole             15       15                           U 15       8
002 Vbore Hole             15       3                            U 5        8         1:23
```

Fig. 109

***Machining centre parameters* -** use these to describe the set up of machining centres



```
DEMO USER 1                                  Modular V8.20                                Tuesday 1 December 2009

Machining centre parameters

Drawing
Origin ------------------------------------------------ Bottom left
Tool path display
   Show width ----------------------------------------- Yes
   Show direction and path ---------------------------- Yes
Import - DXF format ----------------------------------- Non-layered

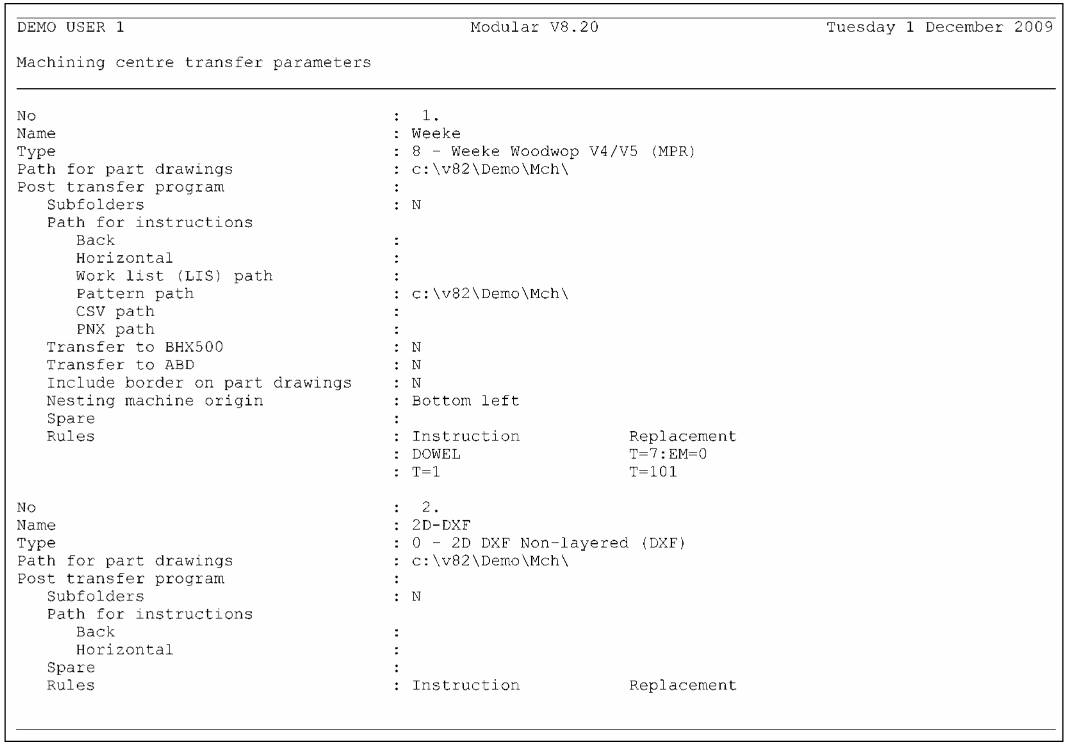
Generation
Last drawing number ----------------------------------- 2296
Use drawing number plus item number ------------------- No
Create machining file for unmachined parts ------------ No
Machine before edging --------------------------------- Yes
Delete old files -------------------------------------- No
Spare -------------------------------------------------
Show machining on printouts --------------------------- No
Show expanded machining ------------------------------- No
Separate file(s) for back instructions ---------------- No
Separate file(s) for horizontal instructions ---------- No

Nested patterns
First pass routing
   Max area of part ----------------------------------- 0.00
   Max smallest side ---------------------------------- 0.0
   Remaining thickness -------------------------------- 0.0
   Tool settings --------------------------------------
Final pass routing
   Depth offset --------------------------------------- 0.0
   Tool settings -------------------------------------- T=2:A=2:W=2
Offcuts
   Depth offset --------------------------------------- 0.0
   Tool settings --------------------------------------
Loading time per board -------------------------------- 0 Seconds
Time to take off each part ---------------------------- 0 Seconds

Machining times
Time to load program and setup for each part type ----- 20
Time to place and remove each piece ------------------- 10
Boring times - per hole (Seconds)
   Vertical ------------------------------------------- 2.5
   Horizontal ----------------------------------------- 4.0
Multi-boring (Vertical)
   Spindles ------------------------------------------- 8
   Grid ----------------------------------------------- 32.0
   Diameter ------------------------------------------- 8.0
Multi-boring (Horizontal)
   Spindles ------------------------------------------- 3
   Grid ----------------------------------------------- 32.0
```

Fig. 110

***Machining centre transfer parameters* -** use these to describe the link to each machining centre.



```
DEMO USER 1                                  Modular V8.20                        Tuesday 1 December 2009

Machining centre transfer parameters

No                                    :  1.
Name                                  : Weeke
Type                                  : 8 - Weeke Woodwop V4/V5 (MPR)
Path for part drawings                : c:\v82\Demo\Mch\
Post transfer program                 :
   Subfolders                         : N
   Path for instructions
      Back                            :
      Horizontal                      :
      Work list (LIS) path            :
      Pattern path                    : c:\v82\Demo\Mch\
      CSV path                        :
      PNX path                        :
   Transfer to BHX500                 : N
   Transfer to ABD                    : N
   Include border on part drawings    : N
   Nesting machine origin             : Bottom left
   Spare                              :
   Rules                              : Instruction           Replacement
                                      : DOWEL                 T=7:EM=0
                                      : T=1                   T=101

