

Xactware Solutions, Inc.

**CORRECTED
EXHIBIT 1005**



appli-cad

World Class Technology Leading the Way in Roofing Software

Product Bulletin – November 2002

Key features of our Roofing Software

Dear Roofing Professional,

This booklet has been produced to inform you of the exciting features that we have incorporated over the last few years. As you will see from this booklet, we are continuously updating and improving the software as a result of the feedback we receive from our customers, who are, at the end of the day, roofers, just like you!

You may have previously looked into the software, but may not be fully aware of the accuracy and power of our material take-off system and how closely it relates to your manual methods.

The major key to any software is to provide a package that is easy to use, yet powerful enough to provide the required outputs. For instance, a pocket calculator may be easy to use, but does it work out everything you need in seconds and then print it out in a special report?

When you read this document, keep asking yourself the following question:

“Does my existing estimating process provide such a comprehensive result in such a simple manner?” You may be surprised by the result.

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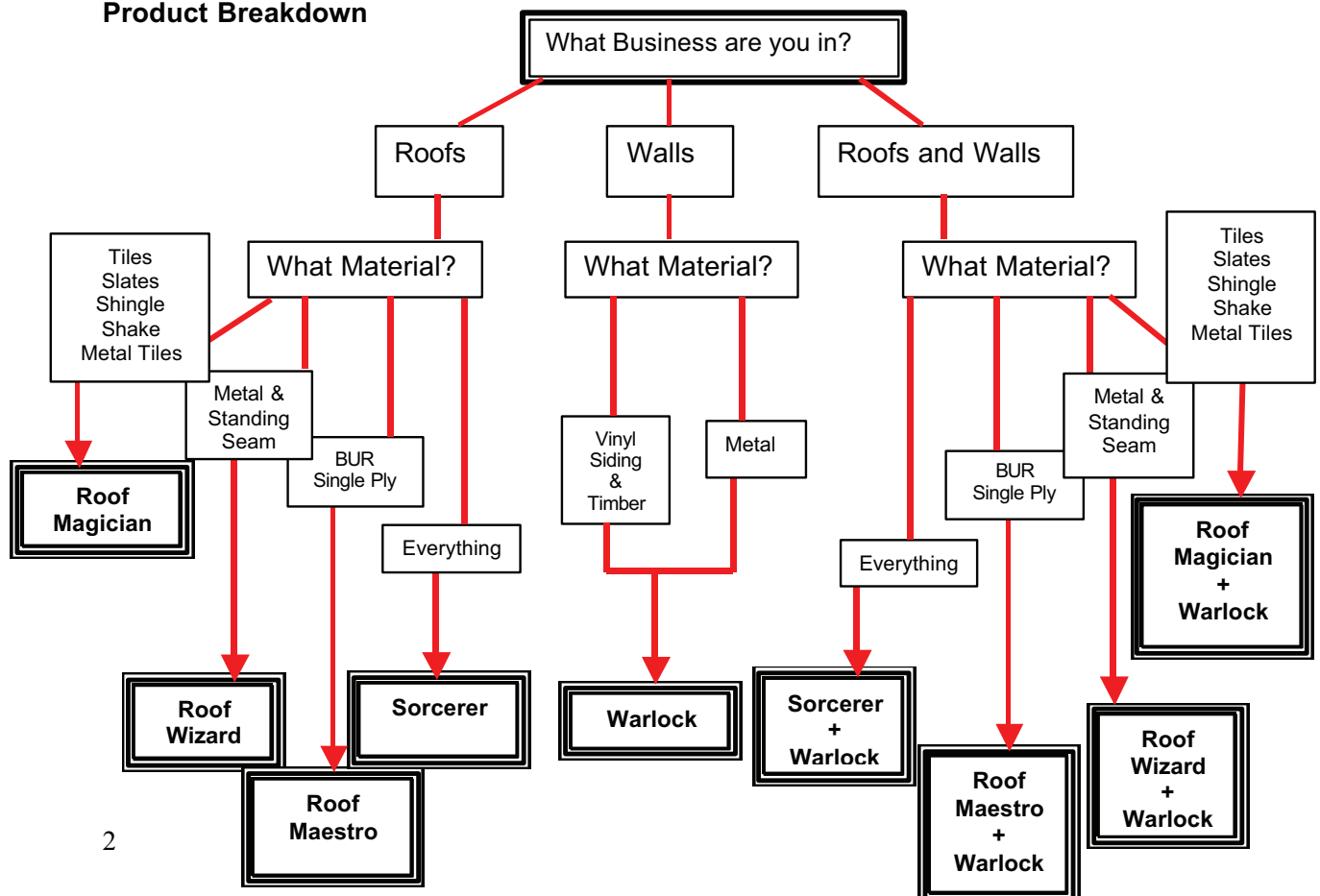
1. Introduction

To serve as a reminder to those of you who looked into the software some time ago, the AppliCad range of products are designed specifically for the Roofing and Cladding markets. All of our products utilise a CAD (computer aided design) system, which is already included in the price, to draw up the roof or wall outline accurately in 3 dimensions, and then, from that 3D drawing, the software automatically calculates the amount of material to cover the roof or wall, along with all the necessary flashings. The result of this is the production of a detailed quotation breakdown, and the ability to generate your own user-defined forms to present to your customers, or for internal use. These forms include quotations, labour pay summaries, order forms for your suppliers, invoices and drawings.

Roof Magician
Roof Wizard
Roof Maestro
Sorcerer
Warlock

for Tile, Slate, Shingle, Shake and Thatch!
 for any Metal Roofing
 for Flat Roofing, Single-Ply and BUR.
 for any type of Roofing
 for siding and cladding (this is available as a stand-alone product or as a module with one of the roofing products)

Product Breakdown



When deciding if estimating software will be important for your business, there are various features that you should be looking out for. We hope that we have addressed each of these features with sufficient flexibility and thought.

- Ease of Use – We have designed many user friendly menus and functions within the software. There is always a struggle to achieve a happy medium between ease of use and functionality, but we feel we offer a product that successfully utilises Roofers language, yet is flexible enough to cater for the wide variations in processes all over the world.
 - Flexibility – It is always important, when considering a software package, to ensure that it will be able to adapt to the methods that you may apply. Because we have been developing this software over 10 years, based on feedback from Roofing Contractors all over the world, we know we have built in many functions that allow for the regional variations.
 - Coursing the Tiles or Laying out the Metal Panels - There are software packages out there that offer a means of a take-off, but many of these are based on using nett areas of the roof and dividing it by the square area of the tile, panel or ply product. We have gone about things differently and will actually simulate laying each tile or panel on the roof, ensuring that our reported values are the closest to the actual requirement.
 - Company Reputation and Support – AppliCad have been developing and selling this software for many years. Over the years we have constantly expanded, offering a greater level of support to our customers all over the world. We now have three fully operational branches - Australia, USA and the UK, with each branch being able to offer immediate telephone support. We also use our web site www.applicad.com.au as a means of providing additional support and tutorials.
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2. Drawing up the Roof

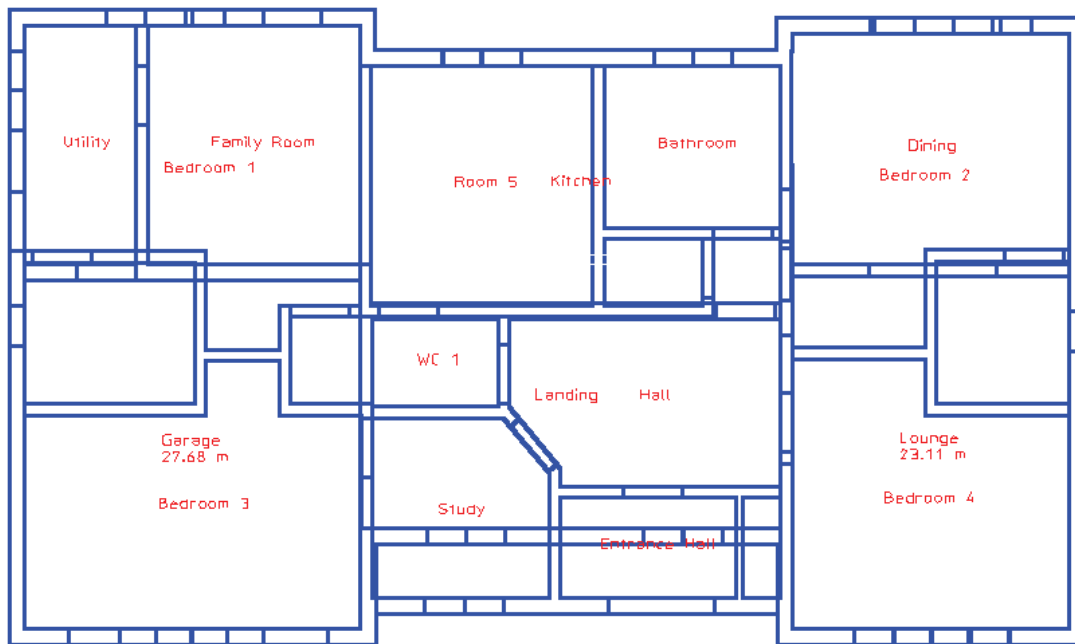
Our software works off the basis of drawing the roof up on the screen, using a series of easy-to-use menus. Providing you enter the dimensions for the perimeter of the roof accurately, and give the correct angle or slope, then the roof generated on the screen should resemble the roof in question. This gives the operator a great deal of confidence in the outputs from our software as you are able to verify that the numbers you entered, will result in the same roof that you are bidding for. "If it looks like your roof, then it will be your roof!"

Because our software sits on top of a very powerful 3 dimensional CAD package, we can utilize various tools to enable the drawing of the roof and checking the result, before submitting to a bid. In the following sections, we have demonstrated a number of methods of achieving this.

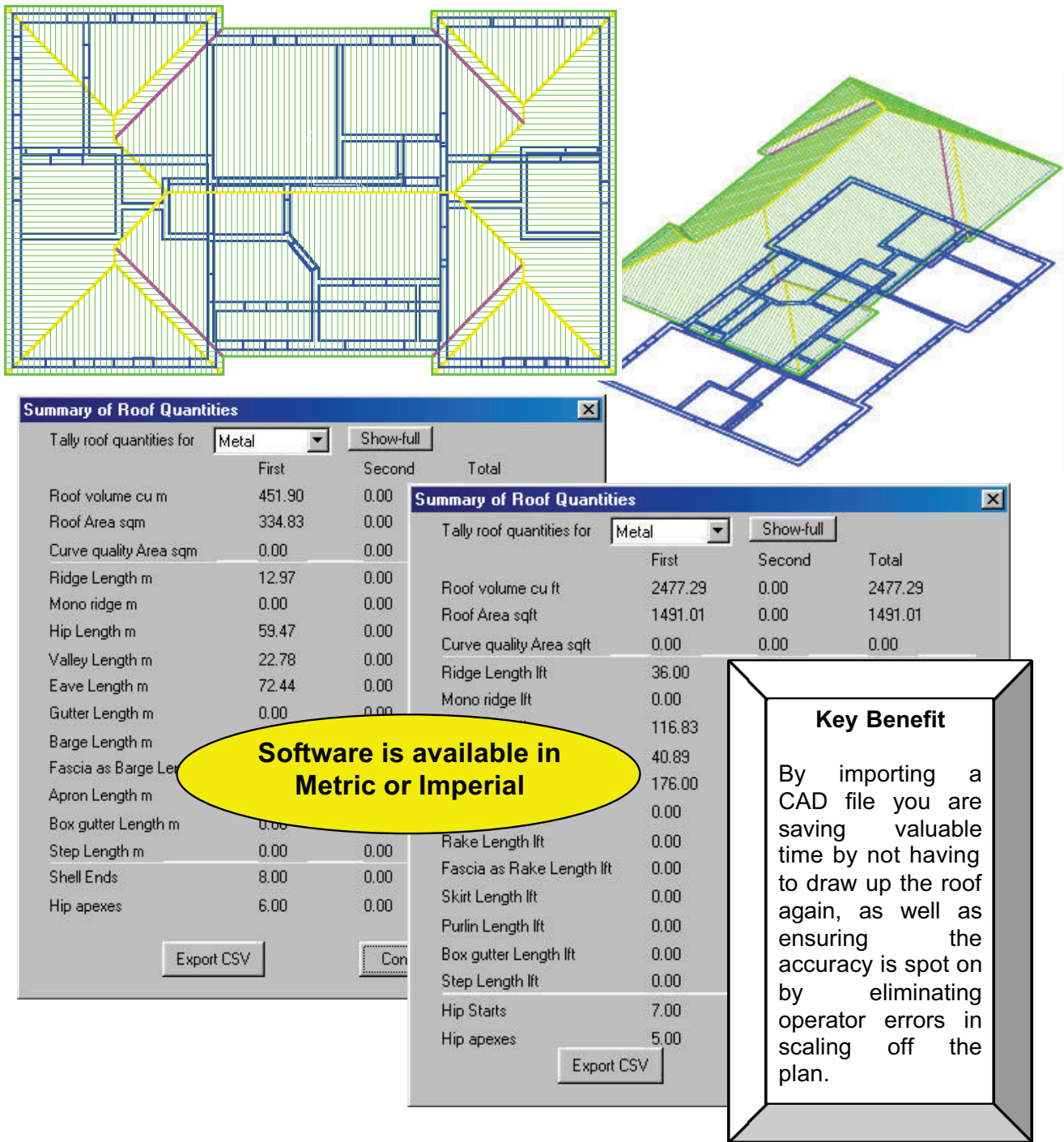
3.Importing Roof or Building outlines from another CAD system

More often than not these days, the roof plans you are working from have been drawn up using a CAD system, and then printed out to hard copy, resulting in thick piles of printed drawings which then need to be scaled off by hand or used in conjunction with a tablet or digitiser. Whilst our software can support the use of a digitiser, it is far easier to use other methods to get the roof outline in. The most obvious one is to import the CAD drawing of the roof plans direct from your customer.

CAD drawings can be saved in various different file formats, and our software supports most of these, but the most common form is the .dxf format (**d**rawing **e**xchange **f**ormat). The real benefit of this is that there is no need to re-scale the plan, and the software will be able to “snap” to the nearest points, thus eliminating a lot of inaccuracies of measuring. The plan below is an imported CAD drawing



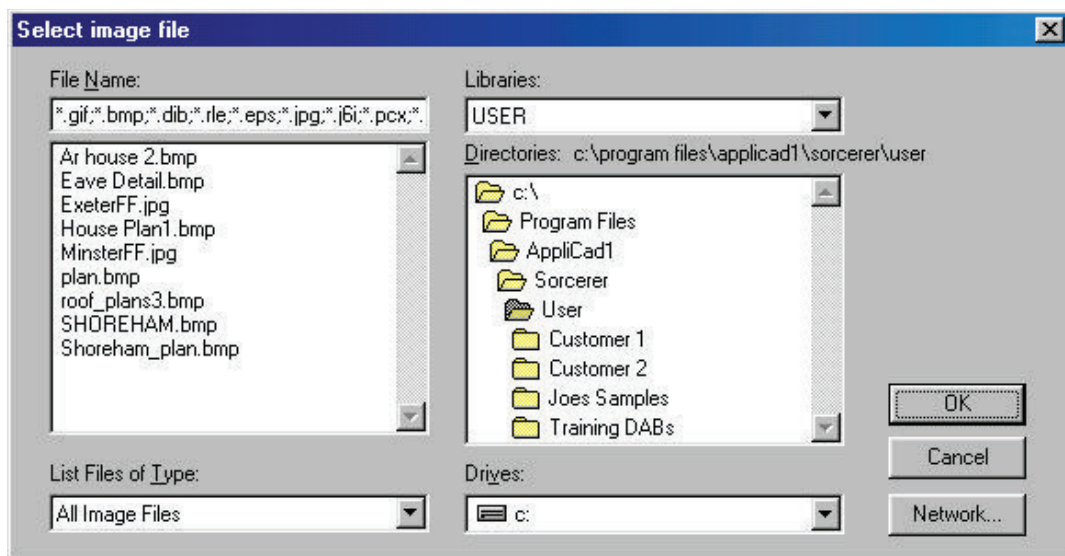
By using the command *Digitise Outline* we can then move the cursor to the extremities of the wall outline, by “snapping” to those points, and after entering the pitch or slope of the roof and the eave offset from the wall, the roof is generated automatically, resulting in an accurate and fast method of working out the areas and lengths. (see overleaf)



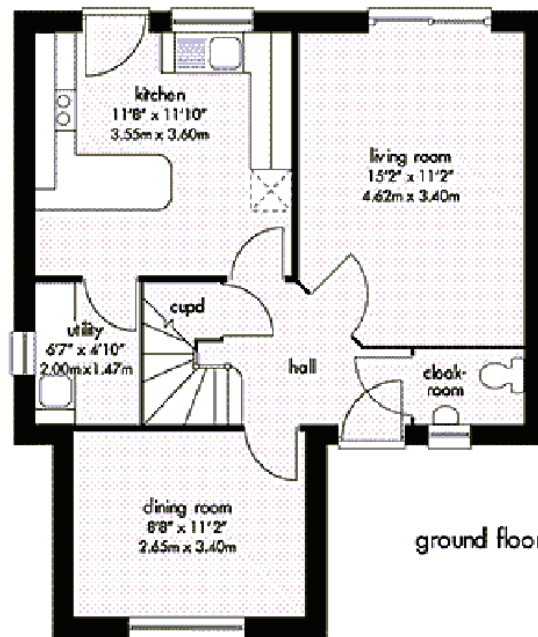
At this point you could then continue and apply the material to the roof to achieve the take-off quantities.

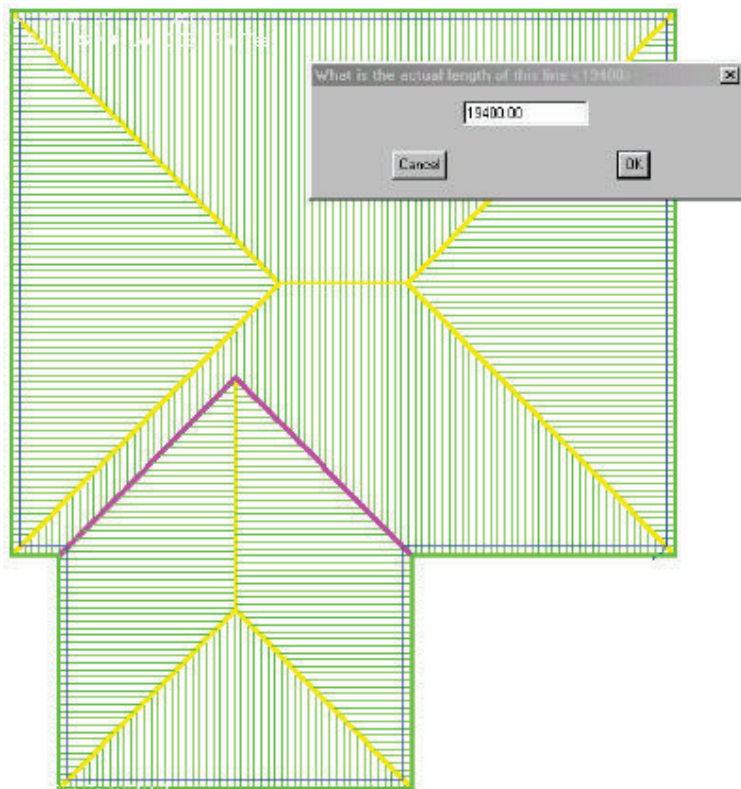
4. Importing Roof or Building outlines from a scanned image or bitmap

We recognize that you may not have the luxury of obtaining the CAD file for the drawing in question, but you may be able to scan the roof plan, using a flatbed scanner. This type of hardware is available at a relatively low cost at most computer supply outlets. Our software can also allow the import of such scanned images directly into the program to eliminate the need to scale the dimensions off the drawing. Note, this feature can also be used if you can obtain the image of the floorplan via the internet. There are a number of web sites that allow you to download the image file for the floorplan you wish to quote on, and our software would allow that downloaded file to import directly into the program.



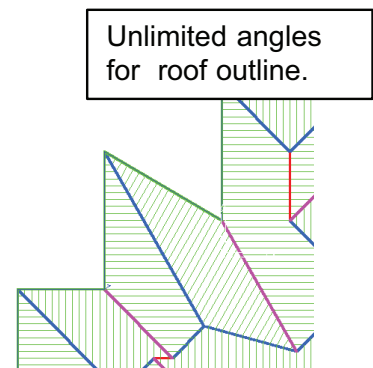
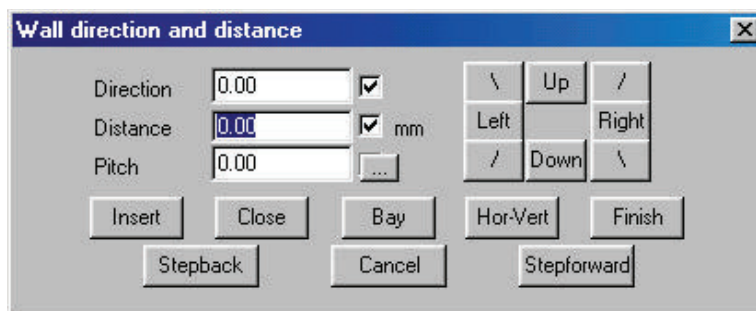
Using the imported scanned image, we can then digitize around the outline, as with the previous example, although this time we need to re-scale the roof once it is generated. You will only need to enter the true measurement from one reference line and the software will then scale the whole roof proportionally.

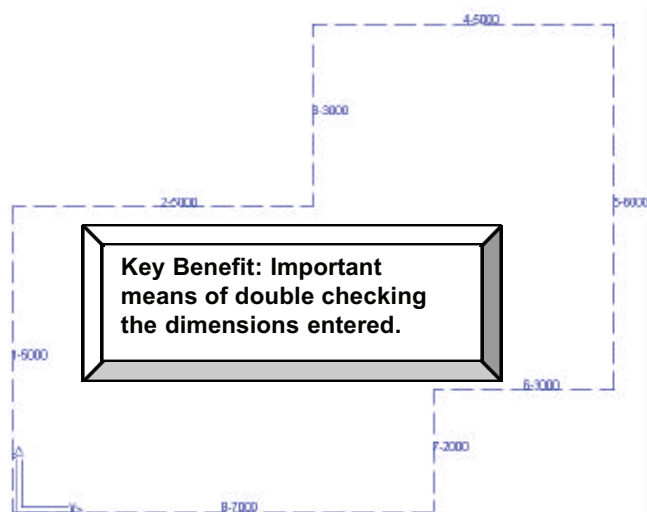
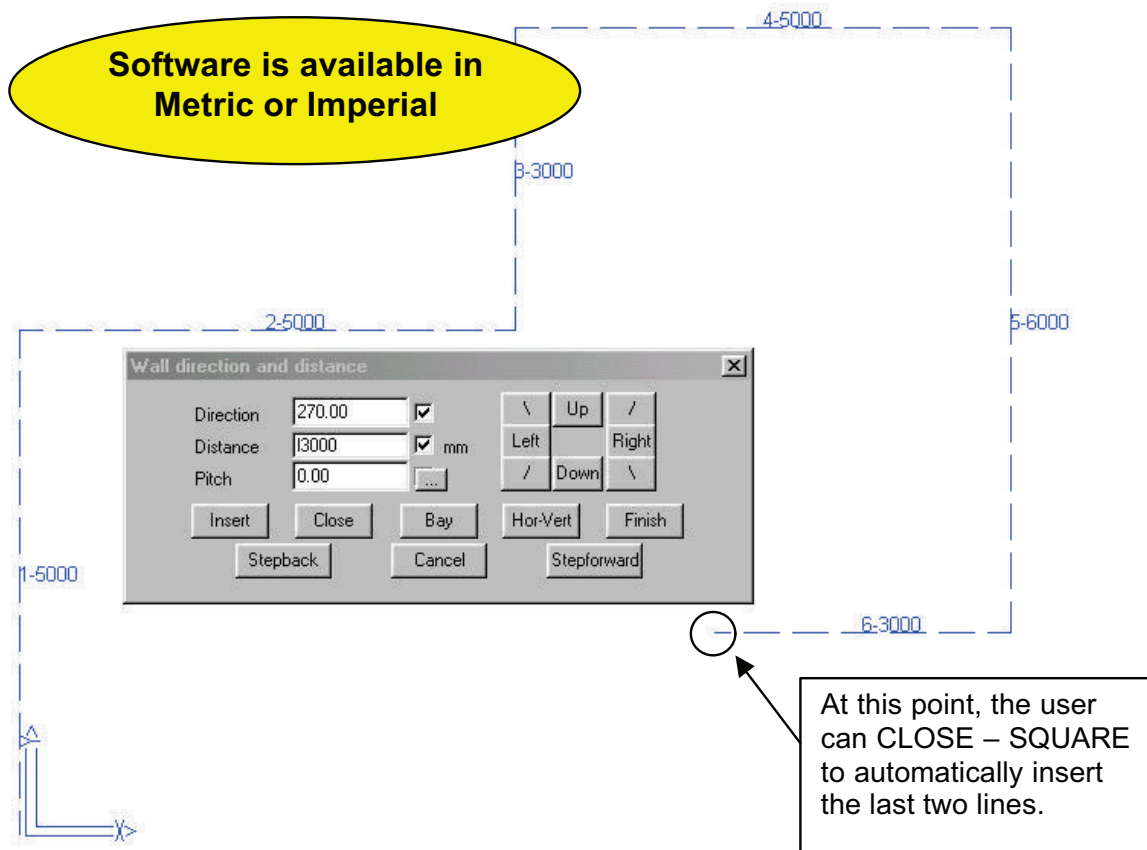




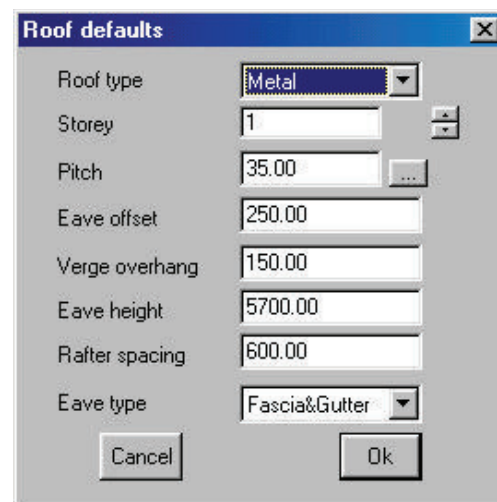
5. Using our Track-Outline Command.

Having mentioned the previous two methods of getting the roof or wall outline into the software, the most common method used is our *Track Outline* feature. This command allows the user to very simply enter the direction and dimension of each wall to produce the wall outline. We have built in a number of features to simplify this process, such as the insertion of Bay windows, or lines at unusual angles. We also invented the idea of “Closing” the outline with a right angle to allow the user to double check that the whole outline squares up, and the outline is of the correct dimensions.

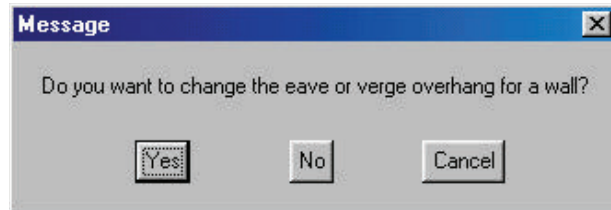
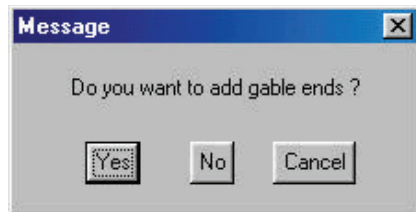




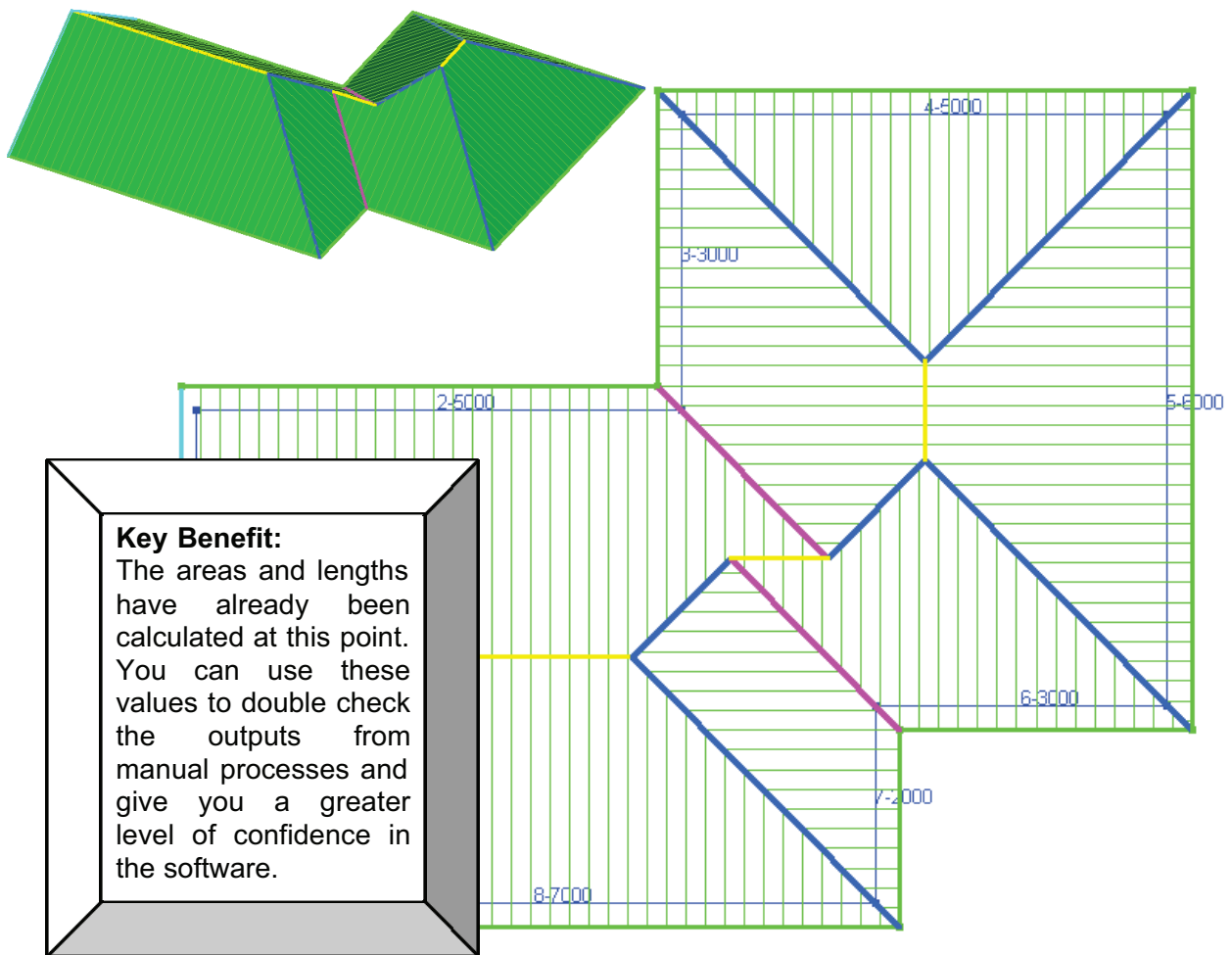
From this outline, the user simply enters the pitch (or slope), the eave offset and the eave height.



At this stage, the software will generate a hipped roof, based on the outline, but we can change any side to become a gable end. We can also change the eave or gable offset from any line.

