**Dataset:**

30 million parts

8 million nests

**Questions to Marc:**

**Question 1:**

Executed this query

SELECT TOP 100 \*

FROM [CEIP].[dbo].[Part]

where ixJobSummary = 3460261

and the result is:

{copied first 15 rows out of 2551 to the **query1** excel file}

We can see in rows {1-3}, {4-7}, {8,11}, {9-10} and many other examples where the part dimensions are the same but is present in different rows.

Can I write a sql query to combine these rows? Or treat them as separate parts (maybe some other difference is present which is not captured in sql data?)?

**Question 2:**

Select \* from dbo.Part

where dArea = 0

{Parts with area 0? Is data erroneous?

This error has been propagated to the nest table: If area of part is 0, then dPartArea in nested table is 0 even if cParts is not 0. {Either write code to rectify this (I’m not sure how we can rectify this as or just drop data. Dropping would be easier}

**{Maybe a rib cut to get a skeleton, just cut a line. Disregard this data with area 0. Nest has dCropUtil as 0 so most probably a single line cut (Marc will double check)}**

Eg. Select \* from dbo.Part

where ixJobSummary = 48431

SELECT ixPart, ixJobSummary, dLength, dWidth, dArea, cRequired, cNested

from [CEIP].[dbo].[Part]

where ixJobSummary = 48431

**Question 3:**

Select ixNest, ixJobSummary, cParts, dPartArea

from [CEIP].[dbo].[Nest]

where cParts = 0 and dPartArea > 0

There are a total of 1046 nests where cParts = 0 but dPartArea is not zero.

Eg. Select ixNest, ixJobSummary, cParts, dPartArea

from [CEIP].[dbo].[Nest]

where ixJobSummary = 1595579

Select \* from dbo.Part

where ixJobSummary = 1595579

Total area from parts: 6140.808

Total area in nest: 6140.808

So cParts should have some part value but it is missing, need to write logic to clean this.(Ig the data is erroneous as this matching logic is failing. cParts should be equal to 67 for dPartArea = 262.5 but none of the parts in the Parts table are small enough for this job to get such a value)

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cNested values are incorrect so idk I’m cleaning and just doing analysis on cleaned data. Cannot clean the values which are incorrect (as it will consume too much time) so just dropping them

SELECT \*

FROM [CEIP].[dbo].[Part]

WHERE ixJobSummary = 2348869

In Some nests, cRequired=0 but cNested != 0

In ixNest 6296, dCropUtil = dPartArea/dArea

But in ixNest 80719, dCropUtil = dPartArea/dTrueArea