

Technical note T136: Surface separation

CCI – TalyMap

Surface separation and leveling

Robert Burton, Applications Engineer

“TalyMap advanced software functions can greatly improve measurement automation, leading to increased productivity.”

Dr Mike Conroy,
Business Development
Manager,
Taylor Hobson Ltd.

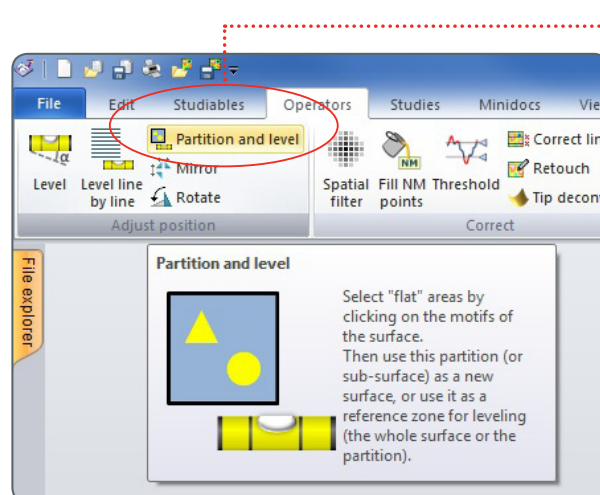
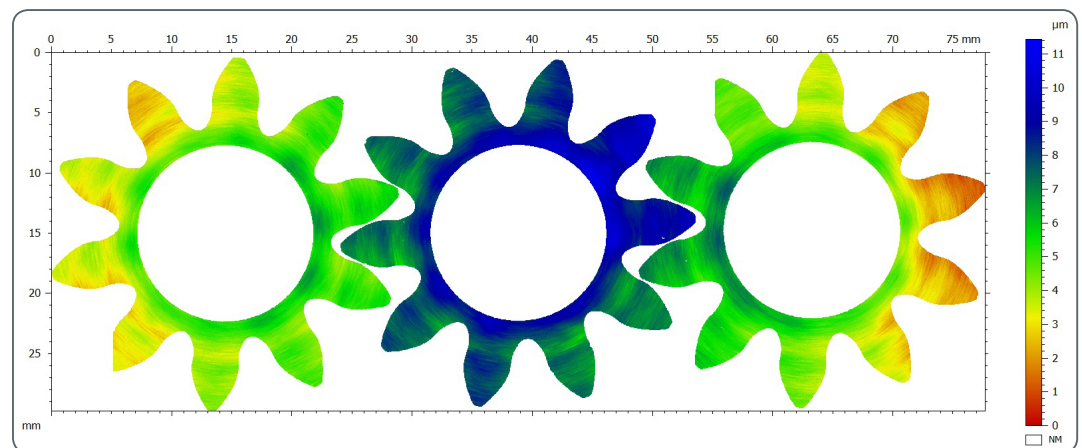
Introduction

In situations where multiple parts or multiple surfaces are being measured, the ability to measure these simultaneously can be of great advantage. It can significantly reduce the setup time, measurement duration and user input required.

