

## Area Optimiser Menu Structure

The main start menu of the  
Autolaunch Area Optimiser.

```

AREA OPTIMISER MAIN MENU  25th April 1997

1 .. Create, Edit or Process Jobs
2 .. Parts Data Sets & Defaults
3 .. Change Job & Part Directories
4 .. Personal Preferences
5 .. Leave the AREA OPTIMISER

Key an option No.
  
```

### Create new jobs.

Edit old jobs.

Print jobs.

**View cutting information on  
screen.**

Delete jobs or panels.

```

CREATE & EDIT JOBS MENU  25th April 1997

1 .. Create more pane sizes to cut
2 .. Edit an existing set of panes
3 .. ** Load a previous job **
4 .. Start a brand new job
5 .. ----- Delete job -----
6 .. View optimisation on screen
7 .. Print optimisation reports
8 .. *** Delete a set of panels ***
9 .. View/print last summary report
10 .. Return to main menu

Key an option No.
  
```

Create your standard panels and  
link different sizes together for  
easy selection in job creation.

### Set your own default values.

Set or change password.

View / print parts information.

```

PARTS & DEFAULTS EDITOR 25th April 1997

1 .. Create/amend standard panels
2 .. Data Set maintenance
3 .. Read/amend default values (PSW)
4 .. View/print parts & data set list
5 .. *Delete Parts & Data Sets *(PSW)
6 .. Set personal preferences
7 .. Change PASSWORD (PSW)
8 .. Return to main Area Optimiser

Key an option No.
  
```

Screen colours.

Company name & address

### Set Current printer Driver.

Screen saver settings.

```

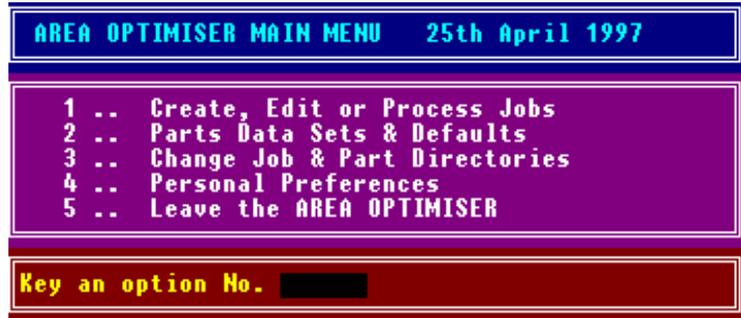
PERSONAL PREFERENCES FOR OPTIMISER

1 .. Screen colours
2 .. Select/amend printer drivers
3 .. Name & Address
4 .. Change screen saver settings
5 .. Change CAPS & NUM lock action
6 .. Change box shadow status
7 .. Leave Personal Preferences

Key an option No.
  
```



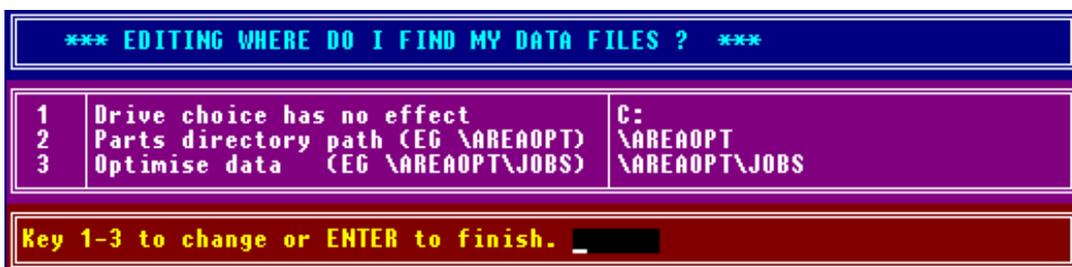
## Area Optimiser Main Menu



**Create, Edit or Process Jobs** **SEE PAGE 11.** This option gives the Create & Edit jobs menu which you use to process jobs.

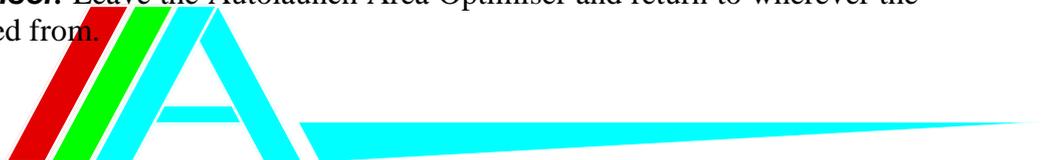
**Parts Data Sets & Defaults** **SEE PAGE 2.** The Parts & Defaults Editor allows you to create the standard stock size panels that your company uses. These can then be linked together for easy selection when creating a job and allows the optimiser to consider up to six different sheet sizes. You can also set the default values that the optimiser uses to suit your own business. The password for protected menu options can be set or altered

**Change Job & Part Directories.** This menu option is password protected and it is not generally necessary to change the directory locations for parts or jobs. If you do change directory locations, it is vital that the new directory chosen does actually exist. If it doesn't, you will be warned, then offered the opportunity of accepting the default directory. Whilst your job data files can be directed to any existing directory, this is not the case for parts, which **must** point to the location of a current copy of the Area Optimiser. As a general rule, only alter the location of Optimise job data (*menu option 3*). This can be handy to archive old jobs. Should you set either option 2 or 3 to a directory that does not exist and then leave the program, the next time that you start it, you will be asked to correct the problem before you can continue. Drive choice (*menu option 1*) is not used by the program.



**Personal preferences** **SEE PAGE 9.** This gives you the opportunity to set the **current printer driver**, your company name, the screen colours and screen saver settings. Most menus show the **current printer driver** at the bottom of the screen and it is vital that this is correct to suit the printer you are using. Please see the section in Personal Preferences for more detailed information.