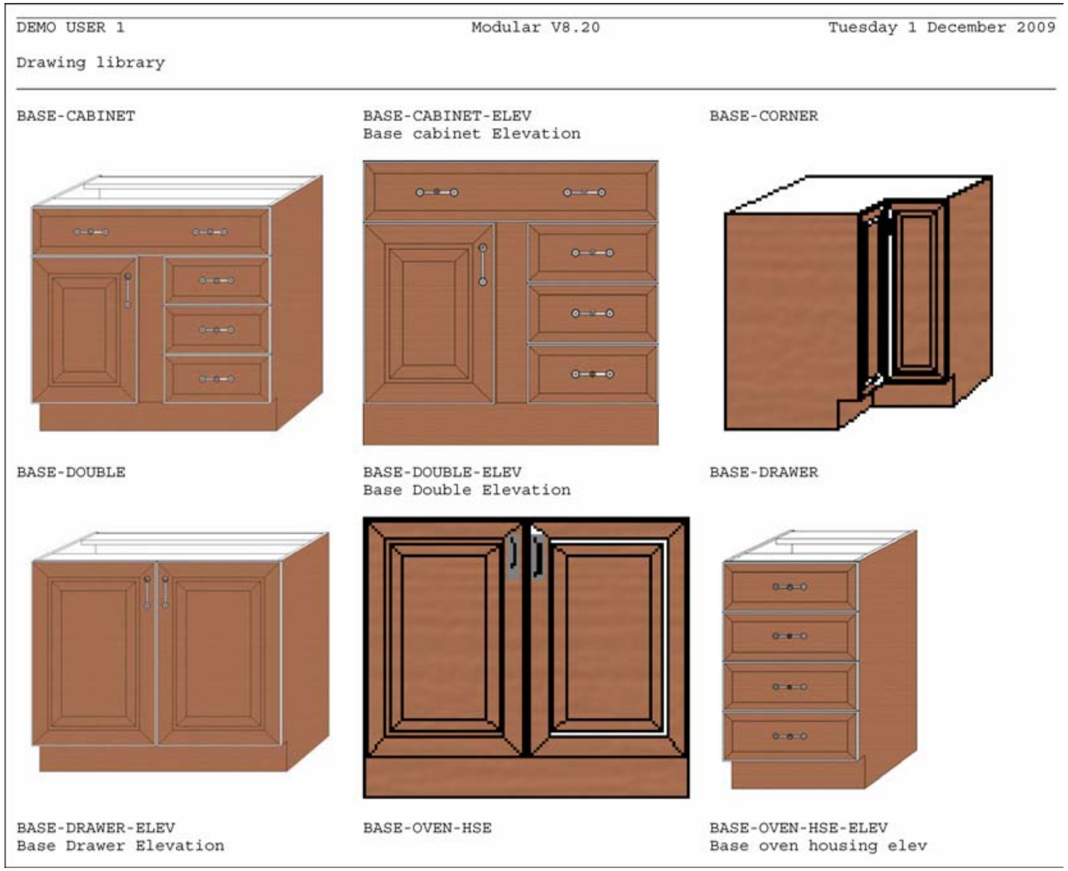
No                                    :  2.
Name                                  : 2D-DXF
Type                                  : 0 - 2D DXF Non-layered (DXF)
Path for part drawings                : c:\v82\Demo\Mch\
Post transfer program                 :
   Subfolders                         : N
   Path for instructions
      Back                            :
      Horizontal                      :
   Spare                              :
   Rules                              : Instruction           Replacement
```

Fig. 111

Drawing and Cad Drawing libraries

These libraries store drawings of Products, Room layouts, fittings (hardware) etc.

Drawing library - thumbnail view of items in library showing various products and fittings.



DEMO USER 1 Modular V8.20 Tuesday 1 December 2009

Drawing library

BASE-CABINET

BASE-CABINET-ELEV
Base cabinet Elevation

BASE-CORNER

BASE-DOUBLE

BASE-DOUBLE-ELEV
Base Double Elevation

BASE-DRAWER

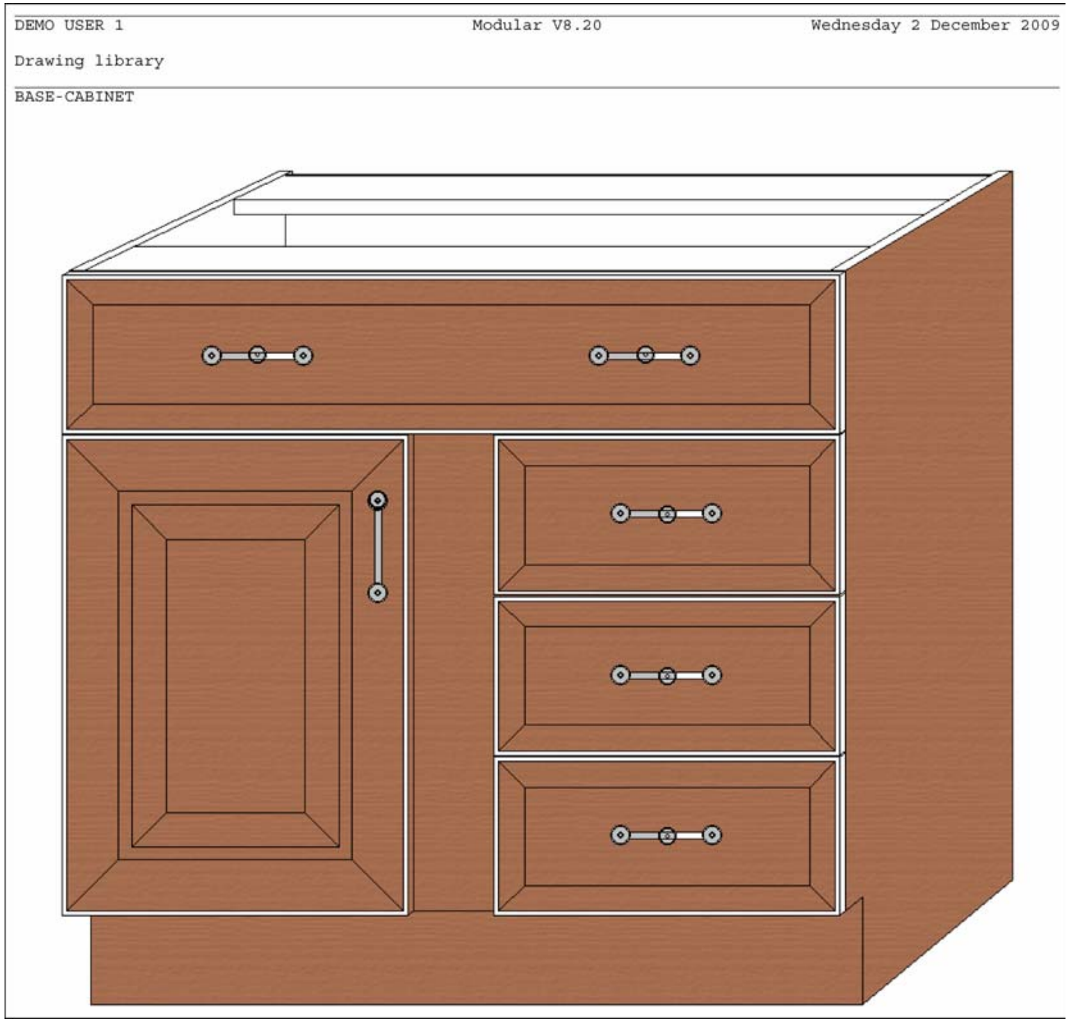
BASE-DRAWER-ELEV
Base Drawer Elevation

BASE-OVEN-HSE

BASE-OVEN-HSE-ELEV
Base oven housing elev

Fig. 112

Drawing library - full page drawing of a product



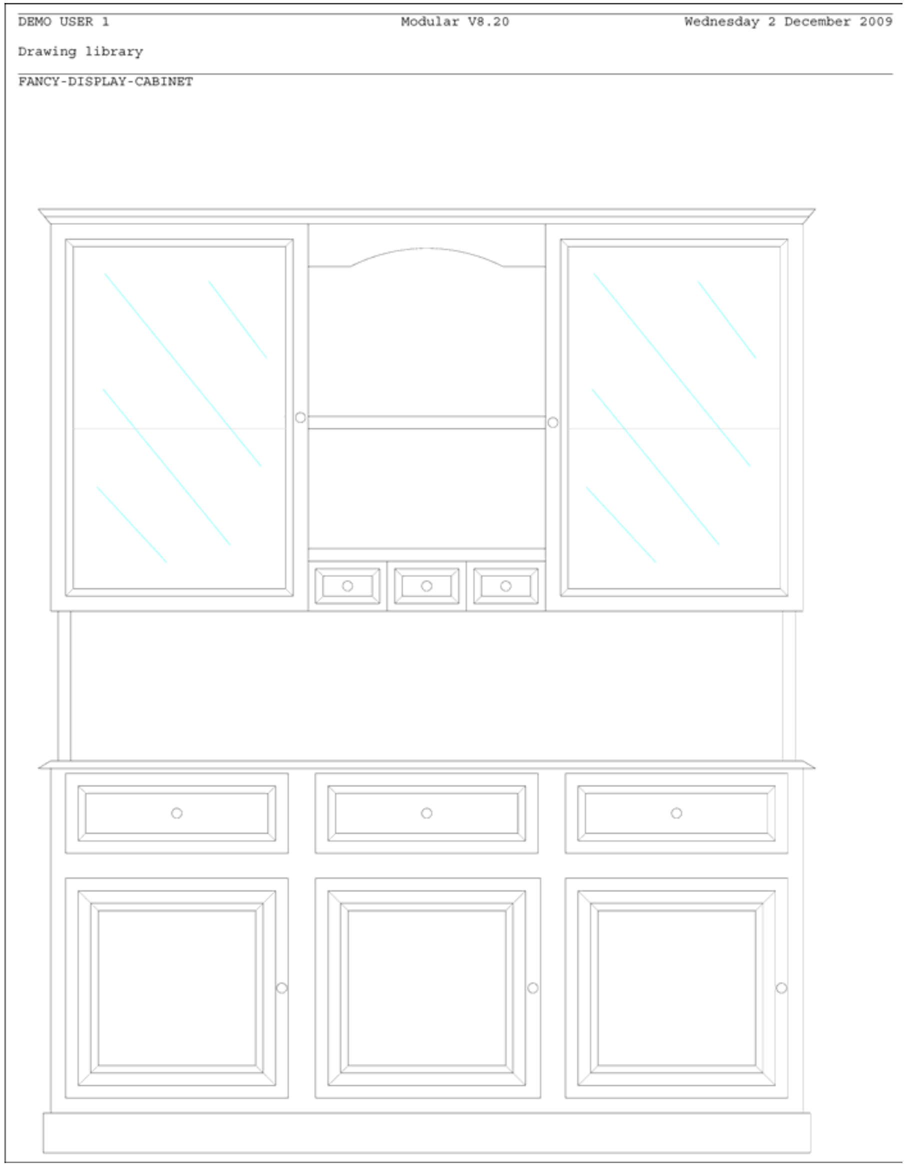
DEMO USER 1 Modular V8.20 Wednesday 2 December 2009

Drawing library

BASE-CABINET

Fig. 113

Drawing library - full page drawing of a product



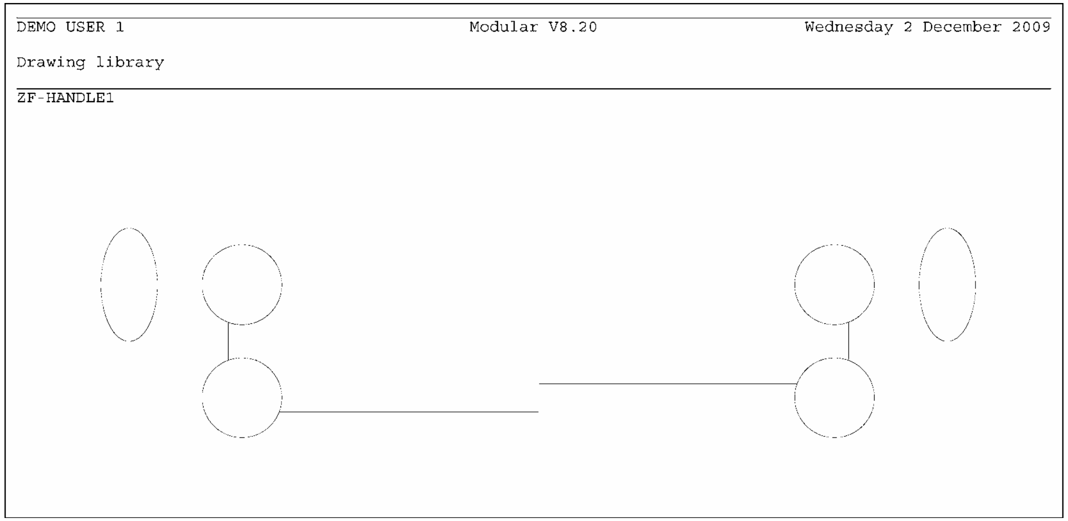
DEMO USER 1 Modular V8.20 Wednesday 2 December 2009

Drawing library

FANCY-DISPLAY-CABINET

Fig. 114

Drawing library - drawings of fittings (hardware)

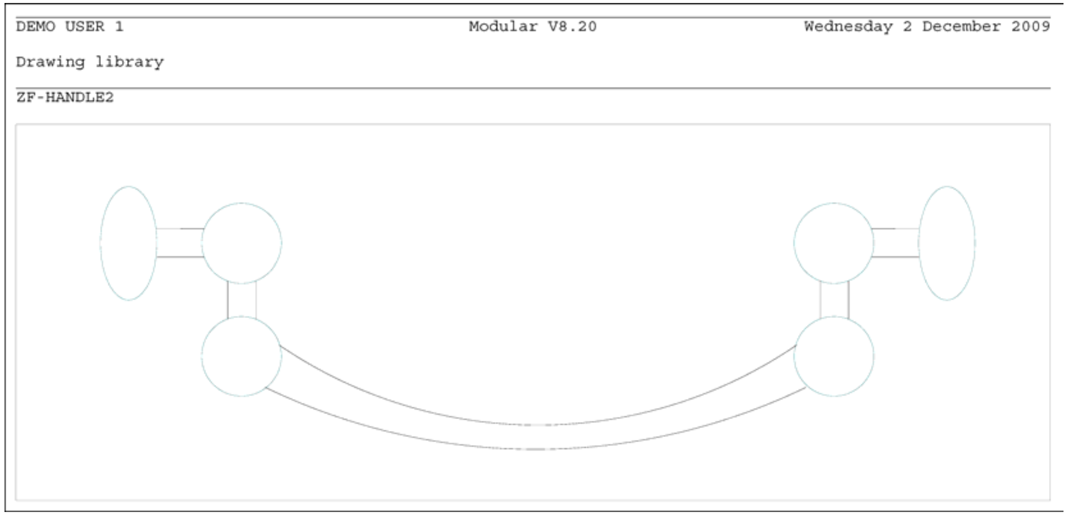


DEMO USER 1 Modular V8.20 Wednesday 2 December 2009

Drawing library

ZF-HANDLE1

Fig. 115



DEMO USER 1 Modular V8.20 Wednesday 2 December 2009

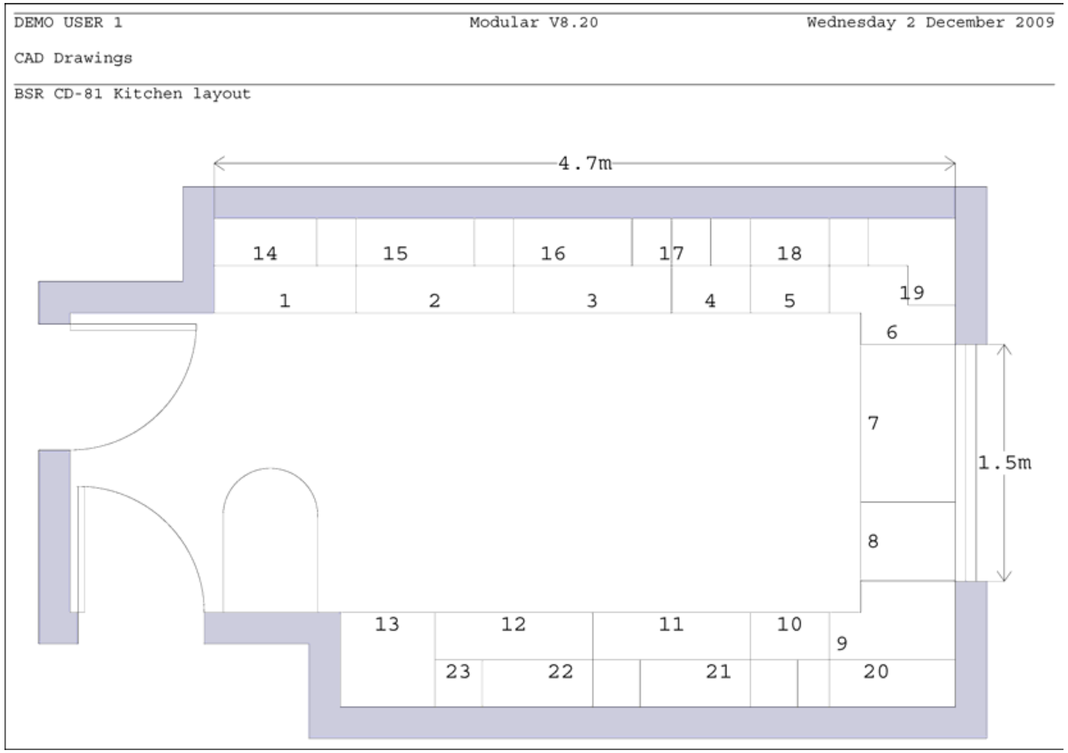
Drawing library

ZF-HANDLE2

Fig. 116

Cad drawing - kitchen layout including products from the Product library

Use the Cad drawing library to specify a room layout and the products it contains - these can be automatically optimised for an estimate or production.



DEMO USER 1 Modular V8.20 Wednesday 2 December 2009

CAD Drawings

BSR CD-81 Kitchen layout

Fig. 117

Note - any Cad drawing can be added to a Print layout so that the project and admin data is included. Print layouts are designed in the Drawing library

Drawings can be exported as bitmaps and metafiles. DXF drawings can be imported

System and Tools

There are several facilities to help set up and manage the software.

System parameters - set the basic features, layout and style of the program

Information boxes - create custom data for part lists; select from a wide range of pre-defined information for each part

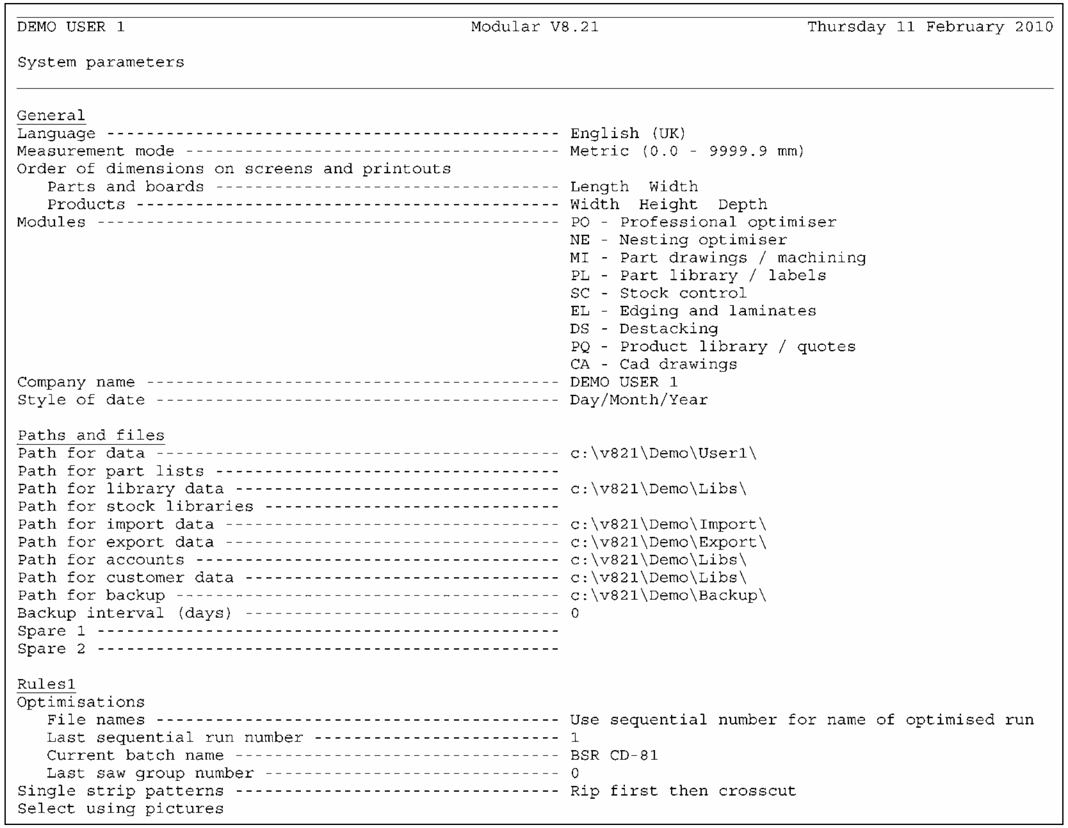
File management and back- up - administer all part lists, libraries and take snapshots of each user directory

Check - run a check of the program set up and computer

Errors and Help - Each error has a link to Help page describing each error and giving possible fixes. A very comprehensive help system provides context sensitive help, background topics and How To topics,

System parameters

Basic set up for the program; language, measurement mode, paths etc.