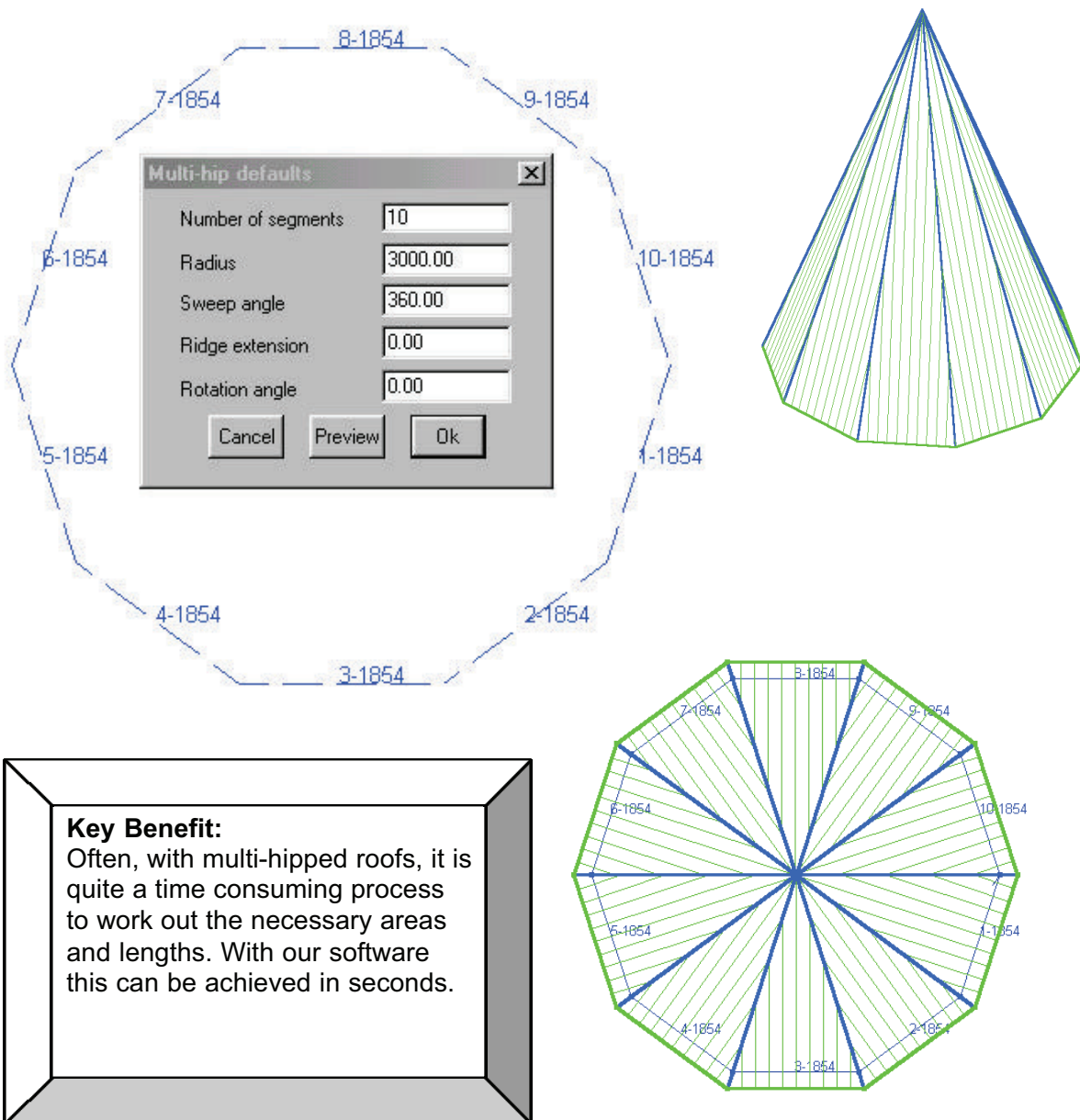


The resulting roof will now be generated and allow the user to view the roof in 3 dimensions to verify that it resembles the roof on the plan.



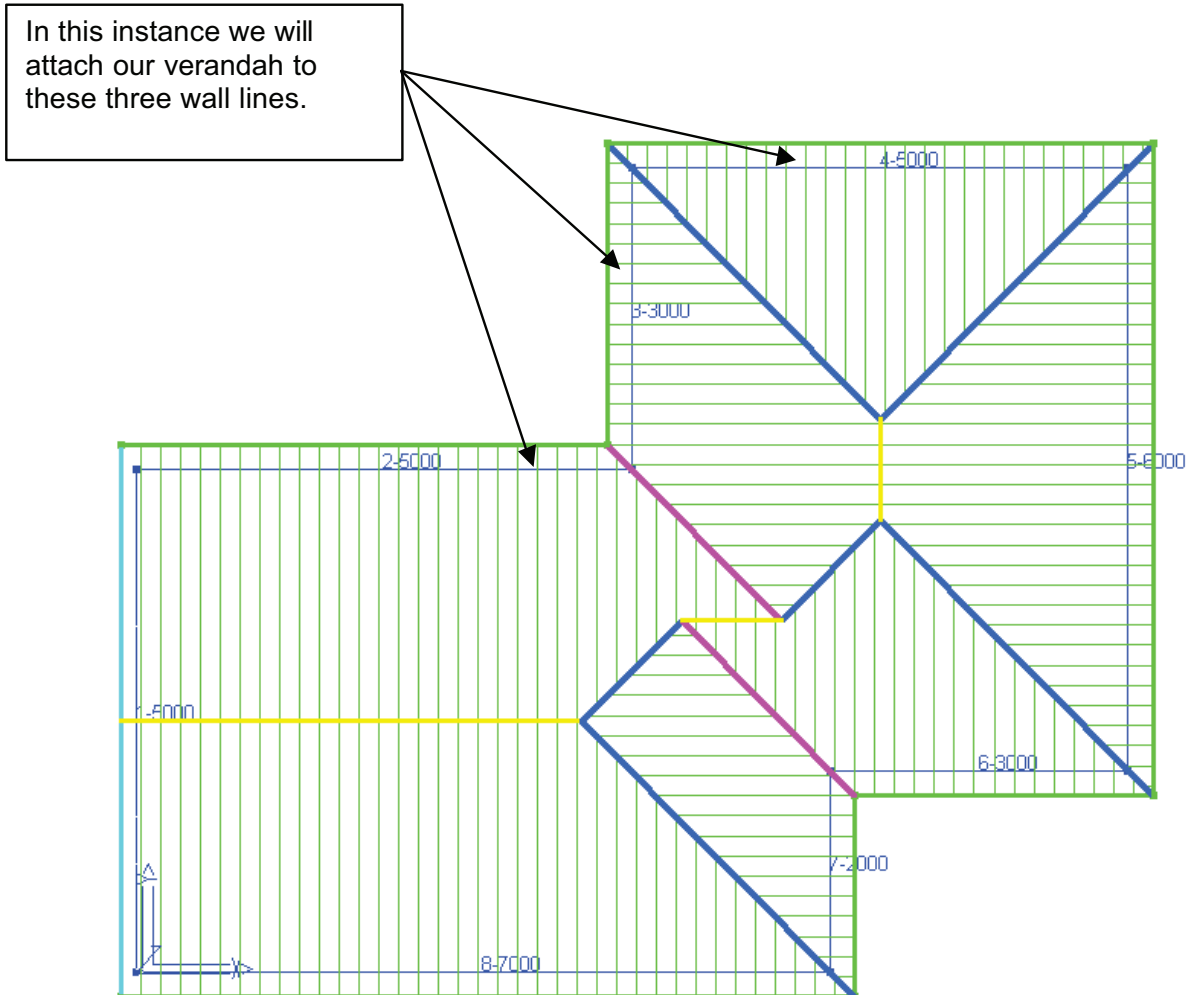
6. Drawing up Multi-Hip Roofs

There are often times when you need to generate part of a roof to have multiple hips, such as a “church spire”. We have built in a feature that allows you to generate this type of roof simply and easily.



7. Drawing up first storey Roofs

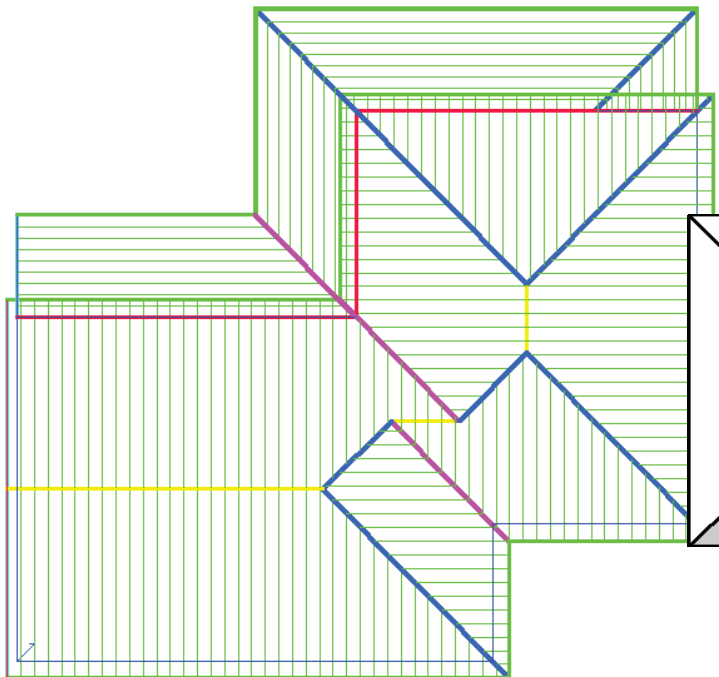
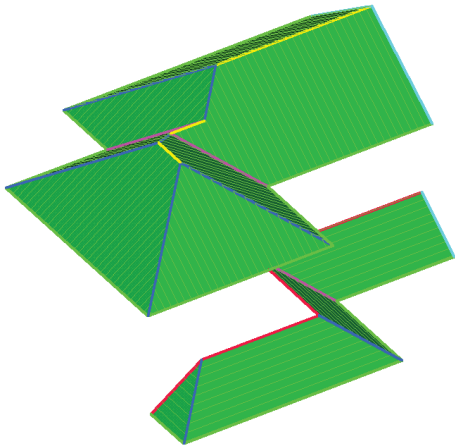
Another useful tool we have added is the ability to generate a first storey roof attached to the wall (or roof) of the second storey. We call this command the *Verandah* or *Porch* command. Once you have generated the main roof, you can then select *Verandah* and click on the lines that you wish to attach the verandah to. These lines can be either wall lines or roof lines.



Verandah defaults

Roof type	Tiles	
Storey	1	
Type of Verandah	Straight	
Fascia configuration	Fascia-Gutter	
Width	1500.00	
Height of gutter	5700.00	
Start preparation	Gable	Fascia&Barge
End preparation	Hip	
Pitch	35.00	
Distance from first point	0.00	
Distance from last point	0.00	
Underlap (for bellcast style)	0.00	

Cancel Preview Ok



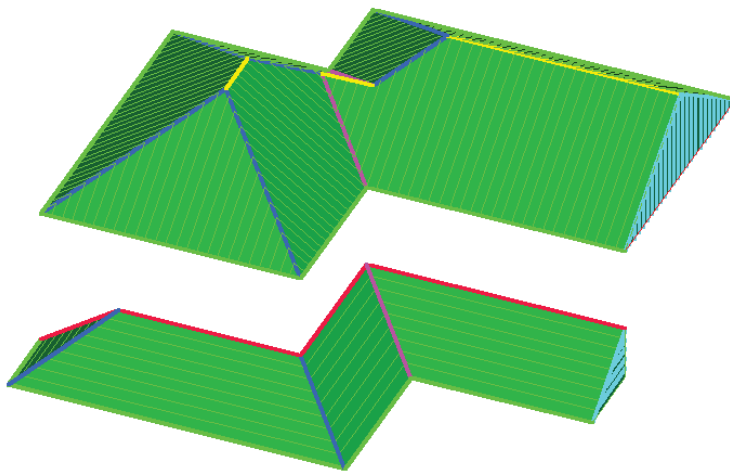
Key Benefit:
When inserting additional roof features, you don't have to remember to add more flashings, the software does it for you.

8. Modifying the Roof

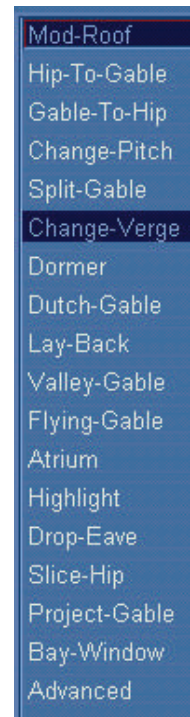
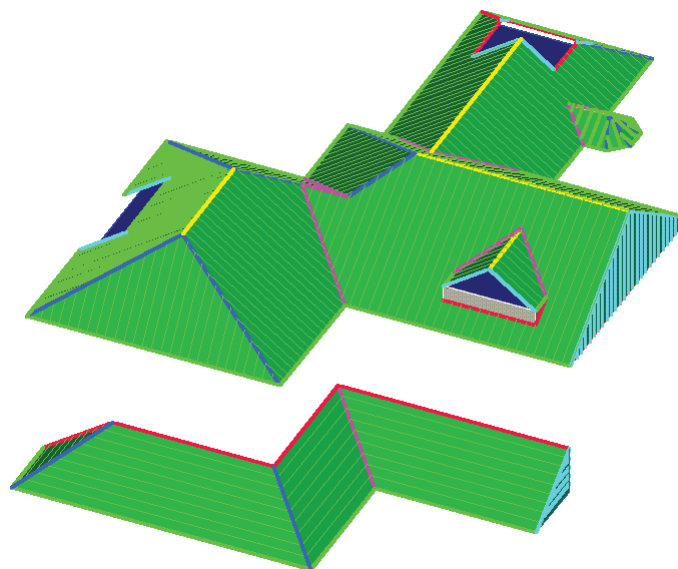
Architects are coming up with more and more complex roof designs these days, and we recognize that not all roofs are simple hip and valley roofs. There are more roofs with dormers, dutch gables, dropped eaves, cut-out sections etc, so we have developed a whole menu of features allowing you to modify the roof to suit these designs. The important thing to remember here is the fact that the software is constantly updating the areas and lengths when inserting new features, so there is no need to manually have to add a length of new ridge everytime a new dormer is inserted for instance.

In this section, we will transform the roof we originally constructed, to add some new features.

We will go from this;

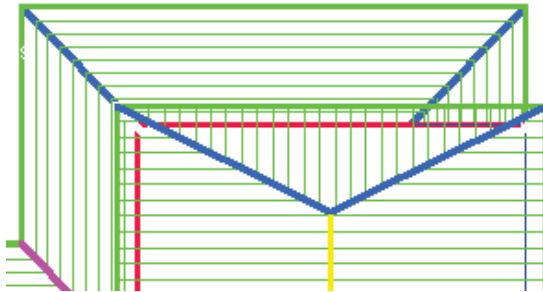


To this;



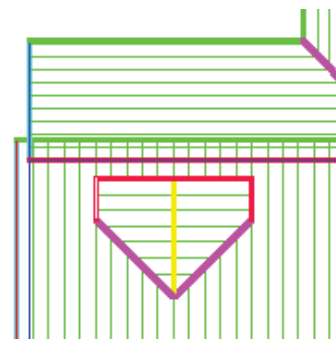
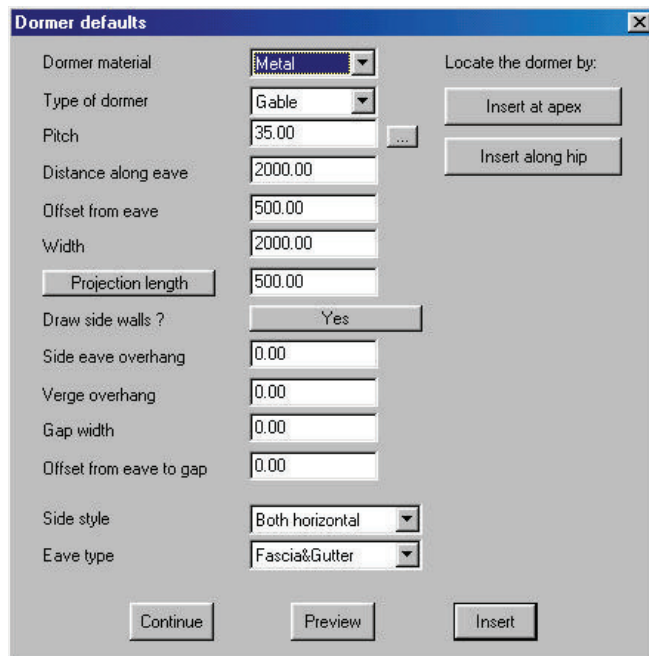
9.Changing the Pitch of any roof planes.

Obviously there will be many roofs where the architect has opted for different pitches of certain roof planes on the same roof. This can be handled easily and quickly using our *Change Pitch* command. You simply select the roof planes you wish to modify and enter the new slope or pitch. Because the roof is drawn up in 3 dimensions, any changes to the pitch will accurately change the length of the associated hips, valleys and ridges.



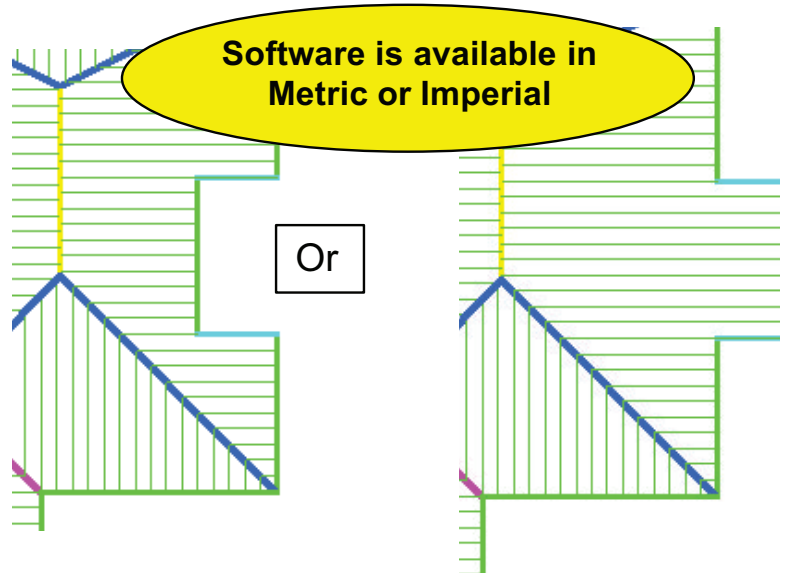
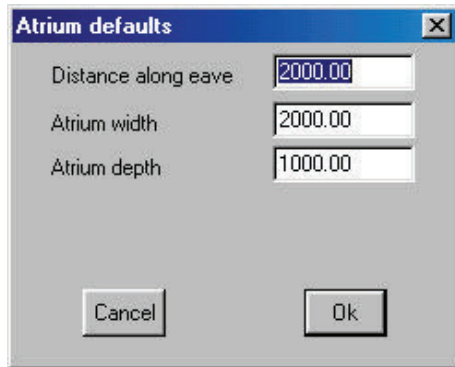
10.Inserting Dormers

Inserting dormers is another simple exercise, using only a few mouse clicks. Our software allows you to create either gable or hip ended dormers, flat roof dormers or curved barrel dormers. We have built in additional features allowing you to insert dormers at hip apexes, or create gaps below the dormer. In the instance, we will simply insert a dormer using the dialog box shown.



11. Creating Atriums or modifying the eave line.

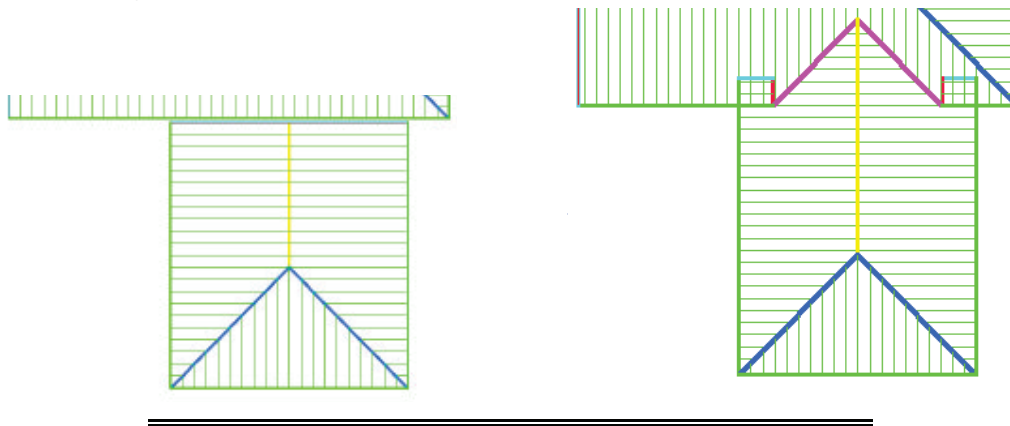
Where there is a need to modify the eave line, for example a chimney stack, entrance way, or even to create a lowered eave at one point, we use a command called *Atrium*.



12. Projecting two roofs together with differing eave heights.

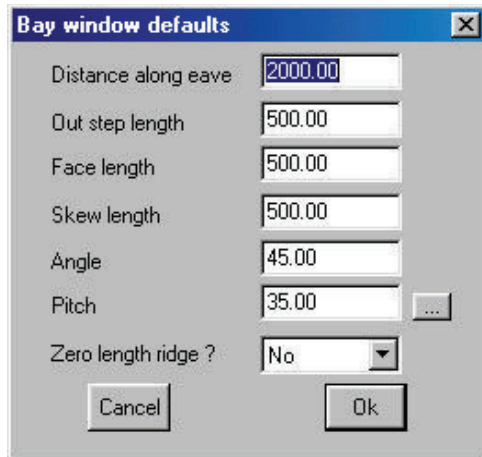
Often, you have a number of different eave heights on the same job, and you will need to combine these different roof planes together to result in the correct geometry for the roof. Manually, this is one of the hardest things to calculate accurately, but with the use of various commands, including *Project Gable* and *Intersect Planes* this is achieved with ease.

In this instance, we will assume there is a garage roof joining onto the main roof but it's eave height is lower.



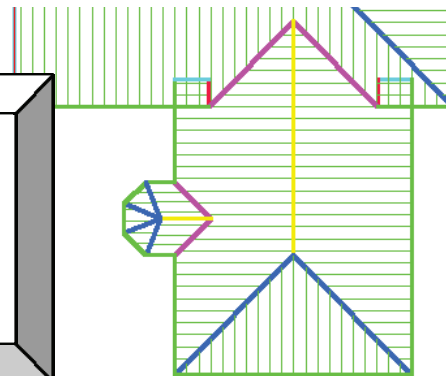
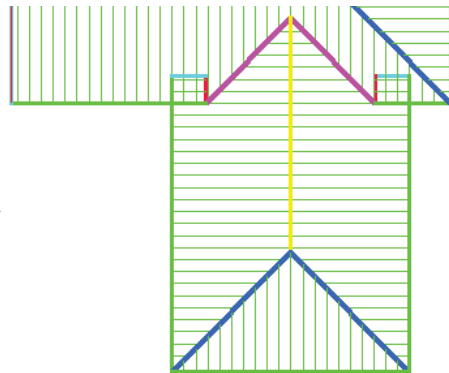
13. Inserting Bay Windows

You may recall that we have built in a command in the *Track Outline* command allowing you to insert a Bay Window. We have also added this command into our *Mod Roof* menu offering you more flexibility as to the size and angle of your bay.



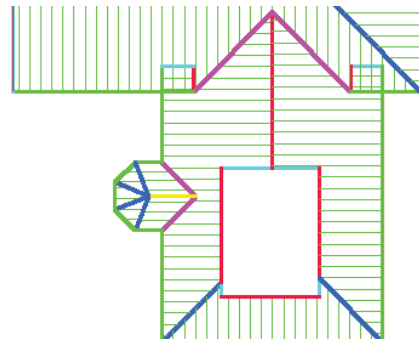
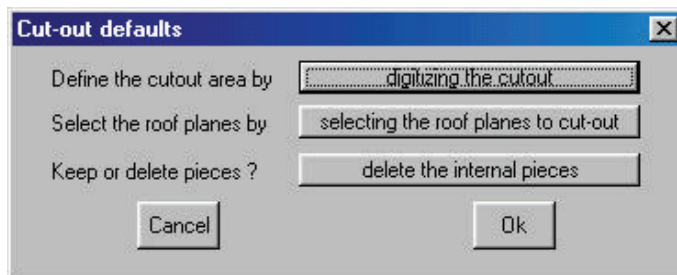
Key Benefit:

All of these features allow you to visually check on the screen that the roof is the same as the one on your plan. You no longer have to trust those numbers you typed into your spreadsheet system.



14. Cutting out sections of the roof.

There will be times when you will need to cut a section of the roof away for a chimney stack or maybe a vent, or simply to butt up to an existing wall line. To achieve this, we have developed a command called *Cut-Out*. You are free to select which roof planes you wish to cut and the size of the cut-out.



15. Covering the Roof:

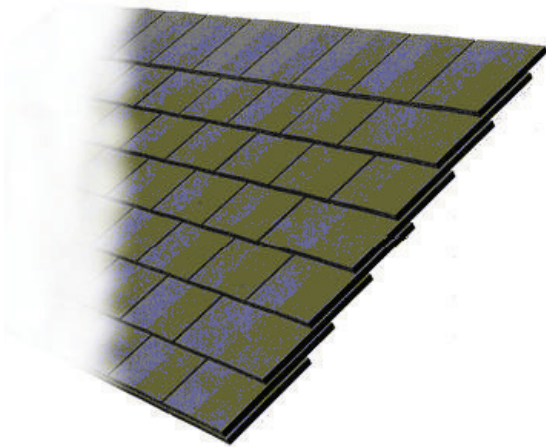
Up until now, we have only concerned ourselves with drawing up the roof shape so that it reflects the roof plan we are working to. As we said, it is extremely important to ensure that the roof plan on the screen resembles the one you are bidding for, and until you are satisfied with the roof geometry, there is little benefit in proceeding. Typically, for the roof shown in the previous section, it may have taken approximately 5 minutes to reach this stage.

Now we need to apply our roofing materials to the roof. These may be tiles, slates, shingles or shakes or metal panels. If it is a low slope or flat roof, we may need to use a Built-Up Roof system (BUR) or apply a Single-Ply material. In addition to the main roof cover, we will also need to quantify for the additional items needed for the roof, such as our flashings, downpipes, insulation, miscellaneous items as well as applying a cost factor for a means of fall protection.

As you may know by now, our software caters for all types of roof cover, but in this section, we will concentrate on Tiles, Metal Panels and Built-up Roofs with bitumen or single ply.

16. Tile & Accessory Selection

Our software is used by roof tilers and manufacturers all over the world, and, to cater for the variations in materials and processes, we have built in a number of features that simplify the process, yet still provide a very accurate means of quantifying the tiles and accessories for the job.



Shown on the following page are a couple of examples of the depths to which our software will go to quantify for not only the main field tiles, but also the hip and ridge tiles, valley tiles and even tile and a halves and eave tiles.

As you know, generally the most accurate method of calculating the tile coverage is by "coursing" the tiles up the roof. Our software caters for this and will even display the coursing lines up the roof, allowing you to see where they are located,

Key Benefit:

You can now save valuable time in calculating the number of tiles, ridge, hip and valley tiles, as well as tile and a halves. The software works these quantities out in seconds.

Example of Tile and Accessory Selection

	Accessory	Colour	Estimation	Nett qty
Ridge	Half Round Ridge [8101]	TERRACOTTA 34		11.4
Mono ridge	Half Round Monoridge [7203]	TERRACOTTA 34		0.0
Hip	Third Round Hip with Nail Holes [7411]	TERRACOTTA 34	by length	19.3
Valley		TERRACOTTA 34	by course	0.0
Eave course		TERRACOTTA 34		0.0
Top course		TERRACOTTA 34		0.0
Left verge	Cloaked Verge System Left [7273]	TERRACOTTA 34	by course	10.0
Right verge	Cloaked Verge System Right [7274]	TERRACOTTA 34	by course	10.0
Hip apex	Third Round Hip/Ridge Junction [9521]	TERRACOTTA 34		1.0
Ridge end	Half Round Block End Ridge [7519]	TERRACOTTA 34		1.0
Shell end	Third Round Block End Hip [7784]	TERRACOTTA 34		2.0
Ridge vent	Dry Ridge System - Half Round [9373]	TERRACOTTA 34		1.9
Eave vent	Redvent Eaves System 450 Centres [918]	TERRACOTTA 34		4.3
Hip system	Dry Hip System [9411]	TERRACOTTA 34		3.2

Example of Tallying up the Material quantities

Category	Manufacturer	Description	Qty	Rate	SubTotal
Roof tile	Redland	Rosemary, Plain - Red, TBA	3751.00	3.00	11253.00
Tile+half	Redland	Tile and a Half, 6509, TBA	223.00	4.00	892.00
Ridge tile	Redland	Rosemary Half Round Ridge (300), 8450, TBA	24.00	5.00	120.00
Mono ridge	Redland	Rosemary Half Round Monoridge, 8484, TBA	0.00	1.00	0.00
Hip tile	Redland	Bonnet Hip 35-42, 8428, TBA	112.00	5.00	560.00
Valley tile	Redland	Curved Valley Tile 40-50, 8432, TBA	0.00	1.00	0.00
Eave tile	Redland	Eaves Tile, 6504, TBA	279.00	3.00	837.00

Example of quantifying for Tile and Halfs

Some of the Manufacturers listed in the UK Database



	Tile+half [6509]	Double tile []
At left verge	Alternate course	None
At right verge	Alternate course	None
At roof to wall	Alternate course	None
At hips	Every course	None
At valleys	Alternate course	None
Reduce field tiles by tile+half pieces ?	Yes	
Number of tile+half : 110		
Number of double tiles : 0		
Set as default		

17.Metal Panel Selection

When selecting the metal panels, you will firstly be shown the database of materials that you previously defined.

Select roof material

BHP	Corrugated 0.42 Met	Painted	0.42
Martins Metal	Corrugated 0.42	Galvanised	15.00
Kingspan	KS1000 RW - Steel	Galvanised - Painted	40.00
Kingspan	KS1000 RW - Al	Pvf2	40.00
Kingspan	KS1000 LP- Al	Pvf2	40.00
Kingspan	KS1000 LP- Steel	Galvanised - Painted	40.00
Kingspan	KS1000 SF- Steel	Galvanised - Painted	40.00
Kingspan	KS1000 SF- Al	Pvf2	40.00
Kingspan	KS1000 SF- Alsh	Pvf2	40.00
Kingspan	KS1000 SF- Steel	Galvanised - Painted	60.00
Martins Metal	Corrugated 0.42	Galvanised	42.00
BHP	Corrugated 0.42Imp	Painted	0.42
Corus	Kalzip 65/333	Galvanised	1.00
Kingspan Sh	KS1000 LP-	Pvf2	40.00
Corus	Kalzip 50/333	Painted	0.70
Corus	Kalzip 50/333	Painted	0.80
Corus	Kalzip 50/333	Painted	0.90

Cancel OK

After making the selection, you then have the freedom to modify the default fasteners, the frequency of those fasteners, as well as selecting additional screws and clips to be used for that particular job. You will also nominate the labour rate that you intend to use to lay this material, as well as selecting the costing associated with fall protection.

Key Benefit:
You define the database of panels to suit your materials to your business. You don't have to search through thousands of items to find the one you need.

Roof metal panel material

Straight metal	Curving metal
Manufacturer Kingspan	Manufacturer
Profile KS1000 SF- Steel	Profile
Product code KS1000 SF	Product code
Finish Galvanised - Painted	Finish
Change	Change
Fastener L10 w TK5	Fastener
Fasteners per sqm 8.00	Fasteners per sqm 0.00
Clip L40	Clip
Clips per m 3	Clips per m 0.00
Coverage width 1000.00 mm	Coverage width 0.00 mm
Seam screw	
Screws per m 0.00	
Seam tape/sealant	
Application rate 1.00 litre per m	
Pay rate schedule Kingspan LP	
Sarking Breather Membran	
Fall protection Sample Fall Protec	
FP Pitch break 90.00	
Cancel	Ok

Software is available in Metric or Imperial

18.Applying BUR or Single Ply to low slope roofs

In addition to providing software for tile and metal roofs, we have also devised a product designed specifically for the flat roofing industry. This can be supplied as a stand-alone product called Roof Maestro, or, if you are also involved in tiling or metal, you could utilize Sorcerer, which encompasses all roofing types. For flat roofing, we have designed two separate methods for the take-off, one for built-up roof systems, i.e. “3 layer plus chip” and another for single-ply layout.

From a take-off point of view, when you are defining the materials, the software simply needs to know the size of materials used in square meters or squares, and in the case of single ply, the width of the rolls, along with the costs associated. Below is the typical definition screen for this process;

Define Membrane [rec = 0 of 14]

Manufacturer

Name

Code

Description

Unit type

Area method for BUR

Large size in sqm	0	Cost	0.00
Small size in sqm	0	Cost	0.00
Labour rate /sqm	0.00		

Layout method for single-ply

Perimeter sheet width	0.00	mm		
Length	0.00	mm	Cost	0.00
Length	0.00	mm	Cost	0.00
Field sheet width	0.00	mm		
Length	0.00	mm	Cost	0.00
Length	0.00	mm	Cost	0.00

Select Delete Add

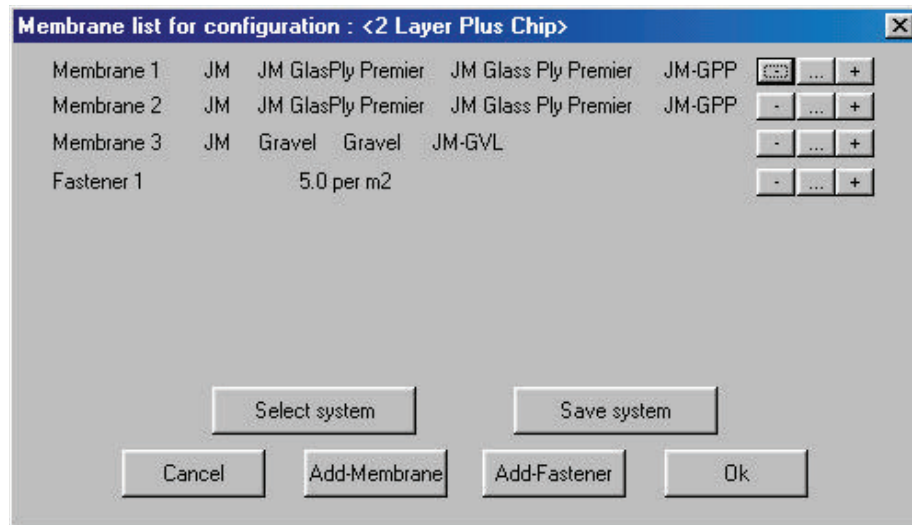
Cancel Ok

Key Benefit:

You have the flexibility to define the materials you use on a day to day basis. New materials can be added to the roof modeling process at any stage.

