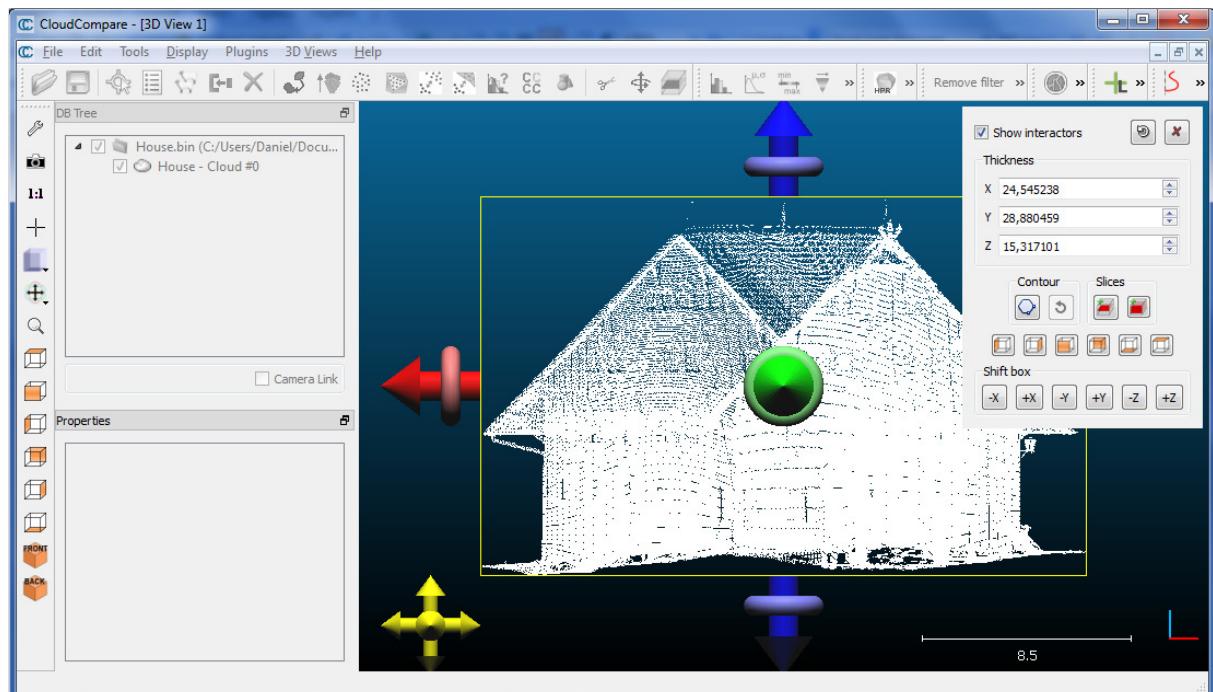
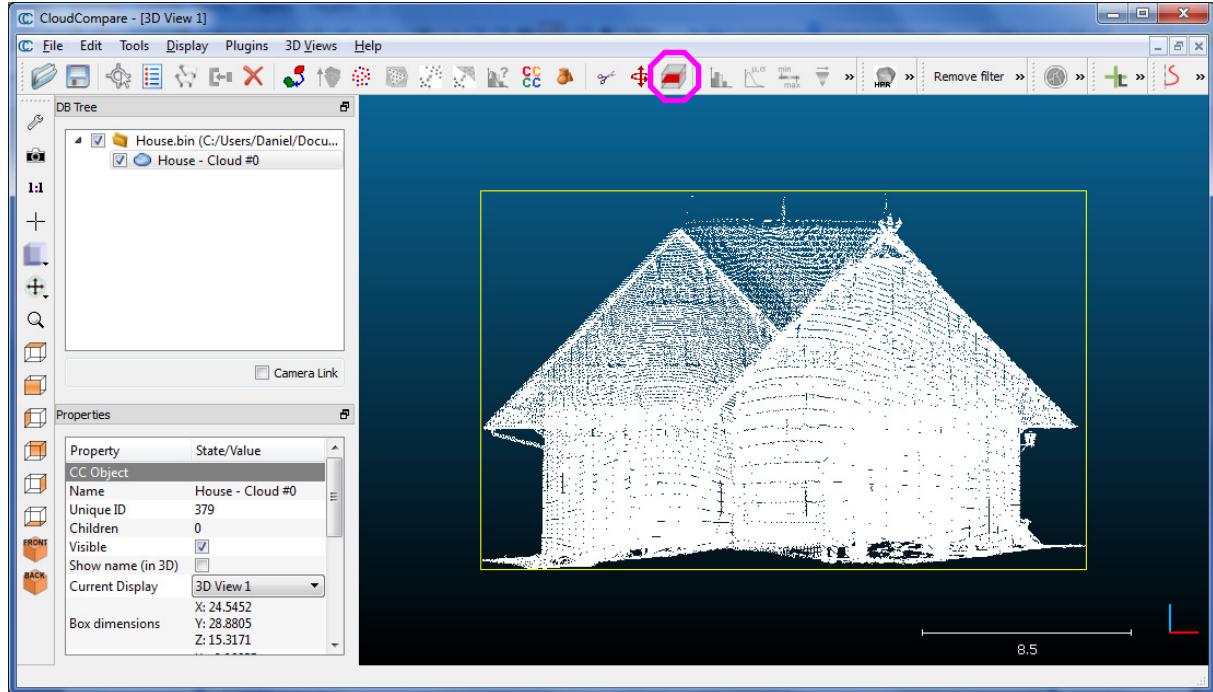