**Leave the Area Optimiser.** Leave the Autolaunch Area Optimiser and return to wherever the program was started from.



## Area Optimiser Parts & Defaults Menu Options

### Area Optimiser Parts & Defaults Menu



1. **Create/amend standard panels.** The screen shot below shows a typical page from the parts list. The blue heading shows the current page number (1 of 18) and the part numbers available to that page. To create a new part, choose a number within the part=s range (1-14)

PARTS LIST PAGE 1/18 SHOWING PARTS RANGE 1-14 INCLUSIVE					
ITEM	PART DESCRIPTION	BREADTH	LENGTH	TRIM	REV
1	16g Stainless Steel Sheet	1250 mm	2000 mm	0 mm	Yes
2	16g Stainless Steel Sheet	1250 mm	2500 mm	0 mm	Yes
3	16g Stainless Steel Sheet	1250 mm	3000 mm	0 mm	Yes
5	test small panel	410 mm	1520 mm	0 mm	Yes
6	another small panel	500 mm	1520 mm	0 mm	Yes
7	test panel	1250 mm	2000 mm	10 mm	Yes
8	A square panel	1250 mm	1250 mm	0 mm	No
10	areaopt panel	1250 mm	2000 mm	10 mm	No
11	3m panel	1250 mm	3000 mm	0 mm	No
12	2m panel	1250 mm	2000 mm	0 mm	Yes
13	2500 SHEET	1250 mm	2500 mm	0 mm	Yes
14	non rev 2500 sheet	1250 mm	2500 mm	0 mm	No

Press ENTER for next page, key stock number to change, or 999 for menu

that is not already shown under the item column. As an example, lets say item 9. This changes the red answer box as shown below. Simply press the ENTER key then type the text description for the part name you want. When complete press ENTER and the red answer

Part number 9 does not yet exist ! Do you wish to create a new part ?  
Press ENTER to create a new part or key 1 to cancel

box now requires the breadth (*width*) of your panel. You may either accept the flashing default dimension offered, or type in a new size. Next, you need to set the length (height) of

Part item number 9. Existing breadth is 1250 mm  
Text to define the new part name New breadth is (ENTER to keep)

the sheet, then the trim. The **trim dimension** should either be zero mm or at least, very small.



## Area Optimiser Parts & Defaults Menu Options

1. **Create/amend standard panels - continued.** This **trim dimension** will be used to **reduce** both the breadth (*width*) & length(*height*), when optimising the material to be cut. This parameter is intended to be used when you have a purchased sheet size but cannot quite use all of the material. Perhaps this might be sheets of stainless steel that needs to be properly squared off, or pre-painted aluminium with hanging holes around the edges. To achieve a better use of material, always set the trim to zero, unless this is unavoidable. The final option to set for the part, is its reversibility status. It is preferable to set this to YES, provided that it does not matter if breadth and length are reversed in the cutting process. As an example, there is no grain to 4mm clear float glass, so transposing the dimension of the pane to cut is of no consequence to the finished product, but does allow the opportunity for improved material recovery. Conversely, if you are cutting a vertical reeded glass, it would be essential to keep the grain running in the same direction and the reversibility status would have to be set to NO.

If you need to change any element of a part, at a later stage, simply choose the item number

**Part to change is:- Text to define the new part name (-1 Deletes part)**  
**Options:- 1 Description 2 Breadth 3 Length 4 Trim 5 Reverse**

of the part from the edit sub menu. You can also remove (delete) the part by typing -1 then pressing ENTER.

Please refer to additional notes concerning parts in the next topic, menu option 2, Data set maintenance. Special conditions do arise with editing or deleting a part, when they have been included in a data set.



## Area Optimiser Parts & Defaults Menu Options

2. **Data Set Maintenance.** Put simply, this menu option allows several different sized panels of the same material to be linked together for easy and quick selection when creating a job. Shown below is a typical screen shot of the single page where you link or edit your standard

View or edit panels attached to data sets			
<b>16g Stainless steel</b>	areaopt	Unused data set 15	
16g Brushed S.S.	3M strip	Unused data set 16	
small panel test	2m	Unused data set 17	
Square panel	2500MM SHEET	Unused data set 18	
Unused data set 5	data 12	4mm Patt. reversible	
Unused data set 6	non rev 2500	4mm Patt directional	
Unused data set 7	3/4" Plywood	6.4mm Laminated glass	
<b>Active keys:-</b> UP & DOWN cursors (View data sets) - ENTER (Edit data sets) DEL (Delete data set name & panels) - ESC (Return to menu)			
Panels attached to Data Set 16g Stainless steel			
Description	Breadth X Length	Trim	Rev
16g Stainless Steel Sheet	1250 mm X 2000mm	0 mm	Yes
16g Stainless Steel Sheet	1250 mm X 2500mm	0 mm	Yes
16g Stainless Steel Sheet	1250 mm X 3000mm	0 mm	Yes
----- Spare slot -----	-----	-----	---
----- Spare slot -----	-----	-----	---
----- Spare slot -----	-----	-----	---

panels. Using the up and down cursor arrow keys highlights the current data set tag name and shows the panels linked to it in the lower display area. To create a new data set, move the cursor to an unused location. As an example, if we press the down arrow cursor four times the highlighted cursor will be flashing on AUnused data set 5". All of the panels at the bottom of the screen will read ASpare slot≡. Pressing ENTER, moves the input focus to the ASpare slot≡, after asking you to type a tag name. This should be descriptive of the panels you intend to link. The up and down cursor keys will now give you access to all 6 ASpare slots≡. This is useful for editing existing data sets, but for a new one, the cursor may just as well be left on the first position. Pressing ENTER shows a drop down list of all the panels that you have created from menu option 1. Use the up & down cursor keys to reach the part you require then press ENTER to select it.

