

AQMesh electrochemical sensor stages

Characterising

The first process the sensor goes through is characterisation.

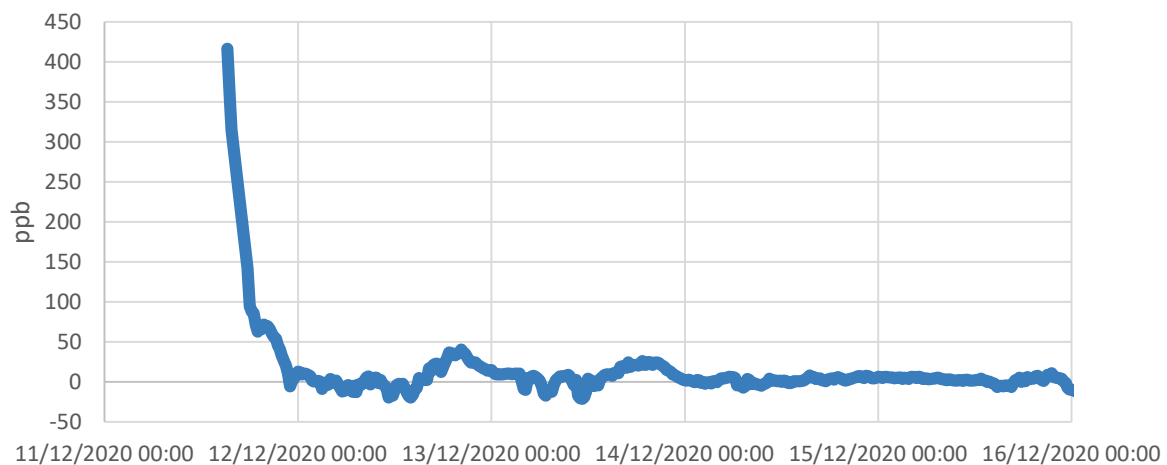
This happens at the UK factory, where the response of the sensor is checked in ambient air to create a “map” – or baseline – of the sensor’s response to target gas and interferants.



Stabilising

The sensor is sensitive and is affected by being moved, therefore after it has shipped, or otherwise been moved, transported or changed, it needs to physically “settle” – or stabilise – into its environment.

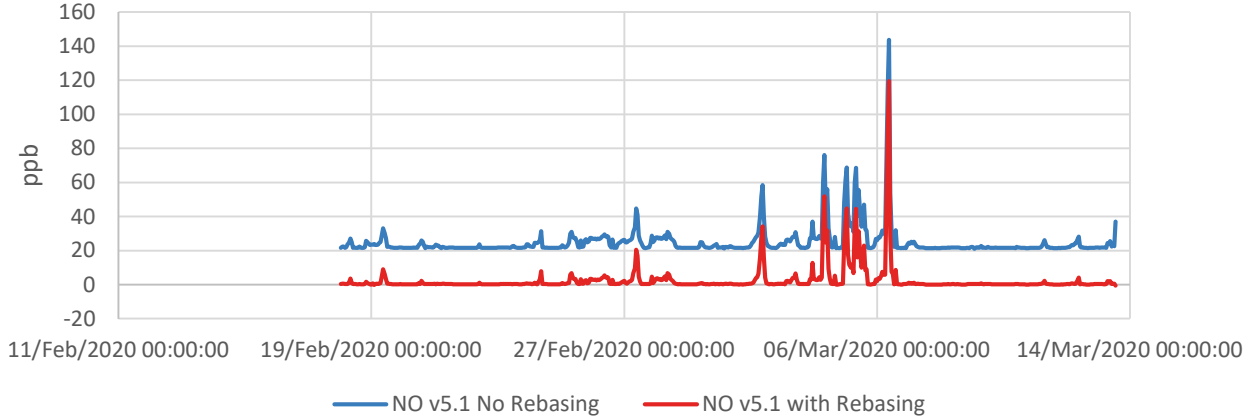
This process of stabilisation takes up to 48 hours to complete, and can be seen in the plot below:-