CloudCompare

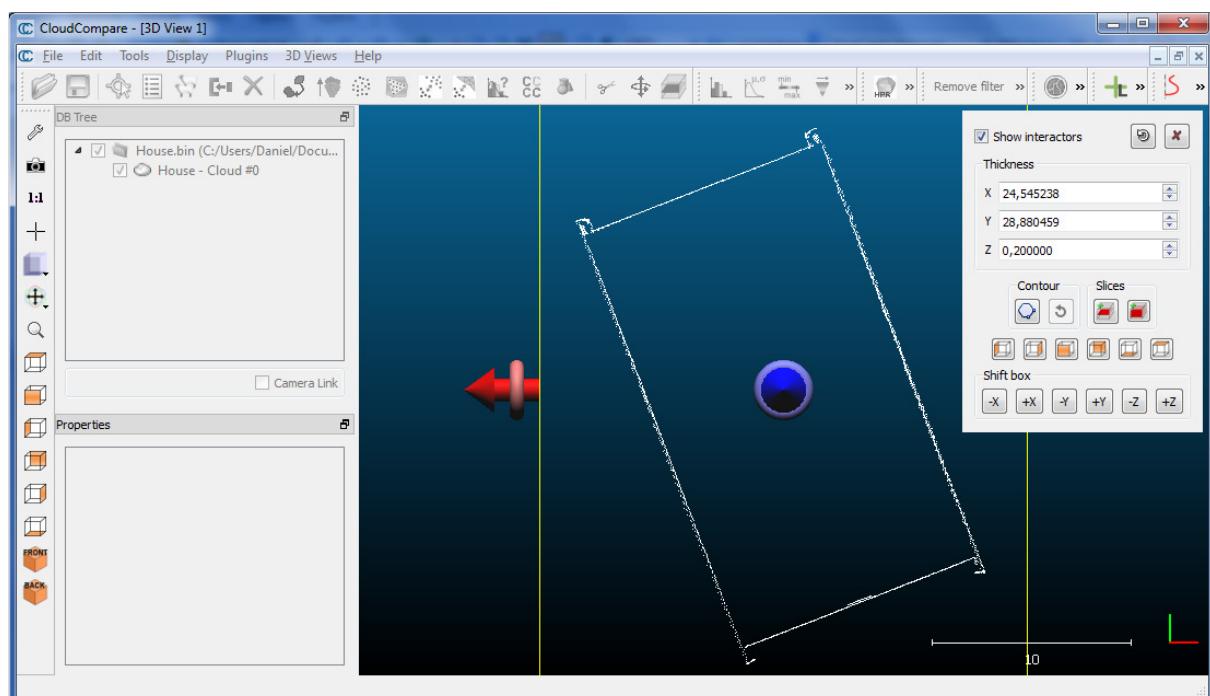
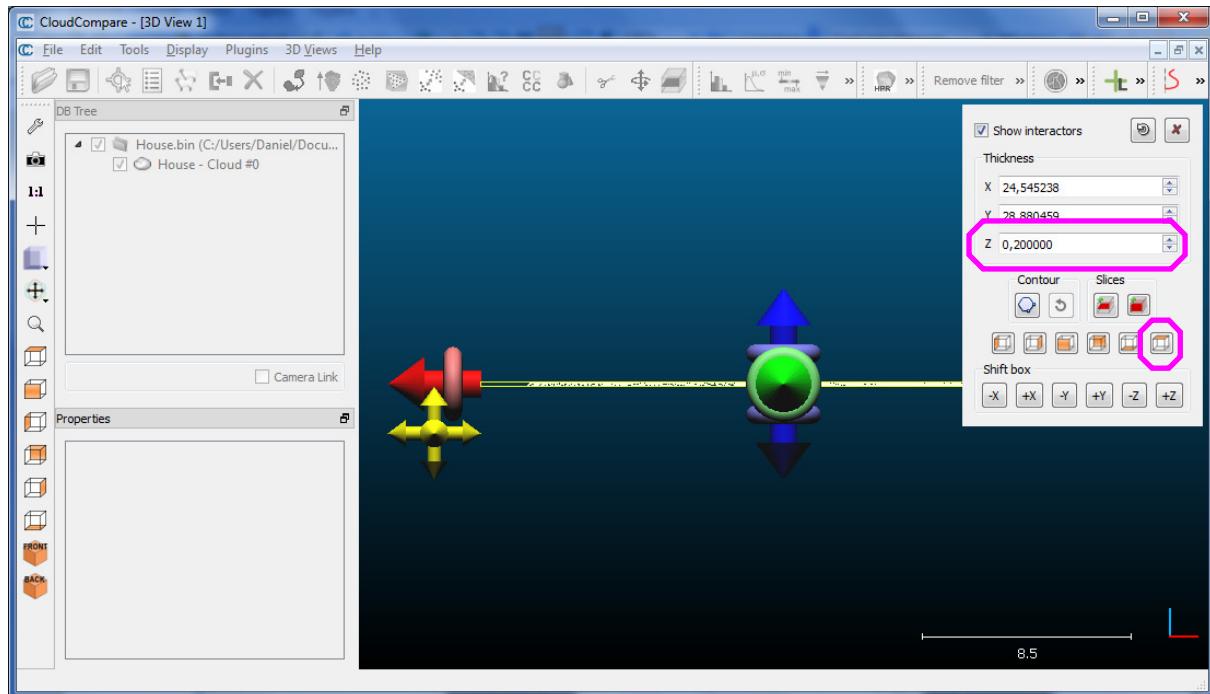
Cross Section tool V2

