

DIG-AC A digital traceability chain for ac voltage and current

<https://digac.gum.gov.pl/dig/the-project/wp3/2589,Work-Package-3-Data-processing-and-uncertainty-estimation-for-quick-integration.html>
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Work Package 3: Data processing and uncertainty estimation for quick integration

The aim of this work package is to develop publicly available methods, algorithms and software for the traceability chain of dynamic measurements, including fast data processing and uncertainty estimation, for use by NMIs and calibration laboratories. The methods will facilitate the quick integration of future improvements.

Due to the diversity of application, instrumentation and software tools for digital metrology among the NMIs and calibration laboratories it is not feasible to use unique software for data acquisition. However data processing and uncertainty estimation do not depend on instrumentation and in general there is enough compatibility among the different software tools developed for this purpose. The aim of this WP is to develop publicly available methods, algorithms and software to support NMIs and calibration laboratories with an integrate tool for data processing and uncertainty estimation in all the steps of the traceability chain for digital metrology. INTEGRATION of Data Processing and real time Uncertainty Estimation of whole measurement chain software into one package would be quite unique and would present a big step forward from the previous work and will considerably facilitate the implementation of digital metrology. The integrated package will include a tool for real time uncertainty estimation, for those cases requiring time consuming Monte Carlo uncertainty calculations (fast data processing).