View or edit panels attached to data sets			
<b>16g Stainless Steel Sheet</b>	1250 mm X 2000 mm	0 mm	Yes
16g Stainless Steel Sheet	1250 mm X 2500 mm	0 mm	Yes
16g Stainless Steel Sheet	1250 mm X 3000 mm	0 mm	Yes
test small panel	410 mm X 1520 mm	0 mm	Yes
another small panel	500 mm X 1520 mm	0 mm	Yes
test panel	1250 mm X 2000 mm	10 mm	Yes
A square panel	1250 mm X 1250 mm	0 mm	No
Text to define the new part name	1250 mm X 2000 mm	10 mm	Yes
<b>Panels attached to Data Set A good descriptive name</b>			
Description	Breadth X Length	Trim	Rev
----- Spare slot -----	-----	-----	---
----- Spare slot -----	-----	-----	---
----- Spare slot -----	-----	-----	---
----- Spare slot -----	-----	-----	---
----- Spare slot -----	-----	-----	---
----- Spare slot -----	-----	-----	---

## Area Optimiser Parts & Defaults Menu Options

2. **Data Set Maintenance - continued-** (Pressing the ESC key removes the drop down list *without* selecting a panel. Instead of using the cursors to find a panel, if you press the key which matches the first character of the part name, it will be taken to the top of the drop down list box.)

Repeat the process to select all of the other panels which you wish to link together. When finished, please press the ESC key to move the input focus back to the tag names of the data set. To return to the main Parts menu press ESC.

To edit an existing data set the procedure is the same, though when you attempt to make a potential change you will be prompted with a Yes-No box to confirm the action.

### *Back to Create/amend standard panels.*

When panels are linked to a data set, we do have a potential problem. If one of the parts is deleted through menu option 1 (*Create amend standard panels*), there would no longer be a valid reference for the data set. This potential conflict is resolved in the following manner.

If you attempt to edit a panel you receive the following warning. You are at liberty to make



Warning! This panel is used in one or more data sets. Any changes WILL be reflected in the data sets! Press any Key

any changes that you wish, but do bear in mind that they **will** be reflected in any data set which the panel is linked to.

If you choose to delete a panel, a Yes-No box will seek your confirmation. If you reply YES,



Del panel & strip from data sets?  
Y (Yes) or N (No) █

you will see on screen which data sets are affected and have the opportunity to print this information.



## Area Optimiser Parts & Defaults Menu Options

3. **Read/amend default values (PSW).** The full list of default values is shown below with a

AMEND INITIAL DEFAULT DIMENSIONS ETC.		
1	Breadth sheet dim.	1250 mm
2	Length sheet dim.	2000 mm
3	Edge trim dimension	10 mm
4	Loss per cut	10 mm
5	Safety Bar Margin	50 mm
6	WARN EDGE TRIM >	10 mm
7	WARN LOSS PER CUT >	10 mm
8	WARN SAFETY MARGIN >	50 mm
9	WARN SHEET WASTE % >	50 %

Key option number. ENTER to exit.

detailed explanation.

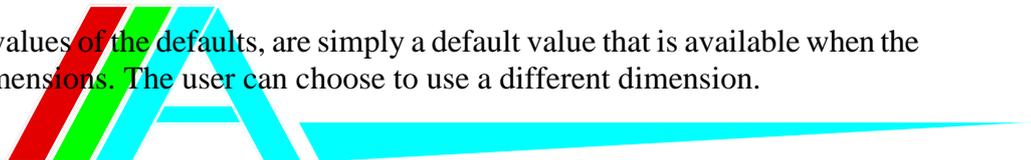
- 1. **Breadth**                      Used when creating a new part
- 2. **Length**                        Ditto
- 3. **Edge trim**                    Ditto. Remember that this value wants to be low to improve optimisation.
  
- 4. **Loss per cut**                Used when creating a job. This size is deducted from the offcut for each pane that is cut. It is intended to be used as say, the material loss that occurs with a saw blade. The smaller this dimension, the better.
  
- 5. **Safety bar margin**            Used in optimisation logic. Intended for guillotines where there is a minimum dimension that has to be available on one side of the blade, **or** the other. As an example, if you are cutting a 49mm strip from 80mm strip, as both the offcut **and** the pane are smaller than the 50mm SBM, the optimiser would refuse to allow this. Unless your cutting equipment has this limitation, this value should be set to zero.
  
- Warnings 6,7 & 8**                Used when creating parts or a job. These are your own user defined values which will allow the software to warn users if they use a higher value. A warning is simply a warning. A user can use any value they wish, but they will have been warned!
  
- Warning 9**                        Used on picture cutting sheets to suggest using offcuts, when the sheet waste is excessive, ie. greater than the percentage that you choose to set. The software evaluates percentage waste as waste relative to usage. As an example, if we cut 4 panes 600mm square from a sheet 1500mm square waste % is calculated thus.

$$100 - (100 \times (\text{Area of sheet } M^2 / \text{Area of cut panes } M^2))$$

$$\text{Area of sheet} = 2.25 M^2 \qquad \text{Area of cut panes} = 1.44 M^2$$

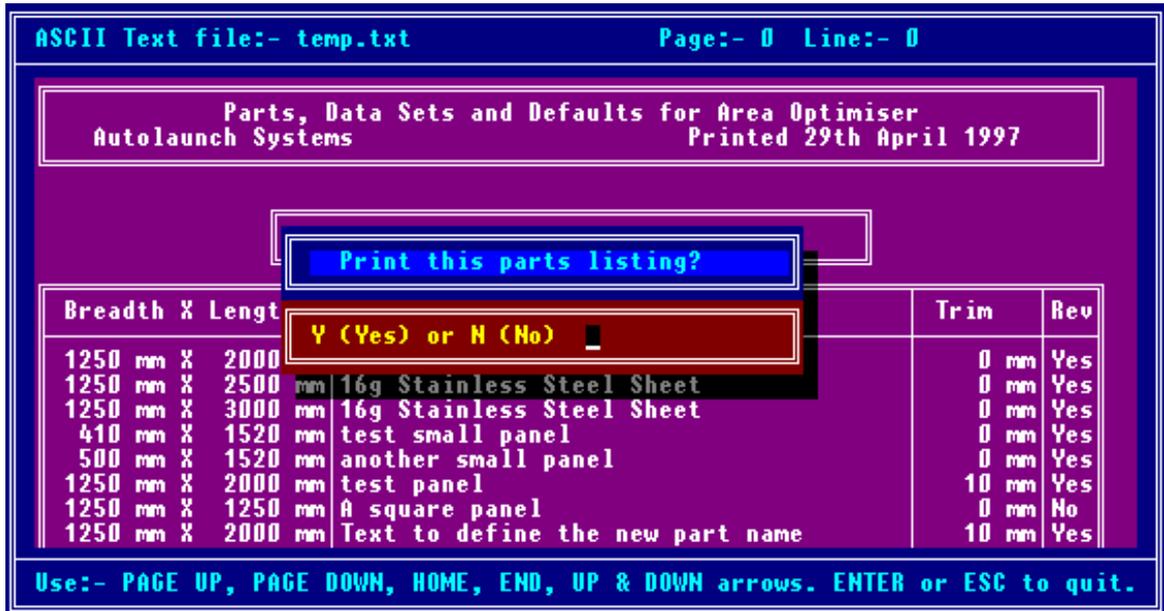
$$100 - (100 \times (2.25 / 1.44)) = 56.25\% \text{ waste}$$