Laying out BUR

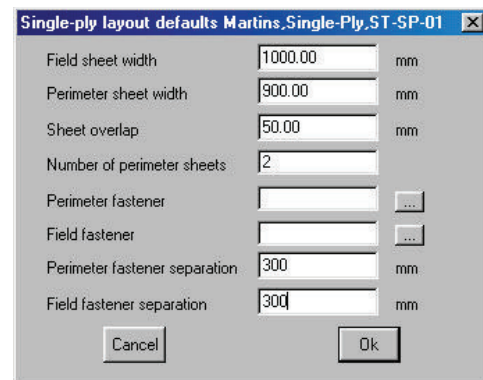
Obviously, when you are applying a membrane product to the roof, you will normally apply it in a series of layers and you will normally need to quantify for fasteners also (this could be liquid fasteners). At this stage, we have simply defined one individual membrane product, but now, when we are applying it to a roof, we need to create, or select a “system” of BUR.



This may be a typical “system” of BUR, consisting of several layers of membrane and a fastener. These systems can be modified on a job by job basis, or can be saved for future use. When you then select “Apply to Plane” the software will then quantify all of these materials, based on the size of the roof, to report how many rolls, drums, tonnes, kilo’s etc for membrane and how many fasteners required, and the relevant costs associated.

Laying out Single-Ply

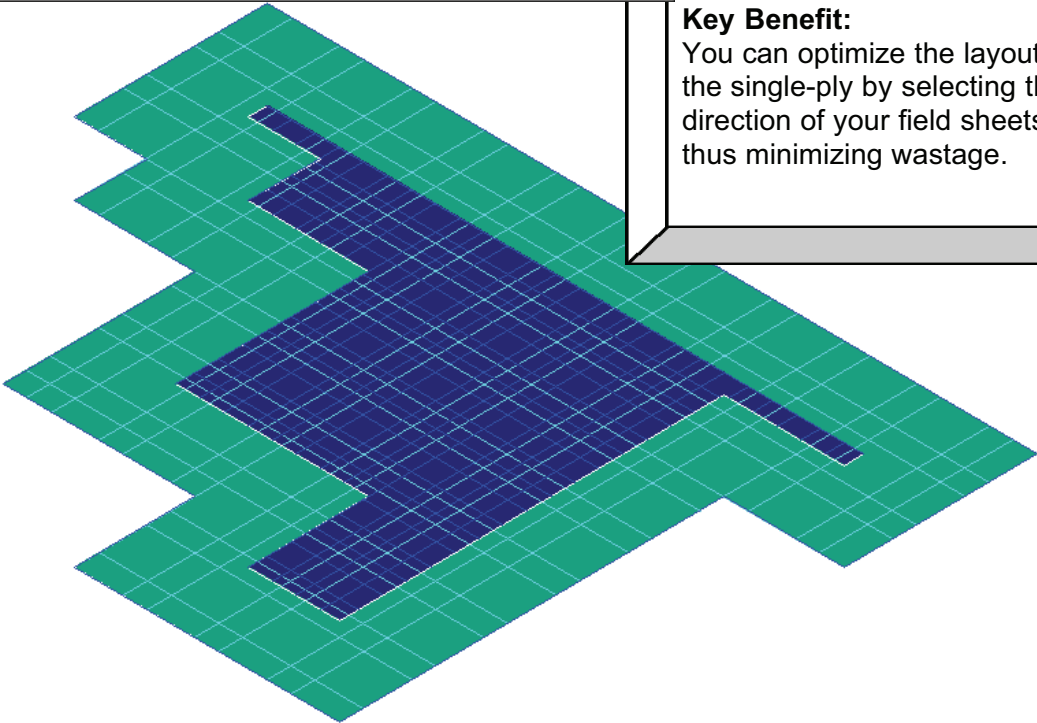
Single Ply works in a slightly different way, and uses the width of the roll for take-off, reporting the total length of roll, and then converting that into the number of rolls required. Also with single ply, you can elect to run a number of perimeter sheets around the roof, followed by the field sheet, and you can tell the software which direction you intend to lay out the field sheets. You can also allocate different fasteners for laying out the field sheets as distinct from the perimeter sheets.



Single-ply layout quantities Martins.Single-Ply.ST-SP-01	
Perimeter length	140000.3
Number of large perimeter rolls	14
Number of small perimeter rolls	0
Field length	23700.4
Number of large field rolls	0
Number of small field rolls	1
Number of perimeter fasteners	466
Number of field fasteners	79
Continue	

Software is available in
Metric or Imperial

Key Benefit:
You can optimize the layout of
the single-ply by selecting the
direction of your field sheets,
thus minimizing wastage.



19.Applying Flashings – Standard

As you know, flashings can be divided into two distinct categories, when it comes to costing a job. There are the standard “off-the-shelf” flashings that are supplied in a range of sizes and profiles, and there are “Custom Profile” flashings that are costed and supplied based on the “girth” and the number of bends. Custom profiles normally follow a set of profiles, but vary in size from job to job.

Define flashing (rec = 2 of 11)

Type of flashing

Gutter

Manufacturer

BHP

Finish

Painted

Fastener code

BHFP1265HT17

Description

0 Gee Gutter

Product code

OG60--

Fasteners per m

0.50

Maximum length

10000.00

mm

Costing method

per meter

Cost per unit

1.00

Estimation method

Split each run up to the maximum length

Pay rate schedule

Default

SelectDeleteAddUpdate

CancelAccessoriesStock-LengthsOk

The first thing we will introduce is the Standard Flashing. When you first receive the software and begin to define your flashings, you will notice that there are a number of features, within the material definition, that will help to replicate the manual methods you currently employ to quantify flashings. These include setting the maximum length of flashing, cost per piece or per unit of length, how you wish to quantify the flashing, i.e. charge for stock length pieces, add up total run length and divide into stock length pieces etc, if there is a specific labour rate that applies to that flashing, and what accessories do you wish to quantify automatically.

These accessories can be set for a variety of frequencies, i.e. per run, per piece, per internal corner, per unit of length.

Define Accessories - page 1 of 3

Flashing accessories for BHP, 0 Gee Gutter, Painted, OG60--

Gutter alone

Accessory Name	Product code	Finish	Items per box	Cost per box	Number	Estimation method	Fastener timber frame	Fastener steel frame	Number of fasteners
External bracket	EB-1	Painted	1	1.00	900.00	mm spacing along flashing (nett)			0
External corner 90	EXCNR-9	Painted	1	1.00	1.00	per external corner (90)			0
Internal Corner 90	INTCNR-	Painted	1	1.00	1.00	per internal corner (90)			0
Stop end left	SE-L	Painted	1	1.00	1.00	per free left hand end			0
Stop end right	SE-R	Painted	1	1.00	1.00	per free right hand end			0

Key Benefit:

Ensure that the profits for the job are not eaten away by forgetting to include that box of clips and brackets in the quote. Our software will automatically includes ALL relevant accessories and fasteners, in exactly the way that you defined them.

When applying these flashings, the first thing we need to do is to set the Allowances. In general, this is something that you will only need to set once, although there may be times when you will need to change these values.

Flashing allowances

	Run allowance	Lap allowance	Internal corner allowance	External corner allowance
Ridge	150	175		
Hip	150	175		
Valley	150	175		
Barge	150	175		
Fascia as Barge	150			
Batten	150			
Apron	150	175		
Box gutter	150	175		
Step	0.00	175		
Custom	150	175		
Gutter	175	175	100	100
Fascia	.00175	175	100	100
Combine similar length flashings		100		
Minimum run length		1000		
Round off flashings to next		10mm		

CancelSingle-AllowOk

Note: Our software takes into account the **ACTUAL** stock lengths of the flashings and then applies the allowances, so that the cutting list will accurately reflect the lengths available in your inventory.

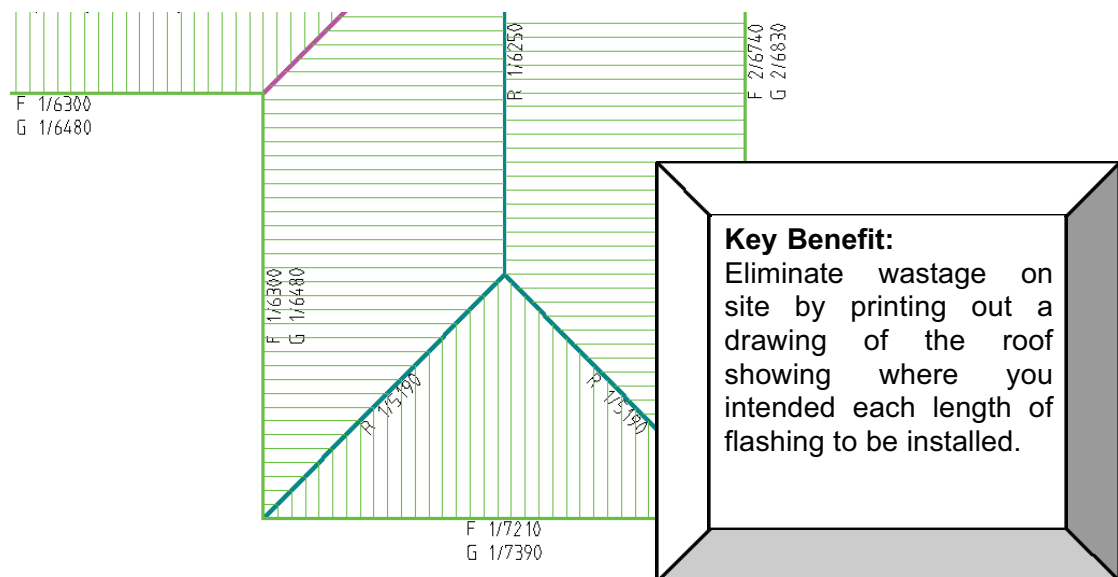
Remember that we set the stock length sizes when we defined the flashings originally, so it is important to set the correct overlap and run allowances to make sure that we quote for sufficient material to actually install the flashings.

When applying the flashings on the roof, we need to select the flashing required at each part of the roof, i.e. hip, ridge, gable, etc and select different colours, if applicable. Shown below is the flashing selection box, where you select the flashings required. Once happy with your selection simply select *Generate* and the software will then calculate the necessary lengths of flashings required, along with all accessories that have been automatically quantified.

Flashing Type	Description	Color Selection
Ridge	BHP,BHP Ridge capping,Painted,BHPRC1	Heritage Red
Hip	Same as ridge,...	
Valley	BHP,Valley,Galvanised,VRCTLGA	
Fascia	BHP,Metal fascia,Painted,FBHT42CTL--	Heritage Red
Gutter	BHP,D Gee Gutter,Painted,OG60--	Heritage Red
Barge	BHP,Rake flashing,Painted,CBVCTL--	Heritage Red
Apron	BHP,Apron,Zincalume,APRON-1234	
Box gutter	BHP,BoxGutter,Zincalume,BG-1234	
Step flashing	BHP,Step flashing,Galvanised,SF-1	
Batten	BHP,Lightweight purlin,Galvanised,RB4075	Insert

Buttons: Allowances, Generate, Delete, View-List, Single-Line, User-List, Set as Default, Show, Set Colour, Ok

On the screen, the lengths and sizes of the flashings needed will be displayed and this information can also be printed out on a drawing, to assist in the installation.



After generating the flashings, a cutting list is displayed and this can clearly be compared to the drawing on the screen to see where the flashings have been allocated.

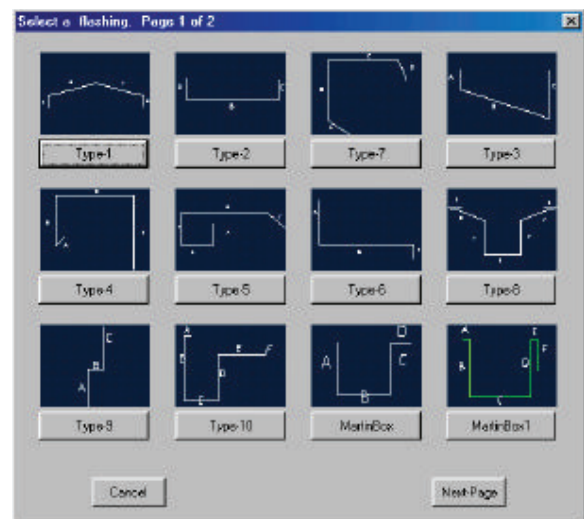
Flashing cutting list summary	
Ridge BHP,BHP Ridge capping,Heritage Red,BHPRC1	
2/6250 5/5190	
Total : 38450	
Valley BHP,Valley,Galvanised,VRCTLGA	
1/8000	
Total : 8000	
Fascia BHP,Metal fascia,Heritage Red,FBHT42CTL--	
2/7210 4/6740 2/6300	
Total : 53980	
Gutter BHP,O Gee Gutter,Heritage Red,OG60--	
2/7390 4/6830 2/6480	
Total : 55060	
ExportCSV Accessories Continue	

Accessories list		
Name	Code	Qty
Fascia bracket	FB-1	59
Snap clip	SC-1	59
External bracket	EB-1	59
External corner 90	EXCNR-90	5
Internal Corner 90	INTCNR-90	1
Stop end left	SE-L	0
Stop end right	SE-R	0
Continue		

As you will note from the above list, some items are quantified as stock length pieces, i.e. the Valley is shown as one length of 8000, however other items are shown in individual length sizes, based on the lengths needed. This has been determined by the way you defined these flashings.

20.Applying Flashings – Custom Profile

Because a lot of metal flashings and trim are made up from flat sheet and formed to suit the profile for the job, we created the ability to allow the user to firstly define a series of flat sheets, of differing thicknesses, materials and sizes, and then to create a series of “custom profiles”.



When applying these flashings to the roof in question, you then select the flat sheet that you wish to form the custom profile out of, then select the actual profile. You can modify the sizes of each part of the profile to suit the current job. When reporting a cost for that flashing, the cost is based on the girth and number of bends that make

Define profile dimensions for <Type-1>

	Length (mm)	Angle
Segment A	50.00	
Segment B	200.00	105.00
Segment C	200.00	150.00
Segment D	50.00	105.00

Cancel Accept

up the profile, and can even report the quantity of flat sheets that are required to manufacture those flashings.

Flashing cutting list summary

Ridge Johnson, Profile: Type-1, Galvanised, Flat Sheet 1
5/2400
Total : 12000
Flat sheet Flat Sheet 1, @ 2

ExportCSV Accessories Continue

21. Applying Insulation and Fall Protection

When applying insulation, we have built in a similar ability to that of laying a built-up system. You can either apply insulation as a single product on any or all of the roof planes, or you can apply a “system” of insulation, which may consist of 4 or 5 different layers of insulation and fasteners.

Insulation list

Insulation 1	Sample Supplier	Aluminium foil	Al foil	AF-1	...	+
Insulation 2	Hilltop Slate	Roofing felt	Roofing felt for slate	HS-RF	...	+
Fastener 1	BHP	12x65	Hex Head type 17	BHFP1265HT17 10.0 per m2	...	+

Select system Save system

Cancel Add-Insul Add-Fastener Ok

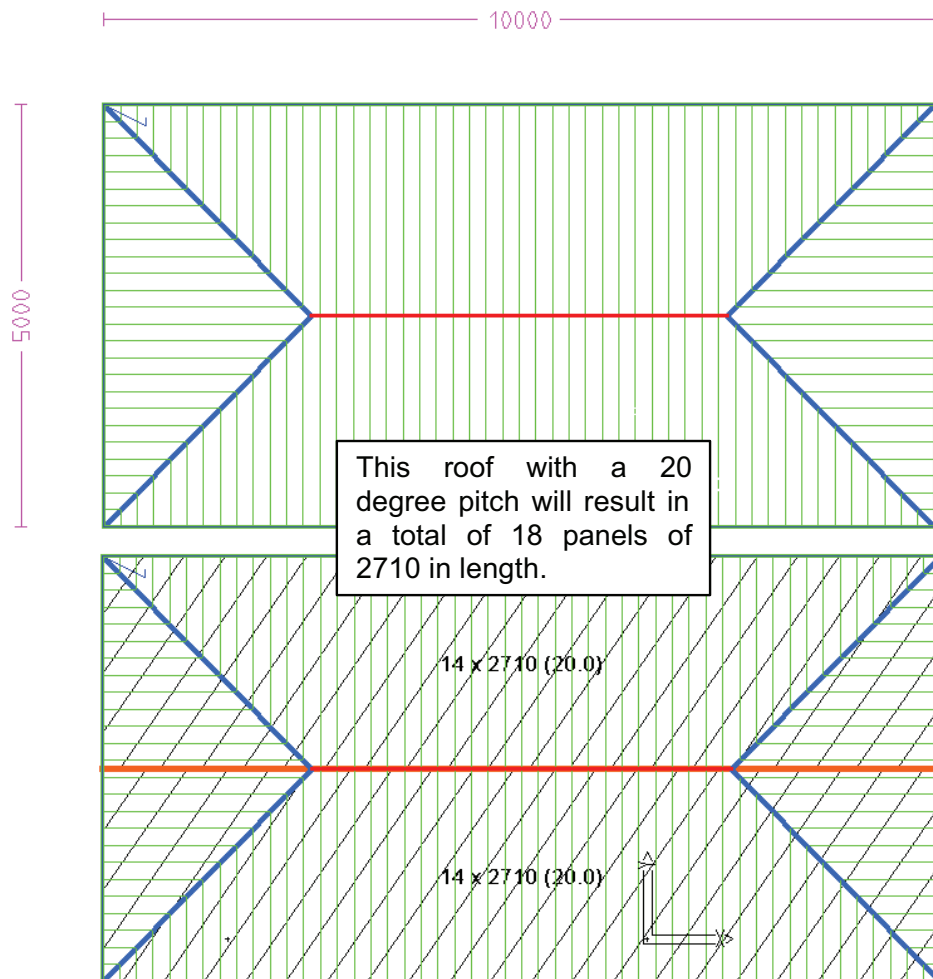
Applying Fall Protection can either be applied automatically to all eaves on a second storey roof or above, or can applied to any roof planes above a certain pitch, or can be applied manually to any lines selected. You can also set up fall protection using “anchor points” and apply these around the roof and cost them accordingly.

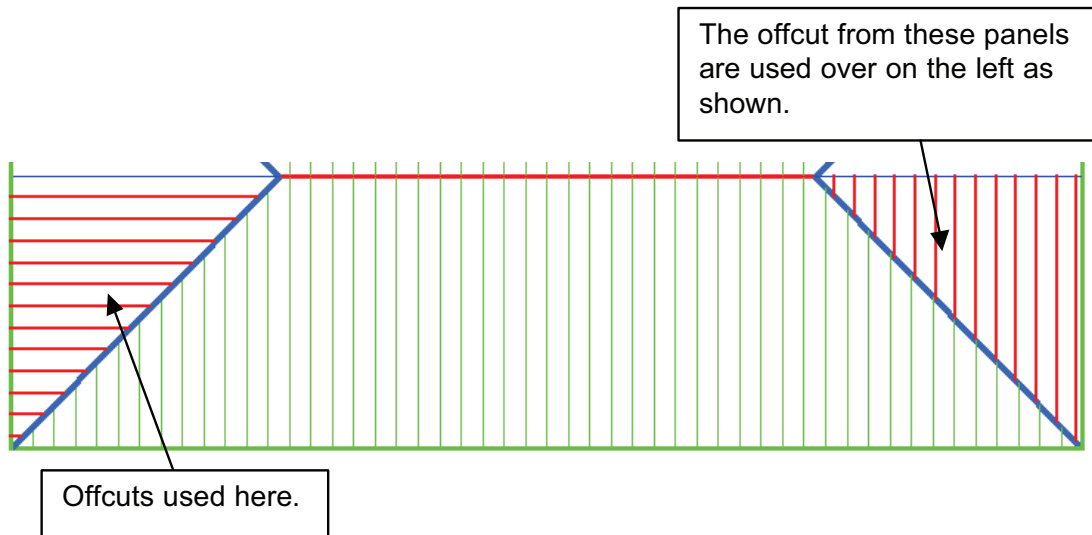
22. Estimate the Materials:

When applying metal panels to the roof, there are various methods that can be utilised. Depending on the widths of panels, and also the traditional methods used in that particular region, some roofers prefer to “Block” the roof out (see explanation below) to achieve minimum wastage, whilst others will utilise our “Gen-Panels” approach where panels are “sided” and the off-cut cannot be utilised elsewhere.

23. Explanation of Blocking the Roof to minimize wastage

The blocking command originated in Australia where roofers told us how they quantified for their metal panels on the roof and how they utilized the off-cuts and wastage. The way it is done is to quite simply lay the metal panels on the roof in a series of blocks. Each block consists of a quantity and length of panels and hips and valleys are effectively ignored, knowing that the offcut from each panel leading up to a hip and valley can be used on another part of the roof.





24. Offsetting the roof for greater accuracy

In order to simulate the real-life situation of laying panels on the roof, taking into account the clearances of the panels at hips, ridges and valleys, we were asked by one of our customers who is a major manufacturer of metal roofing panels, to more closely replicate the actual quantity on the roof.

Panel allowances

Offset roof parameters

Gutter overhang	50.00
Hip clearance	50.00
Ridge clearance	50.00
Gable clearance	25.00
Valley clearance	50.00
Apron clearance	50.00
Batten thickness	150

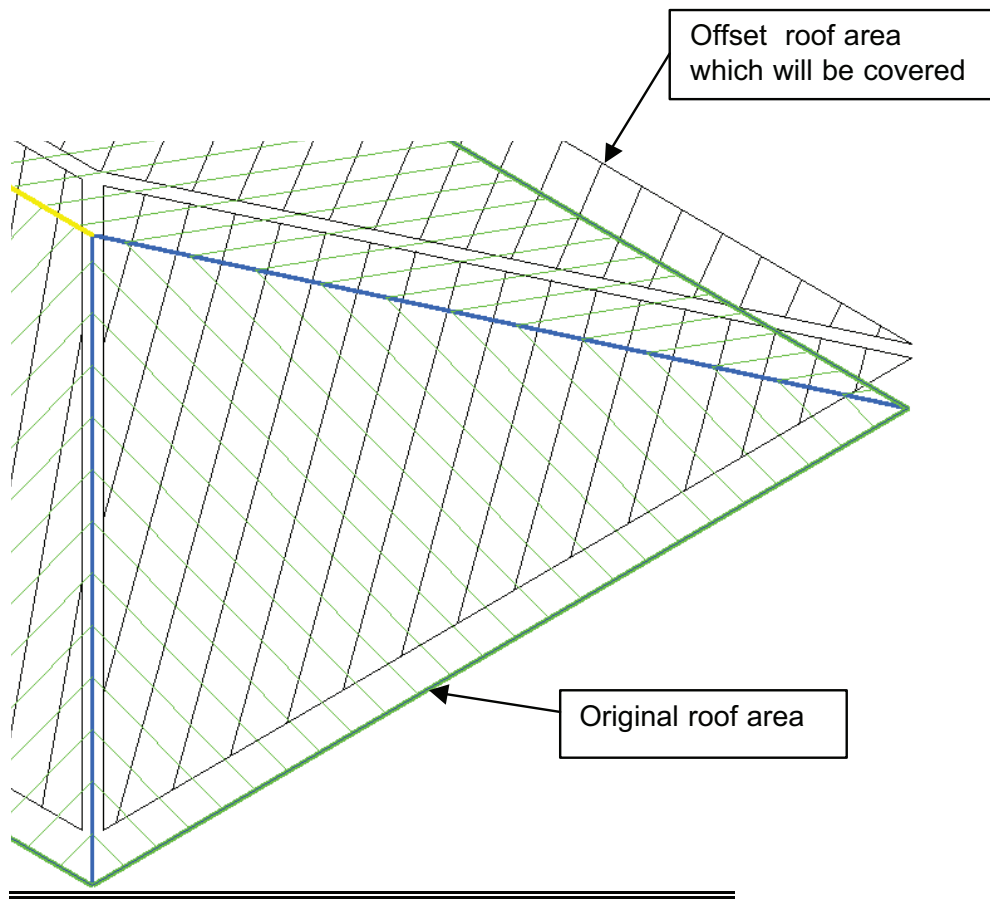
Generate panels parameters

Panel side underlap distance	0.00
------------------------------	------

Tally panels parameters

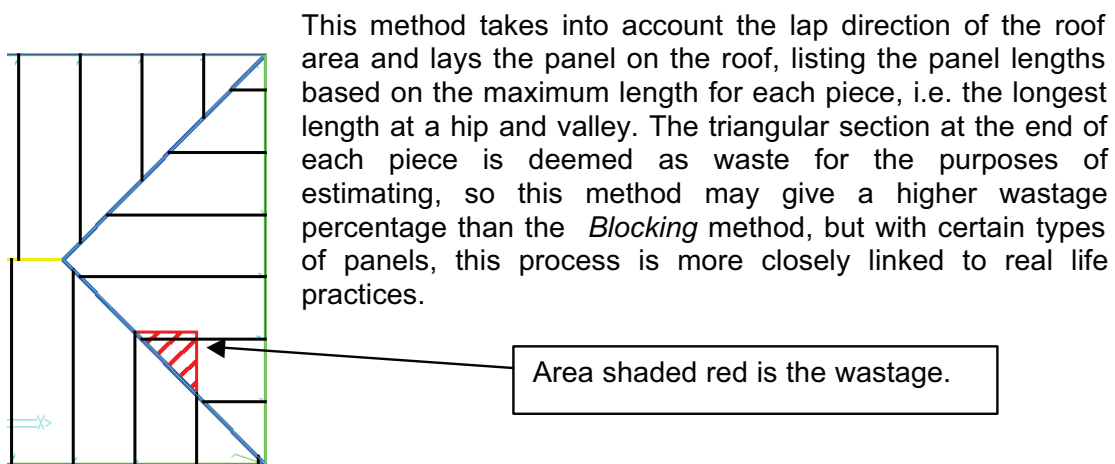
Combine similar length panels	500
Round off panels to next	10mm
Annotate panels with	Identifier and panel length

Cancel Ok

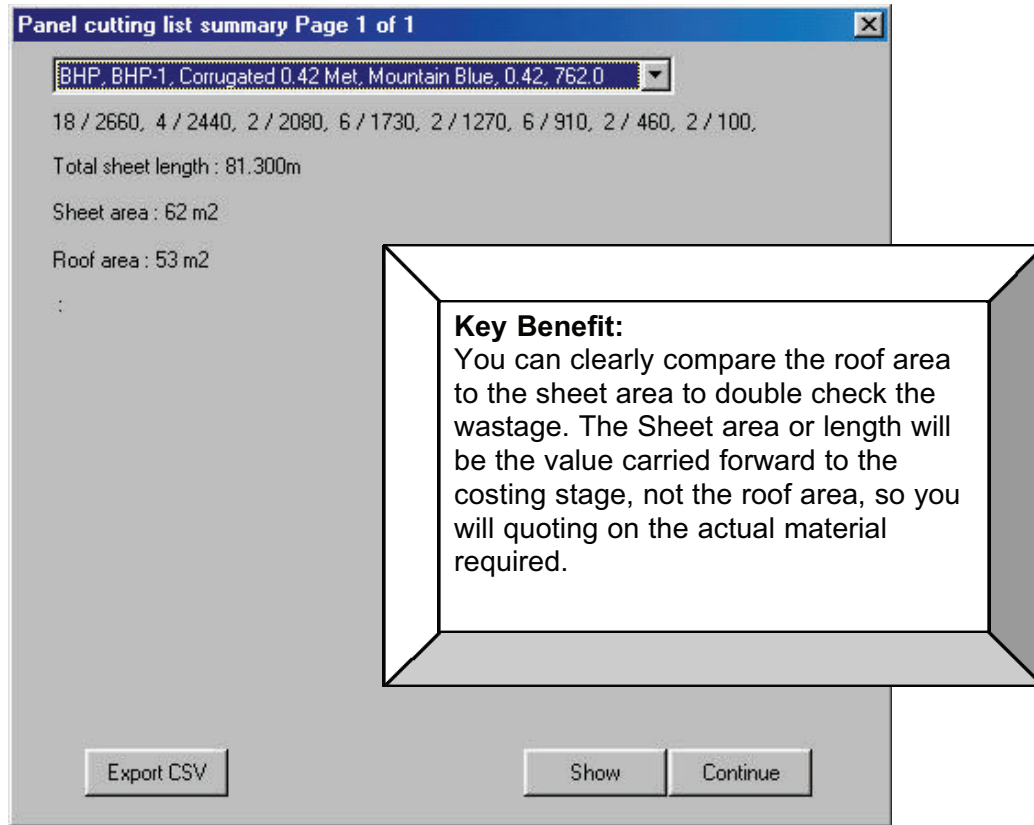


25. Generating Panels the conventional way

The blocking method is one method of quantifying the roof cover, but another method commonly used is what we call the *Generate Panels* method.

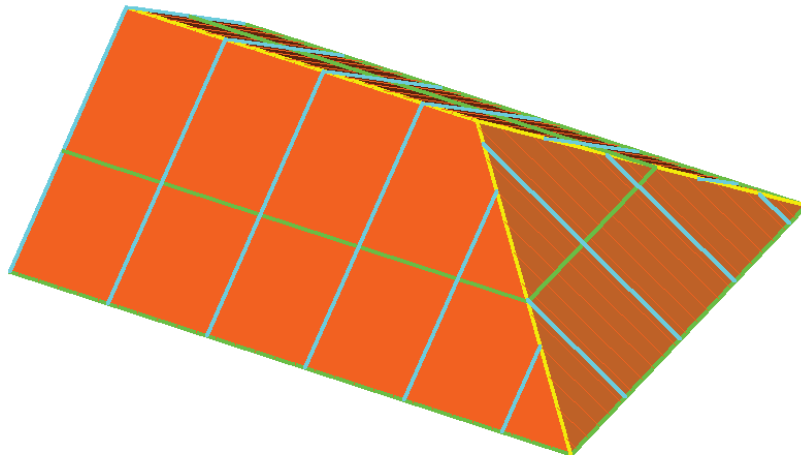


Whether you use the *Gen-Panels* approach or the *Blocking Method*, you will want to *Tally* the panels or blocks. The end result will show the complete cutting list for all of the panels on the roof, showing the total panel length, area and roof area, so that it is easy to see the amount of wastage reported.



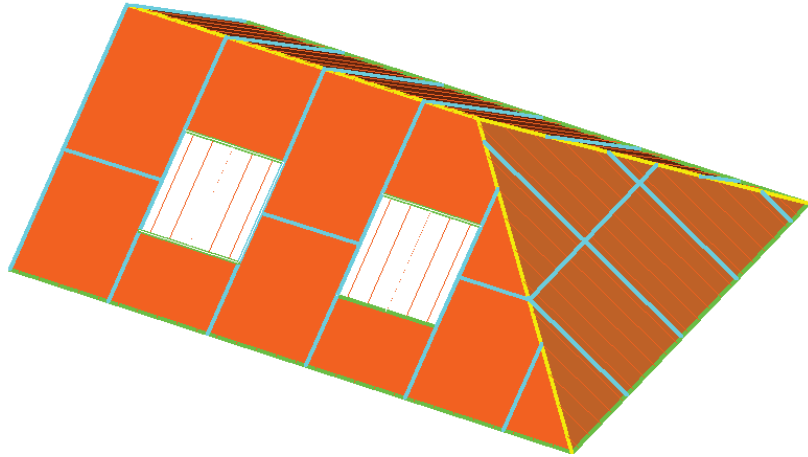
26. Splitting Panels for commercial and long span jobs.

