

Webinar on

Measurement Systems Analysis


• Learning Objectives

Know the difference between accuracy (the ability of the gage to, on average, return the correct dimensions of the standard against which it is calibrated) and precision (the ability of the gage to return the same measurement from the same part consistently)

Know the effect of gage variation (lack of precision) on outgoing quality, statistical process control, and process performance index calculations

Know the components of gage variation. Reproducibility measures variation due to differences between inspectors, while repeatability measures variation inherent to the gage itself (experimental error). This is why MSA is sometimes called an R&R (reproducibility and repeatability) study





Know the requirements for a successful gage study including the number of parts to be measured and the number of inspectors, along with randomization of measurements

Perform the calculations (in practice, this is usually done with statistical software) to quantify a gage's reproducibility and repeatability variation components, and determine the overall gage variation. Calculate the resulting precision/tolerance (P/T) ratio or a ratio of the gage variation to the specified width

Learn potential remedies for non-capable gages including replication of measurements, and guard banding to protect customers from borderline nonconforming parts

This presentation will cover the fundamentals of measurement systems analysis (MSA), or gage reproducibility and repeatability, as required by ISO/TS 16949 and highly recommended otherwise.

PRESENTED BY:

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On-Demand Webinar

Duration : 60 Minutes

Price: \$200

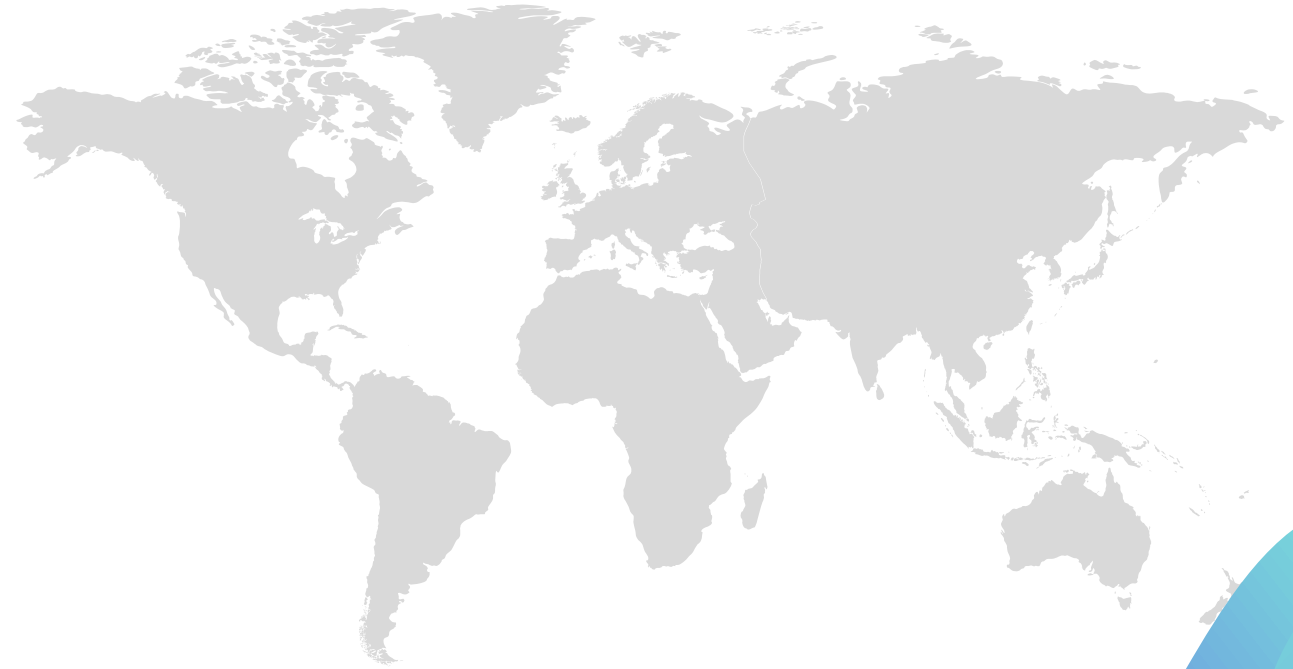
Webinar Description

This presentation will cover the fundamentals of measurement systems analysis (MSA), or gage reproducibility and repeatability, as required by ISO/TS 16949 and highly recommended otherwise. This includes the requirements in terms of parts and inspectors, as well as randomization of measurements, for a successful gage study as well as the mathematical calculations (which are in practice now handled by statistical software) involved. Measurement systems analysis (MSA), also known as gage reproducibility and repeatability (R&R), quantifies gage precision in terms of variation. It is a counterpart to gage calibration, whose purpose is to ensure accuracy. Accuracy means that the gage returns, on average, the dimensions of the standard against which it is calibrated, while precision means the gage returns the same measurement (whether accurate or not) consistently. A gage should be both accurate and precise to perform its mission.



Who Should Attend ?

*Quality Management Professionals, and
Engineers, Technicians, and Inspectors
with Metrology Responsibilities.*



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