

Measurement results with low uncertainties require precise adequate defined measurands

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Due to the higher requirements of technical products, their tolerances have to be smaller to fulfill the planned function. To get the small tolerances confirmed, the measurement uncertainty has to be reduced also. One of the uncertainty contributors is the definitional uncertainty. Due to this, it is necessary to get the definition of the measurand as detailed as possible. The tool for defining measurands in the area of geometrical product specification is to use the requirements of the corresponding standards.

The complexity of such standards makes it complicated to understand them for persons who are not experts in the area of specification and verification, such as design engineers or workers which have to check their manufactured parts.

In order to overcome this disadvantage an international research project has been initiated. Core of this project is to offer via blended-learning Geometrical Product Specification and Verification knowledge based on and in addition of the existing standards. Within this project, FMT is involved in preparing content regarding, angles, form, movable parts and measurement in the micro and nano-range.

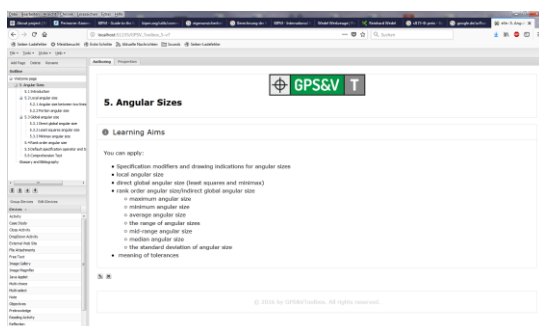


Fig. 1. Screenshot of the development environment for e-learning modules

[1] JCGM 200:2012, International vocabulary of metrology – Basic and general concepts and associated terms (VIM)