Please remember that the values of the defaults, are simply a default value that is available when the software needs certain dimensions. The user can choose to use a different dimension.



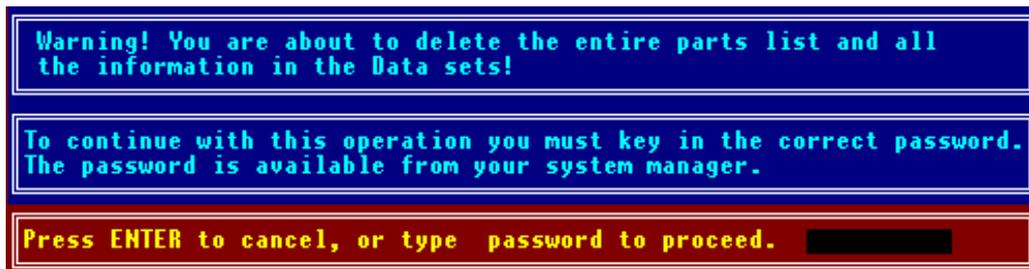
## Area Optimiser Parts & Defaults Menu Options

4. **View/print parts & data set list.** This option provides an easy and clear way to quickly inspect all parts, data sets and default values. In reality, all this information is combined into a text file which can be simply scrolled on screen. To return to the main parts menu, either



press ESC or ENTER. The Yes-No box which then appears, offers the opportunity to print the information. When all commonly used parts and data sets have been set, it is good policy to take a printed listing for archiving purposes.

5. **Delete Parts & Data Seta (PSW).** This is an option to be used very rarely, with caution and is password protected. (*Password protection only works when a password has actually*



*been set. On a brand new installation, you receive warnings to advise that you need to set your password. When no password has been set, pressing the ENTER key alone is all that is needed.)* On a brand new installation, this is an easy method to remove the temporary data that came with the software. After **correctly** replying to the password box shown above, a

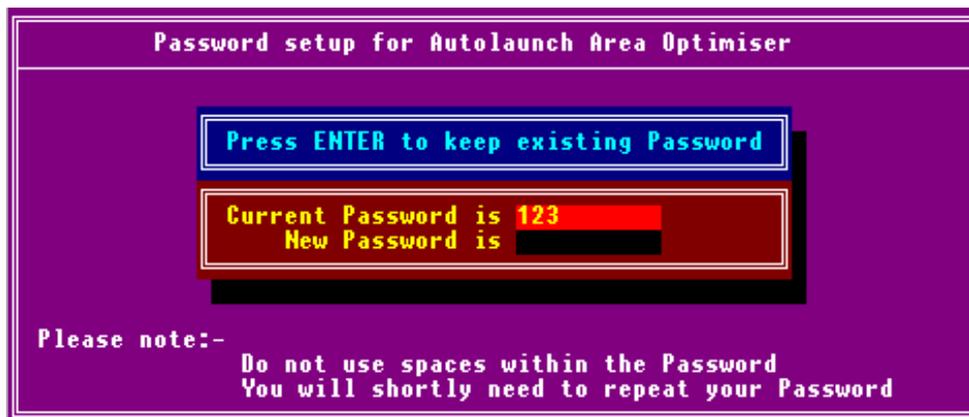


Yes-No box seeks confirmation. Replying Yes, will delete all parts and data sets and then run menu option 4, providing the opportunity to print the deleted information.



## Area Optimiser Parts & Defaults Menu Options

- Set personal preferences.** This gives you the opportunity to set the **current printer driver**, your company name, the screen colours and screen saver settings. Most menus show the **current printer driver** at the bottom of the screen and it is vital that this is correct to suit the printer you are using. Please see the section in Personal Preferences (*page 9*) for more detailed information.
- Change PASSWORD (PSW).** When you first installed the software, there was no password set and pressing the ENTER key alone was the correct password. Logically, once you have set a password, any attempt to access a password protected menu option, does require the correct password. Accordingly, to change your password, you do need your existing password to access the option. After replying with the correct password the screen



shot shown above gives you the opportunity to change it. Simply type the new password then press ENTER. (*Please note that spaces must not be used in the password.*) Before you



finally leave the Change Password option, you will need to repeat it again as shown in the screen shot above. Should you make a mistake, you receive a warning, then return to the first screen to try again.



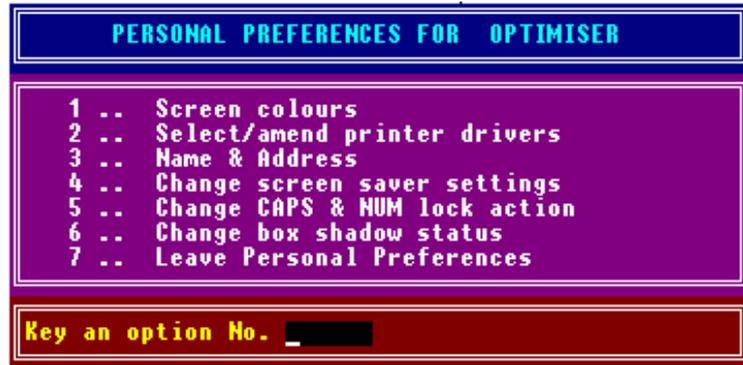
- Return to the main Area Optimiser.** This option returns you to the Area Optimiser main menu shown on page 1.



