Tips and Tricks

Items drawn from Applicad's Customer Service file
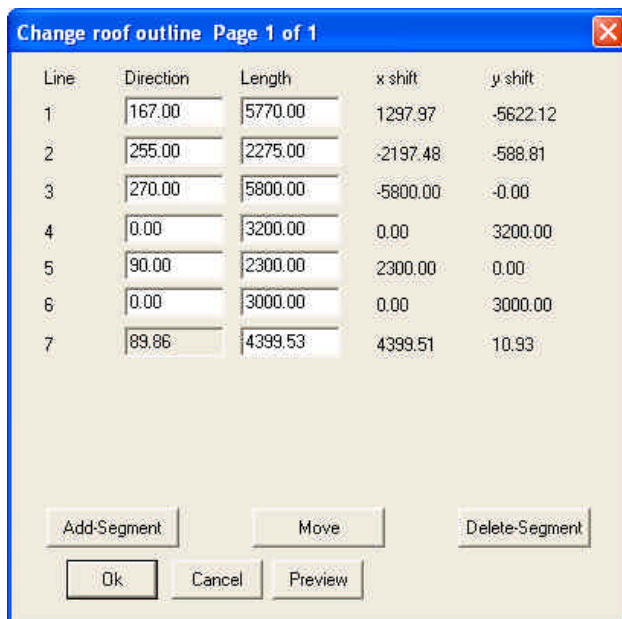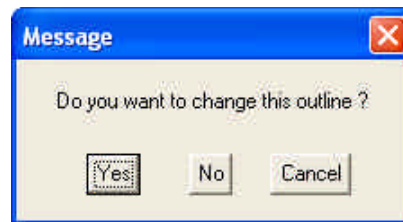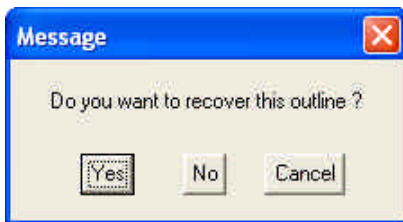
Number: 024
Objective: To create unrelated roof planes
Commands used: Several

This exercise is drawn from a job submitted by a client with several cut up roof sections. These jobs can be problematic in as much as most of the roof is unrelated to other parts of the roof. This tutorial does assume a reason level of competency with the software.

The part of the roof we will deal with is illustrated below, exactly as received on the fax.
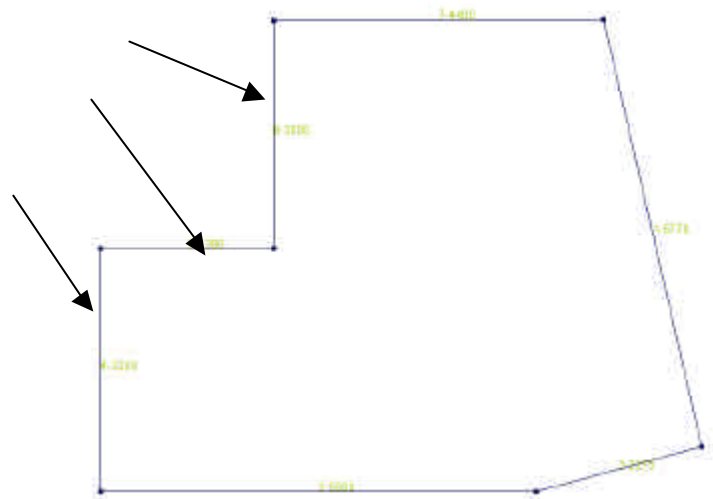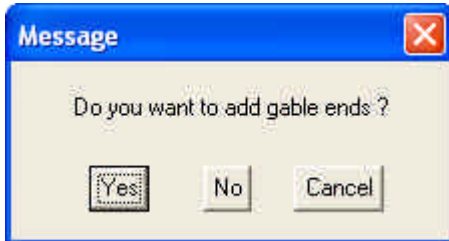

