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# iQ-Analyzer-X

# UTT Measurements

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Support Document

July 9, 2021



## UTT measurement changes from iQ-Analyzer V6 to iQ-Analyzer-X

Will the analysis of a UTT provide the same results in Version 1.3 of the iQ-Analyzer X?

**Not for all parameters.**

Many customers make use of the iQ-Analyzer and the UTT every day for their quality assurance protocols. In this case, we want the transition to the iQ-Analyzer X to be as smooth as possible.

For iQ-Analyzer-X, we rewrote the entire software as the code base of Version 6 was already more than a few years old. We also decided to improve and rework some algorithms to be more robust and more meaningful during this process.

As a result, we have developed entirely new algorithms for shading and distortion measurements. We are confident that the new approach is more robust and less influenced by small changes in scaling or orientation. We now make use of much more measurement points throughout the target and have a new analysis. However, due to this different approach, the numerical results are not identical.

Even though the software has been in use by many customers for years, we still discovered some bugs in the code base of Version 6. If these bugs influenced the results, we decided not to reproduce these just to keep the consistency high but instead opted to implement the code correctly.

One example is the color misregistration in the resolution section. The values for different orientations were averaged, which does not make sense as we assume a clear direction of color misregistration in a scanning device. Now that we use the maximum of the two directions, the numerical results will be higher.

Please don't hesitate to contact us if you have questions. We are happy to guide you in the implementation of the iQ-Analyzer X for the UTT analysis.