

QUALITY FROM ASPECT OF METROLOGY

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ABSTRACT

The topic presents guidelines for evaluating and expressing the quality generally at creation human being, animal, nature and cosmos. This topic deals with determine of the marks quality from metrology aspect. Topic focuses on the qualitative marks of quality evaluated with measurement parameters of measurable quantity. The qualitative marks of quality are expressed with parameters of metrology quantity as objective reality expressed with units of measurement. In topic presents definition of quality from view of metrology quantities qualitative marks. The aim of this theory is evaluate and express quality level with the analysis and calculations of uncertainty measurement parameters metrology quantities on basis exact technique.

The quality in topic is understood quality generally in area technical, artistic and mental. Topic deals with appreciation of quality with measure parameters of quality marks how exact, mathematical method and authentic method with valuation the estimate non-measured parameters.

1. INTRODUCTION

The guidelines for evaluating and expressing the quality generally everywhere in creation human being, animal, nature and cosmos is basis for scientific and experimental entrance to quality with measured and estimated (metrology respect estimate of quality characteristics and its evaluating and expressing too) technical and physical quantities with uncertainty of measurement results.

We will deals with determine of quality how exact discipline that people accompany from their arisen, from beginning arisen sapient - primeval man. In every time creation and product had certain quality level what depend from knowledge of technology production. Every product and creation have marks of quality with who we evaluating and expressing of quality characteristic. We describe of creation how activity, technology production where form quality. Beginning humanity start with activity primeval man when he stand up on legs and loosen his hands for creation. Primeval man et creation needed measure, compared, obtained information from measurement and managed creation with hands. When we see backward to beginning of sapient we understand that sapient created his means and tools with certain level quality what is dependent from sapient knowledge. The quality is exact discipline that people accompany from their arisen, from beginning risen sapient - primeval man. In every time creation and product have certain quality level what depend on scientific knowledge.

2. EVOLUTION AND QUALITY PARAMETERS

The quality parameters are determined quantitative and qualitative characteristics expressed measured and estimated metrology quantities. Evaluating and expressing of quality with metrology quantities enable understand on objective principle with measuring parameters.

Every product and creation has marks of quality. Marks of quality create elements of quality. Elements of quality we are able know and specify whole or partly. From level of process creation depend level of quality products. Quality rise in process creation, quality has product organizer, organise, organisation, and control, quality has every activity and product.

Creation notions, shapes, dimensions and characteristics is source of information and knowledge on basis measurement for its manage. The whole process of existence people, animals, nature and cosmos is consequence of activity and change energy, and is transformation into various forms.

The whole process of existence and evolution of people is three phenomena:

- metrology,
- cybernetics,
- creation.

Evolution progress of sapient was measurement – (comparison), cybernetics – (information and manage) and creation – (production). Whole process development of human society, evolution of nature and cosmos is in measurement, cybernetics and creation.

The sapient stand up on legs and loosen its hands. In upright position with hands prepared his means and tools and obtained from activity information through measurement. On basis information directed activity his hands in creation.

Sapient at preparation his means and tools with satisfactory characteristics want quality his production. Quality parameters at creation and product have satisfactory characteristics how element of quality. Creation of quality with man and animals, in nature and cosmos has elements of quality express in metrology units. From this point of view quality is intention of creation. Creation is technologic process consist from single function, secure single elements of quality marks, parameters of metrology units. At technology process - creation we must fix values of parameters metrology units. From scientific point of view we must define quality with parameters of quality, we must solve of quality from point of view which quality creation, degree, level of quality mark. Quality we understand generally, quality of creation, quality of technological process, quality of product, quality of service, quality of thinking, quality of manage, quality of technical process, quality of phenomenon, quality of mental and material creation and product. From level of process creation depend level of quality products.

People create notions, shapes, dimensions and characteristics. Only human being, man is creator of the notion. Only he has subconscious, only he know create characteristic and know to direct his conscious. Trough abstract create qualitative and quantitative notions, according to various procedures, who are abstract expression of physical and mathematical laws, mathematical notion, philological notion. The animals create shapes, dimensions and characteristics. In nature and cosmos creation shapes, dimensions and characteristics appears come true spontaneously.

