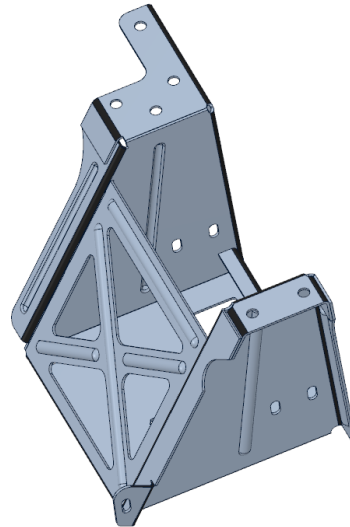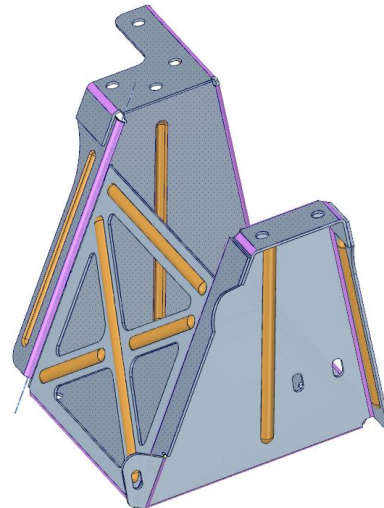Spec for quickly extracting overall perimeter, no of apertures/(piercings) and no of bends

Process
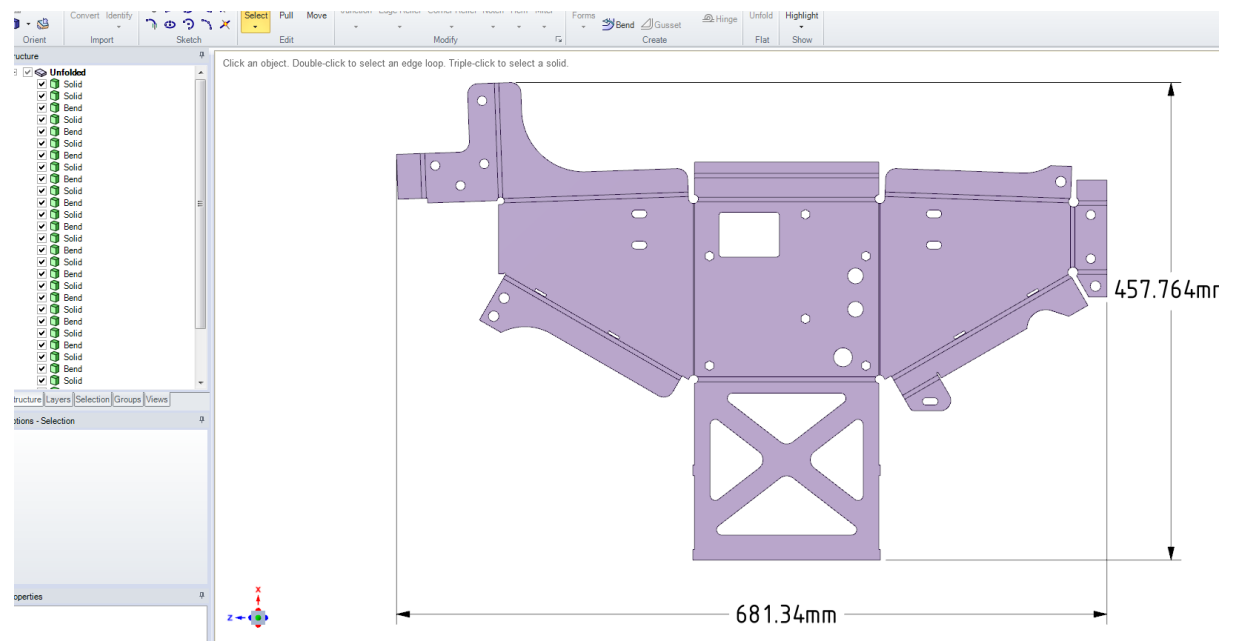
i) User opens up a sheetmetal part
(see sheetmetal1.scdoc)
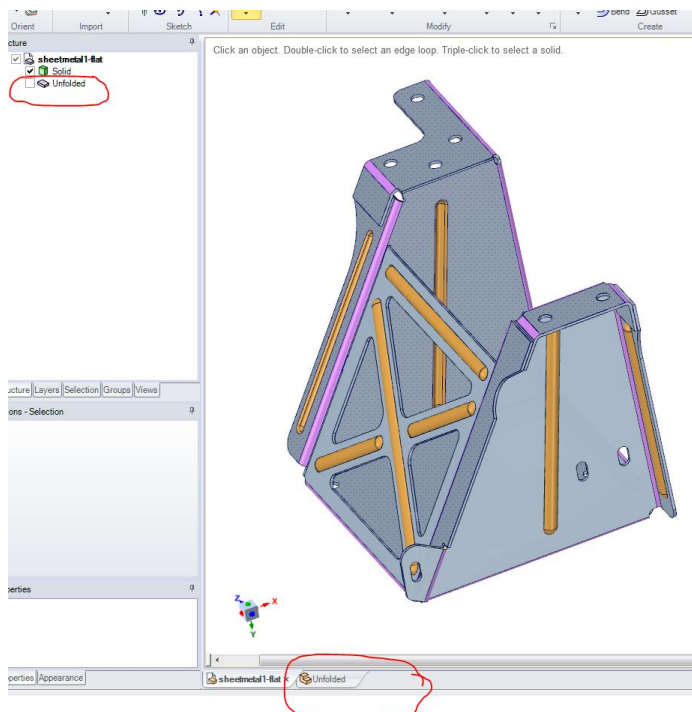

ii) User converts to sheetmetal

iii) User flattens/unfolds it

iv)   At this point we want a "menu icon/button" and/or right mouse button to "measure – sheetmetal". The .api app will look at the flat pattern and:-

      a) Calculate the overall perimeter – outside profile and all inside profiles
      b) Calculate the no of holes/piercings
      c) Calculate the no of bends.