As a lot of metal roofing jobs in the commercial sector requires potentially a long panel length, and because handling restrictions can often mean that the panel needs to be joined, we have now added the ability to break the panels at any locations along the purlin centers.



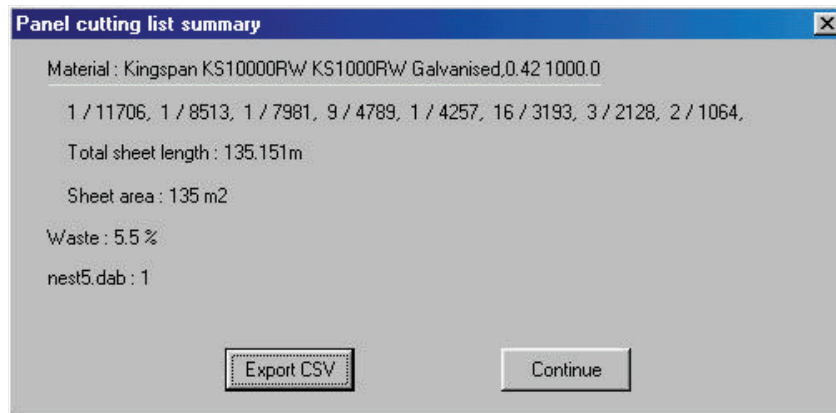
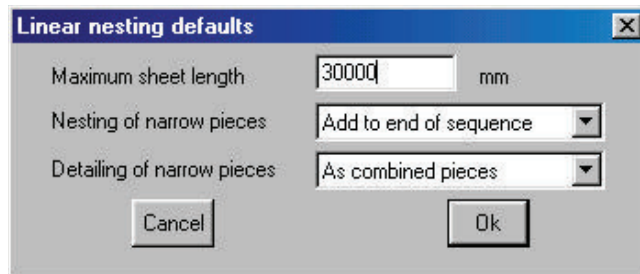
27. Inserting Translucent Panels

Another thing that occurred to us whilst developing the split panel command was to allow the insertion of a different panel, ideally a translucent, at any point on the roof. The software will also report the total square area of the translucent, allowing you to compare with the roof area, thus enabling you to quote as per specification, i.e. 15% of roof area.



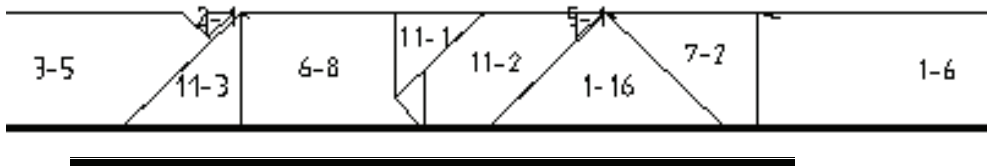
28. Linear Nesting of the cut sheets

Having generated the individual sheet lengths for the roof, we were then asked by a major metal roof manufacturer to automatically “nest” the sheets on continuous rolls. The purpose of this was to minimise the wastage and create maximum usage out of any single run of roofing material.



Example of Linear Nesting Output

Each sheet is given an identity which relates to the numbered panels on the roof drawing.



29. Costing the Job:

Now that we have accurately simulated laying out all of the materials on the roof, we now need to use those quantities, and the costs associated with them, to generate the necessary outputs. This may be a quotation to the customer, or an order to the supplier, or even an invoice for the job when completed.

30. Using Stage Manager to break up the quote, order or invoice.

When it comes to generating the required outputs for the job, there are often times that the job will be completed in stages, and each stage may be separated by weeks or months. You may have had to quote for the job in stages or as a total package but you will almost certainly want to order your materials and generate your invoices based on those stages.

We have built in a feature called **Stage Manager** and this allows you to define each stage (shown below) and then nominate which roof planes are to be completed as part of each stage. As you can see from the box on the next page, you can even break each stage down into the individual processes applied to the roof. For example, you may want the flashings and downpipes to be fitted to both Stage 1 and Stage 2 roofs simultaneously, but you may want to separate the

actual roof cover for each stage. We have built in sufficient flexibility to cater for the majority of business practises.

Element	Stage
Batts	Stage 1
Ridges	Stage 2
Roof cover	Stage 2
Hips	Stage 1
Roof insulations	Stage 2
Valleys	Stage 1
Roof Sarking	Stage 1
Fascia	Stage 2
Steps	Stage 1
Gutter	Stage 2
Aprons	Stage 1
Downpipes	Stage 3
User lengths	Stage 2
Barges	Stage 2
Fixtures	Stage 3
Fascia as Barge	Stage 2
Box gutters	Stage 3
Fall protection	Stage 2

31. Using Quote Groups to break quote down into separate values

In response to customer feedback, we have further increased the flexibility of generating the outputs. Our software has always allowed you to create their own templates and forms so that the software will output quotation forms and order forms that closely resemble their existing methods.

We have now added further flexibility to allow you to break the quotation down into a series of groups. These groups can be defined by the user and will be separated out on the forms to show individual quotes for these groups.

Element	Group
Straight	
Curved	
* Ridge	Yes, Ridge Flashings
* Fascia	Yes, Fascia Trim
* Gutter	Yes, Gutter Pieces
Barge	
* Valley	Yes, Valley Trim
Apron	
Step	
* Box gutter	Yes, Box Trim
Batten	
Counter	
Insulation	
Sarking	
D Pipe	
Roof tiles	
Hip tiles	
Ridge tile	
Valley tile	
Eave tile	
Roof Shingles	
Hip Shingles	
Ridge Shingles	
Roof Shakes	
Hip Shakes	
Ridge Shakes	
Membrane	

As an example of these differing groups, you may need to provide a price for the main roof material as one value, but then a total price for all flashings as a separate price, and then maybe another price for the insulation and purlins.

Quote group number 1 of 1

The name of this group is : Metal Flashings

Line item 1 : Ridge Flashings

Line item 2 : Fascia Trim

Line item 3 : Gutter Pieces

Line item 4 : Valley Trim

Line item 5 : Box Trim

The calculated total for this group is \$547.58

The material component is \$378.92

The labour component is \$168.66

What is the amount you want to write on the quote ? 547.58 ex tax

Re-Calc Continue

When you are generating the Quotation, you can view the contents of each group and modify the costs associated if required.

This should allow you to present a quotation breakdown to your customer if required. There may be up to 10 different groups defined.

Key Benefit:

Eliminate the need to make any manual calculations with pen and paper. You can present all information required for the quote using our software.

32.Labour Rate Flexibility

Whatever type of roofing you are into, you may also need to allow for a labour content within your quote, unless you are a manufacturer, providing an estimating service.

Within our software, we have built in a great deal of flexibility when it comes to calculating the labour for a job. When you first receive the software, you will set up a series of labour rates. It may be that you have one series of labour rates for applying a plain tile, a different one for concrete tiles, a different one for a BHP panel and a different one for a Kingspan panel. You can set different labour rates for different pitch intervals on the roof, as well as different storeys on the roof.

Also, when defining flashings, you can set a specific labour rate for applying that one flashing, irrespective of where it used on the roof.

Maximum length 8000.00 mm

Costing method per meter

Cost per unit 6.00

Estimation method Split each run up to the maximum length

Pay rate schedule Kingspan LP

Pay rate line item Awkward Box Gutter

Select Delete Add Update

Shown below is the *Labour Pay Rate* box and is where you set the labour rate for each feature of the roof. The one below is the set-up for tiling but we have a similar process for metal roofing.

Installer pay rates for Tiles (rec = 2 of 2) Page 1 of 2

Name: Roof unit:

Storey: 1 Note: The pitch interval INCLUDES the higher range value

Pitch intervals:

Roof / sqm	5.00	6.00	7.00	8.00
Normal hip / m	5.00	6.00	7.00	8.00
Sealed hip / m	5.00	6.00	7.00	8.00
Butt hip / m	5.00	6.00	7.00	8.00
Normal valley / m	5.00	6.00	7.00	8.00
Bed and point valley / m	5.00	6.00	7.00	8.00
Sealed valley / m	5.00	6.00	7.00	8.00
Normal ridge / m	5.00	6.00	7.00	8.00
Sealed ridge / m	5.00	6.00	7.00	8.00
Butt ridge / m	5.00	6.00	7.00	8.00
Normal gable / m	5.00	6.00	7.00	8.00
Bed and point gable / m	5.00	6.00	7.00	8.00
Seal gable / m	5.00	6.00	7.00	8.00
Barge ridge / m	5.00	6.00	7.00	8.00
Sarking and Insulation / sqm	0.00	0.00	0.00	0.00

Key Benefit:
 You can accurately report the labour content for the job by pricing labour based on slope, storey and roof feature. You can present a Labour Pay Summary to give to your installers to justify the pay for each job.

Having selected the appropriate labour rate for the job, you still have the flexibility to vary the labour rates for any part of the roof, once you get to the *Supply & Install* menu.

33. Supply Only or Supply and Install Quotes

Obviously, all of the processes we have employed so far are ultimately designed to allow you to generate a quotation for the job in question, as well as generating any other associated reports that you wish to print out. Now that we have reached this point, all we need to do is to select *Supply Only* (if you are quoting materials only – no labour) or *Supply & Install*. This will then bring a screen similar to the one shown and will detail every single component required for the job.

Supply and install Quote - <No Name> Page 1 of 3

Category	Manufacturer	Description	Qty	Rate	SubTotal	Discount %	Total
Roof tile	Redland	Rosemary Plain - Russett m, BROWN 02	590.00	3.00	1690.00	0	1690.00
Tile half	Redland	Tile and a Half, 6709, BROWN 02	310.00	3.20	992.00	0	992.00
Ridge tile	Redland	Rosemary Half Round Ridge (300), 8450, BROWN 02	25.00	1.50	37.50	0	37.50
Monoridge	Redland	Rosemary Half Round Monoridge, 8484, BROWN 02	0.00	1.60	0.00	0	0.00
Hip tile	Redland	Bonnet Hip 35-42, 8428, BROWN 02	125.00	3.20	400.00	0	400.00
Valley tile	Redland	Curved Valley Tile 40-50, 8432, BROWN 02	65.00	2.90	182.00	0	182.00
Eave tile	Redland	Eaves Tile, 6704, BROWN 02	270.00	2.40	648.00	0	648.00
Barge apex	Redland	Rosemary Half Round Block End Ridge, 8456, BROWN 02	0.00	3.00	0.00	0	0.00
Ridge vent	Redland	Dry Ridge System - Rosemary Half Round R, 9360, BROWN 02	3.00	2.10	6.30	0	6.30
Eave vent	Redland	Redvent Eaves System 350 Centres, 9189, BROWN 02	7.00	3.00	21.00	0	21.00
Labour subtotal					3726.07		
Labour markup					12.00		10.00
Labour total					4173.20		21594.28
							Job total (ex G.S.T)
							G.S.T (12.5%)
							3215.93
							Total (incl G.S.T)
							28943.41

Quote Groups

Notes Re-Calc Save Load Print Misc Item Fasteners Add Line Item Tile Waste

Cancel Export CSV Export XML Set Suppliers Set Finishes Set Discount Next Page OK

We have shown above, just one of three pages of quotation for this particular job (in this instance the job incorporates tiles and accessories, flashings and insulation). In addition to automatically including the accessories and trim as required, we have also built in the ability to allow the user to add additional miscellaneous items and extra items that may be required, that are a function of the job, not a function of the roof.

Although the software has automatically worked out the correct quantity of materials and prices for the job, the user is still able to over-write any quantities and prices, without affecting the pre-defined database prices.

The Labour subtotal (seen below) can also be viewed by clicking on the appropriate button.

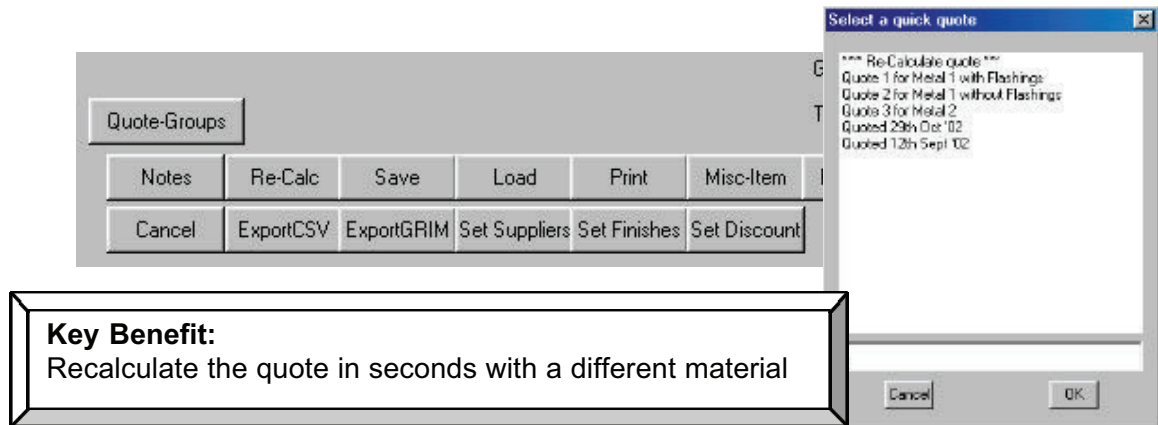
Roofing Labour charges

Description	Qty	Rate	Total	Description	Qty	Rate	Total
Battens	363.75	2.00	727.50	Hip (Normal), 1.20.0	24.46	5.50	134.53
Insulation (1.20.0)	34.79	1.20	41.73	Ridge (Normal), 1.20.0	5.50	5.50	30.25
Roof (1.20.0)	65.60	4.50	295.20	Valley (Normal), 1.20.0	3.40	5.70	19.38
Insulation sgn	34.79	1.60	55.66	Ridges/Hips m	0.00	3.00	0.00
Valley m	0.00	5.30	0.00	Fascia only m	0.00	3.00	0.00
Gutter only m	0.00	6.30	0.00	Fascia as Barge m	0.00	2.00	0.00
Fascia and gutter m	0.00	3.00	0.00	Barge m	0.00	1.00	0.00
Apron/Step m	0.00	4.30	0.00	Chimneys ee	0.00	1.00	0.00
Box gutter m	0.00	4.30	0.00	Battens m	112.68	1.00	112.68
Down Pipes ee	0.00	7.00	0.00	Roof removal	0.00	2.00	0.00
Gutter removal	0.00	5.00	0.00	Underlaths	0.00	1.00	0.00
Pitch allowance	1.00	988.89	988.89				
Total				3726.07			

Cancel Re-Calc OK

34. Saving Quote Data

There may be times when you are asked to provide several quotes for the same job with different roof materials, or it may be that you needed to recall a quote that you generated 3 months ago, that included a number of miscellaneous items and extra line items. Now you can Save and Load quotes when you get to the Supply or Supply/Install stage. This is a very useful feature and allows you to save any number of quotes within the same job for instant recall.



35. Exporting Data to other programs

In addition to using our software to generate the quotations and other associated documentation, there may be a requirement to export certain data to another software program. It may be that you are using another software package for your accounts, or for your ordering system, or you may wish to export the data for inventory management or contractor payments.

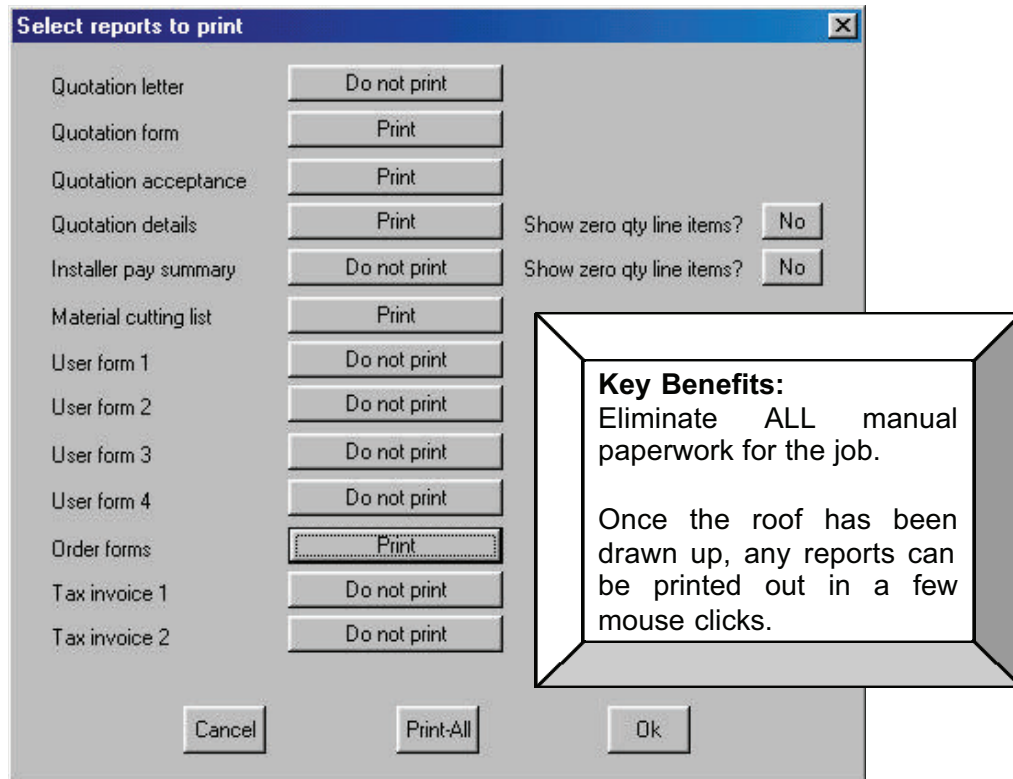
To cater for this, we have built in the ability to either *Export CSV* (comma separated values file format) or *Export GRIM* (a fixed format file containing only certain parts of information). This .csv file can be imported into word processing and spreadsheet software, such as Microsoft Excel.

At various processes used in our software, wherever a result is displayed, we provide the ability to *Export CSV*. For instance, you can export the data relating to the nett areas and lengths of the roof or the cutting list for the sheets or the complete listing for every component required for the job.

By *Exporting GRIM* you can create a "template" that contains only the information required. For instance, if you wanted to export only the Customers name, Quote Date, Total Material amount, Total Labour amount and Tax amount, you can create a template allowing you to filter only that information, to send it to your accounting software.

36. Printing the reports.

When you are happy with the figures shown in the quote, you will then want to print out the various forms. This can be accessed by selecting *Print* on the *Supply & Install* page. Rather than printing out reams of paperwork that may not be needed, we give you the option of selecting the particular forms you need.



As you can see above, we have prepared a number of forms already, based on what our customers have told us, but each of the form templates is customizable by the user. You may wish to present your quote with your company logo, or you may want to add more information to the quotation page, and using our software you can achieve this.

On the following page, I have shown some examples of the typical outputs. If you wish to receive more information on these outputs, please do not hesitate to contact our office.

Tax Invoice

Applied Roofing
 ABN: 111-111-111-111

123 Church St
 HAWTHORN

Date: 13 November 2002

To:

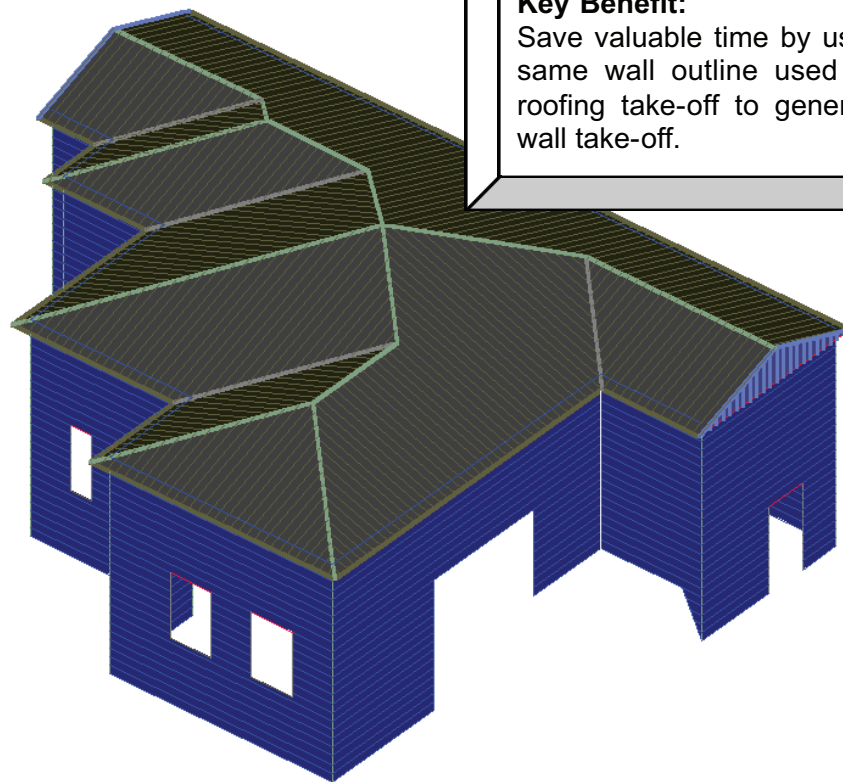
Site :

Qty	Description	Total
1	For the supply and install of roofing materials at the above address.	\$5740.66
Total Price Includes GST		\$5740.66

[illegible]

37.New Integration of Warlock to Roofing Software

For many years we've had a separate program for the vertical cladding market called Warlock. This was in response to the Australian and the US markets, where there were separate companies specializing in the siding market from the roofing market. However, we noticed that in the commercial sector, the roofing and siding is all done by the same contractor, so we decided that it would make sense to combine the roofing and siding products together. What this means to the user is that now you can draw up the roof using the usual functions of the Sorcerer or Wizard programs, and then, select Walls from the menu and the software will then utilize the wall outline you used to create the roof to project the walls to the correct height. This eliminates the need to re-enter the wall outline again, saving time and costly errors. Warlock is available as an add-on for existing users who wish to upgrade their capabilities, or as a stand-alone product. The end result is an extremely accurate and fast method for costing up the entire job.



Key Benefit:

Save valuable time by using the same wall outline used for the roofing take-off to generate the wall take-off.

38. What does all this mean to your business?

So far, this document has gone through a lot of technical aspects of the software, which we hope has shed some light on how you would go about using our software and what it can achieve for you.

Ultimately, we recognise that there will be an investment in your time and your money, in order to gain the most value out of our software, but when you consider the savings that can be achieved, both in time and money (by reducing waste, improving productivity and customer service), the return on investment will be highly achievable.

By speeding up the time taken in the production of estimates, you can spend more time on those parts of the job that cannot be helped by software, such as phoning to verify specifications, doing more field measurements, calling customers to monitor feedback and generating more business.

Consider this;

Take a single job that would typically take 35 minutes using traditional methods. Our software has world class technology that allows you to complete that same task in just 5 minutes – a saving of 30 minutes. Saving just 30 minutes each day adds up to an amazing 100 hours over a year – on just one job a day!

You will also be able to bid for more jobs (you may currently only bid for certain job types because it is too time consuming to bid for the complex ones), the estimates generated will be more accurate, therefore ensuring the likelihood of winning more bids and maintaining a healthy profit margin. If a customer calls up and changes his mind and wants the same roof re-quoted in another material, you can provide this service in seconds, rather than hours. If the customer changes the design of the building, you can use our functions to make those changes quickly and accurately, without having to start all over again.

In this day and age of technology, roofing contractors are looking for ways to stand out from the crowd and make their quotations move to the top of the pile. By using our reports with integrated drawings, you can present a very professional looking quote. You will be able to present yourself and your company with a much higher standard than your competitors.

You can also customize the reports to suit your business, so you can use your existing logos, or tailor the quote to extract certain information as required.

All of these points will go a long way in making your business stand out head and shoulders above the rest, and ensure that your business will maintain, or even improve its profitability in the increasingly competitive years to come.

39. Customers Testimonials

Having told you how great we think our software is, we thought it might be useful to hear what other people think, and how it has helped their businesses.

"Stratco is a successful manufacturer and marketer of sheet metal products. Incorporated in South Australia in 1949, the group now has manufacturing facilities though-out Australia and New Zealand. The company has built a solid reputation by offering quality products at competitive prices and backed this with excellent service.

A key product in the extensive Stratco range is Steel Roof Sheeting. This product is fully supported by a complete range of roofing accessories. A key marketing initiative in the promotion of this product group is "Plan take-off service" for the Housing Industry as well as the Owner Builder market. Initially undertaken manually by a competent team of estimators, the group has progressed through the early years of computer technology to today where it uses the popular AppliCad "Roof Wizard" package.

From the very first version "Roof Wizard V2.0" up to the current "3.1.1" version Stratco have benefited from this technology, enabling it to out perform its competitors in providing fast, accurate and professionally presented quotations. Not only has Roof Wizard assisted in significantly reducing the time to provide a quotation but it has enabled comprehensive record keeping and costing data.

AppliCad, like Stratco, have built their business by providing excellent customer service both in problem solving and awareness of, and training in, software improvements. We commend AppliCad for the Roof Wizard product and look forward to further development which will assist us in building our business and achieving our motto "Stratco, At you Service".

"I am a Roofing Estimator with 30 years experience having learnt my Plumbing Trade with the SA school of Plumbing. For 15 years I had been manually estimating all types of roofs using a scale ruler and a calculator. It was a very time consuming process, but over the years I became very proficient.

I started using a computer programme for estimating 10 years ago with limited success until learnt of Roof Wizard. This was version 2.1 and found it back then to be accurate and easy to use. From those early days to the latest version 3.1, (which I believe to be the best upgrade yet) I have used the software exclusively and have found the time taken overall in the generation of quotes to be 30 % less with almost 85 % of house roofs to be calculated with ease, and more difficult roofs to be accomplished with a little ingenuity.

The company's back up and customer support I believe is second to none and with continual commitment to improvement of their software I look forward to a long lasting relationship with the company and their software."

Yours Sincerely
John Illman

"It's not the easy jobs you lose your shirt on, it's the difficult ones. In the short time I have been using the program, I've done 52 quotes with the system - I got orders for 52 jobs. I am winning with the accuracy and the high quality presentations. Magician does it for me!"

Greg Smith
Owner
Bairnsdale Brick and Tile

"In this industry, where margins are so tight, we cannot afford to have inaccurate bids reducing our profit margins. With the significant cost savings from accurate quotations, my AppliCad software has paid for itself many times over."

Dale Bowles,
Maroondah Roofing.

"It's very helpful in really complex roofs with a hip/valley configuration. As a tool for doing estimating, it will do virtually anything you want. It's tight figuring saves us money by avoiding waste."

Mike Ross
Rooftec Systems, Jacksonville, FL

"Just a short note to thank you for such outstanding customer service on your Roof Magician program. I am extremely impressed by the patience and persistence you show when I need help with any problems that may occur. We now do all our tiled roof quotes through Roof Magician and find it save us upto 50% on time normally taken to do a manual roof quote."

Sue Palmer
ACP Roofing

"We have been in close contact with AppliCad regarding the software. There has always been a steady rate of improvement made by AppliCad to the software. These improvements has also always been considered by you to work in with what we require, which is appreciated. Looking forward to knowing how Steve is going with the latest improvements. Being able to estimate Roof Battens has improved our sales."

Brian Jepson
JH Stephenson and Son Pty Ltd

"Roof Wizard has been a great asset to our Company. I still have many applications to learn and believe that when these skills are gained, Roof Wizard will help us even more."

One thing for certain. I would not like to have to go back to manual estimating after working with Roof Wizard."

Leon Pittard
Steeline Roofing Centre - South East

"A complete roof or fascia/gutter take-off can be prepared while the customer waits (5-10 minutes), which customers are very impressed by. AppliCad is also very efficient in responding to issues and suggestions with the software. Updates are sent via mail or email depending on their urgency."

Craig Skipsey
JJ Steelworks

40. Our Value Proposition

To assist you in the justification of such an investment within your company, I have listed below, some of the features of our software, that you may or may not be aware of;

BETTER INVESTMENT

- cost is less than other solutions
- investment in our software includes unlimited support for 12 months
- easier to learn and use, therefore **reduced cost of ownership**
- annual Investment Protection program very comprehensive.
- multiple licences are available at discounted rates
- fully networkable
- effectively 24 hour support

MORE ADVANCED FUNCTIONS

- wide range of modelling functions
- insert bay windows, drop eaves and gable commands (overall, **easier modelling functions**)
- all accessories are automatically picked up for flashings and trim
- custom flashings and profiles plus export drawing of custom profile
- all fabrication and installation allowances for trim are automatically accounted for (lap and run etc.)
- automatically **creates a flashing plan** and purlin layout drawing
- stage manager for better job management and material delivery scheduling
- automatic order and invoice generation
- fall barriers and insulation quantities determined
- **fall protection planning** may be done and costed
- operator may modify roof in any 3D view, **easier to use on complex roofs**
- powerful heavy duty CAD system included
- **customisable reports**

GREATER FLEXIBILITY WITH OFFICE SYSTEMS

- export GRIM files and CSV file
- may be integrated with PocketPC (pocketROOFmedia) for external data capture

INNOVATIVE and EXPERIENCED COMPANY

- company longevity - we've been doing this for over 10 years
- CEO has over 33 years experience with CAD/CAM technology
- proof of concept for web based estimating completed
- sales and support offices in USA, UK and Australia

EASE OF USE and LEARNING FUNCTIONS

- fully illustrated and most comprehensive training and reference manuals in soft copy (on the CD and installed into the /Magician/Manuals folder) and hard copy
- web help - tips and tricks, latest tutorials available for download
- context sensitive on-screen help (middle button on the command)
- unlimited undo and redo in a session (undo redo on picture menu)
- automatic crash file ensures work can be recovered in the event of power interruption (CAD - file - recover)

ONGOING DEVELOPMENT

- everything in the software is there because **a roofer has requested it**
- we maintain a 'knowledge base' of all suggestions ever made and they are progressively incorporated based on priority of need

ATTACHMENT A



www.archive.org
415.561.6767
415.840-0391 e-fax

Internet Archive
300 Funston Avenue
San Francisco, CA 94118

AFFIDAVIT OF CHRISTOPHER BUTLER

1. I am the Office Manager at the Internet Archive, located in San Francisco, California. I make this declaration of my own personal knowledge.
2. The Internet Archive is a website that provides access to a digital library of Internet sites and other cultural artifacts in digital form. Like a paper library, we provide free access to researchers, historians, scholars, and the general public. The Internet Archive has partnered with and receives support from various institutions, including the Library of Congress.
3. The Internet Archive has created a service known as the Wayback Machine. The Wayback Machine makes it possible to surf more than 450 billion pages stored in the Internet Archive's web archive. Visitors to the Wayback Machine can search archives by URL (i.e., a website address). If archived records for a URL are available, the visitor will be presented with a list of available dates. The visitor may select one of those dates, and then begin surfing on an archived version of the Web. The links on the archived files, when served by the Wayback Machine, point to other archived files (whether HTML pages or images). If a visitor clicks on a link on an archived page, the Wayback Machine will serve the archived file with the closest available date to the page upon which the link appeared and was clicked.
4. The archived data made viewable and browseable by the Wayback Machine is compiled using software programs known as crawlers, which surf the Web and automatically store copies of web files, preserving these files as they exist at the point of time of capture.
5. The Internet Archive assigns a URL on its site to the archived files in the format [http://web.archive.org/web/\[Year in yyyy\]\[Month in mm\]\[Day in dd\]\[Time code in hh:mm:ss\]/\[Archived URL\]](http://web.archive.org/web/[Year in yyyy][Month in mm][Day in dd][Time code in hh:mm:ss]/[Archived URL]). Thus, the Internet Archive URL <http://web.archive.org/web/19970126045828/http://www.archive.org/> would be the URL for the record of the Internet Archive home page HTML file (<http://www.archive.org/>) archived on January 26, 1997 at 4:58 a.m. and 28 seconds (1997/01/26 at 04:58:28). A web browser may be set such that a printout from it will display the URL of a web page in the printout's footer. The date assigned by the Internet Archive applies to the HTML file but not to image files linked therein. Thus images that appear on a page may not have been archived on the same date as the HTML file. Likewise, if a website is designed with "frames," the date assigned by the Internet Archive applies to the frameset as a whole, and not the individual pages within each frame.
6. Attached hereto as Exhibit A are true and accurate electronic copies of printouts of the Internet Archive's records of the PDF files for the URLs and the dates specified in the coversheet of each printout.
7. I declare under penalty of perjury that the foregoing is true and correct.

DATE: 1/8/16



Christopher Butler

CALIFORNIA JURAT

See Attached Document.

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of San Francisco

Subscribed and sworn to (or affirmed) before me on this

8th day of January, 2016, by

Christopher Butler,

proved to me on the basis of satisfactory evidence to be the person who appeared before me.