Launching the tool

Select a cloud and click on the ‘Cross Section’ tool icon  (upper main toolbar).



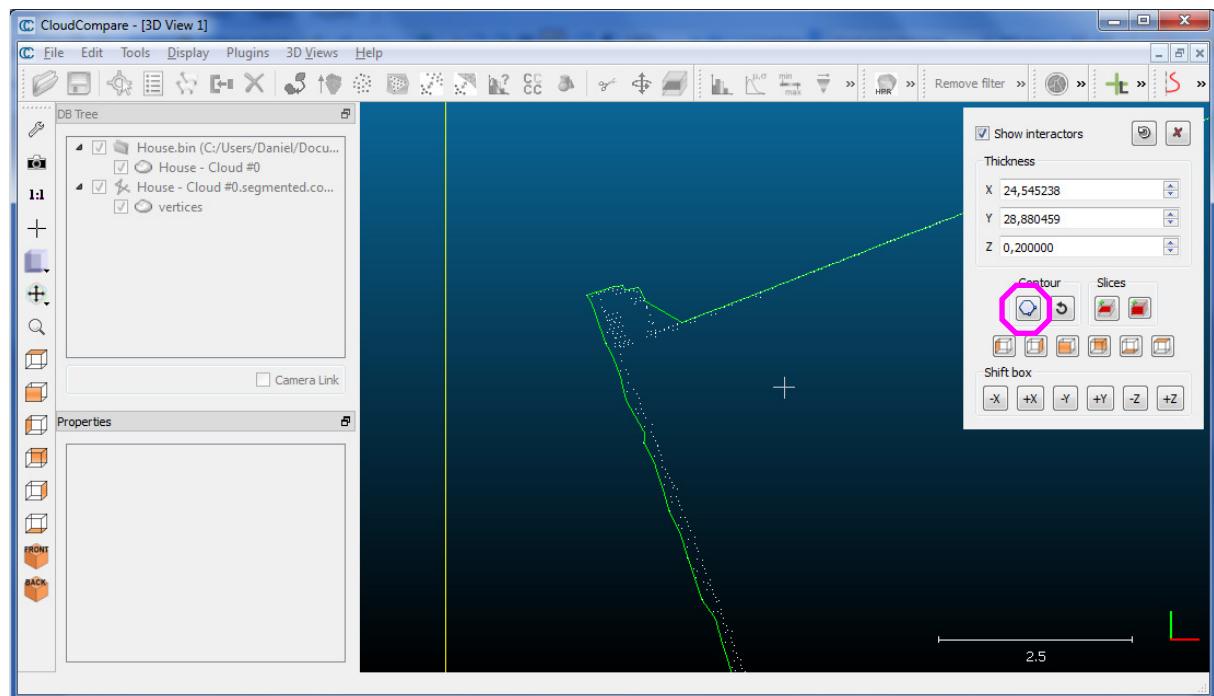
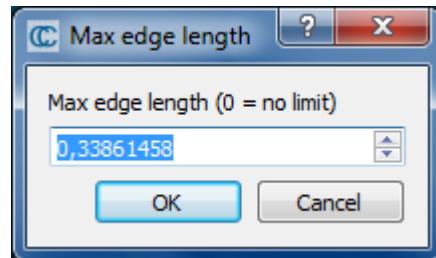
Change the section height (and select a better view ;)



