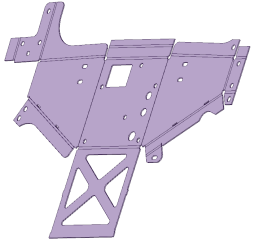
**Sheet Metal Estimate – Current/Active Part**

****ICON is only operable/active if the current/active part is saved, is sheet  
metal and has a flat pattern/unfold associated/saved with it.

Or error message is shown if these conditions are not met. E.g.

“Part is not Sheet Metal” and “Part has not Flat Pattern”

Also

**External/Internal parts**

If a user imports a step file of a sheet metal assembly. Then all the individual parts/components within this will by default be “internal” and held/saved within the single assembly file. Thus if the user opens a component from within an assembly ,converts to sheet metal flattens it etc and saves the assembly. There will be no individual file for this as it is in the assembly file. To get a separate file for this the user would need to right click on the component in the structure and use “source>convert-to-external” to save it as individual .scdoc file.

For the purposes of these SM-Estimate utilities , if it makes a difference to the coding, we should work on the basis that all parts need to be externalised.

User clicks ICON

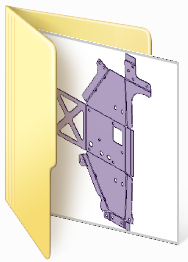
Results are calculated and:-

1. If this is the first time the utility is run on the current/active part then “SM-results.xls” is created and saved into the same folder as the part.
2. User sees a file open/save dialogue box to confirm creation of “SM-results.xls”
3. If this is the second and subsequent part then the results are amended to “SM-results.xls”
4. If user runs the utilty twice or more times on the same part , then can the utility prompt the user to say “this part has already been calculated – overwrite results y or n”. In which case “Y” will overwrite results and “N” will cancel utlity.

If this is not possible – then the utility should enter a “date/time” stamp against the results so that the user can then filter on the .xls and only keep the latest results etc…

SM-results.xls should have:-

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Part Name** | **Gauge** | **Area** | **Perimeter** | **No of**  **Bends** | **No of**  **holes** | **LAR**  **Hgt** | **LAR**  **Wdt** | **Date/Time** |
| SheetMetal1-flat.scdoc | 1.5 | 130020.232 | 4700.7505 | 15 | 29 | 463.4 | 680 | 23/03/13 10:38:24 |
|  |  |  |  |  |  |  |  |  |

**Sheet Metal Estimate – Folder**

User clicks on ICON

1. User sees a “browse dialogue box” to select the folder to  
   run the utility on. – By default the browse dialogue box will  
   show the folder where the currently active part resides.
2. The utility runs in background and outputs results as above to a “SM-results.xls” which will be created in the same folder as the parts.
3. If this is the second + time this utility is run on the same folder, then the results are amended to “SM-results.xls”. Note the Date/Time stamp will allow the user to delete unwanted duplicate entries.

The utility should carry out a check on parts in the folder. If a part is not a sheet metal part. Then it should output to the “SM-results.xls” as follows:-

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Part Name** | **Sheet Metal** | **Flat**  **Patt** | **Gauge** | **Area** | **Perimeter** | **No of**  **Bends** | **No of**  **holes** | **LAR**  **Hgt** | **LAR**  **Wdt** | **Date/Time** |
| SheetMetal1-flat.scdoc | True | True | 1.5 | 130020.232 | 4700.7505 | 15 | 29 | 463.4 | 680 | 23/03/13 10:38 |
| Test-part1 | False | False |  |  |  |  |  |  |  |  |

1. If the Part is Sheet Metal, but has no unfolded part associated with it Then it should output to the “SM-results.xls” as follows:-

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Part Name** | **Sheet Metal** | **Flat**  **Patt** | **Gauge** | **Area** | **Perimeter** | **No of**  **Bends** | **No of**  **holes** | **LAR**  **Hgt** | **LAR**  **Wdt** | **Date/Time** |
| SheetMetal1-flat.scdoc | True | True | 1.5 | 130020.232 | 4700.7505 | 15 | 29 | 463.4 | 680 | 23/03/13 10:38 |
| Test-part2 | True | False |  |  |  |  |  |  |  |  |

This output will then highlight to the user, which parts he needs to go back into to convert to sheet metal and/or create the flat pattern. Which will be very useful as a folder could contain 10’s or 100’s of parts as it would be easy to miss some.