```
DEMO USER 1                                   Modular V8.21                     Thursday 11 February 2010

System parameters

General
Language ---------------------------------------------- English (UK)
Measurement mode -------------------------------------- Metric (0.0 - 9999.9 mm)
Order of dimensions on screens and printouts
   Parts and boards ----------------------------------- Length  Width
   Products ------------------------------------------- Width  Height  Depth
Modules ----------------------------------------------- PO - Professional optimiser
                                                        NE - Nesting optimiser
                                                        MI - Part drawings / machining
                                                        PL - Part library / labels
                                                        SC - Stock control
                                                        EL - Edging and laminates
                                                        DS - Destacking
                                                        PQ - Product library / quotes
                                                        CA - Cad drawings
Company name ------------------------------------------ DEMO USER 1
Style of date ----------------------------------------- Day/Month/Year

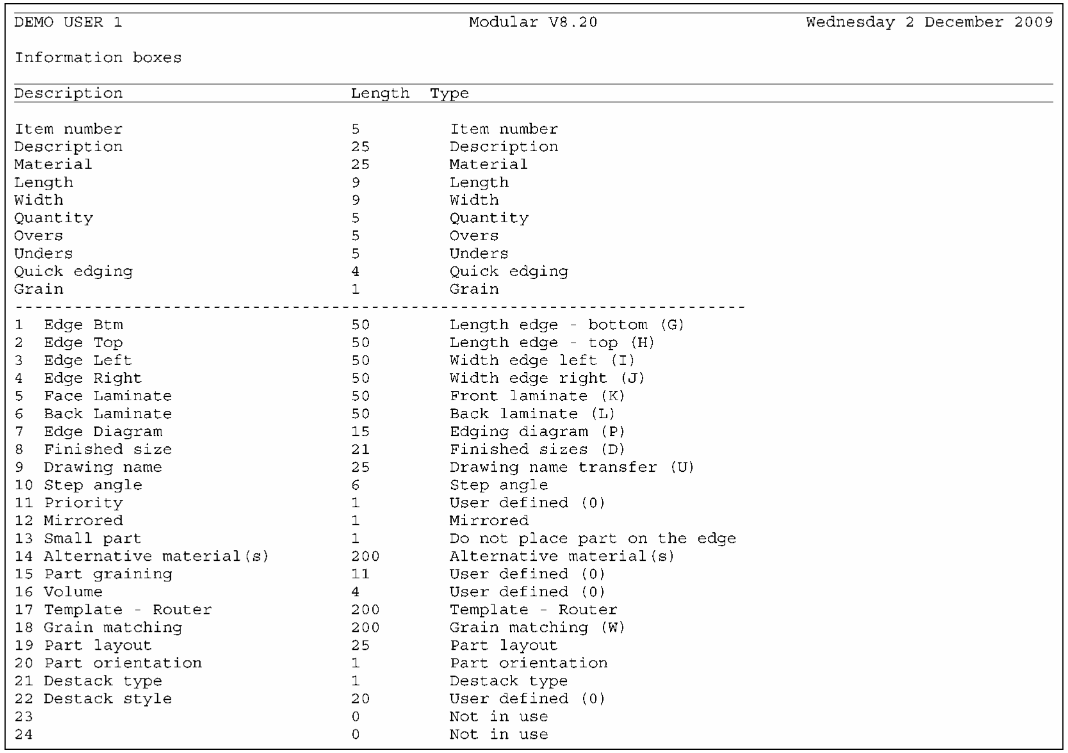
Paths and files
Path for data ----------------------------------------- c:\v821\Demo\User1\
Path for part lists -----------------------------------
Path for library data --------------------------------- c:\v821\Demo\Libs\
Path for stock libraries ------------------------------
Path for import data ---------------------------------- c:\v821\Demo\Import\
Path for export data ---------------------------------- c:\v821\Demo\Export\
Path for accounts ------------------------------------- c:\v821\Demo\Libs\
Path for customer data -------------------------------- c:\v821\Demo\Libs\
Path for backup --------------------------------------- c:\v821\Demo\Backup\
Backup interval (days) -------------------------------- 0
Spare 1 -----------------------------------------------
Spare 2 -----------------------------------------------

Rules1
Optimisations
   File names ----------------------------------------- Use sequential number for name of optimised run
   Last sequential run number ------------------------- 1
   Current batch name --------------------------------- BSR CD-81
   Last saw group number ------------------------------ 0
Single strip patterns --------------------------------- Rip first then crosscut
Select using pictures
```

Fig. 118

Information boxes

Custom and pre-defined extra data for part lists



```
DEMO USER 1                                   Modular V8.20                           Wednesday 2 December 2009

Information boxes

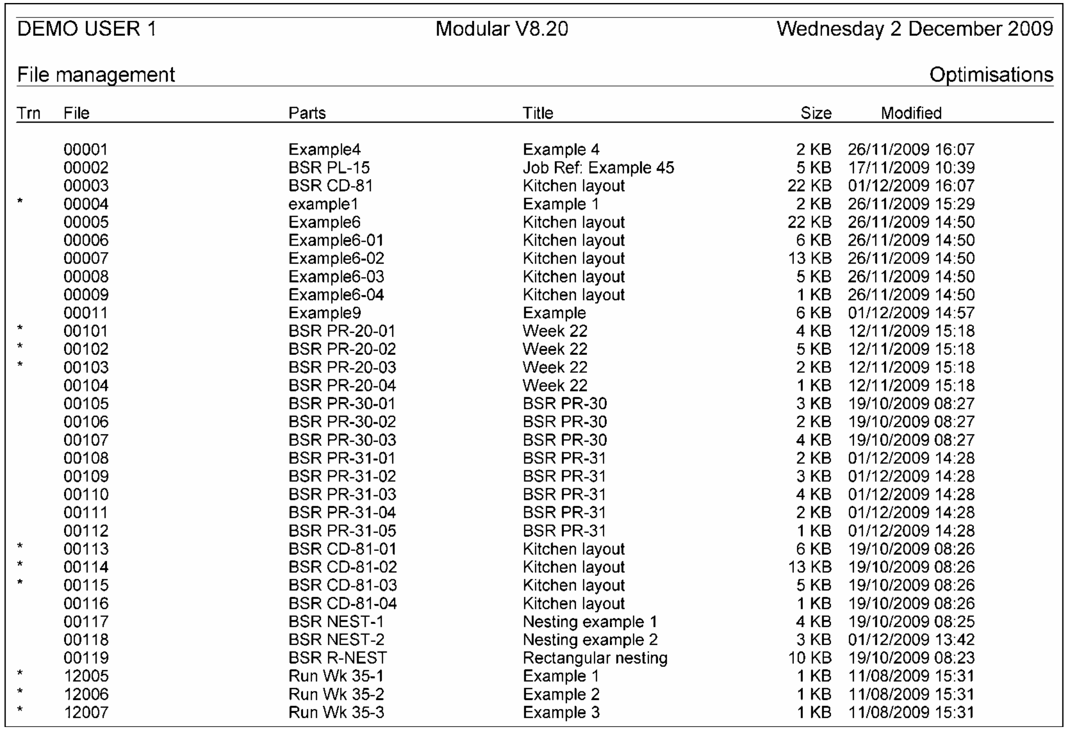
Description                       Length  Type

Item number                       5         Item number
Description                       25        Description
Material                          25        Material
Length                            9         Length
Width                             9         Width
Quantity                          5         Quantity
Overs                             5         Overs
Unders                            5         Unders
Quick edging                      4         Quick edging
Grain                             1         Grain
--------------------------------------------------------------------------
1  Edge Btm                       50        Length edge - bottom (G)
2  Edge Top                       50        Length edge - top (H)
3  Edge Left                      50        Width edge left (I)
4  Edge Right                     50        Width edge right (J)
5  Face Laminate                  50        Front laminate (K)
6  Back Laminate                  50        Back laminate (L)
7  Edge Diagram                   15        Edging diagram (P)
8  Finished size                  21        Finished sizes (D)
9  Drawing name                   25        Drawing name transfer (U)
10 Step angle                     6         Step angle
11 Priority                       1         User defined (0)
12 Mirrored                       1         Mirrored
13 Small part                     1         Do not place part on the edge
14 Alternative material(s)        200       Alternative material(s)
15 Part graining                  11        User defined (0)
16 Volume                         4         User defined (0)
17 Template - Router              200       Template - Router
18 Grain matching                 200       Grain matching (W)
19 Part layout                    25        Part layout
20 Part orientation               1         Part orientation
21 Destack type                   1         Destack type
22 Destack style                  20        User defined (0)
23                                0         Not in use
24                                0         Not in use
```

Fig. 119

File Management - list of Optimisations (Runs)

Use the File Management and Backup tools to administer all the part lists, libraries and other data from within the program. The program keeps track of temporary and other files created during optimisation and data transfer and provides an easy way of archiving and deleting run data.



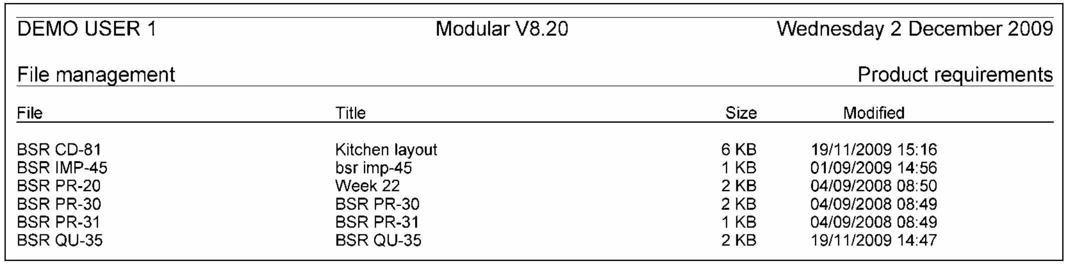
```
DEMO USER 1                          Modular V8.20                  Wednesday 2 December 2009

File management                                                                 Optimisations
Trn  File          Parts              Title                     Size     Modified