Signature: 

Exhibit A

<https://web.archive.org/web/20050618190621/http://www.applicad.com.au/ProductBulletinNov02.pdf>



appli-cad

World Class Technology Leading the Way in Roofing Software

Product Bulletin – November 2002

Key features of our Roofing Software

Dear Roofing Professional,

This booklet has been produced to inform you of the exciting features that we have incorporated over the last few years. As you will see from this booklet, we are continuously updating and improving the software as a result of the feedback we receive from our customers, who are, at the end of the day, roofers, just like you!

You may have previously looked into the software, but may not be fully aware of the accuracy and power of our material take-off system and how closely it relates to your manual methods.

The major key to any software is to provide a package that is easy to use, yet powerful enough to provide the required outputs. For instance, a pocket calculator may be easy to use, but does it work out everything you need in seconds and then print it out in a special report?

When you read this document, keep asking yourself the following question:

“Does my existing estimating process provide such a comprehensive result in such a simple manner?” You may be surprised by the result.

Martin Barber

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Bucks, MK7 8YT
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Fax: (01908) 271577

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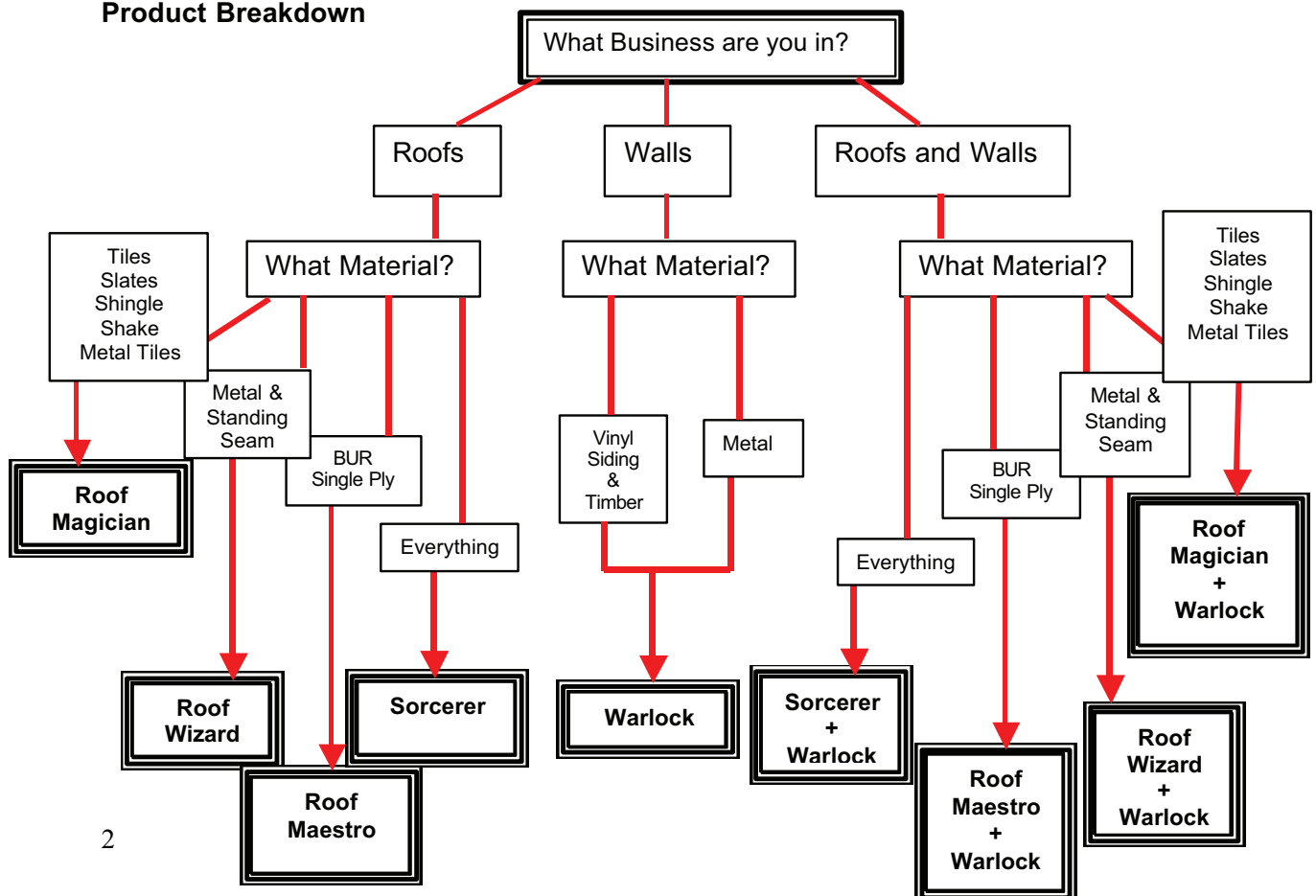
1. Introduction

To serve as a reminder to those of you who looked into the software some time ago, the AppliCad range of products are designed specifically for the Roofing and Cladding markets. All of our products utilise a CAD (computer aided design) system, which is already included in the price, to draw up the roof or wall outline accurately in 3 dimensions, and then, from that 3D drawing, the software automatically calculates the amount of material to cover the roof or wall, along with all the necessary flashings. The result of this is the production of a detailed quotation breakdown, and the ability to generate your own user-defined forms to present to your customers, or for internal use. These forms include quotations, labour pay summaries, order forms for your suppliers, invoices and drawings.

Roof Magician
Roof Wizard
Roof Maestro
Sorcerer
Warlock

for Tile, Slate, Shingle, Shake and Thatch!
 for any Metal Roofing
 for Flat Roofing, Single-Ply and BUR.
 for any type of Roofing
 for siding and cladding (this is available as a stand-alone product or as a module with one of the roofing products)

Product Breakdown



When deciding if estimating software will be important for your business, there are various features that you should be looking out for. We hope that we have addressed each of these features with sufficient flexibility and thought.

- **Ease of Use** – We have designed many user friendly menus and functions within the software. There is always a struggle to achieve a happy medium between ease of use and functionality, but we feel we offer a product that successfully utilises Roofers language, yet is flexible enough to cater for the wide variations in processes all over the world.
 - **Flexibility** – It is always important, when considering a software package, to ensure that it will be able to adapt to the methods that you may apply. Because we have been developing this software over 10 years, based on feedback from Roofing Contractors all over the world, we know we have built in many functions that allow for the regional variations.
 - **Coursing the Tiles or Laying out the Metal Panels** - There are software packages out there that offer a means of a take-off, but many of these are based on using nett areas of the roof and dividing it by the square area of the tile, panel or ply product. We have gone about things differently and will actually simulate laying each tile or panel on the roof, ensuring that our reported values are the closest to the actual requirement.
 - **Company Reputation and Support** – AppliCad have been developing and selling this software for many years. Over the years we have constantly expanded, offering a greater level of support to our customers all over the world. We now have three fully operational branches - Australia, USA and the UK, with each branch being able to offer immediate telephone support. We also use our web site www.applicad.com.au as a means of providing additional support and tutorials.
-

2. Drawing up the Roof

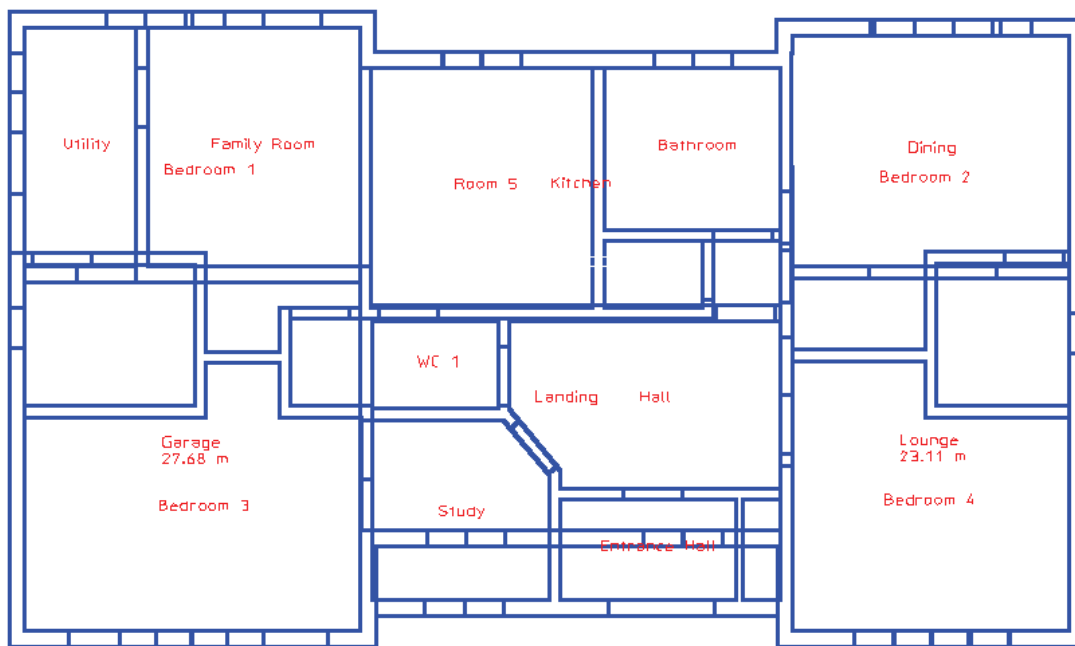
Our software works off the basis of drawing the roof up on the screen, using a series of easy-to-use menus. Providing you enter the dimensions for the perimeter of the roof accurately, and give the correct angle or slope, then the roof generated on the screen should resemble the roof in question. This gives the operator a great deal of confidence in the outputs from our software as you are able to verify that the numbers you entered, will result in the same roof that you are bidding for. "If it looks like your roof, then it will be your roof!"

Because our software sits on top of a very powerful 3 dimensional CAD package, we can utilize various tools to enable the drawing of the roof and checking the result, before submitting to a bid. In the following sections, we have demonstrated a number of methods of achieving this.

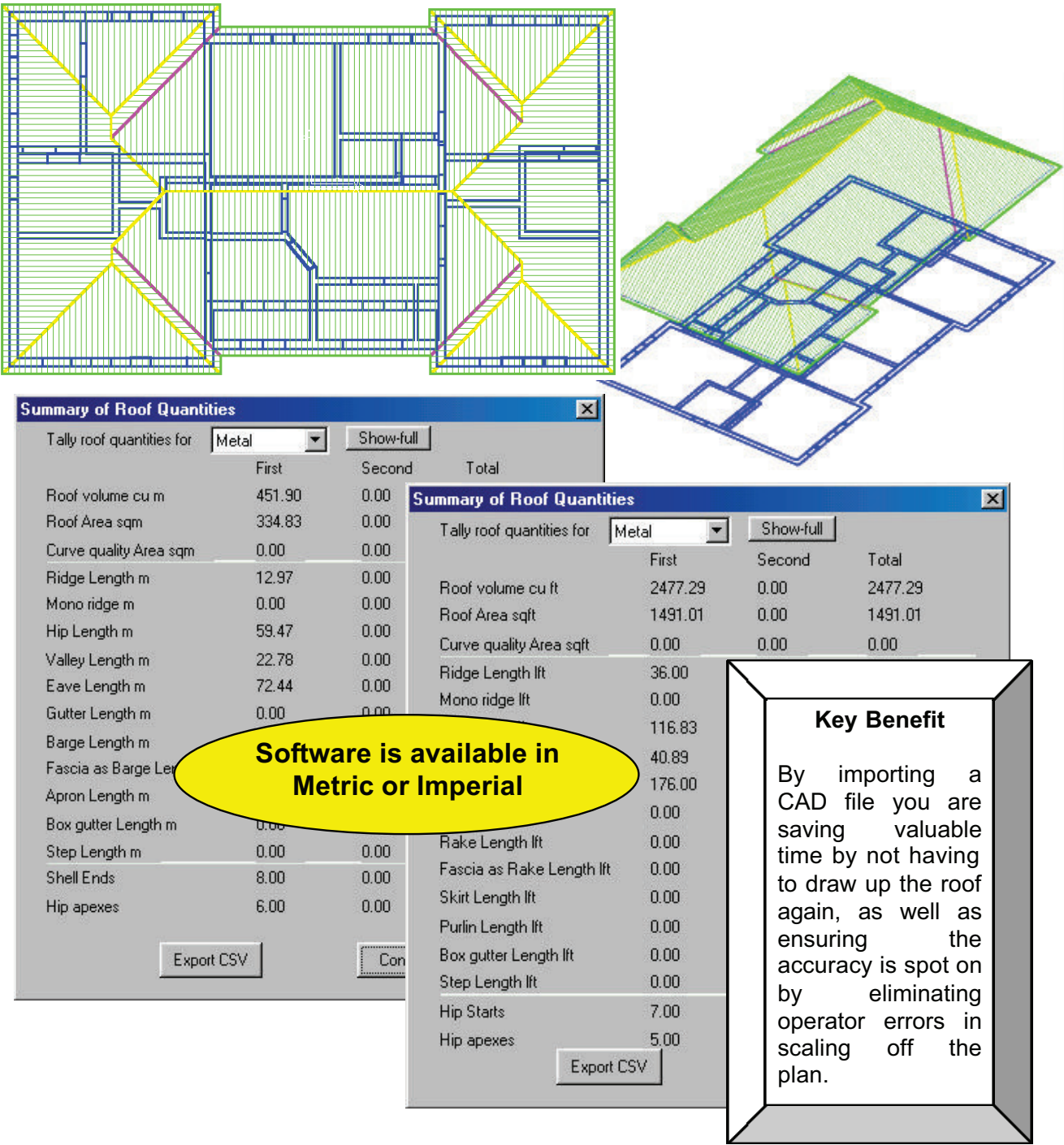
3.Importing Roof or Building outlines from another CAD system

More often than not these days, the roof plans you are working from have been drawn up using a CAD system, and then printed out to hard copy, resulting in thick piles of printed drawings which then need to be scaled off by hand or used in conjunction with a tablet or digitiser. Whilst our software can support the use of a digitiser, it is far easier to use other methods to get the roof outline in. The most obvious one is to import the CAD drawing of the roof plans direct from your customer.

CAD drawings can be saved in various different file formats, and our software supports most of these, but the most common form is the .dxf format (**d**rawing **e**xchange **f**ormat). The real benefit of this is that there is no need to re-scale the plan, and the software will be able to “snap” to the nearest points, thus eliminating a lot of inaccuracies of measuring. The plan below is an imported CAD drawing



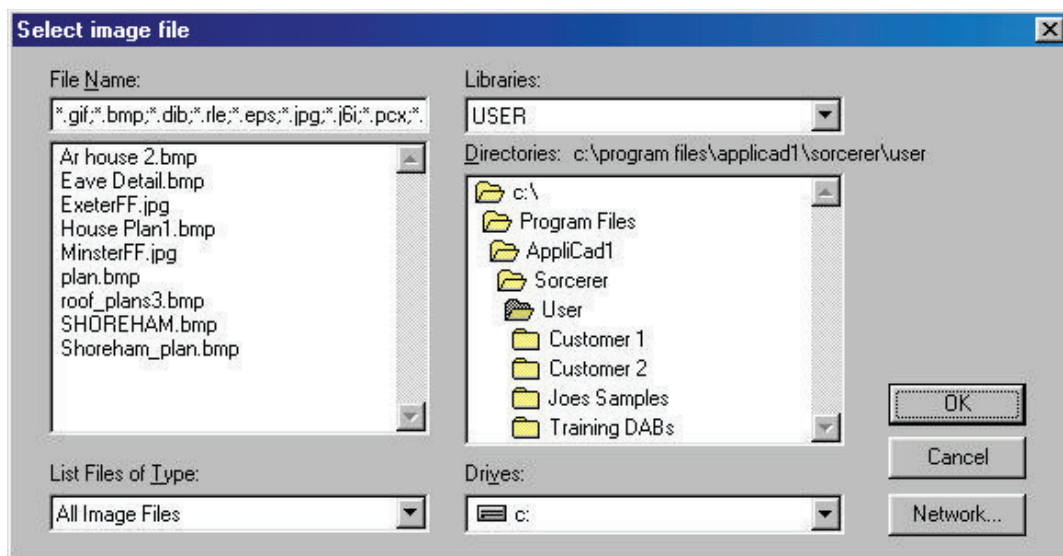
By using the command *Digitise Outline* we can then move the cursor to the extremities of the wall outline, by “snapping” to those points, and after entering the pitch or slope of the roof and the eave offset from the wall, the roof is generated automatically, resulting in an accurate and fast method of working out the areas and lengths. (see overleaf)



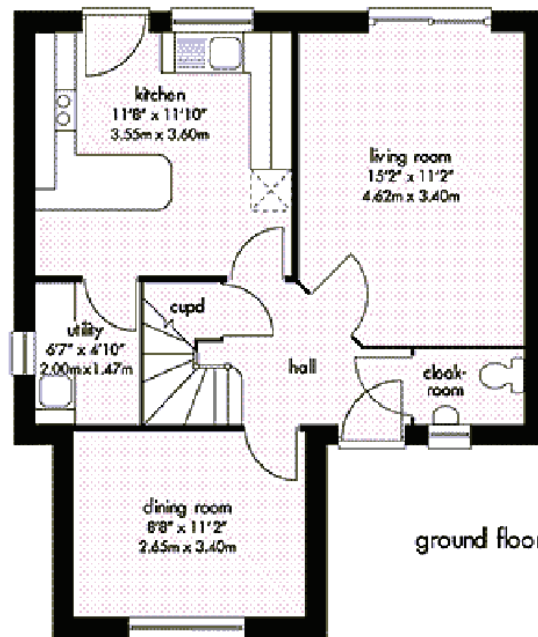
At this point you could then continue and apply the material to the roof to achieve the take-off quantities.

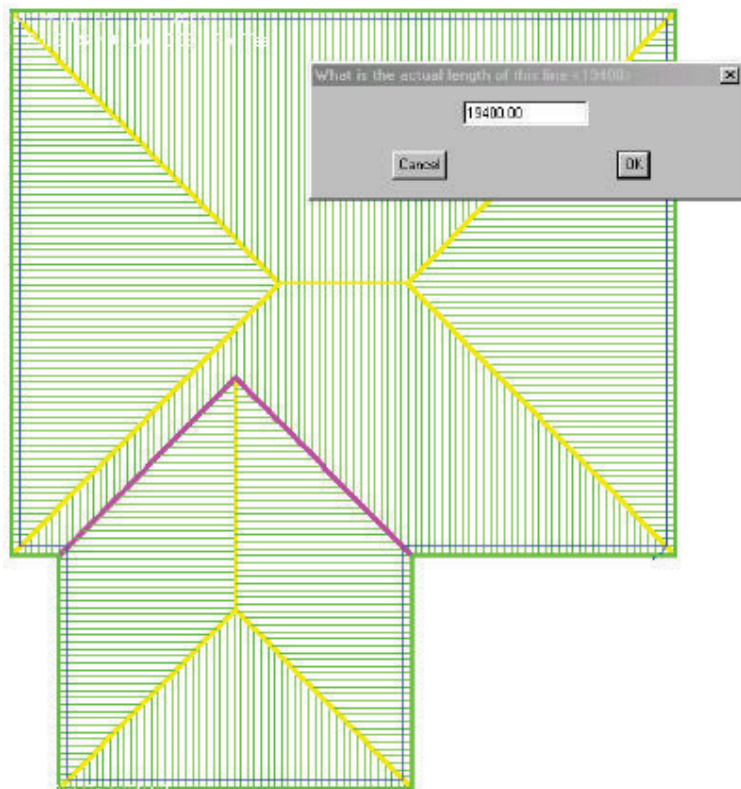
4. Importing Roof or Building outlines from a scanned image or bitmap

We recognize that you may not have the luxury of obtaining the CAD file for the drawing in question, but you may be able to scan the roof plan, using a flatbed scanner. This type of hardware is available at a relatively low cost at most computer supply outlets. Our software can also allow the import of such scanned images directly into the program to eliminate the need to scale the dimensions off the drawing. Note, this feature can also be used if you can obtain the image of the floorplan via the internet. There are a number of web sites that allow you to download the image file for the floorplan you wish to quote on, and our software would allow that downloaded file to import directly into the program.



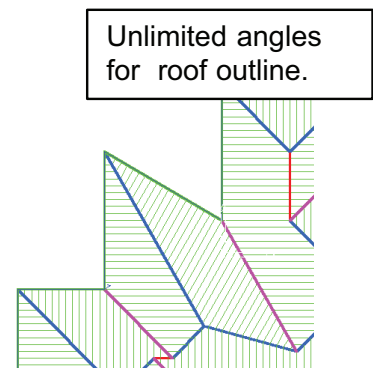
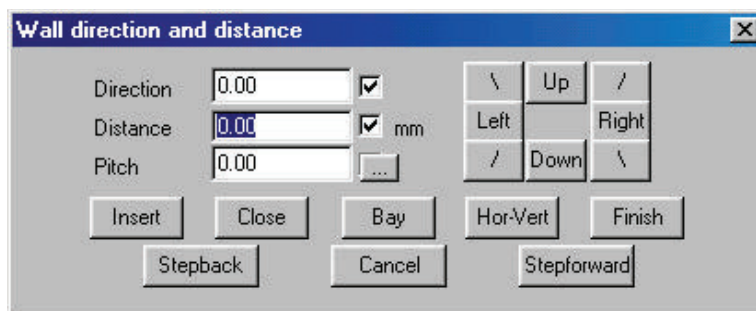
Using the imported scanned image, we can then digitize around the outline, as with the previous example, although this time we need to re-scale the roof once it is generated. You will only need to enter the true measurement from one reference line and the software will then scale the whole roof proportionally.

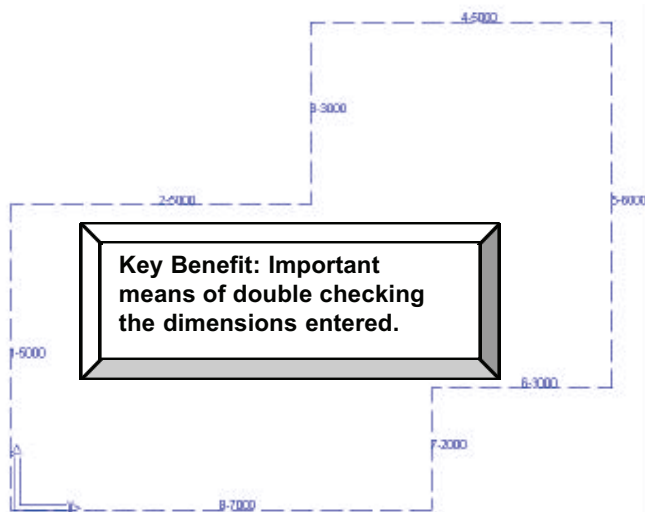
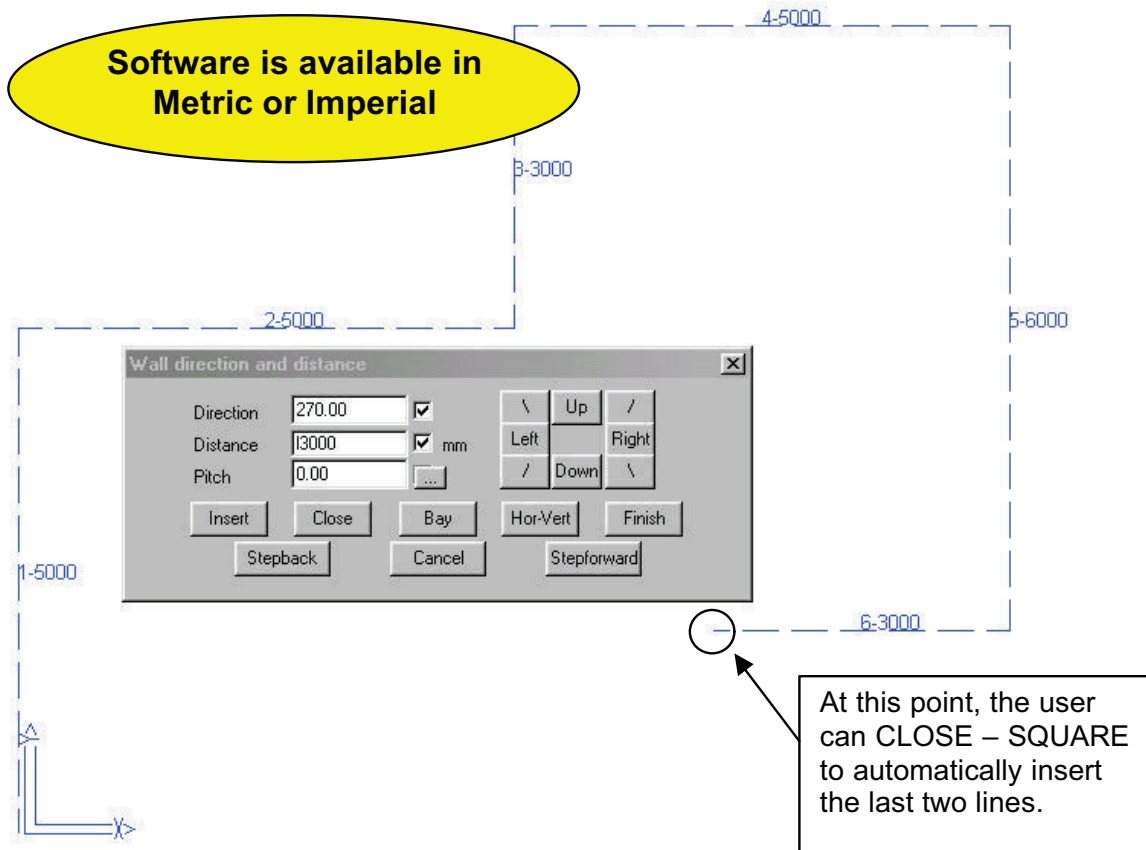




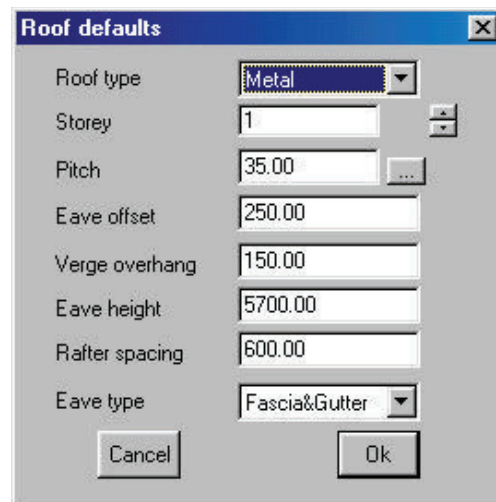
5.Using our Track-Outline Command.

Having mentioned the previous two methods of getting the roof or wall outline into the software, the most common method used is our *Track Outline* feature. This command allows the user to very simply enter the direction and dimension of each wall to produce the wall outline. We have built in a number of features to simplify this process, such as the insertion of Bay windows, or lines at unusual angles. We also invented the idea of “Closing” the outline with a right angle to allow the user to double check that the whole outline squares up, and the outline is of the correct dimensions.

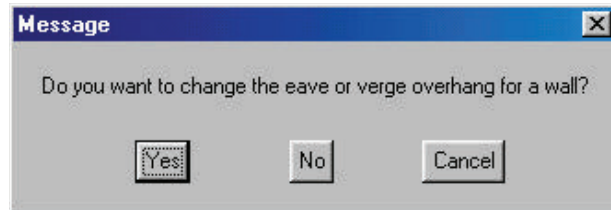
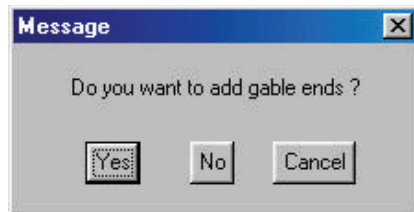




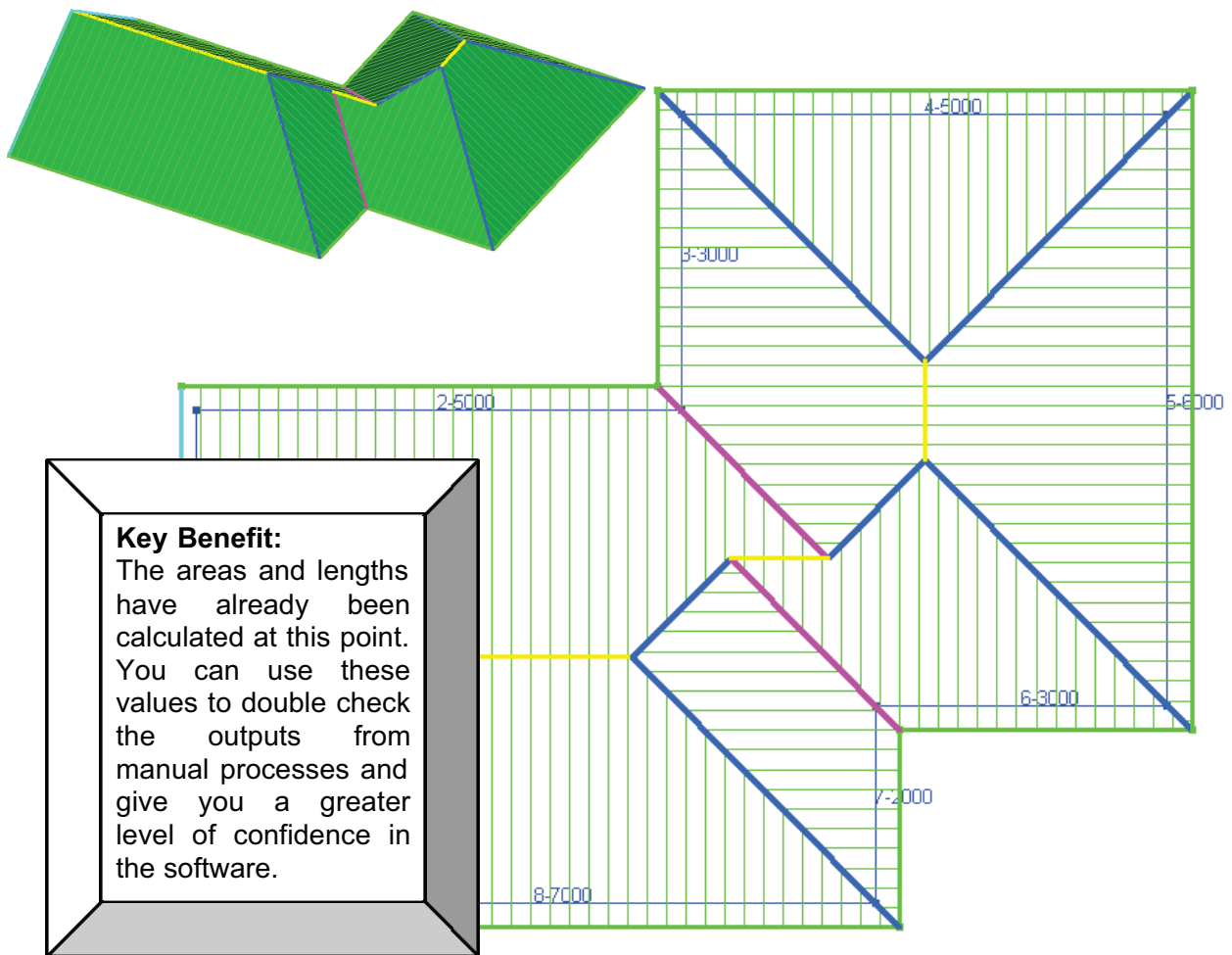
From this outline, the user simply enters the pitch (or slope), the eave offset and the eave height.



At this stage, the software will generate a hipped roof, based on the outline, but we can change any side to become a gable end. We can also change the eave or gable offset from any line.