Creation notions, shapes, dimension and characteristic happened during the activity and change energy. Basis for activity and change energy is transformation into various forms.

At creation of products we have to manage the marks of quality. At production we must secure of level parameters marks quality. Quality we are securing from three points of view.

- management,
- metrology and
- technology.

The levels of quality in competent process creation, product, service and organisation correspond to technology procedure their metrology secure and manage in traceability on technology discipline.

Quality begins at proposal project, engineering strength and proposal technological process. Quality is level of parameters physical and technical quantities qualitative marks of creation, products and activity in harmony with technical and scientific knowledge determined with economic aspects and requirements on reliability, vitality and safety.

3. QUALITY AND ITS DEFINITION

We understand quality from metrology view and traceability measurement quantities on secondary standards. Architecture of quality is in create required levels, characteristics, required dimensions and shapes what are marks of quality defined with metrology quantities and estimate non measurement characteristics..

In technique we required hardness, roughness, design, function, dimension, shape, characteristic, required durability, reliability and safety what is required quality of products. With metrology quantities we express required measurable characteristics of quality, measurable marks of quality. With qualitative physical and technical quantity we evaluate quantitative level of quality. The evaluating and expressing of quality with the uncertainty of measurement results marks quality and test the durability, the reliability and the safety of products and creation is basis for expressing of quality in marks of quality. The creation we understand how form shape, dimension and characteristic and formation macro and nano-structure. Durability, reliability and safety are marks of quality in technology procedure and in products. Quality of product and technology process must be durable, reliable and safe. The requirements on quality of measurement parameters, measurement technique, measurement methods, manufacturing machinery, manufacturing technology and manage is necessary in process creation. It is complex requirements for obtain high quality products and high quality technology processes.

In spiritual sphere have quality literary work, theatrical play, notion, quality have every spiritual activity and quality have every spiritual product. Quality of spiritual work we express with expertise. Quality in spiritual creation and product evaluate reviewer. Non-measurement characteristics, estimate characteristic of spiritual creation and product we evaluate with expert in commission.

Parameters of quality determine with qualitative characteristics and its quantitative levels expressed with measured and estimated quantities generally in material and mental sphere.

Definition of quality:

Quality is level of parameters metrology quantities comprehensive qualitative and quantitative marks of creation and products.

The definition of quality various autors and ISO is going out from various points of view on various level of view and is solution only from view manage.

- *Quality is agreement with requirements (Crosby).*
- *Quality is total characteristic of market engineering, production and maintenance with which reach product, service and to fulfill expectation. (Feigenbaum).*
- *Quality – degree of set own characteristic fulfil claims (ISO 9000/2000).*

All these definition of quality is going from subjective view and subjective wish. These valuations of quality follow from competent education of consumer.

In mental and material sphere have quality everything, project, artistic work, architecture, literary work, production, product and creation of idea. Quality is in their modern, in their timely, in their information processing, in their style, virtue, efficiency, influence, in their idea, in level of marks quality. Everything has quality and we must know evaluate and express of quality. We must determine quality marks at any creation, activity and product.

Evaluating and expressing of quality with measured and estimated metrology quantity is objective on basis science. Metrology is science of theoretical and practical knowledge about measure, science of knowledge, because through measure of metrology quantity determines value quality.

A measurement result is complete only when contain quantitative statement of its uncertainty. In general, the result of a measurement is an approximation or estimate value of the specific quantity how parameter quality. Therefore quality have certain probability.

The able to buy quality products answer to fiscal possibilities of human society and price of quality answer to level of quality.

4. CONCLUSION

Quality of creation and product is in level measure and estimate metrology quantities of quality marks. We focuses on the new definition of quality from view measurement quantities.

In mental and material sphere have quality everything, project, artistic work, architecture, literary work, production, product and creation of idea. Quality is in their modern, in their timely, in their information processing, in their style, virtue, efficiency, influence, in their idea, in level of marks quality. Everything has quality and we must know evaluate and express of quality. We must determine quality marks at any creation, activity and product. Used new comprehensive definition quality, provide qualitative and quantitative understand of quality generally.

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