## Personal Preferences Menu Options

### Personal Preferences Menu

The Personal preferences module contains further on-line help. Press the F1 at any time.



1. Screen colours. The colours used by this software operate on a colour scheme basis and offer the user some control over its appearance. The standard menu box shown above, uses most of the primary colour schemes. The menu heading is light blue on dark blue, (*colour scheme 2*). The listing of menu options is bright white on magenta (*colour scheme 1*). The bottom question box is bright yellow on red (*colour scheme 3*). The answer slot is light blue on black (input). The box lines are bright white (*boxes & lines*). Autolaunch software uses these colour schemes to apply a standard look and feel to the software. For example, question boxes are always yellow and red and must have an answer. The answer box with the flashing cursor, is blue on black and it should always be clear to the user, where the input focus is. Some screens in Autolaunch software, are single multipurpose screens where the input focus moves yo different locations. A good example are the job input screens in the Autolaunch Optimiser=s which use changing colours to help indicate where the input focus is. Having said this, you can customise most of the colours to suit your own personal taste. The only recommendation is that each scheme is different to reap the benefit that the software design offers.
2. **Select/amend printer drivers.** There must be thousands of different printers available and whist most can happily use the same set of instructions to achieve certain printing effects, there are those that are non standard and require a different series of instructions. There are only three effects that Autolaunch software needs the printer to achieve. (*condensed, bold & form feed to next page*). The bottom of most menus show the current printer driver that will

«« F1 HELP » Screen saver ON « Printer driver Generic Standard Printer »»

be used for any printing (*a printer driver holds the decimal numbers that are sent to the printer when an effect is required*). The Generic Standard Printer driver is set by default and will generally be the suitable option for most printers. There is also a standard driver to suit HP Deskjet (520) printers. If neither of these options work properly, then it is also possible to reconfigure the individual control codes, per your printers manual. Before discussing this in detail, one final important point to make, concerns your printers dip switch settings (*these may be physical switches or controlled by some software that came with the printer*). The printer needs skip over perforation, to be turned off and a character set selected which includes the **IBM box & line characters**. If the box & line character set is not selected, Greek alphabet characters appear in the print outs rather than the boxes & lines that are intended.



## Personal Preferences Menu Options

2. **Select/amend printer drivers - continued-**. The single printer driver screen is shown below. In this example, we can see that the printer driver currently selected, is the **Generic**

Feature	Generic Standard Printer							HP Deskjet (520) Printer						
Condense on Hex	0f	---	---	---	---	---	---	27	40	115	49	54	72	---
		--	--	--	--	--	--	1b	28	73	31	36	48	--
Condense off Hex	18	---	---	---	---	---	---	27	40	115	49	48	72	---
	12	--	--	--	--	--	--	1b	28	73	31	30	48	--
Bold on Hex	27	69	---	---	---	---	---	27	40	115	51	66	---	---
	1b	45	--	--	--	--	--	1b	28	73	33	42	--	--
Bold off Hex	27	70	---	---	---	---	---	27	40	115	48	66	---	---
	1b	46	--	--	--	--	--	1b	28	73	30	42	--	--
Form feed Hex	12	---	---	---	---	---	---	27	38	108	48	72	---	---
	0c	--	--	--	--	--	--	1b	26	6c	30	48	--	--

**Standard Printer.** The four cursor arrow keys allow you to navigate to all the cells for this particular driver. To make any changes, simply cursor to the appropriate cell, then type the new decimal value (*for historical purposes the Hexadecimal value is shown underneath the decimal one*). If you want to reset all the values for this driver to their original settings press F5 and confirm the Yes-No box. To make the other printer driver current, press F2. Function key F2, acts as a toggle switch which flips between the two drivers. You can rename the current printer driver by pressing F7 and use any tag name that you like. When you are finished with the printer driver screen, ESC returns you to the Personal preferences menu.

3. **Name & Address.** A simple menu driven option to allow you to edit this information that would have been set originally when you installed the software. Press F1 for more details.
4. **Change screen saver settings.** A simple menu driven option which allows you to turn the automatic screen saver on or off and set the inactivity period. Press F1 for more details.
5. **Change CAPS & NUM lock action.** When you start an Autolaunch program, It is possible for the software to effectively, automatically press both the CAPS LOCK & NUMBER LOCK keys. The default installation setting is off. This feature is not commonly needed, but is optional nonetheless.
6. **Change box shadow status.** By default this option is on, but you can choose to turn it off. This is a cosmetic item only and really designed for very old mono monitors unable to display shades of grey.
7. **Leave Personal Preferences.** This returns you to the menu that you selected Personal preferences from, ie. either the Parts & Defaults Editor menu, or the main Area Optimiser menu.



## Create & Edit Jobs Menu Options

### Typical Create & Edit Jobs Menu and Main Screen

Job directory

Current job  
loaded

FILE	CONTRACT NO	CONTRACTOR	SITE ADDRESS	OPERATOR	DATE ORIGINATED
JOB00	A443004	The Test Constr	Eurotunnel S	Clive Brook	29th April 1997

The key features of this screen are the jobs menu, the current job available and the sub directory where job details are filed to disk. The Autolaunch Area Optimiser, automatically stores every aspect of all the jobs that you create. Furthermore, any detail can be altered very easily from any job that is stored. You can store up to 20 different jobs each with up to 17 different panel sets to cut, containing up to 100 different sized panes, per subdirectory. Additionally the software will always check the validity of every size that you wish to cut **when you are typing it in**. For instance it would be impossible to cut a 2 metre square pane from a smaller stock sheet. This software will not let you do this. This strong validation is extended to include the trim dimension of the sheets, the safety bar margin and even changing the data set for different materials. Any change which creates an uncuttable pane is prohibited, at the point where the problem occurs. Furthermore, a clear explanation is given as to the nature of the problem.