We have a couple of ways to tackle this job and each is as relevant as the other. The author's preference is the following. First of all I need an accurate outline. To develop this I use **the Gen-Roof/Track Outline** command. The resulting shape required a bit of adjustment, as wall angles were not available. I got it close, then used **Gen-Roof/Recover** and adjusted the lengths and angles of certain walls until the shape was near perfect. The operator is prompted, "Do you wish to do this" – yes you do!
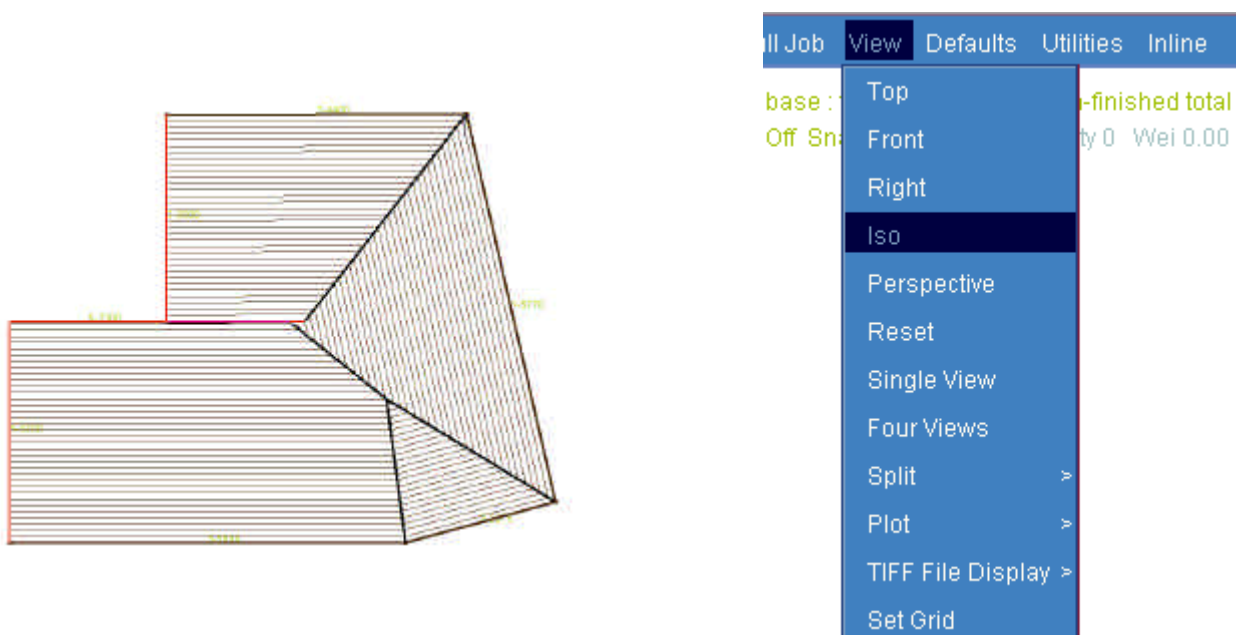

Change roof outline Page 1 of 1

Line	Direction	Length	x shift	y shift
1	167.00	5770.00	1297.97	-5622.12
2	255.00	2275.00	-2197.48	-588.81
3	270.00	5800.00	-5800.00	-0.00
4	0.00	3200.00	0.00	3200.00
5	90.00	2300.00	2300.00	0.00
6	0.00	3000.00	0.00	3000.00
7	89.86	4399.53	4399.51	10.93

Add-Segment   Move   Delete-Segment

Ok   Cancel   Preview

Information in this note is applicable to Applicad's Steep Roof Products:
Sorcerer, Roof Magician and Roof Wizard.

Items drawn from Applicad's Customer Service file

You can see here that you have total control over the outline you have generated. This is particularly helpful if you had a huge outline finished and then discover a mistake. Go back and adjust it. Easy!