Rebasing

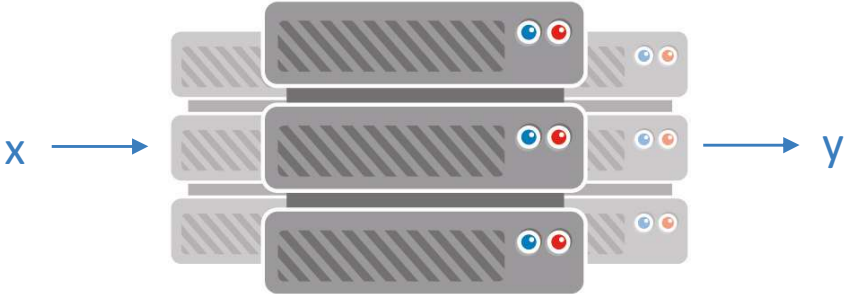
The rebasing process adjusts – or standardises – the the sensor’s output in relation to its point of stabilisation in its environment. Rebasing defines a set of fixed values for the individual sensor to use in its processing.

The plot below shows the result of rebasing:-



Processing

Processing is where the standardised output from the sensor is turned into meaningful data on AQMeshData.net. All AQMesh processing is linear, traceable and repeatable, with no use of machine learning or artificial intelligence (AI).



Quality control



Once data processing is complete, each timestamped reading carries an indication of data confidence. Specific, repeatable criteria are used to flag data points and, in some cases, redact them.

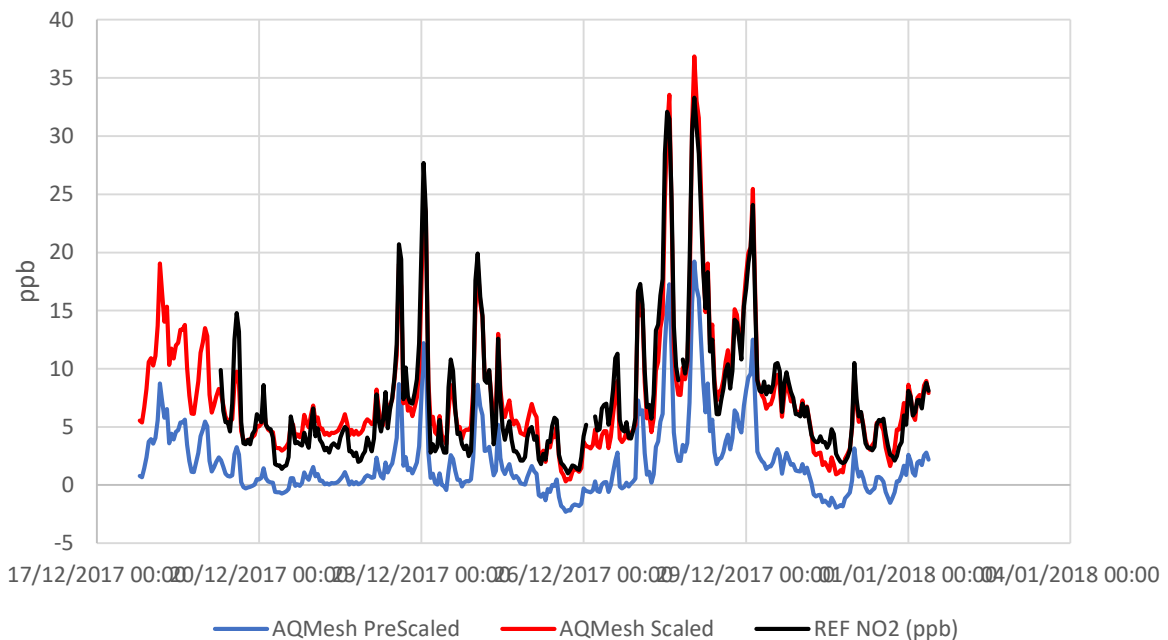


Scaling

Scaling is the optional final stage.

If the pod can be compared with a reference instrument, then slopes and offsets can be applied to the sensor based on the comparative data.

The plot below shows the results of scaling:-



Any questions?

If you have any questions about any stage of this process please contact our technical support team on support@aqmesh.freshdesk.com