1. **Create more pane sizes to cut.** If a job is already loaded, this option allows you to attach another set of panes to cut, to the job. If no job is loaded then the software assumes that you wish to start a brand new job and prompts you for the job header (*company name, job number etc.*). A typical question and answer session for creating the job header is shown.

```

JOB/INVOICE NUMBER :- A123456
CUSTOMERS NAME      :- Test Construction
JOB/SITE NAME       :- Local job
OPERATORS NAME      :- Clive Brooker
FREE TEXT MESSAGE   :- Any text message
```

The answers are simple text, best used to describe the question heading. Each time that you answer a question, the input focus moves to the next line. When all these job header questions have been answered, we move onto selecting the data set that contains the stock sizes panels that are to be cut.



## Create & Edit Jobs Menu Options

1. **Create more pane sizes to cut. - continued-** . At this point, it is a good idea to look at the features of the job input screen. The job header details are visible at the bottom left. Top

DATA SET: Data Set to be chosen				L.P.C: 10mm		S.B.M: 50mm		Data Set Record 1
Cursor to Data Set	Attached Panels	Breathh Len	Trim	Rev				
16g Stainless steel	16g Stainless Steel Sheet	1250 X 2000	0	YES				
16g Brushed S.S.	16g Stainless Steel Sheet	1250 X 2500	0	YES				
small panel test	16g Stainless Steel Sheet	1250 X 3000	0	YES				
Square panel	---- Spare Slot ----	-----	-----	-----				
areaopt	---- Spare Slot ----	-----	-----	-----				
3M strip	---- Spare Slot ----	-----	-----	-----				
JOB/INVOICE NUMBER :- A123456 CUSTOMERS NAME :- Test Construction JOB/SITE NAME :- Local job OPERATORS NAME :- Clive Brooker FREE TEXT MESSAGE :- Any text message DATE ENTERED :- 29th April 1997								KEY IN YOUR REPLY TO EACH QUESTION THEN PRESS ENTER

right shows the current record number and could be anything up to 17. The top line shows that we need to select a data set of panels and the default loss per cut and safety bar margin dimensions. Just above centre, is the easy to use data set drop down selection box. Use the up & down cursor arrows to locate the data set required. Each time that the cursor moves the panels attached to the data set are shown to the right. (If you press the first letter of the data set name that you want, it will move to the top of the drop down box.) When the highlighted cursor is on the correct data set, press ENTER. The screen shot below shows that we accepted the first item in the drop down list box shown above. The input focus has moved to L.P.C. (Loss per cut). Either type the dimension required or press ENTER to accept the default shown. Now the input focus moves to S.B.M. (Safety bar margin).

DATA SET: 16g Brushed S.S.				L.P.C: 10mm		S.B.M: 50mm		Data Set Record 1
PANEL DESCRIPTION				BREADTH X LENGTH		TRIM		REV
16g Brushed Stainless Steel Shee				1250mm X 2000mm		10mm		NO
16g Brushed Stainless Steel Shee				1250mm X 2500mm		10mm		NO
16g Brushed Stainless Steel Shee				1250mm X 3000mm		10mm		NO
ITEM	QTY	BREADTH	LENGTH	REFERENCE TEXT				
JOB/INVOICE NUMBER :- A123456 CUSTOMERS NAME :- Test Construction JOB/SITE NAME :- Local job OPERATORS NAME :- Clive Brooker FREE TEXT MESSAGE :- Any text message DATE ENTERED :- 29th April 1997								
								F1 KEY:- ** HELP **
								F10 KEY:- SCREEN SAVER
								NOW CREATING PART DETAIL
								KEY IN YOUR REPLY TO EACH QUESTION THEN PRESS ENTER



## Create & Edit Jobs Menu Options

- Create more pane sizes to cut. - continued-** Again, either type a value or press ENTER to accept the default. If the values of either L.P.C. or S.B.M are greater than the warning levels detailed on page 6, the software issues a warning. *(This is a mild precaution to warn the user in case they inadvertently set a large value that could grossly impair the*

Warning!!! This value seems excessive! A large value will reduce the effectiveness of optimisation recovery. Press any Key

*optimisation recovery.*) Now the input focus moves to the quantity, breadth, length and reference fields. The example below shows four items that have been entered with the input focus in QTY column at item 5. The right hand information boxes show all the function keys that are available **when the input focus is in the QTY column**. Function keys F2, F3, & F4 enable you to move to and edit any of the information that has already been entered.

DATA SET: 16g Brushed S.S.				L.P.C: 10mm	S.B.M: 50mm	Data Set Record 1		
PANEL DESCRIPTION				BREADTH X LENGTH	TRIM	REV	F1 KEY:- ** HELP **	
16g Brushed Stainless Steel Shee				1250mm X 2000mm	10mm	NO	F10 KEY:- SCREEN SAVER	
16g Brushed Stainless Steel Shee				1250mm X 2500mm	10mm	NO		
16g Brushed Stainless Steel Shee				1250mm X 3000mm	10mm	NO		
ITEM	QTY	BREADTH	LENGTH	REFERENCE TEXT				F2 KEY:- EDIT QTY CUTTING SIZE OR TEXT
1	10	1200 mm x	587 mm					F3 EDITS:- PANEL DETAIL
2	10	613 mm x	517 mm					
3	22	822 mm x	987 mm					
4	40	398 mm x	589 mm					
5		0 mm x	0 mm					
JOB/INVOICE NUMBER :- A123456 CUSTOMERS NAME :- Test Construction JOB/SITE NAME :- Local job OPERATORS NAME :- Clive Brooker FREE TEXT MESSAGE :- Any text message DATE ENTERED :- 29th April 1997								F4 EDITS:- JOB TEXT
								F9 SHOWS:- OPTIMISATION

Generally, press the function key appropriate to the information that you wish to edit, then navigate with the cursor keys to the actual cell. Type the new value and press ENTER. When editing is complete, press ESC. **A special case is changing the data set.** With the input focus on the data set name, press the ENTER key and confirm the Yes-No box. Should you then decide that you do not want to change the data set, press the ESC key rather than ENTER. Two additional function keys are available when editing part information. **F5** allows you to type in an override dimension for all the sheet trims for the current job. **F6** is a shortcut that takes you straight to the Parts, Data Sets & default menu.