Extracting a single contour

If you want to create a single contour, just click on the “Extract contour as polyline” icon .

CloudCompare will ask you to input a value for ‘max edge length’ (the smaller, the finer the contour will be, but the slower the extraction will be). *CloudCompare gives a first guess by considering the cloud bounding-box.*



On output the contour is saved as a “polyline” (*green*). This polyline is automatically added to the DB tree. It can then be exported in a DXF file (*once the Cross Section tool is closed*).

If you want to create a new version of this polyline (with another value for the ‘max edge length’ parameter for instance), you can first remove the previous version with the ‘Remove last extracted contour’ icon .

Note: for the moment, the contour is a single polyline (no holes, etc.) that is wrapped around the points “as close as possible”. We use the concept of “concave hull”.

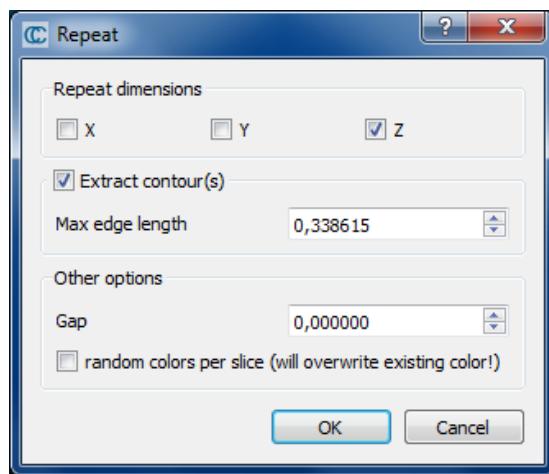
Extracting multiple contours at once

You can automate the contour extraction on successive ‘slices’.

