

	<i>The American Association for Laboratory Accreditation</i>	
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R205b – ANNEX TO SPECIFIC REQUIREMENTS: CALIBRATION MEASUREMENT UNCERTAINTY SOFTWARE

This annex provides the additional requirements for an accredited calibration organization that elects to use measurement uncertainty software developed by the Original Equipment Manufacturer (OEM) or other organization to support their Calibration and Measurement Capabilities (CMC) claims on their Scope of Accreditation. When the following requirements are met accredited measurement uncertainty software is allowed to be used in lieu of creating a traditional uncertainty budget in order to meet the requirements of *R205 - Specific Requirements - Calibration Laboratory Accreditation Program Section 4.3.4*. An organization utilizing this approach is still required to meet all other applicable requirements of ISO/IEC 17025:2005, A2LA Requirements and A2LA Policies. **The requirements of this document are optional and only apply if a laboratory wishes to utilize software to support the CMC claims on their Scope of Accreditation as stated above.**

Requirements

1. The software used to calculate the measurement uncertainty values must be accompanied by an accredited test report from an IT testing organization accredited to ISO/IEC 17025 by a mutually recognized Accreditation Body whose Scope of Accreditation includes measurement uncertainty software testing.
2. The measurement uncertainty results calculated by the software must match the Calibration and Measurement Capability (CMC) being claimed on the organization's scope of accreditation.
3. The organization must have the proper equipment and maintain the proper environmental conditions as required by the specifications/tolerances of the software and must document and retain records of compliance.
4. The organization must have properly trained personnel that are competent to use the calibration system consisting of software and equipment for all calibration parameters on the scope of accreditation for which the software is being used to calculate the CMC claims on the laboratory's scope of accreditation. Records of training and authorization shall be retained.
5. In cases where all CMC values claimed on the organization's scope of accreditation are entirely supported by accredited measurement uncertainty software for all parameters within a single discipline, the organization must produce, upon request, at least one measurement uncertainty calculation and accompanying data in order to demonstrate technical competence for calculating measurement uncertainty for that discipline (i.e. Electrical).
6. If the software requires that the laboratory input items that contribute to the calculation of the CMC values (e.g. environmental conditions, repeatability study results, etc.) the assessor will review those items during the assessment process to ensure that they are correctly calculated and input into the system. If these items cannot be correctly input by the laboratory utilizing the software then the software cannot be used by the laboratory to support the CMC claims on their Scope of Accreditation.
7. If updates or different versions of the software are produced they may only be used if they are accompanied by accredited test report from an A2LA accredited IT testing organization whose Scope of Accreditation includes measurement uncertainty software testing.



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8. When a new version of the accredited software or an update to the software is made the laboratory must verify that the calibration system functions correctly. Similarly if the laboratory replaces a piece of equipment in the calibration system or a piece of the equipment in the calibration system is calibrated and put back into the system, the laboratory must verify that the calibration system functions correctly.
9. In order to meet the requirements of the current version of ANSI Z540.3 section 5.3.b, a laboratory may utilize software that is accompanied by an A2LA accredited IT Testing Laboratory's test report with out any further documentation. The test report must be from an accredited organization whose scope of accreditation contains testing of software to meet the requirements of ANSI Z540.3 section 5.3.b.

Note: Use of accredited software is not the only acceptable means of meeting the requirements of ANSI Z540.3 section 5.3.b.

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