     00001         Example4           Example 4                 2 KB   26/11/2009 16:07
     00002         BSR PL-15          Job Ref: Example 45       5 KB   17/11/2009 10:39
     00003         BSR CD-81          Kitchen layout           22 KB   01/12/2009 16:07
*    00004         example1           Example 1                 2 KB   26/11/2009 15:29
     00005         Example6           Kitchen layout           22 KB   26/11/2009 14:50
     00006         Example6-01        Kitchen layout            6 KB   26/11/2009 14:50
     00007         Example6-02        Kitchen layout           13 KB   26/11/2009 14:50
     00008         Example6-03        Kitchen layout            5 KB   26/11/2009 14:50
     00009         Example6-04        Kitchen layout            1 KB   26/11/2009 14:50
     00011         Example9           Example                   6 KB   01/12/2009 14:57
*    00101         BSR PR-20-01       Week 22                   4 KB   12/11/2009 15:18
*    00102         BSR PR-20-02       Week 22                   5 KB   12/11/2009 15:18
*    00103         BSR PR-20-03       Week 22                   2 KB   12/11/2009 15:18
     00104         BSR PR-20-04       Week 22                   1 KB   12/11/2009 15:18
     00105         BSR PR-30-01       BSR PR-30                 3 KB   19/10/2009 08:27
     00106         BSR PR-30-02       BSR PR-30                 2 KB   19/10/2009 08:27
     00107         BSR PR-30-03       BSR PR-30                 4 KB   19/10/2009 08:27
     00108         BSR PR-31-01       BSR PR-31                 2 KB   01/12/2009 14:28
     00109         BSR PR-31-02       BSR PR-31                 3 KB   01/12/2009 14:28
     00110         BSR PR-31-03       BSR PR-31                 4 KB   01/12/2009 14:28
     00111         BSR PR-31-04       BSR PR-31                 2 KB   01/12/2009 14:28
     00112         BSR PR-31-05       BSR PR-31                 1 KB   01/12/2009 14:28
*    00113         BSR CD-81-01       Kitchen layout            6 KB   19/10/2009 08:26
*    00114         BSR CD-81-02       Kitchen layout           13 KB   19/10/2009 08:26
*    00115         BSR CD-81-03       Kitchen layout            5 KB   19/10/2009 08:26
     00116         BSR CD-81-04       Kitchen layout            1 KB   19/10/2009 08:26
     00117         BSR NEST-1         Nesting example 1         4 KB   19/10/2009 08:25
     00118         BSR NEST-2         Nesting example 2         3 KB   01/12/2009 13:42
     00119         BSR R-NEST         Rectangular nesting      10 KB   19/10/2009 08:23
*    12005         Run Wk 35-1        Example 1                 1 KB   11/08/2009 15:31
*    12006         Run Wk 35-2        Example 2                 1 KB   11/08/2009 15:31
*    12007         Run Wk 35-3        Example 3                 1 KB   11/08/2009 15:31
```

Fig. 120

File Management - list of Product requirements



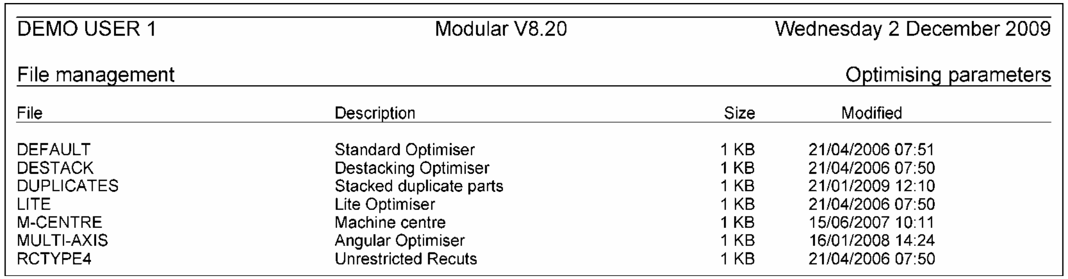
DEMO USER 1 Modular V8.20 Wednesday 2 December 2009

File management Product requirements

File	Title	Size	Modified
BSR CD-81	Kitchen layout	6 KB	19/11/2009 15:16
BSR IMP-45	bsr imp-45	1 KB	01/09/2009 14:56
BSR PR-20	Week 22	2 KB	04/09/2008 08:50
BSR PR-30	BSR PR-30	2 KB	04/09/2008 08:49
BSR PR-31	BSR PR-31	1 KB	04/09/2008 08:49
BSR QU-35	BSR QU-35	2 KB	19/11/2009 14:47

Fig. 121

File management - list of optimising parameter files



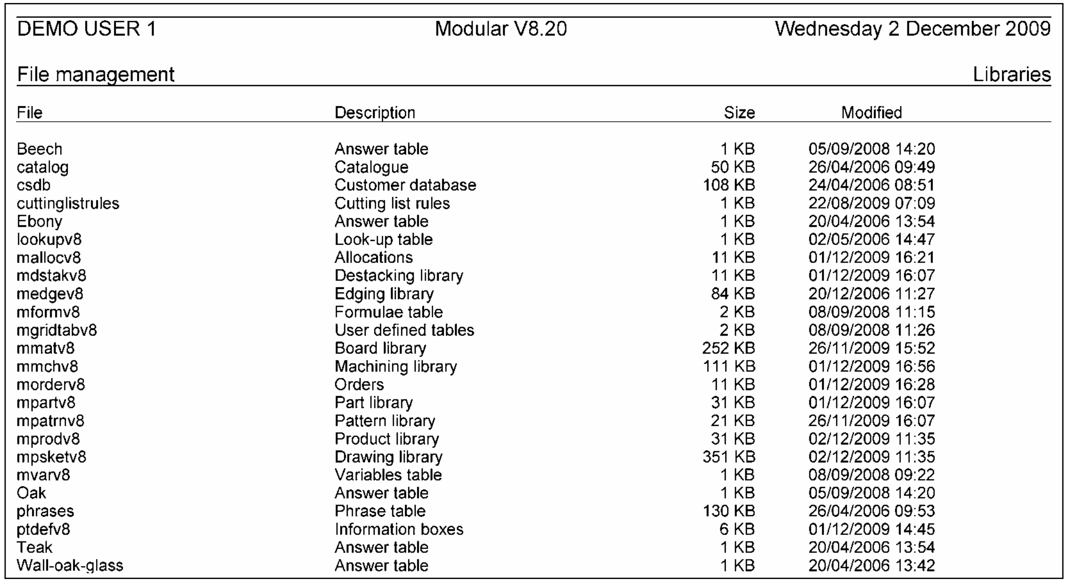
DEMO USER 1 Modular V8.20 Wednesday 2 December 2009

File management Optimising parameters

File	Description	Size	Modified
DEFAULT	Standard Optimiser	1 KB	21/04/2006 07:51
DESTACK	Destacking Optimiser	1 KB	21/04/2006 07:50
DUPLICATES	Stacked duplicate parts	1 KB	21/01/2009 12:10
LITE	Lite Optimiser	1 KB	21/04/2006 07:50
M-CENTRE	Machine centre	1 KB	15/06/2007 10:11
MULTI-AXIS	Angular Optimiser	1 KB	16/01/2008 14:24
RCTYPE4	Unrestricted Recuts	1 KB	21/04/2006 07:50

Fig. 122

File management - list of libraries



DEMO USER 1 Modular V8.20 Wednesday 2 December 2009

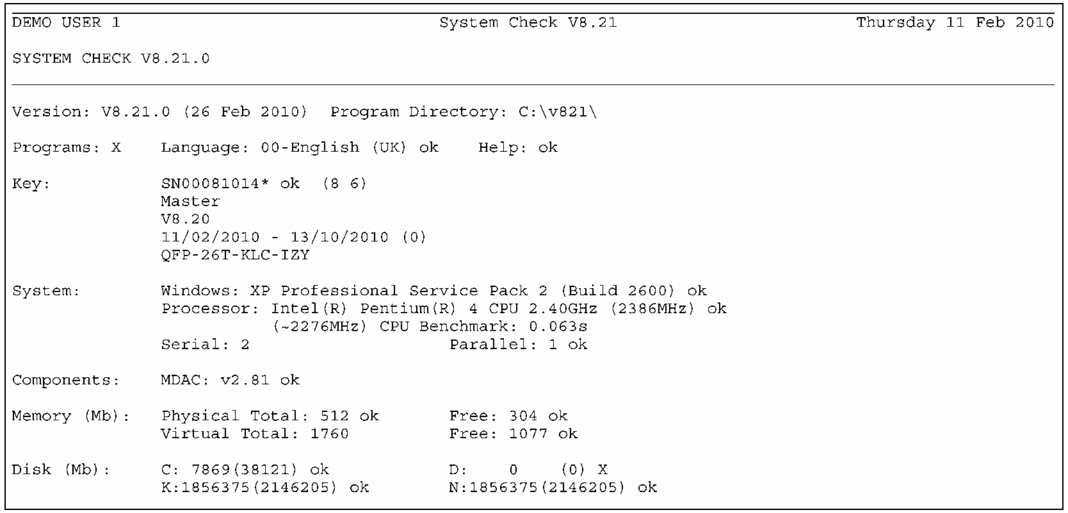
File management Libraries

File	Description	Size	Modified
Beech	Answer table	1 KB	05/09/2008 14:20
catalog	Catalogue	50 KB	26/04/2006 09:49
csdb	Customer database	108 KB	24/04/2006 08:51
cuttinglistrules	Cutting list rules	1 KB	22/08/2009 07:09
Ebony	Answer table	1 KB	20/04/2006 13:54
lookupv8	Look-up table	1 KB	02/05/2006 14:47
mallocv8	Allocations	11 KB	01/12/2009 16:21
mdstakv8	Destacking library	11 KB	01/12/2009 16:07
medgev8	Edging library	84 KB	20/12/2006 11:27
mformv8	Formulae table	2 KB	08/09/2008 11:15
mgridtabv8	User defined tables	2 KB	08/09/2008 11:26
mmatv8	Board library	252 KB	26/11/2009 15:52
mmchv8	Machining library	111 KB	01/12/2009 16:56
morderv8	Orders	11 KB	01/12/2009 16:28
mpartv8	Part library	31 KB	01/12/2009 16:07
mpatrnv8	Pattern library	21 KB	26/11/2009 16:07
mprodv8	Product library	31 KB	02/12/2009 11:35
mpsketv8	Drawing library	351 KB	02/12/2009 11:35
mvarv8	Variables table	1 KB	08/09/2008 09:22
Oak	Answer table	1 KB	05/09/2008 14:20
phrases	Phrase table	130 KB	26/04/2006 09:53
ptdefv8	Information boxes	6 KB	01/12/2009 14:45
Teak	Answer table	1 KB	20/04/2006 13:54
Wall-oak-glass	Answer table	1 KB	20/04/2006 13:42

Fig. 123

Check System

Check PC, memory, program installation etc.



```
DEMO USER 1                                 System Check V8.21                                   Thursday 11 Feb 2010

SYSTEM CHECK V8.21.0

Version: V8.21.0 (26 Feb 2010)  Program Directory: C:\v821\

Programs: X    Language: 00-English (UK) ok    Help: ok

Key:           SN00081014* ok  (8 6)
               Master
               V8.20
               11/02/2010 - 13/10/2010 (0)
               QFP-26T-KLC-IZY

System:        Windows: XP Professional Service Pack 2 (Build 2600) ok
               Processor: Intel(R) Pentium(R) 4 CPU 2.40GHz (2386MHz) ok
                          (~2276MHz) CPU Benchmark: 0.063s
               Serial: 2                     Parallel: 1 ok

Components:    MDAC: v2.81 ok

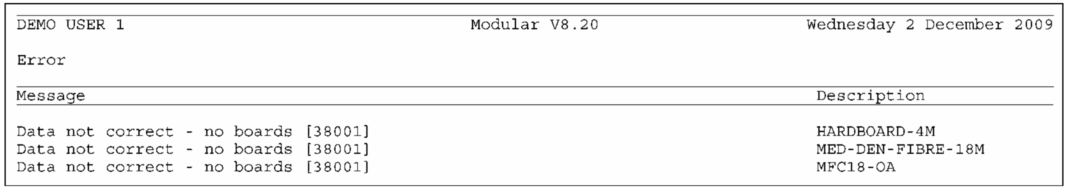
Memory (Mb):   Physical Total: 512 ok        Free: 304 ok
               Virtual Total: 1760           Free: 1077 ok

Disk (Mb):     C: 7869(38121) ok             D:    0    (0) X
               K:1856375(2146205) ok         N:1856375(2146205) ok
```

Fig. 124

Error reports

Error reports are available throughout the program. The error number pinpoints the exact error that has occurred.



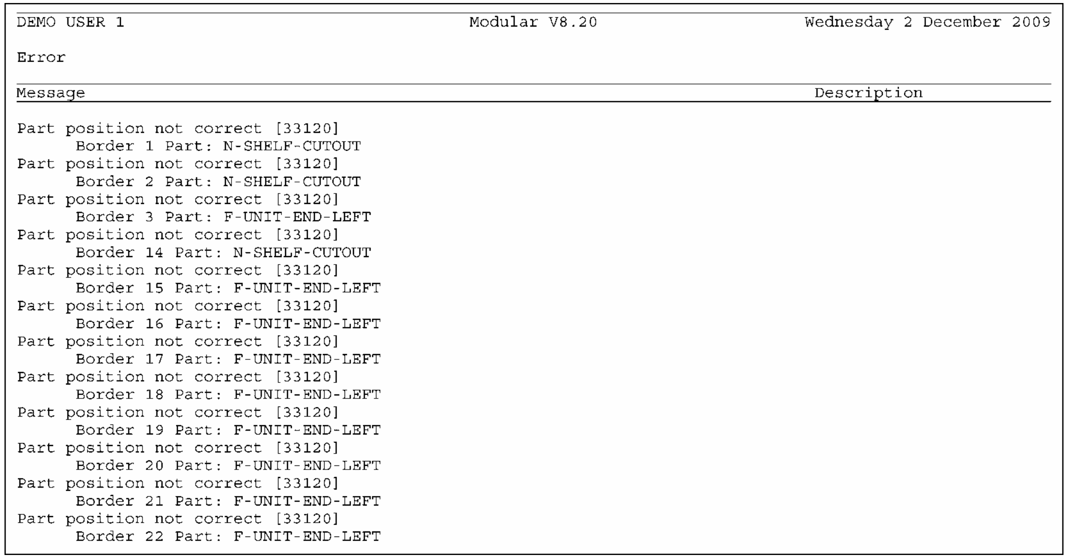
```
DEMO USER 1                                 Modular V8.20                    Wednesday 2 December 2009

Error

Message                                                                      Description

Data not correct - no boards [38001]                                         HARDBOARD-4M
Data not correct - no boards [38001]                                         MED-DEN-FIBRE-18M
Data not correct - no boards [38001]                                         MFC18-OA
```

Fig. 125



```
DEMO USER 1                                 Modular V8.20                    Wednesday 2 December 2009

Error

Message                                                                      Description

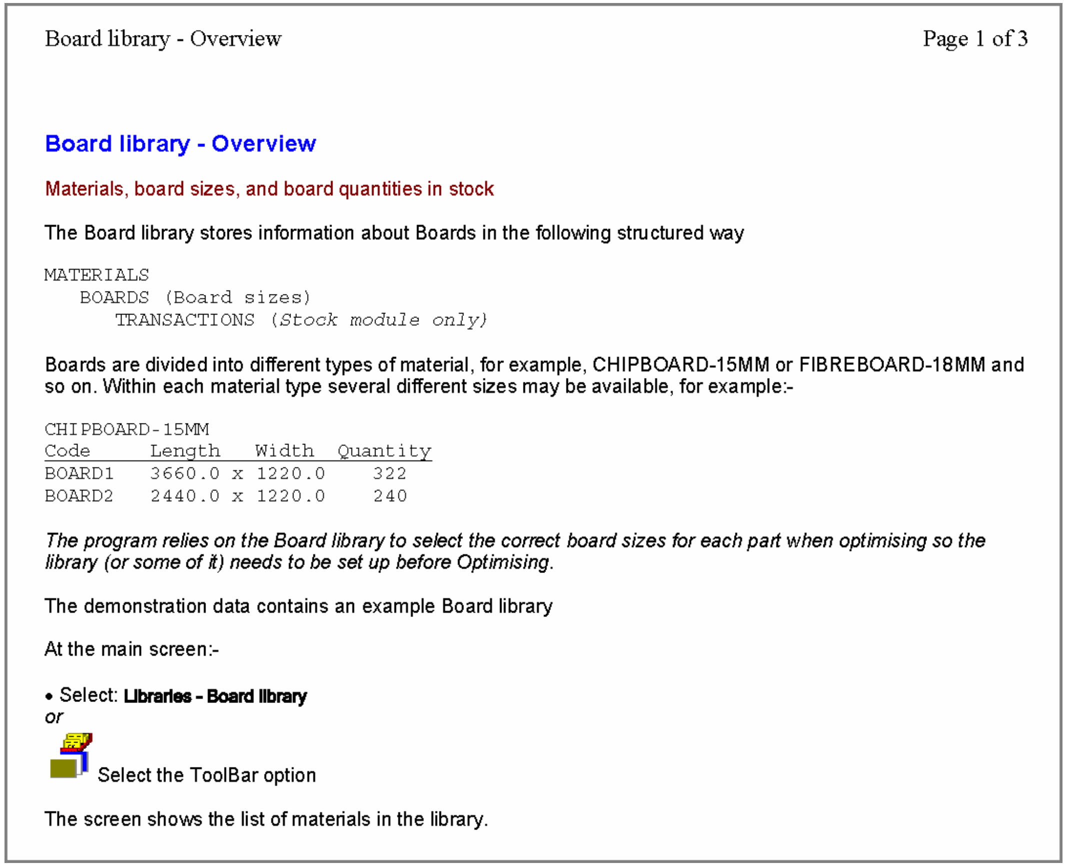
Part position not correct [33120]
      Border 1 Part: N-SHELF-CUTOUT
Part position not correct [33120]
      Border 2 Part: N-SHELF-CUTOUT
Part position not correct [33120]
      Border 3 Part: F-UNIT-END-LEFT
Part position not correct [33120]
      Border 14 Part: N-SHELF-CUTOUT
Part position not correct [33120]
      Border 15 Part: F-UNIT-END-LEFT
Part position not correct [33120]
      Border 16 Part: F-UNIT-END-LEFT
Part position not correct [33120]
      Border 17 Part: F-UNIT-END-LEFT
Part position not correct [33120]
      Border 18 Part: F-UNIT-END-LEFT
Part position not correct [33120]
      Border 19 Part: F-UNIT-END-LEFT
Part position not correct [33120]
      Border 20 Part: F-UNIT-END-LEFT
Part position not correct [33120]
      Border 21 Part: F-UNIT-END-LEFT
Part position not correct [33120]
      Border 22 Part: F-UNIT-END-LEFT
```

Fig. 125

Help

A wide variety of help topics are available. Help can be viewed on-screen or printed.

Overview and How To topics



Board library - Overview

Page 1 of 3

Board library - Overview

Materials, board sizes, and board quantities in stock

The Board library stores information about Boards in the following structured way