We now have an accurate outline, we use it to generate the roof shape like normal. **Except** that we add a couple of gables when prompted to. Click 'Yes' and point to the three ends as shown.
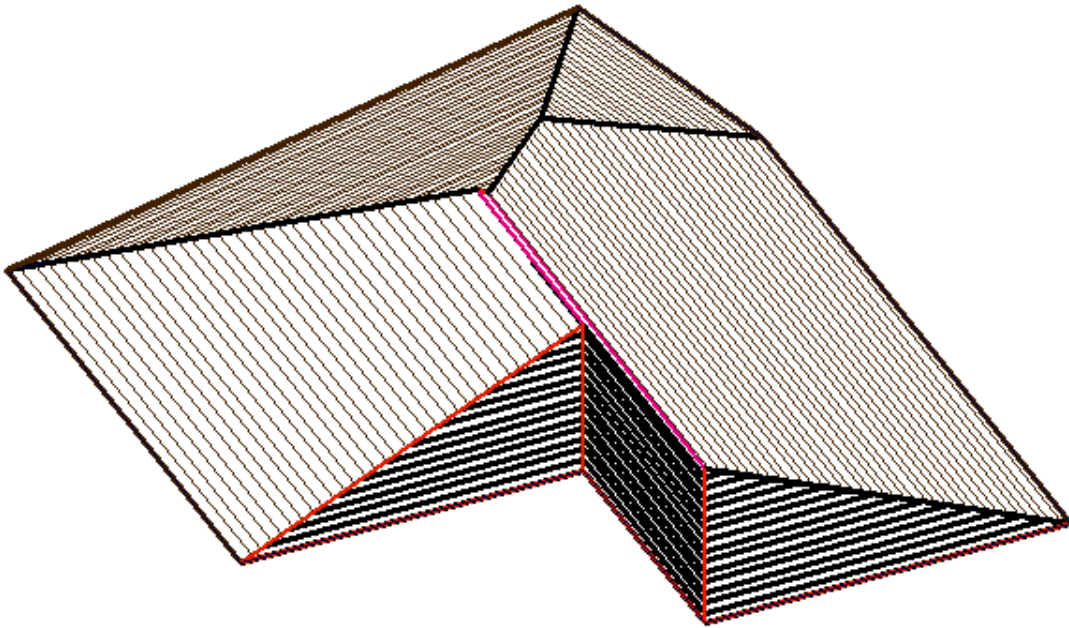

Then let the hips and valleys generate as normal.. …and you get this mess. Don't panic. It is actually very useful as it has given us the base geometry that may be used to develop the rest of the roof. Now delete the stuff we don't want. It might be easier to work in ISOmetric view to do this. From the pulldown menu, select ISO, then you will have to **ZOOM FIT** and to get the view shown here, **View Spin.**
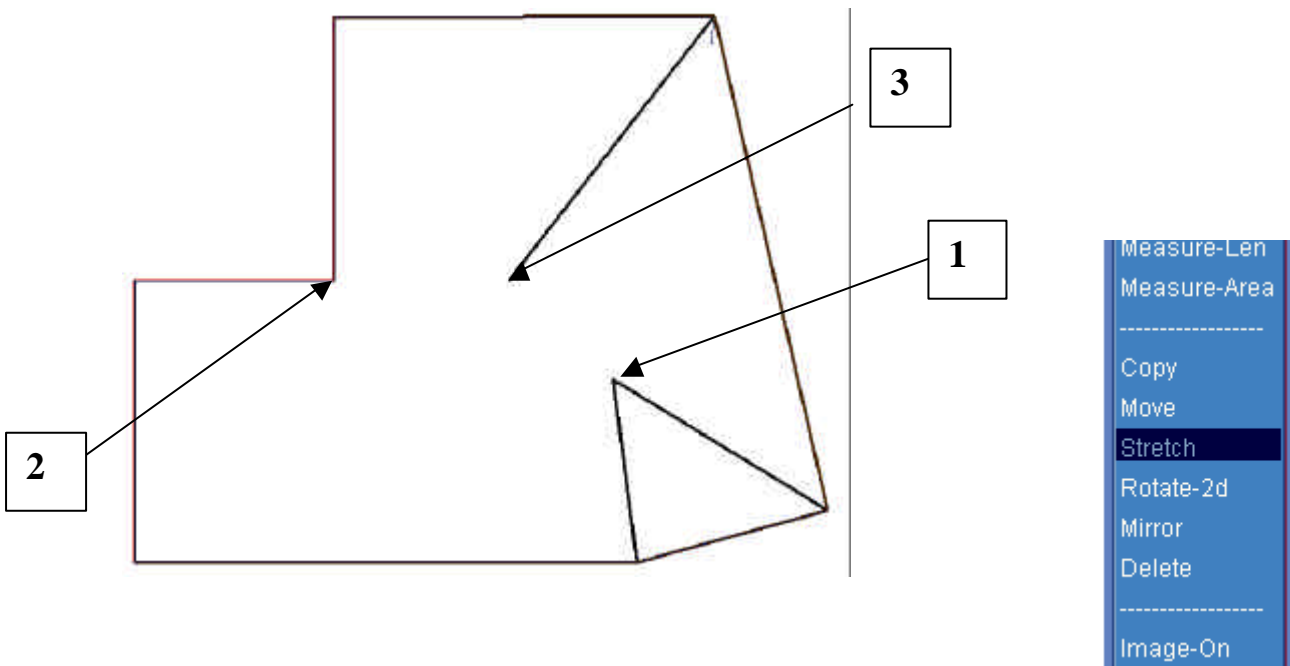