**When the input focus is in the QTY column**, pressing F9 shows the result of the **optimisation on screen**, with an additional option to **inspect the cutting diagrams**.

**To leave the job input screen and return to the Create & edit jobs menu**, set the **QTY to zero**. Because all of this information is automatically saved on your hard disk, you can retrieve it and add or amend anything, at a later date.



## Create & Edit Jobs Menu Options

2. **Edit an existing set of panes.** Each job (up to 20 per sub directory) can have up to 17 pane sets of 100 different sizes attached to it. To add more panes or edit one of these pane sets, option 2 from the Create & edit jobs menu gives a selection screen showing all the pane

Edit an existing panel. Cursor to Data Set. ENTER to edit. ESC cancels.							
FILE	CONTRACT No	CONTRACTOR	SITE ADDRESS	OPERATOR	DATE ORIGINATED		
JOB01	A123456	Test Constructi	Local job	Clive Brook	29th April 1997		
No.	DATA SET NAME	FIRST PANEL	BREADTH	LENGTH	TRIM	L.P.C.	S.B.M.
1	16g Brushed S.S.	16g Brushed Sta	1250mm	2000mm	10mm	10mm	50mm
2	16g Stainless ste	16g Stainless S	1250mm	2000mm	0mm	0mm	0mm
3	Square panel	A square panel	1250mm	1250mm	0mm	0mm	0mm
4	3M strip	3m panel	1250mm	3000mm	0mm	10mm	50mm

sets attached to the current job. Use the up & down cursor arrow keys to reach the panel set required, then press the ENTER key. This takes us back to the job input screen shown on the previous page.

3. **Load a previous job.** Just as option 2 allows us to load an existing set of panes, this option enables us to load in another job. The procedure is the same except that the pick list shows

Load an old job. Cursor to job, ENTER to accept edit. ESC to cancel request.					
FILE	CONTRACT NO	CONTRACTOR	SITE ADDRESS	OPERATOR	DATE ORIGINATED
JOB00	A443004	The Test Constr	Eurotunnel S	Clive Brook	29th April 1997
JOB01	A123456	Test Constructi	Local job	Clive Brook	29th April 1997
JOB02	A123654	Moores Contract	Londonderry	Clive Brook	29th April 1997
JOB03	A123652	W. W. Martin Lt	Ashford Fire	Claire	29th April 1997
JOB04	A123769	Ashford Borough	County Squar	Clive Brook	29th April 1997

the job headers rather than the pane sets. When a new job is selected, all menu options will be relative to this newly selected job. The Create & edit jobs menu, also shows the header details of the job that is currently loaded.

4. **Start a brand new job.** When you choose this option, any job currently loaded is disengaged (*remember that it remains saved on your hard disk*) and the procedure is as explained under option 1.
5. **Delete a job.** The procedure is very similar to option 3, loading a job, though the text at the

** Delete a Job! ** Cursor to Job. ENTER selects. ESC cancels.		
top of the screen makes it clear that job deletion is the task at hand. Cursor to the job to delete, then press ENTER and confirm the Yes-No box.		
Delete highlighted JOB?		
Y (Yes) or N (No) <input type="checkbox"/>		



## Create & Edit Jobs Menu Options

6. **View optimisation on screen.** This option enables you to see the optimisation result of any pane sets in the currently selected job. The current job header is shown at the bottom of the screen under the menu. Selection is similar to option 2, (*Edit an existing set of panes*),

View which panel. Cursor to Data Set. ENTER to view optimisation. ESC cancels.

though the text at the top of the screen, makes it clear what the task in hand is. The result is identical to pressing function key F9, when the input focus is in the QTY column of the job creation screen.

7. **Print optimisation reports.** This screen is similar to that detailed in option 2 (*Edit an existing set of panes*) and 6 (*View optimisation on screen*) though the operation is slightly

Print which panels. Use cursor keys. SPACE selects. ENTER proceeds. ESC cancels.

FILE	CONTRACT No	CONTRACTOR	SITE ADDRESS	OPERATOR	DATE ORIGINATED		
JOB01	A123456	Test Constructi	Local job	Clive Brook	29th April 1997		
No.	DATA SET NAME	FIRST PANEL	BREADTH	LENGTH	TRIM	L.P.C.	S.B.M.
1	16g Brushed S.S.	16g Brushed Sta	1250mm	2000mm	10mm	10mm	50mm
2	16g Stainless ste	16g Stainless S	1250mm	2000mm	0mm	0mm	0mm
3	Square panel	A square panel	1250mm	1250mm	0mm	0mm	0mm
4	3M strip	3m panel	1250mm	3000mm	0mm	10mm	50mm

different. It could be that you want to print all the pane sets, or perhaps only one or two. The example above shows that records 1, 2 & 4 have been selected for printing. **This was achieved by pressing the space bar when the cursor was on the panel set we want to print.** The space bar acts as a toggle switch, hence pressing it on a ticked record un-tags it. When you have tagged all the records that you wish to print, press ENTER to proceed to the **printer output options**. Whilst any combination of **Diagrams**, **Record summary**, or **Total selective summary** can be chosen, menu choice one is the preferred option. The diagrams provide your cutter with **all** the information necessary for him. The **Total selective summary** is ideal as a stores/buying/costing requirements sheet. The individual **Record summaries** provide **every** detail of the panels and panes, together with extensive wastage analysis. This form is ideal as an office, printed file copy, and is also useful to check that every detail input is correct. Thoroughly checking every aspect of this form, will prevent costly errors escaping into the factory! Page 17 discusses these vital forms in greater detail.

Please choose option for printer output

1	..	Diagrams	Rec. Sum.	Tot. Sum.
2	..	Diagrams	Rec. Sum.	
3	..	Diagrams		Tot. Sum.
4	..	Diagrams		
5	..		Rec. Sum.	Tot. Sum.
6	..		Rec. Sum.	
7	..			Tot. Sum.