```
MATERIALS
   BOARDS (Board sizes)
      TRANSACTIONS (Stock module only)
```

Boards are divided into different types of material, for example, CHIPBOARD-15MM or FIBREBOARD-18MM and so on. Within each material type several different sizes may be available, for example:-

```
CHIPBOARD-15MM
Code      Length   Width  Quantity
BOARD1    3660.0 x 1220.0    322
BOARD2    2440.0 x 1220.0    240
```

The program relies on the Board library to select the correct board sizes for each part when optimising so the library (or some of it) needs to be set up before Optimising.

The demonstration data contains an example Board library

At the main screen:-

- Select: **Libraries - Board library**

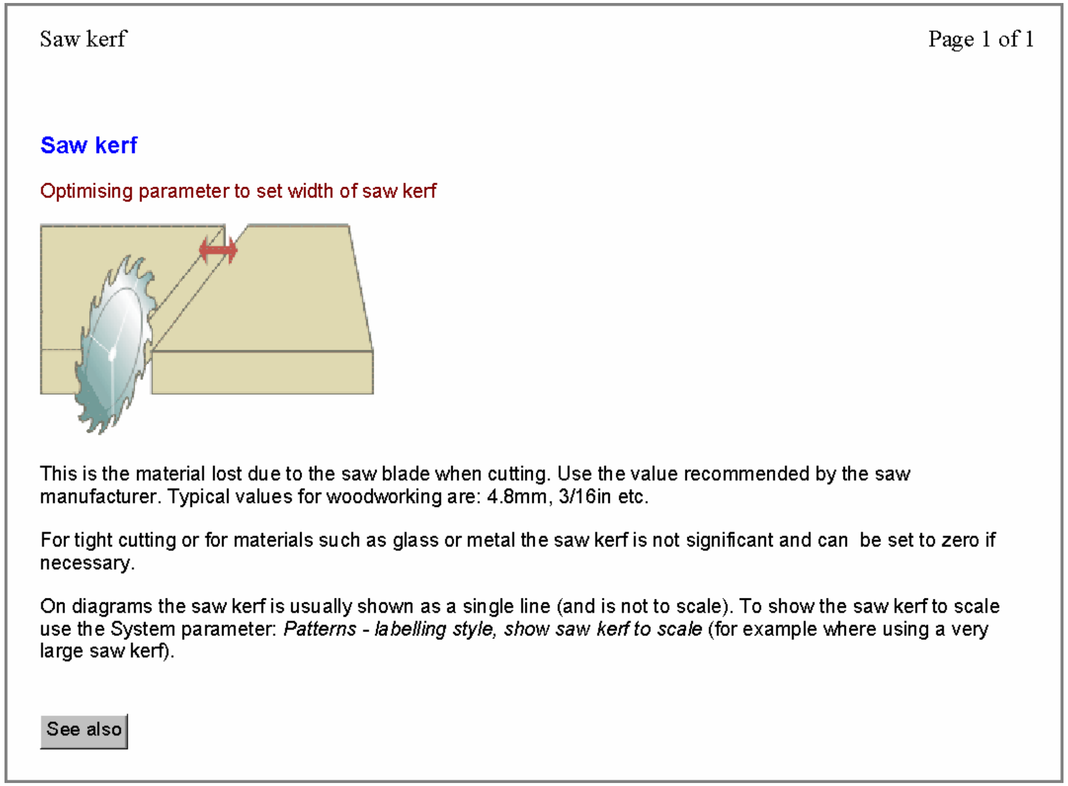
or

Select the ToolBar option

The screen shows the list of materials in the library.

Fig. 126

Help - in-context topics



Saw kerf

Page 1 of 1

Saw kerf

Optimising parameter to set width of saw kerf

This is the material lost due to the saw blade when cutting. Use the value recommended by the saw manufacturer. Typical values for woodworking are: 4.8mm, 3/16in etc.

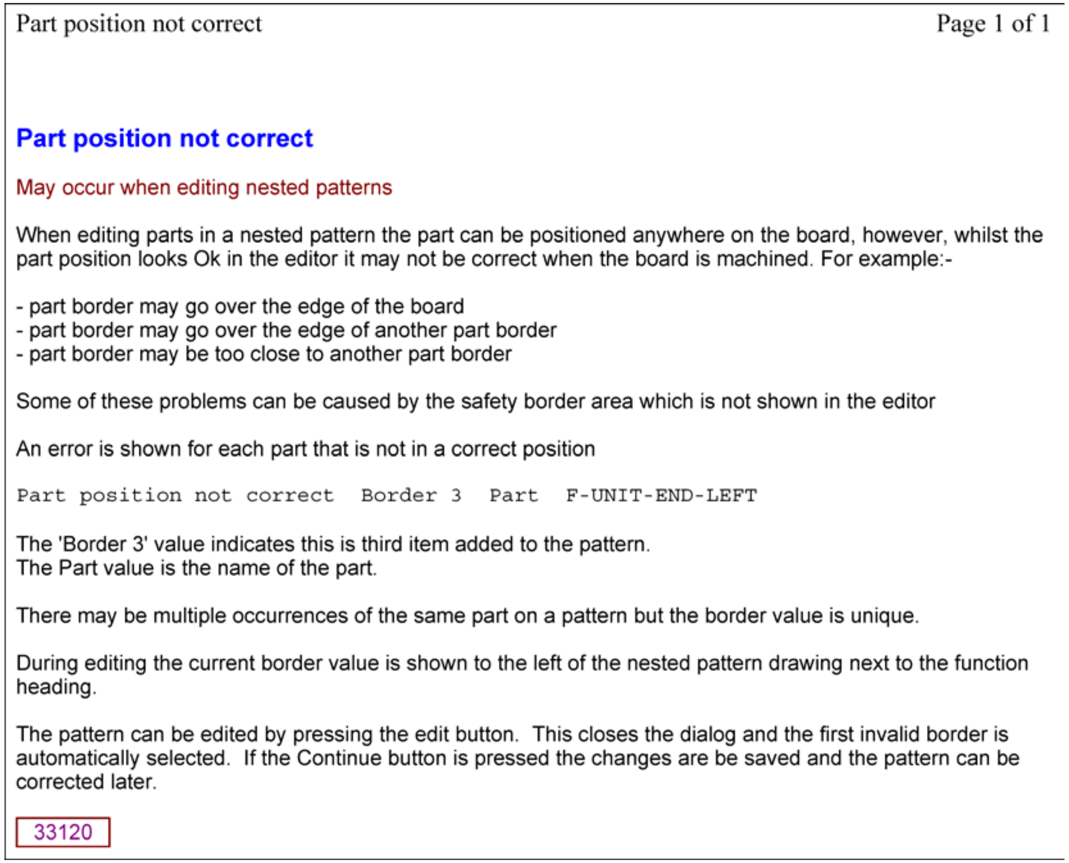
For tight cutting or for materials such as glass or metal the saw kerf is not significant and can be set to zero if necessary.

On diagrams the saw kerf is usually shown as a single line (and is not to scale). To show the saw kerf to scale use the System parameter: *Patterns - labelling style, show saw kerf to scale* (for example where using a very large saw kerf).

Fig. 127

Note - most topics include a See also button showing items related to the current topic

Help - advice on specific errors



Part position not correct Page 1 of 1

Part position not correct

May occur when editing nested patterns

When editing parts in a nested pattern the part can be positioned anywhere on the board, however, whilst the part position looks Ok in the editor it may not be correct when the board is machined. For example:-

- part border may go over the edge of the board
- part border may go over the edge of another part border
- part border may be too close to another part border

Some of these problems can be caused by the safety border area which is not shown in the editor

An error is shown for each part that is not in a correct position

```
Part position not correct  Border 3  Part  F-UNIT-END-LEFT
```

The 'Border 3' value indicates this is third item added to the pattern.
The Part value is the name of the part.

There may be multiple occurrences of the same part on a pattern but the border value is unique.

During editing the current border value is shown to the left of the nested pattern drawing next to the function heading.

The pattern can be edited by pressing the edit button. This closes the dialog and the first invalid border is automatically selected. If the Continue button is pressed the changes are be saved and the pattern can be corrected later.

33120

Fig. 128

Note - the error number is shown in the box at the foot of the help page.

Inches data

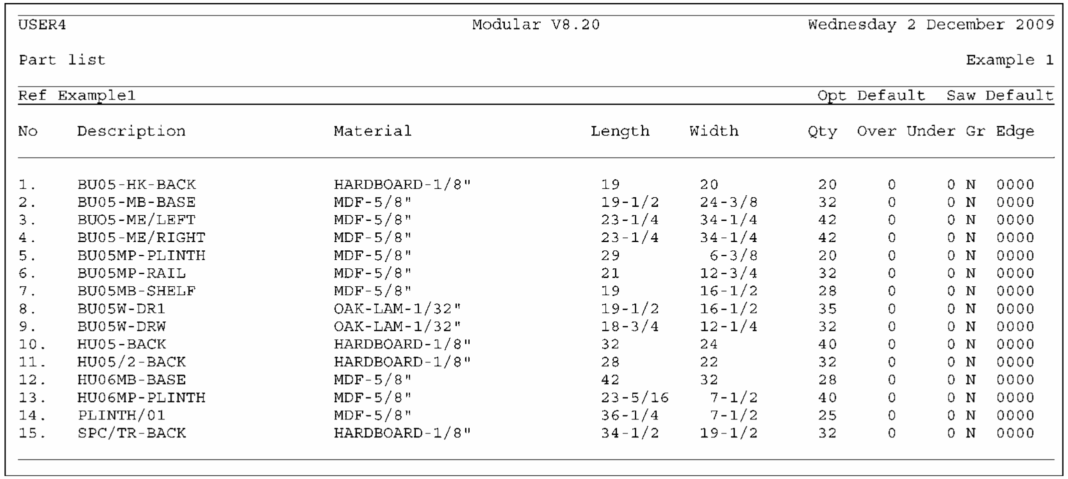
The program can work in millimetres, decimal inches or fractional inches and this applies across all modules.

Decimal inches are inches expressed as a decimal e.g. 2.25in, 1.125in. Fractional inches are inches expressed as a fraction. e.g. 2-1/4in, 1-1/8in.

The program operates in the same way for each measurement mode but there are some minor format changes to screens and reports to allow for the different number formats.

Some examples of saw optimising reports in fractional inch mode are shown in this section.

Inches - Part list



```
USER4                                        Modular V8.20                    Wednesday 2 December 2009

Part list                                                                                     Example 1

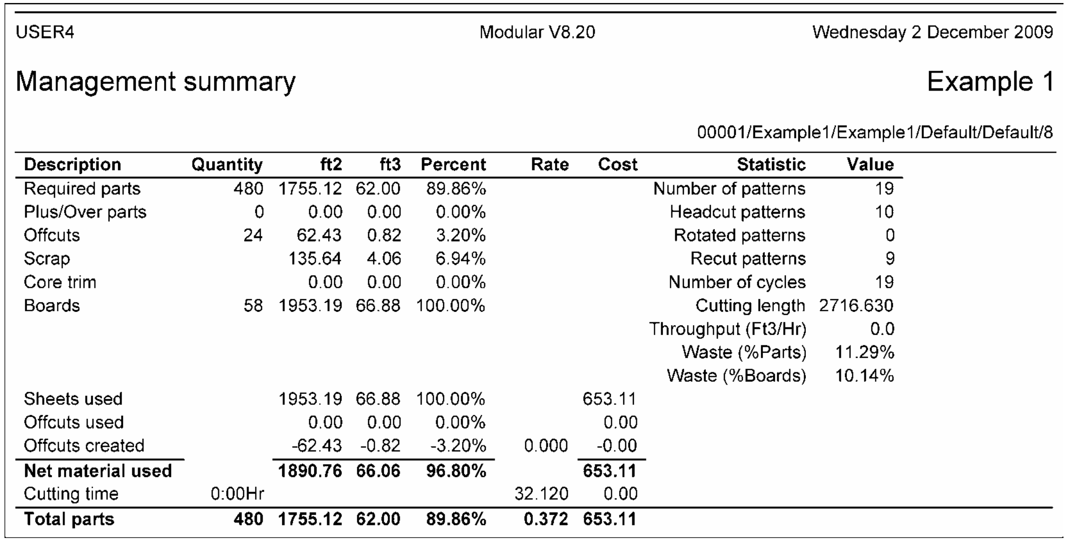
Ref Example1                                                                 Opt Default  Saw Default

