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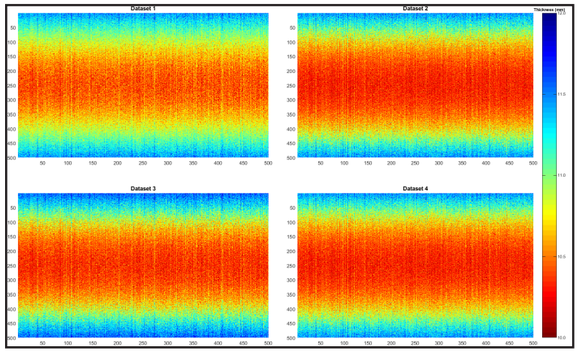
C-VIEW - 4 DATASETS



Overview of all 4 C-Scans

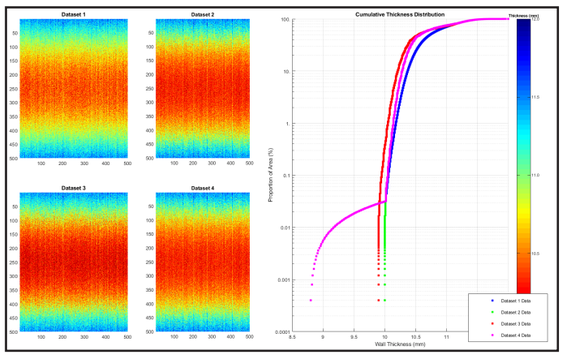
It is advisable to look at and understand the 2 dataset example before this one, as:

- The 2 data set example has more instructions.
- This is an extension of that with different sub examples.

The 4 datasets on the left, appear similar but from the C-Scans there is some variation.

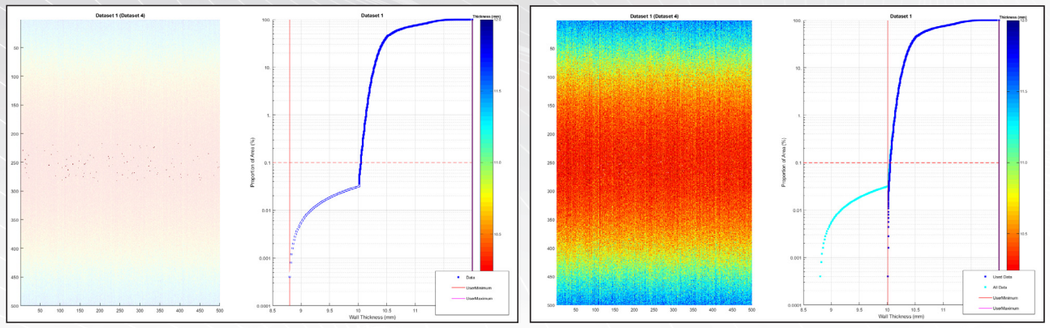
CScan	Min	Max	Median	Mean
Dataset 1	10.	12.	10.7	10.8
Dataset 2	10.	12.	10.6	10.7
Dataset 3	10.	12.1	10.6	10.8
Dataset 4	8.8	12.	10.6	10.7

A traditional inspection report often just focusses on the minimums, and from the table on the left (available from the "General" Tab) you get a summary of the 4 datasets, from this it is clear that dataset 4 is significantly different from the others.



We can utilize the align feature that (this is explained in the 2 dataset example), this is to correct for inspection variability by aligning at uncorroded material as there is a very unlikelihood of change in these areas.

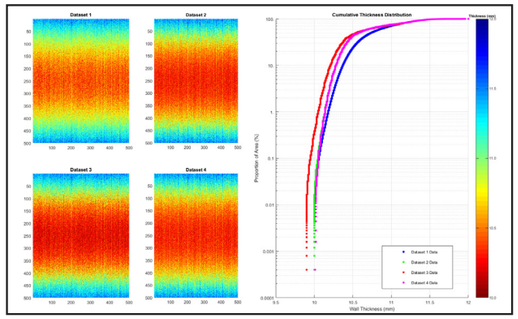
Doing this produces the plot on the left, and it is immediately clear that the picture has changed somewhat, however Dataset 4 clearly has a different minimum, so that requires investigation.



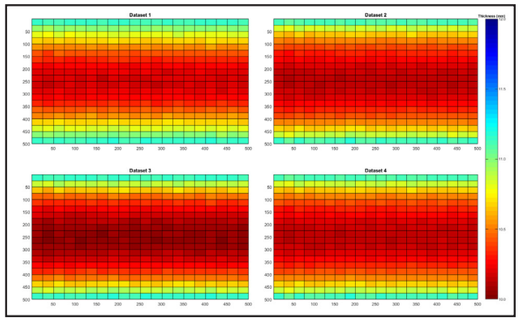
Isolating that dataset and using the distribution highlight feature (right click on the distribution and select Highlight Dist Area, and draw a box around the lower values, highlighted in white in the plot) we can investigate where the lowest values are.

In this case they are widely spread throughout the data, this is likely to be noise and/or near wall inclusions throughout the data rather than an area of concern.

Therefore we can remove this data from the dataset, this is done by dragging the vertical red line (or input via the min/max button).



Viewing all 4 distributions after aligning and correcting shows a different behaviour than when the data was first reviewed.



The gridding feature (also described in 2 datasets example) is another useful tool to examine the data.

CScan	Min	Max	Median	Mean
Dataset 1	10.	12.	10.7	10.8
Dataset 2	10.	12.	10.6	10.7
Dataset 3	9.9	12.	10.4	10.7
Dataset 4	10.	12.	10.6	10.7

The updated summary table shows that dataset 3 is now the most of concern as it has the lowest minimum and mean, this was not evident before analysing the data and correcting for inspection variation and removing spurious data.