Information in this note is applicable to Applicad's Steep Roof Products:
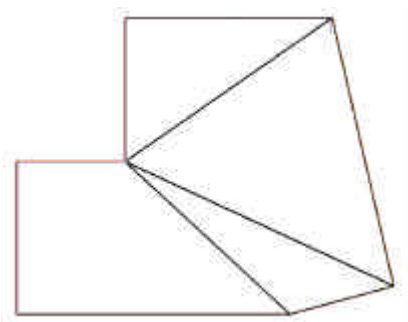**Sorcerer, Roof Magician and Roof Wizard.**

All the roof features you need to see are now clearly accessible. Now delete all the roof planes, the ridges and the end planes. In plan view you should be left with these lines only.

Now stretch the defining points of the lines to meet up with the gable apex as we require in our original plan. Use **Gen-Roof/Stretch**, snap to the end points indicated with the middle mouse button, one at a time and following the prompts, stretch the point (1) to the gable apex (2), and separately stretch (3) to (2).
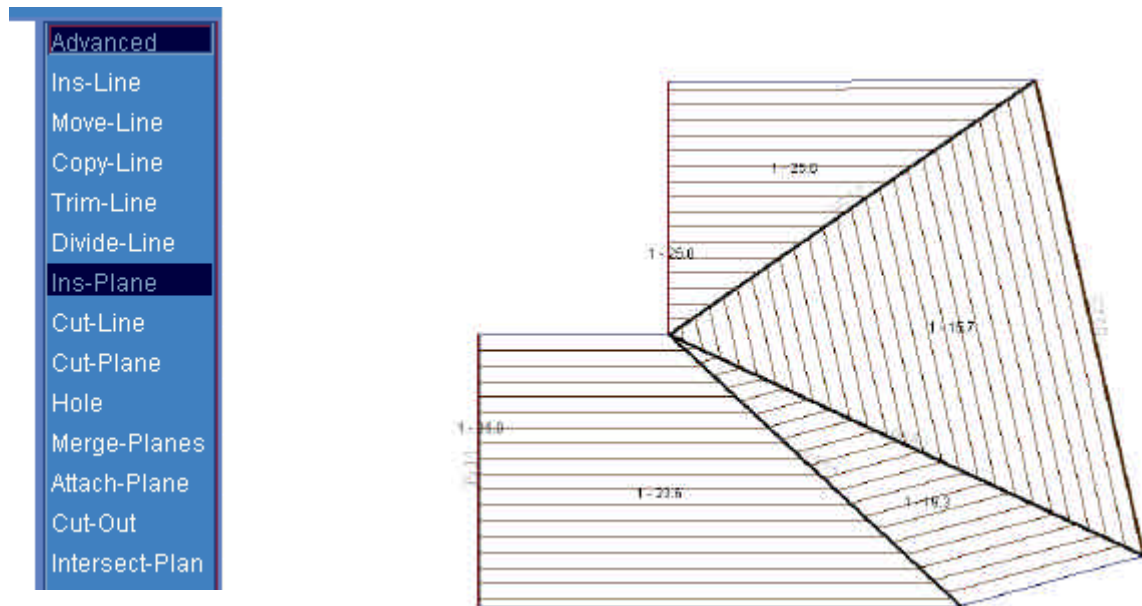
You should now have this.