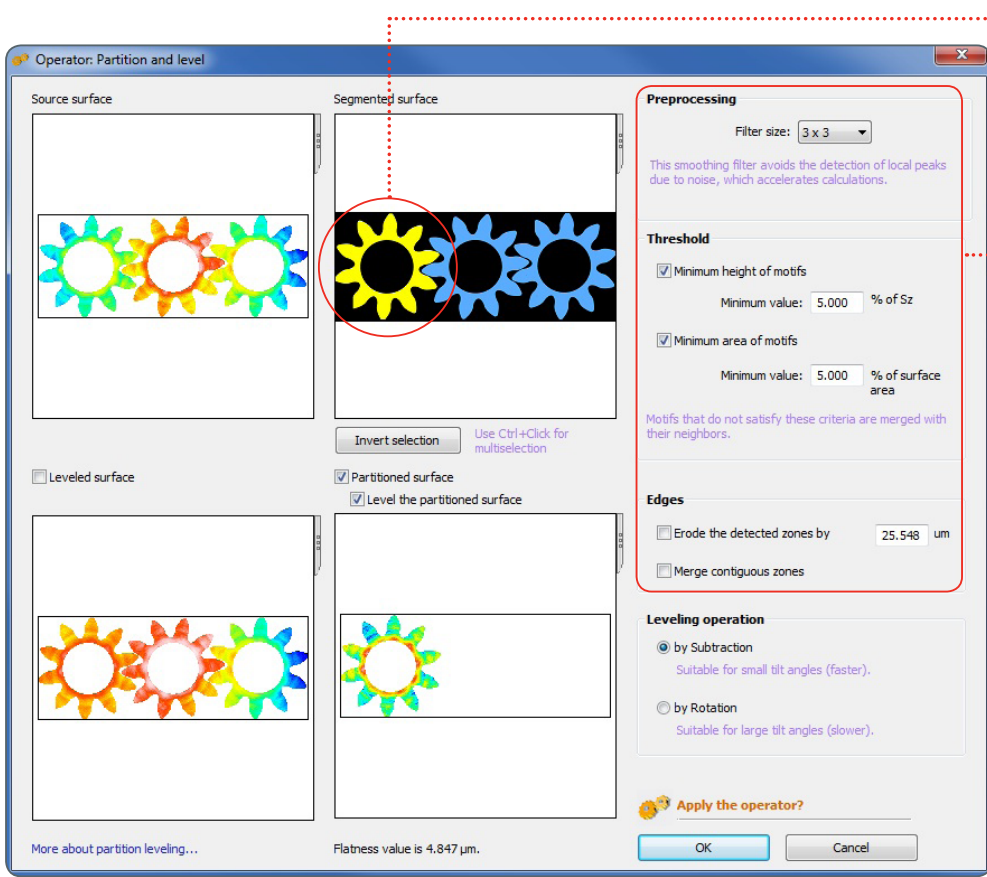
The data gathered from these types of measurements may require separating before the analysis can be carried out. For 3D surfaces, this can be done using the ‘**Partition and level**’ feature in TalyMap 7.

Procedure

The example below shows multiple gears measured using a single stitch measurement, however it could be used to separate any surfaces on the same or multiple parts, such as circuit boards.



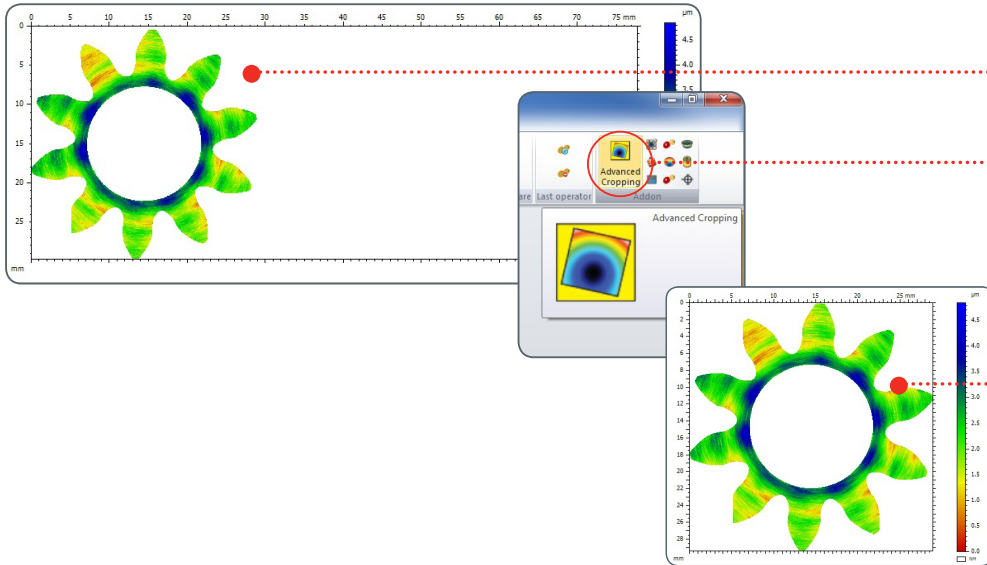
- 1 To separate them, select the studiable and under the ‘Operators’ tab click ‘Partition and level’



2 The window shown below will be displayed. It is then possible to select a motif, which will be highlighted in yellow and a preview of the output will be displayed below.

3 These tools can be used to change how the surfaces are selected.

Filter	A lower filter will prevent local surface deviations being detected as separate surfaces.
Threshold	Motifs are merged together to meet these requirements, meaning a greater proportion of the surfaces are selected.
Edges	Trims the selected surface by the amount selected.



Only the selected surface will remain in the studiable.

Advanced Cropping (Advanced Module) can be used to automatically crop the studiable to size of the remaining surfaces. The 'Extract Area' function can be used as a manual alternative.

The selected surface is available for further analysis independent of the original adjacent surfaces.

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