Key an option No.

Even a fast printer is a much slower device than your computer, so the printing of all the diagrams may take some time. Printers have what is called a buffer, in which they store information to be printed. This enables the fast computer to send the slow printer the information to be printed, then return control to the software. Meanwhile the printer can get on with the printing from the information stored in its own buffer.



## Create & Edit Jobs Menu Options

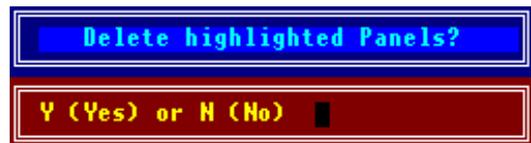
7. **Print optimisation reports. - continued-** However, when the printer's buffer is full, the software has to wait whilst the printer prints and slowly clears some space in its buffer. As a lot of large full page diagrams may be needed for a job, unless the printer has a very large buffer to absorb this information, you may have to wait some time for the software to return you to the main menu. Printer manuals refer to buffer sizes in quantities of either >K= bytes (approx 1000) or Meg (approx 1,000,000). As a guide, each page requires roughly 6K (6000), so the larger your printers buffer size, the better. As an example, an 8K byte buffer can only hold just over a single page, whereas a 256K buffer can hold round 42 pages.

The example job shown on page 13, requires around 7 pages of printed information. Your printers manual should state its buffer size in the technical specifications section.

8. **Delete a set of panels.** The procedure is very similar to option 2 (*Edit an existing set of*

**Delete which panel. Cursor to Data Set. ENTER deletes. ESC cancels.**

*panes*), though the text at the top of the screen makes it clear that panel deletion is the task at hand. Cursor to the panel to delete, then press ENTER and confirm the Yes-No box.



9. **View/print last summary report.** In option 7, (*Print optimisation reports*) we had an opportunity to print a summary of all materials required for the items that we chose to print. The summary from the last print run is always held and this option allows you to view or print it. This option can be handy if you want a second summary sheet or would like to look at the summary before the printing is complete.
10. **Return to main menu.** This option returns us to the Area Optimiser Main menu.



# General Information

## Autolaunch Area Optimiser Documentation.

When you choose to print a sets of optimisations, the Autolaunch Area Optimiser produces up to three different forms. Let=s look in detail at the format of this documentation.

- Individual Record summary sheet.** For each set of pane sizes that you choose to cut, the optimiser produces a detailed summary sheet. This shows **all** the information that **you** used to create the panel set, together with the analysis of the stock sheets required. This is a valuable aid to allow you to check that each and every detail is correct, before cutting the panes.

Autolaunch Systems		SUMMARY RECORD 1	4 PAGES
DATE PRINTED :- 2nd May 1997 JOB/INVOICE NUMBER :- A123456 CUSTOMERS NAME :- Test Construction JOB/SITE NAME :- Local job OPERATORS NAME :- Clive Brooker FREE TEXT MESSAGE :- Any text message DATE ENTERED :- 29th April 1997			
Loss per cut	10 mm	Safety Bar Margin	50 mm
Data set name tag	16g Brushed S.S.	TRIM	REV
16g Brushed Stainless Steel Sheet	1250 mm X 2000 mm	10 mm	NO
16g Brushed Stainless Steel Sheet	1250 mm X 2500 mm	10 mm	NO
16g Brushed Stainless Steel Sheet	1250 mm X 3000 mm	10 mm	NO
ITEM	QTY	BREADTH X LENGTH	REFERENCE TEXT
1	10	1200 mm X 587 mm	
2	10	613 mm X 517 mm	
3	22	822 mm X 987 mm	
4	40	398 mm X 589 mm	
Actual full stock sheets required for Record 1			
QTY	BREADTH X LENGTH	DESCRIPTION	WASTE%
1	1250mm X 2000mm	16g Brushed Stainless Steel Sheet	26.04%
10	1250mm X 3000mm	16g Brushed Stainless Steel Sheet	5.77%
CUT AREA	37.44 M2	BOUGHT AREA	40.00 M2
		COMBINED WASTAGE	6.84%
Autolaunch Systems Area Optimiser, Version:- A1.03 (230497)			

In addition to the materials required analysis, the lower box on the form shows a percentage waste for each different size of stock sheet, together with total cumulative waste. These waste

percentages are expressed as wastage on usage. This is the same method that you would use, if you take the M<sup>2</sup> cost of material and add say 10% on top for waste. Please see page 6 for a detailed discussion of this calculation.

The top line of the form shows your company name, the record number of the pane set and a quantity of pages which, represent the number of diagrams that will be produced. The bottom status line details the version release of the software.

- Individual cutting diagram.** For each stock sheet that needs to be cut, a separate cutting diagram is produced, unless there are more identical sheet patterns to be cut. Matching identically cut sheets, reduces the volume of diagrams required.





### Individual Cutting diagram.

This diagram shows all the pertinent job header information in the top box.

The second box shows the quantity of sheets, sheet material type and size, details of the panes to be cut with an identifying >P= reference, as well as wastage information.

This single sheet provides your cutting operative with all of the job, material type and cutting methodology to produce the required cut panes. No further documentation is necessary which helps reduce your own internal administration.

If there is no grain (*direction of a pattern for example*) to your stock sheet, whilst the optimisation logic might choose to reverse the breadth & length (*width & height*), to enhance material recovery, your cutting operative is insulated from this transposition. The cutting sheet is always consistent in showing breadth & length of the pane to cut, relative to the sheet that it is cut from.

The most important aspect of this cutting diagram is the >P= reference which gives a visual identity link between IDENT size and its location in the diagram. This becomes important when the scale of the item to be cut is tiny relative to the overall sheet size. To maintain scale, a tiny pane may be unable to display its own breadth & length, but within reason, will always show its >P= reference.

The Autolaunch Area Optimiser attempts to draw the smallest CLEAR picture whilst maintaining scale relationships. This helps increase the speed of printing which can become an issue if a large volume of diagrams are required.