Now using the **Mod Roof/ Advanced/ Ins Plane** command, manually re-insert the roof planes by following the prompts and selecting each boundary line of the roof plane.

Advanced
Ins-Line
Move-Line
Copy-Line
Trim-Line
Divide-Line
Ins-Plane
Cut-Line
Cut-Plane
Hole
Merge-Planes
Attach-Plane
Cut-Out
Intersect-Plan

Until you have them all covered –
like this.

Now using UTILS/Dimension, insert roof dimensions, and using UTILS/Show Roof Pitches, display the weird roof pitches required to build this roof.

Summary of Roof Quantities

Tally roof quantities for [Combined ▼]   [Show-full]

	First	Second	Total
Roof volume cu m	24.13	0.00	24.13
Roof Area sqm	48.38	0.00	48.38
Curve quality Area sqm	0.00	0.00	0.00
Ridge Length m	0.00	0.00	0.00
Mono ridge m	0.00	0.00	0.00
Hip Length m	16.88	0.00	16.88
Valley Length m	0.00	0.00	0.00
Eave Length m	18.24	0.00	18.24
Gutter Length m	12.47	0.00	12.47
Barge Length m	3.49	0.00	3.49
Fascia as Barge Length m	3.49	0.00	3.49
Apron Length m	0.00	0.00	0.00
Box gutter Length m	0.00	0.00	0.00
Step Length m	0.00	0.00	0.00
Shell Ends	2.00	0.00	2.00
Hip apexes	0.00	0.00	0.00

[Export CSV]   [Continue]

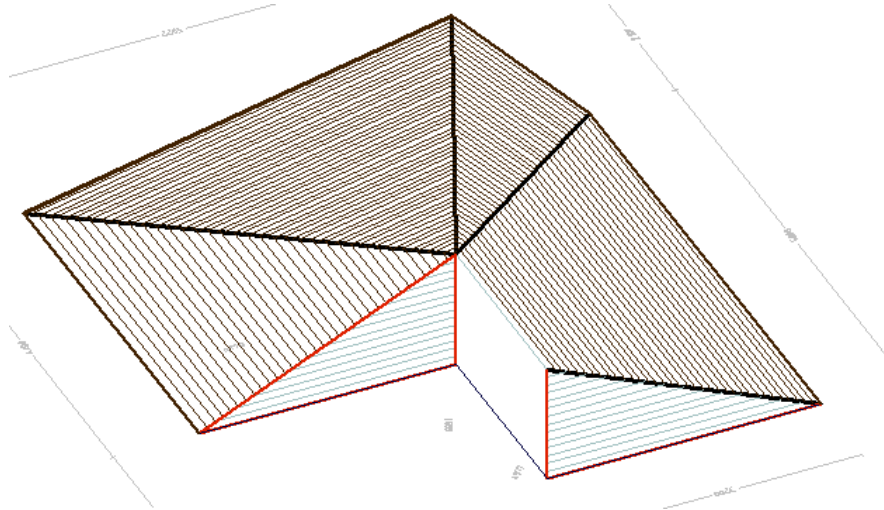UTILS/Tally Quantities will display the roof areas and lengths, which is the purpose of all this gymnastics.

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Just be careful to check that the line types are as you require. The software assigns line types based on its best guess. It may not be how you wish to build it. Use UTIL/Change Line Type to fix this.

Not bad for a few minutes work eh?

Please drop us a line if any of this doesn't make sense or you wish to have it explained in more detail.

Thanks in advance from your Customer Support team.

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