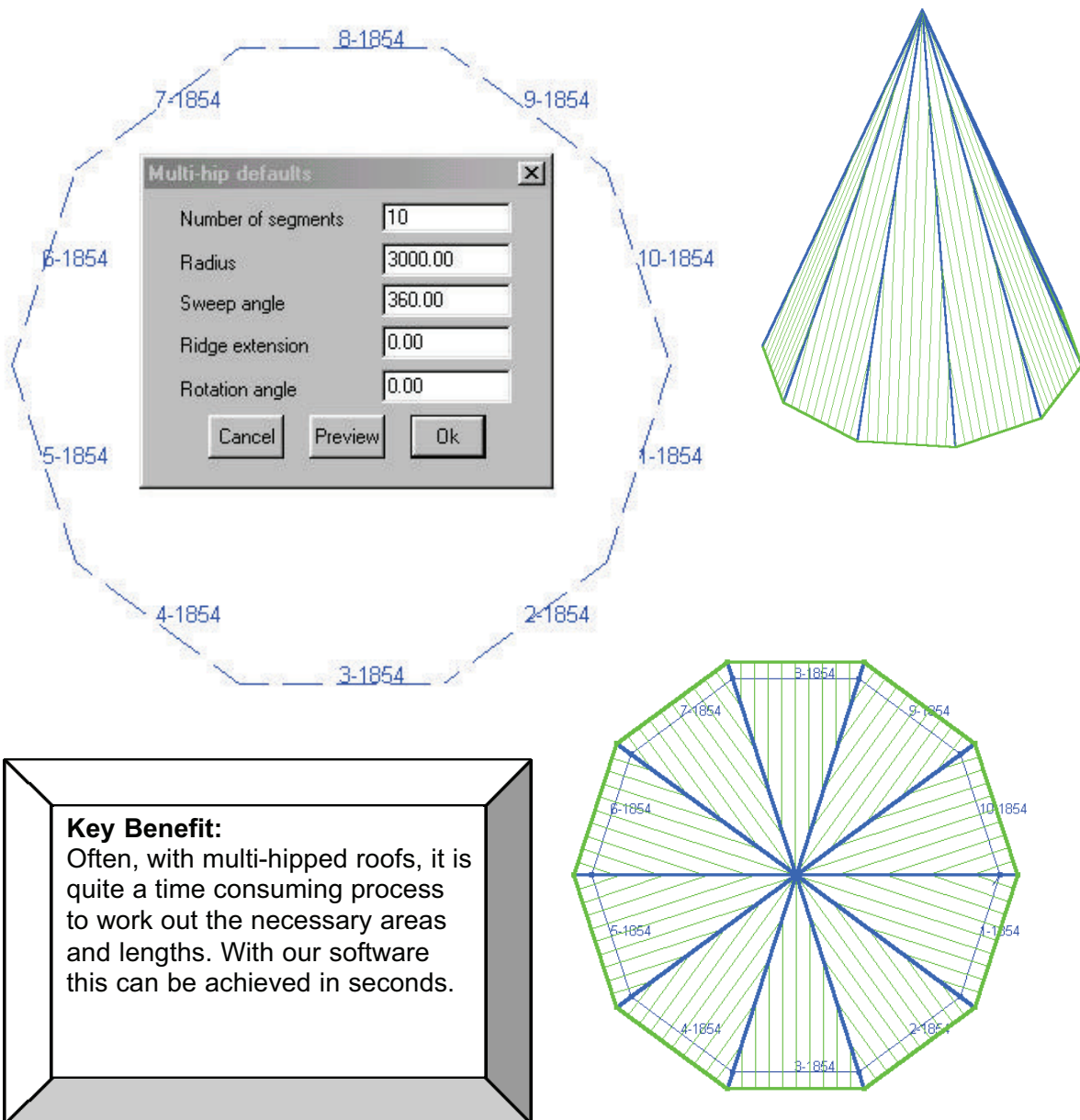


The resulting roof will now be generated and allow the user to view the roof in 3 dimensions to verify that it resembles the roof on the plan.



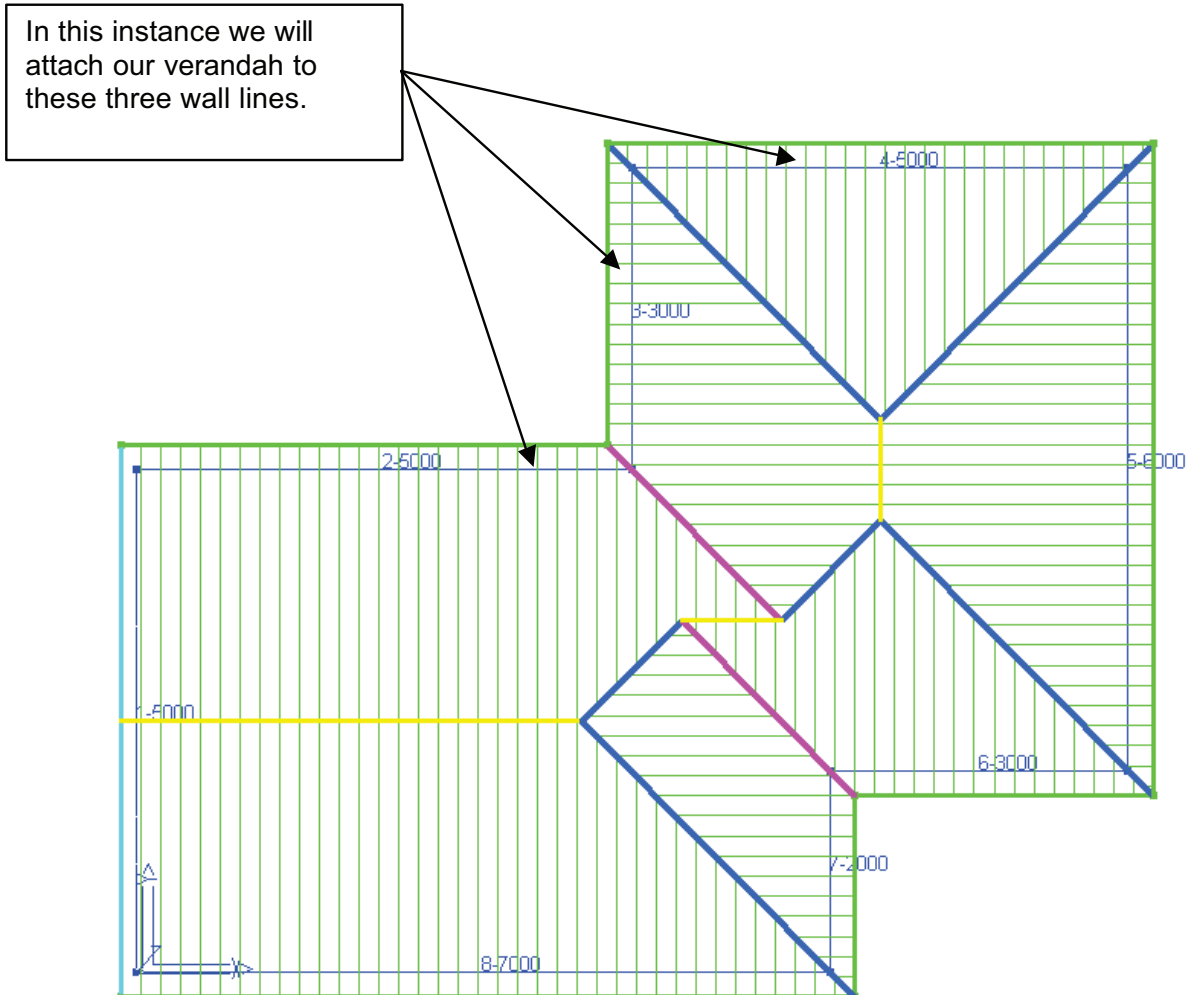
6. Drawing up Multi-Hip Roofs

There are often times when you need to generate part of a roof to have multiple hips, such as a “church spire”. We have built in a feature that allows you to generate this type of roof simply and easily.



7. Drawing up first storey Roofs

Another useful tool we have added is the ability to generate a first storey roof attached to the wall (or roof) of the second storey. We call this command the *Verandah* or *Porch* command. Once you have generated the main roof, you can then select *Verandah* and click on the lines that you wish to attach the verandah to. These lines can be either wall lines or roof lines.



Verandah defaults

Roof type: Tiles

Storey: 1

Type of Verandah: Straight

Fascia configuration: Fascia-Gutter

Width: 1500.00

Height of gutter: 5700.00

Start preparation: Gable

End preparation: Hip

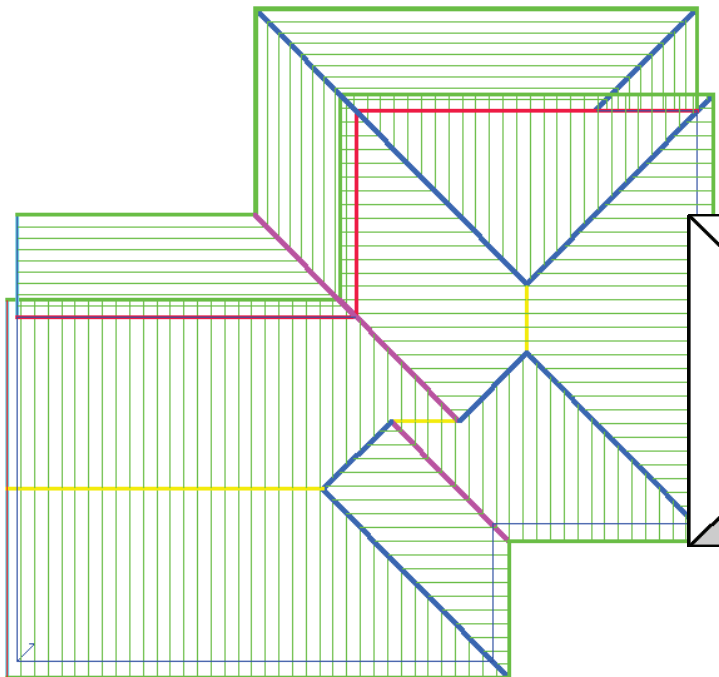
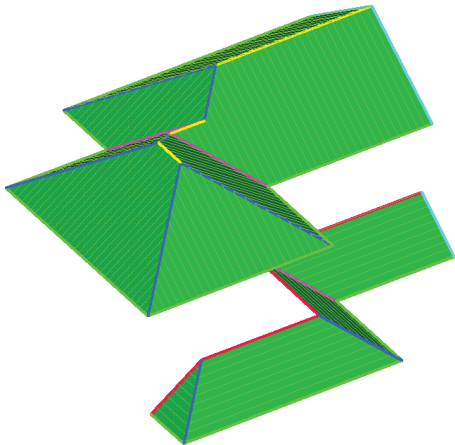
Pitch: 35.00

Distance from first point: 0.00

Distance from last point: 0.00

Underlap (for bellcast style): 0.00

Buttons: Cancel, Preview, Ok



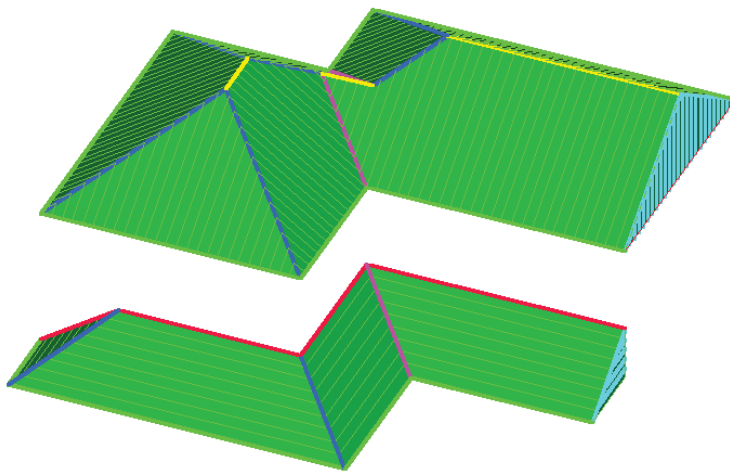
Key Benefit:
When inserting additional roof features, you don't have to remember to add more flashings, the software does it for you.

8. Modifying the Roof

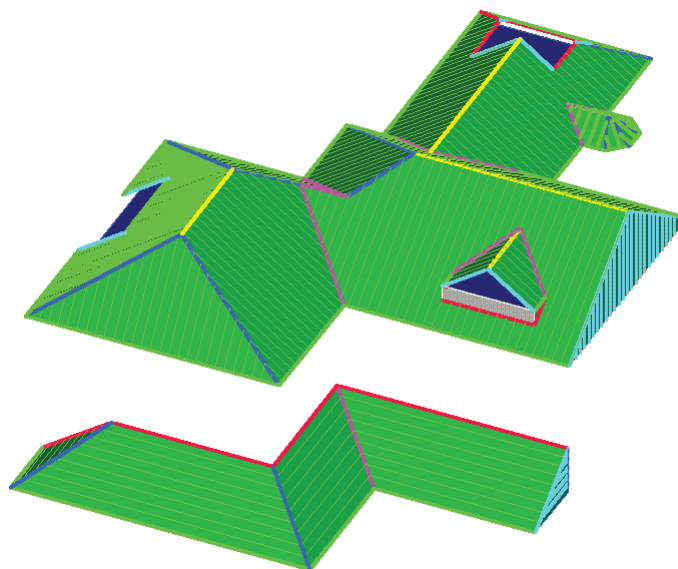
Architects are coming up with more and more complex roof designs these days, and we recognize that not all roofs are simple hip and valley roofs. There are more roofs with dormers, dutch gables, dropped eaves, cut-out sections etc, so we have developed a whole menu of features allowing you to modify the roof to suit these designs. The important thing to remember here is the fact that the software is constantly updating the areas and lengths when inserting new features, so there is no need to manually have to add a length of new ridge everytime a new dormer is inserted for instance.

In this section, we will transform the roof we originally constructed, to add some new features.

We will go from this;

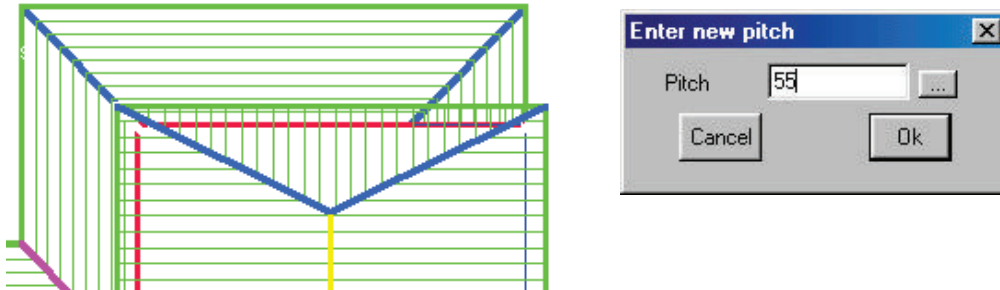


To this;



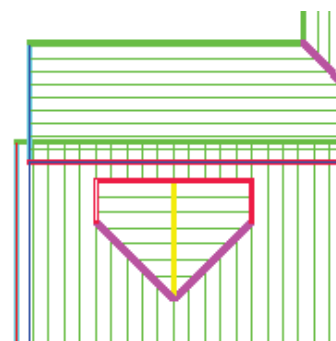
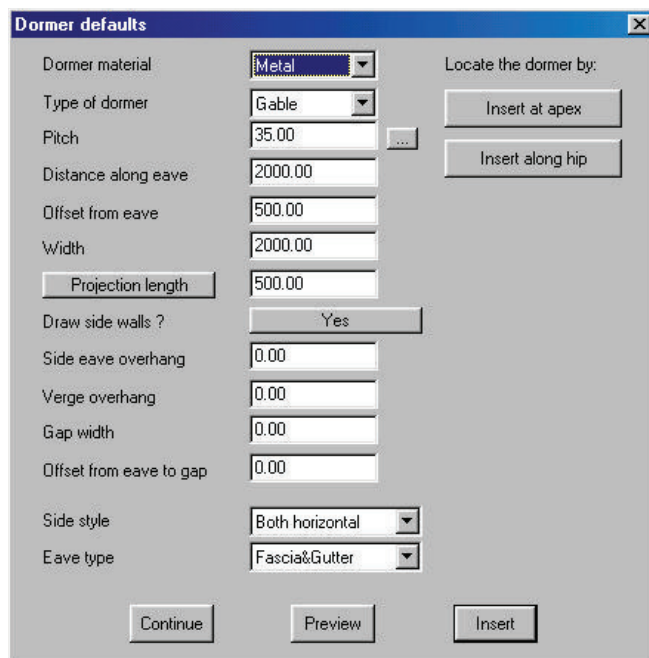
9.Changing the Pitch of any roof planes.

Obviously there will be many roofs where the architect has opted for different pitches of certain roof planes on the same roof. This can be handled easily and quickly using our *Change Pitch* command. You simply select the roof planes you wish to modify and enter the new slope or pitch. Because the roof is drawn up in 3 dimensions, any changes to the pitch will accurately change the length of the associated hips, valleys and ridges.



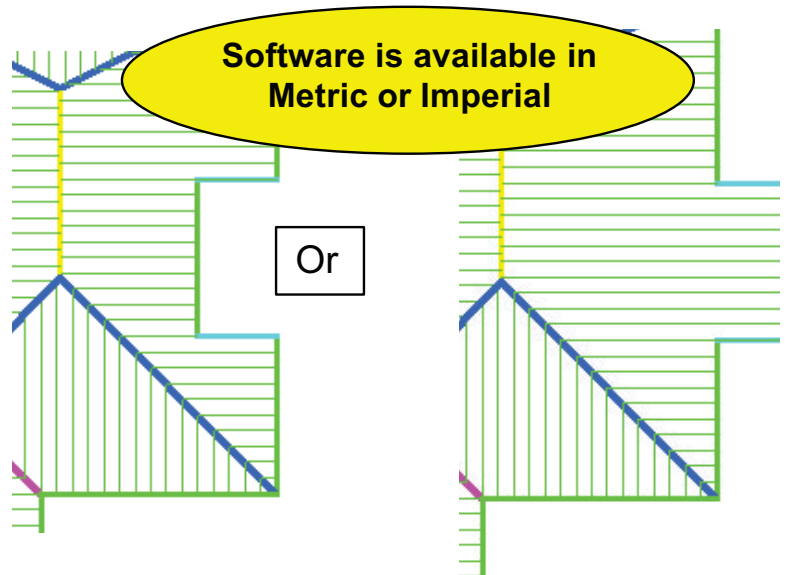
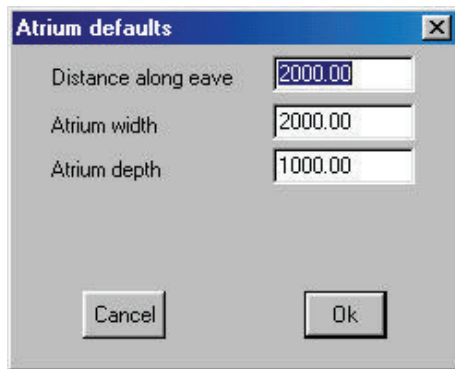
10.Inserting Dormers

Inserting dormers is another simple exercise, using only a few mouse clicks. Our software allows you to create either gable or hip ended dormers, flat roof dormers or curved barrel dormers. We have built in additional features allowing you to insert dormers at hip apexes, or create gaps below the dormer. In the instance, we will simply insert a dormer using the dialog box shown.



11. Creating Atriums or modifying the eave line.

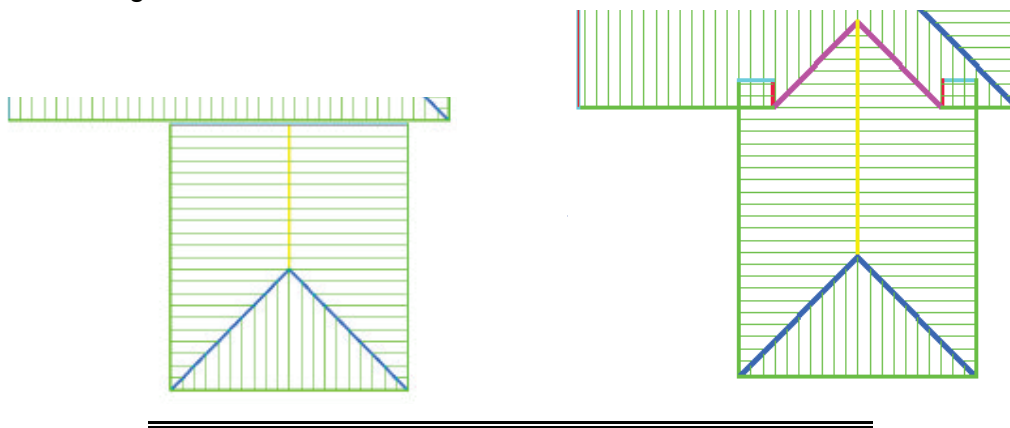
Where there is a need to modify the eave line, for example a chimney stack, entrance way, or even to create a lowered eave at one point, we use a command called *Atrium*.



12. Projecting two roofs together with differing eave heights.

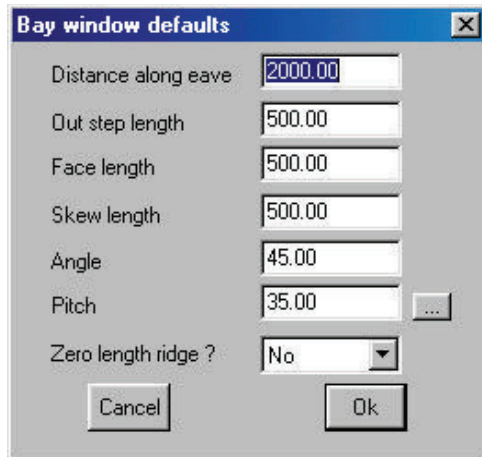
Often, you have a number of different eave heights on the same job, and you will need to combine these different roof planes together to result in the correct geometry for the roof. Manually, this is one of the hardest things to calculate accurately, but with the use of various commands, including *Project Gable* and *Intersect Planes* this is achieved with ease.

In this instance, we will assume there is a garage roof joining onto the main roof but it's eave height is lower.



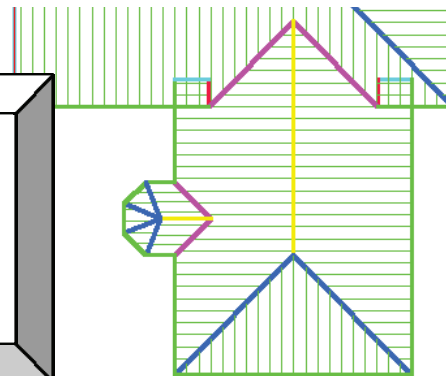
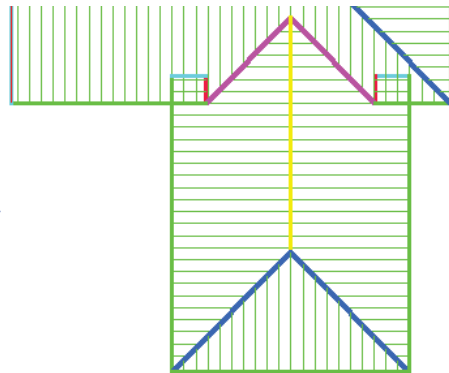
13.Inserting Bay Windows

You may recall that we have built in a command in the *Track Outline* command allowing you to insert a Bay Window. We have also added this command into our *Mod Roof* menu offering you more flexibility as to the size and angle of your bay.



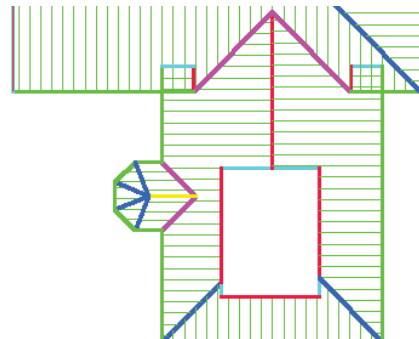
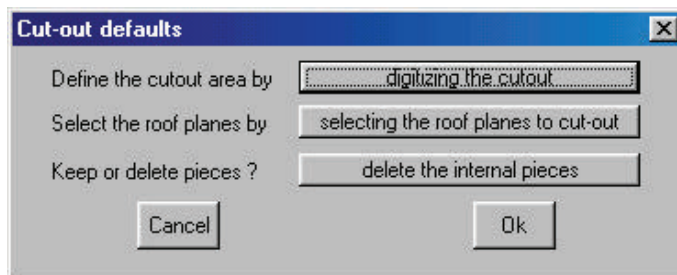
Key Benefit:

All of these features allow to you to visually check on the screen that the roof is the same as the one on your plan. You no longer have to trust those numbers you typed into your spreadsheet system.



14.Cutting out sections of the roof.

There will be times when you will need to cut a section of the roof away for a chimney stack or maybe a vent, or simply to butt up to an existing wall line. To achieve this, we have developed a command called *Cut-Out*. You are free to select which roof planes you wish to cut and the size of the cut-out.



15. Covering the Roof:

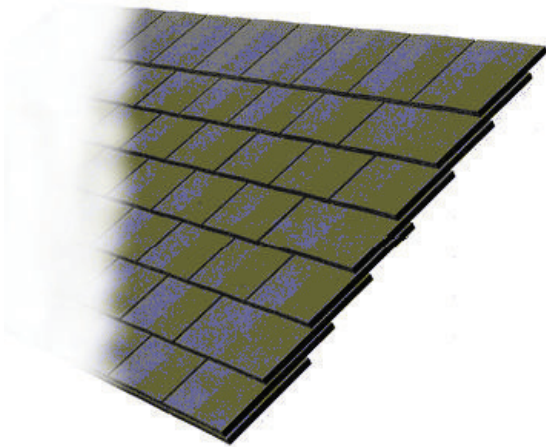
Up until now, we have only concerned ourselves with drawing up the roof shape so that it reflects the roof plan we are working to. As we said, it is extremely important to ensure that the roof plan on the screen resembles the one you are bidding for, and until you are satisfied with the roof geometry, there is little benefit in proceeding. Typically, for the roof shown in the previous section, it may have taken approximately 5 minutes to reach this stage.

Now we need to apply our roofing materials to the roof. These may be tiles, slates, shingles or shakes or metal panels. If it is a low slope or flat roof, we may need to use a Built-Up Roof system (BUR) or apply a Single-Ply material. In addition to the main roof cover, we will also need to quantify for the additional items needed for the roof, such as our flashings, downpipes, insulation, miscellaneous items as well as applying a cost factor for a means of fall protection.

As you may know by now, our software caters for all types of roof cover, but in this section, we will concentrate on Tiles, Metal Panels and Built-up Roofs with bitumen or single ply.

16. Tile & Accessory Selection

Our software is used by roof tilers and manufacturers all over the world, and, to cater for the variations in materials and processes, we have built in a number of features that simplify the process, yet still provide a very accurate means of quantifying the tiles and accessories for the job.



Shown on the following page are a couple of examples of the depths to which our software will go to quantify for not only the main field tiles, but also the hip and ridge tiles, valley tiles and even tile and a halves and eave tiles.

As you know, generally the most accurate method of calculating the tile coverage is by "coursing" the tiles up the roof. Our software caters for this and will even display the coursing lines up the roof, allowing you to see where they are located,

Key Benefit:

You can now save valuable time in calculating the number of tiles, ridge, hip and valley tiles, as well as tile and a halves. The software works these quantities out in seconds.

Example of Tile and Accessory Selection

	Accessory	Colour	Estimation	Nett qty
Ridge	Half Round Ridge [8101]	TERRACOTTA 34		11.4
Mono ridge	Half Round Monoridge [7203]	TERRACOTTA 34		0.0
Hip	Third Round Hip with Nail Holes [7411]	TERRACOTTA 34	by length	19.3
Valley		TERRACOTTA 34	by course	0.0
Eave course		TERRACOTTA 34		0.0
Top course		TERRACOTTA 34		0.0
Left verge	Cloaked Verge System Left [7273]	TERRACOTTA 34	by course	10.0
Right verge	Cloaked Verge System Right [7274]	TERRACOTTA 34	by course	10.0
Hip apex	Third Round Hip/Ridge Junction [9521]	TERRACOTTA 34		1.0
Ridge end	Half Round Block End Ridge [7519]	TERRACOTTA 34		1.0
Shell end	Third Round Block End Hip [7784]	TERRACOTTA 34		2.0
Ridge vent	Dry Ridge System - Half Round [9373]	TERRACOTTA 34		1.9
Eave vent	Redvent Eaves System 450 Centres [918]	TERRACOTTA 34		4.3
Hip system	Dry Hip System [9411]	TERRACOTTA 34		3.2

Example of Tallying up the Material quantities

Category	Manufacturer	Description	Qty	Rate	SubTotal
Roof tile	Redland	Rosemary, Plain - Red, TBA	3751.00	3.00	11253.00
Tile+half	Redland	Tile and a Half, 6509, TBA	223.00	4.00	892.00
Ridge tile	Redland	Rosemary Half Round Ridge (300), 8450, TBA	24.00	5.00	120.00
Mono ridge	Redland	Rosemary Half Round Monoridge, 8484, TBA	0.00	1.00	0.00
Hip tile	Redland	Bonnet Hip 35-42, 8428, TBA	112.00	5.00	560.00
Valley tile	Redland	Curved Valley Tile 40-50, 8432, TBA	0.00	1.00	0.00
Eave tile	Redland	Eaves Tile, 6504, TBA	279.00	3.00	837.00

Example of quantifying for Tile and Halfs

Some of the Manufacturers listed in the UK Database



	Tile+half [6509]	Double tile []
At left verge	Alternate course	None
At right verge	Alternate course	None
At roof to wall	Alternate course	None
At hips	Every course	None
At valleys	Alternate course	None
Reduce field tiles by tile+half pieces ?	Yes	
Number of tile+half : 110		
Number of double tiles : 0		
Set as default		

17.Metal Panel Selection

When selecting the metal panels, you will firstly be shown the database of materials that you previously defined.

Select roof material

BHP	Corrugated 0.42 Met	Painted	0.42
Martins Metal	Corrugated 0.42	Galvanised	15.00
Kingspan	KS1000 RW - Steel	Galvanised - Painted	40.00
Kingspan	KS1000 RW - Al	Pvf2	40.00
Kingspan	KS1000 LP- Al	Pvf2	40.00
Kingspan	KS1000 LP- Steel	Galvanised - Painted	40.00
Kingspan	KS1000 SF- Steel	Galvanised - Painted	40.00
Kingspan	KS1000 SF- Al	Pvf2	40.00
Kingspan	KS1000 SF- Alsh	Pvf2	40.00
Kingspan	KS1000 SF- Steel	Galvanised - Painted	60.00
Martins Metal	Corrugated 0.42	Galvanised	42.00
BHP	Corrugated 0.42Imp	Painted	0.42
Corus	Kalzip 65/333	Galvanised	1.00
Kingspan Sh	KS1000 LP-	Pvf2	40.00
Corus	Kalzip 50/333	Painted	0.70
Corus	Kalzip 50/333	Painted	0.80
Corus	Kalzip 50/333	Painted	0.90

Cancel OK

After making the selection, you then have the freedom to modify the default fasteners, the frequency of those fasteners, as well as selecting additional screws and clips to be used for that particular job. You will also nominate the labour rate that you intend to use to lay this material, as well as selecting the costing associated with fall protection.

Key Benefit:
You define the database of panels to suit your materials to your business. You don't have to search through thousands of items to find the one you need.

Roof metal panel material

Straight metal	Curving metal
Manufacturer Kingspan	Manufacturer
Profile KS1000 SF- Steel	Profile
Product code KS1000 SF	Product code
Finish Galvanised - Painted	Finish
Change	Change
Fastener L10 w TK5	Fastener
Fasteners per sqm 8.00	Fasteners per sqm 0.00
Clip L40	Clip
Clips per m 3	Clips per m 0.00
Coverage width 1000.00 mm	Coverage width 0.00 mm
Seam screw	
Screws per m 0.00	
Seam tape/sealant	
Application rate 1.00 litre per m	
Pay rate schedule Kingspan LP	
Sarking Breather Membran	
Fall protection Sample Fall Protec	
FP Pitch break 90.00	
Cancel	Ok

Software is available in Metric or Imperial

18.Applying BUR or Single Ply to low slope roofs

In addition to providing software for tile and metal roofs, we have also devised a product designed specifically for the flat roofing industry. This can be supplied as a stand-alone product called Roof Maestro, or, if you are also involved in tiling or metal, you could utilize Sorcerer, which encompasses all roofing types. For flat roofing, we have designed two separate methods for the take-off, one for built-up roof systems, i.e. “3 layer plus chip” and another for single-ply layout.

From a take-off point of view, when you are defining the materials, the software simply needs to know the size of materials used in square meters or squares, and in the case of single ply, the width of the rolls, along with the costs associated. Below is the typical definition screen for this process;

Define Membrane [rec = 0 of 14]

Manufacturer

Name

Code

Description

Unit type

Area method for BUR

Large size in sqm	0	Cost	0.00
Small size in sqm	0	Cost	0.00
Labour rate /sqm	0.00		

Layout method for single-ply

Perimeter sheet width	0.00	mm		
Length	0.00	mm	Cost	0.00
Length	0.00	mm	Cost	0.00
Field sheet width	0.00	mm		
Length	0.00	mm	Cost	0.00
Length	0.00	mm	Cost	0.00

Select Delete Add

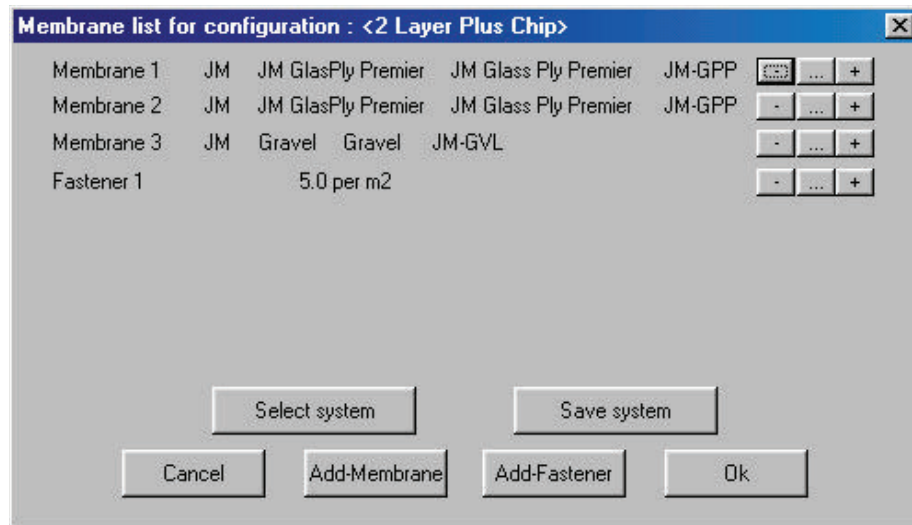
Cancel Ok

Key Benefit:

You have the flexibility to define the materials you use on a day to day basis. New materials can be added to the roof modeling process at any stage.