No    Description               Material                  Length    Width       Qty  Over Under Gr Edge


1.    BU05-HK-BACK              HARDBOARD-1/8"             19        20          20     0     0 N  0000
2.    BU05-MB-BASE              MDF-5/8"                   19-1/2    24-3/8      32     0     0 N  0000
3.    BU05-ME/LEFT              MDF-5/8"                   23-1/4    34-1/4      42     0     0 N  0000
4.    BU05-ME/RIGHT             MDF-5/8"                   23-1/4    34-1/4      42     0     0 N  0000
5.    BU05MP-PLINTH             MDF-5/8"                   29         6-3/8      20     0     0 N  0000
6.    BU05MP-RAIL               MDF-5/8"                   21        12-3/4      32     0     0 N  0000
7.    BU05MB-SHELF              MDF-5/8"                   19        16-1/2      28     0     0 N  0000
8.    BU05W-DR1                 OAK-LAM-1/32"              19-1/2    16-1/2      35     0     0 N  0000
9.    BU05W-DRW                 OAK-LAM-1/32"              18-3/4    12-1/4      32     0     0 N  0000
10.   HU05-BACK                 HARDBOARD-1/8"             32        24          40     0     0 N  0000
11.   HU05/2-BACK               HARDBOARD-1/8"             28        22          32     0     0 N  0000
12.   HU06MB-BASE               MDF-5/8"                   42        32          28     0     0 N  0000
13.   HU06MP-PLINTH             MDF-5/8"                   23-5/16    7-1/2      40     0     0 N  0000
14.   PLINTH/01                 MDF-5/8"                   36-1/4     7-1/2      25     0     0 N  0000
15.   SPC/TR-BACK               HARDBOARD-1/8"             34-1/2    19-1/2      32     0     0 N  0000
```

Fig. 129

Inches - Management Summary



USER4 Modular V8.20 Wednesday 2 December 2009

Management summary

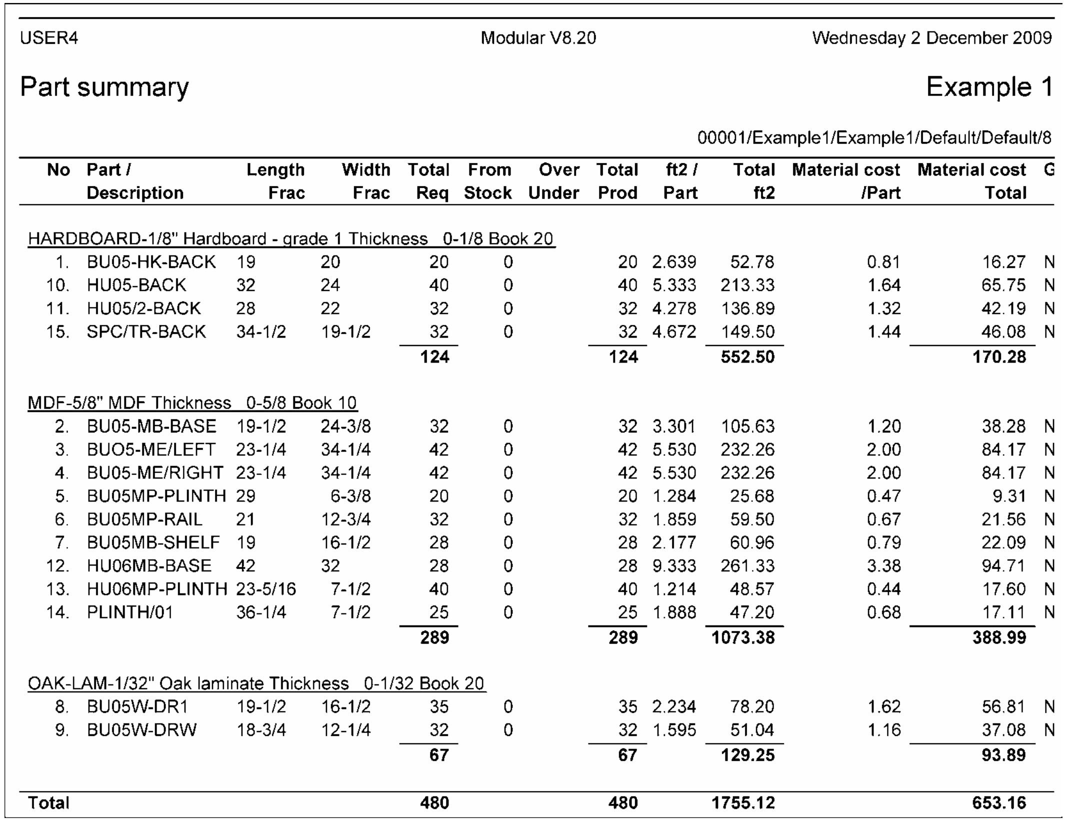
Example 1

00001/Example1/Example1/Default/Default/8

Description	Quantity	ft2	ft3	Percent	Rate	Cost	Statistic	Value
Required parts	480	1755.12	62.00	89.86%			Number of patterns	19
Plus/Over parts	0	0.00	0.00	0.00%			Headcut patterns	10
Offcuts	24	62.43	0.82	3.20%			Rotated patterns	0
Scrap		135.64	4.06	6.94%			Recut patterns	9
Core trim		0.00	0.00	0.00%			Number of cycles	19
Boards	58	1953.19	66.88	100.00%			Cutting length	2716.630
							Throughput (Ft3/Hr)	0.0
							Waste (%Parts)	11.29%
							Waste (%Boards)	10.14%
Sheets used		1953.19	66.88	100.00%		653.11		
Offcuts used		0.00	0.00	0.00%		0.00		
Offcuts created		-62.43	-0.82	-3.20%	0.000	-0.00		
Net material used		**1890.76**	**66.06**	**96.80%**		**653.11**		
Cutting time	0:00Hr				32.120	0.00		
Total parts	**480**	**1755.12**	**62.00**	**89.86%**	**0.372**	**653.11**		

Fig. 130

Inches - Part summary



USER4 Modular V8.20 Wednesday 2 December 2009

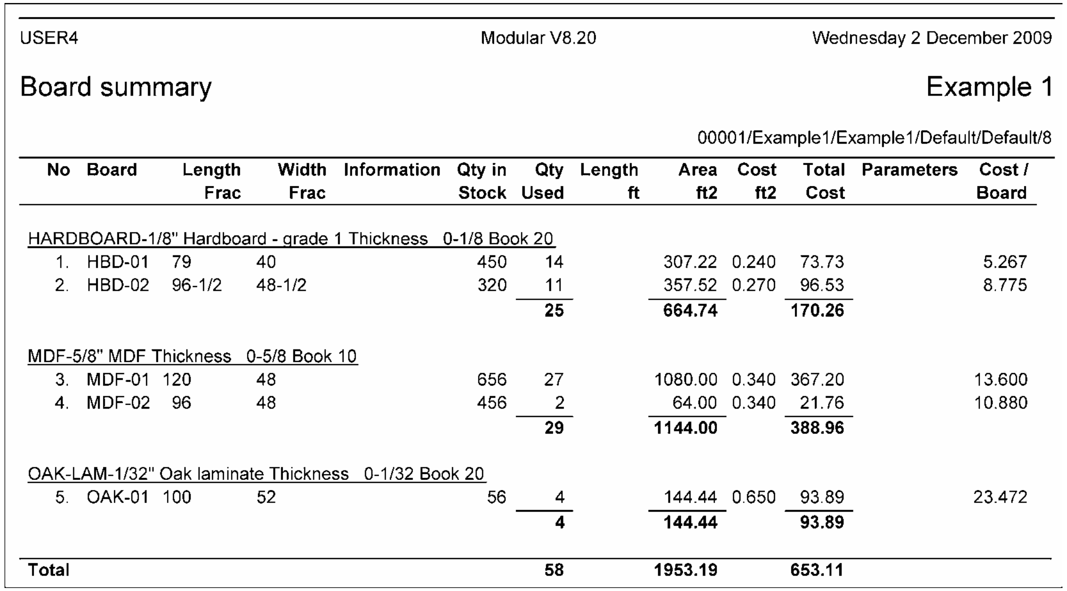
Part summary Example 1

00001/Example1/Example1/Default/Default/8

No	Part / Description	Length Frac	Width Frac	Total Req	From Stock	Over Under	Total Prod	ft2 / Part	Total ft2	Material cost /Part	Material cost Total	G
HARDBOARD-1/8" Hardboard - grade 1 Thickness 0-1/8 Book 20												
1.	BU05-HK-BACK	19	20	20	0		20	2.639	52.78	0.81	16.27	N
10.	HU05-BACK	32	24	40	0		40	5.333	213.33	1.64	65.75	N
11.	HU05/2-BACK	28	22	32	0		32	4.278	136.89	1.32	42.19	N
15.	SPC/TR-BACK	34-1/2	19-1/2	32	0		32	4.672	149.50	1.44	46.08	N
				124			**124**		**552.50**		**170.28**	
MDF-5/8" MDF Thickness 0-5/8 Book 10												
2.	BU05-MB-BASE	19-1/2	24-3/8	32	0		32	3.301	105.63	1.20	38.28	N
3.	BUO5-ME/LEFT	23-1/4	34-1/4	42	0		42	5.530	232.26	2.00	84.17	N
4.	BU05-ME/RIGHT	23-1/4	34-1/4	42	0		42	5.530	232.26	2.00	84.17	N
5.	BU05MP-PLINTH	29	6-3/8	20	0		20	1.284	25.68	0.47	9.31	N
6.	BU05MP-RAIL	21	12-3/4	32	0		32	1.859	59.50	0.67	21.56	N
7.	BU05MB-SHELF	19	16-1/2	28	0		28	2.177	60.96	0.79	22.09	N
12.	HU06MB-BASE	42	32	28	0		28	9.333	261.33	3.38	94.71	N
13.	HU06MP-PLINTH	23-5/16	7-1/2	40	0		40	1.214	48.57	0.44	17.60	N
14.	PLINTH/01	36-1/4	7-1/2	25	0		25	1.888	47.20	0.68	17.11	N
				289			**289**		**1073.38**		**388.99**	
OAK-LAM-1/32" Oak laminate Thickness 0-1/32 Book 20												
8.	BU05W-DR1	19-1/2	16-1/2	35	0		35	2.234	78.20	1.62	56.81	N
9.	BU05W-DRW	18-3/4	12-1/4	32	0		32	1.595	51.04	1.16	37.08	N
				67			**67**		**129.25**		**93.89**	
Total				**480**			**480**		**1755.12**		**653.16**	

Fig. 131

***Inches* - Board summary**



USER4 Modular V8.20 Wednesday 2 December 2009

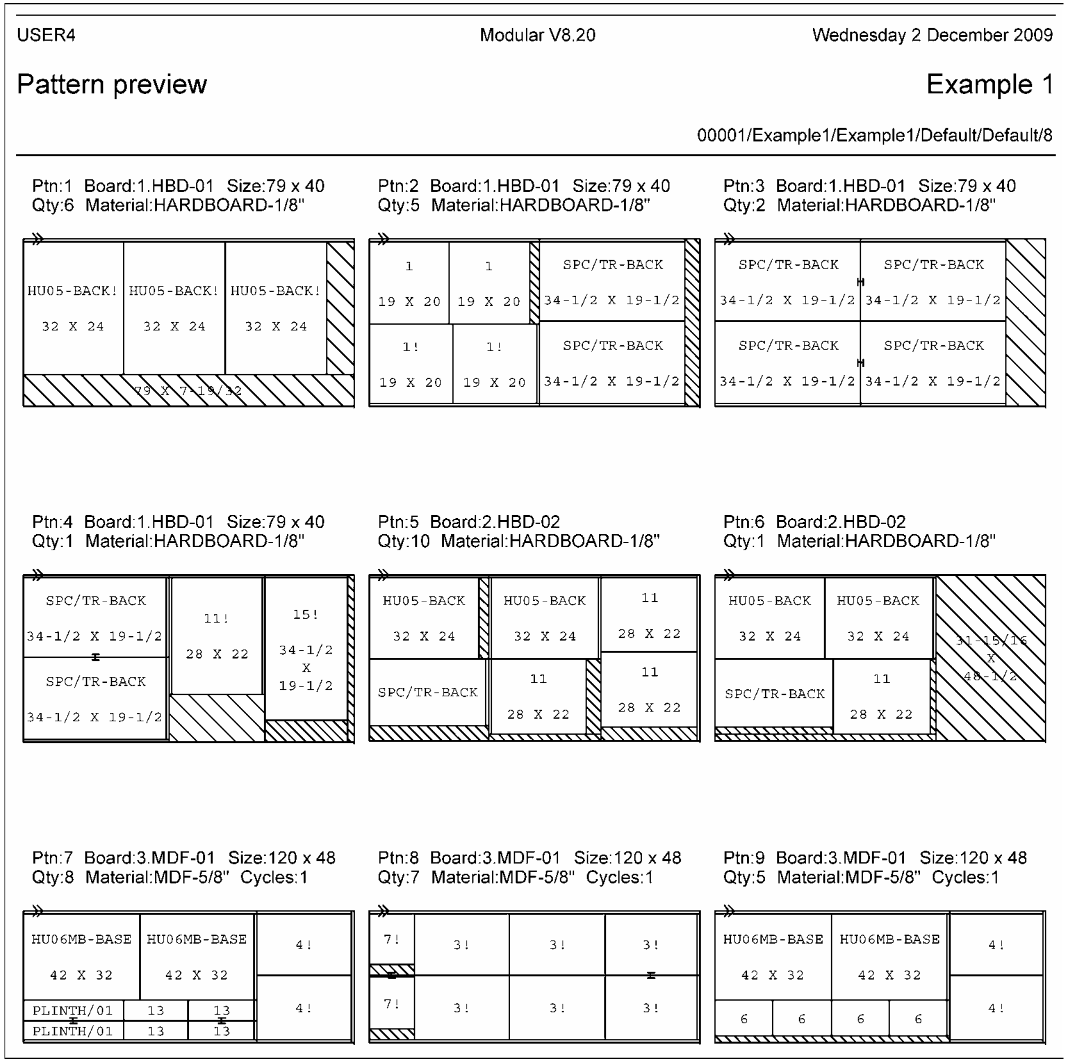
Board summary Example 1

00001/Example1/Example1/Default/Default/8

No	Board	Length Frac	Width Frac	Information	Qty in Stock	Qty Used	Length ft	Area ft2	Cost ft2	Total Cost	Parameters	Cost / Board
HARDBOARD-1/8" Hardboard - grade 1 Thickness 0-1/8 Book 20												
1.	HBD-01	79	40		450	14		307.22	0.240	73.73		5.267
2.	HBD-02	96-1/2	48-1/2		320	11		357.52	0.270	96.53		8.775
						25		**664.74**		**170.26**		
MDF-5/8" MDF Thickness 0-5/8 Book 10												
3.	MDF-01	120	48		656	27		1080.00	0.340	367.20		13.600
4.	MDF-02	96	48		456	2		64.00	0.340	21.76		10.880
						29		**1144.00**		**388.96**		
OAK-LAM-1/32" Oak laminate Thickness 0-1/32 Book 20												
5.	OAK-01	100	52		56	4		144.44	0.650	93.89		23.472
						4		**144.44**		**93.89**		
Total						**58**		**1953.19**		**653.11**		

Fig. 132

Inches - Pattern preview



USER4 Modular V8.20 Wednesday 2 December 2009

Pattern preview Example 1

00001/Example1/Example1/Default/Default/8

Ptn:1 Board:1.HBD-01 Size:79 x 40
Qty:6 Material:HARDBOARD-1/8"

Ptn:2 Board:1.HBD-01 Size:79 x 40
Qty:5 Material:HARDBOARD-1/8"

Ptn:3 Board:1.HBD-01 Size:79 x 40
Qty:2 Material:HARDBOARD-1/8"