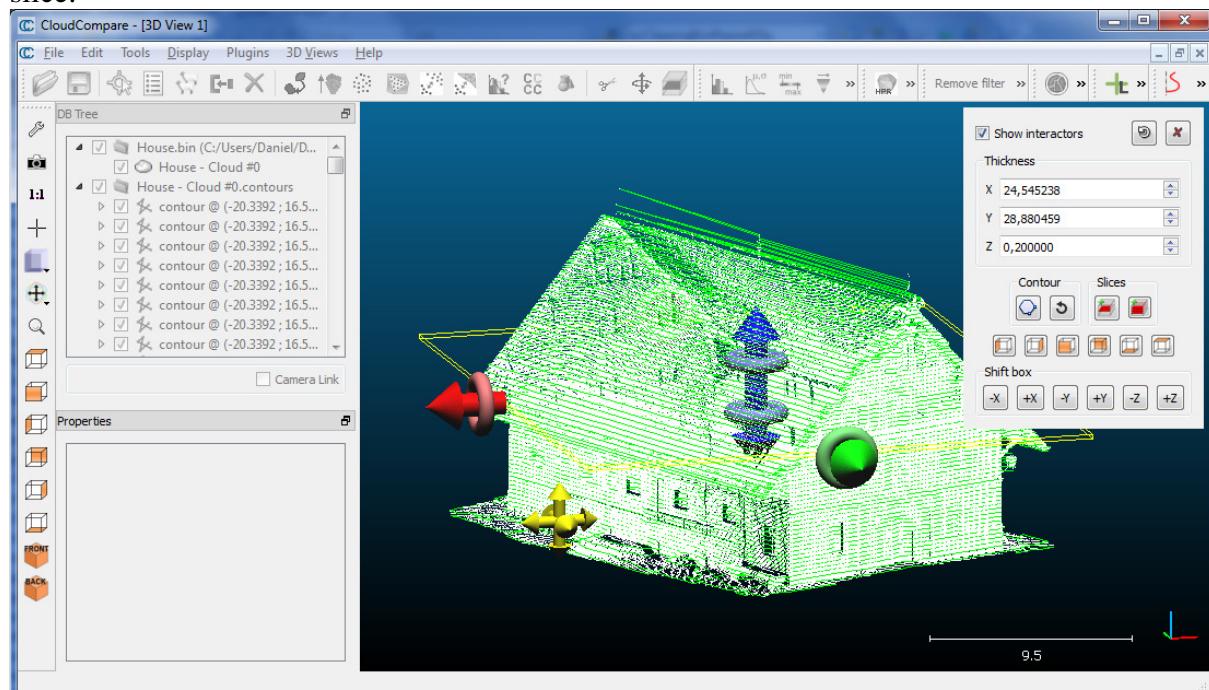
Click on the ‘Export multiple slices’ button .

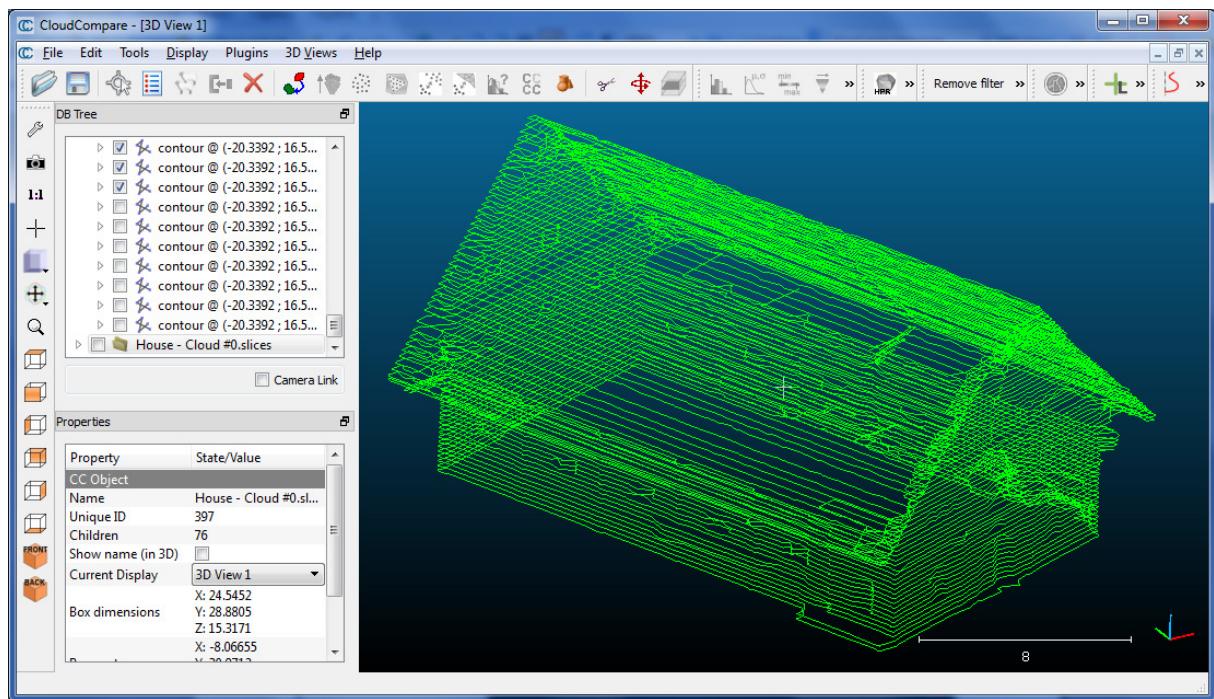
In the tool dialog, select the right ‘dimension’ over which to automatically repeat the “slicing” process. The slices will all have the same height (same as the current one) and will be repeated one after the other (you can define a ‘gap’ between each).