Laying out BUR

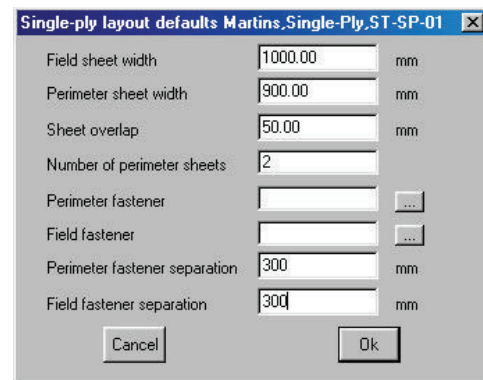
Obviously, when you are applying a membrane product to the roof, you will normally apply it in a series of layers and you will normally need to quantify for fasteners also (this could be liquid fasteners). At this stage, we have simply defined one individual membrane product, but now, when we are applying it to a roof, we need to create, or select a “system” of BUR.



This may be a typical “system” of BUR, consisting of several layers of membrane and a fastener. These systems can be modified on a job by job basis, or can be saved for future use. When you then select “Apply to Plane” the software will then quantify all of these materials, based on the size of the roof, to report how many rolls, drums, tonnes, kilo’s etc for membrane and how many fasteners required, and the relevant costs associated.

Laying out Single-Ply

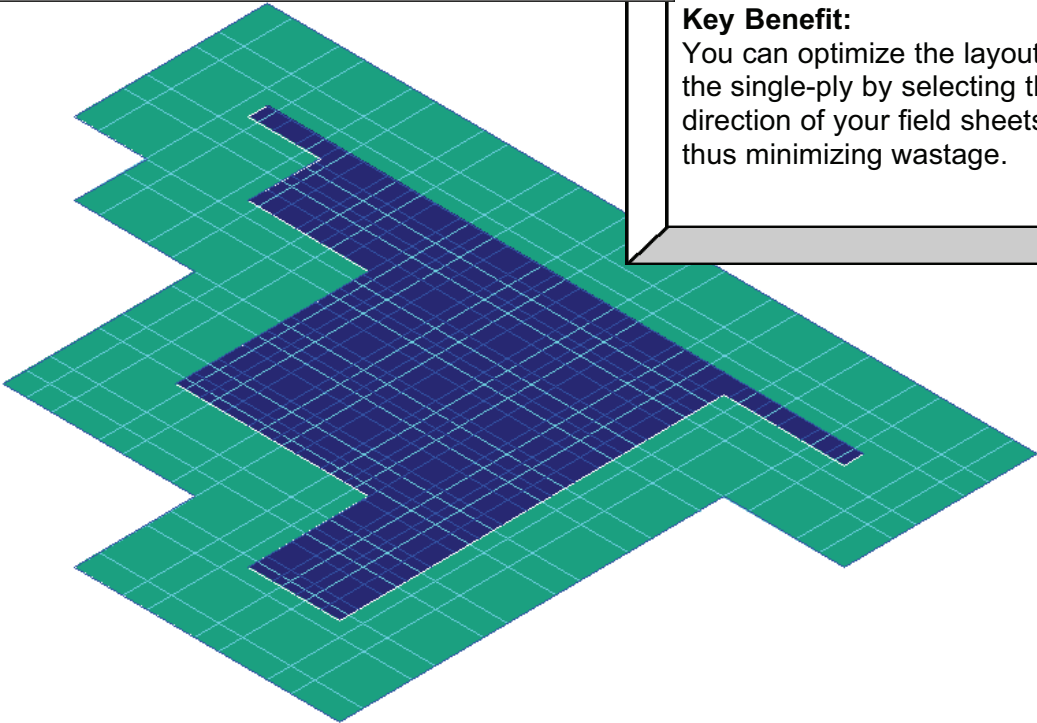
Single Ply works in a slightly different way, and uses the width of the roll for take-off, reporting the total length of roll, and then converting that into the number of rolls required. Also with single ply, you can elect to run a number of perimeter sheets around the roof, followed by the field sheet, and you can tell the software which direction you intend to lay out the field sheets. You can also allocate different fasteners for laying out the field sheets as distinct from the perimeter sheets.



Single-ply layout quantities Martins.Single-Ply.ST-SP-01	
Perimeter length	140000.3
Number of large perimeter rolls	14
Number of small perimeter rolls	0
Field length	23700.4
Number of large field rolls	0
Number of small field rolls	1
Number of perimeter fasteners	466
Number of field fasteners	79
Continue	

Software is available in
Metric or Imperial

Key Benefit:
You can optimize the layout of
the single-ply by selecting the
direction of your field sheets,
thus minimizing wastage.



19. Applying Flashings – Standard

As you know, flashings can be divided into two distinct categories, when it comes to costing a job. There are the standard “off-the-shelf” flashings that are supplied in a range of sizes and profiles, and there are “Custom Profile” flashings that are costed and supplied based on the “girth” and the number of bends. Custom profiles normally follow a set of profiles, but vary in size from job to job.

Define flashing (rec = 2 of 11)

Type of flashing: **Gutter**

Manufacturer: **BHP**

Finish: **Painted**

Fastener code: **BHFP1265HT17**

Description: **0 Gee Gutter**

Product code: **OG60--**

Fasteners per m: **0.50**

Maximum length: **10000.00** mm

Costing method: **per meter**

Cost per unit: **1.00**

Estimation method: **Split each run up to the maximum length**

Pay rate schedule: **Default**

Select **Delete** **Add**

Update

Cancel **Accessories** **Stock-Lengths** **Ok**

The first thing we will introduce is the Standard Flashing. When you first receive the software and begin to define your flashings, you will notice that there are a number of features, within the material definition, that will help to replicate the manual methods you currently employ to quantify flashings. These include setting the maximum length of flashing, cost per piece or per unit of length, how you wish to quantify the flashing, i.e. charge for stock length pieces, add up total run length and divide into stock length pieces etc, if there is a specific labour rate that applies to that flashing, and what accessories do you wish to quantify automatically.

These accessories can be set for a variety of frequencies, i.e. per run, per piece, per internal corner, per unit of length.

Define Accessories - page 1 of 3

Flashing accessories for BHP, 0 Gee Gutter, Painted, OG60--

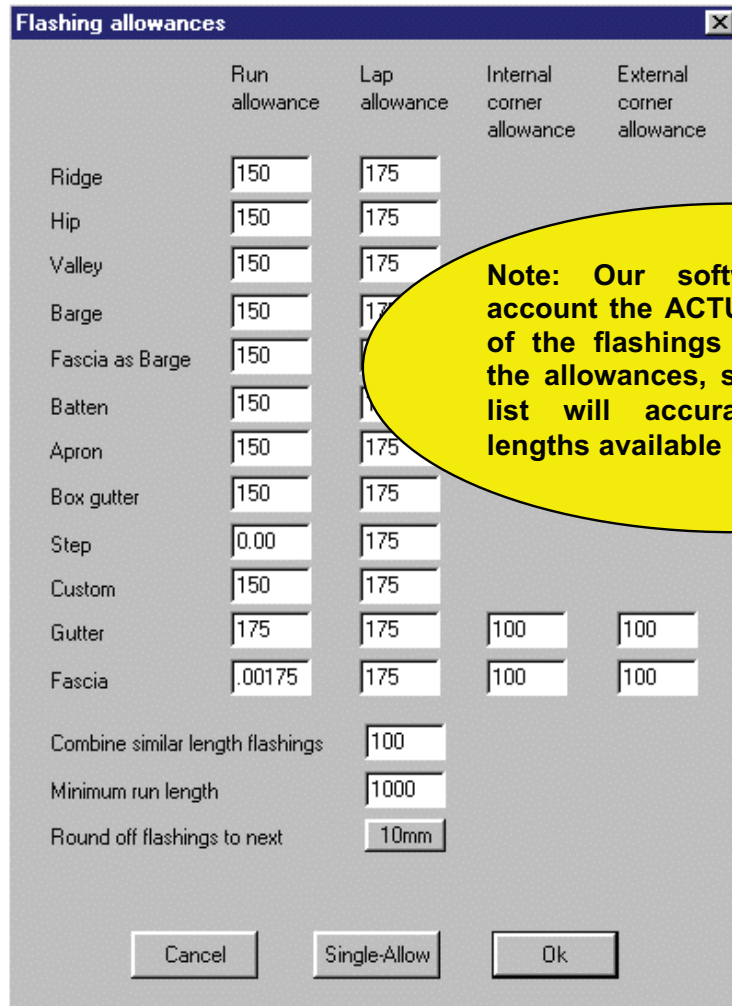
Gutter alone

Accessory Name	Product code	Finish	Items per box	Cost per box	Number	Estimation method	Fastener timber frame	Fastener steel frame	Number of fasteners
External bracket	EB-1	Painted	1	1.00	900.00	mm spacing along flashing (nett)			0
External corner 90	EXCNR-9	Painted	1	1.00	1.00	per external corner (90)			0
Internal Corner 90	INTCNR-	Painted	1	1.00	1.00	per internal corner (90)			0
Stop end left	SE-L	Painted	1	1.00	1.00	per free left hand end			0
Stop end right	SE-R	Painted	1	1.00	1.00	per free right hand end			0

Key Benefit:

Ensure that the profits for the job are not eaten away by forgetting to include that box of clips and brackets in the quote. Our software will automatically includes ALL relevant accessories and fasteners, in exactly the way that you defined them.

When applying these flashings, the first thing we need to do is to set the Allowances. In general, this is something that you will only need to set once, although there may be times when you will need to change these values.



	Run allowance	Lap allowance	Internal corner allowance	External corner allowance
Ridge	150	175		
Hip	150	175		
Valley	150	175		
Barge	150	175		
Fascia as Barge	150	175		
Batten	150	175		
Apron	150	175		
Box gutter	150	175		
Step	0.00	175		
Custom	150	175		
Gutter	175	175	100	100
Fascia	.00175	175	100	100
Combine similar length flashings		100		
Minimum run length		1000		
Round off flashings to next		10mm		

Buttons: Cancel, Single-Allow, Ok

Note: Our software takes into account the **ACTUAL** stock lengths of the flashings and then applies the allowances, so that the cutting list will accurately reflect the lengths available in your inventory.

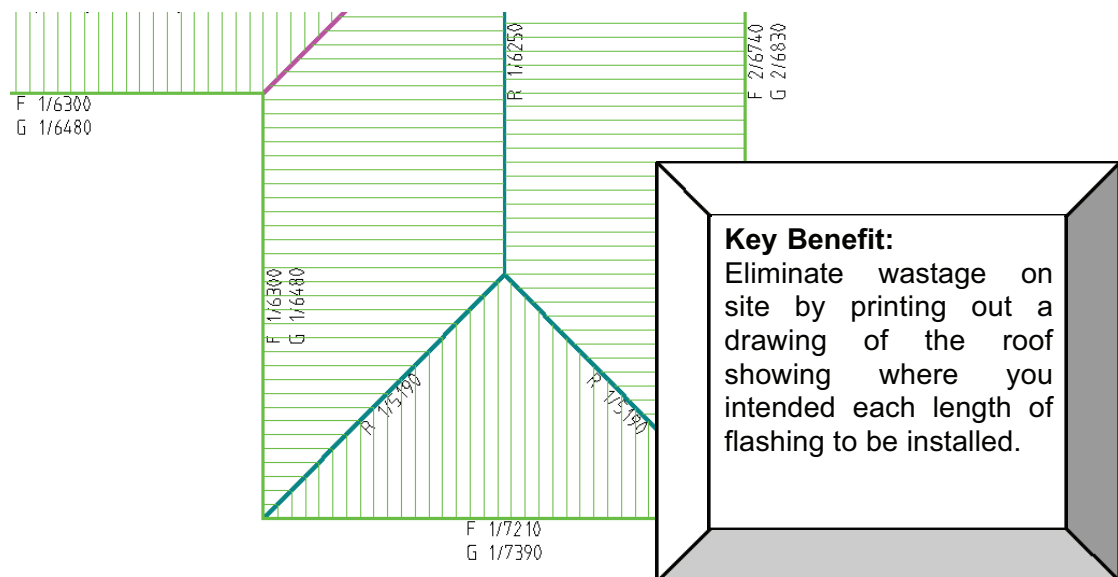
Remember that we set the stock length sizes when we defined the flashings originally, so it is important to set the correct overlap and run allowances to make sure that we quote for sufficient material to actually install the flashings.

When applying the flashings on the roof, we need to select the flashing required at each part of the roof, i.e. hip, ridge, gable, etc and select different colours, if applicable. Shown below is the flashing selection box, where you select the flashings required. Once happy with your selection simply select *Generate* and the software will then calculate the necessary lengths of flashings required, along with all accessories that have been automatically quantified.

Flashing Type	Description	Color Selection
Ridge	BHP,BHP Ridge capping,Painted,BHPRC1	Heritage Red
Hip	Same as ridge,...	
Valley	BHP,Valley,Galvanised,VRCTLGA	
Fascia	BHP,Metal fascia,Painted,FBHT42CTL--	Heritage Red
Gutter	BHP,D Gee Gutter,Painted,OG60--	Heritage Red
Barge	BHP,Rake flashing,Painted,CBVCTL--	Heritage Red
Apron	BHP,Apron,Zincalume,APRON-1234	
Box gutter	BHP,BoxGutter,Zincalume,BG-1234	
Step flashing	BHP,Step flashing,Galvanised,SF-1	
Batten	BHP,Lightweight purlin,Galvanised,RB4075	Insert

Buttons: Allowances, Generate, Delete, View-List, Single-Line, User-List, Set as Default, Show, Set Colour, Ok

On the screen, the lengths and sizes of the flashings needed will be displayed and this information can also be printed out on a drawing, to assist in the installation.



After generating the flashings, a cutting list is displayed and this can clearly be compared to the drawing on the screen to see where the flashings have been allocated.

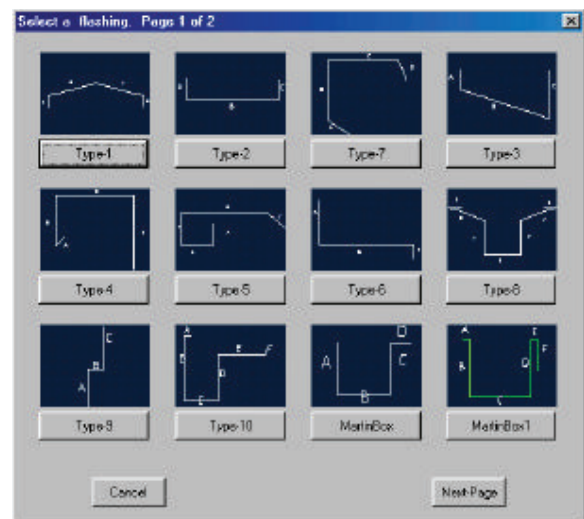
Flashing cutting list summary	
Ridge BHP,BHP Ridge capping,Heritage Red,BHPRC1	
2/6250 5/5190	
Total : 38450	
Valley BHP,Valley,Galvanised,VRCTLGA	
1/8000	
Total : 8000	
Fascia BHP,Metal fascia,Heritage Red,FBHT42CTL--	
2/7210 4/6740 2/6300	
Total : 53980	
Gutter BHP,O Gee Gutter,Heritage Red,OG60--	
2/7390 4/6830 2/6480	
Total : 55060	
ExportCSV Accessories Continue	

Accessories list		
Name	Code	Qty
Fascia bracket	FB-1	59
Snap clip	SC-1	59
External bracket	EB-1	59
External corner 90	EXCNR-90	5
Internal Corner 90	INTCNR-90	1
Stop end left	SE-L	0
Stop end right	SE-R	0
Continue		

As you will note from the above list, some items are quantified as stock length pieces, i.e. the Valley is shown as one length of 8000, however other items are shown in individual length sizes, based on the lengths needed. This has been determined by the way you defined these flashings.

20.Applying Flashings – Custom Profile

Because a lot of metal flashings and trim are made up from flat sheet and formed to suit the profile for the job, we created the ability to allow the user to firstly define a series of flat sheets, of differing thicknesses, materials and sizes, and then to create a series of “custom profiles”.



When applying these flashings to the roof in question, you then select the flat sheet that you wish to form the custom profile out of, then select the actual profile. You can modify the sizes of each part of the profile to suit the current job. When reporting a cost for that flashing, the cost is based on the girth and number of bends that make

Define profile dimensions for <Type-1>

	Length (mm)	Angle
Segment A	50.00	
Segment B	200.00	105.00
Segment C	200.00	150.00
Segment D	50.00	105.00

Cancel Accept

up the profile, and can even report the quantity of flat sheets that are required to manufacture those flashings.

Flashing cutting list summary

Ridge Johnson, Profile: Type-1, Galvanised, Flat Sheet 1
5/2400
Total : 12000
Flat sheet Flat Sheet 1, @ 2

ExportCSV Accessories Continue

21. Applying Insulation and Fall Protection

When applying insulation, we have built in a similar ability to that of laying a built-up system. You can either apply insulation as a single product on any or all of the roof planes, or you can apply a “system” of insulation, which may consist of 4 or 5 different layers of insulation and fasteners.

Insulation list

Insulation 1	Sample Supplier	Aluminium foil	Al foil	AF-1	...	+
Insulation 2	Hilltop Slate	Roofing felt	Roofing felt for slate	HS-RF	...	+
Fastener 1	BHP	12x65	Hex Head type 17	BHFP1265HT17 10.0 per m2	...	+

Select system Save system

Cancel Add-Insul Add-Fastener Ok

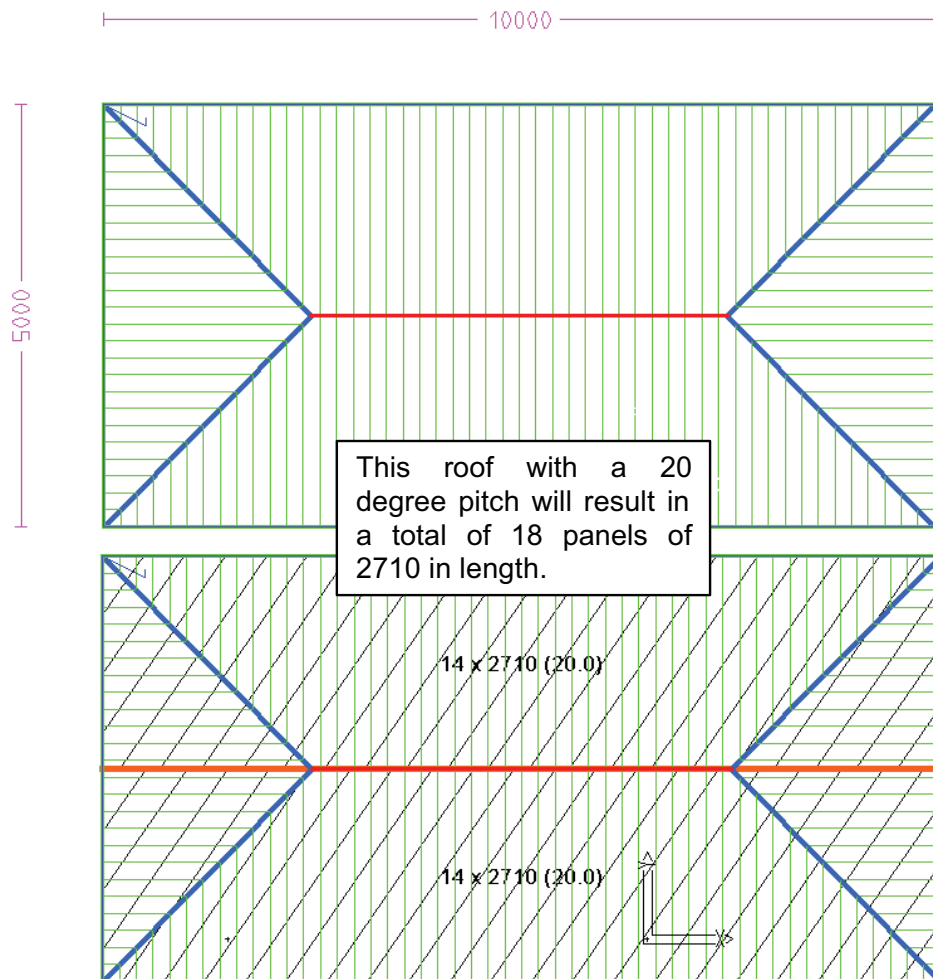
Applying Fall Protection can either be applied automatically to all eaves on a second storey roof or above, or can applied to any roof planes above a certain pitch, or can be applied manually to any lines selected. You can also set up fall protection using “anchor points” and apply these around the roof and cost them accordingly.

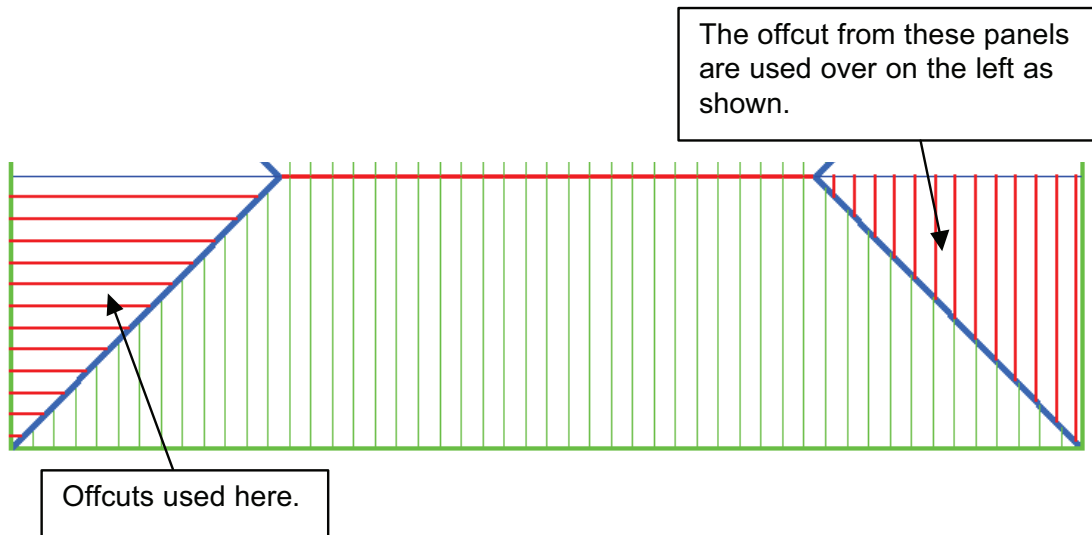
22. Estimate the Materials:

When applying metal panels to the roof, there are various methods that can be utilised. Depending on the widths of panels, and also the traditional methods used in that particular region, some roofers prefer to “Block” the roof out (see explanation below) to achieve minimum wastage, whilst others will utilise our “Gen-Panels” approach where panels are “sided” and the off-cut cannot be utilised elsewhere.

23. Explanation of Blocking the Roof to minimize wastage

The blocking command originated in Australia where roofers told us how they quantified for their metal panels on the roof and how they utilized the off-cuts and wastage. The way it is done is to quite simply lay the metal panels on the roof in a series of blocks. Each block consists of a quantity and length of panels and hips and valleys are effectively ignored, knowing that the offcut from each panel leading up to a hip and valley can be used on another part of the roof.





24. Offsetting the roof for greater accuracy

In order to simulate the real-life situation of laying panels on the roof, taking into account the clearances of the panels at hips, ridges and valleys, we were asked by one of our customers who is a major manufacturer of metal roofing panels, to more closely replicate the actual quantity on the roof.

Panel allowances

Offset roof parameters

Gutter overhang	50.00
Hip clearance	50.00
Ridge clearance	50.00
Gable clearance	25.00
Valley clearance	50.00
Apron clearance	50.00
Batten thickness	150

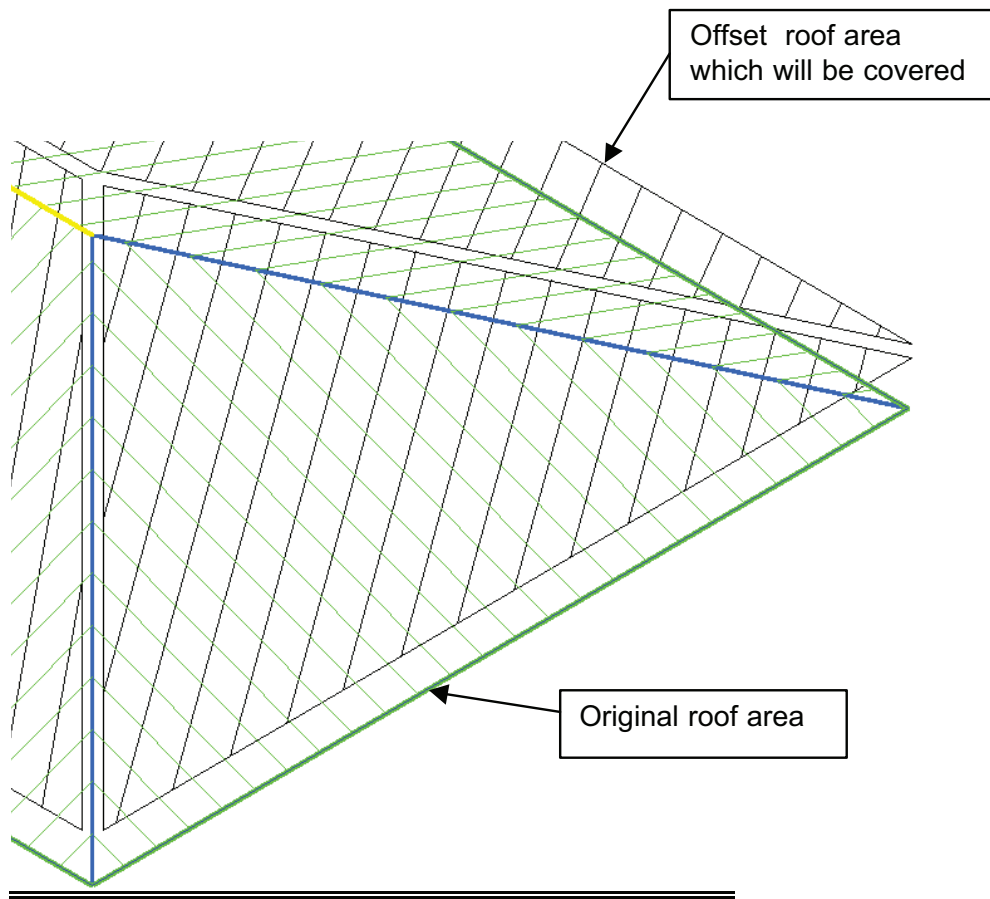
Generate panels parameters

Panel side underlap distance	0.00
------------------------------	------

Tally panels parameters

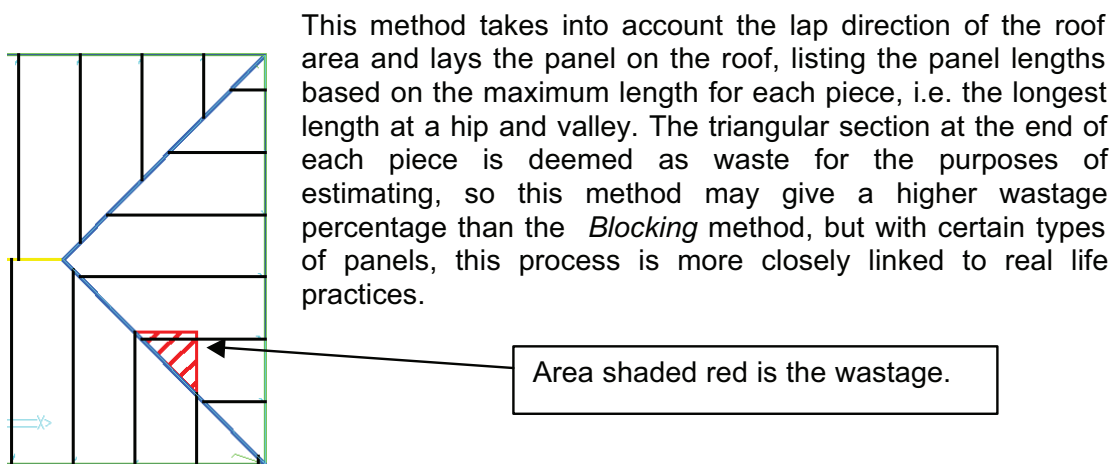
Combine similar length panels	500
Round off panels to next	10mm
Annotate panels with	Identifier and panel length

Cancel Ok

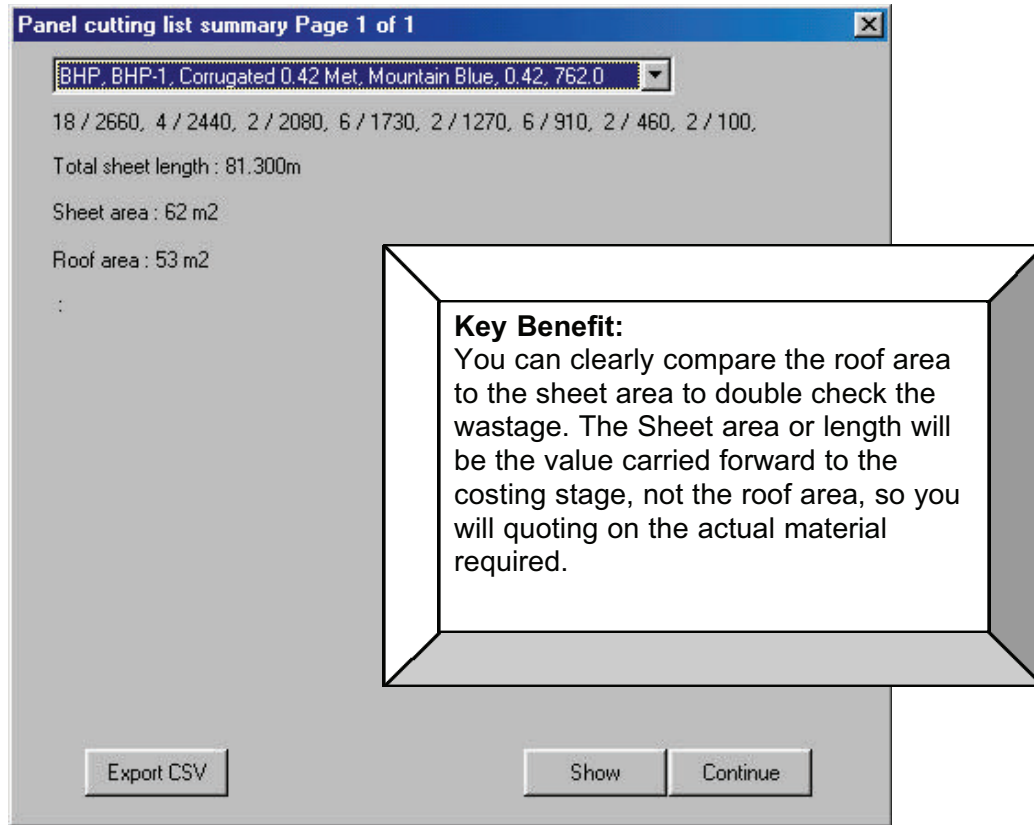


25. Generating Panels the conventional way

The blocking method is one method of quantifying the roof cover, but another method commonly used is what we call the *Generate Panels* method.