Ptn:4 Board:1.HBD-01 Size:79 x 40
Qty:1 Material:HARDBOARD-1/8"

Ptn:5 Board:2.HBD-02
Qty:10 Material:HARDBOARD-1/8"

Ptn:6 Board:2.HBD-02
Qty:1 Material:HARDBOARD-1/8"

Ptn:7 Board:3.MDF-01 Size:120 x 48
Qty:8 Material:MDF-5/8" Cycles:1

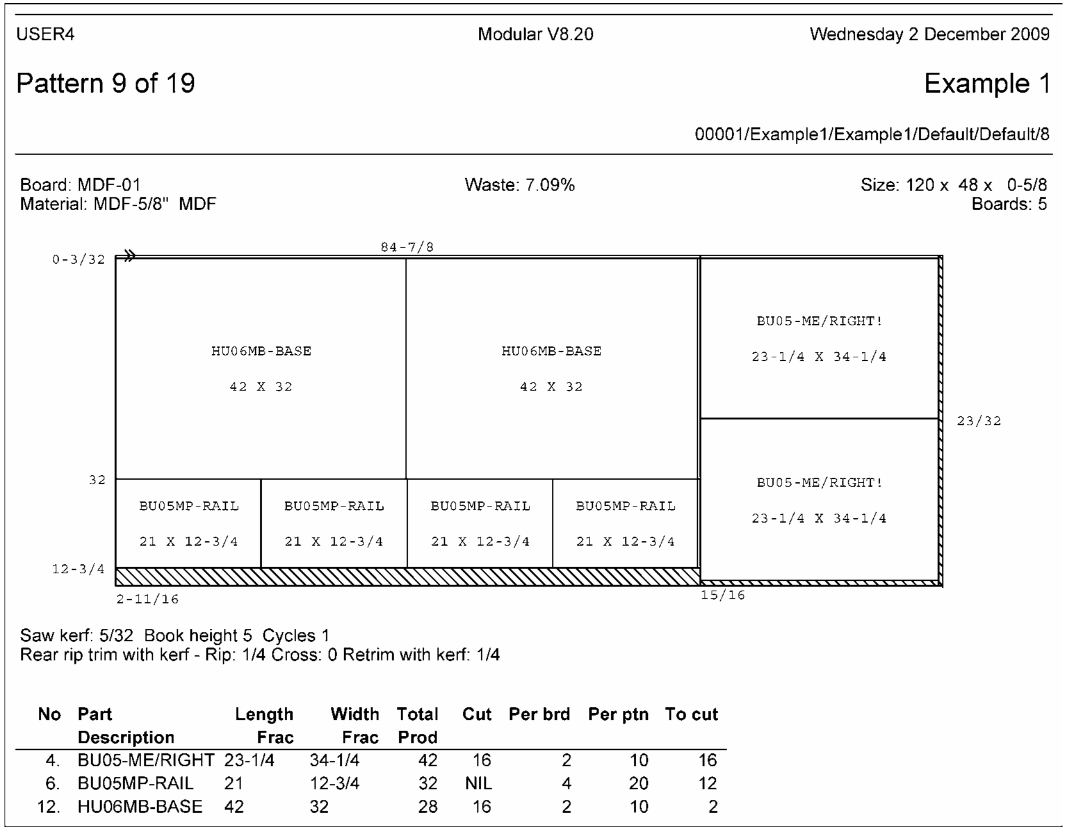
Ptn:8 Board:3.MDF-01 Size:120 x 48
Qty:7 Material:MDF-5/8" Cycles:1

Ptn:9 Board:3.MDF-01 Size:120 x 48
Qty:5 Material:MDF-5/8" Cycles:1

HU05-BACK!
32 X 24
79 X 7-19/32
1
19 X 20
1!
SPC/TR-BACK
34-1/2 X 19-1/2
11!
28 X 22
15!
34-1/2
X
19-1/2
HU05-BACK
11
31-15/16
X
48-1/2
HU06MB-BASE
42 X 32
4!
PLINTH/01
13
7!
3!
6

Fig. 133

Inches - Pattern


84-7/8
0-3/32
HU06MB-BASE
42 X 32
HU06MB-BASE
42 X 32
BU05-ME/RIGHT!
23-1/4 X 34-1/4
23/32
BU05-ME/RIGHT!
23-1/4 X 34-1/4
32
BU05MP-RAIL
21 X 12-3/4
BU05MP-RAIL
21 X 12-3/4
BU05MP-RAIL
21 X 12-3/4
BU05MP-RAIL
21 X 12-3/4
12-3/4
2-11/16
15/16

USER4 Modular V8.20 Wednesday 2 December 2009

Pattern 9 of 19 Example 1

00001/Example1/Example1/Default/Default/8

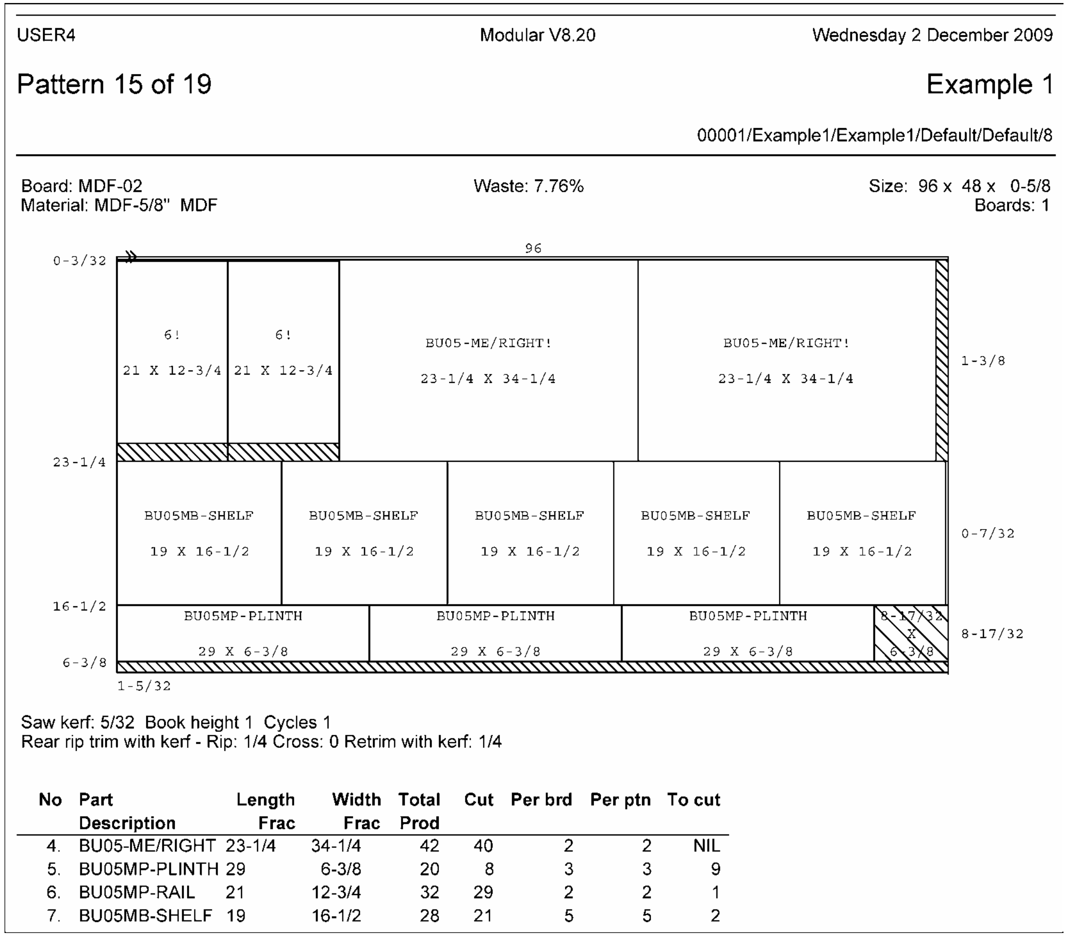
Board: MDF-01 Waste: 7.09% Size: 120 x 48 x 0-5/8
Material: MDF-5/8" MDF Boards: 5

Saw kerf: 5/32 Book height 5 Cycles 1
Rear rip trim with kerf - Rip: 1/4 Cross: 0 Retrim with kerf: 1/4

No	Part Description	Length Frac	Width Frac	Total Prod	Cut	Per brd	Per ptn	To cut
4.	BU05-ME/RIGHT	23-1/4	34-1/4	42	16	2	10	16
6.	BU05MP-RAIL	21	12-3/4	32	NIL	4	20	12
12.	HU06MB-BASE	42	32	28	16	2	10	2

Fig. 134

Inches - Pattern



USER4 Modular V8.20 Wednesday 2 December 2009

Pattern 15 of 19 Example 1

00001/Example1/Example1/Default/Default/8

Board: MDF-02
Material: MDF-5/8" MDF

Waste: 7.76%

Size: 96 x 48 x 0-5/8
Boards: 1

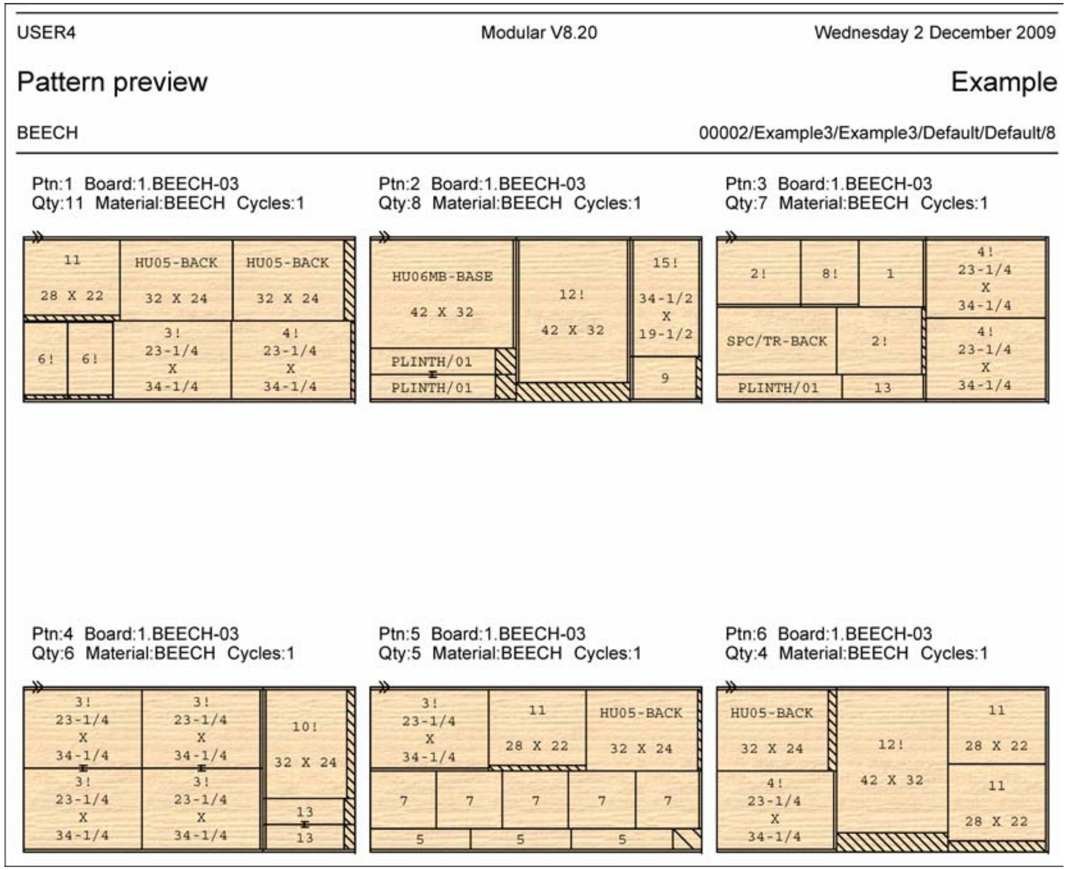
96
0-3/32
23-1/4
16-1/2
6-3/8
1-5/32
1-3/8
0-7/32
8-17/32
6!
21 X 12-3/4
6!
21 X 12-3/4
BU05-ME/RIGHT!
23-1/4 X 34-1/4
BU05-ME/RIGHT!
23-1/4 X 34-1/4
BU05MB-SHELF
19 X 16-1/2
BU05MB-SHELF
19 X 16-1/2
BU05MB-SHELF
19 X 16-1/2
BU05MB-SHELF
19 X 16-1/2
BU05MB-SHELF
19 X 16-1/2
BU05MP-PLINTH
29 X 6-3/8
BU05MP-PLINTH
29 X 6-3/8
BU05MP-PLINTH
29 X 6-3/8
8-17/32
X
6-3/8

Saw kerf: 5/32 Book height 1 Cycles 1
Rear rip trim with kerf - Rip: 1/4 Cross: 0 Retrim with kerf: 1/4

No	Part Description	Length Frac	Width Frac	Total Prod	Cut	Per brd	Per ptn	To cut
4.	BU05-ME/RIGHT	23-1/4	34-1/4	42	40	2	2	NIL
5.	BU05MP-PLINTH	29	6-3/8	20	8	3	3	9
6.	BU05MP-RAIL	21	12-3/4	32	29	2	2	1
7.	BU05MB-SHELF	19	16-1/2	28	21	5	5	2

Fig. 135

Inches - Pattern



USER4 Modular V8.20 Wednesday 2 December 2009

Pattern preview Example

BEECH 00002/Example3/Example3/Default/Default/8

Ptn:1 Board:1.BEECH-03
Qty:11 Material:BEECH Cycles:1

Ptn:2 Board:1.BEECH-03
Qty:8 Material:BEECH Cycles:1

Ptn:3 Board:1.BEECH-03
Qty:7 Material:BEECH Cycles:1

Ptn:4 Board:1.BEECH-03
Qty:6 Material:BEECH Cycles:1

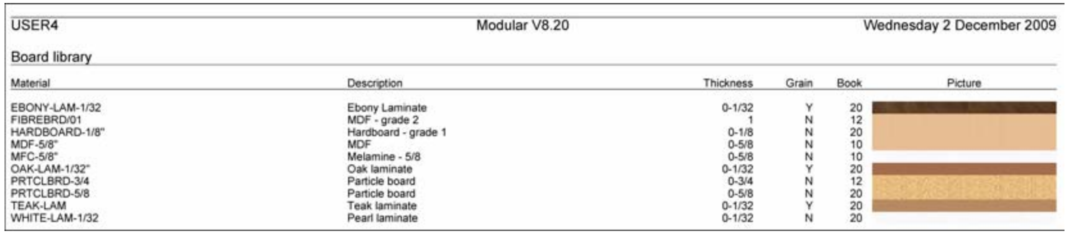
Ptn:5 Board:1.BEECH-03
Qty:5 Material:BEECH Cycles:1

Ptn:6 Board:1.BEECH-03
Qty:4 Material:BEECH Cycles:1

11
28 X 22
HU05-BACK
32 X 24
HU05-BACK
32 X 24
6!
6!
3!
23-1/4
X
34-1/4
4!
23-1/4
X
34-1/4
HU06MB-BASE
42 X 32
12!
42 X 32
15!
34-1/2
X
19-1/2
PLINTH/01
PLINTH/01
9
2!
8!
1
4!
23-1/4
X
34-1/4
SPC/TR-BACK
2!
4!
23-1/4
X
34-1/4
PLINTH/01
13
3!
23-1/4
X
34-1/4
10!
32 X 24
13
13
11
28 X 22
HU05-BACK
32 X 24
7
5
HU05-BACK
32 X 24
12!
42 X 32
11
28 X 22
4!
23-1/4
X
34-1/4

Fig. 135-01

Inches - Board library

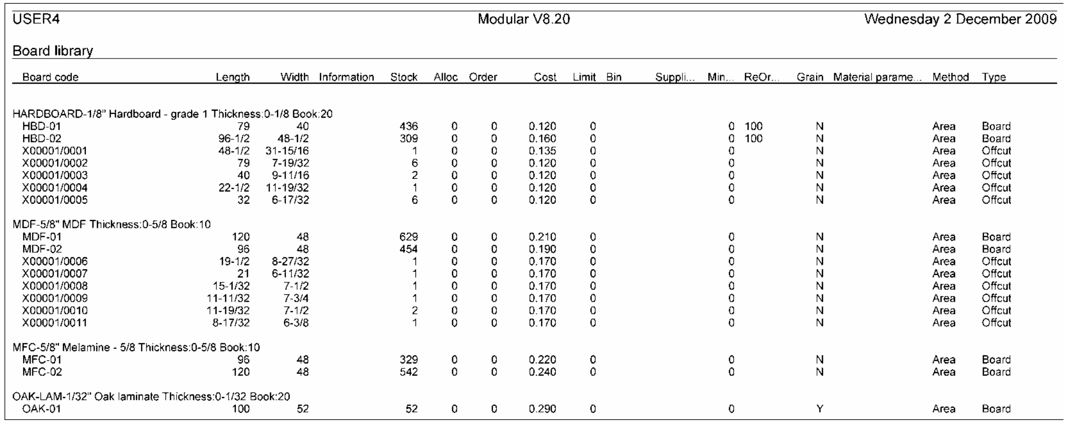


USER4 Modular V8.20 Wednesday 2 December 2009

Board library

Material	Description	Thickness	Grain	Book	Picture
EBONY-LAM-1/32	Ebony Laminate	0-1/32	Y	20	
FIBREBRD/01	MDF - grade 2	1	N	12	
HARDBOARD-1/8"	Hardboard - grade 1	0-1/8	N	20	
MDF-5/8"	MDF	0-5/8	N	10	
MFC-5/8"	Melamine - 5/8	0-5/8	N	10	
OAK-LAM-1/32"	Oak laminate	0-1/32	Y	20	
PRTCLBRD-3/4	Particle board	0-3/4	N	12	
PRTCLBRD-5/8	Particle board	0-5/8	N	20	
TEAK-LAM	Teak laminate	0-1/32	Y	20	
WHITE-LAM-1/32	Pearl laminate	0-1/32	N	20	

Fig. 136



USER4 Modular V8.20 Wednesday 2 December 2009

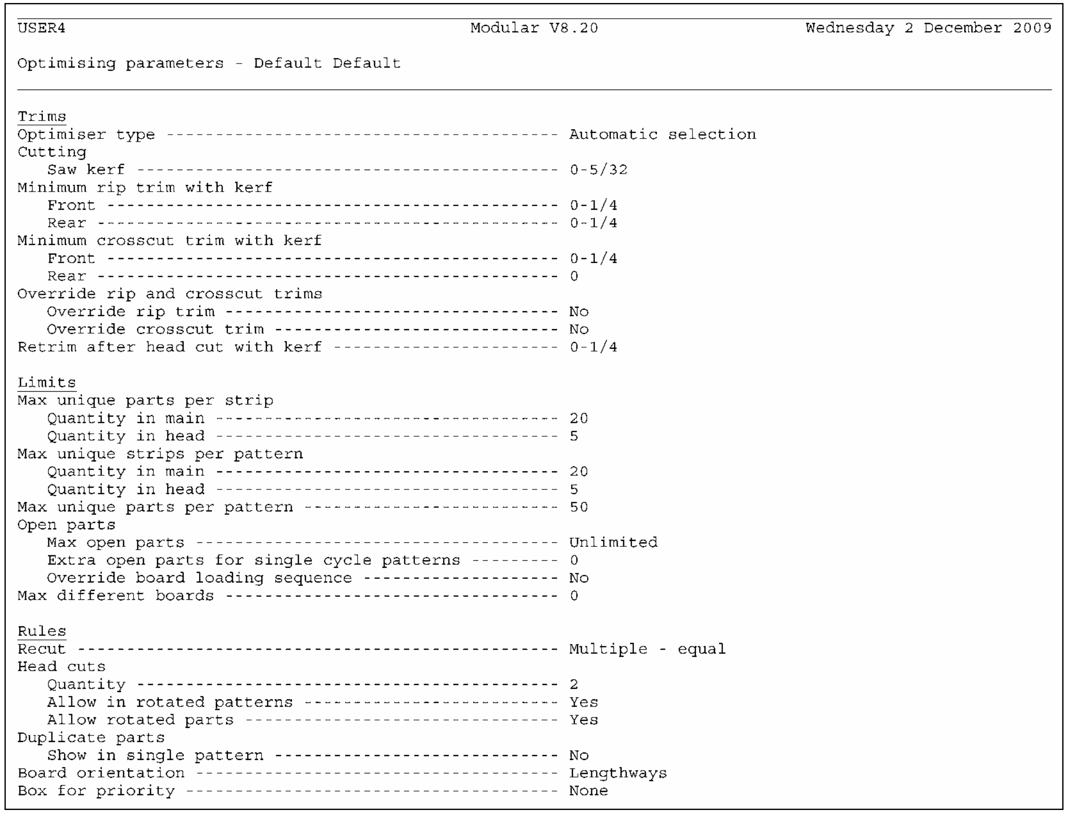
Board library

Board code	Length	Width	Information	Stock	Alloc	Order	Cost	Limit	Bin	Suppli...	Min...	ReOr...	Grain	Material parame...	Method	Type
HARDBOARD-1/8" Hardboard - grade 1 Thickness:0-1/8 Book:20																
HBD-01	79	40		436	0	0	0.120	0			0	100	N		Area	Board
HBD-02	96-1/2	48-1/2		309	0	0	0.160	0			0	100	N		Area	Board
X00001/0001	48-1/2	31-15/16		1	0	0	0.135	0			0		N		Area	Offcut
X00001/0002	79	7-19/32		6	0	0	0.120	0			0		N		Area	Offcut
X00001/0003	40	9-11/16		2	0	0	0.120	0			0		N		Area	Offcut
X00001/0004	22-1/2	11-19/32		1	0	0	0.120	0			0		N		Area	Offcut
X00001/0005	32	6-17/32		6	0	0	0.120	0			0		N		Area	Offcut
MDF-5/8" MDF Thickness:0-5/8 Book:10																
MDF-01	120	48		629	0	0	0.210	0			0		N		Area	Board
MDF-02	96	48		454	0	0	0.190	0			0		N		Area	Board
X00001/0006	19-1/2	8-27/32		1	0	0	0.170	0			0		N		Area	Offcut
X00001/0007	21	6-11/32		1	0	0	0.170	0			0		N		Area	Offcut
X00001/0008	15-1/32	7-1/2		1	0	0	0.170	0			0		N		Area	Offcut
X00001/0009	11-11/32	7-3/4		1	0	0	0.170	0			0		N		Area	Offcut
X00001/0010	11-19/32	7-1/2		2	0	0	0.170	0			0		N		Area	Offcut
X00001/0011	8-17/32	6-3/8		1	0	0	0.170	0			0		N		Area	Offcut
MFC-5/8" Melamine - 5/8 Thickness:0-5/8 Book:10																
MFC-01	96	48		329	0	0	0.220	0			0		N		Area	Board
MFC-02	120	48		542	0	0	0.240	0			0		N		Area	Board
OAK-LAM-1/32" Oak laminate Thickness:0-1/32 Book:20																
OAK-01	100	52		52	0	0	0.290	0			0		Y		Area	Board

Fig. 137

Inches - Optimising parameters

Parameter values can be entered in decimal or fractional inches depending on the measurement mode set.