You can also check the ‘Extract contour(s)’ checkbox so that a contour will be extracted for each slice. You can here as well define the ‘Max edge length’ parameter (see above).

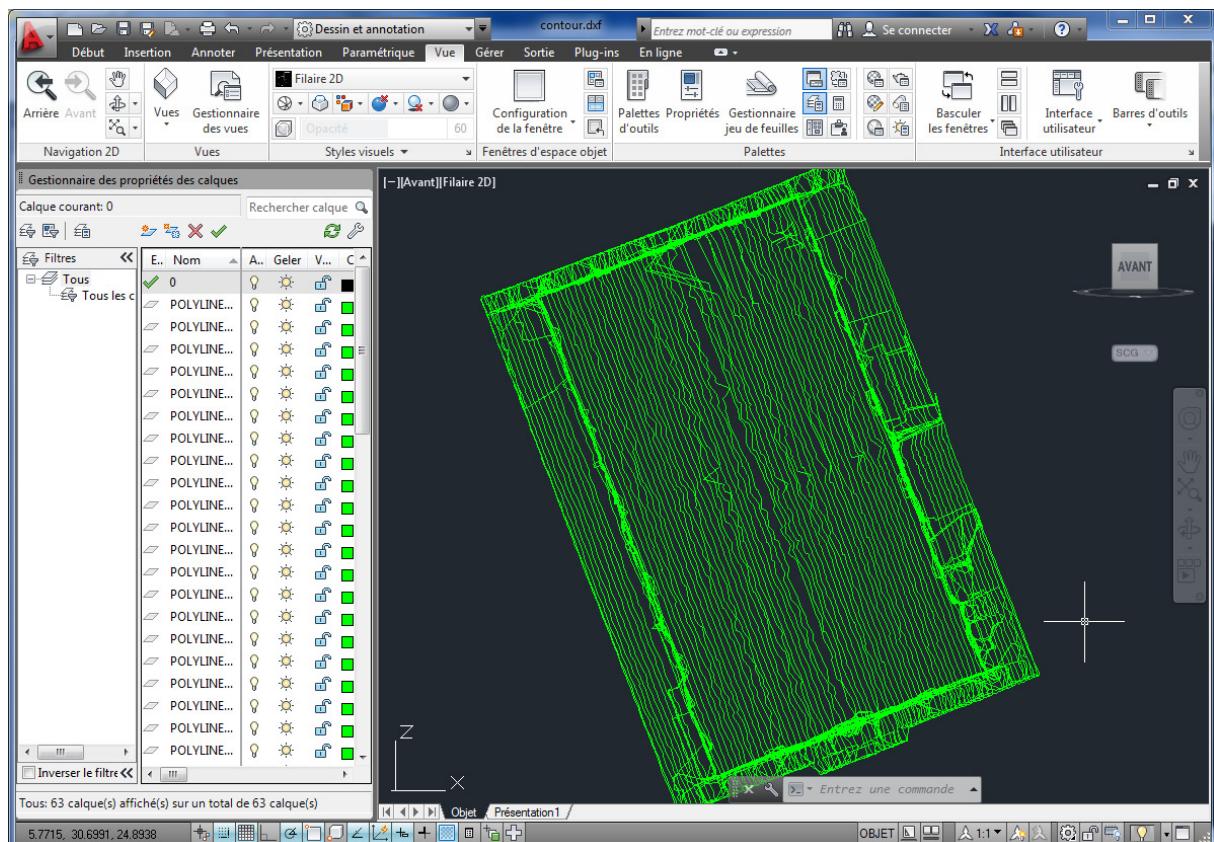


On completion, CC will add to the DB tree a cloud and optionally a contour polyline for each slice.





You can select multiple polylines at once and save them in a single DXF file (use ‘File > Save’ then select the “DXF” filter).



*Same polylines imported in Autocad
(3D doesn't seem to be handled!)*