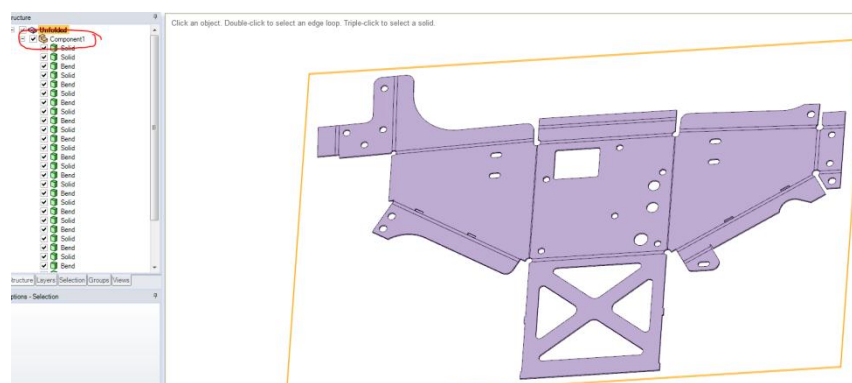This info to be displayed in a table as per the existing measure command. Plus option to export to excel…

Note:- when a part is unfolded it opens up separate design called "unfolded" . This appears to be some kind of locked/restricted format that is tied into the sheet metal part. (see attached sheetmetal1-flat.scdoc - when you open this the flat is in the structure tree and a separate design window
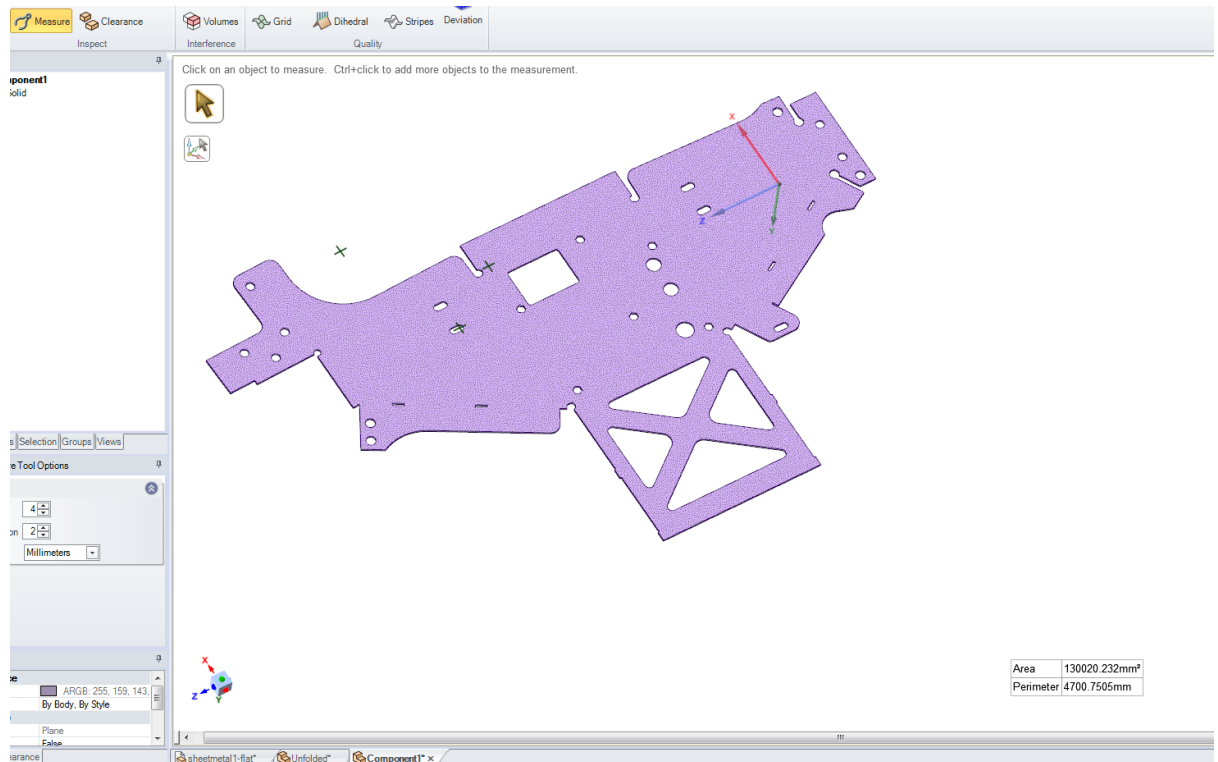

To manually extract the overall perimeter all the solids in the "unfolded" need to be combined.

To combine these you need to:-

1) "select all" the solids – right click " select> select all" in graphics window
2) right click - "move to new component" – in the structure tree you now have "component 1"

3) This component can then be opened in it's own "right click – open component"
4) It can now all be combined with the combine tool and measured.

Addendum

a) The Sheet Metal estimate macro needs to be able to record the Area, Perimeter, number of holes/piercings, number of bends into a spreasheet table as below.

Part Name	Area	Perimeter	No of Bends	No of holes/piercings
SheetMetal1-flat.scdoc	130020.232	4700.7505	15	29

b) The Sheet Metal estimate macro also needs to be able to batch process a folder that contains multiple spaceclaim .docs which have unfolded flat patterns with them, and then output the results of each on separate rows of the spreadsheet.