```
USER4                                         Modular V8.20                               Wednesday 2 December 2009

Optimising parameters - Default Default

Trims
Optimiser type ---------------------------------------- Automatic selection
Cutting
   Saw kerf ------------------------------------------- 0-5/32
Minimum rip trim with kerf
   Front ---------------------------------------------- 0-1/4
   Rear ----------------------------------------------- 0-1/4
Minimum crosscut trim with kerf
   Front ---------------------------------------------- 0-1/4
   Rear ----------------------------------------------- 0
Override rip and crosscut trims
   Override rip trim ---------------------------------- No
   Override crosscut trim ----------------------------- No
Retrim after head cut with kerf ----------------------- 0-1/4

Limits
Max unique parts per strip
   Quantity in main ----------------------------------- 20
   Quantity in head ----------------------------------- 5
Max unique strips per pattern
   Quantity in main ----------------------------------- 20
   Quantity in head ----------------------------------- 5
Max unique parts per pattern -------------------------- 50
Open parts
   Max open parts ------------------------------------- Unlimited
   Extra open parts for single cycle patterns --------- 0
   Override board loading sequence -------------------- No
Max different boards ---------------------------------- 0

Rules
Recut ------------------------------------------------- Multiple - equal
Head cuts
   Quantity ------------------------------------------- 2
   Allow in rotated patterns -------------------------- Yes
   Allow rotated parts -------------------------------- Yes
Duplicate parts
   Show in single pattern ----------------------------- No
Board orientation ------------------------------------- Lengthways
Box for priority -------------------------------------- None
```