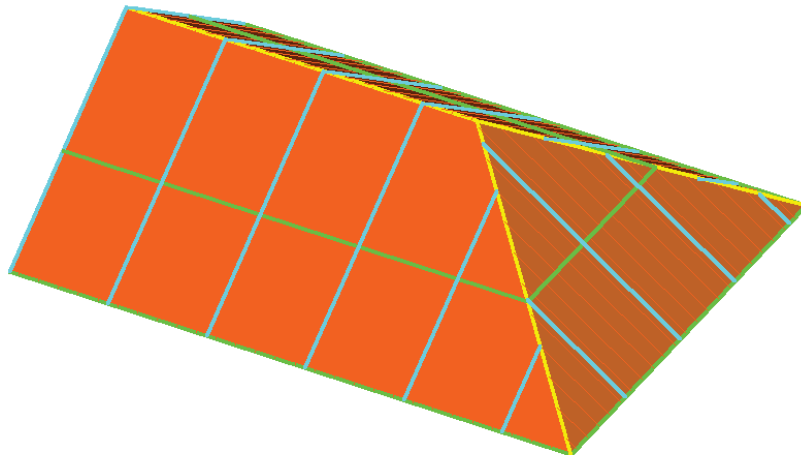


Whether you use the *Gen-Panels* approach or the *Blocking Method*, you will want to *Tally* the panels or blocks. The end result will show the complete cutting list for all of the panels on the roof, showing the total panel length, area and roof area, so that it is easy to see the amount of wastage reported.



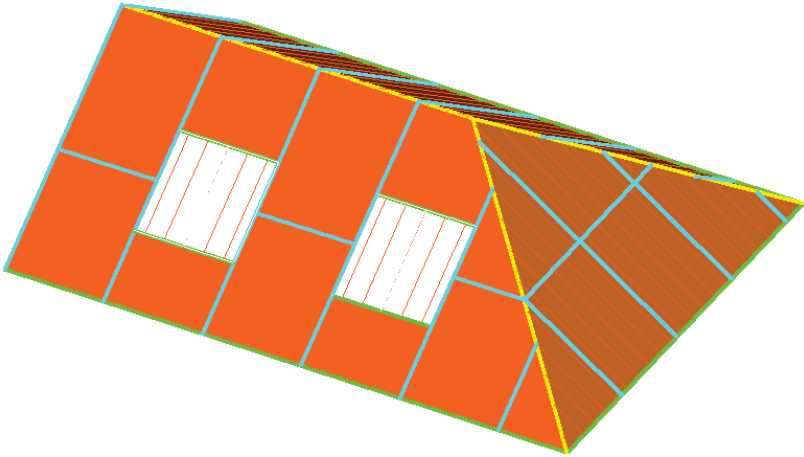
26. Splitting Panels for commercial and long span jobs.

As a lot of metal roofing jobs in the commercial sector requires potentially a long panel length, and because handling restrictions can often mean that the panel needs to be joined, we have now added the ability to break the panels at any locations along the purlin centers.



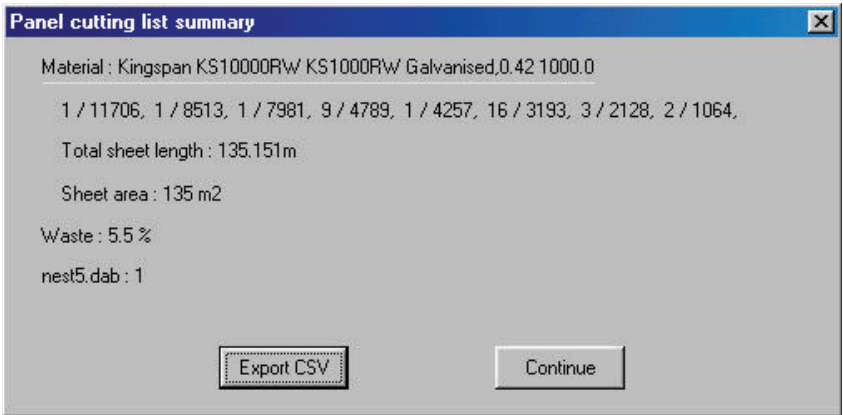
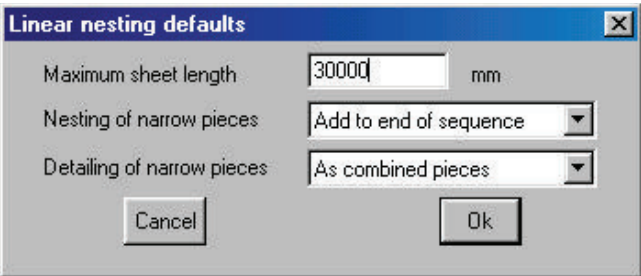
27.Inserting Translucent Panels

Another thing that occurred to us whilst developing the split panel command was to allow the insertion of a different panel, ideally a translucent, at any point on the roof. The software will also report the total square area of the translucent, allowing you to compare with the roof area, thus enabling you to quote as per specification, i.e. 15% of roof area.



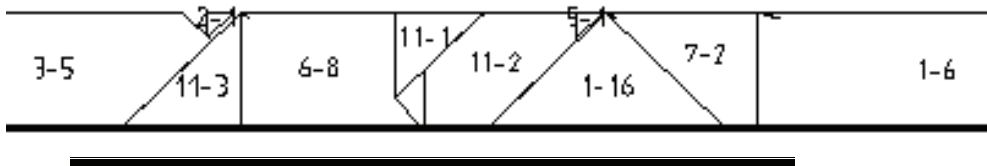
28.Linear Nesting of the cut sheets

Having generated the individual sheet lengths for the roof, we were then asked by a major metal roof manufacturer to automatically “nest” the sheets on continuous rolls. The purpose of this was to minimise the wastage and create maximum usage out of any single run of roofing material.



Example of Linear Nesting Output

Each sheet is given an identity which relates to the numbered panels on the roof drawing.



29. Costing the Job:

Now that we have accurately simulated laying out all of the materials on the roof, we now need to use those quantities, and the costs associated with them, to generate the necessary outputs. This may be a quotation to the customer, or an order to the supplier, or even an invoice for the job when completed.

30. Using Stage Manager to break up the quote, order or invoice.

When it comes to generating the required outputs for the job, there are often times that the job will be completed in stages, and each stage may be separated by weeks or months. You may have had to quote for the job in stages or as a total package but you will almost certainly want to order your materials and generate your invoices based on those stages.

We have built in a feature called **Stage Manager** and this allows you to define each stage (shown below) and then nominate which roof planes are to be completed as part of each stage. As you can see from the box on the next page, you can even break each stage down into the individual processes applied to the roof. For example, you may want the flashings and downpipes to be fitted to both Stage 1 and Stage 2 roofs simultaneously, but you may want to separate the

actual roof cover for each stage. We have built in sufficient flexibility to cater for the majority of business practises.

Stage elements

Stage group name: 3 [Add to group]

Batts	Stage 1	Ridges	Stage 2
Roof cover	Stage 2	Hips	Stage 1
Roof insulations	Stage 2	Valleys	Stage 1
Roof Sarking	Stage 1	Fascia	Stage 2
Steps	Stage 1	Gutter	Stage 2
Aprons	Stage 1	Downpipes	Stage 3
User lengths	Stage 2	Barges	Stage 2
Fixtures	Stage 3	Fascia as Barge	Stage 2
Box gutters	Stage 3	Fall protection	Stage 2

[Cancel] [Set-All] [Ok]

31.Using Quote Groups to break quote down into separate values

In response to customer feedback, we have further increased the flexibility of generating the outputs. Our software has always allowed you to create their own templates and forms so that the software will output quotation forms and order forms that closely resemble their existing methods.

We have now added further flexibility to allow you to break the quotation down into a series of groups. These groups can be defined by the user and will be separated out on the forms to show individual quotes for these groups.

Setup quote groups (rec 0 of 0)

Group name: Metal Flashings [Write the name on the report too? No]

Key text string: ###QGROUP1 [Show the tax amount on the report? No]

[Will the displayed value include tax? No]

[Will the default value include the markup %? No]

Straight	☐		Sarking	☐	
Curved	☐		D Pipe	☐	
* Ridge	☒	Ridge Flashings	Roof tiles	☐	
* Fascia	☒	Fascia Trim	Hip tiles	☐	
* Gutter	☒	Gutter Pieces	Ridge tile	☐	
Barge	☐		Valley tile	☐	
* Valley	☒	Valley Trim	Eave tile	☐	
Apron	☐		Roof Shingles	☐	
Step	☐		Hip Shingles	☐	
* Box gutter	☒	Box Trim	Ridge Shingles	☐	
Batten	☐		Roof Shakes	☐	
Counter	☐		Hip Shakes	☐	
Insulation	☐		Ridge Shakes	☐	
			Membrane	☐	

[Select] [Delete] [Add] [Cancel] [Ok]

As an example of these differing groups, you may need to provide a price for the main roof material as one value, but then a total price for all flashings as a separate price, and then maybe another price for the insulation and purlins.

Quote group number 1 of 1

The name of this group is : Metal Flashings

Line item 1 : Ridge Flashings

Line item 2 : Fascia Trim

Line item 3 : Gutter Pieces

Line item 4 : Valley Trim

Line item 5 : Box Trim

The calculated total for this group is \$547.58

The material component is \$378.92

The labour component is \$168.66

What is the amount you want to write on the quote ? 547.58 ex tax

Re-Calc Continue

When you are generating the Quotation, you can view the contents of each group and modify the costs associated if required.

This should allow you to present a quotation breakdown to your customer if required. There may be up to 10 different groups defined.

Key Benefit:

Eliminate the need to make any manual calculations with pen and paper. You can present all information required for the quote using our software.

32.Labour Rate Flexibility

Whatever type of roofing you are into, you may also need to allow for a labour content within your quote, unless you are a manufacturer, providing an estimating service.

Within our software, we have built in a great deal of flexibility when it comes to calculating the labour for a job. When you first receive the software, you will set up a series of labour rates. It may be that you have one series of labour rates for applying a plain tile, a different one for concrete tiles, a different one for a BHP panel and a different one for a Kingspan panel. You can set different labour rates for different pitch intervals on the roof, as well as different storeys on the roof.

Also, when defining flashings, you can set a specific labour rate for applying that one flashing, irrespective of where it used on the roof.

Maximum length 8000.00 mm

Costing method per meter

Cost per unit 6.00

Estimation method Split each run up to the maximum length

Pay rate schedule Kingspan LP

Pay rate line item Awkward Box Gutter

Select Delete Add Update

Shown below is the *Labour Pay Rate* box and is where you set the labour rate for each feature of the roof. The one below is the set-up for tiling but we have a similar process for metal roofing.

Installer pay rates for Tiles (rec = 2 of 2) Page 1 of 2

Name: Roof unit:

Storey: 1 Note: The pitch interval INCLUDES the higher range value

Pitch intervals:

Roof / sqm	5.00	6.00	7.00	8.00
Normal hip / m	5.00	6.00	7.00	8.00
Sealed hip / m	5.00	6.00	7.00	8.00
Butt hip / m	5.00	6.00	7.00	8.00
Normal valley / m	5.00	6.00	7.00	8.00
Bed and point valley / m	5.00	6.00	7.00	8.00
Sealed valley / m	5.00	6.00	7.00	8.00
Normal ridge / m	5.00	6.00	7.00	8.00
Sealed ridge / m	5.00	6.00	7.00	8.00
Butt ridge / m	5.00	6.00	7.00	8.00
Normal gable / m	5.00	6.00	7.00	8.00
Bed and point gable / m	5.00	6.00	7.00	8.00
Seal gable / m	5.00	6.00	7.00	8.00
Barge ridge / m	5.00	6.00	7.00	8.00
Sarking and Insulation / sqm	0.00	0.00	0.00	0.00

Key Benefit:
 You can accurately report the labour content for the job by pricing labour based on slope, storey and roof feature. You can present a Labour Pay Summary to give to your installers to justify the pay for each job.

Having selected the appropriate labour rate for the job, you still have the flexibility to vary the labour rates for any part of the roof, once you get to the *Supply & Install* menu.

33. Supply Only or Supply and Install Quotes

Obviously, all of the processes we have employed so far are ultimately designed to allow you to generate a quotation for the job in question, as well as generating any other associated reports that you wish to print out. Now that we have reached this point, all we need to do is to select *Supply Only* (if you are quoting materials only – no labour) or *Supply & Install*. This will then bring a screen similar to the one shown and will detail every single component required for the job.

Supply and install Quote - <No Name> Page 1 of 3

Category	Manufacturer	Description	Qty	Rate	SubTotal	Discount %	Total
Roof tile	Redland	Rosemary Plain - Russett m, BROWN 02	590.00	3.00	1690.00	0	1690.00
Tile half	Redland	Tile and a Half, 6709, BROWN 02	310.00	3.20	992.00	0	992.00
Ridge tile	Redland	Rosemary Half Round Ridge (300), 8450, BROWN 02	25.00	1.50	37.50	0	37.50
Monoridge	Redland	Rosemary Half Round Monoridge, 8484, BROWN 02	0.00	1.60	0.00	0	0.00
Hip tile	Redland	Bonnet Hip 35-42, 8428, BROWN 02	125.00	3.20	400.00	0	400.00
Valley tile	Redland	Curved Valley Tile 40-50, 8432, BROWN 02	65.00	2.90	182.00	0	182.00
Eave tile	Redland	Eaves Tile, 6704, BROWN 02	270.00	2.40	648.00	0	648.00
Barge apex	Redland	Rosemary Half Round Block End Ridge, 8456, BROWN 02	0.00	3.00	0.00	0	0.00
Ridge vent	Redland	Dry Ridge System - Rosemary Half Round R, 9360, BROWN 02	3.00	2.10	6.30	0	6.30
Eave vent	Redland	Redvent Eaves System 350 Centres, 9189, BROWN 02	7.00	3.00	21.00	0	21.00
Labour subtotal					3726.07		
Labour markup					12.00		10.00
Labour total					4173.20		21594.28
							Job total (ex G.S.T)
							G.S.T (12.5%)
							3215.93
							Total (incl G.S.T)
							28943.41

Quote Groups

Notes Re-Calc Save Load Print Misc Item Fasteners Add Unsystem Tile Waste

Cancel Export CSV Export XML Set Suppliers Set Finishes Set Discount Next Page OK

We have shown above, just one of three pages of quotation for this particular job (in this instance the job incorporates tiles and accessories, flashings and insulation). In addition to automatically including the accessories and trim as required, we have also built in the ability to allow the user to add additional miscellaneous items and extra items that may be required, that are a function of the job, not a function of the roof.

Although the software has automatically worked out the correct quantity of materials and prices for the job, the user is still able to over-write any quantities and prices, without affecting the pre-defined database prices.

The Labour subtotal (seen below) can also be viewed by clicking on the appropriate button.

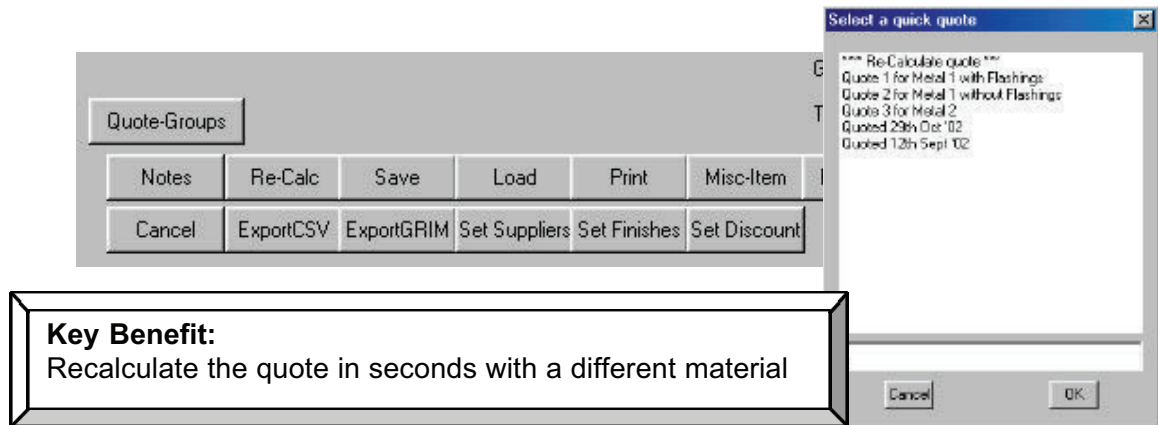
Roofing Labour charges

Description	Qty	Rate	Total	Description	Qty	Rate	Total
Battens	363.75	2.00	727.50	Hip (Normal), 1.20.0	24.46	5.50	134.53
Insulation (1.20.0)	34.79	1.20	41.73	Ridge (Normal), 1.20.0	5.50	5.50	30.25
Roof (1.20.0)	65.60	4.50	295.20	Valley (Normal), 1.20.0	3.40	5.70	19.38
Insulation sgn	34.79	1.60	55.66	Ridges/Hips m	0.00	3.00	0.00
Valley m	0.00	5.30	0.00	Fascia only m	0.00	3.00	0.00
Gutter only m	0.00	6.30	0.00	Fascia as Barge m	0.00	2.00	0.00
Fascia and gutter m	0.00	3.00	0.00	Barge m	0.00	1.00	0.00
Apron/Step m	0.00	4.30	0.00	Chimneys ee	0.00	1.00	0.00
Box gutter m	0.00	4.30	0.00	Battens m	112.68	1.00	112.68
Downpipes ee	0.00	7.00	0.00	Roof removal	0.00	2.00	0.00
Gutter removal	0.00	5.00	0.00	Underlaths	0.00	1.00	0.00
Pitch allowance	1.00	988.89	988.89				
Total				3726.07			

Cancel Re-Calc OK

34. Saving Quote Data

There may be times when you are asked to provide several quotes for the same job with different roof materials, or it may be that you needed to recall a quote that you generated 3 months ago, that included a number of miscellaneous items and extra line items. Now you can Save and Load quotes when you get to the Supply or Supply/Install stage. This is a very useful feature and allows you to save any number of quotes within the same job for instant recall.



Key Benefit:

Recalculate the quote in seconds with a different material

35. Exporting Data to other programs

In addition to using our software to generate the quotations and other associated documentation, there may be a requirement to export certain data to another software program. It may be that you are using another software package for your accounts, or for your ordering system, or you may wish to export the data for inventory management or contractor payments.

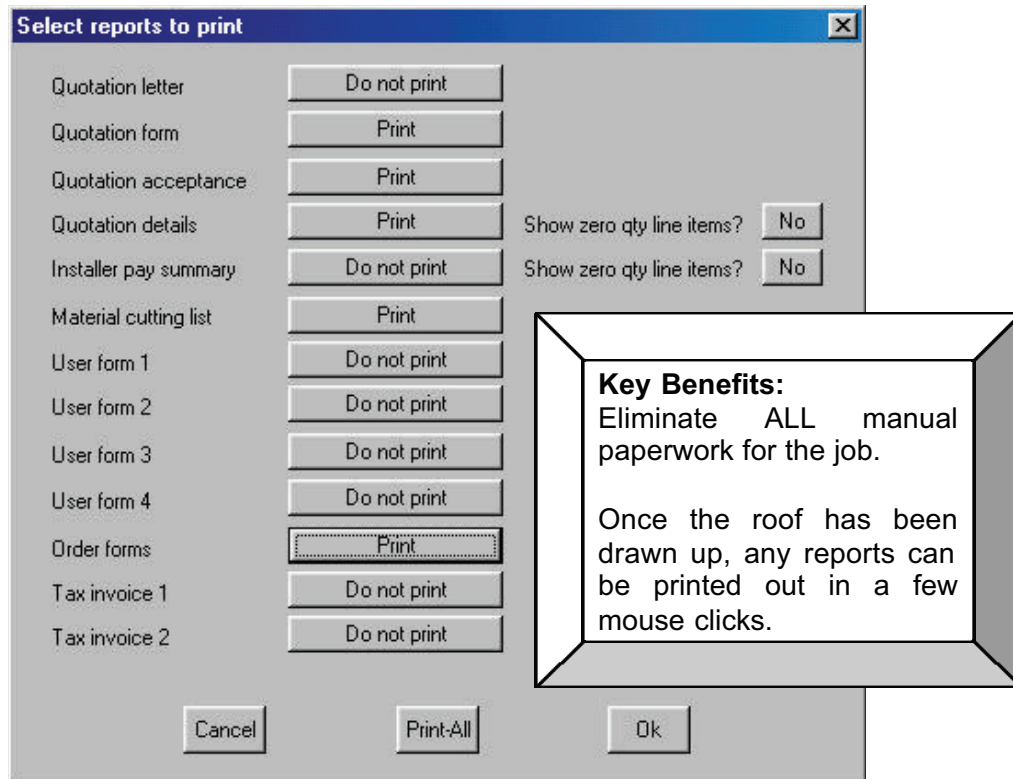
To cater for this, we have built in the ability to either *Export CSV* (comma separated values file format) or *Export GRIM* (a fixed format file containing only certain parts of information). This .csv file can be imported into word processing and spreadsheet software, such as Microsoft Excel.

At various processes used in our software, wherever a result is displayed, we provide the ability to *Export CSV*. For instance, you can export the data relating to the nett areas and lengths of the roof or the cutting list for the sheets or the complete listing for every component required for the job.

By *Exporting GRIM* you can create a "template" that contains only the information required. For instance, if you wanted to export only the Customers name, Quote Date, Total Material amount, Total Labour amount and Tax amount, you can create a template allowing you to filter only that information, to send it to your accounting software.

36. Printing the reports.

When you are happy with the figures shown in the quote, you will then want to print out the various forms. This can be accessed by selecting *Print* on the *Supply & Install* page. Rather than printing out reams of paperwork that may not be needed, we give you the option of selecting the particular forms you need.



As you can see above, we have prepared a number of forms already, based on what our customers have told us, but each of the form templates is customizable by the user. You may wish to present your quote with your company logo, or you may want to add more information to the quotation page, and using our software you can achieve this.

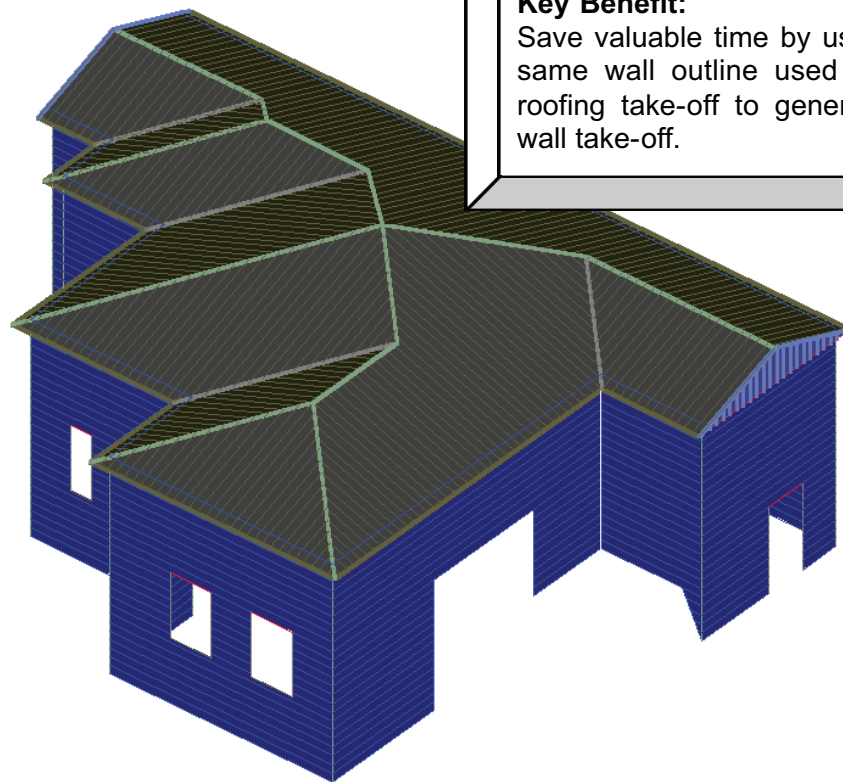
On the following page, I have shown some examples of the typical outputs. If you wish to receive more information on these outputs, please do not hesitate to contact our office.

[illegible][illegible]

Tax Invoice		
Applied Roofing ABN: 111-111-111-111	123 Church St Warriston	
Date: 13 November 2002		
To: _____ Site: _____		
Qty	Description	Total
1	For the supply and install of roofing materials at the above address.	\$5740.58
Total Price includes GST		\$5740.58

37.New Integration of Warlock to Roofing Software

For many years we've had a separate program for the vertical cladding market called Warlock. This was in response to the Australian and the US markets, where there were separate companies specializing in the siding market from the roofing market. However, we noticed that in the commercial sector, the roofing and siding is all done by the same contractor, so we decided that it would make sense to combine the roofing and siding products together. What this means to the user is that now you can draw up the roof using the usual functions of the Sorcerer or Wizard programs, and then, select Walls from the menu and the software will then utilize the wall outline you used to create the roof to project the walls to the correct height. This eliminates the need to re-enter the wall outline again, saving time and costly errors. Warlock is available as an add-on for existing users who wish to upgrade their capabilities, or as a stand-alone product. The end result is an extremely accurate and fast method for costing up the entire job.



Key Benefit:

Save valuable time by using the same wall outline used for the roofing take-off to generate the wall take-off.

38. What does all this mean to your business?

So far, this document has gone through a lot of technical aspects of the software, which we hope has shed some light on how you would go about using our software and what it can achieve for you.

Ultimately, we recognise that there will be an investment in your time and your money, in order to gain the most value out of our software, but when you consider the savings that can be achieved, both in time and money (by reducing waste, improving productivity and customer service), the return on investment will be highly achievable.

By speeding up the time taken in the production of estimates, you can spend more time on those parts of the job that cannot be helped by software, such as phoning to verify specifications, doing more field measurements, calling customers to monitor feedback and generating more business.

Consider this;

Take a single job that would typically take 35 minutes using traditional methods. Our software has world class technology that allows you to complete that same task in just 5 minutes – a saving of 30 minutes. Saving just 30 minutes each day adds up to an amazing 100 hours over a year – on just one job a day!

You will also be able to bid for more jobs (you may currently only bid for certain job types because it is too time consuming to bid for the complex ones), the estimates generated will be more accurate, therefore ensuring the likelihood of winning more bids and maintaining a healthy profit margin. If a customer calls up and changes his mind and wants the same roof re-quoted in another material, you can provide this service in seconds, rather than hours. If the customer changes the design of the building, you can use our functions to make those changes quickly and accurately, without having to start all over again.

In this day and age of technology, roofing contractors are looking for ways to stand out from the crowd and make their quotations move to the top of the pile. By using our reports with integrated drawings, you can present a very professional looking quote. You will be able to present yourself and your company with a much higher standard than your competitors.

You can also customize the reports to suit your business, so you can use your existing logos, or tailor the quote to extract certain information as required.

All of these points will go a long way in making your business stand out head and shoulders above the rest, and ensure that your business will maintain, or even improve its profitability in the increasingly competitive years to come.

39. Customers Testimonials

Having told you how great we think our software is, we thought it might be useful to hear what other people think, and how it has helped their businesses.

"Stratco is a successful manufacturer and marketer of sheet metal products. Incorporated in South Australia in 1949, the group now has manufacturing facilities though-out Australia and New Zealand. The company has built a solid reputation by offering quality products at competitive prices and backed this with excellent service.

A key product in the extensive Stratco range is Steel Roof Sheeting. This product is fully supported by a complete range of roofing accessories. A key marketing initiative in the promotion of this product group is "Plan take-off service" for the Housing Industry as well as the Owner Builder market. Initially undertaken manually by a competent team of estimators, the group has progressed through the early years of computer technology to today where it uses the popular AppliCad "Roof Wizard" package.

From the very first version "Roof Wizard V2.0" up to the current "3.1.1" version Stratco have benefited from this technology, enabling it to out perform its competitors in providing fast, accurate and professionally presented quotations. Not only has Roof Wizard assisted in significantly reducing the time to provide a quotation but it has enabled comprehensive record keeping and costing data.

AppliCad, like Stratco, have built their business by providing excellent customer service both in problem solving and awareness of, and training in, software improvements. We commend AppliCad for the Roof Wizard product and look forward to further development which will assist us in building our business and achieving our motto "Stratco, At you Service".

"I am a Roofing Estimator with 30 years experience having learnt my Plumbing Trade with the SA school of Plumbing. For 15 years I had been manually estimating all types of roofs using a scale ruler and a calculator. It was a very time consuming process, but over the years I became very proficient.

I started using a computer programme for estimating 10 years ago with limited success until learnt of Roof Wizard. This was version 2.1 and found it back then to be accurate and easy to use. From those early days to the latest version 3.1, (which I believe to be the best upgrade yet) I have used the software exclusively and have found the time taken overall in the generation of quotes to be 30 % less with almost 85 % of house roofs to be calculated with ease, and more difficult roofs to be accomplished with a little ingenuity.

The company's back up and customer support I believe is second to none and with continual commitment to improvement of their software I look forward to a long lasting relationship with the company and their software."

Yours Sincerely
John Illman

"It's not the easy jobs you lose your shirt on, it's the difficult ones. In the short time I have been using the program, I've done 52 quotes with the system - I got orders for 52 jobs. I am winning with the accuracy and the high quality presentations. Magician does it for me!"

Greg Smith
Owner
Bairnsdale Brick and Tile

"In this industry, where margins are so tight, we cannot afford to have inaccurate bids reducing our profit margins. With the significant cost savings from accurate quotations, my AppliCad software has paid for itself many times over."

Dale Bowles,
Maroondah Roofing.

"It's very helpful in really complex roofs with a hip/valley configuration. As a tool for doing estimating, it will do virtually anything you want. It's tight figuring saves us money by avoiding waste."

Mike Ross
Rooftec Systems, Jacksonville, FL

"Just a short note to thank you for such outstanding customer service on your Roof Magician program. I am extremely impressed by the patience and persistence you show when I need help with any problems that may occur. We now do all our tiled roof quotes through Roof Magician and find it save us up to 50% on time normally taken to do a manual roof quote."

Sue Palmer
ACP Roofing

"We have been in close contact with AppliCad regarding the software. There has always been a steady rate of improvement made by AppliCad to the software. These improvements have also always been considered by you to work in with what we require, which is appreciated. Looking forward to knowing how Steve is going with the latest improvements. Being able to estimate Roof Battens has improved our sales."

Brian Jepson
JH Stephenson and Son Pty Ltd

"Roof Wizard has been a great asset to our Company. I still have many applications to learn and believe that when these skills are gained, Roof Wizard will help us even more."

One thing for certain. I would not like to have to go back to manual estimating after working with Roof Wizard."

Leon Pittard
Steeline Roofing Centre - South East

"A complete roof or fascia/gutter take-off can be prepared while the customer waits (5-10 minutes), which customers are very impressed by. AppliCad is also very efficient in responding to issues and suggestions with the software. Updates are sent via mail or email depending on their urgency."

Craig Skipsey
JJ Steelworks

40. Our Value Proposition

To assist you in the justification of such an investment within your company, I have listed below, some of the features of our software, that you may or may not be aware of;

BETTER INVESTMENT

- cost is less than other solutions
- investment in our software includes unlimited support for 12 months
- easier to learn and use, therefore **reduced cost of ownership**
- annual Investment Protection program very comprehensive.
- multiple licences are available at discounted rates
- fully networkable
- effectively 24 hour support

MORE ADVANCED FUNCTIONS

- wide range of modelling functions
- insert bay windows, drop eaves and gable commands (overall, **easier modelling functions**)
- all accessories are automatically picked up for flashings and trim
- custom flashings and profiles plus export drawing of custom profile
- all fabrication and installation allowances for trim are automatically accounted for (lap and run etc.)
- automatically **creates a flashing plan** and purlin layout drawing
- stage manager for better job management and material delivery scheduling
- automatic order and invoice generation
- fall barriers and insulation quantities determined
- **fall protection planning** may be done and costed
- operator may modify roof in any 3D view, **easier to use on complex roofs**
- powerful heavy duty CAD system included
- **customisable reports**

GREATER FLEXIBILITY WITH OFFICE SYSTEMS

- export GRIM files and CSV file
- may be integrated with PocketPC (pocketROOFmedia) for external data capture

INNOVATIVE and EXPERIENCED COMPANY

- company longevity - we've been doing this for over 10 years
- CEO has over 33 years experience with CAD/CAM technology
- proof of concept for web based estimating completed
- sales and support offices in USA, UK and Australia

EASE OF USE and LEARNING FUNCTIONS

- fully illustrated and most comprehensive training and reference manuals in soft copy (on the CD and installed into the /Magician/Manuals folder) and hard copy
- web help - tips and tricks, latest tutorials available for download
- context sensitive on-screen help (middle button on the command)
- unlimited undo and redo in a session (undo redo on picture menu)
- automatic crash file ensures work can be recovered in the event of power interruption (CAD - file - recover)

ONGOING DEVELOPMENT

- everything in the software is there because **a roofer has requested it**
- we maintain a 'knowledge base' of all suggestions ever made and they are progressively incorporated based on priority of need